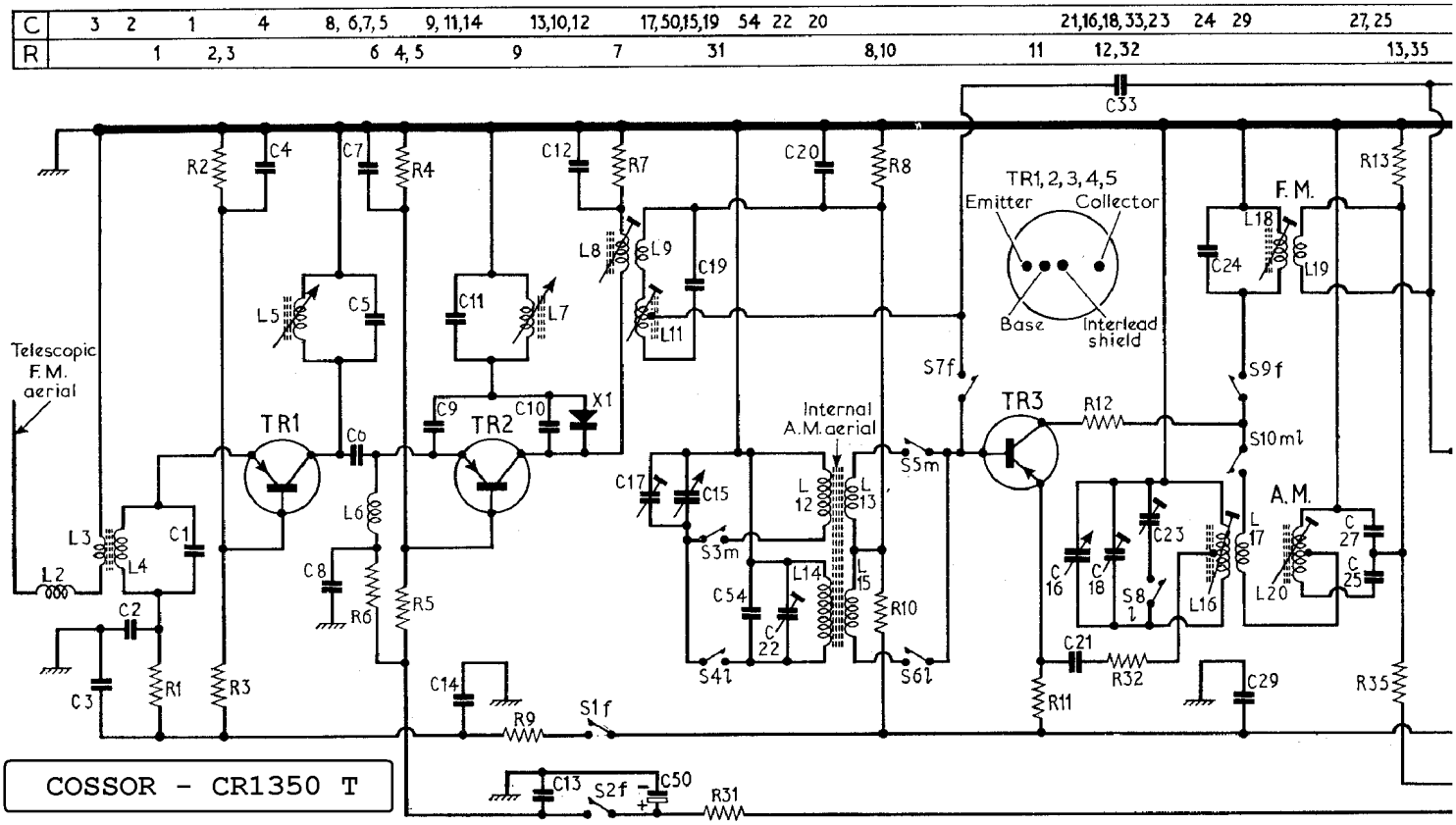


CIRCUIT ALIGNMENT

Equipment Required.—An a.m. signal generator, an audio output meter with an impedance of 3Ω; a 0-10V d.c. 20,000Ω/V voltmeter for use as an f.m. output meter; a length of insulated wire for use as an r.f. coupling loop; two matched 220kΩ resistors connected in series and three capacitors of 1,200pF, 0.03μF and 0.015μF.

A.M. Circuits

During alignment the output level should be maintained at 50mW for a load of 3Ω.

1.—Switch receiver to m.w. and turn the tuning gang to minimum capacitance. Set the volume control at maximum. Connect the signal generator between chassis and via the 0.03μF capacitor, **TR3** base. Connect the audio output meter in place of the loudspeaker.

2.—Feed in a 470kc/s 30 per cent modulated signal and adjust the cores of **L28, L23** and **L20** for maximum output.

3.—Turn the tuning gang to maximum and check that the cursor lines up with the datum mark at the right-hand end of the scale (595m). With the tuning gang at maximum, feed in a 492kc/s signal. Adjust **L16** for max. output.

4.—Turn the tuning gang to minimum, feed in 1,540kc/s signal and adjust **C18** for maximum output.

5.—Connect the signal generator to the r.f. coupling loop and loosely couple the loop to the ferrite rod aerial. Tune receiver to 500m. Feed in a 600kc/s signal and adjust **L12** for maximum output.

6.—Tune receiver to 200m. Feed in a 1,500kc/s signal and adjust **C17** for maximum output.

7.—Switch receiver to l.w. and tune to 1,250m. Feed in a 240kc/s signal and adjust **C23** and **C22** for maximum output.

F.M. Circuits

During alignment the output observed on the d.c. voltmeter should not exceed 3V.

1.—Connect the 0-10V d.c. voltmeter across **C40,** observing polarity. Connect the signal generator via the 1,200pF capacitor to **TR5** base.

2.—Switch receiver to f.m. and tune to 93Mc/s. Feed in a 6.7Mc/s unmodulated signal and adjust **L25** for maximum output.

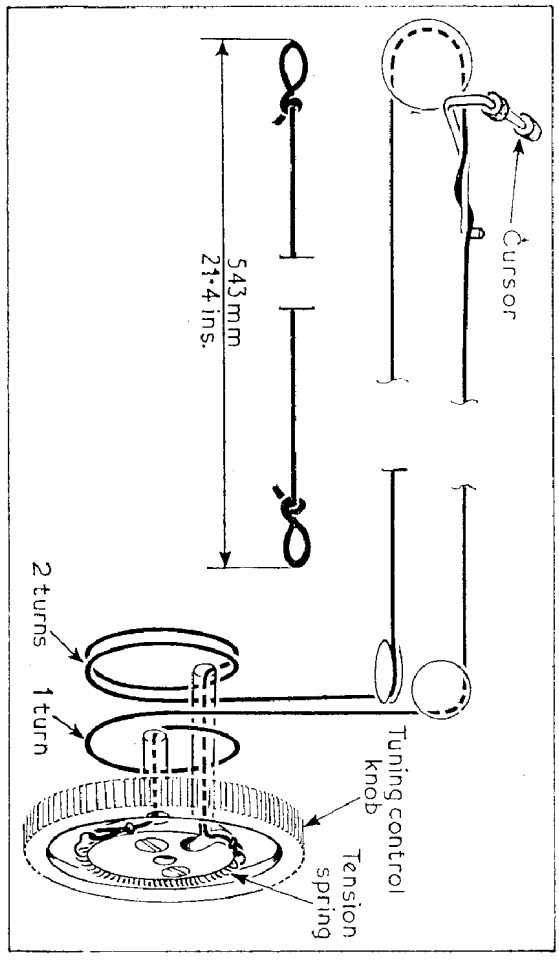
3.—Connect the two matched 220kΩ resistors in series across **C40** and connect the d.c. voltmeter between their junction and the junction **R34/C42.** Adjust **L27** for *minimum* output at 6.7Mc/s.

4.—Transfer the signal generator and 1,200pF capacitor to **TR4** base. Feed in a 6.7Mc/s unmodulated signal and adjust **L21** for maximum output. Transfer the signal generator and capacitor to **TR3** base and adjust **L18** for maximum output, then transfer the signal generator and capacitor to **TR2** base and adjust **L8** and **L11** for maximum output.

5.—Connect the signal generator via the 0.015μF capacitor to **L2** and tune receiver to 88.2Mc/s. Feed in an 88.2Mc/s signal and adjust f.m. oscillator coil **L7** (by bending coil in relation to the core) for maximum output.

6.—Tune receiver to 107.4Mc/s. Feed in a 107.4Mc/s signal and adjust **L5** (by bending coil in relation to the core).

Three-quarter front view of the tuning drive assembly drawn with the tuning gang at maximum and the control knob turned fully clockwise



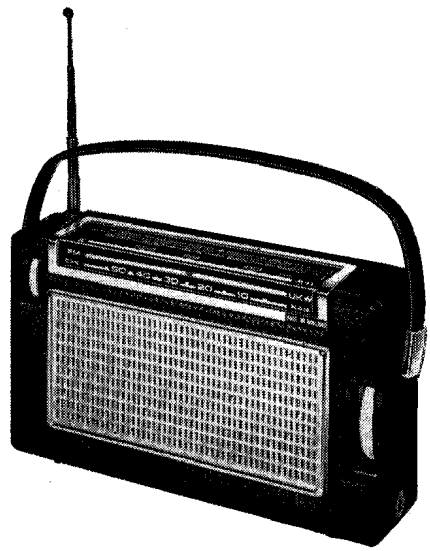
COSSOR - CR1350 T

Resistors

R1	560Ω	E5
R2	27kΩ	D3
R3	12kΩ	D2
R4	22kΩ	F5
R5	3·9kΩ	F5
R6	390Ω	F5
R7	220Ω	G5
R8	27kΩ	C2
R9	68Ω	D2
R10	8·2kΩ	C2
R11	1·5kΩ	C2
R12	330Ω	C2
R13	82kΩ	D3
R14	820Ω	C4
R15	330Ω	C3
R16	8·2kΩ	C4
R17	27kΩ	C4
R18	820Ω	B4
R19	330Ω	B3
R20	15 Ω	A3
R21	3·9kΩ	B4
R22	15kΩ	A4
R23	1·8kΩ	A4
R24	10kΩ	A2
R25	15kΩ	B2
R26	120kΩ	B2
R27	1·2kΩ	B1
R28	2·2kΩ	A2
R29	300Ω	A2
R30	150Ω	B2
R31	220Ω	B2
R32	15Ω	C3
R33	33kΩ	B2
R34	180Ω	A4
R35	1kΩ	C3
R36	130Ω	B2

Capacitors

C1	27pF	E5
C2	1,500pF	E5
C3	1,500pF	E5
C4	1,500pF	E5
C5	18pF	E5
C6	4pF	F5
C7	1,500pF	F5
C8	470pF	F5
C9	2·7pF	F5
C10	62pF	G5
C11	24pF	G5
C12	3,900pF	G5
C13	0·1μF	D2
C14	4,700pF	D2
C15	—	C2
C16	—	C3
C17	6pF	C2
C18	12·5pF	C2
C19	—	C2
C20	0·05μF	C2
C21	0·01μF	C2
C22	25pF	C1
C23	175pF	B2
C24	—	C3
C25	—	D4
C26	2μF	A4
C27	0·01μF	D3
C28	0·05μF	C4
C29	0·05μF	C4
C30	—	C3
C31	—	B4
C32	0·05μF	C4
C33	4pF	C2
C34	0·05μF	B4
C35	2,200pF	A4
C36	—	B3
C37	—	B4
C38	—	B4
C39	0·05μF	B4
C40	2μF	B3
C41	4,700pF	A4
C42	4,700pF	B4
C43	4,700pF	B2
C44	2μF	B2
C45	10μF	B2
C46	50μF	A2
C47	50μF	B2
C48	50μF	B1
C49	680pF	B2
C50	50μF	C2
C51	0·22μF	B3
C52	200μF	A2
C53	2pF	C4
C54	33pF	B1



Appearance of the Cossor CR1350T

Coils and Transformers*

L1	3·0	—
L2	—	D2
L3	—	E5
L4	—	E5
L5	—	F5
L6	—	F5
L7	—	F5
L8	—	G5
L9	—	G5
L11	—	C2
L12	—	B1
L13	—	B1
L14	10·0	D1
L15	—	C1
L16	—	C4
L17	—	C4
L18	—	C4
L19	—	C3
L20	—	D4
L21	—	C4
L22	—	C3
L23	—	C4
L24	—	B4
L25	—	B4
L26	—	B3
L27	—	B4
L28	—	B4
L29	—	B4
L30	140·0	B2
L31	68·0†	B2
L32	26·0†	B3
L33	—	B3

Miscellaneous

S1-S12	—	C1
S13	—	A2
X1	OA90	G5
X2	OA79	A3
X3	OA79	A4
X4	OA79	B4

* *Approximate d.c. resistance in ohms.*
† *Centre-tapped.*