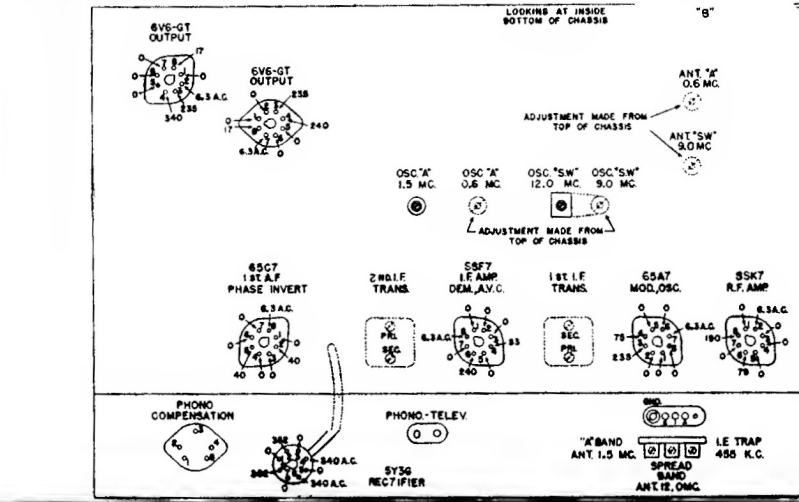


"A"—Range Switch—Shown in Max. Counter Clockwise Position A-Band
 "B"—Tone Control & Off-On Switch
 "C"—Volume Control



NORMAL VOLTAGE READINGS

Take all readings with chassis operating and tuned to 1000 kc.—No signal. Use a line voltage of 117 ±5 volts or make allowance for the variations. Voltages on location chart are taken with a 1000 ohm per voltmeter.

Stromberg-Carlson
No. 1020-1120
Radio Receivers

STROMBERG-CARLSON NO. 1020-1120 RADIO RECEIVERS

Voltage Rating	-----	A.C. 105 to 130 Volts
Type of Circuit	-----	Superheterodyne with Push Button Tuning
Tuning Ranges	-----	A—540 to 1600 Kc., C—8.8 to 12 Mc.
Number and Type of Tubes—7		
1—6SK7 R. F. Amplifier		1—6SC7 Audio Amplifier and Inverter
1—6SA7 Modulator and Oscillator		2—6V6GT Output
1—6SF7 I. F. Amplifier, Demodulator and A. V. C.		1—5Y3G Rectifier
Input Power Rating	-----	96-115 Watts
Intermediate Frequency	-----	455 Kilocycles
Speaker Voice Coil Impedance at 400 Cycles	-----	Approximately 3.5 Ohm
Speaker Field Coil Resistance	-----	950 Ohms
Power Output	-----	10 Watts 10% Distortion, 12 Watts Maximum

ALIGNING INFORMATION

Never re-align unless absolutely necessary.

Use a good modulated signal generator (test oscillator with variable output voltage and a sensitive output meter across the voice coil of the speaker).

Always align using the smallest possible input from the signal generator. A strong signal makes adjustments inaccurate.

Always have the volume control "full on".

ALIGNING PROCEDURE (follow this order exactly).

I. Intermediate Frequency Adjustments.

1. Set range switch to Standard Broadcast position (loop).
2. Turn the tuning control to extreme low frequency end of dial.
3. Connect the ground terminal of the signal generator to the ground terminal of the chassis.
4. Introduce a modulated signal of 455 kilocycles to the grid of the 6SA7 Modulator and Oscillator tube (terminal No. 8) using a 0.1 microfarad capacitor in series with the output lead of the signal generator.
5. Adjust the I. F. aligners for maximum output in the following order:
 - A. Secondary of second I. F. Transformer.
 - B. Primary of second I. F. Transformer.
 - C. Secondary of first I. F. Transformer.
 - D. Primary of first I. F. Transformer.

II. Dial Pointer Adjustment.

With the plates of the gang tuning capacitor fully engaged, check to be sure that the dial pointer is in a vertical position directly on the calibration marks located at the low frequency end of the dial scale. Adjust the dial pointer if necessary.

III. Radio Frequency Adjustments.

Short Wave Range

1. Remove the output lead of the signal generator and the 0.1 microfarad capacitor from the grid of the 6SA7 tube.
2. Disconnect the output lead from the signal

generator and replace with a few turns of wire connected to the signal generator output terminals.

3. Place the signal generator two or three feet from the receiver's loop.
4. Set the range switch to the short-wave range position.
5. Set the signal generator frequency and the receiver tuning dial to 9 megacycles.
6. Adjust the 9 megacycle oscillator and loop aligners (iron cores) for maximum signal.
7. Set the signal generator frequency and the receiver tuning dial to 12 megacycles.
8. Adjust the 12 megacycle oscillator aligning capacitors for maximum signal. Then rock the tuning gang capacitor slowly through resonance and adjust the 12 megacycle antennae aligning capacitor for maximum signal.
9. Repeat operations 5 and 6.
10. Repeat operations 7 and 8.

Standard Broadcast Range

1. Set the range switch to the "Loop" position.
2. Set the signal generator frequency and the receiver tuning dial to 600 kilocycles.
3. Adjust the 600 K. C. oscillator and antennae aligner (iron cores) for maximum signal.
4. Set the signal generator frequency and the receiver tuning dial to 1400 kilocycles.
5. Adjust the 1400 K. C. oscillator and antennae aligning capacitors for maximum signal.
6. Repeat operations 2 and 3.
7. Repeat operations 4 and 5.

IV. Wave Trap Adjustment.

1. Tune the receiver to 1000 kc.
2. Set the signal generator frequency to 455 kc. Increase signal generator output until audible in speaker.
3. Adjust the wave trap aligning capacitor for minimum signal.

VOLTAGE TABLE FOR ELECTRONIC VOLTMETER

Tube		1	2	3	4	5	6	7	8
6V6	Output	0	6.3AC	245	251	0	0	0	16
6V6	Output	0	0	245	251	0	0	6.3AC	16.
6SC7	1st A.F. Conv.	0	93	0	0	93	1.1	0	6.3AC
6SA7	Mod. Osc.	0	0	246	80	7.5	0	6.3AC	0
5Y3	Rect.	0	360	0	340AC	0	340AC	0	360
6SF7	I.F. Det. A.V.C.	0	.6	0	92	0	250	0	6.3AC
6SK7	R.F. Amp.	0	6.3AC	0	.6	0	80	0	196