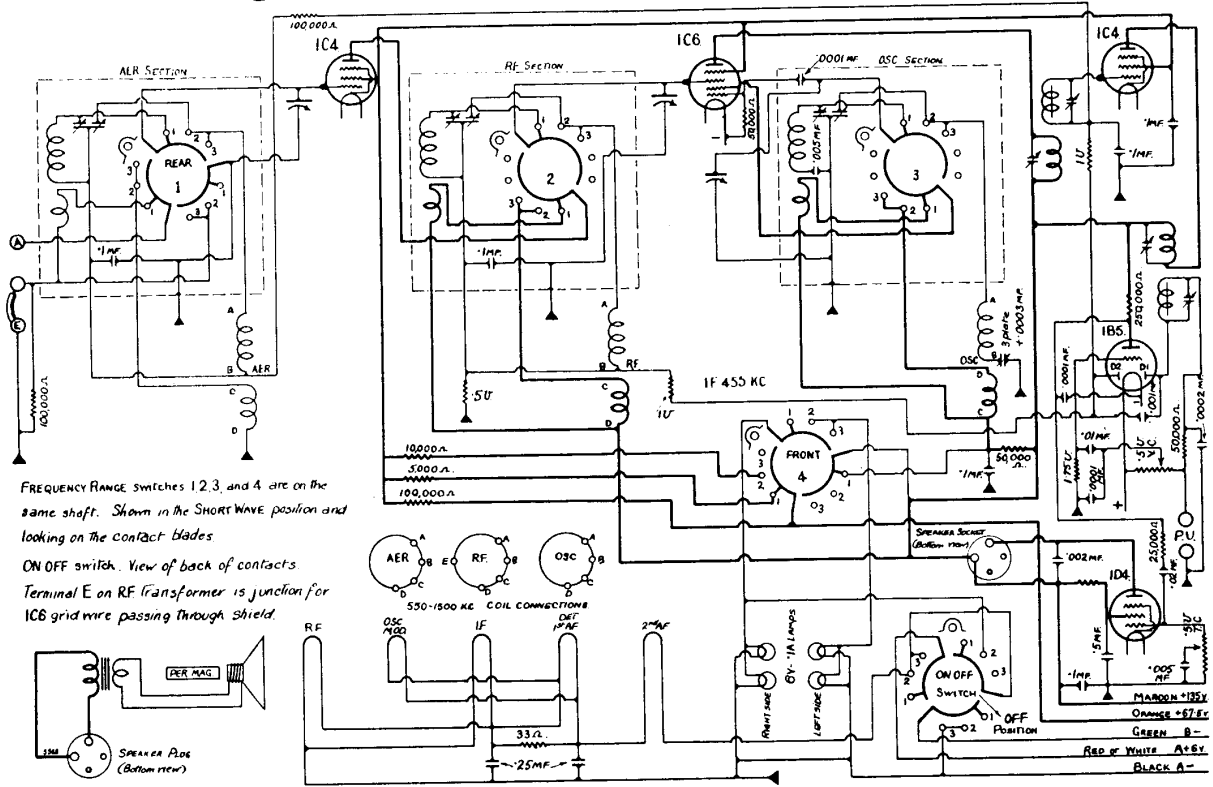


"Healing" Battery Dual-Wave Model 556B



Healing model "556B" is a five-valve receiver designed for dual-wave coverage and operation from battery power supplies. This receiver is of the console type and is fitted with five controls—volume, wave-change (with third position for "local broadcast" reception), tuning, tone (continuous), and battery switch (with third position for dial-lamp control). The loudspeaker fitted to this receiver is an 8-inch permanent magnet unit. Power supply is obtained from a 6 v. accumulator ("A"), and three series-connected 45 v. dry batteries ("B"). Bias voltages are obtained within the receiver by utilising the drop across the series-parallel filament network.

The circuit arrangement of this receiver is fairly conventional, although particular attention should be paid to the connections of section 4 of the wave-change switch. This performs three functions in that it controls the R.F. converter, and I.F. screen voltages, the oscillator anode potential, and the dial illumination—all of which vary in accordance with the setting of the wave-change switch. Dealing with the screen voltage control function first, it will be seen that the valves in question have their screens fed from the 67.5 v. "B" tapping through a 100,000 ohms resistor. Under "short-wave" conditions, this resistor is shunted by another with a value of 5,000 ohms. This second resistor is replaced by a 10,000 ohms unit under "distant broadcast" conditions, while no shunt at all is used under "local" conditions. The oscillator anode voltage arrangements are somewhat similar in that a 50,000 ohms series resistor is in circuit on both "distant" and "local" broadcast settings, but is shorted out when the set is adjusted for short-wave reception. The dial-lamp control is for purpose of wave-band indication and works out so that the whole of the dial is illuminated on "broadcast," while the right side only is illuminated on short-waves.

Although the operating voltages to be expected are fairly well covered by the descriptive matter given above, it will be of interest to tabulate the valve functions and socket voltages for convenience of reference. The screen voltages for the various settings of the wave-change switch are given as "L," "D" and "S."

1C4, R.F. Amplifier: Plate, 135 v.; screen (L) 18 v., (D) 45 v., (S) 52 v.; grid, zero.

1C6, Frequency Converter: Plate, 135 v.; screen (L) 18 v., (D) 45 v., (S) 52 v.; negative filament, 2 v.; osc. anode grid (B.C.), 52 v., (S.W.) 135 v.

1C4, 455 KC. I.F. Amplifier: Plate, 135 v.; screen (L) 18 v., (D) 45 v., (S) 52 v.; grid, zero.

1B5, Detector, A.V.C. Rectifier and A.F. Amplifier: Plate, 65 v.; negative filament, 2 v.

1D4, Output Pentode: Plate, 125 v.; screen, 135 v.; negative filament, 4 v.

