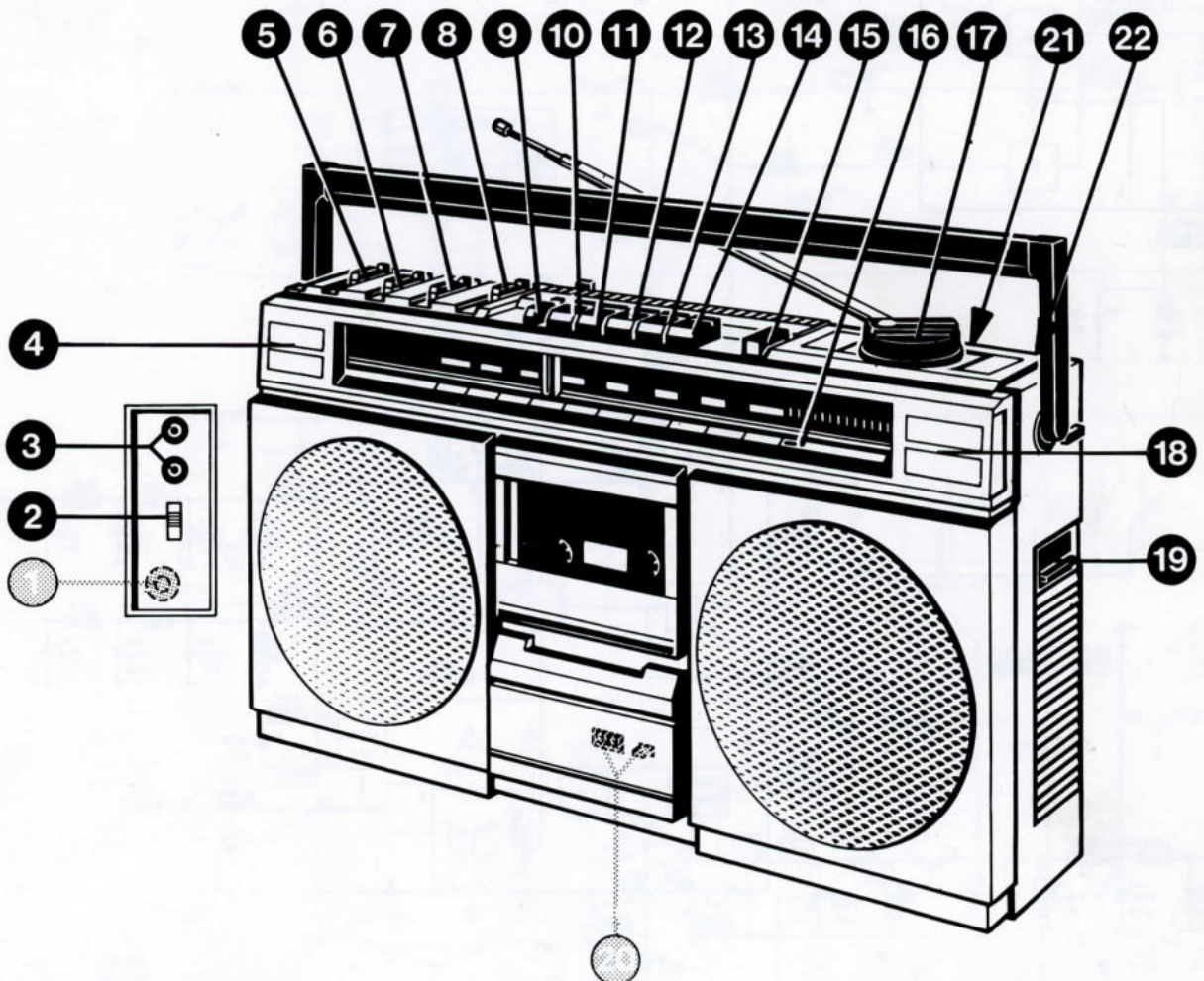


Service
Service
Service

RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
BOKSHEUVELSTRAAT 14
'S-HERTOGENBOSCH
TELEFOON 073 - 2'8344










For repair information of the cassette mechanism see
Service Manual of "Recorders tape deck RT-1 and
RT3".

Service Manual




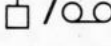





32 856 A12



CONNECTIONS AND CONTROLS




- 1  BU3
- 2 RIF SK-D
- 3  BU-1, BU-2
- 4  4001
- 5 Mono-sp 3518
- 6  3513
- 7  3514
- 8  3519
- 9  SK-E
- 10  SK-E
- 11  SK-E

RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
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's-HEERTOGENBOSCH
 TELEFOON 073 - 2'8344

- 12  SK-E
- 13  SK-E
- 14  SK-B, SK-E
- 15  SK-C
- 16 Stereo LED 7031
- 17  2000
- 18  4002
- 19 MW-SW-FM
- 20 Counter
- 21  SK-F
- 22 Volt select SK-G

SPECIFICATIONS

-  120/220/240 V 50/60 Hz
-  9 V (6x R20)

-   2x 1.5 W ± 1 dB 120 V
- 2x 1.8 W ± 1 dB 220 V 4 Ω
-  2x 1.7 W ± 1 dB (d = 10%)

- AM-IF 455 kHz
- FM-IF 10.7 MHz

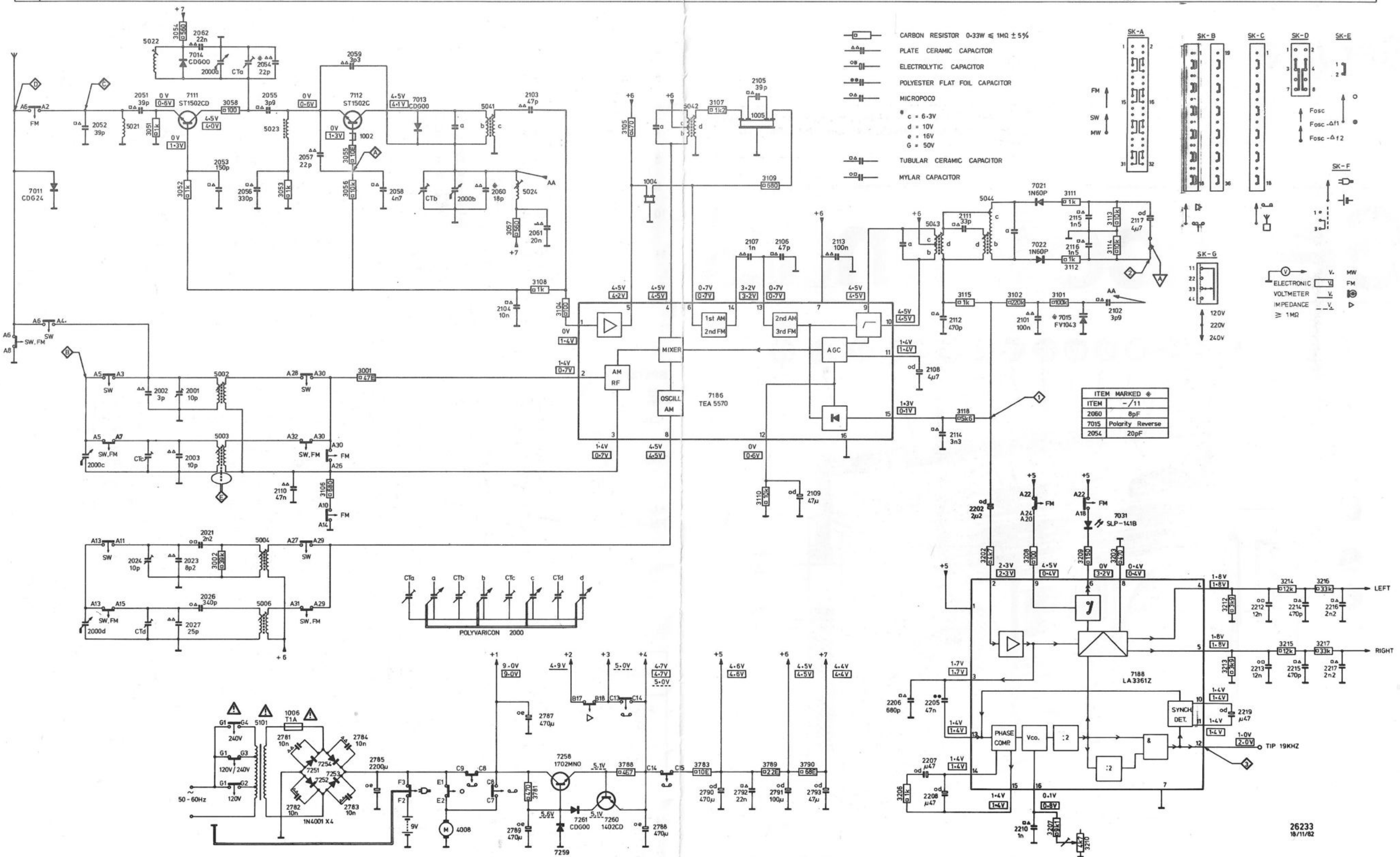
- MW 520-1605 kHz
- SW 3.9 - 11.975 MHz
- FM 87.5-108 MHz
- Tape speed 4.76 cm/sec ± 3%
- Wow and flutter < 0.4%
- Signal to noise ratio > 40 dB (TC-R)
- Frequency response 125-6.3 kHz (TC-R) (within 6 dB)

| Adjustment | Cassette | Recorder in position | Apply signal to | Measure on | Read on | Adjust with | Adjust to |
|------------------|---------------------|----------------------|-----------------|-------------------|------------------------|----------------------|-------------|
| Play back speed | 3150 Hz of SBC420** | PLAY | — | Speaker terminals | Wow- and flutter meter | Preset in motor | *a |
| Azimuth R/P head | 8 kHz of SBC420** | PLAY | — | Speaker terminals | mV-meter | Left screw R/PB head | Max. output |

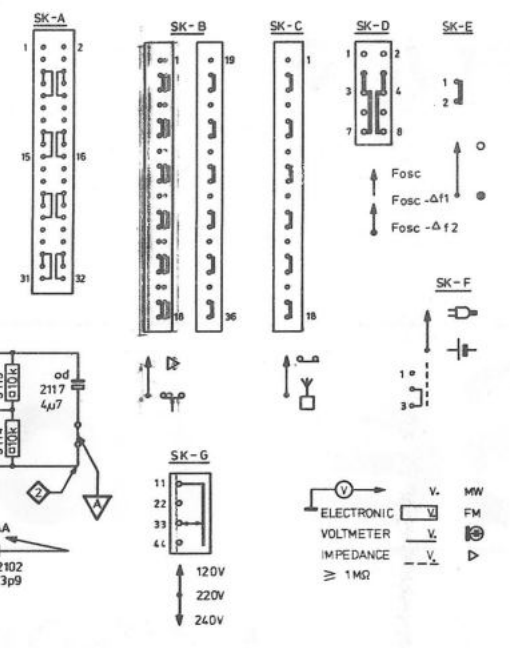
*a The maximum permissible speed deviation is 2%. Moreover, the wow-and-flutter value can be read. This value should not exceed 0.35%.

** 4822 379 30071.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Misc. | 7011 | 5021 | 5022 | 7111 | 5002 | 5004 | 1006 | 7251 | 7254 | 7253 | 7112 | 7013 | 4008 | 5041 | 5024 | 7258 | 7261 | 7260 | 1004 | 5042 | 7186 | 1005 | 5043 | 5044 | 7021 | 7015 | 7031 | 7188 | | | | | | | | | | | | |
| Cap. | 2052 | 2024 | 2051 | 2002 | 2027 | 2001 | 2052 | 2053 | 2056 | 2054 | 2781 | 2057 | 2783 | 2059 | 2058 | 2060 | 2789 | 2061 | 2787 | 2788 | 2790 | 2792 | 2107 | 2305 | 2106 | 2109 | 2793 | 2113 | 2206 | 2108 | 2112 | 2111 | 2101 | 2115 | 2102 | 2117 | 2219 | 2212 | 2214 | 2216 |
| Res. | | | | | 2023 | 2026 | 2782 | | | | 3106 | 3055 | 3001 | | 3056 | | 3057 | 3108 | 3104 | 3788 | 3105 | | 3107 | 3109 | 3789 | 3790 | | 3206 | 3115 | 3202 | 3102 | 3101 | 3111 | 3113 | | 3212 | | 3214 | 3216 | |
| | | | | | 3054 | 3052 | 3002 | 3058 | 3053 | | 3106 | 3055 | 3001 | | 3056 | | 3784 | | | | | | | | | | | | 3118 | 3208 | 3207 | 3112 | 3114 | | 3213 | | 3215 | 3217 | | |



- CARBON RESISTOR 0-33W ± 5%
- PLATE CERAMIC CAPACITOR
- ELECTROLYTIC CAPACITOR
- POLYESTER FLAT FOIL CAPACITOR
- MICROPOCO
- TUBULAR CERAMIC CAPACITOR
- MYLAR CAPACITOR



| ITEM | MARKED |
|------|------------------|
| 2060 | 8pF |
| 7015 | Polarity Reverse |
| 2054 | 20pF |

THE CIRCUIT IS IN POSITION MW, REC ON, RADIO ON, MIC, RIF 2 & MOTOR ON

RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
 BOKSHEUVELSTRAAT 14
 's-HERTOGENBOSCH
 TELEFOON 043 24244

7188

| | | | |
|----|---|------|------|
| 1 | - | 4.6V | 4.6V |
| 2 | - | 2.3V | 2.3V |
| 3 | - | 1.7V | 1.7V |
| 4 | - | 1.8V | 1.8V |
| 5 | - | 1.8V | 1.8V |
| 6 | - | 0V | 3.2V |
| 7 | - | 0V | 0V |
| 8 | - | 0.4V | 0.4V |
| 9 | - | 4.5V | 0.4V |
| 10 | - | 1.4V | 1.4V |
| 11 | - | 1.4V | 1.4V |
| 12 | - | 1.0V | 2.0V |
| 13 | - | 1.4V | 1.4V |
| 14 | - | 1.4V | 1.4V |
| 15 | - | 1.4V | 1.4V |
| 16 | - | 0.1V | 0.8V |

7186

| | | | |
|----|---|------|------|
| 1 | - | 0V | 1.4V |
| 2 | - | 1.4V | 0.7V |
| 3 | - | 1.4V | 0.7V |
| 4 | - | 4.5V | 4.5V |
| 5 | - | 4.5V | 4.2V |
| 6 | - | 0.7V | 0.7V |
| 7 | - | 4.5V | 4.5V |
| 8 | - | 4.5V | 4.5V |
| 9 | - | 4.5V | 4.5V |
| 10 | - | 4.5V | 4.5V |
| 11 | - | 1.4V | 1.4V |
| 12 | - | 0V | 0.6V |
| 13 | - | 0.7V | 0.7V |
| 14 | - | 3.2V | 3.2V |
| 15 | - | 1.3V | 0.1V |
| 16 | - | 0V | 0V |

7111

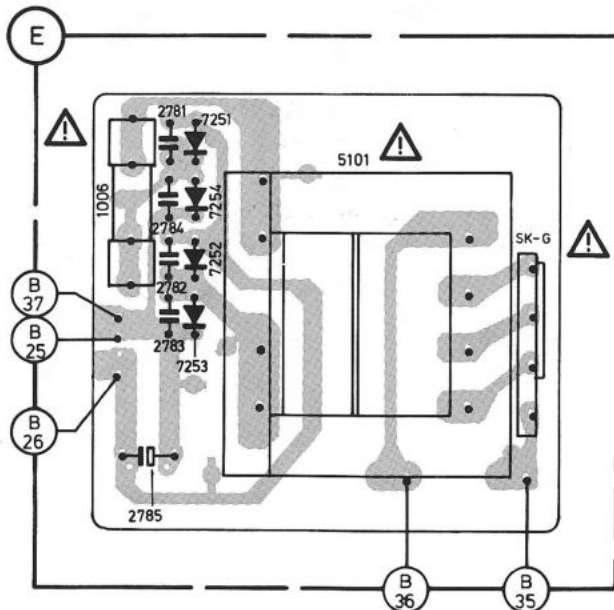
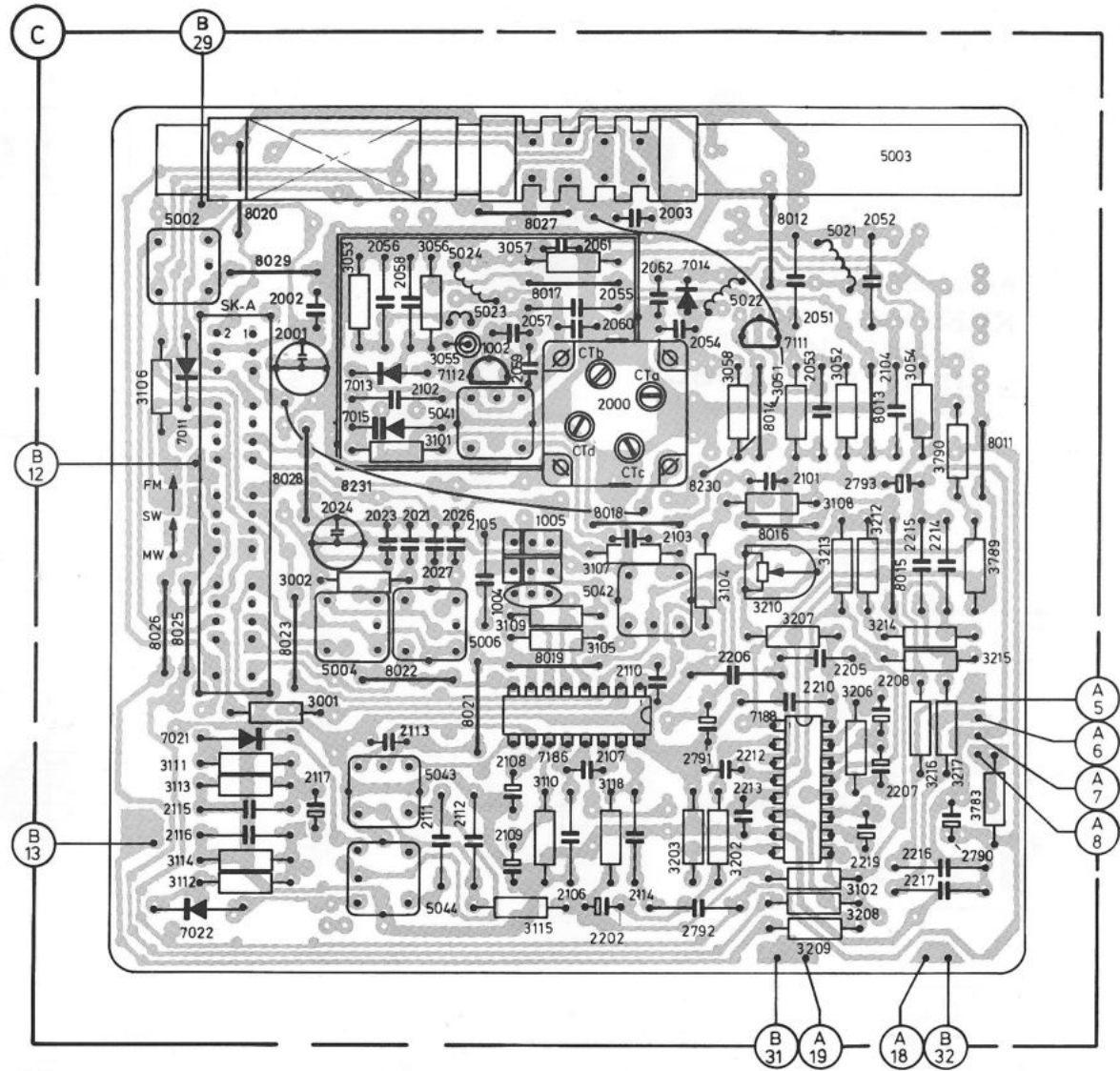
| | | | |
|---|---|------|------|
| e | - | 0V | 0.6V |
| b | - | 0V | 1.3V |
| c | - | 4.5V | 4.0V |

7112

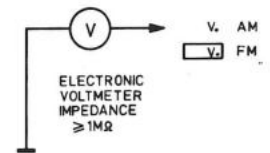
| | | | |
|---|---|------|------|
| e | - | 0V | 0.6V |
| b | - | 0V | 1.3V |
| c | - | 4.5V | 4.1V |

RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
 BOKSHEUVELSTRAAT 14
 's-HERTOGENBOSCH
 TELEFOON 073 - 2' 8344

| | |
|-------|---|
| Misc. | 1006 8026 5002 7022 SK-A 8028 5101 7013 8022 5041 5024 5023 8027 7186 8018 7014 8230 5022 8012 5021 5003 8011 |
| | 7011 8025 8020 8023 5004 7015 5043 7112 1002 8017 5042 8014 7111 8013 |
| | 7021 8029 8231 5044 8021 1004 1005 8016 8015 |
| | 7251+7254 SK-G 5006 8019 7188 |
| Cap. | 2115 2002 2024 2056 2058 2102 2026 2059 2057 2060+2062 2003 2054 2206 2101 2051+2053 2104 2214+2217 |
| | 2116 2001 2117 2023 2021 2027 2105 2106+2110 2055 2114 2103 2792 2212 2205 2793 2208 2790 |
| | 2781+2785 2111+2113 2000 2202 2791 2213 2210 2219 2207 |
| Res. | 3106 3111+3114 3002 3001 3053 3055+3057 3109 3110 3107 3203 3058 3210 3051 3108 3052 3212 3054 3217 3789 |
| | 3101 3115 3105 3104 3118 3213 3102 3214 3216 3783 3215 |
| | 3206+3209 3790 |

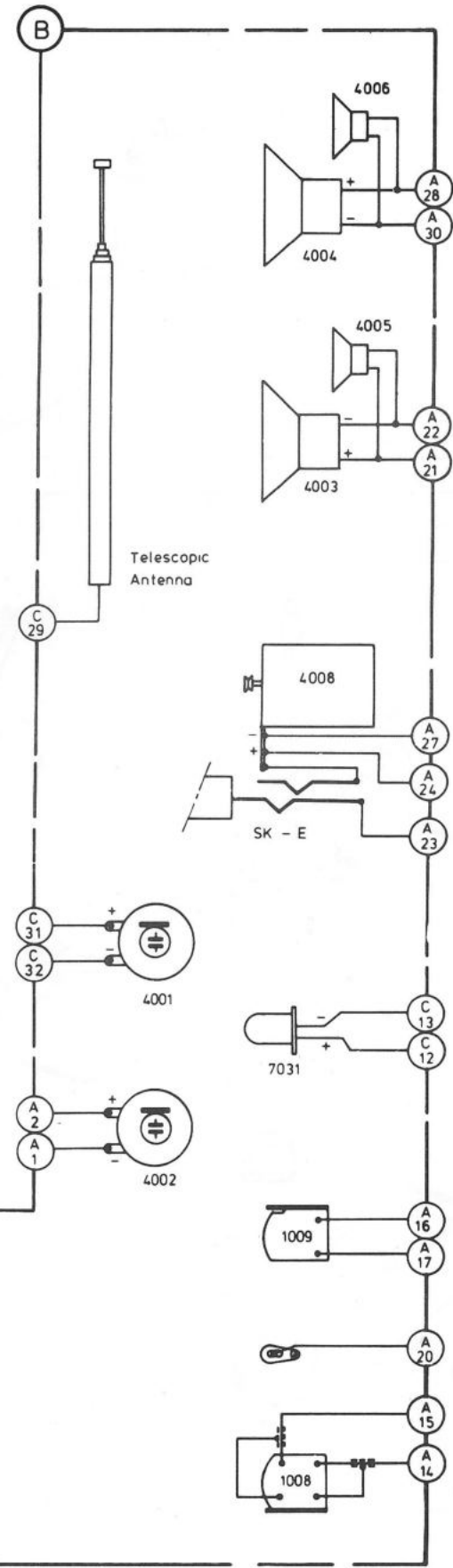
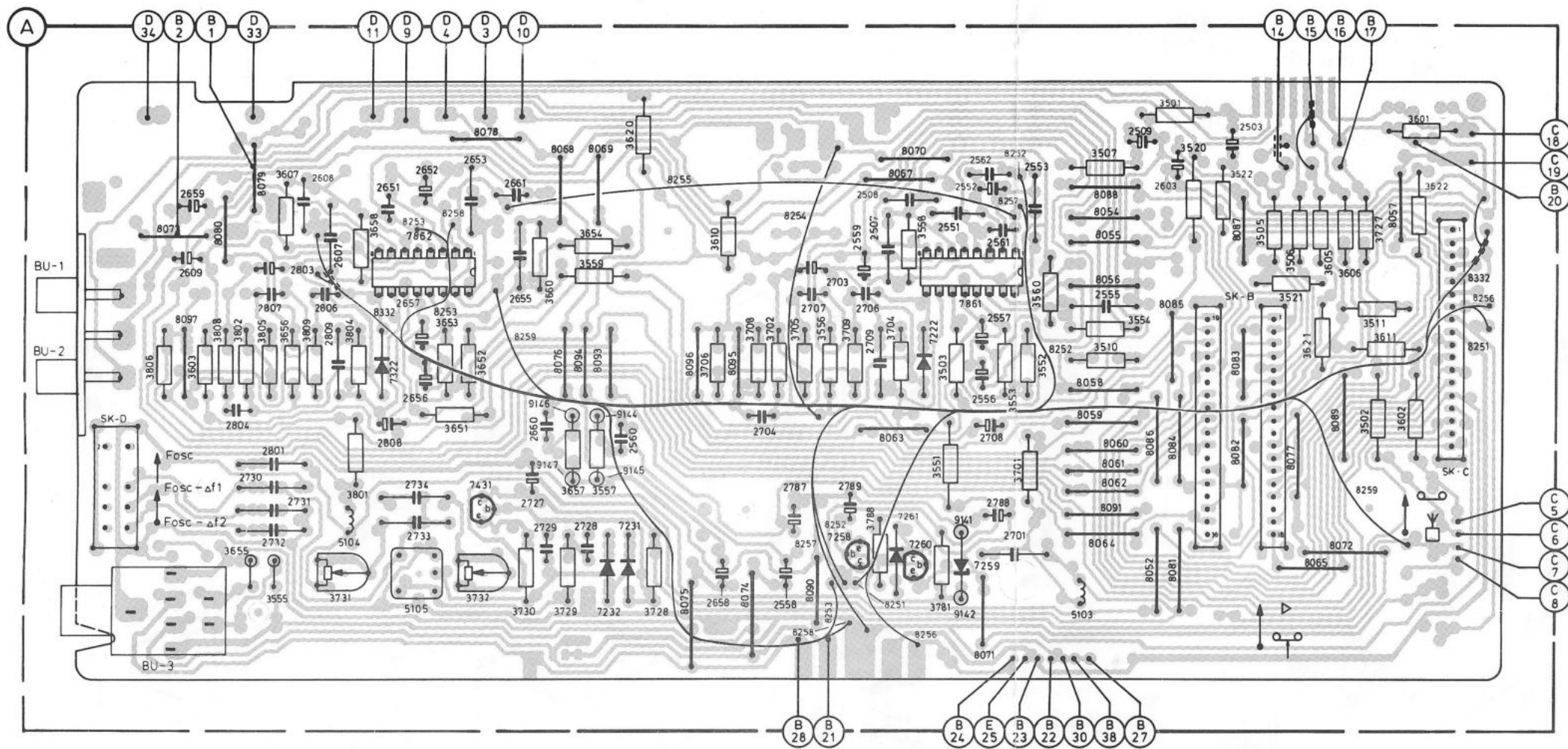


Note:
 Item 7015, reverse polarity for -/11



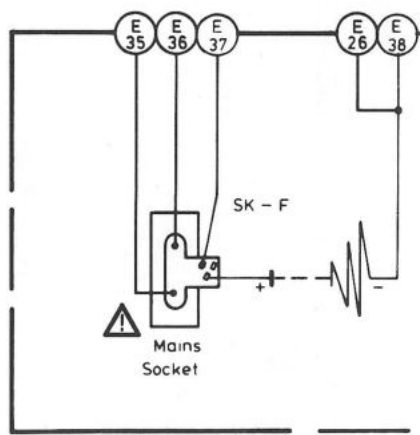
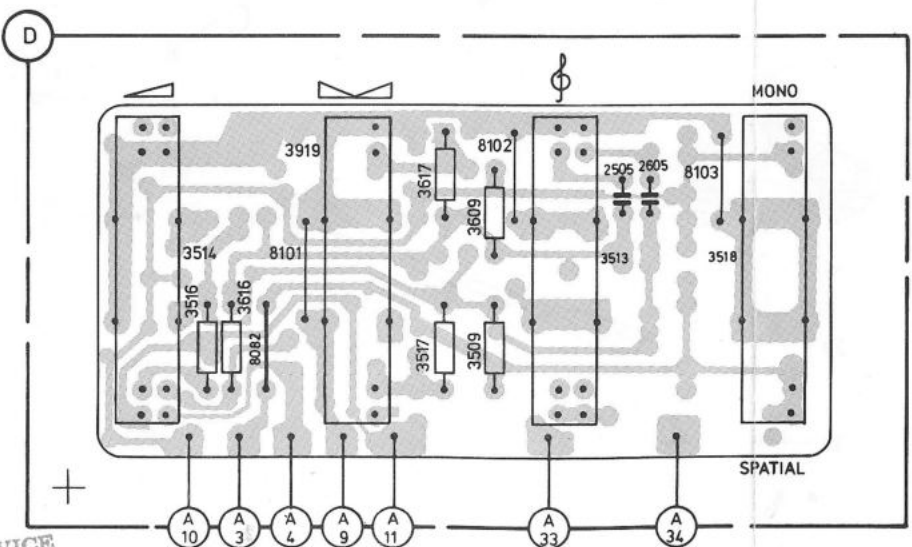
RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
 BOKSHEUVELSTRAAT 14
 's-HERTOGENBOSCH
 TELEFOON 073 - 2' 8344

26237
 16/12/82



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| Misc. | BU-1 | BU-2 | BU-3 | 8080 | 5104 | 7322 | 7862 | 8078 | 8259 | 8068 | 8076 | 8069 | 9144 | 8082 | 8075 | 8096 | 8074 | 8257 | 8254 | 8067 | 8070 | 7259 | 9141 | 7861 | 8058 | 8054 | 8060 | 8086 | 8081 | 8087 | 8082 | 8077 | 8089 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

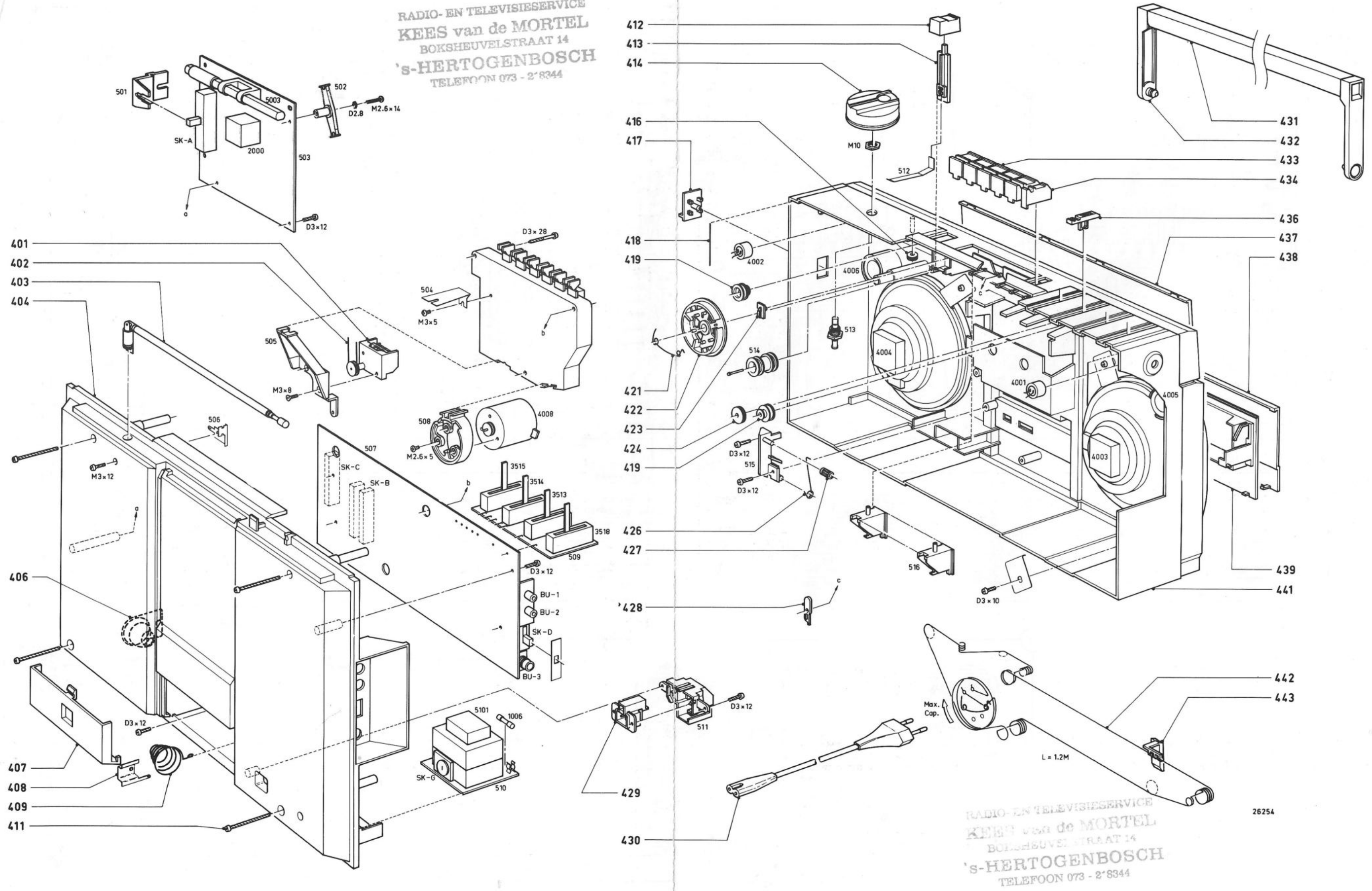
- | | |
|------------------|-------------|
| <u>7861/7862</u> | <u>7258</u> |
| 1 - 0V | e - 5.0V |
| 2 - 4.8V | b - 5.6V |
| 3 - 8.9V | c - 9.0V |
| 4 - 9.0V | |
| 5 - 2.1V | |
| 6 - 2.1V | |
| 7 - 0V | e - 5.0V |
| 8 - 0V | b - 5.0V |
| 9 - 0V | c - 5.6V |
| 10 - 2.2V | |
| 11 - 4.0V | |
| 12 - 8.7V | |
| 13 - 0.5V | <u>7260</u> |
| 14 - 0V | e - 5.0V |
| 15 - 0V | b - 5.0V |
| 16 - 0.6V | c - 5.0V |



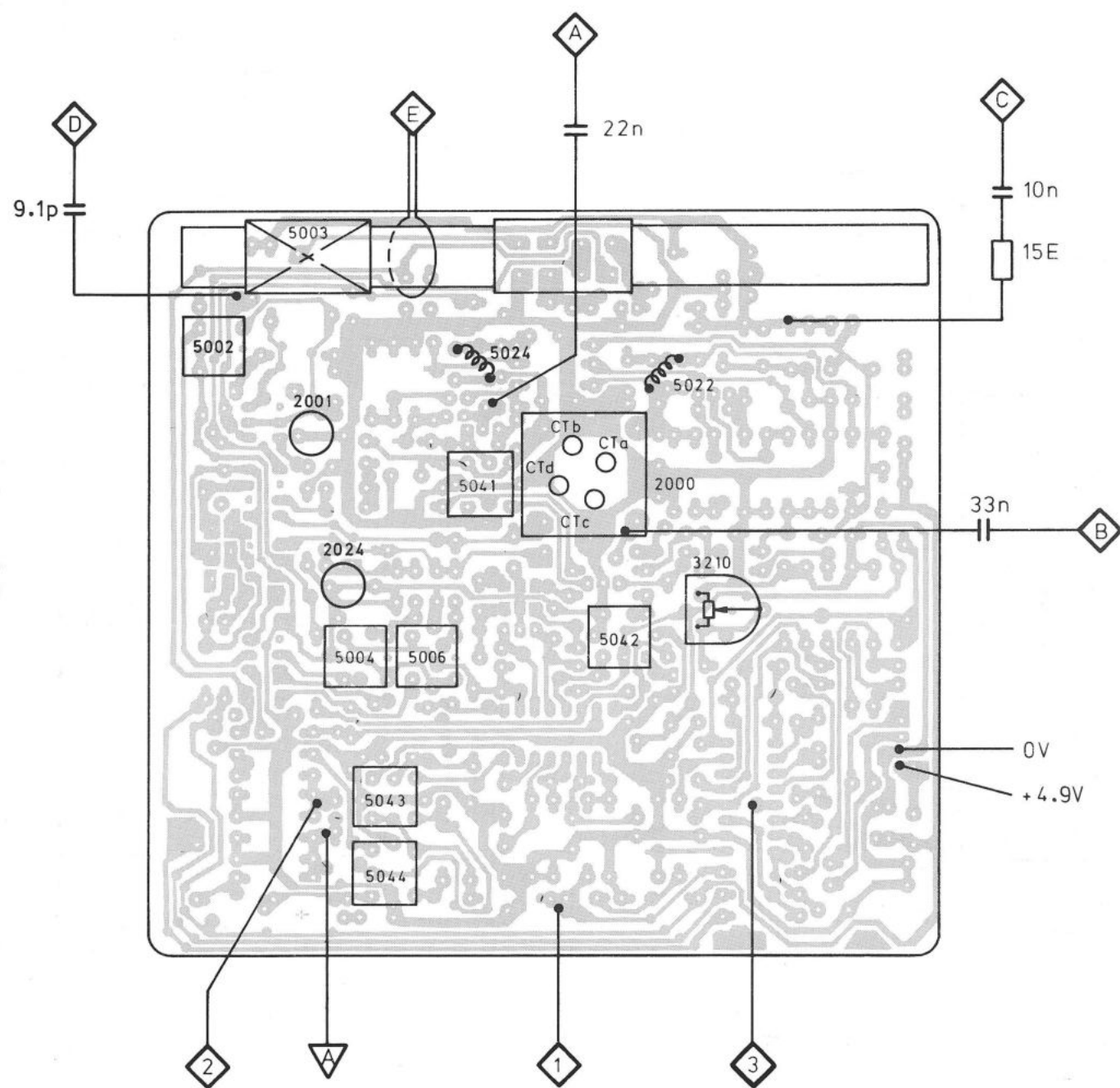
RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
 BOKSHEUVELSTRAAT 14
 's-HERTOGENBOSCH
 TELEFOON 073 - 2'8244

RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
 BOKSHEUVELSTRAAT 14
 's-HERTOGENBOSCH
 TELEFOON 073 - 2'8344

RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
 BOKSHEUVELSTRAAT 14
 's-HERTOGENBOSCH
 TELEFOON 073 - 2'8344










| | | | | | | | | | | | | | |
|-----|----------------|-----|----------------|-----|----------------|-----|----------------|-----|----------------|-----|----------------|-----|----------------|
| 401 | 4822 349 50117 | 407 | 4822 423 50729 | 413 | 4822 403 30392 | 419 | 4822 528 50135 | 426 | 4822 492 62824 | 432 | 4822 498 10185 | 438 | 4822 443 61199 |
| 402 | 4822 358 30201 | 408 | 4822 256 60216 | 414 | 4822 413 51223 | 421 | 4822 429 40822 | 427 | 4822 532 80653 | 433 | 4822 410 30278 | 439 | 4822 443 40135 |
| 403 | 4822 303 30285 | 409 | 4822 492 51355 | 416 | 4822 528 80907 | 422 | 4822 528 80946 | 429 | 4822 267 30474 | 434 | 4822 410 30279 | 441 | 4822 423 50756 |
| 404 | 4822 422 50055 | 411 | 4822 502 11431 | 417 | 4822 411 60956 | 423 | 4822 460 10577 | 430 | 4822 321 10105 | 436 | 4822 413 31185 | 442 | 4822 321 30214 |
| 406 | 4822 492 51586 | 412 | 4822 410 30281 | 418 | 4822 492 62759 | 424 | 4822 528 80599 | 431 | 4822 466 91423 | 437 | 4822 450 60328 | 443 | 4822 450 80869 |



26255
22/3/83

RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
BOKSHEUVELSTRAAT 14
's-HERTOGENBOSCH
TELEFOON 073 - 2'8344

| | | | | | | | | |
|--|----------------------------------|--------------------------------------|------|------|------|---------------------|-------|-------|
| SK-A | | | | | | | | |
| MW 520-1605KHz | ≈ 455KHz Δf=10KHz | via 33nF | min. | | 5042 | | max. | symm. |
| | 512KHz | | max. | 5006 | | | max. | |
| | 1635KHz | Mod=1KHz | min. | CTd | | | | |
| | 600KHz | | | 5003 | | | | |
| 1400KHz | | | | CTc | | | | |
| SW 3.9-11.975MHz | 3.82MHz | via 9.1pF Mod=1KHz | max. | 5004 | | max. | | |
| | 12.22MHz | | min. | 2024 | | | | |
| | 4.8MHz | | | 5002 | | | | |
| | 11.8MHz | | | 2001 | | | | |
| FM 87.5-108MHz | ≈ 10.7MHz Δf=300KHz (50Hz) | via 22nF | min. | 5044 | | max. | symm. | |
| | 5041 | | | | | | | |
| | 5043 | | | | | | | |
| | 86.5MHz | via 10nF + 15 ohm Mod=1KHz | max. | 5044 | | max.lin. + symm. | | |
| | 5042 | | | | | | | |
| | CTb | | | | | | | |
| 109MHz | min. | CTa | | max | | | | |
| | | | | | | | | |
| FM Stereo | | | | 3210 | | 19±0.2KHz | | |
| Repeat - Herhalen - Répéter - Wiederholen - Repetera - Ricominciare - Gentage - Ghentagelse - Toista | | | | | | | | |

|  | | |    | | | | | |
|---|----------------|----------------|--|--------------|----------------|-----------------------|----------------------|----------------|
| 2000 | Varicon | 4822 125 20226 | 7011,7222 | CDG24 | 4822 130 30302 | | | |
| 2001,2024 | Trimmer 15 pF | 4822 125 50062 | 7013,7014 | CDG00 | 4822 130 30302 | | | |
| 2002 | Cer. 3 pF | 4822 122 31223 | 7015 | FV1043 | 4822 130 31907 | | | |
| 2026 | Poly 340 pF | 4822 121 50615 | 7021,7022 | 1N60P | 4822 130 30312 | | | |
| 2027 | Cer. 25 pF | 4822 122 40237 | 7031 | SLP-141B | 4822 130 31191 | | | |
| 2101,2113 | Cer. 100 nF | 4822 122 30108 | 7111 | ST1502CD | 4822 130 41356 | | | |
| 2110 | Cer. 47 nF | 4822 121 41829 | 7112 | ST1502C | 4822 130 41461 | | | |
| 2661 | Cer. 100 nF | 4822 122 40296 | 7186 | TEA5570 | 4822 209 81563 | | | |
| 2730 | Poly 2n2 | 4822 121 50415 | 7188 | LA3361A | 4822 209 80821 | | | |
|  | | | 7251,7252 | 1N4001 | 4822 130 31438 | | | |
| | | | 7258 | 1702MNO | 4822 130 44121 | | | |
| | | | 7259 | BZX79/C5V6 | 4822 130 34173 | | | |
| | | | 7260 | 1402CD | 4822 130 40937 | | | |
| | | | 7431 | 1402E | 4822 130 44196 | | | |
| | | | 7861,7862 | TDA1012 | 4822 209 80786 | | | |
| | | |  | | | Miscellaneous- | | |
| | | | | | | 1002 | Bead core | 4822 526 10011 |
| | | | | | | 1004 | Cer. filter 10.7 MHz | 4822 242 70249 |
| | | | | | | 1005 | Cer. filter 455 kHz | 4822 242 70429 |
| 1006 | Fuse 1 AT | 4822 253 30021 | | | | | | |
| 4001,4002 | Electric mic | 4822 242 10033 | | | | | | |
| 4003,4004 | Speaker 4 Ω | 4822 240 30211 | | | | | | |
| 4005,4006 | Buzzer | 4822 280 10149 | | | | | | |
| 1008 | REC/pl.b. head | 4822 249 10101 | | | | | | |
| 1009 | Erase head | 4822 249 40123 | | | | | | |
|  | | | 4008 | Motor | 4822 361 20414 | | | |
| | | | SK-A | Band | 4822 277 20813 | | | |
| | | | SK-B | REC | 4822 277 20815 | | | |
| | | | SK-C | Radio tape | 4822 277 20854 | | | |
| | | | SK-D | RIF | 4822 277 20653 | | | |
| | | | SK-E | Volt. select | 4822 272 10225 | | | |
| | | | BU1-BU2 | | 4822 267 40431 | | | |
| | | | BU3 | | 4822 267 50311 | | | |
| | | | 5002 | Sw. ant. | 4822 156 40677 | | | |
| | | | 5003 | MW ant. | 4822 157 51106 | | | |
| 5004 | SW osc. | 4822 156 20871 | | | | | | |
| 5006 | MW osc. | 4822 156 30523 | | | | | | |
| 5023 | Fe ind. 0.7 nH | 4822 157 50791 | | | | | | |
| 5041 | IF-FM OR | 4822 156 30439 | | | | | | |
| 5042 | IF-AM white | 4822 153 10373 | | | | | | |
| 5043 | IF-FM pink | 4822 156 30926 | | | | | | |
| 5044 | IF-FM blue | 4822 156 30927 | | | | | | |
| 5101 | Main transfo | 4822 146 20813 | | | | | | |
| 5103,5104 | Bias filter | 4822 156 90031 | | | | | | |
| 5105 | Bias osc. | 4822 156 30831 | | | | | | |

GB

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

NL

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

I

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

F

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

D

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
BOKSHEUVELSTRAAT 14
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TELEFOON 073 - 2'8344