Subject: Re: Making some progress on my PVC pipe/ RS 1197 project
Posted by Wayne Parham on Fri, 06 Feb 2004 07:35:56 GMT
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Hi Lon!You wrote:>> According to that piece, I could achieve 63 hz with some polyester>> stuffing (which is what I have) and an overall length of 49 in.Sounds about right. One quarter wavelength of 70Hz is 49 inches, so the first peak should be somewhere in that area. Other factors than just pipe length come into play such as pipe area, baffle area, stuffing, etc.>> I suppose that is a good place to start. I can always get the>> length down, but I wanted to make sure not to trim too much for>> a first fitting.I think you're probably in the 60-70Hz ballpark with 49" length.>> On the other hand, I'd need 70 in of length to go down to 45 Hz>> and that length would be awkward.Maybe so, but I'll bet your driver is pretty strong at 70Hz and so if your pipe is tuned to 70Hz, your system may be peaking quite a bit. Seems like 50Hz pipe tuning might be better, but then again, that's just a guess. I've not examined the facts, so I'm just thinking out loud here. If your pipe is tuned to 60Hz, that's splitting the difference and might be right where you want it to be.The main things I would consider are the first and second standing wave peaks. If the first peak is rather high frequency - in the midbass where the driver is strong - then system output may be too high at that frequency. On the other hand, if the first peak is too low, then the second peak might be shifted down into this midbass region. Careful placement of these first couple of peaks must be the balancing act when designing and building speakers like these.>> In any case, I am at last getting to hear what all the theory>> is about with a $3 driver and some plumbing parts.Well, there you go. That's where the fun is and you can't beat the price!Wayne