

Recommended Safety Parts

Item	Part No.	Description
	4822 256 30274	FUSE HOLDER
	4822 276 12597	MAIN SWITCH
	4822 255 70251	CRT SOCKET
	4822 267 60243	EURO CONN.
	4822 265 30389	2P FOR M1
	4822 265 40596	2P FOR M2
1235	4822 071 56301	FUSE 630MA
1500	4822 070 32002	FUSE 2A
1540	4822 071 56301	FUSE 630MA
2015	4822 124 40199	680µF 20% 16V
2157	4822 124 41525	100µF 20% 25V
2160	4822 124 41525	100µF 20% 25V
2161	4822 124 41525	100µF 20% 25V
2270	4822 124 41525	100µF 20% 25V
2443	4822 124 41387	470µF 20% 25V
2445	4822 126 11693	680pF 10% 2KV
2448	4822 124 41056	47µF 50% 200V
2450	4822 121 43652	470nF 5% 200V
2500	4822 124 41531	470nF 10% 250V
2506	4822 126 11137	3,3nF 20% 400V
2507	5322 121 41977	47nF 5% 250V
2524	4822 122 33799	1nF 10% B 1KV
2526	4822 122 30043	10nF 80% 100V
2530	4822 124 41056	47µF 50% 200V
2534	4822 126 11524	1,5nF 10% 1KV
2666	4822 124 41525	100µF 20% 25V
2685	4822 124 41525	100µF 20% 25V
3001	4822 052 10229	22 ohm 5% 0,33W
3015	4822 052 10109	10 ohm 5% 0,33W
3124	4822 052 10229	22 ohm 5% 0,33W
3157	4822 050 21003	10k 1% 0,6W
3159	4822 052 11208	2 ohm 5% 0,5W
3163	4822 052 11208	2 ohm 5% 0,5W
3171	4822 116 52283	4k 7 5% 0,5W
3202	4822 053 11123	12k 5% 2W
3208	4822 051 10242	2k4 2% 0,25W
3215	4822 053 11123	12k 5% 2W
3221	4822 051 10242	2k4 2% 0,25W
3228	4822 053 11123	12k 5% 2W
3231	4822 051 10242	2k4 2% 0,25W
3236	4822 111 50518	1k5 5% 0,5W
3296	4822 052 10109	10 ohm 5% 0,33W
3370	4822 052 11471	470 ohm 5% 0,5W
3402	4822 050 23901	390 ohm 1% 0,6W
3403	4822 116 52266	3k 5% 0,5W
3404	4822 051 10432	4k3 2% 0,25W
3408	4822 053 10681	680 ohm 5% 1W
3411	4822 052 11208	2 ohm 5% 0,5W
3412	4822 052 10278	2 ohm 7 5% 0,33W
3440	4822 116 52195	47 ohm 5% 0,5W
3444	4822 053 12472	4k7 5% 3W
3449	4822 052 10108	1 ohm 5% 0,33W
3452	4822 052 10159	15 ohm 5% 0,33W
3454	4822 052 11911	910 ohm 5% 0,5W
3470	4822 052 10828	8 ohm 2 5% 0,33W
3501	4822 116 40137	PTC/PTC
3504	4822 053 21106	10M 5% 0,5W
3544	4822 052 10108	1 ohm 5% 0,33W
3554	4822 053 11689	68 ohm 5% 2W
3557	4822 053 11271	270 ohm 5% 2W
3561	4822 116 52219	330 ohm 5% 0,5W
3571	4822 051 10471	470 ohm 2% 0,25W
3572	4822 116 52202	82 ohm 5% 0,5W
5258	4822 157 51462	10µH
5296	4822 157 51462	10µH
5445	4822 140 10406	LOT AT2079/40
5453	4822 157 51462	10µH
5500	4822 212 22978	MAINS FILTER
5525	4822 148 81121	SOPS TRF
5560	4822 157 51462	10µH
5601	4822 157 51462	10µH
5652	4822 157 51462	10µH
5653	4822 157 51462	10µH
6050	4822 130 30621	1N4148
6051	4822 130 30621	1N4148
6052	4822 130 30621	1N4148
6053	4822 130 80446	LL4148
7157	4822 209 60956	TDA7052/N1
7514	4822 130 82034	CNX83A

Electrical Adjustments

1. Adjustments on the main panel (Fig. 7)

1.1 + 100V power supply voltage

Connect a voltmeter (DC) between pin 6 of connector M5 and ground. Adjust potentiometer 3535 for a voltage of +100V (14"-17") or +92,5V (21").

1.2 Horizontal synchronization

Interconnect pins 8 and 28 of IC7015. Apply an aerial signal and tune the set. Adjust potentiometer 3356 until the picture is straight. Remove the interconnection.

1.3 Horizontal centring

Is adjusted with potentiometer 3354.

1.4 Vertical centring

Can be adjusted by eventually mounting one of the resistors 3401 or 3408.

1.5 Picture height

Is adjusted with potentiometer 3410.

1.6 Focussing

Is adjusted with the focussing potentiometer in the line output transformer (see Fig. 8).

1.7 IF filter for PAL/SECAM BGLL'- or PAL/SECAM BGLL'I sets

Connect a signal generator (e.g. PM 5326) via a condenser 5p6 to pin 17 of the tuner and adjust the frequency for 33.4 MHz. Connect an oscilloscope to pin 1 of filter 1015. Switch on the set and select system Europe via the system button on the set. Adjust 5012 for a minimum amplitude.

1.8 AFC

a. Alignments for PAL/SECAM BGLL'- or PAL/SECAM BGLL'I sets.

Connect a signal generator (e.g. PM 5326) as indicated in point 1.7 and adjust the frequency for 33.4 MHz. Tune the set in the VHF1 band at a tuning voltage of approx. 5V on pin 11 of the tuner. Select system France via the system button on the set. Connect a voltmeter to pin 21 of IC7015. Adjust 5040 for 6V (DC). Next adjust the frequency of the signal generator for 38,9 MHz. Select system Europe on the set. Adjust 5043 for 6V (DC).

b. Alignment for PAL BG-, PAL/SECAM BG -, PAL/SECAM BGDK- or PAL I sets

Connect a signal generator (e.g. PM 5326) as indicated in point 1.7 and adjust the frequency for 38.9 MHz (PAL I: 39.5MHz). Connect a voltmeter to pin 21 of IC7015. Adjust 5040 for 6V (DC).

1.9 RF AGC

If the picture of a strong local transmitter is reproduced distorted, adjust potentiometer 3021 until the picture is undistorted.

1.10 Chroma band-pass filter for PAL/SECAM sets

Connect a signal generator (e.g. PM5326) to pin 20 of the euro connector and adjust it for a frequency of 4,286 MHz. Connect pin 8 of the euro connector and pin 27 of IC7250 to pin 13 of IC7250 (+12V). Connect an oscilloscope to pin

15 of IC7250.

Adjust 5259 for a maximum amplitude. Remove the interconnections.

1.11 Chroma subcarrier oscillator

Apply a PAL colour-bar pattern. Interconnect pin 11 of IC7260 (TDA4510) or pin 17 of IC7250 (TDA4650) to ground. Adjust 2265 so that colour pattern on the screen is practically stationary. Remove the interconnection.

1.12 SECAM demodulators for PAL/SECAM sets

Apply a SECAM black pattern. Connect an oscilloscope to pin 1 of IC7250. Adjust 5320 for 0 reading. Connect the oscilloscope to pin 3 of IC7250. Adjust 3320 for 0 reading.

1.13 The FM sound section

a. General adjustments

Apply a PAL BG (PAL I for PAL I sets) generator signal whose sound carrier is (FM) modulated with a frequency of 1 kHz. Set the generator to the mono mode. Tune the set and select, if possible, system Europe. Adjust 5138 for maximum sound output.

b. Additional adjustment for PAL/SECAM BGDK sets

After the general adjustment (see point a.) put the generator in SECAM DK position. Adjust 5139 for maximum sound output.

1.14 The AM sound section for PAL/SECAM BGLL'- or PAL/SECAM BGLL'I sets

Connect pin 3 of IC7125 to a fixed voltage level of + 2V by means of an adjustable power supply. Connect a signal generator (e.g. PM 5326) via a condenser 5p6 to pin 17 of the tuner and adjust the frequency for 32,4 MHz. Modulate (AM) the signal with 1 kHz. Tune the set in the UHF band and select system France. First adjust 5106 for maximum sound output. Next adjust 5104 for maximum sound output. Adjust the frequency of the signal generator for 30,9 MHz. and modulate (AM) the signal with 1 kHz. Adjust 5102 for minimum sound output. Remove the power supply connection.

2. Adjustments on the picture tube panel (Fig. 9)

2.1 Cut-off points of picture tube

Apply a black pattern generator signal. Adjust contrast at minimum. Adjust brightness until the DC voltage across potentiometer 3213 is 0V. Adjust 3207, 3220 and 3234 for a black level of 125V on the collectors of transistors 7205, 7218 and 7227. Adjust Vg2 potentiometer until the gun that first emits light is just no longer visible. Adjust the two other guns with the respective controls (3207, 3220 or 3234) until just no light will be visible.

Adjust 3213 and 3214 until the desired grey scale has been obtained.

2.2 Grey scale

Apply a test pattern signal and adjust the set for normal operation. Allow the set to warm up for about 10 minutes. Adjust 3213 and 3214 until the desired grey scale has been obtained.

Error Message	Error Description	Possible Defective Component
Flashing LED	Internal µC error	IC7600
F2 + Flashing LED	EEPROM error	IC7685

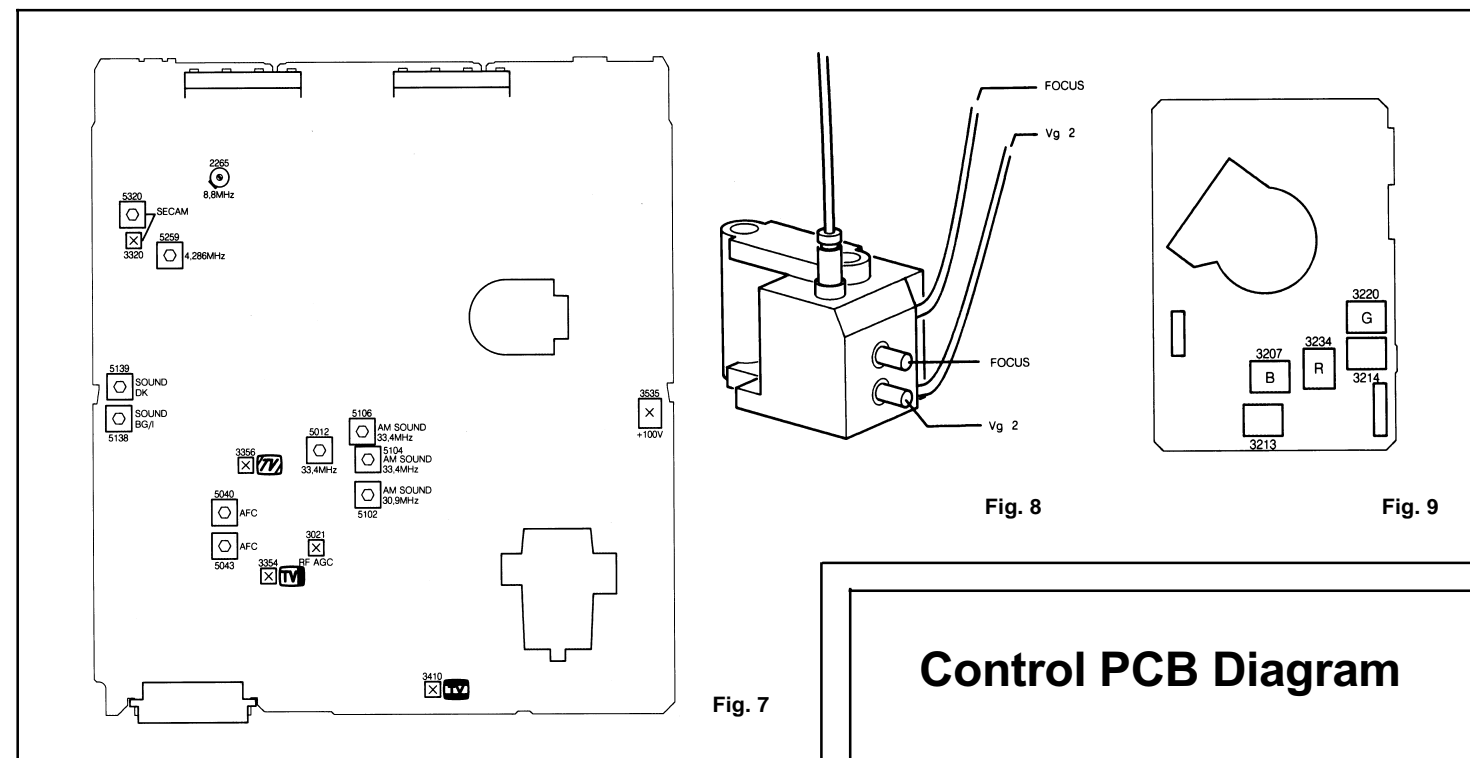
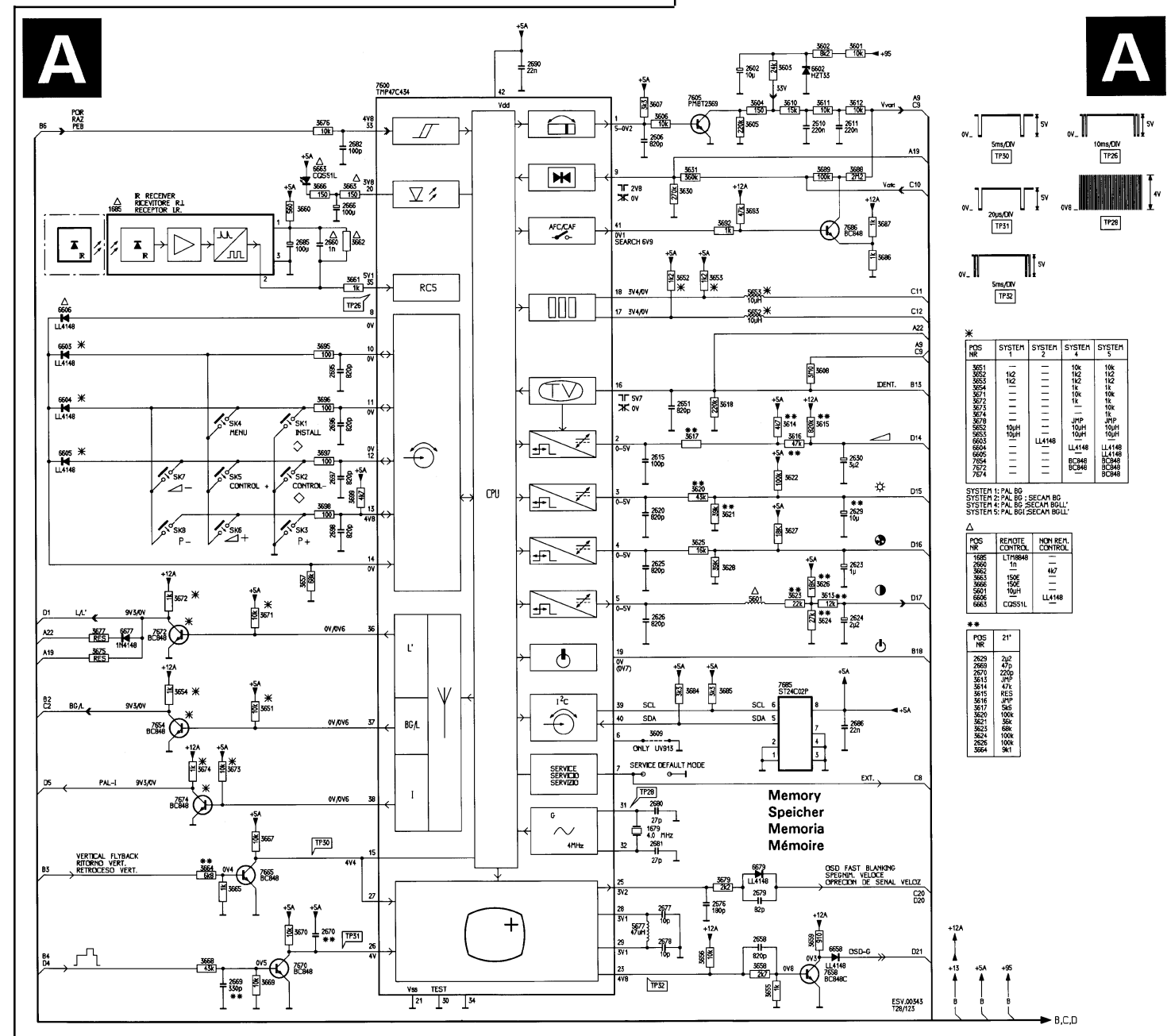


Fig. 7

Fig. 8

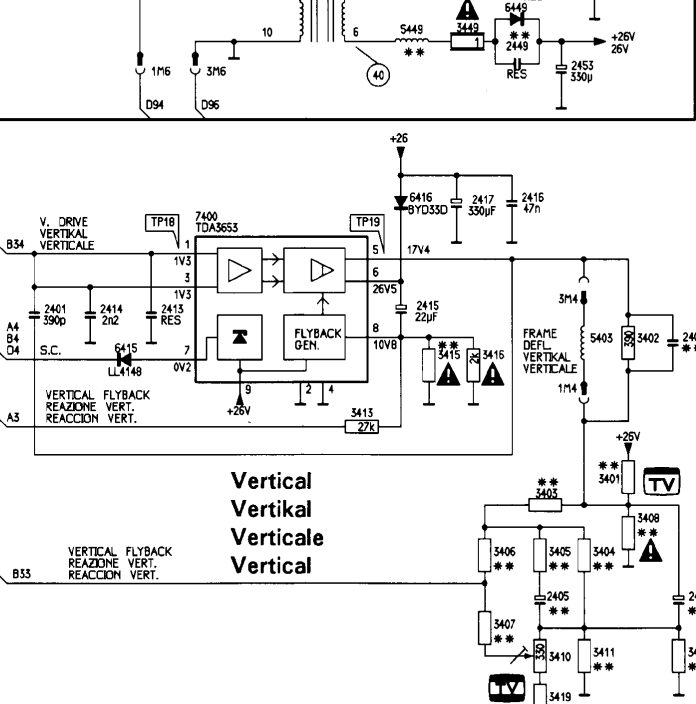
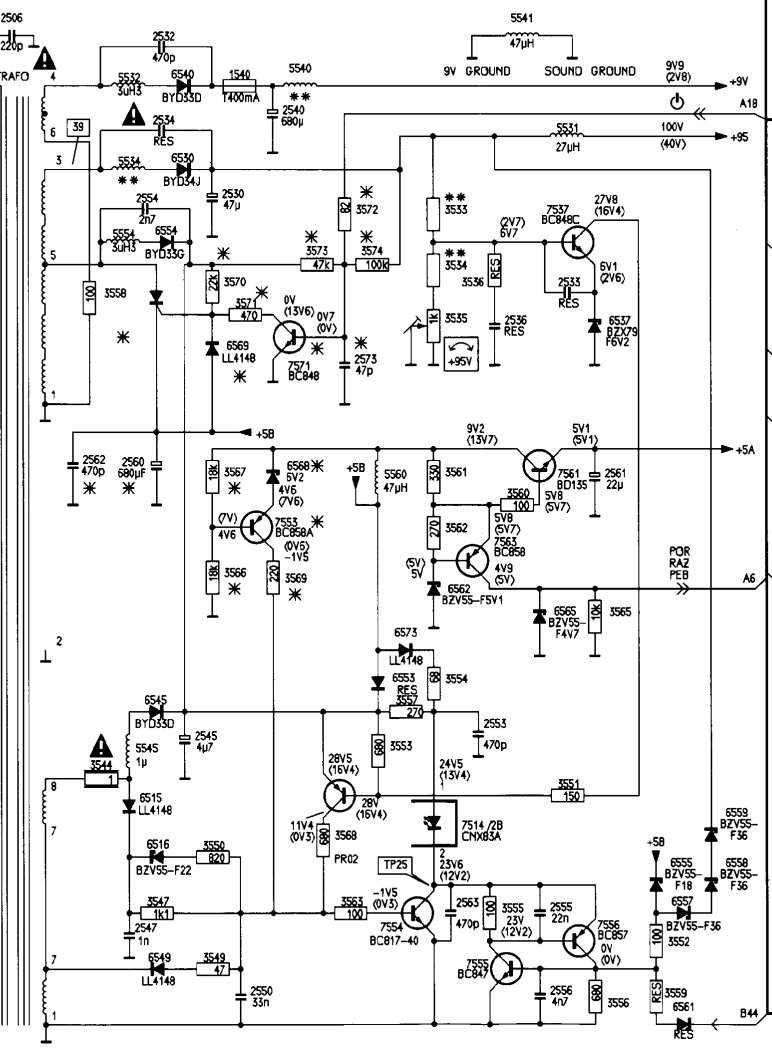
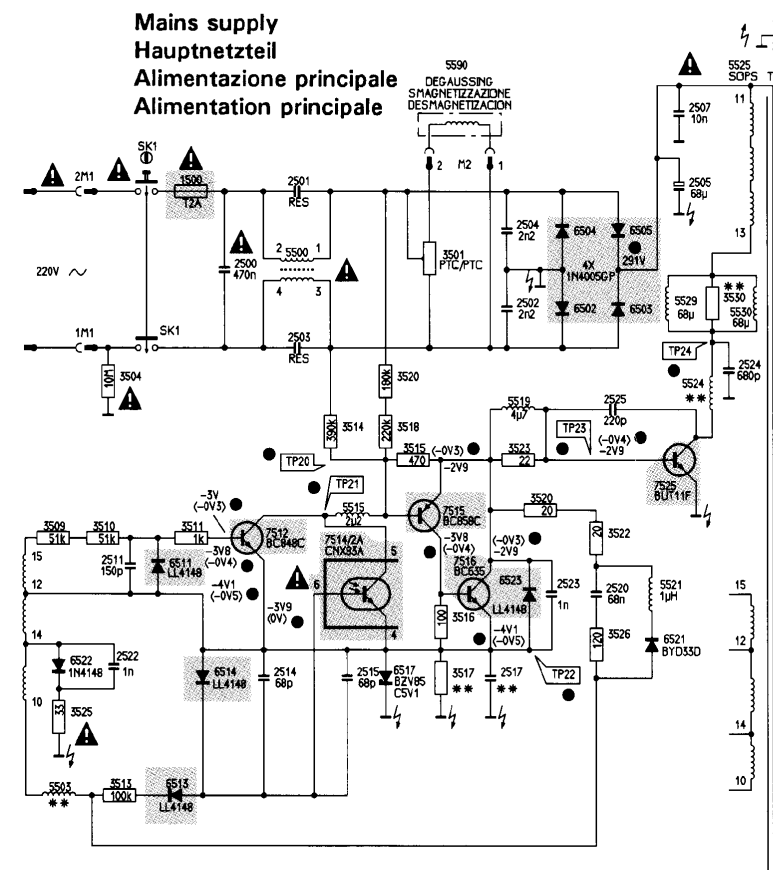
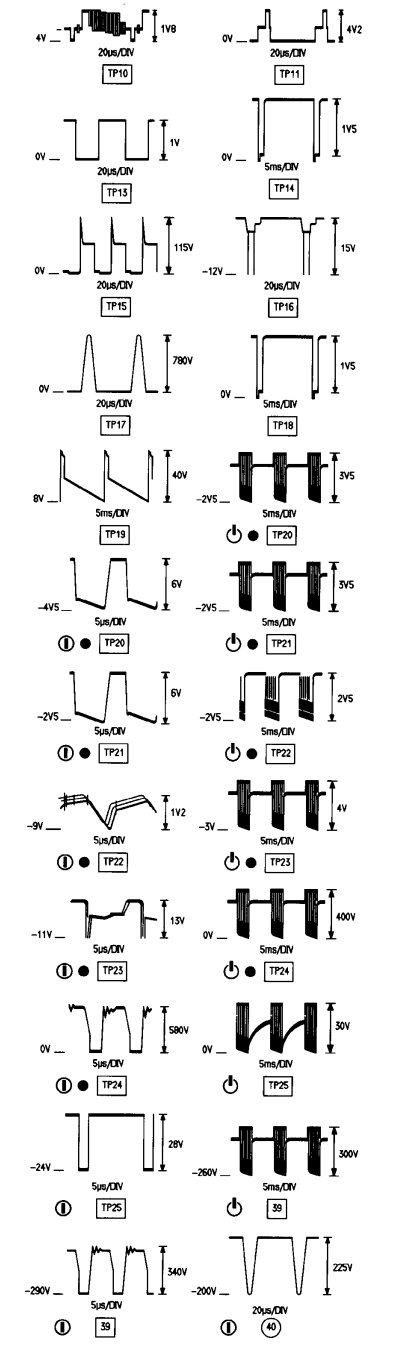
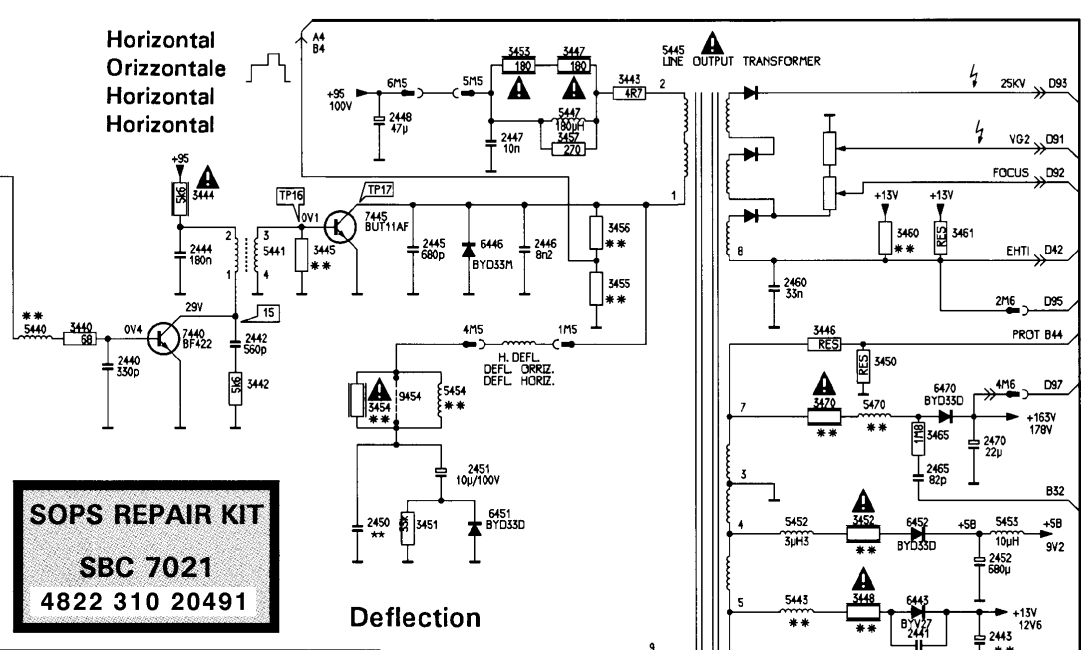
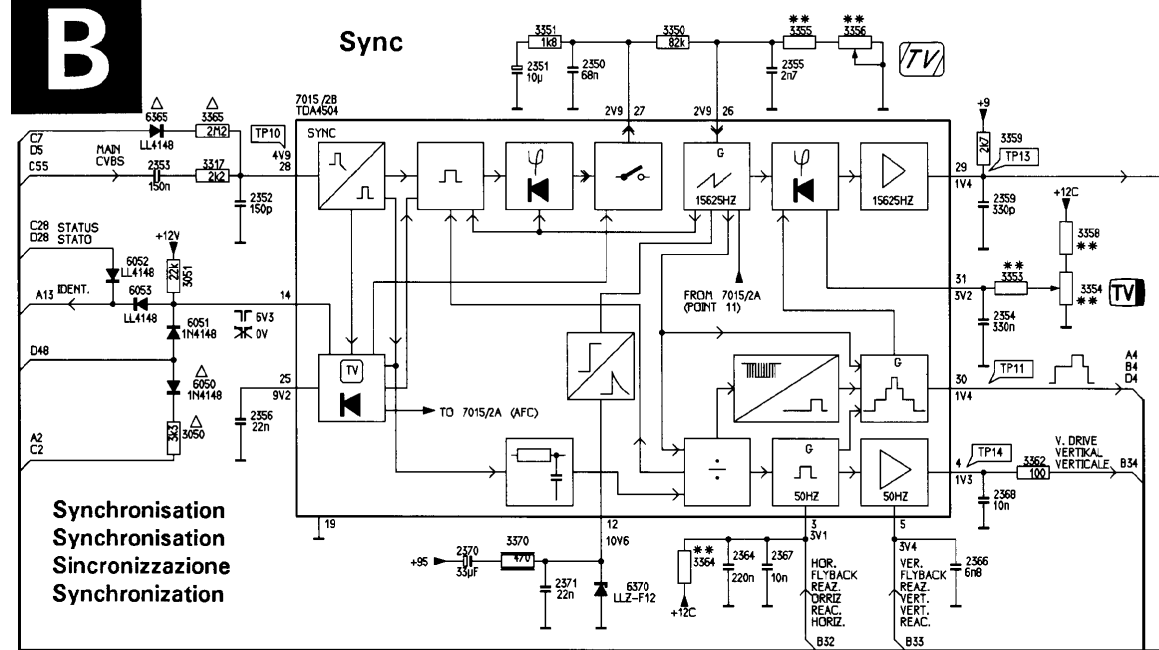
Fig. 9

Control PCB Diagram



Power Supply Diagram

B



POS NR	SYSTEM 4	SYSTEM 5
3050	3k3	27k2
3365	1N4148	1N4148
6365	LL4148	LL4148

Power supply

ONLY FOR REMOTE CONTROL SETS SOLD R.L.

MEASURED IN RESPECT TO INSURATO NEI CONFRONTI

**	14"	15"/17"	21"	**	14"	15"/17"	21"
2402	47k	47n	100n	3445	68R	68R	47R
2404	1500u	1500u	3300u	3448	1R0	1R0	15R
2405	22u	22u	10u	3452	10R	10R	15R
2443	220u	220u	470u	3454	10u	10u	15R
2450	560n	330n	470n	3455	18k	18k	12k
2517	680n	680n	1p	3456	430k	430k	330k
3353	47k	47k	52k	3460	11k	11k	10k
3354	100k	100k	22k	3470	4R7	4R7	8R2
3355	27k	27k	30k	3517	120	120	68R
3356	18k	10k	84k	3530	270	270	180
3358	100k	100k	43k	3533	480k	480k	47k
3364	360k	360k	330k	3534	3k3	3k3	3k0
3401	2k4	2k4	3k0	3440	22u	22u	JMP
3406	12k	15k	18k	3443	10u	10u	JMP
3404	2k0	2k4	4k3	3449	47u	47u	27u
3405	150	150	15R	3454	10u	10u	JMP
3406	12k	15k	18k	3470	11k	11k	10k
3407	18k	22k	18k	3523	4u7	4u7	JMP
3408	2k4	2k4	680	3521	1u0	1u0	JMP
3411	483	58k	2R0	3524	1u0	1u0	JMP
3412	483	2R7	2R7	3534	5u5	5u5	JMP
3415	2k0	2k0	1k5	3540	47u	47u	JMP
3419	JMP	JMP	100	6449	BYD35D	BYD35D	BYV26B

ESV.00544 T28/123

Video Audio Diagram

