

### 3. Safety instructions, Maintenance instructions, Warnings and Notes

Chassis AA5H

3

#### Safety Instructions for Repairs

1. Safety regulations require that during a repair:
  - the set should be connected to the mains via an isolating transformer
  - safety components, indicated by the symbol ▲ should be replaced by components identical to the original ones
  - when replacing the CRT, safety goggles must be worn.
2. Safety regulations require also that after a repair:
  - the set should be returned in its original condition
  - the cabinet should be checked for defects to avoid touching, by the customer, of inner parts
  - the insulation of the mains lead should be checked for external damage
  - the mains lead strain relief should be checked on its function
  - the cableform and EHT cable are routed correctly and fixed with the mounted cable clamps in order to avoid touching of the CRT, hot components or heat sinks
  - the electrical resistance between mains plug and the secondary side is checked. This check can be done as follows:
    - unplug the mains cord and connect a wire between the two pins of the mains plug
    - switch on the TV with the main switch
    - measure the resistance value between the pins of the mains plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be between 4.5 MΩ and 12 MΩ.
    - switch off the TV and remove the wire between the two pins of the mains plug
  - thermally loaded solder joints should be resoldered. This includes components like LOT, the line output transistor, fly-back capacitor.

#### Maintenance Instructions

- It is recommended to have a maintenance inspection carried out periodically by a qualified service employee. The interval depends on the usage conditions.
- When the set is used in a living room the recommended interval is 3 to 5 years. When the set is used in the kitchen or garage this interval is 1 year.
  - During the maintenance inspection the above mentioned "safety instructions for repair" should be carried out. The power supply and deflection circuitry on the chassis, the CRT panel and the neck of the CRT should be cleaned.

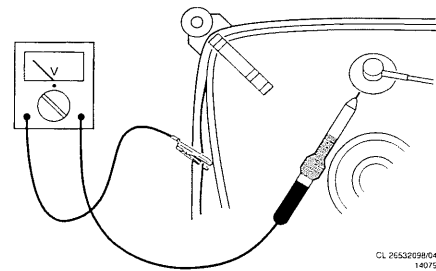


Fig. 3.1

#### Warnings

1. In order to prevent damage to IC's and transistors any flash-over of the EHT should be avoided. To prevent damage to the picture tube the method, indicated in Fig. 3.1, has to be applied to discharge the picture tube. Make use of an EHT probe and a universal meter (position DC-V). Discharge until the reading of the meter is 0V (after approx 30s).
2. **ESD**

All IC's and many other semi-conductors are sensitive to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools on the same potential.
3. Proceed with care when testing the EHT section and the picture tube.
4. Never replace any modules or any other parts while the set is switched on.
5. Use plastic instead of metal alignment tools. This will prevent any short circuits and the danger of a circuit becoming unstable.
6. Upon a repair of a transistor or an IC assembly (e.g. a transistor or IC with heatsink and spring) remounting should be carried out in the following order:
  1. Mount transistor or IC on heatsink with spring.
  2. Resolder the joints.

#### Notes

1. Do not use heatsinks as earth reference.
2. The direct voltages and waveforms should be measured relative to the nearest earthing point on the printed circuit board.
3. The direct voltages and waveforms are measured in the Service Default Mode (see chapter 9). Use a colour bar pattern of a pattern generator (e.g PM5518)
4. The DC voltages and oscillograms are where necessary measured with and without aerial signal. Voltages and oscillograms in the power supply section have been measured for both normal operation (Ⓜ) and in the stand-by mode (Ⓢ). As an input signal a colour bar pattern has been used.
5. The picture tube PWB has printed spark gaps. each spark gap is connected between an electrode of the picture tube and the Aguadag coating.

### 4. Mechanical instructions

For the main carrier two service positions are possible:

- A: For faultfinding on the component side of the main carrier
- B: For (de)soldering activities on the copper side of the main carrier

Position A can be reached by first removing the mains cord from it's fixation, then loosen the carrier lips (1) and then pulling the carrier panel (2) for approximately 10 cm.

Position B can be reached from position A after disconnecting the degaussing cable. Put the carrier on the line transformer side.

To put the radio or system module on the main-carrier, remove PCB out of the bracket and put it in the position displayed in Fig. B.

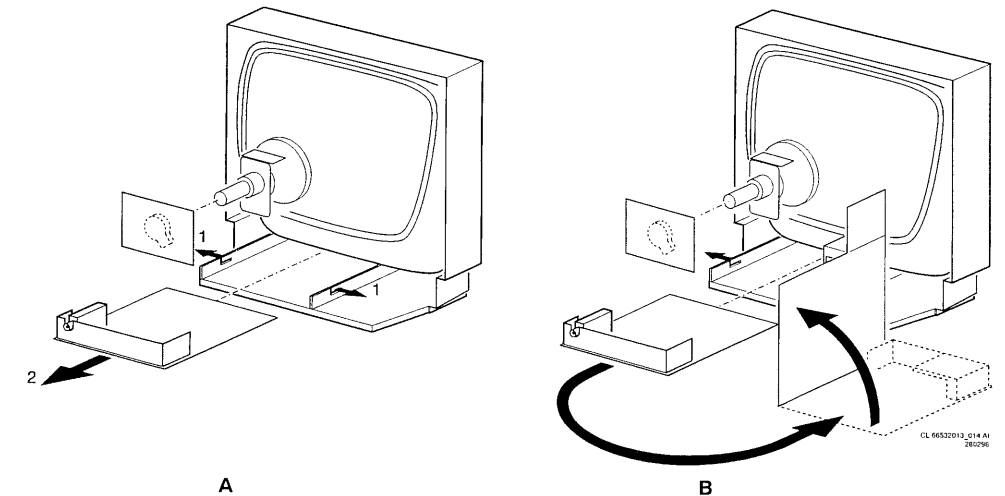


Fig. 4.1

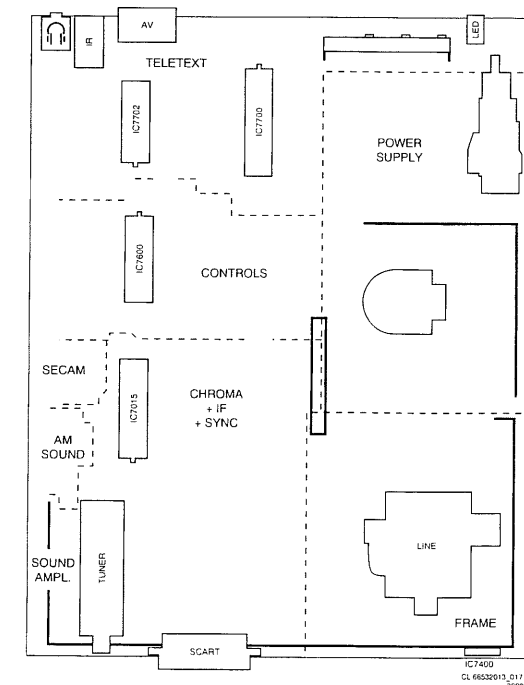


Fig. 4.2

# 5. Overview oscillograms / Übersicht Oszillogramme / Vue d'ensemble des oscillogrammes

Chassis AA5H 4

# Survey of testpoints / Übersicht über die Teststellen / Presentation des points à tester

Main carrier (Component side)

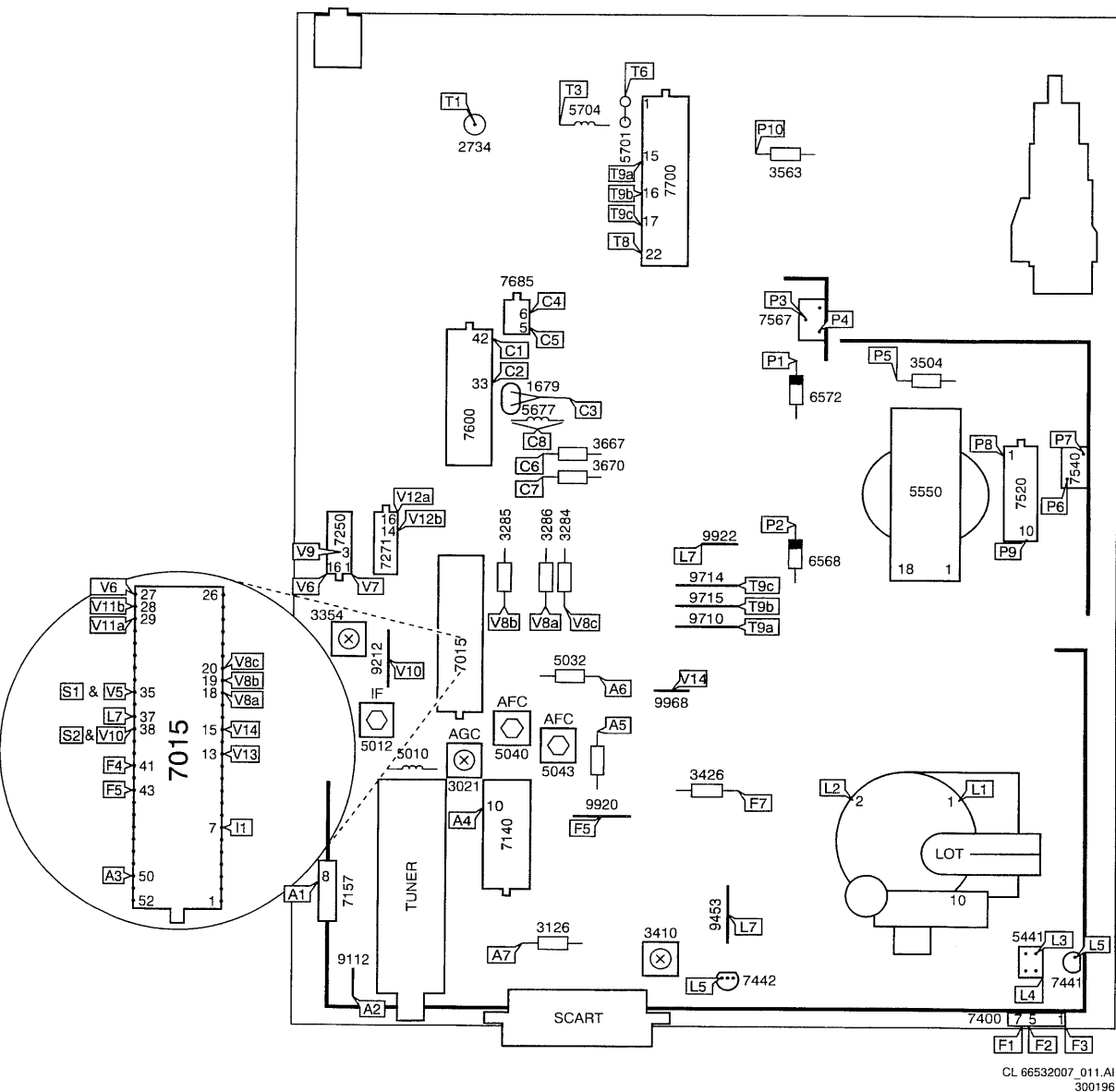


Fig. 5.1

Mini neck CRT panel (Back view)

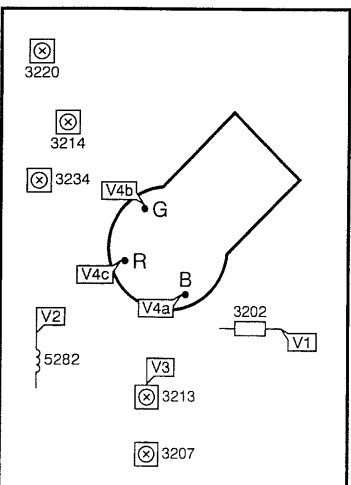


Fig. 5.2

Narrow neck CRT panel (Back view)

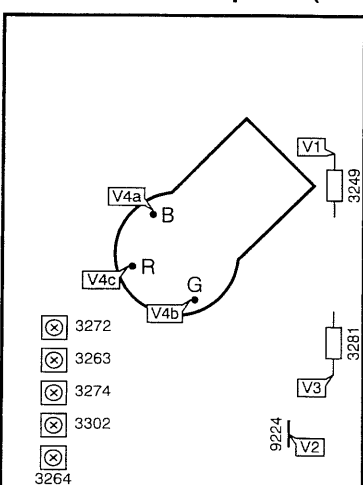
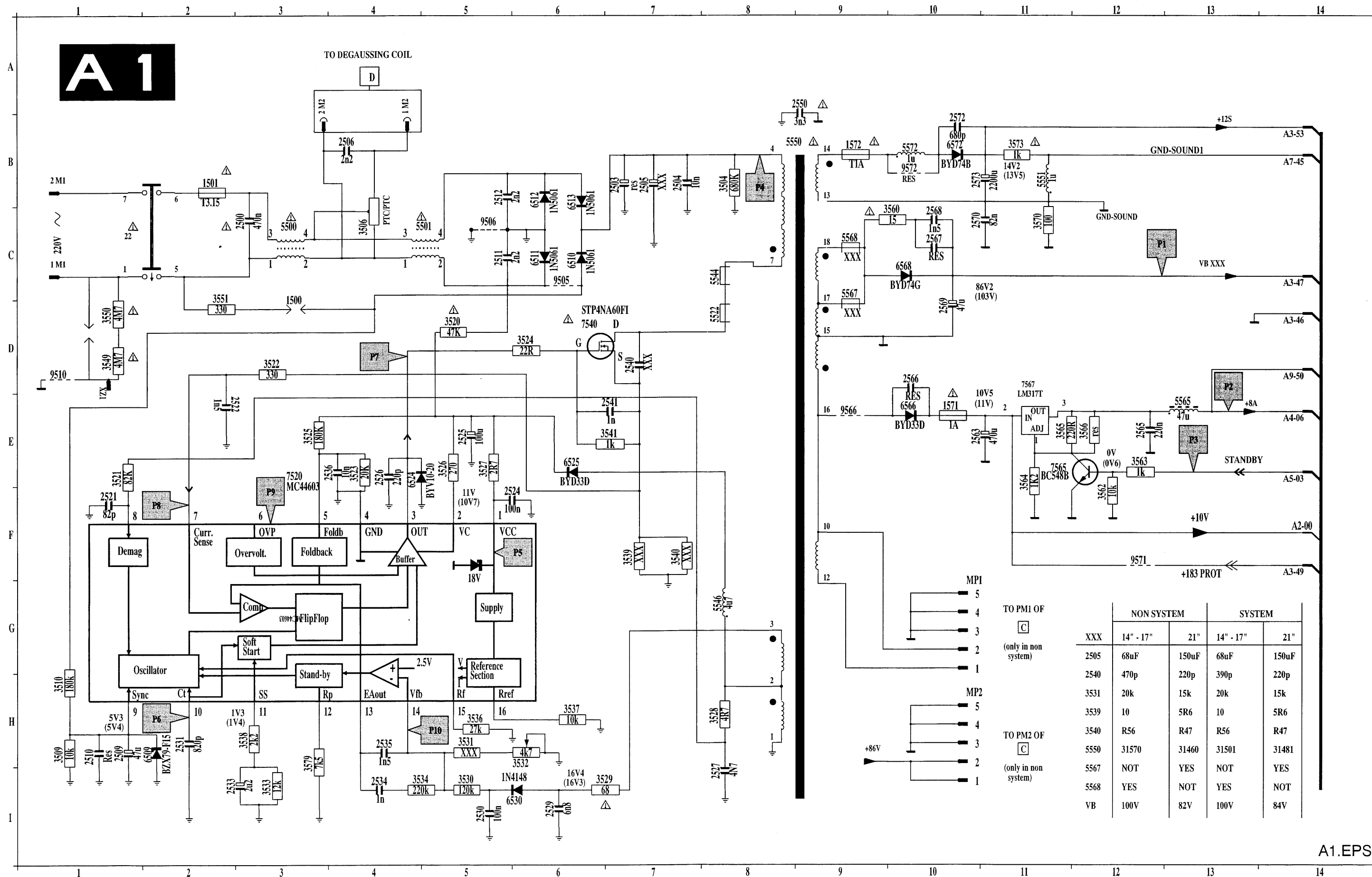
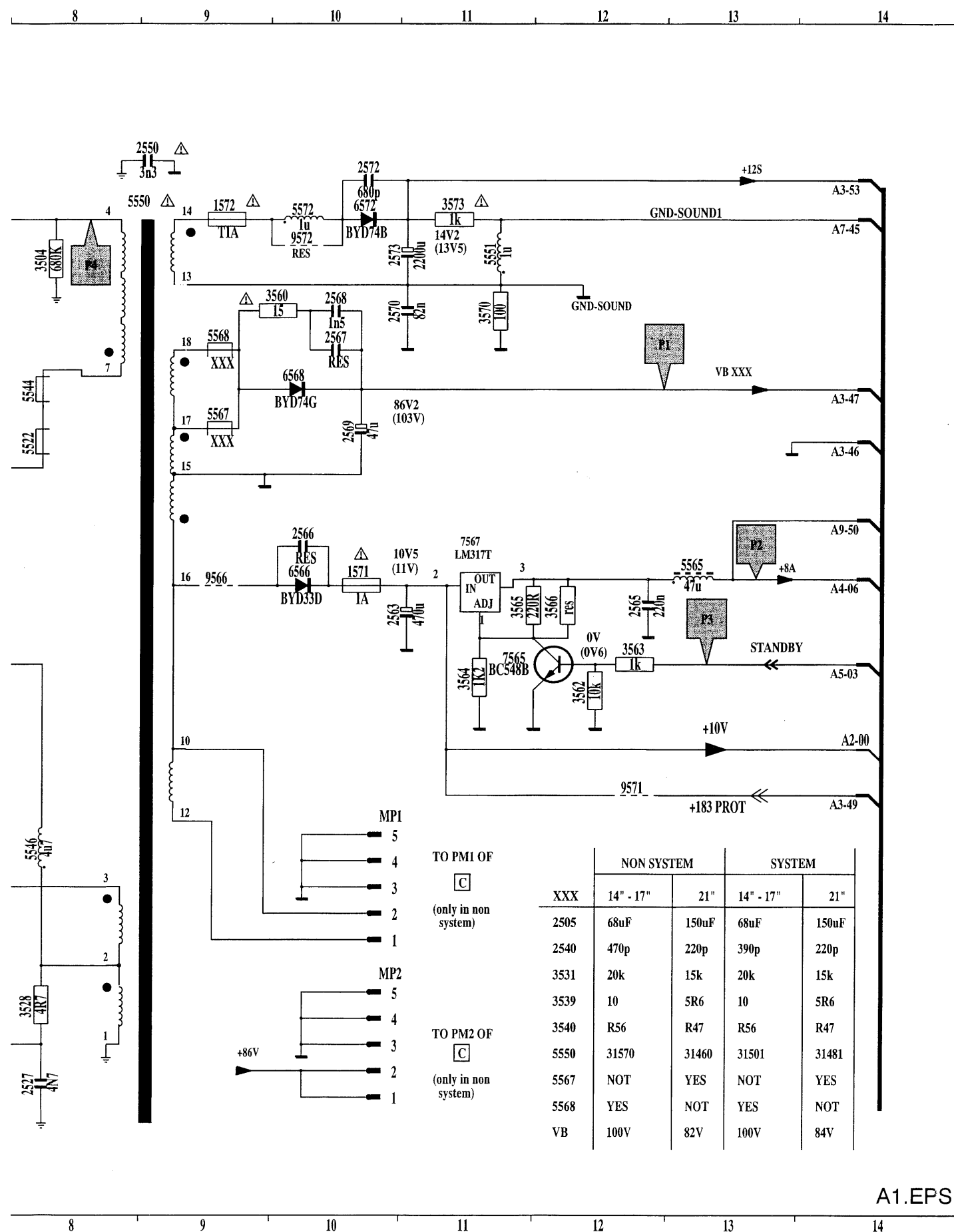
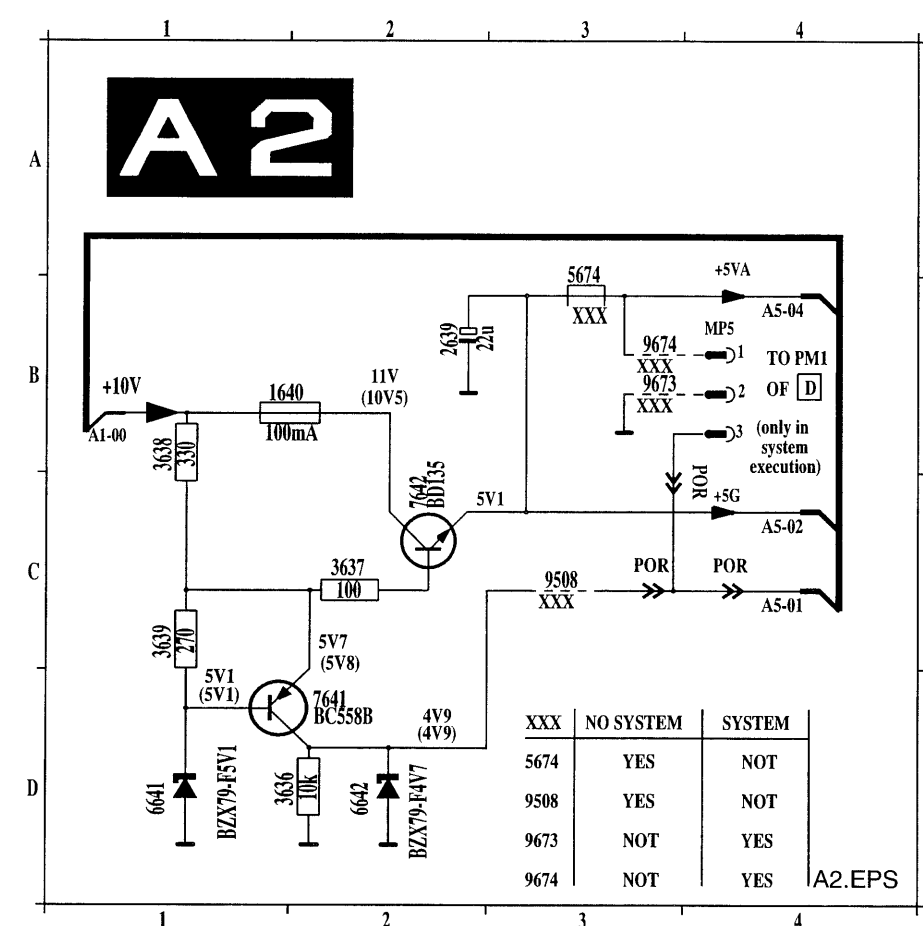


Fig. 5.3

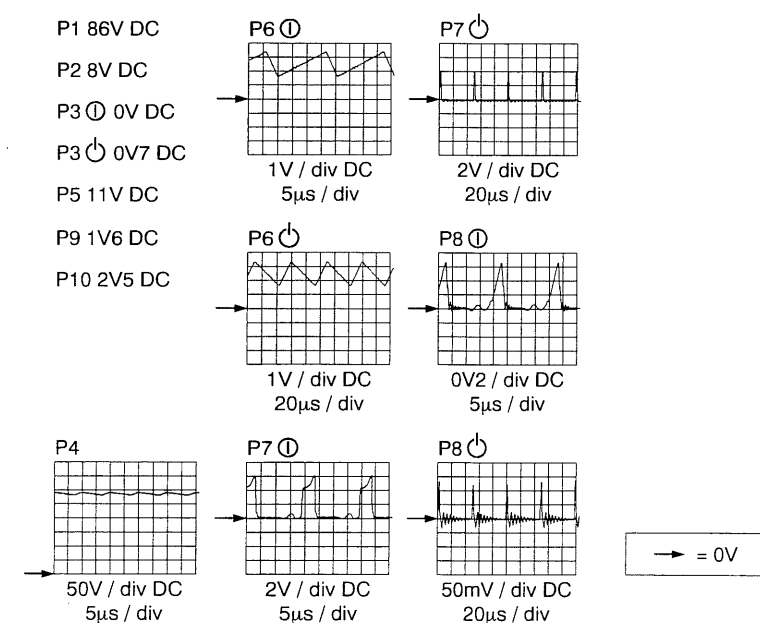




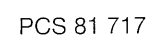
A1.EPS



A2.EPS

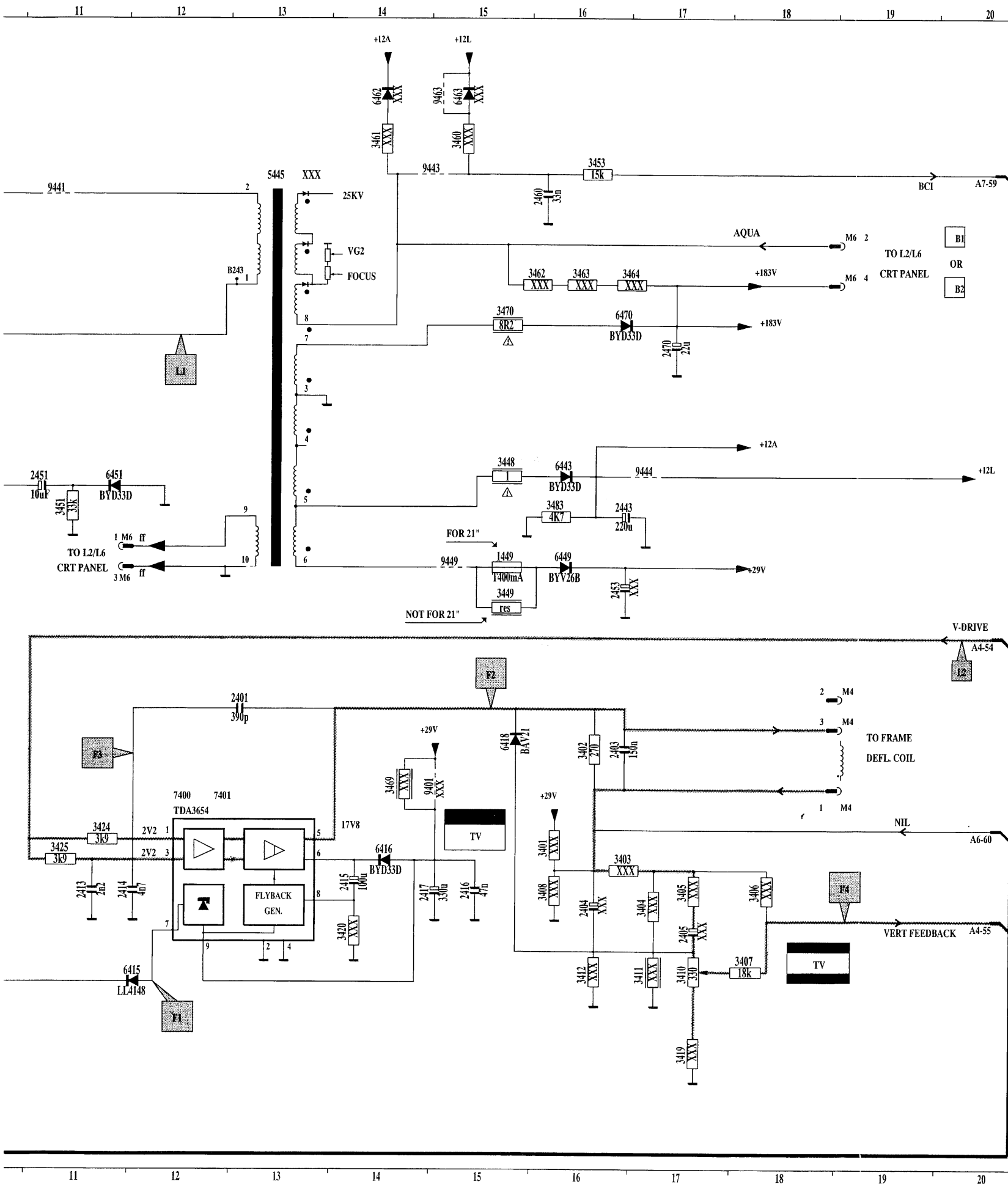


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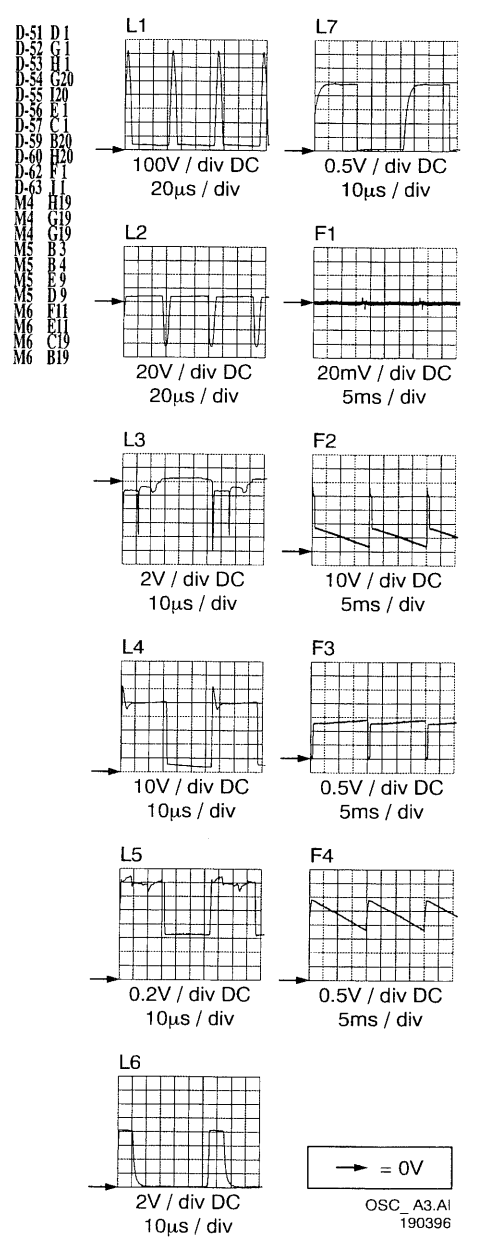


Deflection / Ablenkung / Déflexion (Part 2)

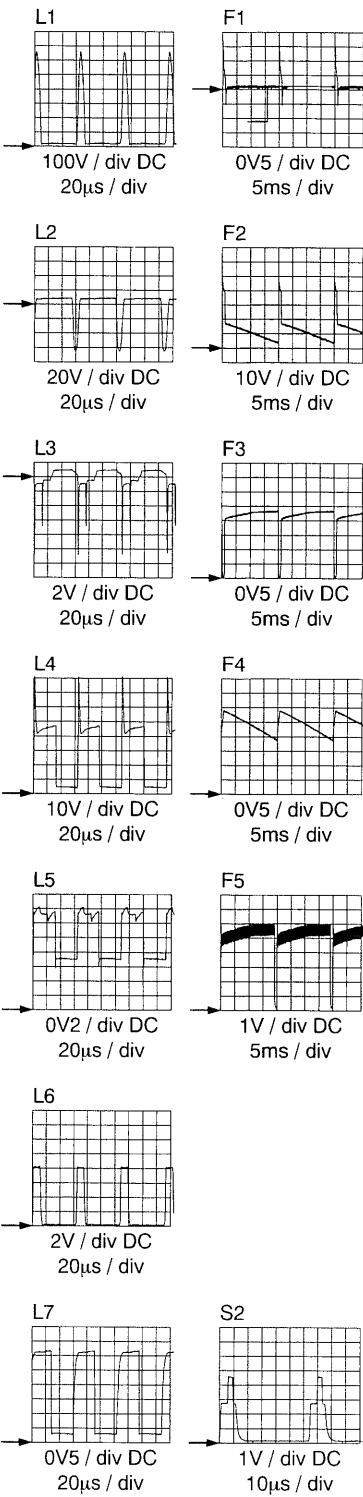
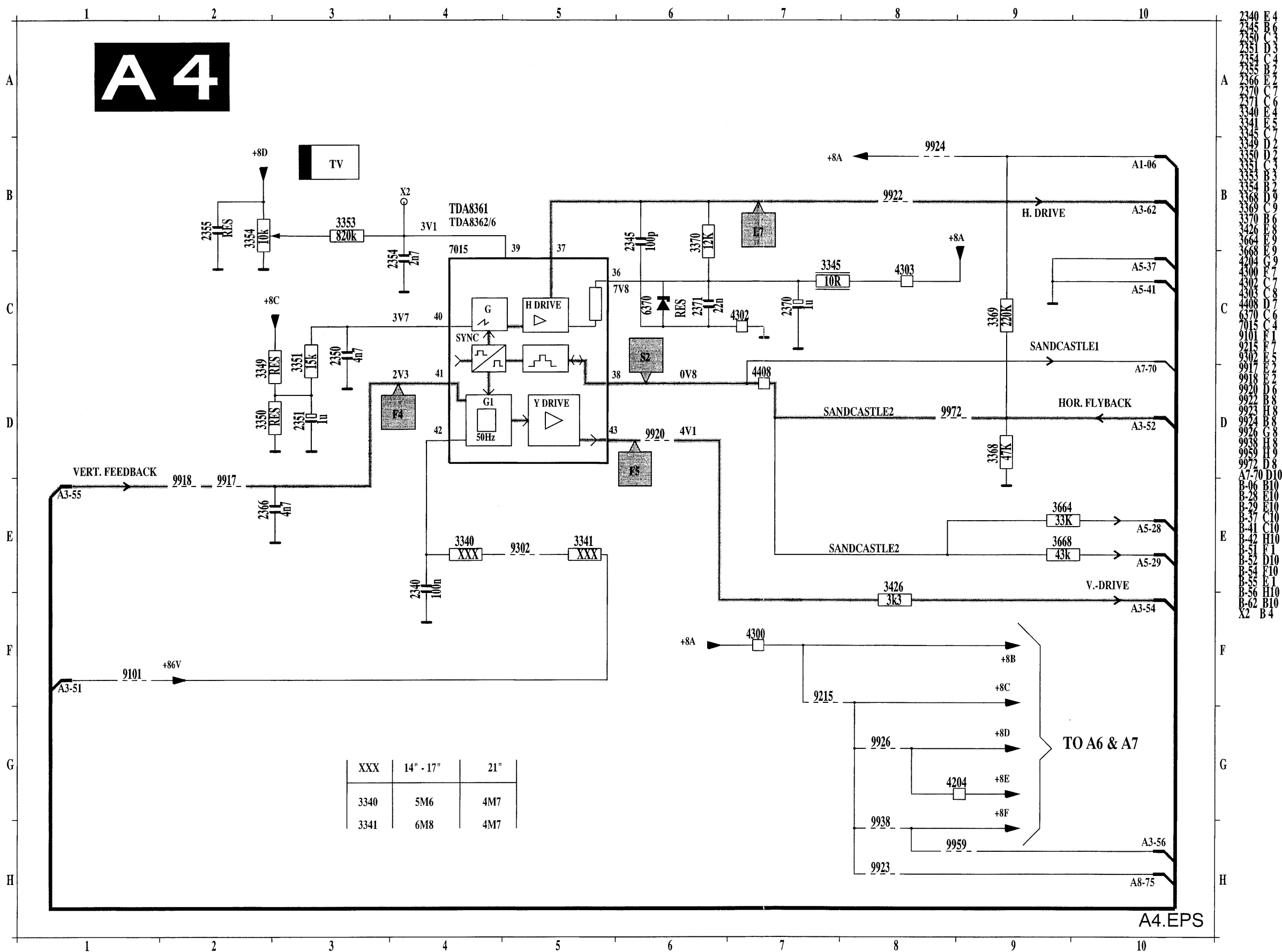
Deflection / Ablenkung / Déflexion



| XXX  | 14"    | 17"    | 21"    |
|------|--------|--------|--------|
| 2404 | 1500uF | 3300uF | 3300uF |
| 2405 | 22uF   | 4u7    | 2u2    |
| 2445 | 1n     | 1n2    | 1n5    |
| 2446 | 9n1    | 8n2    | 12n    |
| 2450 | 560n   | 330n   | 680n   |
| 2453 | 470uF  | 330uF  | 470uF  |
| 2455 | 10n    | 10n    | 22n    |
| 3401 | 3k9    | 3k9    | 1k     |
| 3403 | 4k7    | 4k7    | 10k    |
| 3404 | 2k     | 2k7    | 4k7    |
| 3405 | 270    | 220    | 750    |
| 3406 | 12k    | 12k    | 22k    |
| 3408 | 1k5    | 2k2    | 1k     |
| 3411 | 3R3    | 3R3    | 2R7    |
| 3412 | 3R3    | 2R7    | 2R2    |
| 3419 | 100    | 56     | 33     |
| 3420 | 1k     | 1k     | 560    |
| 3421 | 39     | 39     | 27     |
| 3444 | 4k7    | 3k9    | 3k3    |
| 3454 | ---    | 1k     | 1k     |
| 3460 | 39k    | 47k    | 47k    |
| 3461 | ---    | 47k    | 47k    |
| 3462 | ---    | 100k   | 100k   |
| 3463 | ---    | 100k   | 100k   |
| 3464 | ---    | 82k    | 62k    |
| 3469 | 4R7    | 4R7    | ---    |
| 5445 | uS 3/4 | uS 3/4 | uS S   |
| 5446 | 47uH   | 47uH   | 33uH   |
| 5454 | ---    | YES    | YES    |
| 6462 | ---    | BAV21  | BAV21  |
| 6463 | ---    | BAV21  | BAV21  |
| 9401 | ---    | ---    | JMP    |
| 9454 | JMP    | ---    | ---    |
| 9463 | JMP    | ---    | ---    |



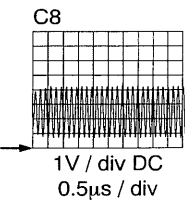
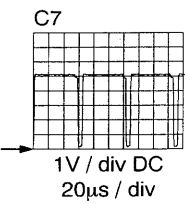
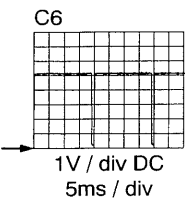
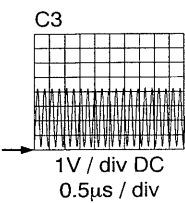




→ = 0V

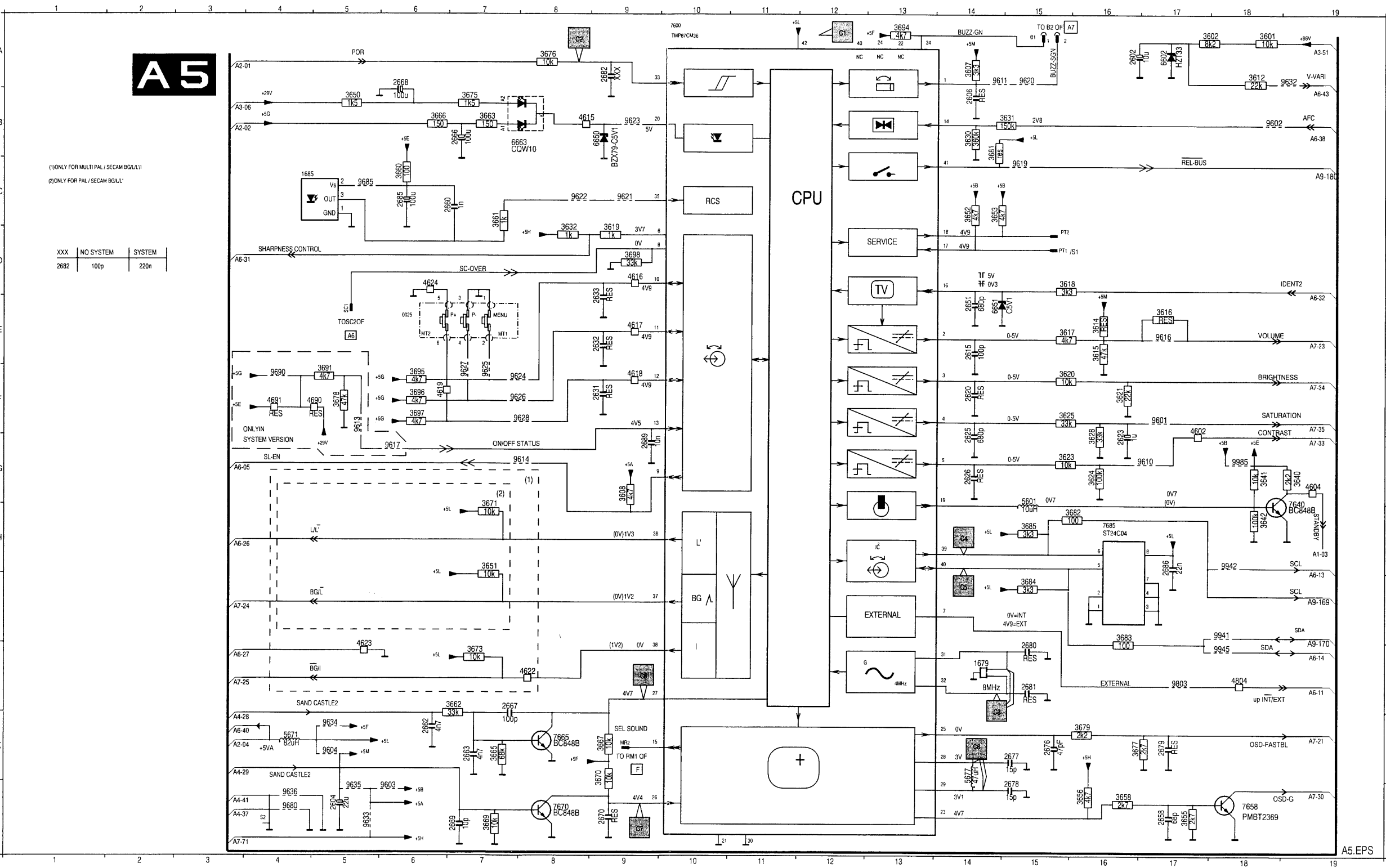
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C1 5V DC  
C2 4V6 DC  
C4 5V DC  
C5 5V DC



→ = 0V

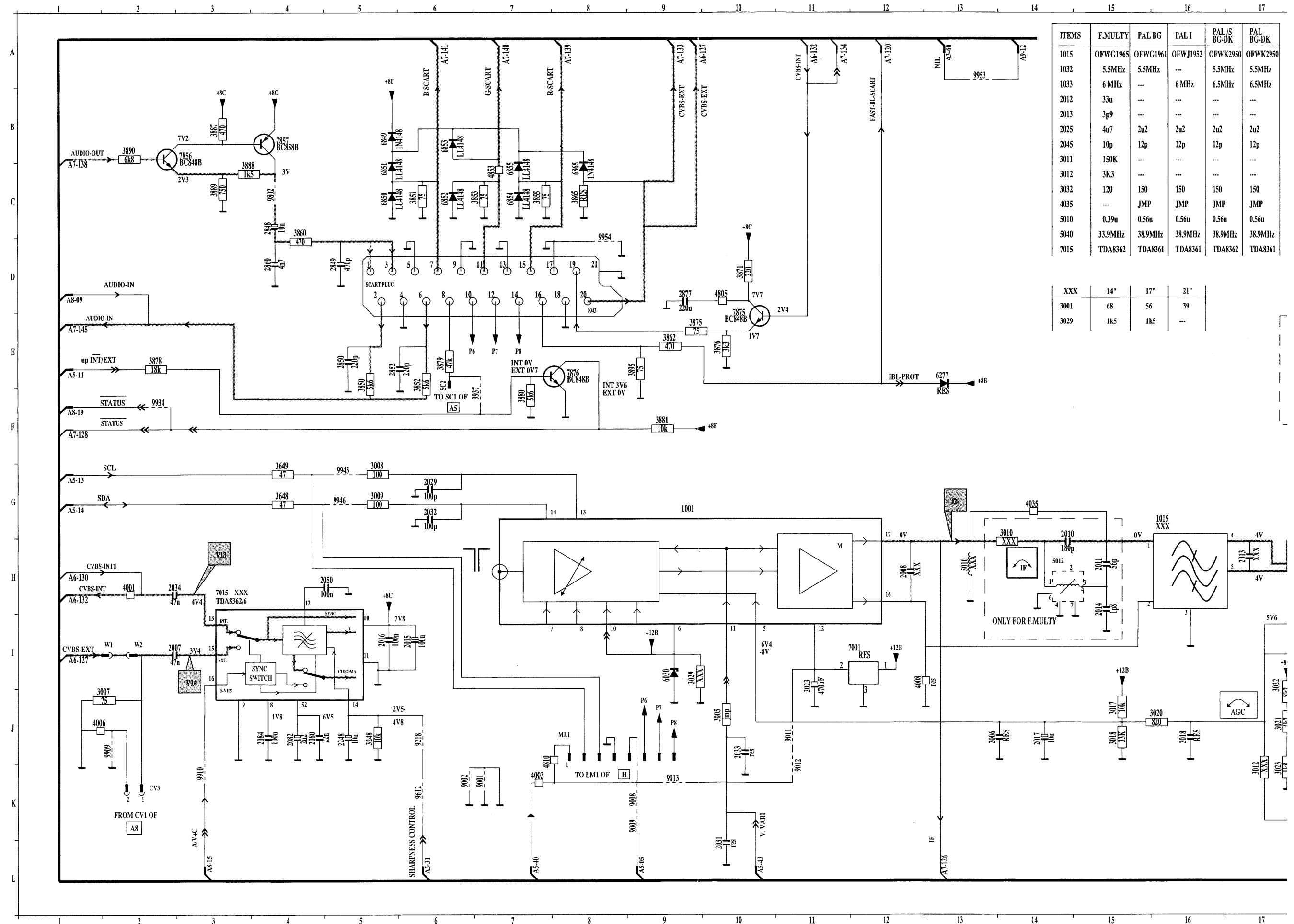
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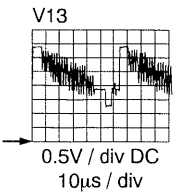
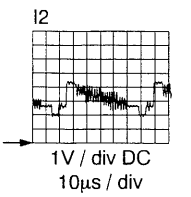
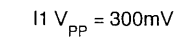
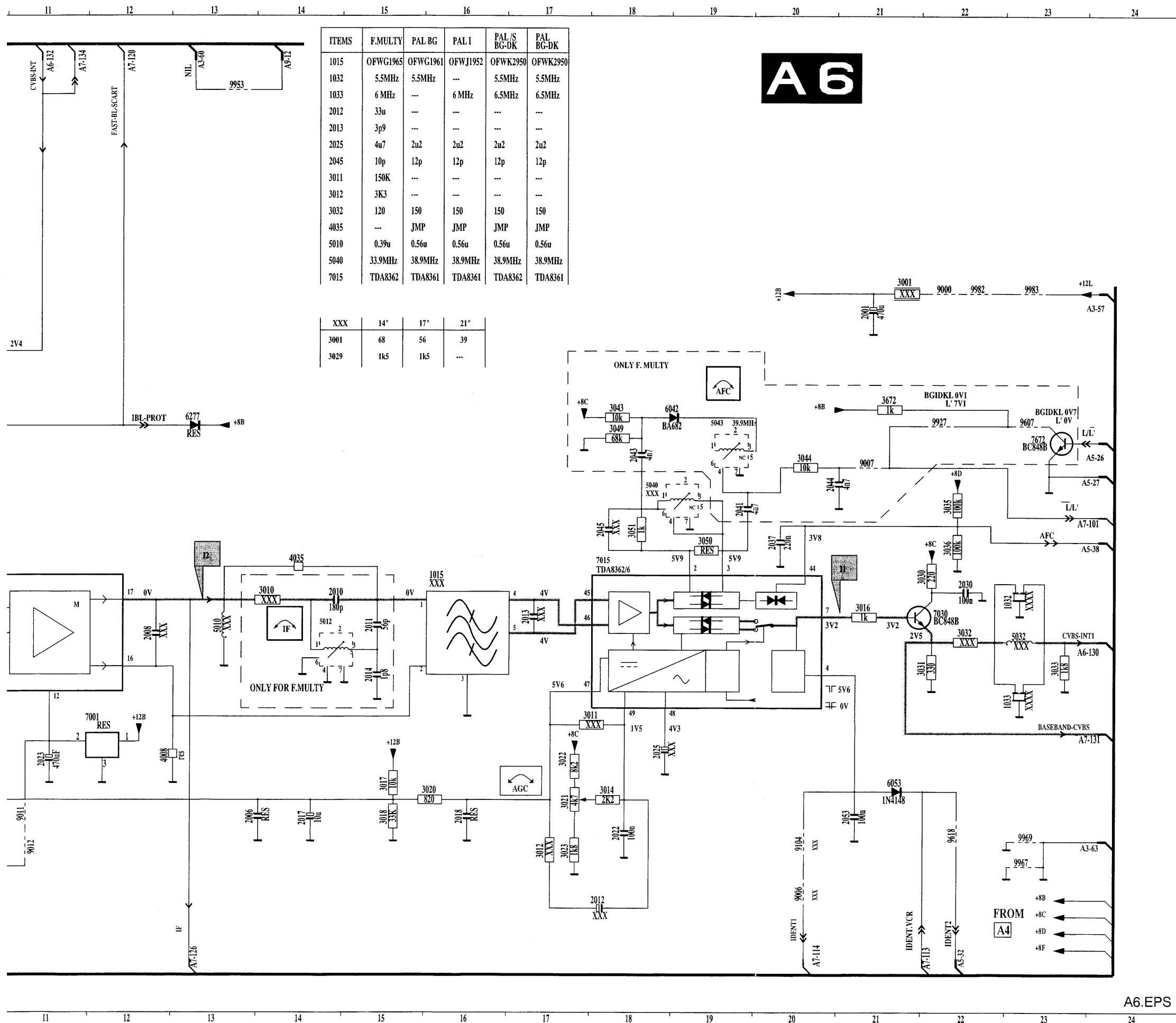


0025 E6  
1679 J14  
1685 C4  
2602 A16  
2604 L5  
2606 B14  
2615 E14  
2620 F14  
2623 C16  
2625 G14  
2626 G14  
2631 F9  
2632 E9  
2633 E9  
2651 E14  
2658 L17  
2660 C7  
2662 K6  
2663 K7  
2666 B7  
2667 J7  
2668 A6  
2669 L7  
2670 L9  
2676 K15  
2677 K15  
2678 L15  
2679 K17  
2680 J15  
2681 J15  
2682 A9  
2686 H17  
2689 G9  
3601 A18  
3602 A17  
3607 A14  
3608 G9  
3612 A18  
3614 E18  
3617 E15  
3618 D15  
3619 D9  
3620 F15  
3621 F16  
3623 G15  
3624 G16  
3625 F15  
3628 G16  
3630 B14  
3631 B15  
3632 G8  
3640 G19  
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3642 H18  
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3653 C14  
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3656 L16  
3658 L15  
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3661 C7  
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3663 B7  
3665 K7  
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9620 A15

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9636 L4  
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9685 C5  
9690 F4  
9803 J17  
9941 H8  
9942 H18  
9945 J18  
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A8-109 J19  
A8-170 J19  
A8-189 C19  
B1 A15  
B1 A15  
C-01 A2  
C-02 B3  
C-03 H19  
C-04 K3  
C-05 C3  
C-06 B3  
C-11 J19  
C-13 J19  
C-14 J19  
C-21 K19  
C-23 F19  
C-24 J3  
C-27 J3  
C-28 K3  
C-29 K3  
C-30 L19  
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C-40 K3  
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PT1 D15  
PT2 D15  
SC1 5

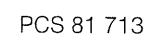


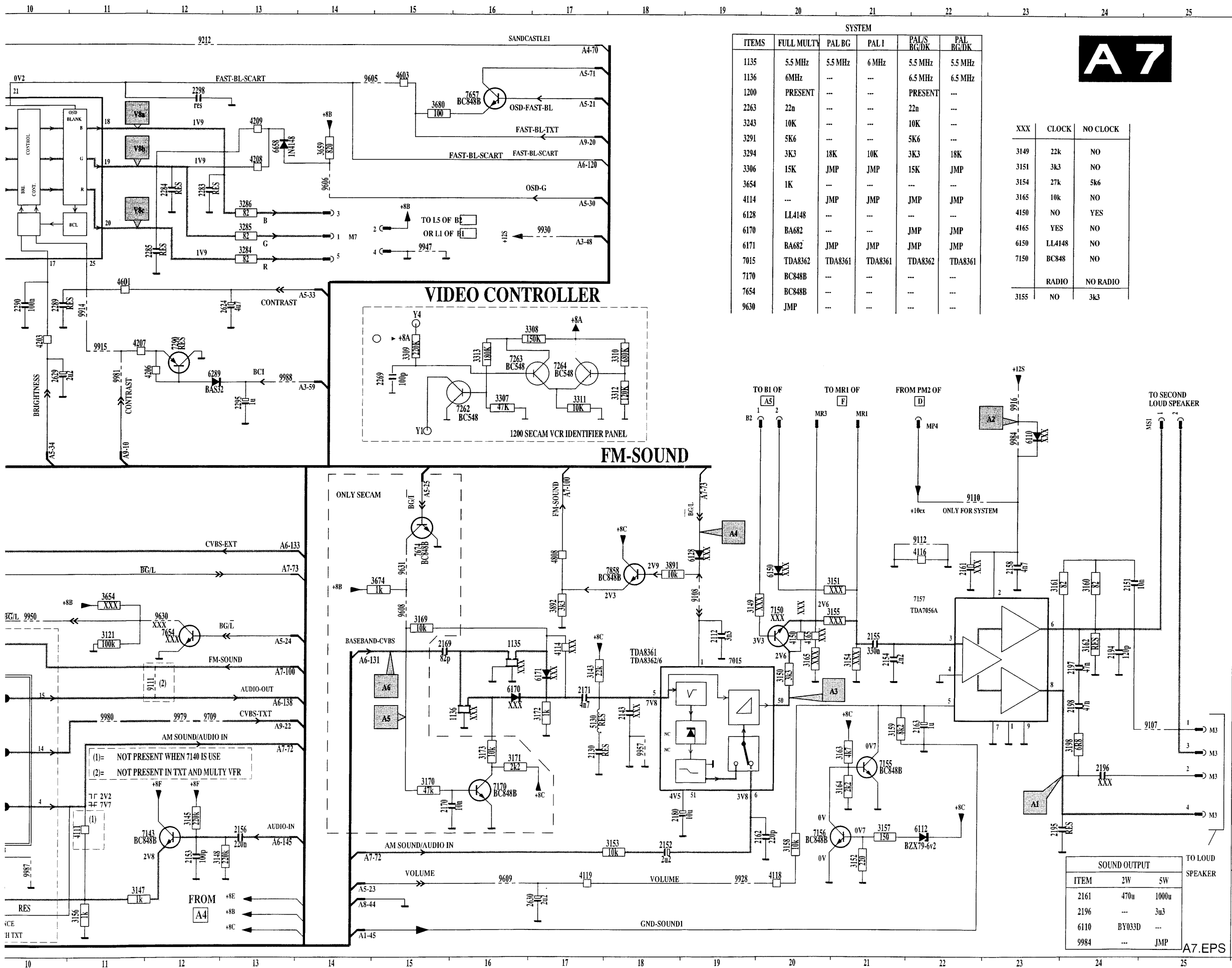




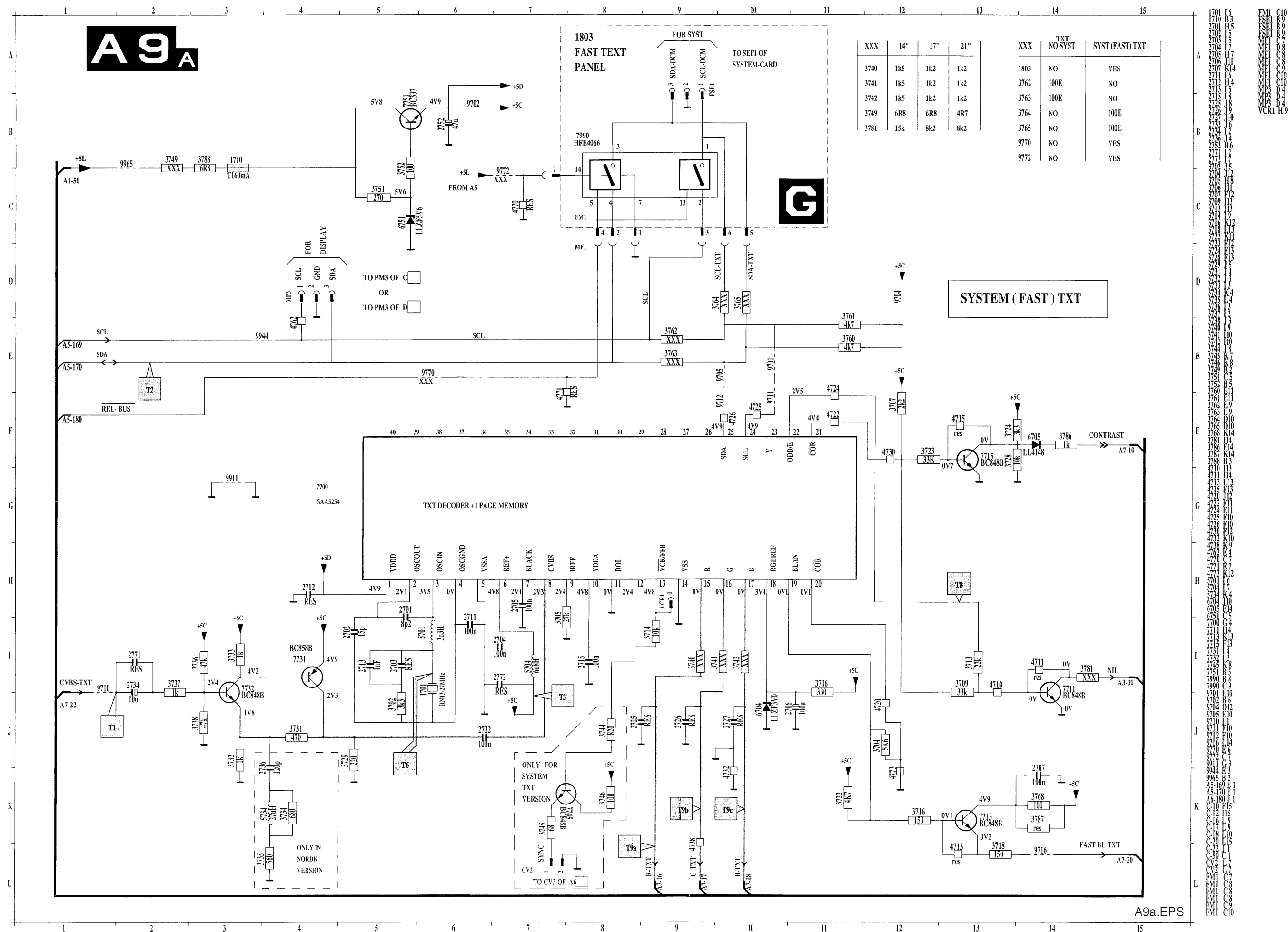
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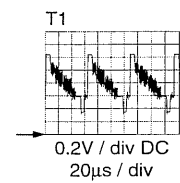
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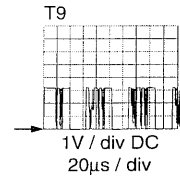
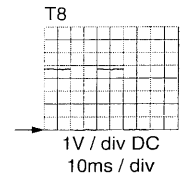
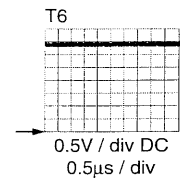
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| 1102 | H6   | 4102 | H16  | 1102 | H16  |
| 1103 | H10  | 4103 | H10  | 1103 | H10  |
| 1104 | H14  | 4104 | H14  | 1104 | H14  |
| 1105 | H18  | 4105 | H18  | 1105 | H18  |
| 1106 | H22  | 4106 | H22  | 1106 | H22  |
| 1107 | H26  | 4107 | H26  | 1107 | H26  |
| 1108 | H30  | 4108 | H30  | 1108 | H30  |
| 1109 | H34  | 4109 | H34  | 1109 | H34  |
| 1110 | H38  | 4110 | H38  | 1110 | H38  |
| 1111 | H42  | 4111 | H42  | 1111 | H42  |
| 1112 | H46  | 4112 | H46  | 1112 | H46  |
| 1113 | H50  | 4113 | H50  | 1113 | H50  |
| 1114 | H54  | 4114 | H54  | 1114 | H54  |
| 1115 | H58  | 4115 | H58  | 1115 | H58  |
| 1116 | H62  | 4116 | H62  | 1116 | H62  |
| 1117 | H66  | 4117 | H66  | 1117 | H66  |
| 1118 | H70  | 4118 | H70  | 1118 | H70  |
| 1119 | H74  | 4119 | H74  | 1119 | H74  |
| 1120 | H78  | 4120 | H78  | 1120 | H78  |
| 1121 | H82  | 4121 | H82  | 1121 | H82  |
| 1122 | H86  | 4122 | H86  | 1122 | H86  |
| 1123 | H90  | 4123 | H90  | 1123 | H90  |
| 1124 | H94  | 4124 | H94  | 1124 | H94  |
| 1125 | H98  | 4125 | H98  | 1125 | H98  |
| 1126 | H102 | 4126 | H102 | 1126 | H102 |
| 1127 | H106 | 4127 | H106 | 1127 | H106 |
| 1128 | H110 | 4128 | H110 | 1128 | H110 |
| 1129 | H114 | 4129 | H114 | 1129 | H114 |
| 1130 | H118 | 4130 | H118 | 1130 | H118 |
| 1131 | H122 | 4131 | H122 | 1131 | H122 |
| 1132 | H126 | 4132 | H126 | 1132 | H126 |
| 1133 | H130 | 4133 | H130 | 1133 | H130 |
| 1134 | H134 | 4134 | H134 | 1134 | H134 |
| 1135 | H138 | 4135 | H138 | 1135 | H138 |
| 1136 | H142 | 4136 | H142 | 1136 | H142 |
| 1137 | H146 | 4137 | H146 | 1137 | H146 |
| 1138 | H150 | 4138 | H150 | 1138 | H150 |
| 1139 | H154 | 4139 | H154 | 1139 | H154 |
| 1140 | H158 | 4140 | H158 | 1140 | H158 |
| 1141 | H162 | 4141 | H162 | 1141 | H162 |
| 1142 | H166 | 4142 | H166 | 1142 | H166 |
| 1143 | H170 | 4143 | H170 | 1143 | H170 |
| 1144 | H174 | 4144 | H174 | 1144 | H174 |
| 1145 | H178 | 4145 | H178 | 1145 | H178 |
| 1146 | H182 | 4146 | H182 | 1146 | H182 |
| 1147 | H186 | 4147 | H186 | 1147 | H186 |
| 1148 | H190 | 4148 | H190 | 1148 | H190 |
| 1149 | H194 | 4149 | H194 | 1149 | H194 |
| 1150 | H198 | 4150 | H198 | 1150 | H198 |
| 1151 | H202 | 4151 | H202 | 1151 | H202 |
| 1152 | H206 | 4152 | H206 | 1152 | H206 |
| 1153 | H210 | 4153 | H210 | 1153 | H210 |
| 1154 | H214 | 4154 | H214 | 1154 | H214 |
| 1155 | H218 | 4155 | H218 | 1155 | H218 |
| 1156 | H222 | 4156 | H222 | 1156 | H222 |
| 1157 | H226 | 4157 | H226 | 1157 | H226 |
| 1158 | H230 | 4158 | H230 | 1158 | H230 |
| 1159 | H234 | 4159 | H234 | 1159 | H234 |
| 1160 | H238 | 4160 | H238 | 1160 | H238 |
| 1161 | H242 | 4161 | H242 | 1161 | H242 |
| 1162 | H246 | 4162 | H246 | 1162 | H246 |
| 1163 | H250 | 4163 | H250 | 1163 | H250 |
| 1164 | H254 | 4164 | H254 | 1164 | H254 |
| 1165 | H258 | 4165 | H258 | 1165 | H258 |
| 1166 | H262 | 4166 | H262 | 1166 | H262 |
| 1167 | H266 | 4167 | H266 | 1167 | H266 |
| 1168 | H270 | 4168 | H270 | 1168 | H270 |
| 1169 | H274 | 4169 | H274 | 1169 | H274 |
| 1170 | H278 | 4170 | H278 | 1170 | H278 |
| 1171 | H282 | 4171 | H282 | 1171 | H282 |
| 1172 | H286 | 4172 | H286 | 1172 | H286 |
| 1173 | H290 | 4173 | H290 | 1173 | H290 |
| 1174 | H294 | 4174 | H294 | 1174 | H294 |
| 1175 | H298 | 4175 | H298 | 1175 | H298 |
| 1176 | H302 | 4176 | H302 | 1176 | H302 |
| 1177 | H306 | 4177 | H306 | 1177 | H306 |
| 1178 | H310 | 4178 | H310 | 1178 | H310 |
| 1179 | H314 | 4179 | H314 | 1179 | H314 |
| 1180 | H318 | 4180 | H318 | 1180 | H318 |
| 1181 | H322 | 4181 | H322 | 1181 | H322 |
| 1182 | H326 | 4182 | H326 | 1182 | H326 |
| 1183 | H330 | 4183 | H330 | 1183 | H330 |
| 1184 | H334 | 4184 | H334 | 1184 | H334 |
| 1185 | H338 | 4185 | H338 | 1185 | H338 |
| 1186 | H342 | 4186 | H342 | 1186 | H342 |
| 1187 | H346 | 4187 | H346 | 1187 | H346 |
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| 1191 | H362 | 4191 | H362 | 1191 | H362 |
| 1192 | H366 | 4192 | H366 | 1192 | H366 |
| 1193 | H370 | 4193 | H370 | 1193 | H370 |
| 1194 | H374 | 4194 | H374 | 1194 | H374 |
| 1195 | H378 | 4195 | H378 | 1195 | H378 |
| 1196 | H382 | 4196 | H382 | 1196 | H382 |
| 1197 | H386 | 4197 | H386 | 1197 | H386 |
| 1198 | H390 | 4198 | H390 | 1198 | H390 |
| 1199 | H394 | 4199 | H394 | 1199 | H394 |
| 1200 | H398 | 4200 | H398 | 1200 | H398 |





T2 5V DC

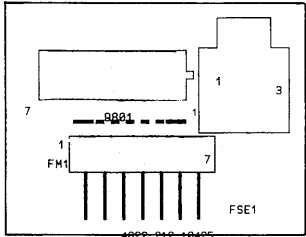
T3 4V9 DC



→ = 0V

OSC\_ A9a.A1  
190396

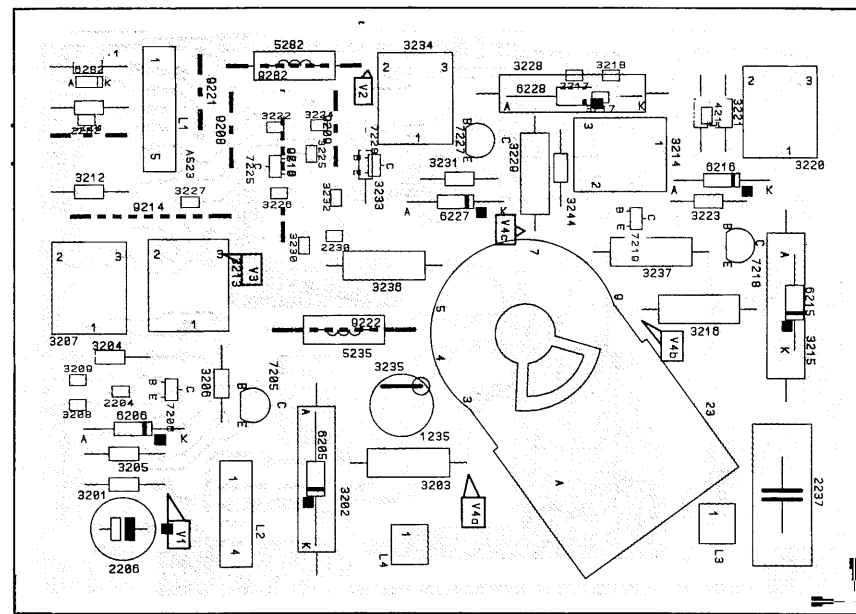
Fast text panel



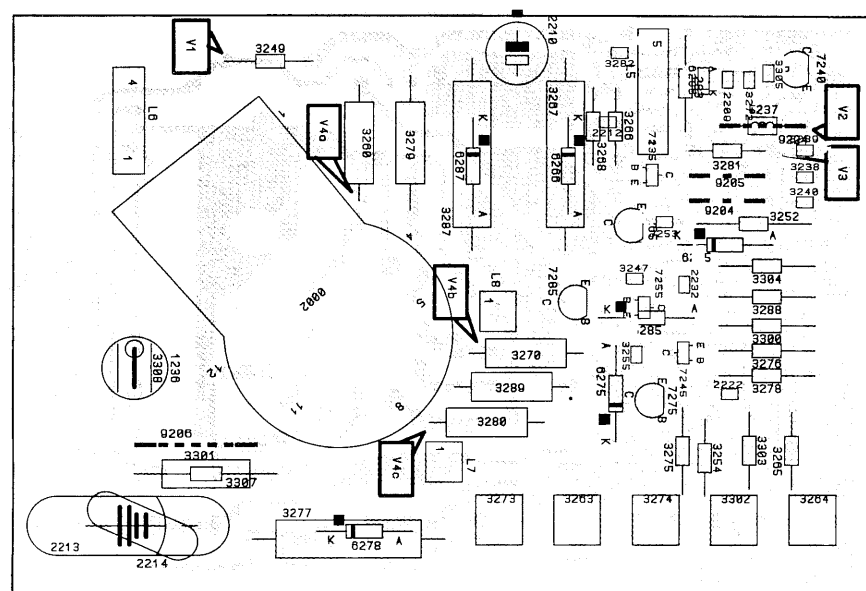




**14-15-17-21" Mini neck CRT panel**



21" Narrow neck CRT panel



**Wave forms [B1] / [B2]**

V1 170V DC

V2 8V DC

V3



0.5V / div DC  
20 $\mu$ s / div

V4a



20V / div DC  
20 $\mu$ s / div

V4b



20V / div DC  
20 $\mu$ s / div

V4c



20V / div DC  
20 $\mu$ s / div

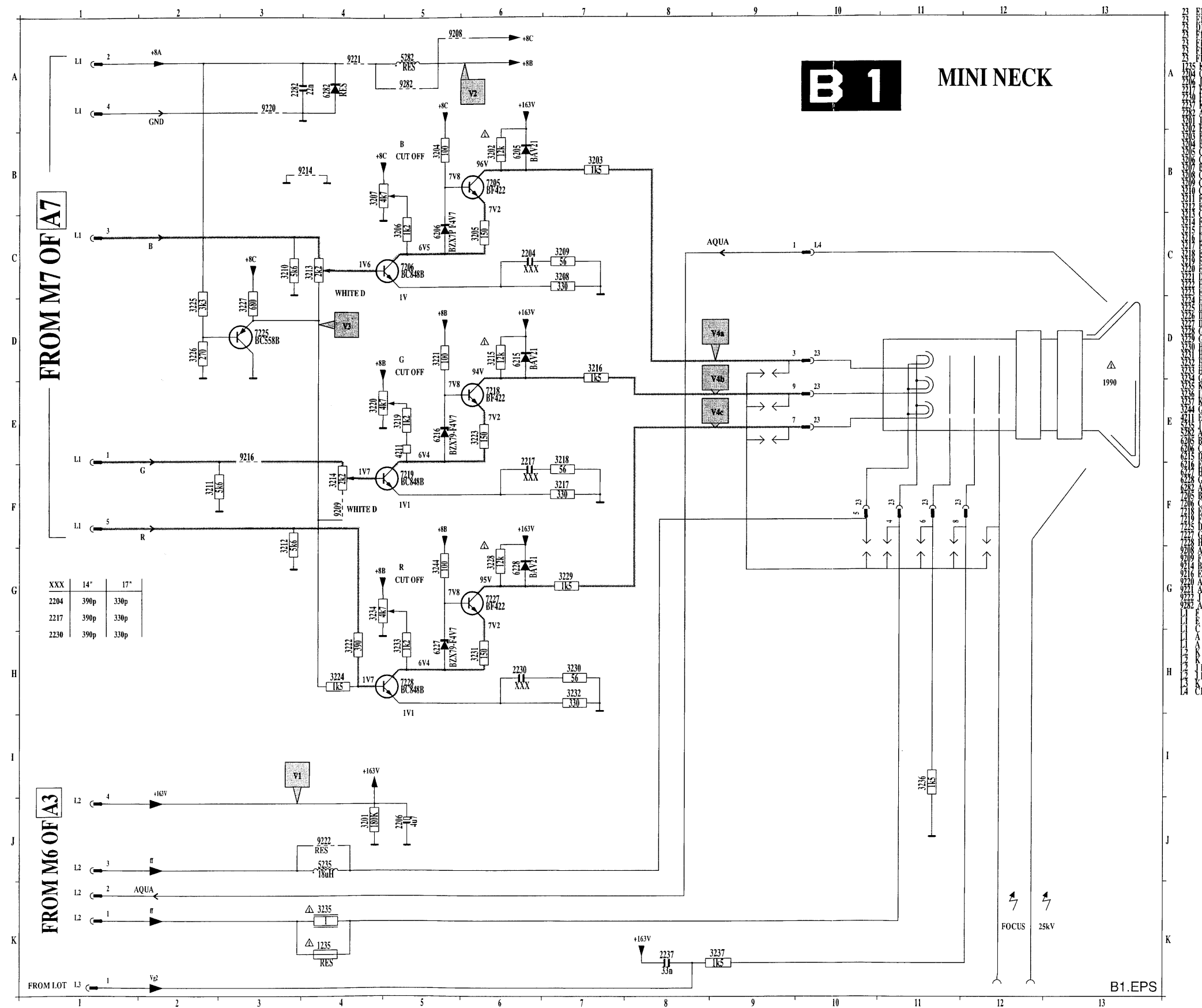
The oscilloscope trace for V4c shows a periodic signal with a peak-to-peak voltage of approximately 10V and a period of about 100ns. The signal is characterized by sharp, narrow pulses that rise and fall rapidly, with a baseline that is slightly above the center of the grid.

→ = 0V

OSC\_ B1.AI  
190396

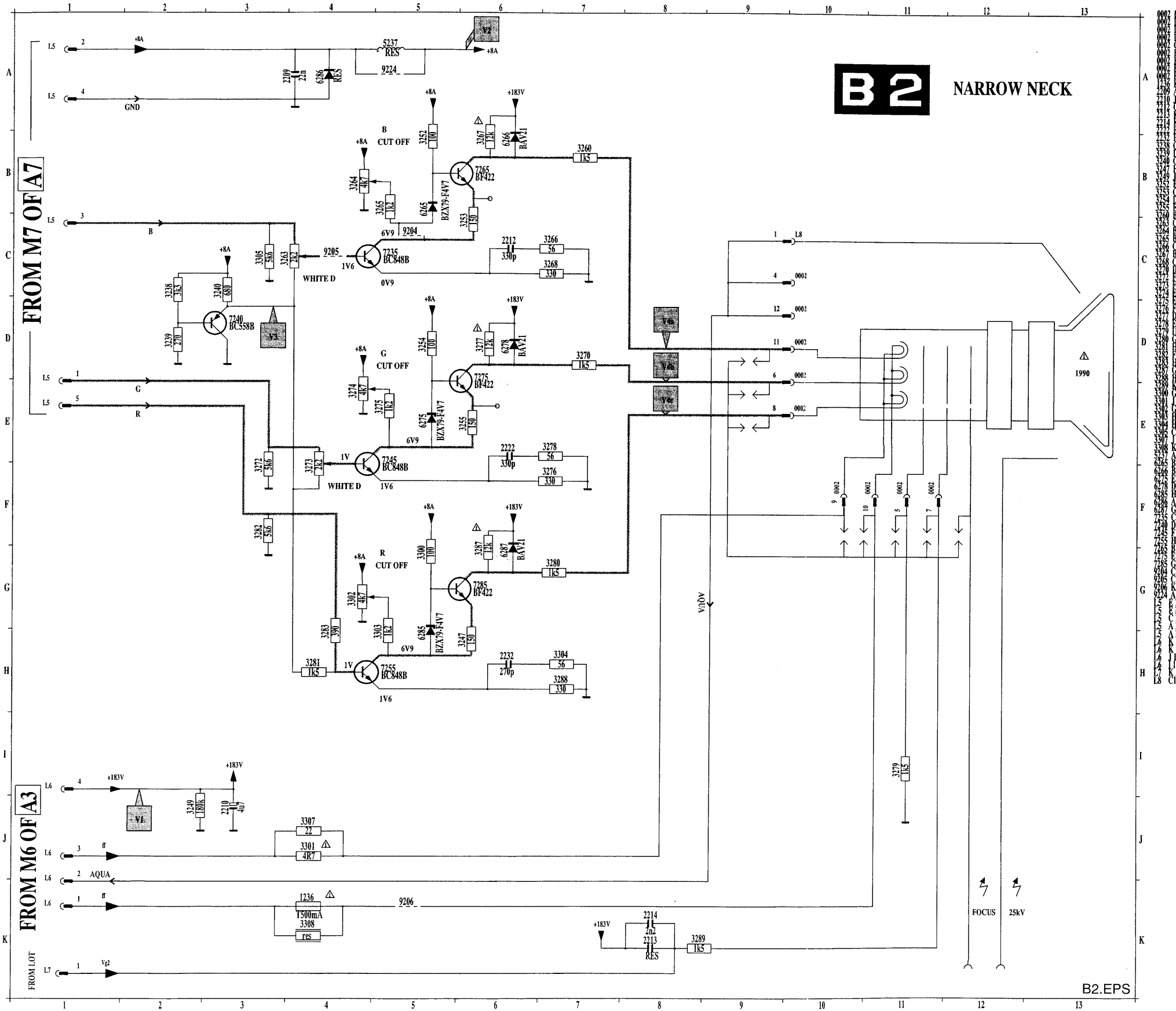
OSC\_ B1.AI  
190396

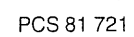




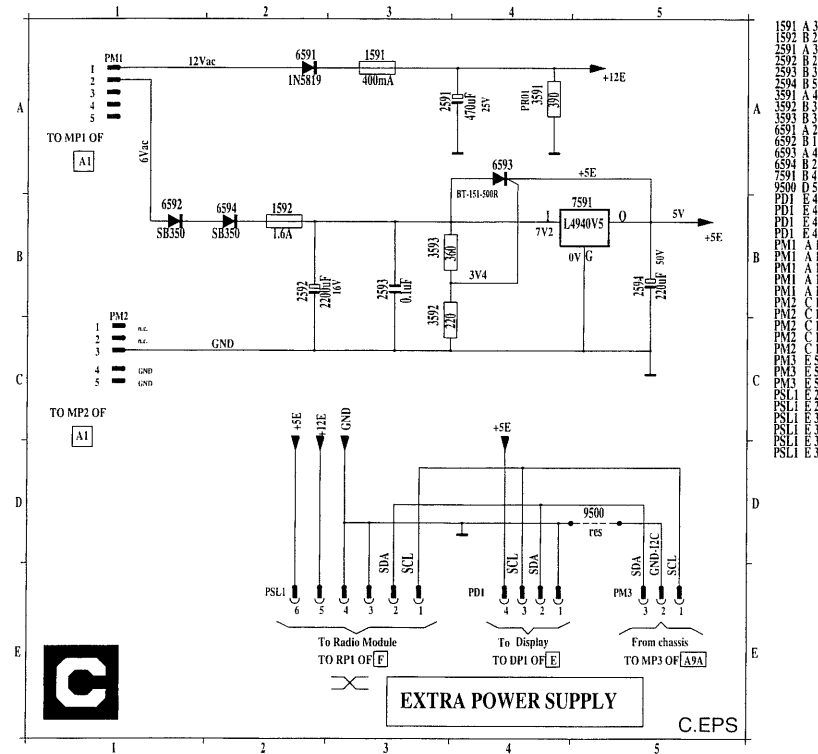
# 20-21" Narrow neck CRT panel / Bildröhren Platte / Platine TRC

**B2** NARROW NECK

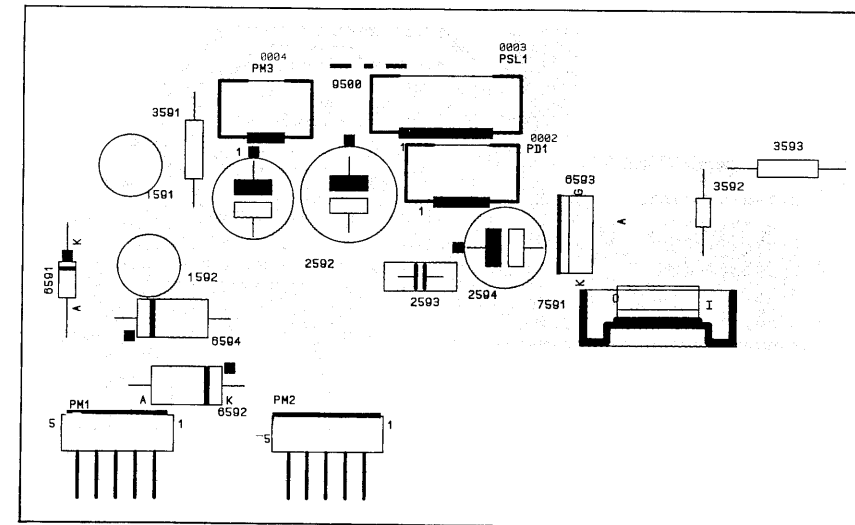




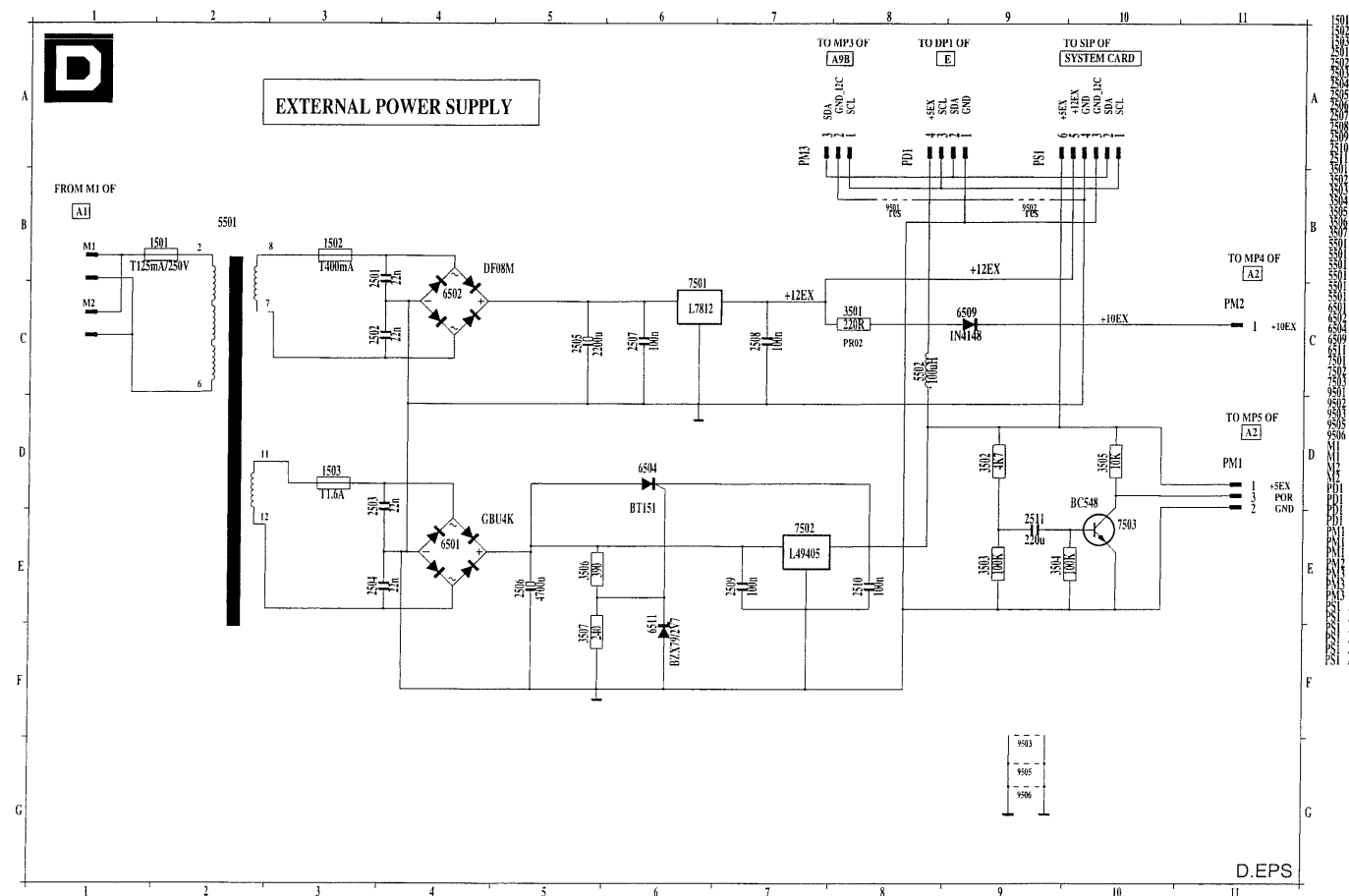
|      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |        |    |      |    |      |    |
|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|--------|----|------|----|------|----|
| PT1  | B1 | C-28 | C2 | 2017 | F2 | 2414 | F5 | 2706 | A2 | 3243 | D1 | 3539 | C5 | 3718 | B2 | 4302 | D2 | 6442   | D4 | 7856 | F2 | 9705 | B2 |
| XZ1  | A4 | B-29 | C2 | 2018 | D1 | 2415 | F5 | 2707 | B2 | 3245 | A2 | 3540 | C5 | 3719 | E2 | 4303 | C2 | 6443   | E3 | 7857 | E2 | 9707 | F2 |
| MS11 | A3 | C-29 | C2 | 2022 | E2 | 2416 | F5 | 2709 | A2 | 3246 | A2 | 3541 | C5 | 3720 | E2 | 4408 | C2 | 6444   | E5 | 7858 | E2 | 9708 | E2 |
| ML1  | F3 | B-30 | C2 | 2023 | E2 | 2417 | F4 | 2710 | A2 | 3248 | D2 | 3549 | A4 | 3721 | A1 | 4481 | D3 | 6449   | E3 | 7875 | F2 | 9709 | C3 |
| CV1  | A2 | C-30 | C2 | 2025 | E1 | 2442 | F5 | 2711 | A3 | 3259 | B1 | 3550 | A4 | 3722 | B2 | 4601 | C2 | 6451   | D4 | 7876 | F3 | 9710 | C2 |
| W1   | F2 | C-31 | C2 | 2029 | E1 | 2443 | D3 | 2712 | A2 | 3284 | D2 | 3551 | B5 | 3723 | B3 | 4602 | C1 | 6462   | E4 | 9000 | F2 | 9711 | B2 |
| MR1  | F2 | B-31 | C2 | 2030 | D2 | 2444 | E5 | 2713 | A3 | 3285 | D2 | 3560 | D4 | 3724 | B3 | 4603 | C2 | 6463   | E3 | 9001 | F1 | 9712 | B2 |
| B1   | C2 | B-32 | C2 | 2031 | E1 | 2445 | E5 | 2715 | A3 | 3286 | D2 | 3562 | B3 | 3725 | B1 | 4604 | A1 | 6470   | E4 | 9002 | E1 | 9713 | C3 |
| SC1  | B1 | C-32 | C2 | 2032 | E1 | 2446 | D5 | 2716 | B1 | 3291 | D1 | 3563 | A3 | 3727 | A1 | 4615 | A1 | 6471   | E4 | 9003 | D1 | 9714 | D3 |
| MP1  | C4 | C-33 | C2 | 2033 | E1 | 2447 | E4 | 2725 | A2 | 3292 | D1 | 3564 | B4 | 3728 | B3 | 4616 | B2 | 6481   | E3 | 9004 | D1 | 9715 | D3 |
| S-01 | A3 | B-33 | C2 | 2034 | D2 | 2448 | D4 | 2726 | A2 | 3293 | D1 | 3565 | B3 | 3729 | A2 | 4617 | C2 | 6509   | B5 | 9005 | C1 | 9716 | C3 |
| C-01 | A3 | C-34 | C1 | 2037 | D1 | 2450 | D5 | 2727 | A2 | 3294 | D1 | 3566 | B3 | 3731 | A2 | 4618 | C2 | 6510   | B4 | 9006 | E2 | 9770 | B2 |
| MS1  | A1 | B-34 | C1 | 2041 | D2 | 2451 | D4 | 2732 | A3 | 3295 | D1 | 3570 | C4 | 3732 | A2 | 4619 | A4 | 6511   | B4 | 9007 | E2 | 9771 | A3 |
| M1   | A5 | B-35 | C1 | 2043 | E2 | 2453 | E3 | 2734 | A2 | 3296 | C1 | 3573 | C3 | 3733 | A2 | 4622 | B2 | 6512   | B4 | 9008 | F2 | 9772 | B2 |
| ML2  | F3 | C-35 | C1 | 2044 | E2 | 2455 | D5 | 2736 | A2 | 3297 | D2 | 3579 | C5 | 3734 | A2 | 4623 | C2 | 6513   | B4 | 9009 | F2 | 9802 | E3 |
| M2   | A4 | B-37 | C1 | 2045 | D2 | 2456 | D5 | 2750 | B1 | 3298 | D2 | 3601 | C3 | 3735 | A2 | 4624 | A4 | 6524   | C5 | 9010 | E3 | 9803 | B2 |
| W2   | D3 | C-37 | C1 | 2050 | D2 | 2460 | E3 | 2752 | A1 | 3299 | D3 | 3602 | C2 | 3736 | A2 | 4690 | A3 | 6525   | C4 | 9011 | F1 | 9909 | D3 |
| S2   | B1 | B-38 | C1 | 2053 | D2 | 2461 | F5 | 2771 | A2 | 3306 | D1 | 3607 | B2 | 3737 | A2 | 4691 | A3 | 6530   | B5 | 9012 | F2 | 9910 | D3 |
| S-02 | A3 | C-38 | C1 | 2080 | D2 | 2462 | F3 | 2772 | A2 | 3340 | E2 | 3608 | B1 | 3738 | A2 | 4710 | B3 | 6566   | C4 | 9013 | F3 | 9911 | A3 |
| C-02 | A3 | C-40 | D3 | 2082 | E2 | 2470 | E4 | 2848 | F3 | 3341 | D3 | 3612 | B1 | 3739 | A3 | 4711 | B3 | 6568   | D4 | 9101 | D3 | 9914 | D2 |
| CV2  | A2 | B-41 | C1 | 2084 | D2 | 2482 | E3 | 2849 | F2 | 3345 | C1 | 3614 | B1 | 3740 | B2 | 4713 | B2 | 6572   | B3 | 9104 | E2 | 9915 | D3 |
| X2   | D1 | C-41 | C1 | 2101 | E1 | 2500 | A5 | 2850 | F3 | 3349 | D1 | 3615 | B1 | 3741 | B2 | 4715 | B3 | 6602   | B1 | 9107 | A1 | 9916 | E3 |
| SC2  | F3 | C-42 | C1 | 2112 | D2 | 2503 | B5 | 2852 | F2 | 3350 | D1 | 3616 | B2 | 3742 | B2 | 4720 | B3 | 6641   | A3 | 9108 | E2 | 9917 | E3 |
| MP2  | C4 | 0043 | F2 | 2117 | E1 | 2504 | C4 | 2860 | F2 | 3351 | D1 | 3617 | B2 | 3744 | A3 | 4721 | B2 | 6642   | A3 | 9110 | F1 | 9918 | E3 |
| B2   | E2 | B-43 | C1 | 2123 | D1 | 2505 | B5 | 2863 | A2 | 3353 | D1 | 3618 | C2 | 3745 | A2 | 4722 | B3 | 6650   | B1 | 9111 | E2 | 9920 | E3 |
| MR2  | C1 | C-43 | C1 | 2124 | E1 | 2506 | A5 | 2877 | F2 | 3354 | D1 | 3619 | C1 | 3746 | A2 | 4724 | B3 | 6651   | C2 | 9112 | F1 | 9922 | C3 |
| PT2  | B1 | C-44 | A1 | 2125 | D1 | 2509 | B5 | 3001 | F2 | 3368 | C3 | 3620 | C1 | 3749 | A3 | 4725 | B3 | 6658   | D2 | 9212 | D1 | 9923 | D1 |
| MS12 | A2 | B-44 | A1 | 2126 | D1 | 2510 | B5 | 3005 | F1 | 3369 | C3 | 3621 | C1 | 3750 | B1 | 4726 | B3 | 6663   | A5 | 9213 | C2 | 9924 | C3 |
| C-03 | A3 | S-45 | C3 | 2127 | D1 | 2511 | B4 | 3007 | D2 | 3370 | D2 | 3623 | B1 | 3751 | A1 | 4730 | B3 | 6704   | A2 | 9215 | D2 | 9926 | D1 |
| S-03 | A3 | B-45 | C3 | 2128 | E2 | 2512 | B4 | 3008 | E1 | 3371 | D4 | 3624 | B1 | 3752 | A1 | 4732 | A2 | 6705   | B3 | 9218 | D2 | 9927 | E3 |
| CV3  | D3 | D-46 | D3 | 2129 | D1 | 2521 | D5 | 3009 | E2 | 3401 | F3 | 3625 | B1 | 3756 | A2 | 4738 | B2 | 6710   | B1 | 9245 | B3 | 9928 | F3 |
| MR3  | E2 | S-46 | D3 | 2130 | D2 | 2522 | C5 | 3010 | E1 | 3402 | F4 | 3628 | B1 | 3757 | B1 | 4739 | B1 | 6750   | B1 | 9302 | E3 | 9930 | E3 |
| MP3  | A2 | D-47 | D4 | 2143 | E2 | 2524 | C5 | 3011 | D2 | 3403 | F4 | 3630 | B1 | 3760 | A2 | 4762 | A2 | 6751   | A1 | 9401 | F4 | 9932 | A1 |
| M3   | A1 | S-47 | D4 | 2151 | A1 | 2525 | D5 | 3012 | E2 | 3404 | F4 | 3631 | B1 | 3761 | A2 | 4770 | A2 | 6849   | F3 | 9411 | D3 | 9934 | C3 |
| ML3  | F3 | D-48 | D3 | 2152 | D2 | 2526 | C5 | 3014 | E2 | 3405 | F4 | 3632 | C1 | 3762 | B2 | 4771 | A2 | 6850   | F2 | 9427 | F3 | 9935 | B3 |
| MP4  | D1 | S-48 | D3 | 2153 | F3 | 2527 | D4 | 3016 | D2 | 3406 | F3 | 3636 | A3 | 3763 | B2 | 4773 | B3 | 6851   | F2 | 9440 | E5 | 9937 | F3 |
| M4   | F4 | S-49 | D3 | 2154 | F1 | 2529 | B5 | 3017 | F1 | 3407 | F3 | 3637 | A4 | 3764 | A2 | 4804 | B2 | 6852   | F2 | 9441 | D4 | 9938 | F3 |
| ML4  | F2 | D-49 | D3 | 2155 | F1 | 2530 | B5 | 3018 | E2 | 3408 | F4 | 3638 | A4 | 3765 | A2 | 4805 | F2 | 6853   | F2 | 9443 | E4 | 9941 | B2 |
| S-04 | B3 | C-50 | B3 | 2156 | F3 | 2531 | D5 | 3020 | E2 | 3410 | F4 | 3639 | A4 | 3768 | B2 | 4808 | E2 | 6854   | F2 | 9444 | E3 | 9942 | C3 |
| C-04 | B3 | B-51 | D3 | 2158 | F1 | 2533 | D5 | 3021 | E2 | 3411 | F3 | 3640 | A1 | 3769 | A2 | 4810 | F3 | 6855   | F2 | 9445 | E5 | 9943 | E3 |
| B-05 | C1 | C-51 | D3 | 2161 | F1 | 2534 | C5 | 3022 | E1 | 3412 | F4 | 3641 | A1 | 3770 | A1 | 4853 | F2 | 6865   | F2 | 9449 | E4 | 9944 | B2 |
| M5   | D5 | D-51 | D3 | 2162 | D2 | 2535 | C5 | 3023 | E1 | 3419 | F4 | 3642 | A1 | 3781 | B2 | 5010 | E1 | 7001   | E2 | 9453 | F3 | 9945 | C3 |
| C-05 | C1 | B-52 | D3 | 2163 | F1 | 2536 | C4 | 3029 | F1 | 3420 | F5 | 3648 | E3 | 3786 | B2 | 5012 | E1 | 7015   | D2 | 9454 | D4 | 9946 | E3 |
| ML5  | F2 | D-52 | D3 | 2169 | D2 | 2540 | C5 | 3030 | D2 | 3421 | D4 | 3649 | E3 | 3787 | B2 | 5032 | D2 | 7030   | D2 | 9455 | E4 | 9947 | C2 |
| MP5  | A3 | D-53 | E3 | 2170 | D3 | 2541 | C5 | 3031 | D2 | 3424 | F5 | 3650 | A3 | 3788 | A3 | 5040 | D2 | 7125   | D1 | 9463 | E3 | 9950 | E3 |
| B-06 | C3 | B-53 | E3 | 2171 | D2 | 2550 | C4 | 3032 | D2 | 3425 | F5 | 3651 | C2 | 3850 | F3 | 5043 | E2 | 7126   | E1 | 9471 | F4 | 9953 | F3 |
| ML6  | F2 | D-54 | E3 | 2180 | E2 | 2563 | B4 | 3033 | D2 | 3426 | E3 | 3652 | B1 | 3851 | F2 | 5130 | D2 | 7127   | E1 | 9505 | B4 | 9954 | F2 |
| C-06 | D3 | B-54 | E3 | 2194 | A1 | 2565 | B3 | 3035 | D1 | 3440 | F3 | 3653 | B1 | 3852 | F3 | 5440 | E5 | 7140   | E2 | 9506 | B4 | 9956 | C1 |
| M6   | F4 | D-55 | E3 | 2195 | A1 | 2566 | C4 | 3036 | A1 | 3441 | E5 | 3654 | C3 | 3853 | F2 | 5441 | F5 | 7141   | E2 | 9508 | A3 | 9957 | E3 |
| S-06 | B3 | B-55 | E3 | 2196 | A1 | 2567 | D4 | 3043 | E3 | 3442 | F5 | 3655 | C2 | 3855 | F2 | 5442 | F5 | 7142   | E2 | 9510 | A4 | 9959 | F3 |
| M7   | C2 | D-57 | E3 | 2197 | E1 | 2568 | D3 | 3044 | E2 | 3443 | D4 | 3656 | C2 | 3860 | F3 | 5443 | D3 | 7143   | F3 | 9566 | C4 | 9965 | B3 |
| B-07 | D3 | B-57 | E3 | 2198 | E1 | 2569 | D3 | 3049 | E2 | 3444 | E5 | 3658 | C2 | 3861 | A2 | 5445 | E4 | 7150   | E2 | 9571 | B3 | 9967 | F3 |
| ML7  | F2 | D-58 | E3 | 2239 | A1 | 2570 | C3 | 3050 | D2 | 3446 | F3 | 3659 | C2 | 3862 | F2 | 5446 | D4 | 7155   | F1 | 9572 | C3 | 9969 | D3 |
| ML8  | F2 | B-59 | E3 | 2248 | D2 | 2572 | B3 | 3051 | D2 | 3448 | E4 | 3660 | A1 | 3863 | A2 | 5454 | D4 | 7156   | E1 | 9601 | C1 | 9972 | C3 |
| B-09 | C3 | D-59 | E3 | 2261 | D1 | 2573 | C3 | 3116 | E1 | 3449 | E4 | 3661 | A2 | 3864 | A2 | 5467 | D4 | 7157   | F1 | 9602 | C1 | 9975 | B1 |
| C-09 | C3 | B-60 | F3 | 2262 | D1 | 2602 | B1 | 3117 | E1 | 3451 | D3 | 3662 | C2 | 3865 | F2 | 5500 | A4 | 7170   | D2 | 9603 | B1 | 9976 | A1 |
| B-10 | C3 | D-60 | F3 | 2263 | D1 | 2604 | B1 | 3118 | E1 | 3453 | E3 | 3663 | A5 | 3871 | F2 | 5501 | B4 | 7243   | A1 | 9604 | B2 | 9978 | A2 |
| C-10 | C3 | D-62 | F3 | 2264 | D1 | 2606 | B1 | 3119 | E1 | 3454 | D4 | 3664 | C2 | 3875 | F2 | 5522 | C5 | 7250   | C1 | 9605 | C2 | 9979 | D3 |
| B-11 | C3 | B-62 | F3 | 2265 | D1 | 2615 | B2 | 3120 | E1 | 3455 | F3 | 3665 | C2 | 3876 | F2 | 5544 | C4 | 7271   | C1 | 9606 | C2 | 9980 | E2 |
| C-11 | C3 | D-63 | D3 | 2267 | C1 | 2620 | B2 | 3121 | C3 | 3456 | E5 | 3666 | A3 | 3878 | F3 | 5546 | C4 | 7290   | D3 | 9607 | C2 | 9981 | D3 |
| B-12 | C3 | B-63 | D3 | 2268 | C1 | 2623 | B1 | 3124 | D1 | 3457 | D5 | 3667 | C2 | 3879 | F3 | 5550 | C4 | 7400   | F5 | 9608 | D3 | 9982 | F3 |
| C-12 | C3 | B-71 | C2 | 2271 | C1 | 2624 | C2 | 3125 | F2 | 3459 | F3 | 3668 | C2 | 3880 | F3 | 5551 | C3 | 7401   | F5 | 9609 | C3 | 9983 | F3 |
| C-13 | C3 | C-71 | C2 | 2272 | C1 | 2625 | B2 | 3126 | F2 | 3460 | E3 | 3669 | C2 | 3881 | F3 | 5565 | B3 | 7441   | F5 | 9610 | C1 | 9984 | F2 |
| B-13 | C3 | 1001 | F1 | 2273 | C1 | 2626 | B2 | 3127 | F2 | 3461 | E4 | 3670 | C2 | 3887 | F2 | 5567 | D4 | 7442   | F3 | 9611 | B2 | 9985 | B1 |
| C-14 | C3 | 1015 | D1 | 2274 | C1 | 2629 | C2 | 3141 | E2 | 3462 | E4 | 3671 | B2 | 3888 | E2 | 5568 | D4 | 7445   | E5 | 9612 | C2 | 9987 | E3 |
| B-14 | C3 | 1032 | D2 | 2275 | D1 | 2630 | C3 | 3142 | E3 | 3463 | E4 | 3672 | C2 | 3889 | E2 | 5572 | C3 | 7481   | D3 | 9613 | C1 | 9988 | E3 |
| B-15 | C3 | 1033 | D2 | 2279 | C1 | 2631 | C2 | 3143 | D3 | 3464 | E4 | 3673 | C2 | 3890 | F2 | 5601 | B1 | 7520   | C5 | 9614 | C1 |      |    |
| C-15 | C3 | 1101 | E1 | 2280 | C1 | 2632 | B2 | 3144 | E3 | 3469 | F4 | 3674 | C2 | 3891 | E2 | 5671 | B2 | 7540</ |    |      |    |      |    |



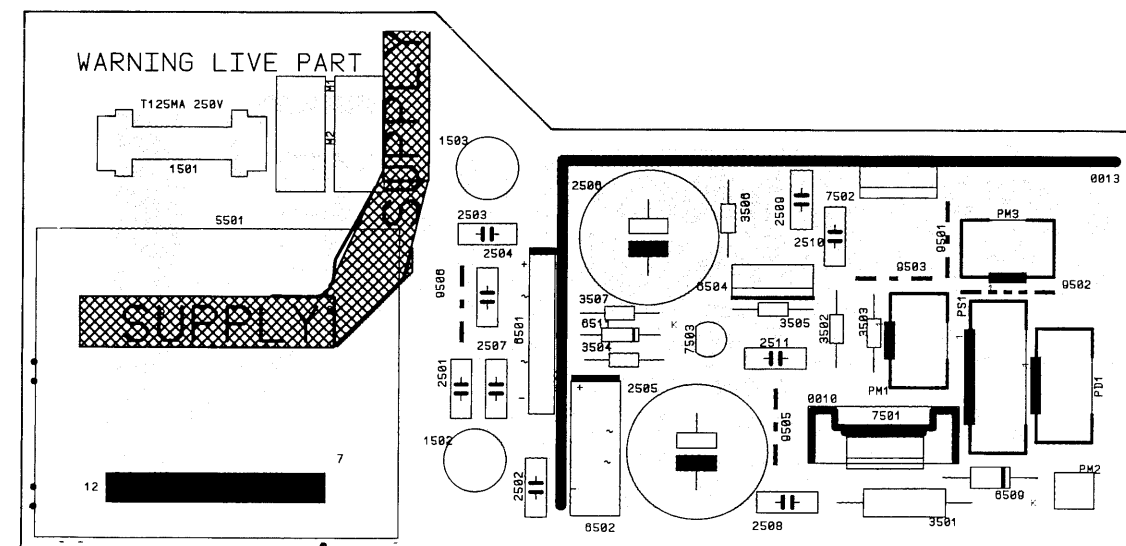
## Alimentation Additionnelle



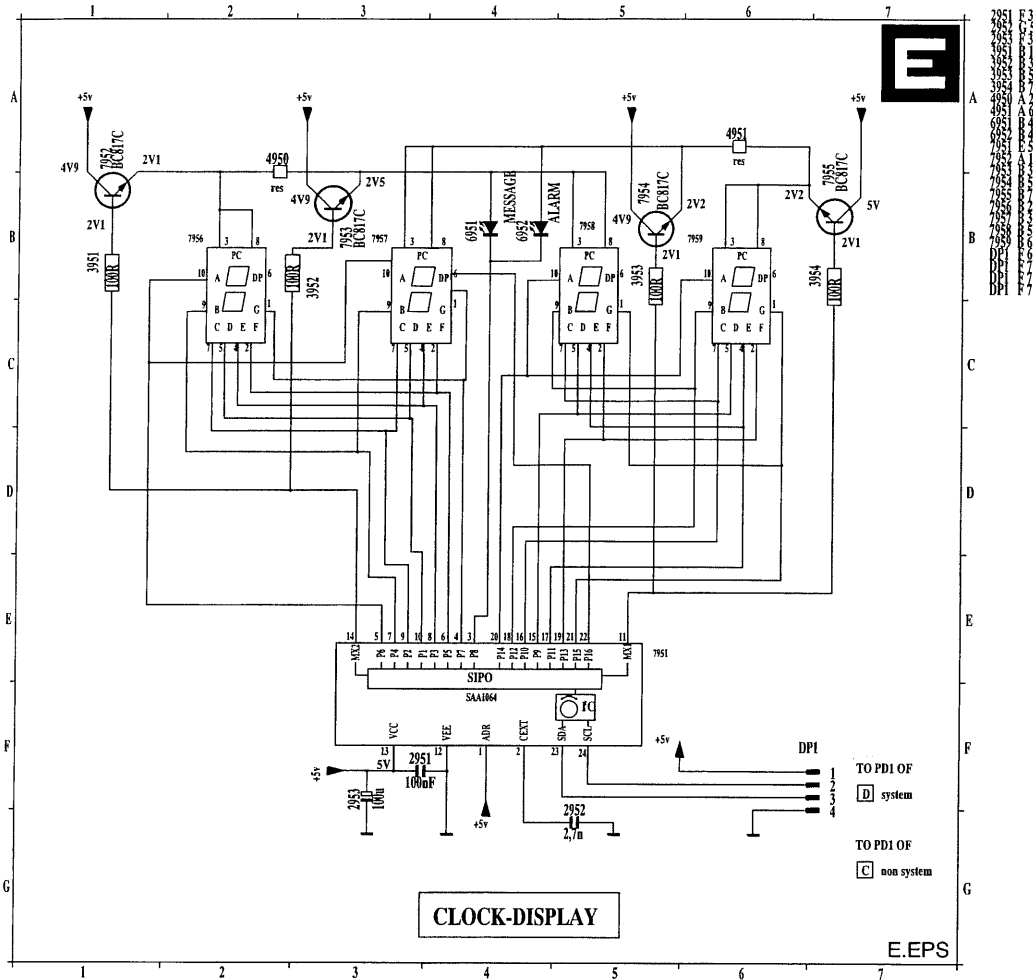
## External Power Supply / Externe Stromversorgung



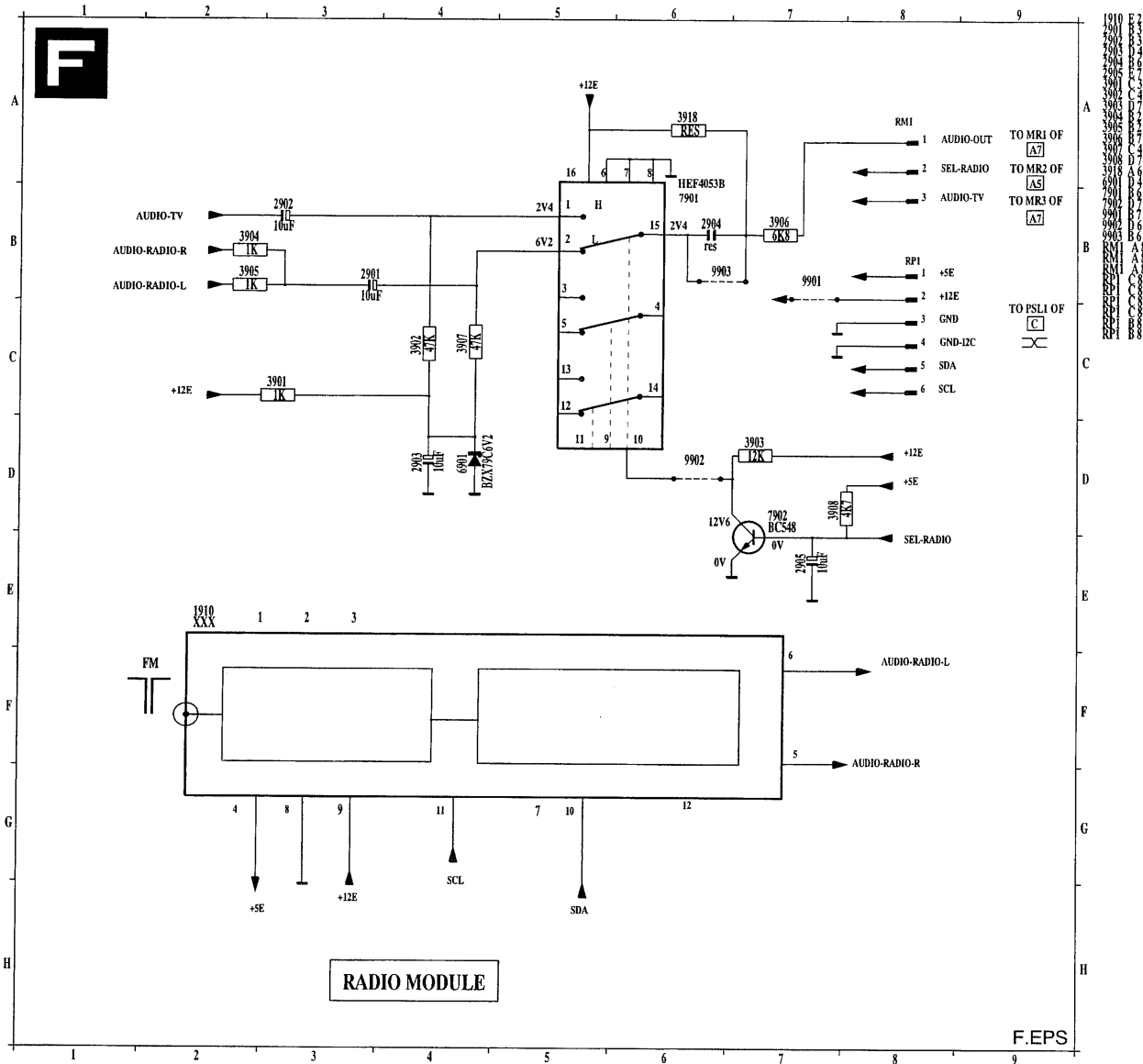
## Alimentation Externe



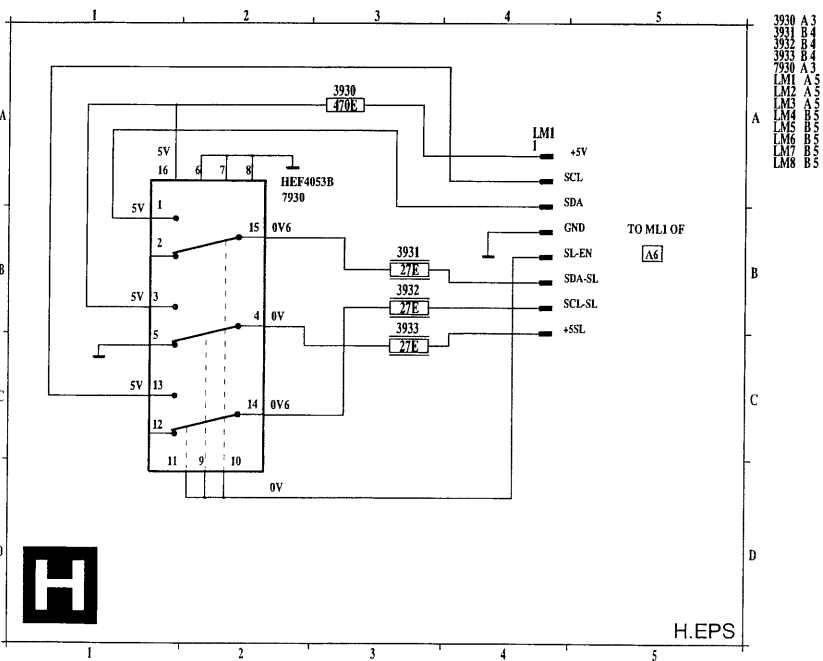
Clock panel / Uhr-Platte / Platine d'horloge



Radio Module / Radiomodul / Module de radio



Smart loader / Smart Lader / Chargeur à mémoire





Service  
Service  
Service

AA5H.1  
AA 96.01

Service Information



1. New tuner in the AA5H.1 AA sets

In the AA5H.1 sets with PM/QG code 02, a new tuner has been introduced. This has impact on several components on the chassis. The following changes are done:

2. General changes

|                                                           |                  |
|-----------------------------------------------------------|------------------|
| Item 1001 tuner U944C/IEC is replaced by FL2177/85 tuner  | (4822 210 10718) |
| Item 1001 tuner UV916E/IEC is replaced by FL2477/85 tuner | (4822 210 10715) |

3. This implies on the 14"/17" sets

|                                                  |                  |
|--------------------------------------------------|------------------|
| Item 3001 is replaced by NFR 27R 5% 0.33W        | (4822 052 10279) |
| Item 9000 is replaced by item 6010 Diode BYD33D  | (4822 130 42488) |
| *Item 9982 is replaced by item 6011 Diode BYD33D | (4822 130 42488) |
| Item 1640 is replaced by Fuse 160mA              | (4822 071 51601) |
| Item 3008 is replaced by Smd resistor 39 Ohm     | (4822 051 20399) |
| Item 3009 is replaced by Smd resistor 39 Ohm     | (4822 051 20399) |
| Item 2029 and 2032 are deleted                   |                  |
| Item 4008 is inserted                            | (4822 051 20008) |

\* Only in case of the FL2177/85 tuner.

4. This implies on the 21" sets

|                                              |                  |
|----------------------------------------------|------------------|
| Item 3008 is replaced by Smd resistor 39 Ohm | (4822 051 20399) |
| Item 3009 is replaced by Smd resistor 39 Ohm | (4822 051 20399) |
| Item 2029 and 2032 are deleted               |                  |
| Item 4008 is inserted                        | (4822 051 20008) |
| 1* Item 3001 is replaced by NFR 39R 5% 0.33W | (4822 052 10399) |
| 2* Item 3001 is replaced by NFR 27R 5% 0.33W | (4822 052 10279) |

- 1\* In case of a FL2177/85 Tuner  
2\* In case of a FL2477/85 Tuner

5. Error in the schematic and partslist of the radio-module

In the schematic of the radio-module the connections of the radio-tuner are wrong.

They have to be corrected in the following way:

- Pin 4 has to be connected to SCL  
Pin 6 has to be connected to SDA  
Pin 7 has to be connected to +5E  
Pin 8 has to be connected to +12E  
Pin 9 has to be connected to Audio-Radio-R  
Pin 10 has to be connected to Ground  
Pin 11 has to be connected to Audio-Radio-L  
The codenumber of the radio-tuner is published wrong in the service-manual. The correct code-number is: 4822 210 10725.

6. Code-number of the clock-module in the system-version

The code-number of the clock-module in the system version is: 4822 212 10525

7. Codenumbers SMPS-transformers

For the 21" sets (all executions) and for the 14"/17" sets with TXT, clock and radio the following SMPS transformer has to be used: 4822 146 10524.  
In the 14"/17" sets, when using this transformer, resistor R3531 has to be changed from 20K to 16K. Codenumber of the 16K resistor is: 4822 116 52247.



1. Nieuwe tuner in AA5H.1 AA toestellen

In AA5H.1 toestellen met PM/QG code 02 is een nieuwe tuner geïntroduceerd. Dit is van invloed op verschillende onderdelen van het chassis. De volgende wijzigingen zijn doorgevoerd:

2. Algemene wijzigingen

|                                                              |                  |
|--------------------------------------------------------------|------------------|
| Item 1001 tuner U944C/IEC is vervangen door FL2177/85 tuner  | (4822 210 10718) |
| Item 1001 tuner UV916E/IEC is vervangen door FL2477/85 tuner | (4822 210 10715) |

3. Dit betekent voor 14"/17" toestellen het volgende

|                                                    |                  |
|----------------------------------------------------|------------------|
| Item 3001 is vervangen door NFR 27R 5% 0,33W       | (4822 052 10279) |
| Item 9000 is vervangen door item 6010 Diode BYD33D | (4822 130 42488) |

|                                                     |                  |
|-----------------------------------------------------|------------------|
| *Item 9982 is vervangen door item 6011 Diode BYD33D | (4822 130 42488) |
| Item 1640 is vervangen door Zekering 160mA          | (4822 071 51601) |
| Item 3008 is vervangen door Smd weerstand 39 Ohm    | (4822 051 20399) |
| Item 3009 is vervangen door Smd weerstand 39 Ohm    | (4822 051 20399) |
| Item 2029 en 2032 zijn afgevoerd                    |                  |
| Item 4008 is toegevoegd                             | (4822 051 20008) |

\* Alleen bij de FL2177/85 tuner.

4. Dit betekent voor 21" toestellen het volgende

|                                                  |                  |
|--------------------------------------------------|------------------|
| Item 3008 is vervangen door Smd weerstand 39 Ohm | (4822 051 20399) |
| Item 3009 is vervangen door Smd weerstand 39 Ohm | (4822 051 20399) |
| Item 2029 en 2032 zijn weggelaten                |                  |
| Item 4008 is toegevoegd                          | (4822 051 20008) |
| 1* Item 3001 is vervangen door NFR 39R 5% 0,33W  | (4822 052 10399) |
| 2* Item 3001 is vervangen door NFR 27R 5% 0,33W  | (4822 052 10279) |

- 1\* Bij een FL2177/85 tuner  
2\* Bij een FL2477/85 tuner

5. Fouten in het schema en de stuklijst van de radiomodule

In het schema van de radiomodule zijn de verbindingen van de radiotuner niet juist.  
Deze moeten op de volgende wijze worden gecorrigeerd:  
Pen 4 moet worden verbonden met SCL  
Pen 6 moet worden verbonden met SDA  
Pen 7 moet worden verbonden met +5E  
Pen 8 moet worden verbonden met +12E  
Pen 9 moet worden verbonden met Audio-Radio R  
Pen 10 moet worden verbonden met Massa  
Pen 11 moet worden verbonden met Audio-Radio L.

In het servicehandboek staat het verkeerde codenummer van de radiotuner vermeld. Het juiste codenummer moet zijn: 4822 210 10725.

6. Codenummer van de klokmodule in de systeem-versie

Het codenummer van de klokmodule in de systeem-versie is: 4822 212 10525

7. Codenummers SMPS transformatoren

Voor 21" toestellen (alle uitvoeringen) en voor 14"/17" toestellen met TXT, klok en radio moet de volgende SMPS transformator worden gebruikt: 4822 146 10524.  
Wanneer deze transformator wordt gebruikt bij 14"/17" toestellen moet weerstand R3531 worden gewijzigd van 20K in 16K. Het codenummer van de 16K weerstand is: 4822 116 52247.



1. Neuer Tuner in den AA5H.1-AA-Geräten

In den AA5H.1-Geräten mit PM/QG-Code 02 wurde ein neuer Tuner eingeführt. Dies wirkt sich auf verschiedene Komponenten auf dem Chassis aus. Folgende Änderungen wurden vorgenommen:

2. Allgemeine Änderungen

|                                                                    |                  |
|--------------------------------------------------------------------|------------------|
| Teil 1001 Tuner U944C/IEC wird gegen Tuner FL2177/85 ausgetauscht  | (4822 210 10718) |
| Teil 1001 Tuner UV916E/IEC wird gegen Tuner FL2477/85 ausgetauscht | (4822 210 10715) |

3. Dies bedeutet für die 14"/17"-Geräte

|                                                           |                  |
|-----------------------------------------------------------|------------------|
| Teil 3001 wird gegen NFR 27R 5 % 0,33 W ausgetauscht      | (4822 052 10279) |
| Teil 9000 wird gegen Teil 6010 Diode BYD33D ausgetauscht  | (4822 130 42488) |
| *Teil 9982 wird gegen Teil 6011 Diode BYD33D ausgetauscht | (4822 130 42488) |
| Teil 1640 wird gegen Sicherung 160 mA ausgetauscht        | (4822 071 51601) |
| Teil 3008 wird gegen Smd-Widerstand 39 Ohm ausgetauscht   | (4822 051 20399) |
| Teil 3009 wird gegen Smd-Widerstand 39 Ohm ausgetauscht   | (4822 051 20399) |
| Teile 2029 und 2032 verfallen                             |                  |
| Teil 4008 kommt hinzu                                     | (4822 051 20008) |

\* Nur für den Tuner FL2177/85.

4. Dies bedeutet für die 21"-Geräte

|                                                         |                  |
|---------------------------------------------------------|------------------|
| Teil 3008 wird gegen Smd-Widerstand 39 Ohm ausgetauscht | (4822 051 20399) |
| Teil 3009 wird gegen Smd-Widerstand 39 Ohm ausgetauscht | (4822 051 20399) |
| Teile 2029 und 2032 verfallen                           |                  |
| Teil 4008 kommt hinzu                                   | (4822 051 20008) |
| 1* Teil 3001 wird gegen NFR 39R 5 % 0,33 W ausgetauscht | (4822 052 10399) |
| 2* Teil 3001 wird gegen NFR 27R 5 % 0,33 W ausgetauscht | (4822 052 10279) |

- 1\* Für den Tuner FL2177/85.  
2\* Für den Tuner FL2477/85.

5. Fehler im Prinzipplan und in der Stückliste des Radio-Moduls

Im Prinzipplan des Radio-Moduls sind die Anschlüsse des Radio-Tuners falsch dargestellt.  
Sie müssen folgendermaßen korrigiert werden:  
Pin 4 muss an SCL angeschlossen werden.  
Pin 6 muss an SDA angeschlossen werden.  
Pin 7 muss an +5E angeschlossen werden.  
Pin 8 muss an +12E angeschlossen werden.  
Pin 9 muss an Audio-Radio R angeschlossen werden.  
Pin 10 muss an die Erde angeschlossen werden.  
Pin 11 muss an Audio-Radio L angeschlossen werden.

Die Codenummer des Radio-Tuners wurde in der Service-Anleitung falsch abgedruckt. Die richtige Codenummer lautet: 4822 210 10725.

6. Codenummer des Uhrmoduls in der System-Ausführung

Die Codenummer des Uhrmoduls in der System-Ausführung lautet: 4822 212 10525



7. Codenummern der SMPS-Transformatoren

Für alle Ausführungen der 21"-Geräte und für die 14"/17"-Geräte mit Videotext, Uhr und Radio muss folgender SMPS-Transformator verwendet werden: 4822 146 10524. In den 14"/17"-Geräten muss bei Verwendung dieses Transformators Widerstand R3531 von 20K auf 16K geändert werden. Die Codenummer des 16K-Widerstandes ist: 4822 116 52247.

F1. Nouveau syntoniseur dans les téléviseurs AA5H.1 AA

Un nouveau syntoniseur a été introduit dans les téléviseurs AA5H1 à PM/QG code 02. Ce qui a des conséquences sur plusieurs composants du châssis. Ont été apportées les modifications suivantes:

2. Modifications générales

Le composant 1001 syntoniseur U944C/IEC est remplacé par un syntoniseur FL2177/85 (4822 210 10718)  
Le composant 1001 syntoniseur UV916E/IEC est remplacé par un syntoniseur FL2477/85 (4822 210 10715).

3. Conséquences sur les téléviseurs 14"/17"

Le composant 3001 est remplacé par NFR 27R 5% 0,33W (4822 052 10279)  
Le composant 9000 est remplacé par le composant 6010 Diode BYD33D (4822 130 42488)  
\* Le composant 9982 est remplacé par le composant 6011 Diode BYD33D (4822 130 42488)  
Le composant 1640 est remplacé par un fusible 160 mA (4822 071 51601)  
Le composant 3008 est remplacé par une résistance Smd 39 ohms (4822 051 20399)  
Le composant 3009 est remplacé par une résistance Smd 39 ohms (4822 051 20399)  
Les composants 2029 et 2032 sont supprimés.  
Le composant 4008 est intégré (4822 051 20008)

\* Uniquement dans le cas du syntoniseur FL2177/85

4. Conséquences sur les téléviseurs 21"

Le composant 3008 est remplacé par une résistance Smd 39 ohms (4822 051 20399)  
Le composant 3009 est remplacé par une résistance Smd 39 ohms (4822 051 20399)  
Les composants 2029 et 2032 sont supprimés.  
Le composant 4008 est intégré (4822 051 20008)  
1" Composant 3001 est remplacé par NFR 39R 5% 0,33W (4822 052 10399)  
2" Composant 3001 est remplacé par NFR 27R 5% 0,33W (4822 052 10279)

1" dans le cas d'un syntoniseur FL2177/85  
2" dans le cas d'un syntoniseur FL2477/85

5. Erreur dans le schéma et la liste de pièces du module radio

Dans le schéma du module radio, les connexions du syntoniseur radio sont erronées. Elles doivent être connectées de la manière suivante:  
La broche 4 doit être connectée à SCL  
La broche 6 doit être connectée à SDA  
La broche 7 doit être connectée à +5E  
La broche 8 doit être connectée à +12E

La broche 9 doit être connectée à Audio-radio D  
La broche 10 doit être connectée à Terre  
La broche 11 doit être connectée à Audio-radio G

Le numéro de code du syntoniseur radio mentionné dans le manuel de service est erroné. Le numéro de code correct est: 4822 210 10725.

6. Numéro de code du module d'horloge dans la version système

Le numéro de code du module d'horloge dans la version système est: 4822 212 10525.

7. Numéros de code des transformateurs SMPS

Pour les téléviseurs 21" (tous les modèles) et pour les téléviseurs 14"/17" avec télétexte, horloge et radio, on doit utiliser le transformateur SMPS suivant: 4822 146 10524. Si on fait usage de ce transformateur dans les téléviseurs 14"/17", la résistance R3531 doit être modifié de 20K à 16K. Le numéro de code de la résistance 16K est: 4822 116 52247.

I1. Nuovo sintonizzatore negli apparecchi AA5H.1 AA

Negli apparecchi AA5H.1 con codice PM/QG 02 è stato introdotto un nuovo sintonizzatore. Questo influisce su diversi componenti che si trovano sul telaio. Sono state effettuate le seguenti modifiche.

2. Modifiche generali

Articolo 1001, il sintonizzatore U944C/IEC è stato sostituito dal sintonizzatore FL2177/85 (4822 210 10718)  
Articolo 1001, il sintonizzatore UV916E/IEC è stato sostituito dal sintonizzatore FL2477/85 (4822 210 10715)

3. Ciò significa che negli apparecchi da 14"/17"

l'articolo 3001 è stato sostituito da NFR 27R 5% 0,33W (4822 052 10279)  
l'articolo 9000 è stato sostituito dall'articolo 6010, diodo BYD33D (4822 130 42488)  
\* l'articolo 9982 è stato sostituito dall'articolo 6011, diodo BYD33D (4822 130 42488)  
l'articolo 1640 è stato sostituito dal fusibile 160 mA (4822 071 51601)  
l'articolo 3008 è stato sostituito dal resistore SMD 39 Ohm (4822 051 20399)  
l'articolo 3009 è stato sostituito dal resistore SMD 39 Ohm (4822 051 20399)  
gli articoli 2029 e 2032 vengono cancellati  
l'articolo 4008 è stato inserito (4822 051 20008)

\* Solo nel caso del sintonizzatore FL2177/85

4. Ciò significa che negli apparecchi da 21"

l'articolo 3008 è stato sostituito dal resistore SMD 39 Ohm (4822 051 20399)  
l'articolo 3009 è stato sostituito dal resistore SMD 39 Ohm (4822 051 20399)  
gli articoli 2029 e 2032 vengono cancellati  
l'articolo 4008 è stato inserito (4822 051 20008)  
1\* l'articolo 3001 è stato sostituito da NFR 39R 5% 0,33W (4822 052 10399)  
2\* l'articolo 3001 è stato sostituito da NFR 27R 5% 0,33W (4822 052 10279)

1\* Nel caso di un sintonizzatore FL2177/85  
2\* Nel caso di un sintonizzatore FL2477/85

5. Errore nel diagramma schematico e nella lista delle parti del modulo radio

Nel diagramma schematico del modulo radio i collegamenti del sintonizzatore radio sono sbagliati. Devono essere corretti nel seguente modo:  
il piedino 4 deve essere collegato a SCL  
il piedino 6 deve essere collegato a SDA  
il piedino 7 deve essere collegato a +5E  
il piedino 8 deve essere collegato a +12E  
il piedino 9 deve essere collegato all'Audio-Radio R  
il piedino 10 deve essere collegato a terra  
il piedino 11 deve essere collegato all'Audio-Radio L  
Il numero di codice del sintonizzatore radio pubblicato nel manuale di servizio è sbagliato. Il numero di codice corretto è: 4822 210 10725.

6. Il numero di codice del modulo di clock nella versione del sistema

Il numero di codice del modulo di clock nella versione del sistema è: 4822 212 10525

7. Numeri di codice dei trasformatori SMPS

Per gli apparecchi da 21" (tutte le versioni) e per gli apparecchi da 14"/17" con TXT, clock e radio deve essere usato il seguente trasformatore: 4822 146 10524. Negli apparecchi da 14"/17", quando si usa questo trasformatore, il resistore R3531 deve essere modificato da 20K a 16K. Il numero di codice del resistore 16K è: 4822 116 52247.

E1. Sintonizador nuevo en los aparatos AA5H.1 AA

En los aparatos AA5H.1 de PM/QG código 02 se ha introducido un sintonizador nuevo. Esto tiene consecuencias para varios componentes del chasis. Se han hecho las modificaciones siguientes:

2. Modificaciones generales

Componente 1001 sintonizador U944C/IEC ha sido reemplazado por un sintonizador FL2177/85 (4822 210 10718)  
Componente 1001 sintonizador UV916E/IEC ha sido reemplazado por un sintonizador FL2477/85 (4822 210 10715)

3. Consecuencias para los aparatos 14"/17"

Componente 3001 ha sido reemplazado por NFR 27R 5% 0,33W (4822 052 10279)  
Componente 9000 ha sido reemplazado por componente 6010 Diodo BYD33D (4822 130 42488)  
\*Componente 9982 ha sido reemplazado por componente 6011 Diodo BYD33D (4822 130 42488)  
Componente 1640 ha sido reemplazado por fusible 160 mA (4822 071 51601)  
Componente 3008 ha sido reemplazado por una resistencia Smd 39 Ohm (4822 051 20399)  
Componente 3009 ha sido reemplazado por una resistencia Smd 39 Ohm (4822 051 20399)  
Componentes 2029 y 2032 han sido suprimidos  
Componente 4008 ha sido insertado (4822 051 20008)

\* Sólo en el caso del sintonizador FL2177/85.

4. Consecuencias para los aparatos 21"

Componente 3008 ha sido reemplazado por una resistencia Smd 39 Ohm (4822 051 20399)  
Componente 3009 ha sido reemplazado por una resistencia Smd 39 Ohm (4822 051 20399)  
Componentes 2029 y 2032 han sido suprimidos  
Componente 4008 ha sido insertado (4822 051 20008)  
1" Componente 3001 ha sido reemplazado por NFR 39R 5% 0,33W (4822 052 10399)  
2" Componente 3001 ha sido reemplazado por NFR 27R 5% 0,33W (4822 052 10279)

1" En caso de un sintonizador FL2177/85  
2" En caso de un sintonizador FL2477/85

5. Error en el esquema y la lista de piezas del módulo radio

En el esquema del módulo radio, las conexiones del sintonizador radio son erróneas. Deben ser corregidas de la manera siguiente:  
La patilla 4 debe ser conectada a SCL  
La patilla 6 debe se conectada a SDA  
La patilla 7 debe ser conectada a +5E  
La patilla 8 debe ser conectada a +12E  
La patilla 9 debe ser conectada a Audio-Radio D  
La patilla 10 debe ser conectada a Tierra  
La patilla 11 debe ser conectada a Audio-Radio I

El número de código del sintonizador radio mencionado en el manual de servicio es erróneo. El número de código correcto es: 4822 210 10725.

6. Número de código del módulo de reloj en la

versión sistema

El número de código del módulo reloj en la versión sistema es: 4822 212 10525

7. Números de código transformadores SMPS

Para los aparatos 21" (todos los modelos) y para los aparatos 14"/17" con teletexto, reloj y radio, hay que utilizar el transformador SMPS siguiente: 4822 146 10524. Si se utiliza este transformador en los aparatos 14"/17", la resistencia R3531 debe ser modificada de 20K a 16K. El número de código de la resistencia 16K es: 4822 116 52247.