Questions about the ultimate noise bridge

Dear Editor:

I have been unable to understand the "Ultimate Noise Bridge" circuit in the Summer 1996 issue. I find three problems:
1. The noise generator is built in a "floating" box to ensure equal noise currents at A' and C', yet the box is AC grounded to the outer box I by the 0.01 and 15 µF capacitors.
2. The receiver output RX appears to be grounded to the outer box.
3. As you know, there is no such thing as a 9-volt NiCd battery. There is the six-cell NiCd, with a plateau voltage of only 7.2 volts and the seven-cell battery with a plateau voltage of 8.4 volts. Most 9-volts are of the six-cell construction. The Varta and Saft have seven cells. Will either work in the circuit, or must you use the higher voltage, seven-cell version?

I enjoy Communications Quarterly. It is outstanding in this era of beginner-oriented magazines. Don't ever let anyone tell you that it is too technical. They miss the point entirely!

Rudy Ellis, W4LNG
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Triode/tetrode efficiency comparison

Dear Editor:

Thanks to W6MTF for calling my attention to an oversight in my article "4CX400A Russian Tubes for the MLA-2500 Amplifier" (Communications Quarterly, Summer 1996). Table 1 is an apples-to-oranges comparison of the performance of the 4CX400A tetrode to the 8875 triode. As W6MTF points out, the Eimac 8875 data presented in my article was taken at 432 MHz. As he states, transit-time effects at 432 MHz will reduce efficiency, so the comparison is unfair.

When comparing Svetlana 4CX400A published data to the correct Eimac HF data, the Svetlana tube still has higher efficiency than the Eimac tube because of the unique Russian secondary emission inhibiting geometry in the 4CX400A; however, the difference is less dramatic than shown in the article.

My thanks to W6MTF for finding the oversight and to Communications Quarterly for the opportunity to set the record straight.

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