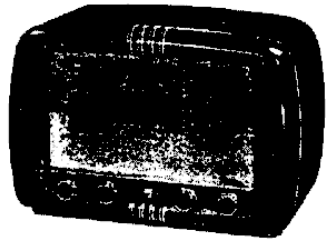
PHILIPS RADIOPLAYER

MODEL 124



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.
Magnified S/W Ranges	9.4-10.0 Mc/s (31 M band). 11.4-12.0 Mc/s (25 M band).
Intermediate Frequency	455 kc/s.
Cabinet	De luxe bakelite table.

VALVE EQUIPMENT AND VOLTAGE ANALYSIS

Valve Function	Valve No.	Valve Type	Plate Volts	Screen Volts	Osc. P. Volts
Frequency Converter	V1	6AN7	230	72	78
I.F. Amplifier	V2	6N8	230	70	—
Demodulator and A.V.C. 1st Audio	V3	6N8	46	11	—
Power Amplifier	V4	6M5	211	230	—
Rectifier	V5	6X5GT	V5 Cathode — L10C.T., 267V.		
Dial Lamps	V11, V12	6.3V. 0.32A. tubular screw			
Voltage across R8, –2.1V.; across R7 and 8, –6.7V.					

NOTE: These voltages are measured with an "1,000 ohms per volt" meter and may vary ± 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 mains outlet socket. Remove the cabinet back. The chassis is held to the cabinet by four screws in the base of the chassis and two screws at the top of the baffle. Removal of the screws permits the chassis to be withdrawn from the cabinet.

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 of the Radioplayer to the supply voltage at the point of installation. The Radioplayer is adjusted at the factory to the 220/240 volts tapping.

DIAL CALIBRATION ADJUSTMENT.

If station calibrations are incorrect by an equal amount over the length of the scale, the condition may be corrected by loosening the cursor to dial cord clamping screw, making the necessary adjustment, and firmly retightening the screw.

ALIGNMENT.

Before commencing alignment set the dial cursor with the tuning gang fully closed to the letter "S" mark on the calibration scale on the top edge of the dial scale.

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.

Because of the interdependence of trimmers, it is essential that magnified band alignment be carried out only after broadcast and continuous short-wave bands have been aligned.

Alignment frequencies are:—

Broadcast band	1,420 and 600 kc/s.
Continuous S/W band	18.4, 17.8 and 6 Mc/s.
Magnified band	11.8 Mc/s.

Capacitive trimmer adjustments are used at all frequencies except 600 kc/s., where the B/C oscillator iron core is used; and 6 Mc/s where the S/W oscillator iron core is used. **Do not attempt to adjust the iron cores of the aerial coils.**

The magnified band oscillator trimmer should not be finally adjusted until the chassis is refitted to the cabinet.

In the event of replacement of oscillator coils, make a preliminary adjustment before carrying out normal alignment of the iron core at 600 kc/s. for B/C band, and with the dial cursor set at 6 Mc/s. on the continuous S/W band, adjust the iron core until a 6 Mc/s. signal is received.

Oscillator/signal frequency relationships are:—

Continuous S/W band — oscillator frequency higher than signal frequency.

31 metres magnified band — oscillator frequency higher than signal frequency.

25 metres magnified band — oscillator frequency lower than signal frequency.

Refer to circuit diagram overleaf for trimmer layout drawing.

PARTS LISTS

CAPACITORS

No.	Description	Code No.
C1–7–11–18	100 pF mica 10%	
C2–3–8–12–16–19	30 pF air trimmer	CZ.113.700
C4	260 pF mica 1%	CZ.065.711
C5–6	2 gang tuning	CZ.107.720
C9	120 pF mica 1%	CZ.065.712
C10–24–29–31	0.01 mF 600V paper	
C13	210 pF mica 1%	CZ.065.713
C14	500 pF mica ± 7 pF	CZ.065.714
C15	0.0045 mF mica 10%	
C17	20 pF mica 10%	
C20	80 pF mica 1%	CZ.064.107
C21	100 pF ceramic 1%	CZ.096.400
C22–25	16 mF electrolytic 525V	
C23–33	30 pF mica	
C26	0.002 mF 600V paper	
C27–32	0.02 mF 400V paper	
C28	100 pF ceramic 10%	CZ.096.602
C30–38–40	0.05 mF 200V paper	
C34	80 pF mica	
C35	200 pF mica	
C36	0.02 mF 600V paper	
C37	1 pF wire	CZ.102.002
C39	0.05 mF 400V paper	

RESISTORS

No.	Description	Code No.
R1–6–9	1 megohm ½W carbon	
R2–3–24	30,000 ohms 1W carbon	
R4	100 ohms ½W carbon	
R5–12–14–16–22	50,000 ohms ½W carbon	
R7	80 ohms 1W W/W	
R8	35 ohms 1W W/W	
R10–26	100,000 ohms 1W carbon	
R11–18–21	0.5 megohm ½W carbon	
R13	5,000 ohms ½W carbon	
R15	0.5 megohm tapped potentiometer	CZ.029.129
R17–28	2 megohms ½W carbon	
R19	2 megohms 1W carbon	
R20	250,000 ohms 1W carbon	
R23	350 ohms ½W carbon	
R25	22 ohms ½W carbon	
R27	250,000 ohms ½W carbon	

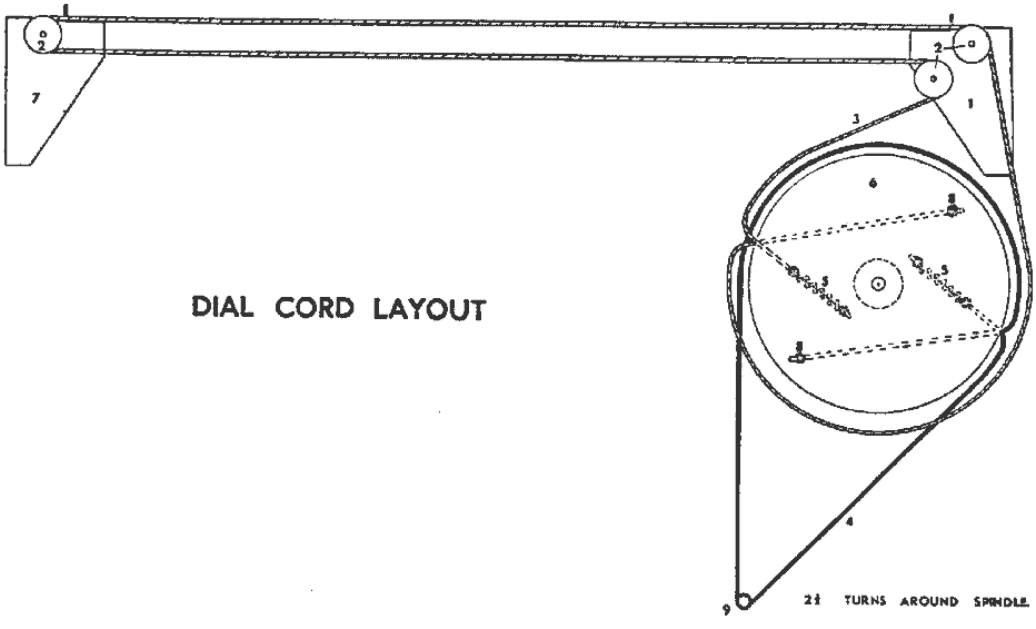
COILS

No.	Ohms	Description	Code No.
L1 L2	26 1.7	B/C aerial coil (2 red spots)	CZ.323.002
L3 L4	1.0 <0.5	S/W aerial coil (yellow spot)	CZ.323.003
L5 L6	1.2 3.4	B/C oscillator coil (red spot)	CZ.330.600
L7 L8	<0.5 <0.5	S/W oscillator coil (yellow spot)	CZ.330.601
L9 L10 L11 L12	30 500 <0.5 <0.5	Power transformer	CZ.344.021
L13 L14	12 12	1st I.F. transformer	CZ.320.421
L15	515	Filter choke	CZ.341.000
L16 L17	12 12	2nd I.F. transformer	CZ.326.206
L18 L19 L20	550 0.5 3.0	Speaker and transformer 6,000 ohms	CZ.161.209

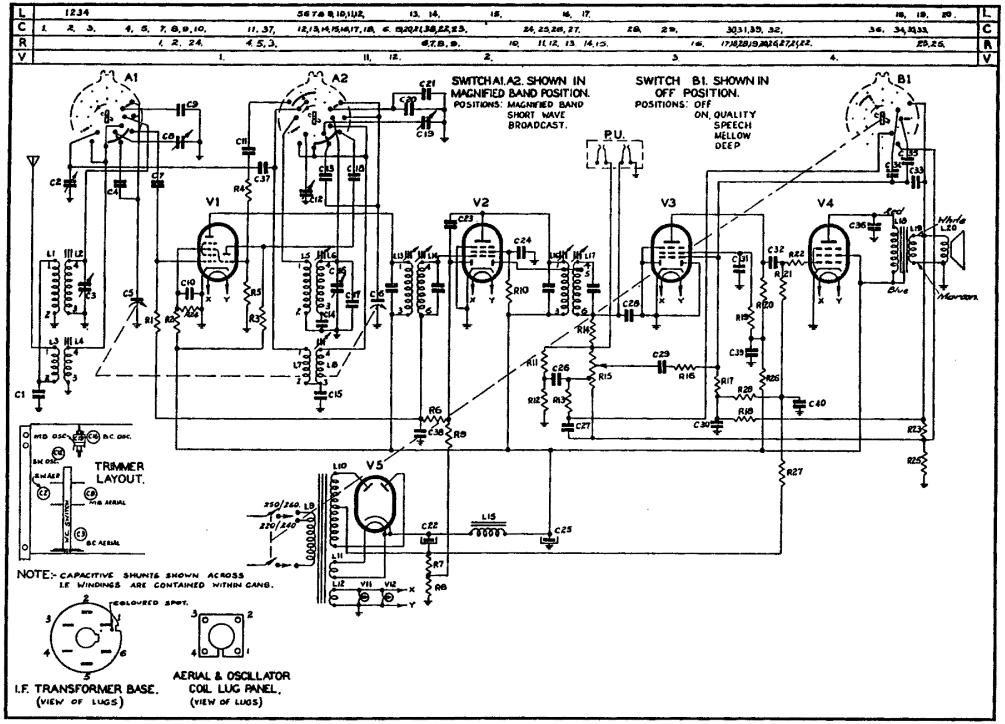
IMPORTANT ! In ordering spare parts, quote CODE NUMBER of part and MODEL NUMBER of Radioplayer. In claiming free replacement under GUARANTEE, return defective part PROMPTLY and quote MODEL and SERIAL NUMBER of Radioplayer and DATE OF PURCHASE.

MISCELLANEOUS COMPONENTS

No. on Dial Parts Diagram	Description	Code No.
—	Assembly, baffle	CR.005.222
—	Assembly, cursor	CR.480.628
6	Assembly, dial drum	CR.382.815
—	Assembly, escutcheon	CR.520.810
—	Assembly, lampholder	CZ.367.900
1	Assembly, slide rod mtg. brkt. R.H.	CR.263.205
7	Assembly, slide rod mtg. brkt. L.H.	CR.263.206
—	Assembly, terminal	CZ.376.200
—	Assembly, T/C-on/off switch	CZ.200.504
—	Assembly, T/C clicker	CR.450.032
—	Assembly, W/C switch	CZ.201.202
—	Assembly, W/C clicker	CR.450.033
—	Back, cabinet	CS.462.058
—	Badge, Philips	CR.531.406
—	Bank, T/C switch	CZ.200.412
—	Bank, W/C switch, A1	CZ.201.203
—	Bank, W/C switch, A2	CZ.201.204
—	Block, dial mounting	CS.424.048
—	Bracket, cab. back mtg.	CS.244.602
—	Bracket, escutcheon mtg.	CS.231.210
—	Cabinet	CS.460.483
—	Clamp, speaker	CS.234.813
—	Clip, coil can mtg.	CS.235.831
—	Cloth, speaker baffle	CE.081.81
3	Cord, dial	CS.361.828
4	Cord, drum	CS.361.827
—	Grommet, baffle mtg.	CS.422.443
—	Grommet, chassis mtg.	CS.422.421
—	Grommet, power cord	CS.422.414
—	Indicator, wave band	CR.483.021
—	Knob, control	CS.432.616
—	Nipple, slide rod tension	CS.274.603
—	Plate, spindle bearing	CS.400.201
2	Pulley, wooden	CS.360.202
—	Ring, "C" (tuning spindle)	CS.281.802
8	Ring, dial cord	CS.281.807
—	Rod, dial slide	CS.382.213
—	Scale, dial	CS.412.298
—	Socket, noval wafer	CZ.369.702
—	Socket, octal moulded	CZ.369.515
—	Socket, pick-up	CZ.370.106
—	Spacer, baffle mounting	CS.213.148
9	Spindle, tuning	CS.351.314
5	Spring, dial drum	CS.210.010
—	Switch, mains on/off	CZ.220.001
—	Washer, felt (knobs)	CS.424.057



DIAL CORD LAYOUT


SWITCH A1.A2. SHOWN IN MAGNIFIED BAND POSITION.
POSITIONS: MAGNIFIED BAND SHORT WAVE BROADCAST.
SWITCH B1. SHOWN IN OFF POSITION.
POSITIONS: OFF ON, QUALITY SPEECH MELLOW DEEP
P.U.
A1
A2
B1
V1
V2
V3
V4
V5
TRIMMER LAYOUT.
MID OSC.
S.W. OSC.
S.W. AER.
M.W. AER.
L.W. OSC.
L.W. AERIAL
NOTE:- CAPACITIVE SHUNTS SHOWN ACROSS I.F. WINDINGS ARE CONTAINED WITHIN GANG.
I.F. TRANSFORMER BASE. (VIEW OF LUGS)
AERIAL & OSCILLATOR COIL LUG PANEL. (VIEW OF LUGS)