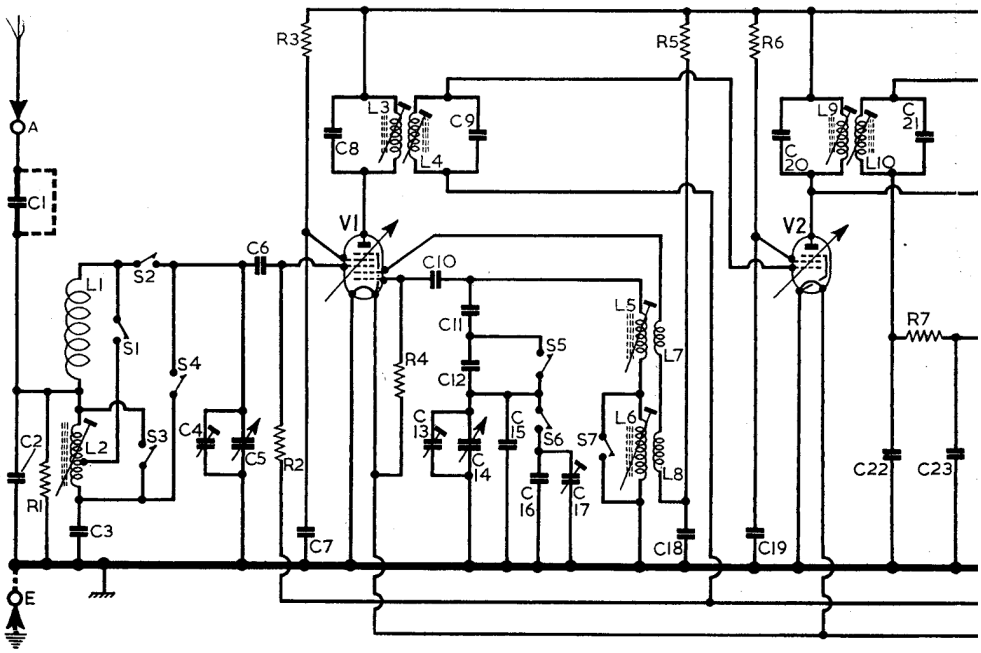

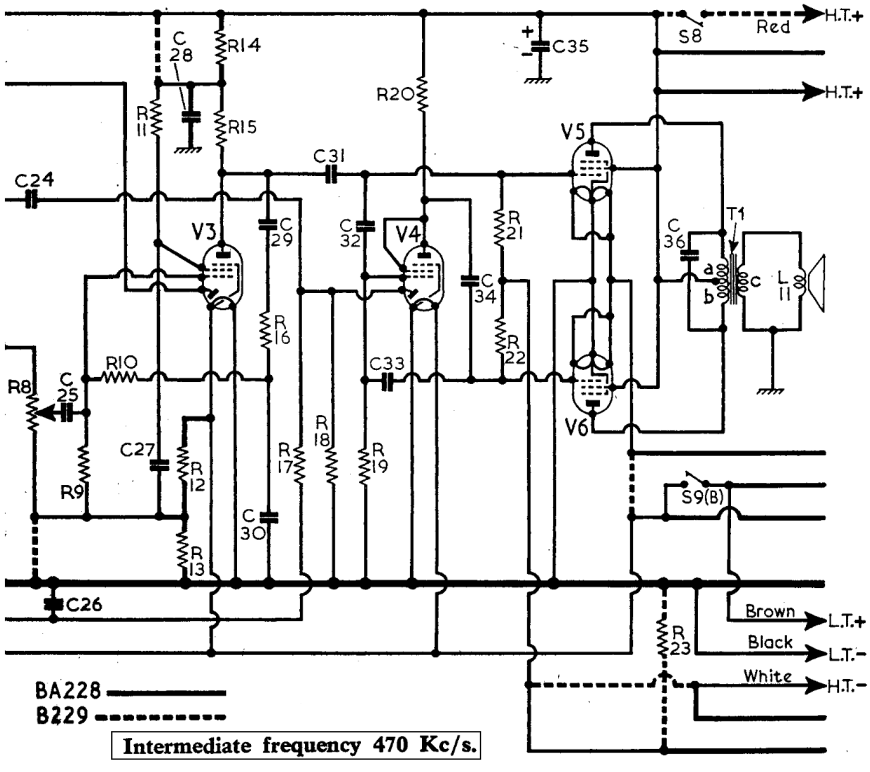

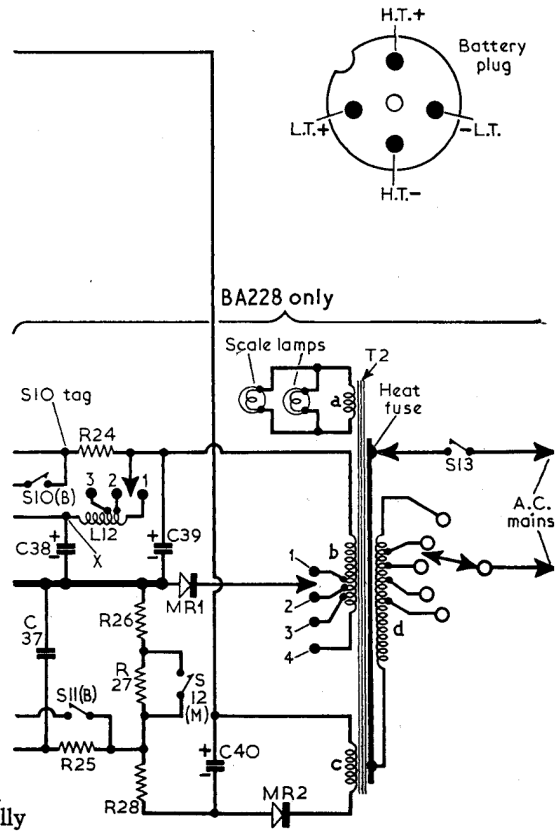

CIRCUIT ALIGNMENT

The complete alignment of both I.F. and R.F. circuits can be carried out with the chassis in the cabinet, provided that the alignment of the scale cursors and drive cords has been checked as explained under "Drive Cord Replacement." A non-metallic trimming tool must be used, and all cores should be adjusted to the peak nearer to the adjusting end of the former.

For output indication, connect a high-resistance 0-2V A.C. voltmeter across the secondary of **T1** and turn receiver volume control to maximum. Then carry out the alignment instructions given below ensuring that, as circuits are brought into tune, the receiver output is maintained, by reduction of signal generator output, at 0·4V. If the output reading is greater than 0·4V the A.G.C. circuit will become operative and make alignment difficult.

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I.F. Alignment

The I.F. transformers are hermetically sealed, and the adjustment head openings are closed by rubber plugs. The plugs may be removed, but care must be taken to see that they are removed only during the alignment process, and then for only the shortest possible time. To carry out the alignment process, make the adjustments given below, but do not re-adjust the secondaries after adjusting the primaries, or the response curve will be incorrect.

1.—Connect the signal generator, via a 0.001μF capacitor, to the control grid (pin 6) of **V2**. Switch receiver to L.W., turn tuning gang to maximum capacitance, then feed in a 470 kc/s signal and adjust cores **L10** (C1), and then **L9** (C1), to give maximum output on meter.

2.—Transfer live signal generator lead to control grid (pin 6) of **V1**. Switch receiver to M.W. and, with tuning gang still at maximum, feed in a 470 Kc/s signal and adjust cores of **L4** (C1), and then **L3** (C1), for maximum output.

DRIVE CORD REPLACEMENT

Two interconnected drive cords are fitted, and to replace either of these a length of nylon braided cord of approximately 43in or 34in is required. These cords are held together by a clip and details of fitting are illustrated in col. 5. The tension springs shown in the illustration should be extended to $\frac{5}{8}$in.

To align the two cords turn tuning gang to maximum capacitance, which occurs before the stop is reached, when the eyelet fitted to the main drive cord should correspond with the 0.2 mark on the diagonal scale attached to the chassis. With the chassis in the cabinet, and the two drive cords held together by the clip, the M.W. scale cursor should coincide with the right-hand edge of the 540m mark on the glass tuning scale. If it does not, then the cursor drive cord should be adjusted by moving it through the clip holding it to the main drive cord.

R.F. Alignment

Complete R.F. alignment can be carried out only with the chassis in the cabinet and with the frame aerial correctly connected. The signal generator should be connected, via dummy aerial, to the aerial socket **A** in location reference A2. Check drive cord and scale pointer alignment as explained in "Drive Cord Replacement," then carry out the following instructions.

1.—Switch the receiver to M.W., turn tuning gang to 500m, feed in a 600 kc/s signal and adjust core of oscillator coil **L5** (H4) for maximum output on meter.

2.—Turn tuning gang to 200m, feed in a 1,500 kc/s signal and adjust capacitors **C13** and **C4** (H3) for maximum output.

3.—Switch the receiver to L.W., turn tuning gang to 1,900m, feed in a 157.9 kc/s signal and adjust cores of **L6** (A2) and **L2** (A2) for maximum output.

4.—Turn tuning gang to 1,000m, feed in a 300 kc/s signal and adjust **C17** (B2) for maximum output.

5.—Repeat all R.F. alignment operations for optimum results.

Resistors

R1	10kΩ	A1
R2	470kΩ	B1
R3	180kΩ	B1
R4	27kΩ	B2
R5	27kΩ	A2
R6	39kΩ	F4
R7	22kΩ	F3
R8	1MΩ	D1
R9	10MΩ	F3
R10	2·2MΩ	F4
R11	2·7MΩ	F3
R12	1kΩ	F3
R13	222Ω	F4
R14	100kΩ	F3
R15	1MΩ	F4
R16	1MΩ	F4
R17	1MΩ	F4
R18	1MΩ	E4
R19	10MΩ	E4
R20	680kΩ	F4
R21	1·5MΩ	E4
R22	1·5MΩ	E3
R23[1]	820Ω	—
R24	6·5Ω	D1
R25	470kΩ	F4
R26	470Ω	C1
R27	270Ω	D1
R28	1·5kΩ	F3

Capacitors

C1	1,800pF	H4
C2	3,900pF	A1
C3	73pF	A1
C4	35pF	H3
C5	523pF[2]	H4
C6	100pF	B1
C7	0·04μF	B2
C8	68pF	B2
C9	68pF	B2
C10	82pF	A2
C11	490pF	A2
C12	390pF	A1
C13	35pF	H3
C14	523pF[2]	H3
C15	10pF	B1
C16	100pF	B2
C17	35pF	B2
C18	0·04μF	A2
C19	0·04μF	F4
C20	68pF	C2
C21	100pF	C2
C22	100pF	F3
C23	100pF	F3
C24	10pF	F4
C25	0·04μF	F4
C26	0·04μF	G4
C27	0·04μF	F4
C28	0·1μF	F4
C29	1,800pF	F4
C30	0·002μF	E4
C31	1,800pF	F4
C32	120pF	E4
C33	100pF	E4
C34	0·02μF	E4
C35	32μF	G3
C36	0·003μF	E4
C37	0·1μF	E3
C38	1,000μF	C1
C39	2,000μF	C1
C40	32μF	F3

Coils*

L1	1·7	—
L2	32·5	A2
L3	18·3	B1
L4	18·3	B1
L5	5·0	H4
L6	9·5	H4
L7	—	H4
L8	—	H4
L9	18·3	C1
L10	16·0	C1
L11	2·7	—
L12	5·5	G3

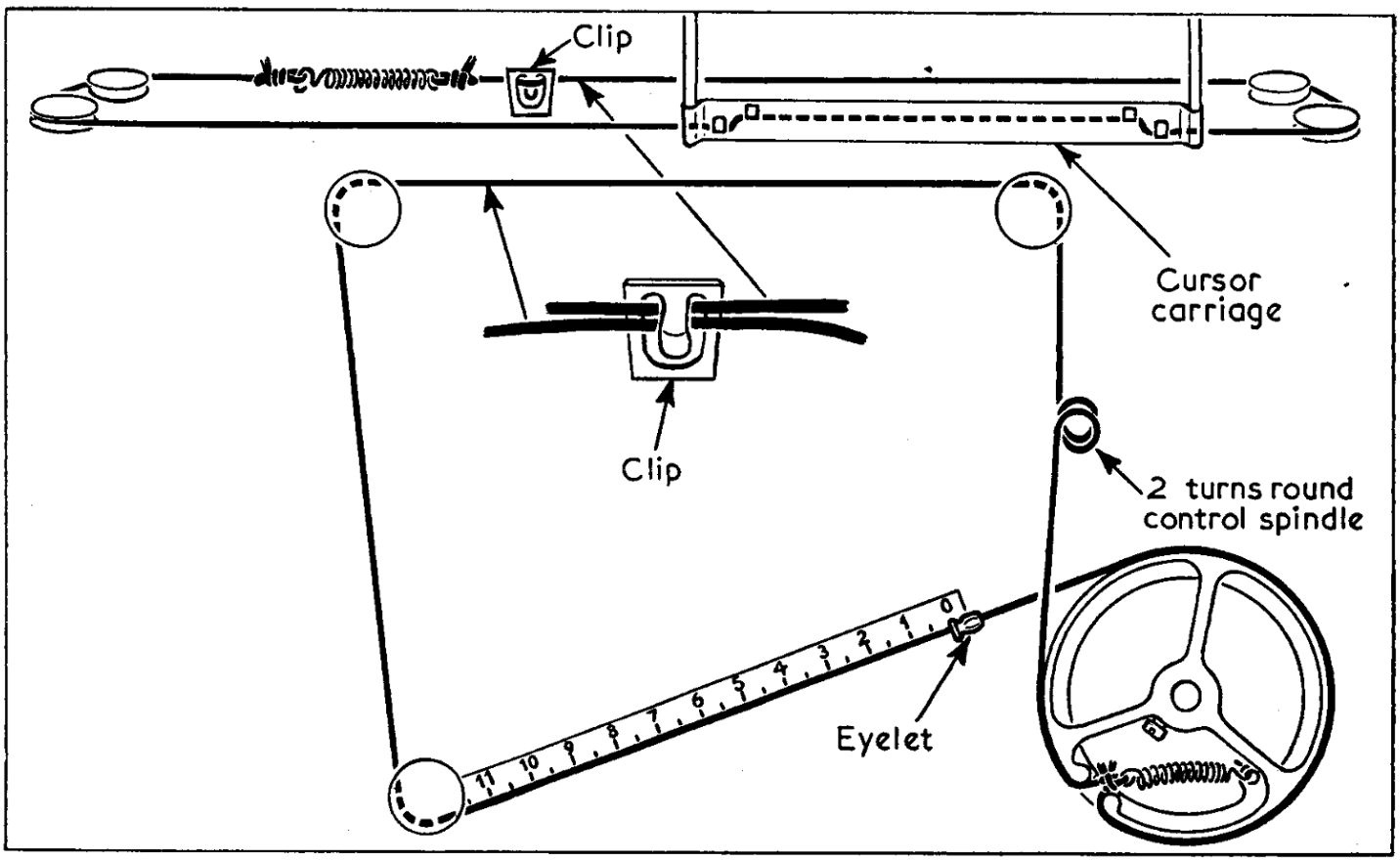
Transformers*

T1	460·0	a	E3
	400·0	b	
	—	c	
T2	23·0	a	D1
	1·3	b	
	460·0	c	
	441·0	d	

Miscellaneous

MR1	011L999[3]	G4
MR2	15C997[3]	E3
S1-S7		A1
S8-S13		D1
Scale lamps	12-14 V, 0·75 W.	—

[1]In model B229 only; not shown in our chassis illustrations. [2]"Swing" value minimum to maximum. [3]Westinghouse. *Approximate D.C. resistance in ohms.



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