

# JVC

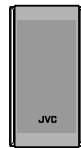
# SCHEMATIC DIAGRAMS

## DVD DIGITAL CINEMA SYSTEM

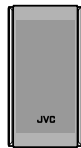
### TH-V70

CD-ROM No.SML200207

Area suffix	
A .....	Australia
US .....	Singapore
UB .....	Hong Kong
UX .....	Saudi Arabia



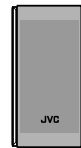
SP-XSV70



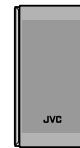
SP-XSV70



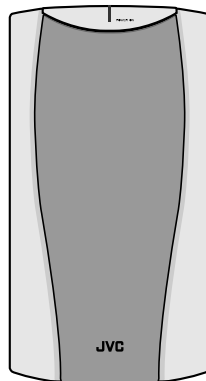
SP-XCV70



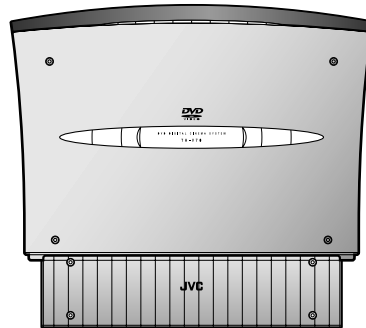
SP-XSV70



SP-XSV70



SP-PWV70



XV-THV70



**AV COMPU LINK**

*Digital Direct Progressive Scan*



### Contents

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## TH-V70

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (▬) and ICP (●) or identified by the "⚠" mark nearby are critical for safety.

(This regulation does not correspond to J and C version.)

# Block diagrams

## <Main body section>

### ■ Overall block diagram

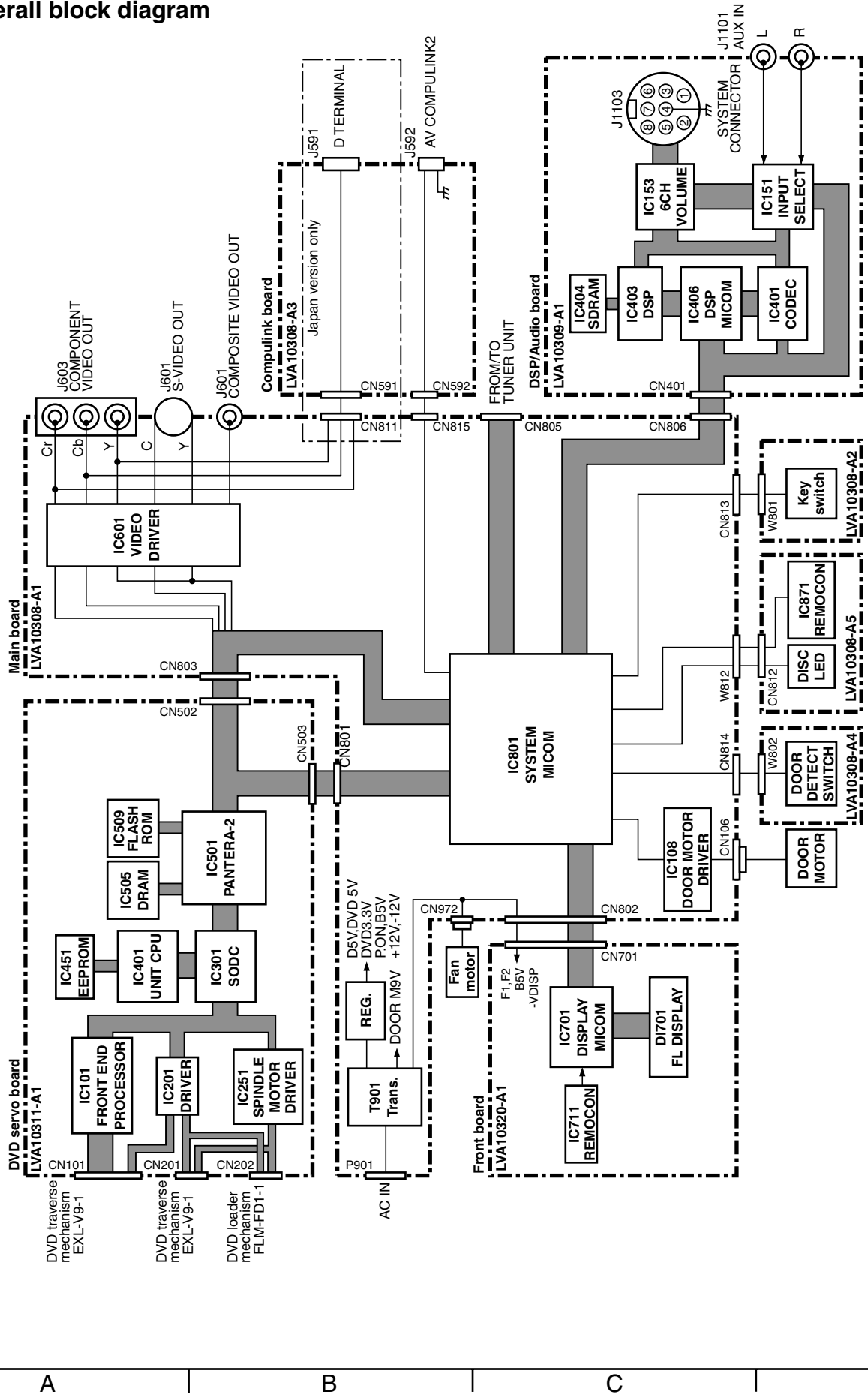
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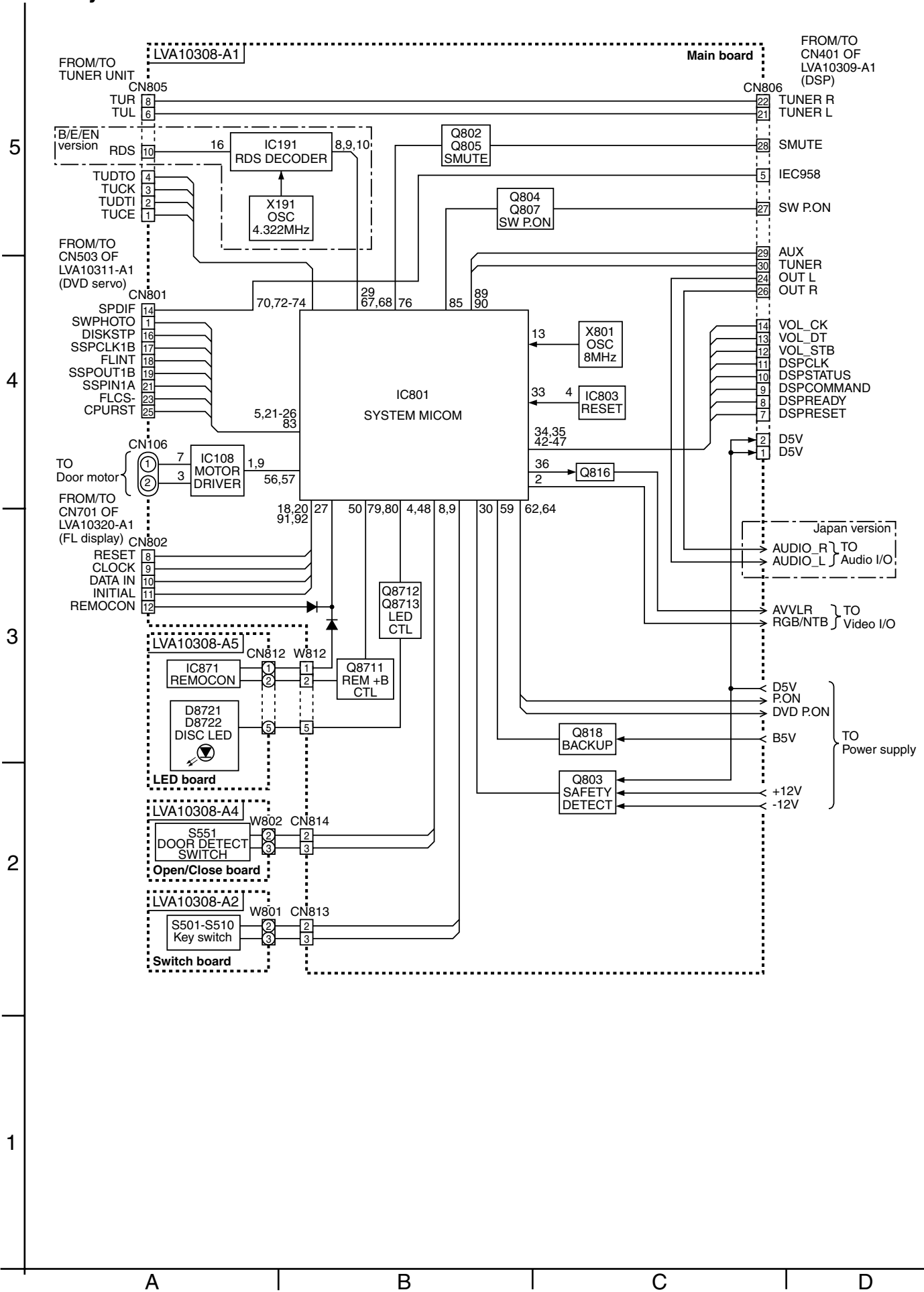


A

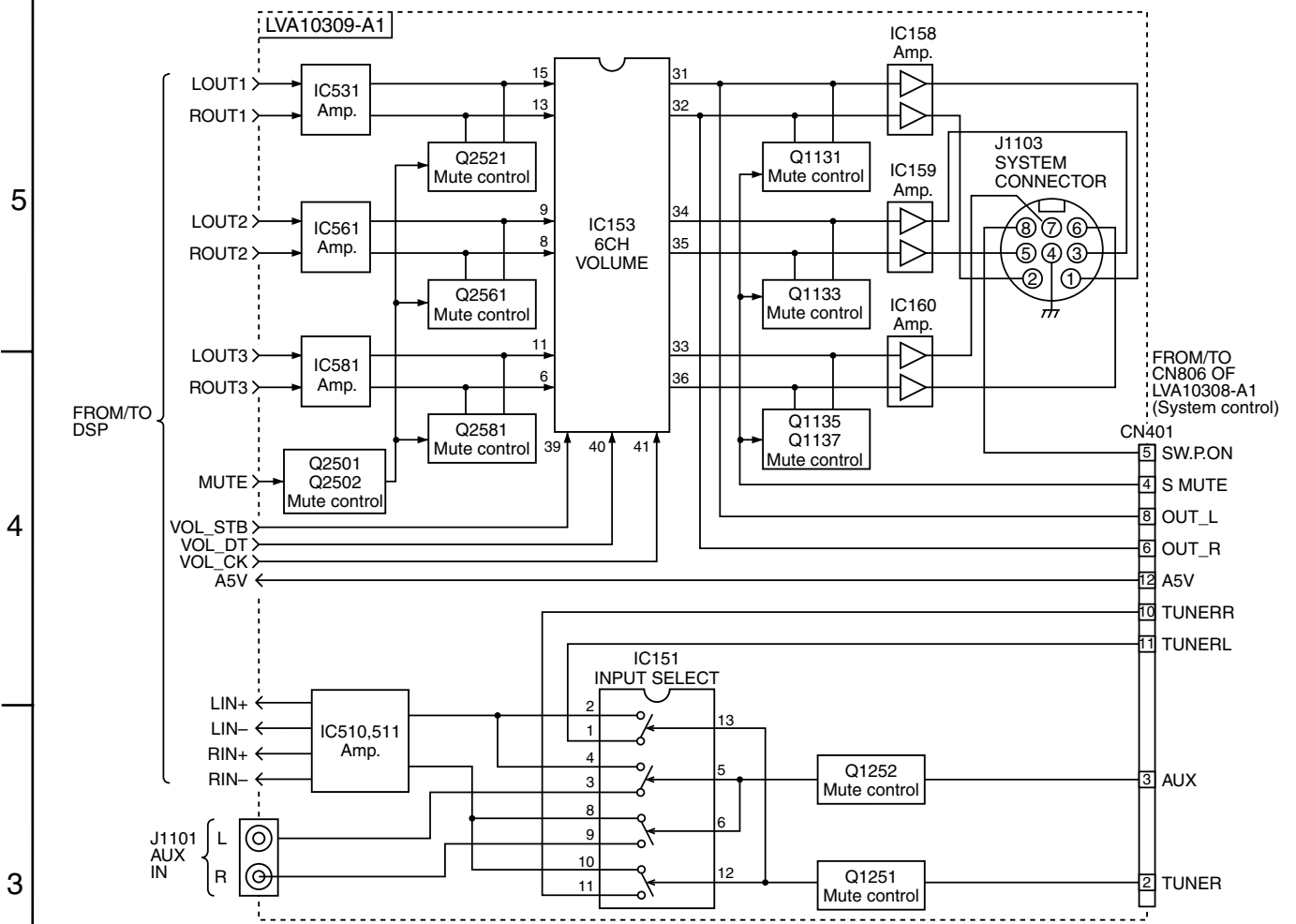
B

C

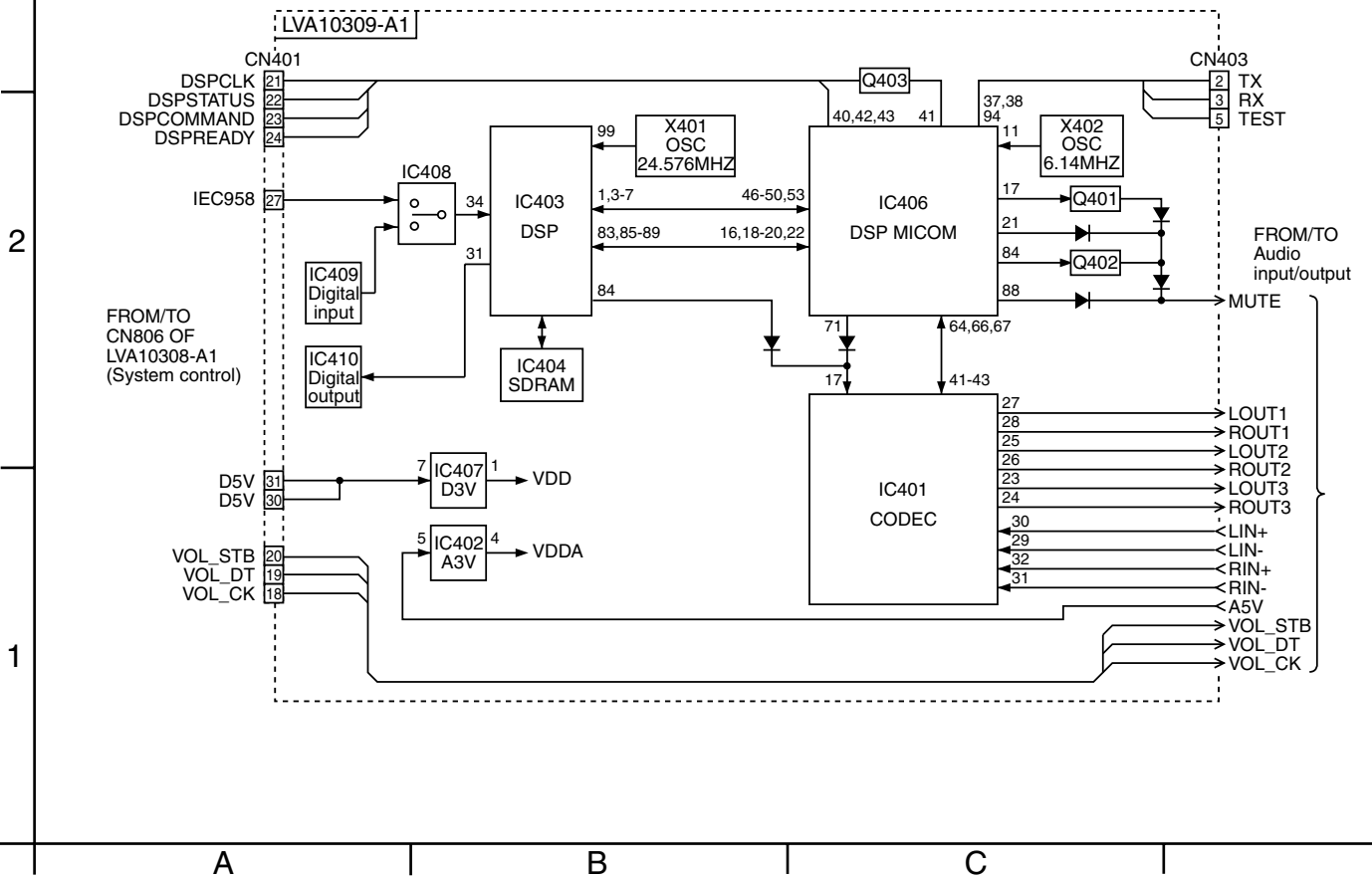
System control section



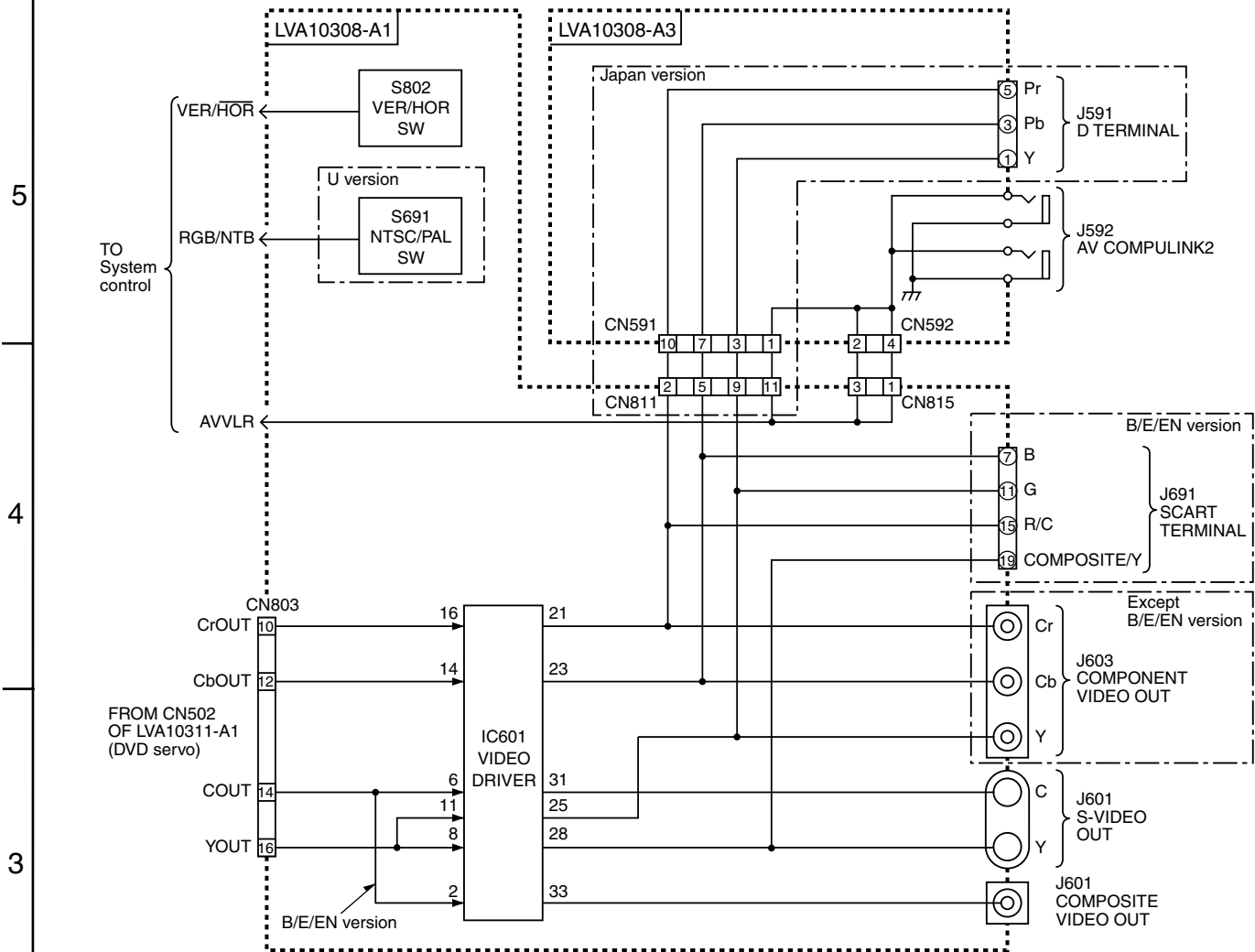
■ Audio input/output section



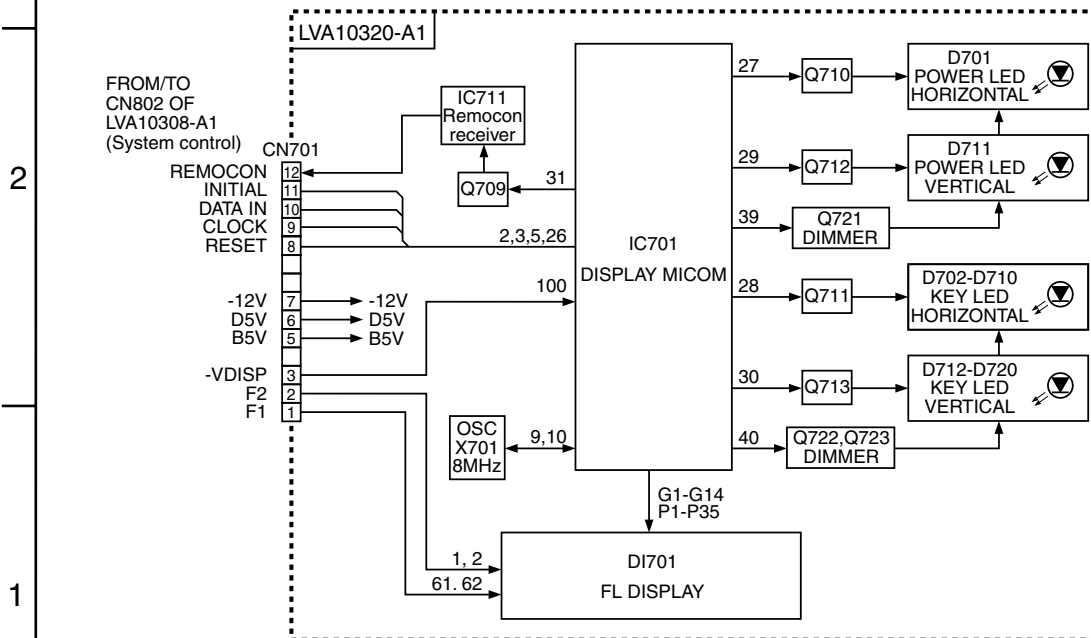
■ DSP section



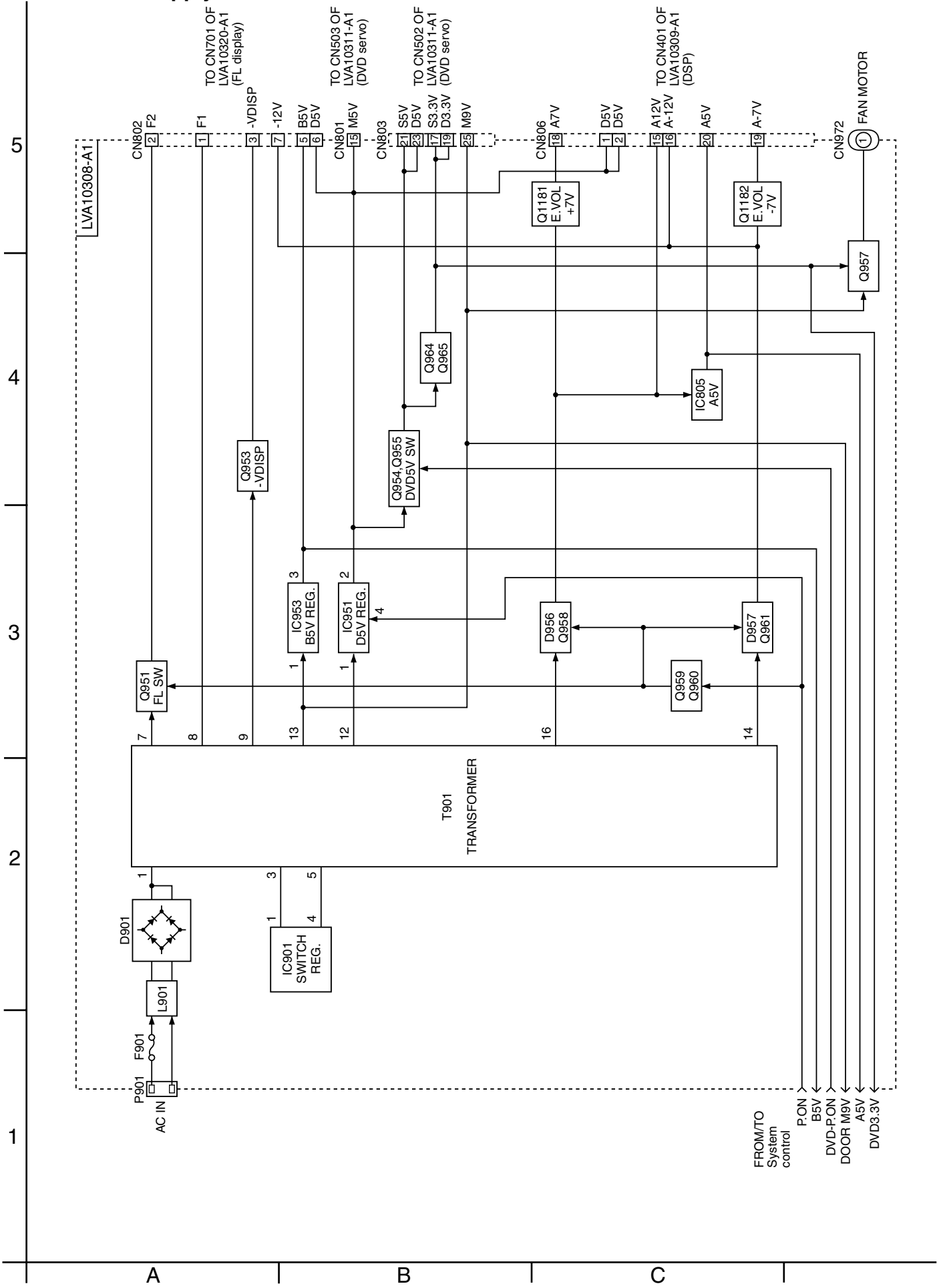
Video output section



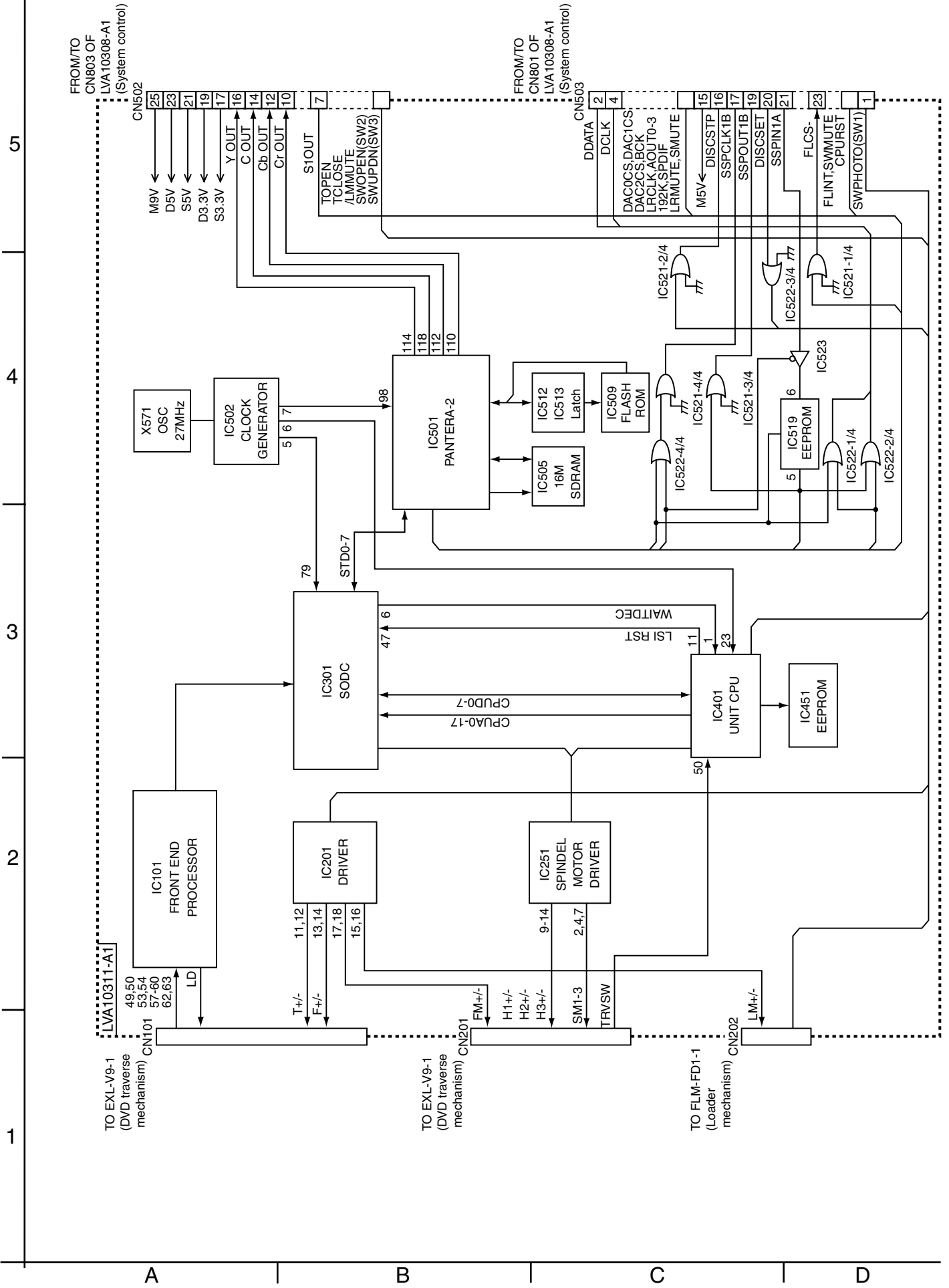
FL display section



■ Power supply section

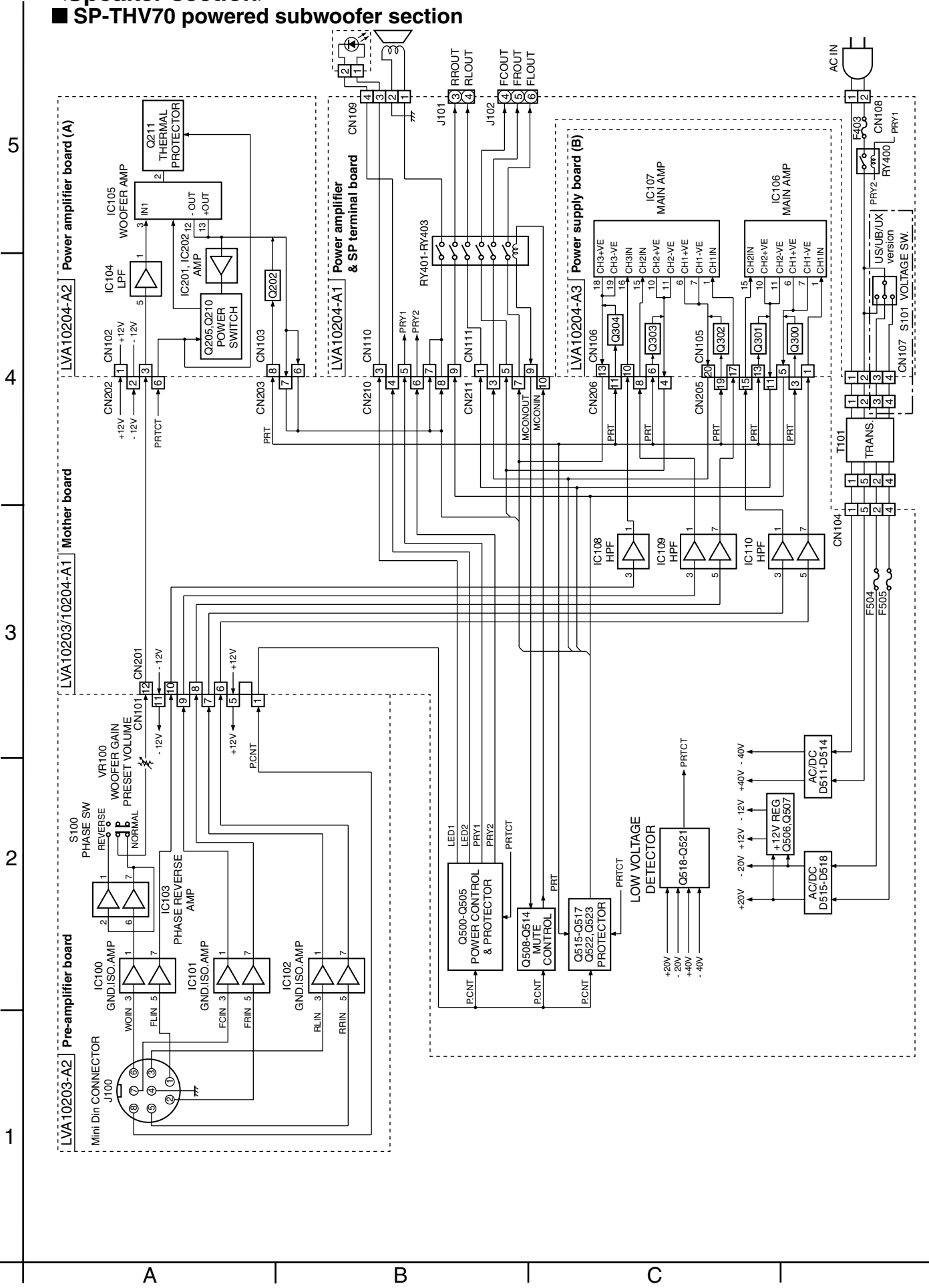


DVD servo section





<Speaker section>  
■ SP-THV70 powered subwoofer section



< M E M O >

# Standard schematic diagrams

## <Main body section>

### System control section

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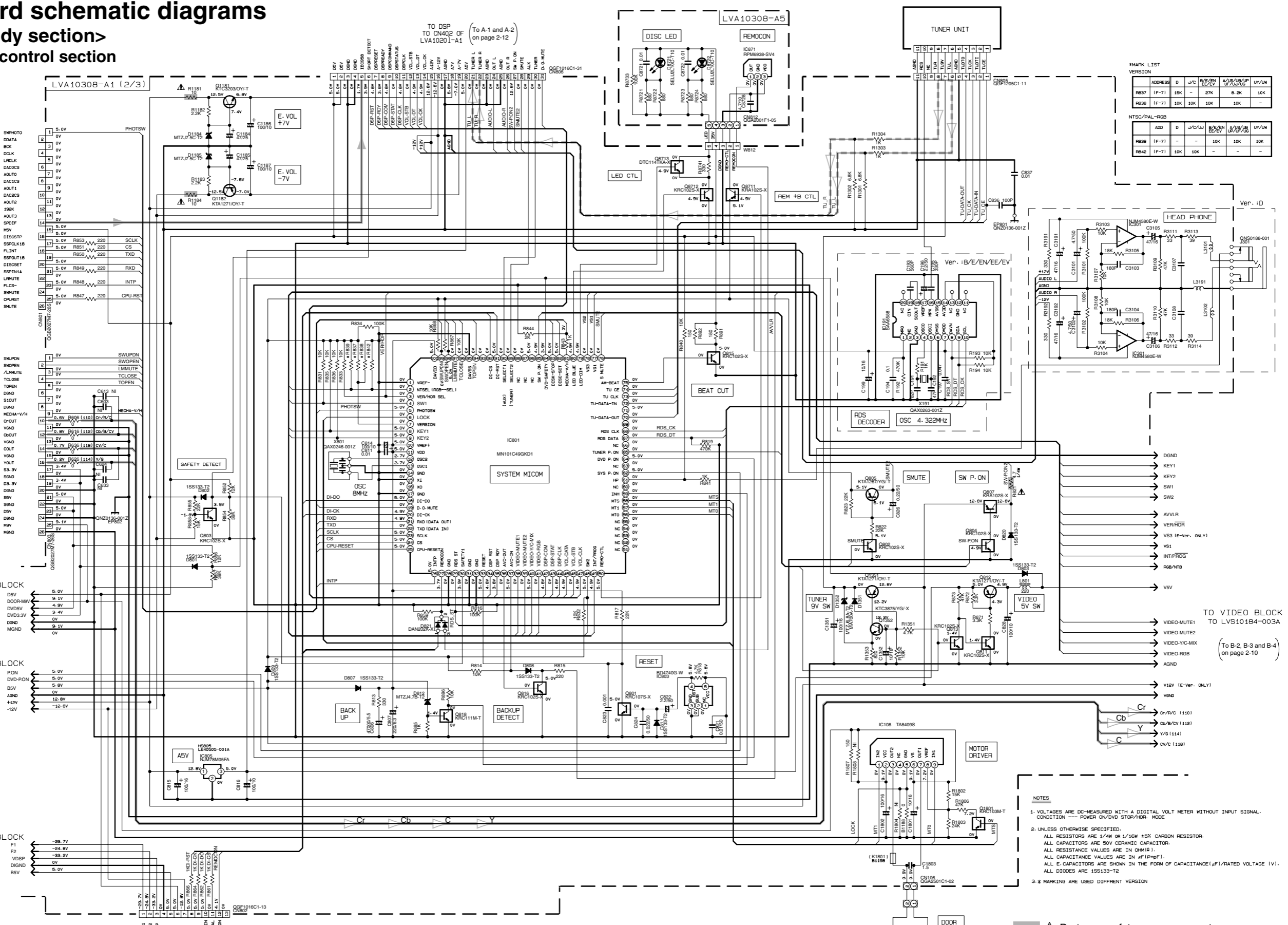
TO DVD TO CHECK OF LVA10311-A1  
(To G-1 and G-2 on page 2-16)

TO DVD TO CHECK OF LVA10311-A1  
(To G-4 and G-5 on page 2-16)

TO POWER BLOCK  
(To G-4 on page 2-11)

TO POWER BLOCK  
(To G-1 and G-2 on page 2-11)

TO POWER BLOCK  
(To G-5 on page 2-11)



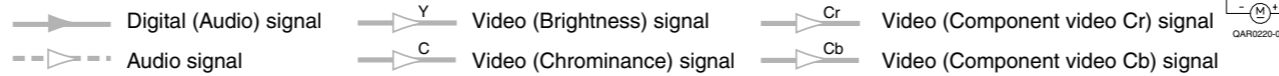
MARK LIST

ADDRESS	D	J/C	REV	MARK	U/V/W
R837 (F-7)	10K	-	27K	B-2K	10K
R838 (F-7)	10K	10K	10K	10K	-

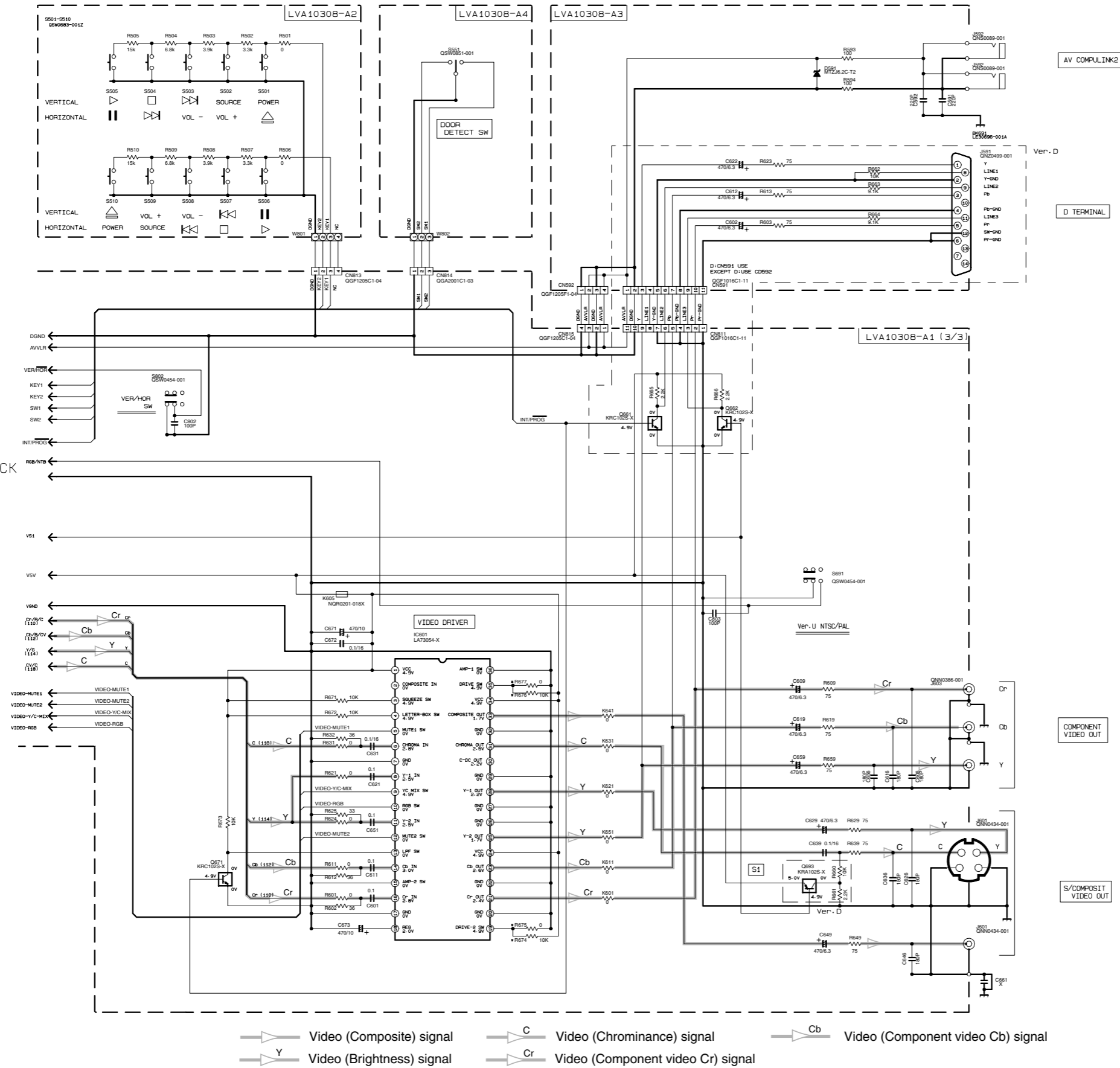
ADD	D	J/C/U/V	REV	MARK	U/V/W
R839 (F-7)	-	-	10K	10K	10K
R842 (F-7)	10K	10K	-	-	-

- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL. CONDITION --- POWER ON/DVD STOP/HDR. MODE
  2. UNLESS OTHERWISE SPECIFIED. ALL RESISTORS ARE 1/4W OR 1/16W 1% CARBON RESISTOR. ALL CAPACITORS ARE 50V CERAMIC CAPACITOR. ALL RESISTANCE VALUES ARE IN OHM(Ω). ALL CAPACITANCE VALUES ARE IN μF(μF). ALL ELECTROLYTIC CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).
  3. \* MARKINGS ARE USED DIFFERENT VERSION



Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

Video output section



DVD VIDEO OUT

	ALL VERSION
Cv/Cv (118)	C
Y/S (114)	Y
Cb/Cb/Cv (112)	Cb
Cr/Cr/Cv (110)	Cr

IC601 INPUT SIGNAL

	ALL VERSION
2/COMPOSITE IN	---
6/CHROMA IN	C
8/Y-1 IN	Y
11/Y-2 IN	Y
14/Cb IN	Cb
16/Cr IN	Cr

MARK LIST

ADDRESS	D	J/C	OTHER VER.
R674 (1-101)	—	○	○
R675 (1-101)	○	—	—
R676 (1L-101)	○	○	—
R677 (1L-101)	—	—	○

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TO MICOM BLOCK  
TO LVS101B4-002A  
(To G-2 and G-3 on page 2-9)

A B C 2-10 D E F G H

Power supply section

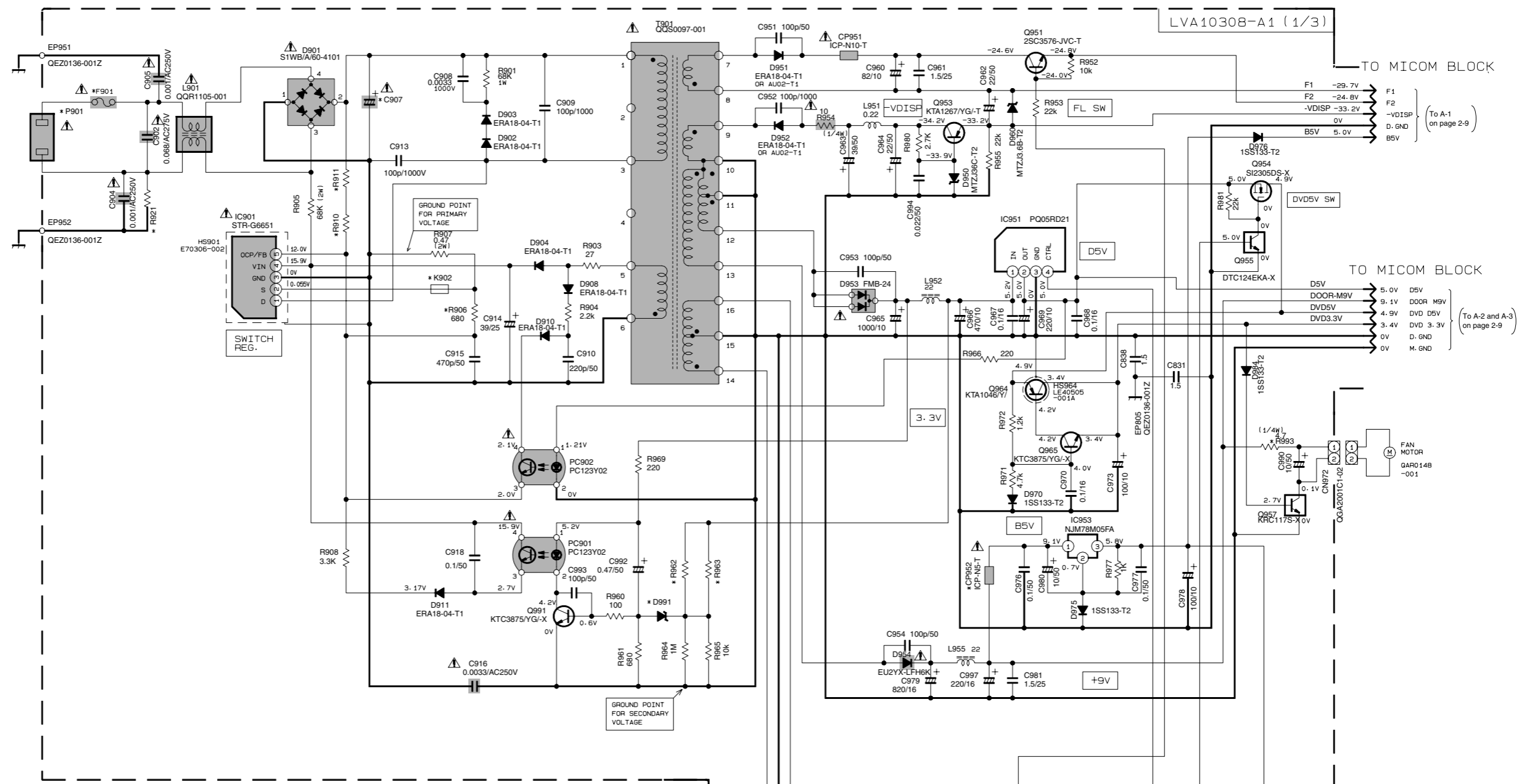
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- Ver. J/C  
120V 60Hz
- Ver. D  
100V 50/60Hz
- Ver. B/A/E/EN/EE/EE  
230V 50Hz
- Ver. US/UW/UJ/UG  
110-230V 50/60Hz
- Ver. UP  
220V 60Hz
- Ver. UB/UF/UY  
220V 50Hz

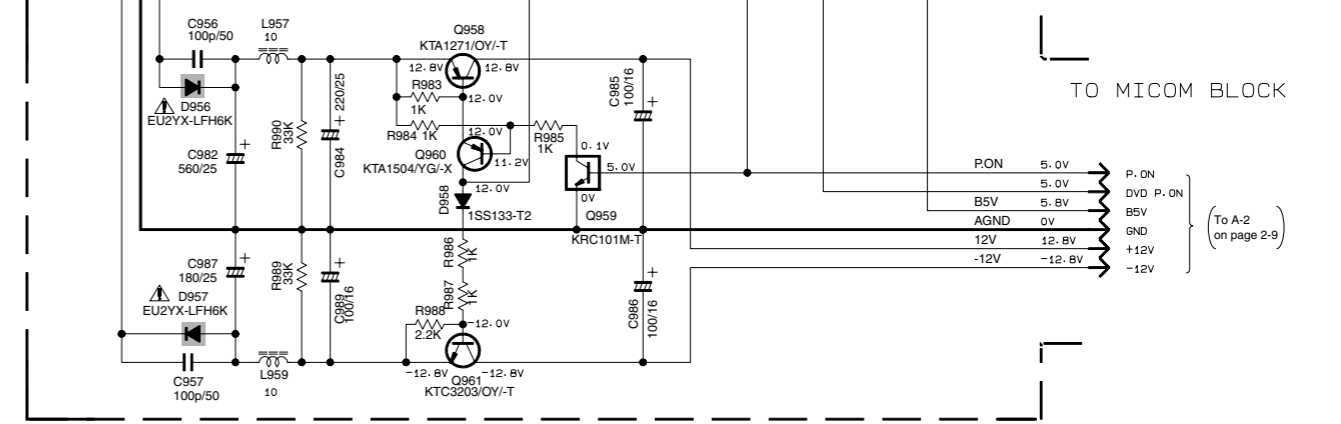
Ver	ADDRESS	D	J/C	B/E/EN/EE/EV	US/US/UW/UJ/UP/UF/A/UB/UY/UX/UT
*F901	(A-3)	GMF51U1-1R6-JB (1.6A/125V)	GMF51U1-1R6-JB (1.6A/125V)	GMF51E2-1R6-J1 (T1.6AL)	GMF51E2-1R6-J1 (T1.6AL)
*R962	(E-7)	1M	1M	0 (B9099)	0 (B9099)
*R963	(E-8)	100	100	NONE	NONE
*R993	(D-12)	0 (B1149)	FR 4.7 (1/4W) (GR23006-4R7X)	0 (B1149)	0 (B1149)
*D991	(F-7)	MTZJ5. 1C-T2	MTZJ5. 1C-T2	MTZJ5. 1B-T2	MTZJ5. 1B-T2
*K902	(C-5)	QQR0779-001Z	QQR0779-001Z	0 (B9098)	0 (B9098)
*R921	(B-3)	NONE	3.3M	NONE	NONE
*P901	(B-2)	QNC0081-001	QNC0082-001	QNC0081-001	QNC0081-001
*R910 *R911	(B-5)	750k	750k	470k	470k
*CP952	(F-10)	0 (B1189)	0 (B1189)	ICP-N5-T	ICP-N5-T

Ver	ADDRESS	D	J/C	B/E/EN/EE/EV A/UB/UP/UF/UY	US/UW/UJ/US/UX/UT
*C907	(B-5)	QETM2DM-157 (150/200)	QETM2DM-157 (150/200)	QE20592-825 (82/400)	QE20592-127 (82/400)

VERSION CODES

J: U. S. A.  
 C: CANADA  
 D: JAPAN  
 E: GERMANY/FRANCE/HOLLAND  
 EE: RUSSIA  
 EN: SWEDEN/NORWAY/FINLAND/DENMARK  
 B: GREAT BRITAIN  
 UW: BRAZIL/MEXICO/PERU  
 US: SINGAPOLE  
 UF: CHINA  
 UJ: USA MILITARY BASE  
 UG: TURKEY/EGYPT/SOUTHAFRICA  
 UP: KOREA  
 A: AUSTRALIA  
 EV: EAST EUROPE  
 UB: HONG KONG  
 UY: ARGENTINA  
 UX: SAUDI ARABIA  
 UT: TAIWAN



Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

DSP section

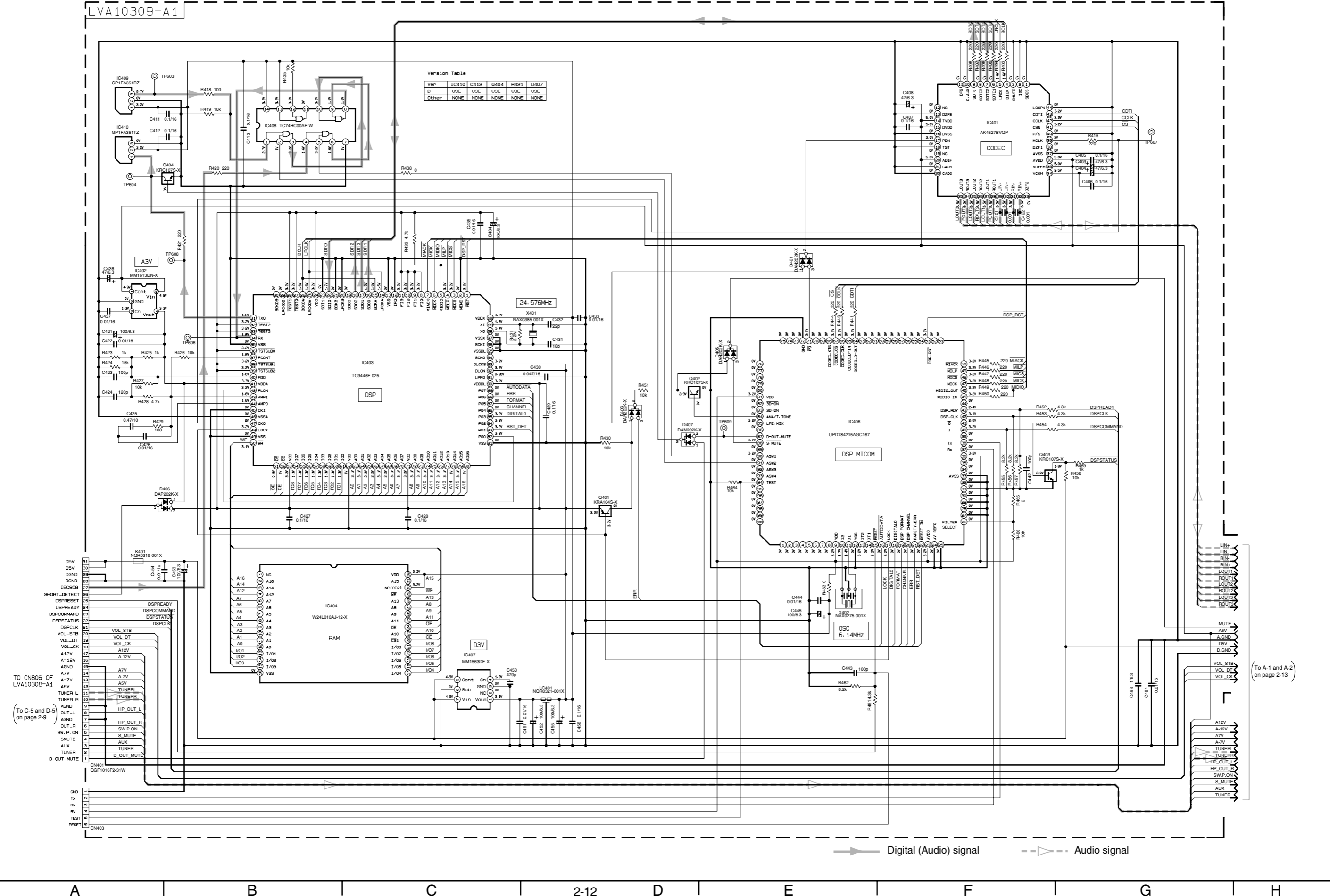
5

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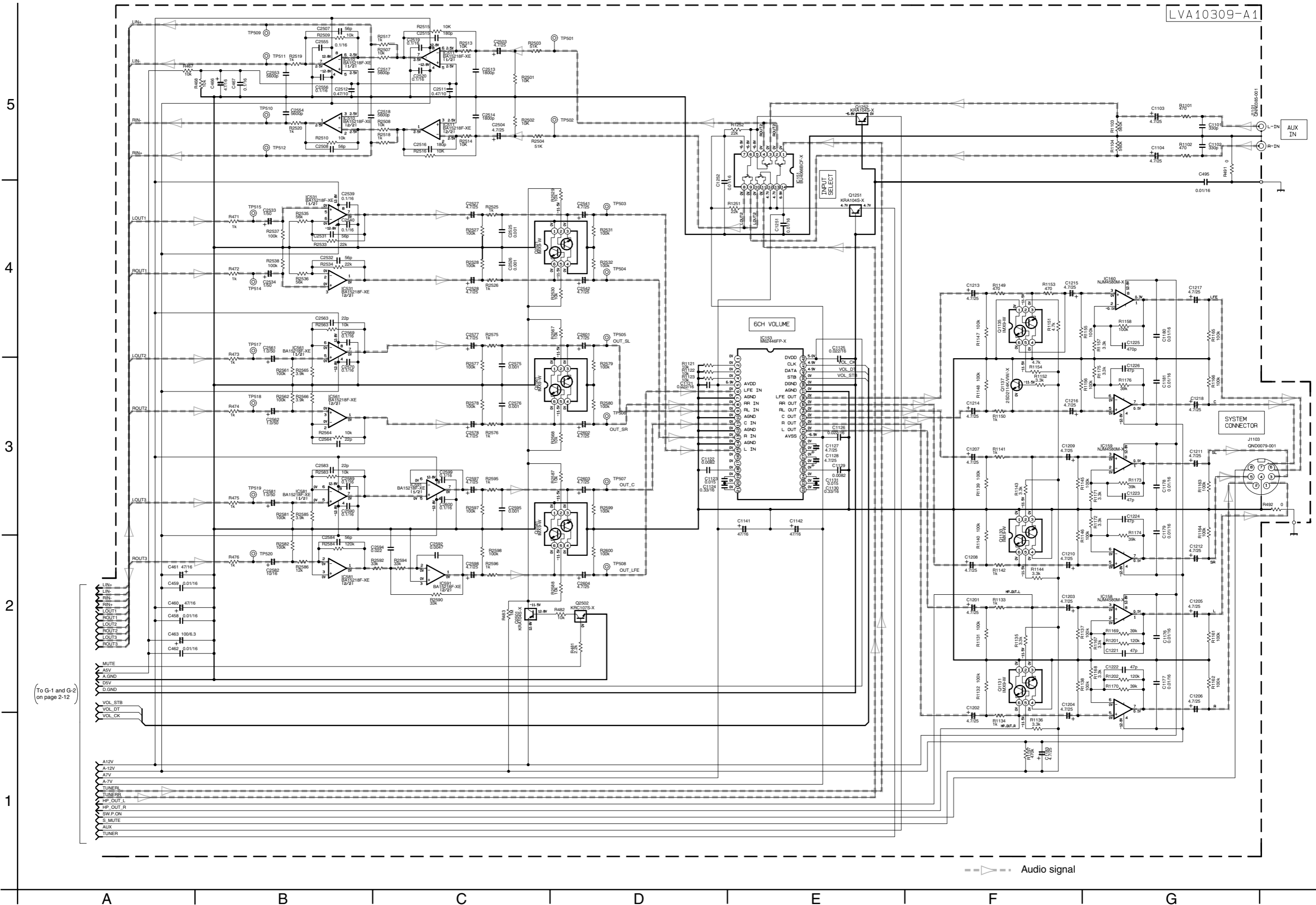
TO CN806 OF LVA10308-A1  
(To C-5 and D-5 on page 2-9)

(To A-1 and A-2 on page 2-13)

A B C D E F G H

Audio input/output section

LVA10309-A1



To G-1 and G-2 on page 2-12

Audio signal

DVD servo section 1/4

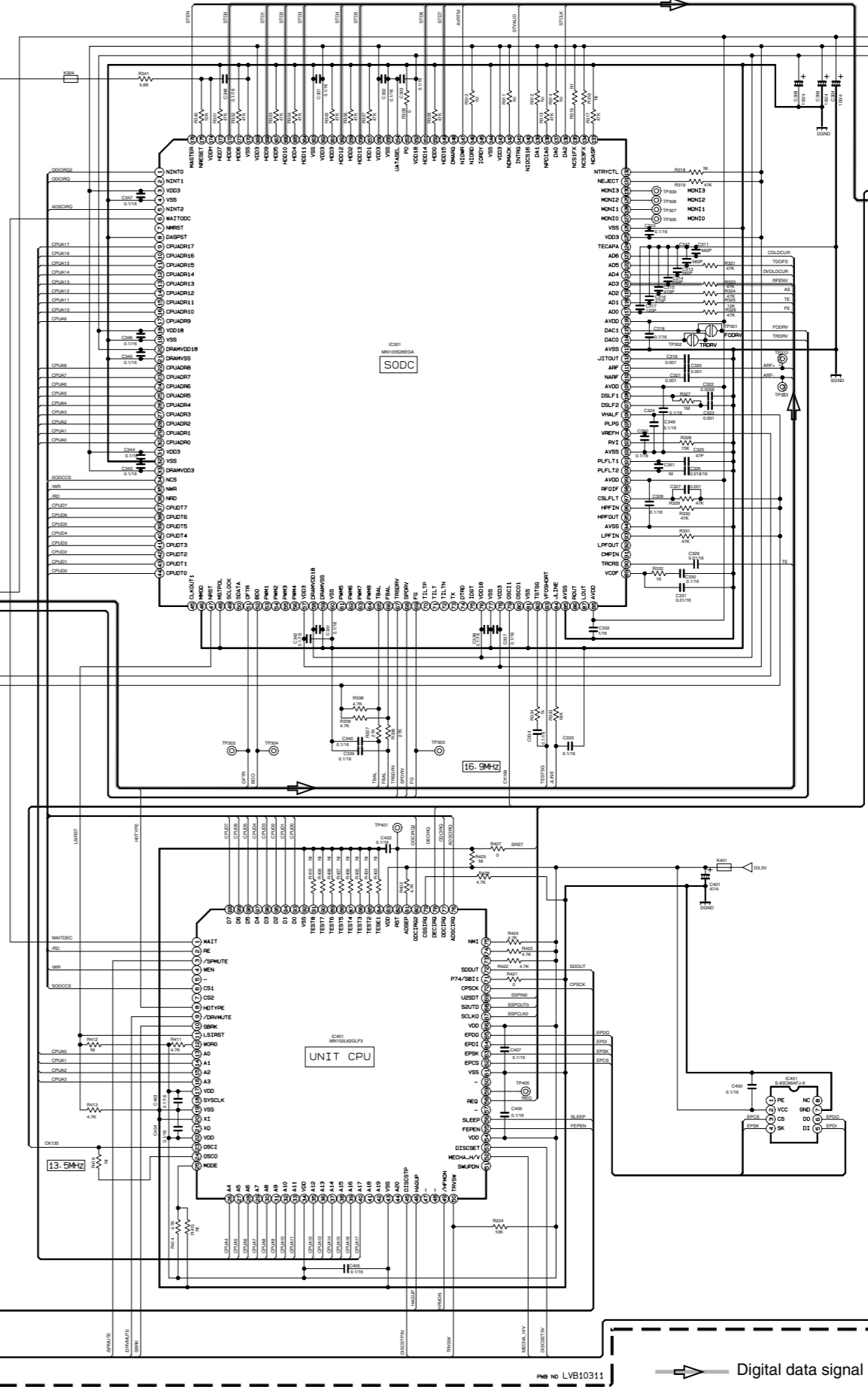
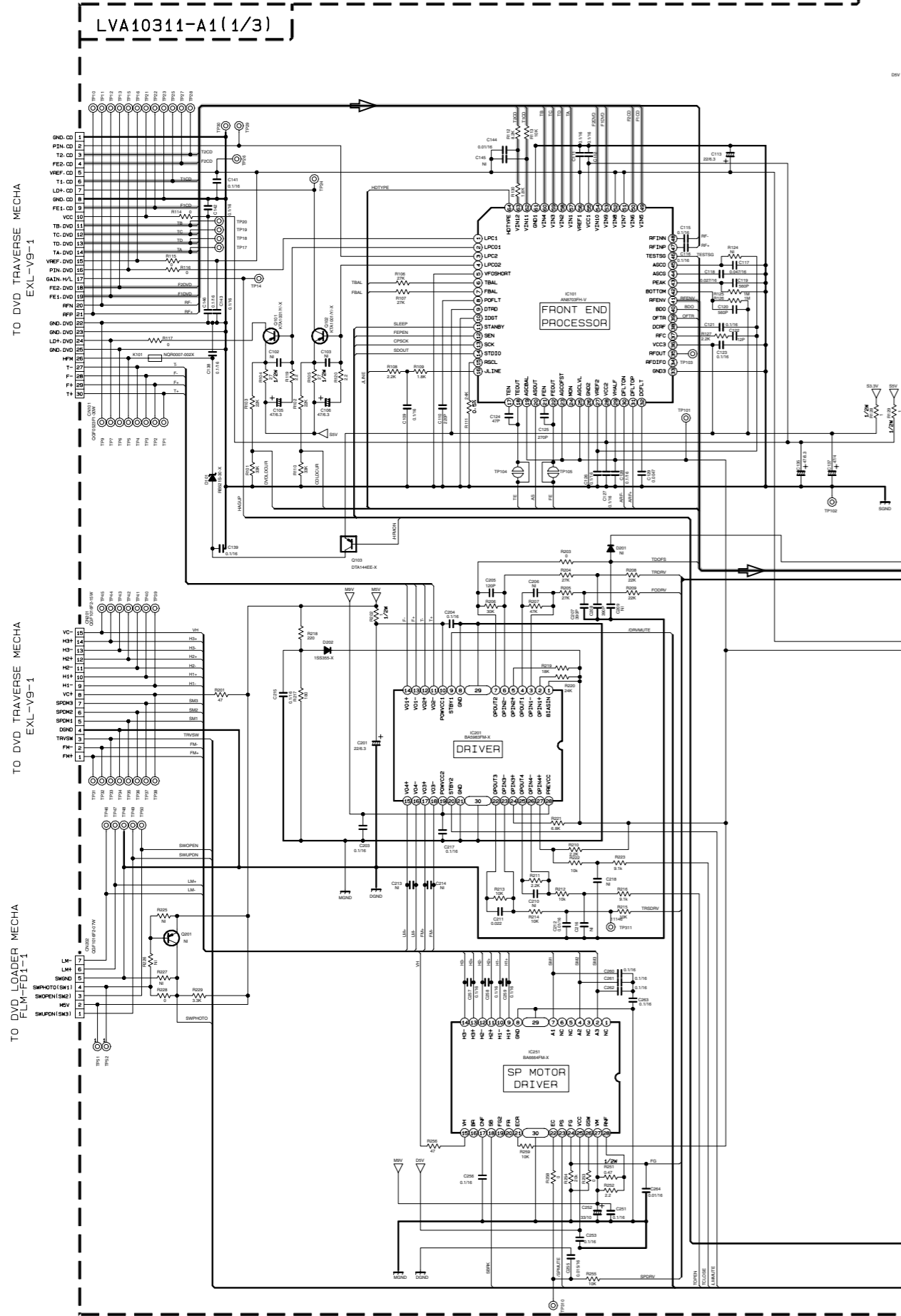
5

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OK135  
OK169  
SRST  
REQ  
DECEN0  
DISCEN0  
DISCEN1  
DISCEN2  
DISCEN3  
DISCEN4  
DISCEN5

(To A-5 on page 2-15)

SKOPEN  
SKPON  
TOPIN  
TOLDR  
V-MUTE  
DISCSTP  
DISCSTV

(To A-1 on page 2-15)

Digital data signal

PWB NO LVB10311



DVD servo section 2/4

LVA10311-A1 (2/3)

To G-5 on page 2-14

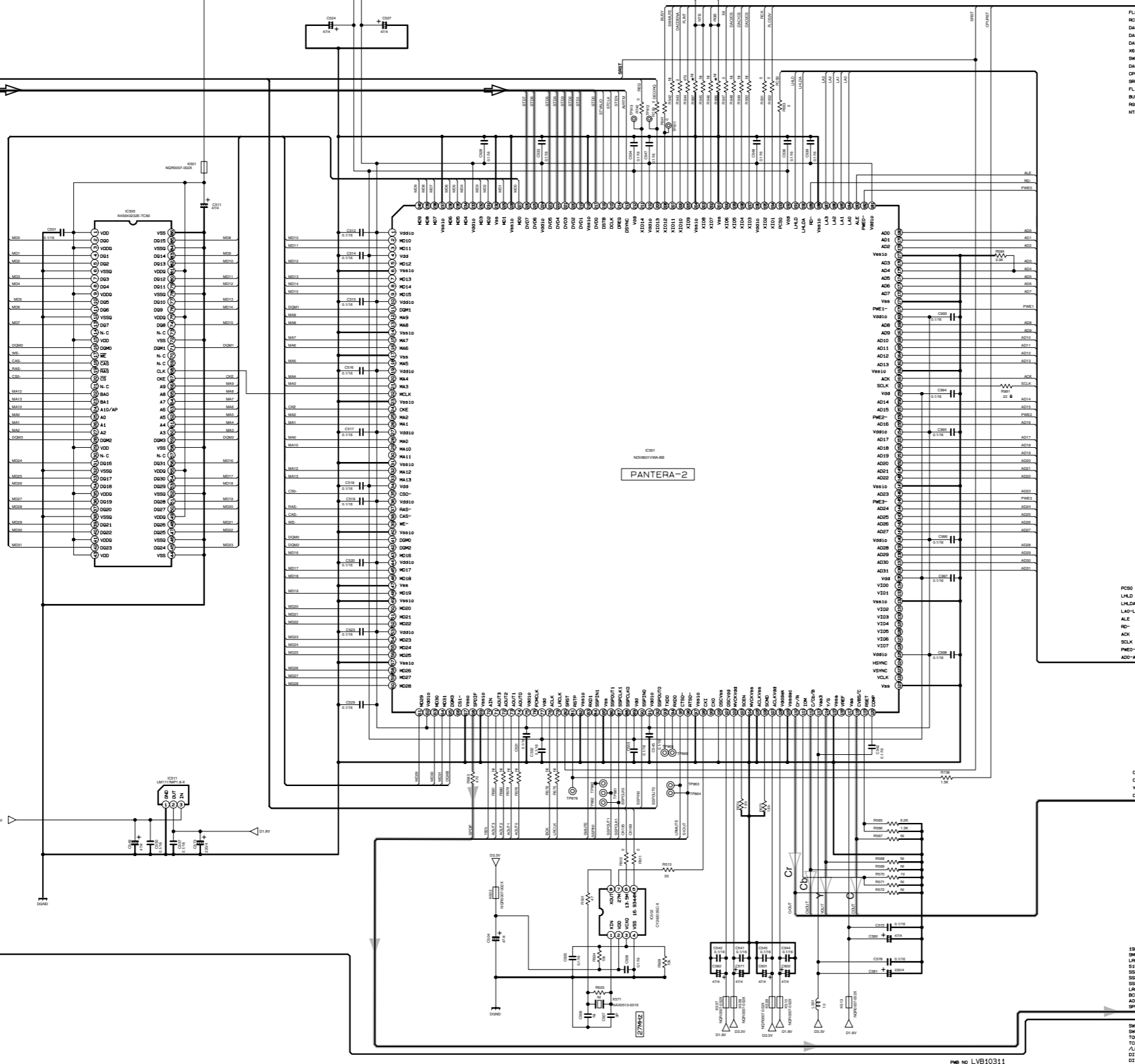
To G-1 on page 2-14

To A-5 on page 2-16

To A-3 on page 2-16

To A-2 on page 2-16

To A-1 on page 2-16

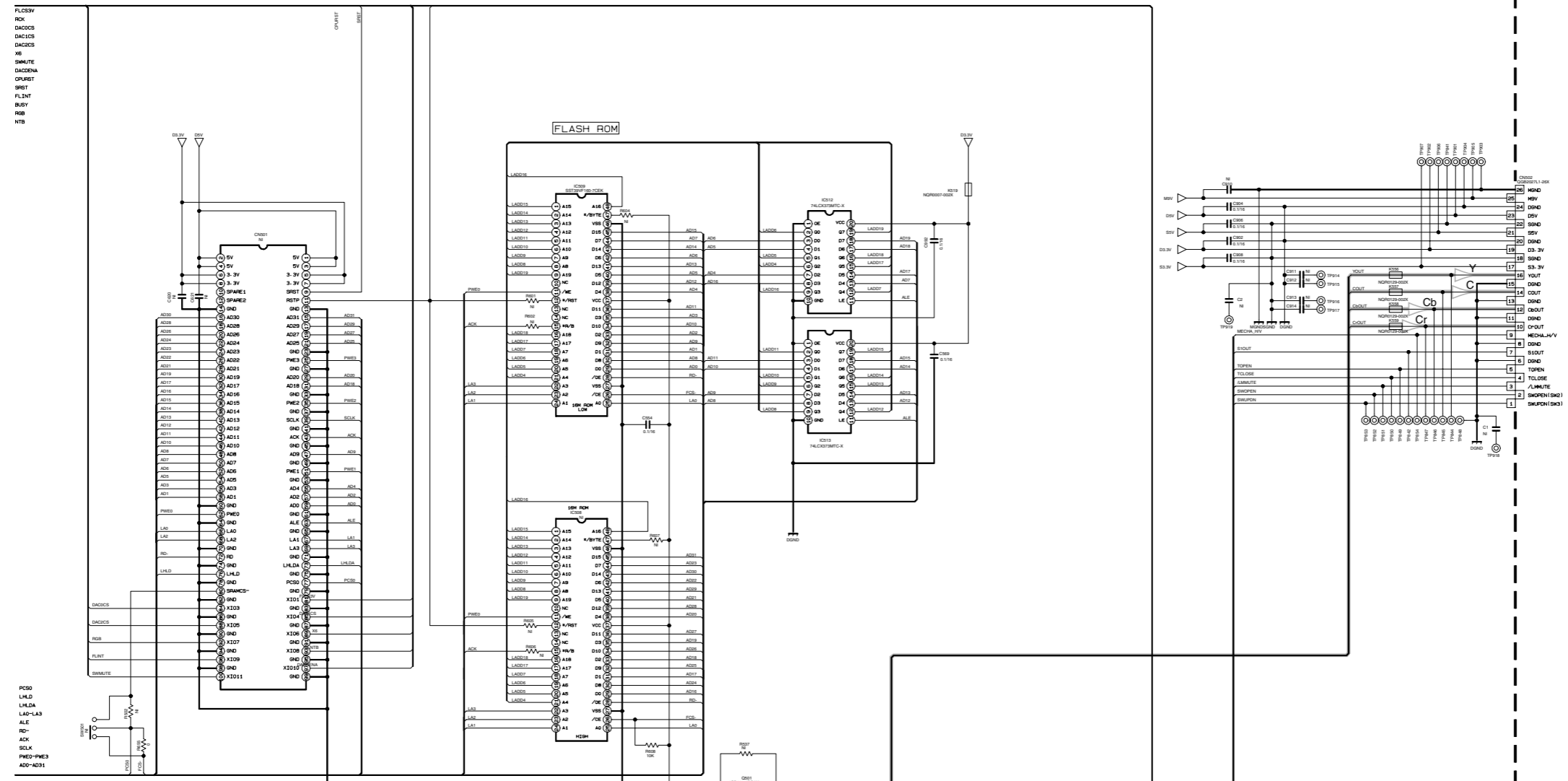


- Digital data signal
- Digital (Audio) signal
- Video (Brightness) signal
- Video (Chrominance) signal
- Video (Component video Cr) signal
- Video (Component video Cb) signal

DVD servo section 3/4

LVA10311-A1(2/3)

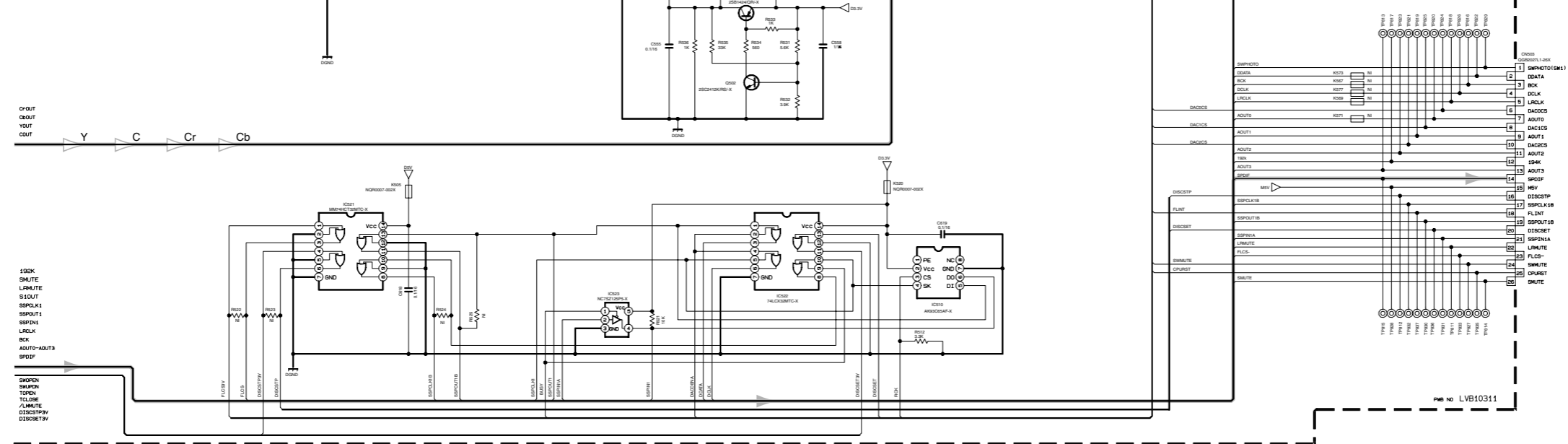
(To F-5 on page 2-15)



(To F-2 on page 2-15)

(To F-2 on page 2-15)

(To F-1 on page 2-15)



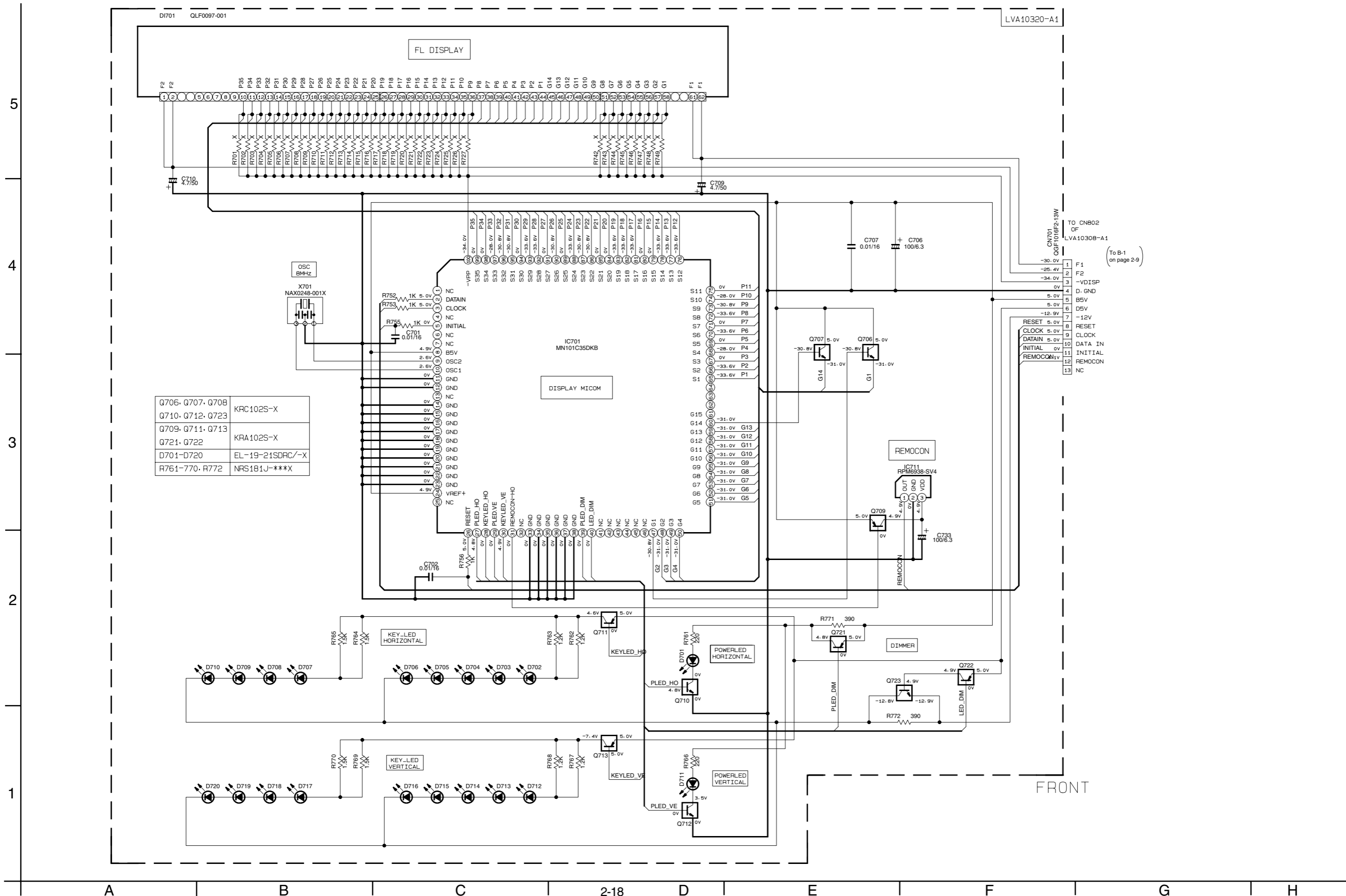
TO MICOM BLOCK TO CNB03 OF LVA1030B-A1 (To A-3 and A-4 on page 2-9)

TO MICOM BLOCK TO CNB01 OF LVA1030B-A1 (To A-4 and A-5 on page 2-9)

Digital (Audio) signal      Video (Chrominance) signal      Video (Component video Cb) signal  
 Video (Brightness) signal      Video (Component video Cr) signal



FL display section



Q706, Q707, Q708	KRC102S-X
Q710, Q712, Q723	KRA102S-X
Q709, Q711, Q713	EL-19-21SDRC/-X
D701-D720	EL-19-21SDRC/-X
R761-770, R772	NRS181J-***X

LVA10320-A1

TO CN802 OF LVA10308-A1

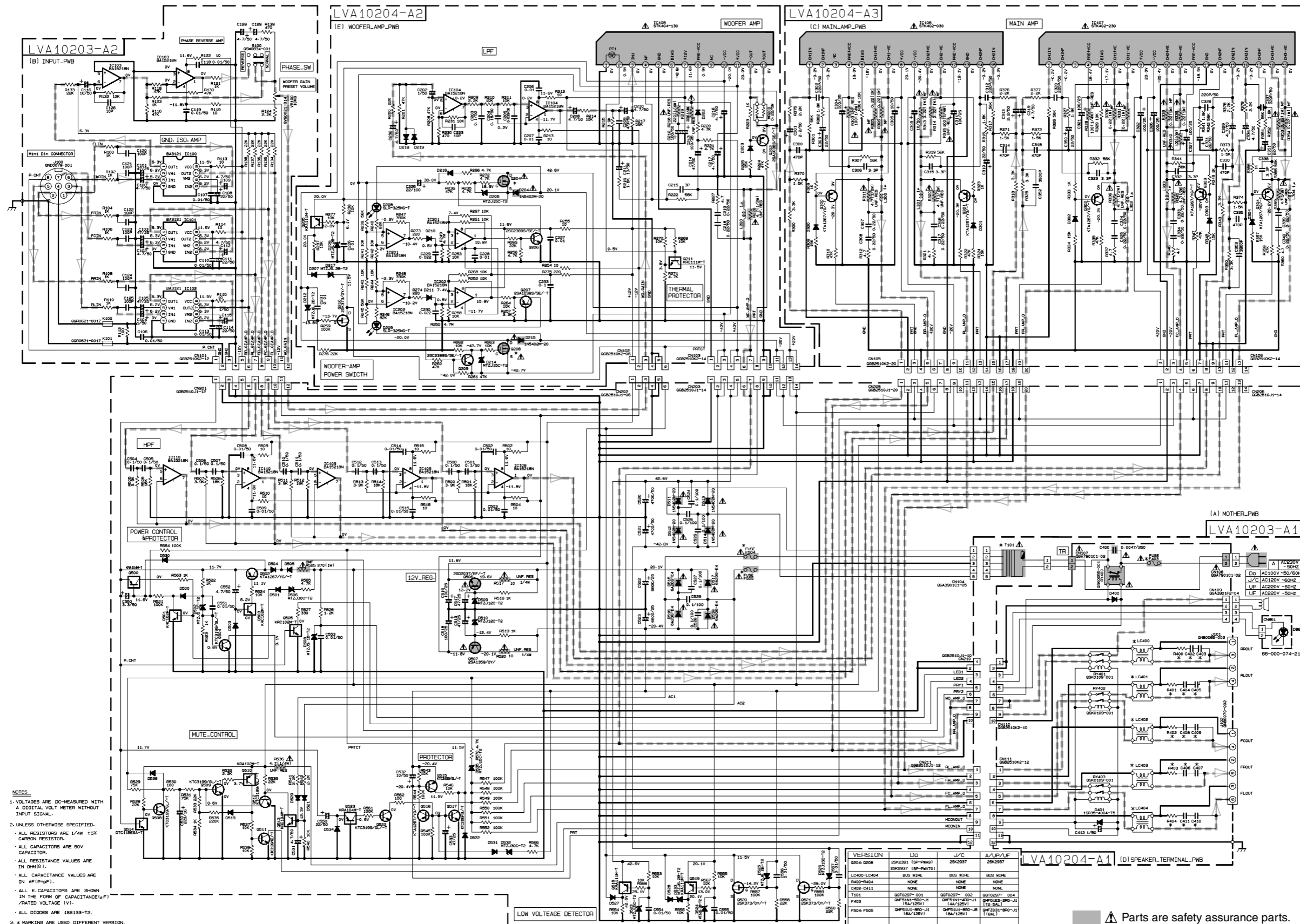
1	F1	-30.0V
2	F2	-28.4V
3	-VDISP	-34.0V
4	D. GND	0V
5	B5V	5.0V
6	D5V	5.0V
7	-12V	-12.0V
8	RESET	5.0V
9	CLOCK	5.0V
10	DATA IN	5.0V
11	INITIAL	0V
12	REMOCON	5.0V
13	NC	

(To B-1 on page 2-9)

FRONT

# <Speaker section>

## ■ Powered subwoofer section (A version)



- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.
  2. UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE 1/4W 1%K CARBON RESISTOR.
  3. ALL CAPACITORS ARE 50V CAPACITOR.
  4. ALL RESISTANCE VALUES ARE IN OHM (Ω).
  5. ALL CAPACITANCE VALUES ARE IN #F(P=PF).
  6. ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF) / RATED VOLTAGE (V).
  7. ALL DIODES ARE 1SS133-T2.
  8. \* MARKING ARE USED DIFFERENT VERSION.

---▶--- Audio signal

▲ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

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A B C D E F G

■ Powered subwoofer section (US/UB/UX version)

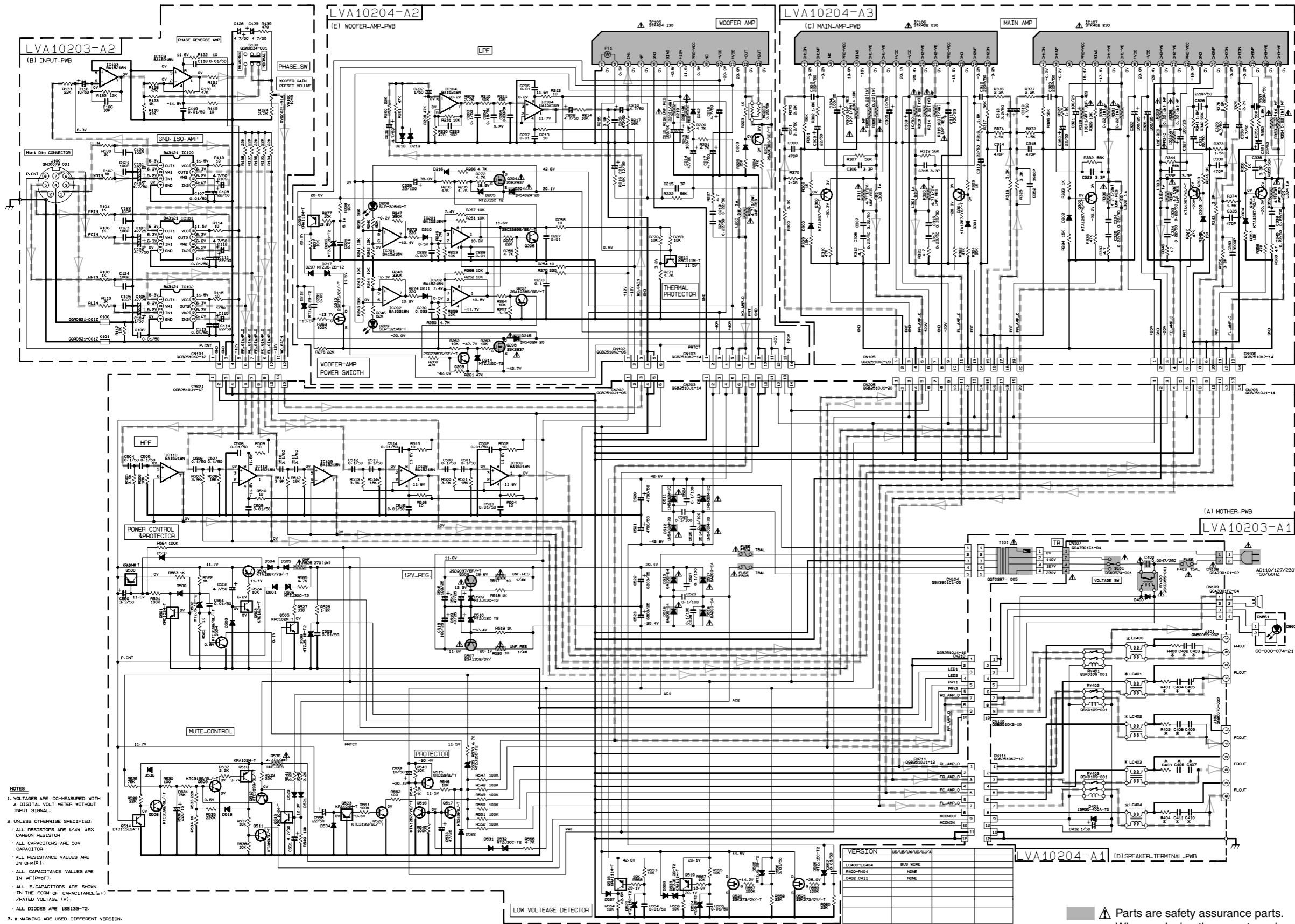
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- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.
  2. UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE 1/4W ±5% CARBON RESISTOR. ALL CAPACITORS ARE 50V CAPACITOR. ALL RESISTANCE VALUES ARE IN OHM (Ω). ALL CAPACITANCE VALUES ARE IN pF (pF). ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF) / RATED VOLTAGE (V). ALL DIODES ARE 1SS133-T2.
  3. \* MARKING ARE USED DIFFERENT VERSION.

VERSION	US/UB/UX/UB/UX	BUS WIRE
LC400-LC404		NONE
R400-R404		NONE
C400-C411		NONE

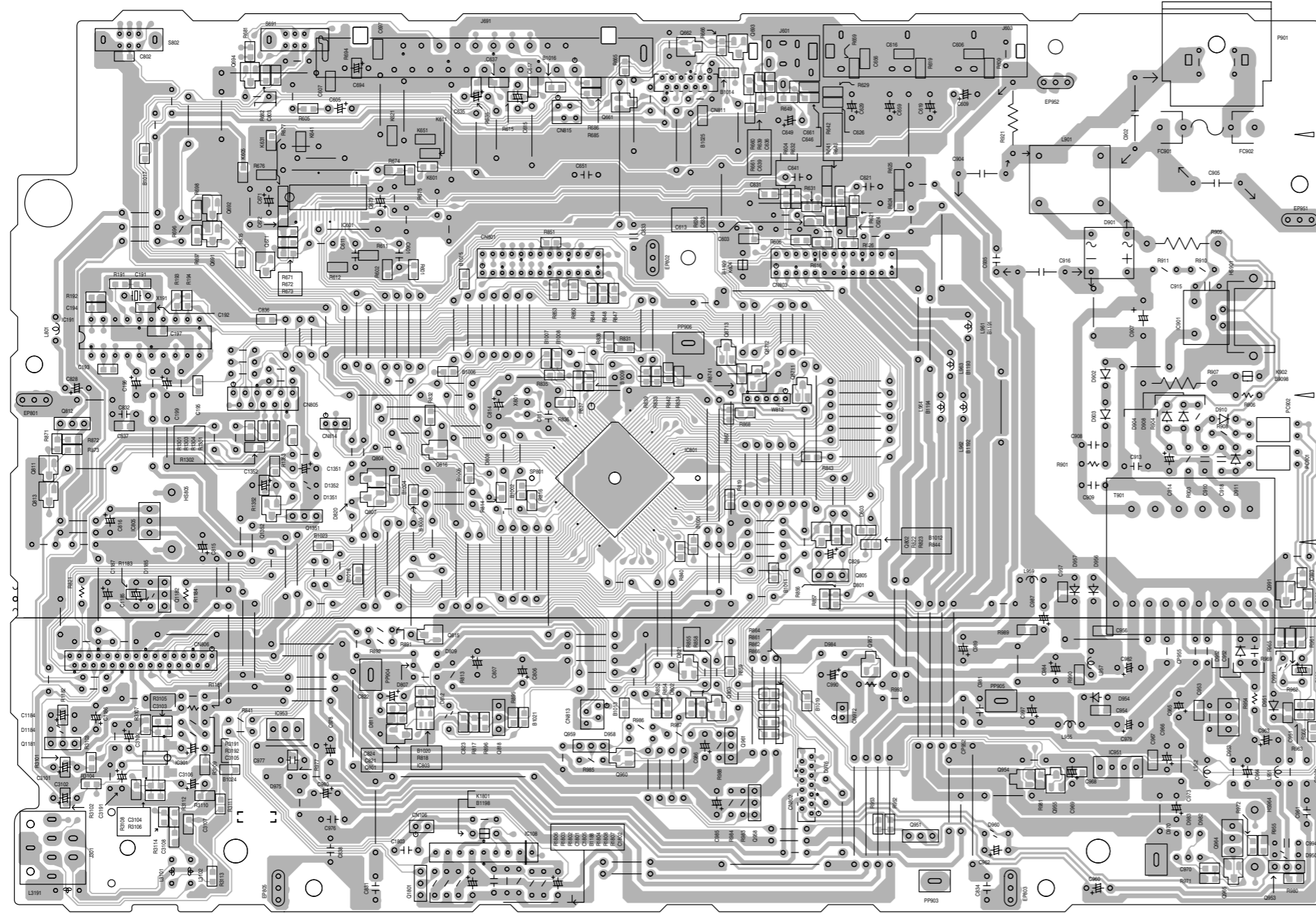
▲ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

---▶--- Audio signal

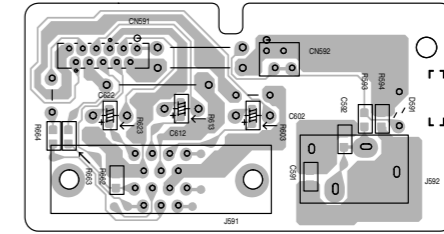
# Printed circuit board <Main body section>

■ Main board

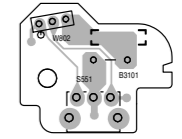
5  
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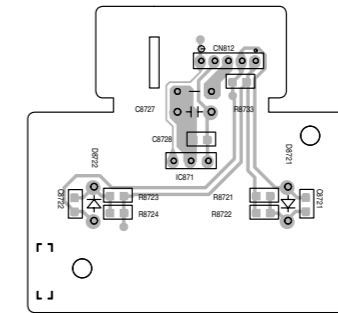
(Main board)



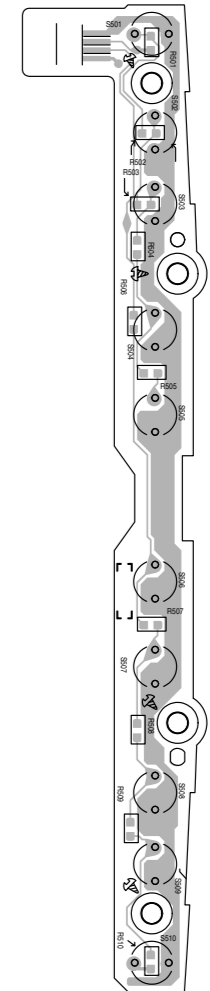
(Compulink board)



(Open/Close board)



(LED board)



(Switch board)

A

B

C

D

E

F

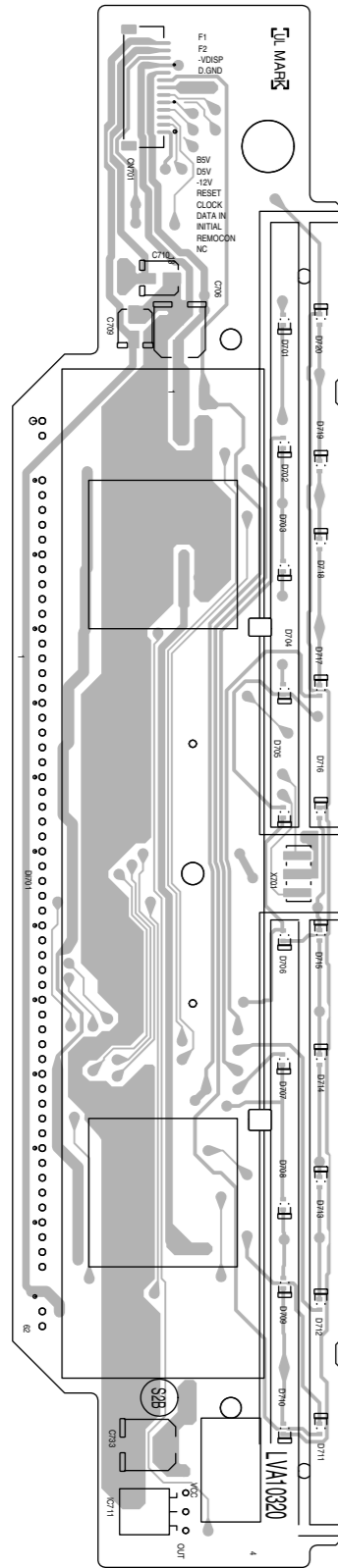
G

FL display board

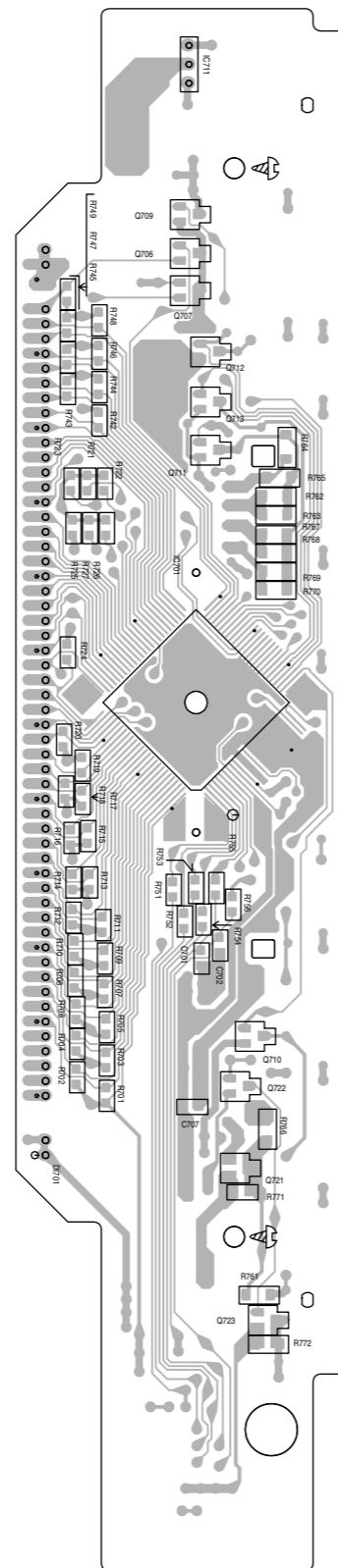
DSP/Audio board

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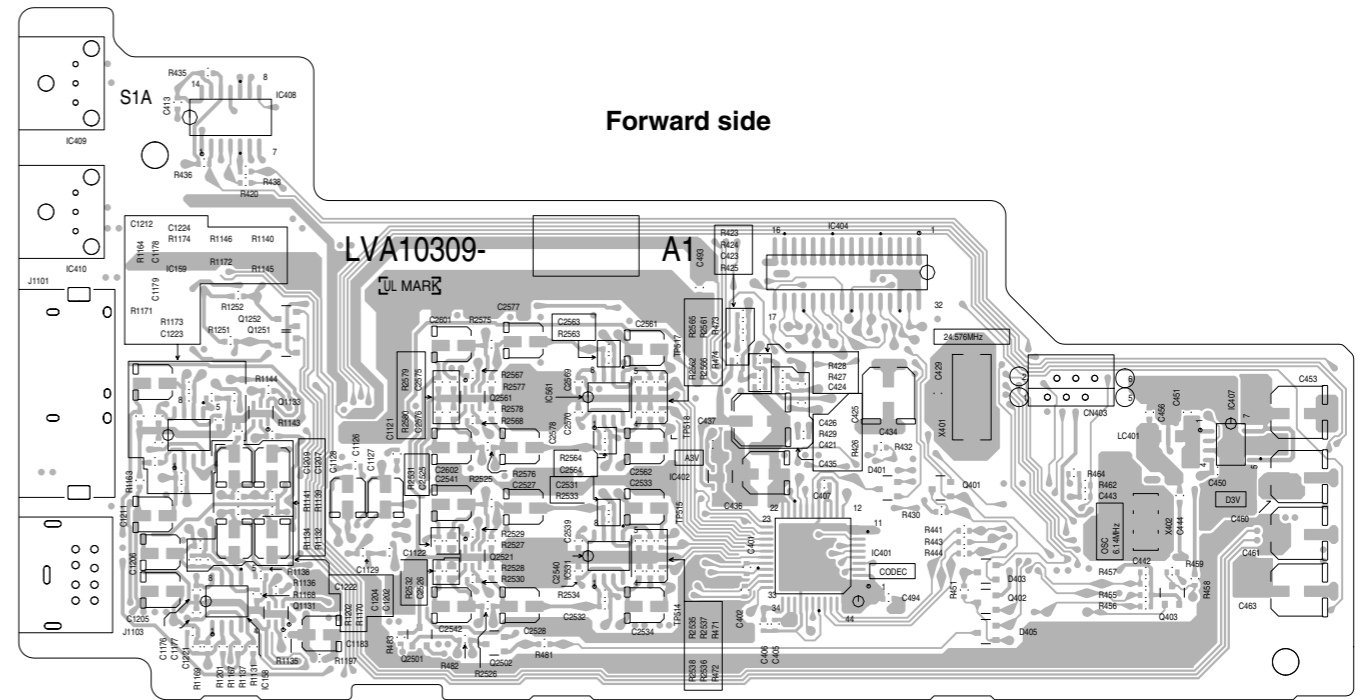
Forward side



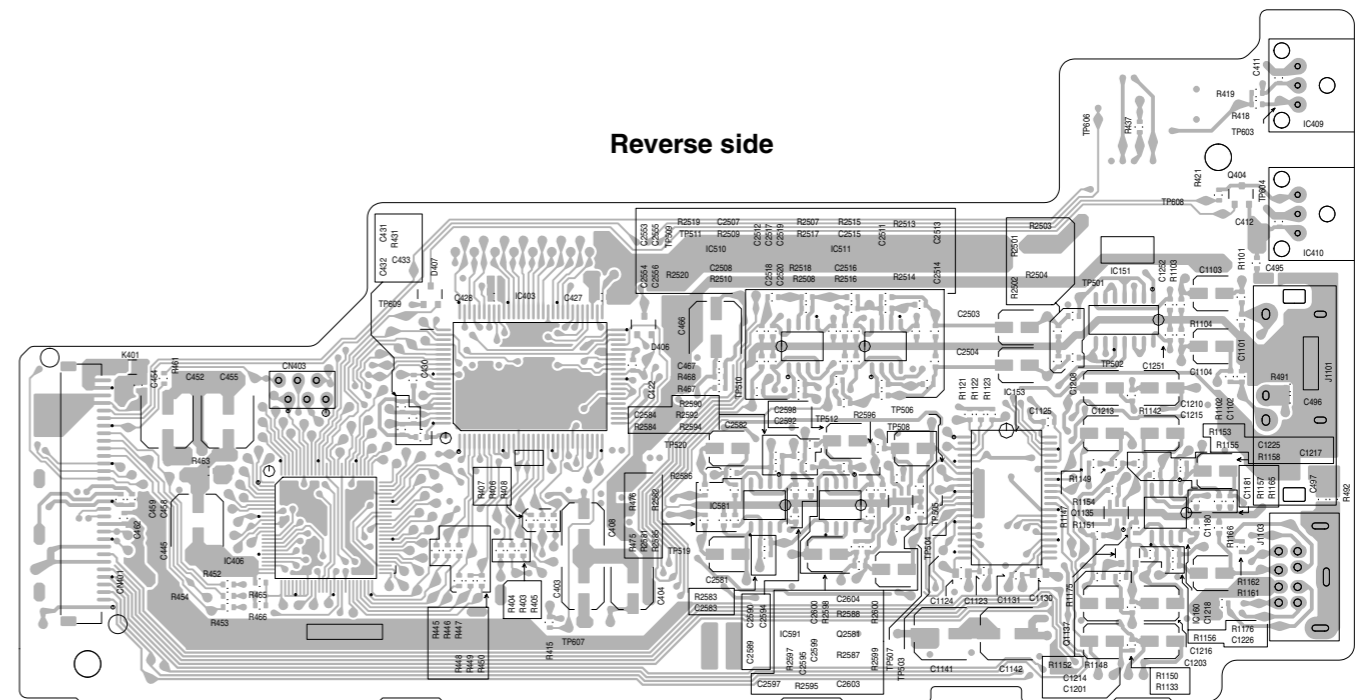
Reverse side



Forward side



Reverse side

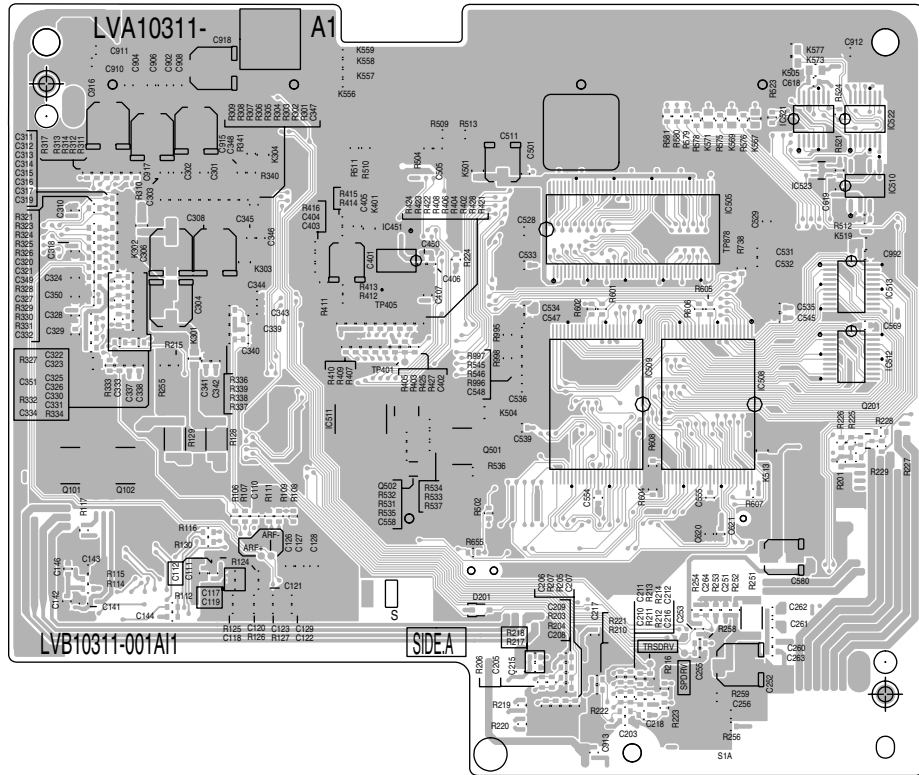


A B C 2-22 D E F G H

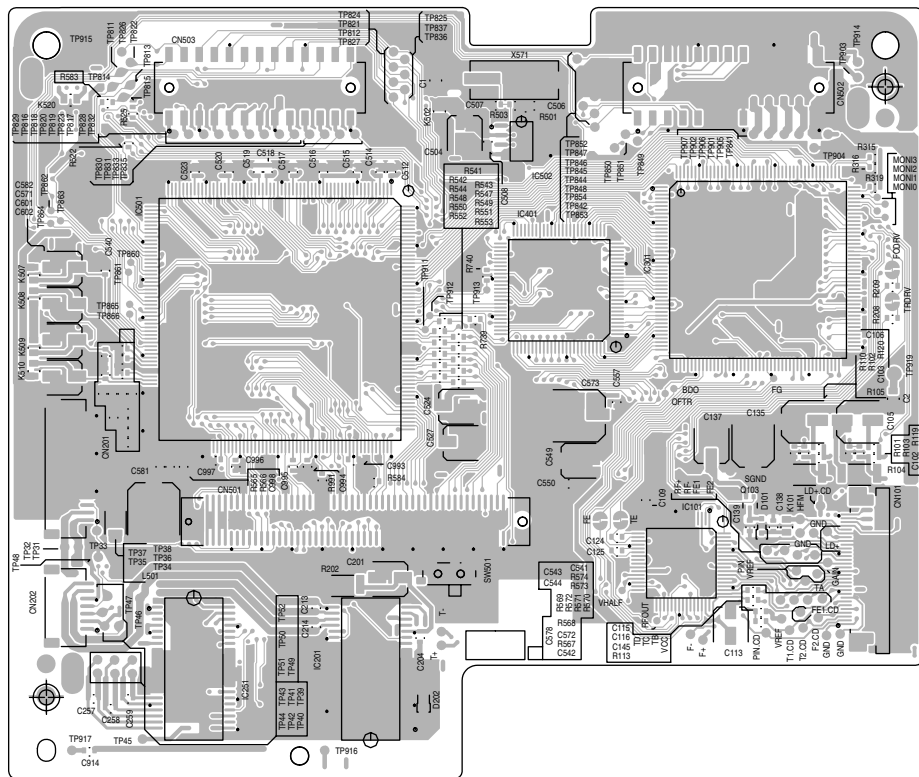


■ DVD servo board

Forward side



Reverse side

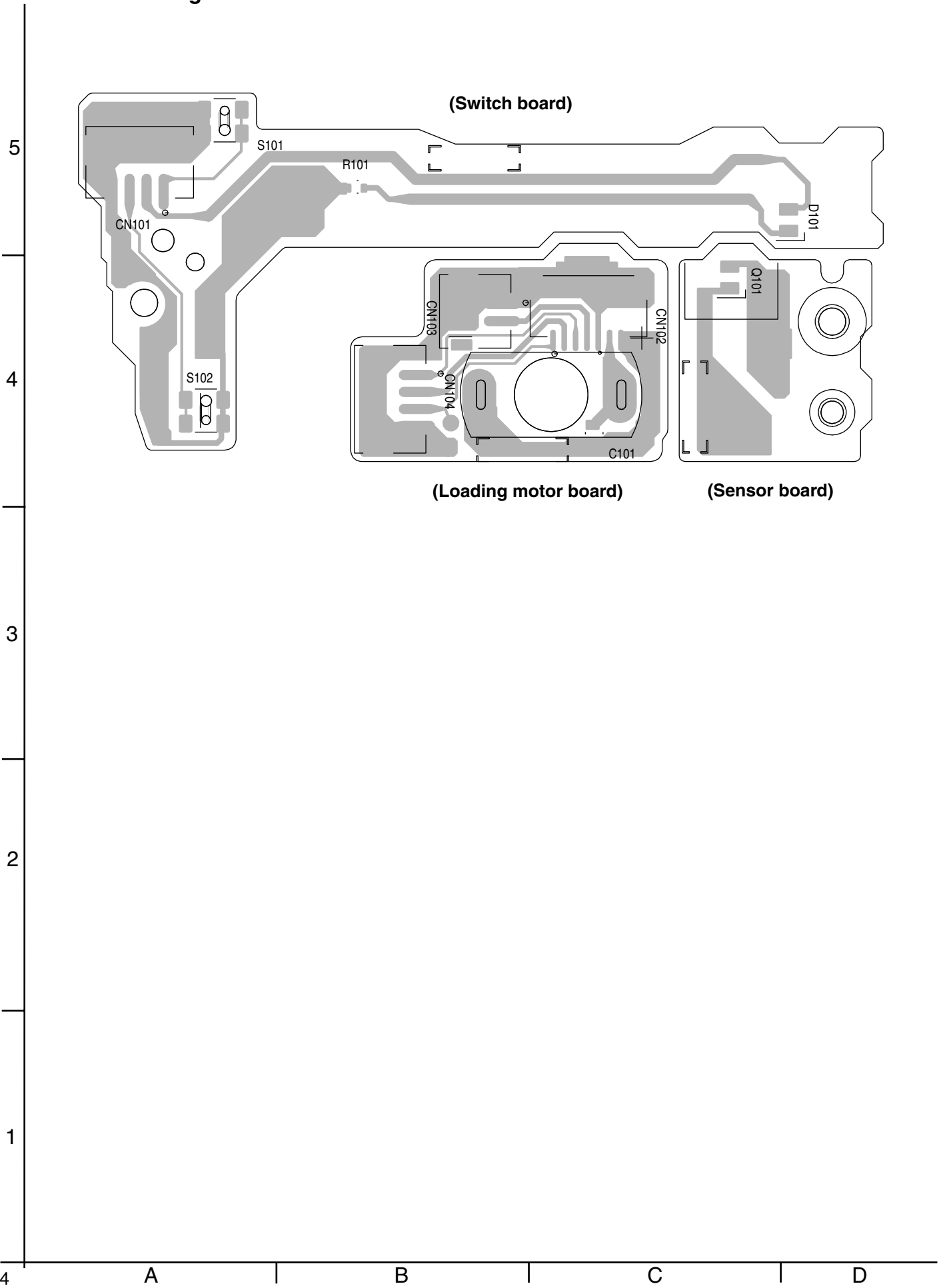


A

B

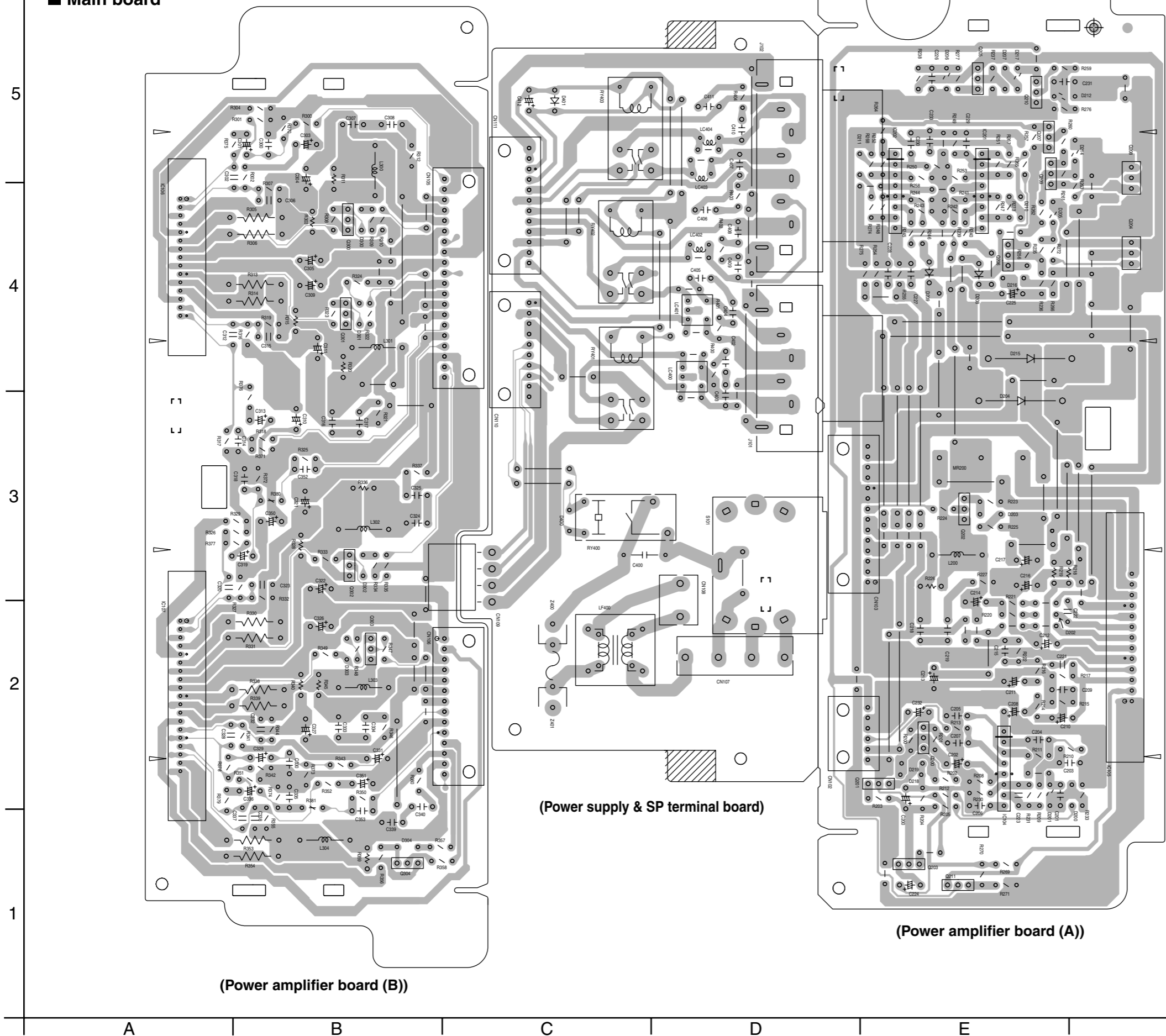
C

■ DVD loading board



<Speaker section>

■ Main board



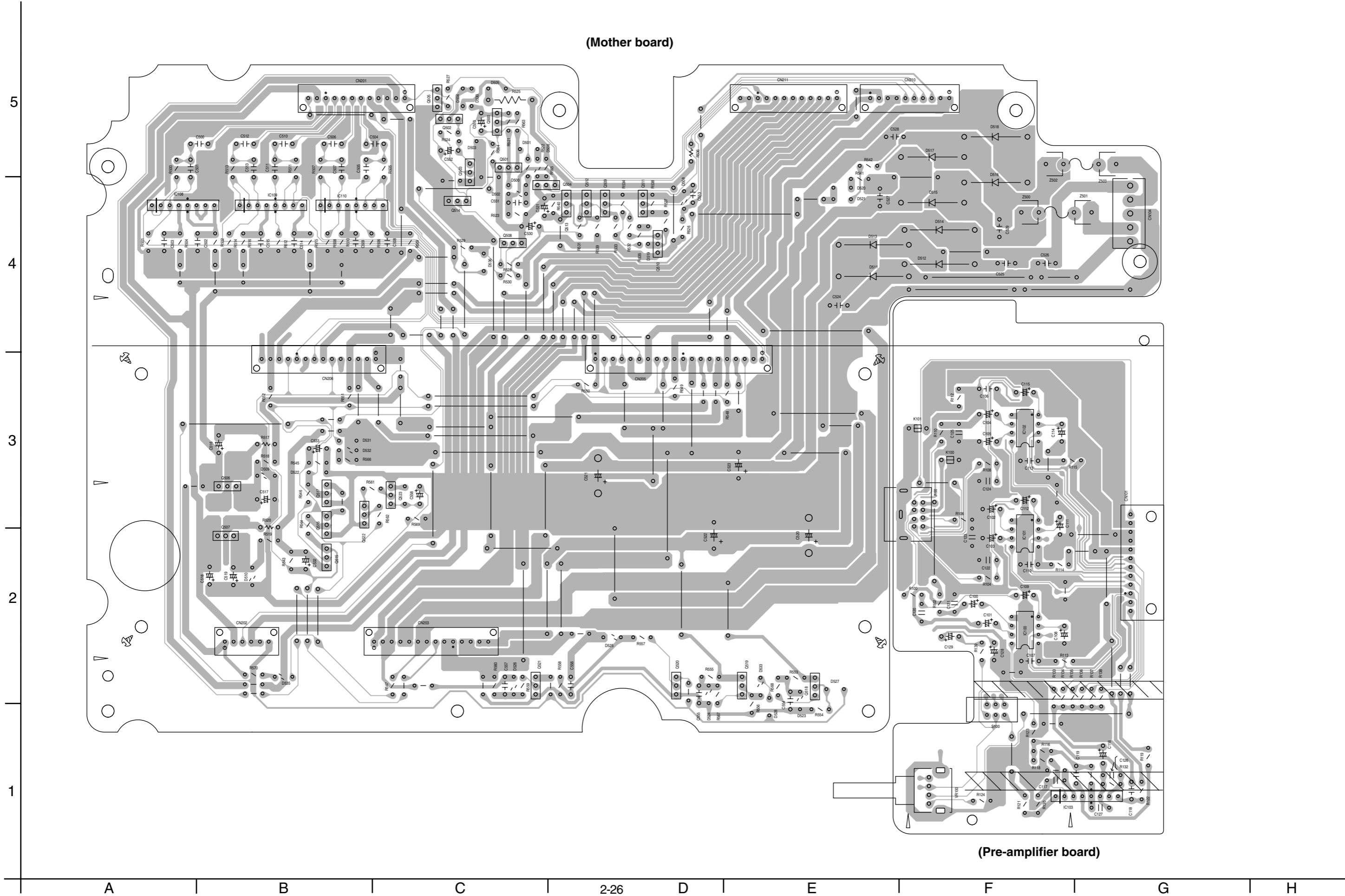
(Power amplifier board (B))

(Power supply & SP terminal board)

(Power amplifier board (A))

■ Sub board

(Mother board)



< MEMO >



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AUDIO & COMMUNICATION BUSINESS DIVISION

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