Telephony 101 – Other Early CB Circuits

Hello All,

As always, please send any questions about the reading assignment directly to me at <u>oldtimetelephones@goeaston.net</u>. I will bundle questions if necessary, repeat the questions, and give answers in an e-mail to the TCI List Server before moving on to the next reading assignment. This way everyone will benefit from these questions and answers. By sending questions directly to me, we will avoid unnecessary clutter on the List Server. Previous reading assignments, notes, questions, and answers are available in the TCI Library at <u>http://www.telephonecollectors.info/telephony-101/</u>.

Please start reading on page 122 and finish Chapter 16. Also read the section titled Wheatstone Bridge in the Appendix on page 226.

Yes, there was a commercial application of the straight series circuit shown in Figs. 4-1 and 16-15. It was made by Automatic Electric and used special dc receivers that had no permanent magnets. This application is described on page 122. It seems like Automatic Electric tried almost everything. Just wait for their induction-coil receiver!

There was also an application of the local-receiver circuit shown in Fig. 16-2, and this circuit appeared in some very early Stromberg-Carlson sets (see text).

More widely used in early sets by the independent companies before the booster's patent expired was the retardation-coil circuit shown in Fig. 16-16. This set took dc around one path that bypassed the receiver while taking ac around another that went through the receiver. It's cute, but inefficient.

Dean's bridge circuit is rather widely known and is interesting for its use of a bridge-type circuit, which will come up again in later chapters. Make sure you understand the principle of the Wheatstone Bridge circuit described in the Appendix. It is not difficult to understand, and it is important.

Finally, there is a brief discussion of the so-called Kansas City circuit on p. 124. This and Dean's bridge circuit are the only circuits mentioned in the book that I have not tested and have never seen in a telephone. But in this brief section of the book, I show test results reported by Kempster Miller in 1933 – results in which the Stromberg-Carlson laboratories compared the performance of the booster circuit with the local-secondary circuit, the Kansas City circuit, and the retardation circuit. All are inferior in performance to the booster circuit – except for that awful sidetone.

If there are any questions about the current reading assignment, we will deal with the questions before moving on to the next reading assignment.

Ralph