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Subject: Re: I guess I kinda messed up!

Posted by [Wayne Parham](#) on Tue, 13 Dec 2011 19:50:05 GMT

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That change actually does something very subtle and can be considered "perfectionist mode". It shifts the forward lobe upwards about 5°. The crossover point doesn't change, and response - at the center of the lobe - doesn't change either. But it does shift the position of the forward lobe in the crossover region, and as a consequence, this also shifts the vertical nulls.

With a 20uF capacitor C4, the nulls are about +15° and -25°, meaning the top null is about 15° above the baffle normal (straight forward) and the bottom null is about 25° below the baffle normal. With a 10uF capacitor C4, the forward lobe is nicely centered, with vertical nulls at +/-20°. It's not a huge change, but it does make enough a difference I thought it was worth doing. You'll hear the difference if you're standing up, listening fairly high above the centerline.