



RADIO SERVICE BULLETIN

Issue No. 53.

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Subject: Model 401

SPECIFICATION OF S.T.C. MODEL 401 MANTEL

CIRCUIT: Four valve, battery operated superheterodyne using converter, one stage of I.F. amplification, detector—audio stage, power output stage, A.V.C., variable tone control.

TUNING RANGE: 530-1620 Kc/s.

INTERMEDIATE FREQUENCY: 455 Kc/s.

VALVE COMPLEMENT:

V1 Frequency Changer IR5.

V2 I.F. Amplifier IT4.

V3 Detector-Audio IS5.

V4 Power Output 3V4.

POWER SUPPLY:

"A" Battery 1.5 Volts 250 M.A.

"B" Battery 90 Volts 12 M.A.

LOUD SPEAKER: Permag 6 Inch Cone 10,000 Ohm Transformer.

CIRCUIT VOLTAGES:

	Plate	Screen	Osc. Plate	Grid	Filament
V1	67.5	67.5	* 67.5	—	1.4
V2	84	35	—	—	1.4
V3	84 volts thru 1 megohm	84 volts thru 3 megohms	—	—	1.4
V4	83	84	—	6	1.4

* NOTE Screen of V1 used as Oscillator Plate.

These voltages must be measured to receiver earth with voltmeter having a resistance of at least 1000 ohms per volt (Tolerance $\pm 5\%$). Volume control must be turned to maximum.

MEASUREMENT SPECIFICATION:

I.F. Sensitivity—V1 grid 100 microvolts.

I.F. Sensitivity—V2 grid 10 millivolts.

Broadcast Sensitivity 25 microvolts average.

These figures are related to an audio frequency output of 22.5 volts measured between plate of V4 and CHASSIS through a series condenser of .1 MFD capacity.

When measuring sensitivity, a .1 MFD condenser should be used between the "Hot" signal generator lead and the grid of the valve (stage) being checked.

Do not disconnect any wiring.

ALIGNMENT FREQUENCIES: 1400 Kc/s and 600 Kc/s.

CHECK POINTS: 1000 Kc/s.

