

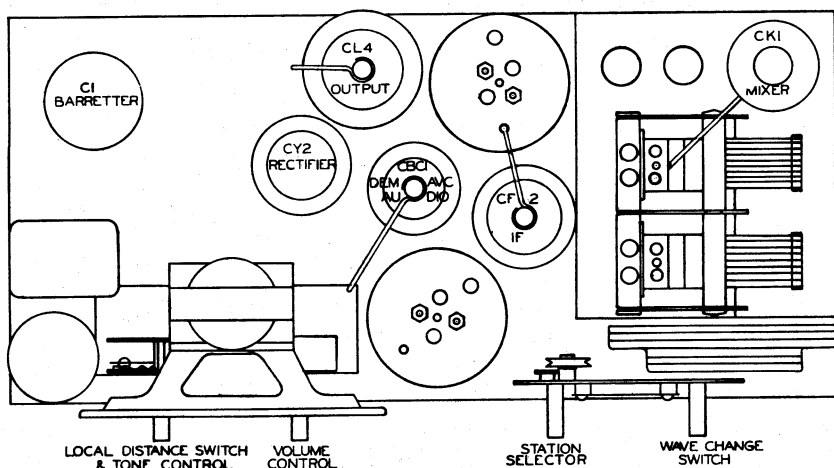
Stromberg-Carlson

STROMBERG-CARLSON
SERVICE BULLETIN, No. 67

Stromberg-Carlson Model 67 Superheterodyne

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

4 VALVES, RECTIFIER, AND BARRETTTER.



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4. VOLTAGES:

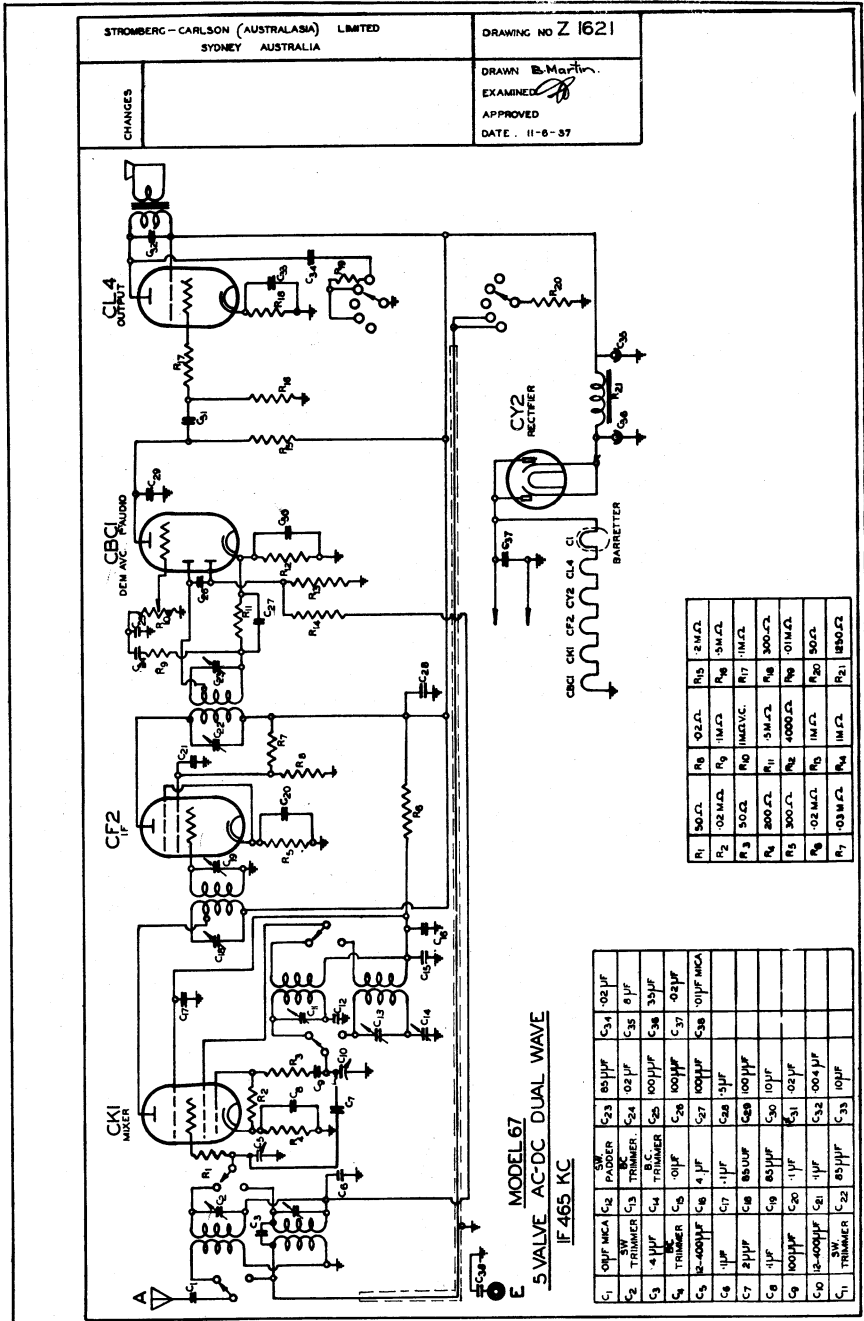
Valve.	Plate.	Screen.	Cathode.
CK1, Octode	210	60	2
CF2, I.F.	210	70	1
CBC1, Dem. A.V.C. } 1st Audio }	100	—	4
CL4, Output	205	210	8
CY2, Rectifier	—	—	280

CK1 screen and oscillator plate of CF2 and CK1 series fed through 20,000 ohms from HT.

The voltmeter used should have an internal resistance of 1000 ohms per volt, and all voltages are measured from the above designated valve prongs to chassis, with the line voltage at 240 A.C.

N.B.—BEFORE LEAVING A STROMBERG-CARLSON RADIO RECEIVER IN A CUSTOMER'S HOME, SEE THAT EVERYBODY WHO IS LIKELY TO HANDLE THE RECEIVER FULLY UNDERSTANDS ITS OPERATION. BY SO DOING MANY UNNECESSARY SERVICE CALLS WILL BE AVOIDED.

S T R O M B E R G - C A R L S O N



STROMBERG-CARLSON (AUSTRALASIA) LIMITED SYDNEY AUSTRALIA	DRAWING NO Z 1621
CHANGES	DRAWN <i>B. Martin</i> EXAMINED <i>[Signature]</i> APPROVED DATE: 11-8-37

R1	50Ω.C.	R6	02.C.	R15	2MΩ.C.
R2	02.MΩ.C.	R9	1MΩ.C.	R16	5MΩ.C.
R3	50Ω.C.	R10	1MΩ.C.	R17	1MΩ.C.
R4	500Ω.C.	R11	3MΩ.C.	R18	500Ω.C.
R5	500Ω.C.	R12	4000Ω.C.	R19	01MΩ.C.
R6	02.MΩ.C.	R13	1MΩ.C.	R20	50Ω.C.
R7	03MΩ.C.	R14	1MΩ.C.	R21	1800Ω.C.

C1	0MΩ MCA	C2	PAPER	C23	80μF	C34	02μF
C2	5W TRIMMER	C3	TRIMMER	C24	02μF	C35	0μF
C3	4μF	C4	T.O.C. TRIMMER	C25	100μF	C36	35μF
C4	TRIMMER	C5	01μF	C26	100μF	C37	02μF
C5	15-400μF	C6	4μF	C27	100μF	C38	01μF MCA
C6	1μF	C7	1μF	C28	1μF		
C7	2μF	C8	850μF	C29	10μF		
C8	1μF	C9	85μF	C30	10μF		
C9	100μF	C10	1μF	C31	02μF		
C10	15-400μF	C11	1μF	C32	200μF		
C11	5W TRIMMER	C12	85μF	C33	10μF		

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tivity should be about 25 micro volts. (NOTE: Set wave change switch to the broadcast position for these adjustments.)

Broadcast Band:

Feed in a 600 K.C. signal to the aerial terminal of the set, and tune this in. Then, while slightly rocking the gang to and fro, adjust the padding condenser for maximum signal. (This is not the final adjustment.)

Turn the gang right out, and set the generator on 1510 k.c. Adjust the oscillator broadcast trimmer until this signal is received. Then set the generator to 1400 k.c. and tune it in. Without touching the oscillator trimmer at all, peak the aerial trimmer. Then go to 600 k.c. and readjust the padding condenser if necessary.

The next step is to get the dial calibrations correct. Leaving the generator on 600 k.c., tune it in on the set and adjust the pointer to read 600 k.c. The pointer may be moved by loosening the two screws in the hub of the large friction drive disc and moving this slightly in relation to the gang condenser. Then tighten these screws again. Set the generator to 1400 k.c. and turn the set dial to 1400 k.c. Adjust the oscillator, and aerial trimmers for maximum signal.

Re-check at 600 k.c. and also at 1000 k.c. The dial calibrations should now be correct.

Short-wave Band:

Switch the wave change switch to the short-wave position, and set the generator to 16.5 metres. Adjust the short-wave oscillator trimmer with the gang right out. Then turn the generator to 17 metres and adjust the R.F. and aerial trimmers. The short-wave band should then be correctly adjusted.

3. OPERATION:**Wave Change Switch:**

This is located at the right hand side of the chassis and has two positions. Turn clockwise for short wave, and anti-clockwise for broadcast reception.

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Stromberg-Carlson Model 67

Superheterodyne

A.C. - D.C. DUAL WAVE

4 VALVES, RECTIFIER, AND BARRETTTER.

1. GENERAL DESCRIPTION OF RECEIVER:

This model uses Condor A.C.-D.C. series of valves, including the current limiting "Barretter" valve, which replaces the ballast resistor. It has been designed to operate with equal efficiency on both A.C. and D.C. mains.

The receiver may be used on line voltages ranging from 160 to 260 volts without any adjustment to the receiver.

The receiver is a 6-valve broadcast and short-wave receiver covering the broadcast band from 1500 to 550 k.c. and the short-wave band from 16.8 to 45 metres, the latter band including the four internationally assigned short-wave broadcast bands of 16.8, 19, 25 and 31 metres.

Both ranges are accurately calibrated—the short-wave band in metres and megacycles, and the broadcast band in kilocycles. All important broadcast stations are also marked on the dial.

The short-wave range has the location of the 16.8, 19, 25 and 31 metre bands indicated by heavy white lines.

2. INSTALLATION INSTRUCTIONS:

(a) As with any A.C.-D.C. receiver, due care must be exercised in its installation. The aerial and radio earth terminals are isolated from the interior of the receiver by means of condensers, and they project through the protective back on the cabinet. This makes it unnecessary to remove the back to instal the receiver. A two-pin plug has been fitted which, on the removal of the protective back on the cabinet, opens both of the power leads to the chassis.

Should the set hum, reverse the plug in the power point.

Caution.

Should it be necessary, for any service reason, to remove the chassis from the cabinet and run it on a test bench, care must be taken that the earthed side of the supply line (normally the neutral for an A.C. service and the negative for D.C. service) is connected in such a manner that it goes to the chassis, and that the active side of the line

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does not. This can be readily ascertained by connecting a lamp or indicating meter of suitable type A.C. or D.C. between the chassis and earth before switching the receiver on. If the lamp lights or the meter registers, then the supply line will have to be reversed, otherwise it will be possible for the operator to receive a shock.

When making any adjustment, see that the power plug is completely removed from the socket of the supply source.

(b) Aerial.

The sensitivity of this model is such that for broadcast reception a well-insulated wire about 20 or 30 feet in length, placed along the picture moulding in a room, or beneath the carpet, will prove satisfactory. Care should be taken to place all such indoor aerials as far away as possible from electric light or power conduits, and, in particular, clear of all unshielded flexible leads, since these latter are prolific radiators of undesirable electrical impulses.

An outdoor aerial is the most efficient, and is strongly recommended, especially for short-wave and long-distance daylight reception on the broadcast band. The length of this aerial should be from 30 to 50 feet. In noisy areas (due to electrical interference) the aerial should be erected as far as possible from and at right-angles to any electric power or light mains.

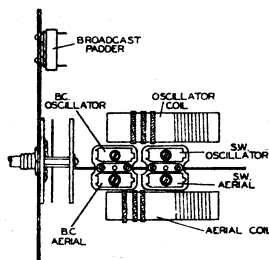
Do not use shielded lead-in wire for short-wave reception.

(c) Earth.

A terminal has been provided for a radio earth or the end of a transposed feeder. No other earth is required, as there is no exposed metal on the receiver.

ALIGNMENT INSTRUCTIONS.

LOCATION OF COILS AND TRIMMERS
BENEATH CHASSIS



The trimmer capacitors on the coil assembly and Intermediate Frequency Transformers (tuned to 465 k.c.) are adjusted and sealed at the factory. These adjustments should on no account be touched or seals broken unless a calibrated oscillator and indicating instrument are available, whereby such adjustments can be successfully carried out.

Refer to the sketch in this manual for details of the trimming condenser, padder, and coil positions.

To Align I.F. Transformers:

Set generator to 465 k.c. and connect to grid of CF2 I.F. Align the second I.F. transformer, which is located second from the front of the chassis.

Then place generator output on grid of CK1 and align the transformer at the front of the chassis. Use a low input, and the sensi-