

PHILIPS

Model B4G37U

General Description: Six-valve (including rectifier), M.W./L.W./V.H.F., A.M./F.M. table receiver. For operation on A.C./D.C. mains, 200-250 volts, 50 watts (mains-connected chassis). Known also as **Model 437U**.

Valves: (V₁) UCC85; (V₂) UCH81; (V₃) UF89; (V₄) UABC80; (V₅) UL84; (V₆) UY85. Pilot lamp 19-volt, 0.1-amp (8097D).

Dismantling: Remove control knobs; then remove five chassis fixing screws from base of cabinet and withdraw chassis. To detach chassis completely from cabinet unsolder speaker leads.

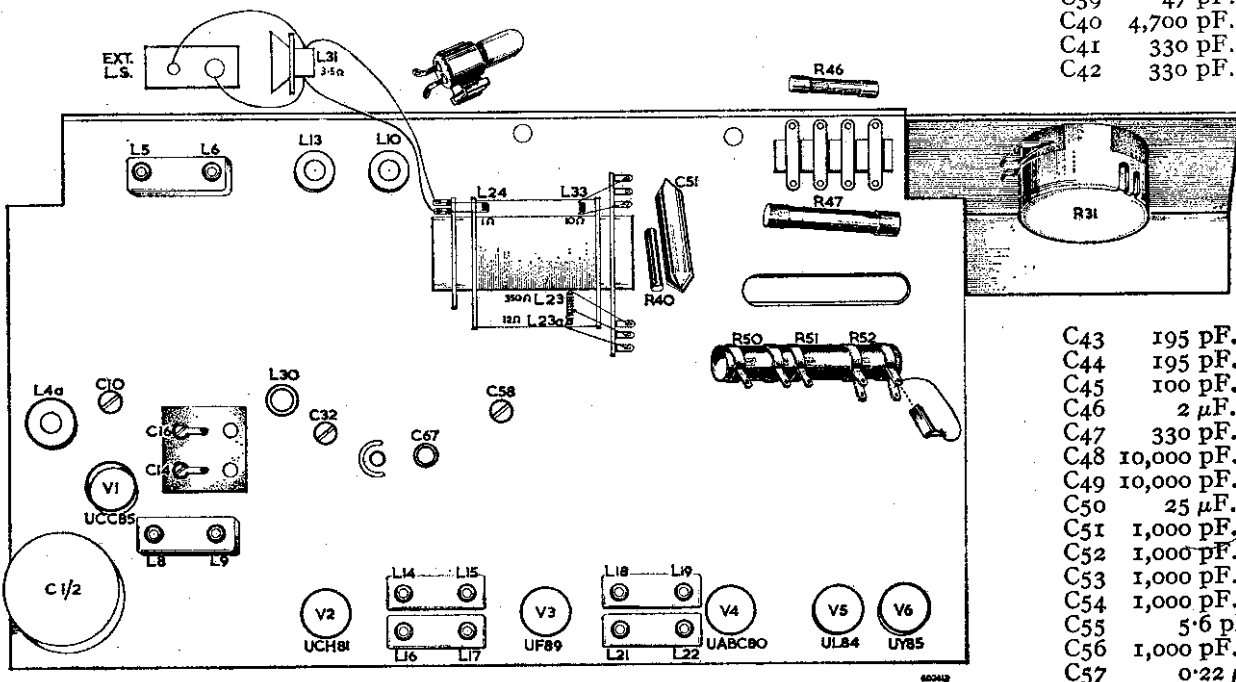
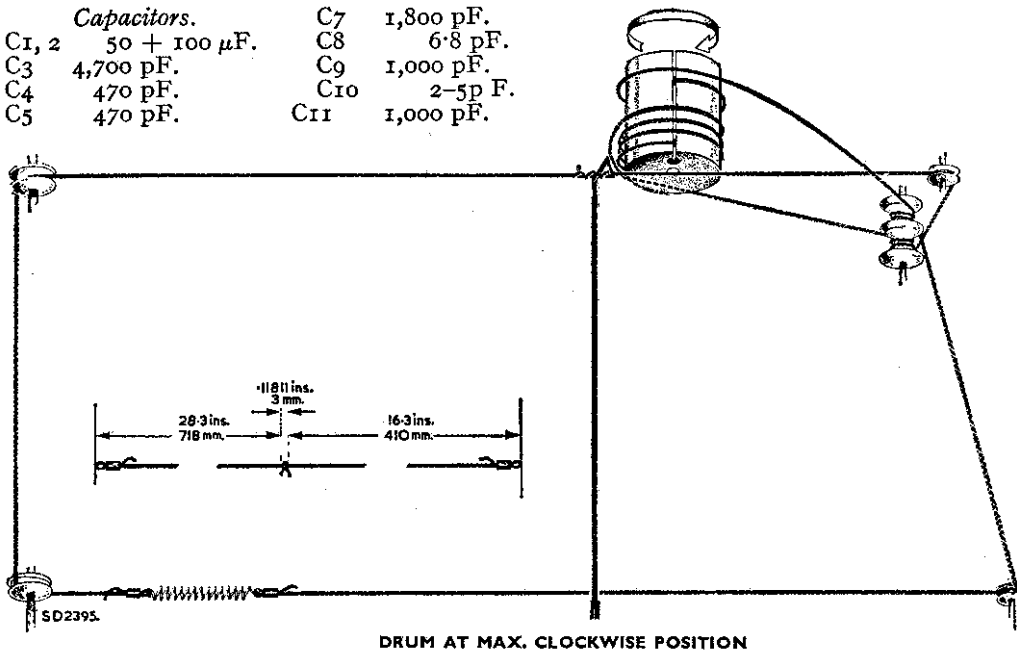
Alignment: Tuner settings for alignment position measured from tuner bar to plate of permeability tuner assembly; 36.5 mm. 1620 kc/s.; 24 mm. 190 kc/s.; 16 mm. 87.5 Mc/s.; 35 mm. 100 Mc/s. A.M. I.F. 470 kc/s.

Capacitors.

C _{1, 2}	50 + 100 μ F.
C ₃	4,700 pF.
C ₄	470 pF.
C ₅	470 pF.

C ₇	1,800 pF.
C ₈	6.8 pF.
C ₉	1,000 pF.
C ₁₀	2-5 p F.
C ₁₁	1,000 pF.

C ₁₂	8.2 pF.
C ₁₃	8.2 pF.
C ₁₄	2-10 pF.
C ₁₅	130 pF.
C ₁₆	2-10 pF.
C ₁₇	15 pF.
C ₁₈	33 pF.
C ₁₉	6.8 pF.
C ₂₀	15 pF.
C ₂₁	100 pF.
C ₂₂	1,200 pF.
C ₂₃	56 pF.
C ₂₄	290 pF.
C ₂₅	120 pF.
C ₂₆	470 pF.
C ₂₇	4,700 pF.
C ₂₈	15 pF.
C ₂₉	15 pF.
C ₃₀	110 pF.
C ₃₁	195 pF.
C ₃₂	18 pF. (max.)
C ₃₃	33 pF.
C ₃₄	3,000 pF.
C ₃₅	100 pF.
C ₃₆	4,700 pF.
C ₃₇	4,700 pF.
C ₃₈	22 pF.
C ₃₉	47 pF.
C ₄₀	4,700 pF.
C ₄₁	330 pF.
C ₄₂	330 pF.



C ₄₃	195 pF.
C ₄₄	195 pF.
C ₄₅	100 pF.
C ₄₆	2 μ F.
C ₄₇	330 pF.
C ₄₈	10,000 pF.
C ₄₉	10,000 pF.
C ₅₀	25 μ F.
C ₅₁	1,000 pF.
C ₅₂	1,000 pF.
C ₅₃	1,000 pF.
C ₅₄	1,000 pF.
C ₅₅	5.6 pF.
C ₅₆	1,000 pF.
C ₅₇	0.22 μ F.

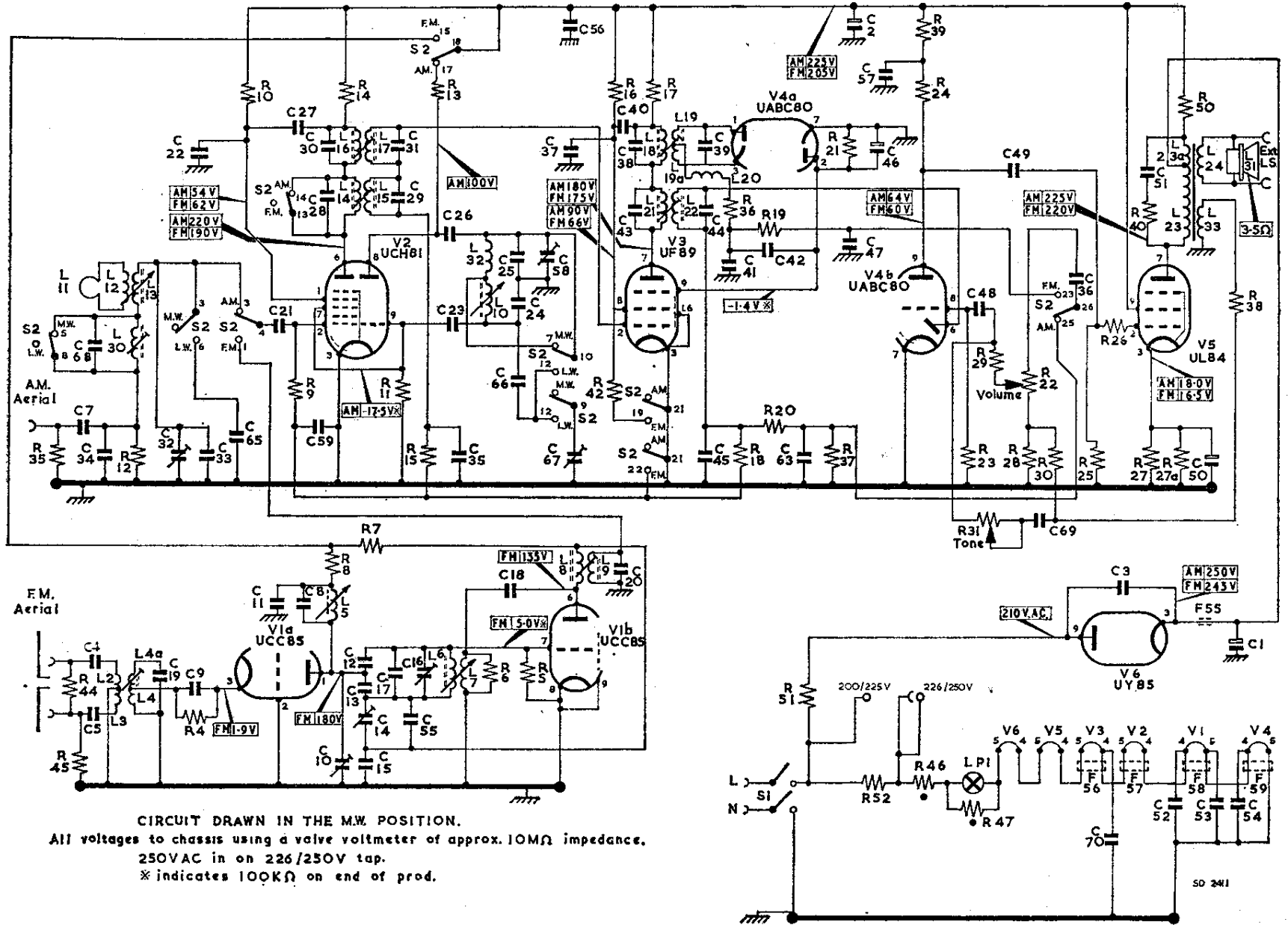
(L₂₂, L₂₁, L₁₇, L₁₆); M.W. 1620 kc/s. (C₅₈, C₃₂); L.W. 190 kc/s. (C₆₇, L₃₀). F.M. I.F. 10.7 Mc/s. (L₁₈, L₁₉/L_{19a}, L₁₄, L₁₅, L₈, L₉); R.F. 87.5 Mc/s. (L₆, L₅); 100 Mc/s. (C₁₆, C₁₀). Trim C₁₄ for minimum oscillator voltage with detector probe for valve voltmeter connected between anode of V_{1a} and earth of V₁ valve holder. Connect valve voltmeter via 100k across C₄₆, apply unmodulated 94 Mc/s. signal to F.M. aerial sockets and trim C_{4A} for maximum output.

Drive Cord: Make up cord to dimensions shown. Turn tuner drum to maximum clockwise and insert knot on cord into slot on tuner drum, shorter end towards back. Pass short end of cord one turn clockwise around drum, winding from back to front, and down to rear pulley on drive spindle. Wind two turns from back to front in clockwise direction, then pass cord around bottom right-hand pulley. Fit tension spring to cord and anchor it to convenient point. Take longer end of cord and wind $3\frac{1}{2}$ turns anti-clockwise around drum, winding from front to back. Pass cord around front pulley on drive spindle and wind on $2\frac{1}{2}$ turns anti-clockwise, winding from back to front. Lead cord over top right-hand pulley, around top left-hand pulley, and attach it to tensions spring. Finally stretch cord over bottom left-hand pulley.

- C58 18 pF.
- C59 22,000 pF.
- C61 1,500 pF.
- C63 100 pF.
- C65 742 pF.
- C66 15 pF.
- C67 50 pF.
- C68 56 pF.
- C69 390 pF.
- C70 1,000 pF.

Resistors.

- R4 180
- R5 0.1M
- R6 2.2k
- R7 10k
- R8 2.2k
- R9 1M
- R10 39k
- R11 47k
- R12 33k
- R13 33k
- R14 2.2k
- R15 1M
- R16 33k
- R17 4.7k
- R18 1.2M
- R19 47k
- R20 47k
- R21 27k
- R22 2M (log.)
- R23 10M
- R24 0.22M
- R25 0.47M
- R26 1k
- R27 560
- R27A 560
- R28 68
- R29 68k
- R30 470
- R31 2M (log.)
- R35 4.7M
- R36 120
- R37 0.22M
- R38 2.7k
- R39 0.1M
- R40 27k
- R42 47k
- R44 10k
- R45 4.7M
- R46 Varite
- R47 Varite
- R50 1k (W. W.)
- R51 140 (W. W.)
- R52 235 (W. W.)



CIRCUIT DRAWN IN THE M.W. POSITION.
 All voltages to chassis using a valve voltmeter of approx. 10MΩ impedance.
 250VAC in on 226/250V tap.
 * indicates 100KΩ on end of prod.

CIRCUIT DIAGRAM—PHILIPS MODEL B4G37U