RADIO SERVICE BULLETIN

Issue:
Date of Issue:
Subject: Model B521

SPECIFICATION OF S.T.C. MODEL B521

CIRCUIT: Five valve, dual wave, battery operated, superheterodyne, using converter, two stages of I.F. amplification, detector-audio stage, power output stage.
A.V.C. variable tone control, sensitivity control.

TUNING RANGE:
Broadcast—535-1620 Kc/s.
Short Wave—5.9-18 Mc/s.

INTERMEDIATE FREQUENCY:
455 Kc/s.

VALVE COMPLEMENT:
V1 Frequency Changer 1R5.
V2 1st I.F. Amplifier 1T4.
V3 2nd I.F. Amplifier 1T4.
V4 Detector-Audio 1S5.
V5 Power Output 1Q5.

POWER SUPPLY:
"A" Battery 1.5 Volts 300 Milliamps.
"B" Battery 90 Volts 16 Milliamps.

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	84.5	40	—	—	1.4
V3	75	40	—	—	1.4
V4	80 Thru 1 Megohm	80 Thru 3 Megohms	—	—	1.4
V5	82.5	84.5	—	−5.5 Thru 1 Megohm	1.4

* NOTE: Screen of V1 used as Oscillator Plate.

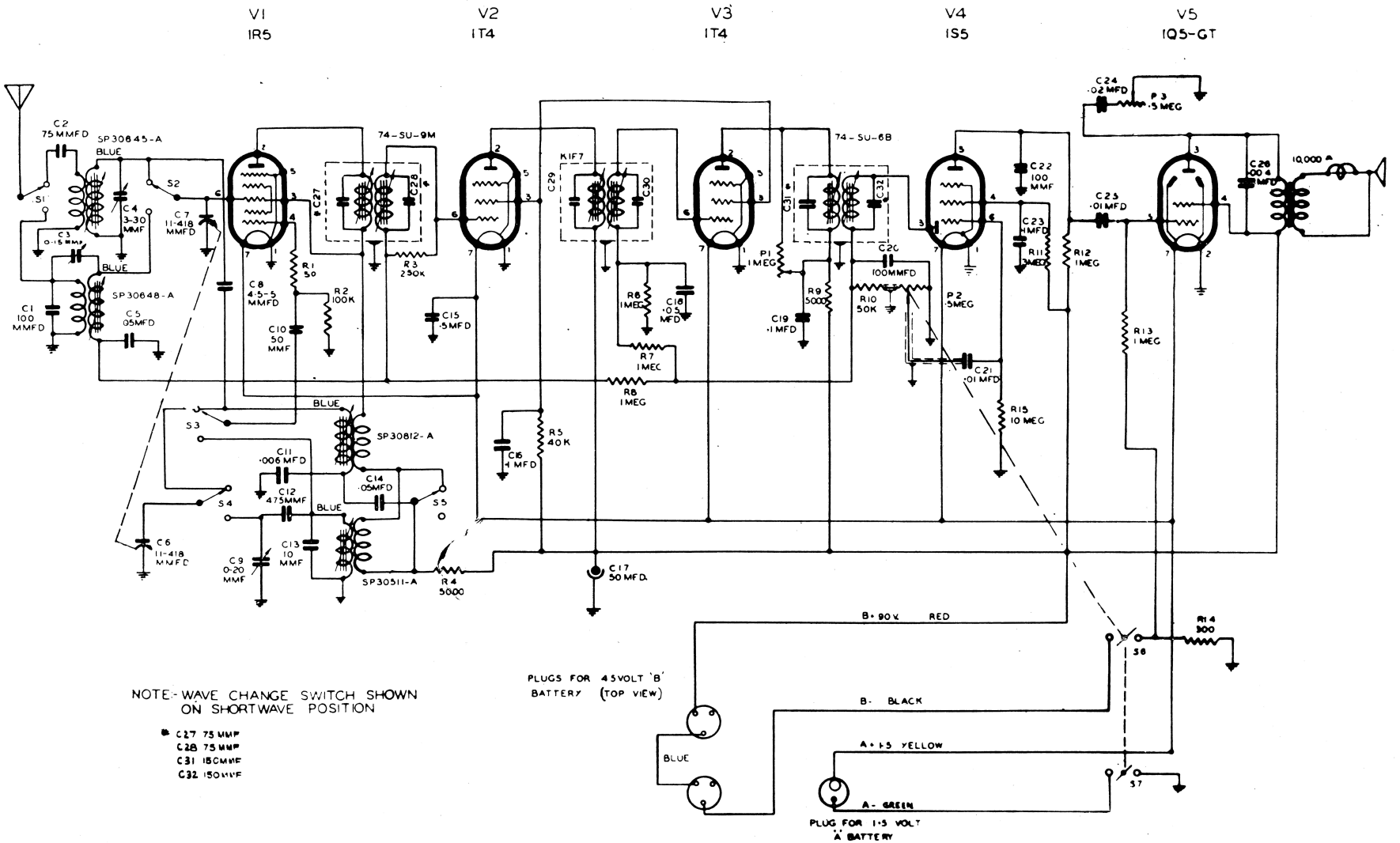
These voltages must be measured to receiver earth with voltmeter having a resistance of at least 1000 ohms per volt (Tolerance ±5%). Volume control must be turned to maximum.

MEASUREMENT SPECIFICATION:
I.F. Sensitivity—V1 Grid—25 Microvolts.
I.F. Sensitivity—V2 Grid—400 Microvolts.
I.F. Sensitivity—V3 Grid—20 Millivolts.
Broadcast Sensitivity—5 Microvolts average.
Short Wave Sensitivity—15 Microvolts average.
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.
The figures are related to an audio frequency output of 22.5 volts measured between plate of V5 and Chassis through a series condenser of .1 MFD capacity.

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.
Short Wave—10 Mc/s.

MODEL B-521



NOTE:- WAVE CHANGE SWITCH SHOWN ON SHORTWAVE POSITION

* C27 75 MMF
C28 75 MMF
C31 150MMF
C32 150MMF