Subject: Re: Pi 4s in basic black for Home Theater?
Posted by Wayne Parham on Fri, 12 Feb 2010 04:21:14 GMT
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As with most things in audio, there are exceptions to every rule. Some rules, the exceptions are rare. Others, less so. This is one of those cases where exceptions aren't so rare, and in fact, I've found my speakers to sound better in some rooms with less than the generally advised 45° toe-in. Sometimes, I set them up with no toe-in at all.

But in general, you'll want 45° toe-in for two reasons. First is the magic imaging described in the threads linked earlier, largely due to self-balancing that counters the Haas effect when the listener moves laterally. Second is one I used to talk about a lot more, but really haven't mentioned in quite as much detail in quite a while. It's arguably even more important though, and is what I used to consider as the sole reason for the benefits gained by this placement/configuration. The directivity of the speakers is such that the pattern generated is pretty uniform within a 90° horizontal arc, but then falls off rapidly outside that angle, particularly at frequencies above 1kHz. So by angling in the speakers 45°, you reduce the reflections off the side walls. This offers a huge benefit, because lateral reflections are almost always a bad thing.