

# PHILIPS

# Model L2X00T

**General Description:** Seven-transistor (plus two crystal diodes), three-waveband portable receiver with provision for earphone listening and telescopic aerial to improve short-wave reception. Known also as **Model 200T**.

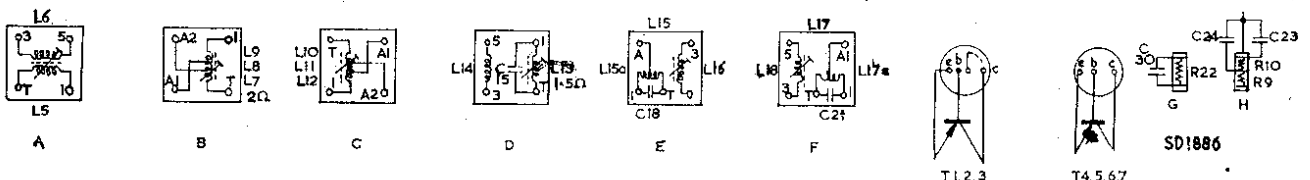
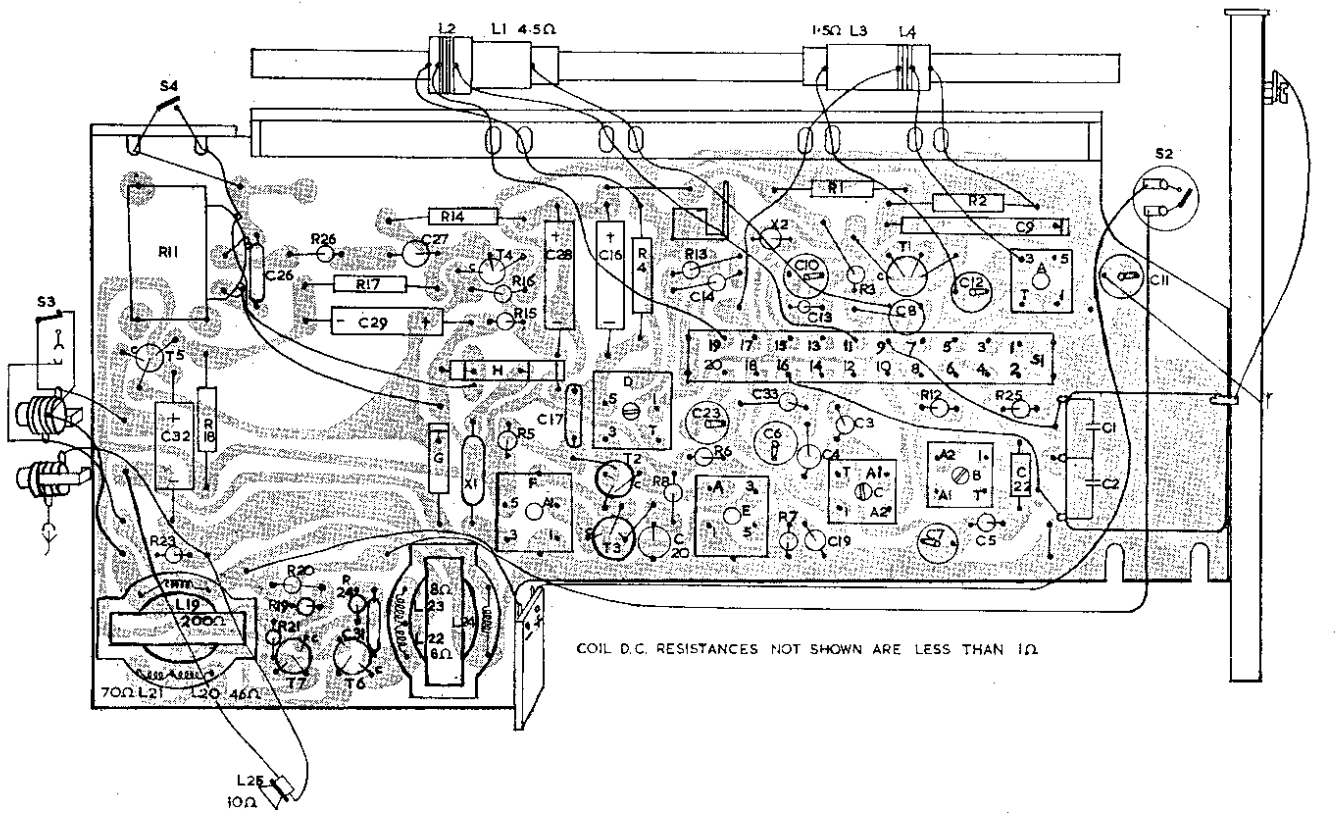
**Power Supply:** Four 1.5-volt cells (D14, U12, V0030 or V0028). Consumption 20 mA. for 100 mW. output.

**Transistors:** (T1) AF116 (or OC170); (T2) AF117 (or OC169); (T3) AF117 (or OC169); (T4) OC71; (T5) OC71; (T6, T7) matched OC72. **Diodes:** (X1) OA79 (detector); (X2) OA79 (mixing diode).

**Wavebands:** M.W. 185-580 m.; L.W. 1150-2000 m.; S.W. 19.4-51 m.

**I.F. and Trimming Frequencies:** I.F. 452 kc/s. (L17/18), 453.5 kc/s. (L15/16), 450.5 kc/s. (L13/14). L.W. 148 kc/s. (L7/8/9), 158.5 kc/s. (L1), 250 kc/s. (C10), 262 kc/s. (C23). M.W. 1635 kc/s. (C7, C12), 517 kc/s. (L3). S.W. 5.8 Mc/s. (L10/11/12, L5/6), 15.2 Mc/s. (C11), 15.6 Mc/s. (C6).

**Notes:** Headphone type AF9001/11. A counterpoise earth lead is supplied to overcome effect of hand capacitance; this lead should be plugged



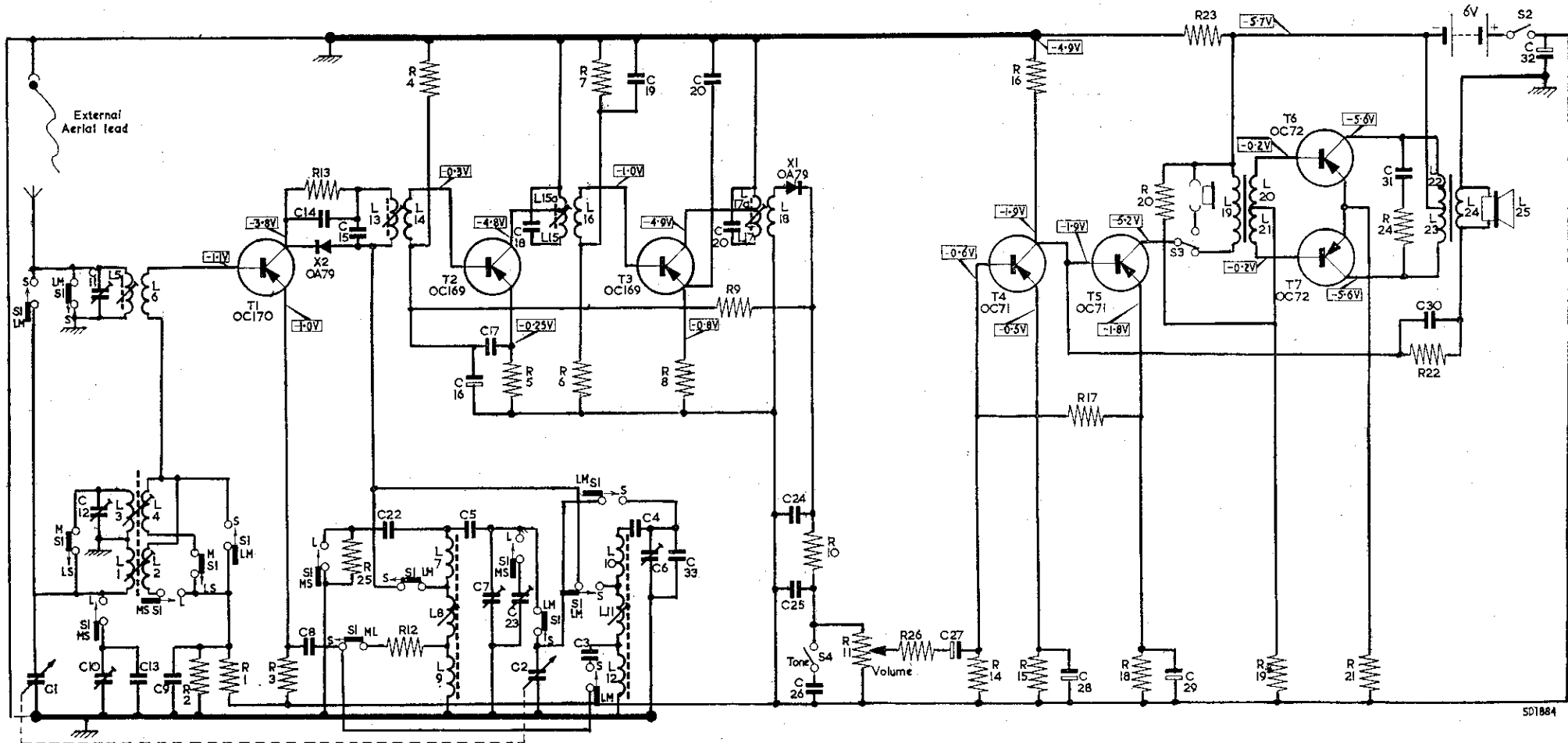
COMPONENT LAY-OUT AND CONNECTIONS

into socket below headphone socket and will improve reception on all wavebands.

**Dismantling:** *To separate cabinet.* Place receiver face downwards on soft cloth. Remove two screws at back of receiver. Unscrew wavechange knob, remove two screws above tuning knob and two screws above volume control. Battery compartment flap may now be removed and front section of cabinet lifted away. When recasing it is important to ensure that locating lugs and sockets on their respective mouldings interlock correctly. *To remove chassis.* Unsolder following leads: battery negative, speaker, S<sub>4</sub>, two sockets, telescopic aerial, panel end of red lead to S<sub>2</sub>. After removing two screws (one below gang, other above volume control) chassis may be lifted clear.

L	5, 3.1, 6, 4.2,	13, 14, 7.8, 9,	15, 15a, 16, 10, 11, 12,	17, 17a, 18,	19, 20, 21,	22, 23, 24, 25,	L									
C	1, 11, 12, 10, 13, 9,	8, 14, 15, 22,	5, 16, 17, 7, 23, 18, 2,	3, 19, 4, 6, 33, 20, 21,	24, 25, 26,	27,	28,	29,	31, 30,	32,	C					
R	2, 1,	3, 13, 25, 12, 4,	5,	6, 7,	8,	9,	10,	11,	26,	14, 16, 15,	17,	18, 20, 23,	19,	21,	24, 22,	R

CIRCUIT DRAWN IN THE M.W. POSITION.  
All voltages taken with respect to battery +ve using a valve voltmeter of approx. 10MΩ impedance.



CIRCUIT DIAGRAM—PHILIPS MODEL L2X00T

Capacitors.	
C3	2,200 pF.
C4	3,900 pF.
C5	270 pF. (1%)
C6	10 pF.
C7	10 pF.
C8	10,000 pF.
C9	15,000 pF.
C10	10 pF.
C11	10 pF.
C12	10 pF.
C13	108 pF. (1%)

C14	10,000 pF.
C16	6.4 (El.)
C17	47,000 pF.
C19	10,000 pF.
C20	47,000 pF.
C22	232 pF. (1%)
C23	10 pF.
C24	3,700 pF.
C25	3,700 pF.
C26	47,000 pF.
C27	10 (El.)
C28	25 (El.)

C29	12.5 (El.)
C30	220 pF.
C31	47,000 pF.
C32	200 (El.)
C33	15 pF.
Resistors.	
R1	2.7k
R2	8.2k
R3	1.2k
R4	120k

R5	560 (5%)
R6	4.7k
R7	15k
R8	1k
R9	15k
R10	1k
R11	10k (log.)
R12	22
R13	1.2k
R14	15k (5%)
R15	820 (5%)

R16	4.7k (5%)
R17	22k (5%)
R18	1k
R19	100 (5%)
R20	3k (5%)
R21	10
R22	56k
R23	220
R24	270
R25	180k
R26	1.5k