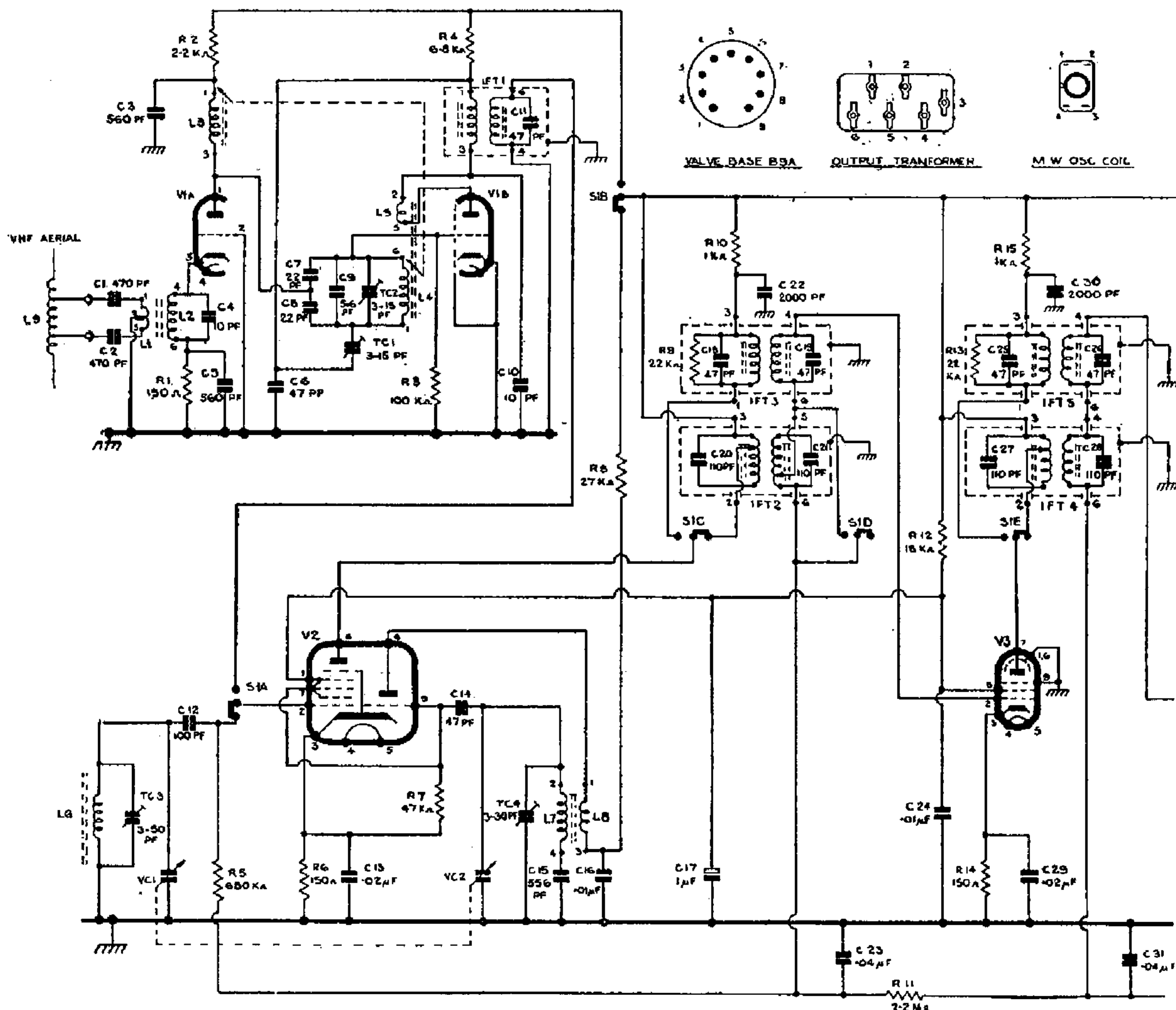


General Description : Seven-valve (including rectifier), two-waveband (M.W./V.H.F.), combined A.M./F.M. table receiver. Ferrite-rod aerial for M.W. reception; built-in V.H.F. condensed dipole with provision for external dipole aerial. Model VHF90 is housed in a dark-brown plastics cabinet, whilst Model VHF90C has a similar chassis in a cream plastics cabinet.

Power Supply : A.C./D.C. mains, 200-250 volts. Chassis is connected directly to one side of the mains supply.

Valve Functions : (V1) UCC85 (F.M. only, section (a) grounded-grid R.F. amplifier, section (b) self-oscillating mixer); (V2) UCH81 (A.M. frequency changer, F.M. heptode section as I.F. amplifier); (V3) UF89 (dual I.F. amplifier); (V4) UF89 (dual I.F. amplifier and partial limiter on F.M.); (V5) UABC80 (A.M. signal detector/A.G.C. rectifier, F.M. ratio detector, with triode section as common A.F. amplifier); (V6) UL84 (output); (V7) UY85 (half-wave rectifier).



CIRCUIT DIAGRAM—

Intermediate Frequencies : A.M. 470 kc/s.; F.M. 10.7 Mc/s.

Circuit Notes : V.H.F. unit is permeability tuned by ganged cores to L₃ and L₄-L₅. TC₁ is a balancing trimmer to minimise local oscillator radiation. TC₂ is the V.H.F. oscillator trimmer. TC₃ is M.W. aerial trimmer and TC₄ is the M.W. oscillator trimmer.

Pilot Lamps : Two 3.5 volts, 0.15-amp.

Capacitors.

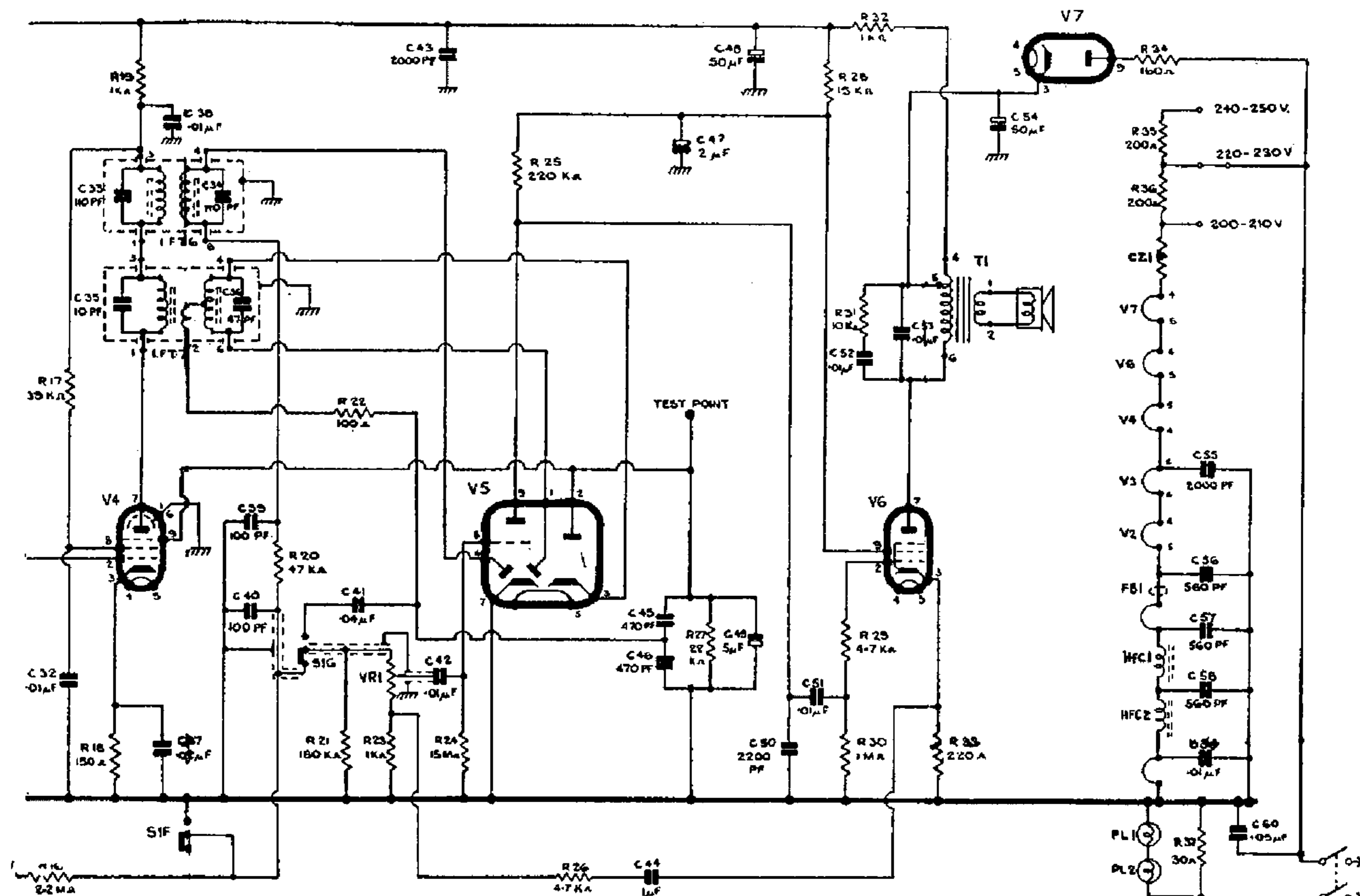
C1	470 pF. (1750 v.)	C23	0.04
C2	470 pF. (1750 v.)	C24	0.01
C3	560 pF.	C25	47 pF. (5%)
C4	10 pF. (5%)	C26	47 pF. (5%)
C5	560 pF.	C27	110 pF. (2%)
C6	47 pF. (750 v., 5%)	C28	110 pF. (2%)
C7	22 pF. (750 v., 2%, P100)	C29	0.02
C8	22 pF. (750 v., 2%, P100)	C30	2000 pF.
C9	5.6 pF. (750 v., ±0.5 pF., N750)	C31	0.04
C10	10 pF. (750 v., 5%)	C32	0.01
C11	47 pF. (750 v., 5%)	C33	110 pF. (2%)
C12	100 pF. (750 v.)	C34	110 pF. (2%)
C13	0.02	C35	10 pF. (5%)
C14	47 pF.	C36	47 pF. (5%)
C15	556 pF. (1%)	C37	0.02
C16	0.01	C38	0.01
C17	1 (elec. 350 v.)	C39	100 pF. (250 v.)
C18	47 pF. (5%)	C40	100 pF. (750 v.)
C19	47 pF. (5%)	C41	0.04
C20	110 pF. (2%)	C42	0.01
C21	110 pF. (2%)	C43	2000 pF.
C22	2000 pF.	C44	0.1
		C45	470 pF.
		C46	470 pF.
		C47	2 (elec. 350 v.)
		C48	50 (elec. 275 v.)
		C49	5 (elec. 50 v.)
		C50	2200 pF. (10%)
		C51	0.01

C52	0.01 (500 v.)
C53	0.01 (500 v.)
C54	50 (elec. 275 v.)
C55	2000 pF.
C56	560 pF.
C57	560 pF.
C58	560 pF.
C59	0.01
C60	0.05 (500 v.)
TC1	3-15 pF.
TC2	3-15 pF.
TC3	3-50 pF.
TC4	3-30 pF.

R14	150 (10%)
R15	1k
R16	2.2M (10%)
R17	39k (10%)
R18	150 (10%)
R19	1k
R20	47k
R21	180k
R22	100
R23	1k (10%)
R24	15M
R25	220k (10%)
R26	4.7k (10%)
R27	22k (10%)
R28	15k (½ W., 10%)
R30	1M
R31	10k (10%)
R32	1k (W.W., 8 W., 5%)
R33	220 (½ W., 10%)
R34	160 (W.W., 4 W., 5%)
R35	200 (W.W., 4 W., 5%)
R36	200 (W.W., 4 W., 5%)
R37	30 (W.W., 4 W., 5%)
VR1	500k (semi-log)

Resistors.

R1	150 (10%)
R2	2.2k (10%)
R3	100k (10%)
R4	6.8k (½ W., 10%)
R5	680k
R6	150 (10%)
R7	47k
R8	27k (½ W.)
R9	22k (10%)
R10	1k
R11	2.2M
R12	18k (10%, ½ W.)
R13	22k (10%)



BUSH MODEL VHF90