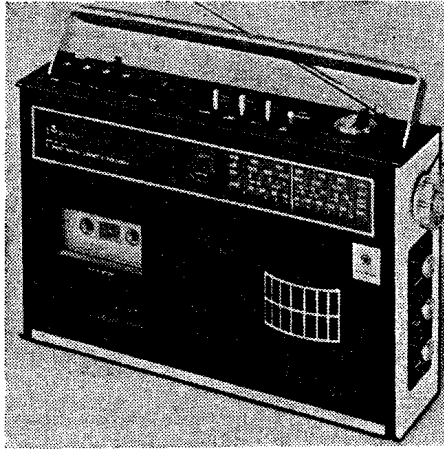


ERT

SERVICE CHART

2066



THE Bush BR8410 is a battery/mains radio-cassette recorder covering LW, MW, SW and VHF bands.

Recorder facilities include built-in condenser microphone and tape auto-stop.

Power supply

Mains. 240V AC 50Hz
Battery. 6V (4 x HP2 or equivalent)

Consumption

Battery. Radio quiescent 44mA, average 65mA. Tape replay average 180mA.

Fuse

FS1 Mains 100mA anti-surge

Wavebands

LW 150-285kHz
MW 530-1600kHz
SW 6-18MHz
VHF 87.6-104MHz

Aerials

Ferrite rod for LW and MW, telescopic for SW and VHF.

Transistors

TR1 2SC828Q
TR2 2SC1383R
TR3 2SC1383R
TR4 2SC900E
TR5 2SC828Q
TR6 2SC828Q

TR7 2SC828Q
TR8 2SC828Q
TR10 2SC829D
TR11 2SC829C
TR12 2SC829C
TR13 2SC829C
TR14 2SC829C
TR15 2SC829C
TR16 2SC829D
TR17 2SC829D

Diodes

D1 WZ058
D2 1N60
D3 1N60
D4 1N4001
D5 1N4001
D6 1S2471
D7 1N60P
D8 1S2139D
D9 1N60
D10 1N60
D13 1N60P
D14 1N60P
D15 1N60
V1 MA26
V2 KB262

Integrated circuit

IC1 BA302

IF

AM 470kHz
FM 10.7MHz

BUSH BR8410

Radio/Cassette Recorder

(Part 1)

Speakers

8ohm impedance, 5in. round and 2in. round.

Inputs

1. External microphone, 1k impedance.
2. 5-pin DIN, input impedance 220k
3. Mains supply
4. Remote control

Outlets

Earphone jack socket, 8ohm impedance.

Power output

1.4W measured at 1kHz for 10 per cent THD.

Wow and flutter

0.35 per cent RMS

Bias and erase

DC

Manufacturer

Rank Radio International, PO Box 596, Power Road, London W4 5PW. 01-994 6491

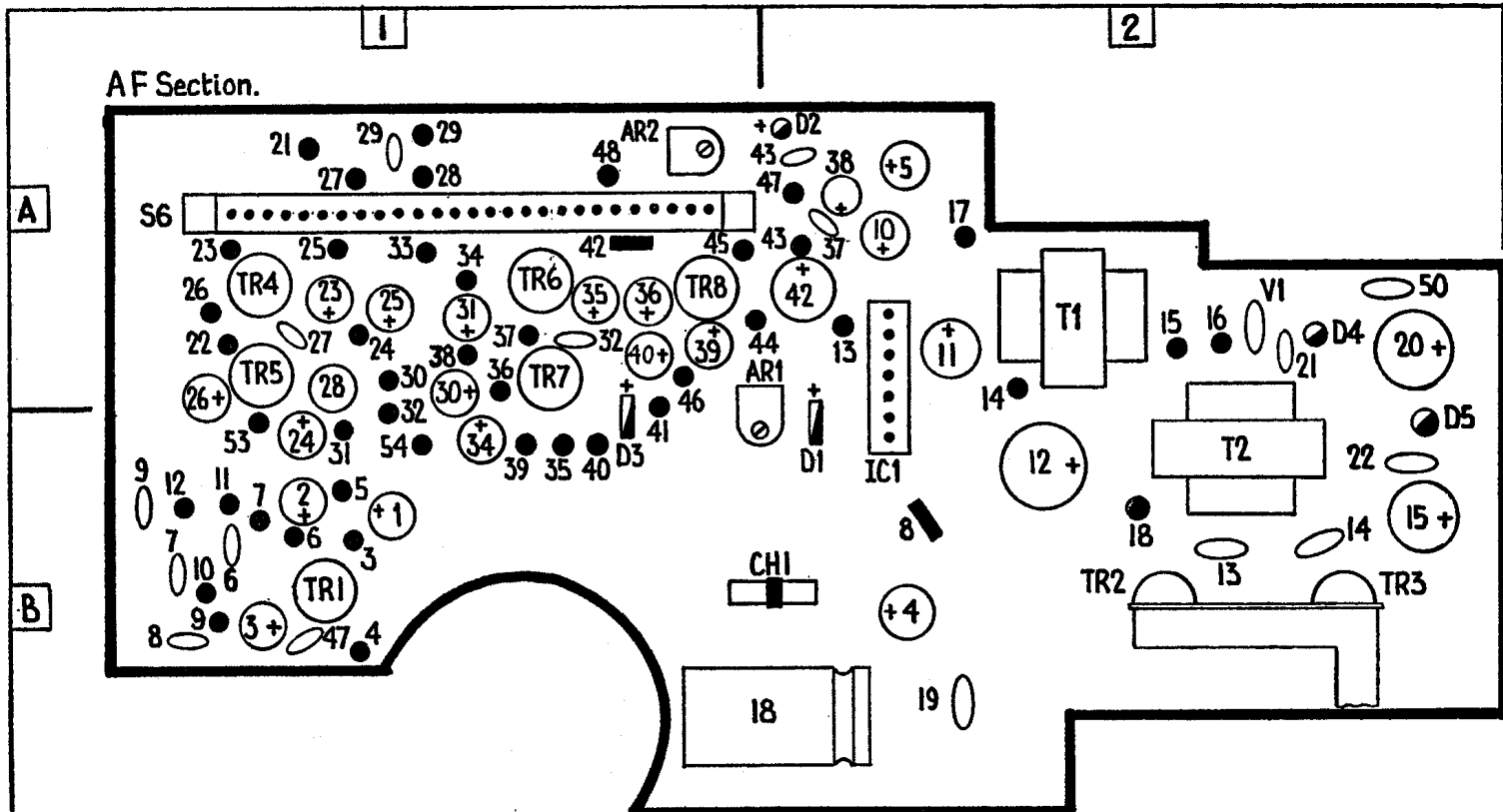
Service Dept

Rank Radio International, Watton Road, Ware, Herts. Ware 3966.

Adjustments

Head azimuth

Connect an AC electronic voltmeter across the loudspeaker. Insert a head



BUSH BR 8410

cassette recorder

(Part 1)

azimuth alignment cassette, switch to play and adjust the volume control for a low level meter indication. Adjust the spring loaded screw on the record/play head mounting for maximum meter indication.

Alignment

Connect an output meter across the loudspeaker. Set the volume control to maximum initially but adjust during alignment to maintain a low audio output level to avoid alignment error due to AGC action.

AM IF

Couple an AM signal generator via a loop on the ferrite rod. Switch to MW, set the tuning to minimum capacitance and

set the signal generator to 470kHz, 30 per cent modulated, at 400Hz. Adjust L21, L18 and L16 for maximum output.

AM RF

Set tuning and signal generator to 515 kHz. Adjust L13 for maximum output. Set tuning and signal generator to 1650kHz. Adjust CT5 for maximum output. Repeat until no further improvement can be made.

Set tuning and signal generator to 600kHz. Adjust L10 for maximum output. Set tuning and signal generator to 1400Hz. Adjust CT3 for maximum output. Repeat until no further improvement can be made.

Switch to LW and set tuning/signal generator to 145kHz. Adjust L14 for maximum output. Set tuning and signal generator to 295kHz. Adjust CT6 for maximum output. Repeat until no further improvement can be made.

Set tuning and signal generator to 160 kHz. Adjust L11 for maximum output. Set tuning and signal generator to 280kHz. Adjust CT4 for maximum output. Repeat until no further improvement can be made.

Switch to SW and set tuning/signal generator to 5.8MHz. Adjust L15 for maximum output. Set tuning and signal generator to 18.5MHz. Adjust CT7 for maximum output. Repeat until no further improvement can be made. Set tuning and signal generator to 7.0MHz. Adjust L12 for maximum output.

FM IF

Connect an FM signal generator to the telescopic aerial via a dummy aerial.

Switch to FM and set the tuning to a signal free position. Set the FM signal generator to 10.7MHz modulated. Adjust L20, L19, L17, L9 and L8 for maximum output.

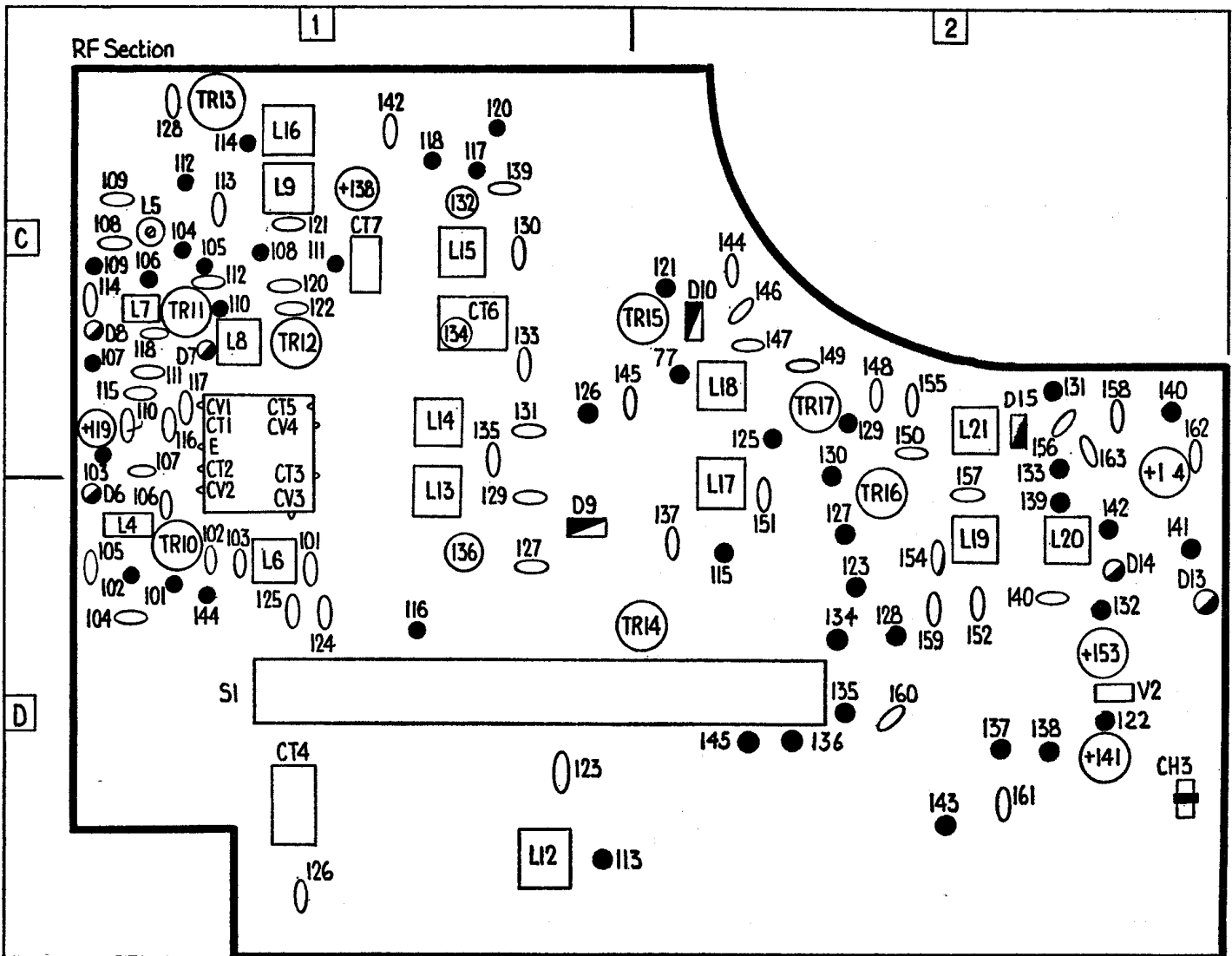
FM RF

Set tuning and signal generator to 87MHz. Adjust L7, by altering coil turn spacing, for maximum output. Set tuning and signal generator to 105MHz. Adjust CT1 for maximum output. Repeat until no further improvement can be made.

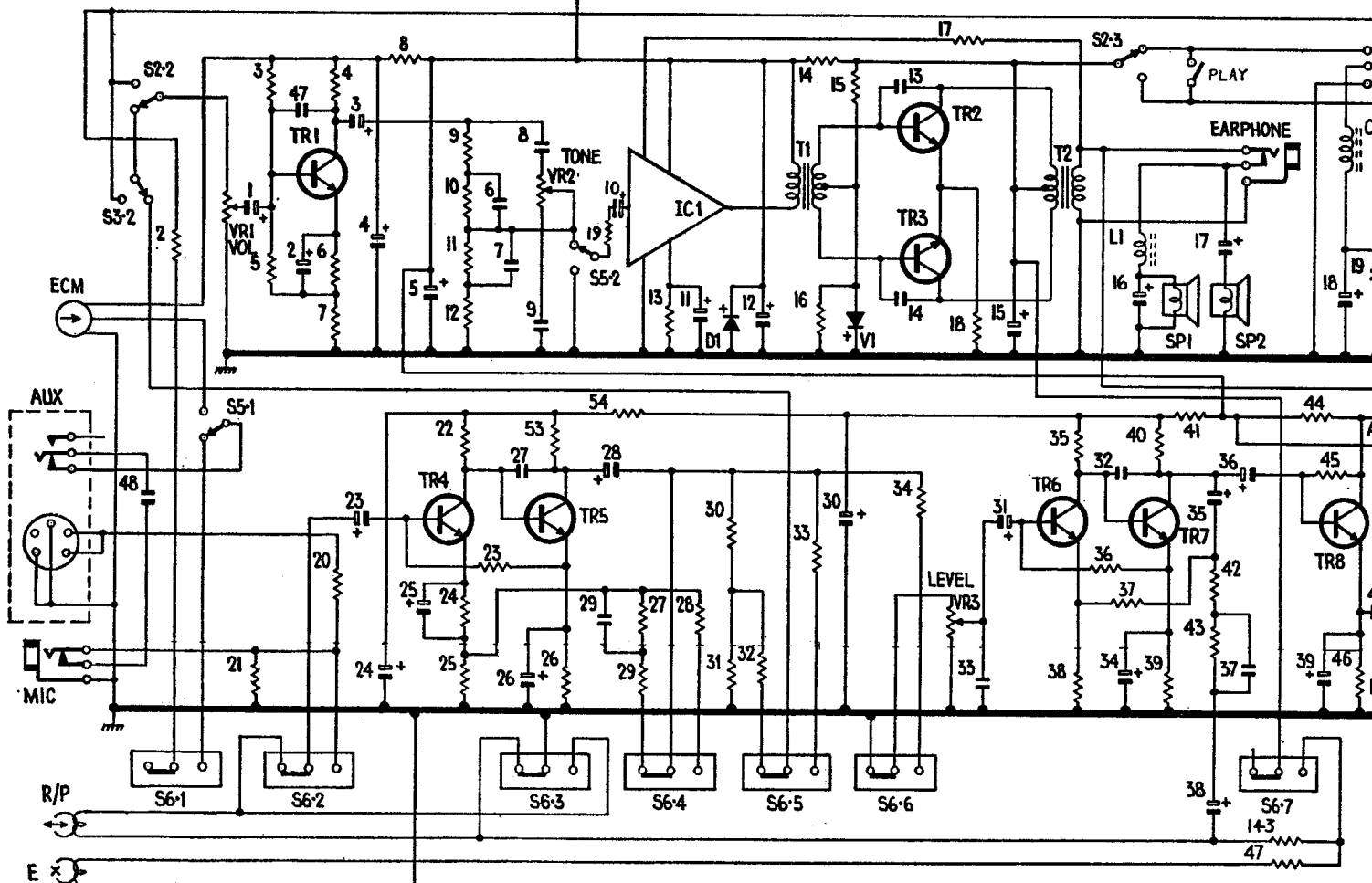
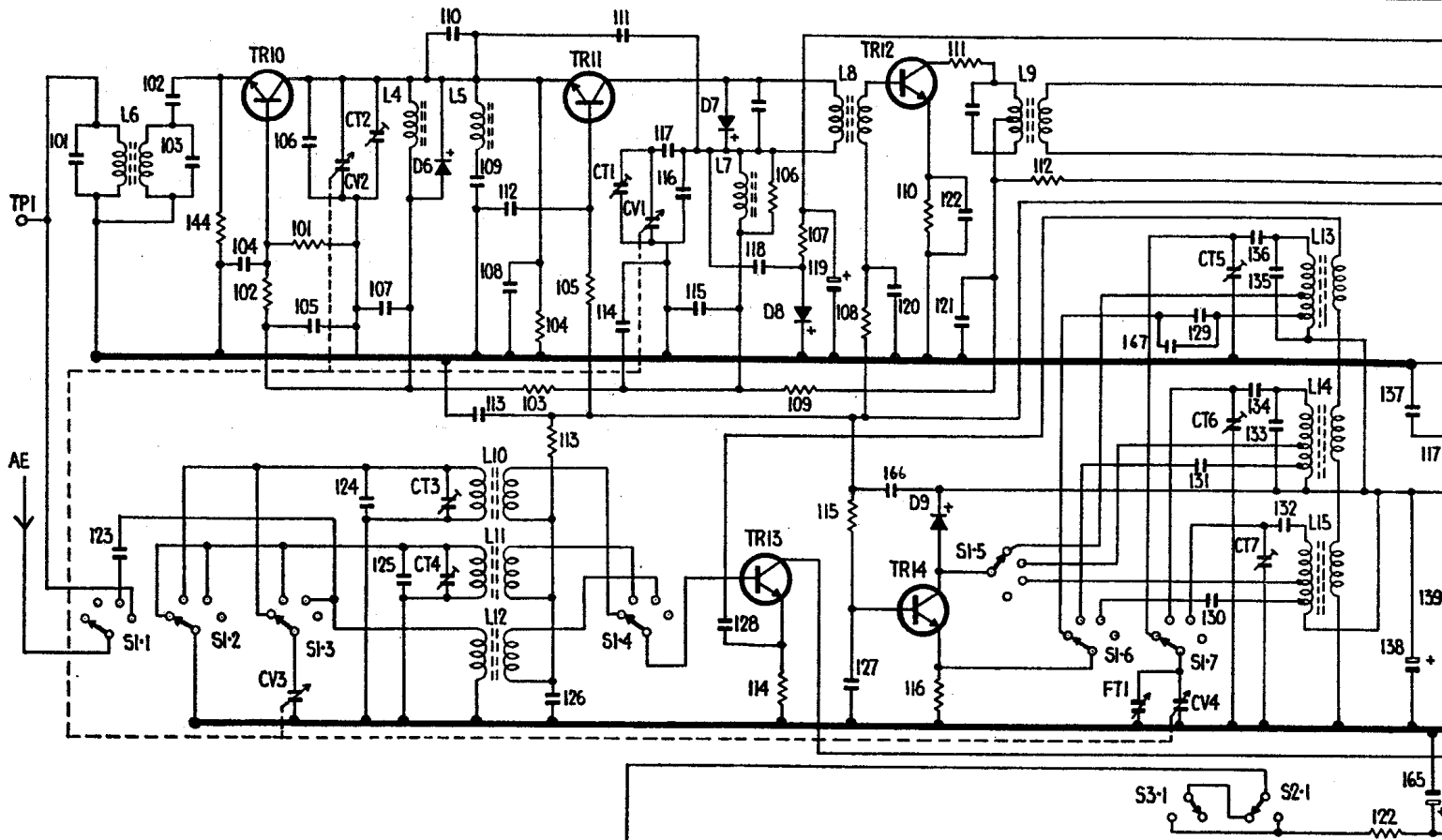
Set tuning and signal generator to 88 MHz. Adjust L4, by altering coil turn spacing, for maximum output. Set tuning and signal generator to 104MHz. Adjust CT4 for maximum output. Repeat until no further improvement can be made.

This service chart is copyright. It is not to be resold or reproduced, in part or in whole, without permission.

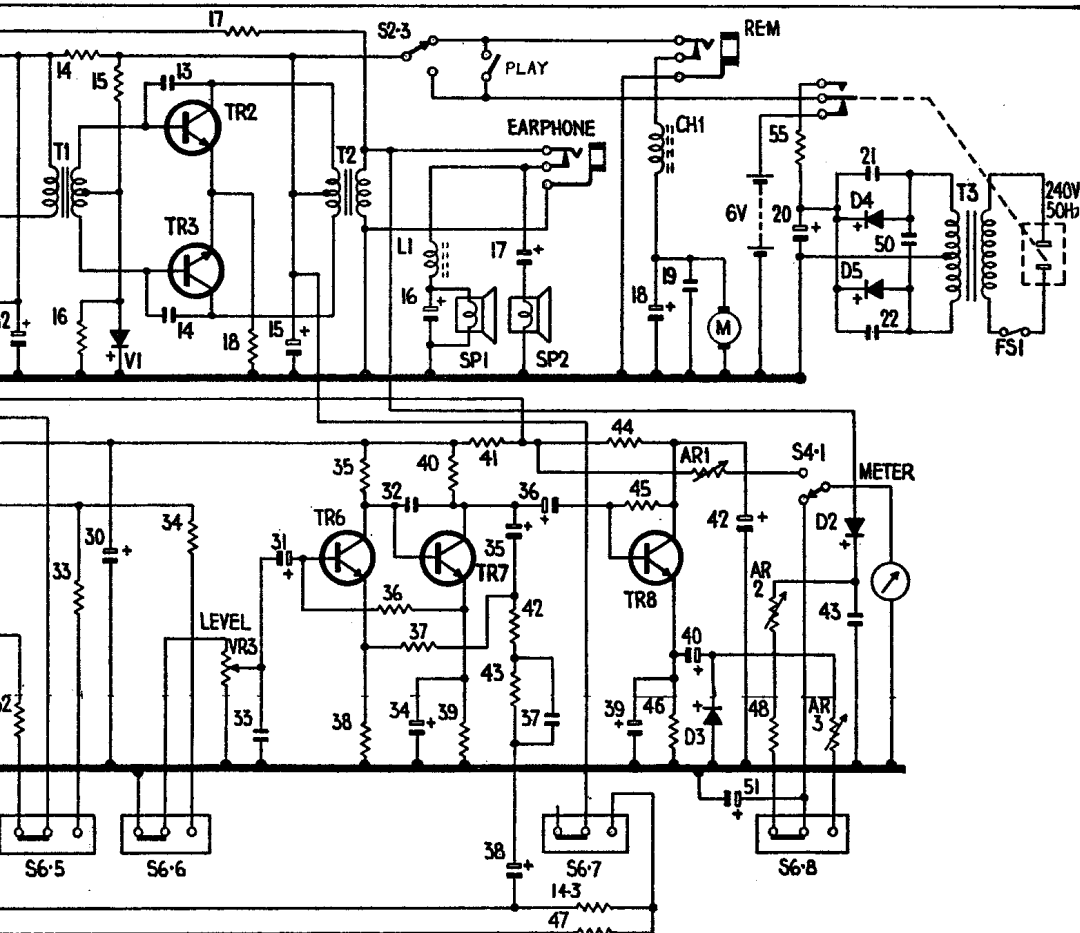
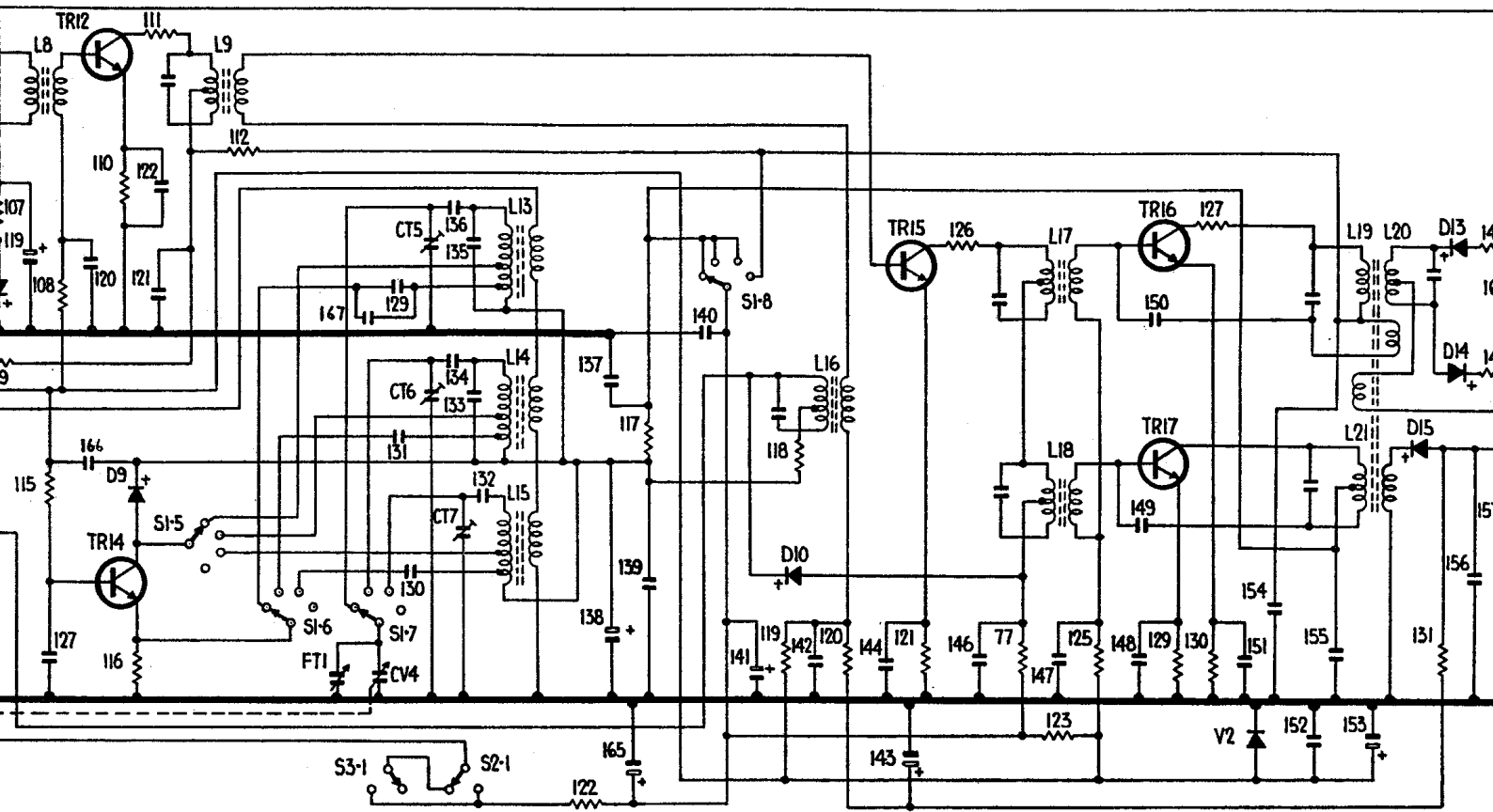
Additional copies of this chart 50p, including postage. Payment with order please to Room 11, Dorset House, Stamford Street, London SE1 9LU



R	144	102	101	20	4	8	22	9	10	11	12	104	13	VR2	19	27	29	28	106	107	108	14	15	110	111	17	112	35	36	40	41	43	122	44	AR		
C	101	102	104	1	2	106	CV2	CT2	125	CT3	110	109	108	126,6,8,CT1,27,CV1,10,28,15	29	118	119	120	13	122	31	FT1	32	16	129	CT7	CT5	136	135	17,35,36	37,38	138	18	143	47	45	46
L	6								4	5	10	12				7			8	T1							T2	1				13	15				



107 108 14 15 110 111 17 112 35 36 40 41 43 122 44 AR1 117 AR2 AR3 119 118 121 126 77 125 127 131
 119 120 13 122 31 FT1 32 16 129 CT7 CT5 136 135 17 35 36 37 38 46 19 39 140 20 21 22 146 147 150 151 154 155 156
 12 127 166 30 14 121 33 15 167 34 CT4 131 130 CT6 134 133 132 38 138 18 139 40 51 42 141 43 142 144 143 148 149 152 153
 8 T1 T2 I 13 15 CH1 16 T3 17 18 19 20 21



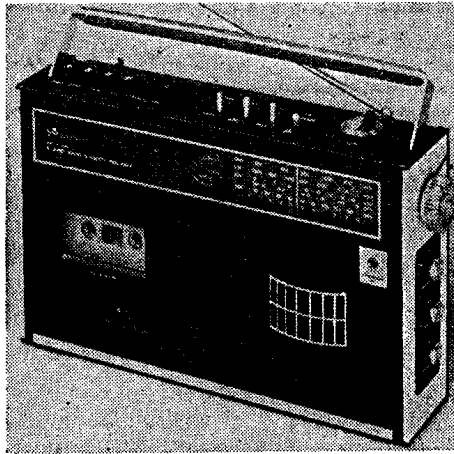
RESISTORS

R2	68K	—
R3	47K	B1
R4	3K3	B1
R5	22K	B1
R6	1K	B1
R7	100	B1
R8	1K	B2
R9	22K	B1
R10	68K	B1
R11	22K	B1
R12	2K2	B1
R13	100	A2
R14	47	A2
R15	680	A2
R16	270	A2
R17	220K	A2
R18	OR5	B2
R19	2K2	—
R20	220K	—
R21	1K	A1
R22	22K	A1
R23	100K	A1
R24	1K5	A1
R25	150	A1
R26	2K2	A1
R27	220K	A1
R28	15K	A1
R29	15K	A1
R30	6K8	A1
R31	82K	B1
R32	4K7	A1/B1
R33	1K2	A1
R34	10K	A1
R35	27K	B1
R36	100K	A1
R37	10K	A1
R38	390	A1
R39	2K2	B1
R40	5K6	B1
R41	330	A1/B1
R42	10K	A1
R43	8K2	A1
R44	18	A1/A2
R45	100K	A1
R46	680	A1
R47	470	A2
R48	3K3	A1
R53	5K6	B1
R54	560	B1
R55	2R2 A2 sol side	—

ERT

SERVICE CHART

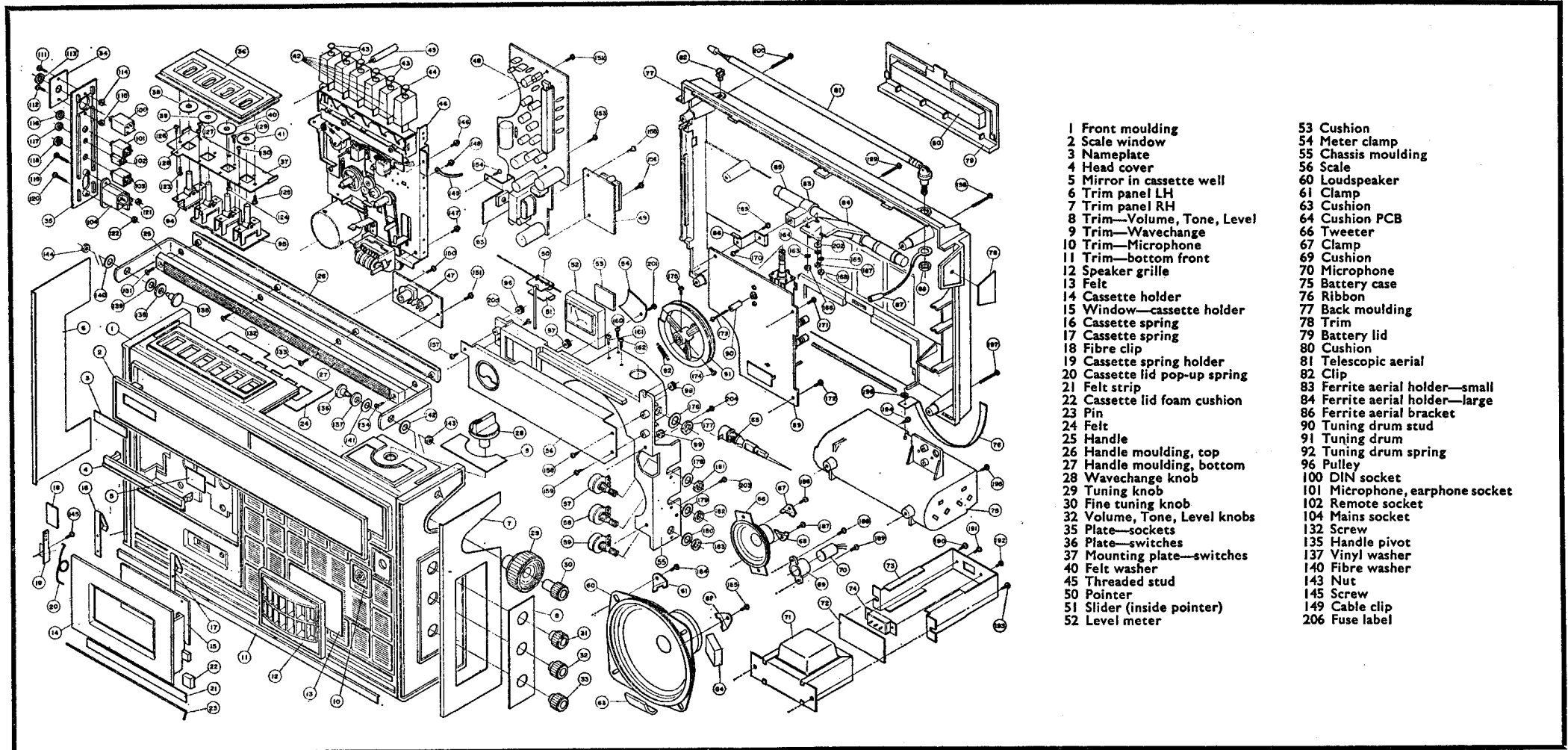
2067



BUSH BR 8410

Radio/Cassette recorder

(Part 2)

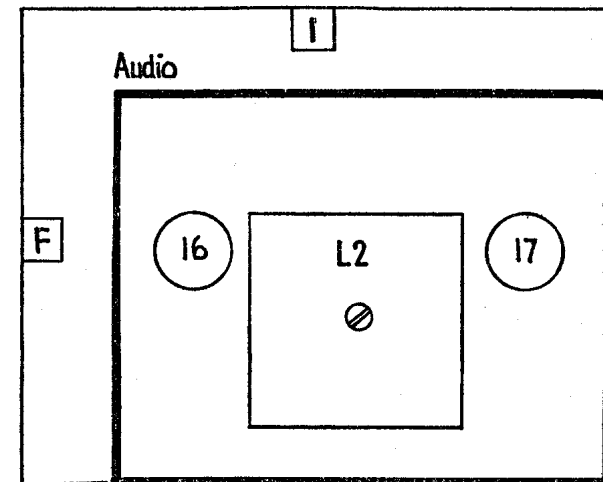
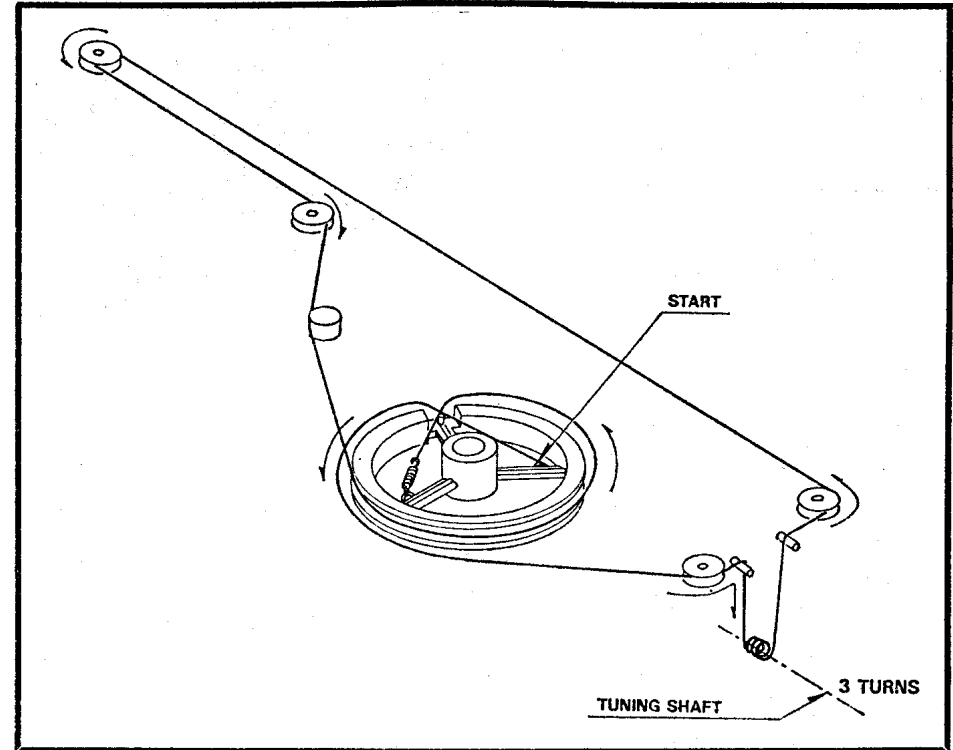
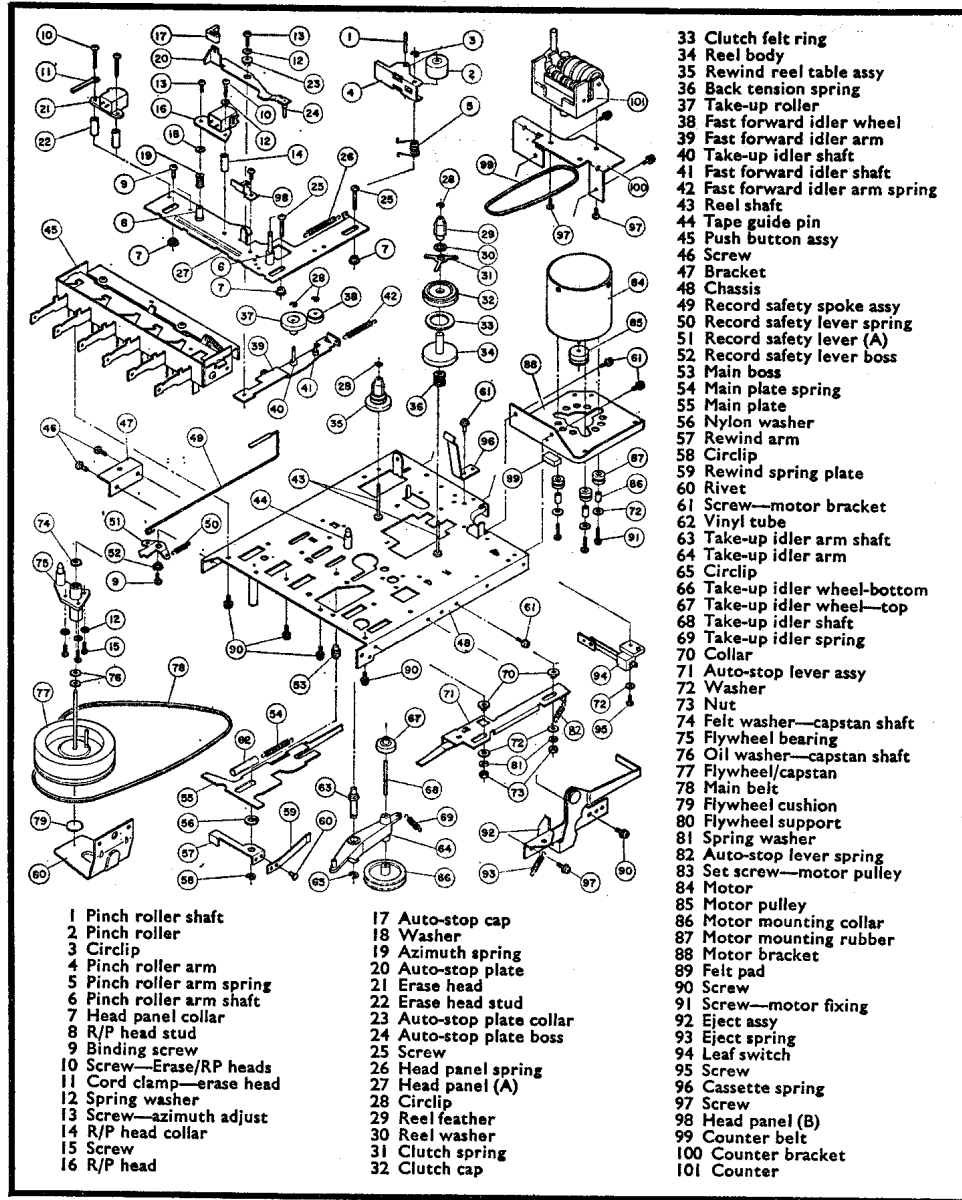


- | | |
|-------------------------------|---------------------------------|
| 1 Front moulding | 53 Cushion |
| 2 Scale window | 54 Meter clamp |
| 3 Nameplate | 55 Chassis moulding |
| 4 Head cover | 56 Scale |
| 5 Mirror in cassette well | 60 Loudspeaker |
| 6 Trim panel LH | 61 Clamp |
| 7 Trim panel RH | 63 Cushion |
| 8 Trim—Volume, Tone, Level | 64 Cushion PCB |
| 9 Trim—Wavechange | 66 Tweeter |
| 10 Trim—Microphone | 67 Clamp |
| 11 Trim—bottom front | 69 Cushion |
| 12 Speaker grille | 70 Microphone |
| 13 Felt | 75 Battery case |
| 14 Cassette holder | 76 Ribbon |
| 15 Window—cassette holder | 77 Back moulding |
| 16 Cassette spring | 78 Trim |
| 17 Cassette spring | 79 Battery lid |
| 18 Fibre clip | 80 Cushion |
| 19 Cassette spring holder | 81 Telescopic aerial |
| 20 Cassette lid pop-up spring | 82 Clip |
| 21 Felt strip | 83 Ferrite aerial holder—small |
| 22 Cassette lid foam cushion | 84 Ferrite aerial holder—large |
| 23 Pin | 86 Ferrite aerial bracket |
| 24 Felt | 90 Tuning drum stud |
| 25 Handle | 91 Tuning drum |
| 26 Handle moulding, top | 92 Tuning drum spring |
| 27 Handle moulding, bottom | 96 Pulley |
| 28 Wavechange knob | 100 DIN socket |
| 29 Tuning knob | 101 Microphone, earphone socket |
| 30 Fine tuning knob | 102 Remote socket |
| 32 Volume, Tone, Level knobs | 104 Mains socket |
| 35 Plate—sockets | 132 Screw |
| 36 Plate—switches | 135 Handle pivot |
| 37 Mounting plate—switches | 137 Vinyl washer |
| 40 Felt washer | 140 Fibre washer |
| 45 Threaded stud | 143 Nut |
| 50 Pointer | 145 Screw |
| 51 Slider (inside pointer) | 149 Cable clip |
| 52 Level meter | 206 Fuse label |

ERT SERVICE CHART

2067

BUSH BR 8410



Additional copies of this chart 50p, including postage. Payment with order please to Room 11, Dorset House, Stamford Street, London SE1 9LU

This service chart is copyright. It is not to be resold or reproduced, in part or in whole, without permission.