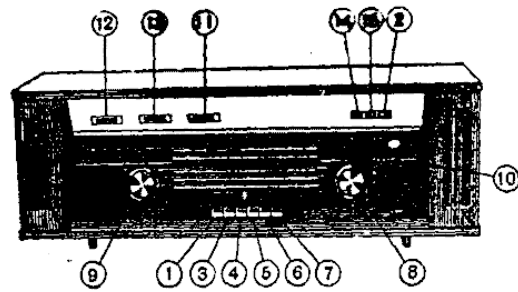


PHILIPS

Service

RADIO 15RB708/00S



Year of release 1970



For AC Mains Supply

Waveranges

MW : 185 - 580 m (517 - 1620 Kc/s)
 SW4 : 46.5 - 100 m (3.0 - 6.45 Mc/s)
 SW3 : 29.5 - 44 m (6.8 - 10.15 Mc/s)
 SW2 : 18.8 - 26.5 m (11.3 - 16.0 Mc/s)
 SW1 : 11.3 - 17.8 m (16.8 - 26.4 Mc/s)

Controls & Indicators

- | | | |
|-----------------------|----------------------|--------|
| 1. Off | 2. Radio/P.U. Switch | 3. MW |
| 4. SW4 | 5. SW3 | 6. SW2 |
| 7. SW1 | | |
| 8. Tuning | | |
| 9. Volume | | |
| 10. Tuning Indicator | | |
| 11. Balance | | |
| 12. Bass | | |
| 13. High Note | | |
| 14. Stereo/Monoswitch | | |
| 15. Tape Recording | | |

Valves & Lamps

B1 : ECH 81
 B2 : EBF 89
 B3 : EM 84
 B4, B5 : ECC 83
 B6, B7 : ES 84
 B8 : EZ 81
 L1, L2 : 8045D

Loudspeaker

2 x 2415 255 88004 (Z = 5 ohms)

Int./Ext. switch is provided to cut off internal speakers while using external speakers.

Consumption

Approximately 90 Watts.

Built-in-Aerial

A plate aerial for SW and rotatable ferroceptor for MW are provided.

TRIMMING THE RECEIVER :—

Refer circuit diagram for trimming data.

General

Adjust pointer on dial to left mark Δ with gang condenser in minimum capacity position. Connect 5 ohms dummy loads on the external speaker sockets with the speaker switch in external speaker position. Keep volume control at maximum and tone controls at maximum bass and maximum high notes. Do not press buttons 2, 15 and 14. Connect output meters across dummy loads.

IF Circuits

Switch on the receiver to MW with gang condenser in minimum capacity position. Apply modulated signal of 452 Kc/s via 33 KpF condenser to grid g1 of valve B1 (ECH 81) and trim for maximum output — S17, S16, S7, S8 and S16.

RF Circuits

Apply modulated signal to aerial socket via a dummy aerial and trim for maximum output at frequencies as shown in trimming data.

Philips spare parts, service aids and kits, circuit diagrams, spare parts catalogue and other service publications are available with all authorised Philips radio dealers. If further assistance is required, Philips Service Departments at Bombay, Calcutta, Delhi or Madras may be contacted.

MECHANICAL PARTS

Description	Code No.	Description	Code No.
Cabinet	3115 108 01920	Socket for P.U./Tape Recorder	2422 026 00884
Leg	3115 104 02030	Plug for above	9.78/5 × 180
Ornamental Ring	3115 105 10400	Tuning Spindle	3115 108 00500
Back Plate	3115 103 00131	Drive Pulley × 2	3122 794 39640
Bottom Plate	3115 103 00030	Bracket for fixing back plate × 10	3115 101 21120
Dial	3115 105 00521	Nail for fixing bracket × 20	2522 680 01004
Pointer	3115 108 70100	Extension Spindle for V. Control	3115 101 20690
Dial Shade	3115 108 00600	Fuse Holder (125 mA)	3115 100 10090
Knob (Tuning + Volume)	3115 108 01840	Fuse Holder (6.3 amps)	3115 100 10080
Knob (Bass + Treble)	3115 104 02070	Grommet for Varco × 3	3122 996 42380
Knob (Balance)	3115 108 01910	Nut for fixing potentiometer	3115 100 40320
Knob (Slide Switch)	3115 104 01110	Bush for drive cord × 3	3115 104 00350
Top Profile (Rexine Covered)	3115 108 02131	Nut for fixing tone control/push button switch assy	2522 401 04011
Ornamental Profile (Top)	3115 105 10430	Screws for fixing:—	
Ornamental Profile (Tone + Balance Control) × 3	3115 105 10440	Back/Bottom Plate	2515 123 07009
Ornamental Profile (Push Button Switch)	3115 105 10420	Varco	2522 001 07173
Band Switch Assy	3115 108 40065	Cabinet Leg	2515 123 78011
Press Button × 6	3115 104 00331	Varco drum/Ext. Spindle	2322 001 07095
Push Button Switch Assy	3115 108 01930	Knob (Balance/Tone Control)	2522 040 31045
Push Button × 3	3115 104 02170	Spring for fixing:—	
Lamp Holder	3115 100 10050 or 2422 473 01001	Drive Cord	3122 996 46820
Mains Cord	3115 108 50150	SKB4 + HT cut off (Long)	3115 101 00250
Varco Drum	3115 108 00160	- do - (Small)	3115 101 00260
Valve Holder × 7	2422 502 00001	Knob (Tuning/Volume)	3122 993 19130
Valve Holder for Magic eye	3115 208 00050	Knob (Speaker Switch)	3115 101 00150
Socket Plate Assy	3115 108 01870	Coil × 3	3122 998 10960
Slide Switch (Speaker)	3115 108 40220	IF Coils × 2	3115 101 00010
		Dial Shade	3122 996 44710
		Coils × 2	3115 101 00080

ELECTRICAL PARTS

Part No.	Code No.	Part No.	Code No.
C1 (3 KpF)	2015 300 56011	R26 (2.2M ohms)	2315 350 00115
C17 (130 pF)	2015 300 96002	R34/R37 (2.2M ohms)	2322 360 02035
C18 (8.2 pF)	2215 555 56828	R42/R43 (220K ohms)	2322 360 02032
C21 (455 pF)	2015 300 96003	R59, R60 (3300 ohms)	2115 104 06332
C30 (195 pF)	2015 300 96001	Z1 (6.3 amps)	2422 086 00053 or 2415 086 00001
C61/C62 (50 + 50 mF)	2015 199 00001	Z2 (125 mA)	2422 086 01006
C63 (8 mF)	2015 081 00001	L1, L2 (6.3V, 320 mA)	3115 108 70694 (8045D)
R22/R23 (0.5 + 1.7M ohms)	2322 360 02084		

During production of 15RB708/00S, the following changes have been introduced :

- (1) Connection to contact 2 and 3 of switch SKB 111 (Stereo) is deleted and wire to contact 3 is earthed.
- (2) Existing Drive Cord lengths 1045 mm and 600 mm, are changed to 990 mm and 632 ± 1 mm respectively.
- (3)

Part No.	Deleted	Added	Part No.	Deleted	Added
C45	2215 555 55182	2215 555 55102	R35	2315 202 32393	2315 202 32243
C46	2215 555 55822	2215 555 55472	R36	2315 202 32393	2315 202 32243
C47	2215 555 55822	2215 555 55472	R39	2315 202 32513	2315 202 32683
C48	2215 555 55182	2215 555 55102	R40	2315 202 32513	2315 202 32683
C64*	...	2215 555 55152	R61	2115 104 04151	2115 104 04181
C65*	...	2215 555 55152	R62	2115 104 04151	2115 104 04181
R16	2315 202 62225	2315 202 62224	Slide Switch	3115 108 40220	3115 108 40551
R17	2315 202 62225	2315 202 62224	(Speaker)		

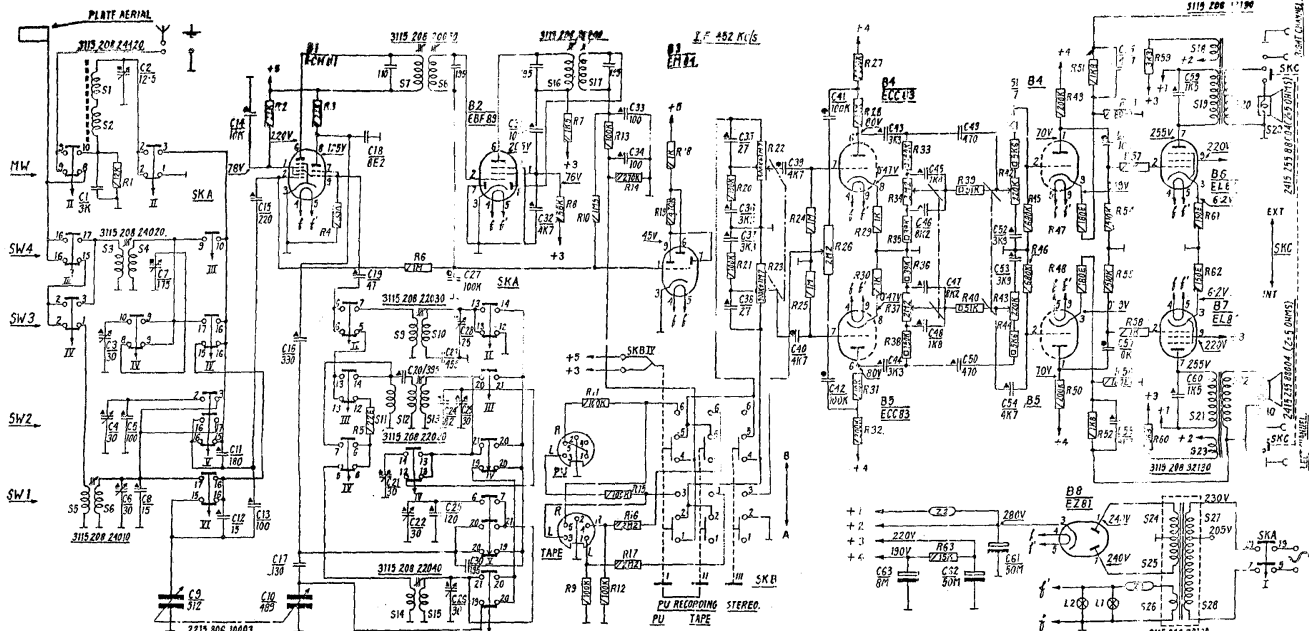
* in series with C59 and C60

FOR OTHER ELECTRICAL PARTS REFER CIRCUIT DIAGRAM

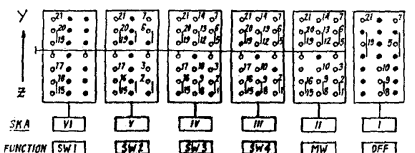
Note : 1) In circuit diagram read R27 as R28 and R28 as R27.

2) In R.F. Circuit for MW capacitor C13 is indicated whereas it should be deleted.

3) The code number 2215 104 04..... should be read as 2115 104 04..... : refer symbols in circuit diagram.



BANDSWITCH



SYMBOLS



SKA SWITCHES

PU/TUNING FUNCTION	I	II	III	IV	V	VI
OFF	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12
SW1	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12
SW2	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12
SW3	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12
SW4	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12
SW5	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12
SW6	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12	1 2 12 12 12

SKB SWITCHES

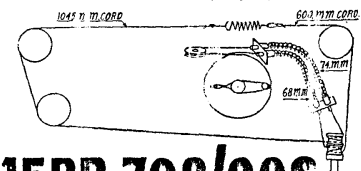
POSITION	FUNCTION	A	B	%
I	PU PLAY REPEAT	A	B	1/6
II	PAUSE RECORD	A	B	1/6
III	STEREO REVERSE	B	B	1/6
IV	PU RECOILING	B	B	1/6

TRIMMING DATA

SHORT S1, S2 AND TRIM AS GIVEN BELOW

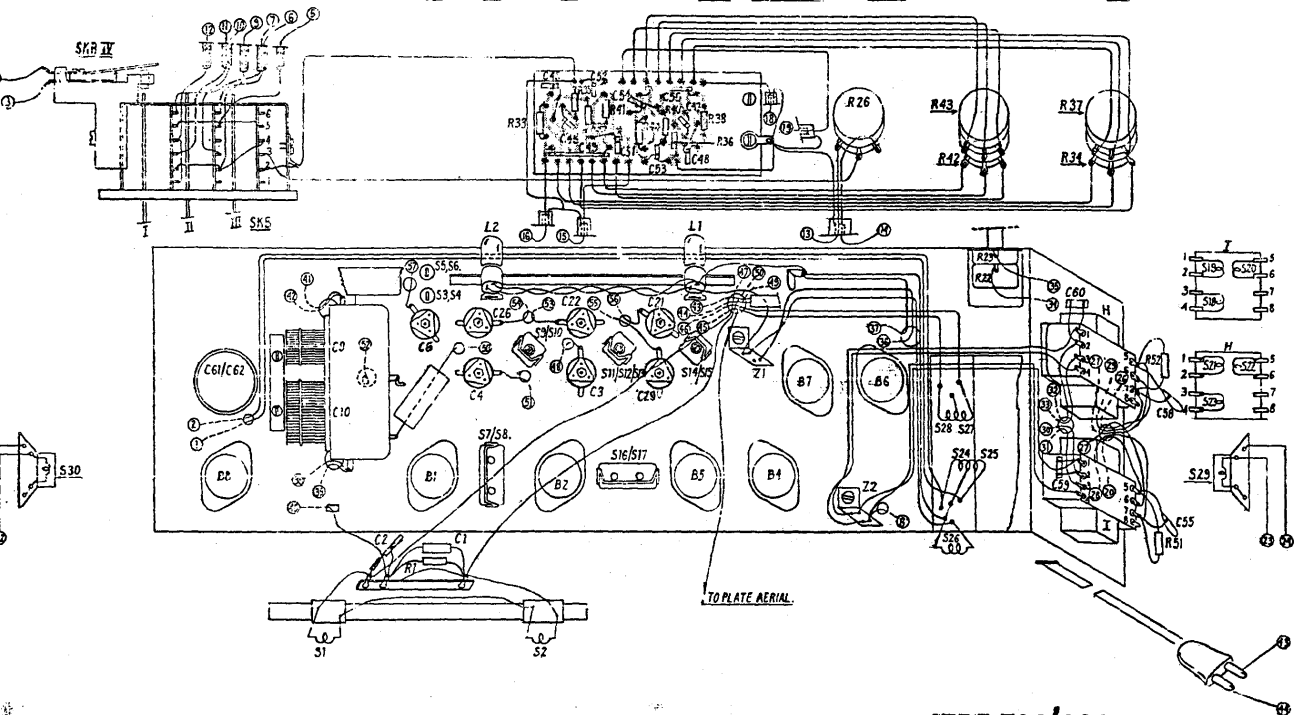
WAVE RANGE	TRIMMING FREQUENCY	POSITION OF POINTER IN DIAL	TRIM TO MAX OUTPUT
I	560 KC	560 KC	33.5 D
II	560 KC	560 KC	33.5 D
III	560 KC	560 KC	33.5 D
IV	560 KC	560 KC	33.5 D
V	560 KC	560 KC	33.5 D
VI	560 KC	560 KC	33.5 D

REPLACE SHORTING DE TAPERS AND TRIM THE RECEIVER



15RB 708/00S
CIRCUIT DIAGRAM

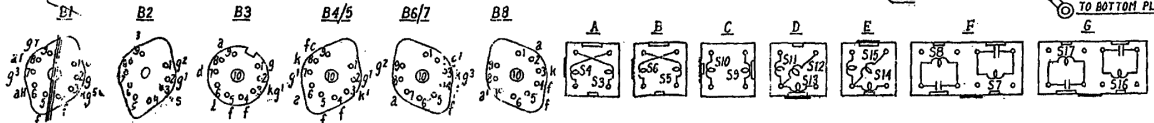
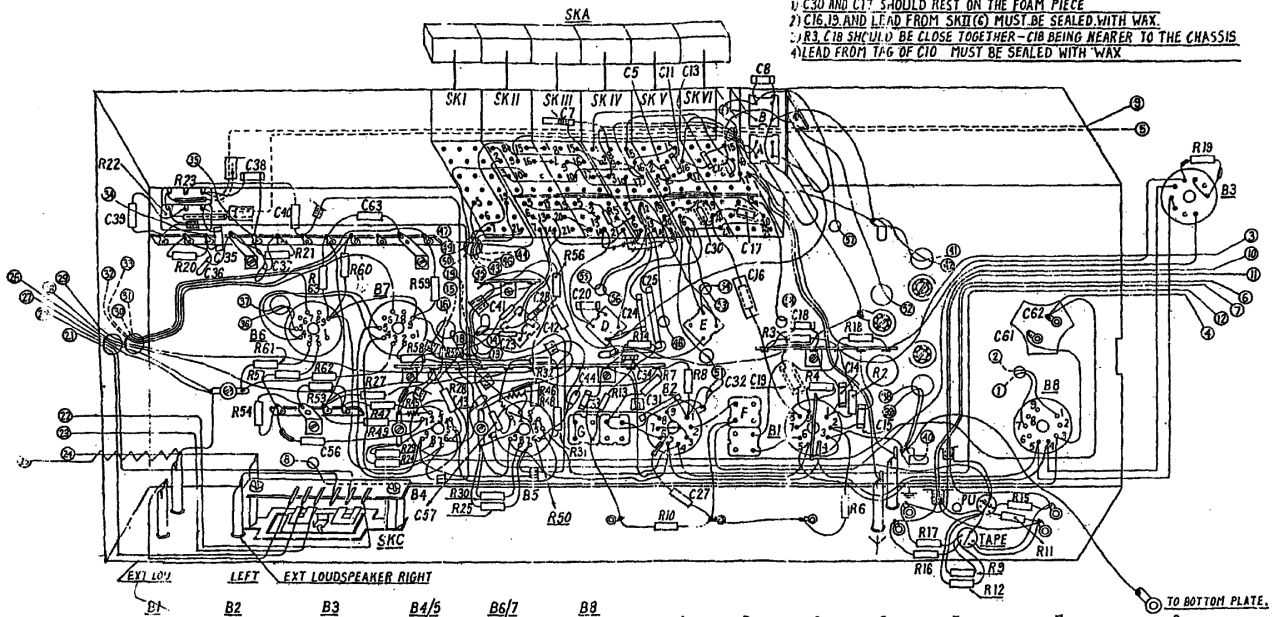
1	35	35, 39, 41	44, 40	39, 36	26	41, 42, 32, 6	37, 4	37, 51	
6162	9, 10	2, 6	7, 4, 26	43, 22, 3	54, 53, 30		43, 60	42, 55	
			46, 49, 52	21, 23	48	29, 35, 26, 27, 28			
39		3, 4, 5, 6, 7, 8	2, 9, 10	11, 12, 13, 16, 17	14, 15			18, 19, 20, 21, 22, 23, 29	
	RA	RI	L2	B2	L1, B5	Z1	B4, B7	Z2, B6	H, I



15RB 708/00S
TOP LAYOUT.

R	22	23	54, 57, 61	62, 63	60, 27, 47, 29, 53, 59	28, 30	5, 40, 56	14, 10	B	3	4	6, 2	16	9, 15	19
C	39	36, 35, 38, 37	40	56	63	57	43	41, 23	28, 12, 7	2	24, 25, 11, 13, 30, 1	17, 8	14, 15	17	12, 11
								44, 3	5, 34, 31	27	2	16, 13		61, 62	
								C	6, 1		E	F	A, B		

NOTE:
 1) C30 AND C17 SHOULD REST ON THE FOAM PIECE
 2) C16, 19 AND LEAD FROM SK1(G) MUST BE SEALED WITH WAX.
 3) R3, C18 SHOULD BE CLOSE TOGETHER - C18 BEING NEARER TO THE CHASSIS
 4) LEAD FROM TAG OF C10 MUST BE SEALED WITH WAX.



VALVE BASE PIN NO.	ECH 01	EB1 B5	EM B4	ECC B3	EL B4	EZ B1
1	78V	76V		70V		241V
2				0.18V	6.2V	282V
3						
4				80V	255V	240V
5	220V	205V				
6	125V			0.47V		
7					220V	
8						
9						

15RB 708/00S
 BOTTOM LAYOUT