

Service Notes

The contents of this service information:

- The power supply circuit diagram that is divided into two separate parts:
- 21" power supply circuit diagram
- power supply circuit diagram for 25" and 28"
- fault-finding tree for repairing the television because:
- the error register in the service menu is not filled in sets bearing code **QG00** for the Netherlands and Italy. For all other countries the error registers in the service menus of sets bearing code **QG03** and lower is not filled.
- Introduction of two new features, 16:9 module and WSSB (wide screen signalling bit detection) module, with accompanying copper track layout and spare parts list with accompanying diagram.

Description of the new features in the MD1.1 TV set.

The WSSB enables the TV set to switch automatically to the various display formats (16:9 letterbox, 14:9 letterbox, 4:3) using signalling bits. The signalling bits are transmitted in line 23 of the video signal. IC7119 (TDA8366) is used to match the convergence to the various formats in cooperation with the 16:9 panel.

1. MD1.1 E 28" WideScreen

The information published in the Service Manual and SI MD1.1 -E 95.01 is also valid for MD1.1 E 28" WideScreen sets. However, there is some diversity in the spare parts list (See Table 1).

2. Microprocessors

The listed microprocessors (Table 1) can be used for "24" and "28" Widescreen MD1.1 E sets. When the μ Ps are used in a "28" WS set, the option "28" in the Service Alignment Menu should be set to "Y". When the μ Ps are used in a "24" WS set, the option "28" should be set to "N". "28 N" is the default value of these μ Ps after replacement.

3. Mechanics

The mechanical execution of the WideScreen sets (24" and 28") differs from the other MD1.1 E sets. Service positions and other mechanical instructions are described in the MD1.2E Service section (Styling with top control and side input/output).

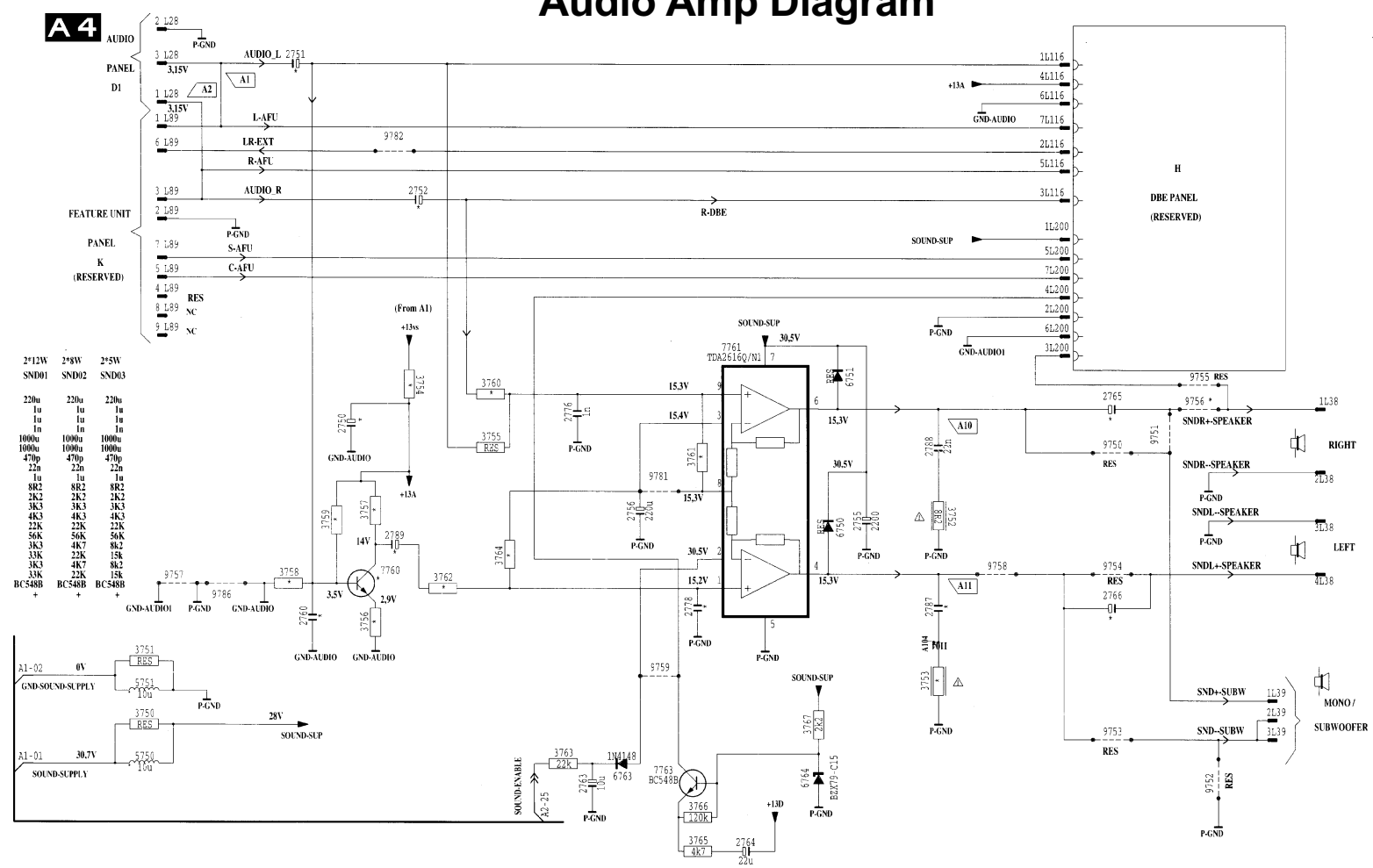
4. Black Stretch Panel

In a number of MD1.1 E sets, a Black Stretch panel [F] is used. This panel increases the detail of dark parts of the picture. The schematic, layout and spare parts list of this panel are published in this SI.

Table 1

ITEM	DESCRIPTION	SERVICE CODE NUMBER
LARGE SIGNAL PANEL		
F1501	2183.15 (3.15A)	4822 070 33152
C2420	1nF 10%2KV	4822 126 13449
C2425	15nF 5%1.6KV	5322 121 44345
C2426	12nF 5%1.6KV	4822 121 70618
C2470	4.7nF 5% 250V	4822 121 43856
C2479	330nF 5% 63V	5322 121 42661
R3421	68K Ω 5% 0.5W	4822 116 52297
R3470	1.5M Ω 5% 0.5W	4822 116 81783
R3479	680K Ω 5% 0.5W	4822 116 52298
R3480	120K Ω 5% 0.5W	4822 116 52239
R3482	680K Ω 5% 0.5W	4822 116 52298
R3483	10 Ω 5% 0.5W	4822 116 52176
R3484	6.8R Ω 1% 0.6W	4822 050 26808
R3506	18 Ω -3K Ω PTC/PTC 25%	4822 117 12027
R3507	18 Ω -3K Ω PTC/PTC 25%	4822 117 12027
R3625	100 Ω LIN	4822 101 11319
R3626	4.7 Ω 1% 0.6W	4822 050 24708
R3627	10 Ω 5% 0.5W	4822 116 52176
L5421	Lin. Corr. Coil LC90	4822 157 10992
L5424	Bal. Coil	4822 157 10993
L5463	10 μ H	4822 157 51462
L5550	Transf. pow. 10300300-P1	4822 146 10705
D6424	BYW96E	5322 130 32042
D6482	BZX79-B68	4822 130 30864
T7480	IRF520FI	4822 130 61706
SMALL SIGNAL PANEL		
7600	μ P MIWS1111 (3324) (F,D,NL,I,E)	4822 900 10853
7600	μ P MIWS1211 (S,DK,N,FI,GB)	4822 900 10851
7600	μ P MIWS1311 (GB,E,P,GR)	4822 900 10852
7600	μ P MIWS1511 (3325) (GB,D,NL)	4822 900 10855
7600	μ P MIWS1611 (GB,HU,POL,CZ,RU)	4822 900 10854
CRT PANEL		
C2300	220pF 50V	4822 122 31173
R3304	47W 5%	4822 116 52195
R3310	5K6 Ω 5%	4822 116 52289
R3312	6K8 Ω 5%	4822 116 83961
R3324	47 Ω 5%	4822 116 52195
R3344	47 Ω 5%	4822 116 52195
L5381	39 μ H	4822 157 70703

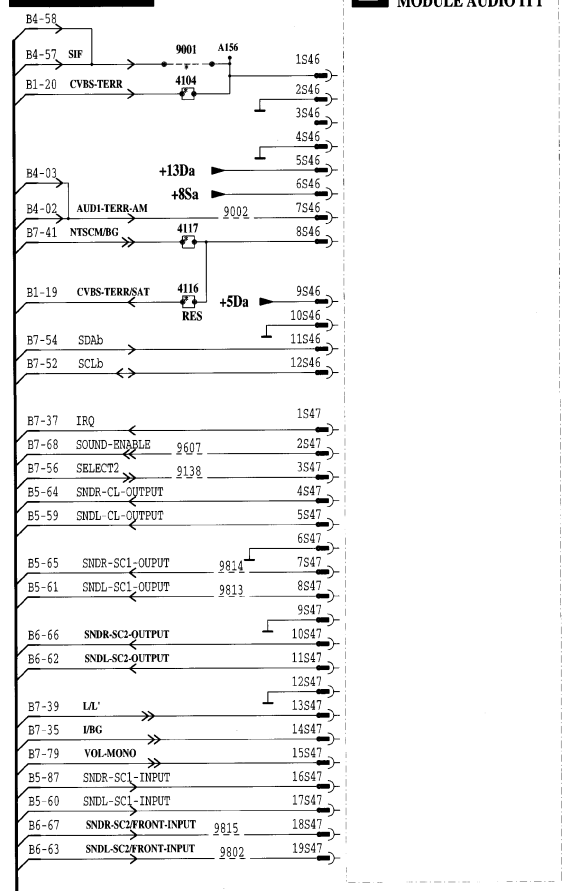
Audio Amp Diagram



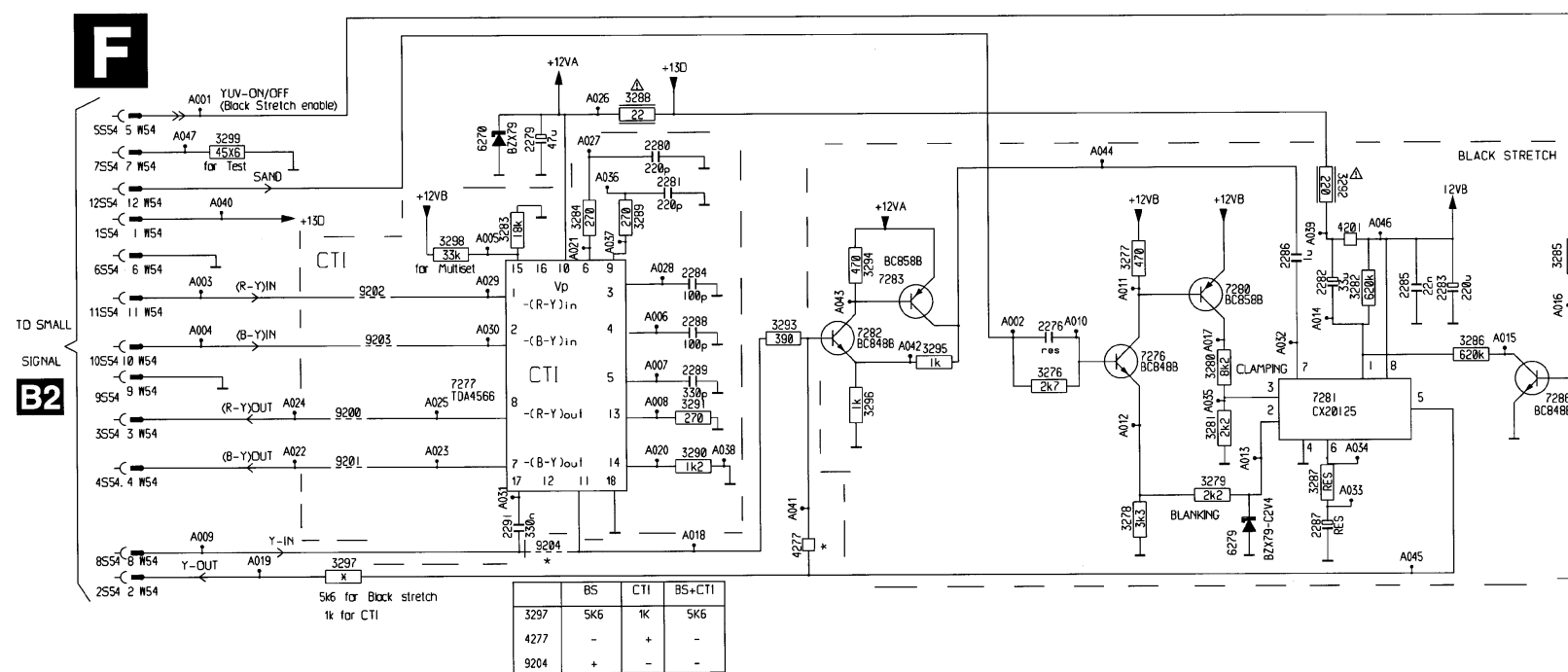
B 8

MODULE AUDIO ITT

Audio Module Interface Diagram



CTI/Black Stretch Diagram



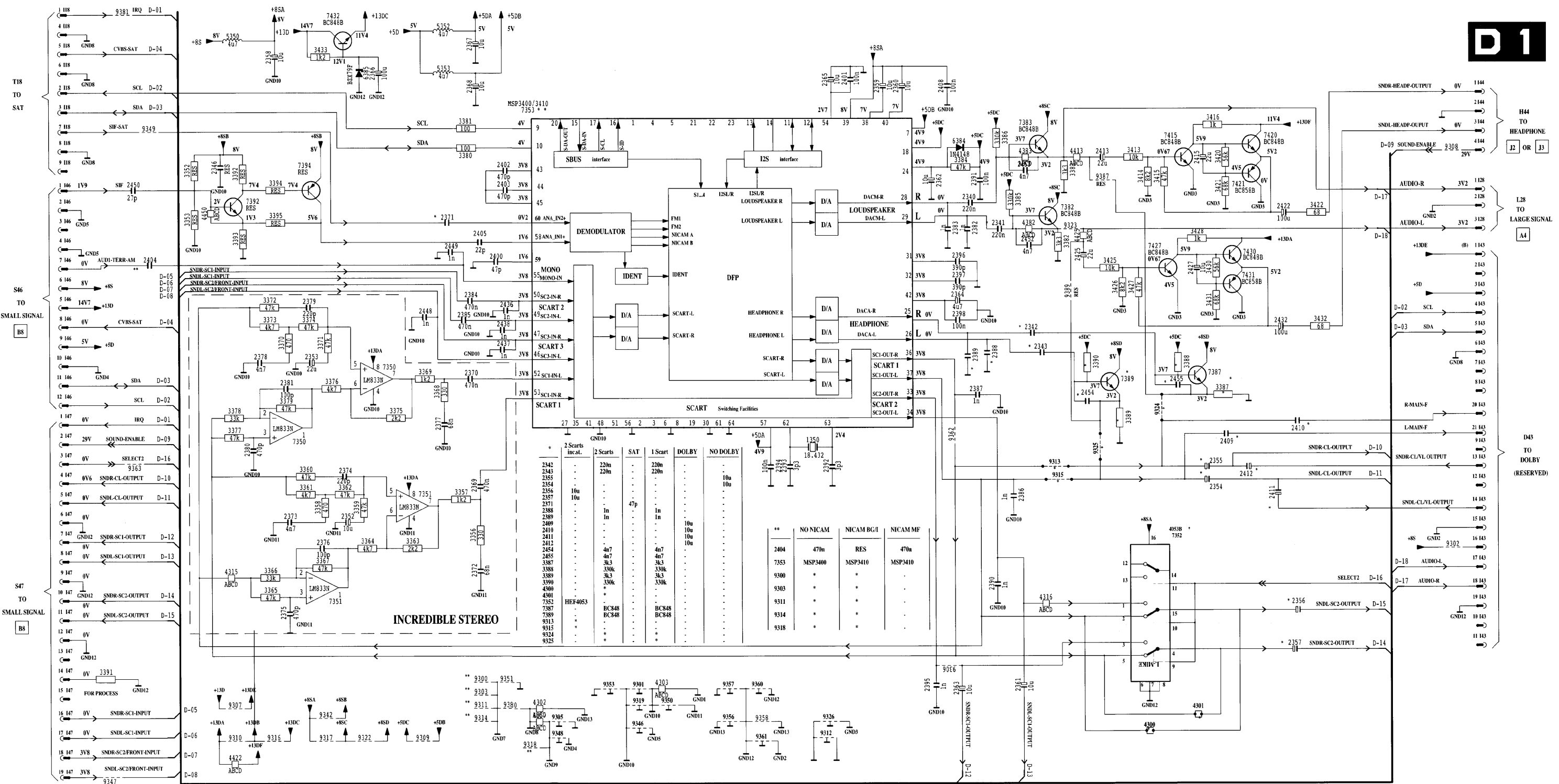
Electrical Adjustments / Safety Parts / Service Notes / Controls Diagram / CRT Diagram / Euroconnector 1 & 2 / Fault Finding Tree ... (16:9) / Front Control Diagram

Horizontal Output Diagram / Audio Amp / Audio Module Interface / Audio Module / CTI/Black Stretch Diagram / Nicam Diagram / Power Supply Block / Tuner IF Diagram

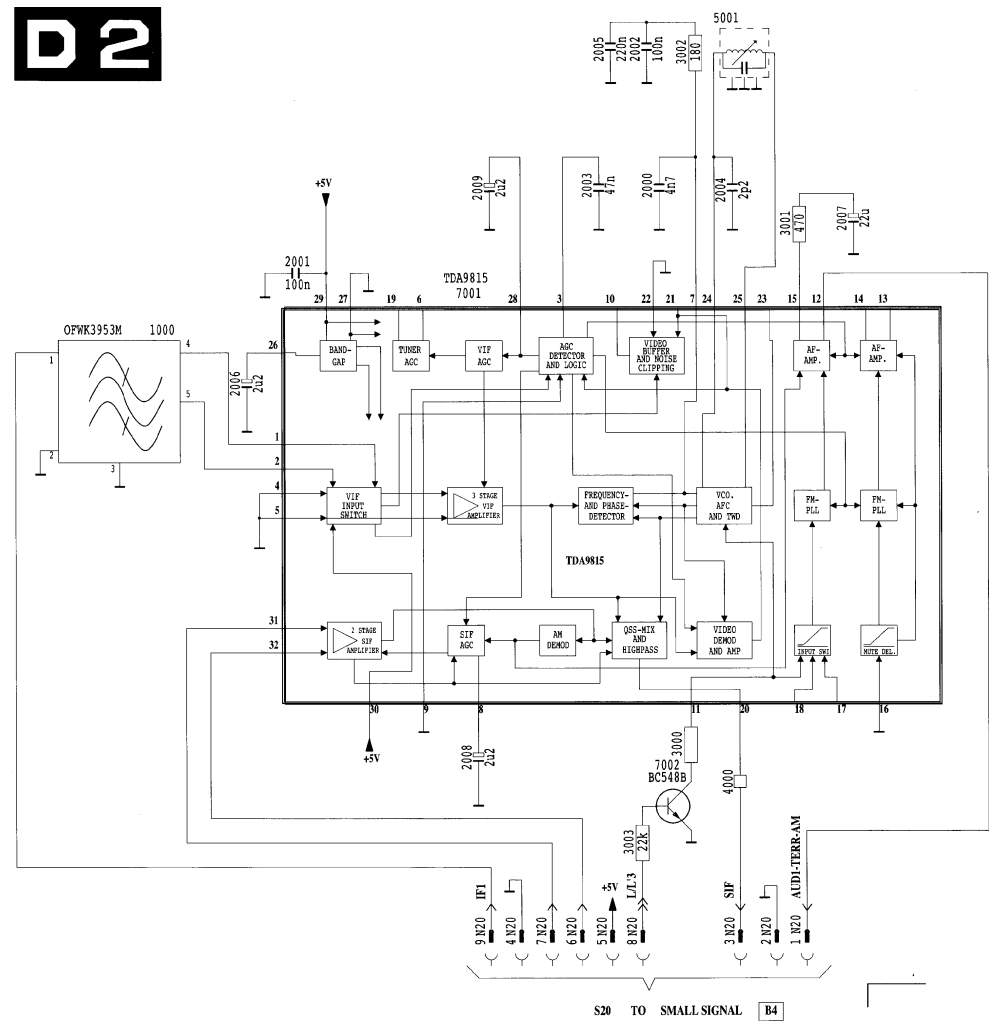
Power Supply Diagram / Power Supply Diagrams (21" 16:9) (25/28"/16:9) / 16:9 Module Diagram / Small Signal Panel / Sound IF Diagram / Text Diagram / Sync. Diagram

Synchronisation Block / Testpoint Diagrams / Vertical Output Diagram / Video Processing / Video Processing Block / Waveforms / WSSB Module Diagram

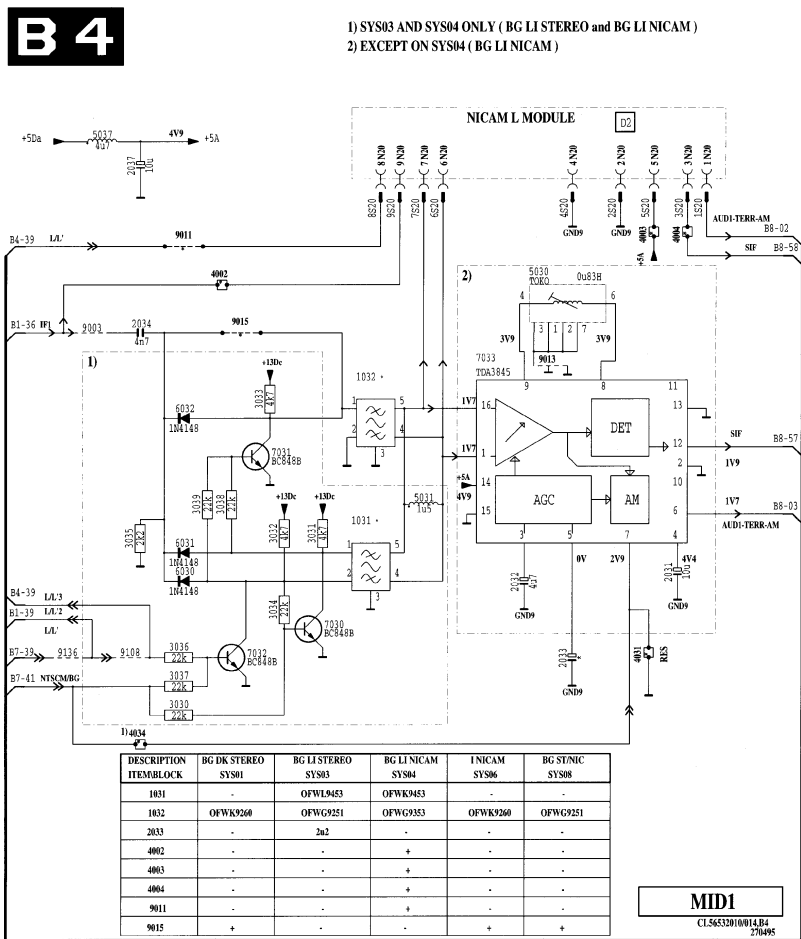
Audio Module Diagram



Nicam Diagram



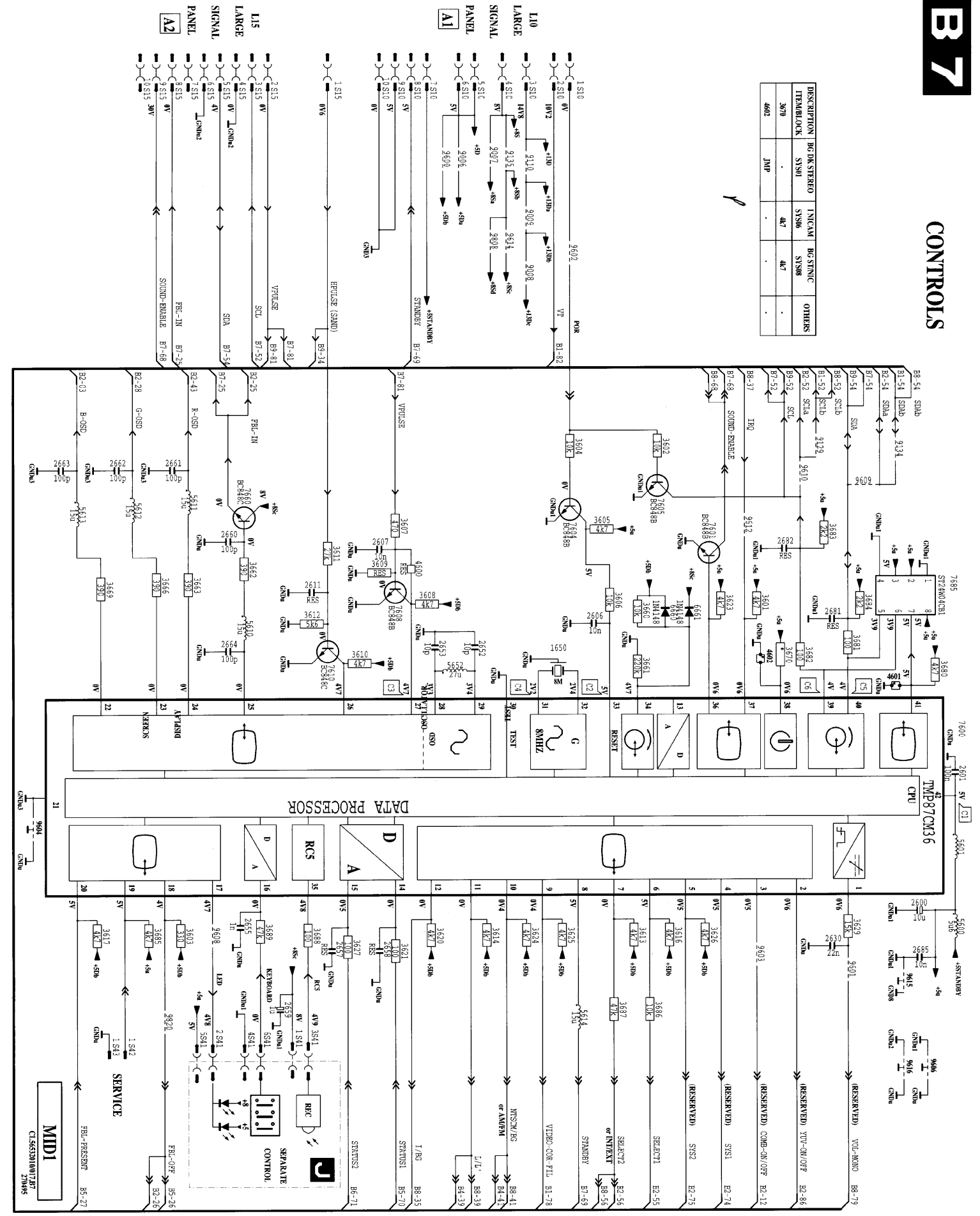
Sound IF Diagram



Controls Diagram



CONTROLS



Electrical Adjustments / Safety Parts / Service Notes / Controls Diagram / CRT Diagram / Euroconnector 1 & 2 / Fault Finding Tree...(16:9) / Front Control Diagram

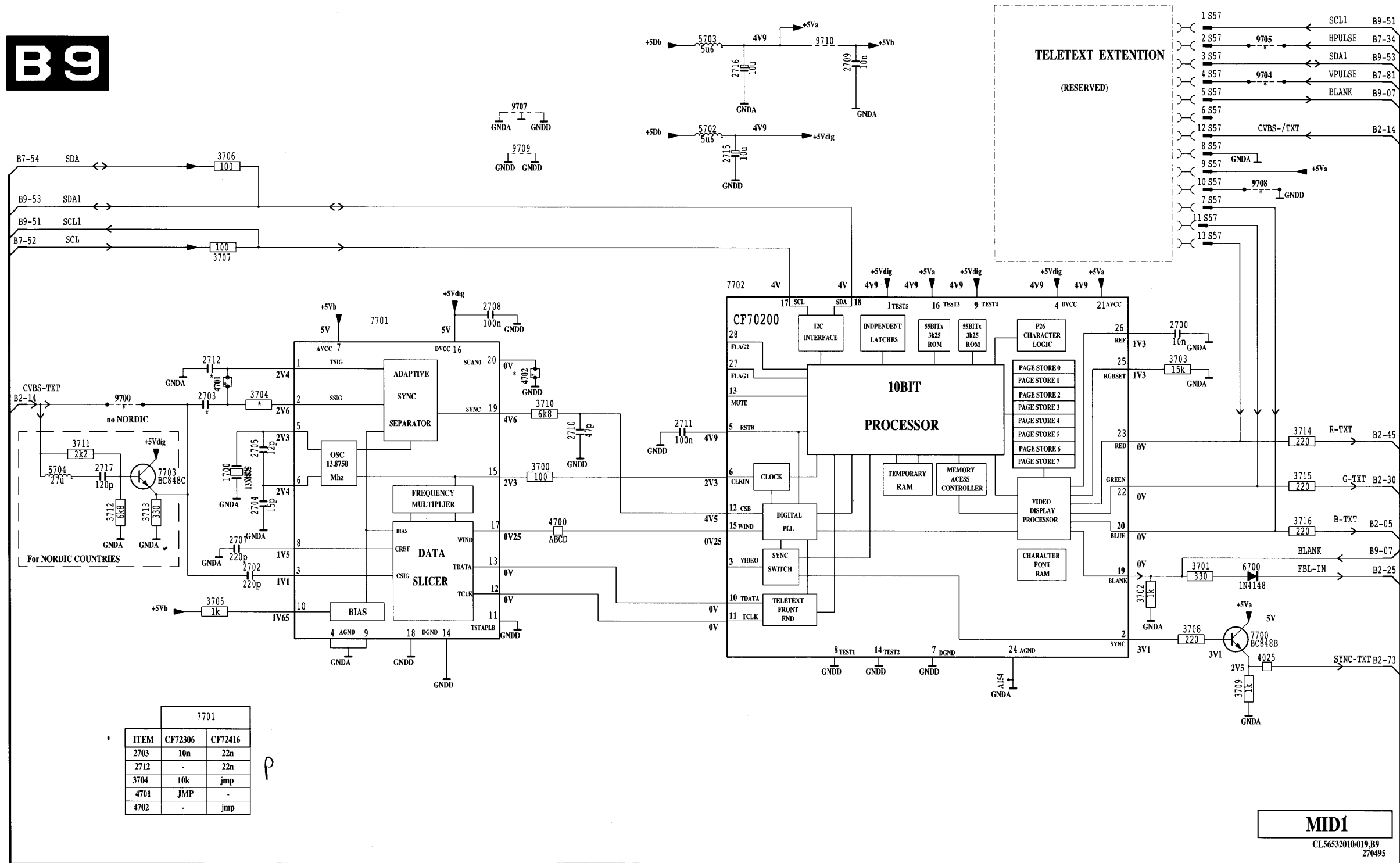
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Text Diagram

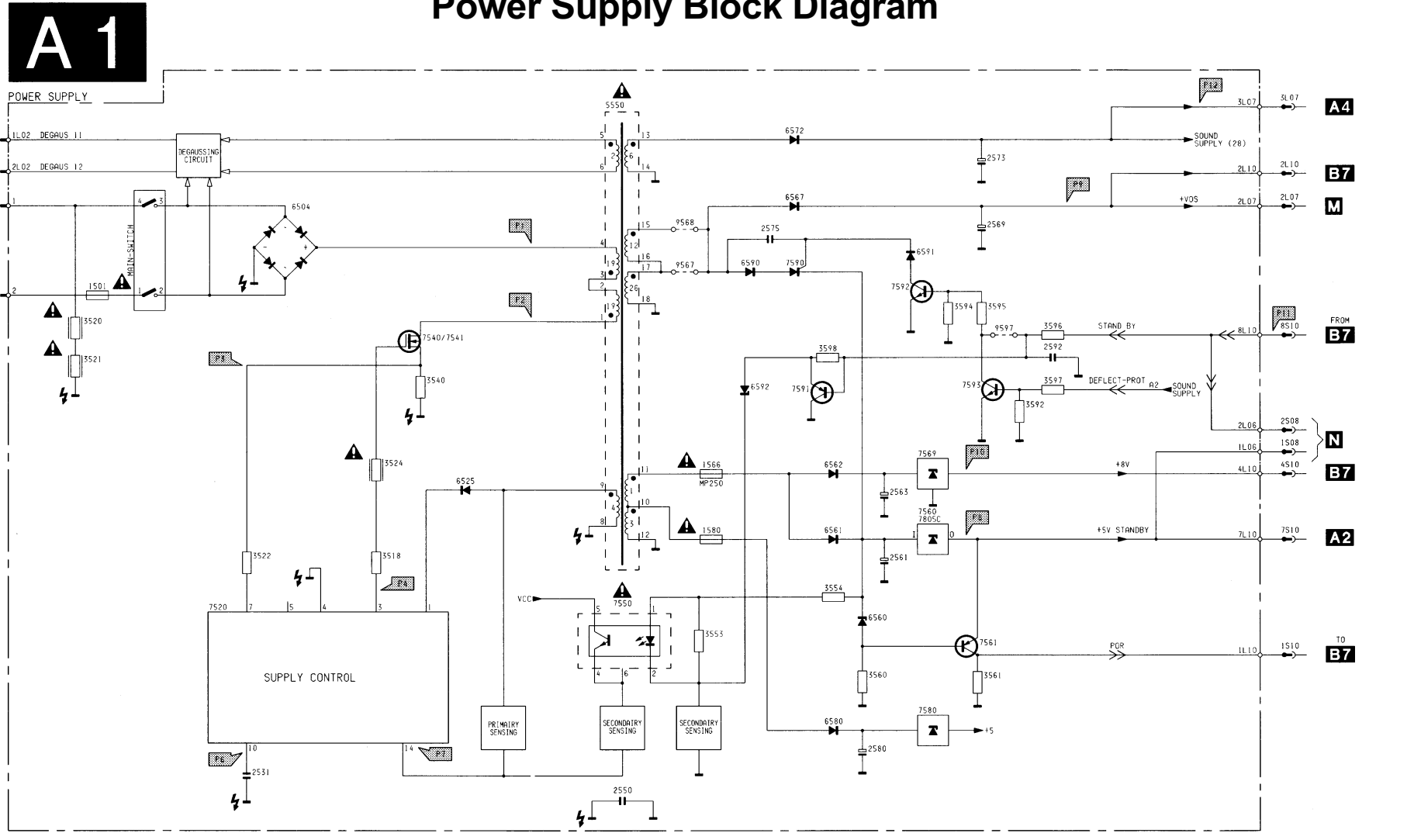
B9



MID1

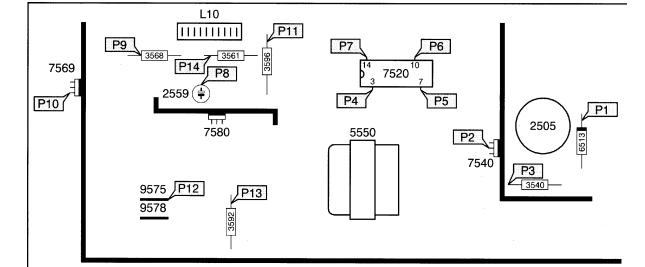
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Power Supply Block Diagram

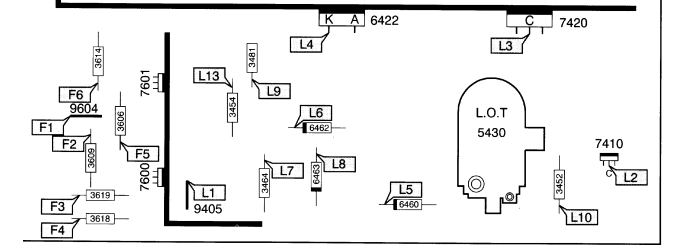


Testpoint Diagrams

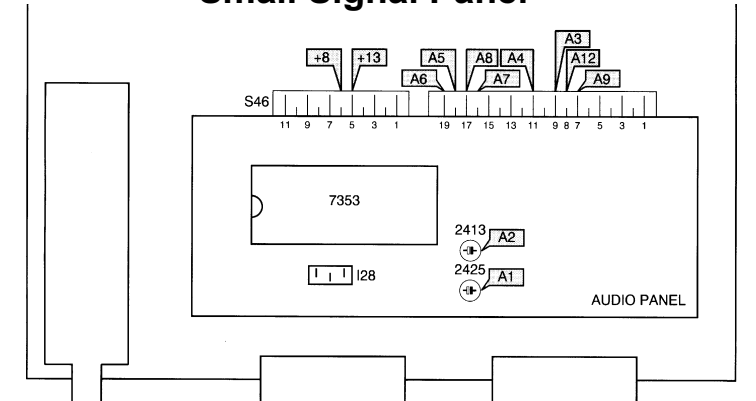
Power Supply



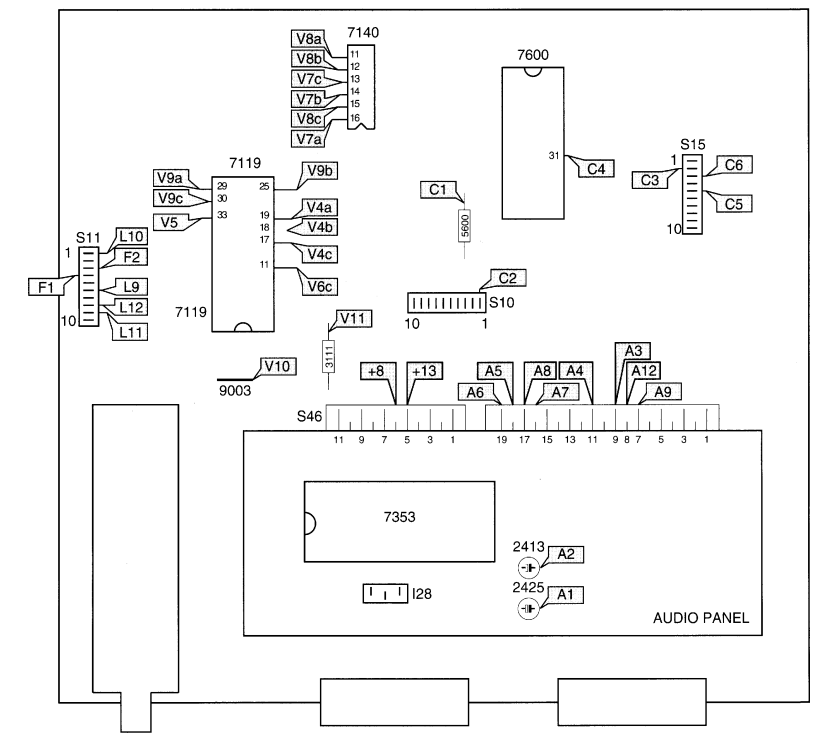
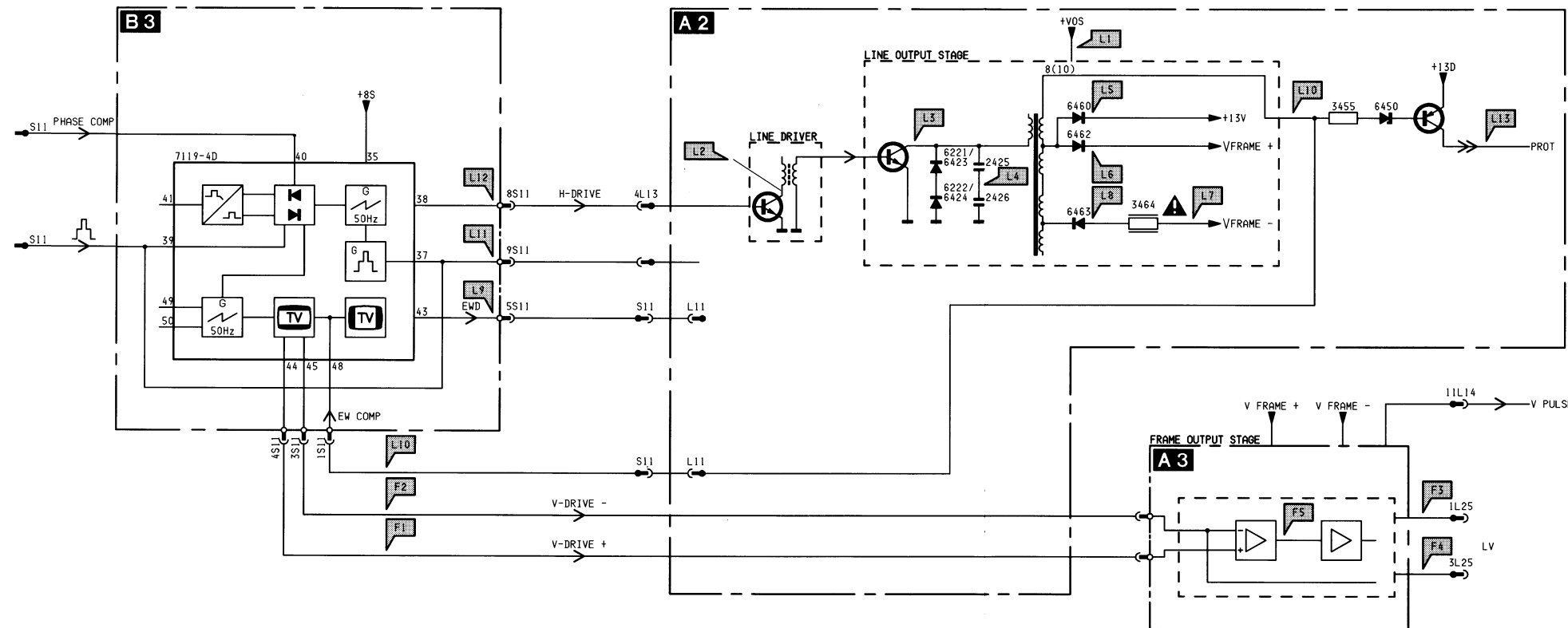
Synchronisation



Small Signal Panel



Synchronisation Block Diagram



Electrical Adjustments / Safety Parts / Service Notes / Controls Diagram / CRT Diagram / Euroconnector 1 & 2 / Fault Finding Tree...(16:9) / Front Control Diagram

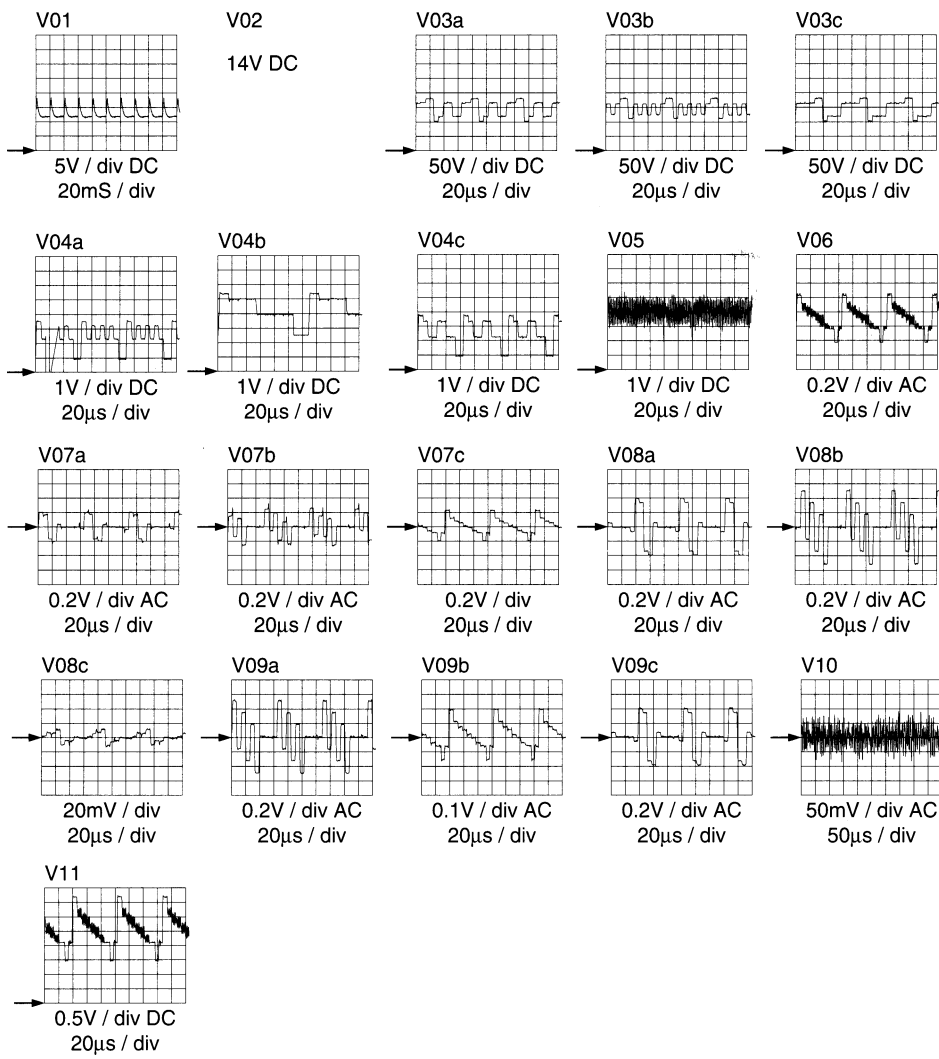
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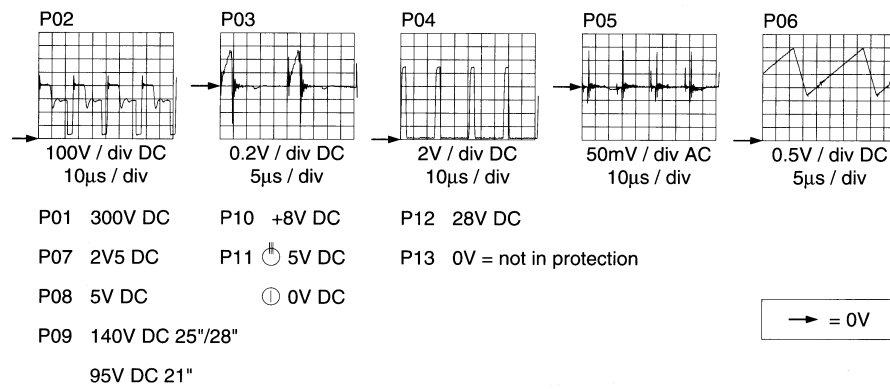
Synchronisation Block / Testpoint Diagrams / Vertical Output Diagram / Video Processing / Video Processing Block / Waveforms / WSSB Module Diagram

Waveforms

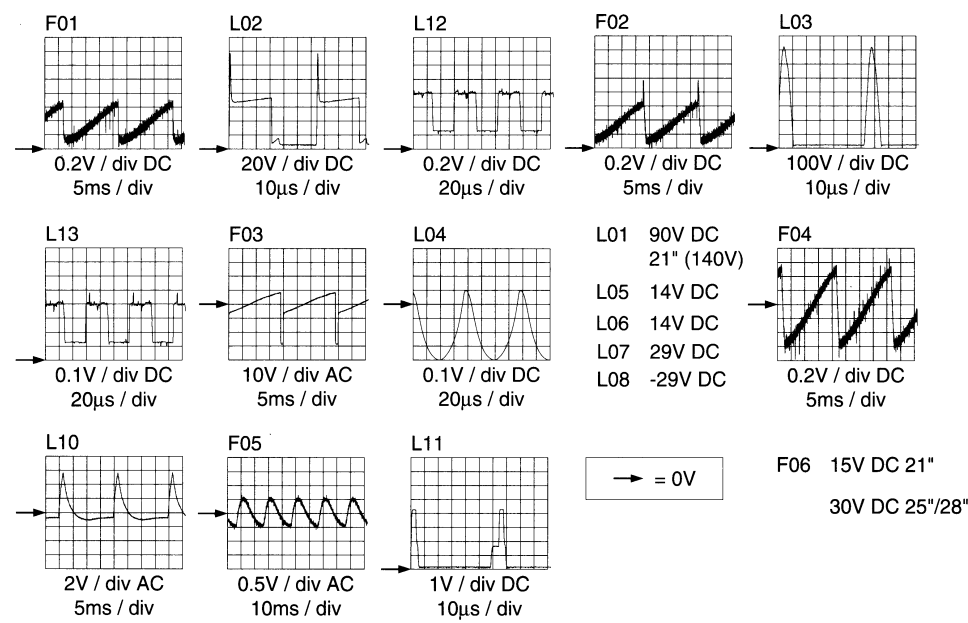
Video Processing Block Diagram



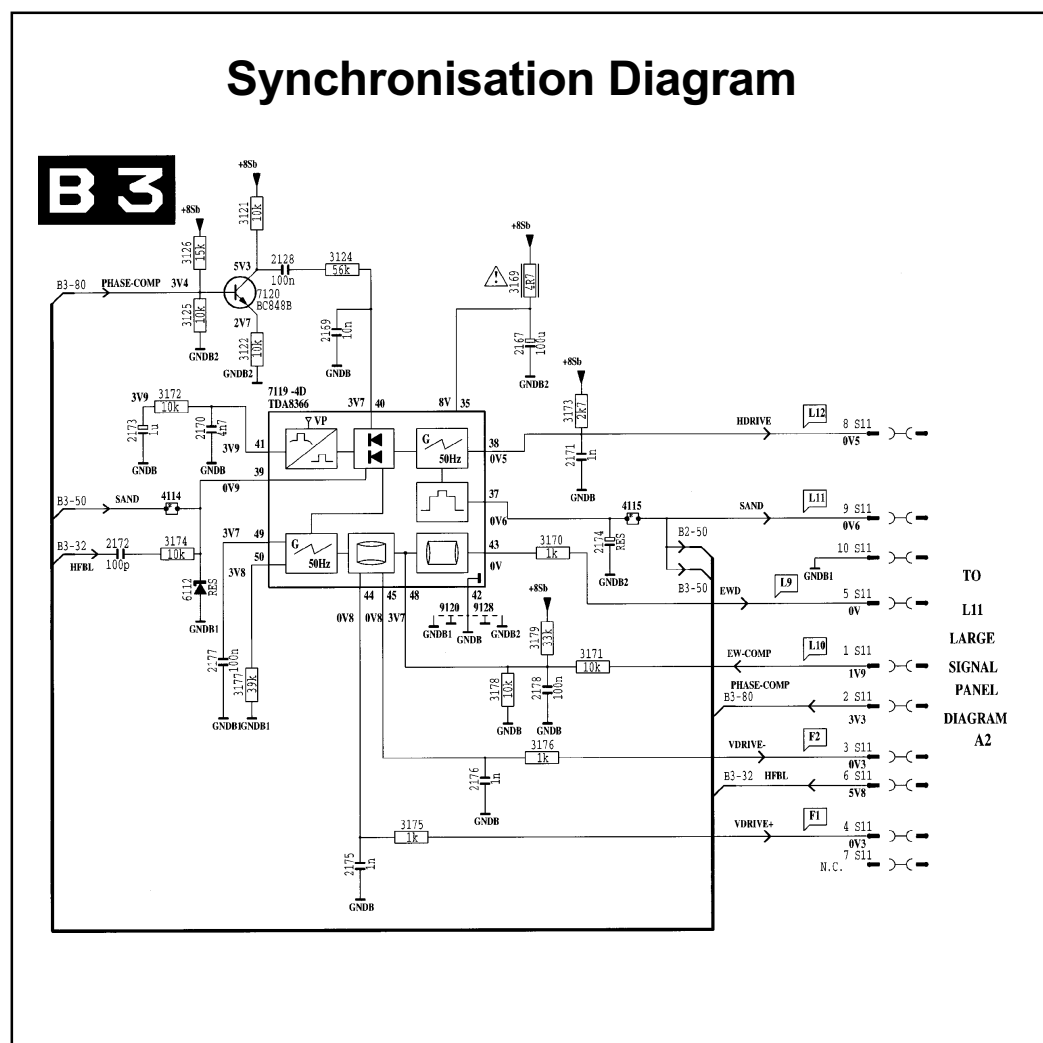
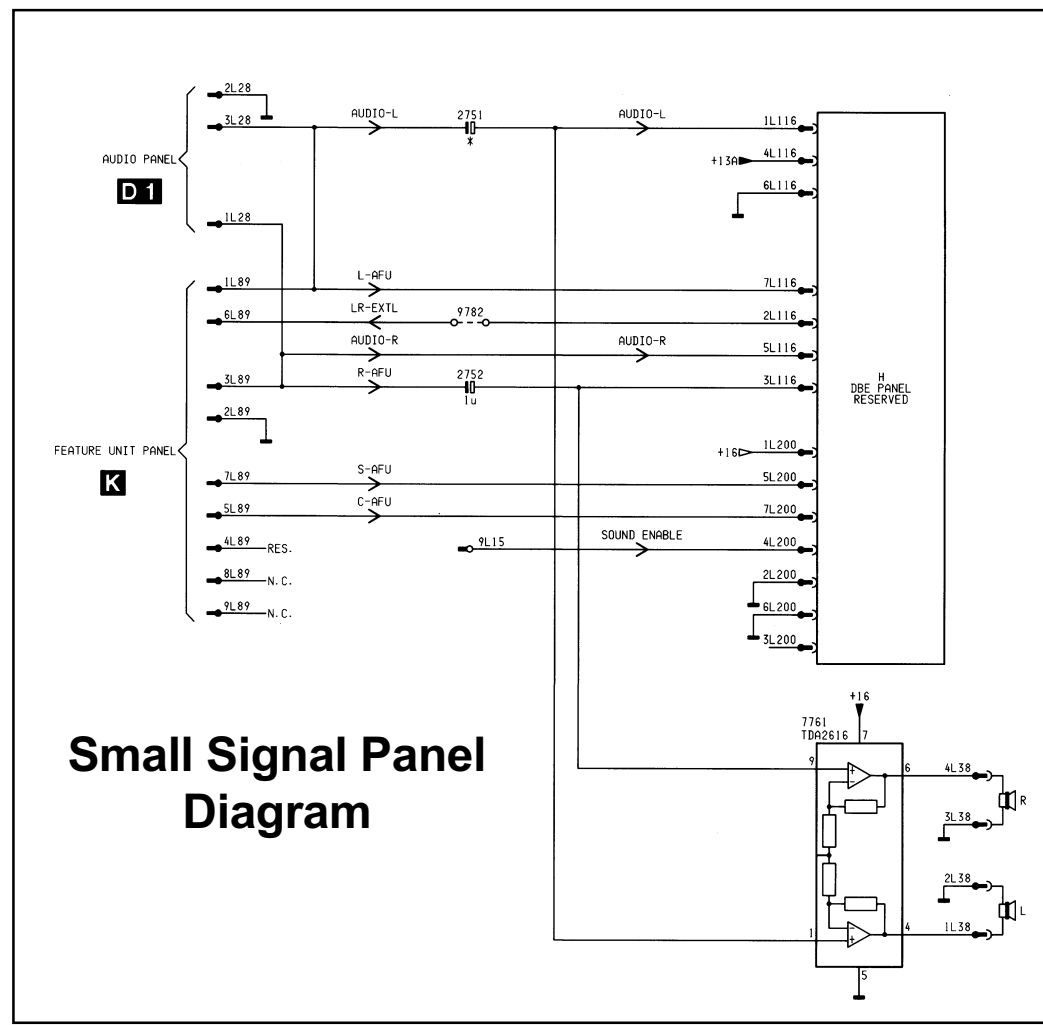
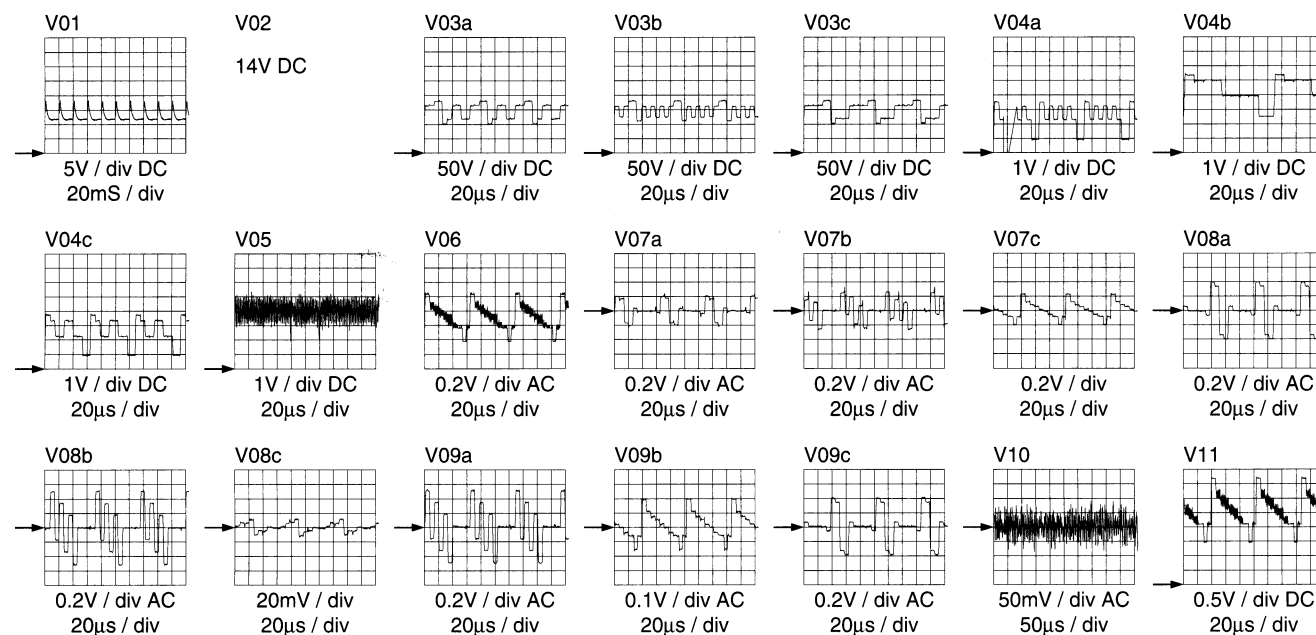
Power Supply



Synchronisation

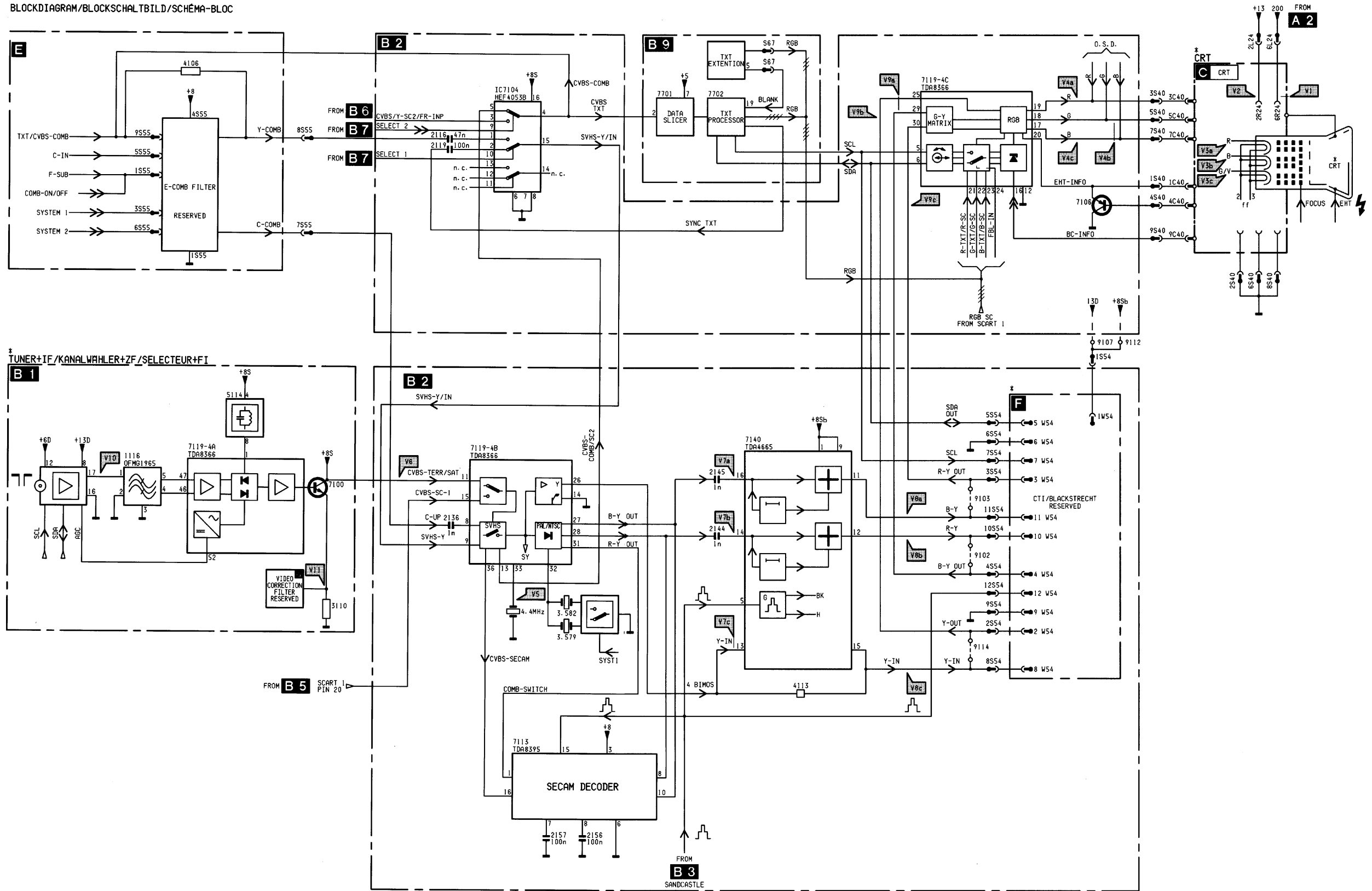


Small Signal Panel

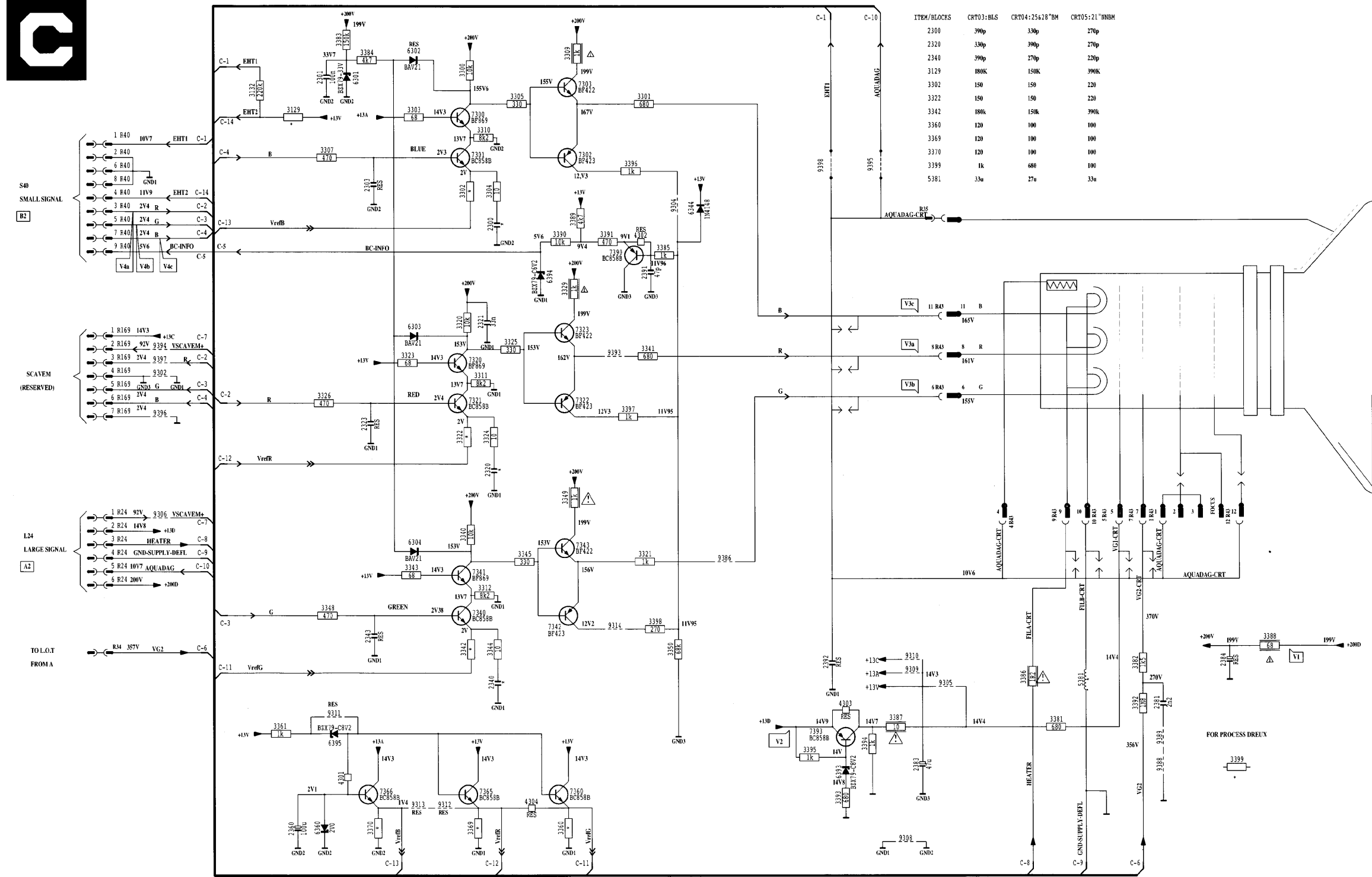


Video Processing Block Diagram

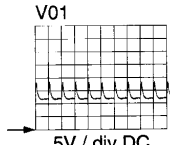
BLOCKDIAGRAM/BLOCKSCHALTBILD/SCHEMA-BLOC



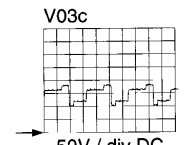
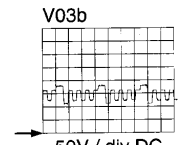
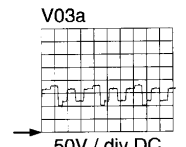
CRT Diagram



ITEM/BLOCKS	CRT03:BL5	CRT04:25x28"BM	CRT05:21"BMH
2300	390p	330p	270p
2320	330p	390p	270p
2340	390p	270p	230p
3129	180K	150K	390K
3302	150	150	220
3322	150	150	220
3342	180K	150K	390K
3360	120	100	100
3369	120	100	100
3370	120	100	100
3399	1k	680	100
5381	33u	27u	33u

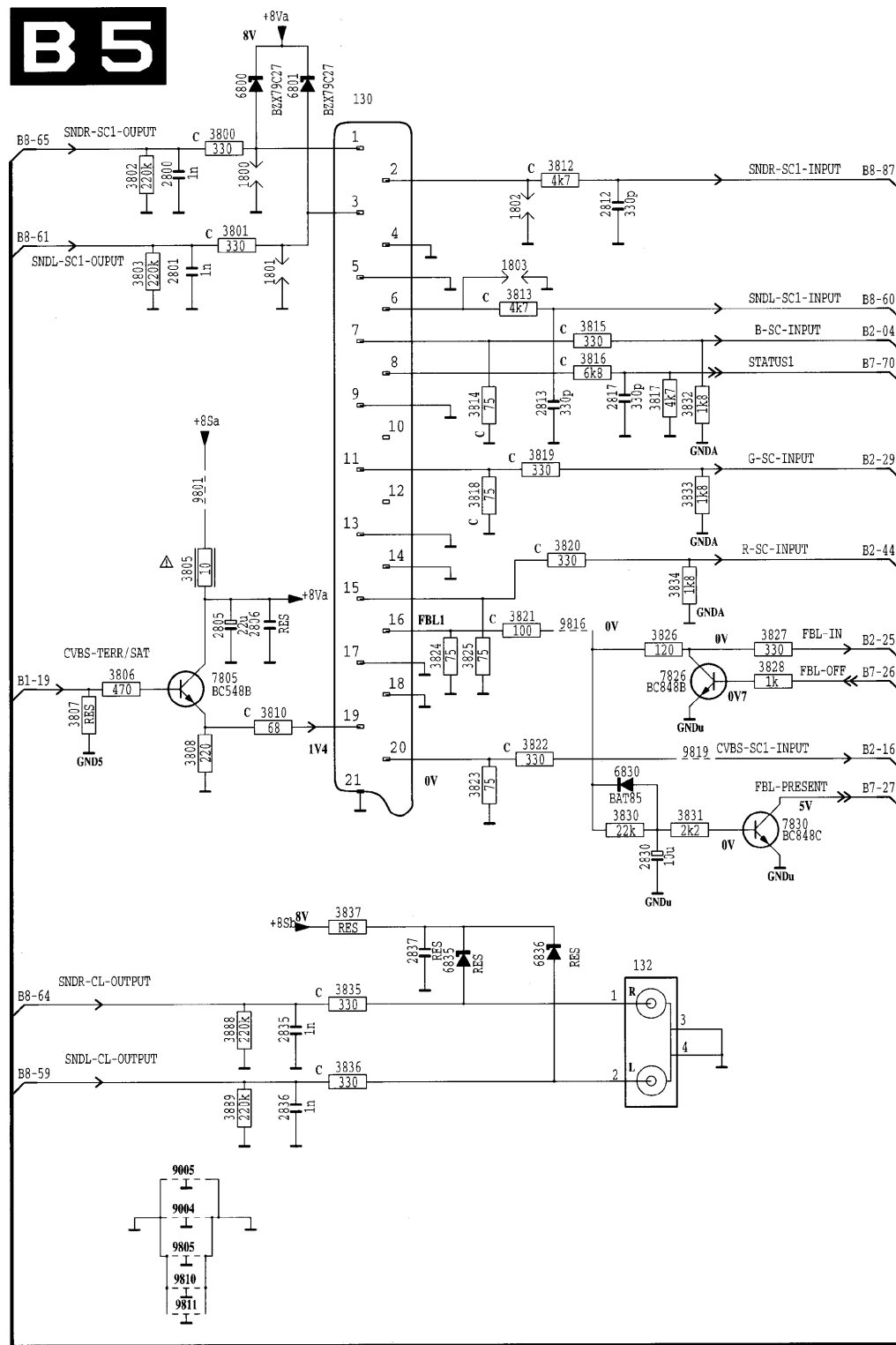


V02 14V DC

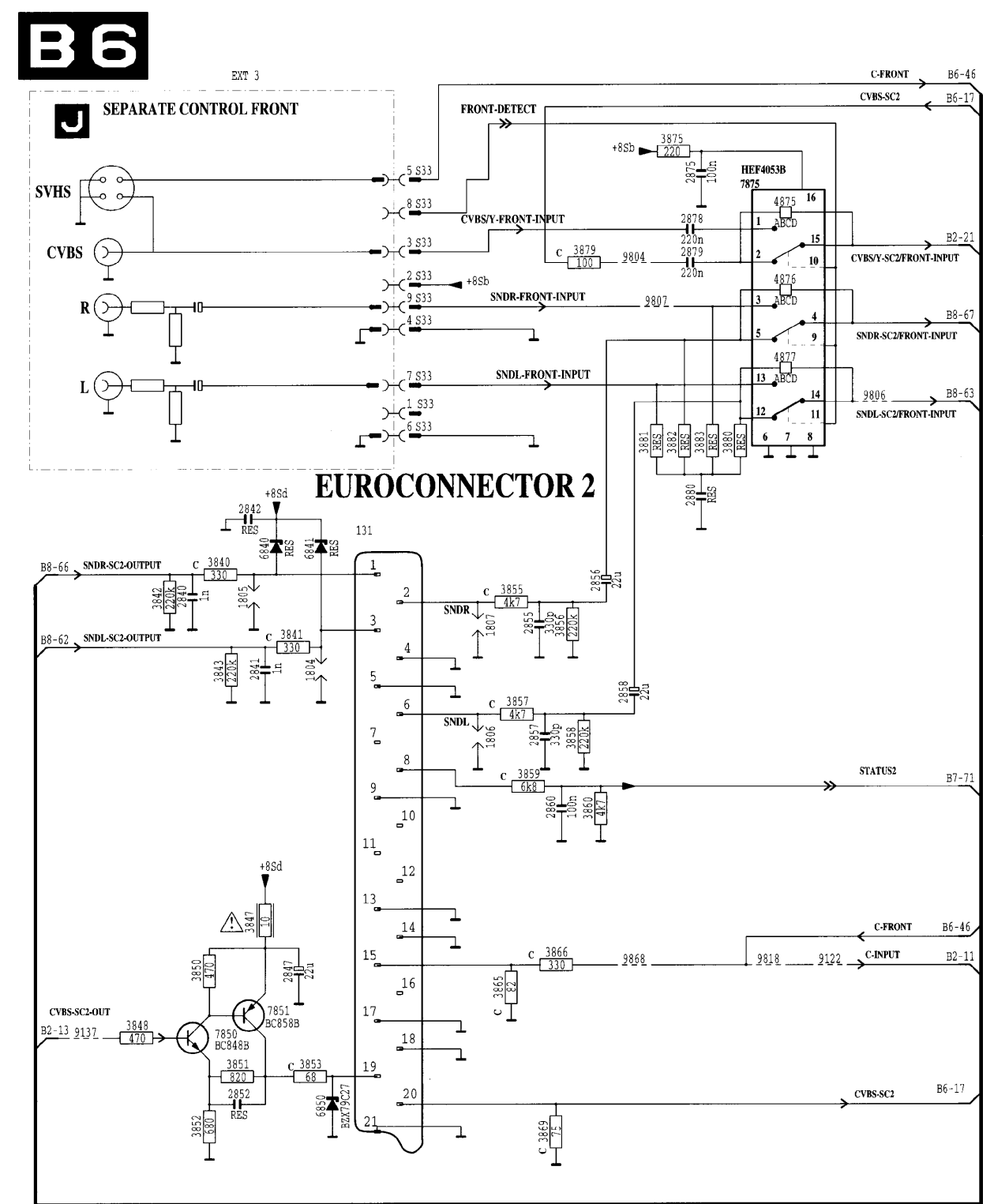


→ = 0V

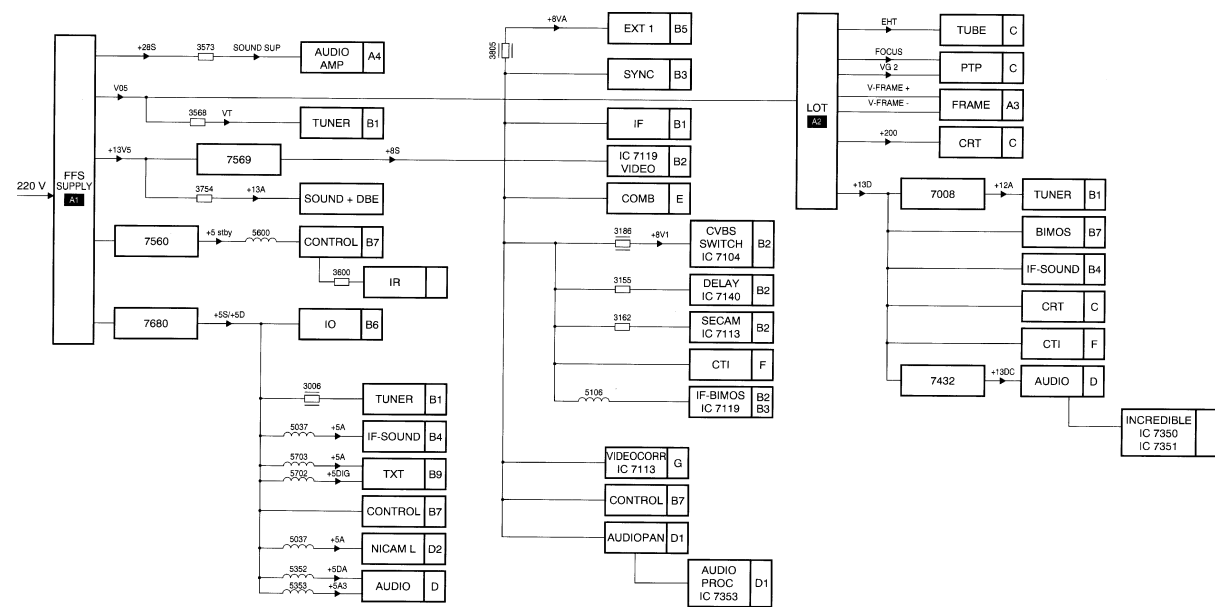
Euroconnector 1 Diagram



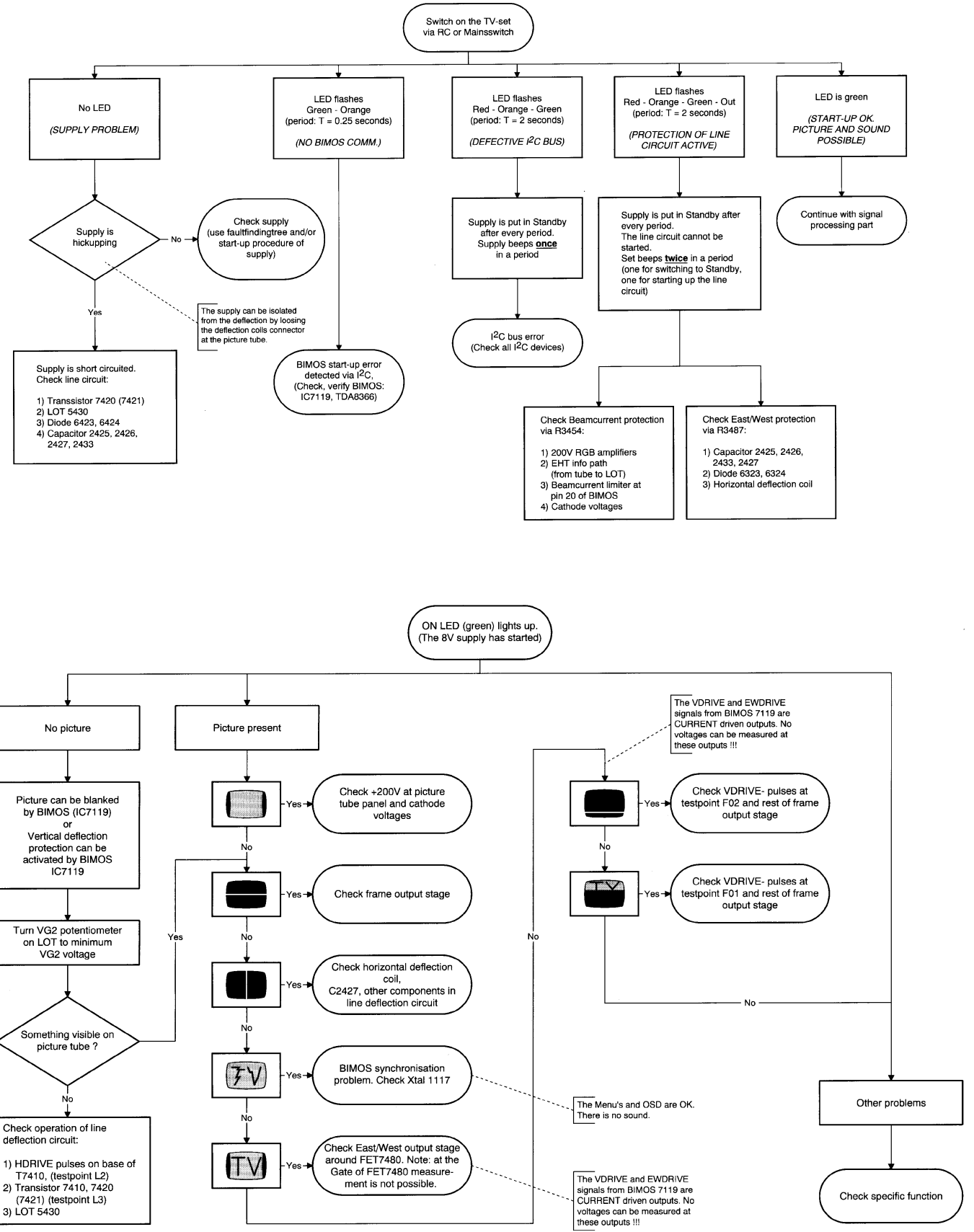
Euroconnector 2 Diagram



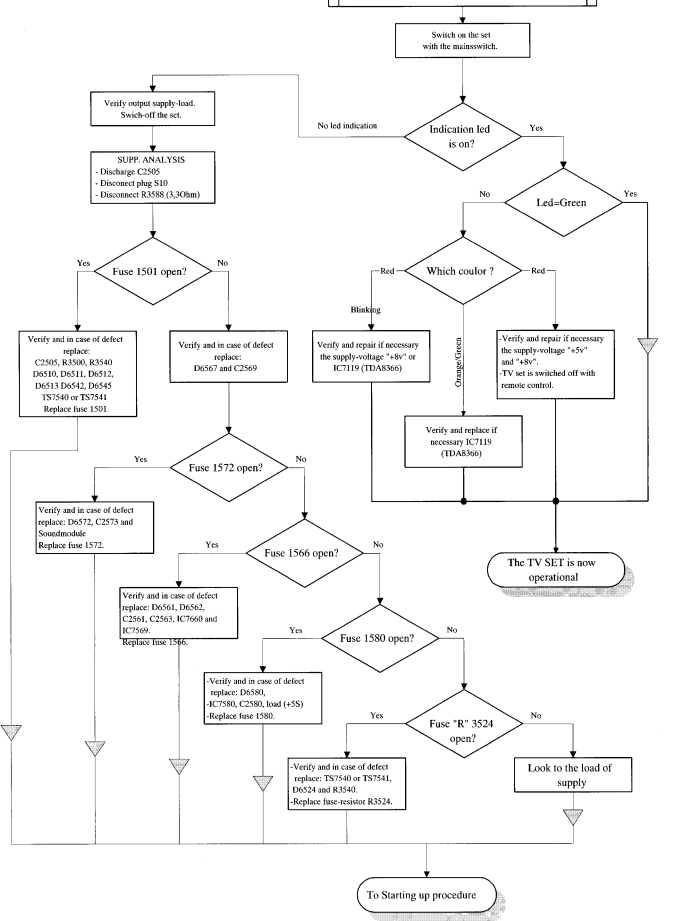
Fault Finding Tree



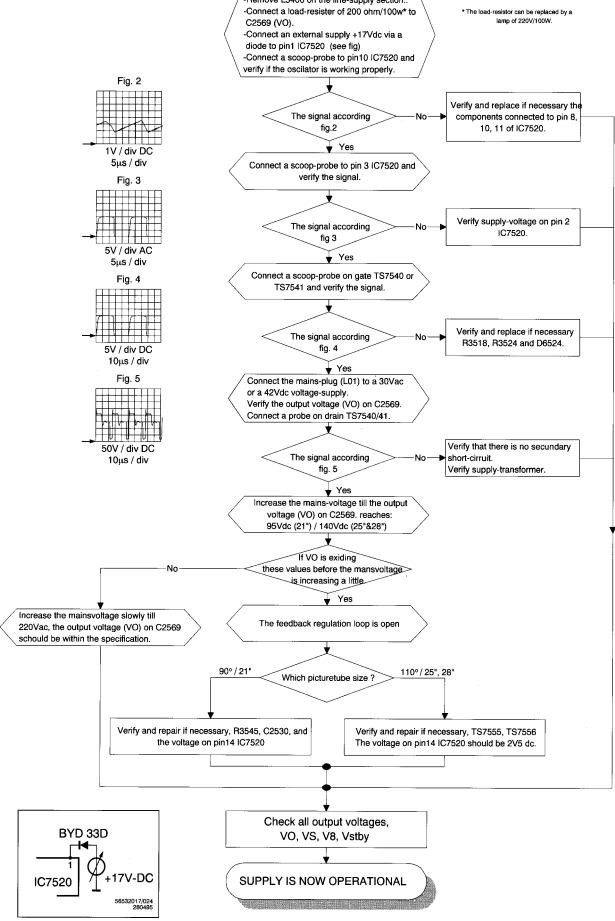
Fault Finding Tree (16:9)



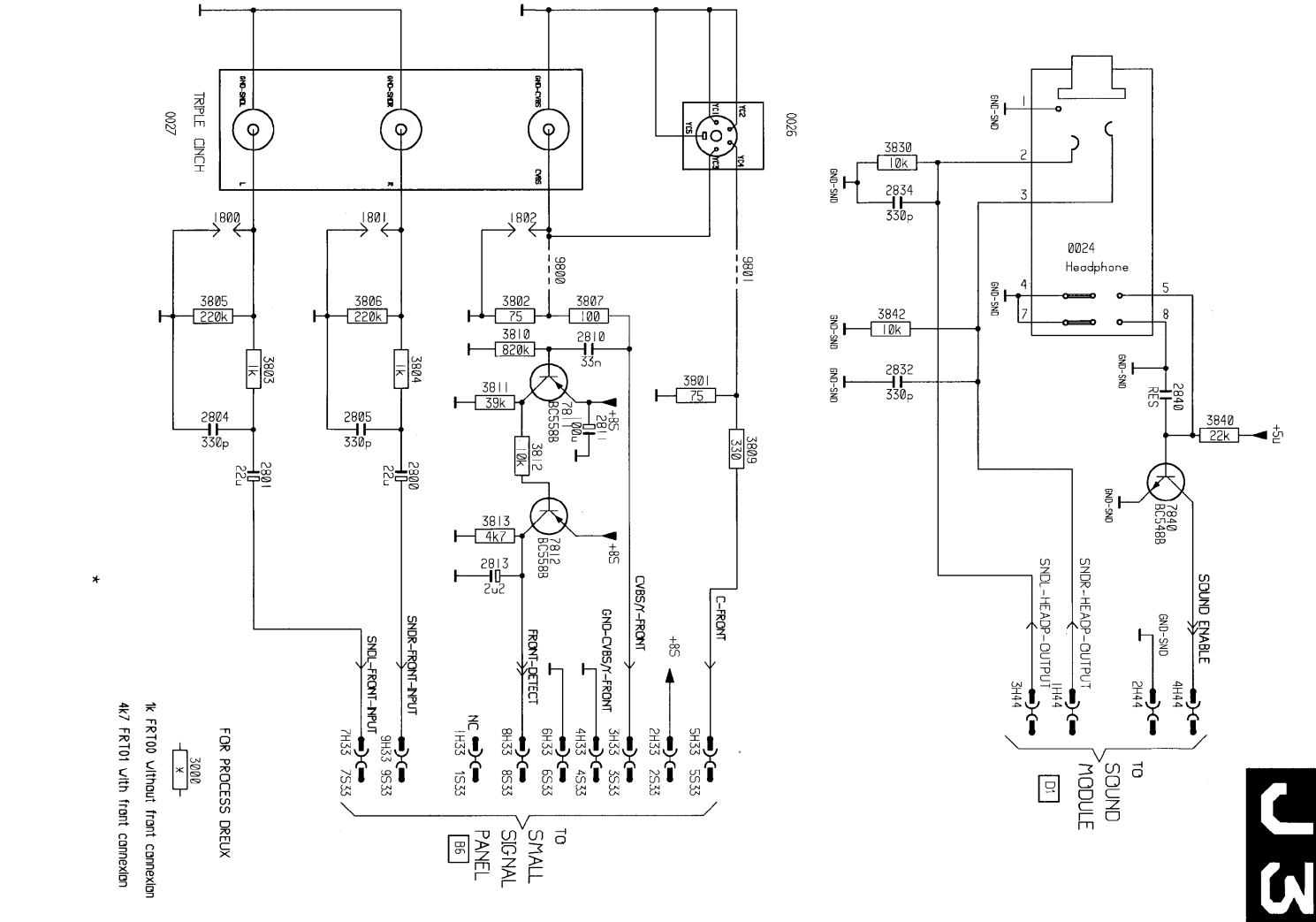
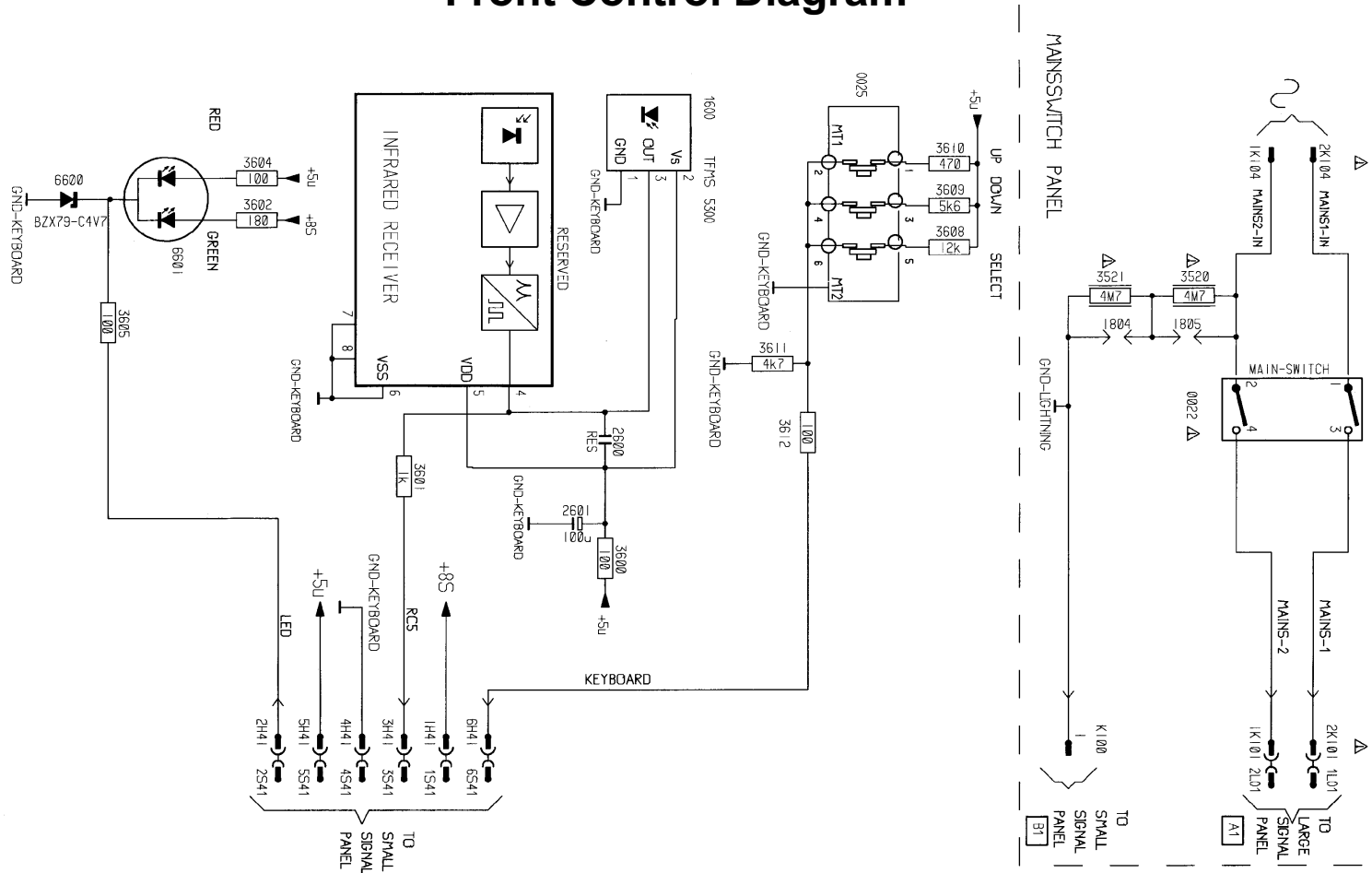
SUPPLY FAULT ANALYSIS



STARTING UP PROCEDURE

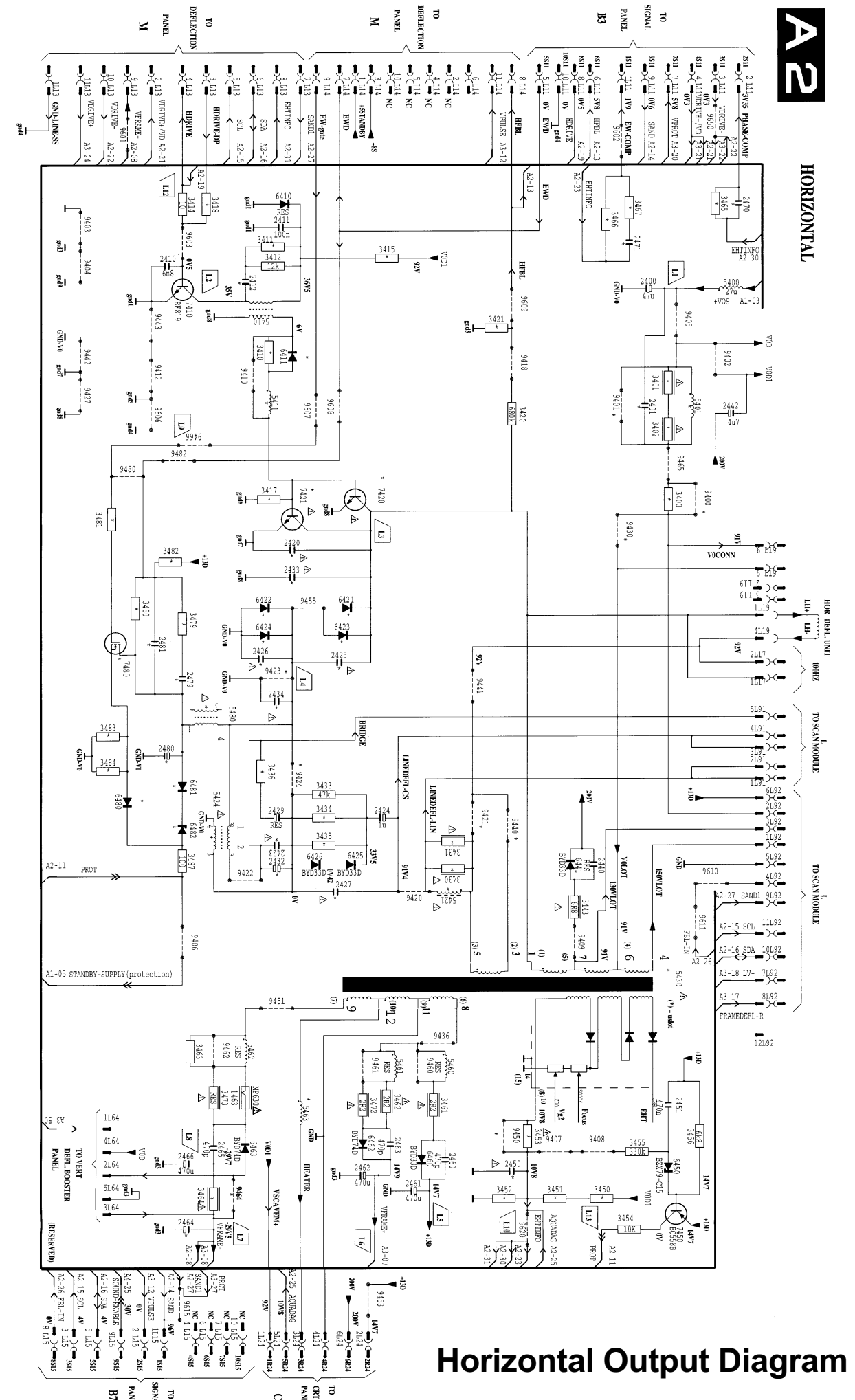


Front Control Diagram



A2

HORIZONTAL



Horizontal Output Diagram

J3

Electrical Adjustments / Safety Parts / Service Notes / Controls Diagram / CRT Diagram / Euroconnector 1 & 2 / Fault Finding Tree...(16:9) / Front Control Diagram

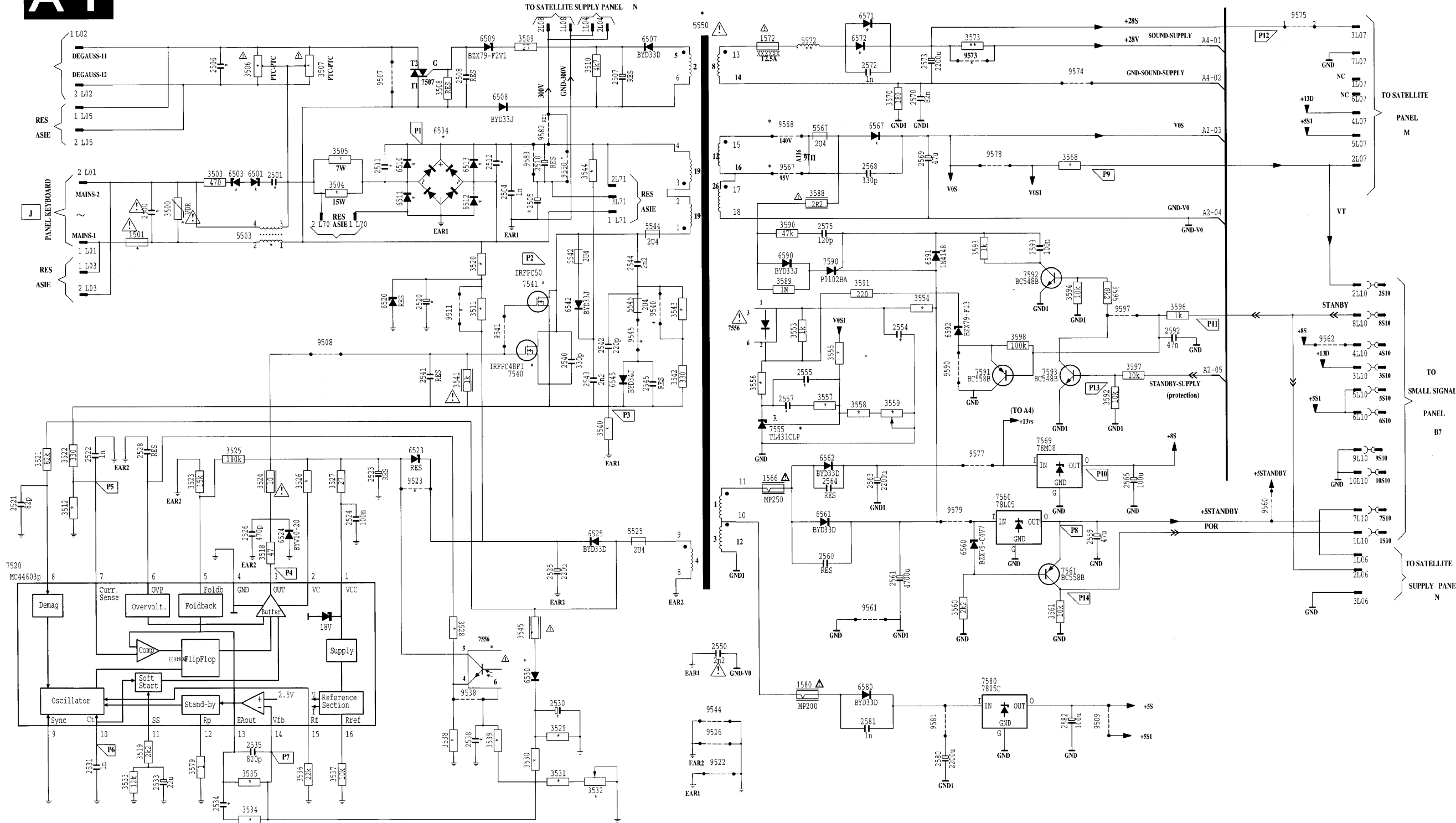
Horizontal Output Diagram / Audio Amp / Audio Module Interface / Audio Module / CTI/Black Stretch Diagram / Nicam Diagram / Power Supply Block / Tuner IF Diagram

Power Supply Diagram / Power Supply Diagrams (21" 16:9) (25/28"/16:9) / 16:9 Module Diagram / Small Signal Panel / Sound IF Diagram / Text Diagram / Sync. Diagram

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Power Supply Diagram

A1



* 25/28"EU	21" AS/E	25/28"ASE	21" EU
SUP 01	SUP 02	SUP 03	SUP 04
1501	2A5	3A15	2A5
2500	470n	470n	470n
2501	33n	33n	33n
2505	220u	220u	220u
2506	100u	100u	100u
2511	2n2	2n2	2n2
2512	2n2	2n2	2n2
2520	-	100u	100u
2530	-	-	4u7
2534	-	1n	1n
2538	2n2	2n2	2n2
2554	100n	100n	-
2555	res	res	-
2557	33n	33n	-
3500	1MA/387V	1MA/387V	1MA/387V
3504	-	res	-
3505	1R5	-	1R5
3506	22R	22R	22R
3507	-	22R	22R
3511	-	1k	1k
3512	2k2	res	1k8
3520	18k	18k	18k
3526	100R	100R	100R
3528	-	10k	10k
3529	-	1k2	1k2
3530	-	24k	24k
3531	-	8k2	8k2
3532	-	10k	10k
3534	-	68k	68k
3535	10k	10k	10k
3538	1k	1k	1k
3539	10k	10k	10k
3540	R22	R22	R27
3543	330R	-	330R
3544	22k	22k	22k
3545	-	33R	33R
3554	100R	100R	100R
3555	160k	-	160k
3556	100R	-	100R
3557	100k	-	100k
3558	2k7	-	2k7
3559	470R	-	470R
3568	100k	68k	100k
3569	-	-	68k
5503	+	+	+
5504	+	+	+
5505	+	+	+
5506	c15	c15	c15
5507	c15	c15	c15
5508	-	D35BA60	D35BA60
5510	1N5061	-	1N5061
5511	1N5061	-	1N5061
5512	1N5061	-	1N5061
5513	1N5061	-	1N5061
5530	-	1N4148	1N4148
5567	BY229-F80D	BY229-F80D	BYD74G
5571	-	-	BYD74B
5572	BY228-20D	BY228-20D	BY228-20D
7540	+	+	+
7541	+	+	+
7555	+	+	+
7556	+	+	+
9511	+	+	+
9523	+	+	+
9540	-	-	-
9550	+	+	+
9567	+	+	+
9568	+	+	+
9583	+	+	+
**	2x10W	2xW	2x5W
	SND 01	SND 02	SND 03
3572	-	1R	1R
5572	1u	2u2	18u
9531	+	-	-

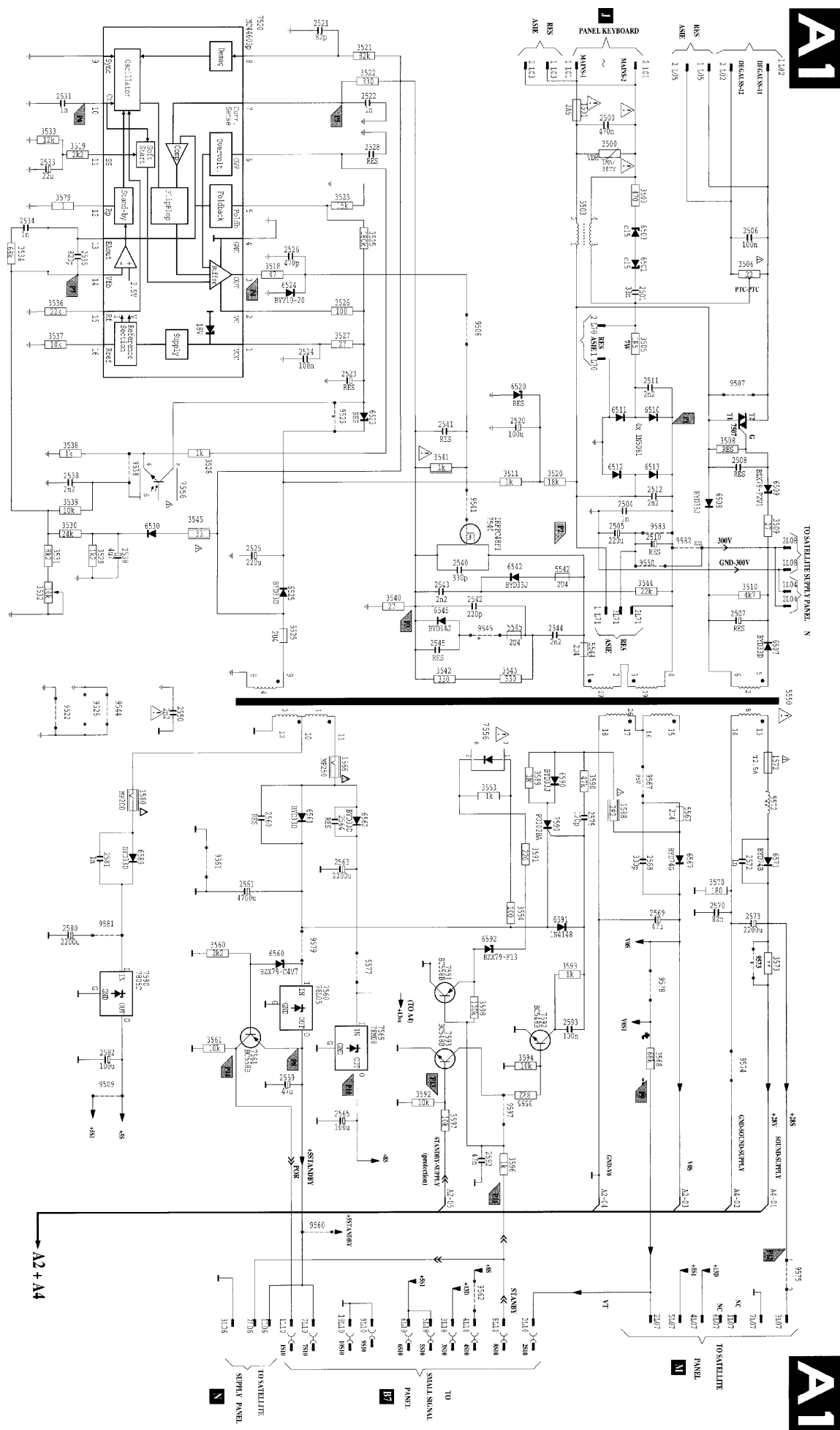
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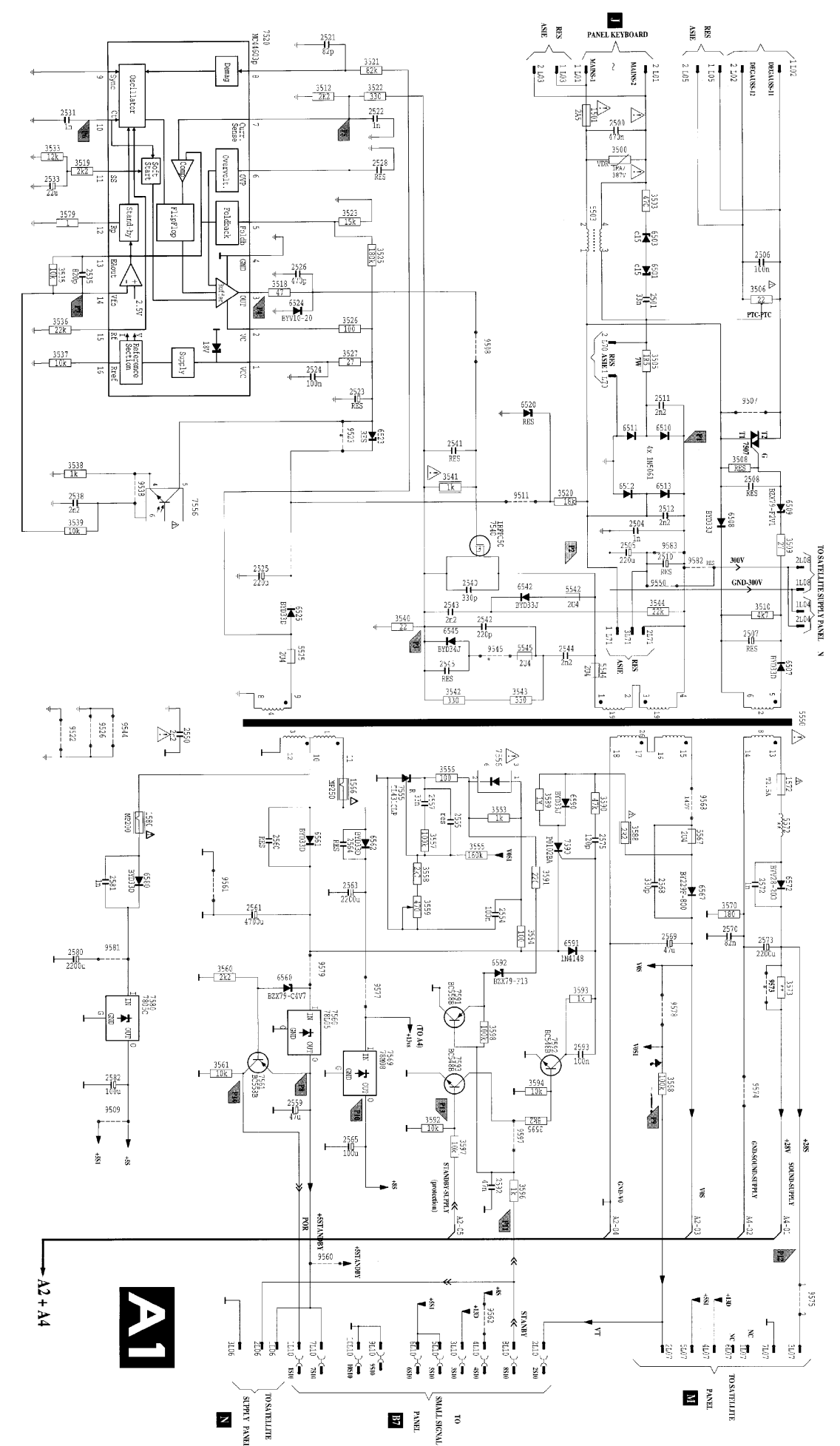
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Power Supply (21" 16:9) Diagram

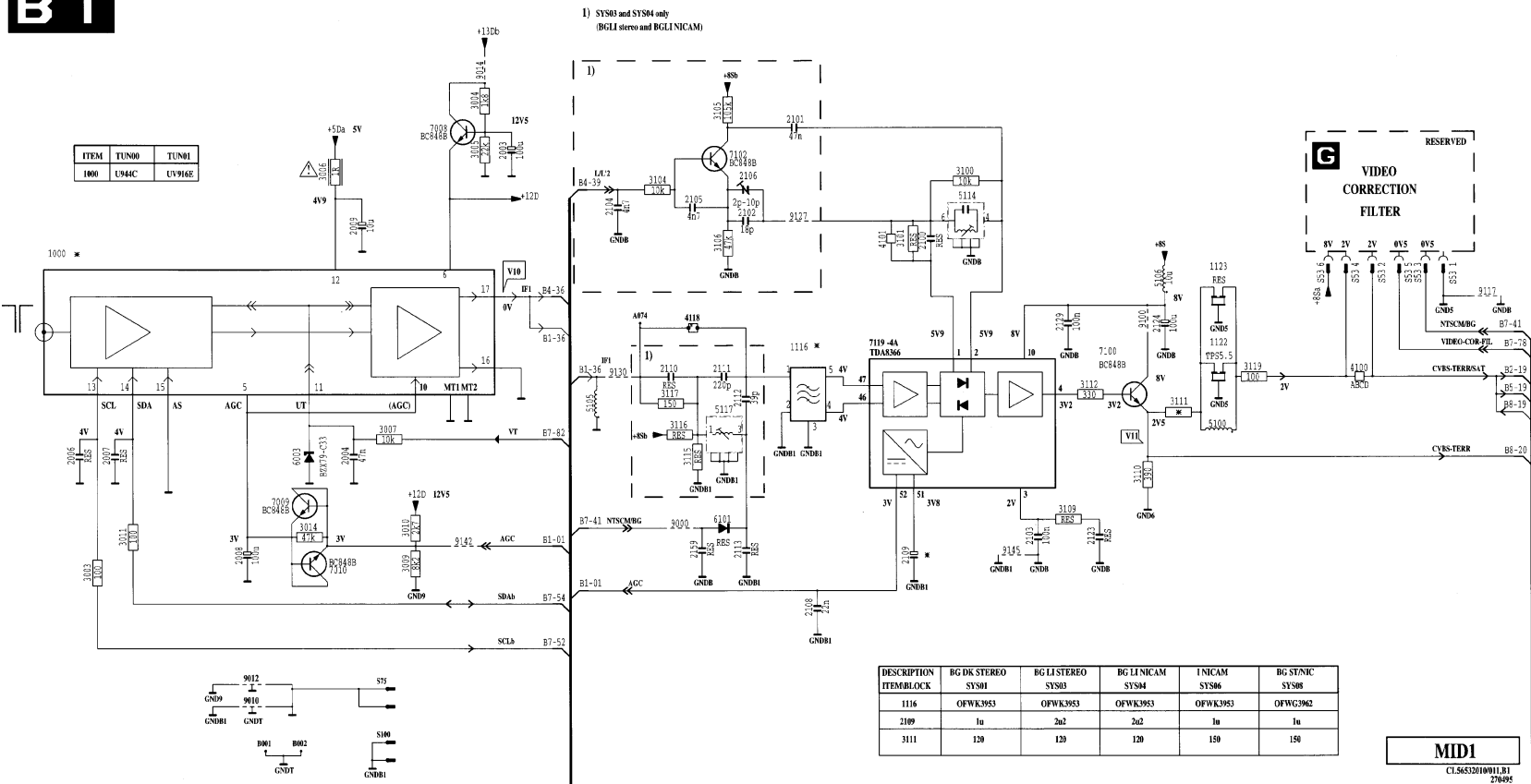


Power Supply (25" & 28" 16:9) Diagram



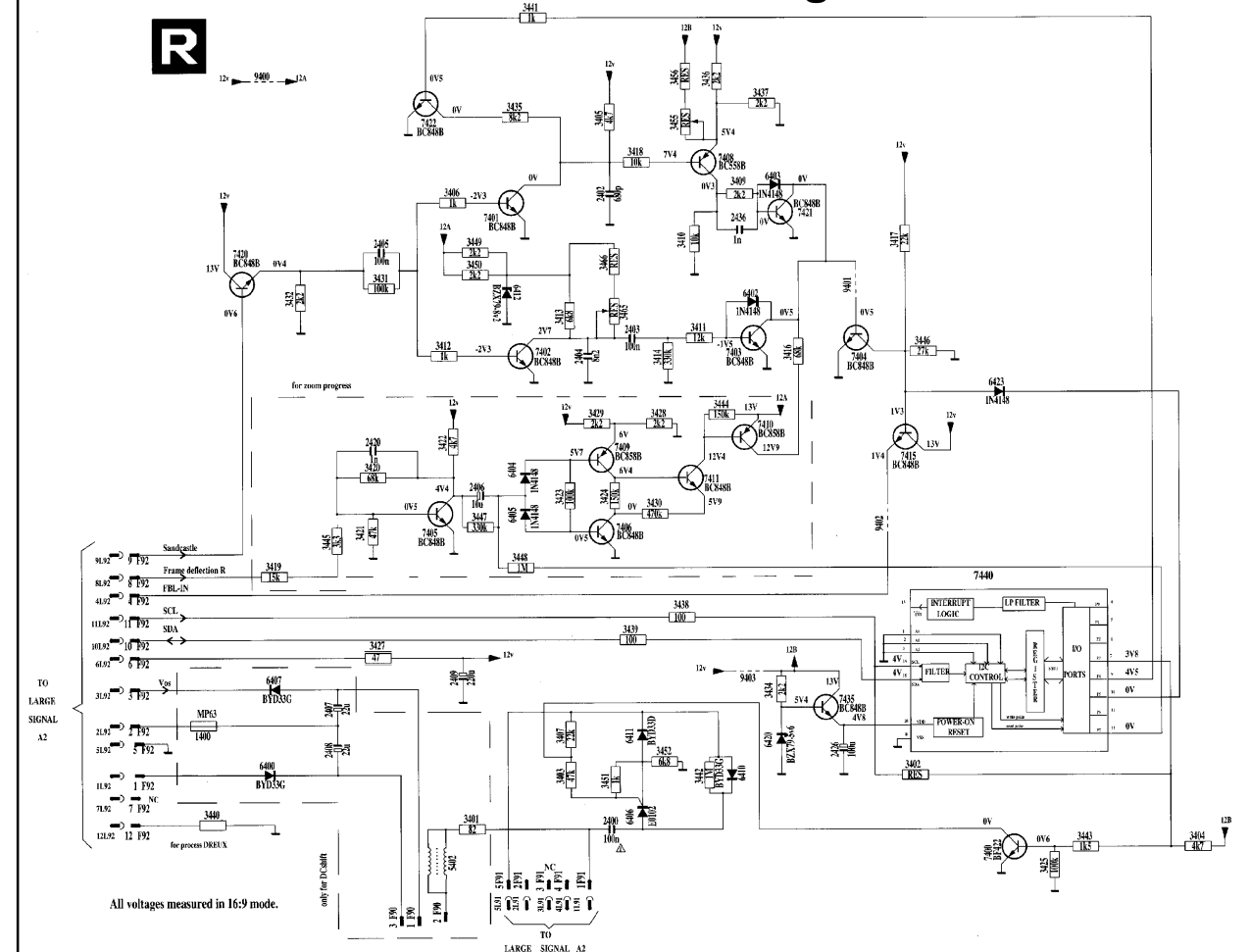
Tuner IF Diagram

B 1



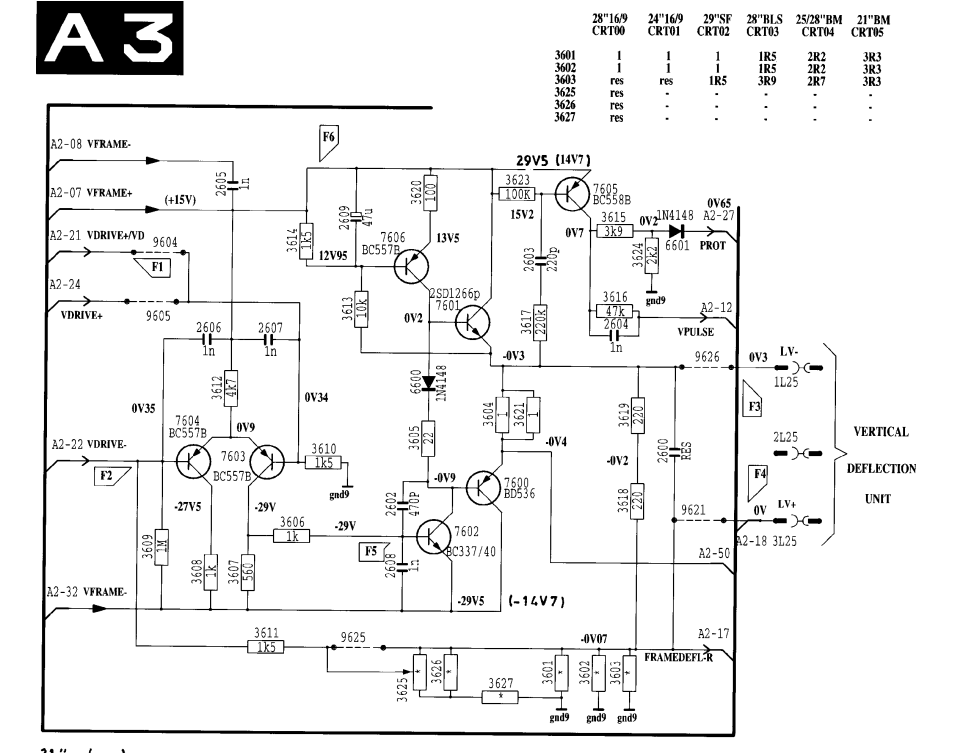
16:9 Module Diagram

R

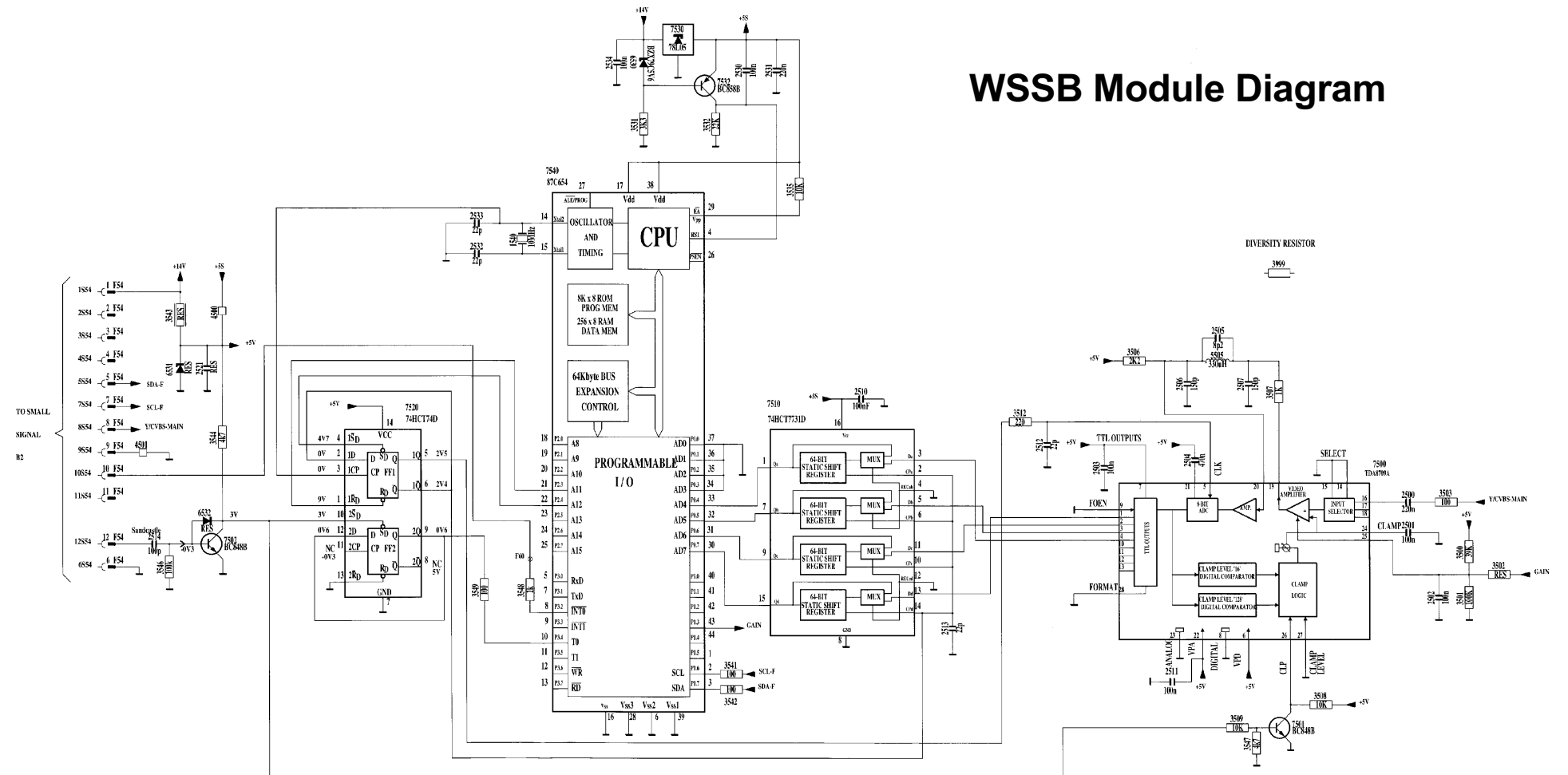


Vertical Output Diagram

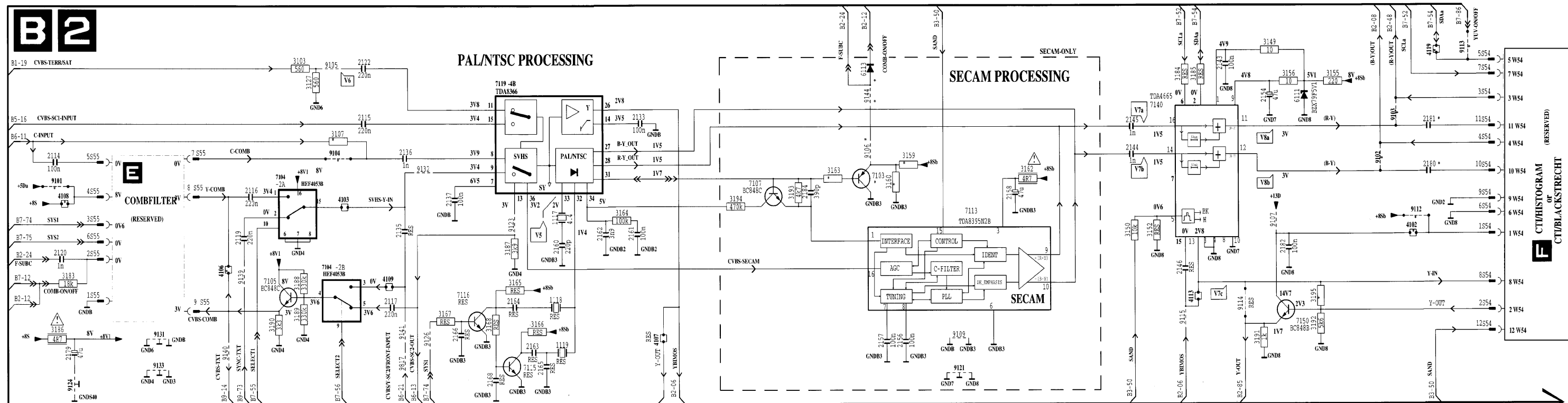
A 3



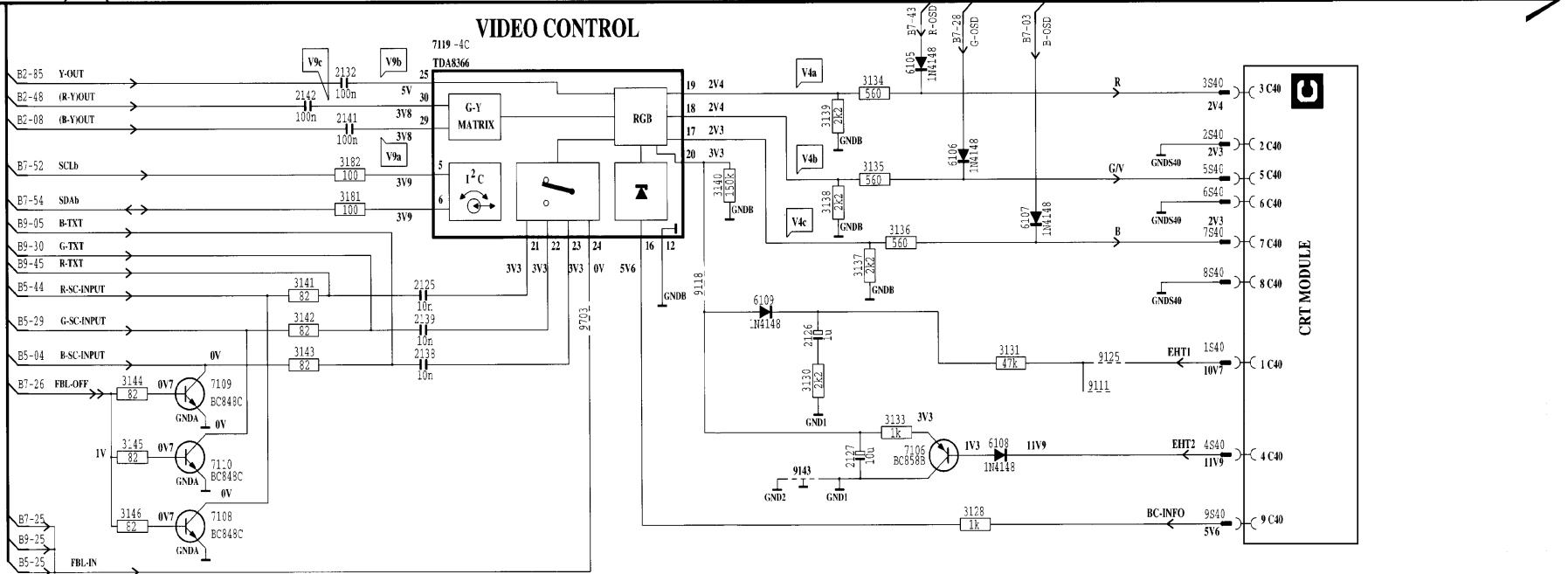
WSSB Module Diagram



Video Processing Diagram



DESCRIPTION ITEM/BLOCK	COMBFILTER CMB00	NO COMBFILTER CMB01	CTI PCT00	NO BLACKSTRETCH + NO CTI PCT02
2180			220n	
2181			220n	
3107		470		
3159		22k		
3160		12k		
3163		2k7		
3195				1k
4102				
4106				
4108				
4119				
6113				
7103		BCSS		
9101				
9102				
9103				
9104				
9106				
9112				
9113				
9144				



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