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Subject: Re: Fostex 206 E drivers: not criticizing anyone;s philosophy

Posted by [Wayne Parham](#) on Sun, 22 Feb 2004 17:18:57 GMT

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Actually, practically everything in the system introduces a phase shift. Both vented and sealed boxes shift phase in the resonance region. Horns shift phase too, and it vascillates quite a bit in the lower frequency region of a horn's operating band. Inductors and capacitors shift phase, not only in the loudspeaker crossover but also in the amplifier and associated electronics. Even the speaker driver itself introduces a phase shift, which is in one direction below resonance and in the other above it. So phase shifts are just a part of the physics of the matter. Good designs limit anomalous behavior that results from these phase shifts. A loudspeaker system having more than one radiator can be in situations where the two radiators are pressurizing certain places in the listening room out of phase. This causes nulls, and that is what people notice. So I don't believe people notice phase but rather interactions and the amplitude anomalies that result.

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