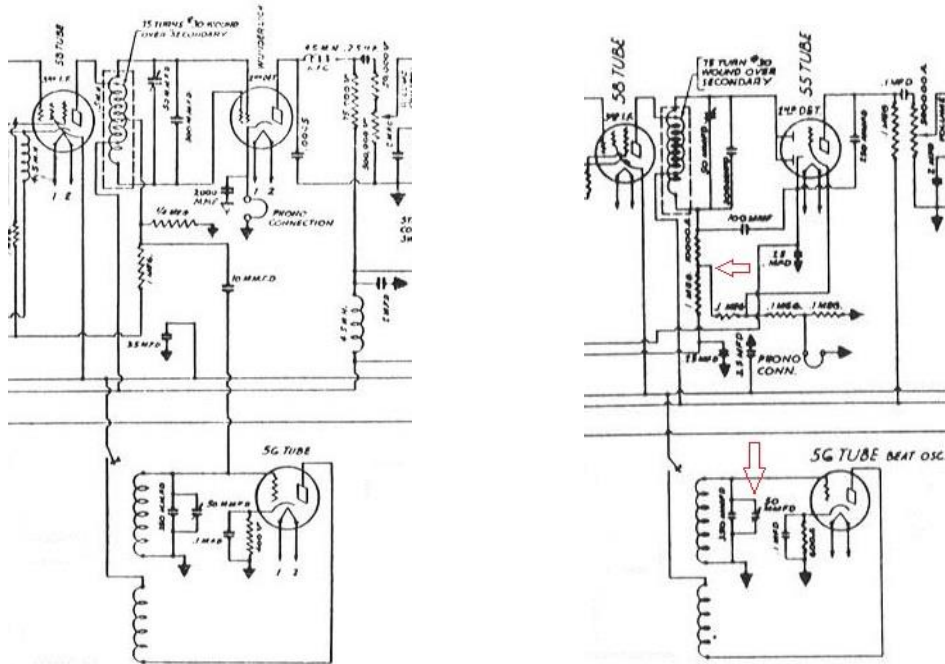


Forum member Doug Faubion asked what should have been an easy question, but a little research has yielded an interesting answer. It's one of those little things that most of us probably don't notice, but it is worth documenting. The original question was this: In a late model Allwave 15 (using the 55 detector), how is the BFO signal injected into the IF? Looking at the schematics for an early (Wunderlich detector) and late set show an interesting "omission":



We appear to be missing a coupling capacitor from the BFO grid circuit into the signal circuit above. Did the factory miss something in the wiring diagram? As it turns out, they did not make a mistake, the later BFO works by a little bit of "magic".

A few things to note: the later sets have a phenolic panel mounted on the side apron of the chassis, and most of the resistors used in the detector and 1st audio are mounted there. However, a single 1 Meg resistor is mounted well across the chassis and set up in a rather unique way. The BFO trimmer is also mounted on the back apron of the late sets, allowing the user to tune the BFO signal slightly.



The signal is coupled due to the proximity of these two components. No wire is missing and the BFO works with a small bit of magic. Note the mounting for the resistor, raising it up so that the two connections are only about .25 in apart.

Mystery solved....let's get a Scooby snack!