

Intermediate frequency 470kc/s.

RESISTORS	Values	Locations
R1	2.2MΩ	G4
R2	4.7 MΩ	G4
R3	27 kΩ	G4
R4	33kΩ	G4
R5	2.7kΩ	G3
R6	27kΩ	F4
R7	2.2MΩ	F4
R8	68kΩ	F3
R9	1MΩ	E3
R10	820Ω	E3
R11	150Ω	H4
R12	10MΩ	F4
R13	180Ω	G4
R14	3.9MΩ	E3
R15	330Ω	F3
R16	330Ω	E4
R17	1MΩ	F3
R18	1MΩ	E3
R19	500Ω	A2
R20	470Ω	F3
R21	1kΩ	E4
R22	1.4kΩ	A1
R23	1.4kΩ	A1
R24	355Ω	E4
R25	355Ω	F4
R26	120Ω	A2
R27	120Ω	A2

CAPACITORS	Values	Locations
C1	10pF	H3
C2	0.004μF	G3
C3	0.005μF	G4
C4	155pF	B1
C5	30pF	H4
C6	—	C2
C7	0.001μF	G3
C8	75pF	C1
C9	47pF	C1
C10	75pF	G4
C11	1.5pF	G3
C12	0.01μF	G4
C13	600pF	G3
C14	—	D2
C15	530pF	G3
C16	30pF	H4
C17	30pF	C2
C18	0.005μF	G4
C19	0.1μF	F4
C20	5pF	F4
C21	75pF	B1
C22	100pF	B1
C23	75pF	F4
C24	560pF	E3
C25	0.002μF	E3
C26	0.1μF	G4
C27	0.1μF	F4
C28	0.01μF	F3
C29	50pF	E3
C30	0.005μF	E4
C31	75pF	E3
C32	30μF	B2
C33	5μF	F3
C34	0.002μF	E3
C35	20μF	B2
C36	40μF	B2
C37	0.03μF	G4

MISCELLANEOUS	Approx. Values (ohms)	Locations
L1	—	D1
L2	—	B1
L3	5.0	B1
L4	8.0	C1
L5	11.0	C1
L6	—	G4
L7	2.5	G3
L8	—	G3
L9	8.0	B1
L10	11.0	B1
L11	3.0	B2
T1	600-0	F3
MR1	—	F3
MR2	—	F3
S1-S5	—	H3
S7-S11	—	—
S6	—	—
S12, S14, S15	—	E4
S17-S19	—	E4
S13, S16	—	E3

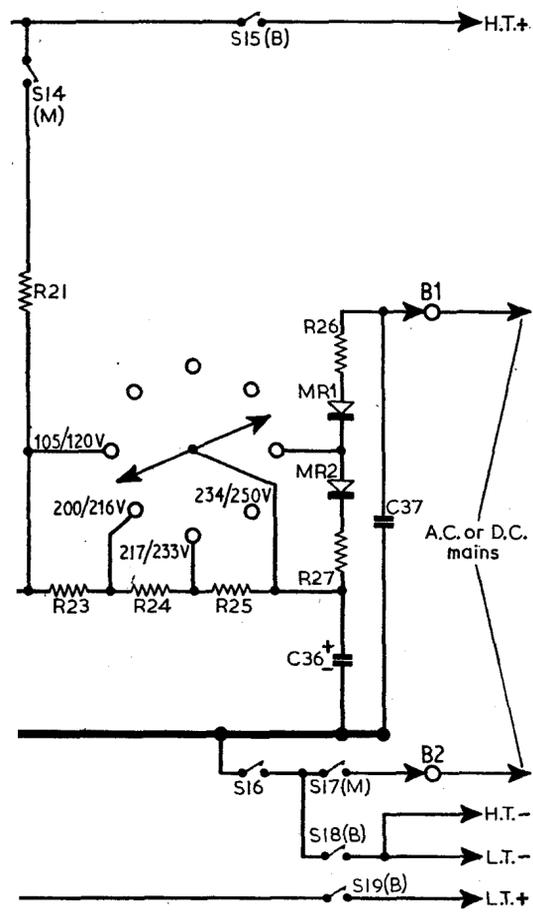
*Sentercel C3D
†In cabinet handle

CIRCUIT ALIGNMENT

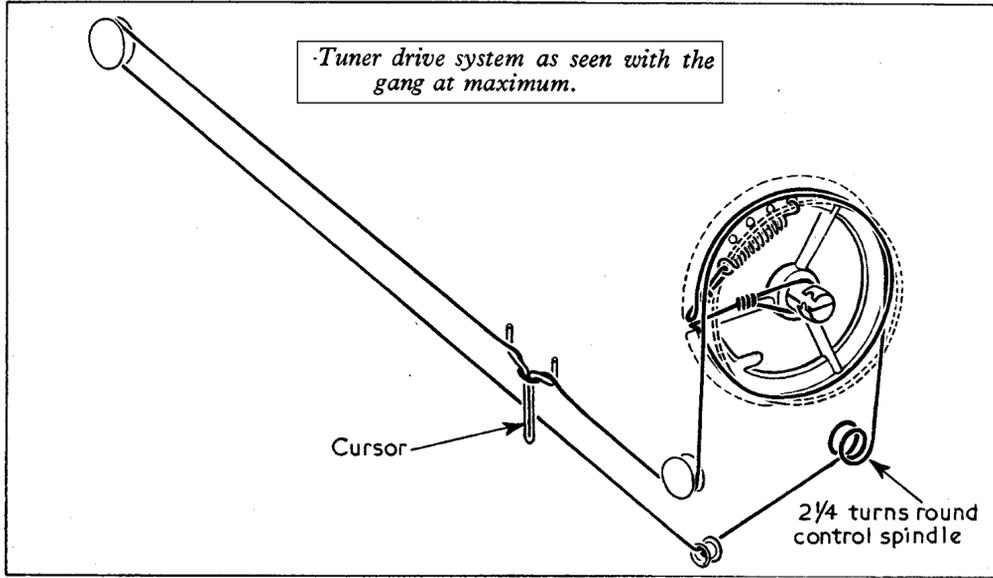
Equipment Required.—An accurately calibrated signal generator; an audio output meter; a coupling coil, which may be constructed by winding 6-8 turns of wire on a 6in diameter former; a non-metallic trimming tool.

As the tuning scale remains fixed to the cabinet when the chassis is removed for alignment purposes, a dummy scale must be made up. This can be done from the scale pattern in col. 5 overleaf. Set the zero line on the dummy scale to coincide with the drilled hole at the right hand end of the scale backing plate.

For R.F. and oscillator alignment connect the signal generator output to the coupling coil, and place the coupling coil near to the chassis.



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I.F. Stages

1.—Switch the receiver to M.W., turn the gang to minimum and volume control to maximum. Connect the audio output meter across L11. Connect signal generator across C6 (C2) via a 0.05μF isolating capacitor.

2.—Feed in a modulated 470kc/s signal and adjust L10 (F4), L9 (B1), L5 (G5) and L4 (C1) for maximum output. Repeat these adjustments until no improvement in output can be obtained.

R.F. and Oscillator Stages

3.—Check that with the gang at maximum capacitance the cursor coincides with the zero line on the dummy scale. Loosely couple the signal generator to the receiver via the coupling coil. Switch receiver to M.W. and tune it to the 1,500kc/s calibration mark on the dummy scale. Feed in a 1,500kc/s signal and adjust C16 (H4), C5 (H4) for maximum output.

4.—Tune receiver to 580kc/s. Feed in a 580kc/s signal and adjust L7 (C2) and L1 (C1) for maximum output. Adjust L1 by sliding its former along the ferrite rod and then securing it with an adhesive to prevent it from moving.

5.—Repeat operations 3 and 4, and then operation 3 again.

6.—Switch receiver to L.W. and tune it to 220kc/s. Feed in a 220kc/s signal and adjust L3 (B1) on the ferrite rod by sliding its former along the rod.

7.—Switch the receiver to Maritime and tune it to 3.8Mc/s. Feed in a 3.8Mc/s signal and adjust C17 (C2) for maximum output while rocking the gang.

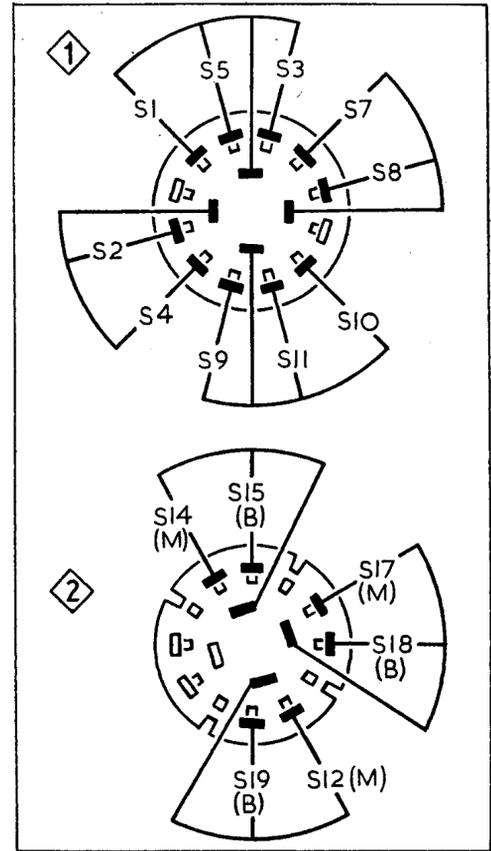
8.—Feed in a 1.8Mc/s signal and tune it in on the receiver. Adjust L2 (C1) by sliding it along the ferrite rod for maximum output.

MODIFICATIONS

Earlier versions of this receiver contain the following circuit variations: C24, R10 and R15 are omitted, and a 120Ω resistor is connected between pin 7 of V3 and chassis. R20, C33 and C34 are omitted; T1 primary winding and V4 screen grid (pin 3) are connected directly to the H.T. positive line. A 0.002μF capacitor is connected between V4 anode (pin 2) and chassis. MR1 and MR2 are two separate Westinghouse 18RA-1-1-8-1 units, with R26 and R27 connected in series between MR1 and MR2. The junction of R26, R27 is connected to a tapping on the mains selector socket. The values of C12 and C19 might vary.

Waveband Switch Table

Switches	L.W.	M.W.	S.W.
S1	—	—	C
S2	—	C	—
S3	C	—	—
S4	—	—	C
S5	—	C	—
S7	—	—	C
S8	—	C	—
S9	C	—	—
S10	—	—	C
S11	—	C	—



Above.—Diagram of the waveband switch unit (top) as seen when viewed from the rear of an inverted chassis; with below it a diagram of the mains/battery switch unit, as seen in the direction indicated in our under-chassis view.

VALVE TABLE

Valve	Anode (V)	Screen (V)
V1 DK92 {mixer ..	85	68
{osc. ..	30	—
V2 DF91 ..	85	68
V3 DAF91 ..	19	19
V4 DL94 ..	80	83

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