

JVC

SCHEMATIC DIAGRAMS

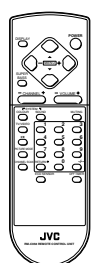
COLOUR TELEVISION

BASIC CHASSIS

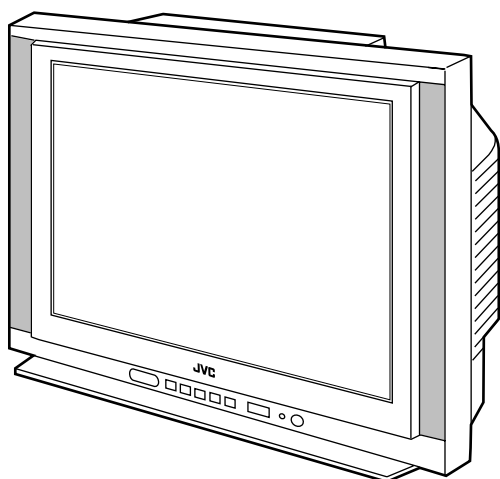
CH

AV-21L81B (-BK)
AV-25L81B (-BK)
AV-29L81B (-BK)

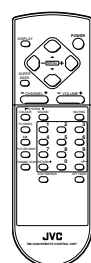
CD-ROM No. SML200111



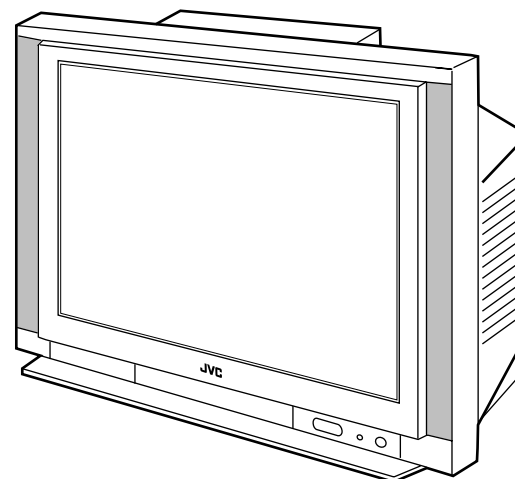
RM-C358-1C



[AV-21L81B (-BK), AV-25L81B (-BK)]



RM-C358-1C



[AV-29L81B (-BK)]

AV-21L81B (-BK) AV-25L81B (-BK) AV-29L81B (-BK)

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 : Colour 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



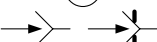
-  : B1
-  : B2(12V)
-  : 9V
-  : 5V

* 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

- \perp : LIVE side ground
- ∇ : ISOLATED(NEUTRAL) side ground
- \equiv : 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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PATTERN DIAGRAMS [AV-29L81B-BK]

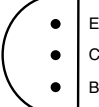

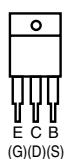
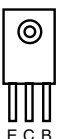
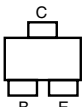
MAIN PWB PATTERN [AV-29L81B-BK] 2-23

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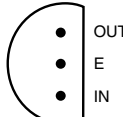
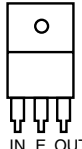
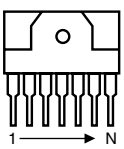
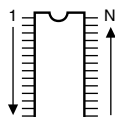
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SEMICONDUCTOR SHAPES

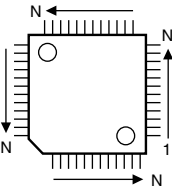
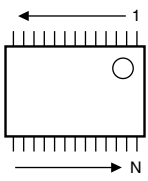
TRANSISTOR

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

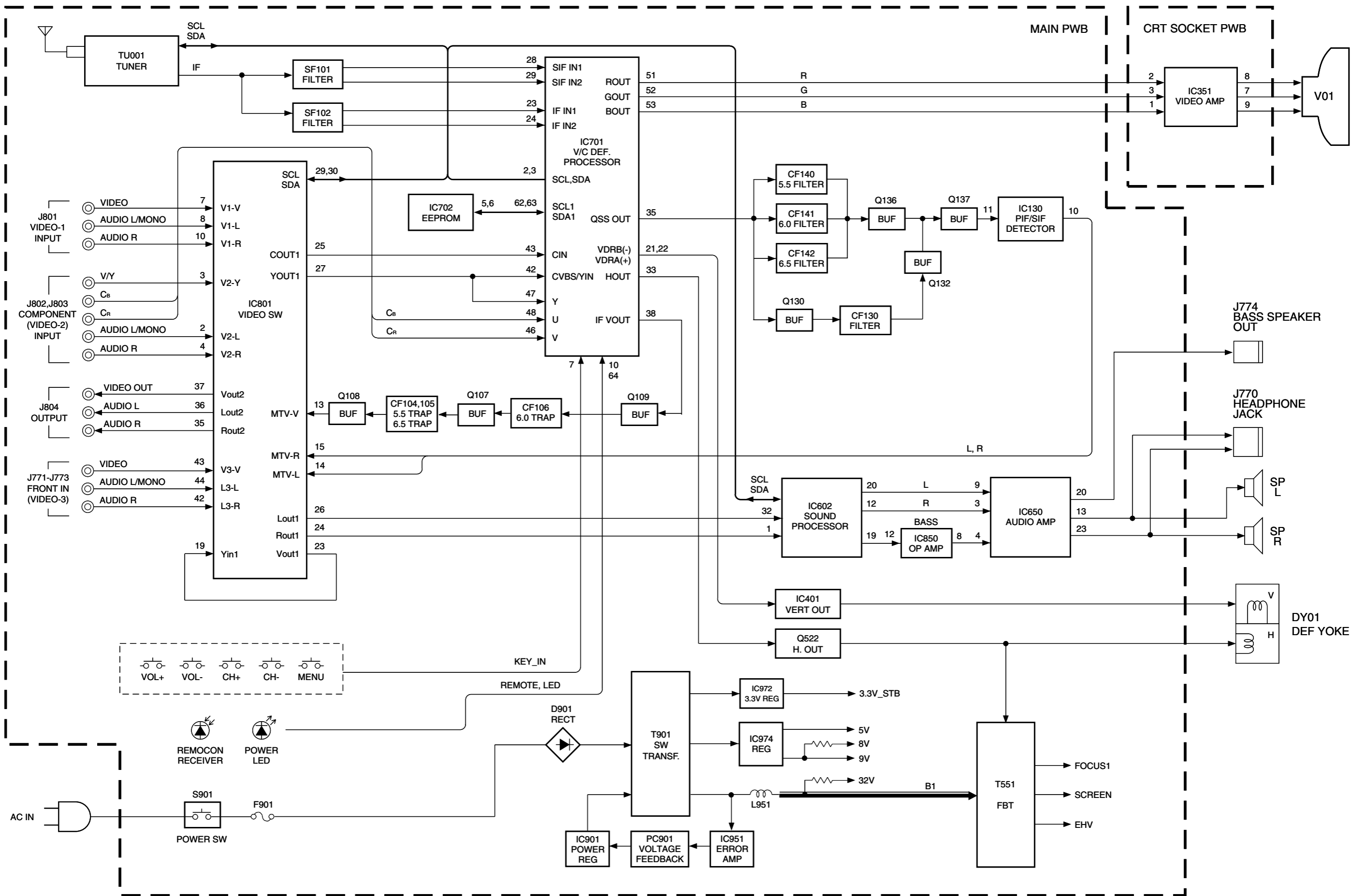
IC

BOTTOM VIEW	FRONT VIEW		TOP VIEW
			

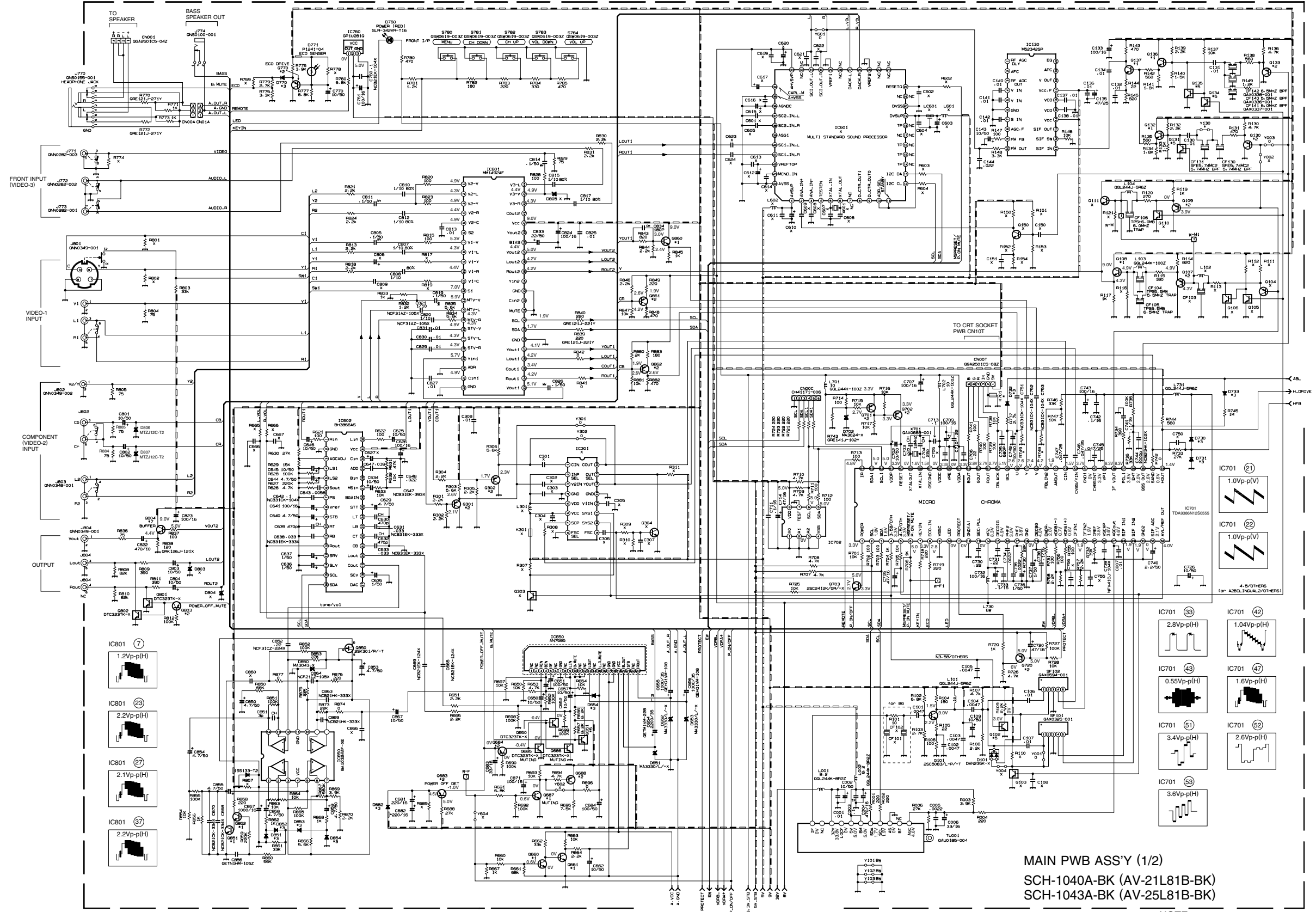
CHIP IC

TOP VIEW	
	

BLOCK DIAGRAM [AV-21L81B-BK,AV-25L81B-BK]



CIRCUIT DIAGRAMS [AV-21L81B-BK, AV-25L81B-BK]
MAIN PWB CIRCUIT DIAGRAMS (1/2) [AV-21L81B-BK, AV-25L81B-BK]



MAIN PWB ASS'Y (1/2)
SCH-1040A-BK (AV-21L81B-BK)
SCH-1043A-BK (AV-25L81B-BK)

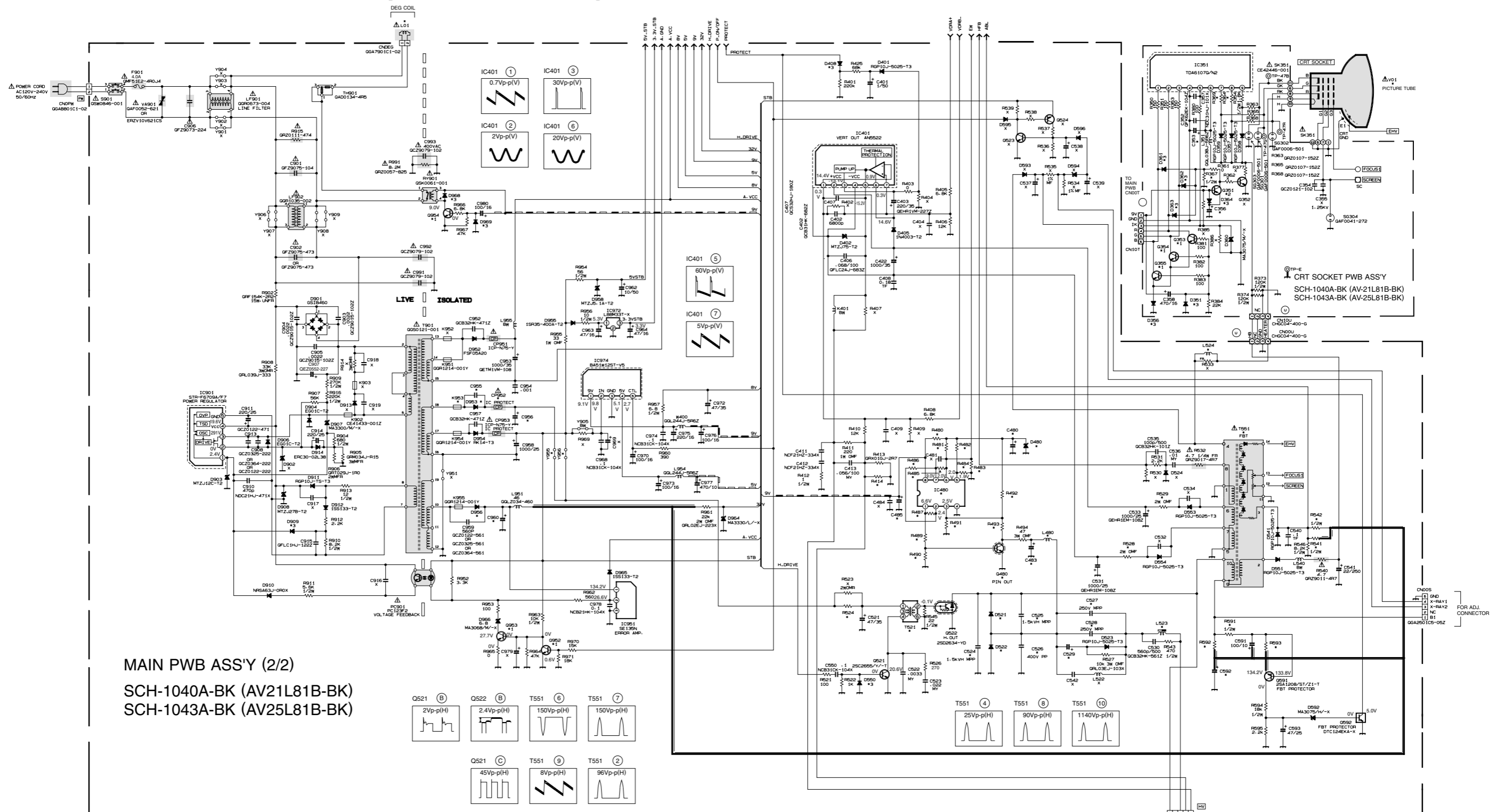
* DIFFERENCE LIST (*PARTS)

	R748	R749	K701
SCH-1040A-BK	2.7M	2.2M	QQR1214-001Y
SCH-1043A-BK	2.2M	1.8M	BW

NOTE

- X : OPTION (NON MOUNT)
- BW : BUS WIRE
- 0 : NRS5A63J-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-21L81B-BK, AV-25L81B-BK]



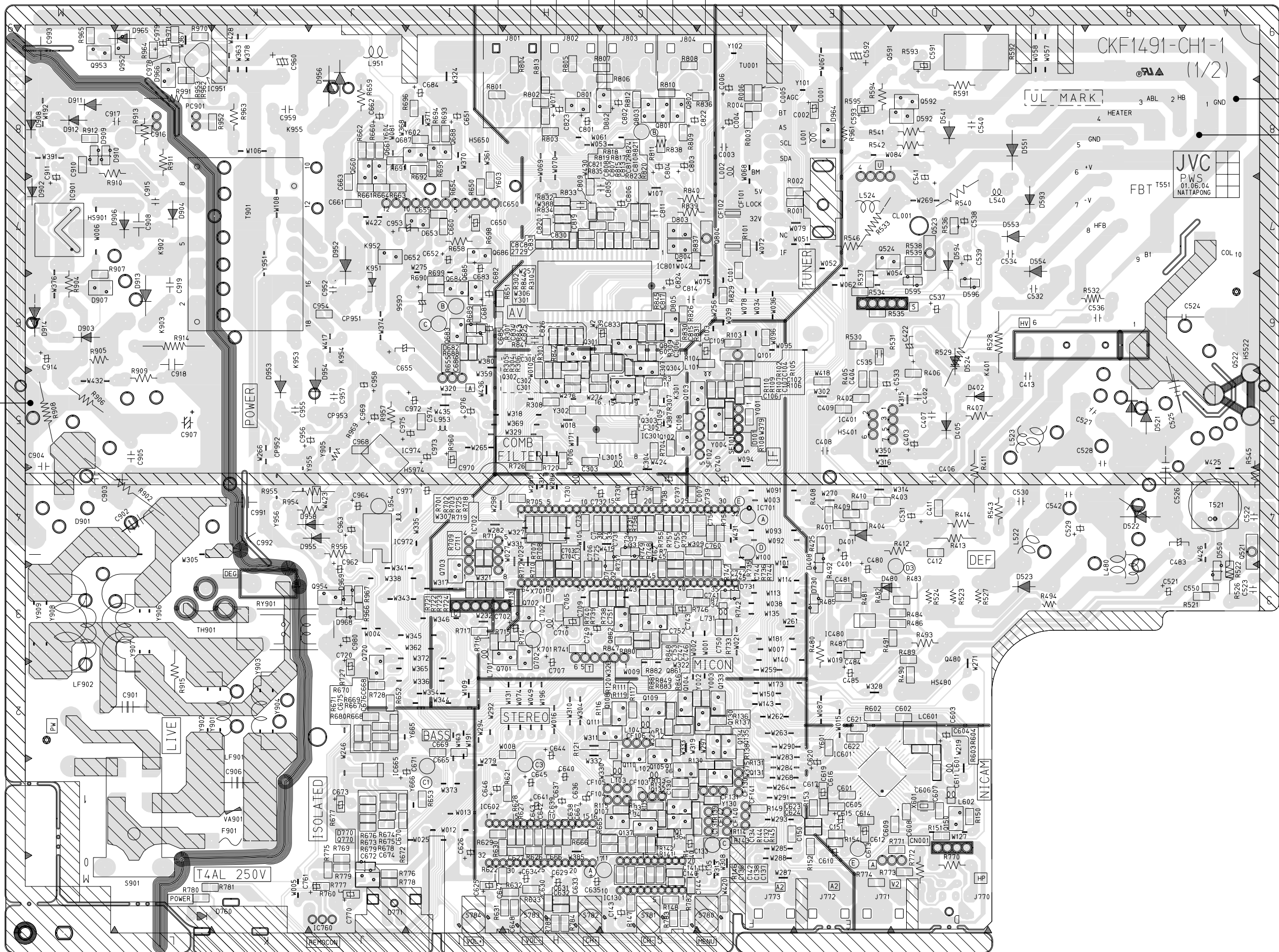
*DIFFERENCE LIST (*PARTS)

	IC480	DY01	Δ L01	Δ V01	R354	R364	R367	R369	R414	R480	R481	R482	R483	R484	R485	R486
SCH-1040A-BK	NOT USED	QD0060-002	QQW0118-001	A51QD992X	2.2kΩ	2.2kΩ	NOT USED	2.2kΩ	150Ω	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED
SCH-1043A-BK	UPC358G2-XE	QD0062-001	QQW0119-001	A59QDF891X	1.8kΩ	1.8kΩ	270Ω	2.2kΩ	8.2Ω	680Ω	22kΩ	5.6kΩ	82kΩ	5.6kΩ	5.6kΩ	2.7kΩ
	R487	R489	R490	R491	R492	R493	R494	R524	R528	R529	R541	R542	R591	R592	R593	C353
SCH-1040A-BK	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	27Ω	1.2Ω	1.2Ω	150kΩ	150kΩ	2.2kΩ	2.2Ω	1kΩ	4.7μF/250V
SCH-1043A-BK	33kΩ	1.2kΩ	1kΩ	5.6kΩ	8.2kΩ	22kΩ	47Ω	82Ω	0.47Ω	0.47Ω	120kΩ	120kΩ	4.7kΩ	3.9Ω	820Ω	1μF/250V
	C356	C480	C483	C485	C524	C525	C526	C527	C528	C529	C592	C595	C596	C960	D480	D521
SCH-1040A-BK	220μF/16V	NOT USED	NOT USED	NOT USED	6100pF/1.5kVH	3400pF/1.5kVH	0.039μF/400V	0.15μF/250V	0.12μF/250V	4.7μF/250V	100μF/160V	NOT USED	NOT USED	100μF/160V	NOT USED	ERB06-15-F1
SCH-1043A-BK	1000μF/16V	10μF/50V	4.7μF/50V	22μF/50V	4700pF/1.5kVH	0.011μF/1.5kVH	0.022μF/400V	0.18μF/250V	0.18μF/250V	2.2μF/100V	220μF/160V	470pF/500V	220μF/35V	220μF/160V	MTZJ4.3A-T2	RH3G-F1
	D522	D953	D956	K953	L480	L523	L524	Q480	T521	Δ T551	Δ CP952	Y955	Y956			
SCH-1040A-BK	RU3AM-LFC4	NOT USED	RU3AM-LFC4	NOT USED	NOT USED	QQR1005-004	QQLZ034-360	NOT USED	CE40203-00CJ1	QQH0104-001	NOT USED	NOT USED	BW			
SCH-1043A-BK	31DF6N-FCS	RGP10J-5025-T3	31DF6N-FCS	QQR1214-001Y	QQR1138-001	QQR1137-005	QQLZ026-140	2SD1408/0Y/LB	QQR1229-001	QQH0097-001	ICP-N50-Y	BW	NOT USED			

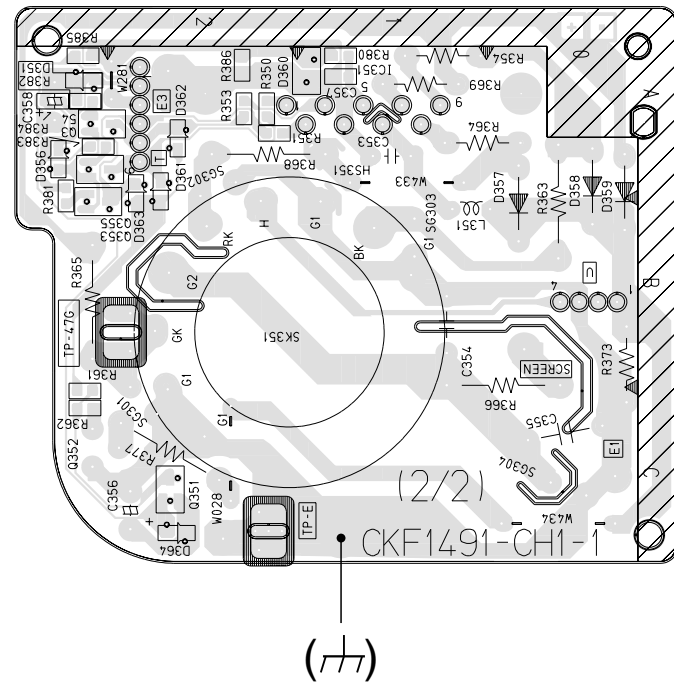
NOTE
 X : OPTION (NON MOUNT)
 BW : BUS WIRE
 0 : NRSA63J-0R0X
 *1 : 2SC2412K/QR/-X
 *2 : 2SA1037AK/QR/-X
 *3 : MA111-X

PATTERN DIAGRAMS [AV-21L81B-BK, AV-25L81B-BK]
MAIN PWB PATTERN [AV-21L81B-BK, AV-25L81B-BK]

(T) ↓
FRONT

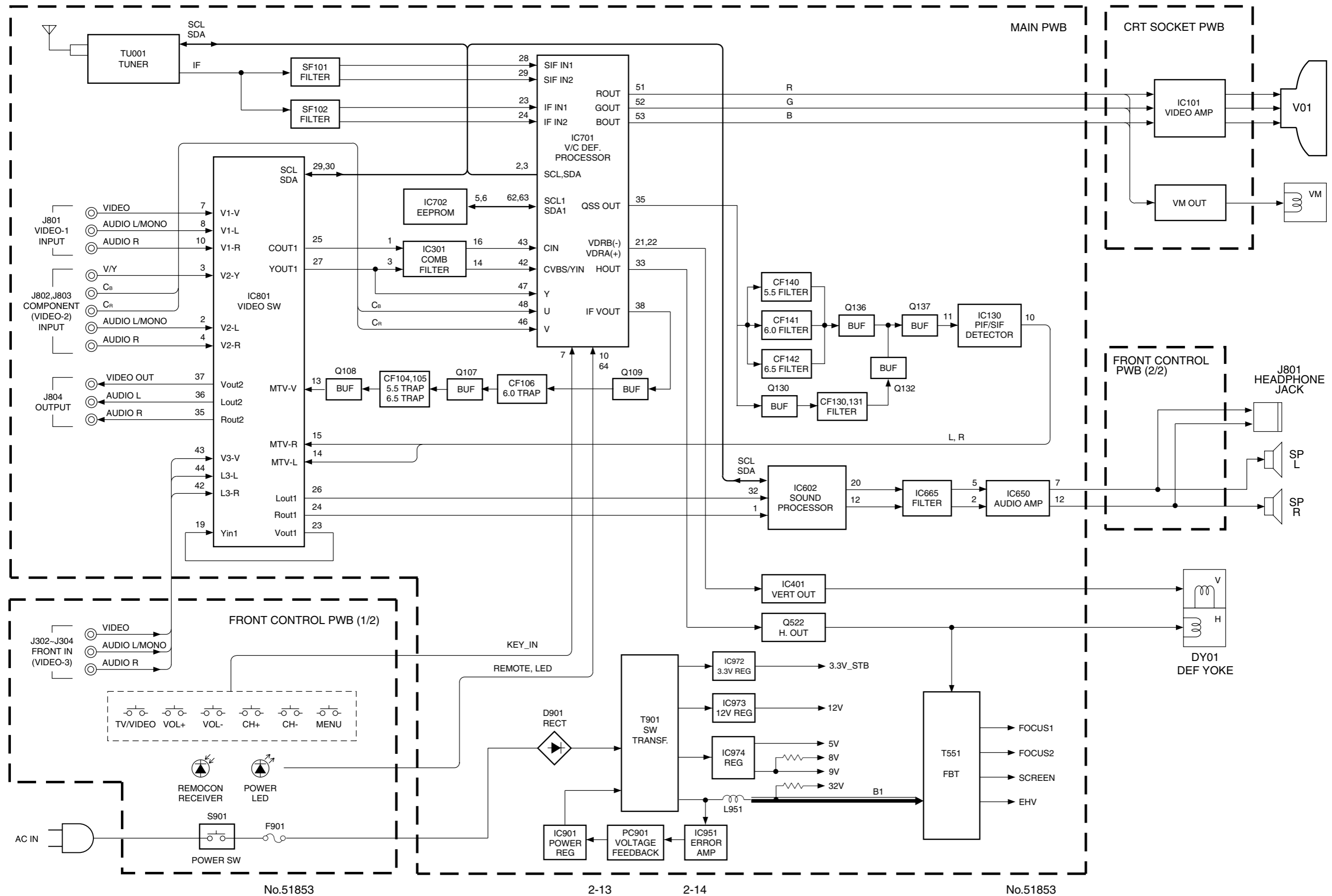


CRT SOCKET PWB PATTERN [AV-21L81B-BK, AV-25L81B-BK]



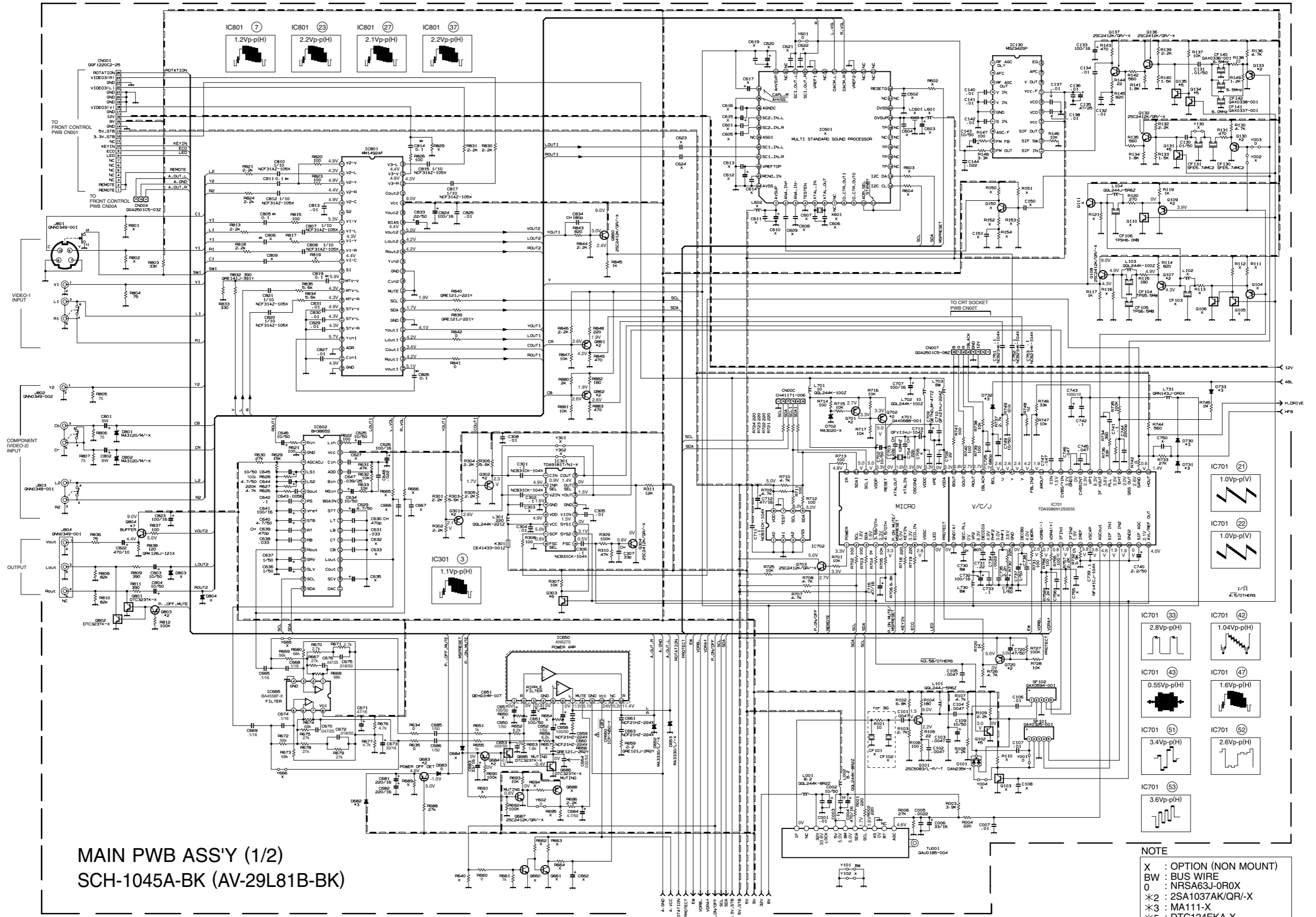
TOP
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BLOCK DIAGRAM [AV-29L81B-BK]



CIRCUIT DIAGRAMS [AV-29L81B-BK]

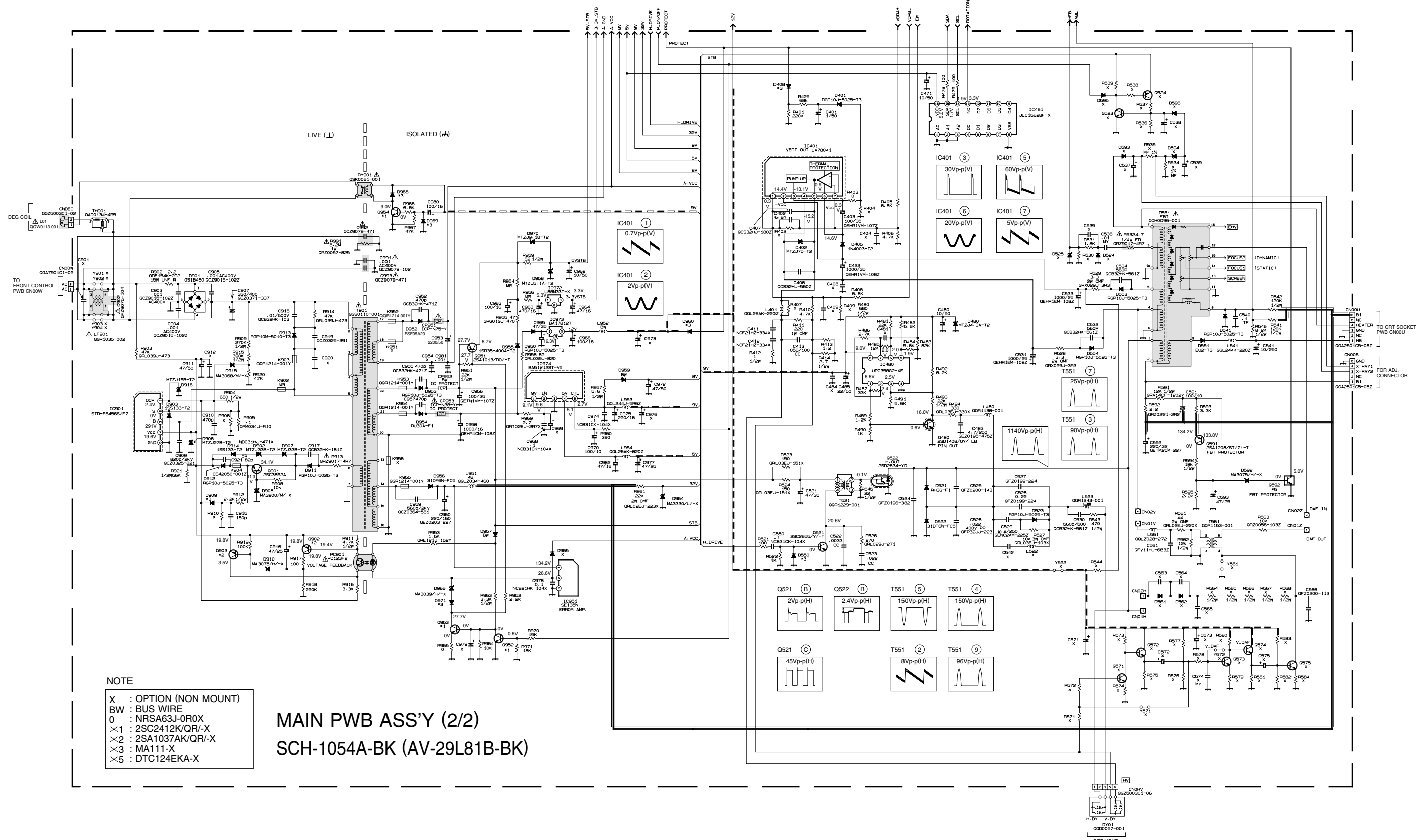
MAIN PWB CIRCUIT DIAGRAM (1/2) [AV-29L81B-BK]



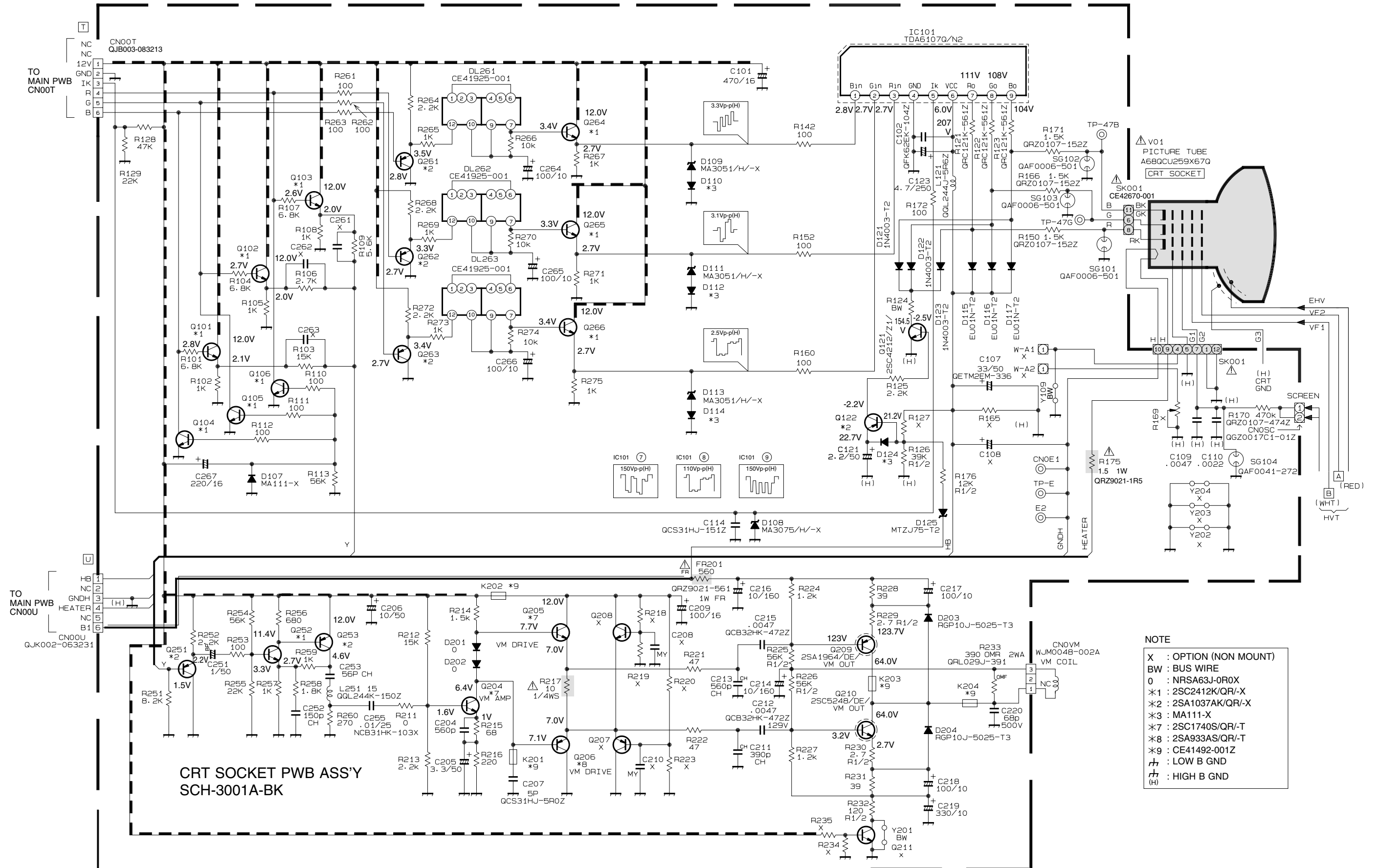
MAIN PWB ASS'Y (1/2)
SCH-1045A-BK (AV-29L81B-BK)

- NOTE**
- X : OPTION (NON MOUNT)
 - BW : BUS WIRE
 - 0 : NRSA63J-0R0X
 - *2 : 2SA1037AK/QR/-X
 - *3 : MA111-X
 - *5 : DTC124EKA-X
 - *7 : 2SC1740S/QR/-T

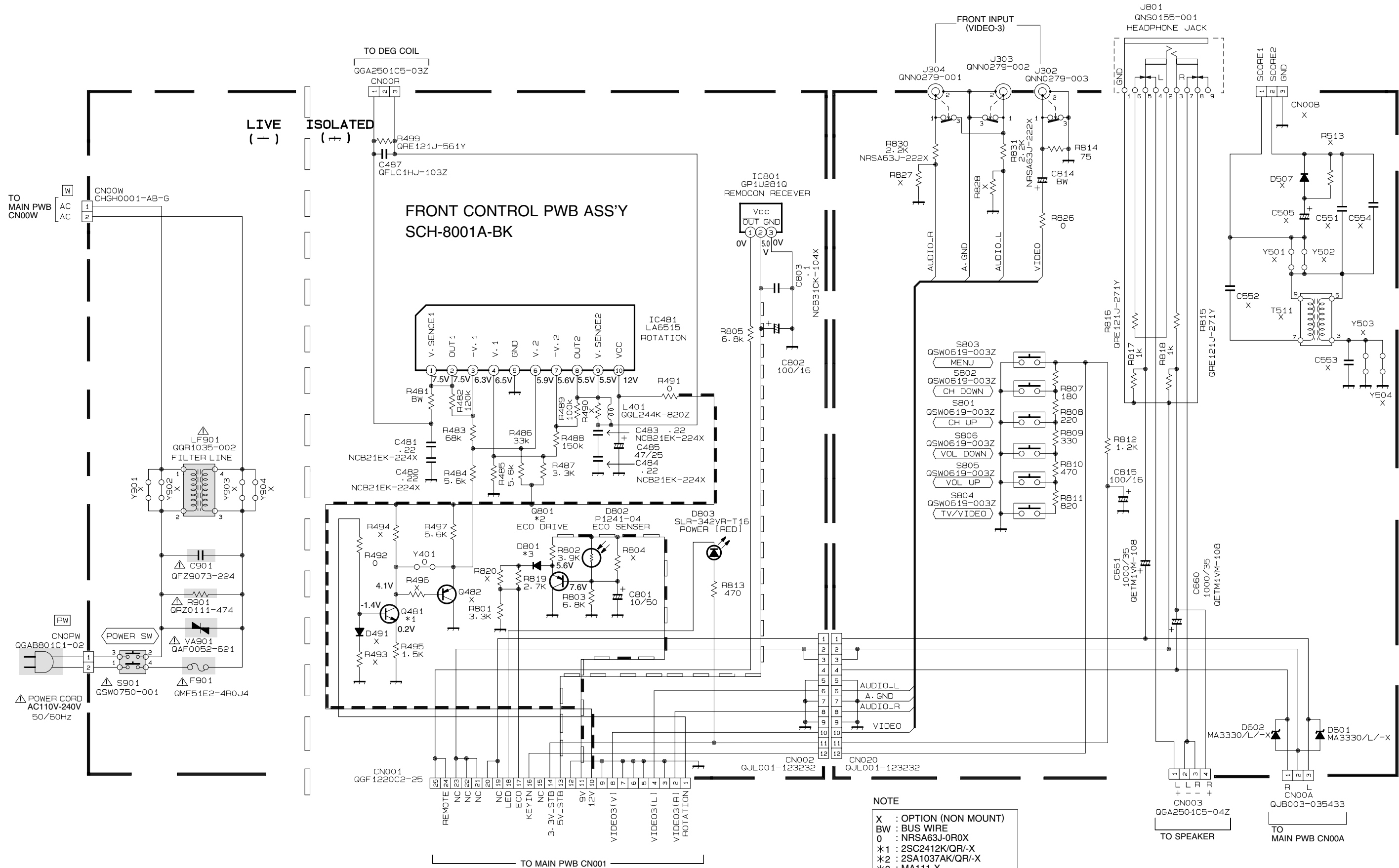
MAIN PWB CIRCUIT DIAGRAM (2/2) [AV-29L81B-BK]



CRT SOCKET PWB CIRCUIT DIAGRAM [AV-29L81B-BK]



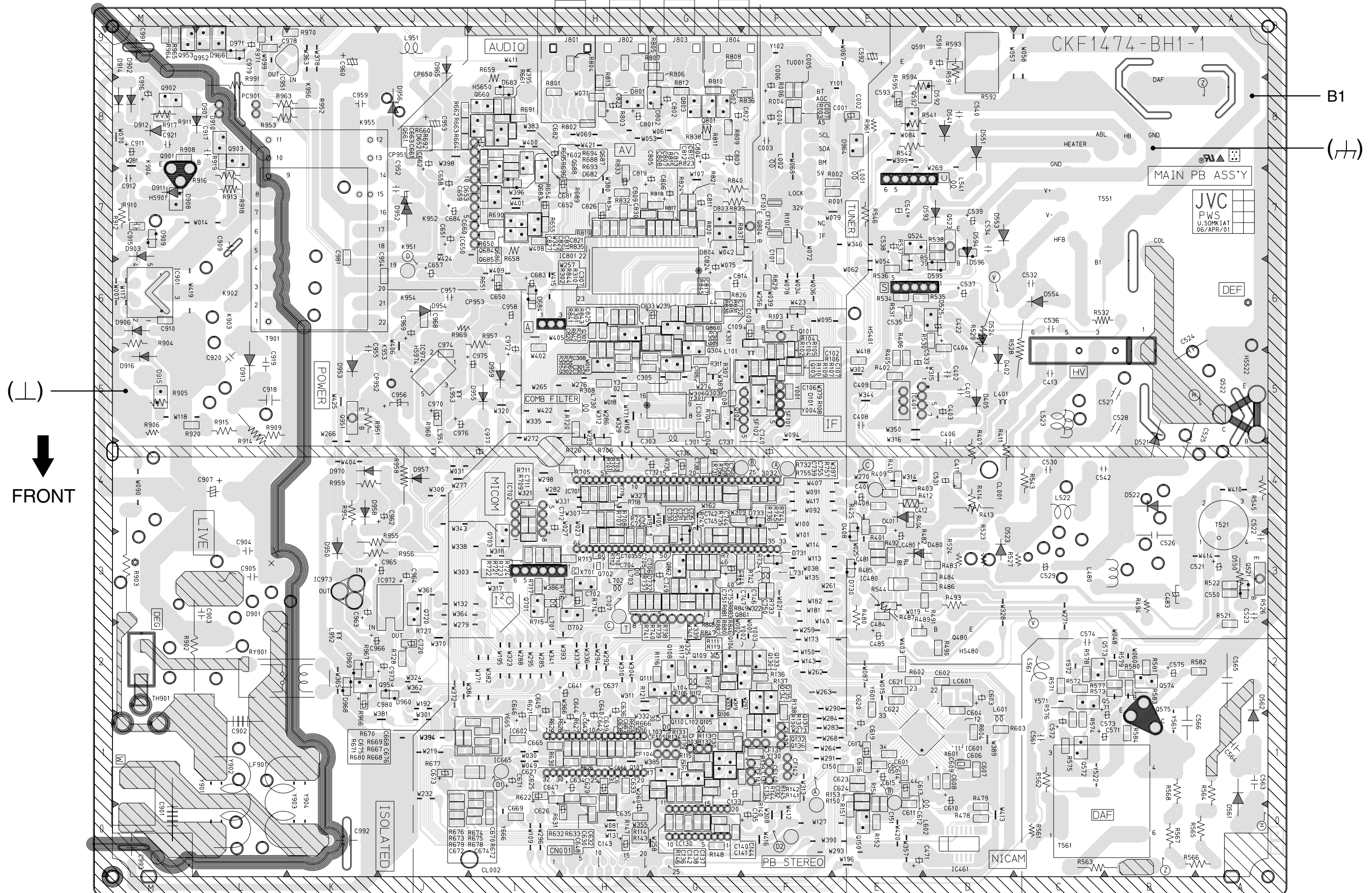
FRONT CONTROL PWB CIRCUIT DIAGRAM [AV-29L81B-BK]



NOTE

- X : OPTION (NON MOUNT)
- BW : BUS WIRE
- 0 : NRSA63J-0R0X
- *1 : 2SC2412K/QR/-X
- *2 : 2SA1037AK/QR/-X
- *3 : MA111-X

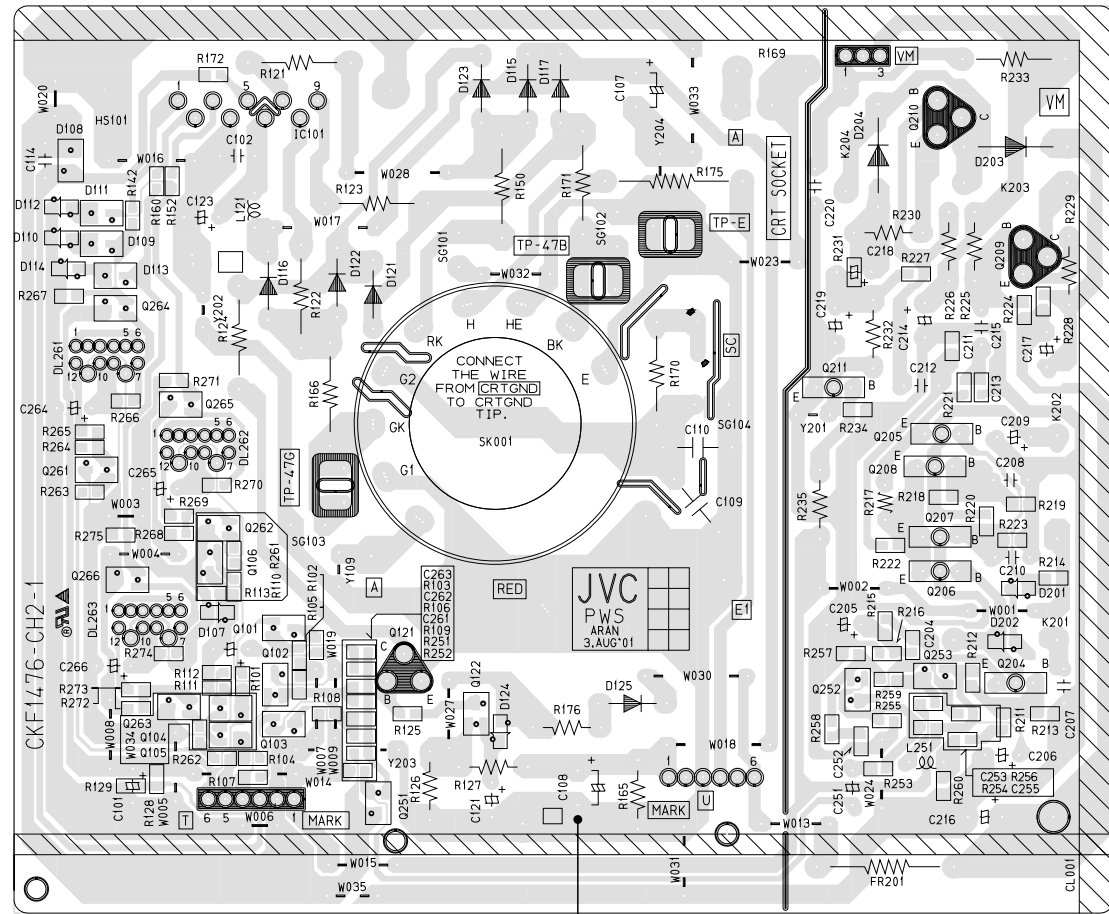
PATTERN DIAGRAMS [AV-29L81B-BK]
MAIN PWB PATTERN [AV-29L81B-BK]



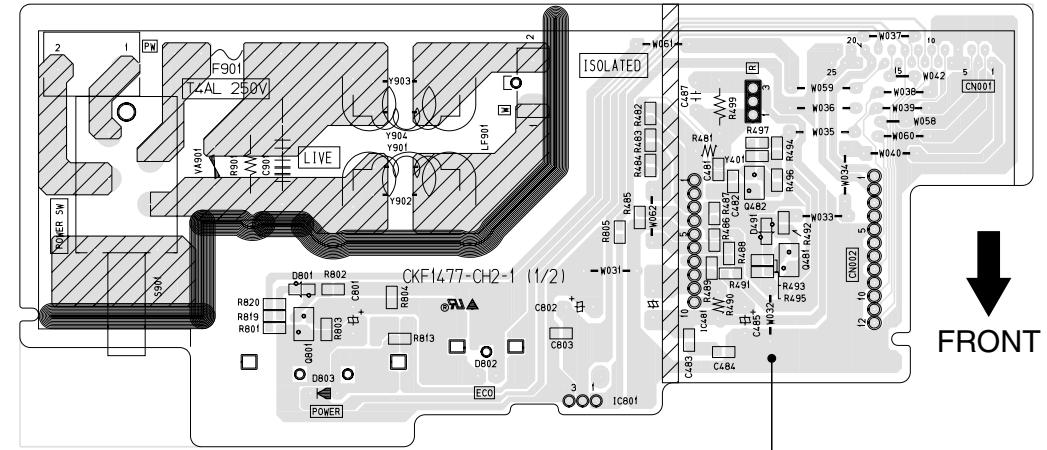
CRT SOCKET PWB PATTERN [AV-29L81B-BK]

FRONT CONTROL PWB PATTERN [AV-29L81B-BK]

— FRONT CONTROL (1/2) —

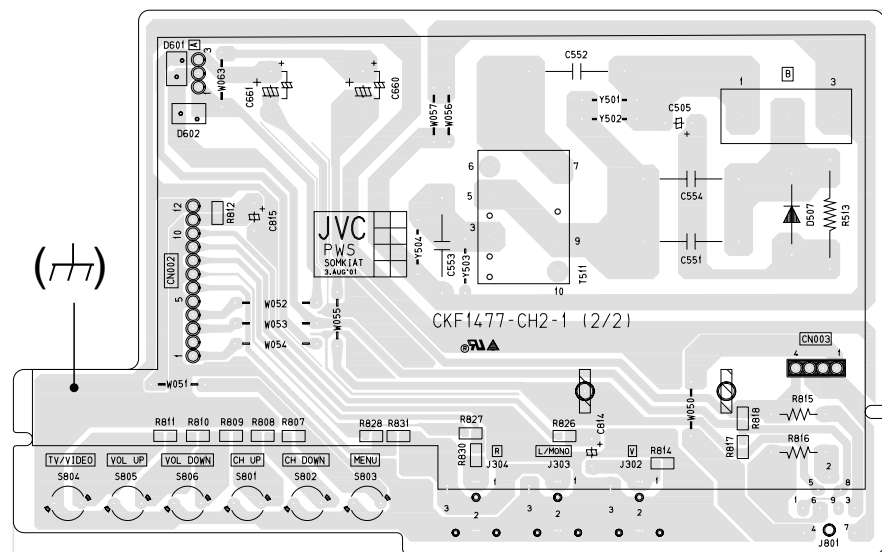


TOP
↑



↓
FRONT

— FRONT CONTROL (2/2) —



FRONT
↓



JVC

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AV21L81BBKBK #4
AV25L81BBKBK #4
AV29L81BBKBK #4



Printed in Japan
VP0110
SW