

Chassis Identification

Jackson Bell put the service schematic on a paper label placed on the chassis or on the cabinet, as a convenience for service technicians. The artwork is often crude, like a sketch!

If the Schematic is missing, the Drawings and Photographs in the following, sections should help.

The Jackson Bell model 62 circuit had three major circuit revisions, reducing costs while maintaining performance.

The **First Circuit Version** of the Jackson Bell 62 use al “2uF & 4uF filter block” in the power supply. The ripple (hum) level at the power supply output is high. To compensate, a choke and capacitor filter was included in the plate circuit of the detector. It was a very effective but expensive way to eliminate hum at the speaker output. The 245-power output tube bias was obtained by a resistor and bypass capacitor in the center-tap return to ground of the filament winding.

The **Second Circuit Version** used 8uF Capacitors in the Power Supply to allow removal of the choke and filter capacitor in the detector circuit. Hum in the speaker is acceptable. Presumably, these changes reduced costs. The First Implementation used a larger Filter Block. The second implementation of the same circuitry used two Mershon Electrolytic 8uF capacitors, and small capacitor Filter Block

The **Third Version** put the speaker field coil in the power supply ground return; providing a negative voltage with respect to ground. It is used here to bias the 245-power output tube grid. There may be an above chassis Filter Block, or under chasses Capacitors.

This “improvement” presumably saved cost, by replacing a higher wattage, Self-Bias, Resistor in the Series 2 design, with two low wattage, Voltage Divider, Resistors. *A further cost reduction could have been obtained by using a Power Transformer with a single, 2.5 Volt, Filament winding???*

Notes:

Alignment is very difficult to achieve. All four sections of the capacitor must track throughout the Broadcast Band. This is achieved by using a Grid-Dip Oscillator and Bending the Capacitor plates. This is something the average technician should not attempt.

If you feel you must attempt alignment, carefully follow the Factory instructions, listed below.

Whistles and **Regeneration** are a result of poor alignment, bad parts, corrosion or a combination of these faults.

T.R.F. Radios are prone to oscillations, because of RF from the later stages enters the earlier stages or into the Antenna.

When the Volume Control is fully advanced the radio may stop working, or the volume may go way down. This means the set is oscillating.

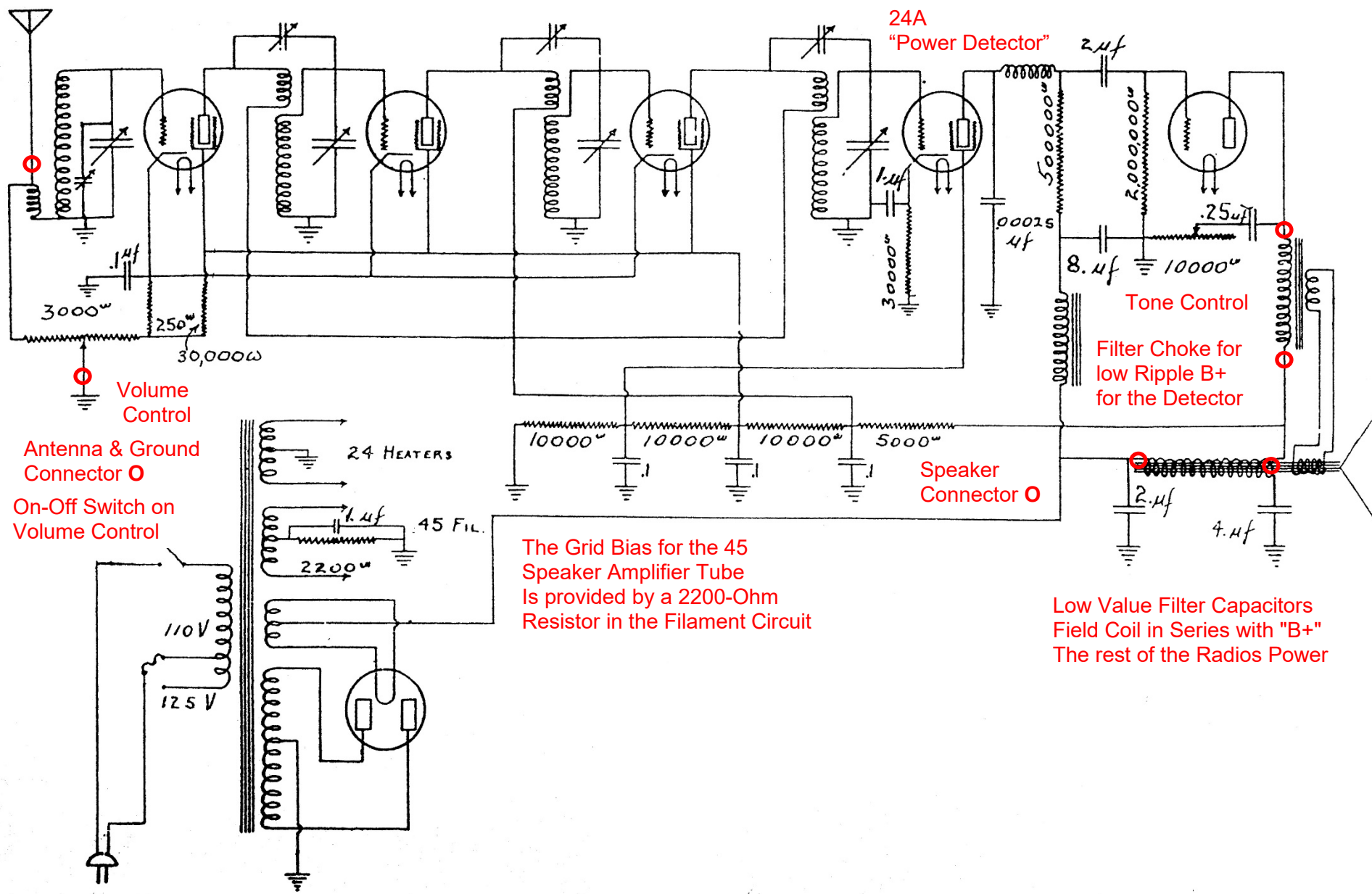
Make sure the Aluminum shield cans are making good contact. Rotate outside of the cans a little bit a few times to remove corrosion. Then check, or replace the Bypass Capacitors.

Text & Chassis Drawings, Richard Gray
Photographs, Mark Thomson

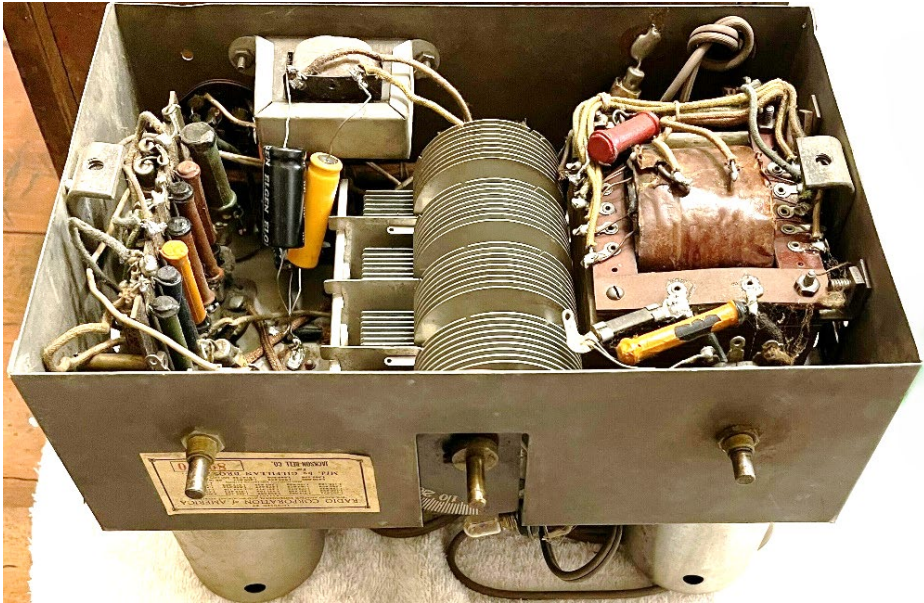
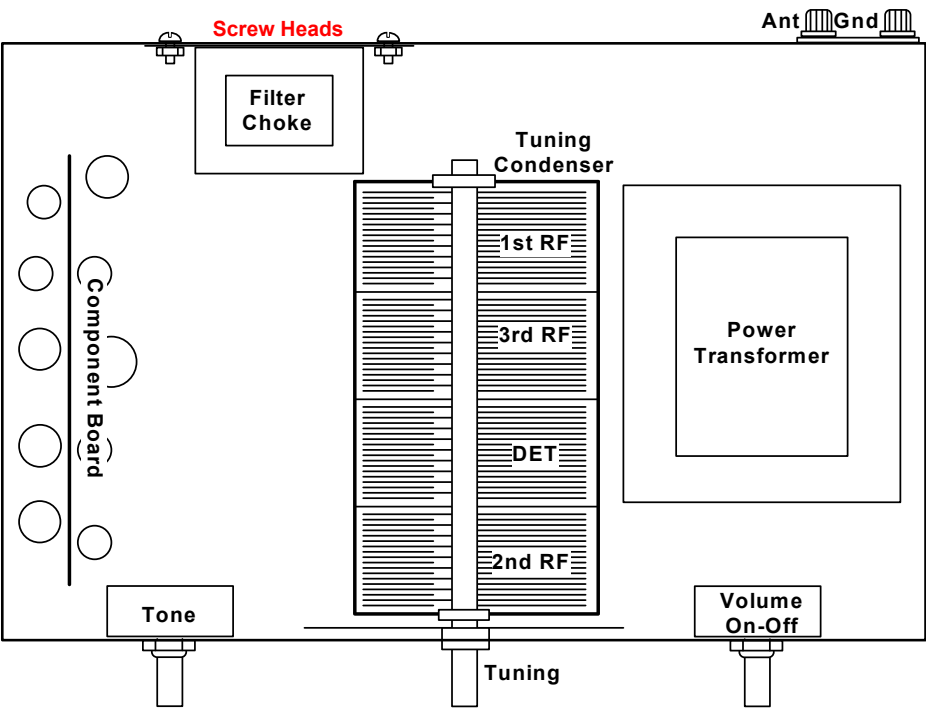
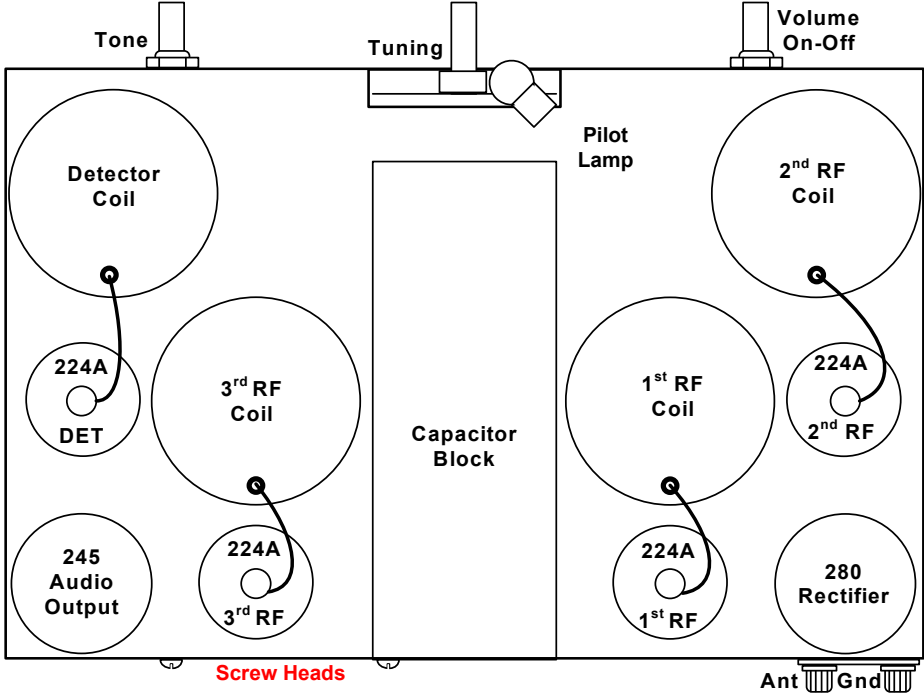
References:

Jackson-Bell Model 62 Introduction
Jackson-Bell Model 62 Factory Documentation
Jackson-Bell Model 62 Technical Information

Version 1 Chassis
Marked up Schematic from, Gernsback, "Official Radio Service Manual"



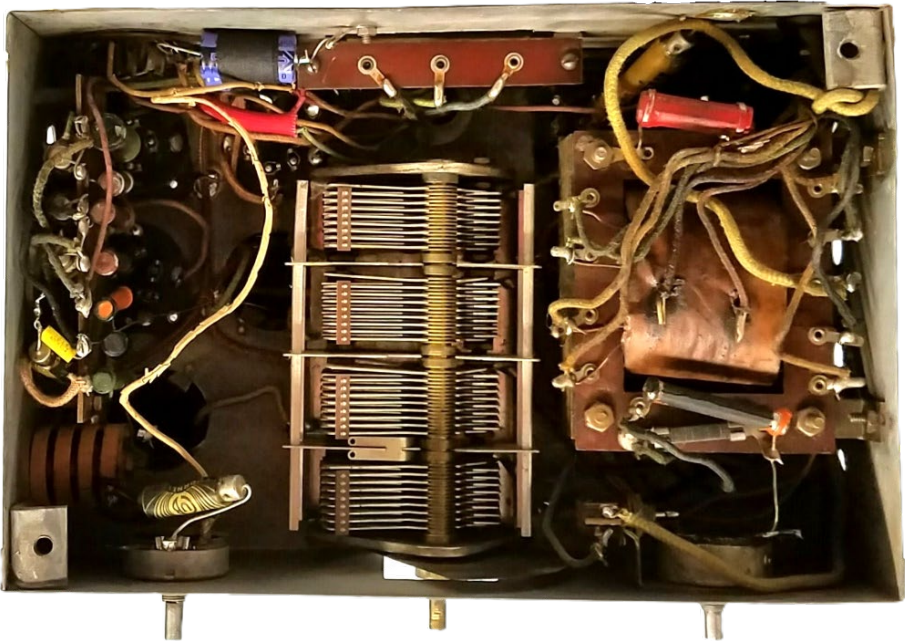
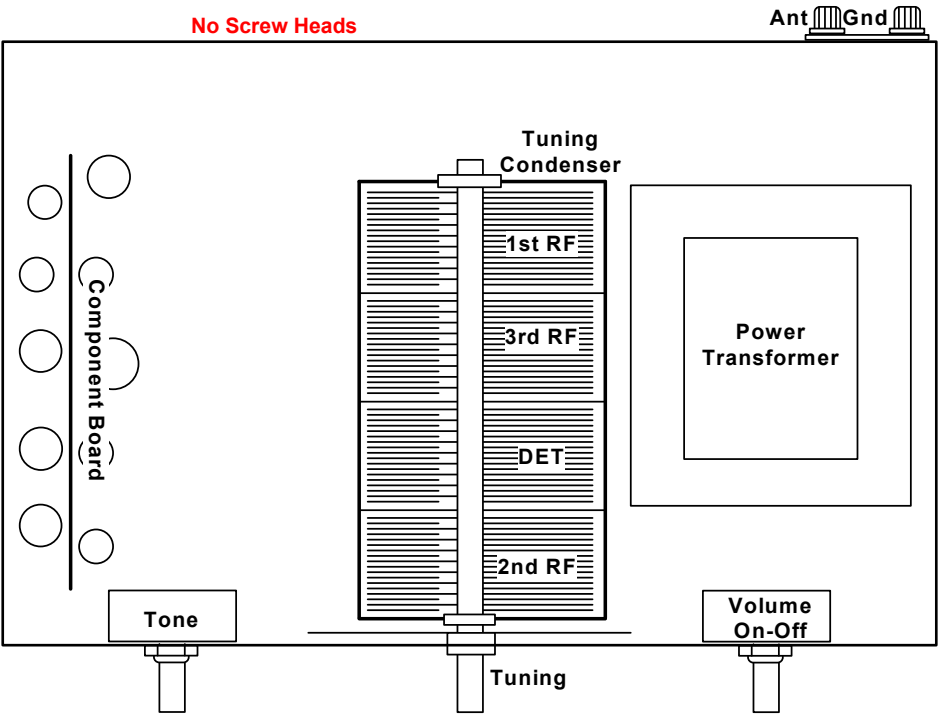
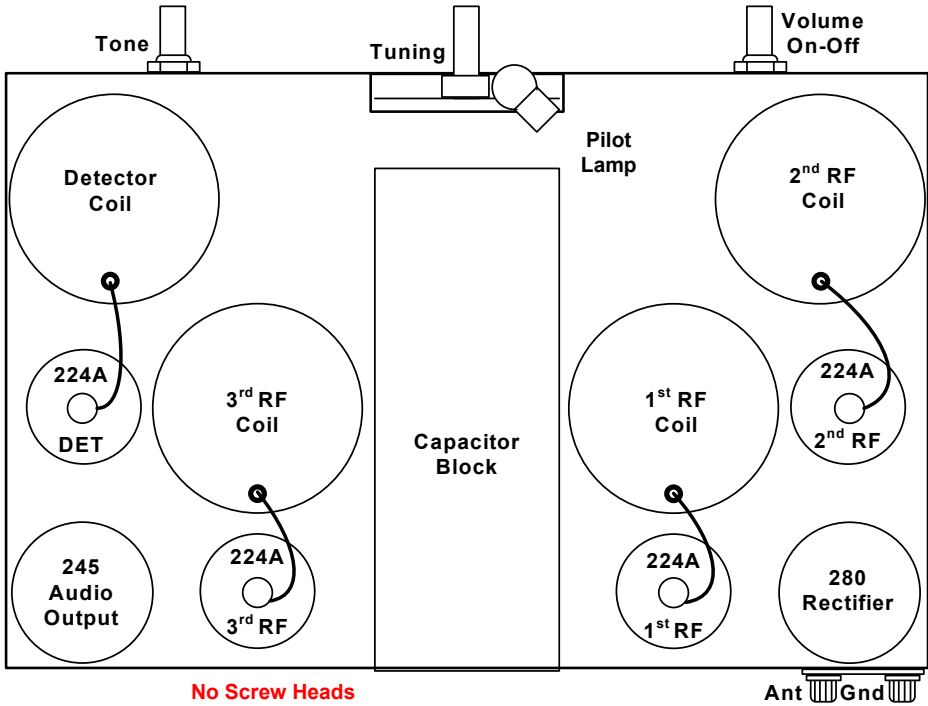
Version 1 Chassis



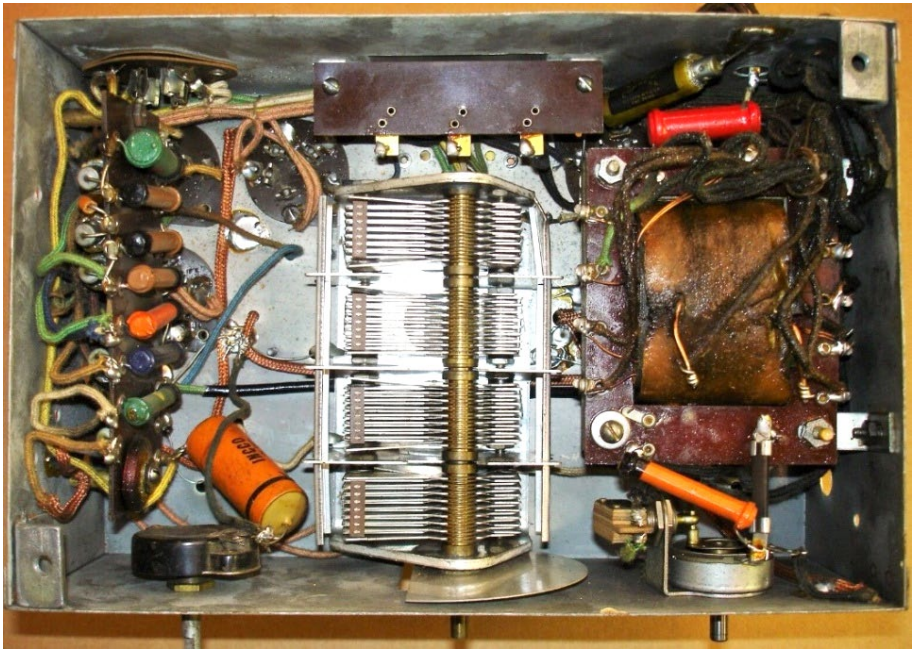
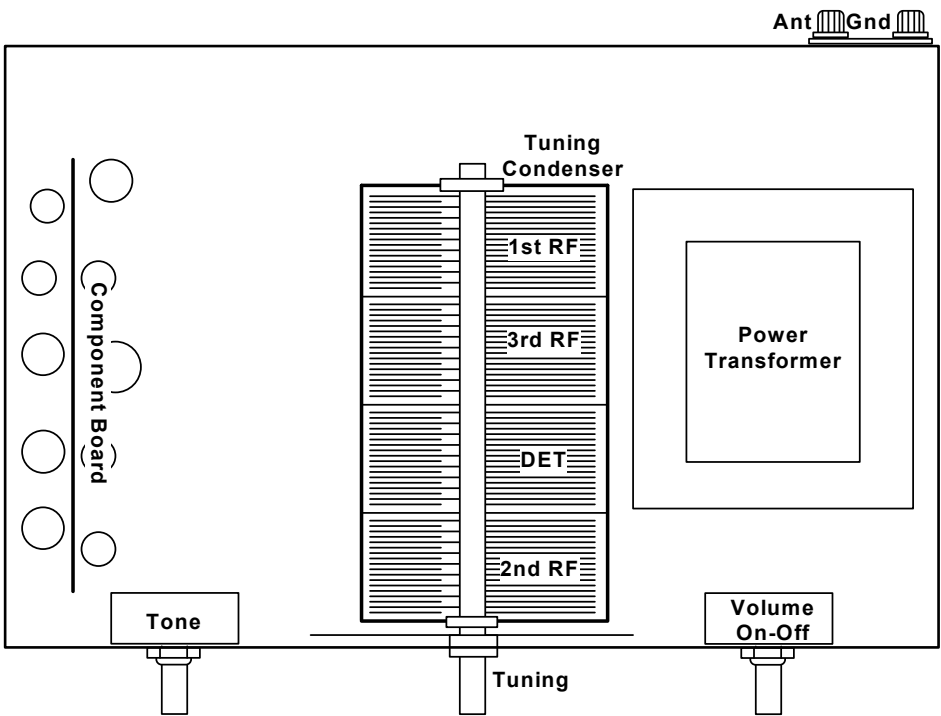
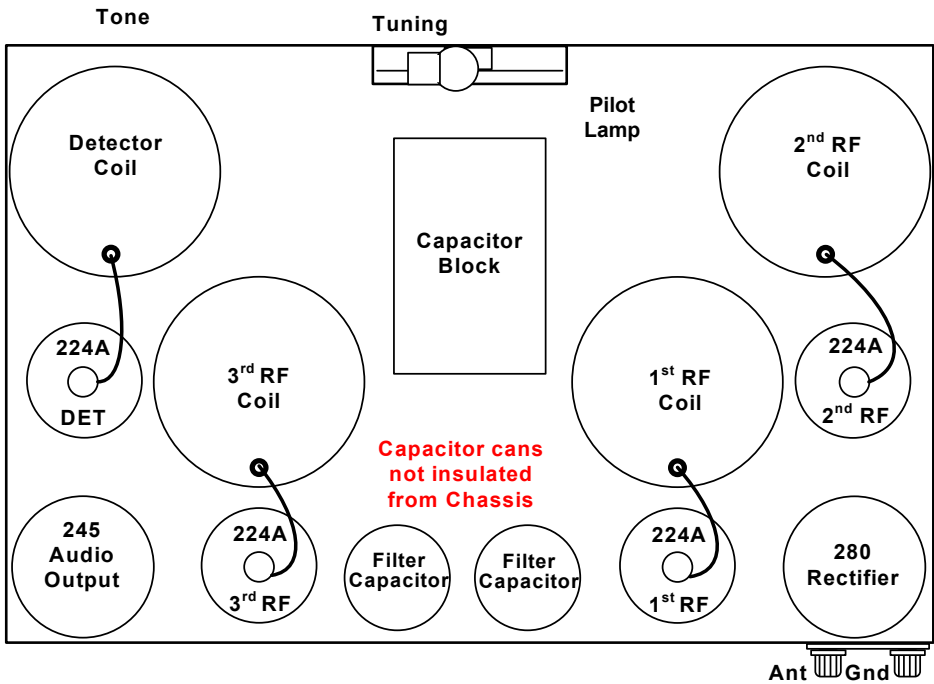
Marked up Schematic from, Gernsback, "Official Radio Service Manual"



Version 2 Chassis, with a large Filter Block

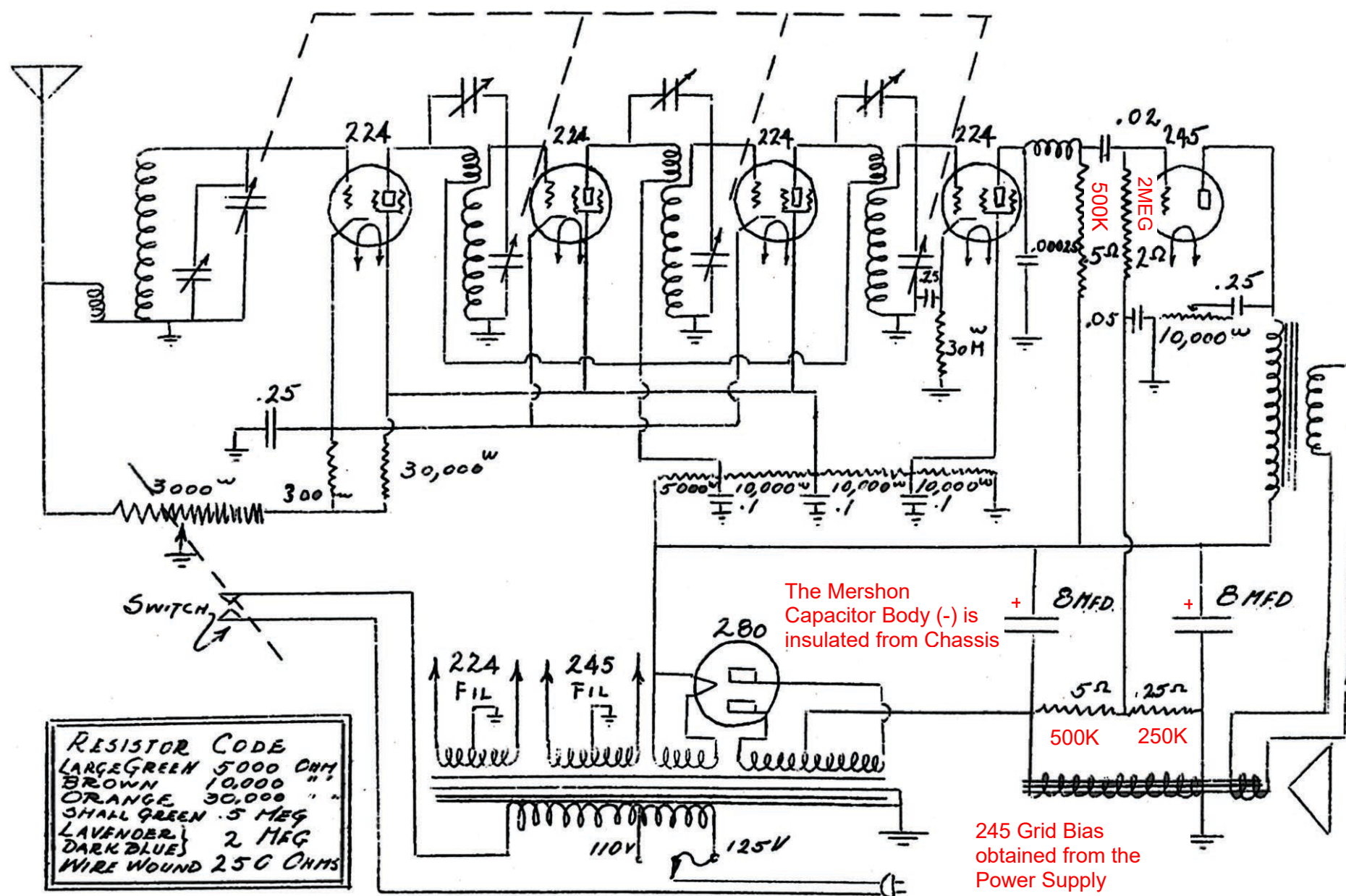


Version 2 Chassis, with Mershon Electrolytic Capacitors



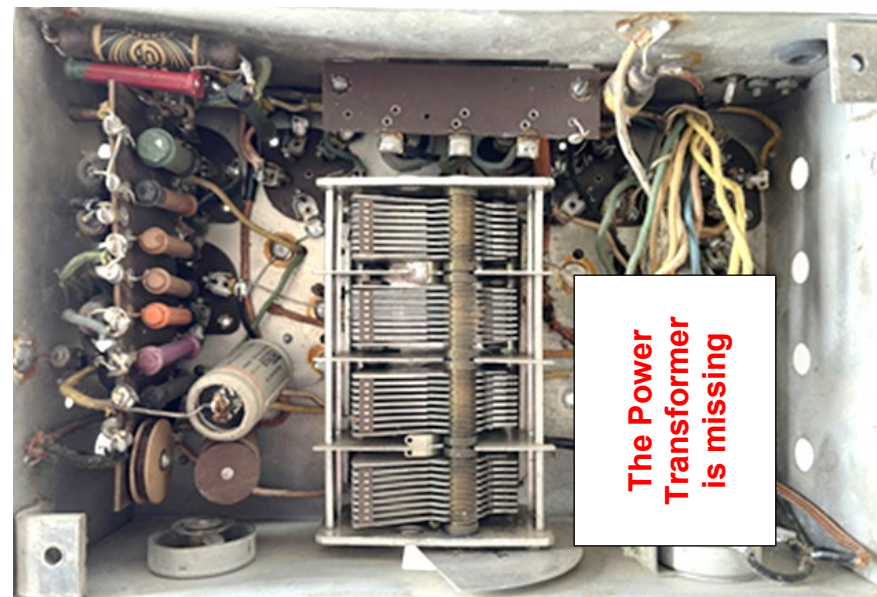
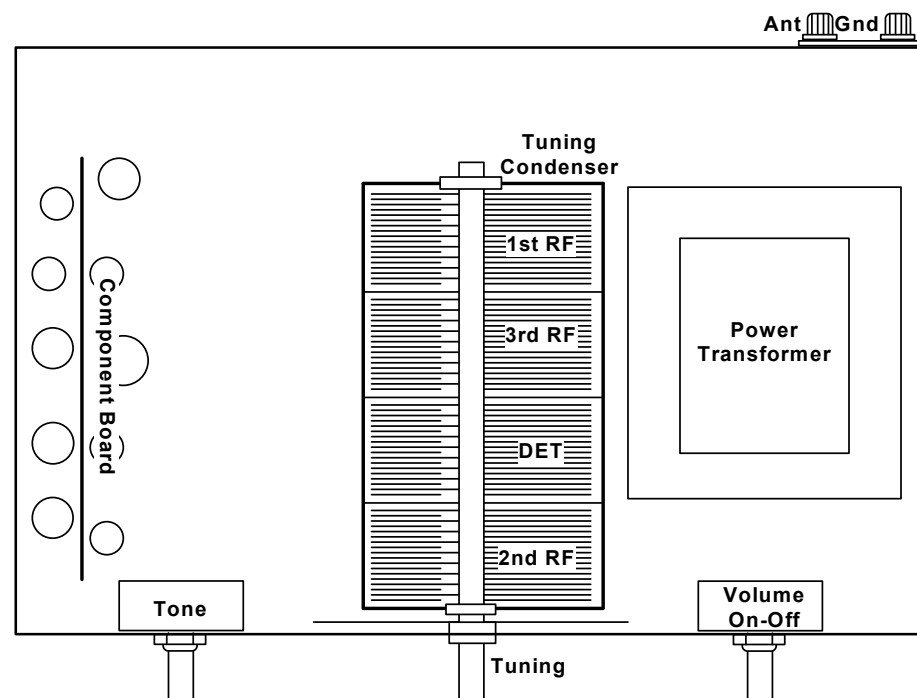
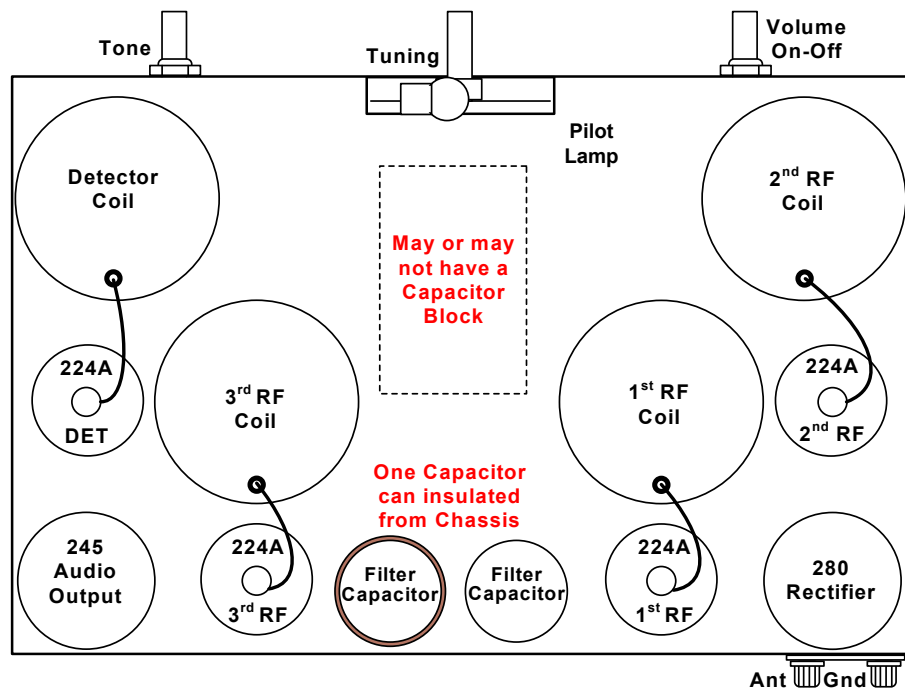
Version 3 Chassis

Marked up Schematic from, Gernsback, "Official Radio Service Manual"



MODEL-62
 IMPROVED 1-22-31

Version 3 Chassis



This, 220-240 Volt, example is from Mark Thomson in New Zealand. A schematic attached to this Radio confirms a Series 3 Chassis. The Capacitors are not the original Meshon Types. However, in the Photograph, the Capacitor on the left is insulated from the Chassis

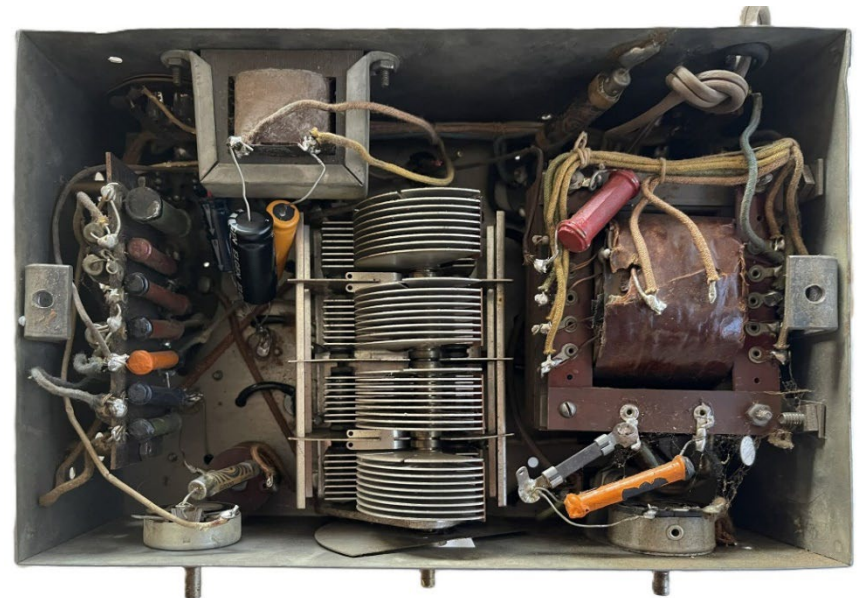
Jackson-Bell Model 62, Early, or Prototype, Chassis Version 1
Chassis Control Number 62-82839

Mark Thomson, New Zealand has the Earliest Chassis Control Number Jackson Bell 62 we have ever seen. This Radio was bought on eBay in the United States. The Chassis the Version 1 Chassis, without a Fuse Block.

Version 1 Chassis with a Toggle Switch for Operating Voltage Selection
Replaced by Fuse Block, Operating Voltage Selection, on Later Version 1 Chassis
All other Version 1 Circuitry appears to be the same



**Closeup view
of Voltage
Selection Switch**



Observations

The Chassis is scored. There was a Label, or Schematic Drawing on the back of the chassis, perhaps cut out with a knife?

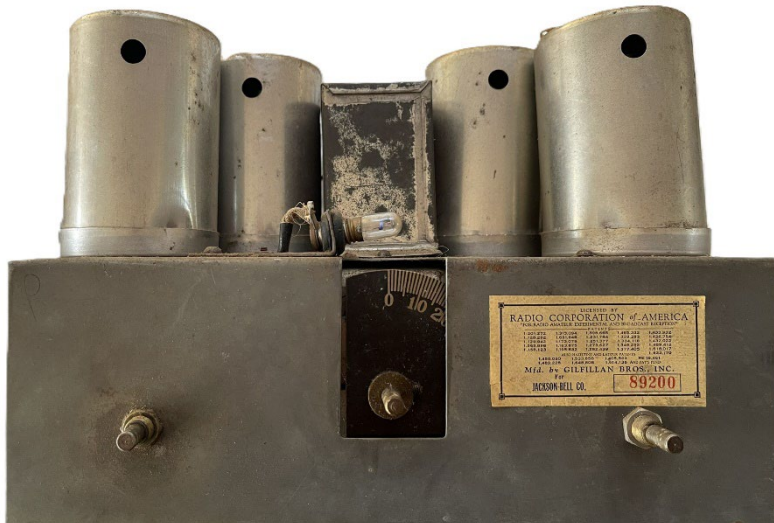
The Voltage Switch Reads "110" and "125"

The Chassis has been repaired with new Capacitors
The Power Cord has been replaced

The Filter Inductor, and the (punched?) holes in the Chassis are a poor fit
This may be indicative of a Prototype

RCA License Tag: 8920

"Mfd. By Gilfillan Bros, Inc" for "Jackson-Bell Co."



Jackson-Bell Model 62, Early, or Prototype, Chassis Version 1
Marked up Schematic from, Gernsback, "Official Radio Service Manual"

