"S.T.C." A.C. Dual-Wave Console Model 629G and R/G 529G



Standard Telephones' model "529" is a five-valve receiver designed to provide dual-wave coverage (200-550 and 16.5-53 m.) and operate from 200-250 volt A.C. supply. This receiver may be found in two console versions (suffixed "G" and "H," respectively), and as a console radio-gramophone, known as the "529K." Four panel controls are provided on each model, these being for volume, tuning, wave-change, and tone (continuous). An additional adjustment, for the regulation of broadcast band sensitivity, is provided on the rear of each chassis, while the "K" version also includes a switch for selection of "radio" or "pick-up" operation. All three versions use a 10-inch, 2,000 ohms field, Joudspeaker and all were introduced during 1939.

In each of the three versions of this receiver, the basic circuit arrangement is as shown in the diagram, but only the "G" execution conforms exactly. In the "H" version, an added refinement is provided in the form of a "magic eye" tuning indicator which is viewed through the main tuning dial glass, while the radio-gramophone switching system used in the "K" version comprises a double-pole, double-throw switch which simultaneously opens the screen feed to the mixer and I.F. valves as the pick-up is switched into circuit. However, these refinements do not alter the basic circuit arrangement and the diagram given may be used in maintenance of all three receivers.

The circuit arrangement of the "529" chassis is, subject to the necessary amendments for dual-wave coverage, very similar to that used in the "505" broadcast chassis (see "R.R.", 3/2/44), and the same general remarks apply, particularly with respect to replacement of the 6Q7G, 6AG6C and 5Z4G valves.

Analysis of the circuit arrangement, however, will reveal an important point of difference in the oscillator circuit. Not only is a type 6K8G triode-hexode used in place of the 6A8G, which serves as mixer in the ''505'', but it will be noted that the oscillator feed-back system is of the series-fed type, instead of the shunt-fed arrangement employed in the broadcast receiver.

The sensitivity control system also is rather interesting in that the usual preset control (1,200 ohms variable cathode resistor for the mixer and I.F. valves) functions only on the broadcast band. On short waves, this control is switched out in favour of a 300 ohms fixed resistor. This arrangement permits a convenient threshold sensitivity to be seleced for broadcast band operation without reduction of the maximum sensitivity under short-wave conditions.

Alignment of this receiver follows standard practice, with trimmer adjustments being used on all circuits except the short-wave padder, which is fixed in value. Both of the intermediate-fre quency transformers are of the iron core type, but the slugs are fixed in position and trimmer tuning is used. The I.F employed was initially 450 kC/s., at shown, but in some later production, the frequency was increased slightly to 455 kC/s. Either value may be used, in accordance with local conditions, as th range of adjustment available on th various circuits will permit accurate overall alignment to suit cither frequeney.

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