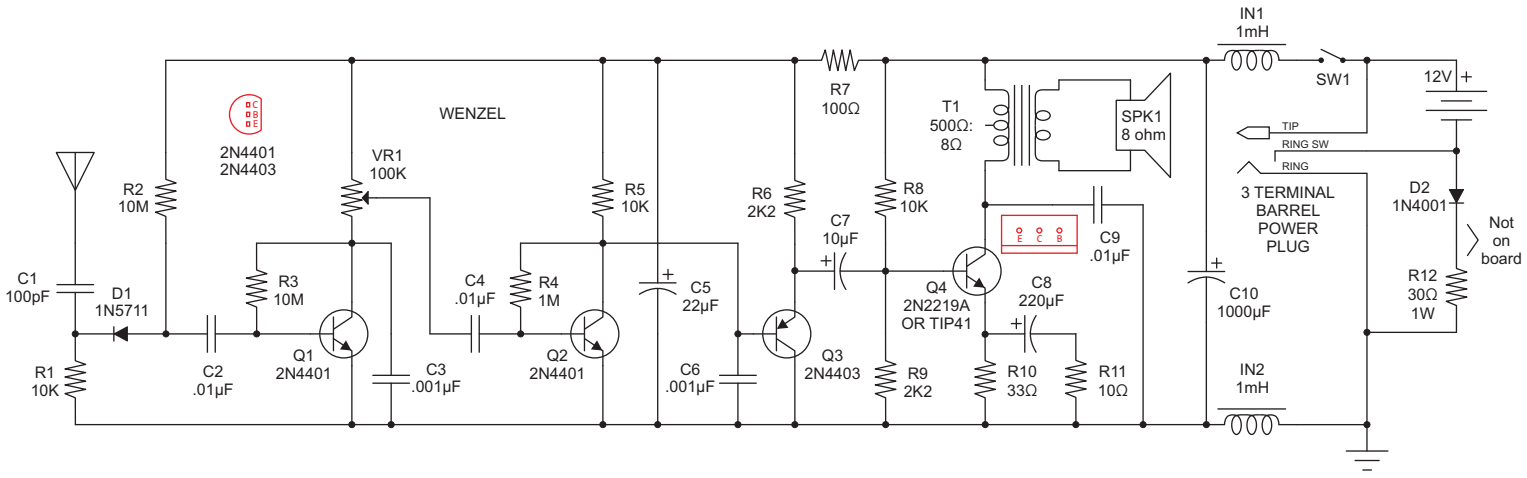
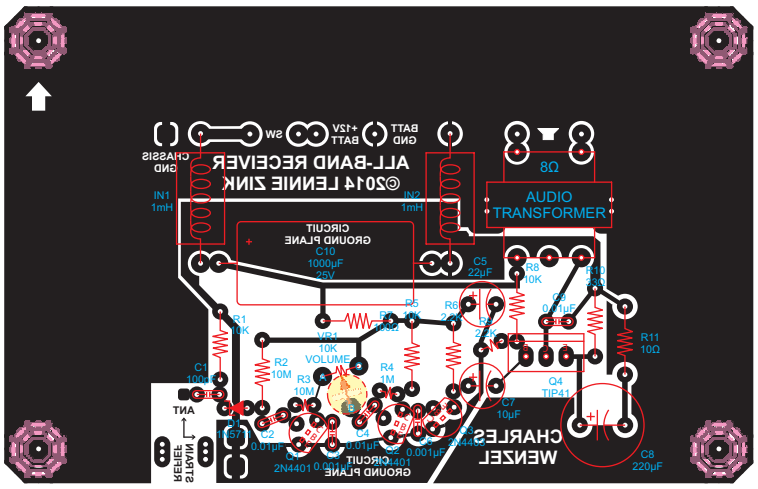
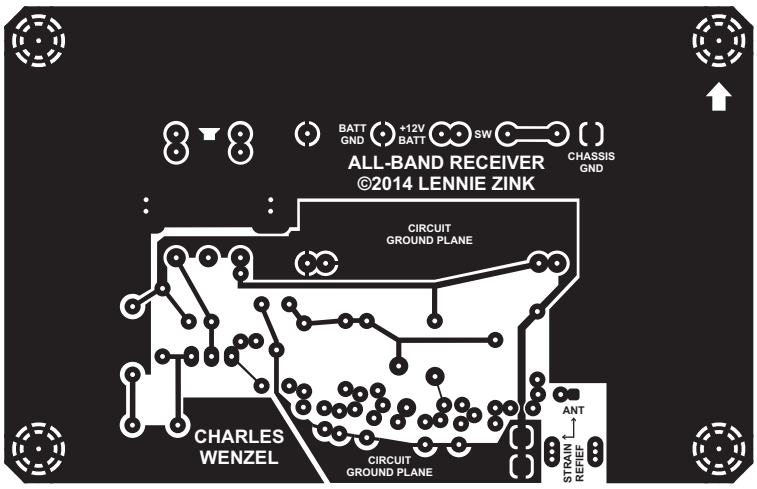
THE AMAZING ALL-BAND RECEIVER





COMPONENT LAYOUT

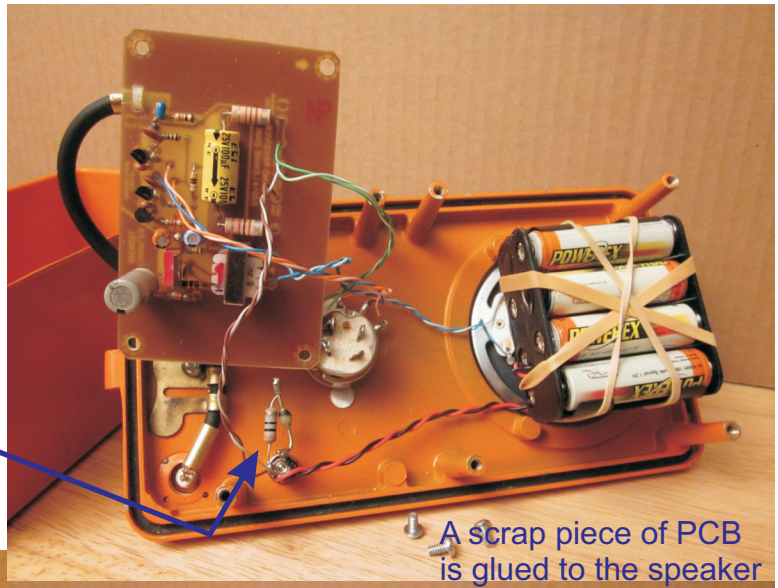


BOTTOM VIEW

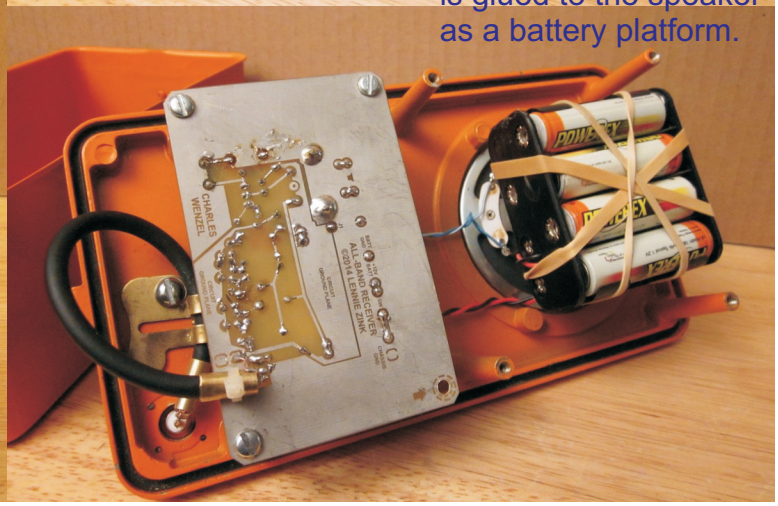
Designing a PC board for RF receivers can be quite challenging. The first attempt resulted in massive instability which could not be corrected. A second attempt provided a good working circuit, thanks to the help of Charles. The following techniques were employed:

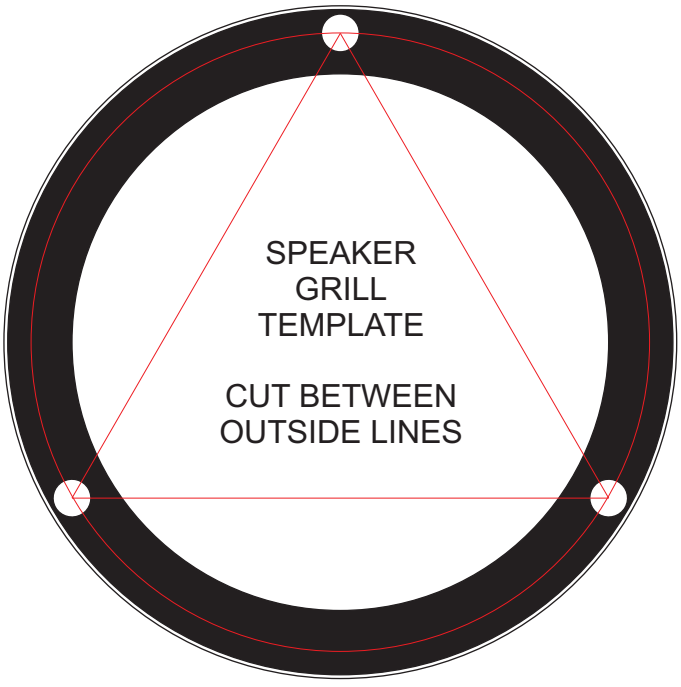
- Input and output sections are kept far away from each other.
- Speaker wires are twisted together and routed away from the circuit.
- Antenna coaxial shielding is kept very close to the ends of the center conductor.
- The circuit ground plane is designed to control the path to ground, keeping the sensitive (input) portion of the circuit farthest away from the ground of the output circuit.
- Some components are installed on end to reduce space, and stray signals.

A diode, in series with a resistor, charges the batteries when connected to external power.



A scrap piece of PCB is glued to the speaker as a battery platform.





The blue speaker bezel is cut from a Kraft Miracle Whip lid.