

# 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**.

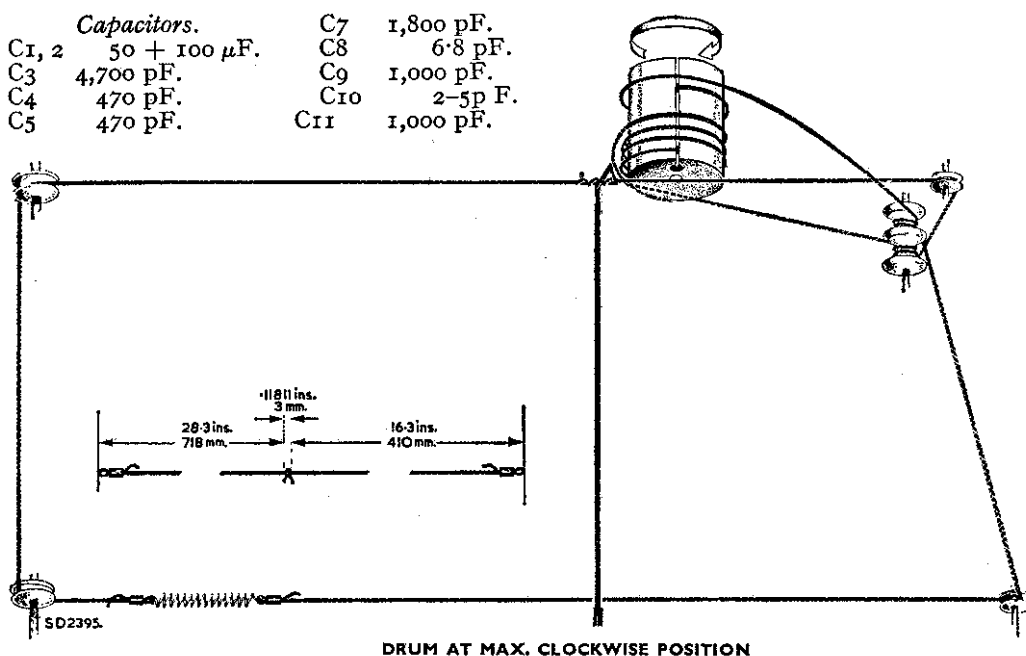
**Valves:** (V<sub>1</sub>) UCC85; (V<sub>2</sub>) UCH81; (V<sub>3</sub>) UF89; (V<sub>4</sub>) UABC80; (V<sub>5</sub>) UL84; (V<sub>6</sub>) UY85. Pilot lamp 19-volt, 0.1-amp (8097D).

**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.

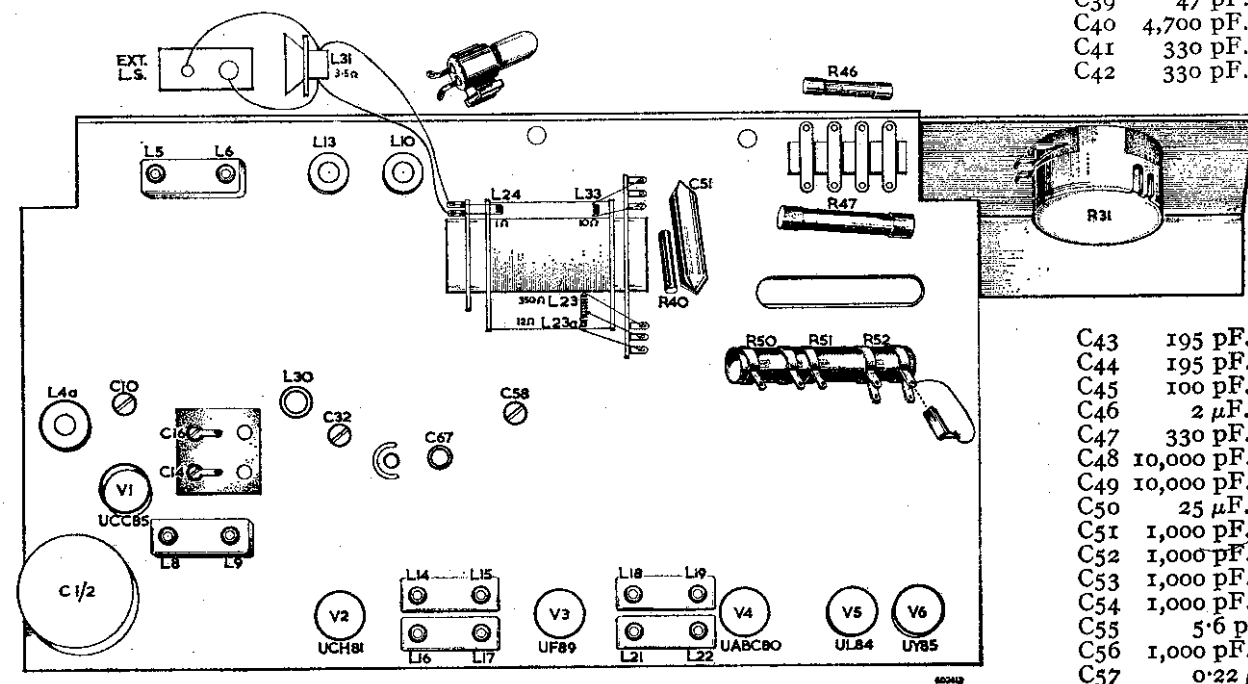
**Alignment:** Tuner settings for alignment position measured from tuner bar to plate of permeability tuner assembly; 36.5 mm. 1620 kc/s.; 24 mm. 190 kc/s.; 16 mm. 87.5 Mc/s.; 35 mm. 100 Mc/s. A.M. I.F. 470 kc/s.

Capacitors.	
C <sub>1, 2</sub>	50 + 100 $\mu$ F.
C <sub>3</sub>	4,700 pF.
C <sub>4</sub>	470 pF.
C <sub>5</sub>	470 pF.

C <sub>7</sub>	1,800 pF.
C <sub>8</sub>	6.8 pF.
C <sub>9</sub>	1,000 pF.
C <sub>10</sub>	2-5 pF.
C <sub>11</sub>	1,000 pF.



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



(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/L19a, 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 V1a 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 C4A for maximum output.

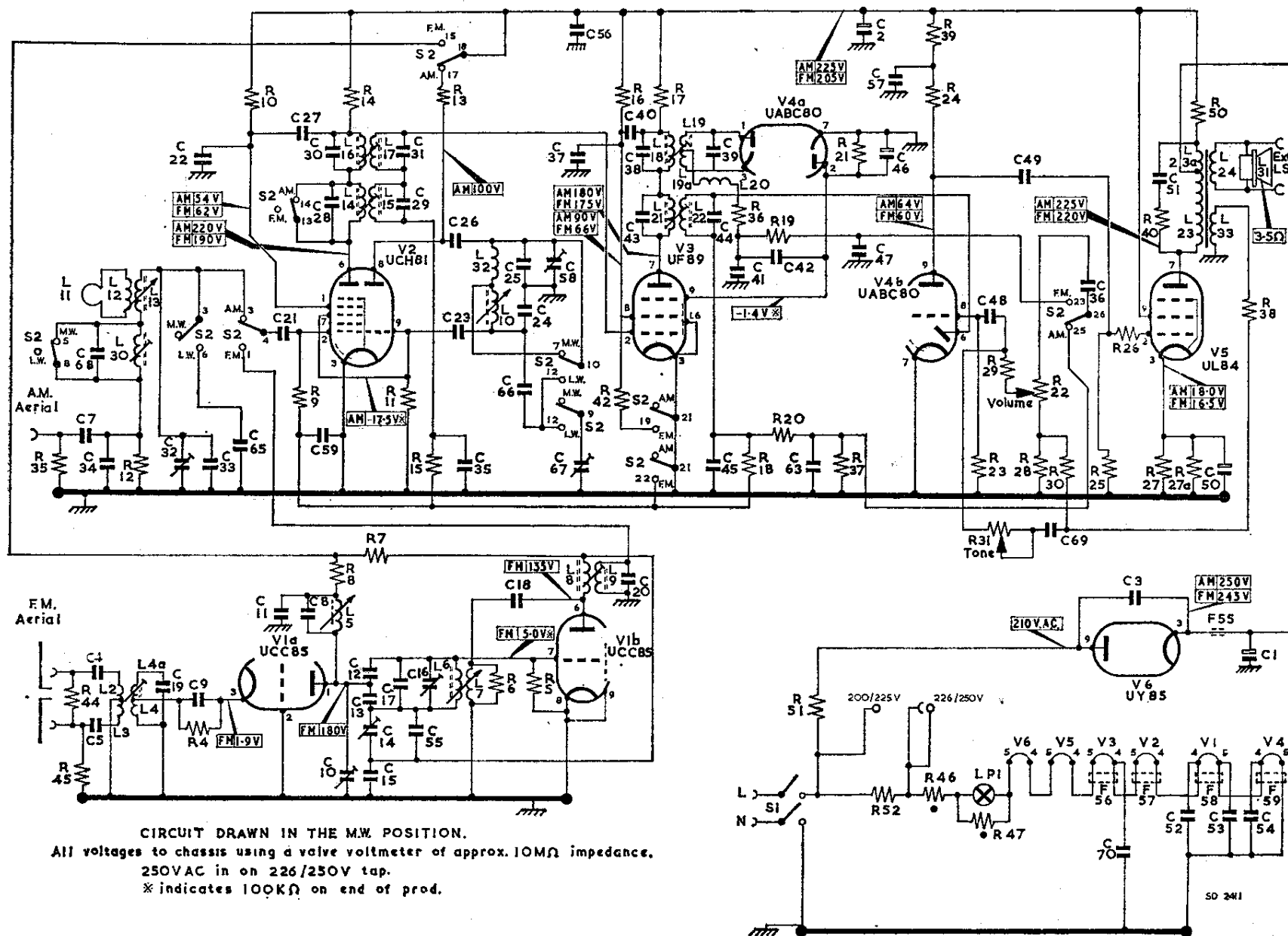
**Drive Cord:** Make up cord to dimensions shown. Turn tuner drum to maximum clockwise and insert knot on cord into slot on tuner drum, shorter end towards back. Pass short end of cord one turn clockwise around drum, winding from back to front, and down to rear pulley on drive spindle. Wind two turns 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.

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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 DIAGRAM—PHILIPS MODEL B4G37U