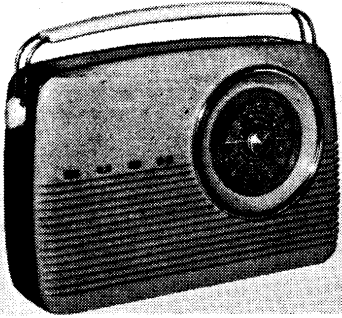


"TRADER" SERVICE SHEET
1403

BUSH MB60

2-band Receiver for Mains/Battery Operation



Appearance of the Bush MB60.

THE Bush MB60 is a 5-valve 2-band portable receiver housed in a 2-tone cabinet and designed to operate from all-dry batteries or A.C. mains of 110-250 V, 50 c/s. It is fitted with an internal ferrite rod aerial and provision is made for the connection of an external aerial. The waveband ranges are 187-570 m and 1,070-1,900 m.

Release date and original price: June, 1957, £15 17s 6d. Purchase tax extra.

CIRCUIT DESCRIPTION

Ferrite rod aerial coils L3 (M.W.) and L2 (L.W.) are tuned by R.F. section of tuning gang C3, and by parallel trimmers C2 (M.W.) and C4, C5, C6 (L.W.). Provision is made for the connection of a car aerial via C1, L1. Heptode valve V1 is employed as frequency changer with electron coupling.

Oscillator grid coil L6 is tuned by the oscillator section of the tuning gang C13. Parallel trimming by C14 (M.W.) and C15, C16, C17 (L.W.). Tracking by C18 and the adjustable

core of L6. Reaction coupling from oscillator anode via C19, L7.

V2 and V3 are variable- μ R.F. pentodes operating as intermediate frequency amplifiers with tuned transformer couplings L4, L5; L8, L9; and L10, L11.

Intermediate frequency 470 kc/s

Diode signal detector is part of diode-pentode valve V4. Audio frequency component in its rectified output is developed across volume control R11, which also operates as

diode load, and is passed via C29 to the control grid of V4 pentode section, which operates as A.F. amplifier. V4 is grid current biased by R12.

The D.C. component developed across potential divider R9, R10 is tapped off and fed back as bias to V1, V2 and V3, giving automatic gain control.

R.-C. coupling by R14, C31 and R15 between V4 pentode and pentode output valve (Continued overleaf col. 1)

Resistors

R1	2.2M Ω	E4
R2	100k Ω	E4
R3	2.7k Ω	F4
R4	27k Ω	E3
R5	33k Ω	B1
R6	33k Ω	E4
R7	33k Ω	F3
R8	27k Ω	F4
R9	2.7M Ω	F4
R10	2.7M Ω	F4
R11	500k Ω	B1
R12	10M Ω	F4
R13	2.7M Ω	F4
R14	1M Ω	F4
R15	1.8M Ω	F4
R16	330k Ω	F4
R17	100k Ω	A1
R18	10k Ω	C1
R19	1k Ω	C1
R20	560 Ω	F4
R21	1.8k Ω	C1
R22	100 Ω	C2
R23	10 Ω	B2
R24	10 Ω	B2

Capacitors

C1	1,800pF	F3
C2	30pF	B1
C3	523pF	A1
C4	30pF	B1
C5	160pF	B1
C6	30pF	B1
C7	560pF	E4
C8	0.01 μ F	E3
C9	0.04 μ F	F3
C10	110pF	A1
C11	110pF	A1
C12	100pF	B1
C13	523pF	A1
C14	30pF	B1
C15	30pF	B1
C16	30pF	B1
C17	450pF	B1
C18	515pF	B1
C19	0.01 μ F	B1
C20	110pF	A2
C21	110pF	A2
C22	0.04 μ F	F3
C23	0.04 μ F	F4
C24	110pF	A2
C25	110pF	A2
C26	68pF	F4
C27	3.3pF	F4
C28	0.1 μ F	B1

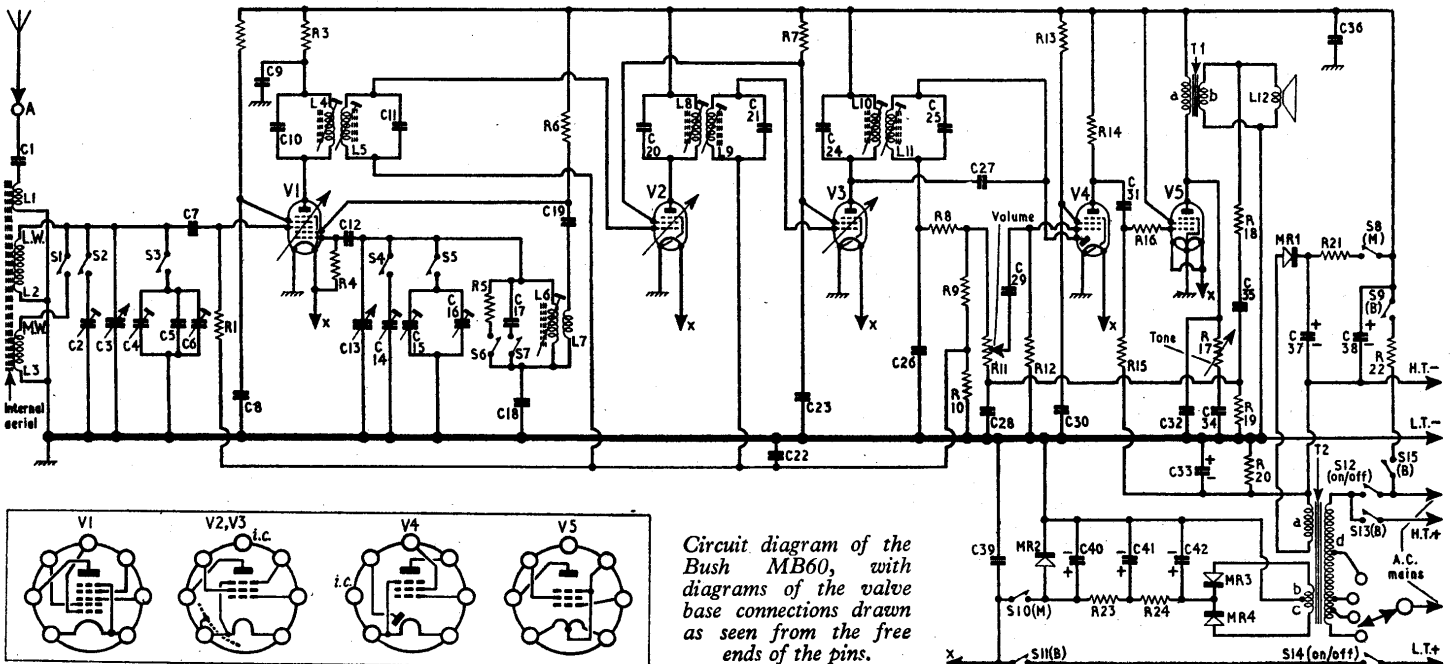
Capacitors

C29	0.003 μ F	F4
C30	0.01 μ F	F4
C31	0.003 μ F	F4
C32	0.003 μ F	F3
C33	50 μ F	C2
C34	0.01 μ F	B1
C35	0.04 μ F	C1
C36	0.1 μ F	E4
C37	50 μ F	B2
C38	20 μ F	C2
C39	0.5 μ F	E3
C40	3,000 μ F	A2
C41	3,000 μ F	A2
C42	1,000 μ F	B2

Miscellaneous*

T1	{ a 460.0 } C1
	{ b 0.2 }
T2	{ a 420.0 } B2
	{ b 0.8 }
	{ c 0.8 }
	{ d 770.0 }
	(pri. total)
MR1	† B2
MR2-MR4	‡ B2
S1-S7	— B1
S8-S11	— C1
S12, S14	— A1
S13, S15	— C2

*Approximate D.C. resistance in ohms.
†Westinghouse, 16RC1-1-8-1
‡S.T.C. FSX1634C



Circuit diagram of the Bush MB60, with diagrams of the valve base connections drawn as seen from the free ends of the pins.

