Telephony 101 – Ringer Boxes, Subsets, and Compact Wall Phones January 17, 2013

Hello All,

As always, please send any questions about the reading assignment directly to me at oldtimetelephones@goeaston.net. 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 http://www.telephonecollectors.info/telephony-101/.

Please read Chapter 11, Ringer Boxes, Subsets, and Compact Wall Phones, on pages 69-76.

In some respects, I find ringer boxes and subsets more interesting than the desk stands they are paired with because these boxes house the electrical circuits. It is also interesting to me to see how closely parallel the ringer boxes are to the magneto wall phones of the same vintage. The ringer boxes obviously use the same components and hardware as the wall phones, and they appear to be made in the same woodworking shops from the looks of the cuts and shapes.

Table 12-1 is a handy reference to the many varieties of Western Electric ringer boxes, but there's an error in Table 12-1. The 50A magneto has 3 bars rather than 5 bars as indicated. There is another error in the 6th line of the first paragraph on p. 74 where it should say Fig. 12-14 rather than Fig. 12-11 (this phone was Fig. 12-11 in the 1st Edition). Please mark these corrections in your book. And please, if you find any other errors in the book, let me know about them so I can call them out and make corrections in future publications. I will try to compile a list of errors when we are finished. Although there are a few errors throughout the book, they are very rare considering the large amount of quantitative information presented.

The same candlestick or handset desk stand can be used with an LB ringer box or a CB subset and produce a phone of each type. Subset housing styles evolved quickly from wooden boxes to metal boxes – eventually with the ringers inside. Table 12-2 is a handy reference for the Western Electric subsets, and there are no errors in this table that I'm aware of. Notice that WE harmonic ringers are listed in this table. We talked about these earlier, and I mentioned that I have never seen a WE ringer of this type.

Once these ringer boxes and subsets were developed, it was an obvious next step to add a transmitter, receiver, and hook switch to produce a whole telephone that could be mounted on a wall. So for almost every ringer box and every subset, there is a corresponding compact wall phone.

The Canadians went one generation further with LB equipment than Western Electric with Northern Electric's N500 ringer box and corresponding N717 compact wall phone (Fig. 12-19). I have a long 2-story house and use 5 of these phones on an intercom line. They are great phones, and I'll bet you can still get them readily from Oldphoneworks.com or some of our Canadian club members.

Finally, I have put the WE No. 331 portable telephone in this category – the late Bruce Crawford gave me a good 331A and a brand new 331B for my work. In 1978, Western Electric made a change in this phone to use a little circuit board instead of a separate coil and condensers. My proudest, most exciting moment when doing research for the book was when I figured out how this new circuit worked. I had just been working on circuits for Trimline phones (CB of course) and recognized the Trimline's coil on the LB 331B's circuit board! You will have to wait till Chapter 18 to see how it works, and it's wild. You might be able to find a BSP or a wiring diagram for this phone elsewhere, but I don't think you will find any other explanation anywhere that describes how this circuit works. Stay tuned for this.

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