

RAYMOND**Model F73**

General Description : Five-valve (including rectifier), three-waveband superheterodyne with built-in frame aerial.

Power Supply : A.C. mains, 200–250 volts (two adjustment positions), 40–60 c/s.

Wavebands : S.W. 13–50 m.; M.W. 180–550 m.; L.W. 800–2000 m.

Intermediate Frequency : 470 kc/s.

Valve Analysis : Brimar valves are fitted.

<i>Valve</i>	<i>Anode, Volts</i>	<i>Anode, mA.</i>	<i>Screen, Volts</i>	<i>Screen, mA.</i>	<i>Cathode, Volts</i>
V1 12BE6 .	95	1.3	65	4.2	0
V2 12BA6 .	95	8	96	3	0.6
V3 12AT6 .	15	0.2	—	—	0
V4 50C5 .	115	35	96	3.3	5.2
V5 35W4 .	115 A.C.	—	—	—	120

Total H.T. current 55 mA.

Alignment Procedure : With tuning gang fully enmeshed, the pointer should coincide with the datum line on the scale plate. When aligning M.W. and L.W. ranges inject signals inductively to frame aerial by means of a loop or dummy frame aerial.

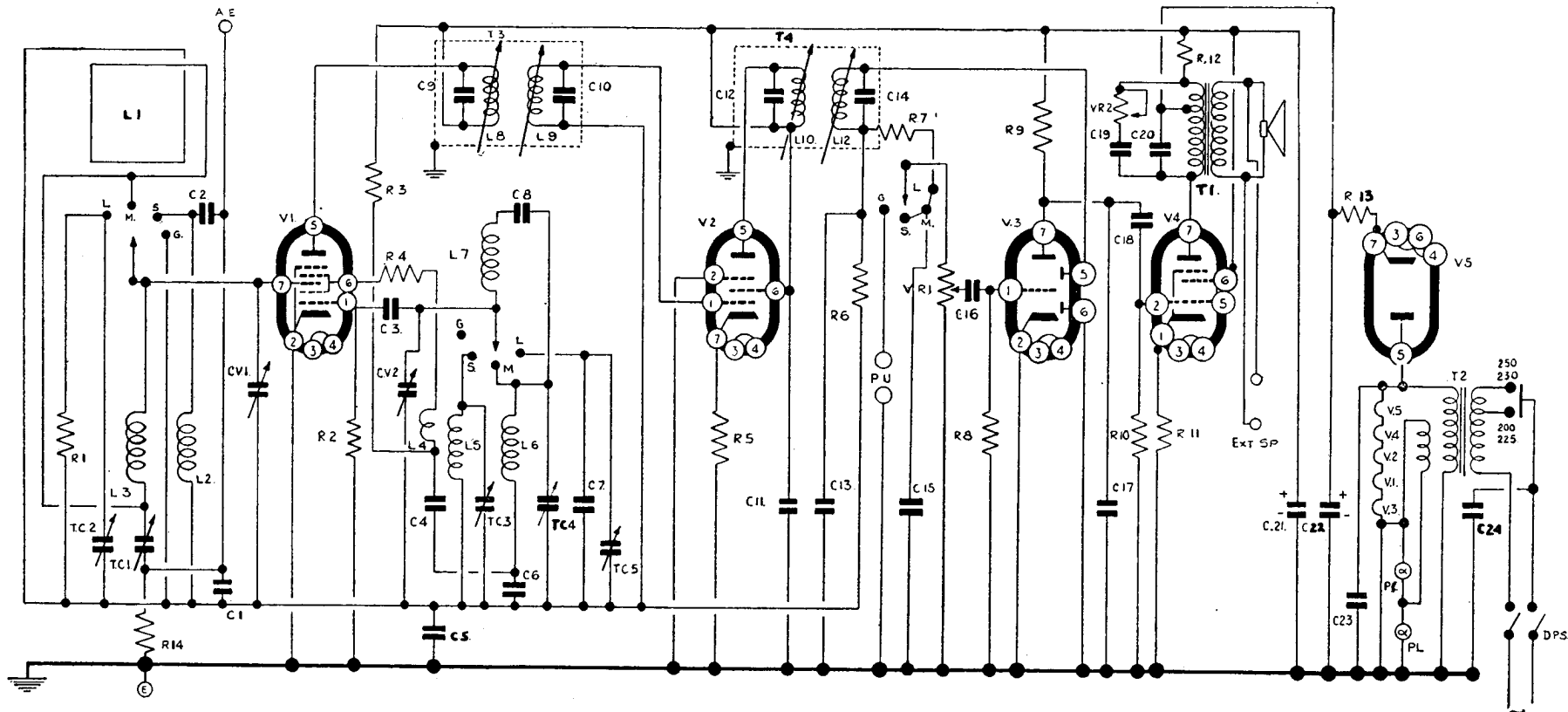
<i>Circuit</i>	<i>Apply Signal as Stated</i>	<i>Tune Receiver to</i>	<i>Adjust in Order Stated for Maximum Output</i>
I.F.	Grid V2 and chassis Grid V1 and chassis Do not retune T4 whilst feeding signal	550 m. 550 m.	L12 (top), L10 L9 (top), L8 to grid of V1
S.W.	13 m. (23.1 Mc/s.)	13 m.	TC3 (lesser capacitance)
M.W.	200 m. (1500 kc/s.)	200 m.	TC4, then TC1
L.W.	1000 m. (300 kc/s.)	1000 m.	TC5, then TC2

When viewed from above the chassis, the trimmers will be found to the side of the chassis in the following order : TC3 (nearest front of chassis), TC4, TC5, TC2 (nearest rear of chassis).

Pilot Lamps : Two 6.3 volts 0.3 amp.

Drive Cord : Three turns round drive spindle, four turns round small drum, and four turns round large drum.

Dismantling : To remove chassis : (1) disconnect mains supply, external aerial and earth; (2) remove cabinet back; (3) unsolder loudspeaker leads from output transformer, marking respective leads; (4) remove front knobs and felt washers; (5) remove screws (on underside of cabinet) holding chassis; (9) withdraw chassis. To re-assemble reverse order.



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CIRCUIT DIAGRAM—RAYMOND MODEL F73

Capacitors.

C1	39 pF.
C2	39 pF.
C3	300 pF.
C4	0.01
C5	0.05
C6	490 pF. (2%)
C7	100 pF.
C8	490 pF. (2%)
C9	100 pF. (2%)
C10	100 pF. (2%)
C11	0.25

C12	100 pF. (2%)
C13	200 pF.
C14	100 pF. (2%)
C15	200 pF.
C16	0.001
C17	200 pF.
C18	.001
C19	0.05
C20	0.02 (750 v.)
C21	32 (El. 350 v.)

C22	32 (El. 350 v.)
C23	0.02 (750 v.)
C24	0.02 (750 v.)
CV1	13-483 pF.
CV2	13-483 pF.
TC1	4-50 pF.
TC2	4-40 pF.
TC3	4-40 pF.
TC4	4-40 pF.
TC5	4-40 pF.

Resistors.

R1	330k
R2	22k
R3	6.8k
R4	180 (10%)
R5	56
R6	2.2M
R7	47k
R8	22M
R9	330k
R10	390k

R11	150 (1 W.)
R12	1.5k (1 W.)
R13	27 (½ W., 10%)
R14	6.8k
VR1	0.5M
VR2	50k

D.C. Resistances (ohms).

L1	Very low
L2	Very low

L3	22
L4	Very low
L5	Very low
L6	5
L7	8
L8	10.5
L9	10.5
L10	10.5
L12	10.5