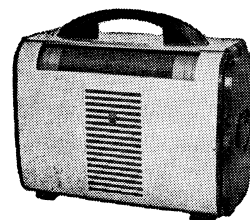


# PHILIPS RADIOPLAYER

## PORTABLE MODEL 111

### SPECIFICATIONS



Subject to alteration without notice.

Tuning Range .....	530-1620 Kc/s
Intermediate Frequency .....	455 Kc/s
Battery Equipment:	
"A" Supply .....	1 x 1.5V Portable Battery
"B" Supply .....	2 x 45V Portable Batteries
Battery Consumption .....	"A" — 0.3A
	"B" — 14mA

### VALVE EQUIPMENT AND VOLTAGE ANALYSIS

Valve Function	Valve No.	Valve Type	Plate Volts	Screen Volts
R.F. Amplifier	V1	1T4	82	39
Frequency Converter	V2	1R5	39	45
I.F. Amplifier	V3	1T4	82	39
Demodulator, A.V.C. and 1st Audio	V4	1S5	22	10
Power Amplifier	V5	1Q5GT	80	82

B— chassis — -4.7 volts

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

#### TRANSPORT OF RADIOPLAYER.

When it is desired to transport the Radioplayer, other than by normal hand carrying, it is advisable to remove the batteries from the case. This measure will lessen the risk of damage to the moulded parts of the case in the event of undue transit jarring.

#### REMOVAL OF CHASSIS FROM CABINET.

Remove the back securing screws, batteries, and battery cable storage tube. Remove the two screws from the top of the case (at rear of carrying handle) and control knobs. Unsolder the two connections to the loop. Remove the two chassis mounting screws; take care not to allow the chassis mounting plate nuts to turn. The chassis may now be removed from the case. In doing this, first lift the chassis straight up a little to clear the loop from possible damage by the chassis mounting bracket and then by raising the right-hand end, clear the potentiometer spindle through the cut-out in the moulded case end.

Replacement of the chassis is a reversal of the above procedure, but observance of the following points will be of assistance.

1. After preliminarily lowering the chassis into the case, slightly raise the chassis and with the free hand working through the dial opening, raise the shutter so that it will correctly fit the case.
2. First fit the chassis mounting screws loosely; this helps with other fitting operations.
3. Check: that the shutter does not foul the case; the hinged back, when closed, fits the moulded end pieces correctly (this can be adjusted whilst finally tightening the chassis mounting screws); the outside lug of the aerial trimmer joins to the wire which goes to the tuning gang (viewed through the trimmer cut-out).

#### EXTENDED BATTERY CABLE.

To permit of operation from external batteries this Radioplayer is fitted with a battery cable which can be extended to a length of four feet. Whilst internal batteries are in use, the surplus cable should be wrapped and stored in the cardboard tube provided for the purpose.

#### ALIGNMENT.

It is desirable to remove the chassis from the case for I.F. alignment. In all cases when the loop is not in circuit replace it with a 50,000 ohms carbon resistor.

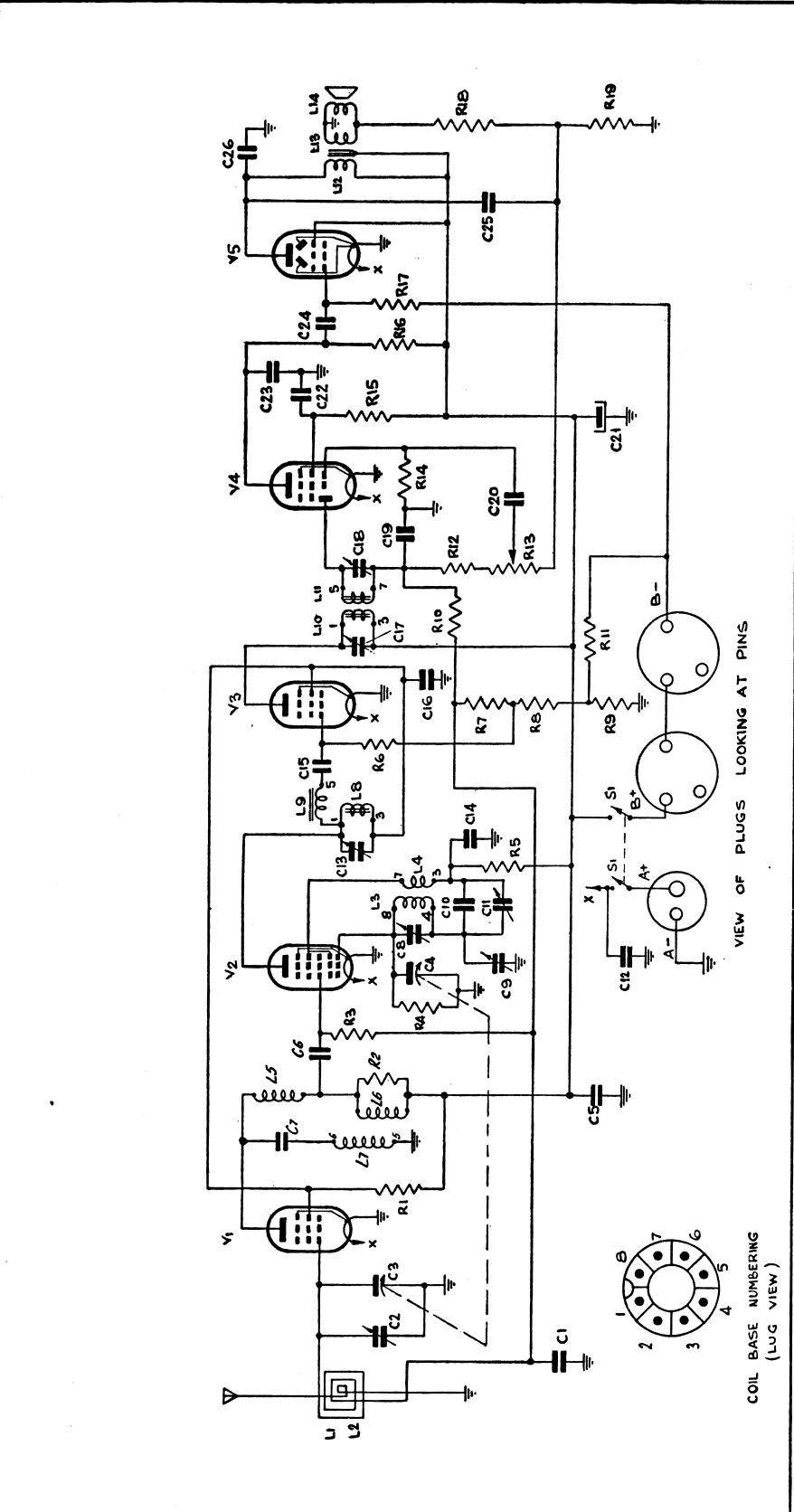
In the majority of cases R.F. alignment can be carried out with the chassis fitted into the case. Apply the modulated oscillator through a standard dummy to the external aerial and earth contacts. With the gang fully closed, set the dial pointer so that its left-hand edge coincides with the right-hand edge of the vertical column of state numerals on the low frequency end of the dial scale. Adjust oscillator trimmer at 1,400 Kc/s (2PK) and padder (air trimmer section) at 600 Kc/s (7ZL). Adjust the loop trimmer at 1,400 Kc/s with batteries installed and rear cover closed (remove blind grommet).

In the event of replacement of a component in the R.F. tuning circuits, it may be necessary to adopt the following alignment procedure with the chassis removed from the case.

Make preliminary adjustments of the oscillator trimmer and padder at 1,620 Kc/s (gang fully open) and 530 Kc/s (gang fully closed) respectively. If it is not found possible to peak the air trimmer in the padder adjustment, set the air trimmer to approx. half way in and adjust the ceramic trimmer so that the air trimmer can be peaked with at least a half turn to spare for final adjustment.

Fit the chassis to the case complete with batteries and adjust the dial pointer to the L.F. starting point (see above). Adjust oscillator trimmer at 1,400 Kc/s (2PK) and air trimmer of padder adjustment at 600 Kc/s (7ZL). Finally, with the back cover closed, adjust loop trimmer at 1,400 Kc/s.

L	1,2,	7	6,5	3,4,	8,9,	10,11,	12,13,14,
C	1,2,3,	7	5	6	4,9,12,8,10,11,13,14,	15,	16,17,18,19,20,21,22,23,24,
R	1,	2	3,4,	5,	6,7,8,9,11,10,	12,13,	14,15,16,17,18,19,
V	1,	2,	3,	4,	5,	6,	7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,



COIL BASE NUMBERING (LUG VIEW)

VIEW OF PLUGS LOOKING AT PINS

PARTS LISTS

CAPACITORS

No.	Description	Code No.
C1-5-16-22	0.1 mF 200V paper	
C2	50 pF trimmer	
C3-4	2 gang tuning	CZ.107.735
C6-15-19	100 pF ceramic	CZ.096.602
C7	33 pF ceramic	CZ.096.605
C8-9-17	30 pF air trimmer	CZ.113.700
C10	680 pF mica	
C11-13-18	125 pF ceramic trimmer	CZ.118.200
C12	0.5 mF 200V paper	
C14	0.002 mF mica	
C20-26	0.01 mF 600V paper	
C21	24 mF 350V electrolytic	
C23-24	0.001 mF 600V paper	
C25	0.004 mF 600V paper	
C27	80 pF mica	

RESISTORS

No.	Description	Code No.
R1	25,000 ohms 1/2W carbon	
R2	25,000 ohms 1W carbon	
R3-6-17	1 megohm 1/2W carbon	
R4	30,00 ohms 1/2W carbon	
R5	15,000 ohms 1/2W carbon	
R7-8	0.5 megohm 1/2W carbon	
R9-19	25 ohms 1/2W carbon	
R10-14	2 megohms 1/2W carbon	
R11	400 ohms 1W W/W	
R12	50,000 ohms 1/2W carbon	
R13	0.5 megohm potentiometer	
R15	2 megohms 1W carbon	
R16	250,000 ohms 1W carbon	
R18	100 ohms 1/2W carbon	

COILS

No.	Description	Ohms	Code No.
L1	Loop	<0.5	CZ.333.000
L2		2.0	
L3	Osc. Coil and I.F. Wave Trap	4.0	CZ.321.011
L4		2.0	
L7		50.0	
L5	R.F. Peaking Inductance, wound on 1 watt resistor as former	30.0	
L6	R.F. Choke, wound on R2	160.0	CZ.321.217
L8	I.F. Plate Impedance and Choke	4.0	CZ.326.203
L9		40.0	
L10	I.F. Transformer	5.0	CZ.320.413
L11		5.0	
L12	Speaker and Transformer	220.0	
L13	8,000 ohms	<0.5	CZ.161.109
L14		3.0	

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

**COMPONENTS NOT SHOWN ON CIRCUIT DIAGRAM**

No. on Dial Parts Diagram	Description	Code No.	No. on Dial Parts Diagram	Description	Code No.
—	Assembly, chassis supp. brkt. R.H.	CR.264.002	—	End, case, L.H.	CS.217.004
—	Assembly, chassis supp. brkt. LH.	CR.264.003	—	Foot, case	CS.240.007
—	Assembly, front cover	CR.571.200	—	Grommet, batt. cable	CS.422.414
—	Assembly, rear cover	CR.571.201	—	Grommet, blind	CS.422.433
—	Assembly, cursor	CR.480.619	—	Handle, carrying	CR.523.402
1	Assembly, dial drum	CR.382.806	—	Knob, control	CR.523.649
—	Assembly, shutter	CR.572.208	—	Plate, speaker mounting	CS.239.809
—	Assembly, shutter mtg. brkt. R.H.	CR.262.408	—	Plate, nut (chassis mounting)	CS.271.017
—	Assembly, shutter mtg. brkt. L.H.	CR.262.409	—	Plug, 2-pin polarised	CR.102.200
—	Assembly, window	CR.021.001	—	Plug, 3-pin polarised	CZ.365.204
—	Badge, Philips	CR.531.405	—	Plug, ext. aerial and earth	CH.776.100
—	Bracket, chassis mounting	CS.228.473	6	Pulley, small wooden	CS.360.201
—	Bracket, tuning spindle	CS.230.604	—	Ring, C. (tuning spindle)	CS.281.802
—	Clamp condenser	CS.235.828	—	Ring, C. (shutter mtg.)	CS.281.801
—	Contact, spring (ext. aer. & earth)	CS.105.801	8	Ring, dial cord	CS.281.807
5	Cord, dial	CS.361.815	—	Scale, dial	CR.483.013
4	Cord, drum	CS.361.814	—	Screw, back cover fastening	CS.259.811
—	End, case R.H.	CR.248.003	—	Socket, valve, octal	CZ.369.507
			—	Socket, valve, miniature	CZ.369.301
			7	Spindle, tuning	CS.351.224
			2	Spring, dial drum (long)	CS.210.008
			3	Spring, dial drum (short)	CS.210.011
			—	Spring, shutter	CS.210.012
			—	Switch, battery on/off	CZ.220.011
			—	Washer, countersunk	CS.467.039

