RADIO SERVICE BULLETIN

Issue: No. 76
Date of Issue: October, 1951
Subject: Model C.315

SPECIFICATION OF S.T.C. MODEL C315

CIRCUIT: Five valve battery operated superheterodyne using R.F. amplifier, converter, I.F. amplifier, detector-audio stage, and power output stage, A.V.C., inverse feedback, high impedance loop aerial, combined volume control and on/off switch.

TUNING RANGE:
530-1620 Kc/s.

INTERMEDIATE FREQUENCY:
455 Kc/s.

VALVE COMPLEMENT:
V1 R.F. Amplifier 1T4.
V2 Frequency Changer 1R5.
V3 I.F. Amplifier 1T4.
V4 Detector-Audio 1S5.
V5 Power Output 3V4.

POWER SUPPLY:
"A" Battery 1.5 Volts 300 Milliamps.
"B" Battery 90 Volts 14 Milliamps.

LOUD SPEAKER:
Permag. 7 inch Cone, 10000 Ohm Transformer.

CIRCUIT VOLTAGES:

	Plate	Screen	Osc. Plate	Grid	Filament
V1	84	40	—	—	1.4
V2	63	63	*63	—	1.4
V3	84	40	—	—	1.4
V4	84 Volts thru. 500000 Ohms.	84 Volts thru. 5 Megohms.	—	—	1.4
V5	80	84	—	-6	1.4

*NOTE: Screen of V2 used as oscillator plate.

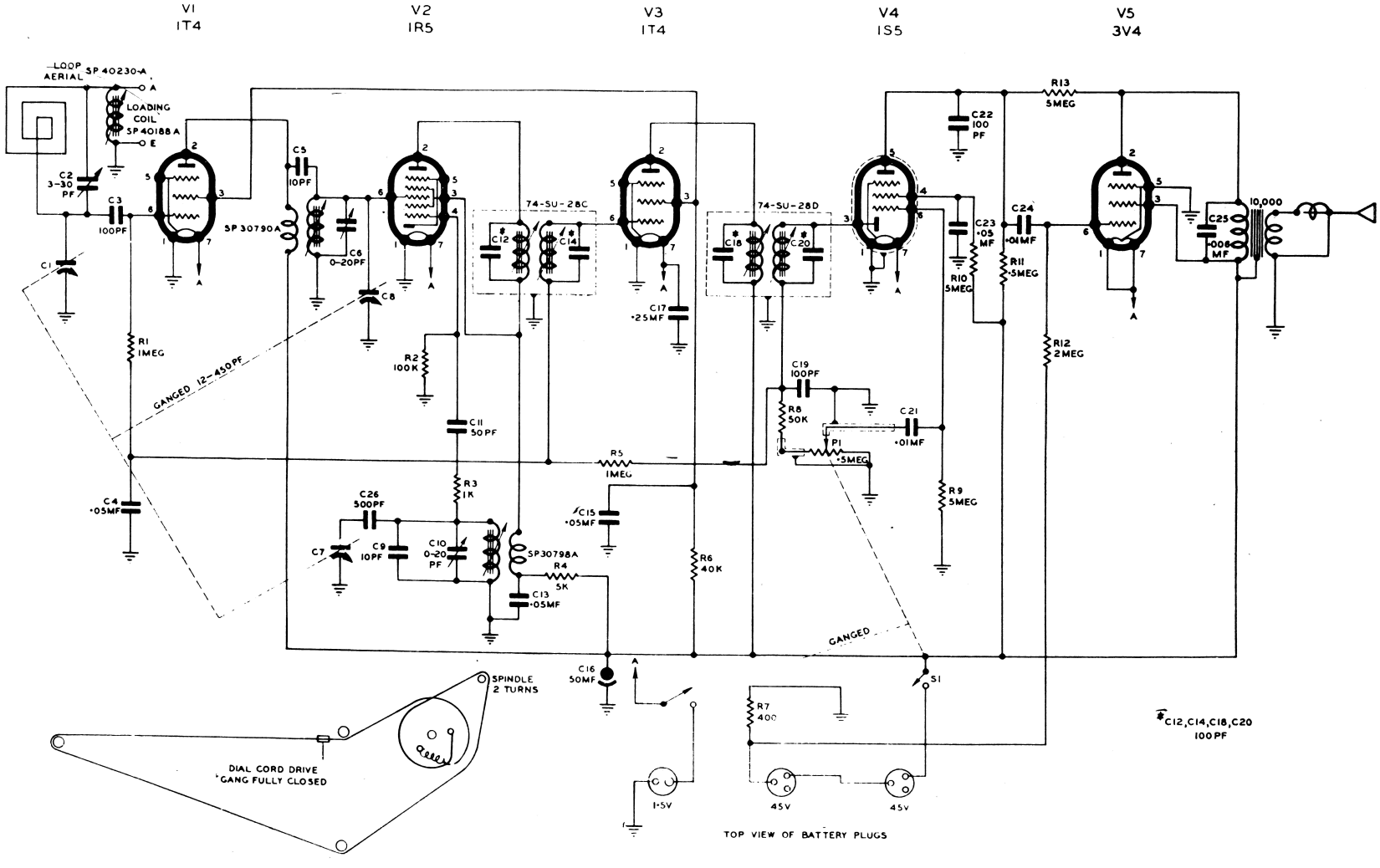
These voltages must be measured to receiver earth with voltmeter having a resistance of at least 1000 ohms per volt (Tolerance ±5%). Volume control must be turned to maximum.

MEASUREMENT SPECIFICATION:
R.F. Sensitivity—V1 grid 6 Microvolts average.
I.F. and Signal Sensitivity V2 grid 100 Microvolts average.
These 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.
When measuring sensitivity a .1 MFD condenser should be used between the "HOT" signal generator lead and the grid to the valve (stage) being checked. Do not disconnect any wiring.

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

CHECK POINTS:
1000 Kc/s.

MODEL C315


V1
1T4
V2
1R5
V3
1T4
V4
1S5
V5
3V4
LOOP AERIAL
SP 40230-A
LOADING COIL
SP 40188 A
C2 3-30 PF
C3 100PF
C1
R1 1MEG
C4 ·05MF
SP 30790A
C5 10PF
C6 0-20PF
C8
GANGED 12-450PF
R2 100K
C11 50PF
R3 1K
C26 500PF
C7
C9 10PF
C10 0-20 PF
SP30798A
R4 5K
C13 ·05MF
74-SU-28C
C12
C14
C15 ·05MF
R5 1MEG
R6 40K
C16 50MF
SPINDLE 2 TURNS
DIAL CORD DRIVE
*GANG FULLY CLOSED
74-SU-28D
C18
C20
C17 ·25MF
C19 100PF
R8 50K
P1 ·5MEG
C21 ·01MF
GANGED
S1
R7 400
1·5V
45V
45V
TOP VIEW OF BATTERY PLUGS
C22 100 PF
C23 ·05 MF
R10 5MEG
R9 5MEG
R13 5MEG
C24 ·01MF
R11 ·5MEG
R12 2MEG
C25 ·005 MF
10,000
*C12,C14,C18,C20 100PF