# PHILIPS RADIOPLAYER MODEL 2052 (with R.F. Stage)

A.C. OPERATED FOR BROADCAST AND SHORT-WAVE RECEPTION.

SPECIFICATIONS (Subject to Alteration Without Notice.)

**VOLTAGE RATING (Power Supply)** 

TUNING RANGE

220-260 volts A.C. 1550 to 540 Kc/s. 8 to 22 Mc/s.

INTERMEDIATE FREQUENCY

8 to 22 N 472.5 Kc/s.

## VALVE EQUIPMENT.

R.F. Amplifier
Frequency Converter
I.F. Amplifier & Demodulator
Power Amplifier
Rectifier
Tuning Indicator
Dial Lamp

6U7G R.F. Penthode EK2G Octode EBF2 Duo-diode Penthode EL3G Power Penthode 5Y3G Full Wave EM3

6.5 volt 0.64 amp. special type 8091D (coloured).

#### REMOVING THE CHASSIS.

Suggested removal procedure is as follows:

- 1. Remove the power plug.
- 2. Unscrew knobs at front of cabinet.
- 3. Withdraw loudspeaker plug at back of chassis.
- 4. Remove chassis mounting bolts.
- 5. Swing chassis around so that the front of dial drive drum (shown as "10" in drawing), is accessible During this operation care should be taken that the flexible cable sheath is not kinked.
- Slacken off brass sheath nipples ("A" in drawing), at either end of dial, so that tension on dial wire is relieved.
- 7. Lift off loops at end of dial drive wire from the drum at "B" and unwind wire from drum.
- 8. With the dial wire disconnected it will now be possible to clear the wire cable and sheath from the bracket ("11") and the chassis is free for removal, leaving the dial and associated mechanism in the cabinet.

#### REPLACING THE CHASSIS.

This may be accomplished by a reversal of the abovementioned removal process. Where the dial wire has been threaded into the drum in accordance with the illustration (care being taken that the disposition of the cables is exactly the same), the brass sheath nipples should be tightened so that there is a small amount of tension on the dial cable.

The chassis is next placed temporarily in position, the speaker plugged in and power supplied to the Radioplayer. Calibration is now checked by tuning the set (see separate paragraph on calibration), and if O.K. the chassis can be bolted down, the knobs fitted and the set is again ready for use.

#### ALTERNATIVE METHOD.

If preferred, the following alternative method of chassis removal may be adopted:

1. Remove power plug.

2. Unscrew knobs at front of cabinet.

Withdraw loudspeaker plug from chassis.

4. Remove dial glass and mechanism by withdrawing the four screws securing the dial brackets at either end of the dial. Care should be taken during this operation to see that when released, the dial glass is carefully laid aside to avoid risk of breakage. The remaining mechanism of the dial is now laid with care on top of the chassis, with due attention to the fact that the flexible cable should not be kinked.

5. The chassis may now be withdrawn.

 Replacing the chassis where the second method of withdrawal is followed, is simply a matter of reversing the 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 can be adjusted by loosening the clamping 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.

## GRAMOPHONE PICK-UP OPERATION.

This may be accomplished by connecting a gramophone pick-up to the appropriate terminals at the rear of chassis and turning the wave-change switch to the "gramo" position

One small point requires special attention; the pick-up leads proper should not be used as earth returns for the

motor, pick-up or sheathing leads.

Earth return for any of these items must be made direct to the main chassis earth, or equivalent of same.

Earthing of either of the pick-up leads will result in defective operation.

#### TUNING INDICATOR.

The tuning indicator support is secured to the dial bracket by a hexagon clamping screw located at the side of same. This screw should be released if adjustment or replacement of the tuning indicator becomes necessary.

#### SERVICE DATA.

# COMPONENTS NOT SHOWN ON CIRCUIT DIAGRAM.

Diagram No.	Description.	Code No.	Price.	Diagram No. Des	scription.	Code No.	Price.
	Wave change switch complete	74/213	10/6	2, A, 15,			٠,
	"P" type valve socket	34/516	4d.		ire assembly complete		3/
	Trimmer support (5 unit)	33/421	8d.	— Dial gl	lass, printed		5/9
	Trimmer support (2 unit)	33/422	64.	l Dial sti		24/252	1/6
	Octal socket, wafer type		4d.	6 Dial ad	ljusting bracket	23/444	6d.
	Octal socket, amphenol type		6d.	3 Glass p	pointer rod	33/524	6d.
	Small 7-pin socket		6d.	Tuning	control bracket	24/442	6d.
	Control knob		7d.	- Tuning	control spindle	24/242	9d.
	Cable securing bracket	22,112	1/6	- Baffle	silk only	25 /221	4/6
4	Pointer clamp and slider		2/6	- Tuning	indicator bracket		
-	Dial mounting brackets	22/441	6d.		(socket holder)	23/463	8d.
		32/226	2/8	Tuning	indicator bracket		
9		25/211	2d.		(assembly mtg.)	23/469	9d.
8	Dial cord	25/212	5d.	_ Tuning	indicator rear cover	23/519	7d.
5	Pointer counter weight		3d.		lytic mounting base		6d.
,	Power flex only	54.011	1/9			24/663	7d.
		74/414	1/10		shield base		3d.
			21.		bracket and sockets	=	
_	Chassis mounting grommet	201625	£6/15/-		ilso part of 2nd I.F.)	23/471	1/3

#### **VOLTAGE ANALYSIS.**

Valve Type	Plate Voltage	Screen Voltage	Bias Voltage	Heater Voltage (A.C.)
6U7G	210	80	1.5	6.3
EK2G	190	45	2	6.3
	(Osc. p.=190v.)	ļ		
EBF2	220	70	0	6.3
EL3G	195	220	5.5	6.3
5Y3G	300 volts	A.C. per p	late	5.0
EM3				6.3

**NOTE:** The abovementioned 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 1,000 ohm per volt voltmeter and may vary as much as 10% from the figures quoted.



## SERVICE DATA.

## COMPONENT PARTS.

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

No. on	V 1		D :	No. on	Value	Code No.	Price.
Diagram.	Value.	Code No.	Price.	Diagram.	Value.		i
CI	8 uuF	<b>52/521</b>	3d.	C27	80 uuF	52/239	6d.
C2	0-30 uuF	54/313	8d.	C28	0-30 uuF	54/313	8d.
C3 😘	0-30 uuF	54/313	8d.	C29	.01 uF	52/311	4d.
C4	.0045	52/222	11d.	C30	8 uF electro.	52/426	3/-
C5, C6, C7	Gang Condenser	53/215	10/3	C31	.05 uF	52/314	7d.
C8	100 uuF	52/811	61.	C32	.01 uF	52/311	4d.
C9	.01 uF	52/311	4d.	C33	100 uuF	52/811	6d.
C10	.01 uF	52/311	4d.	C34	0-30 uuF	54/313	8d.
C11	.01 uF	52/311	4d.	C35	80 uuF	52/239	6d.
C12	80 uuF	52/239	6d.	C36	.03 uF	<b>52/335</b>	6d.
C13	0-30 uuF	54/313	8d.	C37	.01 uF	52/311	4d.
C14	0-30 uuF	54/313	8d.	C38	80 uuF	52/239	6d.
C15	.0045 uF	52/222	11d.	C39	0-30 uuF	54/313	8d.
C16	.05 uF	52/314	7d.	C40	.01 uF	52/311	4d.
C17	.01 uF	52/311	4d.	C41	8 uF	52/912	6/6
C18	100 uuF	52/811	6d.	C42	16 uF ∫	- · · · · · · · · · · · · · · · · · · ·	
C19	0-30 uuF	54/313	8d.	C43	100 uuF	52/811	6d.
C20	80 uuF	52/239	6d.	C44	.001 uF	52/218	8d.
C21	0-30 uuF	54/313	8d.	C45	.002 uF	52/333	7d.
C22	0-30 uuF	54/313	8d.	C46	.03 uF	52/335	6d.
C23	0-30 uuF	54/313	8d.	C47	.05 uF	52/314	7d.
C24	330 uuf	52/243	7d.	1 -	-	FD /D /D	1/-
C25	.01 uF	52/311	4d.	C48	.005 uF		· ·
C26	.01 uF	52/311	<b>4</b> d.	C49	400 uuF	52/233	7d.

#### RESISTORS.

No. on Diagram.	Value.	(	Code No.	Price.	No. on Diagram.	Value.	Code No.	Price.
R1	1 megohm		62/214	4d.	R16	1 megohm		5d.
R2	150 ohm		62/226	61.	R17	2 megohm	 62/222	4d.
R3	1500 ohm		62/231	4d.	R18	5 megohm	 62/431	6d.
R4	30,000 ohm		62/425	5d.	R19	2 megohm		4d.
R5	25,000 ohm		62/423	5d.	R20	2 megohm	 62/222	4d.
R6	1000 ohm		62/315	5d.	R21	100,000 ohm	 62/313	5d.
R7	50 ohm		62/211	6d.	R22	50,000 ohm	 62/212	4d.
R8 R9	2 megohm 0.5 megohm		62/222 62/216	4d. 4d.	R23	0.5 megohm pot., tapped at 35,000	 63/217	3/9
R10	500 ohm		62/224	4d.	<b>K24</b>	50.000 ohm	 62/212	4d.
*R11"	50,000 ohm		62/212	4d.	R25	1 megohm	 C3 /314	4d.
R12	150,000 ohm		62/314	5d. 5d.	R26	10,000 ohm	 62/213	4d.
R13 R14 R15	5000 ohm 0.5 megohm 5 megohm		62/412 62/216 62/227	5a. 41. 5d.	R27 R28	25 ohm } 75 ohm }	 64/228	8d.

# COILS.

	e.							
No. on Diagram.	Resistance	e.	Code No.	Price.	No. on Diagram.	Resistance.	Code No.	Price.
L1 L2 L3	30 ohm 3.5 ohm 3.5 ohm	Aerial Coil.	42/716	4/3	L15 L16	B opm } S opm 8	42/422	8/6
L4 L5 L6	60 ohm 3.5 ohm	R.F. Coil,	42/812	4/3	L17 L18 L19 L20	37 ohm   550 ohm   25	44/216 (240 volt) 44/217 (110 volt)	14/6 14/6
L7 L8 L9	1 ohm	]			L21 L22	580 ohm )		
L10 L11 L12	2.5 ohm	Oscillator Coil.	<b>42/222</b>	4/3	L23 L24 L25	3 ohm   Some   S	45/322	30/-
L13 L14	8 ohm 8 ohm	} = = :	42/319	7/3		Speaker transformer	only 44/317	7/-

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.

COMPONENT LOCATION DIAGRAM.

