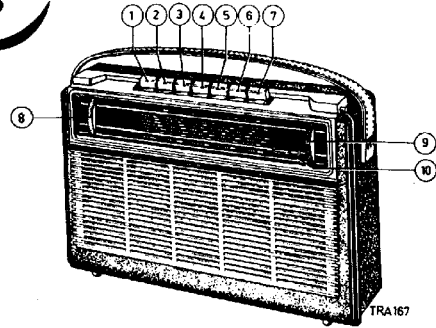


PHILIPS Service

RADIO

L4X20T



| Controls | Bediening | Bedienung | Commandes | Mandos |
|-------------------|-----------|--------------------|-----------------------|--------------------------|
| Dial illumination | 1 | Schaalverlichting | Éclairage de cadran | 1 Alumbrado de escala |
| Tone control | 2 | Toonregeling | Contrôle de tonalité | 2 Control de tono |
| L.W.-switch | 3 | L.G.-schakelaar | Commutateur G.O. | 3 Comutador de O.L. |
| M.W.-switch | 4 | M.G.-schakelaar | Commutateur F.O. | 4 Comutador de O.M. |
| SW2-switch | 5 | KG2-schakelaar | Commutateur OC2 | 5 Comutador de OC2 |
| SW1-switch | 6 | KG1-schakelaar | Commutateur OC1 | 6 Comutador de OC1 |
| Battery switch | 7 | Batterijschakelaar | Interrupteur de batt. | 7 Interruptor de batería |
| Volume control | 8 | Volume regelaar | Contrôle de volume | 8 Control de volumen |
| Tuning | 9 | Afstemming | Sintonisation | 9 Sintonía |
| Indicator | 10 | Indicator | Indicateur | 10 Indicador |

| Specification | Specificatie | Spezifikation | Specification | Especificación | | |
|---------------|-----------------------|------------------|------------------|----------------|-----------------------|--------------------|
| Loudspeaker | AD 3500 HWZ (25 Ω) | Luidspreker | Lautsprecher | Haut-parleur | AD 3500 HWZ (25 Ω) | Altavoz |
| I.P. | 452 kc/s | M.F. | ZF | F.I. | 452 kc/s | F.I. |
| Battery | 9 V (6x1,5 V) | Batterij | Batterie | Batterie | 9 V (6x1,5 V) | Batería |
| Consumption | 80 mA (0,1 W max) | Verbruik | Verbrauch | Consummation | 80 mA (0,1 W max) | Consumo |
| Output | 1 W | Uitgangsvermogen | Ausgangsleistung | Puissance | 1 W | Potencia de salida |
| Dimensions | 311x212x101 mm | Afmetingen | Abmessungen | Dimensions | 311x212x101 mm | Dimensiones |

Wave ranges - Golfgebieden - Wellenbereiche - Gammes d'ondes - Märgenes de ondas :

| | | | |
|------------------|----------|----------------|-------------------|
| L.W. - L.G. - LW | - G.O. : | 750 - 2000 m | { 400 - 150 kc/s |
| M.W. - M.G. - MW | - F.O. : | 185 - 580 m | { 1622 - 517 kc/s |
| SW2 - KG2 - KW2 | - OC2 : | 39,4 - 85,3 m | { 7,6 - 3,6 Mc/s |
| SW1 - KG1 - KW1 | - OC1 : | 19,36 - 39,4 m | { 15,5 - 7,6 Mc/s |

| | | | |
|---------------|-------------|----------------|----------------|
| Transistors : | TS1 - OC170 | TS5 - OC75 | M1 - AE 504 26 |
| | TS2 - AP117 | TS6,7 - 2-OC74 | L1 - 7999D/71 |
| | TS3 - OC45 | GR1 - CA79 | |
| | TS4 - OC75 | GR2 - OA79 | |

TAKE PHILIPS SERVICE PARTS - THEN YOU ARE SAFE

NEMM VOOR ALLE REPARATIES STEEDS PHILIPS SERVICE ONDERDELEN

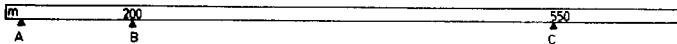
NIMM DOCH PHILIPS SERVICE TEILE, DANN GEHT MAN SICHER

UTILISEZ LES PIÈCES DÉTACHÉES PHILIPS; C'EST PLUS SÛR

PARA MAYOR SEGURIDAD, USENSE LAS PIEZAS DE RECAMBIO PHILIPS

| | | | | | | | | | |
|---------------------|--|--|--|--|--|--|--|--|--|
| SERVICE INFORMATION | | | | | | | | | |
|---------------------|--|--|--|--|--|--|--|--|--|

| Serv-o-mecum E-a-1 | Push button Druktoets Taste Touche poussoire Pulsador | Trimming point Afregelpunt Abgleichpunkt Point de réglage Punto de ajuste | Signal Signaal Signal Signal Senal | Adjust to max. output Afregelen op max. Uitgangssp. Abgleichen auf max. Ausgangssp. Régler au max. de sortie Ajustense al max. de salida |
|--|---|---|--|--|
| I.F. circuits M.F.-kringen ZF-Kreise Circuits F.I. Circuitos de F.I. | 4 | A | 452 kc/s via 32000 pF - bTS3 452 kc/s via 32000 pF - bTS2 452 kc/s via 0,1 MΩ - cTS1 | S27-28-29, S30-31 S22-23-24, S25-26 S19, S20-21, C22 |
| R.F. circuits H.F.-kringen HF-Kreise Circuits H.F. Circuitos de R.F. | 3 4 5 6 3 4 5 6 | C C C C B B B B | 157 kc/s 550 kc/s 3,68 Mc/s 7,8 Mc/s 380 kc/s 1500 kc/s 7,3 Mc/s 14,87 Mc/s | S16-17-18, S7 S13-14-15, S5 S10-11-12, S3 S1 C16, C10 C20, C8 C13, C7 C14, C6 |
| Repeat - Herhalen - Wiederholen - Répéter - Repitarse | | | | |



Adjust the total collector current of the output-transistors with R42 to 8 mA.

Totale collectorstroom van de eindtransistoren met R42 instellen op 8 mA.

Gesamtkollektorstrom der Endtransistoren mit R42 auf 8 mA einstellen.

Ajuster le courant total du collecteur des transistors de sortie avec R42 à 8 mA.

Ajustese la corriente total de colector de los transistores de salida con R42 a 8 mA.

Adjust the indicator to full deflection by means of R50.

De indicator met R50 instellen op volle uitslag.

Der Indikator mit R50 auf Vollausschlag einstellen.

Ajuster l'indicateur avec R50 à déviation complète.

Ajustese el indicador a deflexión completa de la escala con R50.

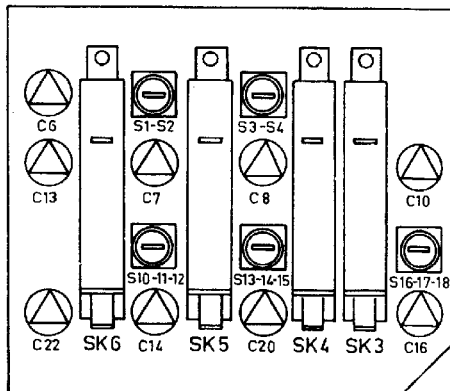


Fig I

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| S | 6 | | F | | H | | 36 | | 35 | | 33 34 35 | | | | | | | | | | | | | | | |
| C | 80 | 26 | 29 | 28 | 27 | 31 | 34 | 30 | 52 | 54 | 44 | 37 | 48 | 42 | 39 | 49 | 41 | | | | | | | | | |
| R | 45 | 8 | 10 | 9 | 13 | 12 | 6 | 50 | 11 | 14 | 44 | 36 | 31 | 37 | 32 | 34 | 43 | 39 | 27 | 40 | 42 | 41 | 23 | 26 | 28 | 25 |

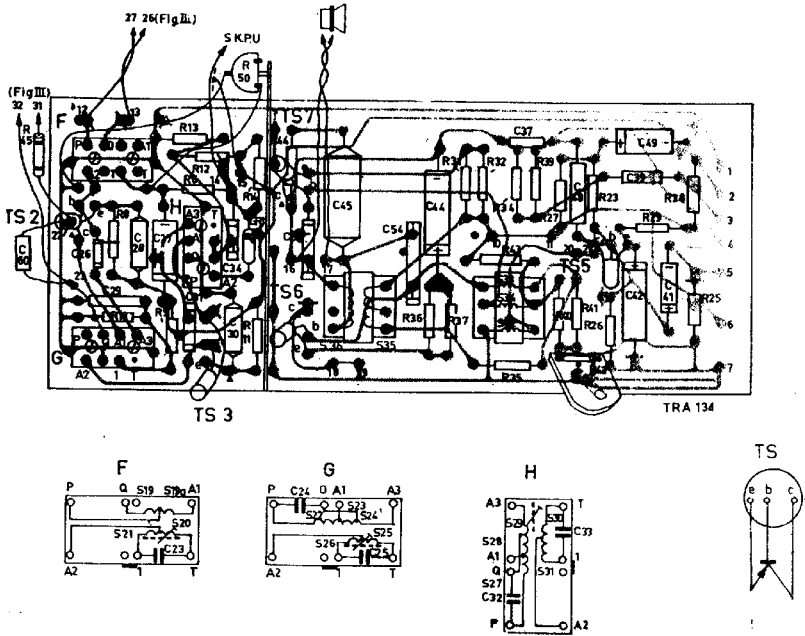
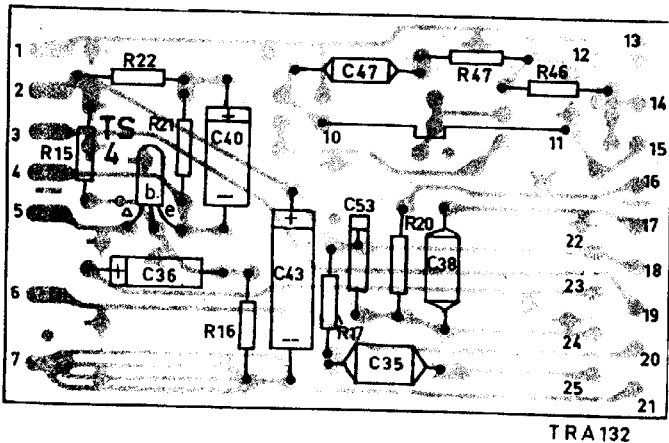


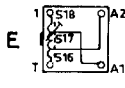
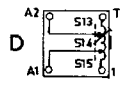
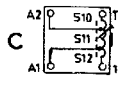
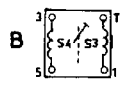
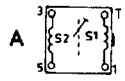
Fig II

| | | | | | | | | |
|---|----|----|----|----|----|----|----|----|
| S | | | | | | | | |
| C | 36 | 40 | 43 | 47 | 53 | 35 | 38 | |
| R | 15 | 22 | 21 | 16 | 17 | 20 | 47 | 46 |

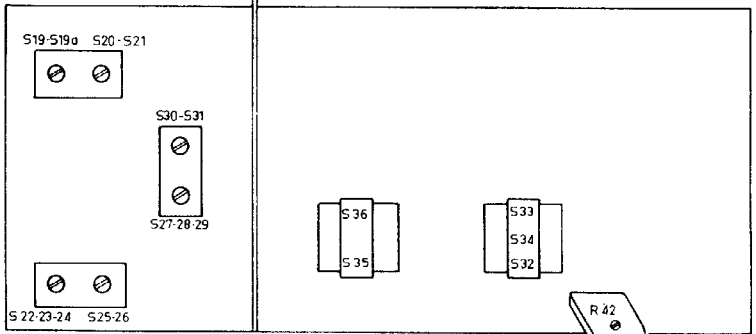
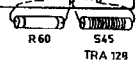
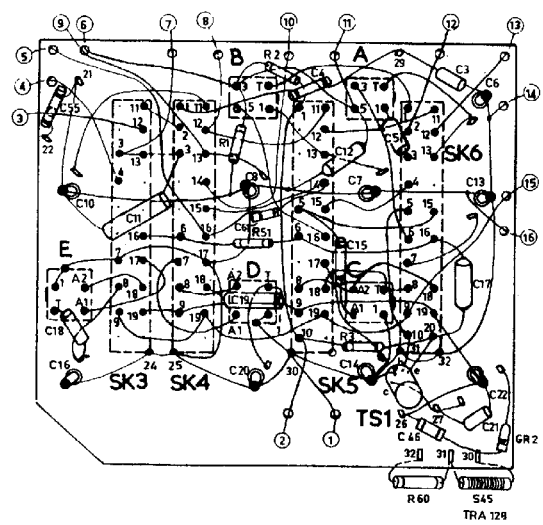


TRA 132

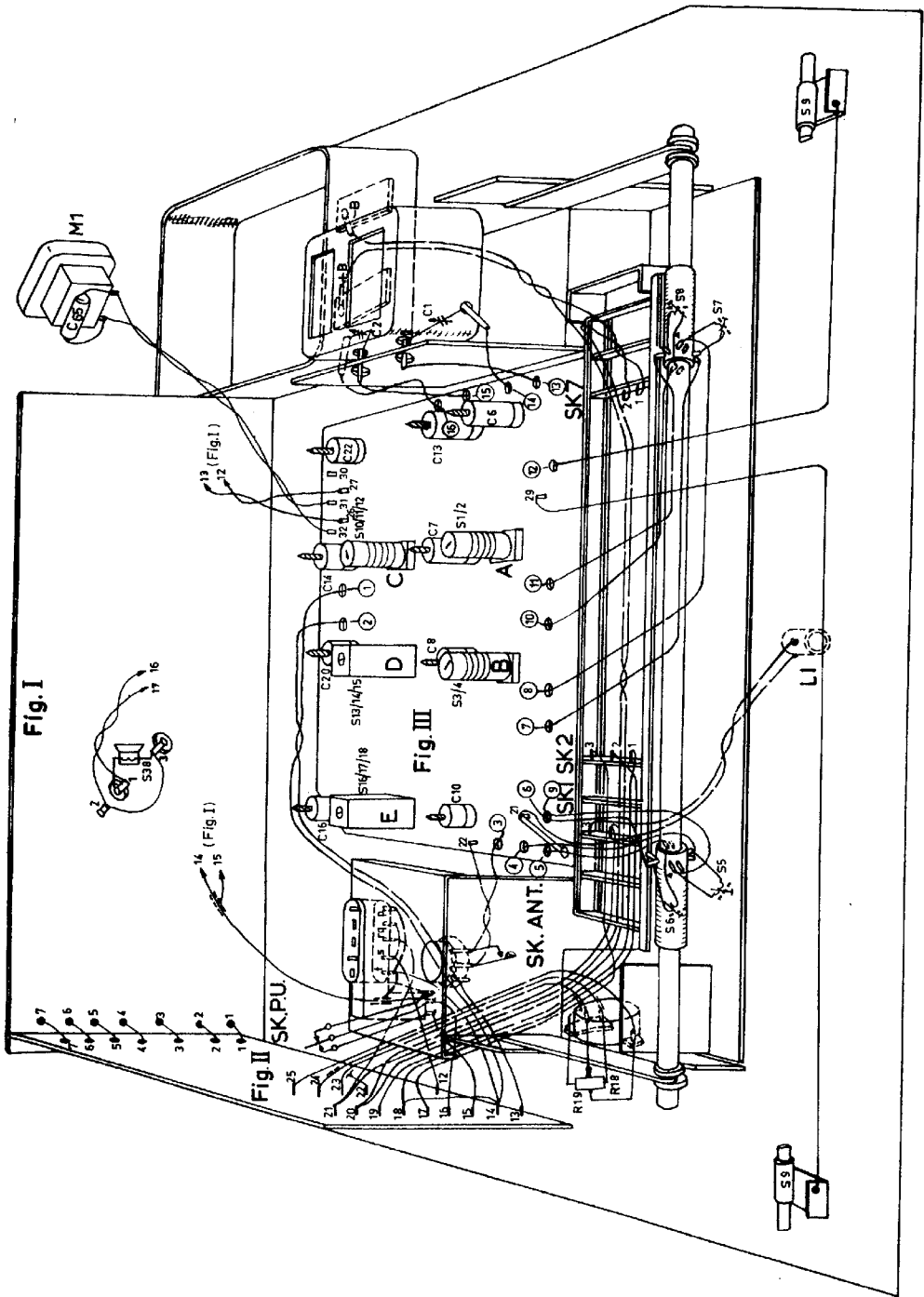
| | | | |
|---|-----------------|-------------------|--------------------------------------|
| S | E. | B. D. | A. C. |
| C | 55, 10, 16, 11. | 8, 19, 20, 61, 4. | 1215, 7, 145, 3, 17, 46, 6, 22, 213. |
| R | | 1, 51, 2. | 3. |



TS1



TRA 179

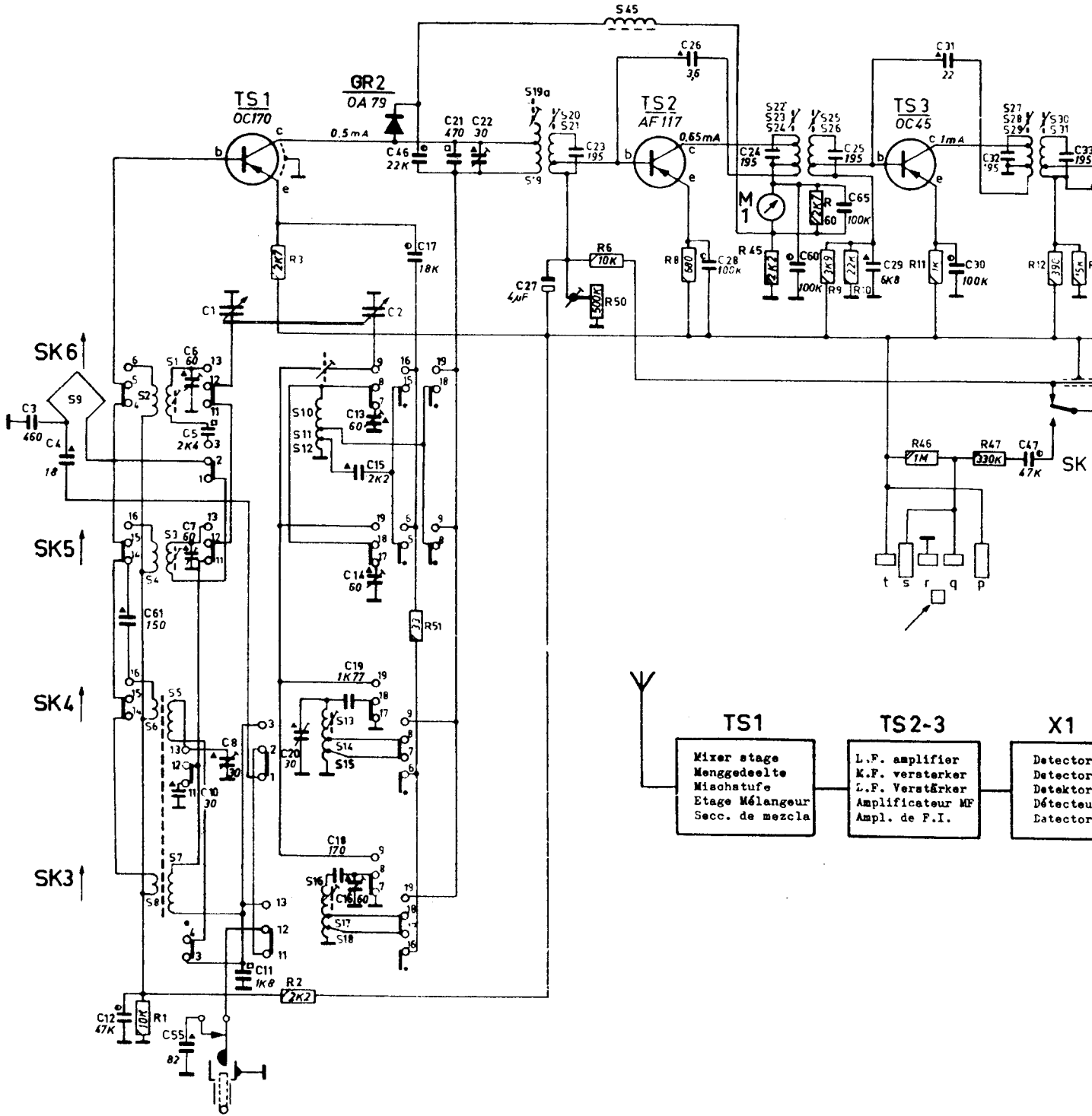


| | | | | | | | |
|-----------------------|------------------|-------------------------|-------------------------|------------------------------|------------------|-------------------------------|------------------|
| Cabinet | A3 328 65 | Kest | Gehäuse | Coffret | A3 328 65 | Caja | A3 328 65 |
| Front | A3 328 66 | Front | Front | Front | A3 328 66 | Prente | A3 328 66 |
| Grill in rear cover | P5 350 70/159/GR | Rooster in achterwand | Grill in Rückwand | Grille dans panneau arrière | P5 350 70/159/GR | Rejilla en panel posterior | P5 350 70/159/GR |
| Frame in rear cover | A3 328 62 | Raan in achterwand | Rahmen in Rückwand | Fenêtre dans panneau arrière | A3 328 62 | Ventana en panel posterior | A3 328 62 |
| Foot | P5 192 13/409/HA | Voetje | Fuss | Pied | P5 192 13/409/HA | Pie | P5 192 13/409/HA |
| Grip | A3 328 86 | Handgriep | Handgriff | Poignée | A3 328 86 | Asa | A3 328 86 |
| Screw fix. grip | A3 310 61 | Schroef bev. handgriep | Schraube Bef. Handgriff | Vis fix. poignée | A3 310 61 | Tornillo fij. asa | A3 310 61 |
| Lock | A3 328 22 | Ramsantenne (CNC000) | Rahmensantenne | Antenne-cadre | A3 328 22 | Antena de cuadro | A3 328 22 |
| Knob (8-9) | A3 328 22 | Knop (8-9) | Botón (8-9) | Boton (8-9) | A3 328 22 | Botón (8-9) | A3 328 22 |
| Screw fix. rear cover | A3 175 39 | Schroef bev. achterwand | Schraube Bef. Rückwand | Vis fix. panneau arrière | A3 175 39 | Tornillo fij. panel posterior | A3 175 39 |
| Push button | P5 420 22/159/PY | Druktoets | Drucktaaste | Touche poussoire | P5 420 22/159/PY | Tecla | P5 420 22/159/PY |
| Push button unit | A3 296 46 | Drucktaastenheid | Drucktaastenhehid | Unité de touches poussoirs | A3 296 46 | Unidad de teclas | A3 296 46 |
| Battery holder | (A3 788 16 + | Batterijhouder | Batteriehalter | Porte-pile | (A3 788 16 + | Bortapila | (A3 788 16 + |
| Socket aerial | A3 965 25 | Antenne aansluitbus | Antennensuchse | Douille pour antenne | A3 965 25 | Hembrilla de antena | A3 965 25 |
| Socket P.U. | A3 788 91 | P.U.-aansluiting | Steckerbuchse TA | Douille pour P.U. | A3 788 91 | Hembrilla de fonocaptor | A3 788 91 |
| Switch SW1 | A3 791 89 | Schakelaar KG1 | Schalter KW1 | Commutateur OC1 | A3 791 89 | Conmutador OC1 | A3 791 89 |
| Switch SW2 | A3 791 90 | Schakelaar KG2 | Schalter KW2 | Commutateur OC2 | A3 791 90 | Conmutador OC2 | A3 791 90 |
| Switch M.W. | A3 298 30 | Schakelaar M.O. | Schalter MW | Commutateur P.O. | A3 298 30 | Conmutador O.M. | A3 298 30 |
| Switch L.W. | A3 298 40 | Schakelaar L.O. | Schalter LW | Commutateur C.O. | A3 298 50 | Conmutador O.L. | A3 298 50 |
| Dial N-B, ZWI | A3 941 72 | Schaak N-B, ZWI | Schalt N-B, ZWI | Carren N-B, ZWI | A3 941 72 | Escala N-B, ZWI | A3 941 72 |
| Dial Z.M.O. | A3 941 75 | Schaak Z.M.O. | Schalt Z.M.O. | Carren Z.M.O. | A3 941 75 | Escala Z.M.O. | A3 941 75 |

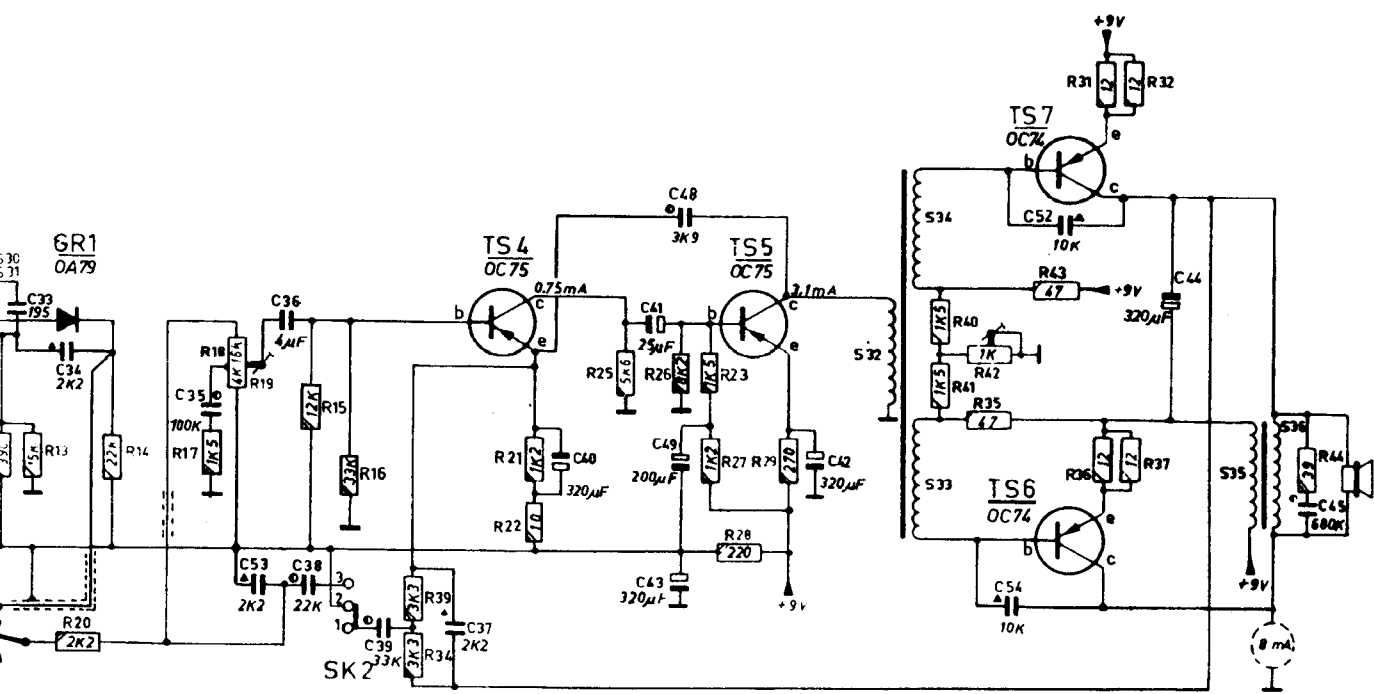
| | | | | | | | |
|-----|-----------------------------|-----|-------------------------|-----|-----------------------|-----|----------------|
| S1 | Aerial coil SW1 | S16 | Oscillator coil L.W. | S32 | Driver transformer | C3 | C 285 AB/D460B |
| S2 | Antennespoel KG1 | S17 | Oscillatortrospule L.O. | S33 | Legeatransformator | C3 | C 285 AB/D170E |
| S3 | A3 985 64 | S18 | Oscillatortrospule LW | S34 | Treiberttransformator | C17 | 90672 AB/D1717 |
| S4 | Bob. d'antenne OC1 | S19 | Bob. d'oscillateur G.O. | S35 | Transf. déphaseur | C26 | 909/24 |
| S5 | Aerial coil SW2 | S20 | I.F. band pass filter | S36 | Transf. de entrada | C40 | 909/0720 |
| S6 | Antennespoel KG2 | S21 | M.F.-bandfilter | S37 | Output transformer | C41 | 909/0225 |
| S7 | Bob. d'antenne OC2 | S22 | 2F-Bandfilter | S38 | Uitgaattransformator | C42 | 909/0520 |
| S8 | Bob. de antena OC2 | S23 | Transformatoer de F.I. | S39 | Ausgaattransformator | C43 | 909/0520 |
| S9 | Ferroreceptor M.W.+L.W. | S24 | I.F. band pass filter | S40 | Transf. de sortie | C44 | 909/0520 |
| S10 | Ferroreceptor M.C.+G. | S25 | M.F.-bandfilter | S41 | Transf. de salida | C49 | 909/4200 |
| S11 | Ferroreceptor M.W.+W. | S26 | 2F-Bandfilter | S42 | Indicator | C65 | C 280 AA/P100K |
| S12 | Ferroreceptor P.O.+G.O. | S27 | Transformatoer de F.I. | S43 | Indicator | R18 | 916/6L4K16K |
| S13 | Oscillator coil SW1+SW2 | S28 | I.F. band pass filter | S44 | Indicator | R19 | |
| S14 | Oscillatortrospule KG1+KG2 | S29 | M.F.-bandfilter | S45 | Indicator | R42 | E 097 AC/1K |
| S15 | Bob. d'oscillateur OC1+OC2 | S30 | 2F-Bandfilter | S46 | Indicator | R50 | E 097 AD/500K |
| S16 | Bob. de oscillateur OC1+OC2 | S31 | Transformatoer de F.I. | S47 | Variable capacitor | | |
| S17 | Oscillator coil M.W. | S32 | I.F. band pass filter | S48 | Variable capacitor | | |
| S18 | Oscillatortrospule M.O. | S33 | M.F.-bandfilter | S49 | Drehkondensator | | |
| S19 | Bob. d'oscillateur P.O. | S34 | 2F-Bandfilter | S50 | Kondensator variable | | |
| S20 | Bob. de oscillateur C.M. | S35 | Transformatoer de F.I. | S51 | Kondensator variable | | |
| S21 | Choke coil | S36 | I.F. band pass filter | S52 | Choke coil | | |
| S22 | Smorspoel | S37 | M.F.-bandfilter | S53 | Smorspoel | | |
| S23 | Drossel | S38 | 2F-Bandfilter | S54 | Drossel | | |
| S24 | Bobina de choke | S39 | Transformatoer de F.I. | S55 | Self | | |
| S25 | | S40 | Transformatoer de F.I. | S56 | Bobina de choke | | |

Vrij KB

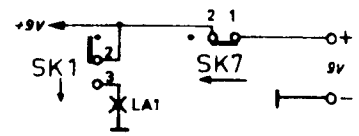
| | | | | | | | |
|---|-------|----------------------------------|--------|--|-----|-----------------------------|---------------------|
| S | 9. | 2.4.6.8. 1.3.5.7. | 10-18 | 19.19. 20. 21. | 45. | 22.23.24. 25. 26. | 27.28. 29. 30. 31. |
| C | 3. 4. | 12. 6.1.5.5. 11. 5.6.7. 8. 10.1. | 2. 18. | 20.16.13. 19. 17. 50.15.14. 46. 21.22. | 23. | 26. 28. 24. 60. 65. 25. 29. | 31. 30. 47. 32. |
| R | 1. | 3. 2. | 51. | 50. 6. | 8. | 45. 60. 9. 10. | 46. 11. 47. 12. 13. |



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|----|----------|-------------|-------|-------------|----------|-------|----------|-------------|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|--|--|-------|-----|
| 31. | | | | | | | | | | | | | | | | | | | | | | | | | 32 33 34 | | | 35 36 | 38. |
| 33 34 | 35 | 53 38 | 39 36 37 | 40 | 41 48 43 49 | 42 | 54 52 | | 44 | 45 | | | | | | | | | | | | | | | | | | | |
| 13 20 | 14 | 17 18 19 | 15 16 39 34 | 22 21 | 25 26 | 27 28 29 | 40 41 | 42 35 43 | 31 32 36 37 | 44 | | | | | | | | | | | | | | | | | | | |

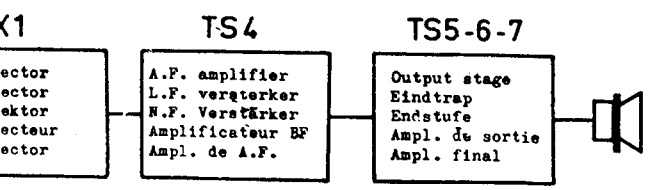


SK PU

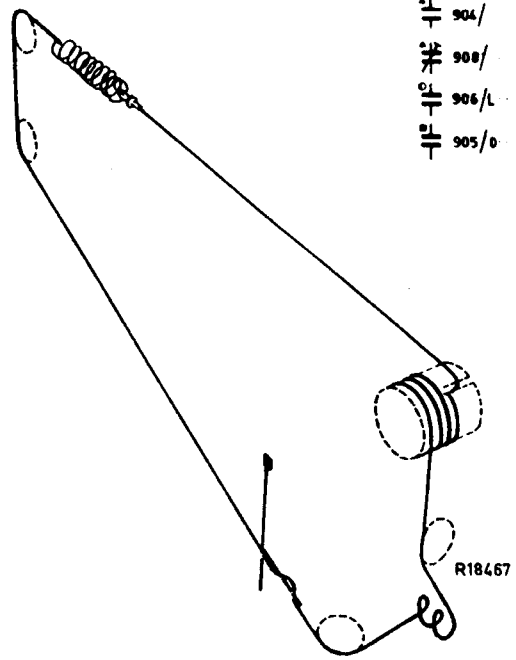


TRA 125

- 902/
- 904/
- 908/
- 906/L
- 905/0



R 19526



R18467