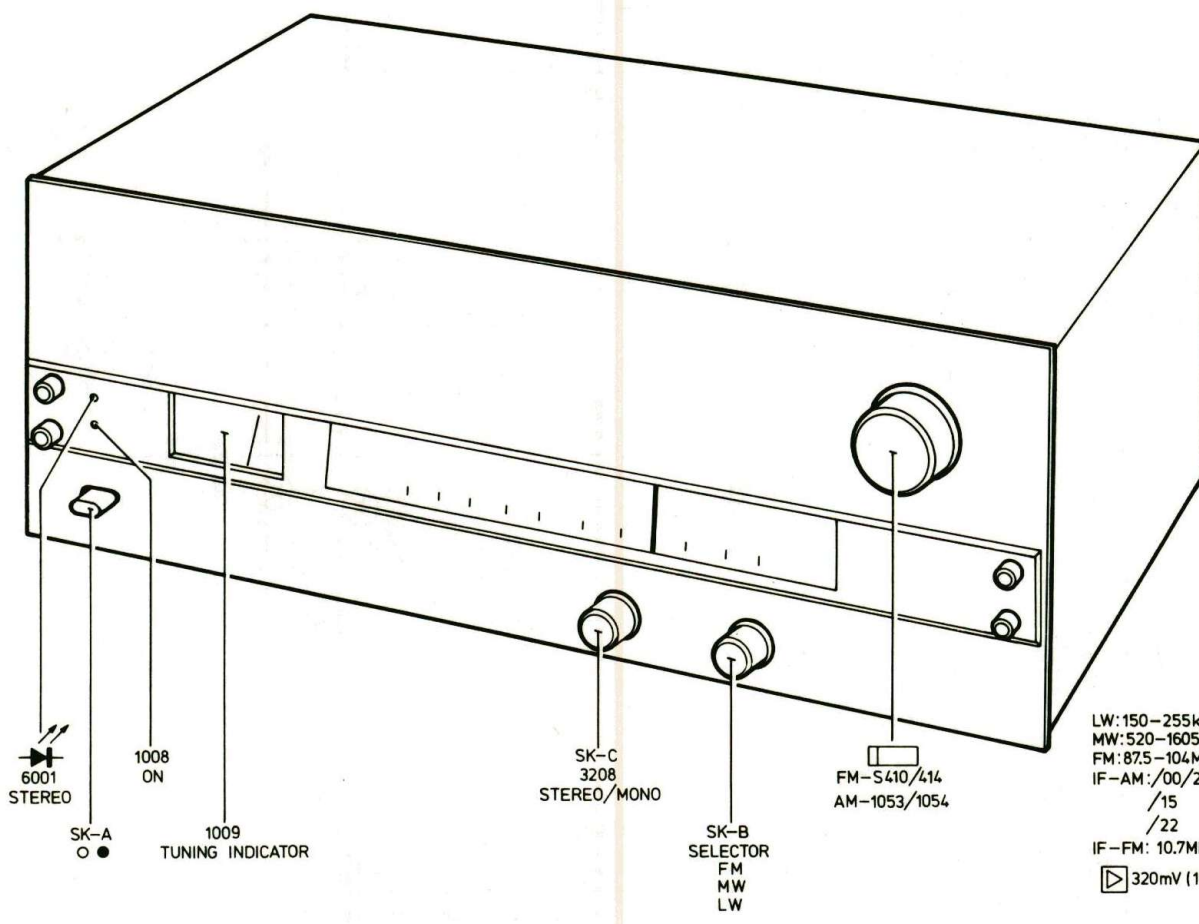


T 22 AH 690/00/15/22/29

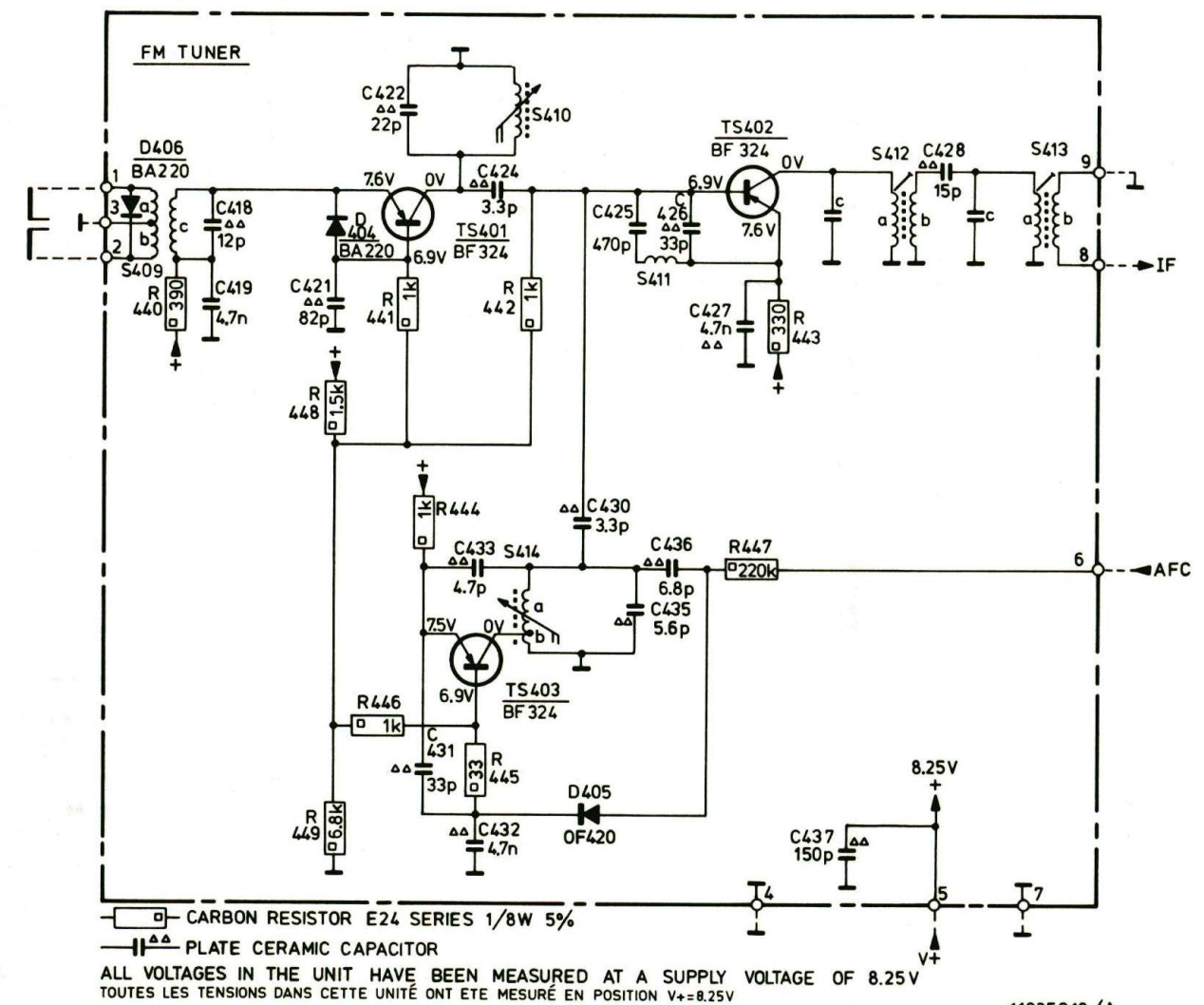
Service  
Service  
Service

# Service Manual

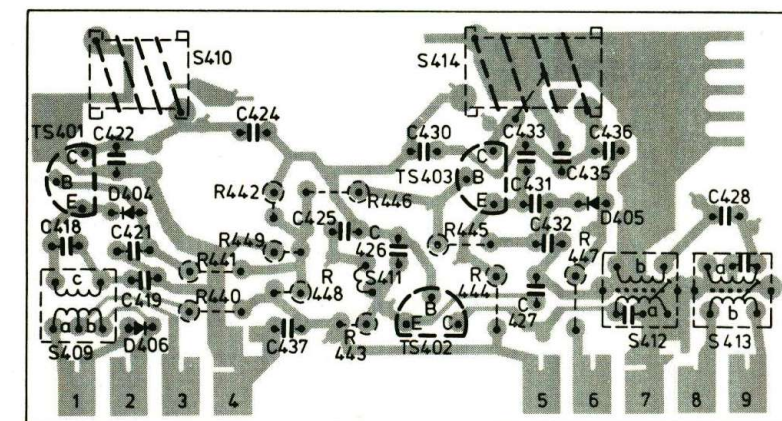


FM TUNER

4822 210 10188



11925C10/A

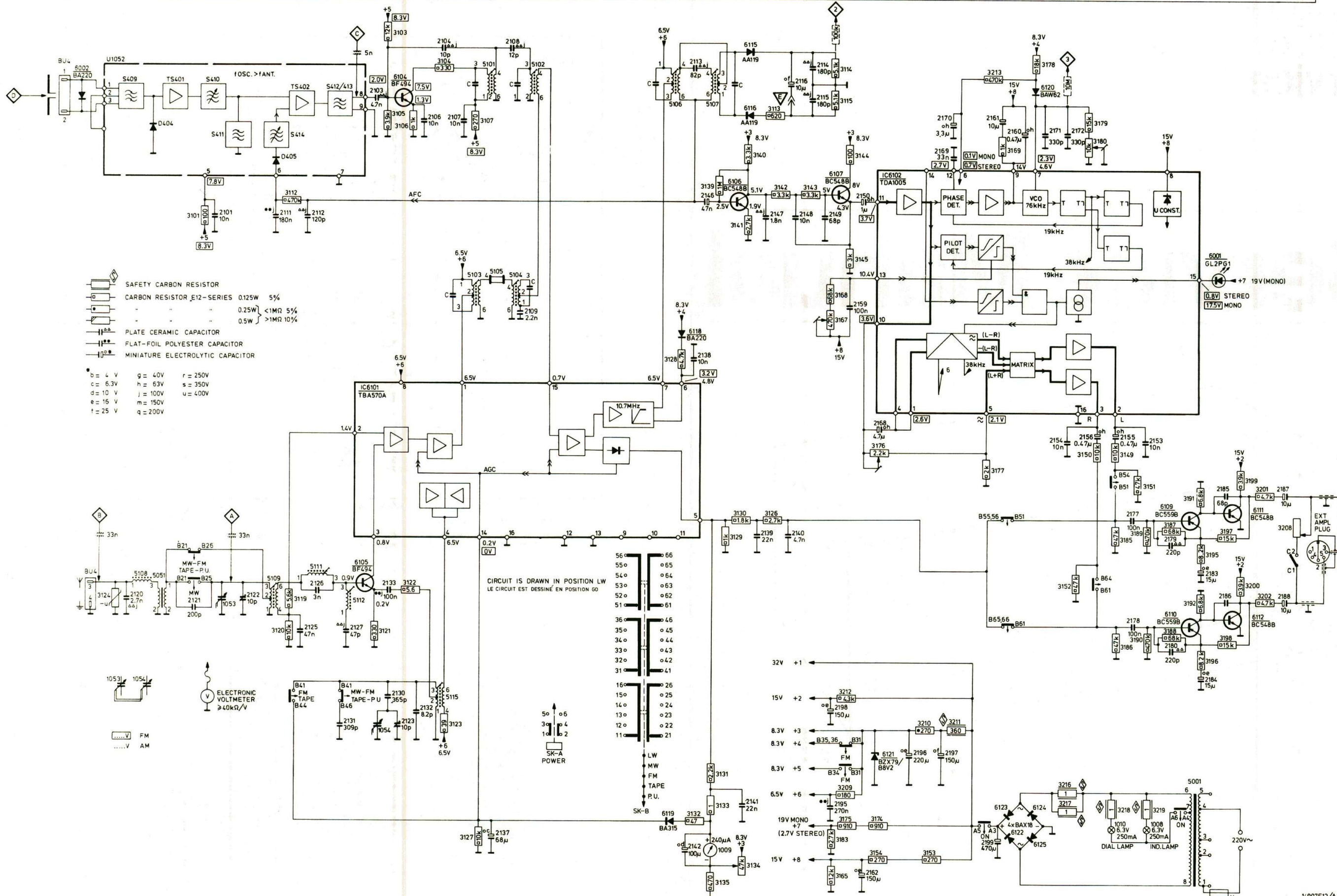


11924A10/A





| MISC | 6002 | U1052 | 6105, IC6101 |      |      |            |  |  |  |  |  |  | 6104       | SK-A |      |                  |                  |      |      |  |  |  |      | 6119, 6118, SK-B, 1009, 6106, 6115, 6116 |      |                        |             |      |      |                  |  |  |  | 6107 1351, 1352 IC6102, 6121 |  |  |      |                               |                  |                               |                         |                   |      | 6122-6125 |      |                   |      |      |  |  |             |             |                                                    | 6120             | 6109-6112 |            |      |                                     |  |  |  |  |  |             | 6001        |      |      |             |      |
|------|------|-------|--------------|------|------|------------|--|--|--|--|--|--|------------|------|------|------------------|------------------|------|------|--|--|--|------|------------------------------------------|------|------------------------|-------------|------|------|------------------|--|--|--|------------------------------|--|--|------|-------------------------------|------------------|-------------------------------|-------------------------|-------------------|------|-----------|------|-------------------|------|------|--|--|-------------|-------------|----------------------------------------------------|------------------|-----------|------------|------|-------------------------------------|--|--|--|--|--|-------------|-------------|------|------|-------------|------|
| S    |      | 5108  | 5051         |      |      |            |  |  |  |  |  |  | 5109       | 5111 | 5112 | 5115             |                  |      |      |  |  |  |      |                                          |      | 5103, 5101, 5105, 5104 | 5102        | 5106 | 5107 | 2113, 2138, 2146 |  |  |  |                              |  |  |      |                               |                  | 2147, 2148, 2114 + 2116, 2149 | 2159, 2150, 2168, 2162, | 2170, 2169        | 2161 | 2160      | 2171 | 2172, 2154 + 2156 | 2153 | 5001 |  |  |             |             |                                                    |                  |           |            |      |                                     |  |  |  |  |  |             |             |      |      |             |      |
| C    |      |       | 2101         |      |      |            |  |  |  |  |  |  | 2111       | 2112 | 2103 |                  |                  |      |      |  |  |  |      |                                          | 2106 | 2104                   | 2107        | 2108 | 2109 | 2142             |  |  |  |                              |  |  |      |                               |                  | 2141, 2139                    | 2140                    | 2198, 2195, 2199, |      |           |      |                   |      |      |  |  |             | 2196, 2197  | 2199                                               | 2395             |           |            |      |                                     |  |  |  |  |  | 2177 + 2180 | 2183 + 2186 | 2187 | 2188 |             |      |
| R    |      | 2120  | 2121         | 1053 | 2122 | 2125, 2126 |  |  |  |  |  |  |            |      |      | 2131, 2127, 1054 | 2133, 2130, 2123 | 2132 | 2137 |  |  |  |      |                                          |      |                        |             |      | 3112 |                  |  |  |  |                              |  |  |      |                               | 3103, 3105, 3106 | 3104                          | 3107                    | 3128              |      |           |      |                   |      |      |  |  |             | 3139 + 3142 | 3113 + 3115, 3143 + 3145, 3168, 3167, 3174 + 3176, | 3210, 3153, 3211 | 3213      | 3177, 3169 | 3178 | 3179, 3180, 3185 + 3190, 3191, 3192 |  |  |  |  |  |             |             |      |      | 3195 + 3202 | 3208 |
| R    |      | 3124  | 3101         |      |      |            |  |  |  |  |  |  | 3119, 3120 |      |      |                  |                  |      |      |  |  |  | 3121 | 3122                                     | 3123 | 3127                   | 3129 + 3135 |      |      |                  |  |  |  |                              |  |  | 3126 | 3183, 3165, 3212, 3209, 3366, | 3154             | 3153                          | 3216 + 3219             |                   |      |           |      |                   |      |      |  |  | 3149 + 3152 |             |                                                    |                  |           |            |      |                                     |  |  |  |  |  |             |             |      |      |             |      |





| MISC         | S    | C                                            | R                            |
|--------------|------|----------------------------------------------|------------------------------|
| 1056         |      | 1053<br>1054                                 |                              |
| SK-B         | 5108 | 2142<br>2178                                 | 3132<br>3135<br>3208         |
| SK-C         |      |                                              | 3124                         |
| 6104<br>6119 |      | 2198<br>2120<br>2123<br>2103<br>2106<br>2188 | 3201<br>3103<br>3202<br>3134 |
| 6111         |      | 2107<br>2183                                 | 3104<br>3192                 |
| 6112         | 5111 | 2186<br>2126                                 | 3191<br>3105                 |
|              | 5101 | 2130<br>2127                                 | 3195<br>3198                 |
| 6109         |      | 2132<br>2104                                 | 3101<br>3186                 |
| 6110         |      | 2108<br>2177                                 | 3190                         |
|              | 5115 | 2180                                         |                              |
|              | 5112 | 2101                                         | 3185                         |
|              | 5102 | 2131                                         | 3120                         |
|              | 5104 | 2109                                         | 3124                         |
|              |      | 2125                                         | 3127                         |
|              | 5105 | 2133                                         | 3133                         |
| 6105<br>6120 | 5103 | 2162                                         | 3180<br>3209<br>3149         |
|              |      | 2153                                         | 3131                         |
| 6118         |      | 2156                                         | 3144                         |
| 6101         |      | 2169                                         | 3122<br>3128                 |
|              |      | 2172                                         | 3213                         |
| 6102         |      | 2139                                         | 3150                         |
|              | 5106 | 2195                                         | 3153                         |
|              |      | 2141                                         | 3112                         |
|              |      | 2159                                         | 3167                         |
| 6107         |      | 2140                                         | 3169                         |
|              |      | 2168                                         | 3154                         |
|              |      | 2175                                         | 3126                         |
|              | 5107 | 2111                                         | 3175                         |
|              |      | 2113                                         | 3165                         |
|              |      | 2138                                         | 3174                         |
|              |      | 2160                                         | 3183                         |
|              |      | 2161                                         | 3130                         |
|              |      | 2146                                         | 3145                         |
| 6115         |      | 2150                                         | 3139                         |
|              |      | 2114                                         | 3143                         |
| 6116         |      | 2116                                         |                              |
| 6106         |      | 2197                                         | 3113                         |
| 6121         |      |                                              | 3115                         |
| 6123         |      |                                              | 3210                         |
| 6125         |      | 2196                                         |                              |
|              |      | 3218                                         | 3218                         |
|              |      | 3219                                         | 3219                         |
|              |      | 3217                                         | 3217                         |
|              |      | 3211                                         | 3211                         |
|              |      | 3216                                         | 3216                         |

RF-IF PANEL  
PANNEAU HF-FI

6111, 6112  
e = 0 V  
b = 0.6 V  
c = 6.5 V  
6109, 6110  
e = 5 V  
b = 4.4 V  
c = 0.6 V

6102  
1 = 2.6 V  
2 = 4.2 V  
3 = 4.2 V  
4 = 2.6 V  
5 = 2.1 V  
6 = 1.4 V STEREO  
7 = 0.1 V MONO  
8 = 4.6 V AM  
9 = 2.3 V FM  
10 = 13.5 V  
11 = 13 V  
12 = 3.6 V  
13 = 3.7 V  
14 = 2.7 V  
15 = 10.4 V  
16 = 0 V  
STEREO  
MONO  
FM  
STEREO  
MONO

6107  
e = 4.3 V  
b = 5.0 V  
c = 8 V

\* TO BE MOUNTED 6mm ABOVE THE PRINT  
\*\* TO BE MOUNTED 10mm ABOVE THE PRINT

...V AM  
...V FM  
ELECTRONIC  
VOLTMETER  
40kΩ/V

6115, 6116  
AA119

green  
black  
brown

6118, 6060  
BAV10

6121  
BZX79

green  
brown  
orange

6119  
BA315

black  
grey  
brown

6122...6125  
BAX18

15505D12

CS 63 055



**SECTION A: MAINS CONNECTION AND VOLTAGE ADAPTOR**

SEULEMENT POUR/28/29:  
CONNECTER À 7 DU CARROUSSEL

\* ONLY FOR/15: CONNECT THIS  
WIRE TO 5 OF 5001

MAINS SECTEUR

5001

MAINS/SELECTEUR

VOLTAGE ADAPTOR WITH DOTTED CONNECTIONS  
FOR VERSIONS -/28/29/78/79  
CARROUSSEL ET CONNECTIONS EN POINTILLÉ POUR LES VERSIONS -/28/29/78/79

**SECTION E: AERIAL SOCKET AND GANG CAPACITOR**

AERIAL SOCKET  
ENTRÉE D'ANTENNE

GANG CAPACITOR  
C.V.

1053 1054

1 2 3

FM-TUNER

1052

9 8 7 6 5 4 3 2 1

**SECTION C: RF-IF PANEL / PANNEAU HF-F1**

RF-IF PANEL / PANNEAU HF-F1

TO BE MOUNTED 6mm ABOVE THE PRINT  
\*\* TO BE MOUNTED 10mm ABOVE THE PRINT



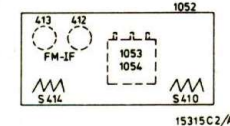
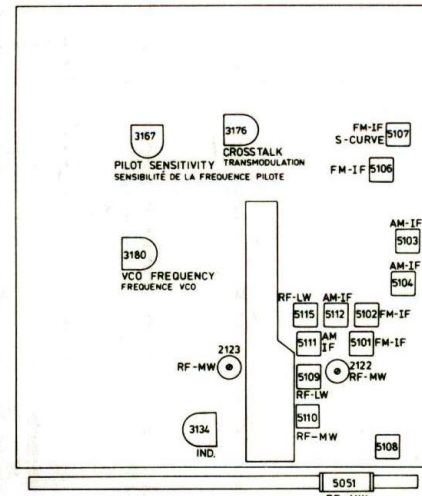


| AM                | SK...                                                                                                      |   |                        |                                                                          |                                                                  |  |
|-------------------|------------------------------------------------------------------------------------------------------------|---|------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------|--|
| MW (520-1605 kHz) | via 33 nF<br>/00/00X 452 kHz<br>/28/29/50 +1 kHz<br>/22/72/78 460 kHz<br>+1 kHz<br><br>f <sub>0</sub> 5105 | A | Min.cap.<br>C1053/1054 | 5111<br>5112<br>5103<br>5104<br><br>S5104<br>S5103<br><br>S5111<br>S5112 | 1 max.~<br>(= f <sub>0</sub> 5105)<br><br>1 max.~<br><br>1 min.~ |  |
| LW (150-255 kHz)  | 147 kHz<br>+1 kHz<br>via 33 nF                                                                             | A | C1053/1054<br>Max.cap. | S5115                                                                    | 1 max.~                                                          |  |
| MW (520-1605 kHz) | 1635 kHz<br>+1 kHz<br>via 33 nF                                                                            |   | C1053/1054<br>Min.cap. | C2123                                                                    |                                                                  |  |
| MW                | 550 kHz<br>+1 kHz<br>via 33 nF<br><br>1500 kHz<br>+1 kHz<br>via 33 nF                                      | B | C1053/1054             | S5051<br><br>C2122<br><br>S5109                                          | 1 max.~                                                          |  |
| LW                | 155 kHz<br>+1 kHz<br>via 33 nF                                                                             |   | C1053/1054<br>Max.cap. | R3134                                                                    | Ind. 1009 at 0                                                   |  |

| FM                | SK...                                                                                         |   |  |                                                                           |                                                |  |
|-------------------|-----------------------------------------------------------------------------------------------|---|--|---------------------------------------------------------------------------|------------------------------------------------|--|
| FM (87.5-104 MHz) | 3<br>10.7 MHz<br>Δf = 250 kHz<br>(50 Hz)<br>via 5 nF<br><br>98 MHz<br>Δf = 250 kHz<br>(50 Hz) | C |  | 1<br>S5106<br>S5102<br>S5101<br>S5107<br><br>S413<br>S412<br>S414<br>S410 | 2<br>via 100 kΩ<br><br>5<br>via 100 kΩ<br>max. |  |

↑ Repeat - Herhalen - Répéter - Wiederholen - Ricominciare - Repetere - Gentage - Gjentaelse - Toista

| FM                                          |  |   |          |       |                                     |
|---------------------------------------------|--|---|----------|-------|-------------------------------------|
| Stereodecoder                               |  |   |          |       |                                     |
| FM (87.5-104 MHz)                           |  |   |          | R3180 | 3<br>76 kHz ± 300 Hz<br>via 10 MΩ   |
| 98 MHz<br>Multiplex<br>(1 kHz)<br>4...12 μV |  | D | S410/414 | R3167 | 6                                   |
| 98 MHz<br>Pilot+R+1 kHz<br>(pilot+L+1 kHz)  |  |   |          | R3176 | 4<br>Min L<br>via 100 kΩ<br>(Min R) |



## GB

- Turn out the cores of the coils so that these cores are flush with the upper edges of the coil cans
- First set C2122 and C: 23 to mid-position
- Interrupt
- Adjust for max. amplitude and symmetry.
- Close . Adjust for max. slope and symmetry of the "S" curve S5107.
- First turn R3167 to the stop where the stereo indicator is extinguished, then adjust in such a way that the indicator will just light.

## NL

- De kernen van de spoelen gelijkzetten met de bovenkant van de spoelbus.
- Zet eerst C2122 en C2123 in de middenstand.
- Open brug
- Afregelen op maximum hoogte en symmetrie
- Sluit brug . S-kromme controleren op lineariteit en symmetrie. Eventueel S5107 naregelen.
- R3167 eerst tegen de aanslag draaien waarbij de stereo-indikator gedoofd is en vervolgens zodanig afregelen dat de indikator juist gaat branden.

## F

- Tourner les noyaux des bobines pour qu'ils soient à la même hauteur que la partie supérieure de la douille de bobine.
- Mettre C2122 et C2123 au préalable, en position médiane.
- Interrompre
- Régler à la hauteur et la symétrie max.
- Fermer . Régler à la pente et à la symétrie max. de la courbe "S" S5107.
- Tourner d'abord R3167 jusqu'à la butée, l'indication stéréo s'éteint, régler ensuite pour que l'indication s'allume de justesse.

## D

- Die Kerne der Spulen mit der Oberseite der Spulenbüchse gleichstellen.
- C2122 und C2123 zuvor in die Mittelstellung bringen.
- Unterbrich
- Justiere auf maximale Höhe und Symmetrie
- Schliesse . Justiere auf maximale Schräge und Symmetrie der "S"-Kurve S5107.
- R3167 zuerst bis zum Anschlag drehen wo der Stereoindikator gelöscht ist, danach auf eine solche Weise einstellen dass der Indikator gerade brennt.

## I

- Girare i nuclei delle bobine perché siano alla stessa altezza che l'alto della bussola di bobina.
- Mettere prima C2122 e C2123 in posizione intermedia.
- Interrompere
- Regolare per altezza e simmetria massima.
- Chiudere . Regolare per pendenza e simmetria massima della curva ad "S" S5107.
- Ruotare prima R3167 fino all'arresto, l'indicazione della stereofonica si spegne allora. Regolare poi perché l'indicazione si accende appena.

## S

- Vrid spolarnas kärnor tills de är i jämnhöjd med spolbuckarnas övre kant.
- Ställ först C2122 och C2123 i mittläg.
- Avbryt
- Justera till max amplitud och symmetri
- Slut . Justera till max. höjd och symmetri los S-kurvan S5107.
- Vrid först R3167 tills stereoindikatorn släcks. Justera sedan på sådant sätt att indikatorn precis tänds.

## DK

- Adressej spolekærnerne saledes, at de er i niveau med spoledasernes øverste kant.
- Sæt C2122, C2123 i midterstilling.
- Åbn
- Juster til max. amplitude og symmetri.
- Luk . Juster S-kurven til max. stejlehed og symmetri S5107.
- Drej først R3167 til den position hvor stereo-indikatoren slukker og juster herefter saledes at stereoindikatoren lige netop tænder.

## N

- Skru ut kjernene på spolene, slik at disse kjernene står jevnt med overkantene på spoleboksene.
- Sett først C2122 og C2123 i midtstilling.
- Bryt
- Juster til maks. amplitude og symmetri
- Forbind . Juster til maks. helling og symmetri på "S"-kurve S5107.
- Drei først R3167 til det sted hvor stereoindikatoren slukker, deretter slik at stereoindikatoren akkurat tenner.

## SF

- Kierrä kelaydän kelapurkin yläreunan tasalle.
- Ensin asenna aseta C2122, C2123 keskiasentoon.
- Katkaise
- Säädä symmetriseksi ja amplituudi suurimmilleen
- Sulje . Säädä S-käyrän jyrkkyys ja symmetrisyys maksimiin S5107.
- Kierrä R3167 ensin asentoon, jossa stereoerkkivalo sammuu ja säädä sitten niin, että se juuri ja juuri syttyy.



Diagram illustrating the maximum capacity (MAX. CAP.) of the system, showing a cable length  $L = 830 \text{ mm}$ .

15826814



Service  
Service  
Service

# Service Manual

(GB)

For the service data of the above apparatus, see service documentation 22AH690/00, with the exception of the following item numbers from the mechanical parts list.

(F)

Pour ce qui est des données de service de l'appareil dont il est question ci-dessus, veuillez consulter la Documentation Technique du 22AH690/00 sauf pour ce qui concerne les pièces mécaniques ci-dessous.

(I)

Per quanto è dei dati di servizio per l'apparecchio di cui sopra, si prega di riferirsi alla Documentazione di Servizio dei 22AH690/00, eccetto per quanto concerne i pezzi meccanici qui sotto.

(DK)

Ved servicering af ovennævnte apparat se service manual for 22AH690/00 med undtagelse af følgende positionsnumre i den mekaniske reservedelsliste.

(SF)

Huoltotiedot yllä olevalle laitteelle löytyvät laitteen 22AH690/00 huolto-ohjeesta mekaanisen osaluettelon seuraavia osanumeroita lukuunottamatta.

(NL)

Voor de Service gegevens van bovengenoemd apparaat zie service documentatie 22AH690/00 m.u.v. de volgende onderdelen van de mechanische stuklijst.

(D)

Für die Service-Daten des obengenannten Geräts siehe die Service Dokumentation 22AH690/00, mit Ausnahme der nachstehenden Einzelteile in der mechanischen Stückliste.

(S)

Servicedata för ovensående apparat se servicemanual 22AH690/00 med undantag av följande reservdelar.

(N)

För ovannevnte apparats servicedata, se service manual for 22AH690/00 med unntak av følgende mekaniske deler.

## 22AH690/00

|     |                |
|-----|----------------|
| 301 | 4822 426 60149 |
| 309 | 4822 426 50368 |
| 311 | 4822 413 51027 |
| 314 | 4822 413 40842 |
| 315 | 4822 413 40843 |

# Servicemededeling

PHILIPS NEDERLAND B.V. - EINDHOVEN  
TECHNISCHE SERVICE

Ref. R 271

Type 22RH690, 22RH691

Datum november 1974

De transformator welke voor de 22RH690 en 22RH691 wordt geleverd, is gewijzigd.

In fig.1 is de "oude" transformator getekend, zoals deze in de documentatie is opgenomen.

Fig.2 geeft een schets van de "nieuwe" transformator, welke nu geleverd wordt.

Bij de nieuwe transformator is punt 12 vervallen en zijn de plaatsen van de aansluitpunten veranderd.

De nummers van de aansluitpunten van beide transformatoren zoals in fig.1 en fig.2 getekend, corresponderen elektrisch met elkaar. Dientengevolge moet bij het vervangen van de transformator, de draad welke in de oude toestand aan bv. punt 5 was aangesloten, in de nieuwe situatie ook aan punt 5 worden gesoldeerd.

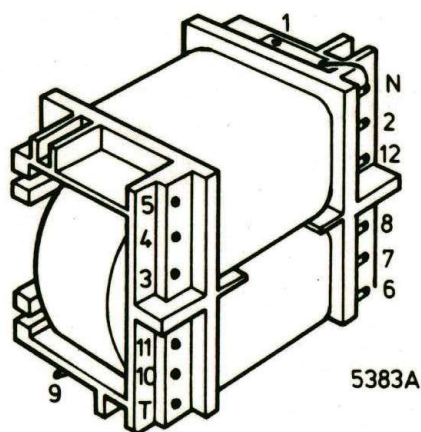


Fig. 1

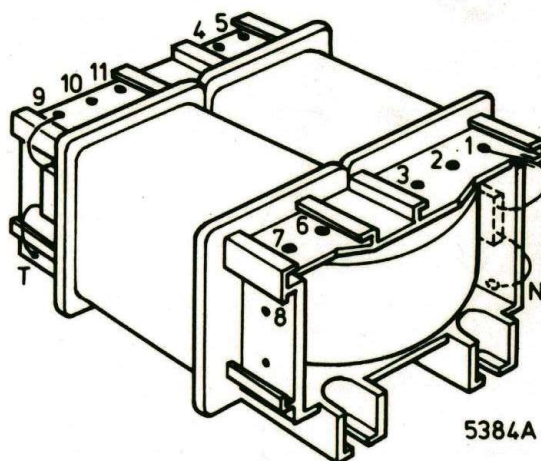


Fig. 2