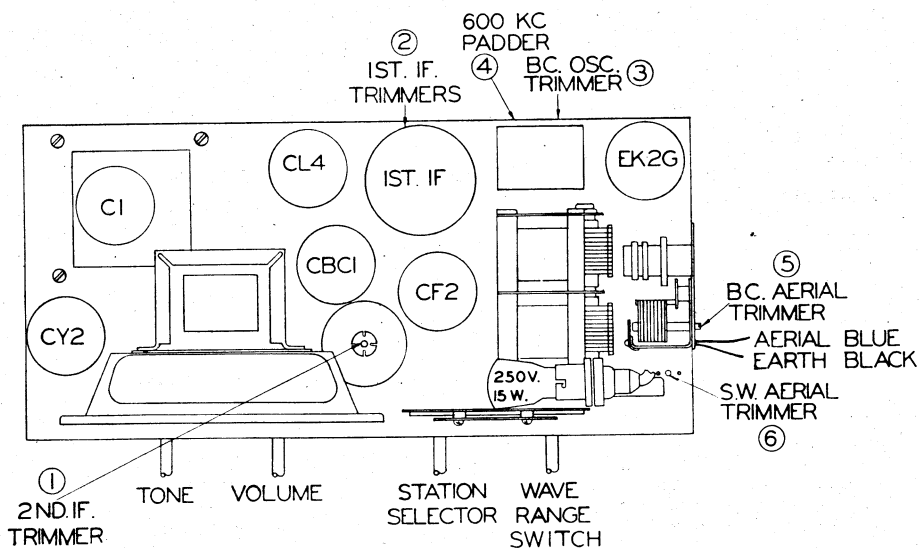


# Stromberg-Carlson

STROMBERG-CARLSON  
SERVICE BULLETIN, No. **D70**

## Stromberg-Carlson Model D70 Superheterodyne

A.C.-D.C. DUAL WAVE RECEIVER



### Chassis of Model D70

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19-7-39.

# STROMBERG - CARLSON

The following voltages were measured with a line voltage of 240 A.C. and a voltmeter having a resistance of 1000 ohms per volt. All readings were measured between the points indicated, and chassis.

The location of all valves is shown on the front page.

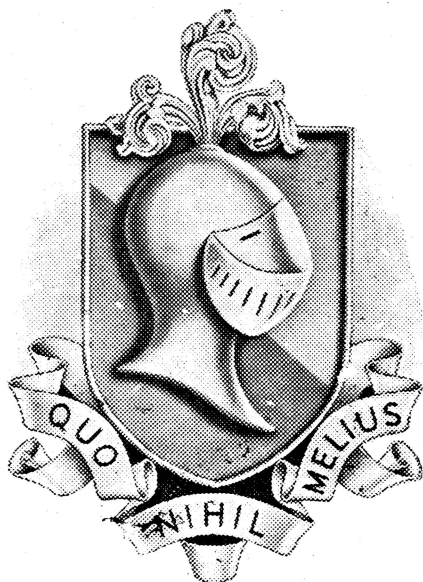
|      | VALVE                       | PLATE | SCREEN | CATHODE |
|------|-----------------------------|-------|--------|---------|
| EK2G | Mixer .....                 | 230   | 75     | 3.5     |
|      | Oscillator Section .....    | 180   | —      | —       |
| CF2  | I.F. ....                   | 230   | 75     | 2.5     |
| CBC1 | Dem. A.V.C. 1st Audio ..... | 50    | —      | 1.5     |
| CL4  | Output .....                | 215   | 230    | 8       |

**OPERATION:** Looking at the front of the chassis and reading from left to right the four controls are as follows:—

Tone — Volume — Station Selector — Range Switch.

**RANGE SWITCH:** This has two positions. Turn counter-clockwise (left) for the regular broadcast band, 1600-550 K.C., and clockwise for short wave, 16-45 metres.

**TONE CONTROL:** Turn the knob clockwise to increase the high frequency response of the receiver.



# CIRCUIT CODE MODEL D70

| No.                | Part No. | DESCRIPTION.                  | No.                   | Part No. | DESCRIPTION.                 |
|--------------------|----------|-------------------------------|-----------------------|----------|------------------------------|
| <b>CAPACITORS.</b> |          |                               | <b>RESISTORS.</b>     |          |                              |
| 1.                 | 2847     | .003 mF. 600V.                | 42.                   | 2612     | 50 w. 1/3W.                  |
| 2.                 | 3076     | .02 mF. 600V.                 | 43.                   | 2728     | 600 w. 1/3W.                 |
| 3.                 | 2515     | 5 mmf.                        | 44.                   | 2549     | 50,000 w. 1/3W.              |
| 4.                 | 2543     | Air Trimmer                   | 45.                   | 4505     | 100 w. 1/3W.                 |
| 5.                 | 2667     | .05 mF. 200V.                 | 46.                   | 4054     | 10,000 w. 1/2W.              |
| 6.                 | 2543     | Air Trimmer                   | 47.                   | 4054     | 10,000 w. 1/2W.              |
| 7.                 | 2960     | 2 Gang Type H. C-C.           | 48.                   | 2728     | 600 w. 1/3W.                 |
| 8.                 | 2306     | .1 mF. 200V.                  | 49.                   | 6092     | 70,000 w. 1/2W.              |
| 9.                 | 2582     | 100 mmf.                      | 50.                   | 2571     | 1 Meg. w. 1/3W.              |
| 10.                | 2579     | .05 mF. 400V.                 | 51.                   | 4373     | 1 Meg. w. Volume Control     |
| 11.                | 2863     | 100 mmf. $\pm 2\frac{1}{2}\%$ | 52.                   | 2569     | .25 Meg. w. 1/3W.            |
| 12.                | 2863     | 100 mmf. $\pm 2\frac{1}{2}\%$ | 53.                   | 2547     | 2000 w. 1/3W.                |
| 13.                | 2543     | Air Trimmer                   | 54.                   | 4486     | .2 Meg. w. 1W.               |
| 14.                | 2974     | 440 mmf. $\pm 2\frac{1}{2}\%$ | 55.                   | 2550     | .1 Meg. w. 1/3W.             |
| 15.                | 2515     | 5 mmf.                        | 56.                   | 2570     | .5 Meg. w. 1/3W.             |
| 16.                | 2660     | .004 mF.                      | 57.                   | 6091     | 200 w. 1W.                   |
| 17.                | 2580     | .01 mF. 400V.                 | 58.                   | —        | 750 w. 3W.                   |
| 18.                | 2306     | .1 mF. 200V.                  |                       |          |                              |
| 19.                | 2658     | 150 mmf. $\pm 2\frac{1}{2}\%$ |                       |          |                              |
| 20.                | 2583     | 250 mmf.                      |                       |          |                              |
| 21.                | 2578     | .1 mF. 400V.                  | 70.                   | 2874     | BC. Aerial Coil.             |
| 22.                | 2580     | .01 mF. 400V.                 | 71.                   | 4045     | SW. Aerial Coil.             |
| 23.                | 2847     | .003 mF. 600V.                | 72.                   | 6067     | Oscillator Coil.             |
| 24.                | 2576     | 10 mF. 25V.                   | 73.                   |          |                              |
| 25.                | 2646     | 500 mmf.                      | 74.                   | 2954     | 1st I.F. Transformer.        |
| 26.                | 2580     | .01 mF. 400V.                 | 75.                   | 4062     | 2nd I.F. Transformer.        |
| 27.                | 2576     | 10 mF. 25V.                   | 76.                   | 2951     | 'Speaker Transformer 7000 w. |
| 28.                | 2662     | .004 mF. 600V.                | 77.                   |          | Speaker Field 1000 w.        |
| 29.                | 2696     | .02 mF. 400V.                 | —                     | 4051     | Glass Dial Scale             |
| 30.                | 2579     | .05 mF. 400V.                 |                       |          |                              |
| 31.                | 6066     | 24 mF. 350V.                  |                       |          |                              |
| 32.                |          | 16 mF. 350V.                  |                       |          |                              |
| 33.                |          | 4 mF. 350V.                   |                       |          |                              |
| 34.                | 3076     | .02 mF. 600V.                 |                       |          |                              |
|                    |          |                               | <b>MISCELLANEOUS.</b> |          |                              |

**VOLTAGES:** This receiver will operate on alternating or direct current power supplies between 180 and 260 volts. No adjustment to the chassis is necessary. When used on D.C. the plug must be connected in the correct polarity. If reversed, the receiver will not operate.

WHEN MAKING ADJUSTMENTS SEE THAT THE POWER PLUG  
IS COMPLETELY REMOVED FROM THE SOCKET OF THE  
POWER SUPPLY.

## RECEIVER ALIGNMENT INSTRUCTIONS:

The adjustment of the trimmers should only be undertaken by a qualified service man equipped with a calibrated test oscillator.

Refer to the chassis drawing on the front page for the location of the various trimmers referred to by numbers in the next paragraphs.

**I.F.:** Turn the volume control fully clockwise and the wave range switch counter clockwise. Set the test oscillator to 458 K.C. and connect it to the grid of the EK2G through a condenser of about .05 Mfd. capacity. With a long thin screwdriver adjust the brass screw (1) on the 2nd I.F. transformer for maximum gain. Then adjust the two hexagonal headed "iron" cores (2) in the side of the 1st I.F. transformer.

**BROADCAST BAND:** First make sure that when the gang condenser plates are fully meshed the dial pointer is on the line at the 550 K.C. end of the dial scale.

Connect the test oscillator to the blue aerial wire on the receiver by a standard dummy aerial, or else a .0002 Mfd. condenser.

(a) Turn the receiver and test oscillator both to 600 K.C. While rocking the gang back and forth through resonance adjust the iron core (4) in the oscillator coil by means of the brass screw at the end of the chassis.

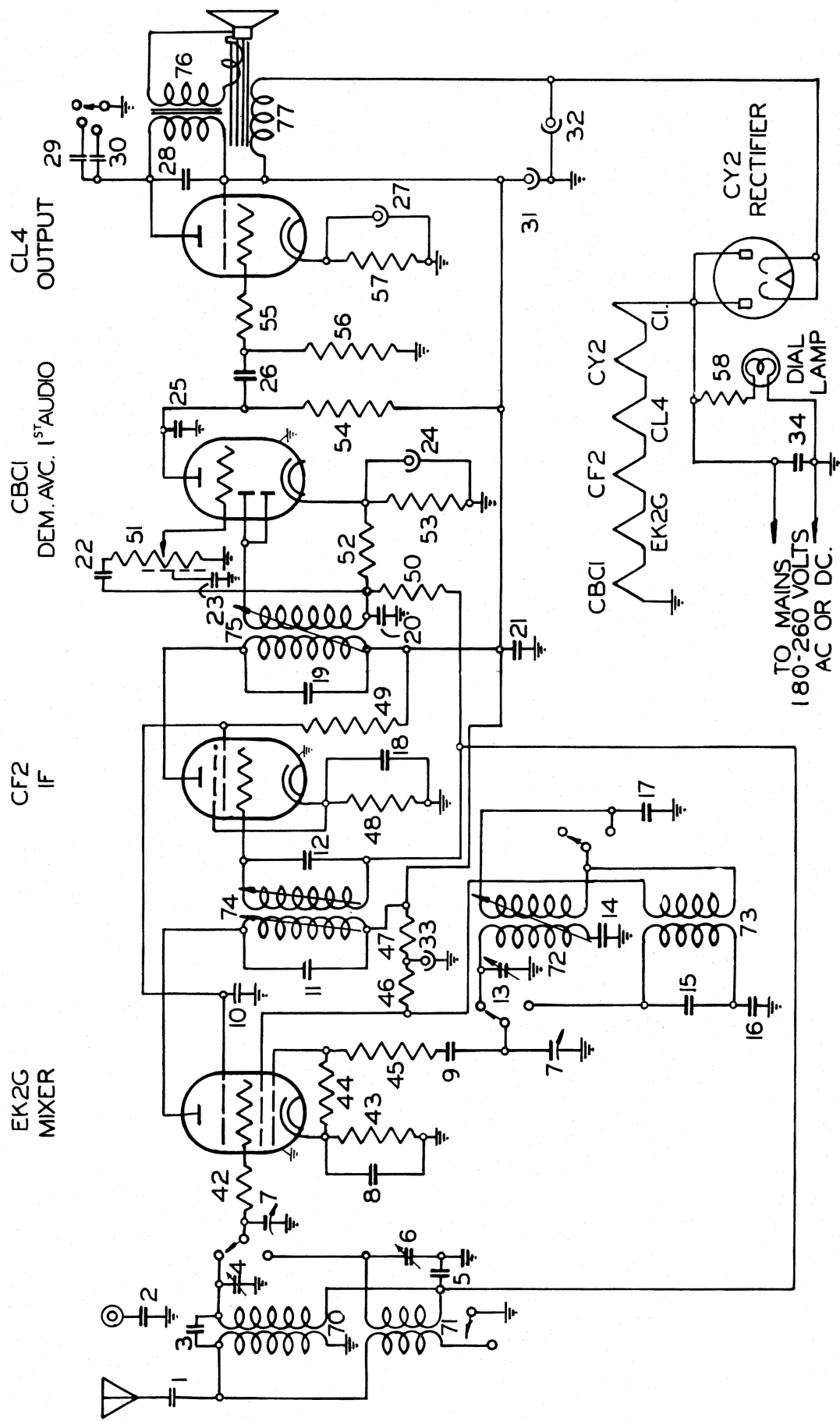
(b) Turn the test oscillator to 1400 K.C., and set the receiver dial pointer to 1400 K.C. Adjust the oscillator trimmer (3) to resonance. Then adjust the aerial trimmer (5) for maximum gain.

Repeat operations (a) and (b).

**SHORT WAVE BAND:** Turn the wave range switch clockwise to the S.W. position. Replace the .0002 Mfd. condenser joining the test oscillator to the blue aerial wire by a 400 or 500 ohm carbon resistor.

Set the test oscillator to 17 metres, tune it in on the receiver and adjust the S.W. aerial trimmer (6) for maximum gain while rotating the gang through resonance. The test oscillator will be picked up in two adjacent spots near 17 metres. The correct one to use is nearer 16 metres, the other being the "image".

No S.W. oscillator trimmer or variable padder is employed so this completes the alignment.



IF 458 KC.