

# PHILIPS RADIOPLAYER

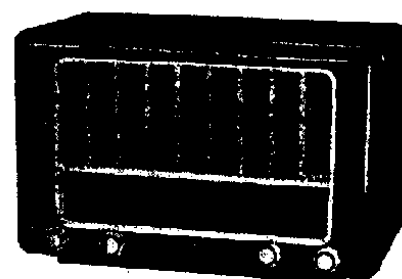
## MODEL 131

### SPECIFICATIONS

(Subject to alteration without notice)

Tuning Ranges .....	530-1620 kc/s 5.9-18.4 Mc/s
Intermediate Frequency .....	455 kc/s
Cabinet .....	Bakelite table
Battery Equipment .....	2 x 45V heavy duty, plug-in type, dry batteries. 1 x 1.5V plug-in type dry battery.
Battery Consumption .....	"A" 0.3A "B" 15 mA

NOTE: In some chassis the oscillator grid leak R2 is returned to A+. In these cases the connection should be changed to chassis.



### VALVE EQUIPMENT AND VOLTAGE ANALYSIS

Valve Function	Valve No.	Valve Type	Plate Volts	Screen Volts	Bias Volts
R.F. Amplifier	V1	1T4	83	35	0
Frequency Converter	V2	1R5	83	35	0
I.F. Amplifier	V3	1T4	83	35	-0.6
Demodulator, A.V.C. and 1st Audio	V4	1S5	*26	*20	0
Power Amplifier	V5	3V4	81	83	-6.3

NOTE: These voltages are measured with an "1,000 ohms per volt" meter, except those marked with an asterisk, which are measured with a V.T.V.M., and they may vary  $\pm 10\%$  from the figures quoted. They are measured from the socket points listed to chassis.

#### TO REMOVE CHASSIS FROM CABINET.

Remove the plugs from the batteries, or if the receiver is vibrator unit operated, remove the battery clips from the battery terminals. Remove the four control knobs (a firm pull is all that is necessary) and the cabinet back. The chassis is held to the cabinet by three screws in the baffle—two along the top and one on the right-hand side—and four screws through the bottom of the cabinet. Removal of these seven screws allows the chassis to be withdrawn from the cabinet. If the receiver is vibrator unit operated, it is necessary to remove the vibrator unit from the chassis before attempting to remove the baffle securing screws.

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

#### ALIGNMENT.

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

Broadcast band alignment frequencies are 1,420 kc/s and 600 kc/s, short wave alignment frequencies are 18.4 Mc/s (oscillator trimmer), 17.8 Mc/s (aerial trimmer) and 6 Mc/s (oscillator coil slug). The short wave neutralising capacitor C13 is adjusted for maximum signal at 17.8 Mc/s, whilst rocking the tuning gang. Do not attempt to adjust the slugs of the aerial and R.F. coils. Before commencing alignment, set the dial cursor, with the tuning gang fully closed, to the letter "S" mark on the extreme R.H. end of the calibration marks on the bottom of the dial scale.

#### DIAL CALIBRATION.

If it is required to correct dial calibrations for an equal error on all stations, the cursor assembly can be moved on the dial cord. Loosen the clamping screw, make the necessary adjustment to the cursor position, and securely re-tighten the clamping screw.

#### VIBRATOR UNIT OPERATION.

Model 131 may be operated from a 6 volt accumulator by means of vibrator unit Model 118.

Provision is made on the receiver chassis for fitting the vibrator unit. The receiver battery leads should be plugged into the vibrator unit sockets, the surplus cable being neatly stowed in the cabinet. It is also necessary to fit the two-pin plug from the vibrator unit to the socket provided on the receiver chassis.

A separate service sheet covers the Model 118 unit.

#### 32 VOLT D.C. OPERATION.

Model 131 may be operated from 32 volt D.C. mains by means of vibrator unit Model 118 and 32 volt converter unit Model 137.

The Model 118 unit connects to Model 131 as outlined in "Vibrator Unit Operation" and the Model 137 unit connects between the Model 118 unit and the 32 volt mains. When connecting up the Model 137 unit, connect the negative lead of the Model 118 unit to the negative terminal of the Model 137 unit. The positive lead of the Model 118 unit is split—the wire carrying the fuse connects to the terminal marked "VIB," the other wire to the terminal marked "FIL."

When the Model 131 is used on 32 volt D.C. mains, leave the receiver switch in the "on" position and control it from the mains switch.

# PARTS LISTS

## CAPACITORS

No.	Description	Code No.
C1, 14, 26	100 pF mica	
C2, 4, 10, 15, 18	30 pF air trimmer	CZ.113.700
C3	20 pF mica	
C5, 6, 7	3 gang tuning	CZ.108.204
C8, 12	5 pF mica	
C9	80 pF mica 10%	
C11	0.05 mF 200V paper	
C12	5 pF mica 10%	
C13	8 pF air trimmer	CZ.113.500
C16	0.0055 mF mica 10%	CZ.068.116
C17	10 pF mica	
C19	475 pF mica 2%	CZ.066.119
C20, 21	Part of 1st I.F. transformer	
C22, 25, 33, 34, 37	0.1 mF 200V paper	
C23, 24	Part of 2nd I.F. transformer	
C27, 28, 29 35	0.01 mF 600V paper	
C30	24 mF 350V electrolytic	
C31	80 pF mica	
C32	250 pF mica	
C36	0.5 mF 200V paper	

## RESISTORS

No.	Description	Code No.
R1, 6, 12	100,000 ohms $\frac{1}{2}$ W carbon	
R2	25,000 ohms $\frac{1}{2}$ W carbon	
R3	20,000 ohms $\frac{1}{2}$ W carbon	
R4	30,000 ohms $\frac{1}{2}$ W carbon	
R5, 11	1 megohm $\frac{1}{2}$ W carbon	
R7	0.5 megohm carbon potentiometer	CZ.029.138
R8	10 megohms 1W carbon	
R9	3 megohms $\frac{1}{2}$ W carbon	
R10	0.5 megohm $\frac{1}{2}$ W carbon	
R13	400 ohms $\frac{1}{2}$ W carbon 10%	
R14	50 ohms $\frac{1}{2}$ W carbon 10%	
R15	25 ohms $\frac{1}{2}$ W carbon	
R16	100 ohms $\frac{1}{2}$ W carbon	

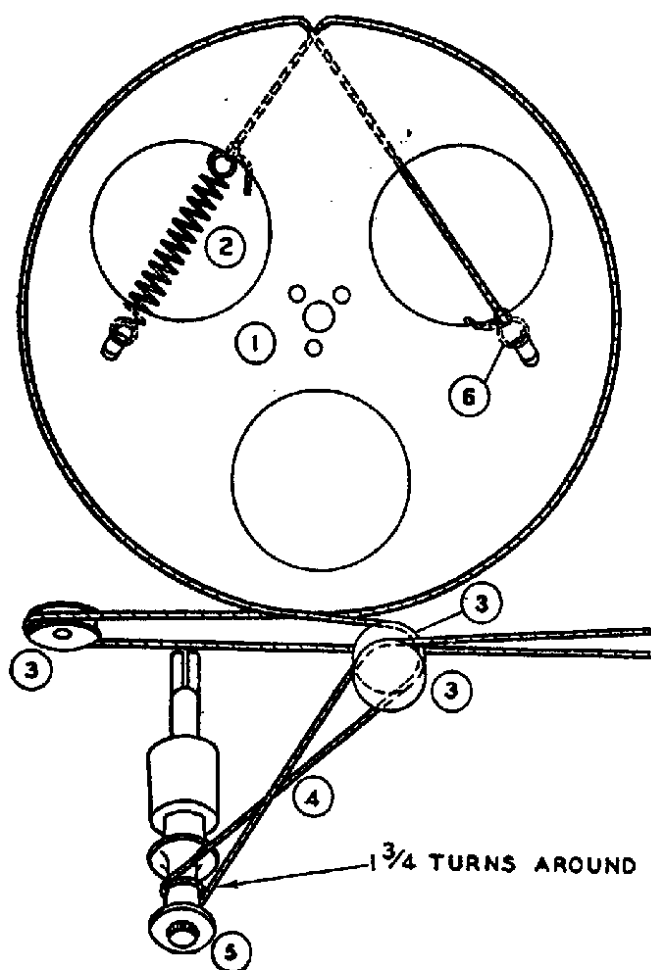
## COILS

No.	Ohms	Description	Code No.
L1	23	B/C aerial coil (1 blue and 1 yellow spots)	CZ.323.015
L2	2		
L3	1	S/W aerial coil (1 blue and 1 black spots)	CZ.323.016
L4	<0.5		
L5	45	B/C R.F. coil (1 blue and 1 green spots)	CZ.323.230
L6	2		
L7	<0.5	S/W R.F. coil (1 green and 1 yellow spots)	CZ.323.229
L8	<0.5		
L9	3	B/C oscillator coil (1 blue spot)	CZ.330.602
L10	1		
L11	<0.5	S/W oscillator coil (1 green and 1 white spots)	CZ.330.607
L12	<0.5		
L13	12	1st I.F. transformer	CZ.320.423
L14	12		
L15	12	2nd I.F. transformer	CZ.320.424
L16	12		
L17	230	Speaker and transformer 9,000 ohms	CZ.161.122
L18	<0.5		
L19	3		

**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**.

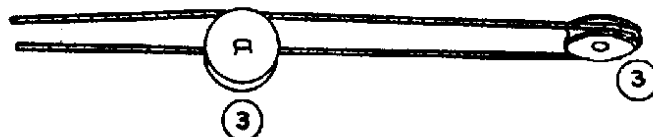
## MISCELLANEOUS COMPONENTS

No. on Dial Parts Diagram	Description	Code No.	No. on Dial Parts Diagram	Description	Code No.
—	Assembly, baffle	CR.005.259	—	Bracket, gang mounting	CS.224.609
—	Assembly, cursor	CR.480.630	—	Bracket, T/C switch mtg.	CS.224.607
—	Assembly, pulley spindle	CR.436.211	—	Cabinet	CS.460.485
—	Assembly, pulley spindle	CR.265.208	—	Clamp, dial scale	CS.228.569
—	Assembly, pulley spindle	CR.436.210	—	Clip, coil can mounting	CS.235.833
—	Assembly, pulley spindle bracket	CR.265.209	4	Cord, dial	CS.361.831
—	Assembly, T/C — on/off switch	CZ.200.419	1	Drum, dial	CS.360.007
—	Assembly, T/C clicker	CR.450.043	—	Knob, control	CS.432.623
—	Assembly, terminal	CZ.376.200	—	Nipple, slide rod adj.	CS.274.603
5	Assembly, tuning spindle	CR.371.322	—	Plug, 2 pin polarised	CZ.365.108
—	Assembly, W/C switch	CZ.201.001	—	Plug, 3 pin polarised	CZ.365.204
—	Assembly, W/C clicker	CR.450.042	3	Pulley, dial	CS.359.602
—	Back, cabinet	CS.462.149	—	Ring, C (tuning spindle)	CS.281.802
—	Badge, Philips	CS.436.414	6	Ring, dial cord	CS.281.807
—	Band, rubber (dial scale)	CS.433.406	—	Rod, dial slide	CS.382.213
—	Bank, T/C switch	CZ.200.047	—	Scale, dial	CS.412.339
—	Bank, W/C switch (A1)	CZ.200.045	—	Socket, 2 pin polarised	CZ.370.107
—	Bank, W/C switch (A2)	CZ.200.046	—	Socket, valve	CZ.369.318
—	Block, spacing (dial scale)	CS.424.054	2	Spring, dial drum	CS.210.010
—	Bracket, cabinet back mtg.	CS.244.602	—	Strip, masking	CS.050.409
			—	Washer, felt (knobs)	CS.424.056



## DIAL CORD LAYOUT

VIEW FROM REAR OF CHASSIS.

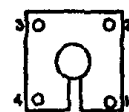
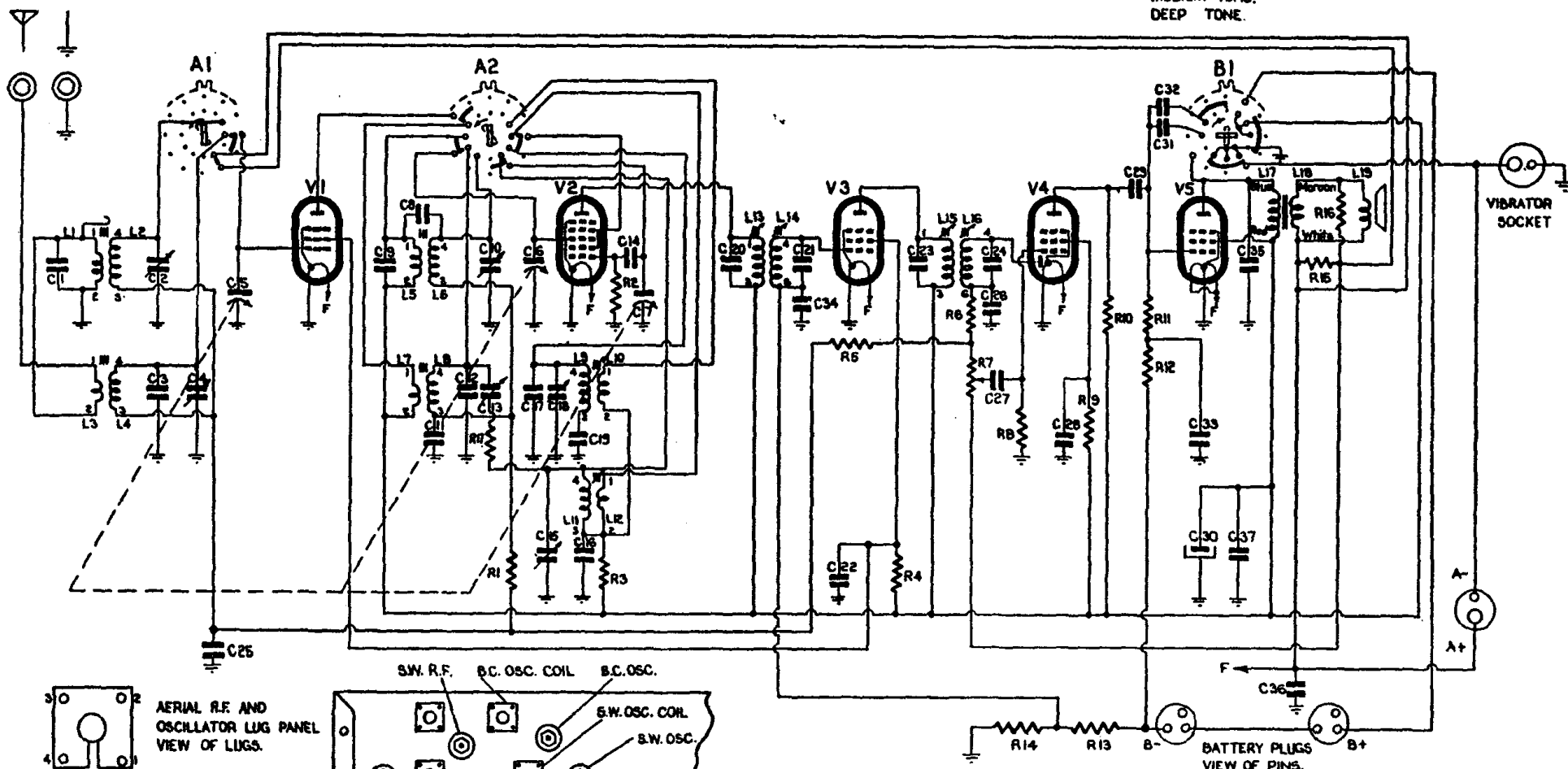


1 3/4 TURNS AROUND SPINDLE.

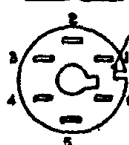
L	13 24	576B	84402	13 14	5 16	17 18	19	L
C	1	2,3 4,25, 6	8, 9 11 12 10	13,17,18,19, 14,7	20	21,24,22	23	C
R			17,1	32	25	5, 4	24,26,27, 28	R
V						67, 14,8,13	9, 10, 11,2	V

SWITCH 'A1', 'A2' SHOWN IN 'S.W.' POSITION  
POSITIONS: BROADCAST,  
SHORT WAVES.

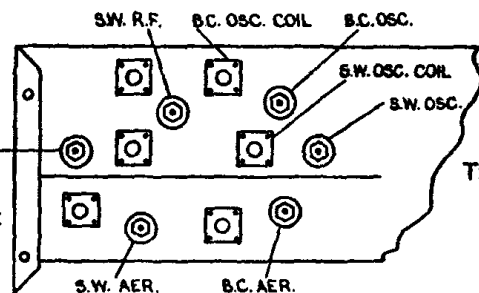
SWITCH 'B1' SHOWN IN 'OFF' POSITION  
POSITIONS: OFF  
ON  
MEDIUM TONE,  
DEEP TONE.



AERIAL R.F. AND  
OSCILLATOR LUG PANEL  
VIEW OF LUGS.



COLOURED SPOT  
I.F. TRANSFORMER BASE  
VIEW OF LUGS.



TRIMMER LAYOUT

BATTERY PLUGS  
VIEW OF PINS.