

# JVC

# SCHEMATIC DIAGRAMS

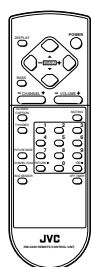
## COLOR TELEVISION

BASIC CHASSIS

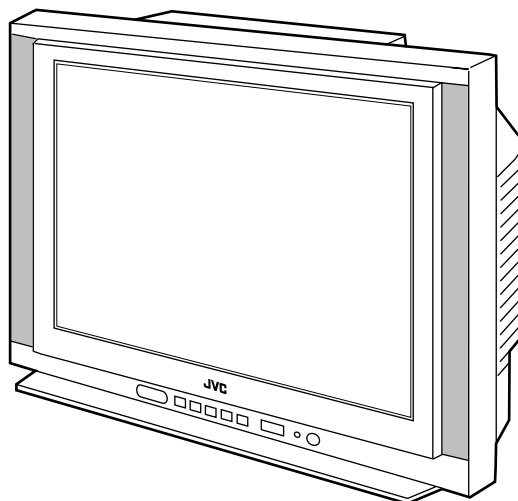
CH

# AV-21L31B (-PH) AV-25L31B (-PH)

CD-ROM No. SML200110



RM-C249-2C



# AV-21L31B(-PH) AV-25L31B(-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 $\Omega$ /V
- (4) Oscilloscope sweeping time : H  $\Rightarrow$  20 $\mu$ 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 : [ $\Omega$ ]
- k : [k $\Omega$ ]
- M : [M $\Omega$ ]

###### ● 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 : [ $\mu$ 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 [ $\mu$ 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 : [ $\mu$ H]
- Others : As specified

#### (4) Power Supply



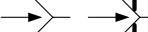
-  : B1
-  : B2(12V)
-  : 9V
-  : 5V

\* 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) : (  $\nearrow$  ) 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.

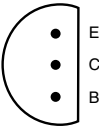

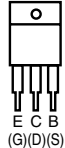
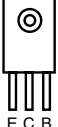

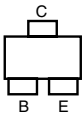
● Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

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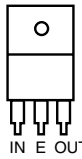
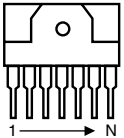
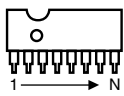
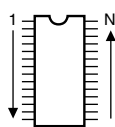
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## SEMICONDUCTOR SHAPES

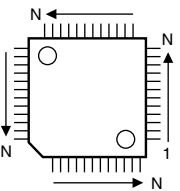
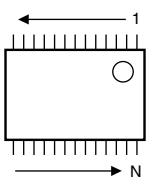
### TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

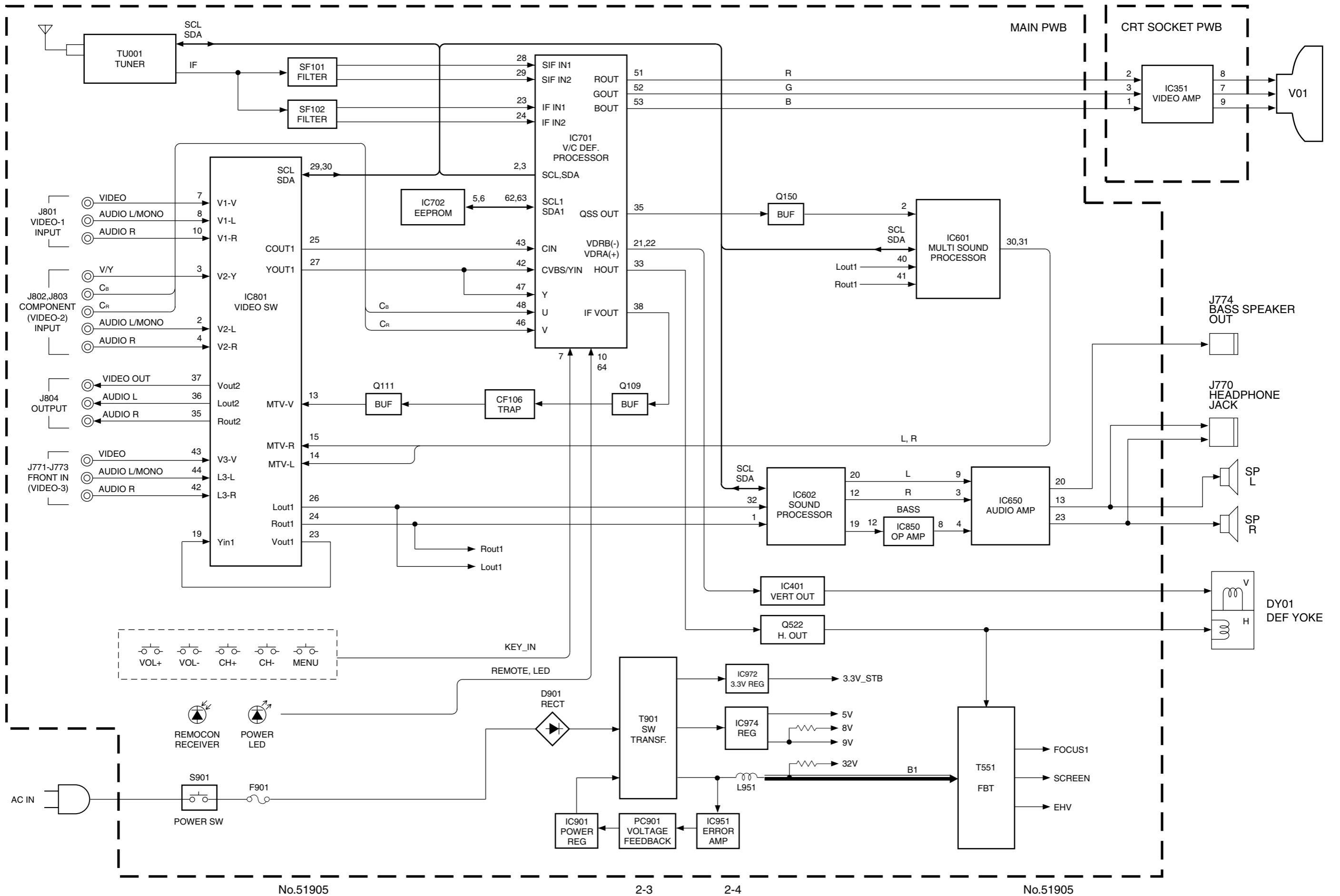
### IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

### CHIP IC

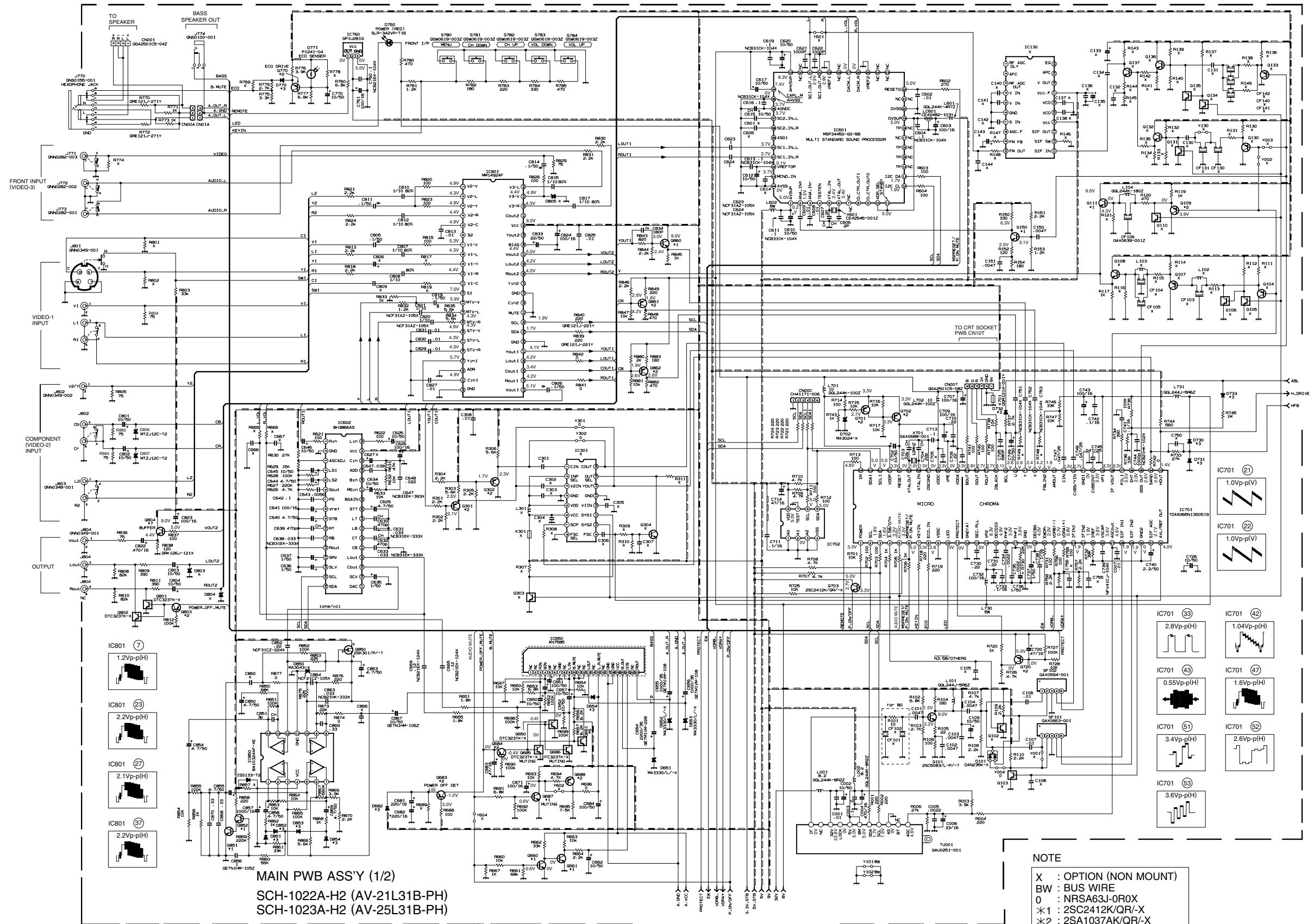
TOP VIEW		
		

**BLOCK DIAGRAM**



CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAMS (1/2)



MAIN PWB ASS'Y (1/2)  
SCH-1022A-H2 (AV-21L31B-PH)  
SCH-1023A-H2 (AV-25L31B-PH)

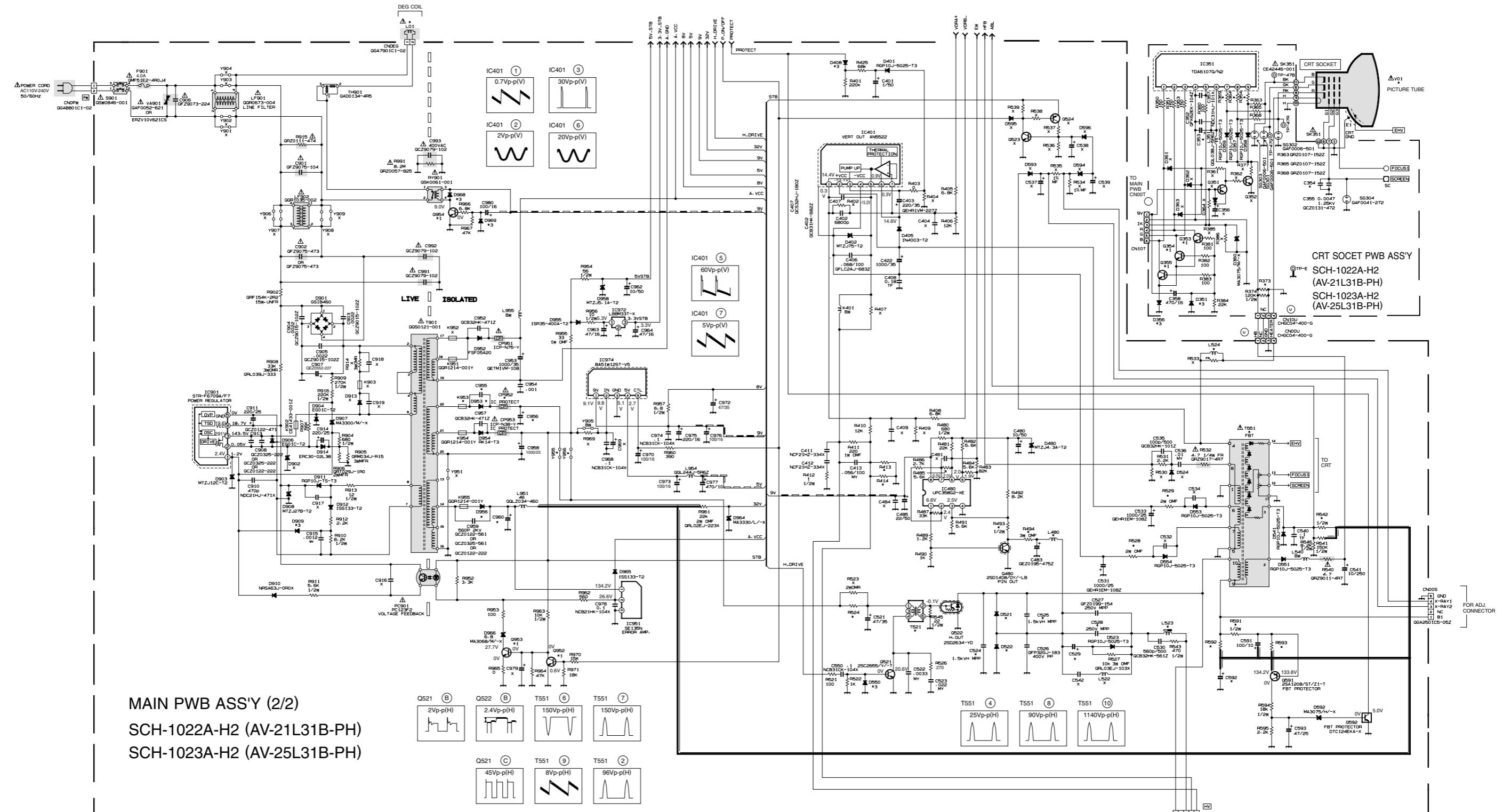
DIFFERENCE LIST (\*PARTS)

	R748	R749
SCH-1022A-H2	2.7M Ω	2.2M Ω
SCH-1023A-H2	2.2M Ω	1.8M Ω

NOTE  
X : OPTION (NON MOUNT)  
BW : BUS WIRE  
0 : NRS463J-0R0X  
\*1 : 2SC2412K/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-21L31B  
AV-25L31B



MAIN PWB ASS'Y (2/2)  
SCH-1022A-H2 (AV-21L31B-PH)  
SCH-1023A-H2 (AV-25L31B-PH)

DIFFERENCE LIST (\*PARTS)

	R354	R364	R369	R373	R413	R414	R493	R494	R524	R528	R529	R542	R591	R592
SCH-1022A-H2	2.2kΩ	2.2kΩ	2.2kΩ	390kΩ	5.6Ω	6.8Ω	22kΩ	33Ω	33Ω	1.2Ω	1.2Ω	150kΩ	2.2kΩ	2.2Ω
SCH-1023A-H2	1.8kΩ	1.8kΩ	1.8kΩ	120kΩ	2.7Ω	12Ω	33kΩ	47Ω	82Ω	0.47Ω	0.47Ω	120kΩ	4.7kΩ	3.9Ω
	R593	C353	C354	C524	C525	C528	C529	C592	C595	C596	C960	D521	D522	D953
SCH-1022A-H2	1kΩ	4.7μF/250V	NOT USED	0.006μF	0.0047μF	0.15μF	4.7μF/250V	100μF/160V	NOT USED	NOT USED	100μF/160V	ERB06-15-F1	RU3AM-LFC4	NOT USED
SCH-1023A-H2	820Ω	1μF/250V	0.0022μF	0.0045μF	0.011μF	0.22μF	2.2μF/100V	220μF/160V	470pF	220μF/35V	220μF/160V	RH3G-F1	31DF6N-FC5	RGP10J-5025-T3
	D956	L480	L523	L524	T521	△T551	△CP952	DY01	△L01	△V01	K953	Y955	Y956	Y956
SCH-1022A-H2	RU3AM-LFC4	QLLZ016-821	QQR1005-002	QLLZ034-430	CE40203-00CJ1	QQH0104-001	NOT USED	QDD0044-001	QQW0118-001	A51LSH196X	NOT USED	NOT USED	IM-BW	IM-BW
SCH-1023A-H2	31DF6N-FC5	QQR1138-001	QQR1137-005	QLLZ034-240	QQR1229-001	QQH0097-001	ICP-N50-Y	QDD0043-001	QQW0119-001	A60LST196X	QQR1214-001Y	IM-BW	NOT USED	NOT USED

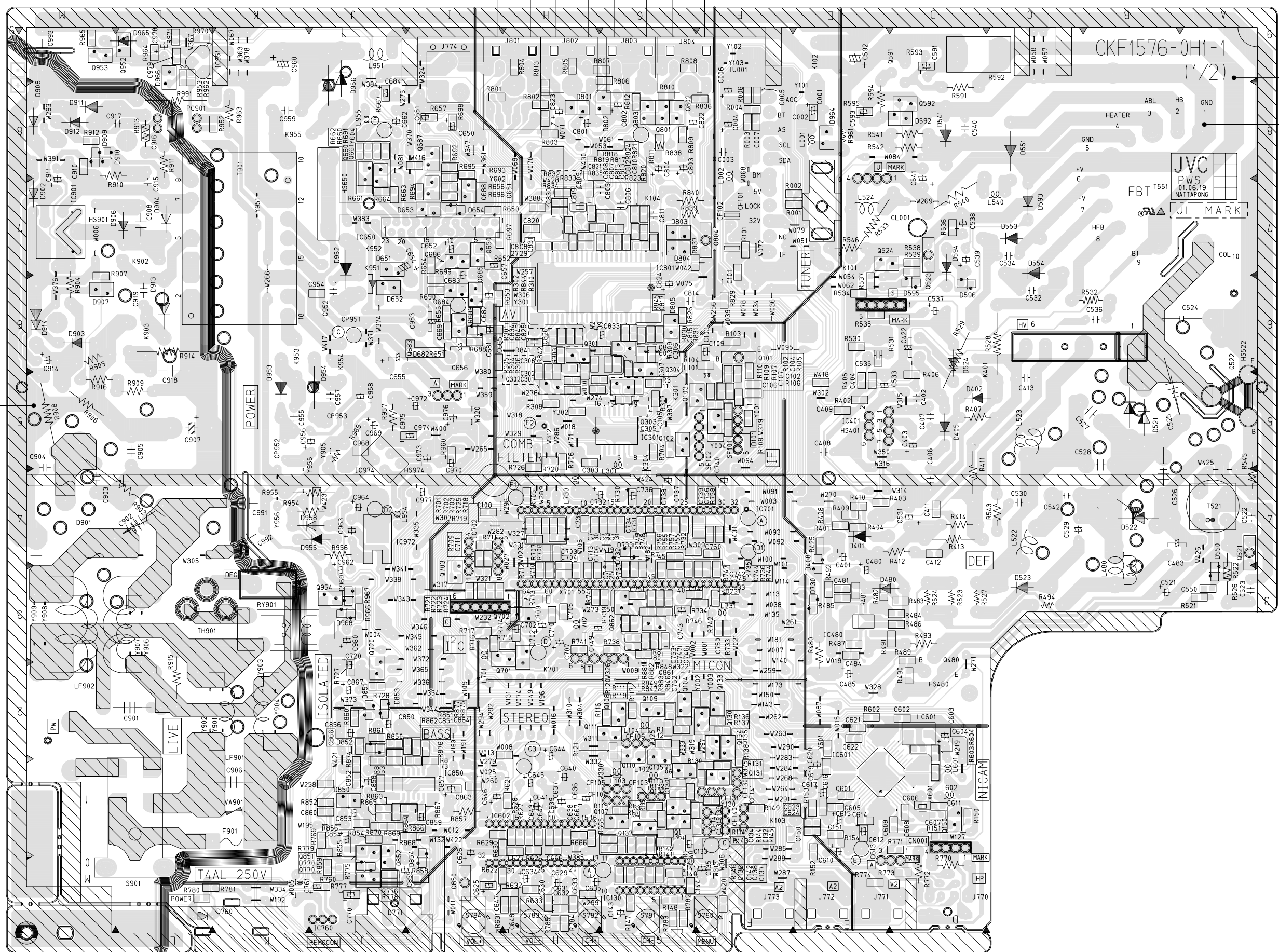
NOTE  
X : OPTION (NON MOUNT)  
BW : BUS WIRE  
0 : NRS63J-0R0X  
\*1 : 2SC2412K/QR-X  
\*2 : 2SA1037AK/QR-X  
\*3 : MA111-X

**PATTERN DIAGRAMS**  
**MAIN PWB PATTERN**

AV-21L31B AV-21L31B  
 AV-25L31B AV-25L31B

(T)

FRONT

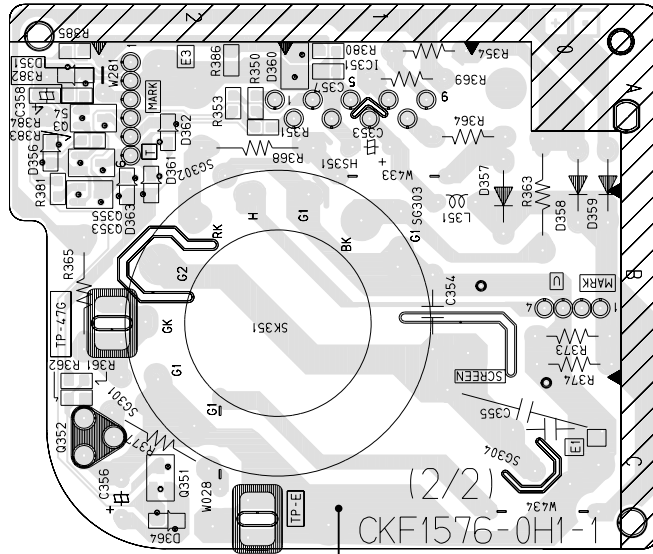


CKF1576-0H1-1  
 (1/2)

B1

(H)

**CRT SOCKET PWB PATTERN**



(H)





# JVC

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