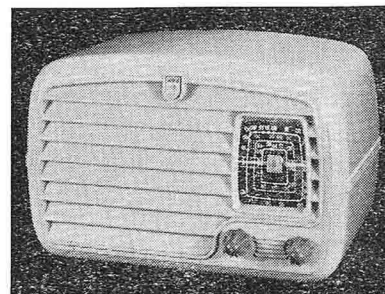


SERVICE DATA

PHILIPS RADIOPLAYER

MODEL 100



SPECIFICATIONS

(Subject to alteration without notice)

Power Supply ... 220-260V A.C. 40-60 C/S
 Tuning Range ... 540-1620 Kc/s.
 Intermediate Frequency ... 455 Kc/s.
 Cabinet ... Moulded bakelite, executed in several colours

VALVE EQUIPMENT AND FUNCTIONS

Frequency Converter	V1	ECH35	Triode-hexode
I.F. Amplifier	V2	EBF2G/GT or EBF35	Duo-diode pentode
Power Amplifier	V3	6V6GT	Beam power tetrode
Rectifier	V4	6X5GT	Full wave vacuum rectifier
Dial Lamp	V11	6.3V 0.32A	Screw tubular pilot lamp

TO REMOVE CHASSIS FROM CABINET.

Remove power plug from socket. Remove both knobs and the four chassis retaining screws, withdraw chassis from cabinet. To replace the chassis, reverse this process.

Note.—If it is desired to transport this Radioplayer any distance, it is advisable to screw the Masonite packing piece onto the chassis, and pack the receiver into its original packing carton.

MAINS VOLTAGE ADJUSTMENT.

220-240 and 250-260 volts A.C. tapings are provided on the power transformer to permit of mains voltage adjustment. This Radioplayer has been adjusted at the Factory to the 220-240 volts tapping.

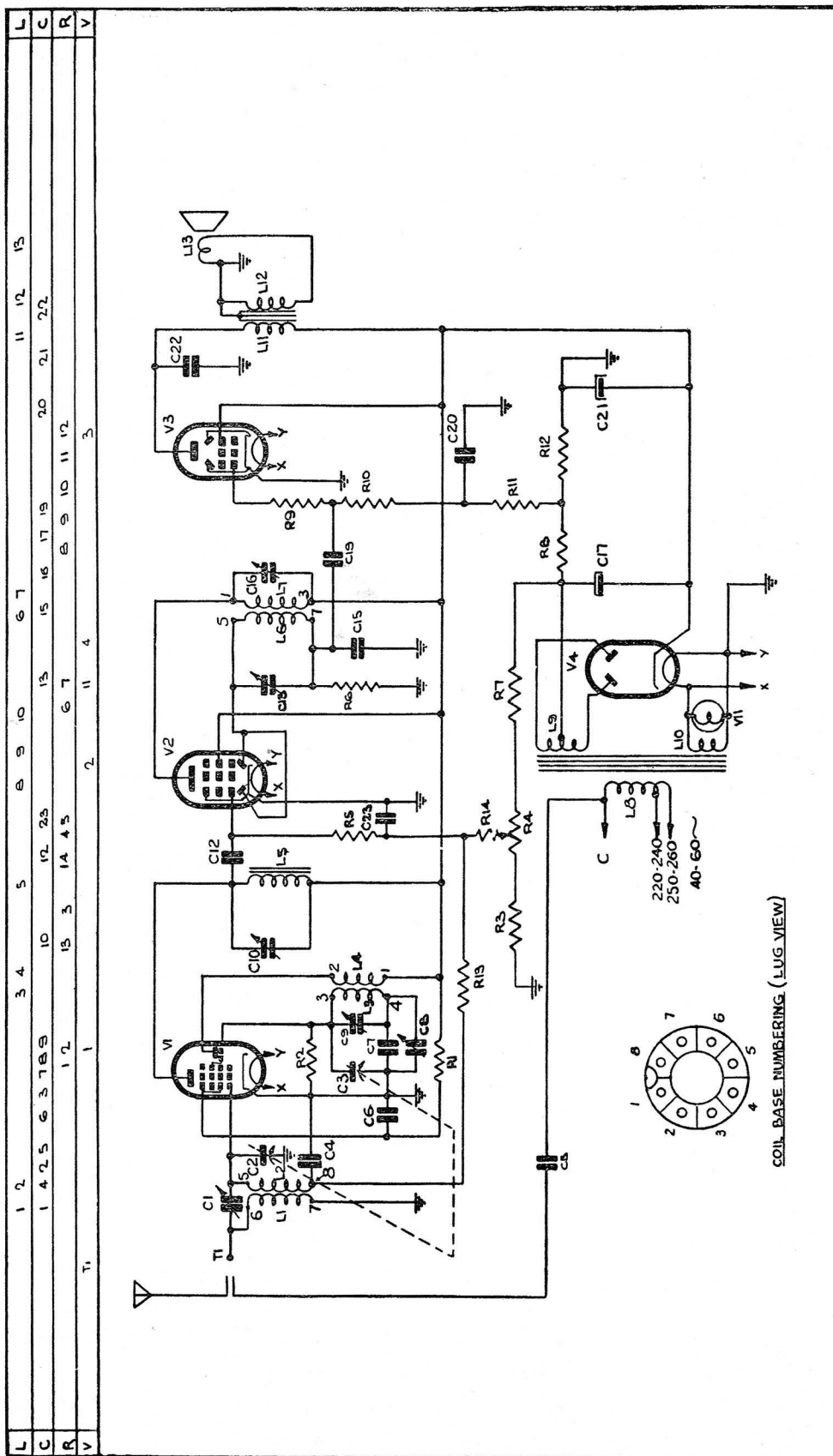
DIAL CALIBRATION.

If, through any cause, the dial pointer shows an equal error on all stations, this may be corrected by turning the dial pointer assembly in relation to the tuning condenser shaft.

VOLTAGE ANALYSIS.

Valve Position	Plate Voltage	Screen Voltage	Osc. Plate Voltage	Bias Voltage	Bias Resistor
V1	107	50	107	—0.5	R3
V2	107	107	—	—0.5	R3
V3	100	107	—	—6.0	R12
V4	180V A.C. per plate to Transformer C.T.				
B + to B — = 180 volts					

NOTE.—The voltages may vary by 10% (+ or —) from the figures quoted. They are measured from the socket points indicated, to chassis, or across the resistors or transformer windings stated, using a "1,000 ohms per volt" meter on the 250 volt range for plates—screens and 10 volt range for bias. The receiver must be in a "no signal" condition, with the volume control at maximum.



SERVICE DATA

CONDENSERS

No.	Value	Code No.
C1	Glass/wire trimmer 30 pfd	CZ.117.600.A
C2-3	Tuning gang	CZ.107.709
C4-C20	0.1 mfd 200V paper	CZ.118.001.AG
C5	100 pfd ceramic	
C6-22-23	0.01 mfd 600V paper	
C7	380 pfd mica 10%	

No.	Value	Code No.
C8-10-13-16	Trimmer 125 pfd	CZ.118.200.A
C9	Trimmer 30 pfd	CZ.113.700.A
C12	100 pfd 10%	
C15	100 pfd ceramic 10%	
C17-21	24 mfd 350V electro	CZ.099.900.2D
C19	0.001 mfd 600V paper	

RESISTORS

No.	Value	Code No.
R1	50,000 ohms 1W 20%	CZ.029.104.AF
R2	25,000 ohms $\frac{1}{2}$ W 20%	
R3	25,000 ohms $\frac{1}{2}$ W 10%	
R4	0.5M Potentiometer	
R5-13	2 Megohm $\frac{1}{2}$ W 20%	
R6	0.5 Megohm $\frac{1}{2}$ W 20%	

No.	Value	Code No.
R7	1 Megohm $\frac{1}{2}$ W 10%	CZ.011.301.E
R8	2,500 ohms 5W w/w 5%	
R9	50,000 ohms $\frac{1}{2}$ W 20%	
R10-14	1 Megohm $\frac{1}{2}$ W 20%	
R11	100,000 ohms $\frac{1}{2}$ W 20%	
R12	200 ohms 1W 10%	

COILS

No.	Resistance	Code No.
L1	35 ohms	CZ.320.008.4
L2	4 ohms	
L3	5 ohms	
L4	2.5 ohms	
L5	5 ohms	CZ.323.600.2
L6	9 ohms	CZ.320.603
L7	9 ohms	

No.	Resistance	Code No.
L8	140 ohms	CZ.344.202.5H
L9	560 ohms	
L10		
L11	440 ohms	44/616
L12	0.3 ohms	
L13	3 ohms	CZ.161.101

COMPONENTS NOT SHOWN ON CIRCUIT DIAGRAM

Component	Code No.
Assembly, dial pointer	18/212.2
" lampholder	34/901.3J
" terminal	31/038
Badge, Philips	CR.531.404.1
Cabinet Ebony	32/679.1
" Rosewood	32/682
" Green	CS.460.416
" Ivory	CS.460.414
" Walnut	32/678.1
" Blue	CS.460.420
Cord, dial drive	35/353

Component	Code No.
Drum, dial	18/168.1
Glass, dial, printed	CS.412.000
Knob, red	CR.523.622
Pan, dial	18/169.3
Shield, chassis	18/213
Spacer, pot mounting	CH.704.610.3A
Spindle, tuning	22/799
Spring, dial drum	25/277

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

SERVICE DATA

ALIGNMENT

GENERAL.

This receiver incorporates coiled wire trimmers, which have been found to retain their original settings over long periods. Care should be taken not to unnecessarily remove turns from the trimmers, as it may be difficult to replace them. If turns are replaced, they should be sealed with wax, not solder, as intense heat will destroy the trimmer. As a measure to overcome the fact that coiled wire trimmers do not permit of continuous variation about their initial setting, the following notes are given.

TO CHECK I.F. CHANNEL.

With the receiver connected to the modulated oscillator and the correct I.F. of 455 Kc/s passing through the I.F. circuits, bring a finger close to each trimmer in turn and note the results. An increase in output indicates that more capacity is needed in that trimmer. A decrease of output can indicate that the

trimmer either is correctly adjusted or needs less capacity. To differentiate between these two latter conditions, the following procedure is recommended. **Reduce** the mod. oscillator frequency by approximately 1 Kc/s and again check the doubtful trimmers by the same means. Those trimmers which are correctly adjusted will, on test, cause an increase in output, while those which are out of adjustment by this 1 Kc/s change or more, will give a decrease in output.

TO CHECK AERIAL COIL.

Pass a broadcast signal from the mod. oscillator through the receiver. Check the trimmer in a manner similar to that used in checking the I.F. channel, but care must be taken to reduce the oscillator frequency in steps of no more than 1 Kc/s.

PROCEDURE.

Adjust pointer horizontal with gang fully closed. Remove capacity aerial wire from terminal.

Operation	Adjust Osc. Frequency To	Connect Osc. Output To	Connect Osc. To Receiver via	Peak Trimmers in Following Sequence	Remarks
I.F. Alignment	455 Kc/s	Grid of V1	0.25 mfd	C13, C16, C10	Grid cap on Gang fully closed.
B/C H.F. end	1,500 Kc/s	Aerial Terminal	100 pfd	C9	Adjust pointer to 1,500 Kc/s.
B/C H.F. end	1,400 Kc/s	" "	"	C1	Tune set before adjusting C1.
B/C L.F. end	600 Kc/s	" "	"	C8	Rock Gang while peaking.

TRIMMER IDENTIFICATION.

The I.F. transformer and coil former base lugs are counted 1 to 8, moving in an anti-clockwise direction from the index mark. The index mark on the periphery of the base can be identified as a semi-circle on one of the ribs.

Coil		Trimmer	Location
Aerial and Osc. Coil	C1	Aerial Trimmer	Between lugs 5 and 6
Aerial and Osc. Coil	C9	Oscillator Trimmer	Between lugs 3 and 4
Aerial and Osc. Coil	C8	Oscillator Padder	Between lugs 4 and 7
I.F. Choke	C10	I.F. Trimmer	Wired across choke
I.F. Transformer	C18	Primary Trimmer	Between lugs 1 and 2
I.F. Transformer	C13	Secondary Trimmer	Between lugs 5 and 7