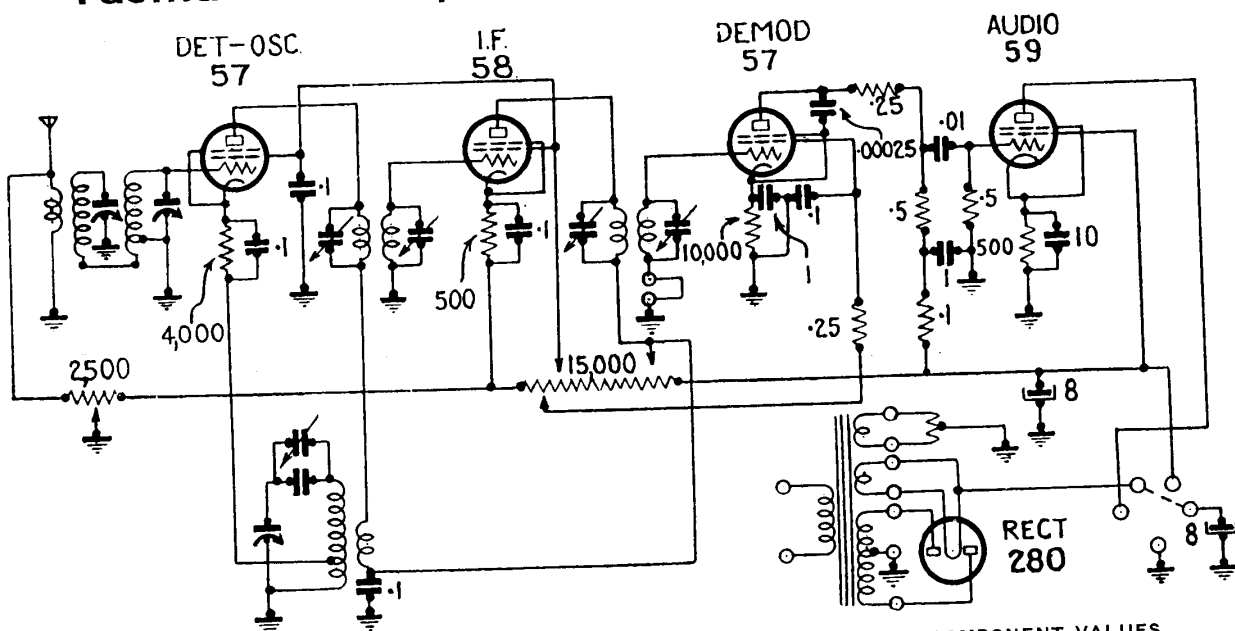


"Tasma" A.C.-Operated Broadcast Model 135



Tasma model "135" is a five-valve, A.C. operated, broadcast receiver which dates back to 1933. This model is housed in a console type cabinet and has a dial of the "travelling light" type. The dial lamp is a 2.5 volt, miniature-screw type. Only two controls are fitted, these being for tuning and volume. The latter is of the "R.F." type which simultaneously controls the aerial input and I.F. amplifier gain, and is wired so that the bleed current of the voltage divider passes through it to earth.

The circuit arrangement is a fairly conventional "autodyne" type with an "anode bend" second detector. A pre-selector type aerial tuning circuit is employed as the intermediate frequency used is fairly low. Actually two different intermediate frequencies are used, the choice depending on the location where the set is installed. The "standard" I.F. for this model is exactly 164 KC., but models installed in Western Australia and New Zealand have an I.F.

of 178 KC. All of the I.F. trimmers are accessible from the top of the chassis. This also applies to the R.F. circuit trimmers. The oscillator padder adjusting screw is accessible from the front of the chassis (see top-chassis layout).

OPERATING VOLTAGES.

These were taken with a "1000 ohms per volt" meter between the socket contact indicated and chassis, with the volume control fully advanced and the receiver detuned from any signal.

57, Autodyne Mixer. Plate, 220 v.; screen, 75 v.; cathode, 4 v.

58, I.F. amplifier. Plate, 220 v.; screen, 75 v.; cathode, 3 v. (this last increases to 44 v. when the volume control is fully retarded).

57, Anode-bend Detector. Plate, 175 v.; screen, 40 v.; cathode, 2 v.

59, Output Pentode. Plate, 250 v.; screen, 270 v.; cathode, 19 v.

80, Rectifier. Unfiltered output voltage 370 volts.

COMPONENT VALUES.

All of the major component values are shown on the circuit diagram. The loudspeaker is an eight inch type, with a field resistance of 1,500 ohms. The speaker plug is a standard 5 pin (UY) type with the field connected to the filament pins (Nos. 1 and 5); the transformer is connected to pins 1 and 4; and pin No. 3 is connected to the speaker frame. A bridge is connected between pins 2 and 5 (see dotted line on speaker socket diagram) in order to complete the circuit to the first filter condenser when the speaker plug is inserted.

In Tasma "135" models produced later than 12/6/33, the values of the detector plate coupling resistor (500,000 ohms) and the detector plate de-coupling resistor (250,000 ohms) were changed to 250,000 ohms and 100,000 ohms, respectively. If an early model is encountered with the old values in use, an improvement in results may be effected by changing over to the new values.

"Tasma" D.C. and A.C./D.C. Models 195

(Continued from page 343.)

OPERATING VOLTAGES.

The following measurements were made, under "no signal" conditions, with a "1,000 ohms per volt" meter between the negative bus-bar and the socket contact indicated. The volume control (which alters the bias of the I.F. amplifier in each receiver) should be placed at its maximum setting. For convenience of reference, separate tabulations

have been made of the "D.C." and "A.C./D.C." operating conditions.

D.C. MODEL 195.

77, "Autodyne" type Frequency Converter. Plate, 220 v.; screen, 50 v.; cathode, 1.8 v. Plate current, 0.5 mA.

78, 445 KC. I.F. Amplifier. Plate, 220 v.; screen, 100 v.; cathode, 2 v. Plate current, 8 mA.

77, "Anode-bend" Second Detector. Plate, 80 v.; screen, 50 v.; cathode, 1.8 v. Plate current, 0.1 mA.

41, Output Pentode. Plate, 210 v.; screen, 220 v.; cathode, 22 v. Plate current, 18 mA.

A.C./D.C. MODEL 195.

6C6, "Autodyne" type Frequency Converter. Plate, 200 v.; screen, 40 v.; cathode, 5 v. Plate current, 0.75 mA.

6D6, 445 KC. I.F. Amplifier. Plate, 200 v.; screen, 85 v.; cathode, 2 v. Plate current, 6 mA.

6C6, "Anode-bend" Second Detector. Plate, 110 v.; screen, 40 v.; cathode, 2 v. Plate current, 0.5 mA.

41, Output Pentode. Plate, 195 v.; screen, 200 v.; cathode, 16 v. Plate current, 14 mA.