

# PHILIPS RADIOPLAYER

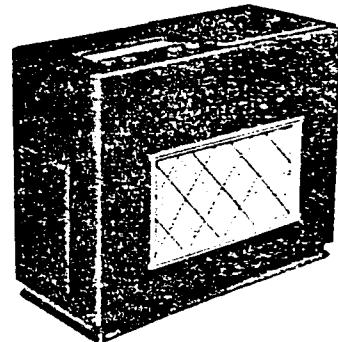
## MODELS 129-A-C-K-L-M

NOTE: The different versions vary in types of cabinet and record changer used. Refer to "Specifications" and "Capacitors" and "Resistors" sections of "Parts Lists" and circuit diagram for details.

### SPECIFICATIONS

(Subject to alteration without notice)

Power Supply	220-260V 40-60 c/s
Tuning Ranges	530-1620 kc/s 5.9-18.4 Mc/s 455 kc/s
Intermediate Frequency	Half lid type
Cabinet 129, 129A, 129C	Full lid type
Cabinet 129K, 129L, 129M	Philips type 2974
Gramo. Unit 129	Philips type 2508
Gramo. Unit 129A, 129K	Philips type 2978
Gramo. Unit 129C, 129L	Garrard type RC72A
Gramo. Unit 129M	



### VALVE EQUIPMENT AND VOLTAGE ANALYSIS

Valve Function	Valve No.	Valve Type	Plate Volts	Screen Volts	Osc. P. Volts
Frequency Converter	V1	6AN7	225	40	80
I.F. Amplifier, A.V.C. and Demodulator	V2	6N8	225	72	—
Audio Amplifier	V3	6N8	83	—	—
Power Amplifier	V4	6M5	210	225	—
Rectifier	V5	EZ82	V5 Cathode — L17 C.T. — 261V		
Dial Lamps	V11 & V12	6.3V 0.32A tubular screw			

\*Voltage across R23, -2.0V; across R23 and R24, -6.4V

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 resistors listed. The receiver should be in a "no signal" condition.

#### TO REMOVE CHASSIS FROM CABINET.

Remove the power plug from the supply outlet socket. Remove the four control knobs (a firm pull is all that is necessary) and the cabinet back. Secure the pick-up arm to its rest and remove any gramophone records from the storage compartment. Lay the receiver face downwards on some protective material. Remove the gramo. unit supply plug, the pick-up plug and speaker plug from their respective sockets. Remove the four chassis mounting screws and the two dial back plate securing screws. The chassis may now be withdrawn from the cabinet. It will be found to be of assistance when withdrawing the chassis to tilt it and bring out the tuning capacitor end first.

The chassis may be replaced by a reversal of the above procedure.

#### MAINS VOLTAGE ADJUSTMENT.

The power transformer is provided with two mains voltage tappings—220/240 volts and 250/260 volts—for adjustment to the supply voltage at the point of installation. The receiver is adjusted at the factory to the 220/240 volts tapping.

#### DIAL CALIBRATION.

If it is required to correct dial calibration for an equal error on all stations, provision is made for moving the cursor assembly with respect to the dial cord. Loosen the clamping screw, make the necessary adjustment to the cursor position and securely re-tighten the clamping screw.

#### ALIGNMENT.

The iron cores for the secondaries of the I.F. transformers are in the top of the cans, those for the primaries are in the bottom.

Broadcast band alignment frequencies are 1,420 kc/s (oscillator and aerial trimmers) and 600 kc/s (slug padding); short wave alignment frequencies are 18.4 Mc/s (tuning gang fully open, oscillator trimmer) 17.8 Mc/s (aerial trimmer) and 6 Mc/s (slug padding). **Do not attempt to adjust the iron cores of the aerial coils.**

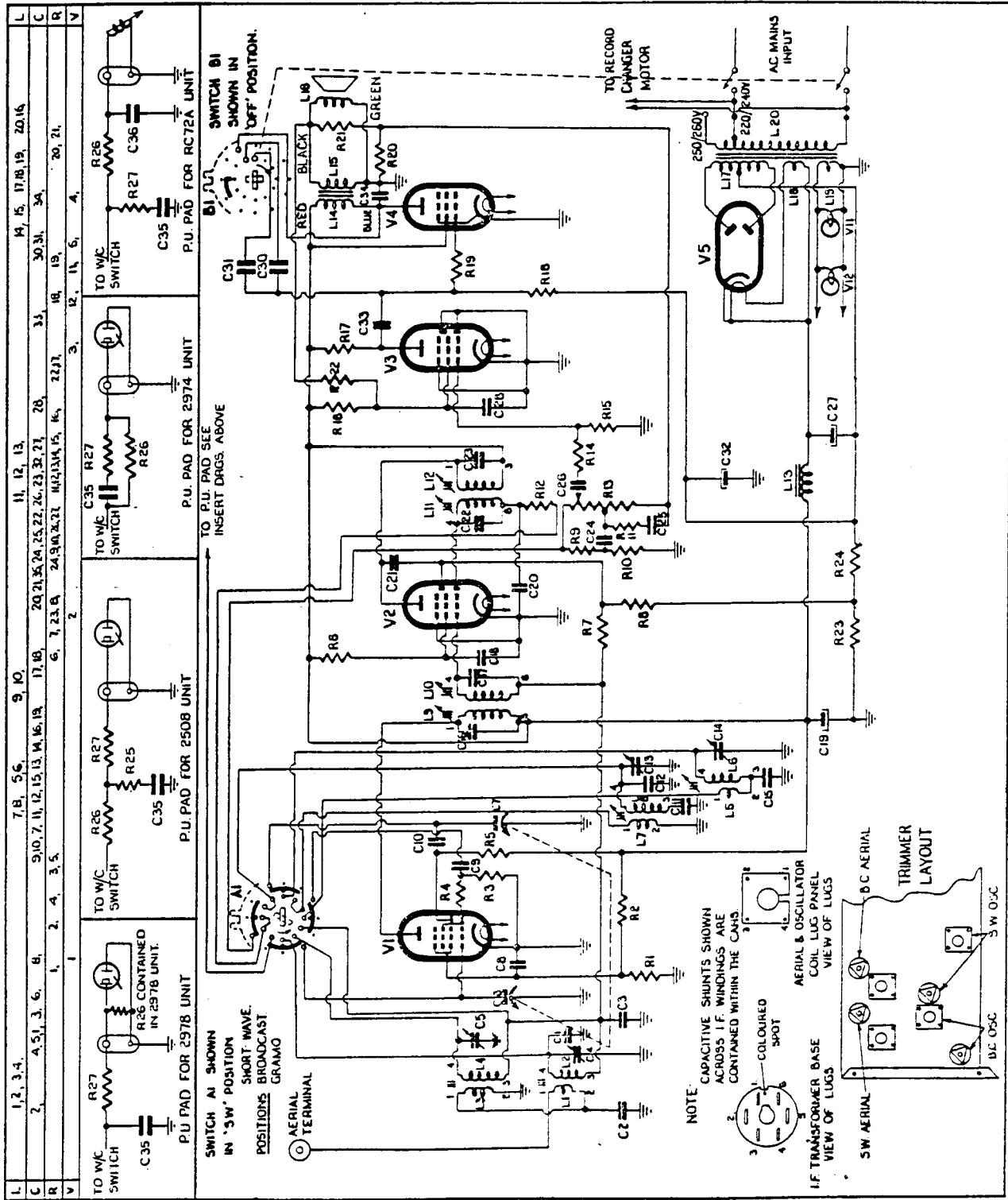
Before commencing alignment, set the dial cursor with the tuning capacitor fully closed, to the letter "S" mark at the extreme right-hand end of the scale at the bottom of the dial glass.

#### REMOVAL OF GRAMO. UNIT.

Remove the power plug from the supply outlet socket. Remove the cabinet back. Secure the pick-up arm to its rest and remove any gramophone records from the storage compartment. Lay the receiver face downwards on some protective material. Remove the gramo. unit supply plug and pick-up plug from their respective sockets. Remove the bottom cover of the gramo. unit compartment—this is necessary to clear the power plug. Restore the cabinet to its normal position. In the case of those receivers equipped with changer units, the unit may be removed by working from the top of the mounting board. In the case of the "C" version, it is necessary to remove the two nuts from the screws in each mounting plate from the under-side of the mounting board to release the gramo. unit.

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## PARTS LISTS

## CAPACITORS

No.	Description	Code No.	No.	Description	Code No.	No.	Description	Code No.
C1	10 pF mica	R1, 5	30,000 ohms 1W carbon	L1	1.5 { S/W aerial coil			
C2, 20	100 pF mica	R2	75,000 ohms 1W carbon	L2	<0.5 } (1 white spot)			CZ.323.006
C3	0.05 mF 200V paper	R3, 10, 14, 19	50,000 ohms 1W carbon	L3	30.0 { B/C aerial coil			CZ.323.007
C4, 5, 13, 14	30 pF air trimmer CZ.113.700	R4	100 ohms 1W carbon	L4	2.0 } (2 blue spots)			
C6, 7	2 gang tuning CZ.107.746	R6	100,000 ohms 1W carbon	L5	<0.5 { S/W oscillator coil			
C8, 18	0.01 mF 600V paper	R7, 8	2 megohms 1W carbon	L6	<0.5 } (yellow spot)			CZ.330.601
C9, 10	50 pF mica 10%	R9	0.5 megohm 1W carbon	L7	1.2 { B/C oscillator coil			
C11	475 pF mica 2% CZ.066.119	R11	15,000 ohms 1W carbon	L8	3.4 } (red spot)			CZ.330.600
C12	20 pF mica	R12, 22	100,000 ohms 1W carbon	L9	12.0 { 1st I.F. transformer			
C15	0.008 mF mica 10%	R13	0.5 megohm tapped carbon potentiometer CZ.029.137	L10	12.0 } 1st I.F. transformer			CZ.320.421
C16, 17	Part of 1st I.F. transformer	R15	10 megohms 1W carbon	L11	12.0 { 2nd I.F. transformer			
C19, 27	24 mF 350V electrolytic	R16	1 megohm 1W carbon	L12	12.0 } 2nd I.F. transformer			CZ.320.420
C21	30 pF mica	R17	250,000 ohms 1W carbon	L13	550.0 Filter choke			CZ.341.003
C22, 23	Part of 2nd I.F. transformer	R18	1 megohm 1W carbon	L14	400.0 { Speaker transformer			CZ.345.009
C24	0.002 mF 600V paper	R20	25 ohms 1W carbon 10%	L15	<0.5 }			CZ.161.217
C25, 26, 28, 33	0.02 mF 400V paper	R21	450 ohms 1W carbon	L16	2.0 Speaker			
C30	50 pF mica	R23	35 ohms W/W 10%	L17	650.0 { Power transformer			
C31 (129A- C-K-L)	150 pF mica	R24	75 ohms 1W W/W 10%	L18	0.8 { Power transformer			CZ.344.035
C31 (129M)	100 pF mica	R25 (129A-K)	100,000 ohms 1W carbon	L19	<0.5 }			
C32	10 mF 40V electrolytic	R26 (129)	0.5 megohm 1W carbon	L20	55.0 }			
C34	0.02 mF 600V paper	R26 (129A-K-M)	100,000 ohms 1W carbon					
C35 (129)	200 pF mica	R27 (129)	250,000 ohms 1W carbon					
C35 (129A-K)	500 pF mica	R27 (129A-K)	20,000 ohms 1W carbon					
C35 (129C-L)	0.001 mF mica	R27 (129C-L)	100,000 ohms 1W carbon					
C35 (129M)	0.02 mF 200V paper	R27 (129M)	25,000 ohms 1W carbon					
C36 (129M)	0.002 mF 600V paper							

**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.

## MISCELLANEOUS COMPONENTS

No. on Dial Cord	Layout Drawing	Description	Code No.	No. on Dial Cord	Layout Drawing	Description	Code No.
—	Assembly, cursor		CR.480.642	4	Cord, dial drive		CS.3E1.831
—	Assembly, dial back plate		CR.022.211	1	Drum, dial		CS.3E0.007
—	Assembly, lamp socket		CZ.367.900	—	Escutcheon, dial		CS.4E0.002
—	Assembly, pulley spindle		CR.436.206	—	Grommet, baffle mounting		CS.4E2.444
—	Assembly, pulley spindle		CR.436.210	—	Grommet, chassis mounting		CS.4E2.421
—	Assembly, terminal		CZ.376.200	—	Knob, control		CS.4E2.630
5	Assembly, tuning spindle		CR.371.323	—	Knob, record comp't door		CR.5E3.687
—	Assembly, T/C—on/off switch		CZ.200.420	—	Nipple, slide rod adj.		CS.2E4.603
—	Assembly, T/C clicker		CR.450.039	—	Nut, tee (chassis mtg.)		CH.6C3.214
—	Assembly, W/C switch		CZ.200.227	—	Plug, 2-pin polarised		CZ.3E5.108
—	Assembly, W/C clicker		CR.450.040	3	Pulley, dial		CS.3E9.602
—	Badge, Philips		CS.436.416	—	Ring, C (tuning spindle)		CS.2E1.802
—	Band, rubber (dial scale)		CS.433.406	6	Ring, dial cord		CS.2E1.807
—	Bank, T/C switch		CZ.200.204	—	Rod, dial slide		CS.3E2.213
—	Bank, W/C switch		CZ.200.231	—	Scale, dial		CS.4E2.333
—	Bracket, gang mounting		CS.224.609	—	Socket, valve		CZ.3E9.702
—	Bracket, switch mounting		CS.224.607	—	Socket, 2-pin polarised		CZ.3E0.107
—	Clamp, dial		CS.228.569	2	Spring, dial drum		CS.2E0.021
—	Clip, coil can mounting		CS.235.833	—	Switch, mains on/off		28.550.25
—	Cloth, speaker baffle		CE.081.86	—	Washer, felt (knobs-thick)		CS.4E7.052
—	Cord, baffle		CE.085.40	—	Washer, felt (knobs-thin)		CS.4E7.053

DIAL CORD LAYOUTVIEW FROM REAR OF CHASSIS.