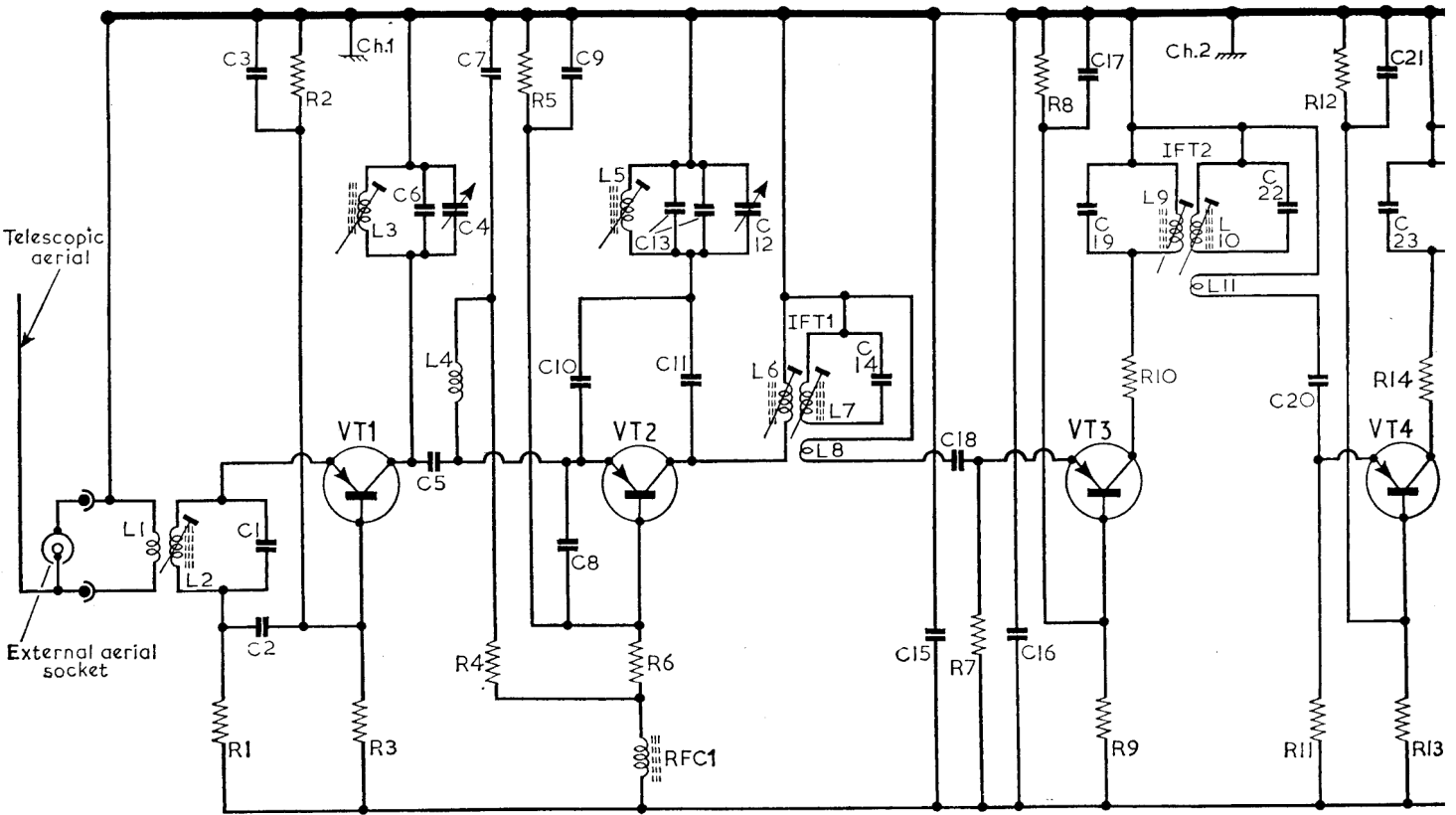
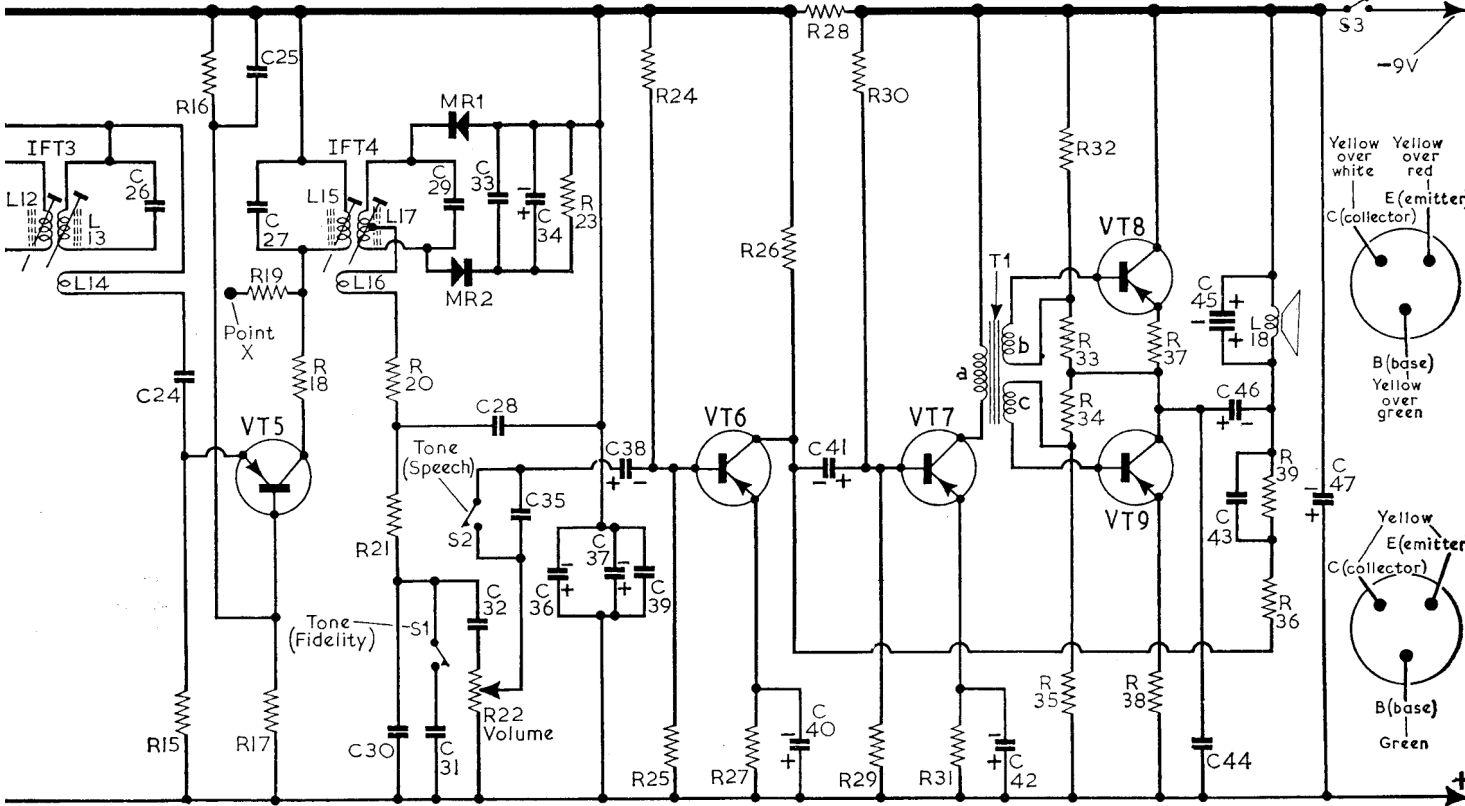


C	1,2,3			5,6	4	7	8,9,10		13,11	12	14	15	18	16	17,19		22	20	21,23	
R	1	2	3	4	5	6			7	8	9	10			11	12	13		14	



26	24	25,27	30	31,29,32,28,33,35,34,36,37,38,39	40	41	42	44	45,46,43	47	C					
15	16	17,19,18	20	21	22	23	24,25	27	26	28	30,29	31	32,33,34,35	37,38	39,36	R



Transistor	Emitter		Base	Collector
	(V)	(mA)	(V)	(V)
TR1 T1832	0.77†	1.37	1.0	*
TR2 T1833	0.84†	1.5	0.77	*
TR3 T1657	0.55	0.98	0.71	6.5
TR4 T1657	0.55	0.98	0.71	6.5
TR5 T1657	0.55	0.98	0.71	6.2
TR6 GET114	0.72	0.72	0.79	3.9
TR7 GET113	1.8	3.2	1.9	7.6
TR8 GET114	*	*	4.37	8.4
TR9 GET114	*	*	0.17	4.2

\*No reading given  
†Measured at junction R1 and C2  
‡Measured at junction R4 and C7

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### Capacitors

C1	40pF	B3
C2	820pF	B3
C3	820pF	B3
C4	15·6pF	E2
C5	4·7pF	B3
C6	22pF	B3
C7	820pF	B3
C8	4·7pF	B3
C9	820pF	B3
C10	2·2pF	B3
C11	40pF	B3
C12	14·8pF	E2
C13	21·9pF‡	B3
C14	68pF	B3
C15	0·01μF	B3
C16	0·01μF	D3
C17	0·01μF	E2
C18	0·005μF	E2
C19	40pF	E3
C20	0·005μF	E3
C21	0·01μF	E3
C22	40pF	E3
C23	40pF	E3
C24	0·005μF	E3
C25	0·01μF	E3
C26	40pF	E3
C27	68pF	E4
C28	0·005μF	D4
C29	68pF	E4
C30	0·02μF	D4
C31	0·04μF	B1
C32	0·25μF	B2
C33	0·01μF	D4
C34	8μF	D4
C35	0·25μF	C2
C36	350μF	D3
C37	350μF	C2
C38	8μF	D4
C39	0·01μF	D2
C40	100μF	C4
C41	8μF	D3

C42	100μF	D3
C43	0·01μF	D3
C44	0·005μF	D2
C45	2μF	†
C46	550μF	D2
C47	350μF	D3

### Resistors\*

R1	560Ω	B3
R2	27kΩ	B3
R3	5·6kΩ	B3
R4	560Ω	B3
R5	27kΩ	B3
R6	5·6kΩ	A3
R7	560Ω	D2
R8	39kΩ	E2
R9	5·6kΩ	D3
R10	270Ω	D3
R11	560Ω	D3
R12	39kΩ	E3
R13	5·6kΩ	D3
R14	270Ω	D3
R15	560Ω	D3
R16	39kΩ	E3
R17	5·6kΩ	D3
R18	560Ω	E4
R19	100kΩ	E4
R20	56Ω	D4
R21	1kΩ	D4
R22	25kΩ	A2
R23	18kΩ	D4
R24	56kΩ	D4
R25	10kΩ	D4
R26	3·9kΩ	D3
R27	1kΩ	D4
R28	220Ω	D2
R29	10kΩ	D3
R30	30kΩ	D3
R31	560Ω	D3
R32	2·2kΩ	D2
R33	100Ω	D2

R34	2·2kΩ	D2
R35	100Ω	D2
R36	100kΩ	D3
R37	5·6Ω	D2
R38	5·6Ω	D2
R39	220kΩ	§

### Coils\*

L1	—	B3
L2	—	B3
L3	—	B3
L4	—	B3
L5	—	B3
L6	—	B3
L7	—	B3
L8	—	B3
L9	—	E3
L10	—	E3
L11	—	E3
L12	—	E3
L13	—	E3
L14	—	E3
L15	—	E4
L16	—	E4
L17	—	E4
L18	20·0	—

### Miscellaneous\*

T1	{ a 240·0 b 50·0 c 50·0 }	D3
MR1	GEX34M	D4
MR2	GEX34M	D4
RFC1	—	B3

\*Approximate D.C. resistance in ohms.  
†Wired to speaker.  
§Behind printed panel.  
‡18pF plus 3·9 pF.

## CIRCUIT ALIGNMENT

**Equipment Required.**—A signal generator with facilities for F.M. and A.M. modulation; a D.C. voltmeter with an internal resistance of not less than 50,000Ω; a 0-100μA meter; a 0·01μF capacitor; two 27,000Ω matched resistors and a non-metallic narrow-bladed screwdriver-type trimming tool.

During alignment signal generator input should be adjusted so that the output reading on D.C. voltmeter does not exceed 0·5V.

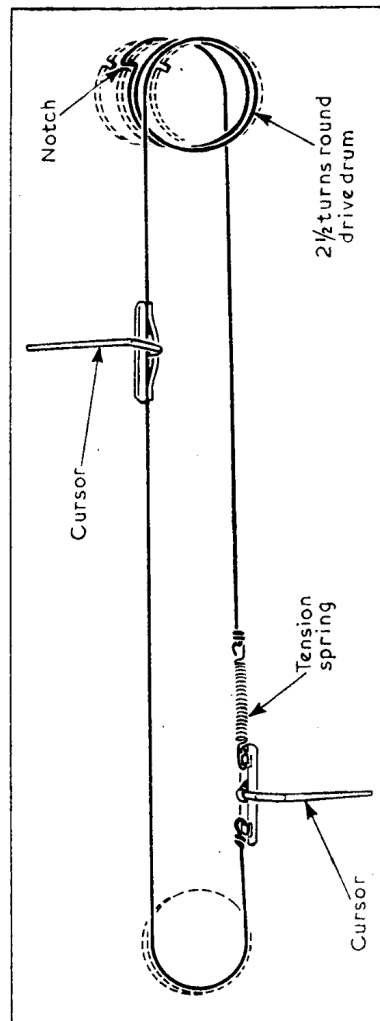
- 1.—Unscrew core of **L17** (location reference E4) until it is flush with bottom of former. Connect voltmeter across **R23** (D4) negative terminal to framework.
- 2.—Connect "live" signal generator lead via the 0·01μF capacitor to junction **C24** and **R15** (E3) and the "earthy" lead to framework at nearest point. Feed in an unmodulated 10·7Mc/s signal and adjust **L15** (E4) for maximum output.
- 3.—Connect signal generator to junction **C20/R11** (E3), feed in an unmodulated 10·7Mc/s signal and adjust **L12** and **L13** (E3) for maximum output.
- 4.—Connect signal generator to junction

**L8/C18** (E2), feed in an unmodulated 10·7Mc/s signal and adjust **L9** and **L10** (E3) for maximum output.

- 5.—Connect signal generator across aerial input leads, feed in an unmodulated 10·7Mc/s signal and adjust **L6** and **L7** (B3) for maximum output, then re-adjust **L15** for maximum output.
- 6.—Connect the two matched 27,000Ω resistors in series across **R23** and connect the 0-100μA meter between their junction and the junction **R21/C30** (D4), positive terminal to junction **R21/C30**.
- 7.—With the signal generator connected to the aerial leads, feed in a 10·7Mc/s signal of approximately 5mV and adjust **L17** (E4) for zero reading. (As the core of **L17** is screwed in, the meter will rise to a maximum, decrease, and go through zero.) Disconnect μA meter and resistors.

## R.F. ALIGNMENT

- 8.—Rotate tuning control fully anti-clockwise and check that cursors line up with dots below 88Mc/s. Now rotate tuning control to bring cursors to centre of "90" mark on scale. Connect signal generator to aerial leads, feed in a frequency modulated 90Mc/s signal, adjust **L5** (B3) to tune in the signal and then **L3** and **L2** (B3) for maximum audio output. Care should be taken to tune to the main response and not to the spurious side responses.
- 9.—Tune receiver for maximum audio output at 90Mc/s and adjust the input for approximately 1 volt across **R23**. Switch signal generator to A.M. and re-adjust **L17** for minimum output (maximum A.M. rejection). The core of **L17** should not require to be adjusted more than half a turn.



*Tuning drive assembly as seen when looking down on receiver with tuning knob on the right and rotated maximum clockwise.*