# Hi-Fi M.F.B. box 22RH541/80/85/89

Service
Service
Service

7088A

# Service Manual

GB

These versions are identical to the versions -/50/65/79 respectively. However, the difference is the mains-switch which has been added for the versions -/80/85/89.
The code number of the mains switch is 4822 276 10615.
The code number of the appertaining fixing block is 4822 404 60103; that of the relief bracket 4822 404 10141.
Bush, item 18 in service manual 22RH541/50/65 and -/79 has been left out in these new versions.
For the connection of the mains switch see the Figure.

F

Ces versions dérivées sont identiques aux version de base -/50/65/79. Le commutateur secteur est cependant ajouté dans les versions -/80/85/89.
Le code de ce commutateur est le 4822 276 10615. Le code du bloc de fixation appartenant au commutateur est le 4822 404 60103; le code de l'arrêt de câble est le 4822 404 10141.
Le manchon rep. 18 de la Documentation du 22RH541/50/65 et de la version /79 est éliminé dans ces nouvelles versions. Pour ce qui est de la connexion du commutateur secteur, voir la figure.

NL

Deze streepuitvoeringen zijn gelijk aan de uitvoeringen -/50/65/79. Voor de uitvoeringen -/80/85/89 is echter een netspanningsschakelaar toegevoegd (4822 276 10615) Het kodenummer van het bijbehorende bevestigingsblokje is 4822 404 60103. Het kodenummer van de trekontlastingsbeugel is 4822 404 10141.
De bus, positie 18 in dokumentatie 22RH541/50/65/79 is bij deze nieuwe uitvoeringen weggelaten. Voor de aansluiting van de netschakelaar, zie de tekening.

D

Diese Ausführungen und die Ausführungen -/50/65/79 sind identisch. In den Ausführungen -/80/85/89 ist jedoch ein Netzspannungsschalter hinzugefügt worden (Code-Nr. 4822 276 10615). Der zugehörige Befestigungsblock hat die Code-Nummer 4822 404 60103, und der Zugentlastungsbügel 4822 404 10142.
Die Büchse, Pos. 18 in der Dokumentation 22RH541/50/65/79, hat man in diesen neuen Ausführungen weggelassen. Für den Anschluss des Netzschalters siehe die Zeichnung.

I

Queste versioni derivate sono identiche alla versione di base -/50/65/79. Il commutatore rete è però stato stato aggiunto nelle versioni -/80/85/89.
Codice di questo commutatore è il 4822 404 60103. Il coduce del fermo di cavo è il 4822 404 10141.
Il manicotto pos. 18 nelle Documentazione Tecnica del 22RH541/50/65 e /79 è stato eliminato in queste nuove versioni. Per quanto concerne il collegamento del commutatore rete, vedi fig.

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Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviço

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4822 725 12619
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(S)

Dessa versionsnummer är identiska med respektive versioner /50/65/79, frånsett en nätströmbrytare som har tillkommit i versionerna /80/85/89. Nätströmbrytaren har kodnummer 4822 276 10615. Kodnummer för tillhörande låsstycke 4822 404 60103 och reliefplatta 4822 404 10141.
Bussningen, pos. 18 i Service Manualen 22RH541/50/65/79, har utgått i de nya versionerna.
Se figuren för anslutning av nätströmbrytaren.

(N)

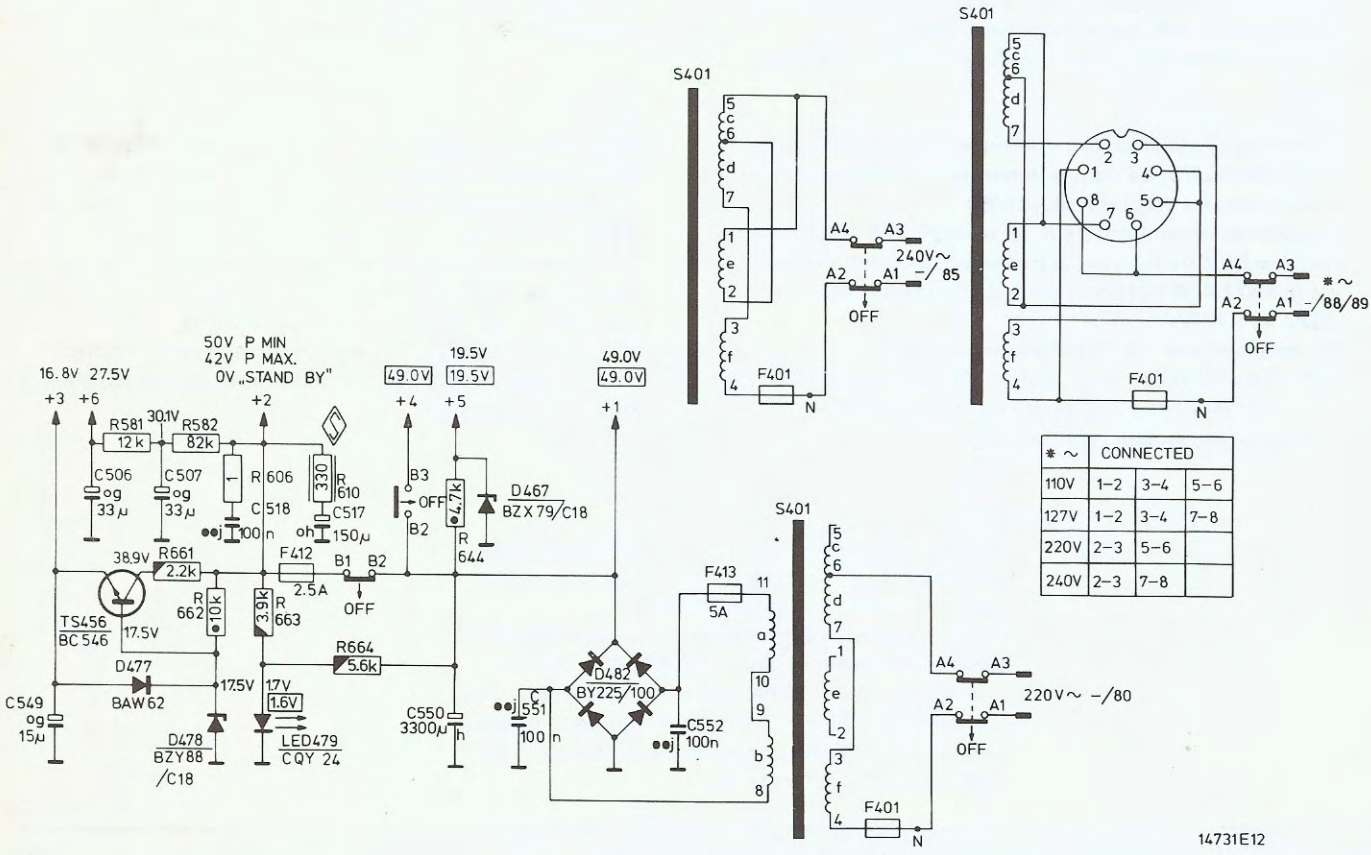
22RH541/80/85/89 er identiske med utførelsene /50/65/79, med følgende tilføyelser:
Nettbryter 4822 276 10615
Festeblokk 4822 404 60103
Avlastningsbrakett 4822 404 10141
Bøssing, pos. 18 i Service Manual 22RH541/50/65/79, er sløyfet i de nyere utførelsene.
Nettbryterens tilkopling er vist i figuren.

(DK)

22RH541/80/85/89 er identiske med henholdsvis 22RH541/50/65/79, men forsynet med netafbryder.
Varenummeret for netafbryderen er 4822 276 10615.
Den tilhørende befæstelsesbøjle har varenummer 4822 404 60103 og reliefbøjlen 4822 404 10141.
Bøsningen, pos. 18 i Service Manual for 22RH541/50/65/79 anvendes ikke i 22RH541/80/85/89.
For netafbryderens forbindelser, se tegning.

(SF)

Nämä kauttaversiot ovat samanlaisia kuin versiot -/50/65/79 vastaavasti. Erona on kuitenkin verkkokytkin, joka on liöätty versioihin -/80/85/89.
Verkkokytkimen koodinumero on 4822 276 10615.
Siihen kuuluvan kiinnitysosan koodi on 4822 404 60103 ja vapautusosan koodi 4822 404 10141.
Holkki, osa 18, huolto-ohjeessa 22RH541/50/65 ja -/79 on poistettu näista uusista versioista.
Verkkokytkimen kytkentä selviää kuvasta.



# Hi-Fi M.F.B Box 22RH541/00/15

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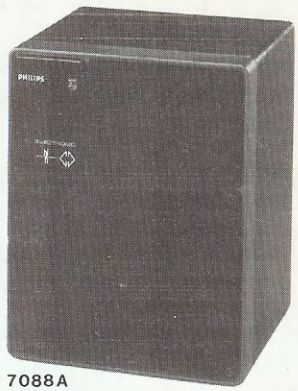
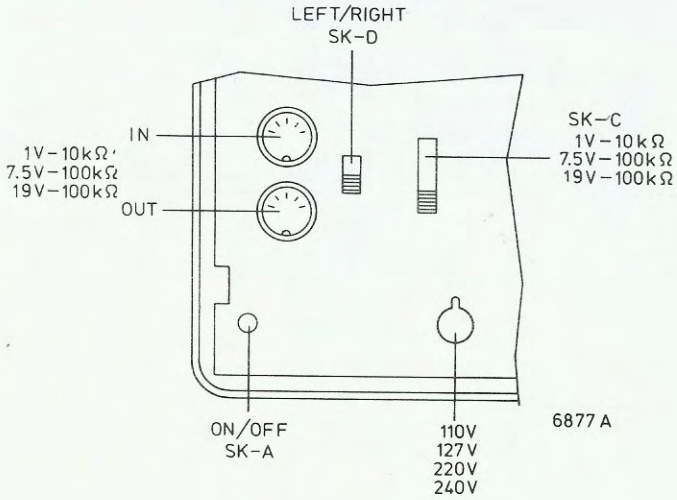
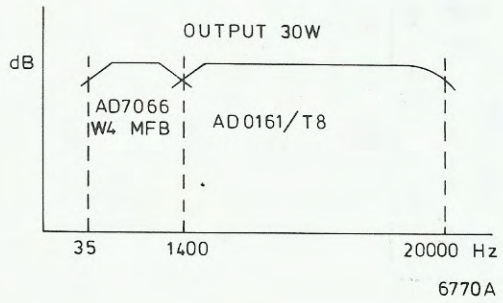


7088A

# Service Manual




Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

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4822 725 11571

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(GB)

**Adjusting the DC current flowing through the output stage**

Adjust, with R601, the voltage across R607 to 13.2 mV (40 mA).

**Adjusting the acoustic feedback**

1. Set SK-C to position 1 V - 10 kΩ
2. Apply a signal of 10 mV - 125 Hz to the input, using a low-ohmic generator (≤ 100 Ω)
3. Adjust, with R630, the voltage across S408 (points 5-6 of the plug) to 110-120 mV

(F)

**Réglage du courant continu dans l'étage final**

Avec R601, régler la tension aux bornes de R607 sur 13,2 mV (40 mA)

**Réglage de la rétroaction acoustique**

1. Brancher SK-C en position 1 V - 10 kΩ
2. A l'aide d'un générateur à basse impédance (≤ 100 Ω) appliquer un signal de 10 mV - 125 Hz sur l'entrée
3. Avec R630, régler la tension aux bornes de S408 (points 5-6 de la douille) sur 110-120 mV

(I)

**Regolazione de la corrente continua nello stadio finale**

Con R601, regolare la tensione ai capi di R607 su di 13,2 mV (40 mA)

**Regolazione della reazione acustica**

1. Collegare SK-C in posizione 1 V - 10 kΩ
2. Tramite un generatore a bassa impedenza (≤ 100 Ω) applicare un segnale di 10 mV - 125 Hz sull ingresso
3. Con R630, regolare la tensione ai capi di S408 (punti 5 e 6 della presa) su di 110-120 mV

(DK)

**Justering av likströmmen genom slutsteget**

Justera spänningen till 13,2 mV (40 mA) med R601 oever R607.

**Justering av akustisk returmatning**

1. SK-C i läge 1 V - 10 kΩ
2. Anslut en 10 mV-125 Hz signal till ingången; använd en lågohmig generator (≤ 100 Ω)
3. Justera spänningen till 110-120 mV med R630 över S408 (punkt 5-6 pa uttaget)

(S)

**Justering av DC-strømmen gjennom utgangstrinnet**

Juster spenningen over R607 til 13,2 mV (40 mA) med R601.

**Justering av akustisk tilbakekopling**

1. Sett SK-C i stilling 1 V - 10 kΩ
2. Tilfør et signal på 10 mV-125 Hz på inngangen, ved bruk av en lav-ohmig generator (≤ 100 Ω)
3. Juster spenningen over S408 (punktene 5-6 på pluggen) med R630

(NL)

**Instellen gelijkstroom eindtrap**

M.b.v. R601 de spanning over R607 instellen op 13,2 mV (40 mA)

**Instellen akoustische terugkoppeling**

1. Zet SK-C in de stand 1 V - 10 kΩ
2. M.b.v. een laag ohmige generator (≤ 100 Ω) een signaal van 10 mV - 125 Hz op de ingangsbus toevoeren
3. M.b.v. R630 de spanning over S408 (punten 5-6 van de plug) instellen op 110-120 mV

(D)

**Einstellen des Gleichstromes der Endstufe**

Mit R601 die Spannung an R607 auf 13,2 mV (40 mA) einstellen.

**Einstellen der akustischen Rückkopplung**

1. SK-C in die Stellung 1 V - 10 kΩ schalten
2. Mit einem niederohmigen Generator (≤ 100 Ω) ein Signal von 10 mV - 125 Hz an die Eingangsbuchse führen
3. Mit R603 die Spannung an S408 (Punkte 5-6 des Steckers) auf 110-120 mV einstellen

(E)

**Ajuste de la corriente de la etapa final**

Ajústese mediante R601 la tensión en bornes de R607 a 13,2 mV (40 mA)

**Ajuste del contracoplamiento acústico**

1. Conmútese SK-C a la posición 1 V - 10 kΩ
2. Apliquese, mediante un generador con resistencia óhmica baja (≤ 100 Ω), una señal de 10 mV-125 Hz al enchufe de entrada.
3. Ajústese mediante R630 la tensión en bornes de S408 (puntos 5-6 del enchufe) a un valor de 110 a 120 mV

(N)

**Justering af jævnstrømmen, i udgangstrinet**

Juster R601 således at spændingen over R607 er 13,2 mV (40 mA).

**Justering af akustisk modkobling**

1. Sæt SK-C i stilling 1 V - 10 kΩ
2. Tilfør 125 Hz/10 mV til indgangen (benyt en lavohms-generator (≤100 Ω)
3. Juster R630 således at spændingen over S408 (pkt. 5-6 på pluget) er 110-120 mV

(SF)

**Pääteasteen tasavirran säätö**

Säädä vastuksella R601 jännite R607 navoissa arvoon 13,2 mV (40 mA).

**Akustisen vastakytkennän säätö**

1. Aseta SK-C asentoon 1 V - 10 kΩ
2. Syötä 10 mV signaali taajuudella 125 Hz tuloon käyttäen pieni-impedanssista generaattoria (≤ 100 Ω)
3. Säädä R630:lla jännite S408:n navoissa (pistikkeen nastat 5 6) arvoon 110-120 mV

| R | R | R | C | MISC. |
|---|---|---|---|---|
| | | | 517 | S488 |
| | | | | S489 |
| | | 612 | | |
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| | 609 | | 523 | |
| 600 | | | | |
| 598 | 621 | | 519 | TS430a |
| | | | | TS456 |
| 599 | | | | |
| | 622 | | | |
| | 661 | | 533 | D477 |
| 604 | 626 | | 532 | TS438 |
| | 582 | 618 | 531 | TS434a |
| | | | | D478 |
| 607 | 627 | 617 | 530 | TS440 |
| | | 619 | | TS422 |
| | 581 | 620 | | |
| | 624 | 577 | 549 | |
| | 578 | 571 | 536 | TS439 |
| | | 616 | 497 | TS424 |
| | | 568 | 514 | TS423 |
| | | 567 | 507 | |
| | 579 | 572 | 529 | |
| 601 | 628 | 565 | 516 | TS427 |
| 580 | 623 | | 498 | |
| | | 573 | 506 | |
| | | 569 | 500 | |
| | 630 | 574 | 496 | |
| | | 639 | 499 | |
| | | 570 | 501 | |
| 608 | | 576 | 540 | |
| | | | 541 | TS446 |
| | 583 | 575 | 511 | TS447 |
| 605 | 629 | 636 | 542 | TS434b |
| 590 | | 640 | 502 | D468 |
| | | 641 | 510 | TS430b |
| 592 | | 638 | 505 | TS425 |
| | 585 | 637 | 508 | D466 |
| 589 | 654 | 645 | 512 | D469 |
| | 586 | | 543 | TS428 |
| 591 | 587 | 644 | 543 | TS451 |
| | 655 | 646 | 544 | D471 |
| 603 | 650 | | | D467 |
| 593 | 588 | | | TS452 |
| | 652 | 647 | | TS448 |
| | 651 | | | D470 |
| | 653 | | | |
| | 656 | | | |
| | | | | D472 |
| | | | | F413 |
| 584 | | | 552 | SK-B |
| | | | | D483 |
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| | | | | SK-C |
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| 561 | | | | F401 |
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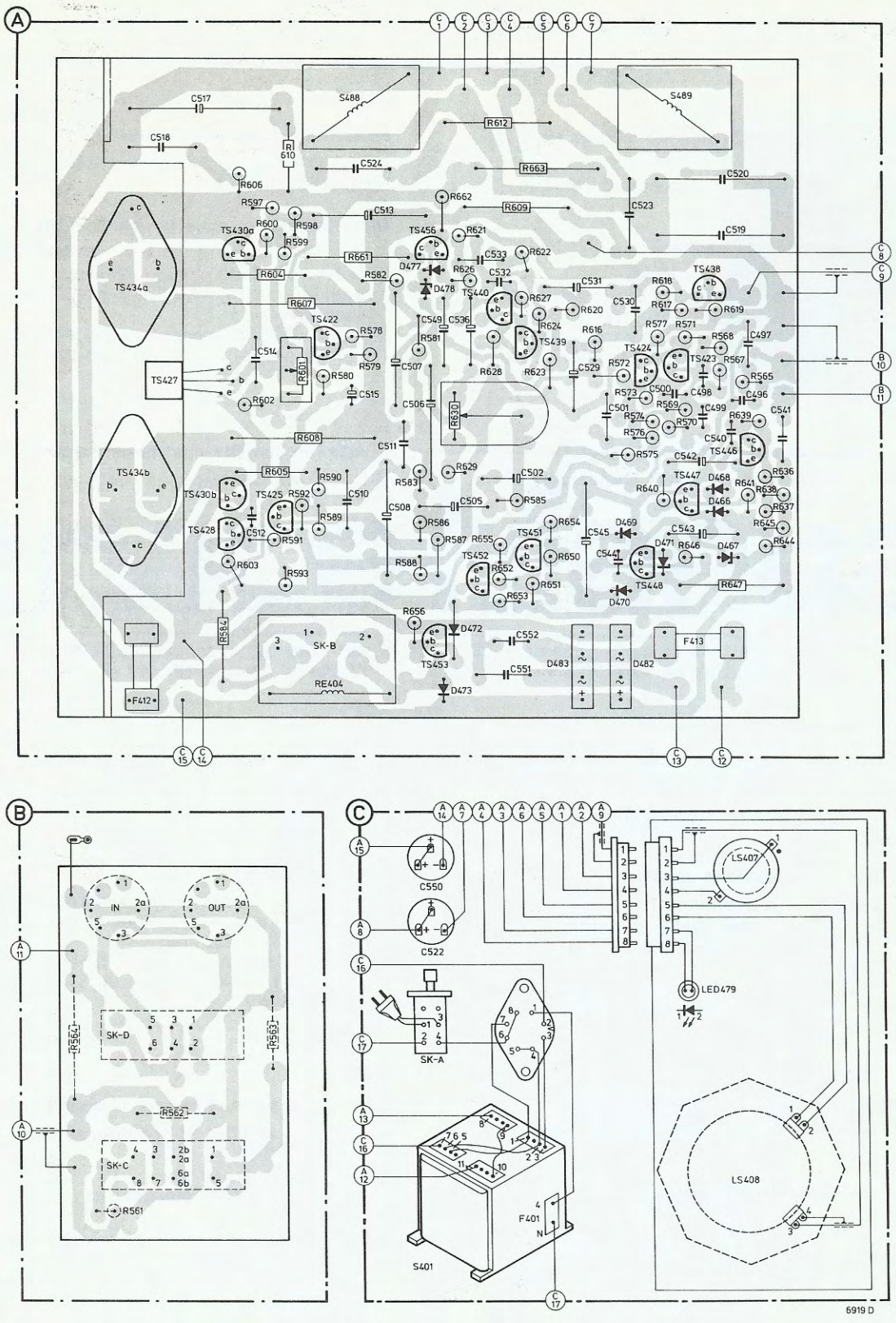
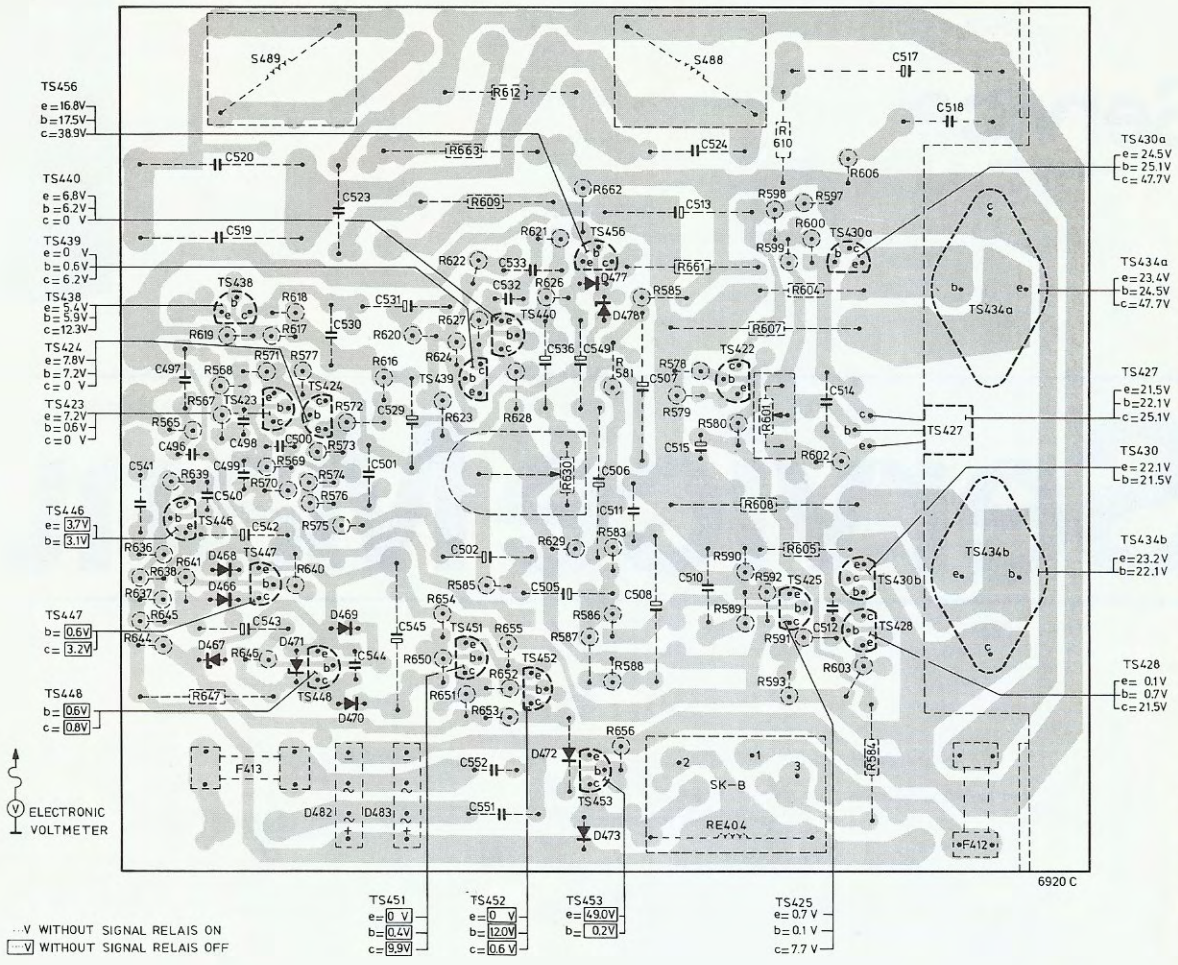
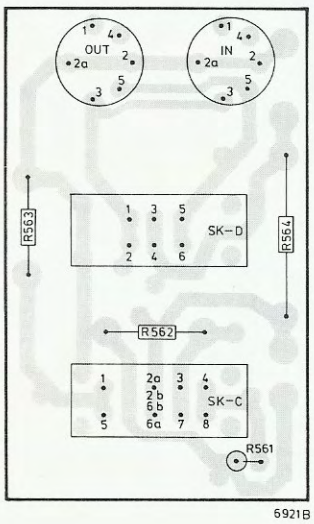
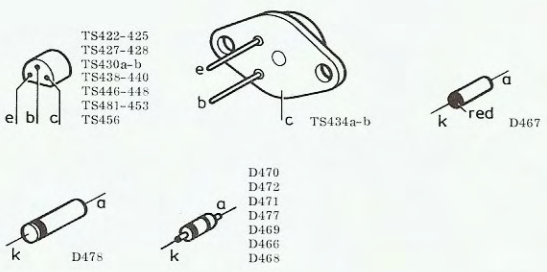


| | |
|---|---|
| MISC | TS438. 423. S489. TS424. TS439 TS440 TS456. D477. 478 S488 TS422 TS430a TS427. TS434a. |
| MISC | TS446. D466 ...471. F413. TS447. 448. D482 D483. TS451. TS452 D472. 473. TS453. SK-B. RE404 TS425. TS430b. TS428 F412. TS434b. |
| C | 497. 520. 519. 498. 530. 523. 529. 531 532. 533 536 549. 506. 507. 513 524 514. C517 C518 |
| C | 541. 496. 542. 540. 499. 500. 570. 543. 544. 501. 545. 502. 552. 551 505. 511. 508. 515. 510 512 |
| R | 565. 567. 619. 568. 571. 617. 618. 577. 572. 616. 620. 622. 624. 627. 663. 609. 612. 628. 621. 626. 662. 581. 585. 578. 579. 661. 580. 610. 607. 597 ··· 601. 604. 606 |
| R | 636...639. 644. 645. 641. 647. 647. 569. 640. 573...576. 585. 650...655. 629. 630. 586... 588. 583. 656. 608. 589...593. 605. 602. 603. 584 |



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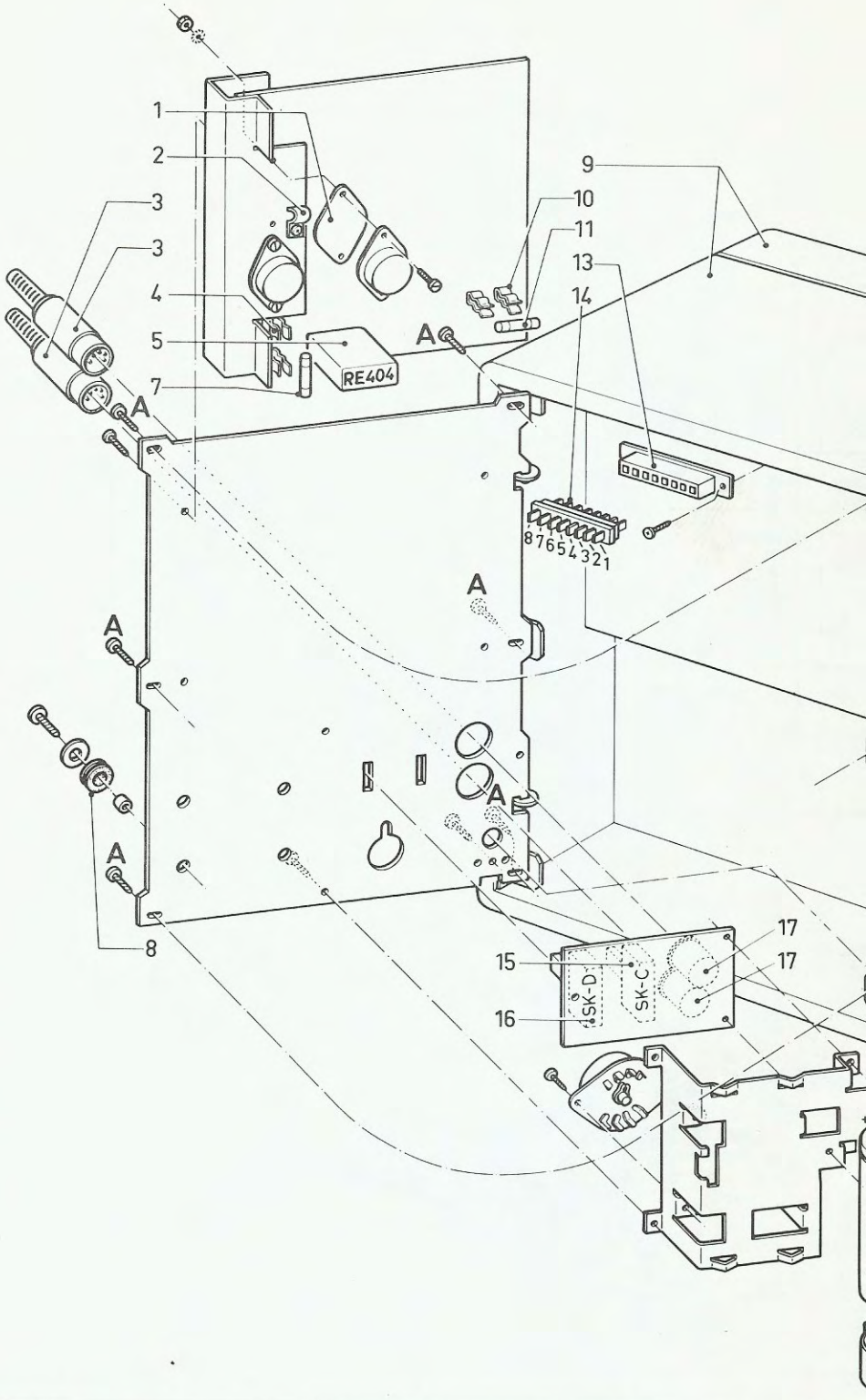
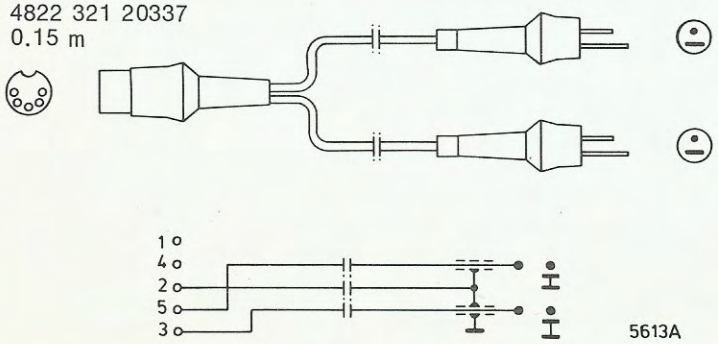


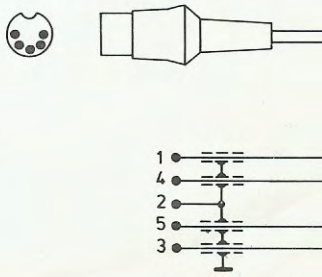

| | |
|---|---|
| 1 | 4822 466 70156 |
| 2 | 4822 255 40127 |
| 3 | 4822 264 40023 |
| 4 | 4822 492 60063 |
| 5 | 4822 280 60437 |
| 7 | 4822 253 30029 |
| 8 | 4822 325 60197 |
| 9 | 4822 445 10048 |
| 10 | 4822 492 60063 |
| 11 | 4822 253 30026 |
| 13 | 4822 267 50206 |
| 14 | 4822 264 50081 |
| 15 | 4822 277 20187 |
| 16 | 4822 277 20185 |
| 17 | 4822 267 40182 |
| 19 | 4822 276 10615 |
| 20 | 4822 404 60103 |
| 21 | 4822 404 10141 |
| 22 | 4822 445 30031 |
| 23 | 4822 240 70009 |
| 25 | 4822 445 30029 |
| 26 | 4822 240 50092 |
| 27 | 4822 445 30028 |

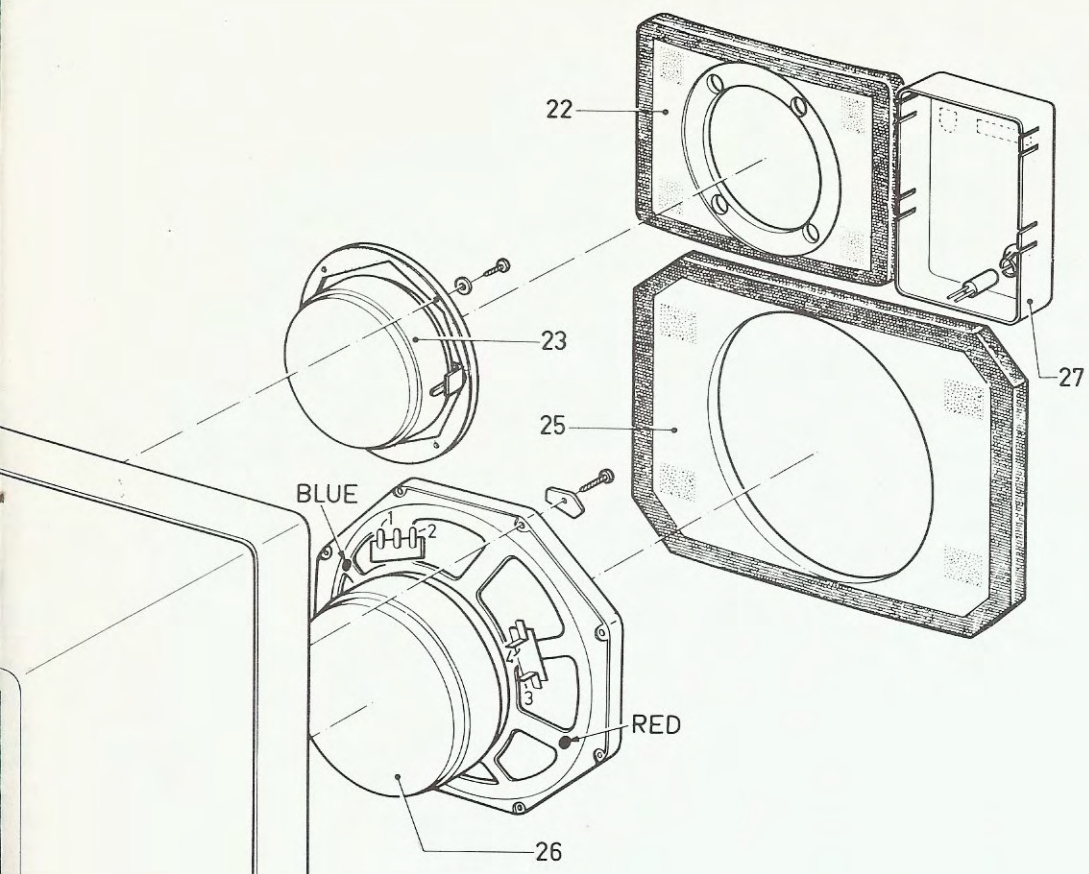
4822 321 20337
0.15 m

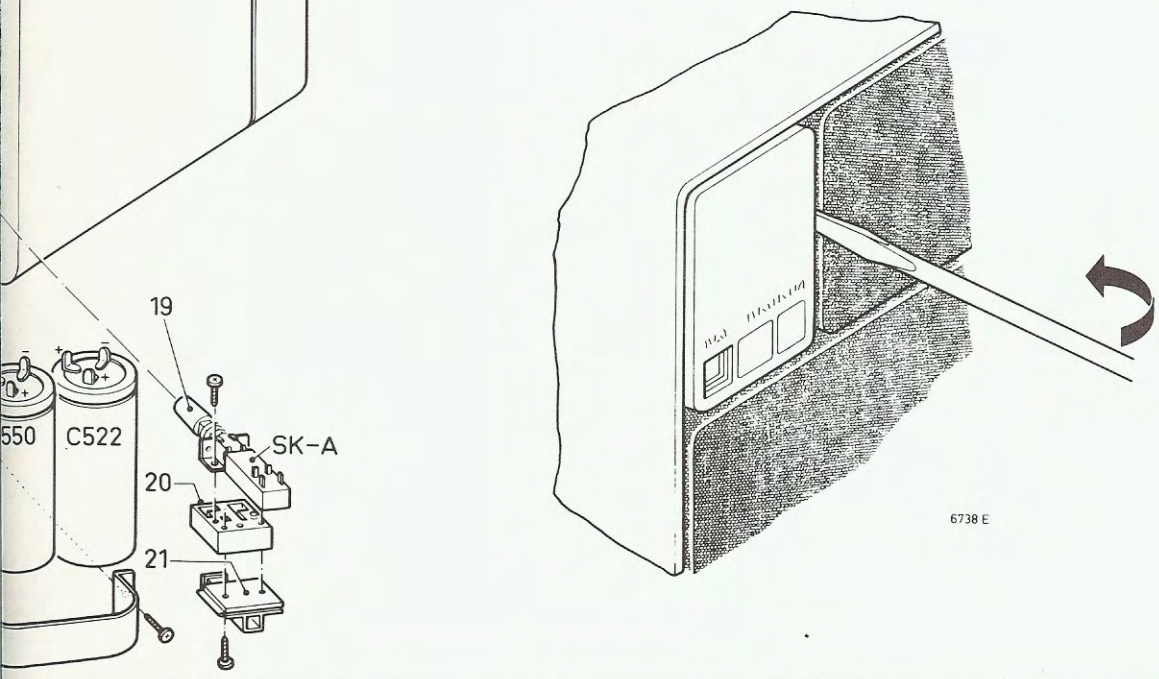



5613A

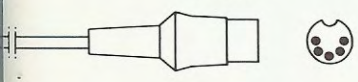
4822 321 20207
1.50 m

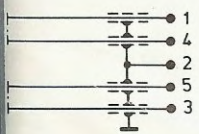





4822 321 20295
2.50 m

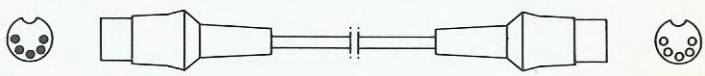


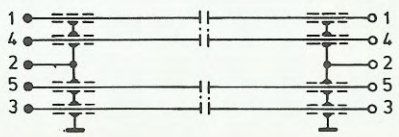



5622A

4822 321 20294
2.50 m

4822 321 20336
5.00 m






5609A

## -TS-

| | | |
|---|---|---|
| TS422 | BC548A | 4822 130 40948 |
| TS423 | BC549B | 4822 130 40936 |
| TS424 | BC558 | 4822 130 40941 |
| TS425 | BC558A | 4822 130 40962 |
| TS427 | BC548 | 4822 130 40938 |
| TS428 | BC546 | 4822 130 41001 |
| TS430a-b | BC637-BC638 | 4822 130 41056 |
| TS434a-b | BDX65-BDX64 | 4822 130 41057 |
| TS438 | BC548 | 4822 130 40938 |
| TS439 | BC549B | 4822 130 40936 |
| TS440 | BC558 | 4822 130 40941 |
| TS446 | BC558 | 4822 130 40941 |
| TS447 | BC548C | 5322 130 44196 |
| TS448 | BC548B | 4822 130 40937 |
| TS451 | BC548B | 4822 130 40937 |
| TS452 | BC548 | 4822 130 40938 |
| TS453 | BC546 | 4822 130 41001 |
| TS456 | BC546 | 4822 130 41001 |

## -D-

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|---|---|---|
| D466 | BAW62 | 5322 130 30613 |
| D467 | BZX79/C18 | 5322 130 34076 |
| D468 | BAW62 | 5322 130 30613 |
| D469 | BAW62 | 5322 130 30613 |
| D470 | BAW62 | 5322 130 30613 |
| D471 | BZX79/C4V7 | 5322 130 30264 |
| D472 | BAW62 | 5322 130 30613 |
| D473 | BAW62 | 5322 130 30613 |
| D477 | BAW62 | 5322 130 30613 |
| D478 | BZY88/C18 | 5322 130 30304 |
| D479 | CQY24 LED | 4822 130 30885 |
| D482 | BY164 | 5322 130 30414 |
| D483 | BY164 | 5322 130 30414 |

## -C-

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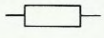
|---|---|---|
| C496 | 1 nF plate cap. | 4822 122 31175 |
| C498 | 3,3 nF micro poco | 4822 121 50389 |
| C499 | 2.7 nF micro poco | 4822 121 50474 |
| C510 | 180 nF flat. cap. | 4822 121 40206 |
| C512 | 27 pF plate cap. | 4822 122 30045 |
| C519 | 6.8 $\mu$F plate cap. | 4822 121 40463 |
| C520 | 2.2 $\mu$F plate cap. | 4822 121 40456 |
| C522 | 2x3400 $\mu$F elco | 4822 124 70315 |
| C524 | 1.8 $\mu$F plate cap. | 4822 121 40454 |
| C532 | 4.3 nF micro poco | 5322 121 54062 |
| C540 | 2.2 nF plate cap. | 4822 122 30114 |
| C544 | 22 nF plate cap. | 5322 122 30103 |
| C550 | 2x1650 $\mu$F elco 63 V | 5322 124 70199 |

## -R-



| | | |
|---|---|---|
| R564 | 100 Ω - 5 W wire wound | 4822 112 21081 |
| R569 | 250 kΩ - MR25 | 5322 116 54713 |
| R571 | 12 kΩ - MR25 | 5322 116 50572 |
| R581 | 12 kΩ - MR25 | 5322 116 50572 |
| R582 | 82 kΩ - MR25 | 5322 116 54689 |
| R583 | 100 kΩ - MR25 | 5322 116 54696 |
| R587 | 33 kΩ - MR25 | 5322 116 50482 |
| R590 | 3,3 kΩ - MR25 | 5322 116 54005 |
| R592 | 1.8 kΩ - MR25 | 5322 116 54568 |
| R601 | 1 kΩ potentiometer | 4822 101 10005 |
| R606 | 1 Ω - CR37 | 4822 110 53027 |
| R607 | 0.33 Ω - 2.6 W wire wound | 5322 113 60019 |
| R608 | 0.33 Ω - 2.6 W wire wound | 5322 113 60019 |
| R610 | 330 Ω - safety CR25 | 4822 111 30458 |
| R618 | 12 kΩ - MR25 | 5322 116 50572 |
| R621 | 470 kΩ - MR30 | 5322 116 54336 |
| R623 | 47 kΩ - MR25 | 5322 116 54671 |
| R630 | 10 kΩ potentiometer | 4822 101 10021 |
| R663 | 1.5 kΩ - 5 W wire wound | 4822 112 21112 |

## -Miscellaneous-

| | | |
|---|---|---|
| S401 | Mains transformer | 4822 146 20506 |
| F401 | Fuse | 4822 252 20007 |
| RE404 | Relais | 4822 280 60437 |
| S407 | Speaker AD0161/T8 | 4822 240 70009 |
| S408 | Speaker AD7066/W4MFB | 4822 240 50092 |
| F412 | Fuse 2.5A | 4822 253 30026 |
| F413 | Fuse 5A | 4822 253 30029 |
| D479 | CQY24 LED | 4822 130 30885 |
| S488 | Coil 0.5 mH | 4822 157 50775 |
| S489 | Coil 0.8 mH | 4822 157 50816 |

# Servicemededeling

PHILIPS NEDERLAND B.V. - EINDHOVEN
TECHNISCHE SERVICE

Ref. R 306 Type 22 RH 541 Datum november 1975

MOTIONAL FEED-BACK BOX

Het bestelnummer van de MFB luidspreker pos.26 moet zijn:
4822 240 50099 i.p.v. 4822 240 50092.

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PHILIPS

# Servicemededeling

PHILIPS NEDERLAND B.V. - EINDHOVEN
TECHNISCHE SERVICE

Ref. R 328 Type 22RH541 Datum januari 1976

Onder stempeling PL01 zijn onderstaande wijzigingen ingevoerd.
C512 van 27 pF gewijzigd in 56 pF bestelnummer 4822 122 31074.
R610 en C517 toegevoegd. R610 en C517 waren reeds in de service-documentatie verwerkt.

Correctie service-documentatie.
De waarden welke op de voorpagina staan bij de IN aansluitbus en SK-C zijn onjuist. Deze moeten de waarden hebben welke in het principeschema staan vermeld.

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PHILIPS

# Servicemededeling

PHILIPS NEDERLAND B.V. - EINDHOVEN
TECHNISCHE SERVICE

Ref. R 399 Type 22 RH 541 Datum december 1977

RADIO

Vanaf stempeling PL 02 wordt de
tweeter AD 0162/T8 toegepast.
Het bestelnummer luidt: 4822 240 70014

Vanaf stempeling PL 03 wordt de
tweeter AD 0140/T8 toegepast
Deze wordt geleverd onder bestelnummer
4822 240 70011

PHILIPS