
Subject: Re: K1840 for consultation

Posted by [Anonymous](#) on Tue, 03 May 2005 15:20:15 GMT

[View Forum Message](#) <> [Reply to Message](#)

According to your design goals; *Ken isn't into high quality audio in any big way* it plays loud (high SPL) *it plays LOUD etc etc etc *Therefore extreme high quality is not an issue here The line array of those pioneer 4" midranges will do the trick. Since there is no low pass crossover you should at least tame the driver to make it sound good. A simple \$5 modification will do the trick. Coat the cone with 4 coats of lacquer. To improve power handling there is another mod, but it cost \$30-\$40 and you have to inject about 5 - 10 tiny drops of ferrofluid on the voice coil using a syringe. I've done a lot of ferrofluid tests with the dust cap off and the only issue with no dust cap is -> the dust. lol -- dust will clog the fluid and gum up the driver over a long time. It's best to find a way to inject the fluid and keep the cap on. The fluid boosts power handling a lot, I drove 400 peak for about 10 minutes before the driver literally melted and fused the coil stuck. The SPL was mad just from one driver, imagine the array. /hehelf you don't use a high pass crossover there is a good chance of destroying those drivers with excess bass. You should cross them over ~100 - 200hz at least. To get good bass out of the design you can port the midranges and tune it to 100hz to give you a nice 6 - 9db boost centered around 100hz. I'm working on an array with those drivers and I have a diary here; <http://www.caraudioforum.com/vbb3/showthread.php?t=210115> Essentially, the drivers will be modded with lacquer and phase plug and maybe ferrofluid, unsure yet. I uploaded some 'sneak peak' low quality pics and video here of my current project I'm doing for a friend. <http://www.caraudioforum.com/vbb3/showthread.php?t=216773> If you want to improve the sound a lot, add a center horn {ie, compression driver w/lense}. Eminence would offer good results, but PE has cheaper horns you can use. Here is a concept of a 3 way line array with a center horn, those midranges, and some 7" woofers. <http://home.pacbell.net/lordpk/misc/Feandil-2.GIF> This design was built recently and the builder loved the sound, he said it was awesome especially with that Eminence horn. He had to pad the horn. He powered his array using a QSC 2450 pro amp. If you want more info on that project I can give you his email address if you have specific questions. Send me an email to my hotmail.com address, use thylantyr as the name.