

JVC

SCHEMATIC DIAGRAMS

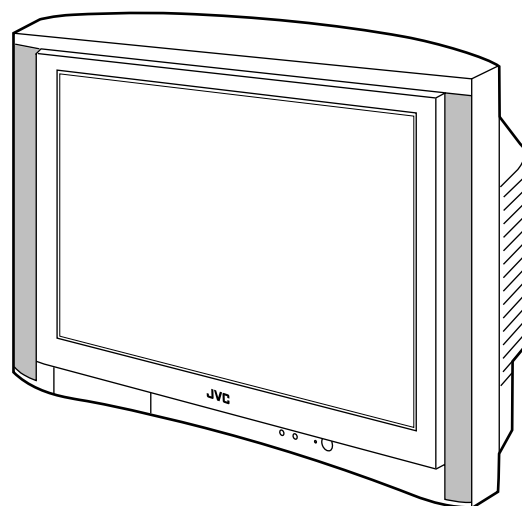
COLOUR TELEVISION

BASIC CHASSIS

CH

AV-29W83 /BK AV-29W83B /VT
AV-29W93 /BK AV-29W83 /VT
AV-29W93B /BK

CD-ROM No. SML200211




RM-C1016-1H RM-C1011-1H RM-C1012-1H RM-C1015-1H RM-C1014-1H
[AV-29W83/BK] [AV-29W93/BK] [AV-29W93B/BK] [AV-29W83B/VT] [AV-29W83/VT]

AV-29W83/BK AV-29W83B/VT AV-29W93/BK AV-29W83/VT AV-29W93B/BK

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 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 : Uninflammmable 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



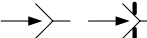
-  : B1
-  : B2(12V)
-  : 9V
-  : 5V

* 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 : () 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 the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time with a measuring apparatus (oscilloscope, etc.). 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.

CONTENTS

SEMICONDUCTOR SHAPES 2-2

BLOCK DIAGRAM 2-3

CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/2) [AV-29W83/BK] 2-5

MAIN PWB CIRCUIT DIAGRAM (2/2) [AV-29W83/BK] 2-7

MAIN PWB CIRCUIT DIAGRAM (1/2) [AV-29W93/BK, AV-29W93B/BK] 2-9

MAIN PWB CIRCUIT DIAGRAM (2/2) [AV-29W93/BK, AV-29W93B/BK] 2-11

MAIN PWB CIRCUIT DIAGRAM (1/2) [AV-29W83B/VT, AV-29W83/VT] 2-13

MAIN PWB CIRCUIT DIAGRAM (2/2) [AV-29W83B/VT, AV-29W83/VT] 2-15

CRT SOCKET PWB CIRCUIT DIAGRAM [AV-29W83/BK, AV-29W93/BK, AV-29W93B/BK] 2-17

CRT SOCKET PWB CIRCUIT DIAGRAM [AV-29W83B/VT, AV-29W83/VT] 2-19

FRONT CONTROL PWB CIRCUIT DIAGRAM [AV-29W83/BK, AV-29W93/BK, AV-29W93B/BK] 2-21

FRONT CONTROL PWB CIRCUIT DIAGRAM [AV-29W83B/VT, AV-29W83/VT] 2-23

PATTERN DIAGRAMS

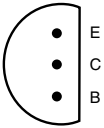

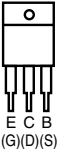


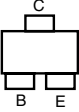
MAIN PWB PATTERN 2-25

CRT SOCKET PWB PATTERN 2-27

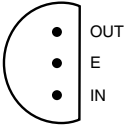
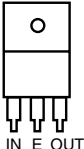
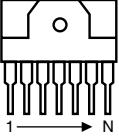
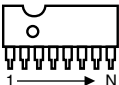
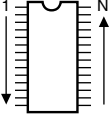
FRONT CONTROL PWB PATTERN 2-28

SEMICONDUCTOR SHAPES

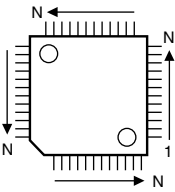
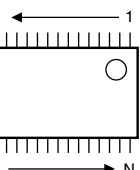
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					<div>CHIP TR</div> 

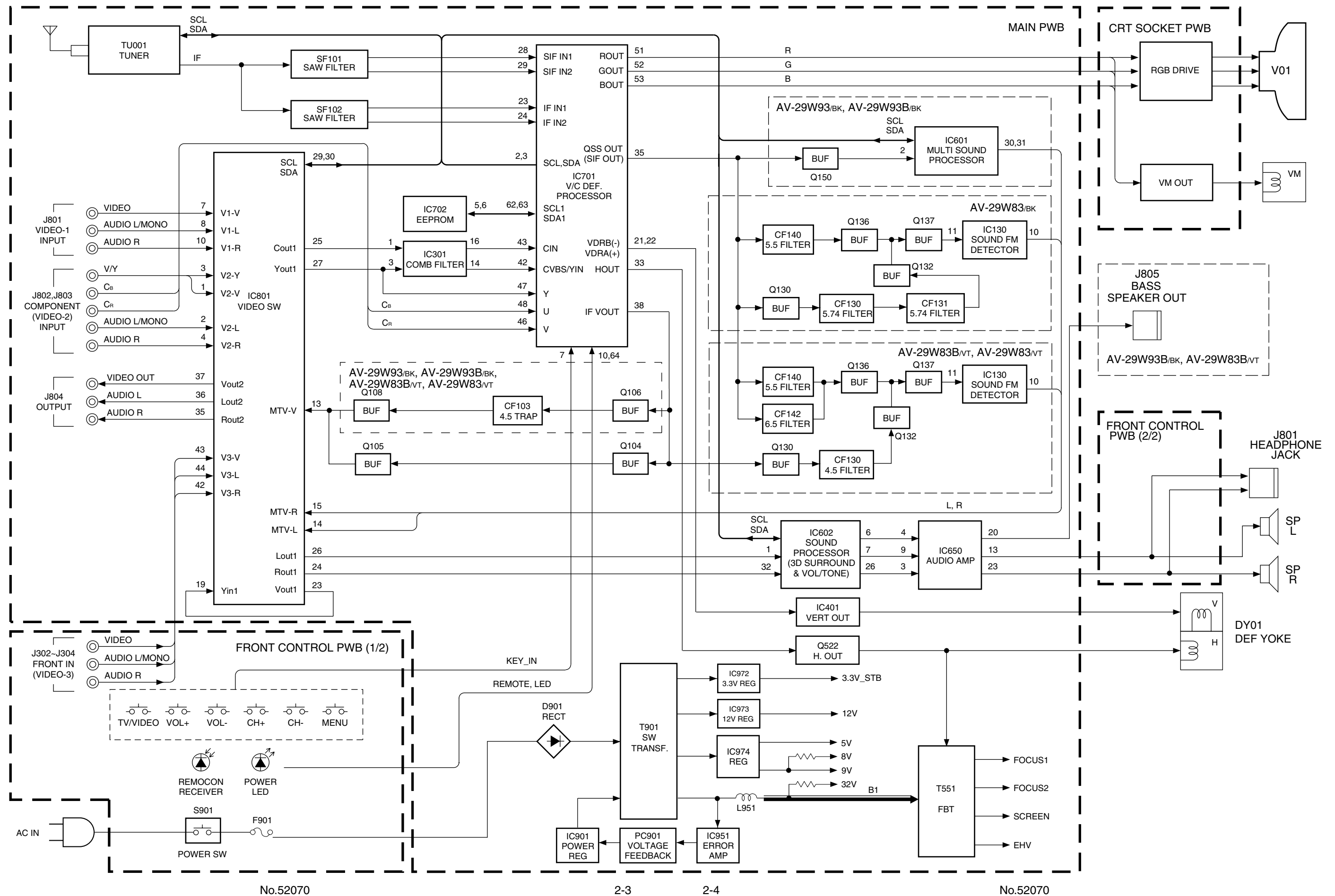
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

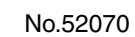
CHIP IC

TOP VIEW		
		

BLOCK DIAGRAM

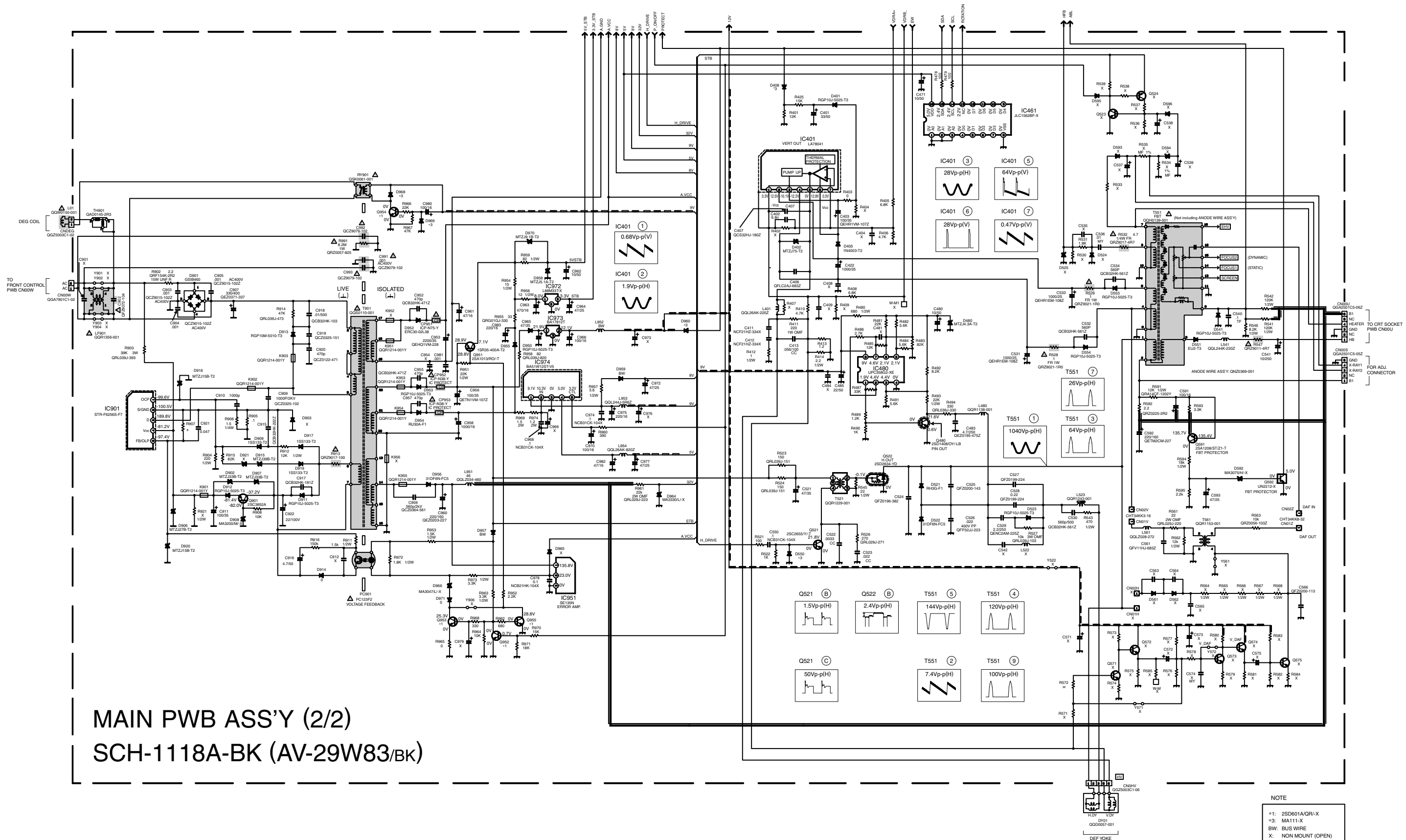


MAIN PWB CIRCUIT DIAGRAM (1/2) [AV-29W83/BK]



*3: MA111-X
*7: 2SC1740S/QR/-T
*8: UN2212-X
*9: 2SB709A/QR/-X
*10: 2SD601A/QR/-X
BW: BUS WIRE
X: NON MOUNT (OPEN)

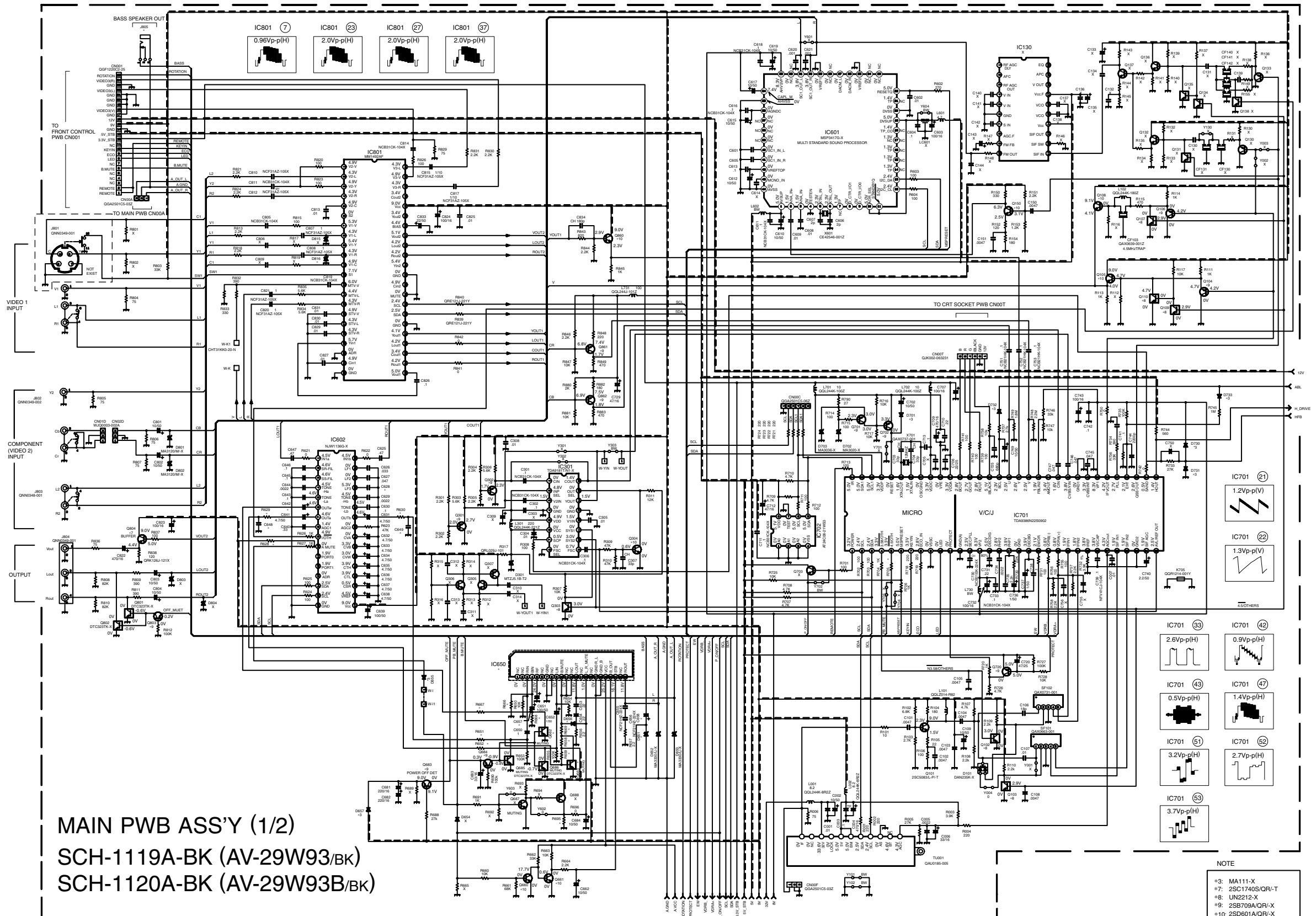
MAIN PWB CIRCUIT DIAGRAMS (2/2) [AV-29W83/BK]



MAIN PWB ASS'Y (1/2)
SCH-1119A-BK (AV-29W93/BK)
SCH-1120A-BK (AV-29W93B/BK)

	IC650	R695	D656	R658	R659	R666	R667	R668	R669	C657	C658	C651	D816
SCH-1119A-BK	AN5277	15KΩ	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED
SCH-1120A-BK	AN7585	10KΩ	MA111-X	8.2KΩ	8.2KΩ	10KΩ	3.9KΩ	100KΩ	8.2KΩ	10μF/50V	2200μF/35V	MA3330/L/-X	MA3091/M/-X
	Q662	Q663	R651	R652	J805	C642	R629	R630	C648	C649	C628	R628	R705
SCH-1119A-BK	NOT USED	NOT USED	10KΩ	10KΩ	NOT USED	NOT USED	1KΩ	1KΩ	0.015μF	0.015μF	0.022μF	10KΩ	1KΩ
SCH-1120A-BK	DTG323TK-X	UN2212-X	8.2KΩ	8.2KΩ	QNS0100-001	10μF/50V	0	0	NOT USED	NOT USED	0.082μF	NOT USED	NOT USED

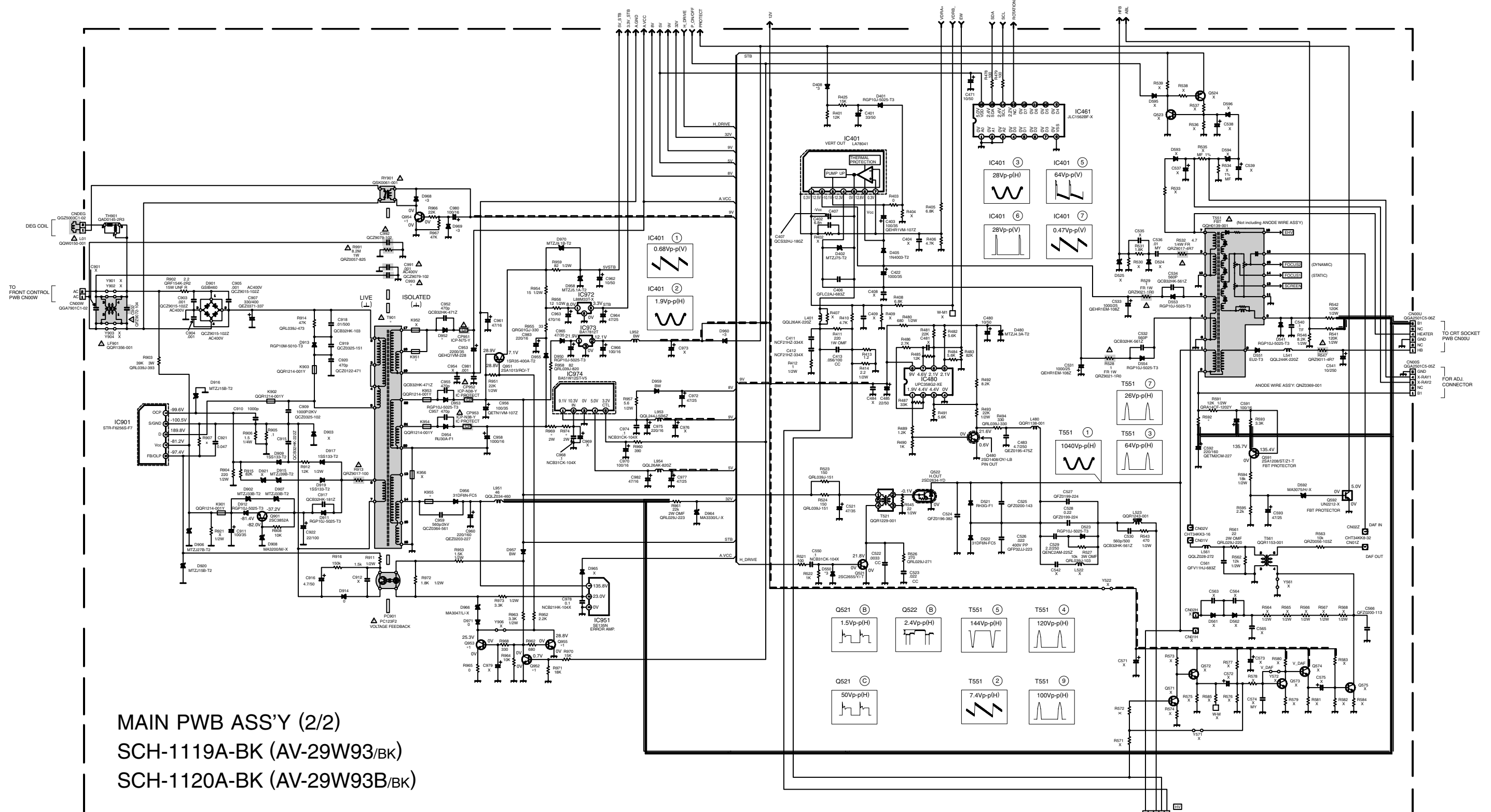
No.52070



NOTE

- *3: MA111-X
*7: 2SC1740S/QR/-T
*8: UN2212-X
*9: 2SB709A/QR/-X
*10: 2SD601A/QR/-X
BW: BUS WIRE
X: NON MOUNT (OPEN)
0: NRSA63J-0R0X

MAIN PWB CIRCUIT DIAGRAM (2/2) [AV-29W93/BK, AV-29W93B/BK]



MAIN PWB ASS'Y (2/2)

SCH-1119A-BK (AV-29W93/BK)

SCH-1120A-BK (AV-29W93B/BK)

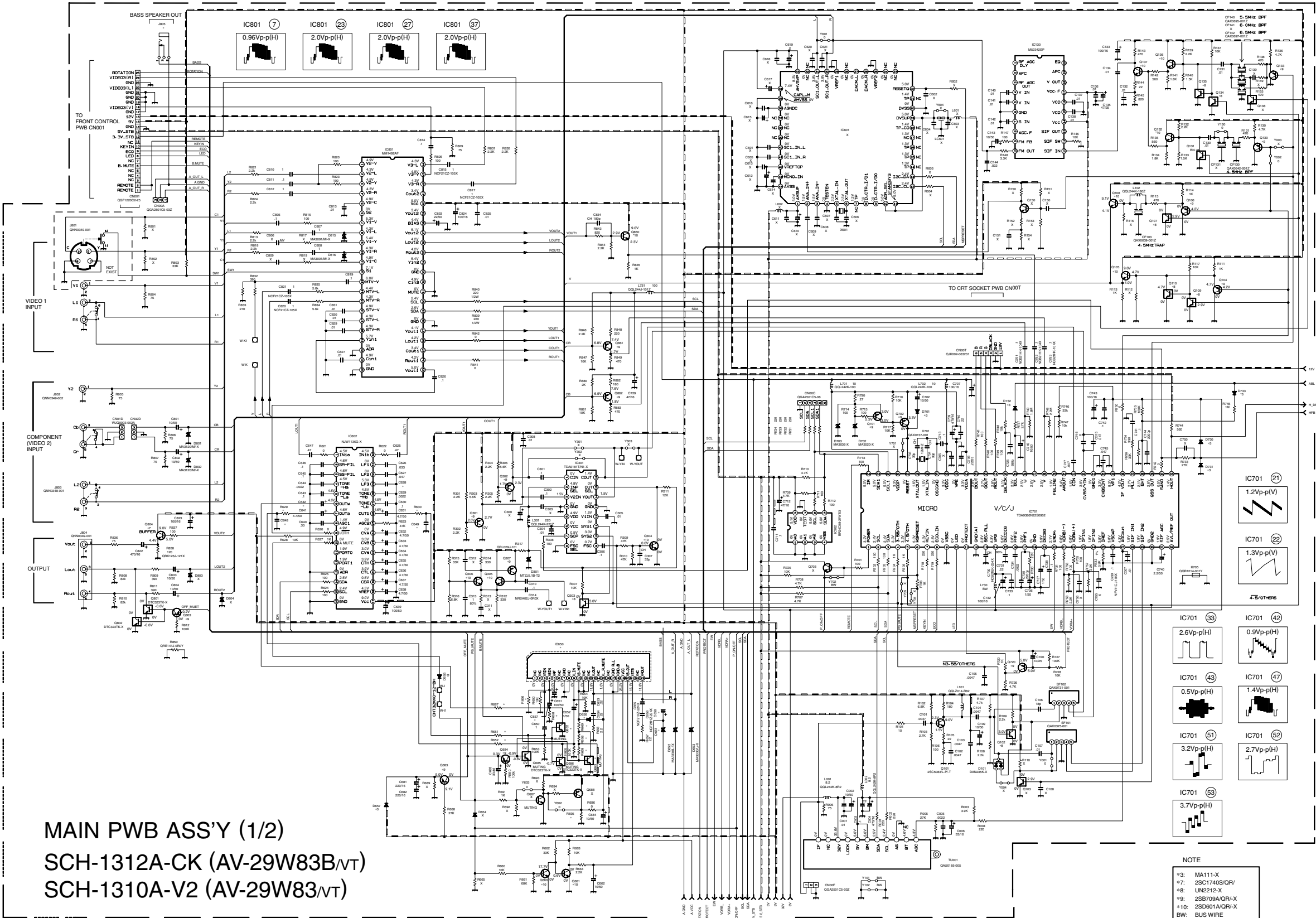
* DIFFERENCE LIST (* PARTS)

	Δ C993	Δ T901	R592	R969	R974	D952	K951	K952
SCH-1119A-BK	1000pF	QOS0110-001	2.2Ω	1.5Ω	1.2Ω	ERC30-02L38	QQR1214-001Y	NOT USED
SCH-1120A-BK	470pF	QOS0177-001	10KΩ	0.82Ω	0.82Ω	FSF05A20	NOT USED	QQR1214-001Y

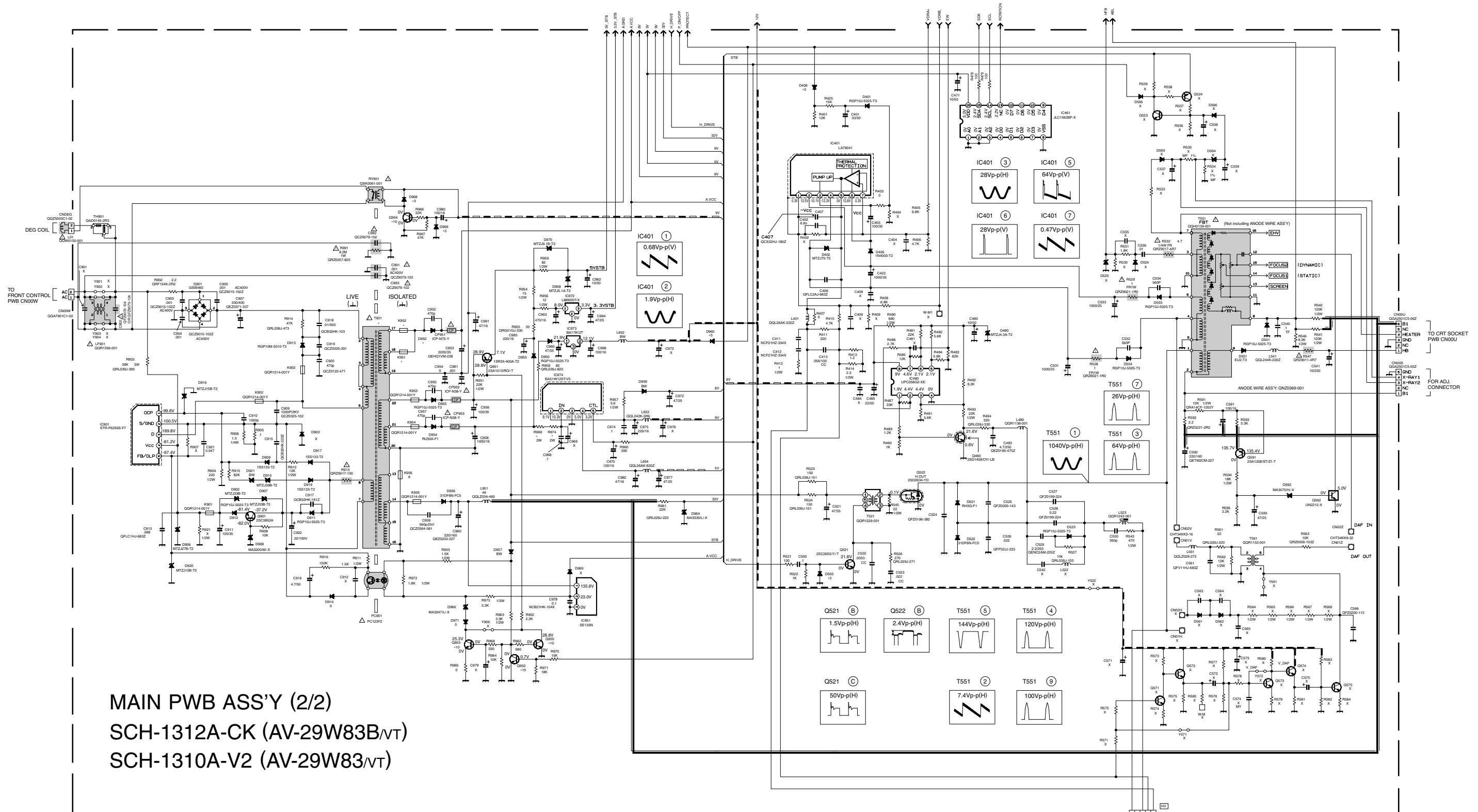
NOTE

- *1: 2SD601A/QR-X
- *3: MA1111-X
- BW: BUS WIRE
- X: NON MOUNT (OPEN)
- 0: NRSAB3J-0R0X

MAIN PWB CIRCUIT DIAGRAM (1/2) [AV-29W83B_{NT}, AV-29W83_{NT}]



MAIN PWB CIRCUIT DIAGRAM (2/2) [AV-29W83B_{NT}, AV-29W83_{NT}]

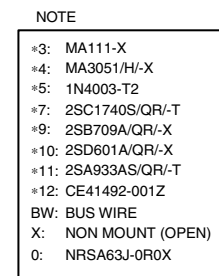


MAIN PWB ASS'Y (2/2)
SCH-1312A-CK (AV-29W83B_{NT})
SCH-1310A-V2 (AV-29W83_{NT})

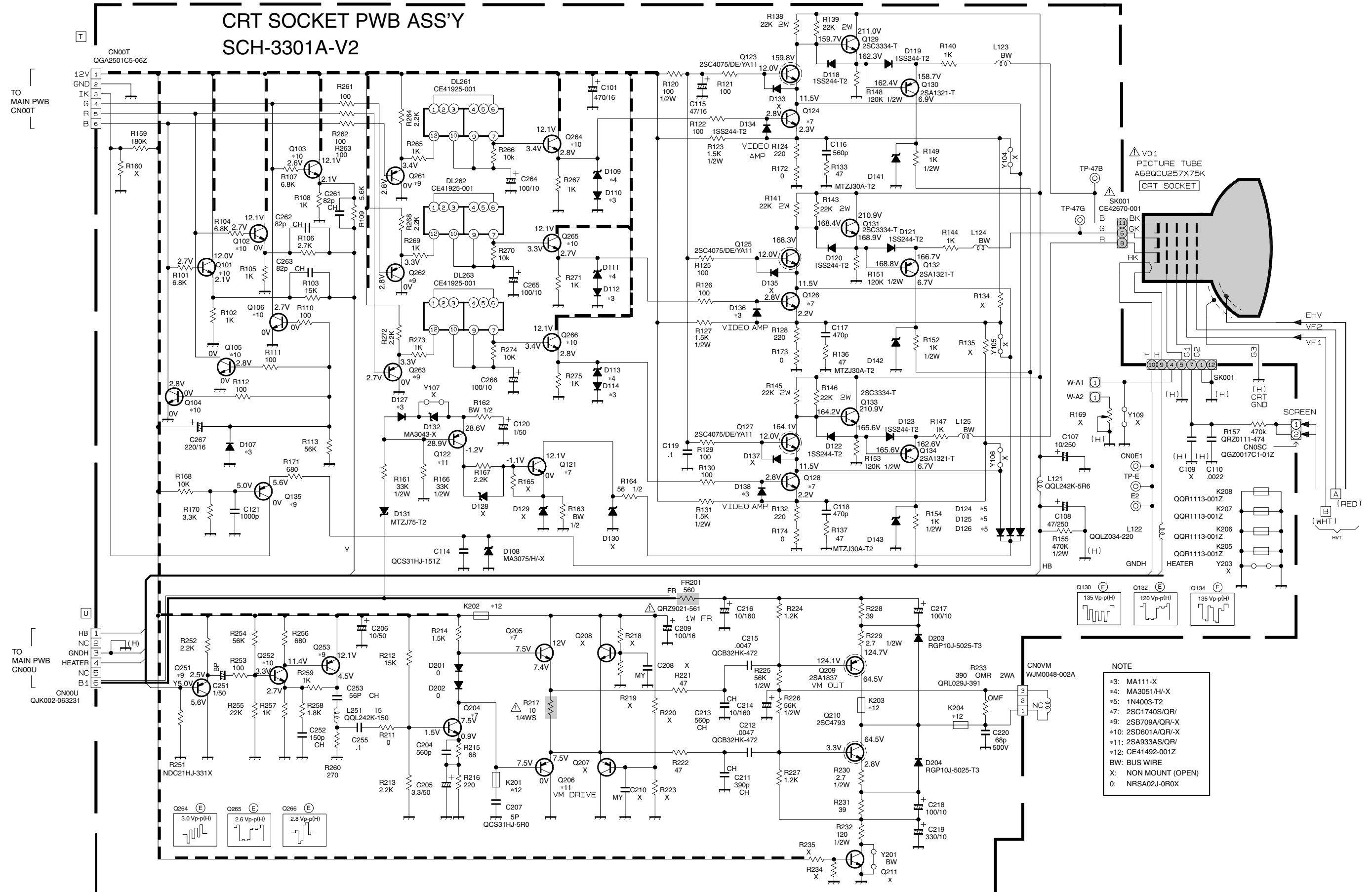
* DIFFERENCE LIST (* PARTS)

	D952	T901	K951	K952	K969	K974
SCH-1312A-CK	FSF05A20	QQS0177-001	NOT USED	QQR1214-001Y	0.82Ω	0.82Ω
SCH-1310A-V2	ERC30-Q2L38	QQS0110-001	QQR1214-001Y	NOT USED	1.5Ω	1.2Ω

NOTE
*3: MA111-X
*10: 2SD601A/QR-X
BW: BUS WIRE
X: NON MOUNT (OPEN)
0: NPSA02J-0R0X



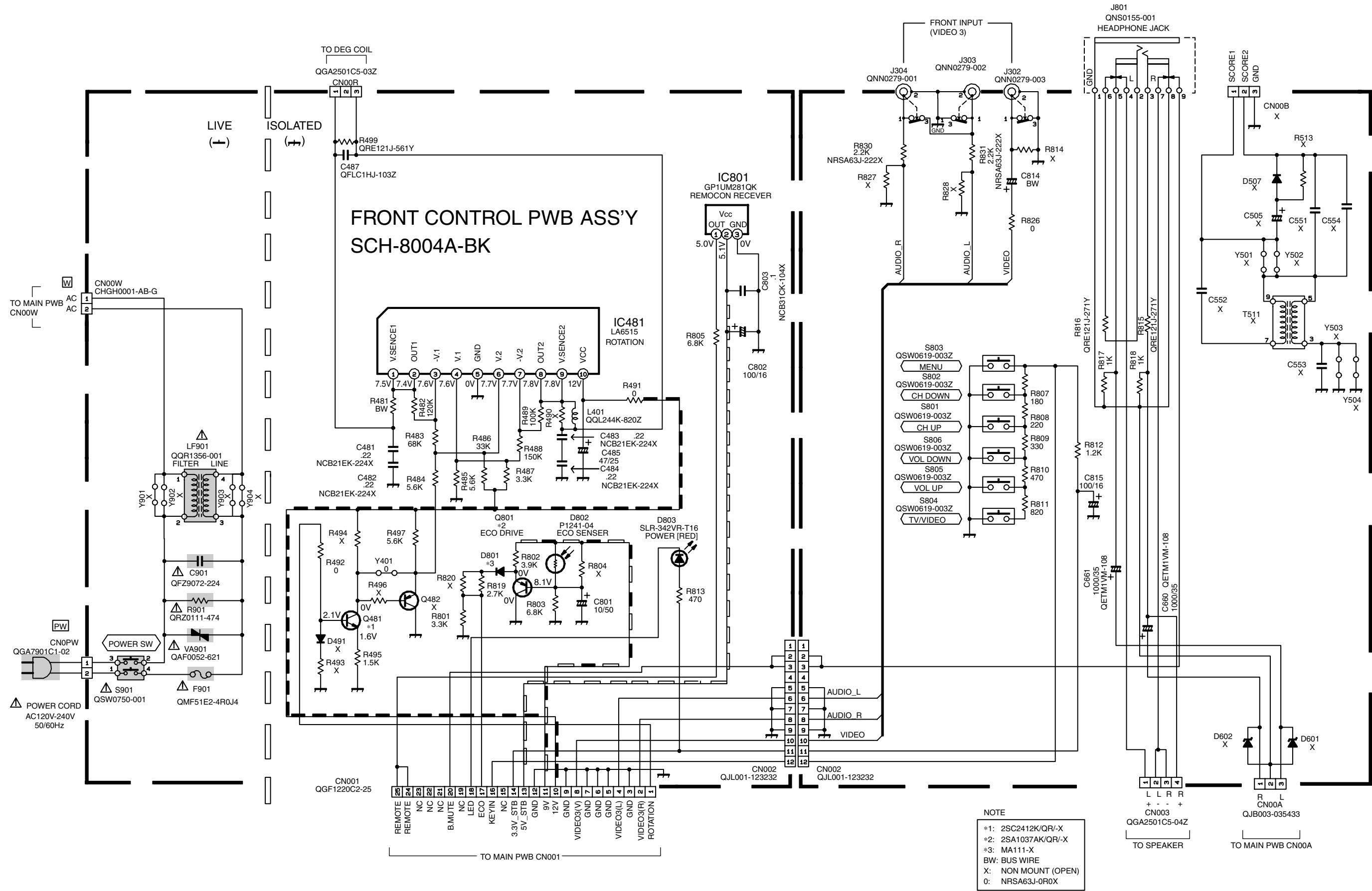
CRT SOCKET PWB ASS'Y
SCH-3301A-V2



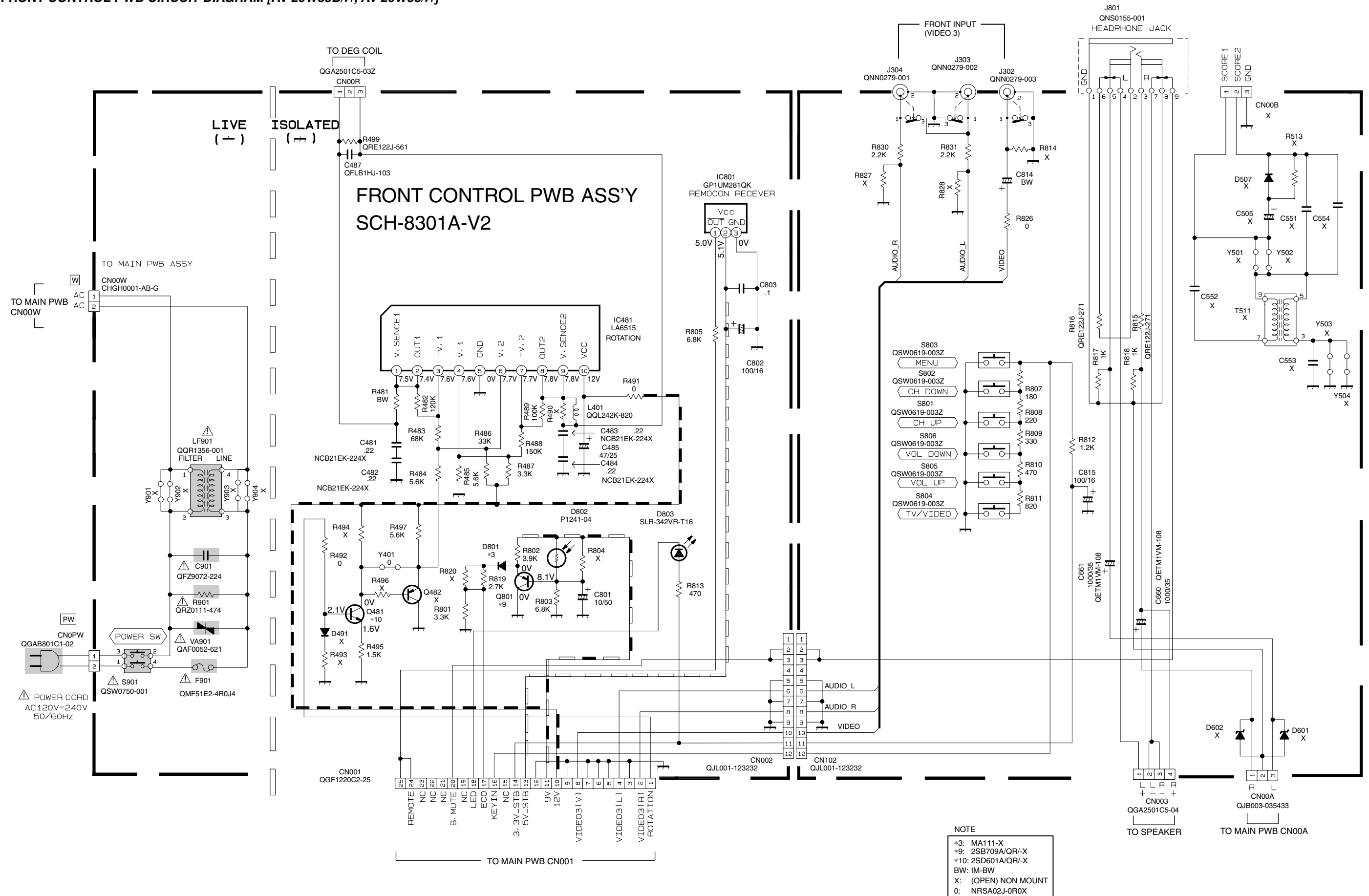
FRONT CONTROL PWB CIRCUIT DIAGRAM [AV-29W83/BK, AV-29W93/BK, AV-29W93B/BK]

AV-29W83
AV-29W93
AV-29W93B

AV-29W83
AV-29W93
AV-29W93B

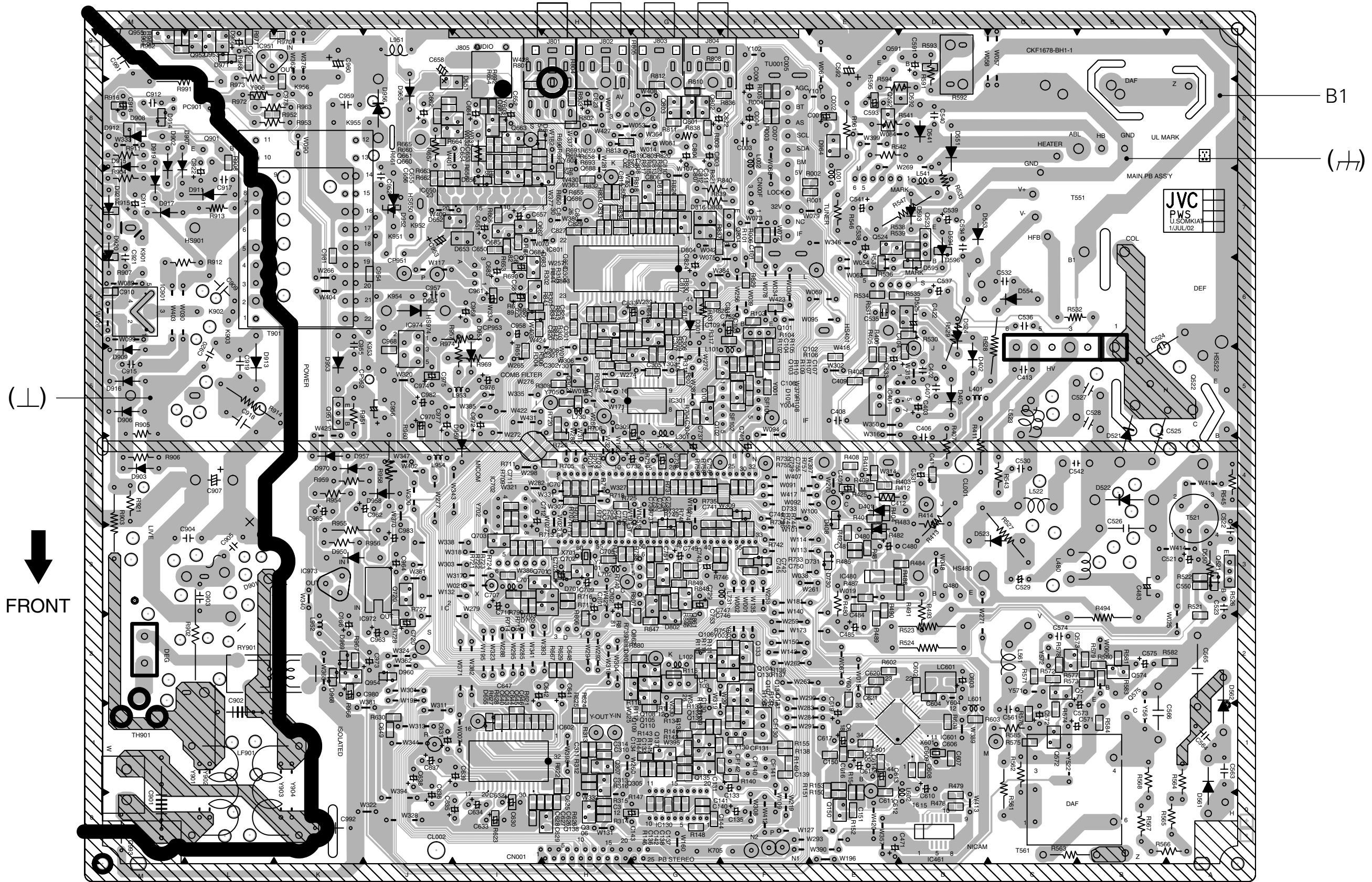


FRONT CONTROL PWB CIRCUIT DIAGRAM [AV-29W83B_{NT}, AV-29W83_{NT}]



PATTERN DIAGRAMS
MAIN PWB PATTERN

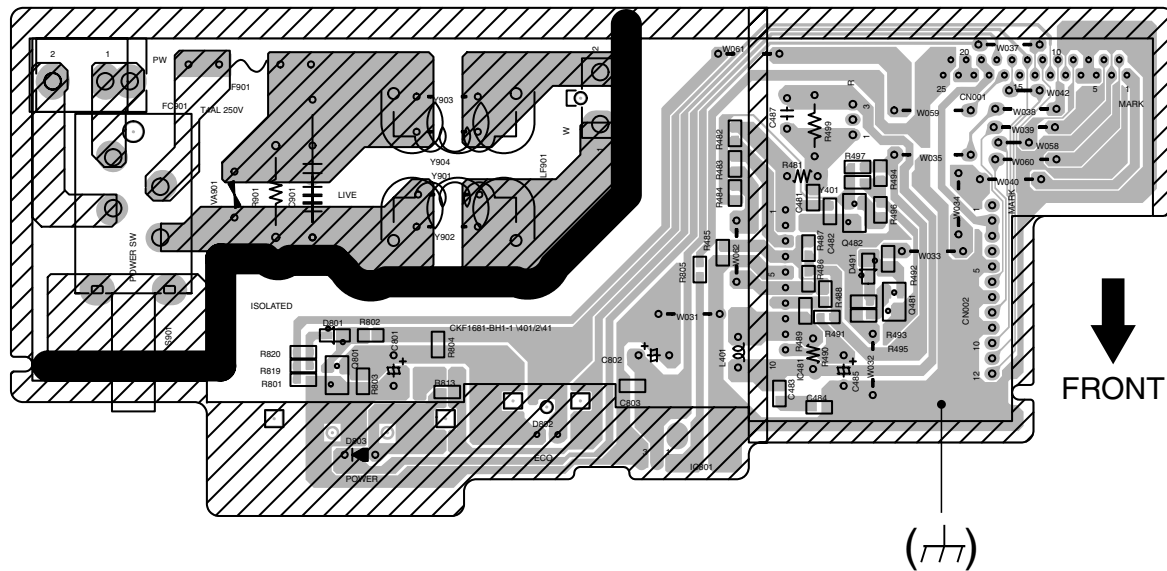
AV-29W83 AV-29W93B AV-29W83 AV-29W93B
AV-29W93 AV-29W83B AV-29W93 AV-29W83B



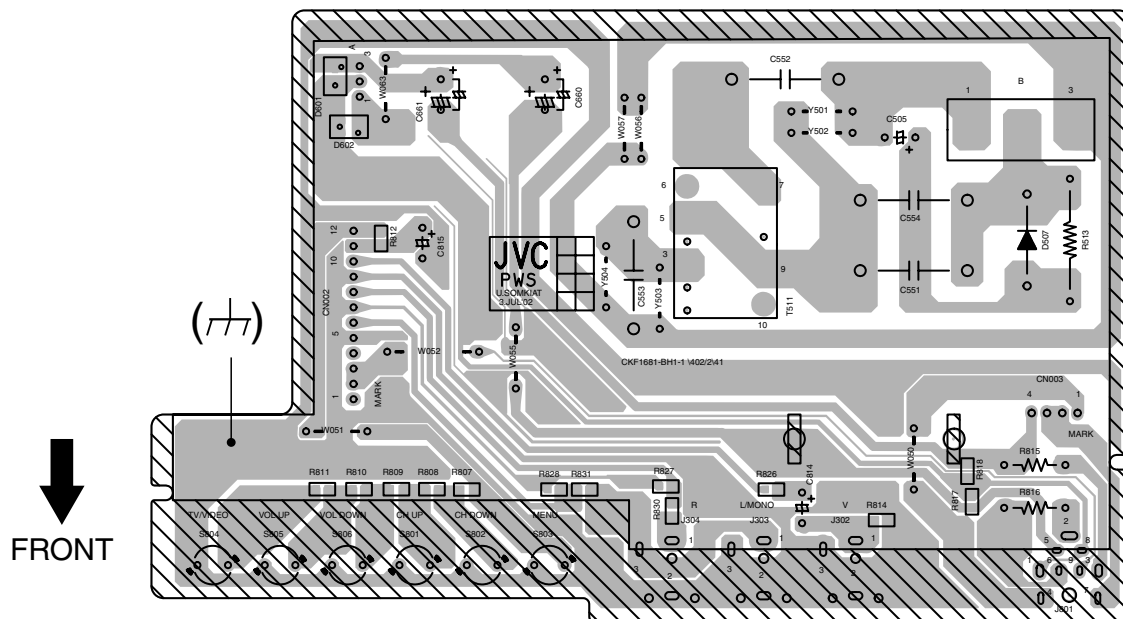
TOP
↑

FRONT CONTROL PWB PATTERN

— FRONT CONTROL (1/2) —



— FRONT CONTROL (2/2) —





VICTOR COMPANY OF JAPAN, LIMITED

HOME AV NETWORK BUSINESS UNIT. 12,3-chome,Moriya-cho,Kanagawa-ku,Yokohama,Kanagawa-prefecture,221-8528,Japan

AV29W83BK-BK #4
AV29W93BK-BK #4

AV29W93BBK-BK #4
AV29W83BVT-CK #4
AV29W83VT-CK #4



Printed in Japan
0211 WPC