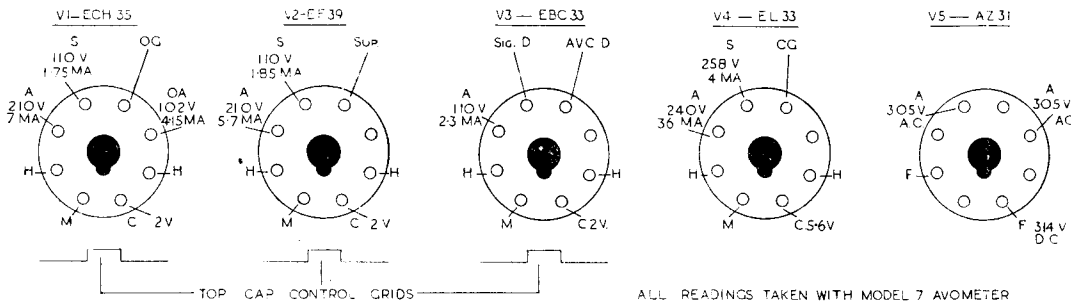


BRITAMER A51

Five-valve, including rectifier, three-wave-band superhet for operation on AC mains 200/250V, 50 cycles. Provision for pickup and extra loudspeaker. Made by Britamer, Ltd., 234, Wandsworth Road, London.



AERIAL is fed via S1 to coupling coils L1 (LW), L2 (MW) and L3 (SW). S2 selects the grid coils for V1, the frequency changer, L4 (LW), L5 (MW) and L6 (SW). C1 formed by an open wire loop close to L5 provides capacitive coupling in addition to inductive coupling on MW. T1, T2 and T3 are trimmers to VC1 the aerial tuning capacitor. AVC is fed to V1 via R4, C8.

S3 selects the oscillator tuned grid circuits, L7, T4 (LW), L8, T5 (MW) and L9, T6 (SW).

VC2 is oscillator tuning capacitor. S4 injects feed-back from the anode across the padders C4, C5, and to both a reaction winding L10 and the padder C6 on SW.

R3, C2 provide leak-condenser bias for the

oscillator section of V1, the mixer portion of which is biased by R8 decoupled by C15. R1 decoupled by C9 provides screen voltage.

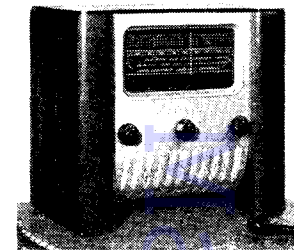
L13, C22 form the primary of IFT1, a permeability tuned IF transformer, and the secondary L14, C23 feeds V2, the IF amplifier. AVC is fed to V2 via R4, C8, and cathode bias provided by

Continued on next page

CAPACITORS

C	Mfds	Type	C	Mfds	Type
1	Formed by capacity loop of wire		4	205 pf Silver Mica	
2	200 pf Silver Mica		5	420 pf Silver Mica	
3	60 pf Silver Mica		6	4600 pf Silver Mica	
			7	500 pf Silver Mica	
			8	.05 Tubular 500 v	
			9	.25 Tubular 350 v	
			10	100 pf Mica	
			11	100 pf Mica	
			12	.05 Tubular 500 v	
			13	100 pf Mica	
			14	12 Electrolytic 50 v	
			15	.25 Tubular 350 v	
			16	.05 Tubular 500 v	
			17	16 Electrolytic 450 v	
			18	8 Electrolytic 450 v	
			19	16 Electrolytic 450 v	
			20	.02 Tubular 750 v	
			21	100 pf Mica	
			22-25	120 pf Silver Mica	

Britamer A51 has speaker tilted towards table-top for sound reflection.

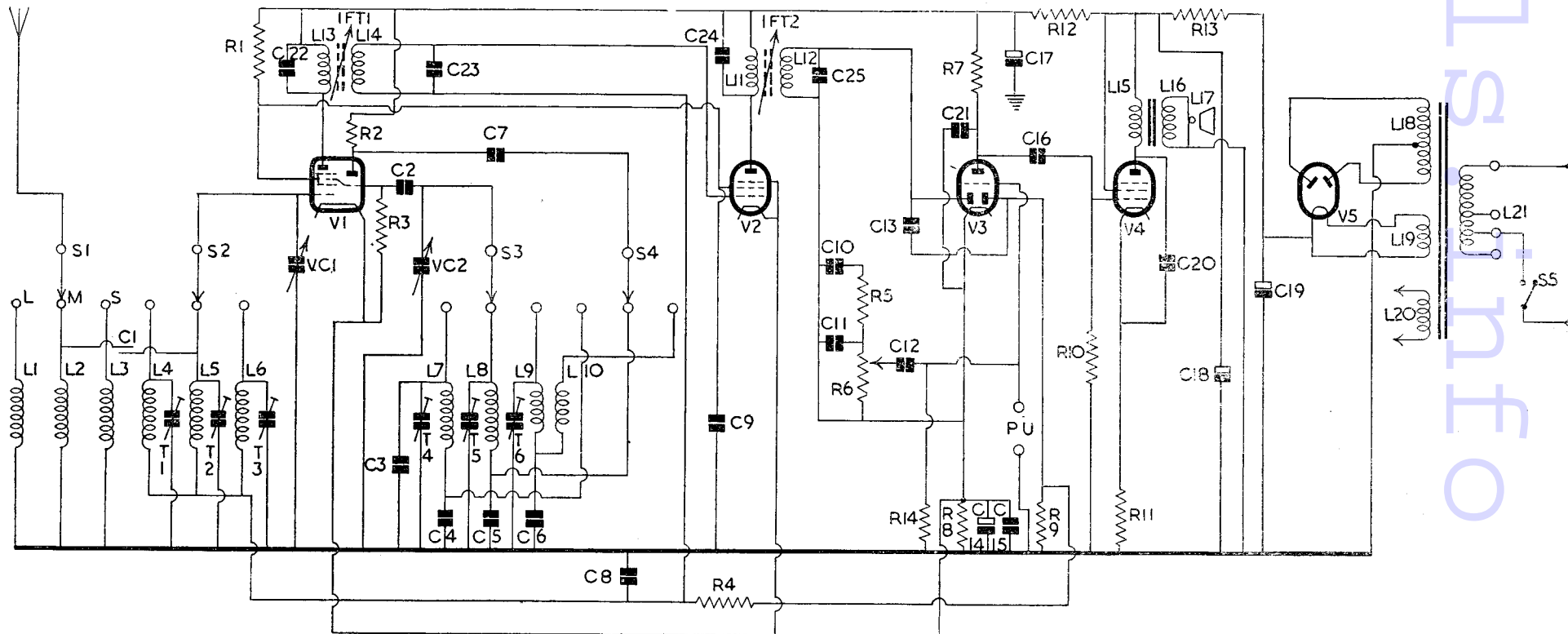


INDUCTORS

L	Ohms	L	Ohms
1	39	12	3.75
2	10.5	13	3.75
3	1	14	5.5
4	23	15	500
5	2.5	16	very low
6	very low	17	3
7	7.5	18	500
8	3.75	19	very low
9	very low	20	very low
10	4	21	78
11	3.75		

RESISTORS

R	Ohms	R	Ohms
1	24 K	8	100
2	27 K	9	1 M
3	47 K	10	47 K
4	1 M	11	150
5	100 K	12	2 K 2 W
6	1 M variable	13	1 K 2 W
7	47 K	14	1 M



BRITAMER A51

Continued

R8 decoupled by C15. Screen voltage is obtained from R1 decoupled by C9.

Another permeability tuned IF transformer in anode circuit of V2 leads to the signal diode of V3. R6 is signal diode load and also volume control. R5, C10 and C11 comprise an IF filter. C12 transfers the demodulated signal to grid section of V3.

AVC diode is fed by C13 from secondary L12 of IFT2. R9 is AVC diode load. R8 decoupled by C14, C15, provides cathode bias to V3 and also V1 and V2.

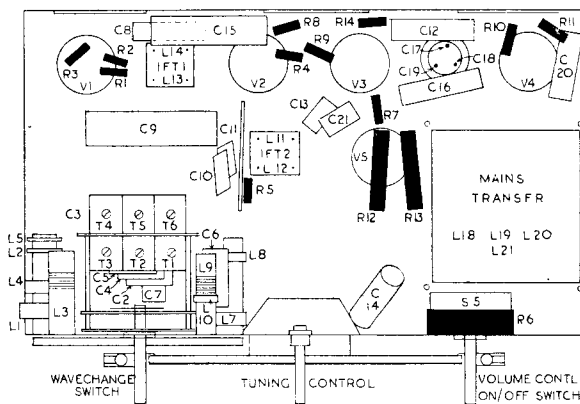
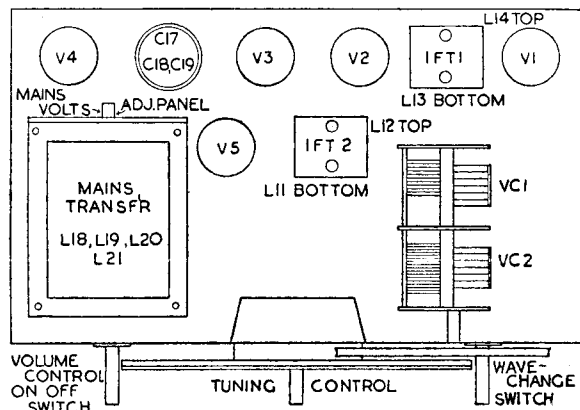
R7 is anode load of V3 with C21 as bypass, R14 is grid resistance to V3, and a pickup can be connected across it.

C16 feeds the amplified signal to V4, the output valve. R10 is grid resistor, and R11, cathode bias resistor, is not bypassed and so provides negative feed-back. C20 provides a degree of tone correction.

L16, the secondary of the output transformer, is coupled to a low impedance speech coil L17. HT is derived from V5, a full-wave rectifier, fed from L18, the HT secondary of the mains transformer, and L19 the heater supply. L20 supplies heater current to V1—V4 and dial lights.

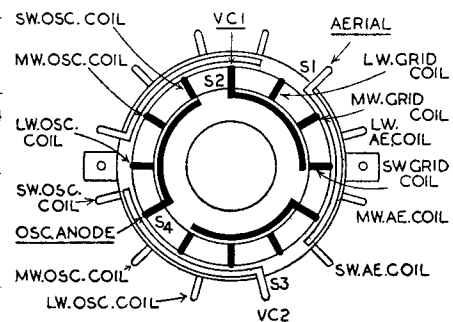
Smoothing is of the resistance capacitance method, using C19, R13, C18, R12, C17.

L21 is mains transformer primary, and S5 the on/off switch.

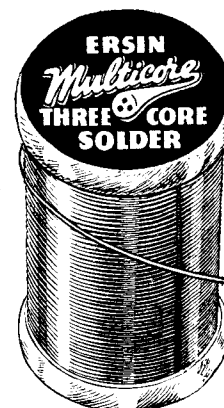


TRIMMING INSTRUCTIONS

Apply Signal as below	Tune Receiver to	Adjust in Order stated for Max. Output
465 KC to top cap V1 leaving existing lead connected	550 metres	L12, L11, L14 and L13
1,200 KC to AE via dummy aerial	250 metres	T5, T2
12 MC as above	25 metres	T6, T3
240 KC as above	1,250 metres	T4, T1



WHY



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