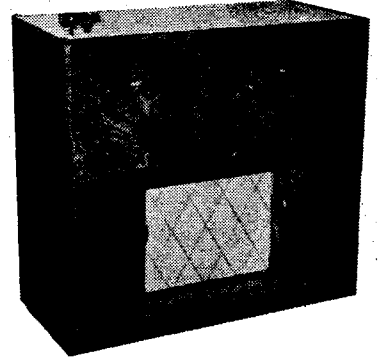


PHILIPS RADIOPLAYER

MODEL 154B-C-D

NOTE: The various versions differ in the type of record changers and speakers used. Refer to "Specifications" and "Parts Lists" for details.



SPECIFICATIONS

(Subject to alteration without notice)

Power Supply	.....	.....	.....	.....	.....	200-250V, 40-50 c/s.
Tuning Ranges	.....	.....	.....	.....	.....	B/C band 530-1620 kc/s. S/W band 5.85-12.2 Mc/s.
Intermediate Frequency	.....	.....	.....	.....	.....	455 kc/s.
Cabinet	.....	.....	.....	.....	.....	Radiogram
Gramo. Unit 154B	.....	.....	.....	.....	.....	Collaro 3RC531
154C, 154D	.....	.....	.....	.....	.....	Philips AG1000.

VALVE EQUIPMENT AND VOLTAGE ANALYSIS

Valve Function	Valve No.	Valve Type	Plate Volts	Screen Volts	Osc. P. Volts
Frequency Converter	V1	6AN7	244	54	92
I.F. Amplifier	V2	6BH5	244	54	—
Demodulator, A.V.C. and Audio Amplifier	V3	6BD7	74	—	—
Power Amplifier	V4	6M5	240	244	—
Rectifier	V5	6V4	Cathode — L17 C.T., 262V.		
Dial Lamps	V11	6.3V, 0.32A, tubular screw			
Voltage across R13, -7.0V.					

NOTE: These voltages are measured with an "1,000 ohms per volt" meter and may vary $\pm 10\%$ from the figures quoted. They are measured from the socket points indicated to chassis or across the resistor listed. The receiver should be in a "no signal" condition.

TO REMOVE CHASSIS FROM CABINET.

Remove the power plug from the mains outlet socket. Remove the four control knobs (a direct pull in line with the spindle is all that is required). Unscrew the cabinet back. Remove the aerial and earth leads from the terminal assembly and the plugs for speaker, pick-up and gramophone unit power, from their respective sockets.

Remove two screws at the top of the dial back plate and two at the rear of the chassis. The chassis may now be lifted out of the cabinet.

In replacing the chassis take care that it does not foul the damping cylinder and cause damage to it. This can be helped by putting the chassis into the cabinet dial back plate first. Make sure that the front of the chassis engages under the lips of the mounting brackets.

MAINS VOLTAGE ADJUSTMENT.

The power transformer is provided with two mains voltage tapings—200/230 volts and 240/250 volts—for adjustment to the supply voltage at the point of installation. The receiver is adjusted at the factory to the 240/250 volts tapping.

DIAL CALIBRATION.

If it is required to correct dial calibrations for an equal error on all stations, the dial cursor can be easily moved along the dial cord to the new position.

ALIGNMENT.

During alignment the tone control should be maintained in a central position. Trimmer layout drawing is shown as an inset to the circuit diagram.

I.F. transformer adjustments are:—

2nd I.F.T.:

Secondary — nearer 6BD7

Primary — nearer 6BH5

1st I.F.T.:

Secondary — nearer 6BH5

Primary — nearer 6AN7

Broadcast band alignment frequencies are 1,420 kc/s, 3XY (oscillator and aerial trimmers) and 600 kc/s, 7ZL (slug padding). Short wave alignment points are 6.1 Mc/s, small triangular mark on the dial scale (oscillator coil slug) and 11.85 Mc/s, small triangular mark on dial scale (oscillator trimmer for frequency setting and aerial trimmer while rocking gang capacitor).

The cursor setting point with the tuning capacitor fully closed is "90" on the short wave relocation scale.

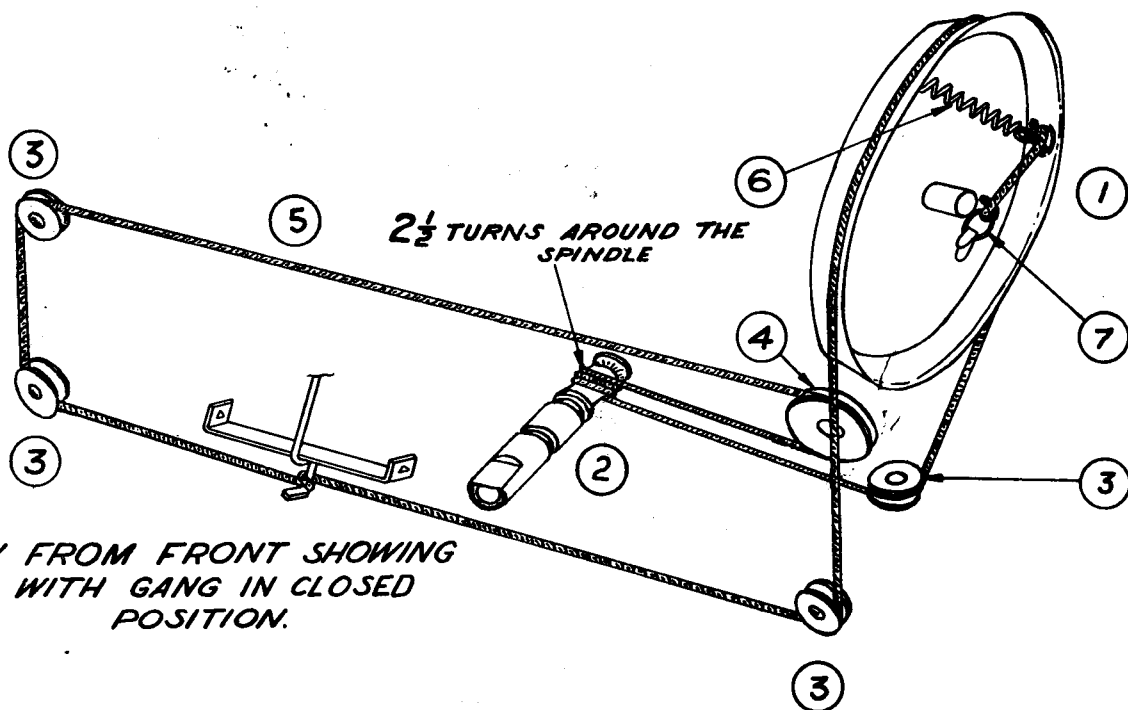
Do not attempt to adjust the iron cores of the aerial coils.

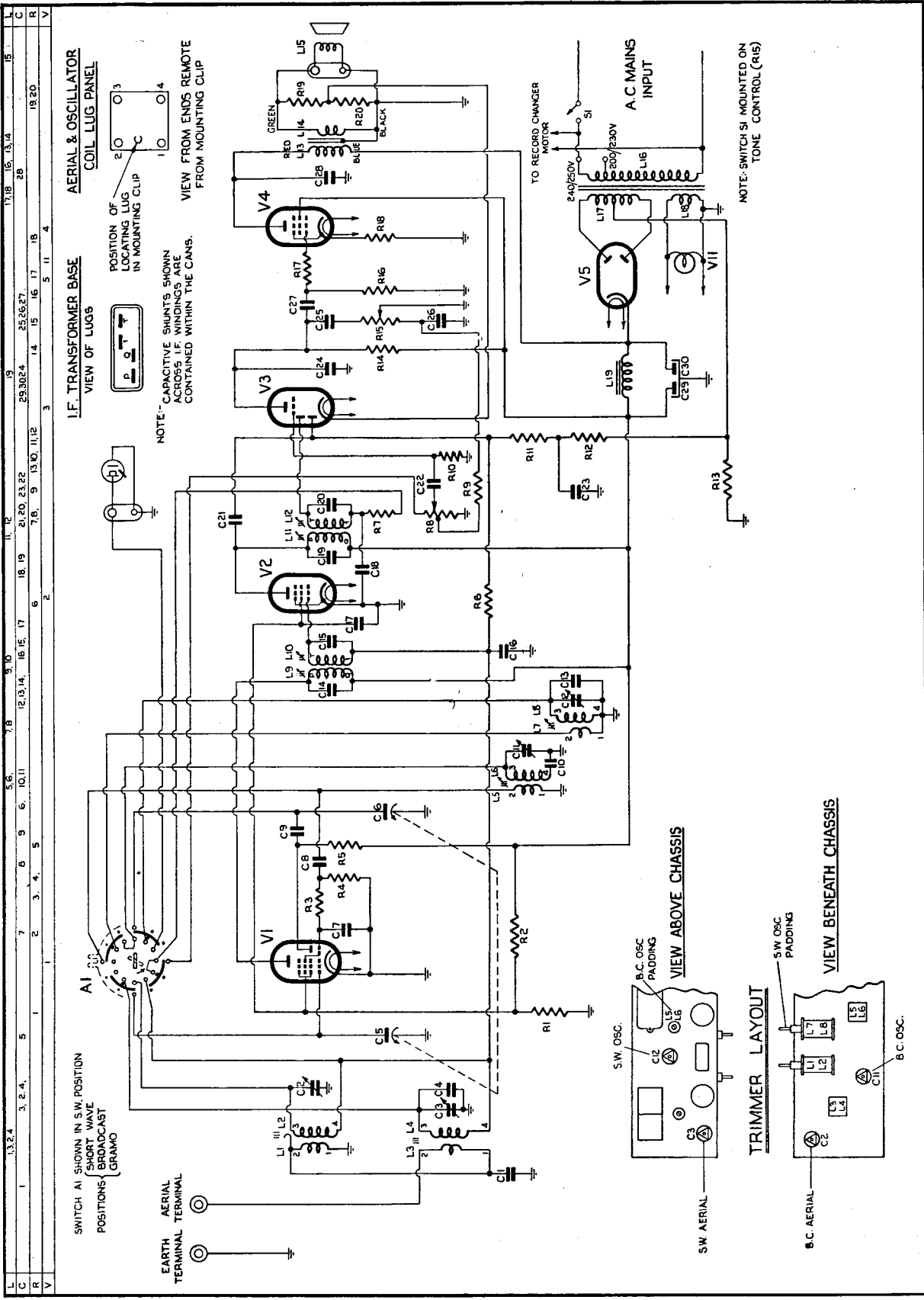
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MISCELLANEOUS COMPONENTS

No. on Dial Cord	Description	Code No.	No. on Dial Cord	Description	Code No.
Layout Drawing			Layout Drawing		
—	As embley, cursor	CR.480.661	—	Gear wheel, W/C and T/C spindles, 2x	CS.354.201
—	Assembly, dial back plate	CR.022.215	—	Knob, inner, 2x	CS.432.658
—	Assembly, W/C switch	CZ.200.238	—	Knob, outer, 2x	CR.523.711
—	Assembly, W/C clicker	CR.450.045	—	Plug, male (gramo. unit power)	CZ.365.115
—	Badge, Philips	CR.531.408	3	Pulley, dial drive, 4x	CS.359.612
—	Bank, W/C switch	CZ.200.213	4	Pulley, dial drive	CS.359.602
—	Clip, gear wheels and knobs, 4x	CS.281.832	—	Scale, dial	CS.412.389
—	Clip, I.F.T. mounting, 2x	A3.652.58	—	Socket, female (gramo. unit power)	CS.365.116
5	Cord, dial drive	50" of cord required	2	Spindle, tuning	CS.351.244
1	Drum, dial	CS.360.005	6	Spring, dial cord	CS.210.029
—	Gear, driving W/C and T/C gear wheels, 2x	CS.354.202			





L	17,18	16,13,14	28	15
C	25,30,24	25,26,27	19,20	
R	14	15	16	17
V	5	11	4	

PARTS LISTS

CAPACITORS

No.	Description	Code No.
C1, 8, 9, 18		
24	100 pF mica	
C2, 3, 12	30 pF air trimmer	CZ.113.700
C4	95 pF mica 2½%	CZ.064.512
C5, 6	2 gang tuning	CZ.107.746
C7	10 pF mica	
C10	450 pF mica 2%	CZ.066.117
C11	60 pF air trimmer	49.005.58
C13	75 pF mica 2½%	CZ.064.514
C14, 15, 19, 20	Part of I.F. transformers	
C16, 23	0.05 mF 200V paper	
C17, 26	0.02 mF 400V paper	
C21	30 pF mica	
C22, 25	0.01 mF 400V paper	
C27, 28	0.005 mF 600V paper	
C29	8 mF 350V } dual electrolytic	
C30	24 mF 350V } type EDT2033	

All tolerances are 20% unless otherwise specified.

RESISTORS

No.	Description	Code No.
R1, 2	47,000 ohms 1W carbon	
R3	270 ohms ½W carbon 10%	
R4, 7	47,000 ohms ½W carbon	
R5	33,000 ohms 1W carbon	
R6, 11	1 megohm ½W carbon	
R8	0.5 megohm carbon potentiometer tapped at 0.25 megohm	CZ.029.143
R9	15,000 ohms ½W carbon 10%	
R10	10 megohms ½W carbon	
R12	560,000 ohms ½W carbon 10%	
R13	27 ohms ½W W/W 10%	
R14	220,000 ohms ½W carbon	
R15	2 megohm carbon potentiometer with S.P.S.T. switch	CZ.032.600
R16	470,000 ohms ½W carbon 10%	
R17	4,700 ohms ½W carbon	
R18	180 ohms ½W W/W 10%	
R19	1,000 ohms ½W carbon	
R20	15 ohms ½W W/W 10%	

All tolerances are 20% unless otherwise specified.

COILS

No.	Ohms	Description	Code No.
L1	24.0-30.0	B/C aerial coil	CZ.323.023
L2	1.8-2.2		
L3	1.3-1.7	S/W aerial coil	CZ.323.022
L4	<1		
L5	3.1-3.9	B/C oscillator coil	CZ.330.612
L6	0.9-1.1		
L7	<1	S/W oscillator coil	CZ.330.611
L8	<1		
L9	11.5-15.5	1st I.F. transformer	A3.124.25
L10	11.5-15.5		
L11	11.5-15.5	2nd J.F. transformer	A3.124.25
L12	11.5-15.5		
L13		Output transformer, 6,000 ohms 154B-C 154D	Type 12P2 Type 15065 Type CCG55
L14			
L15		Speaker 154B-C 154D	Type 12P2 Type 12K, F25
L16	28-38	Power transformer	CZ.344.085
L17	305-415		
L18	<1		
L19		Filter choke	Type 12/50

IMPORTANT! In ordering spare parts, quote CODE NUMBER of part and MODEL NUMBER of Receiver. In claiming free replacement under GUARANTEE, return defective part PROMPTLY and quote MODEL and SERIAL NUMBER of Receiver and DATE OF PURCHASE.