

BUSH PB55 SUG55

Six-valve, plus rectifier and cathode-ray tuning indicator, three-waveband superhet with push-button and manual tuning. PB55 is a table model and SUG55 a radiogram. Both have provision for connecting low-impedance extra loudspeakers and the table model has sockets for a 700-ohm pickup. Suitable for AC mains supply 200-250v, 40-100 cycles. Marketed by Bush Radio Ltd., Power Road, Chiswick, London, W4.

ON short-waves signals are fed via C1 and L1 to a tuned circuit L2, VC1 which feeds the HF amplifying pentode V1 to which AVC is applied. By means of R5 and C7 the signals are coupled to L5 and thence by the wavechange switch to the grid of the hexode frequency changer V2.

On medium and long waves signals from the aerial by-pass V1 and are coupled by L3 and L6 to the tuning coils L4, L7 which are tuned by VC2. From here the signals are applied via the switching

to the grid of V2. This valve is cathode biased by R7 and is AVC controlled.

The oscillator section employs tuned grid circuits L8, L10 and L12 with anode reaction coils L9, L11 and L13.

On push-button, trimmers T12-T19 may be switched across L4, L7, while in the oscillator stage coils L14-L21 may be brought into circuit across L12 which is the master oscillator coil for push-button station selection.

VALVE READINGS

Taken on 230v Mains, with volume control at maximum on manual tuning. No signal.

V	Type	Electrode	Volts	Ma
1	MVS Pen B Cossor	Anode	130	6.3
		Screen	90	1.7
		Cathode	Nil	—
2	TH4A or B Mullard	Anode	270	2.4
		Osc. anode	65	4.5
		Screen	65	5
3	VP4B Mullard	Cathode	1	—
		Anode	250	4.7
		Screen	100	1.6
4	TDD4 Mullard	Cathode	Nil	—
		Anode	110	2.2
		Cathode	2.5	—
5, 6	Pen B4 Mullard	Anode	250	31
		Screen	260	4
		Cathode	17.5	—
7	DW4/350 Mullard	Anodes	320 AC	each
		Cathode	2.5	—
T.1	TV4 Mullard	Anode	40	.1
		Target	270	.4
		Cathode	2.5	—

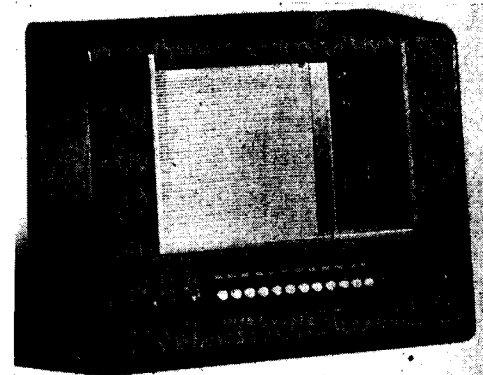
Pilot lamps, 6.2 v, .3 amps.

The intermediate frequency signal from V2 is coupled by a special iron-cored transformer L22, L23. Variable selectivity is achieved by bringing into circuit a common bottom coupling condenser C17 on contrast and high fidelity positions of the switch.

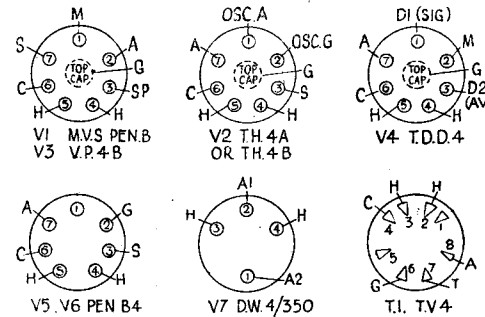
L23 feeds the grid of the IF amplifier pentode V3 which is AVC controlled. A second IF transformer L24, L25 transfers the signal via C38 to the signal diode of the double diode triode V4.

R15 and R16 are the load resistances with filtering effected by R14 and C39. The low frequency signal is coupled via C40 to the volume control VR1 and thence via the grid stopper R18 to the grid of the triode section of V4.

Continued overleaf



The Bush PB55 is a three-waveband superhet with push-buttons for stations and wave switching and with manual tuning. The valve bases (left) are drawn as seen with chassis inverted.



RESISTORS

R	Ohms	R	Ohms
1	500,000	18	100,000
2	1 meg	19	2 meg
3	100,000	20	2 meg
4	10,000	21	10,000
5	10,000	22	50,000
6	1 meg.	23	5,000
7	100	24	1,000
8	30,000	25	1 meg
9	50	26	250,000
10	20,000	27	250,000
11	100,000	28	250
12	10,000	29	1,000
13	2 meg	30	1,000
14	250,000	31	2,000
15	250,000	32	5 meg
16	250,000	VR1	500,000
17	2 meg.	VR2	50,000

CONDENSERS

C	Mfd	C	Mfd
1	50 mmfd	27	130 mmfd
2	deleted	28	340 mmfd
3	.05	29	316 mmfd
4	.0001	30	316 mmfd
5	.05	31	2
6	.05	32	.05
7	.0001	33	.05
8	.0008	34	.05
9	deleted	35	180 mmfd
10	25 mmfd	36	180 mmfd
11	.5	37	.0001
12	60 mmfd	38	.0001
13	60 mmfd	39	.0001
14	160 mmfd	40	.01
15	250 mmfd	41	2
16	.01	42	.05
17	.01	43	.05
18	180 mmfd	44	.25
19	180 mmfd	45	.1
20	.05	46	.25
21	10 mmfd	47	.03
22	556 mmfd	48	.005
23	50 mmfd	49	.005
24	30 mmfd	50	.16
25	15 mmfd	51	.16
26	316 mmfd	52	.05

