

A

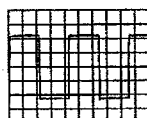


CL 16532100/011, AREF
310192

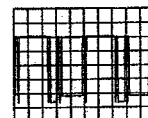
A	1003	A 5
	1702	J13
	1986	A 3
	2M31	C 9
	2704	N 4
B	2705	M 8
	2706	A11
	2707	F 7
	2708	E14
	2709	L14
C	2710	L14
	2711	K14
	2712	J14
	2713	B 7
	2714	D 7
D	2716	D 6
	2717	E 7
	2718	D16
	2719	J16
	2721	K16
E	2722	K16
	2781	L16
	3701	J 9
	3702	K 8
	3707	F 8
F	3718	H 9
	3719	I 7
	3720	I 5
	3721	G 8
	3722	H 6
G	3723	I 5
	3724	G 3
	3725	H 6
	3726	I 3
	3727	N 5
H	3728	E15
	3729	L 6
	3730	L 6
	3732	B16
	3733	C16
I	3734	C15
	3736	I16
	3737	J17
	3742	L16
	3743	K15
J	3747	H16
	3748	G15
	3749	F15
	3750	K 8
	3751	H16
K	3752	F15
	3753	F15
	3754	J 8
	3755	C 4
	3756	C 4
L	3757	C 3
	3758	C 3
	3759	E 8
	3768	K16
	3770	J15
M	3771	K17
	3772	K17
	3775	L 5
	3776	L 4
	3777	L 3
N	3778	L 3
	3779	L 3
	3780	N 3
	3781	J15
	41	M 3
O	4450	J 8
	4451	K 8
	4700	D 8
	4704	I 3
	4706	B 8
P	4707	N 7
	4708	B 8
	4709	B 9
	4710	J 8
	4712	H 4
Q	4716	H 4
	4717	N 5
	4718	I 3
	4721	E 3
	5701	L13
R	5703	B12
	6705	M 7
	6707	M 5
	6708	K17
	6709	D16
S	7703	H 8
	7704	I 6
	7705	I 4
	7706	K15
	7707	L15
T	7708	B 9
	7710	D 3
	8115	F 8
	8116	F 8
	8117	F 8

<http://www.cybergenom.com/cybersat.htm>

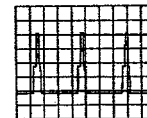
websat@cybergenom.com



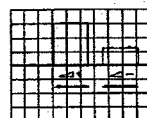
TP 12
1 V/div AC
10 μ S/div



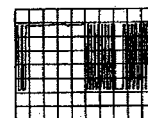
TP 15
1 V/div AC
0,2 mS/div



⑫
2 V/div AC
20 μ S/div



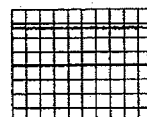
TP 13
1 V/div DC
1 S/div



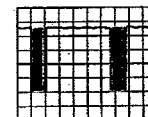
TP 16
1 V/div DC
0,1 mS/div



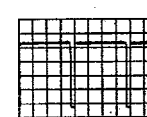
13
1 V/div AC
0,5 μ S/div



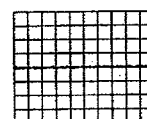
TP 14
1 V/div DC
0,5 mS/div



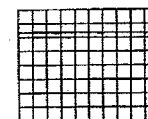
TP 17
1 V/div DC
20 mS/div



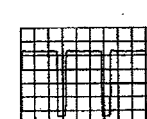
14
1 V/div AC
5 mS/div



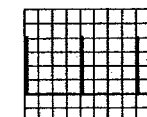
TP 14 ϕ
0,2 V/div DC
0,5 mS/div



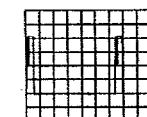
TP 18
2 V/div DC
20 mS/div



15
1 V/div AC
20 μ S/div



1e
0,5 V/div AC
5 mS/div



16
1 V/div AC
10 μ S/div



1000	C	1	3258	I21
1240	I	3	3259	I21
1242	H	3	3260	I21
2001	B	1	3261	D24
2002	F	2	3262	D24
2003	6	3	3263	K20
2004	D	4	3264	L20
2008	6	4	3265	H22
2010	6	4	3266	H25
2230	F	1	3267	I23
2231	J29	3268	I23	
2231	B27	3386	C20	
2232	J30	3850	E21	
2232	B28	3851	G22	
2233	E31	3852	G22	
2234	M32	3853	G23	
2234	F31	3854	G23	
2235	Q29	3855	H21	
2236	E28	3856	E21	
2237	J	4	3857	E21
2238	M30	3858	O21	
2238	F28	3859	O21	
2239	I	5	3860	G21
2240	J	4	3861	O21
2241	L31	3862	F21	
2241	F29	3866	J22	
2242	I	4	3867	O22
2243	E30	3868	N25	
2244	F33	3869	N25	
2245	M31	3870	N24	
2245	G29	3871	N22	
2246	O28	3872	F20	
2246	G26	3874	H20	
2247	D33	3879	O27	
2248	L29	3880	N26	
2248	E27	3881	N25	
2249	L29	3882	N25	
2249	E27	3884	M27	
2250	D23	3885	H26	
2251	D25	3887	B21	
2252	I22	3888	F23	
2254	G23	3889	C21	
2255	G25	3890	E21	
2256	H24	39	C31	
2257	H23	39	J33	
2262	M0	4222	G29	
2263	M1	4223	J	
2264	L21	4224	C32	
2265	L21	4233	N29	
2266	I23	4237	N29	
2850	M25	4239	L32	
2851	N25	4850	O22	
2852	M26	4851	N21	
2853	C21	4853	K23	
2854	G21	4856	G22	
2875	N27	4857	H25	
3001	B	2	4858	J22
3002	H	5	4859	J24
3003	F	2	4860	L21
3010	F	4	4861	F
3218	D26	4867	F21	
3219	M2	49	F21	
3219	F26	5001	G	
3220	H	4	5240	I
3221	N29	5242	H	3
3222	K	1	6245	H36
3224	I29	6246	L26	
3224	B27	6246	L26	
3225	J29	6247	I32	
3225	B27	6247	C27	
3226	J30	6248	B27	
3226	B28	6248	J29	
3227	J30	6249	G27	
3227	B28	7003	G	3
3228	J32	7240	L08	
3228	B30	7240	D28	
3229	I28	7243	J31	
3229	C26	7243	B29	
3230	O29	7244	O30	
3230	H26	7244	G27	
3231	O29	7245	G28	
3231	G26	7246	E27	
3232	N30	7247	M29	
3232	G28	7247	F27	
3233	G29	7248	L08	
3234	E26	7248	C78	
3235	F26	7249	K29	
3236	E27	7249	C27	
3237	M29	7311	H22	
3237	F27	7312	J22	
3238	D27	7850	C21	
3239	M30	7885	N26	
3239	F27	7886	F20	
3240	F30	9244	F33	
3241	N31	9245	E33	
3241	E29	9246	F33	
3242	D29	9247	D33	
3243	D29	9248	D32	
3243	M31	9249	F32	
3244	C30	9249	M34	
3244	K32	9250	E33	
3245	C30	9251	E33	
3245	K32	9760	N29	
3246	O30	9869	H28	
3247	E30			
3248	M32			
3248	F31			
3249	M32			
3249	F30			
3250	G24			
3251	G23			
3253	F24			
3254	F24			
3255	L21			
3256	L21			
3257	I20			

CHASSIS GR2.2

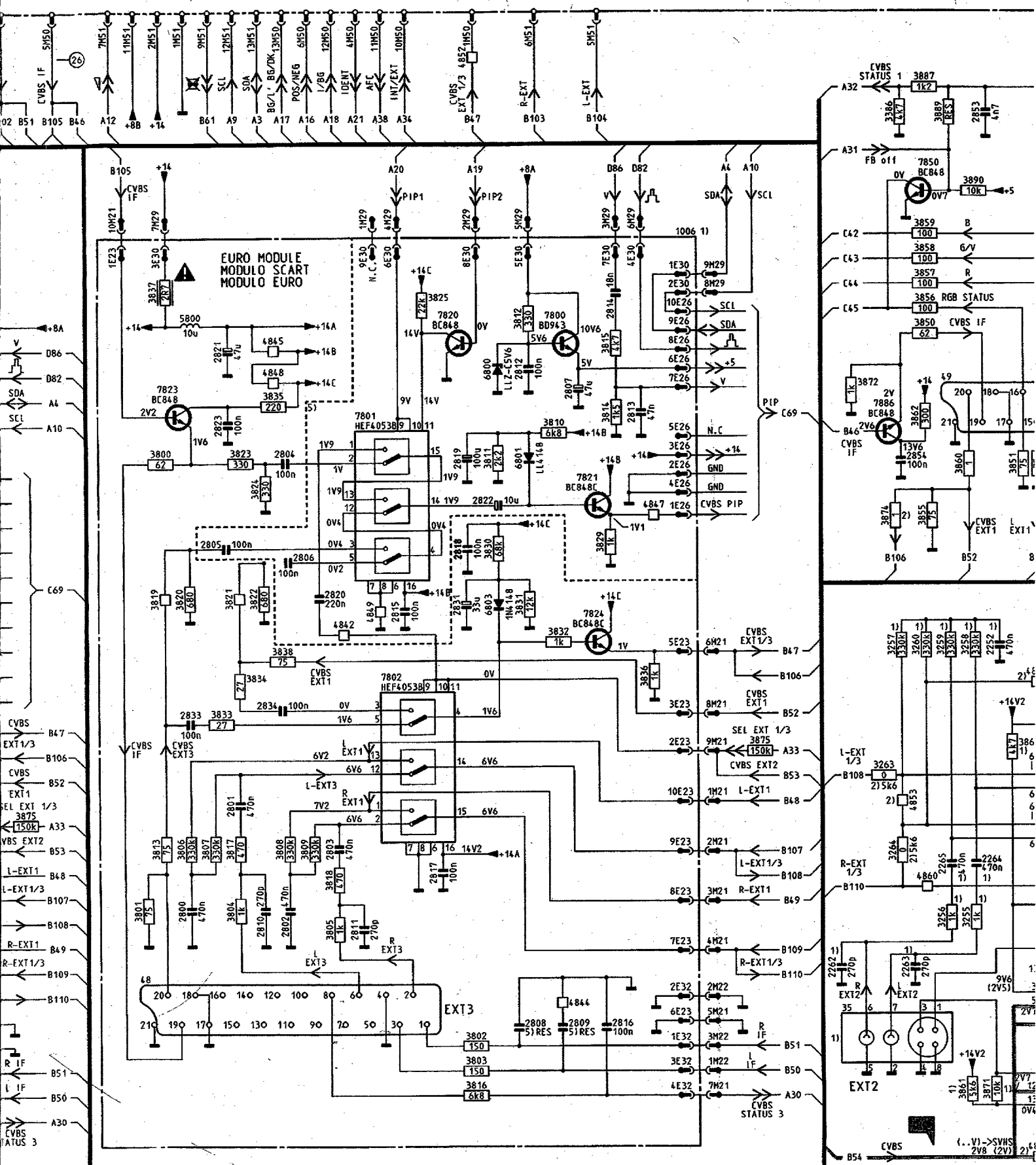
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270192



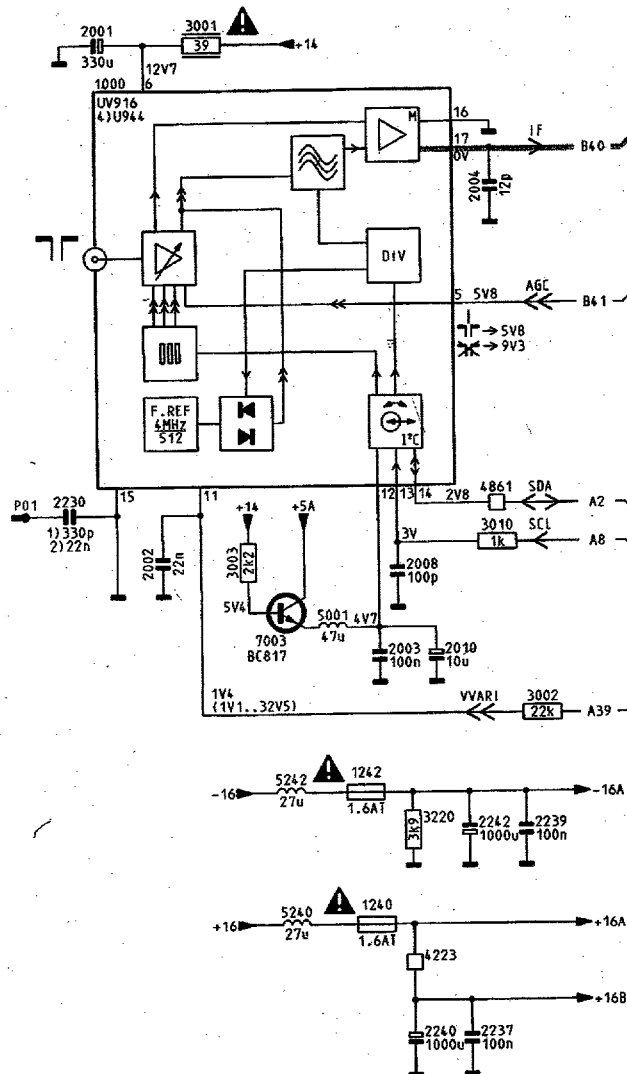
G : MONO

H : STEREO/ESTEREO

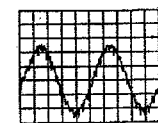
I : NICAM



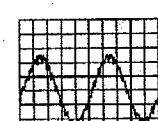
B



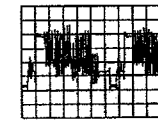
TP 40
0,5 V/div AC
20 μ S/div



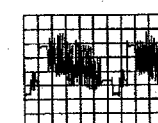
0,1 V/div DC
0,2 mS/div



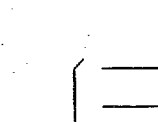
50 mV/div DC
0,2 mS/div



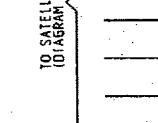
0,5 V/div AC
10 μ S/div



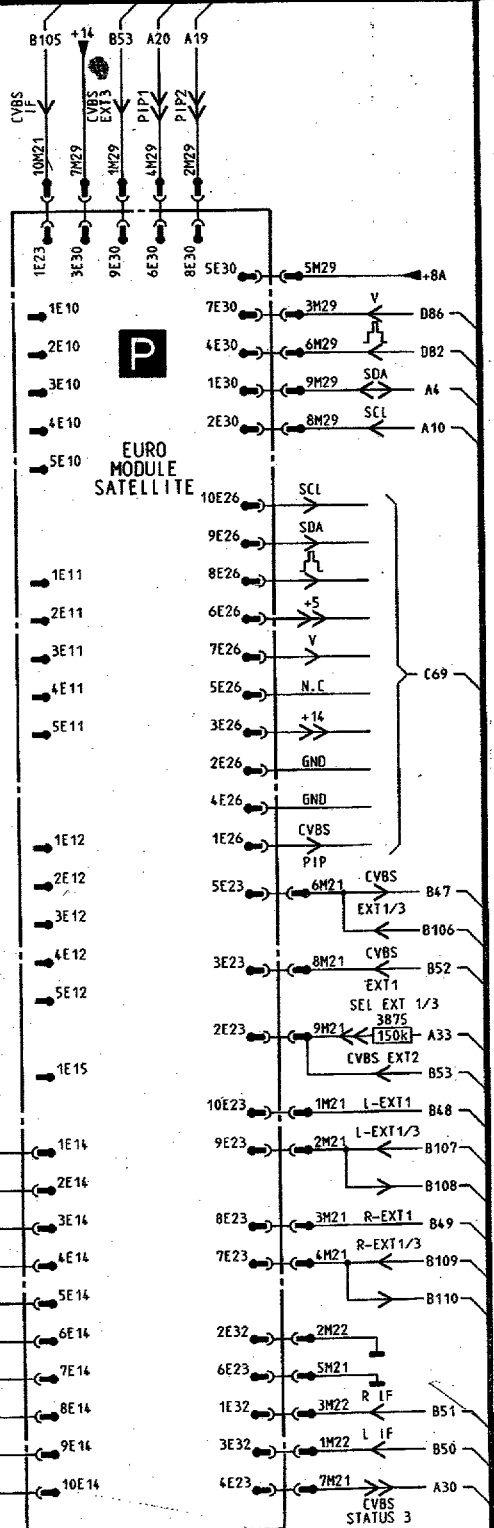
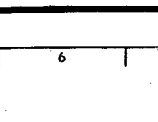
0,5 V/div AC
10 μ S/div

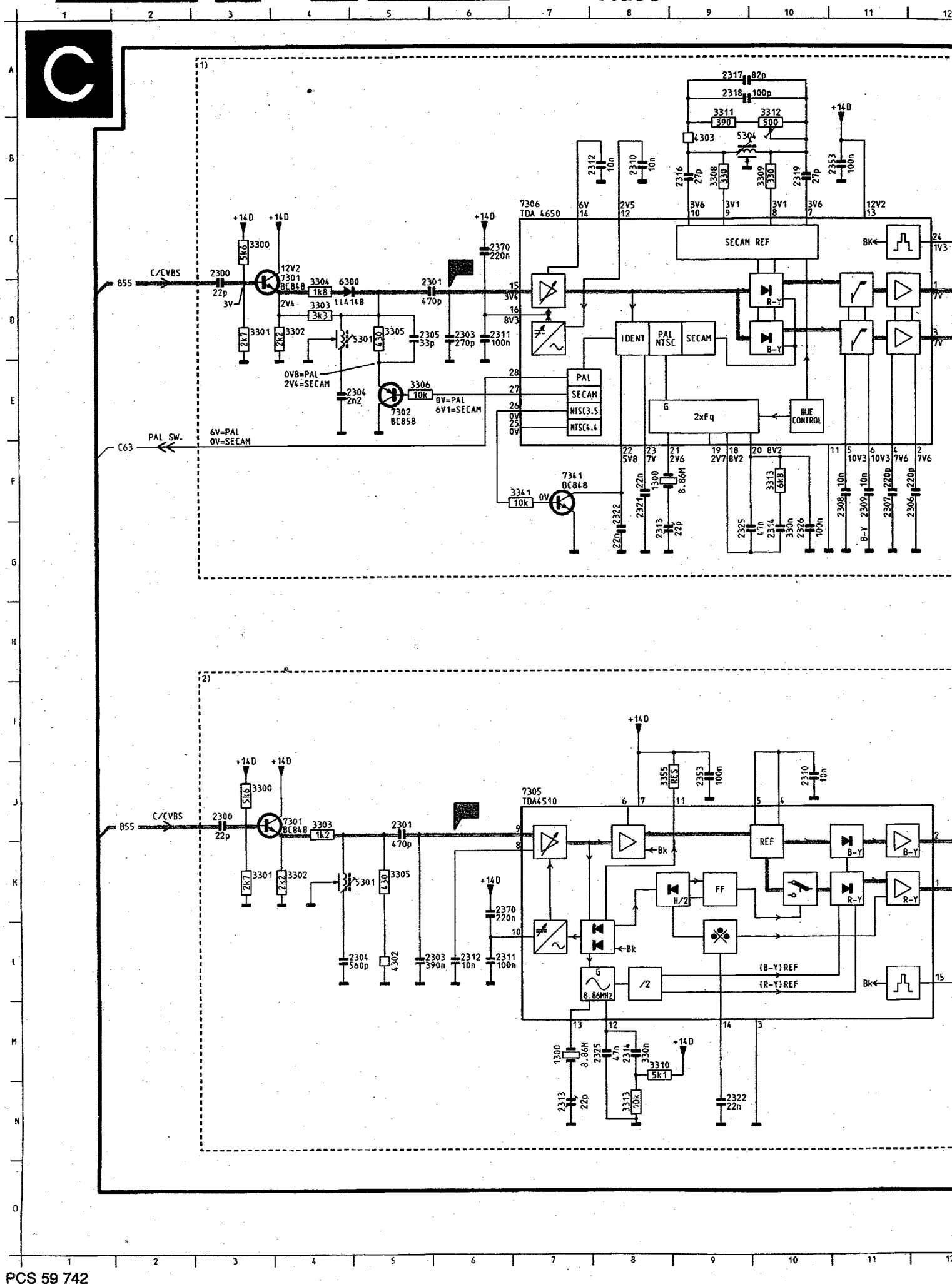


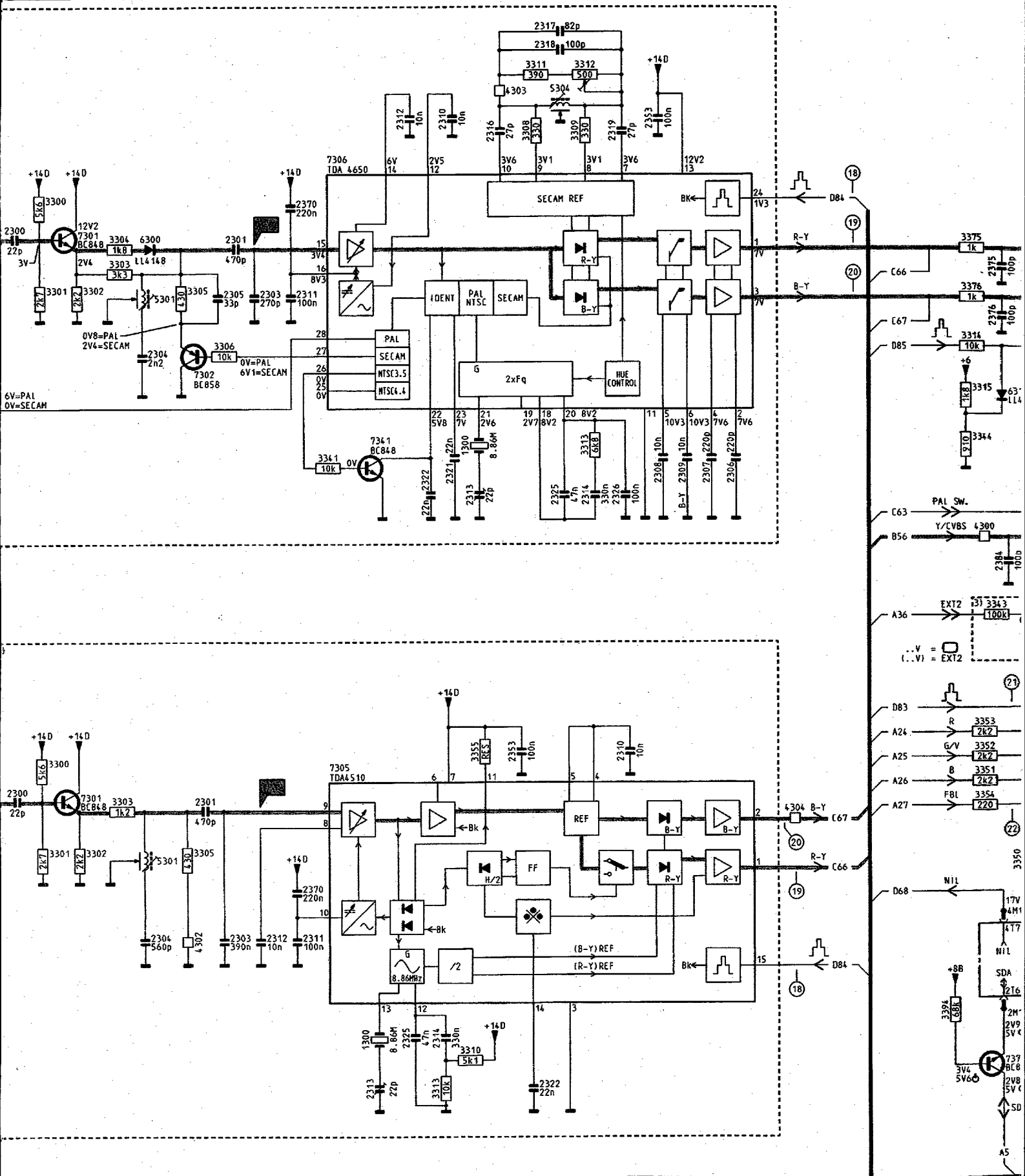
0,5 V/div AC
10 μ S/div

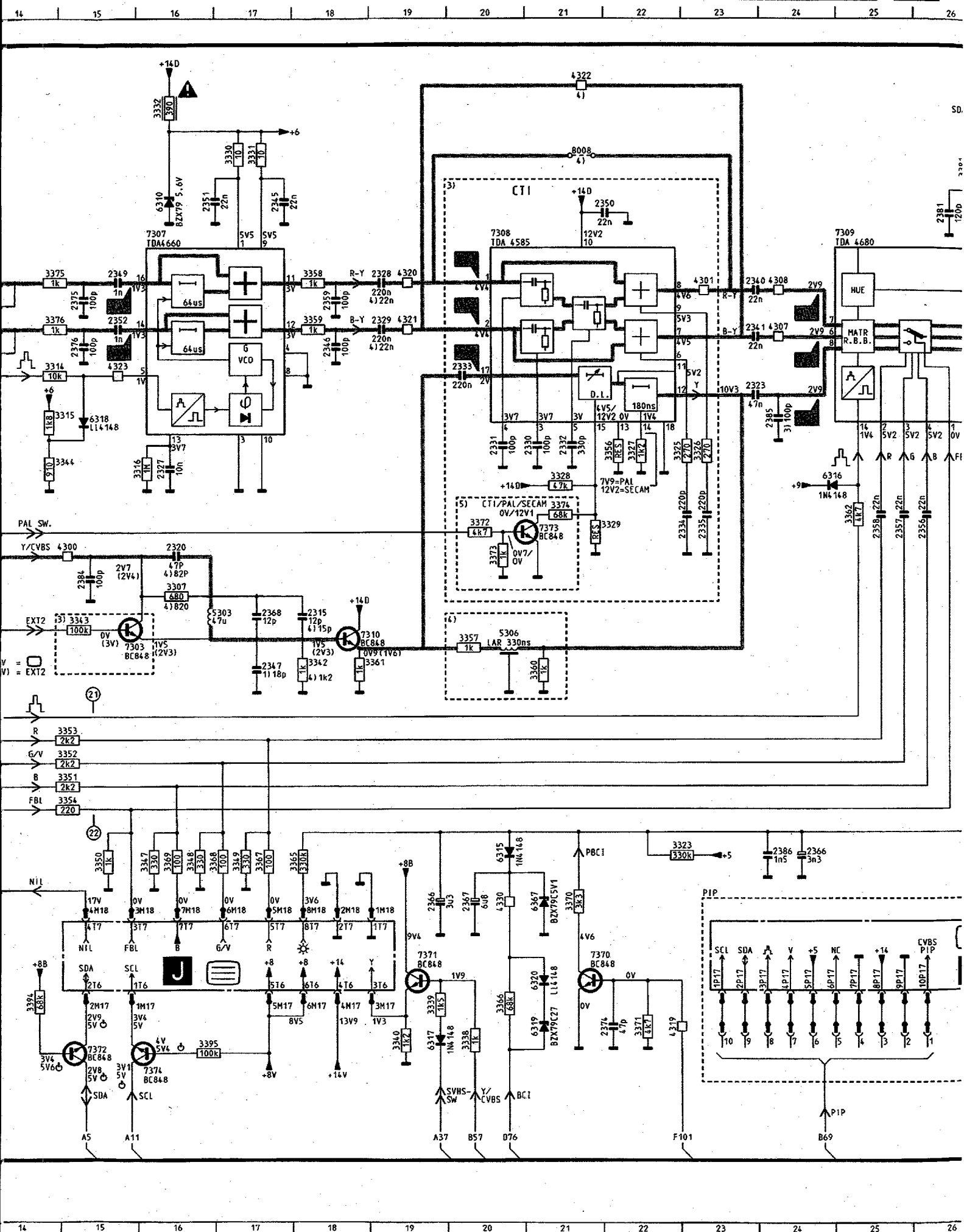


0,5 V/div AC
10 μ S/div



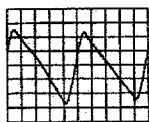








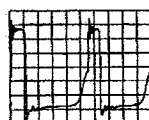
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1300	M	7	3323	K23
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2301	D	6	3327	F22
2301	J	5	3328	F21
2303	D	6	3329	G21
2303	L	5	3330	B17
2304	E	4	3331	B17
2304	L	4	3332	A16
2305	D	5	3334	B32
2306	F12		3335	B33
2307	F11		3338	M20
2308	F11		3339	M19
2309	F11		3340	M19
2310	B	8	3341	F
2310	J10		3342	H18
2311	D	6	3343	H15
2311	L	6	3344	F14
2312	B	8	3347	K16
2312	L	6	3348	K16
2313	G	8	3349	K17
2313	N	7	3350	J15
2314	G10		3351	J15
2314	M	8	3352	J15
2315	H18		3353	J15
2316	B	9	3354	J15
2317	A	9	3355	J
2318	A	9	3356	F22
2319	B10		3357	H20
2320	G16		3358	D18
2321	F	8	3359	D18
2322	N	9	3360	121
2322	G	8	3361	H18
2323	E23		3362	G25
2325	G	9	3365	K18
2325	M	8	3366	M20
2326	G10		3367	K17
2327	F16		3368	K17
2328	D19		3369	L16
2329	D19		3370	L21
2330	F21		3371	M22
2331	F20		3372	G20
2332	F21		3373	G20
2333	E20		3374	G21
2334	E23		3375	O14
2335	G23		3376	O14
2336	E27		3380	B26
2337	G27		3381	B26
2338	E27		3394	M16
2339	C32		3395	M16
2340	D23		4300	G15
2341	D23		4301	D23
2342	G29		4303	B
2343	C31		4304	J124
2344	C31		4307	D24
2345	D17		4308	D24
2346	D18		4319	M22
2347	I17		4320	D19
2349	D15		4321	D19
2350	D22		4322	A21
2351	C16		4323	E15
2352	D15		4324	E18
2353	B11		4325	F20
2353	J	9	4330	L28
2354	G29		5301	D
2356	G26		5301	K
2357	G25		5303	B16
2358	G25		5304	H
2359	D18		5306	H20
2360	C31		6300	D
2361	C31		6302	C32
2362	C29		6303	B32
2363	G29		6310	C16
2365	G29		6315	K24
2366	L19		6316	F20
2366	K24		6317	M19
2367	L20		6318	E15
2368	H17		6319	M21
2370	C	6	6320	M21
2370	K	6	6367	L21
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2374	M22		7303	H15
2375	D15		7305	J
2376	D15		7306	C
2380	C27		7307	C16
2381	C26		7308	C20
2384	G15		7309	C24
2385	E24		7310	H18
2386	K24		7341	F
3300	C	3	7370	L21
3300	J	3	7371	N19
3301	D	3	7372	L15
3301	K	3	7373	G16
3302	D	4	7374	N21
3302	K	4	8008	B21
3303	D			
3303	J			
3304	D			
3305	D			
3305	K			
3306	E			
3307	H16			
3308	B			
3309	B10			
3310	M			
3311	B			
3312	B10			
3313	F10			
3313	N			
3314	E14			
3315	E14			
3316	F16			
3317	F29			



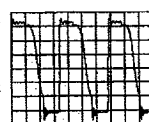
①
2 V/div AC
2 ms/div
280 V DC



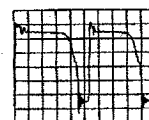
②
50 V/div AC
5 μs/div



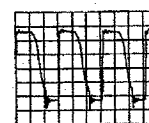
③
50 V/div AC
5 μs/div



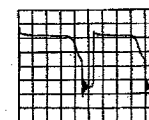
④
50 V/div AC
5 μs/div



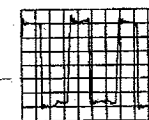
⑤
50 V/div AC
5 μs/div



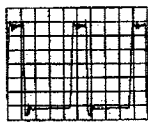
⑥
5 V/div AC
5 μs/div



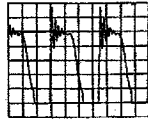
⑦
5 V/div AC
5 μs/div



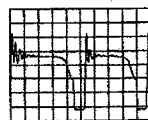
⑧
0,5 V/div AC
5 μs/div



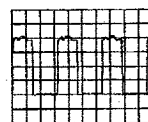
⑨
0,5 V/div AC
5 μs/div



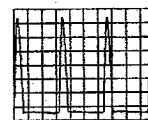
⑩
100 V/div AC
5 μs/div



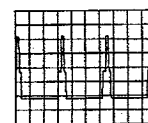
⑪
2 V/div AC
2 ms/div



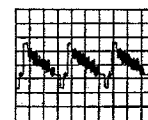
⑫
0,5 V/div AC
20 μs/div



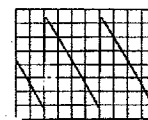
⑬
0,5 V/div AC
20 μs/div



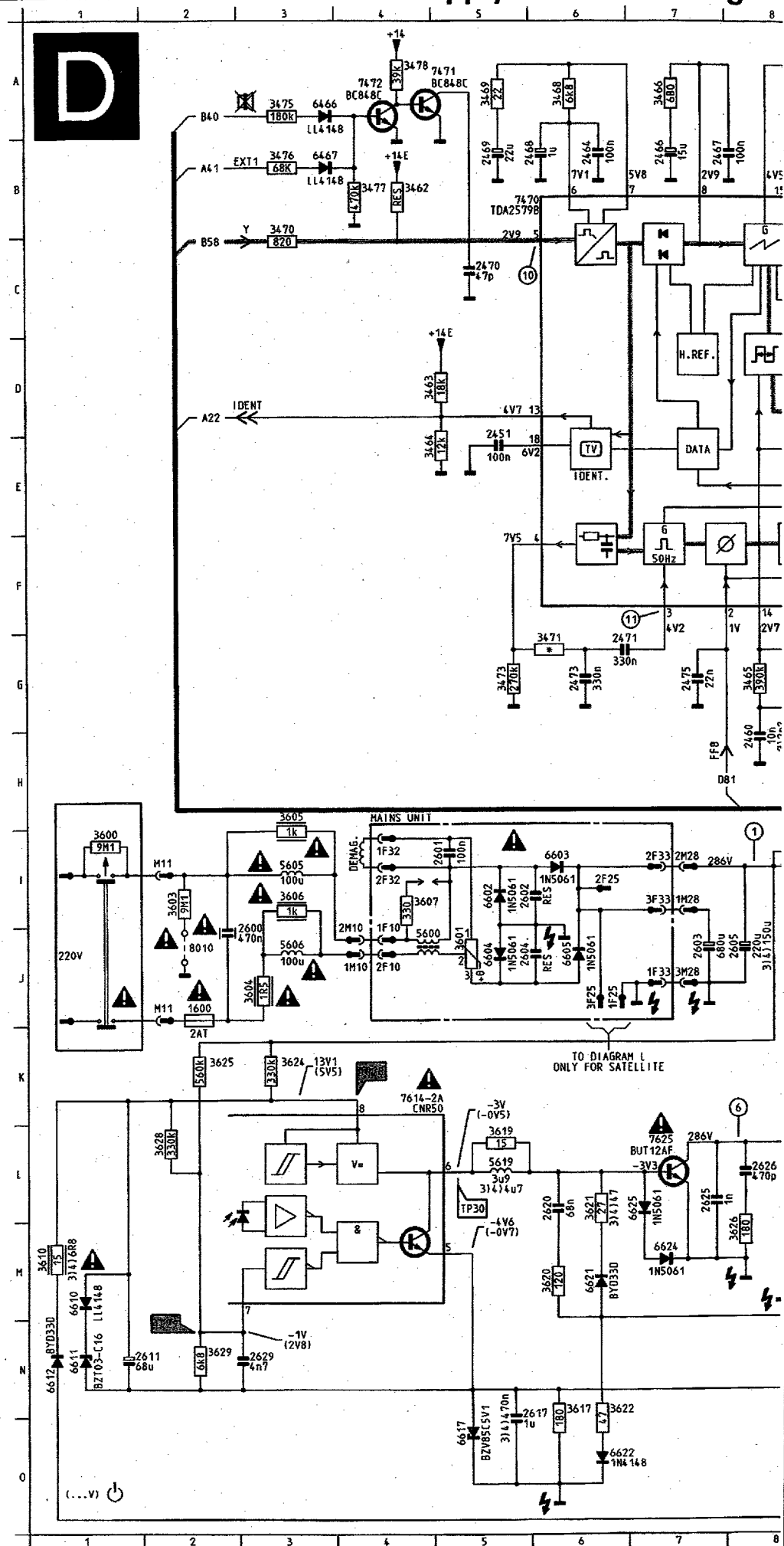
⑭
2 V/div AC
20 μs/div

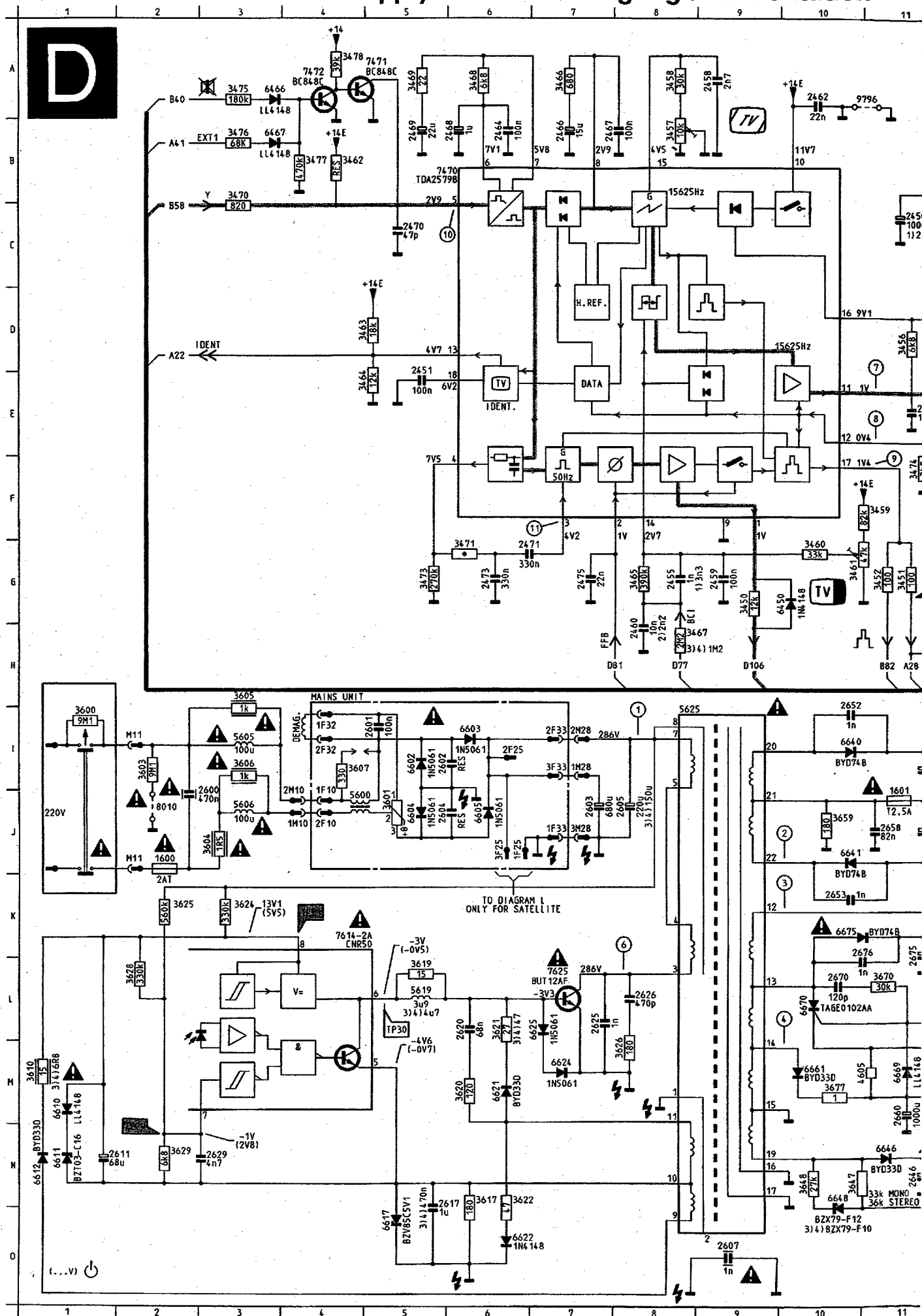


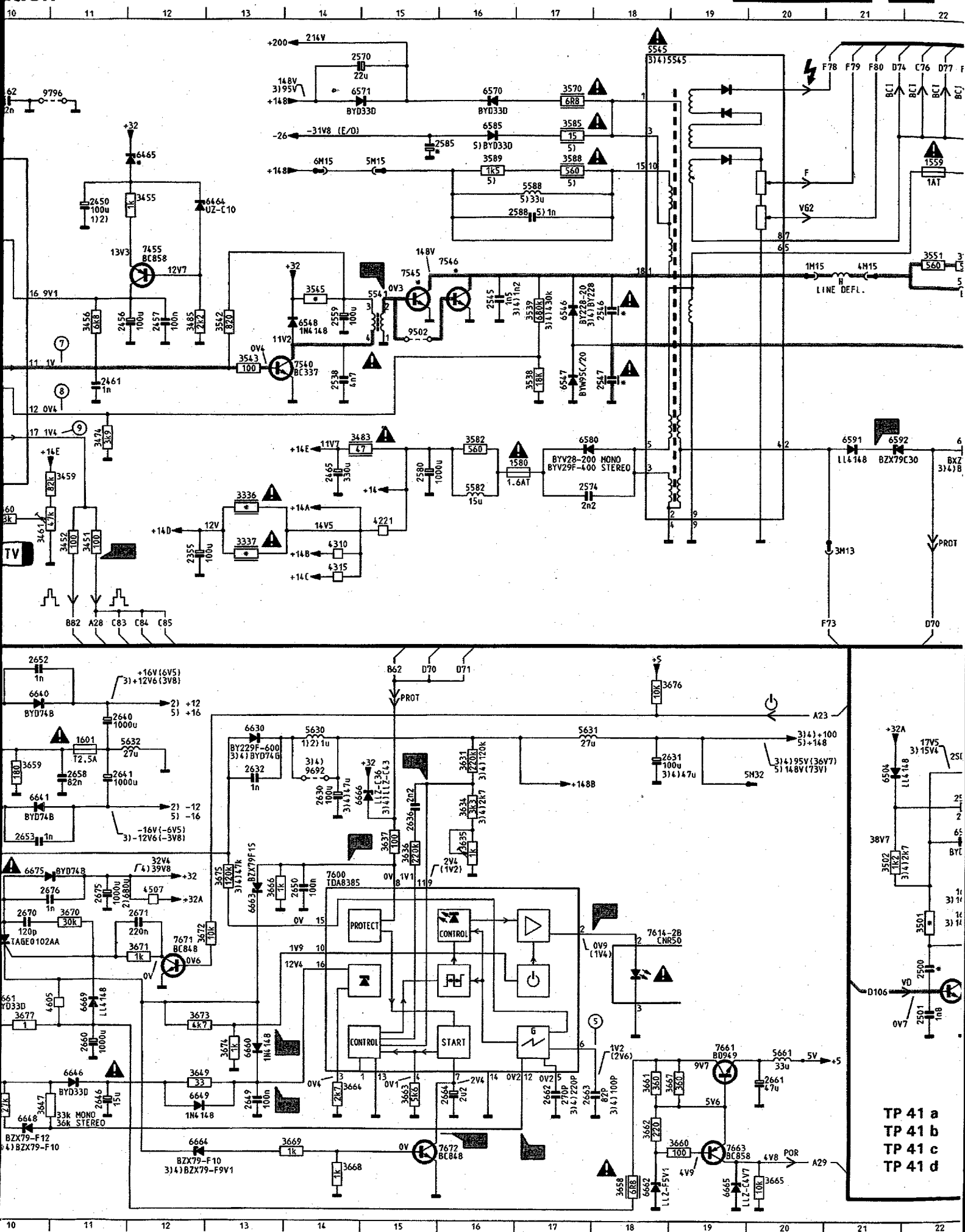
⑮
0,5 V/div AC
5 ms/div



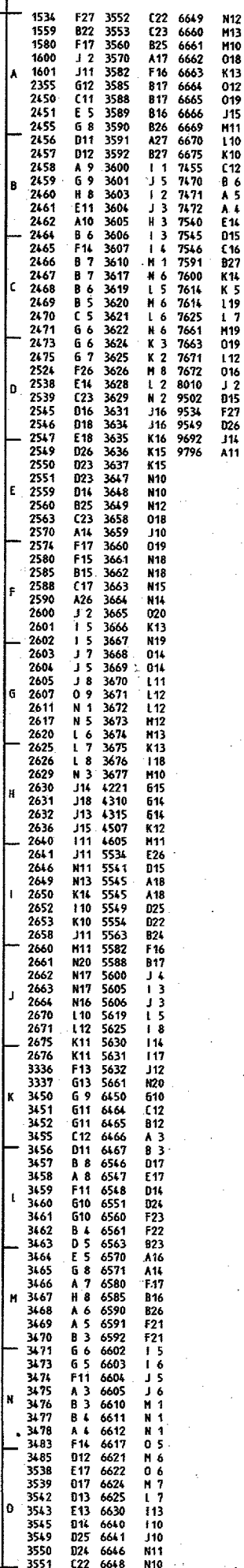
⑯
0,5 V/div AC
5 ms/div







Synchronization / Synchronisation



*	1)	2)	3)	4)
2500	220p	220p	470p	390p
2546	11n	8n2	7n5	15n
2547	22n	22n	33n	47n
2549	470n	390n	-	-
2550	390n	390n	470n	680n
2585	68u	10u	-	-
3336	22	27	15	15
3337	22	27	15	15
3471	120k	120k	220k	150k
3501	75	75	100	82
3508	2R2	-	2R2	2R2
3510	2R2	-	2R2	2R2
3515	2R2	-	2R2	2R2
3535	120	220	150	150
3545	120	180	680	680
3560	16k	20k	39k	36k
6465	BZX79F8V2	BZX79F10	BZX79F15	BZX79F15
7545	BU508AF	BU508AF	-	-
7546	-	-	BUT11AF	BUT12AF

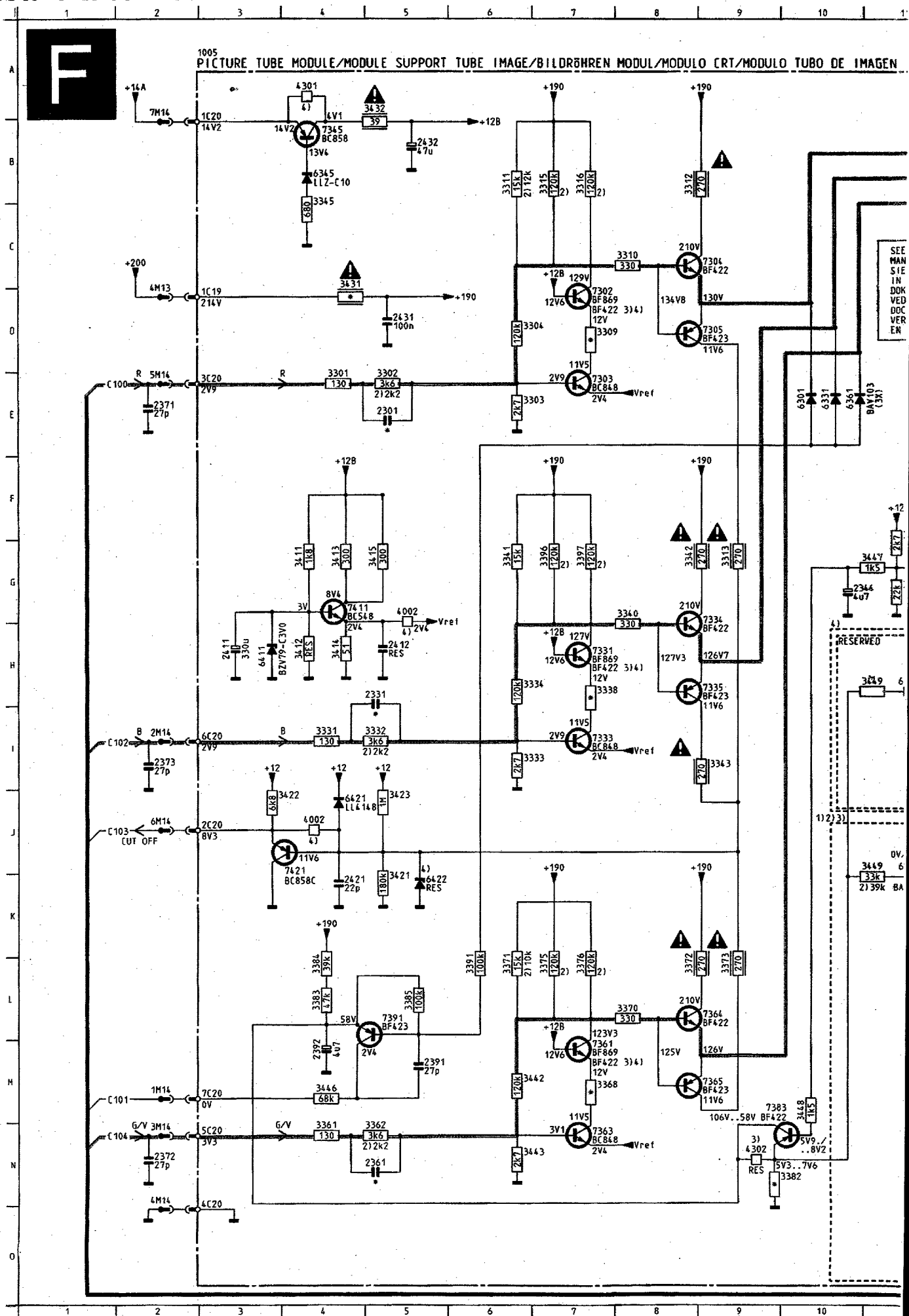
b-TS7503
c-D6504
b-TS7500
c-TS7503

CHASSIS GR2.2

Picture tube module

CHASSIS GR2.2

6.27



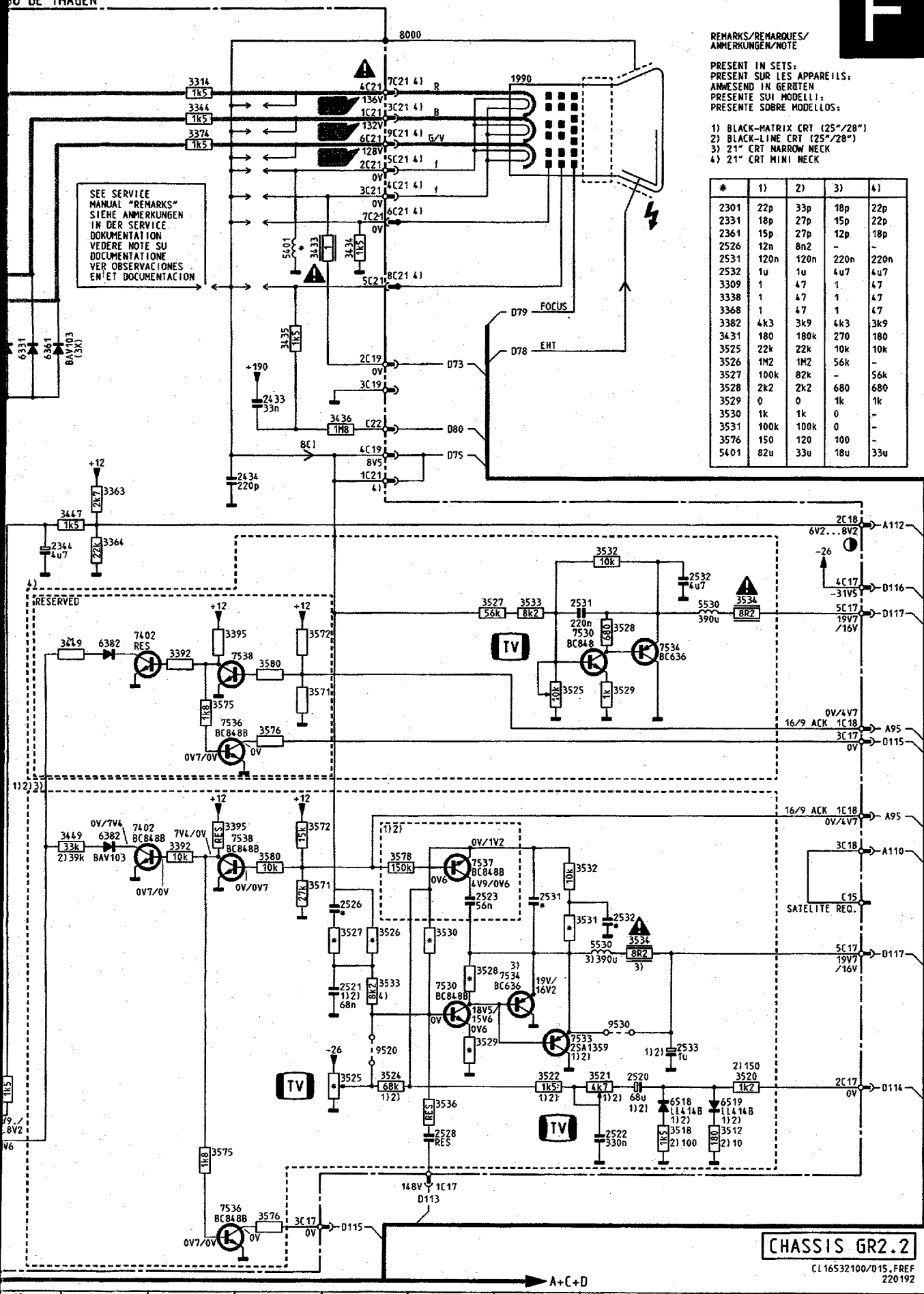
REMARKS/REMARQUES/
ANMERKUNGEN/NOTE

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

- 1) BLACK-MATRIX CRT (25"/28")
- 2) BLACK-LINE CRT (25"/28")
- 3) 21" CRT NARROW NECK
- 4) 21" CRT MINI NECK

#	1)	2)	3)	4)
2301	22p	33p	18p	22p
2331	18p	27p	15p	22p
2361	15p	27p	12p	18p
2526	12n	8n2	-	-
2531	120n	120n	220n	220n
2532	1u	1u	4u7	4u7
3309	1	47	1	47
3338	1	47	1	47
3368	1	47	1	47
3382	4k3	3k9	4k3	3k9
3431	180	180k	270	180
3525	22k	22k	10k	10k
3526	1M2	1M2	56k	-
3527	100k	82k	-	56k
3528	2k2	2k2	680	680
3529	0	0	1k	1k
3530	1k	1k	0	-
3531	100k	100k	0	-
3576	150	120	100	-
5401	82u	33u	18u	33u

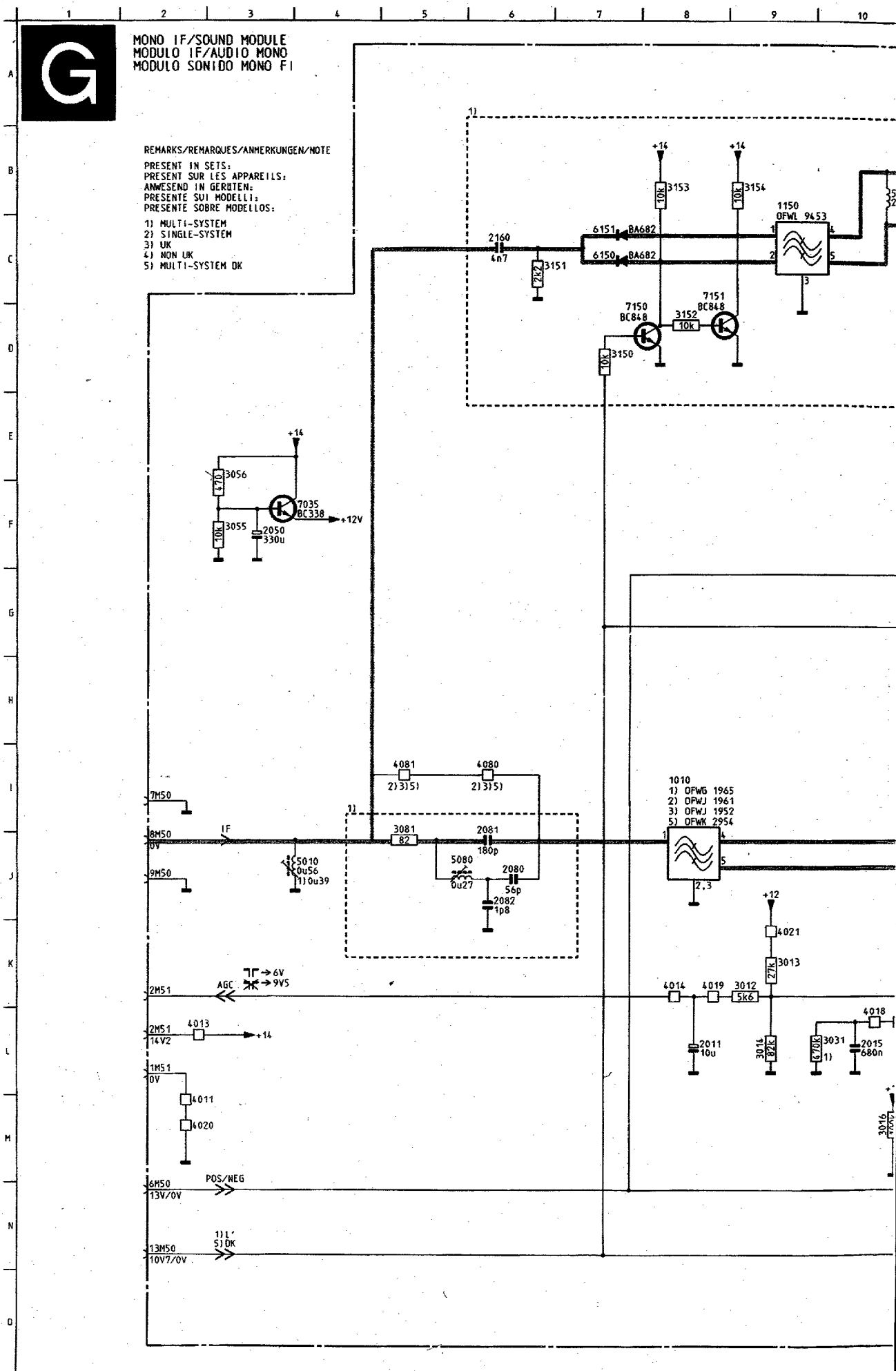
SEE SERVICE
MANUAL "REMARKS"
SIEHE ANMERKUNGEN
IN DER SERVICE
DOKUMENTATION
VEDERE NOTE SU
DOCUMENTATIONE
VER OBSERVATIONES
EN ET DOCUMENTACION

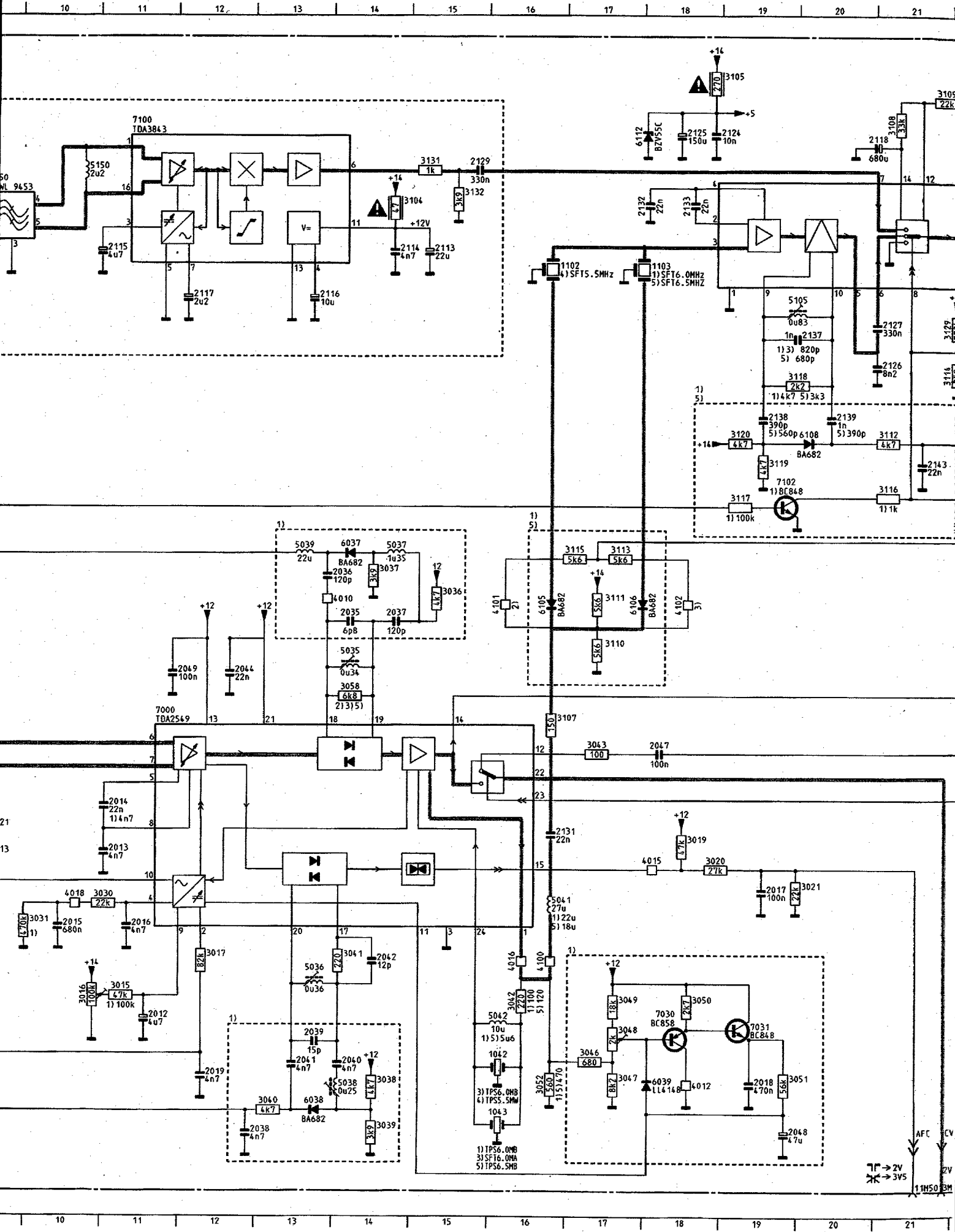


CHASSIS GR2.2

CL16532100/015, FREF
220192

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	1990	B16	3534	L 1
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	2331	H 5	3571	I 1
	2344	G10	3571	K 1
B	2361	N 5	3572	L 1
	2371	E 2	3572	J 1
	2372	N 2	3575	I 1
	2373	I 2	3575	I 1
	2391	M 5	3576	I 1
C	2392	M 4	3576	O 1
	2411	H 3	3578	K 1
	2412	H 5	3580	H 1
	2421	K 4	3580	K 1
	2431	D 5	4002	E 1
D	2432	B 5	4002	G 1
	2433	E13	4301	A 1
	2434	F13	4302	N 1
	2520	H17	5401	D 1
	2521	I 14	5530	L 1
E	2522	N17	5530	E 1
	2523	K15	6301	E 1
	2526	K14	6331	E 1
	2528	N15	6345	B 1
	2531	H16	6361	E 1
F	2531	K16	6361	E 1
	2532	G18	6382	J 1
	2532	K17	6411	H 1
	3001	E 4	6421	J 1
	3002	E 5	6422	K 1
G	3003	E 6	6518	N 1
	3004	D 6	6519	N 1
	3009	D 7	7302	D 1
	3010	C 8	7303	E 1
	3011	B 6	7304	C 1
H	3012	B 8	7305	D 1
	3013	G 9	7331	H 1
	3014	B12	7333	H 1
	3015	B 7	7334	H 1
	3016	B 7	7335	H 1
I	3031	I 4	7345	B 1
	3032	I 5	7361	M 1
	3033	I 6	7363	N 1
	3034	H 6	7364	L 1
	3040	G 8	7383	M 1
J	3041	G 6	7391	I 1
	3042	G 8	7402	H 1
	3043	I 9	7402	J 1
	3044	B12	7411	G 1
	3045	B 4	7421	J 1
K	3061	N 4	7530	H 1
	3062	N 5	7530	H 1
	3063	F11	7533	M 1
	3064	G11	7534	M 1
	3068	H 7	7534	O 1
L	3070	L 8	7536	E 1
	3071	L 6	7536	K 1
	3072	L 8	7537	K 1
	3073	L 9	7538	K 1
	3074	B12	7538	K 1
M	3075	L 7	9530	K 1
	3076	L 7		
	3082	N 9		
	3083	L 4		
	3084	L 4		
N	3085	L 5		
	3091	L 6		
	3092	K12		
	3092	H12		
	3095	H12		
O	3095	J12		
	3096	G 7		
	3097	G 7		
	3111	G 4		
	3112	H 4		
P	3113	G 4		
	3114	H 4		
	3115	G 5		
	3121	J 5		
	3122	J 3		
Q	3123	J 5		
	3131	D 4		
	3132	A 5		
	3133	D13		
	3134	D14		
R	3135	E13		
	3136	F14		
	3142	M 6		
	3143	N 6		
	3144	G11		
S	3147	M10		
	3149	H11		
	3149	J11		
	3512	N18		
	3518	N18		
T	3520	N18		
	3521	M17		
	3522	M16		
	3524	M14		
	3525	I 16		
U	3525	M14		
	3526	K14		
	3527	H15		
	3527	K14		
	3528	H17		
V	3528	L 15		
	3529	I 17		
	3529	M15		
	3530	K15		
	3531	K16		
W	3532	G17		
	3532	K16		
	3533	H16		
	3533	I 14		







A	1010	I 8	3118	E 19
	1042	N16	3119	F 19
	1043	N16	3120	F 19
	1102	D16	3121	B25
	1103	D18	3122	A26
B	1150	B 9	3123	O24
	2011	L 8	3124	O24
	2012	M11	3125	O25
	2013	K11	3126	O25
	2014	J11	3127	E26
C	2015	L10	3129	O21
	2016	L11	3130	E24
	2017	L19	3131	B15
	2018	N19	3132	C15
	2019	M12	3140	C25
D	2035	H14	3141	C24
	2036	G13	3142	C25
	2037	H14	3143	B25
	2038	O12	3144	B25
	2039	M13	3150	D 8
E	2040	N14	3151	C 6
	2041	N13	3152	D 8
	2042	L14	3153	B 8
	2044	I12	3154	B 9
	2047	J18	4010	H13
F	2048	O19	4011	M 2
	2049	I11	4012	N18
	2050	F 3	4014	K 8
	2055	H23	4015	K18
	2056	I23	4016	L16
G	2057	I24	4017	I27
	2058	J24	4018	L10
	2059	J26	4019	K 8
	2060	J27	4020	M 2
	2080	J 6	4021	K 6
H	2081	J 6	4080	I 6
	2082	J 6	4081	I 5
	2113	C15	4100	L16
	2114	C14	4101	H16
	2115	C11	4102	H18
I	2116	D13	5010	J 4
	2117	D12	5035	H14
	2118	B21	5036	M13
	2124	B18	5037	G14
	2125	B18	5038	N18
J	2126	E21	5039	G13
	2127	D21	5041	L16
	2129	B15	5042	M16
	2130	C24	5080	J 5
	2131	K16	5105	D19
K	2132	C17	5150	B10
	2133	C18	6036	G23
	2134	A23	6037	K14
	2135	E26	6038	N13
	2136	E23	6039	N18
L	2137	O20	6040	G23
	2138	E19	6041	I23
	2139	E20	6042	H23
	2141	O23	6043	I25
	2143	F21	6105	H16
M	2150	C26	6106	H17
	2151	B26	6108	F20
	2160	C 6	6112	B17
	2012	K 9	6150	C 7
	3013	K 9	6151	C 7
N	3014	L 9	7000	L11
	3015	M11	7030	M18
	3016	M10	7031	M19
	3017	L12	7035	F 4
	3019	K18	7040	I25
O	3020	K18	7041	I26
	3021	K20	7100	B11
	3030	L11	7101	B23
	3031	L10	7102	F19
	3036	M15	7103	E25
P	3037	G14	7104	C25
	3038	N14	7150	D 8
	3039	M14	7151	C 8
	3040	N13		
	3041	L14		
Q	3042	M16		
	3043	J17		
	3044	J23		
	3046	M17		
	3047	M17		
R	3048	M17		
	3049	M17		
	3050	M18		
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	3052	N16		
S	3055	F 3		
	3056	E 3		
	3058	I14		
	3060	I23		
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T	3062	H24		
	3063	J25		
	3064	I26		
	3065	J26		
	3066	I24		
U	3067	J27		
	3068	H27		
	3081	J 5		
	3104	C14		
	3105	A19		
V	3107	L16		
	3108	B21		
	3109	A21		
	3110	H17		
	3111	H17		
W	3112	F21		
	3113	G17		
	3114	E21		
	3115	G17		
	3116	F21		
3117	F19			

WEBSAT□
http://www.cybergenom.com/cybersat.htm□
FAX: 957-43-34-14□
websat@cybergenom.com□

CHASSIS GR2.2

CL 16532100/016, GREF
310192

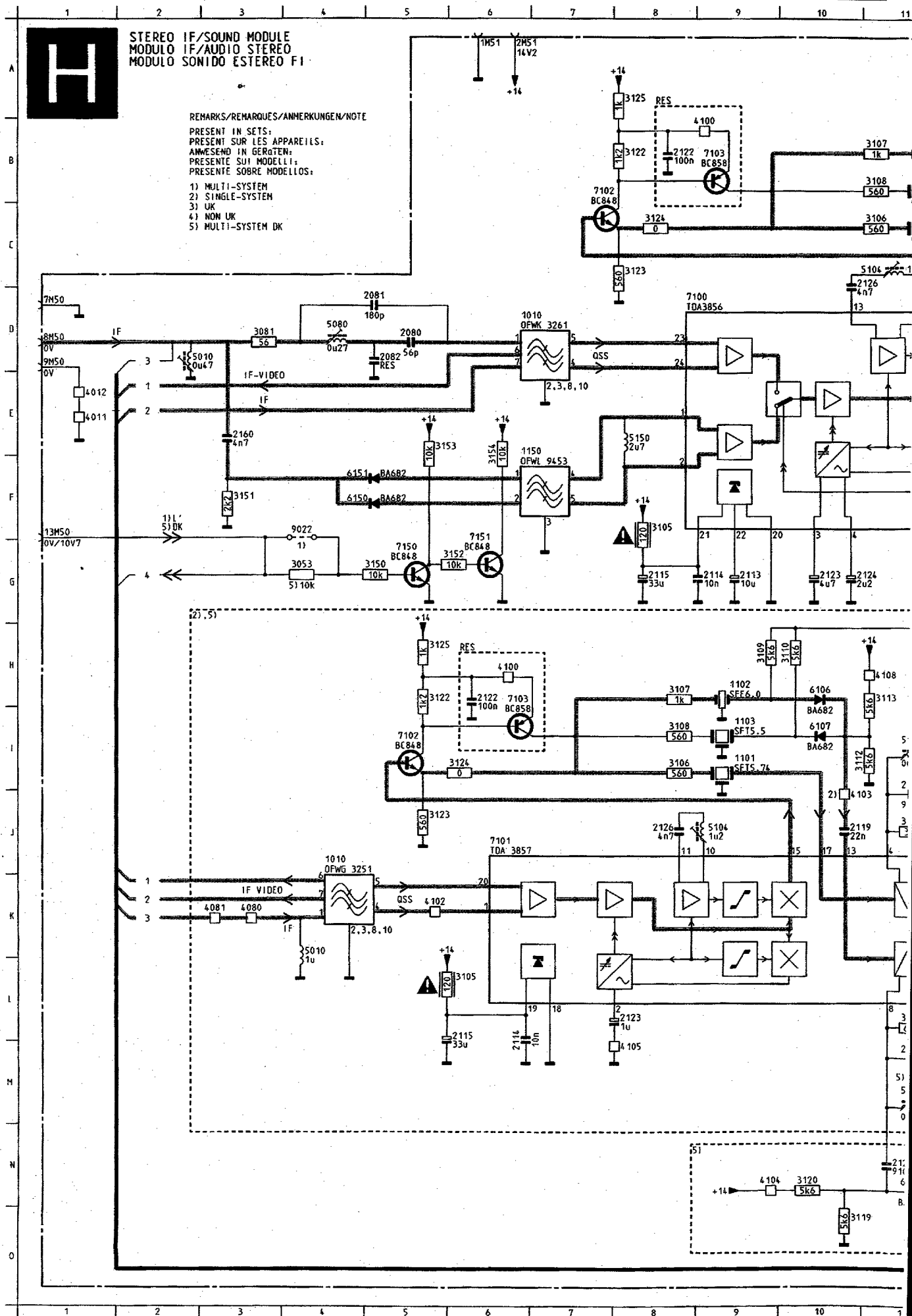


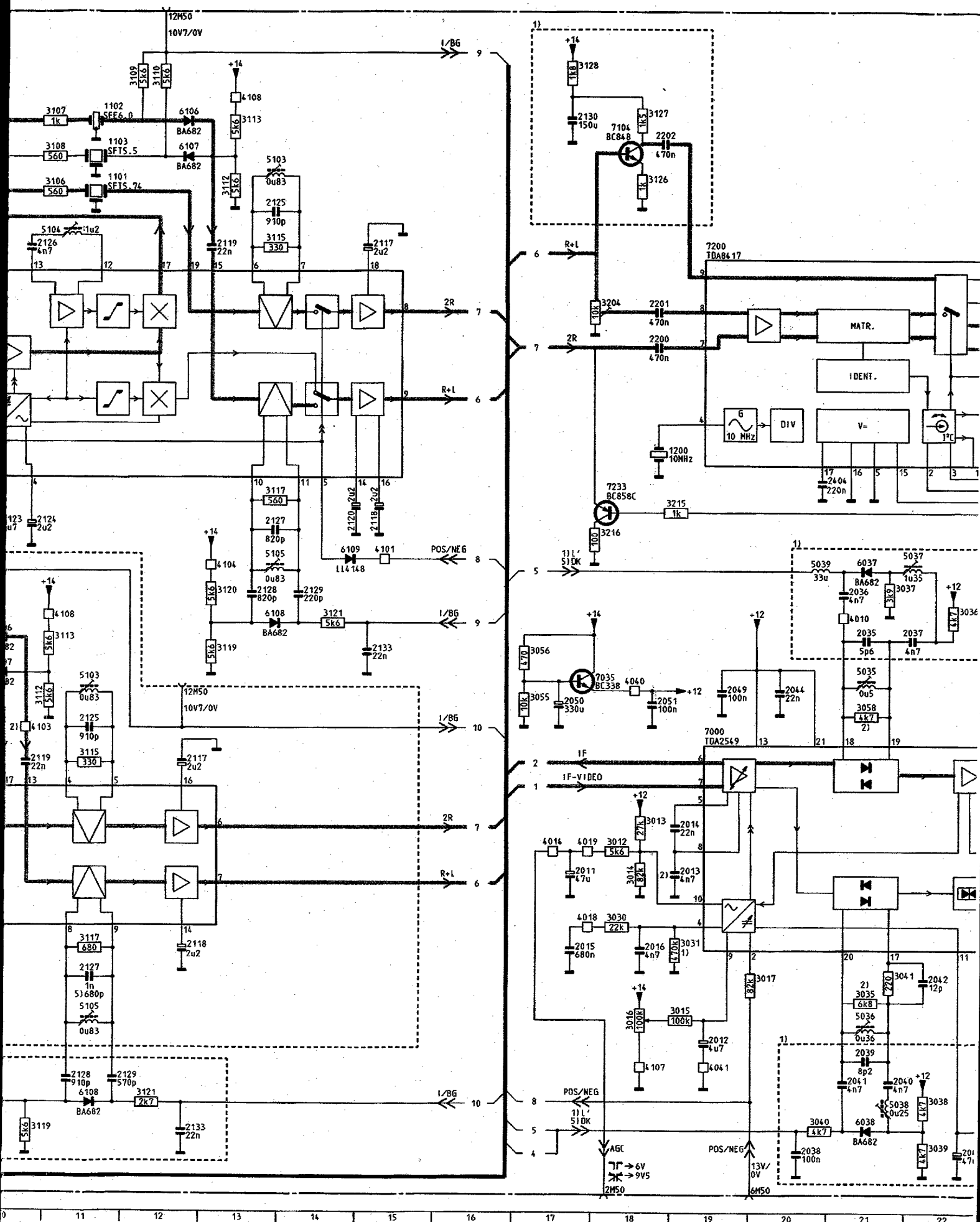
STEREO IF/SOUND MODULE
MODULO IF/AUDIO STEREO
MODULO SONIDO ESTEREO FI

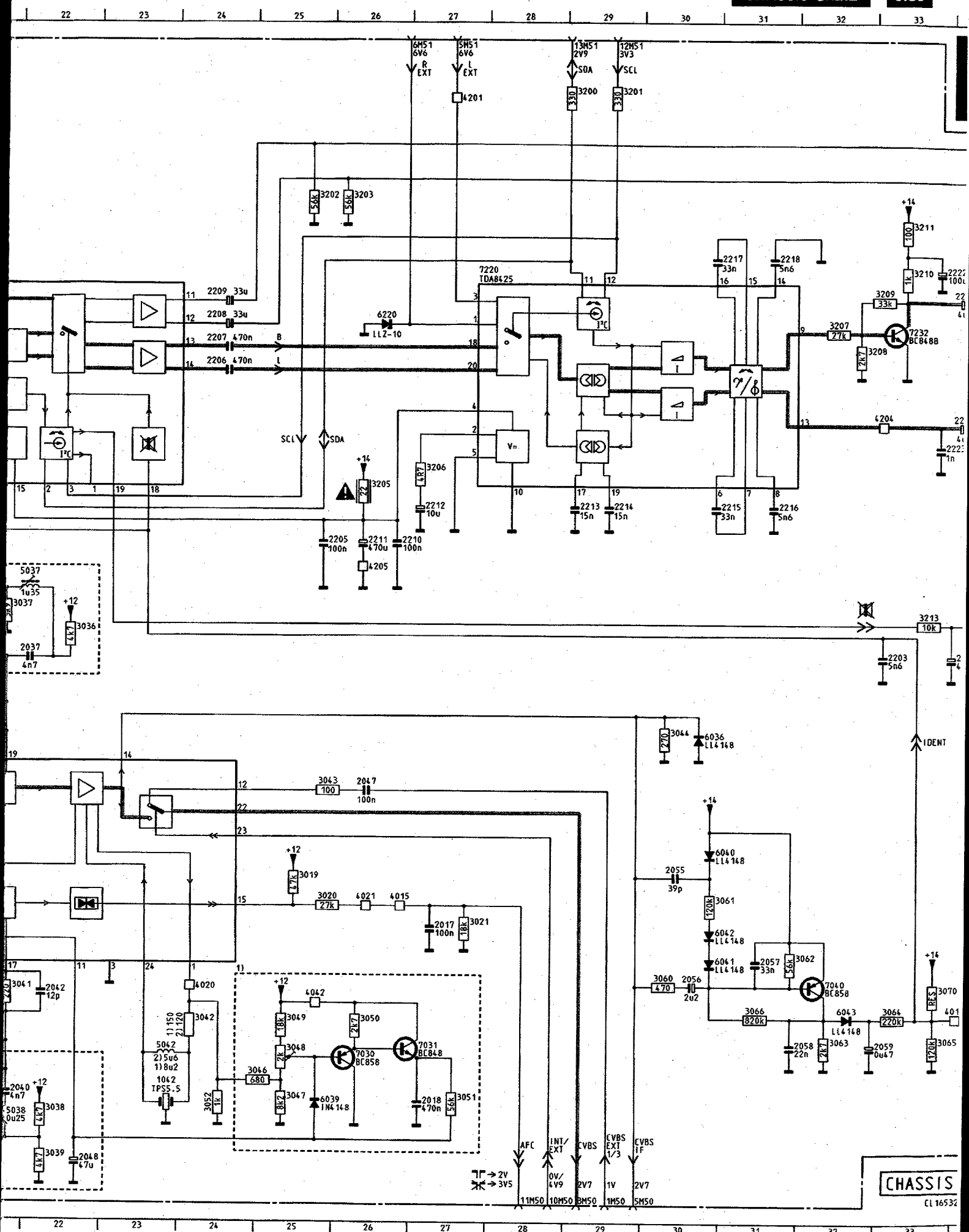
REMARKS/REMARQUES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESENDE IN GERÄTEN:
PRESENTI SUI MODELLI:
PRESENTI SUI MODELLI:

- 1) MULTI-SYSTEM
- 2) SINGLE-SYSTEM
- 3) UK
- 4) NON UK
- 5) MULTI-SYSTEM DK







CHASSIS GR2.2

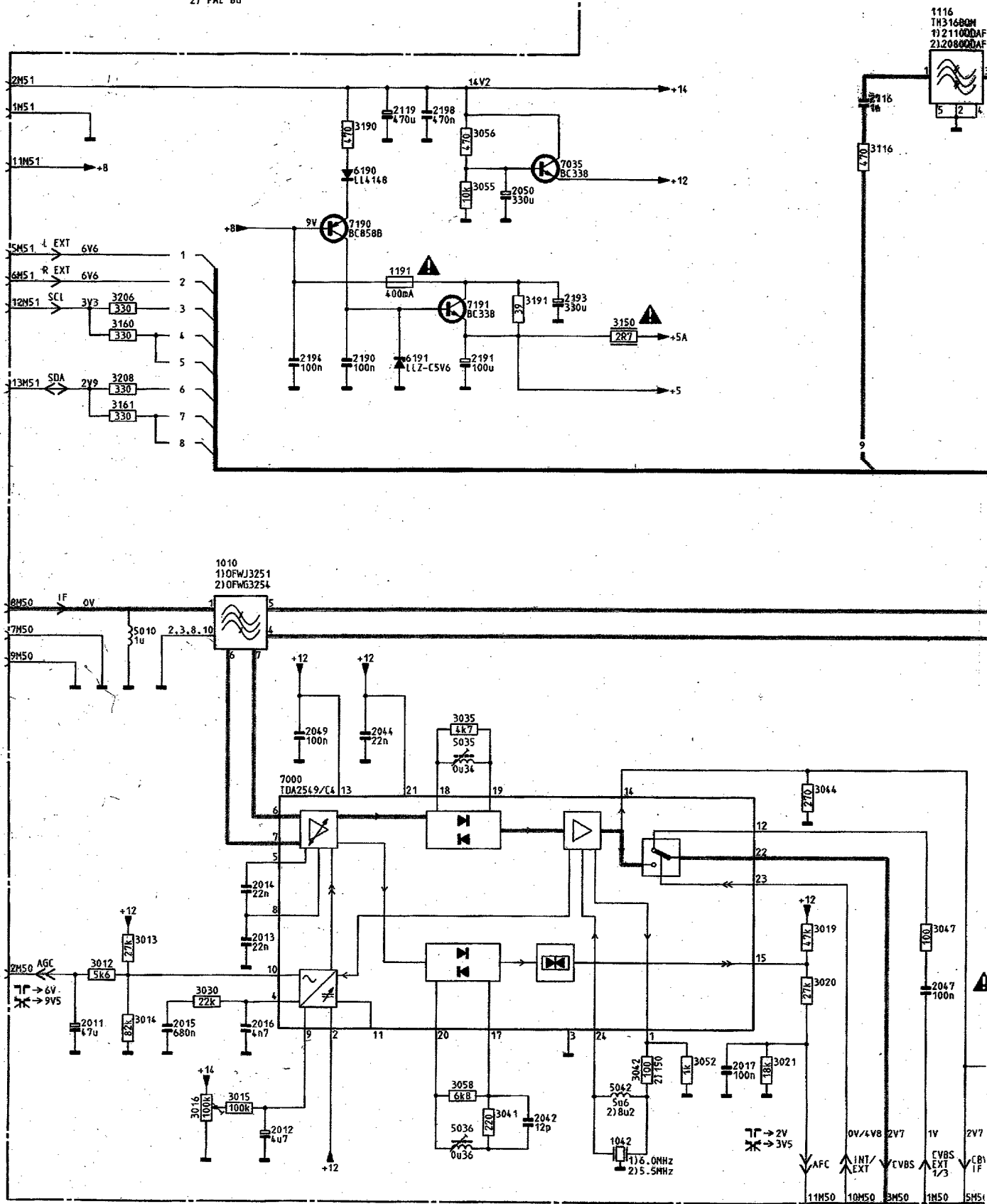


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	1101	C11	3048	N25	5104	J 9
	1101	I 9	3049	M25	5104	C11
	1102	B11	3050	M26	5105	G13
	1102	H 9	3051	N27	5105	M11
	1103	B11	3052	N24	5150	E 8
	1103	I 9	3053	G 4	6036	130
	1150	F 6	3055	117	6037	G21
B	1200	F18	3056	117	6038	O21
	2011	K17	3058	121	6039	N25
	2012	N19	3060	M30	6040	K30
	2013	K19	3061	K30	6041	130
	2014	K19	3062	131	6042	130
	2015	L17	3063	M32	6043	M32
	2016	L18	3064	M33	6106	B16
	2017	L27	3065	M33	6106	H10
	2018	N27	3066	M31	6107	B12
	2035	N21	3070	M33	6107	110
C	2036	N21	3081	D 3	6108	H13
	2037	N22	3105	F 8	6108	N11
	2038	O20	3105	L 6	6109	G14
	2039	N21	3106	C11	6150	F 5
	2040	M21	3106	I 8	6151	F 5
	2041	M21	3107	B11	6220	D26
	2042	M22	3107	H 8	7000	J19
	2044	I20	3108	B11	7030	N26
	2047	J26	3108	I 8	7031	M27
	2048	O22	3109	A12	7035	118
D	2049	I19	3109	H 9	7040	M32
	2050	I17	3110	A12	7100	D 8
	2051	I18	3110	H10	7101	J 6
	2055	K30	3112	C13	7102	B 9
	2056	M30	3112	I11	7102	I 5
	2057	L31	3113	B13	7103	B 9
	2058	M31	3113	H11	7103	H 6
	2059	M33	3115	C13	7104	B18
	2080	D 5	3115	J11	7150	G 5
	2081	D 5	3117	G13	7151	G 6
E	2082	D 5	3117	L11	7200	D19
	2113	G 9	3119	I13	7220	D27
	2114	G 9	3119	O10	7232	O33
	2114	L 6	3120	H13	7233	G18
	2115	G 8	3120	N10	9022	F 4
	2115	L 6	3121	H14		
	2117	C15	3121	N12		
	2117	J12	3122	B 8		
	2118	G15	3122	H 5		
	2118	L12	3123	C 8		
F	2119	C13	3123	J 5		
	2119	J10	3124	C 8		
	2120	G14	3124	I 6		
	2122	B 8	3125	A 8		
	2122	H 6	3125	H 5		
	2123	G10	3126	C18		
	2123	L 8	3127	B10		
	2124	G10	3128	A17		
	2125	C13	3150	G 5		
	2125	I11	3151	F 3		
G	2126	C10	3152	G 6		
	2126	J 8	3153	E 5		
	2127	G13	3154	E 6		
	2127	M11	3200	A29		
	2128	H13	3201	A29		
	2128	M11	3202	B25		
	2129	H14	3203	B26		
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	2130	B17	3205	F26		
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H	2133	O12	3207	O32		
	2160	E 3	3208	D32		
	2200	E18	3209	D33		
	2201	D18	3210	C30		
	2202	B18	3211	C33		
	2203	H33	3213	H33		
	2205	G25	3214	H34		
	2206	E24	3215	G19		
	2207	O24	3216	G18		
	2208	O24	4010	H21		
I	2209	O24	4011	E 1		
	2210	G26	4012	E 1		
	2211	G26	4014	K17		
	2212	G27	4015	L26		
	2213	G29	4017	M34		
	2214	G29	4018	L17		
	2215	G31	4019	K17		
	2216	G31	4020	M24		
	2217	C31	4021	L26		
	2218	C31	4040	I18		
J	2219	H34	4041	N19		
	2220	E34	4042	M25		
	2221	O34	4080	K3		
	2222	C33	4081	K 3		
	2223	F33	4100	B 9		
	2404	F20	4100	H 6		
	3012	K18	4101	G15		
	3013	K18	4102	K 5		
	3014	K18	4103	J10		
	3015	M19	4104	G13		
K	3016	M18	4104	N 9		
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	3019	K25	4107	N18		
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	3030	L18	4201	H27		
	3031	L19	4204	E33		
	3035	M21	4205	G26		
	3036	H22	5010	K 4		
	3037	H21	5010	D 2		
L	3038	N22	5035	I21		
	3039	O22	5036	M21		
	3040	O20	5037	G22		
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REMARKS/REMARQUES/ANMERKUNGEN/NOTE

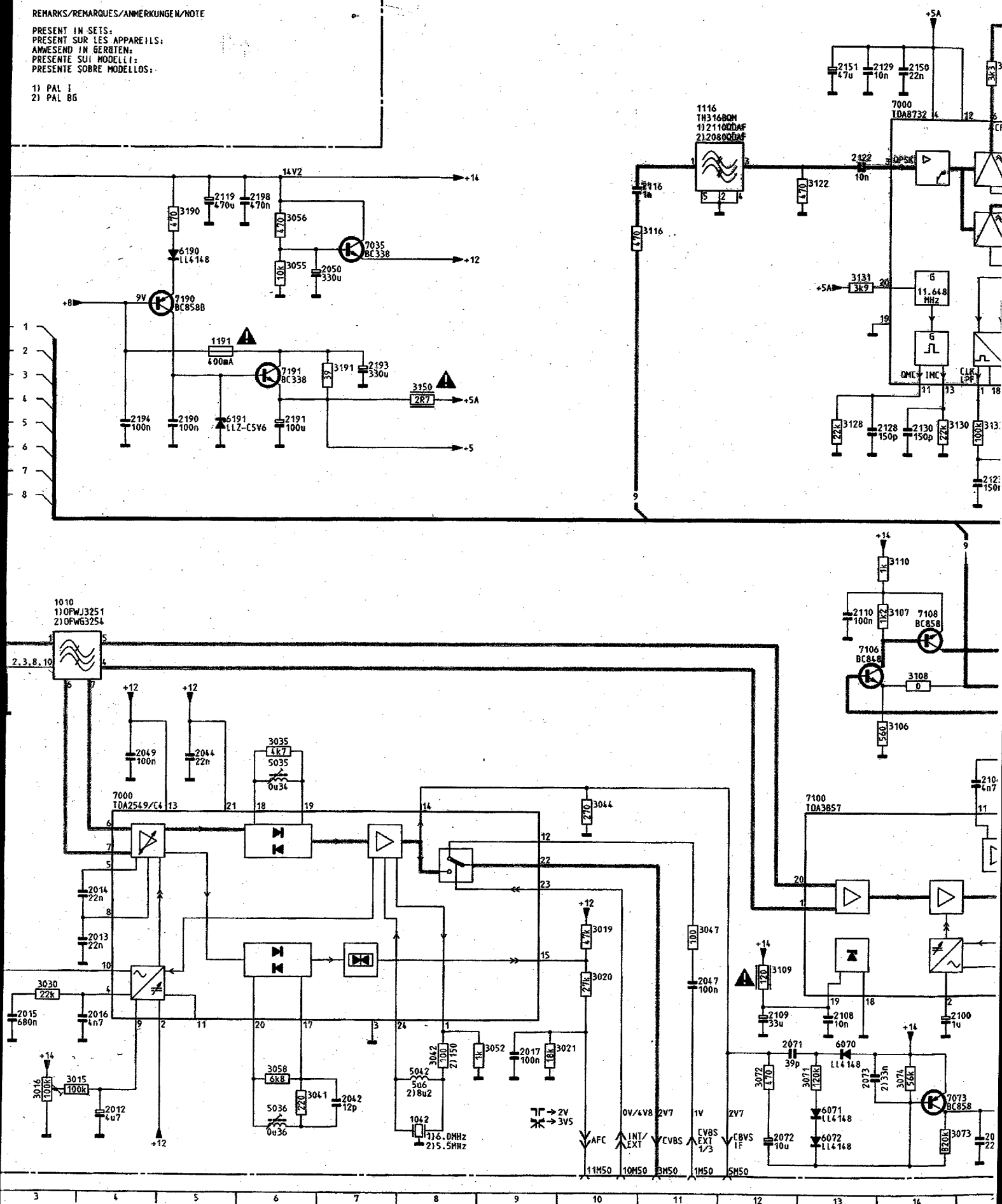
PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESENDE IN GERÄTEN:
PRESENTI SUI MODELLI:
PRESENTES SOBRE MODELOS:

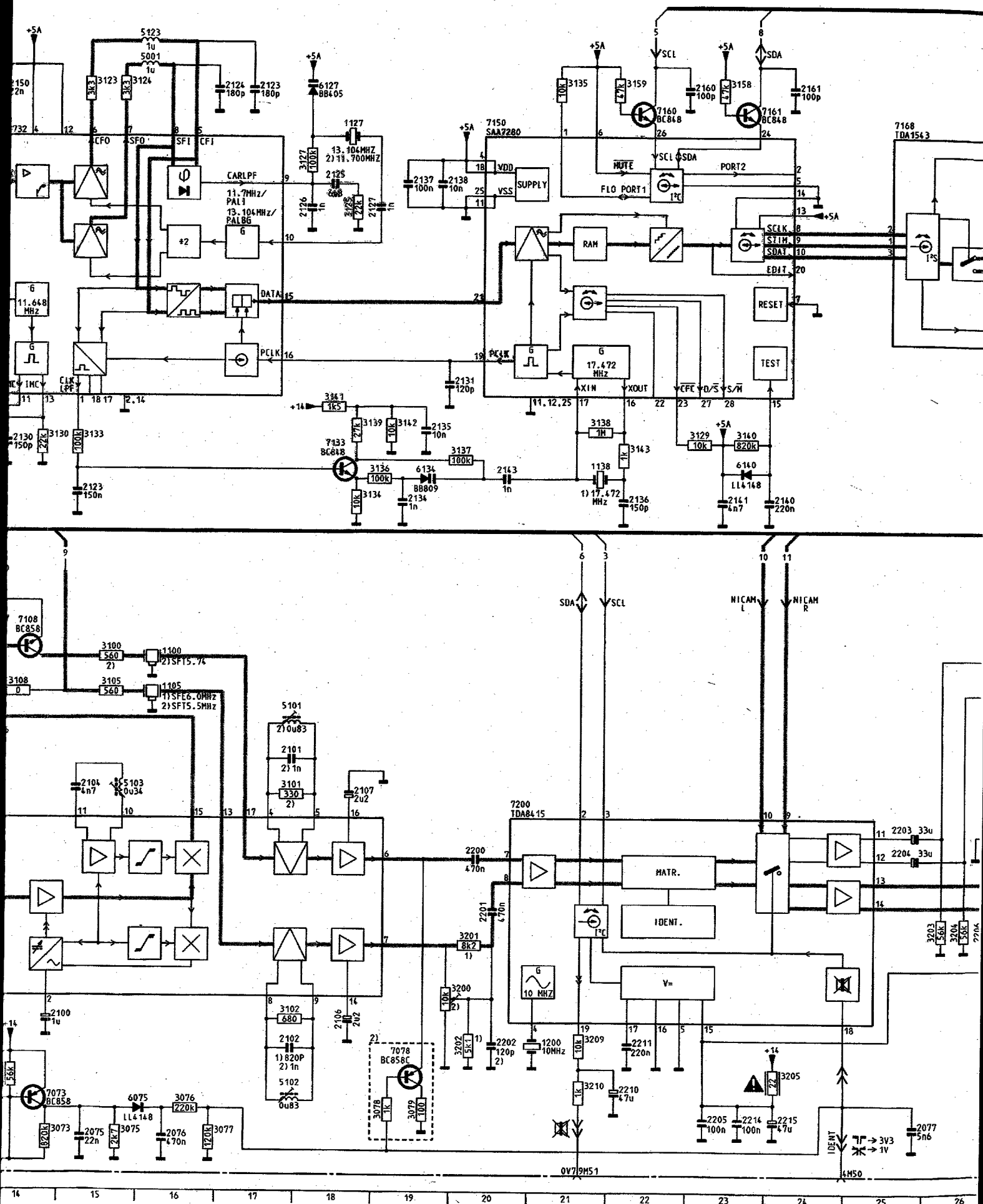
- 1) PAL I
2) PAL BG



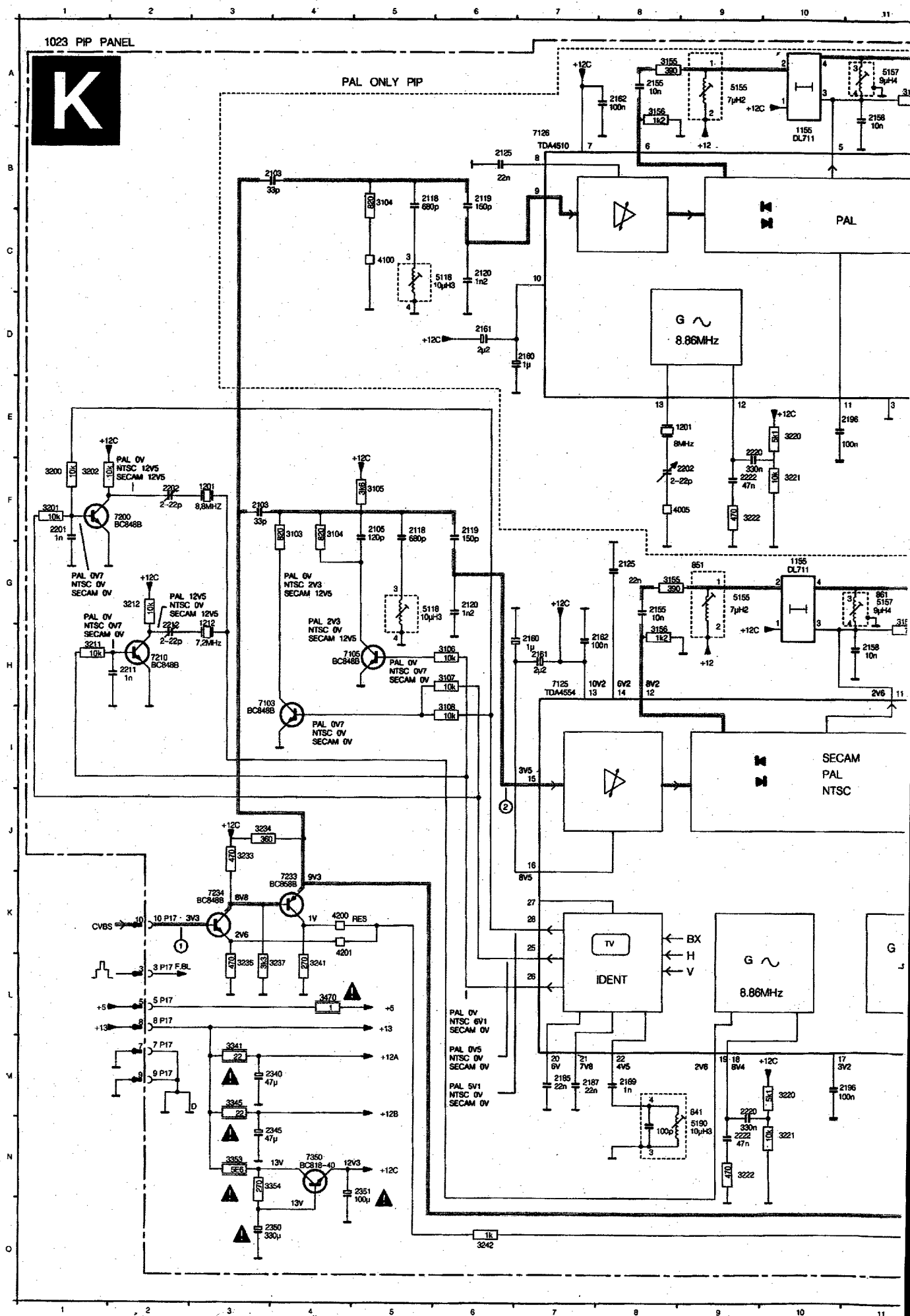
PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERÄTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELOS:-

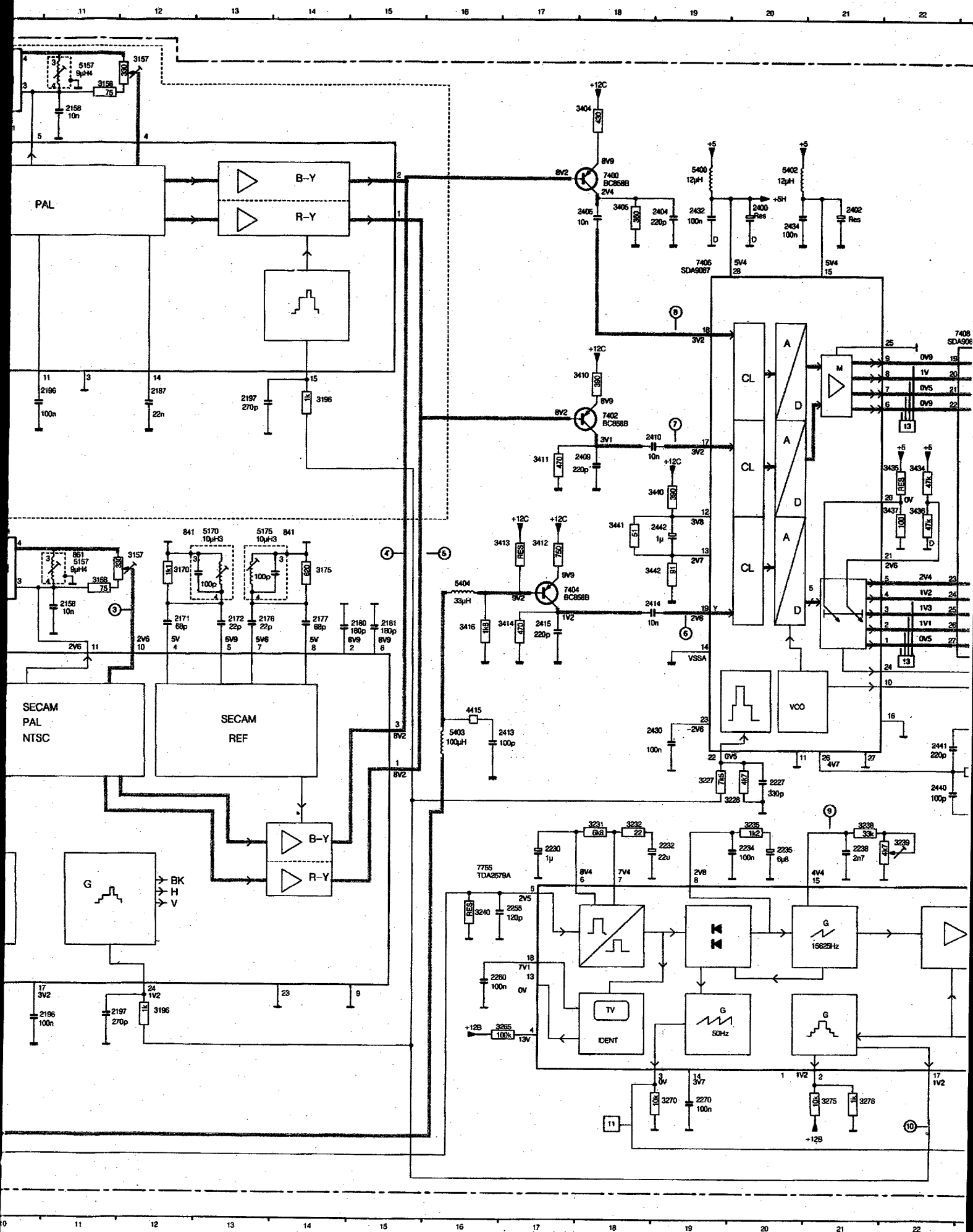
1) PAL I
2) PAL BG

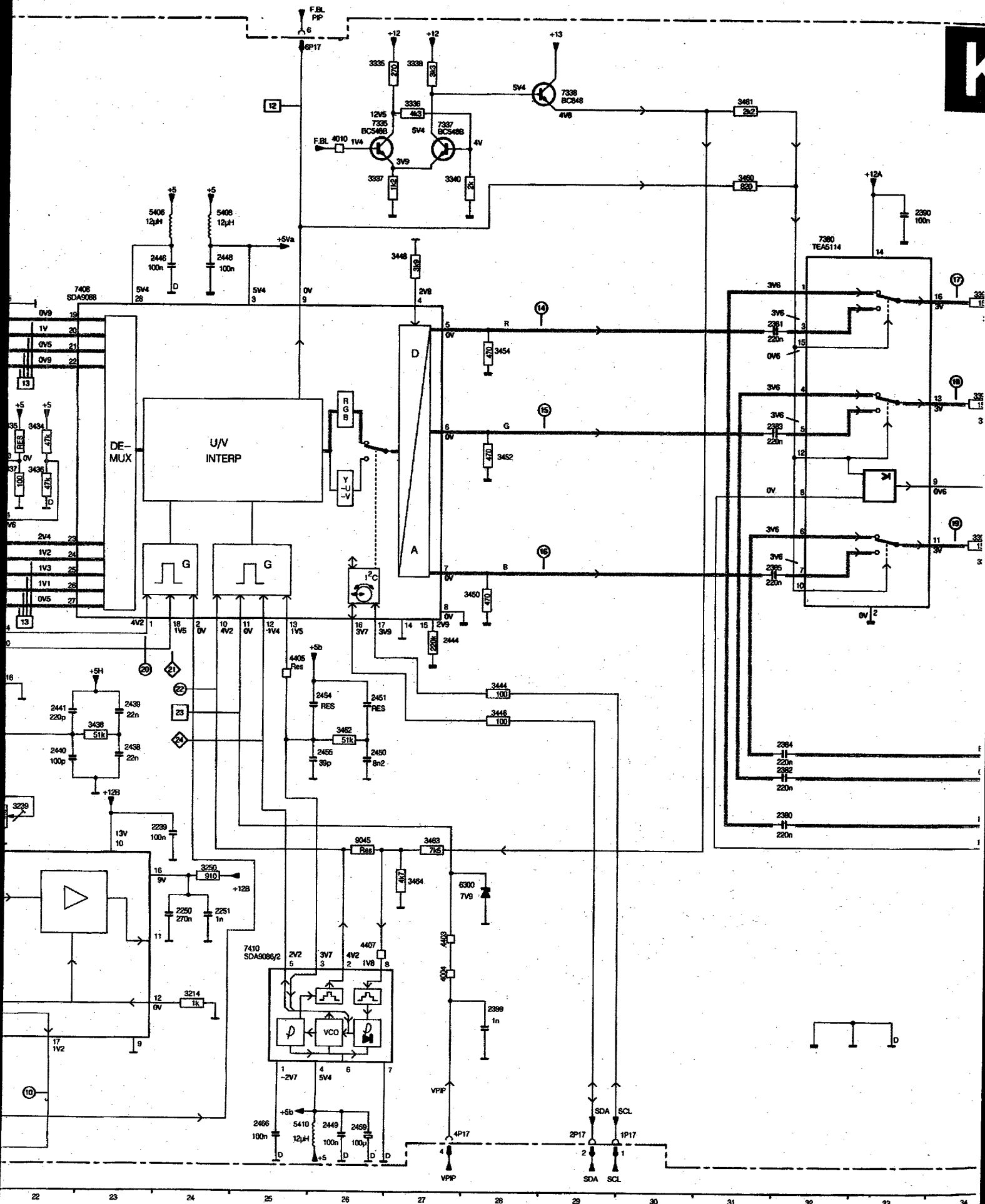




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	1042	0 8	3021	N 9	7170	B32
	1100	116	3030	M 3	7180	F32
	1105	116	3035	J 6	7190	E 5
A	1116	B11	3041	N 6	7191	F 6
	1127	B18	3042	N 8	7200	K20
	1138	621	3044	K10	7215	K27
	1191	E 5	3047	L11	7217	L33
	1200	N21	3052	N 9		
	2011	N 2	3055	D 6		
	2012	O 4	3056	D 6		
	2013	M 4	3058	N 6		
B	2014	L 4	3071	N13		
	2015	N 3	3072	N12		
	2016	N 4	3073	O14		
	2017	N 9	3074	N14		
	2042	O 7	3075	O15		
	2044	J 5	3076	O16		
	2047	M11	3077	O16		
C	2049	J 4	3078	O19		
	2050	D 7	3079	O19		
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	2072	O12	3101	K17		
	2073	N13	3102	M17		
	2075	O15	3105	I15		
	2076	O16	3106	J14		
	2077	O25	3107	I14		
D	2100	N14	3108	N14		
	2101	J17	3109	M12		
	2102	N17	3110	N14		
	2104	K15	3116	D11		
	2106	N18	3122	C13		
	2107	K18	3123	B15		
	2108	N13	3124	B15		
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E	2110	I13	3127	C18		
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	2122	C13	3130	F14		
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	2126	C18	3136	G19		
	2127	C18	3137	F20		
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	2131	E20	3141	F18		
G	2134	G19	3142	F19		
	2135	F19	3143	F22		
	2136	G22	3150	F 8		
	2137	F19	3158	B23		
	2138	C19	3159	B22		
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	2141	G23	3161	G 2		
	2143	G20	3168	A27		
H	2150	B14	3170	B30		
	2151	B13	3171	A30		
	2160	B23	3172	A31		
	2161	B24	3173	A31		
	2168	B27	3177	G29		
	2169	B27	3180	E30		
	2170	A30	3181	D30		
I	2171	A30	3182	D31		
	2173	B31	3183	E31		
	2174	A31	3188	C30		
	2175	A32	3190	C 5		
	2176	C33	3191	E 7		
	2177	G29	3200	M17		
	2180	E30	3201	L20		
J	2181	D30	3202	N20		
	2183	E31	3203	L26		
	2184	E31	3204	L26		
	2185	E32	3205	N24		
	2186	F33	3206	E 2		
	2187	G30	3208	F 2		
	2188	D29	3209	N21		
	2189	D30	3210	N21		
	2190	F 5	3213	M27		
K	2191	F 6	3214	L32		
	2193	E 7	3215	L32		

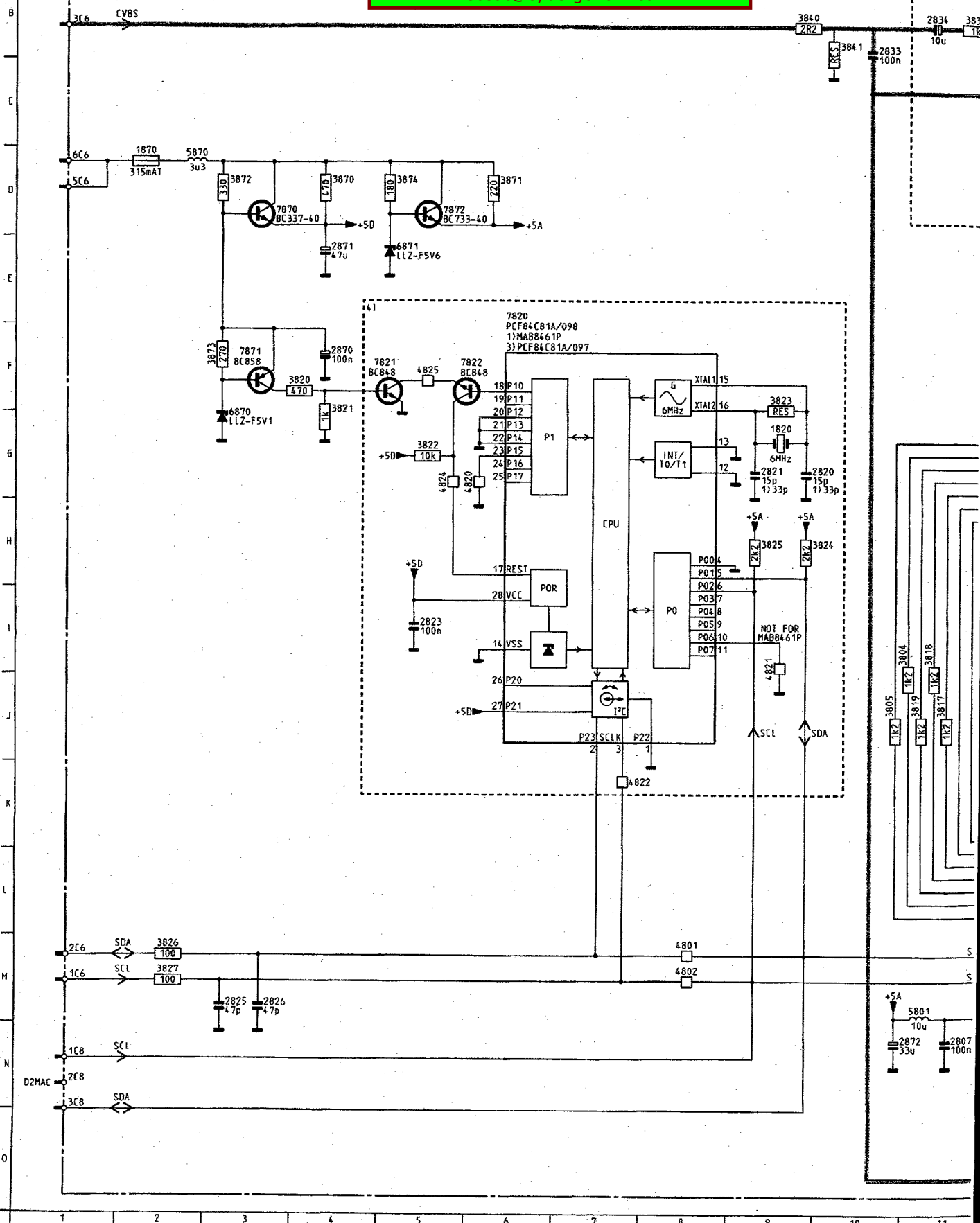


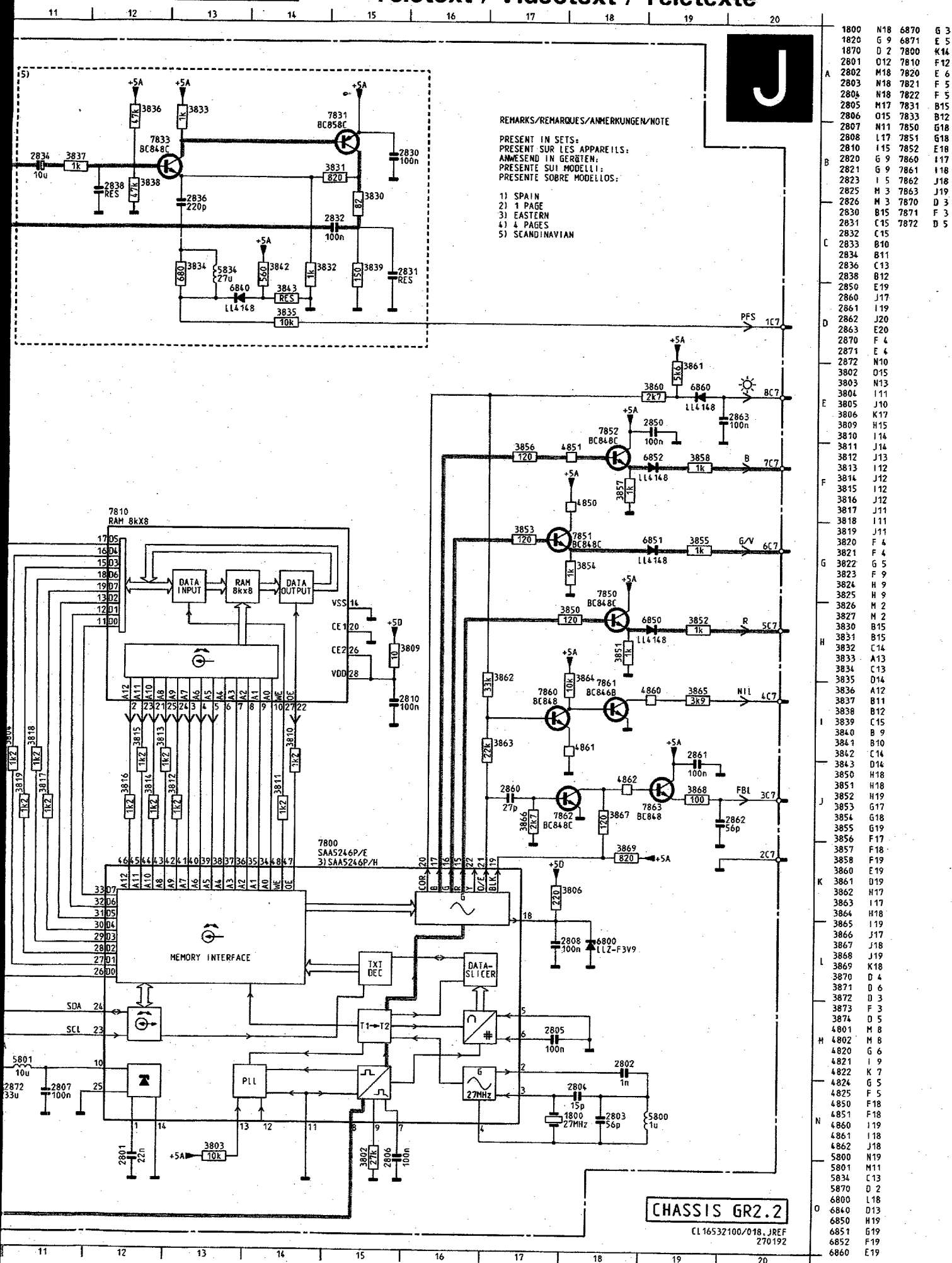




J

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1800	N18	6870	G 3
1820	G 9	6871	E 5
1870	D 2	7800	K14
2801	O12	7810	F12
2802	M18	7820	E 6
2803	N18	7821	F 5
2804	N18	7822	F 5
2805	M17	7831	B15
2806	O15	7833	B12
2807	N11	7850	G18
2808	L17	7851	G18
2810	I15	7852	E18
2820	G 9	7860	I17
2821	G 9	7861	I18
2823	I 5	7862	J18
2825	H 3	7863	J19
2826	M 3	7870	D 3
2830	B15	7871	F 3
2831	C15	7872	D 5
2832	C15		
2833	B10		
2834	B11		
2836	C13		
2838	B12		
2850	E19		
2860	J17		
2861	I19		
2862	J20		
2863	E20		
2870	F 4		
2871	E 4		
2872	N10		
3802	O15		
3803	N13		
3804	I11		
3805	J10		
3806	K17		
3809	H15		
3810	I14		
3811	J14		
3812	J13		
3813	I12		
3814	J12		
3815	I12		
3816	J12		
3817	J11		
3818	I11		
3819	J11		
3820	F 4		
3821	F 4		
3822	G 5		
3823	F 9		
3824	H 9		
3825	H 9		
3826	M 2		
3827	M 2		
3830	B15		
3831	B15		
3832	C14		
3833	A13		
3834	C13		
3835	D14		
3836	A12		
3837	B11		
3838	B12		
3839	C15		
3840	B 9		
3841	B10		
3842	C14		
3843	D14		
3850	H18		
3851	H18		
3852	H19		
3853	G17		
3854	G18		
3855	G19		
3856	F17		
3857	F18		
3858	F19		
3860	E19		
3861	D19		
3862	H17		
3863	I17		
3864	H18		
3865	I19		
3866	J17		
3867	J18		
3868	J19		
3869	K18		
3870	D 4		
3871	D 6		
3872	D 3		
3873	F 3		
3874	D 5		
4801	M 8		
4802	M 8		
4820	G 6		
4821	I 9		
4822	K 7		
4824	G 5		
4825	F 5		
4850	F18		
4851	F18		
4860	I19		
4861	I18		
4862	J18		
5800	N19		
5801	M11		
5834	C13		
5870	D 2		
6800	L18		
6840	D13		
6850	H19		
6851	G19		
6852	F19		
6860	E19		

CORRECCIONES Y MEJORAS.-

Correction to service manual.

Fault 1: The circuit diagram of the picture tube base panel shown on page 6.27 of the GR2.2AA service manual is incorrect. Diodes 6301, 6331 and 6361 are shown with cathodes connected to the emitters of 7304/7305, 7334/7335 and 7364/7365 respectively. This is incorrect. They should be shown with cathodes connected to the bases of 7304/7305, 7334/7335 and 7364/7365 respectively.

Fault 2: Spare parts list of GR2 should be corrected as follows:

Service Manual for 21ST2731/05B 4822 727 19403. Add Control board, Code no. 4822 432 10957. Service Manual for 25ST1750/25B 4822 727 19042

Part	Old code no
7 housing 25"	4822 438 50798
(New code no	4822 430 50798)
7 housing 28"	4822 438 50799
(New Code no	4822 430 50799).

Service Manual	Position
GR2.2 AA	1043(TPS6.0MB)
(4822 727 19063)	1103(SFT6.0MA)

Old Code	New Code
4822 242 71841	4822 153 30025
4822 242 71841	4822 242 71841

Note: Although the code no for 1043 changes, code no for 1103 remains the same.

Replacing IF/sound stereo panel.

Note: Check if there is a connection between pin 4M50 and R3064 before you place a new IF/sound stereo print pos. 1001 code number 4822 212 30069. If not, the input of the sync IC will be short circuited via mute line B40 (On diagram B, 4M50 runs to A21, this should be B40, see information corrections doc. GR2.2AA).

Connection of a loop system to the TV.

Note: A problem usually occurs when connecting a loop system to a modern TV. A solution is available from the hearing aid suppliers in the form of a specific loop system amplifier which is supplied from the mains and which functions with a scart or phono plug signal. With the advice of a specialist a large part of the cost is usually covered by insurance.

Improve IF circuit.

Replace 1Kohm by 1k8 (4822 050 11002) on the separate front control board. Do this for the pos.numbers 3200 and 3205

REMARKS : Only for GR 2.2 with separate front control.

Improvement of TXT circuit.

Replace IC 7800 (SAA5246AP/E/S) by SAA5246AP/E/M7 with code number 4822 209 32642.

Replace crystal 1800 by crystal with code number 4822 242 81191. Both changes are on the TXT-panel.

Diode modification.

Replace BZT03-C16 on pos. nr. 6611 on main panel with BZV85-C16

Reason: Better performance of diode BZV85-C16.

Modification of the second scart circuit.

pos. nr. 2815 becomes 39nF

(4822 121 42444)

pos. nr. 2816 becomes 39nF

(4822 121 42444)

pos. nr. 3802 becomes 330R

(4822 116 52219)

pos. nr. 3803 becomes 330R

(4822 116 52219)

pos. nr. 3815 becomes 2K2

(4822 051 20222).

Modifications.

Note 1: On IF-panel 1043 becomes 6MHZ TPS6.0MB (4822 153 30025) and 1103 becomes 6MHZ SFT6.0MA (4822 242 71841).

Note 2: Improve vertical linearity for 110 degree CRT.

A. For mini/narrow neck and black line sets:

pos.nr.3506 becomes 130K

(4822 116 52242)

B. For black matrix sets:

pos.nr. 3506 becomes 150K

(4822 116 52245)

pos.nr. 2506 becomes 680uF

(4822 124 80063)

pos.nr. 3471 becomes 75K

(4822 116 52301).

Linearity improvement.

Pos.nr. 2509 becomes 1uF (4822 121 51319) on main panel.

Teletext panel.

Early versions of the GR2.2 chassis use the teletext decoder of the GR2.1 AB (4 IC version). From week 9228 the 3 IC version (shown in the GR2.2 AA manual page 6.54) is used. However, the circuit and PCB layout are changed. For details of this change see service information GR2.2 AA 92.03 code no. 4822 727 19748. In future only the 3 IC decoder will be supplied for both GR2.1 and GR2.2 chassis (code no. 4822 212 30062).

Adjustment of white balance is difficult in black matrix CRT.

Fault 1: Replace position number 3382, (3K9) on CRT panel by 4K3

(4822 051 10432).

REMARKS : Type numbers with CRT-Panel on CRTs A59EAK220X13, A59EAK71X03, A66EAK220X13.

Up IC7708 ESL1-1.0, a/QG>=05 482220933296

In appliances since version A or QG05 a new ECO-IF module will be added with a different microprocessor, code number 4822 209 33296. Also see service information GR2.2 AA 94.01.

Be careful: with version U278, R3750 27K (4822 051 10273) should be present and R3754 15K removed. See chassis documentation GR2.2 pag 6.20 co-ordinate B3 respectively E3.

Replacing the EEPROM IC7710.

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

Survey of GR2.X uPs.

Note: Only change quartz 4.19MC on GR2.1 U211, U209 has no Dutch menu. Only GR2.3 uPs are replacements, as are the first 5 of GR2.4. GR2.2 U278 and U275 are replacements for U277 and U274 and are meant for appliances with ECO-IF.
:4822 727 20674.

Line transformers from AG/QG04.

-4822 140 10414 25"/28" blackline

-4822 140 10417 25"/28" blackmatrix

-4822 140 10418 21" mini-neck (22.5mm)

-4822 140 10435 21" narrow-neck (29.1mm).

Line transformer overview GR2.1/GR2.2.

:<AG/QG4

-25/28" blackline 4822 140 10414

-25/28" black matrix 4822 140 10417

-21" mini neck 4822 140 10418

-21" narrow neck 4822 140 10435

-mini neck is 22.5mm

-narrow neck is 29.1mm

:AG/QG04

-25/28" 4822 140 10474

-21" mini neck 4822 140 10484

-21" narrow neck 4822 140 10483

How to enable/disable child lock.

- Press "MENU" button on remote control. When the menu appears on the screen select "SPECIAL FEATURES". Within "SPECIAL FEATURES", the "CHILD LOCK" can be enabled or disabled.

General info.

. Appliance manufactured in 1990/1991.

Line black current limitation

Transistor 7370 and everything in that line.