

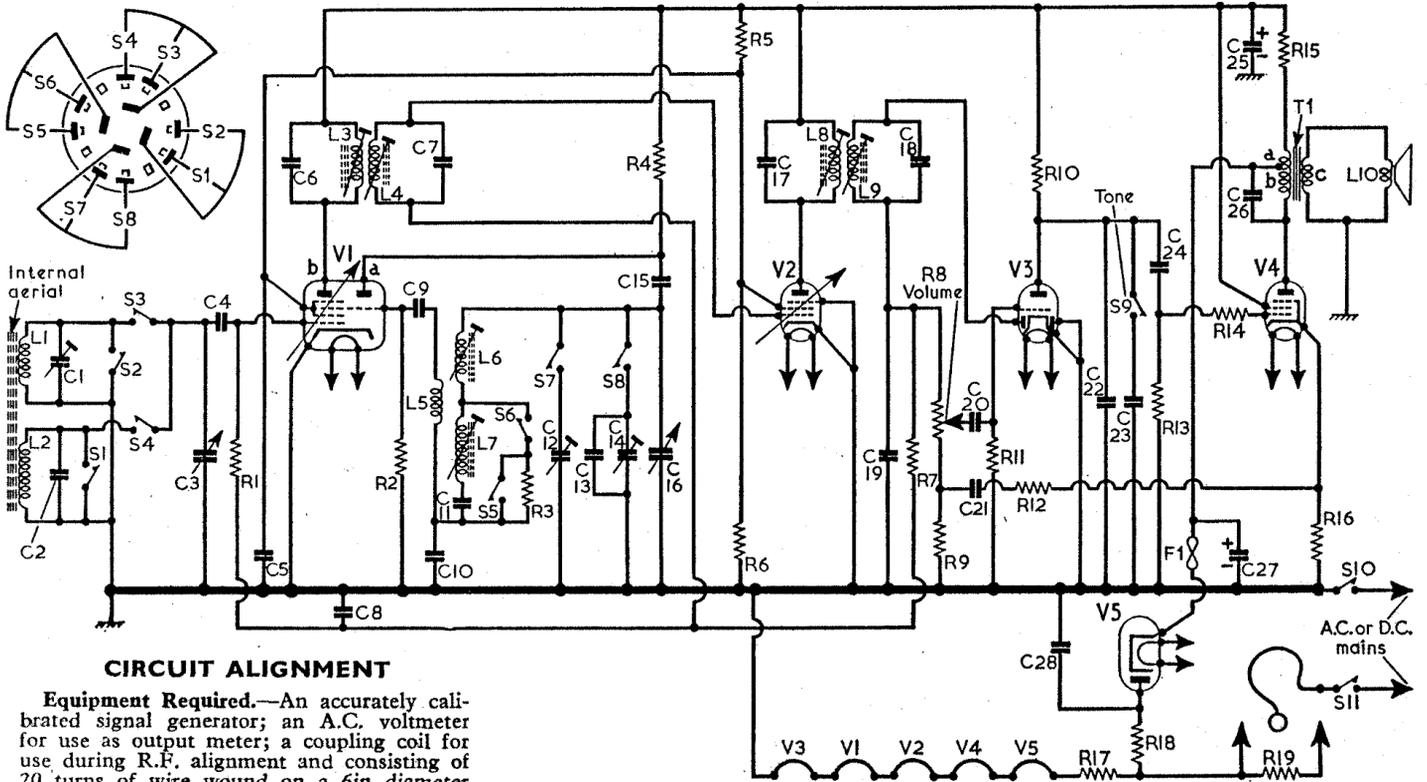
MURPHY U198H, U198M

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

Resistors			Capacitors			Other Components*		
R1	1MΩ	F4	C1	35pF	F3	T1	a	6.3
R2	47kΩ	F4	C2	110pF	F4	T1	b	185.0
R3	10kΩ	G4	C3	528pF	C2	T1	c	—
R4	27kΩ	F4				F1		250mA
R5	27kΩ	F4				S1-S8		—
R6	68kΩ	F4				S9		—
R7	1.5MΩ	F4				S10, S11		—
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						
C4	470pF	G4	C17	100pF	B1			
C5	0.04μF	G4	C18	390pF	E4			
C6	100pF	B1	C19	270pF	E4			
C7	100pF	B1	C20	0.01μF	A2			
C8	0.04μF	F4	C21	0.02μF	D3			
C9	68pF	C1	C22	0.001μF	E4			
C10	520pF	G4	C23	0.01μF	E4			
C11	390pF	C2	C24	0.005μF	D4			
C12	35pF	C1	C25	32μF	B2			
C13	145pF	G3	C26	0.01μF	B2			
C14	35pF	C2	C27	32μF	B2			
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						

*Approximate D.C. resistance in ohms.

Intermediate frequency 470 kc/s.



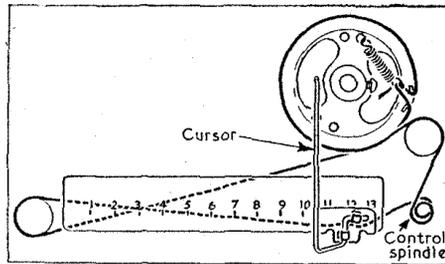
CIRCUIT ALIGNMENT

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.