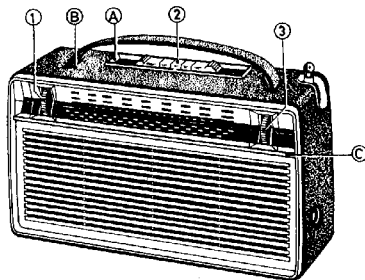


PHILIPS Service

RADIO

L3W22T/00E/00F/00L
/88E/88F/88L
/97E/97F/97L



R.207 60



CONTROLS

Volume control +
Wave range switch
Tuning

1
2
3

BEDIENING

Volumeregelaar +
Golfgeliedschakelaar
Afstemming

BEDIENUNG

Lautstärkeregl. +
Wellenbereichschalter
Abstimmung

COMMANDE

Contrôle de volume +
Comm. des gammes
Syntonisation

MANDOS

Control de volumen +
Comm. de márgenes
Syntonia

SPECIFICATION

Loudspeaker AD 2401 Y (3 Ω)
IP-AM 452 kc/s
IP-FM 10,7 Mc/s
Battery 6 V
Consumption AM 22-28 mA
Consumption FM 26-32 mA
Output 480 mW
Dimensions 260x150x65 mm

SPECIFICATIE

Luidspreker
MF-AM
MF-FM
Batterij
Verbruik AM
Verbruik FM
Uitg.vermogen
Afmetingen

SPEZIFIKATION

Lautsprecher
ZF-AM
ZF-FM
Batterie
Verbrauch AM
Verbrauch FM
Ausgangsleistung
Abmessungen

SPECIFICATION

Haut-parleur AD 2401 Y (3 Ω)
FI-AM 452 kc/s
FI-FM 10,7 Mc/s
Batterie 6 V
Consommation AM 22-28 mA
Consommation FM 26-32 mA
Puissance 480 mW
Dimensions 260x150x65 mm

ESPECIFICACION

Altavoz
FI-AM
FI-FM
Batería
Consumo AM
Consumo FM
Potencia de salida
Dimensiones

WAVE RANGES - GOLFGEBIEDEN - WELLENBEREICHE - GAMMES D'ONDES - MARGENES DE ONDAS

L.W. - L.G. - LW - G.O. - O.L. : 1050 - 2000 m (285 - 150 kc/s)
M.W. - M.G. - MW - P.O. - O.M. : 195 - 589 m (1620 - 510 kc/s)
F.M. - F.M. - UKW - F.M. - F.M. : 2,88 - 3,43 m (104 - 87,5 Mc/s)

TRANSISTORS :

TS1 - AF114
TS2 - AF115
TS3 - AF116
TS4 - AF116

TS5 - AF116
TS6 - OC75
TS7 - OC75
TS8,9 - 2-OC74

GR1 - OA79
GR2 - CA90
GR4 - OA79
GR5,6 - 2-OA79
GR7 - OA79

PHILIPS APPARATURES? - PHILIPS STANDARD PARTS!

PHILIPS APPARAAT? - PHILIPS STANDAARDONDERDELEN!

PHILIPS APPARAT? - PHILIPS STANDARDTEILE!

APPAREIL PHILIPS? - PIÉCES DÉTACHÉES PHILIPS!

¿APARATOS PHILIPS? - ¡REPUESTOS PHILIPS!

SERVICE INFORMATION																			
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Vzi/CB

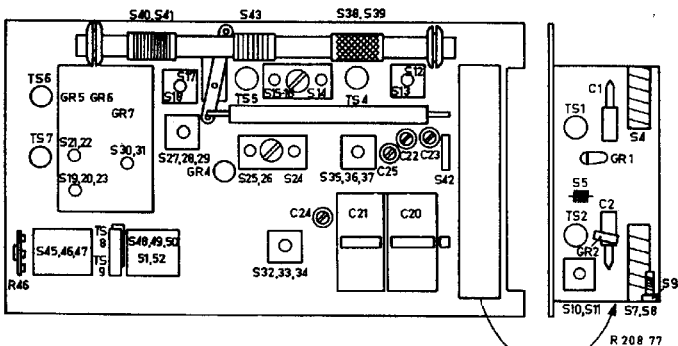
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L3W22T

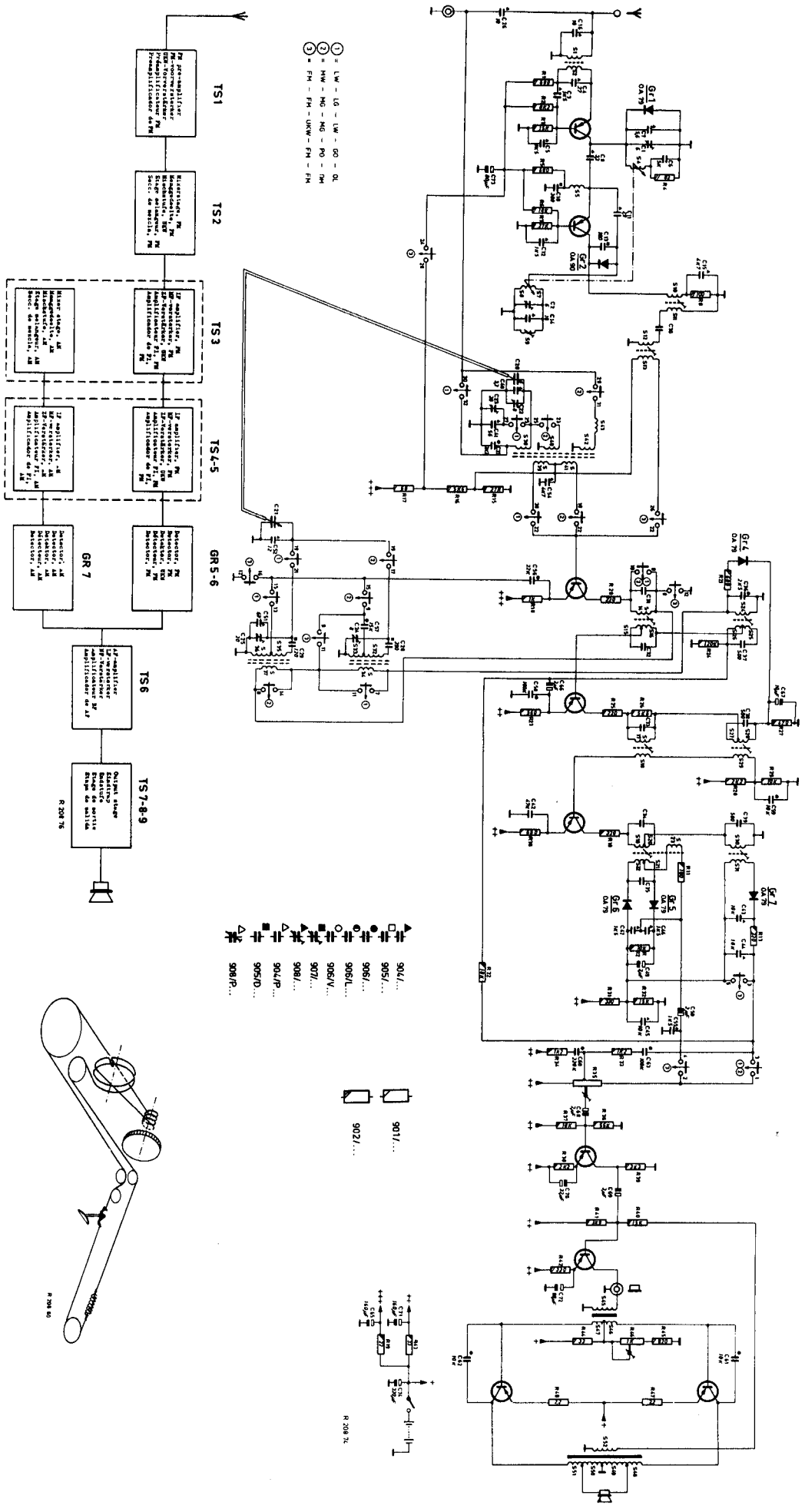
Serv-o-mecum	Wave range switch	Varco	Signal	Adjust	Indication	
E-a-1	Golfgebiedschak.	Varco	Signaal	Afregelen	Aanwijzing	
E-a-2	Wellenbereichsch.	Drehko	Signal	Abgleichen	Anzeige	
E-a-3	Comm. des gammes	Cond. var.	Signal	Régler	Indication	
	Comm. de margenes	Cond. var.	Señal	Ajustense	Indicación	
I.F. circuits M.F.-kringen ZF-Kreise (A.M.) Circuits F.I. Circuitos de F.I.	2	Min.	452 kc/s via 1500 pF b - TS3	S30 S27-S28 S24 S25-S26	Max. output Max. uitgangsspanning Max. Ausgangsspannung Max. de sortie Max. de salida	
R.F. circuits H.F.-kringen HF-Kreise (A.M.) Circuits H.F. Circuitos de R.F.	2	Min. Max.	1630 kc/s 508 kc/s	C24 S32-S33		
	Repeat - Herhalen - Wiederholen - Répéter - Repitanse					
	2	1450 kc/s 550 kc/s	1450 kc/s 550 kc/s	C22 S40		
	Repeat - Herhalen - Wiederholen - Répéter - Repitanse					
	1	Min. Max.	287 kc/s 147 kc/s	C25 S35-S36		
	Repeat - Herhalen - Wiederholen - Répéter - Repitanse					
1	265 kc/s 165 kc/s	265 kc/s 165 kc/s	C23 S38			
Repeat - Herhalen - Wiederholen - Répéter - Repitanse						
I.F. circuits H.F.-kringen ZF-Kreise (F.M.) Circuits F.I. Circuitos de F.I.	3	Max.	10,7 Mc/s via 1500 pF b - TS3	S19-S20 S21-S22 S17-S18-S19 S14-S15-S16		Max. D.V. 0 V. D.V. Max. D.V.
R.F. circuits H.F.-kringen HF-Kreise (F.M.) Circuits H.F. Circuitos de R.F.	3	Max. Min.	10,7 Mc/s via 1500 pF b - TS2	S10-S12-S14	Max. D.V.	
			87,2 Mc/s 104,5 Mc/s 92 Mc/s	C2 S9 C1	Max. D.V.	



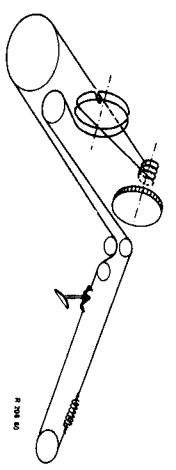
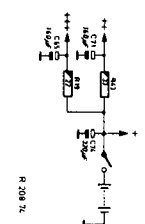
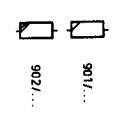
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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- TS1 AF115
- TS2 AF115
- TS3 AF115
- TS4 AF115
- TS5 AF115
- TS6 OCT6
- TS7 OCT6
- TS8 OCT6
- TS9 OCT6

- ① = LW - LG - LW - GO - OL
- ② = NW - NG - NG - NO - NH
- ③ = FH - FM - UFW - FH - FH

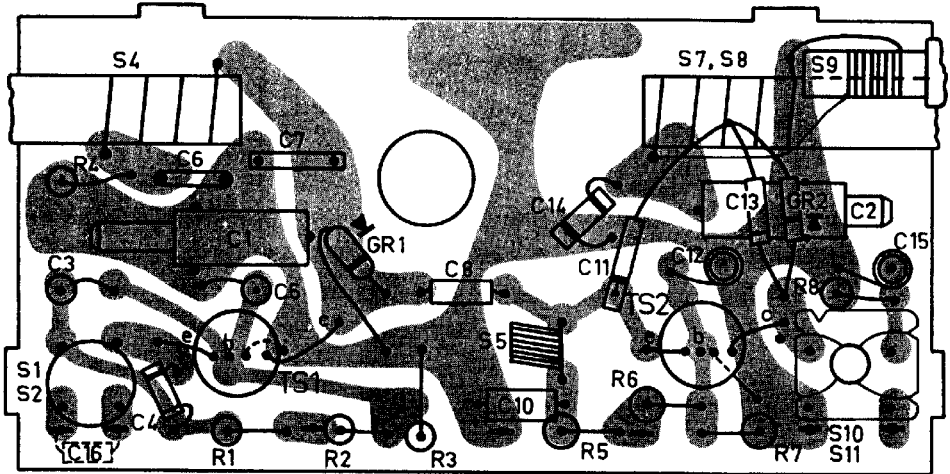


- ▲ 904/...
- 905/...
- 906/...
- 9065/...
- △ 906/...
- ◇ 907/...
- ▽ 908/...
- ◇ 904/P...
- ◇ 905/D...
- ◇ 908/P...



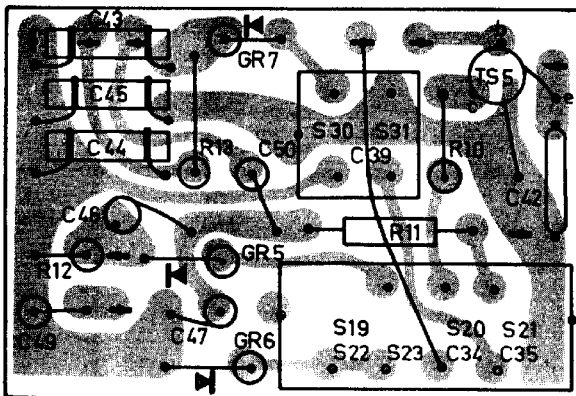
Cabinet, red (L version)	JS 511 30	Genkuse, rot (L Ausführung)	JS 511 30	Caja, rojo (ejecución L)	JS 511 30
Cabinet, yellow (P version)	JS 511 31	Genkuse, gelb (P Ausführung)	JS 511 31	Caja, amarillo (ejecución P)	JS 511 31
Cabinet, green (B version)	JS 511 32	Genkuse, grün (B Ausführung)	JS 511 32	Caja, verde (ejecución B)	JS 511 32
Ornamental Profile (A)	JR 670 72	Zierrahmen (A)	JR 670 72	Cuadro ornamental (A)	JR 670 72
Ornamental Profile (B)	JR 670 74	Zierrahmen (B)	JR 670 74	Cuadro ornamental (B)	JR 670 74
Grip (L version)	JR 674 76	Handgriff (L Ausführung)	JR 674 76	Asa (ejecución L)	JR 674 76
Grip (E version)	JR 674 79	Handgriff (E Ausführung)	JR 674 79	Asa (ejecución E)	JR 674 79
Grip (F version)	JR 674 80	Handgriff (F Ausführung)	JR 674 80	Asa (ejecución F)	JR 674 80
Ornamental strip (C)	JR 665 28	Zierstreifen (C)	JR 665 28	Banda ornamental (C)	JR 665 28
Telescope aerial	JR 327 85	Teleskopantenne	JR 327 85	Antena telescópica	JR 327 85
Socket earphone	A3 966 21	Kopfhörerbuchse	A3 966 21	Hembrilla auricular	A3 966 21
Socket aerial	JR 303 71	Antennenbuchse	JR 303 71	Hembrilla antena	JR 303 71
Battery cover	JR 348 12	Batteriedeckel	JR 348 12	Cubierta de pila	JR 348 12
Screw, fix. rear cover	JR 578 85	Schraube, Bef. Deckel	JR 578 85	Tornillo fij. cubierta	JR 578 85
Knob (1)	VT 000 86	Knopf (1)	VT 000 86	Botón (1)	VT 000 86
Slide button (2)	JR 399 63	Schiebetaste (2)	JR 399 63	Botón deslizante (2)	JR 399 63
Strip under slide button	VT 000 88	Streifen unter Schiebeknopf	VT 000 88	Fleatina bajo botón deslizante	VT 000 88
Knob (3)	VT 000 85	Knopf (3)	VT 000 85	Botón (3)	VT 000 85
Drum in driving	VT 000 90	Trommel in Antrieb	VT 000 90	Tambor en el dispositivo de arrastre	VT 000 90
Pointer	VT 000 77	Zeiger	VT 000 77	aguja	VT 000 77
Spring, fix. pointer	JR 652 90	Feder, Bef. Zeiger	JR 652 90	Resorte fij. aguja	JR 652 90
Knob (battery switch)	JR 399 91	Knopf (Batterieschalter)	JR 399 91	Botón (interruptor)	JR 399 91
Battery switch	F 073 AA/01	Batterieschalter	F 073 AA/01	Interruptor de pila	F 073 AA/01
Spring (battery switch)	JR 560 02	Feder (Batterieschalter)	JR 560 02	Resorte (interruptor)	JR 560 02
Battery spring (+)	JR 652 87	Batteriefeder (+)	JR 652 87	Resorte en porta pila (+)	JR 652 87
Battery spring (-)	JR 644 24	Batteriefeder (-)	JR 644 24	Resorte en porta pila (-)	JR 644 24
Contact plate (-)	WE 688 25	Kontaktplatte (-)	WE 688 25	Placa de contacto (-)	WE 688 25
Contact plate (centre)	JR 313 19	Kontaktplatte (Mitte)	JR 313 19	Placa de contacto (central)	JR 313 19
Wave range switch	JR 399 88	Wellenbereichschalter	JR 399 88	Commutador de márgenes	JR 399 88
Cog wheel (14 mm)	VT 000 97	Zahnrad (14 mm)	VT 000 97	Rueda dentada (14 mm)	VT 000 97
Cog wheel (37 mm)	VT 000 95	Zahnrad (37 mm)	VT 000 95	Rueda dentada (37 mm)	VT 000 95
Cog wheel (3 x 18 mm)	VT 000 94	Zahnrad (3 x 18 mm)	VT 000 94	Rueda dentada (3 x 18 mm)	VT 000 94
Cog wheel (1,5 x 18 mm)	VT 000 84	Zahnrad (1,5 x 18 mm)	VT 000 84	Rueda dentada (1,5 x 18 mm)	VT 000 84
Dial	JR 220 85	Skala	JR 220 85	Cuadrante	JR 220 85

S	1. 2.	4.				5.		7.	8.	9.	10.	11.
C	3. 16.	4.	6.	1.	5. 7.	8.	10. 14.	11.	12. 13.		2.	15.
R	4.		1.		2.	3.		5. 6.		7.	8.	



R 208 78

S	30. 19. 22. 31. 23. 20.	21.
C	49. 43. 44. 45. 46. 47.	50. 39. 34. 35. 42.
R	12.	13. 11. 10.



R 208 79

PHILIPS

Model L3W22T/15

General Description: Nine-transistor (plus six diodes), three-waveband, A.M./F.M. portable receiver with telescopic aerial and car aerial and earphone sockets. Also known as **Model 322T/15**.

Power Supply: 6-volt battery (four 1.5-volt cells, type U2 or equivalent). No-signal consumption, A.M. 19 mA., F.M. 23 mA.

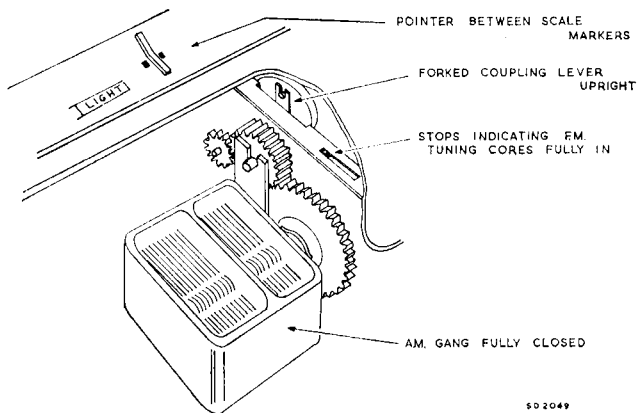
Wavebands: M.W. 185-589 m.; L.W. 1050-2000 m.; V.H.F. 87.5-104 Mc/s.

Transistors: (T₁) AF144; (T₂) AF115; (T₃₋₅) AF116; (T_{6, 7}) OC75; (T_{8, 9}) OC74. **Diodes:** (X_{1, 4, 5, 6, 7}) OA79; (X₂) OA90.

Circuit Notes: X₁ damps high level V.H.F. signals developed in the collector tuned circuit of T₁. X₂ is V.H.F. mixer. X₄ is an I.F. overload diode (auxiliary A.G.C.). Output stage current is adjusted under no-signal conditions by R₄₆ to 11 mA. ± 0.3 mA. (disconnect output transformer centre tap, junction L_{49/50/52}, and insert milliammeter between this point and battery negative).

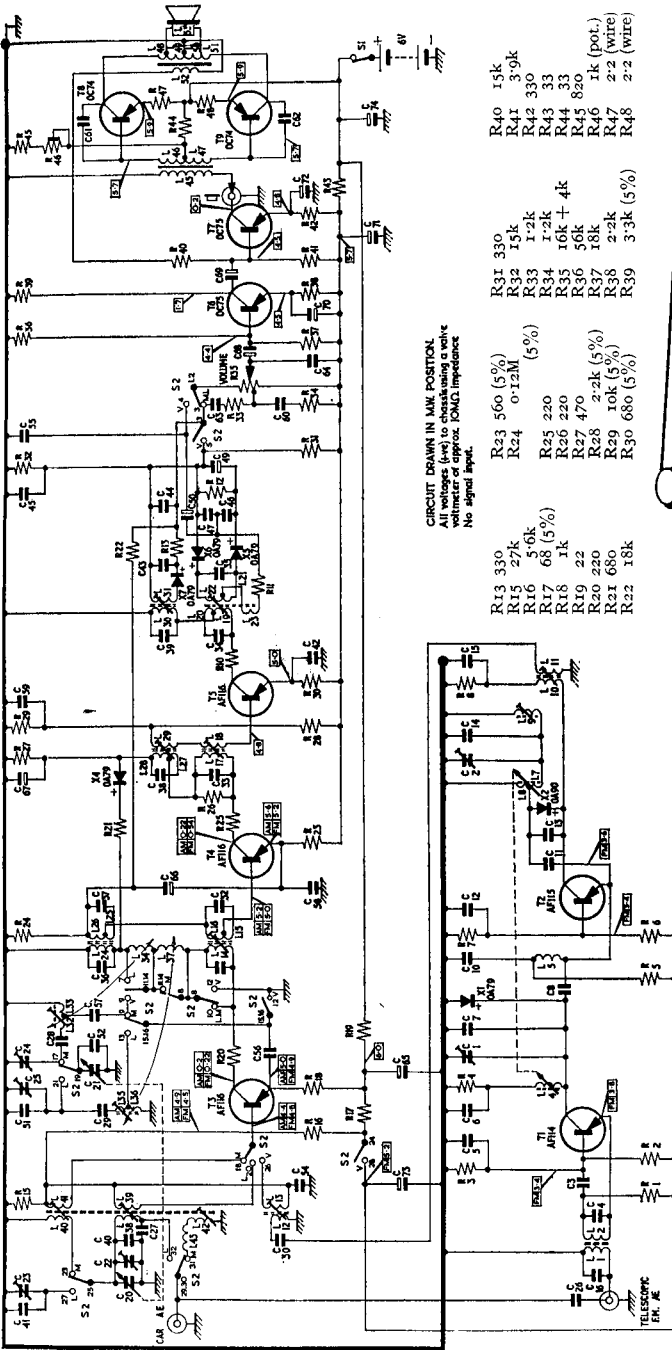
Notes: I.F. 10.7 Mc/s. (F.M.). 470 kc/s. (A.M.). Earphone accessory, type AF9120/10.

Dismantling: *Rear moulding.* Place set face down on soft surface and release two rear captive screws. *Speaker grille.* Invert set and by rotating two latch-screws through 90° detach battery compartment cover exposing three recessed Phillips-head screws retaining grille. Slacken screws sufficiently to allow bottom edge of grille to be raised before removing. *Front moulding.* Remove speaker grille. Four c/s screws secure front moulding to body section, two beneath battery compartment cover, and one in each side bracket. Ensure that pointer is adjusted to right-hand tuning-scale markers (forked coupling lever points 90° from printed panel) before attempting to detach front moulding. Failure to do so can result in damage to drive.



Drive Cord:

When refitting drive-cord note respective positions of tension spring, drive wheel pin and pointer. Pointer must be positioned to lie exactly between the two right-hand scale markers with drum pin nearest front moulding.



CIRCUIT DRAWN IN MAX. POSITOKL
 All voltages (line) to check using a waltz
 tone. (100% impedance)
 No signal input.

- R13 330
- R15 27k
- R16 5.6k
- R17 68 (5%)
- R18 1k
- R19 22
- R20 220
- R21 680
- R22 18k
- R23 560 (5%)
- R24 0.12M
- R25 220
- R26 220
- R27 470
- R28 2.2k (5%)
- R29 10k (5%)
- R30 680 (5%)
- R31 330
- R32 15k
- R33 1.2k
- R34 1.2k
- R35 16k + 4k
- R36 56k
- R37 18k
- R38 2.2k
- R39 3.3k (5%)
- R40 15k
- R41 3.9k
- R42 330
- R43 33
- R44 33
- R45 820
- R46 1k (pot.)
- R47 2.2 (wire)
- R48 2.2 (wire)

CIRCUIT DIAGRAM—PHILIPS MODEL L3W22T/15

- | | | | | |
|--------------------|------------|-----------|-----|-----|
| Capacitors. | C26 | 2.000 pF. | C71 | 160 |
| C27 | 1.200 pF. | C72 | 80 | |
| C28 | 300 pF. | C73 | 80 | |
| C29 | 1.200 pF. | C74 | 320 | |
| C30 | 1.8 pF. | | | |
| C31 | 1.500 pF. | | | |
| C32 | 5.000 pF. | | | |
| C33 | 5.000 pF. | | | |
| C34 | 2.500 pF. | | | |
| C35 | 3.3 pF. | | | |
| C36 | 3.3 pF. | | | |
| C37 | 500 pF. | | | |
| C38 | 500 pF. | | | |
| C39 | 3.3 pF. | | | |
| C40 | 3.3 pF. | | | |
| C41 | 56 pF. | | | |
| C42 | 47,000 pF. | | | |
| C43 | 20,000 pF. | | | |
| C44 | 10,000 pF. | | | |
| C45 | 10,000 pF. | | | |
| C46 | 8 pF. | | | |
| C47 | 4,700 pF. | | | |
| C48 | 2.0 pF. | | | |
| C49 | 2.0 pF. | | | |
| C50 | 2 | | | |
| C51 | 5.6 pF. | | | |
| C52 | 12 pF. | | | |
| C53 | 4,700 pF. | | | |
| C54 | 1,500 pF. | | | |
| C55 | 1,500 pF. | | | |
| C56 | 22,000 pF. | | | |
| C57 | 15,000 pF. | | | |
| C58 | 0.1 | | | |
| C59 | 10,000 pF. | | | |
| C60 | 0.22 | | | |
| C61 | 10,000 pF. | | | |
| C62 | 10,000 pF. | | | |
| C63 | 0.1 | | | |
| C64 | 47,000 pF. | | | |
| C65 | 160 | | | |
| C66 | 2 | | | |
| C67 | 10 | | | |
| C68 | 2 | | | |
| C69 | 2 | | | |
| C70 | 32 | | | |
| C71 | 160 | | | |
| C72 | 80 | | | |
| C73 | 80 | | | |
| C74 | 320 | | | |
- Resistors.
- | | |
|-----|------|
| R1 | 680 |
| R2 | 8.2k |
| R3 | 15k |
| R4 | 82 |
| R5 | 680 |
| R6 | 27k |
| R7 | 18k |
| R8 | 100 |
| R9 | 100 |
| R10 | 330 |
| R11 | 180 |
| R12 | 10k |

