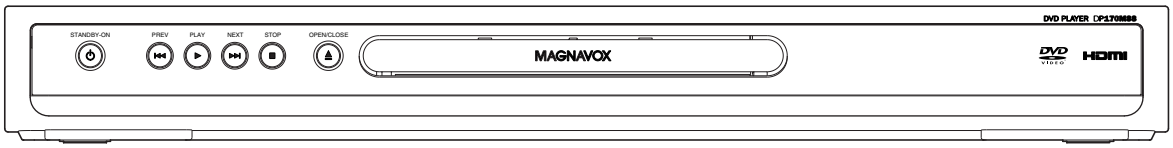
MAGNAVOX

SERVICE MANUAL

DVD PLAYER

DP170MS8

PROGRESSIVE SCAN



IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all Funai Equipment. The service procedures recommended by Funai and described in this service manual are effective methods of performing service operations. Some of these service special tools should be used when and as recommended.

It is important to note that this service manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It also is important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. Funai could not possibly know, evaluate and advice the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, Funai has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by Funai must first use all precautions thoroughly so that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

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SPECIFICATIONS

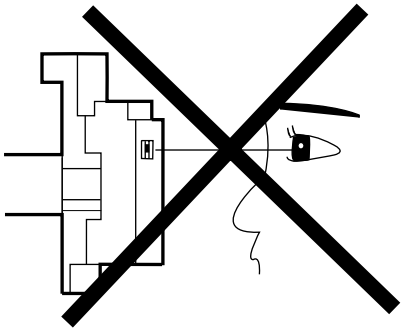
Item	Conditions	Unit	Nominal	Limit
1. Video Output	75 Ω load	Vpp	1.0	± 0.1
2. Coaxial Digital Out	75 Ω load	mVpp	500	± 50
3. Audio (PCM)				
3-1. Output Level	1 kHz, 0 dB	Vrms	1.9	
3-2. S/N		dB	120	
3-3. Freq. Response				
DVD	fs = 48 kHz, 20 Hz ~ 22 kHz	dB	± 1.0	
CD	fs = 44.1 kHz, 20 Hz ~ 20 kHz	dB	± 1.0	
3-4. THD+N				
DVD	1 kHz, 0 dB	%	0.005	
CD	1 kHz, 0 dB	%	0.005	

Notes:

1. All Items are measured without pre-emphasis unless otherwise specified.
2. Power supply: AC 120 V, 60 Hz
3. Load Impedance: 100 kΩ load (Audio Output)
4. Room Ambient: +25 °C

LASER BEAM SAFETY PRECAUTIONS

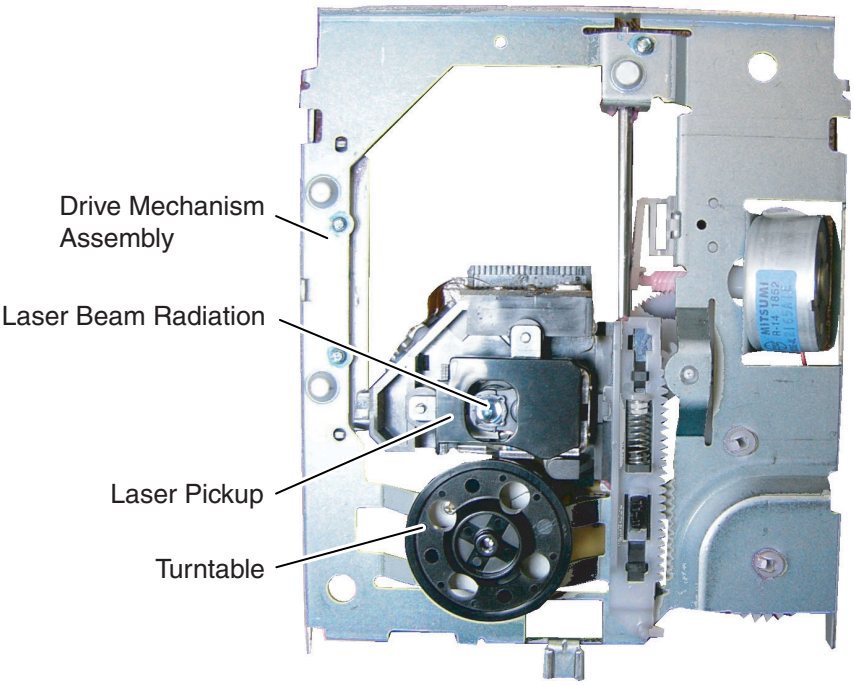
This DVD player uses a pickup that emits a laser beam.



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.



CAUTION
LASER RADIATION
WHEN OPEN. DO NOT
STARE INTO BEAM.

Location: Top of DVD 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.

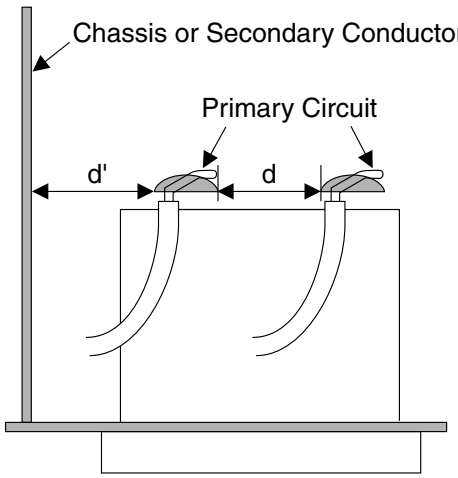


Fig. 1

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.

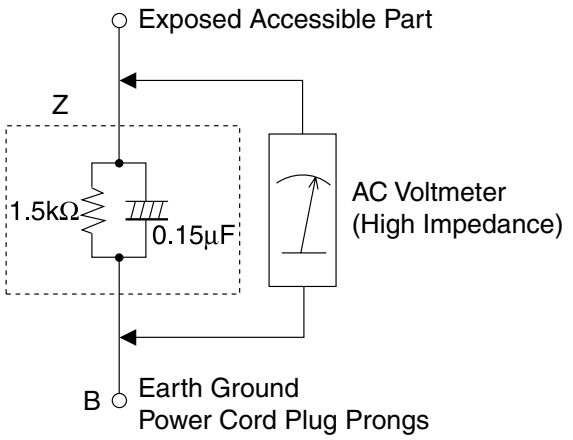


Fig. 2

Table 2: Leakage current ratings for selected areas

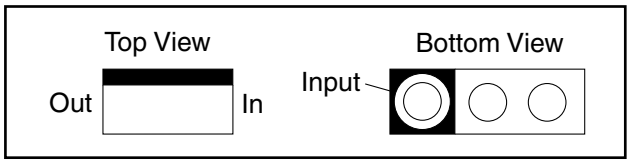
AC Line Voltage	Load Z	Leakage Current (i)	Earth Ground (B) to:
120 V	0.15 μF CAP. & 1.5 kΩ RES. Connected in parallel	i ≤ 0.5 mA Peak	Exposed accessible parts

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

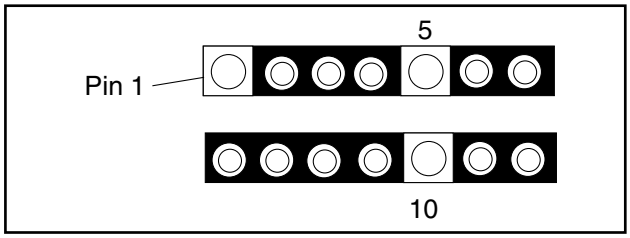
STANDARD NOTES FOR SERVICING

Circuit Board Indications

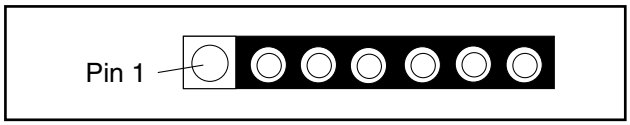
1. The output pin of the 3 pin Regulator ICs is indicated as shown.



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

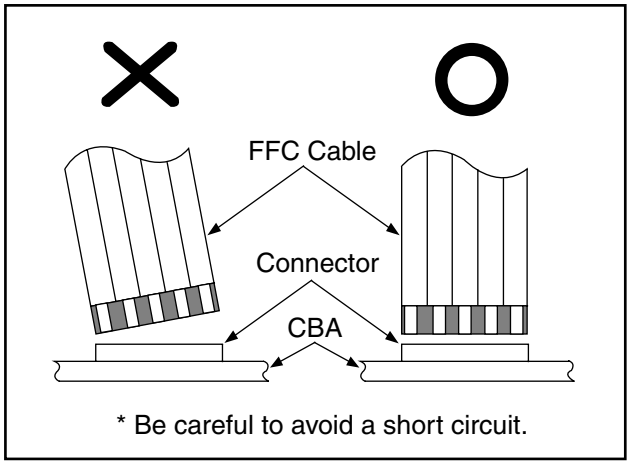


3. The 1st pin of every male connector is indicated as shown.



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)

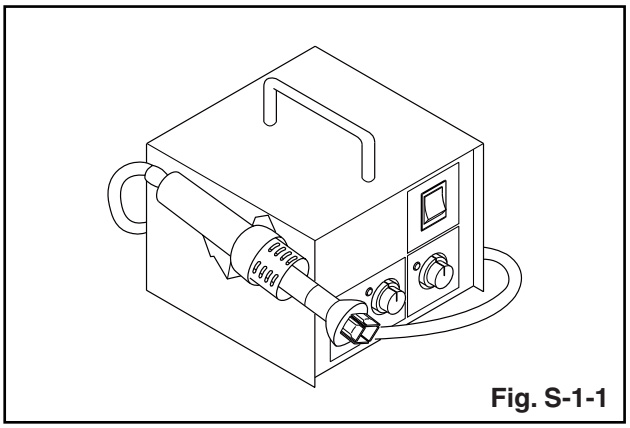


Fig. S-1-1

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.

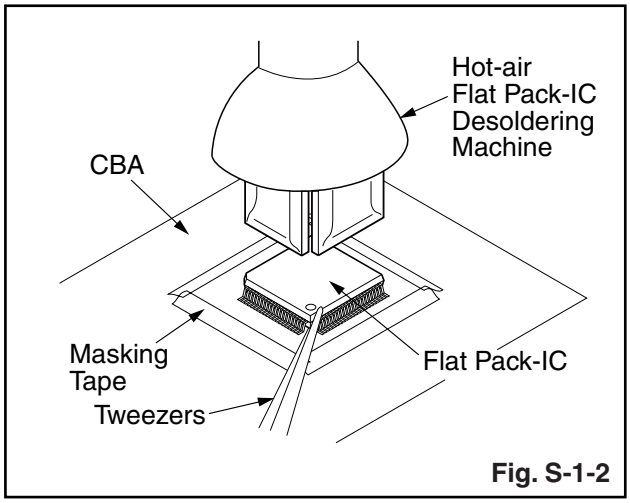


Fig. S-1-2

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)

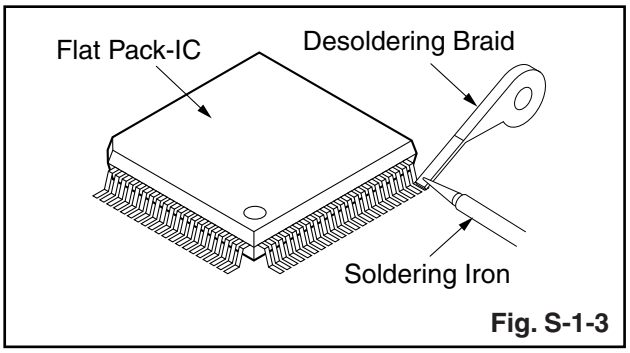


Fig. S-1-3

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)

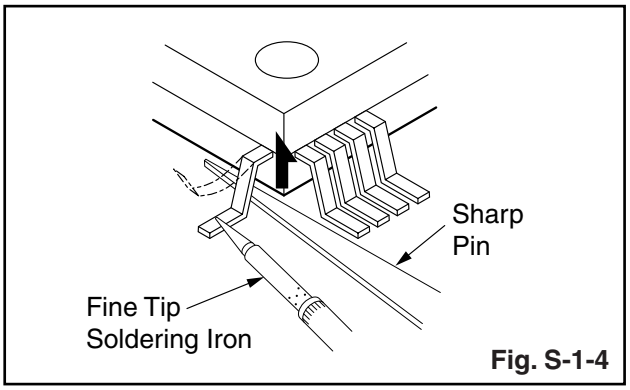


Fig. S-1-4

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.

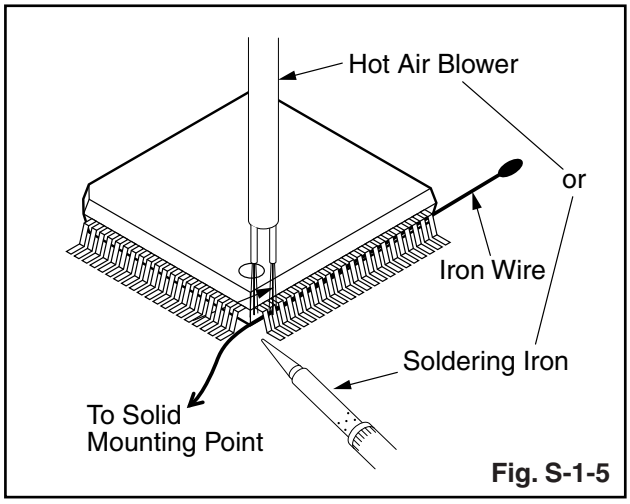


Fig. S-1-5

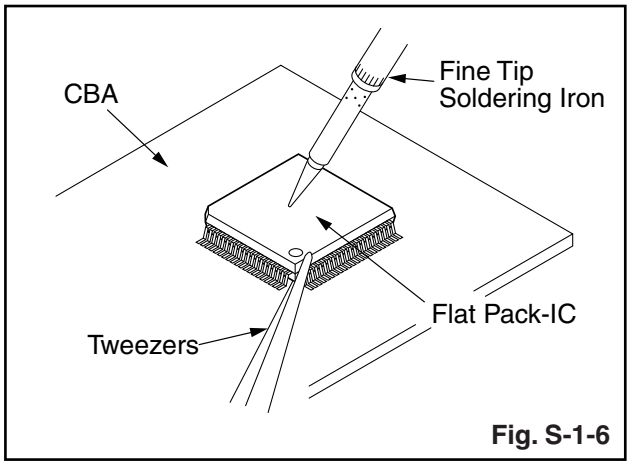


Fig. S-1-6

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.

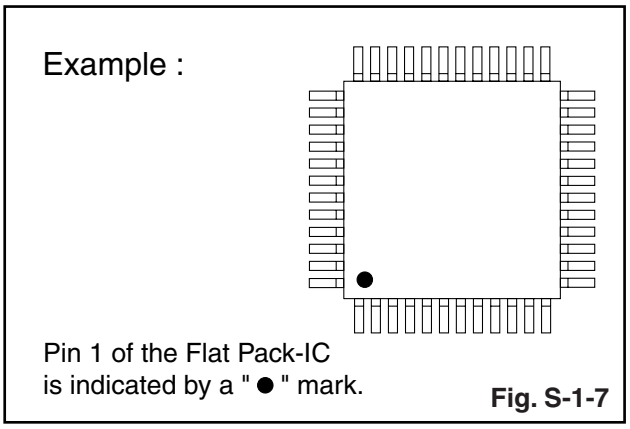


Fig. S-1-7

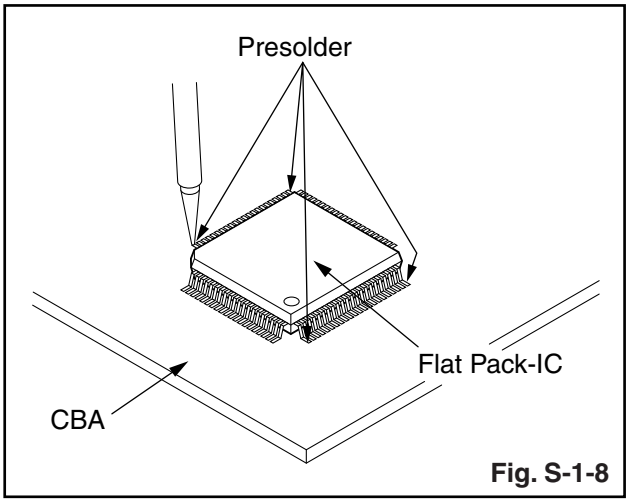


Fig. S-1-8

Instructions for Handling Semi-conductors

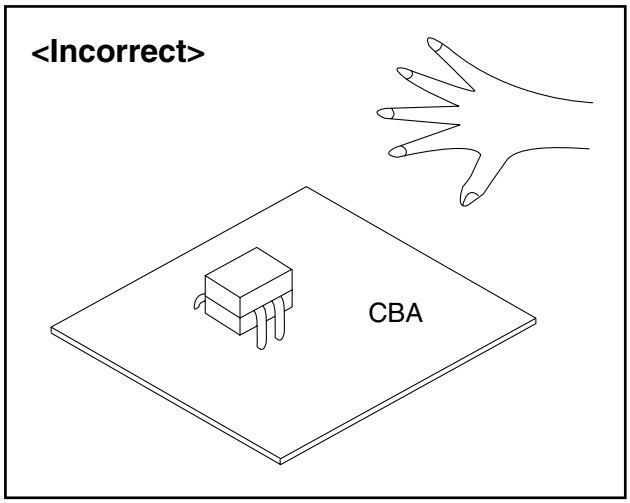
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

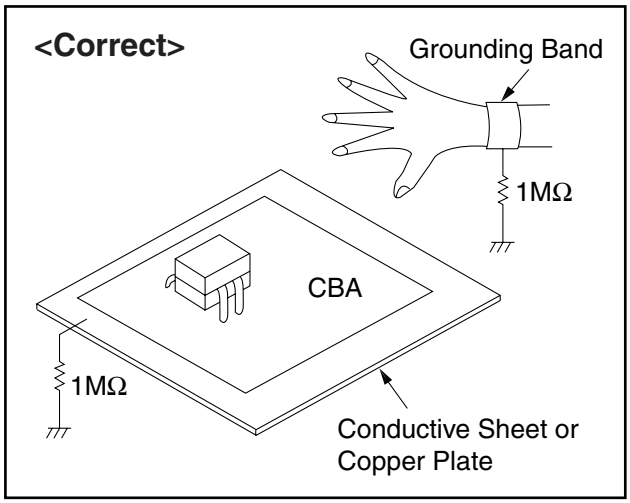
1. Ground for Human Body

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.

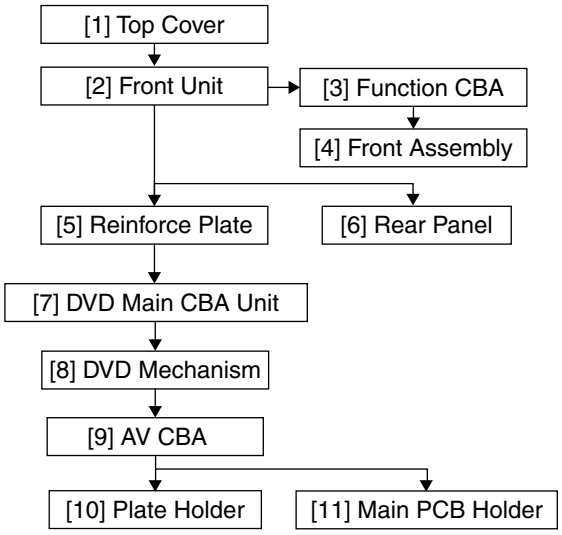




CABINET DISASSEMBLY INSTRUCTIONS

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	5(S-1)	---
[2]	Front Unit	D2	*4(L-1), *2(L-2), *3(L-3), *CN2001	1
[3]	Function CBA	D3	*3(L-4)	---
[4]	Front Assembly	D3	----------	---
[5]	Reinforce Plate	D4	2(S-2)	---
[6]	Rear Panel	D4	4(S-3), (S-4), (S-5)	4
[7]	DVD Main CBA Unit	D5	(S-6), *CN201, *CN301, *CN401, *CN601	2 4
[8]	DVD Mechanism	D5 D6	4(S-7)	2 3
[9]	AV CBA	D7	(S-8), (S-9)	---
[10]	Plate Holder	D8	(S-10)	---

ID/ Loc. No.	Part	Removal		
		Fig. No.	Remove/*Unhook/ Unlock/Release/ Unplug/Desolder	Note
[11]	Main PCB Holder	D8	(S-11)	---
↓ (1)	↓ (2)	↓ (3)	↓ (4)	↓ (5)	

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.”

About tightening screws

When tightening screws, tighten them with the following torque.

Screws	Torque
(S-1), (S-2), (S-3), (S-4), (S-5), (S-6), (S-7), (S-8), (S-9), (S-10), (S-11)	0.45 ± 0.05 N·m

Reference Notes

1. **CAUTION 1:** Locking Tabs (L-1), (L-2) and (L-3) are fragile. Be careful not to break them.
   1) Release four Locking Tabs (L-1), then release two Locking Tabs (L-2).
   2) Release three Locking Tabs (L-3).
   3) Disconnect connector CN2001, then remove the Front Unit.
2. **CAUTION 2:** Electrostatic breakdown of the laser diode in the optical system block may occur as a potential difference caused by electrostatic charge accumulated on cloth, human body etc., during unpacking or repair work.
   To avoid damage of pickup follow next procedures.
   1) Short the three short lands of FPC cable with solder before removing the FFC cable (CN201) from it. If you disconnect the FFC cable (CN201), the laser diode of pickup will be destroyed. (Fig. D5)
   2) Disconnect the Connectors (CN301), (CN401) and (CN601). Remove screw (S-6) and lift the DVD Main CBA Unit. (Fig. D5)
3. **CAUTION 3:** When reassembling, confirm the FFC cable (CN201) is connected completely. Then remove the solder from the three short lands of FPC cable. (Fig. D5)
4. **CAUTION 4:** When installing the DVD Main CBA Unit with a screw, hold and press the DVD Main CBA Unit to align the HDMI connector with the connector's hole for HDMI on the Rear Panel.

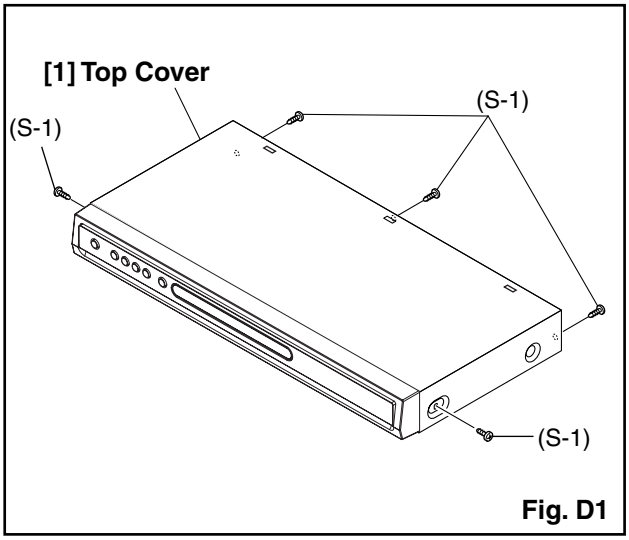


Fig. D1

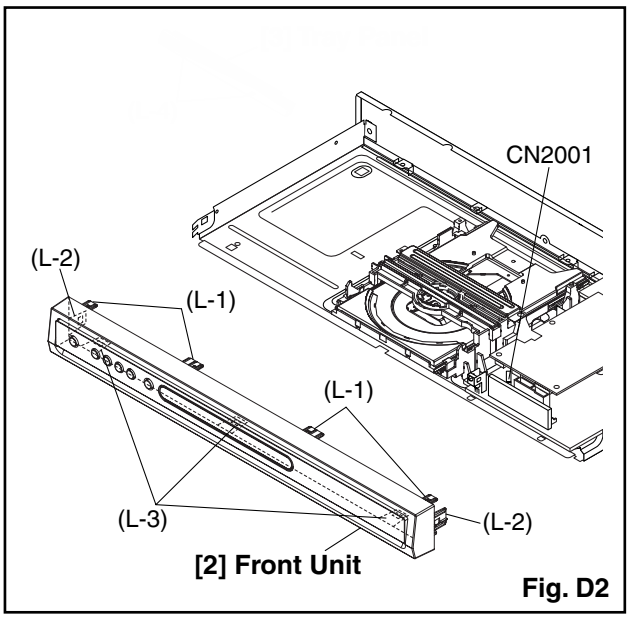


Fig. D2

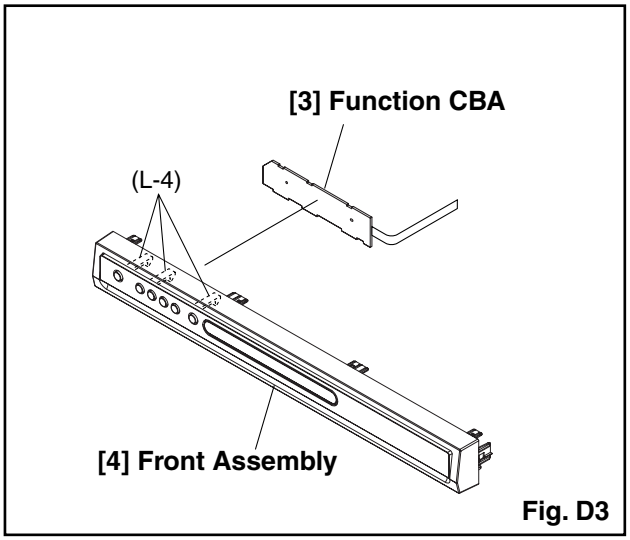


Fig. D3

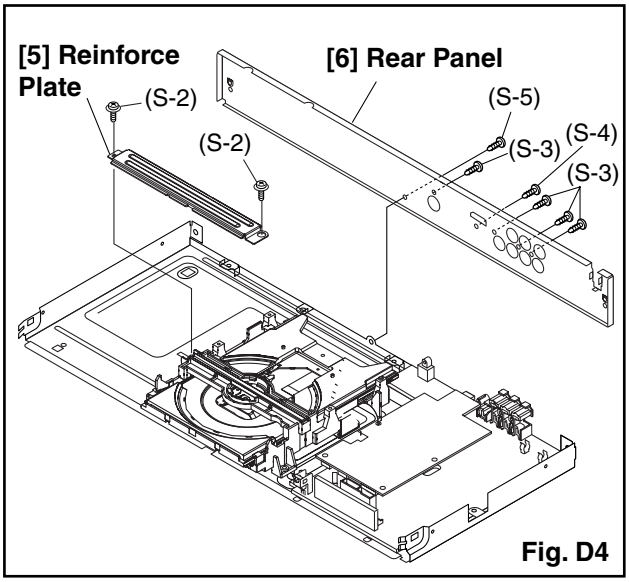


Fig. D4

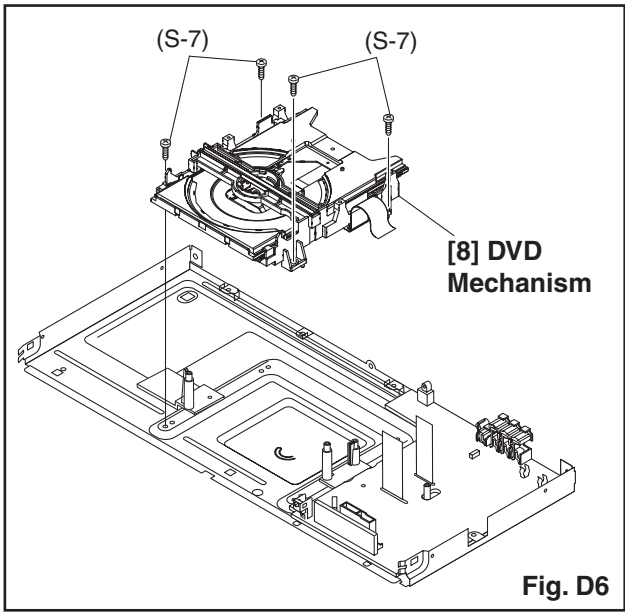


Fig. D6

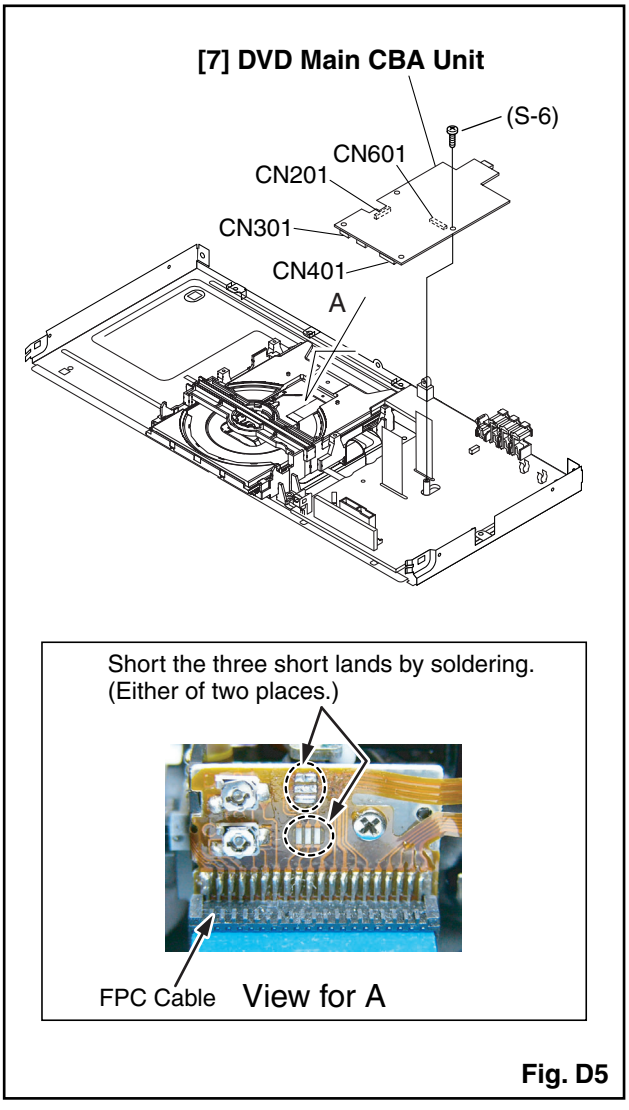


Fig. D5

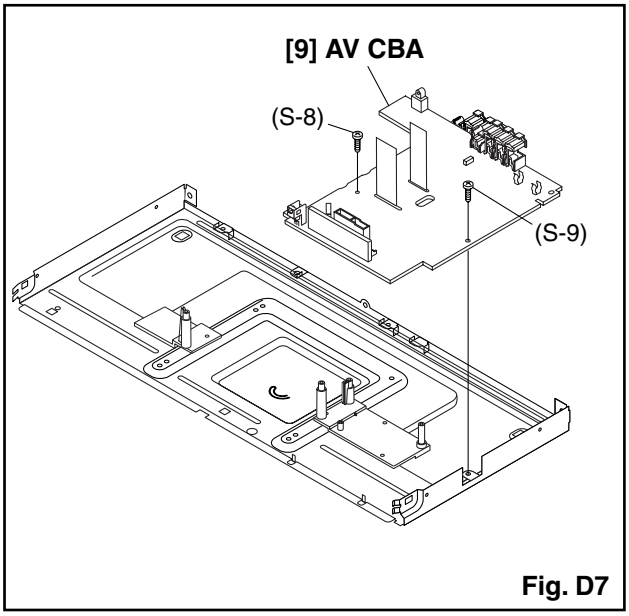


Fig. D7

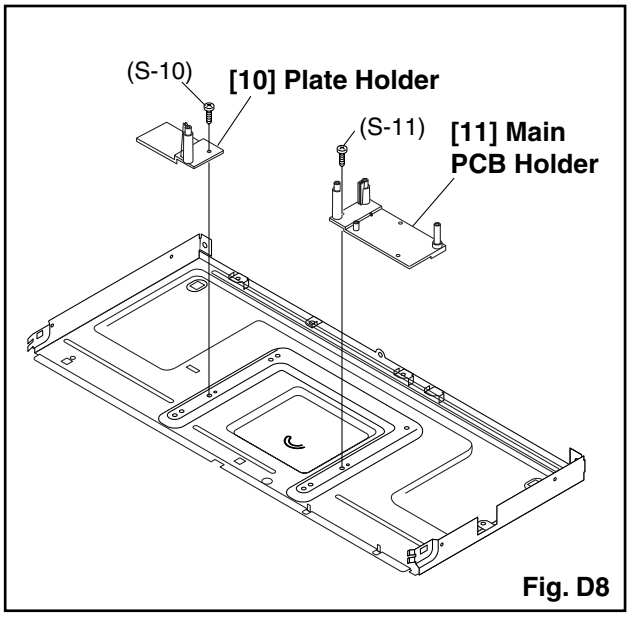
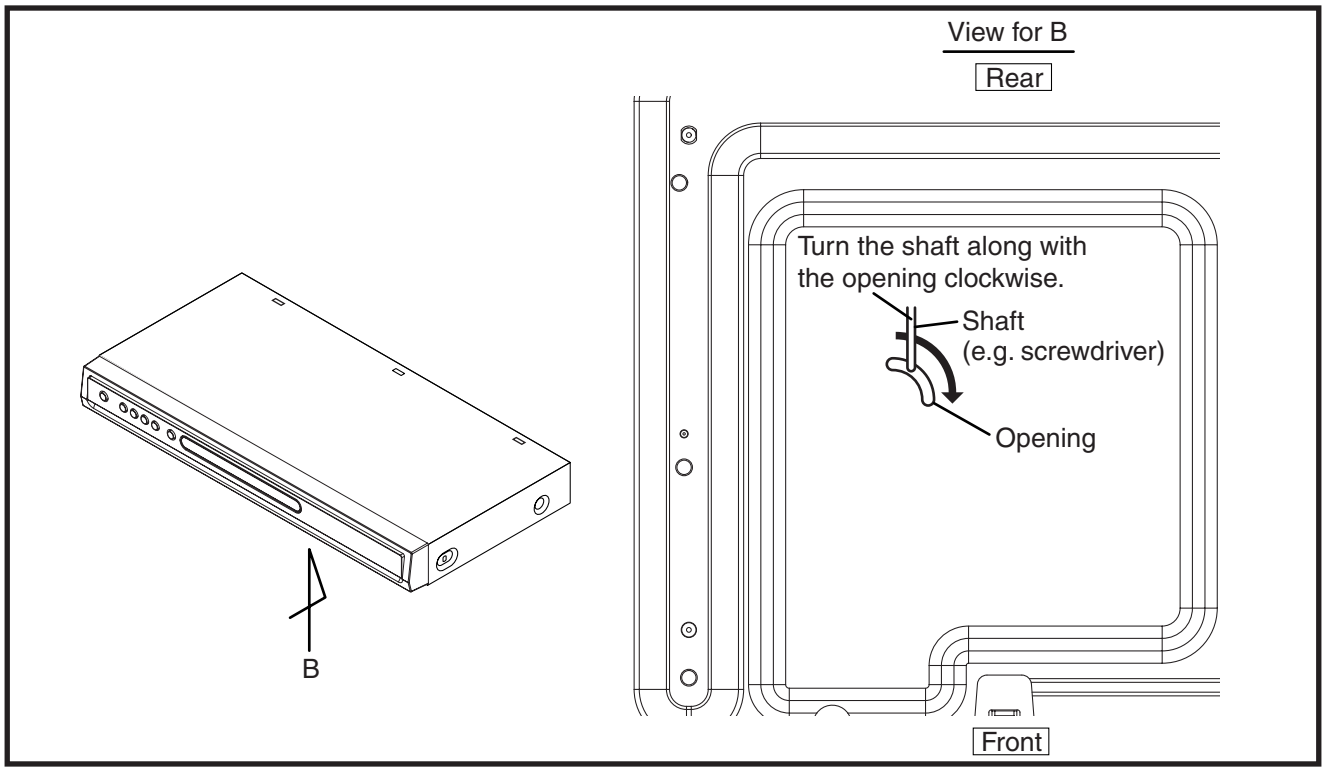


Fig. D8

3. How to Eject Manually

1. Turn the unit over.
2. Insert the shaft less than a diameter of 3 mm (e.g. screwdriver) straightly into the opening as shown.
3. Turn the shaft along with the opening clockwise.
4. Repeat steps 2 and 3 until the tray will open.
5. Pull the tray slowly manually



HOW TO INITIALIZE THE DVD PLAYER

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

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

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

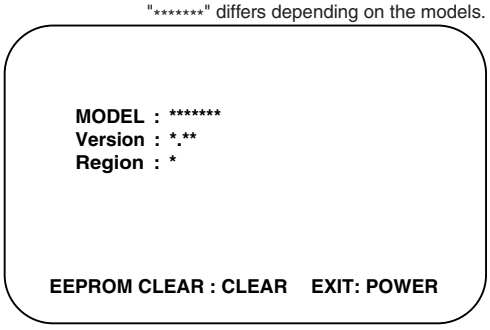


Fig. a

2. Press [CLEAR] button on the remote control unit.
   Fig. b appears on the screen.

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

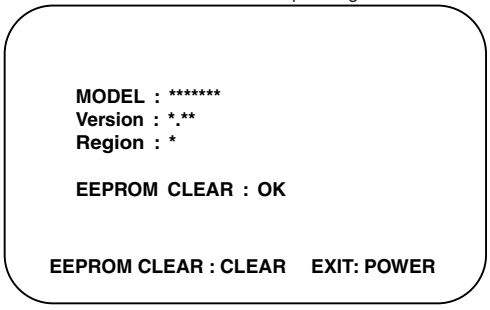


Fig. b

   When “OK” appears on the screen, the factory default will be set.

3. To exit this mode, press [STANDBY-ON] button.

FIRMWARE RENEWAL MODE

1. Turn the power on and remove the disc on the tray.
2. To put the DVD player into version up mode, press [9], [8], [7], [6], and [SEARCH] 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.

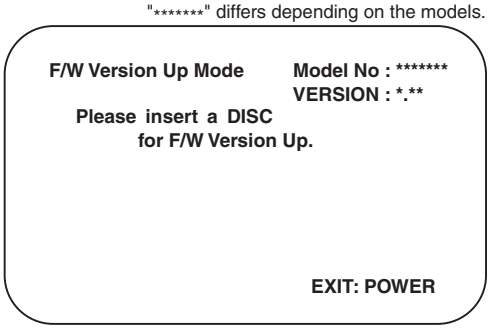


Fig. a Version Up Mode Screen

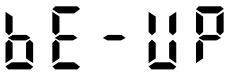


Fig. b VFD in Version Up Mode

   The DVD 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 DVD 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.

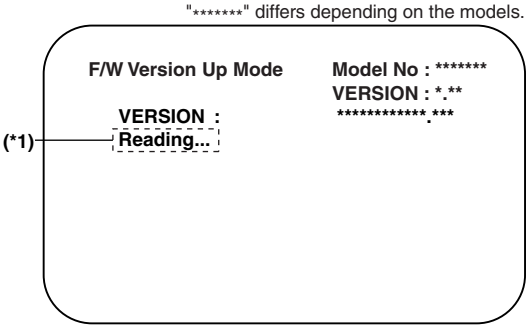


Fig. c Programming Mode Screen

Fig. d VFD in Programming Mode (Example)

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

No.	Appearance	State
1	Reading...	Sending files into the memory
2	Erasing...	Erasing previous version data
3	Programming...	Writing new version data

5. After programming is finished, the tray opens automatically. Fig. e appears on the screen and the checksum in (*2) of Fig. e appears on the VFD (Fig. f).

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

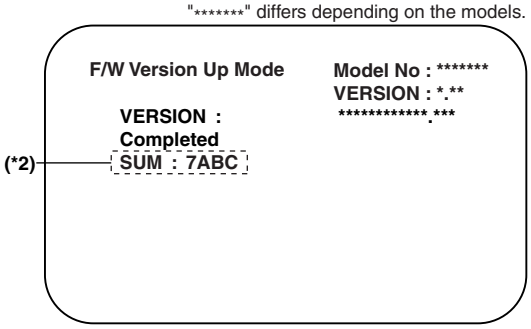


Fig. e Completed Program Mode Screen

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

   At this time, no button is available.
6. Remove the disc on the tray.
7. Unplug the AC cord from the AC outlet. Then plug it again.
8. Turn the power on by pressing the [STANDBY-ON] button and the tray will close.
9. Press [1], [2], [3], [4], and [DISPLAY] buttons on the remote control unit in that order.
   Fig. g appears on the screen.

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

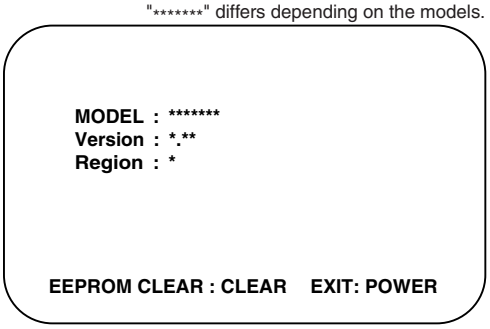


Fig. g

10. Press [CLEAR] button on the remote control unit.
    Fig. h appears on the screen.

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

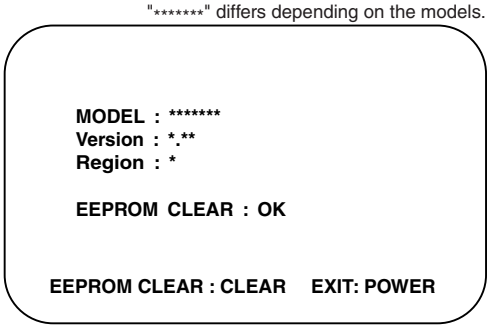


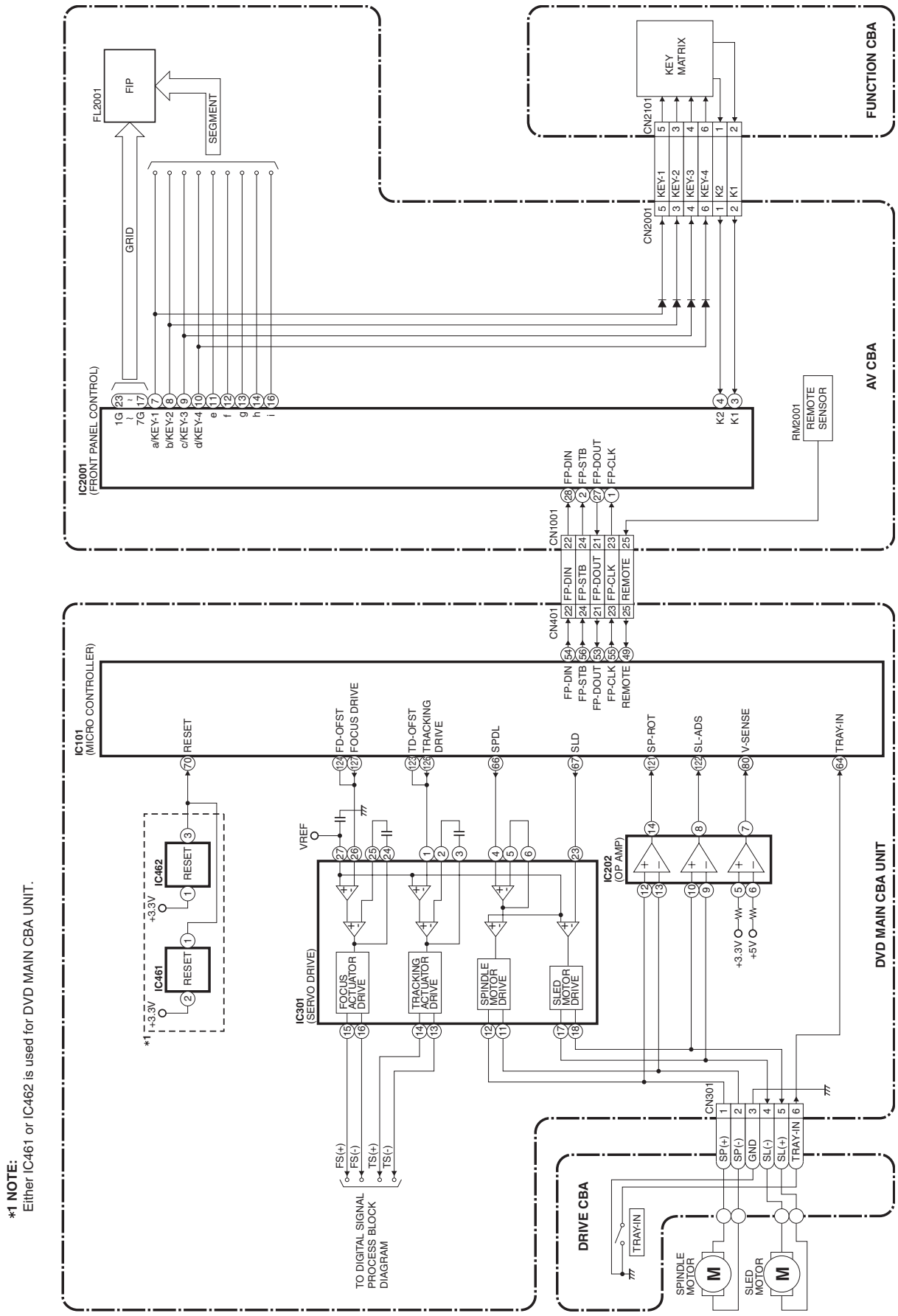
Fig. h

    When “OK” appears on the screen, the factory default will be set. Then the firmware renewal mode is complete.

11. To exit this mode, press [STANDBY-ON] button.

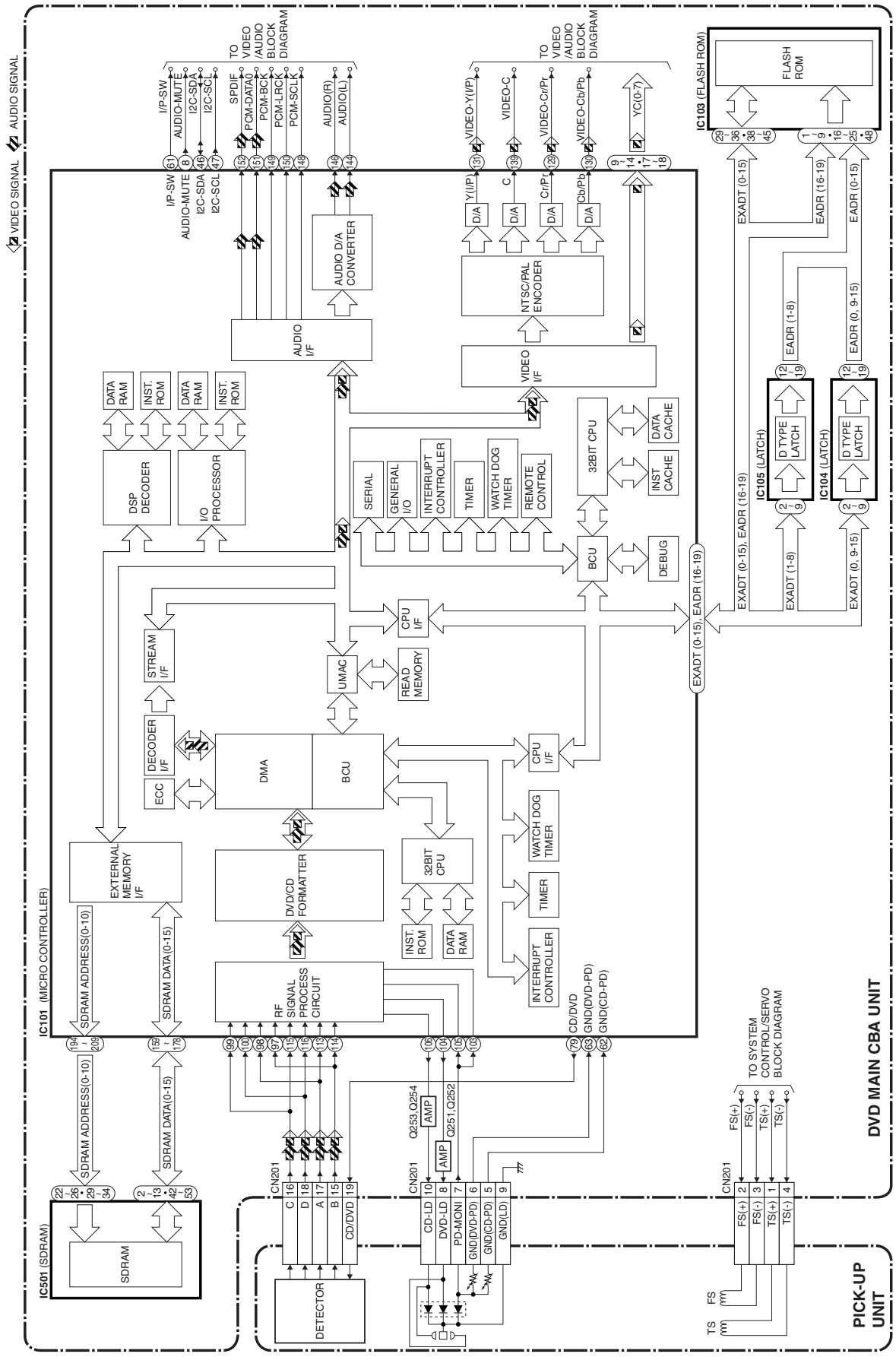
BLOCK DIAGRAMS

System Control / Servo Block Diagram

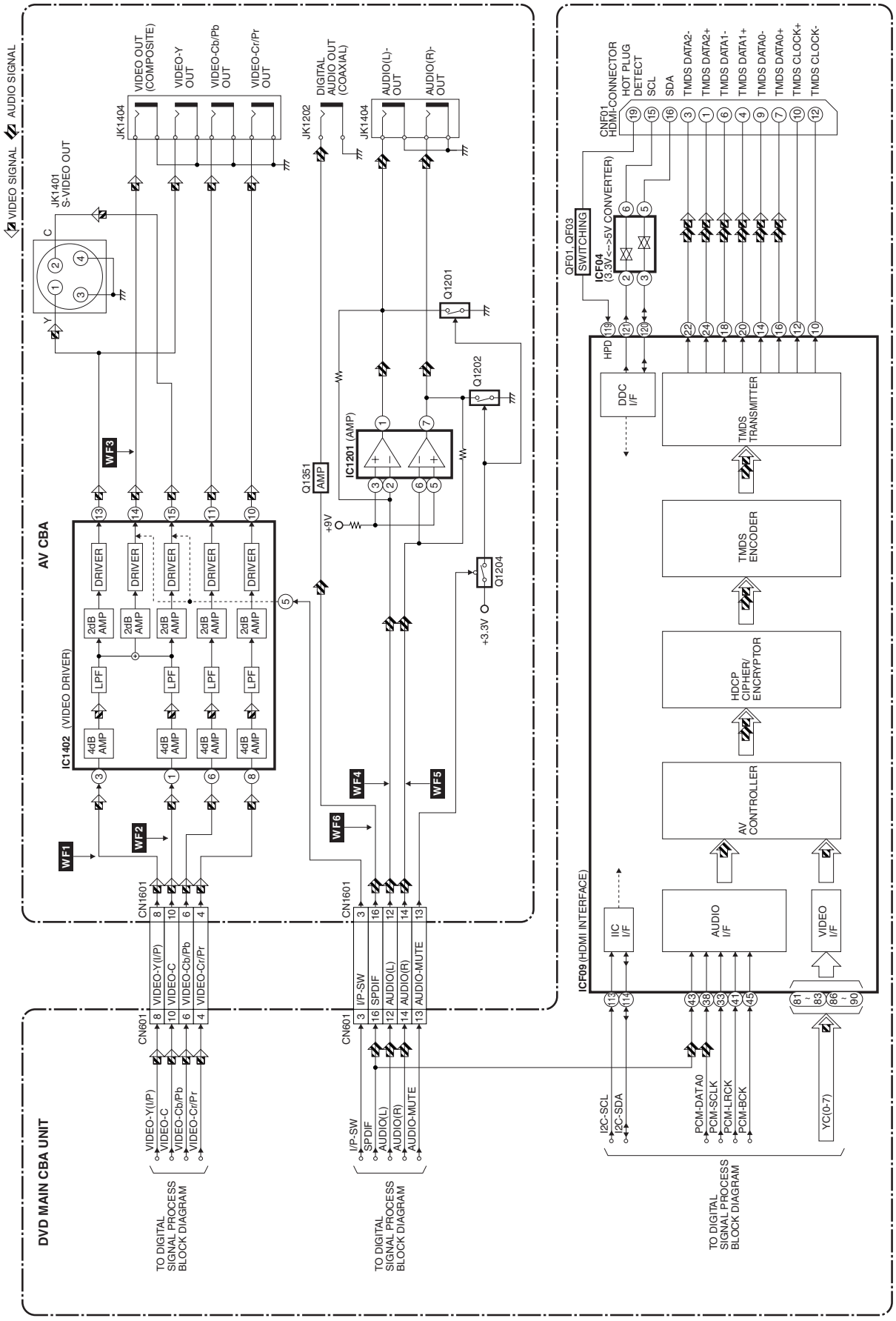


***1 NOTE:**
Either IC461 or IC462 is used for DVD MAIN CBA UNIT.

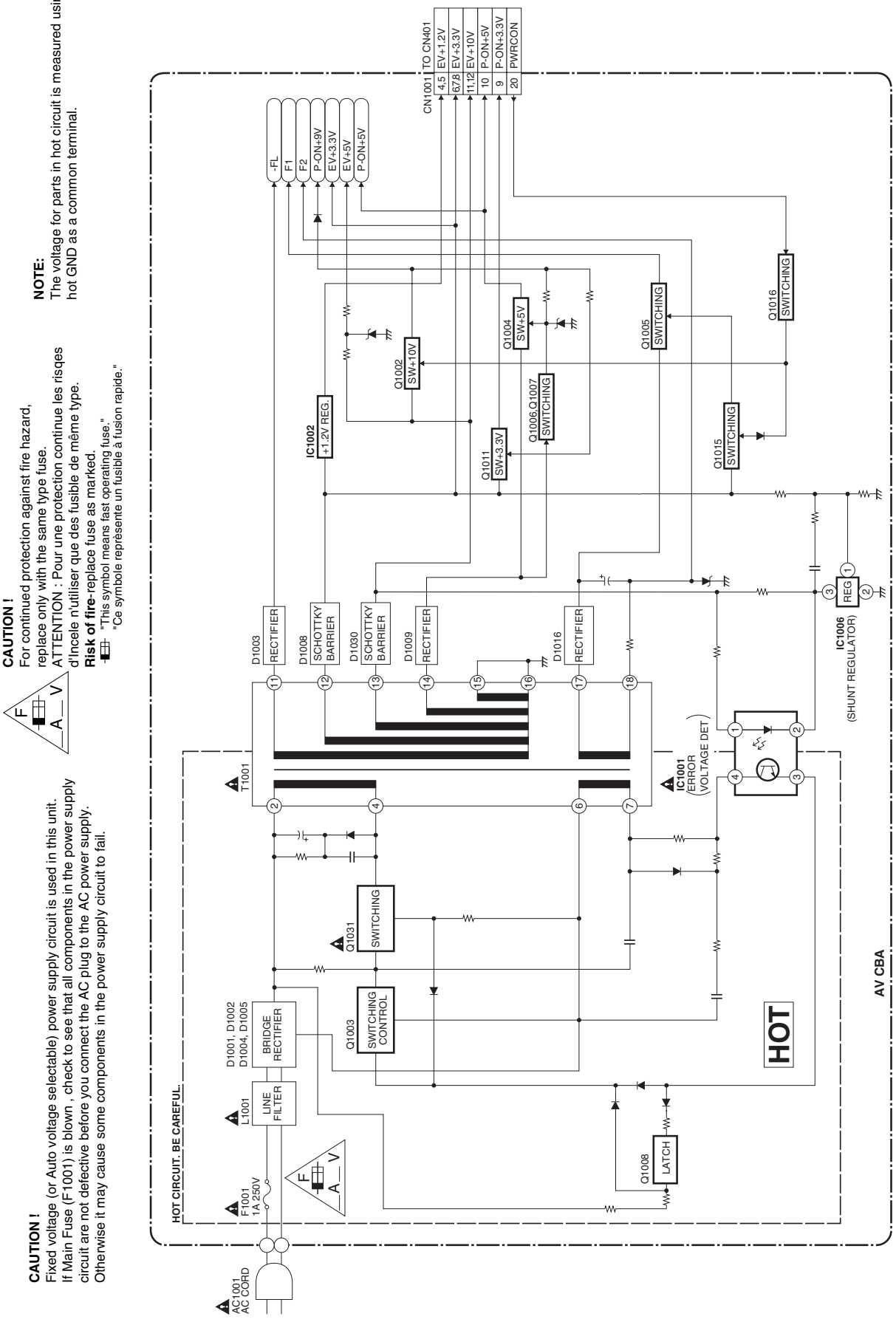
Digital Signal Process Block Diagram



Video / Audio Block Diagram



Power Supply Block Diagram



SCHEMATIC DIAGRAMS / CBA'S AND TEST POINTS

Standard Notes

WARNING

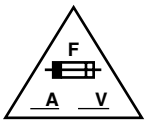
Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special 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.

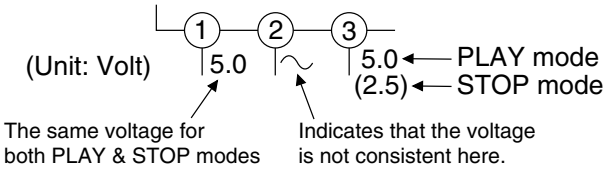
2. CAUTION:

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.

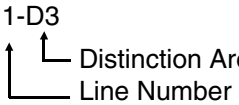
3. Note:

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.

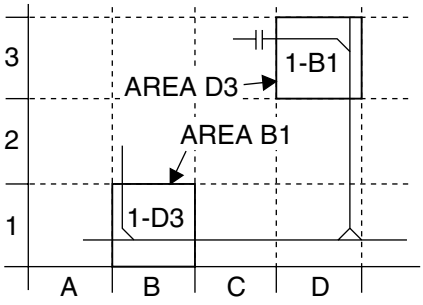
4. Voltage indications for PLAY and STOP mode on the schematics are as shown below:



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.

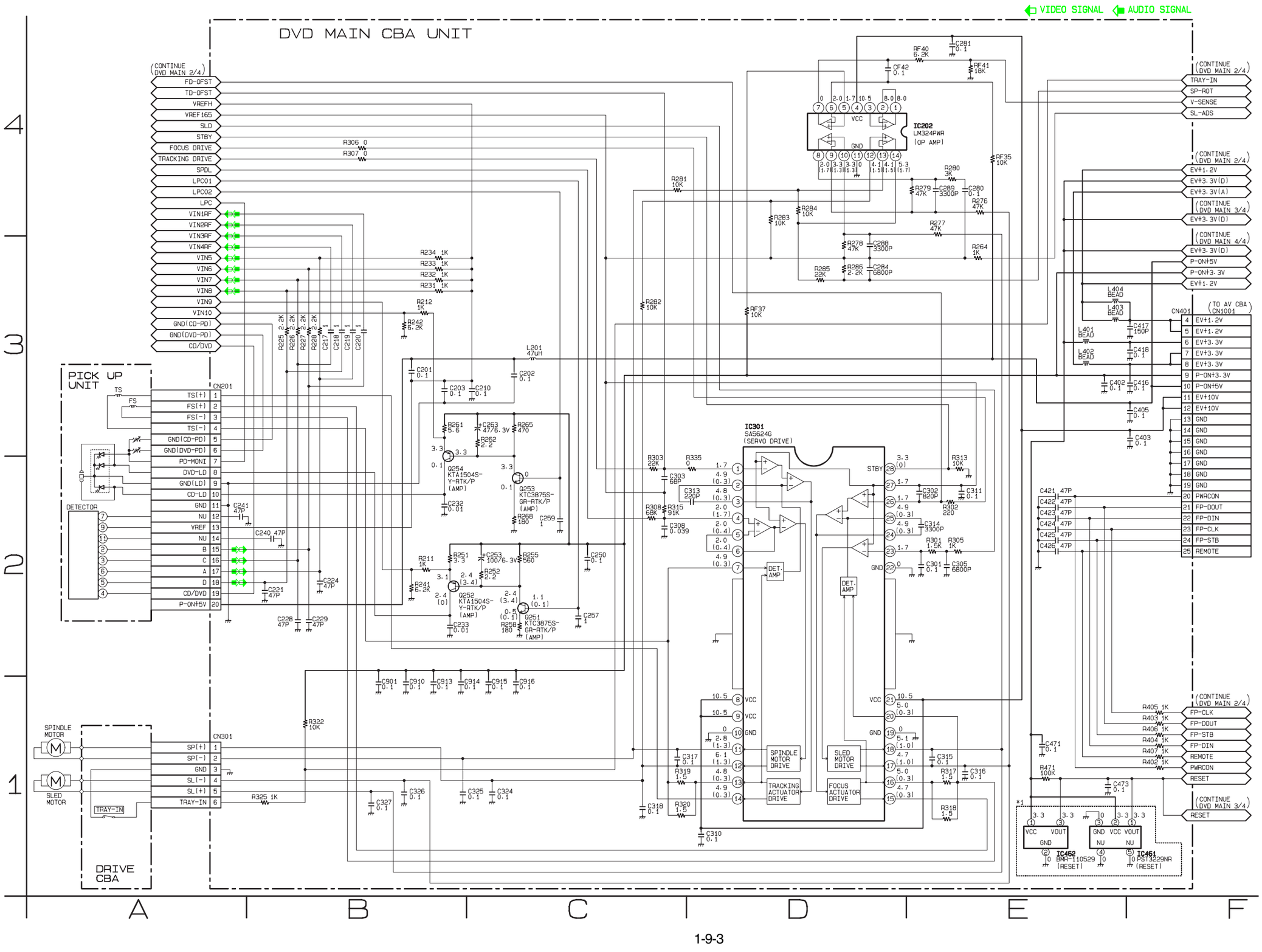
 : Used to indicate a test point with a component lead on foil side.

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

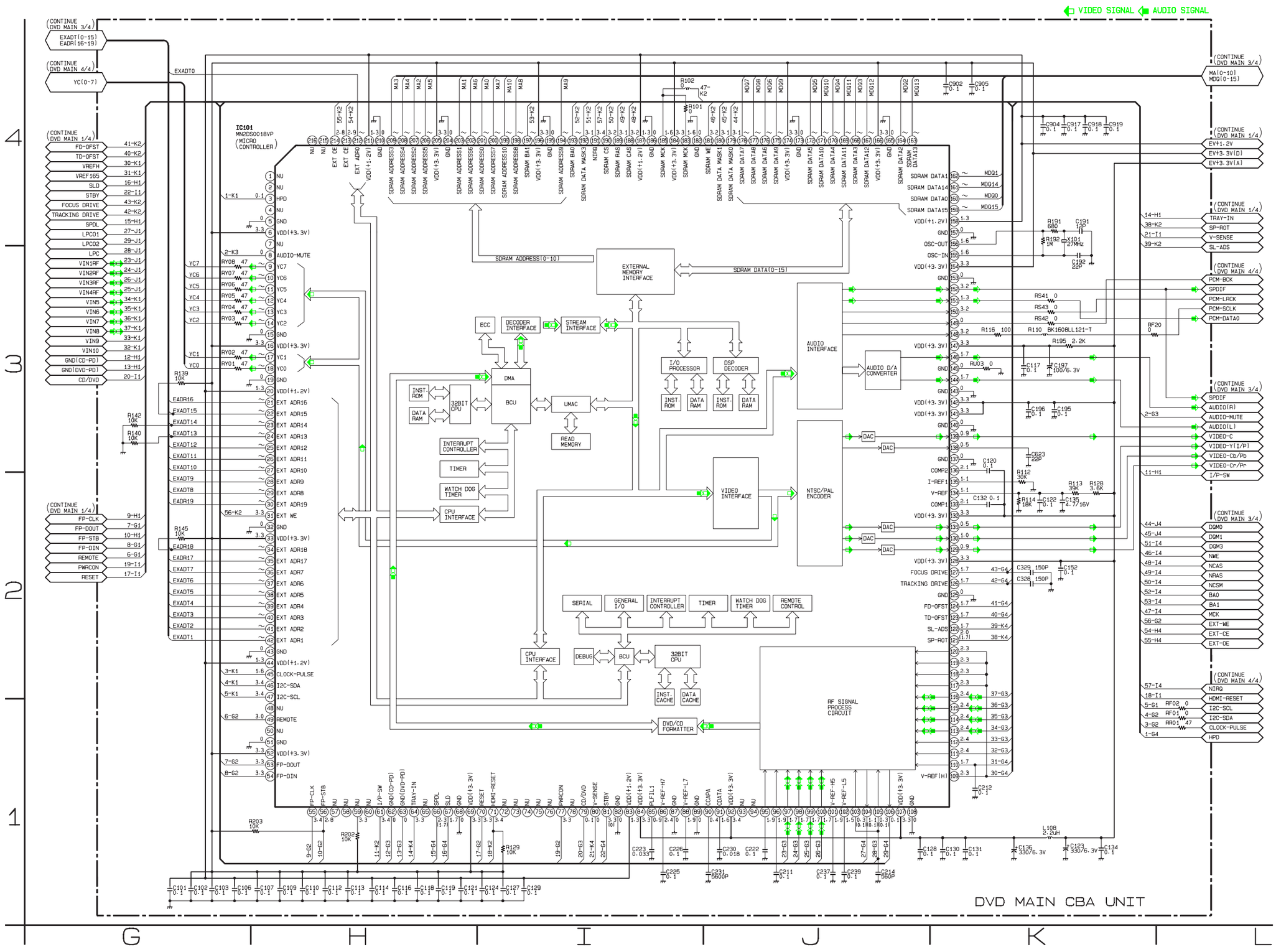
 : Used to indicate a test point with a test pin.

DVD Main 1/4 Schematic Diagram

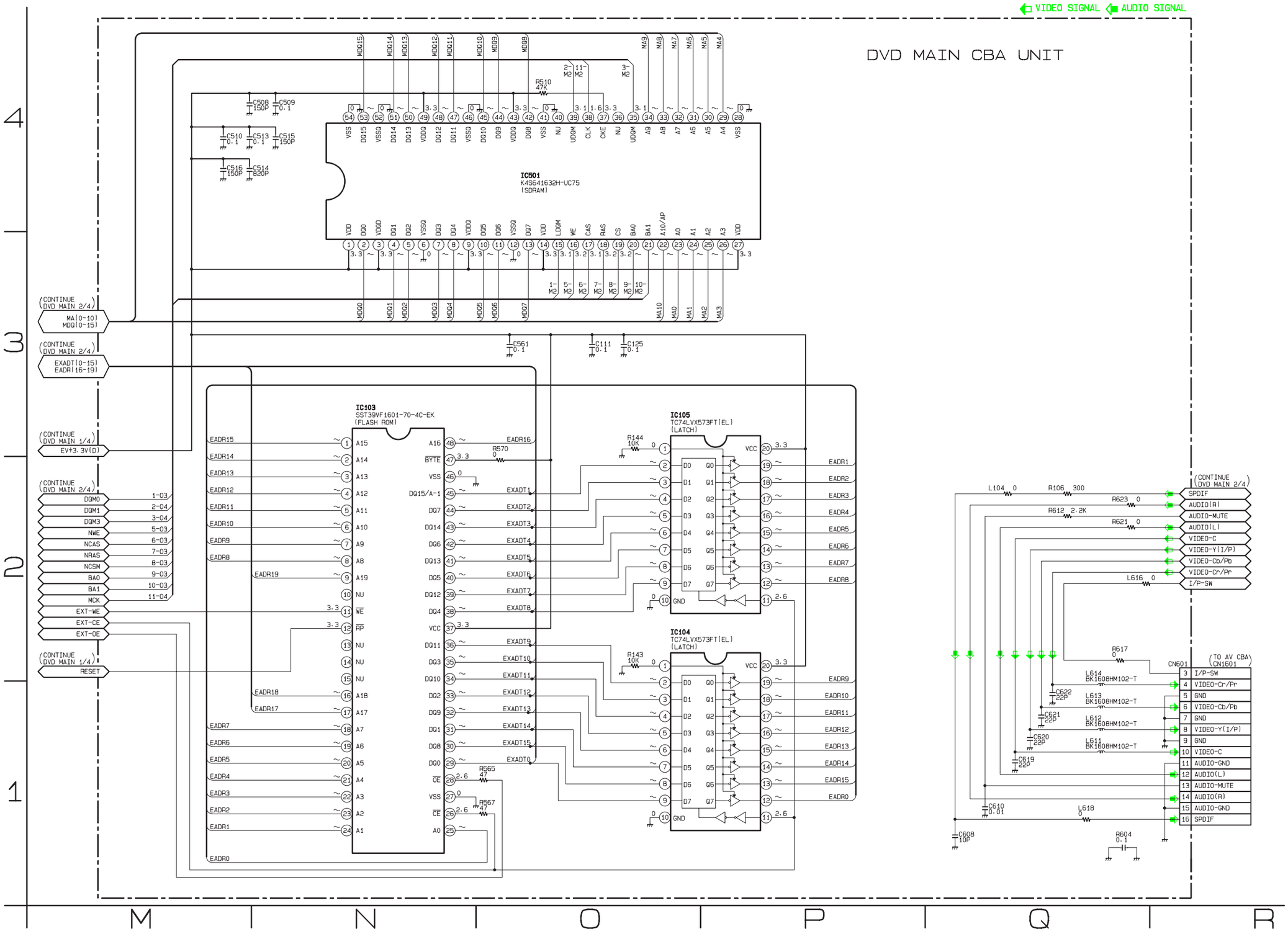
***1 NOTE:**
Either IC461 or IC462 is used for DVD MAIN CBA UNIT.



DVD Main 2/4 Schematic Diagram

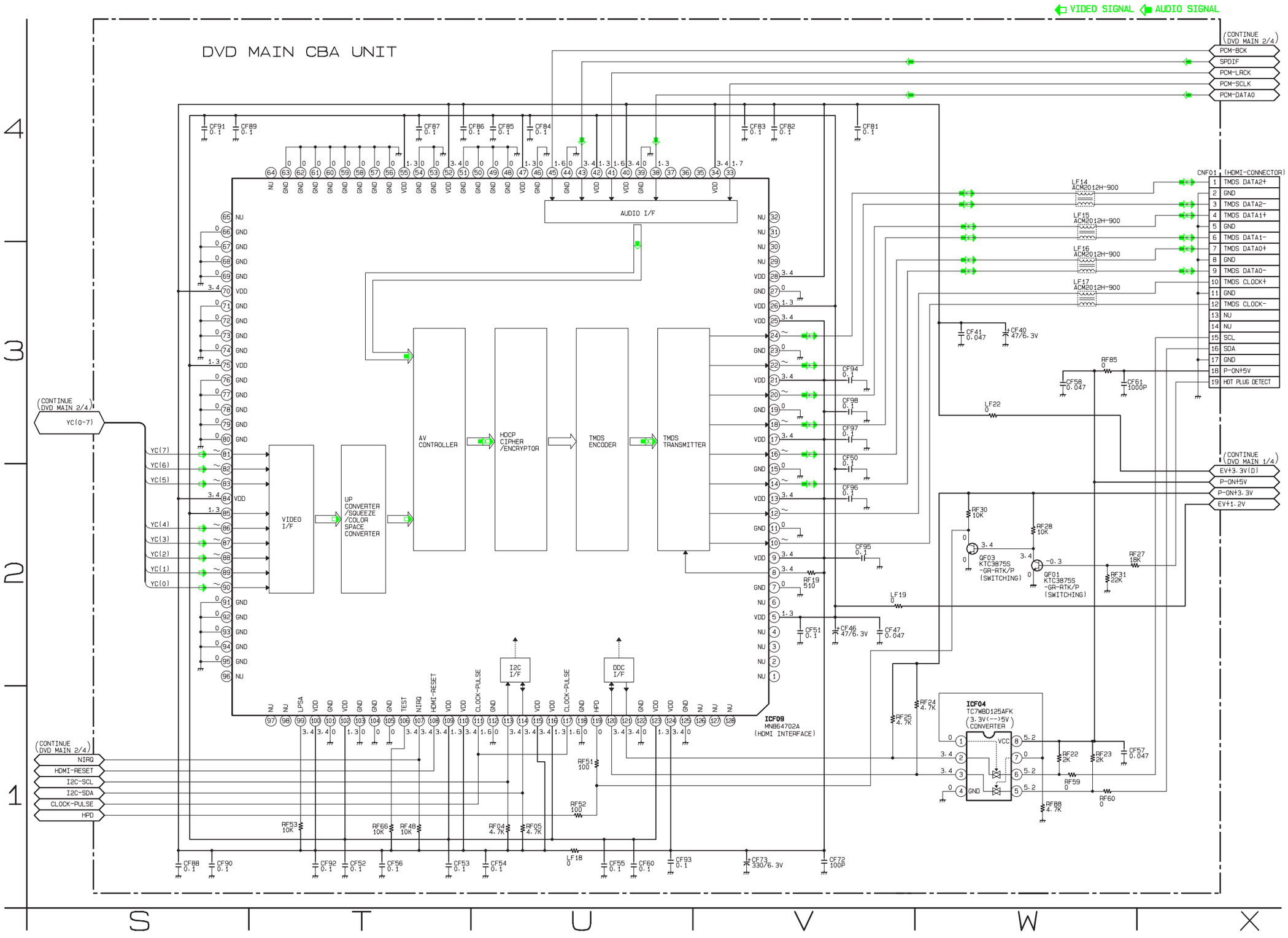


DVD Main 3/4 Schematic Diagram



E6E71SCD3

DVD Main 4/4 Schematic Diagram



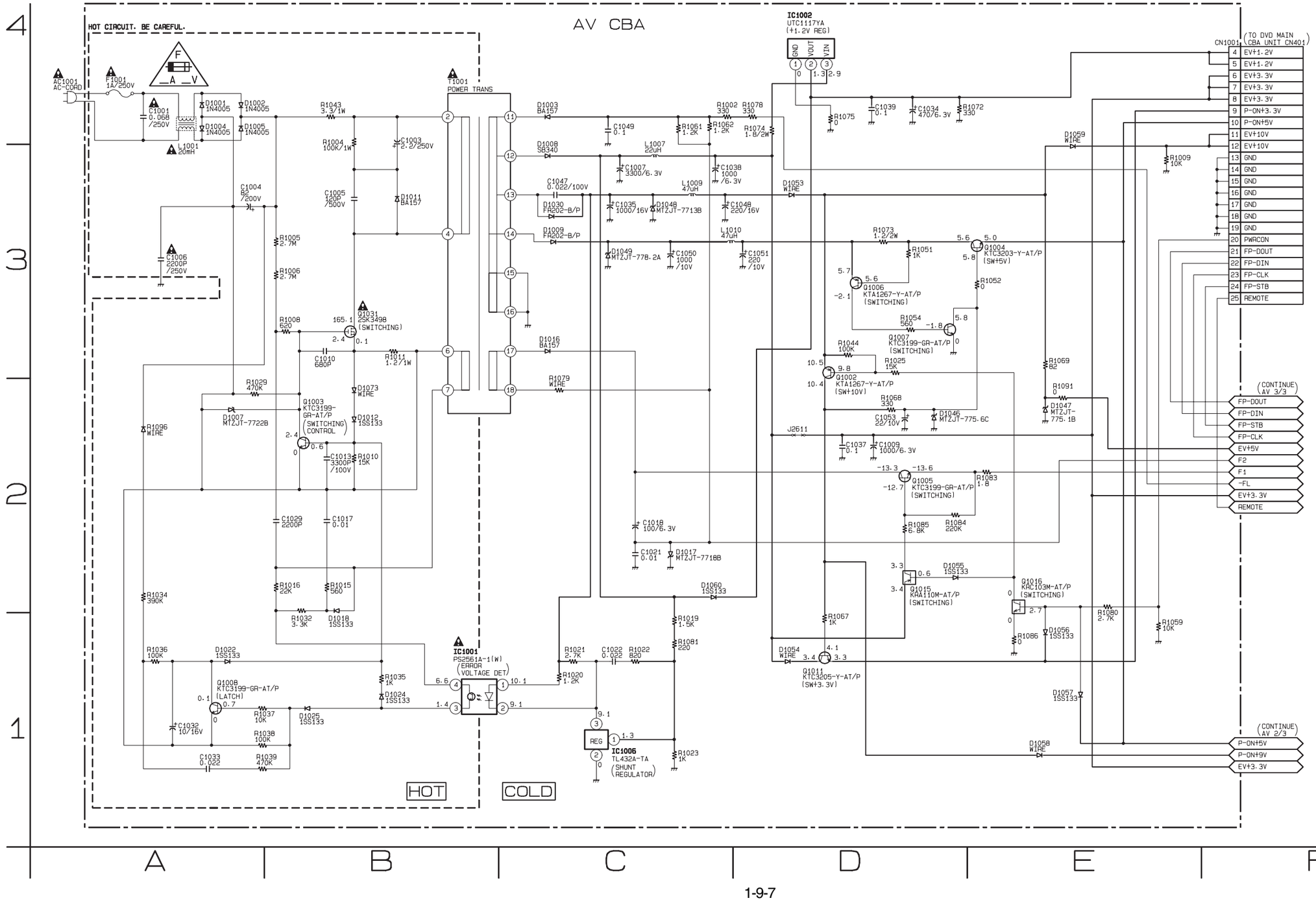
E6E71SCD4

AV 1/3 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.

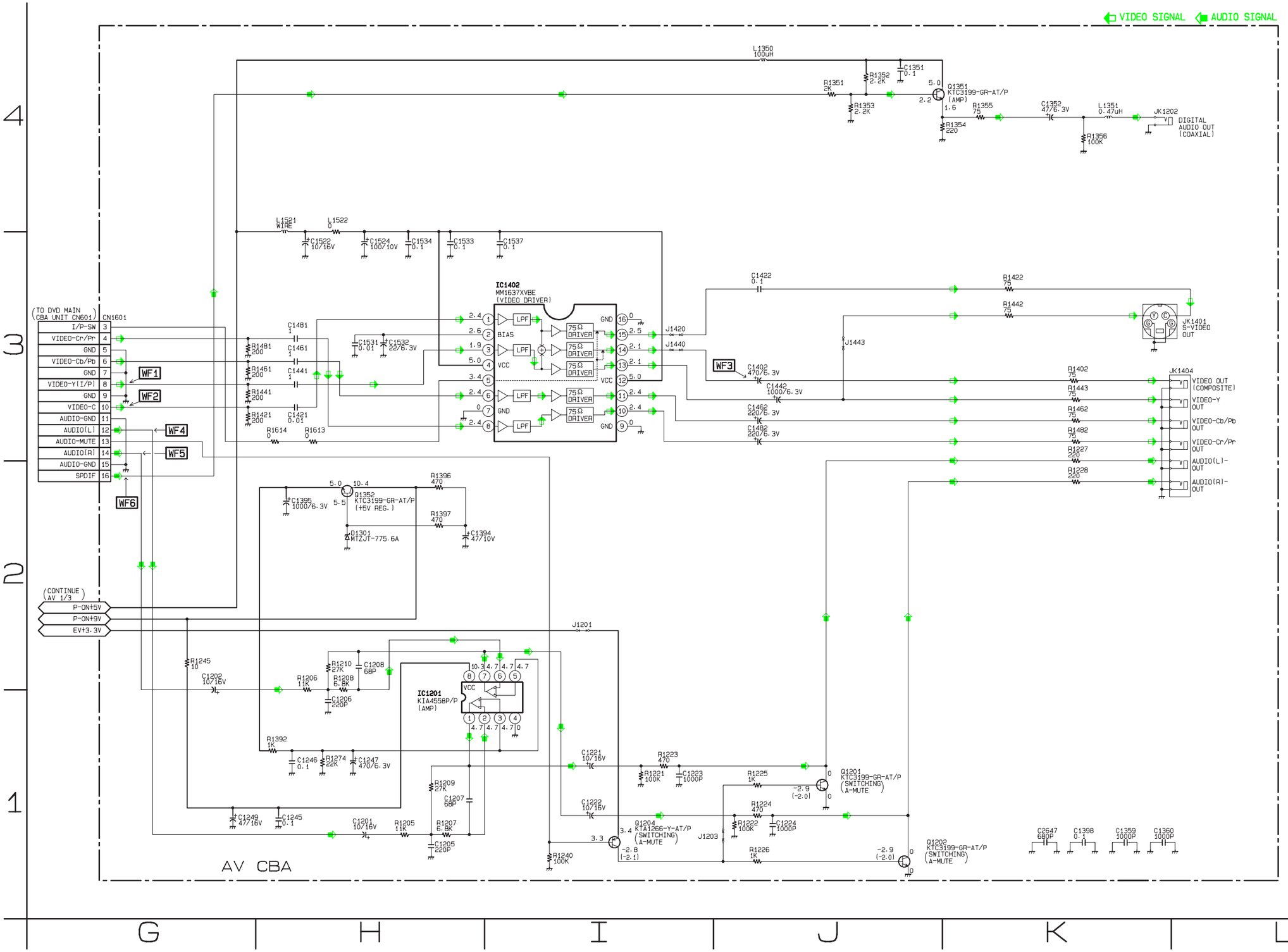
CAUTION !
For continued protection against fire hazard,
replace only with the same type fuse.
ATTENTION : Pour une protection continue les risqes d'Incele n'utiliser que des fusible de même type.
Risk of fire-replace fuse as marked.
"This symbol means fast operating fuse."
"Ce symbole représente un fusible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

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



E6E71SCAV1

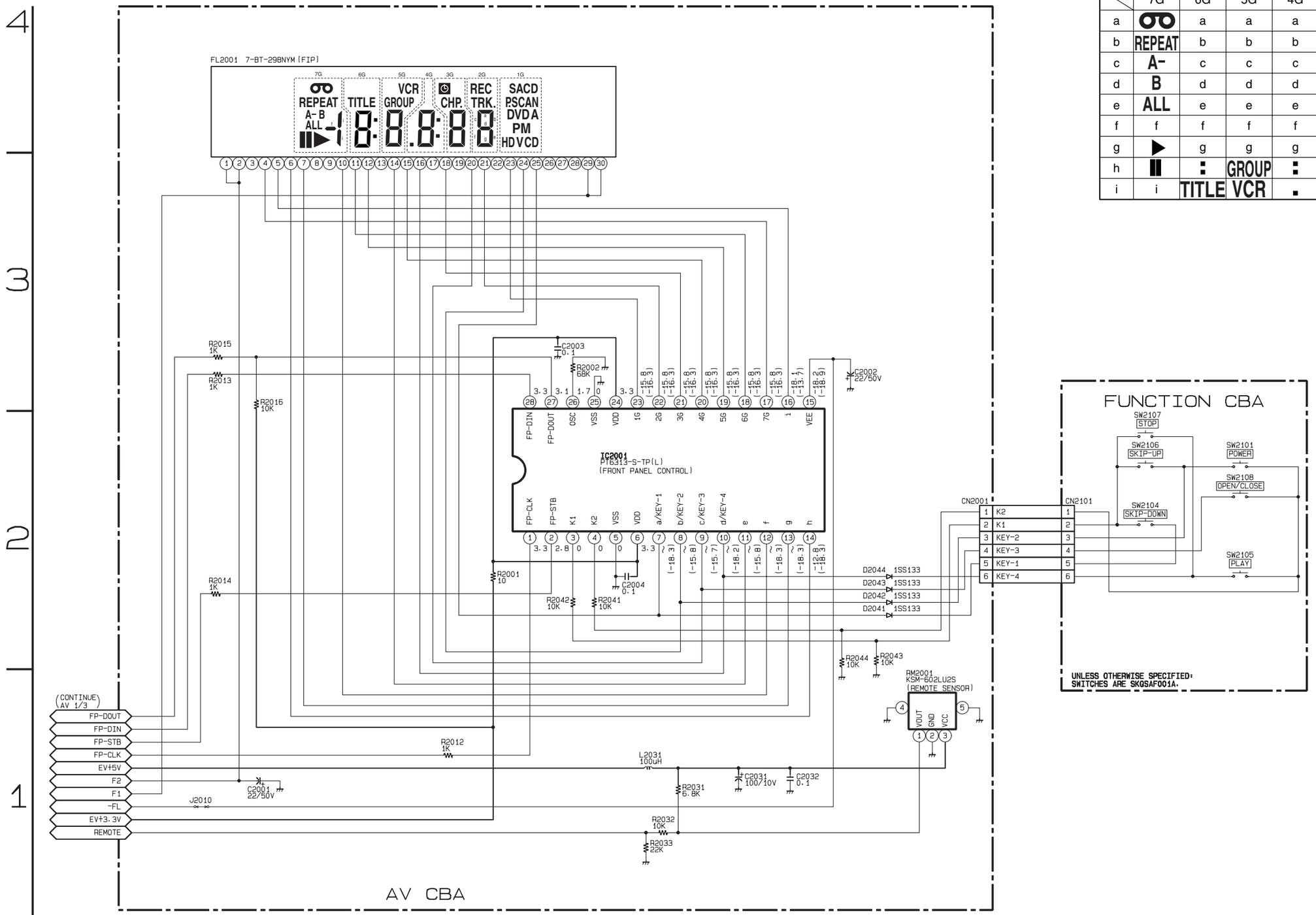
AV 2/3 Schematic Diagram



AV 3/3 & Function Schematic Diagram

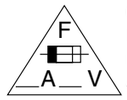
FL2001 MATRIX CHART

	7G	6G	5G	4G	3G	2G	1G
a	∞	a	a	a	a	a	SACD
b	REPEAT	b	b	b	b	b	P.SCAN
c	A-	c	c	c	c	c	DVD
d	B	d	d	d	d	d	A
e	ALL	e	e	e	e	e	P
f	f	f	f	f	f	f	M
g	▶	g	g	g	g	g	HD
h	▮▮	:	GROUP	:	CHP.	TRK.	V
i	i	TITLE	VCR	.	◷	REC	CD



AV CBA Top View

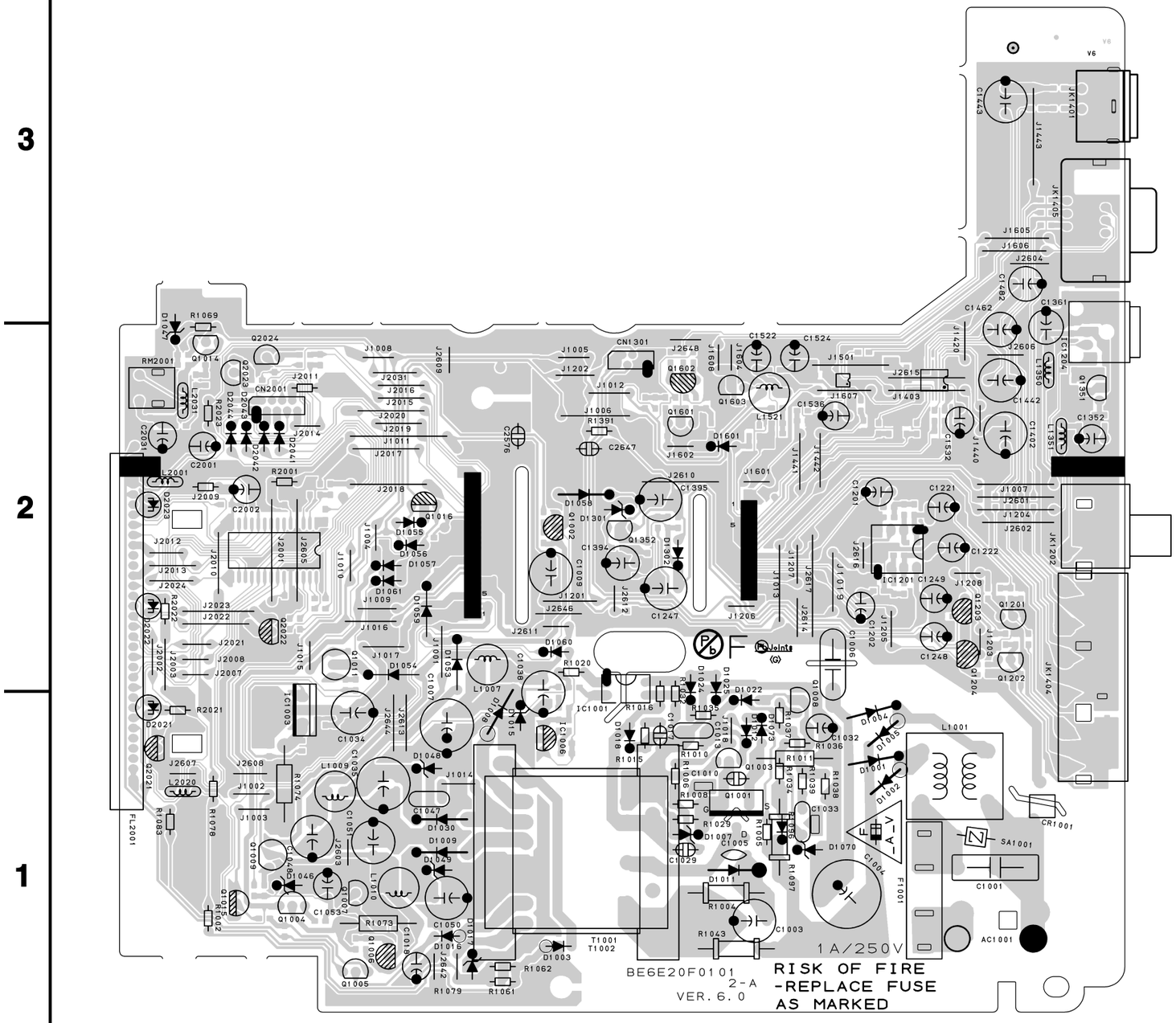
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F1001) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components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

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

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.



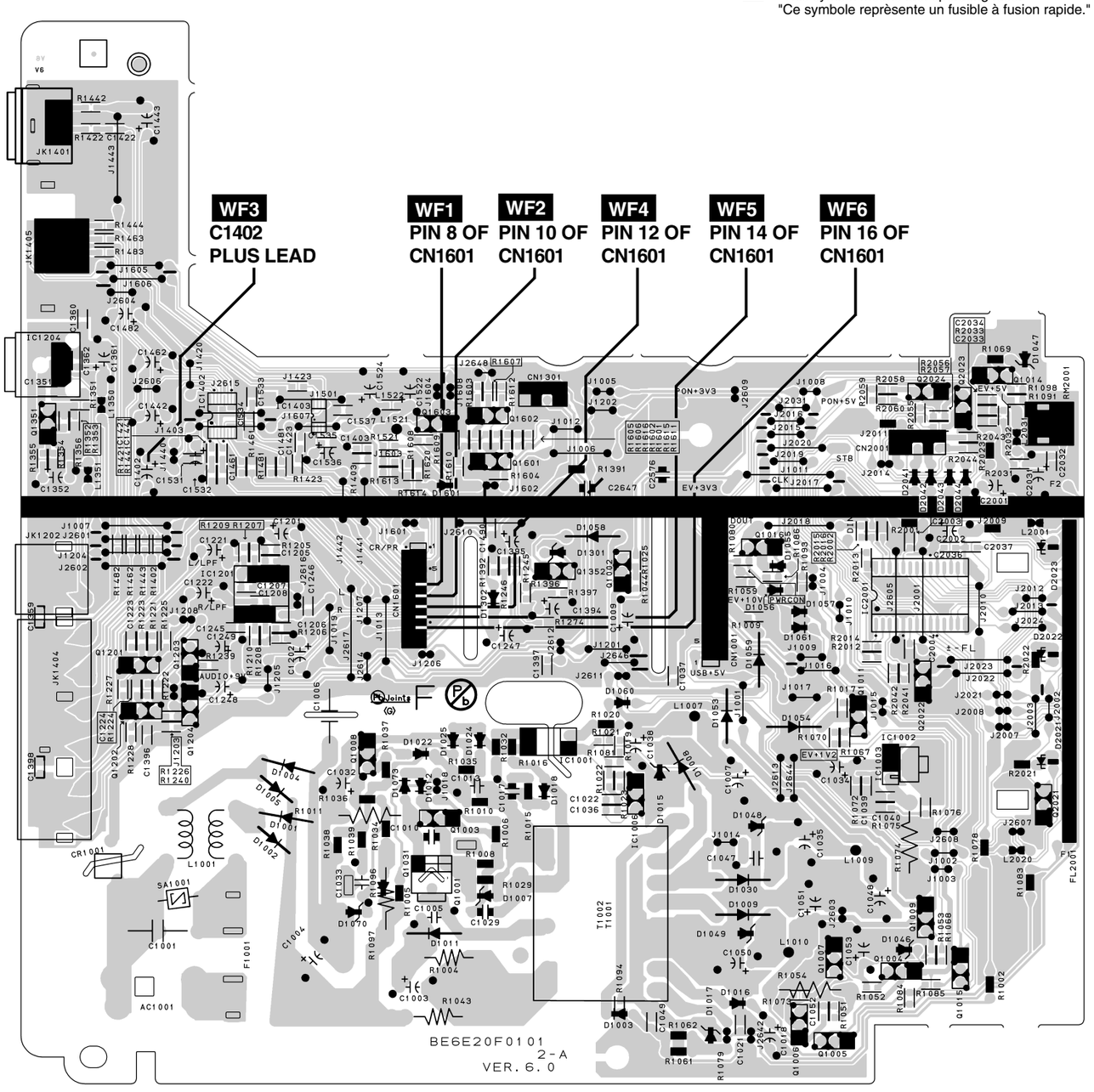
AV CBA Bottom View

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 risques 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."

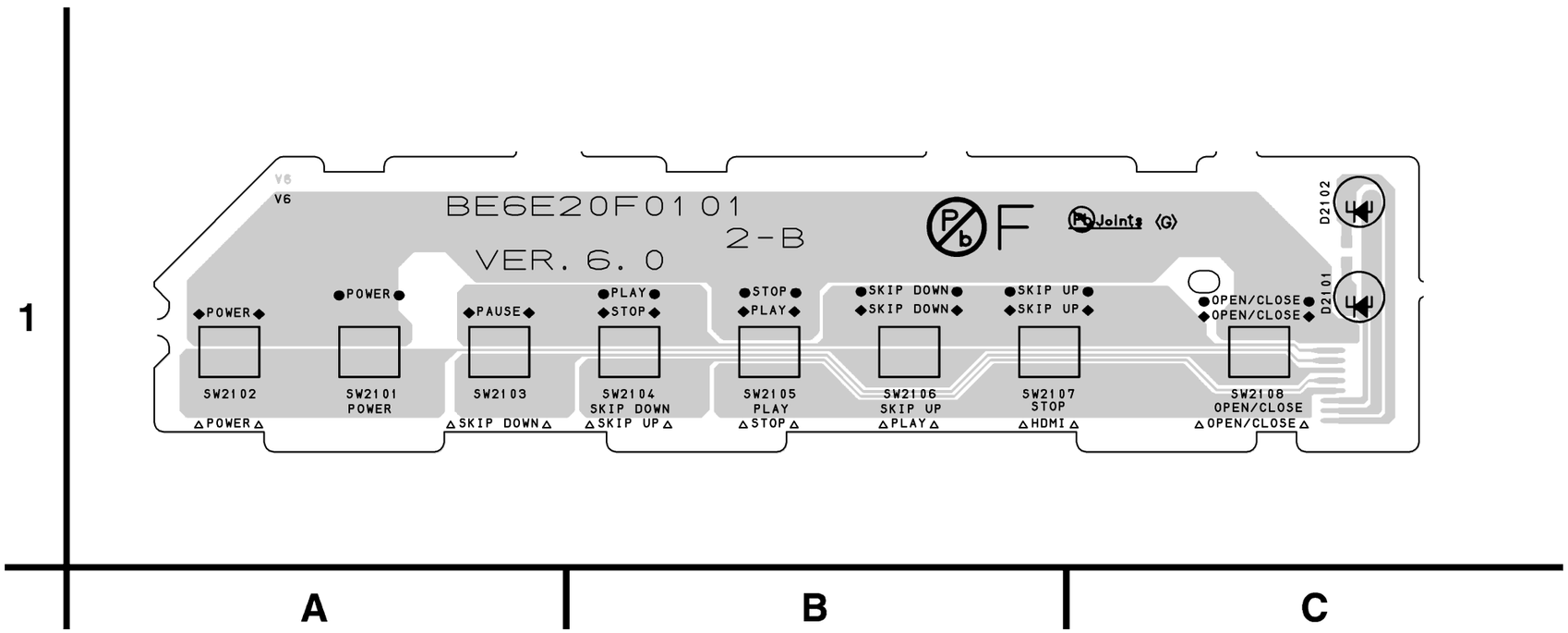
NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

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.

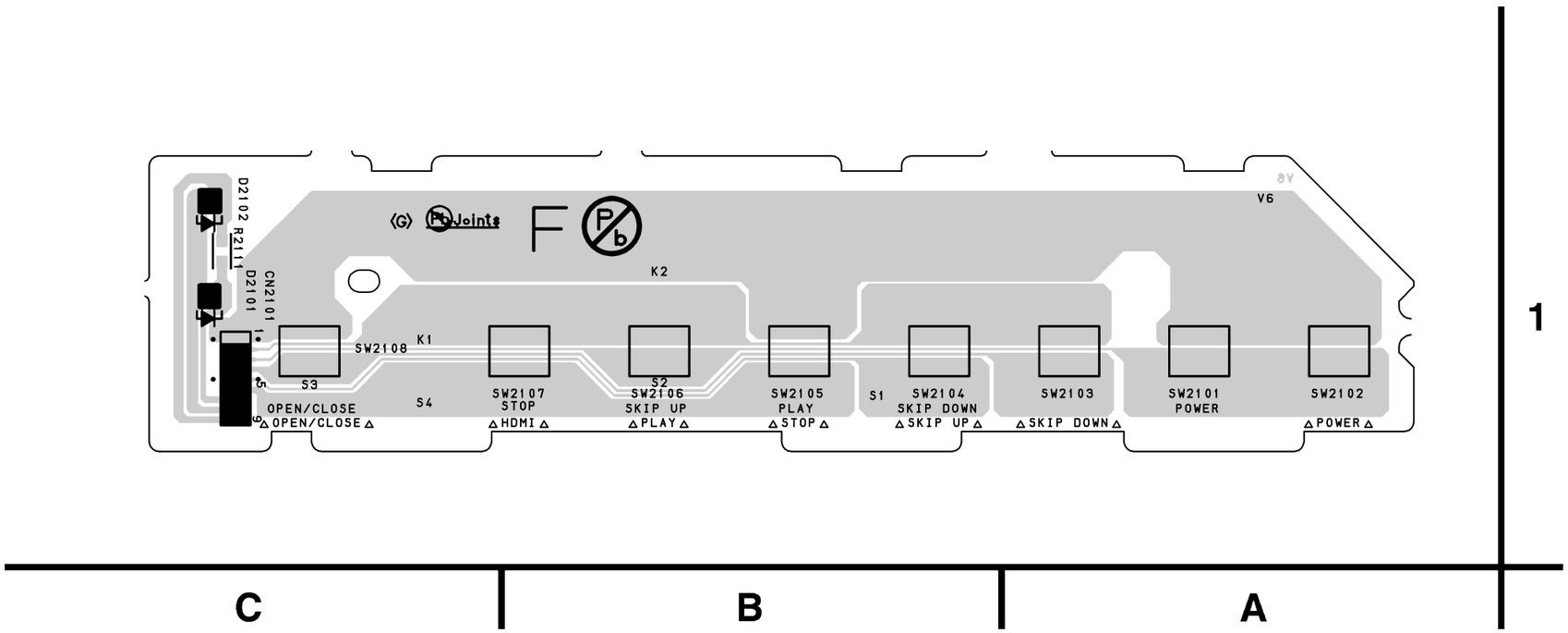


3
2
1
C B A

Function CBA Top View

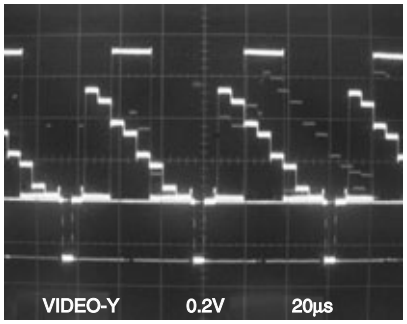


Function CBA Bottom View

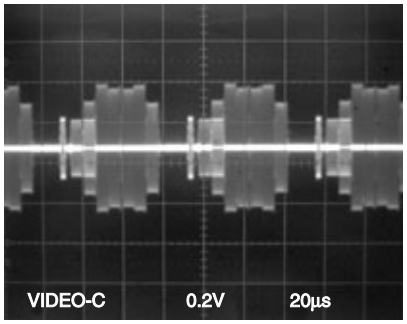


WAVEFORMS

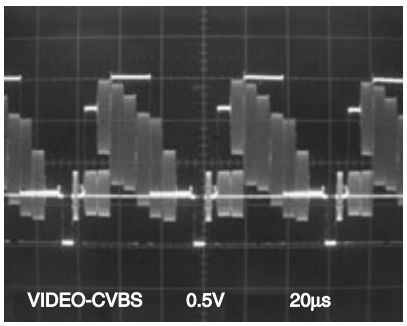
WF1 Pin 8 of CN1601



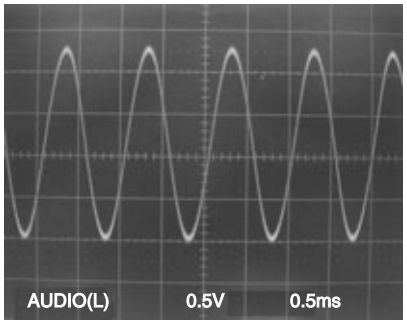
WF2 Pin 10 of CN1601



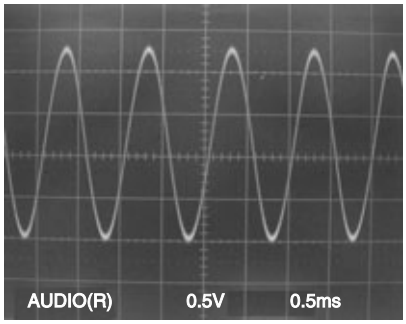
WF3 C1402 PLUS LEAD



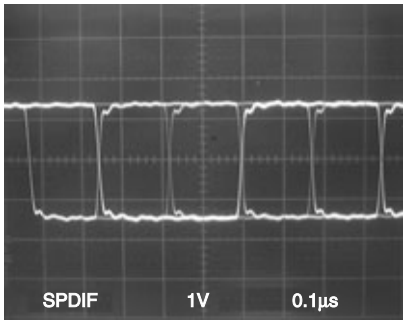
WF4 Pin 12 of CN1601



WF5 Pin 14 of CN1601



WF6 Pin 16 of CN1601

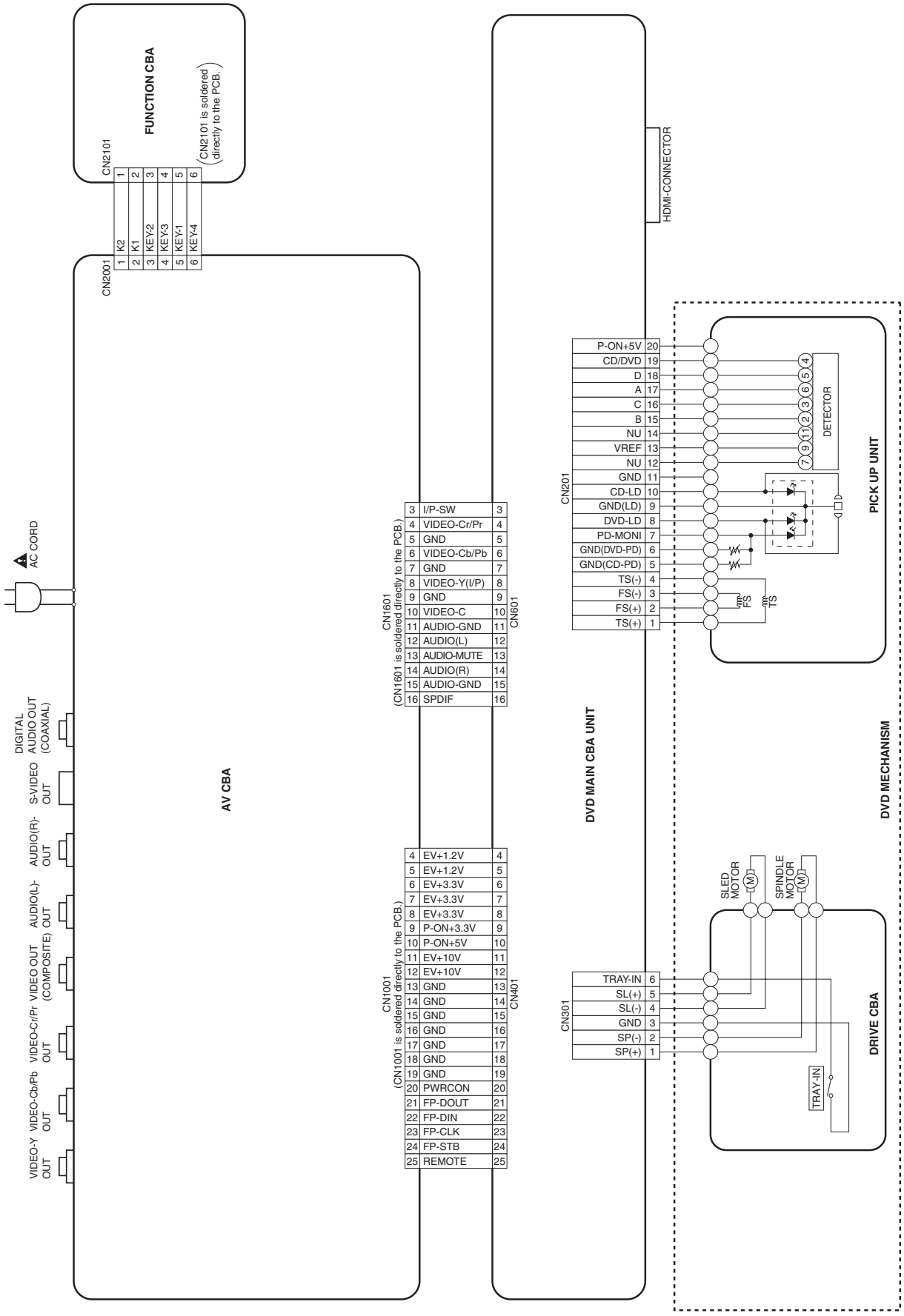


NOTE:

Input

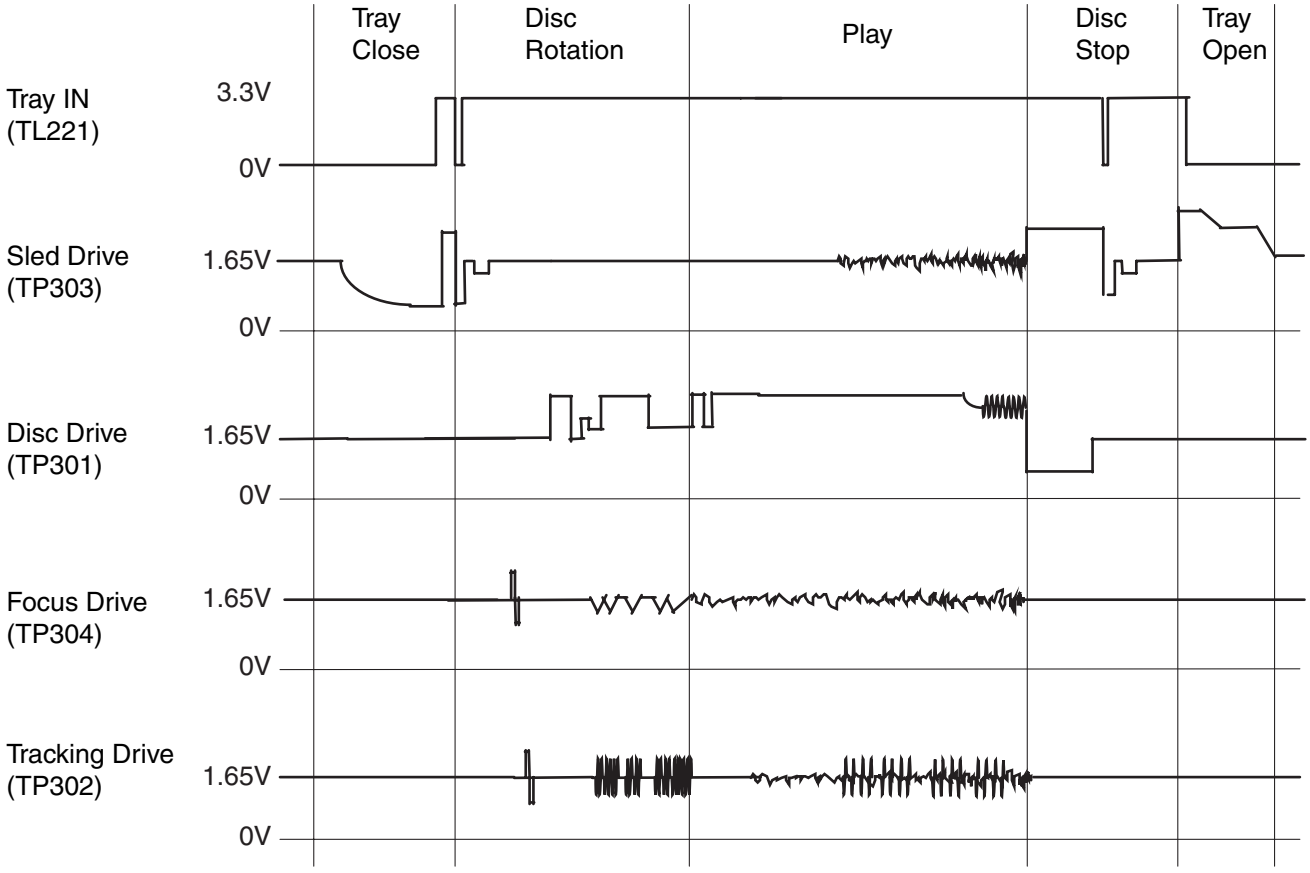
DVD: COLOR BAR SIGNAL (WITH 1KHz AUDIO SIGNAL)
(WF1~WF6)

WIRING DIAGRAM



SYSTEM CONTROL TIMING CHARTS

Tray Close ~ Play / Play ~ Tray Open



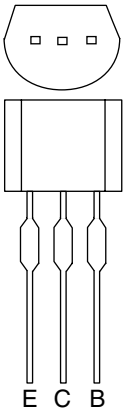
IC PIN FUNCTION DESCRIPTIONS

IC2001 (FRONT PANEL CONTROL)

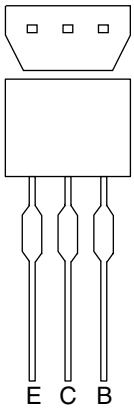
Pin No.	IN/ OUT	Signal Name	Function
1	IN	FP-CLK	Clock Input
2	IN	FP-STB	Serial Interface Strobe
3	IN	K1	Key Data 1 Input
4	IN	K2	Key Data 2 Input
5	-	VSS	GND
6	-	VDD	Power Supply
7	OUT	a / KEY-1	Segment Output / Key Source-1
8	OUT	b / KEY-2	Segment Output / Key Source-2
9	OUT	c / KEY-3	Segment Output / Key Source-3
10	OUT	d / KEY-4	Segment Output / Key Source-4
11	OUT	e	Segment Output
12		f	
13		g	
14		h	
15	-	VEE	Pull Down Level
16	OUT	i	Segment Output
17	OUT	7G	Grid Output
18		6G	
19		5G	
20		4G	
21		3G	
22		2G	
23		1G	
24	-	VDD	Power Supply
25	-	VSS	GND
26	IN	OSC	Oscillator Input
27	OUT	FP-DOUT	Serial Data Output
28	IN	FP-DIN	Serial Data Input

LEAD IDENTIFICATIONS

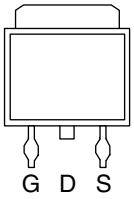
KTA1266-Y-AT/P
KTC3203-Y-AT/P



KTA1267-Y-AT/P
KTC3199-GR-AT/P
KTC3205-Y-AT/P
KRA110M-AT/P
KRC103M-AT/P



2SK3498



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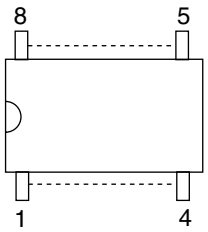
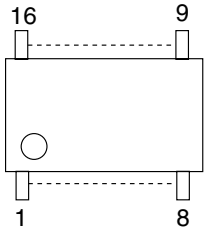
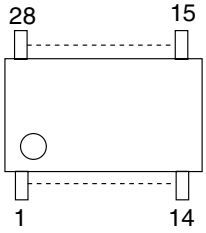


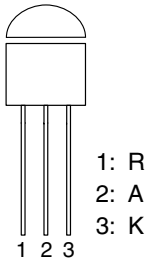
MM1637XVBE



PT6313-S-TP(L)

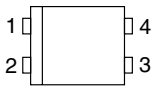


TL432A-TA



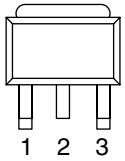
1: R
2: A
3: K

PS2561A-1(W)



1: A
2: K
3: E
4: C

UTC1117YA

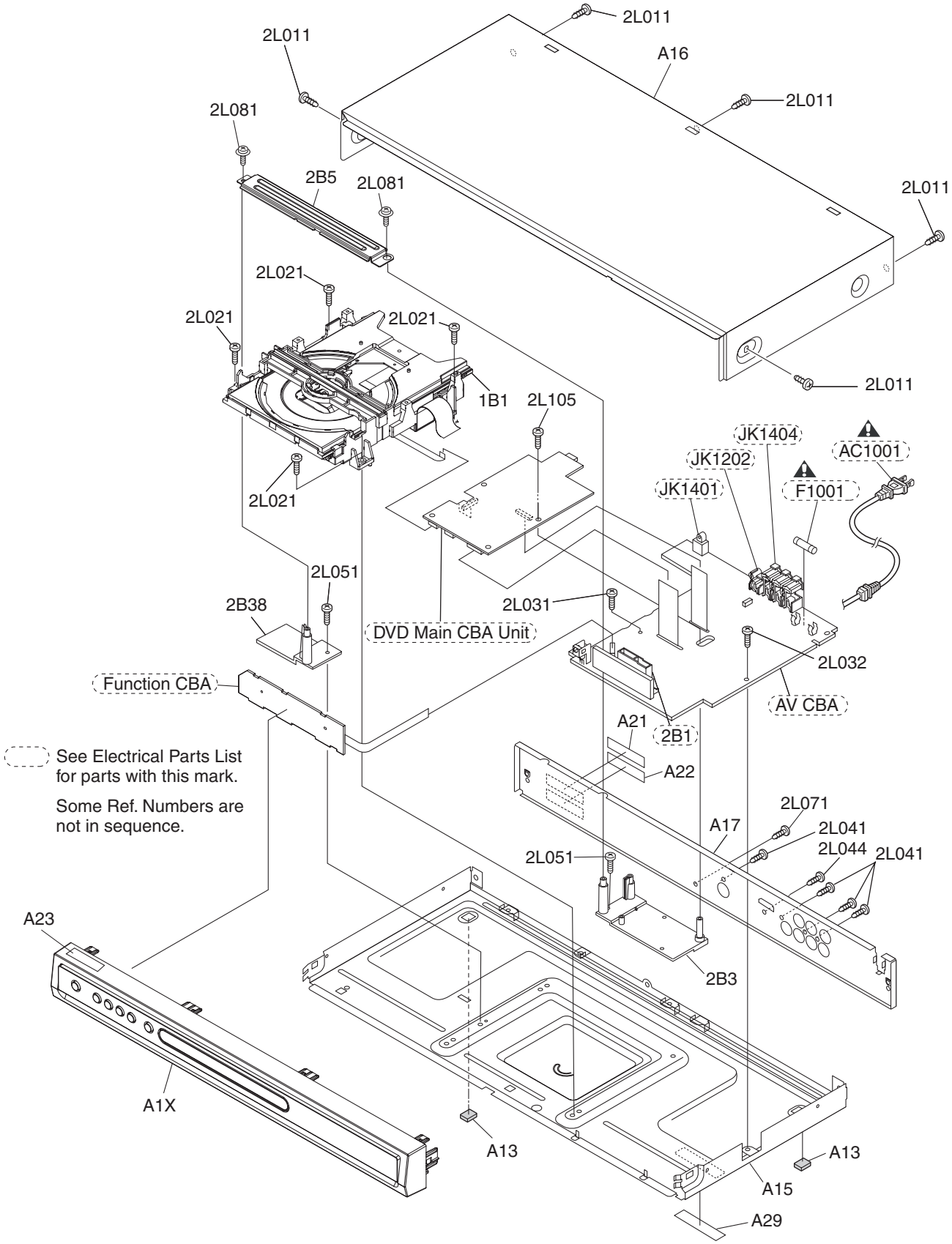


1: GND
2: Vout
3: Vin

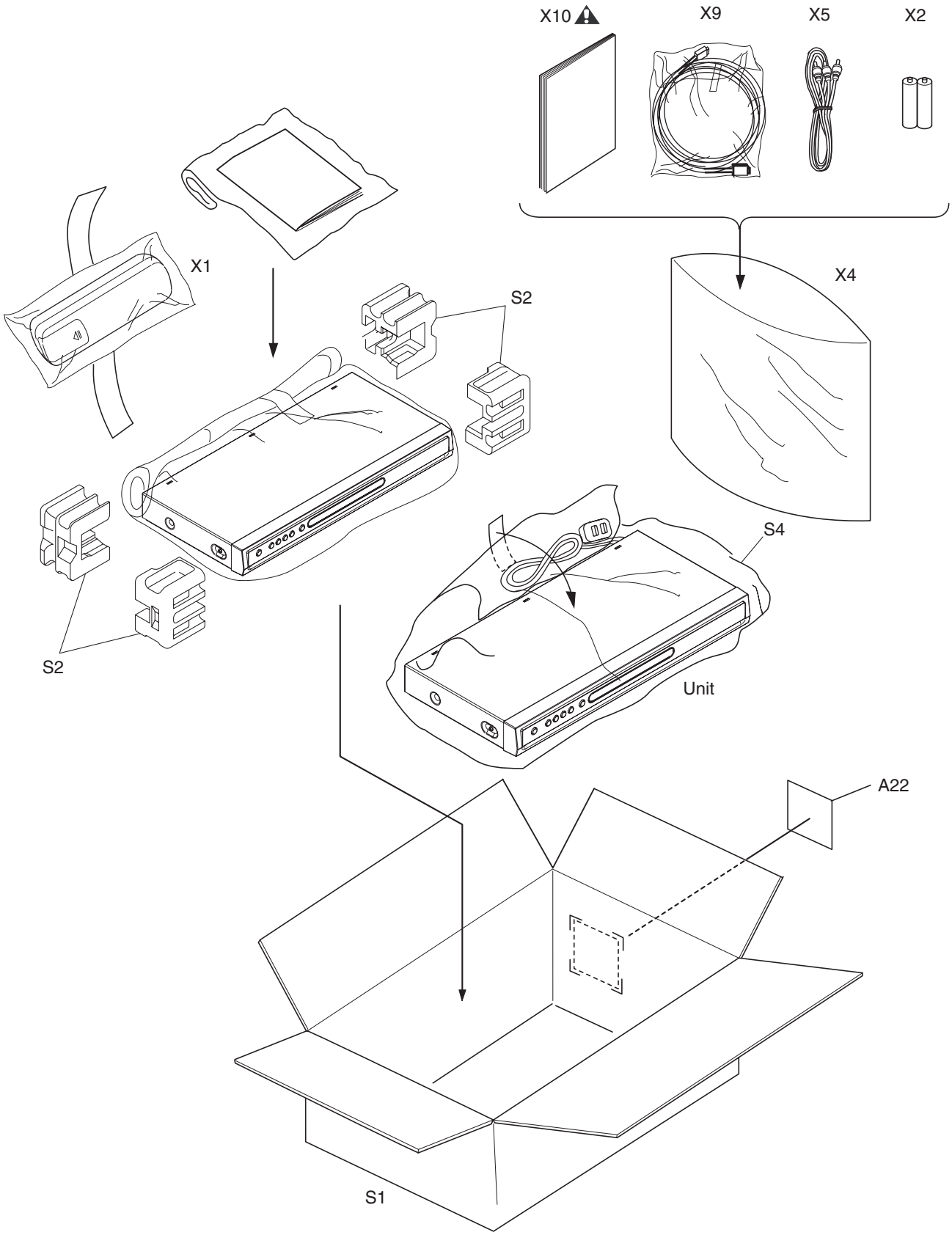
Note:
A: Anode
K: Cathode
E: Emitter
C: Collector
B: Base
R: Reference
G: Gate
D: Drain
S: Source

EXPLODED VIEWS

Cabinet



Packing



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 E6E71UD	1VM222881
A13	FOOT(REAR) E5710UD	0VM415007
A15	CHASSIS E5932UD	0VM101372
A16	TOP COVER(BLACK) E6A36UD	1VM322548
A17	REAR PANEL E6E71UD	1VM222896
A21	MODEL NO.LABEL(U) E6E71UD	----------
A22	LABEL BAR CODE E5900UD	----------
A23	TELEPHONE NO. LABEL H9670UD	----------
A29	LABEL EAS L0951UB	----------
1B1	DVD MECHA E7 HDMi N79F1KVM	N79F1KVM
2B3	MAIN PCB HOLDER E5932UD	0VM204593D
2B5	REINFORCE PLATE E6A60UD	1VM321919
2B38	PLATE HOLDER E6A35UD	1VM322595
2L011	SCREW TAP TIGHT M3X5 BIND HEAD+BLK NI	GBHC3050
2L021	SCREW S-TIGHT M3X10 BIND HEAD+	GBJS3100
2L031	SCREW P-TIGHT M3X8 BIND HEAD+	GBJP3080
2L032	SCREW S-TIGHT M3X6 BIND HEAD+	GBJS3060
2L041	SCREW B-TIGHT M3X8 BIND HEAD+	GBHB3080
2L044	S-TIGHT SCREW M3X6 BIND HEAD+BLACK	GBHS3060
2L051	SCREW S-TIGHT M3X6 BIND HEAD+	GBJS3060
2L071	SCREW S-TIGHT M3X6 BIND HEAD+	GBJS3060
2L081	SCREW TAP TIGHT WASHER+ P-TIGHT	GCJP3080
2L105	SCREW P-TIGHT M3X8 BIND HEAD+	GBJP3080
	PACKING	
S1	GIFT BOX CARTON E6E71UD	1VM323727
S2	SIDE PAD E6E71UD	1VM121072
S4	UNIT BAG E5500UD	0VM411683
	ACCESSORIES	
X1	REMOTE CONTROL UNIT NA474UD	NA474UD
X2	DRY BATTERY R03/2S	XB0M451T0006
X4	ACCESSORY BAG E5700UD	0VM415576
X5	AV CORD 1000/BLACK	WPZ0102TM018
X9	HDMI CABLE 1800MM BLACK	WPZ0182TSN01
X10⚠	OWNERS MANUAL E6E71UD	1VMN23457

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%

DVD MAIN CBA UNIT

Ref. No.	Description	Part No.
	DVD MAIN CBA UNIT	N7CFPKUP

AV ASSEMBLY

Ref. No.	Description	Part No.
	AV ASSEMBLY Consists of the following:	1VSA15409
	AV CBA FUNCTION CBA	---------- ----------

AV CBA

Ref. No.	Description	Part No.
	AV CBA Consists of the following:	----------
	CAPACITORS	
C1001⚠	ACROSS THE LINE CAP. 0.068μF/250V	CT2E683DC016
C1003	ELECTROLYTIC CAPACITOR ZT250TA2R2M6BB	CA2E2R2DYG02
C1004	ELECTROLYTIC CAPACITOR ZR200TA820M12BB	CA2D820DYG01
C1005	CERAMIC CAP. B K 120pF/500V	CCD2JKP0B121
C1006⚠	SAFETY CAP. 2200pF/250V	CCD2EMA0E222
C1007	ELECTROLYTIC CAP. 3300μF/6.3V	CE0KMASDL332
C1009	ELECTROLYTIC CAP. 1000μF/6.3V M	CE0KMASDL102
C1010	CERAMIC CAP.(AX) CH J 680pF/50V	CA1J681TU008
C1013	POLYESTER FILM CAP. (PB FREE) 0.0033μF/ 100V J	CA2A332DT018
C1017	CERAMIC CAP.(AX) Y M 0.01μF/16V	CCA1CMT0Y103
C1018	ELECTROLYTIC CAP. 100μF/6.3V M	CE0KMASDL101
C1021	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C1022	CHIP CERAMIC CAP.(1608) B K 0.022μF/50V	CHD1JK30B223
C1029	CERAMIC CAP.(AX) X K 2200pF/16V	CCA1CKT0X222
C1032	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C1033	FILM CAP.(P) 0.022μF/50V J	CA1J223MS029
C1034	ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASDL471
C1035	ELECTROLYTIC CAP. 1000μF/16V M	CE1CMASDL102
C1037	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1038	ELECTROLYTIC CAP. 1000μF/6.3V M	CE0KMASDL102
C1039	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1047	POLYESTER FILM CAP. (PB FREE) 0.022μF/ 100V J	CA2A223DT018
C1048	ELECTROLYTIC CAP. 220μF/16V M	CE1CMASDL221
C1049	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1050	ELECTROLYTIC CAP. 1000μF/10V M	CE1AMASDL102
C1051	ELECTROLYTIC CAP. 220μF/10V M	CE1AMASDL221
C1053	ELECTROLYTIC CAP. 22μF/10V M	CE1AMASDL220
C1201	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C1202	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C1205	CHIP CERAMIC CAP. CH J 220pF/50V	CHD1JJ3CH221
C1206	CHIP CERAMIC CAP. CH J 220pF/50V	CHD1JJ3CH221
C1207	CHIP CERAMIC CAP.(1608) CH J 68pF/50V	CHD1JJ3CH680
C1208	CHIP CERAMIC CAP.(1608) CH J 68pF/50V	CHD1JJ3CH680
C1221	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMASSL100
C1222	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C1223	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V	CHD1JJ3CH102
C1224	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V	CHD1JJ3CH102
C1245	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1246	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1247	ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASDL471
C1249	ELECTROLYTIC CAP. 47μF/16V M H7	CE1CMASSL470
C1351	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
C1352	ELECTROLYTIC CAP. 47μF/6.3V M H7	CE0KMASSL470
C1359	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V	CHD1JJ3CH102
C1360	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V	CHD1JJ3CH102
C1394	ELECTROLYTIC CAP. 47μF/16V M	CE1CMASDL470
C1395	ELECTROLYTIC CAP. 1000μF/6.3V M	CE0KMASDL102
C1398	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1402	ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASDL471
C1421	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C1422	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
C1441	CHIP CERAMIC CAP.(1608) B K 1μF/10V	CHD1AK30B105
C1442	ELECTROLYTIC CAP. 1000μF/6.3V M	CE0KMASDL102
C1461	CHIP CERAMIC CAP.(1608) B K 1μF/10V	CHD1AK30B105
C1462	ELECTROLYTIC CAP. 220μF/6.3V M	CE0KMASDL221
C1481	CHIP CERAMIC CAP.(1608) B K 1μF/10V	CHD1AK30B105
C1482	ELECTROLYTIC CAP. 220μF/6.3V M	CE0KMASDL221
C1522	ELECTROLYTIC CAP. 10μF/16V M	CE1CMASDL100
C1524	ELECTROLYTIC CAP. 100μF/10V M	CE1AMASDL101
C1531	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C1532	ELECTROLYTIC CAP. 22μF/6.3V M	CE0KMASDL220
C1533	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1534	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C1537	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2001	ELECTROLYTIC CAP. 22μF/50V M	CE1JMASDL220
C2002	ELECTROLYTIC CAP. 22μF/50V M	CE1JMASDL220
C2003	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2004	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2031	ELECTROLYTIC CAP. 100μF/10V M	CE1AMASDL101
C2032	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C2647	CERAMIC CAP.(AX) CH J 680pF/50V	CA1J681TU008
	CONNECTORS	
CN1001	WIRE ASSEMBLY FFC 22P 22P/90MM/WHITE	WX1E6E71-022
CN1601	WIRE ASSEMBLY FFC 14P 14P/110MM/WHITE	WX1E6E71-014
CN2001	FFC CONNECTOR IMSA-9615S-06A-PP-A	JC96J06ER007
	DIODES	
D1001	RECTIFIER DIODE 1N4005	NDQZ001N4005
D1002	RECTIFIER DIODE 1N4005	NDQZ001N4005
D1003	RECTIFIER DIODE BA157	NDQZ000BA157
D1004	RECTIFIER DIODE 1N4005	NDQZ001N4005

Ref. No.	Description	Part No.
D1005	RECTIFIER DIODE 1N4005	NDQZ001N4005
D1007	ZENER DIODE MTZJT-7722B	QDTB00MTZJ22
D1008	SCHOTTKY BARRIER DIODE SB340	NDQZ000SB340
D1009	RECTIFIER DIODE FR202-B/P	NDQZ000FR202
D1011	RECTIFIER DIODE BA157	NDQZ000BA157
D1012	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1016	RECTIFIER DIODE BA157	NDQZ000BA157
D1017	ZENER DIODE MTZJT-7718B	QDTB00MTZJ18
D1018	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1022	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1024	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1025	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1030	RECTIFIER DIODE FR202-B/P	NDQZ000FR202
D1046	ZENER DIODE MTZJT-775.6C	QDTC0MTZJ5R6
D1047	ZENER DIODE MTZJT-775.1B	QDTB0MTZJ5R1
D1048	ZENER DIODE MTZJT-7713B	QDTB00MTZJ13
D1049	ZENER DIODE MTZJT-778.2A	QDTA0MTZJ8R2
D1053	PCB JUMPER D0.6-P10.0	JW10.0T
D1054	PCB JUMPER D0.6-P10.0	JW10.0T
D1055	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1056	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1057	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1058	PCB JUMPER D0.6-P10.0	JW10.0T
D1059	PCB JUMPER D0.6-P10.0	JW10.0T
D1060	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1073	PCB JUMPER D0.6-P5.0	JW5.0T
D1301	ZENER DIODE MTZJT-775.6A	QDTA0MTZJ5R6
D2041	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D2042	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D2043	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D2044	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
	ICS	
IC1001⚠	PHOTOCOUPLER PS2561A-1(W)	QPEWPS2561A1
IC1002	IC VOLTAGE REGULATOR UTC1117YA	NSZBA0T2H002
IC1006	SHUNT REGULATOR TL432A-TA	NSZBA0T2T002
IC1201	IC OP AMP KIA4558P/P	NSZBA0SJY035
IC1402	DRIVER FOR DVD MM1637XVBE	QSZBA0TMM102
IC2001	VFD DRIVER/CONTROLLER IC PT6313-S-TP(L)	NSZBA0TG2007
	COILS	
L1001⚠	LINE FILTER 20MH 3905	LLBG00ZKT008
L1007	CHOKE COIL ELC10D220EM	LLC220KMS003
L1009	RADIAL TYPE CHOKE COIL CW68-470K-841040NP	LLBD00PKV023
L1010	RADIAL TYPE CHOKE COIL CW68-470K-841040NP	LLBD00PKV023
L1350	INDUCTOR(100μH K) LAP02TA101K	LLAXKATTU101
L1351	INDUCTOR(0.47μH K) LAP02TAR47K	LLAXKATTUR47
L1521	PCB JUMPER D0.6-P5.0	JW5.0T
L1522	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
L2031	INDUCTOR(100μH K) LAP02TA101K	LLAXKATTU101
	TRANSISTORS	
Q1002	TRANSISTOR KTA1267-Y-AT/P	NQSYKTA1267P
Q1003	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1004	TRANSISTOR KTC3203-Y-AT/P	NQSYKTC3203P
Q1005	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1006	TRANSISTOR KTA1267-Y-AT/P	NQSYKTA1267P
Q1007	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1008	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1011	TRANSISTOR KTC3205-Y-AT/P	NQSYKTC3205P
Q1015	TRANSISTOR KRA110M-AT/P	NQSZKRA110MP
Q1016	NPN TRANSISTOR KRC103M-AT/P	NQSZKRC103MP
Q1031⚠	FET 2SK3498(T6L1FUNANQ	QF1Z02SK3498

Ref. No.	Description	Part No.
Q1201	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1202	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1204	TRANSISTOR KTA1266-Y-AT/P	NQSYKTA1266P
Q1351	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q1352	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
	RESISTORS	
R1002	CARBON RES. 1/4W J 330 Ω	RCX4JATZ0331
R1004	METAL OXIDE FILM RES. 1W J 100k Ω	RN01104ZU001
R1005	CARBON RES. 1/4W J 2.7M Ω	RCX4JATZ0275
R1006	CARBON RES. 1/4W J 2.7M Ω	RCX4JATZ0275
R1008	CARBON RES. 1/4W J 620 Ω	RCX4JATZ0621
R1009	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R1010	CARBON RES. 1/6W J 15k Ω	RCX6JATZ0153
R1011	METAL OXIDE FILM RES. 1W J 1.2 Ω	RN011R2ZU001
R1015	CARBON RES. 1/6W J 560 Ω	RCX6JATZ0561
R1016	CARBON RES. 1/6W J 22k Ω	RCX6JATZ0223
R1019	CHIP RES. 1/10W F 1.5k Ω	RRXAFR5H1501
R1020	CARBON RES. 1/4W J 1.2k Ω	RCX4JATZ0122
R1021	CHIP RES. 1/10W J 2.7k Ω	RRXAJR5Z0272
R1022	CHIP RES. 1/10W J 820 Ω	RRXAJR5Z0821
R1023	CHIP RES. 1/10W F 1.0k Ω	RRXAFR5H1001
R1025	CHIP RES. 1/10W J 15k Ω	RRXAJR5Z0153
R1029	CARBON RES. 1/6W J 470k Ω	RCX6JATZ0474
R1032	CARBON RES. 1/6W J 3.3k Ω	RCX6JATZ0332
R1034	CARBON RES. 1/6W J 390k Ω	RCX6JATZ0394
R1035	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1036	CARBON RES. 1/6W J 100k Ω	RCX6JATZ0104
R1037	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1038	CARBON RES. 1/6W J 100k Ω	RCX6JATZ0104
R1039	CARBON RES. 1/6W J 470k Ω	RCX6JATZ0474
R1043	METAL OXIDE FILM RES. 1W J 3.3 Ω	RN013R3ZU001
R1044	CHIP RES. 1/10W J 100k Ω	RRXAJR5Z0104
R1051	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R1052	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1054	CHIP RES. 1/10W J 560 Ω	RRXAJR5Z0561
R1059	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R1061	CARBON RES. 1/4W J 1.2k Ω	RCX4JATZ0122
R1062	CARBON RES. 1/4W J 1.2k Ω	RCX4JATZ0122
R1067	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R1068	CHIP RES. 1/10W J 330 Ω	RRXAJR5Z0331
R1069	CARBON RES. 1/6W J 82 Ω	RCX6JATZ0820
R1072	CHIP RES. 1/10W J 330 Ω	RRXAJR5Z0331
R1073	METAL OXIDE FILM RES. 2W J 1.2 Ω	RN021R2ZU001
R1074	METAL OXIDE FILM RES. 2W J 1.8 Ω	RN021R8ZU001
R1075	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1078	CARBON RES. 1/4W J 330 Ω	RCX4JATZ0331
R1079	PCB JUMPER D0.6-P5.0	JW5.0T
R1080	CHIP RES. 1/10W J 2.7k Ω	RRXAJR5Z0272
R1081	CHIP RES. 1/10W F 220 Ω	RRXAFR5H2200
R1083	CARBON RES. 1/4W J 1.8 Ω	RCX4JATZ01R8
R1084	CHIP RES. 1/10W J 220k Ω	RRXAJR5Z0224
R1085	CHIP RES. 1/10W J 6.8k Ω	RRXAJR5Z0682
R1086	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1091	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1096	PCB JUMPER D0.6-P5.0	JW5.0T
R1205	CHIP RES. 1/10W F 11k Ω	RRXAFR5H1102
R1206	CHIP RES. 1/10W F 11k Ω	RRXAFR5H1102
R1207	CHIP RES. 1/10W J 6.8k Ω	RRXAJR5Z0682
R1208	CHIP RES. 1/10W J 6.8k Ω	RRXAJR5Z0682
R1209	CHIP RES. 1/10W F 27k Ω	RRXAFR5H2702
R1210	CHIP RES. 1/10W F 27k Ω	RRXAFR5H2702
R1221	CHIP RES. 1/10W J 100k Ω	RRXAJR5Z0104

Ref. No.	Description	Part No.
R1222	CHIP RES. 1/10W J 100k Ω	RRXAJR5Z0104
R1223	CHIP RES. 1/10W J 470 Ω	RRXAJR5Z0471
R1224	CHIP RES. 1/10W J 470 Ω	RRXAJR5Z0471
R1225	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R1226	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R1227	CHIP RES. 1/10W J 220 Ω	RRXAJR5Z0221
R1228	CHIP RES. 1/10W J 220 Ω	RRXAJR5Z0221
R1240	CHIP RES. 1/10W J 100k Ω	RRXAJR5Z0104
R1245	CHIP RES. 1/10W J 10 Ω	RRXAJR5Z0100
R1274	CHIP RES. 1/10W J 22k Ω	RRXAJR5Z0223
R1351	CHIP RES. 1/10W J 2k Ω	RRXAJR5Z0202
R1352	CHIP RES. 1/10W J 2.2k Ω	RRXAJR5Z0222
R1353	CHIP RES. 1/10W J 2.2k Ω	RRXAJR5Z0222
R1354	CHIP RES. 1/10W J 220 Ω	RRXAJR5Z0221
R1355	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R1356	CHIP RES. 1/10W J 100k Ω	RRXAJR5Z0104
R1392	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R1396	CHIP RES. 1/10W J 470 Ω	RRXAJR5Z0471
R1397	CHIP RES. 1/10W J 470 Ω	RRXAJR5Z0471
R1402	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R1421	CHIP RES. 1/10W F 200 Ω	RRXAFR5H2000
R1422	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R1441	CHIP RES. 1/10W F 200 Ω	RRXAFR5H2000
R1442	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R1443	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R1461	CHIP RES. 1/10W F 200 Ω	RRXAFR5H2000
R1462	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R1481	CHIP RES. 1/10W F 200 Ω	RRXAFR5H2000
R1482	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R1613	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1614	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2001	CARBON RES. 1/6W J 10 Ω	RCX6JATZ0100
R2002	CHIP RES. 1/10W J 68k Ω	RRXAJR5Z0683
R2012	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R2013	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R2014	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R2015	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R2016	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2031	CHIP RES. 1/10W J 6.8k Ω	RRXAJR5Z0682
R2032	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2033	CHIP RES. 1/10W J 22k Ω	RRXAJR5Z0223
R2041	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2042	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2043	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R2044	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
MISCELLANEOUS		
2B1	HOLDER F.I.P. E5900UD	0VM416070
AC1001⚠	AC CORD PB8B2F9110A-055	WAC0162LW004
F1001⚠	FUSE CURRENT PEG20C0NG001	PEG20C0NG001
FH1001	FUSE HOLDER MSF-015 LF (B110)	XH01Z00LY002
FH1002	FUSE HOLDER MSF-015 LF (B110)	XH01Z00LY002
FL2001	V.F.D. 7-BT-298NYM	TVFD150FT014
JK1202	RCA JACK(BLACK) MSP-251V-01 NI FE LF	JXRL010LY125
JK1401	S TYPE JACK MDC-050V-2.4 LF(B110	JXEL040LY003
JK1404	JACK RCA PCB L 06 MSP-246V29-65NI-F	JXRL060LY153
RM2001	SENSOR REMOTE RECEIVER KSM-602LU2S	USESJRSKK048
T1001⚠	SWITCHING TRANS 7714	LTT2PC0KT022

FUNCTION CBA

Ref. No.	Description	Part No.
	FUNCTION CBA Consists of the following:	----------
CONNECTOR		
CN2101	6P FFC AV PCB TO SW PCB	WX1E5900-005
SWITCHES		
SW2101	TACT SWITCH SKQSAF001A	SST0101AL041
SW2104	TACT SWITCH SKQSAF001A	SST0101AL041
SW2105	TACT SWITCH SKQSAF001A	SST0101AL041
SW2106	TACT SWITCH SKQSAF001A	SST0101AL041
SW2107	TACT SWITCH SKQSAF001A	SST0101AL041
SW2108	TACT SWITCH SKQSAF001A	SST0101AL041

DP170MS8
E6E71UD
2007-03-28