Service Manual

TOP NEXT

ORDER NO.MTNC000626C1

B5

Service Manual

Color Television

- CT-32HX40B
  CT-32HX40CB
  CT-36HX40B
  CT-36HX40CB

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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ORDER NO. MTNC010419A1
B5

Service Manual

Simplified

HDTV Monitor

Simplified Manual
(DX2P)

Panasonic

Models	Chassis
CT-32HX41E	**AP346**
CT-32HX41UE	**AP346**
CT-32HX41CE	**AP346**
CT-36HX41E	**AP347**
CT-36HX41UE	**AP347**
CT-36HX41CE	**AP347**

Listed Models are similar to models included in Main Service Manual.
Refer to Part List Update Table included in this Simplified Manual for Parts Differences.

This Simplified Service manual is issued to add listed DX2P models to Main Service Manual order **No.MTNC000626C1(CT-32HX40B).** Included in this Simplified manual are exploded view, a part list update table and assemblies reference tables. **File and use this Simplified Service Manual with Main Service Manual order No.MTNC000626C1(CT-32HX40B)**.

"**WARNING!** This Service Manual is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. **Products powered by electricity should be serviced or repaired only by experienced professional technicians.** Any attempt to service or repair the product or products dealt with in this Service Manual by anyone else could result in serious injury or death."

The service technician is required to read and follow the "**Safety Precautions**" and "**Important Safety Notice**" in the Main Manual.

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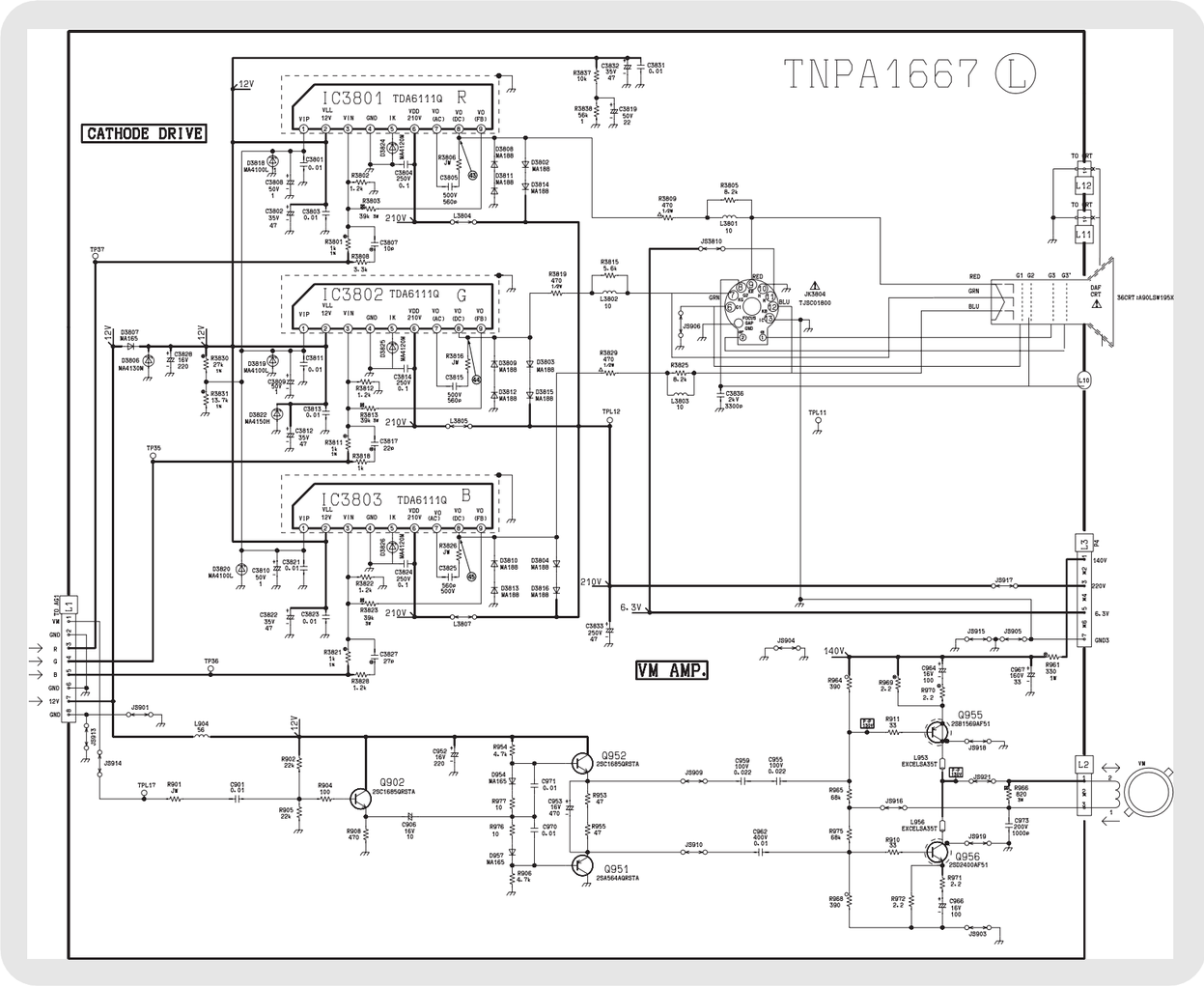
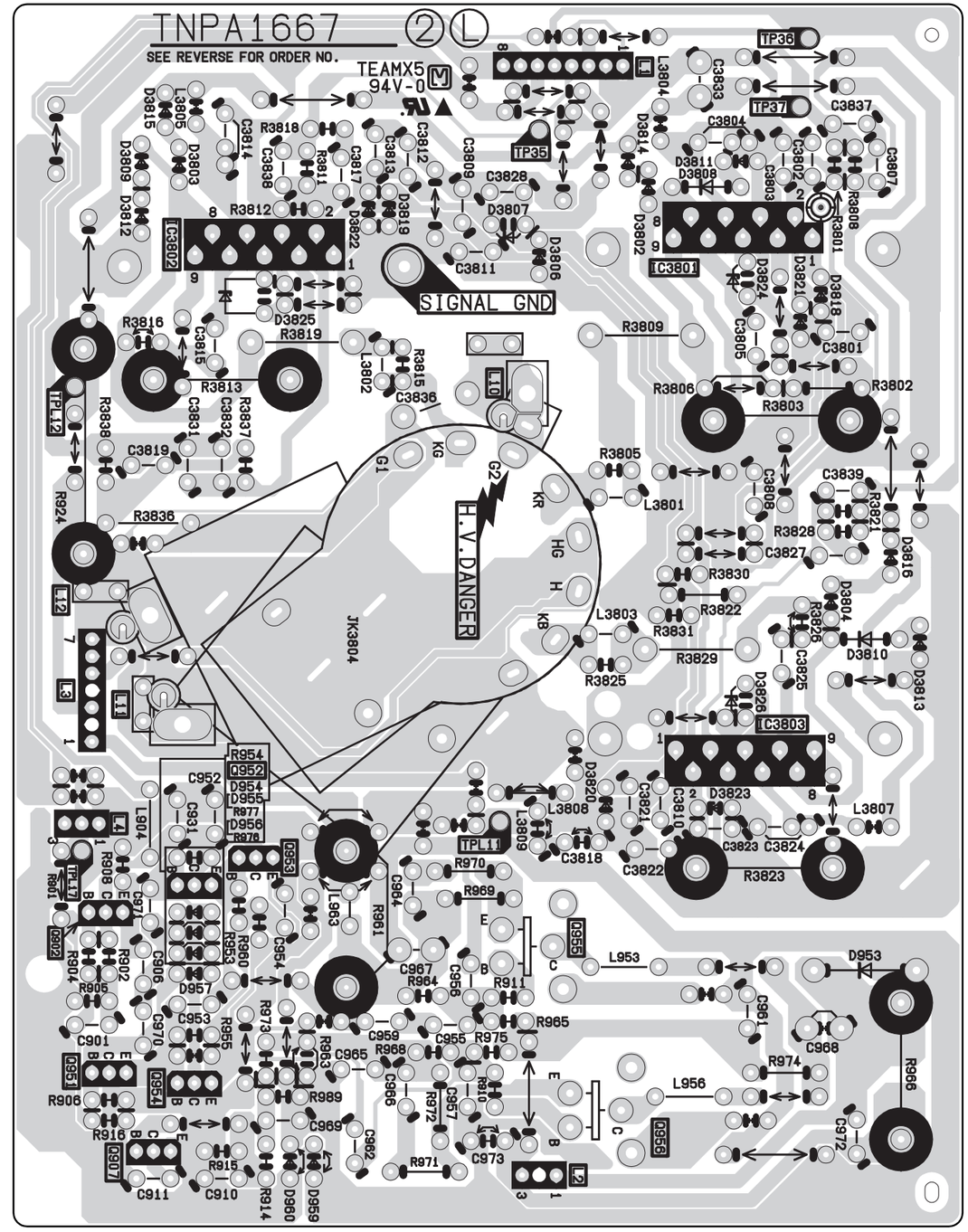




L-Board Voltage Measurements (IC & Transistors)

	Q951	Q952	Q955
B	5.26	6.52	141.5
C	0.00	11.80	77.80
E	5.85	5.94	141.80

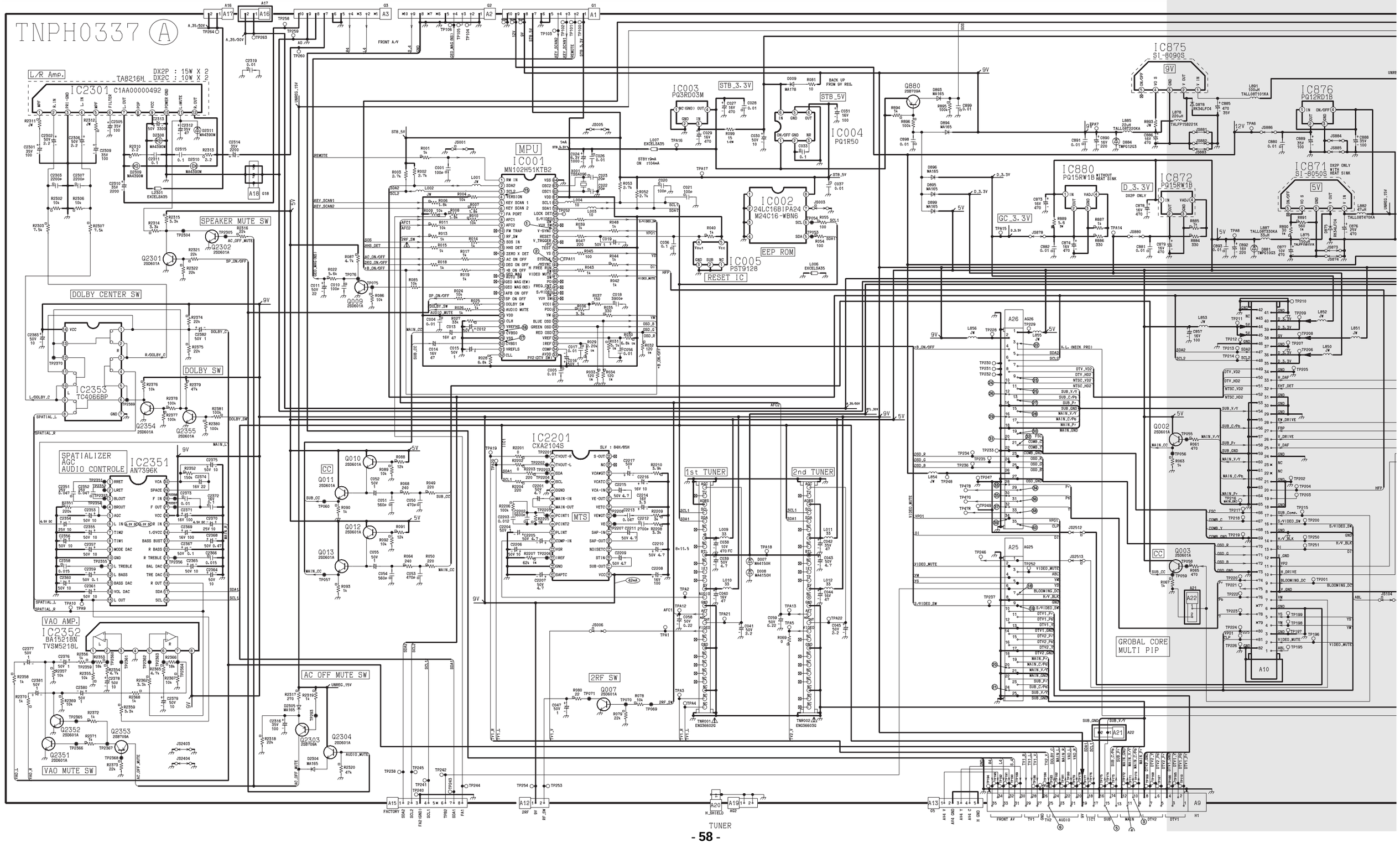
	Q956	Q902
B	0.44	5.46
C	77.90	11.80
E	0.00	4.80

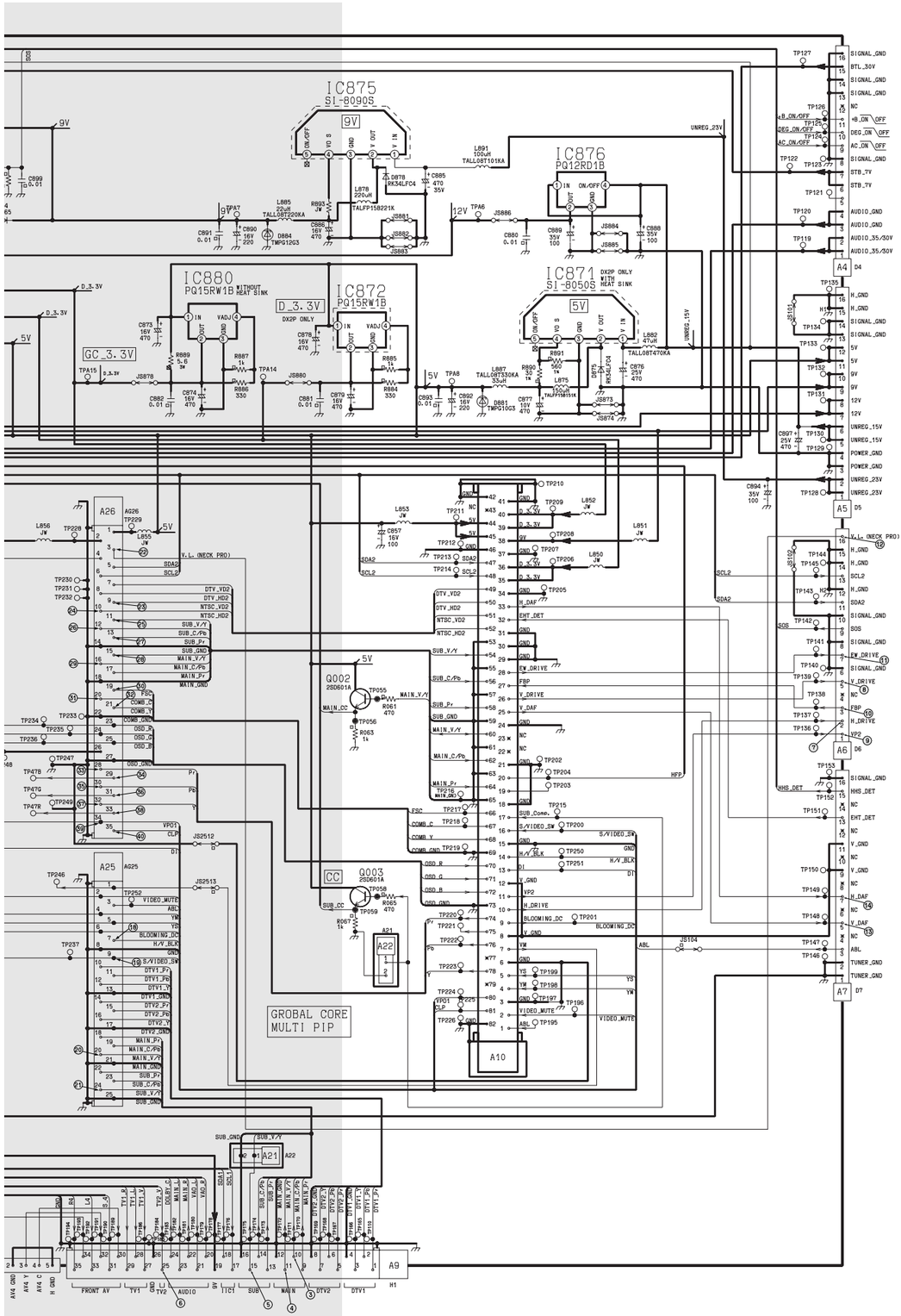
IC3801	
1	3.51
2	11.08
3	3.46
4	0.00
5	6.30
6	220.50
7	134.60
8	136.10
9	133.60

IC3802	
1	3.51
2	11.80
3	3.47
4	0.00
5	6.97
6	220.50
7	138.00
8	139.60
9	136.90

IC3803	
1	3.51
2	11.80
3	3.46
4	0.00
5	6.84
6	220.50
7	138.20
8	139.60
9	137.00

A-Board Schematic, Left Portion





A-Board Voltage Measurements (IC & Transistors)

IC001

1	0.00	33	3.28
2	2.77	34	2.06
3	3.07	35	1.37
4	3.28	36	1.39
5	3.28	37	0.00
6	3.28	38	0.00
7	3.28	39	0.00
8	1.72	40	0.00
9	1.60	41	1.46
10	0.00	42	1.46
11	3.19	43	0.00
12	0.00	44	0.00
13	0.00	45	0.00
14	0.00	46	0.00
15	3.14	47	0.00
16	0.00	48	3.26
17	0.00	49	0.33
18	0.00	50	1.64
19	0.00	51	0.00
20	0.49	52	3.29
21	0.00	53	0.00
22	0.00	54	3.28
23	3.22	55	0.00
24	0.00	56	0.00
25	3.29	57	0.00
26	2.08	58	0.00
27	2.40	59	4.68
28	1.48	60	4.68
29	0.00	61	3.29
30	1.51	62	1.64
31	2.40	63	1.67
32	1.49	64	0.00

IC002

1	0.00
2	0.00
3	0.00
4	0.00
5	4.62
6	4.70
7	0.00
8	5.00

IC003

1	0.00
2	0.00
3	5.65
4	3.29

IC004

1	3.29
2	0.00
3	1.24
4	5.00
5	0.00
6	7.06

IC005

1	0.00
2	0.00
3	0.00
4	3.28
5	3.29

IC871

1	14.66
2	5.43
3	0.00
4	4.93
5	2.34

IC872

1	4.91
2	3.51
3	0.00
4	2.64

IC875

1	26.41
2	9.19
3	0.00
4	9.03
5	2.36

IC876

1	14.76
2	11.86
3	0.00
4	14.76

IC880

1	4.95
2	3.52
3	0.00
4	2.65

IC2201

1	4.05
2	4.05
3	4.67
4	4.70
5	0.00
6	4.04
7	4.00
8	4.05
9	3.88
10	5.21
11	4.03
12	1.25
13	1.24
14	0.00
15	4.40

IC2301

1	1.52
2	0.00
3	0.00
4	0.00
5	1.53
6	11.15
7	15.45
8	5.04
9	32.94
10	0.00
11	5.04
12	15.06

IC2351

1	4.45
2	4.45
3	4.43
4	4.49
5	1.30
6	4.43
7	0.50
8	0.65
9	1.72
10	0.00
11	4.43
12	4.45
13	2.00
14	2.78
15	4.41
16	4.70
17	4.66
18	4.44
19	2.18
20	2.55
21	4.44
22	4.45
23	4.47
24	4.45
25	4.43
26	8.88
27	4.49
28	4.43
29	2.67
30	2.66

IC2352

1	4.41
2	4.41
3	4.41
4	0.00
5	4.44
6	4.44
7	4.44
8	8.88

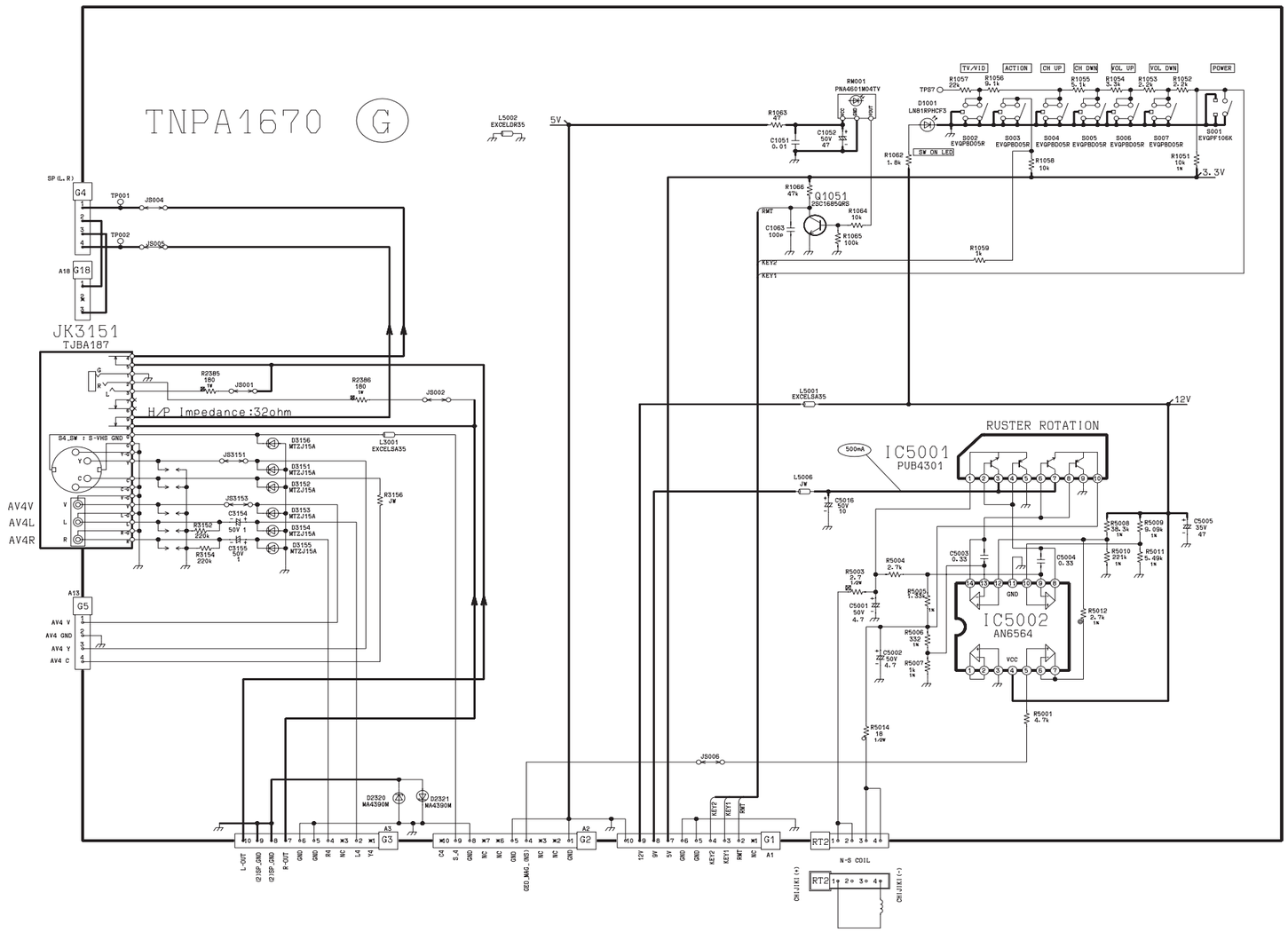
IC2353

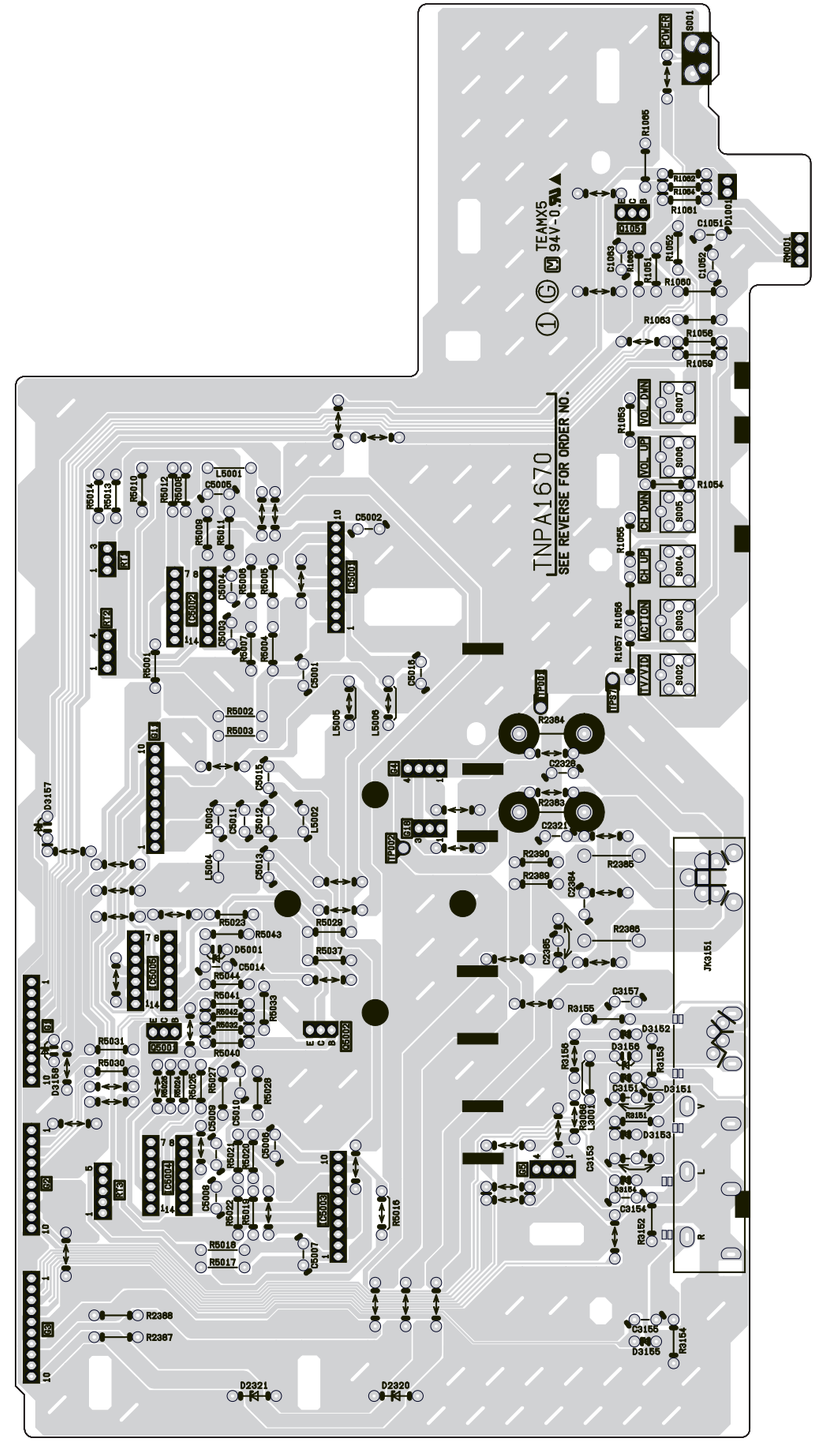
1	4.61
2	4.41
3	4.41
4	4.43
5	8.91
6	8.91
7	0.00
8	4.41
9	4.39
10	4.39
11	4.46
12	0.00
13	0.00
14	8.92

	Q002	Q003	Q007	Q009	Q010	Q011
B	3.35	3.61	0.72	0.20	2.26	2.68
C	5.01	4.91	0.17	2.81	5.04	5.04
E	2.70	2.98	0.00	0.00	2.68	2.04

	Q012	Q013	Q880	Q2301	Q2302	Q2303
B	2.26	2.64	3.29	0.00	0.00	14.28
C	5.03	5.03	0.00	5.04	5.04	0.00
E	2.64	2.64	3.29	0.00	0.00	14.02

	Q2304	Q2351	Q2352	Q2353	Q2354	Q2355
B	0.00	0.00	0.00	0.00	0.00	0.59
C	14.78	0.00	0.00	0.00	8.91	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00





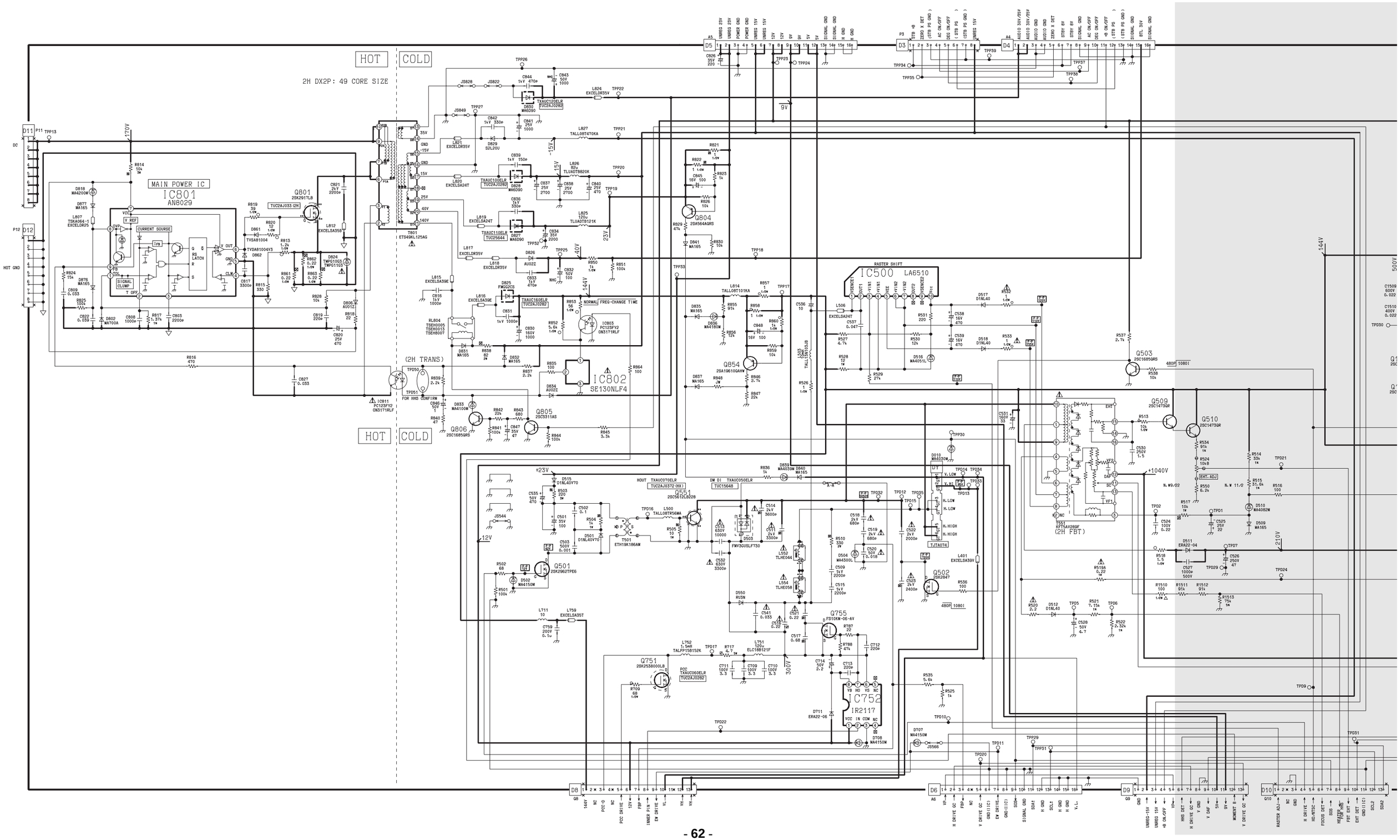
G-Board Voltage Measurements(IC & Transistors)

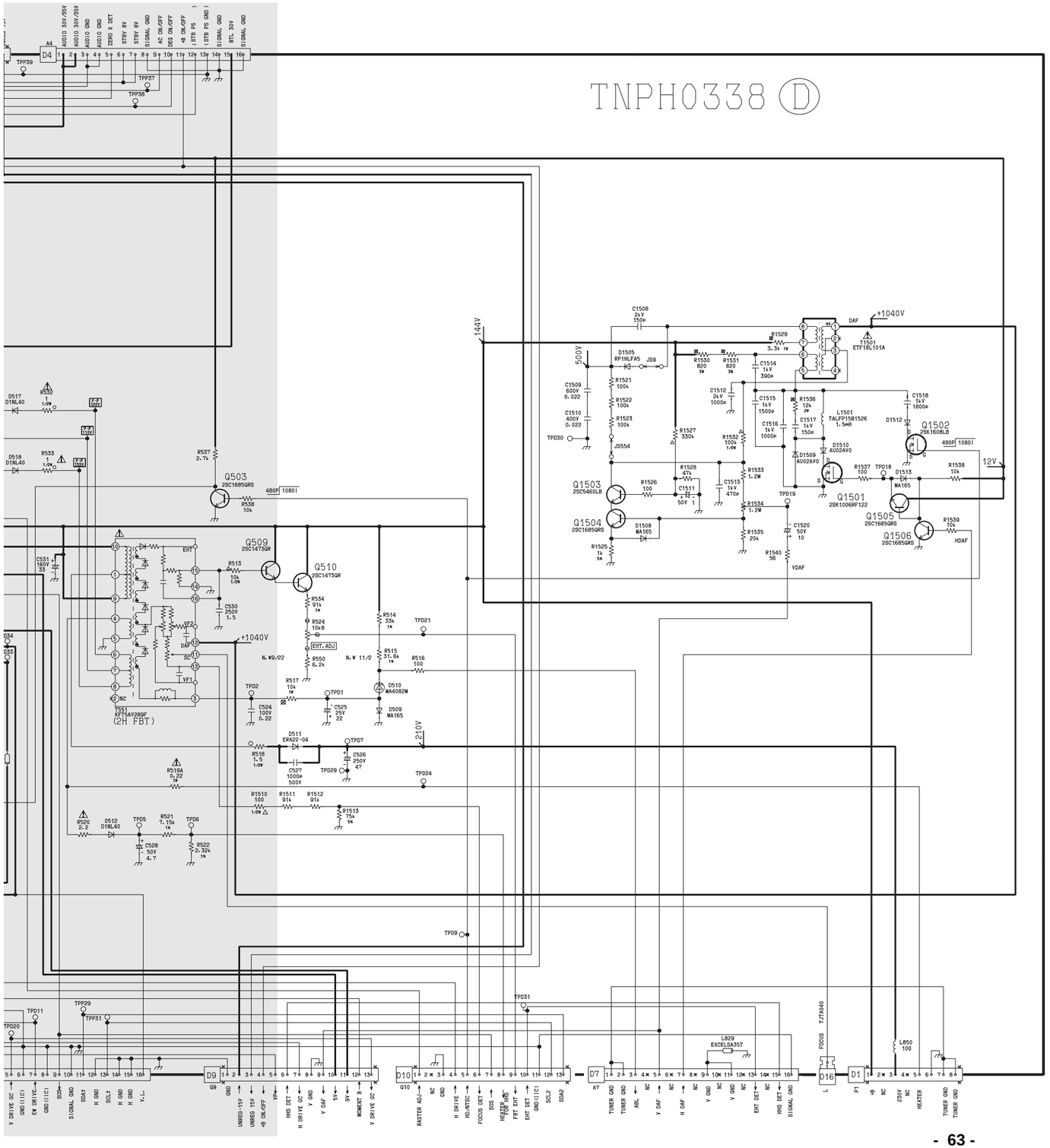
IC5001	
1	4.39
2	3.96
3	8.87
4	3.96
5	0.00
6	5.06
7	8.87
8	5.06
9	0.00
10	4.49

IC5002	
1	0.00
2	0.00
3	0.00
4	11.86
5	2.82
6	2.82
7	2.82
8	3.96
9	4.46
10	4.46
11	0.00
12	3.37
13	3.37
14	5.06

	Q1051
B	0.63
C	0.00
E	0.00

D-Board Schematic (Left Portion)





D-Board Voltage Measurements (IC & Transistors)

IC752	
1	11.85
2	5.32
3	0.00
4	0.00
5	0.00
6	27.34
7	32.66
8	39.67

IC801 ⏚	
1	5.43
2	5.40
3	5.40
4	5.42
5	5.20
6	5.43
7	5.06
8	5.28
9	5.14

IC802	
1	129.70
2	11.95
3	0.00

IC500	
1	141.80
2	141.80
3	144.10
4	144.10
5	137.90
6	0.00
7	144.10
8	150.00
9	149.70
10	150.60

IC803	
1	0.14
2	0.00
3	129.70
4	143.80

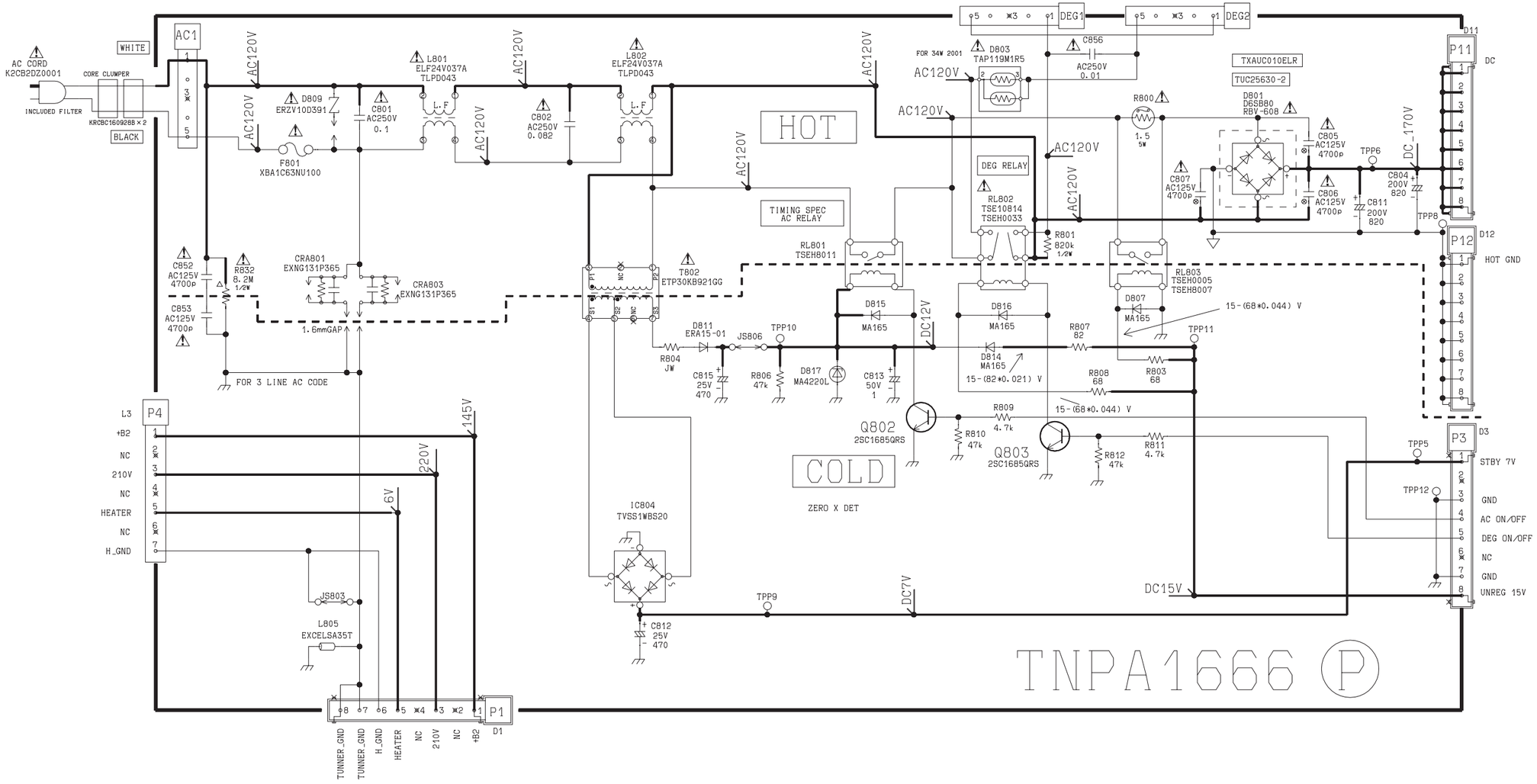
IC811	
1	13.02
2	12.03
3	5.47 ⏚
4	5.35 ⏚

	Q804	Q854	Q806	Q805	Q509	Q510
B	26.69	143.10	0.00	0.69	46.58	52.00
C	0.00	0.00	2.29	0.10	143.00	143.10
E	26.94	143.50	0.00	0.00	51.90	51.50

	Q1503	Q503	Q1506	Q1504	Q551
B	18.98	0.00	0.51	1.47	0.00
C	188.20	11.85	2.93	18.43	-182.30
E	18.42	0.00	0.00	0.86	0.00

	Q751	Q755	Q502	Q1501	Q1502	Q501
S	0.00	27.36	0.00	0.00	0.00	0.00
D	-0.51	28.06	0.00	119.20	251.70	8.92
G	9.78	32.68	11.85	3.02	0.00	1.85

	Q801 ⏚
S	5.20
D	0.93
G	5.42

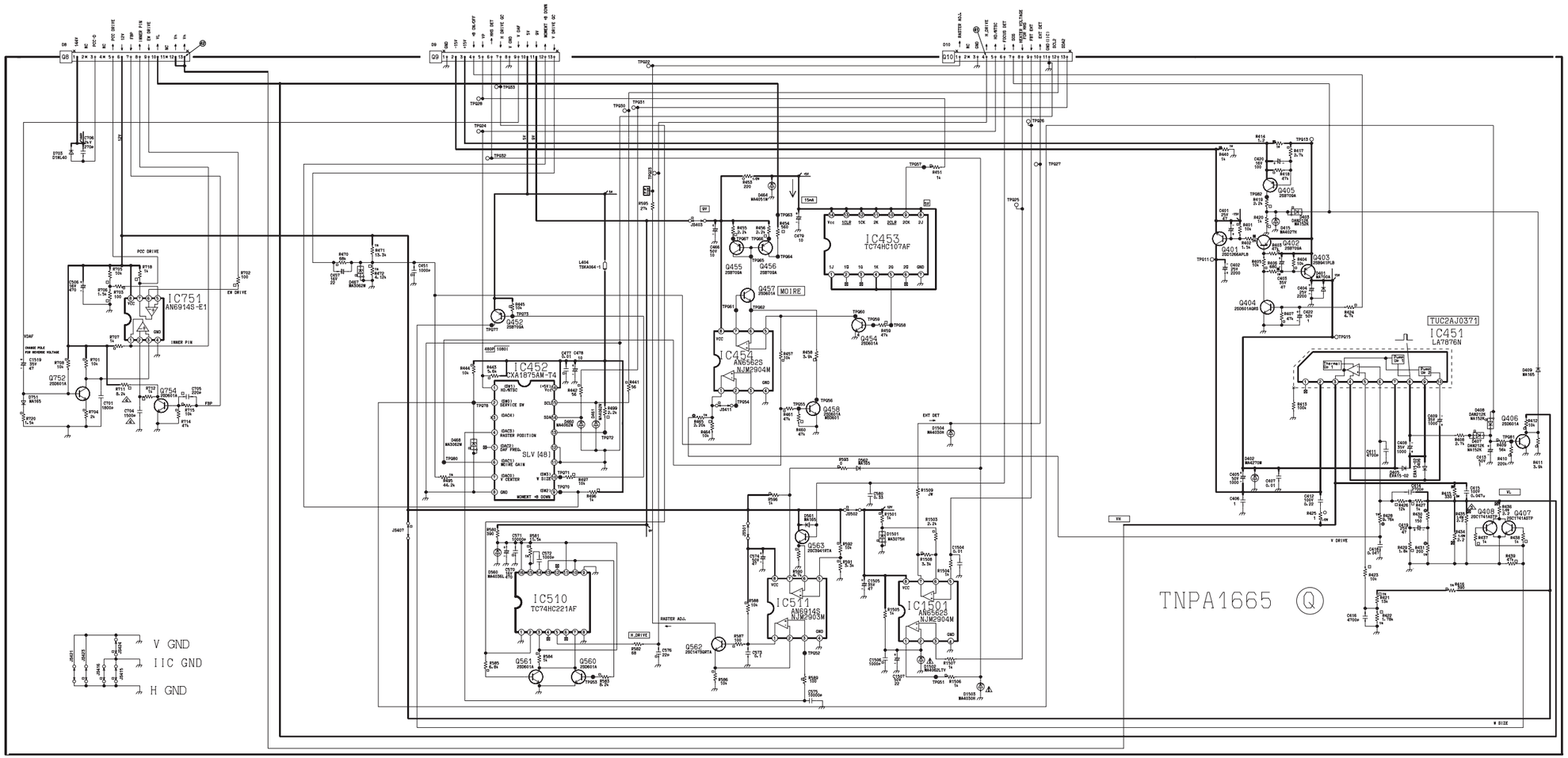


P-Board Voltage Measurements (IC & Transistors)

IC804
1 . . . . . .2.96
2 . . . . . .3.20
3 . . . . . .7.06
4 . . . . . .0.00

	Q802	Q803
B	0.73	0.00
C	0.10	15.10
E	0.00	0.00

Q-Board Schematic & Voltages

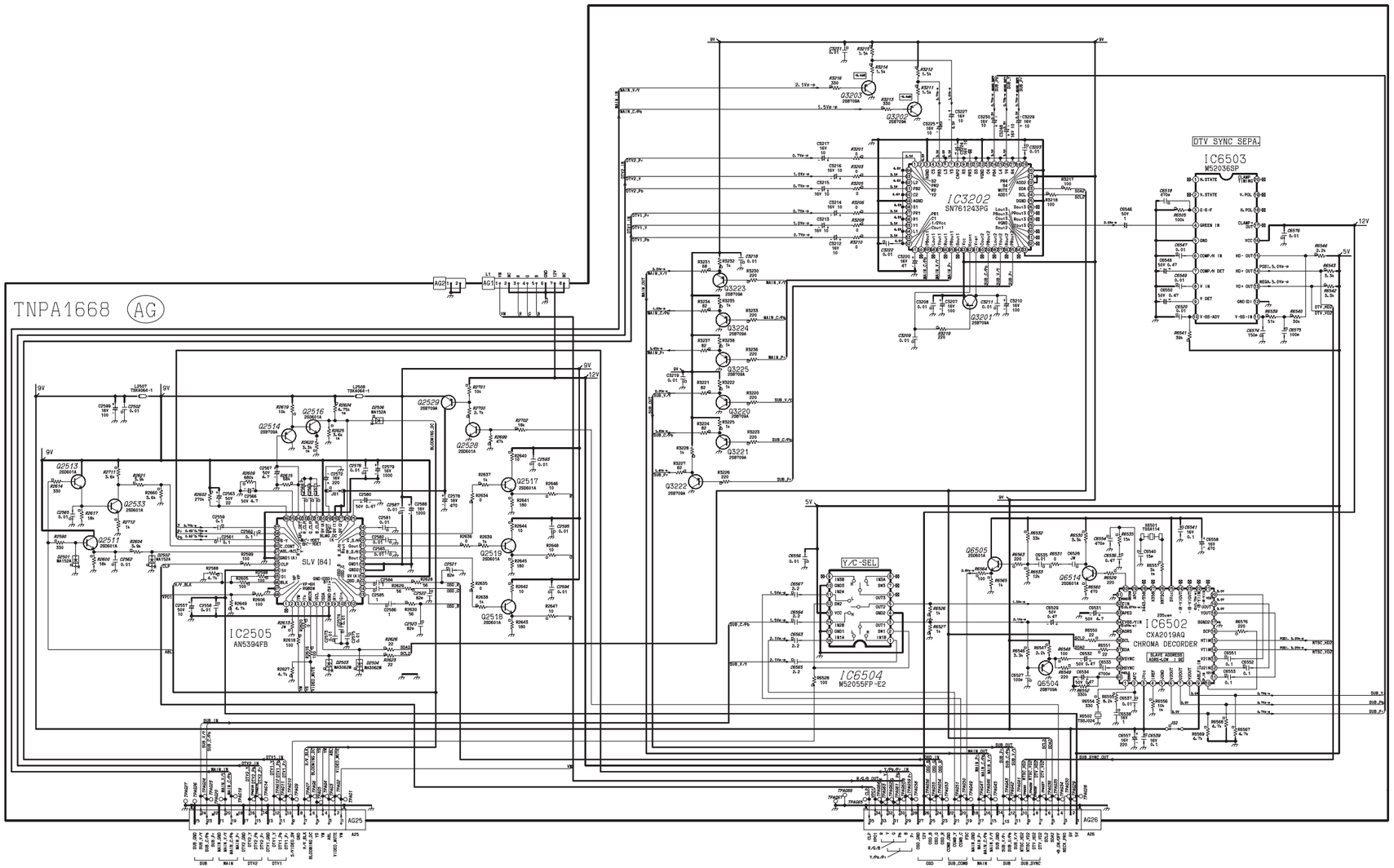


Q-Board Voltage Measurements (IC & Transistors)

IC451
1 ..... 0.10
2 ..... 0.23
3 .... 10.21
4 .....7.20
5 ..... ***
6 .....0.00
7 .....0.30
8 .....3.97
9 .....3.97
10 .....7.26

	Q754	Q752	Q403	Q401	Q402	Q404	Q405	Q407	Q408	Q562
B	0.00	0.23	0.29	0.20	0.28	0.00	0.11	0.10	0.00	0.00
C	0.00	1.10	0.31	0.22	0.28	0.00	0.00	0.13	0.00	0.12
E	0.00	0.22	0.28	0.19	0.28	0.00	0.10	0.00	0.13	0.00

	Q563	Q560	Q561	Q452	Q406	Q457	Q456	Q458	Q454	Q455
B	0.29	0.00	0.00	0.00	0.00	1.32	0.77	0.00	0.30	0.79
C	0.00	0.00	0.00	0.00	0.00	0.78	0.57	0.00	1.25	0.79
E	0.16	0.00	0.00	0.00	0.00	1.25	0.69	0.00	0.00	0.69



AG-Board Voltage Measurements (IC & Transistors)

IC6503
1 . . . . . .0.00
2 . . . . . .0.00
3 . . . . . .4.00
4 . . . . . .4.00
5 . . . . . .0.00
6 . . . . . .6.15
7 . . . . . .6.04
8 . . . . . .6.17
9 . . . . . .6.05
10 . . . . . .1.75
11 . . . . . .0.15
12 . . . . . .0.00
13 . . . . . .0.00
14 . . . . . .1.21
15 . . . . . .0.00
16 . . . . .11.85
17 . . . . . .0.00
18 . . . . . .0.00
19 . . . . . .0.00
20 . . . . . .3.41

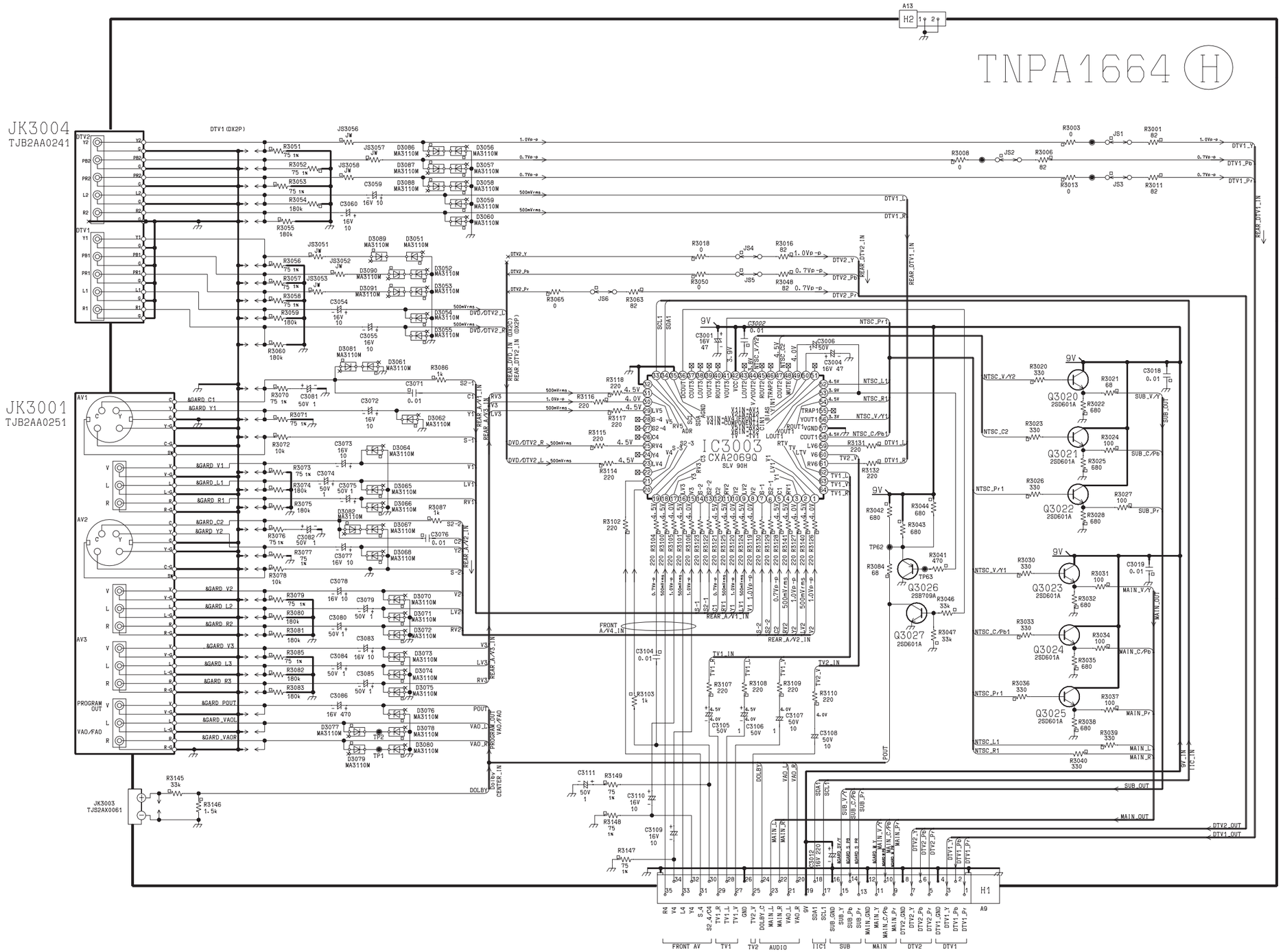
	Q2513	Q2514	Q2516	Q2517	Q2518
B	6.53	1.73	2.36	4.07	3.97
C	8.85	0.00	3.57	8.66	8.67
E	5.86	2.36	1.76	3.42	3.30

	Q2528	Q2519	Q2529	Q2533	Q3201
B	0.64	3.91	8.06	5.89	8.12
C	0.10	8.67	8.78	5.14	6.46
E	0.00	3.26	8.85	5.14	8.83

	Q3203	Q3202	Q3220	Q3221	Q3222
B	3.44	3.57	2.72	2.71	2.72
C	0.00	0.00	0.00	0.00	0.00
E	4.08	4.22	3.36	3.36	3.38

	Q3223	Q3224	Q3225	Q6504	Q6505
B	2.72	2.72	2.72	1.48	2.30
C	0.00	0.00	0.00	0.00	8.84
E	3.37	3.38	3.37	2.13	1.91

	Q6514	Q2511
B	1.48	6.53
C	2.33	8.85
E	0.80	5.94



H-Board Voltage Measurements (IC & Transistors)

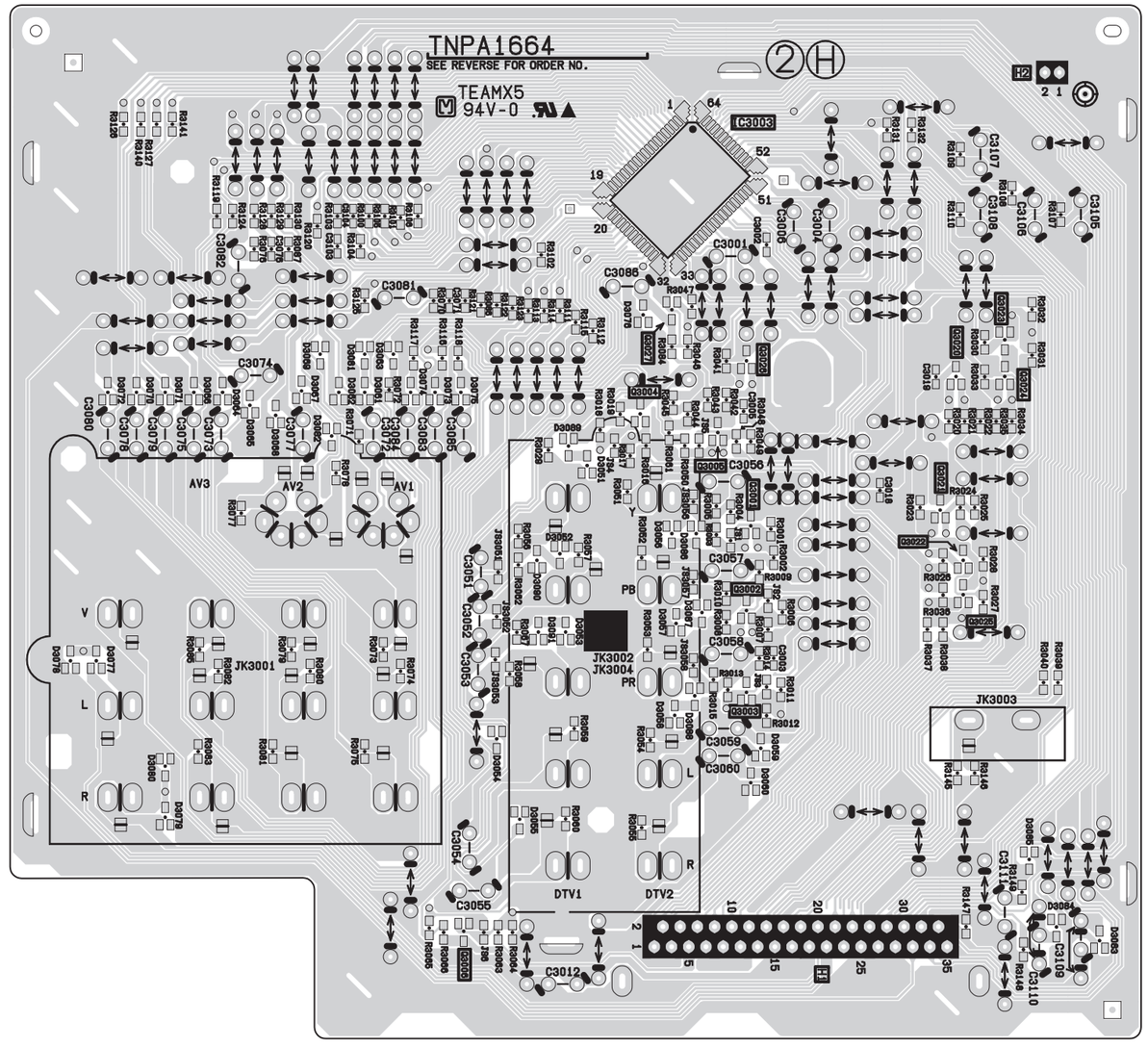
	Q3020	Q3021
B	4.24	4.30
C	8.80	8.80
E	3.57	3.64

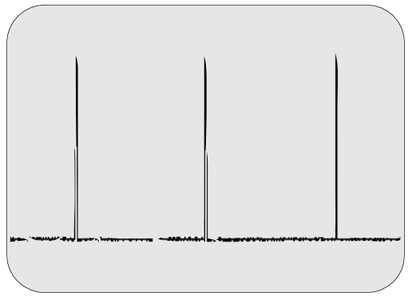
	Q3022	Q3023
B	3.54	4.10
C	8.80	8.80
E	2.69	3.43

	Q3024	Q3025
B	4.22	3.54
C	8.80	8.80
E	3.57	2.89

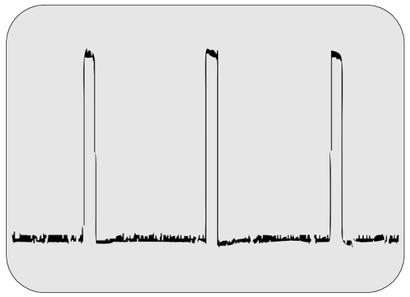
	Q3026	Q3027
B	4.37	0.00
C	0.00	5.05
E	5.05	0.00

H-Board Layout

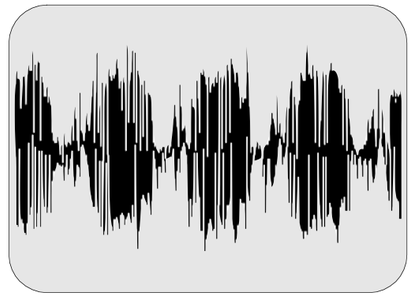




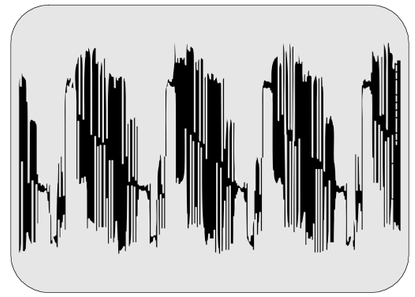
1 A-Board
IC001 Pin 55 - 3.28V_{p-p}
V-SYNC



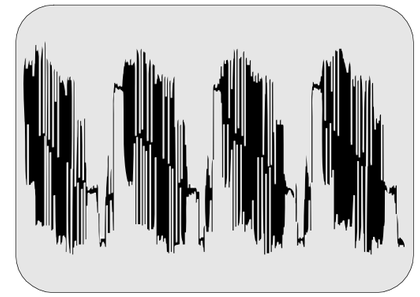
2 A-Board
IC001 Pin 49 - 3.56V_{p-p}
H-SYNC



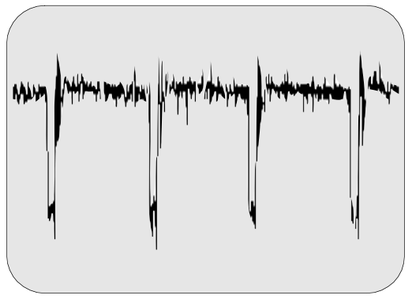
3 A-Board
A9 Pin 10 - 0.856V_{p-p}
MAIN C/Pb



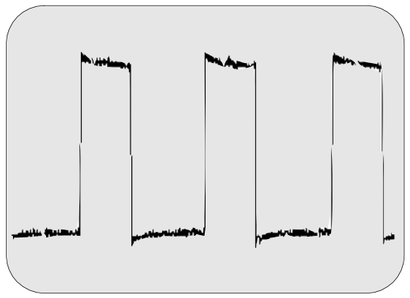
4 A-Board
A9 Pin 11 - 2.10V_{p-p}
MAIN Y



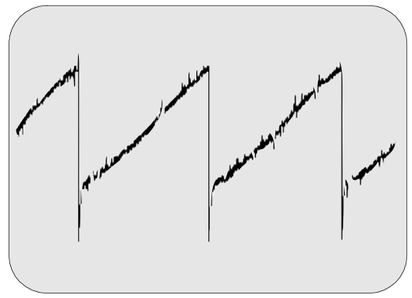
5 A-Board
A9 Pin 15 - 2.11V_{p-p}
SUB Y



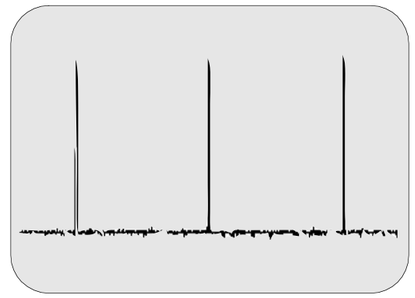
6 A-Board
A9 Pin 25 - 0.43V_{p-p}
TV2 V



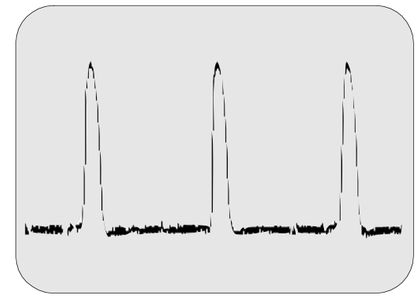
7 A-Board
A6 Pin 2 - 3.52V_{p-p}
H-DRIVE



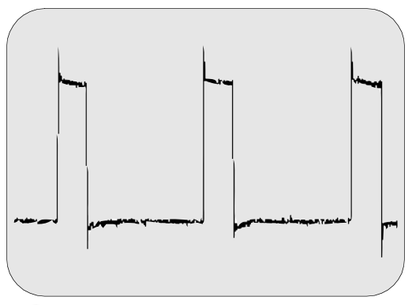
8 A-Board
A6 Pin 5 - 1.32V_{p-p}
V-DRIVE



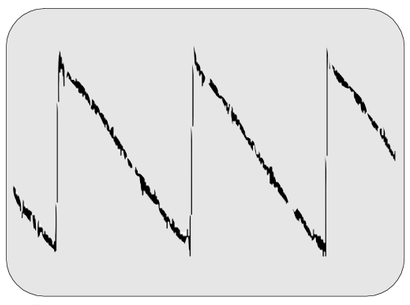
9 A-Board
A6 Pin 1 - 3.44V_{p-p}
VP2



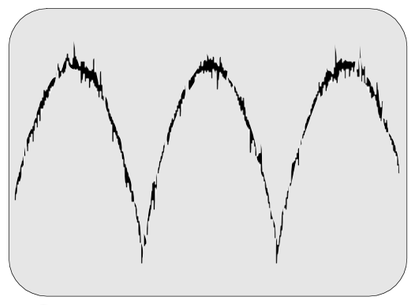
10 A-Board
A6 Pin 3 - 2.88V_{p-p}
FBP



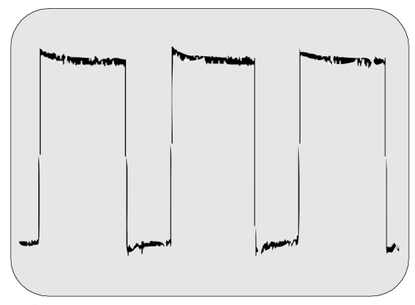
11 A-Board
A6 Pin 7 - 5.16V_{p-p}
EW-DRIVE



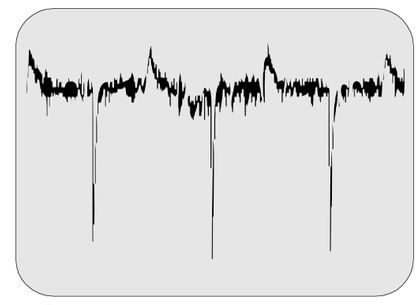
12 A-Board
A6 Pin 16 - 1.86V_{p-p}
V.L. (NECH PRO)



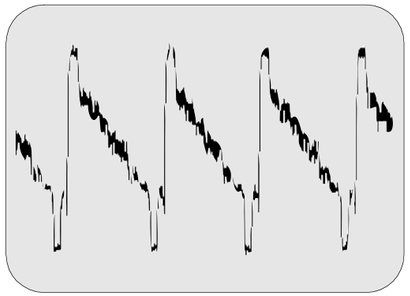
13 A-Board
A7 Pin 5 - 0.85V_{p-p}
V-DAF



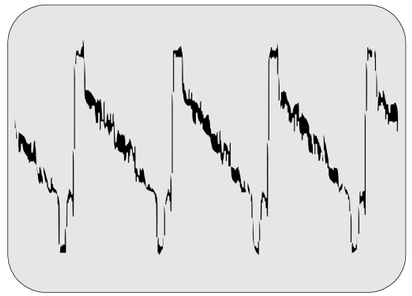
14 A-Board
A7 Pin 7 - 3.64V_{p-p}
H-DAF



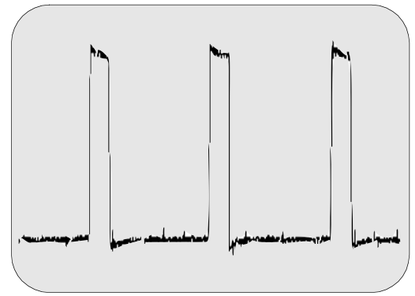
15 A-Board
IC001 Pin 4 - 0.33V_{p-p}
VERSION



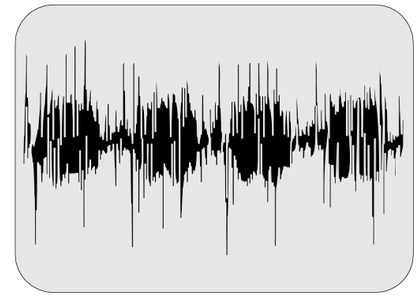
16 **A-Board**
IC001 Pin 28 - 1.86V_{p-p}
CVBS0



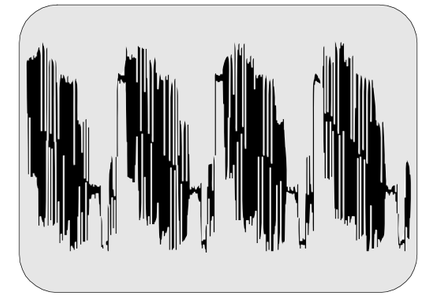
17 **A-Board**
IC001 Pin 30 - 1.86V_{p-p}
CVBS1



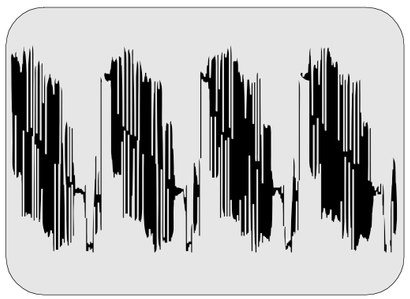
18 **A-Board**
A25 Pin 7 - 3.48V_{p-p}
H/V BLK



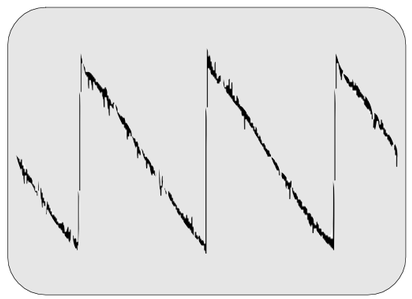
19 **A-Board**
A25 Pin 9 - 0.24V_{p-p}
S/VIDEO SW



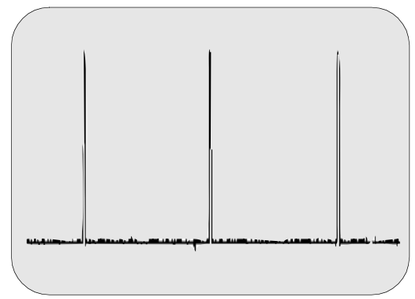
20 **A-Board**
A25 Pin 20 - 2.08V_{p-p}
MAIN V/Y



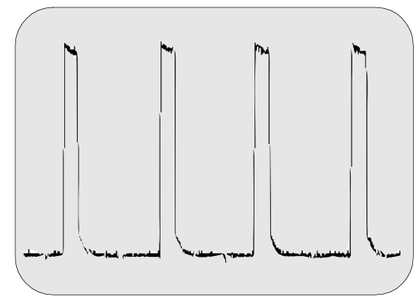
21 **A-Board**
A25 Pin 24 - 2.08V_{p-p}
SUB V/Y



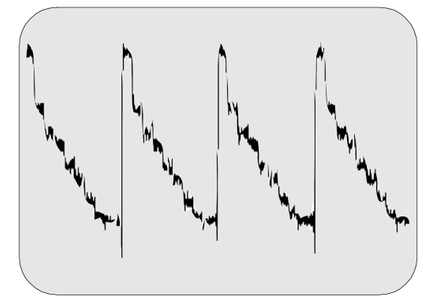
22 **A-Board**
A26 Pin 3 - 1.86V_{p-p}
NECK PRO



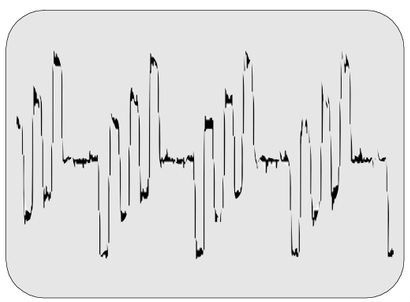
23 **A-Board**
A26 Pin 9 - 4.72V_{p-p}
NTSC-VD2



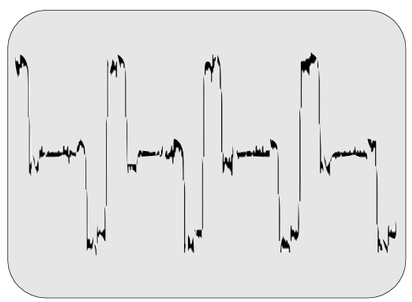
24 **A-Board**
A26 Pin 10 - 5.04V_{p-p}
NTSC-HD2



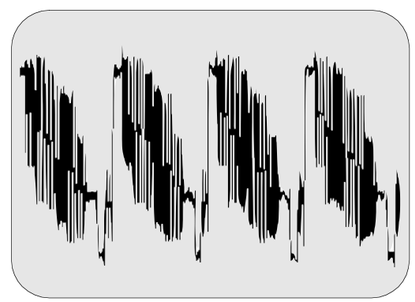
25 **A-Board**
A26 Pin 11 - 1.58V_{p-p}
SUB V/Y



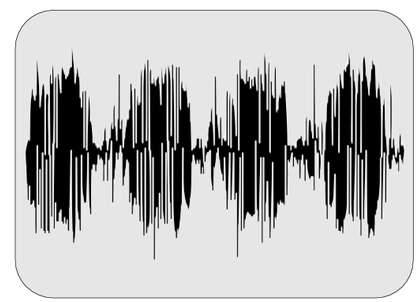
26 **A-Board**
A26 Pin 12 - 1.53V_{p-p}
SUB V/Pb



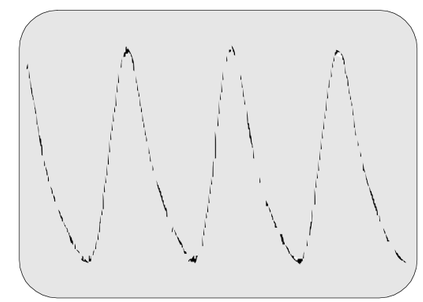
27 **A-Board**
A26 Pin 13 - 1.46V_{p-p}
SUB V/Pr



28 **A-Board**
A26 Pin 15 - 2.04V_{p-p}
MAIN V/Y

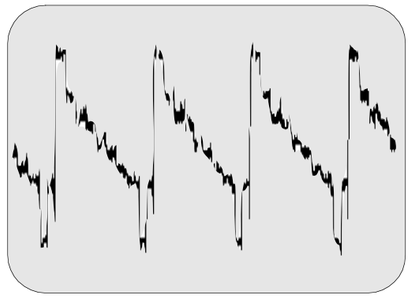


29 **A-Board**
A26 Pin 16 - 0.13V_{p-p}
MAIN C/Pb

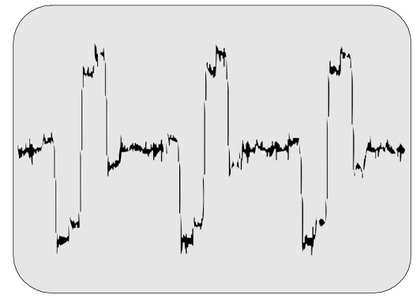


30 **A-Board**
A26 Pin 19 - 2.44V_{p-p}
FSC

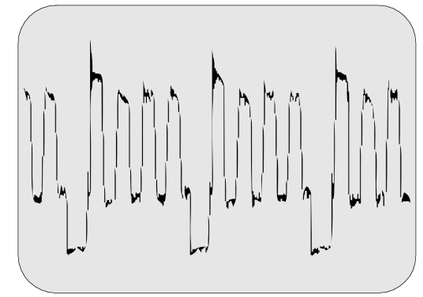
31 A-Board
A26 Pin 20 - 1.00V_{p-p}
COMB-C



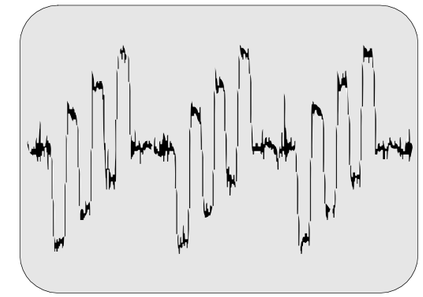
32 A-Board
A26 Pin 21 - 1.28V_{p-p}
COMB-Y



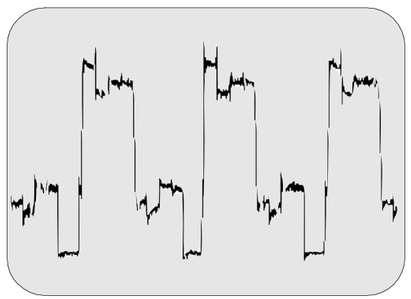
33 A-Board
A26 Pin 28 - 0.91V_{p-p}
P_r



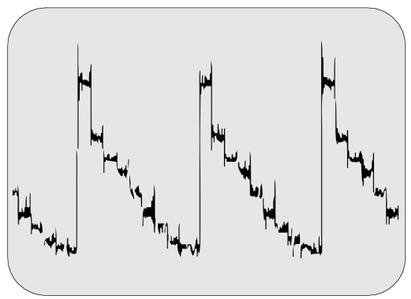
34 A-Board
A26 Pin 29 - 5.20V_{p-p}
BLUE



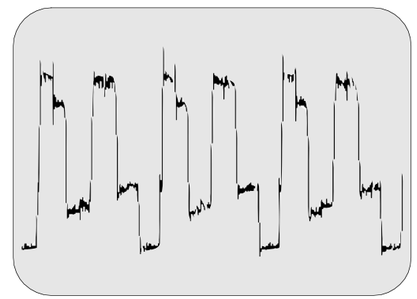
35 A-Board
A26 Pin 30 - 0.74V_{p-p}
P_b



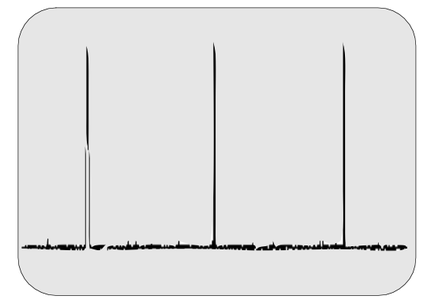
36 A-Board
A26 Pin 31 - 4.92V_{p-p}
GREEN



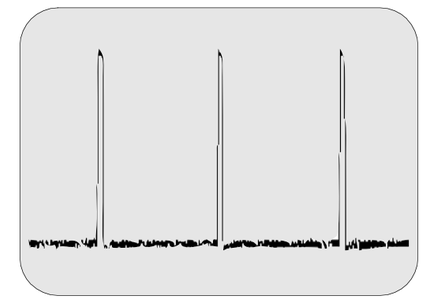
37 A-Board
A26 Pin 32 - 0.82V_{p-p}
Y



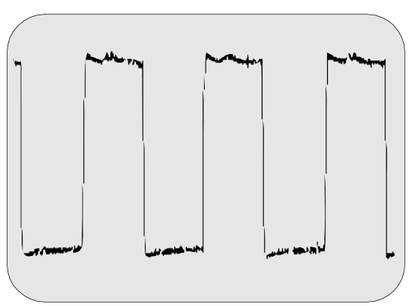
38 A-Board
A26 Pin 33 - 5.28V_{p-p}
RED



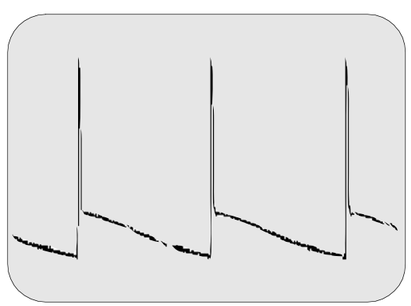
39 A-Board
A26 Pin 34 - 3.32V_{p-p}
VPO1



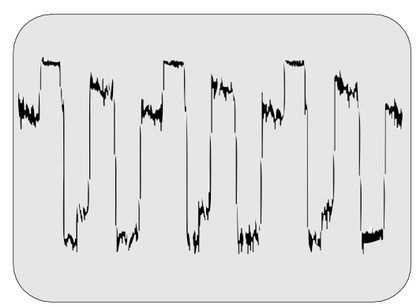
40 A-Board
A26 Pin 35 - 3.60V_{p-p}
CLP



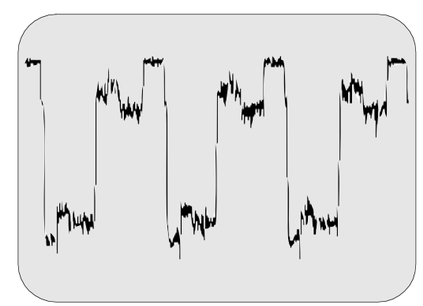
41 Q-Board
Q10 Pin 4 - 4.16V_{p-p}
H-DRIVE



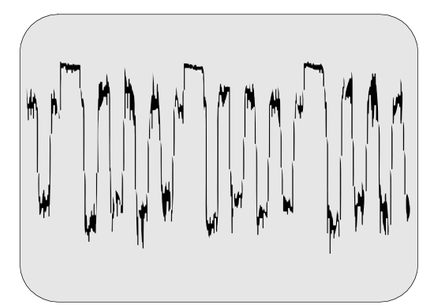
42 Q-Board
Q8 Pin 13 - 84.00V_{p-p}
VH



43 L-Board
IC3801 Pin 8 - 172.00V_{p-p}
R-DRIVE



44 L-Board
IC3802 Pin 8 - 176.00V_{p-p}
G-DRIVE



45 L-Board
IC3803 Pin 8 - 166.00V_{p-p}
B-DRIVE