



RADIO SERVICE BULLETIN

Issue: No. 65

Date of Issue:

Subject: Model 420

SPECIFICATION OF S.T.C. MODEL 420

CIRCUIT: Four valve, dual wave, battery operated, superheterodyne, using converter, one stage of I.F. amplification, detector-audio stage, and power output stage, A.V.C. and two position tone switch.

TUNING RANGE:

Broadcast—530-1620 Kc/s.
Short Wave—5.9-17.2 Mc/s.

INTERMEDIATE FREQUENCY:

455 Kc/s.

VALVE COMPLEMENT:

V1 Frequency Changer 1R5.
V2 I.F. Amplifier 1T4.
V3 Detector-Audio 1S5.
V4 Power Output 1Q5.

POWER SUPPLY:

6 Volt Accumulator.
Consumption 4.5 watts.

LOUD SPAKER:

Permag. 6 inch cone, 10,000 Ohm. Transformer.

CIRCUIT VOLTAGES:

	Plate	Screen	Osc. Plate	† Filament
V1	67.5	67.5	*67.5	1.4
V2	85	60	—	1.4
V3	85 Volts thru 500,000 ohms	85 Volts thru 3 Megohms	—	1.4
V4	97	100	—	1.4

* NOTE: Screen of V1 use as oscillator plate.

† Filament voltage measured across filament pins of each valve.

These voltages must be measured to receiver earth with voltmeter having a resistance of at least 1000 ohms per volt. (Tolerance 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—30 Microvolts average.

Shortwave Sensitivity—100 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 I.F. 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:

Broadcast—1400 Kc/s and 600 Kc/s.

Short Wave—16 Mc/s and 6 Mc/s.

CHECK POINTS:

Broadcast—1000 Kc/s.

Shortwave—10 Mc/s.



MODEL 420

V1
1R5

V2
1T4

V3
1S5

V4
1Q5

