

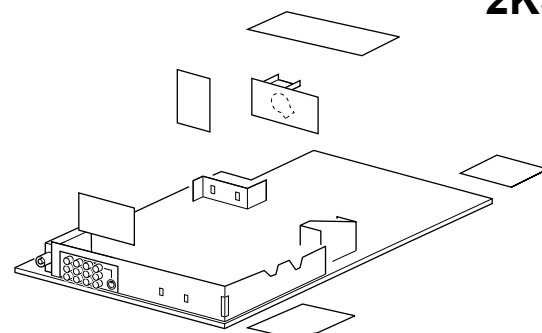
L01.1L

**AC
2K3**

Service
Service
Service


Volta ao Menu

**21PT5431/78R
21PT5432/78R
25PT5531/78R
28PW6431/78R
28PW6532/78R
29PT4631/78R
29PT5632/78R
32PW6532/78R**



Service Manual

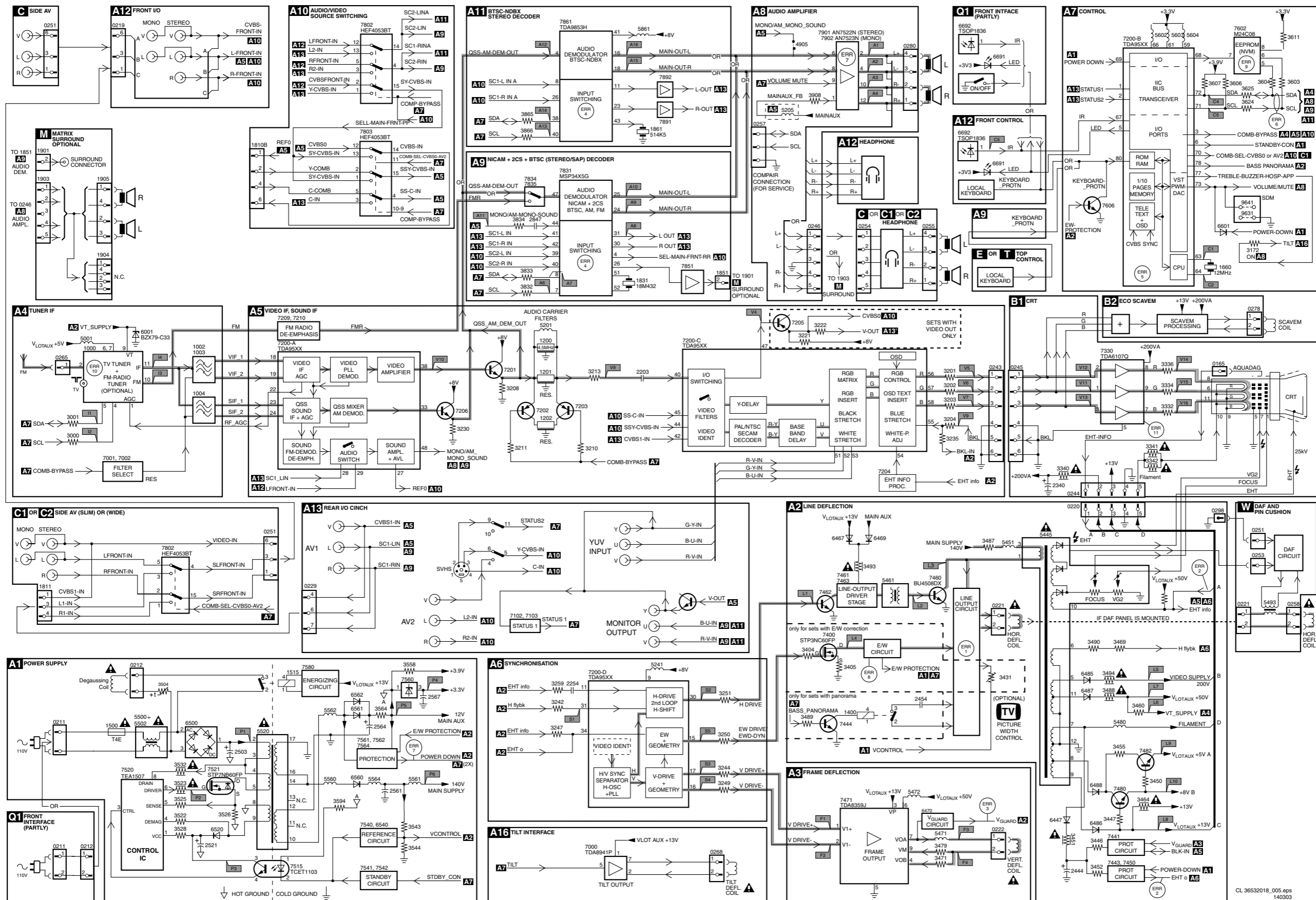
CONTEÚDO	PÁGINA	CONTEÚDO	PÁGINA
1 Especificações Técnicas, Conexões e Vista Geral do Chassis	2	Tabela de Diversidades	41
2 Precauções de Segurança e Manutenção		PIP + Interface Tilt CRT (Diagrama A16)	42
Instruções, Avisos e Notas	4	Painel CRT : ECO Scavem (Diagrama B1)	49
3 Instruções de Uso	6	Painel CRT : ECO Scavem (Diagrama B2)	50
4 Instruções Mecânicas	18	Painel AV Lateral + Headphone (Diagrama C)	53
5 Modos de Serviço, Códigos de Erro e Descoberta de Falhas	20	Painel AV Lateral + Headphone (SLIM) (Diag.C1)	54
6 Diagrama em Blocos , Pontos de teste, I2C e Diagrama em Blocos	25	Painel AV Lateral + Headphone (WIDE) (Diag.C2)	56
Vista Geral da Tensão de Alimentação	26	Painel de Controle Superior (Diagrama E)	58
Vista Geral dos Pontos de Teste	27	Painel de Matrix Surround (Diagrama M)	59
Esquemas e Painéis	Diagr. Painel	Painel de Controle Superior (Diagrama T)	60
Fonte de Alimentação (Diagrama A1)	28	Painel de Interface Frontal (Diagrama Q1)	62
Deflexão Horizontal (Diagrama A2)	29	Painel DAF +	
Deflexão Vertical (Diagrama A3)	30	Correção Interna Pin Cushion (Diagrama W)	63
Tuner I/F (Diagrama A4)	31	8 Ajustes	65
FI Video + FI Som (Diagrama A5)	32	9 Descrição do Circuito	71
Sincronismo (Diagrama A6)	33	Lista de Abreviações	80
Controle (Diagrama A7)	34	10 Listas de Material	
Amplificador de Áudio (Diagrama A8)	35	Lista de Material 21PT5431/78R	82
BTSC (Stereo / Decoder SAP) (Diagrama A9)	36	Lista de Material 21PT5432/78R	87
Chaveamento de A/V (Diagrama A10)	37	Lista de Material 25PT5531/78R	92
BTSC NDBX Stereo Decoder (Diagrama A11)	38	Lista de Material 28PW6431/78R	98
E/S Frontal+Controle+Headphone (Diagr. A12)	39	Lista de Material 28PW6532/78R	104
E/S Traseira Cinch (Diagrama A13)	40	Lista de Material 29PT4631/78R	110
		Lista de Material 29PT5632/78R	115
		Lista de Material 32PW6532/78R	121



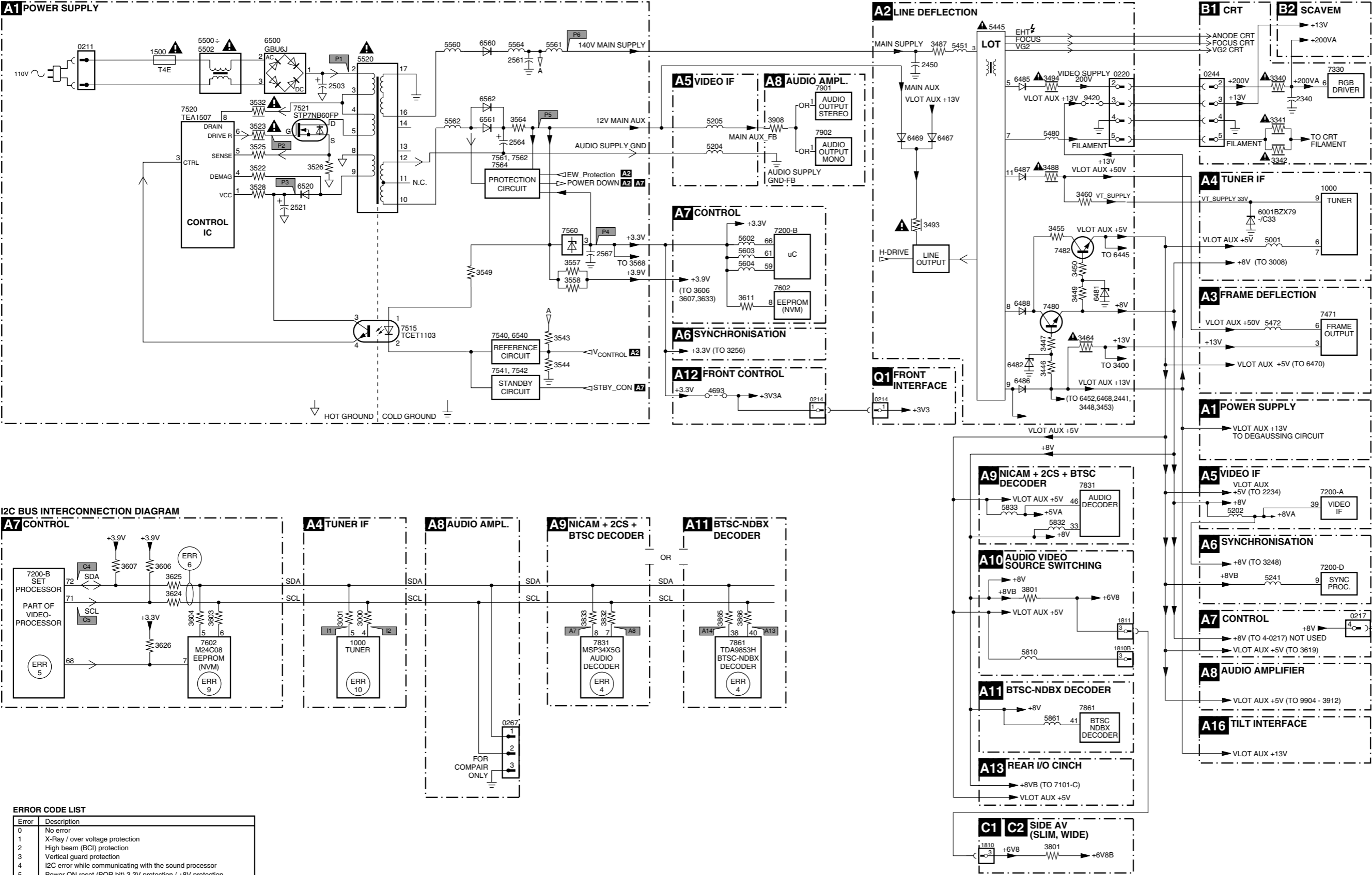
PHILIPS

6. Diagrama em Blocos, Pontos de Teste, I2C e Tensão de Alimentação

Diagrama em Blocos

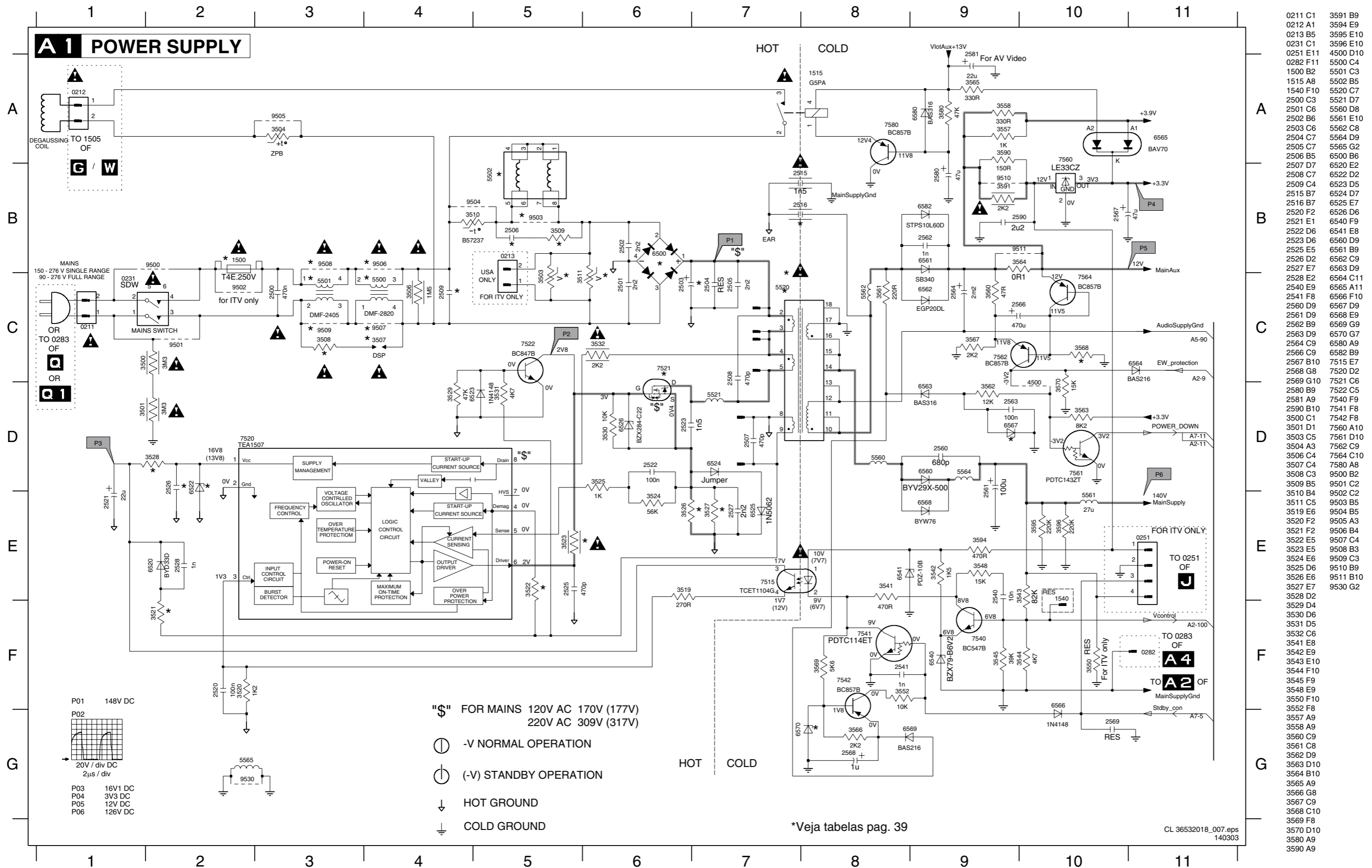


Vista Geral I2C e Tensão de Alimentação



7. Esquema Elétrico e Layout dos Painéis

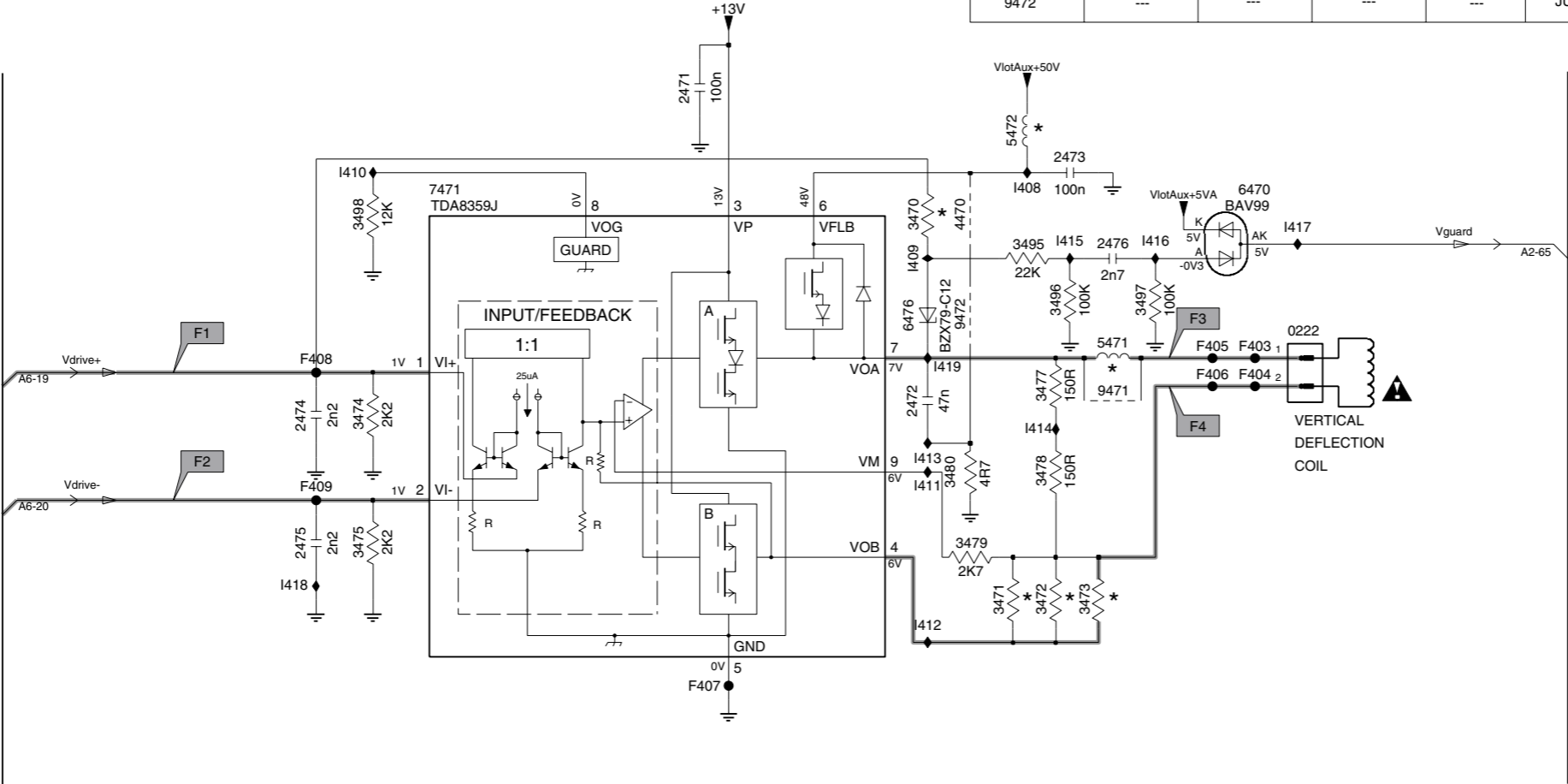
Mono Painel: Fonte de Alimentação



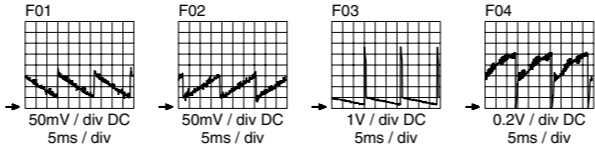
Mono Painel: Deflexão Vertical

A3 Deflexão Vertical

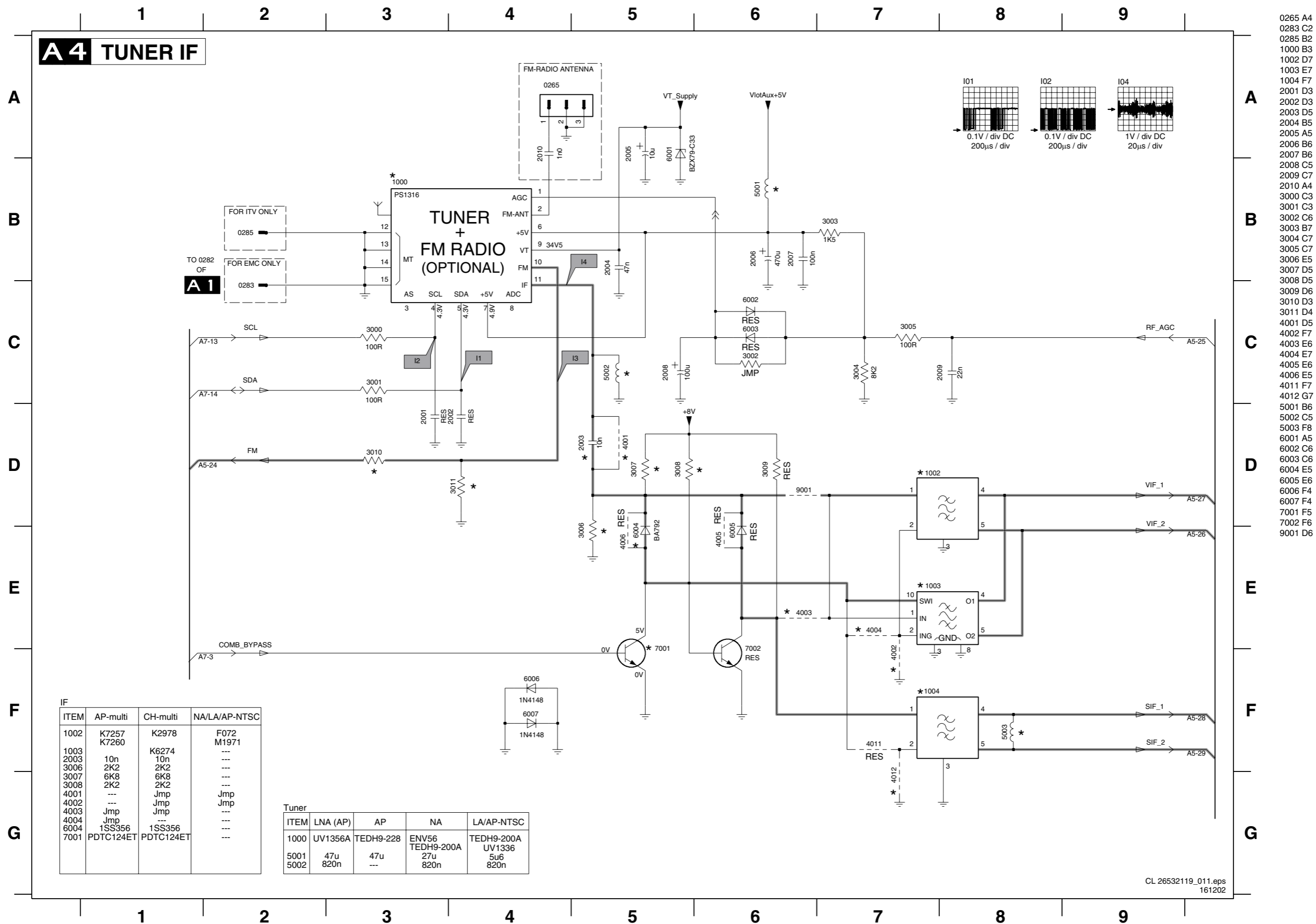
MODEL	L2K3						
REGION	EU				AP	GL	CH/IN
TUBE	PHCO		LG.PH		LG.PH	SMGK(SF)	LG.PH
SET	28WR	32WR	29RF	24WR	21RF	21RF	29RF
2472	63V 150N	63V 150N	63V 150N	63V 150N	100V 10N	100V 10N	63V 150N
3470	470K	270K	330K	470K	270K	470K	470K
3471	2R2	3R9	3R3	2R2	3R9	3R9	3R9
3472	3R3	3R3	3R3	3R3	4R7	3R9	3R9
3473	3R9	3R9	3R3	3R9	6R8	---	---
3480	1R5	1R5	1R5	1R5	---	---	1R5
4470	---	---	---	---	SMD_JUMPER	SMD_JUMPER	---
5471	6U8	6U8	3U3	3U3	6U8	6U8	3U3
5472	3MUH3	3MUH3	6MUH8	3MUH3	3MUH3	6MUH8	3MUH3
9472	---	---	---	---	JUMPER	JUMPER	---



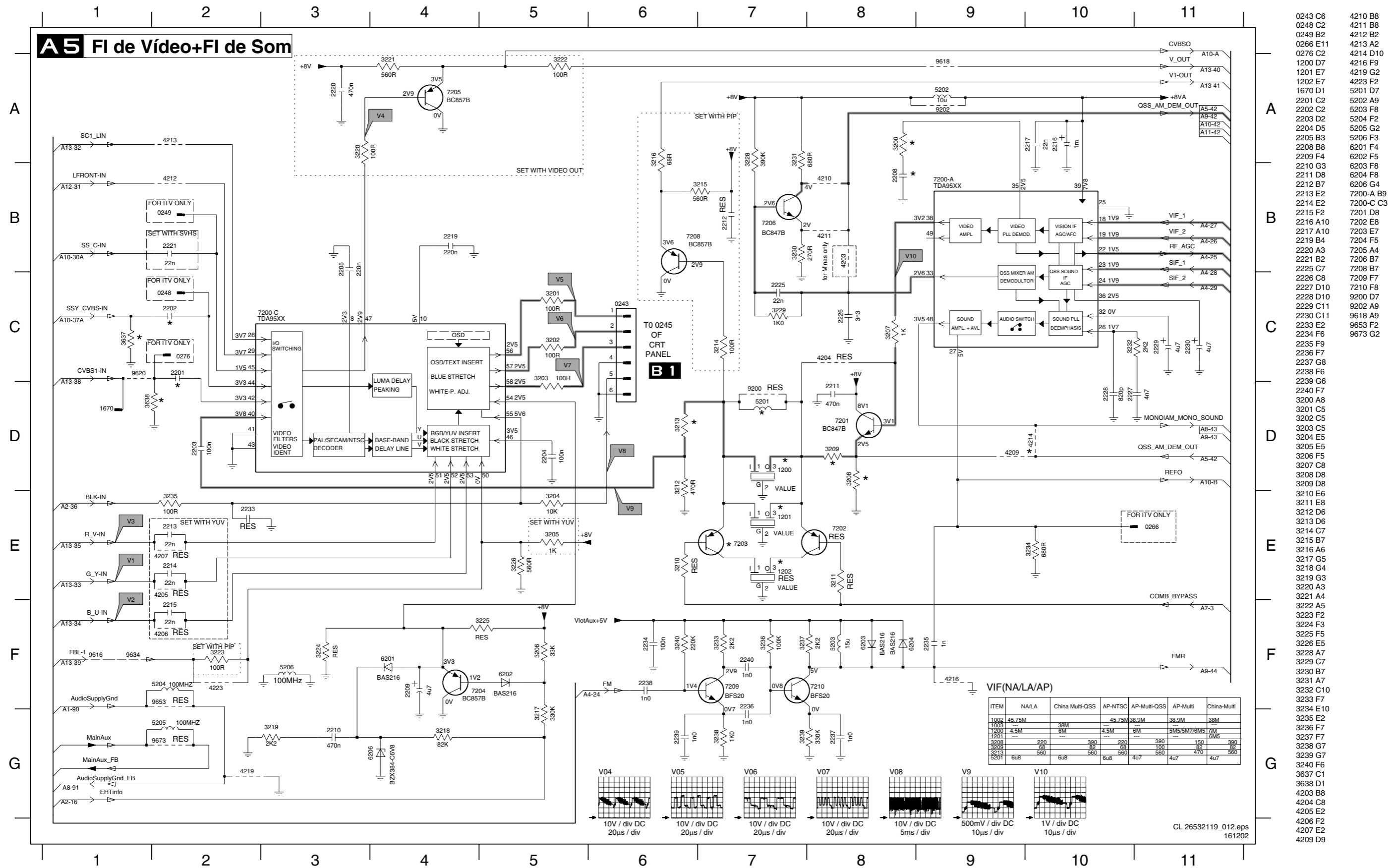
REGION	NAFTA			LATAM	
TUBE	SMGK	TOS	LG.PH	LG.PH	LG.PH
ITEM	21RF	34RF	32V	32WSRF	28WSRF
2472	63V 150N	63V 150N	63V 150N	63V 150N	63V 150N
3470	SM0805 390K	SM0805 470K	SM0805 390K	SM0805 270K	SM0805 470K
3471	4R7	3R3	4R7	3R9	3R3
3472	2R2	2R2	2R2	3R3	3R3
3473	3R3	2R2	3R3	3R9	3R9
3480	1R5	1R5	1R5	1R5	1R5
4470	---	---	---	---	---
5471	3U3	6U8	3U3	6U8	6U8
9472	---	---	---	---	---



Mono Paine! Tuner IF

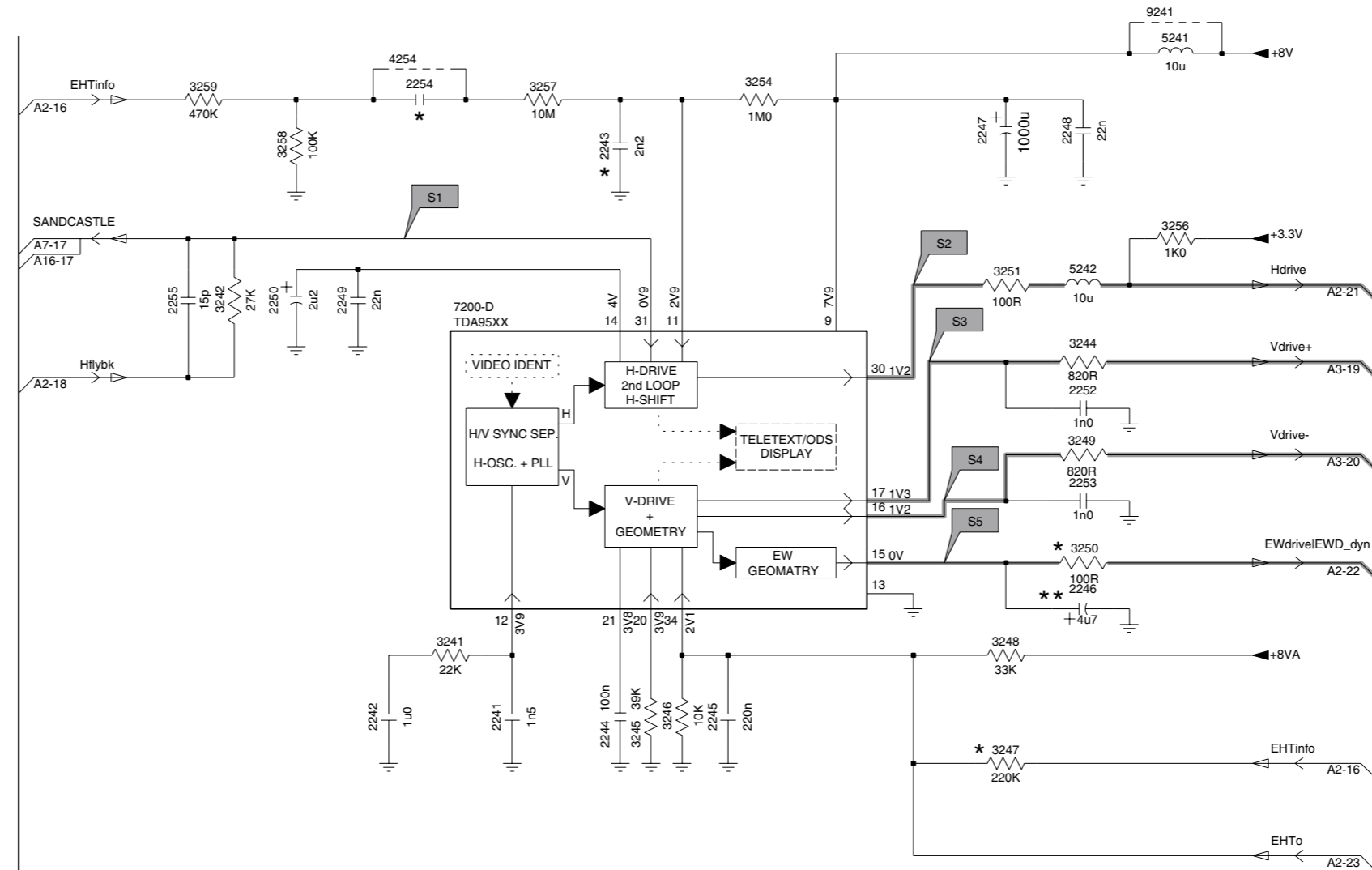


A5 FI de Vídeo+FI de Som

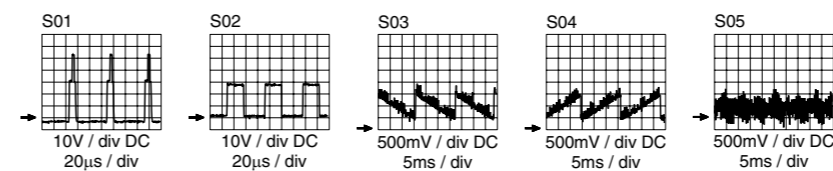


Mono Paineil: Sincronismo

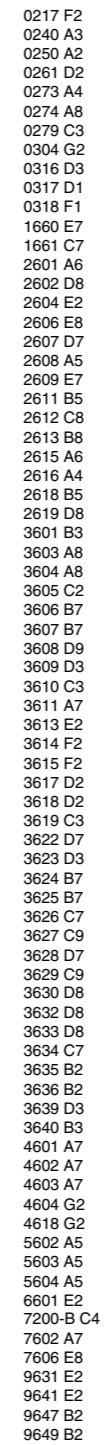
A 6 Sincronismo



REGION	NAFTA			LATAM	
TUBE	SMGK	TOS	LG.PH	LG.PH	LG.PH
ITEM	29RF	34RF	32V	32WSRF	28WSRF
2243	50V 2N2	50V 2N2	50V 2N2	50V 10N	50V 10N
3247	680K (SMD)	680K (SMD)	680K (SMD)	470K (SMD)	470K (SMD)
3250	8K2	8K2	8K2	1K	1K
3258	100K (SMD)	100K (SMD)	100K (SMD)	100K (SMD)	100K (SMD)

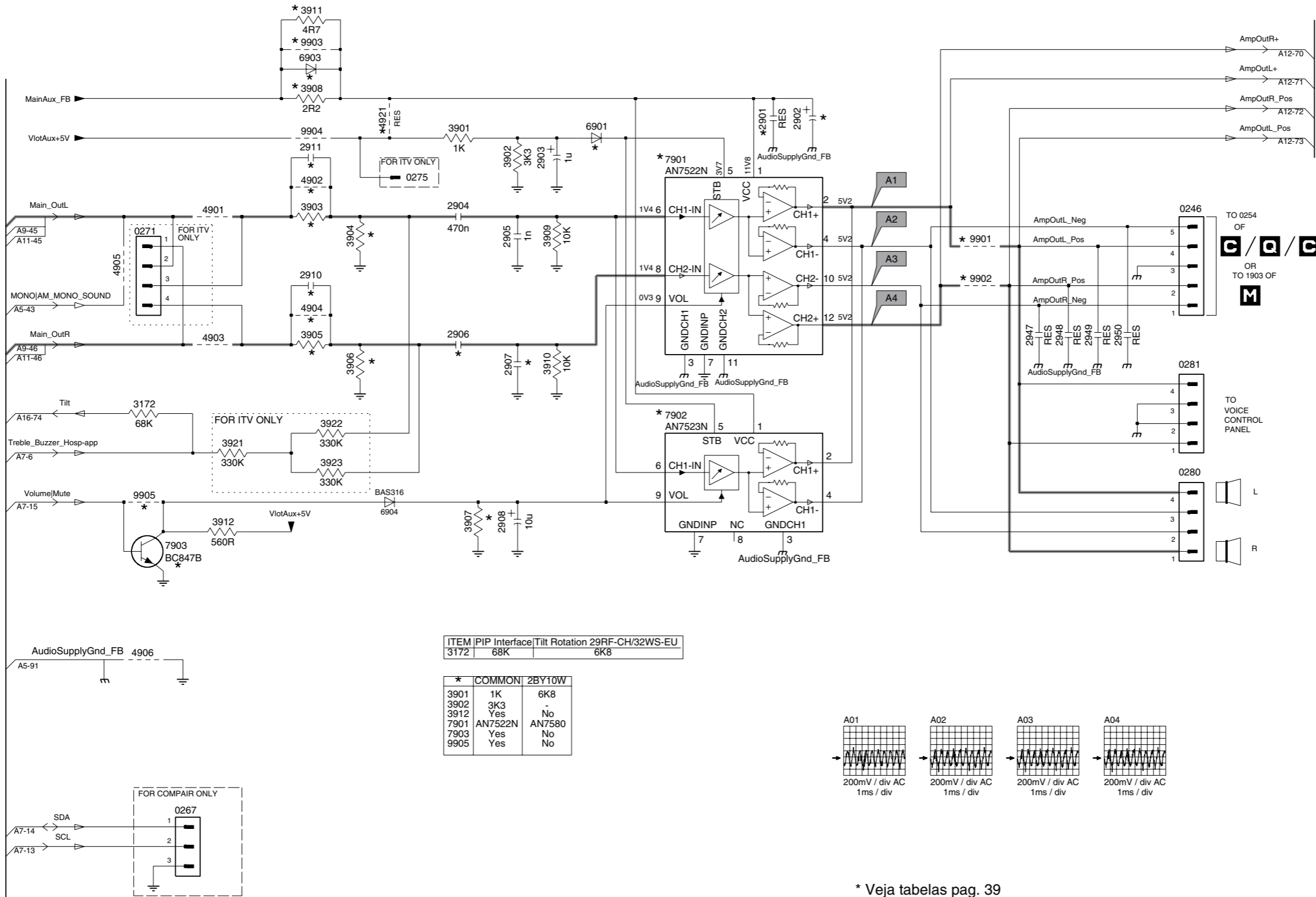


A 7 Controle



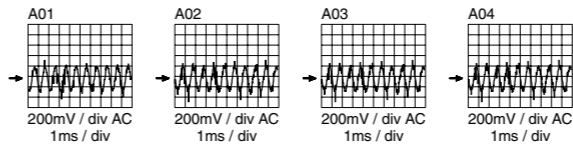
Mono Painei: Amplificador de Áudio

A 8 Amplificador de Áudio



ITEM	PIP Interface	Tilt Rotation	29RF-CH/32WS-EU
3172	68K		6K8

*	COMMON	2BY10W
3901	1K	6K8
3902	3K3	No
3912	Yes	No
7901	AN7522N	AN7580
7903	Yes	No
9905	Yes	No



* Veja tabelas pag. 39

0246 B10
0267 G2
0271 C2
0275 B4
0280 D10
0281 D10
2901 B7
2902 B7
2903 B5
2904 B4
2905 C5
2906 C4
2907 D5
2908 E5
2910 C3
2911 B3
2947 C9
2948 C9
2949 C9
2950 C9
3172 D2
3901 B4
3902 B5
3903 B3
3904 C4
3905 C3
3906 D4
3907 E4
3908 B3
3909 C5
3910 D5
3911 A3
3912 E3
3921 D3
3922 D3
3923 D3
4901 B3
4902 B3
4903 C3
4904 C3
4905 C2
4906 F2
4921 B4
6901 B5
6903 A3
6904 E4
7901 B6
7902 D6
7903 E2
9901 C8
9902 C8
9903 A3
9904 B3
9905 E2

TO 0254
OF
C / Q / C2 / E1 / C1
OR
TO 1903 OF
M

TO VOICE
CONTROL
PANEL

L
R

A9 Decodificadores NICAM + 2CS + BTSC (STEREO/SAP)
[FBAN60 - AUDPROC]

The diagram illustrates the internal circuitry of the FBAN60 - AUDPROC board. Key components include:

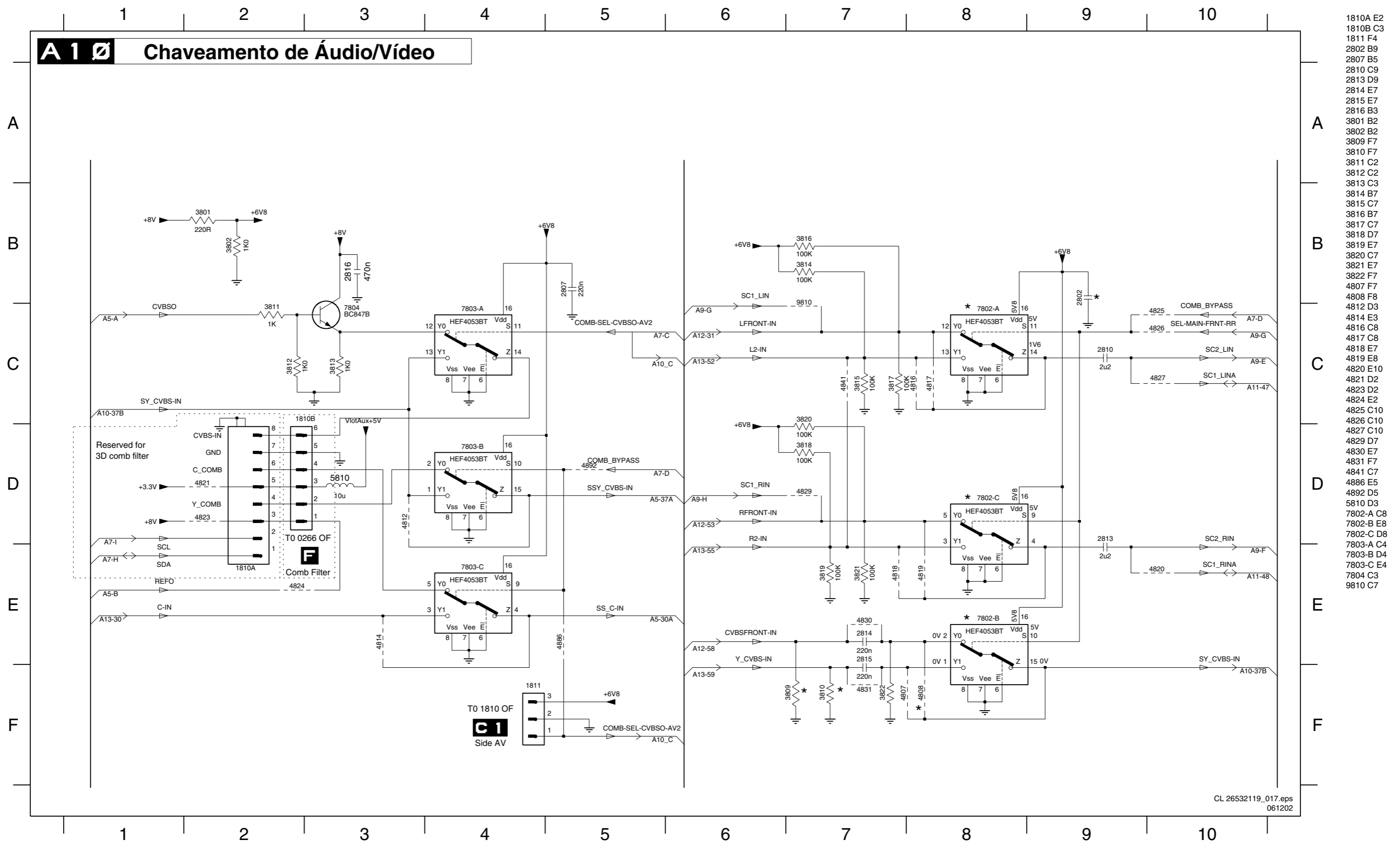
- Inputs:** MONOIAM_MONO_SOUND, SC1_LIN, SC1_RIN, SC1_LINA, SC1_RINA, SC2_LIN, SC2_RIN, +5VA, QSS_AM_DEM_OUT, FMR, and ViotAux+5V.
- Central Processing:** A central DSP chip (MSP34X5G) handling DEMODULATOR & NICAM DECODER, FM1/AM, FM2, NICAM A, NICAM B, and SCART 1/2 inputs. It also includes SCART Switching Facilities and DACM-L/R outputs.
- Outputs:** Main_OutL, Main_OutR, SEL-MAIN-FRNT-RR, L-OUT, R-OUT, and KEYBOARD_protn.
- Power and Control:** +5VA, +8V, and ViotAux+5V supply rails. Control lines include SCL, SDA, and A7-13/A7-14.
- Connectors:** A11, A10, A9, A8, A7, A6, A5, A4, A3, A2, A1, and A0.

At the bottom, a series of oscilloscope waveforms (A05 to A11a) show the signal levels and timing for various points in the circuit, with a scale of 200mV / div AC and 1ms / div.

0239 F10
1831 B8
1851 E9
1852 D8
2817 F10
2818 F10
2831 C9
2832 C8
2833 D4
2834 A4
2835 A4
2836 A4
2837 A4
2838 A9
2839 B9
2840 B6
2841 B5
2842 A5
2843 A5
2844 C3
2845 C3
2846 G1
2847 D3
2848 D3
2849 C9
2850 D9
2851 E8
2852 F8
2853 E9
2854 F9
2855 E2
2856 E2
2857 F2
2858 F4
2859 G2
2860 F2
2861 E8
2894 A9
2895 B4
2896 F3
2897 B4
2898 B3
3831 B4
3832 A9
3833 A9
3834 D2
3835 D3
3837 F8
3839 F8
3840 E3
3841 F3
3842 G5
3843 F2
3849 F3
3851 E9
3852 E9
4832 E10
4834 F1
4835 F3
4836 G3
4837 D2
4838 D2
4839 F10
4840 F10
5831 A3
5832 B8
5833 G2
5835 F2
6831 A4
7831 C7
7834 F4
7835 F3
7851 E9

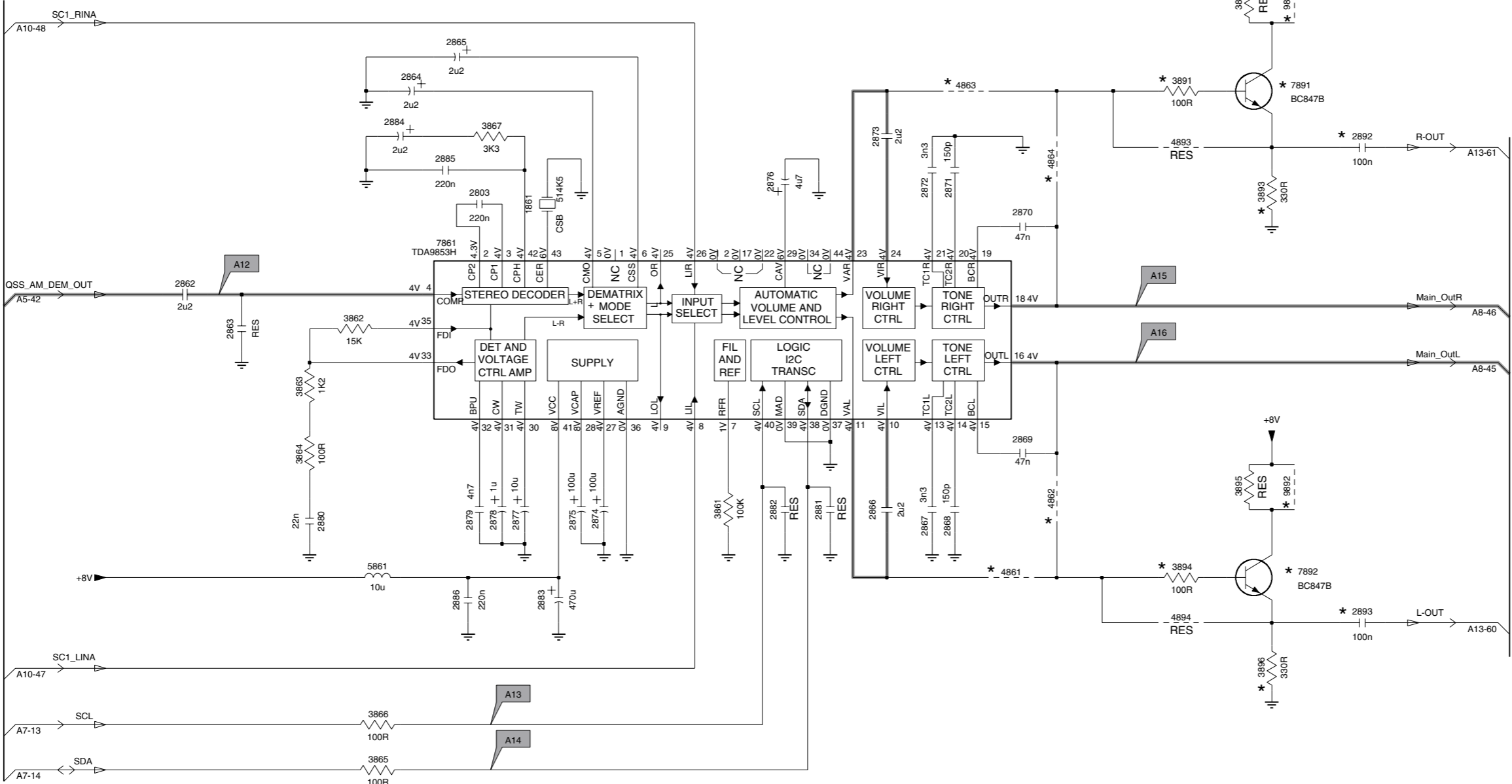
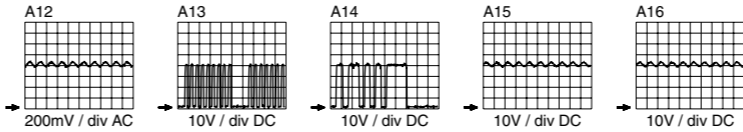
CL 26532119_016.eps
111202

Mono Painel: Chaveamento de Áudio/Vídeo

A 1 Chaveamento de Áudio/VídeoCL 26532119_017.eps
061202

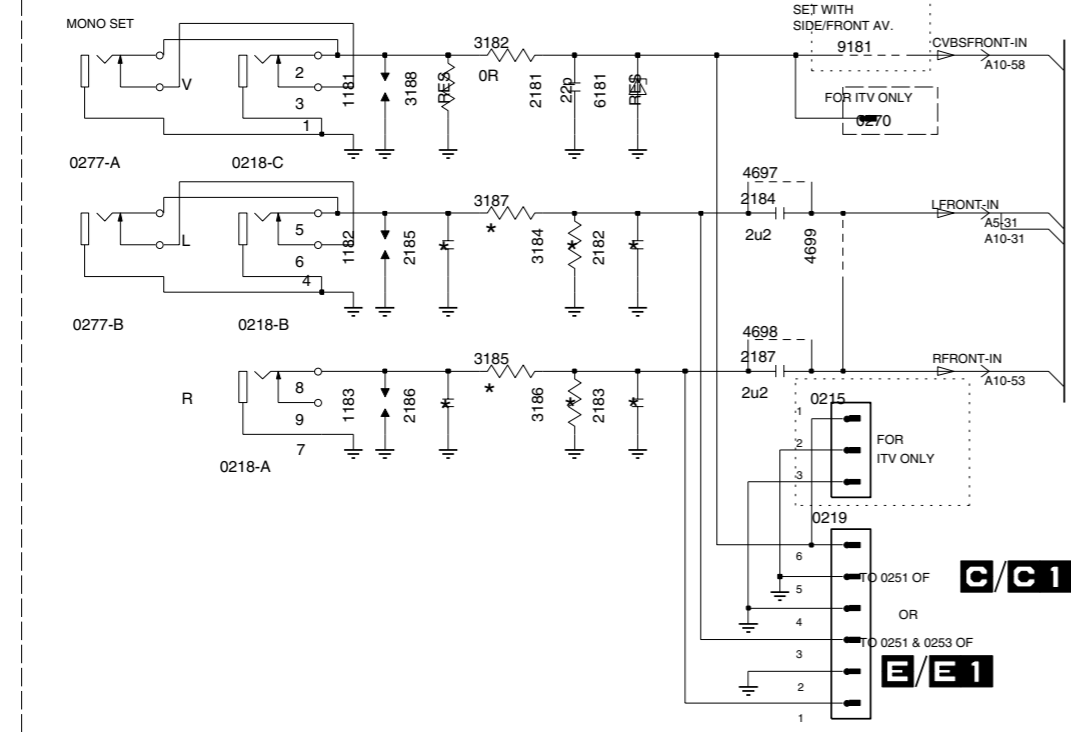
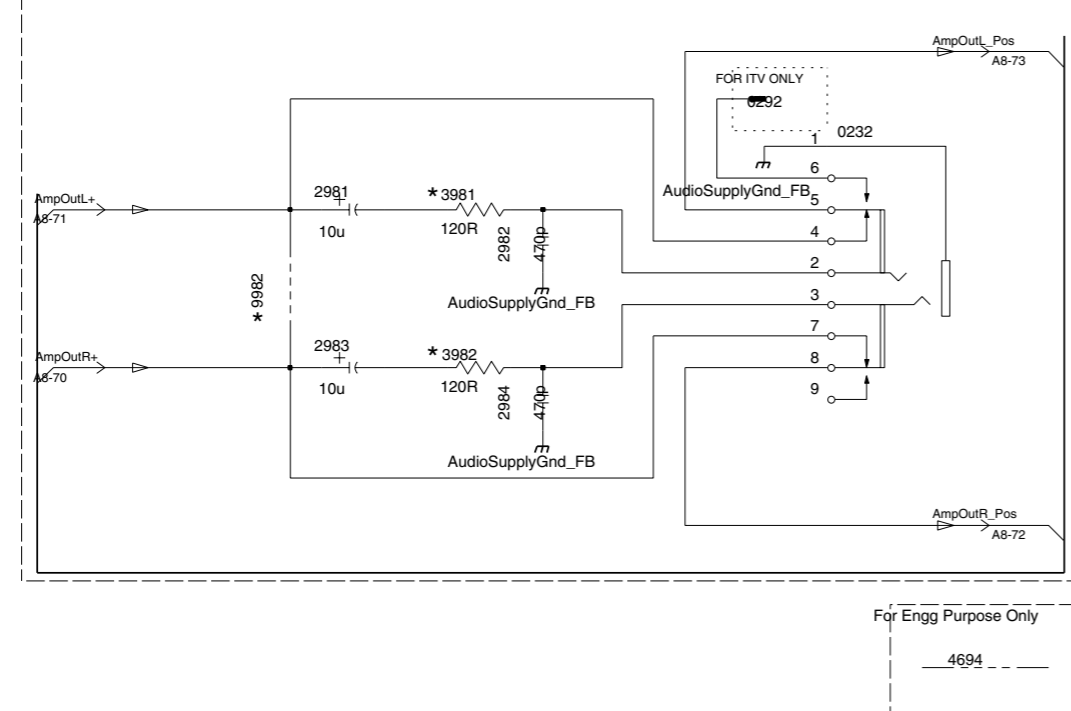
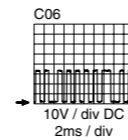
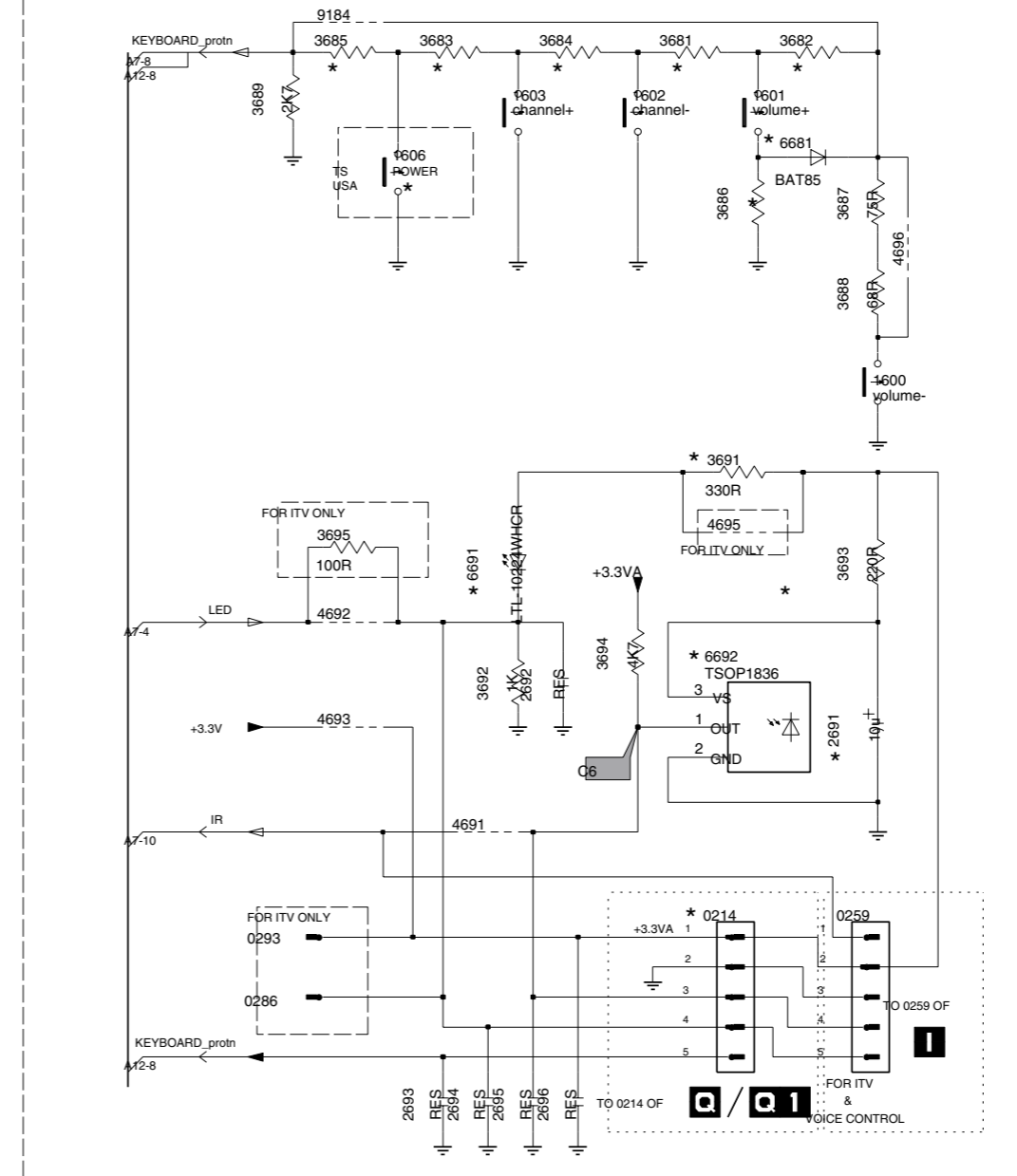
Mono Painel: Decodificador BTSC- NDBX Stereo

A 1 1 Decodificador BTSC- NDBX Stereo



- 1861 C4
- 2803 C4
- 2862 C2
- 2863 C2
- 2864 B4
- 2865 B4
- 2866 E6
- 2867 E7
- 2868 E7
- 2869 D7
- 2870 C7
- 2871 C7
- 2872 C7
- 2873 B7
- 2874 E5
- 2875 E5
- 2876 B6
- 2877 E4
- 2878 E4
- 2879 E4
- 2880 E3
- 2881 E6
- 2882 E6
- 2883 E4
- 2884 B3
- 2885 B4
- 2886 E4
- 2892 B10
- 2893 E10
- 3861 E6
- 3862 C3
- 3863 D3
- 3864 D3
- 3865 F3
- 3866 F3
- 3867 B4
- 3891 B8
- 3892 A9
- 3893 C9
- 3894 E8
- 3895 D9
- 3896 F9
- 4861 E7
- 4862 D8
- 4863 B7
- 4864 B8
- 4893 B8
- 4894 E8
- 5861 E3
- 7861 C4
- 7891 B9
- 7892 E9
- 9891 A9
- 9892 D9

Mono Painel: E/S Frontal + Controle Frontal+Fone de ouvido

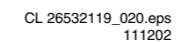
A 1 2 E/S Frontal + Controle Frontal + Fone de ouvido**FRONT CINCH****HEADPHONE****FRONT CONTROL**

* Veja tabelas pag. 39

CL 36532018_010.aps
140303

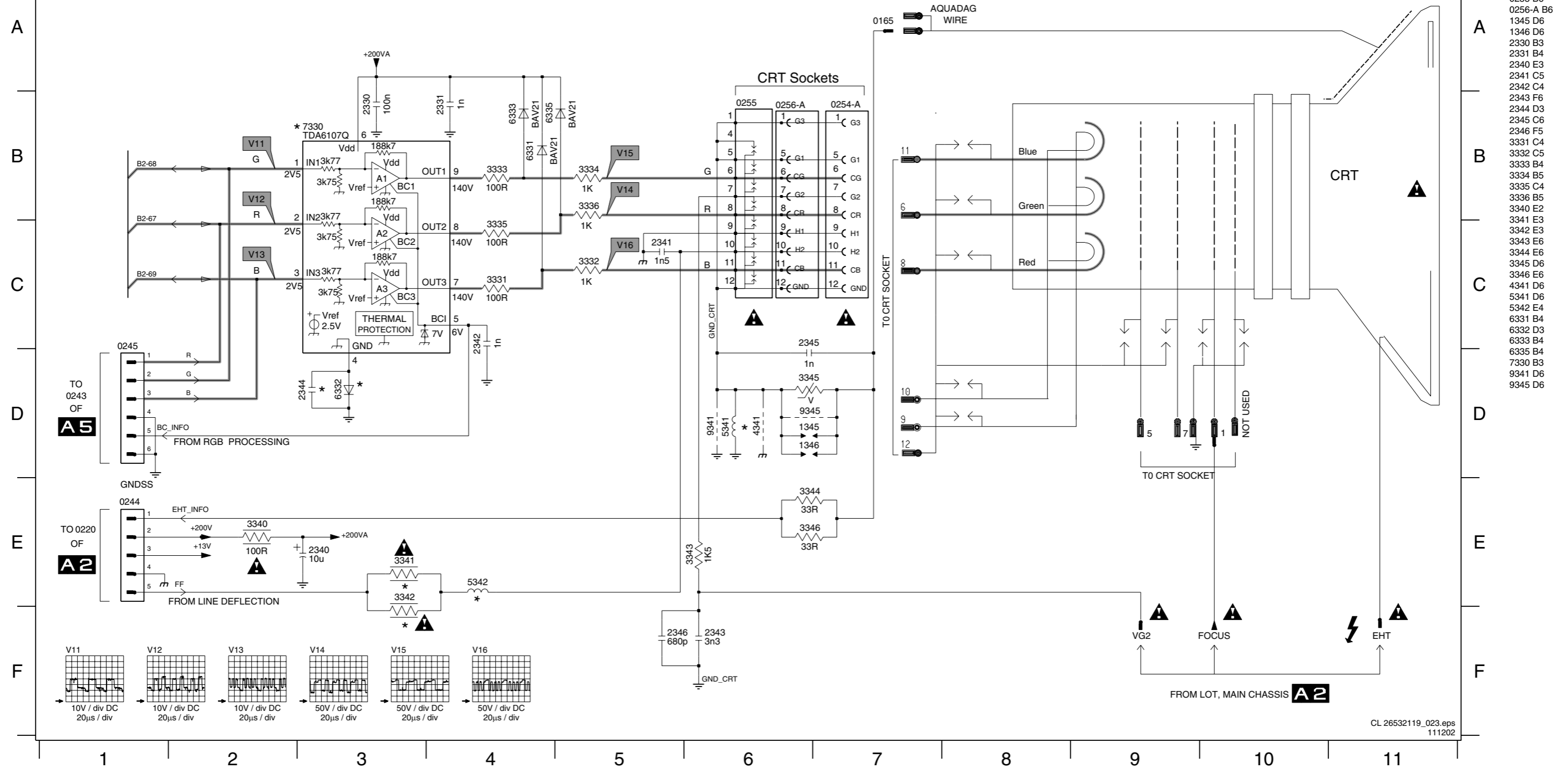
0214 E9
0215 C4
0218-A C2
0218-B B2
0218-C B2
0219 C4
0232 E5
0259 E10
0270 A5
0277-A B1
0277-B B1
0286 F7
0292 E4
0293 E7
1181 A2
1182 B2
1183 C2
1600 C10
1601 A9
1602 A9
1603 A8
1606 B8
2181 A3
2182 B3
2183 C3
2184 B4
2185 B3
2186 C3
2187 B4
2691 D10
2692 D8
2693 F8
2694 F8
2695 F8
2696 F8
2981 E2
2982 F3
2983 F2
2984 F3
3182 A3
3184 B3
3185 B3
3186 C3
3187 B3
3188 A3
3681 A9
3682 A10
3683 A8
3684 A8
3685 A7
3686 B9
3687 B10
3688 B10
3689 A7
3691 C9
3692 D8
3693 D10
3694 D9
3695 C7
3981 E3
3982 F3
4691 E8
4692 D7
4693 D7
4694 G5
4695 C9
4696 B10
4697 B4
4698 B4
4699 B4
6181 A3
6681 B10
6691 D8
6692 D9
9181 A5
9184 A7
9982 F2

A 1 3 E/S Traseira

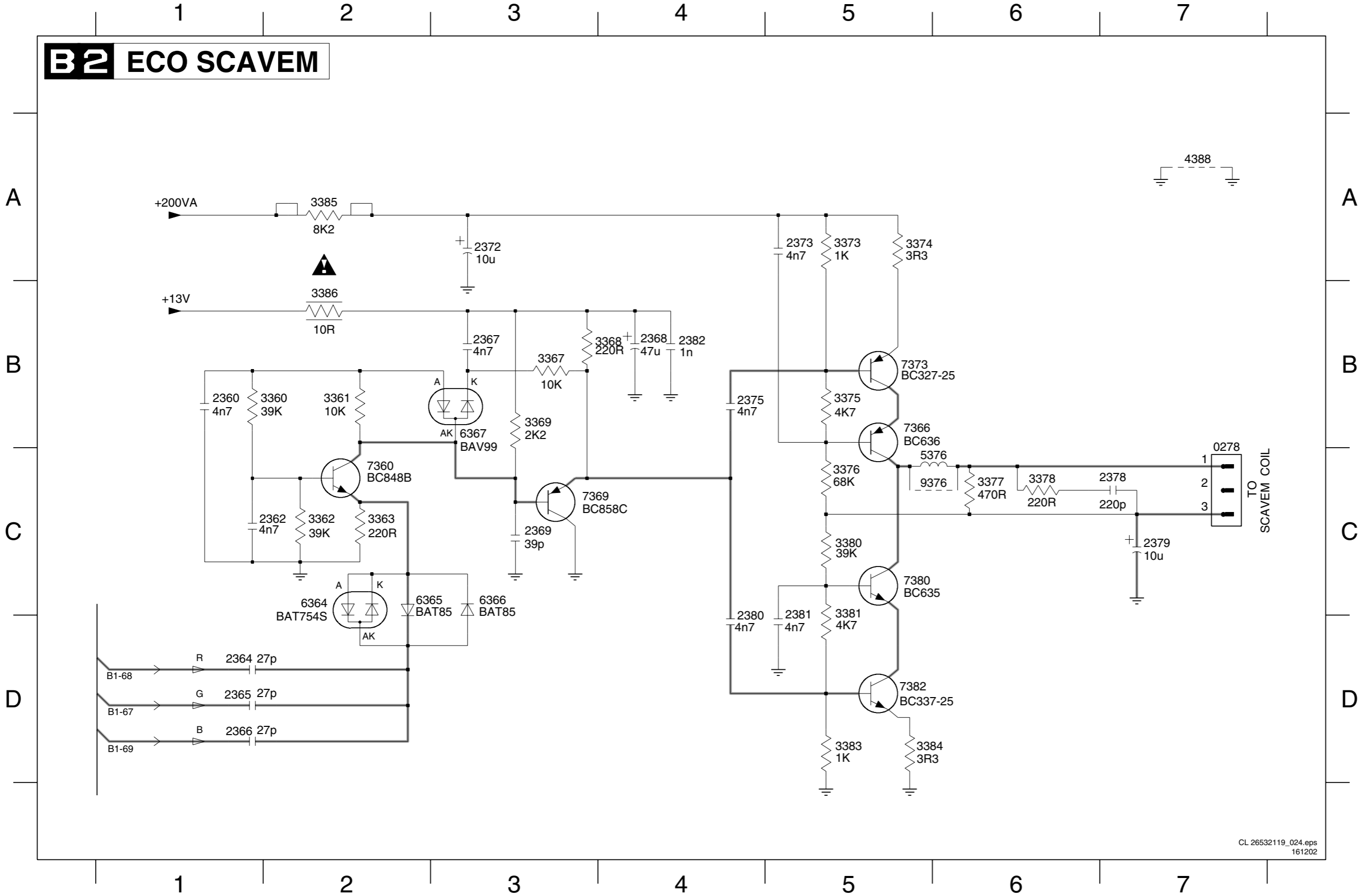


0223-A A10	3153 D5
0223-B F2	3154 D1
0223-C C2	3156 D1
0223-D A2	3157 E1
0225-A D10	3158 D2
0225-B D9	3159 E1
0226 D3	4101 B3
0227 A6	4102 B3
0229 E6	4104 B3
0242 D4	4121 D7
0262 G5	4122 E6
0305 E3	4123 E6
0310 B4	4124 E7
0311 C4	4125 E8
0312 D4	4126 E8
0313 E5	4131 C9
0314 E5	4132 E7
0315 E5	6150 F1
1101 A3	7101 A6
1102 B3	7102 D2
1103 B3	7103 E1
1104 C3	9101 D4
1105 C3	9102 C4
1106 D3	9103 C4
1107 F3	9104 D7
1108 F3	9111 C4
1109 G3	9112 C4
1110 A9	9113 D4
1111 B9	9121 D6
1112 B9	9122 D7
1113 C8	9123 F3
1114 D8	
1115 D9	
1130 A4	
2101 A5	
2102 A4	
2103 B4	
2104 B4	
2105 B5	
2106 B5	
2107 B3	
2108 B3	
2111 C5	
2112 C5	
2113 D5	
2121 F4	
2122 F4	
2123 F5	
2124 G4	
2125 G5	
2127 F3	
2128 G3	
2131 B8	
2132 B7	
2133 B8	
2134 B7	
2135 C7	
2136 D7	
2137 B8	
2138 B8	
2141 E7	
2142 D1	
2143 E2	
2150 F1	
3101 A4	
3102 A4	
3103 B4	
3104 B4	
3105 B4	
3106 B4	
3111 C3	
3112 C4	
3113 C3	
3114 C4	
3115 D3	
3116 D4	
3121 F3	
3122 F3	
3123 F3	
3124 F4	
3125 G3	
3126 G4	
3131 B8	
3132 B7	
3133 B8	
3134 B7	
3135 C8	
3136 C7	
3137 D8	
3138 D7	
3141 D7	
3149 F1	
3150 F1	
3151 C5	
3152 C5	

Painel CRT ECO SCAVEM

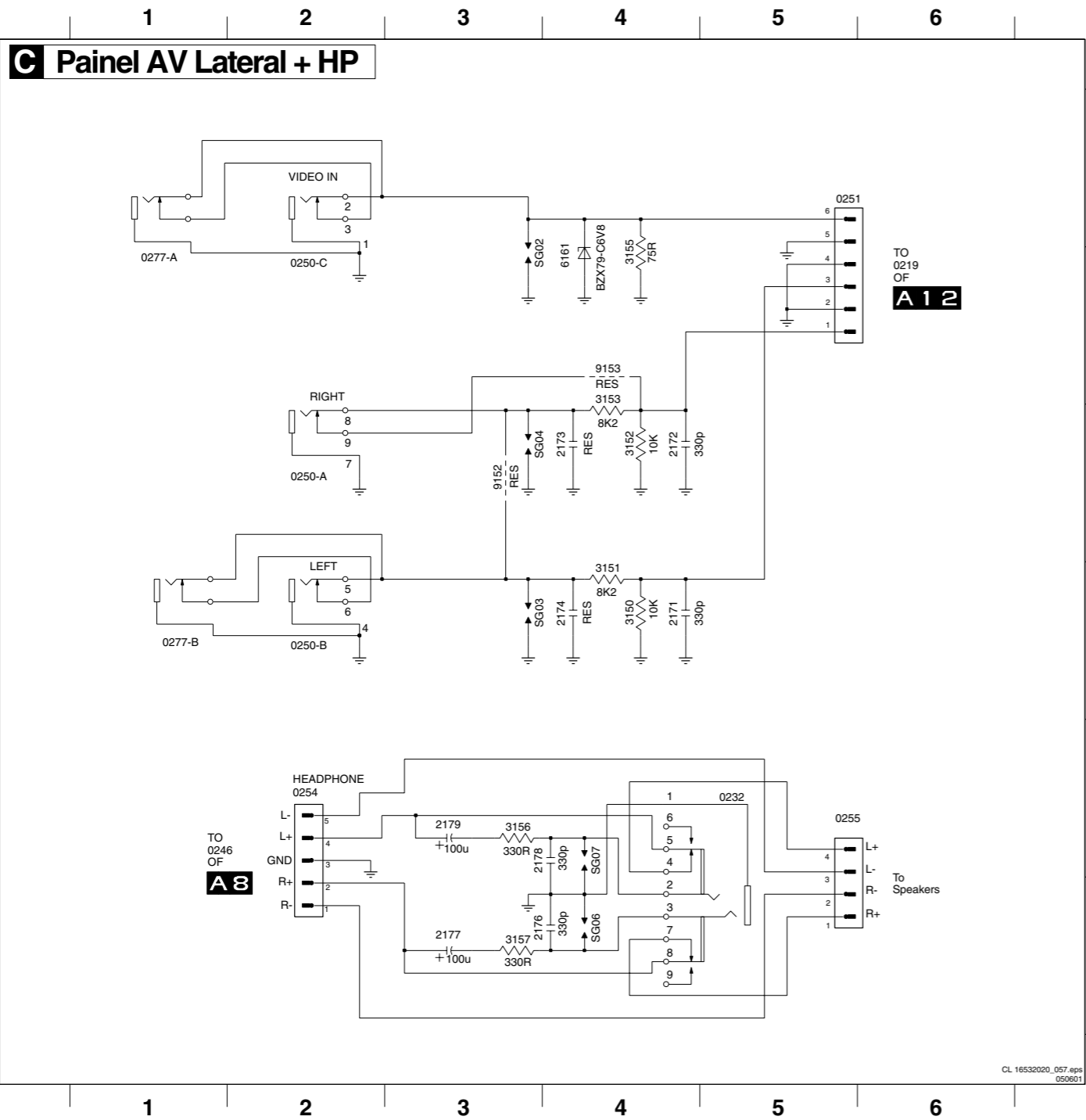
B 1 Painel CRT (ECO SCAVEM)

Painel CRT ECO SCAVEM

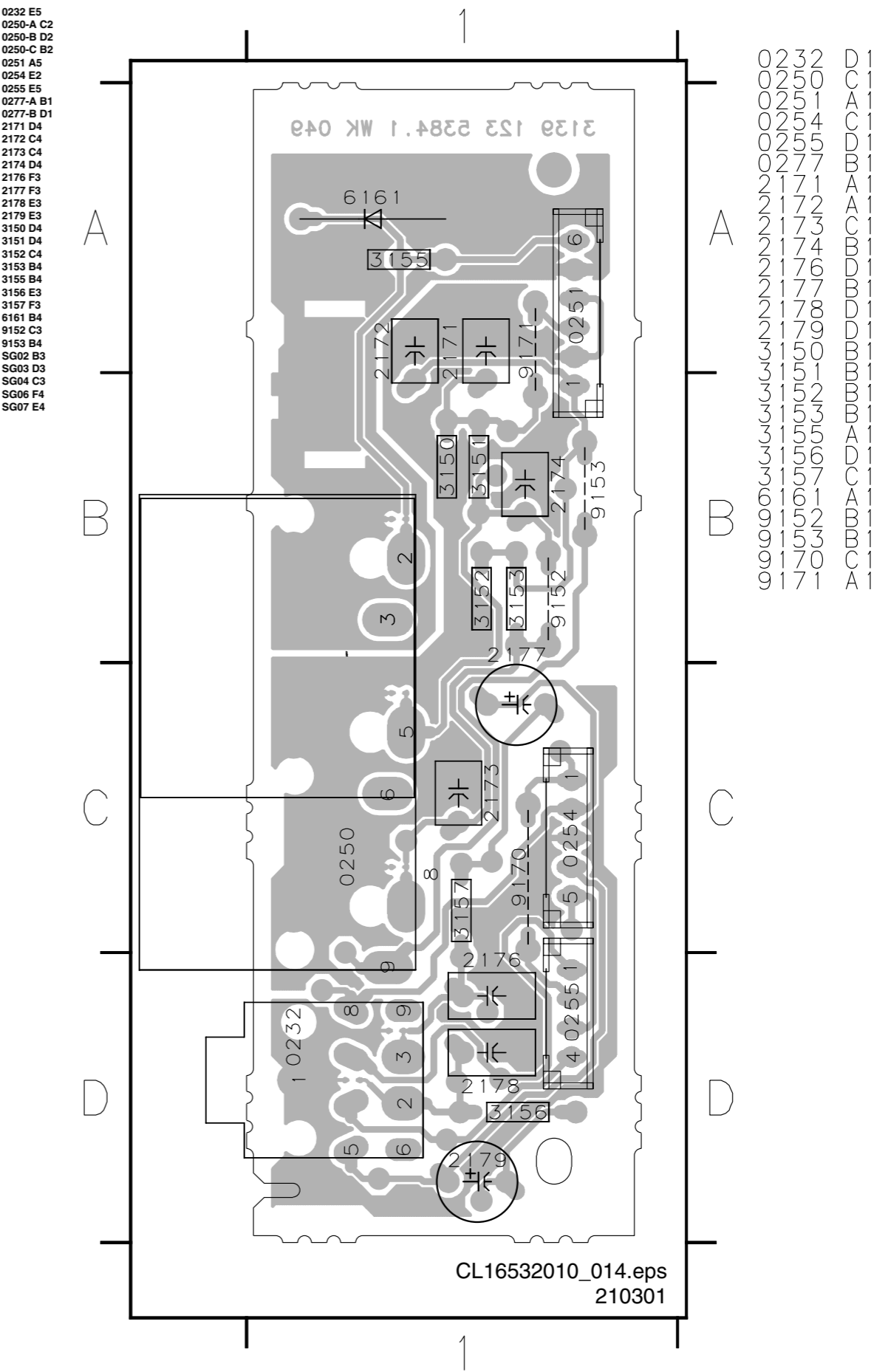


- 0278 C7
- 2360 B1
- 2362 C2
- 2364 D1
- 2365 D1
- 2366 D1
- 2367 B3
- 2368 B4
- 2369 C3
- 2372 A3
- 2373 A5
- 2375 B4
- 2378 C7
- 2379 C7
- 2380 C4
- 2381 C5
- 2382 B4
- 3360 B2
- 3361 B2
- 3362 C2
- 3363 C2
- 3367 B3
- 3368 B4
- 3369 B3
- 3373 A5
- 3374 A5
- 3375 B5
- 3376 C5
- 3377 C6
- 3378 C6
- 3380 C5
- 3381 C5
- 3383 D5
- 3384 D5
- 3385 A2
- 3386 B2
- 4388 A7
- 5376 C6
- 6364 C2
- 6365 C2
- 6366 C3
- 6367 B3
- 7360 C2
- 7366 B5
- 7369 C3
- 7373 B5
- 7380 C5
- 7382 D5
- 9376 C6

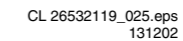
PainelAVLateral + Fone de ouvido



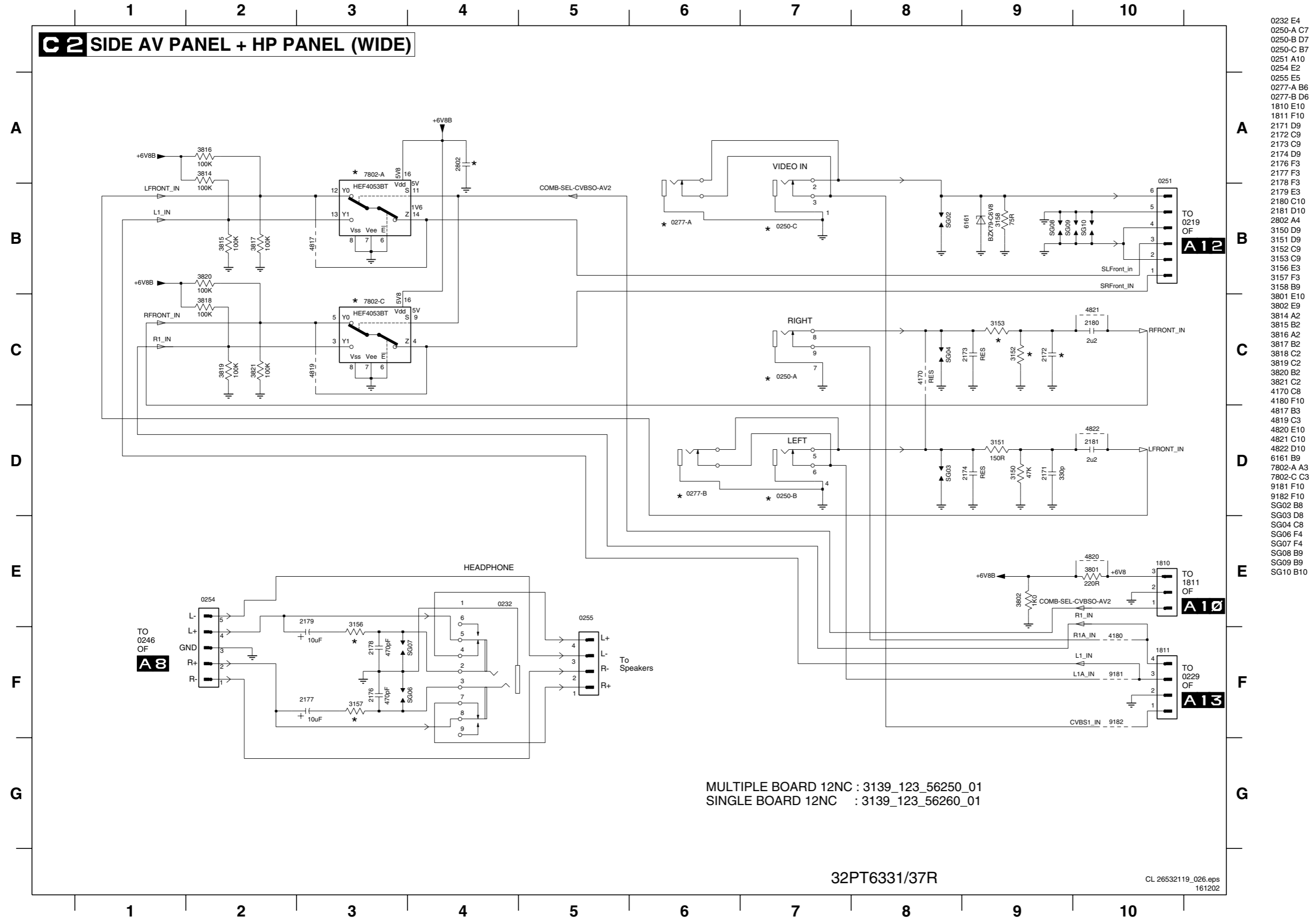
Layout Painel AV Lateral + Fone de ouvido



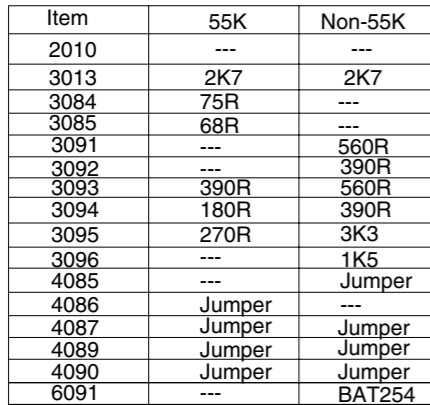
C 1 Painel AV Lateral + Painei HP (SLIM)



Painel AV Lateral + Painel HP (Wide)



T Painel Controle Sup.



CL 26532119_028.eps
181202

0215 A1
0216 D1
0217 D1
1090 D2
1091 A2
1092 A3
1093 A4
1094 B4
1095 A3
2010 A1
2011 D2
2012 D2
2013 D2
2014 D3
2015 E2
2016 E2
2017 E3
2018 E3
2019 D2
2020 E2
3010 C2
3011 D2
3012 D2
3013 A1
3084 B4
3085 B4
3086 A4
3087 B4
3088 B3
3089 B2
3090 B2
3091 A1
3092 A2
3093 A2
3094 A3
3095 A4
3096 B4
3097 B3
3098 B3
4085 B4
4086 A2
4087 B4
4089 B2
4090 B2
4091 A1
4092 A2
4093 A2
4094 A3
4097 B3
6091 A4
6092 A4
6093 B3
7091 D3