Service
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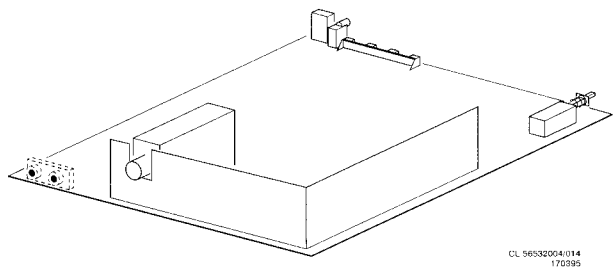
Anubis S
DD



ServiceManual

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PCS 80 773 GB

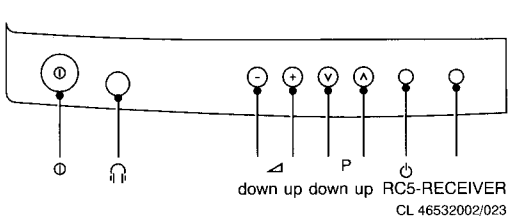
PHILIPS

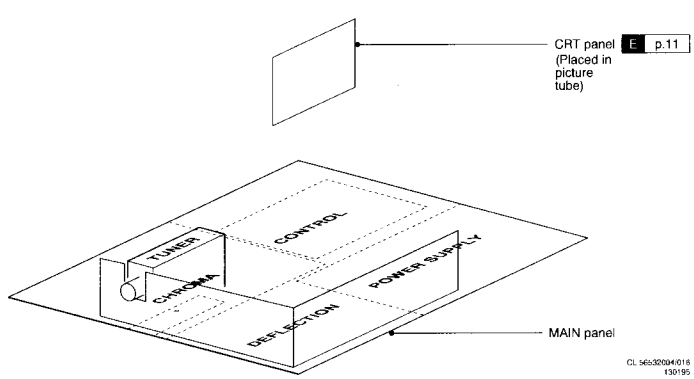
1. Technical specifications

Mains voltage	: 150 - 276V ; 50/60 Hz (single range)	
	: 90 - 276V; 50/60 Hz (full range)	
Power cons. at 220V~	: 14" 70W (stand-by ≤ 10 W)	
	: 20" 80W (stand-by ≤ 10 W)	
Aerial input impedance TV	: 75Ω - coax	
Min. aerial input VHF	: ≤ 30μV	
Min. aerial input UHF	: ≤ 40μV	
Max. aerial input VHF/UHF	: ≥ 100mV	
Pull-in range colour sync	: ± 300Hz (NTSC 3.58: ± 200Hz)	
Pull-in range horizontal sync	: ± 600Hz	
Pull-in range vertical sync	: ± 5Hz	
Picture tube range	: 14" A34 JFQ 40X(W)	Mini neck
	: 20" A48 JSK 61X	Narrow neck Northern Hemisphere
	: 20" A48 KUV 220X(R)	Narrow neck
	: 14" Mono:	16Ω 4W front firing loudspeaker
	: 20" Mono:	16Ω 4W front firing loudspeaker
TV Systems	: /50/52/67/94:	PAL B/G
	: /75:	PAL B/H
	: /73/57:	PAL I
	: /58/59:	PAL B/G & SECAM B/G/D/K
	: /54/77:	PAL M/N & NTSC M
	: /71/87/97:	NTSC M
Indications	: On Screen Display (OSD)	
	: 1 LED (⏻ , ⏻ , blinking LED at RC5 and protection)	
VCR programs	: 0 and 39	
Tuning and operating system	: ▭ VST/PLL	
UV 913/IEC (VST)	: Band I:	45.25 - 82.25 MHz
	: Band III:	163.25 - 224.25 MHz
	: UHF:	471.25 - 855.25 MHz
UV 915E/IEC (VST)	: Band I:	48.25 - 168.25 MHz
	: Band III:	175.25 - 447.25 MHz
	: UHF:	455.25 - 855.25 MHz
UV 936E/F & UV 936E/IEC (PLL)	: Band I:	55.25 - 157.25 MHz
	: Band III:	163.25 - 451.25 MHz
	: UHF:	457.25 - 801.25 MHz
UV 973/IEC	: Band III:	175.25 - 247.25 MHz
	: UHF:	471.25 - 855.25 MHz
Local operating functions	: Volume +/-, Program +/-	

2. Connection facilities

Cinch AV IN	: ⊙	1 x cinch CVBS ⊕ 1V $_{pp}$ / 75Ω
	: ⊙	1 x cinch Audio ⊕ 500mV RMS ± 3dB/47kΩ
Front headphone	: ⊙ 3.5mm	Pmax = 20mW in 2x8Ω (for /54/77/97 system only)





Notes

1. Do not use heatsinks as earth reference.

2. The DC voltages and oscillograms should be measured with regard to the tuner earth (⊥ϟ), or hot earth (⊥) as this is called.

3. The DC voltages and waveforms are measured in the Service Default Mode (see chapter 8). Use a colour bar pattern of a pattern generator (e.g PM5518)

4. The DC voltages and oscillograms are where necessary measured with (⊓⊓) and without (⊁) aerial signal (settings as in Service Default Mode; see chapter 8). Voltages and oscillograms in the power supply section have been measured for both normal operation (⏻) and in the stand-by mode (⏻). As an input signal a colour bar pattern has been used.

5. **Service tip:**
If video/horizontal synchronisation of trinorma sets does not work properly, one of the three systems can be forced by short-circuiting one of the three transistors TS7277, 7278 or 7279.

4. Mechanical instructions

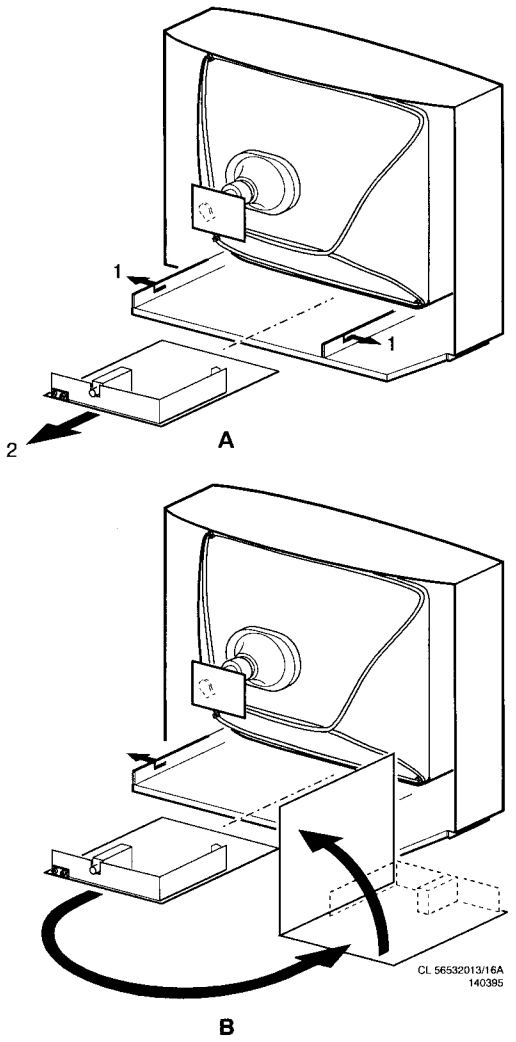
Service position for the MAIN CARRIER panel

For the main carrier with the plugged panels on it two service positions are possible:

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

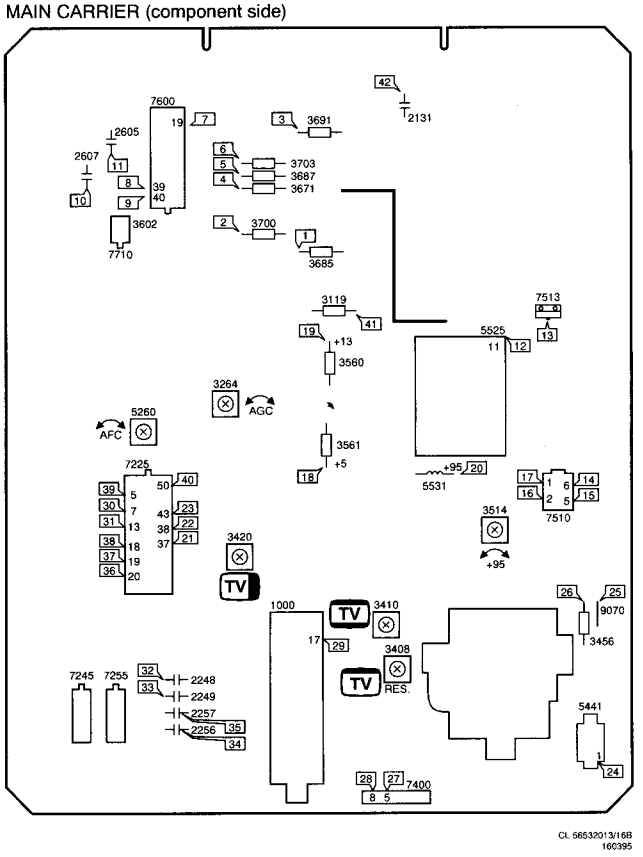
Position A can be reached by first removing the mains cord from it's fixation block (or shift out the fixation block), then loosen the carrier lips (1) and then pulling the carrier panel (2) for approximately 10 cm (all cables to all other panels can be remained connected).

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

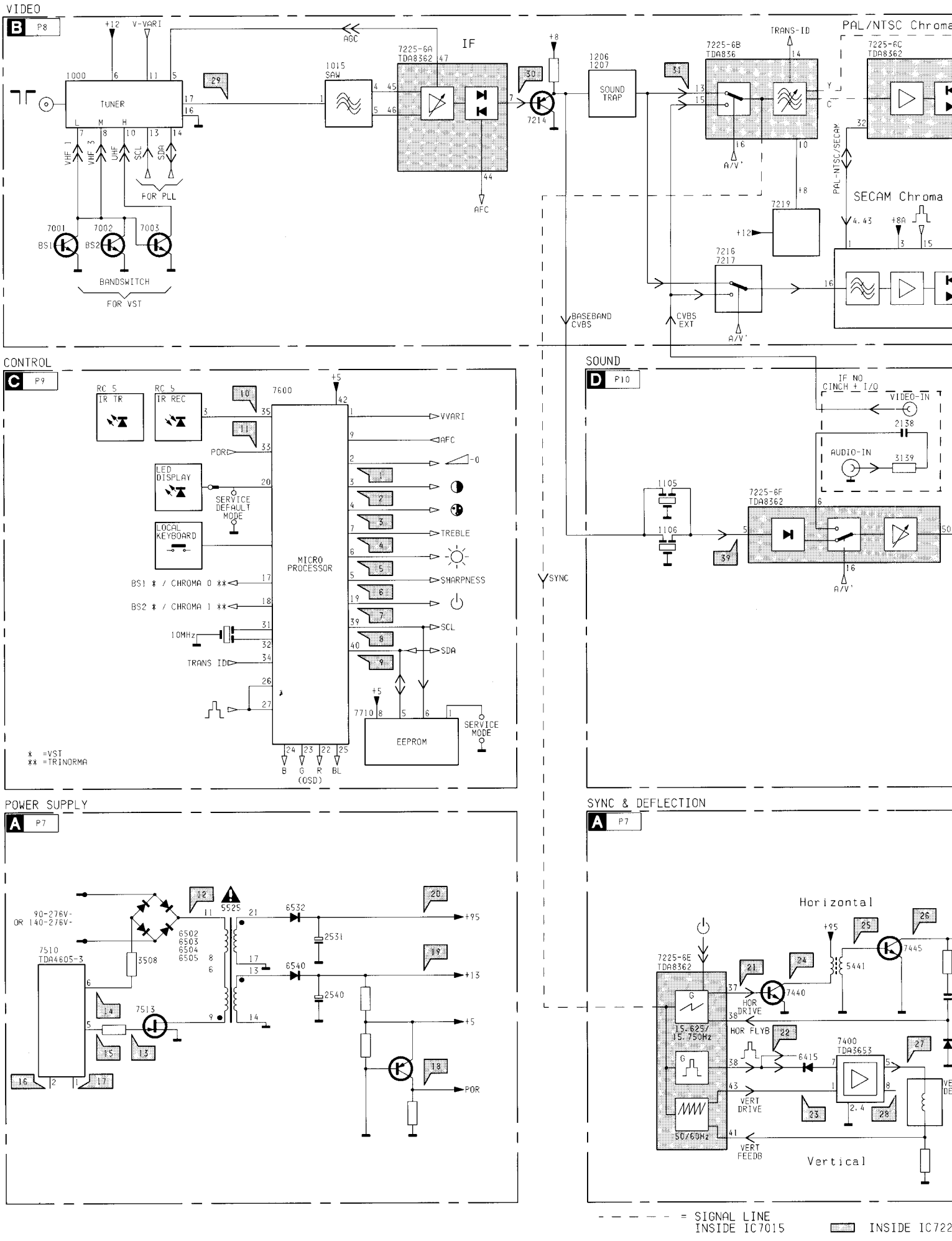


5. Survey of testpoints

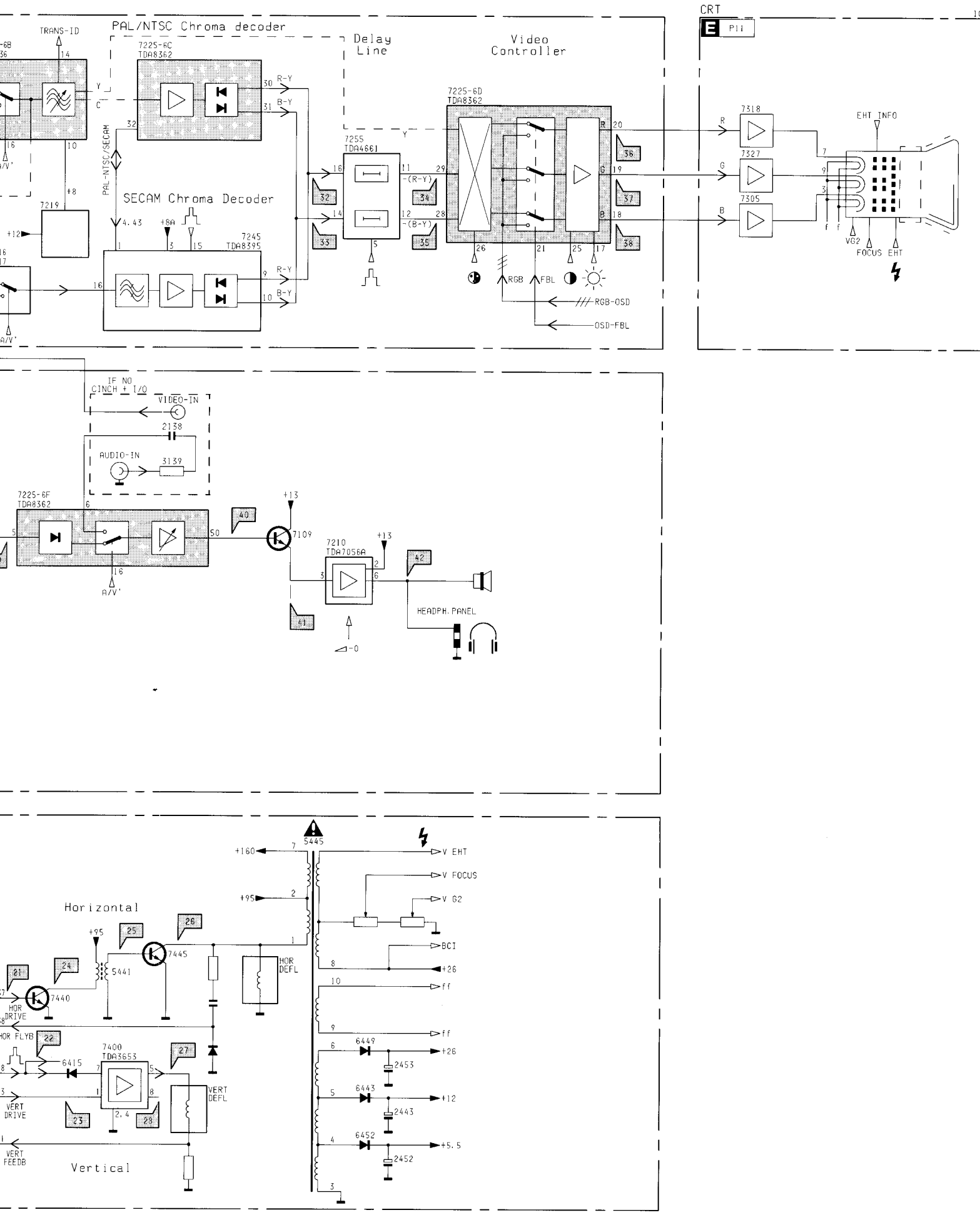
MAIN CARRIER (component side)



Block diagram / Diagrama de bloques



Block diagram / Diagrama de bloques



LINE
IC7015

INSIDE IC7225

Overview oscillograms / Sumario de oscilogramas

TP1
1V / div DC
10µs / div

TP10
1V / div DC
10ms / div

TP16 ⏻
0.5V / div DC
5µs / div

TP27
10V / div DC
5ms / div

TP36
1V / div DC
20µs / div

TP2
1V / div DC
10µs / div

TP11
1V / div DC
10ms / div

TP17 0.4V DC ⓘ
TP17 0.4V DC ⏻
TP18 5.1V DC ⓘ
TP18 5.1V DC ⏻

TP28
5V / div DC
5ms / div

TP37
1V / div DC
20µs / div

TP3
1V / div DC
10µs / div

TP12 290V DC ⓘ
TP12 298V DC ⏻

TP19 13.4V DC ⓘ
TP19 12.4V DC ⏻
TP20 94V DC ⓘ
TP20 96.8V DC ⏻

TP29
0.1V / div DC
0.5µs / div

TP38
1V / div DC
20µs / div

TP4
Treble ON = 5V DC
Treble OFF = 0V DC

TP13 ⓘ
2V / div DC
5µs / div

TP21
0.5V / div DC
20µs / div

TP30
0.2V / div DC
0.5µs / div

TP39
0.2V / div DC
0.5µs / div

TP5
1V / div DC
10µs / div

TP13 ⏻
1V / div DC
5µs / div

TP22
1V / div DC
20µs / div

TP31
1V / div DC
20µs / div

TP40
1V / div DC
0.5ms / div

TP6
1V / div DC
10µs / div

TP14 10.3V DC ⓘ
TP14 10.2V DC ⏻

TP23
1V / div DC
10ms / div

TP32
0.5V / div DC
20µs / div

TP41
0.5V / div DC
0.5ms / div

TP7 0.2V DC ⓘ
TP7 2.4V DC ⏻

TP15 ⓘ
2V / div DC
5µs / div

TP24
10V / div DC
20µs / div

TP33
0.5V / div DC
20µs / div

TP42
0.1V / div DC
0.5ms / div

TP8
1V / div DC
10ms / div

TP15 ⏻
2V / div DC
2µs / div

TP25
1V / div DC
20µs / div

TP34
1V / div DC
20µs / div

TP9
1V / div DC
10ms / div

TP16 ⓘ
0.5V / div DC
5µs / div

TP26
100V / div DC
20µs / div

TP35
1V / div DC
20µs / div

→ = 0V

Description power supply

Introduction:

The power supply of the Anubis S DD is variable frequency and variable duty-cycle Switched Mode Power Supply (SMPS). The control is provided by the TDA4605-3 IC (IC7510).

Basic characteristics of Anubis S DD SMPS:

- Mains isolated flyback converter type
- Input voltage range: 90-276 or 140-276 Vac
- No opto-coupler; variation of the +95 (at the secondary side of 5525 at winding 21-19) is detected by sense winding 3-2 on the primary side
- Slow-start feature of IC.
- Protection circuits
- Frequency and duty-cycle vary with changes on the mains input voltage and the loads at the outputs
  - During **normal** operation the switching frequency is between 25 kHz (low mains voltage/white picture/sound loud) and 90 kHz (high mains voltage/dark picture/sound soft)
  - During **standby** mode the load on the +95 rail is disconnected, SMPS operates in the burst mode.
- The switching period of TS7513 can be divided into three main phases:
  - During T-on (TS7513 switches on), energy is taken from the mains and stored in primary winding 11-9 of transformer 5525; the primary current through winding 11-9 is linearly increasing (slope depends on voltage across C2505). Via Ton regulation the amount of energy stored in the primary winding (and thus the +95) can be controlled.
  - During T-off (TS7513 switches off), energy stored in the primary winding during Ton is transferred, via the secondary windings, to the loads on the secondary side
  - During T-dead no energy is extracted from the mains of supplied to the secondary side; this phase gives "room" for Ton and Toff regulation.

Primary side:

- Degaussing: R3501 is a dual PTC (2 PTC's in one housing). When the set is switched on the PTC's are cold and low ohmic, this would give very high degaussing current. After degaussing the PTC's would be heated up and high ohmic, so in normal operation the degaussing current is very low.
- Mains voltage is filtered by L5500, full wave rectified by diodes 6502-6505 and smoothed by C2505 to Vin (300Vdc for 220 Vac mains).
- Start-up: Via resistor 3508 voltage from the mains is provided to supply pin 7 of IC7510 to start up the power supply.
- Supply for IC7501: During start-up, the voltage across winding 3-2 is built up. When the voltage across winding 3-2 reaches +16, D6511 would start to conduct and take over providing the +16 supply to pin 7 of the IC7510.
- Multi voltage: Only adaptations of some component values are needed to achieve this.

Control circuitry:

+95V feedback for Ton control: Regulation of the SMPS is via pin 1. Winding 3-2 has the same polarity as winding 21-19; thus variations of the +95 can be sensed and fed back to pin 1. The control voltage of winding 3-2 during off period of TS7513 is rectified by D6510, smoothed by 2515 and stepped down at an adjustable ratio by R3514, R3513 and R3511. From the information at pin 1 IC7510 controls each portion of energy transferred to the secondary side such that the output voltages remain nearly independent of load variations.

Secondary side:

- +95V for the line output stage.
- +13V for sound output amplifier and start up of the line circuitry. The +5 (µC supply) and Power-on reset (POR), for starting up the µC, are derived from the +13V.
- +5V supply for µC: Via D6562 (4V7) and TS7563 emitter of TS7563 ie 5.4V.
- POR: µC enters into operational state when +5 supply voltage has reached 4.5V. POR will initialize the µC at the moment the +5 is 5V5.

Protections:

- Overload protection: The primary current (which is via the transformer related to the secondary current) is simulated at pin 2 IC7510 via R3507 and C2510.
  This simulation is realised as follows; At the end of each energy store into the transformer (end of T-on), C2510 is connected to an internal reference voltage of 1V inside IC7510 at pin 2. This clamping at 1V DC will be remained until the end of the demagnetisation. By then pin 2 will be released by IC7510 and so pin 2 will be charged via the RC-network, giving a sawtooth (so in case the load needs more energy, the energy store into the transformer needs more time, so C2510 will be charged longer, so C2510 will be charged up to a higher peak level). As a result the peak level of the sawtooth at pin 2 is a measure for the load.
  The level of this simulated primary current is measured for overload protection;
  * In case of a small overload pin 2 will exceed 3V DC, the simulated current (and so the output current of the SOPS) will be fixed to 3V DC peak.
  * In case of a high overload or short-circuit, the simulated current will be decreased to 2V6 DC peak. As the energy stored into the transformer can not increase any more, the output current and so the output voltage of the SMPS will drop. In case of a short-circuit, this voltage drop will also result in an undervoltage protection.
- Undervoltage protection:
  * Undervoltage protection of the secondary output voltages is sensed via supply pin 6 of IC7510. If the voltage at pin 6 becomes lower than 7.25V DC the IC switches off.
    At the moment the undervoltage condition is not there any more, the SMPS will start up again via the slow-start principle. In case the undervoltage protection is activated because of a short-circuit, this will result in a clearly audible hick-up mode.
  * Undervoltage protection of the AC mains voltage is sensed via R3509-3510 at pin 3 IC7510. If the voltage at pin 3 becomes lower than 1V DC, the IC switches off completely.
- Overvoltage protection: Overvoltage protection of the secondary output voltages is sensed via supply pin 6 of IC7510. If voltage at pin 6 becomes higher than 16V DC the IC switches off. At the moment the undervoltage condition is not there any more, the SMPS will start up via the slow-start principle.

Carri

0020	A2	2445	E1	3129	B3	3456	F1								
0025	A4	2447	E1	3130	D5	3460	F2								
1000	F3	2448	E2	3132	A2	3461	F4								
1015	D4	2449	F2	3135	A3	3462	G2								
1105	D5	2450	E1	3136	D5	3463	E1								
1106	D5	2452	E2	3138	F5	3464	E5								
1206	D5	2453	F2	3139	F5	3465	E5								
1207	D5	2454	E2	3140	F5	3466	E4								
1275	E4	2455	E1	3142	D3	3470	F2								
1277	E4	2458	E1	3143	C3	3471	F1								
1278	F4	2460	F2	3144	F5	3472	F1								
1279	E4	2461	F4	3200	C5	3473	D2								
1500	A1	2462	G2	3201	D5	3474	D2								
1540	C3	2470	F1	3202	C5	3475	D2								
1602	A5	2471	F1	3203	C5	3476	D2								
1630	B4	2472	F1	3206	C5	3477	D2								
2002	F4	2473	G1	3207	F5	3478	D2								
2003	D3	2476	E2	3208	D5	3500	B2								
2008	F4	2500	B1	3209	D5	3501	A2								
2010	F4	2501	B2	3210	D4	3502	B2								
2101	D5	2502	C2	3211	C5	3503	B2								
2102	D5	2503	B2	3212	D3	3504	C1								
2104	D4	2504	C2	3213	D4	3506	B1								
2105	C3	2505	C1	3214	D5	3507	C2								
2110	C3	2506	B2	3215	G5	3508	B2								
2111	C3	2510	D1	3216	G5	3509	C2								
2112	D5	2511	D1	3217	G4	3510	D1								
2119	C5	2512	D1	3218	G5	3511	C1								
2120	C3	2513	D1	3236	F5	3512	D1								
2121	B3	2514	D1	3239	C5	3513	D1								
2122	C3	2515	D1	3240	C4	3514	D1								
2123	D5	2516	D1	3245	F4	3515	D1								
2124	B3	2517	D1	3248	E4	3516	D1								
2125	A3	2518	D1	3250	F5	3517	D2								
2127	A3	2520	C1	3251	F5	3518	C1								
2129	A3	2522	C1	3252	F5	3520	C1								
2130	D3	2523	C1	3253	F4	3524	C2								
2131	A3	2525	C2	3254	F4	3525	C2								
2132	C3	2529	C1	3255	F5	3531	D3								
2133	C3	2530	D3	3256	E5	3532	D2								
2138	F5	2531	E2	3257	E5	3533	D2								
2200	C5	2540	C3	3259	D5	3540	D3								
2208	E5	2561	D3	3260	D5	3541	C3								
2212	E5	2565	D3	3261	F3	3560	C3								
2213	D4	2570	D1	3263	D4	3561	D3								
2221	E5	2605	B5	3264	D4	3562	D3								
2222	D4	2607	B5	3265	D3	3565	D3								
2223	F4	2608	A3	3267	B5	3568	C1								
2226	E5	2610	A3	3268	C5	3570	D1								
2228	E5	2615	A3	3270	C5	3598	A1								
2229	E5	2620	B4	3271	C5	3599	A1								
2236	F5	2624	A3	3273	E4	3603	A5								
2245	F5	2625	B5	3275	E4	3604	A5								
2246	F5	2626	A4	3276	E4	3605	A4								
2248	F4	2627	A4	3277	E4	3606	C4								
2249	F4	2628	A4	3278	E4	3607	A5								
2251	F5	2638	B5	3279	E4	3608	A3								
2254	F4	2648	C3	3280	E4	3609	A3								
2256	F4	2656	C3	3281	F4	3611	A3								
2257	F4	2682	C3	3282	F4	3617	A3								
2260	D5	2683	A3	3285	E5	3622	B4								
2261	D4	2685	B3	3295	E4	3625	B5								
2262	F4	2687	B4	3296	D4	3626	A4								
2264	D4	2688	B3	3400	F3	3627	B4								
2265	D4	2692	C3	3401	F3	3634	B5								
2272	E4	2700	B4	3402	F3	3635	A5								
2273	E4	2703	B4	3403	F2	3637	A5								
2275	E4	2711	C5	3404	F2	3638	B5								
2277	E4	2714	B5	3405	F2	3640	A4								
2278	F4	2721	B5	3406	F3	3641	A5								
2279	E4	2722	B5	3407	F3	3646	C4								
2280	E5	2726	B5	3408	E3	3647	B4								
2284	E5	2727	A5	3410	E3	3648	C4								
2285	E5	2728	A5	3411	F2	3649	C3								
2286	E5	3000	E3	3412	F2	3650	D3								
2287	E5	3001	D3	3413	F3	3652	C4								
2288	E5	3002	D3	3414	F2	3653	C4								
2401	G2	3004	E3	3415	F2	3654	C4								
2402	F3	3005	E3	3416	F3	3656	C3								
2403	F2	3006	E3	3420	E4	3661	B4								
2404	E2	3007	E3	3421	E4	3662	A3								
2405	E2	3010	G4	3422	E4	3671	B4								
2414	F2	3106	D5	3423	D4	3685	B4								
2415	F3	3113	D4	3424	D3	3687	B4								
2421	E4	3118	C3	3425	F4	3691	B4								
2422	E4	3119	C3	3426	F4	3692	B4								
2423	E4	3120	B3	3427	F4	3694	B4								
2424	E4	3121	C3	3432	E1	3695	B3								
2426	D4	3122	C3	3440	E3	3697	A4								
2427	D4	3123	B3	3441	D2	3698	A4								
2440	F1	3124	B3	3442	F1	3699	B4								
2441	E2	3125	B3	3443	G1	3700	B4								
2442	F1	3126	B3	3444	F1	3702	C4								
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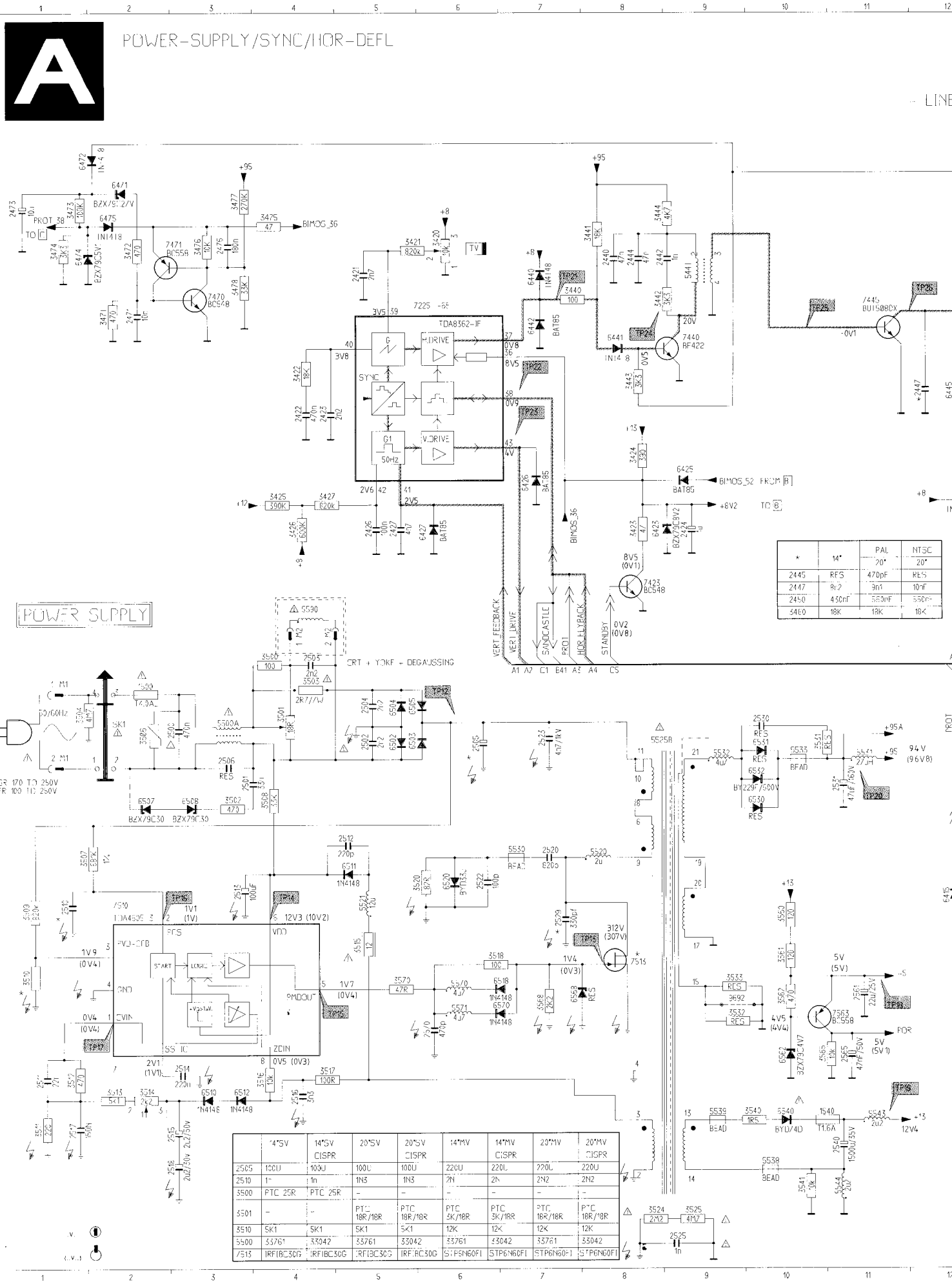
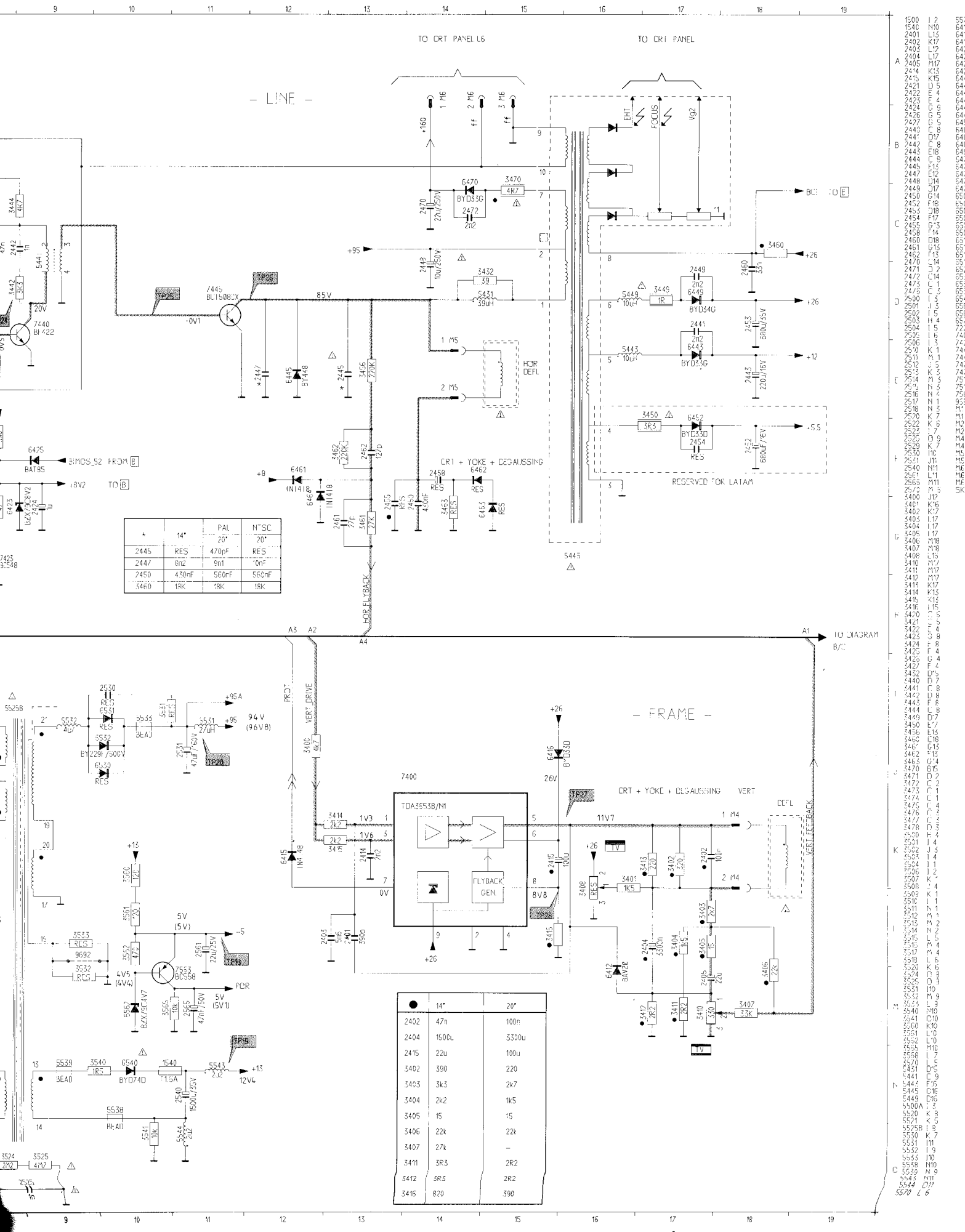
2444	F1	3128	C3	3450	E2	3704	C4								



*	14"	PAL 20"	NTSC 20"
2445	RES	470nF	RES
2447	8n2	9n1	10nF
2450	450nF	560nF	560nF
3460	18K	18K	18K

	14"SV	14"SV CISPR	20"SV	20"SV CISPR	14"MV	14"MV CISPR	20"MV	20"MV CISPR
2505	100U	100U	100U	100U	220U	220U	220U	220U
2510	1n	1n	1N3	1N3	2N	2N	2N2	2N2
3500	PTC 25R	PTC 25R	-	-	-	-	-	-
3501	-	-	PTC 18R/18R	PTC 18R/18R	PTC 5K/18R	PTC 5K/18R	PTC 18R/18R	PTC 18R/18R
3510	5K1	5K1	5K1	5K1	12K	12K	12K	12K
5500	33761	33042	33761	33042	33761	33042	33761	33042
7513	IRF1BC30G	IRF1BC30G	IRF1BC30G	IRF1BC30G	STP5NB60FI	STP6NB60FI	STP6NB60FI	STP6NB60FI

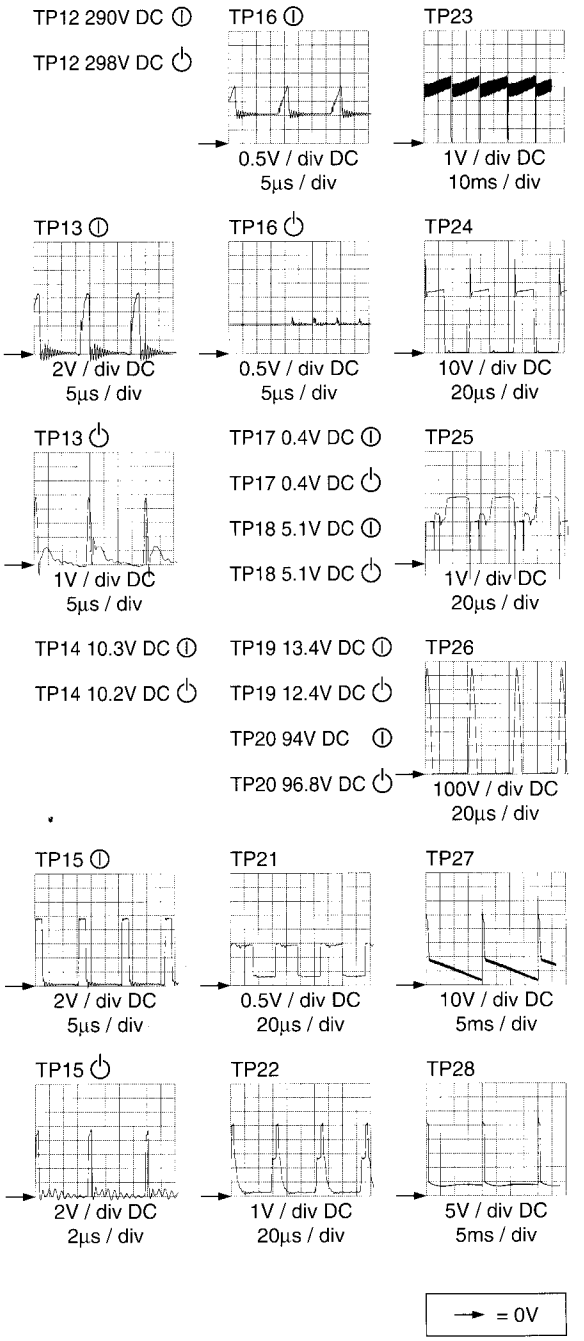
Fuente de alimentación + Sincronización + Deflexión



*	14"	PAL 20"	NTSC 20"
2445	RES	470pF	RES
2447	6n2	9n1	10nF
2450	430nF	560nF	560nF
3460	18K	18K	18K

●	14"	20"
2402	47n	100n
2404	1500u	3300u
2415	22u	100u
3402	390	220
3403	3k3	2k7
3404	2k2	1k5
3405	15	15
3406	22k	22k
3407	27k	–
3411	3R3	2R2
3412	3R3	2R2
3416	820	390

Power supply + Synchronisation + Deflection



Description of IC7225

Description of IC7225-6A-6B-6C-6D-6E-6F (TDA8362)

Intermediate frequency (IF) demodulation (IC7225-6A)

IF-demodulation with reference circuit L5260 at pin 2 and 3 of IC7225-6A. AGC control of tuner via pin 47 IC7225-6A to tuner. Top sync. level is used for AGC inside IC7225-6A. Tuner AGC voltage at pin 49 IC7225-6A. AGC adjustment (tuner take over point) via R3264. C2265 at pin 48 determines time constant of the AGC. Base band CVBS signal at pin 7 IC7225-6A (normal = 2,4 Vpp) and fed to the sound trap filters. AFC at pin 44 is taken from the reference signal at L5260 for IF demodulation while C2213 stabilizes this voltage. TRANS_ID comes from pin 14 of IC7225-6B via TS7270; if no horizontal synchronisation (no signal detected), pin 14 IC7225-6B "low", so TS7270 not conducts; TRANS_ID is "low".

Source select, luminance and chrominance separation (IC7225-6B)

Source select via A/V' which is, via TS7240, the inversion of A/V from pin 10 of the µC. For all sets except the full multi sets (PAL/SECAM/NTSC) switching takes place inside IC7225-6B; pin 16 A/V' = 0V gives internal CVBS (pin 13), pin 16 A/V' = 8V gives external CVBS (pin 15). PAL and NTSC switching takes place inside IC7225-6B via pin 16 IC7225-6B and for SECAM switching takes place via TS7216 and TS7217.
Luminance and chrominance separation; Chrominance signal is filtered out (-20dB) by a luminance notch filter which is internally calibrated at the subcarrier frequency (4,43 or 3,58). Pin 14 has a double function: sharpness control (in case hor. sync. is there) by controlling the gain of the internal luminance signal or TRANS_ID (in case IC7225-6E has no hor. sync., by then pin 14 is output pin "low" so TS7270 conducts so TRANS_ID "low").

Chrominance decoding (IC7225-6C)

PAL and NTSC chroma decoding inside IC7225-6C, SECAM chroma decoding inside IC7245. Inside IC7225-6C the PAL/NTSC chroma signal is fed via amplification and a burst demodulator to the R-Y and B-Y demodulator. PAL or NTSC processing is determined automatically by the burst demodulator inside IC7225-6C. The reference crystals for demodulation for IC7225-6C are present at pin 34 and/or pin 35 of IC7225-6C.
PAL/NTSC mode if voltage at pin 27 ≤ 5V5; if IC7225-6C detects PAL the voltage at pin 27 makes no sense, if IC7225-6C detects NTSC the voltage at pin 27 is used for hue control (0-5V) as for NTSC sets jumper 9246 is added.
For Trinorma sets the set selects (auto or forced) one of the 3 different crystals for PAL M, PAL N and NTSC M at pin 34 of IC7225-6C; for trinorma sets pin 26 of IC7225-6D has double function: saturation control (normal input pin) or trinorma system select (output pin) during system searching.
PAL/SECAM mode if voltage at pin 27 of IC7225-6C 5V5; IC7225-6C searches for PAL and IC7245 searches for SECAM. Via a bidirectional communication line between pin 32 of IC7225 and pin 1 of IC7245 both IC7225-6C and IC7245 "knows" whether a PAL/NTSC or a SECAM signal is detected: 4,43 calibration (on AC level) for calibration the PLL and chroma cloche filter of IC7245, and SECAM or PAL/NTSC operation (on DC level) enabling automatic selection of IC7225-6C or IC7245 to supply R-Y and B-Y to the delay line IC7255:

- If IC7225-6C has detected PAL or NTSC Vpin 32 = 1V5 and so the demodulated R-Y and B-Y at output pins 30 and 31 of IC7225-6C to delay line IC7255.
- If IC7225 has not detected PAL or NTSC Vpin 32 = 5V0 and so no demodulated R-Y and B-Y at output pins 30 and 31 of IC7225-6C to delay line IC7255.
- If IC7245 has detected a SECAM signal Vpin 1 IC7245 becomes "low" sinking typical 150 µA from the 5V0 of pin 32 of IC7225-6C. Only if sinking current of pin 32 is typical 150 µA IC7225-6C "knows" IC7245 has detected SECAM. The SECAM demodulated R-Y and B-Y via output pins 9 and 10 of IC7245 are fed to delay line IC7255.

RGB dematrixing (IC7225-6D)

RGB-dematrixing dematrixes the -(R-Y), -(B-Y) and the Y signals to RGB signals; the sandcastle pulse coming from the IC7225-6E synchronises the RGB dematrix and suppresses the RGB signals during line and frame flyback. Control by the microprocessor for contrast, brightness and saturation (0V5 to 4V5). RGB-source select switches between RGB from the RGB-dematrix and RGB from OSD via the BLANKING signal at pin 21 of IC7225-6D.

Horizontal synchronisation (IC7225-6E)

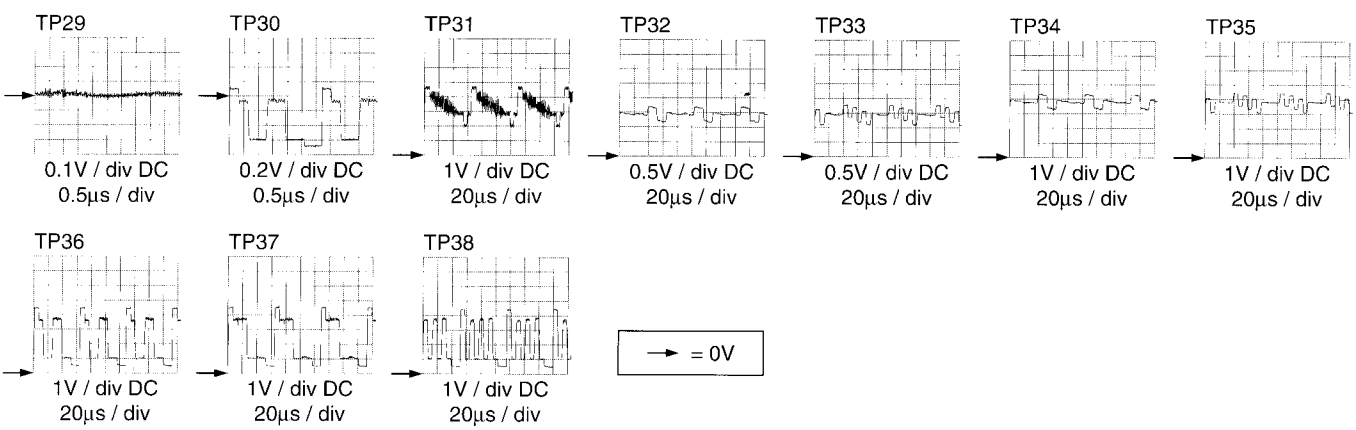
Start up of the hor. oscillator via +13 gives start up current into pin 36; if voltage at pin 36 5V8 the hor. oscillator starts running. At standby (STANDBY "high") TS7423 conducts, pin 36 IC7225-6E is 3V6, thus no oscillation. In normal operation (STANDBY "low") TS7423 not conducts so pin 36 IC7225-6E is 8V (via zener D6423) thus hor. oscillator runs. Hor. sync. separator separates hor. pulses out of CVBS and so synchronises the free-running hor. sawtooth generator. 50/60Hz is determined by chroma decoder part IC7225-6C. Hor. oscillator sawtooth is converted in square wave voltage with variable duty cycle (pin 37). Hor. flyback pulse at pin 38 compares phase of flyback pulse with phase of the hor. oscillator; if phase not correct the duty cycle of hor. oscillator will be adjusted. Time constant of the sync. circuit automatically determined by IC7225-6E. Pin 38 is both sandcastle output and hor. flyback input. Selection automatically determined by the input current (sandcastle a few µA, flyback 100-300 µA determined by R3428). Amplitudes of sandcastle pulse are burst is 5V3, line blanking is 3V, frame blanking is 2V. The protection line BIMOS_52 coming from pin 52 IC7225-6B to pin 36 IC7225-6E prevents IC7225 to get into a "non-operative" mode at ESD flashes.

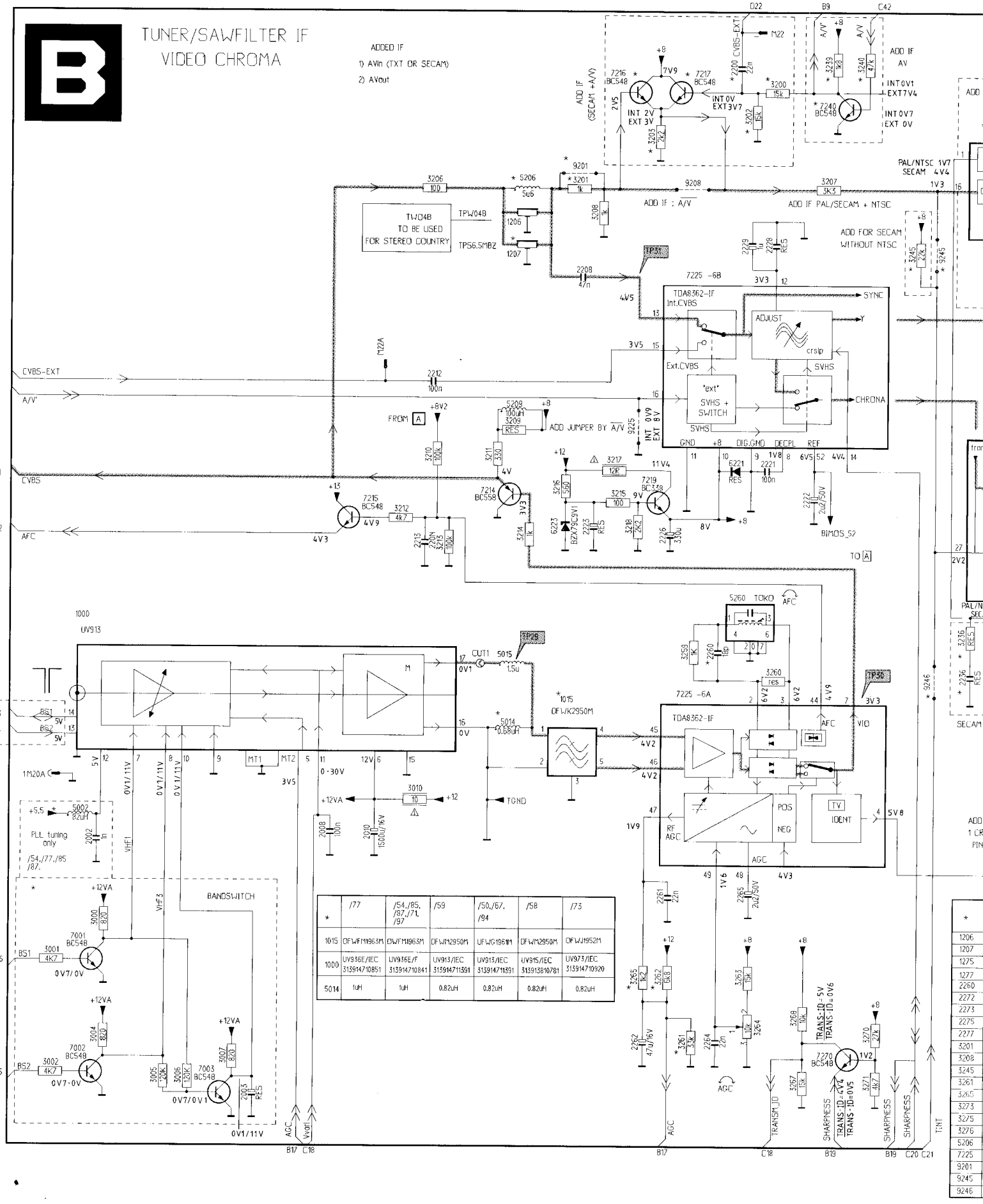
Vertical (vert.) synchronisation (IC7225-6E)

Vert. sync. separator separates frame sync. pulses from CVBS signal and synchronises frame oscillator. IC7225-6E compares phase of flyback pulse with phase of sawtooth at pin 42 (from external RC network); if phase not correct the duty cycle of frame oscillator will be adjusted. If no sync., the frame oscillator keeps running the earlier incoming standard of 50Hz or 60Hz.
Pre-amplifier in IC7225-6E amplifies sawtooth (pin 43 of IC7225-6E).

Sound detection (IC7225-6F)

Single FM-mono sound for demodulation takes place in IC7225-6F. No adjustment required as automatic PLL tuning (4,2 to 6,8 MHz). Sound frequency characteristic is defined by deemphasis C2104.

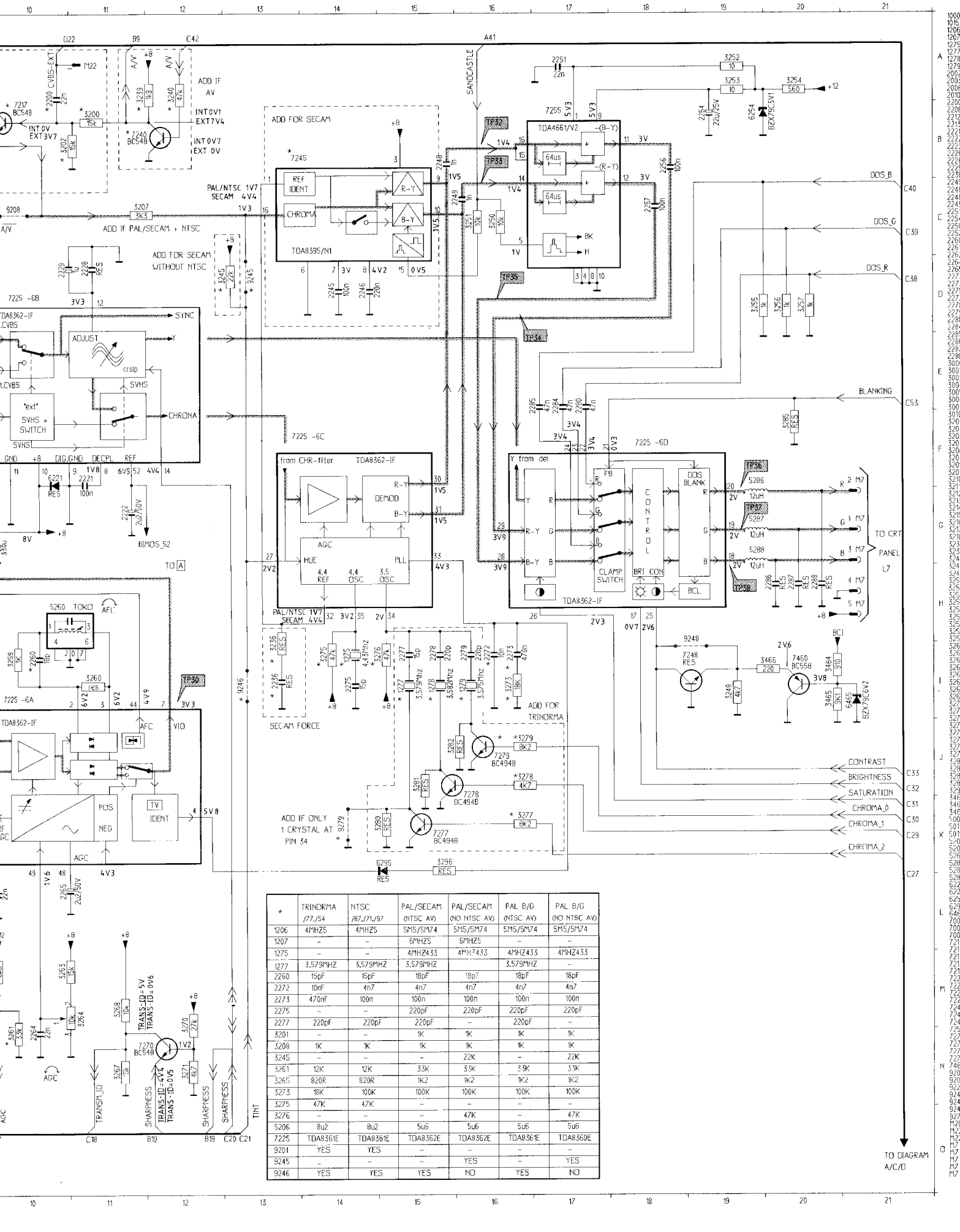




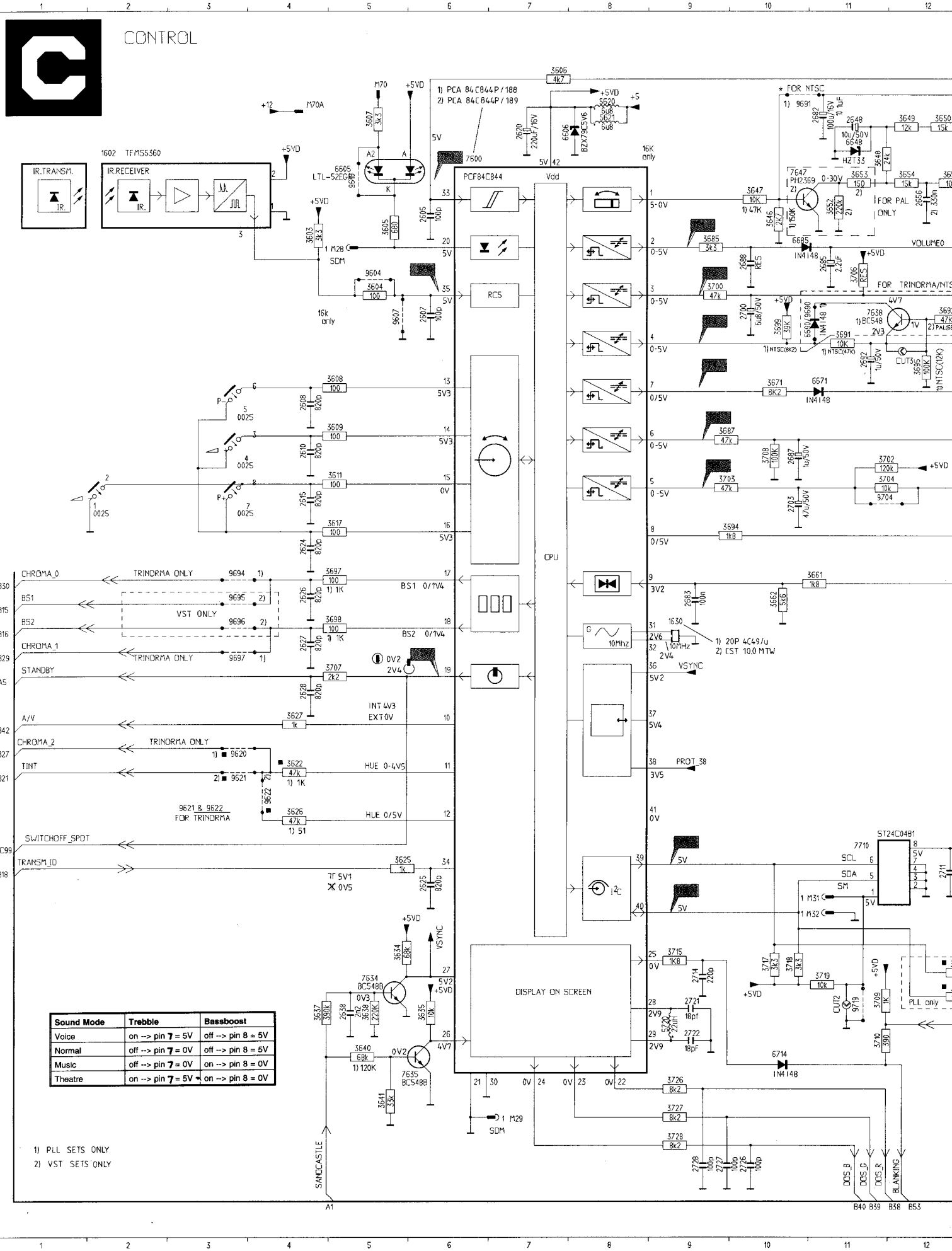
*	/77	/54./85. /87./71. /97	/59	/50./67. /94	/58	/73
1015	DFWFM1963M	DWFM1963M	DFWM2950M	UFWG1961M	DFWM2950M	DFWJ1952M
1000	UV936E/IEC 313914710851	UV936E/F 313914710841	UV913/IEC 313914711391	UV913/IEC 313914711391	UV915/IEC 313913810781	UV973/IEC 313914710920
5014	1uH	1uH	0.82uH	0.82uH	0.82uH	0.82uH

*
1206
1207
1275
1277
2260
2272
2273
2275
2277
3201
3208
3245
3261
3265
3273
3275
3276
5206
7225
9201
9245
9246

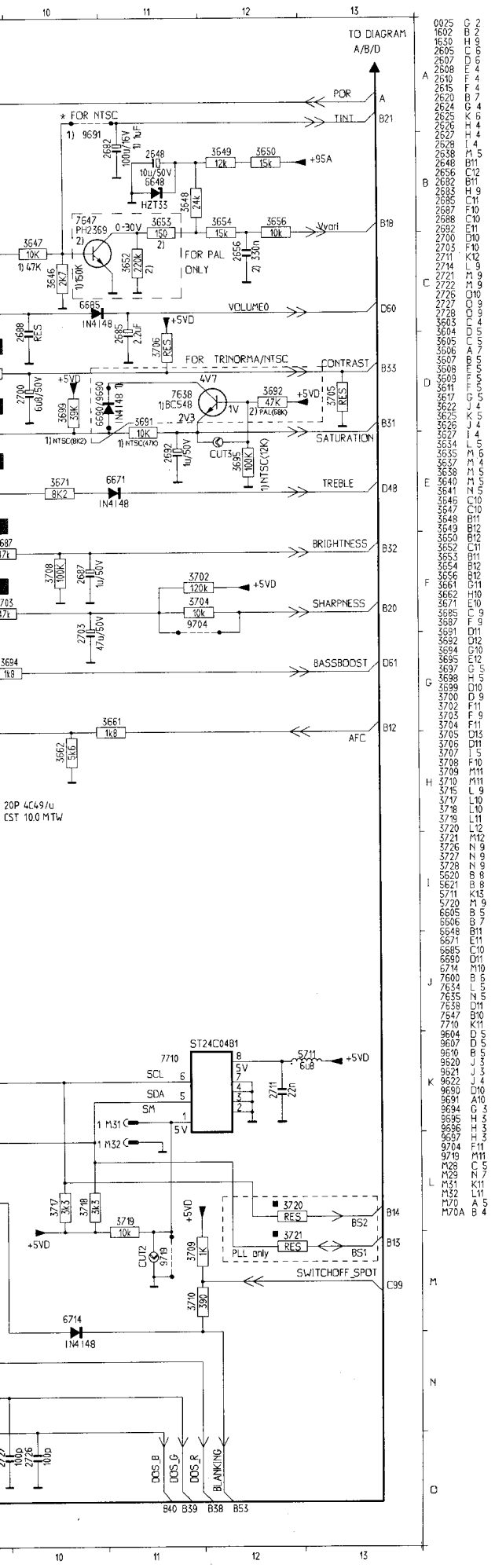
Sintonizador + FI + Procesámiento de video

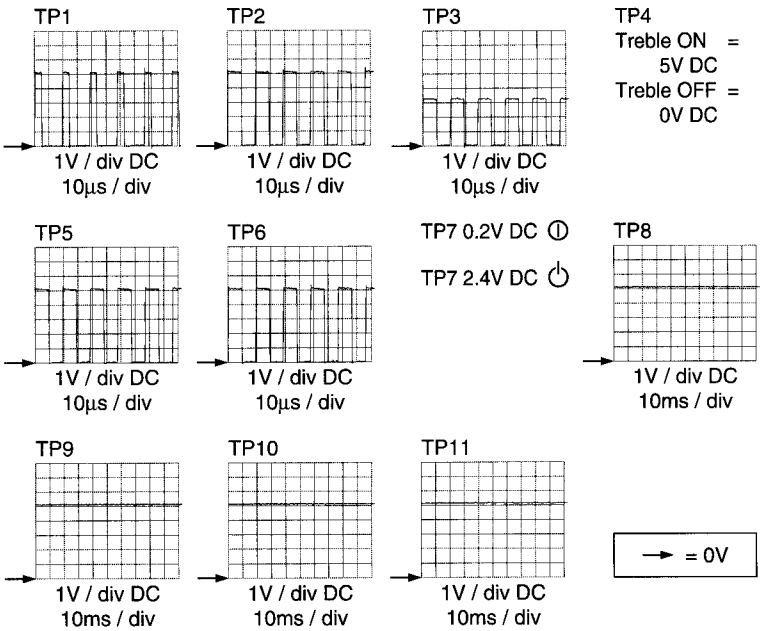


*	TRINORMA /77,/54	NTSC /87,/71,/97	PAL/SECAM (NTSC AV)	PAL/SECAM (NO NTSC AV)	PAL B/G (NTSC AV)	PAL B/G (NO NTSC AV)
1206	4MHZ5	4MHZ5	5M5/5M74	5M5/5M74	5M5/5M74	5M5/5M74
1207	–	–	6MHZ5	6MHZ5	–	–
1275	–	–	4MHZ433	4MHZ433	4MHZ433	4MHZ433
1277	3,579MHZ	3,579MHZ	3,579MHZ		3,579MHZ	–
2260	15pF	15pF	18pF	18pF	18pF	18pF
2272	10nF	4n7	4n7	4n7	4n7	4n7
2273	470nF	100n	100n	100n	100n	100n
2275	–	–	220pF	220pF	220pF	220pF
2277	220pF	220pF	220pF	–	220pF	–
3201	–	–	1K	1K	1K	1K
3208	1K	1K	1K	1K	1K	1K
3245	–	–	–	22K	–	22K
3261	12K	12K	33K	33K	33K	33K
3265	820R	820R	1K2	1K2	1K2	1K2
3273	18K	100K	100K	100K	100K	100K
3275	47K	47K	–	–	–	–
3276	–	–	–	47K	–	47K
5206	8u2	8u2	5u6	5u6	5u6	5u6
7225	TDA8361E	TDA8361E	TDA8362E	TDA8362E	TDA8361E	TDA8360E
9201	YES	YES	–	–	–	–
9245	–	–	–	YES	–	YES
9246	YES	YES	YES	NO	YES	NO



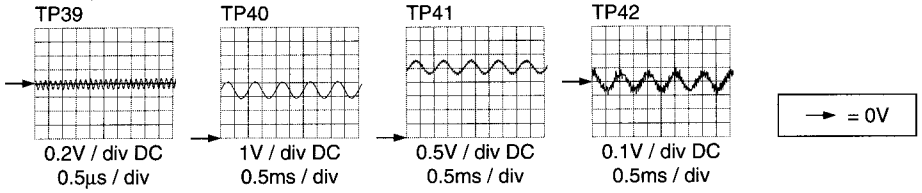
Sound Mode	Trebble	Bassboost
Voice	on --> pin 7 = 5V	off --> pin 8 = 5V
Normal	off --> pin 7 = 0V	off --> pin 8 = 5V
Music	off --> pin 7 = 0V	on --> pin 8 = 0V
Theatre	on --> pin 7 = 5V	on --> pin 8 = 0V


TO DIAGRAM A/B/D
POR
TINT
* FOR NTSC
1) 9691
2682 10 100u/16V 1) 1uF
2648 10 10u/50V 6648 HZT33
3649 12k
3650 15k
+9SA
3648 24k
7647 PH2369 0-30V
3653 150 2)
3654 15k
3656 10k
Vvari
B18
3647 10K 1) 47K
3646 2K7 1) 150K
3652 220k 2)
FOR PAL ONLY
2656 330n 2)
6685 IN4148
VOLUME0
D60
+5VD
2688 RES
2685 10 2.2uF
3706 RES
FOR TRINORMA/NTSC
CONTRAST
B33
4V7
7638 1)BC548
1V
2V3
3692 47K 2) PAL(68K)
3705 RES
2700 10 6u8/50V
3699 39K
6690 9690 IN4148
3691 10K 1) NTSC(47K)
1) NTSC(8K2)
2692 10 1u/50V
CUT3
3695 100K 1) NTSC(12K)
SATURATION
B31
3671 8K2
6671 IN4148
TREBLE
D48
BRIGHTNESS
B32
3708 100K
2687 10 1u/50V
3702 120k
+5VD
3704 10k
9704
SHARPNESS
B20
2703 10 4u7/50V
BASSBOOST
D61
3661 1k8
AFC
B12
3662 5k6
20P 4C49/u
CST 10.0 MTW
ST24C04B1
7710
SCL
SDA
SM
1 M31
1 M32
5V
5711 6u8
2711 22n
3717 3K3
3718 3K3
3719 10k
CUT2
9719
3709 1K
3720 RES
B14
BS2
3721 RES
B13
BS1
PLL only
SWITCHOFF_SPOT
C99
3710 390
6714 IN4148
2727 100p
2726 100p
DOS_B
DOS_G
DOS_R
BLANKING
B40 B39 B38 B53

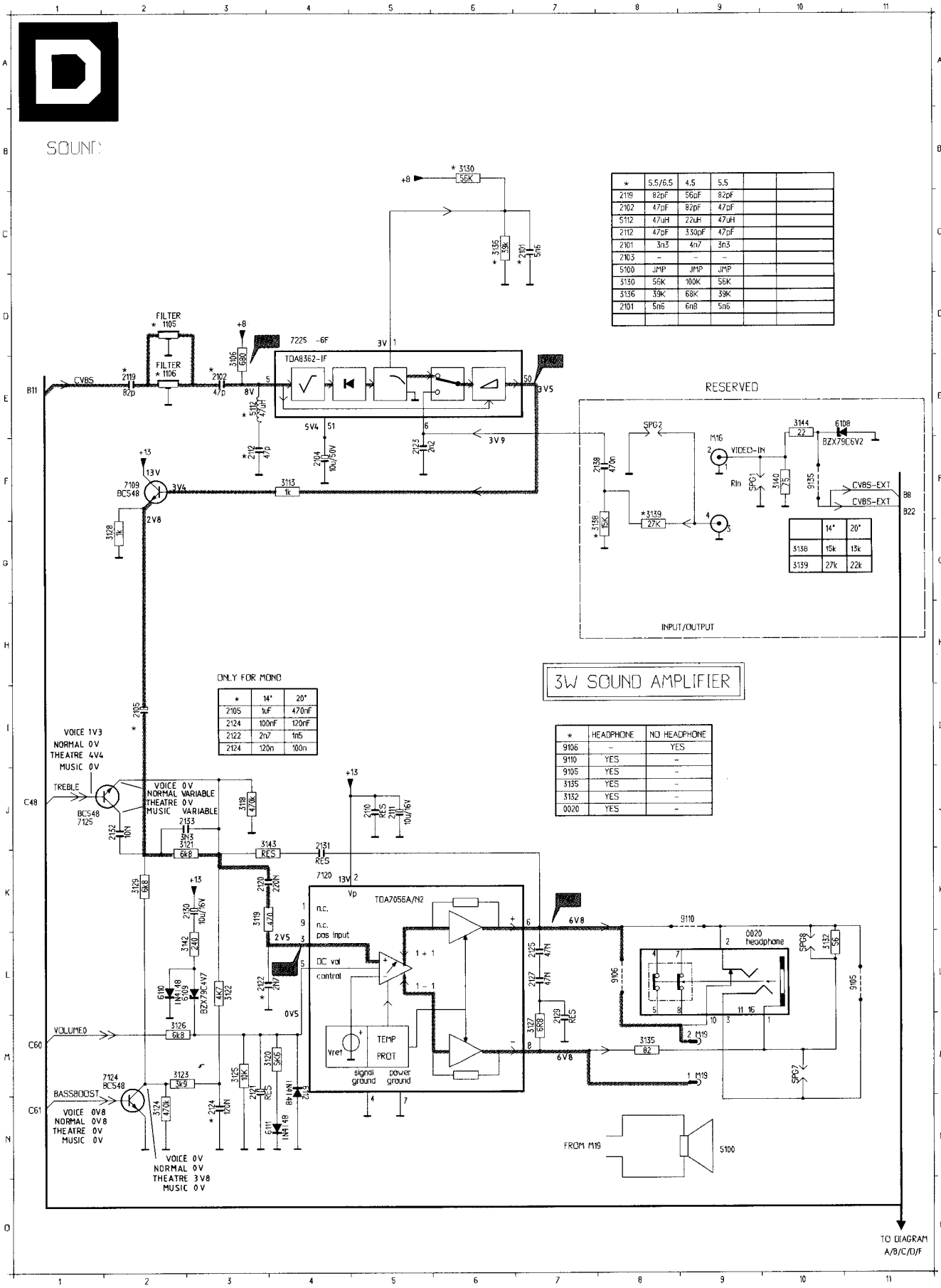

TP1
1V / div DC
10µs / div
TP2
1V / div DC
10µs / div
TP3
1V / div DC
10µs / div
TP4
Treble ON = 5V DC
Treble OFF = 0V DC
TP5
1V / div DC
10µs / div
TP6
1V / div DC
10µs / div
TP7 0.2V DC
TP7 2.4V DC
TP8
1V / div DC
10ms / div
TP9
1V / div DC
10ms / div
TP10
1V / div DC
10ms / div
TP11
1V / div DC
10ms / div
= 0V

List of abbreviations (incl. all signal names)

+95	+95 Supply voltage from the power supply to the line output stage
A/V'	Switching signal; "high" for external CVBS, "low" for internal CVBS
A/V	Switching signal; "low" for external CVBS, "high" for internal CVBS
AFC	Automatic Frequency Control
AGC	Automatic Gain Control
BASSBOOST	Switching signal; "low" for bassboost "on", "high" for bassboost "off"
BCI	Beam Current Info; If beam current increases the BCI signal decreases
BIMOS_36	Protection signal from protection circuitry around TS7470-7471 to pin 36 IC7225 In case of an open circuit of the flyback capacitor (flyback pulse increase) or +95V drop (e.g. short-circuit of primary side LOT) the thyristor TS7470-7471 is fired making BIMOS_36 continuous "low". As a result pin 36 IC7225-6E is made "low" so the horizontal driver and so the line output stage is switched "off"
BIMOS_52	Signal coming from pin 52 IC7225-6B to pin 36 IC7225-6E preventing IC7225 being "hanged" at ESD flashes
BLANKING	Fast blanking signal from µC to video controller IC7225-6D for blanking the RGB
BRIGHTNESS	Control signal (from µC, but on DC level via RC network) for brightness control of the video controller IC7225-6D (0-5V)
BS1	For VST sets bandswitching signal, for PLL sets SDA from I^2C
BS2	For VST sets bandswitching signal, for PLL sets SCL from I^2C
CHROMA_0	Switching signal from µC to chroma decoder IC7225-6C; if CHROMA_0 = 5V the 3.575 MHz crystal for PAL M is selected
CHROMA_1	Switching signal from µC to chroma decoder IC7225-6C; if CHROMA_1 = 5V the 3.582 MHz crystal for PAL N is selected
CHROMA_2	Switching signal from µC to chroma decoder IC7225-6C; if CHROMA_2 = 5V the 3.579 MHz crystal for NTSC M is selected
CONTRAST	Control signal (from µC, but on DC level via RC network) for contrast control of the video controller IC7225-6D and the teletext decoder (0-5V)
CRT	Picture tube
CVBS	Colour Video Blanking Sound
CVBS_EXT	CVBS signal from AV-IN cinch to pin 15 IC7225-6B
EEPROM	Electrical Erasable Programmable Read Only Memory
EHT	Extra High Tension (25 kV)
HOR	Horizontal
HOR_FLYBACK	Horizontal flyback pulse (15625 / 15750 Hz) used for locking the horizontal oscillator in IC7225-6E
HUE	Tint adjustment for NTSC system
I^2C	Digital control bus of the microcomputer
IF	Intermediate Frequency
NIL	Non Interlace
NTSC	National Television System Committee
OSD (DOS)	On Screen Display (in diagrams Display On Screen)
PLL	Phase Locked Loop
POR	Power On Reset
PROT	Protection signal from frame IC7400; in case the vertical flyback generator in IC7400 is not activated, the voltage on pin 8 IC7400 becomes 2V. By then the protection circuit in IC7400 will make pin 7 "high" overriding the HOR FLYBACK and SANDCASTLE. The constant "high" sandcastle is fed to the chrominance decoders (IC7225-6D and IC7250) and so the picture will become "black"
PROT_38	Protection signal from protection circuitry around TS7470-7471 to pin 38 of the µC; in case of an protection the µC switches the TV in stand-by and the LED blinks. In case the BIMOS_36 has switched "off" the line output stage or in case of a short-circuit on the secondary side of the LOT, the LOT voltages drop. This drop is measured via R3473-3474 and so PROT_38 becomes "low"; the µC will switch into protection mode
RC5	Remote Control 5 system
RGB	Red Green Blue
SANDCASTLE	Sandcastle signal from IC7225-6E to delay line IC7255 and SECAM chroma decoder IC7245
SATURATION	Control signal (from µC, but on DC level via RC network) for saturation control of the video controller IC7225-6D (0-5V); In trinorma sets this signal is also used as TRANS_ID ("low" in case the correct system is not found)
SCL	Clock of the I^2C-bus
SDA	Data of the I^2C-bus
SDM	Service default mode
SM	Service mode
STANDBY	Switching signal from µC; "high" for standby, "low" for normal operation
SWITCHOFF_SPOT	Switching signal equal to standby switching signal directly activating blanking at switching set to standby
TINT	Pulse width modulated control signal for hue control
TRANS_ID	Status signal; "high" for hor. sync. present so video identification
TREBLE	Switching signal; "high" for treble "on", "low" for treble "off"
V-in	The DC voltage across C2505 present at pin 11 of the primary side of the transformer
V-SYNC	Vertical sync signal from pin 27 µC to pin 36 µC
V-VARI	Tuning voltage (0-30V for VST, 30V for PLL)
VERT_DRIVE	Vertical drive signal from IC7225-6E to frame amplifier IC7400
VERT_FEEDBACK	50/60 Hz vertical flyback pulse used for locking the vertical oscillator in IC7225-6E
Vg2	Voltage on Grid 2 of the picture tube
VST	Voltage Synthesized Tuning
Y	Luminance part of the video signal



Sound (single/dual) / Procesámiento de sonido (solo/dual)



*	5.5/6.5	4.5	5.5		
2119	82pF	56pF	82pF		
2102	47pF	82pF	47pF		
5112	47uH	22uH	47uH		
2112	47pF	330pF	47pF		
2101	3n3	4n7	3n3		
2103	–	–	–		
5100	JMP	JMP	JMP		
3130	56K	100K	56K		
3136	39K	68K	39K		
2101	5n6	6n8	5n6		

	14"	20"
3138	15k	15k
3139	27k	22k

*	14"	20"
2105	1uF	470nF
2124	100nF	120nF
2122	2n7	1n5
2124	120n	100n

*	HEADPHONE	NO HEADPHONE
9106	–	YES
9110	YES	–
9105	YES	–
3135	YES	–
3132	YES	–
0020	YES	–

of
36

shes

-6D (0-5V)

AL M is selected
AL N is selected
TSC M is selected
25-6D and the

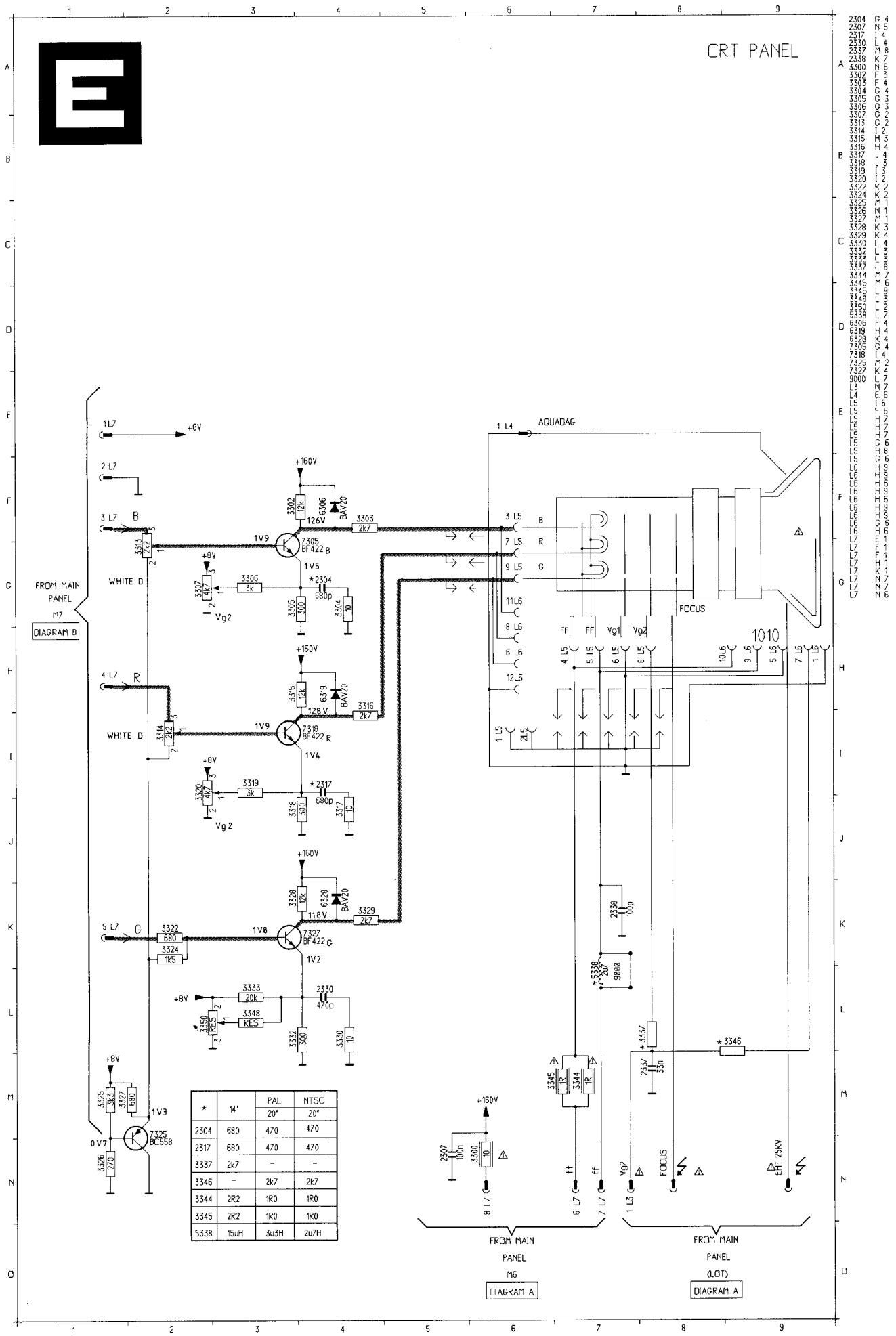
e voltage on pin 8
LYBACK and
250) and so the

on the µC

ary side of the
e µC will switch

7225-6D (0-5V);

CRT panel / Panel del TRC



*	14"	PAL 20"	NTSC 20"
2304	680	470	470
2317	680	470	470
3337	2k7	-	-
3346	-	2k7	2k7
3344	2R2	1R0	1R0
3345	2R2	1R0	1R0
5338	15uH	3u3H	2u7H

7. Electrical adjustments

1. Settings on the carrier panel (Fig. 7.1)

1.1 +95V power supply voltage
Connect a multimeter (DC) across C2531. Set brightness at mid position and contrast at maximum. Apply a pattern generator with a colour bar. Adjust potentiometer **R3514** to +95V ± 0.5V DC.

1.2 Horizontal centring
Is adjusted with potentiometer **R3420**.

1.3 Vertical centring
Can be adjusted with **R3408**.

1.4 Picture height
Is adjusted with potentiometer **R3410**.

1.5 Focusing
Is adjusted with the focusing potentiometer in the line output transformer 5445 (if necessary set brightness at minimum and contrast at maximum for focus adjustment).

1.6 RF AGC adjustment
Connect a pattern generator (e.g. PM5518) to the aerial input with RF signal amplitude = 1 mV. Connect a multimeter (DC) at pin 5 of tuner. Adjust **R3264** so that voltage at pin 5 of tuner is 7.5 ± 0.5V DC.

1.7 Picture demodulator adjustment
Connect a pattern generator (e.g. PM5518) with a cross hatch. Connect an oscilloscope (1µs/DIV) to pin 7 of IC7225-6A and adjust **L5260** so that the overshoot response is minimum, see Fig. 7.2.
Select a colour bar signal and verify if the picture is alright.

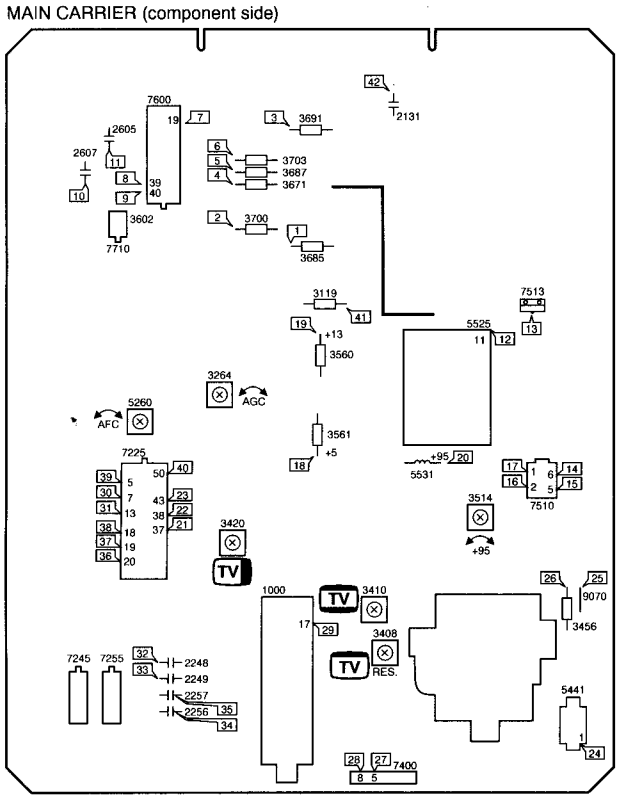


Fig. 7.1

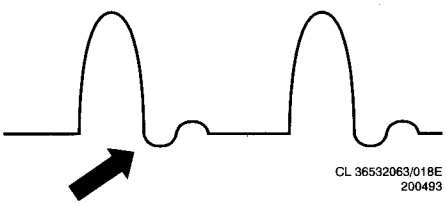


Fig. 7.2

2. Settings on the CRT panel (Fig. 7.3)

2.1 Vg2 cut off adjustment
Connect a pattern generator (eg PM5518) and set it to white raster pattern. Set contrast and the Vg2 potentiometer (in line output transformer) minimum. Adjust with brightness control the top video level at pin 5L7 to the same voltage level of the emitter of transistor 7325.

Pre-adjust the black level preset potmeters **R3320** and **R3307** fully counterclockwise. Adjust Vg2 potmeter of LOT 5445 until green just becomes visible. Adjust the other two guns with their potmeters: **R3307** for blue and **R3320** for red. All three colour shall give the same reading for a white picture.

2.2 White-D adjustment
Use the same signal as prescribed in 2.1. Adjust contrast to such a level that red is good visible. Adjust potentiometers **R3313** (B) and **R3314** (G) to have a correct White-D picture.

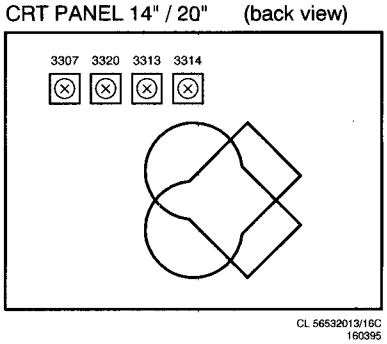


Fig. 7.3

3. Adjusting the picture tube

Note: The colour purity and convergence adjustments described hereafter need only be carried out if a completely new adjustment is called for or if a new picture tube has been fitted.
Otherwise, for instance after replacing the deflection unit, it will not be necessary to remove the rubber wedges (G in Fig. 4). corrections by means of the multi-pole unit will then suffice.

3.1 Colour purity (see Fig. 4)

1. Switch off the set.
2. Loosen fixing screw "F" of the deflection unit a few turns.
3. Move the deflection unit and remove the three rubber wedges "G".
4. Slide the deflection unit forward as far as possible against the glass of the picture tube cone and tighten fixing screw "F" in such a manner that the deflection unit can be moved with some friction.
5. Place the multi-pole unit in the position shown (see Fig. 4), turn screw "A" and turn securing ring "B" counter clockwise.
6. Let the apparatus face East or West and switch on the set.
   Supply a cross-hatch pattern and set brightness control to maximum. Allow for a warming-up time of 10 minutes.
7. Adjust the static convergence, using tabs "C" and "D" (if necessary, see procedure as described in paragraph 3.2).
8. Switch off the blue and the green gun by disconnecting the resistors 3303 and 3316.
9. By turning the colour purity rings with tabs "E", the vertical red bar is adjusted nearest to the centre of the screen, while the central horizontal line should be as straight as possible (see Fig. 4a).
10. Supply a white pattern signal and check that the red bar is in the centre of the screen. If not, switch on the cross-hatch pattern again and move the red bar in the right direction, taking care that the picture does not move too much in vertical direction.
11. Supply the white pattern signal and move the deflection unit until the whole picture surface is uniformly red.
12. Switch on the blue and the green guns by reconnecting R3303 and R3316. No colour patches should occur in the white picture now obtained. If necessary a minor correction can be made by slightly turning the colour purity rings "E" and/or slightly moving the deflection unit.
13. Tighten screw "F" tightly.
14. Proceed to the static and dynamic convergence adjustments.

3.2 Static convergence (see Fig. 4)

1. Supply a cross-hatch pattern and allow for a warming-up time of 10 minutes.
2. Switch off the green gun by disconnecting resistor 3316 and turn locking ring "B" anticlockwise.
3. By turning the four-pole rings with tabs "C", the red and blue cross-hatch patterns in the centre of the screen are placed on top of each other (see Fig. 4b).
4. Switch on the green gun by reconnecting R3316.
5. By turning the six-pole rings with tabs "D" the red and green cross-hatch patterns in the centre of the screen are placed on top of each other (see Fig. 4c).
6. Tighten ring "B" again.

3.3 Dynamic convergence (see Fig. 5)

Remark:
The dynamic convergence is achieved by vertical and horizontal tilting of the deflection unit. To secure the rig position of the deflection unit, three rubber wedges are fitted between the glass of the picture tube and the deflection unit, as shown in Fig. 5d.

1. First check the colour purity
2. Switch off the green gun by disconnecting resistor
3. Supply a cross-hatch pattern.
4. Eliminate the crossing of the central horizontal blue and red line and the crossing of the central vertical blue and red line, by vertical tilting of the deflection unit (see Fig. 4d).
   If the position of the deflection unit is correct, then place rubber wedge 1 with paper strip not removed the top (Fig. 5a) and wedge 2 with paper strip remo at the bottom (see Fig. 5b). Firmly press the adhes sides of this bottom wedge against the glass of the picture tube.
5. By horizontal tilting of the deflection unit, now both horizontal blue and red lines in the upper and lowe halves of the picture and the vertical blue and red l on the left and right hand side of the picture are pla on top of the other (see Fig. 4e).
   If the position of the deflection unit is correct, then place wedges 3 and 4 with paper strips removed, a shown in Fig. 5c. Firmly press the adhesive sides c these wedges against the glass of the picture tube.
6. Remove wedge 1, to obtain the condition shown in Fig. 5d.
7. Switch on the green gun again by reconnecting R3

Fig. 4

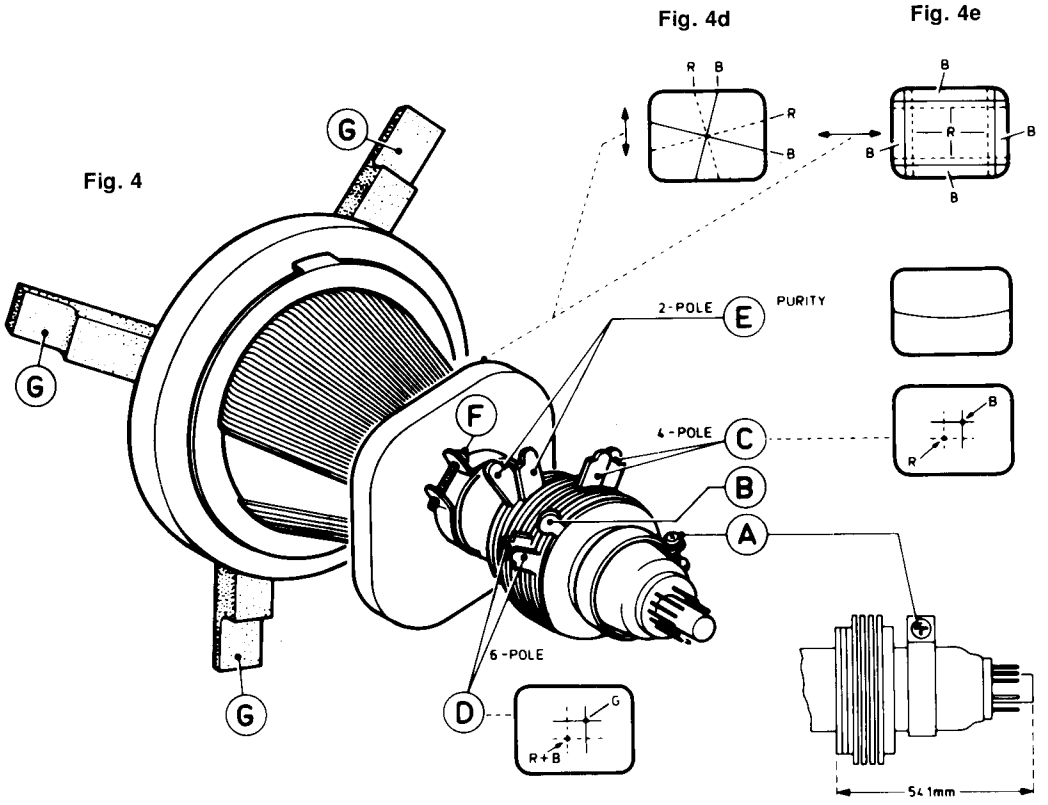


Fig. 4c

Fig. 4d

Fig. 4e

Fig. 4a

Fig. 4b

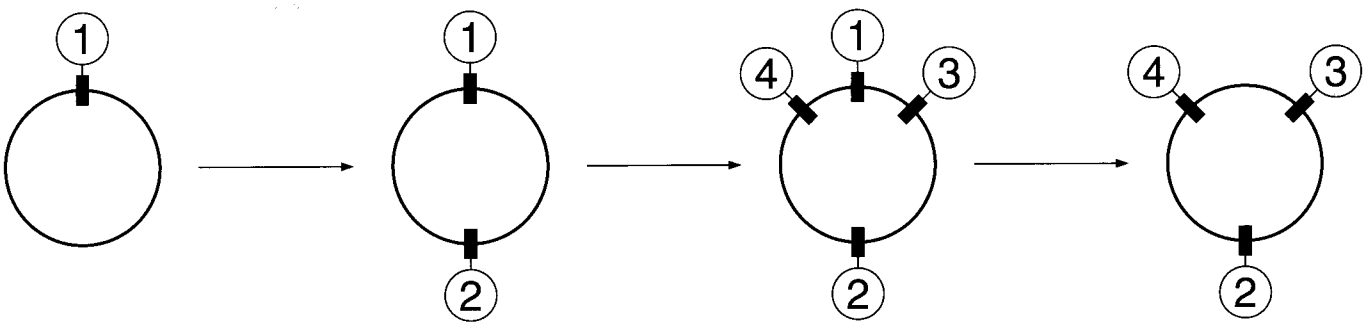


Fig. 5a

Fig. 5b

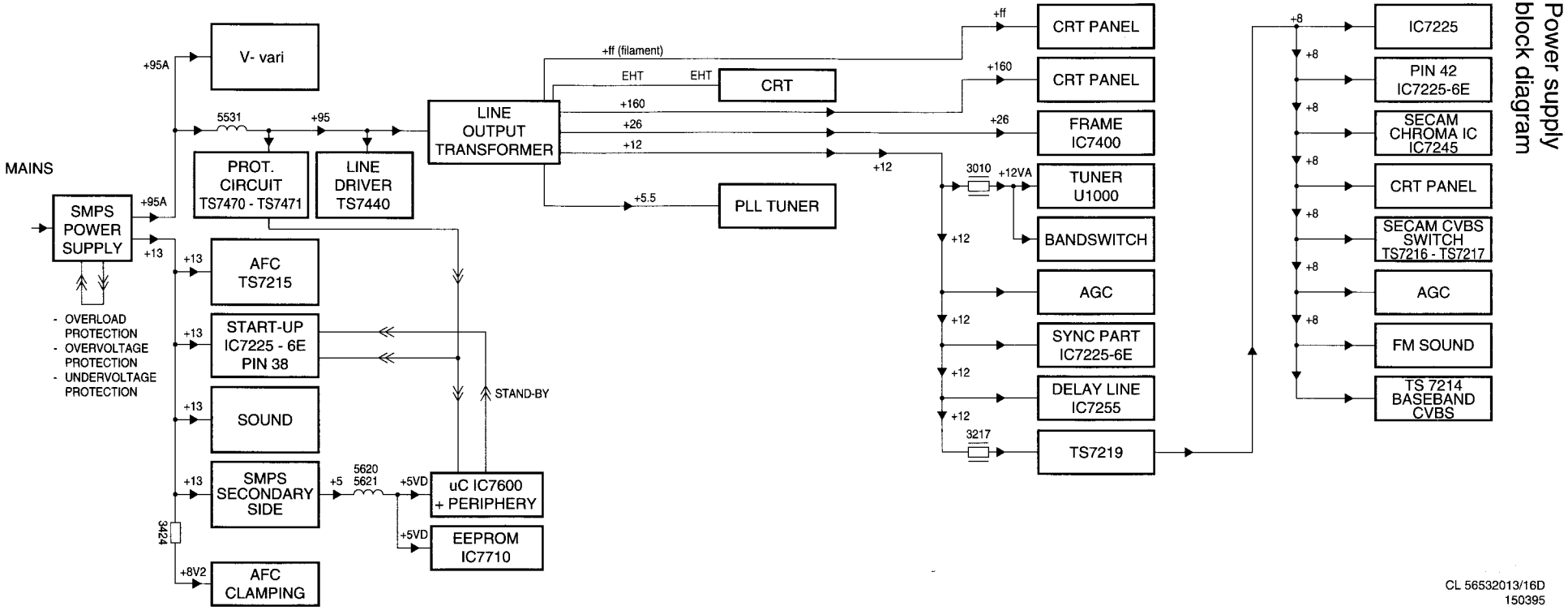
Fig. 5c

Fig. 5d

CL 46532035/013
070494

8. Repair facilities

Power supply block diagram



CL 56532013/16D
150395

Repair tips

1. Error messages

Via I^2C the µC can detect malfunction of all I^2C controlled IC's. Maximal 3 error codes can be displayed indicating maximal 3 different errors detected at switch on (see Table 8.1). These error codes will be displayed via OSD, only in normal operation mode after every switch on of the set. Error codes detected in the past can only be displayed in the Service Mode (see section 3.2.3).

Error Code	Error description	Possible defective component
1	PLL tuner error	Tuner U1000 (if PLL tuner)
2	EEPROM checksum error	Set not correct configured (see 3.2.2)
3	Not used	--
4	Not used	--
5	Internal RAM error	IC 7600
6	EEPROM	IC 7710
7	Not used	--
8	Not used	--

Table 8.1

2. Service Default Mode (SDM)

2.1 Entry of the Service Default Mode

Shortcircuit the 2 Service Default Mode pins on the main carrier (M28 and M29 (ground) near µC IC7600 indicated with "SDM" in the service printing) for a short moment while switching on the set. An "S" on the screen will indicate that the Service Default Mode is activated.

2.2 Functions of the Service Default Mode

In the Service Default Mode the set is in a pre-defined condition: All controls are set at 50% except the volume which is set at 25%. Sets with a VST tuner are tuned at program number 1 and sets with a PLL tuner are tuned at 475.25 MHz. All DC voltages & oscillograms indicated in the Service Manual are measured in this Service Default Mode.

2.3 Exit of the Service Default Mode

The Service Default Mode is exited via the standby command (the SDM pins should not be shortcircuited any more by then).

3. Service Mode (SM)

3.1 Entry of the Service Mode

Shortcircuit the 2 Service Mode pins on the main carrier (M31 and M32 (ground) near EEPROM IC7710 indicated with "SM" in the service printing) for a short moment while switching on the set (the built in EEPROM-protection in the EEPROM will automatically be deactivated at entering the service mode, and activated again at exiting the service mode via standby; as this procedure is realised via the content of address 255, the data at this address 255 may **not** be adapted).

3.2 Functions of the Service Mode

Functions of the Service Mode are; display the software number and version, set all software controlled options, display error codes detected in the past and erase the error code detected in the past.

3.2.1 Display the software number and version

In the Service Mode the following menu will appear:

ANUBIS-S AFH V1.3
ADR XXX DATA XXX

SAF indicates software number AF (AF is dedicated for the Anubis S DD), H indicates Hotel Mode option is present in this software and V1.3 indicates 1st masking with 3rd version.

3.2.2 Set all software controlled options

The addresses where the option settings are stored are the addresses 239 (240 for PLL) up to and including 253. The default data (stored by the factory) differs from type-stroke version to type-stroke version. This default data is given at a sticker inside the set.

For manipulation of the data at the option addresses 239 (240 for PLL) up to and including 253 table 8.3 (for VST sets) or table 8.4 (for PLL sets) can be used.

Changing the options settings according to the hardware environment (the configuration of that typical set), can be done in the Service Mode via the keys:

1. **"CONTROL -/+"** By pressing the "control -/+" keys the value behind ADR or DATA can be highlighted sequently
2a. **"PROG -/+"** By pressing the "prog -/+" keys the highlighted value can be increased or decreased
2b. **"0-9"** By pressing the "0-9" keys the highlighted value can directly be keyed in
3. **"STORE"** After every ADR and/or DATA change a "store" command has to be given to store these changes !

For option addresses 245 and 246 first determine what is valid for your particular set. After determination of all options (so 8 option choices each for address 245 and 246) the 8 corresponding values can be added for that particular address. This sum is the data to be keyed in, so e.g. for all options at address 245 the following data can be calculated:

Clock timer disabled	→	0
AV uses mono only	→	64
AV selectable	→	32
Enable the SMART sound/picture feature	→	16
Hue control possible	→	8
Enable the 13pp option	→	4
Remote STORE key allowed	→	0
Use normal bandswitch signals	→	0

The data at address 245 by then is:		124

The changed settings are only activated when the set is switched off and on again with the mains switch and if the checksum at address 254 is correctly updated; If the checksum is not OK, the set will use default settings.

The checksum at address 254 can be obtained by adding all data at the addresses 239 up to and including 253 and then subtract 256 until the data has a value under 256: for example, if EEPROM contains the following data, the checksum will be:

Address	Data
239	0
240	0
241	0
242	0
243	0
244	0
245	84
246	112
247	32
248	42
249	73
250	0
251	129
252	0
253	224

	696

696 - 256 - 256 = 184

Checksum address	Data
254	184

The other addresses of the EEPROM (so all addresses except 240 to 254 and 220) contain program information and preference-, factory- and current settings.

3.2.3 Display error codes detected in the past

The data at address 220 indicates all error codes detected in the past. The data at address 220 is a byte whereby the 8 bits refer to 8 possible error codes (for the error codes, see table 8.1) detected in the past; see conversion table 8.2.

Data at address 220	Error codes: 8 7 6 5 4 3 2 1	Error codes detected in the past
000	0 0 0 0 0 0 0 0	No error codes detected
001	0 0 0 0 0 0 0 1	1
002	0 0 0 0 0 0 1 0	2
003	0 0 0 0 0 0 1 1	1 & 2
004	0 0 0 0 0 1 0 0	3
005	0 0 0 0 0 1 0 1	1 & 3
006	0 0 0 0 0 1 1 0	2 & 3
007	0 0 0 0 0 1 1 1	1 & 2 & 3
etc.		
etc.		
255	1 1 1 1 1 1 1 1	1 & 2 & 3 & 4 & 5 & 6 & 7 & 8

Table 8.2

3.2.4 Erase the error code detected in the past

If the data at address is overwritten with 000 the error code history has been erased.

3.3 Exit of the Service Mode

For all software numbers the Service Mode is exited via the standby command.

4. Replacing an EEPROM

After replacing the EEPROM by an empty one, the addresses 224 up to and included address 254 can filled in accordance with the configuration of that typ set (if this is not done the software will use default settings).
The option setting for the addresses 239 up to and included 254 (checksum) can be different for every type/stroke-version and so are given by an option sticker at the backcover inside the set (and can also calculated via table 8.3 or 8.4).
The option setting for the addresses 224 up to and included 238 (smart control settings) can be set by table 8.5.

5. Hotel mode

The hotel mode can only be activated if:

1. the software for hotel mode is available (so an "H" version)
2. the hotel mode option (at address 246) is enable

In VST version (software number AF) two hotel mod are possible (Hotel Mode 1 and Hotel Mode 2). In P version (software number 3F) only one Hotel Mode (Hotel Mode 1) can be used:

Hotel mode 1:

* Hotel mode 1 is activated by simultaneously pre the "VOLUME-" and "PROGRAM+" on the local keyboard while program 38 is selected. Both ke must be hold down for at least 3 seconds.
* Features of hotel mode 1:
  - Install menu (also automatic search) not pos
  - Storing PP not possible.
  - Using the "PROGRAM +/-" keys from standb switch the TV on to program 1 instead of to last selected program.
  - Maximum volume value is limited to the valu present at the moment the hotel mode was activated.
* Hotel mode 1 is deactivated by simultaneously pressing the "PROGRAM+" and "VOLUME-" ke the local keyboard for at least 3 seconds while program 40 is selected.

Hotel mode 2:

* Hotel mode 2 is activated by simultaneously pre the "VOLUME-" and "PROGRAM+" on the local keyboard while program 37 is selected. Both ke must be hold down for at least 3 seconds.
* Features of hotel mode 2 :
  Same features as Hotel mode 1 except for the program numbers which can be selected. If one these program numbers is selected the screen remains blanked, and so the set can be used as radio (the transmitter should produce a valid horizontal IDENT). The program numbers which be blanked out (RADIO mode) can be programm via address 241 and 242 (see table 8.3).
  While these blanked program numbers are tune small program number will be displayed perma
* Hotel mode 2 is deactivated by simultaneously pressing the "PROGRAM+" and "VOLUME-" ke the local keyboard for at least 3 seconds while program 40 is selected.

Option setting table for software number AF (for VST Anubis-S DD)

Address	Option A	Value	Option B	Value
241	No hotel sets			0
	At this place you can program the first program number from which the RADIO mode will start (so from the program number onwards which is programmed at this address (address 241), the picture will be blanked out. This blank-out of the picture is called the RADIO mode). This RADIO mode will work from the program number programmed at this address (address 241) up to and included the program number programmed at address 242. This feature will only function in case the hotel mode function is enabled at address 246 and if Hotel Mode 2 is selected.			
242	No hotel sets			0
	At this place you can program the first program number from which the RADIO mode will start (so from the program number onwards which is programmed at this address (address 241), the picture will be blanked out. This blank-out of the picture is called the RADIO mode). This RADIO mode will work from the program number programmed at this address (address 241) up to and included the program number programmed at address 242. This feature will only function in case the hotel mode function is enabled at address 246 and if Hotel Mode 2 is selected.			
245	Clock timer disabled	0	Clock timer enabled	128
	AV stereo playback enabled	0	AV uses mono only	64
	No AV selectable	0	AV selectable	32
	Disable the SMART sound/picture feature	0	Enable the SMART sound/picture feature	16
	No hue control possible	0	Hue control possible	8
	Disable the 13pp options (PP-function per channel for the customer is disabled)	0	Enable the 13pp options (PP-function per channel for the customer is enabled)	4
	Remote STORE key allowed	0	No remote STORE key allowed	2
	Swap bandswitch signals for VHF1 & VHF3 bands (needed for UV973)	0	Use normal bandswitch signals	1
246	No hotel mode possible	0	Hotel mode can be enabled	128
	No UHF tuning possible	0	UHF band allowed	64
	No VHF3 tuning possible	0	VHF3 band allowed	32
	No VHF1 tuning possible	0	VHF1 band allowed	16
	Not used			0
	Not used			0
	Not used			0
	Not used			0
247	All VST sets			32
248	All VST sets			42
249	All VST sets			73
250	All VST sets			0
251	All VST sets			129
252	All VST sets			0
253	All VST sets			224
254	Checksum Add data on address 239 up to and included 253 and then (if necessary) substract 256 until the data has a value under 256.			

Table 8.3

Option setting table for software number 3F (for PLL Anubis-S DD)

Address	Option A	Value	Option B	Value
245	Not used			0
	Not used			0
	No AV selectable	0	AV selectable	32
	Not used			0
	No hue control possible	0	Hue control possible	8
	Not used			0
	Always allow RC5 STORE key	0	Allow RC5 STORE key only in SDM (Service Default Mode) and SM (Service Mode)	2
	Not used			0
246	No hotel mode possible	0	Hotel mode can be enabled	128
	Not used			0
	Fixed colour system	0	Trinorma colour system	32
	Not used			0
	Not used			0
	Not used			0
	Not used			0
	Autoskip will perform with optimal speed	0	Autoskip will work slower	1
247	All PLL sets			4
248	All PLL sets			13
249	All PLL sets			9
250	All PLL sets			5
251	All PLL sets			5
252	All PLL sets			80
253	All PLL sets			5
254	Checksum Add data on address 239 up to and included 253 and then (if necessary) substract 256 until the data has a value under 256.			

Table 8.4

Default settings needed for filling empty EEPROM (for other addresses see table 8.3 or 8.4)

Address	VST sets	Function		Address	PLL sets	Function
224	63	RICH - contrast		224	0	not used
225	18	RICH - brightness		225	63	RICH - contrast
226	30	RICH - colour		226	18	RICH - brightness
227	32	RICH - hue		227	24	RICH - colour
228	53	RICH - sharpness		228	32	RICH - hue
229	48	NATURAL - contrast		229	53	RICH - sharpness
230	25	NATURAL - brightness		230	48	NATURAL - contrast
231	26	NATURAL - colour		231	23	NATURAL - brightness
232	32	NATURAL - hue		232	21	NATURAL - colour
233	38	NATURAL - sharpness		233	32	NATURAL - hue
234	28	SOFT - contrast		234	38	NATURAL - sharpness
235	25	SOFT - brightness		235	28	SOFT - contrast
236	23	SOFT - colour		236	25	SOFT - brightness
237	32	SOFT - hue		237	20	SOFT - colour
238	18	SOFT - sharpness		238	32	SOFT - hue
239	0	not used		239	18	SOFT - sharpness
240	0	not used		240	0	not used
241	see table 8.3			241	0	not used
242	see table 8.3			242	0	not used
243	0	not used		243	0	not used
255	224	Enable protected EEPROM after the Service Menu is left		255	224	Enable protected EEPROM afte the Service Menu is left

Table 8.5

Safety Information

Disconnect mains plug when :

- the RED light below the screen is flashing continuously.
- a bright white line is displayed across the screen.
- cleaning the TV screen. Never use aggressive cleaning agents. Use a slight damp chamois leather.
- there is a lightning storm.
- the set is left unattended for an extended period of time.

CAUTION: Never attempt to repair a defective TV yourself. Always consult a skilled service personnel.

Switch off your TV overnight via the POWER ON/OFF button instead of leaving it on stand-by. You save energy and at the same time demagnetise the picture tube. A demagnetised picture tube supports good picture quality.When the set is switched on, do not shift, move or turn (e.g. on a swivel base) the set around because an uneveness in colour in some parts of the screen may occur.This can be eliminated by switching off the set by the mains power button . Wait for 20 minutes before switching on again. If symptom still exists, call for service.

Before Calling For Service

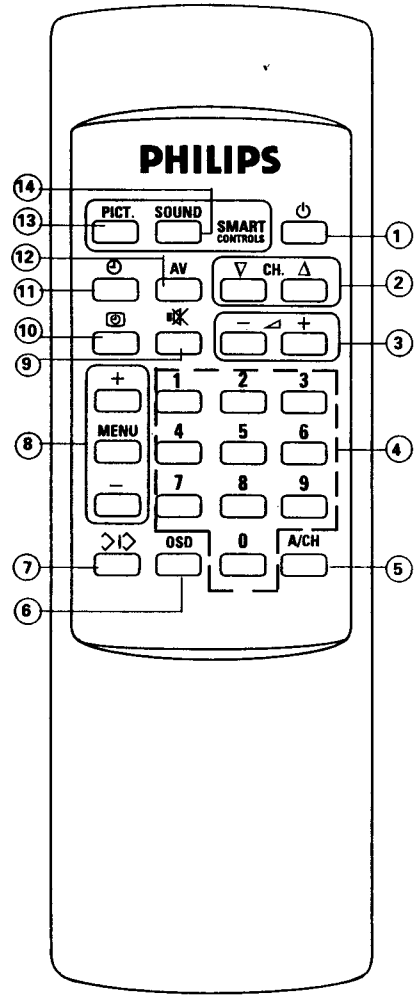
Please make these simple checks before calling for service.

SYMPTOM	CHECK/ACTION
Colour patch (uneveness)	• Switch off TV by the mains power button. Wait for 20 minutes before switching on again.
No power	• Check TV's AC power cord is plugged into mains socket. If there is still no power, disconnect plug. Wait for 60 seconds and re-insert plug. Switch on TV again.
No picture	• Check antenna connection at rear of the TV. • Possible faulty TV station. Try another channel. • Increase the contrast setting first and then the brightness setting.
Good picture but no sound	• Try increasing the volume. • Check sound is switched on.
Good sound but poor or abnormal colour or no picture	• Increase the contrast setting first and then the brightness setting.
Snowish picture and noise	• Check antenna connection at rear of the TV.
Horizontal dotted lines	• Possible electrical interference(e.g. hairdryer,nearby neon lights, etc). Switch off equipment.
'Ghosts' or double image	• Possible poor positioning of antenna. Using a highly directional antenna may improve reception.
One white line across the screen	• Switch off set immediately and consult service personnel.
TV not responding to remote control handset	• Check life span of batteries. • Aim remote control handset directly at remote control sensor lens on the TV set.

INSTALLATION

NAME AND FUNCTION OF CONTROLS

FUNCTIONS OF REMOTE CONTROL



①	Stand-by button	Turns TV on and off when main power is on.
②	Channel Up/Down button	Selects channels preset on programme number.
③	Volume Up/Down button	Adjusts sound volume louder or softer.
④	Digit (0 - 9) button	Selects channel directly. Press desired number to select(one digit). For two-digit channel number, press the first digit followed by the second digit.
⑤	Alternate channel button	Alternates last viewed channel and present channel.
⑥	On Screen Display button	Displays channel number and sleep-timer.
⑦	Install button	Starts installation menu and store new settings.
⑧	Menu and Menu Up/Down button	Selects and start the various menu.
⑨	Mute button	Mutes sound temporarily.
⑩	On-Timer button	Not applicable.
⑪	Clock button	Not applicable
⑫	AV button	For AV playback programmes. (For sets with AV mode).
⑬	Smart Picture button	Allows you a choice of 4 picture settings.
⑭	Smart Sound button	Allows you a choice of 4 sound settings.

INSTALLATION

HOW TO START MANUAL INSTALLATION

TV not responding to remote control handset	• Check life span of batteries. • Aim remote control handset directly at remote control sensor lens on the TV set.

INSTALLATION

Operating instructions generally explains the operation of the TV using the buttons on the remote control.

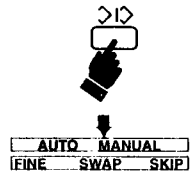
SEARCHING AND STORING TV CHANNELS

You can search and store TV channels with your remote control handset either by **AUTOMATIC** installation or **MANUAL** installation through the installation menu.

AUTOMATIC installation enables you to search and store TV channels automatically.
MANUAL installation enables you to search and store TV channels manually by entering your preference channel number for every available station.

HOW TO GET INTO THE INSTALLATION MENU

Press button to start installation menu.



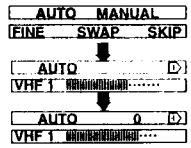
This menu allows you to do :
- Automatic Installation
- Manual Installation
- Fine Tuning
- Swapping of Channels
- Skipping of Channels

HOW TO START AUTOMATIC INSTALLATION

Step 1 • Press button to start installation menu. (**AUTO** menu is automatically highlighted first).

Step 2 • Press **MENU** button to start **AUTO** mode.

Step 3 • Press **MENU** + button to start **AUTO** installation.



NOTE : Installation menu will exit automatically when all available stations are stored. Channel 1 will then be displayed.

INSTALLATION

HOW TO START MANUAL INSTALLATION

Step 1 • Press button to start installation menu and press button again to highlight **MANUAL** menu.

Step 2 • Press **MENU** button to start **MANUAL** mode.

Step 3 • Press **MENU** — button to select either UHF 1, VHF 1 or VHF 3 band.

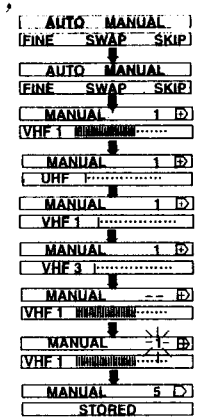
Step 4 • Press **MENU** + button to start **MANUAL** installation.

Step 5 • Enter your preference number for that available channel once a blinking channel number appears.

Step 6 • Press button to store channel number.

Step 7 • Repeat Step 3 to Step 5 to install other channels.

Step 8 • Press button to exit from menu.



HOW TO DO FINE TUNING

To achieve optimum picture and sound quality, you can use the **FINE TUNING** feature to adjust the picture and sound quality.

Step 1 • Select the channel which you want to fine tune.

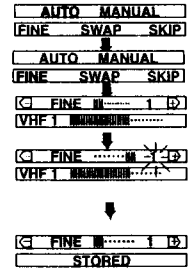
Step 2 • Press button to start installation menu. and press button until **FINE** is highlighted.

Step 3 • Press **MENU** button to start **FINE** mode.

Step 4 • Press and hold **MENU** + or — button until the desired picture and sound is obtained. A blinking channel number will then appear on the screen.

Step 5 • Press button to store new setting. Repeat all the above steps if you wish to do a fine tuning for other channels.

Step 6 • Press button to exit from menu.



BCS 9078 C

10. Spare parts list / Lista de Repuesto

Main carier [A/B/C/D]

Various

	4822 492 70788	Spring for audio and frame amplifier
	4822 492 41369	Spring for SMPS transistor
▲	4822 492 70289	Spring for line transistor
▲	4822 276 13431	Mains switch
▲	4822 256 30496	Fuse holder
	4822 276 40414	4 fold switch
	4822 255 70287	RC holder
	4822 256 91698	LED holder
	4822 267 31441	Jack plug 3.5 mm
▲	4822 267 31359	2 pins for degaussing
▲	4822 265 20439	2 pins for M5 (hor defl)
	4822 265 20708	2 pins female horizotal
	4822 267 31884	2 pins female vertical
	4822 265 20689	2 pins male vertical
	4822 265 20709	2 pins header 2.5 x 3.81
	4822 267 41197	3 pins female vertical
	4822 267 41198	5 pins female vertical
1000▲	4822 210 10448	UV915E/IEC
1000▲	4822 210 10459	UV913/IEC
1000	4822 210 10561	UV936E/F (PLL)
1000	4822 210 10582	UV936E/IEC
1015	4822 242 81388	OFWG1961M 38.9 MHz
1015	4822 242 72197	OFWK2950M 38.9 MHz
1015	4822 242 73792	OFWM1963 45.75 MHz
1105	4822 242 71713	6.0 MHz
1105	4822 242 71725	4.5 MHz
1105	4822 242 72547	5.5 MHz
1106	4822 242 72057	6.5 MHz
1206	4822 153 30025	6.0 MHz
1206	4822 242 71207	4.5 MHz
1206	4822 242 81712	5.5/5.74 MHz
1207	4822 242 81301	6.5 MHz
1275	4822 242 81691	4.433 619 MHz
1277	4822 242 81575	3.579 500 MHz
1278	4822 242 81574	3.582 056 MHz
1279	4822 242 81576	3.575 600 MHz
1500	4822 070 34002	Fuse 4A
1540▲	4822 071 51602	Fuse 1.6A
1602	4822 212 30842	RC receiver TFMS5360
1630	4822 242 81727	10.0 MHz for VST
1630	4822 242 81893	10.0 MHz for PLL

⊣⊢

2002	4822 122 33302	1nF 5% 50V
2008	5322 121 42386	100nF 5% 63V
2010	4822 124 81049	1500µF 20% 16V
2101	4822 126 11134	5.6nF 10% 50V
2101	4822 126 12638	6.8nF 5% 50V
2101	4822 126 13513	8.2nF 10% 50V
2102	4822 126 12868	47pF 5% 50V
2102	4822 126 13462	4.7nF 20% 50V
2102	4822 126 13516	82pF 5% 50V
2104	4822 124 40248	10µF 20% 63V
2105	4822 121 43823	470nF 5% 50V
2105	4822 124 81022	1µF 20% 50V
2111	4822 124 81021	100µF 20% 16V
2112	4822 126 12868	47pF 5% 50V
2112	4822 126 13512	330pF 10% 50V
2112	5322 122 32336	560pF 10% 100V
2119	4822 126 13511	270pF 10% 50V
2119	4822 126 13514	56pF 5% 50V
2119	4822 126 13516	82pF 5% 50V
2120	4822 121 42868	220nF 5% 50V
2121	4822 124 81024	4.7µF 20% 50V
2122	4822 122 33305	2.7nF 5% 50V
2122	4822 122 33307	10nF 5% 50V
2122	4822 126 13501	1.5nF 10% 50V
2123	4822 126 13515	2.2nF 20% 50V
2124	4822 121 51567	120nF 5% 50V
2125	4822 122 33449	47nF 30% 50V
2127	4822 122 33449	47nF 30% 50V
2130	4822 124 41596	22µF 20% 50V
2132	4822 121 70623	10nF 5% 50V
2133	4822 122 33532	3.3nF 5% 50V
2138	4822 121 43823	470nF 5% 50V
2200	4822 122 40606	22nF 80% 50V
2208	4822 122 33449	47nF 30% 50V
2212	5322 121 42386	100nF 5% 63V
2213	4822 121 42868	220nF 5% 50V
2221	5322 121 42386	100nF 5% 63V
2222▲	4822 124 81023	2.2µF 20% 50V
2226	4822 124 40849	330µF 20% 16V
2228	4822 121 70621	100nF 5% 50V
2228	4822 124 40242	1µF 20% 63V
2229	4822 124 40242	1µF 20% 63V
2245	5322 121 42386	100nF 5% 63V
2246	4822 121 42868	220nF 5% 50V
2248	4822 122 33302	1nF 5% 50V
2249	4822 122 33302	1nF 5% 50V
2251	4822 122 40606	22nF 80% 50V
2254	5322 124 41431	22µF 20% 35V
2256	5322 121 42386	100nF 5% 63V
2257	5322 121 42386	100nF 5% 63V
2260	4822 126 10096	15pF 5% 50V
2260	4822 126 11131	18pF 5% 50V
2261	4822 122 40606	22nF 80% 50V
2262▲	4822 124 40433	47µF 20% 25V
2264	4822 122 40606	22nF 80% 50V
2265	4822 124 81108	0.47µF 20% 50V
2272	4822 122 33307	10nF 5% 50V
2272	4822 126 12641	4.7nF 20% 50V
2272	4822 126 13462	4.7nF 20% 50V
2273	4822 121 43823	470nF 5% 50V
2273	4822 121 70621	100nF 5% 50V
2273	5322 121 42386	100nF 5% 63V
2275	4822 122 33299	220pF 5% 50V
2277	4822 122 33299	220pF 5% 50V
2278	4822 122 33299	220pF 5% 50V
2279	4822 122 33299	220pF 5% 50V
2280	4822 122 33449	47nF 30% 50V
2284	4822 122 33449	47nF 30% 50V
2285	4822 122 33449	47nF 30% 50V
2401	4822 122 33528	390pF 5% 50V
2402	4822 121 51399	47nF 10% 50V
2402	5322 121 42386	100nF 5% 63V
2403	4822 126 11134	5.6nF 10% 50V
2404	4822 124 40432	1500µF 20% 25V
2404	4822 124 81039	3300µF 20% 25V
2405	4822 124 22633	22µF 20% 35V
2414	4822 126 13515	2.2nF 20% 50V
2415	4822 124 81029	100µF 20% 25V
2415	5322 124 41431	22µF 20% 35V
2421	4822 122 33305	2.7nF 5% 50V
2422	4822 121 43823	470nF 5% 50V
2423	4822 122 33531	2.2nF 10% 50V
2424	4822 124 81022	1µF 20% 50V
2426	4822 121 41853	100nF 10% 100V
2427	4822 126 13462	4.7nF 20% 50V
2440	4822 121 43526	47nF 5% 250V
2441	4822 126 12792	2.2nF 10% 500V
2442	4822 122 31175	1nF 10% 500V
2443	4822 124 41545	220µF 20% 16V
2444	4822 121 43526	47nF 5% 250V
2445▲	4822 126 12267	470pF 10%R(HR) 2KV
2445▲	4822 126 12269	680pF 10%R(HR) 2KV
2447	4822 121 70247	9.1nF 5% 2KV
2447	4822 121 70415	8.2nF 5% 1.6KV
2447	4822 121 70622	10nF 5% 2000V
2448	4822 121 43368	47µF 160V
2449	4822 126 12792	2.2nF 10% 500V
2450▲	4822 121 42442	560nF 200V
2450	4822 121 51653	430nF 5% 250V
2452▲	4822 124 40199	680µF 20% 16V
2453	4822 124 41747	680µF 20% 35V
2454▲	4822 126 11382	1nF 10% 1KV
2458	4822 124 42127	100nF 4000
2460	4822 121 51385	33nF 20% 100V
2461	4822 126 11985	27pF 5%
2462	4822 126 11979	27pF 5% 2KV
2470	4822 124 10533	22µF 20% 250V
2471	4822 121 70623	10nF 5% 50V
2472	4822 126 12792	2.2nF 10% 500V
2473	4822 124 40248	10µF 20% 63V
2476	4822 121 70625	180nF 5% 50V
2500▲	4822 124 41531	470nF 10% 250VAC
2501	4822 121 70141	33nF 5% 400V
2502	4822 126 12793	2.2nF 10% 2KV
2503	4822 126 12793	2.2nF 10% 2KV
2504	4822 126 12793	2.2nF 10% 2KV
2505	4822 124 41748	220µF 20% 400V
2505	4822 124 41764	100µF 20% 400V
2510	4822 121 43066	1nF 1% 400V
2510	4822 121 70624	1.3nF 2% 250V
2510	4822 126 12864	2.2nF 2% 250V
2511	4822 121 70619	22nF 10% 50V
2512	4822 122 33299	220pF 5% 50V
2513	4822 124 81021	100µF 20% 16V
2514	4822 121 42868	220nF 5% 50V
2515▲	4822 124 81023	2.2µF 20% 50V
2516	4822 122 33532	3.3nF 5% 50V
2517	4822 121 51586	150nF 5% 50V
2518▲	4822 124 81023	2.2µF 20% 50V
2520	4822 126 13517	820pF 10% 1000V
2522	4822 126 11824	100pF 10% 1KV
2523	4822 126 12833	4.7nF 20% 2KV
2525▲	4822 122 40602	1nF 20% 400V
2529▲	4822 126 11254	330pF 10% 2KV
2531	4822 124 42336	47µF 20% 160V
2540	4822 124 42106	1500µF 20% 35V
2561	5322 124 41431	22µF 20% 35V
2565	4822 124 81024	4.7µF 20% 50V
2570	4822 126 10334	470pF 10% 50V
2605	4822 122 33293	100pF 5% 50V
2607	4822 122 33293	100pF 5% 50V
2608	4822 126 12451	820pF 10% 50V
2610	4822 126 12451	820pF 10% 50V
2615	4822 126 12451	820pF 10% 50V
2620	4822 124 41545	220µF 20% 16V
2624	4822 126 12451	820pF 10% 50V
2625	4822 126 12451	820pF 10% 50V
2626	4822 126 12451	820pF 10% 50V
2627	4822 126 12451	820pF 10% 50V
2628	4822 126 12451	820pF 10% 50V
2638	4822 122 33531	2.2nF 10% 50V
2648	4822 124 40248	10µF 20% 63V
2656	4822 121 51244	330nF 5% 50V
2682	4822 124 81021	100µF 20% 16V
2682	4822 124 81022	1µF 20% 50V
2683	5322 121 42386	100nF 5% 63V
2685▲	4822 124 81023	2.2µF 20% 50V
2687	4822 124 81022	1µF 20% 50V
2692	4822 124 81022	1µF 20% 50V
2700	4822 124 40753	6.8µF 20% 63V
2703▲	4822 124 40433	47µF 20% 25V
2711	4822 122 40606	22nF 80% 50V
2714	4822 122 33299	220pF 5% 50V
2721	4822 126 11131	18pF 5% 50V
2722	4822 126 11131	18pF 5% 50V
2726	4822 122 33293	100pF 5% 50V
2727	4822 122 33293	100pF 5% 50V
2728	4822 122 33293	100pF 5% 50V

⊏▢

3000	4822 050 28201	820Ω 1% 0.6W
3001	4822 116 52283	4k7 5% 0.5W
3002	4822 116 52283	4k7 5% 0.5W
3004	4822 050 28201	820Ω 1% 0.6W
3005	4822 050 11204	120k 1% 0.4W
3006	4822 050 11204	120k 1% 0.4W
3007	4822 050 28201	820Ω 1% 0.6W
3010▲	4822 052 10109	10Ω 5% 0.33W
3106▲	4822 116 83749	680Ω 0.25W
3113	4822 050 11002	1k 1% 0.4W
3118	4822 116 52285	470k 5% 0.5W
3119	4822 116 83883	470Ω 5% 0.5W
3120	4822 050 15602	5k6 1% 0.4W
3121	4822 116 83961	6k8 5%
3122	4822 116 52283	4k7 5% 0.5W
3123	4822 050 11002	1k 1% 0.4W
3123	4822 050 13902	3k9 1% 0.4W
3124	4822 116 52285	470k 5% 0.5W
3125	4822 050 11003	10k 1% 0.4W
3126	4822 116 83961	6k8 5%
3127	4822 111 30834	6Ω8
3128	4822 050 11002	1k 1% 0.4W
3129	4822 116 83961	6k8 5%
3130	4822 050 11004	100k 1% 0.4W
3130	4822 050 15603	56k 1% 0.4W
3132	4822 050 15609	56Ω 1% 0.4W
3135	4822 053 10829	82Ω 5% 1W
3136	4822 050 23903	39k 1% 0.6W
3136	4822 050 26803	68k 1% 0.6W
3138	4822 050 11303	13k 1% 0.4W
3138	4822 050 11503	15k 1% 0.4W
3139	4822 050 12203	22k 1% 0.4W
3139	4822 050 12703	27k 1% 0.4W
3140	4822 050 17509	75Ω 1% 0.4W
3142	4822 050 15601	560Ω 1% 0.4W
3142	4822 050 12401	240Ω 5%
3144	4822 050 12209	22Ω 1% 0.4W
3200	4822 050 11503	15k 1% 0.4W
3201	4822 050 11002	1k 1% 0.4W
3202	4822 050 11503	15k 1% 0.4W
3203	4822 050 12202	2k2 1% 0.4W
3206	4822 050 11001	100Ω 1% 0.4W
3207	4822 050 13302	3k3 1% 0.4W
3208	4822 050 11002	1k 1% 0.4W
3208	4822 050 12002	2k 1% 0.4W
3210	4822 050 11004	100k 1% 0.4W
3211▲	4822 050 23301	330Ω 1% 0.6W
3212	4822 116 52283	4k7 5% 0.5W
3213	4822 050 11004	100k 1% 0.4W
3214	4822 050 11002	1k 1% 0.4W
3215	4822 050 11001	100Ω 1% 0.4W
3216	4822 050 15601	560Ω 1% 0.4W
3217	4822 052 10129	12Ω 5% 0.33W
3218	4822 050 12202	2k2 1% 0.4W
3239	4822 116 52249	1k8 5% 0.5W
3239	4822 116 52251	18k 5% 0.5W
3240	4822 116 83884	47k 5% 0.5W
3245	4822 050 12203	22k 1% 0.4W
3250	4822 050 11003	10k 1% 0.4W
3251	4822 050 11003	10k 1% 0.4W
3252	4822 050 11009	10Ω 1% 0.4W
3253	4822 050 11009	10Ω 1% 0.4W
3254	4822 050 15601	560Ω 1% 0.4W
3255	4822 050 11002	1k 1% 0.4W
3256	4822 050 11002	1k 1% 0.4W
3257	4822 050 11002	1k 1% 0.4W
3259	4822 050 11002	1k 1% 0.4W
3261	4822 050 11203	12k 1% 0.4W
3261	4822 050 13303	33k 1% 0.4W
3262	4822 116 83961	6k8 5%
3263	4822 050 11503	15k 1% 0.4W
3264	4822 100 11676	10k 30% lin 0.2W
3265	4822 050 11202	1k2 1% 0.4W
3265	4822 050 18201	820Ω 1% 0.4W
3267	4822 050 11503	15k 1% 0.4W
3268	4822 050 11003	10k 1% 0.4W
3270	4822 050 12703	27k 1% 0.4W
3271	4822 116 52283	4k7 5% 0.5W
3273	4822 050 11004	100k 1% 0.4W
3273	4822 116 52251	18k 5% 0.5W
3275	4822 116 83884	47k 5% 0.5W
3276	4822 050 18202	8k2 1% 0.4W
3276	4822 116 83884	47k 5% 0.5W
3277	4822 050 18202	8k2 1% 0.4W
3278	4822 050 18202	8k2 1% 0.4W
3279	4822 050 18202	8k2 1% 0.4W
3400	4822 116 52283	4k7 5% 0.5W
3402	4822 050 12201	220Ω 1% 0.4W
3402	4822 050 13901	390Ω 1% 0.4W
3403	4822 050 12702	2k7 1% 0.4W
3403	4822 050 13302	3k3 1% 0.4W
3404	4822 050 11502	1k5 1% 0.4W
3404	4822 050 12202	2k2 1% 0.4W
3405	4822 050 11509	15Ω 1% 0.4W
3406	4822 050 12203	22k 1% 0.4W
3407	4822 050 12703	27k 1% 0.4W
3407	4822 050 13303	33k 1% 0.4W
3410	4822 100 11391	330Ω 30% lin 0.1W
3411	4822 116 81755	2Ω2 0.25W
3411	4822 111 31051	3Ω3 5%
3412	4822 116 81755	2Ω2 0.25W
3414	4822 050 12202	2k2 1% 0.4W
3415	4822 050 12202	2k2 1% 0.4W
3416▲	4822 117 10423	390Ω 5% 2W
3416▲	4822 117 11681	820Ω 5%
3420	4822 100 20166	10k 30% lin 0.1W
3421	4822 050 18204	820k 1% 0.4W
3422	4822 116 52251	18k 5% 0.5W
3423	4822 050 14709	47Ω 1% 0.4W
3424	4822 050 13901	390Ω 1% 0.4W
3425	4822 050 13904	390k 1% 0.4W
3426	4822 050 16804	680k 1% 0.4W
3427	4822 050 18204	820k 1% 0.4W
3432	4822 053 10399	39Ω 5% 1W
3432	4822 053 11399	39Ω 5% 2W
3440	4822 050 11001	100Ω 1% 0.4W
3441	4822 053 10183	18k 5% 1W
3442▲	4822 050 23302	3k3 1% 0.6W
3443	4822 050 13302	3k3 1% 0.4W
3444	4822 053 12472	4k7 5% 3W
3449▲	4822 052 11108	1Ω 5% 0.5W
3450▲	4822 052 10338	3Ω3 5% 0.33W
3456	4822 053 20224	220k 5% 0.25W
3460	4822 050 11503	15k 1% 0.4W
3460	4822 116 52251	18k 5% 0.5W
3461	4822 050 12703	27k 1% 0.4W
3462	4822 050 22204	220k 1% 0.6W
3463	4822 050 13303	33k 1% 0.4W
3464	4822 050 19101	910Ω 1% 0.4W
3464	4822 116 83961	6k8 5%
3465	4822 050 19102	9k1 1% 0.4W
3465	4822 116 83961	6k8 5%
3466	4822 050 12201	220Ω 1% 0.4W
3470▲	4822 052 10478	4Ω7 5% 0.33W
3471	4822 116 83883	470Ω 5% 0.5W
3472	4822 116 83883	470Ω 5% 0.5W
3473	4822 116 52251	18k 5% 0.5W
3474	4822 050 13302	3k3 1% 0.4W
3475	4822 050 12709	27Ω 1% 0.4W
3475	4822 050 14709	47Ω 1% 0.4W
3476	4822 050 11003	10k 1% 0.4W

Spare parts list / Lista de piezas de repuesto

3477	4822 050 12704	270k 1% 0.4W
3478	4822 050 13303	33k 1% 0.4W
3500	4822 116 40204	30Ω 30%
3501	4822 116 40247	18Ω 270V
3502	4822 111 20403	470Ω 10%
3503	4822 113 80584	2Ω7 10% 5W
3504▲	4822 053 21475	4M7 5% 0.5W
3506	4822 116 21228	RES.V.D.R.
3507	4822 050 26814	681k 1% 0.6W
3508	4822 117 11488	33k 5% 3W
3509	4822 050 28204	820k 1% 0.6W
3510	4822 050 11203	12k 1% 0.4W
3510	4822 050 15102	5k1 1% 0.4W
3511	4822 050 12201	220Ω 1% 0.4W
3512	4822 116 83883	470Ω 5% 0.5W
3513	4822 050 15102	5k1 1% 0.4W
3514	4822 101 11166	2k2
3515▲	4822 052 10129	12Ω 5% 0.33W
3516	4822 050 11003	10k 1% 0.4W
3517	4822 053 11101	100Ω 5% 2W
3518	4822 050 11001	100Ω 1% 0.4W
3520	4822 113 80679	82Ω 5% 7W
3524▲	4822 053 21225	2M2 5% 0.5W
3525▲	4822 053 21475	4M7 5% 0.5W
3540	5322 117 11066	1Ω5 5% 3W
3541	4822 050 11001	100Ω 1% 0.4W
3560	4822 050 11201	120Ω 1% 0.4W
3561	4822 050 11201	120Ω 1% 0.4W
3562	4822 116 83883	470Ω 5% 0.5W
3565	4822 050 11003	10k 1% 0.4W
3568	4822 050 22202	2k2 1% 0.6W
3570	4822 050 14709	47Ω 1% 0.4W
3598	4822 050 11003	10k 1% 0.4W
3598	4822 050 11503	15k 1% 0.4W
3599	4822 050 11003	10k 1% 0.4W
3599	4822 050 11502	1k5 1% 0.4W
3599	4822 050 11504	150k 1% 0.4W
3599	4822 050 12202	2k2 1% 0.4W
3599	4822 050 12703	27k 1% 0.4W
3599	4822 050 15602	5k6 1% 0.4W
3599	4822 050 15603	56k 1% 0.4W
3599	4822 050 16803	68k 1% 0.4W
3599	4822 050 18202	8k2 1% 0.4W
3599	4822 116 83884	47k 5% 0.5W
3603	4822 050 13302	3k3 1% 0.4W
3604	4822 050 11001	100Ω 1% 0.4W
3605▲	4822 116 83749	680Ω 0.25W
3606	4822 116 52283	4k7 5% 0.5W
3608	4822 050 11001	100Ω 1% 0.4W
3609	4822 050 11001	100Ω 1% 0.4W
3611	4822 050 11001	100Ω 1% 0.4W
3617	4822 050 11001	100Ω 1% 0.4W
3622	4822 050 11002	1k 1% 0.4W
3622	4822 116 83884	47k 5% 0.5W
3625	4822 050 11002	1k 1% 0.4W
3626	4822 111 31019	51Ω 5% 0.25W
3626	4822 116 83884	47k 5% 0.5W
3627	4822 050 11002	1k 1% 0.4W
3634	4822 050 16803	68k 1% 0.4W
3635	4822 050 11003	10k 1% 0.4W
3637	4822 050 13904	390k 1% 0.4W
3638	4822 116 83874	220k 5% 0.5W
3640	4822 050 11204	120k 1% 0.4W
3640	4822 050 16803	68k 1% 0.4W
3641	4822 050 13303	33k 1% 0.4W
3646	4822 050 11504	150k 1% 0.4W
3646	4822 050 12702	2k7 1% 0.4W
3647	4822 050 11003	10k 1% 0.4W
3647	4822 116 83884	47k 5% 0.5W
3648	4822 050 12403	24k 1% 0.4W
3649	4822 050 11203	12k 1% 0.4W
3650	4822 050 11503	15k 1% 0.4W
3652	4822 116 83874	220k 5% 0.5W
3653	4822 116 52211	150Ω 5% 0.5W
3654	4822 050 11503	15k 1% 0.4W
3656	4822 050 11003	10k 1% 0.4W
3661	4822 116 52249	1k8 5% 0.5W
3662	4822 050 15602	5k6 1% 0.4W
3671	4822 050 18202	8k2 1% 0.4W
3685	4822 050 13302	3k3 1% 0.4W
3687	4822 116 83884	47k 5% 0.5W
3691	4822 050 11003	10k 1% 0.4W
3691	4822 116 83884	47k 5% 0.5W
3692	4822 050 16803	68k 1% 0.4W
3692	4822 116 83884	47k 5% 0.5W
3694	4822 116 52249	1k8 5% 0.5W
3695	4822 050 11004	100k 1% 0.4W
3695	4822 050 11203	12k 1% 0.4W
3697	4822 050 11001	100Ω 1% 0.4W
3697	4822 050 11002	1k 1% 0.4W
3698	4822 050 11001	100Ω 1% 0.4W
3698	4822 050 11002	1k 1% 0.4W
3699	4822 050 13903	39k 1% 0.4W
3699	4822 050 18202	8k2 1% 0.4W
3700	4822 116 83884	47k 5% 0.5W
3702	4822 050 11204	120k 1% 0.4W
3703	4822 116 83884	47k 5% 0.5W
3704	4822 050 11003	10k 1% 0.4W
3707	4822 050 12202	2k2 1% 0.4W
3708	4822 050 11004	100k 1% 0.4W
3709	4822 050 11002	1k 1% 0.4W
3710	4822 050 13901	390Ω 1% 0.4W
3715	4822 116 52249	1k8 5% 0.5W
3717	4822 050 13302	3k3 1% 0.4W
3718	4822 050 13302	3k3 1% 0.4W
3719	4822 050 11003	10k 1% 0.4W
3720	4822 050 11201	120Ω 1% 0.4W
3721	4822 050 11201	120Ω 1% 0.4W
3726	4822 050 18202	8k2 1% 0.4W
3727	4822 050 18202	8k2 1% 0.4W
3728	4822 050 18202	8k2 1% 0.4W

5002	4822 158 10563	82µH 7.5%
5014	4822 157 53302	1µH 20%
5014	4822 157 53343	0.82µH 20%
5015	4822 157 71531	1.5µH 20%
5112	4822 157 52224	15µH 10%
5112▲	4822 157 52286	22µH 10%
5112	4822 157 53906	47µH 10%
5206	4822 152 20667	5.6µH 10%
5206	4822 157 62767	8.2µH 10%
5209▲	4822 157 52265	100µH 10%
5260	4822 157 70704	Toko 38.9 MHz
5260	4822 157 70942	Toko 45.75 MHz
5286	4822 157 53303	12µH 10%
5287	4822 157 53303	12µH 10%
5288	4822 157 53303	12µH 10%
5431	4822 157 52407	39µH 5%
5441	4822 146 21116	Line drive transformer
5443▲	4822 157 51462	10µH 10%
5445	4822 140 10525	Line output transformer 14/20"
5449▲	4822 157 51462	10µH 10%
5500	4822 157 71533	Mains filter
5520	4822 157 51757	2µH 20%
5521	4822 157 71532	12µH 10%
5525	4822 148 60322	SMPS transformer
5530	4822 157 60171	10 MHz
5531	4822 157 70698	27µH 10%
5532	4822 157 70469	4.7µH 20%
5533	4822 157 60171	10 MHz
5538	4822 157 60171	10 MHz
5539	4822 157 60171	10 MHz
5543	4822 157 50961	22µH 10%
5544	4822 157 50961	22µH 10%
5570	4822 157 53139	4.7µH 10%
5571	4822 157 53139	4.7µH 10%
5620▲	4822 157 52285	6.8µH 10%
5621▲	4822 157 52285	6.8µH 10%
5711▲	4822 157 52285	6.8µH 10%
5720▲	4822 157 52286	22µH 10%

6108	4822 130 34167	BZX79-C6V2
6109	5322 130 34563	BZX79-C2V7
6110▲	4822 130 30621	1N4148
6111▲	4822 130 30621	1N4148
6112▲	4822 130 30621	1N4148
6221▲	4822 130 31983	BAT85
6223	4822 130 30862	BZX79-C9V1
6254	4822 130 34233	BZX79-C5V1
6412	4822 130 34189	BAV20
6415▲	4822 130 30621	1N4148
6416	4822 130 42488	BYD33D
6423	4822 130 34382	BZX79-C8V2
6425▲	4822 130 31983	BAT85
6426▲	4822 130 31983	BAT85
6427▲	4822 130 31983	BAT85
6440▲	4822 130 30621	1N4148
6441▲	4822 130 30621	1N4148
6442▲	4822 130 31983	BAT85
6443	4822 130 82353	BYD34G
6445	5322 130 31559	BY448
6449	4822 130 42489	BYD33G
6452	4822 130 42488	BYD33D
6461▲	4822 130 30621	1N4148
6462	4822 130 42488	BYD33D
6463	4822 130 42488	BYD33D
6464▲	4822 130 30621	1N4148
6465	4822 130 34167	BZX79-C6V2
6470	4822 130 42489	BYD33G
6471	4822 130 34379	BZX79-C27
6472▲	4822 130 30621	1N4148
6474	4822 130 34233	BZX79-C5V1
6475▲	4822 130 30621	1N4148
6502▲	4822 130 80858	1N5062
6503▲	4822 130 80858	1N5062
6504▲	4822 130 80858	1N5062
6505▲	4822 130 80858	1N5062
6507	4822 130 34328	BZX79-C30
6508	4822 130 34328	BZX79-C30
6510▲	4822 130 30621	1N4148
6511▲	4822 130 30621	1N4148
6512▲	4822 130 30621	1N4148
6518▲	4822 130 30621	1N4148
6520	4822 130 42606	BYD33J
6530▲	4822 130 33531	BY229F-600
6530	4822 130 82831	ERC20M-06
6540	4822 130 82035	BYD74D
6562	4822 130 34174	BZX79-C4V7
6570▲	4822 130 30621	1N4148
6605▲	4822 130 83119	LTL307C
6606	4822 130 34233	BZX79-C5V1
6648	4822 130 82037	HZT33
6671▲	4822 130 30621	1N4148
6685▲	4822 130 30621	1N4148
6690▲	4822 130 30621	1N4148
6714▲	4822 130 30621	1N4148

7001	4822 130 40938	BC548
7002	4822 130 40938	BC548
7003	4822 130 40938	BC548
7109	4822 130 40938	BC548
7120	4822 209 32531	TDA7056A/N2
7124	4822 130 40938	BC548
7125	4822 130 40938	BC548
7214	4822 130 40941	BC558
7215	4822 130 40938	BC548
7216	4822 130 40938	BC548
7217	4822 130 40938	BC548
7219	4822 130 44121	BC338
7225	4822 209 33398	TDA8362E/N2
7225	4822 209 33479	TDA8361E/N3
7225	4822 209 33868	TDA8360E/N3
7240	4822 130 40938	BC548
7245	4822 209 32359	TDA8395/N1
7255	4822 209 12635	TDA4665/V3
7270	4822 130 40938	BC548
7277	4822 130 41376	BF494B
7278	4822 130 41376	BF494B
7279	4822 130 41376	BF494B
7400	4822 209 60955	TDA3653B/N2
7423	4822 130 40938	BC548
7440	4822 130 41782	BF422
7445	4822 130 63569	BU1508DX
7460	4822 130 40941	BC558
7470	4822 130 40938	BC548
7471	4822 130 40941	BC558
7510	4822 209 31528	TDA4605-3
7513▲	4822 130 63409	STP6N60FI
7513	4822 130 63641	IRFIBC30G
7563	4822 130 40941	BC558
7600	4822 209 90158	PCA84C844P/189 for VST (AFHV1.9)
7600	4822 209 90157	PCA84C844P/188 for PLL (3FHV1.7)
7634	4822 130 40938	BC548
7635	4822 130 40938	BC548
7638	4822 130 40938	BC548
7647	4822 130 41594	PH2369
7710▲	4822 209 52316	ST24C04B1

CRT panel 14/20" [E]

Various

	4822 212 32058	CRT panel 14"
	4822 212 32059	CRT panel 20"
▲	4822 255 70293	Holder valve 14"
▲	4822 267 20466	Holder valve 20"
	4822 267 51442	8 pins female

2304	4822 126 10334	470pF 10% 50V
2304	4822 126 13461	680pF 10% 50V
2307	4822 121 41689	100nF 10% 250V
2317	4822 126 10334	470pF 10% 50V
2330	4822 126 10334	470pF 10% 50V
2337	4822 121 41926	33nF 5% 630V
2338	4822 122 33293	100pF 5% 50V

3300▲	4822 052 10109	10Ω 5% 0.33W
3302	4822 053 12123	12k 5% 3W
3303	4822 117 11682	2k7
3304	4822 050 11009	10Ω 1% 0.4W
3305	4822 111 20435	300Ω
3306	4822 111 20436	3k
3307	4822 117 11684	4k7
3313	4822 117 11683	2k2
3314	4822 117 11683	2k2
3315	4822 053 12123	12k 5% 3W
3316	4822 117 11682	2k7
3317	4822 050 11009	10Ω 1% 0.4W
3318	4822 111 20435	300Ω
3319	4822 111 20436	3k
3320	4822 117 11684	4k7
3322▲	4822 116 83749	680Ω 1/4W
3324	4822 050 11502	1k5 1% 0.4W
3325	4822 050 13302	3k3 1% 0.4W
3326	4822 111 20434	270Ω
3327▲	4822 116 83749	680Ω 1/4W
3328	4822 053 12123	12k 5% 3W
3329	4822 117 11682	2k7
3330	4822 050 11009	10Ω 1% 0.4W
3332	4822 111 20435	300Ω
3333	4822 050 15602	5k6 1% 0.4W
3333	4822 111 20433	20k
3337▲	4822 050 22702	2k7 1% 0.6W
3337	4822 117 11682	2k7
3344▲	4822 052 10108	1Ω 5% 0.33W
3344▲	4822 052 10228	2Ω2 5% 0.33W
3345▲	4822 052 10108	1Ω 5% 0.33W
3345▲	4822 052 10228	2Ω2 5% 0.33W
3346	4822 117 11682	2k7

5338	4822 157 51157	3.3µH
5338	4822 157 71606	COIL

6306	4822 130 34189	BAV20
6319	4822 130 34189	BAV20
6328	4822 130 34189	BAV20

7305	4822 130 41782	BF422
7318	4822 130 41782	BF422
7325	4822 130 40941	BC558
7327	4822 130 41782	BF422

Service
Service
Service

Anubis S

DD 21"
96.01

Service Information

Note:

The Anubis S DD chassis is extended with a 21" CRT execution. This 21" execution can be equipped with a TXT and/or A/V out panel. In this service information all the additional and changed data is published regarding this 21" execution. For all other data reference is made to the existing Anubis S DD manual for 14" and 20" with code number 4822 727 20706.

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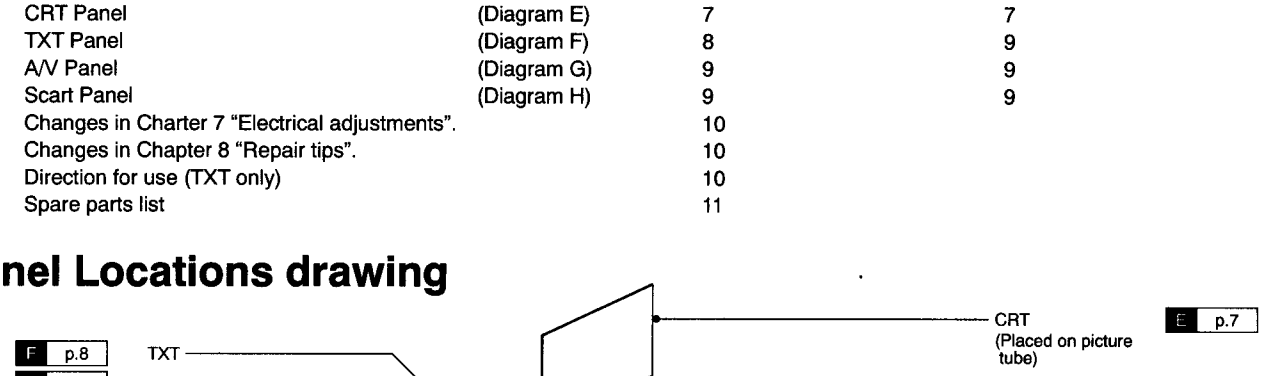
Panel Locations drawing



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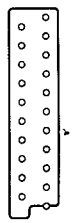
2. Connection facilities

Euroconnector:



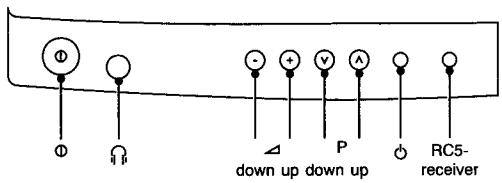
1	-		
2	-		
3	-	Audio	⊖ L (0V5 RMS ≤ 1kΩ)
4	-	Audio	⊥
5	-	Blue	⊥
6	-	Audio	⊕ L (0V2 - 2V RMS ≥ 10kΩ)
7	-		
8	-		
9	-		⊥
10	-		
11	-		
12	-		
13	-		⊥
14	-		⊥
15	-		
16	-		
17	-		⊥
18	-		⊥
19	-	CVSB	⊖ (1Vpp/75Ω)
20	-	CVSB	⊕ (1Vpp/75Ω)
21	-	Earth-screen	

CINCH:

- CINCH Audio ⊕ (0V2 RMS - 2 VRMS ≥ 10kΩ)
- CINCH CVSB ⊕ (1Vpp/75Ω)
- CINCH Audio ⊖ (0V5 RMS ≤ 1KΩ)
- CINCH CVBS ⊖ (1Vpp/75)

Head phone:

3.5mm 8 - 600Ω/15mW



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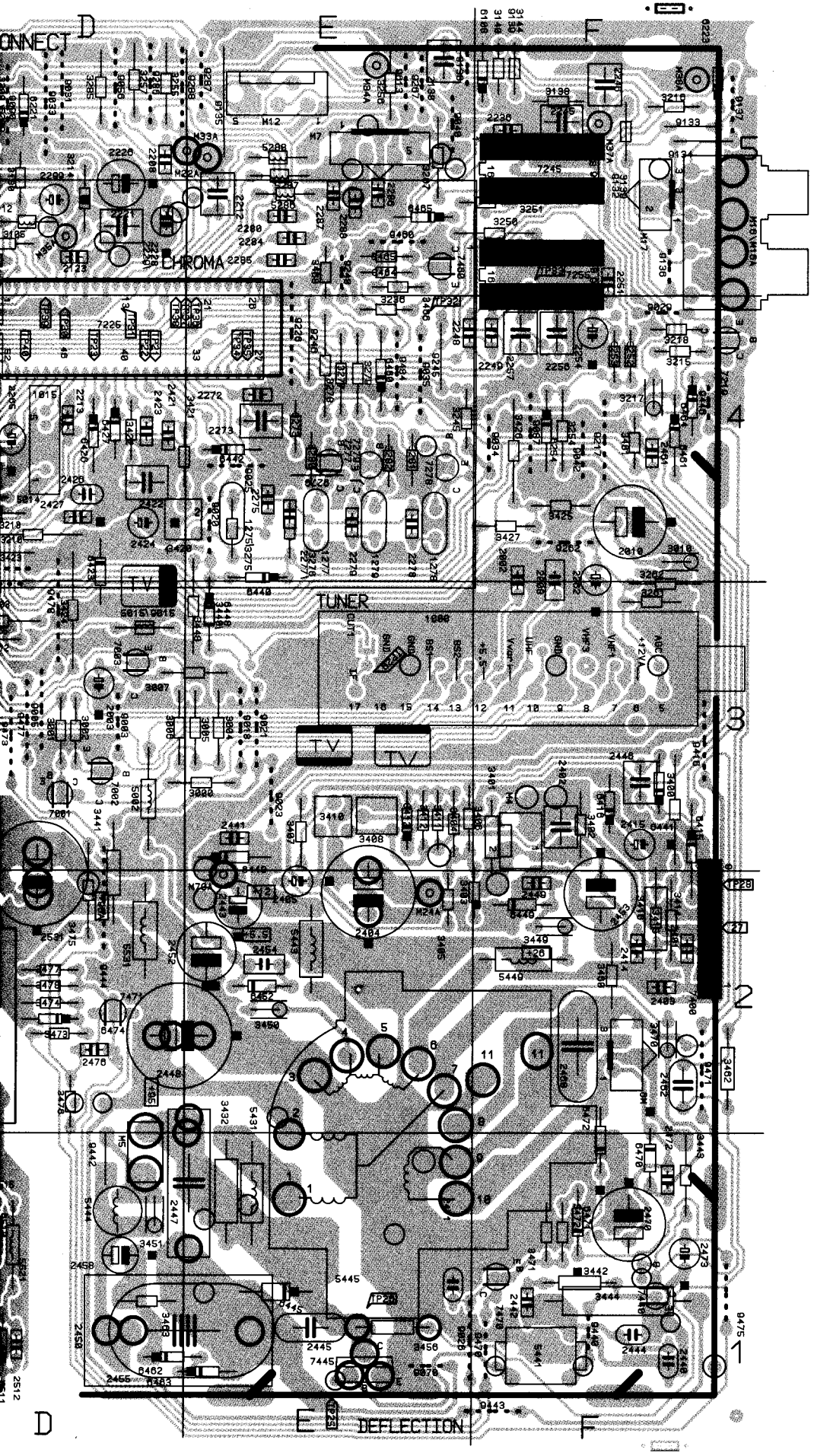
Mapping Main Panel

0020 A2	2229 D5	2460 F2	2711 B5	3207 E5	3412 E3	3517 C2	3699 B4	6112 B3	6690 B4	9034 E4	9248 E5	9736 C
0025 A4	2236 E5	2461 F4	2714 B5	3208 D5	3414 F2	3518 C1	3700 B4	6113 B3	6714 B5	9035 E4	9262 F4	9737 B
1000 F3	2245 F5	2462 F2	2721 B5	3209 D5	3415 F2	3519 C2	3702 B4	6114 B3	6715 A5	9037 C4	9267 E5	M1 B
1015 D4	2246 F5	2470 F1	2722 B5	3210 D4	3416 F2	3520 C1	3703 B4	6115 B3	6716 A5	9039 C5	9275 C5	M12 E
1105 C5	2248 E4	2471 E1	2726 B5	3211 C5	3420 D4	3524 C2	3704 B4	6116 B3	6717 A5	9040 E5	9279 E4	M13 C
1106 C5	2249 E4	2472 F1	2727 A5	3212 D3	3421 D4	3525 C2	3705 B4	6118 A3	7001 D3	9041 D4	9286 D5	M14 C
1206 C5	2251 F5	2473 F1	2728 A5	3213 D4	3422 D4	3540 C3	3706 C4	6221 D5	7002 D3	9042 F4	9287 D5	M15 C
1207 C5	2254 F4	2476 D2	3000 D3	3214 D5	3423 D4	3541 C2	3707 A4	6223 F5	7003 D3	9051 C4	9288 D5	M15A C
1275 E4	2256 F4	2500 B1	3001 D3	3215 F4	3424 D3	3560 C3	3708 C4	6254 F4	7109 C3	9052 C4	9416 F3	M16 F
1277 E4	2257 E4	2501 B2	3002 D3	3216 F5	3425 F4	3561 C3	3709 A5	6412 E3	7110 B5	9056 D5	9440 F1	M16A F
1278 E4	2260 D5	2502 B2	3003 C4	3217 F4	3426 E4	3562 D3	3710 A5	6415 F3	7111 B5	9060 C3	9441 D4	M17 F
1279 E4	2261 D4	2503 B2	3004 E3	3218 F4	3427 E4	3565 C3	3715 B5	6416 F3	7120 B3	9061 D3	9442 D1	M19 A
1500 A1	2262 F4	2504 C2	3005 D3	3236 E5	3432 E1	3568 C1	3717 B5	6423 D4	7123 B3	9063 A4	9443 E1	M2 B
1540 C3	2264 C4	2505 B1	3006 D3	3239 C5	3440 D3	3570 D1	3718 B5	6425 D4	7124 B3	9065 B5	9444 D2	M22 B
1602 A5	2265 D4	2506 B2	3007 D3	3240 C4	3441 D2	3598 A1	3719 B4	6426 D4	7125 C3	9066 C4	9446 F4	M22A D
1630 B4	2272 E4	2509 C1	3010 F4	3245 E4	3442 F1	3599 A1	3720 C4	6427 D4	7214 C5	9067 C4	9460 E5	M24 B
2002 E4	2273 E4	2510 C1	3105 D5	3250 E5	3443 F1	3603 A5	3721 C4	6440 E4	7215 D3	9069 C4	9470 E1	M24A E
2003 D3	2275 E4	2511 C1	3106 D5	3251 E5	3444 F1	3604 A5	3726 A5	6441 F3	7216 B5	9070 E1	9471 F2	M28 A
2008 F4	2277 E4	2512 D1	3107 B5	3252 F4	3448 D3	3605 A4	3727 A5	6442 E4	7217 C5	9071 C4	9473 D3	M29 A
2010 F4	2278 E4	2513 D1	3108 B5	3253 F4	3449 F2	3606 C4	3728 A5	6443 E3	7219 F4	9080 C4	9475 F1	M30 A
2100 C5	2279 E4	2514 C1	3109 B5	3254 F4	3450 E2	3607 A5	5002 D3	6445 E1	7225 D4	9082 C5	9477 D3	M31 B
2101 D5	2280 E5	2515 D1	3113 C4	3255 D5	3451 D1	3608 A3	5014 D4	6448 D3	7240 C4	9087 E4	9478 D3	M33 A
2102 C5	2284 E5	2516 D1	3118 B3	3256 E5	3456 E1	3609 A3	5015 D3	6449 E2	7245 F5	9089 C4	9484 E4	M33A D
2103 D3	2285 E5	2517 C1	3119 B3	3257 D5	3460 F2	3611 A3	5112 D5	6452 E2	7255 F5	9090 D5	9505 B2	M34 A
2104 D4	2286 E5	2518 D1	3120 B3	3259 D5	3461 F4	3617 A4	5206 C5	6460 E4	7270 B5	9091 C4	9510 C1	M34A E
2105 C3	2287 E5	2520 C1	3121 C3	3260 D5	3462 F2	3622 A4	5209 D5	6461 F4	7277 E4	9092 C3	9516 D1	M35 A
2107 B5	2288 E5	2521 C1	3122 B3	3261 F3	3463 D1	3625 B5	5260 D4	6462 D1	7278 E4	9093 C4	9600 B4	M35A D
2110 C3	2299 D5	2523 C1	3123 B3	3262 F3	3464 E5	3626 A4	5286 E5	6463 D1	7279 E4	9094 C4	9601 A4	M37 A
2111 C3	2401 F2	2525 C2	3124 B3	3263 C4	3465 E5	3627 A4	5287 E5	6464 F4	7400 F2	9095 C4	9604 A5	M37A F
2112 D5	2402 F3	2531 D2	3125 B3	3264 C4	3466 E4	3634 B5	5288 E5	6465 E5	7423 C4	9096 C4	9607 B5	M38 A
2119 C5	2403 F2	2540 C3	3126 B3	3265 D3	3468 E5	3635 A5	5431 E1	6470 F1	7440 F1	9097 B4	9610 A5	M38A F
2120 C3	2404 E2	2561 D3	3127 B3	3267 B5	3470 F2	3637 A5	5441 F1	6471 F1	7445 E1	9098 D5	9613 E5	M4 E
2121 B3	2405 E2	2565 C3	3128 C3	3268 B5	3471 F1	3638 A5	5443 E2	6472 F2	7460 E5	9099 C4	9616 A4	M5 D
2122 B3	2414 F2	2570 D1	3129 B3	3270 C5	3472 F1	3640 A4	5444 D1	6474 D2	7470 E1	9102 A2	9620 A3	M6 F
2123 D5	2415 F3	2605 B5	3130 D5	3271 C5	3473 D2	3641 A5	5445 E2	6502 B2	7471 D2	9105 A1	9621 A3	M7 E
2124 B3	2421 D4	2607 B5	3131 B3	3273 E4	3474 D2	3646 C4	5449 E2	6503 B2	7510 C1	9106 A1	9622 A3	M70 A
2125 A3	2422 D4	2608 A3	3132 A1	3275 E4	3475 D2	3647 B4	5500 A2	6504 B2	7513 C1	9107 B5	9634 B5	M70A E
2127 A3	2423 D4	2610 A3	3133 B3	3276 E4	3476 D2	3648 C4	5520 C2	6505 C2	7563 D3	9110 A2	9638 A4	SK1 B
2129 B3	2424 D4	2615 A3	3134 C3	3277 E4	3477 D2	3649 C3	5521 D1	6507 B2	7600 B4	9126 B3	9673 B3	
2130 D3	2426 D4	2620 B4	3135 A3	3278 E4	3478 D2	3650 D3	5525 C2	6508 B2	7634 B5	9131 C4	9684 A4	
2131 A3	2427 D4	2624 A3	3136 D5	3279 E4	3500 A2	3652 C4	5531 D2	6510 D1	7635 A5	9132 F5	9690 B4	
2132 C3	2440 F1	2625 B5	3137 C3	3280 E4	3501 A2	3653 C4	5532 D2	6511 D1	7638 B4	9133 F5	9691 C4	
2133 C3	2441 E3	2626 A4	3138 F5	3281 E4	3502 B2	3654 C4	5533 D3	6512 C2	7647 B4	9134 F5	9694 C4	
2134 B3	2442 E1	2627 A4	3139 F5	3282 E4	3503 B2	3656 C3	5538 C2	6518 C1	7710 B5	9135 E5	9695 C4	
2135 B3	2443 E2	2628 A4	3140 E5	3285 D5	3504 B1	3661 B4	5539 C3	6530 D2	9003 D3	9136 F5	9696 C4	
2136 B3	2444 F1	2637 B5	3142 D3	3400 F3	3505 B2	3662 A3	5543 C3	6532 D2	9005 D3	9137 F5	9697 C4	
2137 B3	2445 E1	2638 B5	3143 B3	3401 E3	3506 B1	3671 B4	5544 C3	6540 C3	9015 D3	9138 E5	9704 B4	
2138 E5	2446 F3	2648 C3	3144 E5	3402 F3	3507 C2	3685 B4	5570 C1	6541 C2	9018 E3	9139 E5	9719 B4	
2139 A3	2447 D1	2656 C3	3150 A3	3403 E2	3508 B2	3687 B4	5571 C1	6562 C3	9020 D4	9201 C5	9726 A5	
2200 B5	2448 D2	2682 C4	3151 A3	3404 E3	3509 C2	3691 B4	5620 B4	6568 C1	9021 E3	9208 C5	9727 A5	
2208 D5	2449 F2	2683 A3	3152 A3	3405 E2	3510 C1	3692 B4	5621 B4	6570 C1	9023 E3	9211 C5	9728 A5	
2212 E5	2450 D1	2685 B3	3153 A3	3406 E3	3511 C1	3693 B4	5711 B5	6605 A5	9025 E4	9217 F4	9729 A5	
2213 D4	2452 D2	2687 B4	3200 C5	3407 E3	3512 C1	3694 B4	5720 B5	6606 C5	9026 E1	9225 C5	9730 C5	
2221 D5	2453 F2	2688 B3	3201 C5	3408 E3	3513 C1	3695 B4	6108 E5	6648 C3	9029 F4	9226 E4	9732 B5	
2222 D4	2454 E2	2692 B4	3202 B5	3409 B5	3514 D1	3696 B4	6109 B3	6662 A3	9031 D5	9227 D4	9733 B5	
2226 D5	2455 D1	2700 B4	3203 B5	3410 E3	3515 D1	3697 A4	6110 B3	6671 C3	9032 D5	9245 E4	9734 B5	
2228 D5	2458 D1	2703 B4	3206 C5	3411 E3	3516 C1	3698 A4	6111 B3	6685 B3	9033 D5	9246 E4	9735 C5	



Wafe Forms Diagram A

TP12 290V DC ⏻
TP12 298V DC ⏻

TP19 13.4V DC ⏻
TP19 12.4V DC ⏻
TP20 94V DC ⏻
TP20 96.8V DC ⏻

TP13 ⏻
2V / div DC
5µs / div

TP21
0.5V / div DC
20µs / div

TP13 ⏻
1V / div DC
5µs / div

TP22
1V / div DC
20µs / div

TP14 10.3V DC ⏻
TP14 10.2V DC ⏻

TP23
1V / div DC
10ms / div

TP15 ⏻
2V / div DC
5µs / div

TP24
10V / div DC
20µs / div

TP15 ⏻
2V / div DC
2µs / div

TP25
1V / div DC
20µs / div

TP16 ⏻
0.5V / div DC
5µs / div

TP26
100V / div DC
20µs / div

TP16 ⏻
0.5V / div DC
5µs / div

TP27
10V / div DC
5ms / div

TP17 0.4V DC ⏻
TP17 0.4V DC ⏻
TP18 5.1V DC ⏻
TP18 5.1V DC ⏻

TP28
5V / div DC
5ms / div

→ = 0V

A

POWER-SUPPLY/SYNC/HOR-DEFL/VERT-DEFL

*	21" TOSJ PAL	21" TOSJ NTSC	21" MEC PAL	21" MEC NTSC	21" THAI	14"
2445	220p	220p	680p	220p	-	RES
2447	10n	10n	10n	10n	8.2n	8n2
2450	560n	560n	680n	560n	680n	430n
2460	100n	100n	100n	100n	100n	33n
3451	-	-	-	-	1K2	-
5444	-	-	56	-	100n	-
9442	JMP	JMP	-	JMP	-	JMP

SYNC

PROTECTION

POWER SUPPLY

DEGAUSSING COIL

POWER SWITCH

TDA8362-IF

TDA4605-3

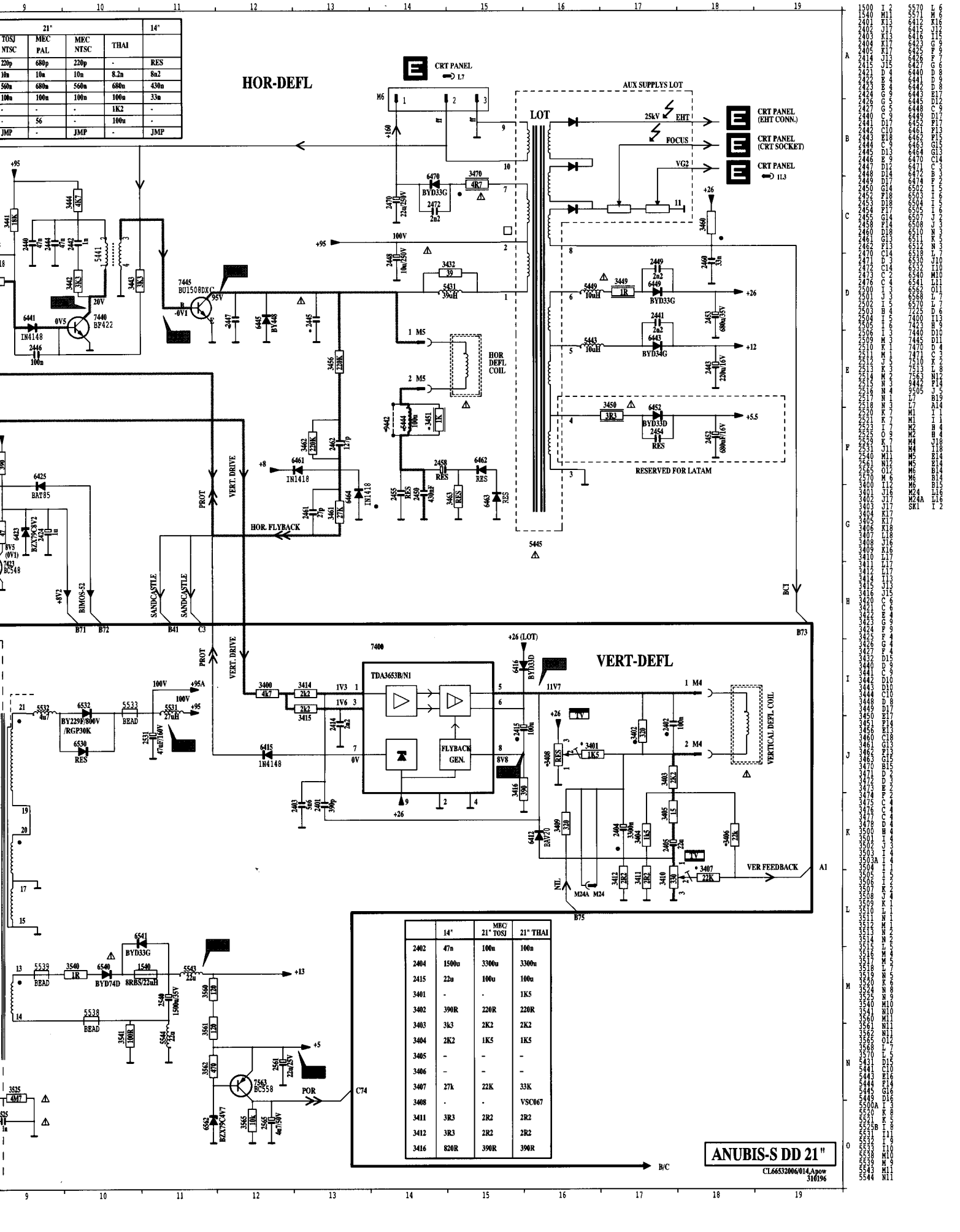
*	21"SV	21"MV	14"SV	14"MV
2505	400V/100UF	400V/330UF	400V/100UF	400V/220UF
2510	1N3	2N2	1N	2N
3500	-	-	PTC 25R	-
3501	PTC 18R	PTC 9R	-	PTC 18R
3503	2R7	1R8	2R7	2R7
3505	-	1R0	-	-
3510	5K1	12K	5K1	12K
5521	10UH	4U7H	4U7H	4U7H
7513	IRFIBC30G	STP6N60FI	IRFIBC30G	STP6N60FI
9505	JMP	-	JMP	JMP

..V.. ①

(..V..) ⏻

HOT EARTH

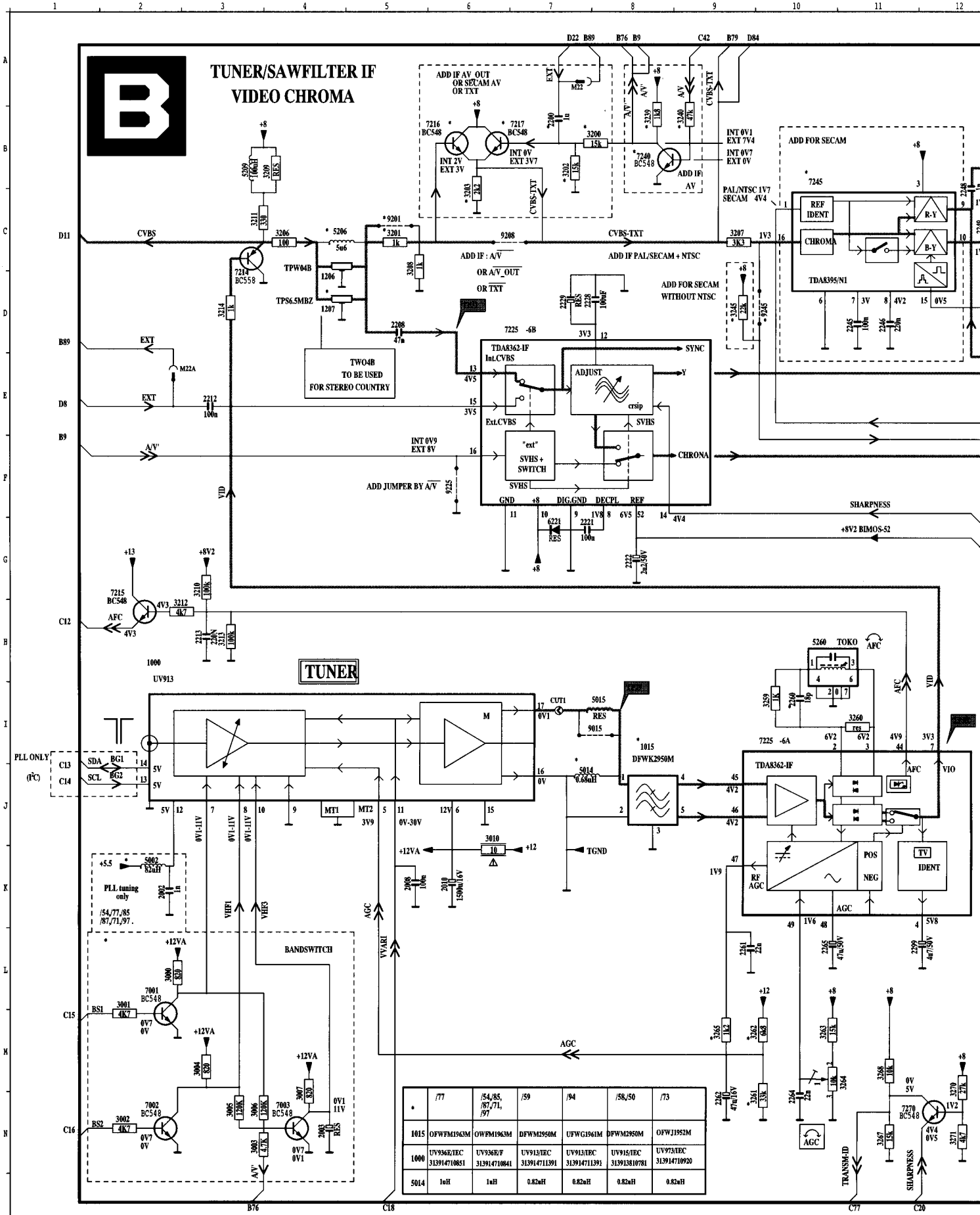
Fuente de alimentación + Sync. + deflexión



	21" TOSJ NTSC	21" MEC PAL	21" MEC NTSC	21" THAI	14"
2402	220p	680p	220p	-	RES
2404	10n	10n	10n	8.2n	8n2
2415	560n	680n	560n	680n	430n
3401	100n	100n	100n	100n	33n
3402	-	-	-	1K2	-
3403	-	56	-	100u	-
3404	JMP	-	JMP	-	JMP

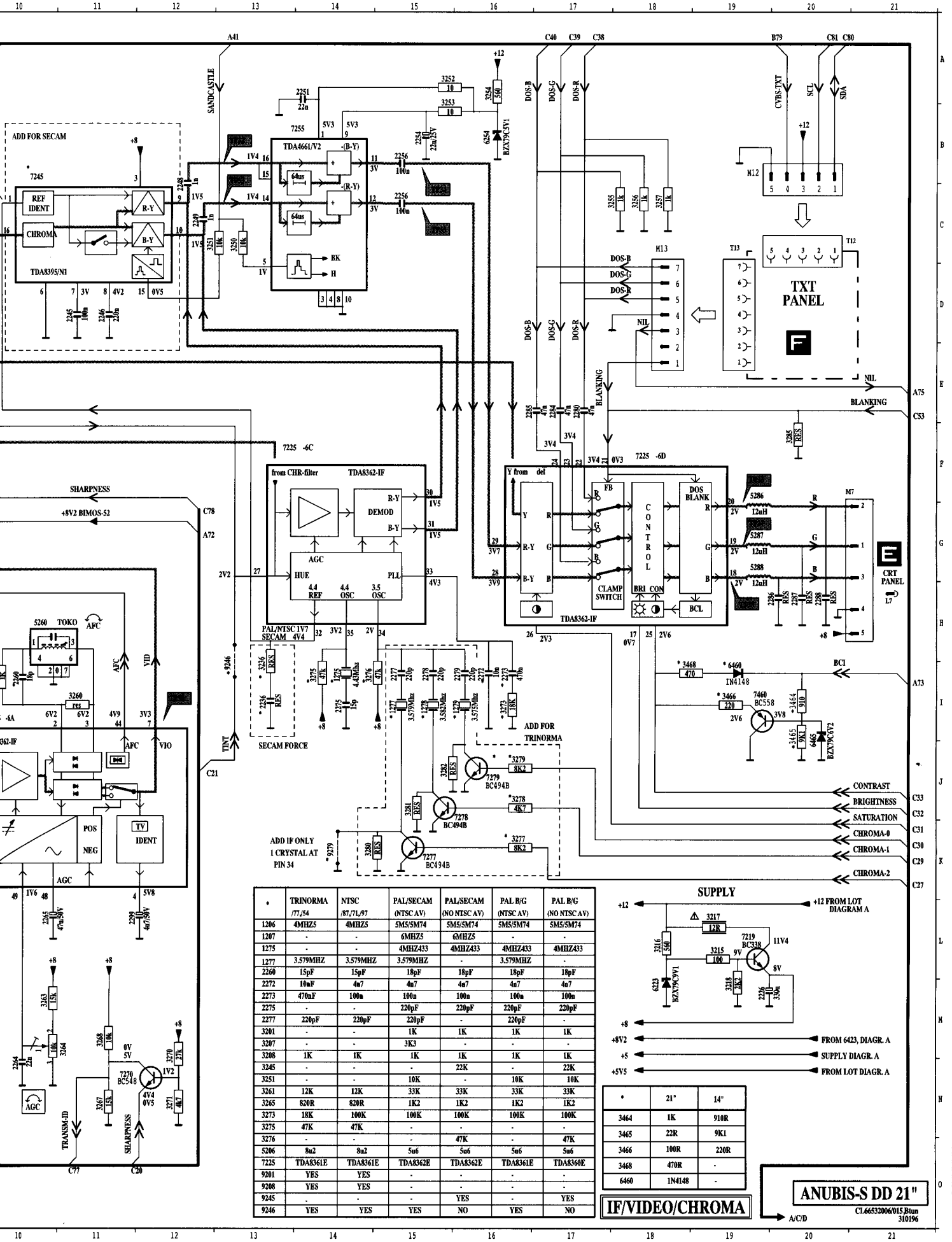
	14"	MEC/ 21" TOSJ	21" THAI
2402	47n	100n	100n
2404	1500u	3300u	3300u
2415	22u	100u	100u
3401	-	-	1K5
3402	390R	220R	220R
3403	3k3	2K2	2K2
3404	2K2	1K5	1K5
3405	-	-	-
3406	-	-	-
3407	27k	22K	33K
3408	-	-	VSC067
3411	3R3	2R2	2R2
3412	3R3	2R2	2R2
3416	820R	390R	390R

1500 I 2
1540 M11
2401 K13
2402 J17
2403 K13
2404 K17
2405 K17
2414 J13
2415 J15
2421 D 4
2422 E 4
2423 E 4
2424 G 9
2426 G5
2427 G5
2440 C 9
2441 D17
2442 C10
2443 E18
2444 C 9
2445 D13
2446 E 9
2447 D12
2448 D14
2449 D17
2450 G14
2452 F18
2453 D18
2454 F17
2455 G14
2457 J14
2458 D18
2460 G13
2462 F13
2470 C14
2471 D 3
2472 C14
2476 C 4
2500 I 3
2501 J 3
2502 I 5
2503 H 5
2504 I 6
2505 I 6
2506 I 3
2509 M 3
2510 K 1
2511 M 1
2512 M 1
2513 K 3
2514 M 2
2515 N 3
2516 N 4
2517 N 1
2518 N 3
2520 M 1
2521 K 7
2523 I 7
2525 O 9
2529 K 7
2531 J11
2540 M12
2561 N12
2565 O12
2570 M 6
3400 I12
3401 J16
3402 J17
3403 K17
3404 K17
3405 K17
3406 K18
3407 L18
3408 K16
3409 L16
3410 L17
3411 L17
3412 L17
3414 I13
3415 J15
3416 K16
3420 C 6
3421 C 6
3422 E 4
3423 G 9
3424 F 9
3425 F 4
3426 G 4
3427 F 4
3432 D15
3440 D 9
3441 C 9
3442 D10
3443 C10
3448 D 8
3449 D17
3450 B17
3451 C17
3460 C18
3461 G13
3462 F13
3463 G15
3470 B15
3471 D 5
3472 D 5
3473 E 2
3474 F 2
3475 C 4
3476 C 4
3477 C 4
3478 D 4
3500 H 4
3501 I 4
3502 J 3
3503 I 4
3504 I 4
3505 I 5
3506 I 2
3507 K 2
3508 J 4
3509 K 1
3510 L 1
3511 M 1
3512 M 1
3513 N 2
3514 N 2
3515 L 4
3516 M 4
3517 M 5
3518 L 7
3519 N 5
3520 K 6
3524 M 8
3525 M 8
3540 M10
3541 N10
3560 M11
3561 N11
3562 N11
3563 O12
3565 L 7
3568 L 5
3570 L 5
5431 D15
5441 C10
5443 E16
5444 F14
5445 G16
5449 D16
5500A I 3
5520 K 8
5521 K 5
5525B I 8
5531 I11
5532 I 6
5533 I10
5538 M10
5539 M 9
5543 N11
5544 N11
5570 L 6
5571 M 6
6412 K16
6415 J12
6416 I15
6423 G 9
6425 F 9
6426 F 7
6427 G 6
6428 F 7
6440 D 8
6441 D 8
6442 D 8
6443 E17
6445 D12
6448 C 9
6449 D17
6452 F17
6461 F13
6462 F15
6463 G15
6464 G13
6470 C14
6471 C 3
6472 B 5
6474 F 5
6502 I 5
6503 I 6
6504 I 5
6505 I 6
6507 J 2
6508 J 4
6510 M 3
6511 K 5
6512 N 3
6518 L 7
6530 J10
6532 I10
6540 M10
6541 L11
6562 O11
6568 L 7
7225 D 6
7400 I13
7423 H 9
7440 D10
7445 D11
7470 D 4
7471 C 3
7510 K 5
7513 L 8
7563 N12
9442 F14
9505 J 5
L7 B19
L7 A14
M1 I 1
M1 I 1
M2 H 4
M2 H 4
M4 J18
M4 I18
M5 E14
M5 E14
M6 B14
M6 B14
M6 B15
M24 L16
M24A L16
SK1 I 2



*	/77	/54,/85, /87,/71, /97	/59	/94	/58,/50	/73
1015	OFWFM1963M	OWFM1963M	DFWM2950M	UFWG1961M	DFWM2950M	OFWJ1952M
1000	UV936E/IEC 313914710851	UV936E/F 313914710841	UV913/IEC 313914711391	UV913/IEC 313914711391	UV915/IEC 313913810781	UV973/IEC 313914710920
5014	1uH	1uH	0.82uH	0.82uH	0.82uH	0.82uH

Sintonizador + IF + Videó



*	TRINORMA /77,/54	NTSC /87,/71,/97	PAL/SECAM (NTSC AV)	PAL/SECAM (NO NTSC AV)	PAL B/G (NTSC AV)	PAL B/G (NO NTSC AV)
1206	4MHZ5	4MHZ5	5M5/5M74	5M5/5M74	5M5/5M74	5M5/5M74
1207	-	-	6MHZ5	6MHZ5	-	-
1275	-	-	4MHZ433	4MHZ433	4MHZ433	4MHZ433
1277	3.579MHZ	3.579MHZ	3.579MHZ	-	3.579MHZ	-
2260	15pF	15pF	18pF	18pF	18pF	18pF
2272	10nF	4n7	4n7	4n7	4n7	4n7
2273	470nF	100n	100n	100n	100n	100n
2275	-	-	220pF	220pF	220pF	220pF
2277	220pF	220pF	220pF	-	220pF	-
3201	-	-	1K	1K	1K	1K
3207	-	-	3K3	-	-	-
3208	1K	1K	1K	1K	1K	1K
3245	-	-	-	22K	-	22K
3251	-	-	10K	-	10K	10K
3261	12K	12K	33K	33K	33K	33K
3265	820R	820R	1K2	1K2	1K2	1K2
3273	18K	100K	100K	100K	100K	100K
3275	47K	47K	-	-	-	-
3276	-	-	-	47K	-	47K
5206	8u2	8u2	5u6	5u6	5u6	5u6
7225	TDA8361E	TDA8361E	TDA8362E	TDA8362E	TDA8361E	TDA8360E
9201	YES	YES	-	-	-	-
9208	YES	YES	-	-	-	-
9245	-	-	-	YES	-	YES
9246	YES	YES	YES	NO	YES	NO

*	21"	14"
3464	1K	910R
3465	22R	9K1
3466	100R	220R
3468	470R	-
6460	1N4148	-

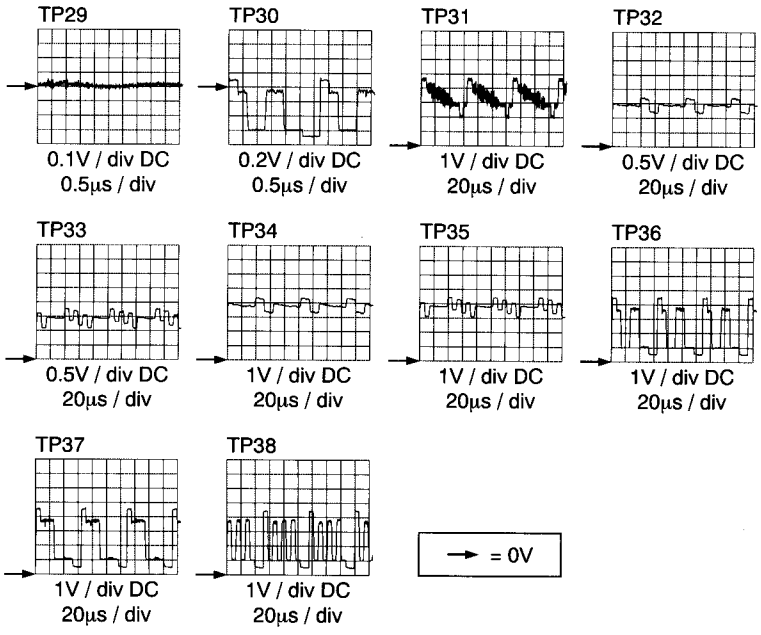
IF/VIDEO/CHROMA

ANUBIS-S DD 21"

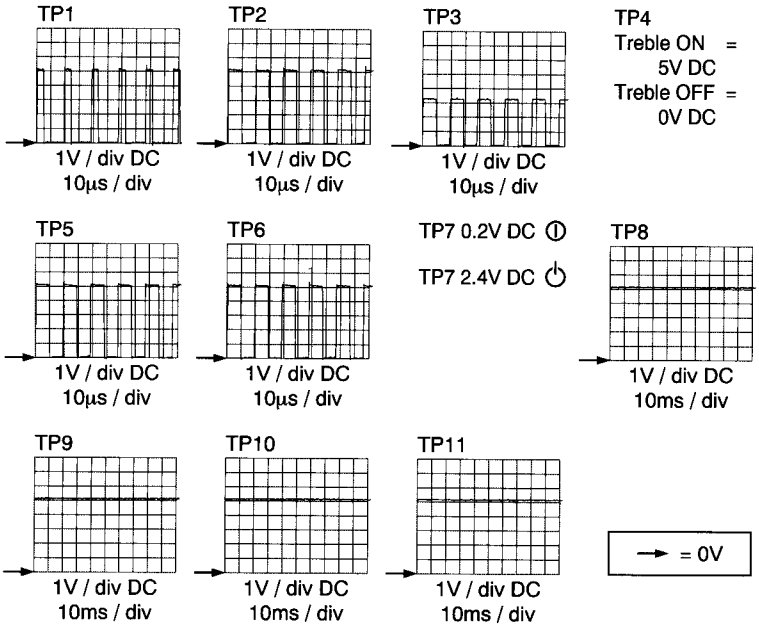
CL66532006/015.Btun 310196

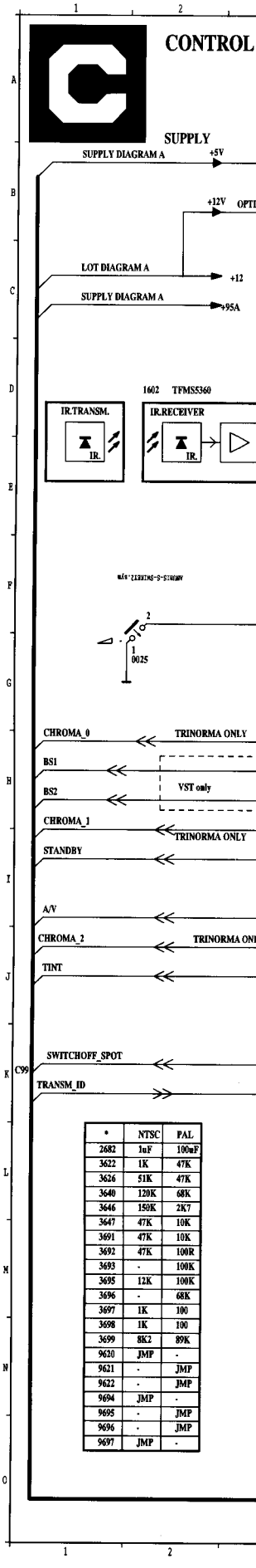
A/C/D

Wave Forms Diagram B

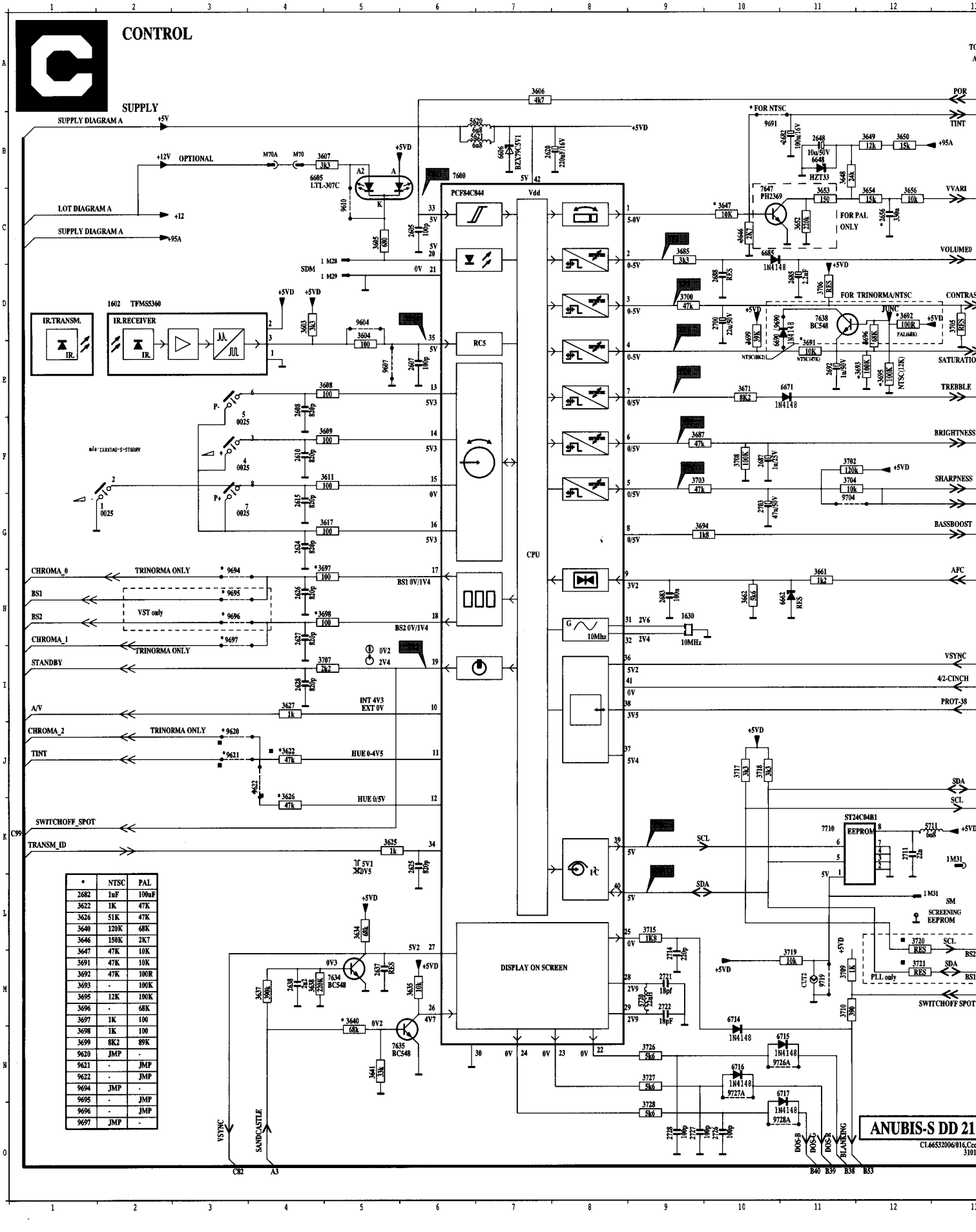


Wave Forms Diagram C

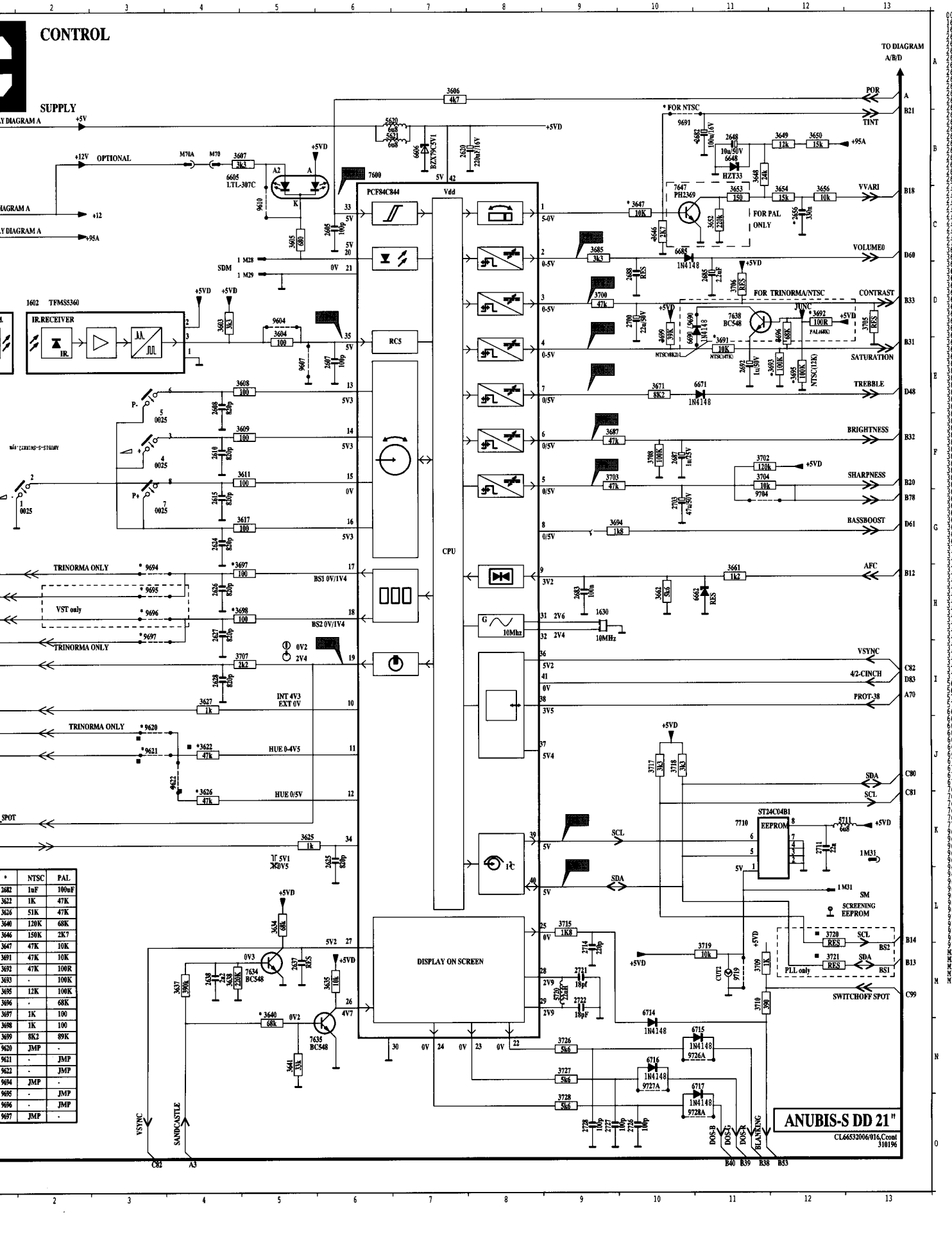




•	NTSC	PAL
2682	1nF	100nF
3622	1K	47K
3626	51K	47K
3640	120K	68K
3646	150K	2K7
3647	47K	10K
3691	47K	10K
3692	47K	100R
3693	-	100K
3695	12K	100K
3696	-	68K
3697	1K	100
3698	1K	100
3699	8K2	89K
9620	JMP	-
9621	-	JMP
9622	-	JMP
9694	JMP	-
9695	-	JMP
9696	-	JMP
9697	JMP	-



*	NTSC	PAL
2682	1nF	100uF
3622	1K	47K
3626	51K	47K
3640	120K	68K
3646	150K	2K7
3647	47K	10K
3691	47K	10K
3692	47K	100R
3693	-	100K
3695	12K	100K
3696	-	68K
3697	1K	100
3698	1K	100
3699	8K2	89K
9620	JMP	-
9621	-	JMP
9622	-	JMP
9694	JMP	-
9695	-	JMP
9696	-	JMP
9697	JMP	-



	NTSC	PAL
2682	1nF	100nF
3622	1K	47K
3626	51K	47K
3640	120K	68K
3646	150K	2K7
3647	47K	10K
3691	47K	10K
3692	47K	100R
3693	-	100K
3695	12K	100K
3696	-	68K
3697	1K	100
3698	1K	100
3699	8K2	89K
9620	JMP	-
9621	-	JMP
9622	-	JMP
9694	JMP	-
9695	-	JMP
9696	-	JMP
9697	JMP	-

SOUND PROCESSING

SOUND PROCESSING

1105 / 1106	5.5/6.5	5.5	6.0	4.5
2101	5n6	5n6	5n6	6n8
2102	4n7	4n7	4n7	82p
2112	560p	560p	560p	330p
2119	270p	270p	270p	56p
3130	56k	56k	56k	100k
3136	39k	39k	39k	68k
5112	15u	15u	15u	22u

*	AV IN	AV IN/OUT	FRONT AV AV IN/OUT
2138	470n	470n	-
3138	13K	13K	-
3139	22K	22K	-
3140	75R	75R	-
3144	22R	22R	-
9132	-	-	JMP
9133	-	JMP	JMP
9134	-	JMP	JMP
9135	JMP	JMP	-
9139	-	-	JMP

SUPPLY

FROM DIAGRAM C +5VD
FROM DIAGRAM B +8
FROM DIAGRAM A +13

* ADD IF AV OUT

CVBS-TXT
4/2 CINCH
CVBS
AUDIO
VOLUME0
TREBBLE
BASBOOST
VOICE 0V8
NORMAL 0V8
THEATRE 0V
MUSIC 0V

TDA8362-IF
TDA7056A/N2
FILTER * 1105
FILTER * 1106

AUDIO-IN
VIDEO-IN
VERSION WITH SCART
VERSION WITH CINCH
VIDEO-OUT
AUDIO-OUT
A/V PANEL
* ADD IF FRONT AV
VIDEO IN
AUDIO IN

3W SOUND AMPLIFIER

* Add if Dynamic Distortion Cct.

ONLY FOR MONO

*	PAL	NTSC
2121	4u7	--
3142	560R	240R

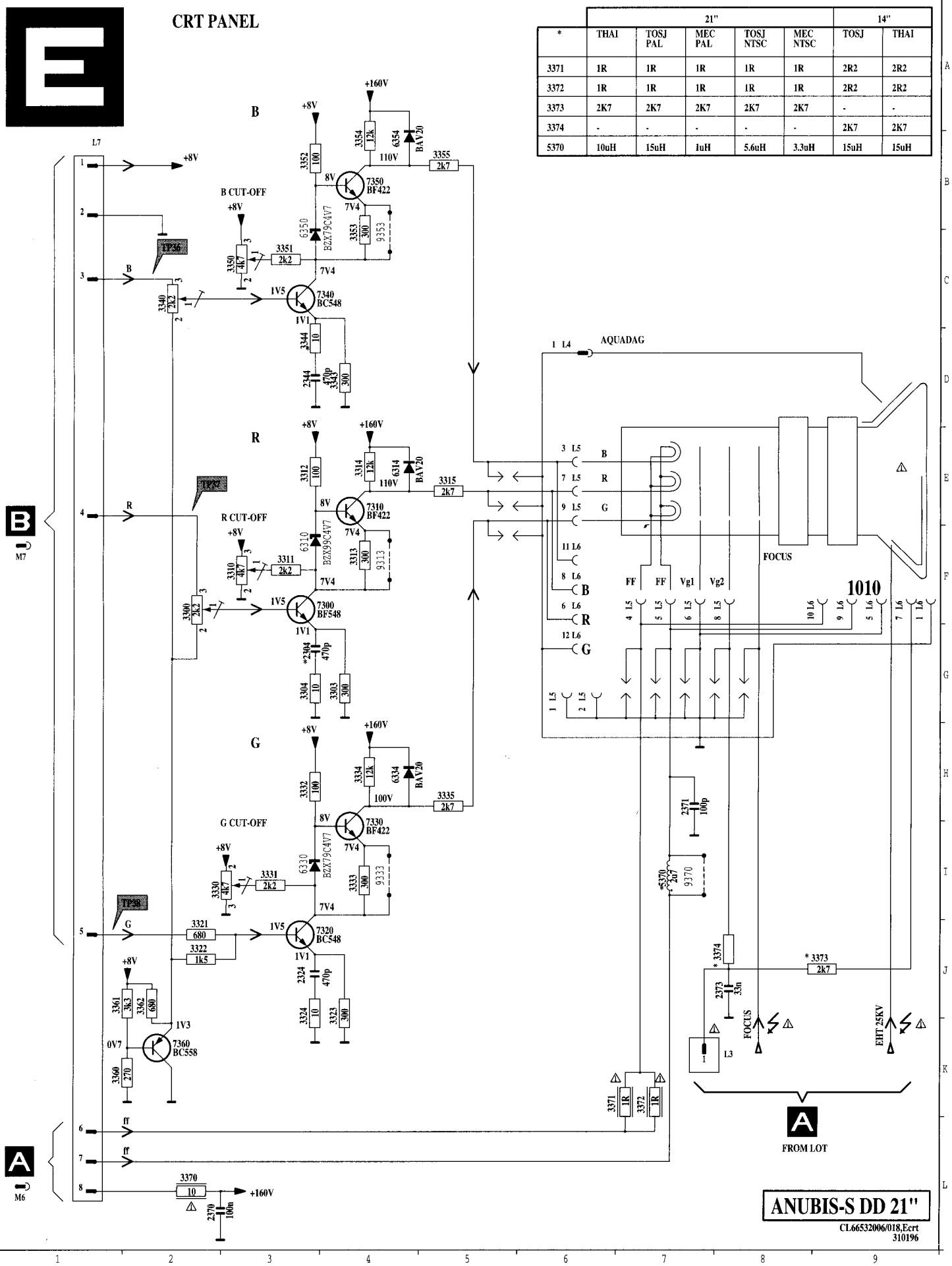
*	HEADPHONE	NO HEADPHONE
9106	-	YES
9110	YES	-
9105	YES	-
3135	56	-
3132	82	-
0020	YES	-

ANUBIS-S DD 21"
CL66532006/017,Dmd 310196

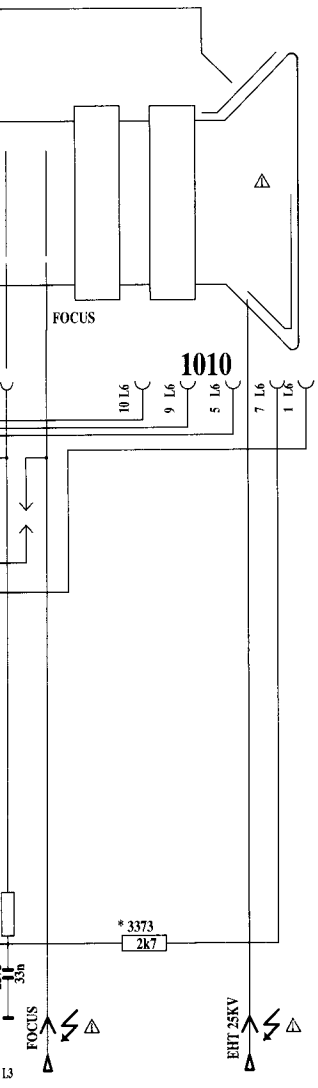
TO DIAGRAM A/B/C/F

CRT PANEL

*	21" THAI	21" TOSJ PAL	21" MEC PAL	21" TOSJ NTSC	21" MEC NTSC	14" TOSJ	14" THAI
3371	1R	1R	1R	1R	1R	2R2	2R2
3372	1R	1R	1R	1R	1R	2R2	2R2
3373	2K7	2K7	2K7	2K7	2K7	-	-
3374	-	-	-	-	-	2K7	2K7
5370	10uH	15uH	1uH	5.6uH	3.3uH	15uH	15uH



		14"	
TOSJ NTSC	MEC NTSC	TOSJ	THAI
1R	1R	2R2	2R2
1R	1R	2R2	2R2
2K7	2K7	-	-
-	-	2K7	2K7
5.6uH	3.3uH	15uH	15uH

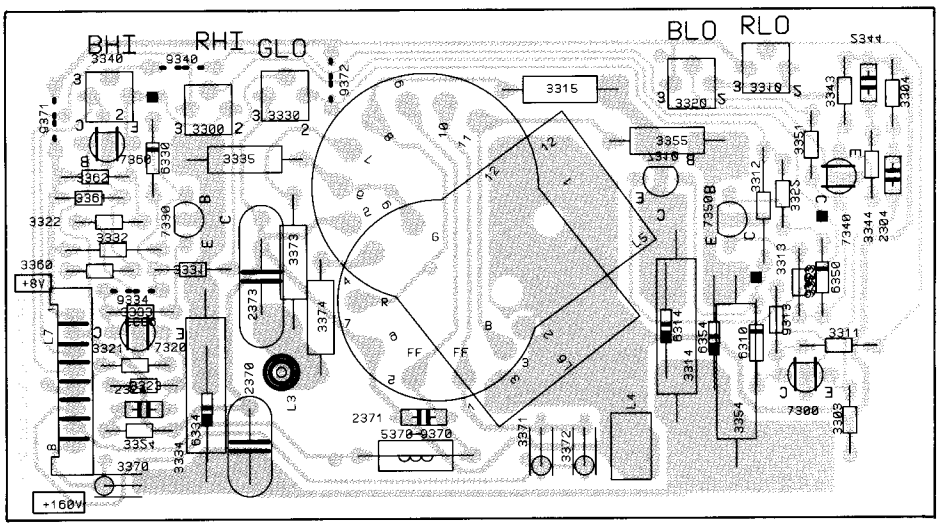


A
FROM LOT

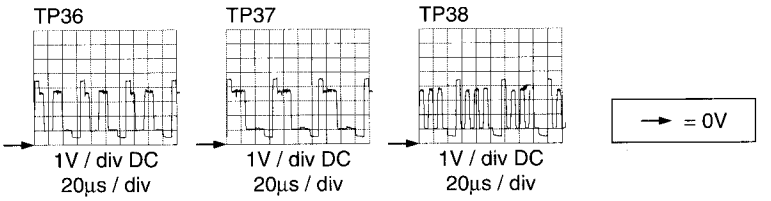
ANUBIS-S DD 21"
CL66532006/018.Ecrt
310196

2304 G 3
2324 J 3
2344 D 3
2370 L 2
2371 H 7
2373 J 8
3300 F 2
3303 G 4
3304 G 3
3310 F 3
3311 F 3
3312 E 3
3313 F 4
3314 E 4
3315 E 5
3321 J 2
3322 J 2
3323 J 4
3324 J 3
3330 I 2
3331 I 3
3332 H 3
3333 I 4
3334 H 4
3335 H 5
3340 C 2
3343 D 4
3344 D 3
3350 C 3
3351 C 3
3352 B 3
3353 B 4
3354 B 5
3360 K 1
3361 J 1
3362 J 2
3370 L 2
3371 K 6
3372 K 7
3373 J 9
3374 J 8
5370 I 7
6310 F 3
6314 E 4
6330 I 3
6334 H 4
6350 B 3
6354 B 4
7300 F 3
7310 E 4
7320 J 3
7330 I 4
7340 C 3
7350 B 4
7360 K 2
9313 F 4
9333 I 4
9353 C 4
9370 I 7
L3 K 8
L4 D 6
L5 G 6
L5 G 6
L5 E 6
L5 F 7
L5 F 7
L5 E 6
L5 F 8
L5 E 6
L6 F 9
L6 F 6
L6 F 9
L6 F 6
L6 F 9
L6 F 6
L6 G 6
L7 B 1

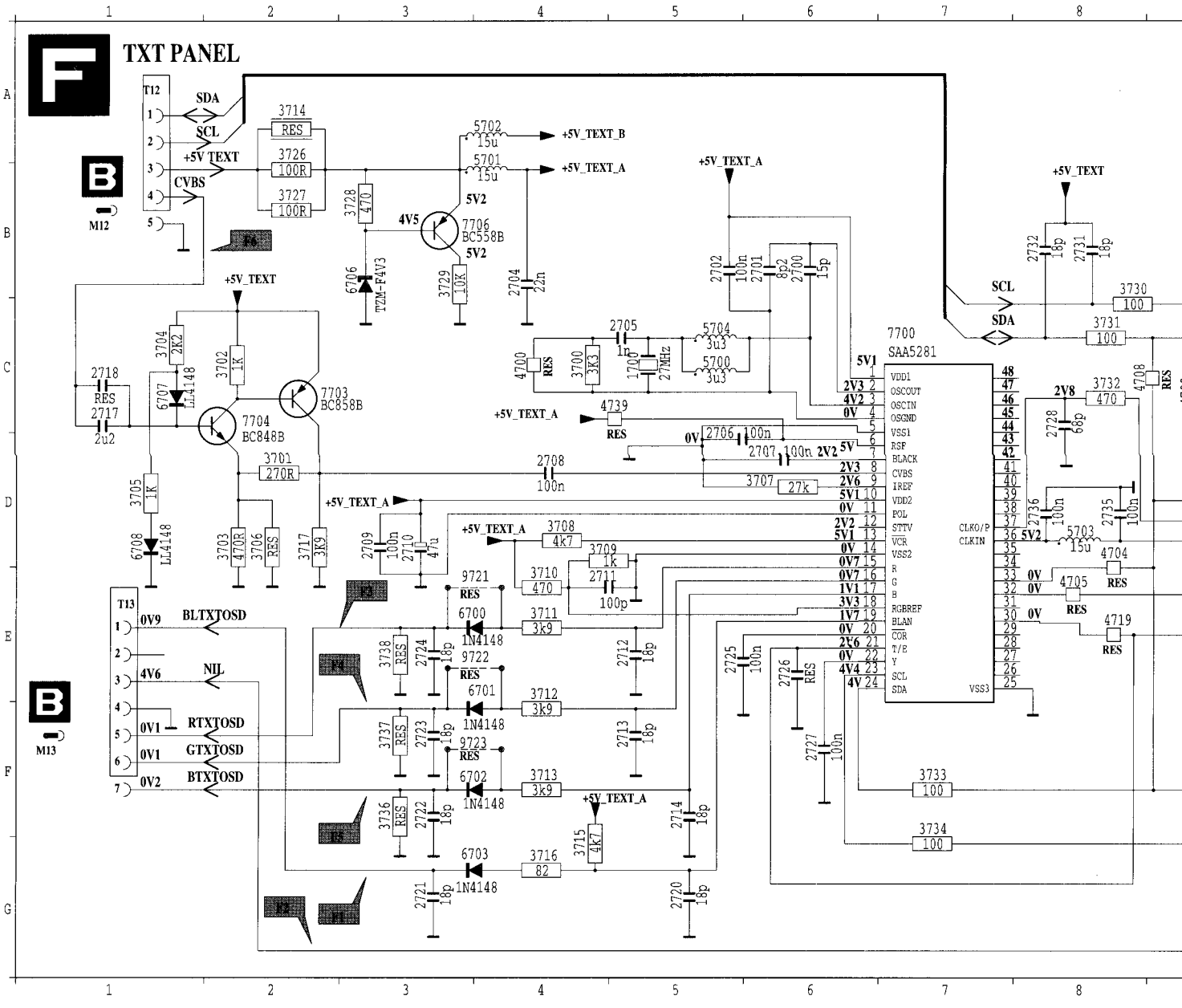
CRT panel



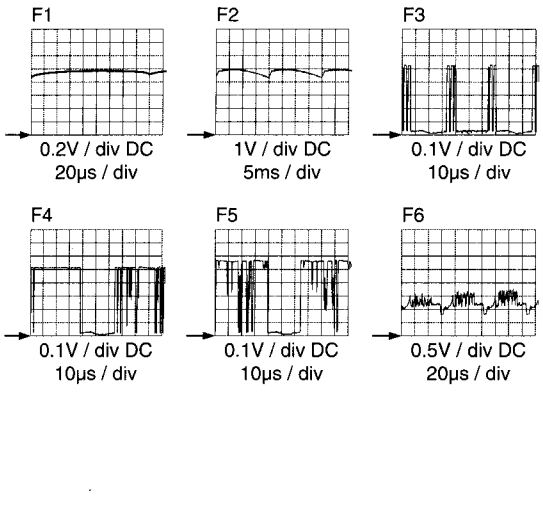
Wave Forms Diagram E



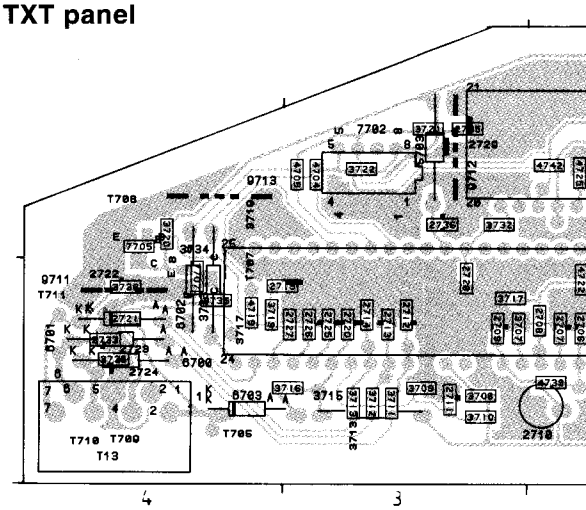
TXT Panel

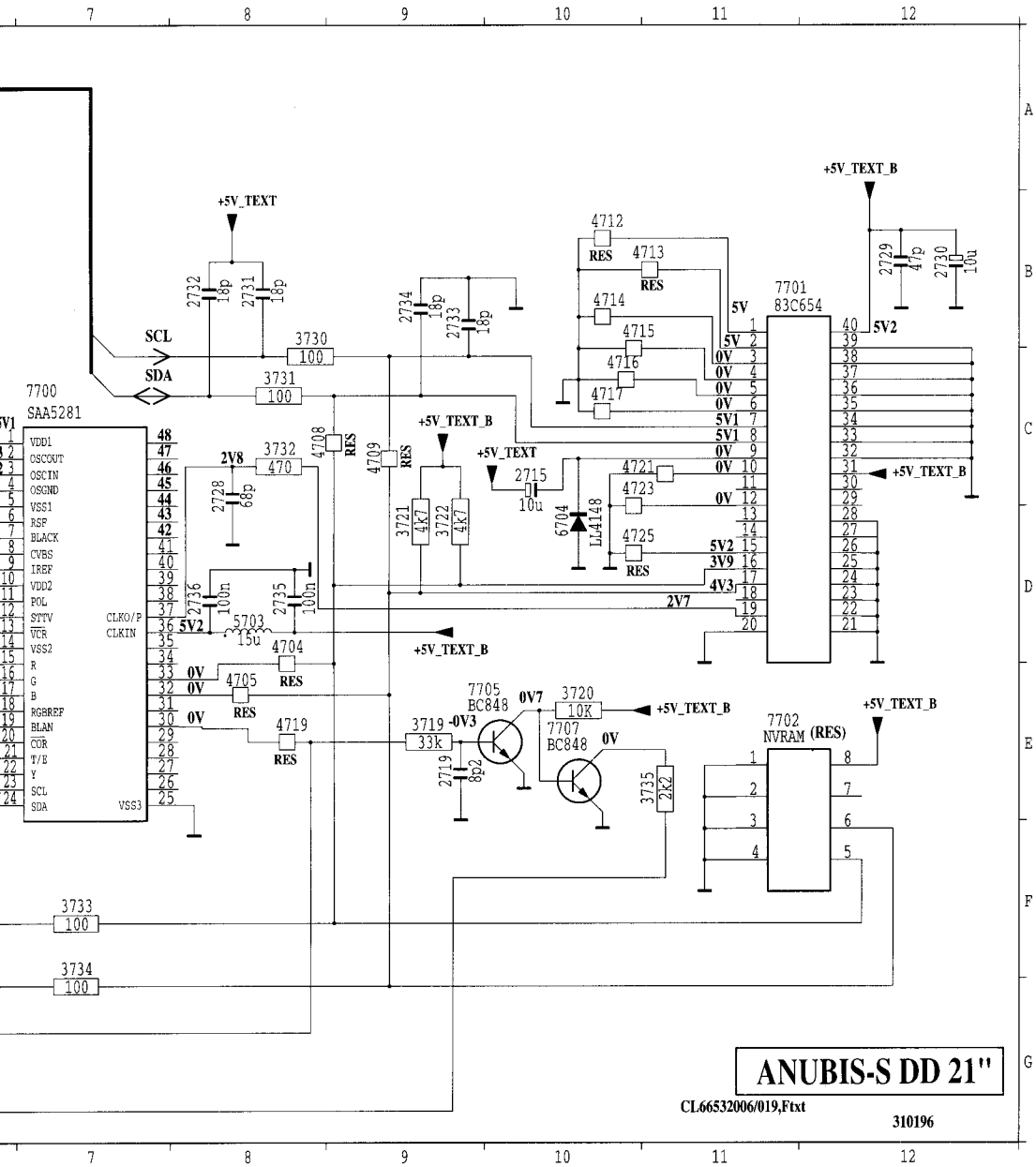


Wave Forms Diagram F

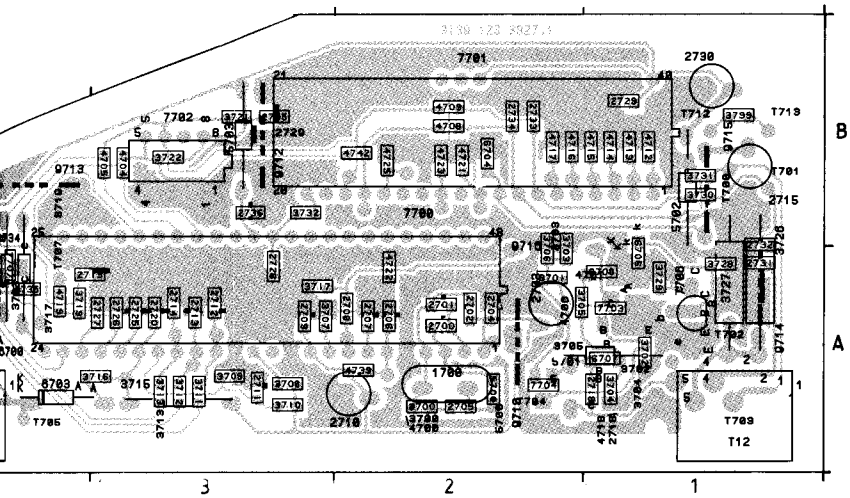


TXT panel





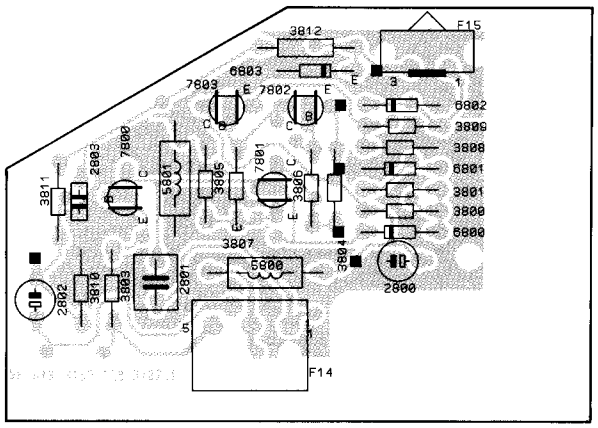
1700	C 5	4709	C 9						
2700	B 6	4712	B10						
2701	B 6	4713	B11						
2702	B 5	4714	B10						
2704	B 4	4715	B10						
2705	C 5	4716	C10						
2706	D 5	4717	C10						
2707	D 6	4719	E 8						
2708	D 4	4721	C10						
2709	D 3	4723	C10						
2710	D 3	4725	D10						
2711	E 4	4739	C 5						
2712	E 5	5700	C 5						
2713	F 5	5701	B 4						
2714	F 5	5702	A 4						
2715	C10	5703	D 8						
2717	C 1	5704	C 5						
2718	C 1	6700	E 3						
2719	E 9	6701	E 4						
2720	G 5	6702	F 3						
2721	G 3	6703	G 4						
2722	F 3	6704	D10						
2723	F 3	6706	B 3						
2724	E 3	6707	C 1						
2725	E 5	6708	D 1						
2726	E 6	7700	C 7						
2727	F 6	7701	B11						
2728	C 8	7702	E11						
2729	B12	7703	C 2						
2730	B12	7704	C 2						
2731	B 8	7705	E 9						
2732	B 8	7706	B 3						
2733	B 9	7707	E10						
2734	B 9	9721	E 4						
2735	D 8	9722	E 4						
2736	D 8	9723	F 3						
3700	C 4	M12	B 1						
3701	D 2	M13	F 1						
3702	C 2	T12	A 1						
3703	D 2	T13	E 1						
3704	C 1								
3705	D 1								
3706	D 2								
3707	D 6								
3708	D 4								
3709	D 4								
3710	E 4								
3711	E 4								
3712	E 4								
3713	F 4								
3714	A 2								
3715	G 4								
3716	G 4								
3717	D 2								
3719	E 9								
3720	E10								
3721	D 9								
3722	D 9								
3726	A 2								
3727	B 2								
3728	B 3								
3729	B 3								
3730	B 8								
3731	C 8								
3732	C 8								
3733	F 7								
3734	F 7								
3735	E11								
3736	F 3								
3737	F 3								
3738	E 3								
4700	C 4								
4704	D 8								
4705	E 8								
4708	C 8								



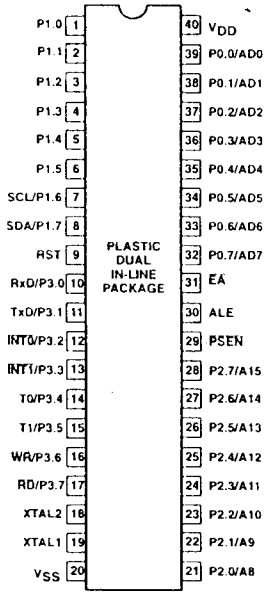
1700 A2	2726 A4 *	3714 A1	4708 B2 *	6706 A1 *
2700 A2 *	2727 A4 *	3715 A3	4709 B2 *	6707 A1 *
2701 A2 *	2728 A3 *	3716 A4 *	4712 B1 *	6708 A1 *
2702 A2 *	2729 B1 *	3717 A3 *	4713 B1 *	7700 A3
2704 A2 *	2730 B1	3719 A4 *	4714 B1 *	7701 B2
2705 A2 *	2731 A1 *	3720 A4 *	4715 B1 *	7702 B3
2706 A2 *	2732 A1 *	3721 B3 *	4716 B2 *	7703 A1 *
2707 A2 *	2733 B2 *	3722 B3 *	4717 B2 *	7704 A2 *
2708 A3 *	2734 B2 *	3726 A1	4719 A4 *	7705 A4 *
2709 A3 *	2735 B3 *	3727 A1	4721 B2 *	7706 A1
2710 A3	2736 A3 *	3728 A1 *	4722 A2 *	7707 A4 *
2711 A3 *	3700 A2 *	3729 A1 *	4723 B2 *	9710 A2
2712 A3 *	3701 A2 *	3730 A1 *	4725 B2 *	9711 A4
2713 A3 *	3702 A1 *	3731 B1 *	4739 A2 *	9712 B3
2714 A3 *	3703 A2 *	3732 A3 *	4742 B3 *	9713 B4
2715 B1	3704 A1 *	3733 A4	5700 A2 *	9715 B1
2717 A2	3705 A2 *	3734 A4	5701 A1	9716 A2
2718 A1 *	3706 A2 *	3735 A4 *	5702 B1	9721 A4
2719 A4 *	3707 A3 *	3736 A4 *	5703 B3	9722 A4
2720 A3 *	3708 A3 *	3737 A4 *	5704 A2 *	9723 A4
2721 A4 *	3709 A3 *	3738 A4 *	6700 A4	T12 A1
2722 A4 *	3710 A3 *	3799 B1 *	6701 A4	* = chip
2723 A4 *	3711 A3 *	4700 A2 *	6702 A4	component
2724 A4 *	3712 A3 *	4704 B4 *	6703 A4	
2725 A3 *	3713 A3 *	4705 B4 *	6704 B2 *	

AV Panel & Scart Panel

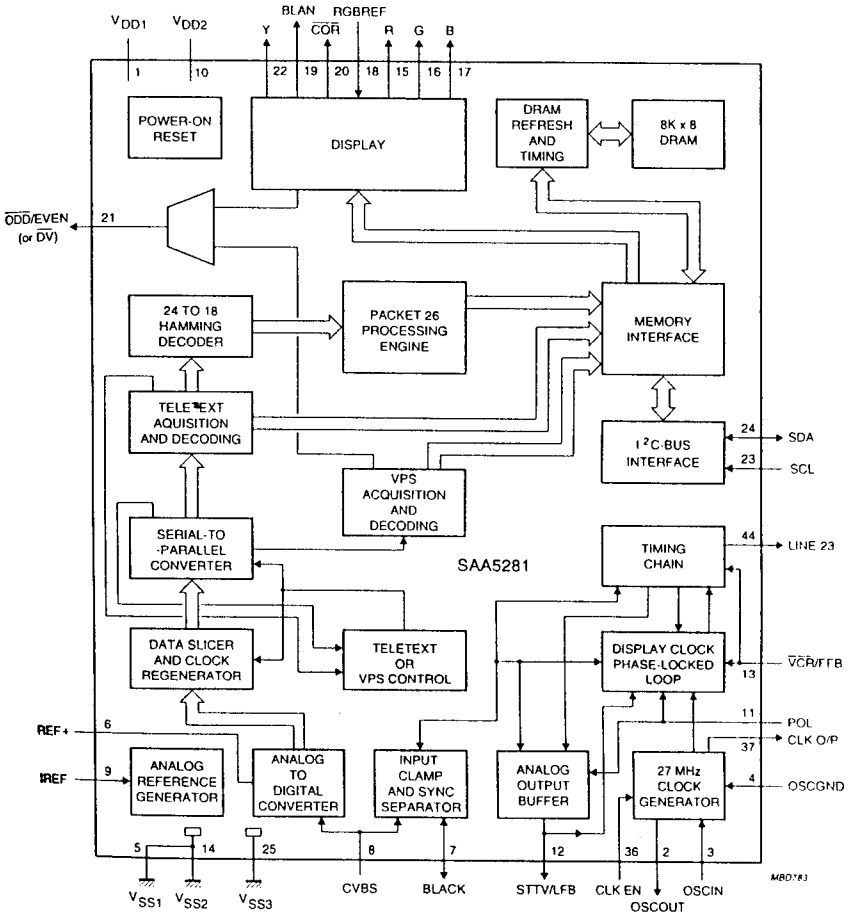
AV panel

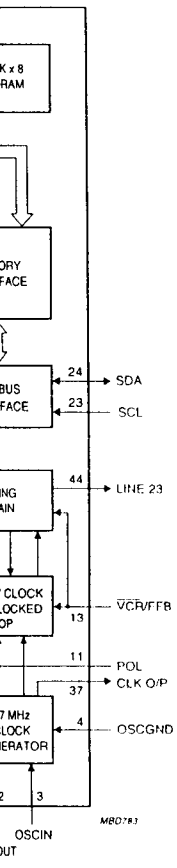


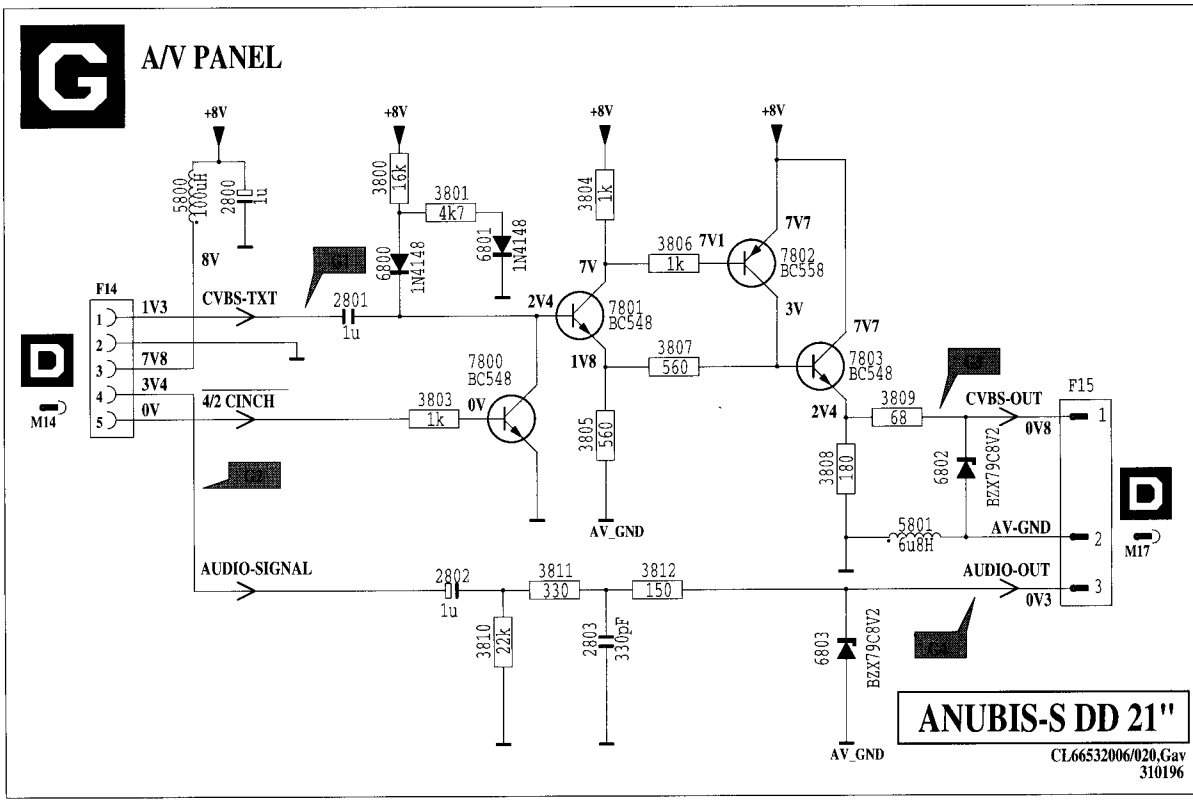
Blockdiagram IC 7700



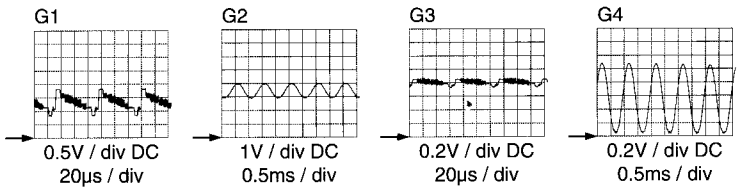
Blockdiagram IC 7701



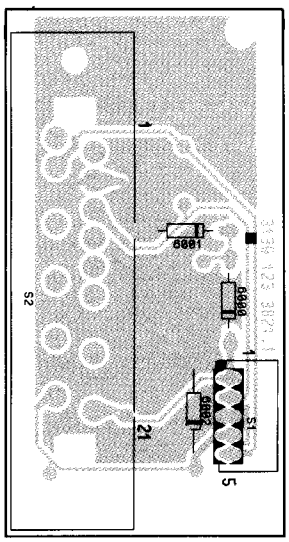


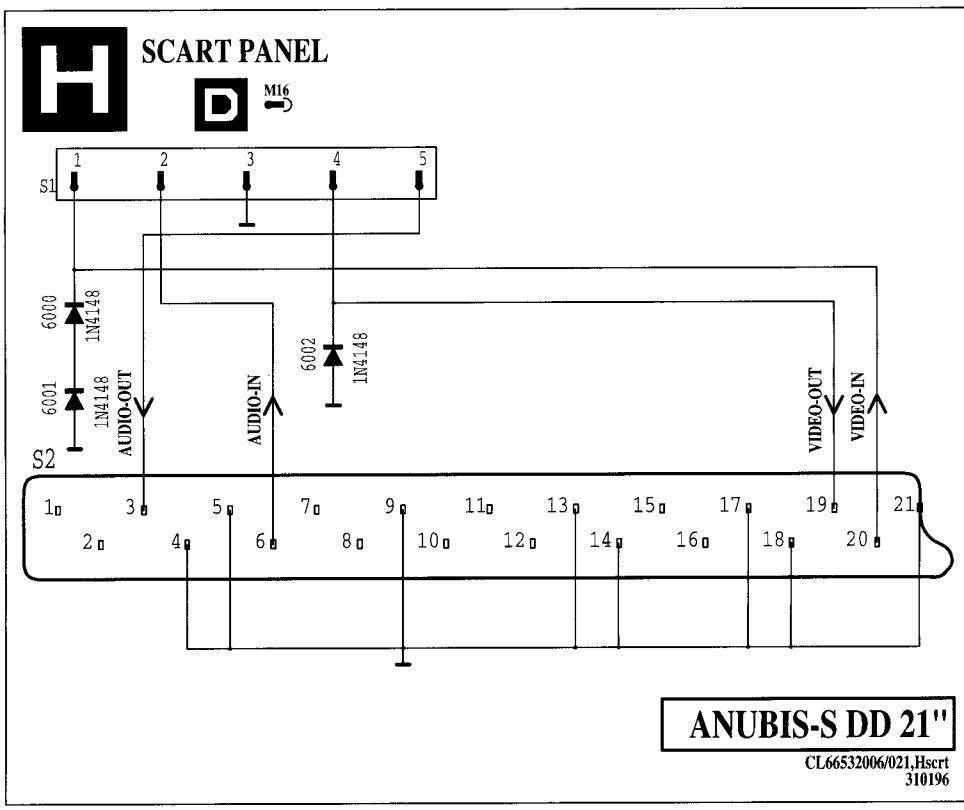


Wave Forms Diagram G



Scart panel





7 Electrical adjustments

1. Settings on the carrier panel

1.1 +95V power supply voltage (for 21")
Connect a multimeter (DC) across C2531. Set brightness at mid position and contrast at maximum. Apply a pattern generator with a colour bar. Adjust potentiometer **R3514** to +100V ± 0.5V DC

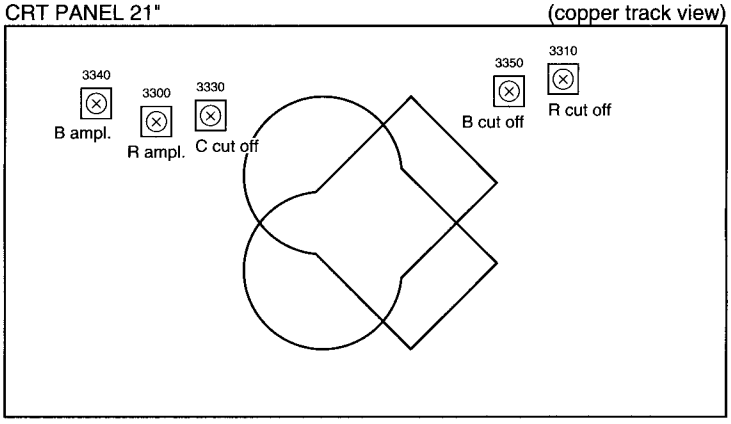
2 Settings on the CRT panel (Fig. 7.3A)

2.1 Vg2 cut off adjustment
Connect a pattern generator (eg PM5518) and set it to white raster pattern. Set contrast to minimum. With the aid of brightness control, adjust the top video level at pin to the same voltage level of transistor 7360.

Pre-adjusted the black level preset potmeters 3310, 3350 & 3350 to mid position.
Adjust the other two guns with their respective potmeters: 3310 for red, 3330 for green and 3350 for blue such that all the three colour shall give a white raster.

2.2 White-D adjustment
Without changing the Brightness level, adjust the Contrast so that Green is good visible.
Adjust potmeters 3300 and 3340 to have a correct White-D picture.

CRT PANEL 21" (copper track view)



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8. Repair tips

3. Service Mode (SM), 21".

3.1 Entry of the service Mode
Short circuit the Service Mode pin M31 (located near the EEPROM IC7710 on the main carrier and indicated with "SM" in the service printing) to ground via the EEPROM screening for a short moment while switching on the set via the mains switch.
The Service Mode is exiting via the Standby command.
Remark: The built in EEPROM protection in the EEPROM will automatically be deactivated at entering the service mode and activated again at exiting the service mode via standby. As the procedure is realised via the content of address 255, the data at this address 255 may **not** be changed.

TELETEXT

10. Spare parts list / Lista de Repuesto

Main carrier [A,B,C,D]

Various

	4822 265 10392	2p cinch fem.
	4822 265 10398	4p cinch fem.
	4822 267 31441	Conn. Headph, 3.5mm
	4822 267 31884	Conn. 2p
▲	4822 265 20709	Conn. 2p 2.5X3.81
▲	4822 265 20439	Conn. 2p
▲	4822 267 31359	Conn. 2p
	4822 265 31244	Conn. 3P duo 2,5
	4822 265 31244	Conn. 3P duo 2,5
	4822 267 41095	Conn. 5P
	4822 267 41095	Conn. 5P BTB
▲	4822 265 31243	Conn. 5P duo 2,5
	4822 267 41095	Conn. 5P BTB
	4822 267 51319	Conn. 7p BTB
▲	4822 276 13431	Mains switch
	4822 276 40414	Switch (4-fold)
▲	4822 256 30496	Fuse holder
▲	4822 492 70289	Spring fix IC
	4822 492 41369	Spring fix. IC
	4822 492 70788	Spring fix. IC
	4822 255 70287	RC rec.holder
	4822 256 91698	LED holder
1000▲	4822 210 10448	Tuner UV915E/IEC
1000▲	4822 210 10459	Tuner UV913/IEC
1015	4822 242 72197	Filter OFWK2950M
1015	4822 242 81388	Filter OFWG1961M
1105	4822 242 72547	filter SFE5,5MBF
1106	4822 242 71713	Filter SFE6,0MBF
1106	4822 242 72057	Filter SFE6,5MBF
1206	4822 242 81572	Filter TPS6,0MB
1206	4822 242 81712	Filter TPWA04B
1207	4822 242 81301	Filter TPS6,5MB-TF21
1275	4822 242 81809	Cristal 4.433619MHz
1277	4822 242 81981	Cristal 3,579545MHz
1500▲	4822 070 34002	Fuse T4A
1540▲	4822 157 53252	Coil 22µ
1602	4822 212 30842	IR receiver TFMS5360
1630	4822 242 81727	Cristal 10MHz

⊣⊢

2008	5322 121 42386	100nF 5% 63V
2010	4822 124 81049	1500µF 20% 16V
2100	4822 122 33307	10nF 5% 50V
2101	4822 126 11134	5.6nF 10% 50V
2101	4822 126 13593	5.6nF 10% 50V
2102	4822 126 12868	47pF 5% 50V
2102	4822 126 13462	4.7nF 20% 50V
2103	4822 126 13513	8.2nF 10% 50V
2104	4822 124 40248	10µF 20% 63V
2105	4822 121 43823	470nF 5% 50V
2107	4822 124 81024	4.7µF 20% 50V
2111	4822 124 81021	100µF 20% 16V
2112	4822 126 12868	47pF 5% 50V
2112	5322 122 32336	560pF 10% 100V
2119	4822 126 13511	270pF 10% 50V
2119	4822 126 13516	82pF 5% 50V
2120	4822 121 42868	220nF 5% 50V
2121	4822 124 81024	4.7µF 20% 50V
2122	4822 126 13501	1.5nF 10% 50V
2123	4822 126 10334	470pF 10% 50V
2123	4822 126 13515	2.2nF 50V
2124	4822 121 51567	120nF 5% 50V
2125	4822 122 33449	47nF 30% 50V
2127	4822 121 51655	47nF 50V
2129	4822 126 13501	1.5nF 10% 50V
2130	4822 124 41596	22µF 20% 50V
2132	4822 121 70623	10nF 5% 50V
2133	4822 122 33532	3.3nF 5% 50V
2138	4822 121 43823	470nF 5% 50V
2200	4822 124 11511	50V 33U 20%
2200	4822 124 80854	1µF 20% 50V
2208	4822 122 33449	47nF 30% 50V
2212	5322 121 42386	100nF 5% 63V
2213	4822 121 42868	220nF 5% 50V
2221	5322 121 42386	100nF 5% 63V
2222▲	4822 124 81023	2.2µF 20% 50V
2226	4822 124 40849	330µF 20% 16V
2228	4822 124 81022	1µF 20% 50V
2245	5322 121 42386	100nF 5% 63V
2246	4822 121 42868	220nF 5% 50V
2248	4822 122 33302	1nF 5% 50V
2249	4822 122 33302	1nF 5% 50V
2251	4822 122 40606	22nF 80% 50V
2254	4822 124 41596	22µF 20% 50V
2256	5322 121 42386	100nF 5% 63V
2257	5322 121 42386	100nF 5% 63V
2260	4822 126 11131	18pF 5% 50V
2261	4822 122 40606	22nF 80% 50V
2262▲	4822 124 40433	47µF 20% 25V
2264	4822 122 40606	22nF 80% 50V
2265	4822 124 81108	0.47µF 20% 50V
2272	4822 126 13462	4.7nF 20% 50V
2273	4822 121 70621	100nF 5% 50V
2273	5322 121 42386	100nF 5% 63V
2275	4822 122 33299	220pF 5% 50V
2277	4822 122 33299	220pF 5% 50V
2280	4822 122 33449	47nF 30% 50V
2284	4822 122 33449	47nF 30% 50V
2285	4822 122 33449	47nF 30% 50V
2299	4822 124 81024	4.7µF 20% 50V
2401	4822 122 33528	390pF 5% 50V
2402	5322 121 42386	100nF 5% 63V
2403	4822 126 11134	5.6nF 10% 50V
2404	4822 124 81039	3300µF 20% 25V
2405	5322 124 41431	22µF 20% 35V
2414	4822 126 13515	2.2nF 50V
2415	4822 124 81029	100µF 20% 25V
2421	4822 122 33305	2.7nF 5% 50V
2422	4822 121 43823	470nF 5% 50V
2423	4822 122 33531	2.2nF 10% 50V
2424	4822 124 81022	1µF 20% 50V
2426	4822 121 41853	100nF 10% 100V
2427	4822 126 13462	4.7nF 20% 50V
2440	4822 121 43526	47nF 5% 250V
2441	4822 126 12792	2.2nF 10% 500V
2442	4822 122 31175	1nF 10% 500V
2443	4822 124 41545	220µF 20% 16V
2444	4822 121 43526	47nF 5% 250V
2445▲	4822 126 12095	220pF 10% 2KV
2445▲	4822 126 12267	470pF 10%R(HR) 2KV
2446	4822 121 10502	50V 390N 5%
2447	4822 121 70622	10nF 5% 2000V
2448	4822 121 43368	47µF 160V
2449	4822 126 12792	2.2nF 10% 500V
2450▲	4822 121 42442	560nF 200V
2450	4822 121 70458	680nF 5% 200V
2453	4822 124 41747	680µF 20% 35V
2460	4822 121 40334	100nF 10% 100V
2461	4822 126 11985	27pF 5%
2462	4822 126 11979	27pF 5%YB 2KV
2470	4822 124 11508	250V. 22U 20%
2471	4822 121 70623	10nF 5% 50V
2472	4822 126 12792	2.2nF 10% 500V
2473	4822 124 40248	10µF 20% 63V
2476	4822 121 70625	180nF 5% 50V
2500▲	4822 124 41531	470nF 10% 250VAC
2501	4822 121 70141	33nF 5% 400V
2502	4822 126 12793	2.2nF 10% 2KV
2503	4822 126 12793	2.2nF 10% 2KV
2504	4822 126 12793	2.2nF 10% 2KV
2505	4822 124 41764	100µF 20% 400V
2505	4822 124 80855	330µF 20% 400V
2509	4822 122 33293	100pF 5% 50V
2510	4822 121 70624	1.3nF 2% 250V
2510	4822 126 12864	2.2nF 2% 250V
2511	4822 121 70619	22nF 10% 50V
2512	4822 122 33299	220pF 5% 50V
2513	4822 124 81028	220µF 20% 25V
2514	4822 121 42868	220nF 5% 50V
2515▲	4822 124 81023	2.2µF 20% 50V
2516	4822 121 70654	2N210% 50V
2517	4822 121 51586	150nF 5% 50V
2518▲	4822 124 81023	2.2µF 20% 50V
2520▲	4822 126 11382	1nF 10% 1KV
2521▲	4822 126 11524	1.5nF 10% 1KV
2523	4822 126 12833	4.7nF 20% 2KV
2525▲	4822 122 40602	1nF 20% 400V
2529▲	4822 126 12095	220pF 10% 2KV
2531	4822 124 42336	47µF 20% 160V
2540	4822 124 42106	1500µF 20% 35V
2561	4822 124 41596	22µF 20% 50V
2565	4822 124 81024	4.7µF 20% 50V
2570	4822 126 10334	470pF 10% 50V
2605	4822 122 33293	100pF 5% 50V
2607	4822 122 33293	100pF 5% 50V
2608	4822 126 12451	820pF 10% 50V
2610	4822 126 12451	820pF 10% 50V
2615	4822 126 12451	820pF 10% 50V
2620	4822 124 41545	220µF 20% 16V
2624	4822 126 12451	820pF 10% 50V
2625	4822 126 12451	820pF 10% 50V
2626	4822 126 12451	820pF 10% 50V
2627	4822 126 12451	820pF 10% 50V
2628	4822 126 12451	820pF 10% 50V
2638	4822 122 33531	2.2nF 10% 50V
2648	4822 124 40248	10µF 20% 63V
2656	4822 121 51244	330nF 5% 50V
2682	4822 124 81021	100µF 20% 16V
2683	5322 121 42386	100nF 5% 63V
2685▲	4822 124 81023	2.2µF 20% 50V
2687	4822 124 81022	1µF 20% 50V
2692	4822 124 81022	1µF 20% 50V
2700	4822 124 41596	22µF 20% 50V
2703▲	4822 124 40433	47µF 20% 25V
2711	4822 122 40606	22nF 80% 50V
2714	4822 122 33299	220pF 5% 50V
2721	4822 126 11131	18pF 5% 50V
2722	4822 126 11131	18pF 5% 50V
2726	4822 122 33293	100pF 5% 50V
2727	4822 122 33293	100pF 5% 50V
2728	4822 122 33293	100pF 5% 50V

⊏⊐

3000	4822 050 28201	820Ω 1% 0.6W
3001	4822 116 52283	4k7 5% 0.5W
3002	4822 116 52283	4k7 5% 0.5W
3003	4822 116 83884	47k 5% 0.5W
3004	4822 050 28201	820Ω 1% 0.6W
3005	4822 050 11204	120k 1% 0.4W
3006	4822 050 11204	120k 1% 0.4W
3007	4822 050 28201	820Ω 1% 0.6W
3010▲	4822 052 10109	10Ω 5% 0.33W
3105	4822 116 83866	1M 5% 0.5W
3106▲	4822 116 83749	680Ω 1/4W
3107	4822 050 11002	1k 1% 0.4W
3108	4822 116 52304	82k 5% 0.5W
3109	4822 116 52283	4k7 5% 0.5W
3113	4822 050 11002	1k 1% 0.4W
3118	4822 116 52285	470k 5% 0.5W
3119	4822 116 83883	470Ω 5% 0.5W
3120	4822 050 15602	5k6 1% 0.4W
3121	4822 116 83961	6k8 5%
3122	4822 116 52283	4k7 5% 0.5W
3123	4822 050 11002	1k 1% 0.4W
3124	4822 116 52285	470k 5% 0.5W
3125	4822 050 11003	10k 1% 0.4W
3126	4822 116 83961	6k8 5%
3127	4822 111 30834	6Ω8
3128	4822 050 11002	1k 1% 0.4W
3129	4822 116 83961	6k8 5%
3130	4822 050 15603	56k 1% 0.4W
3132	4822 050 15609	56Ω 1% 0.4W
3135	4822 053 10829	82Ω 5% 1W
3136	4822 050 13903	39k 1% 0.4W
3136	4822 050 23903	39k 1% 0.6W
3138	4822 050 11303	13k 1% 0.4W
3139	4822 050 12203	22k 1% 0.4W
3140	4822 050 17509	75Ω 1% 0.4W
3142	4822 050 15601	560Ω 1% 0.4W
3144	4822 050 12209	22Ω 1% 0.4W
3200	4822 050 11503	15k 1% 0.4W
3201	4822 050 11002	1k 1% 0.4W
3202	4822 050 11503	15k 1% 0.4W
3203	4822 050 12202	2k2 1% 0.4W
3206	4822 050 11001	100Ω 1% 0.4W
3207	4822 050 13302	3k3 1% 0.4W
3208	4822 050 11002	1k 1% 0.4W
3210	4822 050 11004	100k 1% 0.4W
3211▲	4822 050 23301	330Ω 1% 0.6W
3211	4822 116 52219	330Ω 5% 0.5W
3212	4822 116 52283	4k7 5% 0.5W
3213	4822 050 11004	100k 1% 0.4W
3214	4822 050 11002	1k 1% 0.4W
3215	4822 050 11001	100Ω 1% 0.4W
3216	4822 050 15601	560Ω 1% 0.4W
3217▲	4822 052 10129	12Ω 5% 0.33W
3218	4822 050 12202	2k2 1% 0.4W
3239	4822 116 52249	1k8 5% 0.5W
3240	4822 116 83884	47k 5% 0.5W
3245	4822 050 12203	22k 1% 0.4W
3250	4822 050 11003	10k 1% 0.4W
3251	4822 050 11003	10k 1% 0.4W
3252	4822 050 11009	10Ω 1% 0.4W
3253	4822 050 11009	10Ω 1% 0.4W
3254	4822 050 15601	560Ω 1% 0.4W
3255	4822 050 11002	1k 1% 0.4W
3256	4822 050 11002	1k 1% 0.4W
3257	4822 050 11002	1k 1% 0.4W
3259	4822 050 11002	1k 1% 0.4W
3261	4822 050 13303	33k 1% 0.4W
3262	4822 116 83961	6k8 5%
3263	4822 050 11503	15k 1% 0.4W
3264	4822 100 11676	10k 30%LIN 0.2W
3265	4822 050 11202	1k2 1% 0.4W
3267	4822 050 11503	15k 1% 0.4W
3268	4822 050 11003	10k 1% 0.4W
3270	4822 050 12703	27k 1% 0.4W
3271	4822 116 52283	4k7 5% 0.5W
3273	4822 050 11004	100k 1% 0.4W
3276	4822 116 83884	47k 5% 0.5W
3400	4822 116 52283	4k7 5% 0.5W
3402▲	4822 050 12201	220Ω 1% 0.4W
3403	4822 050 12202	2k2 1% 0.4W
3404	4822 050 11502	1k5 1% 0.4W
3405	4822 050 11509	15Ω 1% 0.4W
3406	4822 050 12203	22k 1% 0.4W
3407	4822 050 12203	22k 1% 0.4W
3409	4822 116 52283	4k7 5% 0.5W
3410	4822 100 11391	330Ω 30%lin 0.1W
3411	4822 116 81755	2Ω2 0.25W
3412	4822 116 81755	2Ω2 0.25W
3414	4822 050 12202	2k2 1% 0.4W
3415	4822 050 12202	2k2 1% 0.4W
3416▲	4822 117 10423	390Ω 5% 2W
3420	4822 100 20166	10k 30%LIN 0.1W
3421	4822 050 18204	820k 1% 0.4W
3422	4822 116 52251	18k 5% 0.5W
3423	4822 050 14709	47Ω 1% 0.4W
3424	4822 050 13901	390Ω 1% 0.4W
3425	4822 050 13904	390k 1% 0.4W
3426	4822 050 16804	680k 1% 0.4W
3427	4822 050 18204	820k 1% 0.4W
3432	4822 053 11399	39Ω 5% 2W
3441	4822 053 11153	15k 5% 2W
3442▲	4822 050 23302	3k3 1% 0.6W
3443	4822 050 13302	3k3 1% 0.4W
3444	4822 053 12472	4k7 5% 3W
3448	4822 050 12202	2k2 1% 0.4W
3449▲	4822 052 11108	1Ω 5% 0.5W
3456	4822 053 20224	220k 5% 0.25W
3460	4822 111 20433	20k
3461	4822 050 12703	27k 1% 0.4W
3462	4822 050 22204	220k 1% 0.6W
3464	4822 050 11002	1k 1% 0.4W
3465	4822 050 12203	22k 1% 0.4W
3466	4822 050 11001	100Ω 1% 0.4W
3468	4822 116 83883	470Ω 5% 0.5W
3470▲	4822 052 11478	4Ω7 5% 0.5W
3471	4822 116 83883	470Ω 5% 0.5W
3472	4822 116 83883	470Ω 5% 0.5W
3473	4822 116 52251	18k 5% 0.5W
3474	4822 050 13302	3k3 1% 0.4W
3475	4822 117 12065	82Ω 5%
3476	4822 050 11003	10k 1% 0.4W
3477	4822 050 12704	270k 1% 0.4W
3478	4822 050 13303	33k 1% 0.4W
3501▲	4822 116 40247	18Ω 270V
3501	4822 116 40277	PTC/PTC 9Ω 200V
3502	4822 111 20403	470Ω 10%
3503	4822 115 10159	2Ω7 5W 5%
3504▲	4822 053 21475	4M7 5% 0.5W
3506	4822 116 21228	VDR 430-710V
3507	4822 050 26804	680k 1% 0.6W
3508	4822 117 11488	33k 5% 3W
3509	4822 050 28204	820k 1% 0.6W
3510	4822 050 11203	12k 1% 0.4W
3510	4822 050 15102	5k1 1% 0.4W
3511▲	4822 050 12201	220Ω 1% 0.4W
3512	4822 116 83883	470Ω 5% 0.5W
3513	4822 050 15102	5k1 1% 0.4W
3514	4822 101 11166	2k2
3515▲	4822 052 10828	8Ω2 5% 0.33W
3516	4822 050 11003	10k 1% 0.4W
3517	4822 117 12064	2W. 270Ω 5%
3518	4822 050 11001	100Ω 1% 0.4W
3520	4822 113 80679	82Ω 5% 7W
3524▲	4822 053 21225	2M2 5% 0.5W
3525▲	4822 053 21475	4M7 5% 0.5W
3540	4822 053 12108	1Ω 5% 3W
3541	4822 050 14709	47Ω 1% 0.4W
3560	4822 050 11201	120Ω 1% 0.4W
3561	4822 050 11201	120Ω 1% 0.4W
3562	4822 116 83883	470Ω 5% 0.5W
3565	4822 050 11003	10k 1% 0.4W
3568	4822 050 22202	2k2 1% 0.6W
3570	4822 050 12209	22Ω 1% 0.4W
3598	4822 116 52251	18k 5% 0.5W
3599	4822 050 15603	56k 1% 0.4W
3599	4822 050 16803	68k 1% 0.4W
3599	4822 050 18202	8k2 1% 0.4W
3599	4822 116 83883	470Ω 5% 0.5W
3599	4822 116 83884	47k 5% 0.5W
3603	4822 050 13302	3k3 1% 0.4W
3604	4822 050 11001	100Ω 1% 0.4W
3605▲	4822 116 83749	680Ω 1/4W
3606	4822 116 52283	4k7 5% 0.5W
3608	4822 050 11001	100Ω 1% 0.4W
3609	4822 050 11001	100Ω 1% 0.4W
3611	4822 050 11001	100Ω 1% 0.4W
3617	4822 050 11001	100Ω 1% 0.4W
3622	4822 116 83884	47k 5% 0.5W
3625	4822 050 11002	1k 1% 0.4W
3626	4822 116 83884	47k 5% 0.5W

Spare parts list / Lista de Repuesto

3627	4822 050 11002	1k 1% 0.4W
3634	4822 050 16803	68k 1% 0.4W
3635	4822 050 11003	10k 1% 0.4W
3637	4822 050 13904	390k 1% 0.4W
3638	4822 116 83874	220k 5% 0.5W
3640	4822 050 16803	68k 1% 0.4W
3641	4822 050 13303	33k 1% 0.4W
3646	4822 050 12702	2k7 1% 0.4W
3647	4822 050 11003	10k 1% 0.4W
3648	4822 050 12403	24k 1% 0.4W
3649	4822 050 11203	12k 1% 0.4W
3650	4822 050 11503	15k 1% 0.4W
3652	4822 116 83874	220k 5% 0.5W
3653	4822 116 52211	150Ω 5% 0.5W
3654	4822 050 11503	15k 1% 0.4W
3656	4822 050 11003	10k 1% 0.4W
3661	4822 050 11202	1k2 1% 0.4W
3662	4822 050 15602	5k6 1% 0.4W
3671	4822 050 18202	8k2 1% 0.4W
3685	4822 050 13302	3k3 1% 0.4W
3687	4822 116 83884	47k 5% 0.5W
3691	4822 050 11003	10k 1% 0.4W
3692	4822 050 11001	100Ω 1% 0.4W
3693	4822 050 11004	100k 1% 0.4W
3694	4822 116 52249	1k8 5% 0.5W
3696	4822 050 16803	68k 1% 0.4W
3697	4822 050 11001	100Ω 1% 0.4W
3698	4822 050 11001	100Ω 1% 0.4W
3699	4822 050 13903	39k 1% 0.4W
3700	4822 116 83884	47k 5% 0.5W
3702	4822 050 11204	120k 1% 0.4W
3703	4822 116 83884	47k 5% 0.5W
3704	4822 050 11003	10k 1% 0.4W
3707	4822 050 12202	2k2 1% 0.4W
3708	4822 050 11004	100k 1% 0.4W
3709	4822 050 11002	1k 1% 0.4W
3710	4822 050 13901	390Ω 1% 0.4W
3715	4822 116 52249	1k8 5% 0.5W
3717	4822 050 13302	3k3 1% 0.4W
3718	4822 050 13302	3k3 1% 0.4W
3719	4822 050 11003	10k 1% 0.4W
3726	4822 050 15602	5k6 1% 0.4W
3727	4822 050 15602	5k6 1% 0.4W
3728	4822 050 15602	5k6 1% 0.4W

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5014	4822 157 53343	0.82µH
5112	4822 157 52224	15µH
5112	4822 157 53906	47µH
5206	4822 152 20667	5.6µH 10%
5209▲	4822 157 52265	100µH
5260	4822 157 70704	38.9mH z
5286	4822 157 53303	12µH
5287	4822 157 53303	12µH
5288	4822 157 53303	12µH
5431	4822 157 52407	39µH
5441	4822 146 21116	Line drive trafo
5443▲	4822 157 51462	10µH
5444	4822 157 10385	56µH
5445▲	4822 140 10557	LOT for 21"
5449▲	4822 157 51462	10µH
5500	4822 157 71533	Mains filter
5520	4822 157 51757	2µH
5521▲	4822 157 51462	10µH
5525▲	4822 146 10402	Power trafo
5531	4822 157 70698	27µH
5532	4822 157 70469	4.7µH
5533	4822 157 60171	10mH z
5538	4822 157 60171	10mH z
5539	4822 157 60171	10mH z
5543	4822 157 50961	22µH
5544	4822 157 50961	22µH
5570	4822 157 53139	4.7µH
5571	4822 157 53139	4.7µH
5620▲	4822 157 52285	6.8µH
5621▲	4822 157 52285	6.8µH
5711▲	4822 157 52285	6.8µH
5720▲	4822 157 52286	22µH 10%

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6108	4822 130 34167	BZX79-C6V2
6109	5322 130 34563	BZX79-C2V7
6110▲	4822 130 30621	1N4148
6111▲	4822 130 30621	1N4148
6112▲	4822 130 30621	1N4148
6116▲	4822 130 30621	1N4148
6221▲	4822 130 31983	BAT85
6223	4822 130 30862	BZX79-C9V1
6254	4822 130 34233	BZX79-C5V1
6412	4822 130 34189	BAV20
6415▲	4822 130 30621	1N4148
6416	4822 130 42488	BYD33D
6423	4822 130 34382	BZX79-C8V2
6425▲	4822 130 31983	BAT85
6426▲	4822 130 31983	BAT85
6427▲	4822 130 31983	BAT85
6440▲	4822 130 30621	1N4148
6441▲	4822 130 30621	1N4148
6442▲	4822 130 31983	BAT85
6443	4822 130 82353	BYD34G
6445	5322 130 31559	BY4480
6448▲	4822 130 30621	1N4148
6449	4822 130 42489	BYD33G
6460▲	4822 130 30621	1N4148
6461▲	4822 130 30621	1N4148
6464▲	4822 130 30621	1N4148
6465	4822 130 34167	BZX79-C6V2
6470	4822 130 42489	BYD33G
6471	4822 130 34379	BZX79-C27
6472▲	4822 130 30621	1N4148
6474	4822 130 34233	BZX79-C5V1
6502▲	4822 130 80858	1N5062
6503▲	4822 130 80858	1N5062
6504▲	4822 130 80858	1N5062
6505▲	4822 130 80858	1N5062
6507	4822 130 34328	BZX79-C30
6508	4822 130 34328	BZX79-C30
6510▲	4822 130 30621	1N4148
6511	4822 130 34189	BAV20
6512▲	4822 130 30621	1N4148
6518▲	4822 130 30621	1N4148
6530	4822 130 10179	RGP30KL
6540	4822 130 82035	BYD74D
6540	5322 130 31938	BYV27-200
6562	4822 130 34174	BZX79-C4V7
6570▲	4822 130 30621	1N4148
6605	4822 130 82029	LTL307P
6606	4822 130 34233	BZX79-C5V1
6648	4822 130 82037	HZT33
6671▲	4822 130 30621	1N4148
6685▲	4822 130 30621	1N4148
6714▲	4822 130 30621	1N4148
6715▲	4822 130 30621	1N4148
6716▲	4822 130 30621	1N4148
6717▲	4822 130 30621	1N4148

🔀

7001	4822 130 40938	BC548
7002	4822 130 40938	BC548
7003	4822 130 40938	BC548
7109	4822 130 40938	BC548
7110	4822 130 40938	BC548
7120	4822 209 32531	TDA7056A/N2
7124	4822 130 40938	BC548
7125	4822 130 40938	BC548
7214	4822 130 40941	BC558
7215	4822 130 40938	BC548
7216	4822 130 40938	BC548
7217	4822 130 40938	BC548
7219	4822 130 44121	BC338
7225	4822 209 33398	TDA8362E/N3
7225	4822 209 33479	TDA8361E/N3
7225	4822 209 33868	TDA8360E/N3
7240	4822 130 40938	BC548
7245	4822 209 90129	TDA8395P/N2
7255	4822 209 12635	TDA4665/V3
7270	4822 130 40938	BC548
7400	4822 209 60955	TDA3653B/N2
7423	4822 130 40938	BC548
7440	4822 130 41782	BF422
7445	4822 130 63569	BU1508DX
7460	4822 130 40941	BC558
7470	4822 130 40938	BC548
7471	4822 130 40941	BC558
7510	4822 209 31528	TDA4605-3
7513▲	4822 130 63409	STP6N60FI
7513	4822 130 63641	IRFIBC30G
7563	4822 130 40941	BC558
7600	4822 209 12934	PCA84C844P/221
7634	4822 130 40938	BC548
7635	4822 130 40938	BC548
7647	4822 130 41594	PH2369
7710▲	4822 209 52316	ST24C04B1

CRT panel [E]

Various

1070	4822 212 10503	CRT panel 21" PAC
	4822 267 51442	Conn. 8P fem.
▲	4822 267 20466	CRT socket

⊣⊢

2304	4822 126 13512	330pF 10% 50V
2324	4822 126 13512	330pF 10% 50V
2344	4822 126 13512	330pF 10% 50V
2370	4822 121 41689	100nF 10% 250V
2371	4822 122 33293	100pF 5% 50V
2373	4822 121 41926	33nF 5% 630V

▭

3300	4822 117 11683	2k2
3303	4822 111 20434	270Ω
3304	4822 050 11009	10Ω 1% 0.4W
3310	4822 117 11684	4k7
3311	4822 050 12702	2k7 1% 0.4W
3312	4822 050 11001	100Ω 1% 0.4W
3314	4822 053 12123	12k 5% 3W
3315	4822 117 11682	2k7
3321▲	4822 116 83749	680Ω 1/4W
3322	4822 050 11502	1k5 1% 0.4W
3323	4822 111 20434	270Ω
3324	4822 050 11009	10Ω 1% 0.4W
3330	4822 117 11684	4k7
3331	4822 050 12702	2k7 1% 0.4W
3332	4822 050 11001	100Ω 1% 0.4W
3334	4822 053 12123	12k 5% 3W
3335	4822 117 11682	2k7
3340	4822 117 11683	2k2
3343	4822 111 20434	270Ω
3344	4822 050 11009	10Ω 1% 0.4W
3350	4822 117 11684	4k7
3351	4822 050 12702	2k7 1% 0.4W
3352	4822 050 11001	100Ω 1% 0.4W
3354	4822 053 12123	12k 5% 3W
3355	4822 117 11682	2k7
3360	4822 111 20434	270Ω
3361	4822 050 13302	3k3 1% 0.4W
3362▲	4822 116 83749	680Ω 1/4W
3370▲	4822 052 11109	10Ω 5% 0.5W
3371▲	4822 052 10108	1Ω 5% 0.33W
3372▲	4822 052 10108	1Ω 5% 0.33W
3373	4822 117 11682	2k7

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5370	4822 157 71606	15µH

⏩

6314	4822 130 34189	BAV20
6334	4822 130 34189	BAV20
6354	4822 130 34189	BAV20

🔀

7300	4822 130 40938	TBC548
7310	4822 130 41782	BF422
7320	4822 130 40938	TBC548
7330	4822 130 41782	BF422
7340	4822 130 40938	TBC548
7350	4822 130 41782	BF422
7360	4822 130 40941	BC558

TXT [F]

Various

1062	4822 212 10499	Teletext panel
1062	4822 212 10501	Teletext panel (cryllic)
	4822 265 31085	Conn. 5P BTB
	4822 267 51321	Conn 7p
1700	4822 242 81502	Cristal 27MHz

⊣⊢

2700	5322 122 33869	15pF 5% 63V
2701	5322 122 33244	8.2pF 5% 50V
2702	4822 126 13629	100N 20% 50V
2704▲	5322 122 32654	22nF 10% 63V
2705▲	5322 122 34123	1nF 10% 50V
2706	4822 126 13629	100N 20% 50V
2707	4822 126 13629	100N 20% 50V
2708	4822 126 13629	100N 20% 50V
2709	4822 126 13629	100N 20% 50V
2710	4822 124 41584	100µF 20% 10V
2711	5322 122 32531	100pF 5% 50V
2712	4822 126 13689	18pF 1% 63V
2713	4822 126 13689	18pF 1% 63V
2714	4822 126 13689	18pF 1% 63V
2715	4822 124 40248	10µF 20% 63V
2717	4822 124 21443	2.2µF
2719	5322 122 32448	10pF 5% 50V
2720	4822 126 13689	18pF 1% 63V
2721	4822 126 13689	18pF 1% 63V
2722	4822 126 13689	18pF 1% 63V
2723	4822 126 13689	18pF 1% 63V
2724	4822 126 13689	18pF 1% 63V
2725	4822 126 13821	50V. 100N 20% R
2727	4822 126 13821	50V. 100N 20% R
2728	4822 122 33514	68pF 5% 50V
2729	5322 122 32452	47pF 5% 63V
2730	4822 124 41584	100µF 20% 10V
2731	4822 126 13689	18pF 1% 63V
2732	4822 126 13689	18pF 1% 63V
2733	4822 126 13689	18pF 1% 63V
2734	4822 126 13689	18pF 1% 63V
2735	4822 126 13821	50V. 100N 20% R
2736	4822 126 13821	50V. 100N 20% R

▭

3700	4822 051 20332	3k3 5% 0.1W
3701	4822 051 20271	270Ω 5% 0.1W
3702▲	4822 051 20102	1k 5% 0.1W
3703	4822 051 20471	470Ω 5% 0.1W
3704	4822 051 20222	2k2 5% 0.1W
3705▲	4822 051 20102	1k 5% 0.1W
3707	4822 051 20273	27k 5% 0.1W
3708▲	4822 051 20472	4k7 5% 0.1W
3709▲	4822 051 20102	1k 5% 0.1W
3710	4822 051 20471	470Ω 5% 0.1W
3711	4822 051 20392	3k9 5% 0.1W
3712	4822 051 20392	3k9 5% 0.1W
3713	4822 051 20392	3k9 5% 0.1W
3715	4822 116 52283	4k7 5% 0.5W
3716	4822 051 20829	82Ω 5% 0.1W
3717	4822 051 20392	3k9 5% 0.1W
3719	4822 051 20333	33k 5% 0.1W
3720	4822 051 20103	10k 5% 0.1W
3721▲	4822 051 20472	4k7 5% 0.1W
3722▲	4822 051 20472	4k7 5% 0.1W
3726	4822 053 11101	100Ω 5% 2W
3727	4822 053 11101	100Ω 5% 2W
3728	4822 051 20471	470Ω 5% 0.1W
3729	4822 051 20103	10k 5% 0.1W
3730	4822 051 20101	100Ω 5% 0.1W
3731	4822 051 20101	100Ω 5% 0.1W
3732	4822 051 20471	470Ω 5% 0.1W
3733	4822 050 11001	100Ω 1% 0.4W
3734	4822 050 11001	100Ω 1% 0.4W
3735	4822 051 20222	2k2 5% 0.1W
3799▲	4822 051 20102	1k 5% 0.1W

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5701	4822 157 50965	15µH
5702	4822 157 50965	15µH
5703	4822 152 20677	10µH
5704	4822 157 10386	3.3µH

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6700▲	4822 130 30621	1N4148
6701▲	4822 130 30621	1N4148
6702▲	4822 130 30621	1N4148
6703▲	4822 130 30621	1N4148
6704	4822 130 83338	LL4148
6706	4822 130 10178	TZM-F4V3
6707	4822 130 83338	LL4148
6708	4822 130 83338	LL4148

🔀

7703	4822 130 62748	BC858
7704	4822 130 61207	BC848
7705	4822 130 61207	BC848
7706	4822 130 40941	BC558
7707	4822 130 61207	BC848
7700	4822 209 90126	SAA5281P/H/M3
7700	4822 209 90641	SAA5281P/R/M3 (cryllic)
7701	4822 209 12935	P83C654FBP/541

A/V OUT [G]

Various

1061	4822 212 10502	A/V OUT panel
	4822 265 31244	Conn. 3P
	4822 265 31085	Conn. 5P

2800	4822 124 81029	100µF 20% 25V
2801	4822 121 51319	1µF 10% 63V
2802	4822 124 81022	1µF 20% 50V
2803	4822 126 13512	330pF 10% 50V

3800	4822 050 11503	15k 1% 0.4W
3801	4822 116 52283	4k7 5% 0.5W
3803	4822 050 11002	1k 1% 0.4W
3804	4822 050 11002	1k 1% 0.4W
3805	4822 050 15601	560Ω 1% 0.4W
3806	4822 050 11002	1k 1% 0.4W
3807	4822 050 15601	560Ω 1% 0.4W
3808	4822 116 52213	180Ω 5% 0.5W
3809	4822 116 52228	680Ω 5% 0.5W
3810	4822 050 12203	22k 1% 0.4W
3811	4822 116 52219	330Ω 5% 0.5W
3812▲	4822 050 21501	150Ω 1% 0.6W

5800▲	4822 157 53941	100µH
5801▲	4822 158 10604	6.8 µH

6800▲	4822 130 30621	1N4148
6801▲	4822 130 30621	1N4148
6802	4822 130 34382	BZX79-C8V2
6803	4822 130 34382	BZX55-C8V2

7800	4822 130 40938	BC548
7801	4822 130 40938	BC548
7802	4822 130 40941	BC558
7803	4822 130 40938	BC548

SCART [H]

Various

1063	4822 212 10513	SCART panel
	4822 265 10391	Conn. scart 21p fem.
	4822 402 10125	Bracket fix. panel
	4822 267 40677	Conn. 5p

6000▲	4822 130 30621	1N4148
6001▲	4822 130 30621	1N4148
6002▲	4822 130 30621	1N4148

Service
Service
Service

Anubis S

DD 14" (New styling)

96.02

Service Information

GB

Note:

The Anubis S DD chassis is extended with a 14" CRT execution with a new cabinet styling (same as 14" PV4.0 styling).
The electrical set up is derived from the Anubis S DD 21" execution.
In this Service Information only the new data is published. For the other data reference is made to:

- For the circuit diagrams, adjustments on CRT panel and Service Mode (SM) activating, to Service Information Anubis S DD 21" 96.01 (code 4822 727 20935)
- For the remaining data to Chassis Manual Anubis S DD (code 4822 727 20706)

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- PWB lay out of main panel	3
- Complete parts list	4

E

Observación:

El chasis Anubis S DD ha sido ampliado con una versión con un Tubo de Rayos Catódicos de 14" con un nuevo estilo del mueble (el mismo estilo que 14" PV4.0).
La disposición eléctrica es derivada de la versión del Anubis S DD 21".
Esta Información de Servicio solamente recoge los datos nuevos.
Para los demás datos se hace referencia a:

- Para los esquemas de los circuitos, ajustes en el panel del tubo de imagen y activación del Modo de Servicio (SM): Información de Servicio Anubis S DD 21" 96.01 (código 4822 727 20937)
- Para los demás datos: Manual del chasis Anubis S DD (código 4822 727 20707)

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- Disposición PWB del panel principal	3
- Completa lista de piezas	4

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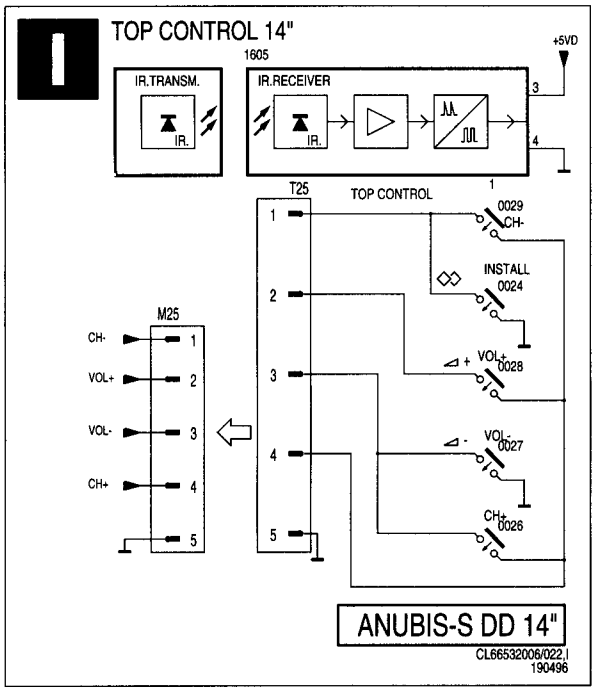
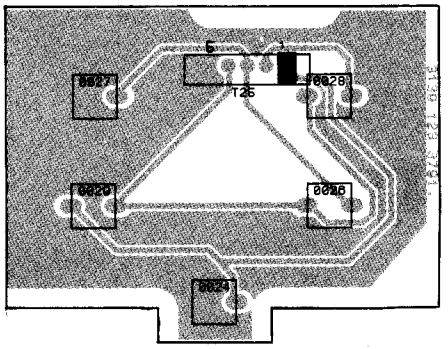
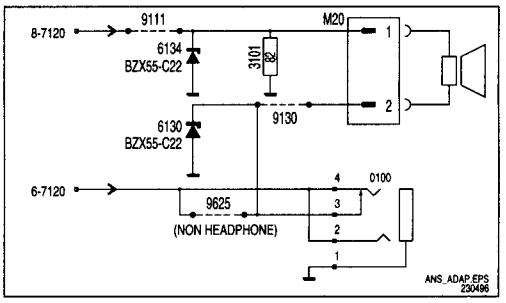
PCS 81 864



TOP CONTROL PANEL



ADAPTOR FOR DIAGRAM D



MAIN PANEL

1000 F3	2245 F5	2470 F1	2722 B5	3209 D5	3416 F2	3524 C2	3705 C4	6130 A5	7001 D3	9041 D4	9267 F5	9728 B5
1015 D4	2246 F5	2471 F1	2726 B5	3210 D4	3420 E4	3525 C2	3706 C4	6134 A4	7002 E3	9042 F4	9275 C5	9729 B5
1105 D5	2248 F4	2472 F1	2727 B5	3211 D5	3421 E4	3540 D3	3707 A4	6221 D5	7003 E3	9051 D4	9279 E4	9730 C5
1106 D5	2249 F4	2473 F1	2728 B5	3212 D3	3422 E4	3541 C2	3708 C4	6223 F5	7109 D3	9052 D4	9286 E5	9732 C5
1206 D5	2251 F5	2476 E2	3000 E3	3213 D4	3423 D4	3560 D3	3709 A5	6254 F4	7110 B5	9056 E5	9287 E5	9733 C5
1207 D5	2254 F4	2500 B1	3001 D3	3214 E5	3424 E3	3561 D3	3710 A5	6412 F3	7111 B5	9060 D3	9288 E5	9734 B5
1275 E4	2256 F4	2501 B2	3002 E3	3215 F4	3425 F4	3562 D3	3715 B5	6415 F3	7120 C3	9061 D3	9416 F3	9735 C5
1277 E4	2257 F4	2502 C2	3003 C4	3216 F5	3426 F4	3565 D3	3717 C5	6416 F3	7123 B3	9063 A4	9440 F1	9736 C5
1278 F4	2260 D5	2503 B2	3004 E3	3217 F4	3427 F4	3568 D1	3718 C5	6423 E4	7124 B3	9065 B5	9441 D4	9737 C5
1279 F4	2261 D4	2504 C2	3005 E3	3218 F4	3432 E1	3570 D1	3719 C4	6425 D4	7125 C3	9066 D4	9442 E1	M1 C1
1500 A1	2262 F4	2505 C1	3006 E3	3236 F5	3440 E3	3598 A1	3720 C4	6426 E4	7214 C5	9067 C4	9443 F1	M10 D5
1540 C3	2264 D4	2506 B2	3007 E3	3239 C5	3441 E2	3599 A1	3721 D4	6427 E4	7215 D3	9069 C4	9444 E2	M12 E5
1602 A5	2265 D4	2509 D1	3010 F4	3240 C4	3442 F1	3603 A5	3726 B5	6440 E4	7216 C5	9070 F1	9446 F4	M13 C5
1605 A2	2272 E4	2510 D1	3101 A4	3245 F4	3443 F1	3604 A5	3727 B5	6441 F3	7217 C5	9071 C4	9460 F5	M14 D5
1630 B4	2273 E4	2511 D1	3105 D5	3250 F5	3444 F1	3605 A4	3728 B5	6442 E4	7219 F4	9080 C4	9470 F1	M15 D4
2002 F4	2275 E4	2512 D1	3106 D5	3251 F5	3448 E3	3606 C4	5002 E3	6443 E3	7225 E4	9082 C5	9471 F2	15A C3
2003 E3	2277 E4	2513 D1	3107 B5	3252 F4	3449 F2	3607 A5	5014 D4	6445 E1	7240 C4	9087 F4	9473 D3	M16 F5
2008 F4	2278 F4	2514 D1	3108 B5	3253 F4	3450 E2	3608 A3	5015 E3	6448 E3	7245 F5	9089 C4	9475 F1	M16A F5
2010 F4	2279 E4	2515 D1	3109 C5	3254 F4	3451 E1	3609 A3	5112 D5	6449 F2	7255 F5	9090 D5	9477 D3	M17 F5
2100 D5	2280 E5	2516 D1	3113 D4	3255 E5	3456 F1	3611 A3	5206 D5	6452 E2	7270 C5	9091 C4	9478 D3	M19 A2
2101 D5	2284 E5	2517 D1	3118 C3	3256 F5	3460 F2	3617 A4	5209 D5	6460 F4	7277 E4	9092 D3	9484 F4	M2 B2
2102 D5	2285 E5	2518 D1	3119 C3	3257 E5	3461 F4	3622 B4	5260 D4	6461 F4	7278 F4	9093 C4	9505 B2	M20 A4
2103 D3	2286 F5	2520 C1	3120 B3	3259 D5	3462 F2	3625 B5	5286 E5	6462 E1	7279 F4	9094 C4	9510 D1	M21 A4
2104 D4	2287 E5	2521 C1	3121 C3	3260 D5	3463 E1	3626 B4	5287 E5	6463 E1	7279 F4	9095 C4	9516 D1	M22 C5
2105 C3	2288 F5	2523 C1	3122 C3	3261 F3	3464 F5	3627 B4	5288 E5	6464 F4	7400 F2	9096 D4	9600 B4	M22A E5
2107 B5	2299 D5	2525 C2	3123 C3	3262 F3	3465 F5	3634 B5	5431 E1	6465 F5	7423 D4	9097 B4	9601 A4	M24 B5
2110 C3	2401 F2	2529 C1	3124 C3	3263 D4	3466 F4	3635 A5	5441 F1	6470 F1	7440 F1	9098 D5	9604 A5	M24A F2
2111 C3	2402 F3	2531 D2	3125 B3	3264 D4	3468 E5	3637 A5	5443 E2	6471 F1	7445 F1	9099 D4	9607 B5	M25 A4
2112 D5	2403 F2	2540 C3	3126 B3	3265 D3	3470 F2	3638 A5	5444 E1	6472 F2	7460 F5	9102 A2	9608 A3	M28 A4
2119 C5	2404 F2	2561 D3	3127 B3	3267 B5	3471 F1	3640 A4	5445 F2	6474 D2	7470 F1	9105 A1	9609 A3	M29 A4
2120 C3	2405 E2	2565 D3	3128 C3	3268 B5	3472 F1	3641 A5	5449 F2	6502 C2	7471 E2	9106 A1	9610 A5	M30 A2
2121 B3	2414 F2	2570 D1	3129 C3	3270 C5	3473 D2	3646 C4	5500 B2	6503 C2	7510 D1	9107 B5	9611 A5	M31 C5
2122 C3	2415 F3	2605 B5	3130 D5	3271 C5	3474 D2	3647 B4	5520 C2	6504 C2	7513 C1	9110 A2	9612 A3	M33 A3
2123 E5	2421 E4	2607 B5	3131 B3	3273 E4	3475 E2	3648 C4	5521 D1	6505 C2	7563 D3	9111 A3	9613 F5	M33A E5
2124 B3	2422 E4	2608 A3	3132 A1	3275 E4	3476 E2	3649 C3	5525 D2	6507 B2	7600 B4	9112 A3	9614 A3	M34 A3
2125 A3	2423 E4	2610 A3	3133 B3	3276 E4	3477 D2	3650 D3	5531 E2	6508 B2	7634 B5	9126 B3	9615 A3	M34A F5
2127 B3	2424 E4	2615 A3	3134 C3	3277 E4	3478 D2	3652 C4	5532 D2	6510 D1	7635 A5	9130 A5	9616 A4	M35 A3
2129 B3	2426 E4	2620 C4	3135 A3	3278 E4	3500 B2	3653 C4	5533 D3	6511 D1	7638 B4	9131 D4	9617 A4	M35A D5
2130 D3	2427 E4	2624 A3	3136 D5	3279 F4	3501 B2	3654 C4	5538 D2	6512 D2	7647 B4	9132 F5	9618 A4	M37 A3
2131 B3	2440 F1	2625 B5	3137 C3	3280 E4	3502 B2	3656 C3	5539 D3	6518 D1	7710 C5	9133 F5	9619 A2	M37A F5
2132 C3	2441 E3	2626 A4	3138 F5	3281 F4	3503 B2	3661 B4	5543 C3	6530 D2	9003 E3	9134 F5	9620 B3	M38 A3
2133 C3	2442 F1	2627 A4	3139 F5	3282 F4	3504 C1	3662 A3	5544 C3	6532 D2	9005 D3	9135 E5	9621 B3	M38A F5
2134 B3	2443 E2	2628 A4	3140 F5	3285 E5	3505 B2	3671 B4	5570 D1	6540 D3	9015 E3	9136 F5	9622 B3	M4 F3
2135 B3	2444 F1	2637 B5	3142 D3	3400 F3	3506 B1	3685 B4	5571 D1	6541 C2	9018 E3	9137 F5	9625 A4	M5 E2
2136 C3	2445 E1	2638 B5	3143 C3	3401 F3	3507 C2	3687 B4	5620 C4	6562 D3	9020 E4	9138 F5	9634 B5	M6 F2
2137 B3	2446 F3	2648 C3	3144 F5	3402 F3	3508 B2	3691 B4	5621 C4	6568 C1	9021 E3	9139 F5	9638 A4	M7 F5
2138 F5	2447 E1	2656 C3	3150 A3	3403 F2	3509 C2	3692 C4	5711 C5	6570 C1	9023 E3	9140 A4	9673 C3	M70 A5
2139 A3	2448 E2	2682 C4	3151 A3	3404 F3	3510 D1	3693 B4	5720 B5	6605 A5	9025 E4	9201 D5	9684 B4	M70A E2
2200 C5	2449 F2	2683 B3	3152 A3	3405 F2	3511 D1	3694 B4	6108 F5	6606 C5	9026 F1	9208 C5	9690 B4	SK1 B1
2208 E5	2450 E1	2685 B3	3153 B3	3406 F3	3512 D1	3695 B4	6109 C3	6648 C3	9029 F4	9211 C5	9691 C4	
2212 E5	2452 E2	2687 B4	3200 C5	3407 E3	3513 D1	3696 B4	6110 C3	6662 A3	9031 D5	9217 F4	9694 C4	
2213 E4	2453 F2	2688 B3	3201 D5	3408 F3	3514 D1	3697 A4	6111 B3	6671 C3	9032 D5	9225 C5	9695 C4	
2221 E5	2454 E2	2692 C4	3202 C5	3409 B5	3515 D1	3698 A4	6112 B3	6685 B3	9033 D5	9226 E4	9696 C4	
2222 D4	2455 E1	2700 B4	3203 C5	3410 E3	3516 D1	3699 B4	6113 C3	6690 B4	9034 F4	9227 D4	9697 C4	
2226 E5	2458 E1	2703 C4	3204 E5	3411 F3	3517 D2	3700 B4	6114 C3	6714 B5	9035 F4	9245 F4	9704 C4	
2228 E5	2460 F2	2711 C5	3206 C5	3412 F3	3518 D1	3702 C4	6115 C3	6715 B5	9037 D4	9246 E4	9719 C4	
2229 E5	2461 F4	2714 B5	3207 F5	3414 F2	3519 D2	3703 B4	6116 B3	6716 B5	9039 D5	9248 E5	9726 B5	
2236 F5	2462 F2	2721 B5	3208 D5	3415 F2	3520 C1	3704 C4	6118 A3	6717 B5	9040 F5	9262 F4	9727 B5	

10. Spare parts list / Lista de Repuesto

Main carrier [A,B,C,D]

Various

▲	4822 267 31359	2P con 2.36
▲	4822 265 20709	2P con 2.5X3.81
▲	4822 265 20439	2p con.
	4822 265 31244	3p con. duo 2,5
	4822 265 10398	4p Cinch
	4822 267 41095	5p con. BTB
	4822 267 41145	5P con. duo 2.5
	4822 265 30934	5p con.
	4822 267 41095	5p con. BTB
	4822 267 51319	7p con. BTB
▲	4822 267 31292	headphone con.
▲	4822 276 13431	Mains switch
▲	4822 256 30496	Fuse holder
	4822 492 41369	Spring fix. IC
▲	4822 492 70289	Spring fix. IC
	4822 492 70788	Spring fix. IC
1000▲	4822 210 10448	UV915E/IEC
1000▲	4822 210 10459	UV913/IEC
1015	4822 242 72197	OFWK2950M
1015	*4822 242 81388*	OFWG1961M
1105	4822 242 72547	Filter 5,5MHz
1106	4822 242 72057	Filter 6,5MHz
1206	4822 242 81712	Filter 5.5/5.74MHz
1207	4822 242 81301	Filter 6,5MHz
1275	4822 242 81809	Cristal 4.43MHz
1277	4822 242 81981	Cristal 3,58MHz
1500▲	4822 070 34002	fuse T4A
1540▲	4822 157 53252	Coil 22µH
1602	4822 212 30842	IR Rec. TFMS5360
1630	4822 242 81727	Cer.res. 10MHz

⊣⊢

2008	5322 121 42386	100nF 5% 63V
2010	4822 124 81049	1500µF 20% 16V
2100	4822 122 33307	10nF 5% 50V
2101	4822 126 13614	4N710% 50V
2102	4822 126 13462	4.7nF 20% 50V
2103	4822 126 13513	8.2nF 10% 50V
2104	4822 124 40248	10µF 20% 63V
2105	4822 124 81022	1µF 20% 50V
2107	4822 124 81024	4.7µF 20% 50V
2111	4822 124 81021	100µF 20% 16V
2112	5322 122 32336	560pF 10% 100V
2119	4822 126 13511	270pF 10% 50V
2120	4822 121 42868	220nF 5% 50V
2121	4822 124 81024	4.7µF 20% 50V
2122	4822 122 33305	2.7nF 5% 50V
2123	4822 126 13515	2.2nF 50V
2124	4822 121 51567	120nF 5% 50V
2125	4822 122 33449	47nF 30% 50V
2127	4822 122 33449	47nF 30% 50V
2129	4822 126 13501	1.5nF 10% 50V
2130	4822 124 41596	22µF 20% 50V
2132	4822 121 70623	10nF 5% 50V
2133	4822 122 33532	3.3nF 5% 50V
2138	4822 121 43823	470nF 5% 50V
2200	4822 124 80854	1µF 20% 50V
2208	4822 122 33449	47nF 30% 50V
2212	5322 121 42386	100nF 5% 63V
2213	4822 121 42868	220nF 5% 50V
2221	5322 121 42386	100nF 5% 63V
2222	4822 124 41576	2.2µF 20% 50V
2226	4822 124 40849	330µF 20% 16V
2228	4822 124 81022	1µF 20% 50V
2245	5322 121 42386	100nF 5% 63V
2246	4822 121 42868	220nF 5% 50V
2248	4822 122 33302	1nF 5% 50V
2249	4822 122 33302	1nF 5% 50V
2251	4822 122 40606	22nF 80% 50V
2254	5322 124 41431	22µF 20% 35V
2256	5322 121 42386	100nF 5% 63V
2257	5322 121 42386	100nF 5% 63V
2260	4822 126 11131	18pF 5% 50V
2261	4822 122 40606	22nF 80% 50V
2262▲	4822 124 40433	47µF 20% 25V
2264	4822 122 40606	22nF 80% 50V
2265	4822 124 81108	0.47µF 20% 50V
2272	4822 126 13462	4.7nF 20% 50V
2273	5322 121 42386	100nF 5% 63V
2275	4822 122 33299	220pF 5% 50V
2277	4822 122 33299	220pF 5% 50V
2280	4822 122 33449	47nF 30% 50V
2284	4822 122 33449	47nF 30% 50V
2285	4822 122 33449	47nF 30% 50V
2299	4822 124 81024	4.7µF 20% 50V
2401	4822 122 33528	390pF 5% 50V
2402	4822 121 51399	47nF 10% 50V
2403	4822 126 13593	5.6nF 10% 50V
2404	4822 124 40432	1500µF 20% 25V
2405	5322 124 41431	22µF 20% 35V
2414	4822 126 13515	2.2nF 50V
2415	5322 124 41431	22µF 20% 35V
2421	4822 122 33305	2.7nF 5% 50V
2422	4822 121 43823	470nF 5% 50V
2423	4822 122 33531	2.2nF 10% 50V
2424	4822 124 81022	1µF 20% 50V
2426	4822 121 41853	100nF 10% 100V
2427	4822 126 13462	4.7nF 20% 50V
2440	4822 121 43526	47nF 5% 250V
2441	4822 126 12792	2.2nF 10% 500V
2442	4822 122 31175	1nF 10% 500V
2443	4822 124 41545	220µF 20% 16V
2444	4822 121 43526	47nF 5% 250V
2446	4822 121 10502	50V 390nF 5%
2447	4822 121 70415	8.2nF 5% 1.6KV
2448	4822 121 43368	47µF 160V
2449	4822 126 12792	2.2nF 10% 500V
2450	4822 121 51653	430nF 5% 250V
2453	4822 124 41747	680µF 20% 35V
2460	4822 121 51385	33nF 20% 100V
2461	4822 126 13645	27pF 50V
2462	4822 126 11979	27pF 5% 2KV
2470	4822 124 11508	250V. 22U 20%
2471	4822 121 70623	10nF 5% 50V
2472	*4822 126 12792*	*2.2nF 10% 500V*
2473	4822 124 40248	10µF 20% 63V
2476	4822 121 70625	180nF 5% 50V
2500▲	4822 124 41531	470nF 10% 250V
2501	4822 121 70141	33nF 5% 400V
2502	4822 126 12793	2.2nF 10% 2KV
2503	4822 126 12793	2.2nF 10% 2KV
2504	4822 126 12793	2.2nF 10% 2KV
2505	4822 124 41748	220µF 20% 400V
2505	4822 124 41764	100µF 20% 400V
2509	4822 122 33293	100pF 5% 50V
2510	4822 121 43066	1nF 1% 400V
2510	4822 121 70639	2nF 2% 250V
2511	4822 121 41856	22nF 5% 250V
2512	4822 122 33299	220pF 5% 50V
2513	4822 124 41545	220µF 20% 16V
2514	4822 121 42868	220nF 5% 50V
2515	4822 124 41576	2.2µF 20% 50V
2516	4822 121 43925	2.2nF 5% 50V
2517	4822 121 51586	150nF 5% 50V
2518	4822 124 41576	2.2µF 20% 50V
2520▲	4822 126 11382	1nF 10% 1KV
2521▲	4822 126 11382	1nF 10% 1KV
2522	4822 126 11824	100pF 10% 1KV
2523	4822 126 12833	4.7nF 20% 2KV
2525▲	4822 122 40602	1nF 20% 400V
2529▲	4822 126 12095	220pF 10% 2KV
2531	4822 124 42336	47µF 20% 160V
2540	4822 124 42106	1500µF 20% 35V
2561	5322 124 41431	22µF 20% 35V
2565	4822 124 81024	4.7µF 20% 50V
2570	4822 126 10334	470pF 10% 50V
2605	4822 122 33293	100pF 5% 50V
2607	4822 122 33293	100pF 5% 50V
2608	4822 126 12451	820pF 10% 50V
2610	4822 126 12451	820pF 10% 50V
2615	4822 126 12451	820pF 10% 50V
2620	4822 124 41545	220µF 20% 16V
2624	4822 126 12451	820pF 10% 50V
2625	4822 126 12451	820pF 10% 50V
2626	4822 126 12451	820pF 10% 50V
2627	4822 126 12451	820pF 10% 50V
2628	4822 126 12451	820pF 10% 50V
2638	4822 122 33531	2.2nF 10% 50V
2648	4822 124 40248	10µF 20% 63V
2656	4822 121 51244	330nF 5% 50V
2682	4822 124 81021	100µF 20% 16V
2683	5322 121 42386	100nF 5% 63V
2685	4822 124 41576	2.2µF 20% 50V
2687	4822 124 81022	1µF 20% 50V
2692	4822 124 81022	1µF 20% 50V
2700	4822 124 41596	22µF 20% 50V
2703▲	4822 124 40433	47µF 20% 25V
2711	4822 122 40606	22nF 80% 50V
2714	4822 122 33299	220pF 5% 50V
2721	4822 126 11131	18pF 5% 50V
2722	4822 126 11131	18pF 5% 50V
2726	4822 122 33293	100pF 5% 50V
2727	4822 122 33293	100pF 5% 50V
2728	4822 122 33293	100pF 5% 50V

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3000	4822 050 28201	820Ω 1% 0.6W
3001	4822 116 52283	4k7 5% 0.5W
3002	4822 116 52283	4k7 5% 0.5W
3004	4822 050 28201	820Ω 1% 0.6W
3005	4822 050 11204	120k 1% 0.4W
3006	4822 050 11204	120k 1% 0.4W
3007	4822 050 28201	820Ω 1% 0.6W
3010▲	4822 052 10109	10Ω 5% 0.33W
3105	4822 116 83866	1M 5% 0.5W
3106▲	4822 116 83749	680Ω 1/4W
3107	4822 050 11002	1k 1% 0.4W
3108	4822 116 52304	82k 5% 0.5W
3109	4822 116 52283	4k7 5% 0.5W
3113	4822 050 11002	1k 1% 0.4W
3118	4822 116 52285	470k 5% 0.5W
3119	4822 116 83883	470Ω 5% 0.5W
3120	4822 050 15602	5k6 1% 0.4W
3121	4822 116 83961	6k8 5%
3122	4822 116 52283	4k7 5% 0.5W
3123	4822 050 11002	1k 1% 0.4W
3124	4822 116 52285	470k 5% 0.5W
3125	4822 050 11003	10k 1% 0.4W
3126	4822 116 83961	6k8 5%
3127	4822 111 30834	6Ω8
3128	4822 050 11002	1k 1% 0.4W
3129	4822 116 83961	6k8 5%
3130	4822 116 83884	47k 5% 0.5W
3132	4822 050 15609	56Ω 1% 0.4W
3135	4822 053 10829	82Ω 5% 1W
3136	4822 050 12703	27k 1% 0.4W
3138	4822 050 11303	13k 1% 0.4W
3139	4822 050 12203	22k 1% 0.4W
3140	4822 050 17509	75Ω 1% 0.4W
3142	*4822 050 15601*	*560Ω 1% 0.4W*
3144	4822 050 12209	22Ω 1% 0.4W
3200	4822 050 11503	15k 1% 0.4W
3201	4822 050 11002	1k 1% 0.4W
3202	4822 050 11503	15k 1% 0.4W
3203	4822 050 12202	2k2 1% 0.4W
3206	4822 050 11001	100Ω 1% 0.4W
3207	4822 050 13302	3k3 1% 0.4W
3208	4822 050 11002	1k 1% 0.4W
3208	4822 050 12002	2k 1% 0.4W
3210	4822 050 11004	100k 1% 0.4W
3211	4822 116 52219	330Ω 5% 0.5W
3212	4822 116 52283	4k7 5% 0.5W
3213	4822 050 11004	100k 1% 0.4W
3214	4822 050 11002	1k 1% 0.4W
3215	4822 050 11001	100Ω 1% 0.4W
3216	4822 050 15601	560Ω 1% 0.4W
3217▲	4822 052 10129	12Ω 5% 0.33W
3218	4822 050 12202	2k2 1% 0.4W
3239	4822 116 52249	1k8 5% 0.5W
3240	4822 116 83884	47k 5% 0.5W
3250	4822 050 11003	10k 1% 0.4W
3251	4822 050 11003	10k 1% 0.4W
3252	4822 050 11009	10Ω 1% 0.4W
3253	4822 050 11009	10Ω 1% 0.4W
3254	4822 050 15601	560Ω 1% 0.4W
3255	4822 050 11002	1k 1% 0.4W
3256	4822 050 11002	1k 1% 0.4W
3257	4822 050 11002	1k 1% 0.4W
3259	4822 050 11002	1k 1% 0.4W
3261	4822 050 13303	33k 1% 0.4W
3262	4822 116 83961	6k8 5%
3263	4822 050 11503	15k 1% 0.4W
3264	4822 100 11676	10k 30%lin 0.2W
3265	4822 050 11202	1k2 1% 0.4W
3267	4822 050 11503	15k 1% 0.4W
3268	4822 050 11003	10k 1% 0.4W
3270	4822 050 12703	27k 1% 0.4W
3271	4822 116 52283	4k7 5% 0.5W
3273	4822 050 11004	100k 1% 0.4W
3400	4822 116 52283	4k7 5% 0.5W
3402	4822 050 13901	390Ω 1% 0.4W
3403	4822 050 13302	3k3 1% 0.4W
3404	4822 050 12202	2k2 1% 0.4W
3405	4822 050 11509	15Ω 1% 0.4W
3406	4822 050 12203	22k 1% 0.4W
3407	4822 050 12703	27k 1% 0.4W
3409	4822 116 52283	4k7 5% 0.5W
3410	4822 100 11391	330Ω 30%lin 0.1W
3411	4822 111 31051	3Ω3 5%
3412	4822 111 31051	3Ω3 5%
3414	4822 050 12202	2k2 1% 0.4W
3415	4822 050 12202	2k2 1% 0.4W
3416	4822 117 11681	820Ω 5%
3420	4822 100 20166	10k 30%lin 0.1W
3421	4822 050 18204	820k 1% 0.4W
3422	4822 116 52251	18k 5% 0.5W
3423	4822 050 14709	47Ω 1% 0.4W
3424	4822 050 13901	390Ω 1% 0.4W
3425	4822 050 13904	390k 1% 0.4W
3426	4822 050 16804	680k 1% 0.4W
3427	4822 050 18204	820k 1% 0.4W
3432	4822 053 10399	39Ω 5% 1W
3440	4822 050 11001	100Ω 1% 0.4W
3441	4822 053 10183	18k 5% 1W
3442▲	4822 050 23302	3k3 1% 0.6W
3443	4822 050 13302	3k3 1% 0.4W
3444	4822 053 12472	4k7 5% 3W
3449▲	4822 052 11108	1Ω 5% 0.5W
3456	4822 053 20224	220k 5% 0.25W
3460	4822 116 52251	18k 5% 0.5W
3461	4822 050 12703	27k 1% 0.4W
3462	4822 050 22204	220k 1% 0.6W
3464	4822 050 19101	910Ω 1% 0.4W
3465	4822 050 19102	9k1 1% 0.4W
3466▲	4822 050 12201	220Ω 1% 0.4W
3470▲	4822 052 11478	4Ω7 5% 0.5W
3471	4822 116 83883	470Ω 5% 0.5W
3472	4822 116 83883	470Ω 5% 0.5W
3473	4822 116 52251	18k 5% 0.5W
3474	4822 050 13302	3k3 1% 0.4W
3475	4822 050 12709	27Ω 1% 0.4W
3476	4822 050 11003	10k 1% 0.4W
3477	4822 050 12704	270k 1% 0.4W
3478	4822 050 13303	33k 1% 0.4W
3500	4822 116 40204	30Ω 30%
3501▲	4822 116 40247	18Ω 270V
3502	4822 111 20403	470Ω 10%
3503	4822 115 10159	2Ω7 5W 5%
3504▲	4822 053 21475	4M7 5% 0.5W
3506	4822 116 21228	VDR 430/710V
3507	4822 050 26804	680k 1% 0.6W
3508	4822 117 11488	33k 5% 3W
3509	4822 050 28204	820k 1% 0.6W
3510	4822 050 11203	12k 1% 0.4W
3510	4822 050 15102	5k1 1% 0.4W
3511▲	4822 050 12201	220Ω 1% 0.4W
3512	4822 116 83883	470Ω 5% 0.5W
3513	4822 050 13302	3k3 1% 0.4W
3514	4822 101 11166	2k2
3515▲	4822 052 10828	8Ω2 5% 0.33W
3516	4822 050 11003	10k 1% 0.4W
3517	4822 117 12064	2W. 270Ω 5%
3518	4822 050 11001	100Ω 1% 0.4W
3520	4822 113 80679	82Ω 5% 7W
3524▲	4822 053 21225	2M2 5% 0.5W
3525▲	4822 053 21475	4M7 5% 0.5W
3540	4822 053 12108	1Ω 5% 3W
3541	4822 050 11001	100Ω 1% 0.4W
3560	4822 050 11201	120Ω 1% 0.4W
3561	4822 050 11201	120Ω 1% 0.4W
3562	4822 116 83883	470Ω 5% 0.5W
3565	4822 050 11003	10k 1% 0.4W
3568	4822 050 22202	2k2 1% 0.6W
3570	4822 050 12209	22Ω 1% 0.4W
3598	4822 050 11003	10k 1% 0.4W
3599	4822 050 16803	68k 1% 0.4W
3599	4822 050 18202	8k2 1% 0.4W
3600	4822 051 20122	1k2 5% 0.1W
3601	4822 117 11384	2k7 1% 0.1W
3602	4822 051 20562	5k6 5% 0.1W
3603	4822 050 13302	3k3 1% 0.4W
3604	4822 050 11001	100Ω 1% 0.4W
3605▲	4822 116 83749	680Ω 1/4W
3606	4822 116 52283	4k7 5% 0.5W
3608	4822 050 11001	100Ω 1% 0.4W
3609	4822 050 11001	100Ω 1% 0.4W
3611	4822 050 11001	100Ω 1% 0.4W
3617	4822 050 11001	100Ω 1% 0.4W
3622	4822 116 83884	47k 5% 0.5W
3625	4822 050 11002	1k 1% 0.4W
3626	4822 116 83884	47k 5% 0.5W
3627	4822 050 11002	1k 1% 0.4W
3634	4822 050 16803	68k 1% 0.4W
3635	4822 050 11003	10k 1% 0.4W
3637	4822 050 13904	390k 1% 0.4W
3638	4822 116 83874	220k 5% 0.5W
3640	4822 050 16803	68k 1% 0.4W
3641	4822 050 13303	33k 1% 0.4W
3646	4822 050 12702	2k7 1% 0.4W
3647	4822 050 11003	10k 1% 0.4W
3648	4822 050 12403	24k 1% 0.4W
3649	4822 050 11203	12k 1% 0.4W
3650	4822 050 11503	15k 1% 0.4W
3652	4822 116 83874	220k 5% 0.5W
3653	4822 116 83868	150Ω 5% 0.5W
3654	4822 050 11503	15k 1% 0.4W
3656	4822 050 11003	10k 1% 0.4W
3661	4822 050 11202	1k2 1% 0.4W
3662	4822 050 15602	5k6 1% 0.4W
3671	4822 050 18202	8k2 1% 0.4W
3685	4822 050 13302	3k3 1% 0.4W
3687	4822 116 83884	47k 5% 0.5W
3691	4822 050 11003	10k 1% 0.4W
3692	4822 050 11001	100Ω 1% 0.4W
3693	4822 050 11004	100k 1% 0.4W
3694	4822 116 52249	1k8 5% 0.5W
3695	4822 050 11004	100k 1% 0.4W
3696	4822 050 16803	68k 1% 0.4W
3697	4822 050 11001	100Ω 1% 0.4W
3698	4822 050 11001	100Ω 1% 0.4W
3699	4822 050 13903	39k 1% 0.4W
3700	4822 116 83884	47k 5% 0.5W
3702	4822 050 11204	120k 1% 0.4W
3703	4822 116 83884	47k 5% 0.5W
3704	4822 050 11003	10k 1% 0.4W
3707	4822 050 12202	2k2 1% 0.4W

3708	4822
3709	4822
3710	4822
3715	4822
3717	4822
3718	4822
3719	4822
3726	4822
3727	4822
3728	4822

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5014	4822
5112	4822
5206	4822
5209▲	4822
5260	4822
5286	4822
5287	4822
5288	4822
5431	4822
5441▲	4822
5443▲	4822
5445▲	4822
5449▲	4822
5500	4822
5520	4822
5521	4822
5525▲	4822
5530	4822
5531	4822
5532	4822
5533	4822
5538	4822
5539	4822
5543	4822
5544	4822
5570	4822
5571	4822
5620▲	4822
5621▲	4822
5711▲	4822
5720▲	4822

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6108	4822
6109	5322
6110▲	4822
6111▲	4822
6112▲	4822
6221▲	4822
6223	4822
6254	4822
6412	4822
6415▲	4822
6416	4822
6423	4822
6425▲	4822
6426▲	4822
6427▲	4822
6440▲	4822
6441▲	4822
6442▲	4822
6443	4822
6445	5322
6449	4822
6461▲	4822
6464▲	4822
6465	4822
6470	4822
6471	4822
6472▲	4822
6474	4822
6475▲	4822
6502▲	4822
6503▲	4822
6504▲	4822
6505▲	4822
6507	4822
6508	4822
6510▲	4822
6511▲	4822
6512▲	4822
6518▲	4822
6520	4822
6530	4822
6540	5322
6541	4822
6562	4822
6570▲	4822
6605▲	4822
6606	4822
6648	4822
6671▲	4822

Spare parts list / Lista de Repuesto

3708	4822 050 11004	100k 1% 0.4W
3709	4822 050 11002	1k 1% 0.4W
3710	4822 050 13901	390Ω 1% 0.4W
3715	4822 116 52249	1k8 5% 0.5W
3717	4822 050 13302	3k3 1% 0.4W
3718	4822 050 13302	3k3 1% 0.4W
3719	4822 050 11003	10k 1% 0.4W
3726	4822 050 18202	8k2 1% 0.4W
3727	4822 050 18202	8k2 1% 0.4W
3728	4822 050 18202	8k2 1% 0.4W

5014	4822 157 53343	0.82µH
5112	4822 157 52224	15µH
5206	4822 152 20667	5.6µH
5209▲	4822 157 52265	100µH
5260	4822 157 70704	38.9mH
5286	4822 157 53303	12µH
5287	4822 157 53303	12µH
5288	4822 157 53303	12µH
5431	4822 157 52407	39µH
5441▲	4822 146 21116	Line drive trafo
5443▲	4822 157 51462	10µH
5445▲	4822 140 10525	Line output trafo
5449▲	4822 157 51462	10µH
5500	4822 157 71533	mains filter
5520	4822 157 51757	2µH
5521	4822 157 53139	4.7µH
5525▲	4822 146 10402	Mains trafo
5530	4822 157 60171	10mH
5531	4822 157 70698	27µH
5532	4822 157 70469	4.7µH
5533	4822 157 60171	10mH
5538	4822 157 60171	10mH
5539	4822 157 60171	10mH
5543	4822 157 50961	22µH
5544	4822 157 50961	22µH
5570	4822 157 53139	4.7µH
5571	4822 157 53139	4.7µH
5620▲	4822 157 52285	6.8µH
5621▲	4822 157 52285	6.8µH
5711▲	4822 157 52285	6.8µH
5720▲	4822 157 52286	22µH

6108	4822 130 34167	BZX79-C6V2
6109	5322 130 34563	BZX79-C2V7
6110▲	4822 130 30621	1N4148
6111▲	4822 130 30621	1N4148
6112▲	4822 130 30621	1N4148
6221▲	4822 130 31983	BAT85
6223	4822 130 30862	BZX79-C9V1
6254	4822 130 34233	BZX79-C5V1
6412	4822 130 34189	BAV20
6415▲	4822 130 30621	1N4148
6416	4822 130 42488	BYD33D
6423	4822 130 34382	BZX79-C8V2
6425▲	4822 130 31983	BAT85
6426▲	4822 130 31983	BAT85
6427▲	4822 130 31983	BAT85
6440▲	4822 130 30621	1N4148
6441▲	4822 130 30621	1N4148
6442▲	4822 130 31983	BAT85
6443	4822 130 41486	BYV95B
6445	5322 130 31559	BY4480
6449	4822 130 42489	BYD33G
6461▲	4822 130 30621	1N4148
6464▲	4822 130 30621	1N4148
6465	4822 130 34167	BZX79-C6V2
6470	4822 130 42489	BYD33G
6471	4822 130 34379	BZX79-C27
6472▲	4822 130 30621	1N4148
6474	4822 130 34233	BZX79-C5V1
6475▲	4822 130 30621	1N4148
6502▲	4822 130 80858	1N5062
6503▲	4822 130 80858	1N5062
6504▲	4822 130 80858	1N5062
6505▲	4822 130 80858	1N5062
6507	4822 130 34328	BZX79-C30
6508	4822 130 34328	BZX79-C30
6510▲	4822 130 30621	1N4148
6511▲	4822 130 30621	1N4148
6512▲	4822 130 30621	1N4148
6518▲	4822 130 30621	1N4148
6520	4822 130 42606	BYD33J
6530	4822 130 10218	BY229X-800
6540	5322 130 31938	BYV27-200
6541	4822 130 42488	BYD33D
6562	4822 130 34174	BZX79-C4V7
6570▲	4822 130 30621	1N4148
6605▲	4822 130 83119	LTL307C
6606	4822 130 34233	BZX79-C5V1
6648	4822 130 82037	HZT33
6671▲	4822 130 30621	1N4148
6685▲	4822 130 30621	1N4148
6714▲	4822 130 30621	1N4148
6715▲	4822 130 30621	1N4148
6716▲	4822 130 30621	1N4148
6717▲	4822 130 30621	1N4148

7001	4822 130 40938	BC548
7002	4822 130 40938	BC548
7003	4822 130 40938	BC548
7109	4822 130 40938	BC548
7110	4822 130 40938	BC548
7111	4822 130 40938	BC548
7120	4822 209 32531	TDA7056A/N2
7124	4822 130 40938	BC548
7125	4822 130 40938	BC548
7214	4822 130 40941	BC558
7215	4822 130 40938	BC548
7216	4822 130 40938	BC548
7217	4822 130 40938	BC548
7219	4822 130 44121	BC338
7225	4822 209 33398	TDA8362E/N3
7225	4822 209 33479	TDA8361E/N3
7240	4822 130 40938	BC548
7245	4822 209 90129	TDA8395P/N2
7255	4822 209 12635	TDA4665/V4
7270	4822 130 40938	BC548
7400	4822 209 60955	TDA3653B/N2
7423	4822 130 40938	BC548
7440	4822 130 41782	BF422
7445	4822 130 63569	BU1508DX
7460	4822 130 40941	BC558
7470	4822 130 40938	BC548
7471	4822 130 40941	BC558
7510	4822 209 31528	TDA4605-3
7513▲	4822 130 63409	STP6N60FI
7513▲	4822 130 63641	IRFIBC30G
7563	4822 130 40941	BC558
7634	4822 130 40938	BC548
7635	4822 130 40938	BC548
7647	4822 130 41594	PH2369
7710▲	4822 209 52316	ST24C04B1

CRT panel [E]

Various

	4822 212 10752	CRT panel
	4822 267 51442	8P con.
▲	4822 255 70293	9p con.

2304	4822 126 10334	470pF 10% 50V
2324	4822 126 10334	470pF 10% 50V
2344	4822 126 10334	470pF 10% 50V
2370	4822 121 41689	100nF 10% 250V
2371	4822 122 33293	100pF 5% 50V
2373	4822 121 41926	33nF 5% 630V

3300	4822 117 11683	2k2
3303	4822 111 20435	300Ω
3304	4822 050 11009	10Ω 1% 0.4W
3310	4822 117 11684	4k7
3311	4822 116 52249	1k8 5% 0.5W
3312	4822 050 11001	100Ω 1% 0.4W
3313	4822 050 11001	100Ω 1% 0.4W
3314	4822 053 12123	12k 5% 3W
3315	4822 117 11682	2k7
3321▲	4822 116 83749	680Ω 1/4W
3322	4822 050 11502	1k5 1% 0.4W
3323	4822 111 20435	300Ω
3324	4822 050 11009	10Ω 1% 0.4W
3330	4822 117 11684	4k7
3331	4822 116 52249	1k8 5% 0.5W
3332	4822 050 11001	100Ω 1% 0.4W
3333	4822 050 11001	100Ω 1% 0.4W
3334	4822 053 12123	12k 5% 3W
3335	4822 117 11682	2k7
3340	4822 117 11683	2k2
3343	4822 111 20435	300Ω
3344	4822 050 11009	10Ω 1% 0.4W
3350	4822 117 11684	4k7
3351	4822 116 52249	1k8 5% 0.5W
3352	4822 050 11001	100Ω 1% 0.4W
3353	4822 050 11001	100Ω 1% 0.4W
3354	4822 053 12123	12k 5% 3W
3355	4822 117 11682	2k7
3360	4822 111 20434	270Ω
3361	4822 050 13302	3k3 1% 0.4W
3362▲	4822 116 83749	680Ω 1/4W
3370▲	4822 052 11109	10Ω 5% 0.5W
3371▲	4822 052 10228	2Ω2 5% 0.33W
3372▲	4822 052 10228	2Ω2 5% 0.33W
3374	4822 117 11682	2k7

5370	4822 157 71606	15µH

6314	4822 130 34189	BAV20
6334	4822 130 34189	BAV20
6354	4822 130 34189	BAV20

7300	4822 130 40938	TBC548
7310	4822 130 41782	BF422
7320	4822 130 40938	TBC548
7330	4822 130 41782	BF422
7340	4822 130 40938	TBC548
7350	4822 130 41782	BF422
7360	4822 130 40941	BC558

TXT panel [F]

Various

	4822 212 10751	TXT panel
	4822 265 31085	5p con.
	4822 267 51321	7p con.
1700	4822 242 81502	Cristal 27MHz

2700	5322 122 33869	15pF 5% 63V
2701	5322 122 33244	8.2pF 5% 50V
2702	4822 126 13629	100nF 20% 50V
2704▲	5322 122 32654	22nF 10% 63V
2705▲	5322 122 34123	1nF 10% 50V
2706	4822 126 13629	100nF 20% 50V
2707	4822 126 13629	100nF 20% 50V
2708	4822 126 13629	100nF 20% 50V
2709	4822 126 13629	100nf 20% 50V
2710	4822 124 41584	100µF 20% 10V
2711	5322 122 32531	100pF 5% 50V
2712	4822 126 13689	18pF 1% 63V
2713	4822 126 13689	18pF 1% 63V
2714	4822 126 13689	18pF 1% 63V
2715	4822 124 40248	10µF 20% 63V
2717	4822 124 21443	2.2µF
2719	5322 122 32448	10pF 5% 50V
2720	4822 126 13689	18pF 1% 63V
2721	4822 126 13689	18pF 1% 63V
2722	4822 126 13689	18pF 1% 63V
2723	4822 126 13689	18pF 1% 63V
2724	4822 126 13689	18pF 1% 63V
2725	4822 126 13838	100nF 50V 20%
2727	4822 126 13838	100nF 50V 20%
2728	4822 122 33514	68pF 5% 50V
2729	5322 122 32452	47pF 5% 63V
2730	4822 124 41584	100µF 20% 10V
2731	4822 126 13689	18pF 1% 63V
2732	4822 126 13689	18pF 1% 63V
2733	4822 126 13689	18pF 1% 63V
2734	4822 126 13689	18pF 1% 63V
2735	4822 126 13838	100nF 50V 20%
2736	4822 126 13838	100nF 50V 20%

3700	4822 051 20332	3k3 5% 0.1W
3701	4822 117 11504	270Ω 1% 0.1W
3702▲	4822 051 20102	1k 5% 0.1W
3703	4822 051 20391	390Ω 5% 0.1W
3704	4822 117 11449	2k2 1% 0.1W
3705▲	4822 051 20102	1k 5% 0.1W
3707	4822 051 20273	27k 5% 0.1W
3708▲	4822 051 20472	4k7 5% 0.1W
3709▲	4822 051 20102	1k 5% 0.1W
3710	4822 051 20471	470Ω 5% 0.1W
3711	4822 051 20392	3k9 5% 0.1W
3712	4822 051 20392	3k9 5% 0.1W
3713	4822 051 20392	3k9 5% 0.1W
3715	4822 116 52283	4k7 5% 0.5W
3716	4822 051 20829	82Ω 5% 0.1W
3717	4822 051 20392	3k9 5% 0.1W
3719	4822 051 20333	33K 5% 0.1W
3720	4822 117 11846	10k 5% 1/16W
3721▲	4822 051 20472	4k7 5% 0.1W
3722▲	4822 051 20472	4k7 5% 0.1W
3726	4822 053 11101	100Ω 5% 2W
3727	4822 053 11101	100Ω 5% 2W
3728	4822 051 20471	470Ω 5% 0.1W
3729	4822 117 11846	10k 5% 1/16W
3730	4822 051 20101	100Ω 5% 0.1W
3731	4822 051 20101	100Ω 5% 0.1W
3732	4822 051 20471	470Ω 5% 0.1W
3733	4822 050 11001	100Ω 1% 0.4W
3734	4822 050 11001	100Ω 1% 0.4W
3735	4822 117 11449	2k2 1% 0.1W
3799▲	4822 051 20102	1k 5% 0.1W

5700	4822 157 71666	3.3µH 10%
5701	4822 157 50965	15µH
5702	4822 157 50965	15µH
5703	4822 152 20677	10µH

6700▲	4822 130 30621	1N4148
6701▲	4822 130 30621	1N4148
6702▲	4822 130 30621	1N4148
6703▲	4822 130 30621	1N4148
6704	4822 130 83338	LL4148
6706	4822 130 10178	TZM-F4V3
6707	4822 130 83338	LL4148
6708	4822 130 83338	LL4148

7703	4822 130 62748	BC858
7704	4822 130 61207	BC848
7705	4822 130 61207	BC848
7706	4822 130 40941	BC558
7707	4822 130 61207	BC848
7700	4822 209 90131	SAA5281/P/E/M3
7701	4822 209 12935	P83C654FBP/541

A/V-out panel [G]

Various

1017	4822 212 10654	A/V out panel
	4822 265 31244	3P DUO 2,5
	4822 265 31085	5P BTB

2800	4822 124 81029	100µF 20% 25V
2801	4822 121 51319	1µF 10% 63V
2802	4822 121 51319	1µF 10% 63V
2803	4822 126 13512	330pF 10% 50V

3800	4822 050 11503	15k 1% 0.4W
3801	4822 116 52283	4k7 5% 0.5W
3803	4822 050 11002	1k 1% 0.4W
3804	4822 050 11002	1k 1% 0.4W
3805	4822 050 15601	560Ω 1% 0.4W
3806	4822 050 11002	1k 1% 0.4W
3807	4822 050 15601	560Ω 1% 0.4W
3808	4822 116 52213	180Ω 5% 0.5W
3809	4822 116 52228	680Ω 5% 0.5W
3810	4822 050 12203	22k 1% 0.4W
3811	4822 116 52219	330Ω 5% 0.5W
3812▲	4822 050 21501	150Ω 1% 0.6W

5800▲	4822 157 53941	100µH

6800▲	4822 130 30621	1N4148
6801▲	4822 130 30621	1N4148
6802	4822 130 34382	BZX79-C8V2

7800	4822 130 40938	BC548
7801	4822 130 40938	BC548
7802	4822 130 40941	BC558
7803	4822 130 40938	BC548

TOP control panel [I]

Various

1016▲	4822 212 10644	TOP control panel
	4822 276 13114	Switch