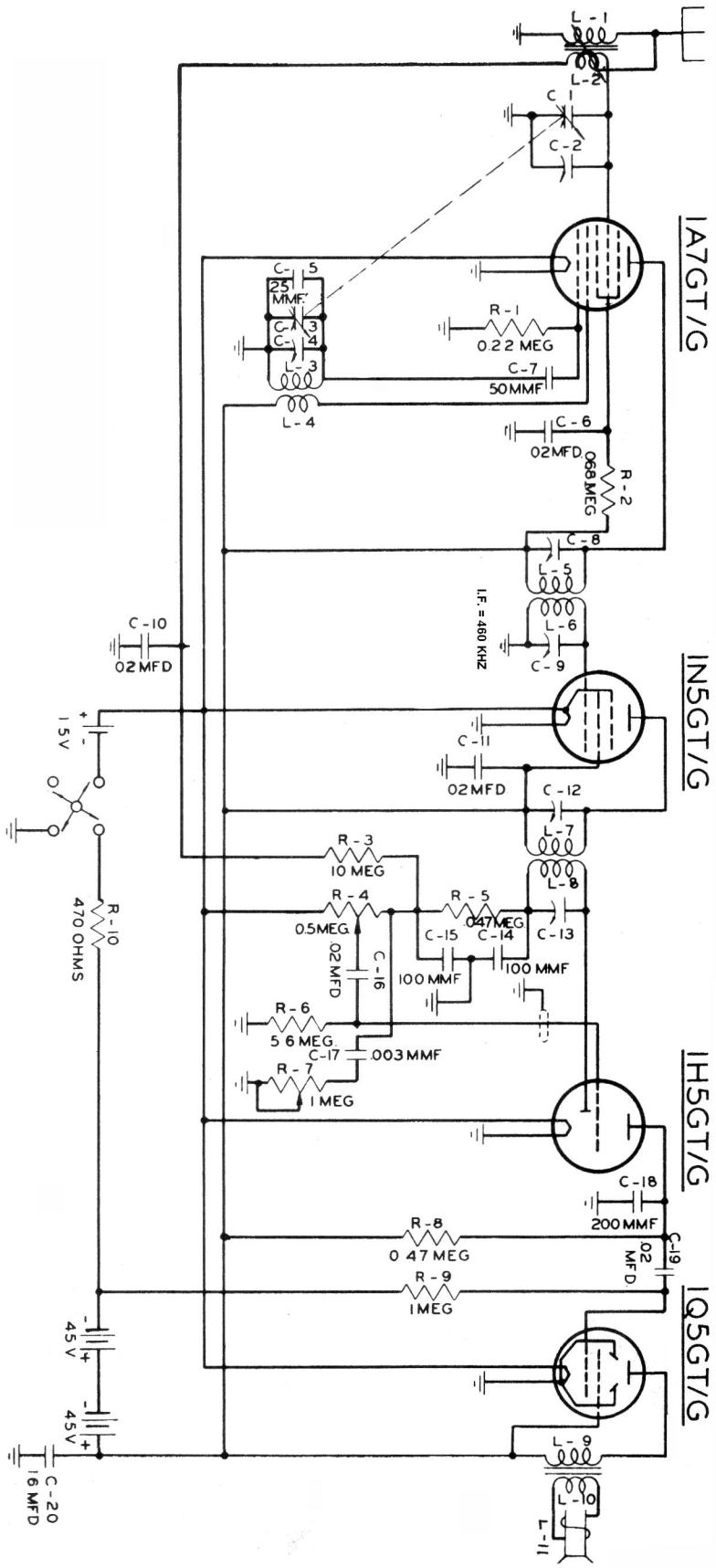
Stromberg-Carlson Model 541 Battery Receiver Schematic, Voltage Table



NORMAL VOLTAGE READINGS

The voltages listed in the accompanying table are measured from the respective socket terminals to the chassis base, with the set in operation but no signal tuned in. For further details reference should be made to the general layout diagram.

Voltages are given for a battery voltage of 90 volts, and allowance should be made for differences when the voltage is higher or lower. A meter having a resistance of at least 1000 ohms per volt should be used for measuring the D.C. voltages. Voltage values shown are those obtained on the lowest possible scale of a meter having the following ranges: 0-2.5, 0-10, 0-100.

VOLTAGE TABLE

Tube	*Circuit*	*SOCKET TERMINALS*							
		1	2	3	4	5	6	7	8
1A7GT	**Modulator Oscillator**	**0**	**1.45**	**85**	**37**	**—2.1**	**85**	**0**	**—**
1N5GT	I. F. Amplifier	0	1.45	85	85	—	—	0	—
	Demodulator AVC								
1H5GT	First Audio	0	1.45	57	—	—	—	—	—
1Q5GT	Output	—5.2	1.45	83	85	—5.	0	0	85

Stromberg-Carlson Model 541 Battery Receiver Alignment & Chassis Layout

ALIGNMENT PROCEDURE

1. Dial Adjustment—

With the plates of the gang tuning capacitor fully engaged set the dial pointer in a horizontal position directly parallel with the dividing line between the dark and light sections of the dial, pointing towards the 550 Kcs. designation.

2. Intermediate Frequency Adjustments—

2.1 Tune the set to the extreme low frequency position (variable capacitor plates all the way in).

2.2 Connect the ground terminal of the signal generator to the ground terminal of the receiver.

2.3 Introduce a modulated 460 Kc. signal, using a .1 mfds. capacitor in series with the lead from the signal generator to the "grid" terminal of the 1A7GT tube.

2.4 Adjust the I.F. aligning capacitors for maximum output in the following order:

A Secondary of 2nd. I.F. Transformer C13
B Primary of 2nd. I.F. Transformer C12
C Secondary of 1st. I.F. Transformer C9
D Primary of 1st. I.F. Transformer C8

2.5 Repeat A, B, C, D until maximum performance is obtained.

3. Radio Frequency Adjustments—

3.1 Replace the .1 mfd. capacitor in series with the output lead of the signal generator with a 200 mmfds. capacitor and connect it to the receiver antenna terminal.

3.2 Set the signal generator's frequency and the receiver's tuning dial to 1400 Kc.

3.3 Adjust the oscillator aligning capacitor C4 and the antenna aligning capacitor C2 for maximum signal and correct calibration.

3.4 Set both the signal generator's frequency and the receiver's tuning dial to 600 Kc. Adjust the antenna coil iron core by means of the "600 Kc. Ant. Adjust" screw for maximum output, while "rocking" the gang.

3.5 Repeat 3.3 and 3.4 until no further gain can be obtained and the calibration is correct.