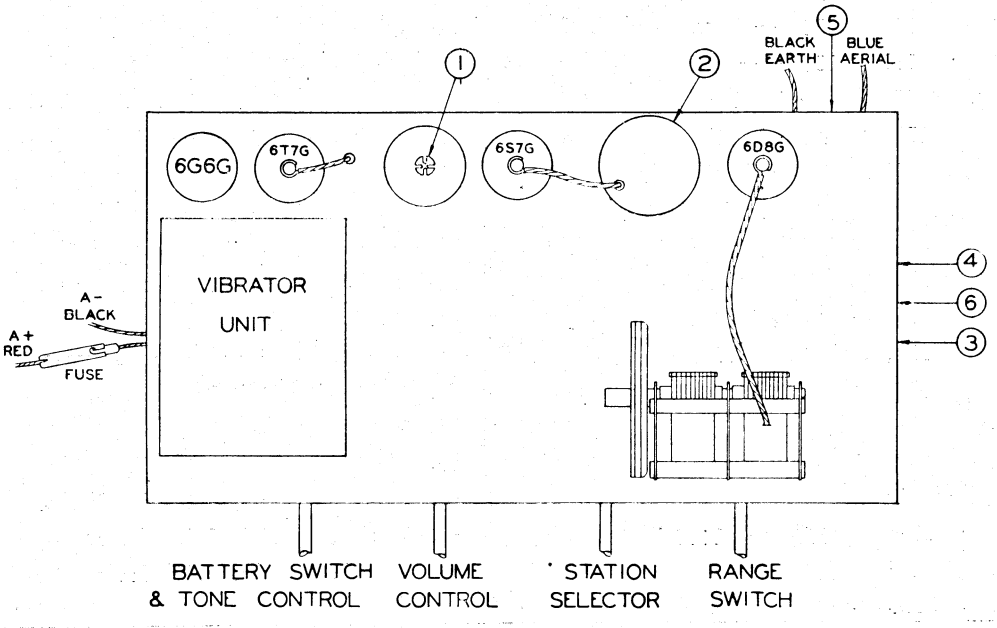
Stromberg-Carlson

STROMBERG-CARLSON
SERVICE BULLETIN, No. F20.

Stromberg-Carlson Model F20 Superheterodyne

VIBRATOR DUAL WAVE RECEIVER.



Chassis of Model F20

This Service Bulletin is issued free of charge to all Authorised Stromberg-Carlson Dealers. Applications for additional copies should be made direct to the nearest Distributor.

Stromberg-Carlson (Australasia) Pty. Ltd. reserves the right to make changes in design details at any time without incurring any obligations to install same on radio receivers previously sold.

RECEIVER ALIGNMENT INSTRUCTIONS:

(Continued)

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 14 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 14 metres. The correct one to use is nearer 15 metres, the other being the "image."

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

CIRCUIT CODE MODEL F20

No.	Part No.	DESCRIPTION.
		CAPACITORS.
1.	2515	5 mmf.
2.	2543	Air Trimmer.
3.	5780	2 Gang Type H. C-C.
4.	2667	.05 mF. 200V.
5.	2306	.1 mF. 200V.
6.	2543	Air Trimmer.
7.	2676	.004 mF.
8.	2582	100mmf.
9.	5780	2 Gang Type H. C-C.
10.	2543	Air Trimmer.
11.	2974	440 mmf. ± 2½%.
12.	2515	5 mmf.
13.	2580	.01 mF. 400V.
14.	2579	.05 mF. 400V.
15.	6174	70 mmf. + 0, — 5%.
16.	6174	70 mmf. + 0, — 5%.
17.	2306	.1 mF. 200V.
18.	2658	150 mmf. ± 2½%.
19.	2583	250 mmf.
20.	2578	.1 mF. 400V.
21.	2580	.01 mF. 400V.
22.	4247	.003 mF. 400V.
23.	2576	10 mF. 25V.
24.	2646	500 mmf.
25.	2580	.01 mF. 400V.
26.	2847	.003 mF. 600V.
27.	2576	10 mF. 25V.
28.	4250	.01 mF.
29.	5233	16 mF. 300V.
30.	5233	16 mF. 300V.
31.	2913	.5 mF. 200V.
32.	6026	.005 mF. 2000V.
33.	4248	006 mF.
34.	2580	.01 mF. 400V.

No.	Part No	DESCRIPTION.
		RESISTORS.
50.	2550	100,000 w. 1/3W.
51.	2728	600 w. 1/3W.
52.	2549	50,000 w. 1/3W.
53.	2612	50 w. 1/3W.
54.	2846	40,000 w. 1W.
55.	2728	600 w. 1/3W.
56.	2612	50 w. 1/3W.
57.	5712	Volume Control 1 Meg. w.
58.	2550	100,000 w. 1/3W.
59.	2570	500,000 w. 1/3W.
60.	2571	1 Meg. w. 1/3W.
61.	2698	4,000 w. 1/3W.
62.	4486	250,000 w. 1W.
63.	2570	500,000 w. 1/3W.
64.	2666	500 w. 1/3W.
		MISCELLANEOUS.
80.	2874	BC. Aerial Coil.
81.	6144	SW. Aerial Coil.
82.	5818	Oscillator Coil.
83.	6161	1st I.F. Transformer.
84.	4062	2nd I.F. Transformer.
85.	5776	Speaker.
86.	5385	Vibrator Transformer.
87.	5960	H.T. R.F. Choke.
88.	5182	H.T. L.F. Choke.
89.	1440	Filament R.F. Choke.
90.	1440	Filament R.F. Choke.
91.	5728	H.T. R.F. Choke.
—	6110	Glass Dial Scale.

VOLTAGES: These were measured with a battery voltage of 6 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
6D8-G	Mixer	135	70	4.5
	Oscillator	135	—	—
6S7-G	I.F.	135	70	3
6T7-G	Dem. Avc. 1st Audio	60	—	1
6G6-G	Output	130	135	6

OPERATION: Looking at the front of the chassis and reading from left to right, the four controls are as follows:—On-Off Switch and Tone Control—Volume—Station Selector—Range Switch.

ON-OFF SWITCH: This has four positions:

Position 1 (Anti-clockwise): Receiver off.
" 2 ..... Receiver on, Dial lamps on.
" 3 ..... Receiver on, Dial lamps off.
" 4 (Clockwise) ..... Receiver on, Dial lamps off. Tone Control on.

To reduce the drain on the "A" Battery, only use position 2 for finding the desired station, then turn the switch to either position 3 or 4.

WAVE RANGE SWITCH: This has two positions, clockwise for reception of short wave stations between 13 and 35 metres, and counter-clockwise for the regular broadcast band, 1600 to 550 K.C.

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 6D8G 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.

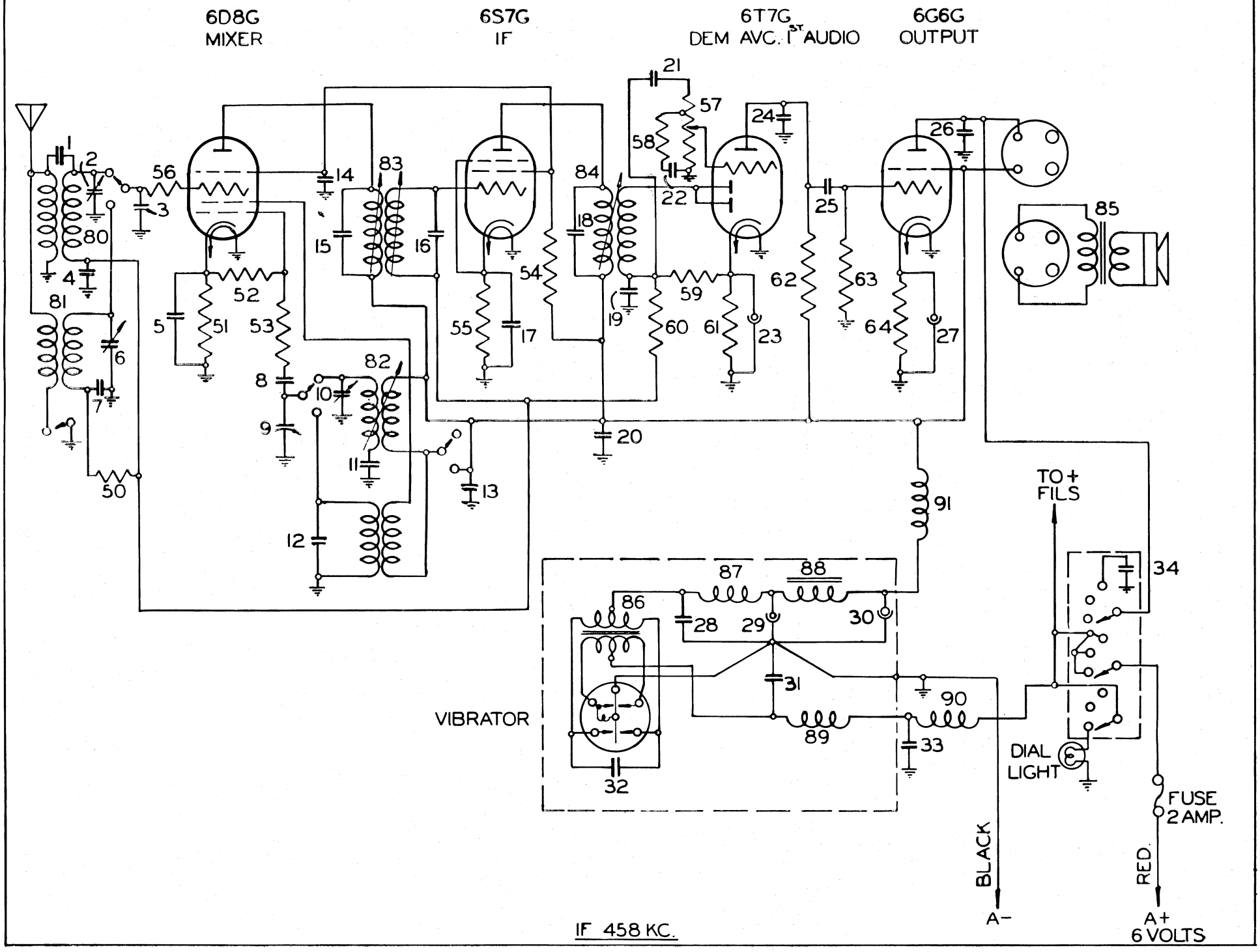
BROADCAST BAND: First make sure that when the gang condenser plates are fully meshed the dial pointer is on the line at the 550 K.C. end of the dial scale.

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).


6D8G
MIXER
6S7G
IF
6T7G
DEM AVC. 1ST AUDIO
6G6G
OUTPUT
VIBRATOR
TO + FILS
DIAL LIGHT
FUSE 2 AMP.
BLACK
A-
RED
A+ 6 VOLTS
IF 458 KC.

MODEL F20