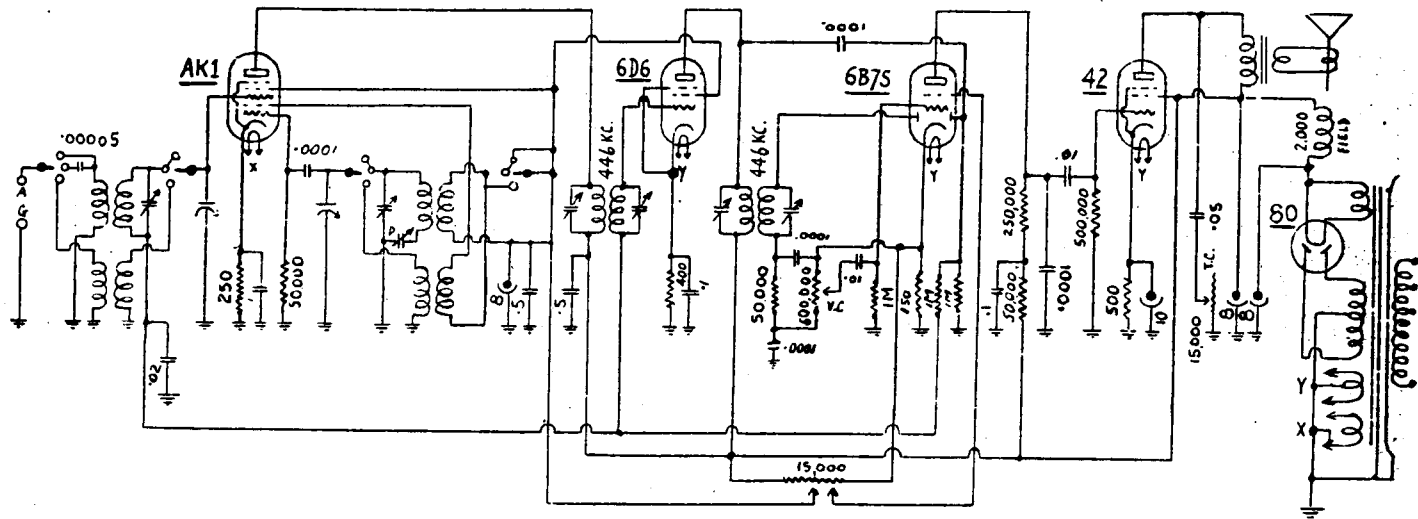


"Breville" A.C.-operated Dual-Wave Mantel Model 81



Breville model "81" is a five-valve receiver designed for dual-wave coverage and operation from 220-260 v. A.C. mains. This receiver is of the mantel type and is fitted with four controls, these being for volume, tuning, tone (continuous) and wavechange (with extra position for "local broadcast" reception). The loudspeaker employed is an 6-inch diameter unit with a field-coil resistance of 2,000 ohms. This model was marketed during 1937.

The circuit of this receiver is a fairly conventional arrangement employing an octode frequency converter and a single 446 kc. I.F. amplifier stage. "Local/dis-

tance" switching is incorporated as a function of the wave-change switch by connecting a small fixed condenser in series with the aerial lead when the switch is in its centre ("Local Broadcast") position. Alignment of this receiver is a fairly simple matter as the design does not incorporate any adjustable trimmers or padders on the short-wave band. On broadcast, the usual trimming and padding adjustments are necessary and the trimmers for this purpose will be found located beneath the chassis. Four I.F. trimmers are provided and these are located in pairs on top of the I.F. transformer shields.

Operating Voltages

The following measurements were made with a 1,000 o/v meter between chassis and the socket contact indicated. The receiver was operated on 240 v. A.C. supply and tuned to a position of "no signal."

AK1, Frequency Converter: Plate, 220 v.; screen, 80 v.; cathode, 3 v.; osc. anode grid, 80 v.

6D6, 446 kc. I.F. Amplifier: Plate, 220 v.; screen, 80 v.; cathode, 3.3 v.

6B7S, Detector, A.V.C. Rectifier and A.F. Amplifier: Plate, 40 v.; screen, 20 v.; cathode, 1.2 v.

42, Output Pentode: Plate, 210 v.; screen, 220 v.; cathode, 15 v.