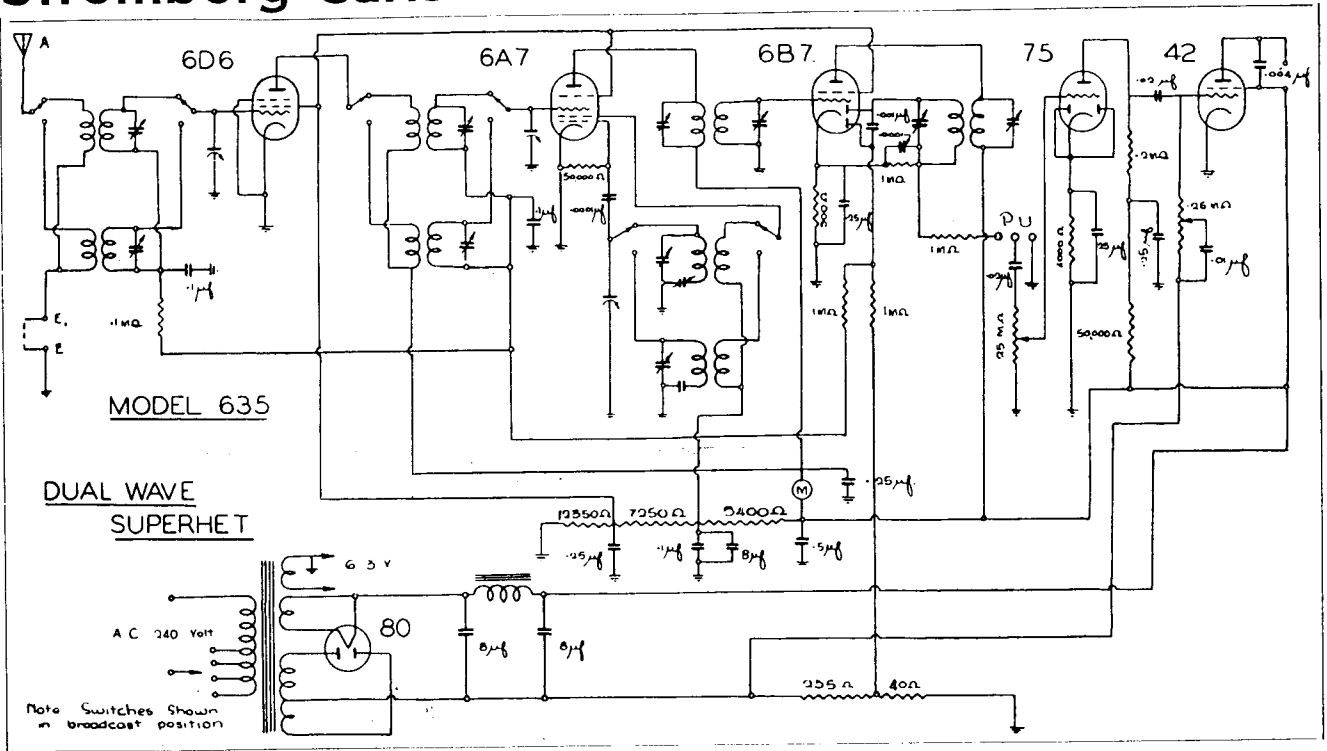


"Stromberg-Carlson" A.C. Dual-Wave Model 635



Stromberg-Carlson model "635" is a six-valve receiver designed for dual-wave coverage and operation from A.C. mains. This model is housed in a console cabinet and has four controls and a meter-type tuning indicator fitted. The controls are for volume, tuning, wave-change (broadcast and 18-53 metres) and tone (continuous). The speaker used is an eight-inch energised type with a field resistance of 1,000 ohms.

Special features to note when checking this receiver are the use of a 6B7 as combined I.F. amplifier and detector; the use of "back bias" for the R.F. converter, and output stages, and the use of tone compensation on models bearing serial numbers above 29303. The revised audio circuit for the latter is shown in the lower diagram. It should be noted that the switch in the plate circuit of the 75 in the latter circuit is ganged with the wave-change switch in such a manner that low note compensation is introduced when operating on short-waves. The action is reversed on broadcast; and a degree of high-note compensation is provided.

VALVE OPERATING CONDITIONS.

The valves used in this receiver, together with their functions and operating conditions, are as follows:—

Type 6D6, R.F. Amplifier: Plate, 275 v.; screen, 90 v.; cathode, earthed.

Type 6A7, Frequency Converter: Plate, 275 v.; screen, 90 v.; osc. plate, 190 v.; cathode, earthed.

Type 6B7, 450 KC. I.F. Amplifier, Detector and A.V.C. Rectifier: Plate, 275 v.; screen, 90 v.; cathode, 1.5 v.

Type 75, Audio Amplifier: Plate, fed through 200,000 ohms and 50,000 ohms in series from 275 v.; cathode, 1.5 v.

Type 42, Output Pentode: Plate, 265 v.; screen, 275 v.; cathode, earthed; bias obtained from drop across 275 ohms tapped resistor in negative return to power transformer C.T. Note that bias resistor is shunted by 25 mfd. condenser and that cans of both high-voltage electrolytics are insulated from the chassis. Voltage drop across total bias resistor should be 18 volts, and voltage between tap and chassis (across 40 ohms section) should be 1.5 volts.

COMPONENT MOUNTING.

A number of components are mounted on a panel at the back of the chassis in this model. For convenience of reference, the component positions are

numbered. The numbers and corresponding components in early models of the series are as follows:—(1) 300 ohms; (2) 0.0001 mfd.; (3) 1.0 megohm; (4) 0.1 megohm; (5) 0.2 mfd.; (6) 4,000 ohms; (7) 50,000 ohms; (8) 0.2 megohm; (9) 0.02 mfd.

Commencing with serial No. 29304, the component panel was altered in accordance with the requirements of the revised audio channel. The revised numbering is as follows:—(1) 300 ohms; (2) 0.0001 mfd.; (3), (4) 0.1 megohm

each; (5) 0.02 mfd.; (6) 4,000 ohms; (7) 50,000 ohms; (8) 0.2 megohm; (9) 0.04 mfd.; (10) 30,000 ohms. In addition, an 0.01 mfd. condenser is mounted between lugs 7 and 10.

Five of the larger fixed condensers in model "635" (all serial numbers) are mounted in a block with flexible leads for connections. The case is common earth for all five condensers; the four red leads connect to the free ends of four 0.25 mfd. condensers, and the yellow lead goes to a 0.5 mfd. condenser.

