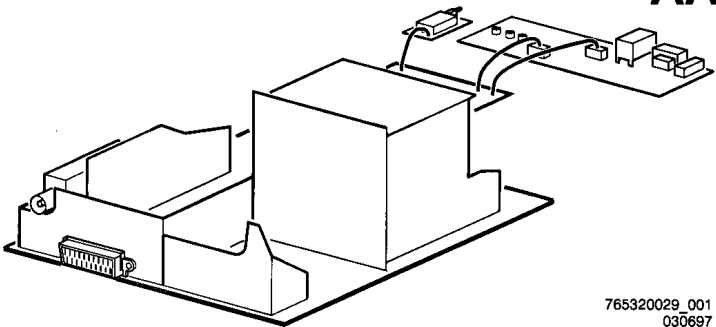


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


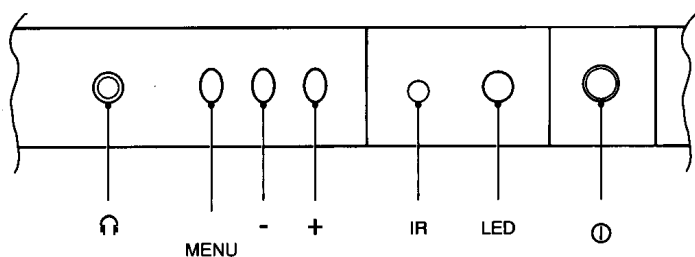
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Service Manual

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1. Technical specifications

Mains voltage	: 220 - 240 V \pm 10% AC; 50 Hz \pm 5%
Power cons. at 220V~	: 25" 75 W (stand-by \leq 5 W) : 28" 75 W (stand-by \leq 5 W)
Aerial input impedance TV	: 75 Ω - coax
Min. aerial input VHF	: 30 μ V
Min. aerial input UHF	: 40 μ V
Max. aerial input VHF/UHF	: 180mV
Pull-in range colour sync	: \pm 300Hz
Pull-in range horizontal sync	: \pm 600Hz
Pull-in range vertical sync	: \pm 5Hz
Picture tube range	: 25", 28"
	: 3 W mono execution, 3 W stereo execution
TV Systems	: PAL I : PAL BG : PAL BG / SECAM BGDK : PAL BG / SECAM BGL'
Indications	: On Screen Display (OSD) green/red : 1 LED (⊖ red high intensity, ⊕ red low intensity, "RC5" and error code blinking red)
VCR programs	: 0
Tuning and operating system	:  VST
UV913 / IEC (VST)	: VHFa: 46 - 102 MHz : VHFb: 138 - 224 MHz : UHF: 471 - 855 MHz
UV915E / IEC (VST)	: VHFa: 48 - 168 MHz : VHFb: 175 - 448 MHz : UHF: 300 - 860 MHz
UV917E / IEC (VST)	: VHFa: 48 - 118 MHz : VHFb: 118 - 300 MHz : UHF: 470 - 861 MHz
U943 / IEC (VST)	: UHF: 470 - 861 MHz
Local operating functions	: MENU / - / +



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2. Connection facilities

Euroconnector:

1	-	Audio	⊕	R (0V5 RMS \leq 1k Ω)
2	-	Audio	⊖	R (0V2 - 2V RMS \geq 10k Ω)
3	-	Audio	⊕	L (0V5 RMS \leq 1k Ω)
4	-	Audio	⊥	
5	-	Blue	⊥	
6	-	Audio	⊖	L (0V2 - 2V RMS \geq 10k Ω)
7	-	Blue		(0V7 _{pp} /75 Ω)
8	-	CVBS-status 1	⊖	(0-2V int., 10-12V ext.)
9	-	Green	⊥	
10	-	-		
11	-	Green		(0V7 _{pp} /75 Ω)

12	-	-		
13	-	Red	⊥	
14	-	-		
15	-	Red		(0V7 _{pp} /75 Ω)
16	-	RGB-status		(0-0V4 int.)(1-3V ext. 75 Ω)
17	-	CVBS	⊥	
18	-	CVBS	⊥	
19	-	CVBS	⊕	(1V _{pp} /75 Ω)
20	-	CVBS	⊖	(1V _{pp} /75 Ω)
21	-	Earthscreen		

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 that **after** a repair the set must be returned in its original condition. In particular attention should be paid to the following points:
 - As a strict precaution, we advise you to resolder the solder joints through which the horizontal deflection current is flowing, in particular:
 - all pins of the line output transformer (LOT);
 - fly-back capacitor(s);
 - S-correction capacitor(s);
 - line output transistor;
 - pins of the connector with wires to the deflection coil;
 - other components through which the deflection current flows.

Note:

This resoldering is advised to prevent bad connections due to metal fatigue in solder joints and is therefore only necessary for television sets older than 2 years.

- The wire trees and EHT cable should be routed correctly and fixed with the mounted cable clamps.
- The insulation of the mains lead should be checked for external damage.
- The mains lead strain relief should be checked for its function in order to avoid touching the CRT, hot components or heat sinks.
- The electrical DC resistance between the mains plug and the secondary side should be checked (only for sets which have a mains isolated power supply). This check can be done as follows:
 - unplug the mains cord and connect a wire between the two pins of the mains plug;
 - set the mains switch to the on position (keep the mains cord unplugged!);
 - 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.
- The cabinet should be checked for defects to avoid touching of any inner parts by the customer.

Maintenance instructions

It is recommended to have a maintenance inspection carried out by a qualified service employee. The interval depends on the usage conditions:

- When the set is used under normal circumstances, for example in a living room, the recommended interval is 3 to 5 years.
- When the set is used in circumstances with higher dust, grease or moisture levels, for example in a kitchen, the recommended interval is 1 year.

The maintenance inspection contains the following actions:

- Execute the above mentioned 'general repair instruction'.
- Clean the power supply and deflection circuitry on the chassis.
- Clean the picture tube panel and the neck of the picture tube.

Warnings

1. In order to prevent damage to ICs and transistors, all high-voltage flashovers must be avoided. In order to prevent damage to the picture tube, the method shown in Fig. 3.1 should be used to discharge the picture tube. Use a high-voltage probe and a multimeter (position DC-V). Discharge until the meter reading is 0V (after approx. 30s).
2. **ESD** ▲
All ICs and many other semiconductors are susceptible 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 by a wristband with resistance. Keep components and tools also at this same potential.

Available ESD protection equipment:

anti-static table mat	
large 1200x650x1.25mm	4822 466 10953
anti-static table mat	
small 600x650x1.25mm	4822 466 10958
anti-static wristband	4822 395 10223
connection box	
(3 press stud connections, 1 M ohm)	4822 320 11307
extension cable (2 m, 2 M ohm;	
to connect wristband to connection box)	4822 320 11305
connecting cable (3 m, 2 M ohm;	
to connect table mat to connection box)	4822 320 11306
earth cable (1 M ohm; to connect any	
product to mat or connection box)	4822 320 11308
complete kit ESD3 (combining all 6 prior	
products - small table mat)	4822 310 10671
wristband tester	4822 344 13999
3. Together with the deflection unit and any multipole unit, the flat square picture tubes used from an integrated unit. The deflection and the multipole units are set optimally at the factory. Adjustment of this unit during repair is therefore not recommended.
4. Be careful during measurements in the high-voltage section and on the picture tube.
5. Never replace modules or other components while the unit is switched on.
6. When making settings, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.
7. Wear safety goggles during replacement of the picture tube.

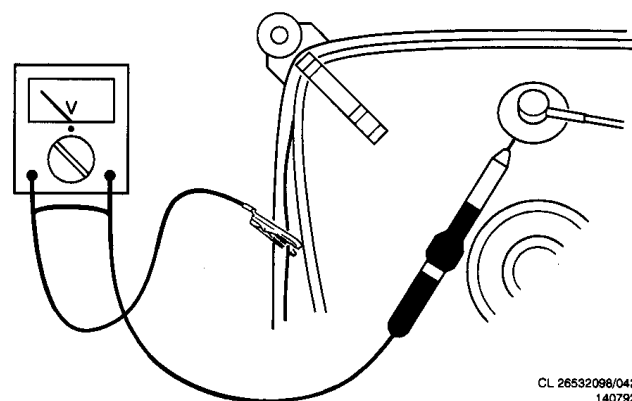



Fig. 3.1

4. Mechanical instructions

Notes

1. The direct voltages and oscillograms should be measured with regard to the tuner earth (\perp), or hot earth (\perp with a lightning bolt) as this is called.
2. The direct voltages and oscillograms shown in the diagrams are indicative and should be measured in the **Service Default Mode** (see chapter 8) with a colour bar signal and stereo sound (L:3 kHz, R:1 kHz unless stated otherwise) and picture carrier at 475.25 MHz.
3. Where necessary, the oscillograms and direct voltages are measured with (Π) and without aerial signal (\times). Voltages in the power supply section are measured both for normal operation ($\textcircled{\Pi}$) and in standby ($\textcircled{\times}$). These values are indicated by means of the appropriate symbols.
4. The picture tube PWB has printed spark gaps. Each spark gap is connected between an electrode of the picture tube and the Aquadag coating.
5. The semiconductors indicated in the circuit diagram and in the parts lists are completely interchangeable per position with the semiconductors in the unit, irrespective of the type indication on these semiconductors.

6.  **DOLBY SURROUND**
PRO • LOGIC

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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. A stable service position can be created with the left hand side clip on the carrier panel and the cabinet (see fig. 4.1).

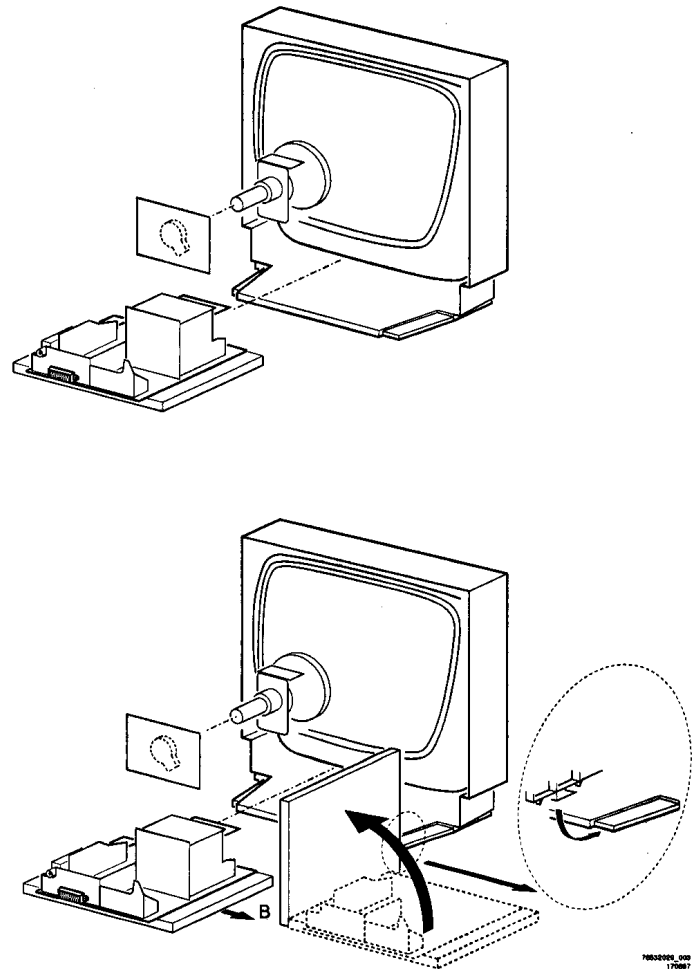
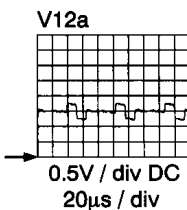
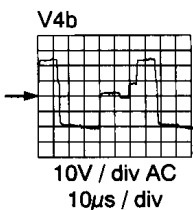
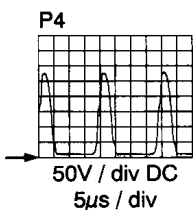
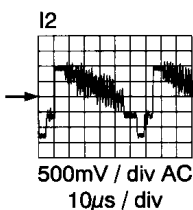
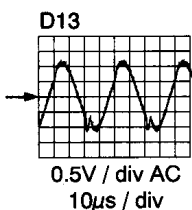
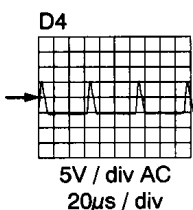
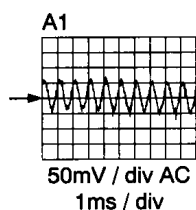
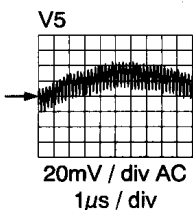
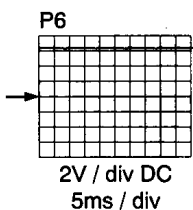
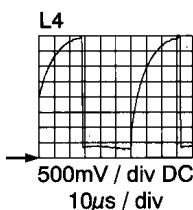
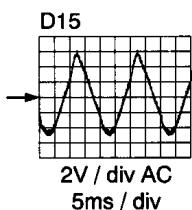
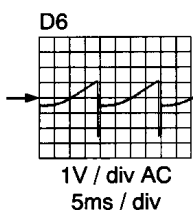
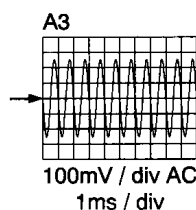
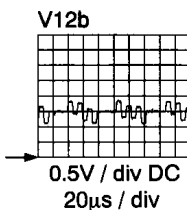
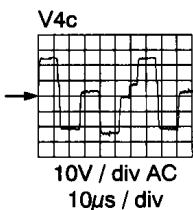
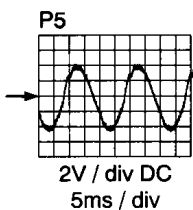
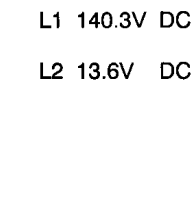
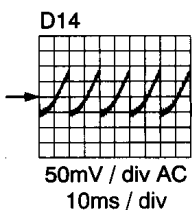
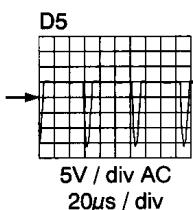
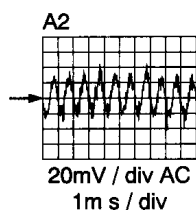


Fig. 4.1

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

S
1

2



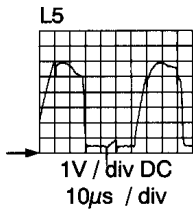
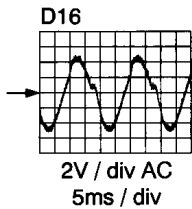
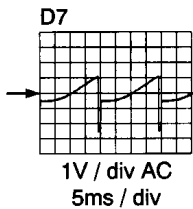
→ = 0V

A4 Not present

C1 5V DC

C3 5V DC

C4 5V DC



P7 10.3V DC

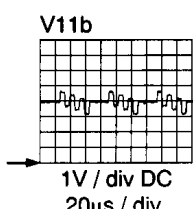
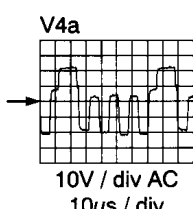
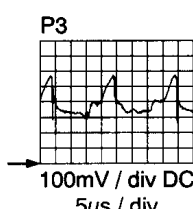
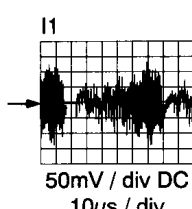
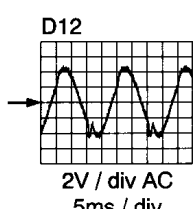
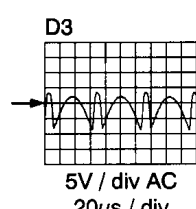
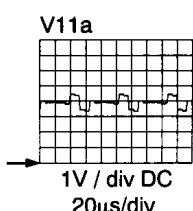
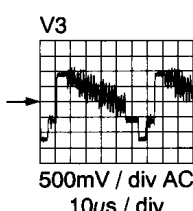
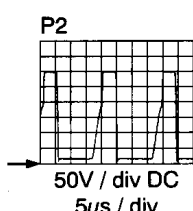
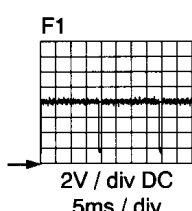
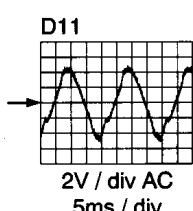
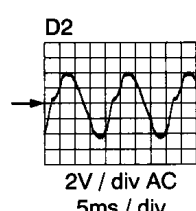
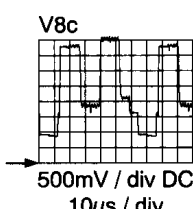
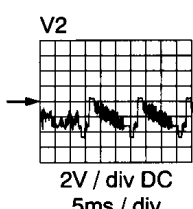
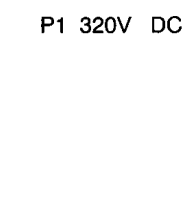
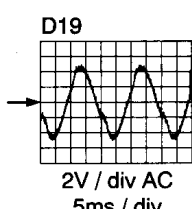
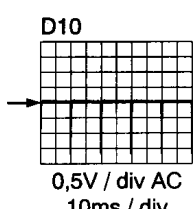
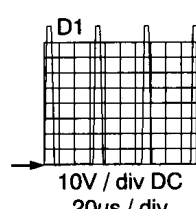
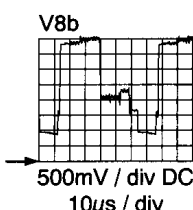
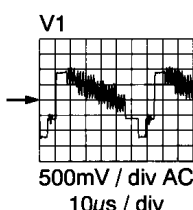
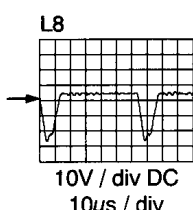
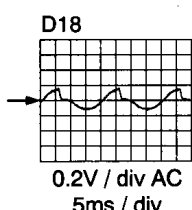
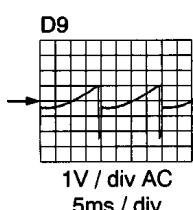
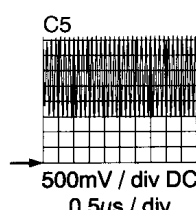
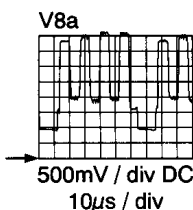
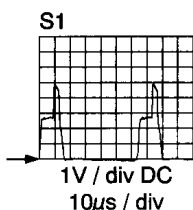
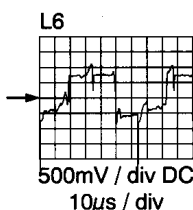
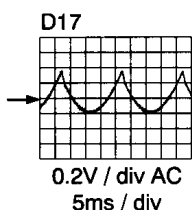
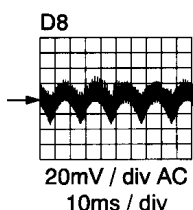
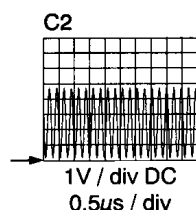
P8 10.2V DC

P9 5.4V DC

V6 Secam (Only)

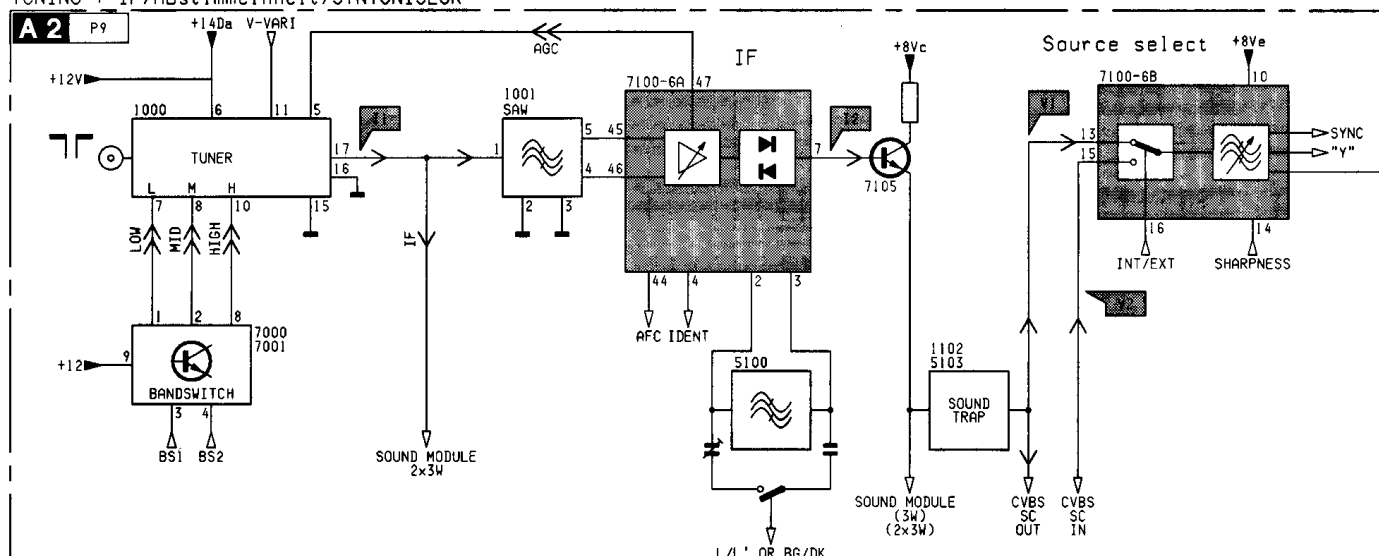
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V9 8V6 DC

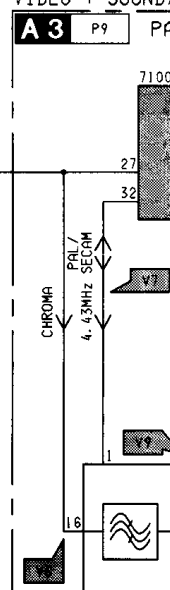


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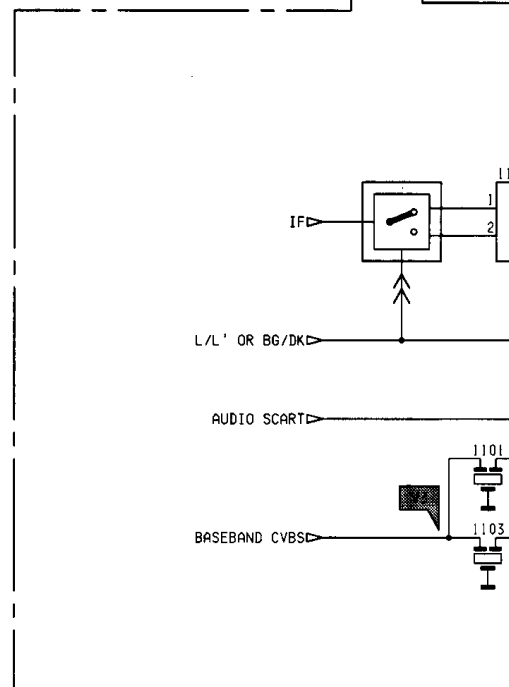
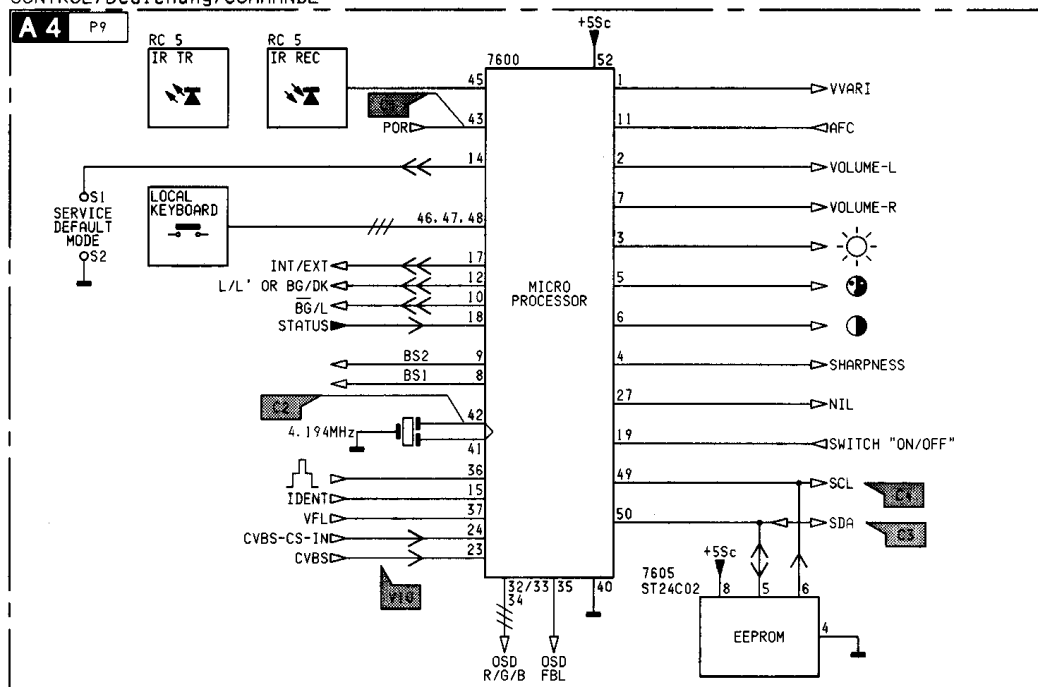
TUNING + IF/Abstimmereinheit/SYNTONISEUR



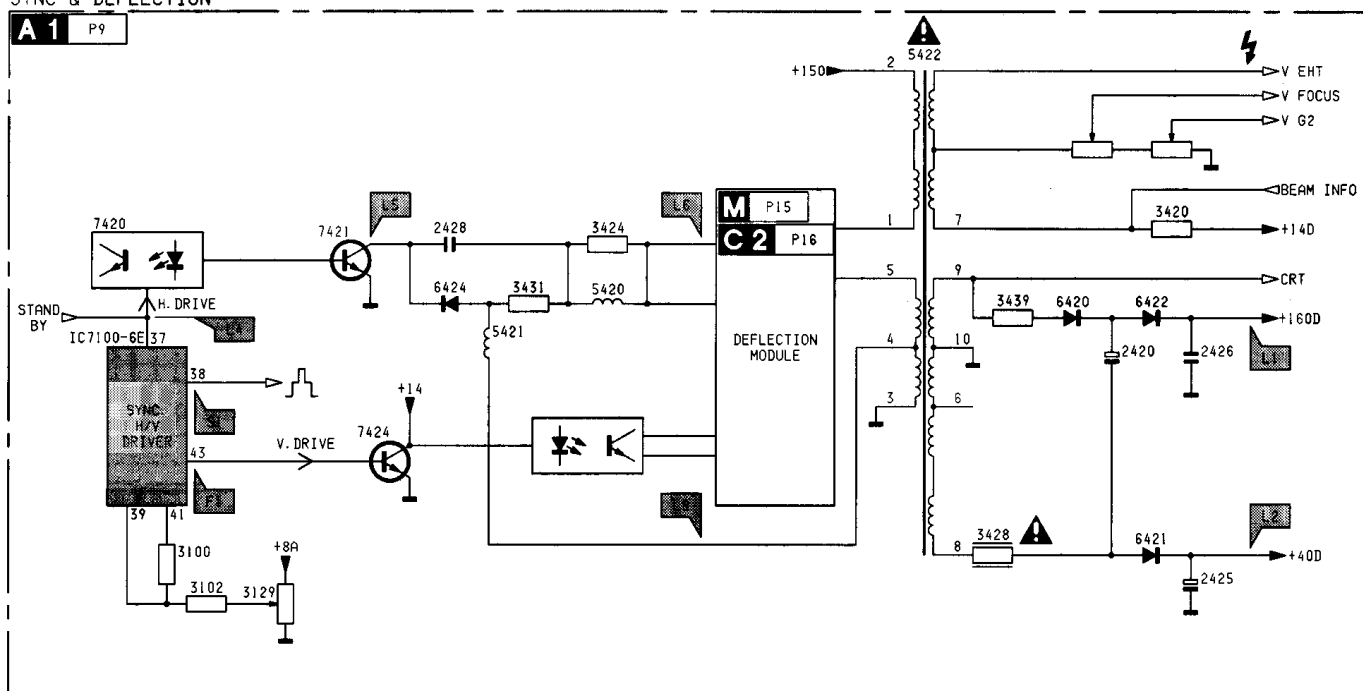
VIDEO + SOUND



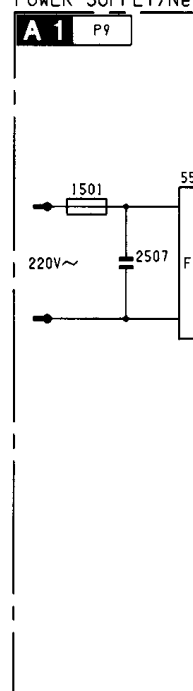
CONTROL/Bedienung/COMMANDE

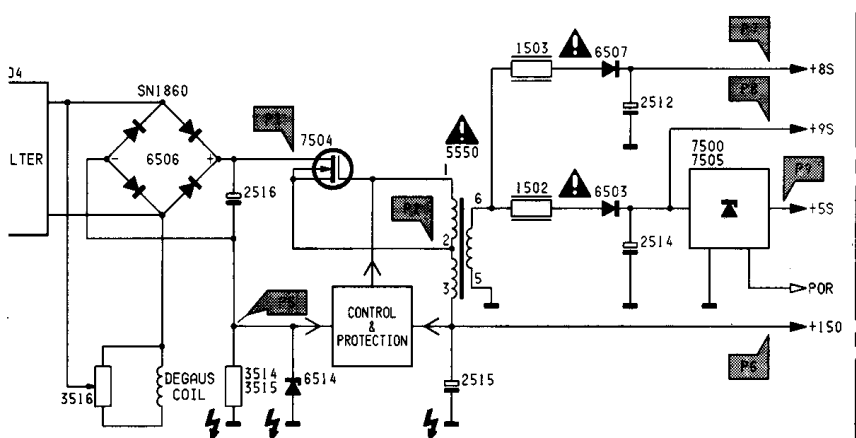
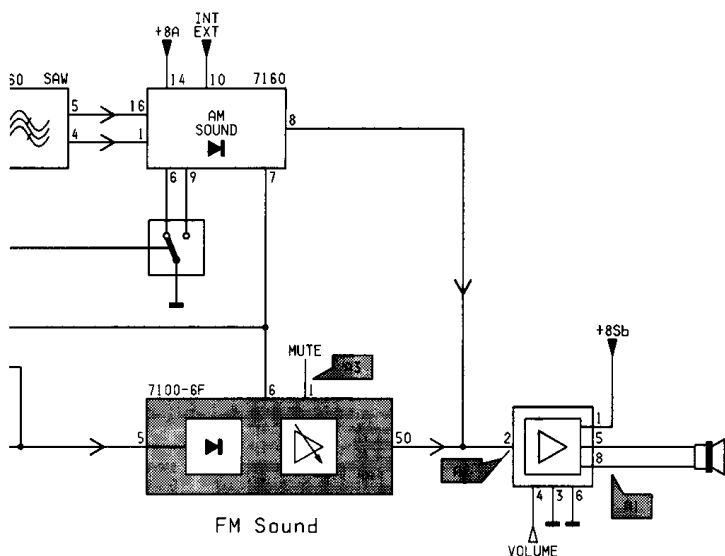
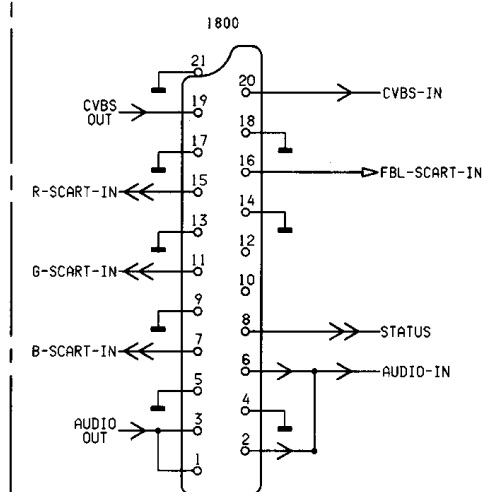
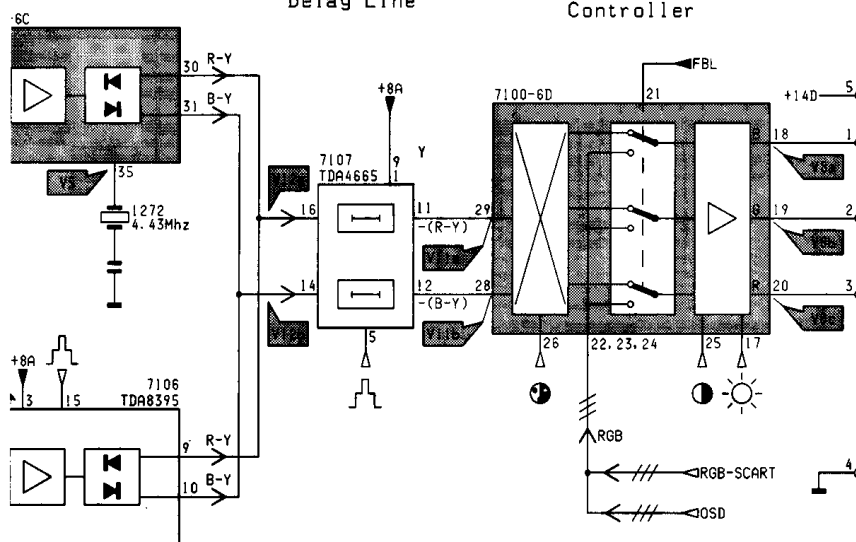


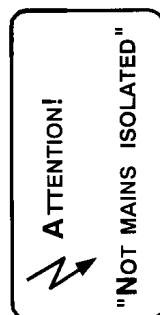
SYNC & DEFLECTION



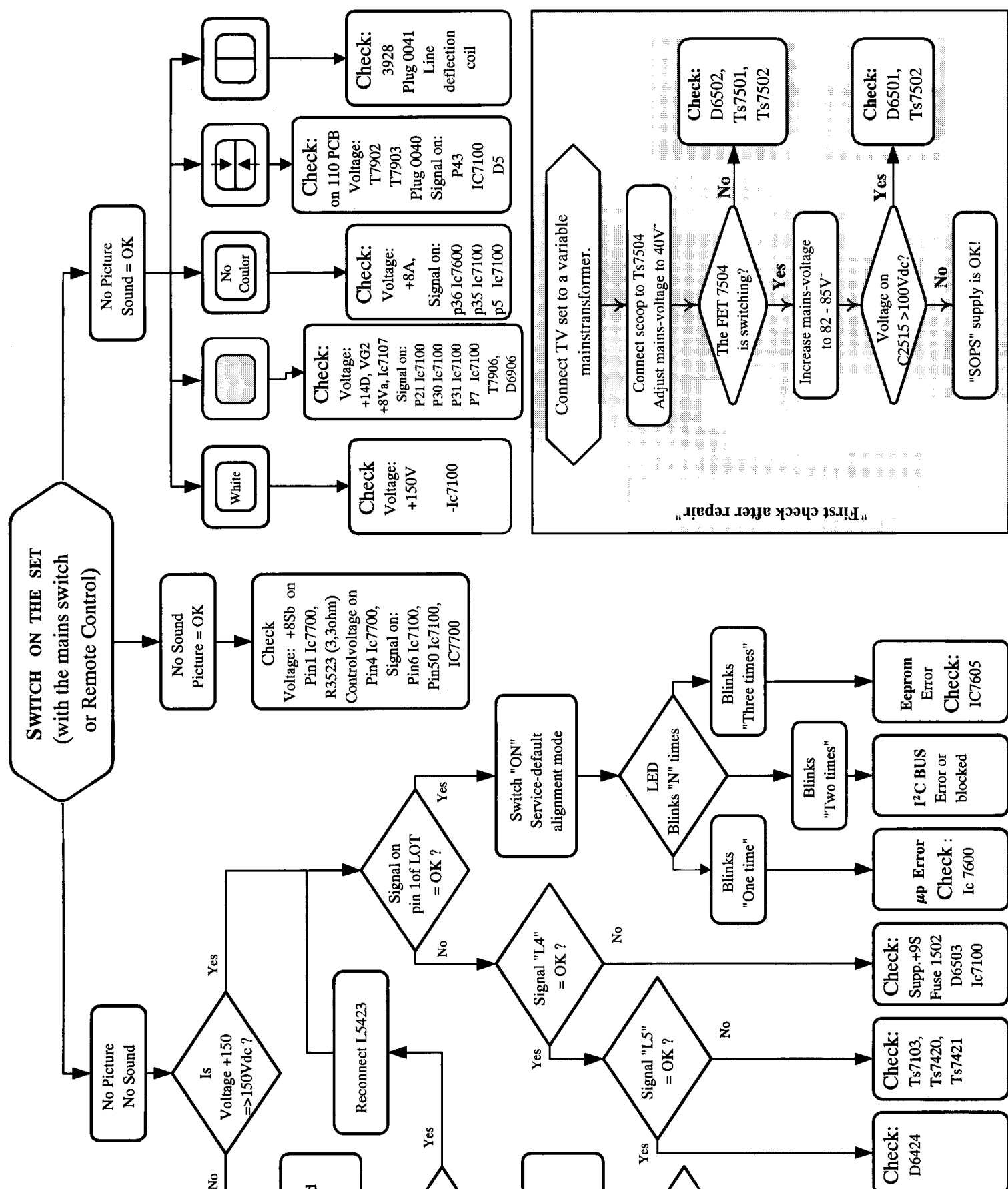
POWER SUPPLY/Ne







**Fault finding tree & Repair facilities /
Fehlersuchbaum & Reparaturhinweise /
Aide au depannage & Conseils pour la réparations**



6. Repair facilities

1. Functional blocks

On both the service printing on the copper and the component side, functional blocks are indicated by lines and text.

2. Test points

The L6 chassis is equipped with test points in the service printing on both sides of mono-board. These test points are referring to the functional blocks as mentioned above:

- * P1-P2-P3, etc: Test points for the power supply
- * L1-L2-L3, etc: Test points for the line drive and line output circuitry
- * F1-F2-F3, etc: Test points for the frame drive and frame output circuitry
- * S1-S2-S3, etc: Test points for the synchronisation circuitry
- * V1-V2-V3, etc: Test points for the video processing circuitry
- * A1-A2-A3, etc: Test points for the audio processing circuitry
- * C1-C2-C3, etc: Test points for the control circuitry
- * T1-T2-T3, etc: Test points for the teletext processing circuitry

The numbering is done in a for diagnostics logical sequence; always start diagnosing within a functional block, in the sequence of the relevant test points, for that functional block.

3. Service default-alignment mode (SDAM)

The service default-alignment mode is a pre-defined mode which can be used for faultfinding (especially when the TV gives no picture at all). All oscillograms and DC voltages in this service manual are measured in the service default-alignment mode.

Activate the service default-alignment mode can be done in 2 ways:

1. By short-circuiting the service pins S1 and S2 of the microcomputer (pin 14 of IC7600).
2. From normal operation mode by pressing the button "DEFAULT" or "ALIGN" on the DST (Dealer Service Tool) RC7150.

Leaving the service default-alignment mode to normal operation can only be done by the stand-by on the remote control or by pressing diagnose 99 followed by the OK-button on the DST (so not via mains switch "off"; after mains switch "off" and then "on" again the set will start up in the service default-alignment mode again to enable easy faultfinding).

Functions of the service default-alignment mode:

1. All analogue settings (volume, contrast, brightness and saturation) are in the mid position.
2. Set is tuned to program number 1
3. Delta volume settings are not used (delta volume setting = a delta on the volume setting)
4. OSD error message (present available error code) is displayed continuously
5. The OSD-key will act as search and auto store on the maximum program number.
6. Automatic switch off function (set switches "off" after 15 minutes no IDENT) will be switched off
7. Hotel mode will be disabled
8. All other functions remain normal controllable

Service default-alignment menu:

New option settings are activated immediately.

1. Software version of the microprocessor used in that typical set is displayed in the right top corner
2. A counter in the middle of the screen indicate the normal operation hours of the set in a hexadecimal code (every time the set is switched "on" the counter is incremented by 1 hour, so +1 at the counter).
3. The "S" in the middle of the screen next to the counter indicate that the set is in the service default-alignment mode
4. Option code
This code indicates the Options setting of the set.
5. Error code history:
The 5 last different error codes occurred are stored in the EEPROM memory; last error code detected will be displayed on the left side (see for an overview of all possible error codes Fig. 6.3), so e.g.:

0 0 0 0 0	means no error codes present in the buffer
3 0 0 0 0	means one error code present in the buffer; error code 3
2 3 0 0 0	means two error codes present in the buffer; last detected error code is error code 2, previous detected error code is error code 3

The error code history buffer is cleared when the Service Menu is left by the stand-by command or by diagnose 99 command. In case the Service Menu is left by the mains switch "off" the error code history buffer will not be cleared.

Option code + Counter + "S" for
Service Menu active + software version →

Error code history →

Option setting row →

001	0023S	1.0
23000		
-	SYSTEM BG+I	+

Fig. 6.1

6. Option setting:

In the bottom line the options are given.
Control of the options is with the following keys on the remote control:

- * PROGRAM +/- Select the option to be changed:
Via the "PROGRAM +/-" button the option to be changed can be selected. The selected option is implemented immediately.
- * CONTROL up/down Changes the setting of the option.

* MENU +/-

Changes to a submenu: via "MENU +/-" buttons a submenu is selected in which in a stereo version the sound/sync alignment can be done.

The options are stored immediately in the EEPROM. The following table indicates the possible hardware and software options and their technical consequences:

Text displayed in the option row in the Service Menu	The technical consequence for the selected option
SINGLE	→ For a PAL BG only or PAL BG/SECAM BGDK set
SYSTEM I:UK	→ For a PAL I only set
SYSTEM BG+LL'	→ For a PAL BG/SECAM LL' set
SYSTEM BG+DK	→ For a PAL BGI/SECAM LL' set
NATIONAL BRAND MAxxxxx→	Selects MENU-Layout National Brand styling

Fig. 6.2

4. Error messages

The microcomputer also detects errors in circuits connected to the I²C (Inter IC) bus. These error messages are communicated via OSD (On Screen Display) and a flashing LED in the service default-alignment mode. (error code history buffer):

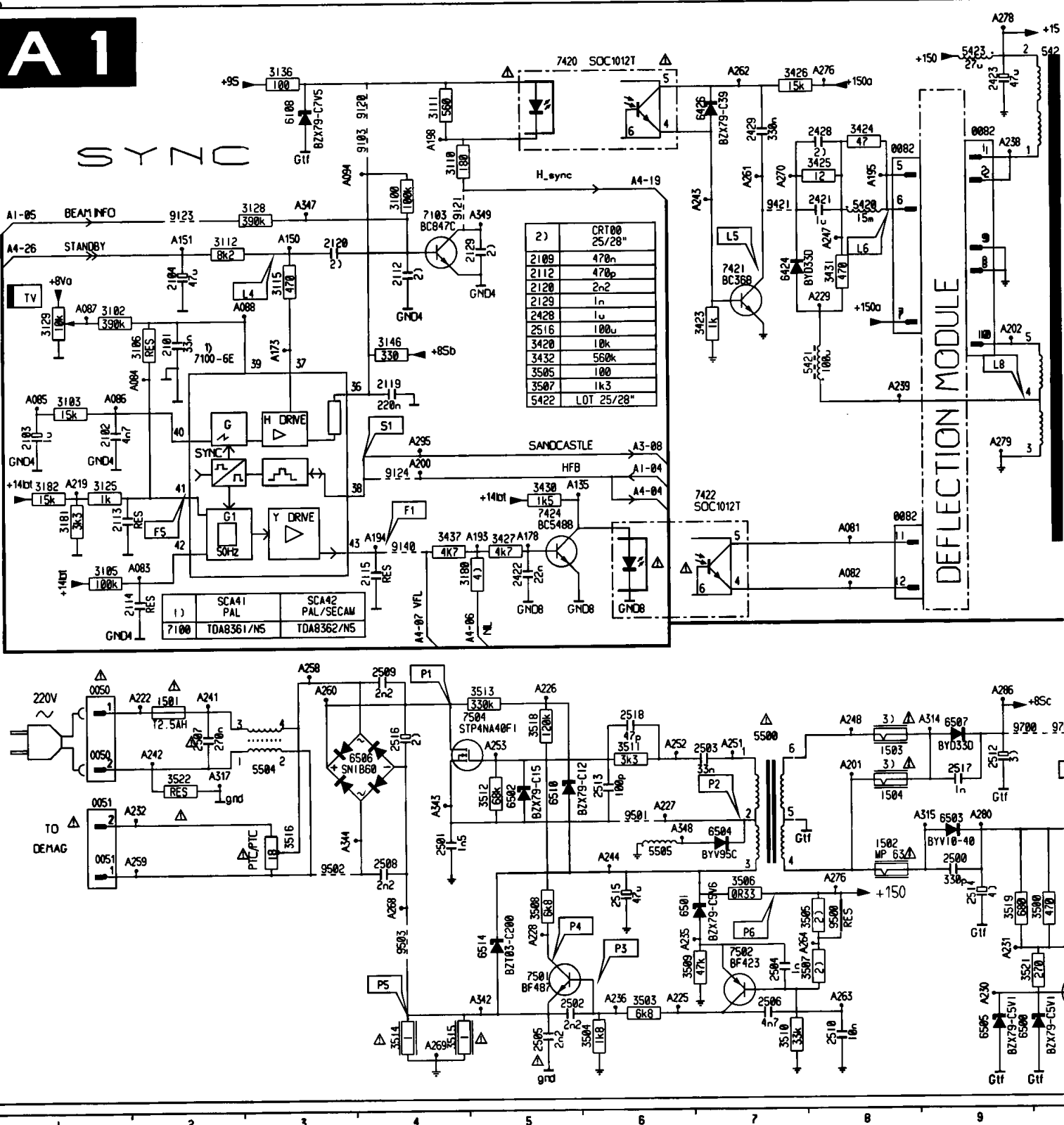
1. In normal operation:
In normal operation no errors are indicated.
2. In the service default-alignment mode:
In the service default-alignment mode both the "OSD error **message**" and the "LED error" indication will display the present detected error continuously.

"OSD error number" (Service Menu)	"LED behaviour"	Error description	Possible defective component
0	No blinking LED	No error	—
1	LED blinks once	μC error	IC76002
2	LED blinks twice	General I ² C	I ² C bus is blocked
3	LED blinks three times	EEPROM error	IC7605

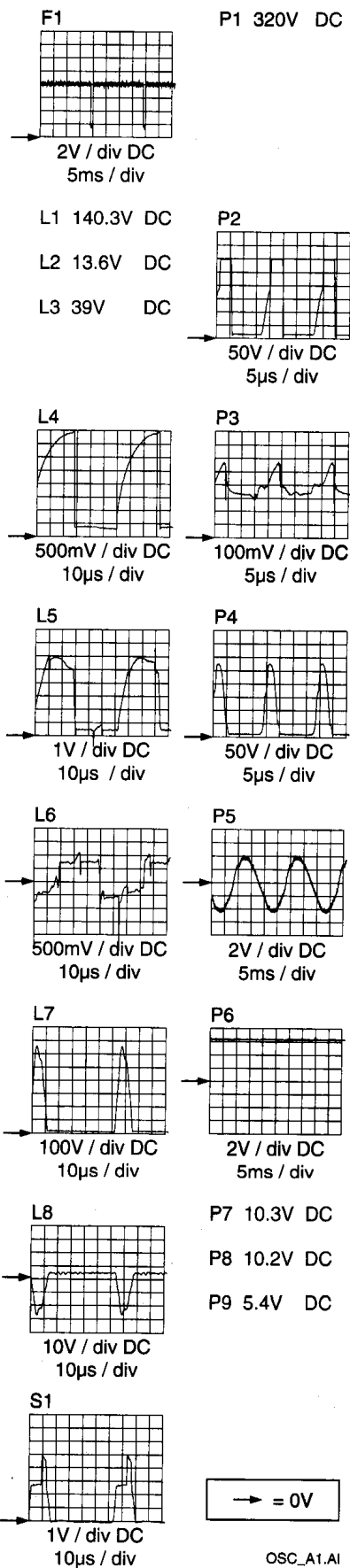
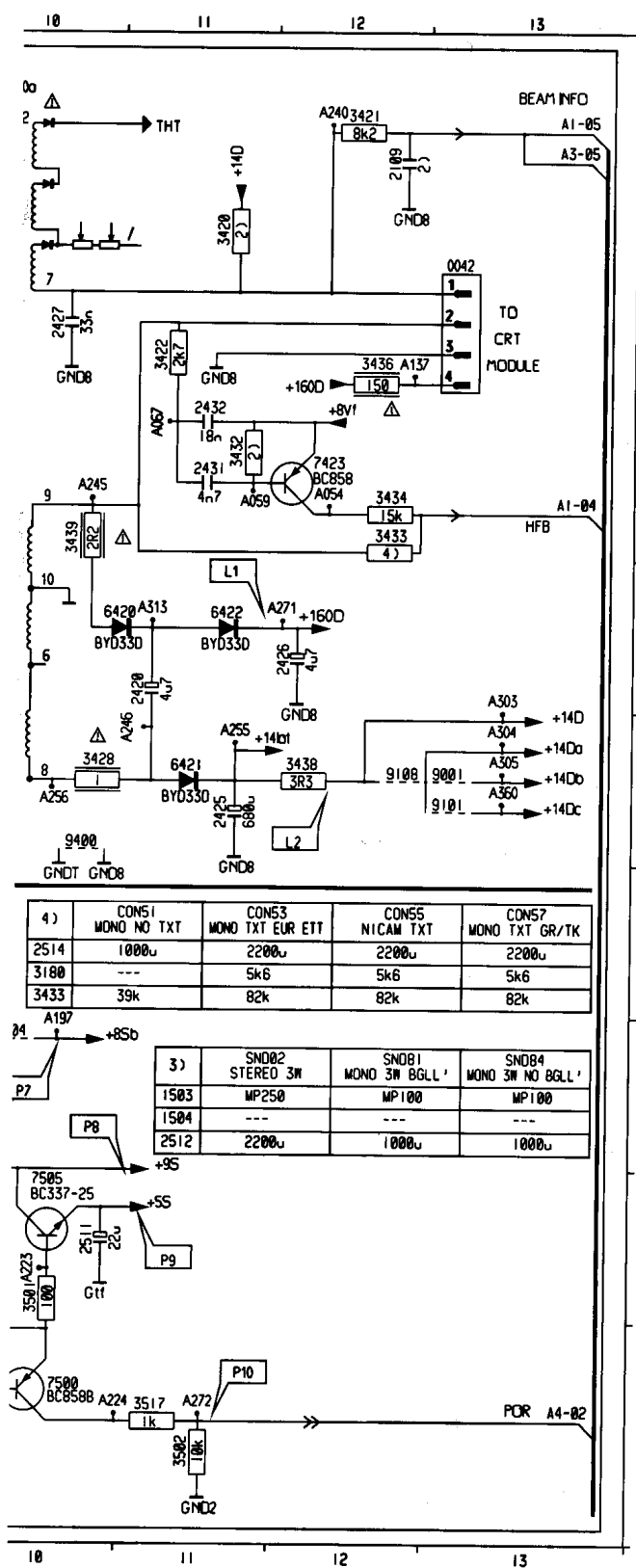
Fig. 6.3

A 1

SYNCO

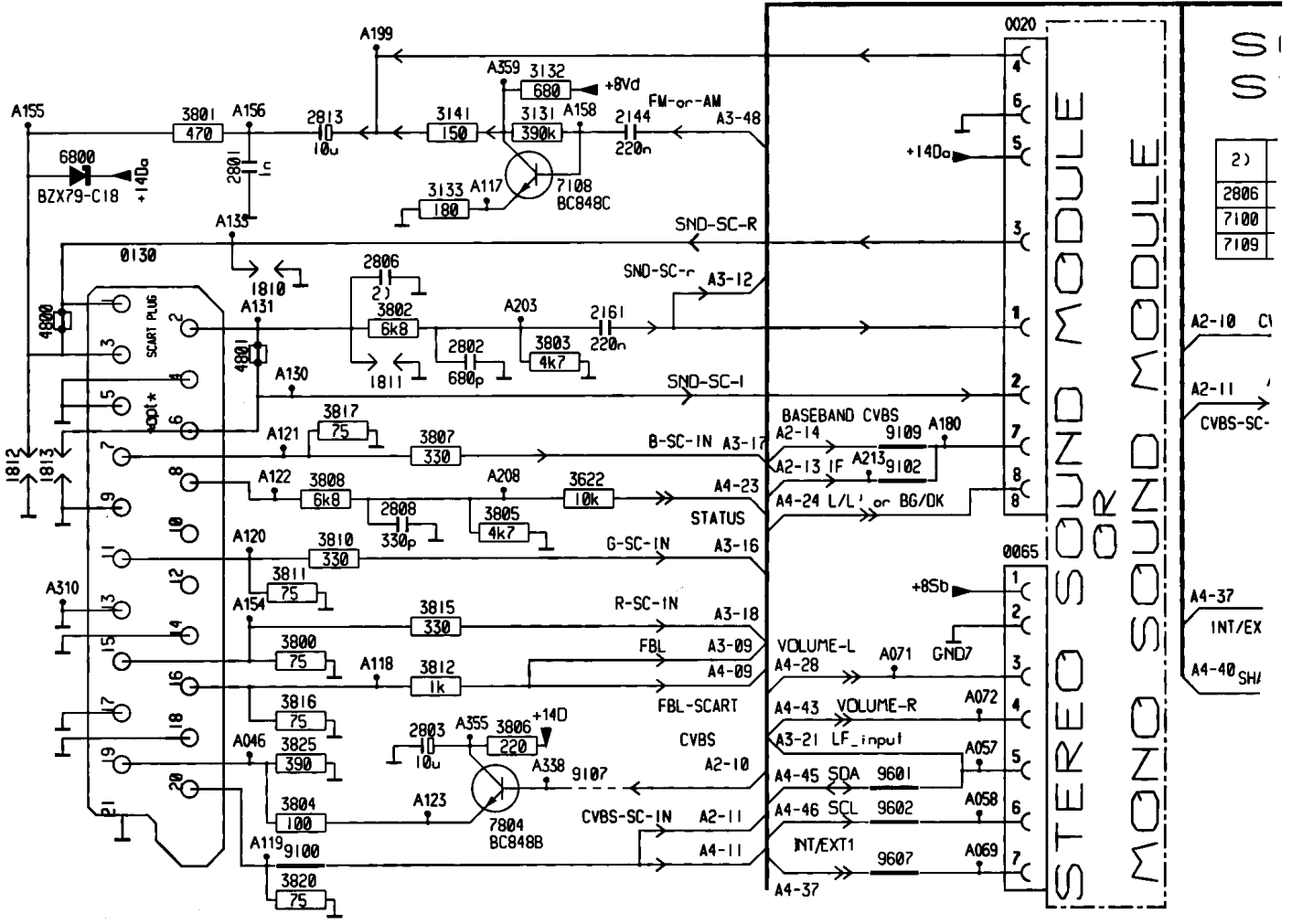
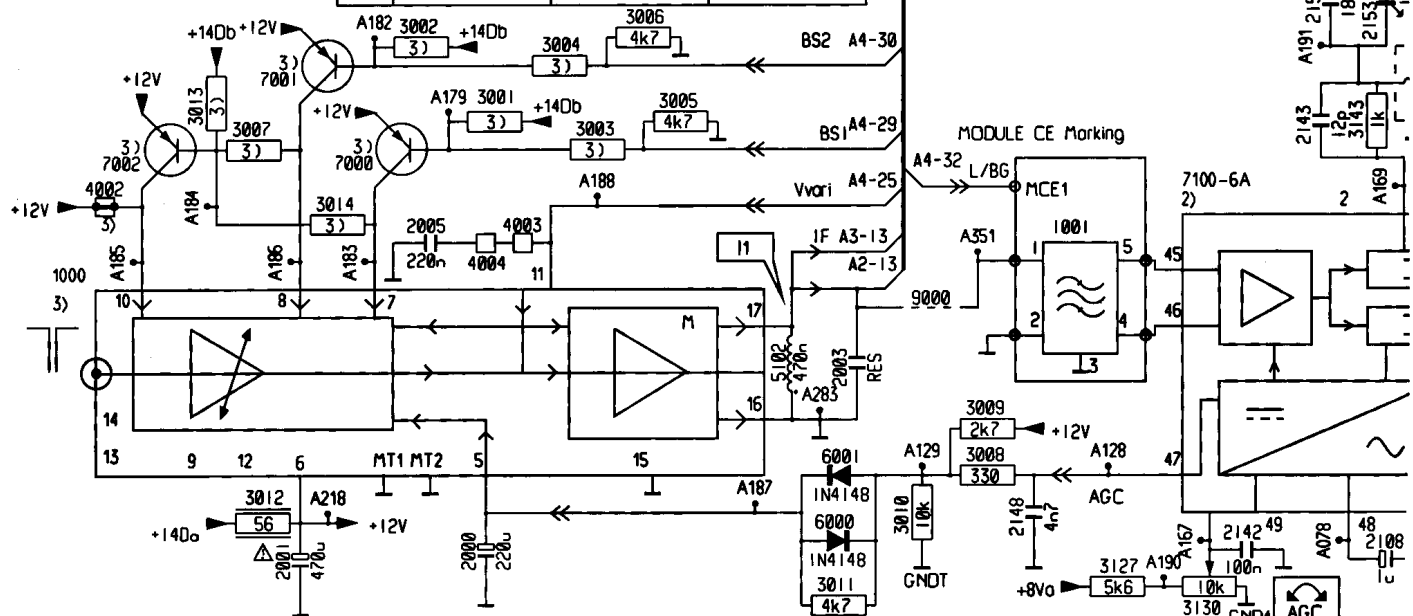


Module secteur & Étage de lignes



A2

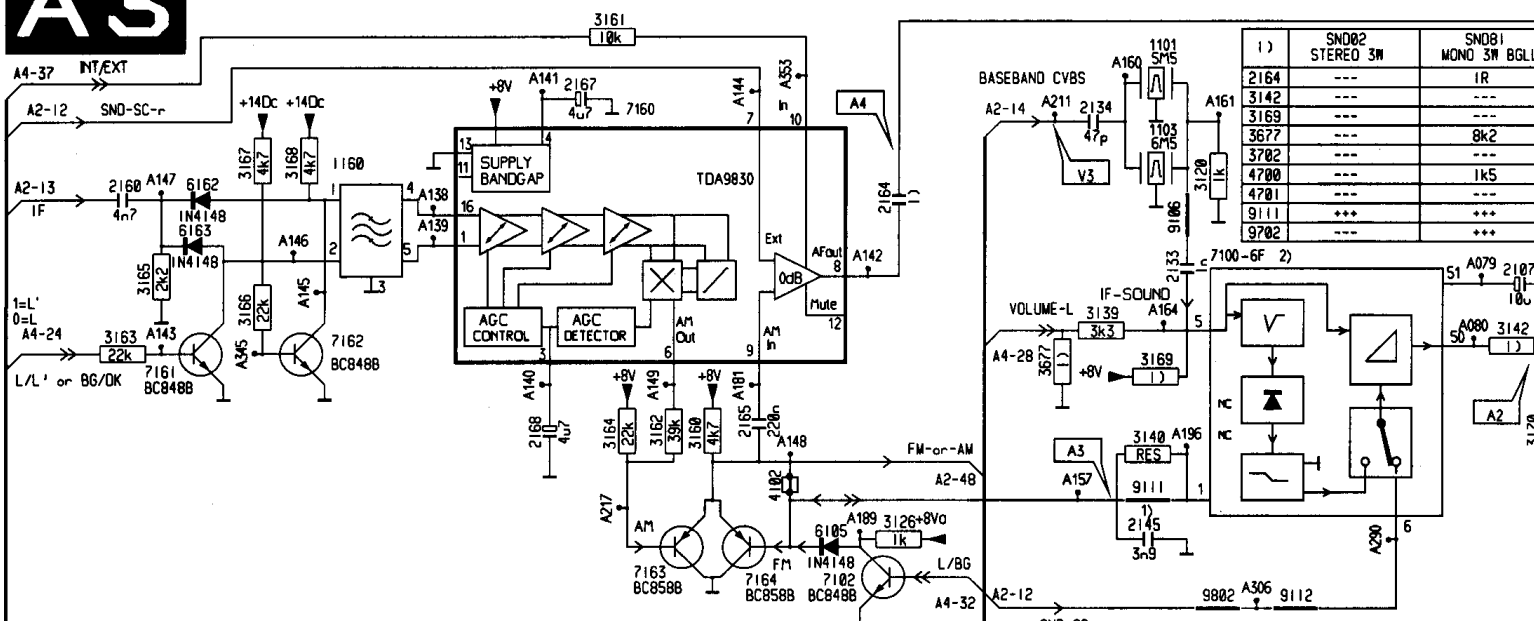
3)	TUN60 U	TUN62 U+V+S	TUN63 U+V+S+H
1000	U943	UV917	UV915E
3001	---	2k2	2k2
3002	---	2k2	2k2
3003	---	5k6	6k8
3004	---	5k6	6k8
3007	---	220k	220k
3013	---	47k	47k
3014	---	220k	220k
4002	50m	---	---
7000	---	BC858C	BC858C
7001	---	BC858C	BC858C
7002	---	BC858C	BC858C



A3

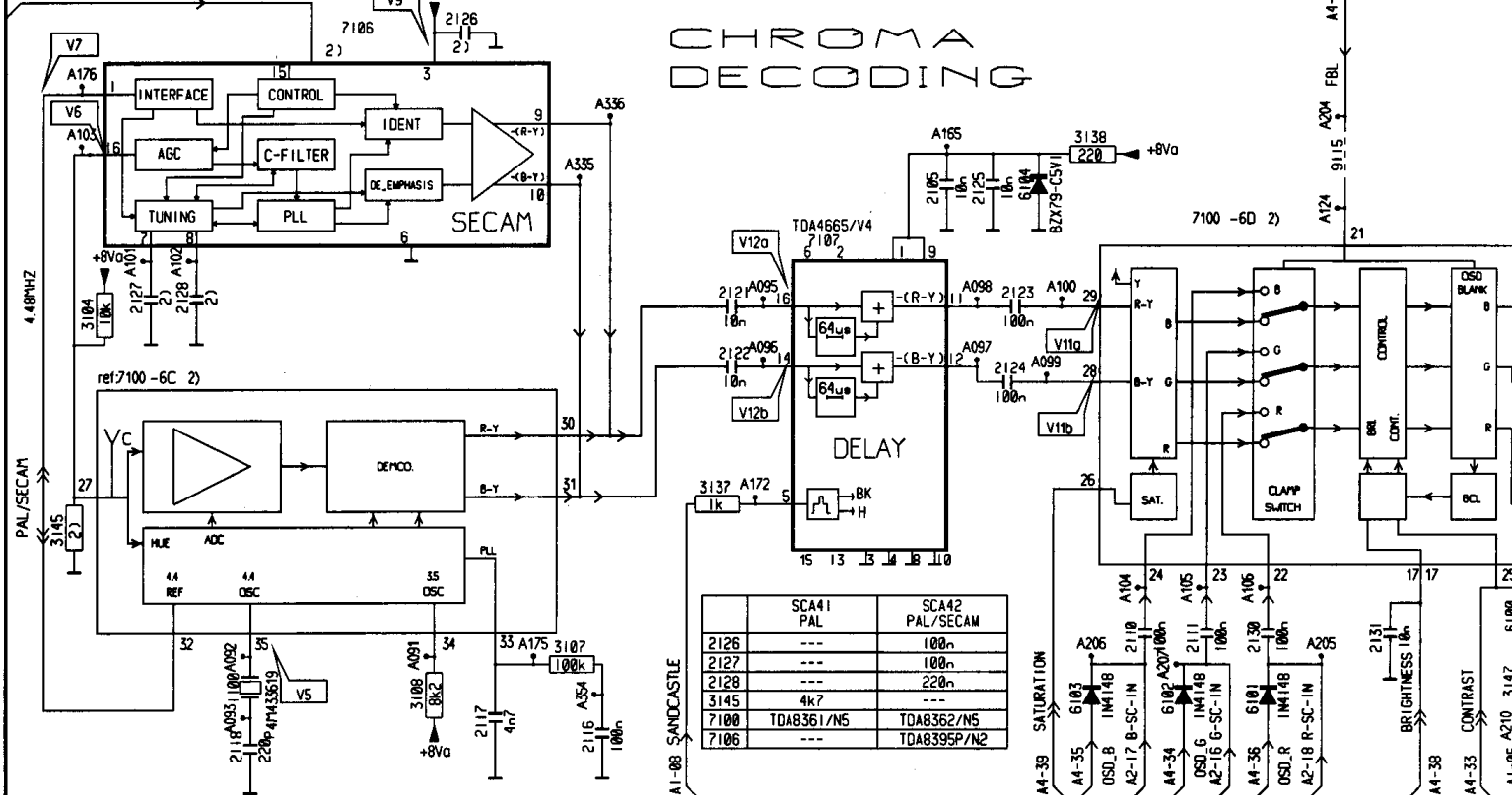
AM-SOUND

FM-SOUND

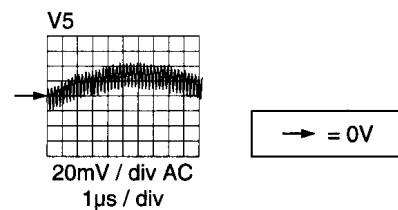
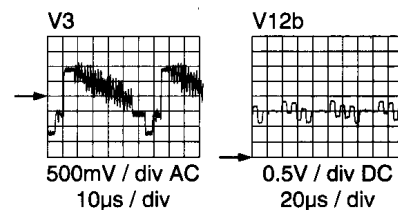
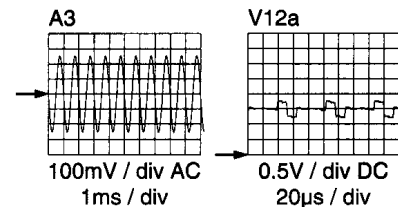
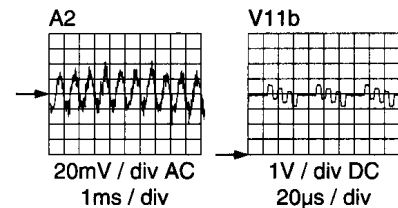
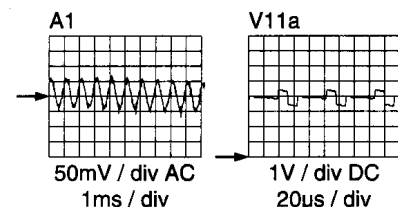
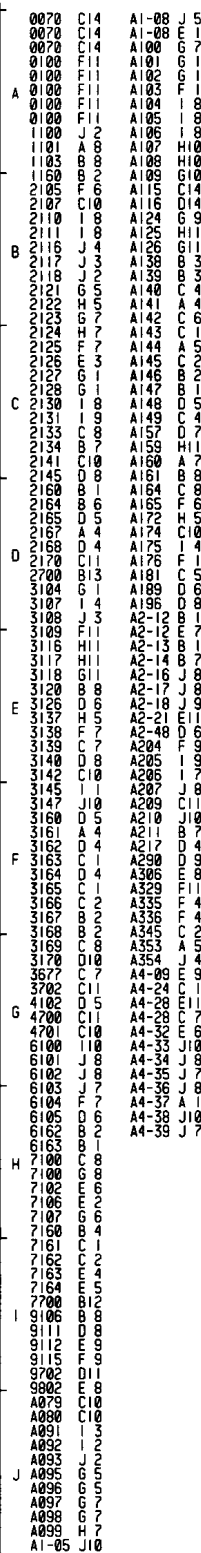
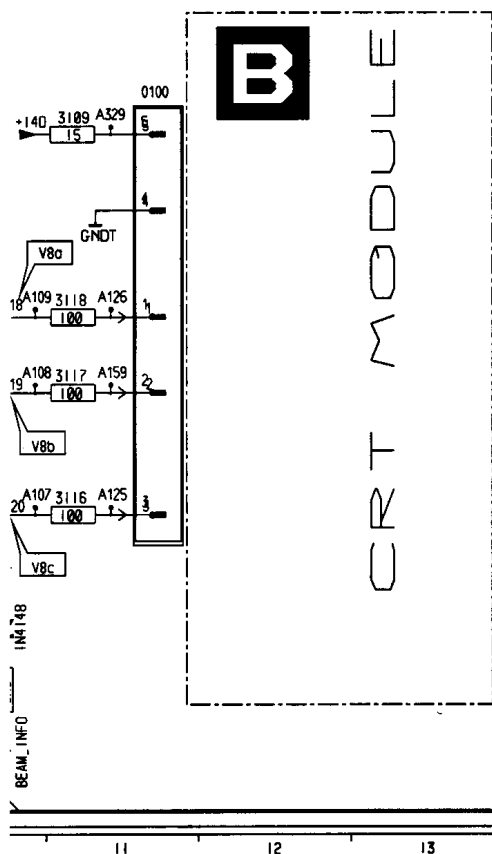
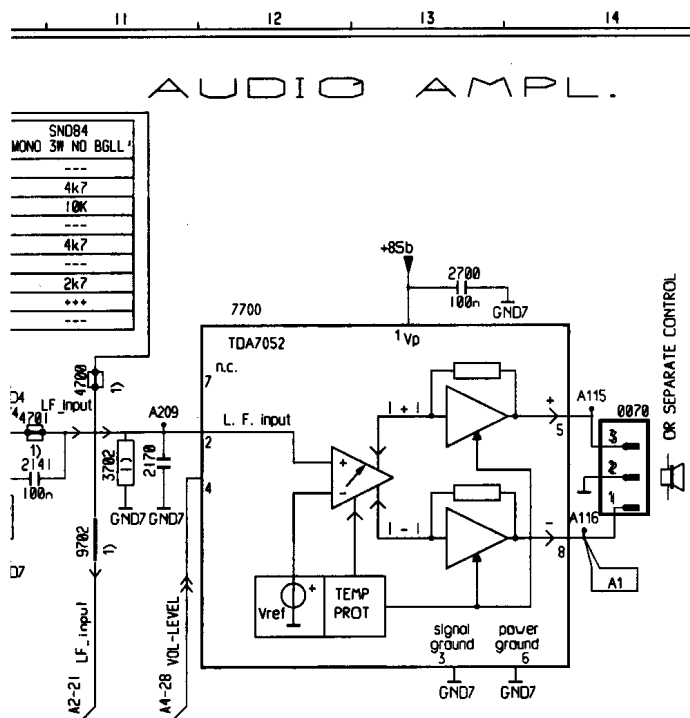


A1-08 SANDCASTLE

CHROMA DECODING



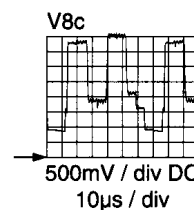
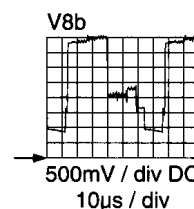
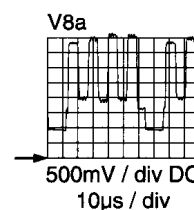
Son & Chrominance



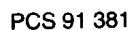
$\rightarrow = 0V$

V7 Secam (Only)

V9 8V6 DC

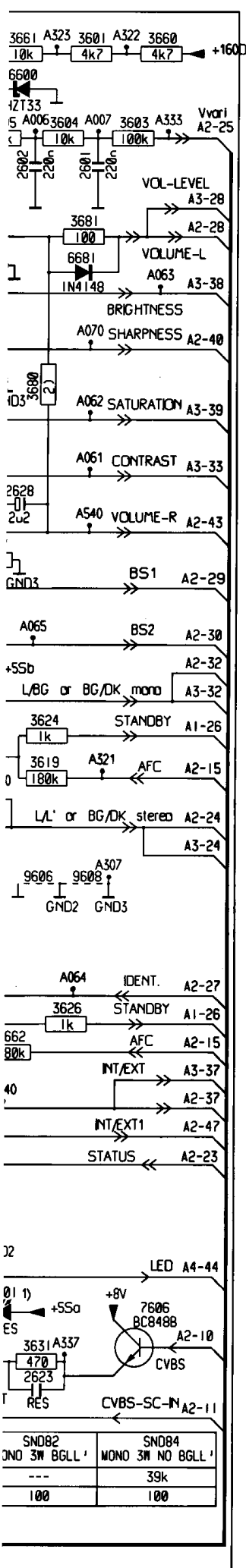


OSC_A3.AI



Commande & Télétex

9



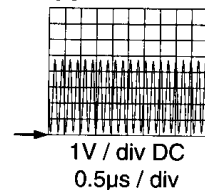
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	0056	C	1	5601	J	3	A298	K	1
	0056	C	1	5602	B	9	A3-09	F	9
	0056	C	1	5603	A	5	A3-24	B	9
	0056	C	1	5604	A	7	A3-28	E	9
	0056	C	1	5601	K	3	A3-32	D	9
	0056	C	1	5602	H	3	A3-33	I	1
	0211	C	3	5603	A	3	A3-34	J	1
	1060	D	3	5605	F	9	A3-35	H	9
	1061	D	3	5606	J	1	A3-36	C	9
	1062	D	3	5608	F	1	A3-37	J	9
	1600	D	3	9408	F	1	A3-38	C	9
	1603	I	8	9503	H	8	A3-39	C	9
	2600	I	8	9504	K	1	A307	G	7
	2601	B	9	9505	H	8	A308	J	1
	2602	B	9	9506	G	9	A318	C	7
	2603	B	7	9508	K	1	A319	B	1
	2604	J	7	9610	K	1	A320	J	9
	2605	K	7	9611	K	1	A321	F	9
	2606	J	6	9612	F	8	A322	A	8
	2607	C	3	9613	H	7	A323	A	8
	2608	G	3	9614	B	3	A330	I	1
	2609	G	3	9615	J	3	A331	H	9
	2610	C	7	A001	J	1	A332	A	9
	2611	C	7	A002	J	2	A333	A	6
	2612	C	7	A003	J	1	A334	G	7
	2613	C	1	A004	A	7	A337	H	1
	2614	B	1	A005	A	8	A340	K	1
	2615	D	2	A006	A	8	A358	C	9
	2616	D	7	A007	A	9	A4-44	I	1
	2617	F	2	A008	K	3	A4-44	C	9
	2618	F	3	A009	C	3	A540	D	9
	2619	F	3	A010	I	1			
	2621	D	3	A011	H	3			
	2622	B	1	A012	K	6			
	2623	B	8	A013	B	6			
	2624	K	1	A014	B	6			
	2625	D	3	A015	B	6			
	2626	E	3	A016	C	6			
	2628	D	8	A017	C	6			
	3601	A	8	A018	B	6			
	3602	A	9	A019	B	6			
	3603	A	9	A020	I	6			
	3604	A	8	A021	J	6			
	3605	A	8	A022	K	6			
	3606	A	8	A023	J	6			
	3607	B	7	A024	E	3			
	3608	A	7	A025	H	3			
	3609	A	6	A026	C	3			
	3610	B	7	A027	I	1			
	3611	C	7	A028	I	1			
	3612	D	7	A029	J	1			
	3613	C	7	A030	K	1			
	3614	B	7	A031	I	6			
	3615	B	8	A032	F	6			
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	3618	F	8	A035	A	8			
	3619	F	7	A036	A	7			
	3620	F	7	A037	J	3			
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	3624	E	7	A040	B				

C1 5V DC

C3 5V DC

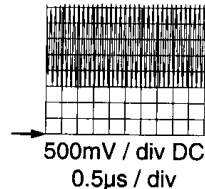
C4 5V DC

C2



1V / div DC
0.5 μ s / div

C5

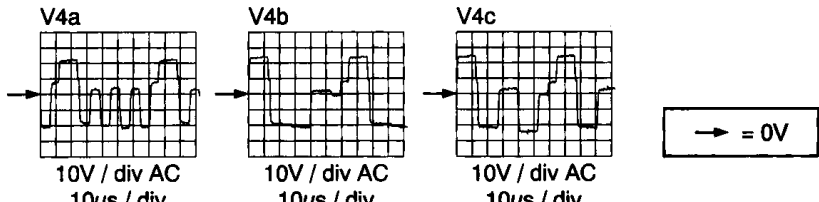
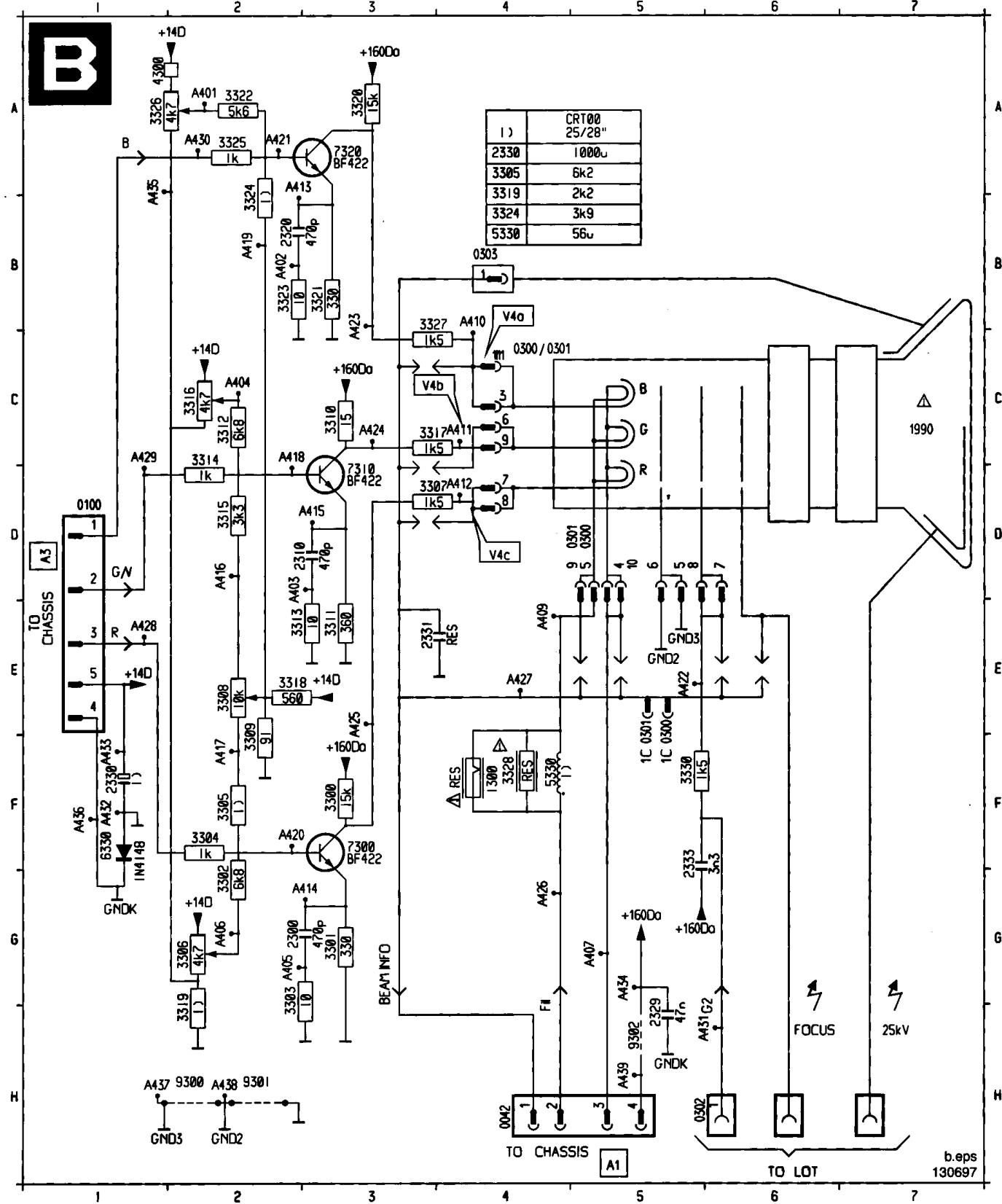


500mV / div DC
0.5μs / div

$\rightarrow = 0V$

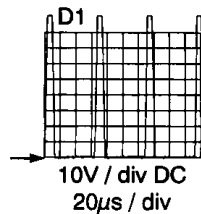
OSC_A4.AI

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0042	H 4	0300	0300	1300	1300	3303	3303	3314	3325	9300	A H	A410	B 4	A421	F A	A432	H 6
0042	H 4	0301	0301	2300	2300	3303	3303	3315	3326	9301	A H	A411	C 4	A422	F A	A433	H 6
0042	H 4	0301	0301	2300	2300	3303	3303	3316	3327	9302	A H	A412	D 4	A423	F A	A434	H 6
0100	I 1	0301	0301	2300	2300	3303	3303	3317	3328	A401	A A	A413	A 2	A424	F A	A435	H 6
0300	C 4	0301	0301	2300	2300	3303	3303	3318	3329	A402	A A	A414	G 4	A425	F A	A436	H 6
0300	C 4	0301	0301	2300	2300	3303	3303	3319	3330	A403	A A	A415	D 4	A426	F A	A437	H 6
0300	C 4	0301	0301	2300	2300	3303	3303	3320	3331	A404	A A	A416	D 4	A427	F A	A438	H 6
0300	C 4	0301	0301	2300	2300	3303	3303	3321	3332	A405	A A	A417	D 4	A428	F A	A439	H 6
0300	C 4	0301	0301	2300	2300	3303	3303	3322	3333	A406	A A	A418	D 4	A429	F A		
0300	C 4	0302	0302	3301	3301	3312	3312	3323	7310	D 3	A407	B 2	A419	A 2	A430		

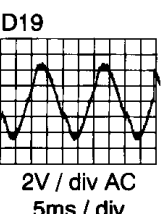
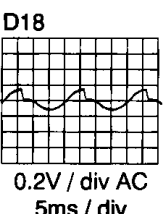
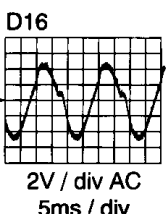
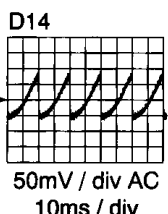
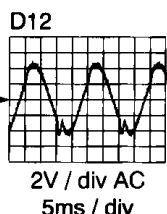
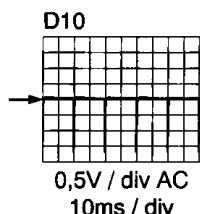
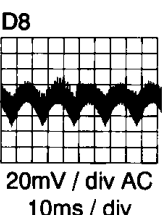
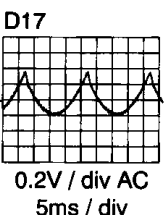
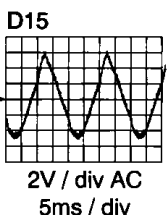
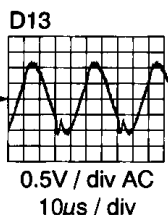
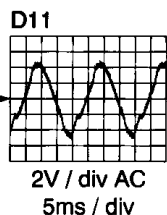
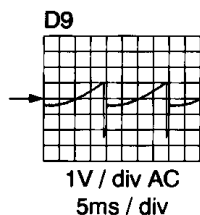
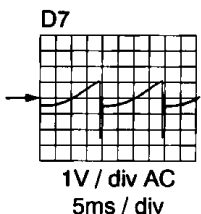
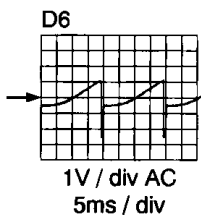
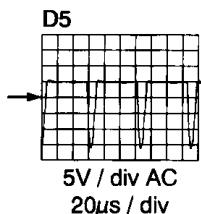
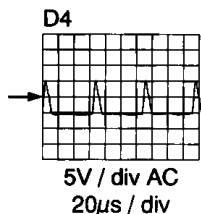
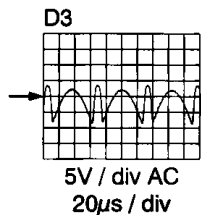
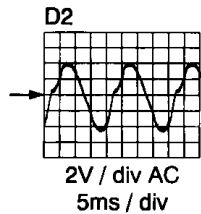


Deflection module 110° / Ablenkung-Modul 110° / Module de déviation 110°

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0041	A 7	2911	8	3904	7	3917	6	3930	8	6907	4	A004	7	A017	3	A030	7	A043	6
0082	A 1	2912	8	3905	7	3918	6	3931	8	7900	4	A005	7	A018	3	A031	7	A044	6
2900	N 2	2913	8	3906	7	3919	6	3932	8	7901	4	A006	7	A019	3	A032	7	A045	6
2901	N 2	2914	8	3907	7	3920	6	3933	8	7902	4	A007	7	A020	3	A033	7		
2902	N 2	2915	8	3908	7	3921	6	3934	8	7903	4	A008	7	A021	3	A034	7		
2903	N 2	2916	8	3909	7	3922	6	3935	8	7904	4	A009	7	A022	3	A035	7		
2904	N 2	2917	8	3910	7	3923	6	3936	8	7905	4	A010	7	A023	3	A036	7		
2905	N 2	2918	8	3911	7	3924	6	3937	8	7906	4	A011	7	A024	3	A037	7		
2906	N 2	2919	8	3912	7	3925	6	3938	8	7907	4	A012	7	A025	3	A038	7		
2907	N 2	2920	8	3913	7	3926	6	3939	8	7908	4	A013	7	A026	3	A039	7		
2908	N 2	2921	8	3914	7	3927	6	3940	8	A001	4	A014	7	A027	3	A040	7		
2909	N 2	2922	8	3915	7	3928	6	3941	8	A002	4	A015	7	A028	3	A041	7		



MODULE 110

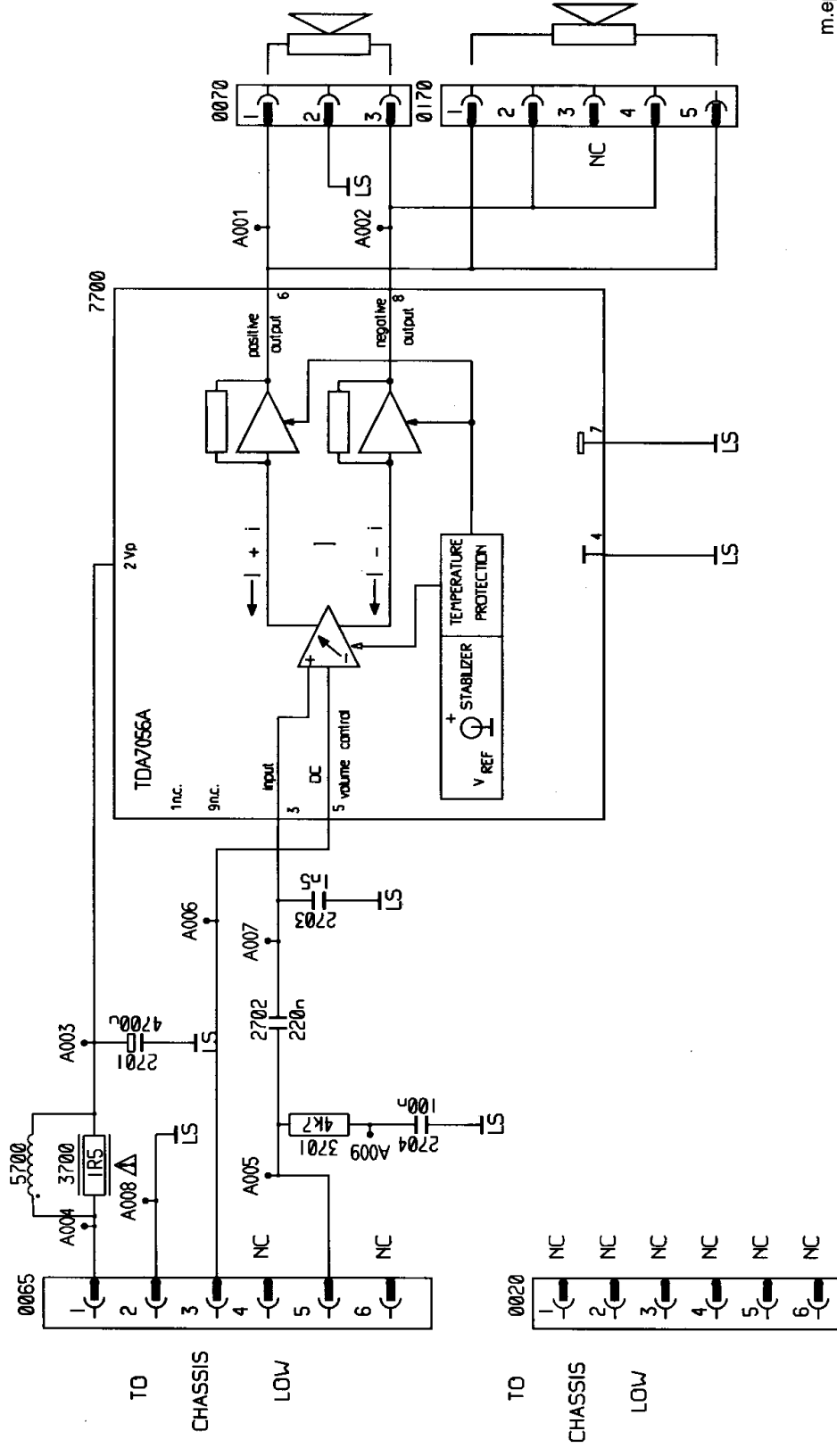
d.eps
130697

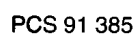
3W amplifier mono/ 3W Verstärker Mono / 3W amplificateur mono

Chassis L6.2 15

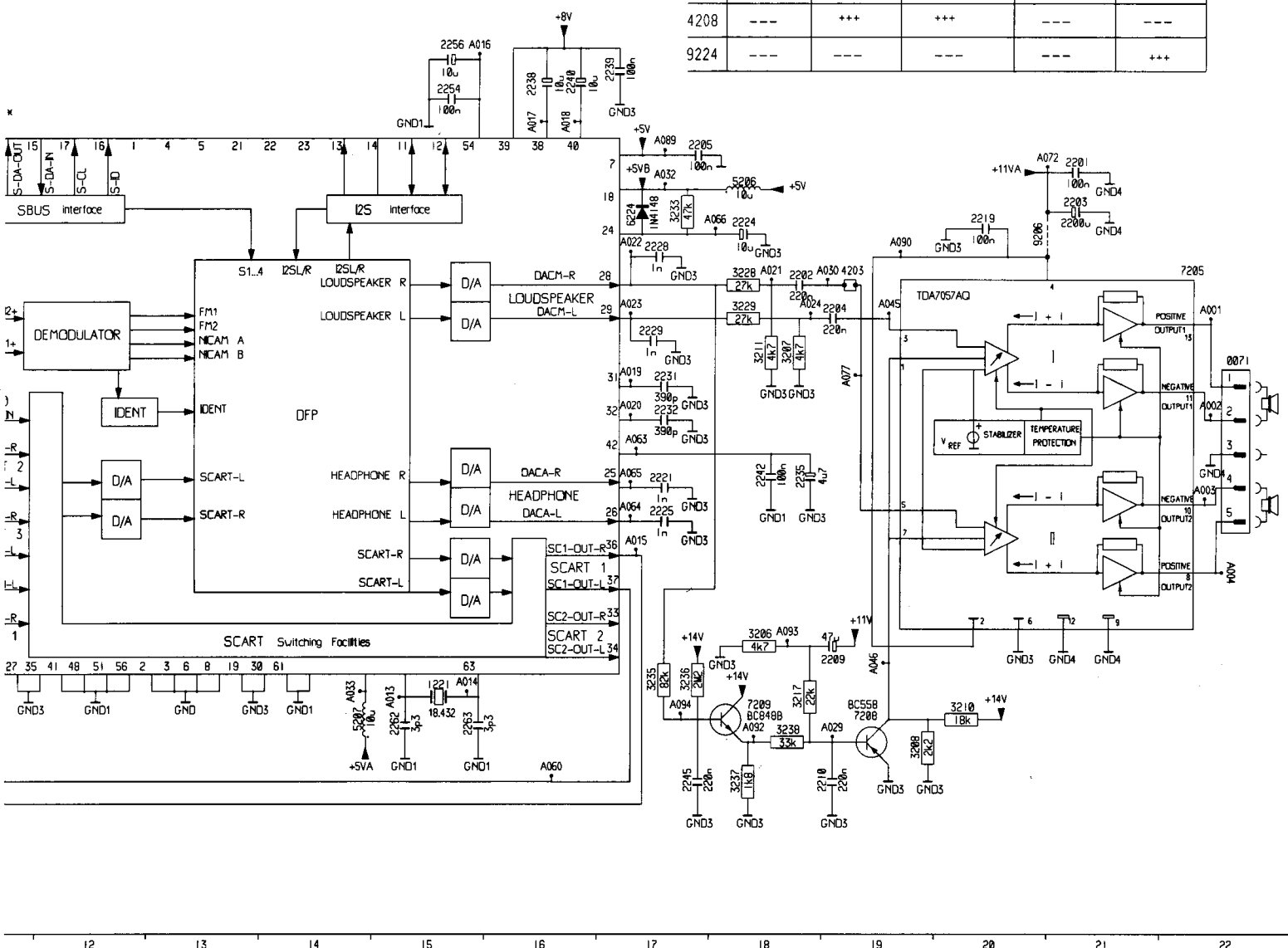


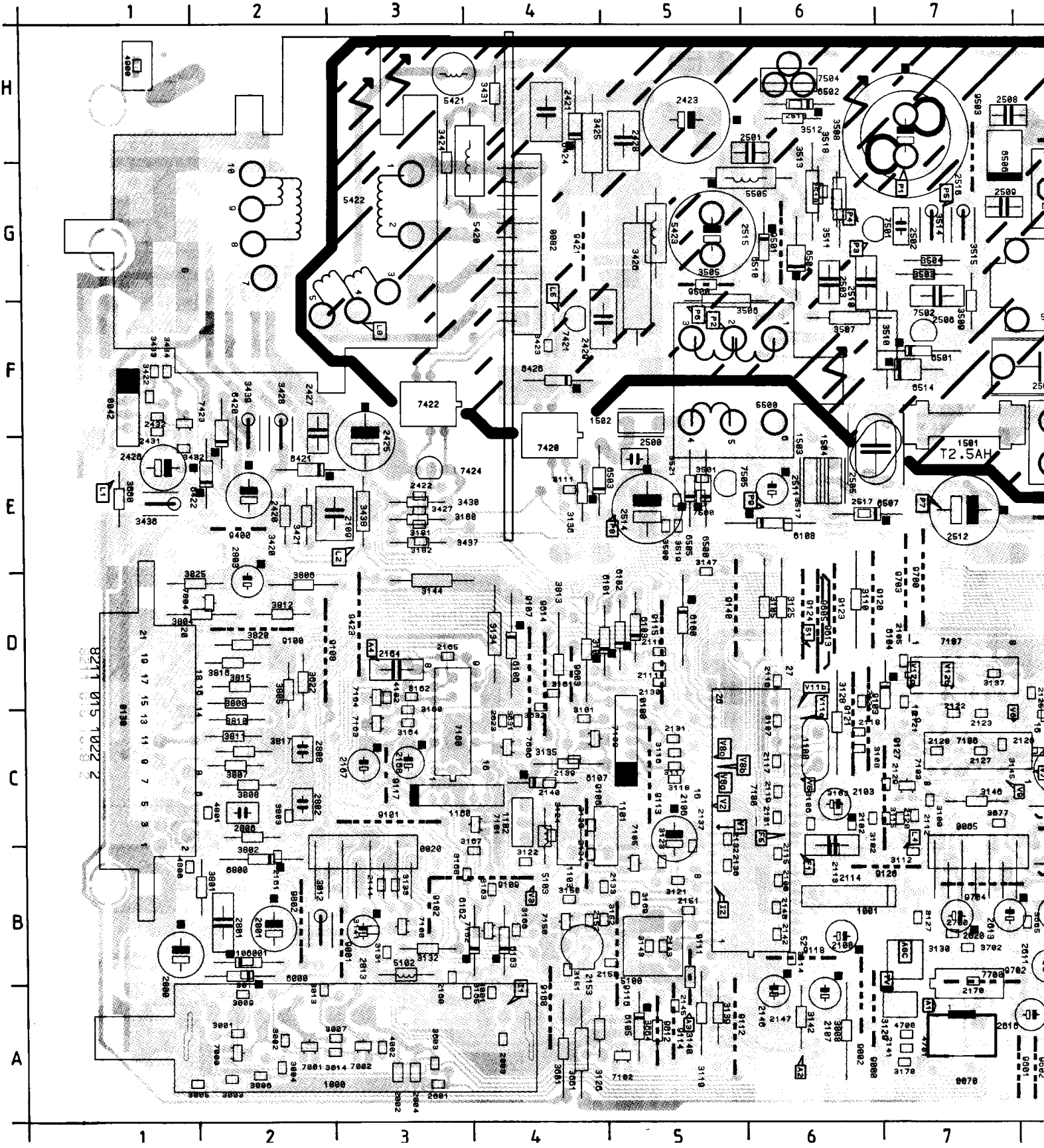
MODULE MONO SOUND 1X3W

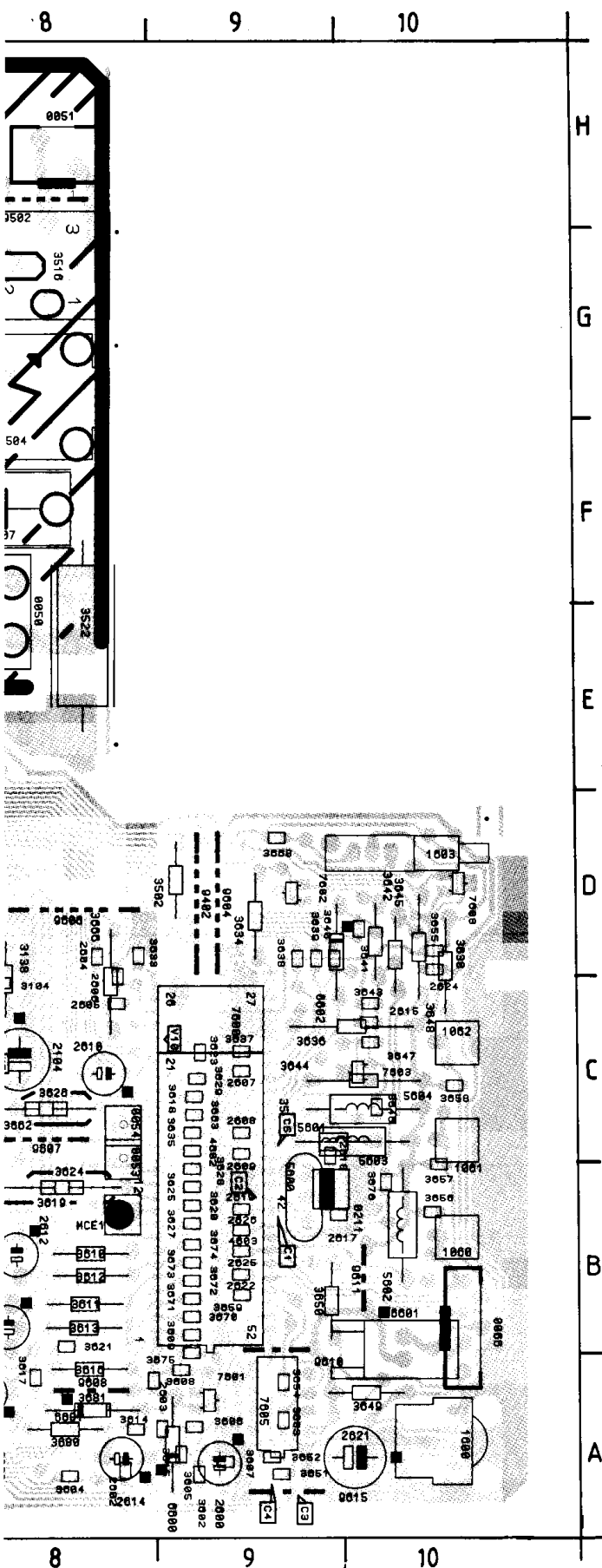




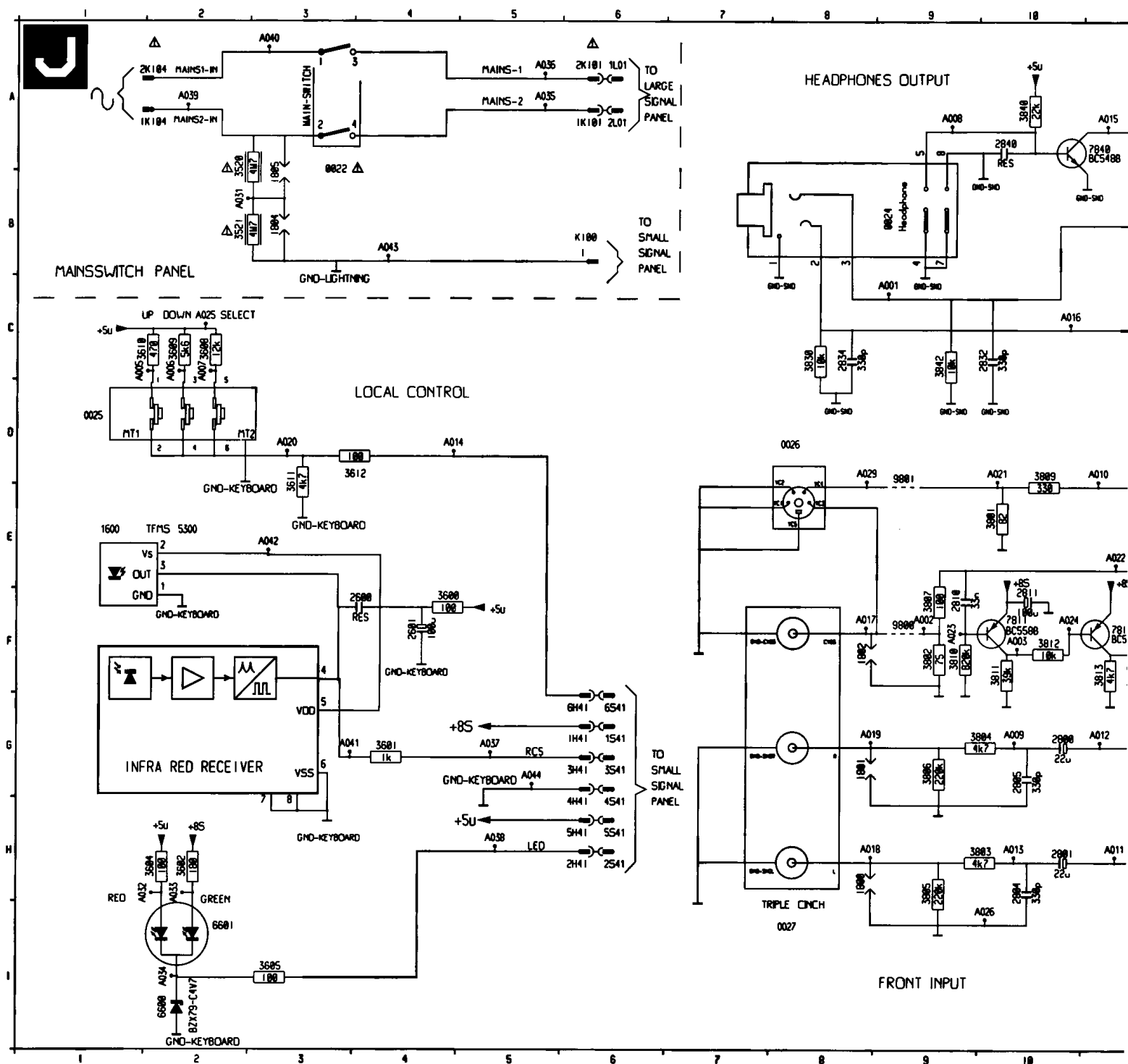
	NIC L	NIC I	NIC BG	NIC BG/DK	ST BG
1200	OPWK9456	OFWK9353	OFWG9353	OPWK9456	-
2211	47p	47p	47p	47p	12p
2258	4n7	4n7	4n7	4n7	4p7
5202	2U2	-	-	-	-
5208	-	-	-	-	39u
6220	1N4148	-	-	-	-
6223	1N4148	-	-	-	-
7221	MPS3410 BF7	MPS3410 BF7	MPS3410 BF7	MSP3410 BF7	MPS3400 TC15
9220	---	---	---	+++	---
9223	---	+++	+++	---	---
4207	---	---	---	+++	---
4208	---	+++	+++	---	---
9224	---	---	---	---	+++



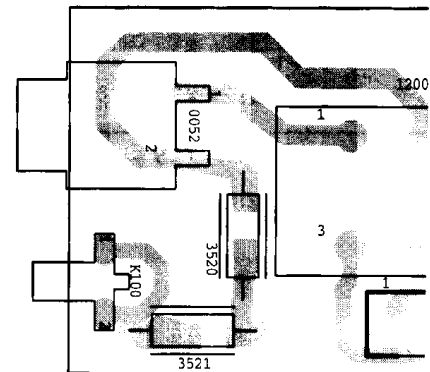
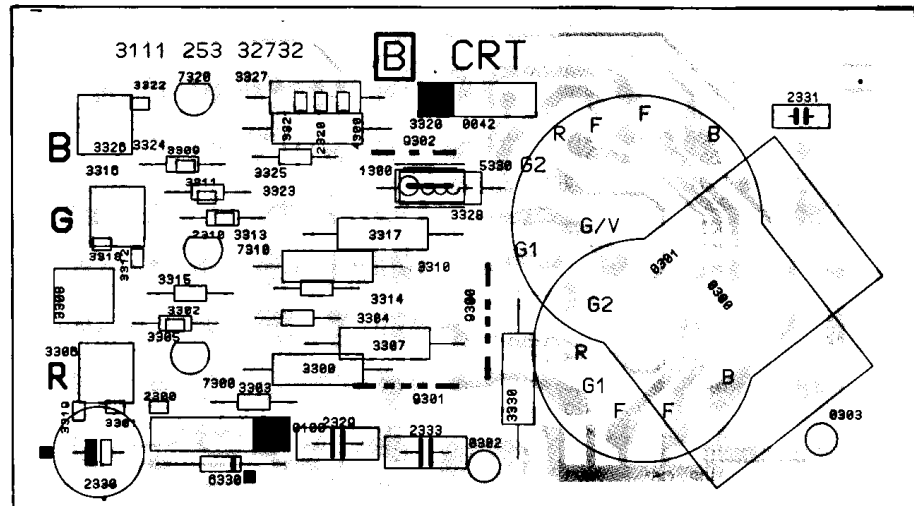




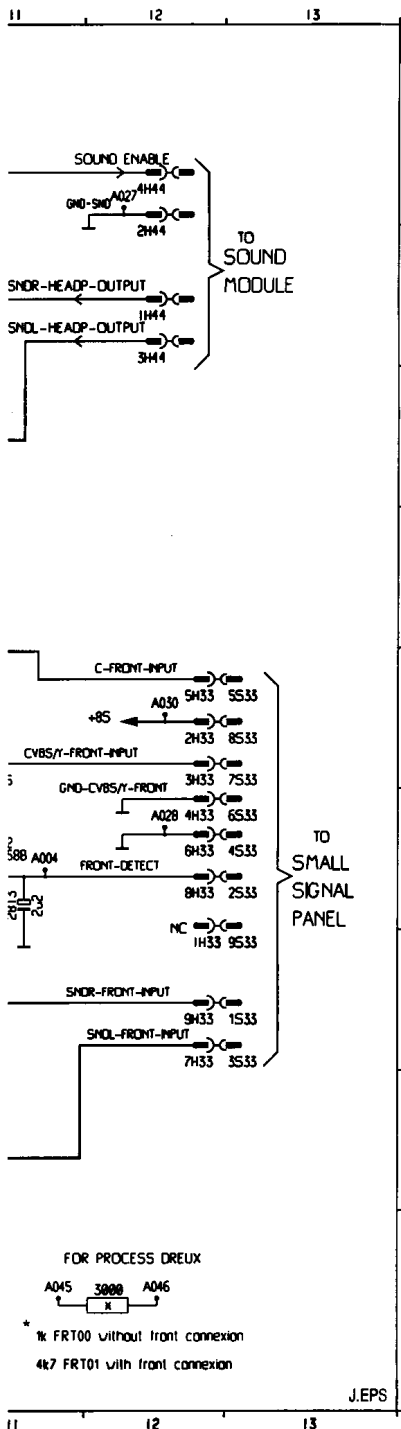
cons	C6*	2161	B2*	3104	C8*	3425	H4	3661	A4
MCE1	B8	2164	D3	3105	D6	3426	G5	3662	C8
0020	B3	2165	D3*	3106	C6*	3427	E3*	3663	C9*
0042	F1	2167	C3	3107	C6*	3428	F2	3664	A5
0050	E8	2168	C3	3108	C6*	3430	E3	3665	B8*
0051	H8	2170	B7*	3109	D4	3431	H4	3666	C8
0053	C8	2300	H9*	3110	D6	3432	E1*	3668	D9*
0054	C8	2310	H10*	3111	E4*	3433	F1*	3670	B9*
0065	B7	2320	G10*	3112	B7*	3434	F1*	3671	B9*
0066	B10	2329	G9	3114	B6*	3436	E1	3672	B9*
0070	A7	2330	H8	3115	C6*	3437	E3	3673	B9*
0082	G4	2331	E10	3116	C5*	3438	E3	3674	B9*
0100	C5	2333	G8	3117	C5*	3439	F2	3675	A9*
0130	C1	2420	E2	3118	C5*	3500	E5*	3676	B10*
0211	B9	2421	H4	3119	A5	3501	E5*	3677	C7*
0300	F9	2422	E3*	3120	C4*	3502	D9	3680	A8
0301	E9	2423	H5	3121	B5*	3503	G7	3681	A8
0302	F8	2425	E3	3122	B4*	3504	G7	3702	B7*
0303	E9	2426	E1	3123	B5*	3505	G5	3800	D2
1000	A2	2427	F2	3124	C4*	3506	F5	3801	B2
1001	B6	2428	H5	3125	D6	3507	F6	3802	C2
1060	B10	2429	F4	3126	A4	3508	G6	3803	C2*
1061	C10	2431	F1*	3127	B7*	3509	F7	3804	D2
1062	C10	2432	F1*	3128	C6	3510	F6	3805	D2
1100	C6	2500	E5	3129	A7	3511	G6	3806	D2
1101	C4	2501	H5	3130	B7	3512	H6	3807	C2
1102	C4	2502	G7	3131	B3*	3513	G6	3808	C2
1103	C4	2503	G6	3132	B3	3514	G7	3810	C2
1160	C3	2504	F7*	3133	B3*	3515	G7	3811	C2
1300	G10	2505	E6	3134	D4	3516	G8	3812	D2
1501	F7	2506	G7	3135	C4	3517	E6*	3813	D4
1502	F5	2507	F8	3136	E4	3518	G6	3815	D2
1503	E6	2508	H7	3137	D7*	3519	E5*	3816	D2
1504	E6	2509	G7	3138	C8	3521	E5*	3817	C2
1600	A10	2510	G6	3139	A5	3522	E8	3820	D2
1603	D10	2511	E6	3140	B5	3601	A4	3825	D1
1810	B1*	2512	E7	3141	B3*	3602	A9*	4001	A4*
1811	C1*	2513	H6*	3142	A6	3603	A3*	4002	A3*
1812	C1*	2514	E5	3143	B5*	3604	A8*	4003	A3*
1813	C1*	2515	G5	3144	D3	3605	A9*	4004	A3*
2000	B1	2516	H7	3145	C7*	3606	A9*	4102	D3*
2001	B2	2517	E6*	3146	C7	3607	A9*	4300	G10*
2005	A1	2518	G6*	3147	D5*	3608	A9*	4602	C9*
2100	B6*	2600	A9	3150	B4*	3609	B9*	4603	B9*
2101	C6*	2601	A3*	3151	B4*	3610	B8	4700	A7*
2102	C6*	2602	A8*	3152	B4*	3611	B8	4701	A7*
2103	C6	2603	A8*	3160	C3*	3612	B8	4800	B1*
2104	C8	2604	D8*	3161	D4*	3613	B8	4801	C2*
2105	D7*	2605	C8*	3162	D3*	3614	A8*	4900	P1*
2106	C5	2606	C8*	3163	B4*	3615	A8*	5100	B5
2107	A6	2607	C9*	3164	C3*	3616	A8	5102	B3
2108	B6	2608	C9*	3165	A3*	3617	A8*	5103	C4
2109	E2	2609	C9*	3166	B4*	3618	C9*	5330	G10
2110	D5*	2610	C8	3167	B3*	3619	B8	5420	H3
2111	D5*	2611	B8	3168	B3*	3620	B9*	5421	H3
2112	C7*	2612	B8	3169	B5*	3621	B8*	5422	G2
2113	B6*	2613	B7	3170	A7*	3622	D2	5423	G5
2114	C6	2614	A8	3180	C3	3623	C9*	5500	F5
2115	B6*	2615	C10*	3181	E3*	3624	B8	5504	G8
2116	D6*	2616	A8	3182	E3*	3625	B9*	5505	G5
2117	C6*	2617	B9*	3300	G9	3626	C8	5600	B9
2118	B6*	2618	C9*	3301	H9*	3627	B9*	5601	C9
2119	C6*	2619	B9*	3302	H9*	3628	B9*	5602	B10
2120	C7*	2621	A10	3303	G9	3629	C9*		
2121	D7*	2622	B9*	3304	G9	3630	D10		
2122	C7*	2623	C4*	3305	H9	3631	C4*		
2123	C7*	2624	D10*	3306	H9	3632	D4*		
2124	D6*	2625	B9*	3307	G9	3633	D8*		
2125	D8*	2626	B9*	3308	H9	3634	D9		
2126	C8*	2628	B7	3309	H10*	3635	C9*		
2127	C7*	2700	B7*	3310	G9	3636	C10		
2128	C7*	2801	B2	3311	H10*	3637	C9*		
2129	C6*	2802	C2	3312	H9*	3638	D9*		
2130	D5*	2803	D2	3313	H10	3639	D9*		
2131	C5*	2806	C2	3314	G9	3640	D9*		
2132	C5*	2808	C2	3315	H9	3641	D10*		
2133	B4*	2813	B3	3316	H10	3642	D10		
2134	B4*	3001	A2*	3317	G10	3643	C10*		
2136	B5*	3002	A2*	3318	H9*	3644	C10		
2137	B5*	3003	A2*	3319	H9*	3645	D10		
2139	C4*	3004	A2*	3320	G10	3646	C10*		
2140	C4*	3005	A1*	3321	G10*	3647	C10*		
2141	A7*	3006	A2*	3322	H10*	3648	D10		
2142	B6*	3007	A2*	3323	H10	3649	A10		
2143	B5*	3008	A6	3324	H10	3650	B9		
2144	B3*	3009	A2*	3325	G10	3651	A9*		
2145	A5*	3010	B2*	3326	H10	3652	A9*		
2146	A6	3011	B2*	3327	G10	3653	A9*		
2147	A6*	3012	B2	3328	G10	3654	A9*		
2148	B6*	3013	A2*	3330	F9	3655	D10*		
2150	B4*	3014	A2*	3420	E2	3656	B10*		
2151	B5*	3100	C7*	3421	E2	3657	B10*		
2152	B4*	3101	C4*	3422	F1*	3658	C10*		
2153	B4	3102	C6*	3423	F4*	3659	B9*		
2160	B3*	3103	C6*	3424	H3	3660	E1		



CRT PANEL

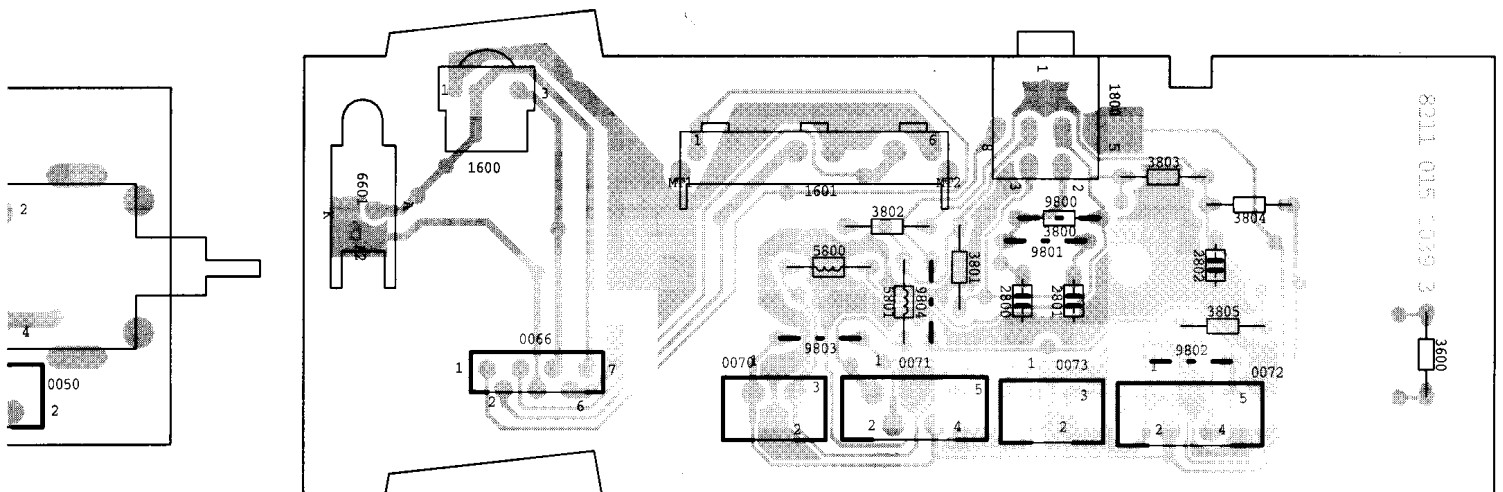
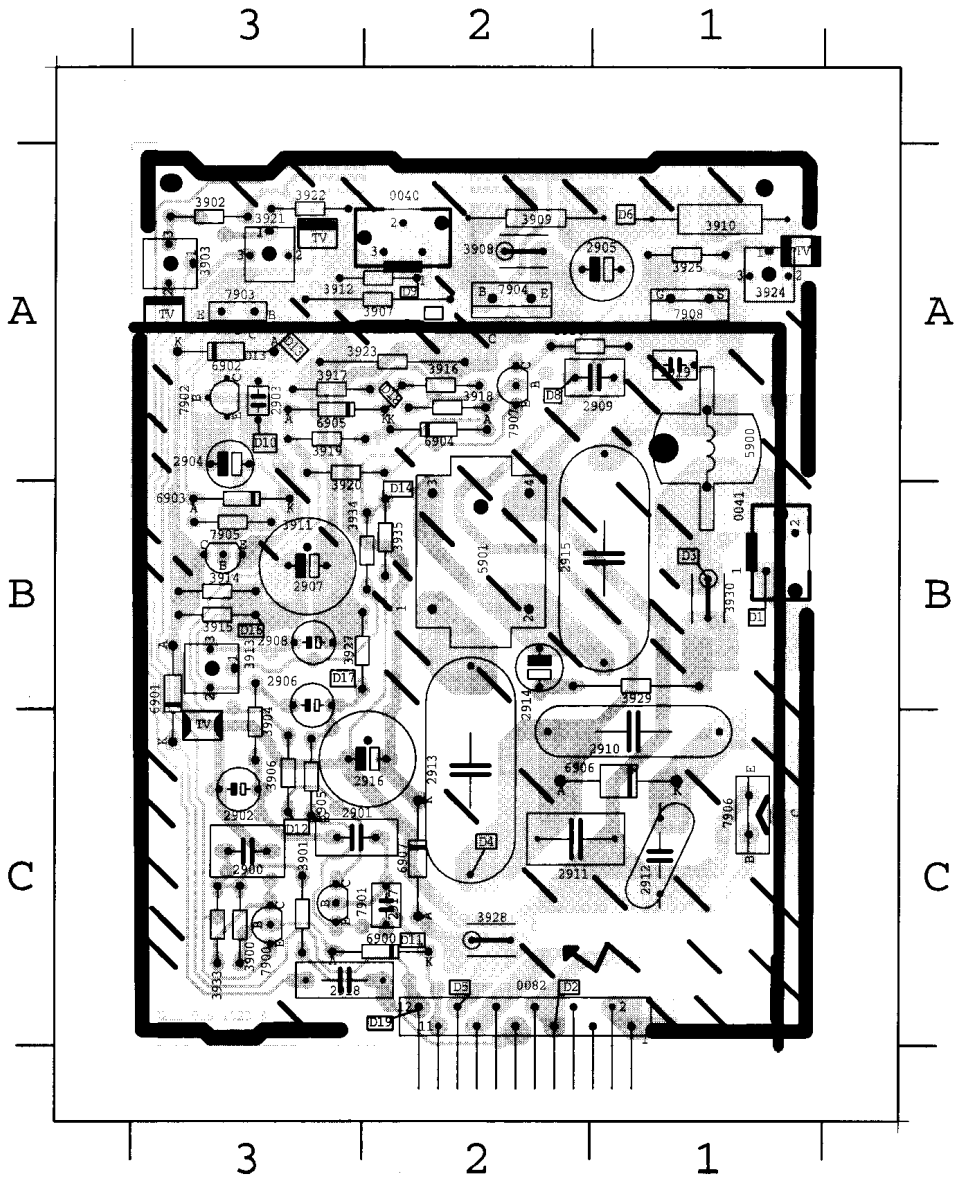


Netz-Modul / Commande & Module du secteur



DEFLECTION MODULE 110°

0040 A 2	2904 A 3	2911 C 2	2918 C 2	3905 C 3	3912 A 3	3919 A 2	3926 A 1	3935 B 2	6904 A 2	7903 A 3
0041 B 1	2905 A 1	2912 C 1	2919 A 1	3906 C 3	3913 B 3	3920 A 2	3927 B 3	5900 B 1	6905 A 3	7904 A 2
0082 C 1	2906 B 3	2913 C 2	3900 C 3	3907 A 2	3914 B 3	3921 A 3	3928 C 2	5901 B 2	6906 C 2	7905 B 3
2900 C 3	2907 B 3	2914 B 2	3901 C 3	3908 A 2	3915 B 3	3922 A 3	3929 B 1	6900 C 3	6907 C 2	7906 C 1
2901 C 3	2908 B 3	2915 B 1	3902 A 3	3909 A 1	3916 A 2	3923 A 2	3930 B 1	6901 B 3	7900 C 3	7907 A 2
2902 C 3	2909 A 1	2916 C 2	3903 A 3	3910 A 1	3917 A 3	3924 A 1	3933 C 3	6902 A 3	7901 C 3	7908 A 1
2903 A 3	2910 C 1	2917 C 2	3904 B 3	3911 B 3	3918 A 2	3925 A 1	3934 B 2	6903 B 3	7902 A 3	



8.1 Adjustments on the 110 module panel

8.1.1 Horizontal amplitude

Is adjusted with potentiometer R3924

8.1.2 Vertical centring

Is adjusted with potentiometer R3921

8.1.3 Picture height

Is adjusted with potentiometer R3903

8.1.4 East-west correction

Is adjusted by potentiometer R3913

Note: R3903, R3919, R3921 and R3924 are located on the 110° module pcb.

8.1.5 Horizontal centring (main pcb)

Is adjusted with potentiometer R3129 on the main PCB

8.1.6 Focusing

Is adjusted with the focusing potentiometer in the line output transformer

8.1.7 AFC

- a) Adjustment of the AFC and picture demodulator (all versions).
Select a non secam L/L' system in the SDAM mode (negative modulation). Switch the tuner to HIGH BAND (pin 11 of tuner 1100 grounded). Connect a pattern generator to pin 17 of the tuner via a capacitor of 4.7nF and put a 82W resistor from the output of the generator to ground. Connect a DC voltmeter to pin 44 of IC7100. Adjust coil 5100 to get 3V5 on pin 44 of IC7100. The signal of the generator has to be 38.9 MHz.
- b) Adjustment of the AFC and picture demodulator. (BAND 1 L. France versions only).
Same story as a) only the frequency of the generator has to be 33.9Mhz with positive modulation.

8.1.8 RF AGC

If the picture of a strong local transmitter is reproduced distorted, adjust potentiometer R3130 until the picture is undistorted.

or: Connect a pattern generator (e.g. PM5518) to the aerial input with RF signal amplitude = 1mV. Connect a multimeter (DC) at pin 5 of the tuner. Adjust R3130 so that voltage at pin 5 of the tuner is 8V5 +/- 0V5 DC.

8.2 Adjustments on the CRT panel

8.2.1 VG2 cut-off points of picture tube

Apply a black CVBS signal at the input pin 20 of scart.
Adjust the brightness in order to have 1.6V during the line at the R,G,B outputs of the BIMOS pin 18,19,20 of IC7100.
Put potentiometers R3326, R3316 and R3306 to the minimum value (maximum voltage on the CRT cathodes). Adjust now VG2 till the colour that luminates first is not visible anymore. Adjust now the other two potentiometers in such a way that they just don't luminate.
Potentiometer R3308 should always be in the mid-position.

9. Circuit description

- 9.1** For the description of the audio and video processing see the description in the AA5 AA service manual.

For the description of the power supply see the description in the L6.1 AA service manual.

General

The differences between L6.1 and L6.2 are:

- Large 25" and 28" picture tubes for L6.2
- Stereo 2 X 3 Watt/ stereo headphone
- Mono 3 Watt (also present in some L6.1 versions)

Electrical consequences are a new deflection module (110 degrees), a 2 X 3 Watt stereo amplifier panel and some small adaptations on the L6.2 main panel (derived from L6.1).

9.2 110 deflection module

General

For the 25" and 28" sets a 110 module is needed for East/West correction. This panel is allocated on the right hand side of the mainboard (seen from the rear). East/west correction in this module is based on the diode-modulator principle; the current through the horizontal deflection coil is modulated. As this is done by a parabolic-shaped voltage, E/W distortion is corrected. This parabolic-shaped voltage is derived from a saw-tooth-shaped voltage of the frame deflection.

9.3 Frame (time base frame)

Because the raster part is fed by the primary side a galvanic isolator must be applied between IC 7100 (= so called Bimos ic) in the secondary side and the raster amplifier on primary side. This is realised by opto coupler (7422); this opto coupler will be switched and it will block the saw-tooth of the Bimos ic. So we don't use the saw-tooth of the Bimos ((pin 42) or the feedback frame input (pin 41). The only information from the Bimos ic (=IC7100) is the flyback command (pin 43). The output of this pin is a pulse of 6 to 0 Volts during 1 mS with a period of 20mS. This signal blocks transistor 7424 and this causes conduction of the opto coupler diode (7422). The internal transistor also conduct and pins 11 and 12 (connector 00820) of the 110 module will be short circuited.

9.4 Raster part

9.4.1 Saw-tooth generator

A saw-tooth must be created because we don't use it from the Bimos ic (see annex 5). Via 150V C2901 will be charged via R3901, R3900 and D6900; the function of D6901 is to determine the lower part of the potential level. After 20mS a signal coming from the Bimos ic will short-circuit pins 11 and 12 of connector 0082 and C2901 will be discharged. It is a must to have an amplitude on the screen independent of the 50Hz or 60Hz frequency of the mains; see circuit diagram annex 6. The emitter voltage of T7900 can be adjusted with potentiometer 3903; this is the top Voltage of the saw-tooth. This is the circuit for adjusting the vertical amplitude independent of the 50/60Hz frequency. The saw-tooth will control T7901 and this transistor controls the amplifier (= T7902, T7903 and T7904). D6902, D6903, T7905 and C2904 determines the flyback. This flyback pulse is negative and is created by an inverted polarity of C2904. During the deflection T7905 is blocked and C2904 charges; during the flyback T7905 conducts and the flyback pulse will be made.

9.5 East-West modulator

The parabola is taken on C2907; R3916 and D6905 determines the shape of the parabola and they corrects the upper and lower parts. The parabola is fed via C2908 to potentiometer 3913; this for adjusting the pin-cushion correction. Via T7904 this signal goes to MosFet 7908; the Vgs command has two functions by changing the Voltage of Vgs by potentiometer 3924: pin-cushion correction and horizontal amplitude adjustment.

9.6 Special components

- D6904 + R3916 : temperature compensation of Vbe (T7904)
- R3935 : trapezium correction
- C2909 : to avoid external radiation
- C2918 : to avoid "twisted or broken" lines

9.7 Line timebase

The control voltage of pin 37 of the Bimos ic (=ic7100) is derived via opto coupler pos 7420 to transistor T7421; then send via C2428 and C2421 to pins 5 and 6 of connector 0082; this is the control of the base of T7906 (=BU1508AX). At the flyback diode between collector and mass there are two parts present to allow the East/west modulation. One part of this modulator consists of D6906, T7908, C2910 and C2911. The second part another diode is not visible in the circuit diagram but it is present in the MosFet 7908.

On pins 1 and 2 of the module the primary side of the LOT is connected. The LOT supplies the following voltages:

- 3-5 : 26 Volts after smoothing
- 10-8 : 14 Volts
- 9 : 160 volts for video amplifiers

9.8 Control and teletext (Diagram A4)

9.8.1 Teletext

Control and teletext are integrated in the same μC . If there is no TXT another μC is used with less pins. In the story below, the numbers mentioned are the numbers mentioned outside the housing of IC7600.

The CVBS-signal is fed to pin 23 or 24 depending on the fact if it is the internal or external CVBS-signal. In this way teletext can be used on the ext- and the int-signal.

The teletext information and OSD-information is present at pin 32-33-34.

9.8.2 Control

μC -connections.

Supply voltage (pin 52);

If this voltage is present and the power-on signal is high the μC will start.

I²C-Bus (pin 50-49);

This bus is used to communicate with the EEPROM in which the settings are stored.

Local keyboard (pin 48-47-46);

These three inputs are present as an input for the local keyboard. The inputs become connected to ground if a key is pressed.

IR-input (pin 45);

Input for the remote-control commands

TXT / no TXT (pin 44);

Depending on the fact if jumper 4600 or 4603 is placed, the μC is told if the set is a TXT or no-TXT set.

POR (pin 43);

If the POR-signal is low the μC will not start. The μC waits until this signal becomes high. In this way the μC knows that the supply-voltage is high enough.

4Mhz oscillator (pin 42-41);

The frequency of the oscillator of the μP is determined by this crystal 5600. In the TXT execution this frequency is 12Mhz.

Ground (pin 40);

Ground of the power-supply.

OSD-Generator (pin 39-38);

The components connected these pins determine the frequency of the OSD-generator. This is 6.5 Mhz.

VFL (pin 37);

This pin is used to tell the μP that vertical flyback takes place. This information is used to determine the location of the OSD.

Horizontal flyback (pin 36);

Pin to inform the μC that horizontal flyback takes place. Also information required for OSD.

Fast-blanking signal (pin 35);

This signal (FBL) is used to indicate the video controller that there is OSD or Teletext information. So this signal blanks the video information.

OSD-signals (pin 34-33-32);

These three signals are used to create OSD information in different colours.

Nil (pin 27);

Signal to generate a DC-current through the deflection coil to create a non interlaced mode during TXT-mode.

CVBS-inputs (pin 24-23);

These pins are used as input for teletext-sources. Pin 24 is input for the CVBS-signal of the scart-input and Pin 23 or the internal CVBS of the set.

LED-drive (pin 20);

Signal to drive the LED when the set is on. With TS7607 it is possible to light the LED with a higher luminance during stand-by.

Functional switch (pin 19);

In the future the switch connected to this pin could be used instead of a mainswitch.

Status (pin 18);

Input-pin to tell the μC that there is an external-signal present. Pin 18 high is external and pin 18 low is internal signal.

Int/Ext (pin 17);

Control signal to select between internal and external(scart) signal. If pin 17 is "high" the internal signal is selected, else the external.

Standby/AFC (pin 16);

This pin acts as an input for AFC-control and as an output for standby command. This pin is only used in TXT-versions.

Ident (pin 15);

This signal is high if a CVBS signal is present and low if no CVBS-signal is present. This signal is created by IC7100-6A.

Service (pin 14);

When this pin is connected to ground the service-mode is entered. Use of mains-switch not necessary.

L/L' or BG/DK (pin 12);

In case of a LL' set, selection is made between L and L'. In case of a BGDK set, selection is made between BG and DK. If this pin is "high" then L' or DK is selected.

Standby/AFC (pin 11);

This pin acts as an input for AFC-control and as an output for standby command. This pin is only used in non TXT-versions.

L/BG (pin 10);

To make a selection between AM and FM sound. When this signal is high, than FM sound is selected.

BS1-BS2 (pin 8-9);

Signal lines to select the correct band of the tuner.

	BS1	BS2
VHF1	0	1
VHF2	1	0
UHF	1	1

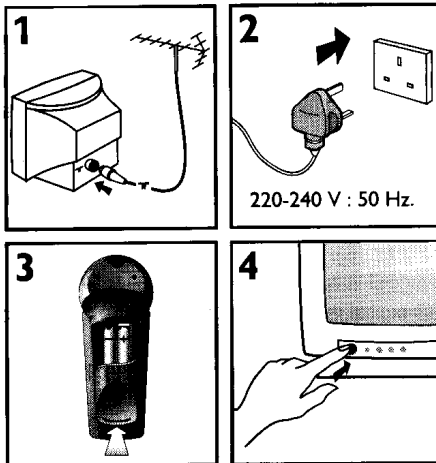
Control-voltage outputs (pin 7-1);

These pins are used to control volume-right, contrast, saturation, sharpness, brightness, volume-left and the tuning voltage for the VST. In case of a mono BG set, volume is controlled by signal "volume-L" connected to pin 5 of IC7100-6F. In case of a mono multi-france set, volume is controlled by signal "vol-level" connected to pin 4 of IC7700 (output amplifier).

English

Installation

Action :

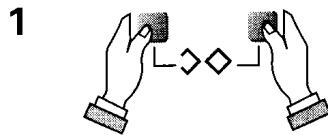


Result. Comments.

- 1 Small-screen TV sets are supplied with an indoor antenna, which under certain reception conditions may not be acceptable. You may be able to improve reception by rotating the antenna or if reception remains poor the use of an external antenna.
- 2 Plug your television into the mains supply (220-240 V / 50 Hz).
- 3 Insert the two LR03 type batteries (supplied) making sure that they are the right way round.
- 4 To switch on the TV set, press the on/off button. If the TV set remains in standby mode : press the \ominus **P** \oplus keys on the remote control.

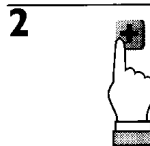
Channel search : Manual Store

Action :

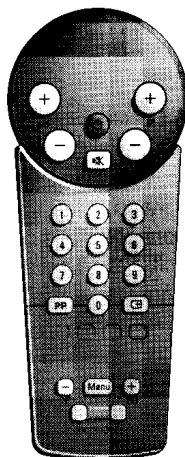
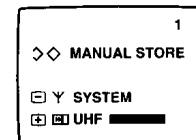


Result. Comments.

The **INSTALLATION** menu is displayed on the screen.

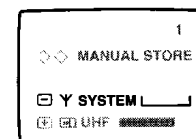


The **MANUAL STORE** menu appears.



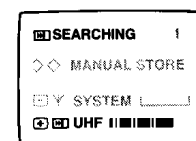
System selection.

Option only available on certain versions.
Press key until required system appears : **FRANCE** (SECAM L L') or **EUROPE** (PAL BG, SECAM BG).



Channel search.

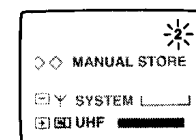
SEARCHING appears, the search bar shows progress.
When a programme is found, the number flashes.



Choose the Programme No.

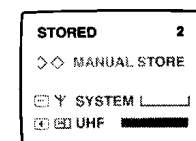
Enter the programme number you want.

Note: Programme number 0 cannot be used.








STORED appears, the programme is stored.

Repeat steps 4 to 6 to store each programme.
















To leave the **INSTALLATION** menu press **MENU** twice.

Another method : AutoStore




































• Action	► Result
● Press the two   keys at the same time to select the INSTALLATION menu.	
● Using the  key, select the AUTOSTORE menu.	
● Press the  key to select the system (FRANCE or EUROPE). This option is only available on certain versions.	
● Press the  key to run AutoStore for all available programmes	
► SEARCHING appears. Searching lasts several minutes.	
● When the search is finished, the INSTALLATION menu reappears. The programmes found are arranged by number 69, 68, 67, ...etc. You may now renumber these programmes as you wish.	

To renumber a programme:

- Select the **MANUAL STORE** menu using the  key.
 - Select the program to be renumbered using the  **P**  keys (or  ).
 - Press the two   keys, the number flashes.
 - Enter the programme number you want ( **P**  or   keys).
 - Press the two   keys to store the programme under the new number.
 - **STORED** appears, the programme is stored.
- Repeat the operation for each programme to be numbered.

► To leave the **INSTALLATION** menu press the  key twice.

Using the remote control

Press :	Result :
 Standby	The TV set switches off, the light is red. To turn on the TV set, press the  P  keys.
 P  Programme selection	The number is displayed on the screen, the previous () or next () programme is selected.
  Numbered keys	The number is displayed, the programme is selected. For a 2-digit number, the second digit must be added before the line disappears.
  Volume	Volume is changed.
 Mute	Switches sound on or off.
 Menu	By pressing the menu button several times the following items can be adjusted :  (volume),  (brightness),  (contrast),  (definition),  (colour) and  (timer).
   Menu adjustment	This modifies the menu item selected. Using the timer 0 function, you can adjust the time after which the TV set will automatically switch into standby mode (up to 24 hours). If you put the TV set into standby mode, it will turn itself on automatically when the time has elapsed.
    Storing of adjustments	Firstly, display a menu :  ,  ,  ,  , or  , then press the two   keys. STORED appears. All menu adjustments are stored, except for the timer.
 Personal preferences	Recall your stored adjustments.
 Screen info	To turn the display of the programme number and remaining time on the timer on or off.

11. List of abbreviations

(incl. all signal names)

+96S	Supply voltage from the SMPS to the line output stage. This voltage is 104V for 21" sets.	L/L' or BGDK	In case of a LL' set, selection is made between L and L'. In case of a BGDK set, selection is made between BG and DK. If this pin is "high" then L' or DK is selected.
+160V	Supply voltage from the LOT for the CRT-panel.	NIL	Non Inter Lace; 25 Hz block-shaped signal from the μ C to the frame amplifier for coinciding the odd & even frames.
+40D	Supply voltage from the LOT for vertical deflection.	OSD-B	Blue info from OSD generator in μ C to the video controller IC7015-6D for inserting blue info on the screen.
+8V	Supply voltage for AM-sound.	OSD-G	Green info from OSD generator in μ C to the video controller IC7015-6D for inserting green info on the screen.
+8Vx	+8V Supply voltage from the SMPS for the whole small signal part. x can be (a,b,c,d).	OSD-R	Red info from OSD generator in μ C to the video controller IC7015-6D for inserting red info on the screen.
+5Sx	+5V supply voltage from the SMPS to the μ C and periphery. x can be (a,b,c,d).	POR	Power On Reset; ensures the μ C starts up its software only if the power supply of the μ C itself is high enough.
μ C	Microcomputer.	PP	Personal Preference.
AFC	Automatic Frequency Control.	R-SC-IN	Red input signal from the scart to the video controller IC7015-6D.
AGC	Automatic Gain Control.	RAM	Random Access Memory.
AQUA	Aquadag on the rear side of the picture tube to pin 8 of the LOT.	ROM	Read Only Memory.
ATS	Automatic Table Setting (auto install system for Germany only).	SANDCASTLE	Sandcastle signal from IC7015-6F to delay line IC7271 and SECAM chroma decoder IC7250.
AUDIO-OUT	Outgoing audio signal from pin 15 IC7140 to pin 1 and 3 from scart.	SANDCASTLE1	Sandcastle signal from IC7015-6F to μ C.
B-SC-IN	Blue input signal from the scart to the video controller IC7015-6D.	SATURATION	Control signal (from μ C, but on DC level via RC network) for saturation control of the video controller IC7015-6D (0-2V5).
BASEBAND		SAW	Surface Acoustic Wave; high precision bandpass filter.
CVBS	Baseband CVBS signal from the IF-detector IC7015-6B to the FM-demodulator IC7015-6F.	SCL	Clock line of the I ² C-bus.
BEAM-INFO	Beam Current Info; If beam current increases the BCI signal decreases. BCI is used for contrast reduction (if beam current is too high) and picture correction (if beam current increases (more white), EHT decreases so picture will become too big, BCI decreases and the picture will be corrected).	SDA	Data line of the I ² C-bus.
BRIGHTNESS	Control signal (from μ C, but on DC level via RC network) for brightness control of the video controller IC7015-6D (0-5V).	SDAM	Service Default-Alignment Mode; predefined mode for faultfinding (see chapter 8).
BS1	Switching signal from the μ C to select tuner-band.	SHARPNESS	Control signal on DC level (0-5V) from μ C to IF-detector IC7015-6B) for sharpness control.
BS2	Switching signal from the μ C to select tuner-band.	SM	Service Menu.
C	Chrominance part of the video signal; this signal is also directly input at the SVHS plug.	SMPS	Switched Mode Power Supply.
CCT	Computer Controlled Teletext.	SND-SC-I	Incomming audio signal from pin 6 from the scart. This signal is the left audio-channel.
CONTRAST	Control signal (from μ C, but on DC level via RC network) for contrast control of the video controller IC7015-6D (0-4V5).	SND-SC-r	Incoming audio signal from pin 2 and pin 6 from scart. In case of a stereo set this is the scart-input for the right sound channel.
CVBS	Colour Video Blanking Synchronisation (present behind soundtrap 1102).	SND-SC-L	Outgoing audio signal from pin 3 to the scart. This signal is the left audio-channel.
CVBS-SC-IN	Incoming CVBS signal from pin 20 of scart to the external input pin 15 IC7015-6B.	SND-SC-R	Outgoing audio signal from pin 1 and pin 3 to scart. In case of a stereo set this is the scart-output for the right sound channel.
EEPROM	Electrical Erasable Programmable Read Only Memory.	STANDBY/AFC	Switching signal from μ C; "low" for standby (power supply will be switched to stand-by mode), "high" for normal operation. This pin acts also as an input for AFC.
ESD	Electrical Static Discharge.	STATUS	Switching signal; "low" for internal CVBS, "high" for external CVBS.
FBL	Fast blanking signal made by adding the fast blanking signals of the μ C and the SCART fast blanking signals.	TOP	Table Of Pages.
FBL-SCART	Fast blanking input signal from scart which is added to the other fast blanking signals to control the video controller IC7015-6D.	μ P INT/EXT	Switching signal from the μ C for internal or external audio + video switching ("low" for external and "high" for internal).
FBL- μ P	Fast blanking signal from the μ P which is added to the other fast blanking signals to control the video controller IC7015-6D.	VDRIVE	Vertical drive signal from IC7015-6E to frame amplifier.
ff	Filament (heater voltage) from LOT to the picture tube.	V-vari	Tuning voltage from μ C to the tuner (0-30V DC).
FLOF	Full Level One Feature.	VFB	50 Hz vertical flyback pulse used for locking the vertical oscillator in IC7015-6E.
FM	FM demodulated sound from the FM-demodulator IC7015-6F.	VFL	Signal to inform the μ C that vertical flyback takes place.
G-SC-IN	Green input signal from the scart to the video controller IC7015-6D.	Vg2	Voltage on grid 2 of the picture tube.
H.DRIVE	Horizontal drive signal from IC7015-6E to line output stage.	VIP	Video Input Processor.
HFB	Horizontal flyback pulse (15625 Hz) used for locking the horizontal oscillator in IC7015-6E.	VOLUME-L	Control signal (from μ C, but on DC level via RC network) for volume control in mono BG-sets.
I ² C	Digital control bus of the microcomputer.	VOL-LEVEL	Control signal (from μ C, but on DC level via RC network) for volume control in mono multi-france sets.
IDENT	Status signal from IC7015-6B; "low" for no CVBS signal (horizontal sync not present), "high" in case CVBS signal is present (horizontal sync present) from the IF-detector IC7015-6B to the μ C.	WST	World System Teletext.
IF	Intermediate frequency signal from the tuner to the AM-demodulator IC7125.	Y	Luminance part of the video signal; this signal is also directly input at the SVHS plug.
LF-input	Low frequency sound-signal. Input signal for sound amplifier.		
L/BG	Switching signal from μ C; "low" for LL reception (positive modulation, AM sound), "high" for BGIDK reception (negative modulation, FM sound). The μ C makes BG/L "high" in case EUROPE or UK is selected, and "low" in case FRANCE is selected.		

Chassis L6.2

Various

▲	4822 265 10438	CON 2P MALE
▲	4822 265 30389	2P MALE
▲	4822 267 31858	1 P
	4822 267 51033	SINGLE CON
	4822 502 50621	7P MALE WHITE
	4822 265 10703	CONN. EURO

▲	4822 256 92053	FUSE HOLDER
	4822 492 70871	SPRING GR2
▲	4822 252 13712	SCREW 12X3
	4822 267 10572	6P F-PIN B
▲	4822 255 70261	CRT SOCKET

1000▲	4822 210 10448	UV915E/IEC
1000▲	4822 210 10464	U943C/IEC
1000▲	4822 210 10554	UV917/IEC
1001	4822 242 70936	OFWJ1952
1001	4822 242 80295	OFWG3962M
1001	4822 242 81388	OFWG1961M
1001	4822 242 81436	OFWK3953M
1001	4822 242 81737	B39389-G1965
1001	4822 242 81964	B39389-G1984
1002	4822 242 10743	OFWK6272K
1060	4822 276 13066	SKHVBB

1060	4822 276 13775	SWITCH
1061	4822 276 13066	SKHVBB
1061	4822 276 13775	SWITCH
1062	4822 276 13066	SKHVBB
1062	4822 276 13775	SWITCH
1100	4822 242 10692	(4,433619MHz)
1101	4822 242 10314	CER 6MHz
1101	4822 242 70279	CER 6MHz
1101	4822 242 81811	CER 5.5MHz
1102	4822 242 10315	5.5/5.7/6.5MHz

1102	4822 242 10746	4,430 MHz
1102	4822 242 72211	CER 5.5/5.7 MHz
1102	4822 242 72586	CER,5.5MHz
1102	4822 242 81572	CER 6,0MHz
1103▲	4822 242 10316	CER 6.5MHz
1160	4822 242 81423	SAW 38.9MHz
1501▲	4822 070 32502	FUSE (2.5A)
1502▲	4822 252 51185	FUSE (0.63A)
1503▲	4822 252 51173	FUSE (1.0A)
1503▲	4822 252 51175	FUSE (2.5A)

-II-

2000▲	4822 124 40196	220µF 20% 16V
2001	4822 124 80791	470µF 20% 16V
2002	4822 122 33496	100nF 10% 63V
2004	4822 122 33496	100nF 10% 63V
2100▲	5322 126 10223	4.7nF 10% 63V
2101▲	4822 122 33177	10nF 20% 50V
2101▲	4822 122 33342	33nF 10% 63V
2102▲	5322 126 10223	4.7nF 10% 63V
2103	4822 124 40756	1µF 20% 100V
2104	4822 124 11529	16V 47U 20%

2105▲	4822 122 33177	10nF 20% 50V
2106	4822 124 80195	470µF 20% 10V
2107▲	4822 124 41579	10µF 20% 50V
2108	4822 124 40756	1µF 20% 100V
2109	4822 121 41738	270nF 5% 63V
2109	4822 121 51252	470nF 5% 63V
2110▲	4822 126 10002	100nF 20% 25V
2111▲	4822 126 10002	100nF 20% 25V
2112	4822 122 33806	820pF 10% 63V
2113▲	4822 122 33177	10nF 20% 50V

2116▲	4822 126 10002	100nF 20% 25V
2117▲	5322 126 10223	4.7nF 10% 63V
2118	4822 126 13689	18pF 1% 63V
2119	4822 126 13061	220nF 20% 25V
2120	4822 122 33175	2.2nF 20% 50V
2121▲	4822 122 33177	10nF 20% 50V
2122▲	4822 122 33177	10nF 20% 50V
2123▲	4822 126 10002	100nF 20% 25V
2124▲	4822 126 10002	100nF 20% 25V
2125▲	4822 122 33177	10nF 20% 50V

2126▲	4822 126 10002	100nF 20% 25V
2127▲	4822 126 10002	100nF 20% 25V
2128	4822 126 13061	220nF 20% 25V
2129▲	5322 122 34123	1nF 10% 50V
2130▲	4822 126 10002	100nF 20% 25V
2131▲	4822 122 33177	10nF 20% 50V
2132	4822 126 13061	220nF 20% 25V
2133	5322 126 10511	1nF 5% 50V
2134	5322 122 32452	47pF 5% 63V
2136▲	4822 126 10002	100nF 20% 25V

2137▲	4822 126 10002	100nF 20% 25V
2139	4822 122 33797	47nF 20% 50V
2140	4822 122 33797	47nF 20% 50V

2142▲	4822 126 10002	100nF 20% 25V
2143	4822 122 32139	12pF 2% 63V
2144	4822 126 13061	220nF 20% 25V
2145	5322 126 10465	3.9nF 10% 63V
2146	4822 124 40763	2.2µF 100 V
2147▲	4822 122 33177	10nF 20% 50V
2148▲	5322 126 10223	4.7nF 10% 63V

2150	4822 126 13689	18pF 1% 63V
2151▲	5322 126 10223	4.7nF 10% 63V
2152▲	5322 126 10223	4.7nF 10% 63V
2153	4822 125 50062	1p4-10p 250V
2160▲	5322 126 10223	4.7nF 10% 63V
2161	4822 126 13061	220nF 20% 25V
2164▲	4822 052 10108	1R00 5% 0.33W
2165	4822 126 13061	220nF 20% 25V
2167	4822 124 40769	4.7µF 20% 100V
2168	4822 124 40769	4.7µF 20% 100V

2300	5322 122 31863	330pF 5% 50V
2300	5322 122 32268	470pF 10% 50V
2310	4822 122 33216	270pF 5% 50V
2310	5322 122 31863	330pF 5% 50V
2310	5322 122 32268	470pF 10% 50V
2320	5322 122 31863	330pF 5% 50V
2320	5322 122 32268	470pF 10% 50V
2329	4822 121 43875	47nF 5% 250V
2330	4822 124 40201	1000µF 20% 16V
2333▲	4822 126 12171	3.3nF 20% 1KV

2420	4822 124 80676	4.7µF 20% 160V
2421	4822 121 51319	1µF 10% 63V
2422▲	5322 122 32654	22nF 10% 63V
2423	4822 121 43368	47µF 160V
2423	4822 124 42336	47µF 20% 160V
2425	4822 124 80064	680µF 20% 50V
2426	4822 124 80676	4.7µF 20% 160V
2427	5322 121 42489	33nF 5% 250V
2428	4822 121 51319	1µF 10% 63V
2429	5322 121 42661	330nF 5% 63V

2431▲	5322 126 10223	4.7nF 10% 63V
2432▲	4822 122 33893	18nF 10% 63V
2500	4822 126 13597	330pF 10% 500V
2501▲	4822 126 11524	1.5nF 10% 1KV
2502	4822 121 51442	2.2nF 10% 50V
2503	5322 121 42489	33nF 5% 250V
2505▲	4822 126 14037	2.2nF 20% 250V
2506	4822 121 43343	4.7nF 10% 400V
2507▲	4822 121 10512	275V 220N 20%
2508▲	4822 126 11141	2.2nF 10% 1KV

2509▲	4822 126 11141	2.2nF 10% 1KV
2510	4822 121 42004	10nF 10% 400V
2511	4822 124 41596	22µF 20% 50V
2512	4822 124 40201	1000µF 20% 16V
2512	4822 124 40723	2200µF 20% 16V
2513	4822 126 13694	68pF 1% 63V
2514	4822 124 80038	1000µF 20% 16V
2514	4822 124 81139	2200µF 20% 16V
2515	4822 121 43368	47µF 160V
2515	4822 124 42336	47µF 20% 160V

2516	4822 124 11995	100µF 20% 400V
2516▲	4822 124 42104	68µF 20% 385V
2517▲	5322 122 34123	1nF 10% 50V
2518	5322 122 32452	47pF 5% 63V
2600▲	4822 124 41579	10µF 20% 50V
2601	4822 126 13061	220nF 20% 25V
2602	4822 126 13061	220nF 20% 25V
2603	5322 126 10184	680pF 5% 50V
2604▲	4822 126 10002	100nF 20% 25V
2605▲	4822 126 10002	100nF 20% 25V

2606▲	4822 126 10002	100nF 20% 25V
2608▲	4822 126 10002	100nF 20% 25V
2608	5322 122 32448	10pF 5% 50V
2609▲	4822 126 10002	100nF 20% 25V
2609	5322 122 32448	10pF 5% 50V
2610	4822 124 40769	4.7µF 20% 100V
2611	4822 124 40769	4.7µF 20% 100V
2612	4822 124 40769	4.7µF 20% 100V
2613	4822 124 40769	4.7µF 20% 100V
2614	4822 124 40769	4.7µF 20% 100V

2614	5322 124 40641	10µF 20% 100V
2615▲	5322 122 34123	1nF 10% 50V
2617	5322 122 32659	33pF 5% 50V
2618	5322 122 32659	33pF 5% 50V
2619▲	4822 122 33177	10nF 20% 50V
2619▲	5322 126 10223	4.7nF 10% 63V
2621	4822 124 40255	100µF 20% 63V
2622▲	4822 126 10002	100nF 20% 25V
2624▲	4822 126 10002	100nF 20% 25V
2625▲	4822 126 10002	100nF 20% 25V

2626▲	4822 126 10002	100nF 20% 25V
2628	4822 124 40763	2.2µF 100 V
2801	4822 122 31175	1nF 10% 500V
2801	4822 126 13599	3.3nF 10% 500V
2802	4822 126 13185	680pF 10% 500V
2803▲	4822 124 41579	10µF 20% 50V
2806	4822 126 13185	680pF 10% 500V
2808	4822 126 13597	330pF 10% 500V

2813▲	4822 124 41579	10µF 20% 50V
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3001	4822 117 11449	2k2 1% 0.1W
3002	4822 117 11449	2k2 1% 0.1W
3003	4822 051 20562	5k6 5% 0.1W
3003	4822 051 20682	6k8 5% 0.1W
3004	4822 051 20562	5k6 5% 0.1W
3004	4822 051 20682	6k8 5% 0.1W
3005▲	4822 051 20472	4k7 5% 0.1W
3006▲	4822 051 20472	4k7 5% 0.1W
3007	4822 051 20224	220k 5% 0.1W
3008	4822 116 52219	330Ω 5% 0.5W

3009	4822 051 20272	2k7 5% 0.1W
3010	4822 117 10833	10k 1% 0.1W
3011▲	4822 051 20472	4k7 5% 0.1W
3011	4822 051 20473	47k 1% 0.1W
3012▲	4822 052 10569	56Ω 5% 0.33W
3012	4822 052 10629	62Ω 5% 0.33W
3013	4822 051 20473	47k 1% 0.1W
3014	4822 051 20224	220k 5% 0.1W
3100	4822 051 20104	100k 5% 0.1W
3100▲	4822 051 20472	4k7 5% 0.1W

3101	4822 051 20473	47k 1% 0.1W
3101	4822 117 10833	10k 1% 0.1W
3102	4822 051 20394	390k 5% 0.1W
3103▲	4822 051 20153	15k 5% 0.1W
3104	4822 117 10833	10k 1% 0.1W
3105	4822 116 52234	100k 5% 0.5W
3107	4822 051 20104	100k 5% 0.1W
3108	4822 051 20822	8k2 5% 0.1W
3109	4822 116 52182	15Ω 5% 0.5W
3110	4822 116 52213	180Ω 5% 0.5W

3111	4822 051 20561	560Ω 5% 0.1W
3112	4822 051 20822	8k2 5% 0.1W
3114▲	4822 051 20008	0Ω JUMP.
3114	4822 051 20479	47Ω 5% 0.1W
3115	4822 051 20471	470Ω 5% 0.1W
3116	4822 051 20101	100Ω 5% 0.1W
3117	4822 051 20101	100Ω 5% 0.1W
3118	4822 051 20101	100Ω 5% 0.1W
3119	4822 116 83878	270k 5% 0.5W
3120	4822 051 10102	1k 2% 0.25W

3121	4822 051 10102	1k 2% 0.25W
3122	4822 051 20101	100Ω 5%

3622	4822 116 52175	100Ω 5% 0.5W
3622	4822 116 83864	10k 5% 0.5W
3623▲	4822 051 20472	4k7 5% 0.1W
3624	4822 050 11002	1k 1% 0.4W
3625	4822 117 11449	2k2 1% 0.1W
3626	4822 050 11002	1k 1% 0.4W
3627▲	4822 051 20472	4k7 5% 0.1W
3628▲	4822 051 20472	4k7 5% 0.1W
3629▲	4822 051 20472	4k7 5% 0.1W
3630	4822 116 83883	470Ω 5% 0.5W
3631	4822 051 20471	470Ω 5% 0.1W
3632	4822 051 20471	470Ω 5% 0.1W
3633	4822 051 20273	27k 5% 0.1W
3634	4822 050 11002	1k 1% 0.4W
3635▲	4822 051 20472	4k7 5% 0.1W
3636	4822 116 83872	220Ω 5% 0.5W
3638	4822 117 11449	2k2 1% 0.1W
3639	4822 117 11449	2k2 1% 0.1W
3640	4822 117 11449	2k2 1% 0.1W
3641	4822 051 20392	3k9 5% 0.1W
3642	4822 116 52244	15k 5% 0.5W
3642	4822 116 52264	27k 5% 0.5W
3643▲	4822 051 20472	4k7 5% 0.1W
3643	4822 051 20822	8k2 5% 0.1W
3644	4822 116 52283	4k7 5% 0.5W
3645	4822 116 52234	100k 5% 0.5W
3646	4822 051 20394	390k 5% 0.1W
3646	4822 051 20564	560k 5% 0.1W
3647	4822 117 10833	10k 1% 0.1W
3648	4822 116 83864	10k 5% 0.5W
3649	4822 116 52195	47Ω 5% 0.5W
3650	4822 050 11002	1k 1% 0.4W
3651▲	4822 051 20332	3k3 5% 0.1W
3652▲	4822 051 20332	3k3 5% 0.1W
3653	4822 051 20101	100Ω 5% 0.1W
3654	4822 051 20101	100Ω 5% 0.1W
3655	4822 051 20122	1k2 5% 0.1W
3656▲	4822 051 20472	4k7 5% 0.1W
3657▲	4822 051 20472	4k7 5% 0.1W
3658▲	4822 051 20472	4k7 5% 0.1W
3659▲	4822 051 20472	4k7 5% 0.1W
3660	4822 116 52283	4k7 5% 0.5W
3661▲	4822 053 10103	10k 5% 1W
3662	4822 116 52252	180k 5% 0.5W
3663	4822 051 20394	390k 5% 0.1W
3664	4822 116 83864	10k 5% 0.5W
3666	4822 116 52175	100Ω 5% 0.5W
3670	4822 117 11449	2k2 1% 0.1W
3671	4822 117 11449	2k2 1% 0.1W
3672	4822 117 11449	2k2 1% 0.1W
3673	4822 117 11449	2k2 1% 0.1W
3674	4822 117 11449	2k2 1% 0.1W
3675	4822 117 11449	2k2 1% 0.1W
3676	4822 117 10833	10k 1% 0.1W
3677	4822 051 20822	8k2 5% 0.1W
3680	4822 116 52175	100Ω 5% 0.5W
3681	4822 116 52175	100Ω 5% 0.5W
3702▲	4822 051 20472	4k7 5% 0.1W
3800	4822 116 52201	75Ω 5% 0.5W
3801	4822 116 83868	150Ω 5% 0.5W
3801	4822 116 83883	470Ω 5% 0.5W
3802	4822 116 52238	12k 5% 0.5W
3802	4822 116 83961	6k8 5%
3803▲	4822 051 20472	4k7 5% 0.1W
3804	4822 116 52175	100Ω 5% 0.5W
3805	4822 116 80175	4k7 5% 0.5W
3806	4822 116 83872	220Ω 5% 0.5W
3807	4822 116 52219	330Ω 5% 0.5W
3808	4822 116 83961	6k8 5%
3810	4822 116 52219	330Ω 5% 0.5W
3811	4822 116 52201	75Ω 5% 0.5W
3812	4822 050 11002	1k 1% 0.4W
3813	4822 116 83883	470Ω 5% 0.5W
3815	4822 116 52219	330Ω 5% 0.5W
3816	4822 116 52201	75Ω 5% 0.5W
3817	4822 116 52201	75Ω 5% 0.5W
3820	4822 116 52201	75Ω 5% 0.5W
3825	4822 116 52222	390Ω 5% 0.5W
5100	4822 157 63068	0.28μH
5102	4822 157 10421	330uH LAL02
5102	4822 157 61898	47μH PM20
5103	4822 157 60123	6.8μH
5330	4822 156 21334	6μH
5420	4822 157 50965	15uH PM10
5421	4822 157 10419	100uH 10%
5422▲	4822 140 10623	LOT 25"/28"
5423	4822 157 71401	27μH
5500▲	4822 157 11306	CONV -CU20C2
5504	4822 157 53348	CHOKES ASS CU15D3
5505	4822 157 70826	2.4μH

5600	4822 242 10685	X-TAL 12mHz
5600	4822 242 73769	X-TAL 4.19mHz
5601	4822 157 53906	47μH
5602	4822 157 63507	0.18μH
5603	4822 157 63507	0.18μH
5604	4822 157 63507	0.18μH
6000▲	4822 130 30621	1N4148
6001▲	4822 130 30621	1N4148
6100▲	4822 130 30621	1N4148
6100	4822 130 80888	BA682
6101▲	4822 130 30621	1N4148
6102▲	4822 130 30621	1N4148
6103▲	4822 130 30621	1N4148
6104	4822 130 34233	BZX79-B5V1
6105▲	4822 130 30621	1N4148
6106	4822 130 34167	BZX79-B6V2
6108	4822 130 34278	BZX79-B6V8
6162▲	4822 130 30621	1N4148
6163▲	4822 130 30621	1N4148
6330▲	4822 130 30621	1N4148
6420	4822 130 42488	BYD33D
6421	4822 130 42488	BYD33D
6422	4822 130 42488	BYD33D
6424	4822 130 42488	BYD33D
6426	4822 130 34145	BZX79-B39
6500	4822 130 34233	BZX79-B5V1
6501▲	4822 130 34173	BZX79-B5V6
6502	4822 130 34281	BZX79-B15
6503	4822 130 32245	BYV10-40
6504	4822 130 41487	BYV95C
6506	4822 130 70021	S1NB60
6507	4822 130 42488	BYD33D
6507	5322 130 31938	BYV27-200
6510	4822 130 34197	BZX79-B12
6514	5322 130 31932	BZT03-C200
6600	4822 130 82037	HZT33
6602▲	4822 130 30621	1N4148
6681▲	4822 130 30621	1N4148
6800	4822 130 31024	BZX79-B18
7000	4822 130 42513	BC858C
7001	4822 130 42513	BC858C
7002	4822 130 42513	BC858C
7100	4822 209 13047	TDA8361/N5
7100	4822 209 13063	TDA8362/N5
7100▲	5322 130 41982	BC848B
7102▲	5322 130 41982	BC848B
7103	5322 130 42755	BC847C
7105▲	5322 130 41982	BC848B
7106	4822 209 90129	TDA8395/N2
7107	4822 209 12635	TDA4665/V4
7108▲	5322 130 41982	BC848B
7108	5322 130 42136	BC848C
7109▲	5322 130 41982	BC848B
7109	5322 130 42136	BC848C
7150▲	5322 130 41982	BC848B
7160	4822 209 31555	TDA9830/V1
7161▲	5322 130 41982	BC848B
7162▲	5322 130 41982	BC848B
7163	5322 130 41983	BC858B
7164	5322 130 41983	BC858B
7300	4822 130 41782	BF422
7310	4822 130 41782	BF422
7320	4822 130 41782	BF422
7420▲	4822 209 32126	SOC1012T
7421	5322 130 44647	SC368
7422▲	4822 209 32126	SOC1012T
7423	5322 130 41983	BC858B
7424	4822 130 40937	BC548B
7500	5322 130 41983	BC858B
7501	4822 130 61675	BF487
7502	4822 130 41646	BF423
7504	4822 130 63725	STP4NA40FI
7505▲	4822 130 40981	BC337-25
7600	4822 209 13085	IC DIG MOS
7600	4822 209 14646	SA45290ZP/039
7600	4822 209 15415	SA45290ZP/055
7600	4822 209 15694	SA45290ZP/040
7601▲	4822 209 73852	PMBT2369
7602	5322 130 60159	BC846B
7603▲	5322 130 41982	BC848B
7605	4822 209 12948	ST24C02B6
7606▲	5322 130 41982	BC848B
7608▲	5322 130 41982	BC848B
7804▲	5322 130 41982	BC848B

2x3 WATT AMPLIFIER

Various

1010	4822 212 11351	MOD 3W MONO
	4822 265 10841	8P MALE F-PIN
	4822 267 10543	7P MALE F-PIN
	4822 265 30899	5 P.
	4822 492 62076	SPRING
1202▲	4822 071 53151	FUSE 315mA
1221	4822 242 10434	X-TAL 18,432MHz
2200	4822 124 41643	100μF 20% 16V
2201▲	4822 126 10002	100nF 20% 25V
2202	4822 126 13473	220nF 20% 50V
2203	4822 124 40723	2200μF 20% 16V
2204	4822 126 13473	220nF 20% 50V
2205▲	4822 126 10002	100nF 20% 25V
2206	4822 122 31175	1nF 10% 500V
2207	4822 126 13185	680pF 10% 500V
2208	5322 122 32452	47pF 5% 63V
2209	4822 124 41751	47μF 20% 50V
2210▲	4822 126 10002	100nF 20% 25V
2211	5322 122 32452	47pF 5% 63V
2216	4822 126 13296	100nF 10% 16V
2219▲	4822 126 10002	100nF 20% 25V
2221	5322 126 10511	1nF 5% 50V
2222	4822 126 13473	220nF 80-20% 50V
2224▲	4822 124 41579	10μF 20% 50V
2225	5322 126 10511	1nF 5% 50V
2228	5322 126 10511	1nF 5% 50V
2229	5322 126 10511	1nF 5% 50V
2230▲	4822 126 10002	100nF 20% 25V
2231▲	4822 122 33172	390pF 5% 50V
2232▲	4822 122 33172	390pF 5% 50V
2233▲	4822 124 41579	10μF 20% 50V
2234▲	4822 126 10002	100nF 20% 25V
2235	4822 124 40769	4.7μF 20% 100V
2238▲	4822 124 41579	10μF 20% 50V
2239▲	4822 126 10002	100nF 20% 25V
2240▲	4822 124 41579	10μF 20% 50V
2242▲	4822 126 10002	100nF 20% 25V
2243	5322 122 32268	470pF 10% 50V
2244	5322 122 32268	470pF 10% 50V
2254▲	4822 126 10002	100nF 20% 25V
2256▲	4822 124 41579	10μF 20% 50V
2257▲	4822 126 10002	100nF 20% 25V
2258	4822 126 13614	4N710% 50V
2259	5322 122 32452	47pF 5% 63V
2262	5322 122 32286	3.3pF 5% 50V
2263	5322 122 32286	3.3pF 5% 50V
3201▲	4822 053 11189	18Ω 5% 2W
3202	4822 051 20159	15Ω 5% 0.1W
3203	4822 116 83883	470Ω 5% 0.5W
3204	4822 116 52238	12k 5% 0.5W
3206▲	4822 051 20472	4k7 5% 0.1W
3207▲	4822 051 20472	4k7 5% 0.1W
3208	4822 117 11449	2k2 1% 0.1W
3210	4822 051 20223	22k 5% 0.1W
3211▲	4822 051 20472	4k7 5% 0.1W
3217	4822 051 20104	100k 5% 0.1W
3223▲	4822 052 10151	150Ω 5% 0.33W
3224	4822 051 20821	820Ω 5% 0.1W
3228	4822 051 20273	27k 5% 0.1W
3229	4822 051 20273	27k 5% 0.1W
3231	4822 116 83872	220Ω 5% 0.5W
3232	4822 116 83872	220Ω 5% 0.5W
3233	4822 051 20473	47k 1% 0.1W.
5204	4822 157 71403	15μH
5206	4822 152 20677	10μH
5207	4822 152 20677	10μH
6221	4822 130 34382	BZX79-B8V2
6222	4822 130 31024	BZX79-B18
6224▲	4822 130 30621	1N4148
6225▲	4822 130 34173	BZX79-B5V6
6226▲	4822 130 30621	1N4148
7204	5322 130 42631	BD243
7205	4822 209 13646	TDA7057AQ/N2
7208	5322 130 41983	BC858B
1200	4822 242 10688	OFWK9456M
1200	4822 242 81854	B39389-G9353-M1 00
1201	4822 242 81436	OFWK3953M

Defection module

Various

	4822 212 11359	DEFL MODULE 110
		DEGR PCB
	4822 212 11533	DEFL MODULE 90
		DEGR PCB
Δ	4822 265 30877	CON 3P
Δ	4822 265 30389	CON 2P MALE
	4822 267 10645	CON 12P. MALE
	4822 255 10386	HEATSINK FRAME
201Δ	4822 492 62076	SPRING for
		transistors
	4822 492 70871	SPRING
	4822 492 70871	SPRING
203Δ	4822 492 62076	SPRING for
		transistors
	4822 492 70871	SPRING
204	4822 492 42769	IC SPRING
	4822 492 70871	SPRING

-II-

2900	5322 121 42498	680nF 5% 63V
2900	5322 121 42661	330nF 5% 63V
2901	4822 121 41673	220nF 10% 100V
2901	5322 121 42661	330nF 5% 63V
2902	4822 124 40242	1μF 20% 63V
2903	4822 126 10334	470pF 10% 50V
2904	4822 124 41751	47μF 20% 50V
2904	4822 124 81029	100μF 20% 25V
2905	4822 124 22263	220μF 20% 25V
2906Δ	4822 124 40433	47μF 20% 25V
2906	4822 124 41751	47μF 20% 50V
2907	5322 124 41468	1000μF 20% 40V
2908	4822 124 81151	22μF 50V
2909	4822 121 51305	15nF 10% 50V
2910	4822 121 10701	11nF 5% 1KV
2910Δ	4822 121 70637	8.2nF 5% 1600V
2911	4822 121 40516	22nF 10% 250V
2912Δ	4822 126 13451	2.2nF 10% 2KV
2913Δ	4822 121 10518	250V 390nF 5%
2914	4822 124 81319	1μF 20% 160V
2915	4822 121 10506	250V 560nF 5%
2915Δ	4822 121 10518	250V 390nF 5%
2916	4822 124 11558	2200μF 20% 250V
2916	5322 124 41468	1000μF 20% 40V
2917	4822 122 30043	10nF 80% 63V
2918	4822 121 10692	82nF 10% 250V
2919Δ	4822 126 13185	680pF 10% 500V

-III-

3900	4822 050 22205	2M2 1% 0.6W
3901	4822 050 22205	2M2 1% 0.6W
3901	4822 116 52235	1M 5% 0.5W
3902	4822 116 52283	4k7 5% 0.5W
3903	4822 101 11187	1k 30%LIN 0.1W
3904	4822 116 52235	1M 5% 0.5W
3904	4822 116 52245	150k 5% 0.5W
3905	4822 116 52175	100Ω 5% 0.5W
3906	4822 050 11002	1k 1% 0.4W
3907	4822 116 52188	27Ω 5% 0.5W
3907	4822 116 52199	68Ω 5% 0.5W
3908Δ	4822 052 10228	20Ω 5% 0.33W
3908Δ	4822 052 10478	40Ω 5% 0.33W
3909Δ	4822 053 10221	220Ω 5% 1W
3909	4822 117 12851	4k7 5% 3W
3910	4822 053 11221	220Ω 5% 2W
3910	4822 116 83883	470Ω 5% 0.5W
3911	4822 116 83872	220Ω 5% 0.5W
3912	4822 116 83883	470Ω 5% 0.5W
3913	4822 100 11819	100k 30%LIN 0.1W
3914	4822 116 80676	1Ω5 5% 0.5W
3915	4822 116 80676	1Ω5 5% 0.5W
3916	4822 116 83882	39k 5% 0.5W
3917	4822 116 52257	22k 5% 0.5W
3918	4822 116 52304	82k 5% 0.5W
3919	4822 116 52289	5k6 5% 0.5W
3920	4822 116 52283	4k7 5% 0.5W
3921	4822 100 11819	100k 30%LIN 0.1W
3922	4822 050 11002	1k 1% 0.4W
3923	4822 116 52226	560Ω 5% 0.5W
3923	4822 116 52256	2k2 5% 0.5W
3924	4822 101 11191	10k 30%LIN 0.1W
3925	4822 116 52271	33k 5% 0.5W
3926	4822 116 83878	270k 5% 0.5W
3927	4822 116 52256	2k2 5% 0.5W
3927	4822 116 52269	3k3 5% 0.5W
3928Δ	4822 052 11108	1Ω 5% 0.5W
3929	4822 116 83872	220Ω 5% 0.5W
3930	4822 052 11561	560Ω 5% 0.5W
3933	4822 050 11002	1k 1% 0.4W
3933	4822 116 52234	100k 5% 0.5W
3934	4822 116 52252	180k 5% 0.5W
3935	4822 116 52252	180k 5% 0.5W

5900Δ	4822 157 11397	CORECTOR COIL
5900Δ	4822 157 63079	AT4042/97
5901Δ	4822 157 11193	FXC COIL ASSY -
		CI15

-IV-

6900Δ	4822 130 30621	1N4148
6900	4822 130 34382	BZX79-B8V2
6901Δ	4822 130 34173	BZX79-B5V6
6901	4822 130 34382	BZX79-B8V2
6902	4822 130 42488	BYD33D
6903	4822 130 42488	BYD33D
6904Δ	4822 130 30621	1N4148
6905	4822 130 34278	BZX79-B6V8
6906Δ	4822 130 32896	BYD33M
6906Δ	4822 130 41275	BY228
6907Δ	4822 130 42489	BYD33G



7900Δ	4822 130 44461	BC546B
7901Δ	4822 130 44197	BC558B
7902	4822 130 40855	BC337
7902Δ	4822 130 40981	BC337-25
7903	4822 130 40917	BD238
7904	4822 130 63574	BD241CFI
7905	4822 130 41246	BC327-25
7906Δ	4822 130 10206	BUT11AX
7906Δ	4822 130 10864	BU1508AX
7907	4822 130 40937	BC548B
7908	4822 130 63725	STP4NA40FI