

Updated 2009 August 4

EE-8 Field Telephone

Our museum has three working phones.

One is in a leather bag and is model EE-8-A. One or more is in a canvas bag and is EE-8-B. All have handsets with the butterfly push-to-talk lever. The -B model does have an original handset and cord. These have been tested in both LB and CB modes and work fine.

The EE-8-B has a handset TS-13-E with transmitter 141914 W.E.Co. 6/42 and receiver D-141915 WECO 7 10 42

The EE-8-A handset TS-9-F has a receiver made by American Microphone Company Ltd. Sep 1943 type 113. The transmitter is type 1118.

I replaced the handsets with TS-13's from Fair Radio summer 2008 because the transmitter elements for the other kinds of handsets were too hard to get. Fair Radio had said that they didn't have the handsets, but they aren't really sure what they have until they go rummaging around. If you don't find it on their web site, call them on the phone.

For more on the handset variations, go to [Jason Garver's page](#) on them.

From the EE-8 Technical Manual TM11-333 (March 1945):

Regarding differences in the models EE-8, EE-8A and EE8-B, the first two are on an aluminum chassis and the B model is steel. There are three variations in the magneto (GN-38) but all appear to be interchangeable. The capacitors used in the different versions are approximately the same electrical values but some are multi-section capacitors in one case and earlier ones use discrete capacitors. These differences in the magneto and capacitors can readily be seen in these two images from the manual of the [EE-8](#) and the [EE-8-B](#).

There is a smaller terminal located next to the two used to connect the phone line. It is the battery negative terminal and can be used with an external 3 volt battery, such as a pair of No. 6 dry cells instead of the internal two D cells. The battery positive is the handset terminal located farthest from the line terminals, labeled T&BAT+.

The recommended distance between phones depends entirely on what type of wire is used. The maximum for a point-to-point circuit on type 104 open copper wire is 360 miles.

An interesting characteristic is that you can actually crank the magneto and ring the other phones while the handset is on-line or talking. On the oak wall phones, if you don't hang the receiver up, you can't crank the magneto because the talk circuit shorts it out. We have an oak wall phone on the same circuit with the EE-8's and it talks and rings just fine.

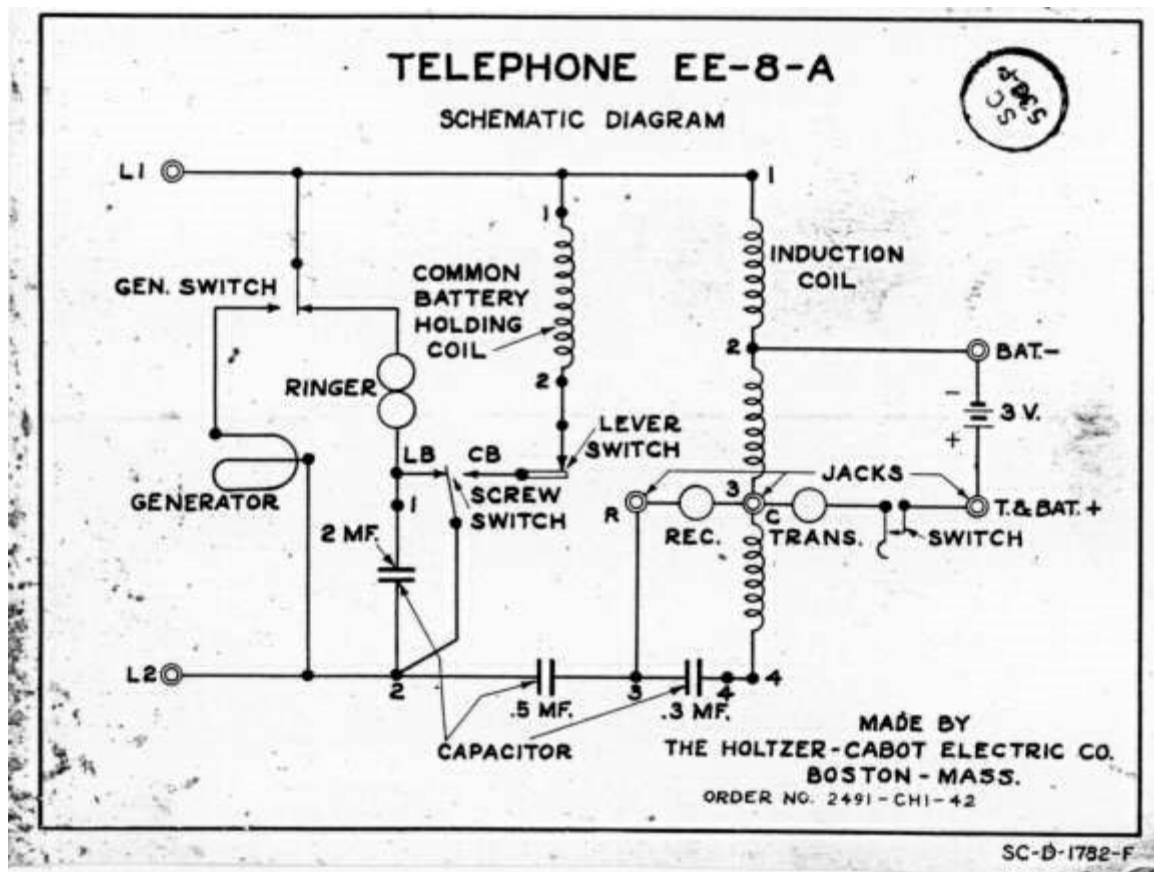
To connect two or more magneto phones together, just run a pair of wires from the L1 and L2 terminals on one phone to the other phones. You can connect several on the same line at the same time and they will all ring when you crank one of them. (Except, of course the one you are cranking.)

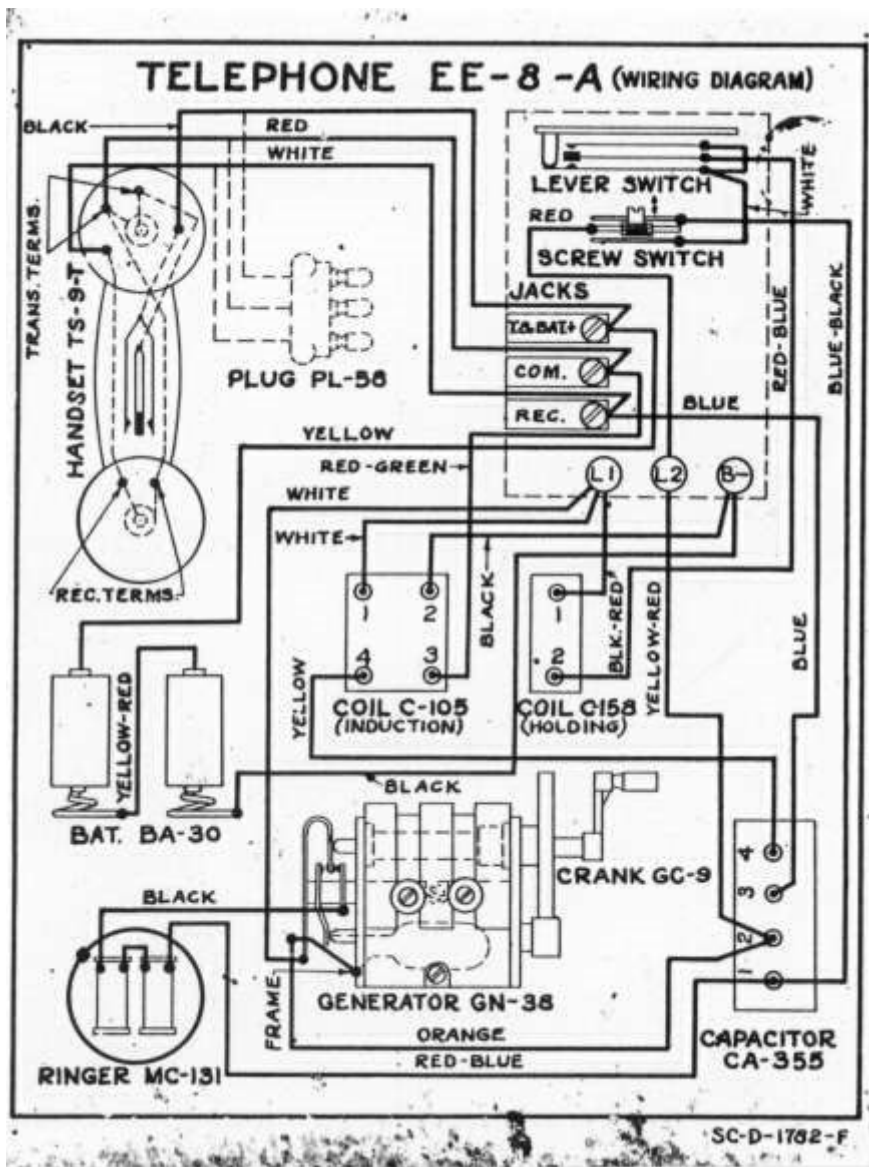
Some advise for purchasers of EE-8 phones:

The biggest thing that can go wrong is corrosion. Next would be the handset cord. That can be easily fixed if you're not trying to make it appear original. The rest of the insides is pretty tough. I'd be real surprised if you can't get them to work. One little feature which some people don't know is when you turn the crank only the OTHER phone rings. Yours doesn't ring. The handset has a butterfly switch which you must press in order to talk. While you have this switch operated the battery is being used. Otherwise, the batteries have no drain. It will not talk without batteries, but it will crank, ring and listen. There is one more switch. It is labeled CB or LB. This switch changes the mode from Common Battery to Local Battery. In CB mode, the hanger for the handset is in the circuit. You could connect the phone as an extension to your household telephone line and answer calls. It will ring and talk (provided the batteries are in it - yes in CB mode the batteries are still required to talk). In LB mode, the handset hangup switch is disabled for normal magneto phone operation. The schematic is available below and is a photo of the one inside one of my units. It may help illustrate how the CB-LB switch works. One caveat, if you hook it up as an answer-only extension to your home phone, it is very easy to NOT hang up the handset properly making your line appear busy to callers.

Remember to oil the things that turn in the magneto. It will help a whole lot.

Here are the schematic drawings from the A model phone:





- Occasionally will have phones: [Fair Radio](#) or their [main page](#)
- Steve Hilsz has parts, cords too: [PhoneSurplus.com](#) or [Navy Salvage.com](#)
- I have found them retail at [Cabella's](#) too.
- [EE8 at Wisdom Wings and War](#) very good presentation
- [EE-91](#) fire control phone
- [e-Bay](#) is a good place to search for phones for sale. Just enter "field phone" or "field telephone" into the title search.

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