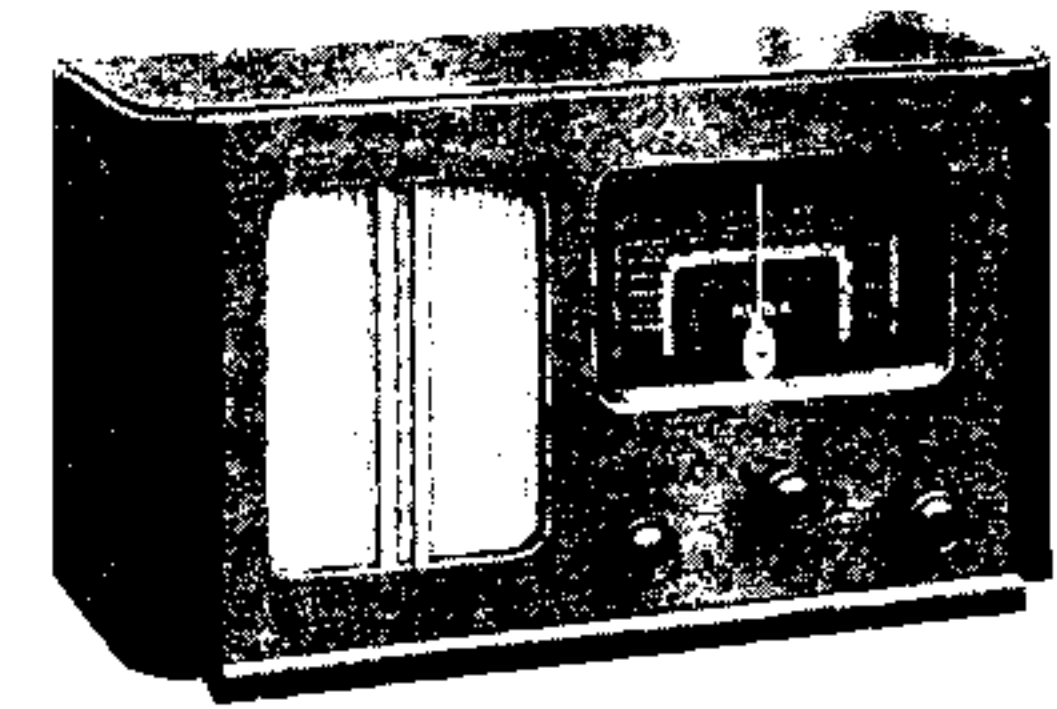


Four-valve, plus rectifier, AC/DC superhet, covering short, medium and long wavebands, using Mullard "E" valves. Veneered walnut cabinet, 14 1/2 in. wide, 8 1/2 in. high, 6 in. deep. Marketed by H. J. Balcombe, Ltd., 52, Tabernacle Street, London, EC2.

THE aerial, which is formed of 24 ft. of plastic covered wire, is permanently attached to the set. The signals are fed via C1 to S1 and thence to aerial coupling coils L1 (SW), L2 (MW), and L3 (LW). S2 selects the grid coils L4 (SW), L5 (MW) and L6

(LW) to grid of V1 a triode-hexode frequency changer. VC1 is aerial tuning capacitor and T5 (SW), T3 (MW) and T1 (LW) in parallel with C28 are aerial set trimmers. L5 (MW) and L6 (LW) are coils of the permeability tuned type and further trimming is provided by their adjustable iron dust cores. AVC is applied to grid of V1 on MW and LW via R3 decoupled by C10 and C11. Cathode bias for V1 is obtained from R5 and is decoupled by C9. Screen voltage is derived from R1 decoupled by C2. L13, C3 form the primary of IF T1, a permeability tuned IF transformer, on the anode set of hexode section of V1. S3 selects the oscillator grid coils L7 (SW), L8 (MW), and L9 (LW). VC2 is oscillator tuning capacitor and R2, C6 provide leak-condenser bias to oscillator grid. T6 (SW), T4 (MW), and T2 (LW) in parallel with C27 are oscillator trimmers. L8 (MW) and L9 (LW) are coils of the permeability tuned type and as in the case of L5 and L6, further

trimming is provided by adjustment of their iron dust cores C5 (SW), C7 (MW), and C8 (LW) are fixed padders. S4 selects the series fed oscillator reaction coils L10 (SW), L11 (MW), and L12 (LW) to anode of oscillator. The oscillator HT is derived from R1. L14, C4 the secondary of IFT1, feeds the signal to grid of V2, an IF amplifier. AVC is fed to grid of V2 via R4, C11, cathode bias is obtained from R5 decoupled by C12. Screen voltage is derived from R1, decoupling being supplied by C2. L15, C20 from the primary of IFT2, a permeability tuned IF transformer, in the anode circuit of V2. L16, C16 feed the signal diode of V3, R8, C14, C15 being an IF filter. R7 is the diode load. C13 feeds the rectified signal to R6, the volume control, and thence to grid of V3. C19 energises the AVC diode, R12 being its load resistor. Cathode bias and AVC delay voltage is obtained from R5 decoupled by C12. R9 is anode load resistor of V3 and C17 is anode HF bypass capacitor. C18 passes the amplified signal to grid V4, the output valve. R10 is grid stopper and R11 is grid leak to V4. R13 provides cathode bias and, not being decoupled, supplies a percentage of negative feed-back to grid V4. Screen voltage is derived from R15, decoupling being provided by C21. L17, the primary of OP1, the LS output transformer is in anode set of V4. C25 prevents parasitic oscillation taking place in V4.

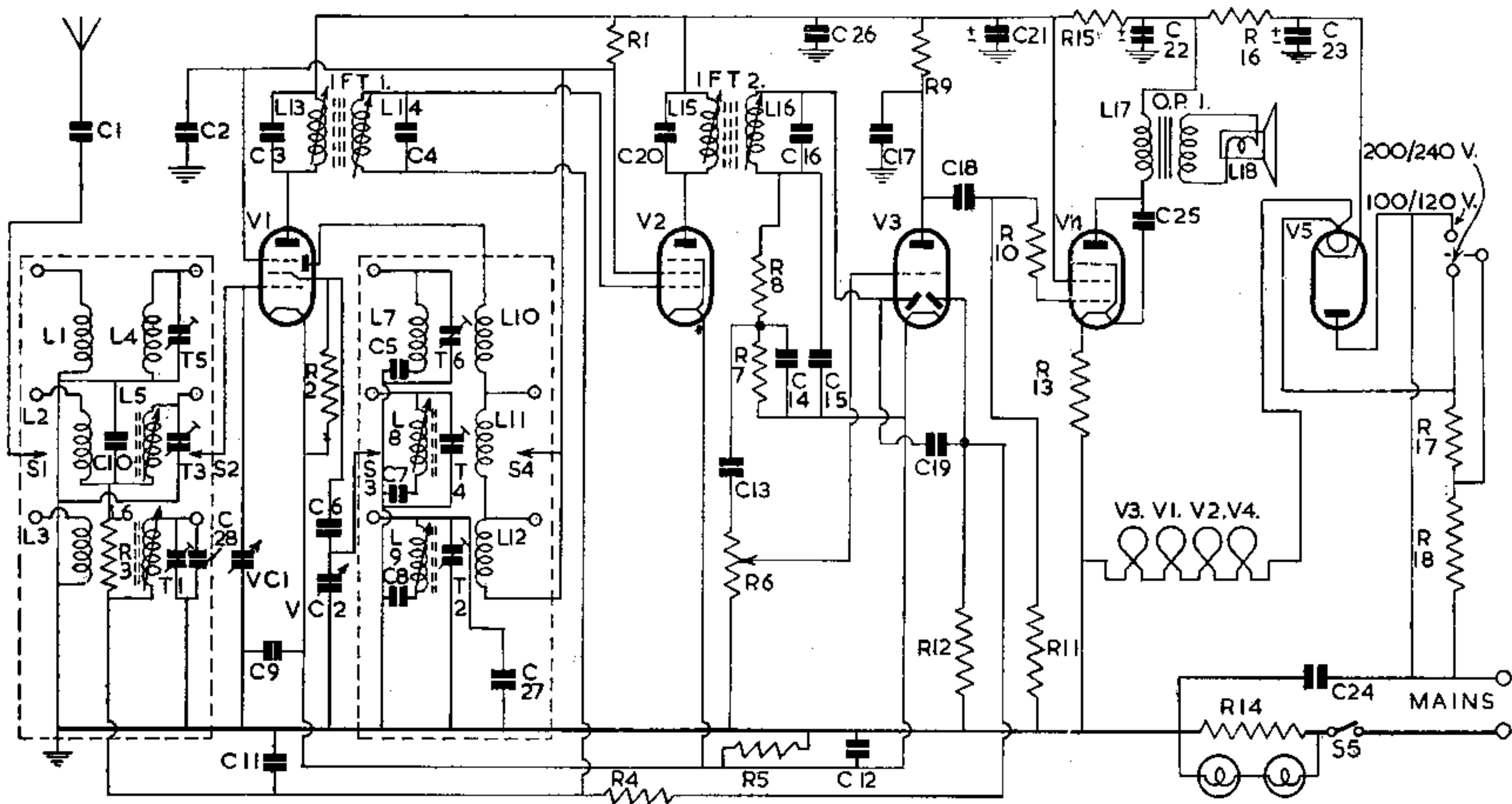
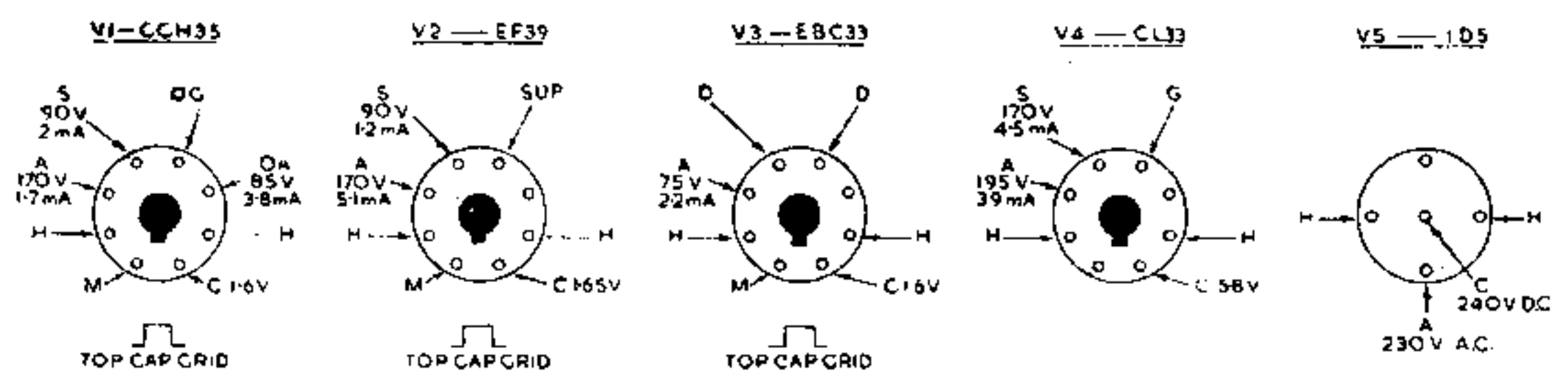


HT for V4 is taken from junction R15/R16 and is smoothed by C22. L18, the secondary of OP1, is connected to a low impedance speech coil L19.

HT is supplied from V5, the rectifier valve, and its resistance capacitance smoothed by R15, R16, C21, C22, C23. C26 provides HF decoupling of HT supply to V1-V2.

The heaters of V1-V5 and dial light are wired in series and fed, on 100/120V, direct from mains. On 200/240V supplies R18, which forms part of line cord, is connected in series. On 250V supplies R17, which is the second section of the line cord, is also further connected in series with R18. The dial lights are shunted by R14.

C24 is mains input filter capacitor. S5 is mains on/off switch.



TRIMMING INSTRUCTIONS AND CHASSIS LAYOUTS OVERLEAF.

CAPACITORS

C	Mfds	C	Mfds
1	200pf Mica	15	100pf Silver Mica
2	.1 Tubular 350v	16	100pf Silver Mica
3	100pf Silver Mica	17	.0002 Mica
4	100pf Silver Mica	18	.005 Tubular 1000v
5	5600pf Silver Mica	19	100pf Silver Mica
6	47pf Silver Mica	20	100pf Silver Mica
7	575pf Mica	21	.16 Electrolytic
8	200pf Silver Mica	22	.16 400v
9	.1 Tubular	23	.8
10	.005 Tubular	24	.05 Tubular 350v
11	.05 Tubular 350v	25	.005 Tubular 1000v
12	.25 Tubular 350v	26	.1 Tubular 350v
13	.005 Tubular 1000v	27	46pf Silver Mica
14	100pf Silver Mica	28	46pf Silver Mica

RESISTORS

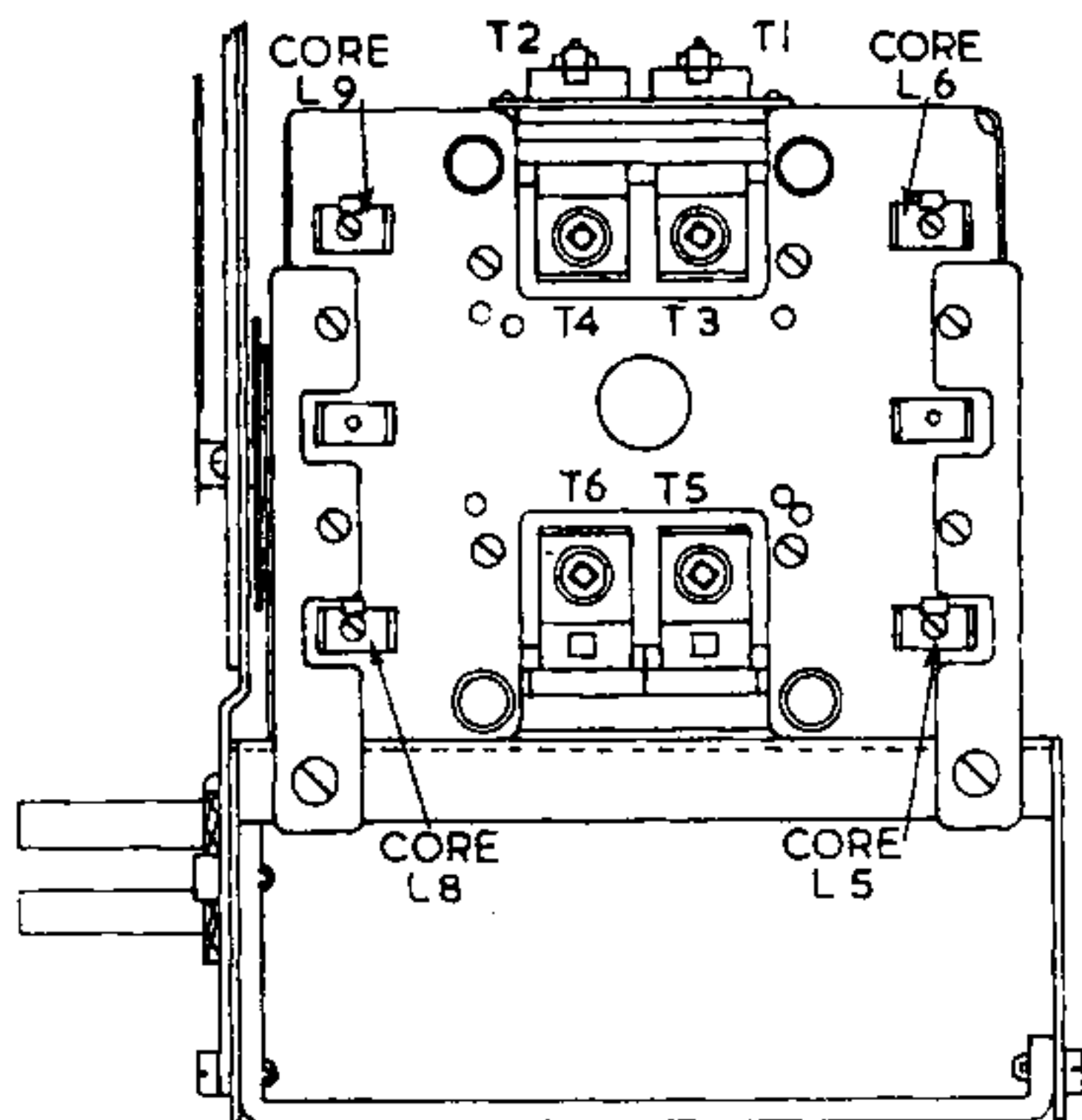
R	Ohms
1	10K 1/2W
2	47K 1/2W
3	680 1/2W
4	2.2M 1/2W
5	100 1/2W
6	1M Vol. Control
7	470K 1/2W
8	47K 1/2W
9	47K 1/2W
10	47K 1/2W
11	470K 1/2W
12	1M 1/2W
13	150 1/2W
14	40 Wirewound
15	1.5K 2W
16	560 2W
17	100 Tapped
18	600 Line Cord.

INDUCTORS

L	Ohms
1	Very low
2	Very low
3	60
4	Very low
5	2.75
6	14
7	Very low
8	1.75
9	4.5
10	Very low
11	.8
12	1.2
13	6.7
14	7.7
15	7.5
16	7.5
17	250
18	Very low
19	Very low

## TRIMMING INSTRUCTIONS

Apply Signal as below	Tune Receiver to	Adjust in Order stated for Max. Output
(1) 460 KC to grid of V1 via .01 capacitor	550 metres	L16, L15, L14, L13
(2) 15 MC to aerial socket via dummy aerial	20 metres	T6, T5
(3) 545 KC as above	550 metres	L8, L5
(4) 1.2 MC as above	250 metres	T4, T3. Repeat (3) and (4) until max. output is obtained.
(5) 150 KC as in (2)	2,000 metres	L9, L6
(6) 300 KC as above	1,000 metres	T2, T1. Repeat (5) and (6) until max. output is obtained.



Above: Details of trimmers.  
Below: Chassis layouts of Alba 462 AC/DC.

