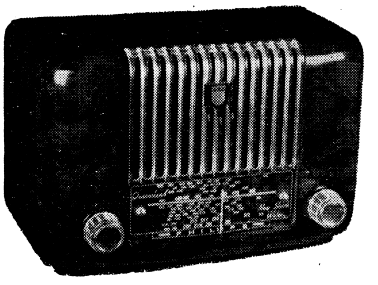
PHILIPS RADIOPLAYER

MODEL 139



SPECIFICATIONS

(Subject to alteration without notice)

Power Supply	200-250V, 40-60 c/s.
Tuning Range	530-1620 kc/s.
Intermediate Frequency	455 kc/s.
Cabinet	Bakelite mantel

VALVE EQUIPMENT AND VOLTAGE ANALYSIS

Valve Function	Valve No.	Valve Type	Plate Volts	Screen Volts	Osc. P. Volts	Bias Volts
Frequency Converter	V1	6AN7	223	40	40	—
I.F. Amplifier	V2	6BH5	223	40	—	—
Audio Amplifier A.V.C. and Demodulator	V3	6BD7	55	—	—	—
Power Amplifier	V4	6M5	221	223	—	6.5
Rectifier	V5	EZ82	V5 Cathode — L13 C.T., 239V.			
Dial Lamp	V11	6.3V 0.32A tubular screw				
Voltage across R13, –2.7V.						

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 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 two control knobs (a firm pull is all that is necessary) and the combined back and bottom cover. Unsolder the speaker voice coil connections from the lug strip at the base of the speaker transformer. Release the dial cursor from the dial drive cord. Remove the two chassis retaining clamps at the rear of the chassis. The chassis may now be withdrawn from the cabinet.

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

TO REMOVE DIAL SCALE.

Remove the two dial scale securing screws. Care must be exercised in this operation not to damage the dial scale with tools. The most satisfactory tool to use is a 9/32" spintite blinded off so that its face does not touch the scale.

When the screws are removed, ease the top of the scale up from the cabinet a short distance to clear the top lugs and then lift it clear.

MAINS VOLTAGE ADJUSTMENT.

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

ALIGNMENT.

It is advisable to remove the chassis from the cabinet for alignment purposes. Three alignment points are provided on the front of the chassis; they represent, cursor stop, 600 kc/s and 1,420 kc/s. These marks in conjunction with a simple pointer made up from workshop materials, facilitate alignment.

I.F. transformer adjustments are:—

2nd I.F.T.
Secondary—front screw.
Primary—rear screw.
1st I.F.T.
Secondary—screw nearer 6BH5.
Primary—screw nearer 6AN7.

Before commencing R.F. alignment, fully close the tuning capacitor and set the makeshift pointer to the cursor stop mark stencilled on the chassis. Use a 100 pF capacitor as dummy aerial for R.F. alignment. Trimming adjustments are: oscillator trimmer (1,420 kc/s) front of tuning capacitor, aerial trimmer (1,420 kc/s) rear of tuning capacitor, padding (600 kc/s) iron core in oscillator coil.

In the event of replacement of the oscillator coil it is advisable to make a preliminary peaking of the iron core at 600 kc/s before commencing alignment.

No attempt should be made to adjust the aerial coil iron core.

DIAL CALIBRATION ADJUSTMENT.

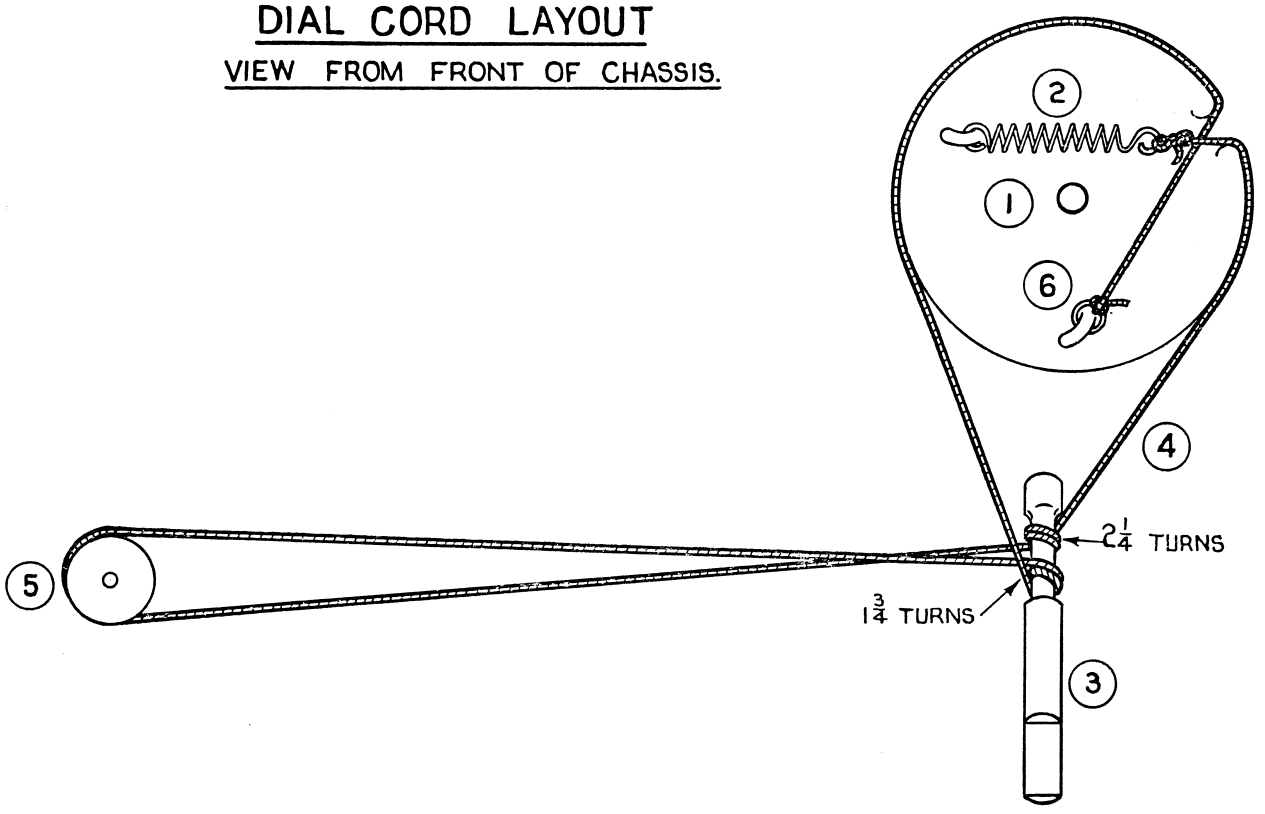
If dial calibrations are incorrect by an equal amount over the length of the scale, the condition may be corrected by loosening the cursor to dial cord clamping screw, making the necessary adjustment and firmly re-tightening the screw.

MISCELLANEOUS COMPONENTS

No. on Dial Cord Layout Drawing	Description	Code No.
—	Assembly, cursor	CR.480.648
—	Assembly, lampholder	CZ.367.920
—	Back, cabinet	CS.462.198
—	Badge, Philips	CS.436.416
—	Cabinet, blue	CR.570.470
—	Cabinet, burgundy	CR.570.464
—	Cabinet, green	CR.570.469
—	Cabinet, ivory	CR.570.463
—	Cabinet, red	CR.570.468
—	Cabinet, walnut	CR.570.467
—	Cabinet, white	CR.570.472
—	Clip, spring (I.F.T. mounting)	A3.652.58
4	Cord, dial	CS.361.835
1	Drum, dial	CS.359.807
—	Knob, 2x	CR.523.709
5	Pulley, dial	CS.359.602
—	Rod, dial slide	CS.382.223
—	Scale, dial NSW/Qld	CS.412.368
—	Scale, dial VIC/TAS/SA/WA	CS.412.370
—	Screw, dial scale mtg., 2x	CS.258.839
—	Socket, noval, 5x	CZ.369.705
—	Speed fix (knobs), 2x	CH.777.371
—	Speed fix (masking plate), 2x	CH.629.203
—	Speed fix (speaker), 2x	CH.629.205
—	Spindle, potentiometer	CS.351.349
3	Spindle, tuning	CS.351,348
2	Spring, dial drum	CS.210.034
—	Switch, on/off	28.650.25

DIAL CORD LAYOUT

VIEW FROM FRONT OF CHASSIS.



PARTS LIST

CAPACITORS

No.	Description	Code No.
C1	100 pF mica	
C2, 3, 4, 5	2 gang tuning and trimmers	CZ.107.749
C6	330 pF mica 2%	CZ.066.124
C7, 8, 11, 12	Part of I.F. transformers	
C9	0.05 mF 400V paper	
C10, 15	0.05 mF 200V paper	
C13	250 pF mica	
C14	0.02 mF 400V paper	
C16	0.01 mF 600V paper	
C17, 18	24 mF 350V electrolytic	
C19	0.005 mF 600V paper	
C20	0.02 mF 600V paper	

All tolerances are 20% except where otherwise stated.

RESISTORS

No.	Description	Code No.
R1	22,000 ohms ½W carbon	
R2	47,000 ohms 1W carbon	
R4, 10	3.3 megohms ½W carbon	
R6, 11	47,000 ohms ½W carbon	
R7	0.5 megohm carbon potentiometer	CZ.030.503
R8	2.2 megohms ½W carbon	
R9	1 megohm ½W carbon	
R12	1,000 ohms 1W carbon	
R13	75 ohms ½W W/W 10%	
R14	10 megohms ½W carbon	
R15	220,000 ohms ½W carbon	
R16	200 ohms ½W W/W 10%	

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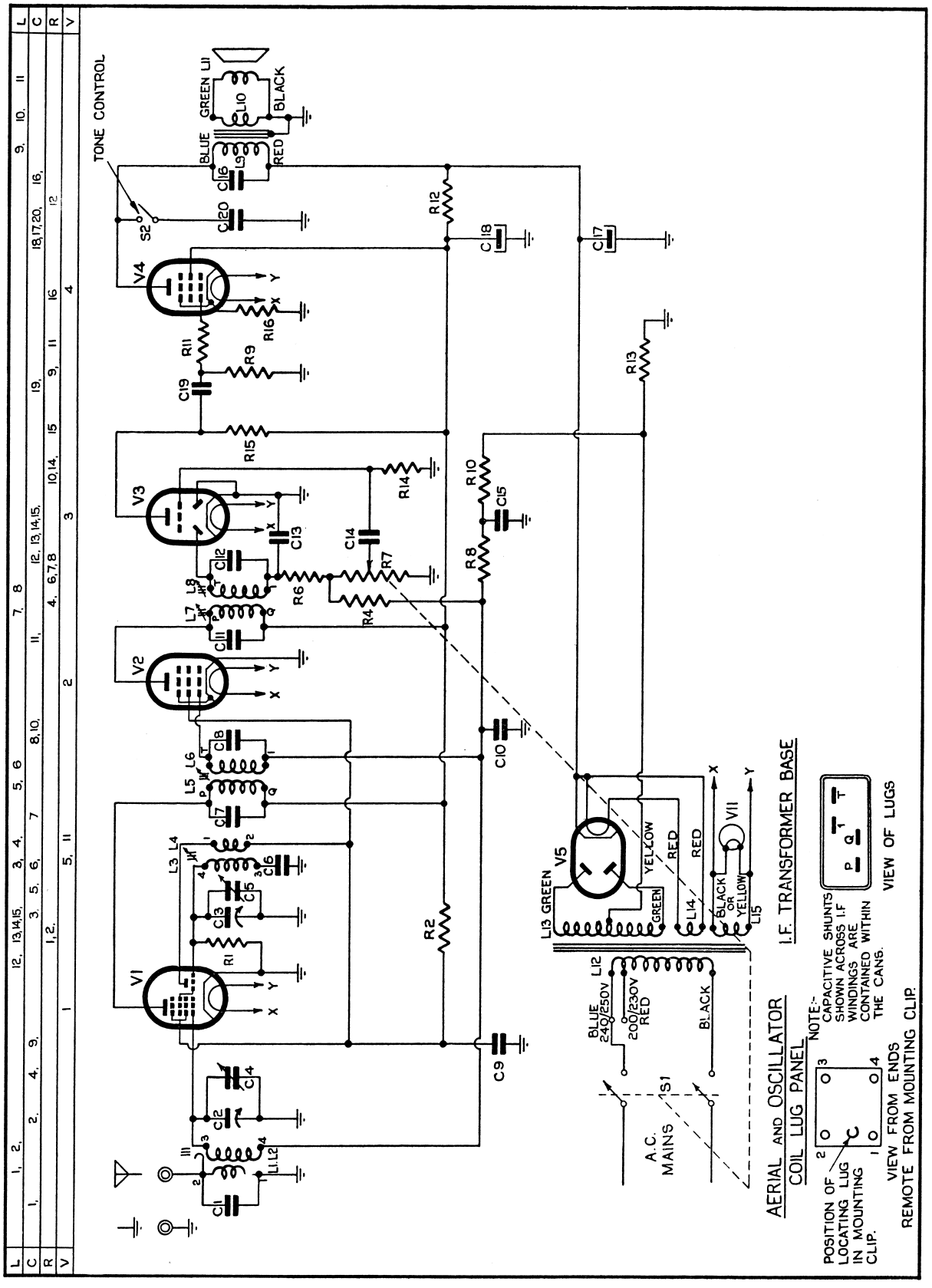
COILS

No.	Ohms	Description	Code No.
L1	24.0-32.5	Aerial coil	CZ.323.019
L2	2.0-3.0		
L3	1.0-2.0	Oscillator coil	CZ.330.606
L4	3.5-5.0		
L5	11.5-15.5	1st I.F. transformer	A3.124.25
L6	11.5-15.5		
L7	11.5-15.5	2nd I.F. transformer	A3.124.25
L8	11.5-15.5		
L9	476-644	Speaker transformer	CZ.345.015
L10	<1.0		
L11	3.1-4.1	Speaker	49.239.58
L12	55-75	Power transformer	CZ.344.047
L13	630-850		
L14	<0.5		
L15	<0.5		

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.


TONE CONTROL
S2
V1
V2
V3
V4
V5
V6
V7
L1 L2
L3 L4
L5 L6
L7 L8
L9 L10 L11
L12
L13 GREEN
L14
L15
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C11
C12
C13
C14
C15
C16
C17
C18
C19
C20
R1
R2
R4
R6
R7
R8
R9
R10
R11
R12
R13
R14
R15
R16
BLUE
RED
GREEN
BLACK
YELLOW
A.C. MAINS
S1
BLUE 240/250V
200/230V RED
BLACK
YELLOW
GREEN
RED
RED
BLACK OR YELLOW
I.F. TRANSFORMER BASE
VIEW OF LUGS
AERIAL AND OSCILLATOR
COIL LUG PANEL
VIEW FROM ENDS
REMOTE FROM MOUNTING CLIP.
POSITION OF LOCATING LUG IN MOUNTING CLIP.
NOTE:- CAPACITIVE SHUNTS SHOWN ACROSS I.F WINDINGS ARE CONTAINED WITHIN THE CANS.