LETTERS

SPEAKER DESIGN CORRECTIONS

I recently picked up the March, 1991 issue of **Popular Electronics**. I was particularly interested in the article "How to Design Your Own Speakers" by Richard Honeycutt. I am currently designing and building my own speaker system and was interested in the information on designing an appropriate crossover network. This is the finest article I've read on the subject to date.

However, I ran into a problem when I attempted to follow the author's sample calculations for C2, C3, L2, and L4. I could not obtain the same results as the author. All of the formulas for those contain a radical (square root). The other calculations that appeared in the article were readily confirmed.

Is the source of the error mine, or is there a mistake in the article.?

L.C.M.
Van Buren, AK

Thank you for your letter, and for your kind compliment. In comparing my calculations to yours, I found that you apparently included the π under the radical when you calculated the values for those components. When I work the equations as if the denominator contained $\sqrt{2\pi}$ instead of $\sqrt{2}\pi$ as stated in the article and correct, I get the same result as you for capacitor C2.

However, when I made the change in the other three equations, I got yet a different result. Checking further I found that you did indeed catch me in an error. Somehow, erroneous values found their way into my manuscript. When I called up the computer simulator that I used to verify performance of the circuit, it had the correct values. Those values are as 2x56.9follows: C3 = 2.6μF, L2 = 0.81mH, and L3 = 5mH.

Incidentally, I'd like to call attention to the fact that there were two other errors in the article as it appeared in the magazine: The first was that Figs. 1 and 6 were interchanged.

The second error was that the term "dielectric absorption" was used in the last column on page 35. The term "dielectric hysteresis loss" would have been more correct.

Richard A. Honeycutt

SENTRY STROBE ALERT ERROR

I spotted an error in the article "The Sentry Strobe Alert System," which appeared in the February issue of **Popular**