JVC

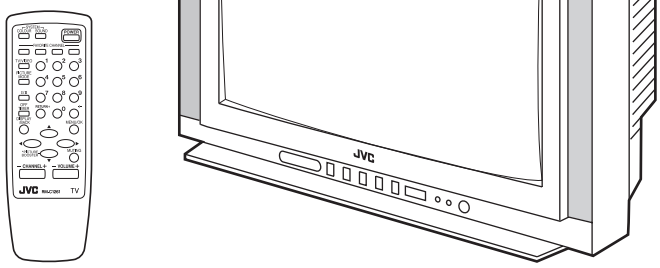
SCHEMATIC DIAGRAMS

COLOUR TELEVISION

AV-21D114/B

CD-ROM No.SML200502

BASIC CHASSIS
CW



No.YA153
2005/2

AV-21D114/B

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety ciritical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	: Colour bar signal
(2)Setting positions of each knob/button and variable resistor	: Original setting position when shipped
(3)Internal resistance of tester	: DC 20kΩ/V
(4)Oscilloscope sweeping time	: H ⇒ 20μs / div
	: V ⇒ 5ms / div
	: Othters ⇒ Sweeping time is specified
(5)Voltage values	: All DC voltage values

∗ Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board : R209 → R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

No unit	: [Ω]
K	: [kΩ]
M	: [MΩ]

● Rated allowable power

No indication	: 1/16 [W]
Others	: As specified

● Type

No indication	: Carbon resistor
OMR	: Oxide metal film resistor
MFR	: Metal film resistor
MPR	: Metal plate resistor
UNFR	: Uninflammable resistor
FR	: Fusible resistor

∗ Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

1 or higher	: [pF]
less than 1	: [μF]

● Withstand voltage

No indication	: DC50[V]
Others	: DC withstand voltage [V]
AC indicated	: AC withstand voltage [V]

∗ Electrolytic Capacitors

47/50[Example]: Capacitance value [μF]/withstand voltage[V]

● Type

No indication	: Ceramic capacitor
MM	: Metalized mylar capacitor
PP	: Polypropylene capacitor
MPP	: Metalized polypropylene capacitor
MF	: Metalized film capacitor
TF	: Thin film capacitor
BP	: Bipolar electrolytic capacitor
TAN	: Tantalum capacitor

(3)Coils

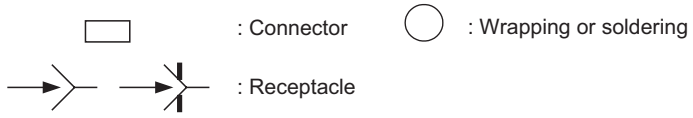
No unit	: [μH]
Others	: As specified

(4)Power Supply

∗ Respective voltage values are indicated

(5)Test point

(6)Connecting method



(7)Ground symbol

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

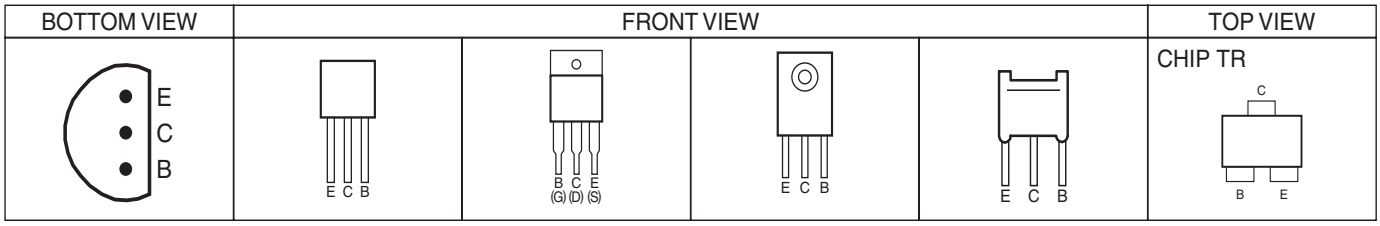
NOTE

◆ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

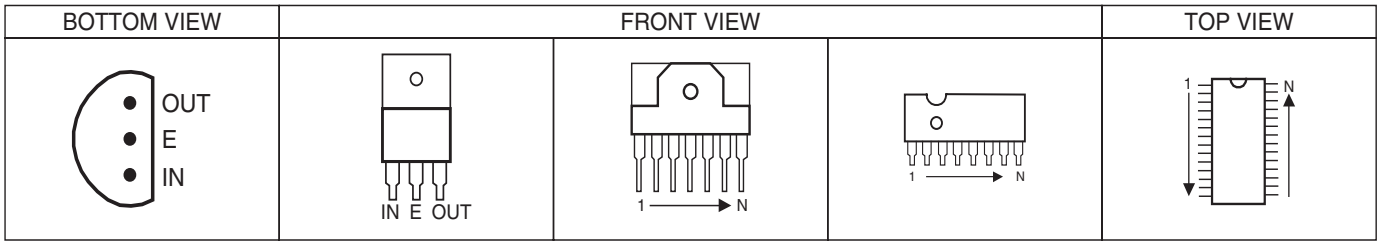
CONTENTS

SEMICONDUCTOR SHAPES

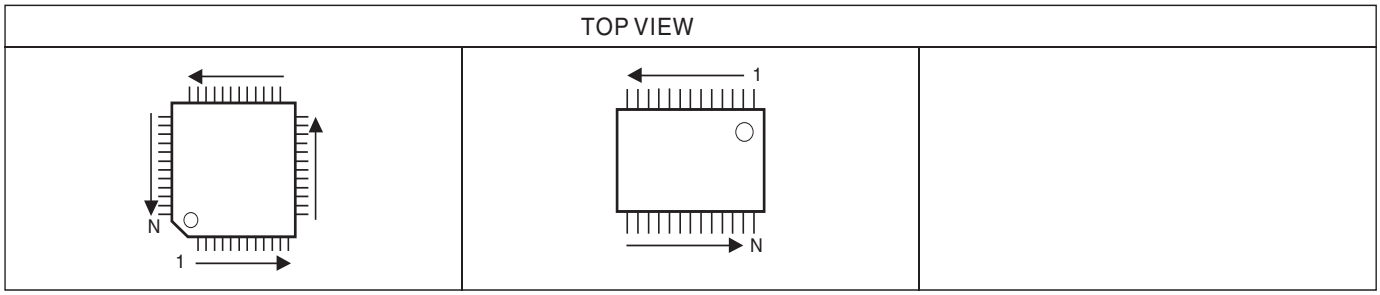
TRANSISTOR



IC



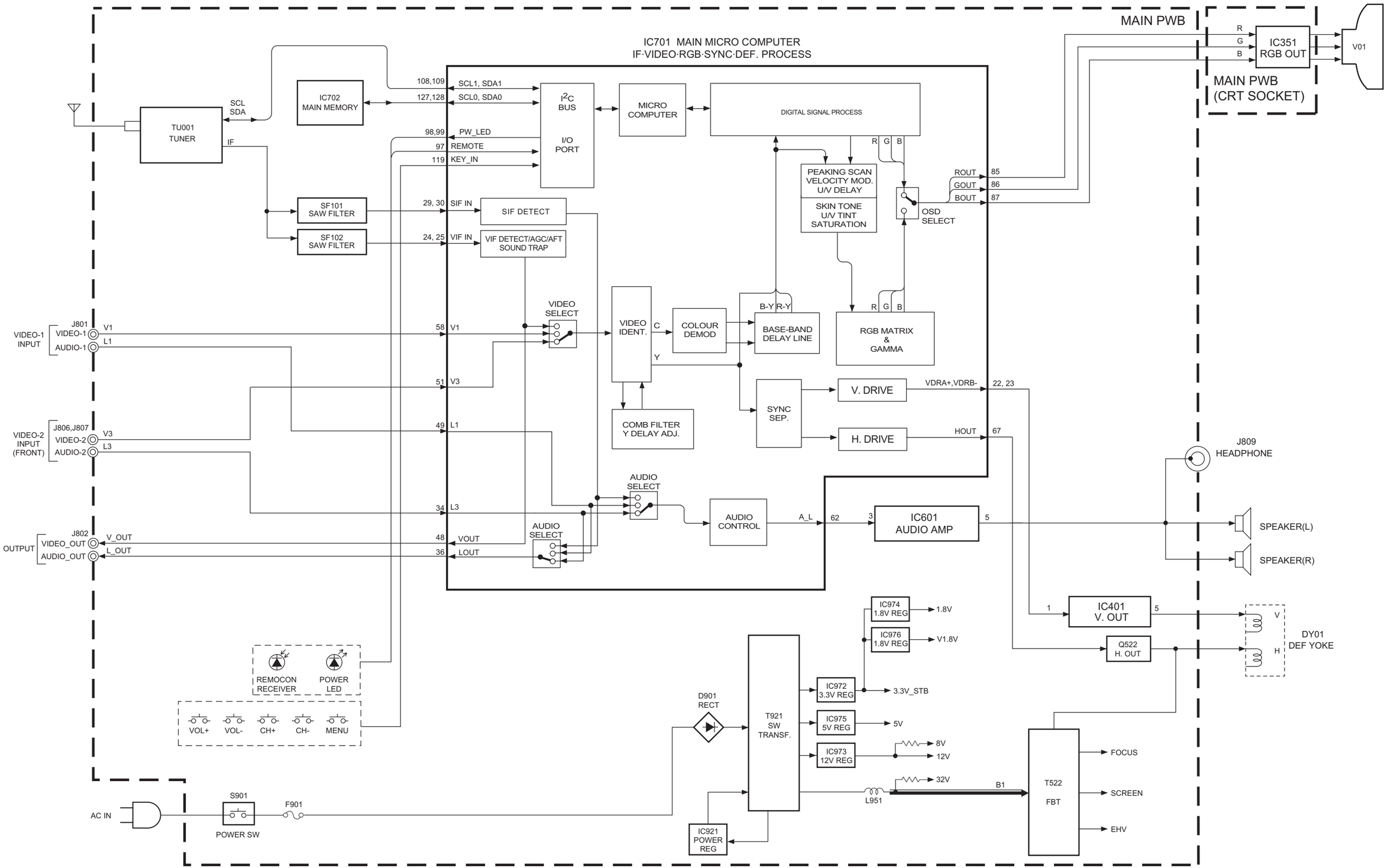
CHIP IC



USING P.W.BOARD

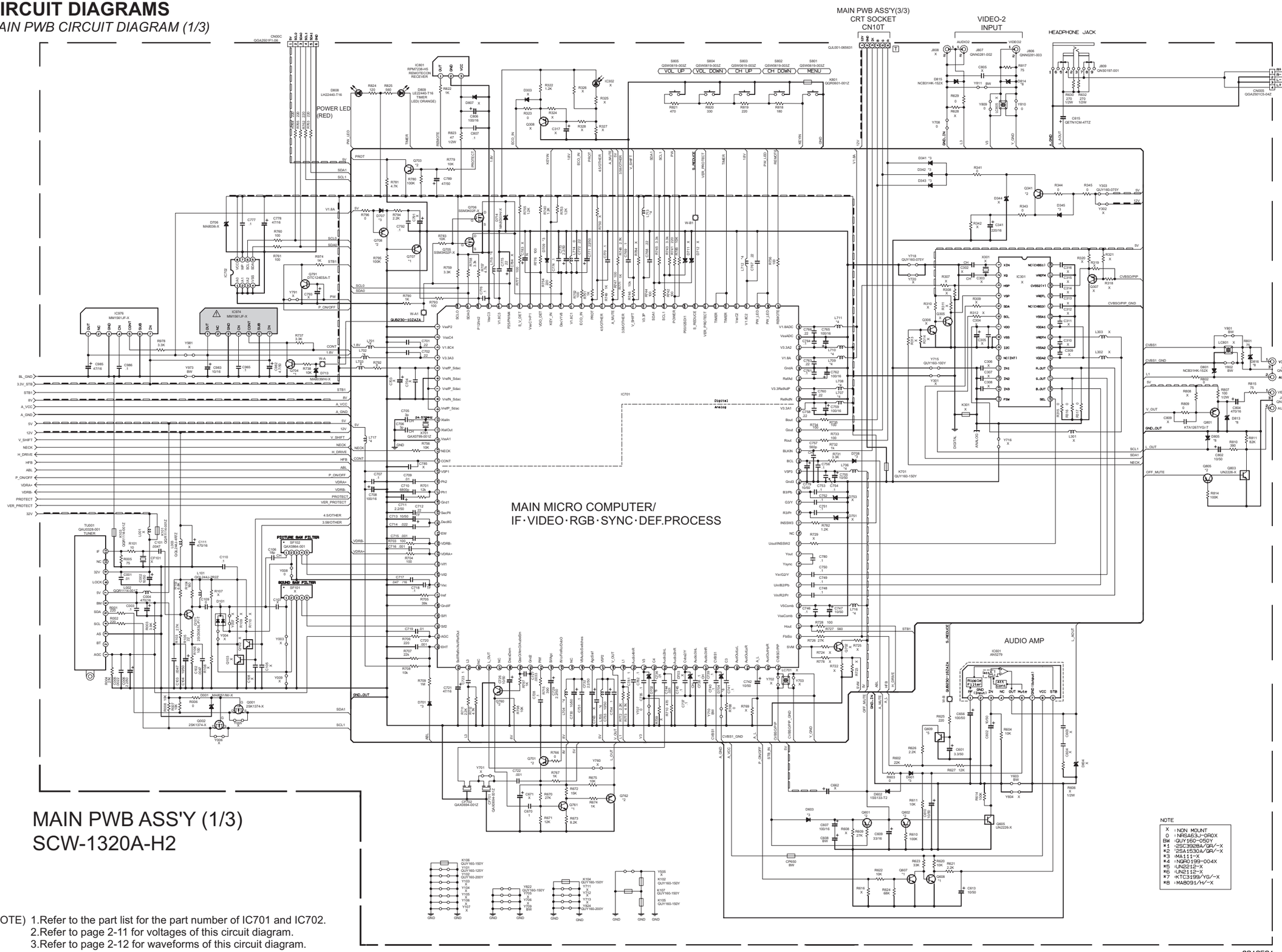
P.W. BOARD ASS'Y NAME	AV-21D114/B
MAIN P.W. BOARD	SCW-1320A-H2

BLOCK DIAGRAM



CIRCUIT DIAGRAMS

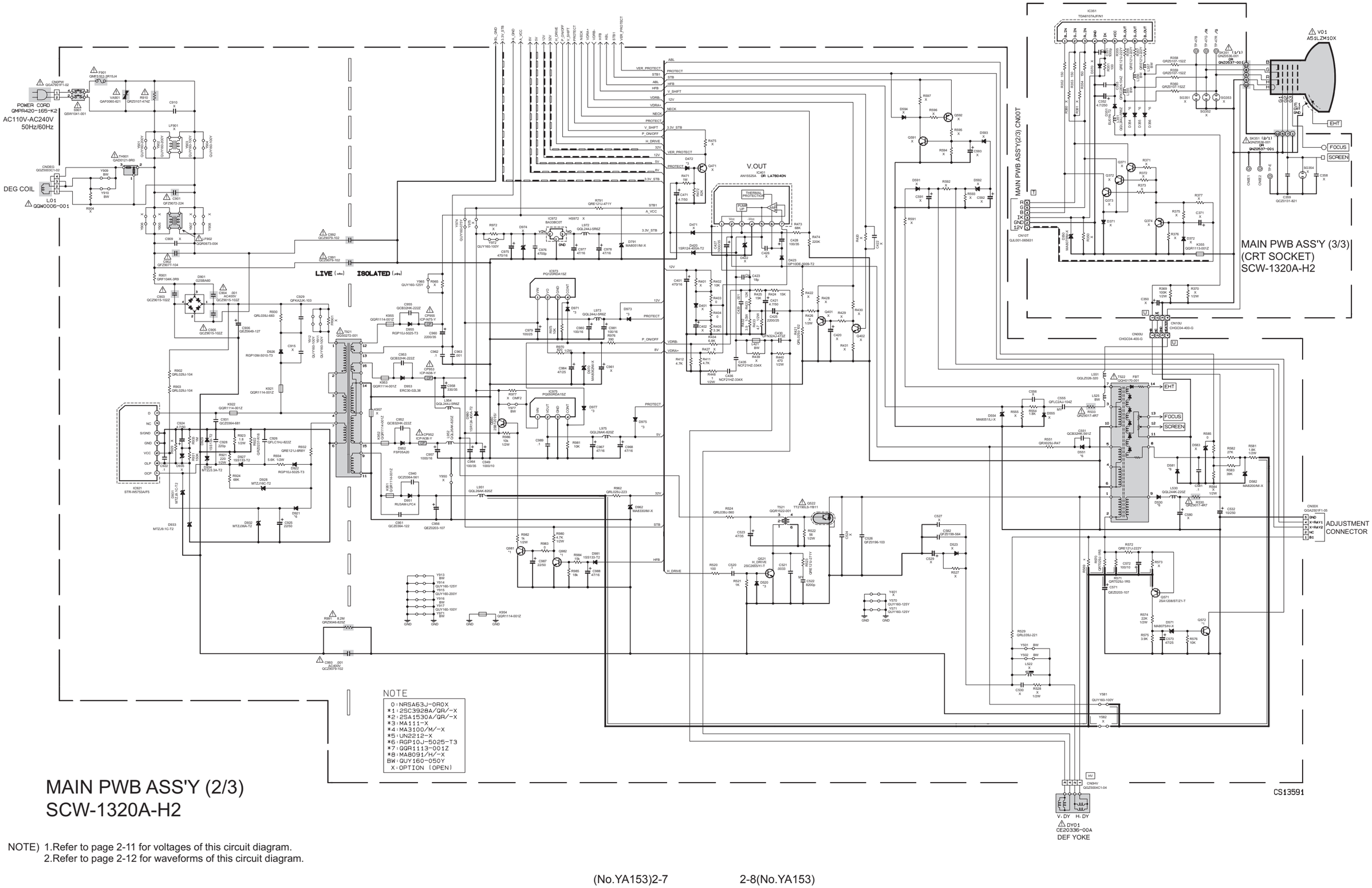
MAIN PWB CIRCUIT DIAGRAM (1/3)



NOTE) 1.Refer to the part list for the part number of IC701 and IC702.
2.Refer to page 2-11 for voltages of this circuit diagram.
3.Refer to page 2-12 for waveforms of this circuit diagram.

CS13591

MAIN PWB CIRCUIT DIAGRAM (2/3),(3/3)

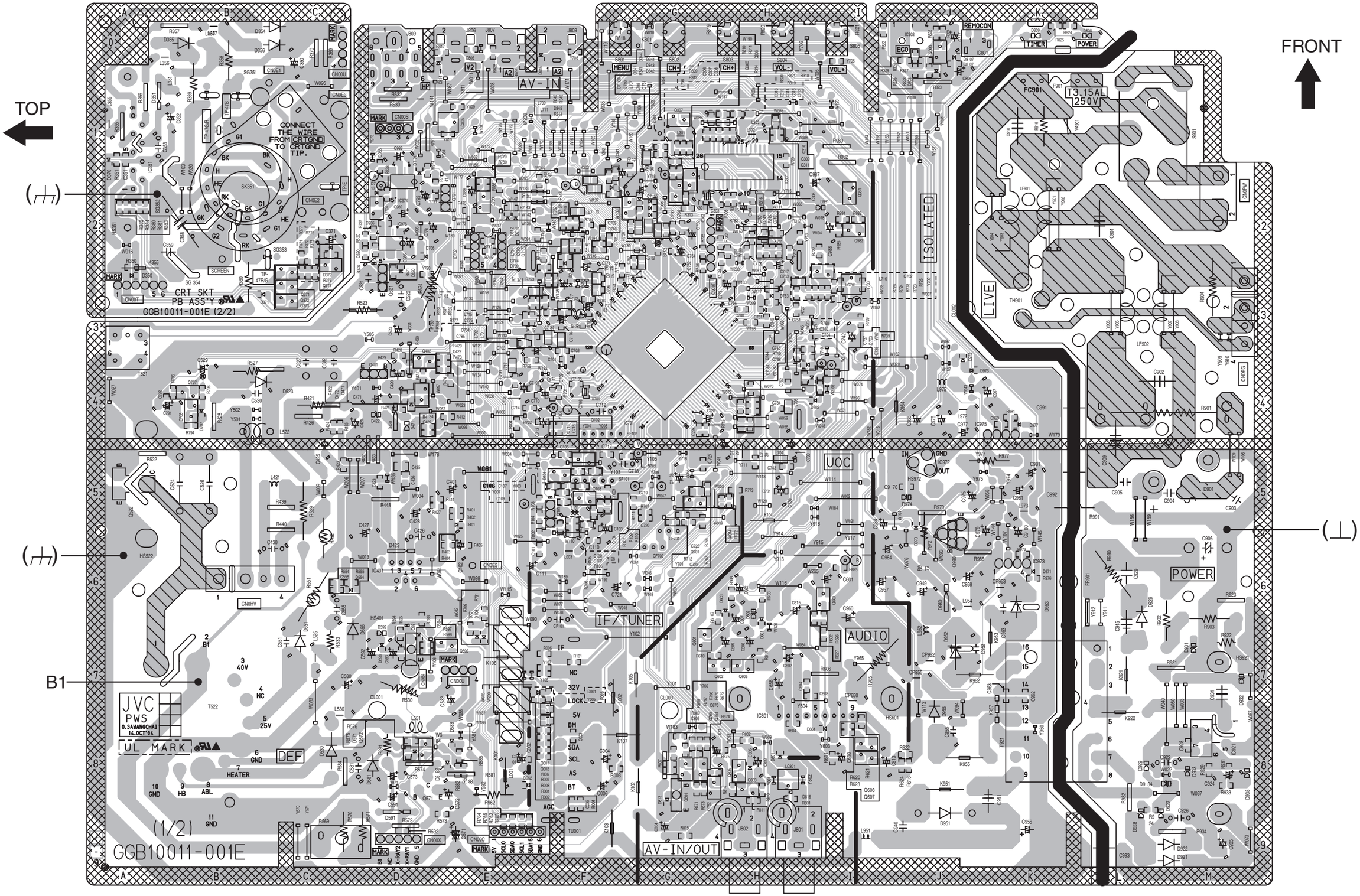


MAIN PWB ASS'Y (2/3)
SCW-1320A-H2

NOTE) 1.Refer to page 2-11 for voltages of this circuit diagram.
2.Refer to page 2-12 for waveforms of this circuit diagram.

PATTERN DIAGRAMS

MAIN PWB PATTERN



VOLTAGE CHARTS

<MAIN PWB>

MODE PIN NO.	DC (V)
IC401	
1	2.9
2	25.3
3	1.7
4	0
5	12.8
6	25.7
7	2.9
IC601	
1	18.1
2	0
3	0
4	0
5	9.1
6	0.6
7	0
8	19.3
9	13.2
IC701	
1	0
2	0
3	1.8
4	3.2
5	3.2
6	0
7	3.2
8	0
9	0.5
10	1.6
11	1.5
12	0
13	0.2
14	3.0
15	4.9
16	2.0
17	2.3
18	0
19	2.3
20	2.3
21	0
22	2.4
23	2.0
24	1.9
25	2.0
26	2.3
27	1.9
28	0
29	1.9
30	1.9
31	0
32	3.3
33	0
34	2.2
35	2.2
36	3.5
37	3.5
38	2.3
39	2.58
40	0
41	2.0
42	1.8
43	2.2
44	0.5
45	8.2
46	1.4
47	4.8
48	1.3
49	2.2
50	2.2
51	1.4
52	1.5
53	2.2
54	2.2
55	1.4
56	2.2
57	2.2
58	1.4
59	1.5
60	7.4
61	7.4
62	3.6
63	3.6
64	0.1
65	0
66	0.5
67	1.6
68	0
69	4.8
70	1.3
71	1.3
72	1.3
73	1.9
74	1.7
75	0.2
76	0
77	3.2
78	1.2

MODE PIN NO.	DC (V)
79	1.2
80	0
81	0
82	4.8
83	3.6
84	3.7
85	2.2
86	2.2
87	2.3
88	3.2
89	0
90	3.2
91	1.6
92	0
93	1.7
94	3.2
95	0
96	1.7
97	3.2
98	0
99	0
100	1.8
101	0.3
102	3.3
103	3.2
104	0
105	0.2
106	0.2
107	0
108	1.7
109	1.5
110	3.2
111	2.3
112	0.4
113	0.3
114	3.2
115	0
116	0.7
117	1.9
118	1.7
119	3.2
120	0.4
121	0
122	0.4
123	0
124	1.8
125	0
126	3.2
127	3.1
128	3.2
IC702	
1	0
2	0
3	0
4	0
5	3.2
6	3.1
7	0
8	3.2
IC801	
1	3.2
2	3.2
3	0
IC921	
1	302.7
3	0
4	0
5	31.5
6	3.5
7	0.9
IC972	
1	6.3
2	0
3	3.3
IC973	
1	14.1
2	11.9
3	0
4	3.2
IC974	
1	1.8
2	0.2
3	0
4	0.5
5	2.9
6	0
7	3.2
IC975	
1	6.3
2	4.9
3	0
4	3.3

MODE PIN NO.	DC (V)
IC976	
1	1.8
2	0.5
3	0
4	0.5
5	2.9
6	0
7	3.2
Q101	
E	2.1
C	11.8
B	2.9
Q521	
E	0
C	9.9
B	0
Q522	
E	0
C	110.0
B	0
Q571	
E	114.5
C	0
B	114.1
Q572	
E	0
C	3.2
B	0
Q601	
E	8.1
C	0.2
B	8.2
Q602	
E	0.2
C	-0.1
B	0
Q605	
E	0
C	2.7
B	-0.1
Q607	
E	0
C	0
B	0.6
Q608	
E	0
C	14.4
B	0
Q703	
E	3.2
C	0
B	3.2
Q791	
E	0
C	4.1
B	0
Q801	
E	2.1
C	0
B	1.3
Q803	
E	0
C	0
B	-1.2
Q805	
E	0.2
C	-1.1
B	0
Q980	
E	14.1
C	6.2
B	14.1
Q981	
E	0
C	14.1
B	0
Q982	
E	0
C	0
B	0.7
TU001	
1	2.0
2	0
3	0
4	1.8
5	1.7
6	4.9
7	4.9
8	0
9	34.1
11	0

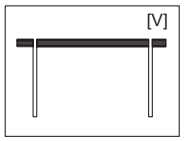
<MAIN PWB(CRT SOCKET PWB)>

MODE PIN NO.	DC (V)
IC351	
1	2.2
2	2.1
3	2.1
4	0
5	4.1
6	184.2
7	117.2
8	121.9
9	111.9

WAVEFORMS

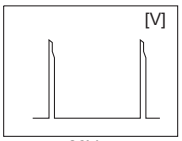
-MAIN PWB-

IC401-1



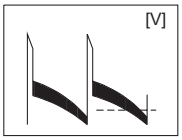
0.5Vp-p

IC401-3



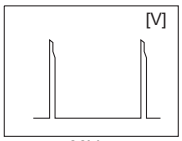
28Vp-p

IC401-5



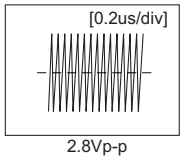
54Vp-p

IC401-6



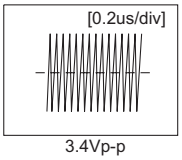
30Vp-p

IC701-10



2.8Vp-p

IC701-11

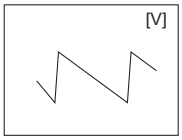


3.4Vp-p

IC701-22

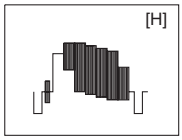
2.0Vp-p

IC701-23



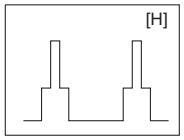
2.8Vp-p

IC701-48



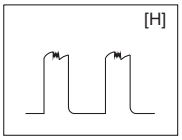
2.0Vp-p

IC701-66



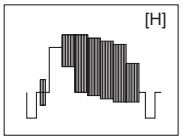
5.4Vp-p

IC701-67



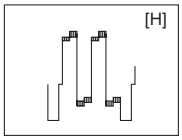
3.6Vp-p

IC701-74



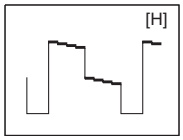
1.3Vp-p

IC701-85



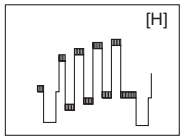
2.2Vp-p

IC701-86



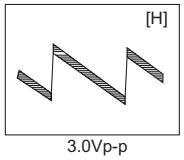
1.8Vp-p

IC701-87



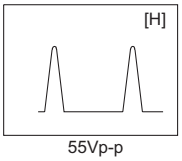
2.4Vp-p

T522-2



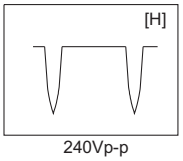
3.0Vp-p

T522-3



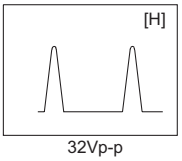
55Vp-p

T522-5



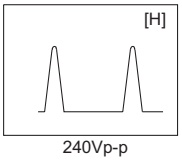
240Vp-p

T522-7



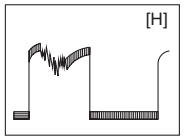
32Vp-p

T522-9



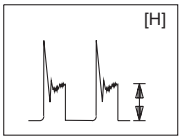
240Vp-p

Q521-B



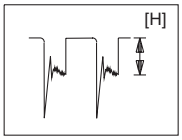
2.0Vp-p

Q521-C



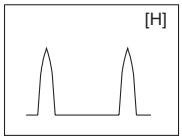
34Vp-p

Q522-B



100Vp-p

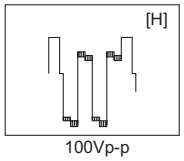
Q522-C



960Vp-p

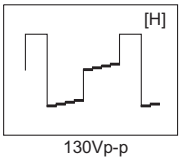
-CRT SOCKET PWB-

IC351-7



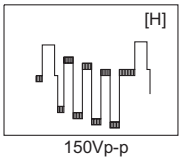
100Vp-p

IC351-8



130Vp-p

IC351-9



150Vp-p

JVC
Victor Company of Japan, Limited
AV & MULTIMEDIA COMPANY VIDEO DISPLAY CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

(No.YA153)

Printed in Japan
VPT