

PHILIPS

Model LOG90T

General Description: Seven-transistor (plus crystal diode), two-wave-band, pocket portable receiver with socket for high impedance (1000 ohm) headphone.

Power Supply: 4.5-volt battery (three 1.5-volt cells Type D14, U12, V0030 or V0028). No-signal consumption about 7-10 mA.

Wavebands: M.W. 185-570 m.; L.W. 1150-2000 m.

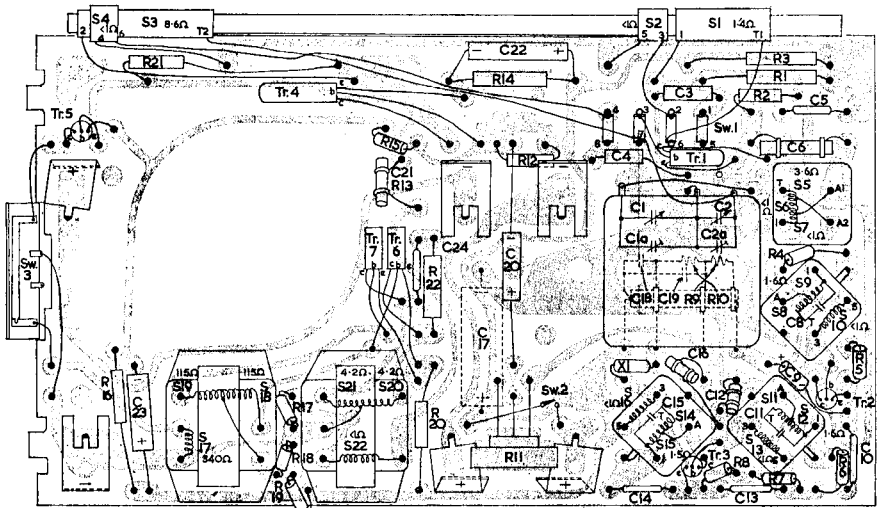
Transistors: (Tr1) OC44; (Tr2) OC45; (Tr3) OC45; (Tr) OC71; (Tr5) OC71; (Tr6, 7) OC72. Crystal diode: (X1) OA70 or OA85.

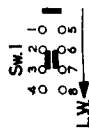
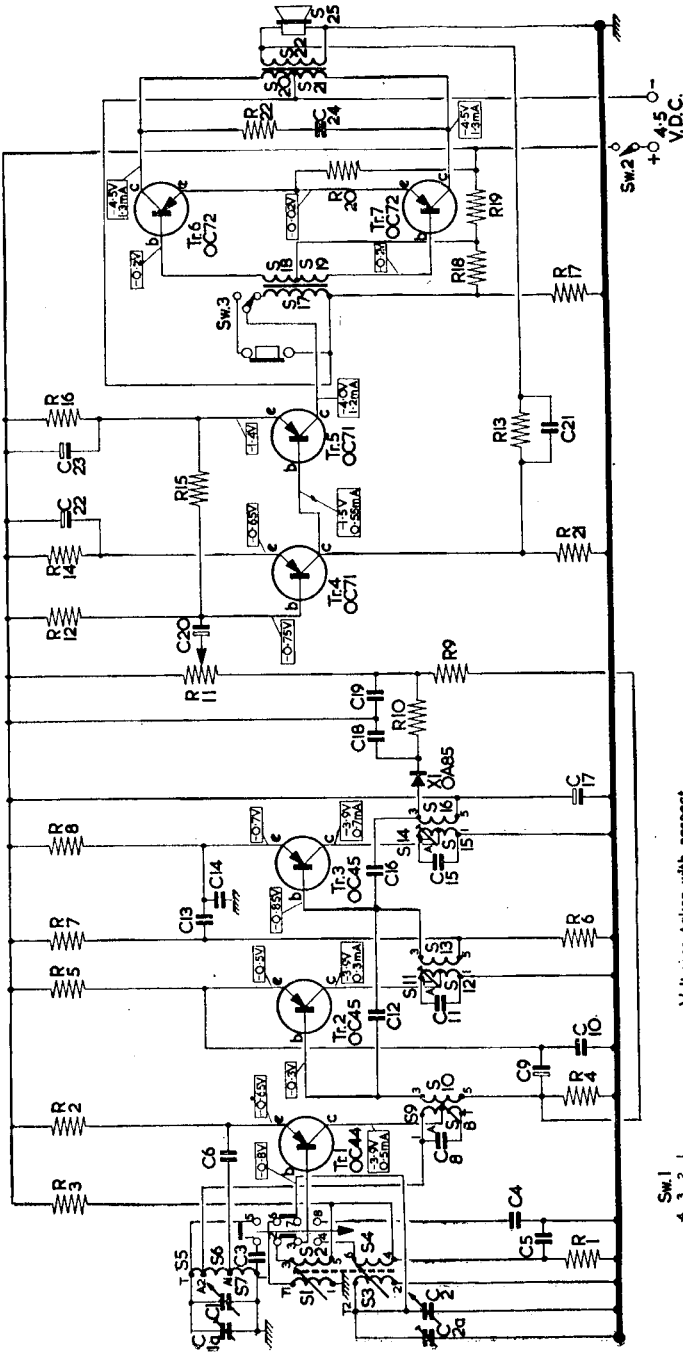
Alignment Frequencies: I.F. 470 kc/s. (S14), 468 kc/s. (S11), 472 kc/s. (S8). M.W. 1635 kc/s. (C1A), 1500 kc/s. (C2A), 600 kc/s. (S1). L.W. 170 kc/s. (S3), 148 kc/s. (S5).

Dismantling: Four small lips on rear panel engage with grooves in front section of case. Slight pressure on top or bottom of front section of case will allow the two sections to be separated. Remove knurled screw in centre of scale, tuning knob, washers, and scale. Remove fixing screw under scale and slide receiver out of case.

Associated Models: Models LoG90T/01R and LoG90T/01L are similar to Model LoG90T except that a different tuning gang is fitted. C4 becomes 61 pF. and additional C25 4.7 pF. is connected in parallel with C1/C1A.

Models LoG91T/00F and LoG91T/00W are electrically similar to Model LoG90T/01R as above. **Dismantling:** Prise off station scale plate by inserting thumb nail in tuning control slot. Remove indicator disc, large toothed wheel, spacing washers and tuning knob bracket complete with tuning knob. Detach cabinet back, chassis mounting bolt, and by pushing chassis towards earphone socket, chassis may be eased out of cabinet. When assembling, ensure that chassis mounting bolt is properly seated and locked prior to attaching cabinet back.





Voltages taken with respect to battery positive using a 20,000ΩV voltmeter:

CIRCUIT DIAGRAM—PHILIPS MODEL LoG90T

Circuit drawn in the MW position.

- Capacitors:**
- C3 150 pF. (1%)
 - C4 66 pF. (2.5%)
 - C5 47,000 pF.
 - C6 10,000 pF.
 - C8 9.2 pF. (40 v.)
 - C9 3.2 pF. (40 v.)
 - C10 47,000 pF.
 - C11 91 pF.
 - C12 6.4 pF. (2%)
 - C13 47,000 pF.
 - C14 47,000 pF.
 - C15 91 pF.
 - C16 30 pF. (5%)
 - C17 80 pF. (4 v.)
 - C18 4,200 pF.
 - C19 4,200 pF.
 - C20 11 pF.
 - C21 220 pF. (6.4 v.)
 - C22 20 pF. (4 v.)
 - C23 20 pF. (4 v.)
 - C24 47,000 pF.

- Resistors:**
- R1 8.2k
 - R2 1.5k
 - R3 2.2k
 - R4 0.15M
 - R5 56k
 - R6 15k
 - R7 1.2k
 - R8 1k
 - R9 3.2 (6.4 v.)
 - R10 220 pF. (6.4 v.)
 - R11 20 pF. (4 v.)
 - R12 20 pF. (4 v.)
 - R13 47,000 pF.
 - R14 91 pF.
 - R15 30 pF. (5%)
 - R16 80 pF. (4 v.)
 - R17 4,200 pF.
 - R18 4,200 pF.
 - R19 4.7k
 - R20 100 (5%)
 - R21 10 (5%)
 - R22 4.7k
 - R23 270

- R24 2.2k (5%)
 - R25 100 (5%)
 - R26 10 (5%)
 - R27 4.7k
 - R28 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R29 15k
- R30 7k
- R31 10k
- R32 10k
- R33 56k
- R34 5.2k
- R35 8.2k
- R36 1.2k
- R37 220

- R38 15k
- R39 7k
- R40 10k
- R41 10k
- R42 10k
- R43 56k
- R44 5.2k
- R45 8.2k
- R46 1.2k
- R47 220

- R48 2.2k (5%)
 - R49 100 (5%)
 - R50 10 (5%)
 - R51 4.7k
 - R52 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R53 15k
- R54 7k
- R55 10k
- R56 10k
- R57 56k
- R58 5.2k
- R59 8.2k
- R60 1.2k
- R61 220

- R62 15k
- R63 7k
- R64 10k
- R65 10k
- R66 10k
- R67 56k
- R68 5.2k
- R69 8.2k
- R70 1.2k
- R71 220

- R72 2.2k (5%)
 - R73 100 (5%)
 - R74 10 (5%)
 - R75 4.7k
 - R76 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R77 15k
- R78 7k
- R79 10k
- R80 10k
- R81 56k
- R82 5.2k
- R83 8.2k
- R84 1.2k
- R85 220

- R86 15k
- R87 7k
- R88 10k
- R89 10k
- R90 10k
- R91 56k
- R92 5.2k
- R93 8.2k
- R94 1.2k
- R95 220

- R96 2.2k (5%)
 - R97 100 (5%)
 - R98 10 (5%)
 - R99 4.7k
 - R100 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R101 15k
- R102 7k
- R103 10k
- R104 10k
- R105 56k
- R106 5.2k
- R107 8.2k
- R108 1.2k
- R109 220

- R110 15k
- R111 7k
- R112 10k
- R113 10k
- R114 10k
- R115 56k
- R116 5.2k
- R117 8.2k
- R118 1.2k
- R119 220

- R120 2.2k (5%)
 - R121 100 (5%)
 - R122 10 (5%)
 - R123 4.7k
 - R124 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R125 15k
- R126 7k
- R127 10k
- R128 10k
- R129 56k
- R130 5.2k
- R131 8.2k
- R132 1.2k
- R133 220

- R134 15k
- R135 7k
- R136 10k
- R137 10k
- R138 10k
- R139 56k
- R140 5.2k
- R141 8.2k
- R142 1.2k
- R143 220

- R144 2.2k (5%)
 - R145 100 (5%)
 - R146 10 (5%)
 - R147 4.7k
 - R148 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R149 15k
- R150 7k
- R151 10k
- R152 10k
- R153 56k
- R154 5.2k
- R155 8.2k
- R156 1.2k
- R157 220

- R158 15k
- R159 7k
- R160 10k
- R161 10k
- R162 10k
- R163 56k
- R164 5.2k
- R165 8.2k
- R166 1.2k
- R167 220

- R168 2.2k (5%)
 - R169 100 (5%)
 - R170 10 (5%)
 - R171 4.7k
 - R172 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R173 15k
- R174 7k
- R175 10k
- R176 10k
- R177 56k
- R178 5.2k
- R179 8.2k
- R180 1.2k
- R181 220

- R182 15k
- R183 7k
- R184 10k
- R185 10k
- R186 10k
- R187 56k
- R188 5.2k
- R189 8.2k
- R190 1.2k
- R191 220

- R192 2.2k (5%)
 - R193 100 (5%)
 - R194 10 (5%)
 - R195 4.7k
 - R196 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R197 15k
- R198 7k
- R199 10k
- R200 10k
- R201 56k
- R202 5.2k
- R203 8.2k
- R204 1.2k
- R205 220

- R206 15k
- R207 7k
- R208 10k
- R209 10k
- R210 10k
- R211 56k
- R212 5.2k
- R213 8.2k
- R214 1.2k
- R215 220

- R216 2.2k (5%)
 - R217 100 (5%)
 - R218 10 (5%)
 - R219 4.7k
 - R220 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R221 15k
- R222 7k
- R223 10k
- R224 10k
- R225 56k
- R226 5.2k
- R227 8.2k
- R228 1.2k
- R229 220

- R230 15k
- R231 7k
- R232 10k
- R233 10k
- R234 10k
- R235 56k
- R236 5.2k
- R237 8.2k
- R238 1.2k
- R239 220

- R240 2.2k (5%)
 - R241 100 (5%)
 - R242 10 (5%)
 - R243 4.7k
 - R244 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R245 15k
- R246 7k
- R247 10k
- R248 10k
- R249 56k
- R250 5.2k
- R251 8.2k
- R252 1.2k
- R253 220

- R254 15k
- R255 7k
- R256 10k
- R257 10k
- R258 10k
- R259 56k
- R260 5.2k
- R261 8.2k
- R262 1.2k
- R263 220

- R264 2.2k (5%)
 - R265 100 (5%)
 - R266 10 (5%)
 - R267 4.7k
 - R268 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R269 15k
- R270 7k
- R271 10k
- R272 10k
- R273 56k
- R274 5.2k
- R275 8.2k
- R276 1.2k
- R277 220

- R278 15k
- R279 7k
- R280 10k
- R281 10k
- R282 10k
- R283 56k
- R284 5.2k
- R285 8.2k
- R286 1.2k
- R287 220

- R288 2.2k (5%)
 - R289 100 (5%)
 - R290 10 (5%)
 - R291 4.7k
 - R292 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R293 15k
- R294 7k
- R295 10k
- R296 10k
- R297 56k
- R298 5.2k
- R299 8.2k
- R300 1.2k
- R301 220

- R302 15k
- R303 7k
- R304 10k
- R305 10k
- R306 10k
- R307 56k
- R308 5.2k
- R309 8.2k
- R310 1.2k
- R311 220

- R312 2.2k (5%)
 - R313 100 (5%)
 - R314 10 (5%)
 - R315 4.7k
 - R316 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R317 15k
- R318 7k
- R319 10k
- R320 10k
- R321 56k
- R322 5.2k
- R323 8.2k
- R324 1.2k
- R325 220

- R326 15k
- R327 7k
- R328 10k
- R329 10k
- R330 10k
- R331 56k
- R332 5.2k
- R333 8.2k
- R334 1.2k
- R335 220

- R336 2.2k (5%)
 - R337 100 (5%)
 - R338 10 (5%)
 - R339 4.7k
 - R340 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R341 15k
- R342 7k
- R343 10k
- R344 10k
- R345 56k
- R346 5.2k
- R347 8.2k
- R348 1.2k
- R349 220

- R350 15k
- R351 7k
- R352 10k
- R353 10k
- R354 10k
- R355 56k
- R356 5.2k
- R357 8.2k
- R358 1.2k
- R359 220

- R360 2.2k (5%)
 - R361 100 (5%)
 - R362 10 (5%)
 - R363 4.7k
 - R364 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R365 15k
- R366 7k
- R367 10k
- R368 10k
- R369 56k
- R370 5.2k
- R371 8.2k
- R372 1.2k
- R373 220

- R374 15k
- R375 7k
- R376 10k
- R377 10k
- R378 10k
- R379 56k
- R380 5.2k
- R381 8.2k
- R382 1.2k
- R383 220

- R384 2.2k (5%)
 - R385 100 (5%)
 - R386 10 (5%)
 - R387 4.7k
 - R388 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R389 15k
- R390 7k
- R391 10k
- R392 10k
- R393 56k
- R394 5.2k
- R395 8.2k
- R396 1.2k
- R397 220

- R398 15k
- R399 7k
- R400 10k
- R401 10k
- R402 10k
- R403 56k
- R404 5.2k
- R405 8.2k
- R406 1.2k
- R407 220

- R408 2.2k (5%)
 - R409 100 (5%)
 - R410 10 (5%)
 - R411 4.7k
 - R412 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R413 15k
- R414 7k
- R415 10k
- R416 10k
- R417 56k
- R418 5.2k
- R419 8.2k
- R420 1.2k
- R421 220

- R422 15k
- R423 7k
- R424 10k
- R425 10k
- R426 10k
- R427 56k
- R428 5.2k
- R429 8.2k
- R430 1.2k
- R431 220

- R432 2.2k (5%)
 - R433 100 (5%)
 - R434 10 (5%)
 - R435 4.7k
 - R436 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R437 15k
- R438 7k
- R439 10k
- R440 10k
- R441 56k
- R442 5.2k
- R443 8.2k
- R444 1.2k
- R445 220

- R446 15k
- R447 7k
- R448 10k
- R449 10k
- R450 10k
- R451 56k
- R452 5.2k
- R453 8.2k
- R454 1.2k
- R455 220

- R456 2.2k (5%)
 - R457 100 (5%)
 - R458 10 (5%)
 - R459 4.7k
 - R460 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R461 15k
- R462 7k
- R463 10k
- R464 10k
- R465 56k
- R466 5.2k
- R467 8.2k
- R468 1.2k
- R469 220

- R470 15k
- R471 7k
- R472 10k
- R473 10k
- R474 10k
- R475 56k
- R476 5.2k
- R477 8.2k
- R478 1.2k
- R479 220

- R480 2.2k (5%)
 - R481 100 (5%)
 - R482 10 (5%)
 - R483 4.7k
 - R484 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R485 15k
- R486 7k
- R487 10k
- R488 10k
- R489 56k
- R490 5.2k
- R491 8.2k
- R492 1.2k
- R493 220

- R494 15k
- R495 7k
- R496 10k
- R497 10k
- R498 10k
- R499 56k
- R500 5.2k
- R501 8.2k
- R502 1.2k
- R503 220

- R504 2.2k (5%)
 - R505 100 (5%)
 - R506 10 (5%)
 - R507 4.7k
 - R508 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R509 15k
- R510 7k
- R511 10k
- R512 10k
- R513 56k
- R514 5.2k
- R515 8.2k
- R516 1.2k
- R517 220

- R518 15k
- R519 7k
- R520 10k
- R521 10k
- R522 10k
- R523 56k
- R524 5.2k
- R525 8.2k
- R526 1.2k
- R527 220

- R528 2.2k (5%)
 - R529 100 (5%)
 - R530 10 (5%)
 - R531 4.7k
 - R532 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R533 15k
- R534 7k
- R535 10k
- R536 10k
- R537 56k
- R538 5.2k
- R539 8.2k
- R540 1.2k
- R541 220

- R542 15k
- R543 7k
- R544 10k
- R545 10k
- R546 10k
- R547 56k
- R548 5.2k
- R549 8.2k
- R550 1.2k
- R551 220

- R552 2.2k (5%)
 - R553 100 (5%)
 - R554 10 (5%)
 - R555 4.7k
 - R556 270
- All resistors 10%,
† wait unless other-
wise indicated.

- R557 15k
- R558 7k
- R559 10k
- R560 10k
- R561 56k
- R562 5.2k
- R563 8.2k
- R564 1.2k
- R565 220