

JVC

SCHEMATIC DIAGRAMS

COLOUR TELEVISION

BASIC CHASSIS

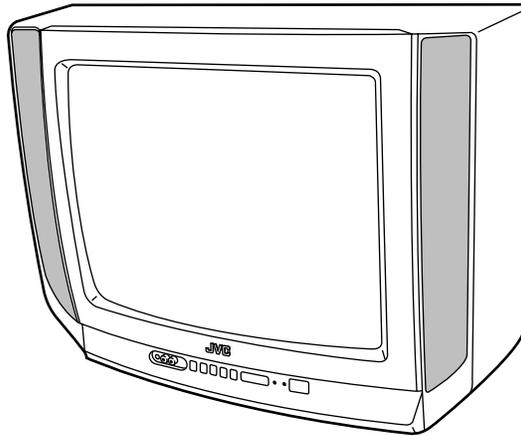
CH

AV-20N83 /BK **AV-21D83** /VT
AV-21D83 /BK **AV-20N83** /VT

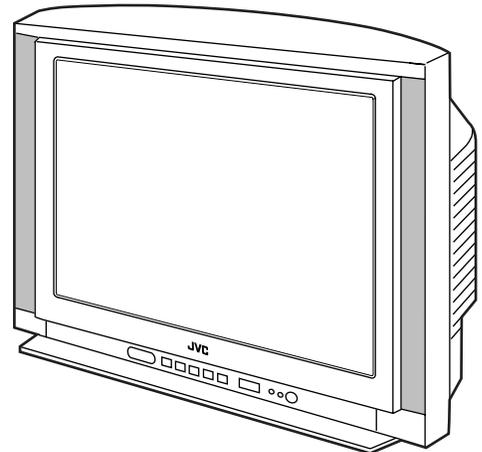
CD-ROM No. SML200212



RM-C1017-1H RM-C1027-1H
[AV-20N83/BK] [AV-21D83/VT]
[AV-21D83/BK] [AV-20N83/VT]



[AV-20N83/BK, AV-20N83/VT]



[AV-21D83/BK, AV-21D83/VT]

AV-20N83/BK
AV-21D83/BK
AV-21D83/VT
AV-20N83/VT

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

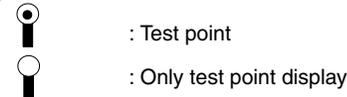
- No unit : [μ H]
- Others : As specified

(4) Power Supply

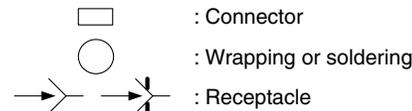


*Respective voltage values are indicated

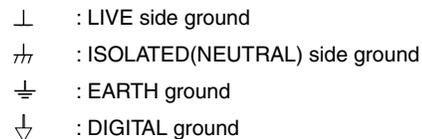
(5) Test point



(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 : (\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 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 (1/3) [AV-20N83/BK, AV-21D83/BK] 2-5

MAIN PWB CIRCUIT DIAGRAMS (2/3, 3/3) [AV-20N83/BK, AV-21D83/BK] 2-7

MAIN PWB CIRCUIT DIAGRAM (1/3) [AV-21D83/VT, AV-20N83/VT] 2-9

MAIN PWB CIRCUIT DIAGRAMS (2/3, 3/3) [AV-21D83/VT, AV-20N83/VT] 2-11

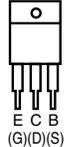
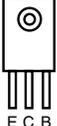
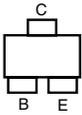
PATTERN DIAGRAMS

MAIN PWB PATTERN 2-13

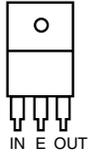
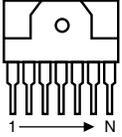
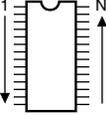
MAIN PWB (CRT SOCKET) PATTERN 2-15

SEMICONDUCTOR SHAPES

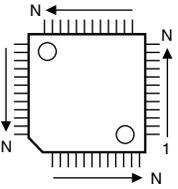
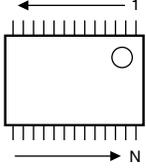
TRANSISTOR

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				CHIP TR 

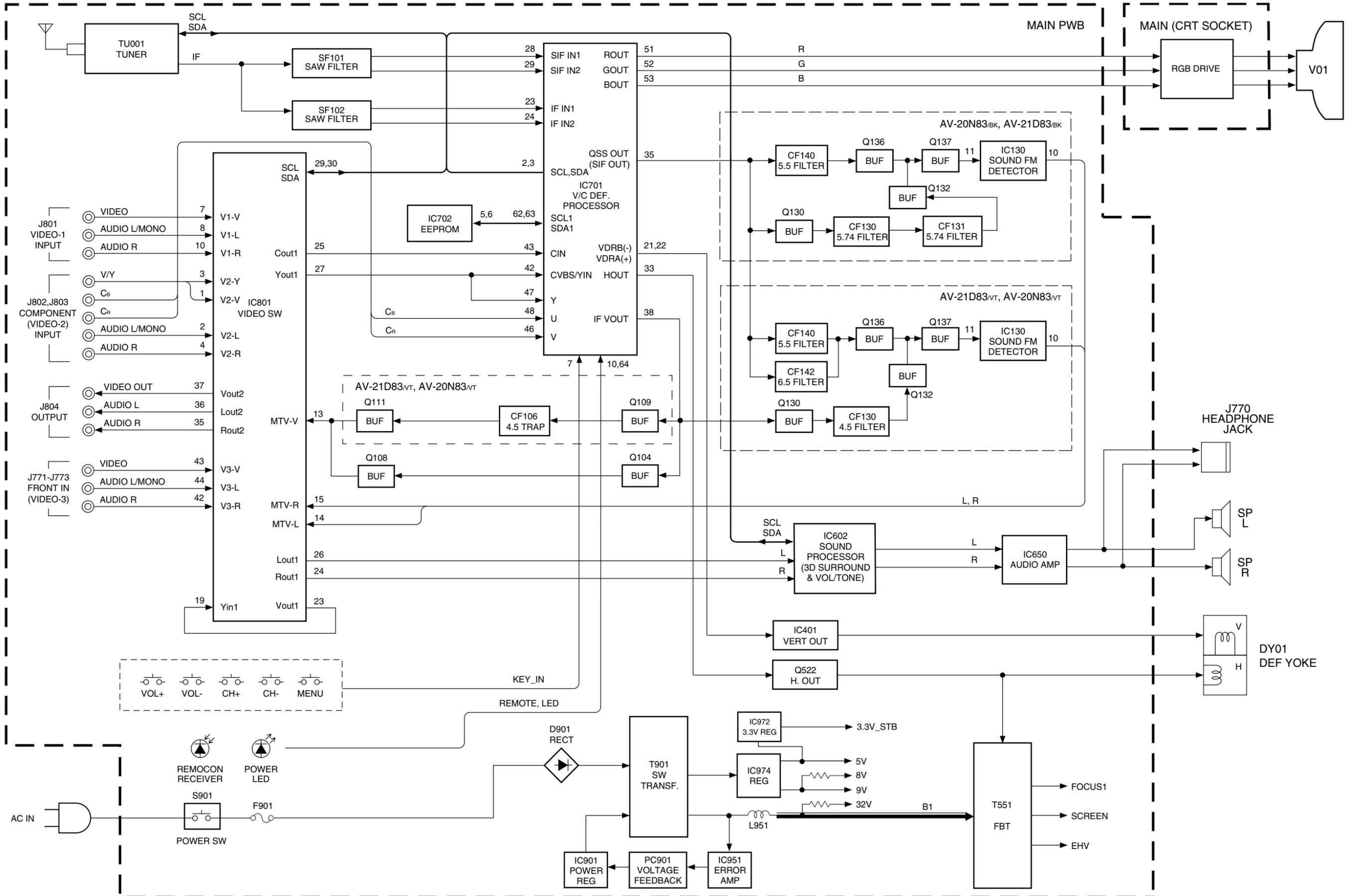
IC

BOTTOM VIEW	FRONT VIEW		TOP VIEW
			

CHIP IC

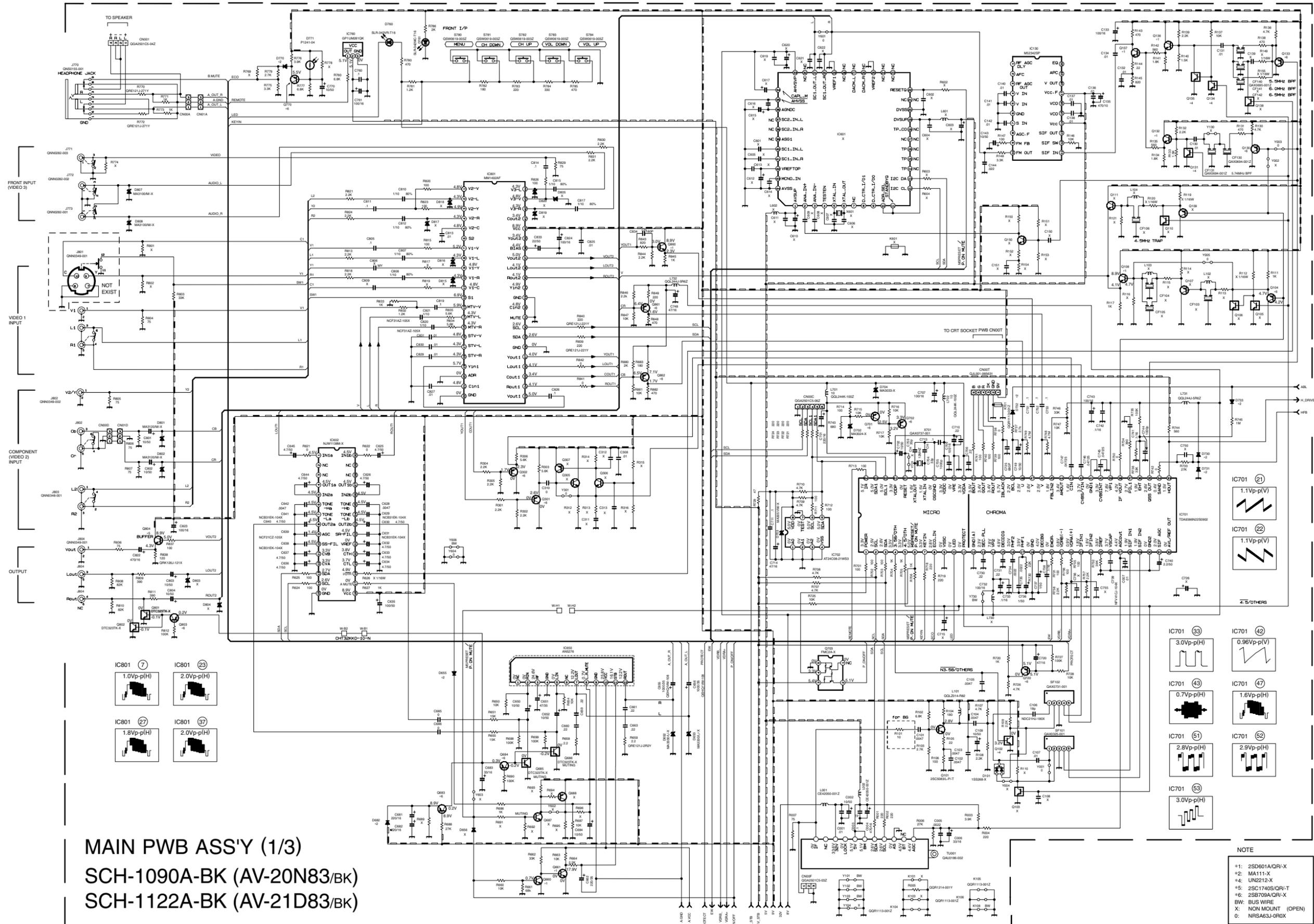
TOP VIEW	
	

BLOCK DIAGRAM



CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/3) [AV-20N83/BK, AV-21D83/BK]



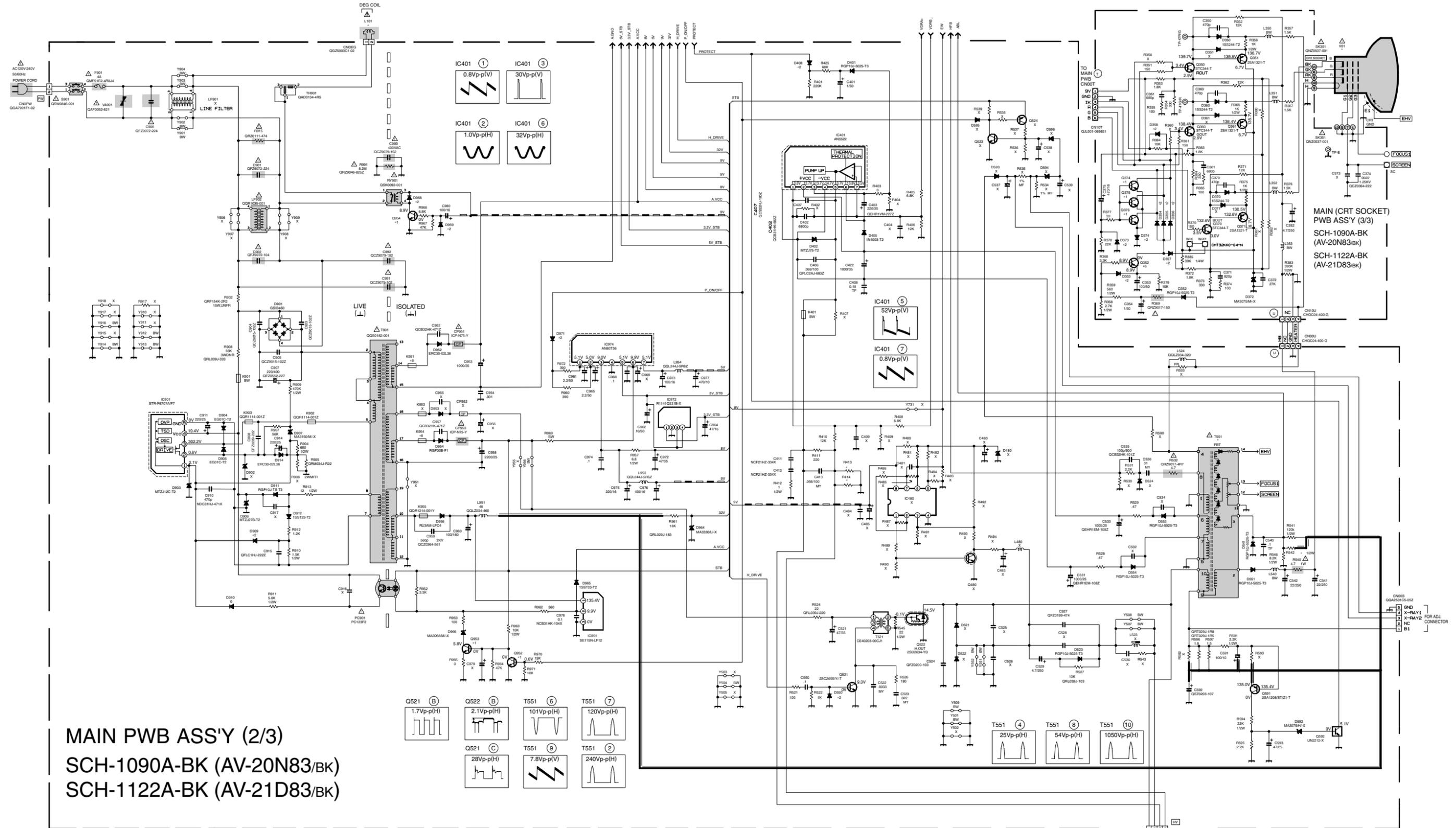
MAIN PWB ASS'Y (1/3)
 SCH-1090A-BK (AV-20N83/BK)
 SCH-1122A-BK (AV-21D83/BK)

- IC701 (21) 1.1Vp-p(V)
- IC701 (22) 1.1Vp-p(V)
- IC701 (33) 3.0Vp-p(H)
- IC701 (42) 0.96Vp-p(V)
- IC701 (43) 0.7Vp-p(H)
- IC701 (47) 1.6Vp-p(H)
- IC701 (51) 2.8Vp-p(H)
- IC701 (52) 2.9Vp-p(H)
- IC701 (53) 3.0Vp-p(H)

NOTE

- #1: 25D601A/QR-X
- #2: MA111-X
- #4: UN2212-X
- #5: 25C1740S/QR-T
- #6: 25B709A/QR-X
- BW: BUS WIRE
- X: NON MOUNT (OPEN)
- 0: NRS463J-0R0X

MAIN PWB CIRCUIT DIAGRAMS (2/3, 3/3) [AV-20N83/BK, AV-21D83/BK]



MAIN PWB ASS'Y (2/3)
SCH-1090A-BK (AV-20N83/BK)
SCH-1122A-BK (AV-21D83/BK)

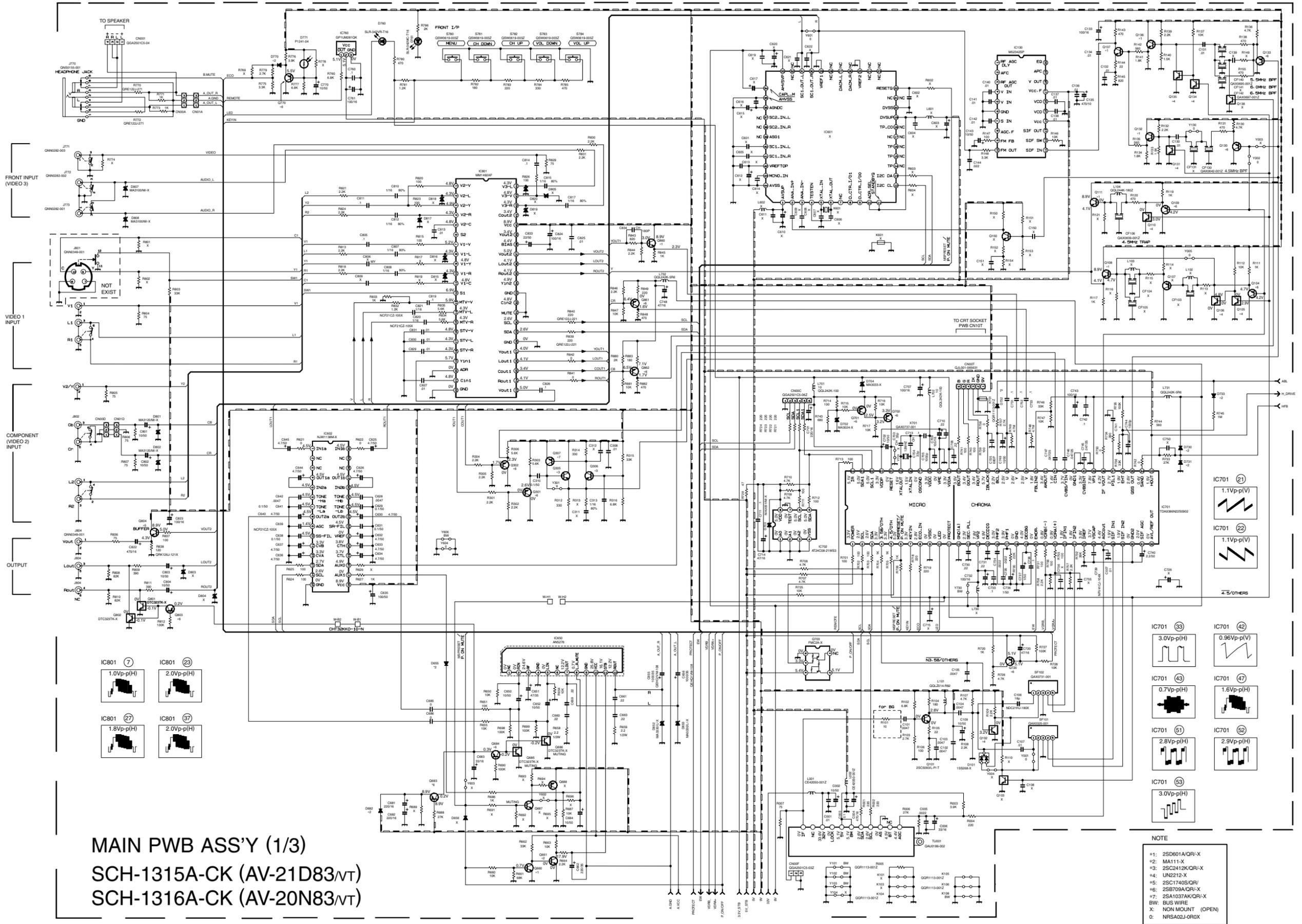
* DIFFERENCE LIST (* PARTS)

	Δ DY01	Δ V01	Δ L01	R413	R414	Δ T551	R542
SCH-1090A-BK	QQD0081-001	A48LWX10X	QQW0156-001	3.9K	68Ω	QQH0143-001	330KΩ
SCH-1122A-BK	CE20336-00A	A51LMV10X	QQW0157-001	2.7K	NOT USED	QQH0142-001	270KΩ

NOTE

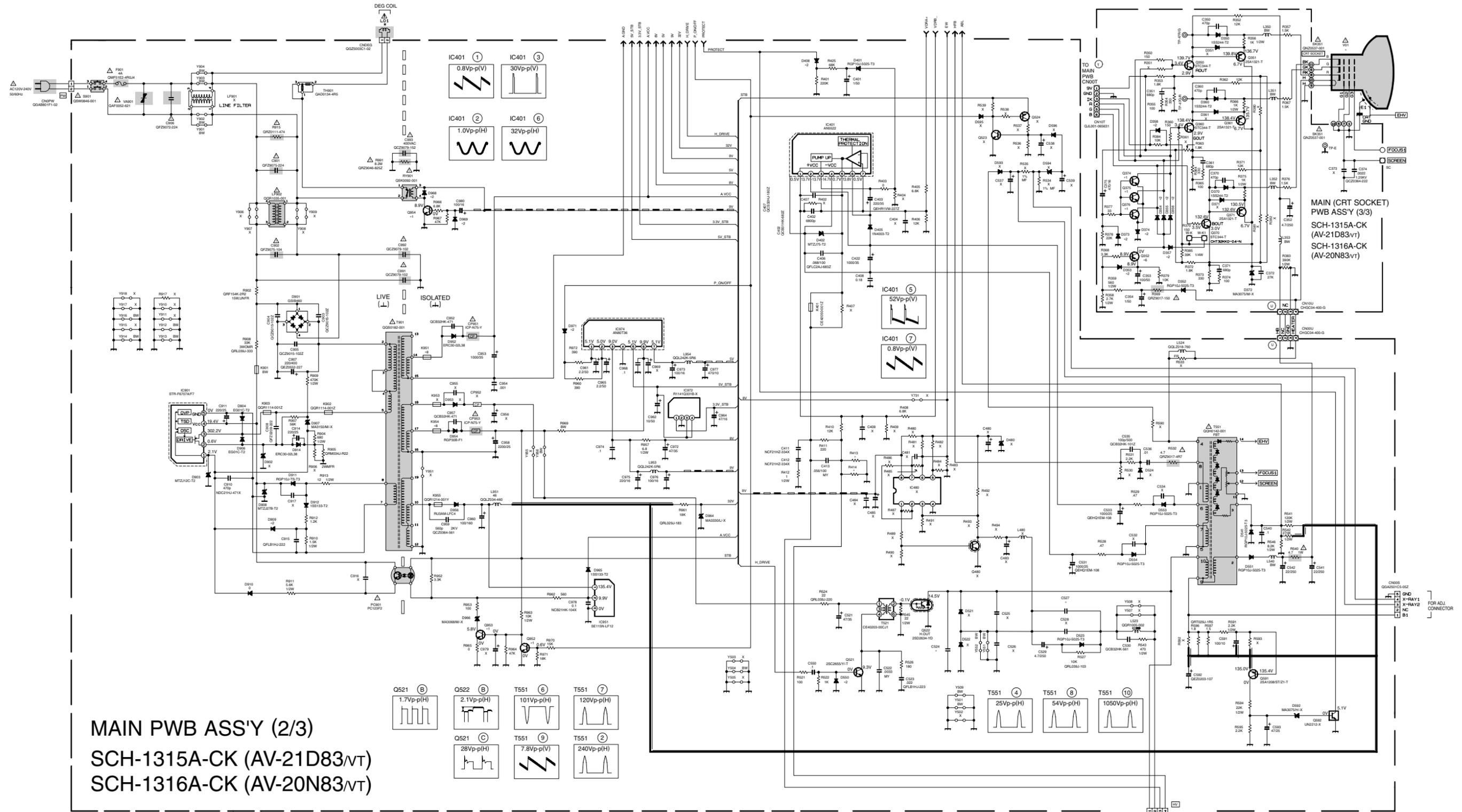
- *1: 2SD601A/OR-X
- *2: MA111-X
- *6: 2SB709A/OR-X
- *8: QOR1113-001Z
- BW: BUS WIRE
- X: NON MOUNT (OPEN)
- 0: NRS6A3J-0R0X

MAIN PWB CIRCUIT DIAGRAM (1/3) [AV-21D83NT, AV-20N83NT]



MAIN PWB ASS'Y (1/3)
SCH-1315A-CK (AV-21D83NT)
SCH-1316A-CK (AV-20N83NT)

MAIN PWB CIRCUIT DIAGRAMS (2/3, 3/3) [AV-21D83vt, AV-20N83vt]



* DIFFERENCE LIST (* PARTS)

	Δ V01	Δ L01	R413	R414	C524	C527
SCH-1315A-CK	A51J5W51X07	QQW0157-001	3.3Ω	22Ω	9000pF	0.56μF
SCH-1316A-CK	A48JLL91X01	QQW0156-001	3.9Ω	39Ω	9400pF	0.12μF

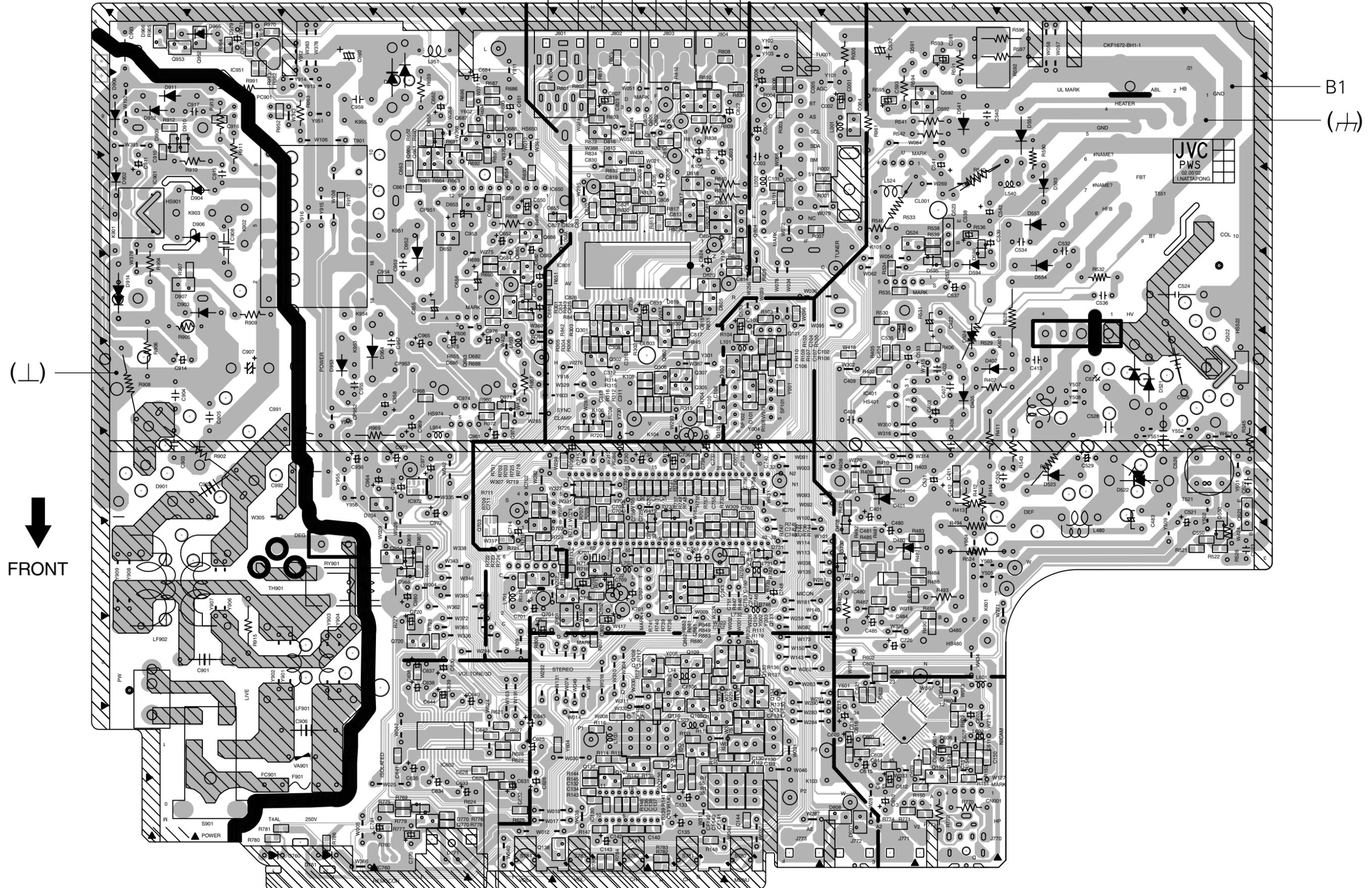
NOTE

- #1: 2SD601A/QRI-X
- #2: MA111-X
- #6: 2SB709A/QRI-X
- #8: QOR1113-001Z
- BW: BUS WIRE
- X: NON MOUNT (OPEN)
- O: NRS02J-OROX

PATTERN DIAGRAMS
MAIN PWB PATTERN

AV-20N83
AV-21D83

AV-20N83
AV-21D83



JVC

VICTOR COMPANY OF JAPAN, LIMITED

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

AV20N83BK-BK #4
AV21D83BK-BK #4

AV21D83VT-CK #4
AV20N83VT-CK #4



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