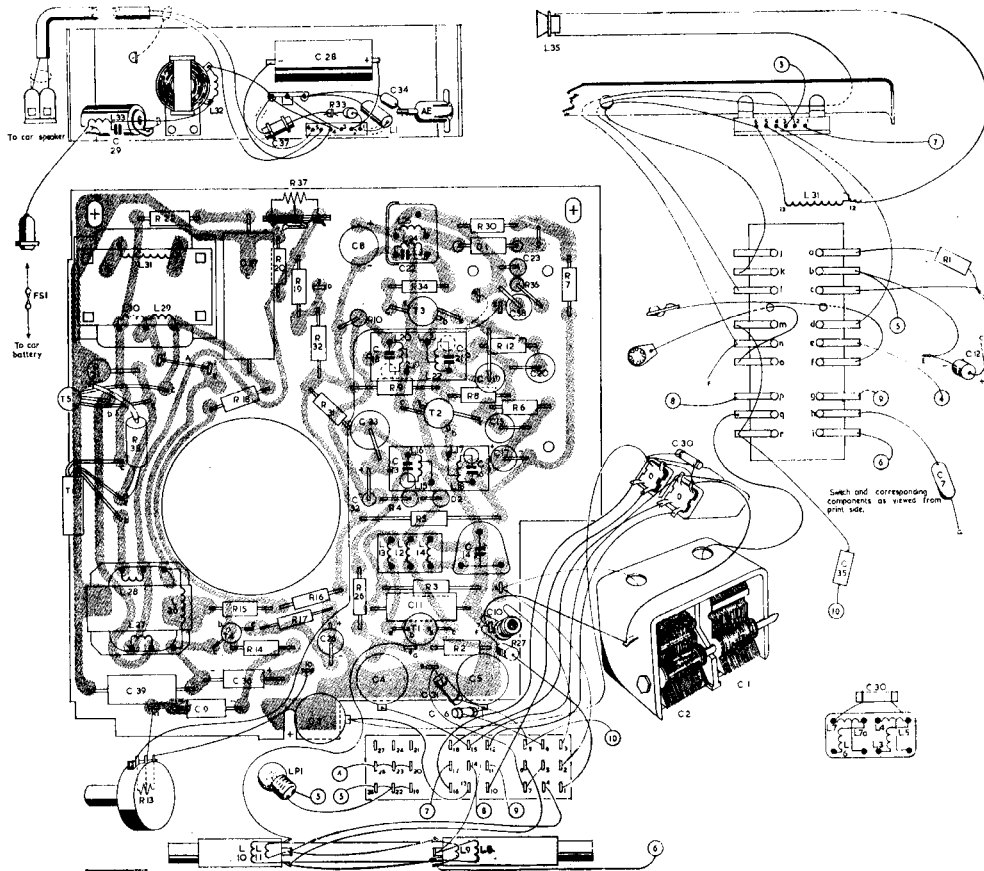
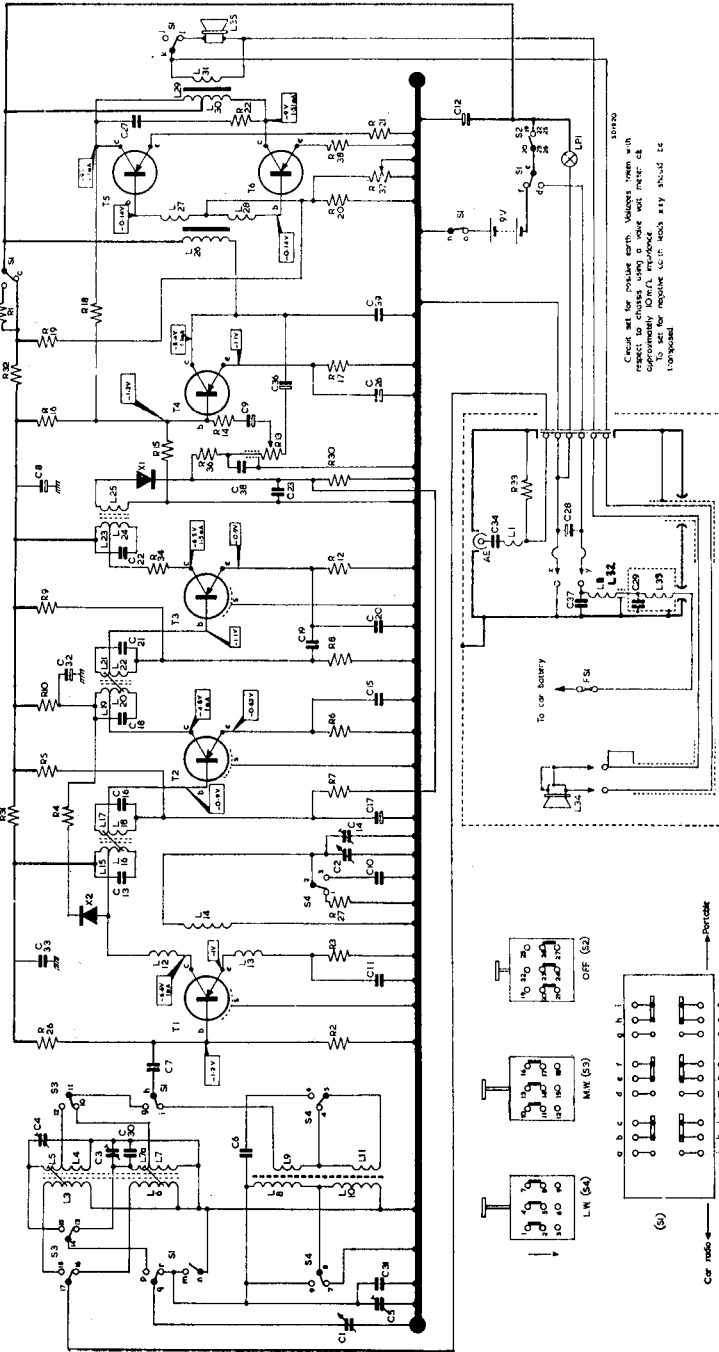


# PHILIPS

# CAR/PORTABLE Model P3G90T





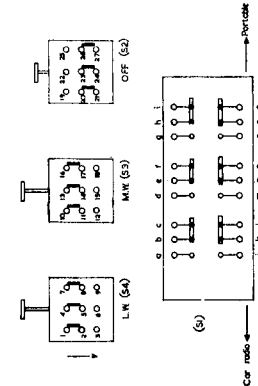
CIRCUIT DIAGRAM—PHILIPS CAR PORTABLE MODEL P3G90T

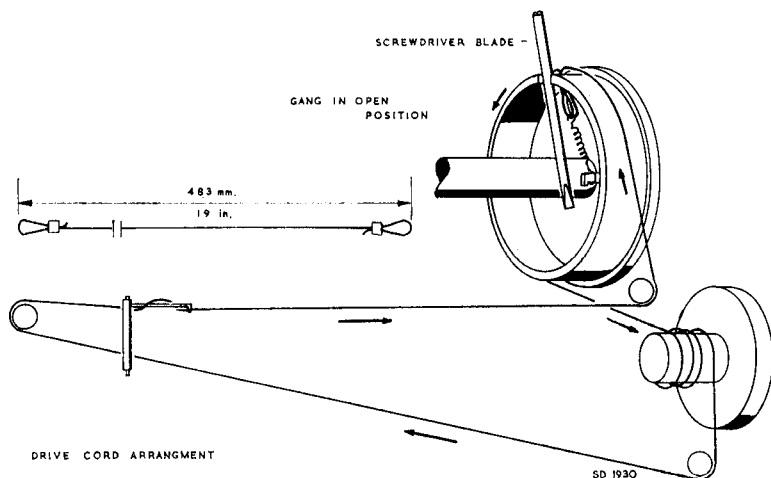
- Capacitors.**
- C3 30 pF.
  - C4 30 pF.
  - C5 30 pF.
  - C6 180 pF. (5%)
  - C7 10,000 pF.
  - C8 100
  - C9 1-6
  - C10 330 pF. (2%)
  - C11 22,000 pF.
  - C12 100
  - C13 100 pF.
  - C28 1,000
  - C29 0.22
  - C30 100 pF. (2%)
  - C31 15 pF.
  - C32 3.2
  - C33 0.1
  - C34 10,000 pF.
  - C35 3,000 pF. (5%)
  - C36 0.5
  - C37 10,000 pF.
  - C38 10,000 pF.
  - C39 10,000 pF.

- Resistors.**
- R1 820 6.8k
  - R2 1k
  - R3 1k
  - R4 820
  - R5 56k
  - R6 680
  - R7 8.2k
  - R8 4.7k
  - R9 22k
  - R10 2.2k
  - R12 470
  - R13 0.5M (log.)
  - R14 2.2k
  - R15 10k
  - R16 47k
  - R17 1k
  - R18 1M
  - R19 3.3k
  - R20 100
  - R21 6.8 (5%, W.W.)
  - R22 220

- R26 33k
- R27 68k
- R30 2.7k
- R31 100
- R32 470 (5%)
- R33 0.15M
- R34 220
- R36 390
- R37 500 (pre-set)
- R38 6.8 (5%)

Circuit set for positive earth. Valves given with respect to chassis using a valve test meter. Check pinning of valves. For details of valves see Philips catalogue. To set for negative earth, check any should be transposed.





CORD DRIVE—PHILIPS MODEL P3G90T

**General Description:** Six-transistor (plus two diodes), two-waveband receiver intended for use as a car-radio or as a self-contained portable receiver. A mounting tray automatically connects the receiver to the car aerial, speaker and battery supply. The receiver and mounting kit (type NP1616) are marketed separately or together. Also known as **Model 390T**.

**Power Supply:** 9-volt battery (PP7 or equivalent), no-signal consumption 10 mA. 12-volt car battery (positive earth systems), no-signal consumption 150 mA. The unit can be adapted for negative earth operation by reversing connections to tags 3 and 4 of tag strip in mounting tray.

**Wavebands:** M.W. 185–579 m.; L.W. 1215–2000 m.

**Transistors:** (T<sub>1</sub>) AF116; (T<sub>2</sub>, 3) AF117; (T<sub>4</sub>) OC82D; (T<sub>5</sub>, 6) OC82 (matched). Diodes: (X<sub>1</sub>) OA70; (2) OA79 (auxiliary A.G.C. damping diode).

**Notes:** Pilot lamp, 12-volt, 1.5-watt (Philips PP4767). If either or both output transistors are replaced, no-signal combined collector current should be checked. Connect milliammeter in place of shorting link A and turn volume to minimum. Depress M.W. button and adjust R37 for reading of 3.3 mA. under portable conditions.

**Dismantling:** Remove set from mounting tray and place it speaker grille downwards. Release battery compartment cover. Rear half of case is removed by releasing two screws situated half way along case. Access to change-over switch (S<sub>1</sub>) and printed side of panel is obtained by removing chassis, held by spring clip in each corner, from speaker half of case, as follows. Hinge handle forward to portable position. Release two spring clips on tuning-gang side, and at same time, ease chassis from case. Lift chassis clear of case, detaching speaker leads if required. Reassemble by

pressing chassis back into four clips, making sure that they slide up outside of chassis. Replace scale by locating bottom tongued edge in case groove and tilt backwards.

**Alignment Frequencies:** I.F. 470 kc/s. (L23, L21, L19, L17, L15).  
M.W. 518 kc/s. (L14); 1620 kc/s. (C14); 518 kc/s. (L8/9); 1620 kc/s. (C5).  
L.W. 190 kc/s. (L10/L11). Car radio aerial circuits (signal via 60 pF. shunt capacitor) M.W. 518 kc/s. (L4); 1620 kc/s. (C4). L.W. 150 kc/s. (L7); 250 kc/s. (C3).

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