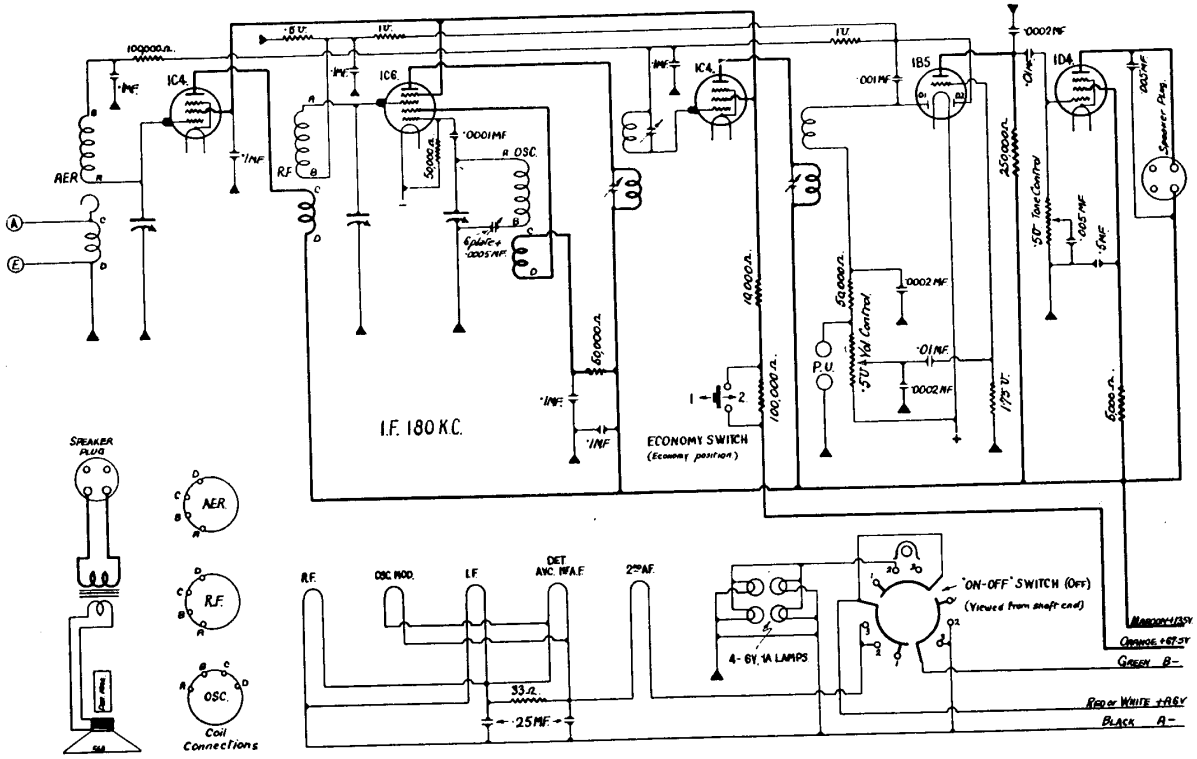
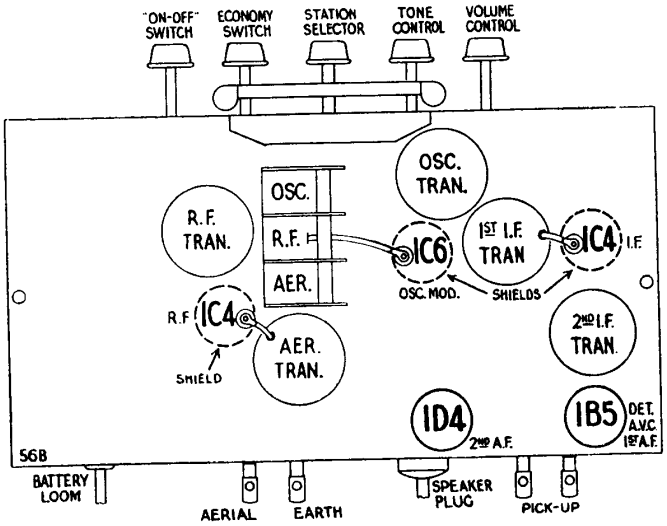
"Healing" Battery Broadcast Model 56B



Healing model "56B" is a five-valve receiver designed for broadcast coverage and operation from battery power supplies. This model is housed in a console-type cabinet and is fitted with an 8½ in. permanent magnet loudspeaker. Five controls are fitted and the location and functions of these may be seen on the accompanying top-chassis layout diagram.

Normally, this receiver is equipped with a 6-volt accumulator and three series-connected 45-volt "B" batteries; bias is obtained from appropriate points on this series-parallel filament network. In some installations it may be found that the dry-battery "B" supply is replaced by a vibrator-type high-tension supply unit which operates from the 6 volt accumulator; no changes are made in the circuit when this alternative form of "B" supply is employed and the model number remains the same.

The circuit arrangement of this receiver is fairly straightforward and requires no particular description. Attention is, however, drawn to the wiring of the "Economy" switch; this switch in its "economy" position inserts a 100,000 ohms resistor in series with the common supply lead to the R.F., converter, and I.F. screens. A considerable reduction of current drain is effected by this switch and, also, the sensitivity of the receiver is reduced appreciably.



The following measurements were made with a "1,000 oms per volt" meter between chassis and the socket contact indicated. The receiver was tuned to a point of "no signal" and new "B" batteries were used. The alternative screen voltages given for the R.F., Converter, and I.F. valves are for the "normal" and "economy" position, respectively, of the "Economy" switch.

1C4, R.F. Amplifier. Plate, 135 v.; screen, 45 v. and 18 v. The filament of this valve is wired at the negative end of the filament network, so that the effective grid voltage is zero.

1C6, Frequency Converter. Plate, 135 v.; screen, 45 v. and 18 v.; osc. plate, 50 v. The effective control grid voltage of this valve is 2 volts negative.

1C4, 180 KC. I.F. Amplifier. Plate, 135 v.; screen, 45 v. and 18 v. Effective grid voltage is 2 volts negative.

1B5, Detector, A.V.C. Rectifier, and Audio Amplifier. Plate, about 65 v. Effective grid voltage is 2 volts negative.

1D4, Output Pentode. Plate, 125 v.; screen, 125 v. The effective grid voltage of this valve is 4 volts negative.

Under "normal" operating conditions, the total "B" drain of this receiver is 14 mA.; under "economy" conditions this drain is reduced to 9 mA.