# RADIOPLAYER MODEL 2650

## BATTERY OR BATTERY VIBRATOR OPERATED

## SPECIFICATIONS.

(Subject to Alteration without Notice.)

#### TUNING RANGES

1610 to 540 Kc/s, 6 to 18 Mc/s. 472.5 Kc/s.

#### INTERMEDIATE FREQUENCY

## BATTERY EQUIPMENT.

For Battery Operation:

1-2 volt accumulator (100 amp. hrs. capacity). 3-45 volt triple capacity "B" Batteries.

For Battery Vibrator Operation (with Type 330, 220 or 148 Vibrator Unit):

1-6 volt accumulator (100 amp. hrs. capacity).

#### DIAL LAMP.

For "B" Batt. Op.: 2.5 volt, 0.3 amp. For Batt. Vib. Op.: 6.3 volt, 0.1 amp.

#### INSTRUCTIONS.

Full instructions for the installation of Model 2650 (battery operation) are contained in the instruction book supplied with each Radioplayer.

#### VIBRATOR OPERATION.

Model 2650 is intended for operation either with "B" batteries or, alternatively, with Philips Model 330, 220 or 148 Vibrator Unit.

If it is desired to use the 330, 220 or 148 Vibrator Unit in place of "B" batteries, reference should be made to the instructions accompanying the vibrator unit.

The switch on the 330 or 220 Unit must be adjusted to position "B" and on the 148 Unit to position 6510 to adapt the unit to a 2650 Receiver.

It is also necessary to change the dial panel lamp to a 6.3 volt 0.1 amp. type.

## FUSE LAMP.

A fuse lamp is fitted in series with the "B" battery negative lead as a measure of protection against valve burn-outs. The set will not operate if the lamp is fused or not properly screwed into the socket. The correct replacement fuse lamp is of the 2.5 volt 0.1 amp. or 0.3 amp. type.

#### REPAIR FACILITIES.

Incorporated in this Model is a base-board cover, which enables repairs to be made without removal of the chassis from the cabinet. If chassis removal is found necessary see instructions below.

#### REMOVING THE CHASSIS.

- (1) Remove fibre back.
- (2) Unscrew knobs at front of cabinet.
- (3) Remove battery plug.
- (4) Withdraw loudspeaker plug from chassis.
- (5) Remove dial mechanism by withdrawing the four screws securing the dial bracket at either end of the dial.

#### BATTERY CONSUMPTION.

"B" BATTERY OPERATION:

"A" Battery: 0.44 amp. approx. "B" Battery: 15 mA. approx.

BATTERY VIBRATOR OPERATION (with Type 330, 220 or 148 Vibrator):

"A" Battery: 1.0 amp. at 6 volts.

## VALVE EQUIPMENT

R.F. Penthode	ID5G (V.I)
Frequency Converter	1C7G (V.2)
I.F. Amplifier	ID5G (V.3)
Democulator and 1st Audio	1F7G (V.4)
Power Penthode	KL4G (V.5)

Carefully lay mechanism on top of the chassis, with due attention to the fact that the flexible cable should not be kinked.

- (6) Loosen one clamping screw at each end of base-board.
- (7) Remove two holding bolts at front of base-board.
- (8) Slide chassis out of cabinet.
- (9) Remove four chassis to base-board securing bolts
- (10) Replacing the chassis may be accomplished by a reversal of the above-mentioned withdrawal procedure.

#### DIAL CALIBRATION.

If the pointer does not indicate the correct position for a given station, the position of the pointer in relation to the gang condenser may be adjusted by loosening the clamp screw on the pointer slider and moving the slotted wire tension guide in relation to the pointer slider. After adjustment, tighten the clamping screw securely.

### VOLTAGE ANALYSIS.

Valve	Plate		Osc. Plate		Screen		Bias	
Туре	BC	SW	BC	SW	BC	SW	BC	SW
ID5G	123	117			44	56	0	0
IC7G	123	117	70	116	50	52	Ō	ō
ID5G	130	129			44	56	0	0
IF7G	23	22			20	19	0	0
KL4G	126	126			130	129	$-5\frac{1}{2}$	<b>-7</b>

#### NOTE:

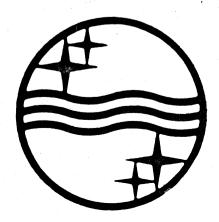
The above-mentioned voltage values, with the exception of bias voltages, are measured between the socket points indicated and chassis, with the receiver in the no signal condition and with the volume control at zero. Bias voltages are to be measured at the source of the voltage, as incorrect readings will otherwise be obtained. Voltages are measured with a 1000 ohm per volt voltmeter and may vary as much as 10 per cent. from the figures auoted.

# SERVICE DATA

## COMPONENTS NOT SHOWN ON CIRCUIT DIAGRAM

No. on		No. on	
Dial Drawing Description Code No.	. Price	Dial Drawing Description Code No.	Price
14 Backing, dial celluloid 34/224	2/-	- Knobs, large, wave-change	
— Back, cabinet 34/750	5/6	and tone control 32/280	7d.
- Badge, Philips Emblem 24/447	1/-	— Lamp, pilot 92/252	6d.
— Baffle 34/107	4/6	— Lamp, fuse 92/214	6d.
— Baffle, with silk 34/427	7/6	- Plate, clicker, wave-change 72/225	2/-
— Baseboard 34/109	3/6	I Pointer, assembly complete 93/271	2/6
— Base, valve shield 24/665	3d.	<ul> <li>Ring, locking, Amphenol socket 24/666</li> </ul>	ĺd.
13 Bracing, strip, dial celluloid 24/787	6d.	2 Rod, slider, supporting 24/931	1/6
7 & 8 Bracket, dial mounting 23/611	8d.	— Shield, valve, plus cap 24/663	7d.
16 Bracket, gang cable support 93/295	1/6	— Silk, baffle 35/213	2/6
6 Bracket, slide rod, adjusting 24/482	6d.	— Socket, 5 pin, Amphenol 34/514	5d.
- Bracket, tuning control 23/623	8d.	— Socket, 7 pin, Amphenol 34/542	6d.
— Cabinet. No. 26 32/279	47/6	— Socket, octal, Amphenol 34/521	6d.
— Cable, battery 26/235	5/4	— Socket, octal, wafer 34/546	4d.
12 Cap, tension spring 24/323	2d.	<ul> <li>Socket, dial lamp and bracket 23/484</li> </ul>	2/-
— Clamp, baseboard 24/423	3d.	— Socket, fuse lamp 34/901	5d.
— Clip, grid 24/629	ld.	<ul> <li>Spacers, brass, chassis mounting 24/218</li> </ul>	2d.
II Cord, dial drive 35/317	5d.	- Spindle, tuning control 24/998	6d.
<ul> <li>Cover, baseboard 34/780</li> </ul>	1/-	10 Spring, cord tension 25/211	2d.
9 Drum, dial drive 34/599	2/8	4 Spring, dial wire 25/218	3d.
15 Glass, dial, printed 33/597	5/6	— Switch, tone control 93/239	2/9
<ul> <li>Grommets, chassis mounting,</li> </ul>	-7 -	- Switch, section, wave-change 73/222	2/-
rubber 32/311	2d.	- Switch, section, wave-change 73/214	2/-
— Knobs, small, tuning and		— Switch, wave-change 74/224	9/3
volume control 32/281	5d.	— Transformer speaker 44/338	7/-
	34.	12 & A Wire assembly, dial drive 93/254	3/_

PRICES QUOTED ARE STRICTLY NETT AND SUBJECT TO CHANGE WITHOUT NOTICE.



COMPONENT LOCATION DIAGRAM

## SERVICE DATA

## COMPONENT PARTS.

## CONDENSERS (PRICES QUOTED ARE STRICTLY NETT AND ARE SUBJECT TO CHANGE WITHOUT NOTICE.)

No.	Value	Code No.	Price	No.	Value	Code No.	Price
CI	8 mmfd	52/521	3d.	C23	80 mmfd	52/239	6d.
C2	15 mmfd	53/101	3d.	C24	30 mmfd	52/536	3d.
C3	.0045 mfd	52/222	IId.	C25	.01 mfd	52/332	10d.
C4	30 mmfd	52/536	3d.	C26	40 mfd electro.	52/438	2/9
C5/7	Tuning gang	53/412	10/3	C28	.I mfd	52/317	IId.
C8	.I mfd	52/317	IId.	C29	30 mmfd	· 52/536	3d.
C9	.05 mfd	52/315	IId.	C30	80 mmfd	52/239	6d.
C10	15 mmfd	53/101	3d.	C31	80 mmfd	52/239	6d.
CII	15 mmfd	53/101	3d.	C32	30 mmfd	52/536	. 3d.
C12	.0045 mfd	52/222	IId.	C33	100 mmfd	52/212	7d.
C13		52/315	IId.	C34	.05 mfd	52/315	IId.
C14		52/811	6d.	C35	100 mmfd	52/212	7d.
C15		52/332	10d.	C36	.01 mfd	52/332	10d.
C16		54/313	8d.	C37	10 mmfd	52/531	3d.
C17	125 mmfd	52/535	6d.	C38	25 mfd electro.	52/416	1/3
C18	15 mmfd	53/101	3d.	C39	.01 mfd	52/332	IOd.
C19	200 mmfd $\pm$ 5%	52/263	7d.	C40	.002 mfd	52/333	7d.
C20		52/315	11d.	C41	10 mmfd	53/100	3d.
C21	30 mmfd	52/536	3d.	C42	4 mmfd	52/529	3d.
C22	80 mmfd	52/239	6d.				

## **RESISTORS**

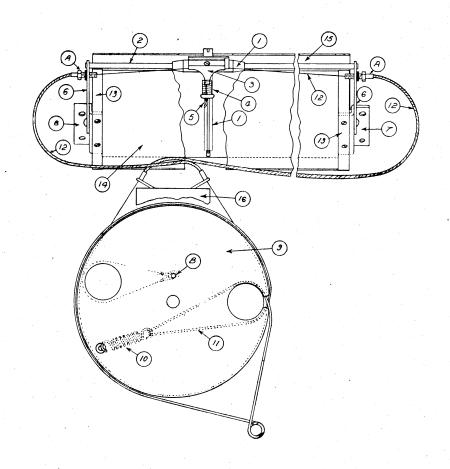
No.	Value	Code No.	Price	No.	Value	Code No.	Price
R1	I meg.	62/214	4d.	C12	2 meq.	62/222	4d.
R2	100,000 ohm	62/215	4d.	C13	25,000 ohm	62/321	5d.
R3	25 ohm	62/223	4d.	CI4		62/312	5d.
R5	l meg.	62/214	4d.	CI5	50,000 ohm	62/212	4d.
R6	100,000 ohm	62/215	4d.	C16	.5 meg. pot., with	switch 63/427	5/-
R7	100,000 ohm	62/215	4d.	CI7		62/418	5d.
R8	100 ohm	62/242	4d.	C18	250,000 ohm	62/415	5d.
R9	50,000 ohm	62/312	5d.	C19		62/214	4d.
R10	25,000 ohm	62/321	5d.	C20	400 ohm	62/429	5d.
RII	1,000 ohm	62/428	5d.	C21	.275 ohm	64/226	3d.

# **COILS**

	No.		Code No.	Price	No.		Code No.	Price
•	L1/4 L5/8	Aerial Coil R.F. Coil	42/727 42/816	4/3 4/3	L15/16	Ist I.F. 2nd I.F.	42/319 42/423	7/3 7/3
	L9/12	Oscillator Coil	42/236	4/3		Speaker plus Transf. Speaker Transformer	45/358 44/338	22/ <u>-</u> 7/ <u>-</u>

# IMPORTANT: In ordering spare parts quote CODE NUMBER ONLY. If claiming free replacement under GUARANTEE, return defective parts PROMPTLY and quote TYPE and SERIAL NUMBER of RADIOPLAYER.

## DIAL PARTS DIAGRAM



# CHASSIS LAYOUT DIAGRAM

