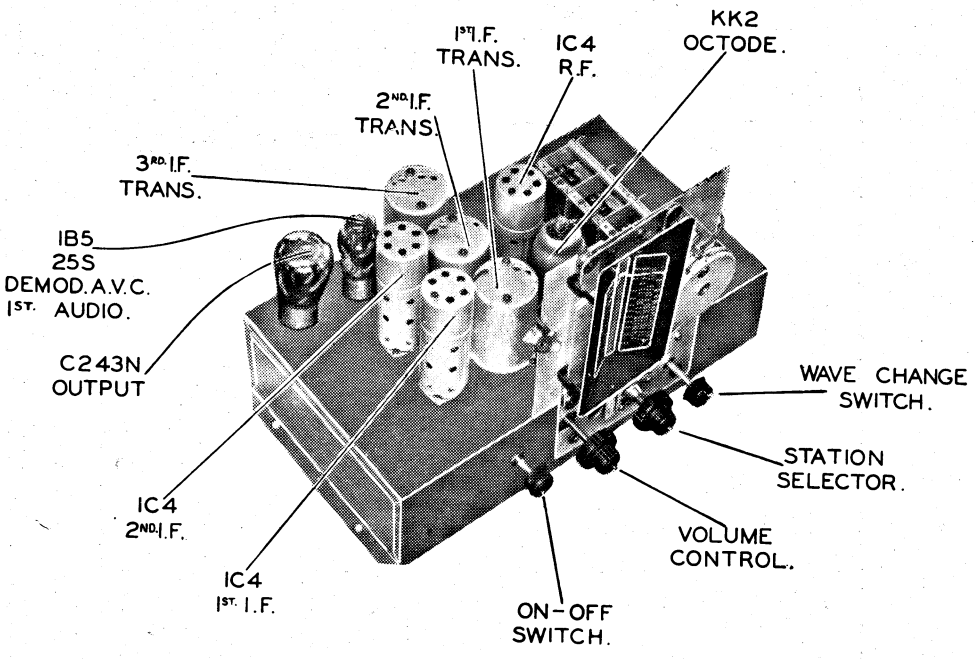
Stromberg-Carlson

STROMBERG-CARLSON
SERVICE BULLETIN No. 666

Stromberg-Carlson Model 666 Superheterodyne

DUAL-WAVE BATTERY-OPERATED RECEIVER



Chassis of Model 666

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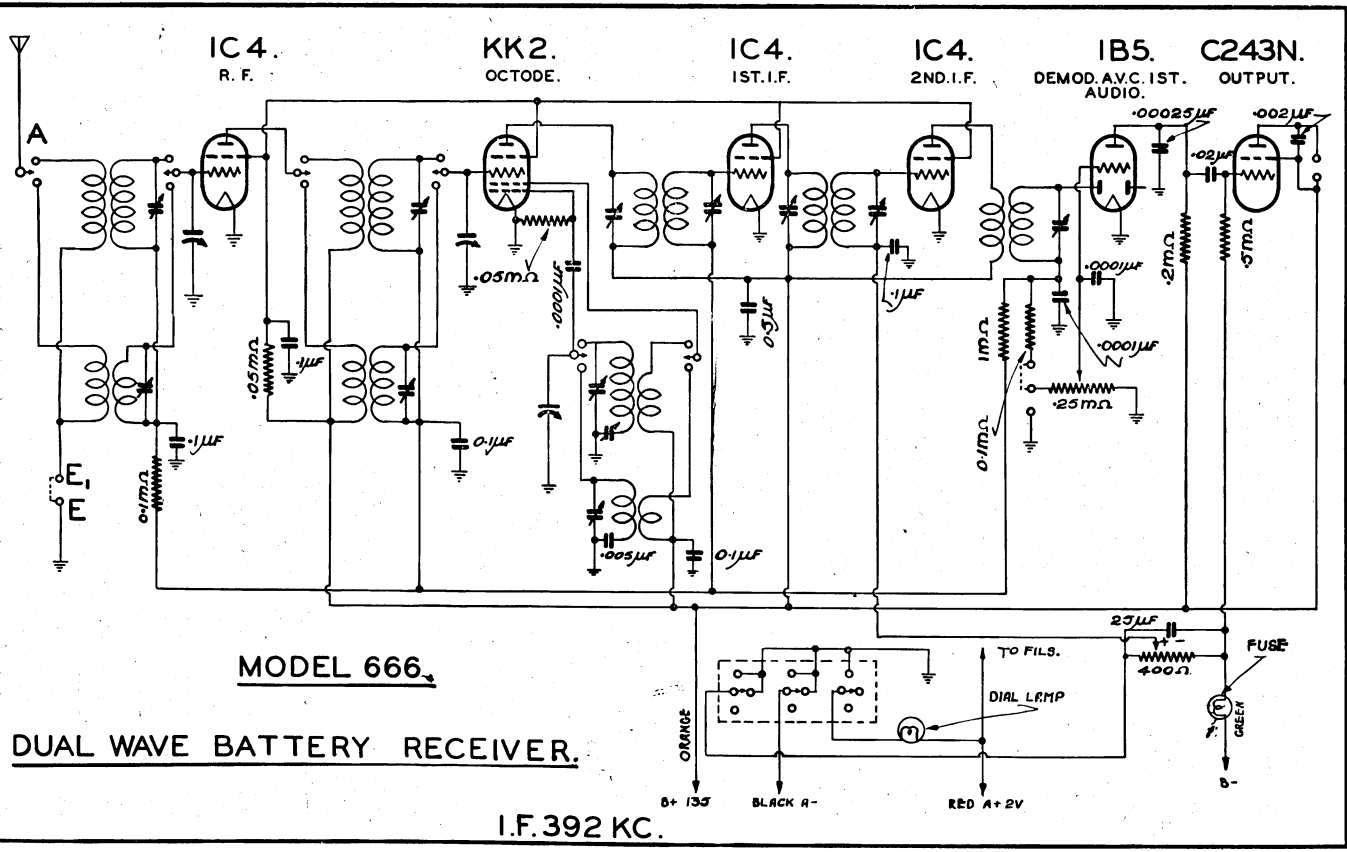
Stromberg-Carlson (Australasia) Ltd. reserves the right to make changes in design details at any time without incurring any obligations to install same on radio receivers previously sold.



MODEL 666.

DUAL WAVE BATTERY RECEIVER.

I.F. 392 KC.

CHANGES

STROMBERG - CARLSON (AUSTRALASIA) LIMITED
SYDNEY. AUSTRALIA

DRAWING NO. 774.

DRAWN
EXAMINED
APPROVED
MGN. DIRECTOR
DATE 17-1-36

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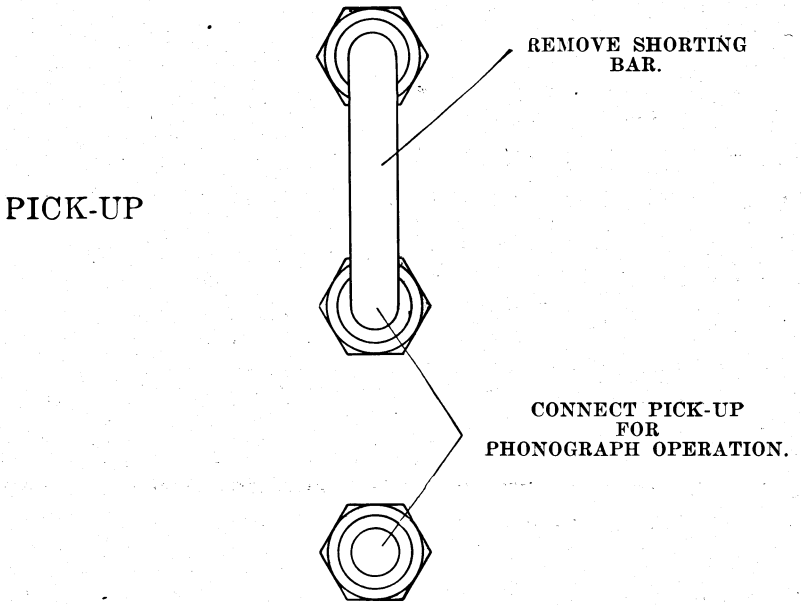
5. PICK-UP JACK:

Provision is made at the back of the chassis for the attachment of a Phono. Pick-up. To operate the pick-up, remove the metal bar between the centre and top jacks and connect the leads from the pick-up to the centre and bottom jacks, as illustrated.

The metal bar must be replaced when the receiver is again required for radio operation.

The volume control on the receiver may be used to regulate the audio output from the pick-up.



6. VOLTAGES:

Valve.	Plate.	Screen.	Bias.
IC4 RF	130	50	Nil
KK2 Octode, Pentode Section	130	50	Nil
KK2 Oscillator Section	130	—	—
IC4 1st IF	130	50	Nil
IC4 2nd IF	130	50	– 2.0
IB5, 25 S: Dem. Avc. 1st Audio	60	—	Nil
C243N Output	125	130	– 5

All screens are series fed from maximum high tension through 50,000 ohms.

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.

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Stromberg-Carlson Model 666 Superheterodyne

DUAL-WAVE BATTERY-OPERATED RECEIVER.

1. GENERAL DESCRIPTION OF RECEIVER:

This 6-valve, two-band battery-operated superheterodyne Receiver provides excellent reception of both standard wave and short-wave broadcasting stations. One band is the usual broadcast band from 200 to 500 metres, and the other a short-wave band from 16.5 to 51 metres. This latter band includes the five important internationally assigned short-wave broadcast bands at 16.8, 19, 25, 31 and 49 metres, respectively.

High sensitivity, excellent selectivity, automatic volume control, and good fidelity characterise this receiver. The tuning ranges are quickly interchangeable by means of a rotary switch. Ease and convenience of operation are assured by the dual ratio drive.

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

The short-wave range has the location of the 16.8, 19, 25, 31 and 49 metre bands indicated by heavy white lines.

2. DESCRIPTION OF ELECTRICAL CIRCUIT:

In this model, the valves have been chosen and the circuit so designed as to give the greatest efficiency consistent with low "A" and "B" battery consumption. The six valves are operated at 2 volts and .75 amperes.

The "B" battery drain is approximately 13 milliamperes standing current.

The circuit is of the superheterodyne type, and consists of an R.F. amplifying stage using a type IC4 valve, a combined detector-oscillator stage using a KK2 valve, two I.F. amplifying stages using type IC4 valves, a combined diode second detector, A.V.C. and 1st audio stage using a type IB5/25S valve, and a pentode output stage. using a C243N valve.

3. INSTALLATION INSTRUCTIONS:

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 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.

As a further precaution against undesirable pick-up, the lead-in should be a special transposed type. Details of this type of aerial may be had on application to Stromberg-Carlson (Australasia) Limited.

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

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(b) Earth.

The chassis should be connected to earth by means of an insulated wire attached to a water pipe by an approved clamp. It is preferable to connect the earth lead to the last section of the pipe where it enters the ground, thus avoiding the high resistance contacts at the joints. Should a water system not be available, an efficient earth may be obtained by driving a metal pipe or burying about four square feet of metal sheeting in moist earth; the connection to the metal should preferably be soldered.

(c) Batteries.

(i) "A" battery. — This consists of a 2-volt 100 ampere-hour accumulator.

(ii) "B" batteries.—These comprise 3 heavy duty or super 45-volt batteries.

To join the battery leads correctly to the batteries, reference should be made to the designation tabs on the leads and to the colour code, as shown in the circuit diagram on Page 2 hereof.

The three "B" batteries may be housed in the back of the cabinet on the lower shelf.

The "A" battery may then be placed beside the "B" batteries, or on the floor immediately behind the cabinet.

(d) Trimmer Adjustments.

The trimmer capacitors on the variable condenser, coil assembly, and the trimmer capacitors on the Intermediate Frequency Transformers (tuned to 392 k.c.) are adjusted and sealed at the factory at the time of calibration. These adjustments should on no account be touched or seals broken unless a specially calibrated oscillator and indicating instrument are available, whereby such adjustments can be successfully carried out.

In any repairs or adjustments, the above remarks in regard to the coil assembly and intermediate transformer should be carefully noted.

4. OPERATION:

(a) Battery Switch.

A three-position operating switch is used. When turned fully to the left, the receiver is switched off; both the "A" and "B" battery supplies being disconnected. When turned fully to the right, the receiver is ready to operate, and a pilot light is switched on. After tuning to the required station, the switch should then be turned to the centre position. This will extinguish the pilot light only, so reducing drain from the battery, and the set will operate in the normal manner.

(b) Automatic Volume Control.

This Model is so designed that the signal voltages fed to the audio system tend to adjust themselves to a constant level. This signal level is manually controlled and should be adjusted to the desired volume on a station of moderate or high power. The automatic feature will then tend to maintain this volume at a constant level on different signals of wide variations in intensity.

The effects of fading being thus reduced to an absolute minimum, constant attention to the volume control is obviated, especially on the reception of weak and distant stations.