Subject: PiAlign Enclosure Type?
Posted by GarMan on Thu, 18 Mar 2004 03:01:09 GMT
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This has probably been covered before, but I couldn't find it in the search.When PiAlign returns its recommendation for enclosure volume, resonance and frequency, what is the enclosure aligned for? Is there a particular type of response curve that PiAlign leans towards? Obviously, there's never one right answer. I was playing around with PiAlign tonight and comparing the results with BoxPlot's Align function. In many cases, the two are very different. Wayne, can you shed some light?Gar.

Subject: Re: PiAlign Enclosure Type?
Posted by Wayne Parham on Thu, 18 Mar 2004 04:48:55 GMT
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PiAlign makes a critically damped alignment for speakers having Qts of 0.38. It is really more like a range of drivers between 0.25 and 0.5 that you can expect this sort of response. As woofer Qts rises above 0.5 or so, it gradually allows the system to become underdamped. And as woofer Qts falls below 0.25, the system tends toward being overdamped.What I like best is that I can count on the system to be tuned right and well-damped in a box of reasonable size. The high Qts stuff is going to be underdamped unless the box is huge, and PiAlign manages to give a great compromise of size to damping. When we get into the 0.25 to 0.5 Qts range, the boxes are all of moderate size and the system is nearly critically damped, flat as can be. And when a woofer is used having very low Qts under 0.2, the system is overdamped and makes a response curve like a sealed box.