

JVC

SCHEMATIC DIAGRAMS

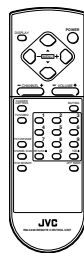
COLOR TELEVISION

BASIC CHASSIS

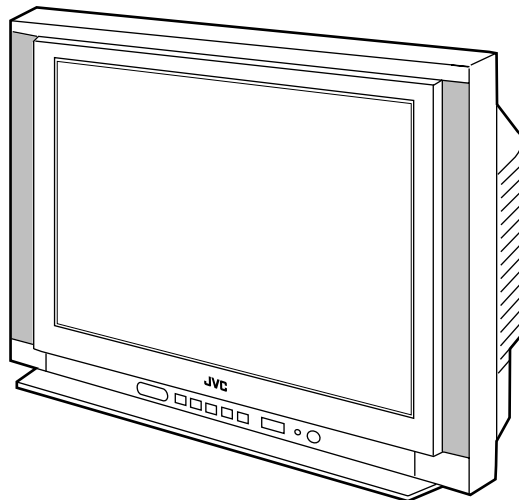
CH

AV-21L11 (-PH)
AV-21L31 (-PH)
AV-25L31 (-PH)

CD-ROM No. SML200110



RM-C248-2C



AV-21L11 (-PH) AV-21L31 (-PH) AV-25L31 (-PH) STANDARD CIRCUIT DIAGRAM

NOTE ON USING CIRCUIT DIAGRAMS

1. SAFETY

The components identified by the \triangle symbol and shading are critical for safety. For continued safety replace safety critical 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 : Color bar signal
- (2) Setting positions of each knob/button and variable resistor : Original setting position when shipped
- (3) Internal resistance of tester : DC 20k Ω /V
- (4) Oscilloscope sweeping time : H \Rightarrow 20 μ S/div
: V \Rightarrow 5mS/div
: Others \Rightarrow 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 : R1209 \rightarrow R209

4. INDICATIONS ON THE CIRCUIT DIAGRAM

(1) Resistors

• Resistance value

- No unit : [Ω]
- k : [k Ω]
- M : [M Ω]

• 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 : Non-Flammable 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 : [μ F]

• Withstand voltage

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

* Electrolytic Capacitors

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

• Type

- No indication : Ceramic capacitor
- MY : Mylar 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 : [μ H]
- Others : As specified

(4) Power Supply



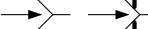
-  : B1
-  : B2(12V)
-  : 9V
-  : 5V

*Respective voltage values are indicated





(5) Test point

-  : Test point
-  : Only test point display

(6) Connecting method

-  : Connector
-  : Wrapping or soldering
-  : Receptacle

(7) Ground symbol

-  : LIVE side ground
-  : ISOLATED(NEUTRAL) side ground
-  : EARTH ground
-  : DIGITAL ground

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 : (\perp) 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 (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.

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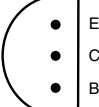

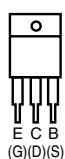
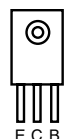

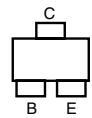
P.W.B. name	Model	AV-21L11-PH	AV-21L31-PH AV-25L31-PH
MAIN PWB CIRCUIT DIAGRAM (1/2)		P2-5	P2-7
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PATTERN DIAGRAMS

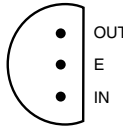
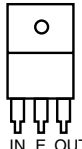
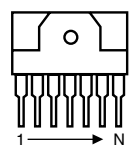
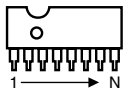
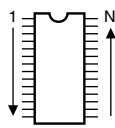
Patten name	Model	AV-21L11-PH	AV-21L31-PH AV-25L31-PH
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CRT SOCKET PWB PATTERN		P2-15	←

SEMICONDUCTOR SHAPES

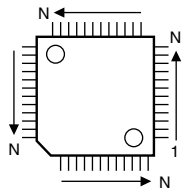
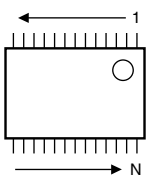
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

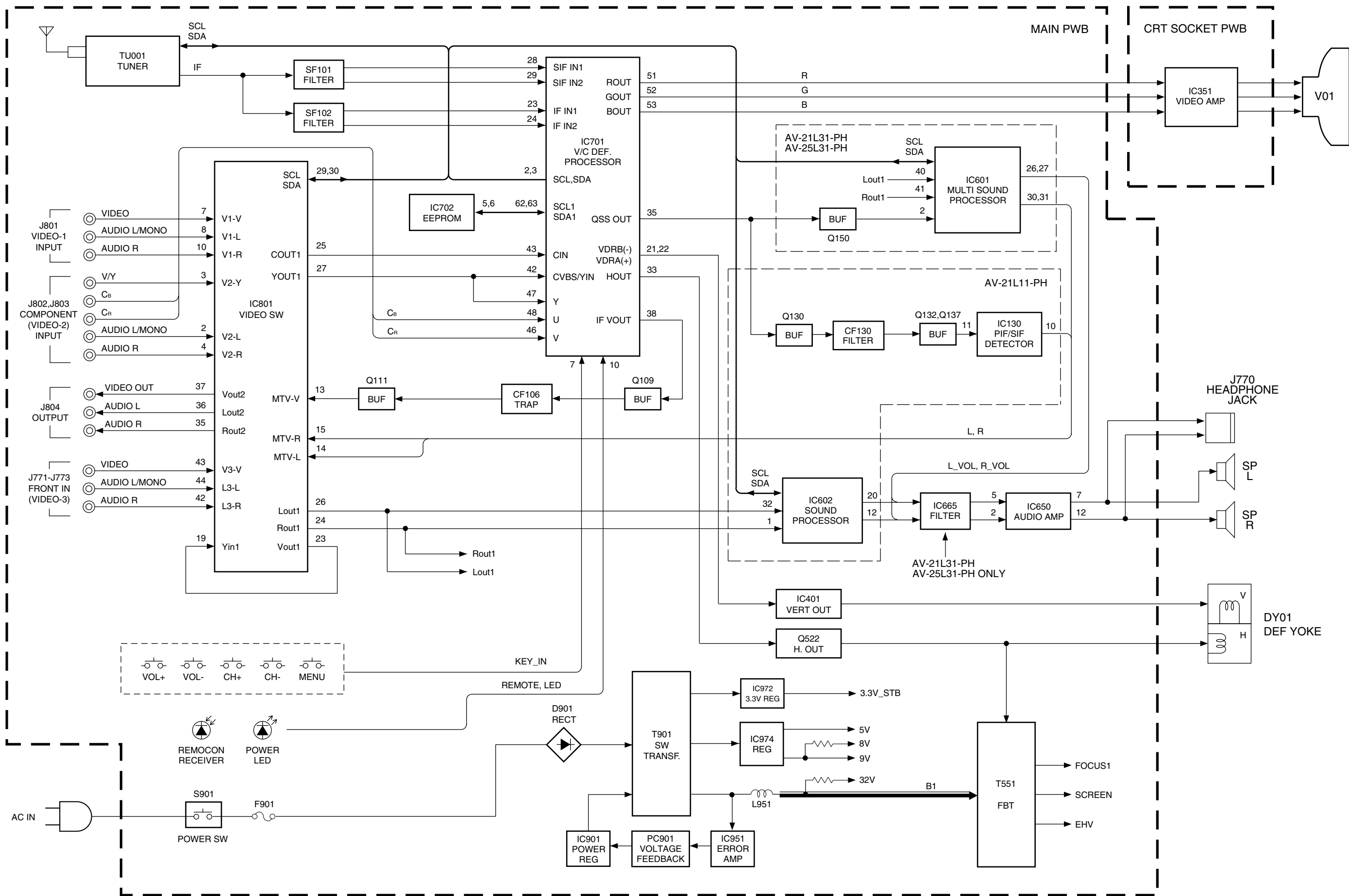
CHIP IC

TOP VIEW	
	

BLOCK DIAGRAM

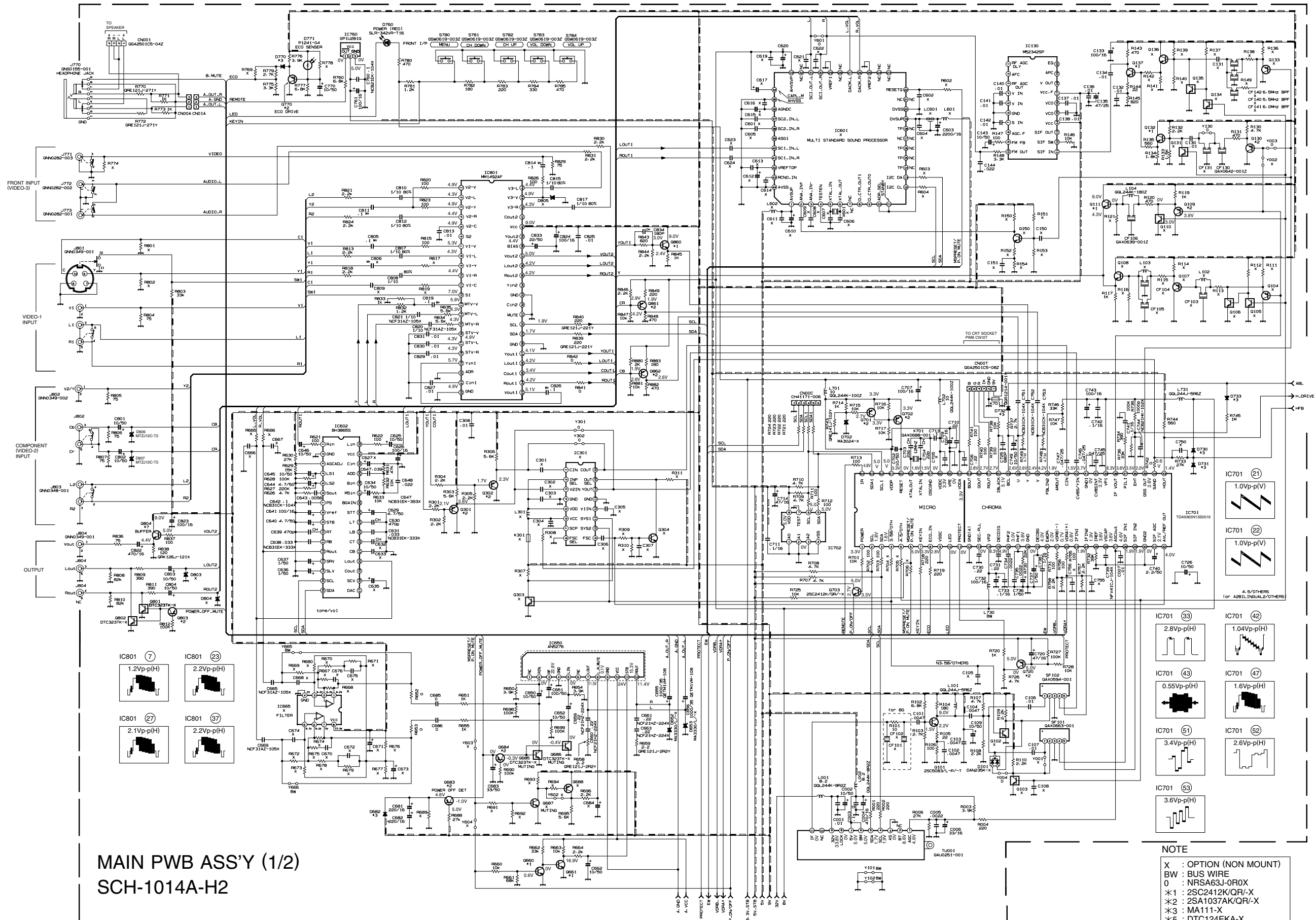
AV-21L11
AV-21L31
AV-25L31

AV-21L11
AV-21L31
AV-25L31



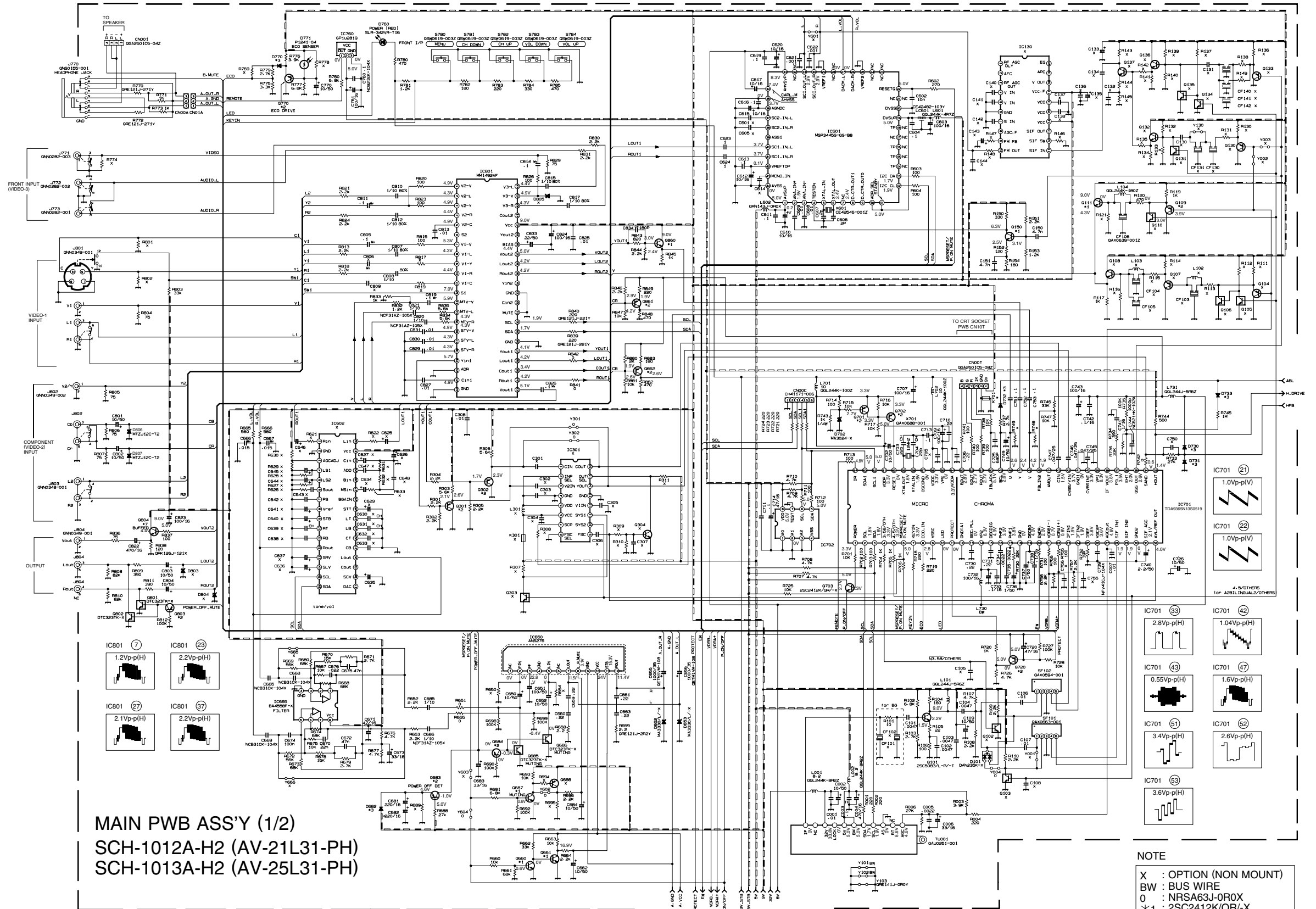
CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/2) [AV-21L11-PH]



MAIN PWB ASS'Y (1/2)
SCH-1014A-H2

MAIN PWB CIRCUIT DIAGRAM (1/2) [AV-21L31-PH, AV-25L31-PH]



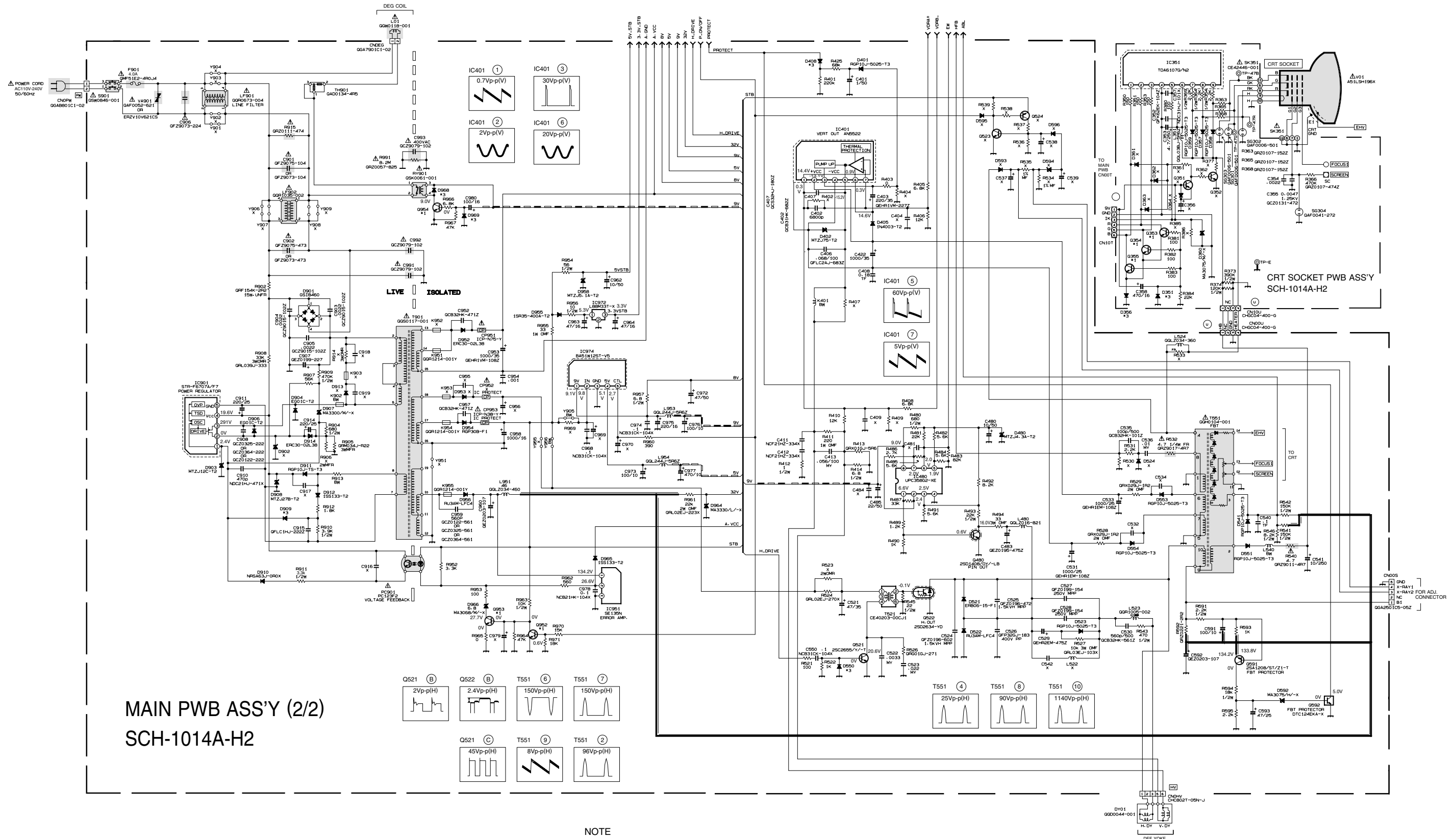
MAIN PWB ASS'Y (1/2)
SCH-1012A-H2 (AV-21L31-PH)
SCH-1013A-H2 (AV-25L31-PH)

*DIFFERENCE LIST (*PARTS)

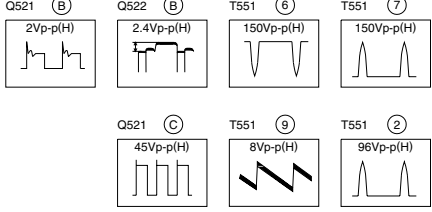
	R748	R749	K701
SCH-1012A-SK	4.7MΩ	4.7MΩ	QQR1214-001Y
SCH-1013A-SK	2.2MΩ	2.2MΩ	BW

NOTE
X : OPTION (NON MOUNT)
BW : BUS WIRE
0 : NRS63J-0R0X
*1 : 2S2412K/QR/-X
*2 : 2SA1037AK/QR/-X
*3 : MA111-X
*5 : DTC124EKA-X
*7 : 2SC1740S/QR/-T

MAIN (2/2) AND CRT SOCKET PWB CIRCUIT DIAGRAMS [AV-21L11-PH]



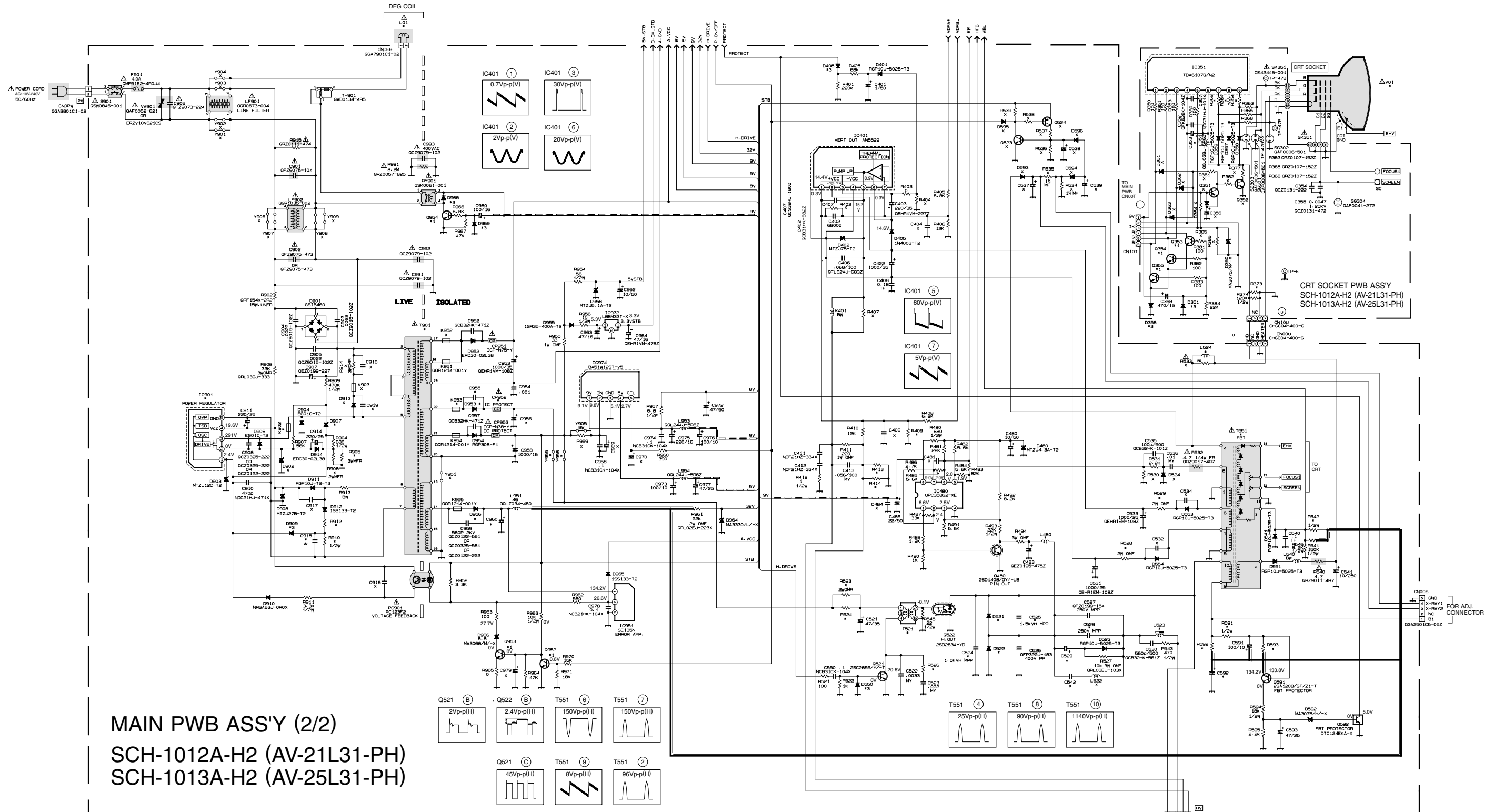
MAIN PWB ASS'Y (2/2)
SCH-1014A-H2



NOTE

- X : OPTION (NON MOUNT)
- BW : BUS WIRE
- 0 : NRS63J-0R0X
- *1 : 2SC2412K/QR-X
- *2 : 2SA1037AK/QR-X
- *3 : MA111-X

MAIN(2/2) AND CRT SOCKET PWB CIRCUIT DIAGRAMS [AV-21L31-PH, AV-25L31-PH]



MAIN PWB ASS'Y (2/2)
SCH-1012A-H2 (AV-21L31-PH)
SCH-1013A-H2 (AV-25L31-PH)

*DIFFERENCE LIST (*PARTS)

	IC901	R354	R364	R369	R373	R409	R413	R414	R494	R524	R526	R528	R529	R542	R591	R592	R593
SCH-1012A-H2	STR-F6707A/F7	2.2k Ω	2.2k Ω	2.2k Ω	390k Ω	180k Ω	5.6 Ω	6.8 Ω	33 Ω	27 Ω	1.2 Ω	1.2 Ω	1.2 Ω	150k Ω	2.2k Ω	2.2 Ω	1k Ω
ACH-1013A-H2	STR-F6709A/F7	1.8k Ω	1.8k Ω	1.8k Ω	120k Ω	NOT USED	2.7 Ω	12 Ω	47 Ω	56 Ω	270 Ω	3.3 Ω	3.3 Ω	120k Ω	4.7k Ω	3.9 Ω	820 Ω

	R905	R910	R912	C353	C524	C525	C528	C529	C592	C915	C955	C956	C960	D521	D522	D907	D953
SCH-1012A-H2	0.22 Ω	3.9k Ω	1.8k Ω	4.7 μF/250V	0.006 μF/1.5kVH	0.0047 μF/1.5kVH	0.15 μF/250V	4.7 μF/250V	100 μF/160V	0.0022 μF/50V	NOT USED	NOT USED	100 μF/160V	ERB06-15-F1	RU3AM-LFC4	MA3300M/-X	NOT USED
ACH-1013A-H2	0.15 Ω	4.7k Ω	1.5k Ω	1 μF/250V	0.0045 μF/1.5kVH	0.011 μF/1.5kVH	0.22 μF/250V	2.2 μF/100V	220 μF/160V	0.0015 μF/50V	470PF/500V	220 μF/35V	220 μF/160V	RH3G-F1	31DF6N-FC5	MA3150M/-X	RGPI0J-5025-T3

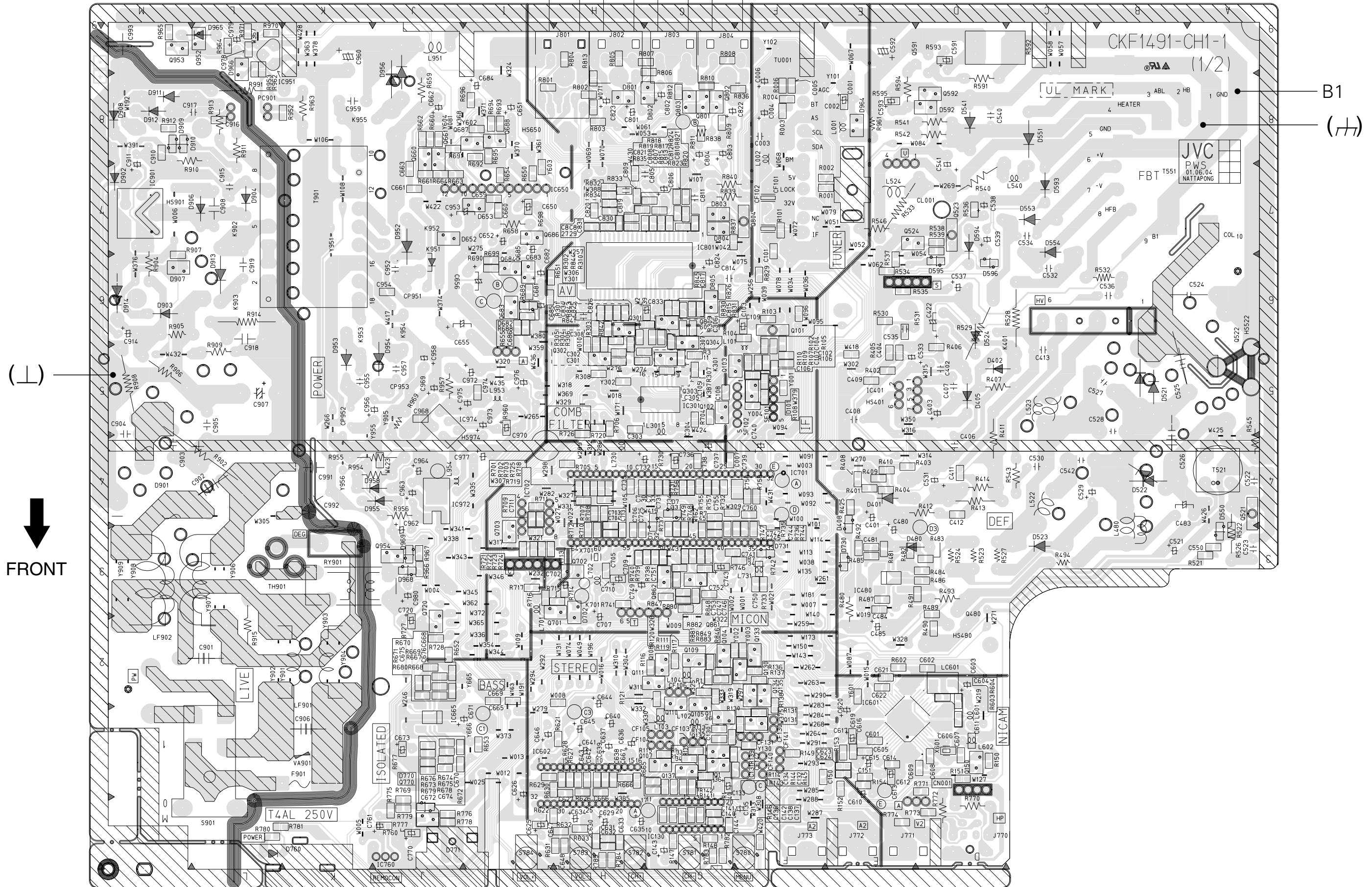
	D956	L480	L523	L524	T521	T551	T901	CP952	DY01	K902	K953	L01	V01	Y955	Y956
SCH-1012A-H2	RU3AM-LFC4	QQL2016-821	QQR1005-002	QQL2034-430	CE40203-00CJ1	QQH0104-001	QQS0117-001	NOT USED	QQD0044-001	BW	NOT USED	QQW0118-001	A51LSH196X	NOT USED	BW
ACH-1013A-H2	31DF6N-FC5	QQR1138-001	QQR1137-005	QQL2026-240	QQR1229-001	QQH0097-001	QQS0116-001	ICP-N50-Y	QQD0043-001	CE41433-001Z	QQR1214-001Y	QQW0119-001	A60LST196X	BW	NOT USED

NOTE
X : OPTION (NON MOUNT)
BW : BUS WIRE
0 : NRSA63J-OR0X
*1 : 2SC2412K/QR/-X
*2 : 2SA1037AK/QR/-X
*3 : MA111-X

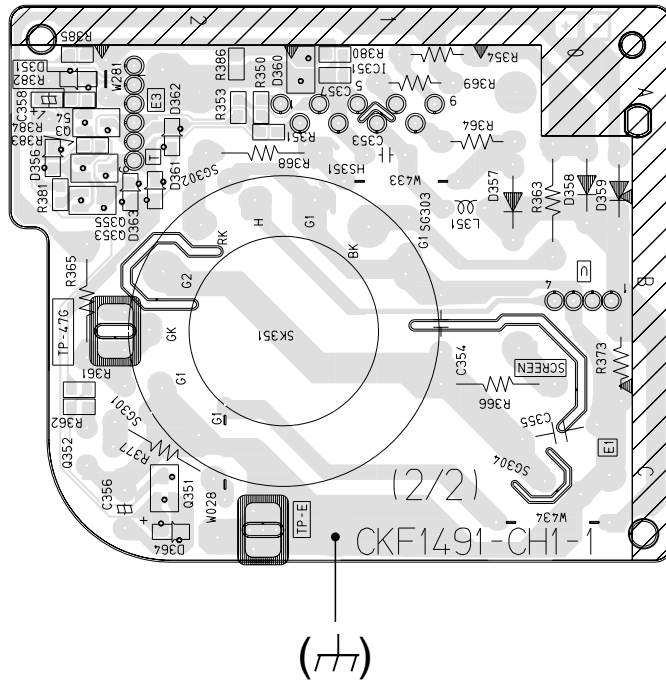
PATTERN DIAGRAMS
MAIN PWB PATTERN

AV-21L11
 AV-21L31
 AV-25L31

AV-21L11
 AV-21L31
 AV-25L31



CRT SOCKET PWB PATTERN





JVC

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AV21L31PH-SK #4
AV25L31PH-SK #4



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