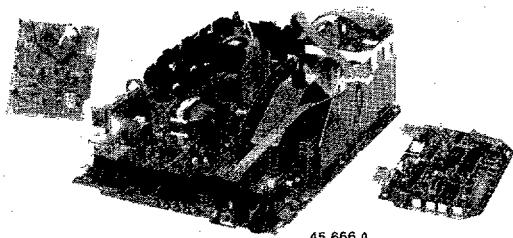


**Service  
Service  
Service**

AB



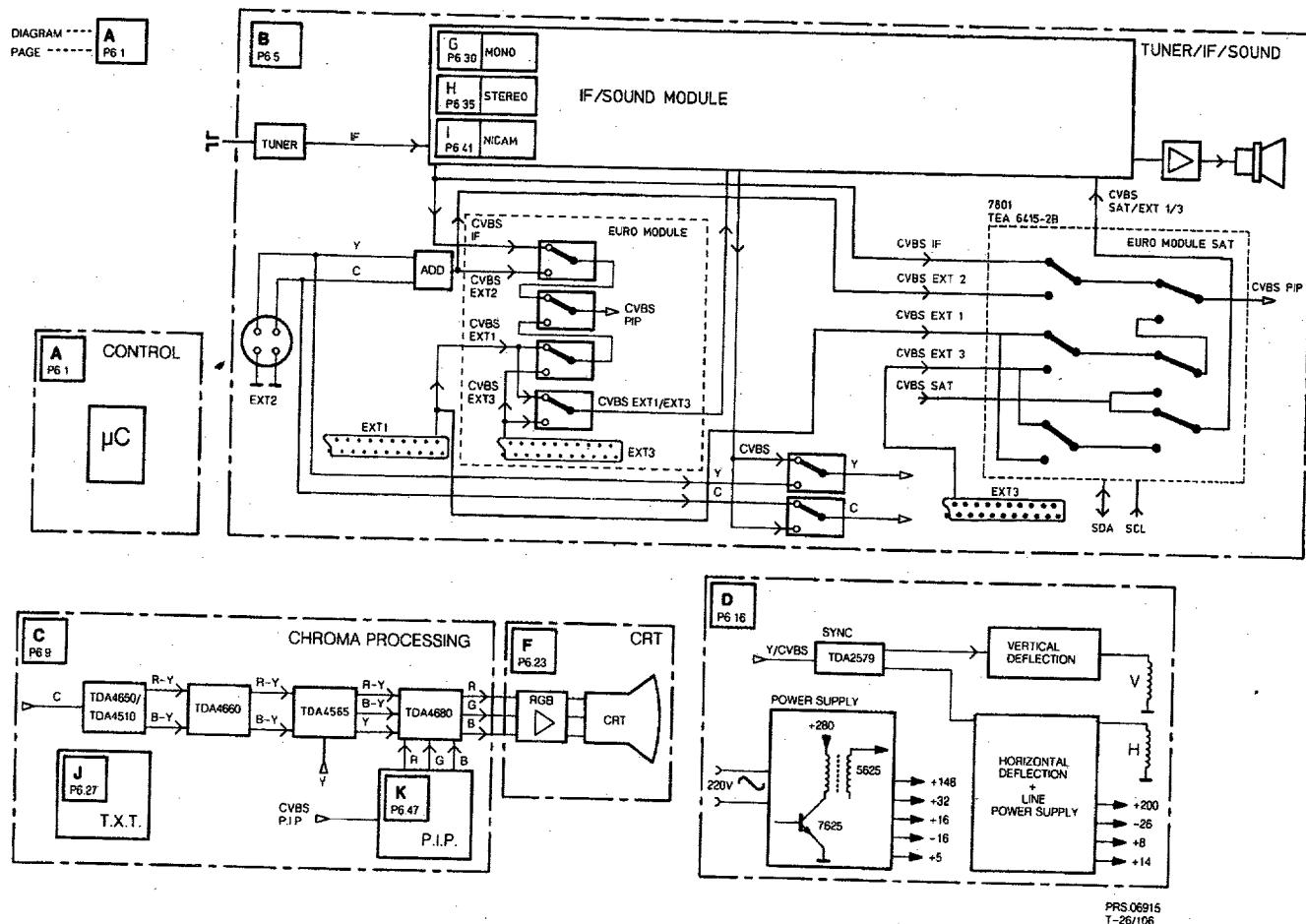
# Service Manual

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# Block diagram



## Technical specification

Mains voltage	: 220 - 240 V ( $\pm 10\%$ )
Mains frequency	: 50 Hz ( $\pm 10\%$ )
Aerial input impedance	: 75Ω - coax
Minimum aerial voltage	: 40 $\mu$ V
Maximum aerial voltage	: 32mV
Pull-in range colour synchronization	: $\pm 300$ Hz
Pull-in range horizontal synchronization	: $\pm 300$ Hz

### Local operation functions:

P +; P -;  $\Delta$  +;  $\Delta$  -; install

Programmes: 0-59

VCR operation on programmes: 0-59

### Indications:

- On Screen Display (OSD)

- LED: - standby (red)

- operation (green)

- RC5 reception (flashing yellow)

- internal fault in  $\mu$ P (flashing)

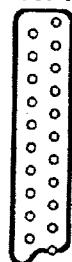
# Connection facilities

CHASSIS GR2.1

2.1

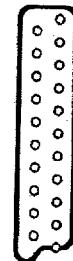
## 1. Specification of the terminal sockets

**EXT1**



- 1 - Audio  $\ominus$  R ( $0,5V_{RMS} \leq 1k\Omega$ )
- 2 - Audio  $\ominus$  R ( $0,2 - 2V_{RMS}; 0,5 V_{nom} \geq 10k\Omega$ )
- 3 - Audio  $\ominus$  L ( $0,5V_{RMS} \leq 1k\Omega$ )
- 4 - Audio  $\perp$
- 5 - Blue  $\perp$
- 6 - Audio  $\ominus$  L ( $0,2 - 2V_{RMS}; 0,5 V_{nom} \geq 10k\Omega$ )
- 7 - Blue  $\ominus$  ( $0,7V_{pp}/75\Omega$ )
- 8 - RC5  $\ominus$  ( $500-800mV_{pp}$ ) + CVBS-Status 1  $\ominus$  ( $0-2V$ : int.;  $9,5-12V$ : ext.)
- 9 - Green  $\perp$
- 10 -
- 11 - Green  $\ominus$  ( $0,7V_{pp}; 75\Omega$ )
- 12 -
- 13 - Red  $\perp$
- 14 -
- 15 - Red  $\ominus$  ( $0,7V_{pp}; 75\Omega$ )
- 16 - RGB-Status ( $0-0,4V$ : int. 1-3V ext.  $75\Omega$ )
- 17 - CVBS  $\ominus$   $\perp$
- 18 - CVBS  $\ominus$   $\perp$
- 19 - CVBS  $\ominus$  ( $1V_{pp}/75\Omega$ )
- 20 - CVBS  $\ominus$  ( $1V_{pp}/75\Omega$ )
- 21 - Earth screen

**EXT3**



- 1 - Audio  $\ominus$  R ( $0,5V_{RMS}; \leq 1k\Omega$ )
- 2 - Audio  $\ominus$  R ( $0,2 - 2V_{RMS}; 0,5 V_{nom} \geq 10k\Omega$ )
- 3 - Audio  $\ominus$  L ( $0,5V_{RMS}; \leq 1k\Omega$ )
- 4 - Audio  $\perp$
- 5 -
- 6 - Audio  $\ominus$  L ( $0,2 - 2V_{RMS}; 0,5 V_{nom} \geq 10k\Omega$ )
- 7 -
- 8 - CVBS status 3  $\ominus$  ( $0-2V$ : int.;  $9,5-12V$ : ext.)
- 9 -
- 10 -
- 11 -
- 12 -
- 13 -
- 14 -
- 15 -
- 16 -
- 17 - CVBS  $\ominus$   $\perp$
- 18 - CVBS  $\ominus$   $\perp$
- 19 - CVBS  $\ominus$  ( $1V_{pp}/75\Omega$ )
- 20 - CVBS  $\ominus$  ( $1V_{pp}/75\Omega$ )
- 21 - Earth screen

**EXT2**



- 1 -  $\perp$
- 2 -  $\perp$
- 3 - Y  $\ominus$  ( $1V_{pp}; 75\Omega$ )
- 4 - C  $\ominus$  ( $1V_{pp}; 75\Omega$ )

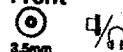
**2x  $\odot$**

- CINCH Audio  $\ominus$  L+R ( $0,2-2V_{RMS}; 0,5 V_{nom} \geq 10k\Omega$ )

**Audio out**

- 2x  $\odot$  CINCH Audio  $\ominus$  L+R ( $0,5V_{RMS}; \leq 1k\Omega$ )

**Front**



$\geq 8\Omega$

## 2. Connecting equipment

Depending on the type of TV set, a variety of equipment can be connected. The exact number of pieces of equipment depends on the number of connectors on the back of the TV set (EXT1, 2 or 3). The wiring diagram in Fig. 2.1 shows which kinds of equipment can be connected. The wiring diagram shows the TV set with the maximum number of connectors possible for the GR2.1 chassis.

An RGB source (e.g. laserdisc player) can only be connected to EXT1. In order to switch the TV set to RGB operation, this RGB source must generate both a CVBS status signal at pin 8 and an RGB status signal at pin 16 of the euroconnector. It is not possible to switch the equipment to EXT1 in RGB operation using the remote control.

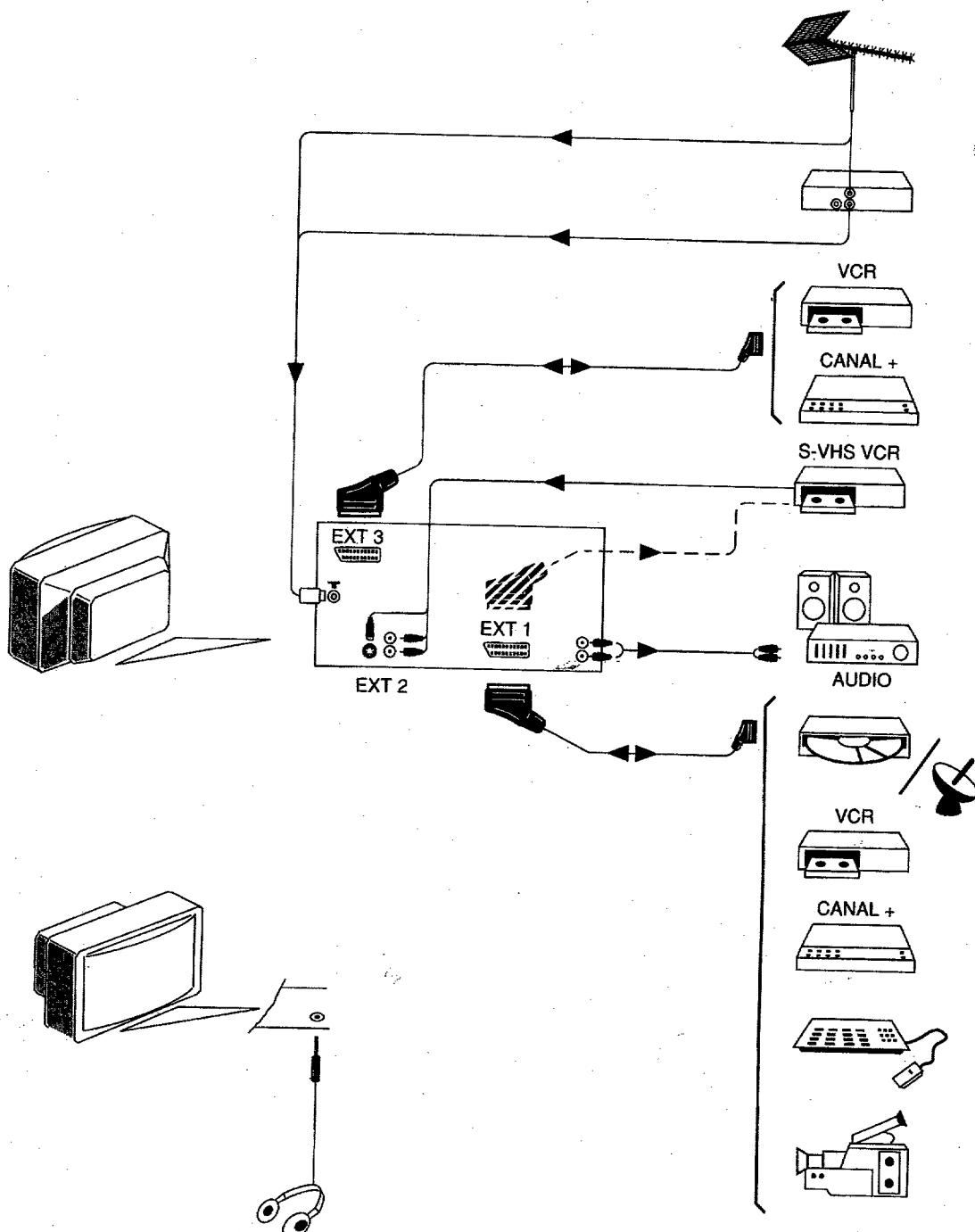


Fig. 2.1

1. Safety regulations require that the unit should be returned in its original condition and that components identical to the original components are used. The safety components are indicated by the symbol .
2. 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, it should be discharged using the method shown in Fig.3.1. Use a high-voltage probe and a multimeter (position DC-V). Discharge until the meter reading is OV (after approx. 30s).

## 3. ESD



- All ICs and many other semiconductors are sensitive to electrostatic discharges (ESD). Careless handling during repair can drastically shorten their life. Make sure that during repair you are connected by a pulse band with resistance to the same potential as the earth of the unit. Keep components and tools also at this same potential.
4. When repairing a unit, always connect it to the mains voltage via an isolating transformer.
  5. Be careful when taking measurements in the high-voltage section and on the picture tube.
  6. Never replace modules or other components while the unit is switched on.
  7. It is recommended that safety goggles are worn when replacing the picture tube.
  8. When making settings, use plastic rather than metal tools.  
This will prevent any short circuits and the danger of a circuit becoming unstable.
  9. After repair the wiring should be fastened once more in the cable clamps for this purpose.
  10. In order to prevent measuring errors, the heat sinks should not be used as reference points for measurements.  
**The heat sink for the sound output amplifier (next to the channel selector) is connected to the -16 or -12 volts.**
  11. Together with the deflection unit and any multipole unit, the flat square picture tubes used form 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.
  12. The high-voltage cable in 21" units is glued in the line output transformer. This can therefore not be replaced.

1. The cold chassis direct voltages and oscilloscopes should be measured with regard to the tuner earth (). Voltages on the line mains side of the SOUPS transformer 5625 should be measured with respect to ().
2. The direct voltages and oscilloscopes given in the diagrams should be measured in the service default mode (see section 9). A colour bar signal, modulated on a picture carrier wave of 475.25 MHz, should be used as the video signal. A 1 kHz signal should be used for the sound (for all systems).
3. Where necessary, the oscilloscopes and direct voltages are measured with () and without aerial signal (). Voltages in the power supply section are measured both for normal operation () and in standby (). These values are indicated by means of the appropriate symbols.
4. The picture tube PCB 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. The connectors used for the modules (board to board) are gold-plated and should only be replaced by the same type.
7. In the case of fault finding and/or repair to the teletext module, the accessibility of the circuit and the components can be increased by using extension cards.  
The order numbers of these extension cards are:  
\* 6 times: 4822 395 30259  
\* 8 times: 4822 214 31402
8. Both multisystem and single system units are mentioned in this documentation.  
The term multisystem unit is used to refer to a unit that is suitable for the reception of PAL BG and SECAM BGLL' systems.  
The term single system unit is used to refer to all other units (such as PAL BG, PAL/SECAM BG and PAL I units).
9. Blackline units can be recognized by the thick, protected high-voltage cable. Non-blackline units have a thin, unprotected high-voltage cable.

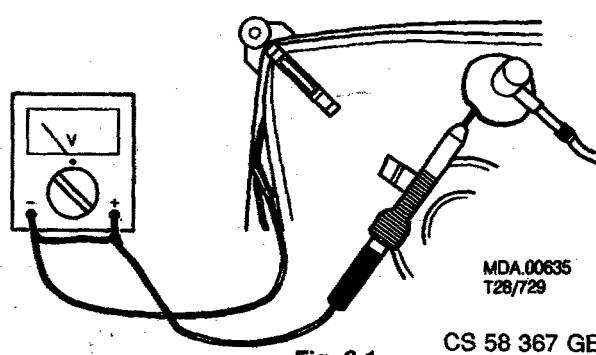


Fig. 3.1

CS 58 367 GB

 MDA.00635  
T26/729

# Mechanical instructions

## 1. Removing the back plate

It is only possible to remove the back plate after removing the screws on the top, side, possibly on the underneath and possibly under the EXT 3 connection (see Fig. 4.1). In the case of subwoofer units, the subwoofer speaker on the carrier panel should also be unplugged.

## 2. Service position 1

Service position for module service and to measure test points

Unlock the chassis after the cables of the degaussing coil and any PIP module have been disconnected, and pull it backwards until all test points are accessible (see Fig. 4.2).

In order to make the tuner and the IF/sound module accessible, the bracket above these modules can be removed (see Fig. 4.3). With the exception of one fault message, the unit continues to function normally when the PIP module is not connected.

## 3. Service position 2

Service position for repair

Place the chassis on the heat sink on the tuner side after service position 1 is reached (see Fig. 4.4).

**Warning: make sure that the heat sink of the sound output amplifier does not form a short circuit with the raster/line heat sink if the bracket of the euromodule has been removed!**

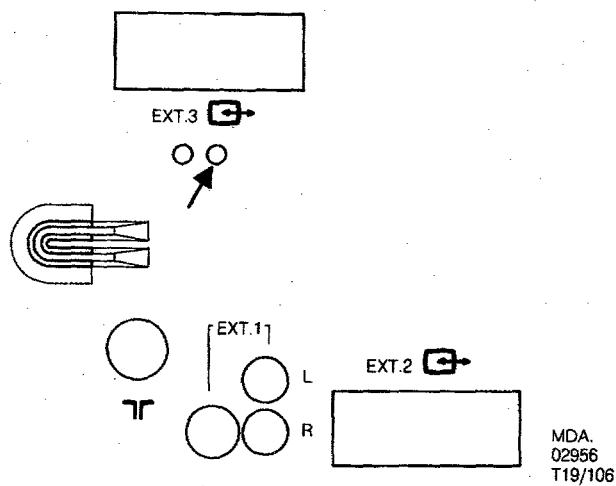


Fig. 4.1

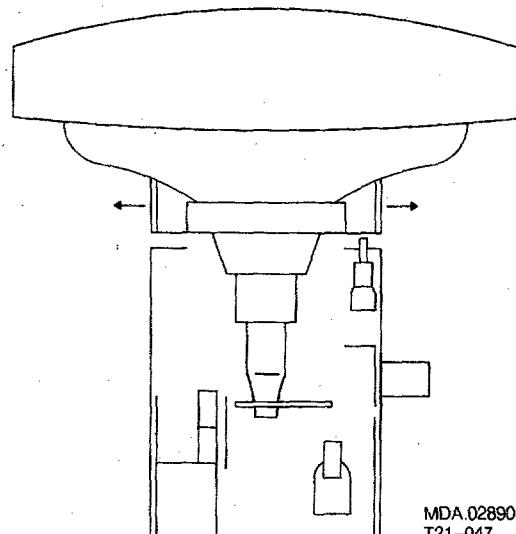


Fig. 4.2

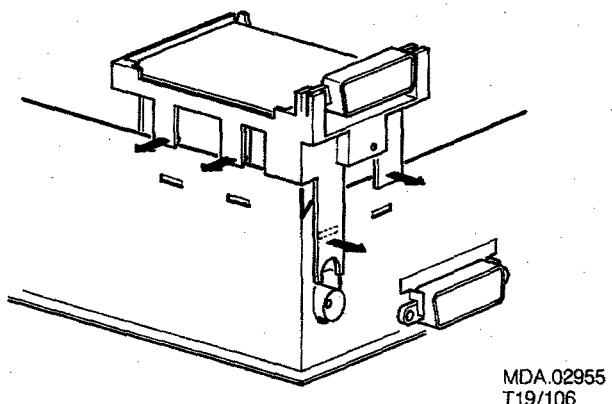


Fig. 4.3

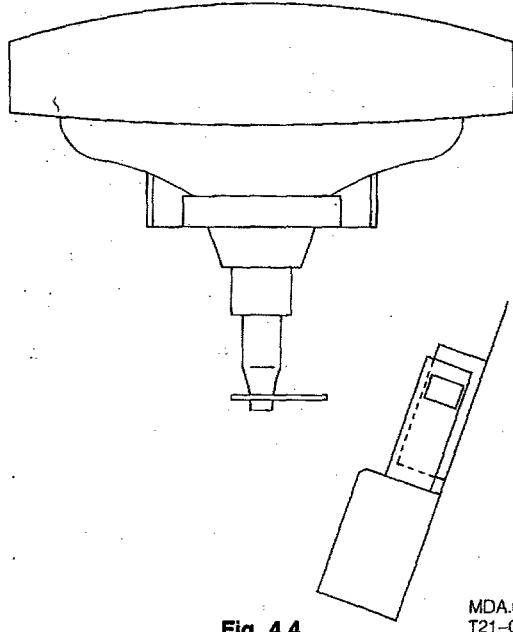
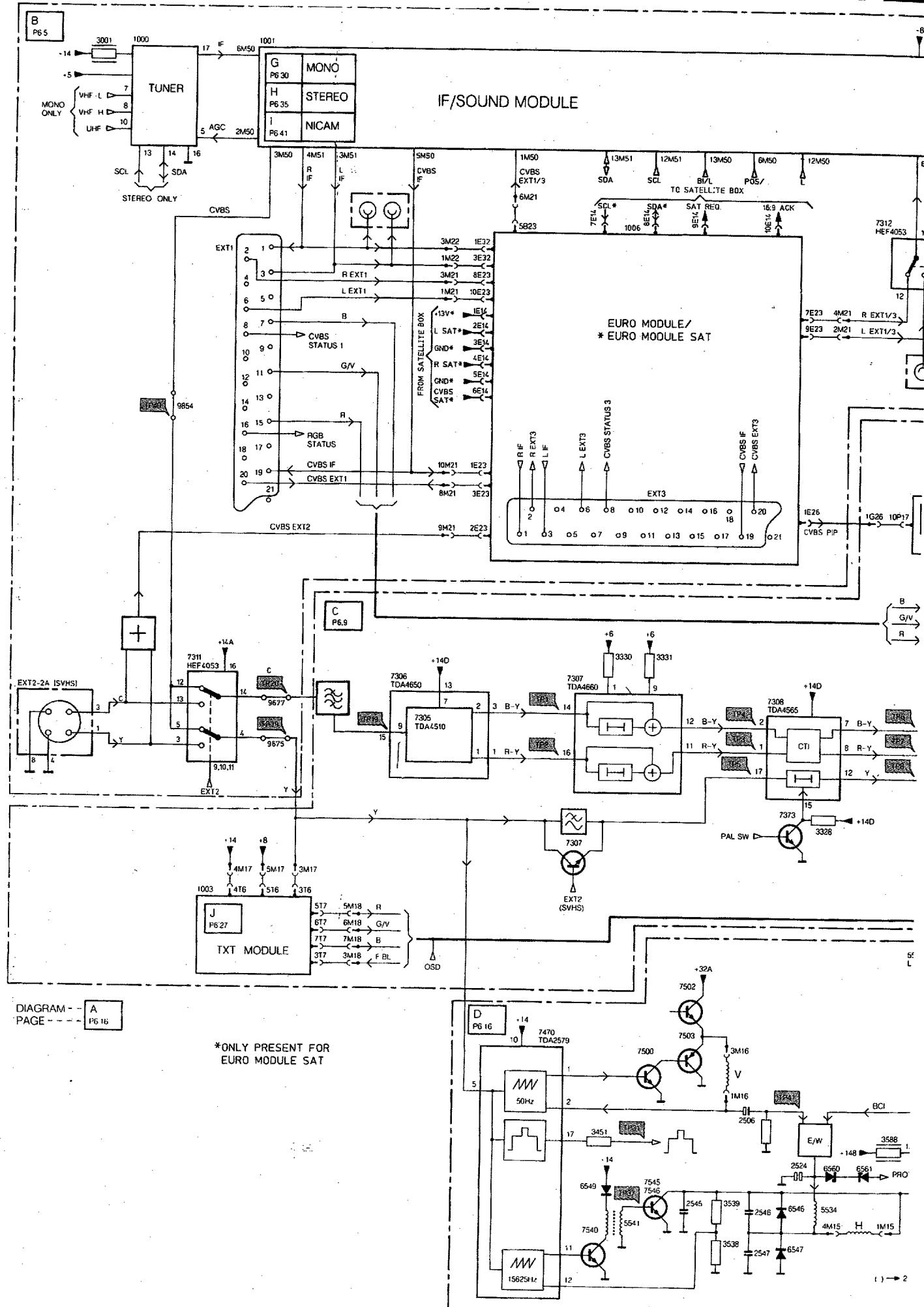


Fig. 4.4

# Blockdiagramm / Blockschaltbild / Schéma-bloc

CHASSIS GR2.1

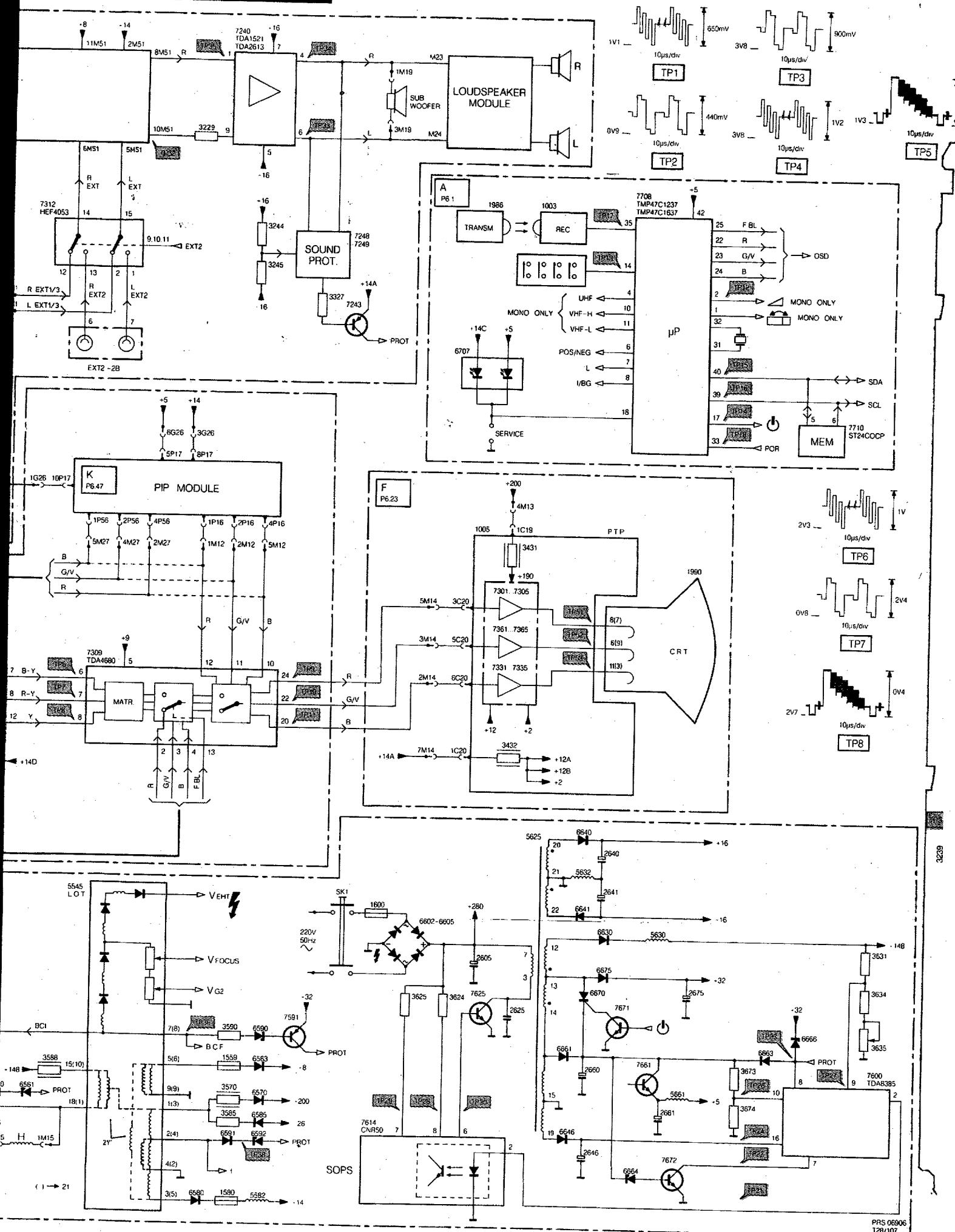
5.1



5.1

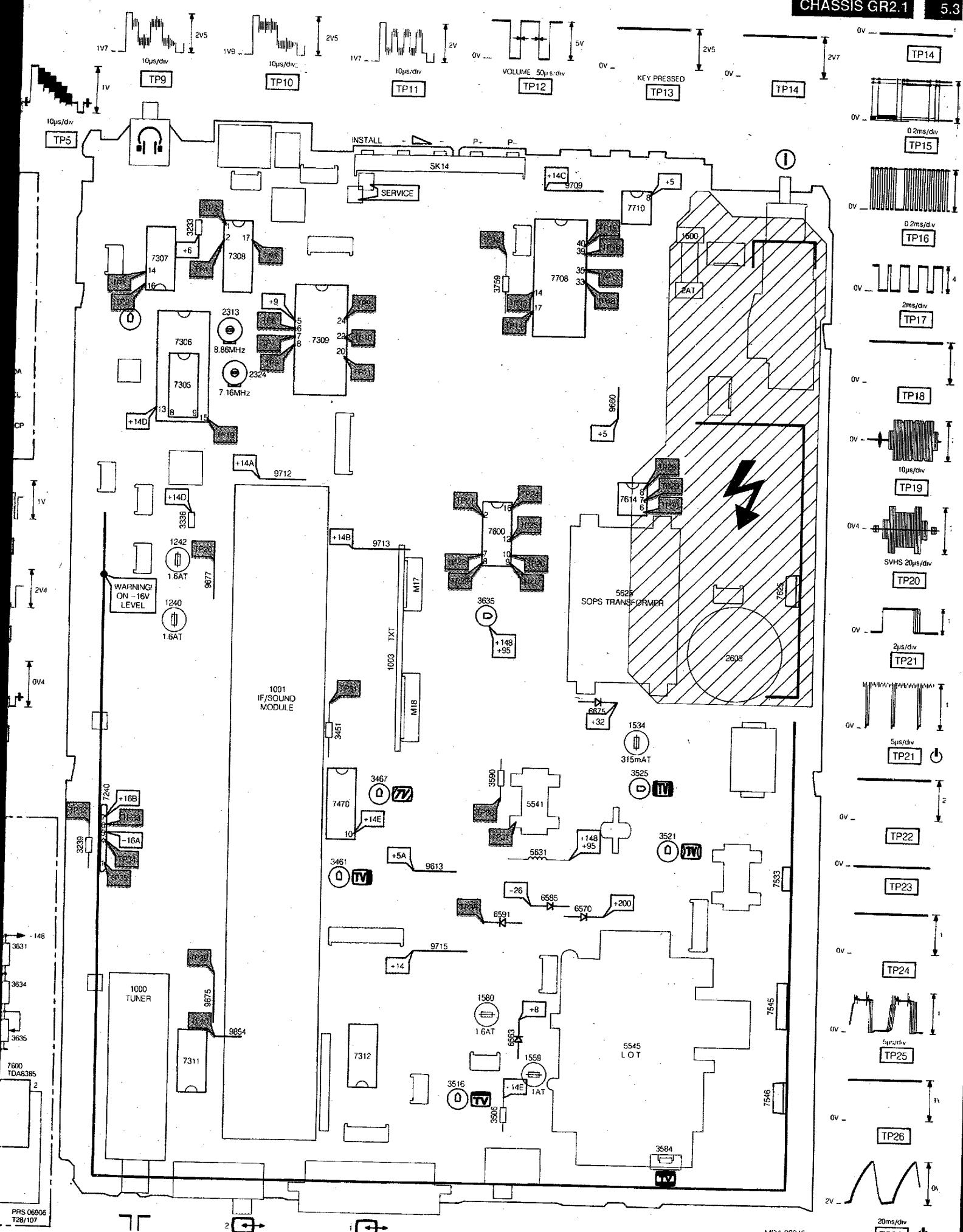
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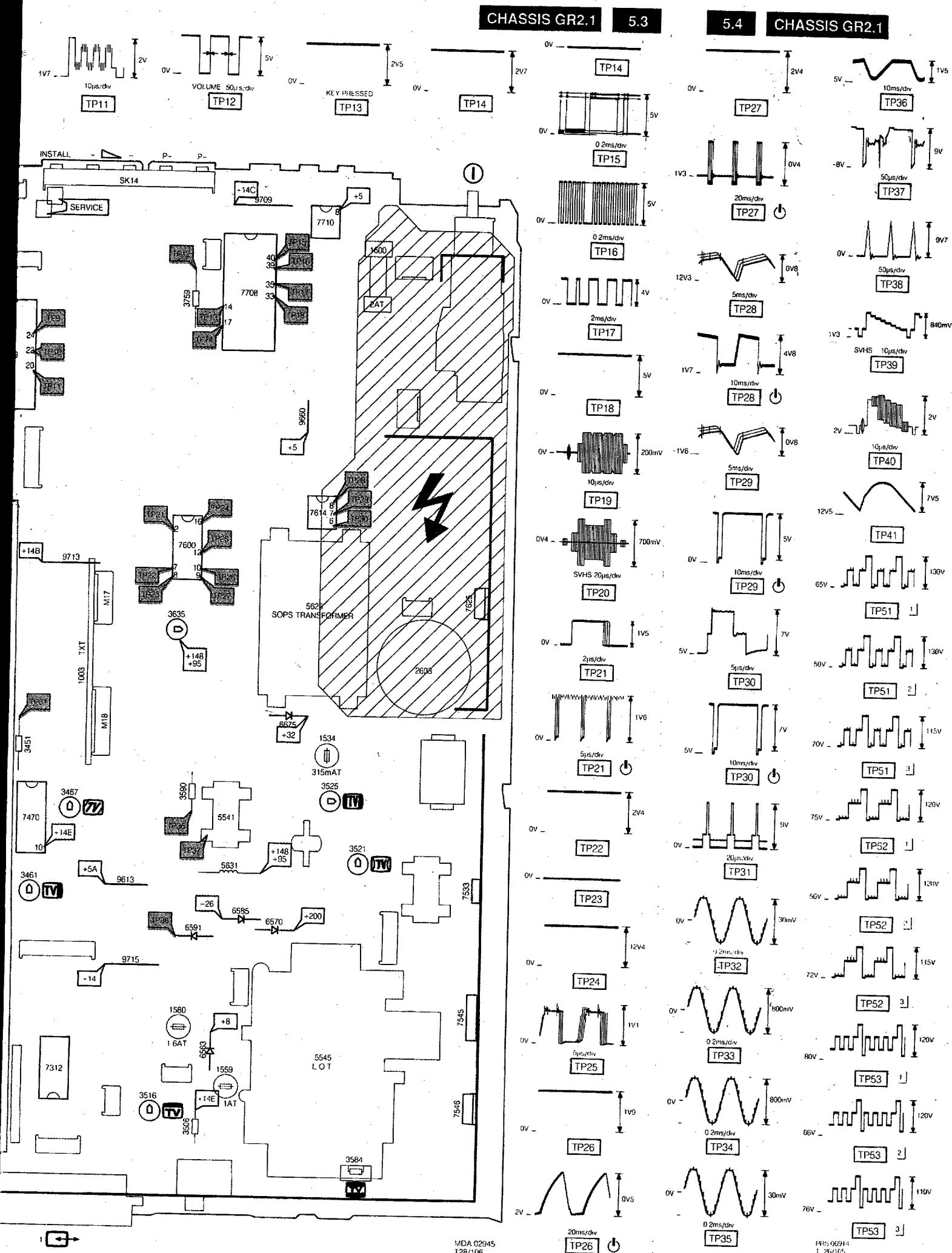
CHASSIS GB2.1



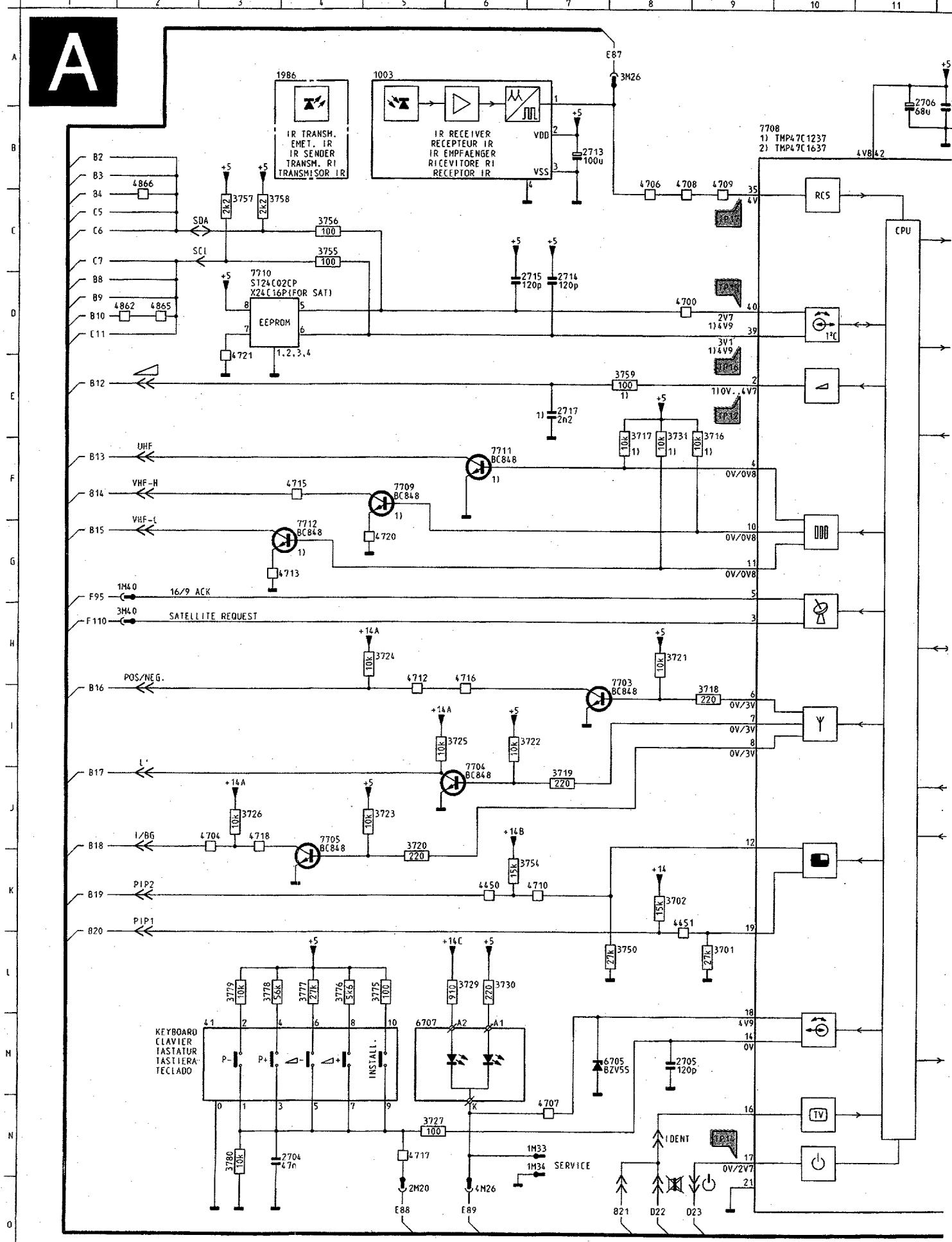
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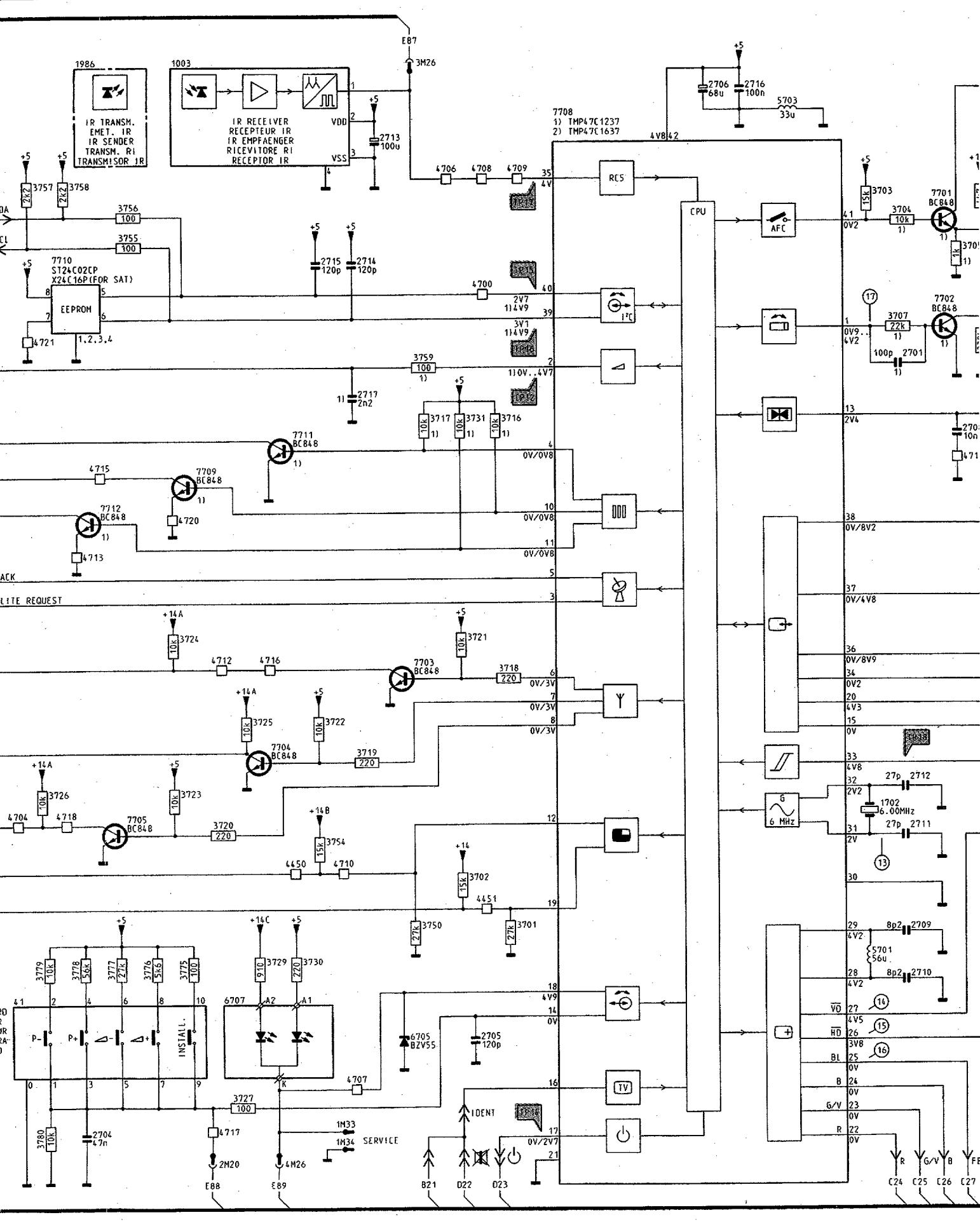
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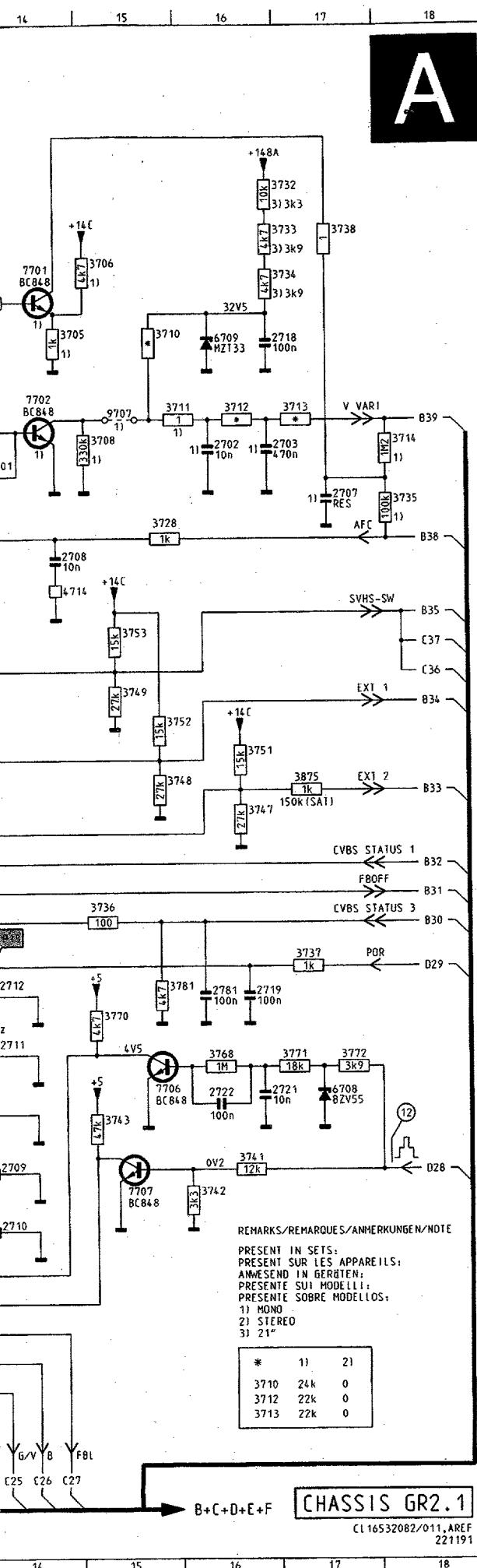




## **Controls / Bedienung / La C**







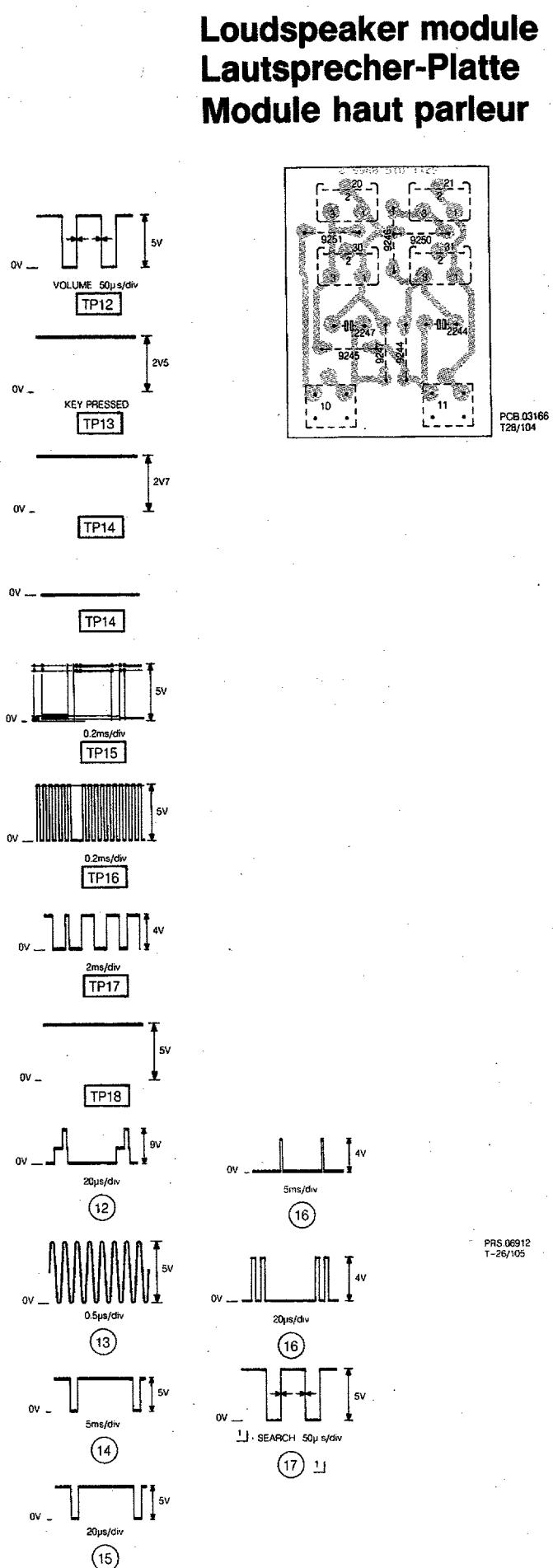
**REMARKS/REMARQUES/ANMERKUNGEN/NOTE**  
PRESENT IN SETS:  
PRESENT SUR LES APPAREILS:  
ANWESEND IN GERÄTEN:  
PRESENTI SUI MODELLI:  
PRESENTE SOBRE MODELOS:  
1) MONO  
2) STEREO  
3) 31"

*	1)	2)
3710	24k	0
3712	22k	0
3713	22k	0

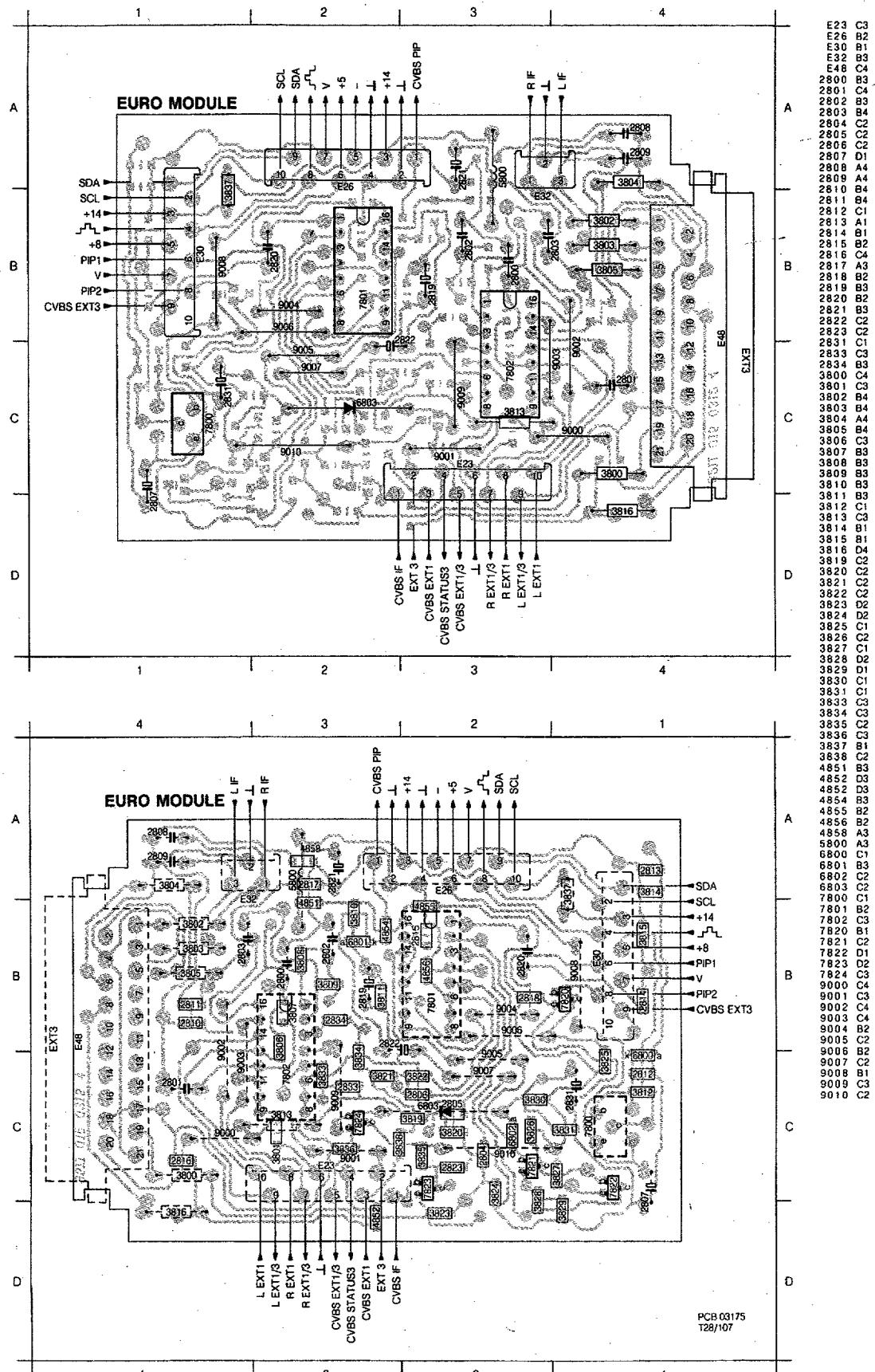
CL 16532082/011, AREF  
221191

221191

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	2702	E16	7704	J 1
	2703	E16	7705	J 1
	2704	N 4	7706	K 1
	2705	M 8	7707	L 1
	2706	A11	7708	B 1
	2707	E17	7709	F 1
B	2708	F14	7710	D 1
	2709	L14	7711	F 1
	2710	L14	7712	G 1
	2711	K14	9707	D 1
	2712	J14		
	2713	B 7		
C	2714	D 7		
	2715	D 6		
	2716	A12		
	2717	E 7		
	2718	C16		
	2719	J16		
	2721	K16		
	2722	K16		
	2781	J16		
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	3702	K 8		
	3703	C13		
	3704	C14		
	3705	C14		
	3706	C15		
	3707	D14		
	3708	D15		
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	3711	D16		
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	3713	D17		
	3714	D18		
	3716	E 9		
	3717	E 8		
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	3719	J 7		
	3720	K 5		
	3721	H 8		
	3722	I 6		
	3723	J 5		
G	3724	H 5		
	3725	I 6		
	3726	J 3		
	3727	N 5		
	3728	E15		
	3729	L 6		
	3730	L 6		
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	3737	J17		
	3738	B17		
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	3742	L16		
	3743	K15		
	3747	H16		
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	3757	C 3		
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	3771	K17		
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	3776	L 4		
	3777	L 4		
	3778	L 3		
	3779	L 3		
	3780	N 3		
	3781	J35		
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	4715	F 4		
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	4717	N 5		
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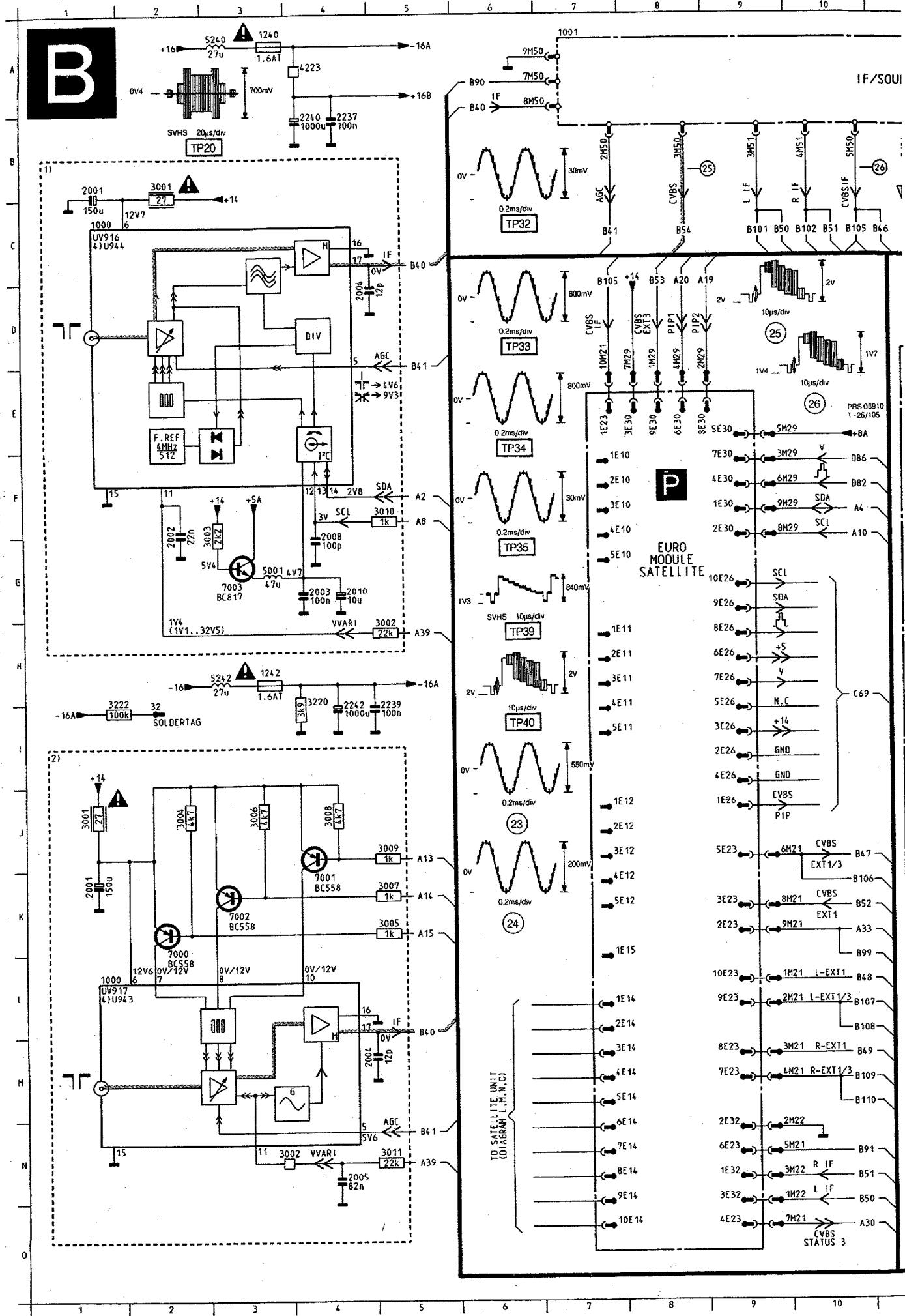
## **Euro module Euro-AV-Platte Module Prise Péritélévision**



## Tuner / Kanalwähler / Sélecteur

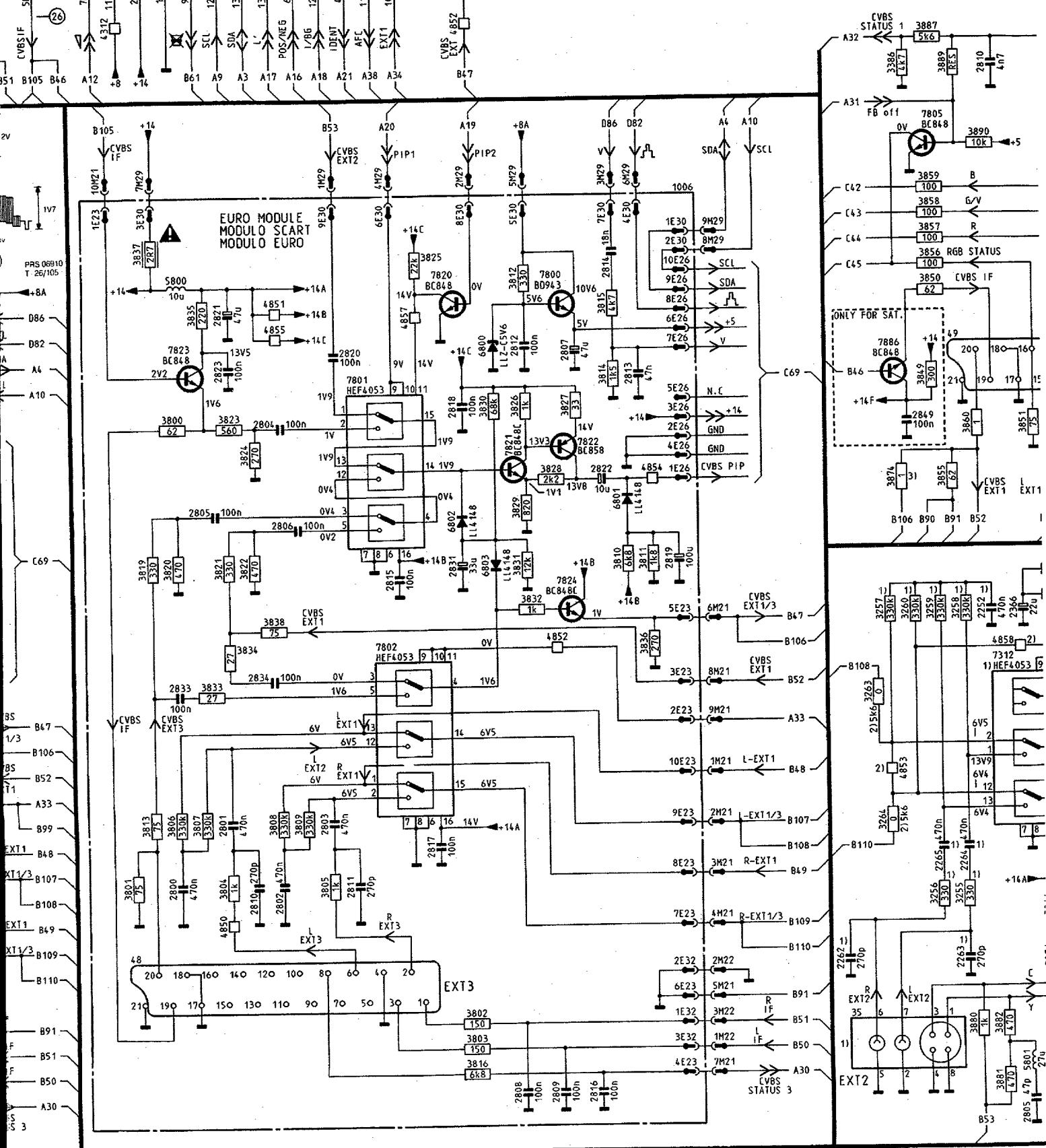
CHASSIS GR2.1

6.5



IF/SOUND MODULE ZF/TON MODUL MODULE FI/SON MODULO IF/AUDIO MODULO SONIDO FI

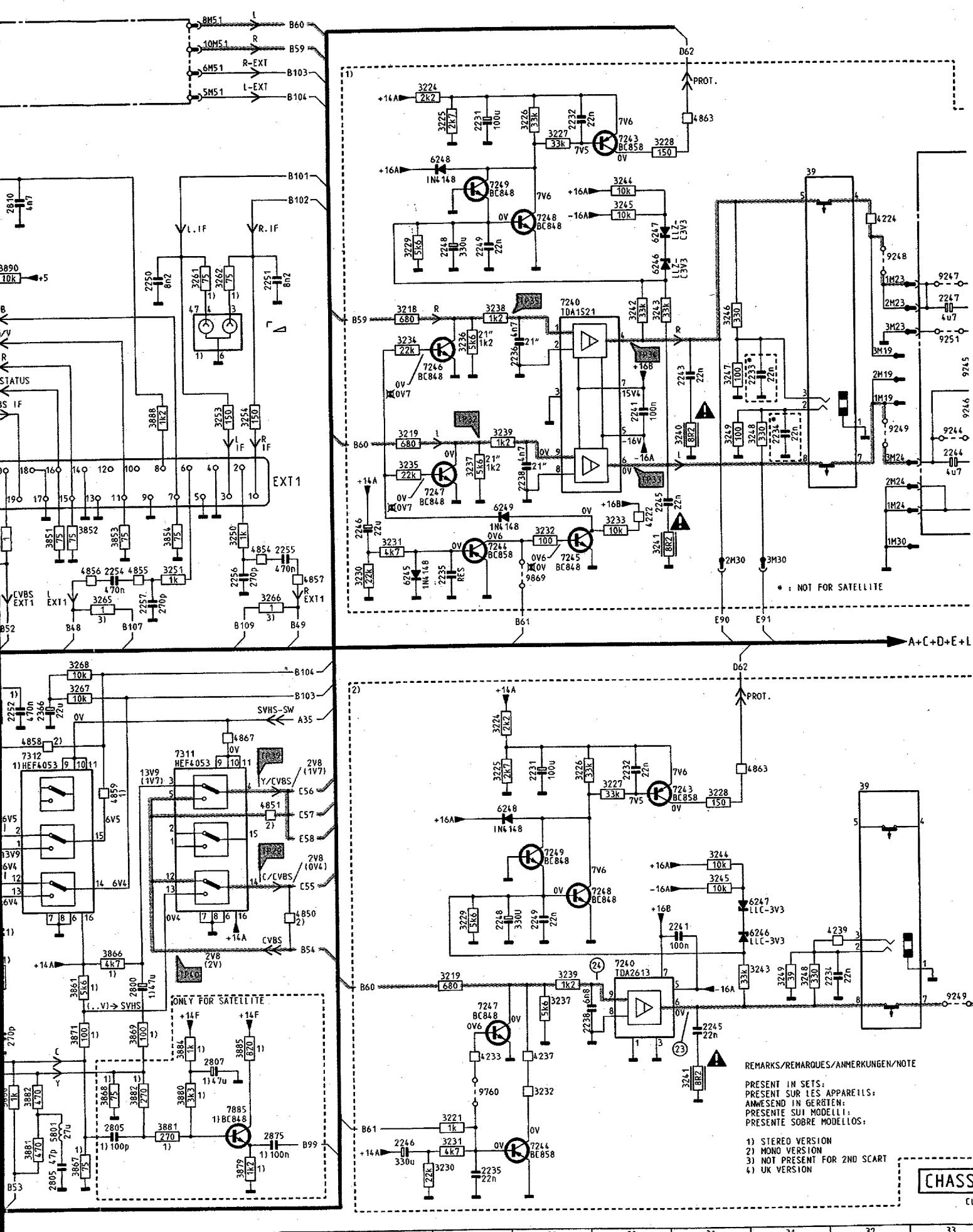
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H: STEREO/ESTEREO  
I: NICAM

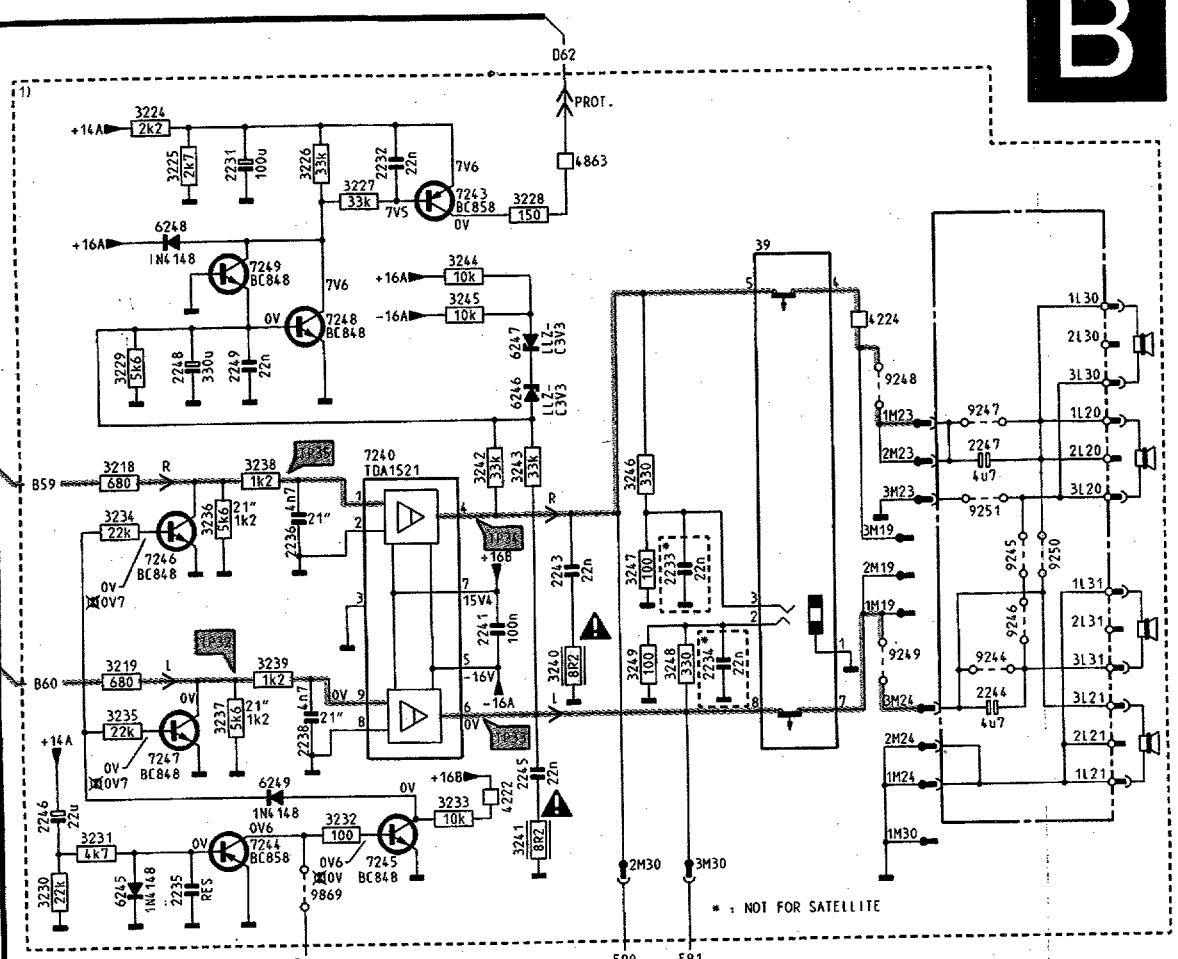


## **Sound / Ton / Son**

CHASSIS GR2.1

6.7





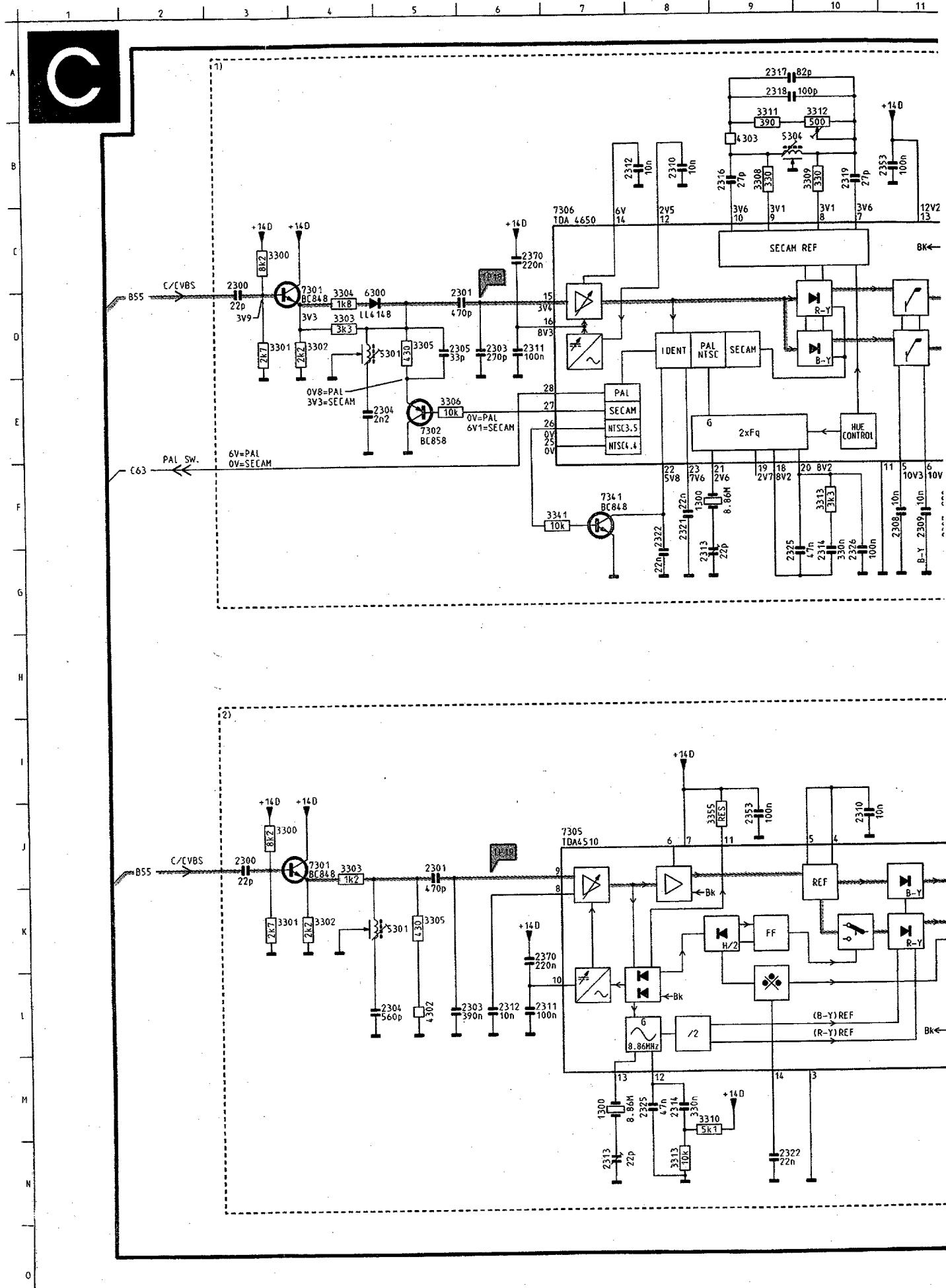
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A	1240	A 3	3229	C26	3887	B21
	1242	H 3	3230	D27	3888	F23
	2001	K 1	3230	H26	3889	C21
	2001	F 2	3231	D27	3890	D21
	2002	G 4	3232	G26	39	E31
	2003	H 4	3232	N28	39	J32
	2004	I 4	3232	G28	4222	G29
	2004	D 4	3233	G29	4223	A 4
B	2005	N 4	3234	E26	4224	C32
	2008	G 4	3235	F26	4233	N27
	2010	G 4	3236	E27	4237	N28
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	2232	J29	3238	D27	47	D24
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	2233	E31	3239	F27	4850	M12
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	2234	F31	3241	N30	4851	F13
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	2242	I 4	3248	H31	4857	H25
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	2244	F33	3249	H31	4859	J23
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	2246	G26	3252	F24	49	F21
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	2265	L21	3386	C20	6802	H15
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	2800	M23	3802	N15	7001	K 4
G	2801	L12	3803	N15	7002	K 3
	2802	L13	3804	L12	7003	G 3
	2803	L14	3805	L14	7240	L29
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	2807	F17	3811	I17	7245	G28
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	2809	O16	3814	F17	7247	F27
	2810	L13	3815	F17	7248	L29
	2810	C21	3816	N15	7248	C28
	2811	L14	3819	I12	7249	K28
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	2818	G15	3826	G16	7805	C21
K	2819	I18	3827	G17	7820	E15
	2820	F14	3828	H16	7821	G16
	2821	F13	3829	H16	7822	G17
	2822	H17	3830	G16	7823	F12
	2823	F13	3831	I16	7824	I17
	2831	I15	3832	I16	7885	N24
	2833	J12	3833	J12	7886	F20
	2834	J13	3834	I13	9244	F33
	2849	G21	3835	D12	9245	E33
	2875	O25	3836	J17	9246	F33
	3001	J 1	3837	E12	9247	D33
	3001	B 2	3838	I13	9248	D32
	3002	H 5	3849	F21	9249	F32
	3002	N 3	3850	E21	9249	M33
	3003	F 3	3851	G22	9250	E34
M	3004	J 2	3852	G22	9251	E33
	3005	K 5	3853	G23	9760	N27
	3006	J 3	3854	G23	9869	H28
	3007	K 5	3855	H21		
	3008	J 4	3856	E21		
	3009	J 5	3857	E21		
	3010	F 5	3858	D21		
	3011	N 5	3859	D21		
	3218	D26	3860	G21		
	3219	M27	3861	M22		
	3219	F26	3862	L23		
	3220	H 4	3867	O22		
	3221	N 27	3868	N22		
	3222	I 1	3869	N23		
	3224	I 27	3871	M22		
	3224	B27	3874	H20		
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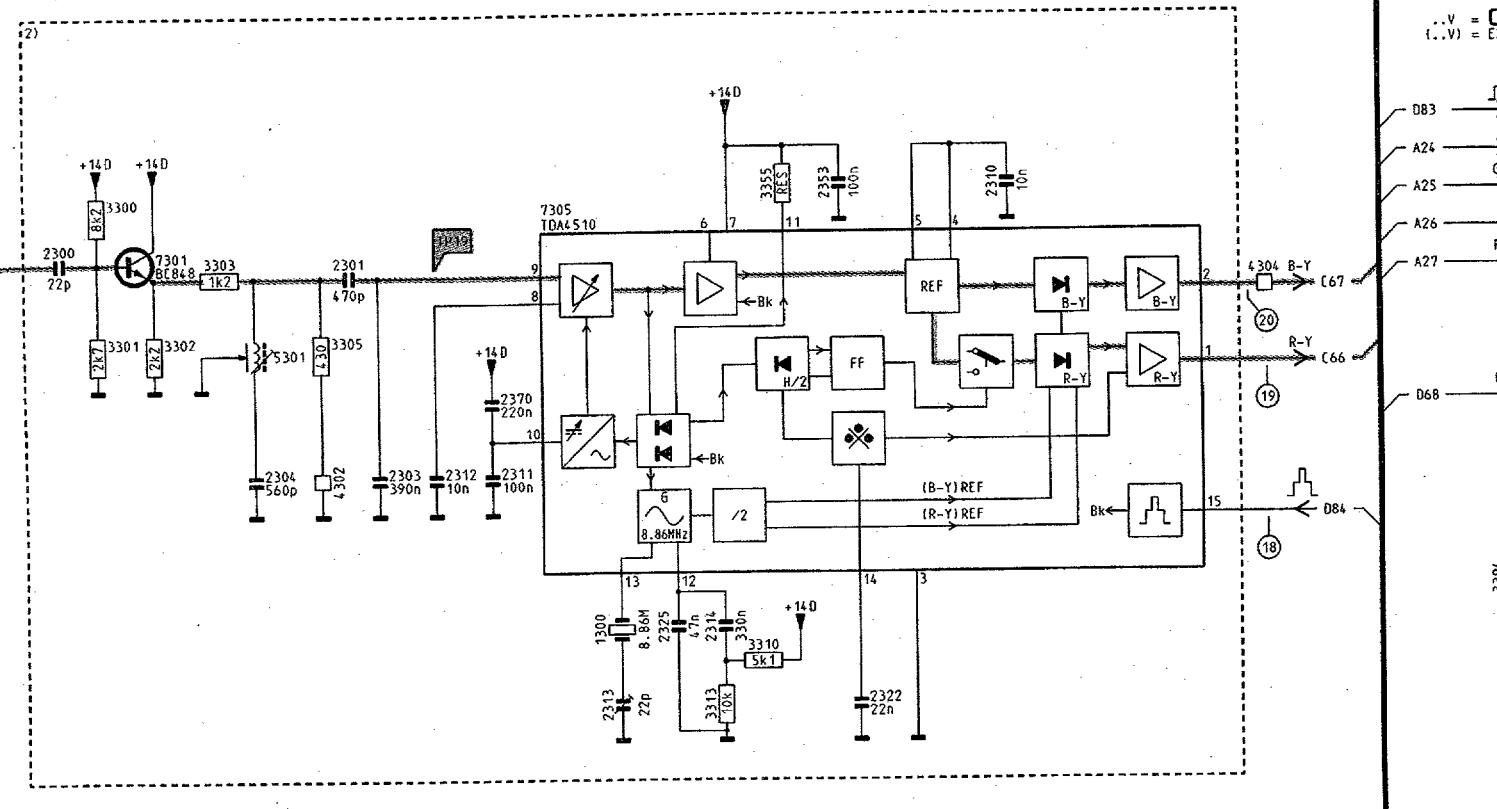
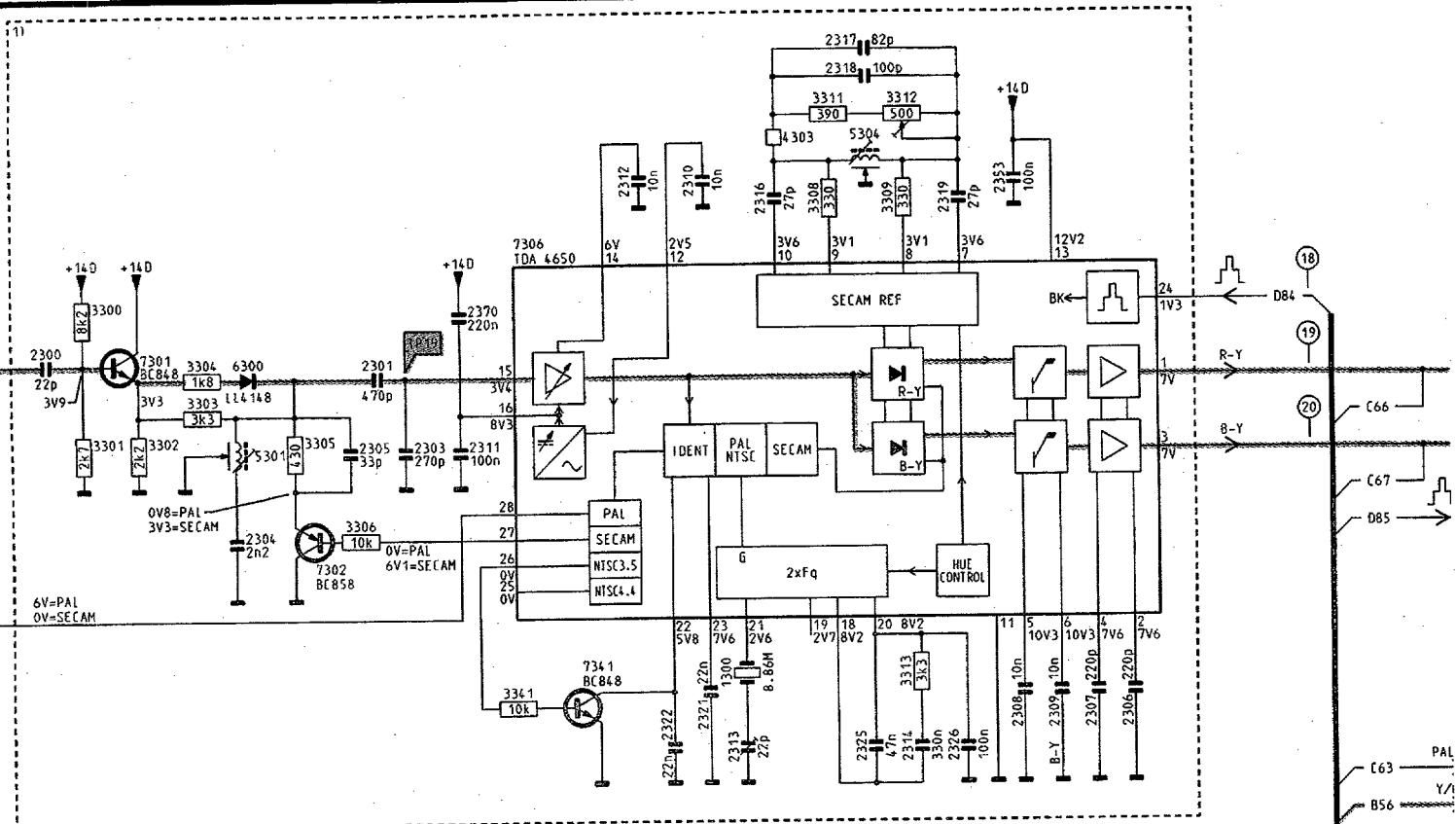
## REMARKS/REMARQUES/ANMERKUNGEN/NOTE

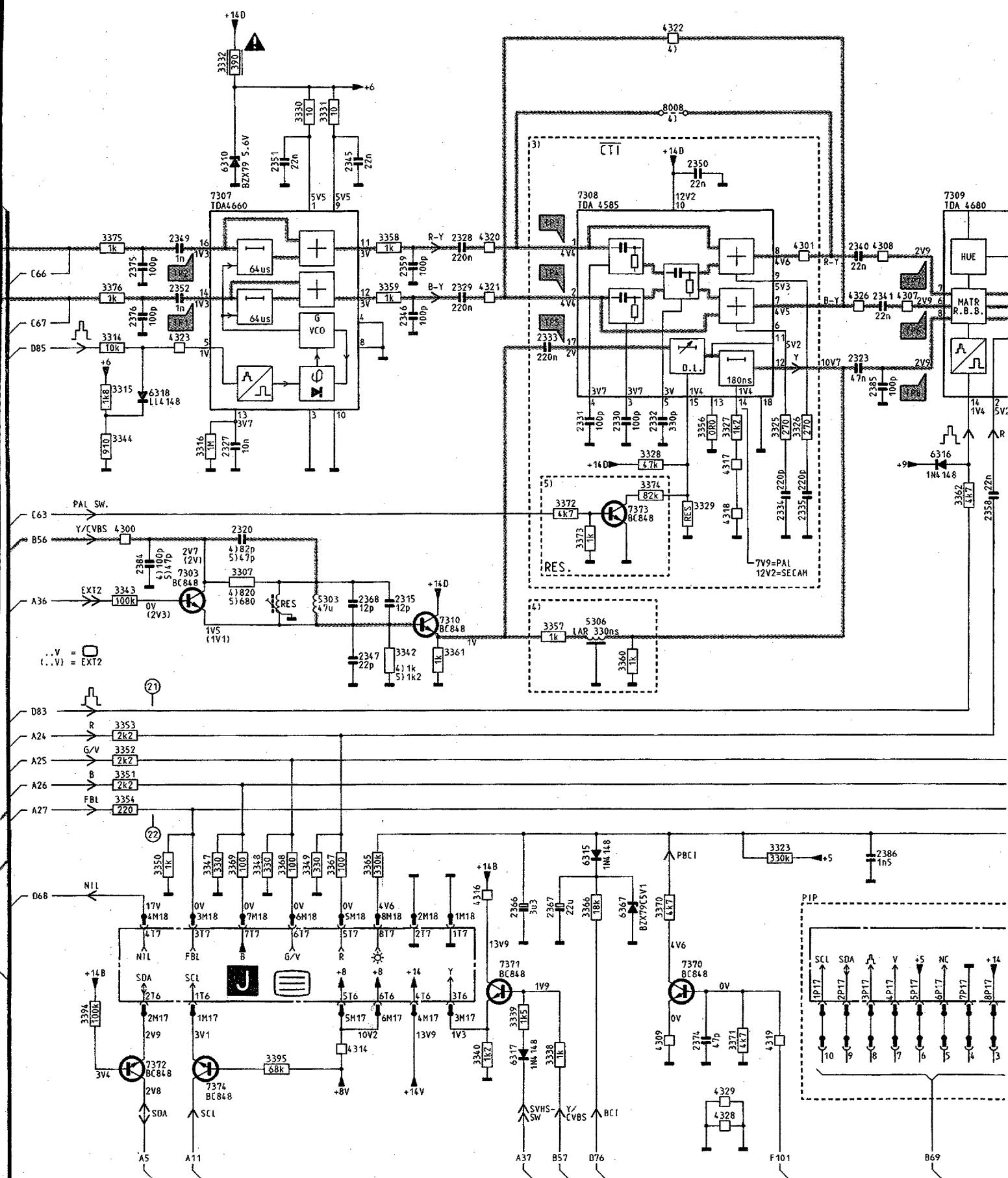
PRESENT IN SETS:  
PRESENT SUR LES APPAREILS:  
ANWENDEN IN GERÄTEN:  
PRESENTA SUI MODELLI:  
PRESENTA SOBRE MODELOS:  
1) STEREO VERSION  
2) MONO VERSION  
3) NOT PRESENT FOR 2ND SCART  
4) UK VERSION

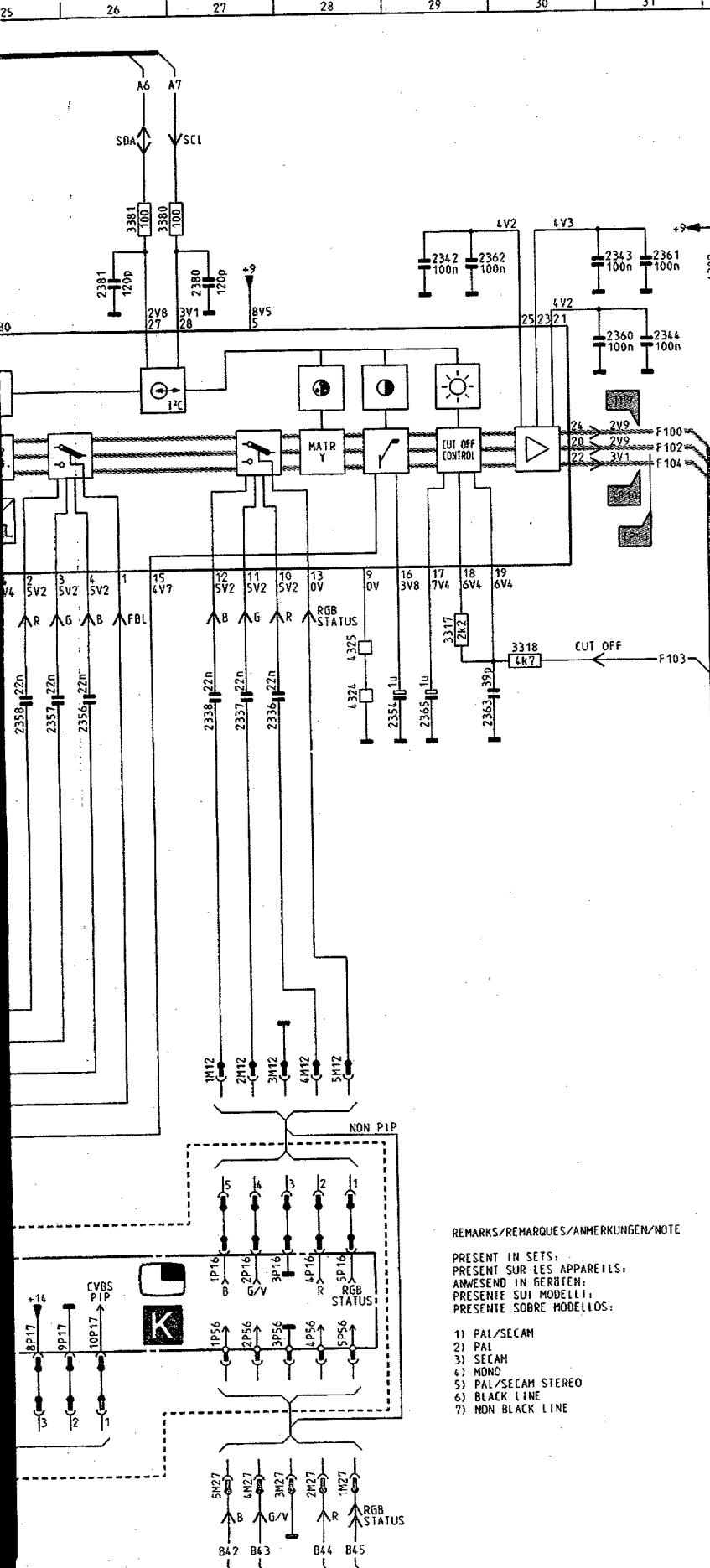
CHASSIS GR2.1

CL16532082/012, BREF  
22191





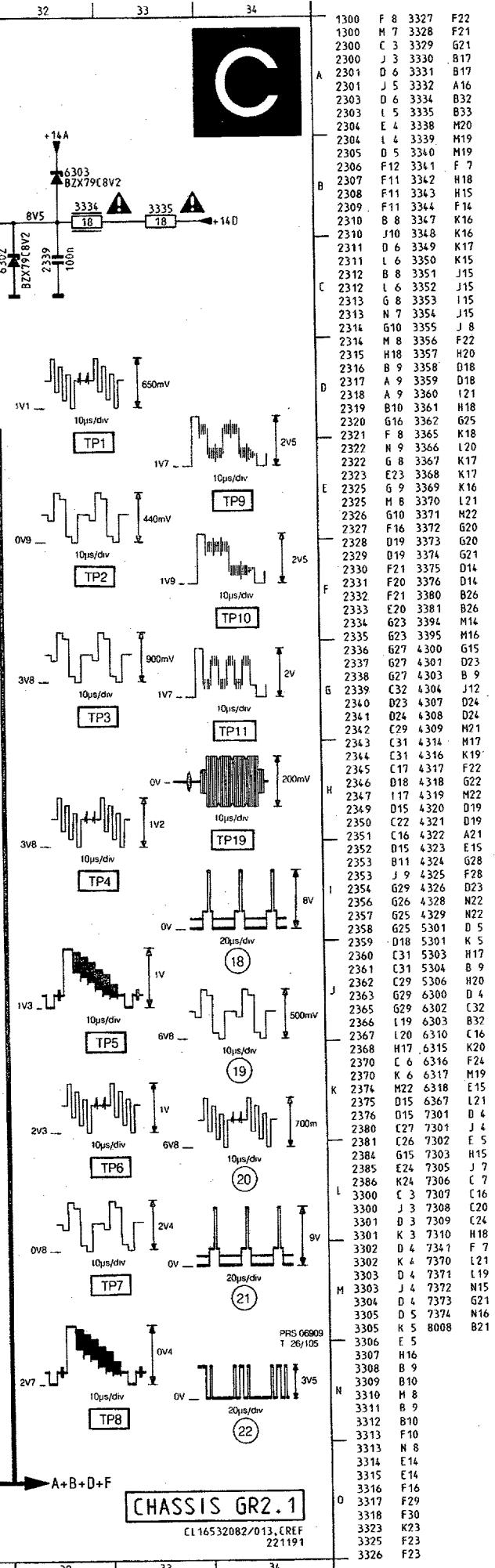




**REMARKS/REMARMES/ANMERKUNGEN/NOTE**

PRESENT IN SETS:  
PRESENT SUR LES APPAREILS:  
ANWESEND IN GERÄTEN:  
PRESENTE SUI MODELLI:  
PRESENTE SOBRE MODELLOS:

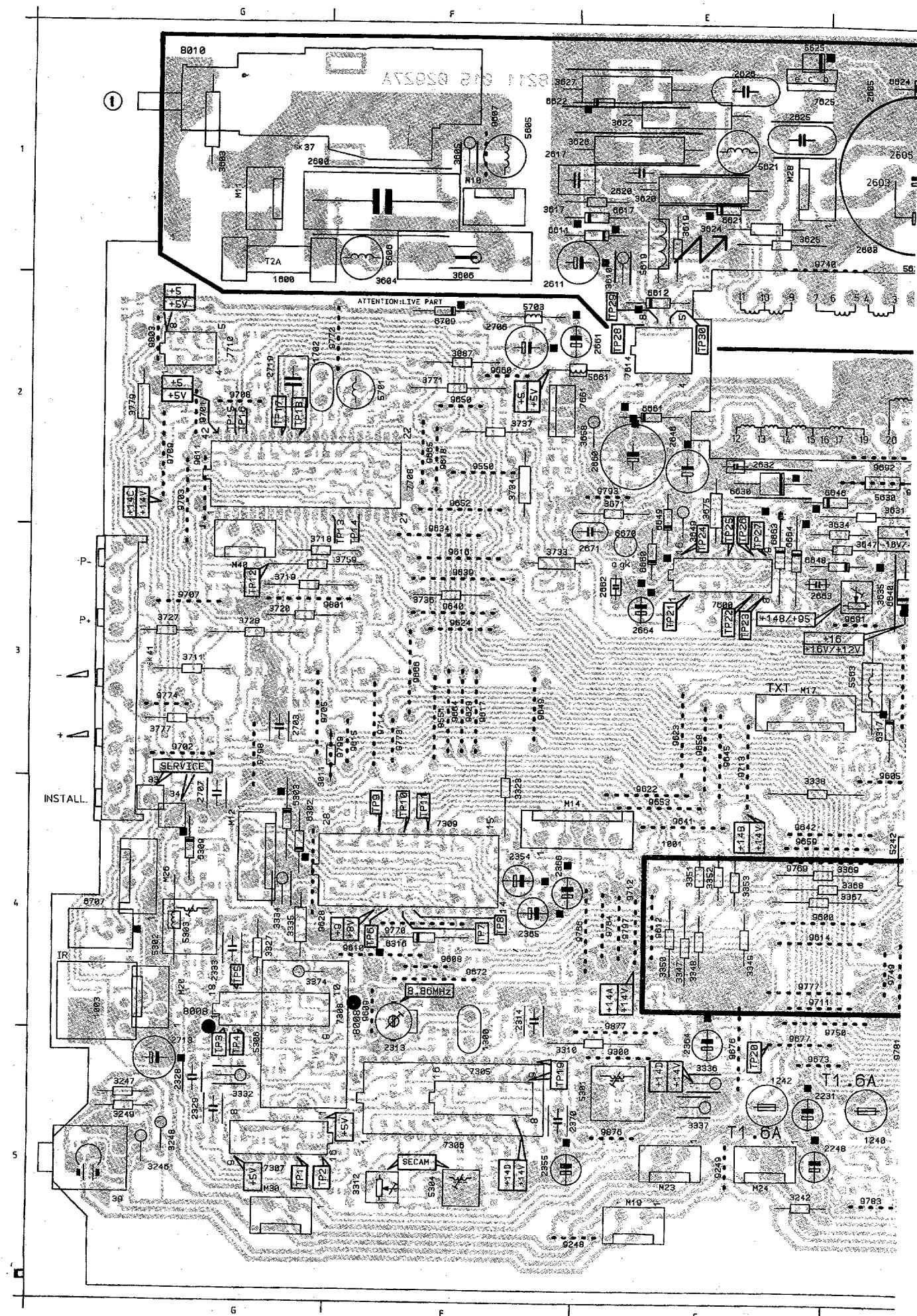
- 1) PAL/SECAM
  - 2) PAL
  - 3) SECAM
  - 4) MONO
  - 5) PAL/SECAM STEREO
  - 6) BLACK LINE
  - 7) NON BLACK LINE



## **Monocarrier / Hauptplatine / Châssis**

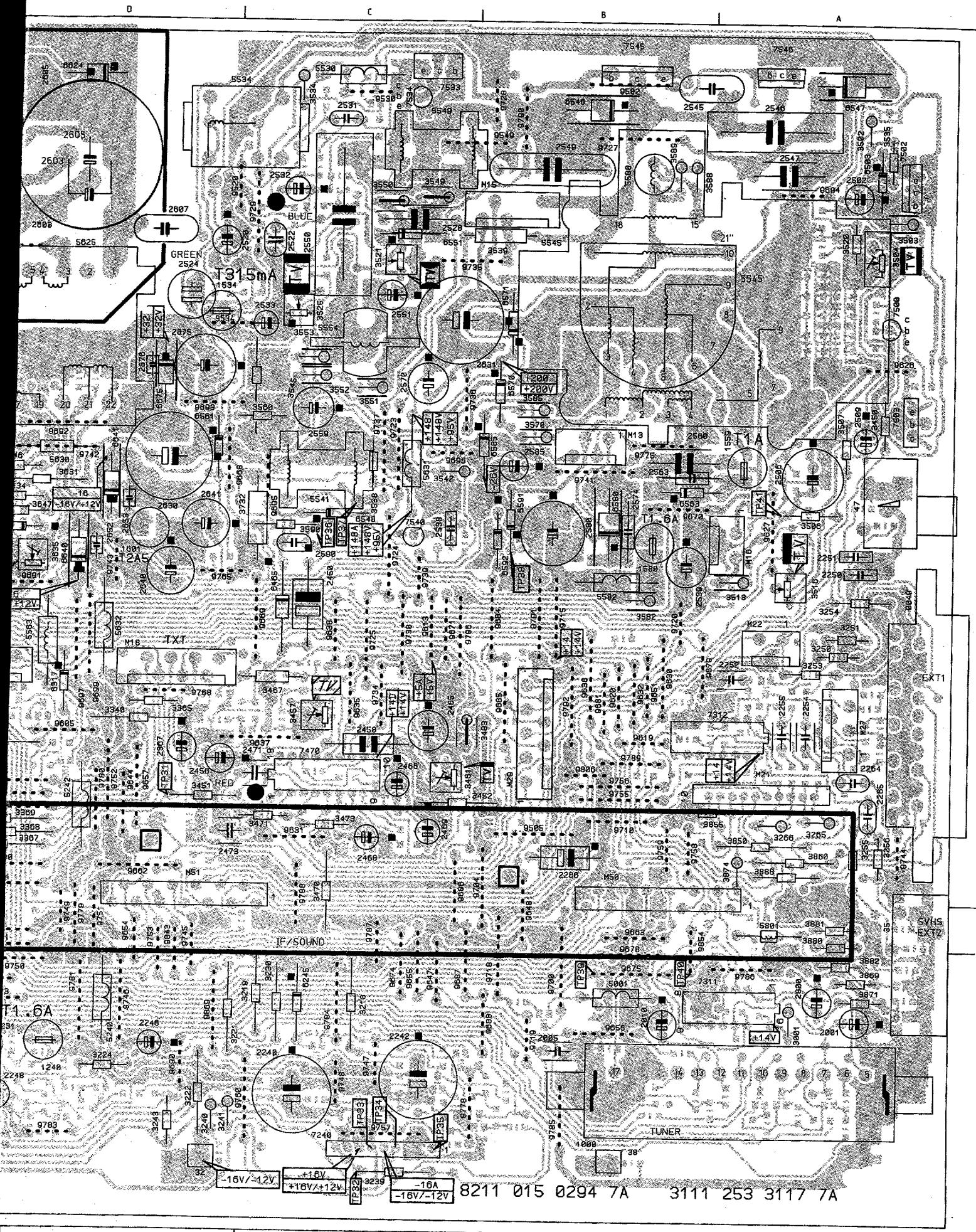
CHASSIS GR2.1

6.13



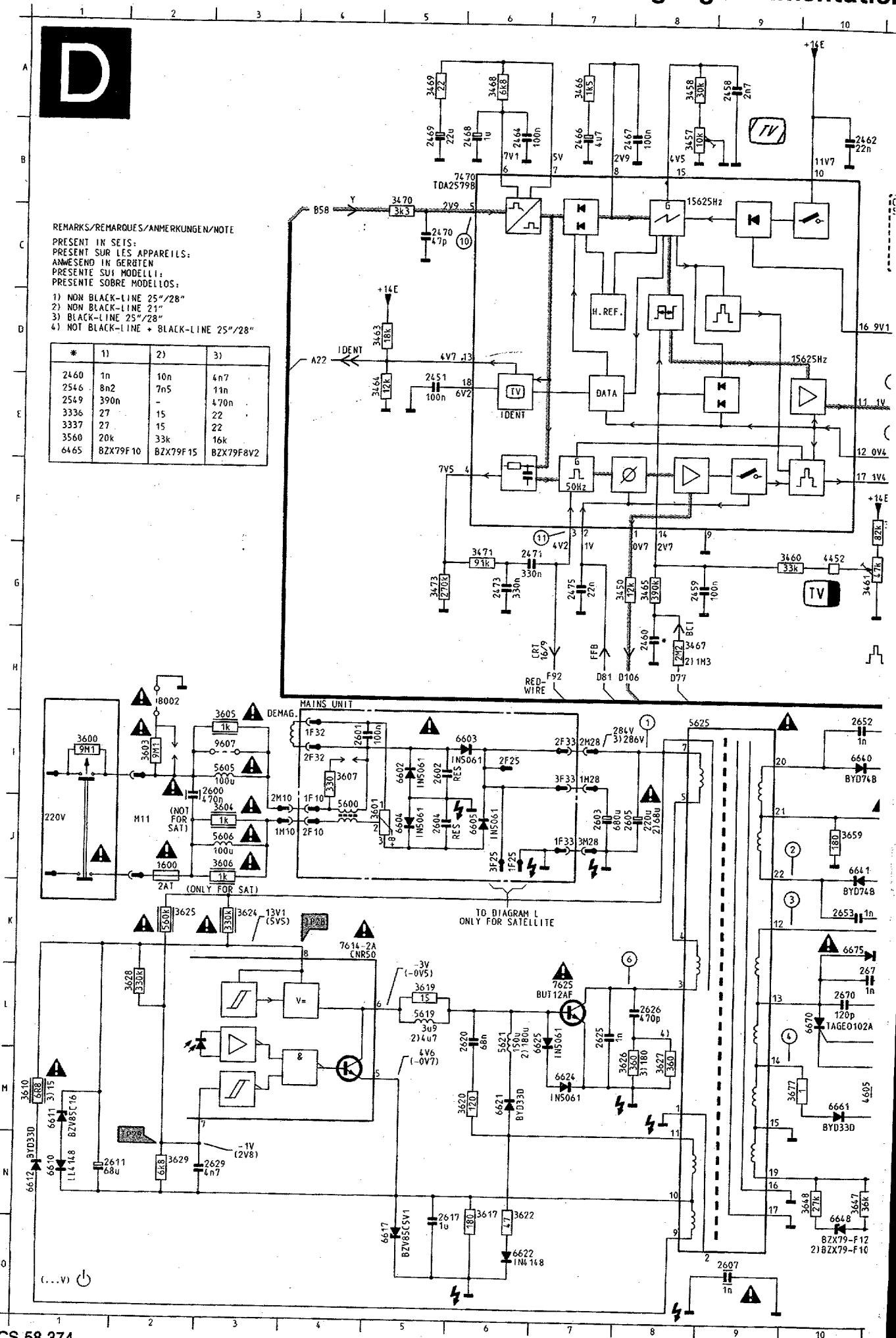
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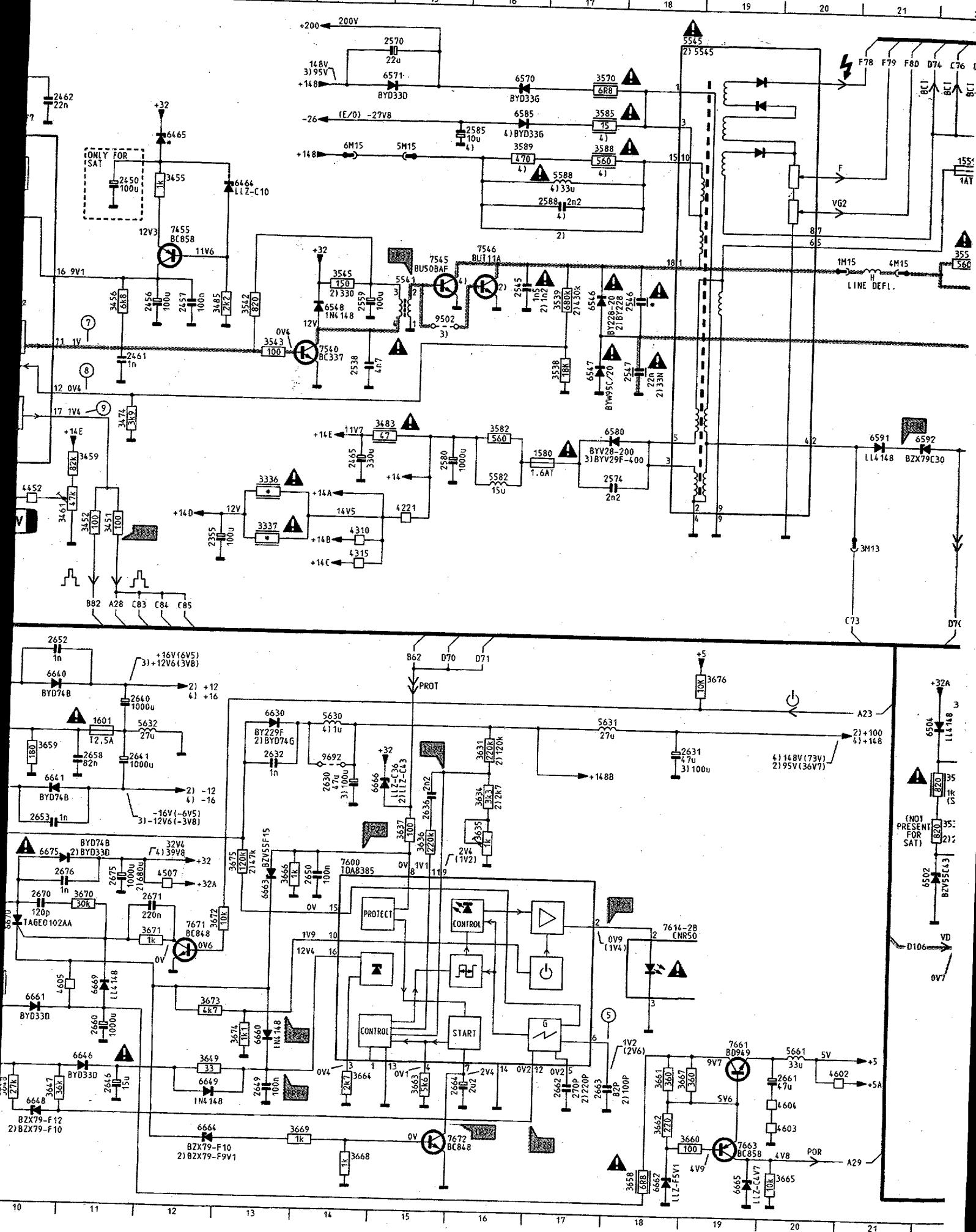
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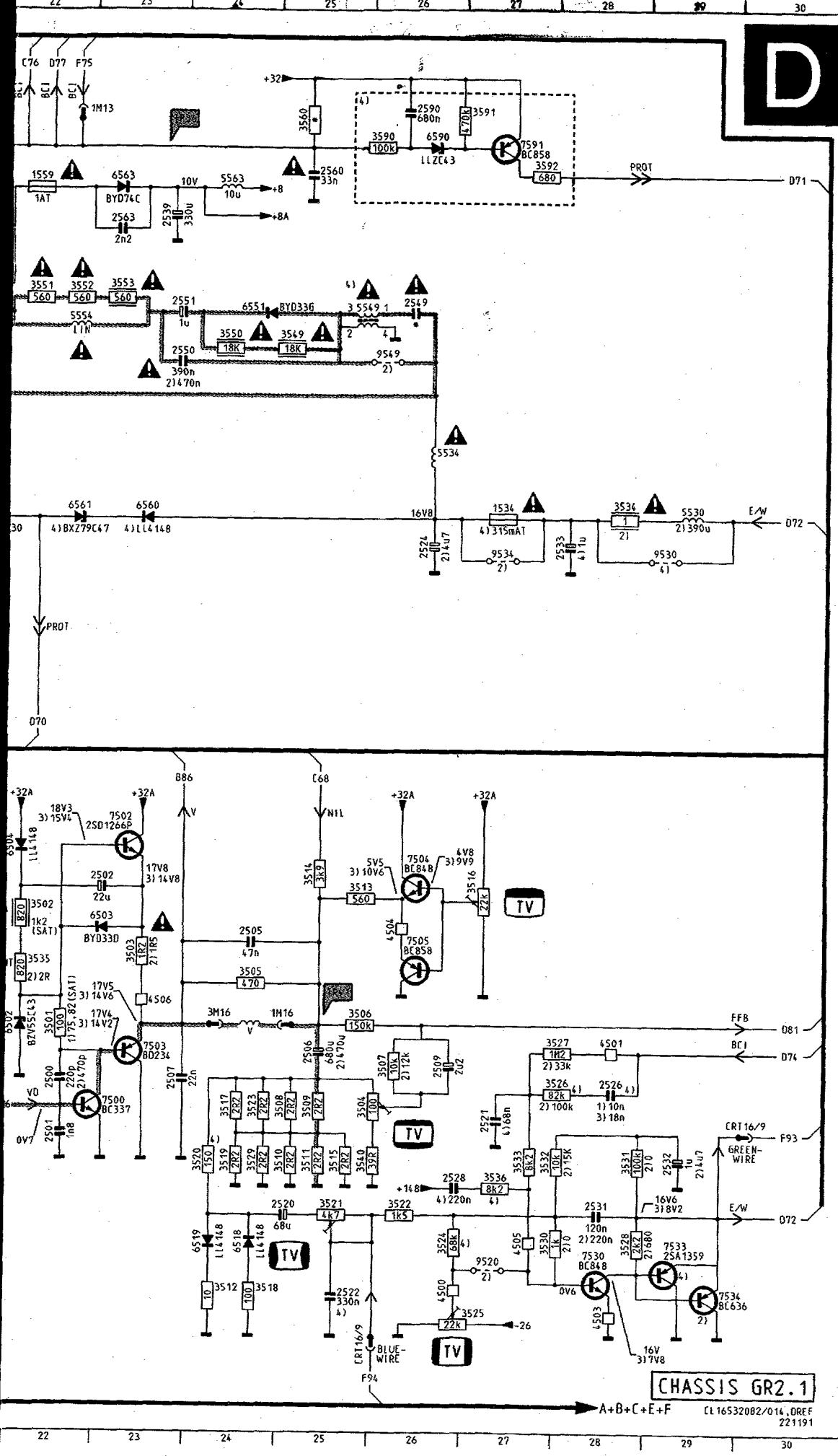
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M12 G4	2671 E3	3737 F2	9610 F4	9757 C5
M13 B2	2675 D2	3759 F3	9611 G2	9758 A4
M14 E4	2676 D2	3771 F2	9612 E4	9759 B4
M15 B1	2703 G3	3777 G3	9613 C3	9760 C5
M16 A3	2706 F2	3779 G2	9614 D4	9764 E4
M17 D3	2707 G4	3850 A4	9615 F3	9765 C3
M18 C3	2713 G5	3855 A4	9616 F3	9766 E4
M19 E5	2719 G2	3860 A4	9617 F3	9768 D3
M20 G5	2800 A5	3869 A5	9618 F2	9769 D4
M21 A4	3001 A5	3871 A5	9619 B4	9770 F4
M22 A3	3218 C5	3874 A4	9820 B3	9772 F2
M23 E5	3219 C5	3880 A4	9822 E4	9773 F3
M24 E5	3221 C5	3881 A4	9823 E3	9774 G3
M26 G4	3222 D5	3882 A5	9824 F3	9775 B2
M27 A4	3224 D5	3887 F2	9826 A2	9777 D4
M28 D1	3230 C5	3888 A4	9827 A3	9778 B5
M29 B3	3239 C5	5001 B5	9828 F4	9779 D4
M30 F5	3240 C5	5240 D5	9829 F3	9780 D4
M40 G3	3241 C5	5242 D4	9830 B3	9781 D5
M50 B4	3242 D5	5301 E5	9831 C4	9783 D5
M51 D4	3243 D5	5302 G4	9832 B3	9784 C5
0032 C5	3246 G5	5303 G4	9834 F3	9785 B5
0033 G4	3247 G5	5304 F5	9835 C3	9786 A5
0034 G4	3248 G5	5306 F4	9836 B3	9787 C4
0035 A5	3249 G5	5530 C1	9837 C4	9788 C4
0037 F1	3250 A3	5534 D1	9838 C3	9789 B4
0038 B5	3251 A3	5541 C2	9839 F3	9790 B1
0039 G5	3253 A3	5545 A2	9840 F3	9791 B3
0041 G3	3254 A3	5549 B1	9841 E4	9792 B3
0047 A3	3255 A4	5554 C2	9842 D4	9793 E2
0049 A4	3256 A4	5563 D3	9844 D4	9798 B3
1000 A5	3265 A4	5582 B3	9845 E3	9797 E4
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1300 F5	3323 F4	5619 E1	9849 F3	9803 G2
1534 C2	3327 G4	5621 E1	9850 F2	9806 B4
1559 A2	3332 G5	5625 D2	9851 B3	9843 D5
1580 B3	3334 G4	5630 D2	9852 F3	9854 A4
1600 G2	3335 F4	5631 C2	9853 E4	9869 C5
1801 D3	3336 E5	5632 D3	9854 D4	9876 E5
1702 F2	3337 E5	5661 E2	9855 C5	9877 E5
2001 A5	3338 D4	5701 F2	9856 B5	
2231 D5	3340 D4	5703 F2	9857 D4	
2240 C5	3347 E4	5801 A4	9858 E3	
2242 C5	3348 E4	6245 C5	9859 D4	
2246 D5	3349 E4	6302 F4	9860 F2	
2248 D5	3350 E4	6303 G4	9862 D4	
2250 A3	3351 E4	6309 G4	9863 B4	
2251 A3	3352 E4	6316 F4	9864 F3	
2252 A3	3353 E4	6317 D3	9865 F2	
2254 A4	3365 D3	6465 C3	9866 F3	
2255 A4	3367 D4	6503 A1	9868 C2	
2284 A4	3368 D4	6546 B1	9869 C3	
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2286 B4	3374 F4	6548 C3	9871 B3	
2313 F5	3450 A2	6551 C1	9872 F4	
2314 E5	3451 C4	6561 C2	9873 D5	
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2329 G5	3457 C4	6570 B2	9875 B5	
2333 G4	3461 C4	6571 B2	9876 E5	
2354 F4	3467 C3	6580 B3	9877 D5	
2355 E5	3470 C4	6585 B2	9878 B5	
2364 E5	3471 C4	6591 B3	9879 A3	
2365 F4	3473 C4	6592 B3	9881 B3	
2366 E4	3483 B4	6611 E1	9884 B3	
2367 D4	3502 A1	6612 E2	9885 B3	
2370 E5	3503 A1	6617 E1	9886 B4	
2450 C3	3504 A2	6621 E1	9887 B5	
2456 C4	3506 A3	6622 E1	9888 B5	
2458 C4	3507 A2	6624 D1	9890 D5	
2485 C4	3513 A3	6625 D1	9891 D3	
2486 C4	3516 A3	6630 E2	9892 D2	
2488 C4	3520 A2	6640 D3	9893 C2	
2489 C4	3521 C2	6641 D3	9894 A1	
2471 C4	3525 C2	6648 D2	9895 C3	
2473 C4	3534 C1	6648 D3	9896 B2	
2502 A1	3535 A1	6649 E3	9897 D3	
2506 A3	3538 C2	6660 E3	9899 D3	
2509 A2	3539 B2	6661 F2	9700 B5	
2520 C2	3542 B2	6663 E3	9701 G2	
2522 C2	3545 C2	6664 D3	9702 G4	
2524 D2	3549 C1	6670 E3	9703 G2	
2528 C1	3550 C1	6675 D2	9704 B4	
2531 C1	3551 C2	6707 G4	9705 F3	
2532 C1	3552 C2	6709 F2	9707 G3	
2533 C2	3553 C2	7240 C5	9708 G2	
2538 B3	3560 C2	7305 F5	9709 G2	
2539 A3	3570 B2	7306 F5	9710 B4	
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2546 A1	3585 B2	7308 G5	9712 E4	
2547 A1	3588 A1	7309 F4	9713 E4	
2550 C1	3589 B1	7311 A5	9714 F3	
2551 C2	3590 C3	7312 A4	9715 B3	
2559 C2	3603 G1	7470 C4	9718 B5	
2560 B2	3604 F2	7500 A2	9719 B5	
2563 A3	3605 F1	7502 A1	9720 A3	
2570 C2	3606 F2	7503 A2	9723 C2	
2574 B3	3610 E2	7533 C1	9724 C3	
2580 B3	3617 E1	7534 C1	9725 C3	
2585 B2	3619 E1	7540 C3	9727 B1	
2590 C3	3622 E1	7545 B1	9728 B1	
2600 F1	3624 E1	7600 E3	9729 C1	
2603 D1	3625 E1	7614 E2	9734 C3	
2605 D1	3626 E1	7625 D1	9736 B2	
2607 D1	3627 E1	7661 E2	9737 C2	
2611 E2	3631 D3	7708 G3	9738 C3	
2617 E1	3634 D3	7710 G2	9739 C3	
2620 E1	3635 D3	9248 E5	9740 D2	
2625 D1	3647 D3	9249 E5	9741 B2	
2828 E1	3849 E3	9300 E5	9742 D2	
2630 D2	3658 E2	9502 B1	9743 D3	
2631 C2	3671 E3	9505 B4	9744 A4	
2632 E2	3675 E3	9520 C1	9745 D4	
2640 D3	3711 G3	9530 C1	9746 D5	
2641 D3	3718 F3	9534 C2	9747 C5	
2646 E2	3719 F3	9549 B1	9748 C5	
2652 D3	3720 F3	9550 F2	9749 D4	
2653 D3	3727 G3	9551 F3	9750 D5	
2660 E2	3728 G3	9600 D4	9751 D4	
2661 E2	3732 C3	9605 D4	9752 D4	
2662 E3	3733 E3	9607 F1	9753 D5	

SVHS  
EXT12





# Synchronization / Synchronisation



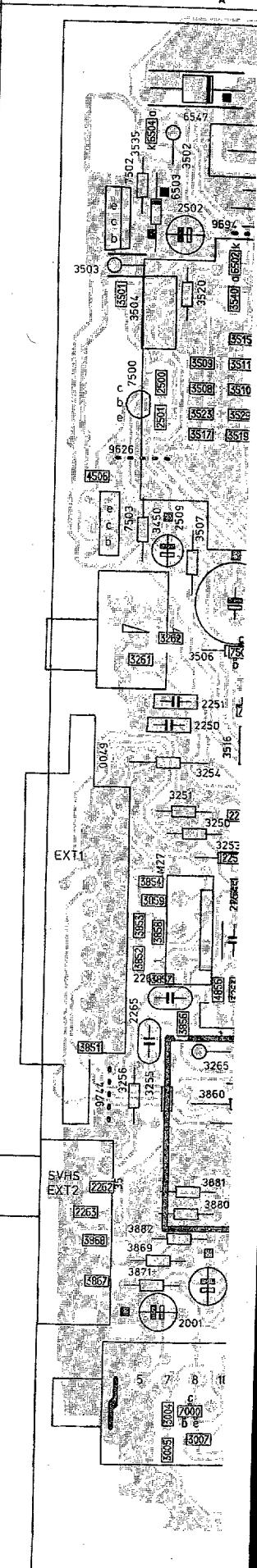
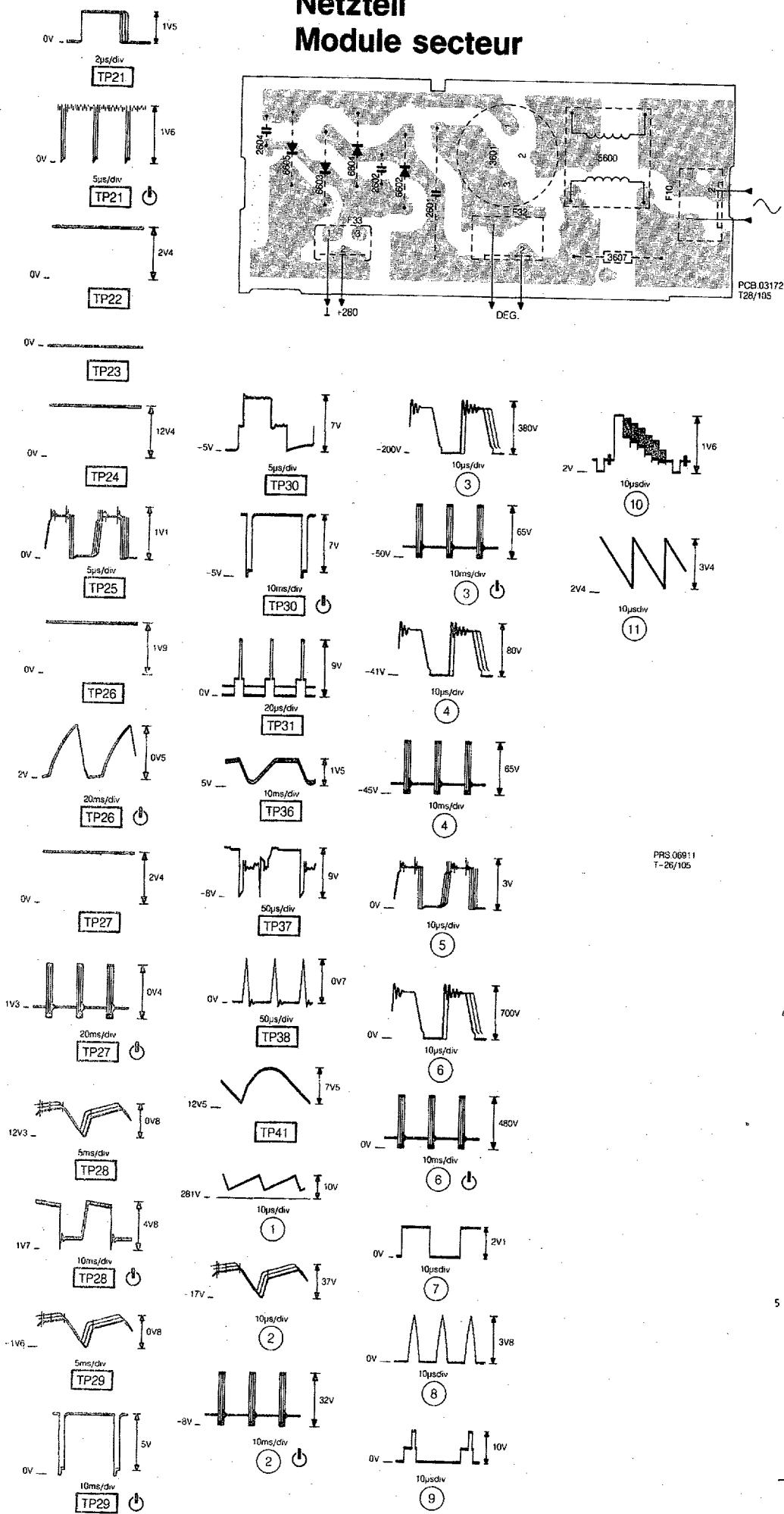
**CHASSIS GR2.1**

EL 16532082/014, DREF  
221191

## **Mains module Netzteil Module secteur**

CHASSIS GR2.1

6.19

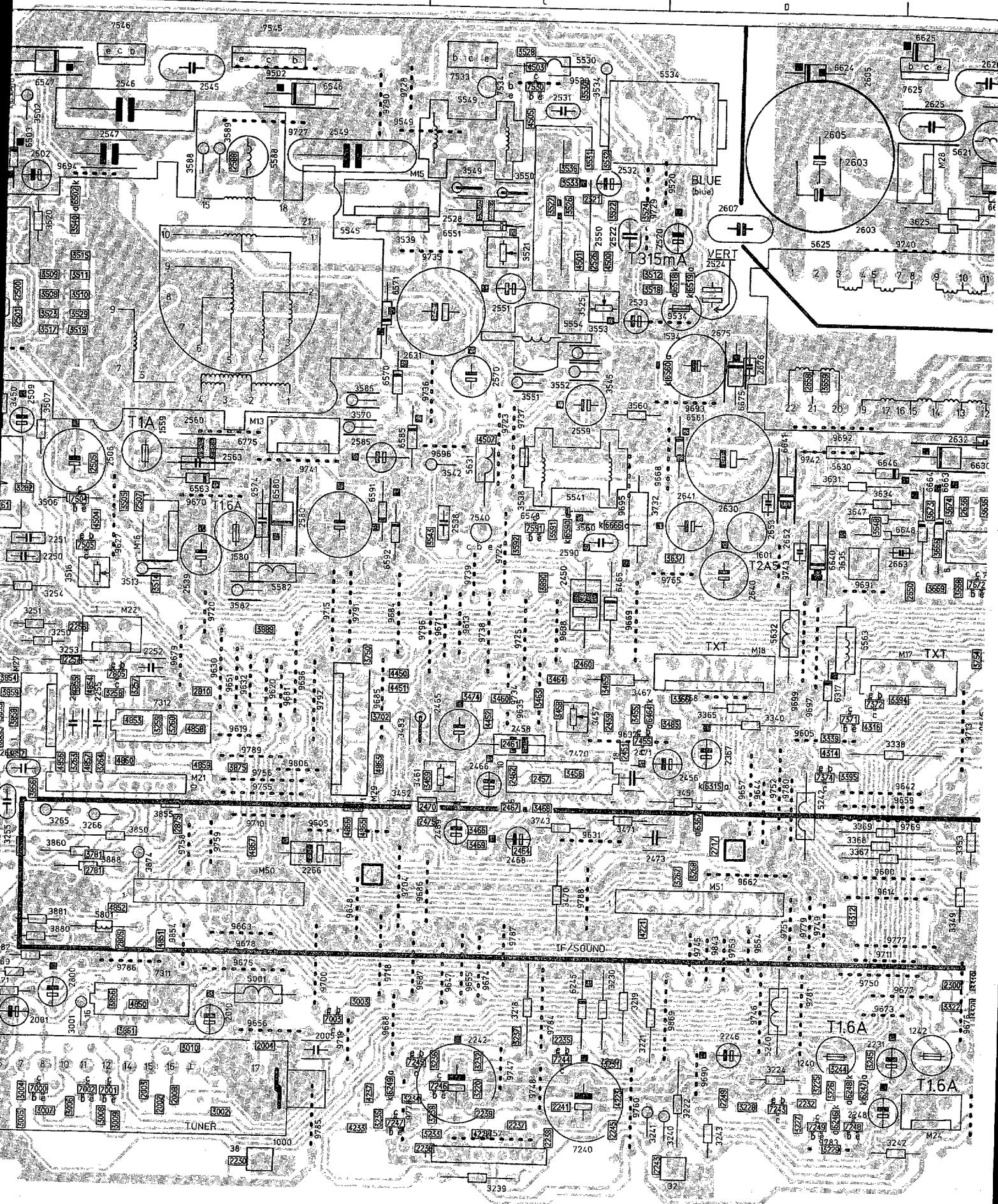


6.19

6.20

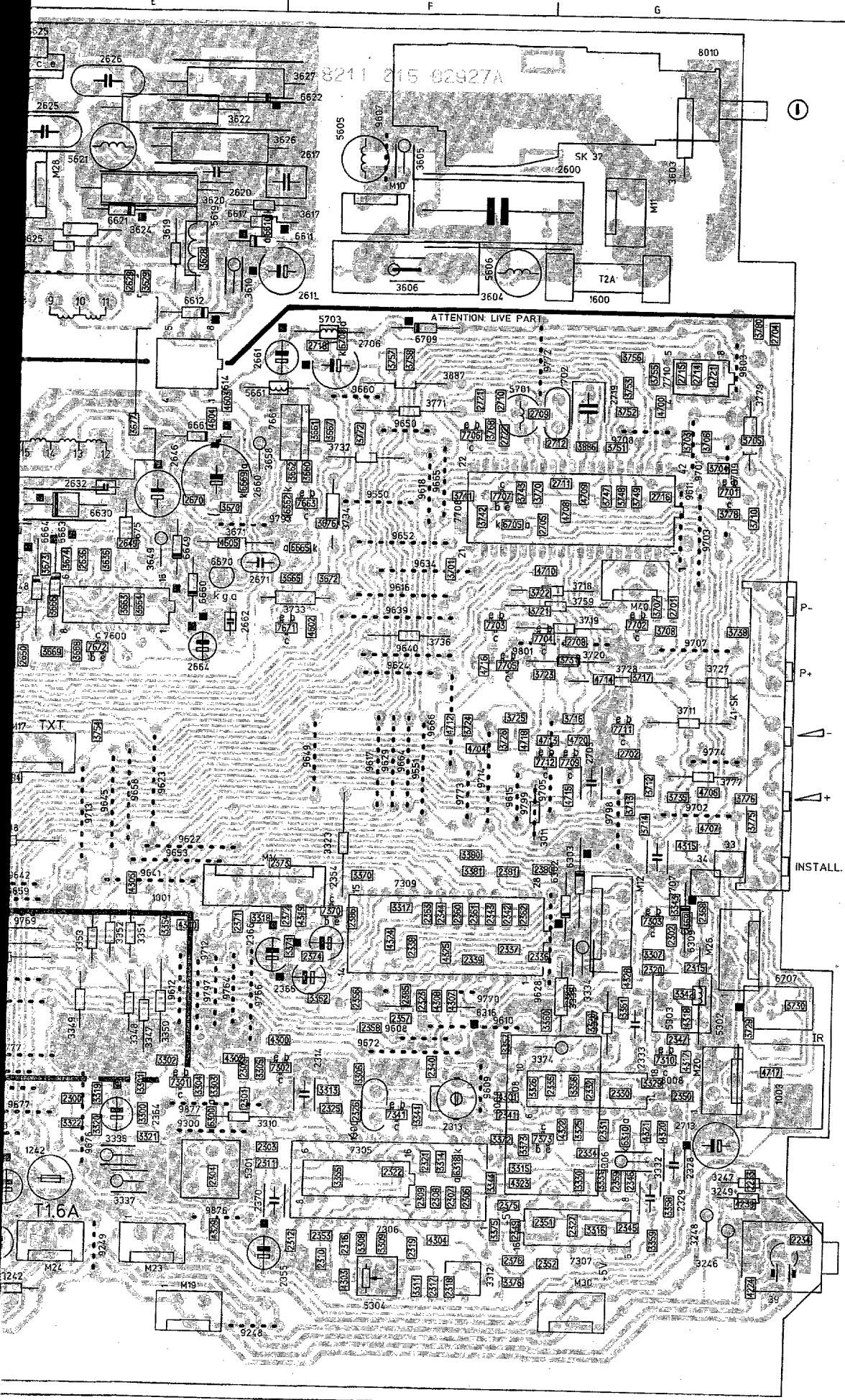
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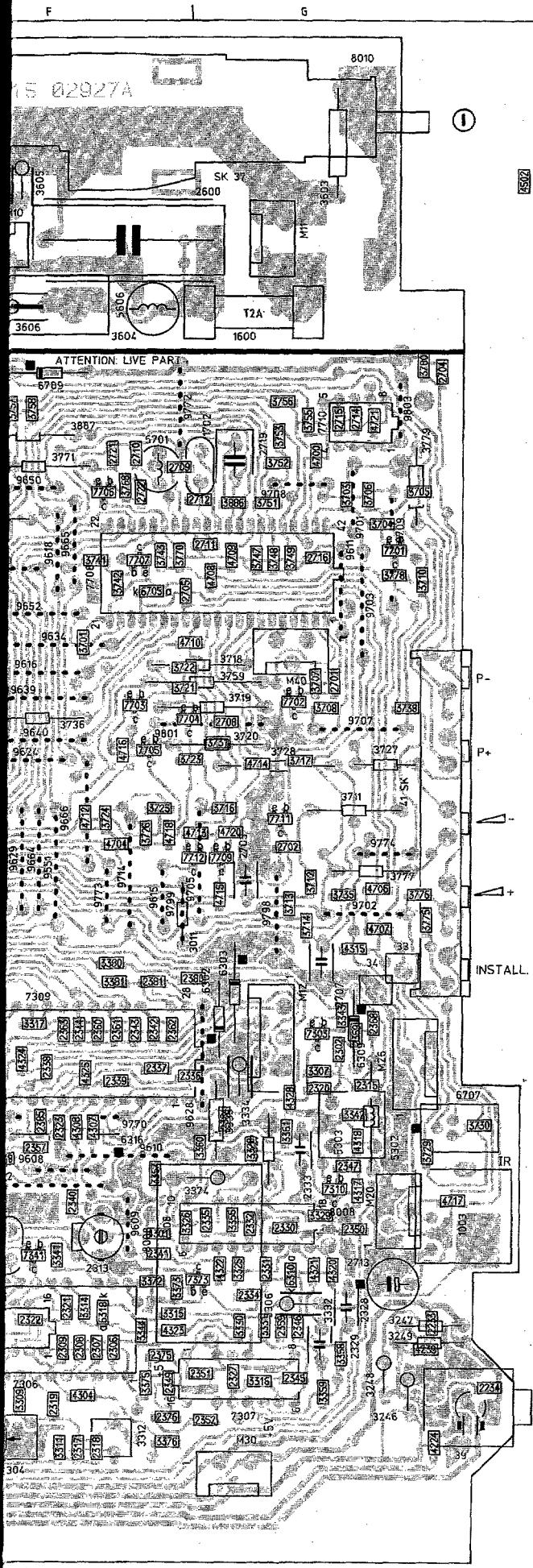
## **Monocarrier / Hauptplatine / Châssis**



CHASSIS GR2.1

6.2





**CHASSIS GR2.1**

6.21

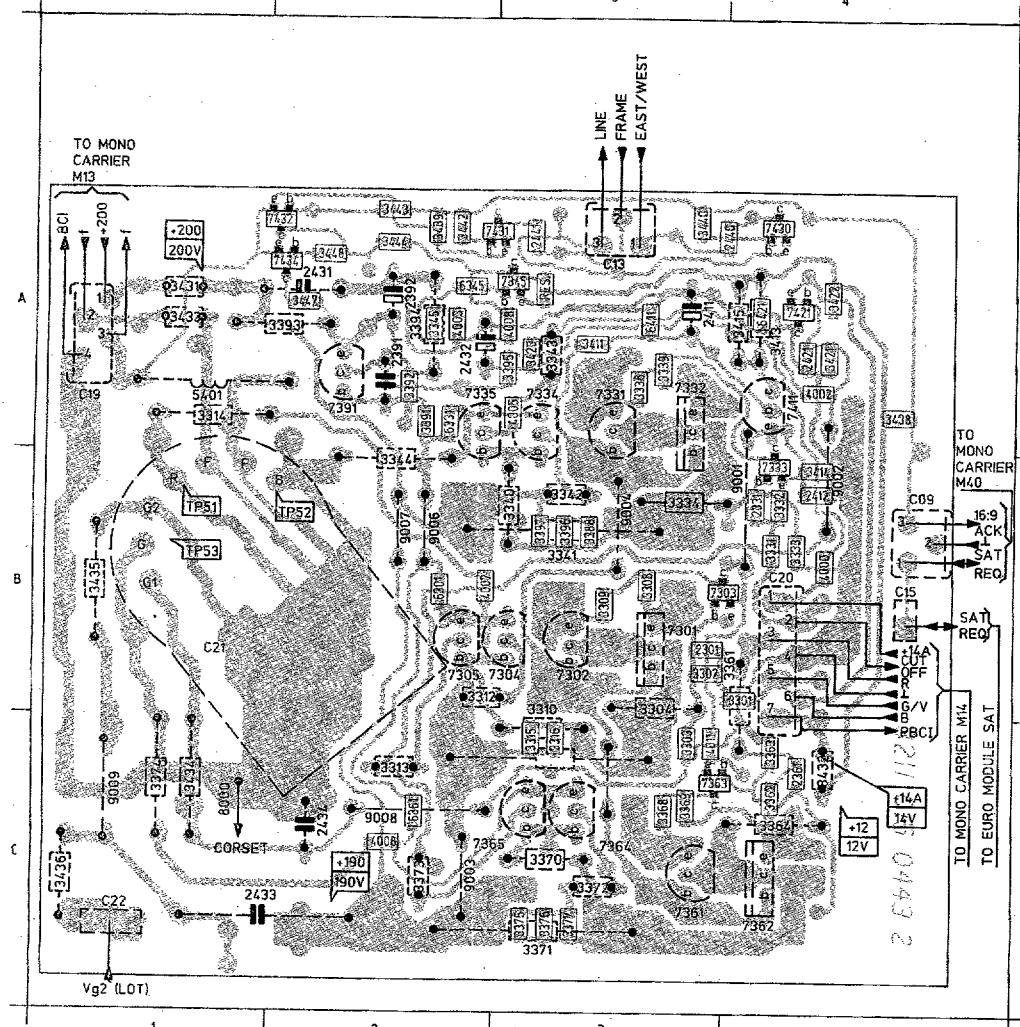
CHASSIS GB2 1

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M12 G4	2350 G5	2711 F2	3354 E4	3648 D3	4307 F4	6580 B3	9624 F3	9775 B2
M13 B2	2351 F5	2712 F2	3355 F5	3649 E3	4308 F4	6585 B2	9626 A2	9777 D4
M14 E4	2352 F5	2713 G5	3356 F5	3658 E2	4310 E4	6590 C3	9627 A3	9778 B5
M15 B1	2353 F5	2714 G2	3357 F4	3659 D2	4312 D4	6591 B3	9628 F4	9779 D4
M16 A3	2354 F4	2715 G2	3358 G5	3660 E2	4314 D4	6592 B3	9629 F3	9780 D4
M17 D3	2355 E5	2716 G2	3359 G5	3661 E2	4315 G4	6610 E1	9630 B3	9781 D5
M18 C3	2356 F4	2717 D4	3360 F4	3662 E2	4316 G4	6611 E1	9631 C4	9783 D5
M19 E5	2357 F4	2718 E2	3361 G4	3663 E2	4317 G4	6612 E2	9632 B3	9784 C5
M20 G5	2358 F4	2719 G2	3362 F4	3664 E3	4318 G4	6617 E1	9634 F3	9785 B5
M21 A4	2359 G5	2721 F2	3365 D3	3665 E3	4319 E4	6621 E1	9635 C3	9786 A5
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M23 E5	2361 F4	2781 A4	3367 D4	3667 F2	4321 G5	6624 D1	9637 C4	9788 C4
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M26 G4	2363 F4	2805 A4	3369 D4	3669 E3	4323 G5	6630 E2	9639 F3	9790 B1
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M28 D1	2365 F4	2875 A4	3371 E4	3671 E3	4325 F4	6641 D3	9641 E4	9792 B3
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M30 F5	2367 D4	3002 B5	3373 F5	3673 D3	4329 E5	6648 D3	9644 D4	9798 B3
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M51 D4	2370 E5	3005 A5	3376 F5	3676 F2	4345 C4	6661 E2	9647 B5	9799 F3
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0035 A5	2374 F4	3009 A5	3395 D4	3703 G2	4503 C1	6665 E3	9651 B3	9843 D5
0037 F1	2375 F5	3010 A5	3450 A2	3704 G2	4504 A3	6666 C3	9652 F3	9854 A4
0038 B5	2376 F5	3218 C5	3451 C4	3705 G2	4505 C2	6669 E2	9653 E4	9869 C5
0039 G5	2380 F4	3219 C5	3452 B4	3706 G2	4506 A2	6670 E3	9654 D4	9876 E5
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1000 A5	2388 F4	3224 D5	3458 C3	3711 G3	4604 E2	6708 F2	9658 E3	
1003 G5	2450 C3	3225 D5	3459 B4	3712 G3	4605 E3	6709 F2	9659 D4	
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1534 C2	2458 C4	3229 D5	3464 C3	3717 G3	4707 G4	7003 B5	9664 F3	
1559 A2	2459 C4	3230 C5	3465 C3	3718 F3	4708 F2	7240 C5	9665 F2	
1580 B3	2460 C3	3231 C5	3466 C4	3719 F3	4709 F2	7243 D5	9666 F3	
1600 G2	2461 C3	3232 C5	3467 C3	3720 F3	4710 F3	7244 C5	9668 C2	
1601 D3	2462 C4	3233 B5	3468 C4	3721 F3	4712 F3	7245 B5	9669 C3	
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2001 A5	2465 C4	3235 B5	3470 C4	3723 F3	4714 G3	7247 B5	9671 B3	
2002 A5	2466 C4	3236 B5	3471 C4	3724 F3	4715 F3	7248 D5	9672 F4	
2003 A5	2467 C4	3237 C5	3473 C4	3725 F3	4716 F3	7249 D5	9673 D5	
2004 B5	2468 C4	3238 B5	3474 C3	3726 F3	4717 G4	7301 E5	9674 C5	
2008 A5	2469 C4	3239 C5	3483 B4	3727 G3	4718 F3	7302 E4	9675 B5	
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2231 D5	2471 C4	3241 C5	3501 A2	3729 G4	4721 G2	7305 F5	9677 D5	
2232 D5	2473 C4	3242 D5	3502 A1	3730 G4	4850 A5	7306 F5	9678 B5	
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2237 C5	2505 A3	3246 G5	3506 A3	3734 F2	4854 A3	7310 G4	9685 B3	
2238 C5	2506 A3	3247 G5	3507 A2	3735 G3	4855 A3	7311 A5	9686 B4	
2239 C5	2508 A3	3248 G5	3508 A2	3736 F3	4856 A4	7312 A4	9687 B5	
2240 C5	2509 A2	3250 A3	3510 A2	3737 G3	4858 A4	7370 F4	9690 D5	
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2242 C5	2521 C1	3253 A3	3512 C2	3742 F2	4860 A4	7372 D3	9692 D2	
2243 C5	2522 C2	3254 A3	3513 A3	3743 F2	4862 B4	7373 F5	9693 C2	
2245 C5	2524 D2	3255 A4	3514 A2	3747 G2	4863 B4	7374 D4	9694 A1	
2246 D5	2526 C2	3256 A4	3515 A2	3748 G2	4865 B4	7455 C4	9695 C3	
2248 D5	2528 C1	3257 A3	3516 A3	3749 G2	4866 B4	7470 C4	9696 B2	
2249 D5	2531 C1	3258 A3	3517 A2	3750 B3	4867 B4	7500 A2	9697 D3	
2250 A3	2532 C1	3259 A4	3518 C2	3751 G2	5001 B5	7502 A1	9699 D3	
2251 A3	2533 C2	3260 A4	3519 A2	3752 G2	5240 D5	7503 A2	9700 B5	
2252 A3	2538 B3	3261 A3	3520 A2	3753 G2	5242 D4	7504 A3	9701 G2	
2254 A4	2539 A3	3262 A3	3521 C2	3754 E3	5301 E5	7505 A3	9702 G4	
2255 A4	2545 A1	3263 A4	3522 C1	3755 G2	5302 G4	7530 C1	9703 G2	
2256 A3	2546 A1	3264 A4	3523 A2	3756 G2	5303 G4	7533 C1	9704 B4	
2257 A3	2547 A1	3265 A4	3524 C1	3757 F2	5304 F5	7534 C1	9705 F3	
2262 A4	2549 B1	3266 A4	3525 C2	3758 F2	5306 F4	7540 C3	9707 G3	
2263 A4	2550 C1	3267 C4	3526 C1	3759 F3	5530 C1	7545 B1	9708 G2	
2264 A4	2551 C2	3268 D4	3527 C1	3768 F2	5534 D1	7546 A1	9709 G2	
2265 A4	2559 C2	3300 E5	3528 C1	3770 F2	5541 C2	7581 C3	9710 B4	
2266 B4	2560 B2	3301 E5	3529 A2	3771 F2	5545 A2	7600 E3	9711 D4	
2300 E5	2563 A3	3302 E4	3530 C1	3772 F2	5549 B1	7614 E2	9712 E4	
2301 E5	2570 C2	3303 E5	3531 C1	3775 G4	5554 C2	7625 D1	9713 E4	
2302 G4	2574 B3	3304 E5	3532 C1	3776 G3	5563 D3	7661 E2	9714 F3	
2303 E5	2580 B3	3305 E4	3533 C1	3777 G3	5582 B3	7663 E2	9715 B3	
2304 E5	2585 B2	3306 F4	3534 C1	3778 G2	5588 B1	7671 E3	9718 B5	
2305 E4	2588 B1	3307 G4	3535 C1	3779 G2	5605 F1	7672 E3	9719 B5	
2306 F5	2590 C3	3309 F5	3536 C1	3780 G2	5606 F2	7701 G2	9720 A3	
2307 F5	2600 F1	3309 F5	3538 C2	3781 A4	5619 E1	7702 G3	9723 C2	
2308 F5	2603 D1	3310 E5	3539 B2	3850 A4	5621 E1	7703 F3	9724 C3	
2309 F5	2605 D1	3311 F5	3540 A2	3851 A4	5625 D2	7704 F3	9725 C3	
2310 F5	2607 D1	3312 F5	3542 B2	3852 A4	5630 D2	7705 F3	9727 B1	
2311 E5	2611 E2	3313 F5	3543 B3	3874 A4	5631 C2	7706 F2	9728 B1	
2312 E5	2617 E1	3314 F5	3545 C2	3875 B4	5632 D3	7707 F2	9729 C1	
2313 F5	2620 E1	3315 F5	3549 C1	3875 A4	5661 E2	7708 G3	9734 C3	
2314 E5	2625 D1	3316 G5	3550 C1	3876 A4	5701 F2	7709 F3	9735 B2	
2315 G4	2626 E1	3317 F4	3551 C2	3875 A4	5703 F2	7710 G2	9736 B2	
2316 F5	2629 E2	3318 E4	3552 C2	3878 A4	5801 A4	7711 G3	9737 C2	
2317 F5	2630 D2	3319 E5	3553 C2	3879 A3	6245 C5	7712 F3	9738 C3	
2318 F5	2631 C2	3320 E5	3560 C2	3880 A4	6246 D5	7805 A3	9739 C3	
2319 F5	2632 E2	3321 E5	3570 B2	3881 A5	6247 D5	9248 E5	9740 D2	
2320 G4	2636 E3	3322 E5	3582 B3	3886 A5	6248 D5	9249 E5	9741 B2	
2321 F5	2640 D3	3323 F4	3585 B2	3887 A5	6249 B5	9300 E5	9742 D2	
2322 F5	2641 D3	3325 G5	3588 A1	3888 A5	6300 E5	9502 B1	9743 D3	
2323 F4	2646 E2	3326 F5	3589 B1	3889 A5	6302 F4	9505 B4	9744 A4	
2325 F5	2649 E3	3327 G4	3580 C3	3871 A5	6303 G4	9520 C1	9745 D4	
2326 F5	2650 D3	3328 G4	3591 C3	3874 A4	6309 G4	9530 C1	9746 D5	
2327 F5	2652 D3	3329 G5	3592 C3	3875 B4	6310 G5	9534 C2	9747 C5	
2328 G5	2653 D3	3330 G5	3603 G1	3880 A4	6315 D4	9549 B1	9748 C5	
2329 G5	2658 D2	3331 G5	3604 F2	3881 A4	6316 F4	9550 F2	9749 D4	
2330 G5	2660 E2	3332 G5	3605 F1	3882 A5	6317 D3	9551 F3	9750 D5	
2331 G5	2661 E2	3334 G4	3606 F2	3886 F2	6318 F5	9600 D4	9751 D4	
2332 G5	2662 E3	3335 F4	3610 E2	3887 F2	6367 D4	9605 D4	9752 D4	
2333 G4	2663 D3	3336 E5	3617 E1	3868 A4	6484 C4	9607 F1	9753 D5	
2334 G5	2664 E3	3337 E5	3619 G1	3889 B3	6485 C3	9608 F4	9755 B4	
2335 F5	2670 E2	3338 D4	3620 E1	3890 C3	6502 A1	9609 F5	9756 B4	
2336 F4	2671 E3	3339 D4	3622 E1	4221 C4	6503 A1	9610 F4	9757 C5	
2337 F4	2675 D2	3340 D4	3624 E1	4222 C5	6504 A1	9611 G2	9758 A4	
2338 F4	2676 D2	3341 F5	3625 E1	4223 C5	6518 C2	9612 E4	9759 B4	
2339 F5	2701 G3	3342 G4	3626 E1	4224 G5	6519 C2	9613 C3	9760 C5	
2340 F4	2702 G3	3343 G4	3627 E1	4223 B5	6546 B1	9614 D4	9764 E4	
2341 F5	2703 G3	3344 F5	3628 E2	4237 B5	6547 A1	9615 F3	9765 C3	
2342 F4	2704 G2	3347 E4	3629 E2	4239 G5	6548 C3	9616 F3	9766 E4	
2343 F4	2705 F2	3348 E4	3631 D3	4300 E4	6551 C1	9617 F3	9768 D3	
2344 F4	2706 F2	3349 E4	3634 D3	4301 F5	6552 C2	9618 F2	9769 D4	
2345 G5	2707 G2	3350 E4	3635 D3	4302 E4	6551 C2	9619 B4	9770 F4	
2346 G5	2708 F3	3351 E4	3636 E3	4303 F5	6563 A3	9620 B3	9772 F2	

**Picture tube module 25"/28" (16/9)  
Bildröhren Modul 25"/28" (16/9) /  
Module support tube image 25"/28" (16/19)**

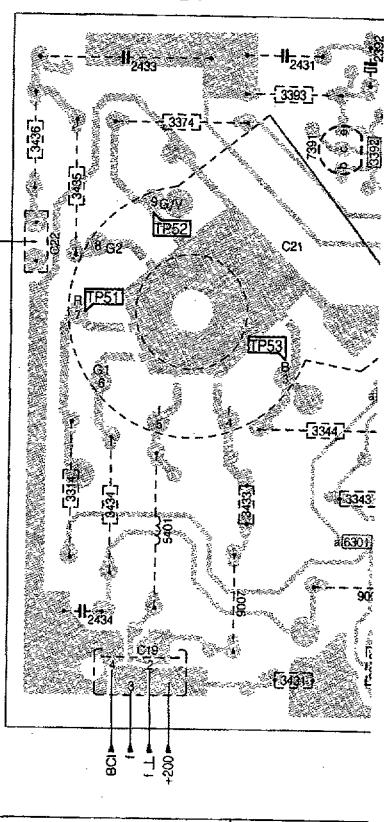
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C 13	A3	2440	A3	3333	B4	3371	C3	3414	B4	3447	A2	7301	B3	7411	A4
C 15	B4	2441	A3	3334	B3	3372	C3	3415	A4	3448	A2	7302	B3	7421	A4
C 19	A1	3001	B4	3338	A3	3373	C3	3421	A4	4000	B4	7303	B3	7430	A4
C 20	B4	3302	B2	3339	A3	3374	C1	3422	A4	4002	A4	7304	B3	7431	A2
C 21	B1	3303	C3	3340	B3	3375	C3	3423	A3	4003	A2	7305	B2	7432	A2
C 22	C1	3304	B3	3341	B3	3376	C3	3431	A1	4005	A3	7331	A3	7434	A2
2301	B3	3308	B3	3342	B3	3377	C3	3432	C4	4007	B2	7332	A3	8000	C1
2331	B4	3309	B3	3343	A3	3388	B3	3433	A1	4008	C2	7333	B4	9000	C3
2361	C4	3310	C3	3344	A2	3391	A2	3434	C1	4008	A3	7334	A3	9001	B4
2392	A2	3311	C3	3345	A2	3392	A2	3435	B1	4011	C3	7335	A2	9002	B4
2411	A3	3312	B2	3361	B4	3393	A1	3436	C1	5401	A1	7345	A3	9003	C2
2412	B4	3313	C2	3362	C4	3394	A2	3438	A4	6301	B2	7361	C3	9004	B3
2421	A4	3314	A1	3363	C4	3395	A3	3439	A2	6331	A2	7362	C4	9006	B2
2431	A2	23315	C3	3364	C4	3396	B3	3440	A3	6345	A2	7363	C3	9007	B2
2432	A2	3316	C3	3368	C3	3397	B3	3442	A2	6361	C2	7364	C3	9008	C2
2433	C1	3331	B4	3369	C3	3411	A3	3443	A2	8411	A3	7365	C3	9009	C1

1      2      3      4



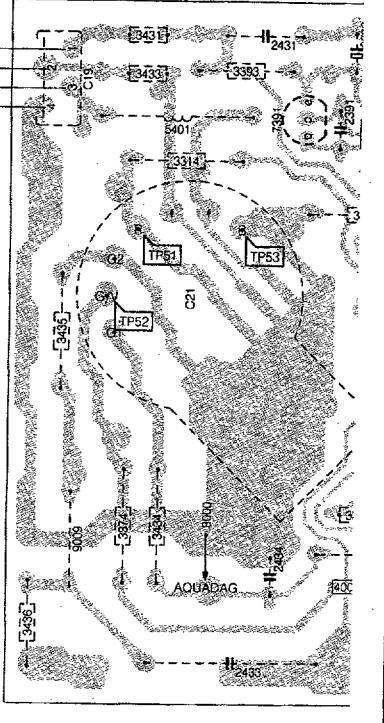
**Picture tube module 2  
Module support tube ii**

**CRT MODULE 21"**



**Picture tube module 2  
Module support tube ii**

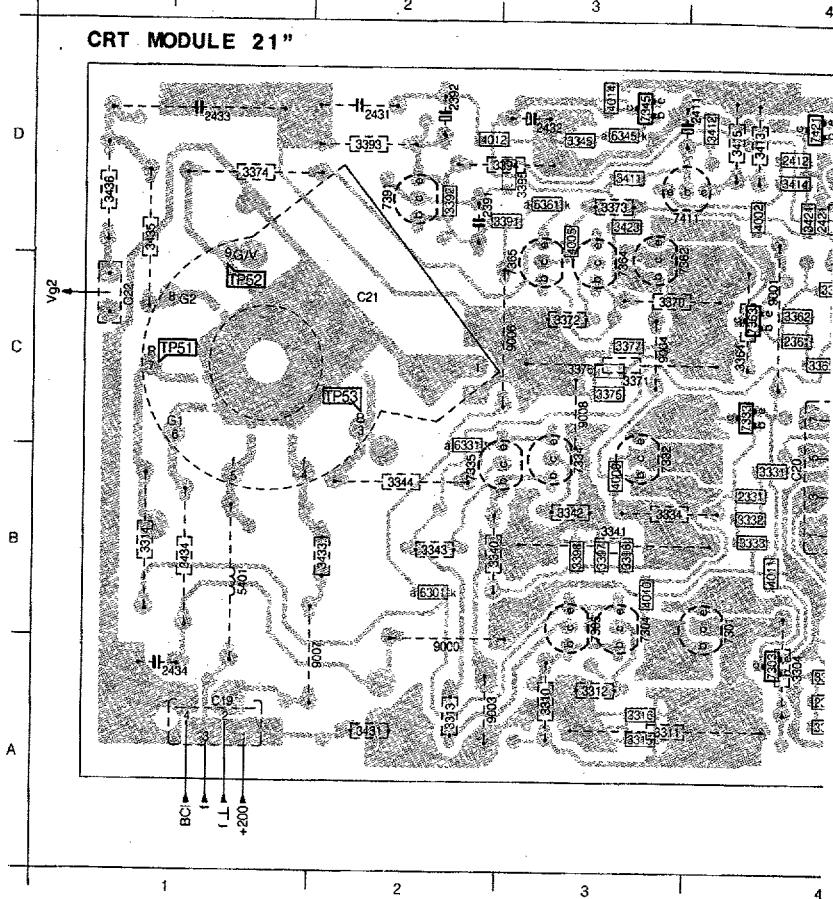
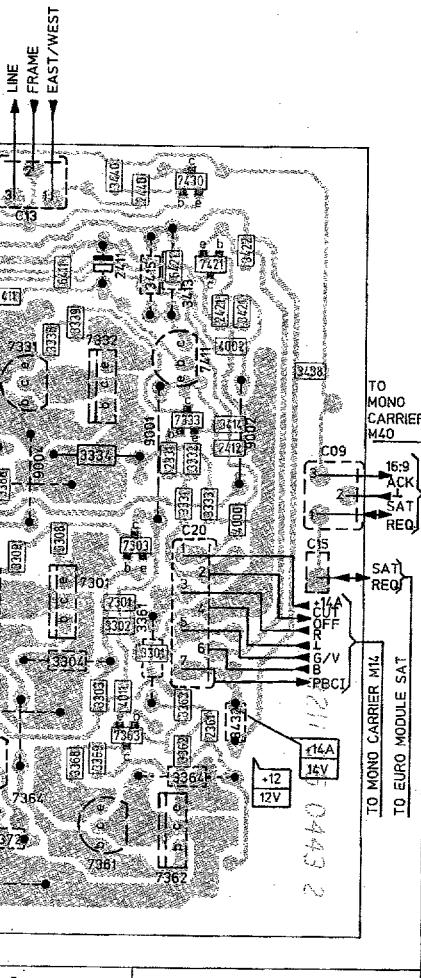
**CRT MODULE 25"/28"**



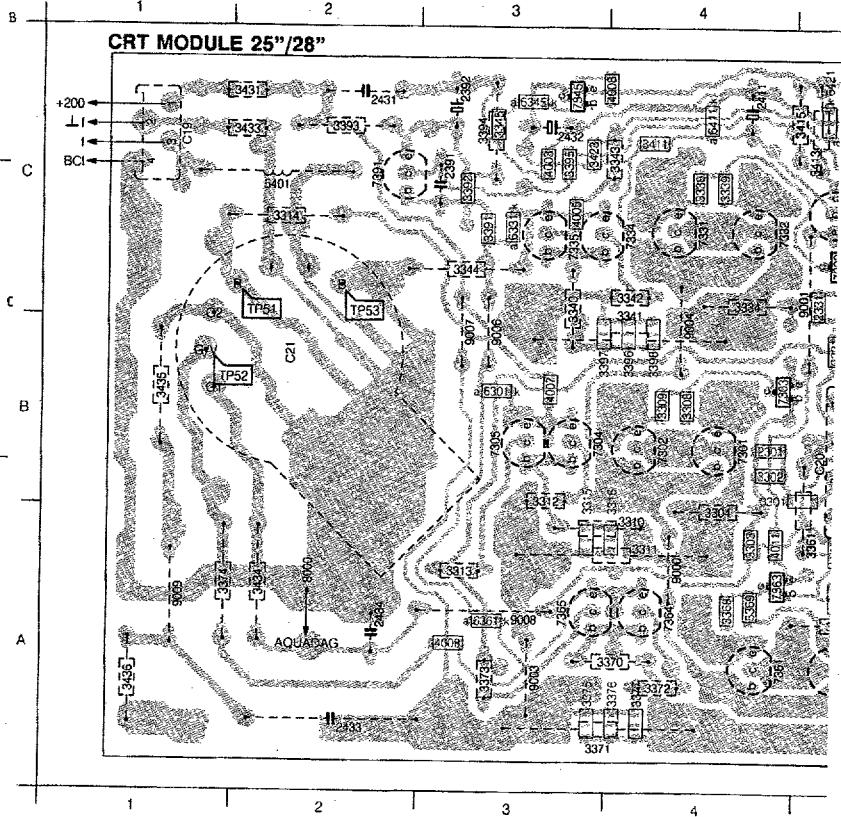
**Picture tube module 21" / Bildröhren Mod  
Module support tube image 21"**

dule 25"/28" (16/9)  
I 25"/28" (16/9) /  
tube image 25"/28" (16/19)

70	C3	3413	A4	3444	A2	6421	A4	7391	A2
71	C3	3414	B4	3447	A2	7301	B3	7411	A4
72	C3	3415	A4	3448	A2	7302	B3	7421	A4
73	C2	3421	A4	4000	B4	7303	B3	7430	A4
74	C1	3422	A4	4002	A4	7304	B3	7431	A2
75	C3	3423	A3	4003	A2	7305	B2	7432	A2
76	C3	3431	A1	4005	A3	7331	A3	7434	A2
77	C3	3432	C4	4007	B2	7332	A3	8000	C1
88	B3	3433	A1	4008	C2	7333	B4	9000	C3
91	A2	3434	C1	4008	A3	7334	A3	9001	B4
92	A2	3435	B1	4011	C3	7335	A2	9002	B4
93	A1	3436	C1	5401	A1	7345	A3	9003	C2
94	A2	3438	A4	6301	B2	7381	C3	9004	B3
95	A3	3439	A2	6331	A2	7382	C4	9006	B2
96	B3	3440	A3	6345	A2	7383	C3	9007	B2
97	B3	3442	A2	6381	C2	7384	C3	9008	C2
11	A3	3443	A2	6411	A3	7385	C3	9009	C1



**Picture tube module 25"/28" / Bildröhren  
Module support tube image 25"/28"**



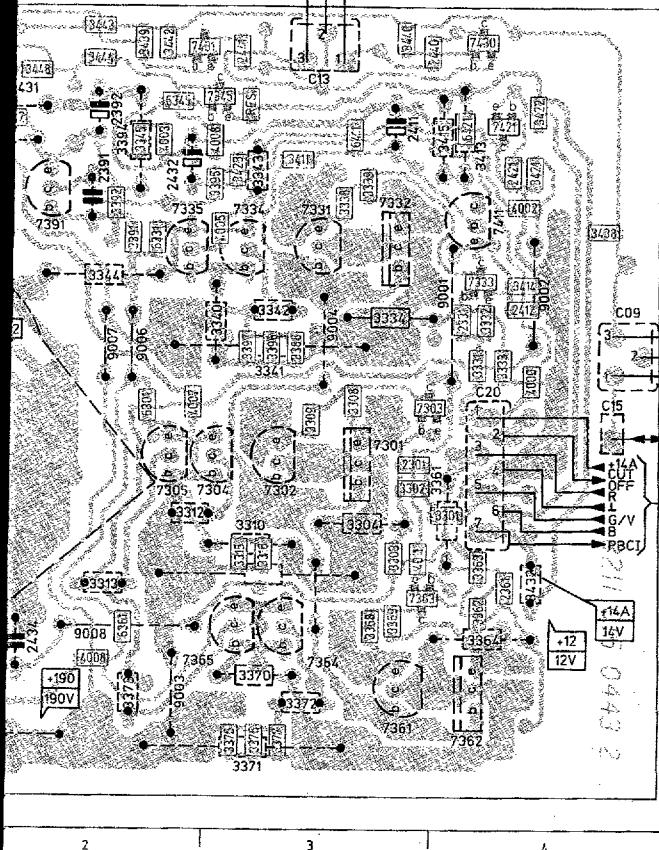
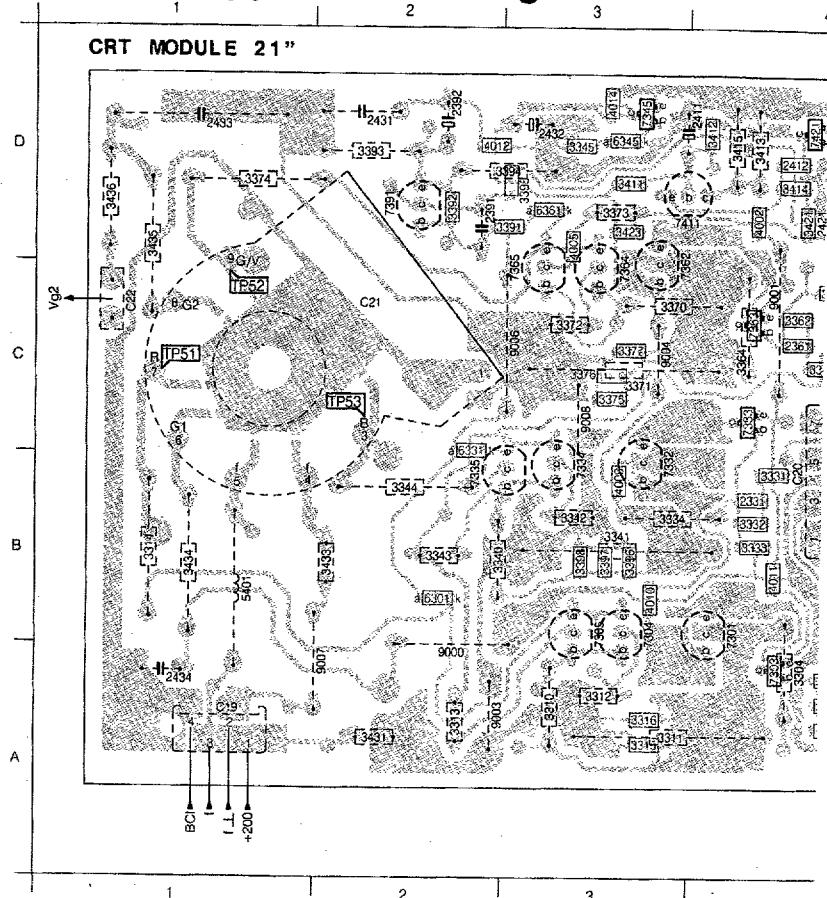
6.23

6.24 CHASSIS GR2.1

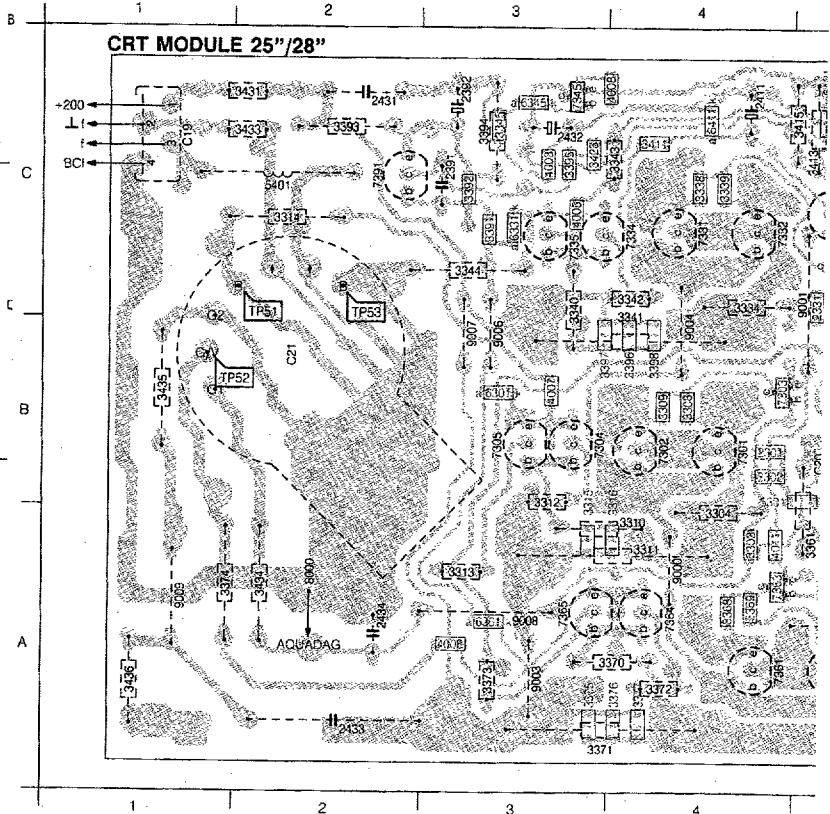
Module 25"/28" (16/9)  
 Module 25"/28" (16/9) /  
 tube image 25"/28" (16/19)

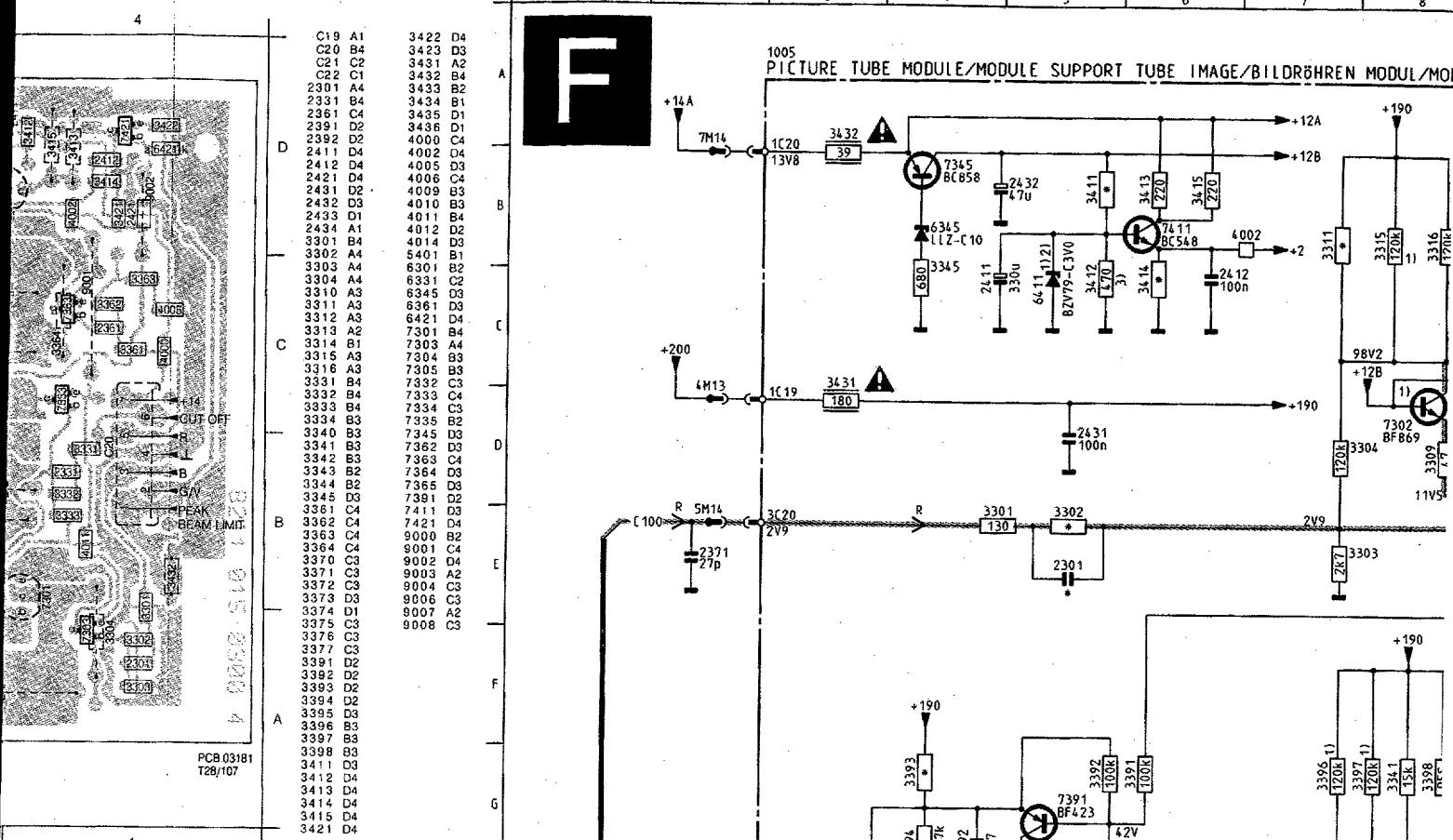
370 C3	3413 A4	3444 A2	6421 A4	7391 A2
371 C3	3414 B4	3447 A2	7301 B3	7411 A4
372 C3	3415 A4	3448 A2	7302 B3	7421 A4
373 C2	3421 A3	4000 B4	7303 B3	7430 A4
374 C1	3422 A4	4002 A4	7304 B3	7431 A2
375 C3	3423 A3	4003 A2	7305 B2	7432 A2
376 C3	3431 A1	4005 A3	7331 A3	7434 A2
377 C3	3432 C4	4007 B2	7332 A3	8000 C1
388 B3	3433 A1	4008 C2	7333 B4	9000 C3
391 A2	3434 C1	4008 A3	7334 A3	9001 B4
392 A2	3435 B1	4011 C3	7335 A2	9002 B4
393 A1	3436 C1	5401 A1	7345 A3	9003 C2
394 A2	3438 A4	6301 B2	7361 C3	9004 B3
395 A3	3439 A2	6331 A2	7362 C4	9006 B2
396 B3	3440 A3	6345 A2	7363 C3	9007 B2
397 B3	3442 A2	6361 C2	7364 C3	9008 C2
411 A3	3443 A2	6411 A3	7365 C3	9009 C1

## Picture tube module 21" / Bildröhren Mod Module support tube image 21"

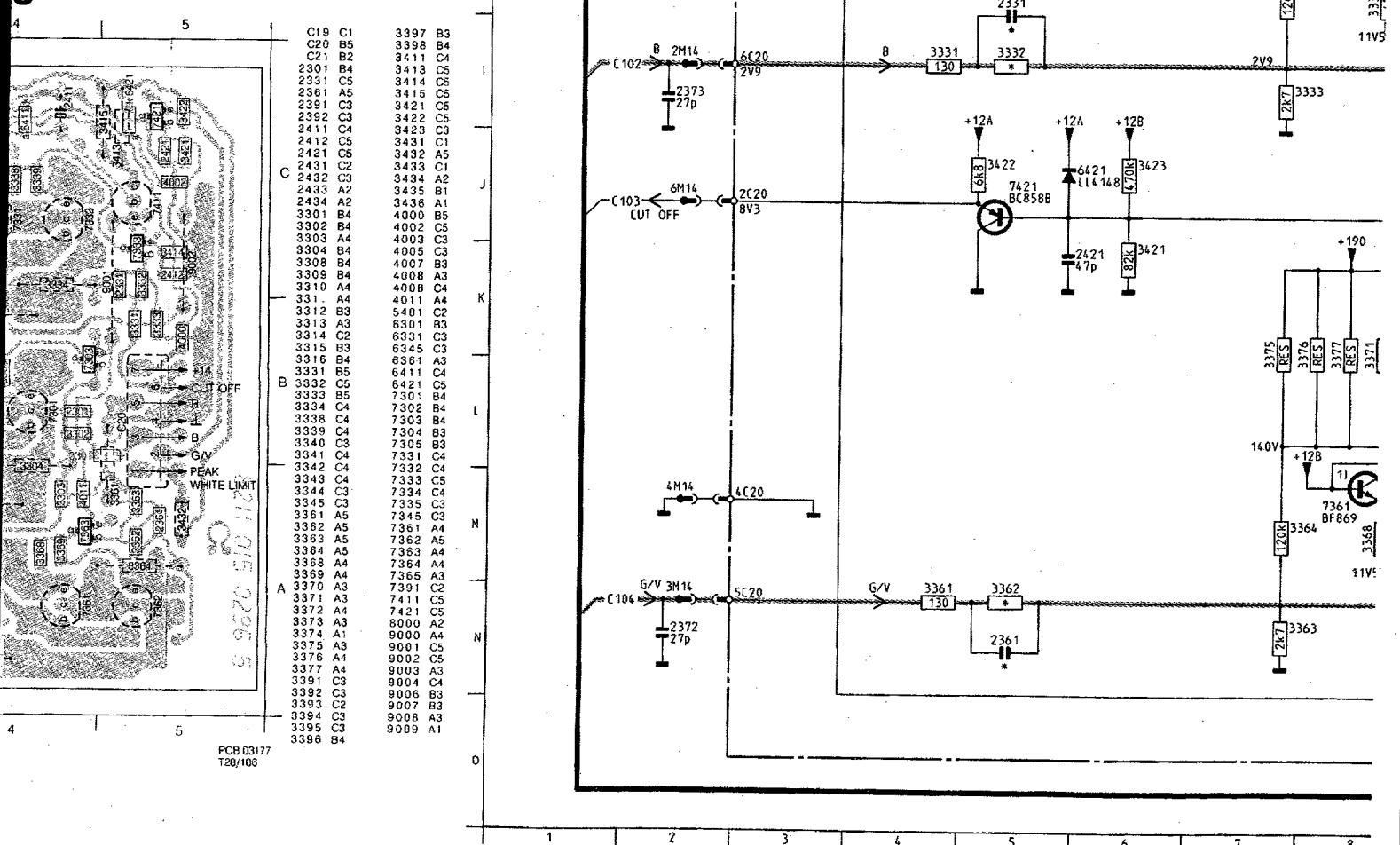


## Picture tube module 25"/28" / Bildröhren Mod Module support tube image 25"/28"

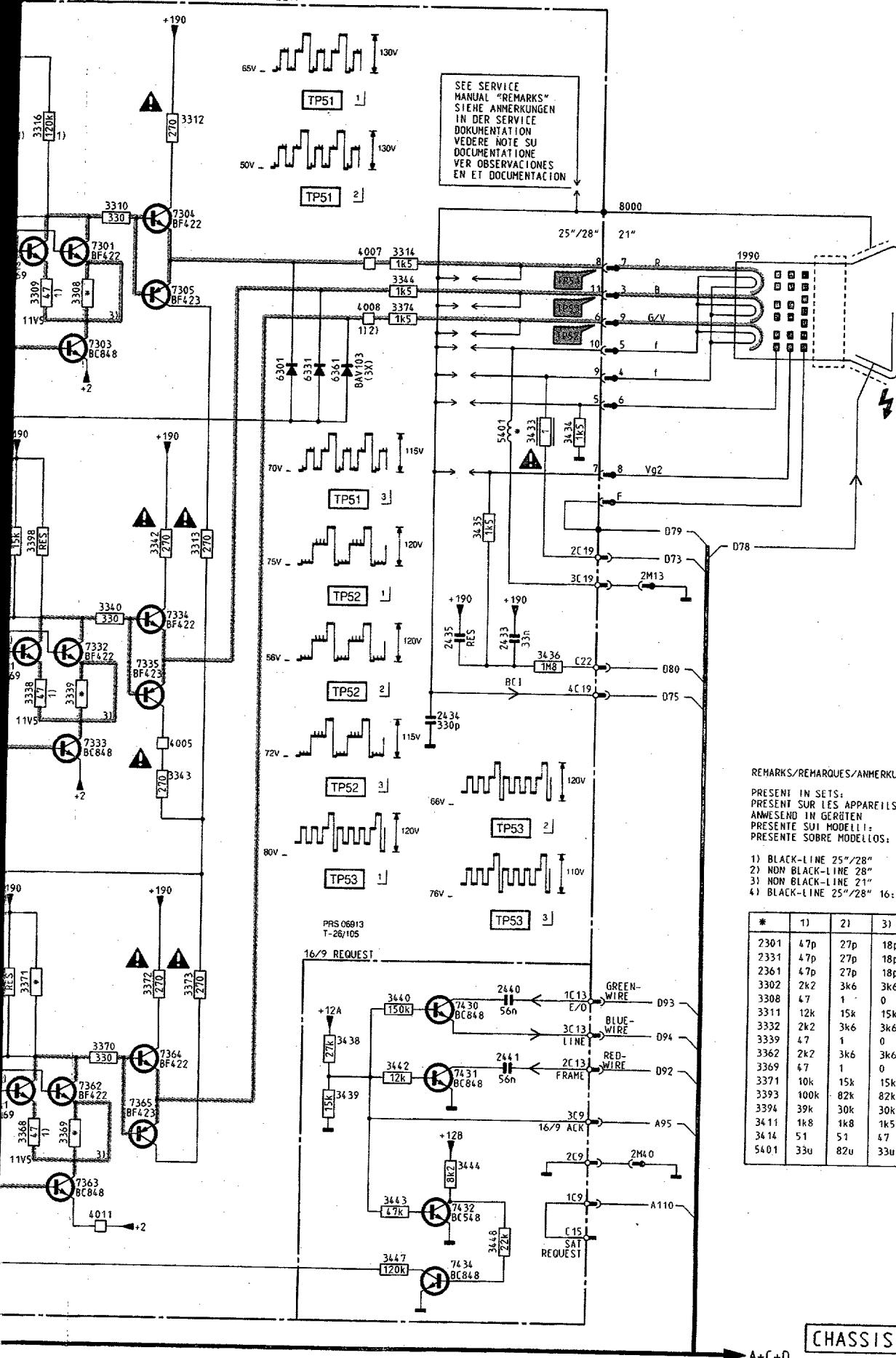




**dröhren Modul 25"/28" /  
8"**



/MODULO CRT /MODULO TUBO DE IMAGEN



*	1)	2)	3)
2301	47p	27p	18p
2331	47p	27p	18p
2361	47p	27p	18p
3302	2k2	3k6	3k6
3308	47	1	0
3311	12k	15k	15k
3332	2k2	3k6	3k6
3339	47	1	0
3362	2k2	3k6	3k6
3369	47	1	0
3371	10k	15k	15k
3393	100k	82k	82k
3394	39k	30k	30k
3411	1k8	1k8	1k5
3414	51	51	47
5401	33u	82u	33u

**REMARKS/REMARQUES/ANMERKUNGEN/NOTE**

PRESENT IN SETS:  
PRESENT SUR LES APPAREILS:  
ANWESEND IN GERÜTEN  
PRESENTE SUI MODELLI:  
PRESENTE SOBRE MODELLOS:

- 1) BLACK-LINE 25"/28"
  - 2) NON BLACK-LINE 28"
  - 3) NON BLACK-LINE 21"
  - 4) BLACK-LINE 25"/28" 16:9

CHASSIS GR2.1

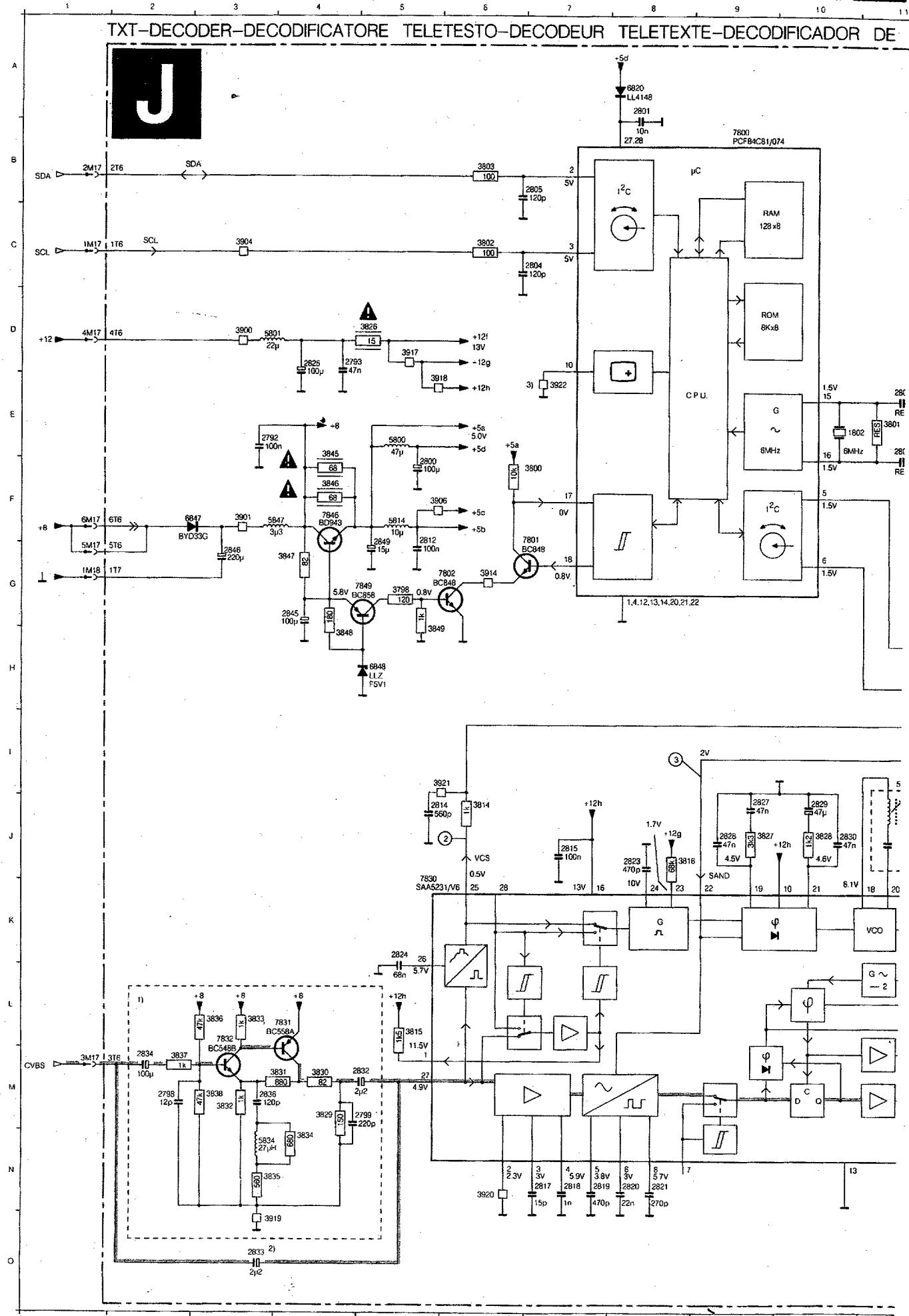
CL16532082/015, FREF  
221191

A	1005	A 2
	1990	D 16
	2301	E 5
	2331	H 5
A	2361	N 5
	2371	E 2
	2372	N 2
	2373	I 2
	2391	H 5
	2392	G 4
B	2411	C 4
	2412	C 6
	2421	K 5
	2431	D 5
	2432	B 5
	2433	H 13
	2434	I 13
	2435	H 13
	2440	K 13
	2441	L 13
C	3301	E 4
	3302	E 5
	3303	E 7
	3304	D 7
	3308	D 9
	3309	D 8
D	3310	C 9
	3311	B 7
	3312	B 10
	3313	G 10
	3314	D 12
	3315	B 8
	3316	B 8
E	3331	I 4
	3332	I 5
	3333	I 7
	3334	H 7
	3338	H 8
	3339	H 9
	3340	G 9
F	3341	G 8
	3342	G 9
	3343	I 10
	3344	D 12
	3345	B 4
	3361	N 4
	3362	N 5
	3363	N 7
G	3364	M 7
	3368	M 8
	3369	M 9
	3370	L 9
	3371	K 8
	3372	K 9
	3373	K 10
H	3374	O 12
	3375	K 7
	3376	K 8
	3377	K 8
	3391	G 6
	3392	G 5
	3393	G 4
I	3394	G 4
	3395	H 4
	3396	G 7
J	3397	G 8
	3398	G 8
	3411	B 5
	3412	C 5
	3413	B 6
	3414	C 6
	3415	B 6
J	3421	J 6
	3422	J 5
	3423	J 6
	3431	D 3
	3432	A 3
	3433	E 14
K	3436	E 14
	3435	F 13
	3436	H 14
	3438	L 11
	3439	M 11
	3440	L 12
	3442	L 12
	3443	N 12
	3446	M 13
L	3447	N 12
	3448	N 13
	4000	H 4
	4002	B 7
	4005	I 10
	4007	D 12
	4008	O 12
M	4011	N 9
	5401	E 13
	6301	E 11
	6331	E 11
	6345	B 4
	6361	E 11
N	6411	C 5
	6421	J 6
	7301	D 9
	7302	D 8
	7303	E 9
	7304	C 10
	7305	D 10
	7331	H 8
	7332	H 9
O	7333	I 9
	7334	H 10
	7335	H 9
	7345	B 4
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	7362	M 9

## **Teletext / Videotext / Teletexte**

CHASSIS GR2.1

6.27

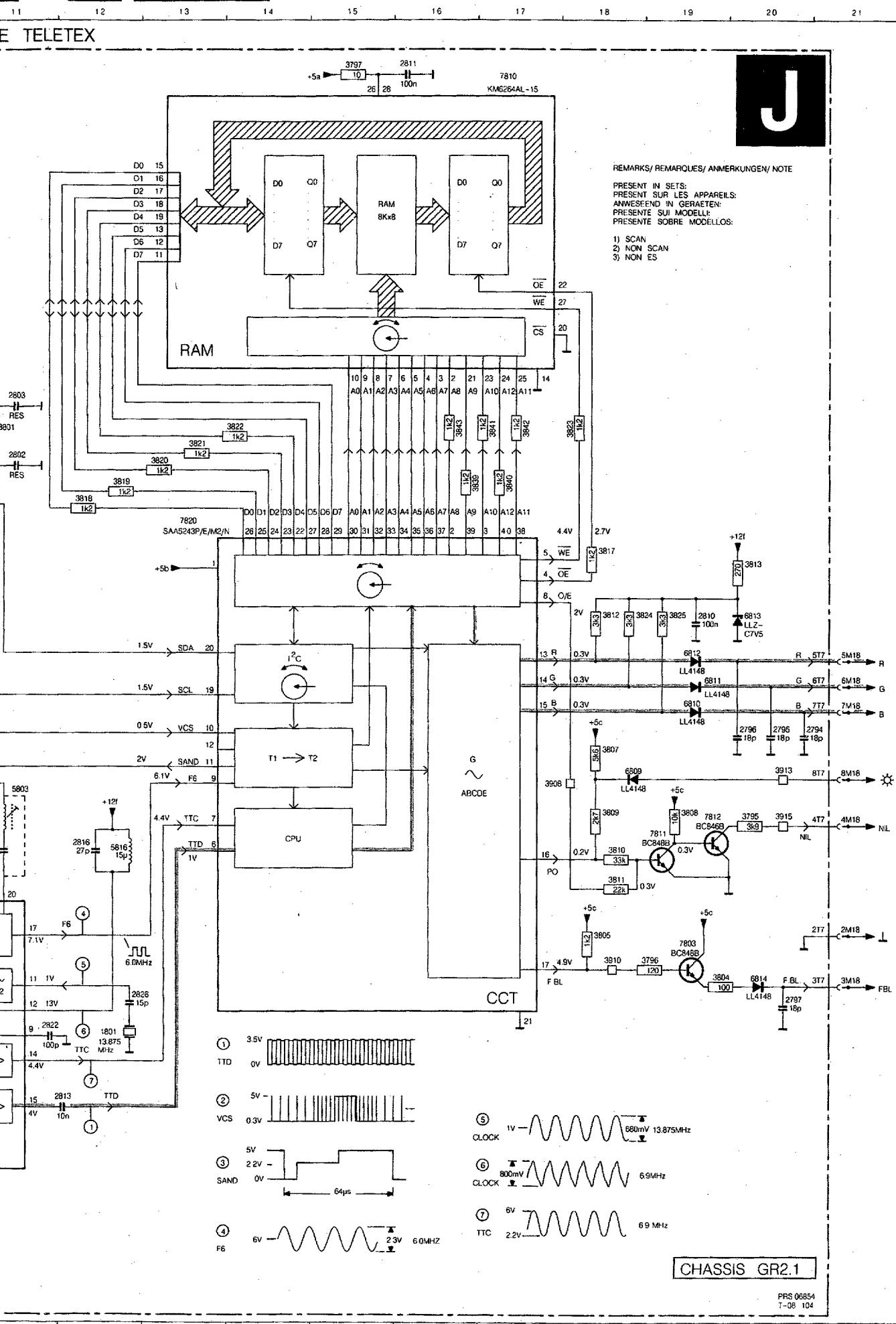


6.27

6.28

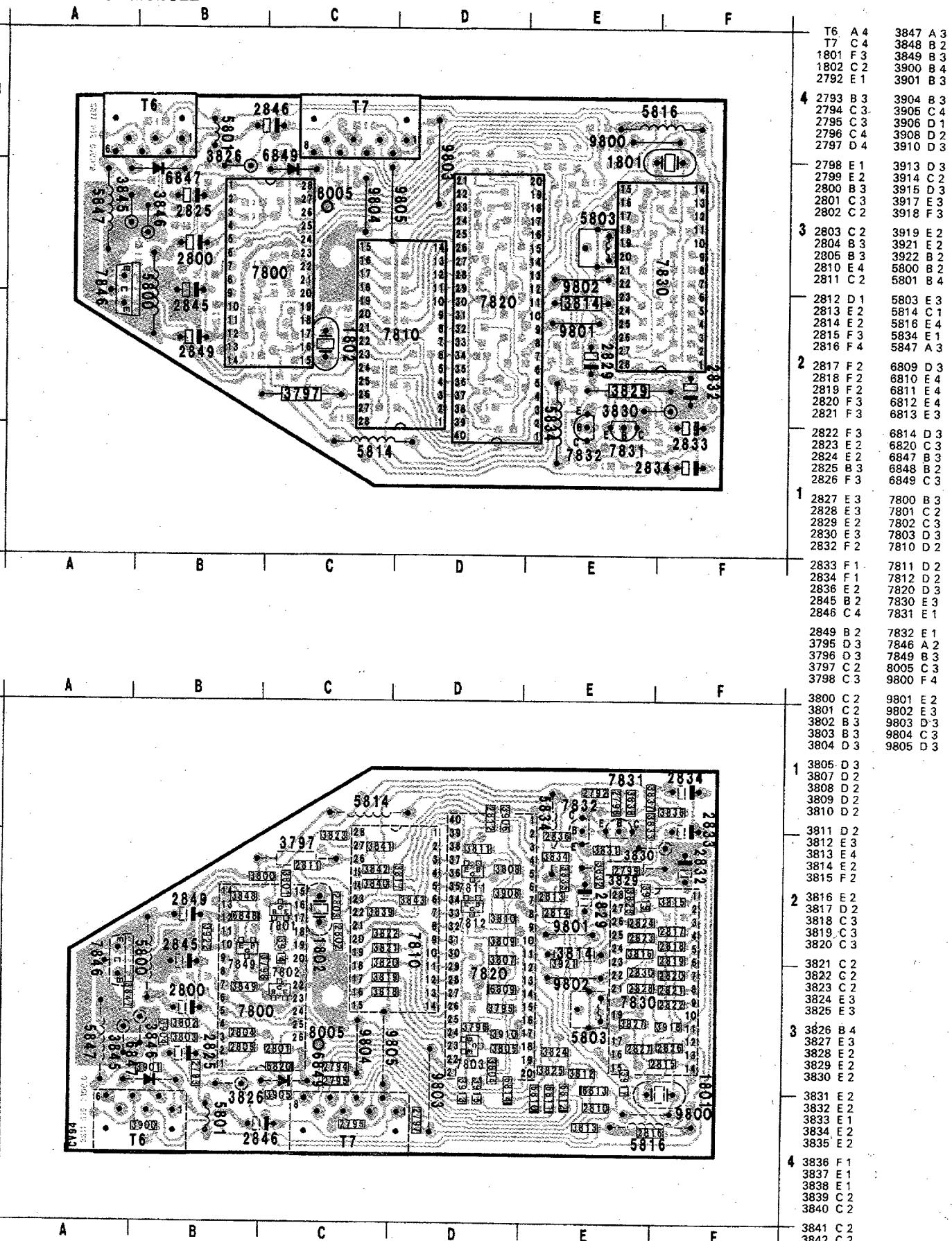
CHASSIS GR2.1

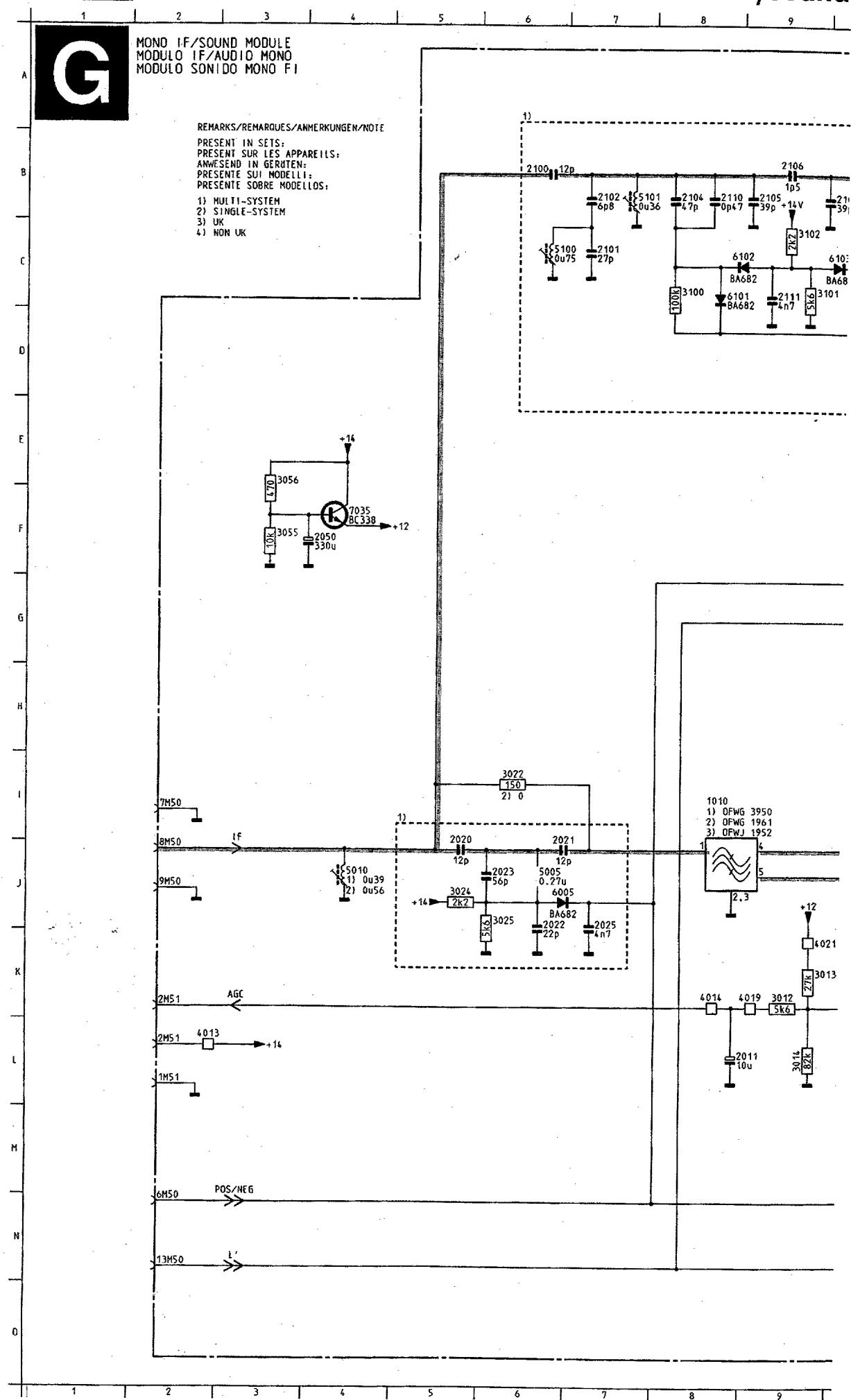
OR DE TELETEX



A	1801	L12
B	1802	E10
C	2792	E3
D	2793	I20
E	2794	I20
F	2795	I20
G	2796	I20
H	2797	L20
I	2798	M2
J	2799	M4
K	2800	F5
L	2801	A8
M	2802	E11
N	2803	E11
O	2804	C6
P	2805	B6
Q	2811	G18
R	2812	G5
S	2813	M12
T	2814	J5
U	2815	J7
V	2816	J12
W	2817	N7
X	2818	N7
Y	2819	N7
Z	2820	N8
AA	2821	N8
AB	2822	L11
AC	2823	J8
AD	2824	K5
AE	2825	D4
AF	2826	L12
AG	2827	J9
AH	2828	G9
AI	2829	J10
AJ	2830	J10
AK	2832	M6
AL	2833	G3
AM	2834	M2
AN	2835	MG
AO	2845	G4
AP	2846	G3
AQ	2849	G5
AR	3795	J20
AS	3796	K19
AT	3797	A15
AU	3798	G5
AV	3800	F6
AW	3801	E11
AX	3802	C6
AY	3803	B6
AZ	3804	L19
BA	3805	K18
BB	3806	A9
BC	3808	J19
BD	3810	J18
BE	3811	J18
BF	3812	G18
BG	3813	G20
BH	3814	J6
BI	3815	L5
BK	3816	J8
BL	3817	G18
BM	3818	F12
BN	3819	F12
BO	3820	E13
BP	3821	E13
BR	3822	E14
BS	3823	E18
BT	3824	G18
BU	3825	G19
CV	3827	J9
CW	3828	J19
CX	3829	M4
CY	3830	M4
CZ	3831	M4
DA	3832	M3
DB	3833	L3
DC	3834	N4
DD	3835	N3
DE	3836	L3
DF	3837	M2
DG	3838	M3
DH	3839	F17
DI	3840	F17
DJ	3842	E17
DK	3843	E16
DL	3845	E16
DM	3846	F4
DN	3847	G4
DO	3848	H4
DP	3849	H5
DR	3900	D3
DS	3901	F3
DT	3904	C3
DU	3906	F5
DV	3908	I17
DW	3910	K18
DX	3913	I20
DY	3914	G6
DZ	3915	J20
EV	3916	E5
EW	3919	O4
EX	3920	N6
FX	3921	L6
GY	3922	E7
HZ	5800	E5
IJ	5801	D3
IK	5803	L11
IL	5814	F5
IM	5816	J12
IN	5834	N3
IP	5847	F4
IQ	6809	I16
IR	6810	H19
IS	6811	H19
IT	6812	H19
IV	6814	G2C
IV	6820	A8
IV	6847	F3
IV	6848	H5
IV	7800	B9
IV	7801	F7
IV	7802	G3
IV	7803	K15
IV	7810	A11
IV	7811	J15
IV	7820	F11
IV	7830	K5
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IV	7832	L3
IV	7846	F4
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## **1290 TXT FLOF MODULE**

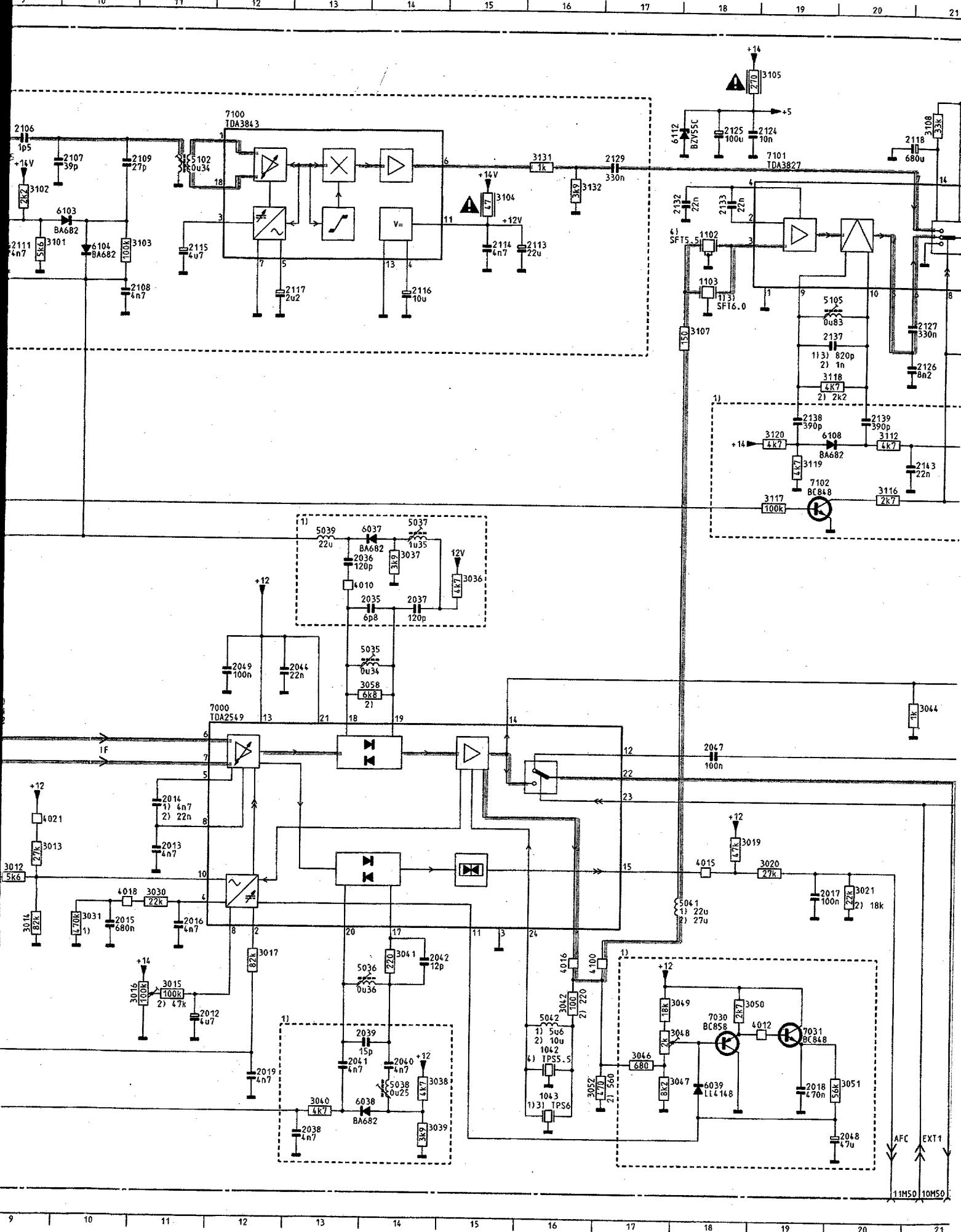


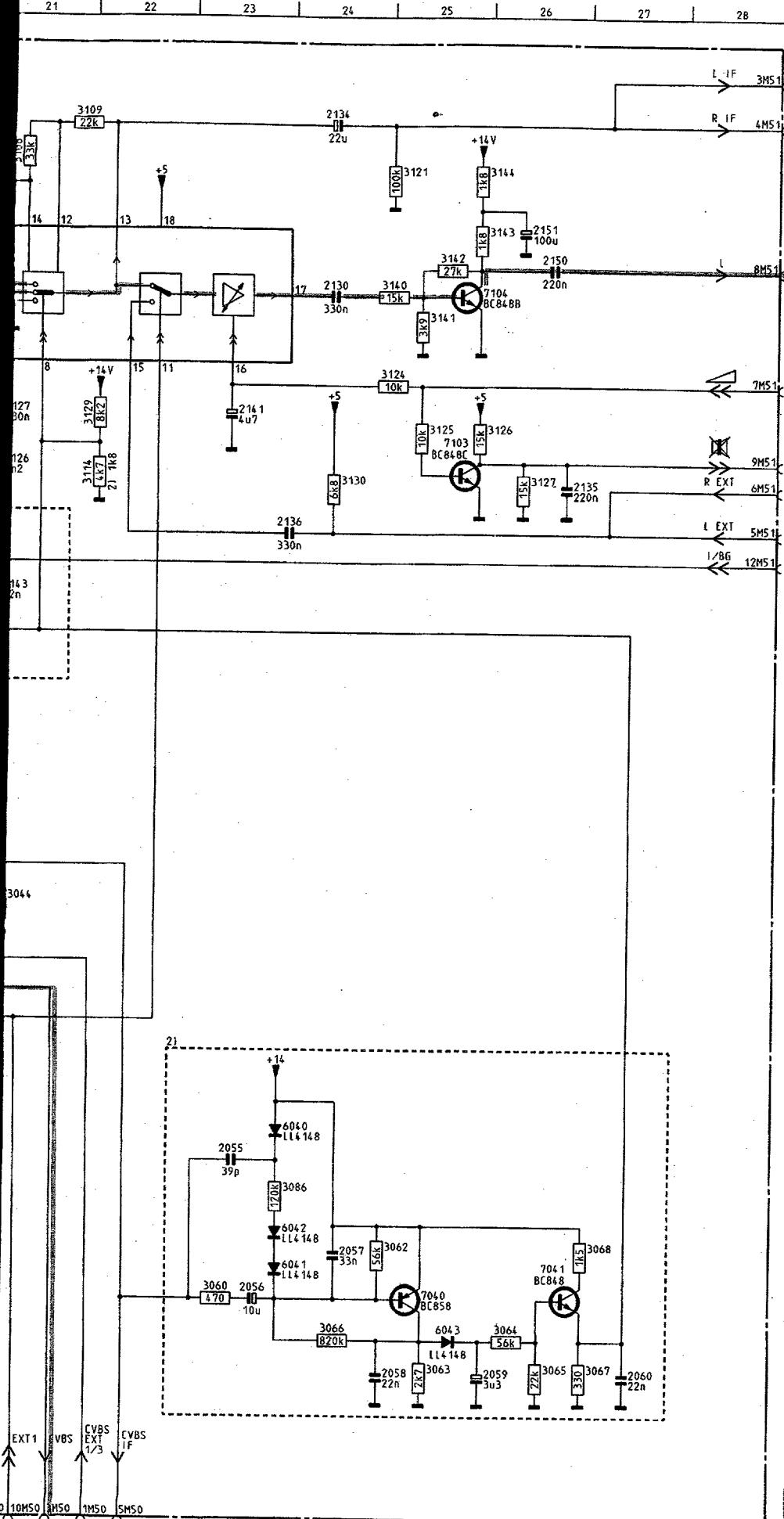


# Sound module / Mono ZF/Tonmodul / Module FI/son mono

CHASSIS GR2.1

6.31





CHASSIS GR2.1

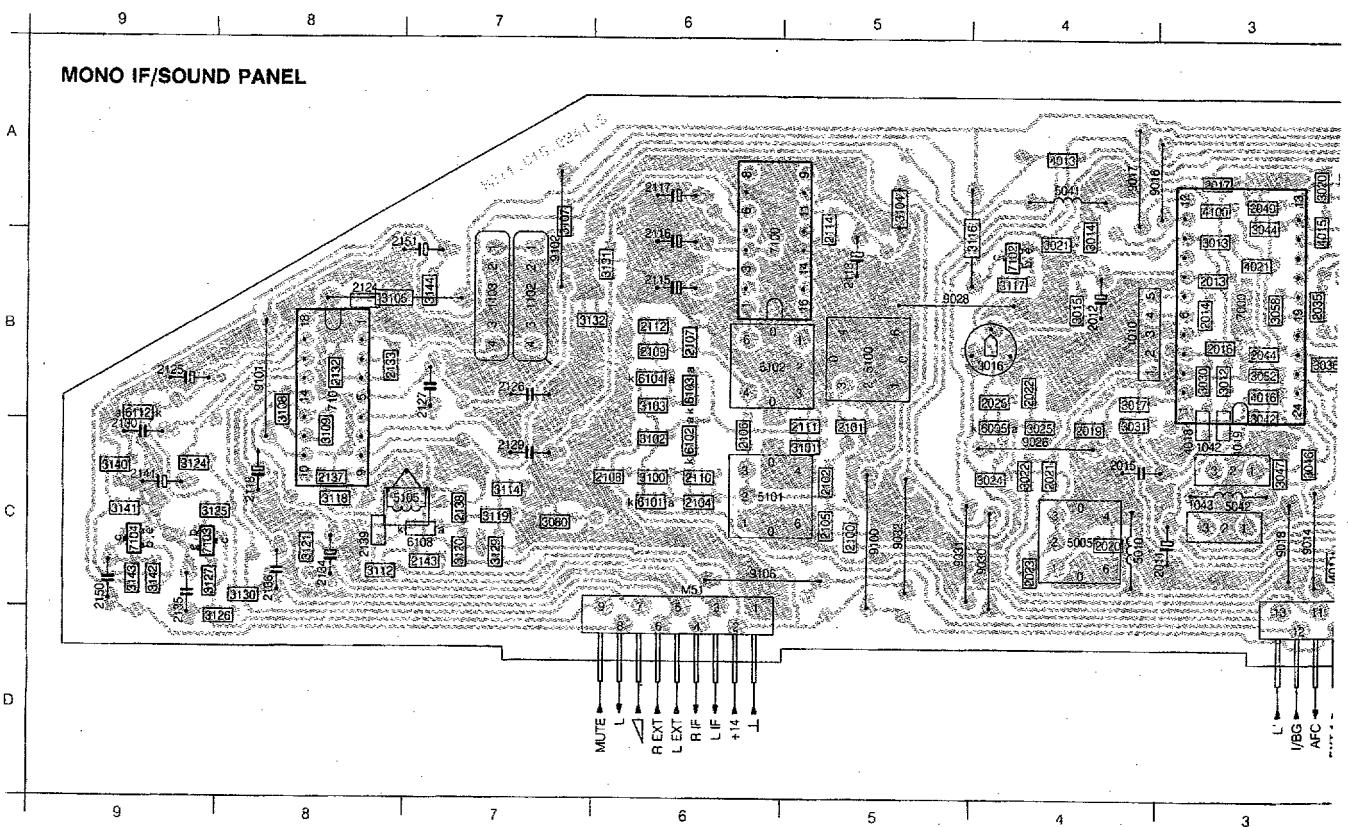
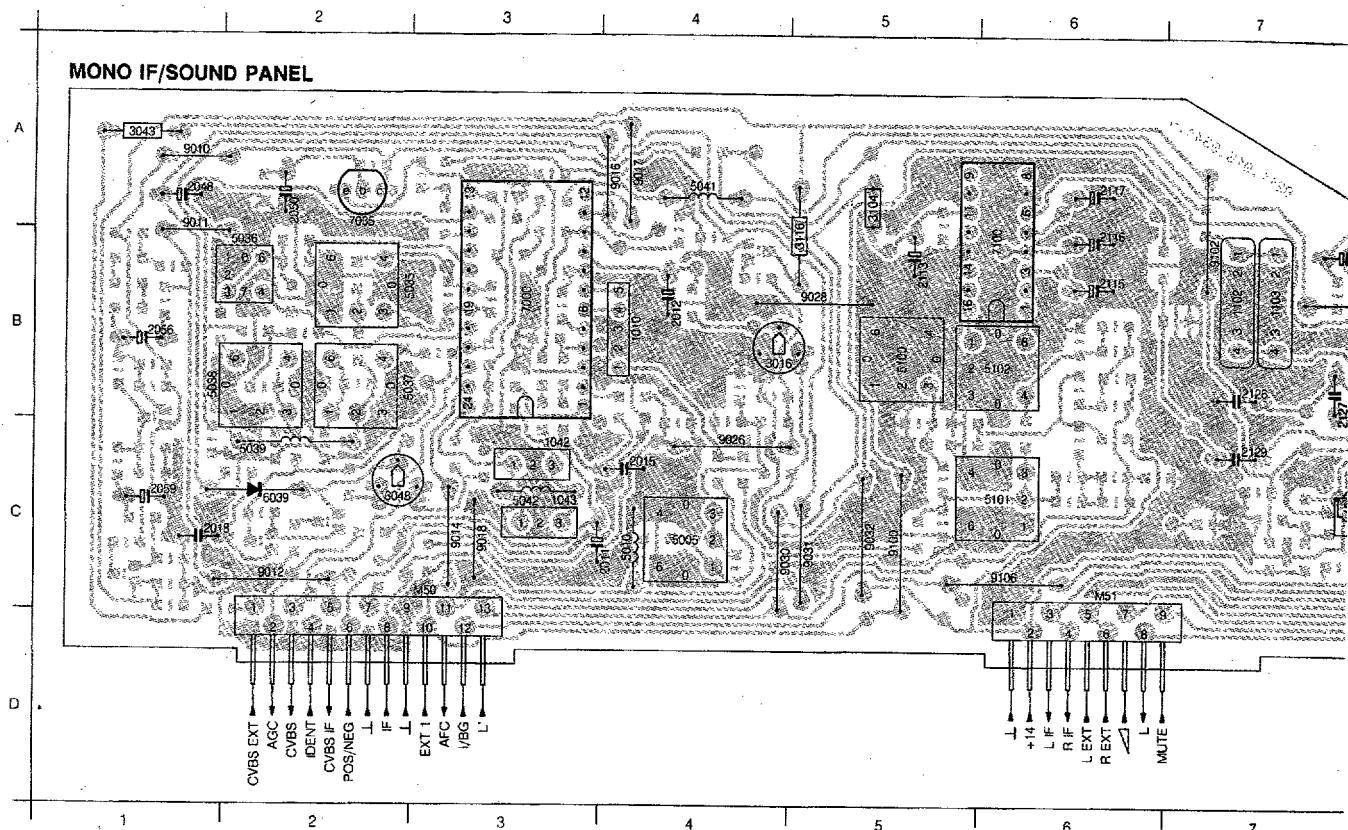
CL06532002/016.MREF  
04029

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	1043	N16	3104	C15
	1102	C18	3105	A19
	1103	D18	3107	D18
	2011	L 9	3108	B21
	2012	M11	3109	A21
	2013	K11	3112	F20
B	2014	J11	3114	E22
	2015	L10	3116	F20
	2016	L11	3117	G19
	2017	L19	3118	E20
	2018	N19	3119	F19
	2019	N12	3120	F19
	2020	J 5	3121	B25
	2021	J 7	3124	D25
	2022	K 6	3125	D25
	2023	J 6	3126	D26
	2025	K 7	3127	E26
	2035	H14	3129	D22
D	2036	G13	3130	E24
	2037	H14	3131	B16
	2038	O13	3132	C16
	2039	H14	3140	C25
	2040	N14	3141	C25
	2041	N13	3142	C25
	2042	L14	3143	B26
	2044	I13	3144	B26
	2047	J18	4010	H13
	2048	O20	4012	M19
	2049	I12	4014	K 8
	2050	F 4	4015	K18
	2055	L23	4016	L16
	2056	M23	4018	L11
	2057	M24	4019	K 9
E	2058	N25	4021	K 9
	2059	N26	4100	L17
	2060	N27	5005	J 6
	2100	B 6	5010	J 4
	2101	C 7	5035	I14
	2102	B 7	5036	M14
	2104	B 8	5037	G14
	2105	B 9	5038	N14
	2106	B 9	5039	G13
	2107	B10	5041	L18
	2108	D10	5042	M16
	2109	B10	5100	C 6
	2110	B 8	5101	B 7
	2111	C 9	5102	B11
	2113	C16	5105	D20
G	2114	E15	6005	J 7
	2115	C11	6037	G14
	2116	D14	6038	N14
	2117	D12	6039	N18
	2118	B21	6040	K24
	2124	B19	6041	M24
	2125	B18	6042	M24
	2126	E21	6043	N25
	2127	D21	6101	C 8
	2129	B17	6102	C 9
	2130	C24	6103	C10
	2132	C18	6104	C10
	2133	C18	6108	F20
	2134	A24	6112	B18
	2135	E26	7000	I12
	2136	E24	7030	M18
	2137	D20	7031	M19
	2138	F19	7035	F 4
	2139	F20	7040	M25
	2141	D23	7041	M26
	2143	F21	7100	B12
	2150	C26	7101	B19
	2151	C26	7102	F19
	3012	K 9	7103	E25
	3013	K 9	7104	C25
	3014	L 9		
	3015	M11		
	3016	M11		
	3017	L12		
	3019	K18		
	3020	K19		
	3021	K20		
	3022	I 6		
	3024	J 5		
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	3030	L11		
	3031	L10		
	3036	H15		
	3037	G14		
	3038	N14		
	3039	O14		
	3040	N13		
	3041	L14		
	3042	M16		
	3044	I21		
	3046	N17		
	3047	N18		
	3048	M18		
	3049	M18		
	3050	M18		
	3051	N20		
	3052	N17		
	3055	F 3		
	3056	E 3		
	3058	I14		
	3060	M23		
	3062	M25		
	3063	N25		
	3064	N26		
	3065	N26		
	3066	N24		
	3067	N27		
	3068	H27		
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	3101	C 9		

## **Mono IF/sound module / Mono ZF/Tonmodul /**

CHASSIS GR2.1

6.33

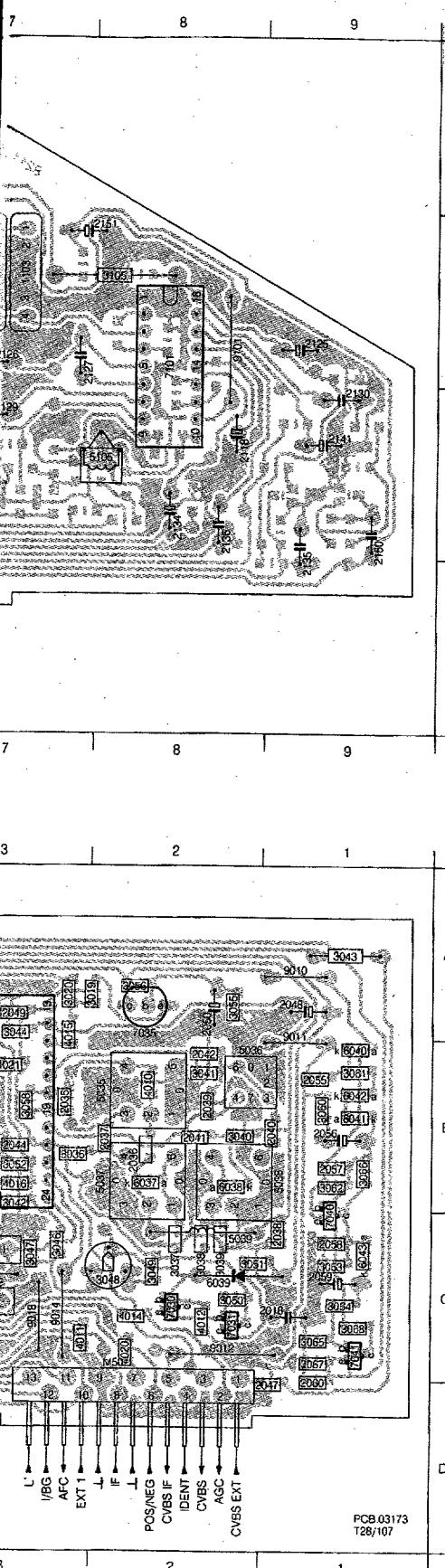


6.33

6.34

CHASSIS GR2.1

## Module FI/son mono

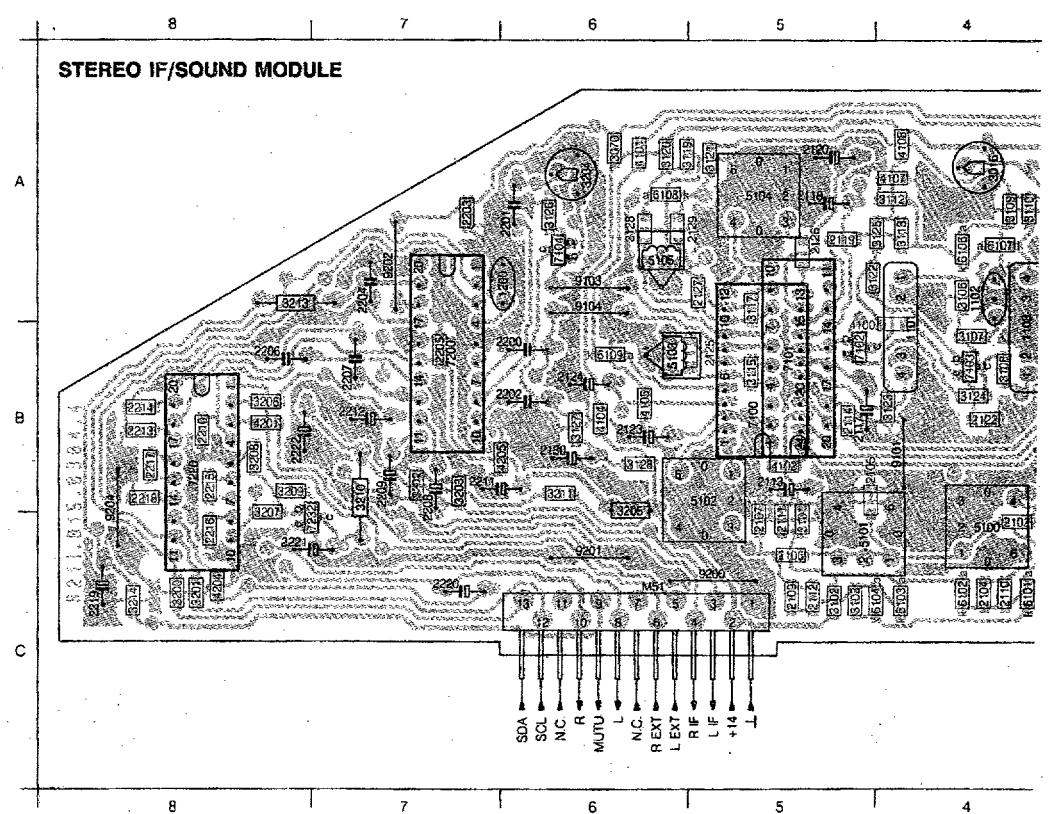
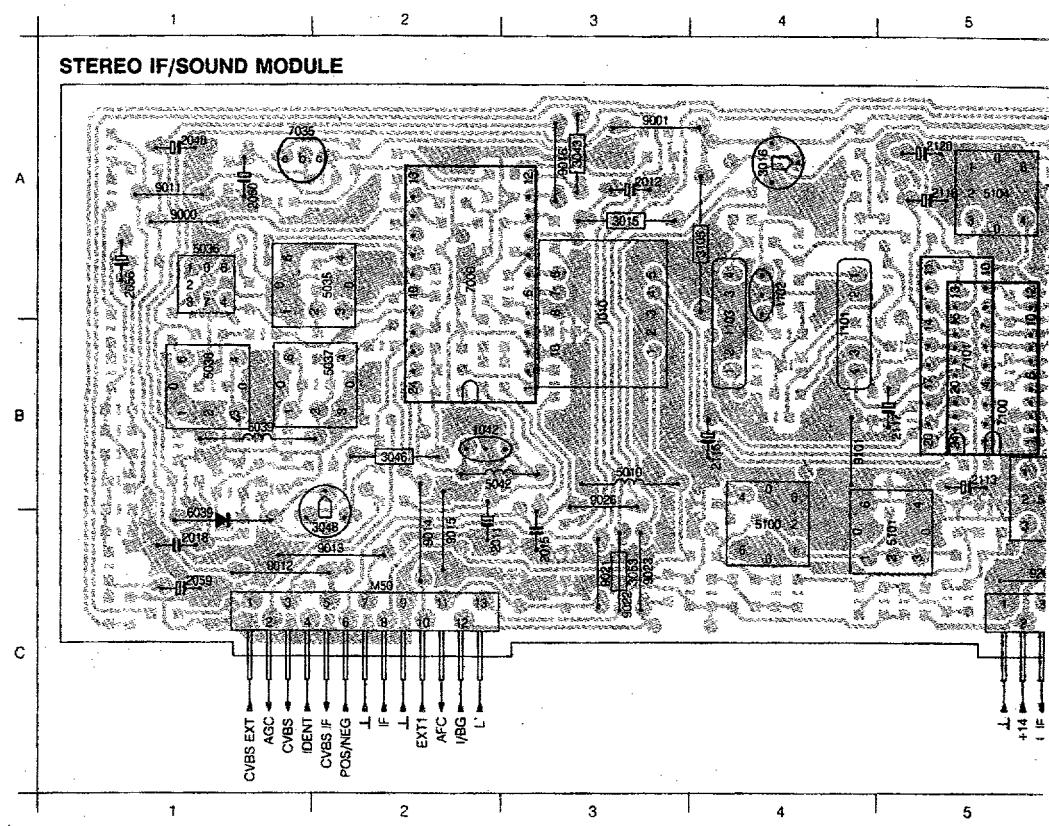
PCB 03173  
T28/107

A	M60 C2 M61 C6 1010 B4 1042 C3 1043 C3 1102 B7 1103 B7 2011 C4 2012 B4 2013 B3 2014 C4 2015 B3 2016 A3 2017 C1 2018 C4 2019 C4 2020 C4 2021 C4 2022 B4 2023 C4 2025 B4 2035 B3 2036 B2 2037 B2 2038 C1 2039 B2 2040 B2 2041 B2 2042 B2 2044 B3 2047 D1 2048 A1 2049 A3 2050 A2 2055 B1 2056 B1 2057 B1 2058 C1 2059 C1 2060 D1 2100 C5 2101 C5 2102 C5 2103 C6 2105 C5 2106 C6 2107 B6 2108 C6 2109 B6 2110 C6 2111 C5 2112 B6 2113 B5 2114 B5 2115 B6 2116 B6 2117 A6 2118 C6 2124 B8 2125 B9 2126 B7 2127 B7 2129 C7 2130 C9 2132 B8 2133 B8 2134 C8 2135 D9 2136 C8 2137 C8 2138 C7 2139 C8 2141 C9 2143 C7 2150 D9 2151 B7 3012 B3 3013 B3 3014 B4 3015 B4 3016 B4 3017 B4 3019 A3 3019 A3 3021 B4 3022 C4 3024 C4 3025 C4 3030 B3 3031 C4 3036 B3 3037 C2 3038 C2 3039 C2 3040 B2 3041 B2 3042 B3 3043 A1 3044 A3 3046 C3 3047 C3 3048 C2 3049 C2 3050 C2 3051 C2 3052 B3 3055 A2 3056 A2 3058 B3 3060 B1 3061 B1 3062 B1 3063 C1 3064 C1 3065 B1 3066 B1 3067 C1 3068 C1 3080 C7 3100 C6 3101 C5 3102 C6 3103 B6 3104 A5 3105 B8
B	3106 C8 3109 C8 3112 C8 3114 C7 3116 B5 3117 B4 3118 C8 3119 C7 3120 C7 3121 C8 3124 C9 3125 C8 3126 D8 3127 C9 3128 C7 3130 C8 3131 B7 3132 B6 3140 C9 3141 C9 3142 C9 3143 C9 3144 B7 4010 B2 4011 C3 4012 C2 4013 A4 4014 C2 4015 B3 4016 B3 4018 C3 4019 C3 4020 C2 4021 B3 4100 A3 5005 C4 5010 C4 5035 B3 5036 B2 5037 B3 5038 B1 5039 C2 5041 A4 5042 C3 5100 B5 5101 C6 5102 B6 5105 C7 5105 C4 5107 B2 6039 C2 6040 B1 6041 B1 6042 B1 6043 C1 6101 C6 6102 C6 6103 B6 6104 B6 6108 C7 6112 B9 7000 B3 7030 C2 7031 C2 7035 A2 7040 C1 7041 C1 7100 B6 7101 B8 7102 B4 7103 C9 7104 C9 9010 A1 9011 B1 9012 C2 9014 C3 9016 A4 9017 A4 9018 C3 9026 C4 9028 B5 9030 C5 9031 C5 9032 C5 9100 C5 9101 B8 9102 B7 9106 C6
C	9033 C5 9034 C5 9035 C5 9036 C5 9037 C5 9038 C2 9039 C2 9040 B2 9041 B2 9042 B3 9043 A1 9044 A3 9046 C3 9047 C3 9048 C2 9049 C2 9050 C2 9051 C2 9052 B3 9055 A2 9056 A2 9058 B3 9060 B1 9061 B1 9062 B1 9063 C1 9064 C1 9065 B1 9066 B1 9067 C1 9068 C1 9080 C7 3100 C6 3101 C5 3102 C6 3103 B6 3104 A5 3105 B8
D	3107 B7

**Stereo IF/sound module / Stereo ZF/Tonmodul /**

CHASSIS GR2.1

6.35

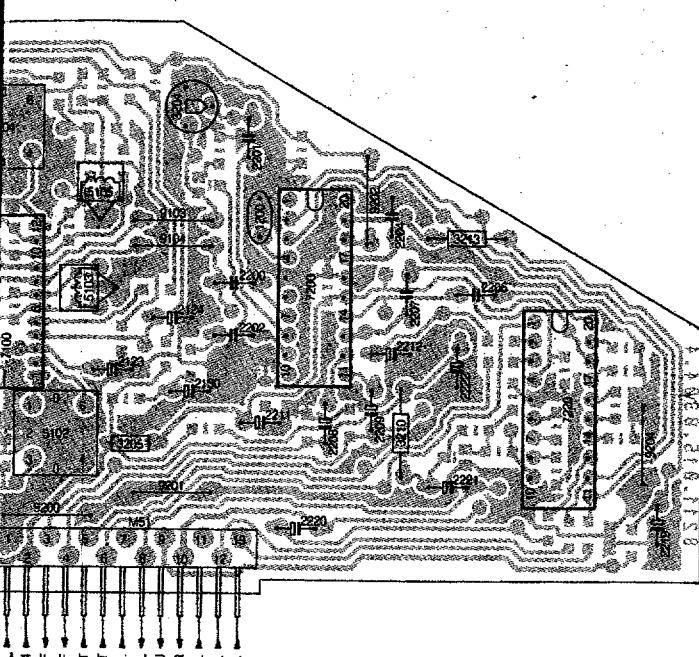


## Module FI/son stéréo

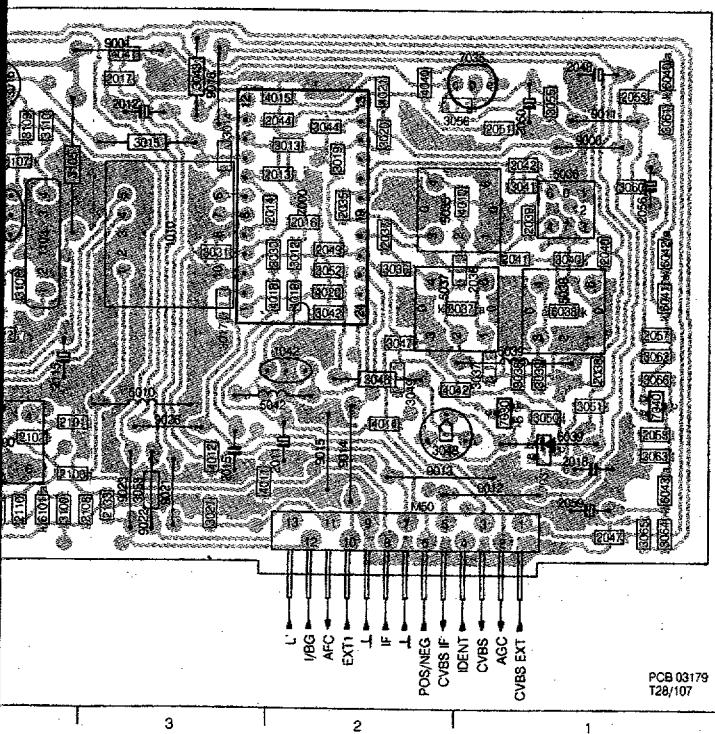
6

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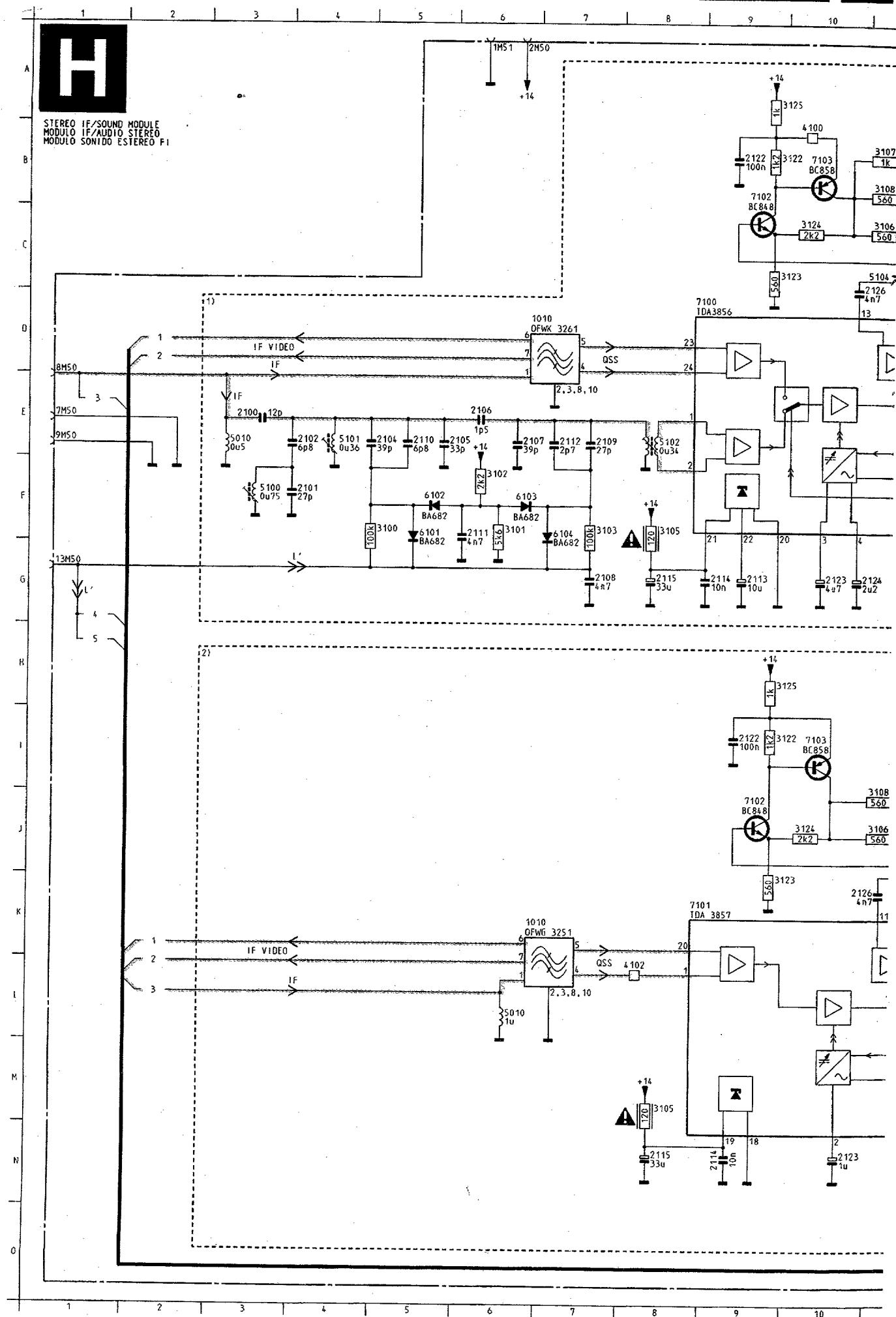
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	1101 B4	3102 C5
	1102 A4	3103 C5
	1103 B4	3105 A4
	1200 A7	3106 A4
	2011 C2	3107 B4
	2012 A3	3108 B4
	2013 A2	3109 A4
	2014 A3	3110 A4
	2015 C3	3112 A4
	2016 A2	3113 A4
	2017 A3	3115 B5
	2018 C1	3117 B5
	2035 A2	3119 A6
	2036 B1	3120 A6
	2037 B2	3121 A5
	2038 B1	3122 A5
	2039 A1	3123 B4
	2040 B1	3124 B4
	2041 B1	3125 A5
	2042 A1	3126 A6
	2044 A2-	3127 B6
	2047 C1	3128 B6
	2048 A1	3200 C8
	2049 B2	3201 C9
	2050 A1	3202 B7
	2051 A1	3203 B7
	2055 A1	3204 A6
	2056 A1	3205 C6
	2057 B1	3206 B8
	2058 C1	3207 C8
	2059 C1	3208 B8
	2100 C3	3209 B8
	2101 B3	3210 B7
	2102 C4	3211 B6
	2104 C4	3213 A8
	2105 B5	3214 C8
	2106 C5	4010 A2
	2107 C5	4011 C3
	2108 C4	4012 C3
	2109 C5	4014 B2
	2110 C4	4015 A2
	2111 C5	4018 B3
	2112 C5	4019 B2
	2113 B5	4020 B2
	2114 B5	4021 A2
	2115 B4	4040 A2
	2117 B5	4041 A3
	2118 A5	4042 B1
	2119 A5	4100 B5
	2120 A5	4101 A6
	2122 B4	4102 B5
	2123 B6	4104 B6
	2124. B6	4105 B6
	2125. B5	4107 A4
	2126 A5	4108 A4
	2127 A6	4201 B8
	2128 A6	4204 C8
	2129 A6	4205 B7
	2210 B6	5010 B3
	2213 C3	5035 A2
	2216 B6	5036 A1
	2251 A7	5037 B2
	2202 B6	5038 B1
	2203 A7-	5039 B1
	2204 A7	5042 B2
	2205 B7	5100 A4
	2206 B8	5101 C6
	2207 B7	5102 B5
	2208 C7	5103 B6
	2209 B7	5104 A5
	2210 B8	5105 A6
	2211 B7	6037 B1
	2212 B7	6038 B1
	2213 B8	6039 C1
	2214 B8	6040 A1
	2215 B8	6041 B1
	2216 C8	6042 B1
	2217 B8	6043 C1
	2218 B8	6101 C4
	2219 C8	6102 C4
	2220 C7	6103 C4
	2221 C8	6104 C5
	2222 B8	6106 A4
	3012 B2	6107 A4
	3013 A2	6108 A6
	3014 A3	6109 B6
	3015 A3	7000 A2
	3016 A4	7030 B1
	3017 B3	7031 C1
	3019 A2	7035 A1
	3020 A2	7046 B1
	3021 C2	7100 B5
	3030 B3	7101 B5
	3031 B3	7102 B5
	3036 B2	7103 B4
	3037 B1	7104 A6
	3038 B1	7200 B7
	3039 B1	7220 B8
	3040 B1	7332 C8
	3041 A1	9000 A1
	3042 B2	9001 A3
	3043 A3	9011 A1
	3044 A2	9012 C1
	3046 B2	9013 C2
	3047 B2	9014 C2
	3048 C2	9015 C2
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	3050 B1	9021 C3
	3051 B1	9022 C3
	3052 B2	9023 C3
	3053 C3	9026 B3
	3055 A1	9101 B4
	3056 A1	9103 A6
	3060 A1	9104 A6
	3061 A1	9200 C5
	3062 B1	9201 C6
	3063 C1	9202 A7
	3064 C1	9204 C8
	3065 C1	

PCB 03179  
T28/107

## **Stereo IF/sound module / Stereo ZF/Tonmodul /**

CHASSIS GR2.1

6.37

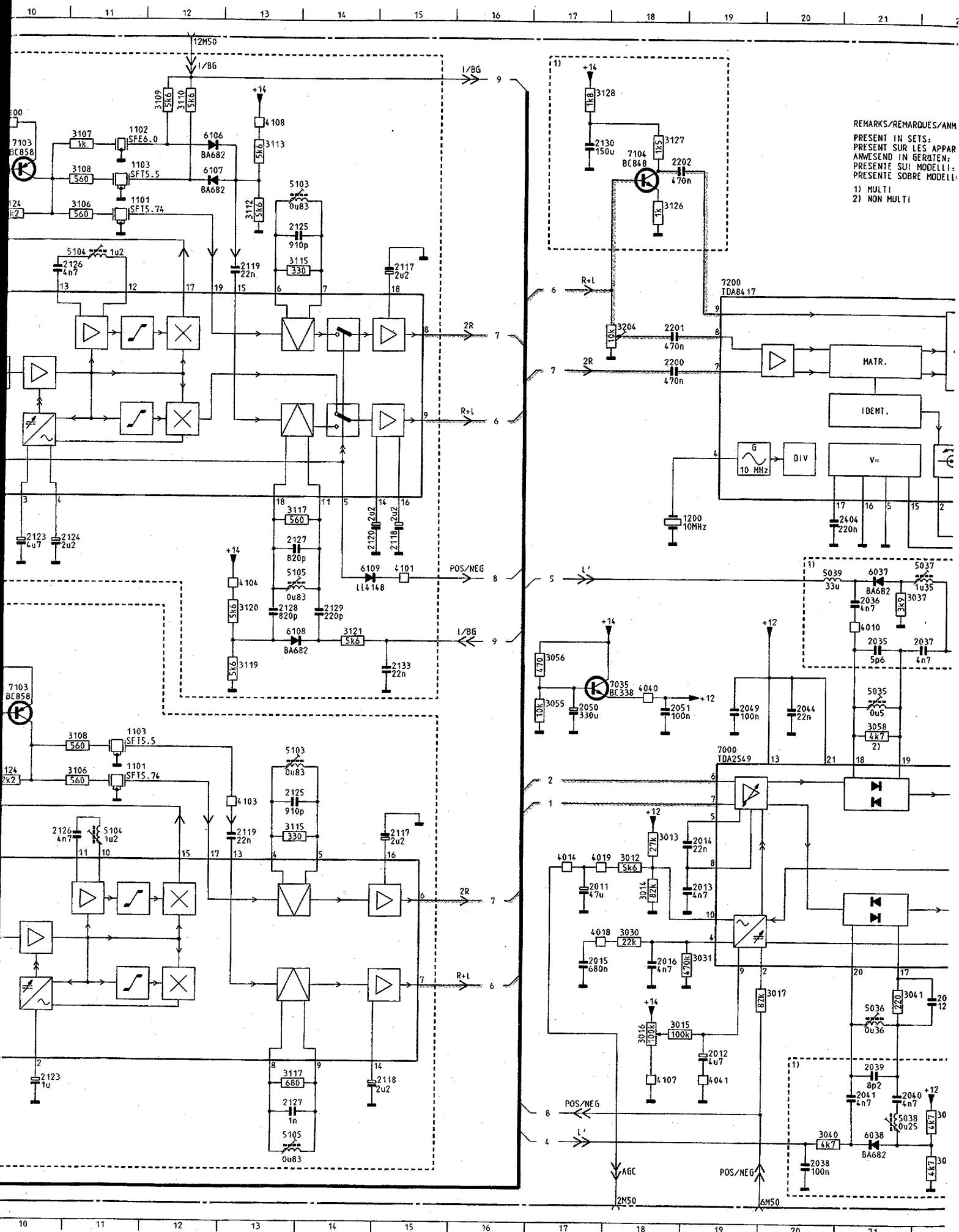


6.37

6.38

CHASSIS GR2.1

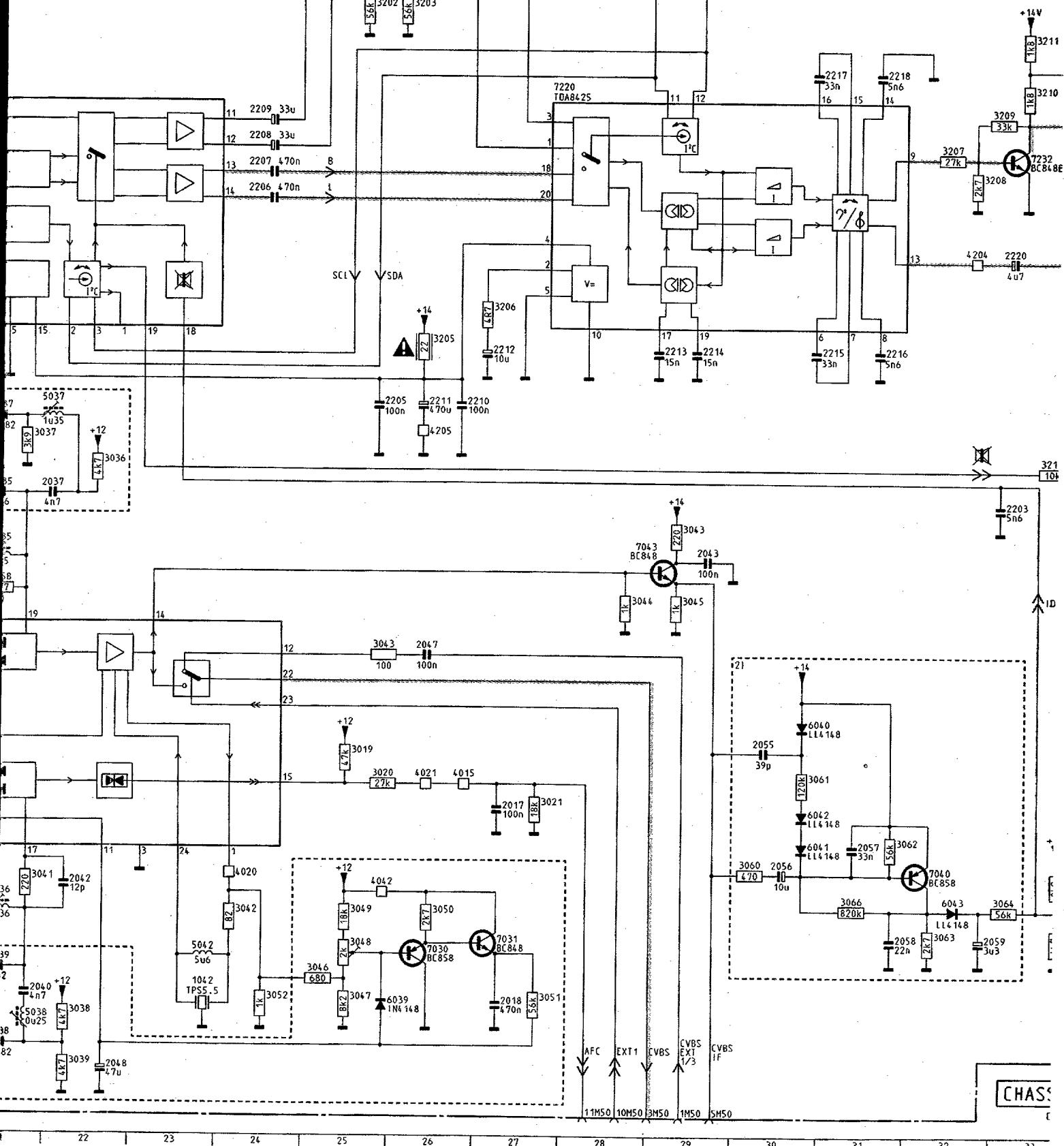
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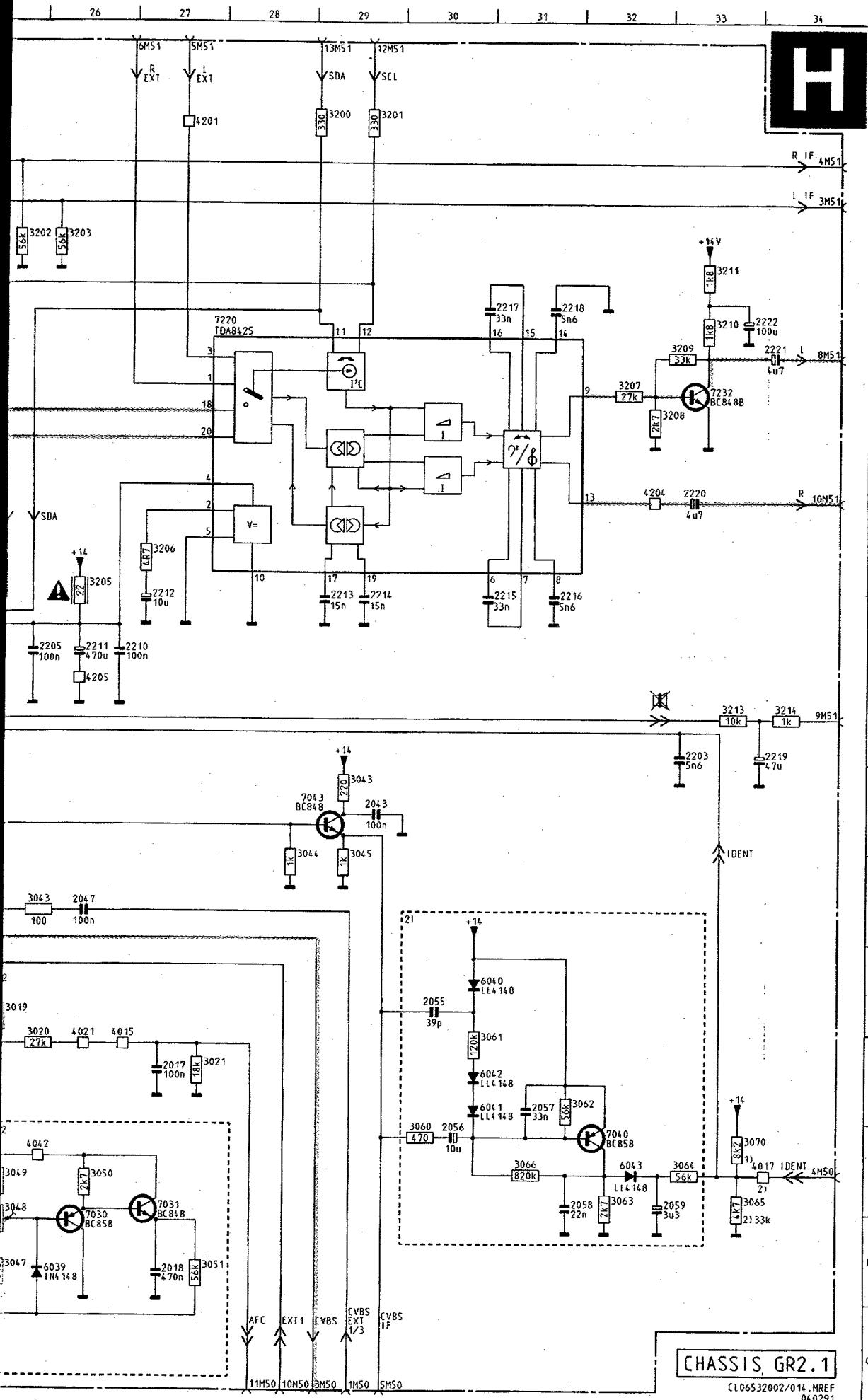


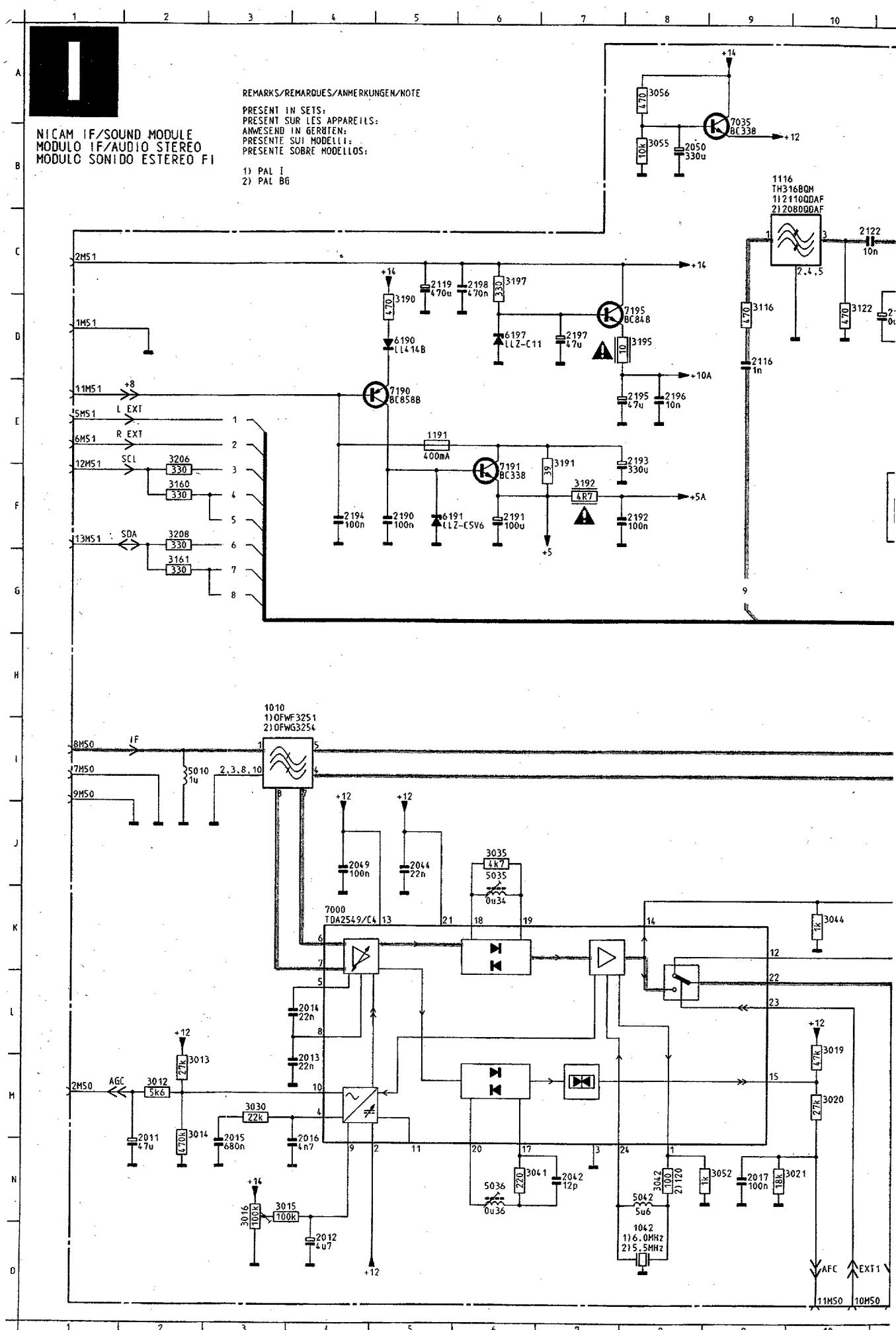
#### **REMARQUES / ANMERKUNGEN / NOTES**

REMARQUES/ANMERKUNGEN  
IN SETS:  
SUR LES APPAREILS:  
IN GERÜTEN:  
SUI MODELLI:  
SOBRE MODELOS:

1





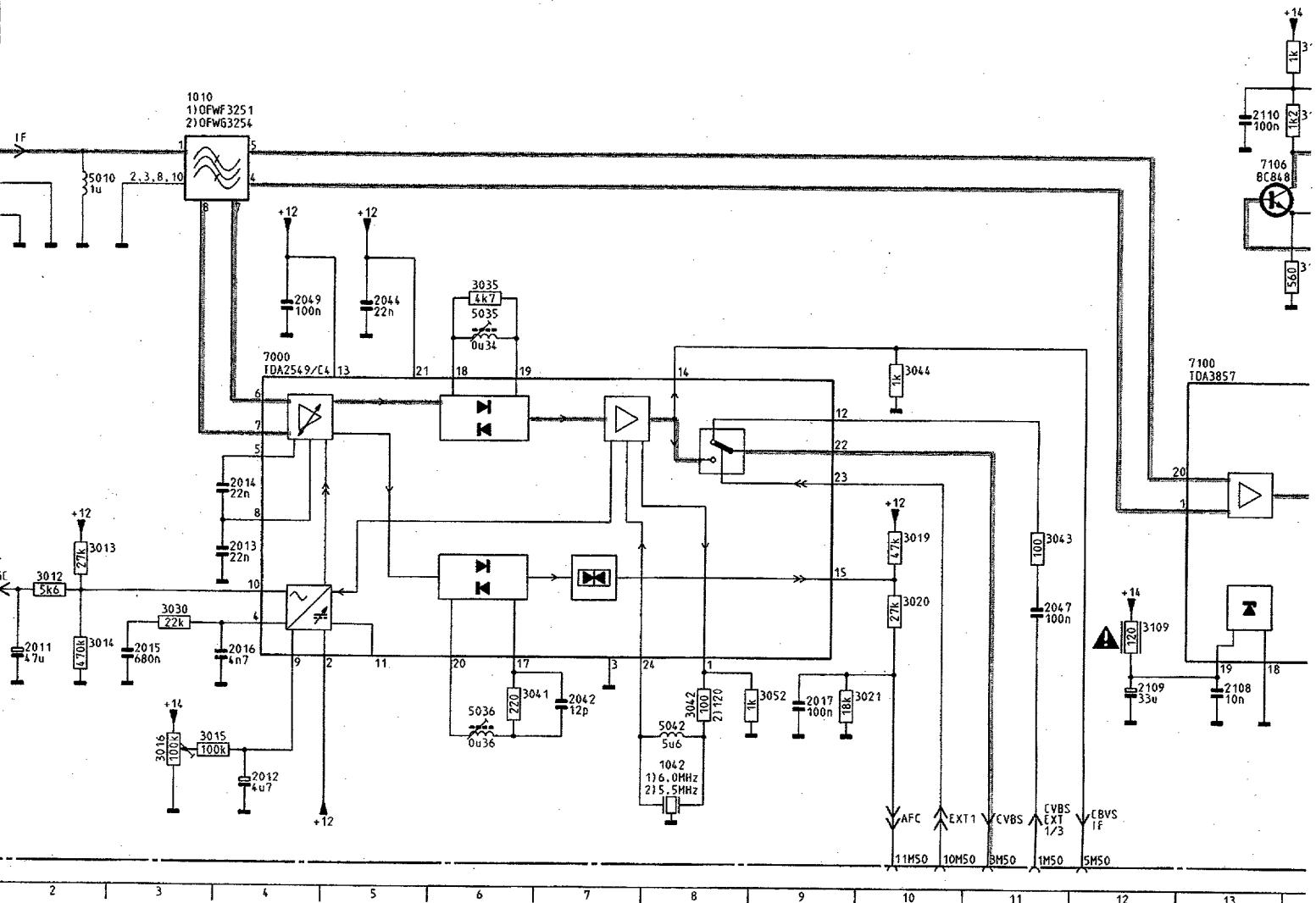
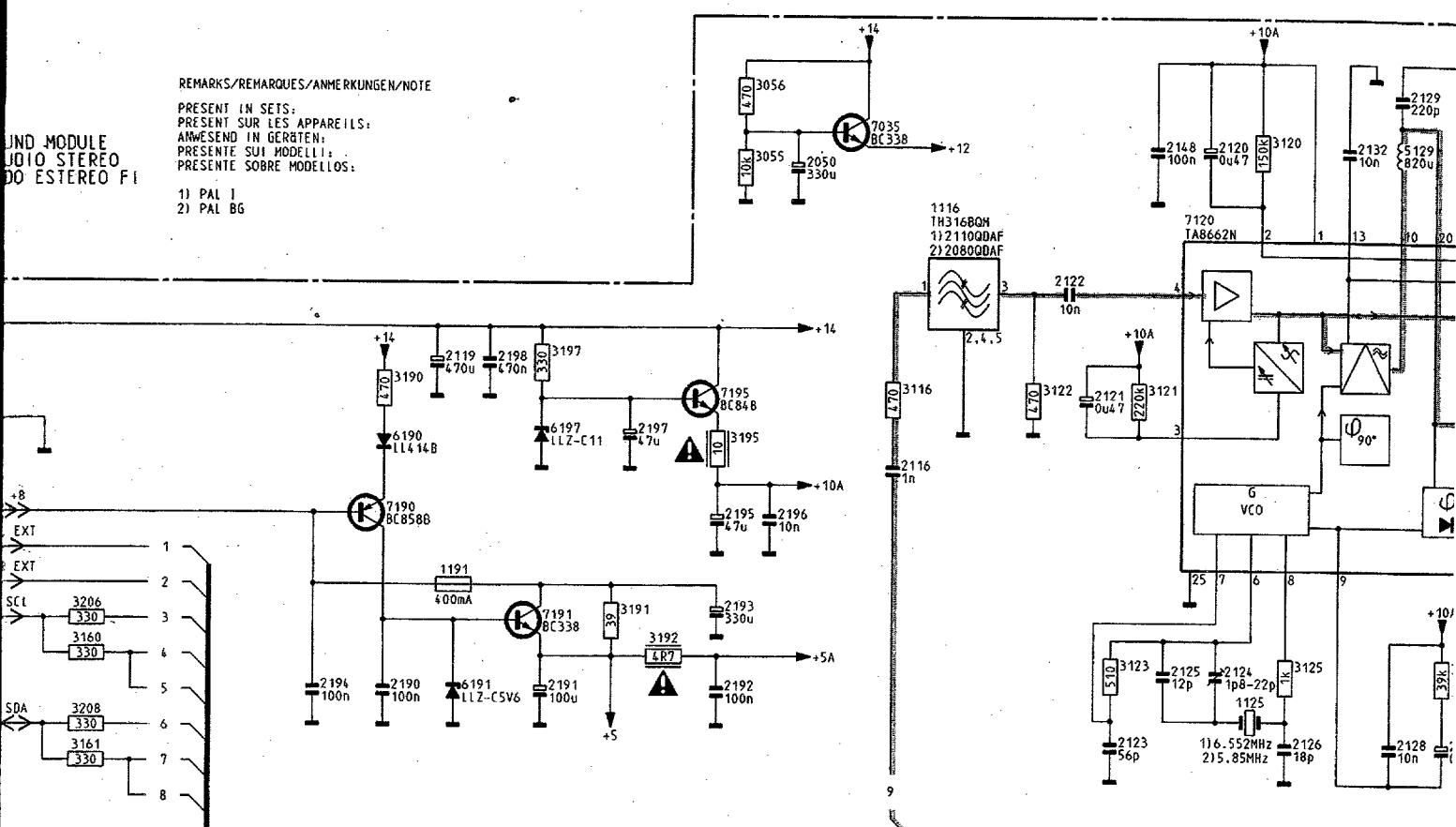


SUND MODULE  
UDIO STEREO  
DO ESTEREO FI

**REMARKS/REMARQUES/ANMERKUNGEN/NOTE**

PRESENT IN SETS:  
PRESENT SUR LES APPAREILS:  
ANWESEND IN GERÄTEN:  
PRESENTE SUI MODELLI:  
PRESENTE SOBRE MODELLOS:

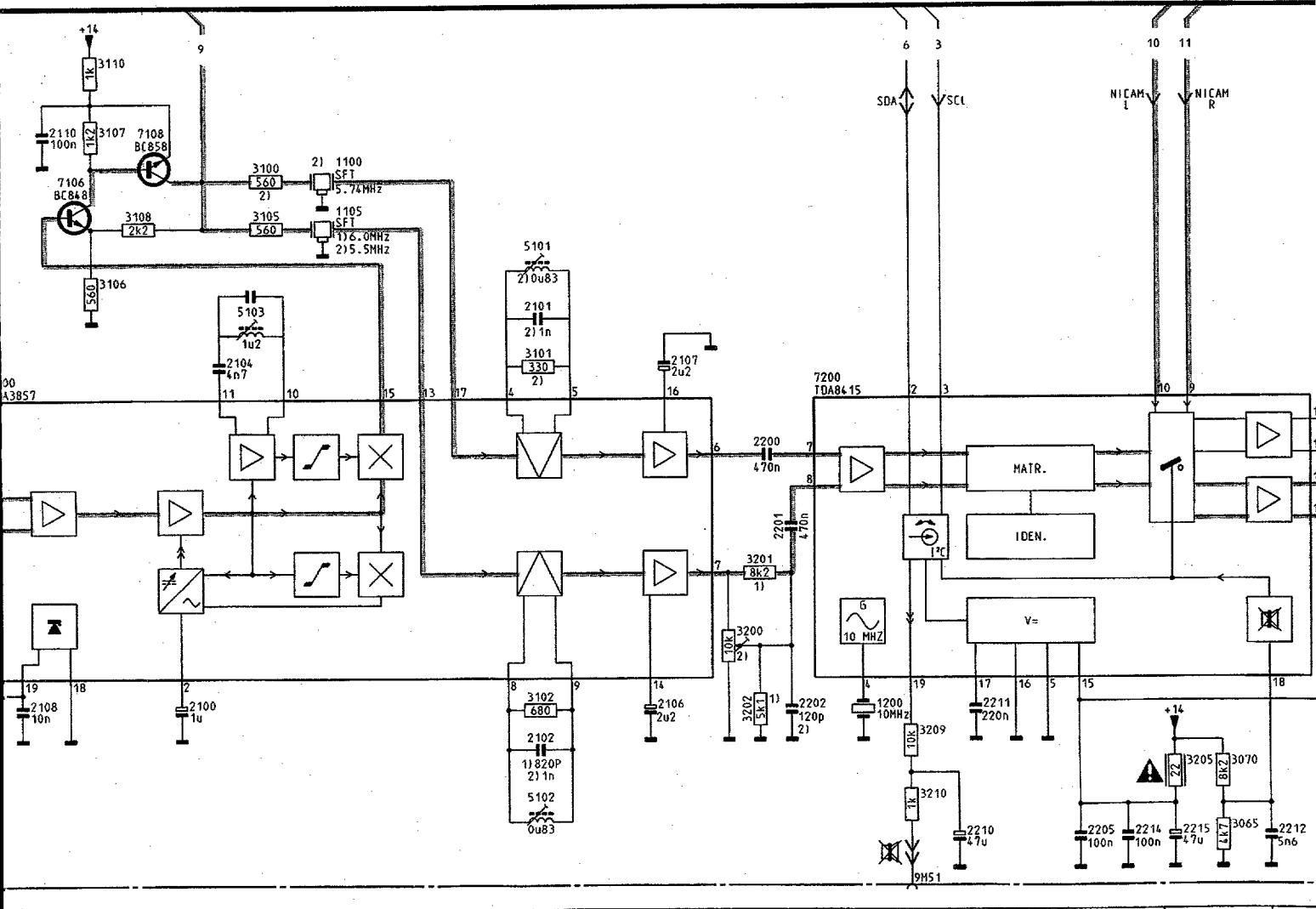
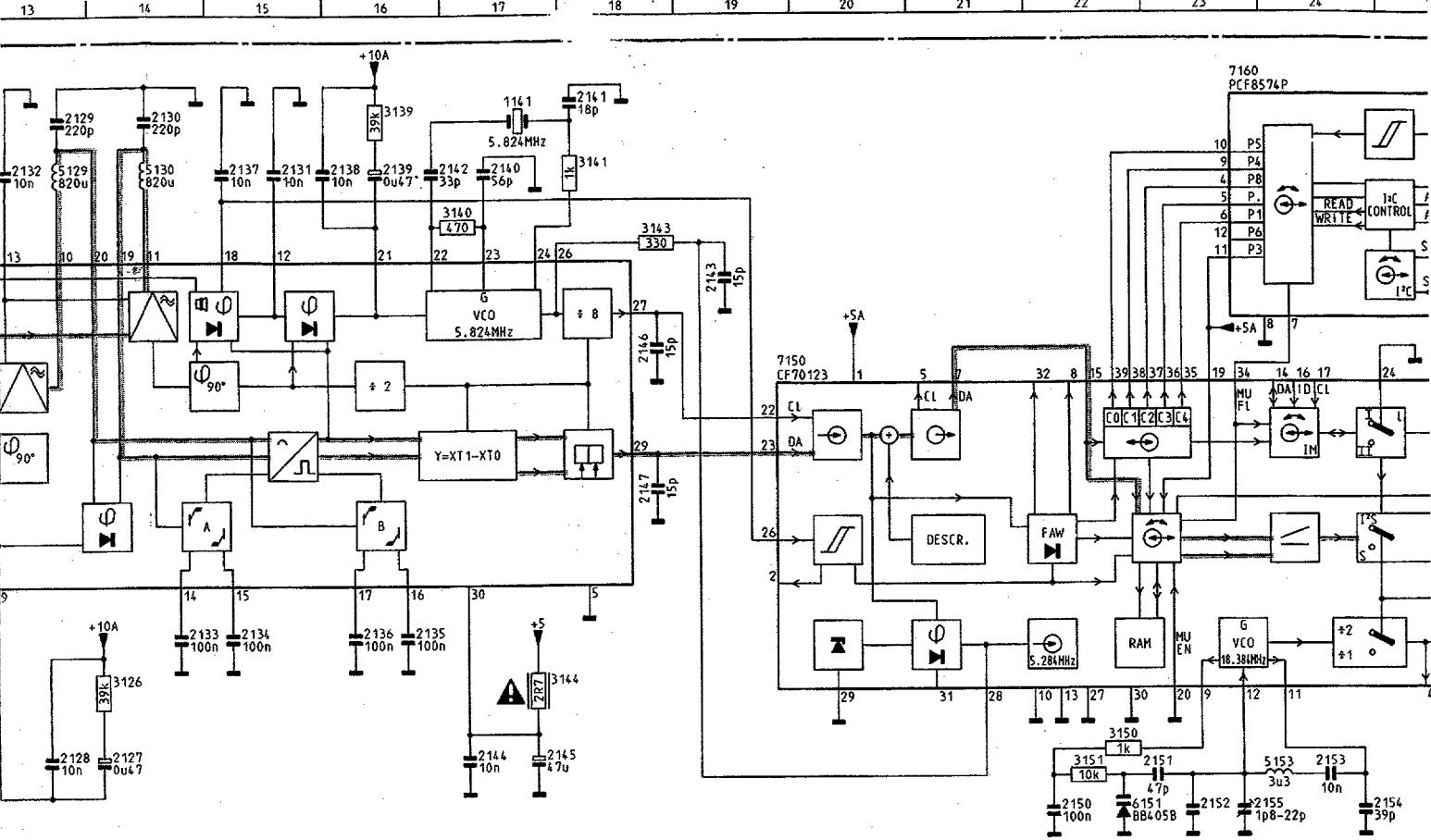
1) PAL J  
2) PAL BG



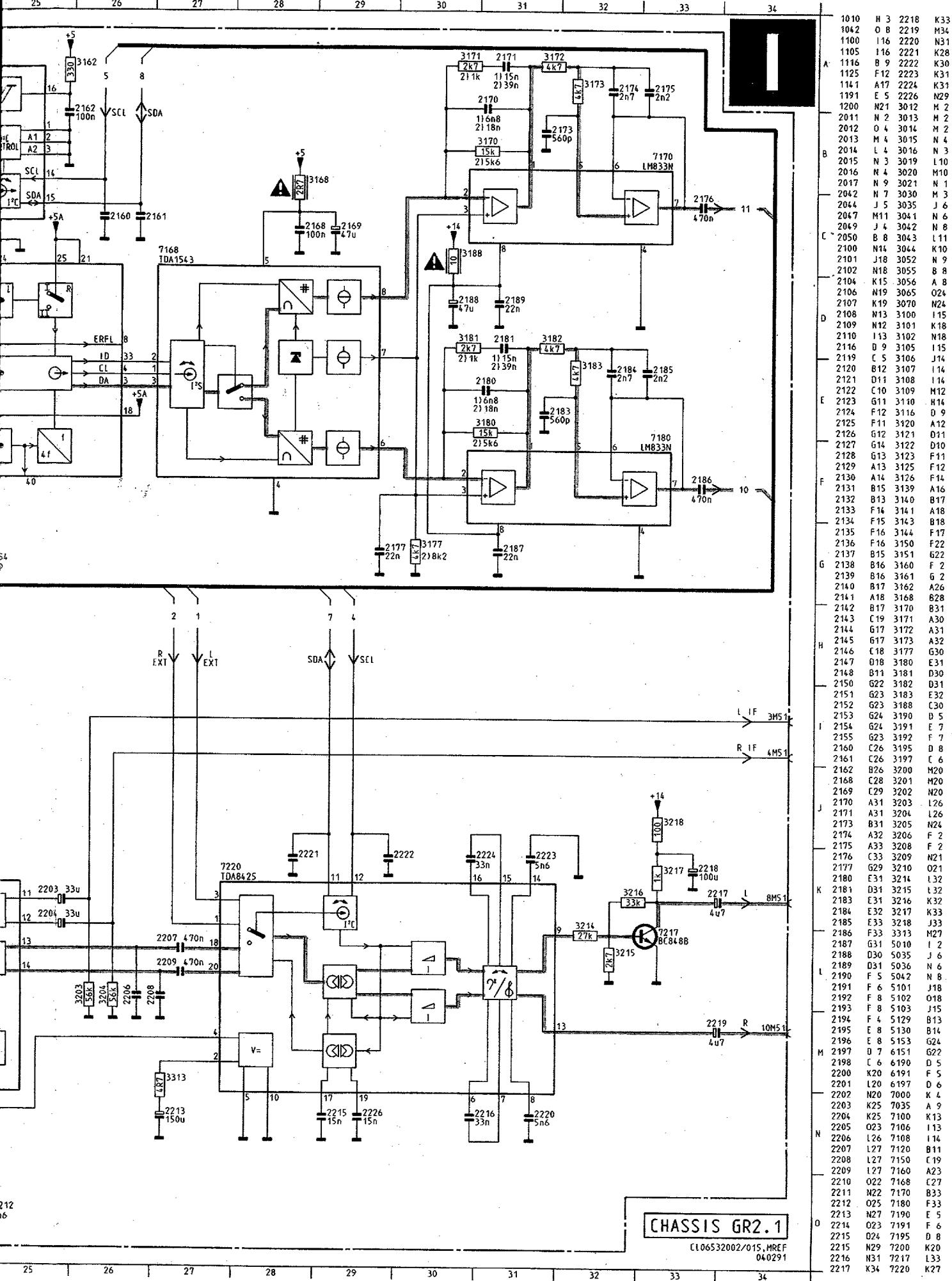
## **NICAM IF/sound module / NICAM ZF/Tonmodul /**

CHASSIS GR2.1

6,43



## **Module FI/son NICAM**

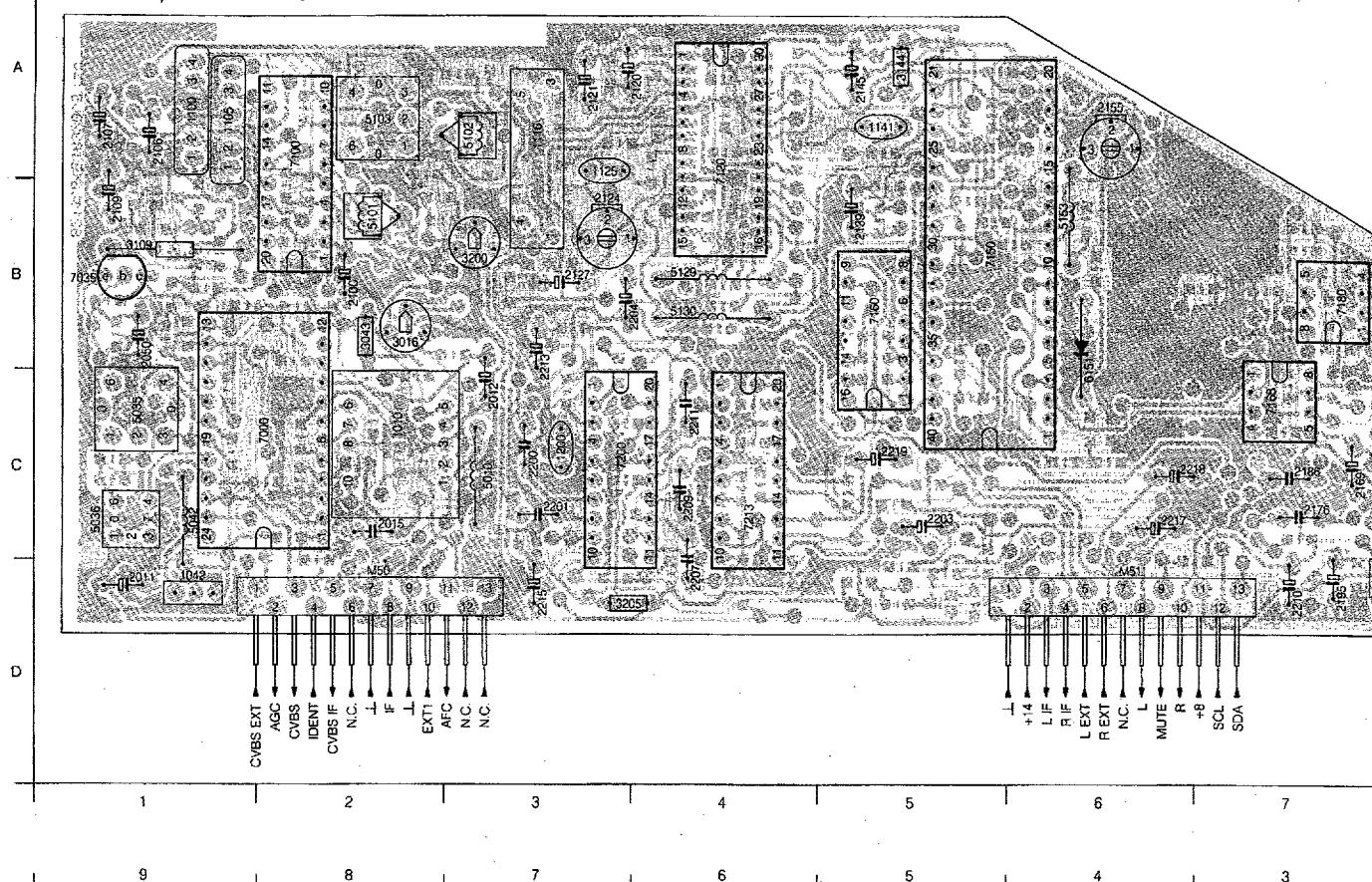


## **NICAM IF/sound module / NICAM ZF/Tonmodul /**

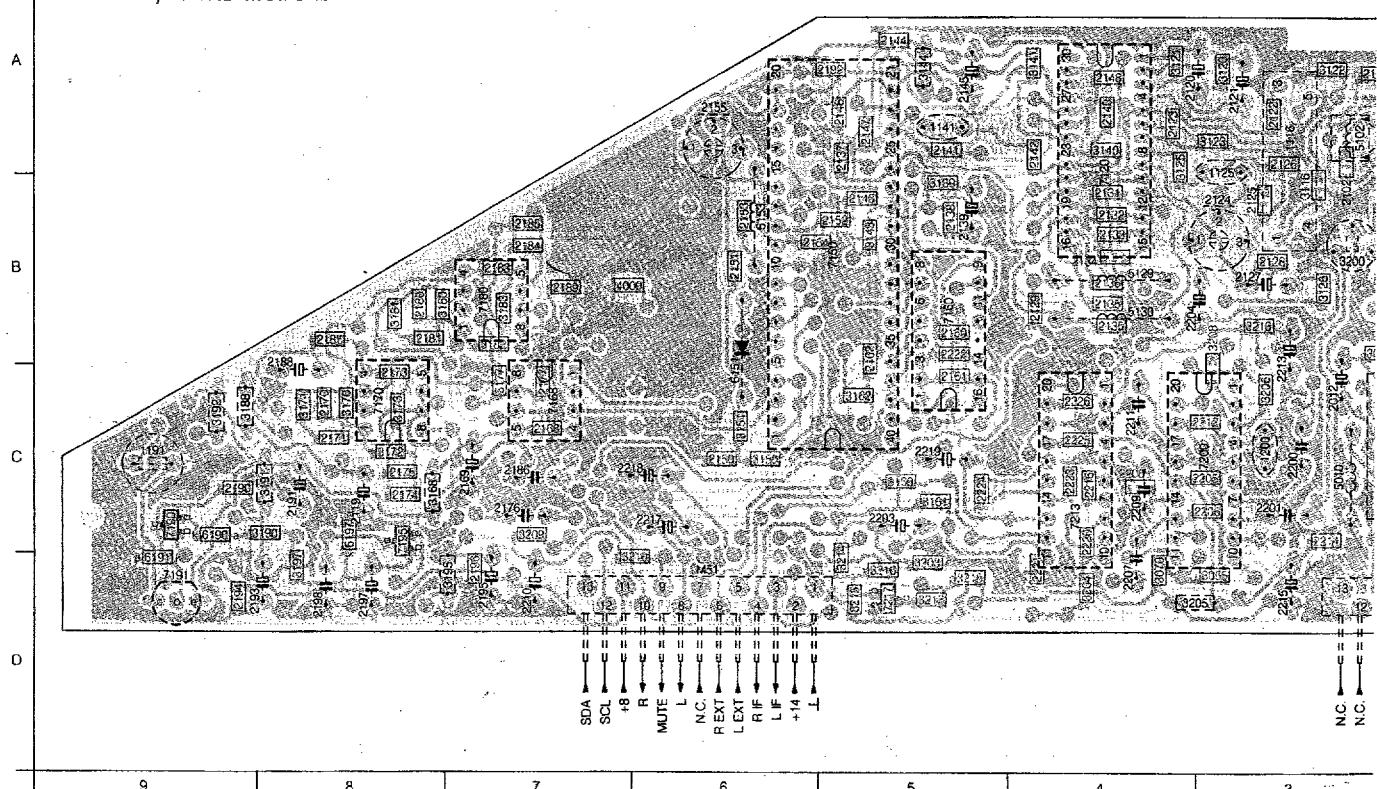
CHASSIS GR2.1

6.45

## **NICAM IF/SOUND MODULE**



## NICAM IF/SOUND MODULE



6.45

6.46

CHASSIS GR2.1

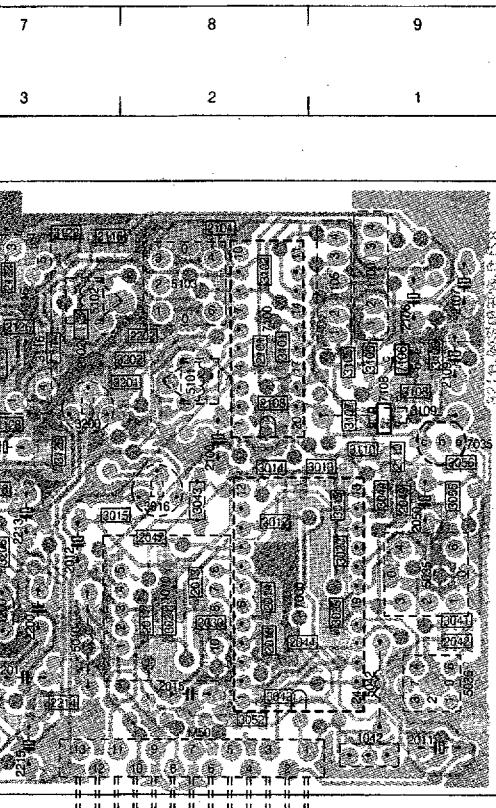
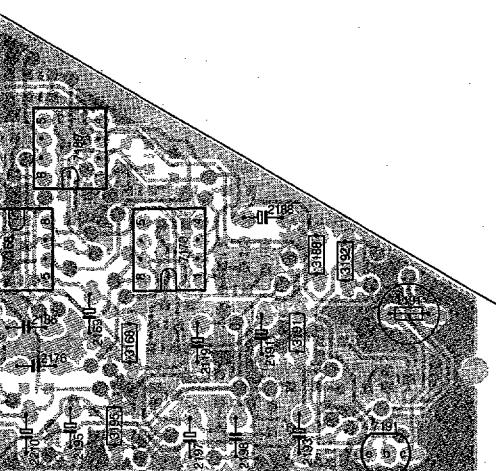
# Module FI/son NICAM

7

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9

A	M60 D2 M61 D6 1010 C2 1042 D1 1100 A1 1105 A1 1116 A3 1125 A3 1141 A5 1191 C8 1200 C3 2011 D1 2012' C3 2013 C2 2014 C2 2015 C2 2016 C2 2017 C2 2042 C1 2044 C1 2047 C2 2049 B1 2050 B1 2100 B2 2101 B2 2102 B3 2104 A2 2106 A1 2107 A1 2108 B2 2109 B1 2110 B1 2116 A2 2119 C8 2120 A4 2121 A3 2122 A3 2123 A4 2124 B3 2125 B3 2126 A3 2127 B3 2128 B3 2129 B4 2130 B4 2131 B4 2132 B4 2133 B4 2134 B4 2135 B4 2136 B4 2137 A5 2138 B5 2139 B5 2140 A4 2141 A5 2142 A4 2143 B5 2144 A5 2145 A5 2146 A5 2147 A5 2148 A4 2150 C6 2151 B6 2152 B5 2153 B6 2154 B5 2155 A6 2160 B5 2161 C5 2162 C5 2168 C7 2169 C7 2170 C8 2171 C8 2173 C8 2174 C8 2175 C8 2176 C7 2177 C7 2180 B8 2181 B8 2183 B7 2184 B7 2185 B7 2186 C7 2187 B8 2188 B8 2189 B7 2190 C9 2191 C8 2192 A5 2193 D9 2194 D9 2195 D7 2196 D7 2197 D8 2198 D8 2200 C3 2201 C3 2202 A2 2203 C5 2204 B4 2205 C3 2206 C3 2207 D4 2208 C4 2209 C4 2210 D7 2211 C4 2212 C3 2213 C3 2214 C3 2215 D3 2216 C4 2217 C6 2218 C6 2219 C5 2220 C4 2221 D4 2222 B5 2223 C4 2224 C5 2225 C4 2226 C4 3012 B2 3013 B1 3014 B2
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PCB.03183  
T28/106

NC  
NC  
AFC  
EXT1  
IF  
NC  
CVBS IF  
IDENT  
CVBS  
AGC  
CVBS EXT

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2

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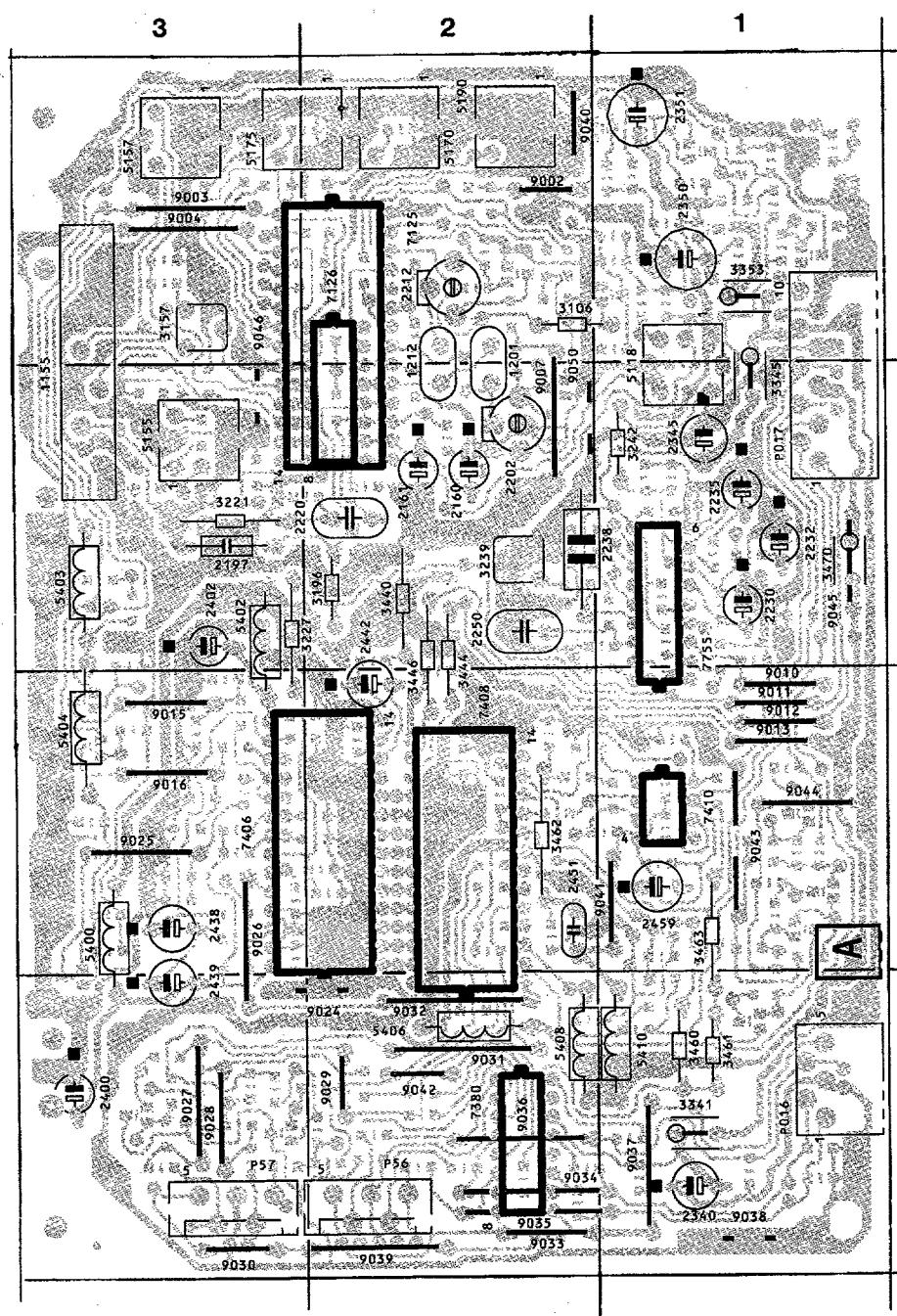
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9

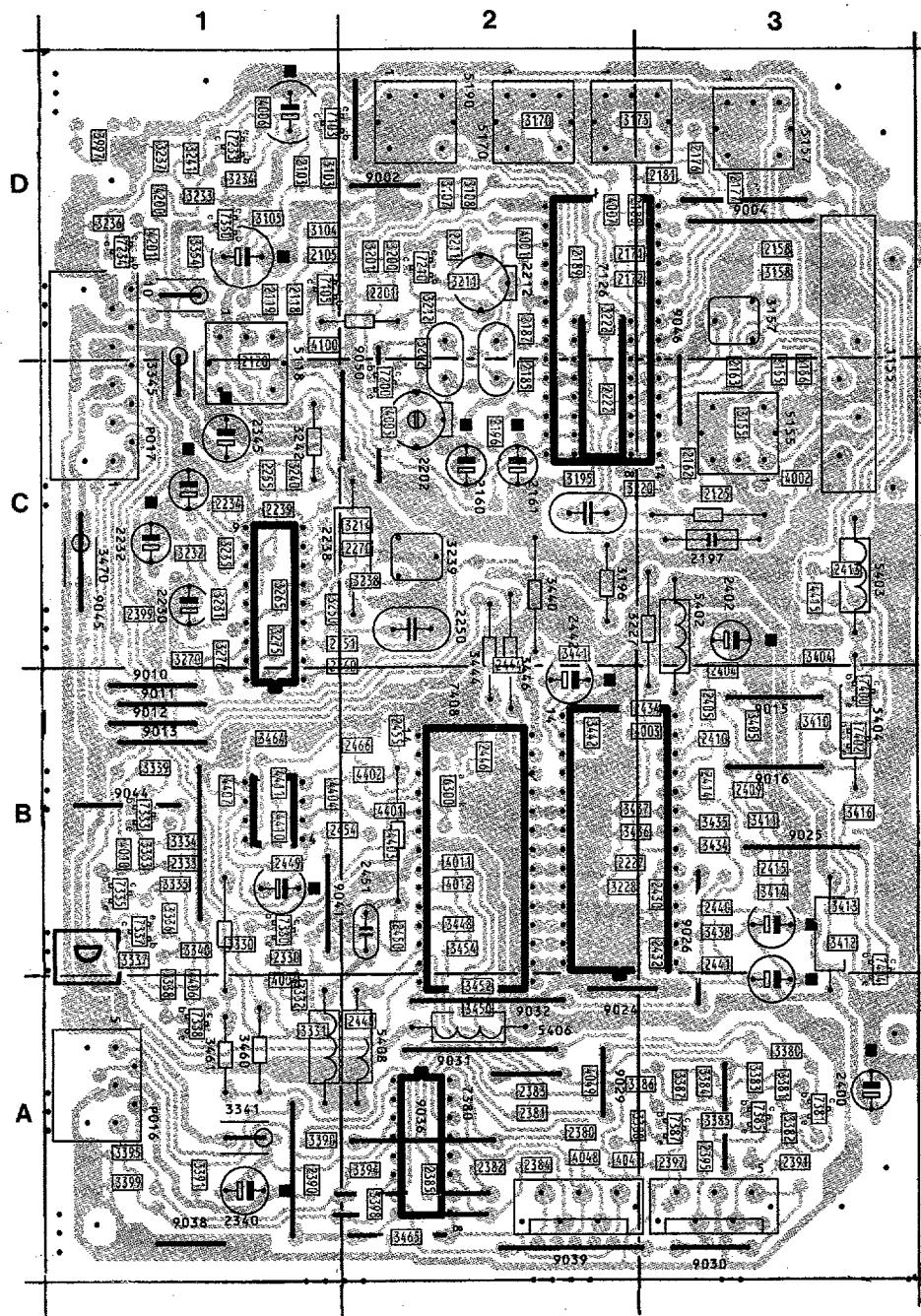
**PIP module / PIP-Modul / Module PIP**

CHASSIS GR2.1

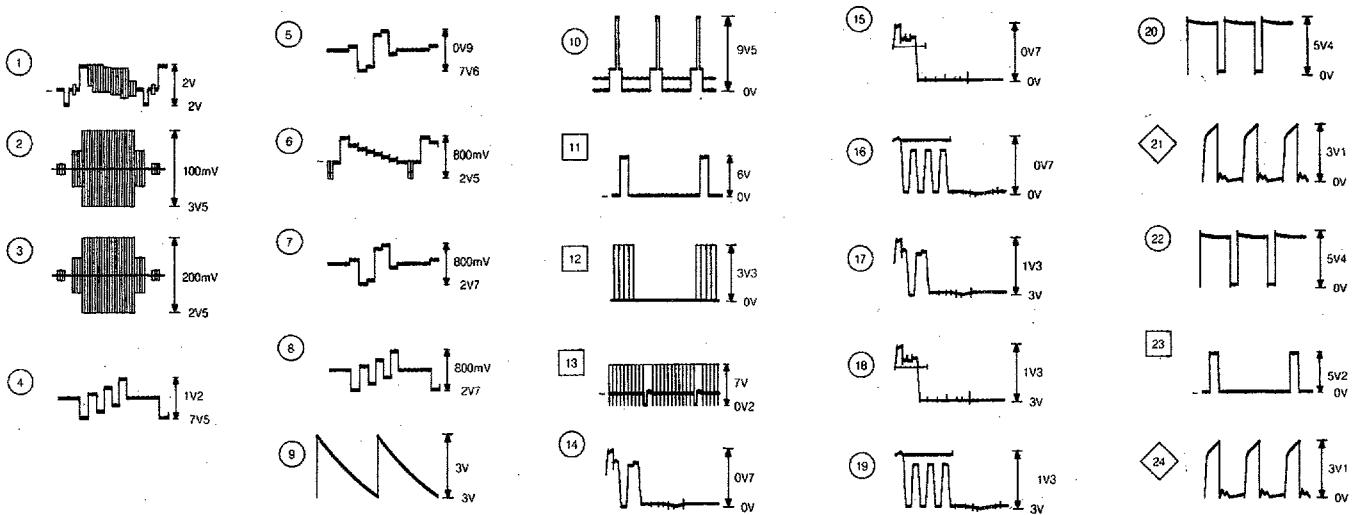
6.47



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1212 D2	2409 B3	3275 C1	4002 C9
2103 D1	2410 B3	3276 C1	4003 B2
2105 D1	2413 C3	3330 B1	4004 A1
2118 D1	2414 B3	3331 A1	4005 C2
2119 D1	2415 B3	3332 A1	4006 D1
2120 D1	2430 B3	3333 B1	4007 D2
2125 C3	2432 B3	3334 B1	4010 B1
2155 C3	2434 B2	3335 B1	4011 B2
2158 D3	2438 B3	3336 B1	4012 B2
2160 C2	2439 A3	3337 B1	4047 A2
2161 C2	2440 B3	3338 A1	4048 A2
2162 C3	2441 B3	3339 B1	4049 A2
2163 C3	2442 B2	3340 B1	4100 D1
2171 D2	2444 C2	3341 A1	4200 D1
2172 D2	2446 B2	3345 C1	4201 D1
2176 D3	2448 A2	3353 D1	4401 B2
2177 D3	2449 B1	3354 D1	4402 B2
2180 D2	2450 B2	3380 A3	4403 B2
2181 D3	2451 B2	3381 A3	4404 B1
2185 C2	2454 B1	3382 A3	4406 A1
2187 D2	2455 B2	3383 A3	4407 B1
2189 D2	2459 B1	3384 A3	4410 B1
2196 C2	2466 B2	3385 A3	4411 B1
2197 C3	3103 D1	3386 A2	4415 C3
2201 D2	3104 D1	3387 A3	5118 D1
2202 C2	3105 D1	3388 A2	5155 C3
2211 D2	3106 D2	3390 A1	5157 D3
2212 D2	3107 D2	3391 A1	5170 D2
2220 C2	3108 D2	3394 A2	5175 D2
2222 C2	3155 C3	3395 A1	5190 D2
2227 B2	3156 C3	3398 A2	5400 B3
2230 C1	3157 D3	3399 A1	5402 C3
2232 C1	3158 D3	3404 C3	5403 C3
2234 C1	3170 D2	3405 B3	5404 B3
2235 C1	3175 D2	3410 B3	5406 A2
2238 C2	3195 C2	3411 B3	5408 A2
2239 C1	3196 C2	3412 B3	5410 A1
2250 C2	3200 D2	3413 B3	6300 B2
2251 C1	3201 D2	3414 B3	7103 D1
2255 C1	3202 D2	3416 B3	7105 D1
2260 C1	3211 D2	3434 B3	7125 D3
2270 C2	3212 D2	3435 B3	7126 D2
2330 B1	3214 C2	3436 B2	7200 C2
2333 B1	3220 C2	3437 B2	7210 D2
2340 A1	3221 C3	3438 B3	7233 D1
2345 C1	3222 D2	3440 C2	7234 D1
2350 D1	3227 C3	3441 C2	7330 B1
2351 D1	3228 B2	3442 B2	7333 B1
2380 A2	3231 C1	3444 C2	7335 B1
2381 A2	3232 C1	3446 C2	7337 B1
2382 A2	3233 D1	3448 B2	7338 A1
2383 A2	3234 D1	3450 A2	7350 D1
2384 A2	3235 C1	3452 A2	7380 A2
2385 A2	3236 D1	3454 B2	7381 A3
2389 A1	3237 D1	3460 A1	7385 A3
2391 A3	3238 C2	3461 A1	7387 A3
2395 A3	3239 C2	3462 B2	7400 B3
2397 A3	3240 C1	3463 B1	7402 B3
2399 C1	3241 D1	3464 B1	7404 B3
2400 A3	3242 C1	3465 A2	7406 B2
2402 C3	3250 C1	3470 C1	7408 A2



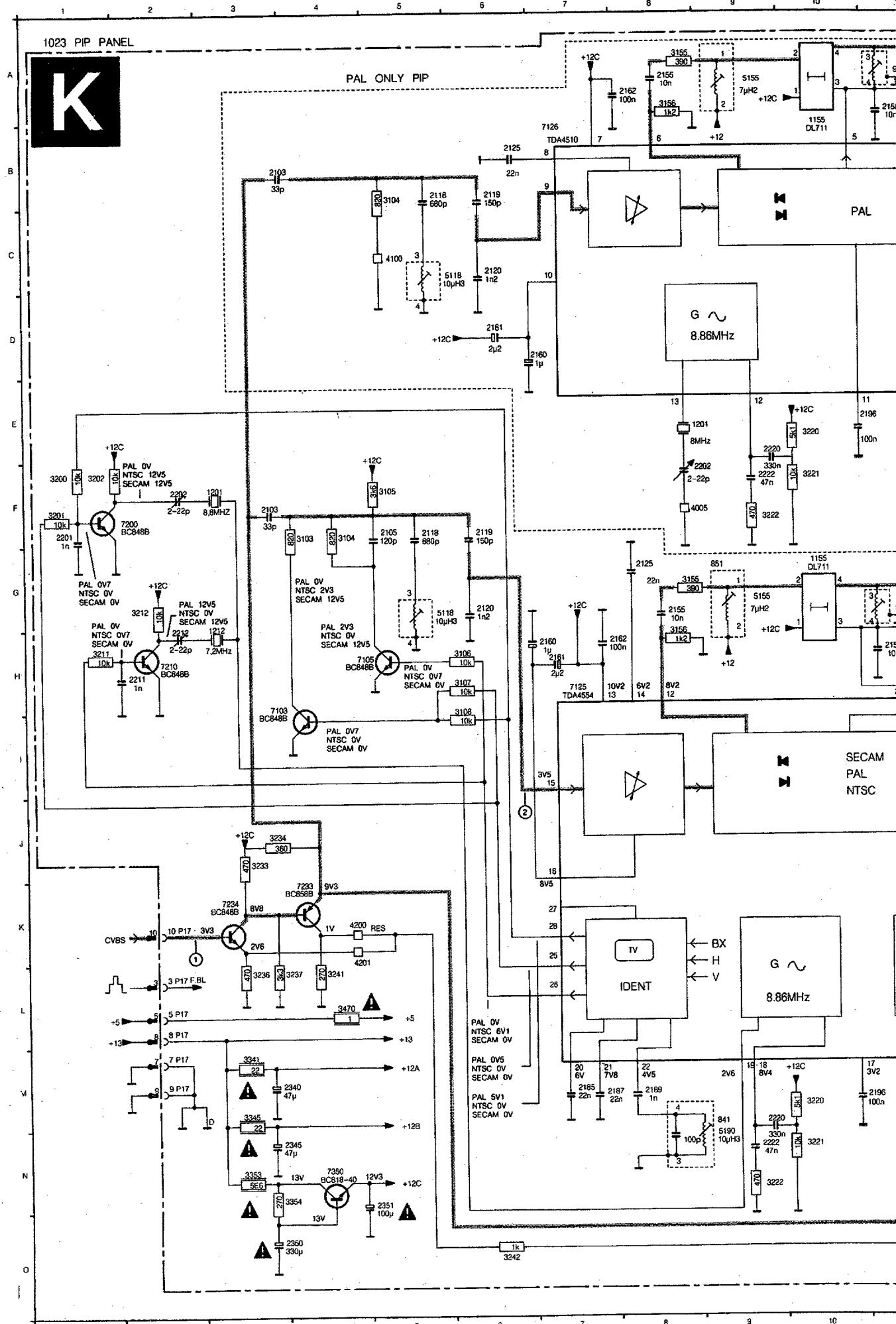
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2103 D1	2410 B3	3276 C1	4003 B2	9003 D3
2105 D1	2413 C3	3330 B1	4004 A1	9004 D3
2111 D1	2414 B3	3331 A1	4005 C2	9007 C2
2119 D1	2415 B3	3332 A1	4006 D1	9010 B1
2120 D1	2430 B3	3333 B1	4007 D2	9011 B1
2125 C3	2432 B3	3334 B1	4010 B1	9012 B1
1555 C3	2434 B2	3335 B1	4011 B2	9013 B1
2158 D3	2438 B3	3336 B1	4012 B2	9015 B3
2160 C2	2439 A3	3337 B1	4047 A2	9016 B3
2161 C2	2440 B3	3338 A1	4048 A2	9024 A2
2162 C3	2441 B3	3339 B1	4049 A2	9025 B3
2163 C3	2442 B2	3340 B1	4100 D1	9026 B3
2171 D2	2444 C2	3341 A1	4200 D1	9027 A3
2172 D2	2446 B2	3345 C1	4201 D1	9028 A3
2176 D3	2448 A2	3353 D1	4401 B2	9029 A2
2177 D3	2449 B1	3354 D1	4402 B2	9030 A3
2180 D2	2450 B2	3380 A3	4403 B2	9031 A2
2181 D3	2451 B2	3381 A3	4404 B1	9032 A2
1855 C2	2454 B1	3382 A3	4405 A1	9033 A2
2187 D2	2455 B2	3383 A3	4407 B1	9034 A2
1838 D2	2459 B1	3384 A3	4410 B1	9035 A2
2196 C2	2466 B2	3385 A3	4411 B1	9036 A2
2197 C3	3103 D1	3386 A2	4415 C3	9037 A1
2201 D2	3104 D1	3387 A3	5118 D1	9038 A1
2202 C2	3105 D1	3388 A2	5155 C3	9039 A2
2211 D2	3106 D2	3390 A1	5157 D2	9040 D2
2212 D2	3107 D2	3391 A1	5170 D2	9041 B1
2220 C2	3108 D2	3394 A2	5175 D2	9042 A2
2222 C2	3155 C3	3395 A1	5190 D2	9043 B1
2227 B2	3156 C3	3398 A2	5400 B3	9044 B1
2230 C1	3157 D3	3399 A1	5402 C3	9045 C1
2232 C1	3158 D3	3404 C3	5403 C3	9046 C3
2234 C1	3170 D2	3405 B3	5404 B3	9050 C2
2235 C1	3175 D2	3410 B3	5406 A2	P016 A1
2238 C2	3195 C2	3411 B3	5408 A2	P017 C1
2239 C1	3196 C2	3412 B3	5410 A1	P56 A2
2250 C2	3200 D2	3413 B3	6300 B2	P57 A3
2251 C1	3201 D2	3414 B3	7103 D1	
2255 C1	3202 D2	3418 B3	7105 D1	
2260 C1	3211 D2	3434 B3	7125 D3	
2270 C2	3212 D2	3435 B3	7126 D2	
2330 B1	3214 C2	3436 B2	7200 C2	
2333 B1	3220 C2	3437 B2	7210 D2	
2340 A1	3221 C3	3438 B3	7233 D1	
2345 C1	3222 D2	3440 C2	7234 D1	
2350 D1	3227 C3	3441 C2	7300 B1	
2351 D1	3228 B2	3442 B2	7333 B1	
2380 A2	3231 C1	3444 C2	7335 B1	
2381 A2	3232 C1	3446 C2	7337 B1	
2382 A2	3233 D1	3448 B2	7338 A1	
2383 A2	3234 D1	3450 A2	7350 D1	
2384 A2	3235 C1	3452 A2	7380 A2	
2385 A2	3236 D1	3454 B2	7381 A3	
2390 A1	3237 D1	3460 A1	7385 A3	
2391 A3	3238 C2	3461 A1	7387 A3	
2395 A3	3239 C2	3462 B2	7400 B3	
2397 A3	3240 C1	3463 B1	7402 B3	
2399 C1	3241 D1	3464 B1	7404 B3	
2400 A3	3242 C1	3465 A2	7405 B2	
2402 C3	3250 C1	3470 C1	7408 A2	

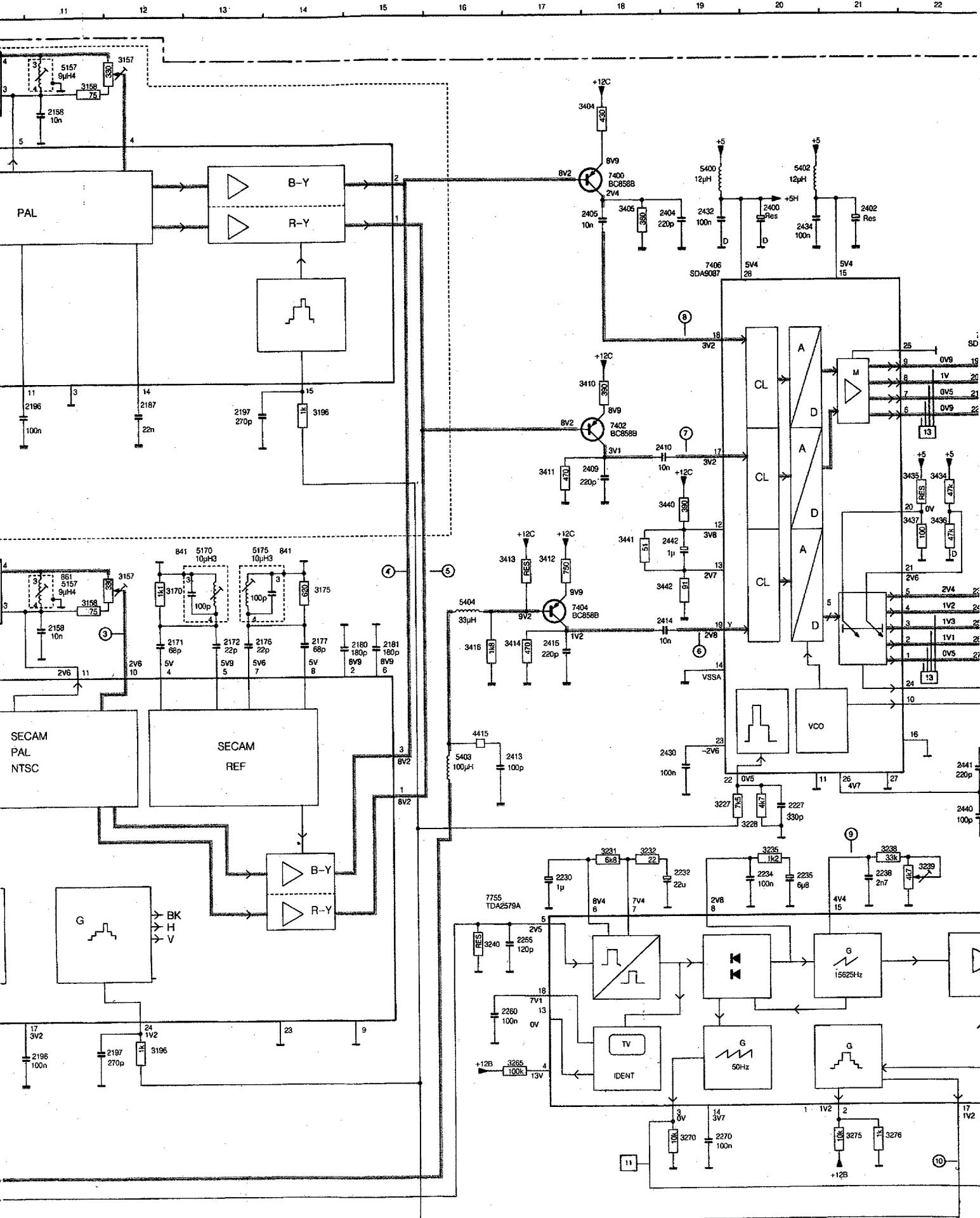


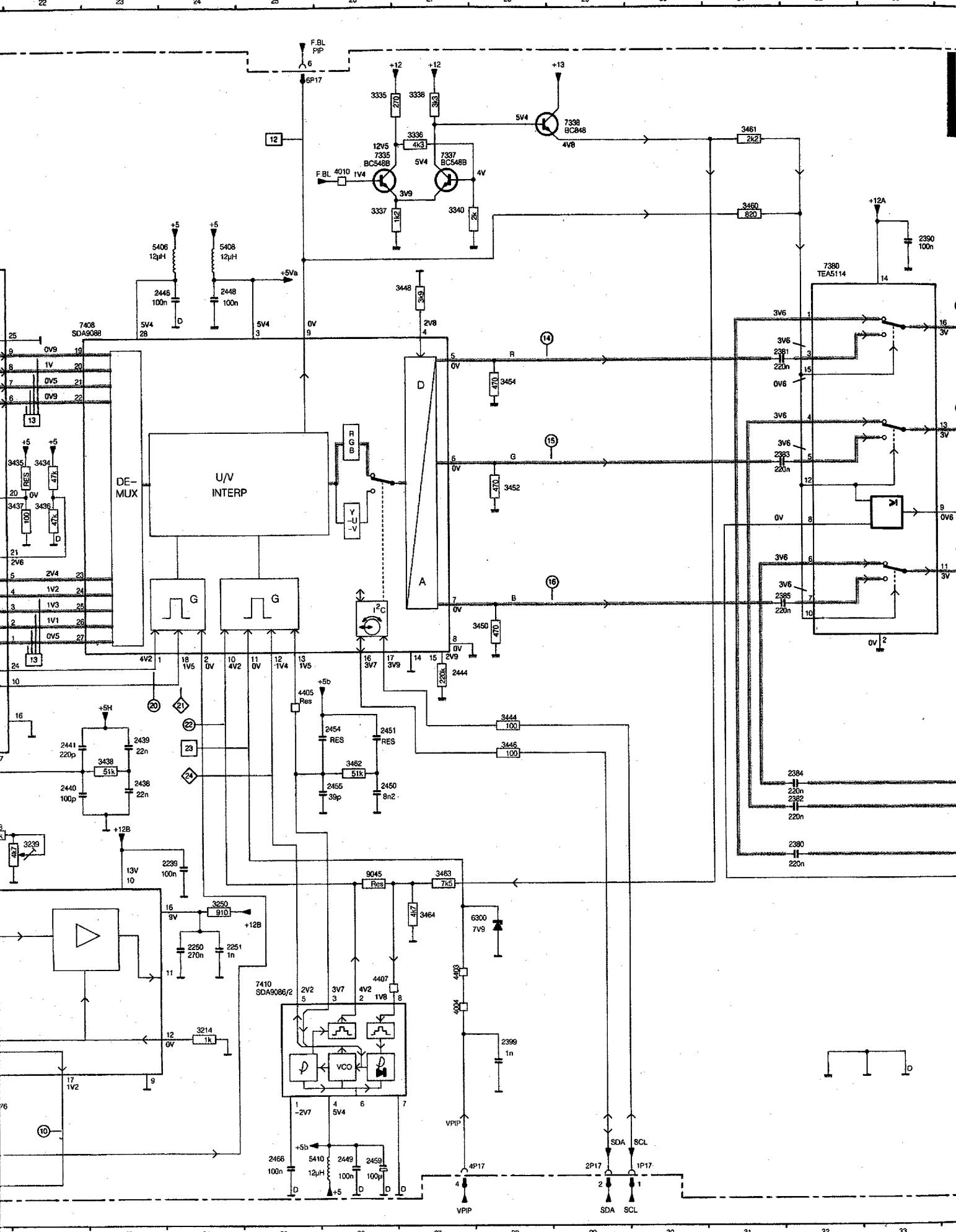
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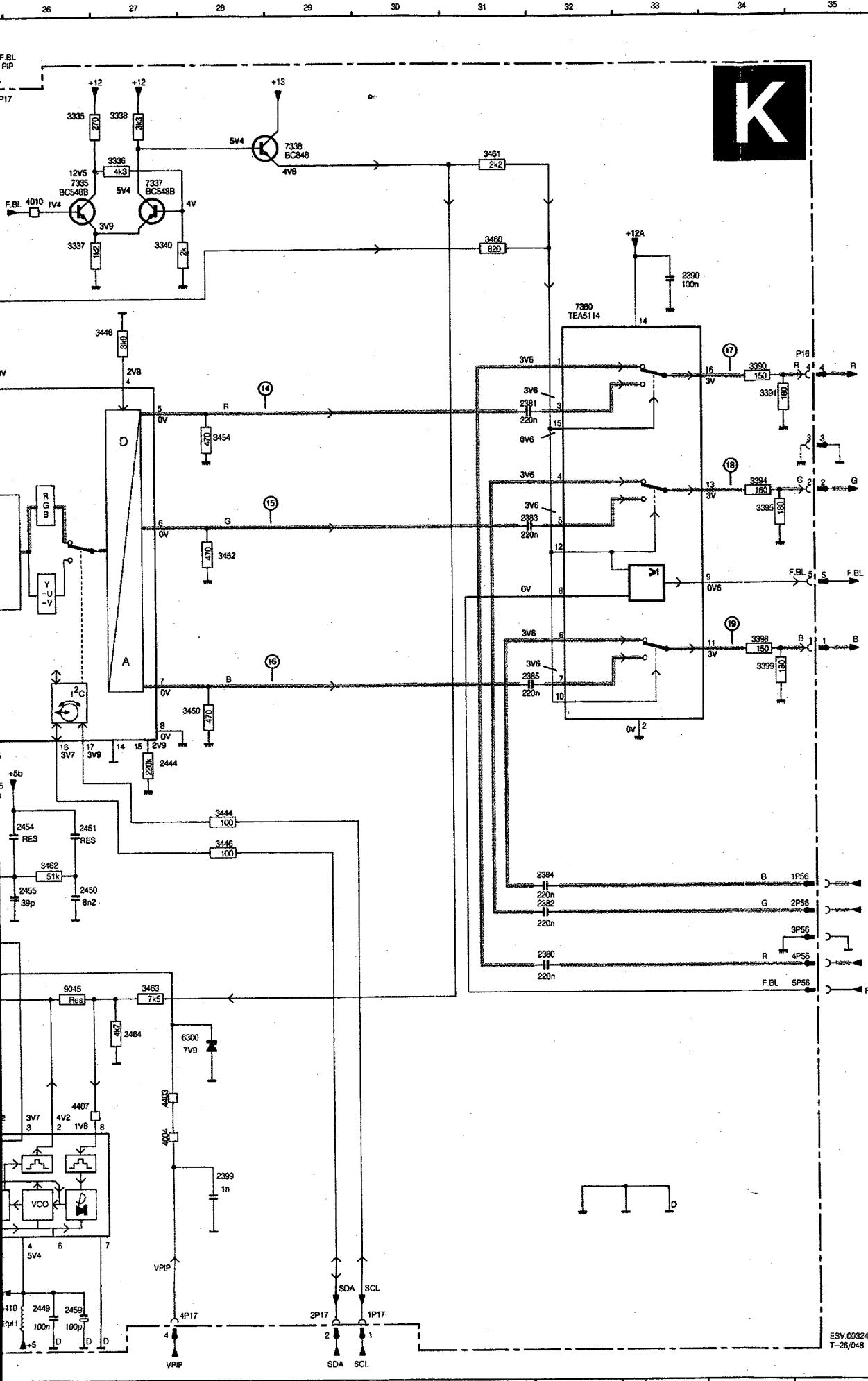
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T-26/048

## Setting conditions

All electrical settings should be made under the following conditions:

- \* supply voltage: 220 - 240 V  $\pm$  10%;  
50 Hz  $\pm$  5%
- \* warming-up time  $\approx$  10 minutes
- \* the voltages and oscilloscopes have been measured with regard to tuner earth.
- \* measuring probe:  $R_i > 10 \text{ M}\Omega$ ;  $C_i < 2.5 \text{ pF}$ .

## 1. Settings on the carrier board

### 1.1 +148V/+95V supply voltage

Connect a voltmeter over C2631. Using R3635, set the supply voltage to  $+148\text{V} \pm 0.5\text{V}$  for 25" and 28" units or to  $95\text{V} \pm 0.5\text{V}$  for 21" units.

### 1.2 Focusing

This is set using the focusing potentiometer (on the top of the line output transformer).

### 1.3 Vg2 setting

Connect a pattern generator and supply a blanking frame signal (black picture). Switch the unit to the service default mode (see section 9).

Connect an oscilloscope to the emitters of transistors 7304 and 7364 on the picture tube module. Set the oscilloscope to frame frequency. Measure the DC voltage level of the measuring pulses (see Fig. 7.2). Using the Vg2 potentiometer on the line output transformer, set the measuring pulse with the lowest DC voltage level to:

- \*  $+153\text{V} \pm 5\text{V}$  for 25" and 28" blackline units (protected high-voltage cable)
- \*  $+130\text{V} \pm 5\text{V}$  for 28" non-blackline units
- \*  $+118\text{V} \pm 5\text{V}$  for 25" non-blackline units
- \*  $+120\text{V} \pm 5\text{V}$  for 21" units.

### 1.4 Horizontal synchronization

Connect pin 5-IC7470 to pin 9-IC7470.

Supply an aerial signal and tune the set.

Adjust potentiometer 3457 until the picture is straight. Remove the interconnection.

### 1.5 Horizontal centring

Set using potentiometer 3461.

### 1.6 Picture width

Set using potentiometer 3525.

### 1.7 Vertical centring

Set using potentiometer 3516.

### 1.8 Picture height

Set using potentiometer 3504.

### 1.9 East/West correction

Set using potentiometer 3521. This setting is only for 25" and 28" units.

### 1.10 Chroma bandpass filter

#### a. Setting for PAL/SECAM sets (TDA4650)

Connect a signal generator (e.g. PM 5326) to pin 20 of the euroconnector (EXT1) and set its frequency to 4.286 MHz/0.2 Vpp. Switch the unit to EXT1. Connect pin 27-IC7306 to pin 13-IC7306 (+12V). Connect an oscilloscope to pin 15-IC7306.

Set 5301 to maximum amplitude.

Remove the interconnection.

- b. **Setting for PAL**  
 Connect a signal pin 20 of the euroconnector to 4.286 MHz/0.2 Vpp. Connect an oscilloscope to pin 15-IC7306. Set 5301 to maximum amplitude.

- 1.11 Chroma auxiliary**  
 Connect a pattern colour bar pattern (TDA4510) or Set 2313 so that the picture practically stops.

- 1.12 SECAM demod** (TDA4650)  
 Connect a pattern black pattern. Set 1-IC7306. Set 3312 to minimum.

- 1.13 White balance**  
 Connect a pattern picture. Switch and select "WHITE". Set the value of "Blue" to 46. If other values are required.

- 1.14 Peak white limit**  
 Switch on the switch select "WHITE". Set "WHITE LIM" - 43 for blackline - 53 for non-blackline - 53 for 21" units.

- 1.15 Cut-off points**  
 Connect a pattern picture. Switch "CUT OFF". Set the value of "CUT OFF" to 16, and for further adjustment.

- 1.16 Options**  
 Switch on the switch "OPTION 1" or "OPTION 2". Switch the option whether the following features are present:  
 - "PIP" on a PBI  
 - "2ND SCART" euroconnector  
 - "TELETEXT"  
 - "SVHS" for SVHS  
 - "MULTI SYS" for multi system  
 - "HYPERBAN" to the frequency  
 - "UHF ONLY" tuned to the frequency  
 - "NICAM TW" receive NICAM  
 - "SIXTEEN/NINETY" screen size for 25"/28"

# Electrical adjustments

## Setting conditions

All electrical settings should be made under the following conditions:

- \* supply voltage: 220 - 240 V ± 10%;  
50 Hz ± 5%
- \* warming-up time ≈ 10 minutes
- \* the voltages and oscillograms have been measured with regard to tuner earth.
- \* measuring probe:  $R_i > 10 \text{ M}\Omega$ ;  $C_i < 2.5 \text{ pF}$ .

## 1. Settings on the carrier board

### 1.1 +148V/+95V supply voltage

Connect a voltmeter over C2631. Using R3635, set the supply voltage to  $+148\text{V} \pm 0.5\text{V}$  for 25" and 28" units or to  $95\text{V} \pm 0.5\text{V}$  for 21" units.

### 1.2 Focusing

This is set using the focusing potentiometer (on the top of the line output transformer).

### 1.3 Vg2 setting

Connect a pattern generator and supply a blanking frame signal (black picture). Switch the unit to the service default mode (see section 9).

Connect an oscilloscope to the emitters of transistors 7304 and 7364 on the picture tube module. Set the oscilloscope to frame frequency. Measure the DC voltage level of the measuring pulses (see Fig. 7.2). Using the Vg2 potentiometer on the line output transformer, set the measuring pulse with the lowest DC voltage level to:

- \*  $+153\text{V} \pm 5\text{V}$  for 25" and 28" blackline units (protected high-voltage cable)
- \*  $+130\text{V} \pm 5\text{V}$  for 28" non-blackline units
- \*  $+118\text{V} \pm 5\text{V}$  for 25" non-blackline units
- \*  $+120\text{V} \pm 5\text{V}$  for 21" units.

### 1.4 Horizontal synchronization

Connect pin 5-IC7470 to pin 9-IC7470.

Supply an aerial signal and tune the set.

Adjust potentiometer 3457 until the picture is straight. Remove the interconnection.

### 1.5 Horizontal centring

Set using potentiometer 3461.

### 1.6 Picture width

Set using potentiometer 3525.

### 1.7 Vertical centring

Set using potentiometer 3516.

### 1.8 Picture height

Set using potentiometer 3504.

### 1.9 East/West correction

Set using potentiometer 3521. This setting is only for 25" and 28" units.

### 1.10 Chroma bandpass filter

#### a. Setting for PAL/SECAM sets (TDA4650)

Connect a signal generator (e.g. PM 5326) to pin 20 of the euroconnector (EXT1) and set its frequency to 4.286 MHz/0.2 Vpp. Switch the unit to EXT1. Connect pin 27-IC7306 to pin 13-IC7306 (+12V). Connect an oscilloscope to pin 15-IC7306.

Set 5301 to maximum amplitude.

Remove the interconnection.

#### b. Setting for PAL sets (TDA4510)

Connect a signal generator (e.g. PM 5326) to pin 20 of the euroconnector (EXT1) and set its frequency to 4.43 MHz. Connect the unit to EXT1. Connect an oscilloscope to pin 9-IC7305. Set 5301 to maximum amplitude.

### 1.11 Chroma auxiliary oscillator

Connect a pattern generator and supply a PAL colour bar pattern. Connect pin 11-IC7305 (TDA4510) or pin 17-IC7306 (TDA4650) to earth. Set 2313 so that the colour on the screen has practically stopped. Remove the interconnection.

### 1.12 SECAM demodulators for PAL/SECAM sets (TDA4650)

Connect a pattern generator and supply a SECAM black pattern. Connect an oscilloscope to pin 1-IC7306. Set 5304 to minimum amplitude. Connect the oscilloscope to pin 3-IC7306. Set 3312 to minimum amplitude.

### 1.13 White balance

Connect a pattern generator and select a white picture. Switch on the service menu (see section 9) and select "WHITE BALANCE". Set the value of "Green" to 51, and the Value of "Blue" to 46. In most cases no further adjustments are required.

### 1.14 Peak white limit

Switch on the service menu (see section 9) and select "WHITE BALANCE". Set "WHITE LIMIT" to the value:  
 - 43 for blackline units  
 - 53 for non-blackline units  
 - 53 for 21" units.

### 1.15 Cut-off points of the picture tube

Connect a pattern generator and select a black picture. Switch on the service menu and select "CUT OFF".

Set the value of "Red" to 56, and fore "Green" to 16, and for "Blue" to 15. In most cases no further adjustments are required.

### 1.16 Options

Switch on the service menu and select "OPTION 1" or "OPTION 2". Switch the options "ON" and "OFF" according to whether the following options are present:

- "PIP" on a PIP set
- "2ND SCART" on a set with two euroconnectors
- "TELETEXT" on a teletext set
- "SVHS" for the Y/C connector in mono sets
- "MULTI SYSTEM" for multisystem sets
- "HYPERBAND" for a tuner which can be tuned to the frequency band of 300 MHz to 450 MHz
- "UHF ONLY" for a tuner which can only be tuned to the UHF band
- "NICAM TWIN" for stereo sets which can also receive NICAM sound.
- "SIXTEEN/NINE" for switching between normal screen size and wide screen size. (only valid for 25"/28" Black-Line sets).

## 2. Settings on the IF/sound module

### 2.1 AFC and the picture demodulator

#### a. Setting for multisystem units

Connect a signal generator (e.g. PM 5326) via a capacitor of 5p6 to pin 17 of the tuner and set its frequency to 33.4 MHz for mono sets or to 33.95 MHz for stereo sets. Modulate (AM) the signal with, for example, 1kHz.

Tune mono sets to VHF1 band at a tuning voltage of approximately 5V at pin 11 of the tuner. The "search" (selection B of the manual installation menu) can be stopped by selecting menu selection C "programme".

Set stereo sets to a tuning frequency of 45 MHz. Select system France.

AFC: using 5036 set the voltage at pin 15-IC7000 to 6V (DC).

**Picture demodulator:** set 5035 to a maximum (undistorted) signal at pin 22-IC7000.

Then set the frequency of the signal generator to 38.9 MHz. Select system Europe on the set.

AFC: using 5038 set the voltage at pin 15-IC7000 to 6V (DC).

**Picture demodulator:** set 5037 to a maximum (undistorted) signal at pin 22-IC7000.

#### Adjacent channel suppression (mono sets):

Then set the frequency of the signal generator to 33.4 MHz. Place pin 9-IC7000 at a fixed voltage of +1V using a laboratory supply. Tune the set to the UHF band and select system France.

Set 5005 to a minimum signal at pin 22-IC7000.

#### b. Setting for single-system units

Connect a signal generator (e.g. PM 5326) via a capacitor of 5p6 to pin 17 of the tuner and set its frequency to 38.9 MHz. Modulate (AM) the signal with, for example, 1kHz.

AFC: using 5036 set the voltage at pin 15-IC7000 to 6V (DC).

**Picture demodulator:** set 5035 to a maximum (undistorted) signal at pin 22-IC7000.

### 2.2 RF-AGC

If the picture from a strong local transmitter is distorted, adjust 3016 until the picture is not distorted.

### 2.3 MF-AGC (Multisystem units)

Connect a pattern generator and supply a SECAM-L colour bar signal. Connect an oscilloscope to pin 22-IC7000. Set the amplitude of the video signal with 3048 to 1.7 Vpp for stereo units or to 1.8 Vpp for mono units.

### 2.4 AM-IF sound filter (Multisystem units)

Connect a signal generator (e.g. PM 5326) via a capacitor of 5p6 to pin 17 of the tuner and set its frequency to 30.9 MHz. Modulate (AM) the signal with 1kHz, for example. Tune the unit to UHF band and select system France. Connect an oscilloscope to pin 9-IC7100 and set 5100 to minimum amplitude.

Place pin 3-IC7100 on a fixed voltage of +2V using a laboratory supply.

Set the frequency of the generator to 32.4 MHz and set 5101 and 5102 to maximum amplitude.

### 2.5 IF sound demodulator (stereo and NICAM units)

Connect a signal generator (e.g. PM 5326) via a capacitor of 5p6 to pin 17 of the tuner and set its frequency to 38.9 MHz. Modulate (AM) the signal with 1kHz, for example. Connect an oscilloscope to pin 17-IC7100 (TDA3856) or pin 15-IC7101 (TDA3857) (for non-multi sets) and set 5104 to minimum amplitude.

### 2.6 5.5 MHz or 6.0 MHz FM sound demodulator

Connect a pattern generator and supply a PAL signal with FM mono sound. Set 5105 (mono and stereo units) or 5102 (NICAM units) to maximum sound reproduction.

### 2.7 5.742 MHz FM sound demodulator (stereo and NICAM units)

Connect a pattern generator and supply a PAL BG signal with two-language sound. Select language II on the unit with the remote control.

Set 5103 (stereo units) or 5101 (NICAM units) to maximum sound reproduction.

### 2.8 Stereo matrix (stereo and NICAM units)

Connect a pattern generator and supply a PAL BG signal with stereo sound. Select only the right-hand channel sound. Set the balance of the unit completely to the left.

Set 3204 (stereo units) or 3200 (NICAM PAL BG units) to minimum sound reproduction.

### 2.9 NICAM demodulator (NICAM units)

Connect a pattern generator and supply a PAL signal with NICAM sound. Connect the X-input of the oscilloscope to pin 19-IC7120. Connect the Y-input of the oscilloscope to pin 20-IC7120. Set the oscilloscope to the X-Y position. Set the sensitivity of the oscilloscope to 1V/div AC. Set the X and Y position so that the cross pattern is in the centre of the oscilloscope picture.

Set 2124 on a straight cross pattern (see fig. 7.3).

### 2.10 "Sample" clock oscillator (NICAM units)

Connect a pattern generator and supply a PAL signal with NICAM sound. Connect an oscilloscope to pin 9-IC7150. Set the sensitivity of the oscilloscope to 1V/div and the time base to 2μs/div.

Set 2155 so that a symmetrical block wave is visible.

### 3. Adjustment on the teletext decoder

Connect pin 22-IC7830 to earth. Connect a frequency counter to pin 17-IC7830 and set 5803 to 6000 MHz  $\pm$  30kHz.  
Remove the interconnection.

### 4. Adjustments on the PIP module

#### Adjustment conditions

Before making each adjustment, ensure that a PIP picture with the prescribed signal is visible on the screen and that the unit has reached its operating temperature (after  $\approx$  10 min.).

#### 4.1 Horizontal synchronization

Do not supply an aerial or generator signal. Connect pin 28-IC7125 to pin 13-IC7125 if TDA4554 is present (PAL selection). Connect pin 5-IC7755 to earth. Measure the frequency at pin 17-IC7755 and using 3239 set it to 15.625 Hz  $\pm$  25 Hz. Remove the interconnection.

#### 4.2 Chroma bandpass filter

- a. **Adjustment for PIP modules with TDA4554**  
Connect a signal generator (e.g. PM 5326) to pin 10 of P17 and set its frequency to 4.286 MHz/0.2 Vpp. Connect pin 27-IC7125 to 13-IC7125. Connect an oscilloscope to pin 15-IC7125. Set 5118 to maximum amplitude. Remove the interconnection.
- b. **Adjustment for PIP modules with TDA4510**  
Connect a signal generator (e.g. PM 5326) to pin 10 of P17 and set its frequency to 4.43 MHz/0.2Vpp. Connect an oscilloscope to pin 9-IC7126. Set 5118 to maximum amplitude.

#### 4.3 PAL chroma auxiliary oscillator

Connect a pattern generator and supply a PAL colour bar pattern. Connect pin 17-IC7125 (TDA4554) or pin 11-IC7126 (TDA4510) to earth. Set 2202 so that the colour of the PIP picture is practically still. Remove the interconnection.

#### 4.4 NTSC chroma auxiliary oscillator for PIP modules with TDA4554

Connect a pattern generator and supply an NTSC M colour bar pattern. Connect pin 17-IC7125 to earth. Set 2202 so that the colour of the PIP picture is practically still. Remove the interconnection.

#### 4.5 Delay line

Connect a pattern generator and supply a PAL colour bar signal. Connect the X-input of the oscilloscope to pin 1-IC7125 (TDA4554) or pin 1-IC7126 (TDA4510). Connect the Y-input of the oscilloscope to pin 3-IC7125 (TDA4554) or pin 2-IC7126 (TDA4510). Set the oscilloscope to the X-Y position.

Set 5155 and 5157 so that the vectors lie in one line (points which are furthest from the origin). Set the pattern generator to the "DEM" mode. Set R3157 so that the vectors lie on top of one another in the origin.

#### 4.6 SECAM identification for PIP modules with TDA4554

Connect a pattern generator and supply a SECAM colour bar signal. Connect pin 27-IC7125 to pin 13-IC7125. Connect an oscilloscope to pin 21-IC7125. Set 5190 to minimum DC level. Remove the interconnection.

#### 4.7 SECAM demodulators for PIP modules with TDA4554

Connect a pattern generator and supply a SECAM signal without contents (black). Connect pin 27-IC7125 to pin 13-IC7125. Connect an oscilloscope to pin 1-IC7125. Using 5175, set the DC level during the scan equal to the DC level during the flyback.

In the same way set 5170, but now measure at pin 3-IC7125.

Remove the interconnection.

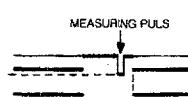


Fig. 7.1

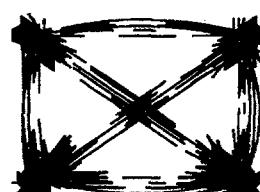


Fig. 7.2

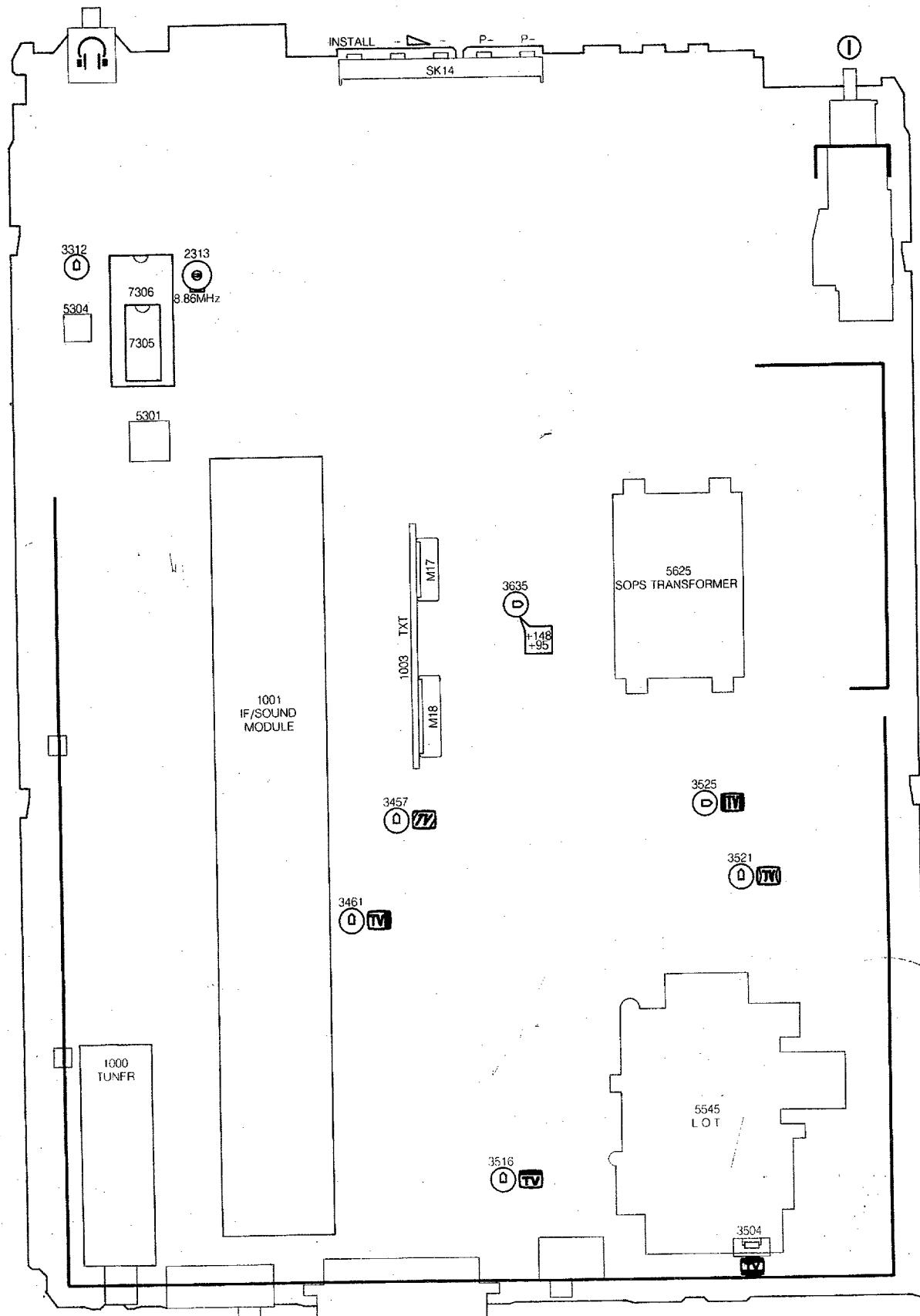
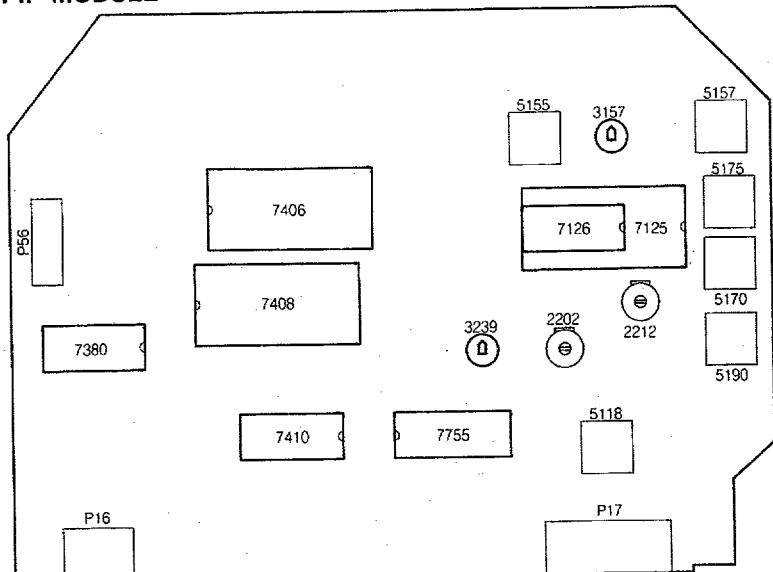
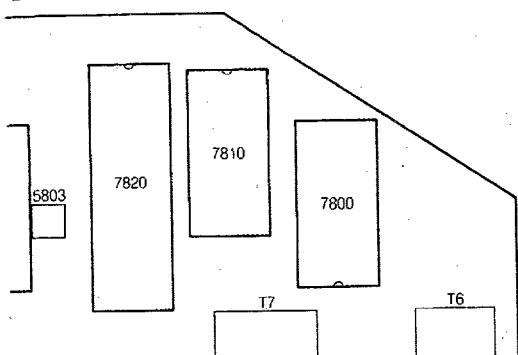
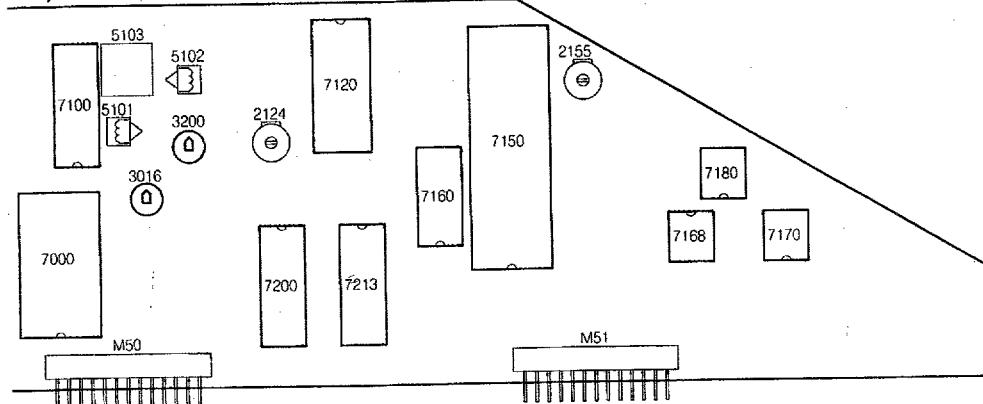
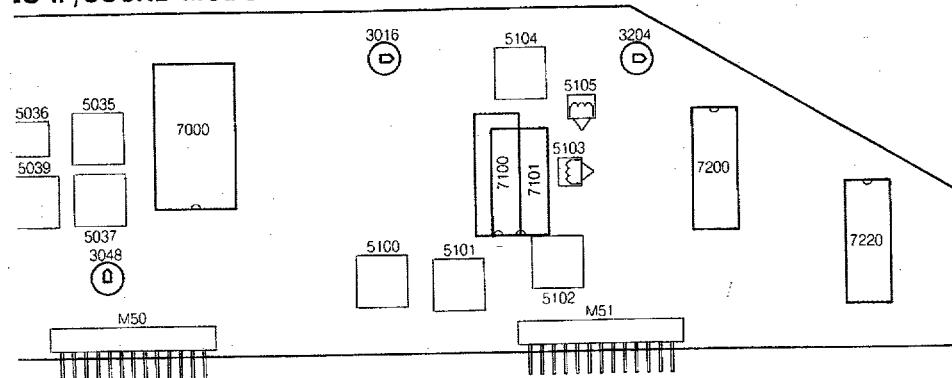
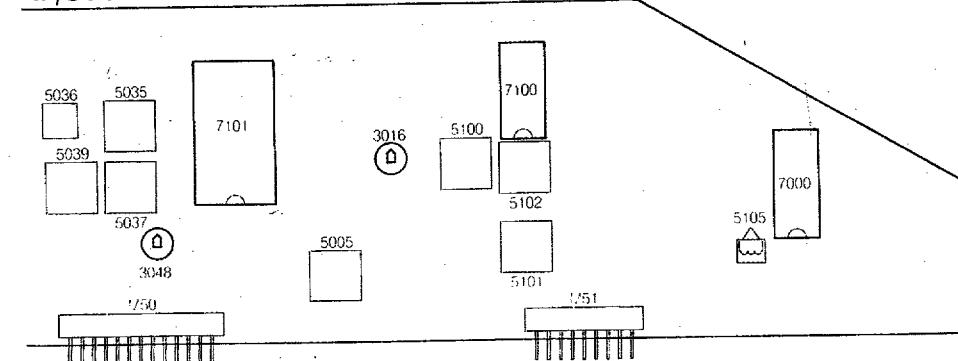
**MAIN PANEL**

Fig. 7.

7.5

**CHASSIS GR2.1****PIP MODULE****ODULE****1 IF/SOUND MODULE****2 IF/SOUND MODULE****3 IF/SOUND MODULE**

## 1. Servicing of SMDs (Surface Mounted Devices)

### 1.1 General cautions on handling and storage

- a. Oxidation on the terminals of SMDs results in poor soldering. Do not handle SMDs with bare hands.
- b. Avoid using storage places that are sensitive to oxidation such as places with sulphur or chlorine gas, direct sunlight, high temperatures or a high degree of humidity.  
The capacitance or resistance value of the SMDs may be affected by this.
- c. Rough handling of circuit boards containing SMDs may cause damage to the components as well as the circuit boards. Circuit boards containing SMDs should never be bent or flexed. Different circuit board materials expand and contract at different rates when heated or cooled and the components and/or solder connections may be damaged due to the stress. Never rub or scrape chip components as this may cause the value of the component to change. Similarly, do not slide the circuit board across any surface.

### 1.2 Removal of SMDs

- a. Heat the solder (for 2-3 seconds) at each terminal of the chip. By means of litz wire and a slight horizontal force, small components can be removed with the soldering iron. They can also be removed with a solder sucker (see Fig. 8.1A) or:
- b. While holding the SMD with a pair of tweezers, take it off gently using the soldering iron's heat applied to each terminal (see Fig. 8.1B).
- c. Remove the excess solder on the solder lands by means of litz wire or a solder sucker (see Fig. 8.1C).

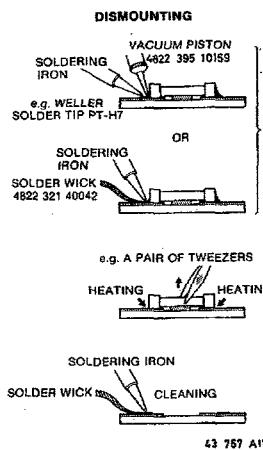


Fig. 8.1

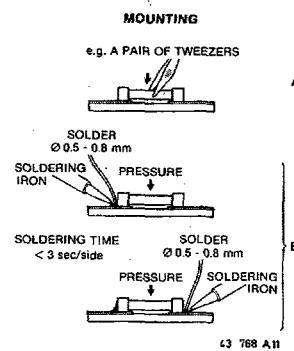


Fig. 8.2

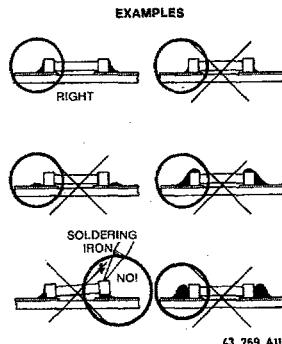


Fig. 8.3

## 2. Replacing the EEPROM IC7710

If the EEPROM has to be replaced during a repair, the microprocessor will load the EEPROM with a number of default values for the white balance, peak white limit and cut-off point settings. However, all these values should be checked and adjusted, if necessary. All options should also be set, the programs installed and personal preference set.

## 3. Table of error messages

Error indication	Description	Possible fault
OSD: ERR PIP	I <sup>2</sup> C fault PIP module	• +5 on PIP module • IC7406
OSD: ERR TXT	I <sup>2</sup> C fault TXT module	• +5 on teletext module • IC7800
OSD: ERR NICAM	I <sup>2</sup> C fault IC7160 (NICAM units)	• +5 on IF/sound module • IC7160, C2160, C2161, C2221, C2222 • IC7213
OSD: ERR 8415	I <sup>2</sup> C fault IC7200 (stereo and NICAM units)	• +14 on IF/Sound module • IC7200 • IC7220
OSD: ERR 8425	I <sup>2</sup> C fault IC7213 (NICAM units) I <sup>2</sup> C fault IC7220 (Stereo units)	• IC7213/IC7220
OSD: ERR EEPROM	I <sup>2</sup> C fault IC7710	• IC7710
OSD: ERR TUNER	I <sup>2</sup> C fault tuner (stereo and NICAM units)	• Tuner • TS7003
OSD: ERR CHROMA	I <sup>2</sup> C fault IC7309	• supply IC7309 (+9) • IC7309
Flashing LED	Internal fault in µP	• IC7708
OSD: ERR BUS	I <sup>2</sup> C bus blocked	• C2714, C2715

## 1. Service-Default-Mode

The GR2.1 is equipped with a service default mode. The service default mode is a fixed defined mode in which the unit can be placed.

### 1.1 Mode definition

The definition of the fixed mode in the service default mode is as follows:

- all sound and picture controls are in the central position (with the exception of the volume which is set to low)
- stereo units are tuned to 475.25 MHz
- mono units are tuned to programme 0
- system:
  - \* PAL BG, PAL/SECAM BG or PAL I for single system units
  - \* SECAM L for multisystem units.

### 1.2 Switching on and off

The service default mode is switched on by briefly short-circuiting the pins M33 and M34 (SERVICE) behind the INSTALL key on the carrier panel when switching the unit on with the mains switch. In order to indicate that the unit is in the service default mode, an "SER" appears on the screen. The service default mode can only be switched off by switching the unit to standby. If the unit is switched off and then on again using the mains switch or mains plug, the service default mode remains switched on.

### 1.3 Operation and extra facilities

In addition to the fact that the unit can be operated normally, in the service default mode two extra functions are available:

- Autostore  
When operating the install key on the local control panel, the unit is tuned to the next transmitter frequency. This frequency is also stored under the selected programme number. Therefore the installation menu cannot be accessed in the service default mode!
- Service menu  
The service menu is activated by first pressing the  $\triangleleft$  - key and then at the same time the P+ key on the local control panel. The service menu now appears on the screen. The service menu offers the facility to set various options and make a number of picture tube settings. The various components in the service menu are selected using the coloured keys on the remote control. The various components themselves are adjusted using the + and - keys on the remote control. The values and options set are immediately stored in the EEPROM.

### Note 1:

If the service menu does not appear on the screen and the autostore function does not react, then the "LOCK" function is probably activated.

If the autostore function only does not react, the hotel mode is activated.

### Note 2:

If a multisystem unit in the service default mode is to be used with the PAL/SECAM BG system, the "MULTI SYSTEM" option can be temporarily switched off.

## 2. Hotel mode

In the hotel mode the volume control is limited to a maximum to be set beforehand and the installation menu cannot be called up.

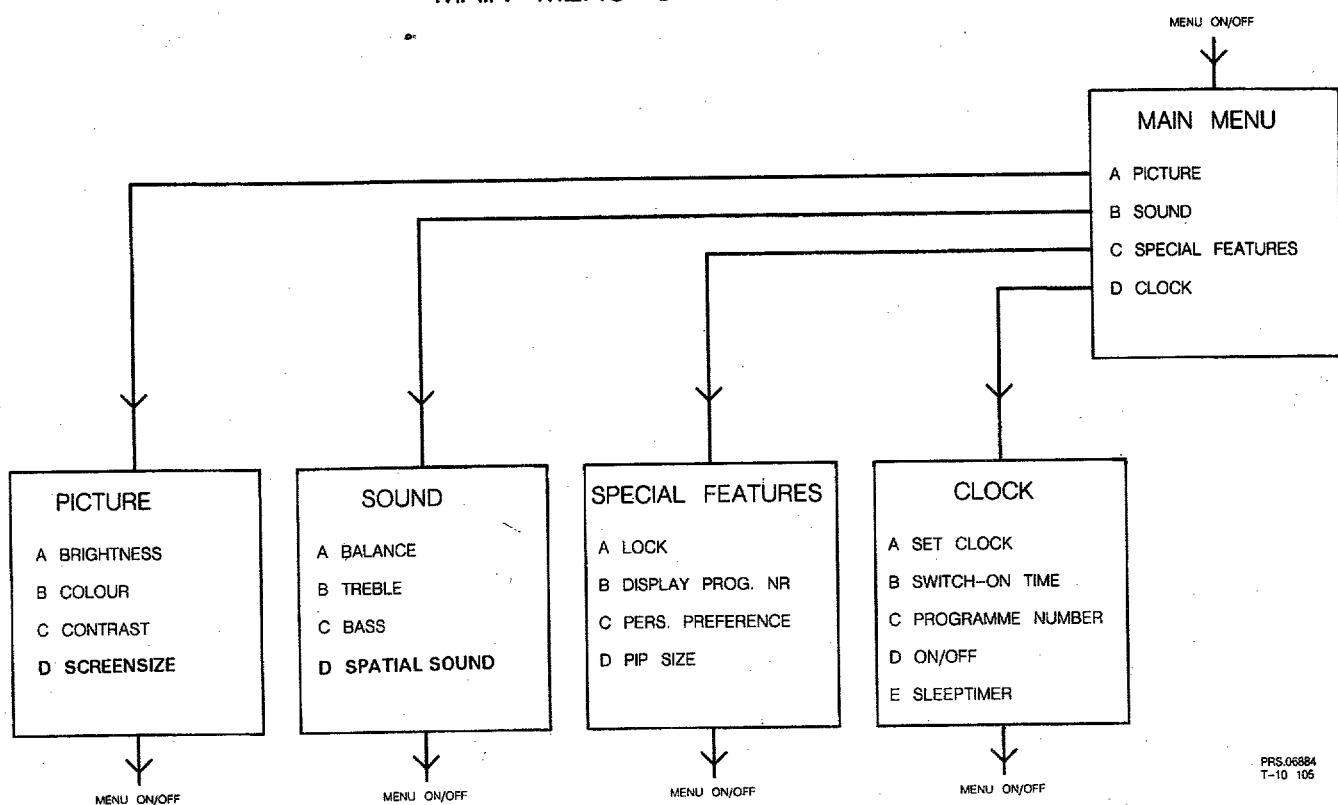
### 2.1 Switching the hotel mode on and off

Select programme number 38.

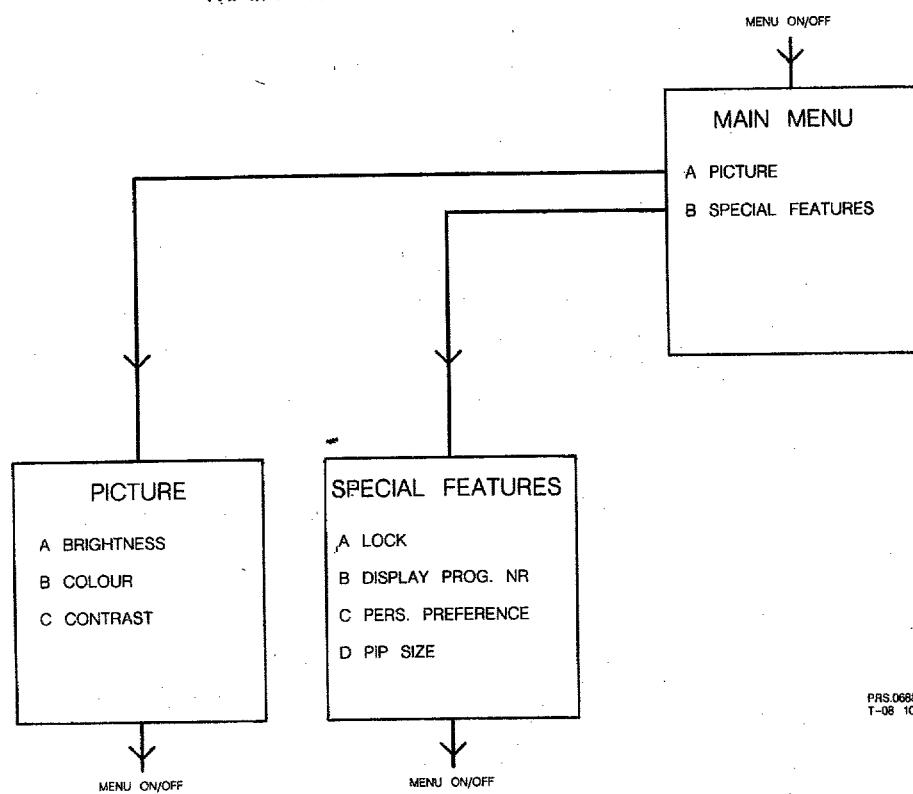
First press  $\triangleleft$  + and keep this depressed while pressing P -.

## Survey of menus

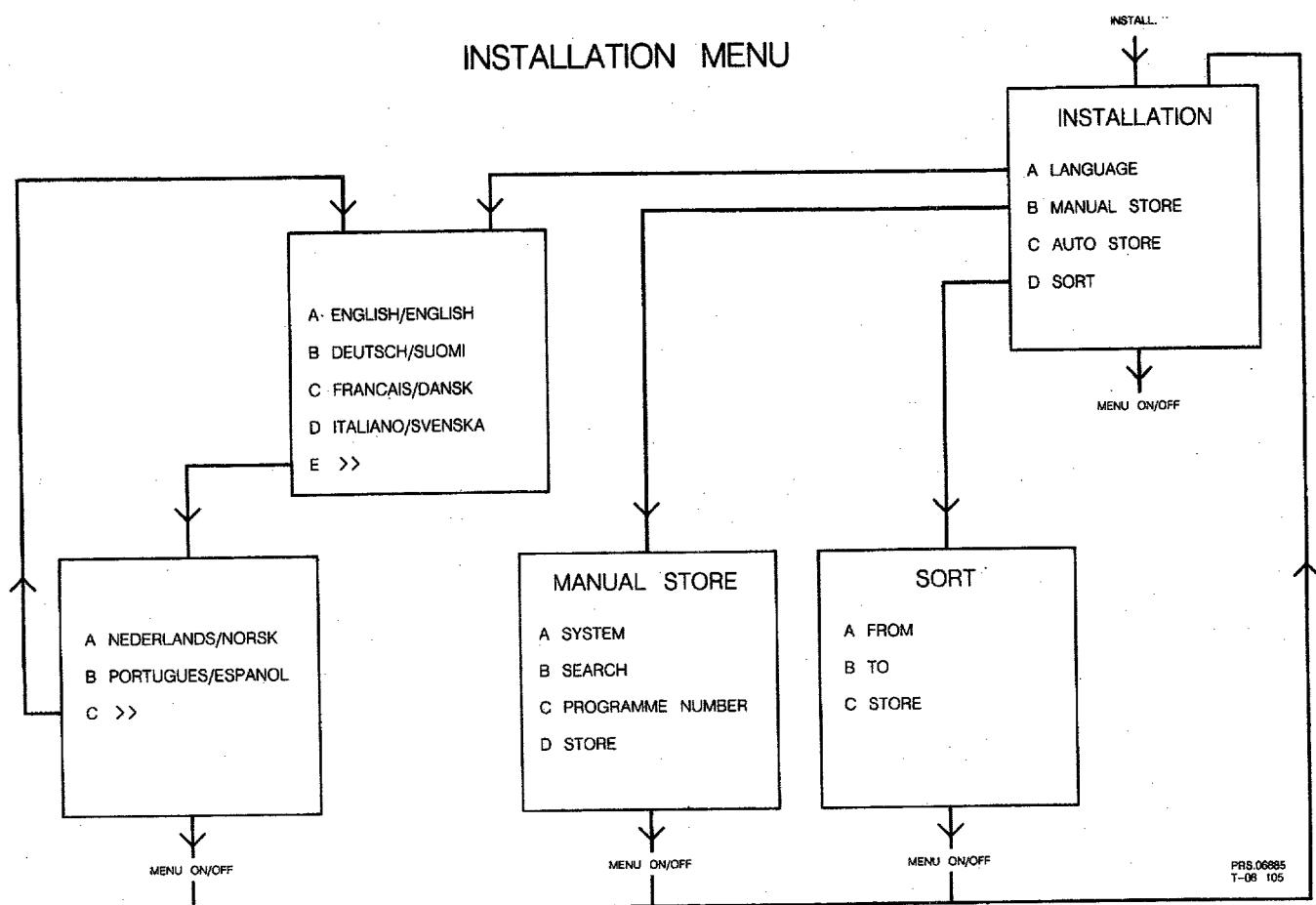
### MAIN MENU STEREO



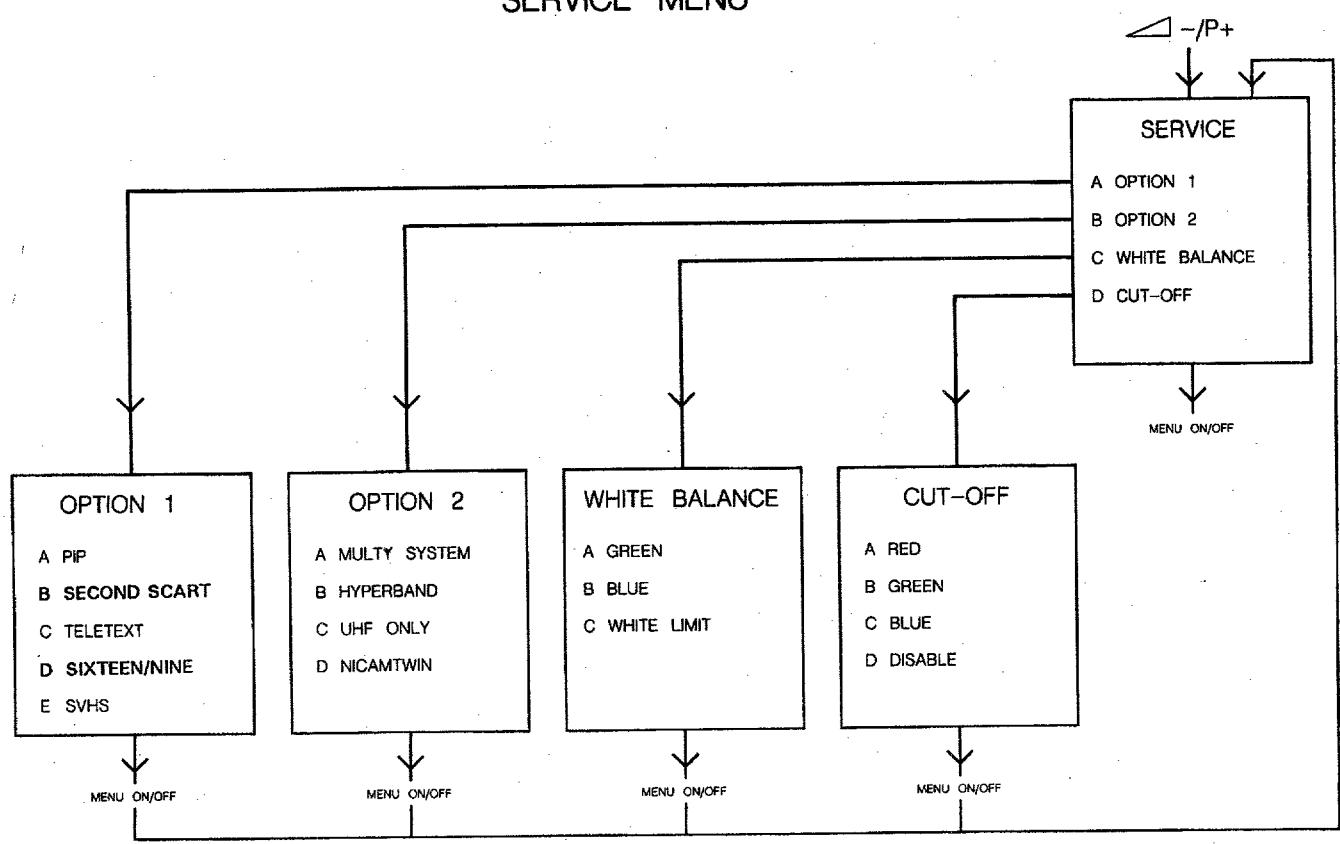
### MAIN MENU MONO



## **INSTALLATION MENU**



## SERVICE MENU



## Main carrier

# Spare parts list / Stückliste / Liste

CHASSIS GR2.1

10.2

## Main carrier

2469	4822 124 41596	22µF 20% 50V	2650	4822 122 33496	100nF 10% 63V	3230	4822 116 52257	22k 5% 0,5W
2470	4822 122 31772	47pF 5% 50V	2652	5322 122 32331	1nF 10% 100V	3231	4822 051 10472	4k7 2% 0,25W
2471	5322 121 42661	330nF 5% 63V	2653	5322 122 32331	1nF 10% 100V	3232	4822 051 10101	100Ω 2% 0,25W
2473	5322 121 42661	330nF 5% 63V	2658	5322 122 32838	82nF 10% 63V	3232 <sup>5</sup>	4822 051 10008	jumper
2475	4822 122 31797	22nF 10% 63V	2660	4822 124 80061	1mF 20% 25V	3233	4822 051 10103	10k 2% 0,25W
2500	4822 122 31965	220pF 5% 63V	2661	4822 124 41506	47µF 20% 16V	3234	4822 051 10223	22k 2% 0,25W
2500 <sup>7</sup>	4822 122 31727	470pF 5% 63V	2662 <sup>7</sup>	5322 122 32056	220pF 2% 100V	3235	4822 051 10223	22k 2% 0,25W
2501	4822 122 33481	1,8nF 15%	2662	4822 122 30107	270pF 2% 100V	3236 <sup>7</sup>	4822 051 10122	1k2 2% 0,25W
2502	5322 124 41381	22µF 20% 50V	2663 <sup>7</sup>	4822 122 31081	100pF 2% 100V	3236	4822 051 10562	5k6 2% 0,25W
2505	4822 122 32542	47nF 10% 63V	2663	5322 122 32344	82pF 2% 100V	3237 <sup>7</sup>	4822 051 10122	1k2 2% 0,25W
2506 <sup>7</sup>	4822 124 80062	470µF 20% 35V	2664	5322 124 41379	2,2µF 20% 50V	3237	4822 051 10562	5k6 2% 0,25W
2506	4822 124 80063	680µF 20% 35V	2670	4822 122 31766	120pF 5% 50V	3238	4822 051 10122	1k2 2% 0,25W
2507	4822 122 31797	22nF 10% 63V	2671	4822 121 42408	220nF 5% 63V	3239	4822 116 52207	1k 2 5% 0,5W
2509	5322 124 41379	2,2µF 20% 50V	2675	4822 124 80064	680µF 20% 50V	3240 <sup>A</sup>	4822 052 10828	8Ω2 5% 0,33W
2520	4822 124 80058	68µF 20% 25V	2675 <sup>7</sup>	4822 124 80065	1mF 20% 50V	3241 <sup>A</sup>	4822 052 10828	8Ω2 5% 0,33W
2521	4822 122 32891	68nF 10% 63V	2676	5322 122 32331	1nF 10% 100V	3242	4822 051 10333	33k 2% 0,25W
2522	5322 121 42661	330nF 5% 63V	2701	4822 122 31765	100pF 5% 50V	3243	4822 051 10333	33k 2% 0,25W
2524	4822 124 42167	4,7µF 20% 50V	2702	4822 122 32442	10nF 50V	3244	4822 051 10103	10k 2% 0,25W
2526 <sup>8</sup>	4822 122 32442	10nF 50V	2703	4822 121 51252	470nF 5% 63V	3245	4822 051 10103	10k 2% 0,25W
2526 <sup>9</sup>	4822 122 31759	18nF	2704	4822 122 32542	47nF 10% 63V	3246	4822 050 23301	330Ω 1% 0,6W
2528	5322 121 42025	220nF 10% 250V	2705	4822 122 31766	120pF 5% 50V	3247	4822 116 52175	100Ω 5% 0,5W
2531	4822 121 43396	120nF 5% 63V	2706	5322 124 41299	68µF 20% 25V	3248	4822 050 23301	330Ω 1% 0,6W
2531 <sup>7</sup>	4822 121 42408	220nF 5% 63V	2708	4822 122 31766	120pF 5% 50V	3249	4822 116 52175	100Ω 5% 0,5W
2532	4822 124 80066	1µF 20% 63V	2709 <sup>10</sup>	4822 122 32507	6,8pF 5% 50V	3249 <sup>5</sup>	4822 116 52193	39Ω 5% 0,5W
2532 <sup>7</sup>	4822 124 80067	4,7µF 20% 63V	2709	4822 122 32083	8,2pF 5% 50V	3250	4822 050 11002	1k 1% 0,4W
2533	4822 124 80066	1µF 20% 63V	2710 <sup>10</sup>	4822 122 32507	6,8pF 5% 50V	3251	4822 050 11002	1k 1% 0,4W
2538	4822 121 43079	4,7nF 5% 250V	2710	4822 122 32083	8,2pF 5% 50V	3253	4822 116 52211	150Ω 5% 0,5W
2539	4822 124 80057	330µF 20% 16V	2711	4822 122 31825	27pF 10% 50V	3254	4822 116 52211	150Ω 5% 0,5W
2545A <sup>7</sup>	4822 126 11539	1,2nF 10% 2KV	2712	4822 122 31825	27pF 10% 50V	3255	4822 050 11002	1k 1% 0,4W
2545A <sup>A</sup>	4822 126 10202	1,5nF 10% 2KV	2713	4822 124 41525	100µF 20% 25V	3256	4822 050 11002	1k 1% 0,4W
2546A <sup>9</sup>	4822 121 43076	11nF 5% 1600V	2714	4822 122 31766	120pF 5% 50V	3257	4822 051 10334	330k 2% 0,25W
2546A <sup>7</sup>	4822 121 43085	7,5nF 5% 2KV	2715	4822 122 31766	120pF 5% 50V	3258	4822 051 10334	330k 2% 0,25W
2546A <sup>8</sup>	5322 121 42523	8,2nF 5% 2KV	2716	4822 122 33496	100nF 10% 63V	3259	4822 051 10334	330k 2% 0,25W
2547A <sup>A</sup>	4822 121 40488	22nF 10% 400V	2717	4822 122 31644	2,2nF 10% 63V	3260	4822 051 10334	330k 2% 0,25W
2547A <sup>7</sup>	5322 121 44151	33nF 10% 400V	2718	4822 122 33496	100nF 10% 63V	3261	4822 116 80747	75Ω 5% 0,125W
2549A <sup>A</sup>	4822 121 42073	390nF 10% 400V	2719	5322 121 42386	100nF 5% 63V	3262	4822 116 80747	75Ω 5% 0,125W
2549A <sup>9</sup>	4822 121 42074	470nF 10% 400V	2721	4822 122 32442	10nF 50V	3263 <sup>5</sup>	4822 051 10582	5k6 2% 0,25W
2550A <sup>7</sup>	4822 121 43148	470nF 10% 2KV	2722	4822 122 31947	100nF 20% 63V	3264	4822 051 10008	jumper
2550A <sup>A</sup>	4822 121 51527	390nF 5% 250V	2781	4822 122 33496	100nF 10% 63V	3264 <sup>5</sup>	4822 051 10562	5k6 2% 0,25W
2551	4822 124 80069	1µF 20% 160V	2800	4822 124 41506	47µF 20% 16V	3264	4822 051 10008	jumper
2559	4822 124 80059	100µF 20% 25V	2805 <sup>10</sup>	4822 122 31766	120pF 5% 50V	3265	4822 050 21008	1Ω 1% 0,6W
2560A <sup>A</sup>	4822 121 51408	33nF 10% 250V	2805	4822 122 31772	47pF 5% 50V	3266	4822 050 21008	1Ω 1% 0,6W
2563	4822 122 10175	2,2nF 10% 50V	2807	4822 124 40433	47µF 20% 25V	3267	4822 051 10103	10k 2% 0,25W
2570	4822 122 80071	22µF 20% 160V	2810	4822 122 31784	4,7nF 10% 50V	3268	4822 051 10103	10k 2% 0,25W
2574	4822 122 10175	2,2nF 10% 50V	2849	4822 122 33496	100nF 10% 63V	3300	4822 051 10822	8k2 2% 0,25W
2580	4822 124 80061	1mF 20% 25V	2875	5322 121 42386	100nF 5% 63V	3301	4822 051 10272	2k7 2% 0,25W
2585	5322 124 21731	10µF 20% 50V				3302	4822 051 20222	2k2 5% 0,1W
2588	4822 122 31644	2,2nF 10% 63V				3303	4822 051 10122	1k2 2% 0,25W
2590	5322 121 42498	680nF 5% 63V	3001 <sup>A</sup>	4822 052 10279	27Ω 5% 0,33W	3303 <sup>4</sup>	4822 051 10332	3k3 2% 0,25W
2600 <sup>A</sup>	4822 124 41531	470nF 10% 250V	3002	4822 051 10223	22k 2% 0,25W	3304	4822 051 10182	1k8 2% 0,25W
2605 <sup>A</sup>	4822 124 80052	68µF 20% 385V	3003	4822 051 20222	2k2 5% 0,1W	3305	4822 051 10431	430Ω 2% 0,25W
2605 <sup>A</sup>	4822 124 80053	220µF 20% 385V	3004	4822 051 10472	4k7 2% 0,25W	3306	4822 051 10103	10k 2% 0,25W
2607A <sup>A</sup>	4822 122 40602	1nF 20% 400V	3005	4822 051 10102	1k 2% 0,25W	3307 <sup>10</sup>	4822 051 10681	680Ω 2% 0,25W
2611	5322 124 41299	68µF 20% 25V	3006	4822 051 10472	4k7 2% 0,25W	3307	4822 051 10821	820Ω 2% 0,25W
2617	4822 121 43047	1µF 10% 63V	3007	4822 051 10102	1k 2% 0,25W	3308	4822 051 10331	330Ω 2% 0,25W
2620	5322 121 42465	68nF 5% 63V	3008	4822 051 10472	4k7 2% 0,25W	3309	4822 051 10331	330Ω 2% 0,25W
2625	4822 122 40593	1nF 10% 1KV	3009	4822 051 10102	1k 2% 0,25W	3310	4822 116 52286	5k 1 5% 0,5W
2626	4822 122 40594	470pF 10% 1KV	3010	4822 051 10102	1k 2% 0,25W	3311	4822 051 10391	390Ω 2% 0,25W
2629	4822 122 31784	4,7nF 10% 50V	3011	4822 116 52257	22k 5% 0,5W	3312	4822 101 11186	470Ω LIN 0,1W
2630	4822 124 23418	47µF 200V	3218	4822 116 52228	680Ω 5% 0,5W	3313 <sup>4,10</sup>	4822 051 10103	10k 2% 0,25W
2630 <sup>1</sup>	4822 124 22349	100µF 10% 160V	3219	4822 116 52228	680Ω 5% 0,5W	3313	4822 051 10392	3k3 2% 0,25W
2630	4822 124 80055	100µF 10% 160V	3220	4822 051 10392	3k9 2% 0,25W	3314	4822 051 10103	10k 2% 0,25W
2631	4822 124 23418	47µF 200V	3221	4822 050 11002	1k 1% 0,4W	3315	4822 051 10911	910Ω 2% 0,25W
2631 <sup>1</sup>	4822 124 22349	100µF 10% 160V	3222	4822 116 52234	100k 5% 0,5W	3316	4822 051 10105	1M 5% 0,25W
2632	4822 126 11382	1nF 10% 1KV	3224	4822 116 52256	2k 2.5% 0.5W			
2636	4822 122 31644	2,2nF 10% 63V	3225	4822 051 10272	2k7 2% 0,25W			
2640	4822 124 80061	1000µF 20% 25V	3226	4822 051 10333	33k 2% 0,25W			
2641	4822 124 80061	1000µF 20% 25V	3227	4822 051 10333	33k 2% 0,25W			
2646A <sup>A</sup>	4822 124 42153	15µF 20% 50V	3228	4822 051 10151	150Ω 2% 0,25W			
2649	4822 122 33496	100nF 10% 63V	3229	4822 051 10562	5k6 2% 0,25W			

## Main carrier

3317	4822 051 20222	2k2 5% 0,1W	3468	4822 051 10682	6k8 2% 0,25W	3551▲	4822 050 25601	560Ω 1% 0,6W
3318	4822 051 10472	4k7 2% 0,25W	3469	4822 051 10229	22Ω 2% 0,25W	3552▲	4822 050 25601	560Ω 1% 0,6W
3323	4822 116 52272	330k 5% 0,5W	3470	4822 116 52231	820Ω 5% 0,5W	3553▲	4822 052 10561	560Ω 5% 0,33W
3325	4822 051 10271	270Ω 2% 0,25W	3471	4822 050 19109	91k 1% 0,4W	3560 <sup>9</sup>	4822 116 52247	16k 5% 0,5W
3326	4822 051 10271	270Ω 2% 0,25W	3473	4822 116 52265	270k 5% 0,5W	3560 <sup>9</sup>	4822 116 52254	20k 5% 0,5W
3327	4822 050 11202	1k2 1% 0,4W	3474	4822 051 10392	3k9 2% 0,25W	3560 <sup>7,10</sup>	4822 051 10333	33k 2% 0,25W
3328	4822 051 10473	47k 2% 0,25W	3483▲	4822 051 10479	47Ω 2% 0,25W	3570▲	4822 052 10688	60Ω 5% 0,33W
3330	4822 051 10109	10Ω 2% 0,25W	3485	4822 051 20222	2k2 5% 0,1W	3582	4822 050 25601	560Ω 1% 0,6W
3331	4822 051 10109	10Ω 2% 0,25W	3501 <sup>7</sup>	4822 051 10101	100Ω 2% 0,25W	3585▲	4822 052 10159	15Ω 5% 0,33W
3332▲	4822 050 23901	390Ω 1% 0,6W	3501	4822 051 10759	75Ω 2% 0,25W	3588▲	4822 052 10561	560Ω 5% 0,33W
3334▲	4822 050 21809	18Ω 1% 0,6W	3501 <sup>10</sup>	4822 051 10829	82Ω 2% 0,25W	3589	4822 050 24701	470Ω 1% 0,6W
3335▲	4822 116 52184	18Ω 5% 0,5W	3502	4822 050 28201	820Ω 1% 0,6W	3590	4822 116 52234	100k 5% 0,5W
3336▲	4822 052 10189	18Ω 5% 0,33W	3502 <sup>10</sup>	4822 053 10122	1k2 5% 1W	3591	4822 051 10474	470k 2% 0,25W
3336▲ <sup>5</sup>	4822 052 10279	27Ω 5% 0,33W	3503▲	4822 052 10108	1Ω 5% 0,33W	3592	4822 051 10681	680Ω 2% 0,25W
3337▲	4822 052 10189	18Ω 5% 0,33W	3503A <sup>10</sup>	4822 052 10128	1Ω2 5% 0,33W	3603▲	4822 053 21915	9M1 5% 0,5W
3337▲ <sup>5</sup>	4822 052 10279	27Ω 5% 0,33W	3503A <sup>7</sup>	4822 052 10158	1Ω5 5% 0,33W	3604▲	4822 052 10102	1k 5% 0,33W
3338	4822 050 11002	1k 1% 0,4W	3504	4822 100 11684	100Ω 10% 0,1W	3605▲	4822 052 10102	1k 5% 0,33W
3339	4822 051 10152	1k5 2% 0,25W	3505	4822 051 10471	470Ω 2% 0,25W	3606▲	4822 052 10102	1k 5% 0,33W
3340	4822 050 11002	1k 1% 0,4W	3506	4822 116 52245	150k 5% 0,5W	3610▲	4822 052 10159	15Ω 5% 0,33W
3341	4822 051 10103	10k 2% 0,25W	3507	4822 116 52233	10k 5% 0,5W	3610 <sup>7</sup>	4822 052 10688	6Ω8 5% 0,33W
3342	4822 051 10102	1k 2% 0,25W	3507 <sup>7</sup>	4822 116 52238	12k 5% 0,5W	3617	4822 116 52213	180Ω 5% 0,5W
3343	4822 051 10104	100k 2% 0,25W	3508	4822 051 10228	2Ω2 5% 0,25W	3619	4822 116 52182	15Ω 5% 0,5W
3344	4822 051 10182	1k8 2% 0,25W	3509	4822 051 10228	2Ω2 5% 0,25W	3620	4822 053 12121	120Ω 5% 3W
3347	4822 116 52219	330Ω 5% 0,5W	3510	4822 051 10228	2Ω2 5% 0,25W	3622 <sup>7</sup>	4822 053 11479	47Ω 5% 2W
3348	4822 116 52219	330Ω 5% 0,5W	3511	4822 051 10228	2Ω2 5% 0,25W	3622	4822 053 12479	47Ω 5% 3W
3349	4822 116 52219	330Ω 5% 0,5W	3512	4822 051 10109	10Ω 2% 0,25W	3624▲ <sup>7</sup>	4822 050 23304	330k 1% 0,6W
3350	4822 050 11002	1k 1% 0,4W	3513	4822 050 25601	560Ω 1% 0,6W	3624▲	4822 116 52272	330k 5% 0,5W
3351	4822 116 52263	2k 7 5% 0,5W	3514	4822 051 10182	1k8 2% 0,25W	3625▲	4822 116 52292	560k 5% 0,5W
3352	4822 116 52263	2k 7 5% 0,5W	3515	4822 051 10228	2Ω2 5% 0,25W	3626	4822 113 80565	180Ω 5% 5W
3353	4822 116 52263	2k 7 5% 0,5W	3516	4822 101 11192	22k LIN 0,1W	3626 <sup>7</sup>	4822 053 12361	360Ω 5% 3W
3354	4822 051 10221	220Ω 2% 0,25W	3517	4822 051 10228	2Ω2 5% 0,25W	3627	4822 053 12361	360Ω 5% 3W
3356	4822 051 10008	jumper	3518	4822 051 10101	100Ω 2% 0,25W	3628	4822 051 10334	330k 2% 0,25W
3357	4822 051 10102	1k 2% 0,25W	3519	4822 051 10228	2Ω2 5% 0,25W	3629	4822 051 10682	6k8 2% 0,25W
3358	4822 051 10331	330Ω 2% 0,25W	3520	4822 116 52211	150Ω 5% 0,5W	3631 <sup>7</sup>	4822 050 21204	120k 1% 0,6W
3359	4822 051 10331	330Ω 2% 0,25W	3521	4822 101 11189	4,7k LIN 0,1W	3631	4822 050 22204	220k 1% 0,6W
3360	4822 051 10102	1k 2% 0,25W	3522	4822 051 10152	1k5 2% 0,25W	3634 <sup>7</sup>	4822 116 52263	2k7 5% 0,5W
3361	4822 051 10102	1k 2% 0,25W	3523	4822 051 10228	2Ω2 5% 0,25W	3634	4822 116 52269	3k3 5% 0,5W
3362	4822 051 10472	4k7 2% 0,25W	3524	4822 051 10683	68k 2% 0,25W	3635	4822 101 11187	1k LIN 0,1W
3365	4822 116 52245	150k 5% 0,5W	3525 <sup>7</sup>	4822 101 11191	10k LIN 0,1W	3636	4822 051 10224	220k 2% 0,25W
3366	4822 051 10223	22k 2% 0,25W	3525	4822 101 11192	22k LIN 0,1W	3637	4822 051 10101	100Ω 2% 0,25W
3367	4822 116 52175	100Ω 5% 0,5W	3526	4822 051 10104	100k 2% 0,25W	3647 <sup>7</sup>	4822 050 23303	33k 1% 0,6W
3368	4822 116 52175	100Ω 5% 0,5W	3526	4822 051 10823	82k 2% 0,25W	3647	4822 050 23603	36k 1% 0,6W
3369	4822 116 52175	100Ω 5% 0,5W	3527 <sup>7</sup>	4822 051 10333	33k 2% 0,25W	3648	4822 051 10273	27k 2% 0,25W
3370	4822 051 10472	4k7 2% 0,25W	3527	4822 051 10125	1M2 5% 0,25W	3649	4822 050 23309	33Ω 1% 0,6W
3371	4822 051 10332	3k3 2% 0,25W	3528	4822 051 20222	2k2 5% 0,1W	3658▲	4822 052 10688	6Ω8 5% 0,33W
3372	4822 051 10472	4k7 2% 0,25W	3528 <sup>7</sup>	4822 051 10681	680Ω 2% 0,25W	3659	4822 051 10181	180Ω 2% 0,25W
3373	4822 051 10102	1k 2% 0,25W	3529	4822 051 10228	2Ω2 5% 0,25W	3660	4822 051 10101	100Ω 2% 0,25W
3374	4822 050 22703	27k 1% 0,6W	3530	4822 051 10102	1k 2% 0,25W	3661	4822 051 10361	360Ω 2% 0,25W
3375	4822 051 10331	330Ω 2% 0,25W	3530 <sup>7</sup>	4822 051 10008	jumper	3662	4822 051 10221	220Ω 2% 0,25W
3376	4822 051 10331	330Ω 2% 0,25W	3531	4822 051 10104	100k 2% 0,25W	3663	4822 051 10562	5k6 2% 0,25W
3380	4822 051 10101	100Ω 2% 0,25W	3531	4822 051 10008	jumper	3664	4822 051 10272	2k7 2% 0,25W
3381	4822 051 10101	100Ω 2% 0,25W	3532	4822 051 10103	10k 2% 0,25W	3665	4822 051 10103	10k 2% 0,25W
3394	4822 051 10104	100k 2% 0,25W	3532 <sup>7</sup>	4822 051 10153	15k 2% 0,25W	3666	4822 051 10102	1k 2% 0,25W
3395	4822 051 10683	68k 2% 0,25W	3533	4822 051 10822	8k2 2% 0,25W	3667	4822 051 10361	360Ω 2% 0,25W
3450	4822 116 52238	12k 5% 0,5W	3534▲	4822 052 10828	8Ω2 5% 0,33W	3668	4822 051 10102	1k 2% 0,25W
3451	4822 116 52175	100Ω 5% 0,5W	3535 <sup>7</sup>	4822 116 52253	2k 5% 0,5W	3669	4822 051 10102	1k 2% 0,25W
3452	4822 116 52175	100Ω 5% 0,5W	3535	4822 116 52231	820Ω 5% 0,5W	3670	4822 051 10303	30k 2% 0,25W
3455▲	4822 051 10102	1k 2% 0,25W	3536	4822 051 10822	8k2 2% 0,25W	3671	4822 050 11002	1k 1% 0,4W
3456	4822 051 10682	6k8 2% 0,25W	3538	4822 116 52251	18k 5% 0,5W	3672	4822 051 10103	10k 2% 0,25W
3457	4822 101 11191	10k LIN 0,1W	3539 <sup>7</sup>	4822 053 20434	430k 5% 0,25W	3673	4822 051 10472	4k7 2% 0,25W
3458	4822 051 10303	30k 2% 0,25W	3539	4822 053 20684	680k 5% 0,25W	3674	4822 051 10112	1k1 2% 0,25W
3459	4822 051 10823	82k 2% 0,25W	3540	4822 051 10399	39Ω 2% 0,25W	3675	4822 116 52239	120k 5% 0,5W
3460	4822 051 10333	33k 2% 0,25W	3542	4822 050 28201	820Ω 1% 0,6W	3676	4822 051 10103	10k 2% 0,25W
3461	4822 101 11193	470k LIN 0,1W	3543	4822 051 10101	100Ω 2% 0,25W	3677	4822 051 10118	1Ω1 5% 0,25W
3463	4822 051 20183	18k 5% 0,1W	3545	4822 111 70178	120Ω 5% 5W	3701	4822 051 10273	27k 2% 0,25W
3464	4822 051 10123	12k 2% 0,25W	3545 <sup>7</sup>	4822 116 83618	470Ω 5% 5W	3702	4822 051 10153	15k 2% 0,25W
3465	4822 051 10394	390k 2% 0,25W	3545 <sup>8</sup>	4822 113 80565	180Ω 5% 5W	3703	4822 051 10153	15k 2% 0,25W
3466	4822 051 10152	1k5 2% 0,25W	3549	4822 116 52251	18k 5% 0,5W	3704	4822 051 10103	10k 2% 0,25W
3467 <sup>7</sup>	4822 050 21205	1M2 1% 0,6W	3550▲	4822 116 52251	18k 5% 0,5W	3705	4822 051 10102	1k 2% 0,25W
3467	4822 116 80692	2M2 5% 0,2W	3550▲	4822 116 52251	18k 5% 0,5W	3706	4822 051 10472	4k7 2% 0,25W

## Main carrier

3707	4822 051 10223	22k 2% 0,25W	3853	4822 116 80747	75Ω 5% 0,125W	-	
3708	4822 051 10334	330k 2% 0,25W	3854	4822 116 80747	75Ω 5% 0,125W	6245	4822 130 30621 1N4148
3710 <sup>5</sup>	4822 051 10243	24k 2% 0,25W	3855	4822 116 52201	75Ω 5% 0,5W	6246	4822 130 81139 BZV55-C3V3
3710	4822 051 10008	jumper	3856	4822 051 10101	100Ω 2% 0,25W	6247	4822 130 81139 BZV55-C3V3
3711	4822 116 80176	1Ω 5% 0,5W	3857	4822 051 10331	330Ω 2% 0,25W	6248	4822 130 80446 BAS32L
3711 <sup>5</sup>	4822 116 52244	15k 5% 0,5W	3858	4822 051 10331	330Ω 2% 0,25W	6249	4822 130 80446 BAS32L
3712 <sup>5</sup>	4822 051 10223	22k 2% 0,25W	3859	4822 051 10331	330Ω 2% 0,25W	6300	4822 130 80446 BAS32L
3712	4822 051 10008	jumper	3860	4822 116 80176	1Ω 5% 0,5W	6302	4822 130 34382 BZX79-B8V2
3713 <sup>5</sup>	4822 051 10223	22k 2% 0,25W	3861	4822 051 10562	5k6 2% 0,25W	6303	4822 130 34382 BZX79-B8V2
3713	4822 051 10008	jumper	3866	4822 051 10472	4k7 2% 0,25W	6310	4822 130 80954 BZV55-C5V6
3714	4822 051 10105	1M 5% 0,25W	3867	4822 116 80747	75Ω 5% 0,125W	6315	4822 130 80446 BAS32L
3716	4822 051 10103	10k 2% 0,25W	3868	4822 116 80747	75Ω 5% 0,125W	6316	4822 130 30621 1N4148
3717	4822 051 10103	10k 2% 0,25W	3869	4822 116 52175	100Ω 5% 0,5W	6317	4822 130 30621 1N4148
3718	4822 116 52215	220Ω 5% 0,5W	3871	4822 116 52175	100Ω 5% 0,5W	6318	4822 130 80446 BAS32L
3719	4822 116 52215	220Ω 5% 0,5W	3874	4822 050 21008	1Ω 1% 0,6W	6367	4822 130 80884 BZV55-C5V1
3720	4822 116 52215	220Ω 5% 0,5W	3875	4822 051 10102	1k 2% 0,25W	6464	4822 130 81015 BZV55-F10
3721	4822 051 10103	10k 2% 0,25W	3879	4822 051 10122	1k2 2% 0,25W	6465 <sup>8</sup>	4822 130 61219 BZX79-B10
3722	4822 051 10103	10k 2% 0,25W	3880	4822 050 11002	1k 1% 0,4W	6465 <sup>7</sup>	4822 130 34281 BZX79-B15
3723	4822 051 10103	10k 2% 0,25W	3880	4822 051 10332	3k3 2% 0,25W	6465 <sup>9</sup>	4822 130 80239 BZX79-F8V2
3724	4822 051 10103	10k 2% 0,25W	3881 <sup>10</sup>	4822 116 52217	270Ω 5% 0,5W	6503	4822 130 42488 BYD33D
3725	4822 051 10103	10k 2% 0,25W	3881	4822 116 52224	470Ω 5% 0,5W	6504	4822 130 80446 BAS32L
3726	4822 051 10103	10k 2% 0,25W	3882 <sup>10</sup>	4822 116 52217	270Ω 5% 0,5W	6518	4822 130 80446 BAS32L
3727	4822 116 52175	100Ω 5% 0,5W	3882	4822 116 52224	470Ω 5% 0,5W	6519	4822 130 80446 BAS32L
3728	4822 116 52175	100Ω 5% 0,5W	3884	4822 051 10681	680Ω 2% 0,25W	6546 <sup>A</sup>	4822 130 41275 BY228
3729	4822 051 10911	910Ω 2% 0,25W	3885	4822 051 10821	820Ω 2% 0,25W	6547 <sup>A</sup>	4822 130 41602 BYW95C
3730	4822 051 10221	220Ω 2% 0,25W	3886	4822 051 10472	4k7 2% 0,25W	6548	4822 130 30621 1N4148
3731	4822 051 10103	10k 2% 0,25W	3887	4822 116 52289	5k 6 5% 0,5W	6551	4822 130 42489 BYD33G
3732	4822 053 11103	10k 5% 2W	3888	4822 116 52207	1k 2 5% 0,5W	6560	4822 130 80446 BAS32L
3732 <sup>7</sup>	4822 053 11332	3k3 5% 2W	3890	4822 051 10103	10k 2% 0,25W	6561	4822 130 30864 BZX79-B68
3733	4822 050 23902	3k9 1% 0,6W				6563	4822 130 80915 BYD74C
3733	4822 116 52283	4k7 5% 0,5W				6570	4822 130 42489 BYD33G
3734 <sup>7</sup>	4822 050 23902	3k9 1% 0,6W	Jumper			6571	4822 130 42488 BYD33D
3734	4822 116 52283	4k7 5% 0,5W	4xxx	4822 051 10008	jumper	6580	4822 130 82512 BYV29F-400
3735	4822 051 10563	56k 2% 0,25W				6580 <sup>5</sup>	4822 130 80791 BYV28-200/20
3736	4822 116 52175	100Ω 5% 0,5W				6585	4822 130 42489 BYD33G
3737	4822 050 11002	1k 1% 0,4W				6590	4822 130 81141 BZV55-C43
3738	4822 051 10563	56k 2% 0,25W				6591	4822 130 30621 1N4148
3741	4822 051 10123	12k 2% 0,25W				6592	4822 130 80928 BZX79-C30
3742	4822 051 10332	3k3 2% 0,25W				6610	4822 130 80446 BAS32L
3743	4822 051 10472	4k7 2% 0,25W				6611	5322 130 80442 BZV85-C16
3747	4822 051 10273	27k 2% 0,25W				6612	4822 130 30621 1N4148
3748	4822 051 10273	27k 2% 0,25W				6617	4822 130 31456 BZV85-C5V1
3749	4822 051 10273	27k 2% 0,25W				6621	4822 130 42488 BYD33D
3750	4822 051 10273	27k 2% 0,25W				6624	4822 130 31933 1N5061
3751	4822 051 10153	15k 2% 0,25W				6625	4822 130 31933 1N5061
3752	4822 051 10153	15k 2% 0,25W				6630 <sup>A</sup>	4822 130 81175 BYD74G
3753	4822 051 10153	15k 2% 0,25W				6630 <sup>A</sup>	4822 130 33531 BY229F-600
3754	4822 051 10153	15k 2% 0,25W				6640	4822 130 80914 BYD74B
3755	4822 051 10101	100Ω 2% 0,25W				6641	4822 130 80914 BYD74B
3755 <sup>5</sup>	4822 051 10008	jumper				6646	4822 130 42488 BYD33D
3756	4822 051 10101	100Ω 2% 0,25W				6648 <sup>7</sup>	4822 130 61219 BZX79-B10
3757	4822 051 20222	2k2 5% 0,1W				6648	4822 130 34488 BZX79-B11
3758	4822 051 10392	3k9 2% 0,25W				6649	4822 130 30621 1N4148
3759	4822 116 52175	100Ω 5% 0,5W				6660	4822 130 30621 1N4148
3768	4822 051 10105	1M 5% 0,25W				6661	4822 130 42488 BYD33D
3770	4822 051 10473	47k 2% 0,25W				6662	4822 130 80905 BZV55-F5V1
3771	4822 116 52251	18k 5% 0,5W				6663	4822 130 34281 BZX79-B15
3772	4822 051 10392	3k9 2% 0,25W				6664	4822 130 61219 BZX79-B10
3774	4822 051 10103	10k 2% 0,25W				6664 <sup>7</sup>	4822 130 30862 BZX79-B9V1
3775	4822 051 10101	100Ω 2% 0,25W				6665	4822 130 80883 BZV55-C4V7
3776	4822 051 10562	5k6 2% 0,25W				6668	4822 130 80887 BZV55-F36
3777	4822 116 52264	27k 5% 0,5W				6666 <sup>7</sup>	4822 130 81141 BZV55-C43
3778	4822 051 10563	56k 2% 0,25W				6669	4822 130 80446 BAS32L
3779	4822 116 52233	10k 5% 0,5W				6670 <sup>10</sup>	4822 130 20272 E010AA
3780	4822 051 10103	10k 2% 0,25W				6670	4822 130 20245 SF05D43
3781	4822 051 10472	4k7 2% 0,25W				6675 <sup>A</sup>	4822 130 42488 BYD33D
3849	4822 116 52218	300Ω 5% 0,5W				6675 <sup>A</sup>	4822 130 80914 BYD74B
3850	4822 116 52189	30Ω 5% 0,5W				6705	4822 130 80905 BZV55-F5V1
3851	4822 116 80747	75Ω 5% 0,125W					
3852	4822 116 80747	75Ω 5% 0,125W					

## Main carrier

6707	4822 209 72895	TLUV5320
6708	4822 130 81145	BZV55-F2V4
6709	4822 130 82037	HZT33
7000	5322 130 42012	BC858A
7001	5322 130 42012	BC858A
7002	5322 130 42012	BC858A
7003	4822 130 42133	BC817
7240 <sup>b</sup>	4822 209 73253	TDA2613/N1
7240	4822 209 73853	TDA1521/N4
7243	5322 130 42012	BC858A
7244	4822 130 42513	BC858C
7245	5322 130 42138	BC848C
7246	5322 130 42136	BC848C
7247	5322 130 42136	BC848C
7248	4822 130 61207	BC848
7249	4822 130 61207	BC848
7301	4822 130 61207	BC848
7302	5322 130 42012	BC858A
7303	4822 130 61207	BC848
7305	4822 209 30389	TDA4510/V8
7306	4822 209 30011	TDA4650/V4
7307	4822 209 63108	TDA4660/V2
7308	4822 209 71512	TDA4565/V6
7309	4822 209 63733	TDA4680/V5
7310	4822 130 61207	BC848
7311	5322 209 10576	HEF4053BD
7312	5322 209 10576	HEF4053BD
7341	4822 130 61207	BC848
7370	4822 130 61207	BC848
7371	4822 130 61207	BC848
7372	4822 130 61207	BC848
7373	4822 130 61207	BC848
7374	4822 130 61207	BC848
7455	5322 130 42012	BC858A
7470	4822 209 63423	TDA2579B/N2
7500	4822 130 41344	BC337-40
7502	4822 130 60775	2SD1266P
7503	4822 130 61236	BD234
7504	4822 130 61207	BC848
7505	5322 130 42012	BC858A
7530	4822 130 61207	BC848
7533	4822 130 60111	2SA1359
7534	4822 130 44283	BC636
7540	4822 130 41344	BC337-40
7545 <sup>a</sup>	4822 130 61265	BU508AF
7546 <sup>a</sup>	4822 130 42679	BUT11AF
7591	5322 130 42012	BC858A
7600	4822 209 63735	TDA8385/N2
7614 <sup>a</sup>	4822 209 30992	CNR50 selected
7625 <sup>a</sup>	4822 130 62735	BUT12AF
7661	5322 130 44921	BD943
7663	4822 130 42513	BC858C
7671	4822 130 61207	BC848
7672	4822 130 61207	BC848
7701	4822 130 61207	BC848
7702	4822 130 61207	BC848
7703	4822 130 61207	BC848
7704	4822 130 61207	BC848
7705	4822 130 61207	BC848
7706	4822 130 61207	BC848
7707	4822 130 61207	BC848
7708 <sup>b</sup>	4822 209 63872	TMP47C1237N-U114-L1
7708 <sup>b</sup>	4822 209 63947	TMP47C1237N-U111-L2
7708	4822 209 30796	TMP47C1673N-U215-L1

## Mains module

4822 212 23664	mains module
0010 <sup>a</sup>	4822 265 30389 2p male
0032 <sup>a</sup>	4822 265 30389 2p male
0033 <sup>a</sup>	4822 265 30877 3p male
2601 <sup>a</sup>	4822 121 40487 100nF 10% 400V
2602	4822 126 11141 2,2nF 10% 1kV
2604	4822 126 11141 2,2nF 10% 1kV
3601 <sup>a</sup>	4822 116 40211 PTC/NTC
3607	4822 050 23901 390Ω 1% 0,6W
5600 <sup>a</sup>	4822 157 63073 filter
6602	4822 130 31933 1N5061
6603	4822 130 31933 1N5061
6604	4822 130 31933 1N5061
6605	4822 130 31933 1N5061

## CRT module

4822 212 23675	CRT module 25"/ 28" Blackline	3345	4822 051 10681	680Ω 2% 0,25W
4822 212 23676	CRT module 25"/ 28" non Blackline	3361	4822 116 52208	130Ω 5% 0,5W
4822 212 30026	CRT module 25"/28" 16/9	3361 <sup>7</sup>	4822 051 10131	130Ω 2% 0,25W
		3362 <sup>7</sup>	4822 051 10362	3k6 2% 0,25W
		3362	4822 051 20222	2k2 5% 0,1W
		3363	4822 051 10272	2k7 2% 0,25W
0009	4822 267 40878	3364	4822 116 52239	120k 5% 0,5W
0013	4822 264 40207	3368	4822 051 10479	47Ω 2% 0,25W
0019	4822 265 30378	3369	4822 051 10479	47Ω 2% 0,25W
0020	4822 290 40295	3369	4822 051 10118	1Ω 5% 0,25W
0021A	4822 255 70261	3370	4822 116 52219	330Ω 5% 0,5W
	CRT socket 25"/28"	3371	4822 053 12153	15k 5% 3W
0021	4822 255 70251	3371 <sup>9,10</sup>	4822 053 12103	10k 5% 3W
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		3372A	4822 052 10271	270Ω 5% 0,33W
		3373A	4822 052 10271	270Ω 5% 0,33W
2301 <sup>7</sup>	4822 122 31769	3374	4822 050 21502	1k5 1% 0,6W
2301 <sup>8</sup>	4822 122 31825	3391	4822 051 10104	100k 2% 0,25W
2301 <sup>9</sup>	4822 122 31972	3392	4822 051 10104	100k 2% 0,25W
2301 <sup>10</sup>	4822 122 31772	3393	4822 116 52234	100k 5% 0,5W
2331 <sup>7</sup>	4822 122 31769	3393	4822 050 28203	82Ω 1% 0,6W
2331 <sup>8</sup>	4822 122 31825	3393 <sup>9</sup>	4822 116 52264	27k 5% 0,5W
2331 <sup>9</sup>	4822 122 31972	3394	4822 116 52267	30k 5% 0,5W
2331 <sup>10</sup>	4822 122 31772	3394 <sup>10</sup>	4822 116 52277	39k 5% 0,5W
2361 <sup>7</sup>	4822 122 31769	3395	4822 051 10683	68Ω 2% 0,25W
2361 <sup>8</sup>	4822 122 31825	3396	4822 051 10124	120k 2% 0,25W
2361 <sup>9</sup>	4822 122 32444	3397	4822 051 10124	120k 2% 0,25W
2361 <sup>10</sup>	4822 122 31772	3411	4822 051 10182	1k8 2% 0,25W
2391	4822 121 43878	3411 <sup>7</sup>	4822 051 10152	1k5 2% 0,25W
2392	4822 124 80067	3412	4822 051 10471	47Ω 2% 0,25W
2392	4822 124 41577	3413	4822 116 52218	300Ω 5% 0,5W
2411	4822 124 80057	3413	4822 116 52215	220Ω 5% 0,5W
2411	4822 124 40849	3414	4822 051 10479	47Ω 2% 0,25W
2421	4822 122 31772	3414	4822 051 10519	51Ω 5% 0,5W
2431	4822 121 41689	3415	4822 116 52215	220Ω 5% 0,5W
2432	4822 124 80056	3421	4822 051 10104	100k 2% 0,25W
2432	4822 124 41508	3421 <sup>10</sup>	4822 051 10184	180k 2% 0,25W
2433	5322 121 44356	3422	4822 051 10682	6k80 2% 0,25W
2433	5322 121 50885	3423	4822 051 10474	470k 2% 0,25W
2434	5322 122 32334	3423 <sup>10</sup>	4822 051 10105	1M 5% 0,25W
2440	4822 122 33105	3431A	4822 052 10181	180Ω 5% 0,33W
2441	4822 122 33105	3432A	4822 052 10399	39Ω 5% 0,33W
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		3433A	4822 052 10108	1Ω 5% 0,33W
3301	4822 051 10131	3434	4822 050 21502	1k5 1% 0,6W
3302	4822 051 10362	3435	4822 050 21502	1k5 1% 0,6W
3302	4822 051 20222	3436	4822 050 21805	1M 8 1% 0,6W
3303	4822 051 10272	3438	4822 051 10273	27k 2% 0,25W
3304	4822 116 52239	3439	4822 051 10153	15k 2% 0,25W
3308	4822 051 10479	3440	4822 051 10154	150k 2% 0,25W
3308 <sup>9</sup>	4822 051 10118	3442	4822 051 10123	12k 2% 0,25W
3310	4822 116 52219	3443	4822 051 10473	47k 2% 0,25W
3311	4822 053 12123	3444	4822 051 10822	8k20 2% 0,25W
3311	4822 053 12153	3447	4822 051 10104	100k 2% 0,25W
3312A	4822 052 10271	3448	4822 051 10223	22k 2% 0,25W
3313A	4822 052 10271	<hr/>		
3314	4822 050 21502	jumper	4xxx	4822 051 10008 jumper
3315	4822 051 10124	<hr/>		
3316	4822 051 10124	5401	4822 156 20915	33μH
3331	4822 051 10131	5401	4822 158 10563	SPT0508
3332	4822 051 10362	<hr/>		
3332	4822 051 20222		6301	4822 130 80877 BAV103
3333	4822 051 10272		6331	4822 130 80877 BAV103
3334	4822 116 52239		6345	4822 130 81015 BZV55-F10
3339	4822 051 10118		6361	4822 130 80877 BAV103
3339	4822 051 10479		6411	4822 130 80879 BZV55-C3V0
3340	4822 116 52219		6421	4822 130 80446 BAS32L
3341	4822 053 12153			
3342A	4822 052 10271			
3343A	4822 052 10271			
3344	4822 050 21502			

## Euro module

	4822 212 23666	EURO module
0023	4822 265 40442	10P male
0026	4822 265 40442	10P male
0030	4822 265 41086	9P male
0048	4822 267 60247	euro connector
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2800	4822 121 51252	470nF 5% 63V
2801	4822 121 51252	470nF 5% 63V
2802	4822 121 51252	470nF 5% 63V
2803	4822 121 51252	470nF 5% 63V
2804	4822 122 33496	100nF 10% 63V
2805	4822 122 33496	100nF 10% 63V
2806	4822 122 33496	100nF 10% 63V
2807	4822 124 41506	47µF 20% 16V
2810	4822 122 32142	270pF 5% 63V
2811	4822 122 32142	270pF 5% 63V
2812	4822 122 33496	100nF 10% 63V
2813	4822 122 52342	47nF 10% 63V
2814	4822 122 31759	18nF
2815	4822 122 33496	100nF 10%
2816	4822 122 33496	100nF 10% 63V
2817	4822 122 33496	100nF 10% 63V
2818	4822 122 33496	100nF 10% 63V
2819	4822 124 41525	100µF 20% 25V
2820	5322 121 42386	100nF 5% 63V
2821	4822 124 40433	47µF 20% 25V
2822	4822 124 40435	10µF 20% 50V
2823	4822 122 33496	100nF 10% 63V
2831	4822 124 40272	33µF 20% 16V
2833	4822 122 33496	100nF 10% 63V
2834	4822 122 33496	100nF 10% 63V
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3800	4822 116 52189	30Ω 5% 0,5W
3801	4822 116 80747	75Ω 5% 0,125W
3802	4822 116 52211	150Ω 5% 0,5W
3803	4822 116 52211	150Ω 5% 0,5W
3804	4822 050 11002	1k 1% 0,4W
3805	4822 050 11002	1k 1% 0,4W
3806	4822 051 10334	330k 2% 0,25W
3807	4822 051 10334	330k 2% 0,25W
3808	4822 051 10334	300k 2% 0,25W
3809	4822 051 10334	330k 2% 0,25W
3810	4822 051 10622	6k2 2% 0,25W
3811	4822 051 10182	1k8 2% 0,25W
3812	4822 051 10331	330Ω 2% 0,25W
3813	4822 116 52201	75Ω 5% 0,5W
3814	4822 051 10152	1k5 2% 0,25W
3815	4822 051 10472	4k7 2% 0,25W
3816	4822 116 52296	6k8 5% 0,5W
3819	4822 051 10331	330Ω 2% 0,25W
3820	4822 051 10471	470Ω 2% 0,25W
3821	4822 051 10331	330Ω 2% 0,25W
3822	4822 051 10471	470Ω 2% 0,25W
3823	4822 051 10561	560Ω 2% 0,25W
3824	4822 051 10271	270Ω 2% 0,25W
3825	4822 051 10223	22k 2% 0,25W
3826	4822 051 10102	1k 2% 0,25W
3827	4822 051 10339	33Ω 2% 0,25W
3828	4822 051 20222	2k2 5% 0,1W
3829	4822 051 10821	820Ω 2% 0,25W
3830	4822 051 10683	68k 2% 0,25W
3831	4822 051 10123	12k 2% 0,25W
3832	4822 051 10102	1k 2% 0,25W
3833	4822 051 10279	27Ω 2% 0,25W
3834	4822 051 10279	27Ω 2% 0,25W
3835	4822 051 10221	220Ω 2% 0,25W
3836	4822 051 10271	270Ω 2% 0,25W

3837Δ	4822 052 10278	2Ω7 5% 0,33W
3838	4822 116 80747	75Ω 5% 0,125W
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4xxx	4822 051 10008	jumper
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5800	4822 157 51462	10µH
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## Mono IF/sound module

4822 212 23688	IF module multi
4822 212 23689	IF-module PAL/SECAM BG
4822 212 23694	IF module PAL I
1010 <sup>5</sup>	4822 242 72212 OFWG3950
1010	4822 242 72374 OFWG3950
1010 <sup>2</sup>	4822 242 70936 OFW31952
1042	4822 242 72211 5,5MHz
1043	4822 153 30025 6,0MHz
1102	4822 242 70714 5,5MHz
1103	4822 242 71841 6,0MHz
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2012	4822 124 41577 4,7µF 20% 50V
2013	4822 122 31784 4,7nF 10% 50V
2014 <sup>4</sup>	4822 122 31784 4,7µF 10% 50V
2014	4822 122 31797 22nF 10% 63V
2015	5322 121 42498 680nF 5% 63V
2016	4822 122 31784 4,7nF 10% 50V
2017	4822 122 33496 100nF 10% 63V
2018	4822 121 51252 470nF 5% 63V
2019	4822 122 31784 4,7µF 10% 50V
2020	4822 122 33205 12pF 10% 63V
2021	4822 122 33205 12pF 10% 63V
2022	4822 122 33472 22pF 2%
2025	4822 122 31784 4,7nF 10% 50V
2035	4822 122 32507 6,8pF 5% 50V
2036	4822 122 31766 120pF 5% 50V
2037	4822 122 31766 120pF 5% 50V
2038	4822 122 31784 4,7nF 10% 50V
2039	4822 122 32504 15pF 5% 50V
2040	4822 122 31784 4,7nF 10% 50V
2041	4822 122 31784 4,7nF 10% 50V
2042	4822 122 33205 12pF 10% 63V
2044	4822 122 31797 22nF 10% 63V
2047	4822 122 33496 100nF 10% 63V
2048	4822 124 41506 47µF 20% 16V
2049	4822 122 33496 100µF 10% 63V
2050	4822 124 40849 330µF 20% 16V
2055	4822 122 31972 39pF 5% 50V
2056	4822 124 40435 10µF 20% 50V
2057	4822 122 31981 33nF 0,5pF 50V
2058	4822 122 31797 22nF 10% 63V
2059	4822 124 41566 3,3µF 20% 50V
2060	4822 122 31797 22nF 10% 63V
2100	4822 122 33205 12pF 10% 63V
2101	4822 122 33473 27pF 2%
2102	4822 122 32507 6,8pF 5% 50V
2104	4822 122 33474 47pF 2%
2105	4822 122 33465 39pF 2%
2106	4822 122 31792 1,5pF 10% 50V
2107	4822 122 33465 39pF 2%
2108	4822 122 31784 4,7nF 10% 50V
2109	4822 122 33473 27pF 2%
2110	4822 126 10514 0,47pF 5% 63V
2111	4822 122 31784 4,7nF 10% 50V
2113	4822 124 41596 22µF 20% 50V
2114	4822 122 31784 4,7nF 10% 50V
2115	4822 124 41577 4,7µF 20% 50V
2116	4822 124 40435 10µF 20% 50V
2117	4822 124 41576 2,2µF 20% 50V
2118	4822 124 40432 1,5mF 20% 25V
2124	4822 122 32442 10nF 50V
2125	4822 124 40195 150µF 20% 16V
2126	4822 121 43898 8,2nF 10% 50V
2127	5322 121 42661 330nF 5% 63V
2129	5322 121 42661 330nF 5% 63V
2130	5322 121 42661 330nF 5% 63V
2131	4822 122 31797 22nF 10% 63V

## Mono IF/sound module (continued)

2132	4822 122 31797	22nF 10% 63V	3109	4822 051 10223	22k 2% 0,25W	6112	4822 130 80884	BZV55-C5V1
2133	4822 122 31797	22nF 10% 63V	3110	4822 051 10562	5k6 2% 0,25W			
2134	4822 124 41596	22μF 20% 50V	3111	4822 051 10562	5k6 2% 0,25W			
2135	4822 121 42408	220nF 5% 63V	3112	4822 051 10472	4k7 2% 0,25W			
2136	5322 121 42661	330nF 5% 63V	3113	4822 051 10562	5k6 2% 0,25W	7000	4822 209 72812	TDA2549/C4
2137 <sup>2,5</sup>	4822 126 11381	820pF 2%	3114	4822 051 10182	1k8 2% 0,25W	7030	5322 130 42012	BC858A
2137	4822 122 31746	1000pF 5% 50V	3114 <sup>5</sup>	4822 051-10472	4k7 2% 0,25W	7031	4822 130 61207	BC848
2138		390pF 2%	3115	4822 051 10562	5k6 2% 0,25W	7035	4822 130 44121	BC338
2141	4822 124 41577	4,7μF 20% 50V	3116	4822 116 52263	2k 7 5% 0,5W	7040	5322 130 42012	BC858A
2143	4822 122 31797	22nF 10% 63V	3117	4822 051 10104	100k 2% 0,25W	7041	4822 130 61207	BC848
2150	4822 121 42408	220nF 5% 63V	3118	4822 051 20222	2k2 5% 0,1W	7100	4822 209 63105	TDA3843/V3
2151	4822 124 40195	150μF 20% 16V	3118	4822 051 10472	4k7 2% 0,25W	7101	4822 209 30278	TDA3827
			3119	4822 051 10472	4k7 2% 0,25W	7102	4822 130 61207	BC848
			3120	4822 051 10472	4k7 2% 0,25W	7103	5322 130 42136	BC848C
						7104	5322 130 41982	BC848B
3012	4822 051 10562	5k6 2% 0,25W	3121	4822 051 10104	100k 2% 0,25W			
3013	4822 051 10273	27k 2% 0,25W	3122	4822 051 10331	330Ω 2% 0,25W	2	PAL I mono	
3014	4822 051 10823	82k 2% 0,25W	3123 <sup>2,5</sup>	4822 051 10563	56k 2% 0,25W	5	mono multi France	
3015 <sup>5</sup>	4822 051 10104	100k 2% 0,25W	3123	4822 051 10473	47k 2% 0,25W			
3015	4822 051 10473	47k 2% 0,25W	3124	4822 051 10103	10k 2% 0,25W			
3016	4822 100 11819	100k LIN 0,1W	3125	4822 051 10103	10k 2% 0,25W			
3017	4822 051 10823	82k 2% 0,25W	3126	4822 051 10153	15k 2% 0,25W			
3019	4822 051 10473	47k 2% 0,25W	3127	4822 051 10153	15k 2% 0,25W			
3020	4822 051 10273	27k 2% 0,25W	3129	4822 051 10822	8k2 2% 0,25W			
3021	4822 051 10223	22k 2% 0,25W	3130	4822 051 10682	6k8 2% 0,25W			
3022	4822 051 10008	jumper	3131	4822 051 10102	1k 2% 0,25W			
3022 <sup>5</sup>	4822 051 10151	150Ω 2% 0,25W	3132	4822 051 10392	3k90 2% 0,25W			
3024	4822 051 20222	2k2 5% 0,1W	3140	4822 051 10153	15k 2% 0,25W			
3025	4822 051 10562	5k6 2% 0,25W	3141	4822 051 10392	3k9 2% 0,25W			
3030	4822 051 10223	22k 2% 0,25W	3142	4822 051 10273	27k 2% 0,25W			
3031	4822 051 10474	470k 2% 0,25W	3143	4822 051 10182	1k8 2% 0,25W			
3036	4822 051 10472	4k7 2% 0,25W	3144	4822 051 10182	1k8 2% 0,25W			
3037	4822 051 10392	3k9 2% 0,25W						
3038	4822 051 10472	4k7 2% 0,25W						
3039	4822 051 10392	3k9 2% 0,25W						
3040	4822 051 10472	4k7 2% 0,25W	4xxx	4822 051 10008	jumper			
3041	4822 051 10221	220Ω 2% 0,25W						
3043	4822 116 52175	100Ω 5% 0,5W						
3044 <sup>5</sup>	4822 051 10102	1K 2% 0,25W						
3044	4822 051 10271	270Ω 2% 0,25W						
3046	4822 051 10681	680Ω 2% 0,25W						
3047	4822 051 10822	8k2 2% 0,25W						
3048	4822 101 11188	2k 30%LIN 0,1W						
3049	4822 051 20183	18k 5% 0,1W						
3050	4822 051 10272	2k7 2% 0,25W						
3051	4822 051 10563	56k 2% 0,25W						
3052	4822 051 10561	560Ω 2% 0,25W						
3052 <sup>5</sup>	4822 051 10471	470Ω 2% 0,25W						
3055	4822 051 10103	10k 2% 0,25W						
3056	4822 051 10471	470Ω 2% 0,25W						
3058	4822 051 10682	6k8 2% 0,25W						
3060	4822 051 10471	470Ω 2% 0,25W						
3061	4822 051 10124	120k 2% 0,25W						
3062	4822 051 10563	56k 2% 0,25W						
3063	4822 051 10272	2k7 2% 0,25W						
3064	4822 051 10563	56k 2% 0,25W						
3065	4822 051 10223	22k 2% 0,25W						
3066	4822 051 10824	820k 2% 0,25W						
3067	4822 051 10331	330Ω 2% 0,25W						
3068	4822 051 10152	1k5 2% 0,25W						
3080 <sup>5</sup>	4822 051 10102	1k 2% 0,25W						
3080	4822 051 20222	2k25% 0,1W						
3080 <sup>2</sup>	4822 051 10332	3k3 2% 0,25W						
3100	4822 051 10104	100k 2% 0,25W						
3101	4822 051 10562	5k6 2% 0,25W						
3102	4822 051 20222	2k2 5% 0,1W						
3103	4822 051 10104	100k 2% 0,25W						
3104 <sup>A</sup>	4822 051 10479	47Ω 2% 0,25W						
3105	4822 053 11271	270Ω 5% 2W						
3107	4822 051 10151	150Ω 2% 0,25W						
3108	4822 051 10333	33k 2% 0,25W						

## Stereo IF/sound module

	4822 212 23663	IF module multi	2129	4822 122 33476	220pF 2% 50V	3101	4822 051 10562	5k6 2% 0,25W
	4822 212 23687	IF module non multi	2130	4822 124 40195	150µF 20% 16V	3102	4822 051 20222	2k2 5% 0,1W
			2133	4822 122 31797	22nF 10% 63V	3103	4822 051 10104	100k 2% 0,25W
			2200	4822 121 51252	470nF 5% 63V	3105	4822 053 11121	120Ω 5% 2W
1010	4822 242 72554	OFWG3254	2201	4822 121 51252	470nF 5% 63V	3106	4822 051 10561	560Ω 2% 0,25W
1010 <sup>4</sup>	4822 242 80205	OFWK3261	2202	4822 121 51252	470nF 5% 63V	3107	4822 051 10102	1k 2% 0,25W
1042	4822 242 72211	5,5MHz	2203	4822 122 31916	5,6nF 10% 63V	3108	4822 051 10561	560Ω 2% 0,25W
1101	4822 242 70485	5,74MHz	2204	4822 121 42408	220nF 5% 63V	3109	4822 051 10562	5k6 2% 0,25W
1102	4822 242 71713	6,0MHz	2205	4822 122 31947	100nF 20% 63V	3110	4822 051 10562	5k6 2% 0,25W
1103	4822 242 70714	5,5MHz	2206	4822 121 51252	470nF 5% 63V	3112	4822 051 10562	5k6 2% 0,25W
1200	4822 242 80208	10MHz	2207	4822 121 51252	470nF 5% 63V	3113	4822 051 10562	5k6 2% 0,25W
			2208	4822 124 41509	33µF 20% 35V	3115	4822 051 10331	330Ω 2% 0,25W
			2209	4822 124 41509	33µF 20% 35V	3117 <sup>4</sup>	4822 051 10561	560Ω 2% 0,25W
			2210	4822 122 31947	100nF 20% 63V	3117	4822 051 10681	680Ω 2% 0,25W
2011	4822 124 41506	47µF 20% 16V	2211	4822 124 40198	470µF 20% 16V	3119	4822 051 10562	5k6 2% 0,25W
2012	4822 124 41577	4,7µF 20% 50V	2212	4822 124 40435	10µF 20% 50V	3120	4822 051 10562	5k6 2% 0,25W
2013	4822 122 31784	4,7nF 10% 50V	2213	4822 122 31782	15nF 10% 50V	3121	4822 051 10562	5k6 2% 0,25W
2014	4822 122 31797	22nF 10% 63V	2214	4822 122 31782	15nF 10% 50V	3122	4822 051 10122	1k2 2% 0,25W
2015	5322 121 42498	680nF 5% 63V	2215	4822 122 31981	33nF 0,5pF 50V	3123	4822 051 10561	560Ω 2% 0,25W
2016	4822 122 31784	4,7nF 10% 50V	2216	4822 122 31916	5,6nF 10% 63V	3124	4822 051 10101	100Ω 2% 0,25W
2017	4822 122 33496	100nF 10% 63V	2217	4822 122 31981	33nF 0,5pF 50V	3125	4822 051 10102	1k 2% 0,25W
2018	4822 121 51252	470nF 5% 63V	2218	4822 122 31916	5,6nF 10% 63V	3126	4822 051 10102	1k 2% 0,25W
2035 <sup>4</sup>	4822 122 32506	5,6pF 5% 50V	2219	4822 124 41577	4,7µF 20% 50V	3127	4822 051 10152	1k5 2% 0,25W
2035	4822 051 10472	4k7 2% 0,25W	2220	5322 121 42498	680nF 5% 63V	3128	4822 051 10182	1k8 2% 0,25W
2036	4822 122 31784	4,7nF 10% 50V	2221	5322 121 42498	680nF 5% 63V	3200	4822 051 10331	330Ω 2% 0,25W
2037	4822 122 31784	4,7nF 10% 50V	2222	4822 124 41643	100µF 20% 16V	3201	4822 051 10331	330Ω 2% 0,25W
2038	4822 122 33496	100nF 10% 63V	2223	4822 122 31746	1000pF 5% 50V	3202	4822 051 10563	56k 2% 0,25W
2039 <sup>4</sup>	4822 122 32083	8,2pF 5% 50V				3203	4822 051 10563	56k 2% 0,25W
2039	4822 051 10682	6k80 2% 0,25W				3204	4822 101 11181	10k LIN 0.1W
2040	4822 122 31784	4,7nF 10% 50V	3012	4822 051 10562	5k6 2% 0,25W	3205 <sup>A</sup>	4822 052 10229	22Ω 5% 0,33W
2041	4822 122 31784	4,7nF 10% 50V	3013	4822 051 10273	27k 2% 0,25W	3206	4822 051 10478	407 5% 0,25W
2042	4822 122 33205	12pF 10% 63V	3014	4822 051 10823	82k 2% 0,25W	3207	4822 051 10273	27k 2% 0,25W
2044	4822 122 31797	22nF 10% 63V	3015	4822 116 52234	100k 5% 0,5W	3208	4822 051 10272	2k7 2% 0,25W
2047	4822 122 33496	100nF 10% 63V	3016	4822 100 11819	100k LIN 0,1W	3209	4822 051 10333	33k 2% 0,25W
2048	4822 124 41506	47µF 20% 16V	3017	4822 051 10823	82k 2% 0,25W	3210	4822 050 11002	1k 1% 0,4W
2049	4822 122 33496	100nF 10% 63V	3019	4822 051 10473	47k 2% 0,25W	3211	4822 051 10101	100Ω 2% 0,25W
2050	4822 124 40849	330µF 20% 16V	3020	4822 051 10273	27k 2% 0,25W	3213	4822 116 52233	10k 5% 0,5W
2051	4822 122 33496	100nF 10% 63V	3021	4822 051 20183	18k 5% 0,1W	3214	4822 051 10102	1k 2% 0,25W
2055	4822 122 31972	39pF 5% 50V	3030	4822 051 10223	22k 2% 0,25W	3215	4822 051 10102	1k 2% 0,25W
2056	4822 124 41576	2,2µF 20% 50V	3031	4822 051 10474	470k 2% 0,25W	3216	4822 051 10101	100Ω 2% 0,25W
2057	4822 122 31981	33nF 0,5pF 50V	3036	3822 051 10472	417 2% 0,25W	jumper		
2058	4822 122 31797	22nF 10% 63V	3037	4822 051 10392	3k9 2% 0,25W	4xxx	4822 051 10008	jumper
2059	4822 124 41407	0,47µF 20% 63V	3038	4822 051 10472	4k7 2% 0,25W			
2100	4822 122 33205	12pF 10% 63V	3039	4822 051 10472	4k7 2% 0,25W			
2101	4822 122 33473	27pF 2%	3040	4822 051 10472	4k7 2% 0,25W			
2102	4822 122 32507	6,8pF 5% 50V	3041	4822 051 10221	220Ω 2% 0,25W	5010	4822 157 63081	0,56µH
2104	4822 122 33465	39pF 2%	3042 <sup>4</sup>	4822 051 10151	150Ω 2% 0,25W	5010	4822 157 53302	1µH
2105	4822 126 11379	33pF 2%	3042	4822 116 90536	120Ω 1% 1/8W	5035	4822 157 53534	0,34µH
2106	4822 122 31792	1,5pF 10% 50V	3043	4822 116 52175	100Ω 5% 0,5W	5036	4822 157 63824	0,36µH 38,9MHz
2107	4822 122 33465	39pF 2%	3044 <sup>4</sup>	4822 051 10102	1k 2% 0,25W	5036 <sup>A</sup>	4822 157 53609	0,36µH
2108	4822 122 31784	4,7nF 10% 50V	3044	4822 051 10271	270Ω 2% 0,25W	5037	4822 157 53537	1,35µH
2109	4822 122 33473	27pF 2%	3046	4822 116 52228	680Ω 5% 0,5W	5038	4822 157 63076	1,2µH
2110	4822 122 32507	6,8pF 5% 50V	3047	4822 051 10822	8k2 2% 0,25W	5039	4822 152 20678	33µH
2111	4822 122 31784	4,7nF 10% 50V	3048	4822 101 11188	2k 30%LIN 0,1W	5042 <sup>A</sup>	4822 157 62767	8,2µH
2112	4822 122 32505	2,7pF 5% 50V	3049	4822 051 20183	18k 5% 0,1W	5042	4822 157 53634	5,6µH
2113	4822 124 40435	10µF 20% 50V	3050	4822 051 10272	2k7 2% 0,25W	5100	4822 157 53538	0,75µH
2114	4822 122 32442	10nF 50V	3051	4822 051 10563	56k 2% 0,25W	5101	4822 157 53535	0,36µH
2115	4822 124 41509	33pF 20% 35V	3052	4822 051 10102	1k 2% 0,25W	5102	4822 157 53536	0,34µH
2117	4822 124 41576	2,2µF 20% 50V	3055	4822 051 10103	10k 2% 0,25W	5103	4822 157 52511	0,83µH
2118	4822 124 41576	2,2µF 20% 50V	3056	4822 051 10471	470Ω 2% 0,25W	5104	4822 157 63077	0,25µH
2119	4822 122 31797	22nF 10% 63V	3060	4822 051 10471	470Ω 2% 0,25W	5105	4822 157 52511	0,83µH
2120	4822 124 41576	2,2µF 20% 50V	3061	4822 051 10124	120k 2% 0,25W			
2122	4822 122 33496	100nF 10% 63V	3062	4822 051 10563	56k 2% 0,25W			
2123	4822 124 40242	1µF 20% 63V	3063	4822 051 10272	2k7 2% 0,25W			
2123 <sup>4</sup>	4822 124 41577	4,7µF 20% 50V	3064	4822 051 10224	220k 2% 0,25W	6037	4822 130 80888	BA682
2124	4822 124 41576	2,2µF 20% 50V	3065	4822 051 10124	120k 2% 0,25W	6038	4822 130 80888	BA682
2125	4822 122 10527	910pF 2% 50V	3065 <sup>4</sup>	4822 051 10472	4k7 2% 0,25W	6039	4822 130 30621	1N4148
2126	4822 122 31784	4,7nF 10% 50V	3066	4822 051 10824	820k 2% 0,25W	6040	4822 130 80446	LL4148
2127	4822 122 31746	1000pF 5% 50V	3070	4822 051 10822	8k20 2% 0,25W	6041	4822 130 80446	BAS32L
2127 <sup>4</sup>	4822 126 11381	820pF 2%	3100	4822 051 10104	100k 2% 0,25W	6042	4822 130 80446	LL4148
2128	4822 126 11381	820pF 2% NPO				6043	4822 130 80446	BAS32L

## Stereo IF/sound module

## NICAM IF/sound module

6101	4822 130 80888	BA682		4822 212 23692	IF MOD. PAL BG	2147	4822 122 32504	15pF 5% 50V	
6102	4822 130 80888	BA682		4822 212 23691	IF MOD. PAL I	2148	4822 122 33496	100nF 10% 63V	
6103	4822 130 80888	BA682		1010 <sup>3</sup>	4822 242 72553	OFWJ3251	2150	4822 122 31947	100nF 20% 63V
6104	4822 130 80888	BA682		1010	4822 242 72554	OFWG3254	2151	4822 122 31772	47pF 5% 50V
6106	4822 130 80888	BA682		1042 <sup>3</sup>	4822 153 30025	6MHz	2153	4822 122 32862	10nF 80% 50V
6107	4822 130 80888	BA682		1042	4822 242 72211	5,5MHz	2154	4822 122 31972	39pF 5% 50V
6108	4822 130 80888	BA682		1100	4822 242 70485	5,74MHz	2155	4822 125 50088	27pF
6109	4822 130 80446	BAS32L		1105 <sup>3</sup>	4822 242 71713	6,0MHz	2162	4822 122 31947	100nF 20% 63V
6220	4822 130 81015	LLZ-C10		1105	4822 242 70714	5,5MHz	2168	4822 122 33496	100nF 10% 63V
				1116 <sup>3</sup>	4822 242 72303	filter 2110Q	2169	4822 124 41506	47μF 20% 16V
7000	4822 209 72812	TDA2549/C4		1116	4822 242 72301	filter 2080Q	2170 <sup>3</sup>	4822 122 32597	6,8nF 10% 63V
7030	5322 130 42012	BC858A		1125 <sup>3</sup>	4822 242 72347	6,552MHz	2170	4822 122 31759	18nF
7031	4822 130 61207	BC848		1125	4822 242 72302	5,850MHz	2171	4822 122 33608	39nF 10% 63V
7035	4822 130 44121	BC338		1141	4822 242 72304	5,824MHz	2171 <sup>3</sup>	4822 122 31782	15nF 10% 50V
7040	5322 130 42012	BC858A		1191	4822 071 54001	fuse T400mA	2173	4822 122 31773	560pF 5% 50V
7100	4822 209 63059	TDA 3856/V3		1200	4822 242 80208	10MHz	2174	4822 122 33498	2,7nF 10% 63V
7101	4822 209 63784	TDA3857/V3					2175	4822 122 32999	2,2N 5%
7102	4822 130 61207	BC848		2011	4822 124 41506	47μF 20% 16V	2176	4822 121 51252	470nF 5% 63V
7103	5322 130 42012	BC858A		2012	4822 124 41577	4,7μF 20% 50V	2177	4822 122 32863	22nF 80% 50V
7104	4822 130 61207	BC848		2013	4822 122 31797	22nF 10% 63V			
7200	4822 209 63967	TDA8417/V2		2014	4822 122 31797	22nF 10% 63V			
7220	4822 209 63734	TDA8425/V7		2015	5322 121 42498	680nF 5% 63V			
7232	5322 130 41982	BC848B		2016	4822 122 31784	4,7nF 10% 50V			
7233	4822 130 42513	BC858C		2017	4822 122 33496	100nF 10% 63V			
4 multi system				2042	4822 122 33205	12pF 10% 63V			
				2044	4822 122 31797	22nF 10% 63V			
				2047	4822 122 33496	100nF 10% 63V			
				2049	4822 122 33496	100nF 10% 63V			
				2050	4822 124 40849	330μF 20% 16V			
				2100	4822 124 40242	1μF 20% 63V			
				2101	4822 122 31746	1000pF 5% 50V			
				2102 <sup>3</sup>	4822 122 32765	820pF 10% 63V			
				2102	4822 122 31746	1000pF 5% 50V			
				2104	4822 122 31784	4,7nF 10% 50V			
				2106	4822 124 41576	2,2μF 20% 50V			
				2107	4822 124 41576	2,2μF 20% 50V			
				2108	4822 122 32862	10nF 80% 50V			
				2109	4822 124 41509	33μF 20% 35V			
				2110	4822 122 31947	100nF 20% 63V			
				2116	5322 122 31647	1nF 10% 63V			
				2119	4822 124 40198	470μF 20% 16V			
				2120	4822 124 41407	0,47μF 20% 63V			
				2121	4822 124 41407	0,47μF 20% 63V			
				2122	4822 122 32862	10nF 80% 50V			
				2123	4822 122 31774	56pF 5% 50V			
				2124	4822 125 50045	20pF			
				2125	4822 122 33205	12pF 10% 63V			
				2126	4822 122 31769	18pF 5% 50V			
				2127	4822 124 41407	0,47μF 20% 63V			
				2128	4822 122 32862	10nF 80% 50V			
				2129	4822 122 31965	220pF 5% 63V			
				2130	4822 122 31965	220pF 5% 63V			
				2131	4822 122 32862	10nF 80% 50V			
				2132	4822 122 32862	10nF 80% 50V			
				2133	4822 122 31947	100nF 20% 63V			
				2134	4822 122 31947	100nF 20% 63V			
				2135	4822 122 31947	100nF 20% 63V			
				2136	4822 122 31947	100nF 20% 63V			
				2137	4822 122 32862	10nF 80% 50V			
				2138	4822 122 32862	10nF 80% 50V			
				2139	4822 124 41407	0,47μF 20% 63V			
				2140	4822 122 31774	56pF 5% 50V			
				2141	4822 122 31769	18pF 5% 50V			
				2142	4822 122 32444	33pF 5% 50V			
				2143	4822 122 32504	15pF 5% 50V			
				2144	4822 122 32862	10nF 80% 50V			
				2145	4822 124 41506	47μF 20% 16V			
				2146	4822 122 32504	15pF 5% 50V			
							3012	4822 051 10562	5k6 2% 0,25W
							3013	4822 051 10273	27k 2% 0,25W
							3014	4822 051 10823	82k 2% 0,25W
							3015	4822 051 10104	100k 2% 0,25W
							3016	4822 100 11819	100k LIN 0,1W
							3019	4822 051 10473	47k 2% 0,25W

## **NICAM IF/sound module (continued)**

## **Teletext module**

3020	4822 051 10273	27k 2% 0,25W	3213	4822 051 10478	4Ω7 5% 0,25W	4822 212 23697	TXT MOD. europe	
3021	4822 051 20183	18k 5% 0,1W	3214	4822 051 10273	27k 2% 0,25W	4822 212 23698	TXT MOD. scan	
3030	4822 051 10223	22k 2% 0,25W	3215	4822 051 10272	2k7 2% 0,25W	4822 212 23699	TXT MOD. spain	
3035	4822 051 10472	4k7 2% 0,25W	3216	4822 051 10333	33k 2% 0,25W			
3041	4822 051 10221	220Ω 2% 0,25W	3217	4822 051 10102	1k 2% 0,25W	0021	4822 265 40469	6P male
3042	4822 051 10151	150Ω 2% 0,25W	3218	4822 051 10101	100Ω 2% 0,25W	0022	4822 265 40471	8P male
3042	4822 051 10101	100Ω 2% 0,25W	<b>jumper</b>			<b>Various</b>		
3043	4822 050 21001	100Ω 1% 0,6W	4000 <sup>3</sup>	4822 051 10392	3k9 2% 0,25W	1801	4822 242 73552	14,875MHz
3044	4822 051 10102	1k 2% 0,25W	4000	4822 051 10393	39k 2% 0,25W	1802	4822 242 71508	6MHz
3052	4822 051 10102	1k 2% 0,25W	4199	4822 051 10008	jumper			
3055	4822 051 10103	10k 2% 0,25W	<b>—</b>			<b>II</b>		
3056	4822 051 10471	470Ω 2% 0,25W	5010	4822 157 53302		2792	4822 122 33496	100μF 10% 63V
3058	4822 051 10682	6k8 2% 0,25W	5035	4822 157 53534	0,34μH	2793	4822 122 32542	47nF 10% 63V
3100	4822 051 10561	560Ω 2% 0,25W	5036	4822 157 63824	0,36μH 38,9MHz.	2794	4822 122 31769	18pF 5% 50V
3101	4822 051 10331	330Ω 2% 0,25W	5042 <sup>3</sup>	4822 157 53634	5,6μH	2795	4822 122 31769	18pF 5% 50V
3102	4822 051 10681	680Ω 2% 0,25W	5042	4822 157 62767		2796	4822 122 31769	18pF 5% 50V
3105	4822 051 10561	560Ω 2% 0,25W	5101	4822 157 52511	0,83μH	2797	4822 122 31769	18pF 5% 50V
3106	4822 051 10561	560Ω 2% 0,25W	5102	4822 157 52511	0,83μH	2799	4822 122 31965	220pF 5% 63V
3107	4822 051 10122	1k2 2% 0,25W	5103	4822 157 63077	0,25μH	2800	4822 124 40178	100μF 20% 10V
3108	4822 051 20222	2k2 5% 0,1W	5129	4822 157 51238	0,82μH	2801	4822 122 32442	10nF 50V
3109▲	4822 053 11121	120Ω 5% 2W	5130	4822 157 51238	0,82μH	2802	4822 122 33205	12pF 10% 63V
3110	4822 051 10102	1k 2% 0,25W	5153	4822 157 53575	3,3μH	2802 <sup>Ep</sup>	4822 122 31972	39pF 5% 50V
3116	4822 051 10471	470Ω 2% 0,25W	<b>→</b>			2803	4822 122 33205	12pF 10% 63V
3120	4822 051 10154	150k 2% 0,25W	6151	5322 130 34953	BB405B	2803 <sup>Ep</sup>	4822 122 31972	39pF 5% 50V
3121	4822 051 10224	220k 2% 0,25W	6190	4822 130 80446	BAS32L	2804	4822 122 31766	120pF 5% 50V
3122	4822 051 10471	470Ω 2% 0,25W	6191	4822 130 80954	BZV55-C5V6	2805	4822 122 31766	120pF 5% 50V
3123	4822 051 10511	510Ω 2% 0,25W	6197	4822 130 81027	BZV55-C11	2810	4822 122 33496	100nF 10% 63V
3125	4822 051 10102	1k 2% 0,25W	6220	4822 130 81015	BZV55-F10	2811	4822 122 33496	100nF 10% 63V
3126	4822 051 10393	39k 2% 0,25W	<b>○ E</b>			2812	4822 122 33496	100nF 10% 63V
3139	4822 051 10393	39k 2% 0,25W	7000	4822 209 72812	TDA2549/C4	2813	4822 122 32442	10nF 50V
3140	4822 051 10471	470Ω 2% 0,25W	7035	4822 130 44121	BC338	2814	4822 122 31773	560pF 5% 50V
3141	4822 051 10102	1k 2% 0,25W	7100	4822 209 63784	TDA3857/V3	2815	4822 122 33496	100nF 10% 63V
3143	4822 051 10331	330Ω 2% 0,25W	7106	4822 130 61207	BC848	2816	4822 122 31825	27pF 10% 50V
3144▲	4822 052 10278	2Ω7 5% 0,33W	7108	5322 130 42012	BC858A	2817	4822 122 32504	15pF 5% 50V
3150	4822 051 10102	1k 2% 0,25W	7120	4822 209 62227	TA8662N	2818	5322 122 31647	1nF 10% 63V
3151	4822 051 10103	10k 2% 0,25W	7150	4822 209 61114	CF70123	2819	4822 122 31727	470pF 5% 63V
3160	4822 051 10331	330Ω 2% 0,25W	7160	5322 209 10883	PCF8574P	2820	4822 122 31797	22nF 10% 63V
3161	4822 051 10331	330Ω 2% 0,25W	7168	4822 209 73236	TDA1543	2821	4822 122 32142	270pF 5% 63V
3162	4822 051 10331	330Ω 2% 0,25W	7170	4822 209 83163	LM833N	2822	4822 122 31765	100pF 5% 50V
3168▲	4822 052 10278	2Ω7 5% 0,33W	7180	4822 209 83163	LM833N	2823	4822 122 31965	220pF 5% 63V
3170	4822 051 10562	5k6 2% 0,25W	7190	5322 130 41983	BC858B	2824	4822 122 32891	68μF 10% 63V
3170 <sup>3</sup>	4822 051 10153	15k 2% 0,25W	7191	4822 130 44121	BC338	2825	4822 124 41525	100μF 20% 25V
3171	4822 051 10102	1k 2% 0,25W	7195	4822 130 61207	BC848	2826	4822 122 32504	15pF 5% 50V
3171 <sup>3</sup>	4822 051 10272	2k7 2% 0,25W	7200	4822 209 30147	TDA8415/V2	2827	4822 122 32542	47nF 10% 63V
3172	4822 051 10472	4k7 2% 0,25W	7213	4822 209 63734	TDA8425/V7	2828	4822 122 32542	47nF 10% 63V
3173	4822 051 10472	4k7 2% 0,25W	7217	5322 130 41982	BC848B	2829	4822 124 41506	47μF 20% 16V
3177	4822 051 10822	8k2 2% 0,25W	3 PAL I NICAM			2830	4822 122 32542	47nF 10% 63V
3177 <sup>3</sup>	4822 051 10472	4k7 2% 0,25W	3			2832	4822 124 41576	2,2μF 20% 50V
3180	4822 051 10562	5k6 2% 0,25W	2833			2833	4822 124 41576	2,2μF 20% 50V
3180 <sup>3</sup>	4822 051 10153	15k 2% 0,25W	2834			2834	4822 124 40178	100μF 20% 10V
3181	4822 051 10102	1k 2% 0,25W	2836			2836	4822 122 31965	220pF 5% 63V
3181 <sup>3</sup>	4822 051 10272	2k7 2% 0,25W	2845			2845	4822 124 40178	100μF 20% 10V
3182	4822 051 10472	4k7 2% 0,25W	2849			2849	4822 124 21212	15μF 20% 40V
3183	4822 051 10472	4k7 2% 0,25W						
3188▲	4822 052 10109	10Ω 5% 0,33W						
3190	4822 051 10471	470Ω 2% 0,25W						
3191▲	4822 052 10399	39Ω 5% 0,33W						
3192▲	4822 052 10478	4Ω7 5% 0,33W						
3195▲	4822 052 10109	10Ω 5% 0,33W						
3197	4822 051 10331	330Ω 2% 0,25W						
3200	4822 101 11191	10k LIN 0,1W						
3201	4822 051 10822	8k2 2% 0,25W						
3202	4822 051 10512	5k1 2% 0,25W						
3203	4822 051 10563	56k 2% 0,25W						
3204	4822 051 10563	56k 2% 0,25W						
3205▲	4822 052 10229	22Ω 5% 0,33W						
3206	4822 051 10331	330Ω 2% 0,25W						
3208	4822 051 10331	330Ω 2% 0,25W						
3209	4822 051 10103	10k 2% 0,25W						
3210	4822 051 10102	1k 2% 0,25W						

# Spare parts list / Stückliste / Liste

CHASSIS GR2.1 10.12

## Teletext module (continued)

3812	4822 051 10332	3k3 2% 0,25W
3813	4822 051 10271	270Ω 2% 0,25W
3814	4822 050 11002	1k 1% 0,4W
3815	4822 051 10152	1k5 2% 0,25W
3816	4822 051 10683	68k 2% 0,25W
3817	4822 051 10122	1k2 2% 0,25W
3818	4822 051 10122	1k2 2% 0,25W
3819	4822 051 10122	1k2 2% 0,25W
3820	4822 051 10122	1k2 2% 0,25W
3821	4822 051 10122	1k2 2% 0,25W
3822	4822 051 10122	1k2 2% 0,25W
3823	4822 051 10122	1k2 2% 0,25W
3824	4822 051 10332	3k3 2% 0,25W
3825	4822 051 10332	3k3 2% 0,25W
3826A	4822 052 10159	15Ω 5% 0,33W
3827	4822 051 10332	3k3 2% 0,25W
3828	4822 051 10331	330Ω 2% 0,25W
3829	4822 116 52211	150Ω 5% 0,5W
3830	4822 050 28209	82Ω 1% 0,6W
3831	4822 051 10821	820Ω 2% 0,25W
3832	4822 051 10102	1k 2% 0,25W
3833	4822 051 10102	1k 2% 0,25W
3834	4822 051 10681	680Ω 2% 0,25W
3835	4822 051 10561	560Ω 2% 0,25W
3836	4822 051 10473	47k 2% 0,25W
3837	4822 051 10102	1k 2% 0,25W
3838	4822 051 10273	27k 2% 0,25W
3839	4822 051 10122	1k2 2% 0,25W
3840	4822 051 10122	1k2 2% 0,25W
3841	4822 051 10122	1k2 2% 0,25W
3842	4822 051 10122	1k2 2% 0,25W
3843	4822 051 10122	1k2 2% 0,25W
3845	4822 052 10689	68Ω 5% 0,33W
3846	4822 052 10689	68Ω 5% 0,33W
3847	4822 051 10829	82Ω 2% 0,25W
3848	4822 051 10181	180Ω 2% 0,25W
3849	4822 051 10102	1k 2% 0,25W
3900	4822 051 10008	jumper
3901	4822 051 10008	jumper
3902	4822 051 10222	2k2 2% 0,25W
3903	4822 051 10222	2k2 2% 0,25W
3904	4822 051 10008	jumper
3905	4822 051 10008	jumper
3906	4822 051 10008	jumper
3908	4822 051 10008	jumper
3913	4822 051 10008	jumper
3914	4822 051 10008	jumper
3915	4822 051 10008	jumper
3917	4822 051 10008	jumper
3918	4822 051 10008	jumper
3919	4822 051 10008	jumper
3920	4822 051 10008	jumper
3921	4822 051 10008	jumper
3922	4822 051 10008	jumper
3923	4822 051 10008	jumper

5800	4822 156 20966	47µH
5801	4822 157 52849	22µH 10%
5803	4822 157 52825	60 µH
5814	4822 157 53608	10µH
5816	4822 157 52224	15µH
5834	4822 157 53001	27µH 10%
5847	4822 157 51157	3,3µH



6809	4822 130 80446	BAS32L
6810	4822 130 80446	BAS32L
6811	4822 130 80446	BAS32L
6812	4822 130 80446	BAS32L

## PIP module

6813	4822 130 80906	BZV55-C7V5
6814	4822 130 80446	BAS32L
6815	4822 130 80446	BAS32L
6847	4822 130 42489	BYD33G
6848	4822 130 80905	BZV55-F5V1



7800 4822 209 62479 MAB8461P

/W196

7801 4822 130 61207 BCB48

7802 4822 130 61207 BC848

7803 5322 130 41982 BC848B

7810 4822 209 72681 MSM5165ALRS-

12

7811 5322 130 41982 BC848B

7812 5322 130 60159 BC846B

7820 4822 209 30556 SAA5253P/E/M3

/H

7830 4822 209 63645 SAA5231/V7

7831 4822 130 40962 BC558A

7832 4822 130 40937 BC548B

7846 5322 130 44921 BD943

7849 5322 130 42012 BC858A

4822 212 23605 PIP module

### Connectors

4822 265 30828 5P female gold plated

4822 265 40472 10P female gold plated

4822 265 40503 5P male

### Various

1155 4822 320 40051 delay line DL711

1201 4822 242 70304 crystal 8,867238

MHz

1212 4822 242 70736 crystal 7,159090

MHz



2103 4822 122 32444 33pF 5% 50V

2105 4822 122 31766 120pF 5% 50V

2118 4822 122 31775 680pF 5% 50V

2119 4822 122 31808 150pF 10% 50V

2120 4822 122 31807 1200pF 5% 50V

2125 4822 122 32863 22nF 80% 50V

2155 4822 122 32862 10nF 80% 50V

2158 4822 122 32862 10nF 80% 50V

2160 4822 124 40242 1µF 20% 63V

2161 4822 124 41576 2,2µF 20% 50V

2162 4822 122 32893 100nF 80% 50V

2171 4822 122 31961 68pF 5% 63V

2172 4822 126 11175 22pF 5% 50V

2176 4822 126 11175 22pF 5% 50V

2177 4822 122 31961 68pF 5% 63V

2180 4822 122 31768 180pF 5% 50V

2181 4822 122 31768 180pF 5% 50V

2185 4822 122 32863 22nF 80% 50V

2187 4822 122 32863 22nF 80% 50V

2189 4822 122 31746 1000pF 5% 50V

2196 4822 122 32893 100nF 80% 50V

2197 4822 122 31385 22pF 50V

2201 4822 122 31746 1000pF 5% 50V

2202 4822 125 50045 20pF

2211 4822 122 31746 1000pF 5% 50V

2212 4822 125 50045 20pF

2220 5322 121 42661 330nF 5% 63V

2222 4822 122 32542 47nF 10% 63V

2227 5322 122 31842 330pF 5% 63V

2230 4822 124 40242 1µF 20% 63V

2232 4822 124 41678 22µF 20% 25V

2234 4822 122 33496 100nF 10% 63V

2235 4822 124 41578 6,8µF 20% 50V

2238 4822 121 42937 2,7nF 1% 250V

2239 4822 122 32893 100nF 80% 50V

2250 4822 121 51115 270nF 10% 63V

2251 5322 122 31647 1nF 10% 63V

2255 4822 122 31766 120pF 5% 50V

2260 4822 122 32893 100nF 80% 50V

2270 4822 122 32893 100nF 80% 50V

2340 4822 124 41506 47µF 20% 16V

2345 4822 124 41506 47µF 20% 16V

2350 4822 124 40849 330µF 20% 16V

2351 4822 124 41643 100µF 20% 16V

2380 4822 122 32927 220nF

2381 4822 122 32927 220nF

2382 4822 122 32927 220nF

2383 4822 122 32927 220nF

2384 4822 122 32927 220nF

2385 4822 122 32927 220nF

2390 4822 122 32893 100nF 80% 50V

2399 4822 122 31746 1000pF 5% 50V

## PIP module (continued)

2404	4822 122 31965	220pF 5% 63V	3340	4822 051 10202	2k 2% 0,25W	5175	4822 157 60432	10,3µH
2405	4822 122 32862	10nF 80% 50V	3341	4822 052 10229	22Ω 5% 0,33W	5190	4822 157 60432	10,3µH
2409	4822 122 31965	220pF 5% 63V	3345	4822 052 10229	22Ω 5% 0,33W	5400	4822 157 50943	12µH 10%
2410	4822 122 32862	10nF 80% 50V	3353	4822 052 10568	506 5% 0,33W	5402	4822 157 50943	12µH 10%
2413	4822 122 31765	100pF 5% 50V	3354	4822 051 10271	270Ω 2% 0,25W	5403	4822 157 52333	100µH 10%
2414	4822 122 32862	10nF 80% 50V	3390	4822 051 10151	150Ω 2% 0,25W	5406	4822 157 50943	12µH 10%
2415	4822 122 31965	220pF 5% 63V	3391	4822 051 10181	180Ω 2% 0,25W	5408	4822 157 50943	12µH 10%
2430	4822 122 32893	100nF 80% 50V	3394	4822 051 10151	150Ω 2% 0,25W	5410	4822 157 50943	12µH 10%
2432	4822 122 32893	100nF 80% 50V	3395	4822 051 10181	180Ω 2% 0,25W			
2434	4822 122 32893	100nF 80% 50V	3398	4822 051 10151	150Ω 2% 0,25W			
2438	4822 121 42472	10nF 10% 50V	3399	4822 051 10181	180Ω 2% 0,25W			
2439	4822 121 41856	22nF 5% 250V	3404	4822 051 10431	430Ω 2% 0,25W			
2440	4822 122 31965	220pF 5% 63V	3405	4822 051 10361	360Ω 2% 0,25W			
2441	4822 122 31727	470pF 5% 63V	3410	4822 051 10391	390Ω 2% 0,25W			
2442	4822 124 40242	1µF 20% 63V	3411	4822 051 10471	470Ω 2% 0,25W			
2446	4822 122 32893	100nF 80% 50V	3412	4822 051 10751	750Ω 2% 0,25W			
2448	4822 122 32893	100nF 80% 50V	3414	4822 051 10471	470Ω 2% 0,25W	7103	5322 130 41982	BC848B
2450	4822 122 32856	8,2nF 10% 63V	3416	4822 051 10182	1k8 2% 0,25W	7105	5322 130 41982	BC848B
2455	4822 122 31972	39pF 5% 50V	3434	4822 051 10473	47k 2% 0,25W	7125	4822 209 63927	TDA4554/V1
2459	4822 124 41997	470µF 10V	3436	4822 051 10473	47k 2% 0,25W	7126	4822 209 30389	TDA4510/V8
2466	4822 122 32893	100nF 80% 50V	3437	4822 051 10101	100Ω 2% 0,25W	7200	5322 130 41982	BC848B
			3438	4822 051 10513	51k 2% 0,25W	7210	5322 130 41982	BC848B
2444	4822 051 10224	220k 2% 0,25W	3440	4822 116 52222	390Ω 5% 0,5W	7233	5322 130 41983	BC858B
3103	4822 051 10821	820Ω 2% 0,25W	3441	4822 051 10519	51Ω 2% 0,25W	7234	5322 130 41982	BC848B
3104	4822 051 10821	820Ω 2% 0,25W	3442	4822 051 10919	91Ω 2% 0,25W	7335	5322 130 41982	BC848B
3105	4822 051 10362	3k6 2% 0,25W	3444	4822 116 52175	100Ω 5% 0,5W	7337	5322 130 41982	BC848B
3106	4822 116 52233	10k 5% 0,5W	3446	4822 116 52175	100Ω 5% 0,5W	7338	5322 130 41982	BC848B
3107	4822 051 10103	10k 2% 0,25W	3448	4822 051 10392	3k9 2% 0,25W	7350	4822 130 42616	BC818-40
3108	4822 051 10103	10k 2% 0,25W	3450	4822 051 10471	470Ω 2% 0,25W	7380	4822 209 60479	TEA5114A
3155	4822 051 10391	390Ω 2% 0,25W	3452	4822 051 10471	470Ω 2% 0,25W	7400	5322 130 41983	BC858B
3156	4822 051 10122	1k2 2% 0,25W	3454	4822 051 10471	470Ω 2% 0,25W	7402	5322 130 41983	BC858B
3157	4822 100 11391	330Ω 30% LIN	3460	4822 116 52231	820Ω 5% 0,5W	7404	5322 130 41983	BC858B
3158	4822 051 10759	75Ω 2% 0,25W	3461	4822 116 52259	2k4 5% 0,5W	7406	4822 209 62473	SDA9087
3170	4822 051 10112	1k1 2% 0,25W	3462	4822 051 10333	33k 2% 0,25W	7408	4822 209 63291	SDA9088/2Ω
3176	4822 051 10621	620Ω 2% 0,25W	3463	4822 116 52299	7k5 5% 0,5W	7410	4822 209 63644	SDA9088-3
3196	4822 050 11002	1k 1% 0,4W	3464	4822 051 10472	4k7 2% 0,25W	7755	4822 209 72363	TDA2579A/N8
3200	4822 051 10103	10k 2% 0,25W	3470	4822 052 10108	1Ω 5% 0,33W			
3201	4822 051 10103	10k 2% 0,25W	3618	4822 052 10568	5Ω6 5% 0,33W			
3202	4822 051 10103	10k 2% 0,25W	3621	4822 051 10105	1M 5% 0,25W			
3211	4822 051 10103	10k 2% 0,25W	3997	4822 051 10339	33Ω 2% 0,25W			
3212	4822 051 10103	10k 2% 0,25W	3997	4822 051 10279	27Ω 2% 0,25W			
3214	4822 051 10102	1k 2% 0,25W						
3220	4822 051 10512	5k1 2% 0,25W	4001	4822 051 10008	jumper			
3221	4822 116 52233	10k 5% 0,5W	4002	4822 051 10008	jumper			
3222	4822 051 10008	jumper	4003	4822 051 10008	jumper			
3227	4822 116 52299	7k5 5% 0,5W	4004	4822 051 10008	jumper			
3228	4822 051 10472	4k7 2% 0,25W	4005	4822 051 10008	jumper			
3231	4822 051 10682	6k8 2% 0,25W	4006	4822 051 10008	jumper			
3232	4822 051 10229	22Ω 2% 0,25W	4007	4822 051 10008	jumper			
3233	4822 051 10471	470Ω 2% 0,25W	4010	4822 051 10008	jumper			
3234	4822 051 10361	360Ω 2% 0,25W	4011	4822 051 10008	jumper			
3235	4822 051 10122	1k2 2% 0,25W	4012	4822 051 10008	jumper			
3236	4822 051 10471	470Ω 2% 0,25W	4048	4822 051 10008	jumper			
3237	4822 051 10332	3k3 2% 0,25W	4100	4822 051 10008	jumper			
3238	4822 051 10333	33k 2% 0,25W	4201	4822 051 10008	jumper			
3239	4822 100 11319	4k7 30% LIN	4401	4822 051 10008	jumper			
3241	4822 051 10271	270Ω 2% 0,25W	4402	4822 051 10008	jumper			
3242	4822 050 11002	1k 1% 0,4W	4403	4822 051 10008	jumper			
3250	4822 051 10911	910Ω 2% 0,25W	4404	4822 051 10008	jumper			
3285	4822 051 10104	100k 2% 0,25W	4406	4822 051 10008	jumper			
3270	4822 051 10103	10k 2% 0,25W	4407	4822 051 10008	jumper			
3275	4822 051 10103	10k 2% 0,25W	4415	4822 051 10008	jumper			
3276	4822 051 10102	1k 2% 0,25W						
3330	4822 051 20008	0Ω 5% 0,1W	5118	4822 157 60435	10,3µH 6%			
3335	4822 051 10271	270Ω 2% 0,25W	5155	4822 157 60433	7,2µH 6%			
3336	4822 051 10432	4k3 2% 0,25W	5157	4822 157 60434	9,4µH 6%			
3337	4822 051 10122	1k2 2% 0,25W	5170	4822 157 60432	10,3µH			
3338	4822 051 10332	3k3 2% 0,25W						