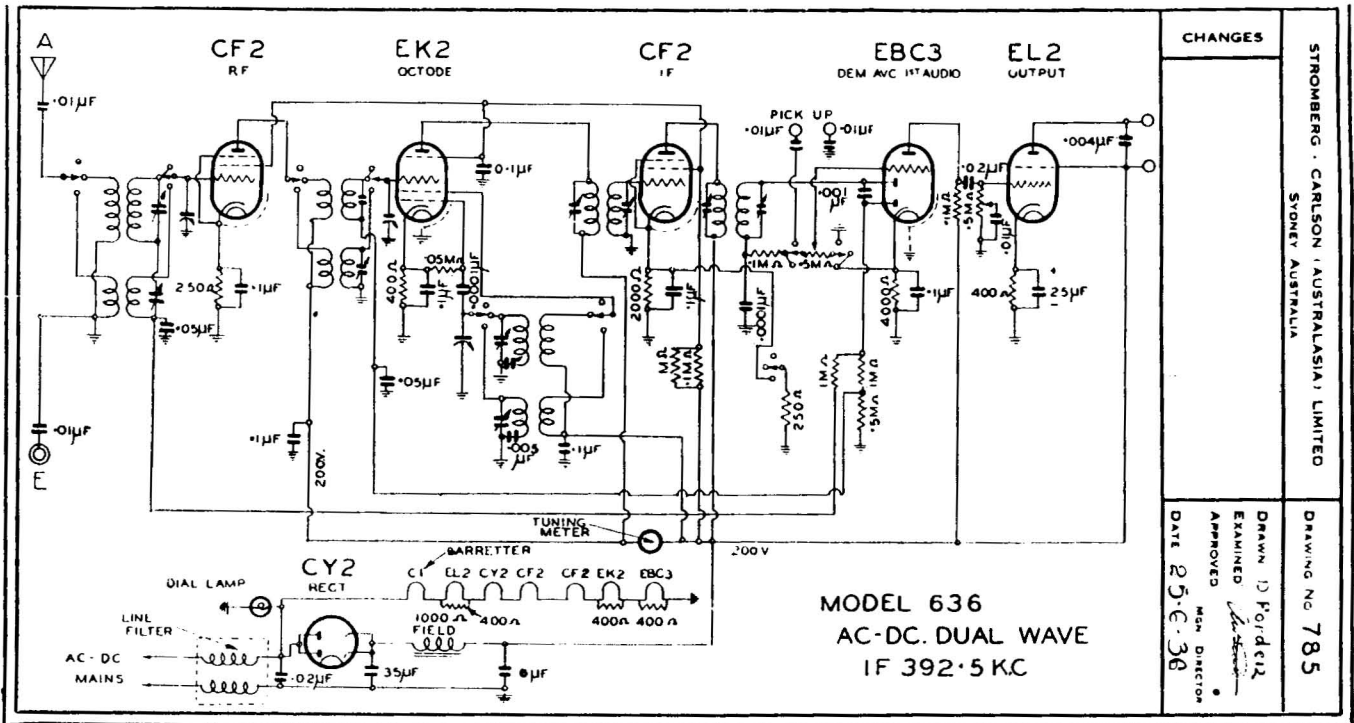


"Stromberg-Carlson" A.C./D.C. Dual-Wave Model 636



STROMBERG-Carlson Model 636 is an A.C.—D.C. six valve superheterodyne, using Philips valves, which include the current limiting “Barretter” in place of a ballast resistor. The inclusion of this barretter enables the receiver to be used on any supply between 160 and 260 volts without the necessity for any adjustment.

The intermediate frequency used is 392.5 KC., and the frequency changer is the EK2 octode.

OPERATING VOLTAGES.

The valve functions and their operating voltages are as follows:—

CF2—RF, plate 219; screen 60; cathode 2.

EK2—Octode, plate 219; screen 60; cathode 2.

CF2—IF, plate 210; screen 60; cathode 2.

EBC3—Demod., A.V.C. 1st Audio plate 50; cathode 6.

EL2—Output, plate, 205; screen 210; cathode 15.

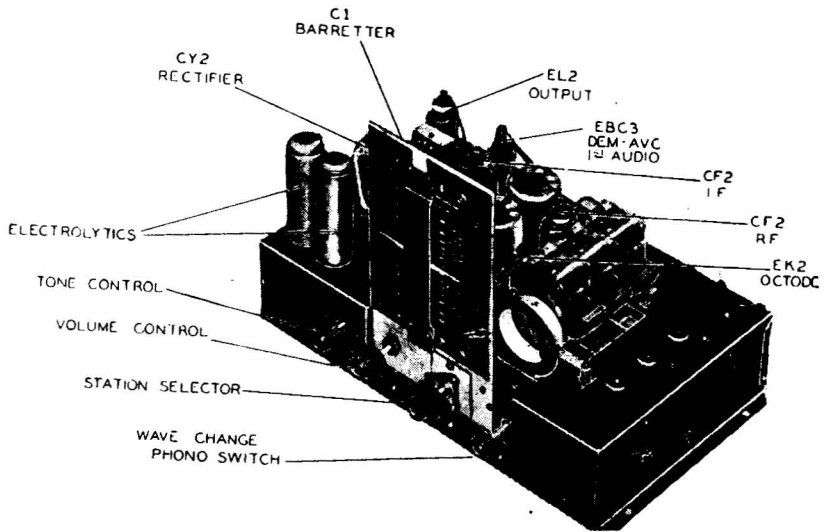
CY2—Rect., cathode 300.

NOTE.—The EK2 Oscillator anode voltage is 210.

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 volts.

The speaker plug should not be removed while the power is turned on.

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 a D.C. service) is connected in such a manner that it goes to the chassis, and that the active side of the line 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 power source.

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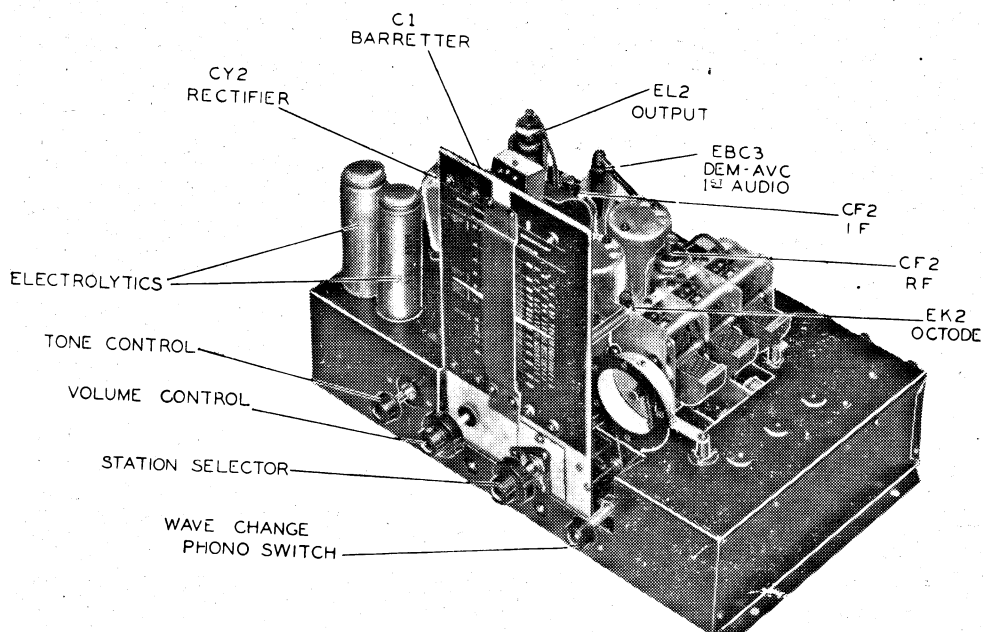
Stromberg-Carlson

STROMBERG-CARLSON
SERVICE BULLETIN, No. 636.

Stromberg-Carlson Model 636 Superheterodyne

A.C.-D.C. DUAL WAVE

FIVE VALVES AND RECTIFIER



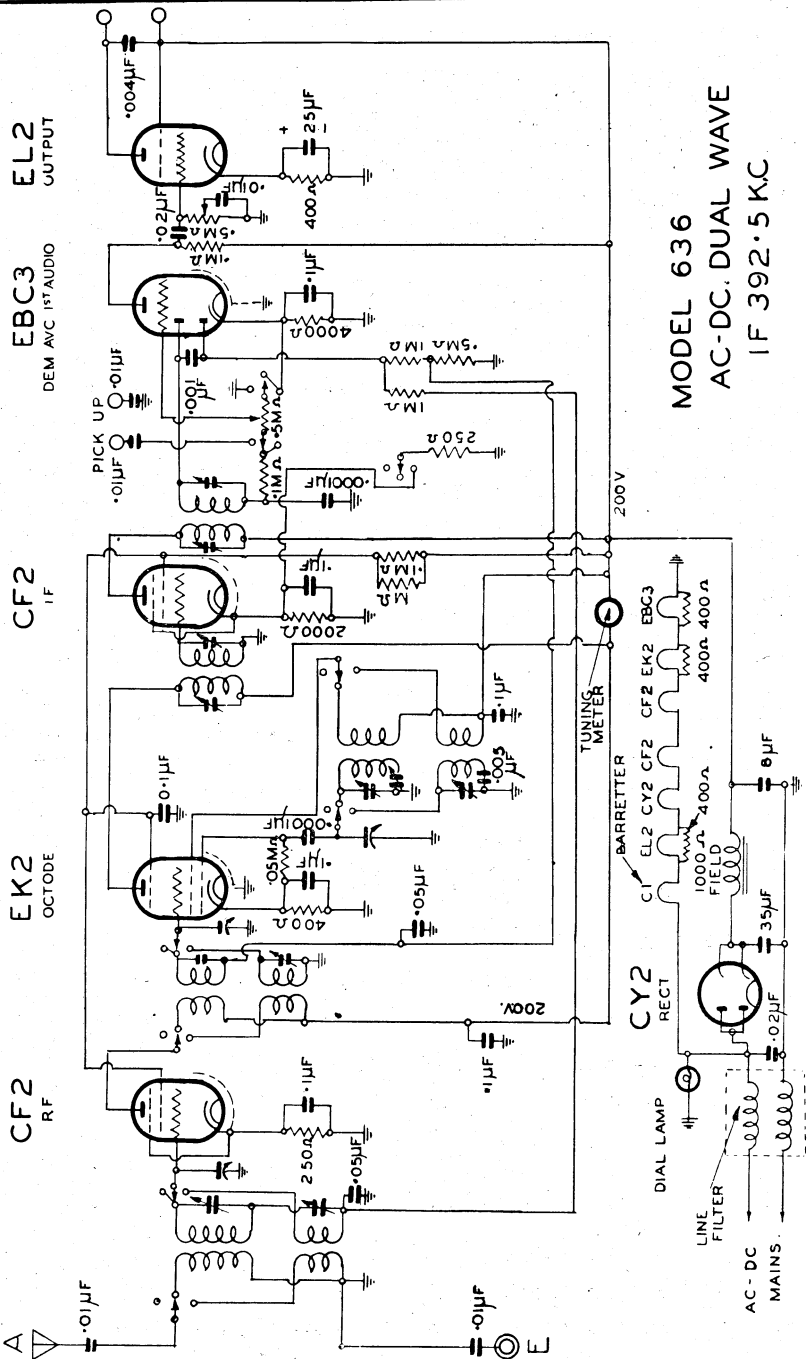
Chassis of 636 Model.

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) 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.

CHANGES

DRAWN D Forde
 EXAMINED *[Signature]*
 APPROVED *[Signature]*
 MGN DIRECTOR
 DATE 25-6-38



MODEL 636
 AC-DC, DUAL WAVE
 IF 392.5 KC

4. VALVES:

	<i>Function of Valve.</i>	<i>Type of Valve.</i>
R.F.	CF2.
Octode	EK2.
I.F.	CF2.
Det. A.V.C. }	EBC3.
1st Audio }	
Output	EL2.
Rectifier	CY2.
Barretter	C1.

5. SPEAKER:

The speaker in this Model is the Dynamic or moving coil type, and is matched to the output valve. The field coil being used at the date of issue of this Bulletin has a resistance of 1000 ohms. The speaker terminates in a five-pin plug at the Receiver chassis.

THIS PLUG SHOULD NOT BE REMOVED WHILE THE CURRENT IS TURNED ON.

6. PICK-UP JACKS:

Provision is made on the back of the chassis for the attachment of a Phonograph Pick-up. The pick-up is brought into operation by turning the wave change switch fully to the left. The operation of the switch also removes any possibility of any radio programmes being heard while the pick-up is in use. The pick-up may be left permanently connected when the switch is changed back for radio operation.

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

7. VOLTAGES:

Valve.	Plate.	Screen.	Cathode.
CF2, RF	210	60	2
EK2, Octode	210	60	2
CF2, IF	210	60	2
EBC3, Dem. A.V.C. }	50	—	6
1st Audio }			
EL2, Output	205	210	15
CY2, Rectifier	—	—	300

EK2 Oscillator Anode Voltage 210.

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.

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.

SERVICE BULLETIN, No. 636 (Continued)

Stromberg-Carlson Model 636 Superheterodyne

A.C.-D.C. DUAL WAVE FIVE VALVES AND RECTIFIER

1. GENERAL DESCRIPTION OF RECEIVER:

This model employs the latest Superheterodyne principle, using Philips 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. An efficient line filter is built into the receiver to reduce line noises, which are sometimes bad in D.C. areas.

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 195 to 570 metres, and the short-wave band from 16.8 to 51 metres, the latter band including the five internationally assigned short-wave broadcast bands of 16.8, 19, 25, 31, and 49 metres.

Short-wave facilities in this receiver are designed as integral parts of the apparatus. The tuning ranges are quickly interchangeable by means of a rotary switch, which also controls the gramophone pick-up operation. Ease and convenience of operation are assured by the dual ratio drive and the open-faced Selectorlite dial.

Both ranges are accurately calibrated—the short-wave band in metres, 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, 31 and 49 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, radio earth, and pick-up 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.

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

SERVICE BULLETIN, No. 636 (Continued)

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.

As a further precaution against undesirable pick-up, the lead-in should be a special "transposed" type, terminals being provided for its connection. 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.

(c) Earth.

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

(d) Trimmer Adjustments.

The trimmer capacitors on the 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.

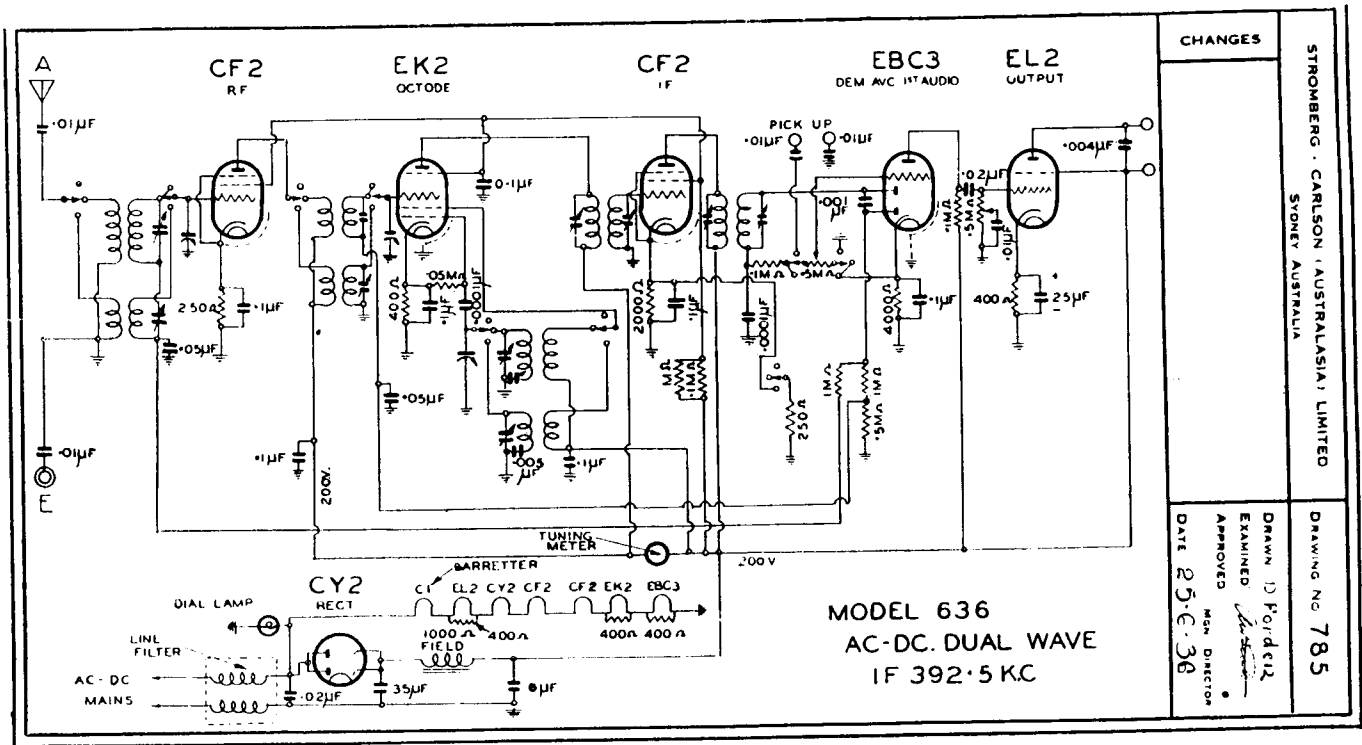
In any repairs or adjustments the above remarks in regard to the coil assembly and intermediate transformer should be carefully noted.

3. OPERATION:**(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.

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- EL2—Output**, plate, 205; screen 210; cathode 15.
- CY2—Rect.**, cathode 300.

NOTE.—The EK2 Oscillator anode voltage is 210.

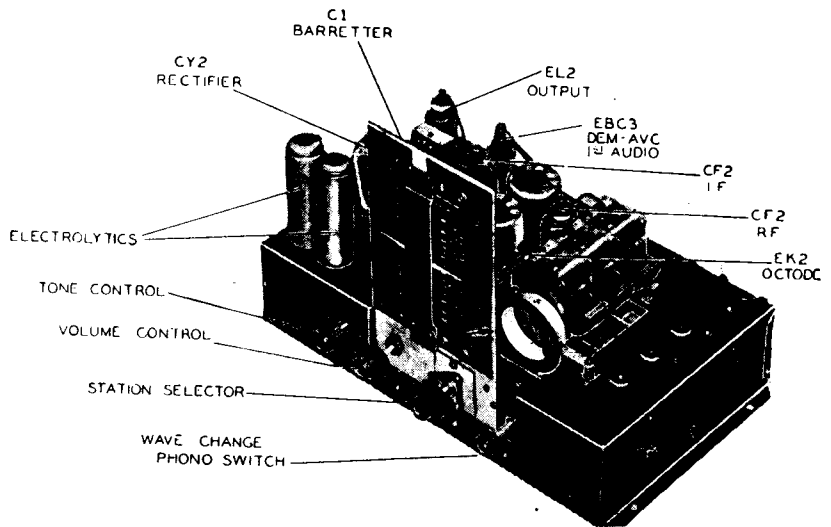
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