

Resistors

R1	1MΩ	F4
R2	47kΩ	F4
R3	10kΩ	G4
R4	27kΩ	F4
R5	27kΩ	F4
R6	68kΩ	F4
R7	1.5MΩ	F4
R8	500kΩ	D3
R9	1.5kΩ	D3
R10	220kΩ	E4
R11	10MΩ	E4
R12	10kΩ	D4
R13	470kΩ	E4
R14	100kΩ	E4
R15	1.5kΩ	B2
R16	220Ω	D4
R17	934Ω	A1
R18	160Ω	A1
R19	168Ω	A1

Capacitors

C1	35pF	F3
C2	110pF	F4
C3	528pF	C2

C4	470pF	G4
C5	0.04μF	G4
C6	100pF	B1
C7	100pF	B1
C8	0.04μF	F4
C9	68pF	C1
C10	520pF	G4
C11	390pF	C2
C12	35pF	C1
C13	145pF	G3
C14	35pF	C2
C15	100pF	G4
C16	528pF	C2
C17	100pF	B1
C18	390pF	E4
C19	270pF	E4
C20	0.01μF	A2
C21	0.02μF	D3
C22	0.001μF	E4
C23	0.01μF	E4
C24	0.005μF	D4
C25	32μF	B2
C26	0.01μF	B2
C27	32μF	B2

C28 0.05μF D4

Coils*

L1	—	G3
L2	10.0	E3
L3	14.5	B1
L4	14.5	B1
L5	—	C1
L6	5.2	C1
L7	9.8	C1
L8	14.5	B1
L9	5.5	B1
L10	2.5	A2

Other Components*

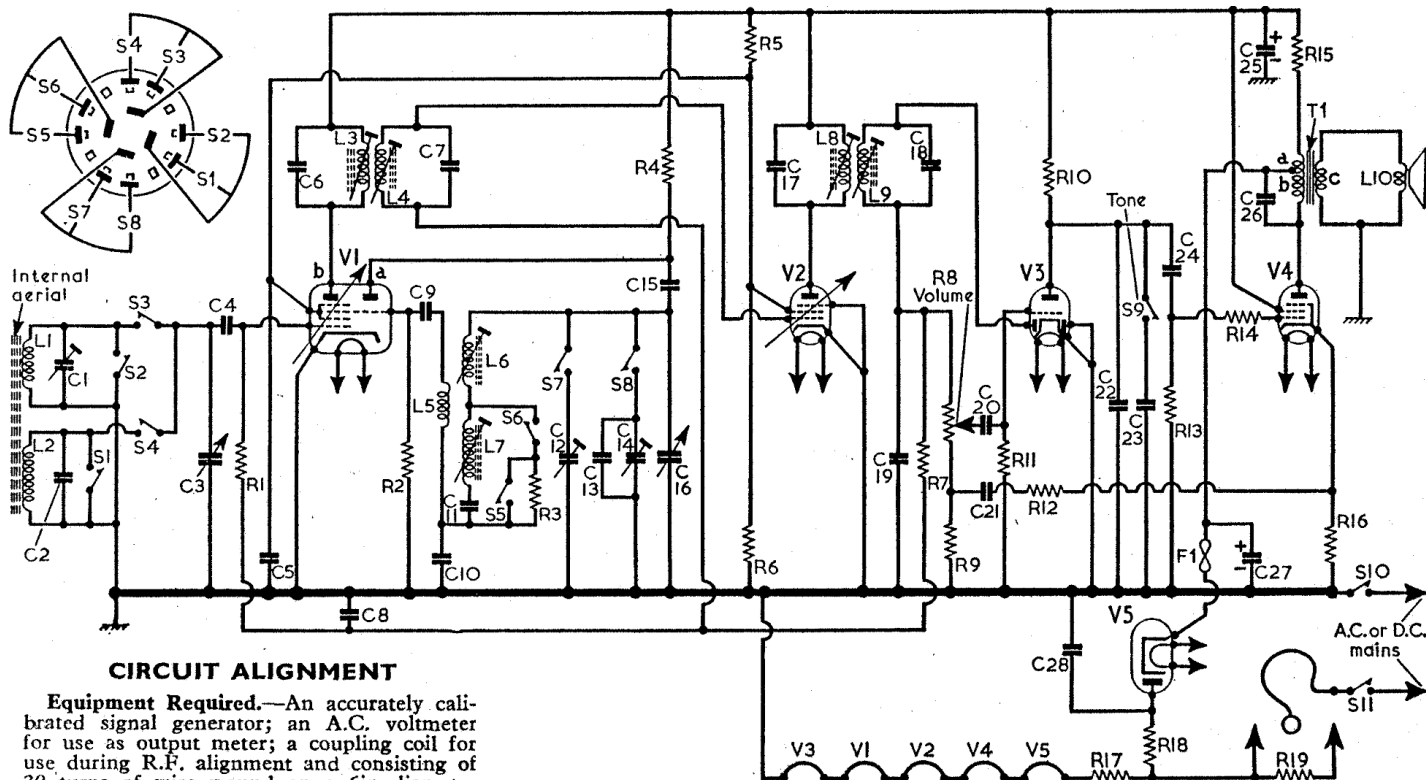
T1	a 6.3	B2
	b 185.0	
	c —	
F1	250mA	E4
S1-S8	—	G4
S9	—	E4
S10, S11	—	D3

*Approximate D.C. resistance in ohms.

MURPHY U198H, U198M

Valve	Anode (V)	Screen (V)	Cath. (V)
V1 UCH42 {mixer	161	49	—
V2 10F9 .osc.	75	—	—
V3 10LD3 ..	161	49	—
V4 UL41 ..	71	—	—
V5 UY41 ..	183	161	9.5
	—	—	193.0

Intermediate frequency 470 kc/s.



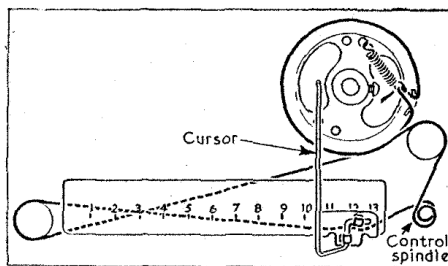
CIRCUIT ALIGNMENT

Equipment Required.—An accurately calibrated signal generator; an A.C. voltmeter for use as output meter; a coupling coil for use during R.F. alignment and consisting of 20 turns of wire wound on a 6in diameter former; a non-metallic trimming tool.

As it is necessary to remove the chassis from the cabinet for alignment purposes, an alignment calibration scale is provided, and is situated below the tuning scale backing plate.

I.F. Stages

- 1.—Switch the receiver to M.W. and turn the volume control to maximum. Connect output meter across T1 secondary winding. Connect signal generator via a 0.01μF capacitor to V2 control grid (pin 6) and chassis. Tune the receiver to the 10.00 calibration mark on the alignment scale.
- 2.—Detune L9 (B1) by unscrewing its core several turns. Feed in a 470kc/s signal and adjust L8 (E4) and then L9 (B1) for maximum output. Do not readjust L8.
- 3.—Connect signal generator across C1 (F3). Unscrew L4 (B1) several turns. Feed in a 470kc/s signal and adjust L3 (F4) and then L4 (B1) for maximum output. Do not readjust L3.



Above.—Sketch of the tuning drive system as seen from the front of an upright chassis.

Drive Cord Replacement.—About 31in of nylon-braided glass yarn is required for a new drive cord, which should be run as shown in the sketch of the tuning drive system in col. 1, where it is drawn as viewed from the front of the chassis with the gang at maximum.

R.F. and Oscillator Stages

- 4.—When the chassis is in the cabinet, check that with the gang at maximum the cursor coincides with the right-hand ends of the tuning scales. Connect the R.F. coupling coil to the signal generator output and place it about 1ft away from the R.F. end of the receiver, with its axis in line with the ferrite aerial rod.
- 5.—Switch the receiver to M.W. and tune it to 8.15 on the calibration scale. Feed in a 600kc/s signal and adjust L6 (C1) for maximum output.
- 6.—Tune the receiver to 1.85 on the calibration scale. Feed in a 1,364kc/s signal and adjust C12 (C1) and C1 (F3) for maximum output.
- 7.—Repeat operations 5 and 6.
- 8.—Switch the receiver to L.W. and tune it to 7.35 on the calibration scale. Feed in a 176.5kc/s signal and adjust L7 (C2) for maximum output.
- 9.—Tune the receiver to 1.05 on calibration scale. Feed in a 300kc/s signal and adjust C14 (C2) for maximum output.
- 10.—Repeat operations 8 and 9.