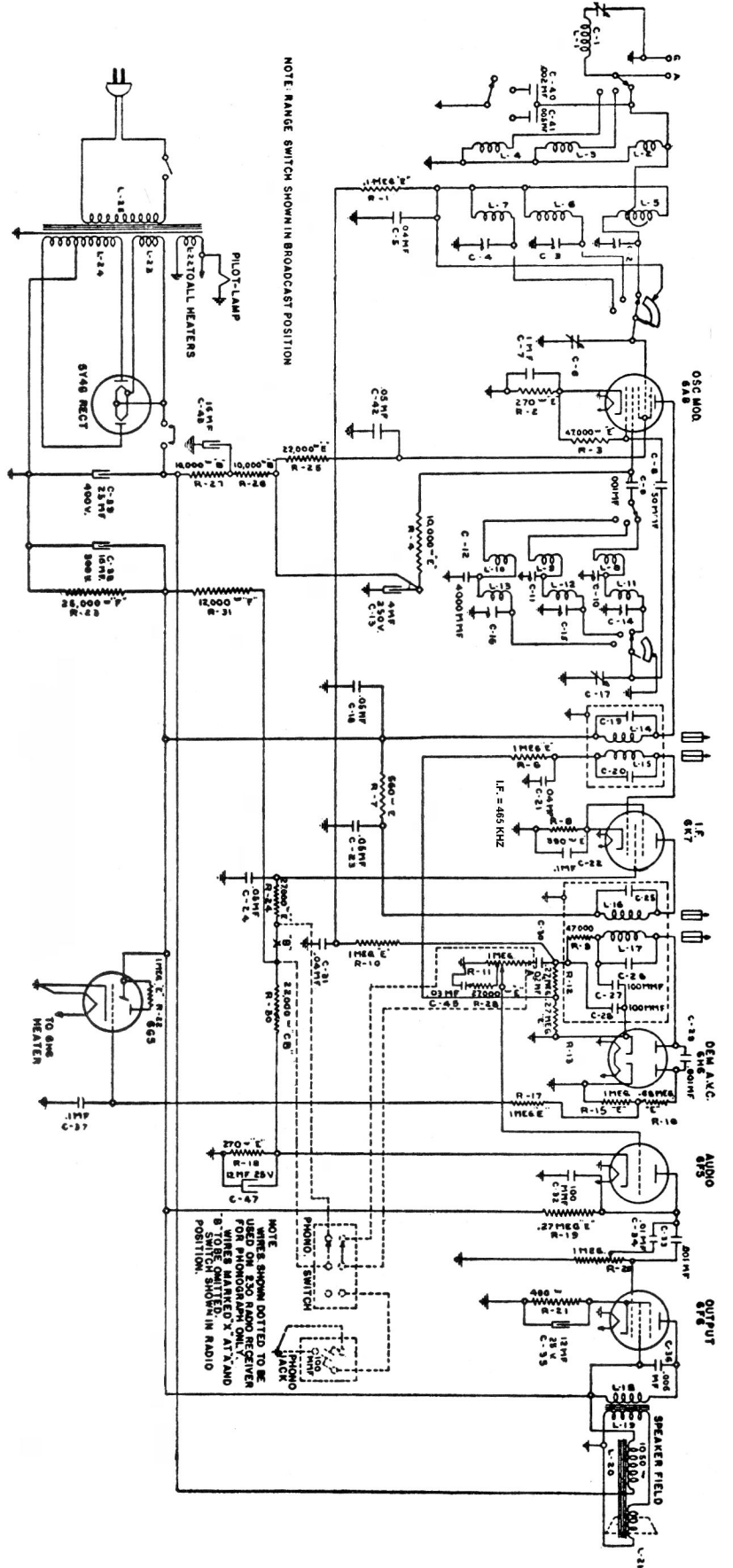


Stromberg-Carlson Models 230, 231, 231P



MODEL 230 (1937)

I.F. 465 KC.

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MODEL 231, 231P (1937)

I.F. 465 KC.
TUN. 665 IND.

Stromberg-Carlson Alignment Data Models 230 & 231

Dial Adjustment

Before aligning the circuits of these receivers, the tuning dial must be properly aligned to "track" with the gang tuning capacitor. To check whether the dial is set correctly with respect to the gang tuning capacitor, rotate the "Rapid Station Selector" knob in a clockwise direction so that the gang tuning capacitor is set to its maximum capacity position. Then, with the receiver turned "on", the illuminated dial indicator line should be exactly centered over the dial alignment lines (black lines) which are located at the extreme low frequency end of each scale on the dial. If these lines do not center over the illuminated dial indicator line, loosen the two set screws located on the hub of the dial. Then, rotate the dial so that these alignment lines are centered over the illuminated dial indicator line. The two set screws of the dial hub should then be securely tightened.

Intermediate Frequency Adjustments

The intermediate frequency used in these receivers is 465 kilocycles. In making these circuit adjustments always align the circuits in the order given in these instructions.

1. Operate the "Range" switch of the receiver to the "A" range position. Set the receiver's tuning dial at its extreme low frequency position, and operate the Tone Control knob to the "Normal" position. Rotate the Volume Control knob to its maximum clockwise position (maximum volume).
2. Apply between the chassis base (or ground binding post) of the receiver and the grid of the No. 6A8 modulator-oscillator tube, a modulated signal of 465 kilocycles from the test oscillator, using a 0.1 microfarad capacitor in series with the connection between the output terminal of the test oscillator and the grid of the No. 6A8 tube. Do not remove the chassis grid lead connecting to this tube. The ground (or low side) terminal of the test oscillator should be connected to either the chassis base or the ground binding post terminal.
3. Now, noting the aligning adjustments for the first and second I. F. transformers, align the I. F. circuits in the following manner:

Secondary of second I. F. transformer.

Primary of second I. F. transformer.

Secondary of first I. F. transformer.

Primary of first I. F. transformer.

Adjusting the circuits to obtain maximum reading on the output meter, reducing the output of the test oscillator as required.

Radio Frequency Adjustments

The alignment of the radio frequency circuits of the various ranges in these receivers should be very carefully made and in the order specified.

Alignment of Short Wave Range (Also Referred to as "C" Band)

In aligning the radio frequency circuits for this range, replace the 0.1-microfarad capacitor which was placed in series with the test oscillator's output lead for the I. F. alignments, with a 400-ohm carbon type resistor. This lead should then be connected to the antenna binding post located on the rear of the receiver chassis. The ground terminal (or low side) of the test oscillator should be connected to the ground binding post on the receiver.

1. Operate the Range Switch on the receiver chassis to the "C" range position, and set the test oscillator's frequency and the receiver's tuning dial to 17 megacycles.
2. Adjust the oscillator's "C" band high frequency aligner for maximum output.
3. Adjust the antenna's "C" band high frequency aligner for maximum output, at the same time rotate the gang tuning capacitor back and forth through resonance until maximum output is obtained.

Alignment of Aircraft, Amateur, and Police Range (Also Referred to as "B" Band)

In aligning the radio frequency circuits for this range, use the same artificial antenna (400-ohm carbon type resistor) in series with the output terminal of the test oscillator as was used for aligning the short-wave range.

1. Operate the Range Switch on the receiver chassis to the "B" range position, and set the test oscillator's frequency and the receiver's tuning dial to five megacycles.
2. Adjust the oscillator's "B" band high frequency aligner for maximum output.
3. Adjust the antenna's "B" band high frequency aligner for maximum output, and at the same time rotate the gang tuning capacitor back and forth through resonance until maximum output is obtained.
4. Set the test oscillator's frequency and the receiver's tuning dial to 1.8 megacycles.
5. Adjust the oscillator's "B" band low frequency aligner (series aligner), and at the same time rotate the gang tuning capacitor back and forth through resonance until maximum output is obtained.
6. Reset both the test oscillator's frequency and the receiver's tuning dial to 5 megacycles and repeat operations Nos. 2 and 3.

Alignment of Standard Broadcast Range (Also Referred to as "A" Band)

In aligning the radio frequency circuits for this range, replace the 400-ohm carbon type resistor in series with the test oscillator's output lead with a 200-micro-microfarad capacitor and align these circuits as follows:

1. Operate the Range Switch to the "A" range position and set the test oscillator's frequency and the receiver's tuning dial to 1.4 megacycles.
2. Adjust the oscillator's "A" band high frequency aligner for maximum output.
3. Adjust the antenna's "A" band high frequency aligner for maximum output.
4. Set the test oscillator's frequency and the receiver's tuning dial to 0.6 megacycles.
5. Adjust the oscillator's "A" band low frequency aligner (series aligner) for maximum output, and at the same time rotate the gang tuning capacitor slightly back and forth through resonance until maximum output is obtained.
6. Reset both the test oscillator's frequency and receiver's tuning dial to 1.4 megacycles and repeat operations Nos. 2 and 3.

Wave Trap Adjustment

In adjusting the wave trap circuit, the "Signal Admission Control" should be set for the most sensitive position (shaft rotated in the most counter-clockwise direction). Set the Range Switch of the receiver to the "A" range position and the tuning dial to 1000 kilocycles. Connect a 200-micro-microfarad capacitor in series with the output terminal of the modulated test oscillator and the antenna binding post on the receiver, and the ground terminal of the test oscillator to the ground binding post on the receiver. Then, with the modulated test oscillator set at the frequency of the intermediate amplifier, 465 kilocycles, supply a fairly strong signal to the receiver and adjust the wave trap aligner until a minimum indication is obtained on the output meter.

