

Stromberg-Carlson Models 95 & 195 Alignment & Tuner Chassis Layout

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.)

1. Dial pointer adjustment. With the plates of the gang tuning capacitor fully engaged, check to be sure that the dial pointer is in the center of the scale. If not, the dial pointer marks located at the low frequency end of the dial scale. Adjust if necessary.

II. Intermediate frequency adjustments.

1. Set range switch to Standard Broadcast position.
2. Turn set 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 out-put 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.

III. Radio frequency adjustments.

1. Standard Broadcast Range (A Band). Connect a 200 μ md. capacitor in series with the antenna lead from the signal generator and the antenna binding post.
2. Set the range switch to "BR" position.
3. Set the signal generator frequency and the receiver tuning dial to 600 kilocycles.
4. Adjust the 600 kc. oscillator for maximum signal.
5. Adjust the 600 kc. R. F. and antenna iron cores for maximum signal.
6. Set the signal generator frequency and the receiver tuning dial to 1500 kilocycles.
7. Adjust the 1500 kc. oscillator (C-23), R. F. (C-15) and antenna (C-7) aligning capacitors for maximum signal.
8. Repeat operations 3, 4 and 5.
9. Repeat operations 6 and 7.

Short Wave Range (C Band).

1. Connect a 400 ohm carbon resistor in series with the antenna lead from the signal generator and the Fahnestock clip lead. Leave the antenna binding post free of all connections.
2. Set the range switch to the short wave range position "S-W".
3. Set the signal generator frequency and the receiver tuning dial to 6.0 megacycles.

4. Adjust the 6.0 mc. oscillator iron core for maximum signal.
5. Adjust the 6.0 mc. R. F. and antenna iron cores for maximum signal. Note—"Rock" gang capacitor to obtain proper peak.
6. Set the signal generator frequency and the receiver tuning dial to 17 megacycles. (small red triangle).
7. Adjust the oscillator aligning capacitor (C-22) for maximum signal.
8. Adjust the R. F. (C-16) and antenna (C-6) aligning capacitors for maximum signal. Note—Two peaks are usually obtained when adjusting the 17 mc. aligning capacitor; using a strong signal. The peak highest in frequency is the correct one. This is important.
9. Adjust the R. F. and antenna aligning capacitors for maximum output. "Rock" the gang capacitor so that maximum peak is obtained.
10. Repeat operations 3, 4 and 5.
11. Repeat operations 6, 7, 8 and 9.

Band Spread Ranges.

Before aligning the Band Spread ranges make certain that the short wave range is correctly aligned then do not make any changes on these aligners. Otherwise, the whole procedure will have to be repeated.

1. Set the range switch to the "31 meter" position.
2. Set the signal generator frequency and the receiver tuning dial to 9.50 megacycles.
3. Adjust the band-centering aligning capacitor (C-30) for maximum signal.
4. Adjust the R. F. and antenna (C-19 and C-11) band spread aligning capacitors. It is important that the inner peak (screw tightened) be used on the R. F. and antenna aligning capacitors. It will also be found that adjustment of the antenna and R. F. aligning capacitors will influence the oscillator adjustment, therefore it is very important that the gang capacitor be "rocked" and all aligning capacitors are adjusted for true calibration and maximum signal.
4. Check for calibration and sensitivity at each end of the range. Sensitivity should not vary more than two to one from the centre point.
5. Set the range switch to the "25 meter" position.
6. Set the signal generator frequency and the receiver tuning dial to 11.80 megacycles.
7. Adjust the band-centering aligning capacitor (C-31) for maximum signal.
8. Adjust the R. F. and antenna (C-18 and C-10) aligning capacitors for maximum signal.
9. Observe same precautions as in 3 and 4.
10. Set the range switch to the "19 meter" position.
11. Set the signal generator frequency and the receiver tuning dial to 15.30 megacycles.
12. Adjust the band-centering aligning capacitor (C-32) for maximum signal.
13. Adjust the R. F. and antenna aligning capacitors (C-17 and C-9) for maximum signal.
14. Observe the same precautions as in 3 and 4.

INSTRUCTIONS FOR SETTING UP PUSH BUTTONS

IMPORTANT: The stations selected should be the local or favorite stations which give good reception at all times.

Set up stations in the daytime to avoid unnecessary interference.

Allow the set to run for about twenty minutes before setting up stations.

Always use the tuning indicator unit when setting up stations, in order to determine when the station is exactly in tune.

1. Turn the receiver "On".
2. Push in the "Radio" button.
3. Set the Range Switch as follows:
 - a. If an external antenna is used, set knob so arrow points to designation "BR".
 - b. If the built-in loop antenna is used, set knob so arrow points to designation "Loop".
4. Turn volume control about three-quarters of the way on (in a clockwise direction).
5. Pull the six station push buttons off their levers.
6. Remove the call letters of the six selected stations from the call letter sheets, which are in an envelope.
12. Set up the other five stations in the same manner.
11. Check the accuracy of the adjustment by detuning the station and retuning with the button several times, pushing the button with an even pressure. Readjust if necessary.
10. Place the proper button on the lever.
9. Tighten the set screw. Be sure not to disturb the adjustment in any way while tightening the screw.
8. Push in the lever and manually tune in the desired station, observing the tuning indicator in order to obtain exact resonance.
7. Loosen the set screw of the lever to be set up.

stapled to the cabinet. Insert the station call letters part way in the slots at the sides of the buttons. Next, insert a transparent tab in each slot in front of the station letters. Then push both the transparent tabs and the call letters all the way into the slot. A pencil eraser may be helpful.

IMPORTANT: For accurate set-up, be sure that the lever is pushed in, in the same manner and with the same amount of pressure as will be used when operating the push buttons.

Tuner Chassis Layout

