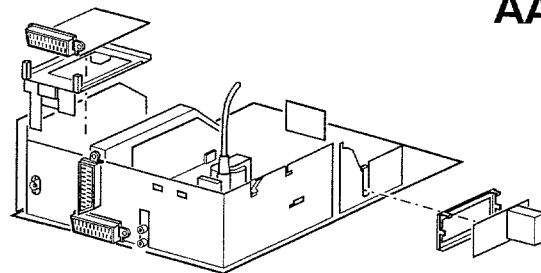


Service
Service
Service

GR 2.4
AA



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Service Manual

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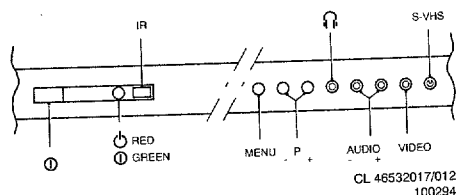


PHILIPS

1. Technical specification

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

Local operation functions:



Programmes	: 0-89
VCR operation on programmes	: 0-89

Indications:

- On Screen Display (OSD)
- LED:
 - standby (red)
 - operation (green)
 - RC5 reception (flashing yellow)
 - I²C bus fault in μ P (flashing white)

2. Connection facilities

1. Specification of the terminal sockets

EXT1/EXT2

1	- Audio	$\odot$ R (0,5V _{RMS} ; 1k Ω)
2	- Audio	$\ominus$ R (0,2 - 2V _{RMS} ; 0,5 V _{nom} ; ≥ 10 k Ω)
3	- Audio	$\odot$ L (0,5V _{RMS} ; 1k Ω)
4	- Audio	$\perp$
5	- Blue	$\perp$
6	- Audio	$\ominus$ L (0,2 - 2V _{RMS} ; 0,5 V _{nom} ; ≥ 10 k Ω)
7	- Blue	$\ominus$ (0,7V _{pp} /75 Ω)
8	- CVBS-Status	(0-2V: int.; 9,5-12V: EXT-4/3; 4,5V-7,5V:EXT-16/9)
9	- Green	$\perp$
10	--	
11	- Green	$\ominus$ (0,7V _{pp} ; 75 Ω)
12	--	
13	- Red	$\perp$
14	--	
15	- Red /	$\ominus$ (0,7V _{pp} ; 75 Ω)
15	- C-SVHS	$\ominus$ (0,3V _{pp} ; 75 Ω)
16	- Status	(0-0,4V: FB-OFF; 1-3V FB-ON; 75 Ω)
17	- CVBS	$\odot$ $\perp$
18	- CVBS	$\ominus$ $\perp$
19	- CVBS	$\odot$ (1V _{pp} /75 Ω)
20	- CVBS	$\ominus$ (1V _{pp} /75 Ω){EXT1}
20	- CVBS/	
20	Y-SVHS	$\ominus$ (1V _{pp} /75 Ω){EXT2}
21	- Earth screen	

EXT4

1	- $\perp$	
2	- $\perp$	
3	- Y	$\ominus$ (1V _{pp} ; 75 Ω)
4	- C	$\ominus$ (1V _{pp} ; 75 Ω)
2x $\odot$	CINCH Audio	$\ominus$ L+R (0,2-2V _{RMS} ; 0,5 V _{nom} ≥ 10 k Ω)
1x $\odot$	CINCH CVBS	$\ominus$ (1V _{pp} ; 75 Ω)

EXT3

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

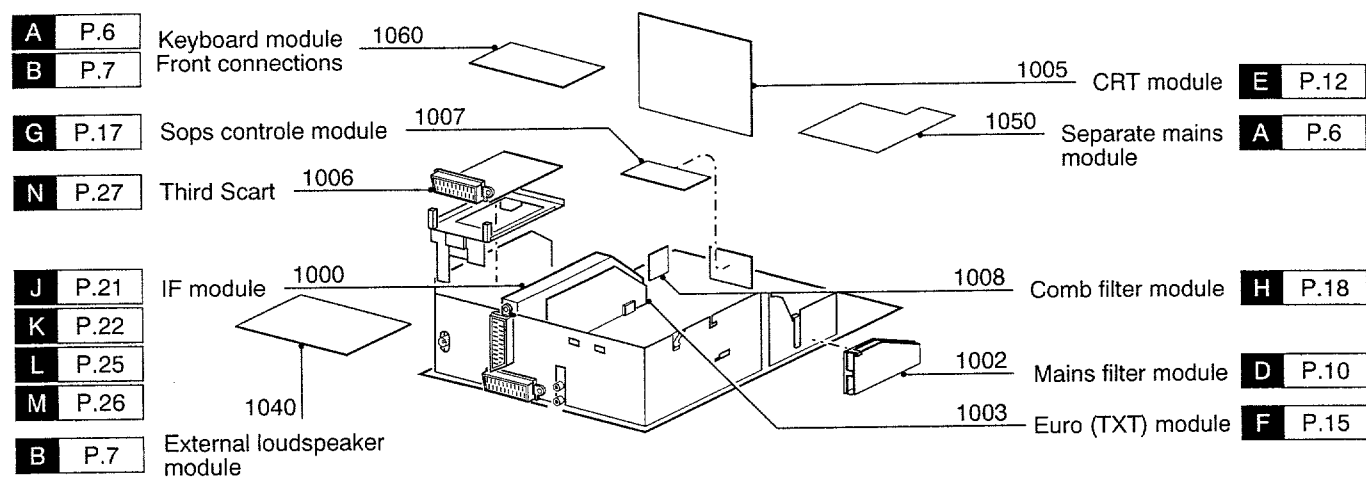
Audio out

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

Front

$\odot$ $\frac{d}{l}$ 8 Ω
3.6mm / 11

PWB location drawing



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3. Safety instructions, Maintenance instructions, Warnings and Notes

Safety Instructions for Repairs

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

Maintenance Instructions

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

Warnings

1. In order to prevent damage to IC's 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 0V (after approx. 30s).

2. 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.

3. Be careful when taking measurements in the high-voltage section and on the picture tube.
4. Never replace modules or other components while the unit is switched on.
5. When making settings, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.
6. 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.**
7. 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.
8. The high-voltage cable in 21" units is glued in the line output transformer. This can therefore not be replaced.

Notes

1. The picture tube PCB has printed spark gaps. Each spark gap is connected between an electrode of the picture tube and the Aquadag coating.
2. Blackline units can be recognized by the thick, protected high-voltage cable. Non-blackline units have a thin, unprotected high-voltage cable.

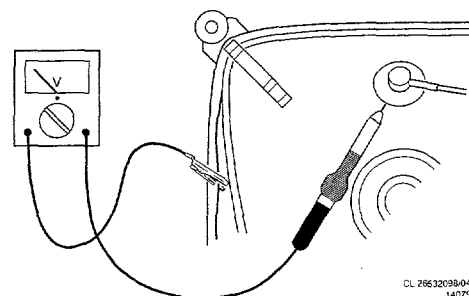


Fig. 3.1

CL 26632036-042
140792

P.12

P.6

P.18

P.10

P.15

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4. 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 above the EXT 2 connection**. In the case of subwoofer units, the subwoofer speaker on the carrier panel should also be unplugged (see Fig. 4.2a).

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. 4.2b).

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.

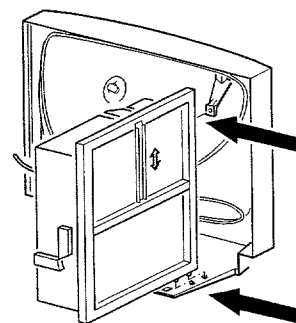
3. Service position 2

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).

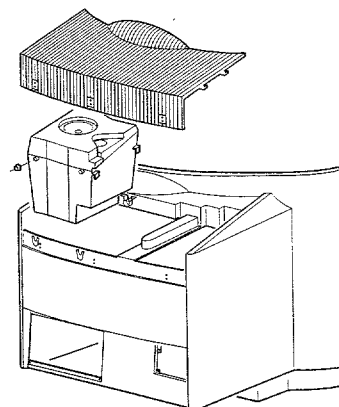
Or in case of FL4 cabinet there is a service hook where the chassis with bracket can be hung on (see fig. 4.1). Be careful with the wiring!!

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 third scart has been removed !



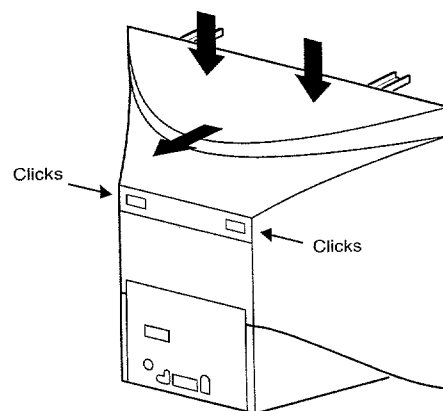
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Fig. 4.1



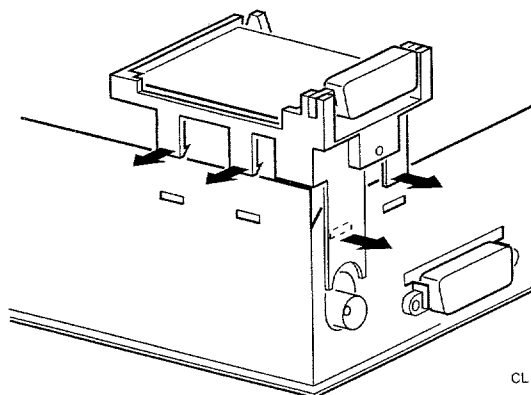
46532048/017
290694

Fig. 4.2a



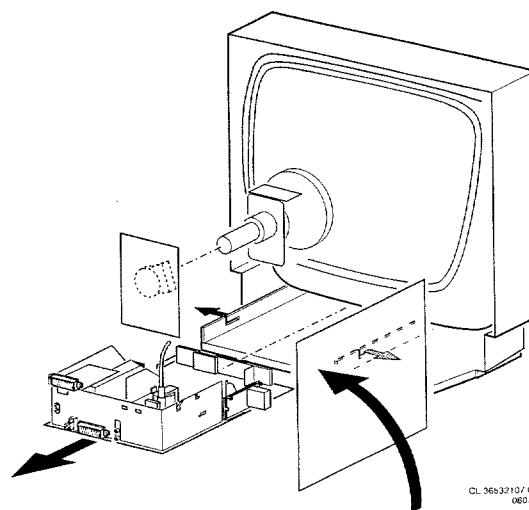
CL 36532107/018
191084

Fig. 4.2b



CL 36532107/014
290693

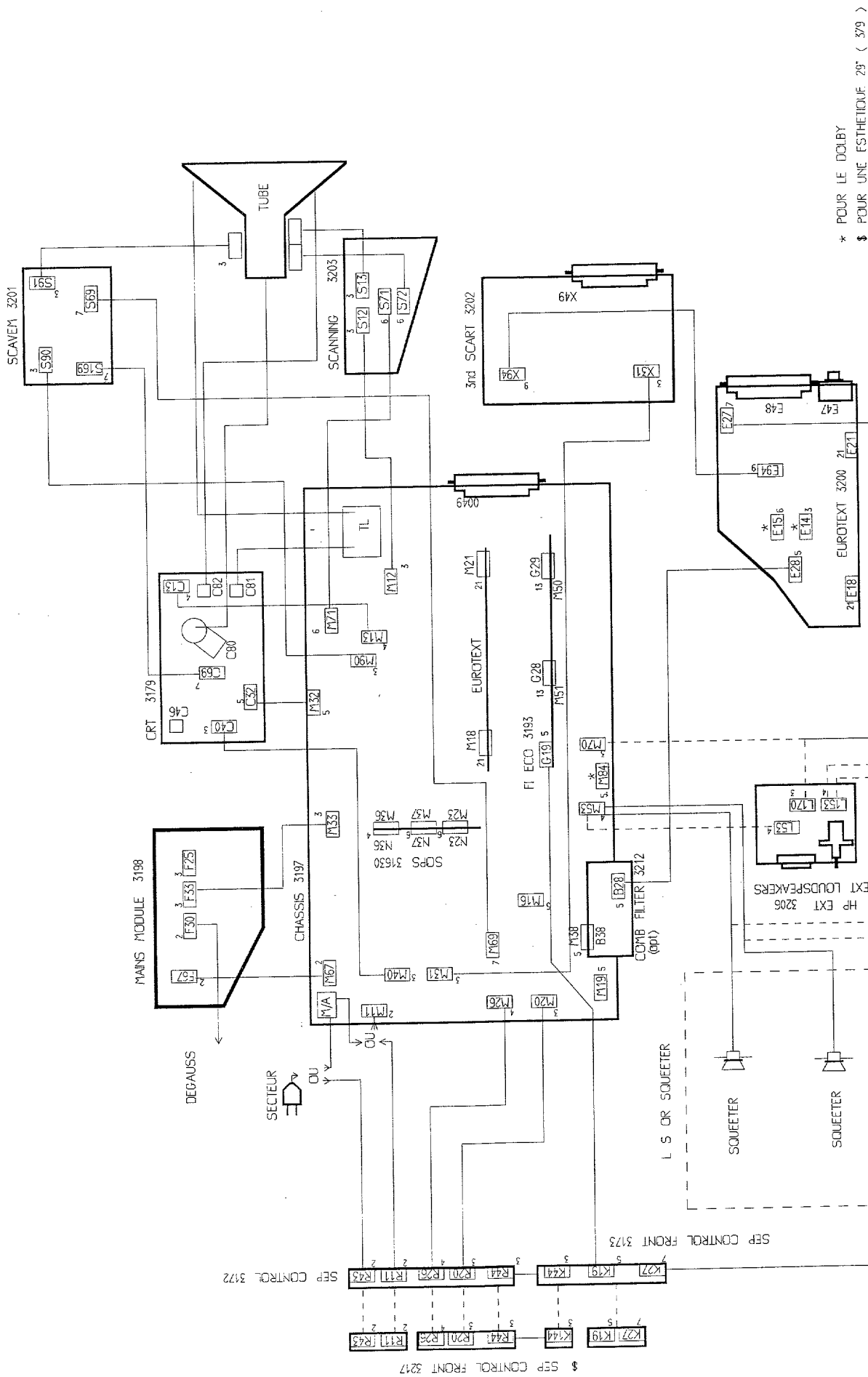
Fig. 4.3



CL 36532107/015
060/93

Fig. 4.4

Wiring diagram/Verdrahtungsschema/Schéma de câblage

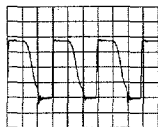


* POUR LE DOLBY
§ POUR UNE ESTHETIQUE 25° (379)

TP1 = DC 15V9

TP2 = DC -15V9

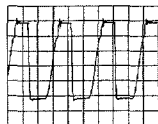
TP3



20V/div AC
5μs div

TP4 = DC 9V7

TP5

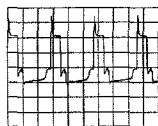


5V/div AC
5μs div

TP6 = DC 4V8

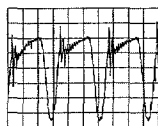
TP7 = DC 298V

TP8



2V/div AC
5μs div

TP9



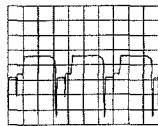
0.2V/div AC
5μs div

TP10 = DC 2V4

TP11 = DC 0V

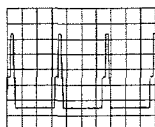
TP12 = DC 2V7

TP14



2V/div AC
20μs div

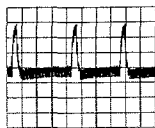
TP16



2V/div AC
20μs div

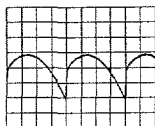
TP17 = DC 0V

TP18



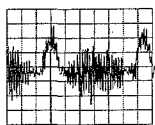
2V/div AC
5ms div

TP19



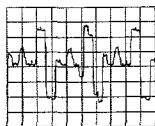
1V/div AC
5ms div

TP20



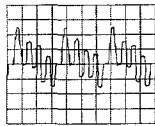
20mV/div AC
10μs div

TP21



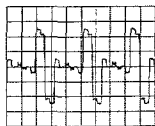
0.1V/div AC
20μs div

TP22



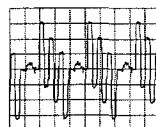
0.2V/div AC
20μs div

TP23



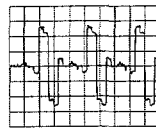
0.2V/div AC
20μs div

TP24



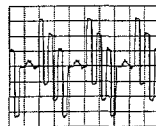
0.2V/div AC
20μs div

TP25



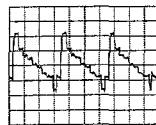
0.2V/div AC
20μs div

TP26



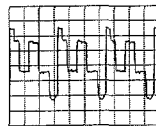
0.2V/div AC
20μs div

TP27



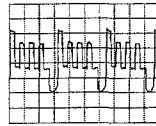
0.1V/div AC
20μs div

TP28



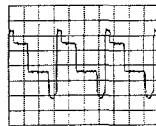
0.5V/div AC
20μs div

TP29



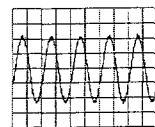
0.5V/div AC
20μs div

TP30



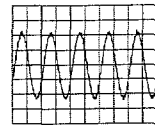
0.5V/div AC
20μs div

TP31



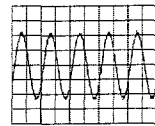
10mV/div AC
0.5ms div

TP32



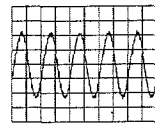
10mV/div AC
0.5ms div

TP33



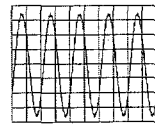
10mV/div AC
0.5ms div

TP34



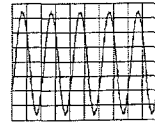
10mV/div AC
0.5ms div

TP35

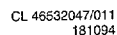


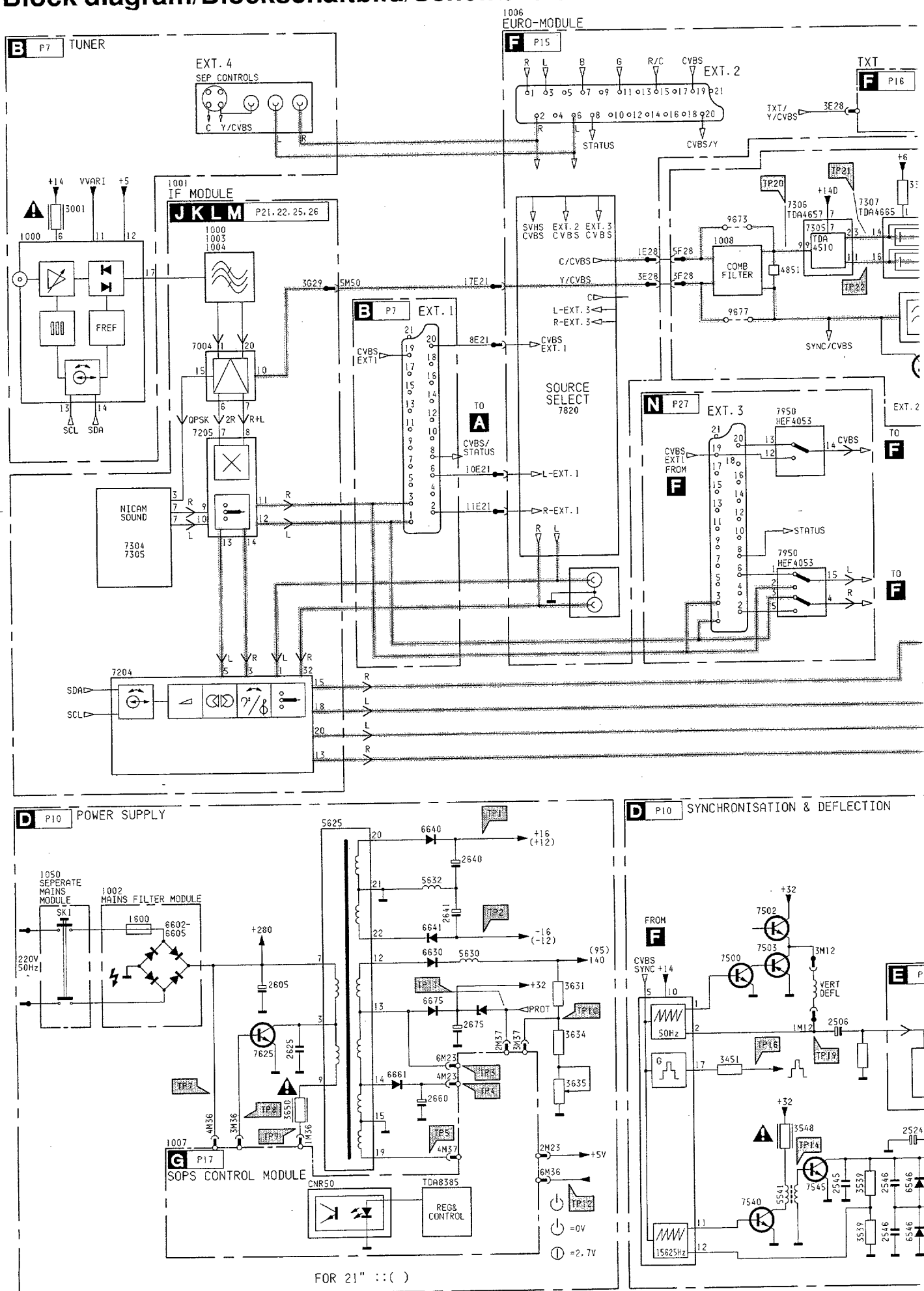
200mV/div AC
0.5ms div

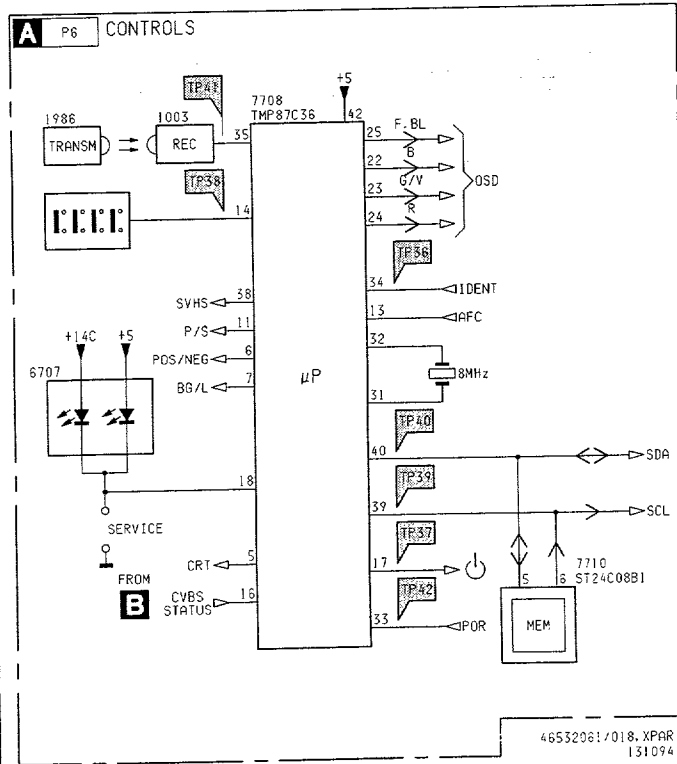
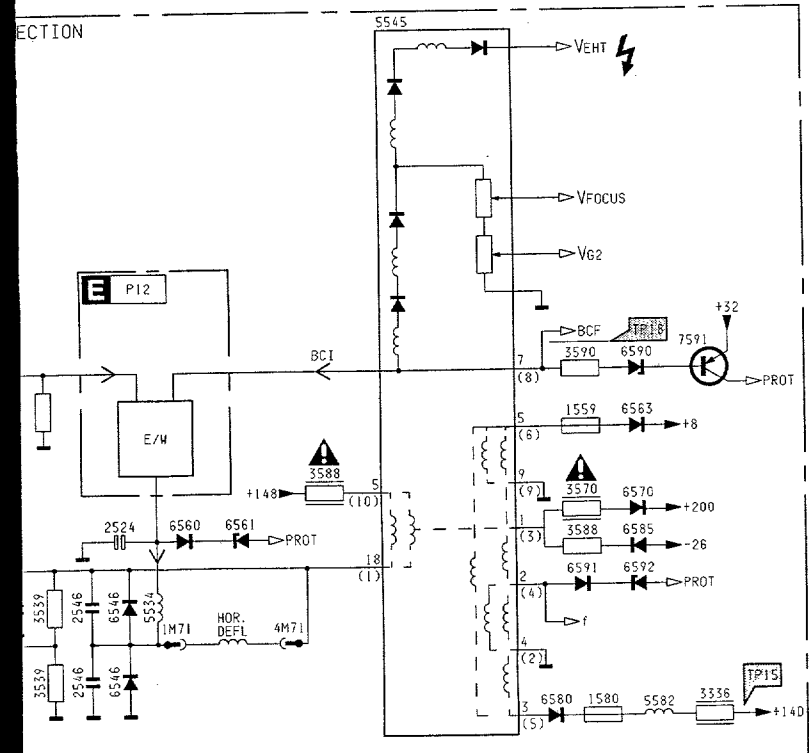
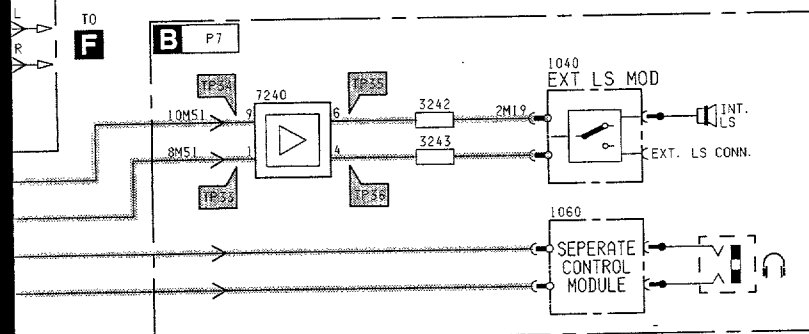
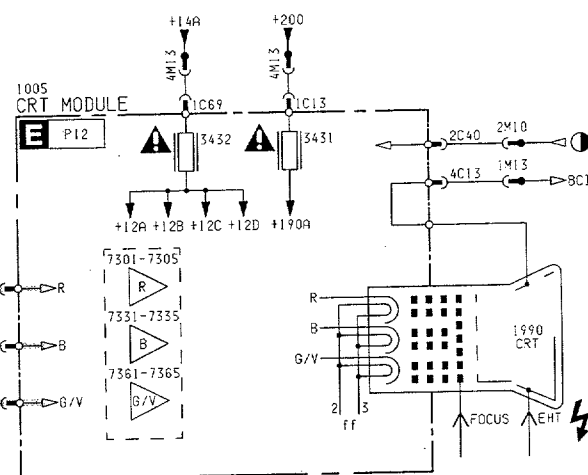
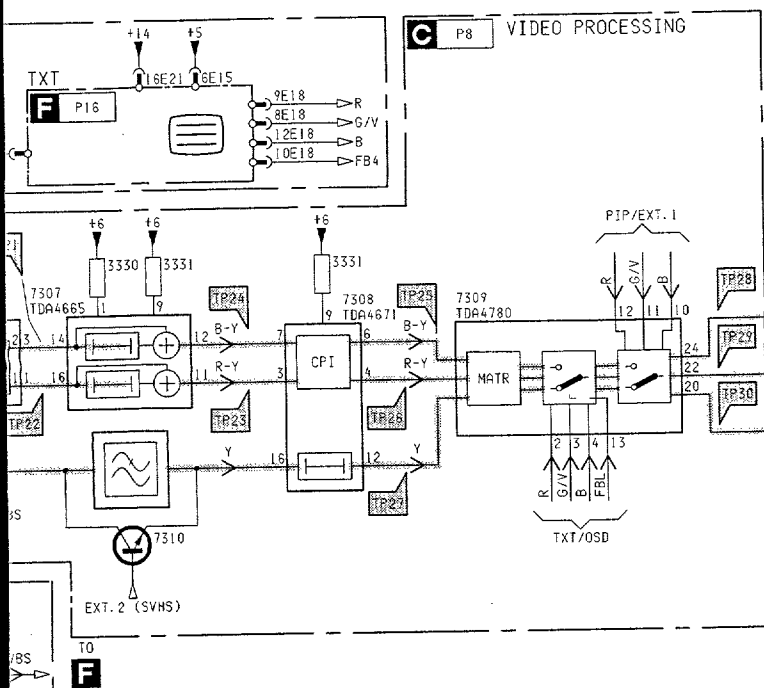
TP36

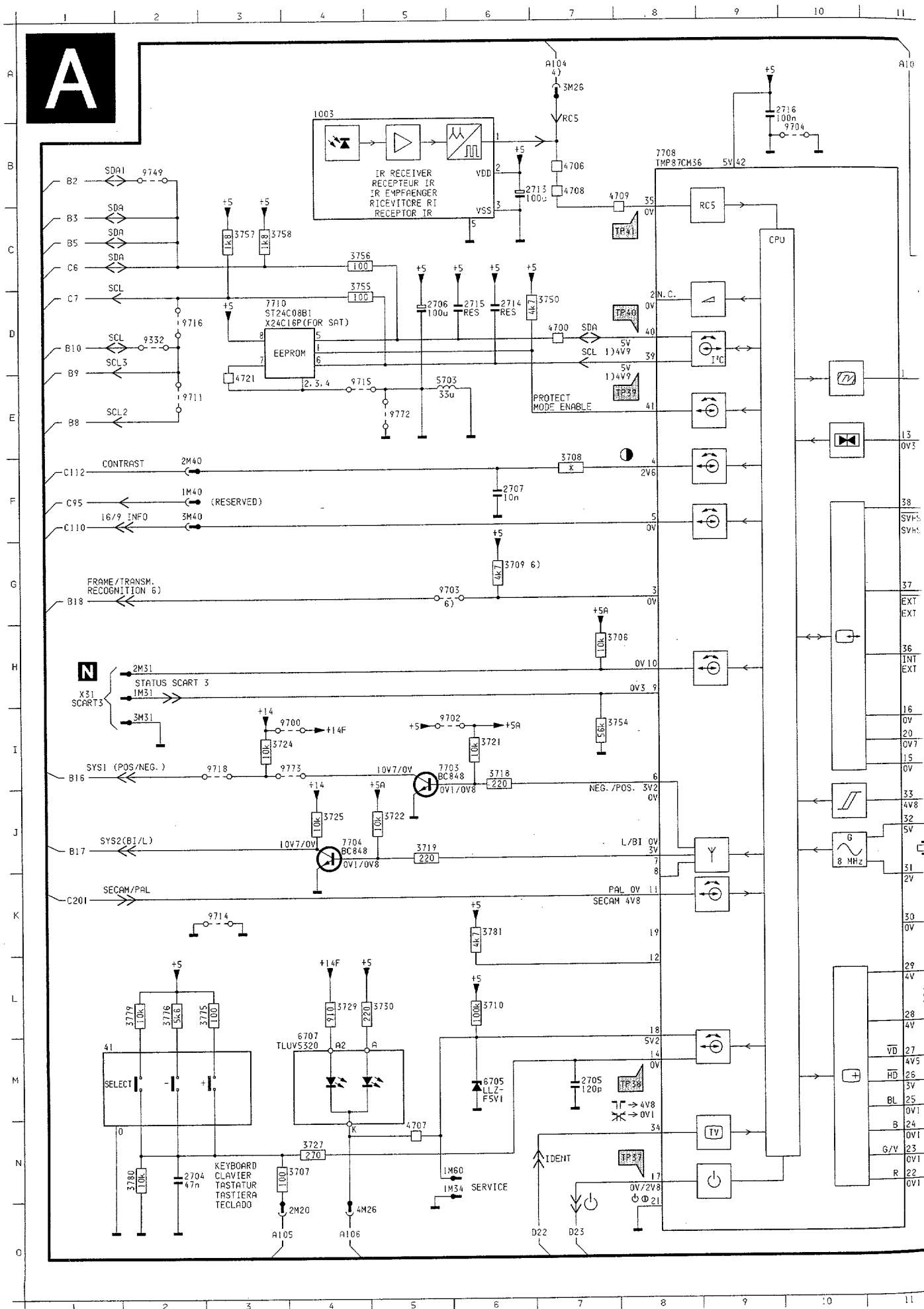


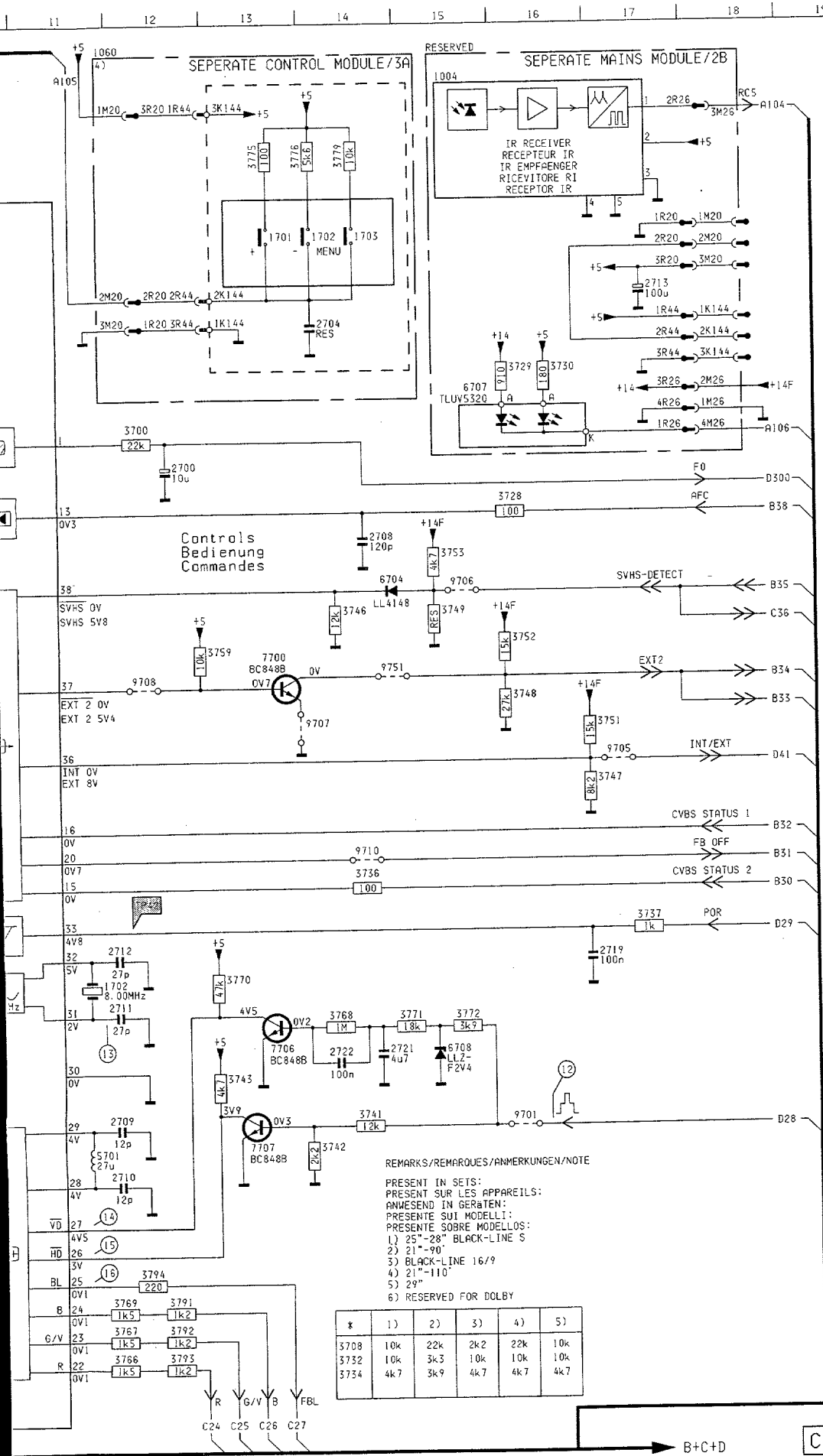
200mV/div AC
0.5ms div





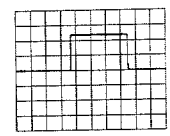
46532061/018, XPAR
131094





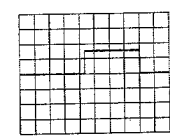
TP37a = DC 2V8
TP37b = DC 0V

TP38a
control +



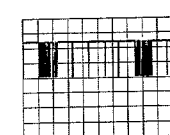
2V/div DC
0.2s div

TP38b
control -



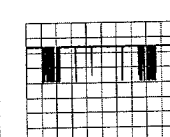
2V/div DC
0.2s div

TP39



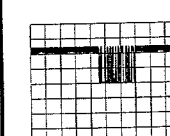
2V/div DC
20ms div

TP40



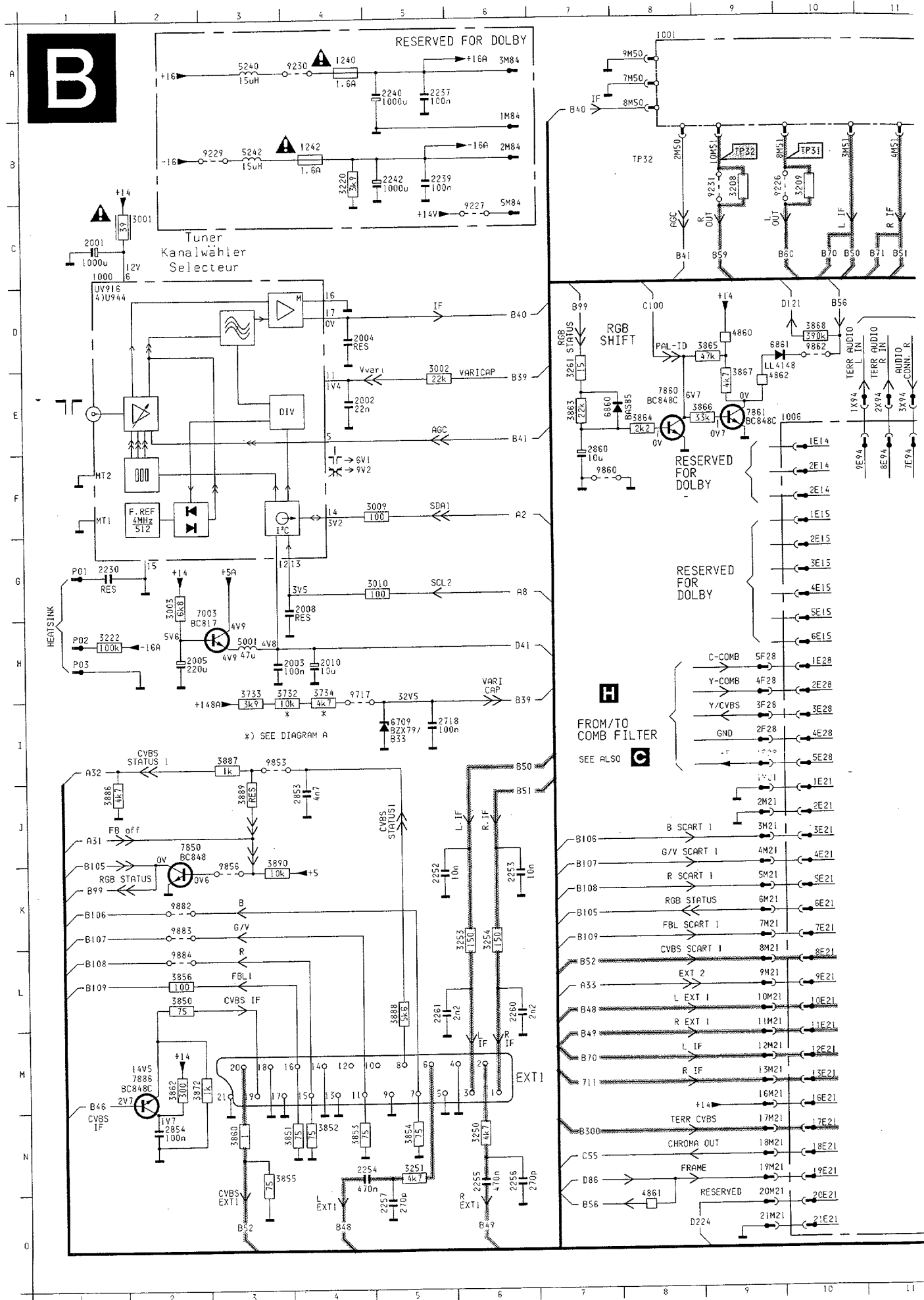
2V/div DC
20ms div

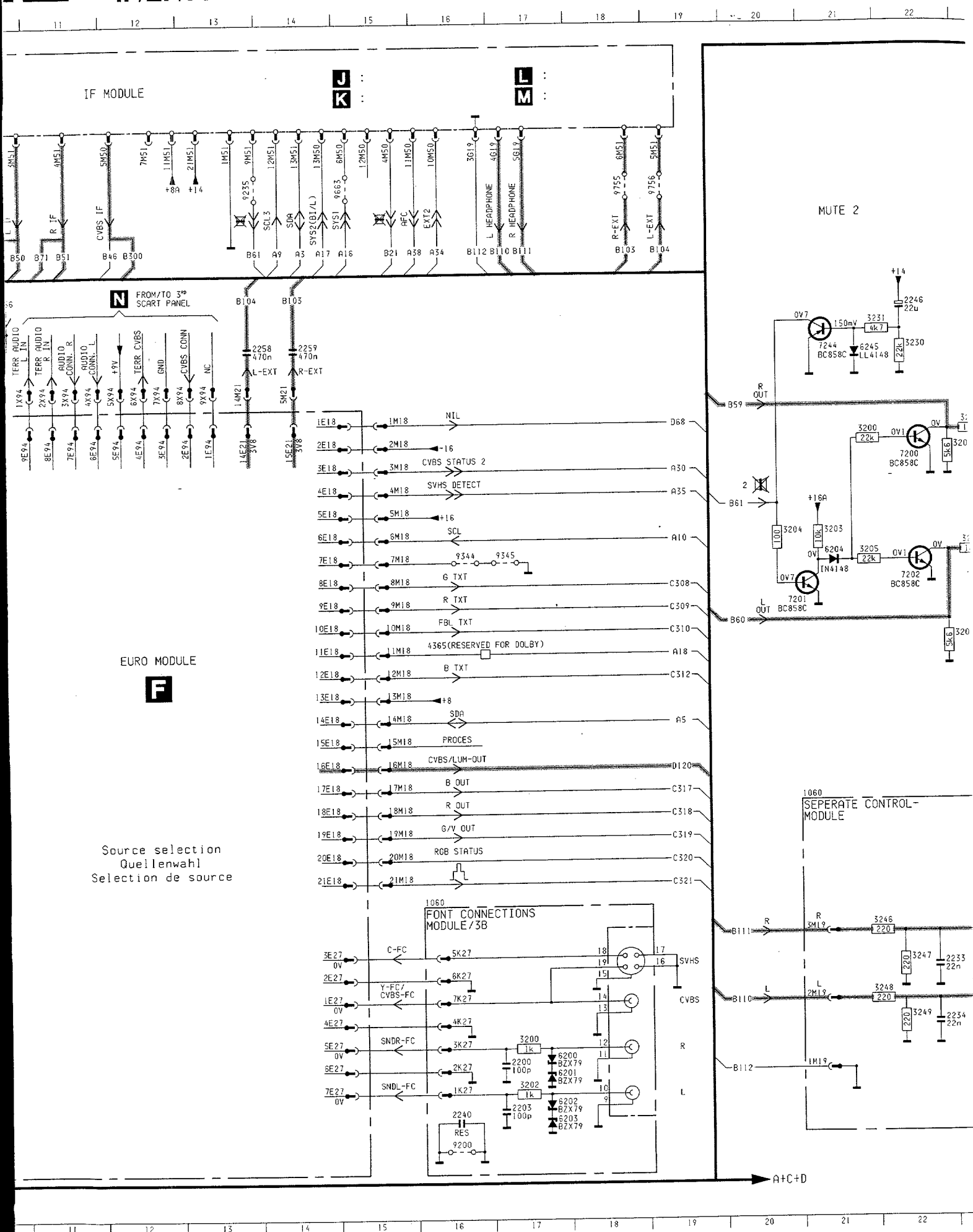
TP41
RC: volume +



2V/div DC
10ms div

1003	A 4	9714	K 3
1004	A15	9715	E 4
1060	A11	9716	D 2
1701	B13	9718	I 3
1702	B14	9749	B 2
1703	B11	9751	G14
1703	B14	9772	E 5
2700	E12	9773	I 4
2704	C14		
2704	N 2		
2705	M 7		
2706	D 5		
2707	F 6		
2708	F14		
2709	L12		
2710	L12		
2711	L12		
2712	J12		
2713	B 6		
2713	C17		
2714	D 6		
2715	D 6		
2716	A 9		
2719	J17		
2721	K14		
2722	K14		
3700	E12		
3706	H 7		
3707	N 3		
3708	F 7		
3709	G 6		
3710	L 6		
3718	I 6		
3719	J 5		
3721	I 6		
3722	J 5		
3724	I 3		
3725	J 4		
3727	N 4		
3728	E16		
3729	D18		
3729	L 4		
3730	D16		
3730	L 5		
3736	I14		
3737	J17		
3741	L14		
3742	L14		
3743	K13		
3746	F14		
3747	H17		
3748	G16		
3749	F15		
3749	F15		
3750	D 7		
3751	H17		
3752	G16		
3753	F15		
3754	I 7		
3755	D 4		
3756	C 4		
3757	C 3		
3758	C 3		
3759	G13		
3766	N12		
3767	N12		
3768	K14		
3769	N12		
3770	J13		
3771	K15		
3772	K15		
3775	B13		
3775	L 3		
3776	B14		
3776	L 2		
3779	B14		
3779	L 2		
3780	N 2		
3781	K 6		
3791	N12		
3792	N12		
3793	N12		
3794	M12		
41	M 1		
4700	D 7		
4706	B 7		
4707	N 5		
4708	B 7		
4709	B 8		
4721	E 3		
5701	L11		
5703	E 5		
6704	F14		
6705	M 6		
6707	D15		
6707	M 4		
6708	K15		
7700	G13		
7703	I 5		
7704	J 4		
7706	K13		
7707	L13		
7708	B 8		
7710	D 3		
9332	D 2		
9700	I 4		
9701	L16		
9702	I 5		
9703	B 5		
9704	B10		
9705	H17		
9706	F15		
9707	H14		
9708	G12		
9710	I14		
9711	E 2		



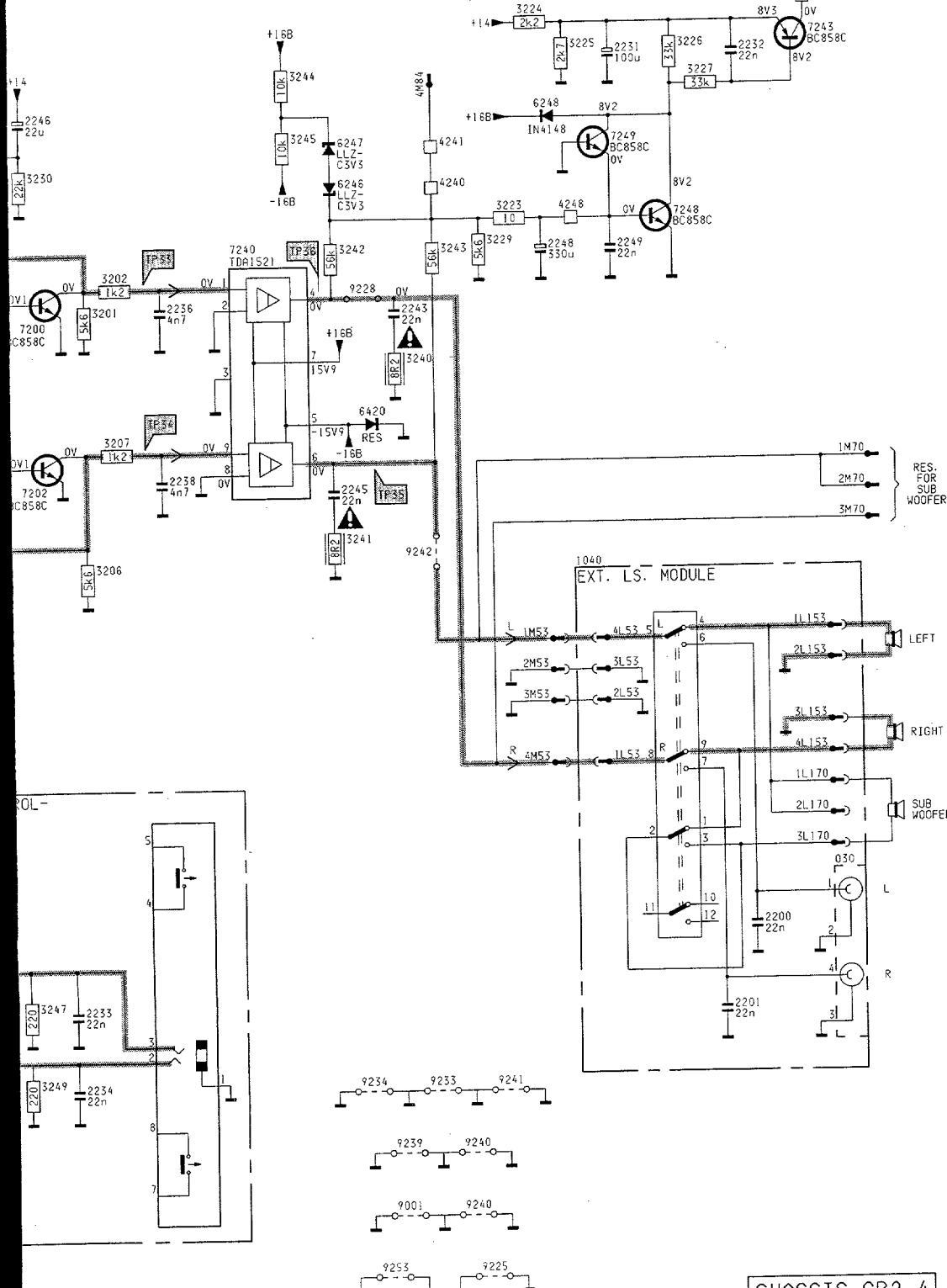


Audio amplification
Ton-verstärker
Amplification audio

DOLBY

PROTECT

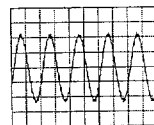
B



CHASSIS GR2.4

CL46532061/014.BPAR
181094

* TP31



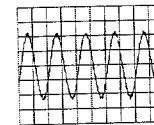
10mV/div AC
0.5ms div

* TP32



10mV/div AC
0.5ms div

* TP33



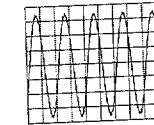
10mV/div AC
0.5ms div

* TP34



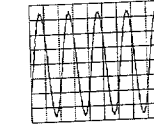
10mV/div AC
0.5ms div

* TP35



200mV/div AC
0.5ms div

* TP36

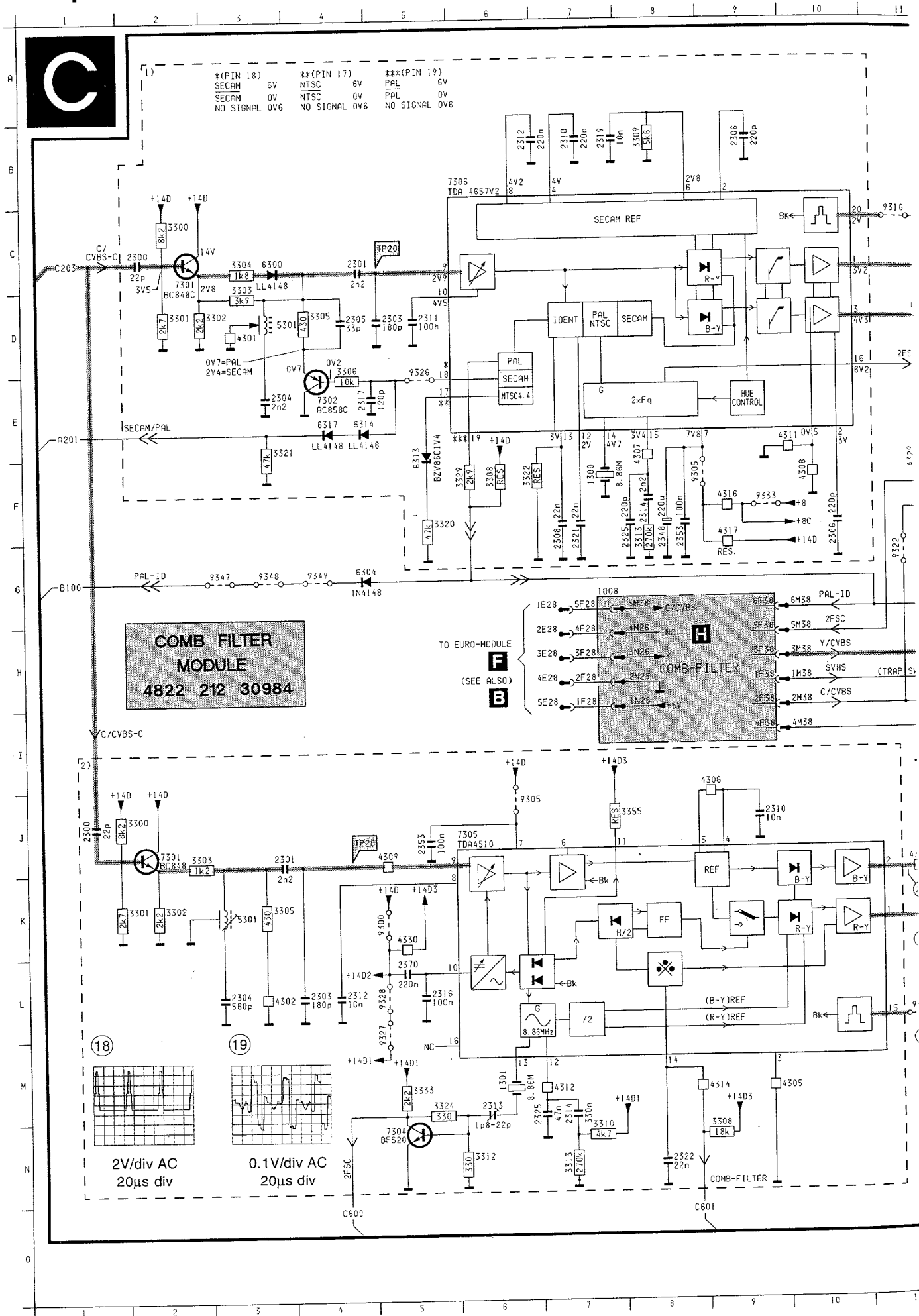


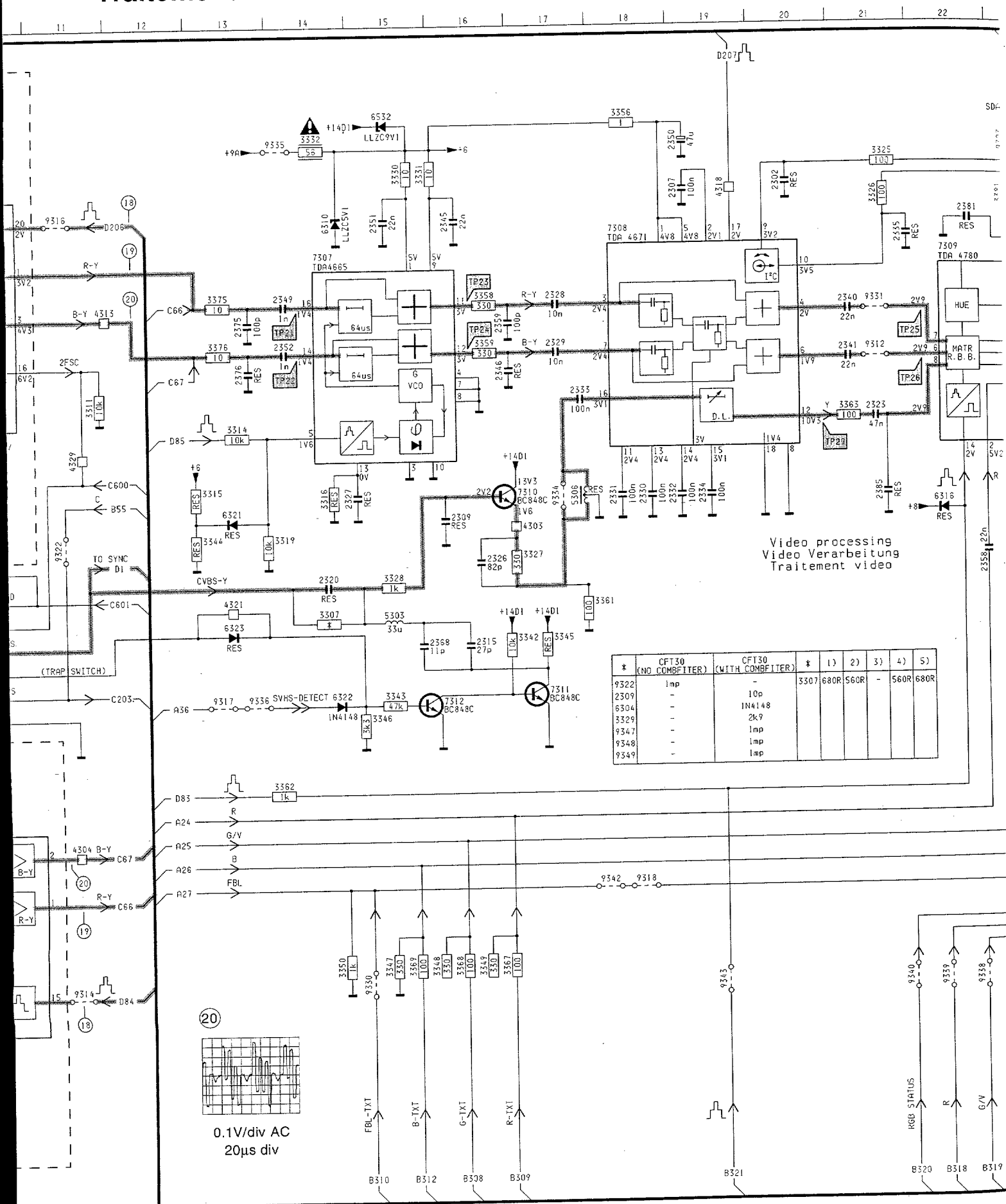
200mV/div AC
0.5ms div

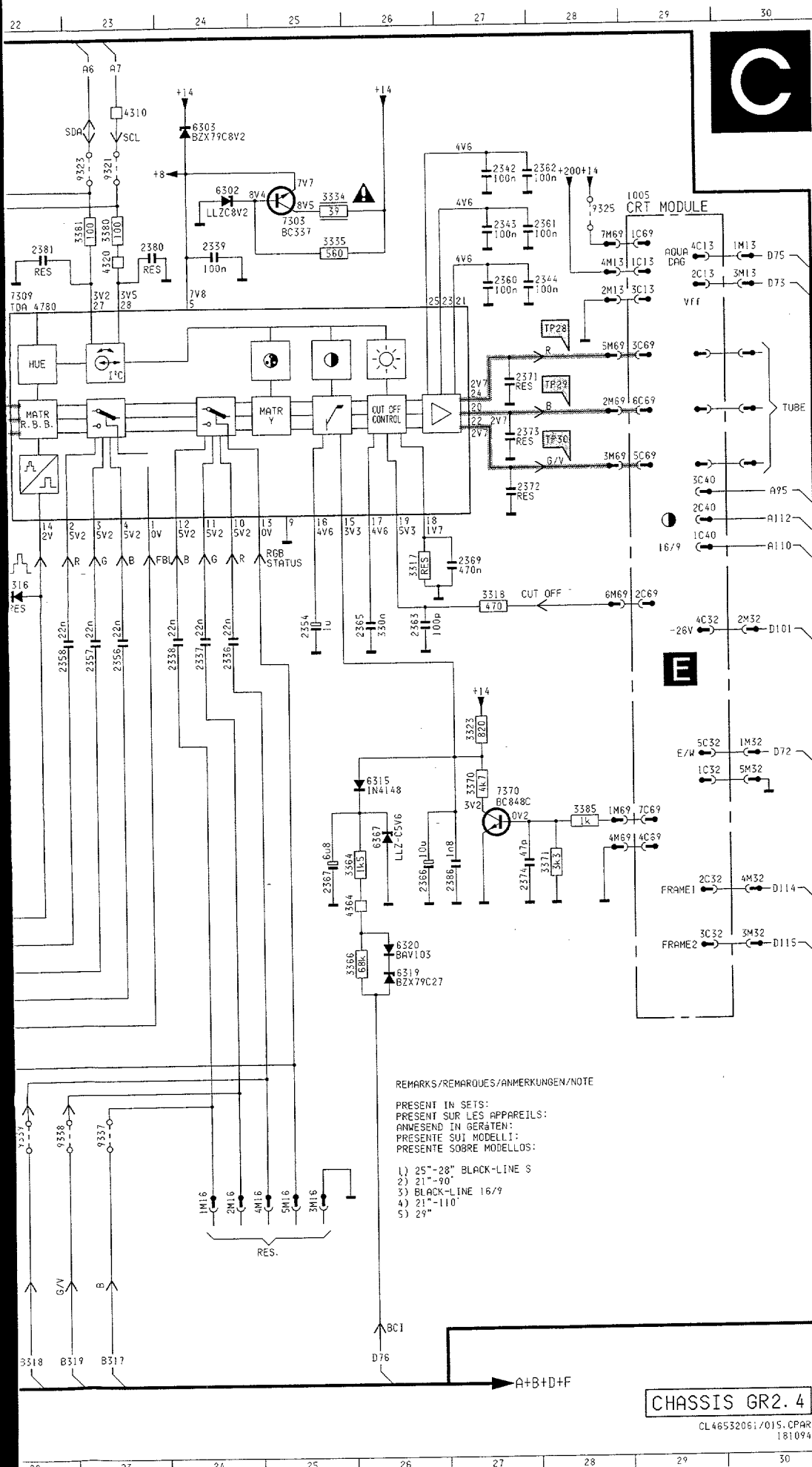
* measured at $\angle = 50\%$

1000	C 1	3890	K 3
1001	A 8	4240	E26
1006	E10	4241	D26
1040	H27	4248	E27
1060	J20	4365	H * 9
1060	L16	4860	D 8
1240	A 4	4861	O 8
1242	B 4	4862	E 9
2001	C 1	5001	H 3
2002	E 4	5240	A 3
2003	H 3	5242	B 3
2004	D 4	6200	N17
2005	H 2	6201	N17
2008	G 4	6202	N17
2010	H 4	6203	N17
2200	L29	6204	G21
2200	N17	6245	E21
2201	L29	6246	E25
2203	N17	6247	D25
2230	G 1	6248	G27
2231	C28	6420	G25
2232	C29	6709	I 5
2233	L22	6860	E-7
2234	M22	6861	D10
2236	F23	7003	G 3
2237	A 5	7200	F22
2238	G23	7201	H21
2239	B 5	7202	G22
2240	A 5	7240	E24
2242	B 5	7244	D21
2243	F25	7248	E28
2245	G25	7249	D27
2246	D22	7850	J 2
2248	E27	7860	E 8
2249	E28	7861	E 9
2252	K 5	7886	M 2
2253	K 6	9001	N25
2254	N 4	9200	O16
2255	N 6	9222	B29
2256	N 6	9223	B29
2257	O 5	9225	O26
2258	D13	9226	B10
2259	D14	9227	C 6
2260	L 6	9228	F25
2261	L 5	9229	B 3
2718	I 5	9230	A 4
2853	J 4	9231	B 9
2854	N 2	9233	M26
2860	F 7	9234	M25
3001	C 2	9235	B13
3002	E 5	9239	N25
3003	G 2	9240	N26
3009	F 5	9240	M26
3010	G 5	9241	M26
3200	F21	9242	H26
3200	M17	9253	O25
3201	F23	9344	G16
3202	E23	9345	G17
3202	N17	9663	B15
3203	G21	9717	H 4
3204	G20	9755	B18
3205	G21	9756	B19
3206	H23	9853	I 3
3207	G23	9856	K 3
3208	B 9	9860	F 7
3209	B10	9862	D10
3220	B 4	9882	K 2
3222	H 1	9883	K 2
3223	E26	9884	L 2
3224	C27		
3225	C27		
3226	C28		
3227	D28		
3228	C29		
3229	E26		
3230	D22		
3231	D22		
3240	F25		
3241	H25		
3242	E25		
3243	E26		
3244	C24		
3245	D24		
3246	L22		
3247	L22		
3248	M22		
3249	M22		
3250	N 6		
3251	N 5		
3253	K 6		
3254	K 6		
3261	E 7		
3732	H 3		
3733	H 3		
3734	H 4		
3850	L 2		
3851	N 3		
3852	N 4		
3853	N 4		
3854	N 5		
3855	N 5		
3856	L 2		
3860	N 3		
3862	M 2		
3863	E 7		
3864	E 8		
3865	D 9		
3866	E 9		
3867	E 9		
3868	D10		
3872	M 2		
3886	J 1		
3887	I 5		
3888	L 5		
3889	J 5		

Video processing/Video Verarbeitung/







REMARKS/REMARQUES/ANMERKUNGEN/NOTE

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

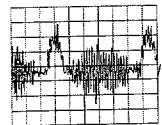
- 1) 25"-28" BLACK-LINE S
- 2) 21"-90"
- 3) BLACK-LINE 16/9
- 4) 21"-110"
- 5) 29"

CHASSIS GR2. 4

CL46532061/015.CPAR
181094

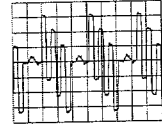
1005	B29	3319	G14	9328	L 5
1008	G 7	3320	F 5	9330	L15
1300	F 7	3321	E 3	9331	D21
1301	M 6	3322	F 6	9333	F 9
1301	C 2	3323	H27	9334	F17
2300	J 1	3324	M 5	9335	B14
2301	C 4	3325	B21	9336	113
2301	J 3	3326	B21	9337	L23
2302	B20	3327	G17	9338	L22
2303	D 5	3328	G15	9339	L22
2303	L 4	3329	F 6	9340	L21
2304	E 3	3330	B15	9342	K18
2304	L 3	3331	B15	9343	L19
2305	D 4	3332	B14	9347	G 3
2306	B 9	3333	M 5	9348	G 3
2306	F10	3334	B25	9349	G 4
2307	B19	3335	C25		
2308	F 7	3342	H17		
2309	F16	3343	I15		
2310	B 7	3344	G13		
2310	J 9	3345	H17		
2311	D 5	3346	I15		
2312	B 6	3347	L15		
2312	L 4	3348	L16		
2313	M 6	3349	L16		
2314	F 8	3350	J 7		
2314	M 7	3355	J 7		
2315	H16	3356	A18		
2316	L 5	3358	D16		
2317	E 4	3359	D16		
2319	B 7	3361	G18		
2320	G14	3362	J14		
2321	F 7	3363	E21		
2322	N 8	3364	I26		
2323	E21	3366	J26		
2325	F 8	3367	L16		
2326	G16	3369	L16		
2327	F15	3370	H27		
2328	F18	3371	I28		
2329	D17	3375	D13		
2330	F18	3376	D13		
2331	F18	3380	B23		
2332	F19	3381	B23		
2333	E17	3385	I28		
2334	F19	4301	D 3		
2335	C21	4302	L 3		
2336	G24	4303	J11		
2337	G24	4304	F17		
2338	G24	4305	M 7		
2339	C24	4306	I 9		
2340	D21	4307	F 8		
2341	D21	4308	F10		
2342	B27	4309	J 5		
2343	B27	4310	A23		
2344	C28	4311	E10		
2345	C16	4312	M 7		
2346	E16	4313	D11		
2348	F 8	4314	M 8		
2349	D14	4316	F 9		
2350	B19	4317	F 9		
2351	C15	4318	B19		
2352	D14	4320	C23		
2353	F 8	4321	G13		
2353	J 5	4329	F11		
2354	G25	4330	K 5		
2356	G23	4364	J26		
2357	G23	5301	D 3		
2358	G22	5301	K 3		
2359	D16	5303	H15		
2360	C27	5306	F17		
2362	B28	6300	C 3		
2362	B28	6302	B24		
2363	G26	6303	A24		
2365	G26	6304	G 4		
2366	I26	6310	C14		
2367	I25	6313	F 5		
2368	H15	6314	E 4		
2369	F27	6315	H26		
2370	L 5	6316	F22		
2371	D27	6317	E 4		
2372	E27	6319	J26		
2373	E27	6320	J26		
2374	I27	6321	F13		
2375	D13	6322	I14		
2376	E13	6323	H13		
2380	C23	6367	I26		
2381	C22	6532	A15		
2385	F21	7301	C 2		
2386	I27	7301	J 2		
3300	C 2	7302	E 4		
3301	K 2	7303	B25		
3301	K 2	7304	N 5		
3302	D 3	7305	J 5		
3302	K 2	7307	C14		
3303	J 2	7308	C18		
3303	J 2	7309	C22		
3304	C 3	7310	F17		
3305	D 4	7311	I17		
3305	K 3	7312	I16		
3306	E 4	7320	I27		
3307	H14	9300	K 5		
3308	F 6	9305	F 8		
3308	N 9	9305	J 6		
3309	B 8	9312	D21		
3310	N 7	9314	L11		
3311	E11	9316	C11		
3312	N 6	9317	I13		
3313	G 8	9318	K18		
3313	N 7	9321	B23		
3314	E13	9322	G11		
3315	F13	9323	B23		
3316	F14	9325	B28		
3317	F26	9326	E 5		
3318	F27	9327	L 5		

TP20



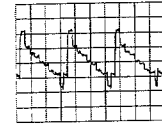
20mV/div AC
10µs div

TP26



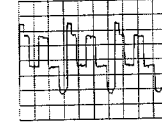
0.2V/div AC
20µs div

TP27



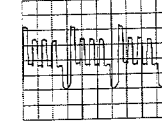
0.1V/div AC
20µs div

TP28



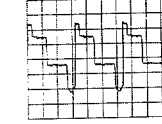
0.5V/div AC
20µs div

TP29

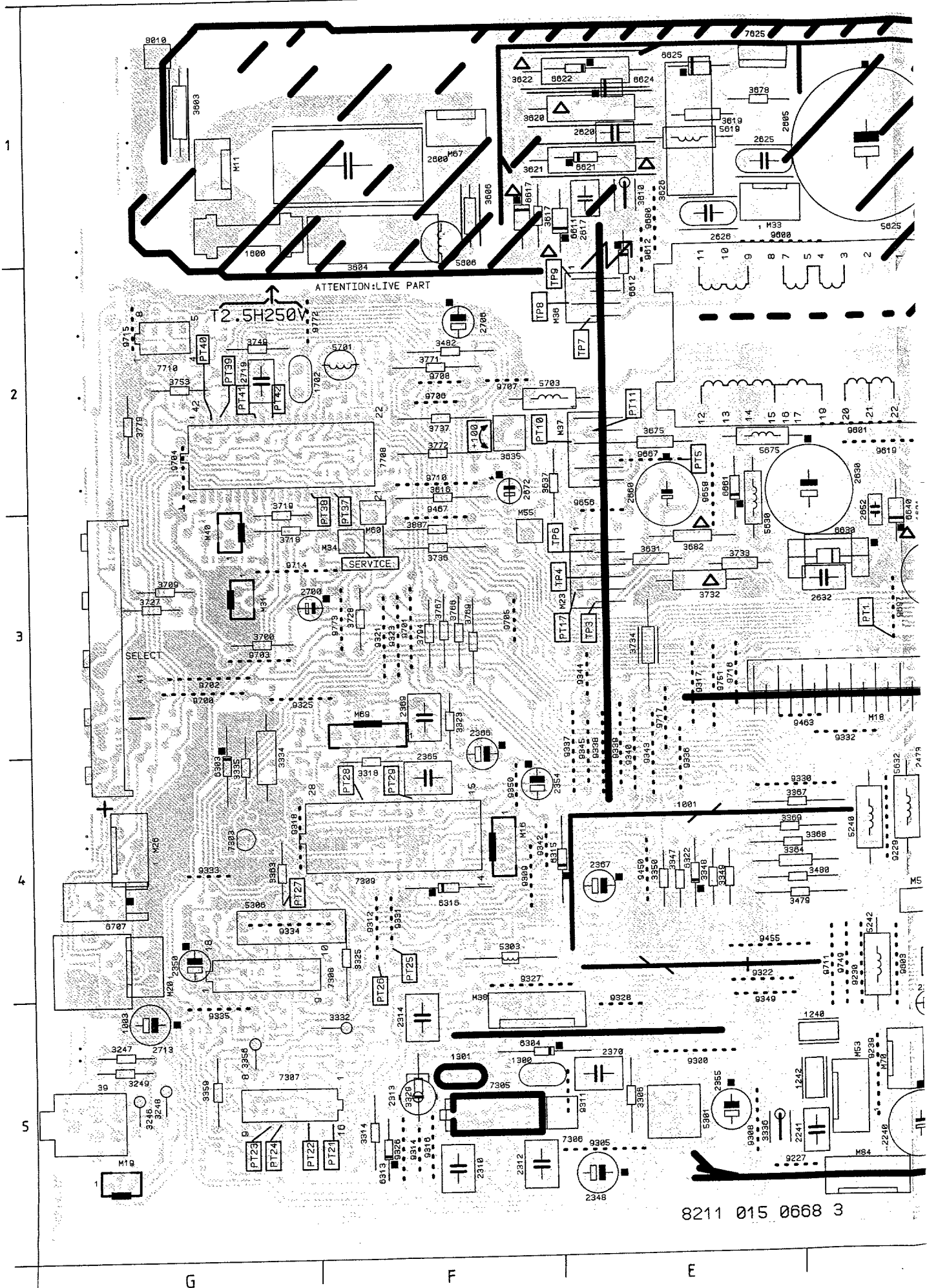


0.5V/div AC
20µs div

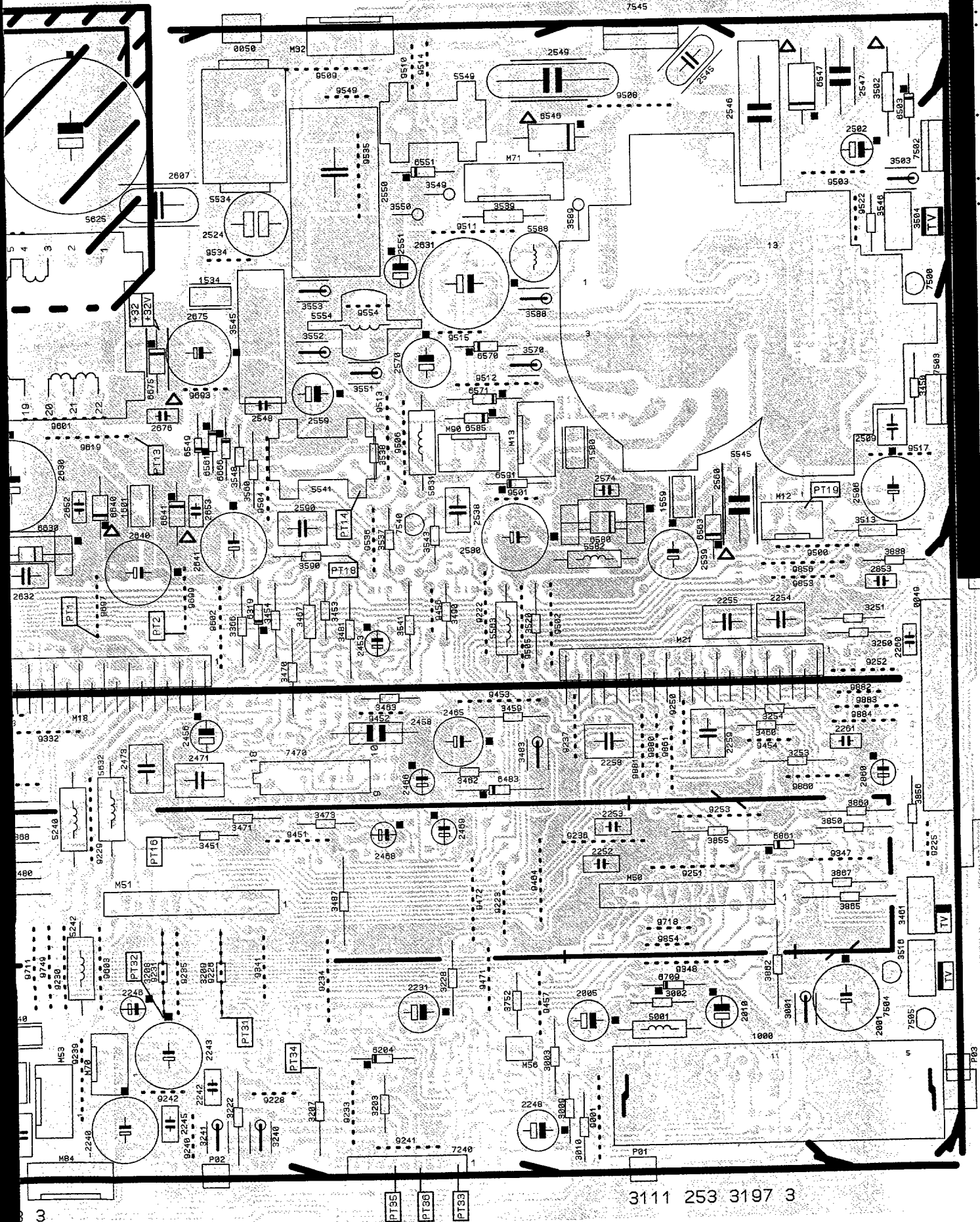
TP30



0.5V/div AC
20µs div



8211 015 0668 3



3111 253 3197 3

D

C

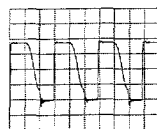
B

A

0049 A3	3323 F3	5582 B3	9345 E4
0050 C1	3325 F4	5588 B2	9347 A4
1000 A5	3329 F5	5606 F1	9348 B4
1003 G4	3332 F5	5619 E1	9349 E5
1240 D5	3334 G4	5625 D2	9350 F4
1242 D5	3335 G4	5630 E3	9450 E4
1300 F5	3336 E5	5631 C2	9451 C4
1301 F5	3347 E4	5632 D4	9452 C3
1534 D2	3348 E4	5675 E2	9453 B3
1559 B3	3349 E4	5701 F2	9454 A4
1580 B2	3350 E4	5703 E2	9455 E4
1600 G1	3356 G5	6204 C5	9456 C3
1601 D3	3359 G5	6303 G4	9457 B5
1702 G2	3363 G4	6304 F5	9463 D3
2001 A5	3364 D4	6313 F5	9464 B4
2005 B5	3366 C3	6315 E4	9467 F3
2010 B5	3367 D4	6316 F4	9471 C5
2231 C5	3368 E4	6319 C3	9472 C4
2240 D5	3369 E4	6322 E4	9500 A3
2241 D5	3450 A2	6483 B4	9501 B3
2242 D5	3451 D4	6503 A1	9502 B3
2243 D5	3453 C3	6546 B1	9503 A1
2245 D5	3454 C3	6547 A1	9504 C2
2246 D5	3459 B3	6549 D2	9505 B3
2248 B5	3460 A3	6551 C1	9506 C2
2252 B4	3461 A4	6561 D2	9508 B1
2253 B4	3462 C4	6563 B3	9509 C1
2254 A3	3463 C3	6570 B2	9510 C1
2255 B3	3467 C3	6571 B2	9511 C1
2258 B4	3470 C3	6580 B3	9512 B2
2259 B4	3471 C4	6585 C2	9513 C2
2260 A3	3473 C4	6591 B2	9514 C1
2261 A4	3479 D4	6611 E1	9515 C2
2310 F5	3480 D4	6612 E2	9517 A2
2312 F5	3481 C3	6617 F1	9522 A1
2313 F5	3482 F2	6621 E1	9534 D2
2314 F5	3483 B4	6622 E1	9535 C1
2348 E5	3487 C4	6624 E1	9536 C3
2350 G4	3490 C3	6625 E1	9549 C1
2354 F4	3502 A1	6630 D3	9554 C2
2355 E5	3503 A1	6640 D3	9600 E1
2365 F4	3504 A1	6641 D3	9601 D2
2366 F4	3513 A3	6661 E2	9602 D3
2367 E4	3516 A4	6666 D2	9603 D4
2369 F3	3520 B3	6675 D2	9612 E1
2370 E5	3537 C3	6707 G4	9619 D2
2453 C3	3538 C2	6709 B5	9656 E3
2456 D4	3539 B1	6861 A4	9658 E2
2458 C4	3541 C3	7240 C5	9667 E2
2465 C4	3543 C3	7303 G4	9680 E1
2466 C4	3545 C2	7305 F5	9693 D2
2468 C4	3546 A1	7306 F5	9697 D3
2469 C4	3548 C2	7307 F5	9699 D3
2471 D4	3549 C1	7308 G5	9700 G3
2473 D4	3550 C1	7309 F4	9701 F3
2502 A1	3551 C2	7470 C4	9702 G3
2506 A3	3552 C2	7500 A2	9703 G3
2509 A2	3553 C2	7502 A1	9704 G2
2524 C1	3560 C2	7503 A2	9705 F3
2538 C3	3570 B2	7504 A5	9706 F2
2539 B3	3588 B2	7505 A5	9707 F2
2545 B1	3589 B1	7540 C3	9708 F2
2546 A1	3590 C3	7545 B1	9710 F2
2547 A1	3603 G1	7625 E1	9711 D4
2548 C2	3604 F1	7708 G2	9714 G3
2549 B1	3606 F1	7710 G2	9715 G2
2550 C1	3610 E1	8010 G1	9716 E3
2551 C2	3616 F2	9001 B5	9717 E3
2559 C2	3617 F1	9222 C3	9718 B4
2560 A3	3619 E1	9223 B4	9749 D4
2570 C2	3620 E1	9225 A4	9751 E3
2574 B3	3621 E1	9226 D4	9772 F2
2580 B3	3622 E1	9227 E5	9773 F3
2590 C3	3626 E1	9228 C5	9853 A3
2600 F1	3631 E3	9229 D4	9854 B4
2605 D1	3635 F2	9230 D4	9856 A3
2607 D1	3637 E2	9231 D4	9860 A4
2617 E1	3675 E2	9233 C5	9861 B4
2620 E1	3678 E1	9234 C5	9880 B4
2625 E1	3682 E3	9235 D4	9881 B4
2626 E1	3700 G3	9236 B4	9882 A3
2630 D3	3709 G3	9237 B3	9883 A3
2631 C2	3718 G3	9239 D5	9884 A3
2632 D3	3719 G3	9240 D5	M11 G1
2640 D3	3727 G3	9241 C5	M12 A3
2641 D3	3728 F3	9242 D5	M13 B2
2652 D3	3732 E3	9250 B3	M16 F4
2653 D3	3733 E3	9251 B4	M18 D3
2660 E3	3734 E3	9252 A3	M19 G5
2672 F2	3736 F3	9253 B4	M20 G4
2675 D2	3737 F2	9300 E5	M21 B3
2676 D2	3749 G2	9305 E5	M23 E3
2700 F3	3752 B5	9308 E5	M26 G4
2706 F2	3753 G2	9309 F4	M31 G3
2713 G5	3766 F3	9311 E5	M32 C1
2719 G2	3767 F3	9312 F4	M33 E1
2853 A3	3769 F3	9314 F5	M34 F3
2860 A4	3771 F2	9316 F5	M36 E2
3001 A5	3772 F2	9317 E3	M37 E2
3002 B5	3779 G2	9318 G4	M38 E5
3003 B5	3794 F3	9321 F3	M40 G3
3009 B5	3850 A4	9322 E4	M50 B4
3010 B5	3855 B4	9323 F3	M51 D4
3203 C5	3856 A4	9325 G3	M53 D5
3207 C5	3860 A4	9326 F5	M55 F3
3208 D4	3862 A4	9327 F4	M56 B5
3209 D4	3865 A4	9328 E5	M60 F3
3222 D5	3867 A4	9330 D4	M67 F1
3228 C4	3887 F3	9331 F4	M69 F3
3240 C5	3888 A3	9332 D3	M70 D5
3241 D5	5001 B5	9333 G4	M71 B1
3246 G5	5240 D4	9334 G4	M84 D5
3247 G5	5242 D4	9335 G5	M90 C2
3248 G5	5301 E5	9336 E4	P01 B5
3249 G5	5303 F4	9337 E4	P02 D5
3250 A3	5306 G4	9338 E4	P03 A5
3251 A3	5534 D1	9339 E4	
3253 A4	5541 C2	9340 E4	
3254 A3	5545 B2	9341 C4	
3306 E5	5549 C1	9342 F4	
3314 F5	5554 C2	9343 E4	
3318 F4	5563 B3	9344 E3	

TP1 = DC 15V9
TP2 = DC -15V9

TP3



20V/div AC
5μs div

TP4 = DC 9V7

TP5

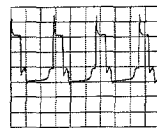


5V/div AC
5μs div

TP6 = DC 4V8

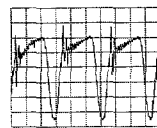
TP7 = DC 298V

TP8



2V/div AC
5μs div

TP9



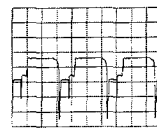
0.2V/div AC
5μs div

TP10 = DC 2V4

TP11 = DC 0V

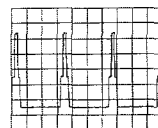
TP12 = DC 2V7

TP14



2V/div AC
20μs div

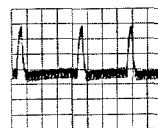
TP16



2V/div AC
20μs div

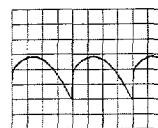
TP17 = DC 0V

TP18



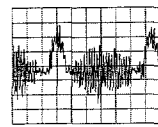
2V/div AC
5ms div

TP19



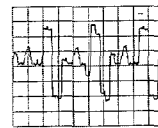
1V/div AC
5ms div

TP20



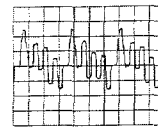
20mV/div AC
10μs div

TP21



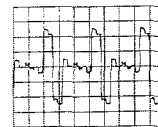
0.1V/div AC
20μs div

TP22



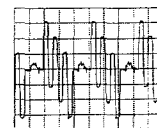
0.2V/div AC
20μs div

TP23



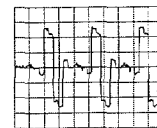
0.2V/div AC
20μs div

TP24



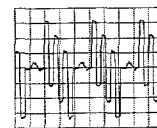
0.2V/div AC
20μs div

TP25



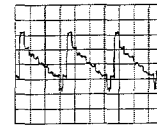
0.2V/div AC
20μs div

TP26



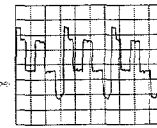
0.2V/div AC
20μs div

TP27



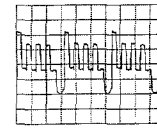
0.1V/div AC
20μs div

TP28



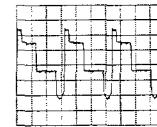
0.5V/div AC
20μs div

TP29



0.5V/div AC
20μs div

TP30



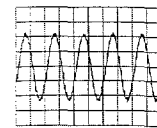
0.5V/div AC
20μs div

TP31



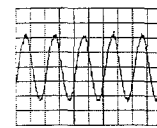
10mV/div AC
0.5ms div

TP32



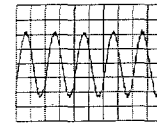
10mV/div AC
0.5ms div

TP33



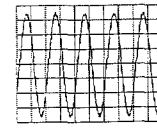
10mV/div AC
0.5ms div

TP34



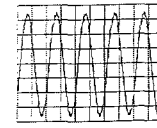
10mV/div AC
0.5ms div

TP35



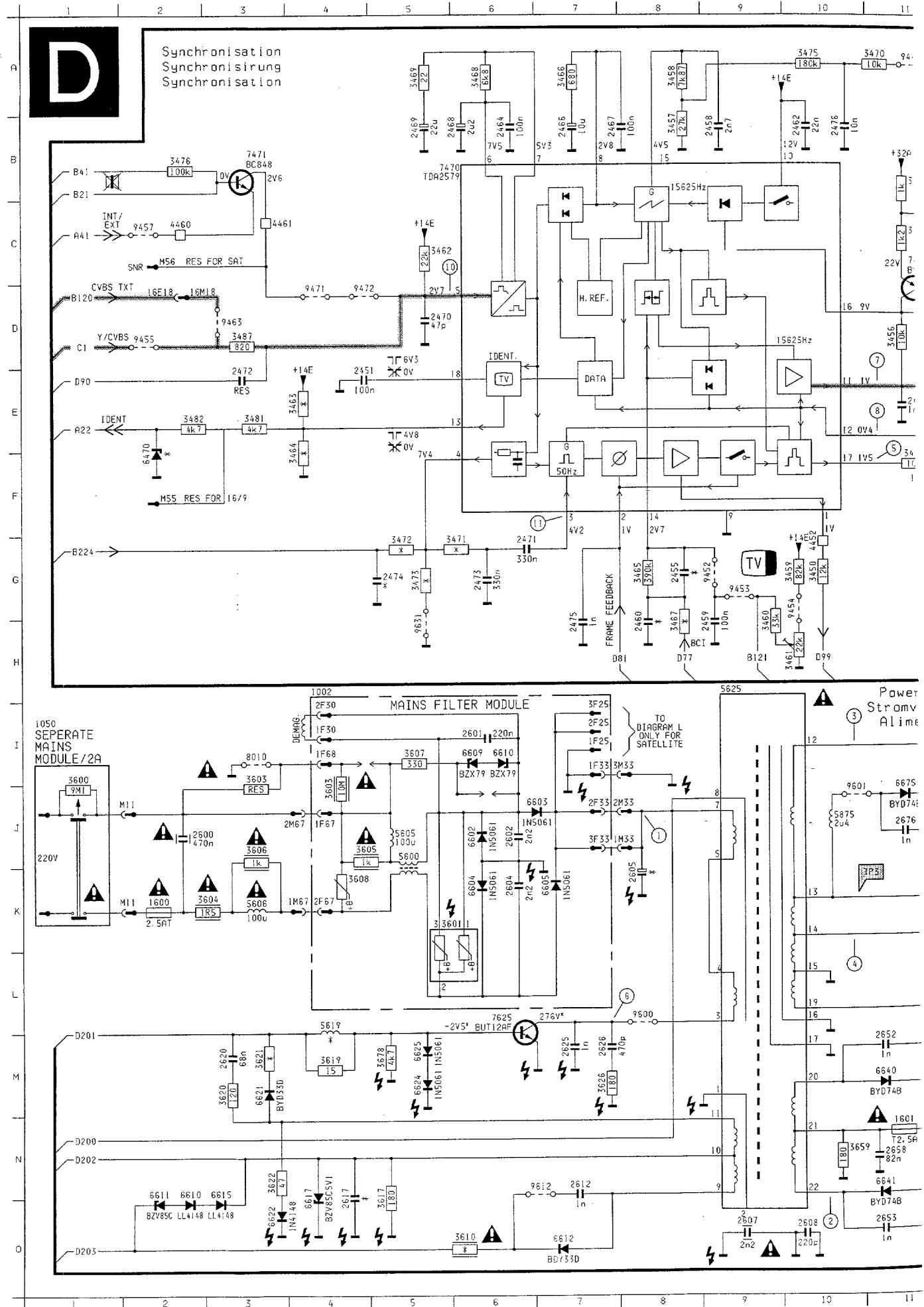
200mV/div AC
0.5ms div

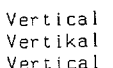
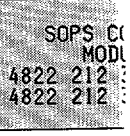
TP36



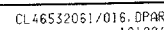
200mV/div AC
0.5ms div

Power supply/Stromversorgung/Alimentation





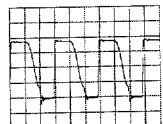
- | | | | | | |
|-----|---------|--------|----------|---------|-------|
| 5) | 21" | =14V8 | Vertical | | |
| | 25"/28" | =16V | Vertical | | |
| 6) | 21" | =42V | Vertical | | |
| | 25"/28" | =32V | Vertical | | |
| 7) | 21" | =14V5. | | | |
| | 25"/28" | =15V1 | | | |
| 8) | 21" | =13V1 | | | |
| | 25"/28" | =6V7 | | | |
| 9) | 21" | =42V | | | |
| | 25"/28" | =32V3 | | | |
| 10) | 21" | =13V3 | | | |
| | 25"/28" | =1V3 | | | |
| 11) | 21" | =13V3 | 13) | 21" | =13V8 |
| | 25"/28" | =7V3 | | 25"/28" | =14V8 |
| 12) | 21" | =14V1 | 14) | 21" | =0V5 |
| | 25"/28" | =15V | | 25"/28" | =0V5 |



A	1002	4 4	3481	E 3	6542	F13
	1007	J22	3482	E 2	6546	D19
	1050	1 1	3483	G14	6547	E17
	1534	G24	3484	C12	6549	J15
	1559	C23	3485	C12	6551	D25
	1580	F18	3486	C13	6560	F23
	1600	K 2	3487	D 3	6561	F22
	1601	N11	3488	F13	6563	A24
	2355	G16	3489	F20	6570	C16
	2378	G16	3490	F13	6571	A14
B	2453	E 4	3501	K24	6580	F17
	2453	C12	3502	J24	6585	B16
	2455	G 8	3503	K25	6590	B25
	2456	D11	3504	M28	6591	F21
	2457	D12	3505	K26	6592	F22
	2458	B 9	3506	K27	6602	J 6
	2459	H 9	3507	L27	6603	J 7
	2460	H 8	3508	L27	6604	K 6
	2461	E11	3509	L27	6605	K 7
	2462	B10	3510	M27	6610	N 1
C	2464	B 6	3511	M27	6611	N 1
	2465	G13	3512	J28	6612	O 7
	2466	B 7	3513	J27	6615	N 3
	2467	B 7	3514	J27	6617	N 4
	2468	B 6	3515	M27	6621	M 3
	2469	B 5	3516	J29	6622	O 3
	2470	D 5	3517	L26	6624	M 5
	2471	G 6	3518	M26	6625	M 5
	2472	E 3	3519	M26	6630	I17
	2473	G 6	3520	I26	6640	M11
D	2474	G 5	3523	I28	6641	N11
	2475	H 7	3529	M26	6661	K13
	2476	B10	3535	L28	6666	H17
	2500	L24	3537	E15	6675	J11
	2501	M24	3538	E16	7454	F12
	2502	J25	3539	D17	7455	C13
	2503	J26	3540	N28	7456	C13
	2505	J26	3541	E15	7470	B 6
	2506	L27	3542	F12	7471	B 3
	2507	L26	3543	E12	7500	L25
E	2509	L28	3545	C14	7502	L25
	2524	F24	3546	M29	7503	L25
	2538	E14	3548	F13	7504	I28
	2539	C24	3549	D25	7505	K26
	2543	D16	3550	D25	7540	C13
	2544	N28	3551	C23	7545	E16
	2545	D17	3552	C23	7546	N27
	2546	D17	3553	C24	7591	B26
	2547	E17	3560	A24	7625	L 6
	2548	D14	3561	B24	8010	I 1
F	2549	D27	3570	A17	9341	G16
	2550	D24	3588	B17	9450	H16
	2551	D24	3589	B16	9452	G 1
	2552	F22	3590	B24	9453	G 1
	2559	D14	3591	E25	9454	G16
	2560	E22	3592	E26	9455	D 1
	2561	E16	3600	I 1	9456	E16
	2570	A14	3601	K 5	9457	C 1
	2574	F17	3603	I 3	9463	D 1
	2580	F16	3603	K 4	9464	F16
G	2588	C17	3604	K 3	9467	A16
	2590	B24	3605	K 4	9471	D 1
	2600	J 2	3606	J 3	9472	D 1
	2601	I 6	3607	I 5	9500	K21
	2602	J 6	3608	K 4	9501	B21
	2604	K 6	3610	O 6	9504	F11
	2605	K 8	3616	I15	9505	A21
	2607	O 9	3617	N 5	9506	D11
	2608	O10	3619	M 4	9508	E11
	2612	N 7	3620	M 3	9509	E21
H	2617	N 4	3621	M 3	9510	E21
	2620	M 3	3622	N 3	9511	D21
	2625	M 7	3626	M 7	9512	A11
	2626	M 7	3631	I18	9513	D11
	2630	I20	3634	I18	9514	D11
	2631	I21	3635	J19	9522	M21
	2632	J17	3637	J16	9534	G21
	2640	N11	3659	N10	9535	D21
	2641	N11	3672	J15	9536	E11
	2652	M11	3675	J17	9549	D21
I	2653	O11	3677	K12	9554	D21
	2658	N11	3678	M 5	9600	L 1
	2660	L14	3682	L13	9601	L 1
	2675	J11	4452	G10	9602	N11
	2676	J11	4460	C 2	9603	N11
	3336	G16	4461	C 3	9612	N 1
	3450	G10	4485	C12	9619	I 1
	3453	F11	4504	J28	9651	H 1
	3454	B13	4570	C15	9656	H 1
	3454	B11	4571	B15	9658	K 1
J	3455	C11	4572	C15	9666	J 1
	3456	D11	5534	E23	9667	M 1
	3457	B 8	5534	E24	9693	J 1
	3458	A 8	5541	D15	9694	I 1
	3459	G10	5545	A18	9697	M 1
	3460	H 9	5545	A18	9699	N 1
	3461	H10	5549	D26		
	3462	C 5	5554	D23		
	3463	E 4	5563	C25		
	3464	F 4	5582	F16		
K	3465	G 8	5588	B17		
	3466	A 7	5600	J 5		
	3467	H 8	5605	J 5		
	3468	A 6	5606	K 3		
	3469	A 5	5619	L 4		
	3470	A11	5625	H 9		
	3471	G 6	5630	I17		
	3472	G 5	5631	I21		
	3473	G 5	5632	N12		
	3474	F14	5675	J10		
L	3475	A10	6464	C11		
	3476	B 2	6470	F 2		
	3477	F21	6483	G13		
	3478	F21	6503	J25		
	3479	G12	6504	I24		
	3480	G12	6505	K24		

TP1 = DC 15V9
TP2 = DC -15V9

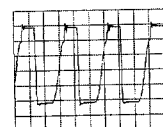
TP3



20V/div AC
5μs div

TP4 = DC 9V7

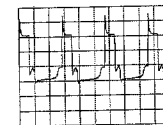
TP5



5V/div AC
5μs div

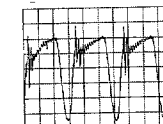
TP6 = DC 4V8
TP7 = DC 298V

TP8



2V/div AC
5μs div

TP9



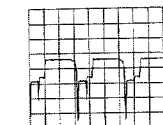
0.2V/div AC
5μs div

TP10 = DC 2V4

TP11 = DC 0V

TP12 = DC 2V7

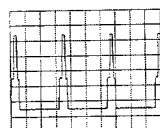
TP14



2V/div AC
20μs div

TP15 = DC 13V4

TP16



2V/div AC
20μs div

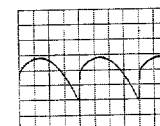
TP17 = DC 0V

TP18



2V/div AC
5ms div

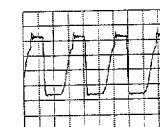
TP19



1V/div AC
5ms div

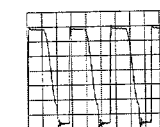
① = DC 298V

②



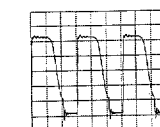
10V/div AC
5μs div

③



50V/div AC
5μs div

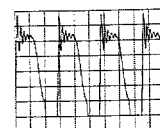
④



5V/div AC
5μs div

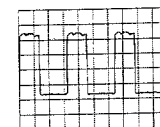
⑤a = DC 144V

⑥



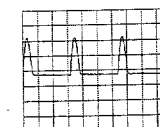
100V/div AC
5μs div

⑦



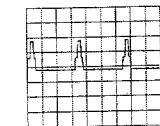
0.5V/div AC
20μs div

⑧



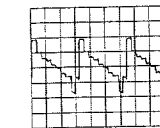
1V/div AC
20μs div

⑨

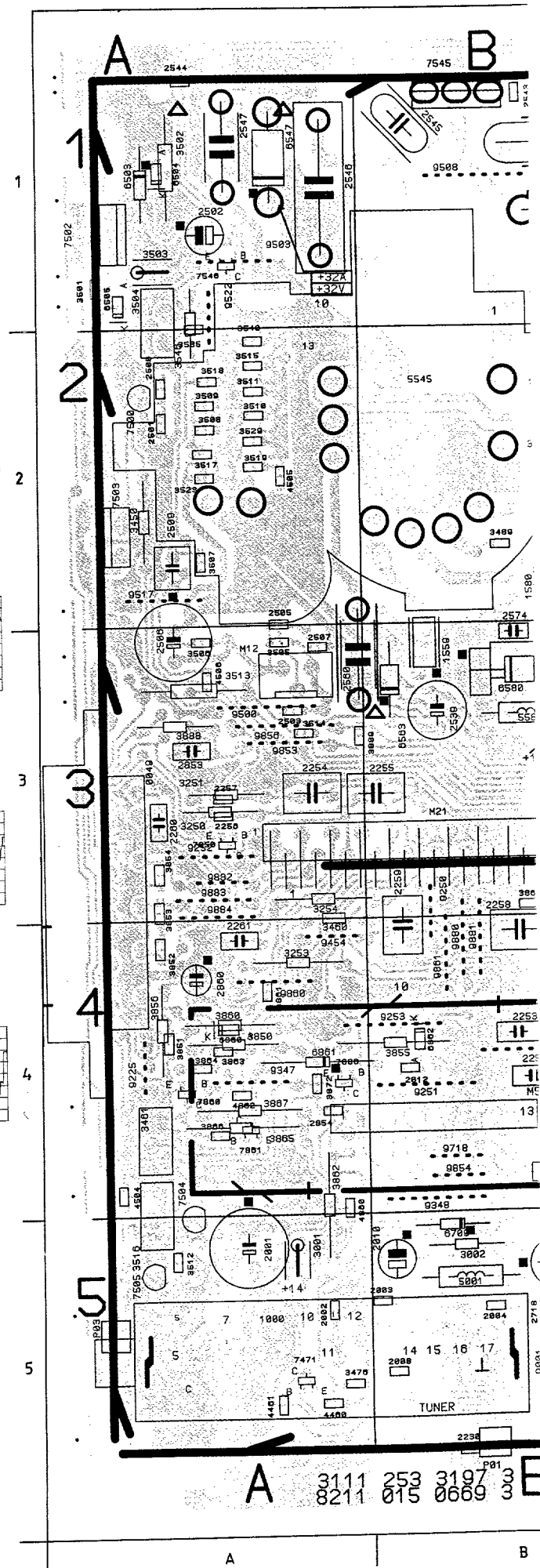


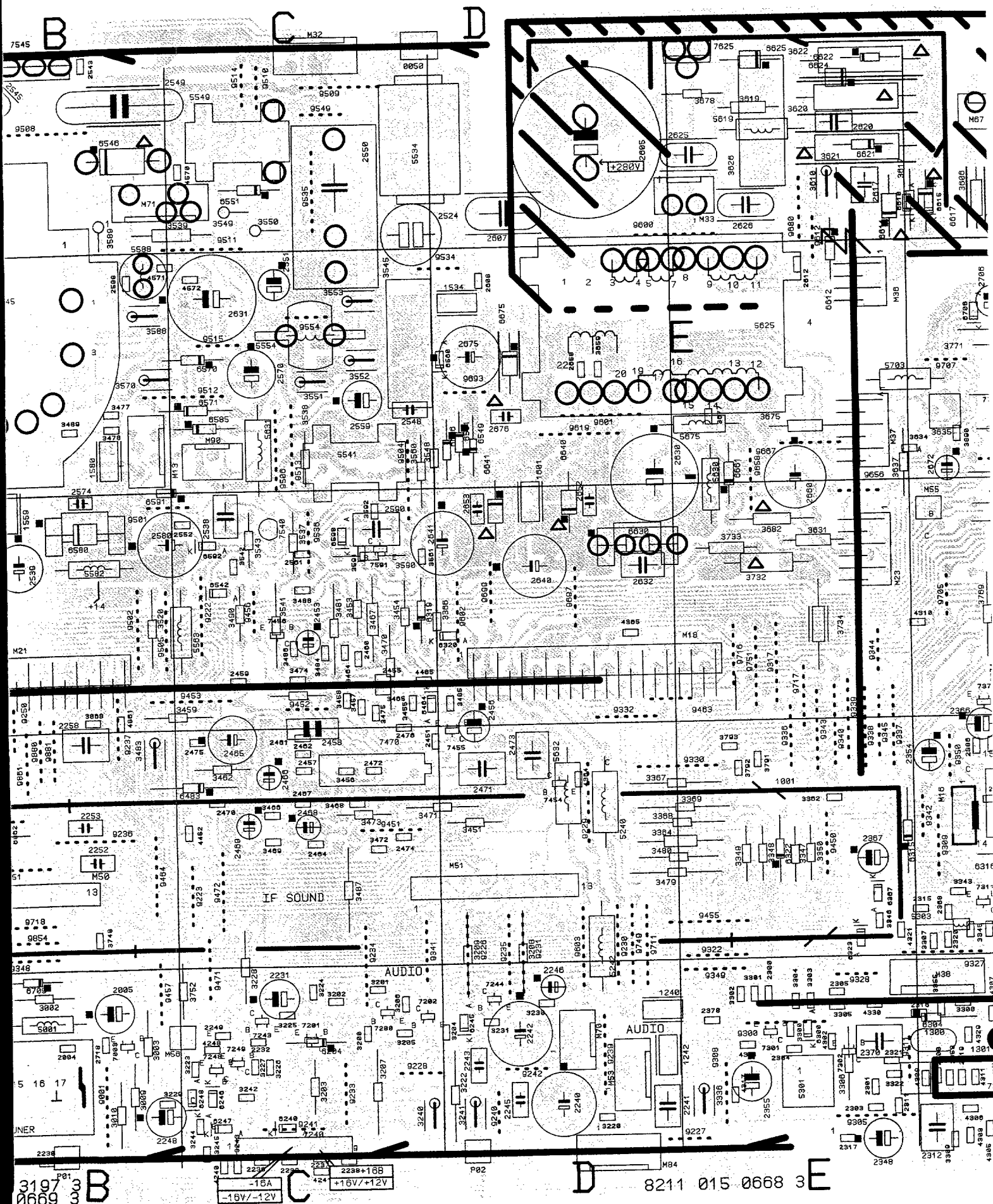
5V/div AC
20μs div

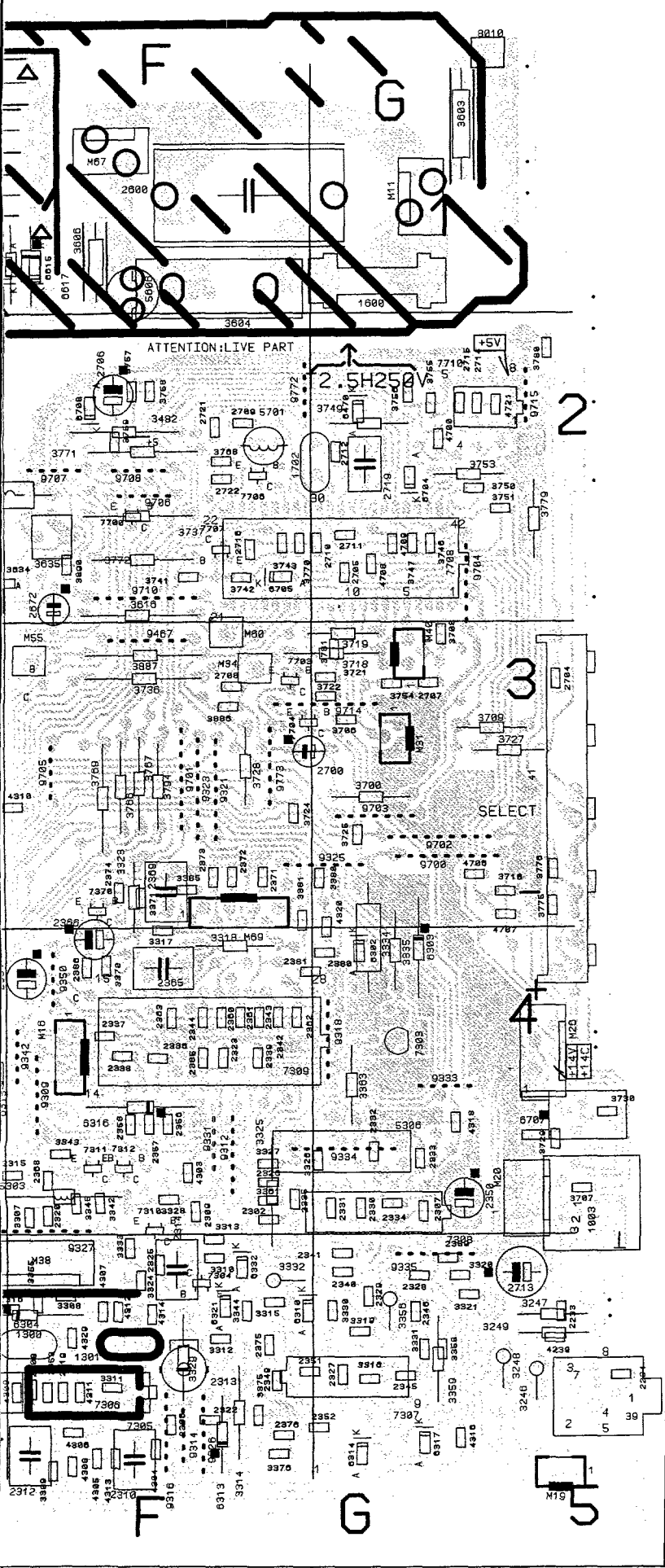
⑩



0.5V/div AC
20μs div

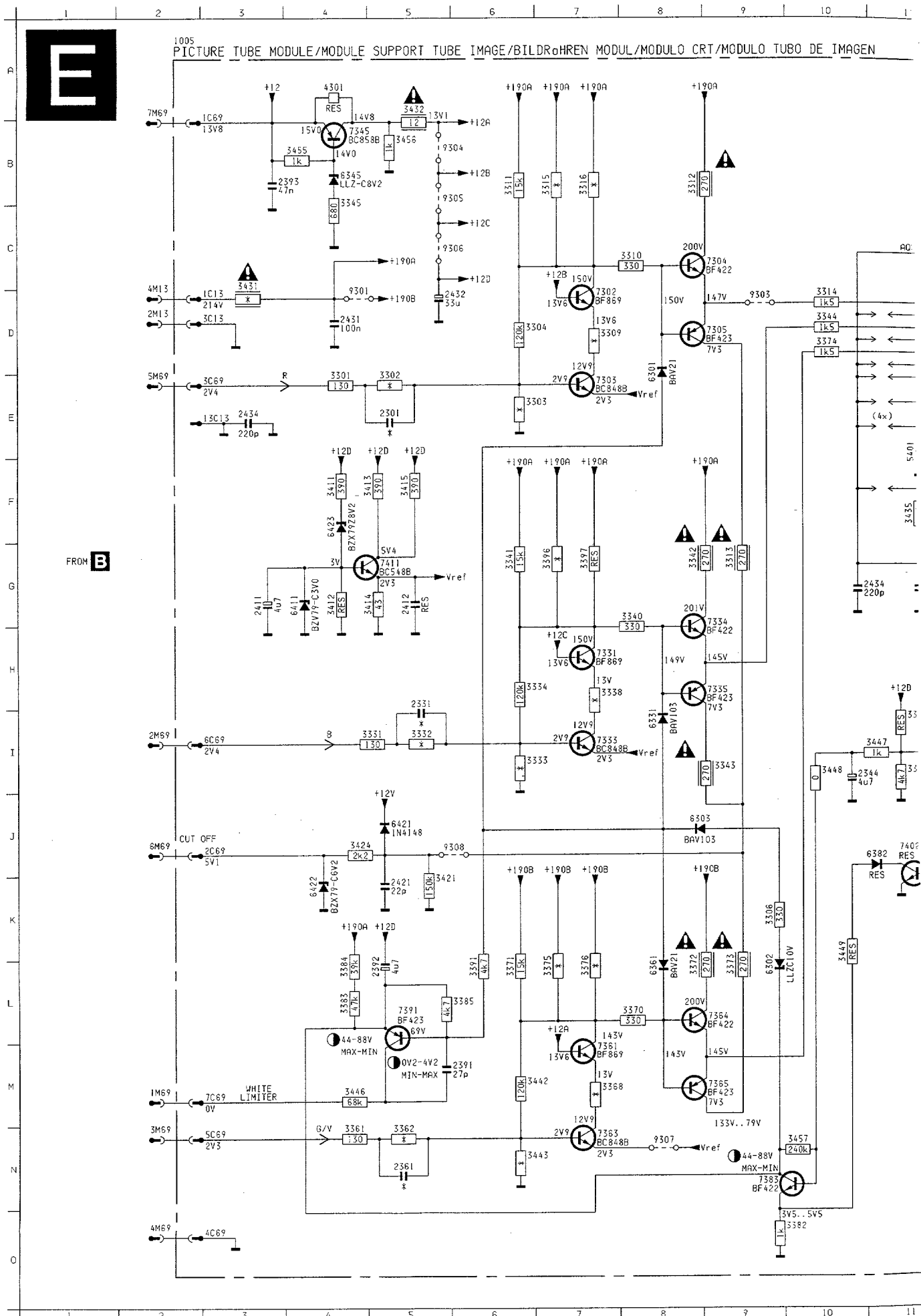






0049 A3	2380 G4	3230 D5	3502 A1	3853 A3	6547 A1	9326 F5	M55 F3
0050 C1	2381 F4	3231 D5	3503 A1	3854 A3	6549 D2	9327 F4	M56 B5
1000 A5	2385 F4	3240 C5	3504 A1	3855 B4	6551 C1	9328 E5	M60 F3
1003 G4	2386 F4	3241 D5	3505 A3	3856 A4	6560 D2	9330 D4	M67 F1
1240 D5	2451 C4	3242 C5	3506 A3	3860 A4	6561 D2	9331 F4	M69 F3
1242 D5	2453 C3	3243 C5	3507 A2	3861 A4	6563 B3	9332 D3	M70 D5
1300 F5	2455 C3	3244 B5	3508 A2	3862 A4	6570 B2	9333 G4	M71 B1
1301 F5	2456 D4	3245 B5	3509 A2	3863 A4	6571 B2	9334 G4	M84 D5
1534 D2	2457 C4	3246 G5	3510 A2	3864 A4	6580 B3	9335 G5	M90 C2
1559 B3	2458 C4	3247 G5	3511 A2	3865 A4	6585 C2	9336 E4	P01 B5
1580 B2	2459 C3	3248 G5	3512 A5	3866 A4	6590 C3	9337 E4	P02 D5
1600 G1	2460 C3	3249 G5	3513 A3	3867 A4	6591 B2	9338 E4	P03 A5
1601 D3	2461 C4	3250 A3	3514 A3	3868 B3	6592 C3	9339 E4	
1702 G2	2462 C4	3251 A3	3515 A2	3872 A4	6610 E1	9340 E4	
2001 A5	2464 C4	3253 A4	3516 A4	3886 F3	6611 E1	9341 C4	
2003 B5	2465 C4	3254 A3	3517 A2	3887 F3	6612 E2	9342 F4	
2004 B5	2466 C4	3300 E5	3518 A2	3888 A3	6615 F1	9343 E4	
2005 B5	2467 C4	3301 E5	3519 A2	3889 A3	6617 F1	9344 E3	
2008 B5	2468 C4	3302 E5	3520 B3	3890 F2	6621 E1	9345 E4	
2010 B5	2469 C4	3303 E5	3523 A2	4239 G5	6622 E1	9347 A4	
2012 B4	2470 C4	3304 E5	3529 A2	4240 C5	6624 E1	9348 B4	
2230 B5	2471 D4	3305 E5	3535 A1	4241 C5	6625 E1	9349 E5	
2231 C5	2472 C4	3306 E5	3537 C3	4248 C5	6630 D3	9350 F4	
2232 C5	2473 D4	3307 F4	3538 C2	4301 E5	6640 D3	9450 E4	
2233 G5	2474 C4	3308 F5	3539 B1	4302 E5	6641 D3	9451 C4	
2234 G5	2475 B4	3309 F5	3540 A2	4303 F4	6661 E2	9452 C3	
2236 C5	2476 C3	3310 F5	3541 C3	4304 F5	6666 D2	9453 B3	
2237 C5	2500 A2	3311 F5	3542 C3	4305 F5	6675 D2	9454 A4	
2238 C5	2501 A2	3312 F5	3543 C3	4306 F5	6704 G2	9455 E4	
2239 C5	2502 A1	3313 F5	3545 C2	4307 F5	6705 F2	9456 C3	
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2242 D5	2506 A3	3316 G5	3549 C1	4310 F3	6709 B5	9464 B4	
2243 D5	2507 A3	3317 F4	3550 C1	4311 F5	6860 A4	9467 F3	
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2246 D5	2524 C1	3319 G5	3552 C2	4313 F5	6862 B4	9472 C4	
2248 B5	2538 C3	3320 G5	3553 C2	4314 F5	7003 B5	9500 A3	
2249 C5	2539 B3	3321 G5	3560 C2	4316 G5	7200 C5	9501 B3	
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2253 B4	2544 A1	3323 F3	3570 B2	4318 G4	7202 C5	9503 A1	
2254 A3	2545 B1	3324 F5	3588 B2	4320 G4	7240 C5	9504 C2	
2255 B3	2546 A1	3325 F4	3589 B1	4321 E4	7243 C5	9505 B3	
2256 A3	2547 A1	3326 F4	3590 C3	4329 F5	7244 D5	9506 C2	
2257 A3	2548 C2	3327 F4	3591 C3	4330 E5	7248 C5	9508 B1	
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2259 B4	2550 C1	3329 F5	3603 G1	4365 D3	7301 E5	9510 C1	
2260 A3	2551 C2	3330 G5	3604 F1	4452 B4	7302 E5	9511 C1	
2261 A4	2552 B3	3331 G5	3606 F1	4460 A5	7303 G4	9512 B2	
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2301 E5	2560 A3	3333 F5	3616 F2	4465 C3	7305 F5	9514 C1	
2302 F4	2561 C3	3334 G4	3617 F1	4502 @5	7306 F5	9515 C2	
2303 E5	2570 C2	3335 G4	3619 E1	4504 A4	7307 F5	9517 A2	
2304 E5	2574 B3	3336 E5	3620 E1	4505 A2	7308 G5	9522 A1	
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2306 F5	2588 B2	3343 F4	3622 E1	4570 B1	7310 F4	9535 C1	
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2314 F5	2620 E1	3355 F5	3677 E2	4721 G2	7471 A5	9612 E1	
2315 E4	2625 E1	3356 G5	3678 E1	4860 A4	7500 A2	9619 D2	
2316 E5	2626 E1	3358 G5	3682 E3	4861 B3	7502 A1	9656 E3	
2317 E5	2630 D3	3359 G5	3700 G3	4862 A4	7503 A2	9658 E2	
2319 F5	2631 C2	3361 F4	3706 G3	4901 @2	7504 A5	9667 E2	
2320 F4	2632 D3	3362 E4	3707 G4	4902 @2	7505 A5	9680 E1	
2321 E5	2640 D3	3363 G4	3708 G3	5001 B5	7540 C3	9693 D2	
2322 F5	2641 D3	3364 D4	3709 G3	5240 D4	7545 B1	9697 D3	
2323 F4	2652 D3	3366 C3	3710 G3	5242 D4	7546 A1	9699 D3	
2325 F5	2653 D3	3367 D4	3718 G3	5301 E5	7591 C3	9700 G3	
2326 F4	2658 D2	3368 E4	3719 G3	5303 F4	7625 E1	9701 F3	
2327 G5	2660 E3	3369 E4	3721 G3	5306 G4	7700 F2	9702 G3	
2328 G5	2672 F2	3370 F4	3722 G3	5534 D1	7703 F3	9703 G3	
2329 G5	2675 D2	3371 F3	3724 F3	5541 C2	7704 F3	9704 G2	
2330 G4	2676 D2	3375 F5	3725 G3	5545 B2	7706 F2	9705 F3	
2331 G4	2700 F3	3376 F5	3727 G3	5549 C1	7707 F2	9706 F2	
2332 G4	2704 G3	3380 G3	3728 F3	5554 C2	7708 G2	9707 F2	
2333 G4	2705 G2	3381 F3	3729 G4	5563 B3	7710 G2	9708 F2	
2334 G4	2706 F2	3385 F3	3730 G4	5582 B3	7850 A3	9710 F2	
2335 F4	2707 G3	3450 A2	3732 E3	5588 B2	7860 A4	9711 D4	
2336 F4	2708 F3	3451 D4	3733 E3	5606 F1	7861 A4	9714 G3	
2337 F4	2709 F2	3453 C3	3734 E3	5619 E1	7886 A4	9715 G2	
2338 F4	2710 G2	3454 C3	3736 F3	5625 D2	8010 G1	9716 E3	
2339 F4	2711 G2	3455 C3	3737 F2	5630 E3	9001 B5	9717 E3	
2340 G5	2712 G2	3456 C4	3741 F2	5631 C2	9222 C3	9718 B4	
2341 G5	2713 G5	3457 C3	3742 F2	5632 D4	9223 B4	9749 D4	
2342 F4	2714 G2	3458 C3	3743 F2	5675 E2	9225 A4	9751 E3	
2343 F4	2715 G2	3459 B3	3746 G2	5701 F2	9226 D4	9772 F2	
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2352 F5	2860 A4	3467 C3	3754 G3	6300 E5	9235 D4	9881 B4	
2353 F5	3001 A5	3468 C4	3755 G2	6302 G4	9236 B4	9882 A3	
2354 F4	3002 B5	3469 C4	3756 G2	6303 G4	9237 B3	9883 A3	
2355 E5	3003 B5	3470 C3	3757 F2	6304 F5	9238 D5	9884 A3	
2356 F4	3009 B5	3471 C4	3758 F2	6310 F5	9240 D5	M11 G1	
2357 F4	3010 B5	3472 C4	3759 F2	6313 F5	9241 C5	M12 A3	
2358 F4	3200 C5	3473 C4	3766 F3	6314 G5	9242 D5	M13 B2	
2359 G5	3201 C5	3474 C3	3767 F3	6315 E4	9250 B3	M16 F4	
2360 F4	3202 C5	3475 C3	3768 F2	6316 F4	9251 B4	M18 D3	
2361 F4	3203 C5	3476 A5	3769 F3	6317 G5	9252 A3	M19 G5	
2362 F4	3204 C5	3477 B2	3770 F2	6319 C3	9253 B4	M20 G4	
2363 F4	3205 C5	3478 B2	3771 F2	6320 D3	9300 E5	M21 B3	
2364 F4	3206 C5	3479 D4	3772 F2	6321 F5	9305 E5	M23 E3	
2366 F4	3207 C5	3480 D4	3775 G3	6322 E4	9308 E5	M26 G4	
2367 E4	3208 D4	3481 C3	3776 G3	6323 E4	9309 F4	M31 G3	
2368 F4	3209 D4	3482 F2	3779 G2	6332 F5	9311 E5	M32 C1	
2369 F3	3220 D5	3483 B4	3780 G2	6367 E4	9312 F4	M33 E1	
2370 E5	3222 D5	3484 C3	3781 G3	6464 C3	9314 F5	M34 F3	
2371 F3	3223 B5	3485 D3	3791 E4	6470 G2	9317 E3	M36 E2	
2372 F3	3224 C5	3486 C3	3792 E4	6483 B4	9317 E3	M37 E2	
2373 F3	3225 C5	3487 C4	3793 E4	6503 A1	9318 G4	M38 E5	
2374 F3	3226 C5	3488 C3	3794 F3	6504 A1	9321 F3	M40 G3	
2375 F5	3227 C5	3489 B2	3850 A4	6505 A1	9322 E4	M50 B4	
2376 F5	3228 C4	3490 C3	3851 A4	6542 C3	9323 F3	M51 D4	
2378 E5	3229 B5	3501 A1	3852 A4	6546 B1	9325 G3	M53 D5	

Picture tube panel/Bildröhren platte/Platine TRC



MAGEN

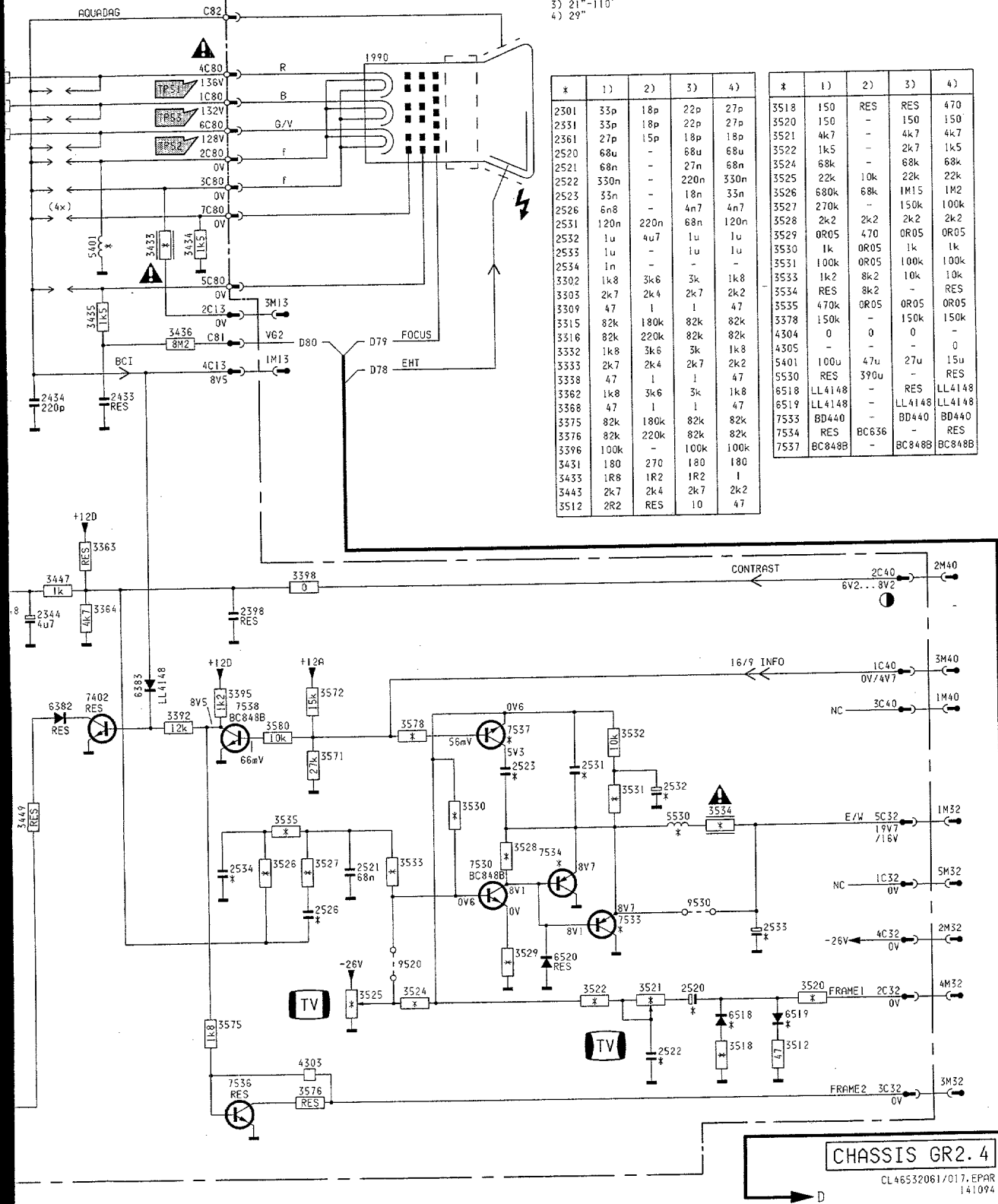
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REMARKS/REMARKES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
 PRESENT SUR LES APPAREILS:
 ANNESEND IN GERÄTEN:
 PRESENTE SÖRE MODELLI:
 PRESENTE SOBRE MODELOS:
 1) 25"-28" BLACK-LINE S
 2) 21"-90"
 3) 21"-110"
 4) 29"

*	1)	2)	3)	4)
2301	33p	18p	22p	27p
2331	33p	18p	22p	27p
2361	27p	15p	18p	18p
2520	68u	-	68u	68u
2521	68n	-	27n	68n
2522	33n	-	22n	33n
2523	33n	-	18n	33n
2526	6n8	-	4n7	4n7
2531	120n	220n	68n	120n
2532	1u	4u7	1u	1u
2533	1u	-	1u	1u
2534	1n	-	-	-
3302	1k8	3k6	3k	1k8
3303	2k7	2k4	2k7	2k2
3309	47	1	1	47
3315	82k	180k	82k	82k
3316	82k	220k	82k	82k
3332	1k8	3k6	3k	1k8
3333	2k7	2k4	2k7	2k2
3338	47	1	1	47
3362	1k8	3k6	3k	1k8
3368	47	1	1	47
3375	82k	180k	82k	82k
3376	82k	220k	82k	82k
3596	100k	-	100k	100k
3431	180	270	180	180
3433	1R8	1R2	1R2	1
3443	2k7	2k4	2k7	2k2
3512	2R2	RES	10	47

*	1)	2)	3)	4)
3518	150	RES	RES	470
3520	150	-	150	150
3521	4k7	-	4k7	4k7
3522	1k5	-	2k7	1k5
3524	68k	-	68k	68k
3525	22k	10k	22k	22k
3526	680k	68k	1M15	1M2
3527	270k	-	150k	100k
3528	2k2	2k2	2k2	2k2
3529	0R05	470	0R05	0R05
3530	1k	0R05	1k	1k
3531	100k	0R05	100k	100k
3533	1k2	8k2	10k	10k
3534	RES	8k2	-	RES
3535	470k	0R05	0R05	0R05
3578	150k	-	150k	150k
4304	0	0	0	-
4305	-	-	-	0
5401	100u	47u	27u	15u
5530	RES	390u	-	RES
6518	LL4148	-	RES	LL4148
6519	LL4148	-	LL4148	LL4148
7533	BD440	-	BD440	BD440
7534	RES	BC636	-	RES
7537	BC848B	-	BC848B	BC848B

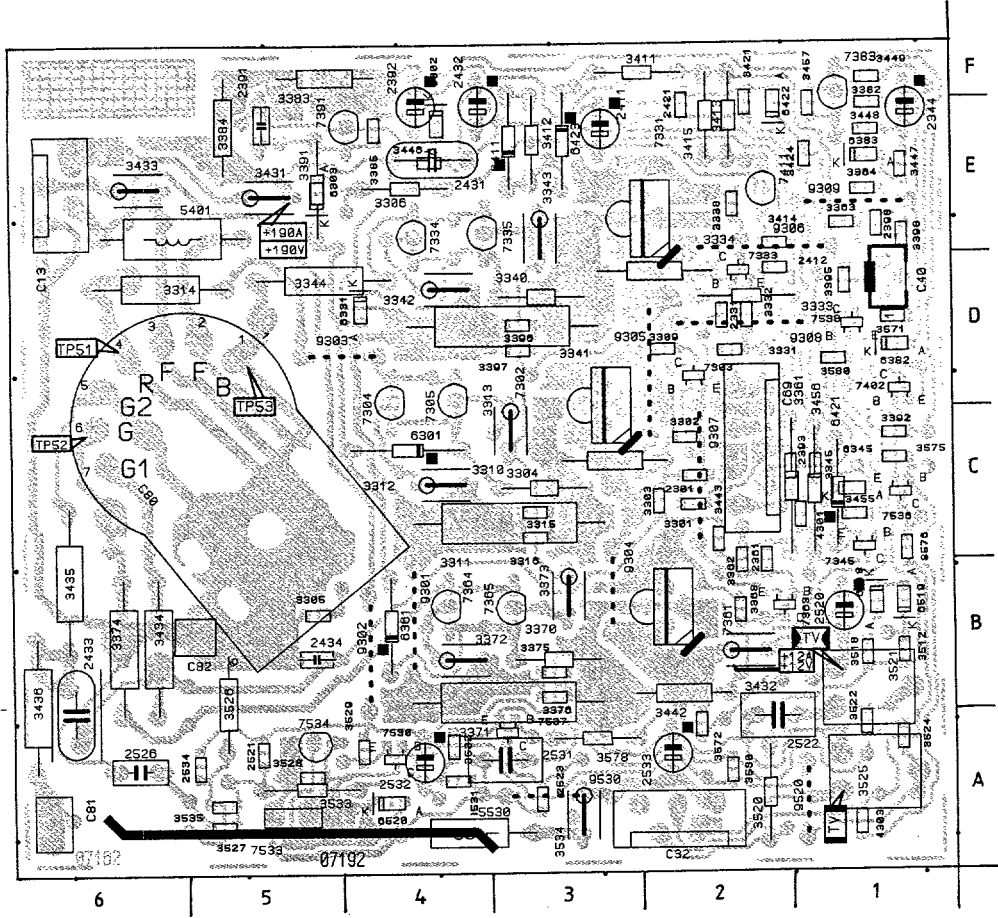


CHASSIS GR2.4

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141094

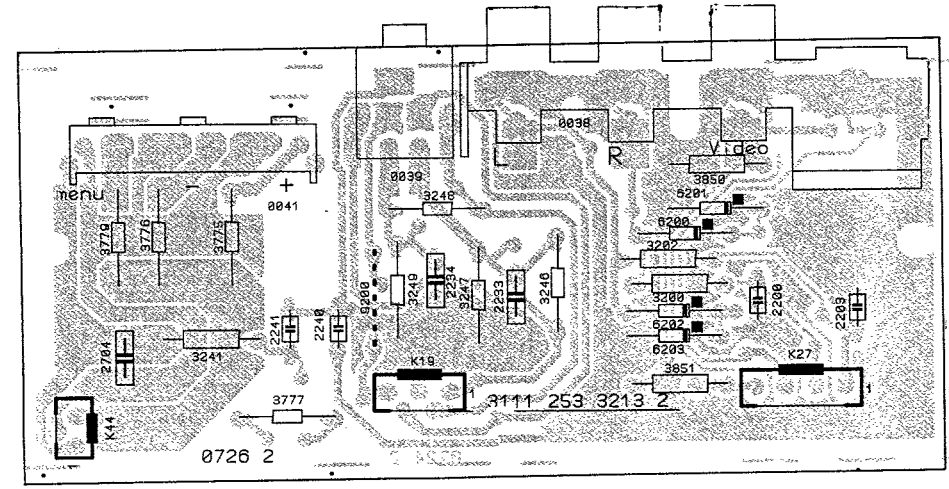
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1990	D14	4301	A 4
2301	E 5	4303	N13
2331	H 5	5401	E11
2344	I10	5530	L17
2361	N 5	6301	D 8
2391	M 5	6302	L 9
2392	L 5	6303	J 8
2393	B 3	6331	I 8
2398	I13	6345	B 4
2411	G 3	6361	L 8
2412	G 5	6382	J11
2421	K 5	6383	J11
2431	D 4	6411	G 4
2432	D 5	6421	J 5
2433	G12	6422	K 4
2434	E 3	6423	F 4
2436	G11	6518	N18
2520	M17	6519	N18
2521	L14	6520	M16
2522	N17	7302	D 7
2523	K15	7303	C 9
2526	M13	7304	C 9
2531	K16	7305	D 9
2532	K17	7331	H 7
2534	L12	7333	I 7
3301	E 4	7334	H 9
3302	E 5	7335	H 9
3303	E 6	7345	B 4
3304	D 6	7361	M 7
3306	K 9	7363	N 7
3309	D 7	7364	L 9
3310	C 8	7365	M 9
3311	B 6	7368	N 9
3312	B 8	7391	L 5
3313	G 9	7402	J11
3314	D10	7411	G 5
3315	B 7	7530	L15
3316	B 7	7533	M16
3331	I 5	7534	L16
3332	I 5	7536	N12
3333	I 6	7537	K15
3334	H 6	7538	J12
3338	H 7	9301	D 4
3340	G 8	9301	O 3
3341	G 6	9303	D 9
3342	G 8	9304	B 5
3343	I 9	9305	B 5
3344	D10	9306	C 5
3345	B 4	9307	N 8
3361	N 4	9308	J 5
3362	N 5	9309	O 3
3363	I11	9530	L17
3364	I11		
3368	M 7		
3370	L 8		
3371	L 6		
3372	L 8		
3373	L 9		
3374	D10		
3375	L 7		
3376	L 7		
3382	O 9		
3383	L 4		
3384	L 4		
3385	L 6		
3391	L 6		
3392	J12		
3395	J12		
3396	G 7		
3397	G 7		
3398	I13		
3411	F 4		
3412	G 4		
3413	F 5		
3414	G 5		
3415	F 5		
3421	J 5		
3424	J 4		
3431	D 3		
3432	A 5		
3433	E12		
3434	E12		
3435	F11		
3436	F12		
3442	M 6		
3443	N 6		
3446	M 4		
3447	I11		
3448	I10		
3449	K10		
3455	B 4		
3456	B 5		
3457	N10		
3512	N18		
3518	N18		
3520	N18		
3521	M17		
3522	M16		
3524	M14		
3525	M14		
3526	L13		
3527	L13		
3528	L15		
3529	M15		
3530	K15		
3531	K17		
3532	K17		
3533	L14		
3534	L18		
3535	L13		
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3572	J13		
3575	N12		
3576	N13		
3578	K14		

1005 PICTURE TUBE MODULE

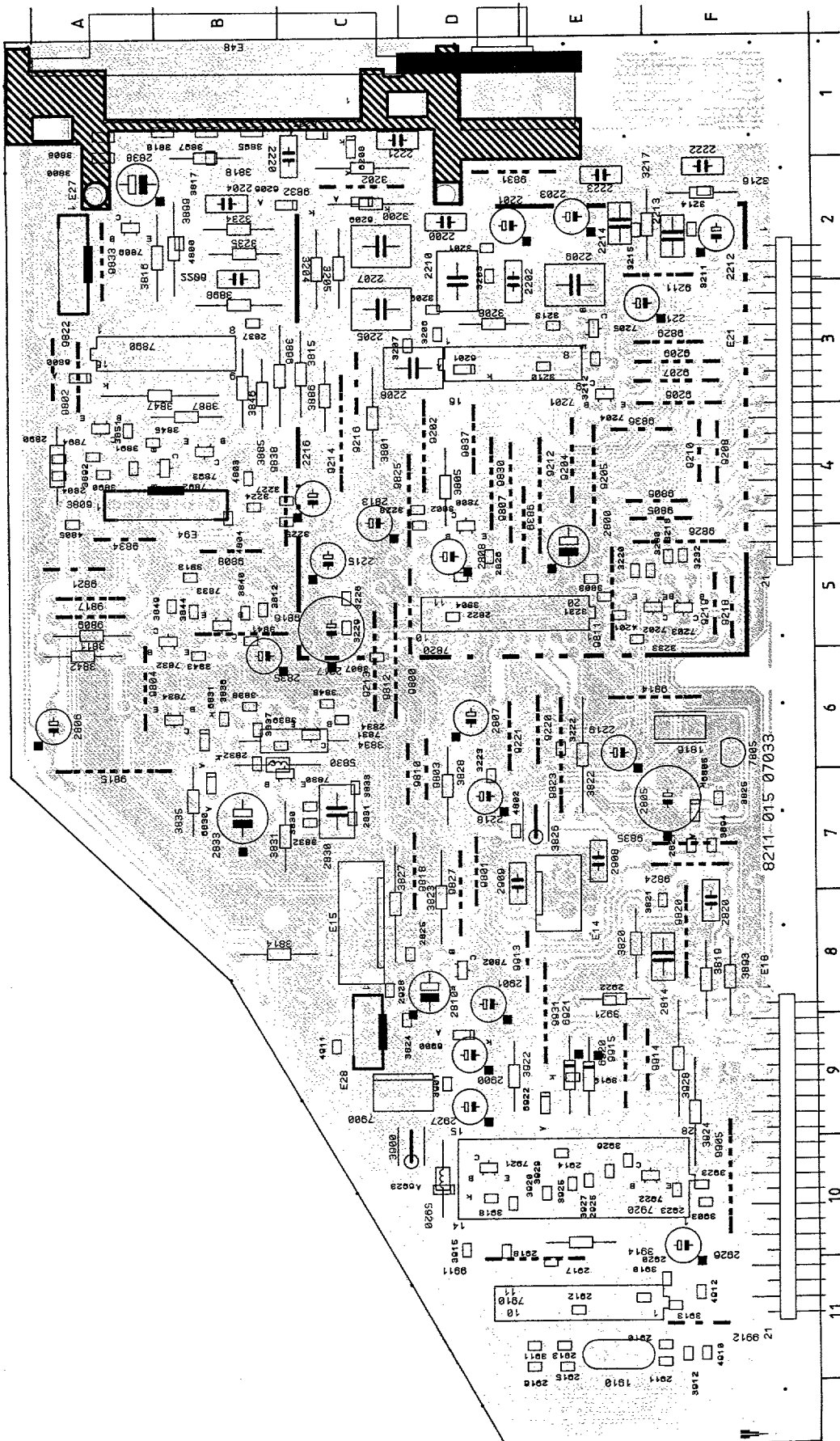


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2361	C2	3375	B3	3580	D1	C69 C2
2391	E5	3376	B3	4301	C1	C80 C5
2392	E4	3382	E1	4303	A1	C81 A6
2393	C1	3383	F5	5401	E6	C82 B5
2398	E1	3384	F5	6301	C4	
2411	E3	3385	E4	6302	E4	
2412	D2	3391	E5	6303	E5	
2421	E2	3392	C1	6331	D4	
2431	E4	3395	D1	6345	C1	
2432	E4	3396	D3	6361	B4	
2433	B6	3397	D3	6382	D1	
2434	B5	3398	E1	6383	E1	
2520	B1	3411	F2	6411	E3	
2521	A5	3412	E3	6421	C1	
2522	A2	3413	E2	6422	E2	
2523	A3	3414	E2	6423	E3	
2526	A6	3415	E2	6518	B1	
2531	A3	3421	F2	6519	B1	
2532	A4	3424	E1	6520	A4	
2533	A2	3431	E5	7302	D3	
2534	A5	3432	B2	7303	D2	
3301	C2	3433	E6	7304	D4	
3302	C2	3434	B6	7305	D4	
3303	C2	3435	B6	7331	E2	
3304	C3	3436	B6	7333	D2	
3305	B5	3442	B2	7334	E4	
3306	E4	3443	C2	7335	E3	
3309	D2	3446	E4	7345	C1	
3310	C3	3447	E1	7361	B2	
3311	C3	3448	E1	7363	B2	
3312	C4	3449	F1	7364	B4	
3313	C3	3455	C1	7365	B3	
3314	D6	3456	C1	7383	F1	
3315	C3	3457	E1	7391	E1	
3316	C3	3512	B1	7402	D1	
3331	D2	3518	B1	7411	E2	
3332	D2	3520	A2	7530	A4	
3333	D2	3521	B1	7533	A5	
3334	D2	3522	A1	7534	A5	
3338	E2	3524	A1	7536	C1	
3340	D3	3525	A1	7537	A3	
3341	D3	3526	B5	7538	D1	
3342	D4	3527	A5	9301	B4	
3343	E3	3528	A5	9302	B4	
3344	D5	3529	A4	9303	D4	
3345	C1	3530	A2	9304	B3	
3361	C1	3531	A4	9305	D2	
3362	C2	3532	A4	9306	E2	
3363	E1	3533	A5	9307	C2	
3364	E1	3534	A3	9308	D2	
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3370	B3	3571	D1	9520	A1	
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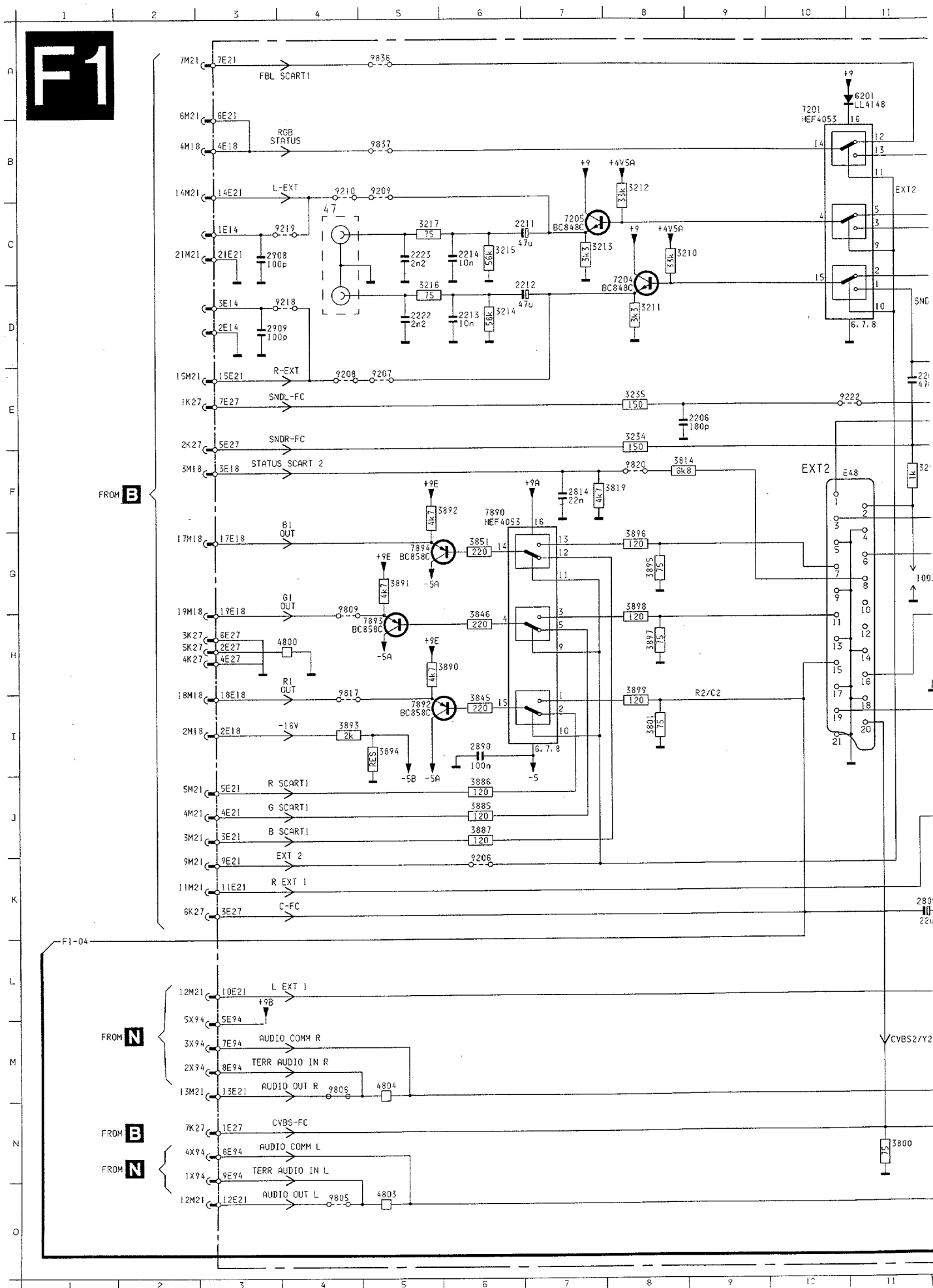
1060 SEPARATE CONTROL MODULE



1003 TELETXT MODULE 4/3



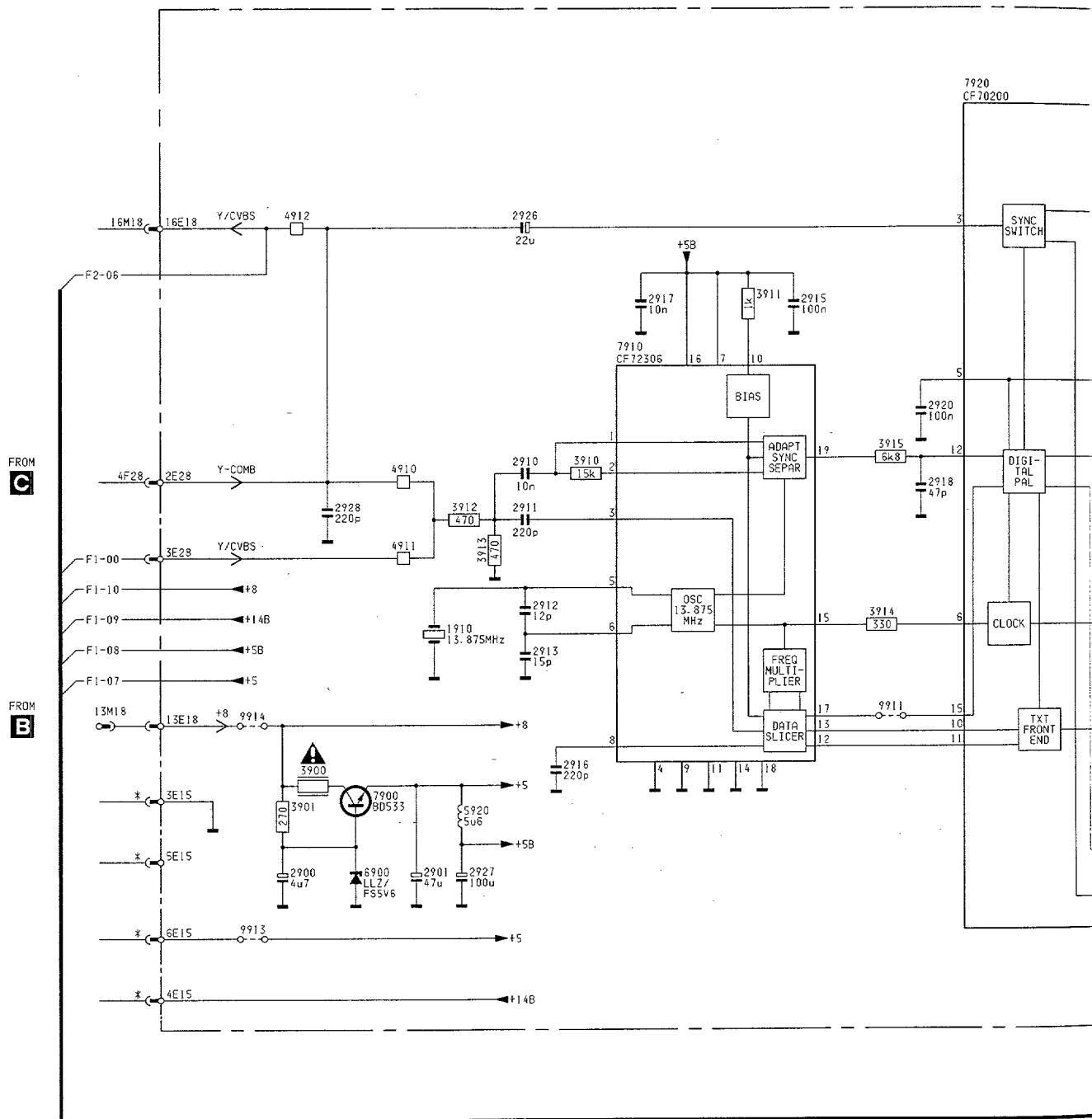
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1001 C1	2210 D2	2904 A4	2833 B7	2915 E11	3204 C2	3220 F5	3300 A1	3816 B2	3832 C7	3847 B3	3898 B3	4911 C9	6921 E9	7832 B5	9206 F3	9801 D7	9817 A5	9834 F7	E16 G10
1002 C1	2211 F3	2905 F7	2834 C6	2916 E11	3205 C2	3222 E6	3301 C3	3817 B1	3833 C6	3848 C6	3899 B2	4912 F11	6922 E9	7833 B5	9207 F3	9802 A3	9818 D7	9835 F4	E17 A2
1003 C1	2212 F2	2907 D6	2835 C5	2917 E10	3206 D3	3223 D6	3302 D4	3818 B1	3834 C6	3849 B5	3900 D9	4913 F11	6923 D10	7834 B6	9208 F4	9803 D6	9819 F7	9836 F4	E18 C8
1816 F6	2213 F2	2908 D5	2837 C3	2918 E10	3207 D3	3224 C4	3303 E5	3819 B8	3835 B7	3851 B4	3901 D9	4914 F11	6924 F5	7835 B3	9209 F3	9804 B6	9820 F8	9837 A3	E19 C1
1910 E11	2214 F2	2910 D8	2838 B2	2920 F11	3208 E3	3225 C4	3304 D5	3820 F8	3836 B6	3852 B3	3902 D9	4915 F11	6925 F5	7836 B4	9210 F2	9805 F4	9821 A3	9838 C4	E20 B4
2200 D2	2215 C5	2813 D4	2890 A4	2922 E8	3209 D3	3226 C5	3305 D4	3821 F7	3837 B6	3853 C3	3903 F10	4916 F11	6926 F5	7837 B3	9211 F2	9806 F4	9822 A5	9839 E4	
2201 E2	2216 C4	2814 F8	2890 D9	2923 F10	3210 E3	3227 C6	3306 D4	3822 E6	3838 B6	3854 C3	3904 F11	4917 F11	6927 F5	7838 B4	9212 F3	9807 F4	9823 A5	9840 E4	
2202 E2	2217 C5	2821 F7	2901 D8	2924 F10	3211 F2	3228 C4	3307 A4	3823 D7	3839 C6	3855 C3	3905 F11	4918 F11	6928 F5	7839 B3	9213 C3	9808 F5	9824 A5	9841 E4	
2203 E2	2218 D7	2822 D5	2902 F7	2925 E10	3212 E3	3229 C5	3308 A4	3824 D8	3840 B5	3856 C3	3906 F11	4919 F11	6929 F5	7840 B4	9214 C3	9809 A5	9825 A5	9842 E4	
2204 B2	2219 F6	2825 D8	2903 F7	2926 F10	3213 E3	3230 F5	3309 A4	3825 F7	3841 C5	3857 C3	3907 F11	4920 F11	6930 F5	7841 B3	9215 C3	9810 A4	9826 A5	9843 E4	
2205 D3	2220 C1	2826 D8	2904 F11	2927 D9	3214 F2	3231 E5	3310 B1	3826 E7	3842 A5	3858 C3	3908 F11	4921 F11	6931 F5	7842 B3	9216 C3	9811 A5	9827 A5	9844 E4	
2206 B2	2221 D1	2827 D8	2905 F11	2928 D8	3215 F2	3232 F5	3311 A5	3827 D7	3843 B5	3859 C3	3909 F11	4922 F11	6932 F5	7843 B3	9217 C3	9812 A5	9828 A5	9845 E4	
2207 D2	2222 F1	2830 C7	2906 F7	2929 D8	3216 F2	3233 F5	3312 B5	3828 D6	3844 B5	3860 C3	3910 F11	4923 F11	6933 F5	7844 B3	9218 C3	9813 A5	9829 A5	9846 E4	
2208 D3	2223 E1	2831 C7	2907 F7	2930 D8	3217 F2	3234 B2	3313 C8	3829 C7	3845 B4	3861 C3	3911 F11	4924 F11	6934 F5	7845 B3	9219 C3	9814 A5	9830 A5	9847 E4	



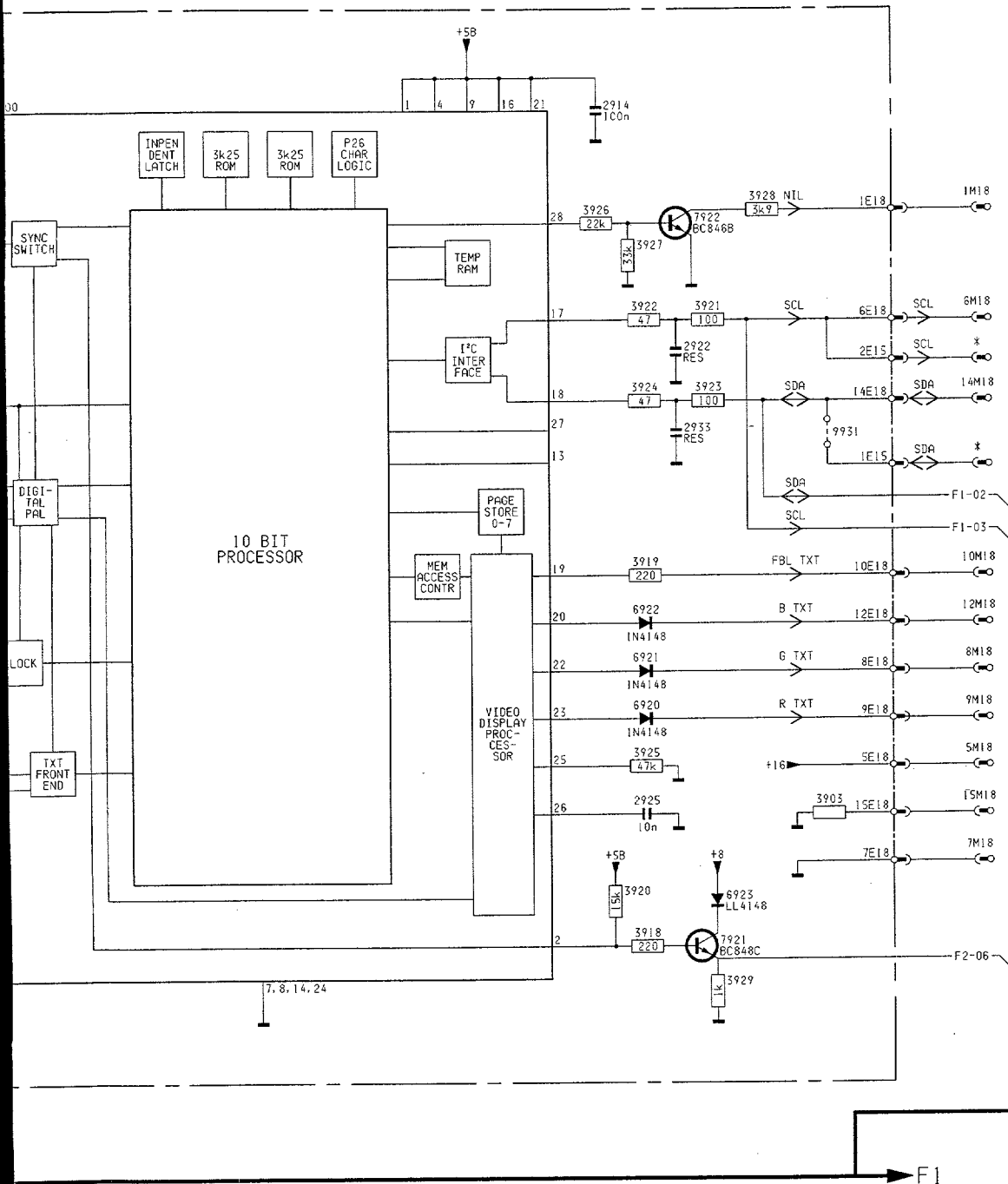
Teletext

F2

* RESERV



* RESERVED FOR DOLBY

F2TO
BTO
B**CHASSIS GR2.4**CL46532061/012.FPAR
121094

1910 H 5
2900 K 3
2901 K 5
2910 G 8
2911 G 6
2912 H 6
2913 H 6
2914 C16
2915 E 8
2916 J 6
2917 E 7
2918 G 9
2920 F 9
2922 E17
2925 J17
2926 D 6
2927 K 5
2928 G 3
2933 F17
3900 J 4
3901 J 3
3903 J18
3910 G 6
3911 E 8
3912 G 5
3913 G 5
3914 H 9
3915 F 9
3918 K17
3919 G17
3920 J16
3921 E17
3922 E17
3923 F17
3924 F17
3925 I17
3926 D16
3927 D16
3928 D18
3929 K17
4910 G 4
4911 G 4
4912 D 3
5920 J 5
6900 K 4
6920 I17
6921 H17
6922 H17
6923 J17
7900 J 4
7920 C10
7921 C10
7922 D17
9911 I 9
9913 K 3
9914 I 3
9931 F18

Teletext

The TXT-decoder is integrated in the Euro-module.

The TXT-decoder can process the following systems:

- World Teletext System (WST)
- BBC system: FLOF (full level one feature)
- German system: TOP (table of Pages).

The TXT-decoder has a memory of 8 pages with the objective to decrease the waiting time.

The content of the memory depends on the system.

- * WST with pages without sub-codes: page -1, +1, +2, +3, +4, page last received, table of contents + page displayed.
- * WST with pages with sub-codes: page -1, +1, +2, next sub-page, next +1 sub-page, page last received + table of contents.
- * FLOF: 4 pages linked to the coloured buttons (red, green, yellow, blue) page -1, page last displayed and table of contents.
- * TOP: basic Top table, page +1, 1 or 2 subsequent group, 2 or 3 subsequent blocks, or page +1, +2.

The 'Page Look Up Table' (PLUT) is built up immediately in the 3 systems after switch-on.

The Plut ensures that only the transmitted pages are stored in the memory.

The TXT circuit consists of 2 ICs:

- IC 7910: Teletext Data Slicer: CF 72306.
- IC 7920: Universal Teletext Decoder: 'Eurotext': CF 70200.

The Teletext Data Slicer: CF 72306

The CF 72306 IC sees to:

- Sync. separation
- Teletext data processing
- Data clock regeneration
- Transfer of clock, data and composite sync. signals to the digital IC teletext decoder.

The sync. separator slicing level is adjustable, so that it can process a whole series of video amplitudes and disturbed signals.

The data slicer uses an adjustable signal recognition and clock phase algorithm, so that it can work in a broad area of clock run-in amplitudes.

- The IC has 3 video inputs (pins 1, 2, 3). Pins 1, 2 are used for sync. processing and pin 3 is used for taking TXT information from the video.
Resistor 3910 forms LPF (Low Pass Filter) with capacity in the IC for the removal of the high frequencies at the sync. level.
Resistors R 3912, R 3913 are adaptations of the level from 2V to 1V pp.

The TXT clock of 6.937MHz is conducted from the 13.875MHz oscillator frequency. The black level is stocked on pin 8 (C REF) via C 2916.

The frequency is raised to 69MHz via a 'Frequency multiplier', to enable the processing of all signals in the IC.

The 'OSCOUT' (pin 15) transfers the 13.876 MHz to the TXT-decoder.

R 3914 is present in order to avoid irradiation in the MF part. During the VBi the data slicer is activated via 'WIND', so that the TXT data can come out on pin 13.

The sync. signal (pin 19) is sent to pin 12 TXT decoder via LDF filter (R 3915, C 2918).

Universal Teletext decoder 'Eurotext': CF 70200

Digital IC for the benefit of decoding the world standard systems:

- 8 pages of memory
- automatic detection of WST, FLOF, or TOP
- Packet 26 flicker-free character processing.

The TDATA, T.CIK and composite sync. of the data slicer are offered to inputs 10, 11 and 12.

The IC is connected to the I²C line via 16 (data) and 17 (clock).

Via Flag 2 (28) the NIL signal is offered to prevent the text from flickering on the screen.

The Reset is effected via C 2920 on pin 5.

Via diodes 6920, 6921, 6922 the RGB outputs are transmitted to the TDA 4780 together with the blanking signal (pin 19).

The diodes prevent 'blooming' of the text, as well as the level of the OSD being pulled down.

The amplitude of the output signals is determined by C 2925 (REF) and R 3925 (RGB set).

Pin 2 (sync. out of CSB) is the output of the internal switch, which transmits either the composite sync. signal of the internal sync. generator or the video input inlet when picture information is shown (mixed mode - subtitling).

Via the clock in (pin 6) 13.876 MHz is received from the data slicer.

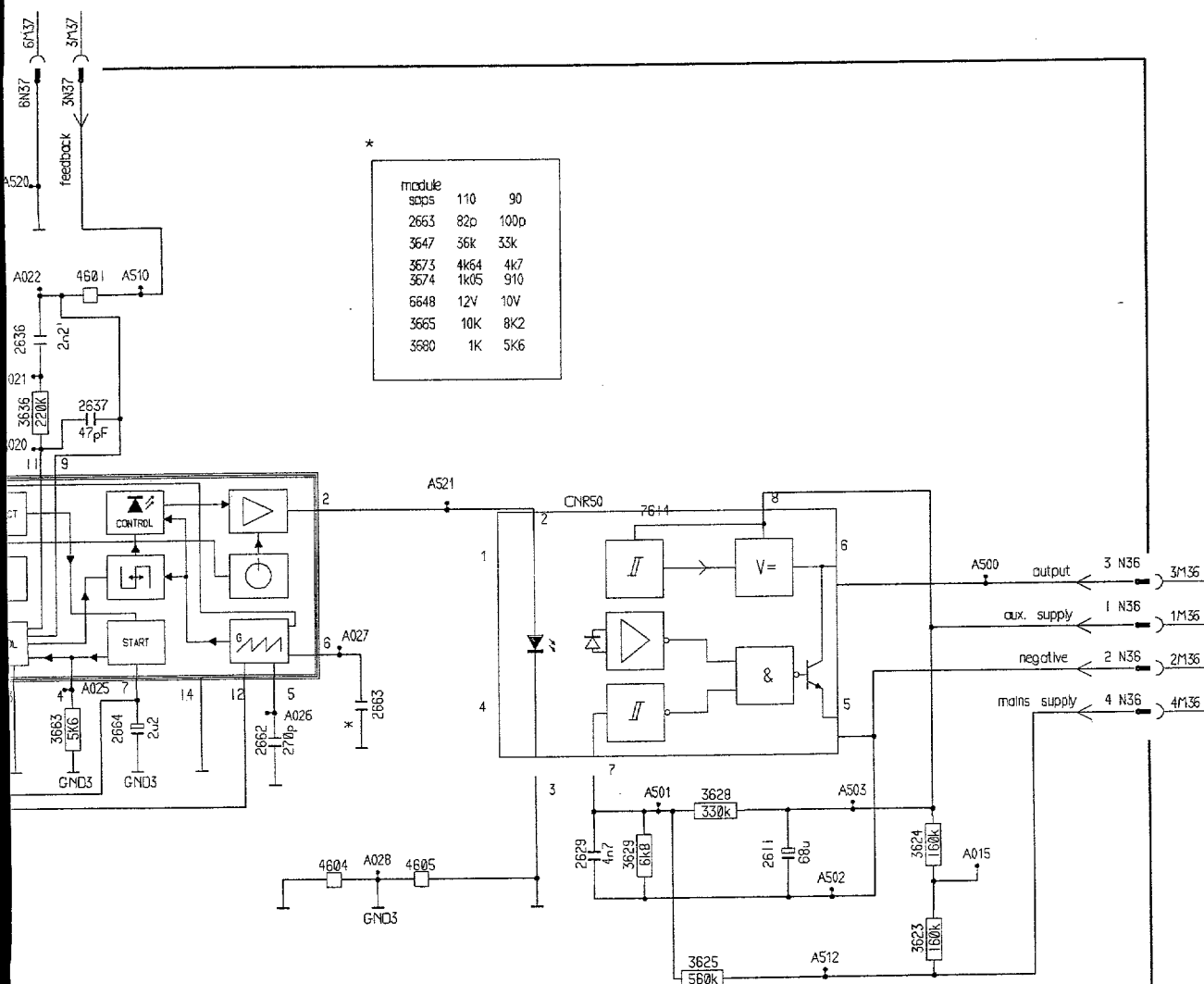
Via PLL the pulses in the TXT-decoder are synchronized to the sync. of the video signal.

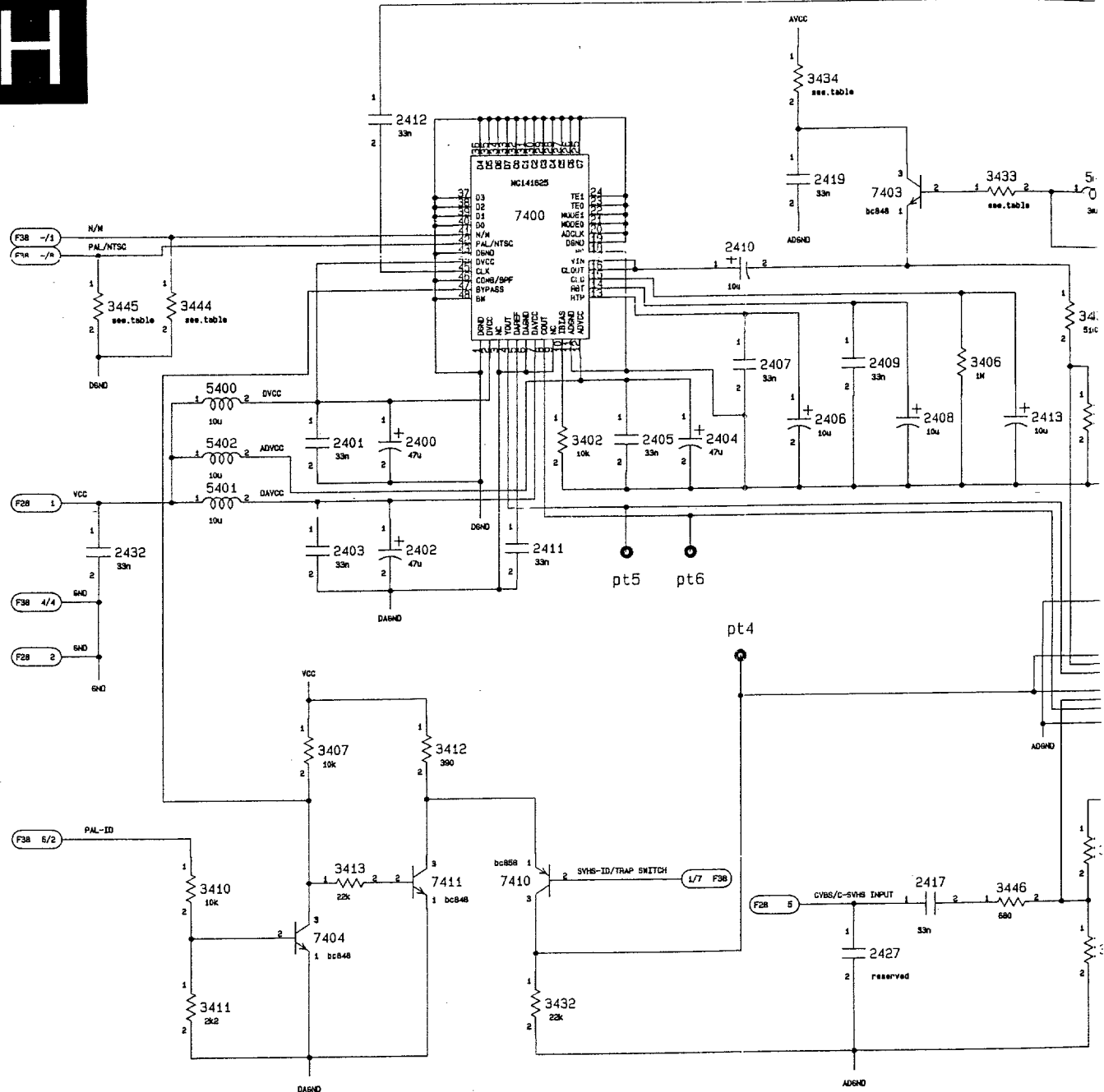
Character generator is available in the IC.

The internal ROM controls the decoding and the choice of the display.

In the internal RAM 8 pages can be stored.

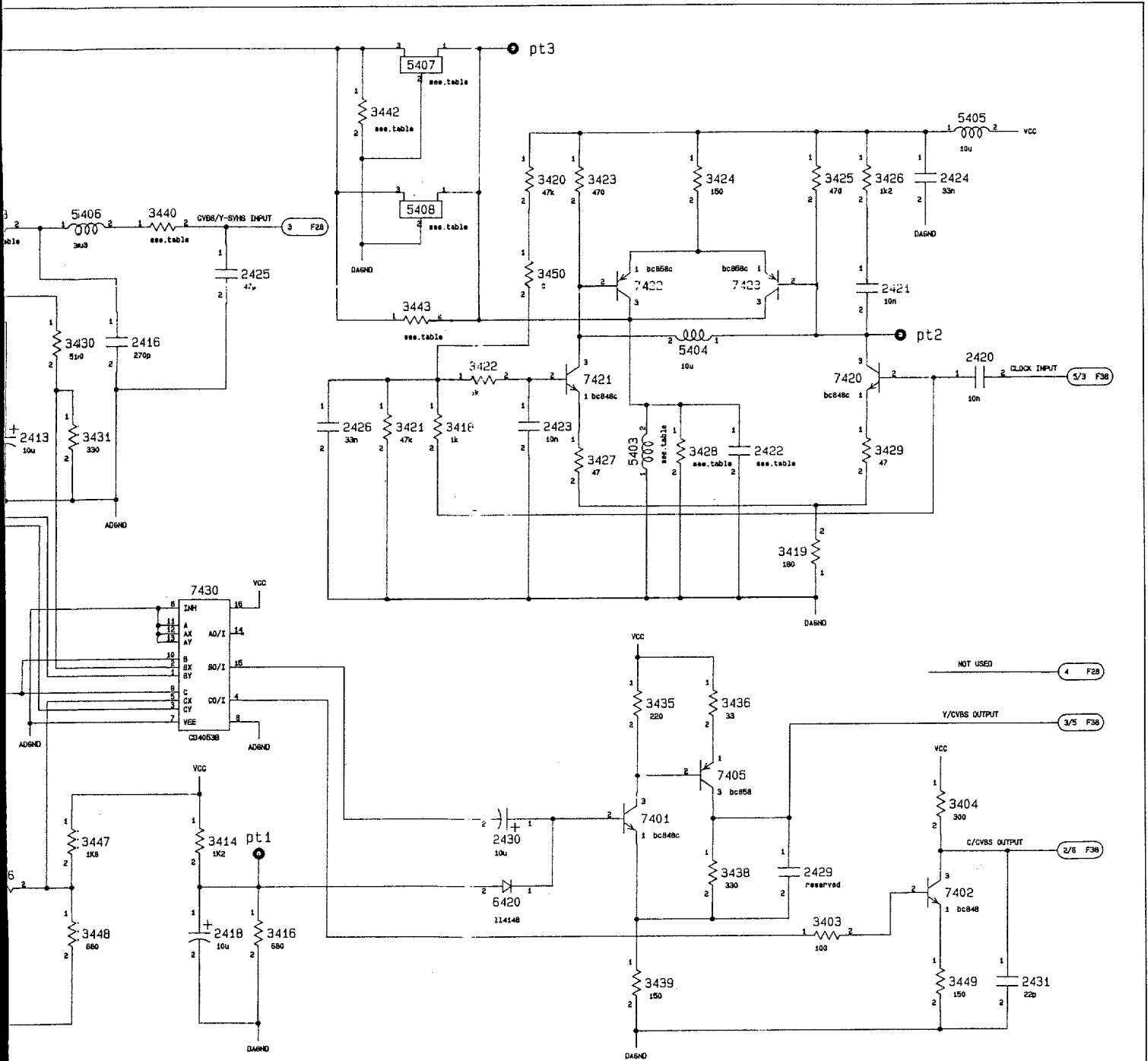
7661	H 4	A001	D 4	A006	E 5	A011	H 4	A020	F 8	A025	F 9	A501	G13	A506	F 4	A511	E 7	A516	C 8	A521	E11	N23	E 2	N36	F16	N37	B 7
7663	I 4	A002	D 4	A007	F 5	A012	H 4	A021	D 8	A026	F10	A502	H14	A507	D 3	A512	H14	A517	E 6	N23	D 2	N23	D 2	N37	B 8		
7671	D 6	A003	D 5	A008	G 4	A013	H 4	A022	C 8	A027	F11	A503	G14	A508	C 5	A513	F 6	A518	I10	N23	D 2	N36	F16	N37	B 8		
9600	D 6	A004	D 6	A009	H 3	A014	I 5	A023	D 7	A028	G11	A504	C 7	A509	C 5	A514	I 3	A519	I10	N23	C 2	N36	F16	N37	B 8		
9601	D 6	A005	D 6	A010	H 3	A015	G15	A024	F 8	A500	E15	A505	E 5	A510	C 9	A515	C 6	A520	C 9	N23	D 2	N36	F16	N37	B 8		
		9		10		11		12		13		14		15		16		17									





COMPONENTS

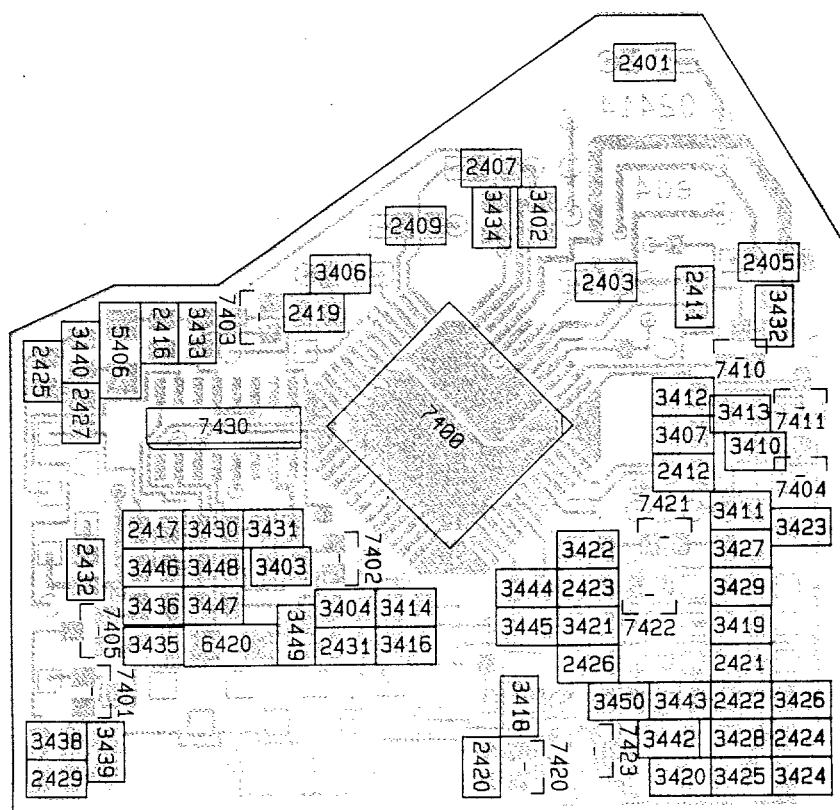
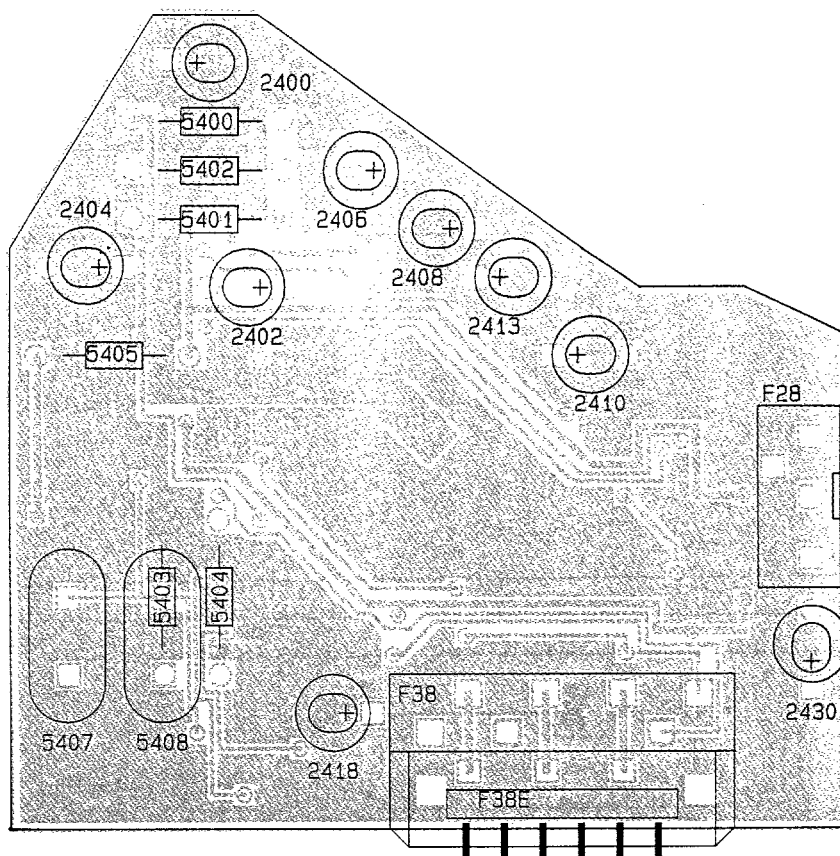
	2422	3428	5403	3443	3442	5407	5408	3444	3445	3440	3433	3434	sta
STANDARD VERSION :	100p	820	0.68u	0	-	-	-	0	0	100	220	220	
OVERSEAS VERSION :	-	240	-	-	-	SFE14-3	SFE17-7	-	-	120	47	0	



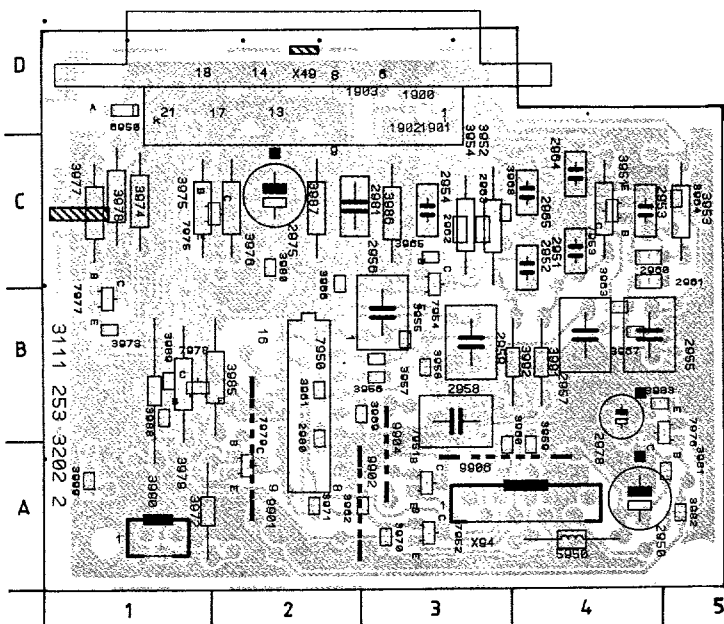
CONNECTOR F38 12 NC NUMBER

standar ver / overseas ver
- 6 5 4 3 2 1 -
1 2 3 4 5 6 7 8

3111 258 02050
3111 258 00250



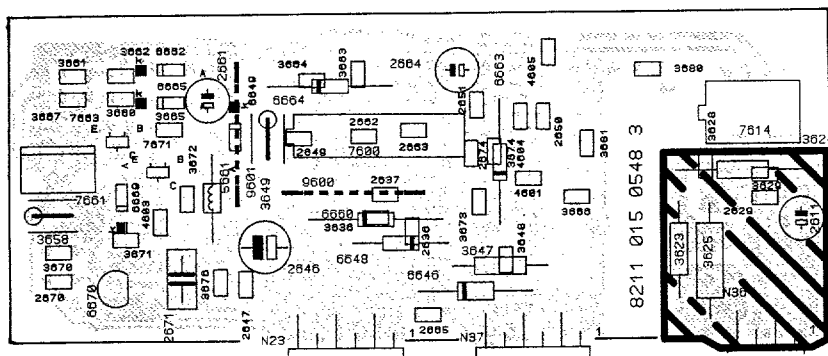
Third scart module 1006



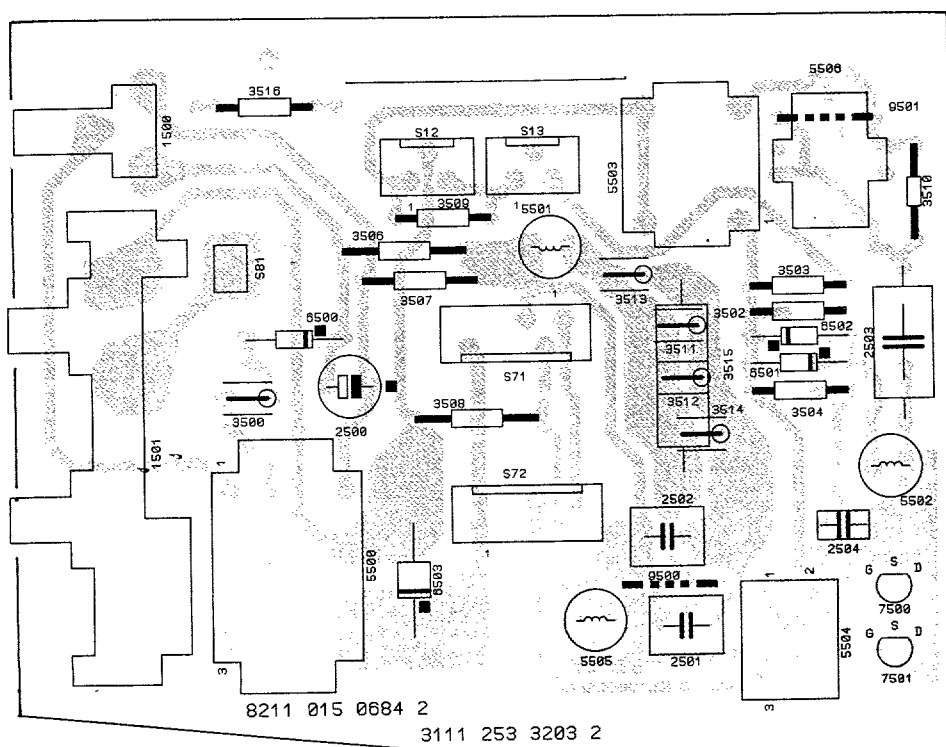
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1901 D3	3963 B4	7954 C3
1902 D3	3964 C5	7975 C2
1903 D3	3965 C3	7976 B5
2950 A4	3966 C2	7977 B1
2951 C4	3967 B4	7978 B2
2952 C4	3968 C4	7979 A2
2953 C5	3969 B3	9901 B2
2954 C3	3970 A3	9902 A3
2955 B5	3971 A2	9904 A3
2956 B3	3972 A2	9906 A4
2957 B4	3973 B1	X31 A1
2958 B3	3974 C1	X49 D3
2959 B3	3975 C2	X94 A4
2960 C5	3976 C2	
2961 C5	3977 C1	
2962 C3	3978 C1	
2963 C3	3979 B1	
2964 C4	3980 C2	
2965 C4	3981 A5	
2975 C2	3982 A5	
2978 B4	3983 B5	
2980 B2	3985 B2	
2981 C3	3986 C3	
3951 C4	3987 C2	
3952 C3	3988 B1	
3953 C5	3989 B1	
3954 C3	3990 B1	
3955 B3	3991 B4	
3956 B3	3992 B4	
3957 B3	5850 A4	
3958 B3	6950 D1	
3959 B4	7950 B2	
3960 B4	7951 A3	
3961 B2	7952 A3	

Sops controle module/Scanning module

SOPS CONTROLE MODULE 1007

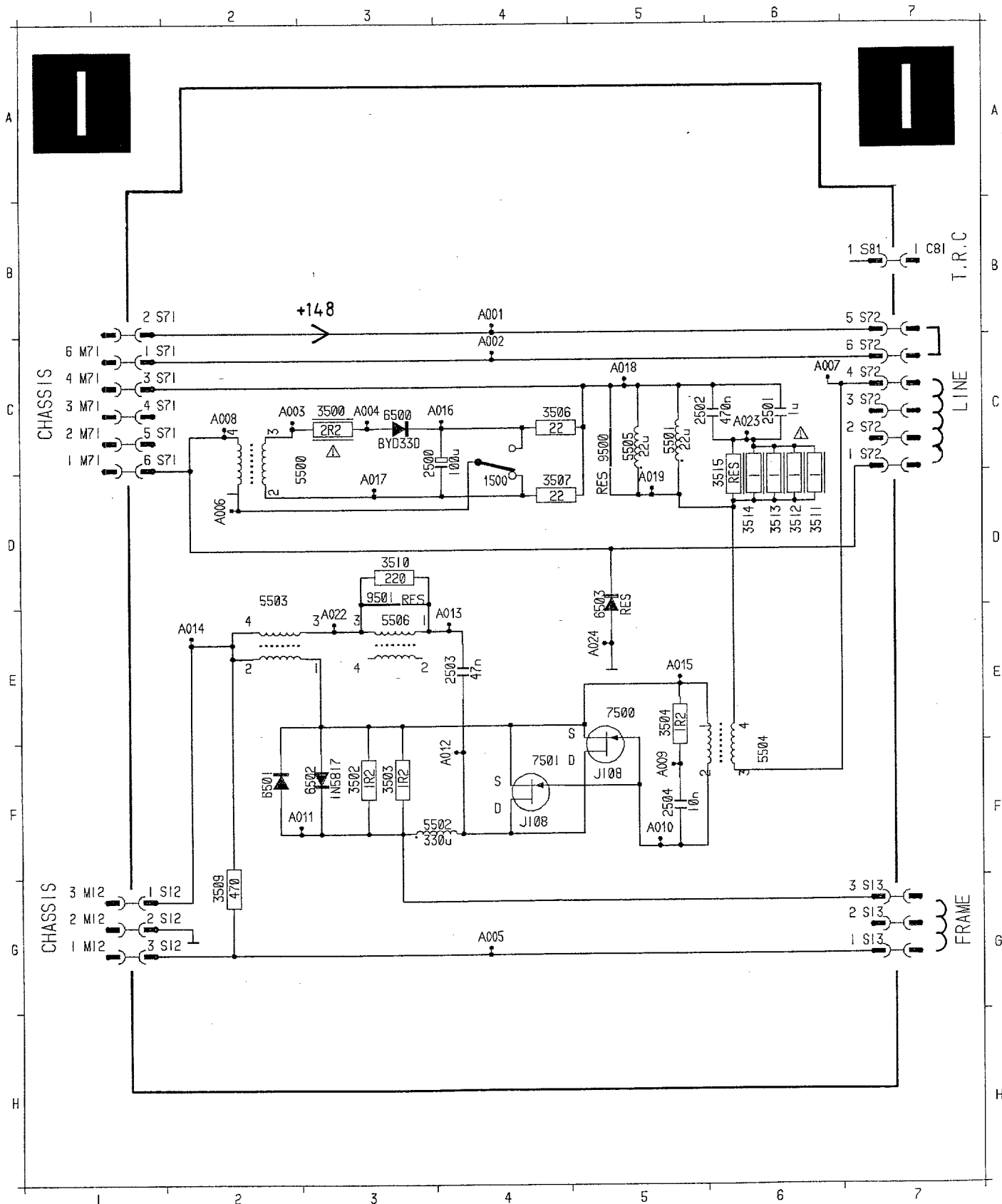


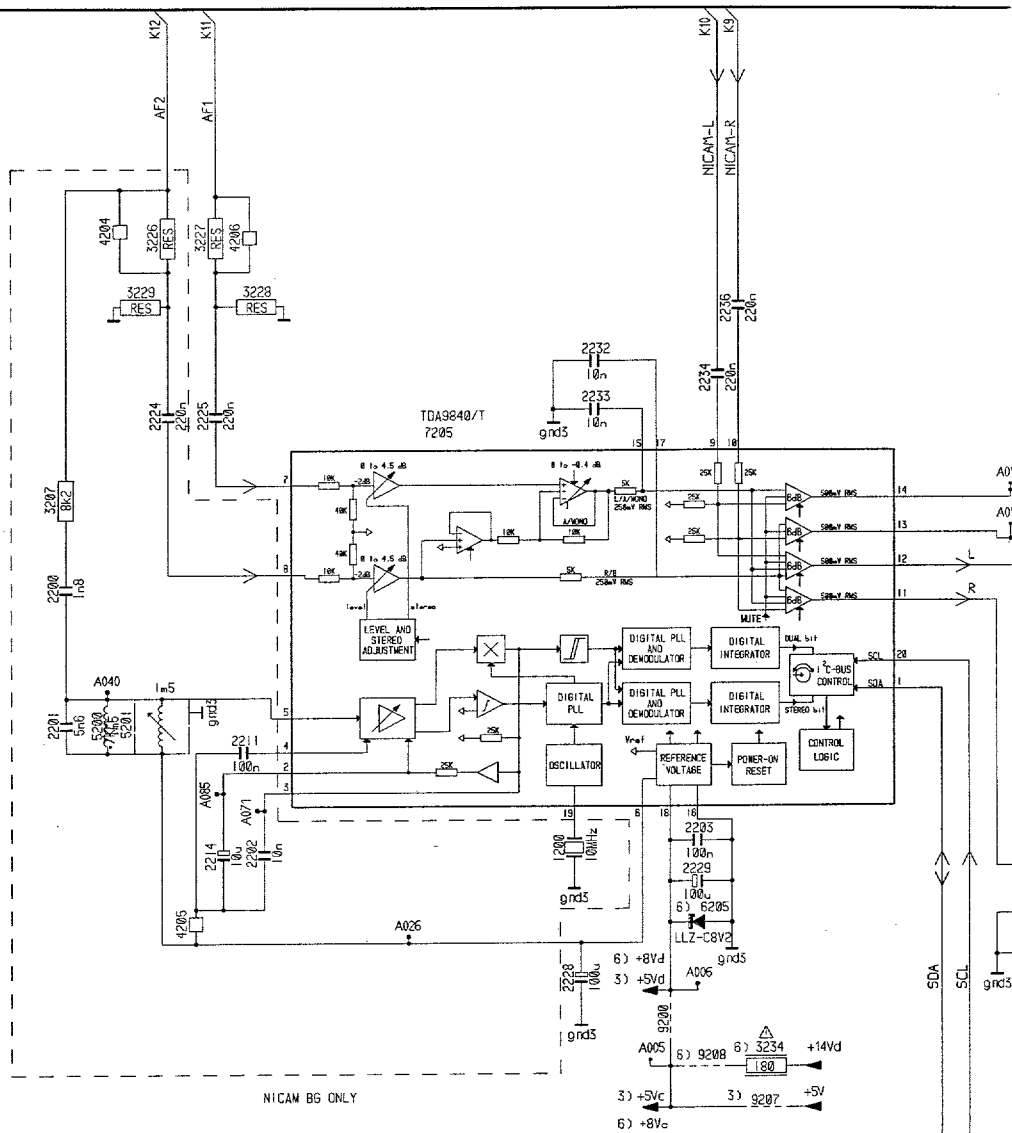
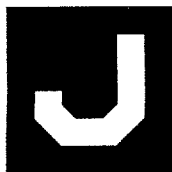
SCANNING MODULE 1009

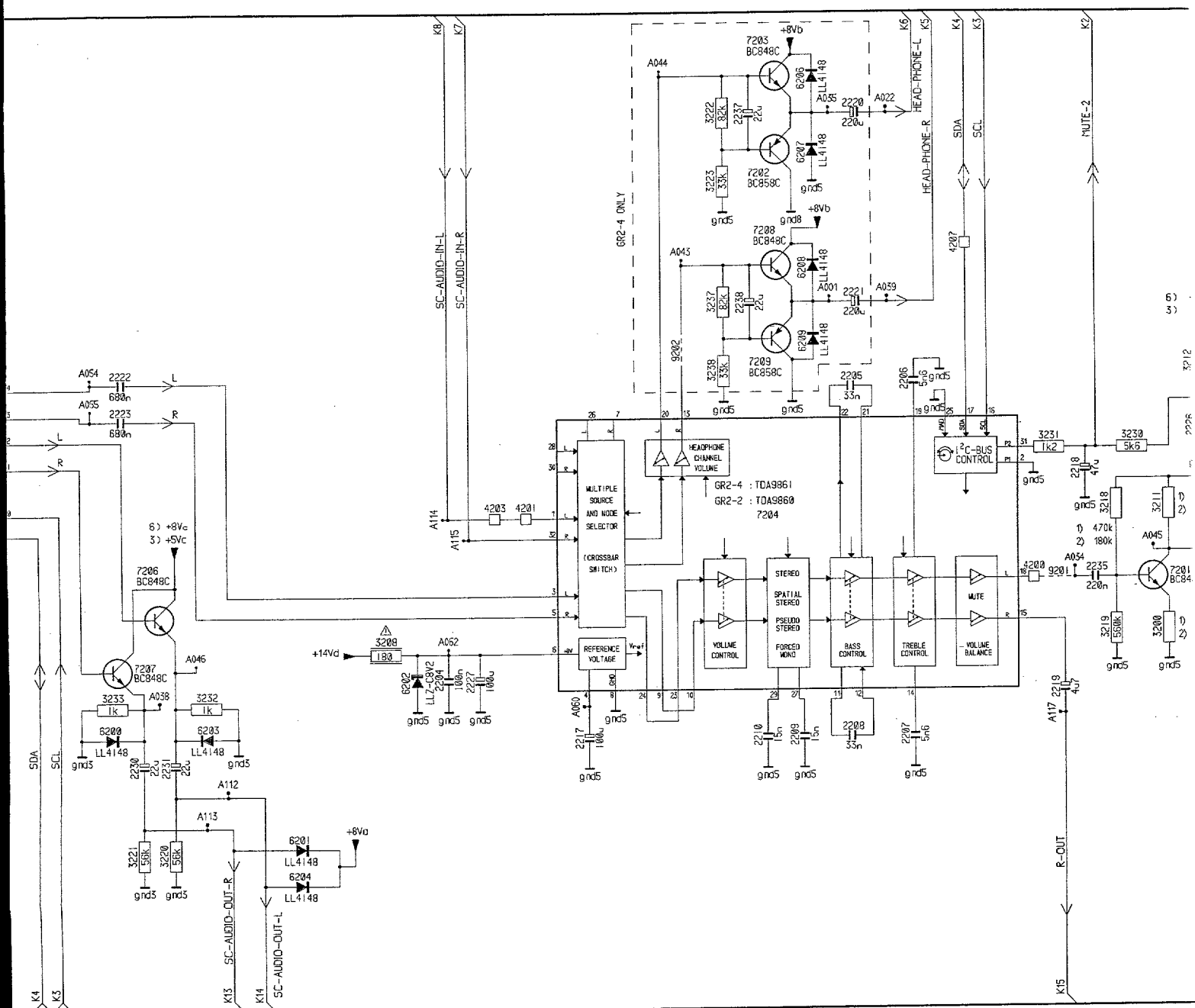


Scanning module

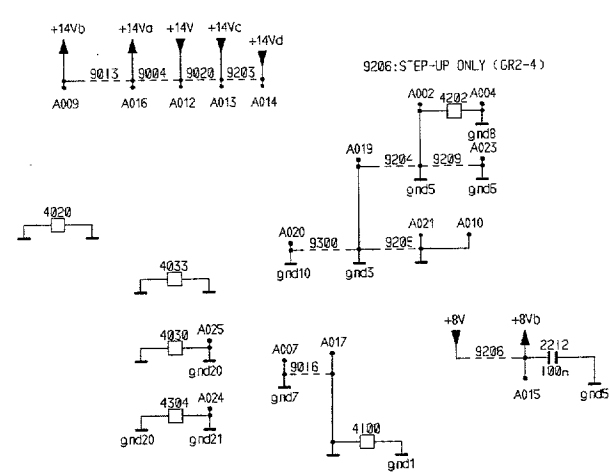
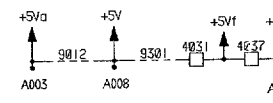
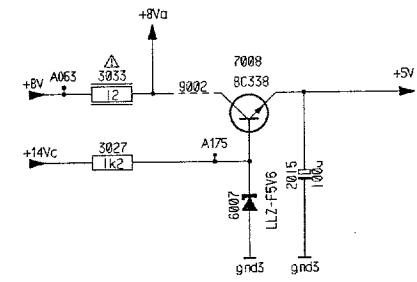
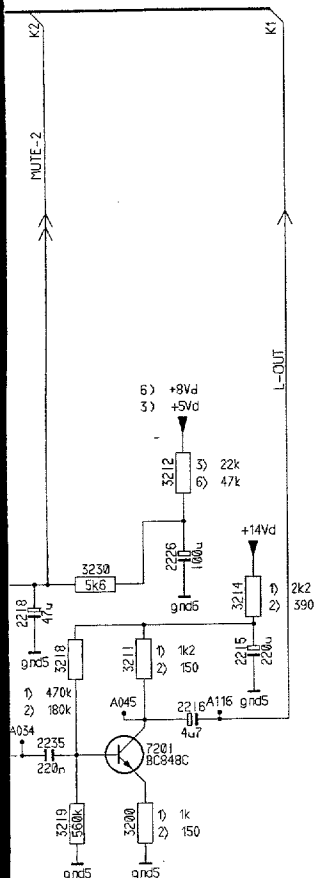
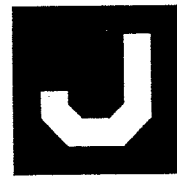
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1501	A 4	3504	E 5	3514	D 6	5506	C 5	A001	B 4	A010	F 5	A019	D 5	S11	G 2	S71	C 2		
2500	C 3	3506	C 4	3515	D 6	6500	C 3	A002	C 4	A011	F 2	A020	B 3	S12	G 2	S71	C 2		
2501	C 6	3507	D 4	3516	D 6	6501	C 3	A003	C 2	A012	F 4	A021	B 3	S13	G 2	S72	C 2		
2502	C 5	3508	B 3	3500	C 3	6502	C 3	A004	C 3	A013	F 4	A022	F 3	S13	G 2	S72	C 2		
2503	C 4	3509	D 2	3501	C 3	6503	C 3	A005	C 4	A014	F 2	A023	C 6	S13	G 2	S72	C 2		
2504	C 5	3510	D 3	3502	C 4	7500	C 4	A006	D 2	A015	F 5	A024	F 5	S71	C 2	S72	C 2		
3500	F 3	3511	D 6	3503	D 2	7501	C 4	A007	C 6	A016	C 4	A025	F 5	S71	C 2	S72	C 2		
3502	F 3	3512	D 6	5504	D 6	9500	C 5	A008	C 2	A017	D 3	A026	G 3	S71	C 2	S72	C 2		







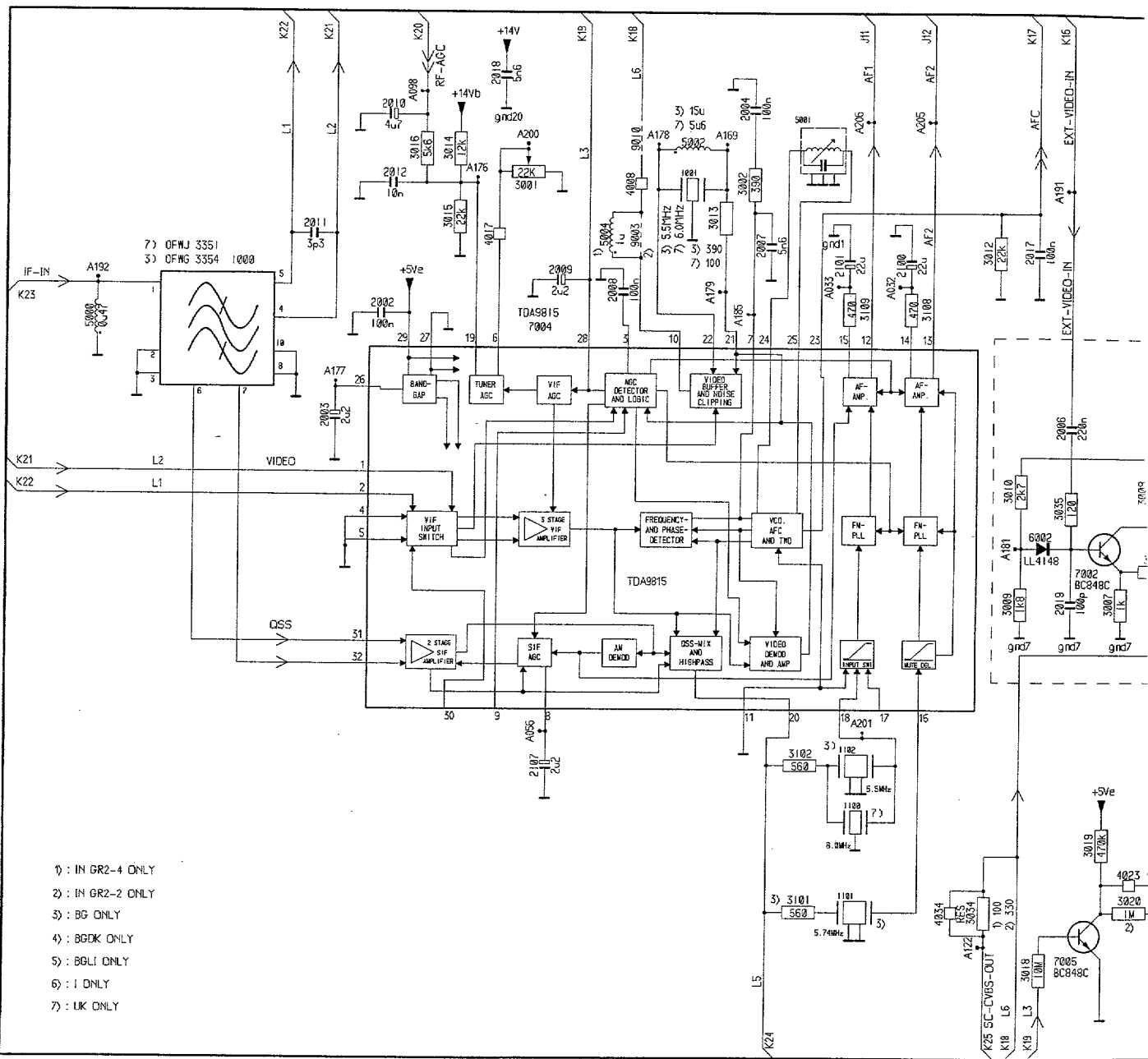
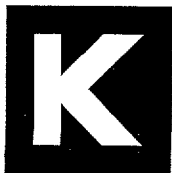
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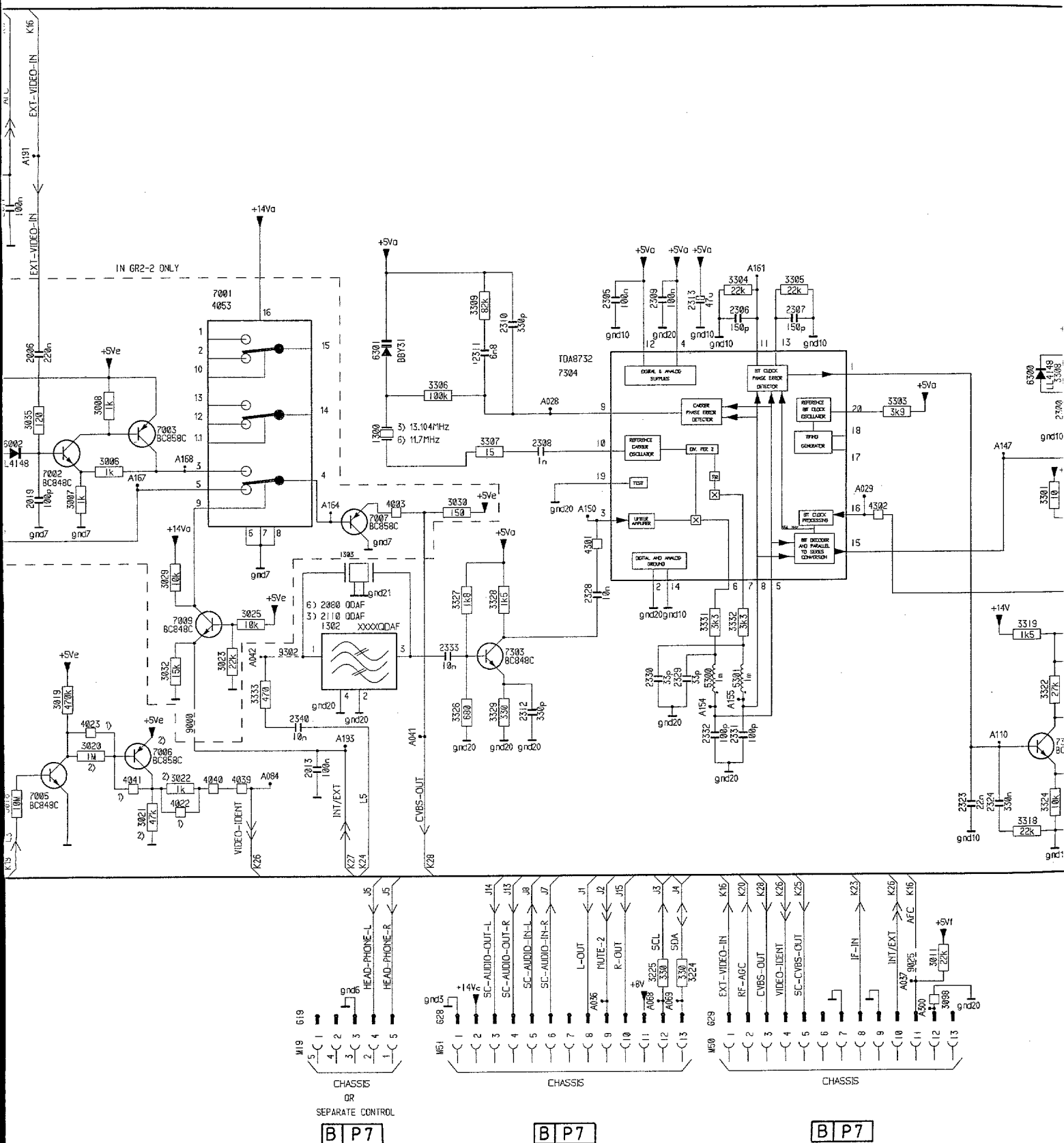


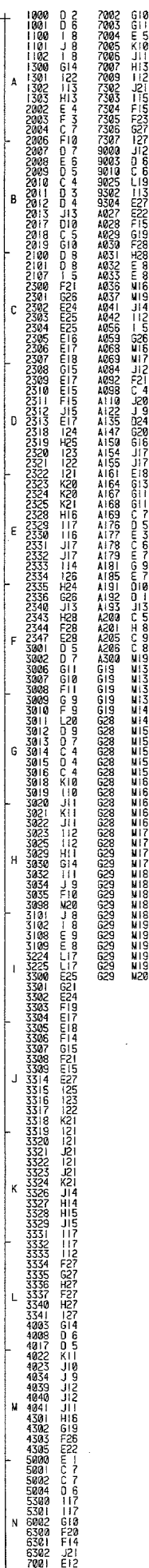
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2015	E26	A044	C16
2200	G 4	A045	H21
2201	H 4	A046	I12
2202	I 5	A047	H 5
2203	I 8	A048	F11
2204	I14	A049	F11
2205	F18	A050	I15
2206	F18	A051	D24
2207	J18	A052	H 5
2208	I18	A053	H 5
2209	J17	A054	J12
2210	J17	A055	J12
2211	H 5	A056	G14
2212	K28	A057	H14
2213	I 5	A058	H14
2214	I 5	A059	I17
2215	G22	A060	I20
2216	H21	A061	E26
2217	J15		
2218	G20		
2219	I20		
2220	D18		
2221	E18		
2222	F11		
2223	F11		
2224	F 4		
2225	F 5		
2226	G21		
2227	I14		
2228	J 7		
2229	I 8		
2230	J11		
2231	J11		
2232	E 8		
2233	E 8		
2234	E 8		
2235	H20		
2236	E 9		
2237	D17		
2238	E17		
3027	E25		
3033	D25		
3200	I21		
3207	F 4		
3208	I11		
3211	G21		
3212	C21		
3218	G20		
3219	I20		
3220	K11		
3221	K11		
3222	D17		
3223	D17		
3226	D 4		
3227	D 5		
3228	E 4		
3229	E 4		
3230	G21		
3231	G20		
3232	I12		
3233	I11		
3234	J 9		
3237	F17		
3238	J24		
4020	K25		
4030	K25		
4031	G26		
4033	J26		
4037	G27		
4100	K26		
4200	H20		
4201	G15		
4202	I27		
4203	G15		
4204	D 4		
4205	I 5		
4206	D 5		
4207	E19		
4304	K25		
5200	H 4		
5201	H 4		
5007	E26		
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7202	D17		
7203	C17		
7204	G17		
7205	F 6		
7206	H11		
7207	I11		
7208	E17		
7209	F17		
9002	E25		
9004	I25		
9012	G25		
9013	I24		
9015	K26		
9016	K26		
9020	I25		
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A004	I27		
A005	J 8		
A006	J 8		
A007	K26		
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A011	H27		
A012	I25		
A013	I25		
A014	I25		
A015	K27		
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A017	K25		
A018	I26		
A019	J26		
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A022	I27		
A023	K25		
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A039	H 4		

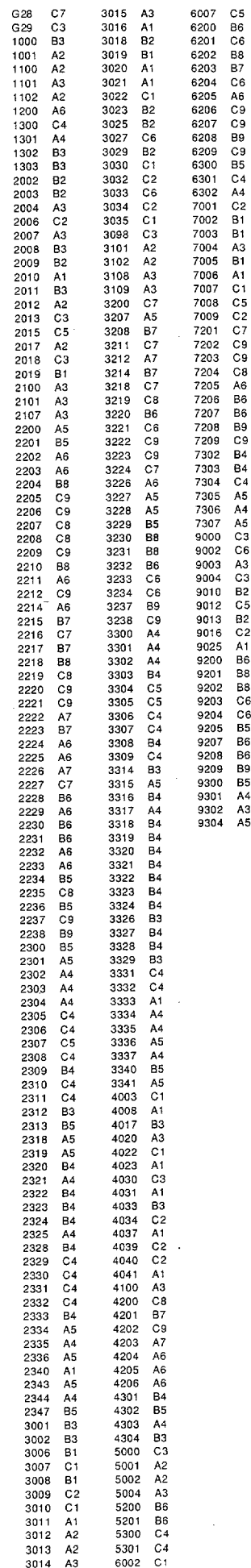
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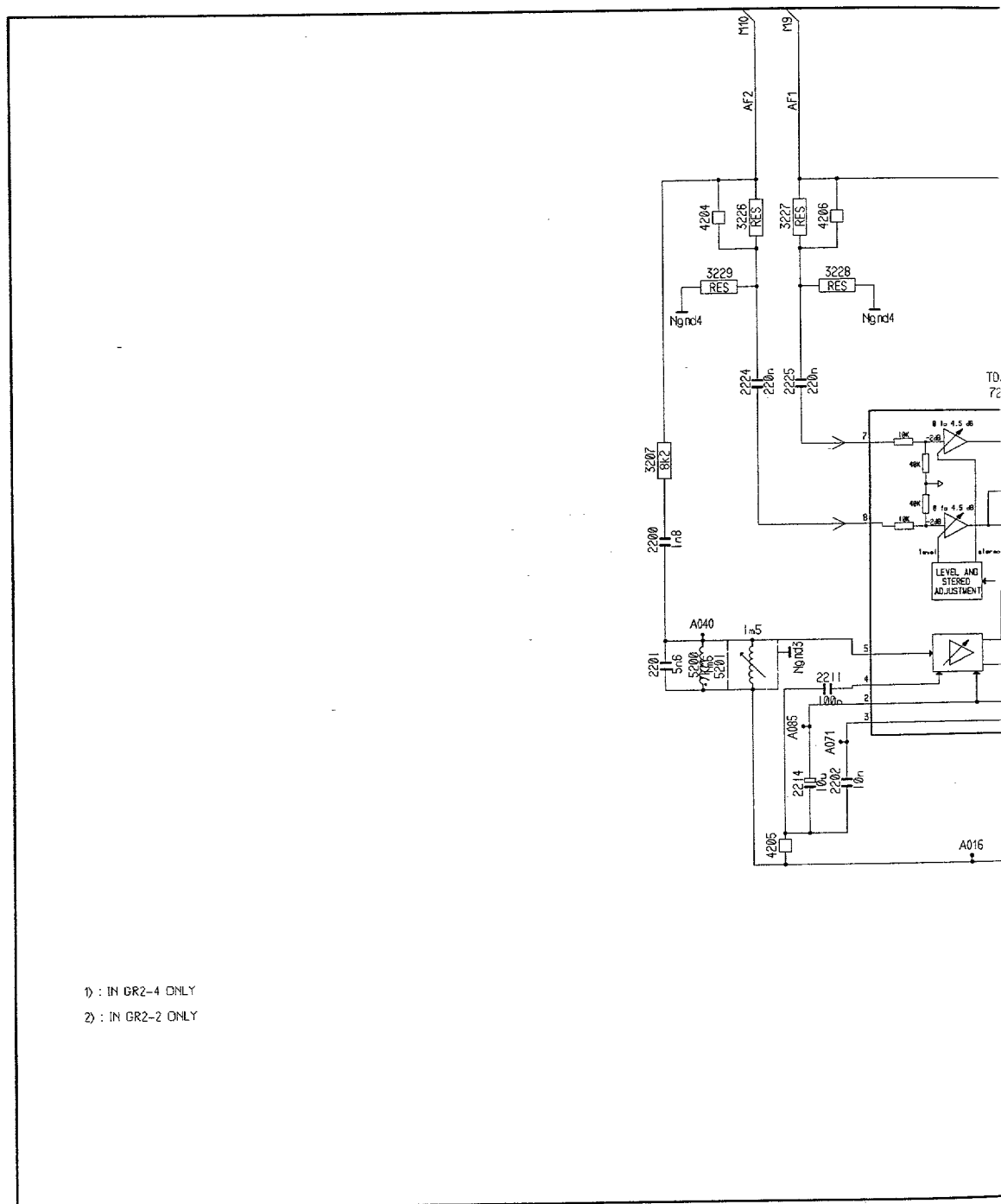
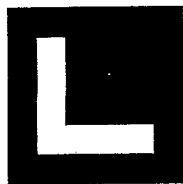
Nicam IF-Sound module/Nicam ZF-Ton module

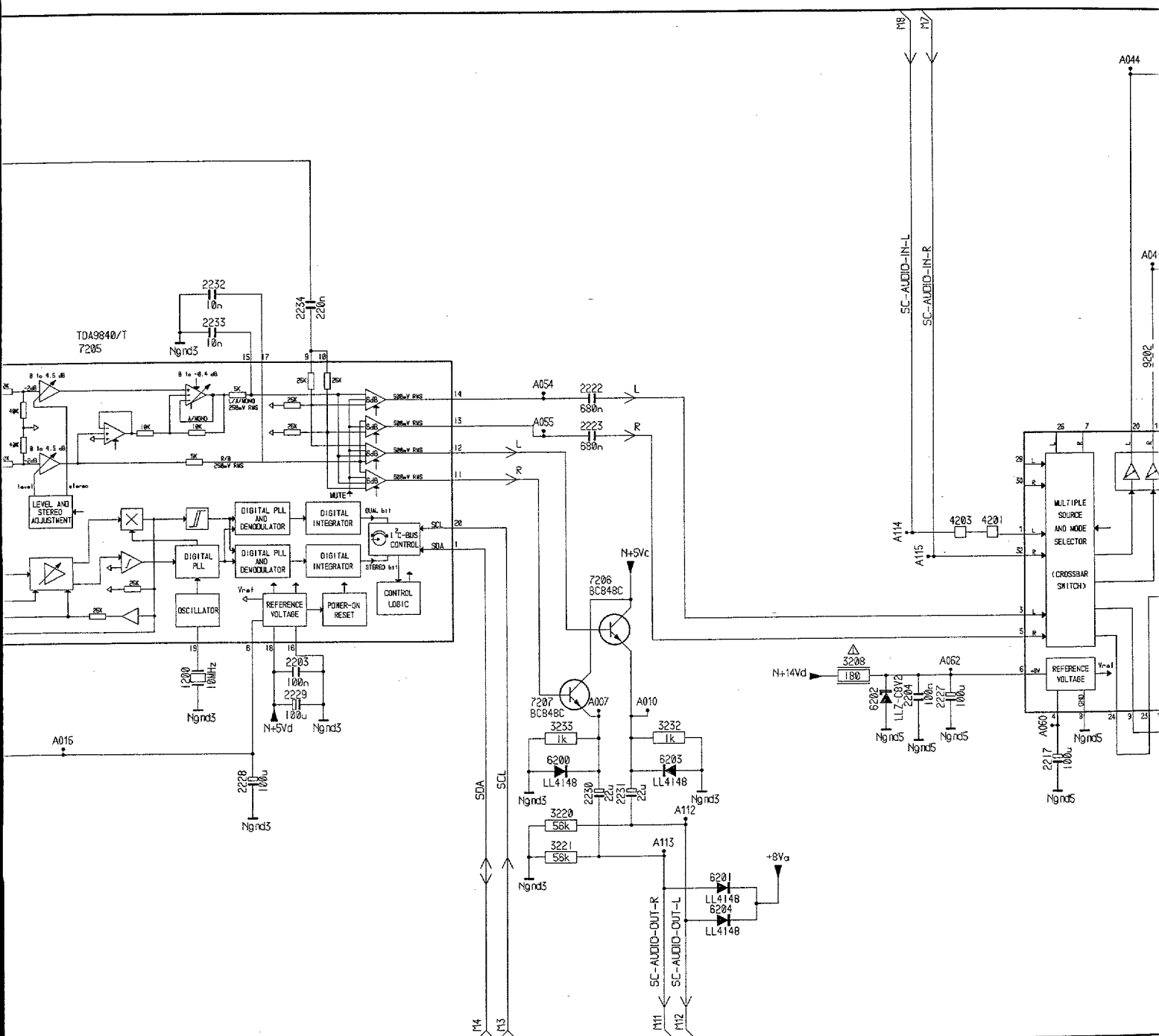


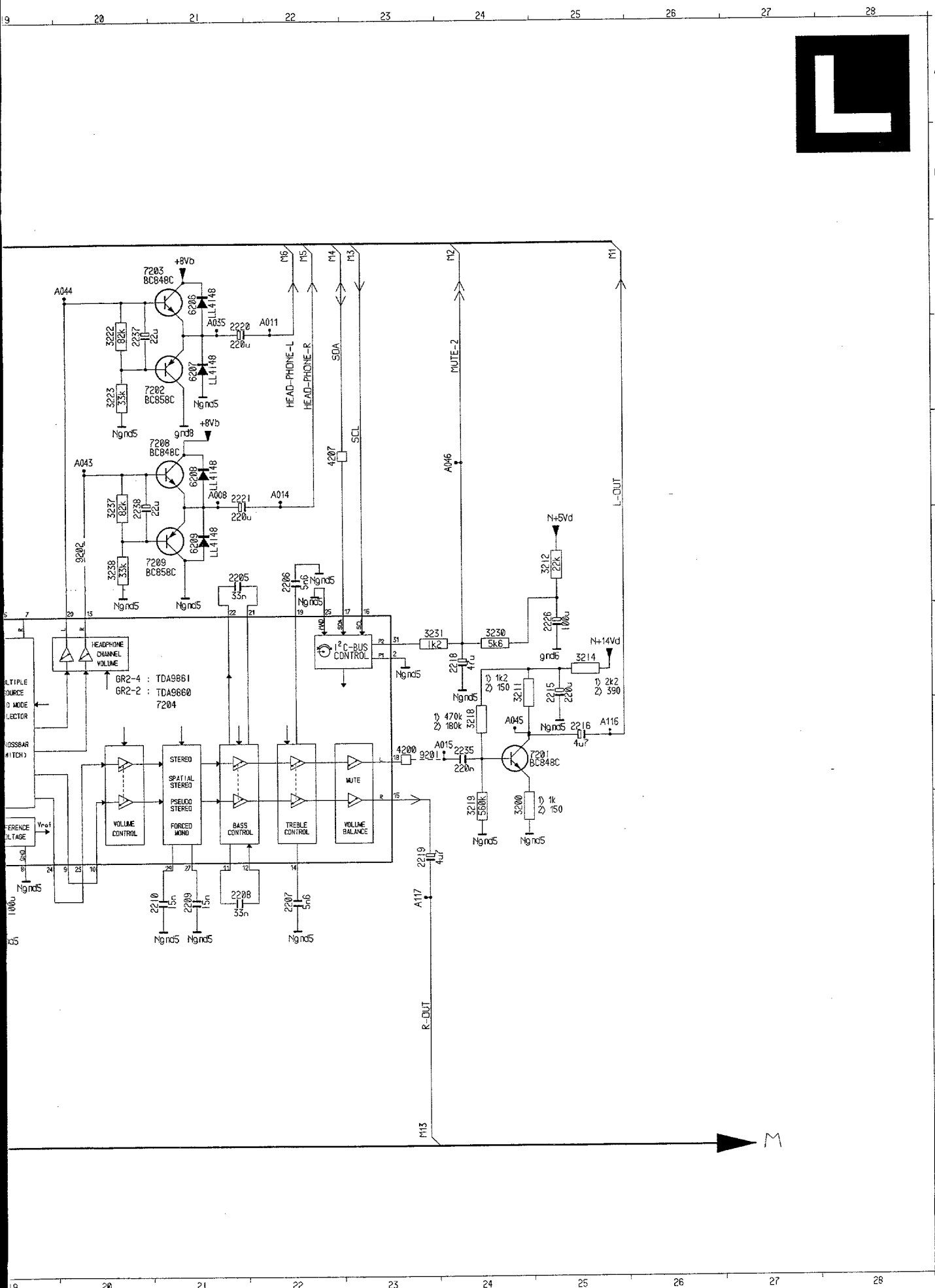




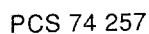


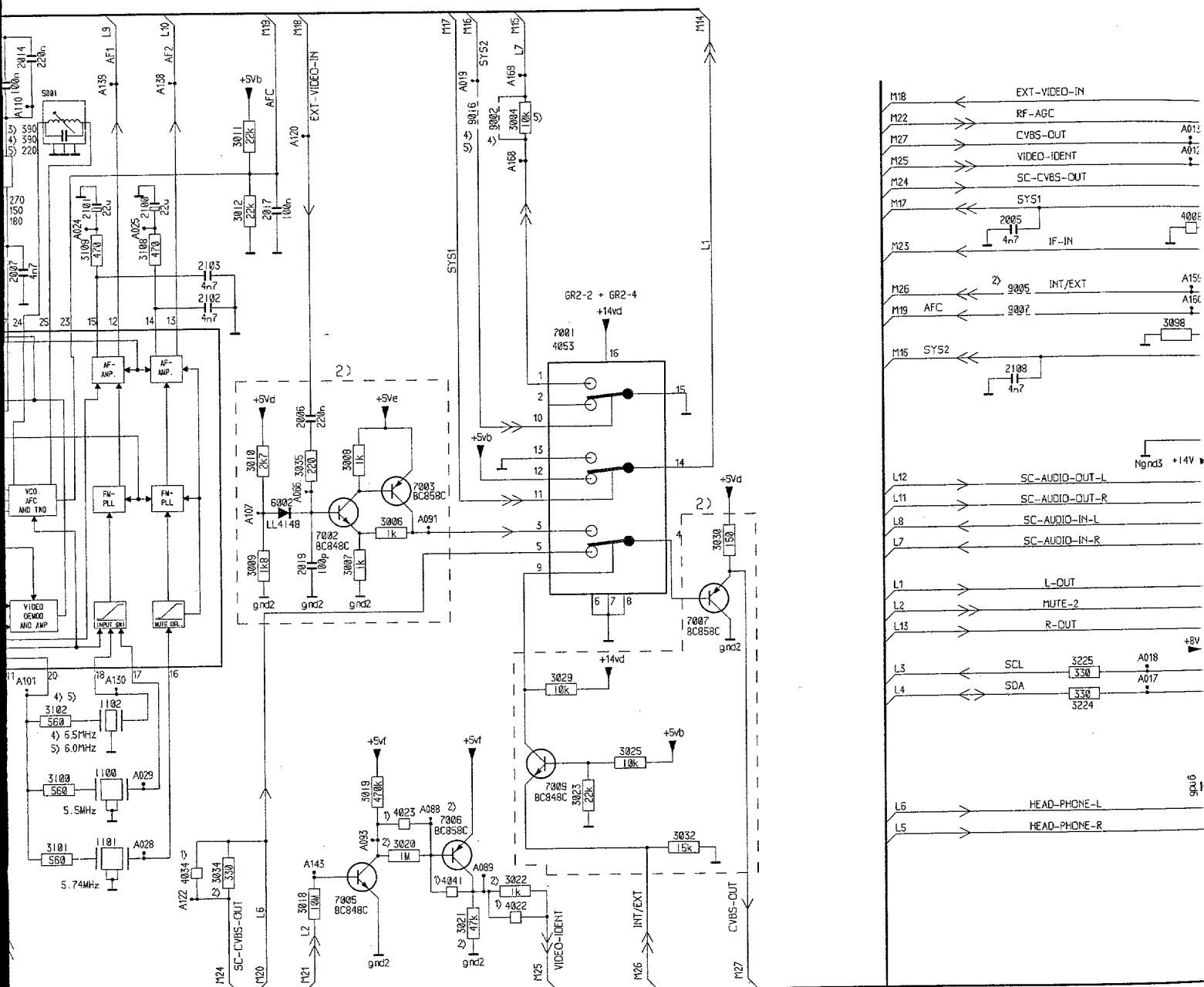




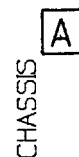


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2200	G 7
2201	H 7
2202	I 7
2203	J 7
2204	K 7
2205	L 7
2206	M 7
2207	N 7
2208	O 7
2209	P 7
2210	Q 7
2211	R 7
2212	S 7
2213	T 7
2214	U 7
2215	V 7
2216	W 7
2217	X 7
2218	Y 7
2219	Z 7
2220	A 8
2221	B 8
2222	C 8
2223	D 8
2224	E 8
2225	F 8
2226	G 8
2227	H 8
2228	I 8
2229	J 8
2230	K 8
2231	L 8
2232	M 8
2233	N 8
2234	O 8
2235	P 8
2236	Q 8
2237	R 8
2238	S 8
2239	T 8
2240	U 8
2241	V 8
2242	W 8
2243	X 8
2244	Y 8
2245	Z 8
2246	A 9
2247	B 9
2248	C 9
2249	D 9
2250	E 9
2251	F 9
2252	G 9
2253	H 9
2254	I 9
2255	J 9
2256	K 9
2257	L 9
2258	M 9
2259	N 9
2260	O 9
2261	P 9
2262	Q 9
2263	R 9
2264	S 9
2265	T 9
2266	U 9
2267	V 9
2268	W 9
2269	X 9
2270	Y 9
2271	Z 9
2272	A 10
2273	B 10
2274	C 10
2275	D 10
2276	E 10
2277	F 10
2278	G 10
2279	H 10
2280	I 10
2281	J 10
2282	K 10
2283	L 10
2284	M 10
2285	N 10
2286	O 10
2287	P 10
2288	Q 10
2289	R 10
2290	S 10
2291	T 10
2292	U 10
2293	V 10
2294	W 10
2295	X 10
2296	Y 10
2297	Z 10
2298	A 11
2299	B 11
2300	C 11
2301	D 11
2302	E 11
2303	F 11
2304	G 11
2305	H 11
2306	I 11
2307	J 11
2308	K 11
2309	L 11
2310	M 11
2311	N 11
2312	O 11
2313	P 11
2314	Q 11
2315	R 11
2316	S 11
2317	T 11
2318	U 11
2319	V 11
2320	W 11
2321	X 11
2322	Y 11
2323	Z 11
2324	A 12
2325	B 12
2326	C 12
2327	D 12
2328	E 12
2329	F 12
2330	G 12
2331	H 12
2332	I 12
2333	J 12
2334	K 12
2335	L 12
2336	M 12
2337	N 12
2338	O 12
2339	P 12
2340	Q 12
2341	R 12
2342	S 12
2343	T 12
2344	U 12
2345	V 12
2346	W 12
2347	X 12
2348	Y 12
2349	Z 12
2350	A 13
2351	B 13
2352	C 13
2353	D 13
2354	E 13
2355	F 13
2356	G 13
2357	H 13
2358	I 13
2359	J 13
2360	K 13
2361	L 13
2362	M 13
2363	N 13
2364	O 13
2365	P 13
2366	Q 13
2367	R 13
2368	S 13
2369	T 13
2370	U 13
2371	V 13
2372	W 13
2373	X 13
2374	Y 13
2375	Z 13
2376	A 14
2377	B 14
2378	C 14
2379	D 14
2380	E 14
2381	F 14
2382	G 14
2383	H 14
2384	I 14
2385	J 14
2386	K 14
2387	L 14
2388	M 14
2389	N 14
2390	O 14
2391	P 14
2392	Q 14
2393	R 14
2394	S 14
2395	T 14
2396	U 14
2397	V 14
2398	W 14
2399	X 14
2400	Y 14
2401	Z 14









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Setting conditions

All electrical settings should be made under the following conditions:

- * supply voltage: $220 - 240 \text{ V} \pm 10\%$;
 $50 \text{ Hz} \pm 5\%$
- * 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:

- * $+130 \text{ V} \pm 5 \text{ V}$ for all sets.

1.4 Horizontal synchronization

Connect pin 5-IC7470 to pin 9-IC7470. Supply an aerial signal and tune the set. Adjust in service menu (see section 9), sync.freq.by means of the menu +/- button until the picture is straight. Remove the interconnection.

1.5 Horizontal centring

Set using potentiometer 3461.

1.6 Vertical centring

Set using potentiometer 3516.

1.7 Picture height

Set using potentiometer 3504.

1.8 Picture width

Set using potentiometer 3525.

1.9 East/west correction

Is adjusted with potentiometer 3521

1.10 Chroma bandpass filter

a. Setting for PAL/SECAM sets (TDA4657)

Connect a signal generator (e.g. PM 5138) to pin 20 of the euroconnector (EXT1) and set its frequency to 4.286 MHz/0.5 Vpp. Switch the unit to EXT1. Connect pin 18-IC7306 to +12V. Connect an oscilloscope to pin 9-IC7306. Set 5301 to maximum amplitude. Remove the interconnection.

b. Setting for PAL sets (TDA4510)

Connect a signal generator (e.g. PM 5138) to pin 20 of the euroconnector (EXT1) and set its frequency to 4.436 MHz/0.5Vpp. Connect the unit to EXT1. Connect an oscilloscope to pin 9-IC7305 (TDA4510). 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) to earth. Set 2313 so that the colour on the screen has practically stopped. Remove the interconnection.

1.12 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 50(G/AMP), and the Value of "Blue" to 45(B/AMP). Value of "Red" to 57(R/AMP). In most cases no further adjustments are required.

1.13 Peak white limiter

Switch on the service menu (see section 9) and select "WHITE BALANCE". Set "WH/LIM" to the value:

- 35 for blackline units
- 51 for non-blackline units
- 63 for 21" 110 degree sets.
- 45 for 29" sets

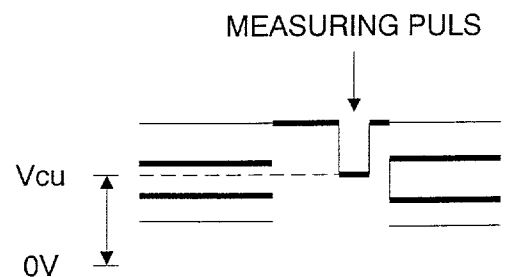
1.14 Cut-off points of the picture tube

Connect a pattern generator and select a black picture. Switch on the service menu (see section 9) and select "CUT OFF". Set the value of "Red" to 30, and fore "Green" to 30, and for "Blue" to 30. In most cases no further adjustments are required.

1.15 Options

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

- "THIRD SCART" on a set with third scart.
- "TELETEXT" on a teletext set
- "MULTI SYSTEM" for multisystem sets
- "UHF ONLY" for a tuner which can only be tuned to the UHF band
- "NICAM" for stereo sets which can also receive NICAM sound.



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Fig. 7.2

2.1 RF-AGC

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

2.2a MF-AFC For multi system sets (PAL-BG/SECAM-DK). Connect a pattern generator to pin 8 of connector G29 (IF-module) and select a frequency of 38,9 MHz. Connect a voltmeter to pin 11 of connector G29. Adjust with 5001 the DC voltage to 1.9 V.

2.2b MF-AFC For all other sets. Connect a pattern generator to pin 8 of connector G29 (IF-module) and select a frequency of 38,9 MHz. Connect a voltmeter to pin 11 of connector G29. Adjust with 5001 the DC voltage to 2.3 V.

2.3 Stereo matrix

Connect a pattern generator and supply a PAL BG signal with stereo sound. Select only the right-hand channel sound. Go into service mode. Choose SND stereo and pull out the right connector (seen from the front side of the set). Put volume maximum with volume button. Align with menu-button so that the sound is just not hearable in the left loudspeaker. Leave now the service mode by putting the set in standby.

8. Survey of error messages on the screen

Message on screen	Description	Possible fault
PIP	I ² C error PIP module	+5 on PIP module, IC7406
NICA	I ² C error IC7305 (NICAM sets)	IC7305, +5 on IF module
9860	I ² C error IC7204	+5/+8 on IF module, IC7305
9840	I ² C error IC7205	+5/+8 on IF module, IC7205
TXT	I ² C error teletext module	IC7910/IC7920, +5 on TEXT module
EPROM	I ² C error IC7710	IC7708/IC7710, +5 on IC's
TUNE	I ² C error tuner	+5/+14 on tuner, TS7003
CHR1	I ² C error IC7308	+14 on IC7308
CHR2	I ² C error IC7309	+14 on IC7309
6415	I ² C error IC7820	
BUS + blinking LED	I ² C bus blocked	I ² C bus check on all IC's

Error messages

Internal microcomputer errors and external errors will be signalled by displaying the error number (by OSD) and by continuous blinking the LED (video related errors only).

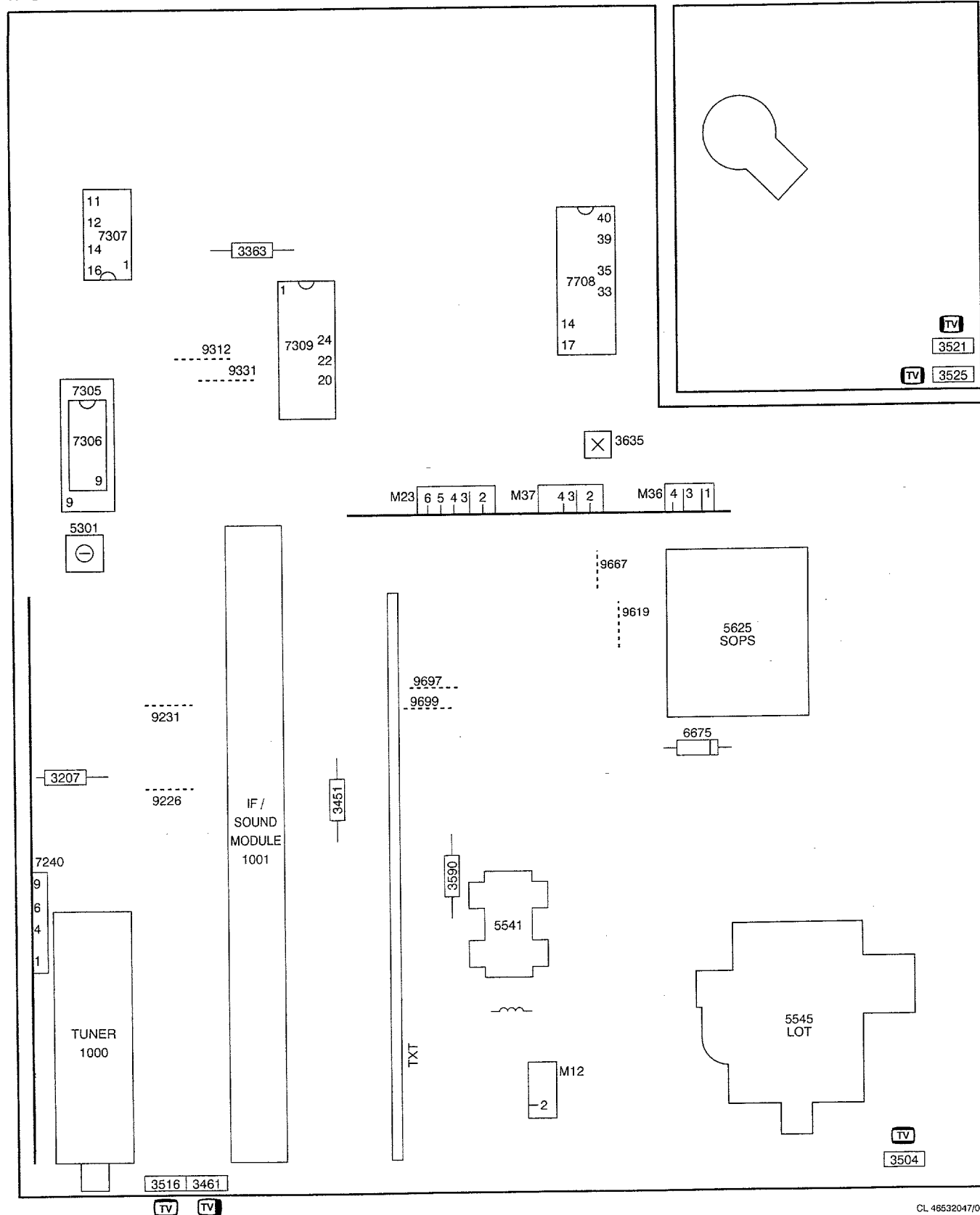
The last five errors will be remembered in the non volatile memory (if possible), this is called the error buffer. After a startup of the system (on by main switch or on from standby) only one error will be added to the buffer (first in, first out procedure), only errors different from the last error in the buffer, will be added to this buffer.

The error will be cleared when the "standby" command is given while the system is in service menu mode.

An active error is displayed continuously in service default mode. The buffer is shown in the service menu mode (Service main menu).

MONO CARRIER

CRT MODULE 4/3



9. Directions for use

1. Service-Default-Mode

The GR2.4 is equipped with a service default mode. The service default mode is a fixed defined condition in which the television can be set.

1.1 Mode definition

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

- all sound and picture adjustments are set in the middle position (except volume, which is set at low and zoom set at zero) in 4/3 mode.

- The set is tuned to 475.25 MHz

- system:

- * PAL BG or PAL I for single system sets (MULTI-SYSTEM "OFF")

- * SECAM L/DK for multi-system sets (MULTI-SYSTEM "ON")

- * SECAM DK for sets for Eastern Europe (MULTI-SYSTEM "ON").

- * PAL BG for sets for Eastern Europe (MULTI-SYSTEM "OFF").

1.2 Service-default-mode

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 (). The set is switched off and then on again using the mains switch or mains plug, the service default mode remains switched on. Searching for transmitter frequencies begins following the simultaneous pressing of both "install" keys on the remote control. When the service default mode is operational the following functions are switched off:

- automatic cut-off circuit.

The set can be controlled normally.

1.3 Service menu

- Service menu

The service menu is activated by simultaneously pressing the "menu" and "-" keys on the local operating 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 adjustment of the various components is performed with the aid of the "menu +/-" keys on the remote control. The adjusted values and options are immediately stored in the EEPROM when the service menu is exited via "menu on" or "mainsknob" button. With the "menu" key you return to the "default service mode".

Remarks 1:

If a multi-system set is nevertheless to be used with the PAL BG system in the service default mode, the option "MULTI" can be temporarily switched off ("OFF").

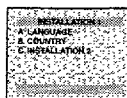
Remarks 2:

If a multi-system set for Eastern Europe is nevertheless to be used with the PAL BG system in the service default mode, the option "MULTI" can be temporarily switched off ("OFF").

Calling up the installation menu

This menu enables you to tune in the channels on the TV set.

- Open the flap on the remote control.
- Press both the **⏏** and **⏏** keys at the same time.
- The **INSTALLATION 1** menu appears on the screen.



Selecting the menu language

You may choose between several languages for the menus which appear on the screen. You can select **ENGLISH** or one of the other languages offered.

After calling up the **INSTALLATION 1** menu:

- Press the red key **⏏**.
- A display area appears at the bottom of the screen.
- Press the **⏏** key to select your chosen language.
- The text for all menus will appear in the language which you have chosen. Go on to the next adjustment.



Selecting the country

You should now select the country in which you are situated.

After calling up the **INSTALLATION 1** menu:

- Press the green key **⏏**.
- A display area appears at the bottom of the screen.
- Press the **⏏** key to select the letters corresponding to your country (GB for Great Britain).
- Your choice is displayed at the bottom of the screen. You can now go on to **chapter 7** on page 4.



Manual store

After calling up the **INSTALLATION 2** menu (see previous page):

- Press the green key **⏏**.
- The **MANUAL STORE** menu appears.

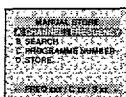


step a

Selecting the tuning mode

This TV set allows you to choose the tuning mode: **tuning by channel number** (if you know the channel numbers on which the TV channels are broadcast) or **tuning by frequency**.

- Press the red key **⏏**.
- The lower bar of the menu is displayed in red.
- Press the **⏏** key to select the tuning mode.
- The indication **FREQ xxx MHz** means tuning by frequency. The indication **C xx** or **S xx** means tuning by channel number. Go on to **step b**.



Direct selection of a transmitter

If you know the frequency or the channel number of the TV programme which you wish to receive, you can directly enter the number using the keys numbered **⏏** to **⏏** or the **⏏** key.

For example: in tuning by frequency mode, enter 064 for 64 MHz; in tuning by channel number mode, enter 21 for C21 (for 64.25 MHz, enter 064: the exact adjustment is carried out automatically). Go directly to **step c**.

step b

Search

- Press the green key **⏏**.
- The lower bar of the menu is displayed in green, the search starts. The frequency or channel number counts upwards. As soon as a TV channel is found, the counting stops and the rectangle is displayed in blue.

If you want to store this channel, go on to **step c**.

If you do not want to store the channel:

- Press the green key **⏏** again.
- The search continues.



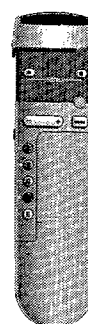
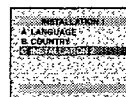
Fine tuning

If the reception of a TV channel is not satisfactory, you can adjust its frequency or channel number by using the **⏏** key.

Tuning-in TV channels

Starting from the **INSTALLATION 1** menu:

- Press the yellow key **⏏**.
- The **INSTALLATION 2** menu appears on the screen.



You have the choice between two methods:

- automatic store:** the TV set stores all the available channels in your area. You just have to renumber the channels according to your preference.
- manual store:** you can manually tune-in each channel, one by one.

Automatic store

After calling up the **INSTALLATION 2** menu (see above):

- Press the red key **⏏**.
- The **AUTO STORE** menu appears.
- Press the red key **⏏** to start the search.
- The indication **SEARCHING PLEASE WAIT** appears on the screen. The TV set searches through the complete frequency range and stores all the TV channels which it finds. The search takes several minutes. A horizontal scale shows the progress of the search. You must wait until the horizontal bar has reached the end of the line.

When the search has finished:

The indication **CHANNELS FOUND** flashes. The total number of TV channels found is displayed. The TV channels have been numbered in the order in which they were found. You must therefore sort them to give them the desired channel numbers.

- Press the **⏏** key.
- The **INSTALLATION 2** menu reappears. You now have to sort the channels: turn to **chapter 8** on page 7.



step c

Numbering the programme

- Press the yellow key **⏏**.
- A display area appears at the bottom of the screen.
- Press the **⏏** key or the keys numbered **⏏** to **⏏** to enter the programme number. Go on to **step d**.



step d

Storing

- Press the blue key **⏏**.
- The indication **PROGRAMME STORED** appears at the bottom of the screen, the TV channel is stored.



repeat

steps **b**, **c**, **d**
or **a**, **b**, **c**, **d** if you want to change the tuning mode.

When tuning-in of TV channels is completed

- Press the **⏏** key.
- The **INSTALLATION 2** menu reappears. You can now give names to the TV channels: turn to **chapter 9** on page 8.

To exit from the **INSTALLATION 2** menu:

- Press the **⏏** key again.
- You can now proceed with operating the TV set (page 9).

Naming channels

You can give a name of up to 5 characters to each of the first 40 channels on your TV set (examples: BBC1, CNN...). This function allows you to recognise and display the name and number of the programme being watched.

Starting from the **INSTALLATION 2** menu:

- Press the blue key **Ⓚ**.
- The **NAMING CHANNELS** menu appears.

step a Programme number

- Press the red key **ⓐ**.
- The programme number is displayed at the bottom of the screen.
- Use the **←** key or the keys numbered **①** to **⑤** to select the channel to which you want to give a name.

step b Auto name

The **AUTO NAME** function enables you to automatically assign the first 5 characters of a name to a TV channel when teletext is available.

When the TV channel is on the screen:

- Press the green key **ⓑ**.
- The lower bar of the menu is displayed in green.
- Press the **→** key to carry out the **AUTO NAME**.
- The first 5 characters of the programme name are displayed. If nothing is displayed, this means that the programme name is not broadcast, go on to **step c**.

step c Select character

- Press the yellow key **ⓒ**.
- The character display area appears. A cursor is positioned at the first character.
- Use the **←** key to select the first character.

step d Next position

When the desired character has been chosen:

- Press the blue key **ⓓ** to enable the cursor to be moved.
- Use the **←** key to move the cursor to the left or to the right.
- Press the yellow key **ⓒ** again.
- Use the **→** key to choose the second character. Repeat the operation as many times as needed to select all characters.

repeat steps **a**, **b**, **c** and **d** for all the TV channels you wish to name

To exit from the **NAMING CHANNELS** menu:

- Press the **Ⓚ** key.
- The **INSTALLATION 2** menu reappears.

To exit from the **INSTALLATION 2** menu:

- Press the **Ⓚ** key again.

Special features

Starting from the **MAIN MENU**:

- Press the yellow key **Ⓚ**.
- The **SPECIAL FEATURES** menu appears on the screen.

Child lock

The child lock function is an electronic lock which disables the keys on the TV set. This function enables you to prevent operation of the TV set (by your children for example). You then simply have to activate the child lock and hide the remote control so that the TV set is unusable.

Starting from the **SPECIAL FEATURES** menu:

- Press the red key **ⓐ**.
- The indication **OFF** is displayed at the bottom of the screen.
- Press the **→** key.
- The indication **ON** appears. The keys on the TV set are no longer active.

To check that the child lock is functioning:

- Press the **ⓐ** key on the front of the TV set to switch off the set.
- Press the **ⓐ** key again to switch on.
- The TV set remains in standby (the red indicator lights up).
- Press one of the keys on the TV set.
- The indication **CHILD LOCK** appears for a few moments and the screen remains black. The only way of switching on the TV set is to use the remote control.

To cancel the child lock:

- Select the function again and reposition the menu display to **OFF**.

Sleeptimer

This function allows you to program the TV set to automatically switch off after a certain period of time.

Starting from the **SPECIAL FEATURES** menu:

- Press the green key **ⓑ**.
- The indication **00** is displayed at the bottom of the screen.
- Press the **→** key to program the duration.
- Each time you press the key, the duration increases by 15 minutes (up to 90 minutes).
- Press the **ⓐ** key twice to exit from the menu.
- The TV set automatically switches to standby after the programmed time period has elapsed.

To display the remaining time:

- Press the **ⓑ** key.
- The remaining time is displayed for a few moments on the screen.

To cancel the programmed switching off:

- Select the function again and reset the menu display to **00**.

Demonstration

The demonstration mode triggers off an automatic display of all the TV set's menus:

Starting from the **SPECIAL FEATURES** menu:

- Press the yellow key **Ⓚ**.
- The indication **OFF** appears at the bottom of the screen.
- Press the **→** key to switch on the demonstration mode.
- The indication **DEMONSTRATION** is displayed, the **OPERATION** and **INSTALLATION** menus are displayed automatically one after the other.

To switch off the demonstration mode:

- Press the **Ⓚ** key.

Calling up the main menu

The main menu gives you access to the adjustments and special features of your TV set.

The **Ⓚ** key enables you to call up or to exit from the menu.

The coloured keys **ⓐ**, **ⓑ**, **ⓒ**, **ⓓ** and **ⓔ** allow access to the various choices within the menus. The **→** key enables you to make the adjustments.

To call up the **MAIN MENU**:

- Press the **Ⓚ** key on the remote control.
- The **MAIN MENU** appears on the screen.



Adjusting the picture

After calling up the **MAIN MENU** (see above):

- Press the red key **ⓐ**.
- The **PICTURE** menu appears on the screen.



Brightness, colour, contrast, sharpness

- Press the coloured key **ⓐ**, **ⓑ**, **ⓒ** or **ⓓ** corresponding to the adjustment which you want to modify.
- A horizontal scale appears at the bottom of the screen.
- Press the **→** key to make the adjustment.
- The cursor moves according to your adjustment.
- Press the corresponding coloured key to select another adjustment.



Tint

The tint adjustment allows you to influence the colour reproduction by modifying the white reference.

- Press the white key **ⓔ**.
- A horizontal scale appears at the bottom of the screen.
- Press the **→** key to make the adjustment.
- For a 'warm' picture (redder whites): move the cursor to the maximum (+) position.
- For a balanced colour reproduction: move the cursor to the middle position.
- For a 'cool' picture (bluer whites): move the cursor to the minimum (-) position.



To exit from the **PICTURE** menu

- Press the **Ⓚ** key.
- The **MAIN MENU** reappears, move on to "Adjusting the sound".
- To exit from the **MAIN MENU** press the **Ⓚ** key a second time.

Programme list

This function allows you to consult the list of programme names and numbers of the first 40 channels which you have stored in the **INSTALLATION** menu.

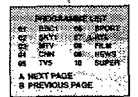
- Press the **Ⓚ** key.
- The **MAIN MENU** appears on the screen.
- Press the blue key **ⓔ**.
- The **PROGRAMME LIST** menu appears on the screen with the list of the first 10 channels.

To display the next page:

- Press the red key **ⓐ**.

To display the previous page:

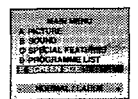
- Press the green key **ⓑ**.



Screen size

This function enables you to adapt 16/9 format pictures to the proportions of your screen (4/3).

- Press the **Ⓚ** key.
- The **MAIN MENU** appears on the screen.
- Press the white key **ⓔ**.
- The indication **NORMAL** is displayed at the bottom of the screen.
- Press the **→** key.
- The indication **LARGE** is displayed and a black band appears at the top and bottom of the screen. The picture is reproduced in 16/9 format.



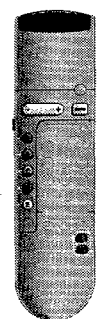
Programmable keys

The remote control has two blue programmable keys **ⓔ** and **ⓕ**. If you regularly use certain adjustments within the menus (for example the spatial effect, headphone volume, brightness...) it is possible to program direct access to one of these adjustments.

- Press the **Ⓚ** key.
- The **MAIN MENU** appears on the screen.
- Select the adjustment which you wish to program. For example, to program the spatial effect:
- Press the green key **ⓑ** to call up the **SOUND** menu.
- Press the blue key **ⓔ** to select **SPATIAL** effect.
- The indication **OFF** or **ON** appears at the bottom of the screen.
- Use the blue keys **ⓔ** and **ⓕ** instead of the **→** key to make the adjustment.
- The sound is modified. The keys **ⓔ** and **ⓕ** are automatically programmed.
- Press the **Ⓚ** key twice to exit from the menu.

To check the function:

- Press the blue keys **ⓔ** and **ⓕ**.
- Each time the keys are pressed, the spatial effect is switched on or off. From now onwards, these two keys allow you to adjust the spatial effect directly, without using the menus.
- Carry out the operation on the adjustment of your choice.



Main carrier [A/B/C/D]

Various

▲	4822 265 30389	2P male vert yellow
	4822 264 40207	3P male vert WTB
	4822 267 40666	3P male vert blue
	4822 264 40239	3P male vert green
▲	4822 265 30877	3P male vert
	4822 267 40696	3P male vert white
	4822 267 41113	3P female hor white
	4822 267 31694	3P female hor blue
	4822 267 40794	3P female vert grey WTB
	4822 267 40699	4P male vert red
	4822 265 30378	4P male vert WTB
	4822 290 40283	5P male vert green
	4822 265 40421	6P male vert WTB
	4822 267 30546	6P female vert grey
	4822 267 50621	7P male vert white
▲	4822 267 60243	Euroconnector (scart) blue
▲	4822 256 92053	Fuse holder
▲	4822 256 91879	Holder
▲	4822 502 13712	Screw 12x3
	4822 492 70871	Spring
	4822 492 70143	Spring 10x33
	4822 466 30395	Shield microprocessor
	1000 4822 210 10436	U944C/IEC
	1000 4822 210 10811	UV918M
	1240▲ 4822 252 51174	Fuse 1.6A 65V
	1242▲ 4822 252 51174	Fuse 1.6A 65V
	1300 4822 242 81807	8.867570 MHz
	1301 4822 242 70304	8.867238 MHz
	1534▲ 4822 252 51172	Fuse 3.15A 65V
	1559▲ 4822 252 51173	Fuse 1A 65V
	1563 4822 526 10405	Bead
	1564 4822 526 10405	Bead
	1580▲ 4822 252 51174	Fuse 1.6A 65V
	1600▲ 4822 070 32502	Fuse 2.5A 65V
	1601▲ 4822 252 51175	Fuse 2.5A 65V
	1640 4822 526 10405	Bead
	1641 4822 526 10405	Bead
	1642 4822 526 10405	Bead
	1643 4822 526 10405	Bead
	1702 4822 242 81841	8MHz
—II—		
	2001 4822 124 40214	1000µF 20% 25V
	2002 4822 122 31797	22nF 10% 63V
	2003 4822 122 33496	100nF 10% 63V
	2005▲ 4822 124 40196	220µF 20% 16V
	2010 4822 124 40248	10µF 20% 63V
	2012 4822 122 31768	180pF 2% 63V
	2231▲ 4822 124 41525	100µF 20% 25V
	2232 4822 122 31797	22nF 10% 63V
	2236 4822 122 31644	2.2nF 10% 63V
	2236 4822 122 31784	4.7nF 10% 50V
	2237 4822 122 31947	100nF 20% 63V
	2238 4822 122 32153	1.8nF 10% 63V
	2238 4822 122 33498	2.7nF 10% 63V
	2239 4822 122 31947	100nF 20% 63V
	2240 4822 124 40214	1000µF 20% 25V
	2241 5322 121 42386	100nF 5% 63V
	2242 4822 124 40214	1000µF 20% 25V
	2243 4822 121 41856	22nF 5% 250V
	2245 4822 121 41856	22nF 5% 250V
	2246 4822 124 41596	22µF 20% 50V
	2248 4822 124 40849	330µF 20% 16V
	2249 4822 122 31797	22nF 10% 63V
	2252 4822 121 41857	10nF 5% 250V
	2253 4822 121 41857	10nF 5% 250V
	2254 4822 121 51252	470nF 5% 63V
	2255 4822 121 51252	470nF 5% 63V
	2256 4822 122 32142	270pF 2% 63V
	2257 4822 122 32142	270pF 2% 63V
	2258 4822 121 51252	470nF 5% 63V
	2259 4822 121 51252	470nF 5% 63V
	2260 4822 122 31116	2.2nF 10% 500V
	2261 4822 122 31116	2.2nF 10% 500V
	2300 4822 122 32482	22pF 2% 63V
	2301 4822 122 32999	2.2nF 5%
	2303 4822 122 31768	180pF 2% 63V
	2304 4822 122 31773	560pF 2% 63V
	2304 4822 122 32999	2.2nF 5%
	2305 4822 126 10324	33pF 2% 63V
	2306 4822 122 31965	220pF 2% 63V
	2307 4822 122 33496	100nF 10% 63V

2308	4822 122 31797	22nF 10% 63V
2310	4822 121 41857	10nF 5% 250V
2310	4822 121 42408	220nF 5% 63V
2311	4822 122 33496	100nF 10% 63V
2312	4822 121 41857	10nF 5% 250V
2312	4822 121 42408	220nF 5% 63V
2313	4822 125 50045	1p8-22p 250V
2314	5322 121 42661	330nF 5% 63V
2314	5322 122 32818	2.2nF 10% 100V
2315	4822 122 31825	27pF 2% 63V
2316	4822 122 33496	100nF 10% 63V
2319▲	4822 122 32442	10nF 50V
2321	4822 122 31797	22nF 10% 63V
2322	4822 122 31797	22nF 10% 63V
2323	4822 122 32542	47nF 10% 63V
2325	4822 122 31965	220pF 2% 63V
2325	4822 122 32542	47nF 10% 63V
2326	4822 122 31839	82pF 2% 63V
2328▲	4822 122 32442	10nF 50V
2329▲	4822 122 32442	10nF 50V
2330	4822 122 33496	100nF 10% 63V
2331	4822 122 33496	100nF 10% 63V
2332	4822 122 33496	100nF 10% 63V
2333	4822 122 33496	100nF 10% 63V
2334	4822 122 33496	100nF 10% 63V
2336	4822 122 31797	22nF 10% 63V
2337	4822 122 31797	22nF 10% 63V
2338	4822 122 31797	22nF 10% 63V
2339	4822 122 33496	100nF 10% 63V
2340	4822 122 31797	22nF 10% 63V
2341	4822 122 31797	22nF 10% 63V
2342	4822 122 33496	100nF 10% 63V
2343	4822 122 33496	100nF 10% 63V
2344	4822 122 33496	100nF 10% 63V
2345	4822 122 31797	22nF 10% 63V
2348▲	4822 124 40196	220µF 20% 16V
2349	5322 122 31647	1nF 10% 63V
2350▲	4822 124 40433	47µF 20% 25V
2351	4822 122 31797	22nF 10% 63V
2352	5322 122 31647	1nF 10% 63V
2353	4822 122 33496	100nF 10% 63V
2354	4822 124 40242	1µF 20% 63V
2355	4822 124 40849	330µF 20% 16V
2356	4822 122 31797	22nF 10% 63V
2357	4822 122 31797	22nF 10% 63V
2358	4822 122 31797	22nF 10% 63V
2359	4822 122 31765	100pF 2% 63V
2360	4822 122 33496	100nF 10% 63V
2361	4822 122 33496	100nF 10% 63V
2362	4822 122 33496	100nF 10% 63V
2363	4822 122 31765	100pF 2% 63V
2365	5322 121 42661	330nF 5% 63V
2366	4822 124 40248	10µF 20% 63V
2367	4822 124 40753	6.8µF 20% 63V
2368	4822 126 13094	11pF 2% 63V
2369	4822 121 51252	470nF 5% 63V
2370	4822 121 42408	220nF 5% 63V
2374	4822 122 31772	47pF 2% 63V
2378	4822 122 33496	100nF 10% 63V
2385	4822 122 31772	47pF 2% 63V
2386	4822 122 33481	1800pF 2% 63V
2451	4822 122 33496	100nF 10% 63V
2453	5322 124 41431	22µF 20% 35V
2455	5322 122 31647	1nF 10% 63V
2456	4822 124 40242	1µF 20% 63V
2457	4822 122 33496	100nF 10% 63V
2458	4822 121 42937	2.7nF 1% 250V
2459	4822 122 33496	100nF 10% 63V
2460	4822 122 32566	3.9nF 10% 63V
2460	4822 122 33498	2.7nF 10% 63V
2461	5322 122 31647	1nF 10% 63V
2462	4822 122 31797	22nF 10% 63V
2464	4822 122 33496	100nF 10% 63V
2465	4822 124 40198	470µF 20% 16V
2466	4822 124 40248	10µF 20% 63V
2467	4822 122 33496	100nF 10% 63V
2468	4822 124 22652	2.2µF 20% 50V
2469	4822 124 41596	22µF 20% 50V
2470	4822 122 31772	47pF 2% 63V
2471	5322 121 42661	330nF 5% 63V
2473	5322 121 42661	330nF 5% 63V
2475	5322 122 31647	1nF 10% 63V
2476▲	4822 122 32442	10nF 50V
2500	4822 122 31773	560pF 2% 63V
2501	4822 122 33481	1800pF 2% 63V
2502	5322 124 41381	22µF 20% 50V
2503▲	4822 122 32442	10nF 50V
2505	4822 122 32542	47nF 10% 63V
2506	4822 124 80065	1000µF 20% 50V
2507	4822 122 31797	22nF 10% 63V
2509	4822 121 51319	1µF 10% 63V
2524	4822 124 42167	4.7µF 20% 50V
2539	4822 124 40198	470µF 20% 16V
2543	4822 122 31784	4.7nF 10% 50V
2544	4822 122 32183	56nF 10% 50V

2545▲	4822 126 12273	1200pF 10%R(HR) 2KV
2545▲	4822 126 12274	1500pF 10%R(HR) 2KV
2546▲	4822 121 70434	11nF 5% 1.6KV
2546▲	4822 121 70538	13nF 5% 1.6KV
2547▲	4822 121 42934	27nF 10% 400V
2547▲	5322 121 44219	47nF 10% 400V
2548	4822 121 41856	22nF 5% 250V
2549▲	4822 121 42074	470 nF 10% 400V
2550▲	4822 121 51528	470nF 5% 250V
2550▲	5322 121 44128	680nF 10% 250V
2551	4822 124 80069	1µF 20% 160V
2552	4822 122 33496	100nF 10% 63V
2559	4822 124 80059	100µF 20% 25V
2560▲	4822 121 51408	33nF 10% 250V
2561	4822 122 31766	120pF 2% 63V
2570	4822 124 80071	22µF 20% 160V
2574	4822 122 30057	2.7nF 10% 100V
2580	4822 124 80061	1000µF 20% 25V
2588	4822 051 10008	0R00 5% 0.25V
2590	5322 121 42498	680nF 5% 63V
2600▲	4822 121 70285	470nF 10% 250V
2605	4822 124 33492	220µF 50% 385V
2605▲	4822 124 80728	150µF 20% 385V
2607▲	4822 121 51469	1nF 400V
2608	4822 122 31965	220pF 2% 63V
2612	5322 122 31647	1nF 10% 63V
2617	4822 121 51252	470nF 5% 63V
2617	4822 121 51319	1µF 10% 63V
2620	5322 121 42465	68nF 5% 63V
2625▲	4822 126 12272	1nF 10%R(HR) 2KV
2626▲	4822 126 12267	470pF 10%R(HR) 2KV
2630	4822 124 23418	47µF 200V
2630	4822 124 42448	100µF 20% 200V
2631	4822 124 23418	47µF 200V
2631	4822 124 42448	100µF 20% 200V
2632▲	4822 126 11382	1nF 10% 1KV
2640	4822 124 80061	1000µF 20% 25V
2641	4822 124 80061	1000µF 20% 25V
2652	5322 122 32331	1nF 10% 100V
2653	5322 122 32331	1nF 10% 100V
2658	5322 122 32838	82nF 10% 63V
2660	4822 124 80061	1000µF 20% 25V
2672	5322 124 41379	2.2µF 20% 50V
2675	4822 124 80064	680µF 20% 50V
2675	4822 124 80065	1000µF 20% 50V
2676	5322 122 32331	1nF 10% 100V
2700	4822 124 40248	10µF 20% 63V
2704	4822 122 32542	47nF 10% 63V
2705	4822 122 31766	120pF 2% 63V
2706	4822 124 41643	100µF 20% 16V
2707▲	4822 122 32442	10nF 50V
2708	4822 122 31766	120pF 2% 63V
2709	4822 122 32139	12pF 2% 63V
2710	4822 122 32139	12pF 2% 63V
2711	4822 122 31825	27pF 2% 63V
2712	4822 122 31825	27pF 2% 63V
2713▲	4822 124 41525	100µF 20% 25V
2716	4822 122 33496	100nF 10% 63V
2718	4822 122 33496	100nF 10% 63V
2719	5322 121 42386	100nF 5% 63V
2721	4822 122 31784	4.7nF 10% 50V
2722	4822 122 33496	100nF 10% 63V
2853	4822 121 43856	4.7nF 5% 250V
2854	4822 122 33496	100nF 10% 63V
2860	4822 124 40248	10µF 20% 63V



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3465	4822 051 10394	390k 2% 0.25W	3626	4822 113 80565	180Ω 5% 5W	5001	4822 156 20966	47μH 10%	7003	4822 130 42133	BC817
3466	4822 051 10681	680Ω 2% 0.25W	3631	4822 050 21204	120k 1% 0.6W	5240	4822 157 53066	15μH 10%	7200	5322 130 42136	BC848C
3467	4822 053 20275	2M7 5% 0.25W	3631	4822 050 22204	220k 1% 0.6W	5242	4822 157 53066	15μH 10%	7201	5322 130 42136	BC848C
3468	4822 053 20335	3M3 5% 0.25W	3634	4822 051 10272	2k7 2% 0.25W	5301	4822 157 63075	7.95 μH 8%	7202	5322 130 42136	BC848C
3468	4822 051 10682	6k8 2% 0.25W	3634	4822 051 10272	2k7 2% 0.25W	5303	4822 157 70827	33μH -5%	7240	4822 209 73853	TDA1521/N4
3469	4822 051 10229	22Ω 2% 0.25W	3634	4822 051 10332	3k3 2% 0.25W	5534	4822 157 62771	Coil 90°	7243	4822 130 42513	BC858C
3470	4822 116 52233	10k 5% 0.5W	3635	4822 101 11187	1k 30% LIN 0.1W	5534	4822 158 10728	Coil 110°	7244	4822 130 42513	BC858C
3471	4822 116 52239	120k 5% 0.5W	3637	4822 116 52175	100Ω 5% 0.5W	5541	4822 157 63078	Driver transformer	7248	5322 130 42136	BC848C
3471	4822 116 52285	470k 5% 0.5W	3659	4822 051 10181	180Ω 2% 0.25W	5545	4822 140 10499	LOT-21°-90°	7249	5322 130 42136	BC848C
3473	4822 116 52265	270k 5% 0.5W	3675	4822 116 52239	120k 5% 0.5W	5545	4822 140 10501	LOT 25°/28° BLS	7301	5322 130 42136	BC848C
3474	4822 051 10562	5k6 2% 0.25W	3675	4822 116 52284	47k 5% 0.5W	5549	4822 157 53069	Balance coil	7302	4822 130 42513	BC858C
3475	4822 051 10184	180k 2% 0.25W	3677	4822 051 10108	1Ω 5% 0.25W	5554	4822 156 50097	Linearity coil LC90	7303	4822 130 40855	BC337
3476	4822 051 10104	100k 2% 0.25W	3678	4822 116 52283	4k7 5% 0.5W	5554	4822 157 63079	Linearity coil AT4042	7304	5322 130 42718	BFS20
3477	4822 051 10008	0Ω 5% 0.25W	3682	4822 053 10561	560Ω 5% 1W	5563	4822 157 51462	10μH	7305	4822 209 30389	TDA4510/V8
3477	4822 051 10228	21Ω 5% 0.25W	3700	4822 116 52257	22k 5% 0.5W	5582	4822 157 70826	2.4μH	7306	4822 209 33671	TDA4657/V2
3478	4822 051 10008	0Ω 5% 0.25W	3706	4822 051 10103	10k 2% 0.25W	5588	4822 157 53252	Coil	7307	4822 209 12635	TDA4665/V3
3478	4822 051 10478	4Ω 5% 0.25W	3707	4822 051 10101	100Ω 2% 0.25W	5606	4822 157 53995	100μH 10%	7308	4822 209 32593	TDA4671/V1
3479	4822 116 52219	330Ω 5% 0.5W	3708	4822 051 10103	10k 2% 0.25W	5619	4822 156 21125	3.9μH 10%	7309	4822 209 33725	TDA4780/V2
3480	4822 050 11002	1k 1% 0.4W	3708	4822 051 10103	10k 2% 0.25W	5619	4822 157 53139	4.7μH	7310	5322 130 42136	BC848C
3481	4822 116 52283	4k7 5% 0.5W	3708	4822 051 10103	10k 2% 0.25W	5625	4822 146 31062	SOPS transformer	7311	5322 130 42136	BC848C
3482	4822 116 52283	4k7 5% 0.5W	3708	4822 051 10103	10k 2% 0.25W	5630	4822 157 70826	2.4μH	7312	5322 130 42136	BC848C
3483	4822 052 10339	33Ω 5% 0.33W	3708	4822 051 10103	10k 2% 0.25W	5631	4822 158 10551	27μH	7370	5322 130 42136	BC848C
3484	4822 051 20183	18k 5% 0.1W	3709	4822 116 52283	4k7 5% 0.5W	5632	4822 157 53066	15μH 10%	7454	5322 130 41983	BC858B
3485	4822 051 10682	6k8 2% 0.25W	3710	4822 051 10104	100k 2% 0.25W	5675	4822 157 70826	2.4μH	7455	4822 130 60136	BC856
3486	4822 051 10182	1k8 2% 0.25W	3718	4822 116 52215	220Ω 5% 0.5W	5701	4822 157 53253	27μH 5%	7456	5322 130 60159	BC846B
3487	4822 116 52231	820Ω 5% 0.5W	3719	4822 116 52215	220Ω 5% 0.5W	5703	4822 156 20915	33μH	7470	4822 209 63423	TDA2579B/N2
3488	4822 051 10471	470Ω 2% 0.25W	3721	4822 051 10103	10k 2% 0.25W	5703	4822 156 20915	33μH	7471	5322 130 42136	BC848C
3489	4822 051 10008	0Ω 5% 0.25W	3722	4822 051 10103	10k 2% 0.25W	6204	4822 130 30621	1N4148	7500	4822 130 41344	BC337-40
3490	4822 116 52296	6k8 5% 0.5W	3724	4822 051 10103	10k 2% 0.25W	6245	4822 130 80446	LL4148	7505	4822 130 41344	BC327-40
3501	4822 051 10229	22Ω 2% 0.25W	3725	4822 051 10103	10k 2% 0.25W	6246	4822 130 81139	LLZ-C3V3	7540	4822 130 41344	BC337-40
3501	4822 051 10279	27Ω 2% 0.25W	3727	4822 116 52217	270Ω 5% 0.5W	6247	4822 130 81139	LLZ-C3V3	7545	4822 130 61265	BU508AF
3502	4822 053 10122	1k2 5% 1W	3728	4822 116 52175	100Ω 5% 0.5W	6248	4822 130 80446	LL4148	7546	5322 130 41982	BC848B
3502	4822 053 10272	2k7 5% 1W	3729	4822 051 10911	910Ω 2% 0.25W	6300	4822 130 80446	LL4148	7591	5322 130 41983	BC858B
3503	4822 052 10128	192 5% 0.33W	3730	4822 051 10221	220Ω 2% 0.25W	6302	4822 130 82192	LLZ-C8V2	7625	4822 130 62735	BUT12AF
3503	4822 052 10478	407 5% 0.33W	3732	4822 053 11103	10k 5% 2W	6303	4822 130 34382	BZX79-C8V2	7700	5322 130 41982	BC848B
3504	4822 100 11684	100Ω 10% 0.1W	3732	4822 053 11332	3k3 5% 2W	6310	4822 130 80884	LLZ-C5V1	7703	5322 130 41982	BC848B
3505	4822 051 10471	470Ω 2% 0.25W	3733	4822 050 23902	3k9 1% 0.6W	6314	4822 130 80446	LL4148	7704	5322 130 41982	BC848B
3506	4822 051 10334	330k 2% 0.25W	3734	4822 050 23902	3k9 1% 0.6W	6315	4822 130 30621	1N4148	7706	5322 130 41982	BC848B
3507	4822 051 10223	22k 2% 0.25W	3734	4822 050 23902	3k9 1% 0.6W	6317	4822 130 80446	LL4148	7707	5322 130 41982	BC848B
3507	4822 051 10273	27k 2% 0.25W	3736	4822 116 52175	100Ω 5% 0.5W	6319	4822 130 34379	BZX79-C27	7708	4822 209 52642	VERSION-1.2
3508	4822 051 10228	202 5% 0.25W	3737	4822 050 11002	1k 1% 0.4W	6320	4822 130 80877	BAV103	7708	4822 209 52642	VERSION-1.2
3509	4822 051 10228	202 5% 0.25W	3741	4822 051 10123	12k 2% 0.25W	6322	4822 130 30621	1N4148	7708	4822 209 52642	VERSION-1.2
3510	4822 051 10228	202 5% 0.25W	3742	4822 051 20222	2k2 5% 0.1W	6332	4822 130 82583	LLZ-C9V1	7710	4822 209 32283	T24C08B
3511	4822 051 10228	202 5% 0.25W	3743	4822 051 10472	4k7 2% 0.25W	6464	4822 130 81015	LLZ-C10	7850	5322 130 42136	BC848C
3512	4822 051 10228	202 5% 0.25W	3746	4822 051 10123	12k 2% 0.25W	6483	4822 130 30621	1N4148	7860	5322 130 42136	BC848C
3513	4822 053 10331	330Ω 5% 1W	3747	4822 051 10822	8k2 2% 0.25W	6503	4822 130 42488	BYD33D	7861	5322 130 42136	BC848C
3514	4822 051 10182	1k8 2% 0.25W	3748	4822 051 10273	27k 2% 0.25W	6504	4822 130 80446	LL4148	7866	5322 130 42136	BC848C
3515	4822 051 10228	202 5% 0.25W	3750	4822 051 10472	4k7 2% 0.25W	6505	4822 130 80446	LL4148	7886	5322 130 42136	BC848C
3516	4822 100 10436	22k CARB LIN 0.1W	3751	4822 051 10153	15k 2% 0.25W	6505	4822 130 80446	LL4148			
3517	4822 051 10228	202 5% 0.25W	3752	4822 116 52244	15k 5% 0.5W	6542	4822 130 81222	LLZ-C15			
3519	4822 051 10228	202 5% 0.25W	3753	4822 116 52283	4k7 5% 0.5W	6542	4822 130 82345	LLZ-C22			
3520	4822 116 52283	4k7 5% 0.5W	3754	4822 051 10563	56k 2% 0.25W	6546	4822 130 83342	BY228			
3523	4822 051 10228	202 5% 0.25W	3755	4822 051 10101	100Ω 2% 0.25W	6547	4822 130 41602	BYW95C/20			
3529	4822 051 10228	202 5% 0.25W	3756	4822 051 10101	100Ω 2% 0.25W	6549	4822 130 31983	BAT85			
3535	4822 051 10151	150Ω 2% 0.25W	3757	4822 051 10182	1k8 2% 0.25W	6551	4822 130 42489	BYD33G			
3535	4822 051 51201	120k 1% 0.125W	3758	4822 051 10182	1k8 2% 0.25W	6560	4822 130 80446	LL4148			
3537	4822 116 52234	100Ω 5% 0.5W	3759	4822 051 10103	10k 2% 0.25W	6561	4822 130 30864	BZX79-C68			
3539	4822 053 20474	470k 5% 0.25W	3766	4822 116 52243	1k5 5% 0.5W	6563	4822 130 80915	BYD74C			
3540	4822 051 51201	120k 1% 0.125W	3767	4822 116 52243	1k5 5% 0.5W	6570	4822 130 42489	BYD33G			
3541	4822 116 52257	22k 5% 0.5W	3768	4822 051 10105	1M 5% 0.25W	6571	4822 130 42488	BYD33D			
3542	4822 051 10102	1k 2% 0.25W	3769	4822 116 52243	1k5 5% 0.5W	6580	4822 130 80791	BYV28-200/20			
3542	4822 051 10272	2k7 2% 0.25W	3770	4822 051 10473	47k 2% 0.25W	6585	4822 130 42489	BYD33G			
3543	4822 116 52175	100Ω 5% 0.5W	3771	4822 116 52251	18k 5% 0.5W	6590	4822 130 80881	LLZ-C33			
3545	4822 113 80576	180Ω 10% 5W	3772	4822 116 52276	3k9 5% 0.5W	6591	4822 130 30621	1N4148			
3545	4822 113 80668	330Ω 5% 5W	3775	4822 051 10101	100Ω 2% 0.25W	6592	4822 130 81144	LLZ-C30			
3546	4822 116 52206	120Ω 5% 0.5W	3776	4822 051 10562	5k6 2% 0.25W	6592	4822 130 82346	LLZ-C27			
3546	4822 116 52213	180Ω 5% 0.5W	3779	4822 116 52233	10k 5% 0.5W	6610	4822 130 80446	LL4148			
3548	4822 116 52175	100Ω 5% 0.5W	3780	4822 051 10103	10k 2% 0.25W	6611	5322 130 80446	BZV85-C16			
3549	4822 050 21203	12k 1% 0.6W	3781	4822 051 10472	4k7 2% 0.25W	6612	4822 130 42488	BYD33D			
3550	4822 050 21203	12k 1% 0.6W	3791	4822 051 10122	1k2 2% 0.25W	6615	4822 130 80446	LL4148			
3551	4822 050 25601	560Ω 1% 0.6W	3792	4822 051 10122	1k2 2% 0.25W	6617	4822 130 31456	BZV85-C5V1			
3552	4822 050 25601	560Ω 1% 0.6W	3793	4822 051 10122	1k2 2% 0.25W	6621	4822 130 42488	BYD33D			
3553	4822 052 10561	560Ω 2% 0.33W	3794	4822 116 52215	220Ω 5% 0.5W	6622	4822 130 30621	1N4148			
3560	4822 116 52244	15k 5% 0.5W	3850	4822 116 52201	75Ω 5% 0.5W	6624	4822 130 31933	1N5061			
3560	4822 116 52271	33k 5% 0.5W	3851	4822 116 83953	75Ω 5% 0.125W	6625	4822 130 31933	1N5061			
3561	4822 051 10332	3k3 2% 0.25W	3852	4822 116 83953	75Ω 5% 0.125W	6630	4822 130 33531	BY229F-6			

Spare parts list / Stükliste / Liste des pièces

6200	4822 130 31981	BZX79-F3V9
6201	4822 130 31981	BZX79-F3V9
6202	4822 130 31981	BZX79-F3V9
6203	4822 130 31981	BZX79-F3V9

1002 Mains filter module [D]

Various

4822 265 30389	2P male vert yellow
4822 265 30877	3P male vertB
4822 267 40794	3P female vert grey WTB
4822 290 40288	Snap connector
4822 404 31317	Mains filter module bracket
1002 4822 212 30975	Mains filter module

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2602	4822 126 11141	2.2nF 10% 1K
2604	4822 126 11141	2.2nF 10% 1K

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3601	4822 116 40211	P.T.C.
3603	4822 117 10492	10M 5%
3605	4822 052 10102	1k 5% 0.33
3607	4822 050 23901	390Ω 1% 0.6
3608	4822 116 21213	VDR 1mA/275V

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5600	4822 157 63073	Mains filter
5605	4822 157 53995	100μH 10%

—H—

6602	4822 130 31933	1N5061
6603	4822 130 31933	1N5061
6604	4822 130 31933	1N5061
6605	4822 130 31933	1N5061
6609	4822 130 34281	BZX79-F15
6610	4822 130 34281	BZX79-F15

1005 Picture tube (CRT) module [E]

Various

4822 265 31133	3P male white
4822 265 30378	4P male grey
4822 265 50824	4P female grey
4822 290 40283	5P male grey
4822 290 40287	5P female green
4822 290 40295	7P male grey
4822 267 51275	7P female white
4822 265 40252	7P female grey
4822 267 51033	Single connector
4822 492 70871	Spring
4822 256 91879	Holder
4822 255 70261	CRT-socket
1005 4822 212 31629	CRT module 90° narrow neck
1005 4822 212 31628	CRT module 110° BL-S

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2301	4822 122 31769	18pF 2% 63V
2301	4822 126 10324	33pF 2% 63V
2331	4822 122 31769	18pF 2% 63V
2331	4822 126 10324	33pF 2% 63V
2344	4822 124 40246	4.7μF 20% 63V
2361	4822 122 31825	27pF 2% 63V
2361	4822 122 32504	15pF 2% 63V
2391	4822 121 43878	27pF 2% 500V
2392	4822 124 80213	4.7μF 20% 100V
2393	4822 122 32542	47nF 10% 63V
2411	4822 124 80067	4.7μF 20% 63V
2421	4822 122 32482	22pF 2% 63V
2431	4822 121 41689	100nF 10% 250V
2432	5322 124 41378	33μF 20% 35V
2433	4822 126 12274	1500pF
		10%R(HR) 2KV
2434	5322 122 32334	220pF 10% 100V
2520	5322 124 41299	68μF 20% 25V
2521	4822 122 32891	68nF 10% 63V
2522	5322 121 42661	330nF 5% 63V
2523	4822 122 31981	33nF ±0.5pF 50V
2526	4822 121 51093	6.8nF 5% 250V
2531	4822 121 42408	220nF 5% 63V
2531	4822 121 43396	120nF 5% 63V
2532	4822 124 80066	1μF 20% 63V
2532	4822 124 80067	4.7μF 20% 63V
2533	4822 124 40242	1μF 20% 63V
2534	5322 122 31647	1nF 10% 63V

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3301	4822 051 10131	130Ω 2% 0.25W
3302	4822 051 10182	1k8 2% 0.25W
3302	4822 051 10362	3k6 2% 0.25W
3303	4822 051 10242	2k4 2% 0.25W
3303	4822 051 10272	2k7 2% 0.25W
3304	4822 116 52239	120k 5% 0.5W
3305	4822 051 10154	150k 2% 0.25W
3305	4822 051 10823	82k 2% 0.25W
3306	4822 116 52219	330Ω 5% 0.5W
3309	4822 051 10108	1Ω 5% 0.25W
3309	4822 051 10479	47Ω 2% 0.25W
3310	4822 116 52219	330Ω 5% 0.5W
3311	4822 053 12153	15k 5% 3W
3312	4822 052 10271	270Ω 5% 0.33W
3313	4822 052 10271	270Ω 5% 0.33W
3314	4822 050 21502	1k5 1% 0.6W
3315	4822 051 10184	180k 2% 0.25W
3315	4822 051 10823	82k 2% 0.25W
3316	4822 051 10224	220k 2% 0.25W
3316	4822 051 10823	82k 2% 0.25W
3331	4822 051 10131	130Ω 2% 0.25W
3332	4822 051 10182	1k8 2% 0.25W
3332	4822 051 10362	3k6 2% 0.25W
3333	4822 116 52259	2k4 5% 0.5W
3333	4822 116 52263	2k7 5% 0.5W
3334	4822 116 52239	120k 5% 0.5W
3338	4822 051 10108	1Ω 5% 0.25W
3338	4822 051 10479	47Ω 2% 0.25W
3340	4822 116 52219	330Ω 5% 0.5W
3341	4822 053 12153	15k 5% 3W
3342	4822 052 10271	270Ω 5% 0.33W
3343	4822 052 10271	270Ω 5% 0.33W
3344	4822 050 21502	1k5 1% 0.6W
3345	4822 051 10681	680Ω 2% 0.25W
3361	4822 116 52208	130Ω 5% 0.5W
3362	4822 051 10182	1k8 2% 0.25W
3362	4822 051 10362	3k6 2% 0.25W
3364	4822 051 10472	4k7 2% 0.25W
3368	4822 051 10108	1Ω 5% 0.25W
3368	4822 051 10479	47Ω 2% 0.25W
3370	4822 116 52219	330Ω 5% 0.5W
3371	4822 053 12153	15k 5% 3W
3372	4822 052 10271	270Ω 5% 0.33W
3373	4822 052 10271	270Ω 5% 0.33W
3374	4822 050 21502	1k5 1% 0.6W
3375	4822 051 10184	180k 2% 0.25W
3375	4822 051 10823	82k 2% 0.25W
3376	4822 051 10224	220k 2% 0.25W
3376	4822 051 10823	82k 2% 0.25W
3382	4822 051 10102	1k 2% 0.25W
3383	4822 116 52284	47k 5% 0.5W
3384	4822 116 52277	39k 5% 0.5W
3385	4822 051 10473	47k 2% 0.25W
3391	4822 116 52284	47k 5% 0.5W
3392	4822 051 10123	12k 2% 0.25W
3395	4822 051 10122	1k2 2% 0.25W
3396	4822 051 10104	100k 2% 0.25W
3398	4822 051 10008	0Ω 5% 0.25W
3411	4822 116 52222	390Ω 5% 0.5W
3413	4822 116 52222	390Ω 5% 0.5W
3414	4822 051 10439	43Ω 2% 0.25W
3415	4822 116 52222	390Ω 5% 0.5W
3421	4822 051 10154	150k 2% 0.25W
3424	4822 051 20222	2k2 5% 0.1W
3431	4822 052 10181	180Ω 5% 0.33W
3431	4822 052 10271	270Ω 5% 0.33W
3432	4822 052 10229	22Ω 5% 0.33W
3433	4822 052 10128	1Ω 2% 0.33W
3433	4822 052 10188	1Ω 2% 0.33W
3434	4822 050 21502	1k5 1% 0.6W
3435	4822 050 21502	1k5 1% 0.6W
3436	4822 053 20825	8MΩ 5% 0.25W
3442	4822 116 52239	120k 5% 0.5W
3443	4822 051 10242	2k4 2% 0.25W
3443	4822 051 10272	2k7 2% 0.25W
3446	4822 051 10683	68k 2% 0.25W
3447	4822 051 10102	1k 2% 0.25W
3448	4822 051 10008	0Ω 5% 0.25W
3455	4822 051 10102	1k 2% 0.25W
3456	4822 050 11002	1k 1% 0.4W
3457	4822 051 10244	240k 2% 0.25W
3512	4822 051 10228	2Ω 5% 0.25W
3518	4822 051 10151	150Ω 2% 0.25W
3520	4822 116 52211	150Ω 5% 0.5W
3521	4822 101 20902	4k7 10% LIN 0.05W
3522	4822 051 10152	1k5 2% 0.25W
3524	4822 051 10683	68k 2% 0.25W
3525	4822 100 20169	10k 10% LIN 0.05W
3525	4822 100 20644	22k 10% LIN 0.05W
3526	4822 050 26803	68k 1% 0.6W
3526	4822 050 26804	680k 1% 0.6W
3527	4822 051 10274	270k 2% 0.25W
3528	4822 051 20222	2k2 5% 0.1W
3529	4822 051 10008	0Ω 5% 0.25W
3529	4822 051 10471	470Ω 2% 0.25W
3530	4822 051 10008	0Ω 5% 0.25W
3530	4822 051 10102	1k 2% 0.25W
3531	4822 051 10008	0Ω 5% 0.25W
3531	4822 051 10104	100k 2% 0.25W
3532	4822 051 10103	10k 2% 0.25W
3533	4822 116 52207	1k2 5% 0.5W
3533	4822 116 52303	8k2 5% 0.5W
3534	4822 052 10828	8Ω 2% 0.33W
3535	4822 051 10008	0Ω 5% 0.25W
3535	4822 051 10474	470k 2% 0.25W
3571	4822 051 10273	27k 2% 0.25W
3572	4822 051 10153	15k 2% 0.25W
3575	4822 051 10182	1k8 2% 0.25W
3578	4822 116 52245	150k 5% 0.5W
3580	4822 051 10103	10k 2% 0.25W
4xxx	4822 051 10008	0Ω 5% 0.25W

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5401	4822 156 20966	47μH
5401	4822 157 71295	100μH
5530	4822 152 20559	390μH 10%

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6301	4822 130 30842	BAV21
6302	4822 130 81015	LLZ-C10
6303	4822 130 80877	BAV103
6331	4822 130 80877	BAV103
6345	4822 130 82192	LLZ-C8V2
6361	4822 130 30842	BAV21
6383	4822 130 80446	LL4148
6411	4822 130 32831	BZX79-F3V0
6421	4822 130 30621	1N4148
6422	4822 130 81512	LLZ-C6V2
6423	4822 130 34362	BZX79-F8V2
6518	4822 130 80446	LL4148
6519	4822 130 80446	LL4148

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7302	4822 130 41773	BF869
7303	4822 130 41982	BC848B
7304	4822 130 41782	BF422
7305	4822 130 41646	BF423
7331	4822 130 41773	BF869
7333	4822 130 41982	BC848B
7334	4822 130 41782	BF422
7335	4822 130 41646	BF423
7345	4822 130 41983	BC858B
7361	4822 130 41773	BF869
7363	4822 130 41982	BC848B
7364	4822 130 41782	BF422
7365	4822 130 41646	BF423
7383	4822 130 41782	BF422
7391	4822 130 41646	BF423
7411	4822 130 40937	BC548B
7530	4822 130 60159	BC846B
7533	4822 130 63015	BD440
7534	4822 130 44283	BC636
7537	4822 130 41982	BC848B
7538	4822 130 41982	BC848B

1003 Euro module [F]

Various

4822 267 30631	2P cinch female
4822 267 50621	7P male white
4822 267 50721	

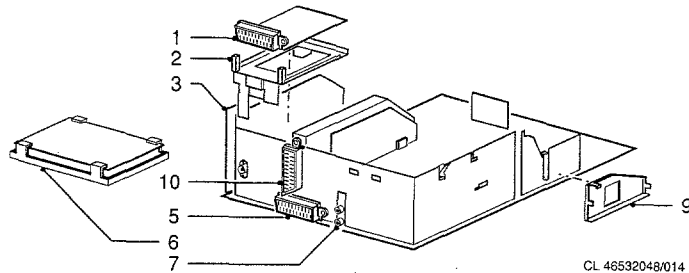
3966	4822 051 20332	3k3 5% 0.1W
3967	4822 051 20104	100k 5% 0.1W
3968	4822 051 20104	100k 5% 0.1W
3969	4822 051 20683	68k 5% 0.1W
3970	4822 051 20683	68k 5% 0.1W
3971	4822 051 20153	15k 5% 0.1W
3972▲	4822 116 52233	10k 5% 0.5W
3973	4822 051 20222	2k2 5% 0.1W
3974	4822 116 80173	10k 5% 0.5W
3975	4822 116 52201	75Ω 5% 0.5W
3976	4822 050 11002	1k 1% 0.4W
3977	4822 116 52175	100Ω 5% 0.5W
3978	4822 116 52201	75Ω 5% 0.5W
3979	4822 116 52175	100Ω 5% 0.5W
3980	4822 051 20221	220Ω 5% 0.1W
3981	4822 051 20471	470Ω 5% 0.1W
3982	4822 051 20101	100Ω 5% 0.1W
3983	4822 051 20471	470Ω 5% 0.1W
3985▲	4822 116 52256	2k2 5% 0.5W
3986	4822 116 52296	6k8 5% 0.5W
3987	4822 116 80175	4k7 5% 0.5W
3988	4822 051 20182	1k8 5% 0.1W
3989	4822 051 20182	1k8 5% 0.1W
3990	4822 116 52175	100Ω 5% 0.5W
3991	4822 116 52211	150Ω 5% 0.5W
3992	4822 116 52211	150Ω 5% 0.5W

5950 4822 157 53634 5.6μH 10%

6950 4822 130 80446 LL4148



7950	5322 209 10576	HEF4053BP
7951	5322 130 42136	BC848C
7952	5322 130 42136	BC848C
7953	5322 130 42136	BC848C
7954	5322 130 42136	BC848C
7975	5322 130 42136	BC848C
7976	5322 130 42136	BC848C
7977	4822 130 42513	BC858C
7978	4822 130 42513	BC858C
7979	5322 130 42136	BC848C



CL 48532048/014
270694

Mechanical parts list

1	4822 267 60366	Third scart euroconnector
2	4822 404 31322	3 rd scart holder
3	Not applicable	
5	4822 267 60243	Euroconnector
6	4822 403 70926	Sep. mains holder
7	4822 267 30631	2 Fold cinch
9	4822 404 31317	Mains filter bracket
10	4822 267 60243	Euroconnector

1003 IF module [J/K/L/M]

Various

1003	4822 265 31059	5P red
1003	4822 212 31618	IF module Nicam PAL I
1003	4822 212 31619	IF module Stereo PAL BG
1003	4822 212 31621	IF module Nicam PAL BG
1003	4822 212 31622	IF module Stereo P/S BGLI
1003	4822 212 31623	IF module Stereo P/S BG/DK
1000	4822 242 80295	SAW 38.9 MHz Stereo PAL BG
1000	4822 242 81436	SAW 38.9 MHz Stereo P/S
1000	4822 242 81717	SAW 38.9 MHz NICAM PAL BG
1000	4822 242 81718	SAW 38.9 MHz NICAM PAL I
1001	4822 153 30025	6.0 MHz
1001	4822 242 72211	5.5 MHz
1100	4822 242 70714	5.5 MHz
1100	4822 242 71713	6.0 MHz
1101	4822 242 70485	5.74 MHz
1102	4822 242 70714	5.5 MHz
1102	4822 242 71713	6.0 MHz
1102	4822 242 72057	6.5 MHz
1103	4822 242 81423	38.9 MHz P/S BGLI
1103	4822 242 81716	38.9 MHz P/S BGDK
1104	4822 242 81715	33.4 MHz
1200	4822 242 81813	Crystal 10 MHz
1300	4822 242 81187	Crystal 11.700 MHz
1300	4822 242 81188	Crystal 13.104 MHz
1301	4822 242 81719	Crystal 8.192 MHz
1302	4822 242 72301	TH316BOM-20800 DAH
1302	4822 242 72303	TH316BQM

-II-

2000	4822 126 13159	180pF 5% 50V
2001	4822 126 13162	56pF 5% 50V
2002	4822 126 13161	100nF 10% 25V
2003	4822 124 41576	2.2uF 20% 50V
2004	4822 122 32927	220nF 20% 50V
2004	4822 126 13061	220nF 20% 25V
2005	5322 126 10223	4.7nF 10% 63V
2007	5322 122 31866	6.8nF 10% 63V
2007	5322 126 10223	4.7nF 10% 63V
2008	4822 126 13161	100nF 10% 25V
2008	4822 126 13346	39nF 10% 50V
2009	4822 124 41576	2.2uF 20% 50V
2010	4822 124 40246	4.7uF 20% 63V
2010	4822 124 40433	47uF 20% 25V
2011	5322 122 32269	6.8pF 5% 50V
2011	5322 122 32286	3.3pF 5% 50V
2012	4822 122 33177	10nF 20% 50V
2013	4822 126 13161	100nF 10% 25V
2014	4822 122 33496	100nF 10% 63V
2015	4822 124 41643	100uF 20% 16V
2016	4822 122 33177	10nF 20% 50V
2017	4822 126 13161	100nF 10% 25V
2018	4822 122 32646	5.6nF 10% 50V
2018	4822 126 13161	100nF 10% 25V
2020	5322 122 33537	1.2pF 5% 63V
2021	5322 122 33063	2.2pF 5% 50V
2100	5322 124 41431	22uF 20% 35V
2101	5322 124 41431	22uF 20% 35V
2102	5322 126 10223	4.7nF 10% 63V
2103	5322 126 10223	4.7nF 10% 63V
2106	5322 126 10223	4.7nF 10% 63V
2107	4822 124 41576	2.2uF 20% 50V
2108	5322 126 10223	4.7nF 10% 63V
2200	4822 122 33219	1.8nF 10% 50V
2201	4822 051 10008	Jumper
2202	4822 122 33177	10nF 20% 50V
2203	4822 126 13161	100nF 10% 25V
2204	4822 126 13161	100nF 10% 25V
2205	4822 122 33342	33nF 10% 63V
2206	4822 122 32646	5.6nF 10% 50V
2207	4822 122 32646	5.6nF 10% 50V
2208	4822 122 33342	33nF 10% 63V
2209	4822 122 33128	15nF 10% 63V
2210	4822 122 33128	15nF 10% 63V
2211	4822 126 13161	100nF 10% 25V
2212	4822 126 13161	100nF 10% 25V
2214	4822 124 40248	10uF 20% 63V
2215	4822 124 40196	220uF 20% 16V

2216	4822 124 40246	4.7uF 20% 63V
2217	4822 124 41643	100uF 20% 16V
2218	4822 124 40433	47uF 20% 25V
2219	4822 124 40246	4.7uF 20% 63V
2220	4822 124 40196	220uF 20% 16V
2221	4822 124 40196	220uF 20% 16V
2222	5322 121 42498	680nF 5% 63V
2223	5322 121 42498	680nF 5% 63V
2224	4822 122 32927	220nF 20% 50V
2225	4822 122 32927	220nF 20% 50V
2226	4822 124 41643	100uF 20% 16V
2227	4822 124 41643	100uF 20% 16V
2228	4822 124 41643	100uF 20% 16V
2228	4822 124 80702	100uF 20% 25V
2229	4822 124 41643	100uF 20% 16V
2230	5322 124 41431	22uF 20% 35V
2231	5322 124 41431	22uF 20% 35V
2232	5322 122 34098	10nF 10% 63V
2233	5322 122 34098	10nF 10% 63V
2234	4822 122 32927	220nF 20% 50V
2235	4822 122 32927	220nF 20% 50V
2236	4822 122 32927	220nF 20% 50V
2237	5322 124 41431	22uF 20% 35V
2238	5322 124 41431	22uF 20% 35V
2300	4822 121 42408	220nF 5% 63V
2301	4822 126 13161	100nF 10% 25V
2302	4822 126 13161	100nF 10% 25V
2303	4822 122 33514	68pF 5% 50V
2304	5322 122 31863	330pF 5% 50V
2305	4822 126 13161	100nF 10% 25V
2306	5322 122 33538	150pF 2% 63V
2307	5322 122 33538	150pF 2% 63V
2308	5322 122 34123	1nF 10% 50V
2309	4822 126 13161	100nF 10% 25V
2310	5322 122 31863	330pF 5% 50V
2311	5322 122 31866	6.8nF 10% 63V
2312	5322 122 31863	330pF 5% 50V
2313	4822 124 40433	47uF 20% 25V
2318	5322 122 31863	330pF 5% 50V
2319	4822 122 33514	68pF 5% 50V
2320	4822 122 33172	390pF 5% 50V
2321	5322 122 34123	1nF 10% 50V
2322	4822 122 33177	10nF 20% 50V
2323	5322 122 32654	22nF 10% 63V
2324	5322 121 42661	330pF 5% 63V
2325	5322 122 34123	1nF 10% 50V
2328	4822 122 33177	10nF 20% 50V
2329	5322 122 32659	33pF 5% 50V
2330	5322 122 32659	33pF 5% 50V
2331	5322 122 32531	100pF 5% 50V
2332	5322 122 32531	100pF 5% 50V
2333	4822 122 33177	10nF 20% 50V
2334	4822 126 13161	100nF 10% 25V
2335	4822 126 13161	100nF 10% 25V
2336	4822 124 40433	47uF 20% 25V
2340	4822 122 33177	10nF 20% 50V
2343	4822 122 33219	1.8nF 10% 50V
2343	5322 122 32654	22nF 10% 63V
2344	4822 122 33219	1.8nF 10% 50V
2344	5322 122 32654	22nF 10% 63V
2347	4822 124 41643	100uF 20% 16V
3000	4822 116 52211	150uF 5% 0.5W
3001	4822 101 11192	22k 30% LIN 0.1W
3002	4822 051 20181	180uF 5% 0.1W
3004	4822 116 52289	5k 5% 0.5W
3011	4822 051 20223	22k 5% 0.1W
3011	4822 116 52257	22k 5% 0.5W
3012	4822 051 20223	22k 5% 0.1W
3013	4822 051 20101	100uF 5% 0.1W
3013	4822 051 20151	100uF 5% 0.1W
3013	4822 051 20181	180uF 5% 0.1W
3013	4822 051 20271	270uF 5% 0.1W
3013	4822 051 20391	390uF 5% 0.1W
3014	4822 051 20123	12k 5% 0.1W
3015	4822 051 20223	22k 5% 0.1W
3016	4822 051 20562	5k 5% 0.1W
3018	4822 051 20106	10M 5% 0.1W
3019	4822 051 20474	470k 5% 0.1W
3024	4822 051 20562	5k 5% 0.1W
3026	4822 052 10109	10uF 5% 0.33W
3027	4822 051 20122	1k 2% 0.1W
3031	4822 051 20222	2k 2% 0.1W
3033	4822 053 10688	60uF 5% 0.1W
3034	4822 051 20101	100uF 5% 0.1W
3098	4822 051 20104	100k 5% 0.1W
3098	4822 051 20223	22k 5% 0.1W
3098	4822 051 20224	220k 5% 0.1W
3098	4822 051 20564	560k 5% 0.1W
3098	4822 051 20822	8k 2% 0.1W
3100	4822 051 20561	560uF 5% 0.1W
3101	4822 051 20561	560uF 5% 0.1W

3102	4822 051 20561	560Ω 5% 0.1W
3103	4822 051 20222	2k 5% 0.1W
3104	4822 051 20103	10k 5% 0.1W
3106	4822 116 52234	100Ω 5% 0.5W
3107	4822 116 52234	100Ω 5% 0.5W
3108	4822 051 20471	470Ω 5% 0.1W
3109	4822 051 20471	470Ω 5% 0.1W
3113	4822 116 52234	100Ω 5% 0.5W
3114	4822 051 20103	10k 5% 0.1W
3115	4822 051 20103	10k 5% 0.1W
3116	4822 051 20103	10k 5% 0.1W
3117	4822 051 20222	2k 5% 0.1W
3200	4822 051 10102	1k 2% 0.25W
3207	4822 051 20822	8k 2% 0.1W
3208▲	4822 052 10181	180Ω 5% 0.33W
3211	4822 051 20122	1k 2% 0.1W
3212	4822 051 20223	22k 5% 0.1W
3212	4822 051 20473	47k 5% 0.1W
3214	4822 051 20222	2k 5% 0.1W
3218	4822 051 20474	470k 5% 0.1W
3219	4822 051 20564	560k 5% 0.1W
3220	4822 051 20563	56k 5% 0.1W
3221	4822 051 20563	56k 5% 0.1W
3222	4822 051 20823	82k 5% 0.1W
3223	4822 051 20333	33k 5% 0.1W
3224	4822 051 20101	100Ω 5% 0.1W
3225	4822 051 20101	100Ω 5% 0.1W
3230	4822 051 20562	5k 5% 0.1W
3231	4822 051 20332	3k 3% 0.1W
3232	4822 051 10102	1k 2% 0.25W
3233	4822 051 10102	1k 2% 0.25W
3234	4822 051 20101	100Ω 5% 0.1W
3234▲	4822 052 10181	180Ω 5% 0.33W
3235	4822 051 20101	100Ω 5% 0.1W
3237	4822 051 20823	82k 5% 0.1W
3238	4822 051 20333	33k 5% 0.1W
3240	4822 051 20101	100Ω 5% 0.1W
3241	4822 051 20101	100Ω 5% 0.1W
3300	4822 051 20563	56k 5% 0.1W
3301▲	4822 051 20109	10Ω 5% 0.1W
3302	4822 051 20228	202Ω 5% 0.1W
3303	4822 051 20392	3k 9% 0.1W
3304	4822 051 20223	22k 5% 0.1W
3305	4822 051 20223	22k 5% 0.1W
3306	4822 051 20104	100k 5% 0.1W
3307	4822 051 20159	15Ω 5% 0.1W
3308	4822 051 20224	220k 5% 0.1W
3309	4822 051 20823	82k 5% 0.1W
3314	4822 051 20471	470Ω 5% 0.1W
3315	4822 051 20563	56k 5% 0.1W
3316	4822 051 10102	1k 2% 0.25W
3317	4822 051 20105	1M 5% 0.1W
3318	4822 051 20223	22k 5% 0.1W
3319	4822 117 11139	1k 5% 0.1W
3320	4822 051 20103	10k 5% 0.1W
3321	4822 051 20104	100k 5% 0.1W
3322	4822 051 20273	27k 5% 0.1W
3323	4822 051 20104	100k 5% 0.1W
3324	4822 051 20103	10k 5% 0.1W
3326	4822 051 20681	680Ω 5% 0.1W
3327	4822 051 20182	1k 8% 0.1W
3328	4822 117 11139	1k 5% 0.1W
3329	4822 051 20331	330Ω 5% 0.1W
3331	4822 051 20332	3k 3% 0.1W
3332	4822 051 20332	3k 3% 0.1W
3333	4822 116 52224	470Ω 5% 0.5W
3334	4822 051 20122	1k 2% 0.1W
3335	4822 051 20471	470Ω 5% 0.1W
3336	4822 051 20101	100Ω 5% 0.1W
3337	4822 051 20101	100Ω 5% 0.1W
3340	4822 051 20122	1k 2% 0.1W
3341	4822 051 20471	470Ω 5% 0.1W
4xxx	4822 051 10008	0.2 5% 0.25W
5000	4822 157 61898	0.47μH 10%
5001	4822 157 71099	0.28μH 10%
5002	4822 157 53066	15μH 10%
5002	4822 157 53303	12μH 10%
5002	4822 157 53634	5.6μH 10%
5002	4822 157 62767	8.2μH
5004	4822 157 53302	1μH
5004	4822 157 53539	0.27μH 5%
5100	4822 157 71098	1.8μH
5201	4822 157 71296	1500μH
5300	4822 157 50975	1 mH
5301	4822 157 50975	1 mH
6003	4822 130 80446	LL4148
6007	4822 130 80954	LLZ-CSV6
6007	4822 130 81227	LLZ-F5V6

3966	4822 051 20332	3k3 5% 0.1W
3967	4822 051 20104	100k 5% 0.1W
3968	4822 051 20104	100k 5% 0.1W
3969	4822 051 20683	68k 5% 0.1W
3970	4822 051 20683	68k 5% 0.1W

3971	4822 051 20153	15k 5% 0.1W
3972▲	4822 116 52233	10k 5% 0.5W
3973	4822 051 20222	2k2 5% 0.1W
3974	4822 116 80173	10k 5% 0.5W
3975	4822 116 52201	75Ω 5% 0.5W
3976	4822 050 11002	1k 1% 0.4W
3977	4822 116 52175	100Ω 5% 0.5W
3978	4822 116 52201	75Ω 5% 0.5W
3979	4822 116 52175	100Ω 5% 0.5W
3980	4822 051 20221	220Ω 5% 0.1W

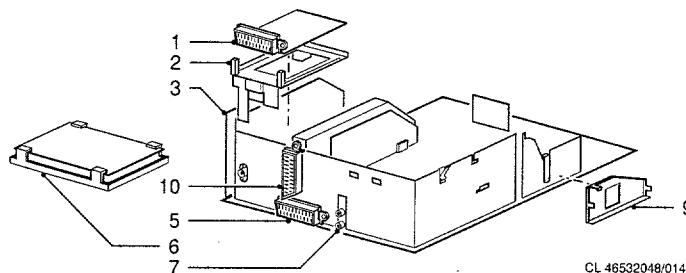
3981	4822 051 20471	470Ω 5% 0.1W
3982	4822 051 20101	100Ω 5% 0.1W
3983	4822 051 20471	470Ω 5% 0.1W
3985▲	4822 116 52256	2k2 5% 0.5W
3986	4822 116 52296	6k8 5% 0.5W
3987	4822 116 80175	4k7 5% 0.5W
3988	4822 051 20182	1k8 5% 0.1W
3989	4822 051 20182	1k8 5% 0.1W
3990	4822 116 52175	100Ω 5% 0.5W
3991	4822 116 52211	150Ω 5% 0.5W

3992	4822 116 52211	150Ω 5% 0.5W
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5950	4822 157 53634	5.6μH 10%
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6950	4822 130 80446	LL4148
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7950	5322 209 10576	HEF4053BP
7951	5322 130 42136	BC848C
7952	5322 130 42136	BC848C
7953	5322 130 42136	BC848C
7954	5322 130 42136	BC848C
7975	5322 130 42136	BC848C
7976	5322 130 42136	BC848C
7977	4822 130 42513	BC858C
7978	4822 130 42513	BC858C
7979	5322 130 42136	BC848C



CL 46532048/014
270694

Mechanical parts list

1	4822 267 60366	Third scart euroconnector
2	4822 404 31322	3 rd scart holder
3		Not applicable
5	4822 267 60243	Euroconnector
6	4822 403 70926	Sep. mains holder
7	4822 267 30631	2 Fold cinch
9	4822 404 31317	Mains filter bracket
10	4822 267 60243	Euroconnector