Subject: Re: 4430 Studio Monitor
Posted by Adrian Mack on Mon, 19 Jan 2004 00:46:08 GMT
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Hi Joel> Another option, suggested by one friend, is to mount the horn on > top of, not inside the cabinet. This will make vertically > aligning the driver voice coils simple. True, but at the same time, that will introduce diffraction as well. Horn tweeters usually are a little longer than the woofer, so pushing the tweeter forward to align the acoustic centers will introduce more severe diffraction around the edges of the mouth as it transitions not to the baffle, but rather to open air. In any case, having some upward axis tilt will optimize the listening position for both on-axis and also above axis positions as well (such as when your standing up) by shifting the nullaxis further up. > you pointed out, thte 4430 cabinet is a adequate model for a bass > cabinet, but with the different HF driver and horn that I'm using, > no more than that. Thats true. Keep in mind though, some changes of HF horn will change things a lot, particularly the crossover network. In any case - your

2445/2380 combination. Your speaker will just have a little different specifications from the original 4430, but that isn't a concern anyway. In case your interested - there's an AES article which covers design aspects and such of JBL's 4430 and 4435 studio monitors. You can either get it off JBL, or download it from the Pi Speakers website, linked below; Download AES paper Improvements in Monitor Loudspeaker SystemsThe same sort of design principles discussed in that paper are implemented in the Pi Speakers systems, and that's the same sort of design we've all been directing you to. So you wouldn't have lost any performance in your design anyway, even if you had never seen the 4430 datasheet. Adrian