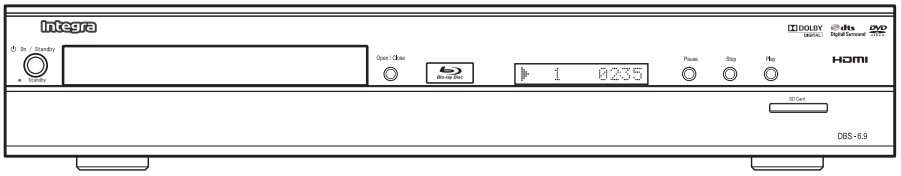
Ref. No. 4116
Oct, 2008

Integra SERVICE MANUAL

BLU-RAY DISC PLAYER
MODEL DBS-6.9



RC-731DV

Black model

BCDD	120V AC, 60Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

TABLE OF CONTENTS

SPECIFICATIONS

General	
Signal system	NTSC color
Power requirements	120V AC, 60Hz
Power consumption	30W (standby: 0.8W)
Dimensions (width x height x depth)	17-1/8 x 3-1/4 x 14-1/8 inches (435 x 82.3 x 359mm)
Weight	9.0 lbs. (4.1kg)
Operating temperature	41°F (5°C) to 104°F (40°C)
Operating humidity	Less than 80% (no condensation)

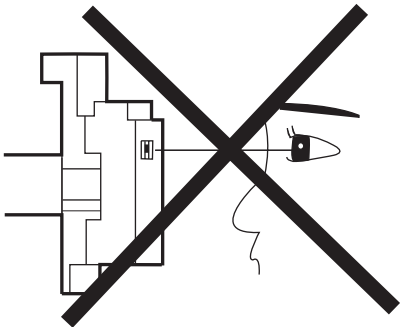
Terminals				
Rear	**Audio output (Analog)**			
	RCA jack x 2	L/R: 2Vrms (output impedance: more than 1kΩ)		
	Video output			
	RCA jack x 1	1Vp-p (75Ω)		
	Component video output			
	RCA jack x 3	Y: 1Vp-p (75Ω)	P_B: 700mVp-p (75Ω)	P_R: 700mVp-p (75Ω)
	Audio output (Digital)			
	RCA jack x 1	500mVp-p (75Ω)		
	Optical jack x 1	Digital connector		
	HDMI output			
	HDMI jack x 1	Video: 480p, 720p, 1080i, 1080p, 1080p24 / Audio		

Note

- The specifications and design of this product are subject to change without notice.

LASER BEAM SAFETY PRECAUTIONS

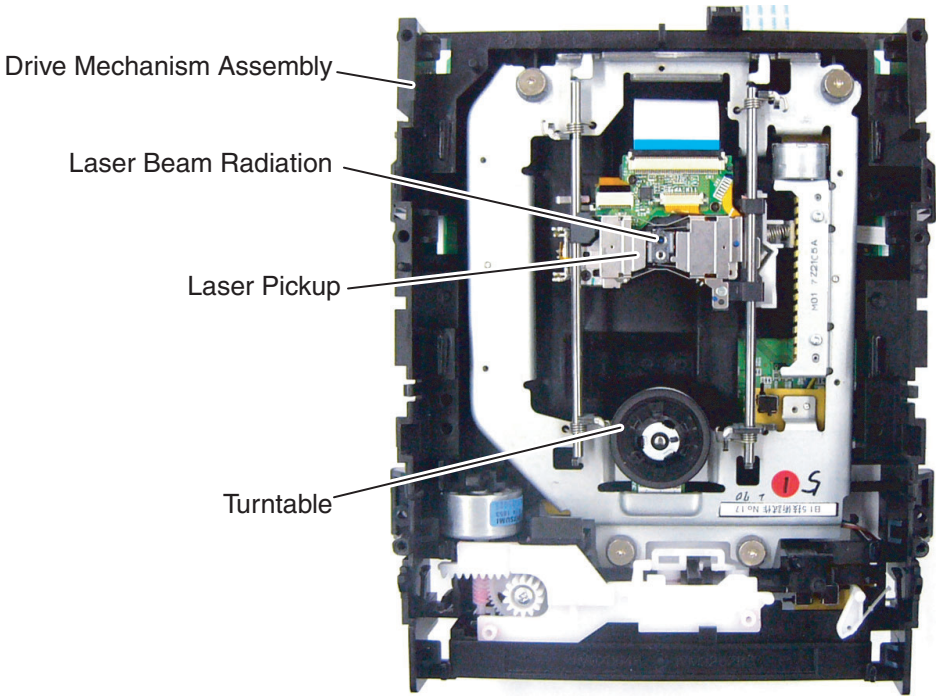
This BD player uses a pickup that emits a laser beam.



Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 30 cm away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.

CAUTION: Use of controls and adjustments, or doing procedures other than those specified herein, may result in hazardous radiation exposure.



Location: Inside Top of BD mechanism.

IMPORTANT SAFETY PRECAUTIONS

Product Safety Notice

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by a ⚠ on schematics and in parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards. The Product's Safety is under review continuously and new instructions are issued whenever appropriate. Prior to shipment from the factory, our products are carefully inspected to confirm with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

Precautions during Servicing

A. Parts identified by the ⚠ symbol are critical for safety. Replace only with part number specified.

B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements. Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.

C. Use specified internal wiring. Note especially:

1) Wires covered with PVC tubing
2) Double insulated wires
3) High voltage leads

D. Use specified insulating materials for hazardous live parts. Note especially:

1) Insulation tape
2) PVC tubing
3) Spacers
4) Insulators for transistors

E. When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.

F. Observe that the wires do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).

G. Check that replaced wires do not contact sharp edges or pointed parts.

H. When a power cord has been replaced, check that 5 - 6 kg of force in any direction will not loosen it.

I. Also check areas surrounding repaired locations.

J. Be careful that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

K. When connecting or disconnecting the internal connectors, first, disconnect the AC plug from the AC outlet.

Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts, and wires have been returned to their original positions. Afterwards, do the following tests and confirm the specified values to verify compliance with safety standards.

1. Clearance Distance

When replacing primary circuit components, confirm specified clearance distance (d) and (d') between soldered terminals, and between terminals and surrounding metallic parts. (See Fig. 1)

Table 1: Ratings for selected area

AC Line Voltage	Clearance Distance (d), (d')
120 V	≥ 3.2 mm (0.126 inches)

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

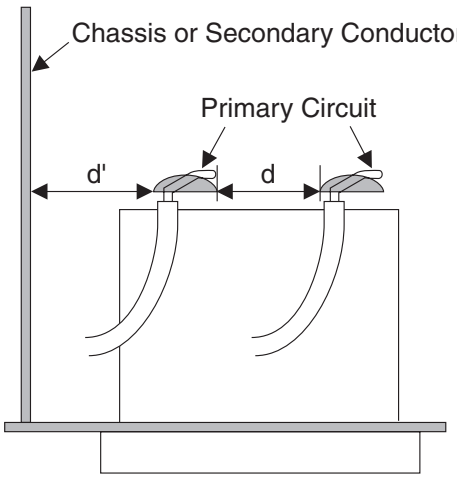


Fig. 1

2. Leakage Current Test

Confirm the specified (or lower) leakage current between B (earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.) is lower than or equal to the specified value in the table below.

Measuring Method (Power ON):

Insert load Z between B (earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across the terminals of load Z. See Fig. 2 and the following table.

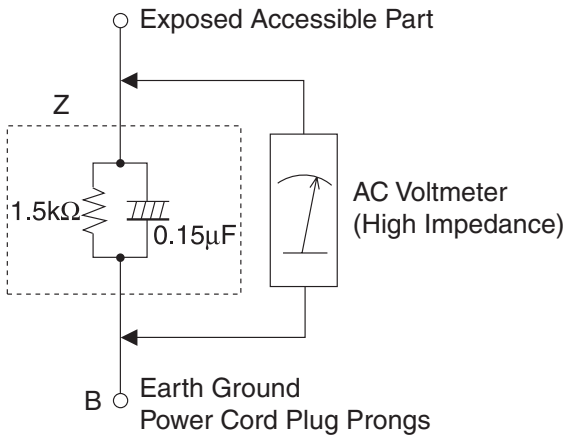


Fig. 2

Table 2: Leakage current ratings for selected areas

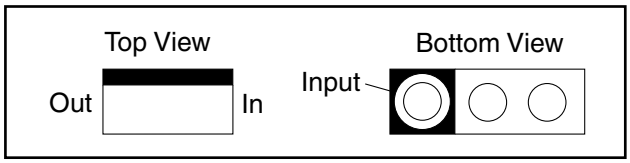
AC Line Voltage	Load Z	Leakage Current (i)	Earth Ground (B) to:
120 V	0.15 μF CAP. & 1.5 kΩ RES. Connected in parallel	i ≤ 0.5 mA Peak	Exposed accessible parts

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

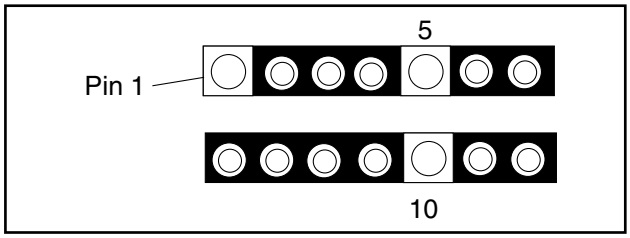
STANDARD NOTES FOR SERVICING

Circuit Board Indications

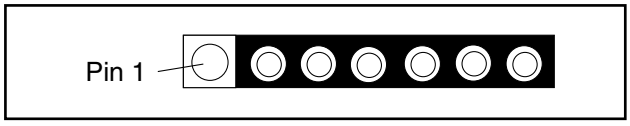
1. The output pin of the 3 pin Regulator ICs is indicated as shown.



2. For other ICs, pin 1 and every fifth pin are indicated as shown.

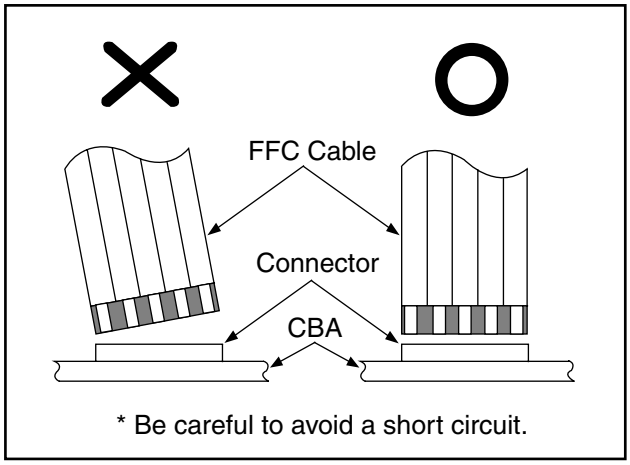


3. The 1st pin of every male connector is indicated as shown.



Instructions for Connectors

1. When you connect or disconnect the FFC (Flexible Foil Connector) cable, be sure to first disconnect the AC cord.
2. FFC (Flexible Foil Connector) cable should be inserted parallel into the connector, not at an angle.



Pb (Lead) Free Solder

When soldering, be sure to use the Pb free solder.

How to Remove / Install Flat Pack-IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:

1. Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)

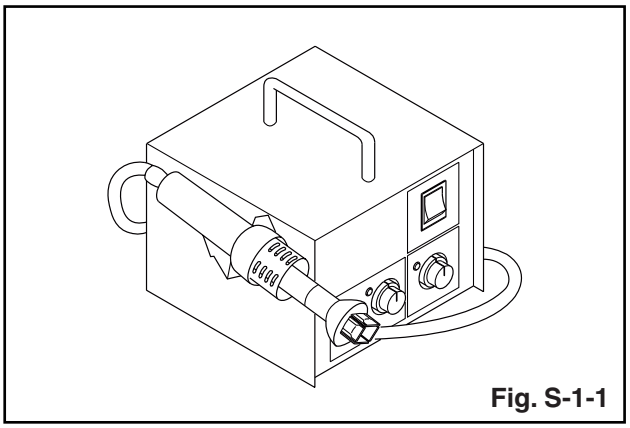


Fig. S-1-1

2. Remove the flat pack-IC with tweezers while applying the hot air.
3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

CAUTION:

1. The Flat Pack-IC shape may differ by models. Use an appropriate hot-air flat pack-IC desoldering machine, whose shape matches that of the Flat Pack-IC.
2. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)

3. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

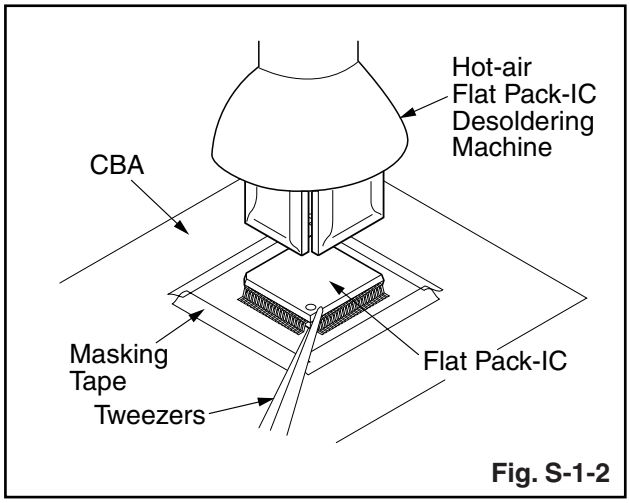


Fig. S-1-2

With Soldering Iron:

1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

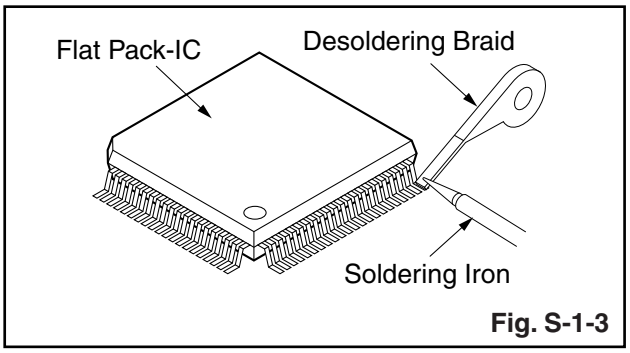


Fig. S-1-3

2. Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig. S-1-4)

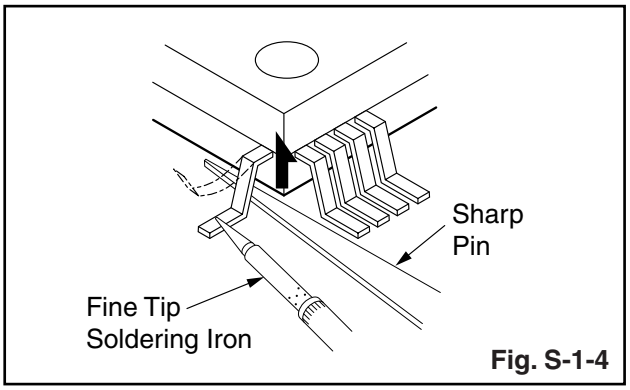


Fig. S-1-4

3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

With Iron Wire:

1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)
2. Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.
3. While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5.
4. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
5. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Note: When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.

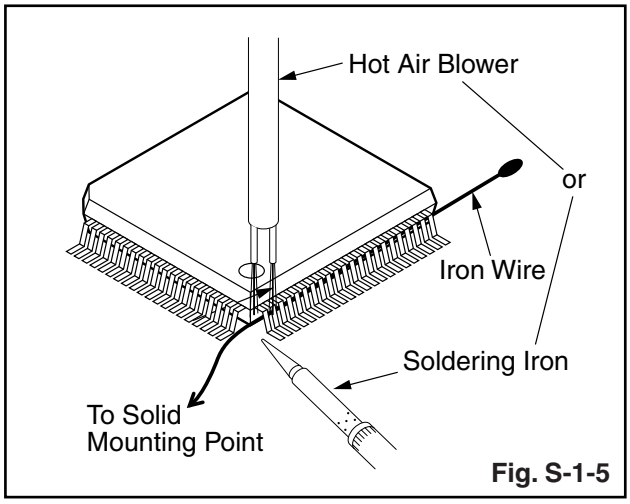


Fig. S-1-5

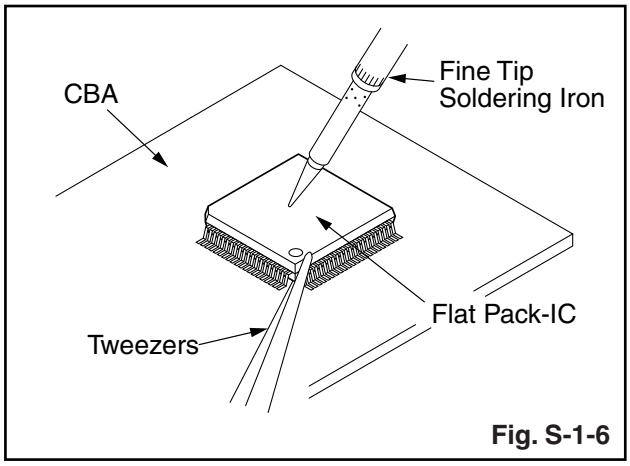


Fig. S-1-6

2. Installation

1. Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.
2. The "●" mark on the flat pack-IC indicates pin 1. (See Fig. S-1-7.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig. S-1-8.)
3. Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.

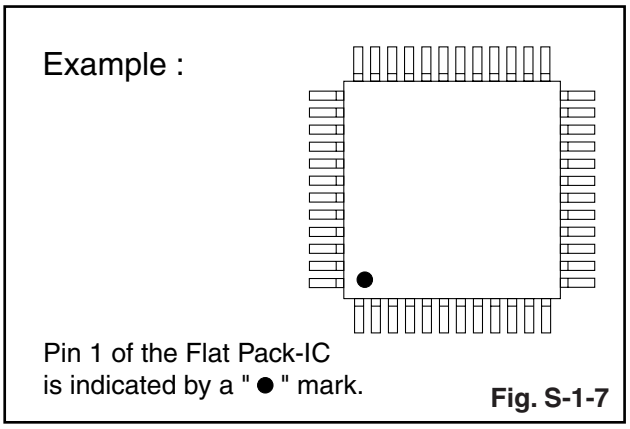


Fig. S-1-7

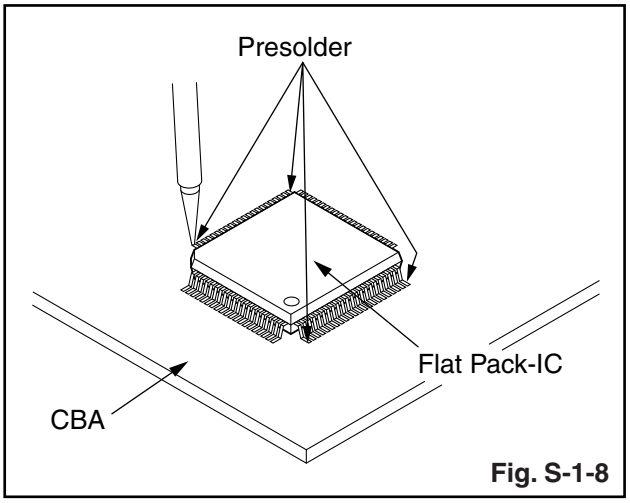


Fig. S-1-8

Instructions for Handling Semi-conductors

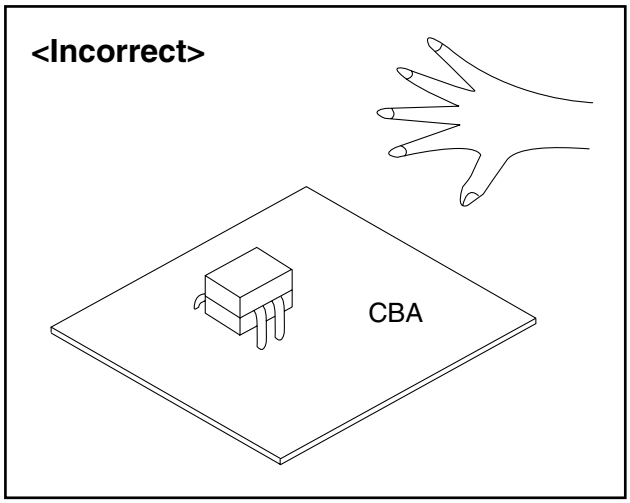
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

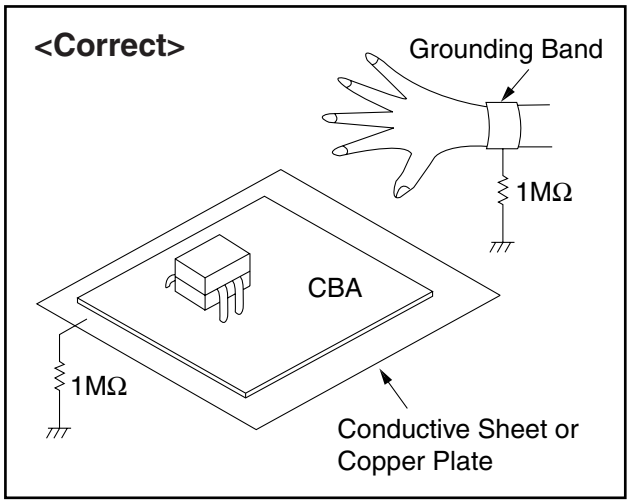
1. Ground for Human Body

Be sure to wear a grounding band (1 MΩ) that is properly grounded to remove any static electricity that may be charged on the body.

2. Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding (1 MΩ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors with your clothing.

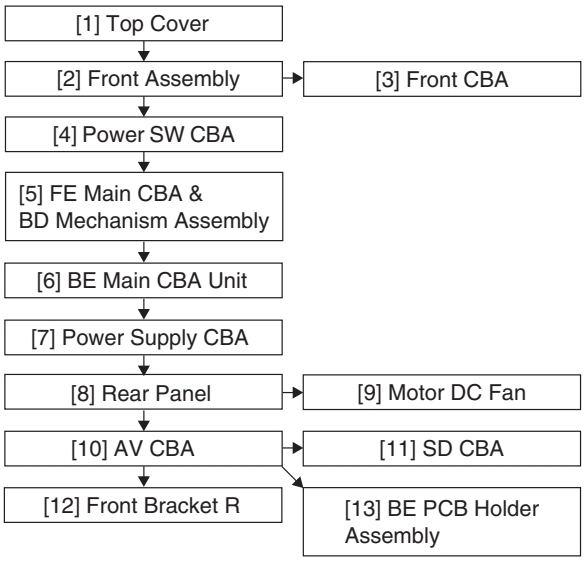




CABINET DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

This flowchart indicates the disassembly steps to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route, and dress the cables as they were originally.



2. Disassembly Method

ID/ Loc. No.	Part	Removal		
		Fig. No.	Remove/*Unhook/ Unlock/Release/ Unplug/Desolder	Note
[1]	Top Cover	D1	6(S-1)	---
[2]	Front Assembly	D2	*5(L-1), *3(L-2), (S-2), *CN2001	1
[3]	Front CBA	D2	4(S-3), *CN3001	---
[4]	Power SW CBA	D2	(S-4), PCB Cover	---
[5]	FE Main CBA & BD Mechanism Assembly	D3	4(S-5), *CN2601, *CN6401	2
[6]	BE Main CBA Unit	D3	(S-6), (S-7), *CN7001, *CN7401, *CN7602, Locking Card Spacers	---
[7]	Power Supply CBA	D4	4(S-8), (S-9), 2(S-10), *CN2600, Power PCB Holder	---
[8]	Rear Panel	D5	3(S-11), 4(S-12), *CN2004	---
[9]	Motor DC Fan	D5	2(S-13)	---
[10]	AV CBA	D5	5(S-14), (S-15)	---
[11]	SD CBA	D5	2(S-16), (S-17), SD Card Holder	---
[12]	Front Bracket R	D5	(S-18)	---
[13]	BE PCB Holder Assembly	D5	(S-19)	---
		↓ (3)	↓ (4)	↓ (5)
		↓ (1)	↓ (2)	

Note:

(1) Identification (location) No. of parts in the figures

(2) Name of the part

(3) Figure Number for reference

(4) Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.
P = Spring, L = Locking Tab, S = Screw,
CN = Connector
* = Unhook, Unlock, Release, Unplug, or Desolder
e.g. 2(S-2) = two Screws (S-2),
2(L-2) = two Locking Tabs (L-2)

(5) Refer to “Reference Notes.”

Reference Notes

1. **CAUTION 1:** Locking Tabs (L-1) and (L-2) are fragile. Be careful not to break them.
2. The FE Main CBA & BD Mechanism Assembly is adjusted as a unit at factory. Therefore, do not disassemble it. Replace the FE Main CBA & BD Mechanism Assembly as a unit.

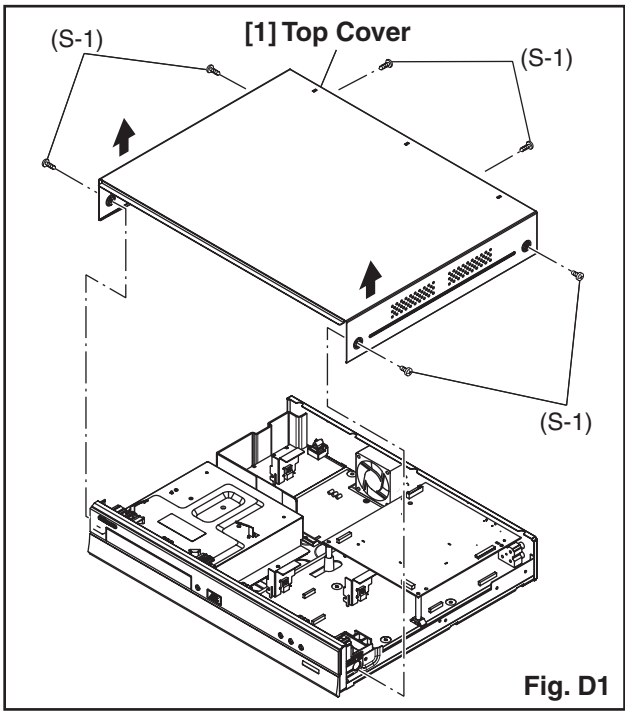


Fig. D1

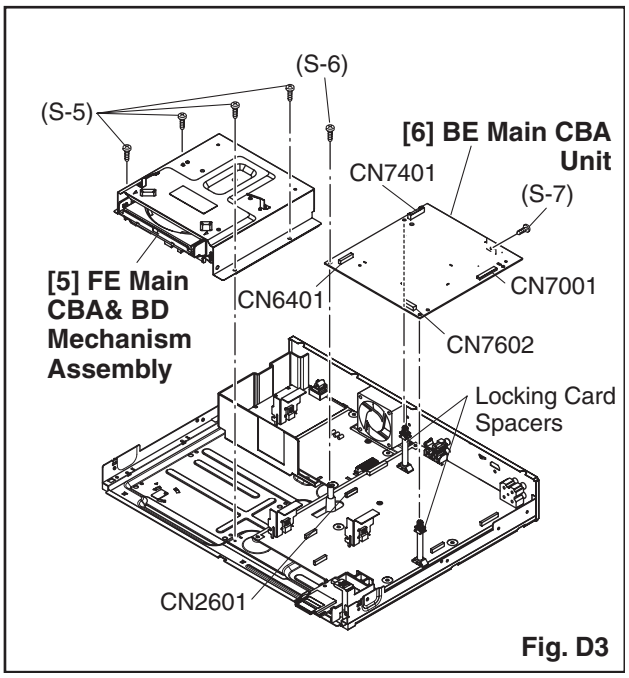


Fig. D3

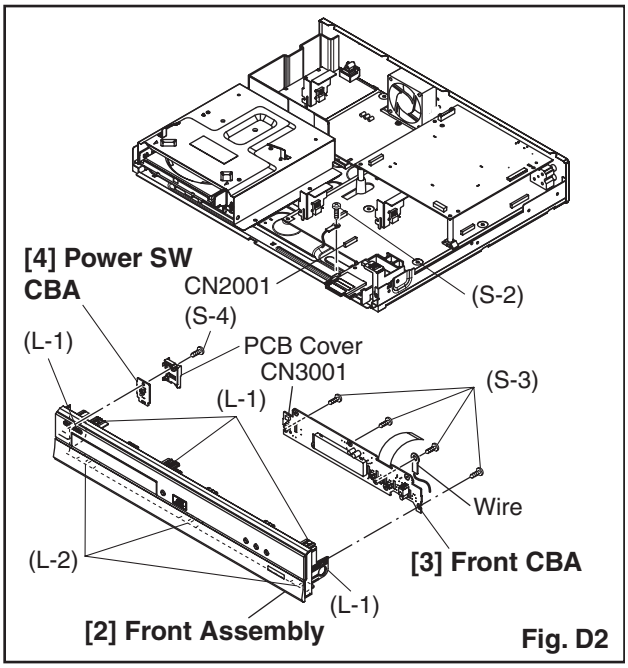


Fig. D2

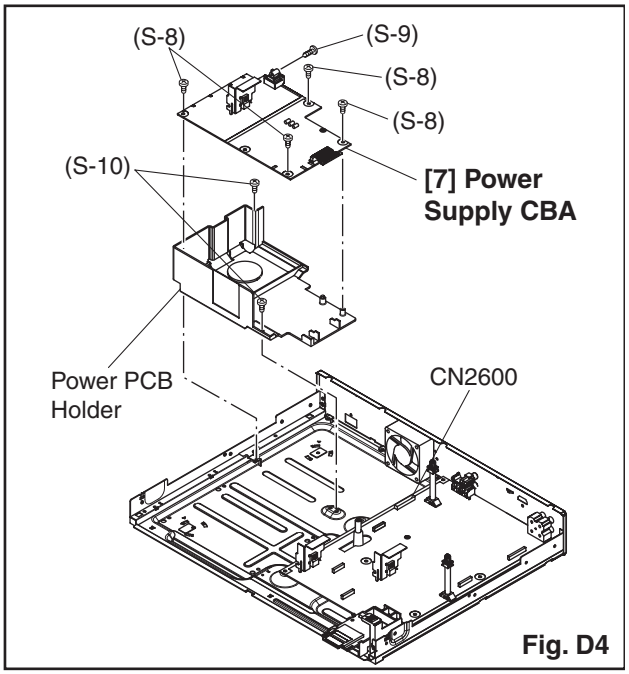


Fig. D4

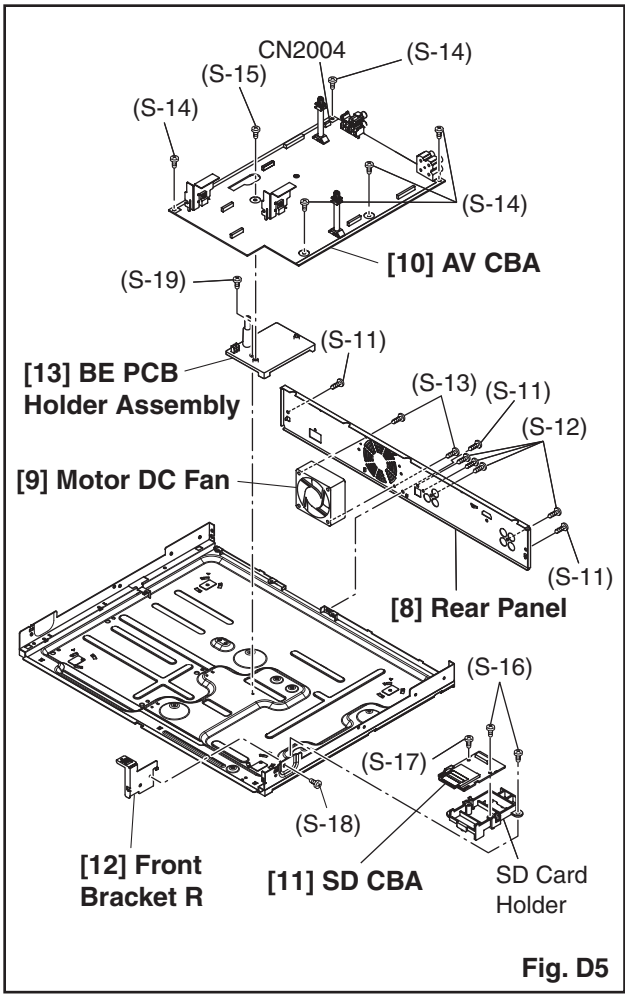
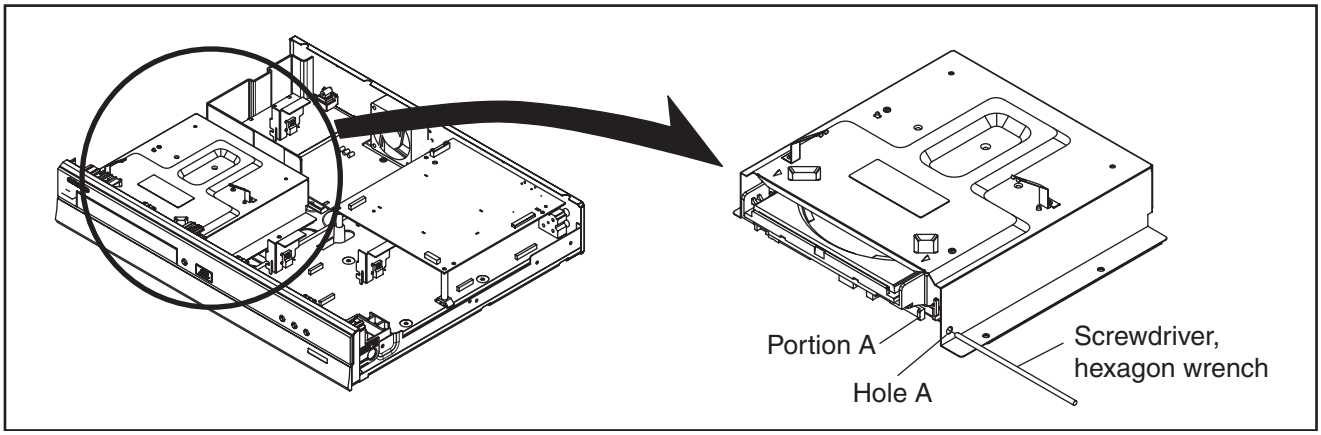


Fig. D5

3. How to Eject Manually

1. Remove the Top Cover.
2. Insert a screwdriver, etc. into the Hole A straightly so that the Portion A is pushed.
3. Pull the tray out manually and remove a disc.



HOW TO INITIALIZE THE BLU-RAY DISC PLAYER

To put the program back at the factory-default, initialize the BD player as the following procedure.

1. Turn the power on.
2. Remove the disc on the tray and close the tray.
3. Press [1], [2], [3], [4], and [DISPLAY] buttons on the remote control unit in that order.
   Fig. a appears on the screen.

"*******" differ depending on the models.

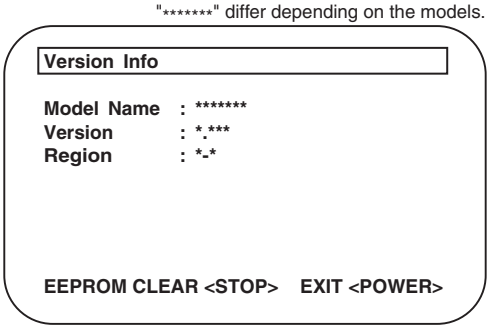


Fig. a

4. Press [STOP] button on the remote control unit.
   Fig. b appears on the screen and Fig. c appears on the VFD.

"*******" differ depending on the models.

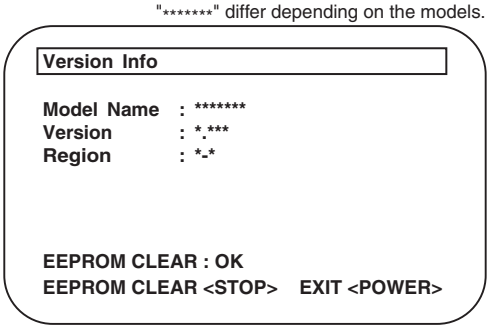


Fig. b

Fig. c

5. To exit this mode, press [ON/STANDBY] button.

FIRMWARE RENEWAL MODE

1. Turn the power on and remove the disc on the tray.
2. To put the BD player into version up mode, press [9], [8], [7], [6], and [POP UP MENU/MENU] buttons on the remote control unit in that order. The tray will open automatically. Fig. a appears on the screen and Fig. b appears on the VFD.

"*******" differs depending on the models.

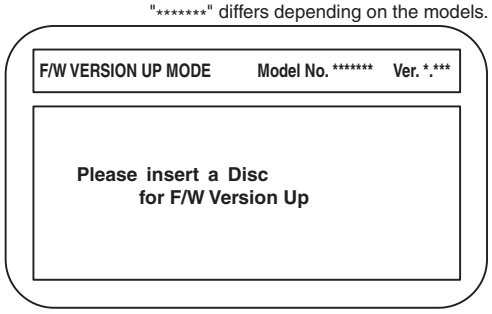


Fig. a Version Up Mode Screen

Fig. b VFD in Version Up Mode

The BD player can also enter the version up mode with the tray open. In this case, Fig. a will be shown on the screen while the tray is open.

3. Load the disc for version up.
4. The BD player enters the F/W version up mode automatically. Fig. c appears on the screen and Fig. d appears on the VFD. If you enter the F/W for different models, “Disc Error” will appear on the screen, then the tray will open automatically.

"*******" differs depending on the models.

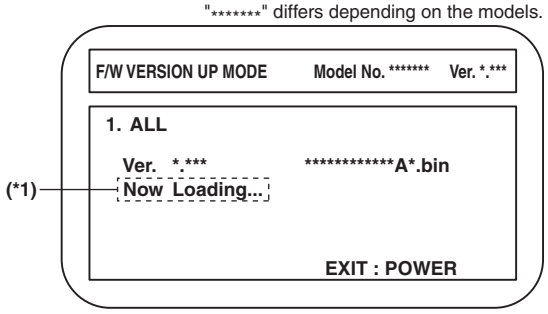


Fig. c Programming Mode Screen (Example)

Fig. d VFD in Programming Mode (Example)

The appearance shown in (*1) of Fig. c is described as follows:

No.	Appearance	State
1	Now Loading...	Loading the disc
2	Reading...	Sending files into the memory. After reading, automatically the tray opens.
3	Remove the Disc	Reading has finished. Remove the disc and close the tray.
4	See FL Display	Writing new version data, the progress will be displayed as shown in Fig. e.

Fig. e VFD in Version Up Mode

5. After programming is finished, the checksum on the VFD (Fig. f).

Fig. f VFD upon Finishing the Programming Mode (Example)

At this time, no button is available.

6. Unplug the AC cord from the AC outlet. Then plug it again.
7. Turn the power on.
8. Press [1], [2], [3], [4], and [DISPLAY] buttons on the remote control unit in that order. Fig. g appears on the screen.

"*******" differ depending on the models.

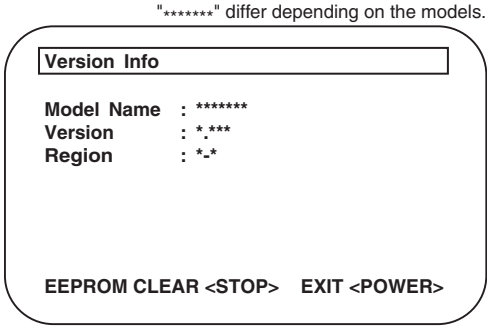


Fig. g

9. Press [STOP] button on the remote control unit. Fig. h appears on the screen and Fig. i appears on the VFD.

"*******" differ depending on the models.

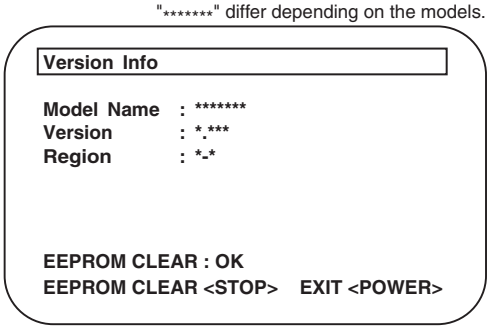


Fig. h

Fig. i

10. To exit this mode, press [ON/STANDBY] button.

How to Verify the Firmware Version

1. Turn the power on.
2. Remove the disc on the tray and close the tray.
3. Press [1], [2], [3], [4], and [DISPLAY] buttons on the remote control unit in that order. Fig. j appears on the screen.

"*******" differ depending on the models.

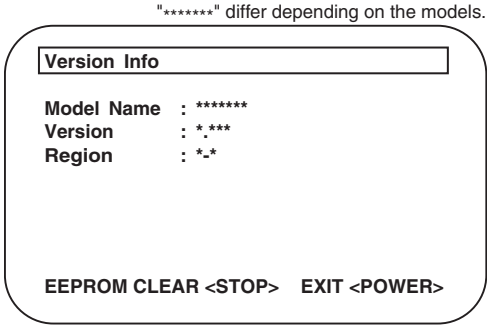
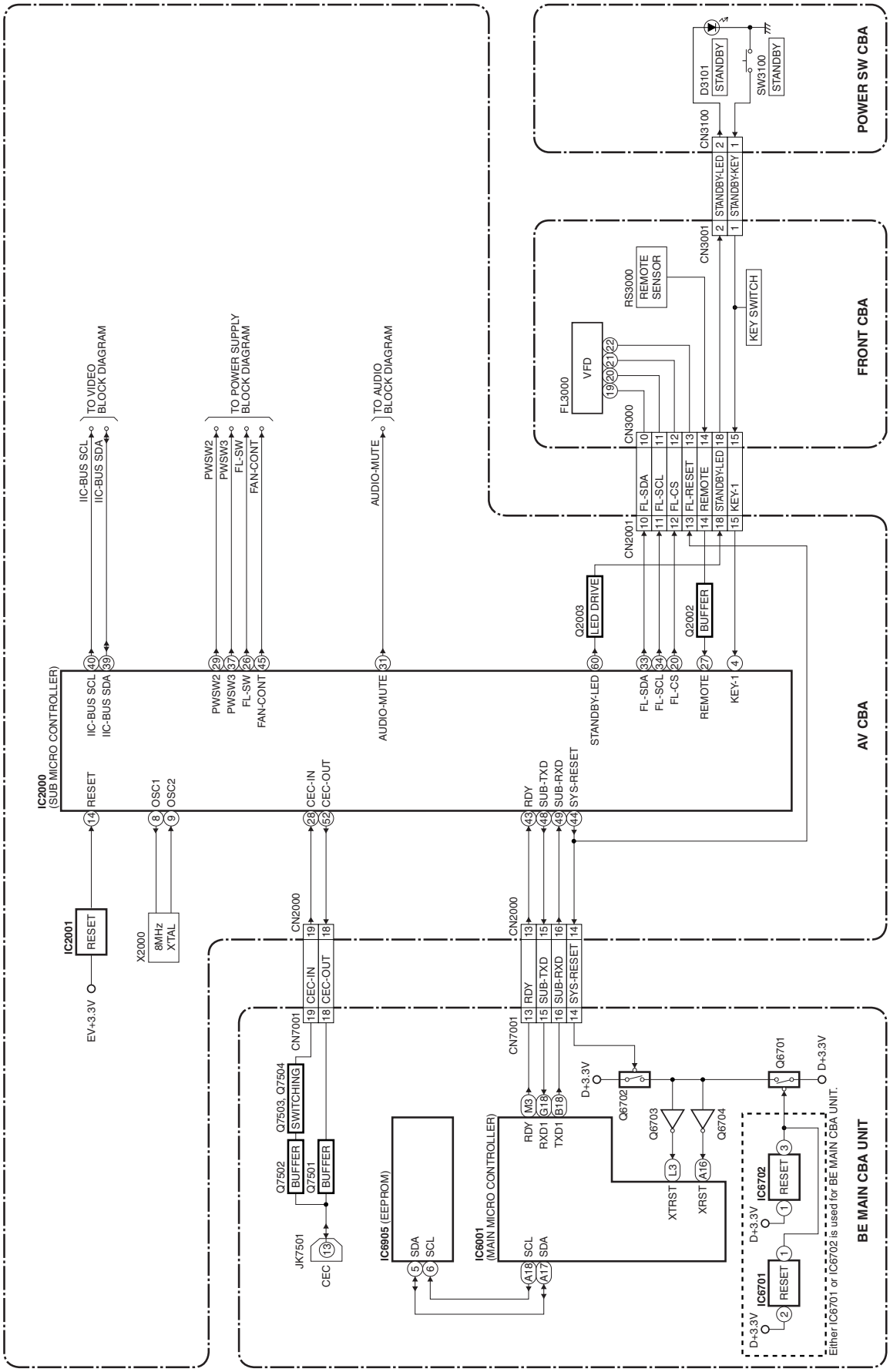


Fig. j

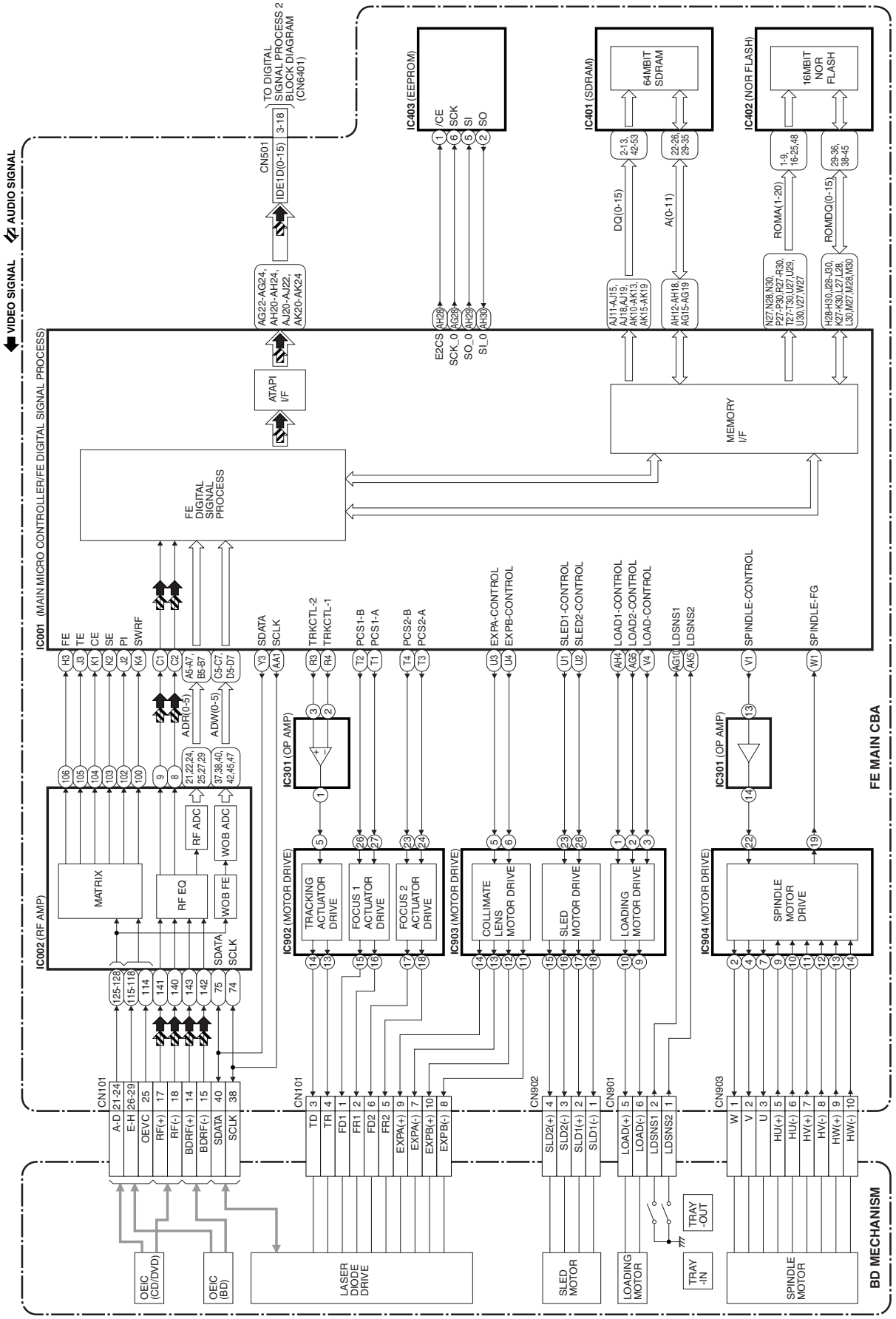
4. To exit this mode, press [ON/STANDBY] button.

BLOCK DIAGRAMS

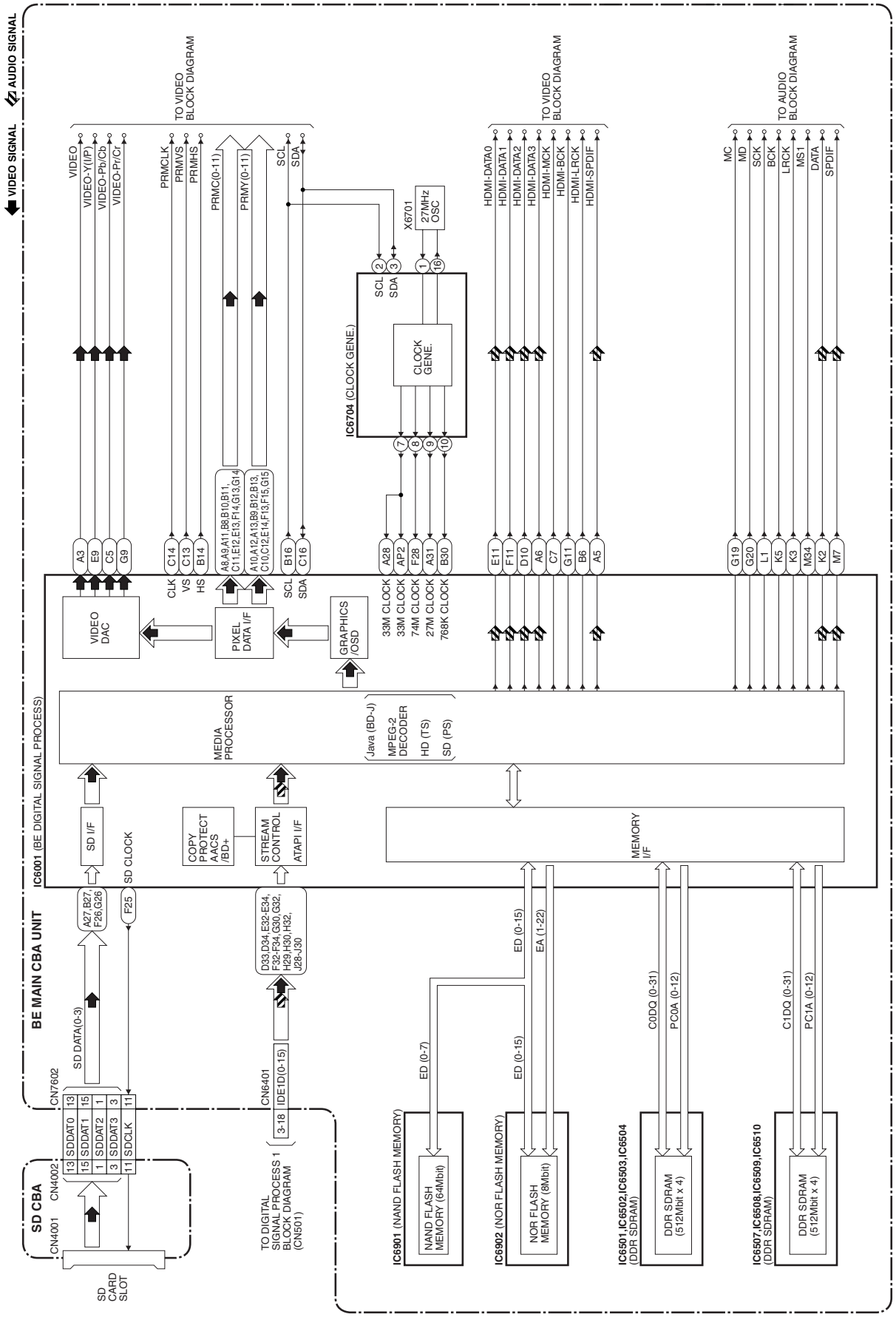
System Control Block Diagram



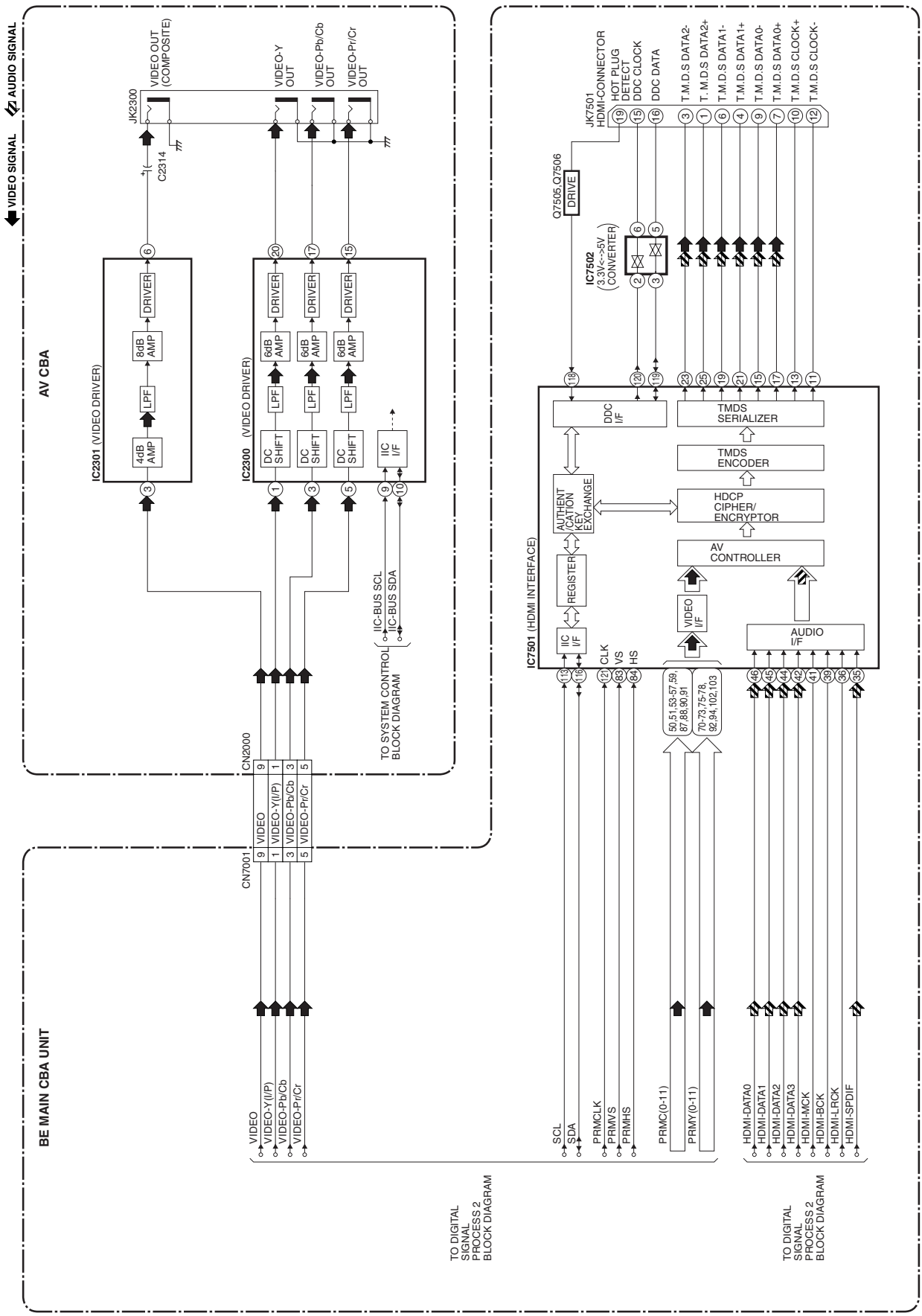
Digital Signal Process 1 Block Diagram



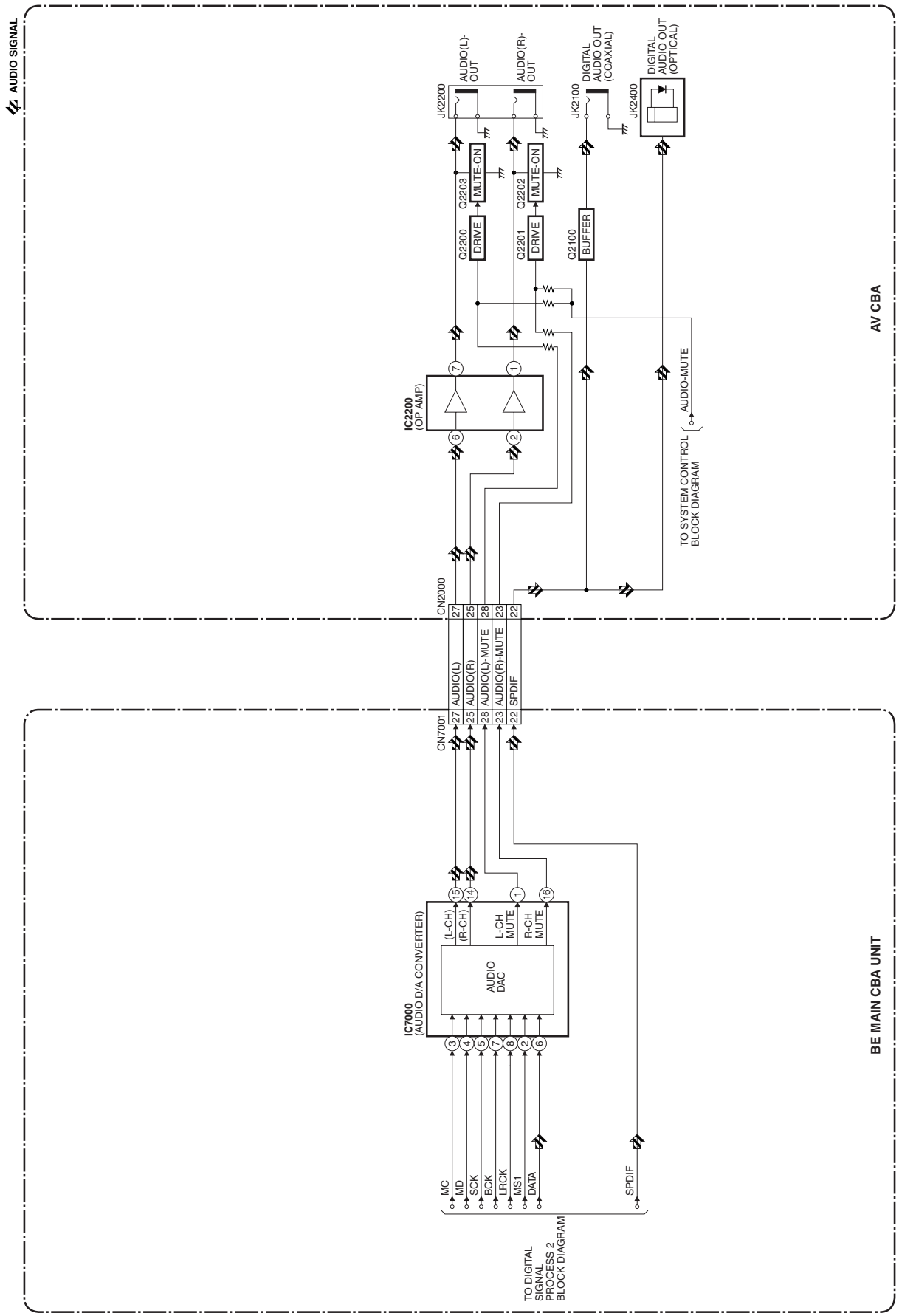
Digital Signal Process 2 Block Diagram



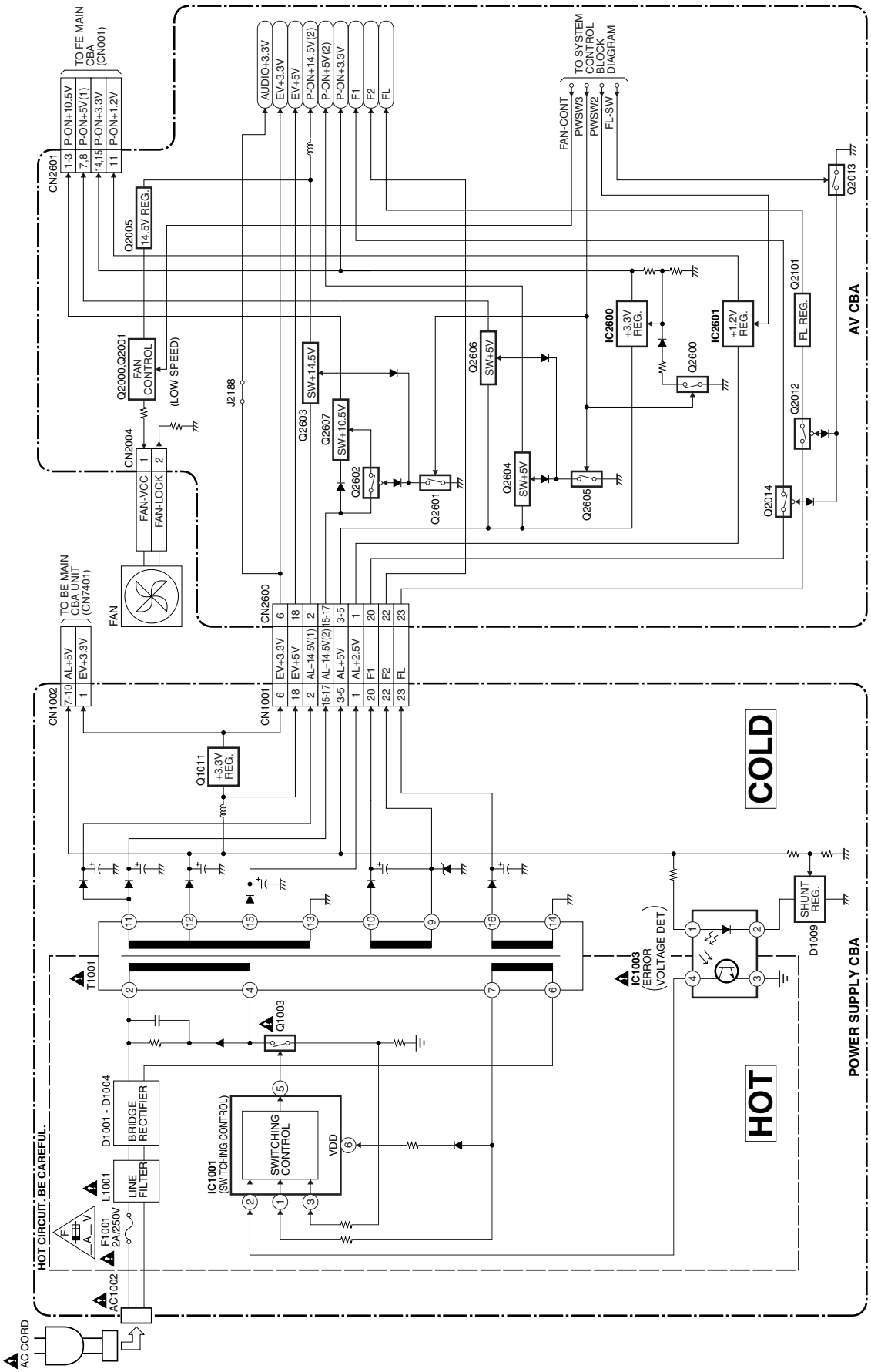
Video Block Diagram



Audio Block Diagram



Power Supply Block Diagram



SCHEMATIC DIAGRAMS / CBA AND TEST POINTS

Standard Notes

WARNING

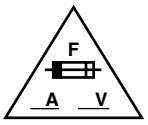
Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark "⚠" in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Notes:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
2. All resistance values are indicated in ohms ($K = 10^3$, $M = 10^6$).
3. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
4. All capacitance values are indicated in μF ($P = 10^{-6}$ μF).
5. All voltages are DC voltages unless otherwise specified.

LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. CAUTION:



FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQES D'INCELE N'UTILISER QUE DES FUSIBLE DE MÊME TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.

This symbol means fast operating fuse.
Ce symbole reprèsente un fusible à fusion rapide.

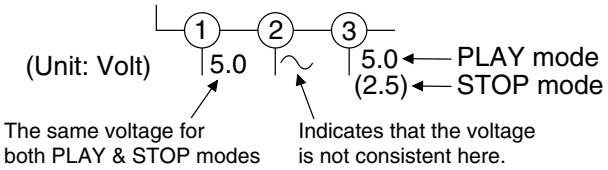
2. CAUTION:

Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F1001) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

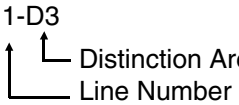
3. Note:

1. Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.
2. To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

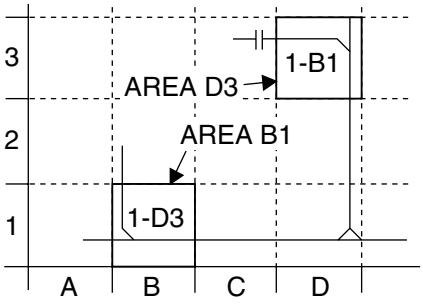
4. Voltage indications for PLAY and STOP mode on the schematics are as shown below:



5. How to read converged lines



Examples:
1. "1-D3" means that line number "1" goes to the line number "1" of the area "D3".
2. "1-B1" means that line number "1" goes to the line number "1" of the area "B1".



6. Test Point Information

 : Indicates a test point with a jumper wire across a hole in the PCB.

 : Used to indicate a test point with a component lead on foil side.

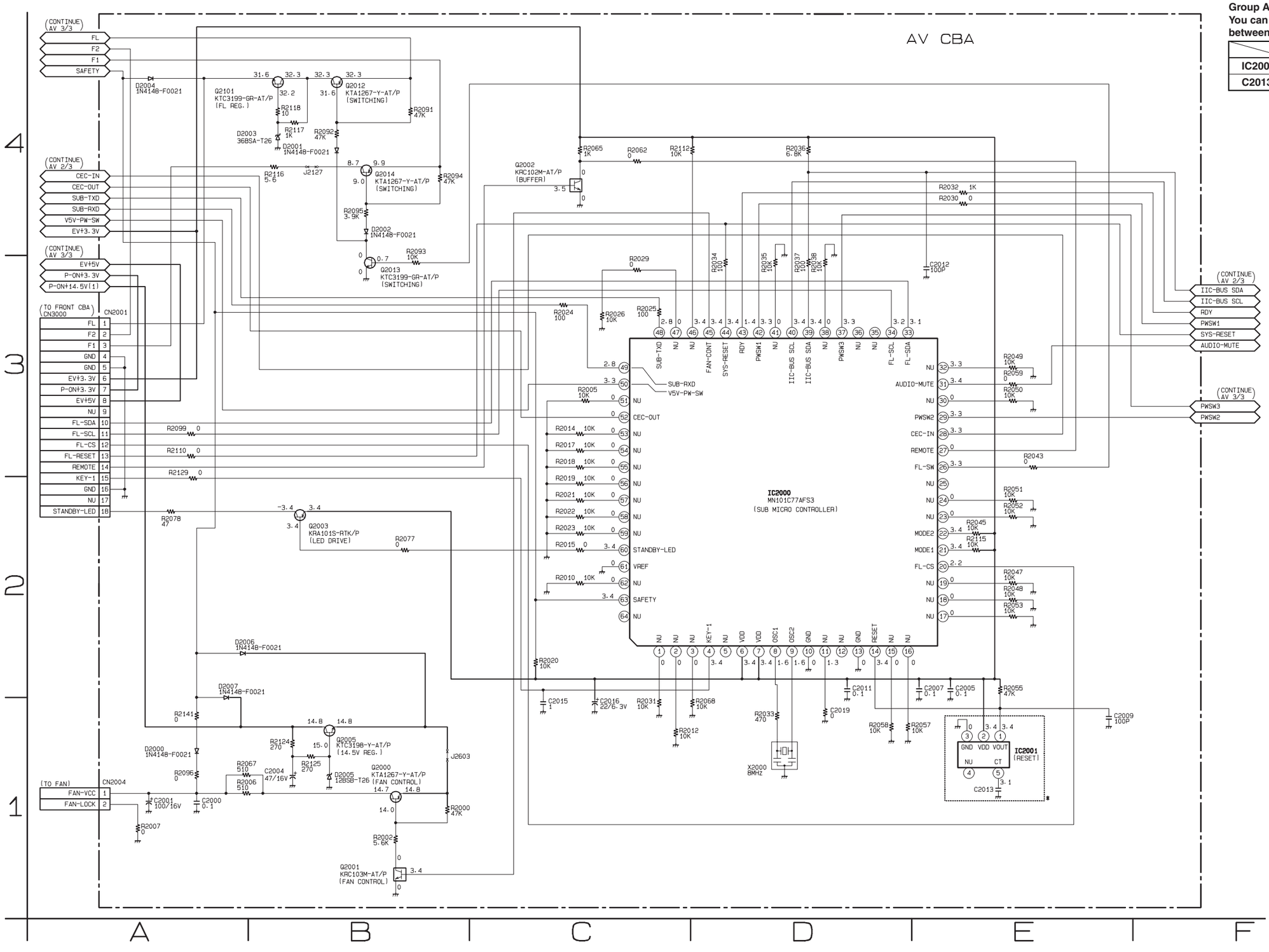
 : Used to indicate a test point with no test pin.

 : Used to indicate a test point with a test pin.

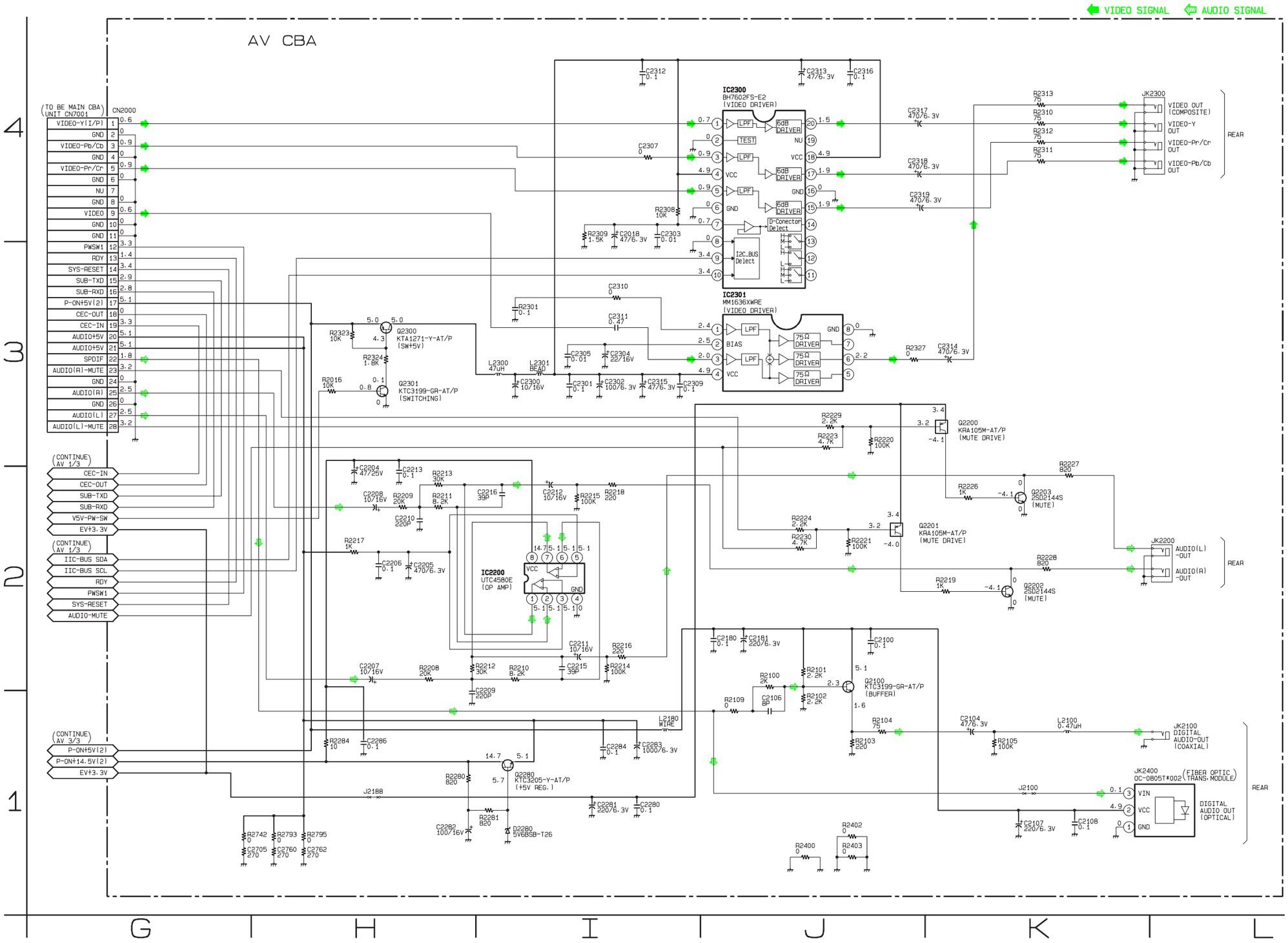
AV 1/3 Schematic Diagram

*** NOTE**
These components (IC2001, C2013) can be used in any models.
However, you cannot mix components under Group A with the ones under Group B.
You can choose either Group. The difference between Group A and Group B is shown below.

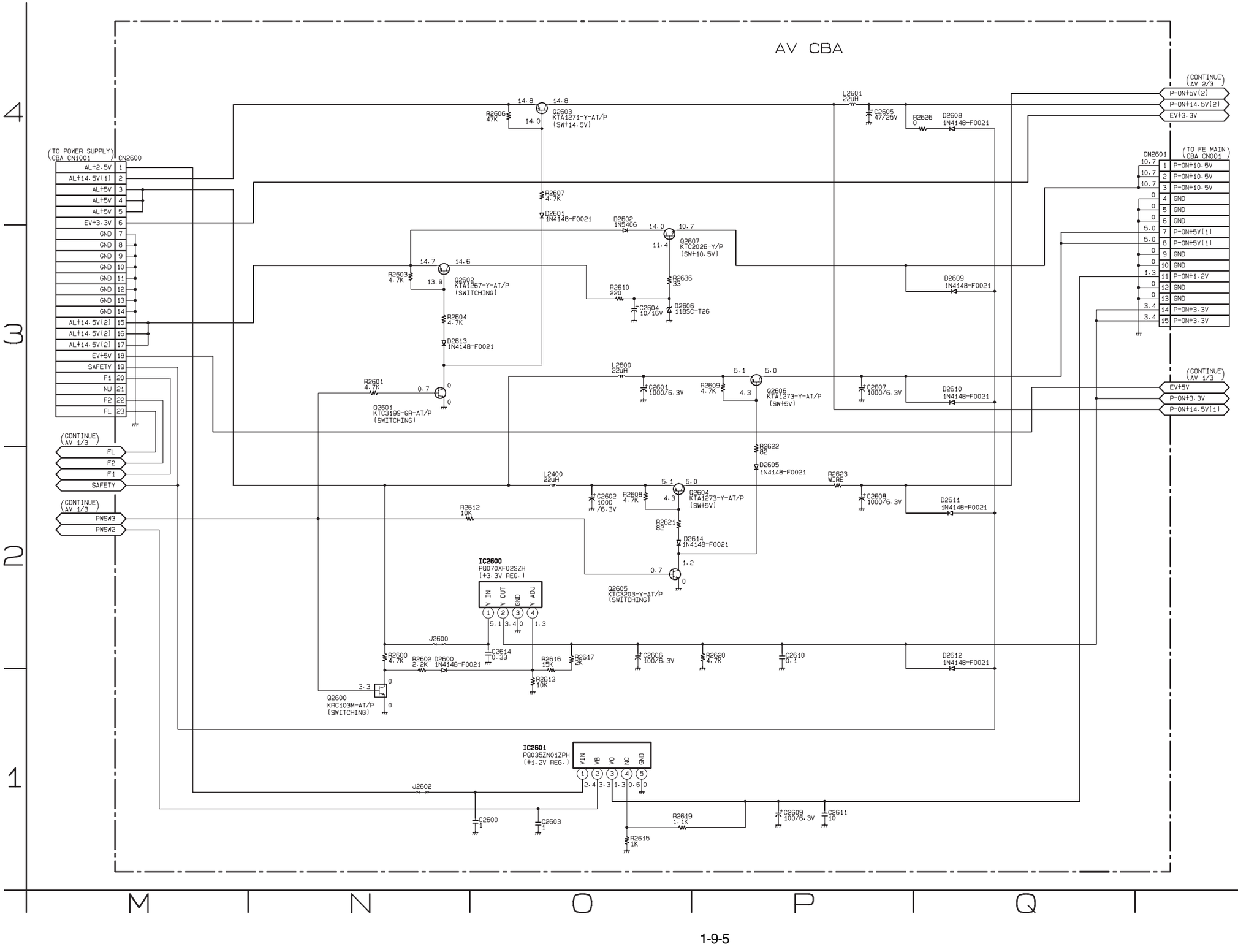
	Group A	Group B
IC2001	PST3630NR	PST8430NR
C2013	0.1	0.01



AV 2/3 Schematic Diagram



AV 3/3 Schematic Diagram



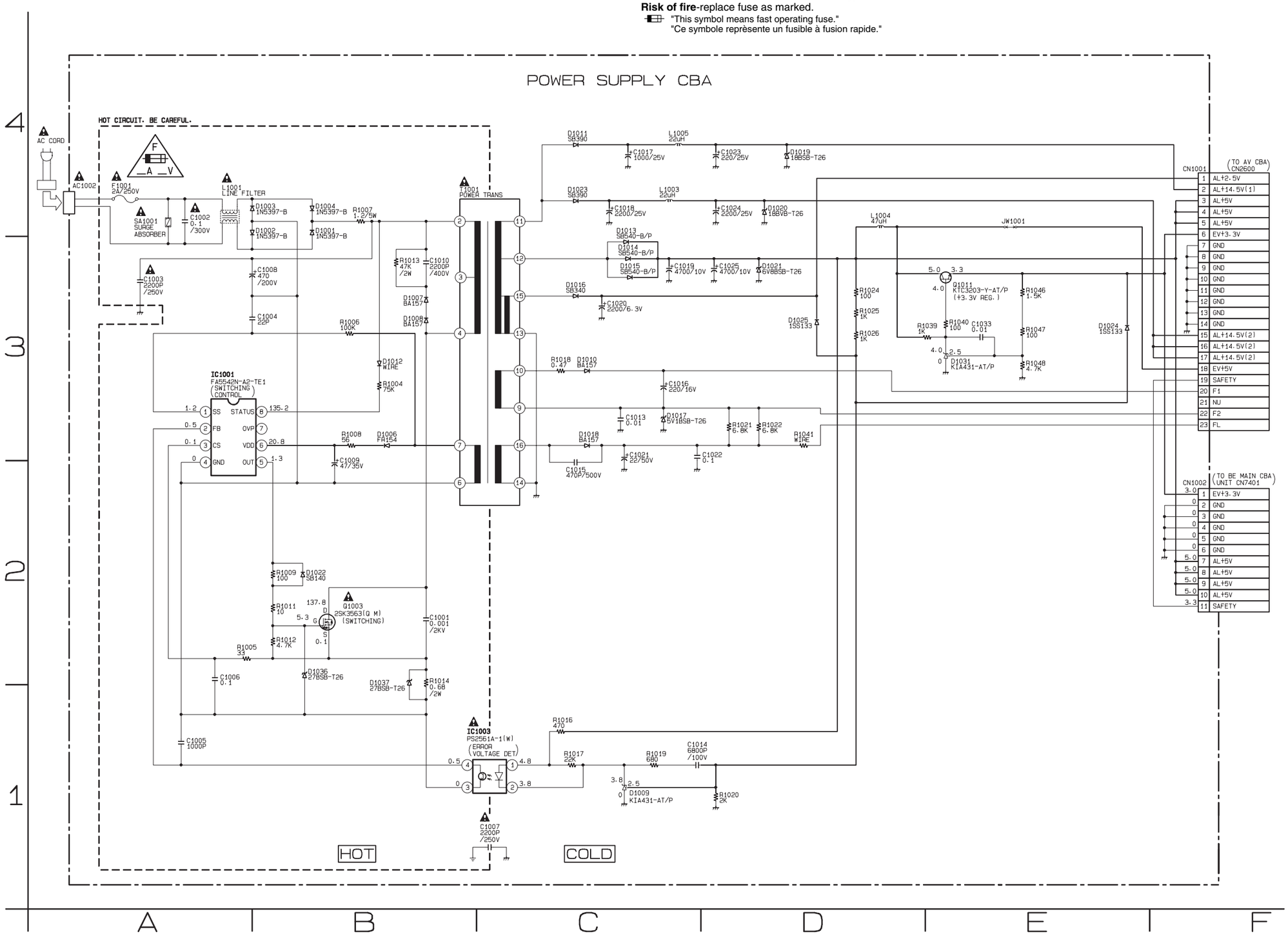
E5H55SCAV3

Power Supply Schematic Diagram

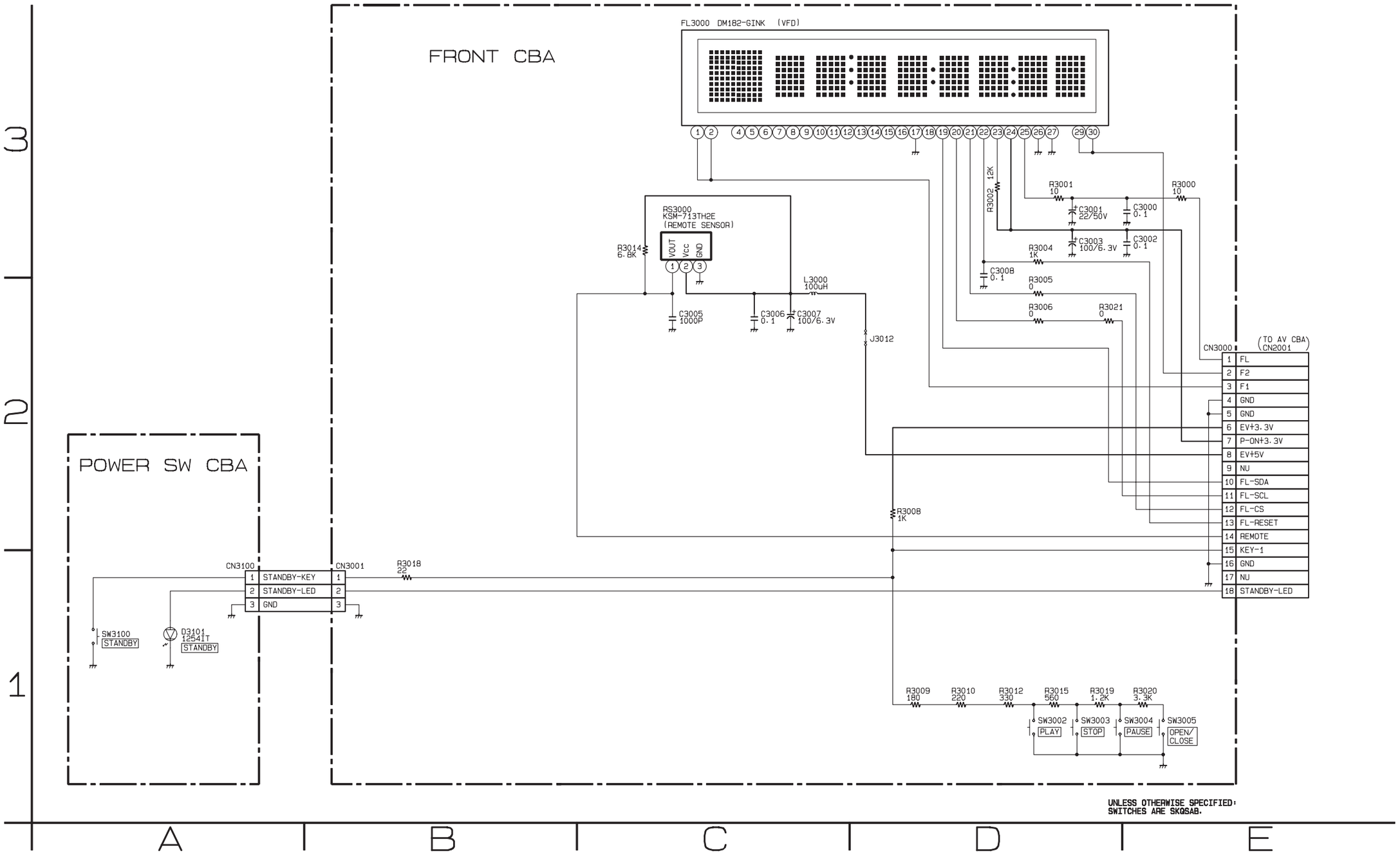
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F1001) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

CAUTION !
For continued protection against fire hazard,
replace only with the same type fuse.
ATTENTION : Pour une protection continue les risqes d'Incele n'utiliser que des fusible de même type.
Risk of fire-replace fuse as marked.
"This symbol means fast operating fuse."
"Ce symbole représente un fusible à fusion rapide."

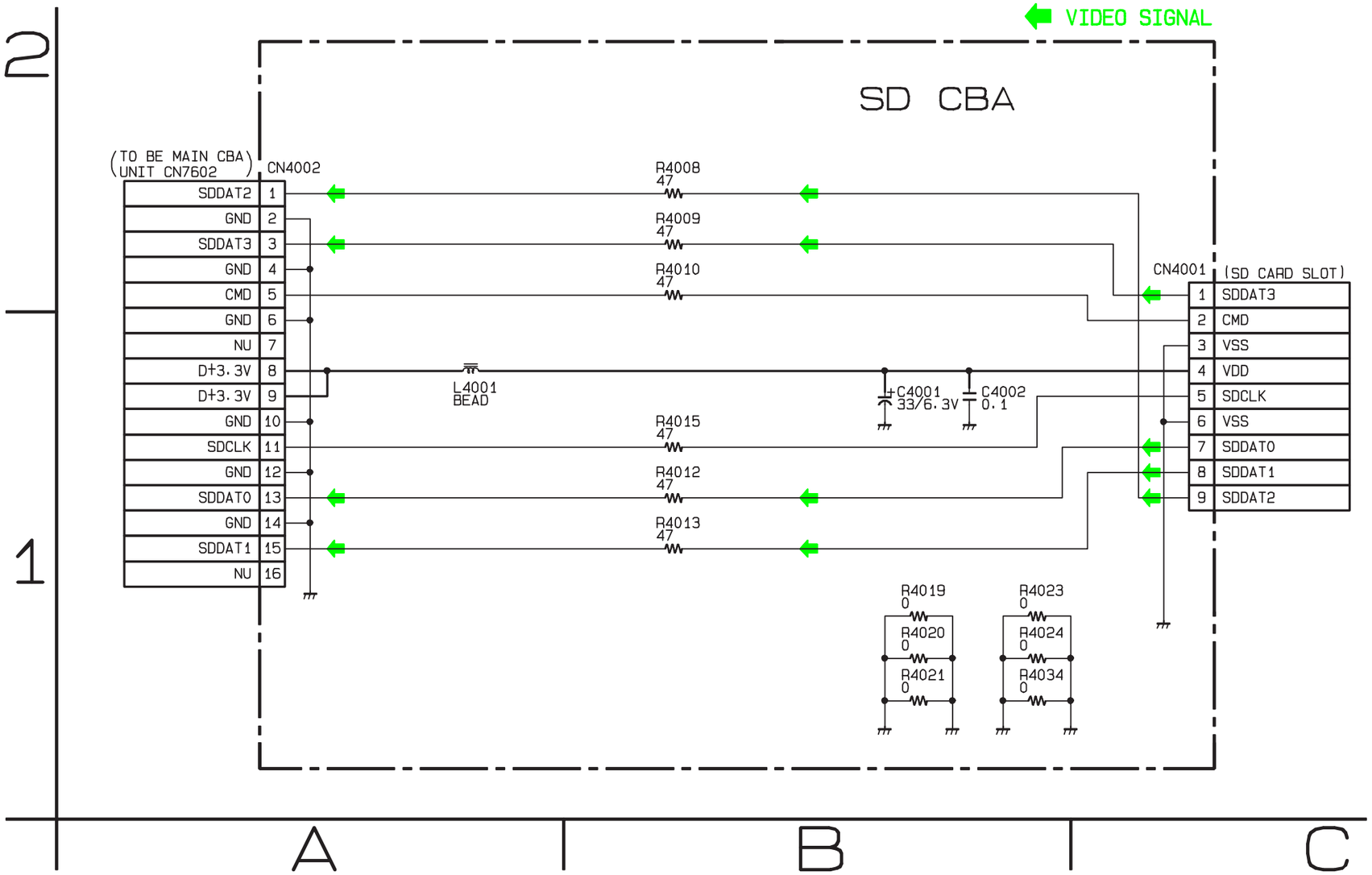
NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



Front & Power SW Schematic Diagram

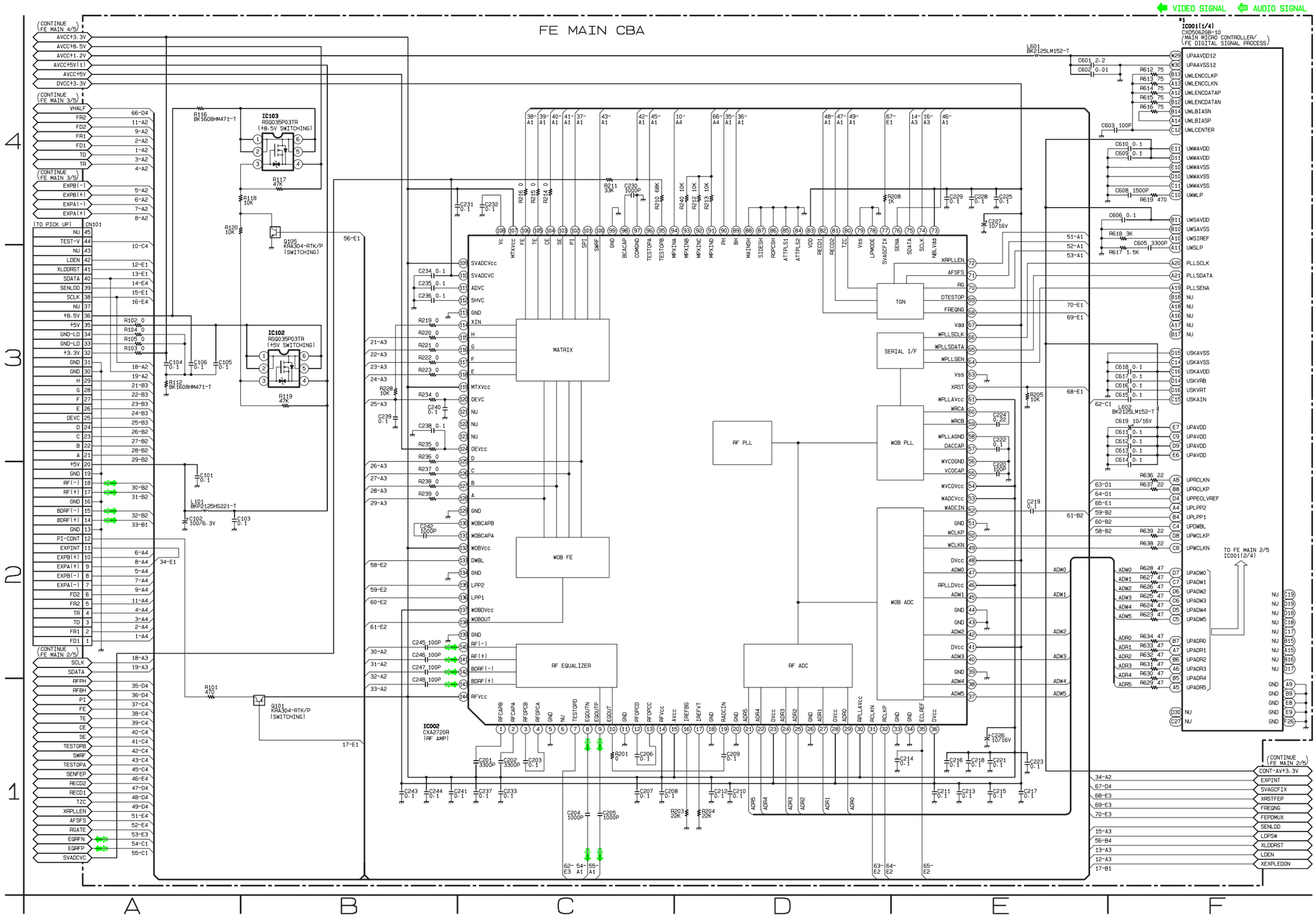


SD Schematic Diagram



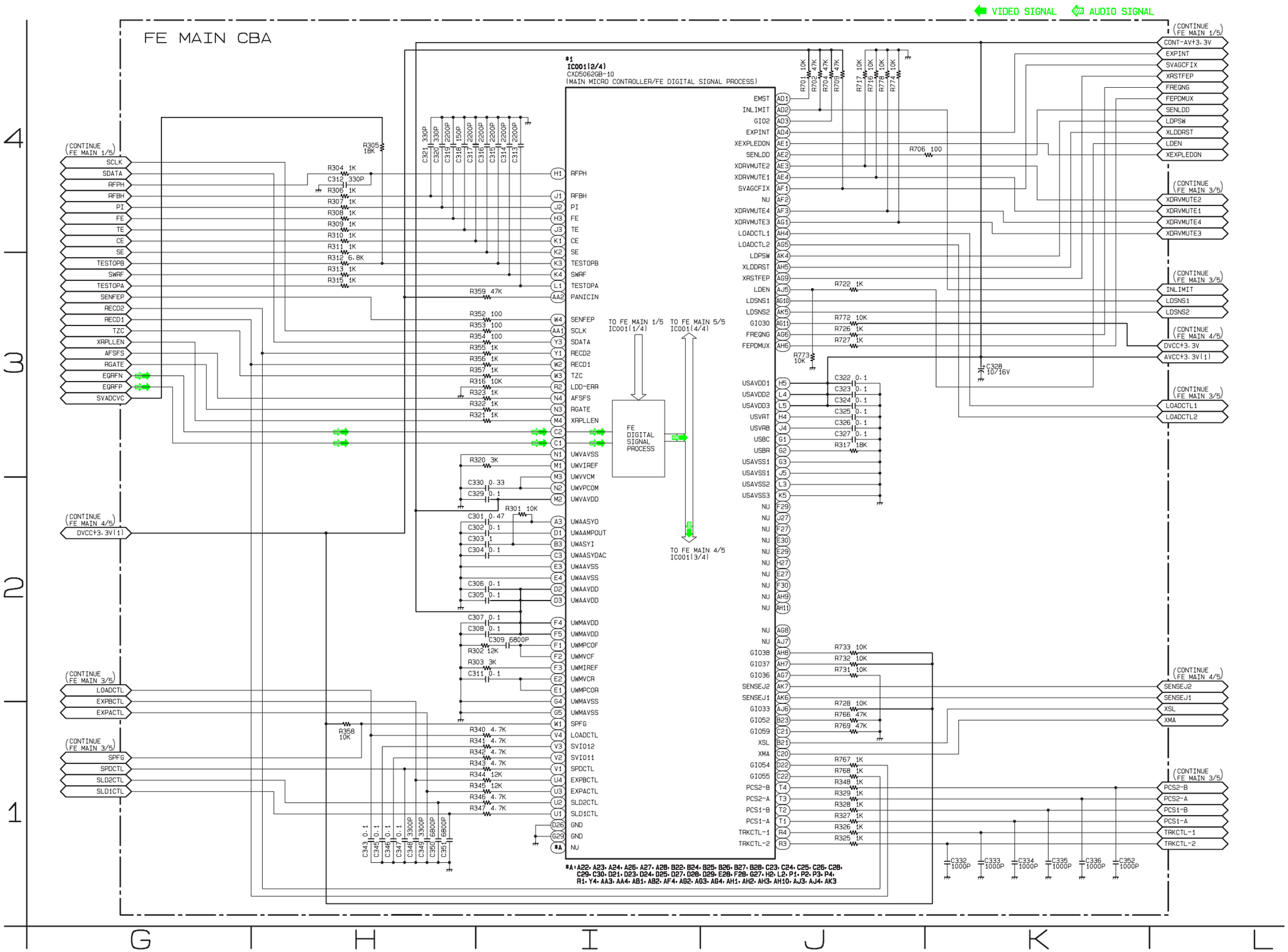
FE Main 1/5 Schematic Diagram

∗1 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC001.
IC001 is divided into four and shown as IC001 (1/4) ~ IC001 (4/4) in this FE Main Schematic Diagram Section.

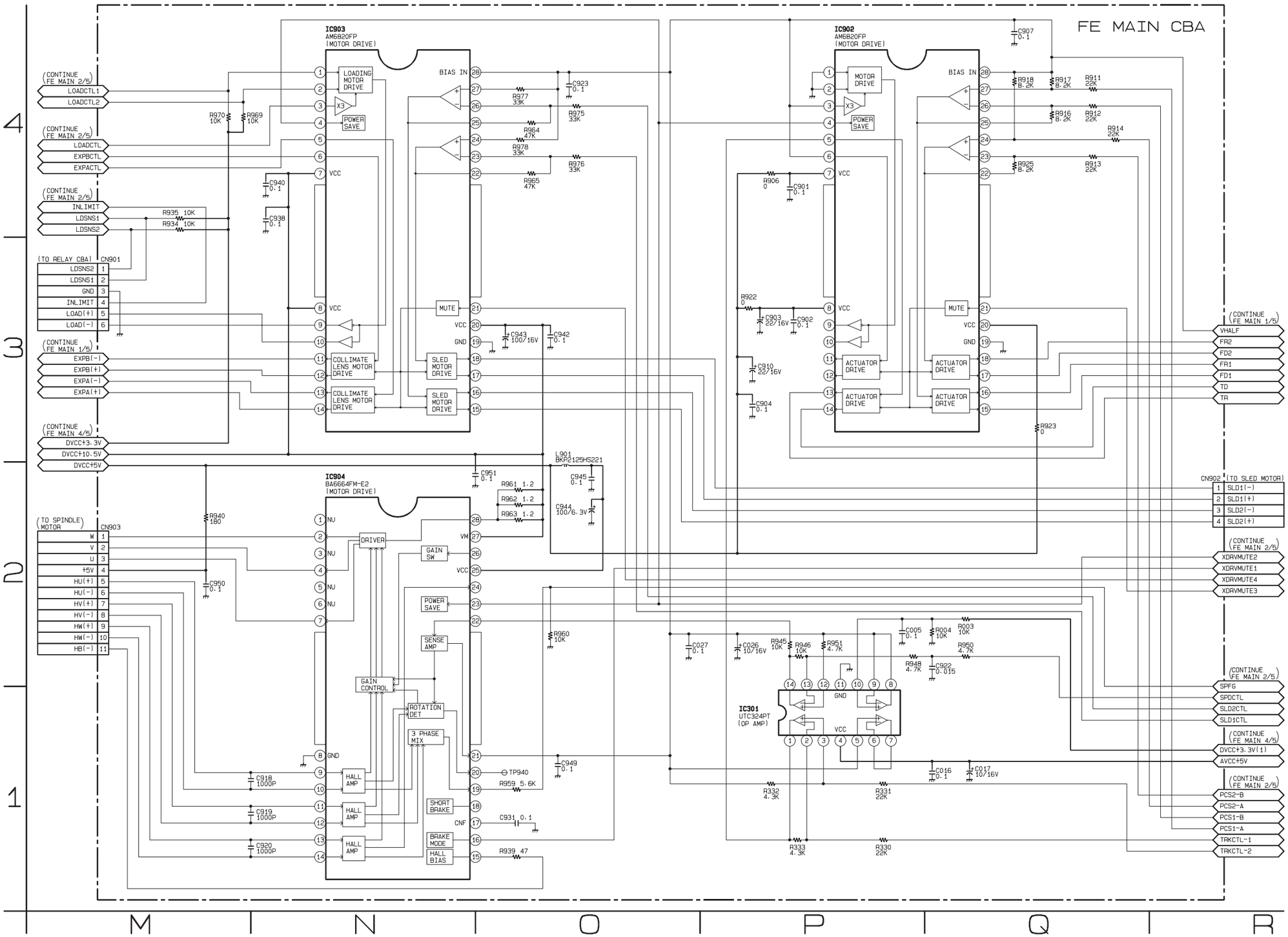


FE Main 2/5 Schematic Diagram

∗1 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC001.
IC001 is divided into four and shown as IC001 (1/4) ~ IC001 (4/4) in this FE Main Schematic Diagram Section.

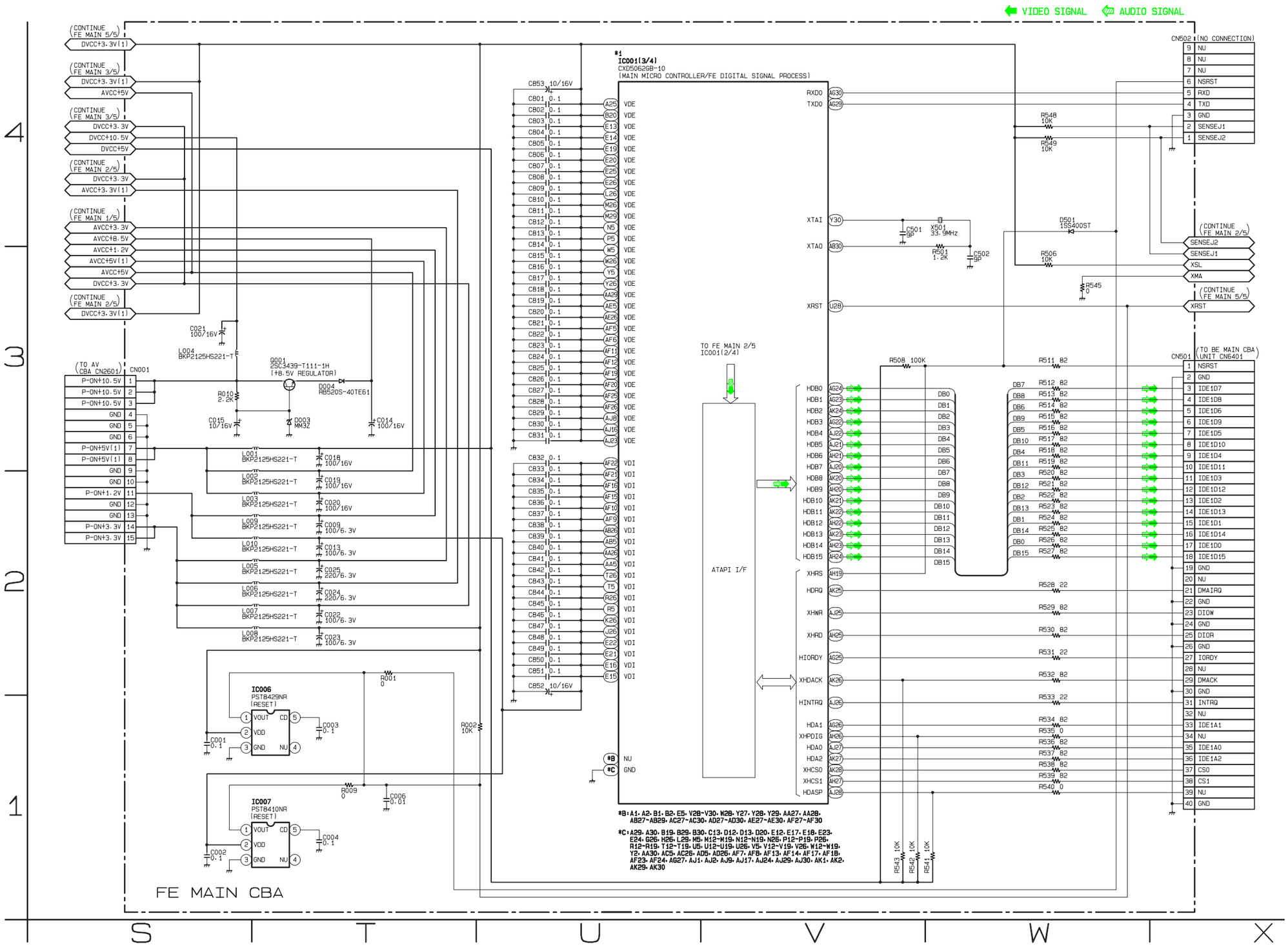


FE Main 3/5 Schematic Diagram



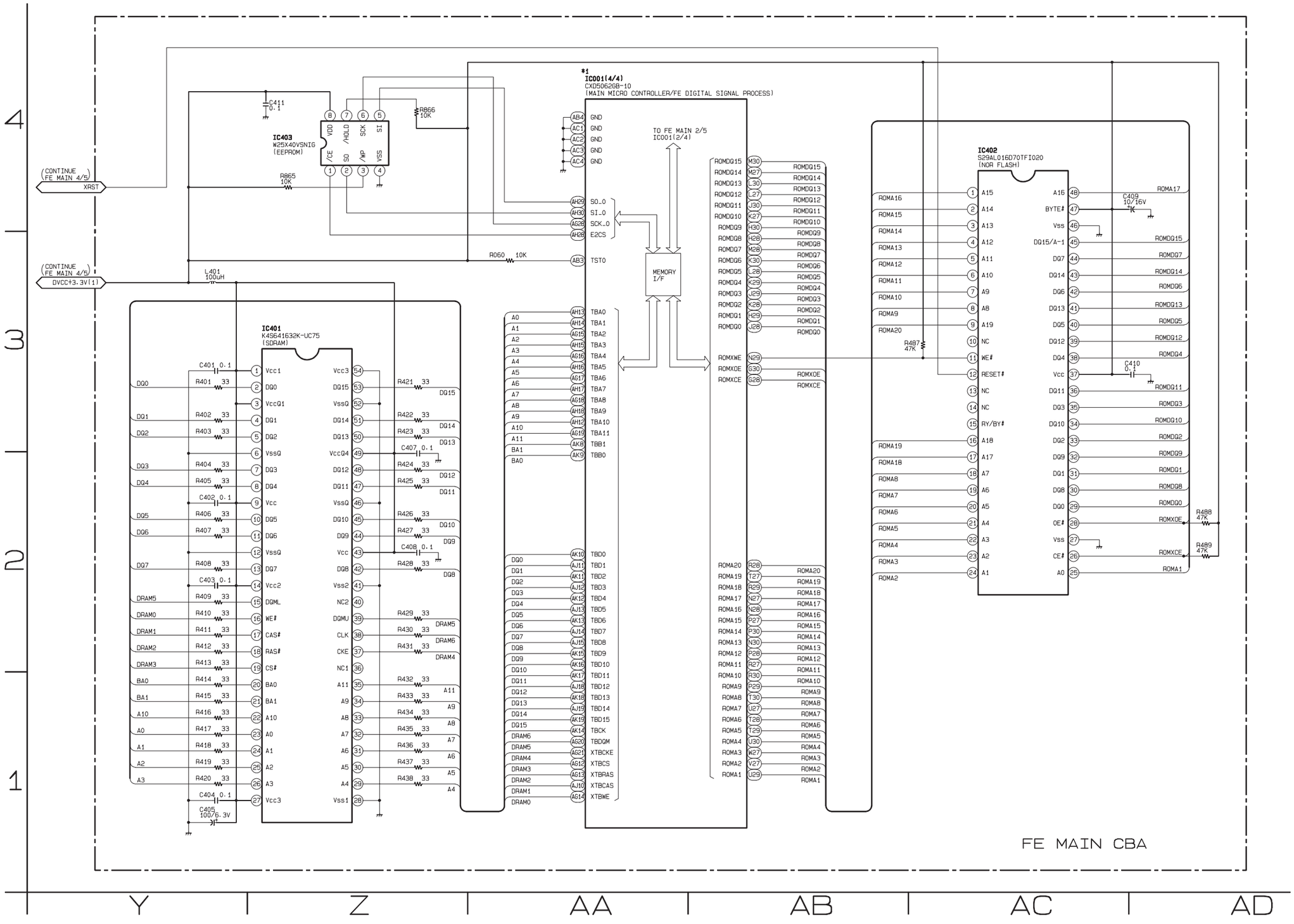
FE Main 4/5 Schematic Diagram

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC001.
IC001 is divided into four and shown as IC001 (1/4) ~ IC001 (4/4) in this FE Main Schematic Diagram Section.



FE Main 5/5 Schematic Diagram

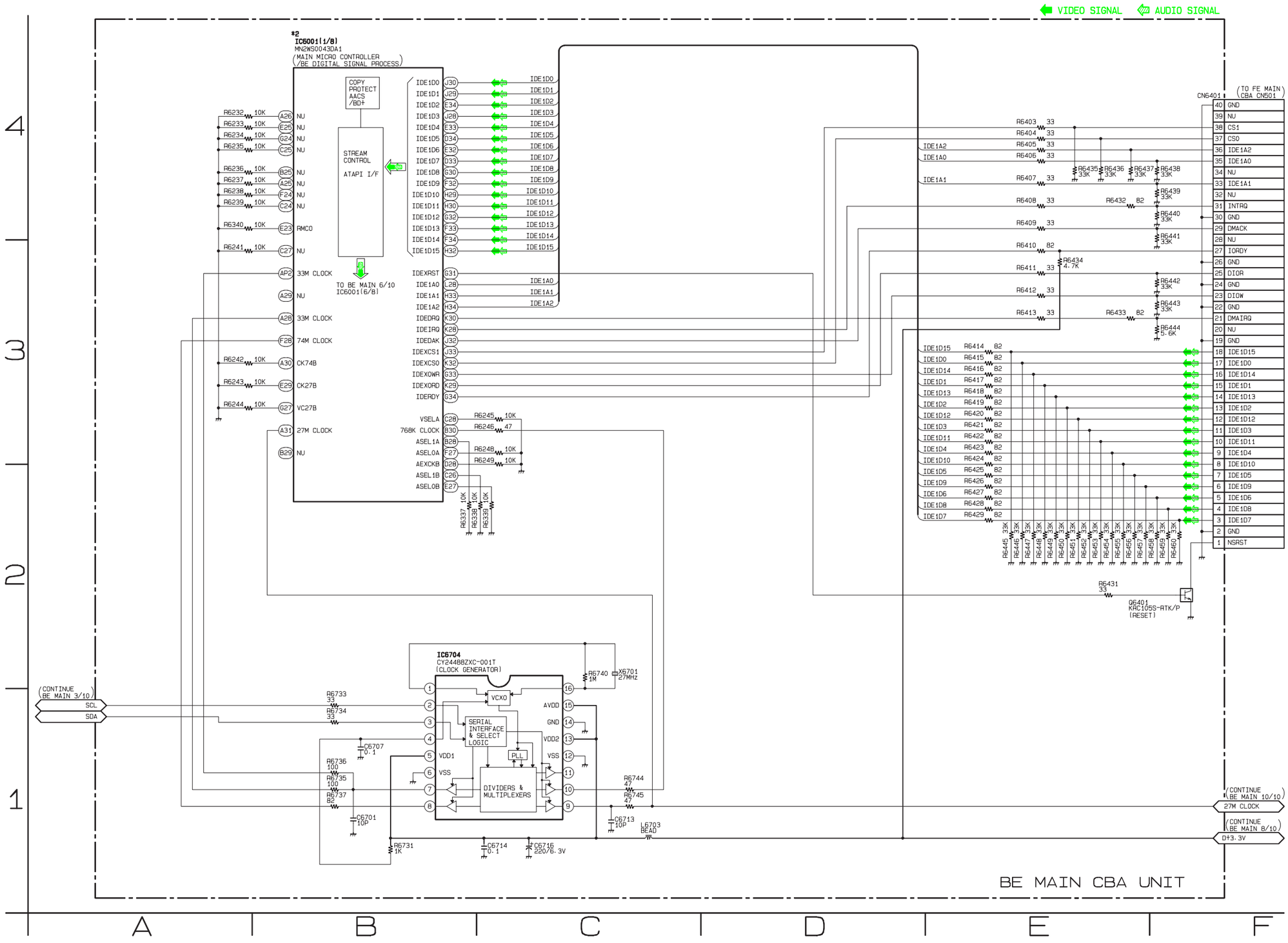
∗1 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC001.
IC001 is divided into four and shown as IC001 (1/4) ~ IC001 (4/4) in this FE Main Schematic Diagram Section.



E5H55SCFM5

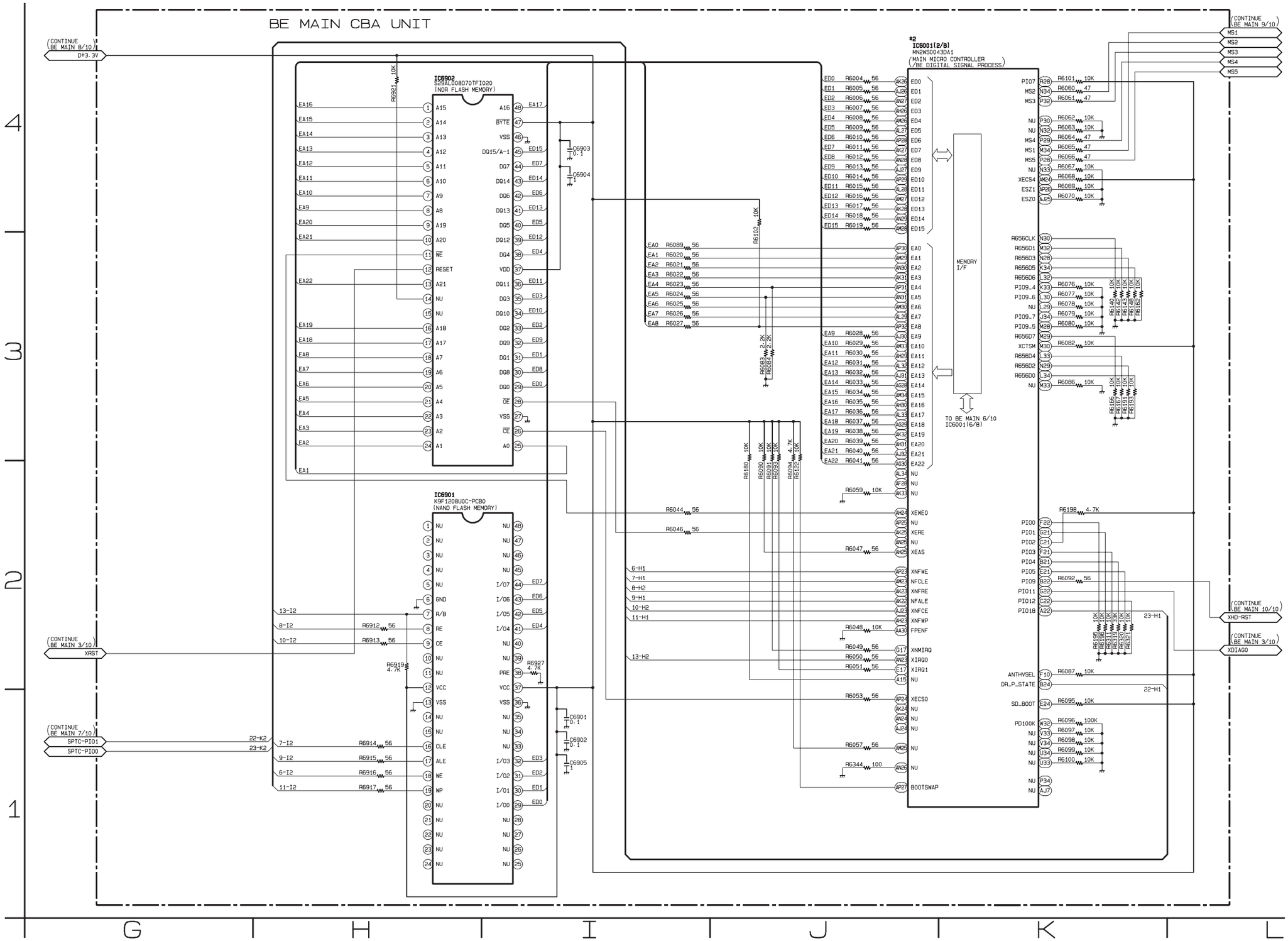
BE Main 1/10 Schematic Diagram

∗2 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC6001.
IC6001 is divided into eight and shown as IC6001 (1/8) ~ IC6001 (8/8) in this BE Main Schematic Diagram Section.



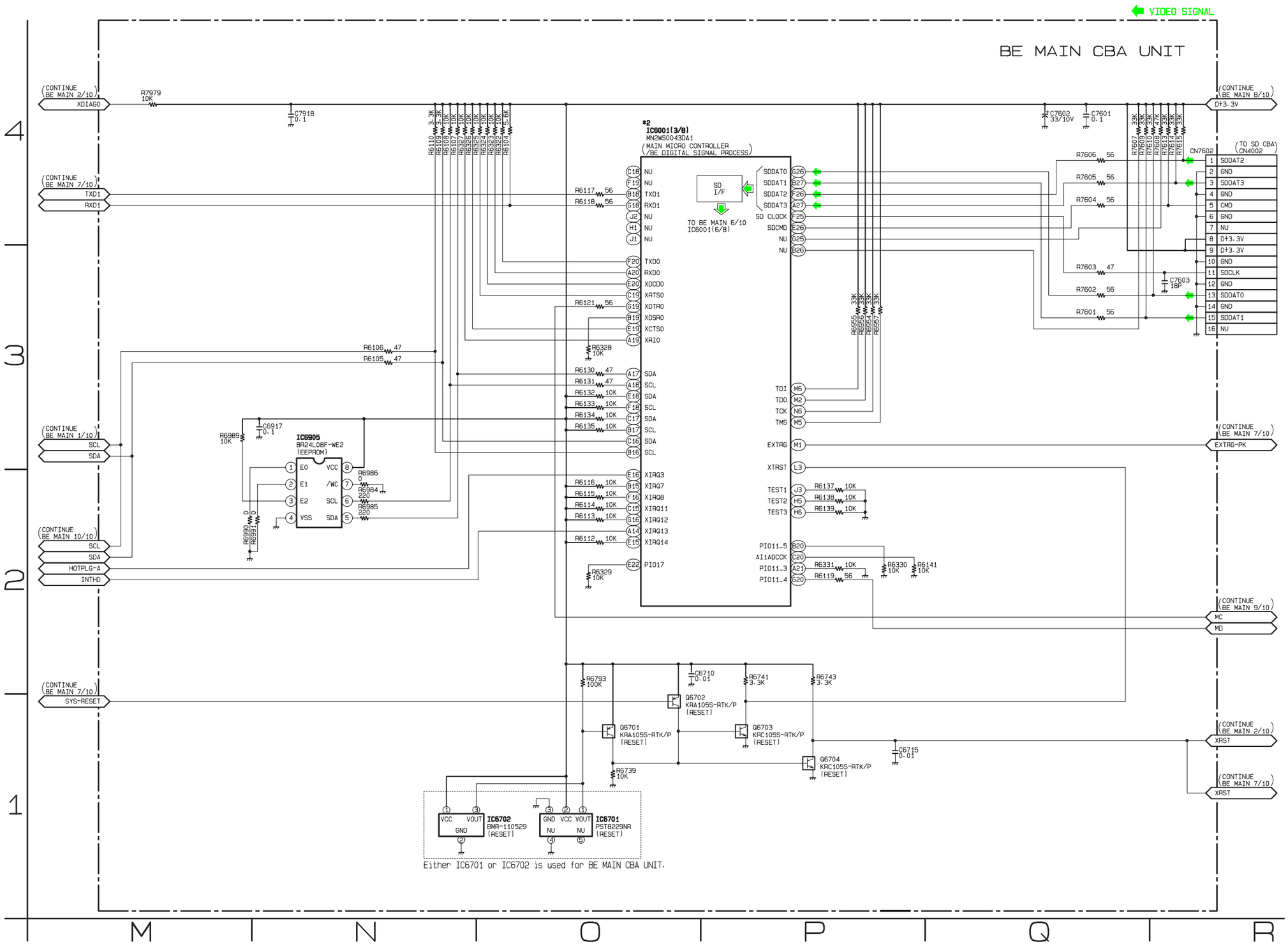
BE Main 2/10 Schematic Diagram

＊2 NOTE:
The order of pins shown in this diagram is different from that of actual IC6001.
IC6001 is divided into eight and shown as IC6001 (1/8) ~ IC6001 (8/8) in this BE Main Schematic Diagram Section.



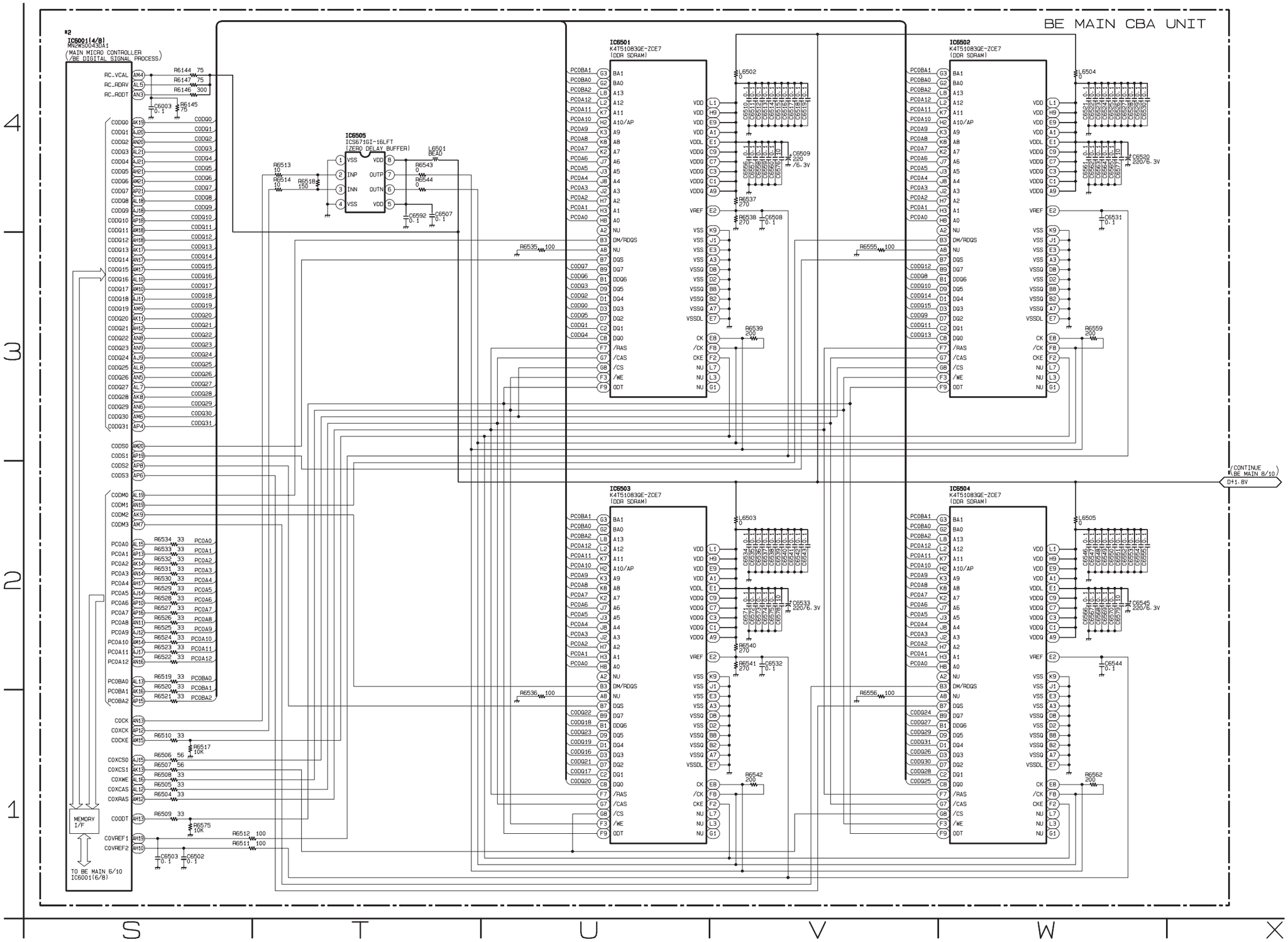
BE Main 3/10 Schematic Diagram

∗2 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC6001.
IC6001 is divided into eight and shown as IC6001 (1/8) ~ IC6001 (8/8) in this BE Main Schematic Diagram Section.



BE Main 4/10 Schematic Diagram

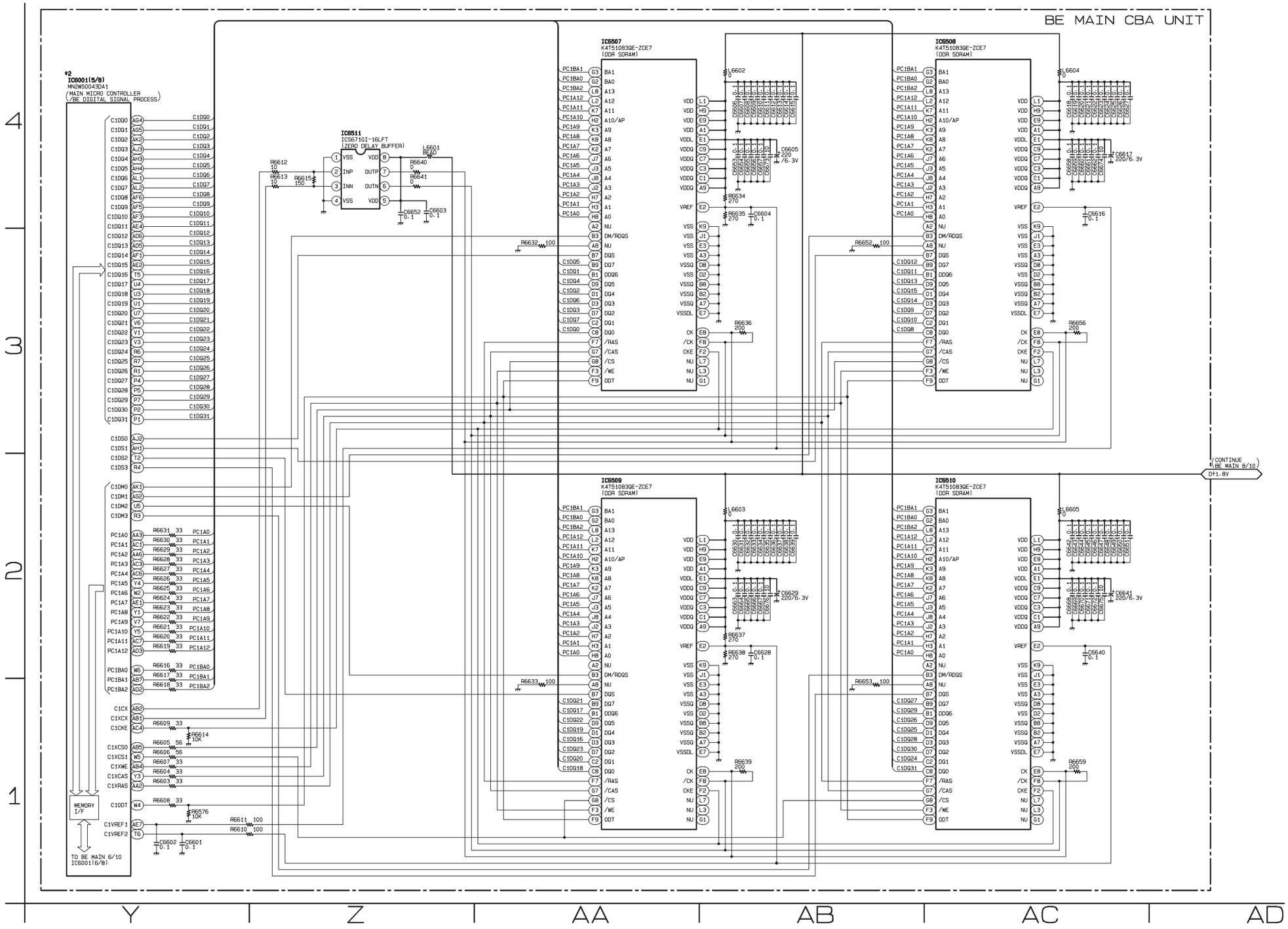
＊2 NOTE:
The order of pins shown in this diagram is different from that of actual IC6001.
IC6001 is divided into eight and shown as IC6001 (1/8) ~ IC6001 (8/8) in this BE Main Schematic Diagram Section.



E5H55SCBM4

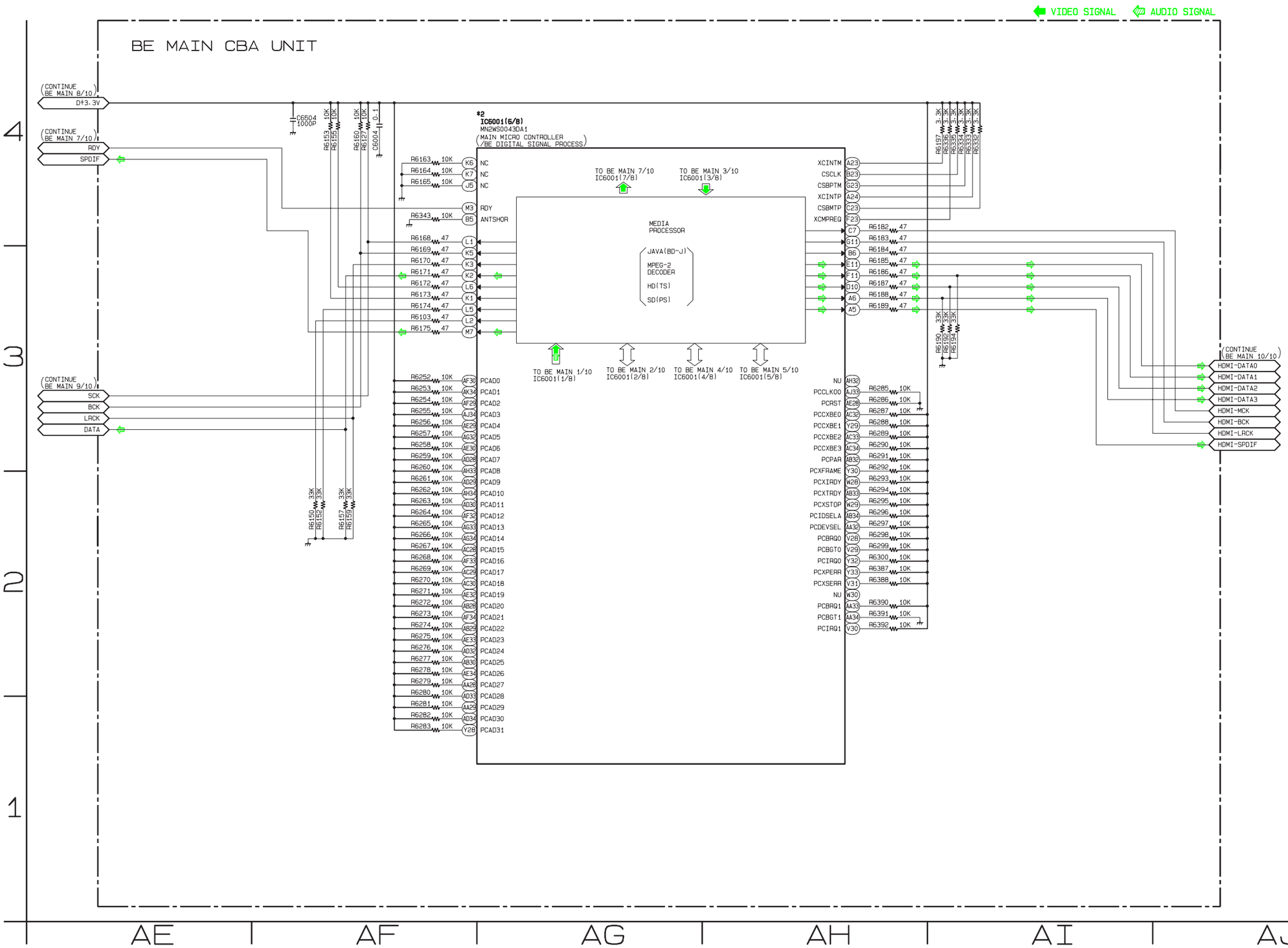
BE Main 5/10 Schematic Diagram

∗2 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC6001.
IC6001 is divided into eight and shown as IC6001 (1/8) ~ IC6001 (8/8) in this BE Main Schematic Diagram Section.



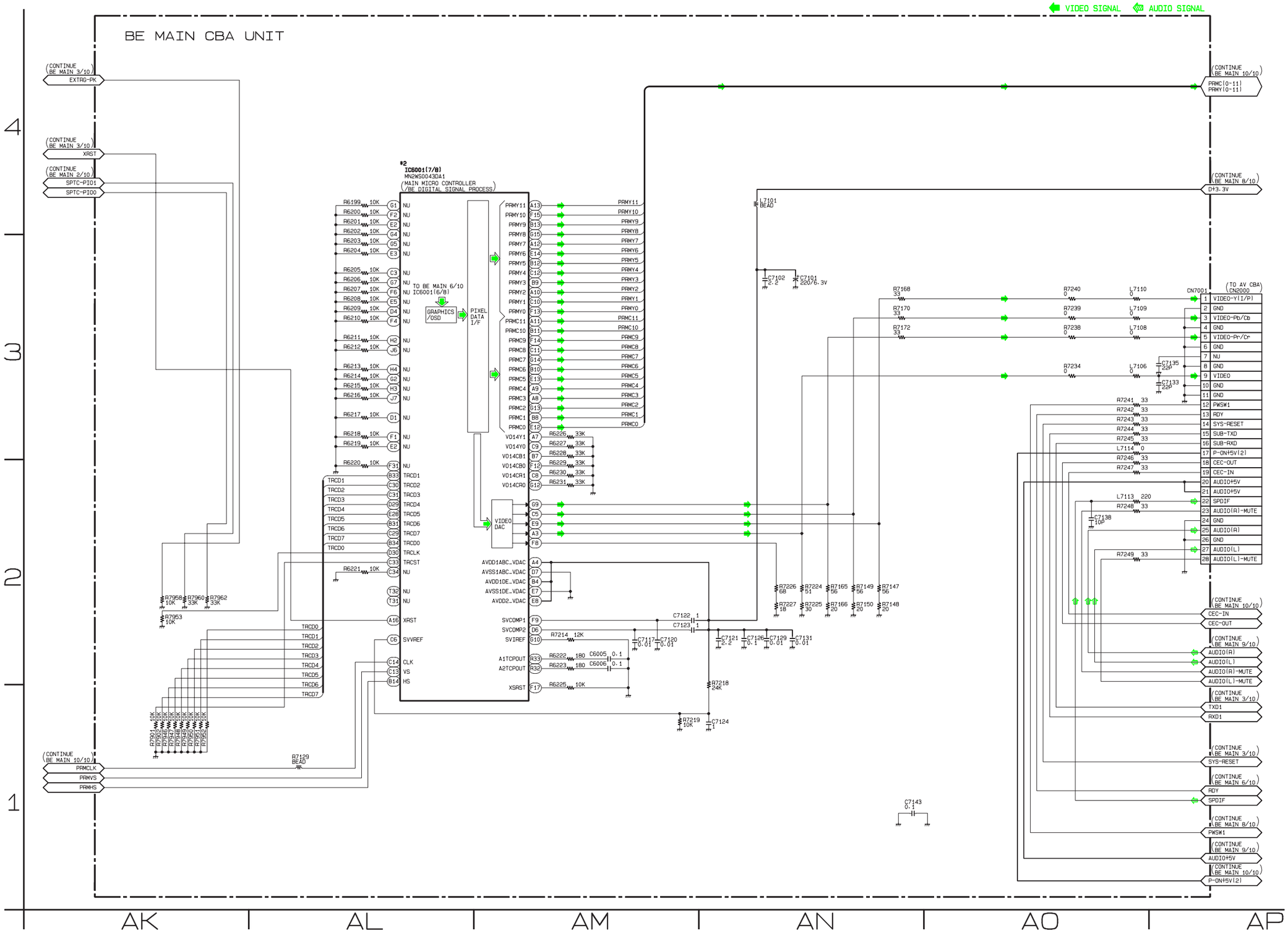
BE Main 6/10 Schematic Diagram

＊2 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC6001.
IC6001 is divided into eight and shown as IC6001 (1/8) ~ IC6001 (8/8) in this BE Main Schematic Diagram Section.



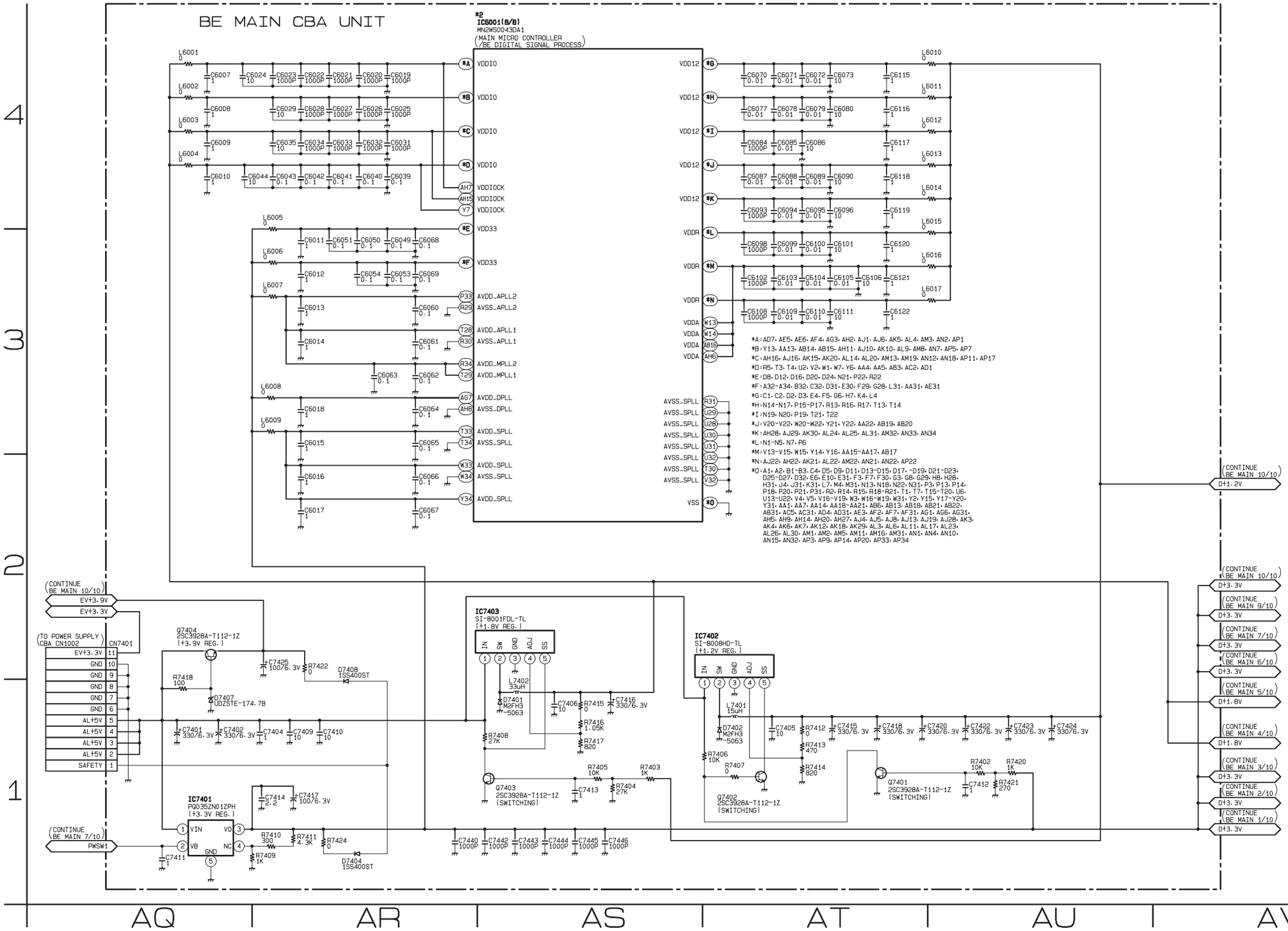
BE Main 7/10 Schematic Diagram

＊2 NOTE:
The order of pins shown in this diagram is different from that of actual IC6001.
IC6001 is divided into eight and shown as IC6001 (1/8) ~ IC6001 (8/8) in this BE Main Schematic Diagram Section.

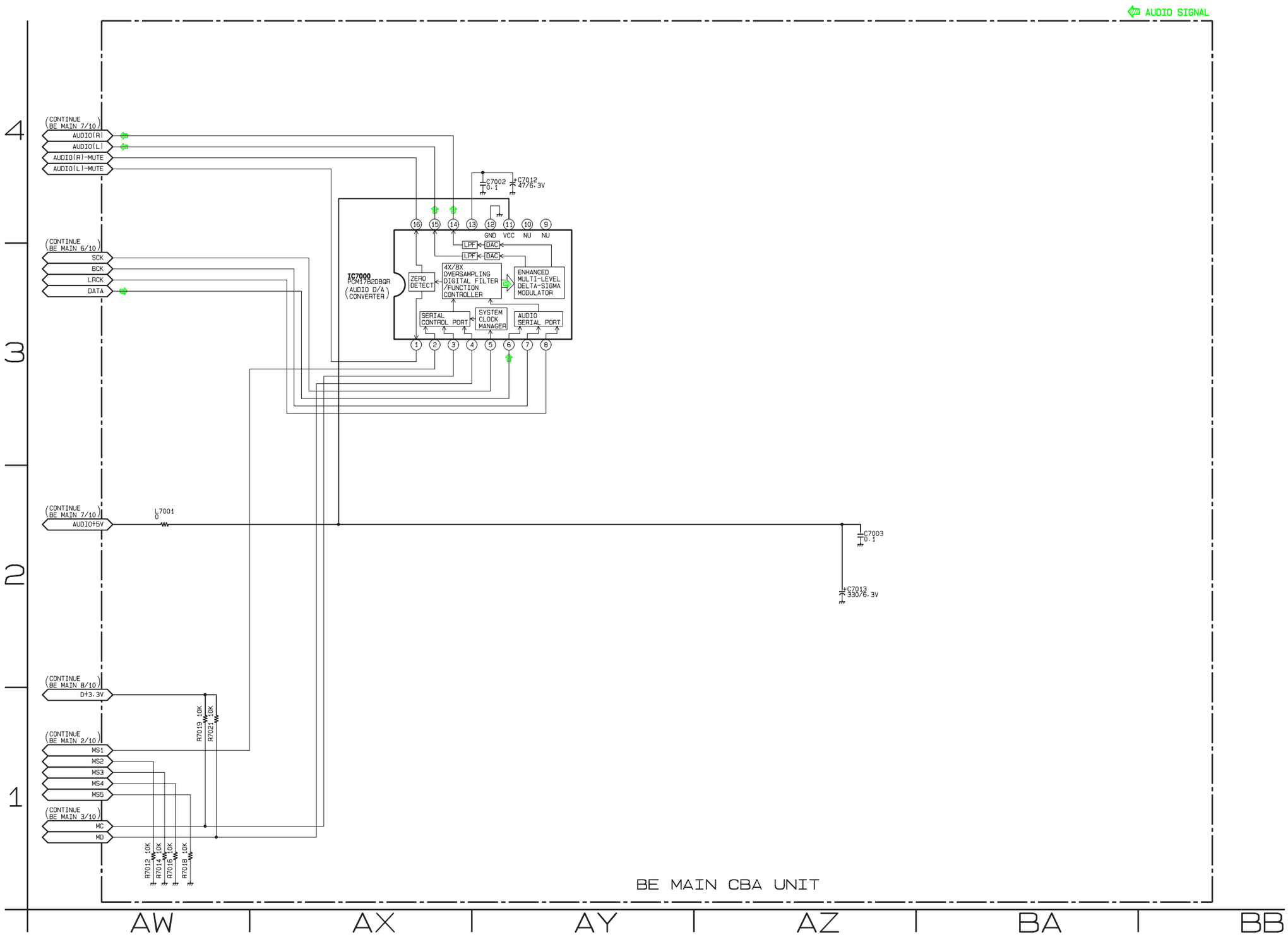


BE Main 8/10 Schematic Diagram

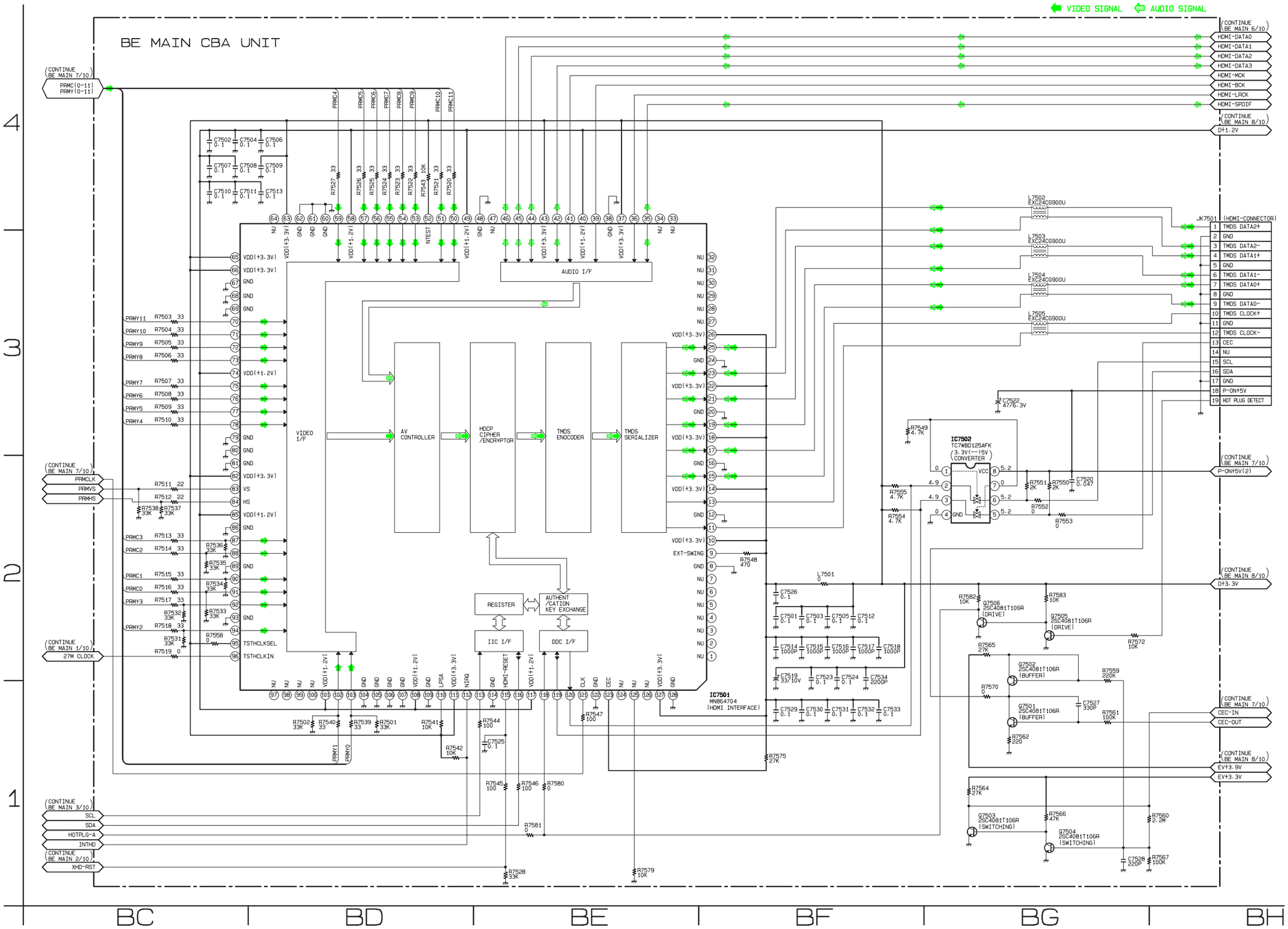
∗2 NOTE:
The order of pins shown in this diagram is different from that of actual IC6001.
IC6001 is divided into eight and shown as IC6001 (1/8) ~ IC6001 (8/8) in this BE Main Schematic Diagram Section.



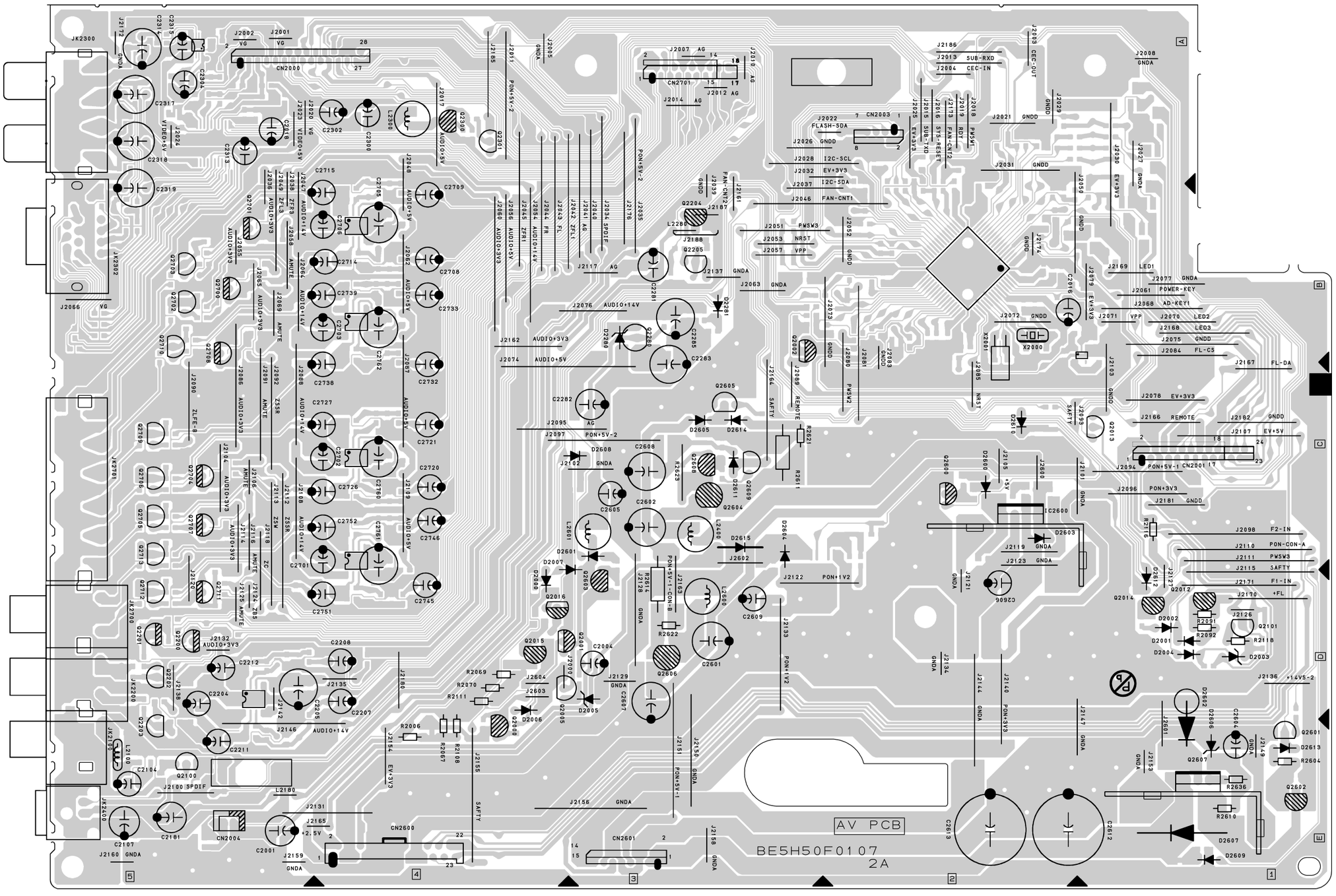
BE Main 9/10 Schematic Diagram



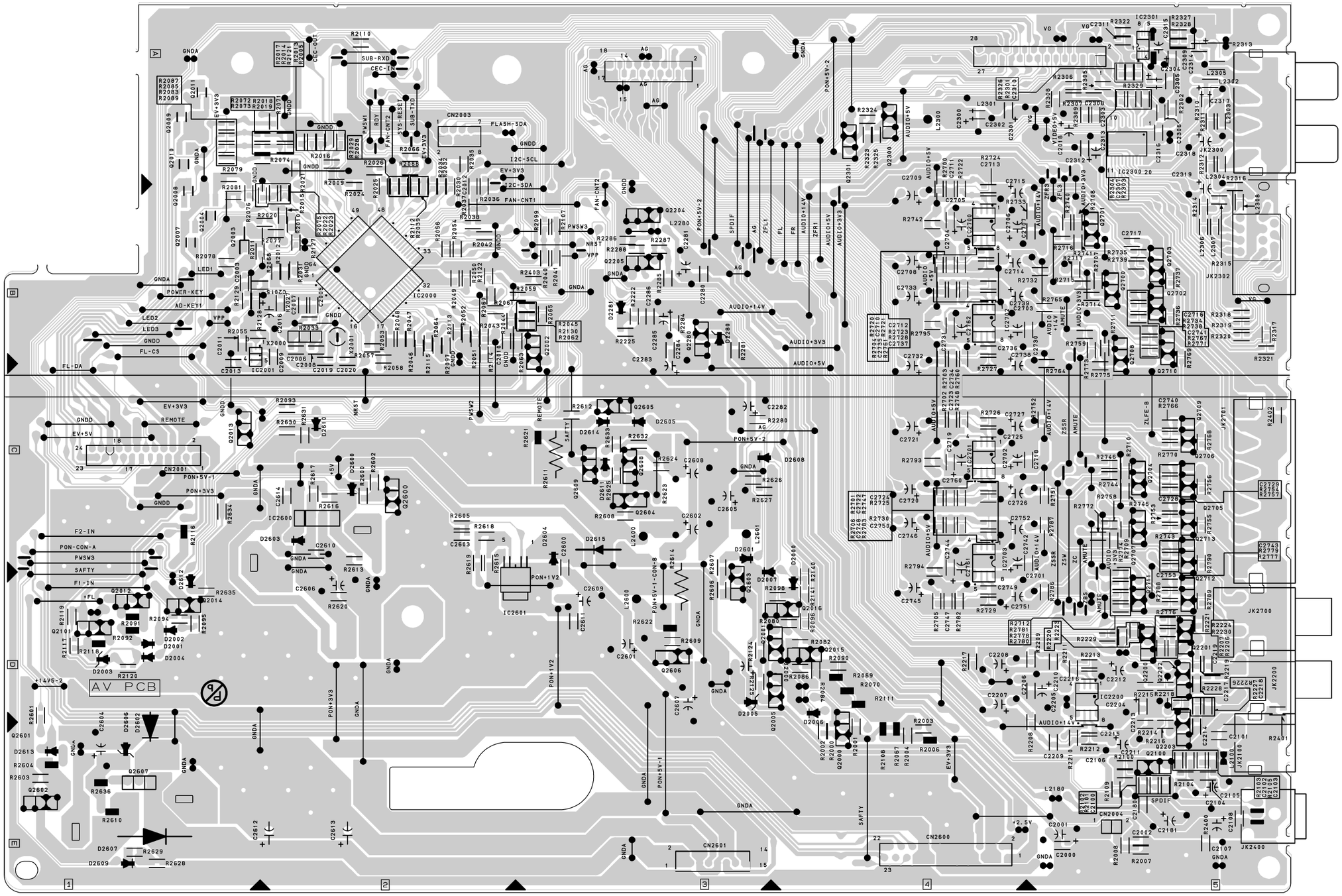
BE Main 10/10 Schematic Diagram



AV CBA Top View

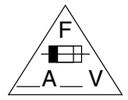


AV CBA Bottom View



Power Supply CBA Top View

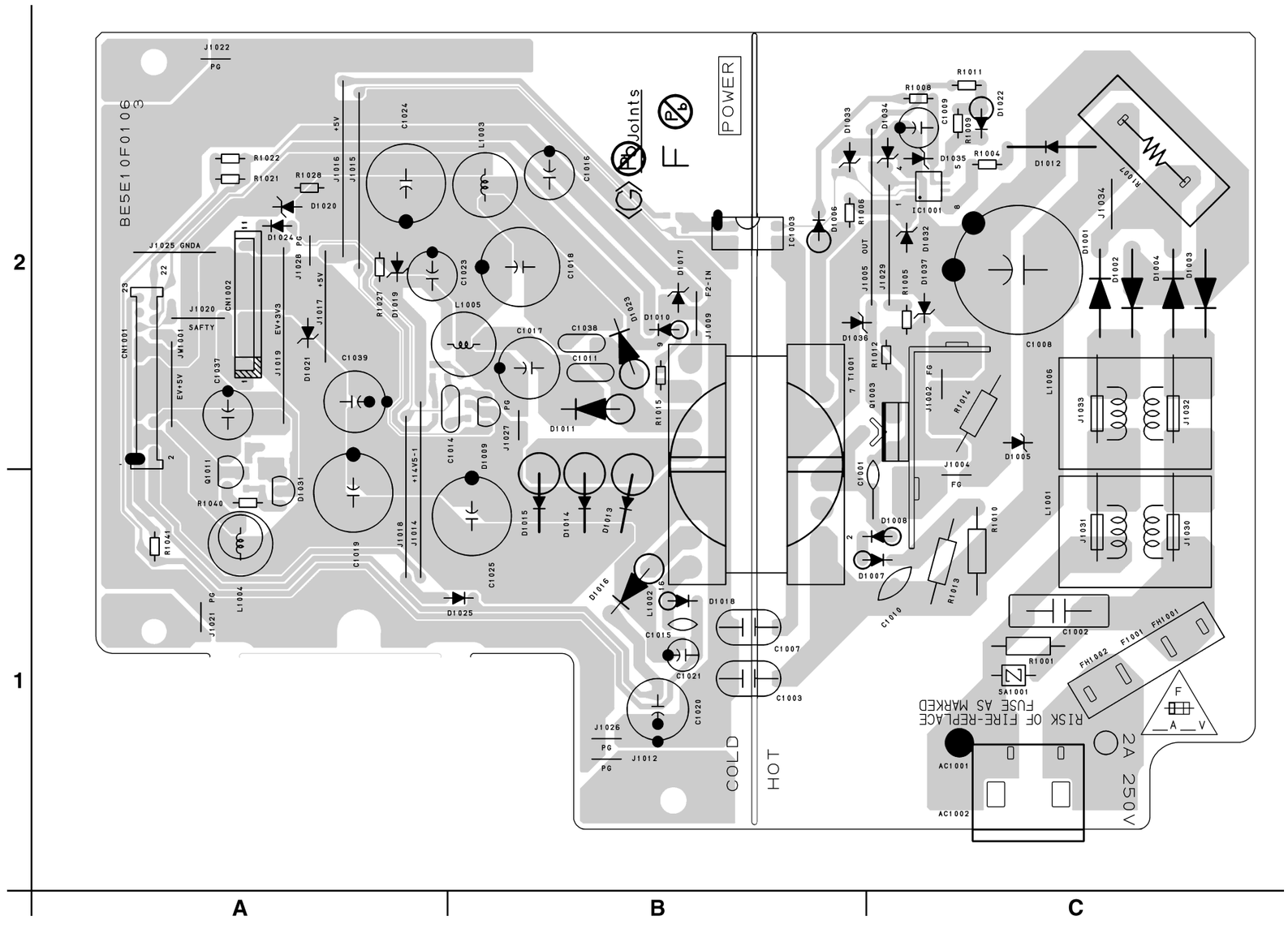
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F1001) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.



CAUTION !
For continued protection against fire hazard,
replace only with the same type fuse.
ATTENTION : Pour une protection continue les risqes d'Incele n'utiliser que des fusible de même type.
Risk of fire-replace fuse as marked.
"This symbol means fast operating fuse."
"Ce symbole représente un fusible à fusion rapide."

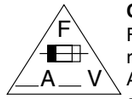
Because a hot chassis ground is present in the power supply circut, an isolation transformer must be used. Also, in order to have the ability to increase the input slowly, when troubleshooting this type power supply circuit, a variable isolation transformer is required.

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



Power Supply CBA Bottom View

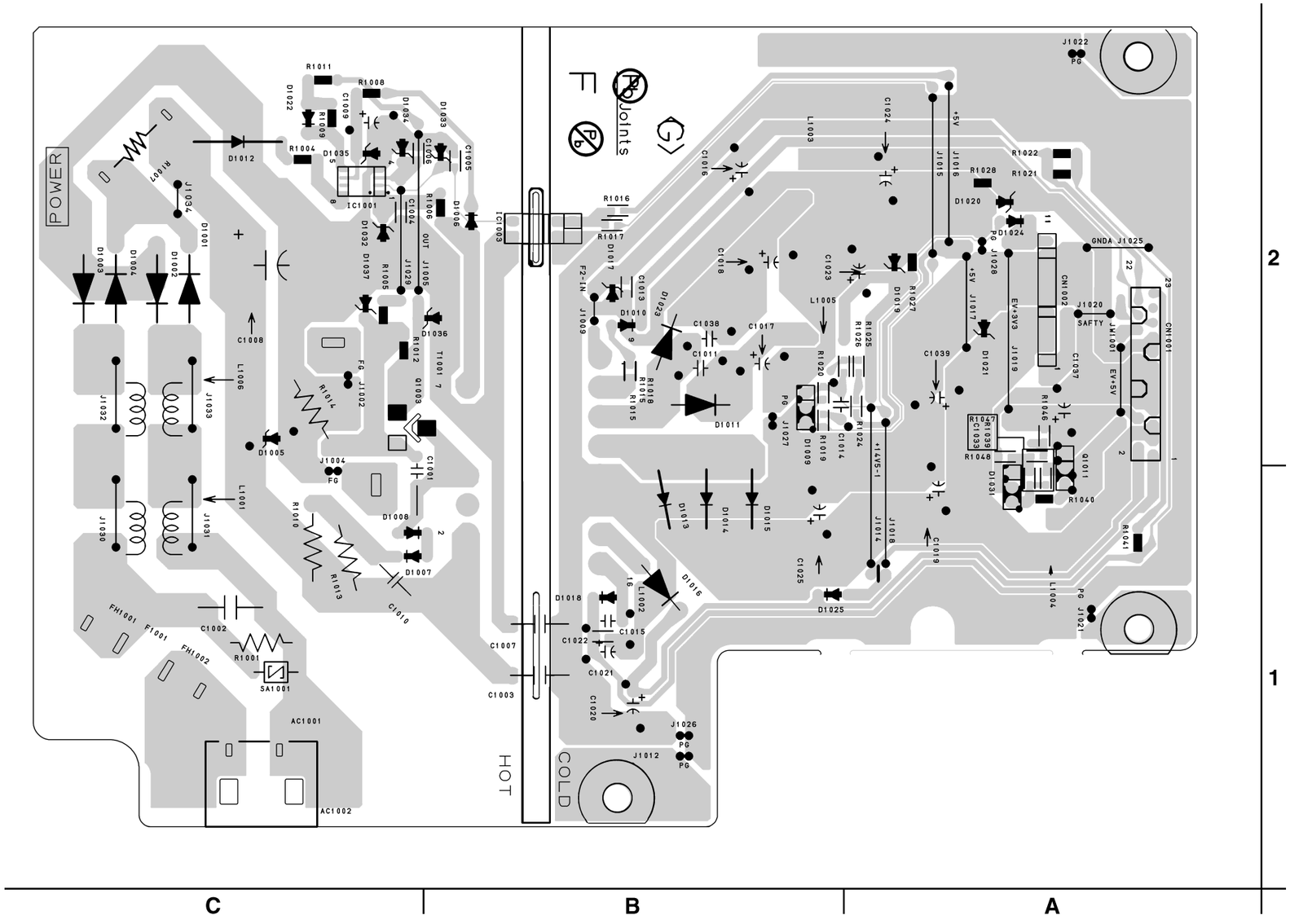
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F1001) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.



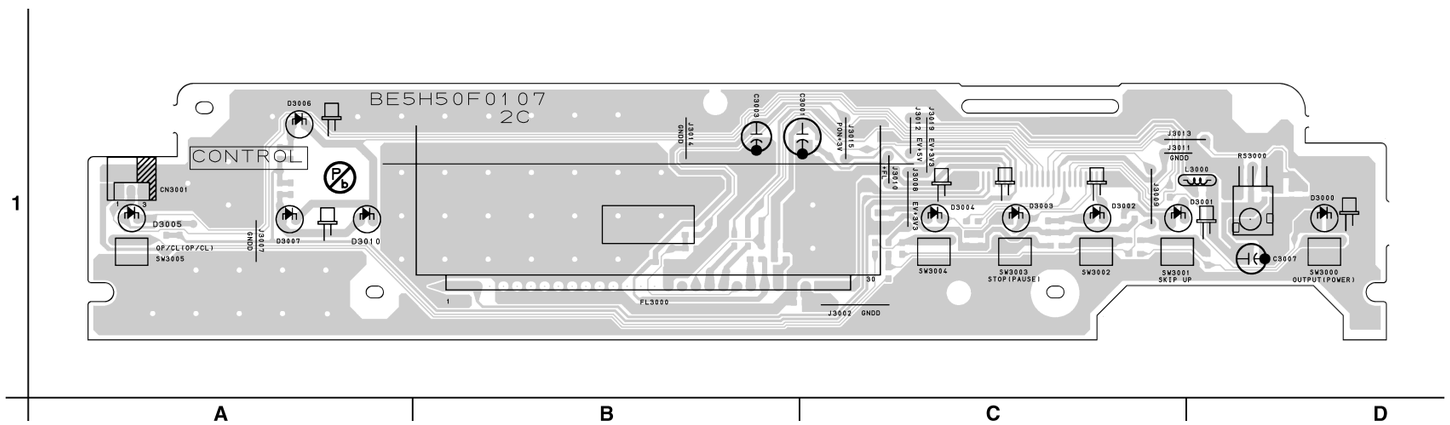
CAUTION !
For continued protection against fire hazard,
replace only with the same type fuse.
ATTENTION : Pour une protection continue les risqes d'Incele n'utiliser que des fusible de même type.
Risk of fire-replace fuse as marked.
"This symbol means fast operating fuse."
"Ce symbole reprèsente un fusible à fusion rapide."

Because a hot chassis ground is present in the power supply circut, an isolation transformer must be used. Also, in order to have the ability to increase the input slowly, when troubleshooting this type power supply circuit, a variable isolation transformer is required.

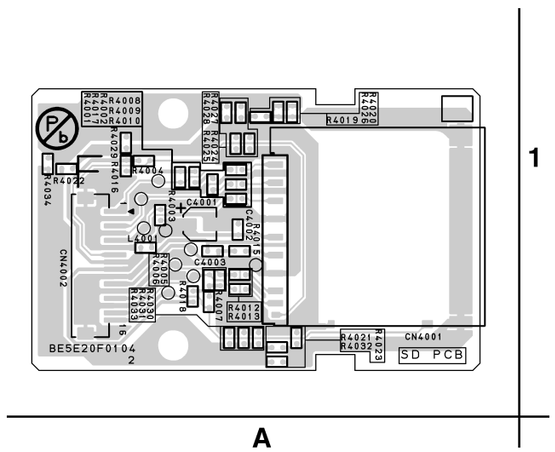
NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



Front CBA Top View

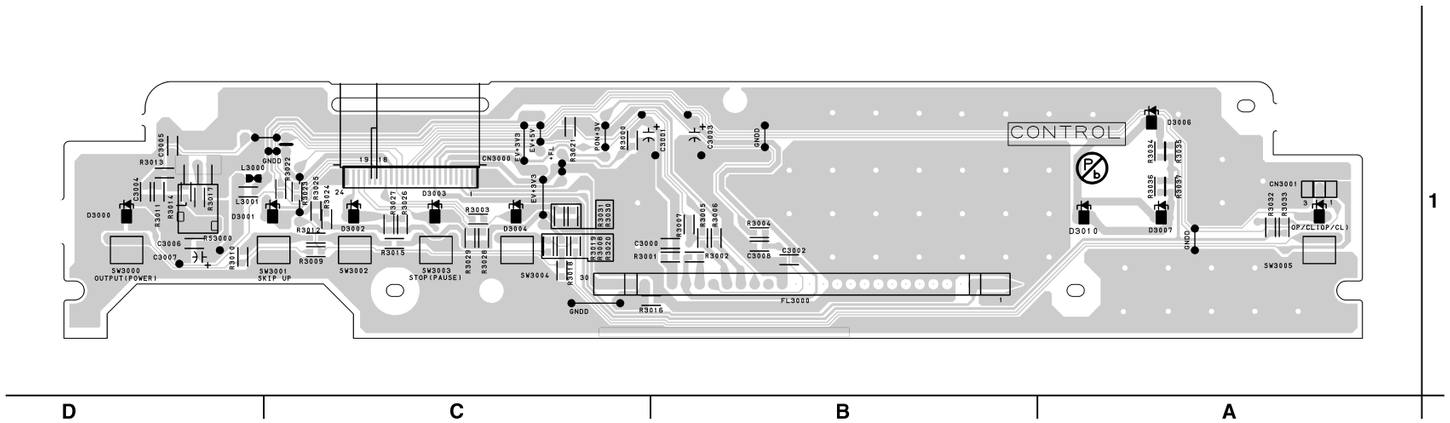


SD CBA Bottom View



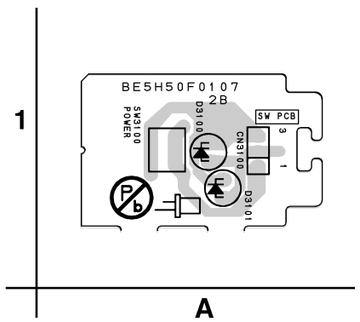
BE5E20F01042

Front CBA Bottom View

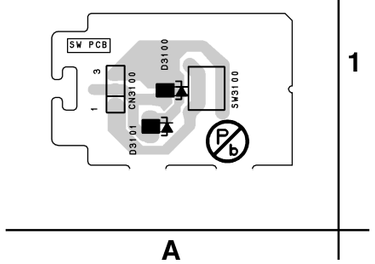


BE5H50F01072C

Power SW CBA Top View



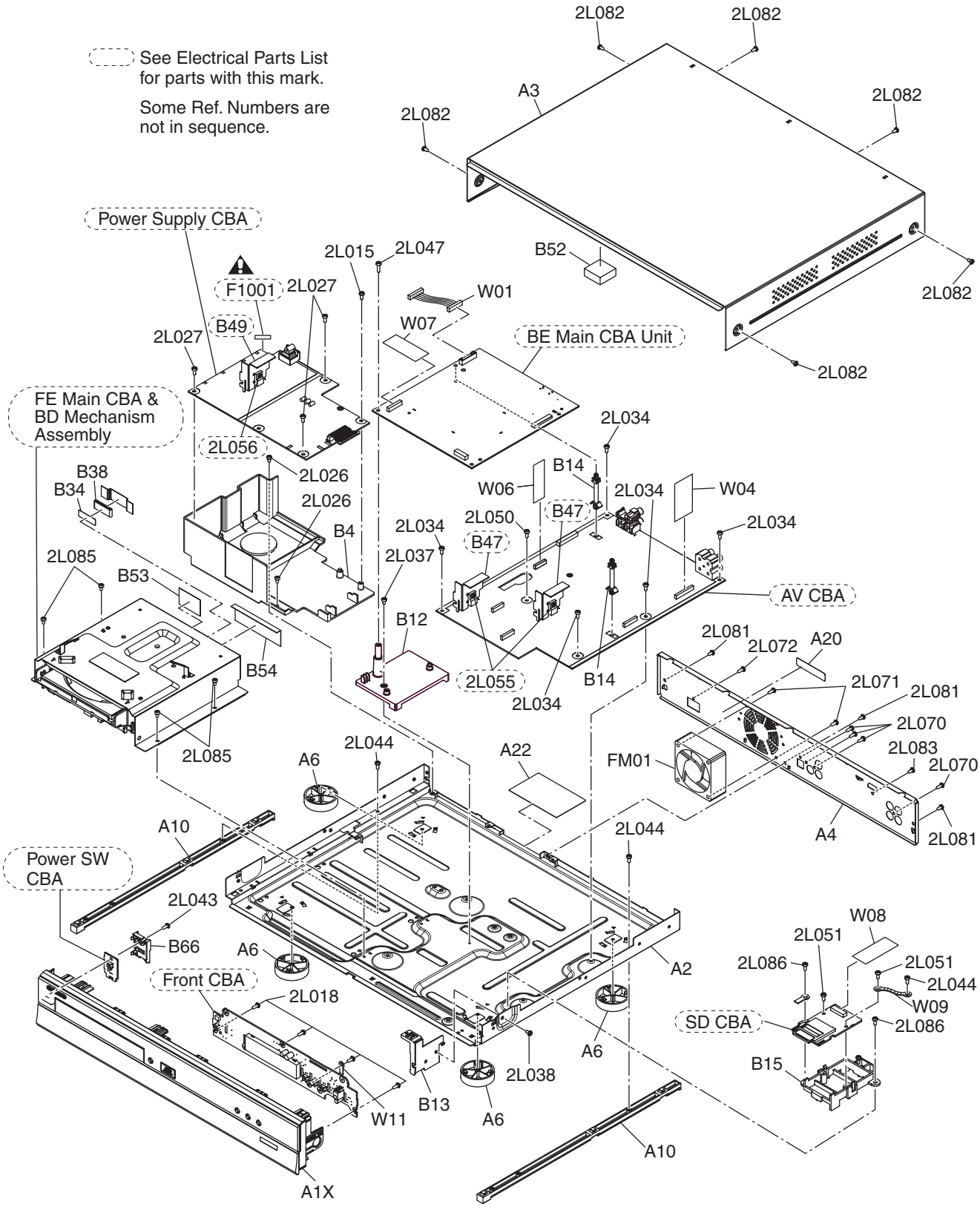
Power SW CBA Bottom View



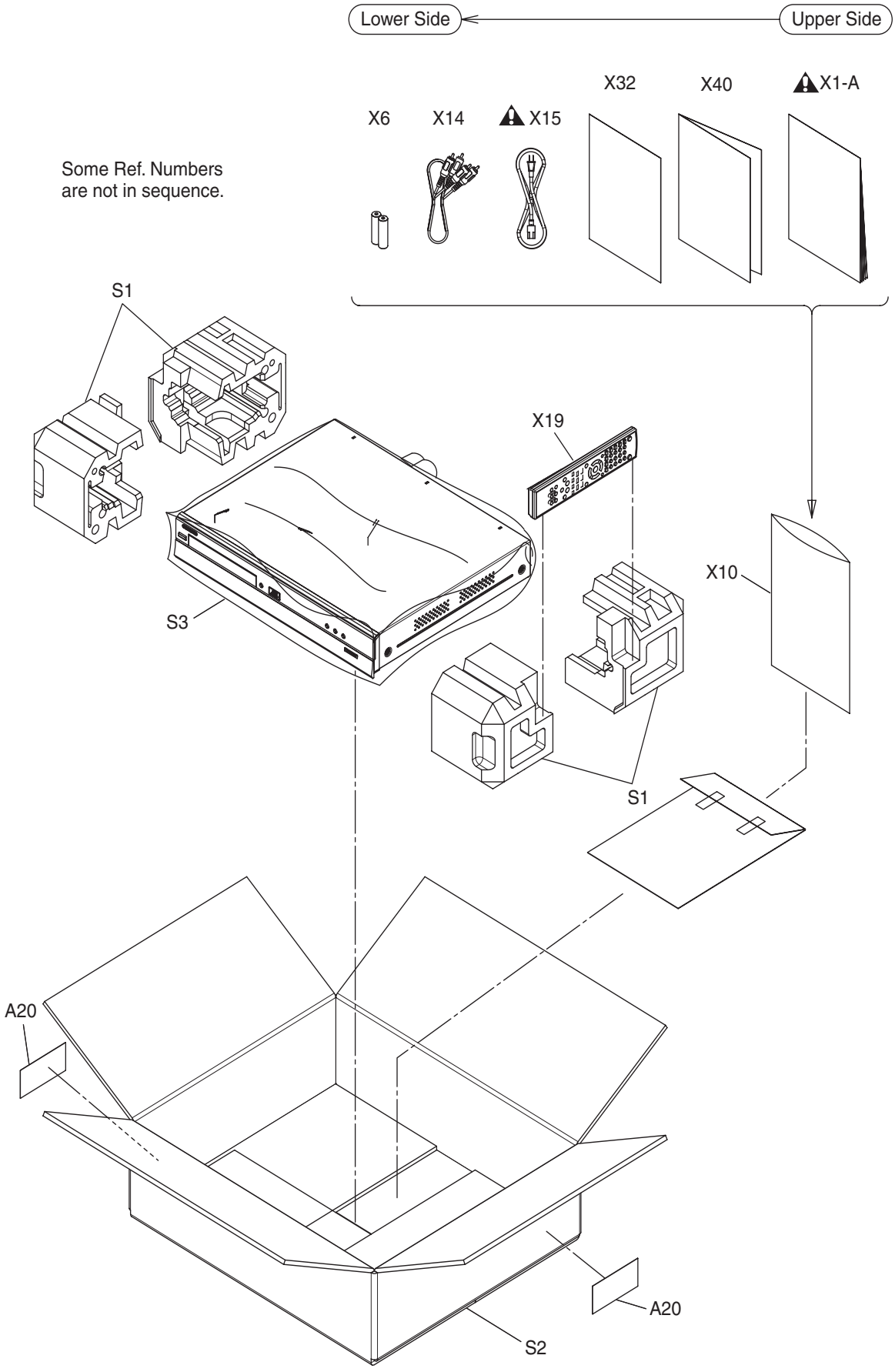
BE5H50F01072B

EXPLODED VIEWS

Cabinet



Packing


Lower Side
Upper Side
X6
X14
X15
X32
X40
X1-A
Some Ref. Numbers
are not in sequence.
S1
X19
X10
S3
S1
A20
A20
S2

MECHANICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTE: Parts that are not assigned part numbers (---------) are not available.

Ref. No.	Description	Part No.
A1X	FRONT ASSEMBLY E5H55UD	1VM122340
A2	CHASSIS E5H50UD	1VM225696
A3	TOP COVER E5J20ED	1VM225860
A4	REAR PANEL E5H55UD	1VM225937
A6	FOOT ASSEMBLY E5H50UD	1VM430199
A10	BOTTOM GUIDE E5E20UD	1VM224296D
A20	BAR CODE LABEL E5H55UD	----------
A22	LICENSE LABEL E5H50UD	----------
2L015	SCREW P-TIGHT M3X8 BIND HEAD+	GBJP3080
2L018	SCREW P-TIGHT M3X8 BIND HEAD+	GBJP3080
2L026	SCREW C-TIGHT M3X6 E5610UD	0VM412937A
2L027	SCREW C-TIGHT M3X6 E5610UD	0VM412937A
2L034	SCREW S-TIGHT M3X6 E5E10UD	1VM429667
2L037	SCREW C-TIGHT M3X6 E5610UD	0VM412937A
2L038	SCREW C-TIGHT M3X6 E5610UD	0VM412937A
2L043	SCREW P-TIGHT M3X10 BIND HEAD+	GBJP3100
2L044	SCREW P-TIGHT M3X6 BIND HEAD+	GBJP3060
2L047	SCREW P-TIGHT M3X10 BIND HEAD+	GBJP3100
2L050	SCREW P-TIGHT M3X8 BIND HEAD+	GBJP3080
2L051	SCREW P-TIGHT M3X8 BIND HEAD+	GBJP3080
2L070	B-TIGHT SCREW M3X8 E5E00UD	1VM428563
2L071	B-TIGHT SCREW M3X8 E5E00UD	1VM428563
2L072	SCREW TAP TIGHT M3X8 BIND PAN HEAD+BLK NI	GPHB3080
2L081	S-TIGHT SCREW M3X6 E5E00UD	1VM428564
2L082	SCREW TAP TIGHT M3X5 BIND HEAD+BLK NI	GBHC3050
2L083	S-TIGHT SCREW M3X6 E5E00UD	1VM428564
2L085	SCREW C-TIGHT M3X6 E5610UD	0VM412937A
2L086	SCREW C-TIGHT M3X6 E5610UD	0VM412937A
B4	POWER PCB HOLDER E5E10UD	1VM121339E
B12	BE PCB HOLDER ASSEMBLY E5H40UD	1VM327680
B13	FRONT BRAKET R E5E10UD	1VM425934
B14	LOCKING CARD SPACER KGLS-22S	XP0U039WD001
B15	SD CARD HOLDER E5E20UD	1VM326404
B34	DOUBLE SIDE TAPE E5E10UD	1VM427670
B38	CORE FERRITE HF70SH25*0.7*10	XL05028TE001
B52	CUSHIION E5E10UD	1VM428082
B53	CONDUCTIVE TAPE CSTK-026065	XT1H000WD001
B54	CONDUCTIVE TAPE CSTK-040055	XT1H000WD002
B66	PCB COVER E5H50UD	1VM327720
FM01	MOTOR DC FAN 2D65BL100190	MMEZR12XNR08
W01	WX1E5E10-001 11/110/AWG24	WX1E5E10-001
W04	WX1E5E10-004 28/75/1.0	WX1E5E10-004
W06	WIRE ASSEMBLY FFC 15/218/1.0	WX1E5E10-012
W07	WX1E5E10-007 40/240/0.5	WX1E5E10-007
W08	WIRE ASSEMBLY FFC 16/125/1.0	WX1E5E20-002
W09	WIRE ASSEMBLY 15/BLACK	WX1E5E10-009
W11	WIRE ASSEMBLY 38/BLACK	WX1E5E10-011

Ref. No.	Description	Part No.
	PACKING	
S1	SIDE PAD E5H50UD	1VM122220
S2	GIFT BOX CARTON E5H55UD	1VM327880
S3	UNIT BAG E5500UD	0VM411683
	ACCESSORIES	
X1-A⚠	OWNERS MANUAL(EN) E5H55UD	1VMN26313
X6	MANGANESE DRY BATTERY R6UWC/2SK	XB0M311MS002
X10	ACCESSORY BAG E5795ED	0VM416059
X14	AV CORD WPZ0102TM015	WPZ0102TM015
X15⚠	AC CORD WITH A GND WIRE UL/CSA/ 162/ NO/BLACK	WAV0162LW001
X19	REMOTE CONTROL UNIT NB822UD	NB822UD
X32	FCC ADDENDUM SHEET E8E70UD	1VMN26033
X40	WARRANTY CARD E5H55UD	1VMN26326

ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTES:

1. Parts that are not assigned part numbers (---------) are not available.
2. Tolerance of Capacitors and Resistors are noted with the following symbols.

C.....±0.25% D.....±0.5% F.....±1%

G.....±2% J.....±5% K.....±10%

M.....±20% N.....±30% Z.....+80/-20%

FE MAIN CBA & BD MECHANISM ASSEMBLY

Ref. No.	Description	Part No.
	FE MAIN CBA & BD MECHANISM ASSEMBLY	N7JR0AUN

BE MAIN CBA UNIT

Ref. No.	Description	Part No.
	BE MAIN CBA UNIT	1VSA20044

AV ASSEMBLY

Ref. No.	Description	Part No.
	AV ASSEMBLY Consists of the following:	1VSA20064
	AV CBA POWER SW CBA FRONT CBA	---------- ---------- ----------

AV CBA

Ref. No.	Description	Part No.
	AV CBA Consists of the following:	----------
	CAPACITORS	
C2000	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
C2001	ELECTROLYTIC CAP. 100μF/16V M	CE1CMASDL101
C2004	ELECTROLYTIC CAP. 47μF/16V M	CE1CMASDL470
C2005	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2007	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2009	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C2011	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2012	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
If C2013 is 0.1μF, then IC2001 is PST3630NR.		
C2013	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
IC2001	RESET IC PST3630NR	QSZBA0TMM180
If C2013 is 0.01μF, then IC2001 is PST8430NR.		
C2013	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
IC2001	RESET IC PST8430NR	QSZBA0TMM203
C2015	CHIP CERAMIC CAP. (1608) B K 1μF/16V	CHD1CK30B105
C2016	ELECTROLYTIC CAP. 22μF/6.3V M	CE0KMASDL220
C2018	ELECTROLYTIC CAP. 47μF/6.3V M	CE0KMASDL470
C2019	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
C2100	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
C2104	ELECTROLYTIC CAP. 47μF/6.3V M	CE0KMASDL470
C2106	CHIP CERAMIC CAP. CH D 8pF/50V	CHD1JD3CH8R0
C2107	ELECTROLYTIC CAP. 220μF/6.3V M	CE0KMASDL221
C2108	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2180	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2181	ELECTROLYTIC CAP. 220μF/6.3V M	CE0KMASDL221
C2204	ELECTROLYTIC CAP. 47μF/25V M	CE1EMASDL470
C2205	ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASDL471
C2206	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2207	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C2208	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C2209	CHIP CERAMIC CAP. CH J 220pF/50V	CHD1JJ3CH221
C2210	CHIP CERAMIC CAP. CH J 220pF/50V	CHD1JJ3CH221
C2211	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C2212	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C2213	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2215	CHIP CERAMIC CAP. CH J 39pF/50V	CHD1JJ3CH390
C2216	CHIP CERAMIC CAP. CH J 39pF/50V	CHD1JJ3CH390
C2280	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2281	ELECTROLYTIC CAP. 220μF/6.3V M	CE0KMASDL221
C2282	ELECTROLYTIC CAP. 100μF/16V M	CE1CMASDL101
C2283	ELECTROLYTIC CAP. 1000μF/6.3V M	CE0KMASDL102
C2284	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2286	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2300	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C2301	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2302	ELECTROLYTIC CAP. 100μF/6.3V M	CE0KMASDL101
C2303	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C2304	ELECTROLYTIC CAP. 22μF/16V M	CE1CMASDL220
C2305	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C2307	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
C2309	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2310	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
C2311	CHIP CERAMIC CAP.(1608) B K 0.47μF/10V	CHD1AK30B474
C2312	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2313	ELECTROLYTIC CAP. 47μF/6.3V M	CE0KMASDL470
C2314	ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASDL471
C2315	ELECTROLYTIC CAP. 47μF/6.3V M	CE0KMASDL470
C2316	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2317	ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASDL471
C2318	ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASDL471
C2319	ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASDL471
C2600	CHIP CERAMIC CAP. (1608) B K 1μF/16V	CHD1CK30B105
C2601	ELECTROLYTIC CAP. 1000μF/6.3V M	CE0KMASDL102
C2602	ELECTROLYTIC CAP. 1000μF/6.3V M	CE0KMASDL102
C2603	CHIP CERAMIC CAP. (1608) B K 1μF/16V	CHD1CK30B105
C2604	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C2605	ELECTROLYTIC CAP. 47μF/25V M	CE1EMASDL470
C2606	ELECTROLYTIC CAP. 100μF/6.3V M	CE0KMASDL101
C2607	ELECTROLYTIC CAP. 1000μF/6.3V M	CE0KMASDL102
C2608	ELECTROLYTIC CAP. 1000μF/6.3V M	CE0KMASDL102
C2609	ELECTROLYTIC CAP. 100μF/6.3V M	CE0KMASDL101
C2610	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
C2611	CHIP CERAMIC CAP.(2125) F Z 10μF/10V	CHE1AZ30F106
C2614	CHIP CERAMIC CAP.(1608) B K 0.33μF/10V	CHD1AK30B334
C2705	CARBON RES. 1/4W J 270 Ω	RCX4JATZ0271
C2760	CARBON RES. 1/4W J 270 Ω	RCX4JATZ0271

Ref. No.	Description	Part No.
C2762	CARBON RES. 1/4W J 270 Ω	RCX4JATZ0271
	CONNECTORS	
CN2000	FFC CONNECTOR IMSA-9615S-28A-PP-A	JC96J28ER007
CN2001	FFC CONNECTOR IMSA-9615S-18A-PP-A	JC96J18ER007
CN2004	PH CONNECTOR TOP 2P B2B-PH-K-S (LF)(SN)	J3PHC02JG029
CN2600	BOARD CONNECTOR 23P(PB FREE) 127301123K2	JCTWA23TG004
CN2601	FFC CONNECTOR 15P IMSA-9615S-15A-PP-A	JC96J15ER007
	DIODES	
D2000	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2001	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2002	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2003	DIODE ZENER 36BSA-T26	NDTA036BST26
D2004	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2005	DIODE ZENER 12BSB-T26	NDTB012BST26
D2006	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2007	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2280	DIODE ZENER 5V6BSB-T26	NDTB5R6BST26
D2600	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2601	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2602	DIODE 1N5406	NDLZ001N5406
D2605	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2606	DIODE ZENER 11BSC-T26	NDTC011BST26
D2608	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2609	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2610	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2611	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2612	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2613	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
D2614	DIODE SWITCHING 1N4148-F0021	NDTZ01N4148F
	ICS	
IC2000	IC SUB MICON MN101C77AFS3	QSAD0R0MS002
If IC2001 is PST3630NR, then C2013 is 0.1μF.		
IC2001	RESET IC PST3630NR	QSZBA0TMM180
C2013	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
If IC2001 is PST8430NR, then C2013 is 0.01μF.		
IC2001	RESET IC PST8430NR	QSZBA0TMM203
C2013	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
IC2200	IC OP AMP UTC4580E	NSZBA0T2H010
IC2300	VIDEO DRIVER BH7602FS-E2	QSZBA0TRM105
IC2301	DRIVER FOR DVD MM1636XWRE	QSZBA0TMM108
IC2600	IC VOLTAGE REGULATOR PQ070XF02SZH	QSZBA0SSH073
IC2601	IC REGULATOR PQ035ZN01ZPH	QSZBA0TSH074
	COILS	
L2100	INDUCTOR(0.47μH K) LAP02TAR47K	LLAXKATTUR47
L2180	PCB JUMPER D0.6-P5.0	JW5.0T
L2300	RADIAL TYPE CHOKE COIL CW68-470K-841040NP	LLBD00PKV023
L2301	CHIP BEAD MMZ1608R102CT	XL06001TE002
L2400	CHOKE COIL 22μH-K	LLBD00PKV021
L2600	CHOKE COIL 22μH-K	LLBD00PKV021
L2601	CHOKE COIL 22μH-K	LLBD00PKV021
	TRANSISTORS	
Q2000	TRANSISTOR KTA1267-Y-AT/P	NQSYKTA1267P
Q2001	NPN TRANSISTOR KRC103M-AT/P	NQSZKRC103MP
Q2002	NPN TRANSISTOR KRC102M-AT/P	NQSZKRC102MP
Q2003	PNP TRANSISTOR DIGITAL SMD KRA101S-RTK/P	NQ1ZKRA101SP
Q2005	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q2012	TRANSISTOR KTA1267-Y-AT/P	NQSYKTA1267P
Q2013	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q2014	TRANSISTOR KTA1267-Y-AT/P	NQSYKTA1267P
Q2100	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P

Ref. No.	Description	Part No.
Q2101	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q2200	RES. BUILT-IN TRANSISTOR KRA105M-AT/P	NQSZ0KRA105M
Q2201	RES. BUILT-IN TRANSISTOR KRA105M-AT/P	NQSZ0KRA105M
Q2202	MUTE TRANSISTOR 2SD2144S	QQSZ2SD2144S
Q2203	MUTE TRANSISTOR 2SD2144S	QQSZ2SD2144S
Q2280	TRANSISTOR KTC3205-Y-AT/P	NQSYKTC3205P
Q2300	TRANSISTOR (PB FREE) KTA1271-Y-AT/P	NQSYKTA1271P
Q2301	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q2600	NPN TRANSISTOR KRC103M-AT/P	NQSZKRC103MP
Q2601	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q2602	TRANSISTOR KTA1267-Y-AT/P	NQSYKTA1267P
Q2603	TRANSISTOR (PB FREE) KTA1271-Y-AT/P	NQSYKTA1271P
Q2604	TRANSISTOR KTA1273-Y-AT/P	NQSYKTA1273P
Q2605	TRANSISTOR KTC3203-Y-AT/P	NQSYKTC3203P
Q2606	TRANSISTOR KTA1273-Y-AT/P	NQSYKTA1273P
Q2607	TRANSISTOR(PB FREE) KTC2026-Y/P	NQEYKTC2026P
	RESISTORS	
R2000	CHIP RES. 1/10W J 47k Ω	RRXAJR5Z0473
R2002	CHIP RES. 1/10W J 5.6k Ω	RRXAJR5Z0562
R2005	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2006	CARBON RES. 1/4W J 300 Ω	RCX4JATZ0301
R2007	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2010	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2012	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2014	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2015	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2016	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2017	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2018	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2019	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2020	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2021	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2022	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2023	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2024	CHIP RES. 1/10W J 100 Ω	RRXAJR5Z0101
R2025	CHIP RES. 1/10W J 100 Ω	RRXAJR5Z0101
R2026	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2029	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2030	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2031	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2032	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R2033	CHIP RES. 1/10W J 470 Ω	RRXAJR5Z0471
R2034	CHIP RES. 1/10W J 100 Ω	RRXAJR5Z0101
R2035	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2036	CHIP RES. 1/10W J 6.8k Ω	RRXAJR5Z0682
R2037	CHIP RES. 1/10W J 100 Ω	RRXAJR5Z0101
R2038	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2043	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2045	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2047	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2048	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2049	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2050	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2051	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2052	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2053	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2055	CHIP RES. 1/10W J 47k Ω	RRXAJR5Z0473
R2057	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2058	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2059	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2062	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2065	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102

Ref. No.	Description	Part No.
R2067	CARBON RES. 1/4W J 300 Ω	RCX4JATZ0301
R2068	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2077	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2078	CHIP RES. 1/10W J 47 Ω	RRXAJR5Z0470
R2091	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R2092	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R2093	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2094	CHIP RES. 1/10W J 47k Ω	RRXAJR5Z0473
R2095	CHIP RES. 1/10W J 3.9k Ω	RRXAJR5Z0392
R2096	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2099	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2100	CHIP RES. 1/10W J 2k Ω	RRXAJR5Z0202
R2101	CHIP RES. 1/10W J 2.2k Ω	RRXAJR5Z0222
R2102	CHIP RES. 1/10W J 2.2k Ω	RRXAJR5Z0222
R2103	CHIP RES. 1/10W J 220 Ω	RRXAJR5Z0221
R2104	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R2105	CHIP RES. 1/10W J 100k Ω	RRXAJR5Z0104
R2109	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2110	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2112	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2115	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2116	CARBON RES. 1/4W J 5.6 Ω	RCX4JATZ05R6
R2117	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R2118	CARBON RES. 1/4W J 10 Ω	RCX4JATZ0100
R2124	CHIP RES. 1/10W J 270 Ω	RRXAJR5Z0271
R2125	CHIP RES. 1/10W J 270 Ω	RRXAJR5Z0271
R2129	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2141	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2208	CHIP RES. 1/10W F 20k Ω	RRXAFR5H2002
R2209	CHIP RES. 1/10W F 20k Ω	RRXAFR5H2002
R2210	CHIP RES. 1/10W J 8.2k Ω	RRXAJR5Z0822
R2211	CHIP RES. 1/10W J 8.2k Ω	RRXAJR5Z0822
R2212	CHIP RES. 1/10W F 30k Ω	RRXAFR5H3002
R2213	CHIP RES. 1/10W F 30k Ω	RRXAFR5H3002
R2214	CHIP RES. 1/10W J 100k Ω	RRXAJR5Z0104
R2215	CHIP RES. 1/10W J 100k Ω	RRXAJR5Z0104
R2216	CHIP RES. 1/10W J 220 Ω	RRXAJR5Z0221
R2217	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R2218	CHIP RES. 1/10W J 220 Ω	RRXAJR5Z0221
R2219	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R2220	CHIP RES. 1/10W J 100k Ω	RRXAJR5Z0104
R2221	CHIP RES. 1/10W J 100k Ω	RRXAJR5Z0104
R2223	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R2224	CHIP RES. 1/10W J 2.2k Ω	RRXAJR5Z0222
R2226	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R2227	CHIP RES. 1/10W J 820 Ω	RRXAJR5Z0821
R2228	CHIP RES. 1/10W J 820 Ω	RRXAJR5Z0821
R2229	CHIP RES. 1/10W J 2.2k Ω	RRXAJR5Z0222
R2230	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R2280	CHIP RES. 1/10W J 820 Ω	RRXAJR5Z0821
R2281	CHIP RES. 1/10W J 820 Ω	RRXAJR5Z0821
R2284	CHIP RES. 1/10W J 10 Ω	RRXAJR5Z0100
R2301	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
R2308	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2309	CHIP RES. 1/10W J 1.5k Ω	RRXAJR5Z0152
R2310	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R2311	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R2312	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R2313	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R2323	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2324	CHIP RES. 1/10W J 1.8k Ω	RRXAJR5Z0182
R2327	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2400	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2402	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2403	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2600	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R2601	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R2602	CHIP RES. 1/10W J 2.2k Ω	RRXAJR5Z0222
R2603	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R2604	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R2606	CHIP RES. 1/10W J 47k Ω	RRXAJR5Z0473
R2607	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R2608	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R2609	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R2610	CARBON RES. 1/4W J 220 Ω	RCX4JATZ0221
R2612	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2613	CHIP RES. 1/10W F 10k Ω	RRXAFR5H1002
R2615	CHIP RES. 1/10W F 1.0k Ω	RRXAFR5H1001
R2616	CHIP RES. 1/10W F 15k Ω	RRXAFR5H1502
R2617	CHIP RES. 1/10W F 2k Ω	RRXAFR5H2001
R2619	CHIP RES. 1/10W F 1.1k Ω	RRXAFR5H1101
R2620	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R2621	CARBON RES. 1/4W J 82 Ω	RCX4JATZ0820
R2622	CARBON RES. 1/4W J 82 Ω	RCX4JATZ0820
R2623	PCB JUMPER D0.6-P12.5	JW12.5T
R2626	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2636	CARBON RES. 1/4W J 33 Ω	RCX4JATZ0330
R2742	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2793	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2795	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
	MISCELLANEOUS	
2L055	SCREW S-TIGHT M3X8 BIND HEAD+	GBJS3080
B47	POWER HEATSINK E4340UD	1VM422057E
JK2100	RCA JACK(BLACK) MSP-251V-01 NI FE LF	JXRL010LY125
JK2200	PIN JACK 2P MSD-242V-01 NI FE LF	JXRL020LY123
JK2300	JACK RCA PCB L MSP-244V10-46 NI FE	JXRL040LY145
JK2400	FIBER OPTIC TRANS.MODULE 0C-0805T*002	JWHHA00JD002
X2000	CERAMIC RESONATOR ZTT8.00MT47	FY0805PLN004

POWER SW CBA

Ref. No.	Description	Part No.
	POWER SW CBA Consists of the following:	---
	CONNECTOR	
CN3100	WIRE ASSEMBLY PH 3/230/AGW26	WX1E5H50-002
	DIODE	
D3101	LED(RED) 1254IT	NPQZ0012541T
	SWITCH	
SW3100	TACT SWITCH SKQSAB	SST0101AL038

FRONT CBA

Ref. No.	Description	Part No.
	FRONT CBA Consists of the following:	---
	CAPACITORS	
C3000	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C3001	ELECTROLYTIC CAP. 22μF/50V M H7	CE1JMASSL220
C3002	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C3003	ELECTROLYTIC CAP. 100μF/6.3V M H7	CE0KMASSL101
C3005	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C3006	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C3007	ELECTROLYTIC CAP. 100μF/6.3V M H7	CE0KMASSL101
C3008	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104

Ref. No.	Description	Part No.
	CONNECTORS	
CN3000	WX1E5E10-003 18/155/1.0	WX1E5E10-003
CN3001	CONNECTOR PRINT OSU S3B-PH-K-S(LF)(SN)	J3PHC03JG030
	COIL	
L3000	INDUCTOR(100μH K) LAP02TA101K	LLAXKATTU101
	RESISTORS	
R3000	CHIP RES. 1/10W J 10 Ω	RRXAJR5Z0100
R3001	CHIP RES. 1/10W J 10 Ω	RRXAJR5Z0100
R3002	CHIP RES. 1/10W J 12k Ω	RRXAJR5Z0123
R3004	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R3005	CHIP RES.(1608) 1/10W 0 Ω	RRXAJR5Z0000
R3006	CHIP RES.(1608) 1/10W 0 Ω	RRXAJR5Z0000
R3008	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R3009	CHIP RES. 1/10W J 180 Ω	RRXAJR5Z0181
R3010	CHIP RES. 1/10W J 220 Ω	RRXAJR5Z0221
R3012	CHIP RES. 1/10W J 330 Ω	RRXAJR5Z0331
R3014	CHIP RES. 1/10W J 6.8k Ω	RRXAJR5Z0682
R3015	CHIP RES. 1/10W J 560 Ω	RRXAJR5Z0561
R3018	CHIP RES. 1/10W J 22 Ω	RRXAJR5Z0220
R3019	CHIP RES. 1/10W J 1.2k Ω	RRXAJR5Z0122
R3020	CHIP RES. 1/10W J 3.3k Ω	RRXAJR5Z0332
R3021	CHIP RES.(1608) 1/10W 0 Ω	RRXAJR5Z0000
	SWITCHES	
SW3002	TACT SWITCH SKQSAB	SST0101AL038
SW3003	TACT SWITCH SKQSAB	SST0101AL038
SW3004	TACT SWITCH SKQSAB	SST0101AL038
SW3005	TACT SWITCH SKQSAB	SST0101AL038
	MISCELLANEOUS	
FL3000	FL DM182-GINK	TVFD150FT018
RS3000	SENSOR REMOTE RECEIVER KSM-713TH2E	USESJRSKK046

POWER SUPPLY CBA

Ref. No.	Description	Part No.
	POWER SUPPLY CBA Consists of the following:	1VSA20204
	CAPACITORS	
C1001	CERAMIC CAP. B K 1000pF/2KV	CCD3DKP0B102
C1002⚠	CAP METALIZED FILM 0.1μF/300V K 4.5MM	CT2F104DC003
C1003⚠	SAFETY CAP. 2200pF/250V	CCG2EMA0F222
C1004	CHIP CERAMIC CAP.(1608) CH J 22pF/50V	CHD1JJ3CH220
C1005	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1006	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C1007⚠	SAFETY CAP. 2200pF/250V	CCG2EMA0F222
C1008	CAP ELECTROLYTIC 470μF/200V M	CA2D471DYG07
C1009	ELECTROLYTIC CAP. 47μF/35V M	CE1GMASDL470
C1010	METALIZED FILM CAP. 0.0022μF/400V K	CT2H222DT034
C1013	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C1014	POLYESTER FILM CAP. (PB FREE) 0.0068μF/100V J	CA2A682DT018
C1015	CERAMIC CAP. B K 470pF/500V	CCD2JKP0B471
C1016	ELECTROLYTIC CAP. 220μF/16V M	CE1CMASDL221
C1017	ELECTROLYTIC CAP. 1000μF/25V M	CE1EMASDL102
C1018	ELECTROLYTIC CAP. 2200μF/25V SL	CE1EMZADL222
C1019	ELECTRIC CAP. 4700μF/10V	CE1AMZADL472
C1020	ELECTROLYTIC CAP. 2200μF/6.3V M	CE0KMASDL222
C1021	ELECTROLYTIC CAP. 22μF/50V M	CE1JMASDL220
C1022	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1023	ELECTROLYTIC CAP. 220μF/25V M	CE1EMASDL221
C1024	ELECTROLYTIC CAP. 2200μF/25V SL	CE1EMZADL222
C1025	ELECTRIC CAP. 4700μF/10V	CE1AMZADL472
C1033	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103

Ref. No.	Description	Part No.
	CONNECTORS	
CN1001	TWG CONNECTOR 23P TWG-P23P-A1	J3TWA23TG001
CN1002	PH CONNECTOR TOP 11P B11B-PH-K-S(LF)(SN)	J3PHC11JG029
	DIODES	
D1001	DIODE 1N5397-B	NDLZ001N5397
D1002	DIODE 1N5397-B	NDLZ001N5397
D1003	DIODE 1N5397-B	NDLZ001N5397
D1004	DIODE 1N5397-B	NDLZ001N5397
D1006	DIODE FR154	NDLZ000FR154
D1007	RECTIFIER DIODE BA157	NDQZ000BA157
D1008	RECTIFIER DIODE BA157	NDQZ000BA157
D1009	IC SHUNT REGULATOR KIA431-AT/P	NSZBA0TJY036
D1010	RECTIFIER DIODE BA157	NDQZ000BA157
D1011	SCHOTTKY BARRIER DIODE SB390	NDQZ000SB390
D1012	PCB JUMPER D0.6-P10.0	JW10.0T
D1013	SCHOTTKY BARRIER DIODE SB540-B/P	NDLZ000SB540
D1014	SCHOTTKY BARRIER DIODE SB540-B/P	NDLZ000SB540
D1015	SCHOTTKY BARRIER DIODE SB540-B/P	NDLZ000SB540
D1016	SCHOTTKY BARRIER DIODE SB340	NDQZ000SB340
D1017	DIODE ZENER 5V1BSB-T26	NDTB5R1BST26
D1018	RECTIFIER DIODE BA157	NDQZ000BA157
D1019	DIODE ZENER 18BSB-T26	NDTB018BST26
D1020	DIODE ZENER 18BSB-T26	NDTB018BST26
D1021	DIODE ZENER 6V8BSB-T26	NDTB6R8BST26
D1022	SCHOTTKY BARRIER DIODE SB140	NDQZ000SB140
D1023	SCHOTTKY BARRIER DIODE SB390	NDQZ000SB390
D1024	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1025	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1031	IC SHUNT REGULATOR KIA431-AT/P	NSZBA0TJY036
D1036	DIODE ZENER 27BSB-T26	NDTB027BST26
D1037	DIODE ZENER 27BSB-T26	NDTB027BST26
	ICS	
IC1001	IC SWITCHING FA5542N-A2-TE1 SOP8	QSZBA0TFD005
IC1003⚠	PHOTOCOUPLER PS2561A-1(W)	QPEWPS2561A1
	COILS	
L1001⚠	COIL LINE FILTER ST0707ET24-010	LLEG0Z0Y2026
L1003	POWER INDUCTORS CWKBNP-220K	LLF2200KV002
L1004	RADIAL TYPE CHOKE COIL CW68-470K-841040NP	LLBD00PKV023
L1005	POWER INDUCTORS CWKBNP-220K	LLF2200KV002
	TRANSISTORS	
Q1003⚠	FET MOS 2SK3563(Q M)	QFQZSK3563QM
Q1011	TRANSISTOR KTC3203-Y-AT/P	NQSYKTC3203P
	RESISTORS	
R1004	CARBON RES. 1/4W J 75k Ω	RCX4JATZ0753
R1005	CARBON RES. 1/4W J 33 Ω	RCX4JATZ0330
R1006	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1007	CEMENT RESISTOR 5W J 1.2 Ω H 10MM	RW051R2PAK10
R1008	CARBON RES. 1/4W J 56 Ω	RCX4JATZ0560
R1009	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R1011	CARBON RES. 1/4W J 10 Ω	RCX4JATZ0100
R1012	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R1013	METAL OXIDE FILM RES. 2W J 47k Ω	RN02473ZU001
R1014	METAL OXIDE FILM RES. 2W J 0.68 Ω	RN02R68ZU001
R1016	CHIP RES. 1/10W J 470 Ω	RRXAJR5Z0471
R1017	CHIP RES. 1/10W J 22k Ω	RRXAJR5Z0223
R1018	CHIP RES.(1608) 1/10W J 0.47 Ω	RRXAR47HH007
R1019	CHIP RES. 1/10W J 680 Ω	RRXAJR5Z0681
R1020	CHIP RES. 1/10W F 2k Ω	RRXAFR5H2001
R1021	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R1022	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R1024	CHIP RES. 1/10W F 100 Ω	RRXAFR5H1000

Ref. No.	Description	Part No.
R1025	CHIP RES. 1/10W F 1.0k Ω	RRXAFR5H1001
R1026	CHIP RES. 1/10W F 1.0k Ω	RRXAFR5H1001
R1039	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R1040	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R1041	PCB JUMPER D0.6-P5.0	JW5.0T
R1046	CHIP RES. 1/10W F 1.5k Ω	RRXAFR5H1501
R1047	CHIP RES. 1/10W F 100 Ω	RRXAFR5H1000
R1048	CHIP RES. 1/10W F 4.7k Ω	RRXAFR5H4701
MISCELLANEOUS		
2L056	SCREW S-TIGHT M3X8 BIND HEAD+	GBJS3080
AC1002	AC INLET 0P YKE31-0149N	JTDC0L0JC001
B49	POWER HEATSINK E4340UD	1VM422057E
F1001⚠	FUSE TIME RAG FSL 250V 2A(EM)	PDGJAB0NG202
FH1001	FUSE HOLDER MSF-015 LF (B110)	XH01Z00LY002
FH1002	FUSE HOLDER MSF-015 LF (B110)	XH01Z00LY002
JW1001	PCB JUMPER D0.6-P14.5	JW14.5T
SA1001⚠	SURGE ABSORBER 470V+-10PER	NVQZ10D471KB
T1001⚠	TRANS POWER 7730	LTT3PC0KT038

SD CBA

Ref. No.	Description	Part No.
	SD CBA Consists of the following:	1VSA20070
CAPACITORS		
C4001	CHIP ELECTROLYTIC CAP. 33μF/6.3V M(WR)	CA0K330NC180
C4002	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
CONNECTORS		
CN4001	CONNECTOR IC CARD MES 9PIN 1939115-1	JF18090AP001
CN4002	FFC/FPC CONNECTOR 16P+ 04 6232 116 102 800+	JC62D16UG014
COIL		
L4001	CHIP BEAD GZ1608D121T(F)	XL06001SSN04
RESISTORS		
R4008	CHIP RES. 1/10W J 47 Ω	RRXAJR5Z0470
R4009	CHIP RES. 1/10W J 47 Ω	RRXAJR5Z0470
R4010	CHIP RES. 1/10W J 47 Ω	RRXAJR5Z0470
R4012	CHIP RES. 1/10W J 47 Ω	RRXAJR5Z0470
R4013	CHIP RES. 1/10W J 47 Ω	RRXAJR5Z0470
R4015	CHIP RES. 1/10W J 47 Ω	RRXAJR5Z0470
R4019	CHIP RES.(1608) 1/10W 0 Ω	RRXAZB5Z0000
R4020	CHIP RES.(1608) 1/10W 0 Ω	RRXAZB5Z0000
R4021	CHIP RES.(1608) 1/10W 0 Ω	RRXAZB5Z0000
R4023	CHIP RES.(1608) 1/10W 0 Ω	RRXAZB5Z0000
R4024	CHIP RES.(1608) 1/10W 0 Ω	RRXAZB5Z0000
R4034	CHIP RES.(1608) 1/10W 0 Ω	RRXAZB5Z0000

Integra Division of
ONKYO CORPORATION
Sales & Product Planning Div. : 2-1, Nisshin-cho, Neyagawa-shi, OSAKA 572-8540, JAPAN
Tel: 072-831-8023 Fax: 072-831-8163 http://www.onkyo.com/

Integra Division of
ONKYO U.S.A. CORPORATION
18 Park Way, Upper Saddle River, N.J. 07458, U.S.A.
Tel: 201-785-2600 Fax: 201-785-2650 http://www.integrahometheater.com