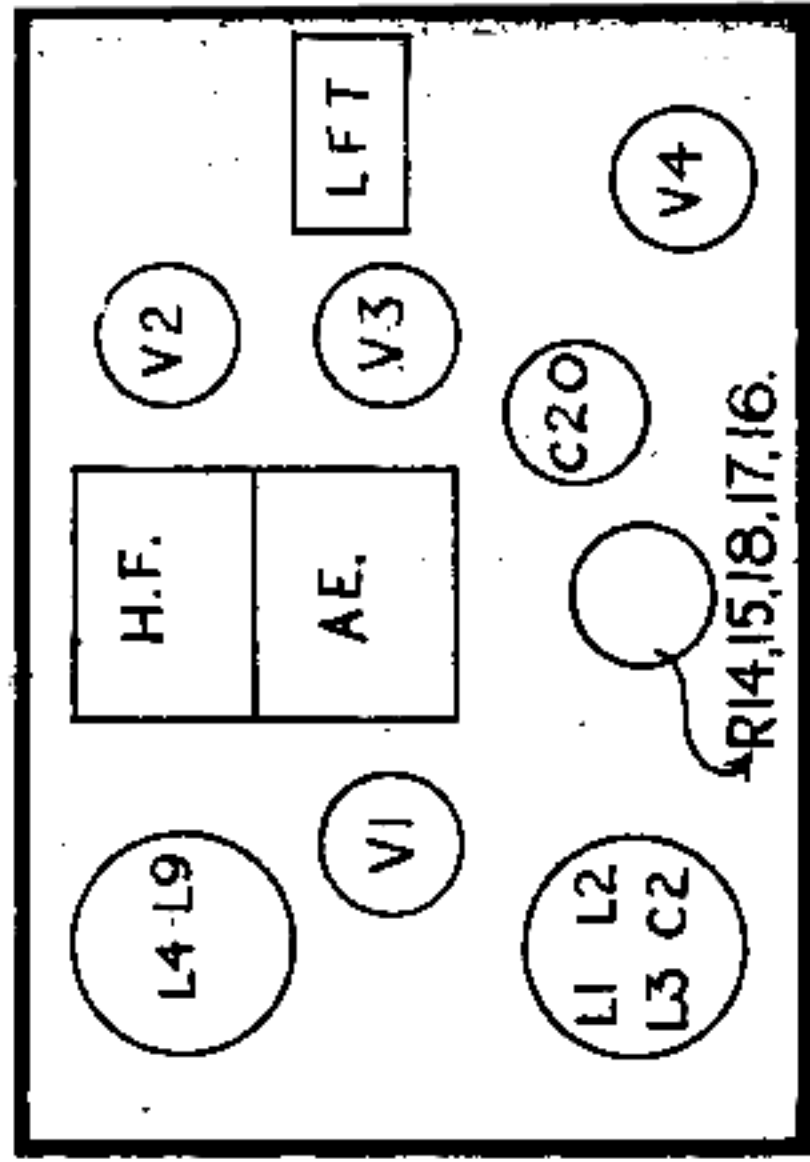


# COSSOR 50

Three-valve, plus rectifier, two-waveband tuned radio-frequency receiver for use on 200-250-v. A.C. or D.C. supplies. Made by A. C. Cossor, Ltd., Highbury Grove, London, N.5.

**Circuit.**—A simple transformer couples the aerial to V1, a pentode radio-frequency amplifier. This valve has a tuned anode circuit with coupled windings in the grid circuit of V2, another pentode, used as a reactive grid-leak detector.



A parallel-fed auto-transformer couples up V3, an output triode. H.T. is obtained from the usual half-wave A.C.-D.C. circuit and all the heaters are series run. Volume is controlled by the bias on V1 and by reaction. R6 and R8 are reaction stabilisers.

R14 is a bleeder to drain off excess output of the rectifier, and R15 protects the pilot lamps from surges. R14 may be on the mains resistance or may be a separate unit underneath. Connections are provided for a high-

impedance (2,500 ohm) extension speaker. The consumption on A.C. is 55 watts approximately. The valve readings are taken on 200 v. A.C. at maximum volume setting.

### GANGING.

T1 is carefully set at the factory for correct calibration and should not be readjusted if avoidable.

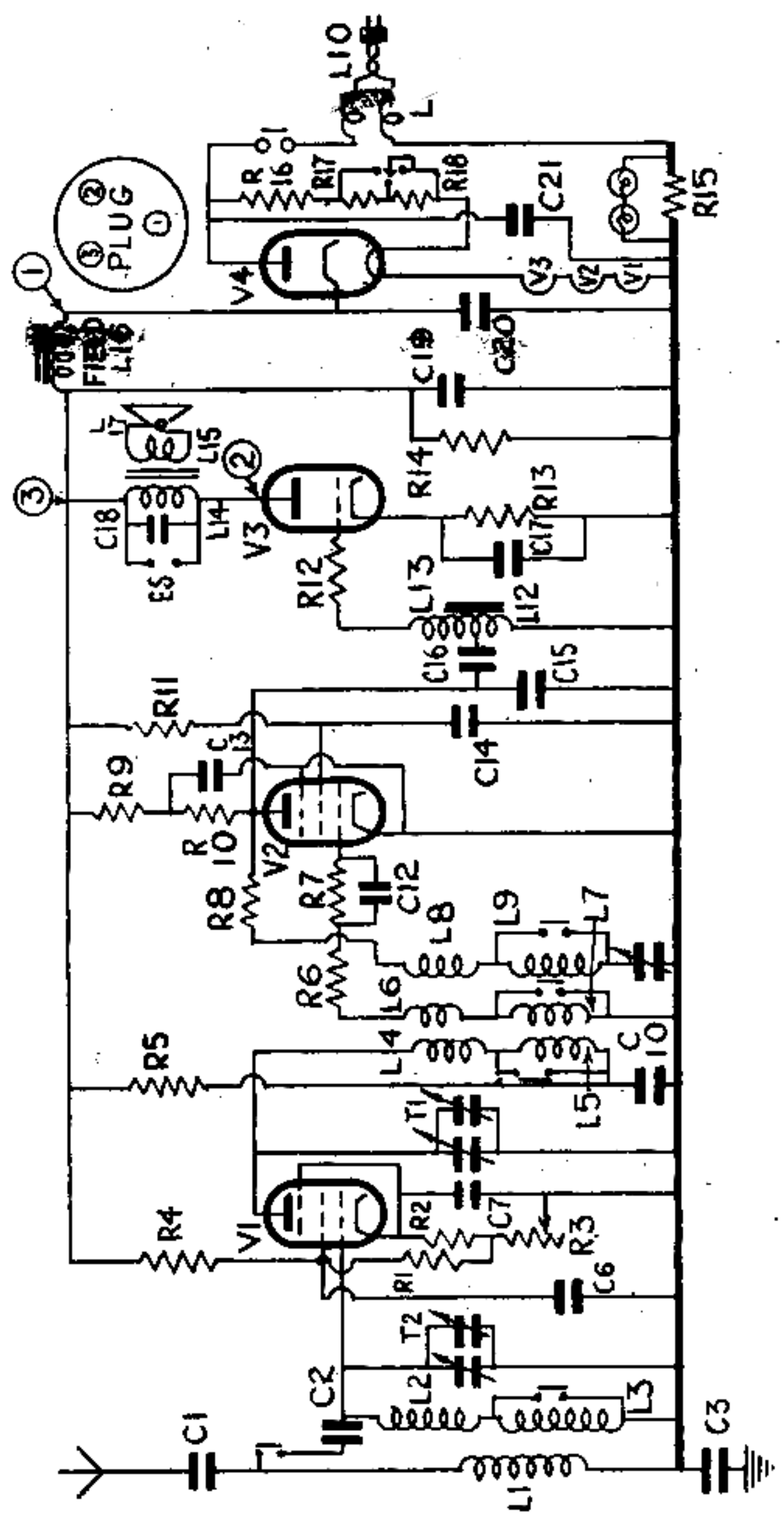
If realignment is necessary, first check

Continued in next column

Ned. Ver. v. Historie v/d Radio



that pointer is vertical with condenser fully anti-clockwise. Inject 240 m. (1,250 kc.) to aerial and earth, set pointer to this wavelength and adjust T1 and T2 for maximum. There are no separate adjustments for long waves.



A pentode is used as a grid-leak detector with manually controlled reaction. An auto-connected L.F. transformer feeds an output triode. The mains section comprises the usual A.C.-D.C. half-wave rectifier.

R	Ohms	R	Ohms
7	1 meg.	13	600
8	300	14	3,000
9	50,000	15	70
10	1 meg.	16	440
11	.5 meg.	17	90
12	.25 meg.	18	90

C	Mfds.	C	Mfds.
1	.0005	13	.25
2	15 mmfds.	14	.1
3	.1	15	.0001
4	.1	16	.1
5	.1	17	.50
6	.1	18	.0005
7	.1	19	.8
8	.0005	20	.8
9	.0001	21	.1

L	Ohms	L	Ohms
1	9.5	10	7.5
2	1.5	11	7.5
3	13.5	12	1,600
4	1.5	13	2,250
5	12.5	14	175
6	1.2	15	1.9
7	13.3	16	400
8	.6	17	2
9	3.4		

Continued from previous column

Type	Electrode	Volts	Ma.
1	13VPA	Anode 128	2
	Screen 48		
	Cathode 2		
2	13SPA	Anode 30	.8
	Screen 22		
3	402P	Anode 157	19
	Cathode 12		
4	SUA	Cathode 197	82

Dial lamps, 8 v., 1.6 w., M.E.S.

R	Ohms	R	Ohms
1	25,000	4	50,000
2	750	5	10,000
3	12,000	6	200