SHARP SERVICE MANUAL

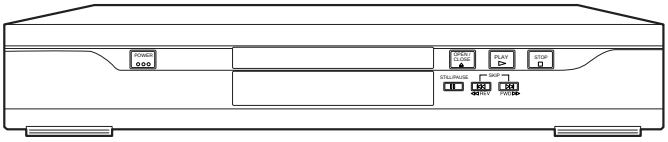
S12E4DV-S1U//

SERVICE MANUAL

DVD VIDEO PLAYER

MODEL DV-S1U/DV-S1UC

DVD VIDEO PLAYER



MODEL DV-S1U DV-S1UC

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

CONTENTS

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

SPECIFICATIONS

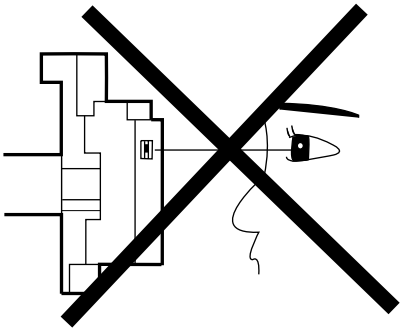
ITEM	CONDITIONS	UNIT	NOMINAL	LIMIT
1. Video Output	75 ohm load	Vpp	1.0	
2. Optical Digital Out		dBm	-18	
3. Audio (PCM)				
3-1. Output Level	1kHz 0dB	Vrms	2.0	
3-2. S/N		dB	110	
3-3. Freq. Response				
DVD	fs=48kHz 20~22kH	dB	± 2	
CD	fs=44.1kHz 20~20 kHz	dB	± 2	
3-4. THD+N	1 kHz 0dB	%	0.005	
Other Specifications				
Power consumption	: 14 W (standby: 2 W)			
Dimensions	: 17-1/8" (435 mm) x 2-17/32" (75 mm) x 8-5/16" (211 mm) (W / H / D)			
Weight	: 4.62lbs (2.1kg)			

NOTES:

1. All Items are measured without pre-emphasis unless otherwise specified.
2. Power supply : AC120 V 60 Hz
3. Load imp. : 100 K ohm
4. Room ambient : +25 °C

LASER BEAM SAFETY PRECAUTIONS

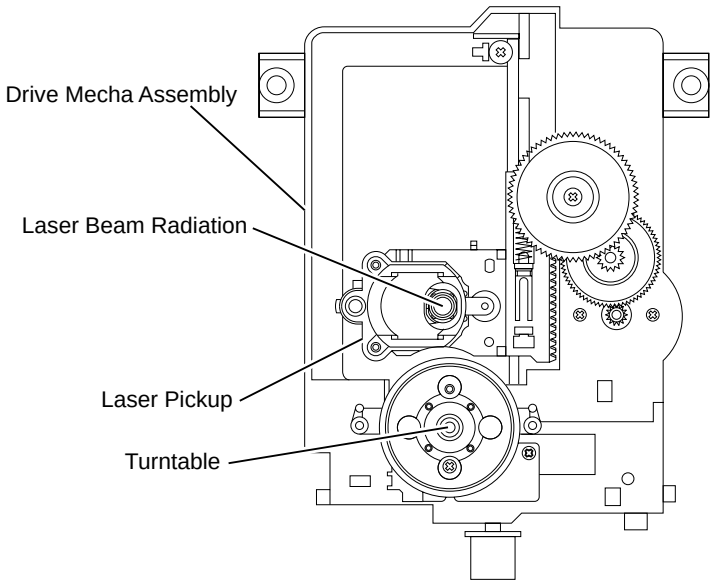
This DVD player uses a pickup that emits a laser beam.



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 30cm 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: Inside Top of DVD mechanism.

IMPORTANT SAFEGUARDS AND PRECAUTIONS

1. IMPORTANT SERVICE NOTES

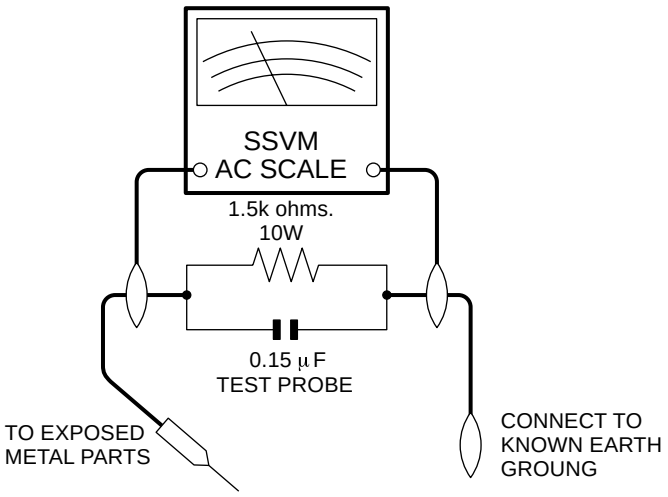
BEFORE RETURNING THE DVD VIDEO PLAYER

Before returning the DVD video player to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the DVD video player.
2. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor/capacitor networks, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for current in the following manner.

- Plug the AC line cord directly into a 120 volt AC outlet (Do not use an isolation transformer for this test).
- Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15µF capacitor in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit.
- Use an DVM or VOM with 1000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resistor (See Diagram).
- Move the resistor connection to earth exposed metal part having a return path to the chassis (metal cabinet, screw heads, knobs and control shafts, etc.) and measure the AC voltage drop across the resistor.

Reverse the AC plug on the set and repeat AC voltage measurements for each exposed part. Any reading of 0.45V rms (this corresponds to 0.3mA rms AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the DVD video player to the owner.



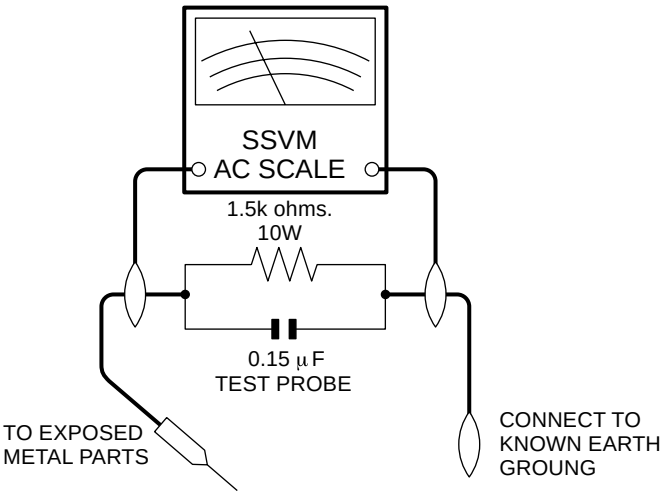
1. NOTES DE SERVICE IMPORTANTES

AVANT DE RENDRE LE REPRODUCTOR DE VíDEO DVD

Avant de rendre le reproductor de vídeo DVD à l'utilisateur, effectuer les vérifications de sécurité suivantes.

1. Vérifier toutes les gaines de fil pour être sûr que les fils ne sont pas pincés ou que le matériel n'est pas coincé entre le châssis et les autres pièces métalliques dans le reproductor de vídeo DVD.
2. Vérifier tous les dispositifs de protection tels que les boutons de commande non métalliques, les matériaux d'isolement, le dos du coffret, les couvercles de compartiment et ajustement ou les boucliers, les réseaux de résistance / condensateur d'isolement, les isolateurs mécaniques, etc.
3. Pour être sûr qu'il n'y a aucun risque de choc électrique, vérifier le courant de fuite de la maniére suivante.

- Brancher le cordon d'alimentation secteur directement dans une prise de courant de 120 volts. (Ne pas utiliser de transformateur d'isolement pour cet essai).
- Utiliser deux fils à pinces et connecter une résistance de 10 watts 1,5 kohm en parallèle avec un condensateur de 0,15 µF en série avec des pièces du coffret métallique exposées et une masse de terre connue telle qu'un tuyau ou un conduit d'eau.
- Utiliser un DVM ou VOM avec une sensibilité de 1000 ohms par volt ou plus ou mesurer la chute de tension CA entre la résistance (voir diagramme).
- Déposer la connexion de la résistance à toutes les pièces métalliques exposées ayant un parcours de retour au châssis (coffret métallique, tétes de vis, boutons et arbres de commande, etc.) et mesurer la chute de tension CA entre la résistance. Inverser la fiche CA (une fiche intermédiaire non polarisée doit être utilisée à seule fin de faire ces vérifications.) sur l'appareil et répéter les mesures de tension CA pour chaque piéce métallique exposée. Toute lecture de 0,45 V rms (ceci correspond à 0,3 mA rms CA) ou plus est excessive et signale un danger de choc qui doit être corrigé avant de rendre le reproductor de vídeo DVD à son utilisateur.



WARNING :TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO WET LOCATIONS.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

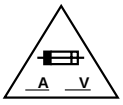
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER. NO USER·SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user of uninsulated voltage within the unit that can cause dangerous electric shocks.

This symbol alerts the user that there are important operating and maintenance instructions in the literature accompanying this unit.

CAUTION

This symbol mark means following. For continued protection against fire hazard, replace only with same type fuse F1001 (1A, 250V) on AV CBA.



ATTENTION: POUR REDUIRE LES RESQUES D'INCENDIE OU DE CHOC ELECTRIQUE, NE PAS EXPOSER CET APPAREIL A LA PLUIE OU A L'HUMIDITE.

ATTENTION

RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR

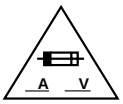
ATTENTION: AFIN DE REDUIRE LES RISQUES DE CHOC ELECTRIQUE, NE PAS RETIRER LE COUVERCLE, AUCUN ORGANE INTERNE NE PEUT ETRE REPARE PAR L'UTIUSATEUR, CONFIER L'APPAREIL A UN DEPANNEUR QUALIFIE.

Ce symbole signale à l'utilisateur la présence d'une tension non isolée à l'intérieur de l'appareil qui peut être la cause de secousses électriques dangereuses.

Ce symbole avertit l'utilisateur que des instructions importantes relatives à l'utilisation et àl'entretien se trouvent dans le manuel accompagnant l'appareil.

ATTENTION

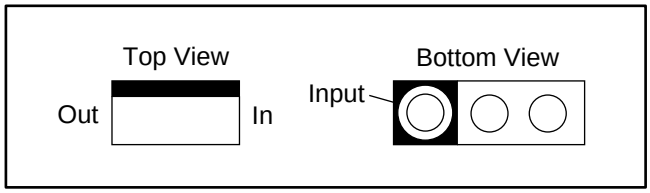
Ce symbole signifie que l'on devra utiliser un fusible de même type F1001 (1A, 250V) on AV CBA.



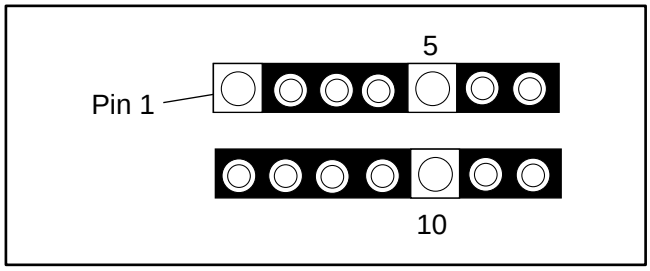
STANDARD NOTES FOR SERVICING

Circuit Board Indications

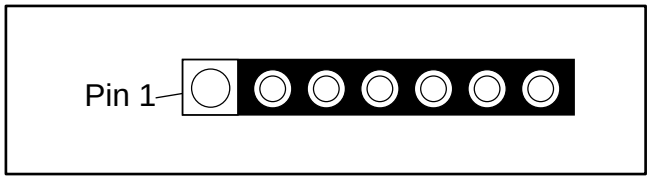
a. The output pin of the 3 pin Regulator ICs is indicated as shown.



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

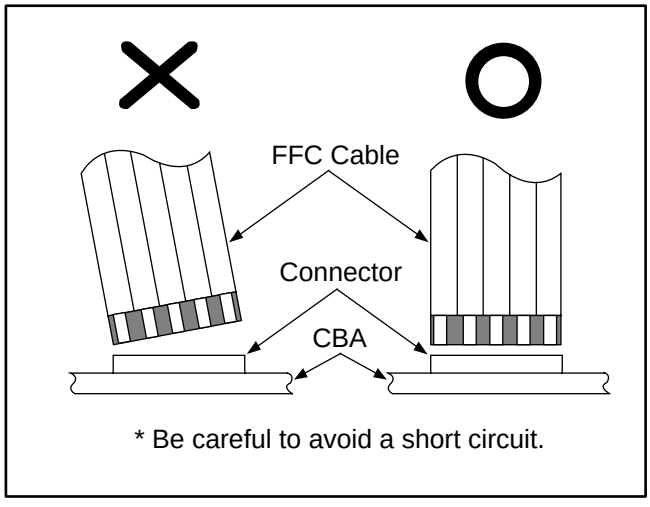


c. The 1st pin of every male connector is indicated as shown.



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.



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)

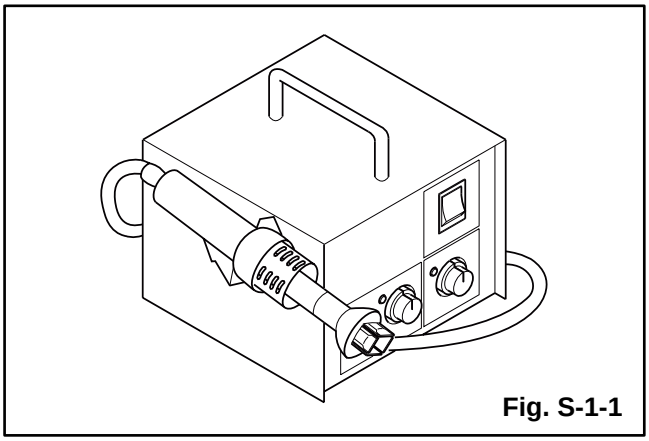


Fig. S-1-1

(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. 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)
2. 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.

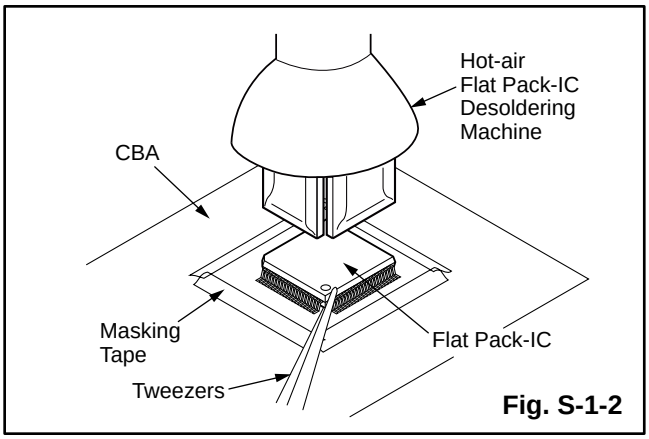


Fig. S-1-2

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)

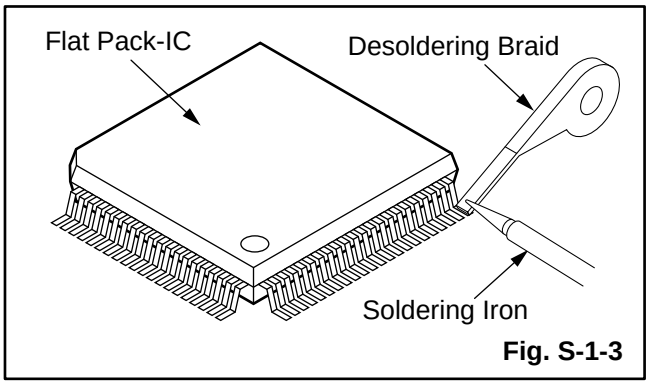


Fig. S-1-3

(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)

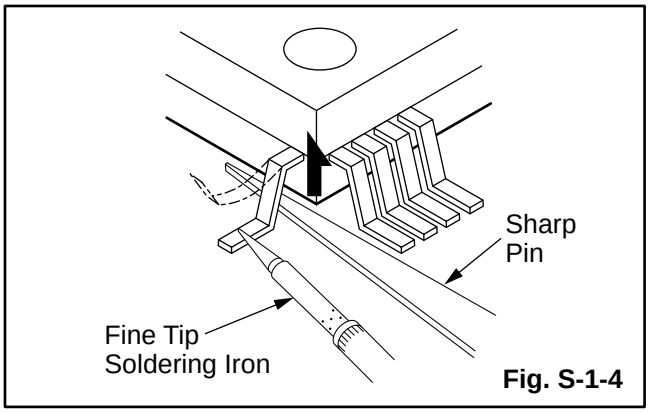


Fig. S-1-4

(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.

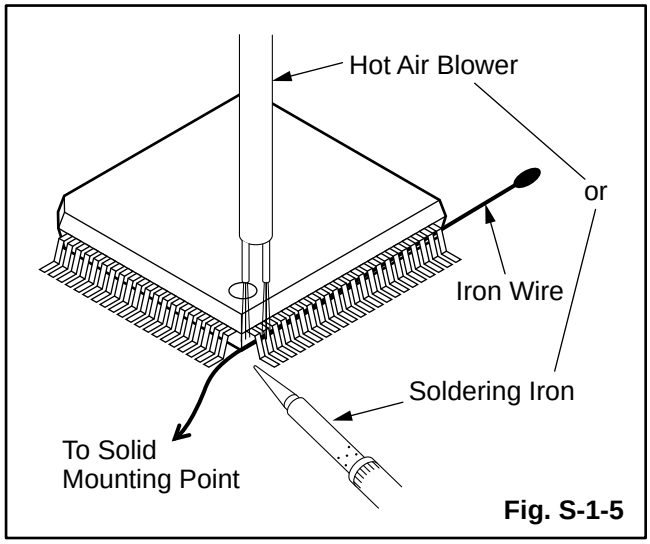


Fig. S-1-5

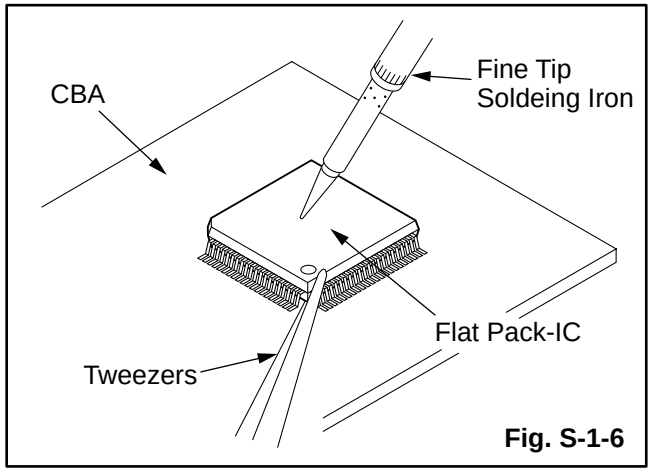


Fig. S-1-6

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.

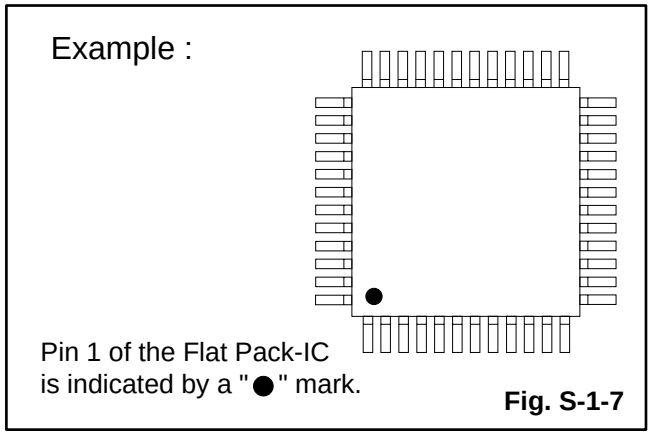


Fig. S-1-7

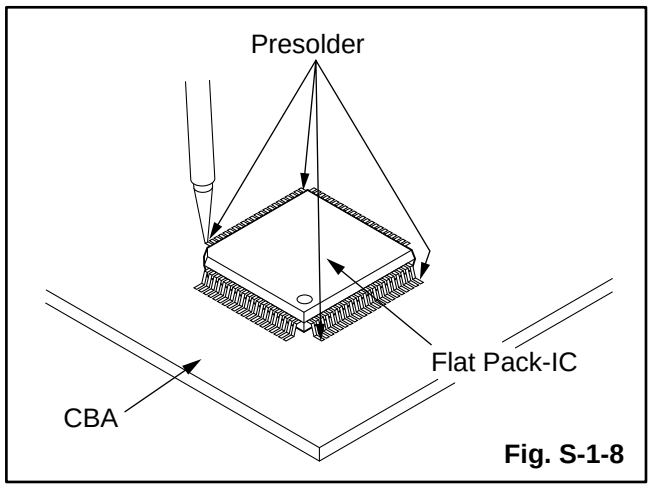


Fig. S-1-8

Instructions for Handling Semi-conductors

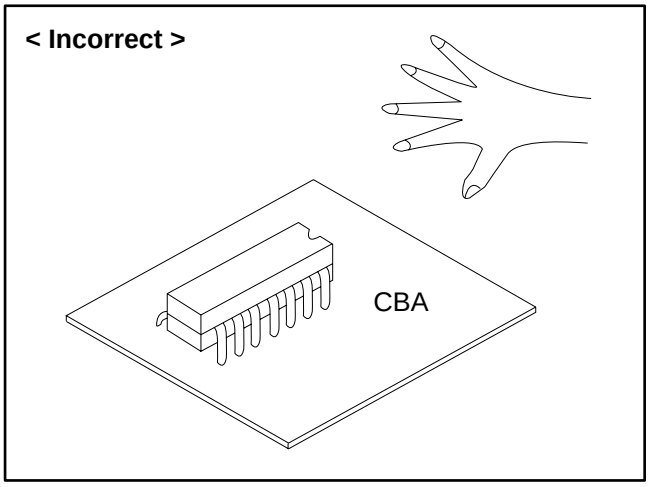
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

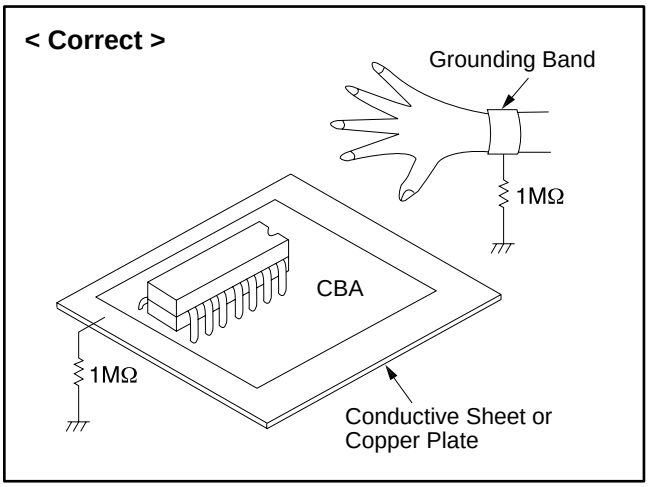
1. Ground for Human Body

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

2. Ground for Workbench

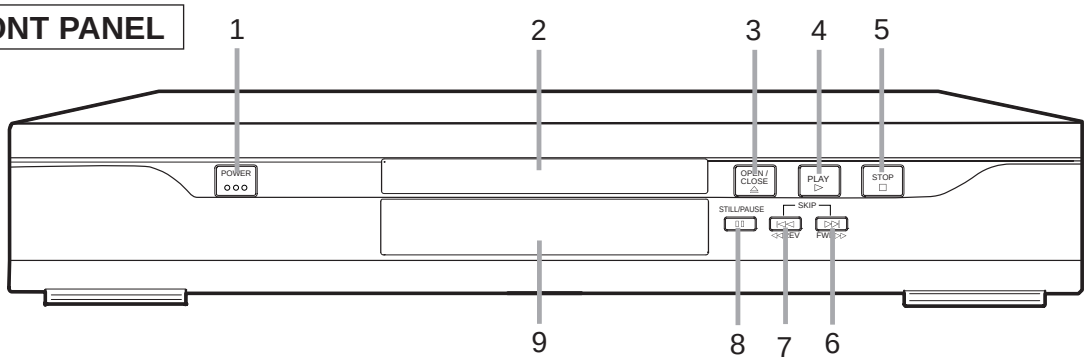
Be sure to place a conductive sheet or copper plate with proper grounding (1MΩ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors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



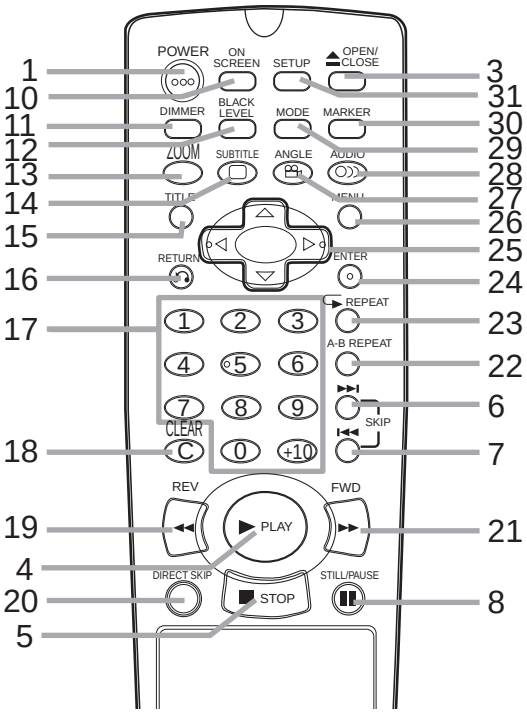


OPERATING CONTROLS AND FUNCTIONS

FRONT PANEL

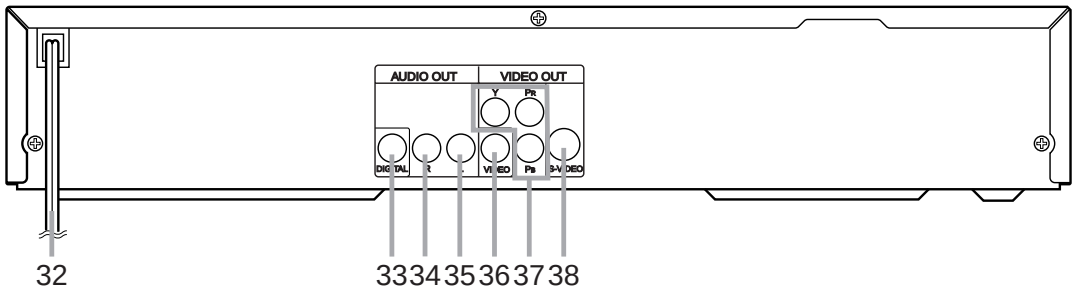


REMOTE CONTROL



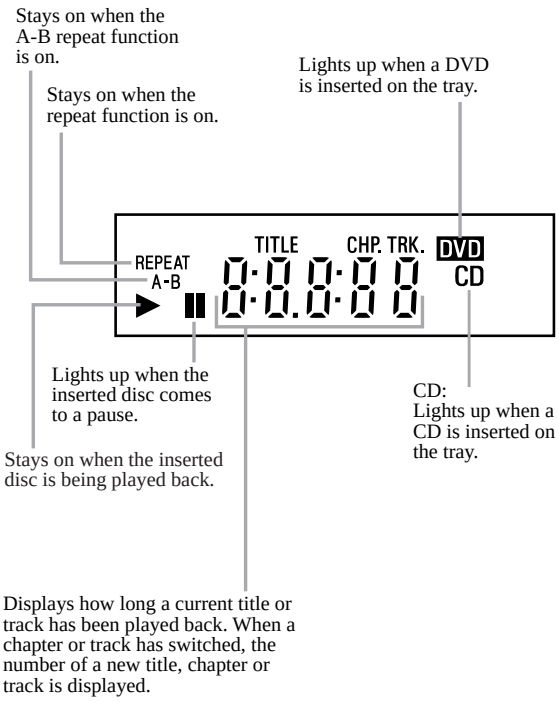
1. **POWER Button**
   Press to turn the power on and off.
2. **Disc loading tray**
3. **OPEN/CLOSE Button**
   Press to insert discs into or remove them from the tray.
4. **PLAY Button**
   Starts playback of the disc contents.
5. **STOP Button**
   Stops operation of the disc.
6. **SKIP UP/FWD Button**
   Plays back from the beginning of the next chapter or track. Hold down to fast forward playback.
7. **SKIP DOWN/REV Button**
   Plays back from the beginning of the current chapter or track. Hold down to fast reverse playback.
8. **STILL/PAUSE Button**
   Pauses the current disc operation.
9. **Display,Remote Sensor Window**
10. **ON SCREEN Button**
    Displays the current status on the TV screen for checking purposes.
11. **DIMMER Button**
    Press to change the Panel Display settings.
12. **BLACK LEVEL Button**
    Press to adjust the black patrs of the picture brighter.
13. **ZOOM Button**
    Enlarges part of a DVD-reproduced image.
14. **SUBTITLE Button**
    Press to select a desired subtitle language.
15. **TITLE Button**
    Displays the title menu.
16. **RETURN Button**
    Returns to the previous operation.
17. **Numeric Buttons**
18. **CLEAR Button**
    Resets a setting.
19. **REV Button**
    Fast reverse playback to a desired point.
20. **DIRECT SKIP Button**
    Press to locate a desired point.
21. **FWD Button**
    Fast forwards playback to a desired point.
22. **A-B REPEAT Button**
    Repeats playback of a selected section.
23. **REPEAT Button**
    Repeats playback of the current disc, title, chapter or track.
24. **ENTER Button**
    Press to accept a setting.
25. **Arrow Buttons**
    Use when making settings while watching the display on a TV screen.
26. **MENU Button**
    Displays the DVD menus.
27. **ANGLE Button**
    Press to change the camera angle to see the sequence being played back from a different angle.
28. **AUDIO Button**
    Press to select a desired audio language or sound mode.
29. **MODE Button**
    Activates program playback or random playback mode.
30. **MARKER Button**
    Press to call back the Marker display.
31. **SETUP Button**
    Press to enter the setup mode or to change setup items.

REAR VIEW

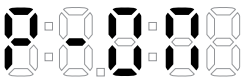
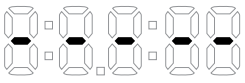
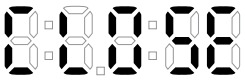
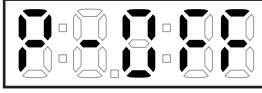


32. Power Cord
33. COAXIAL DIGITAL AUDIO OUT Jack
34. Right AUDIO OUT Jack
35. Left AUDIO OUT Jack
36. VIDEO OUT Jack
37. Component Video Out Jacks ($Y/P_B/P_R$)
38. S-VIDEO OUT Jack

DISPLAY

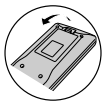


DISPLAYS DURING OPERATION

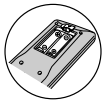
	Power on
	No disc inserted
	Tray open
	Tray closed
	Loading the Disc
	Power off

LOADING THE BATTERIES

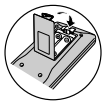
1. Open the battery compartment cover.



2. Insert two “AA” size batteries (R-06), with each one oriented correctly.



3. Close the cover.

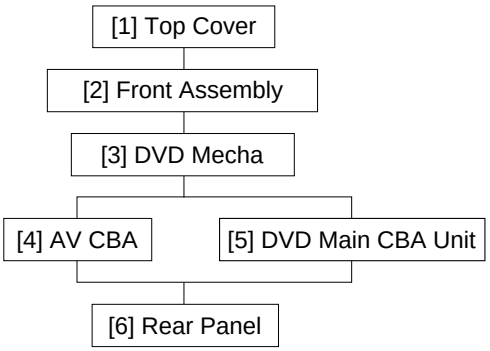


Notes
- Do not mix alkaline and manganese batteries.
- Do not mix old and new batteries.

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	1	5(S-1)	-
[2]	Front Assembly	2	*2(L-1), Tray Panel, *2(L-2), *5(L-3)	1-1 1-2 1-3 1-4 1-5 1-6
[3]	DVD Mecha	3,4	3(S-2) *CN101, *CN401	2 2-1 2-2 2-3 3
[4]	AV CBA	5	4(S-3), 4(S-4), *2(L-4), *CN1001, *CN1601	-
[5]	DVD Main CBA Unit	5	3(S-5)	-
[6]	Rear Panel	6	3(S-6)	-
↑ ①	↑ ②	↑ ③	↑ ④	↑ ⑤

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. 5(S-1) = five Screws (S-1),
2(L-2) = two Locking Tabs (L-2)

⑤ : Refer to "Reference Notes."

Reference Notes

CAUTION 1: Locking Tabs (L-1), (L-2) and (L-3) are fragile. Be careful not to break them.

1-1. Connect the wall plug to an AC outlet and press the OPEN/CLOSE button to open the Tray.

1-2. Remove the Tray Panel by releasing two Locking Tabs (L-1).

1-3. Press the OPEN/CLOSE button again to close the Tray.

1-4. Press the POWER button to turn the power off.

1-5. Unplug an AC Cord.

1-6. Release two Locking Tabs (L-2). Then, release five Locking Tabs (L-3) (to do this, first release two Locking Tabs (A) at the bottom, and then three Locking Tabs (B) at the side.) (Fig. 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.

2-1. Slide out the pickup unit as shown in Fig. 4.

2-2. Short the three short lands of FPC cable with solder before removing the FFC cable (CN101) from it. If you disconnect the FFC cable (CN101), the laser diode of pickup will be destroyed. (Fig. 4)

2-3. Disconnect Connector (CN401). Remove three Screws (S-2) and lift the DVD Mecha. (Fig. 3)

CAUTION 3: When reassembling, confirm the FFC cable (CN101) is connected completely. Then remove the solder from the three short lands of FPC cable. (Fig. 4)

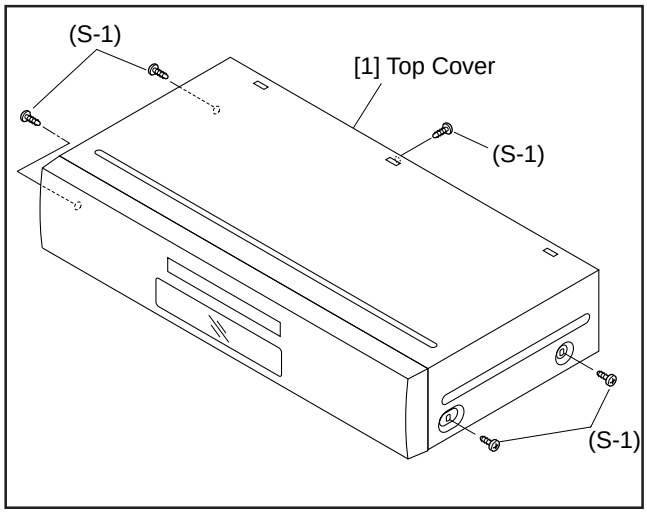


Fig. 1

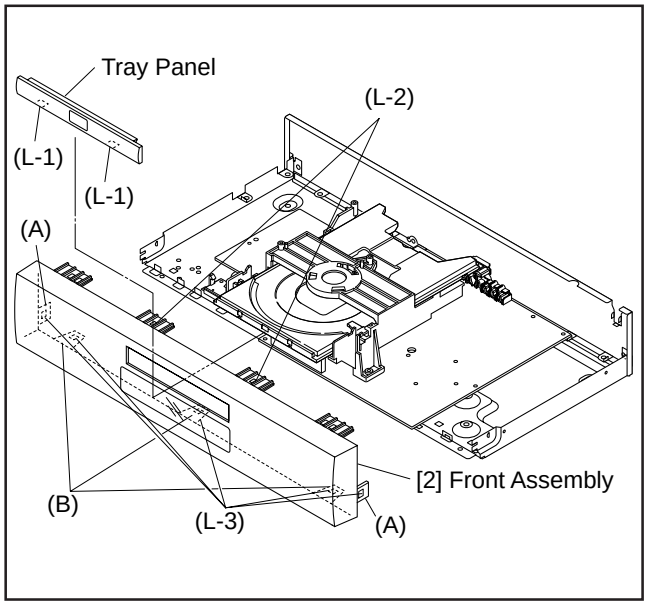


Fig. 2

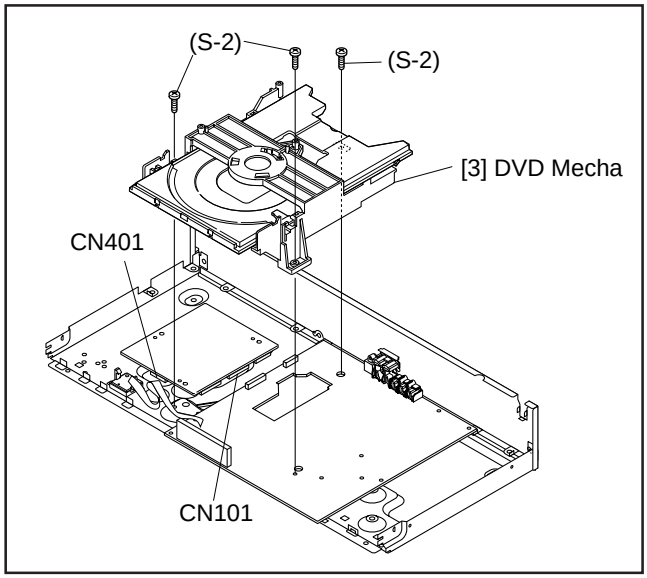


Fig. 3

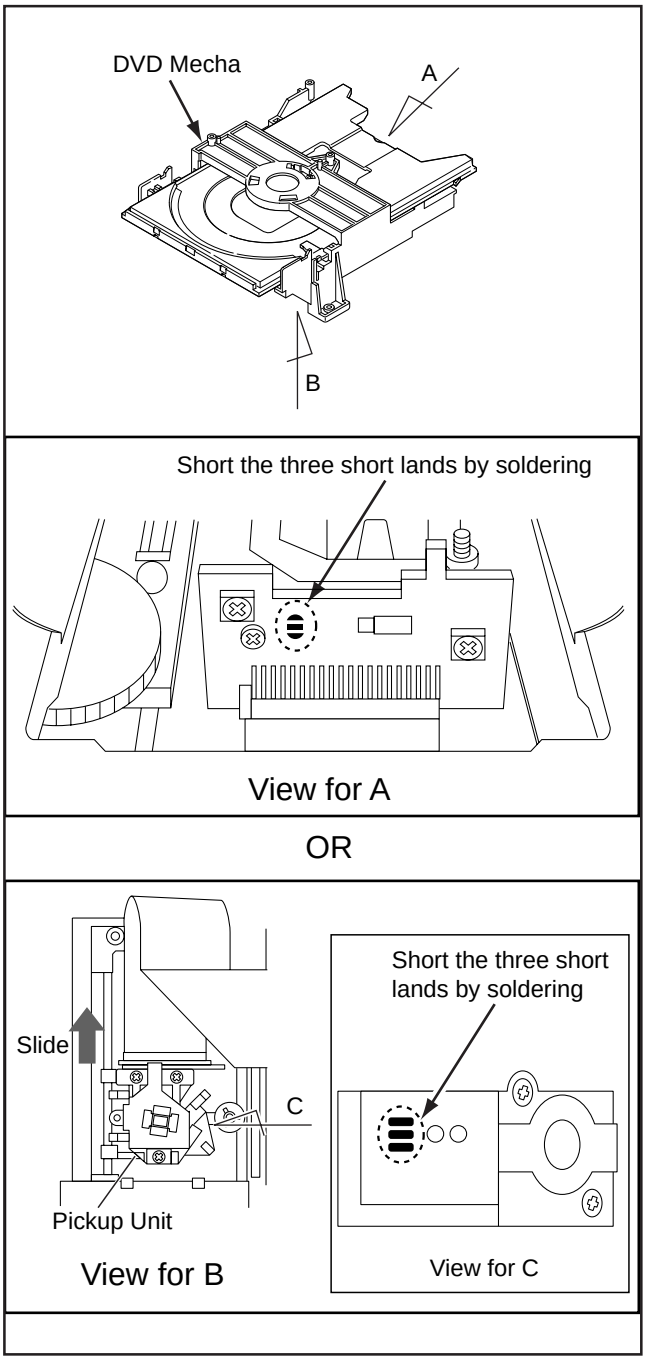


Fig. 4

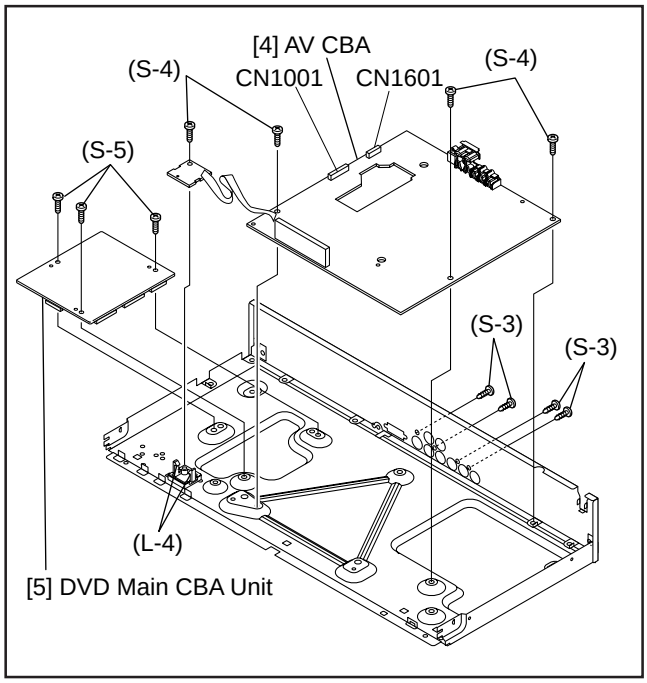


Fig. 5

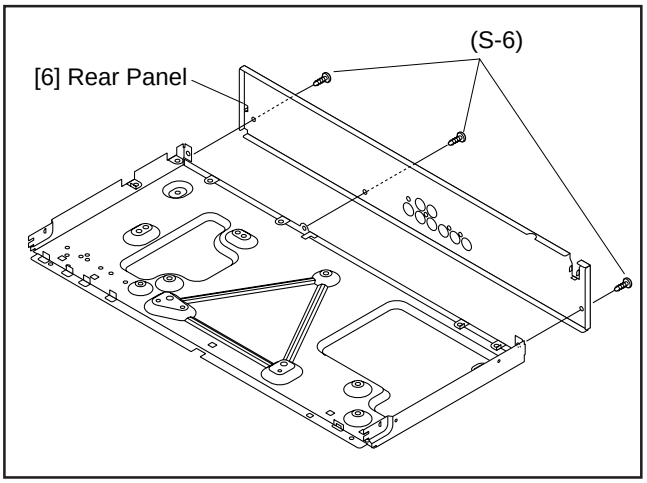
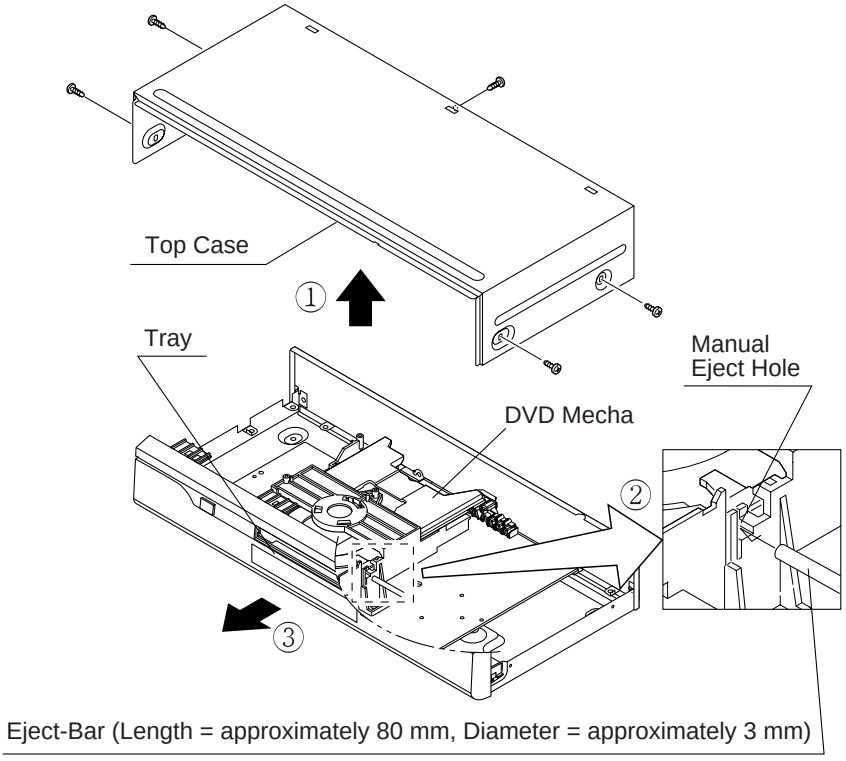


Fig. 6

HOW TO MANUAL EJECT

1. Remove the Top Case.
2. Insert the eject-bar (length = approximately 80 mm, diameter = approximately 3 mm) into the manual eject hole on the DVD Mecha. Then, press it until the tray is ejected.

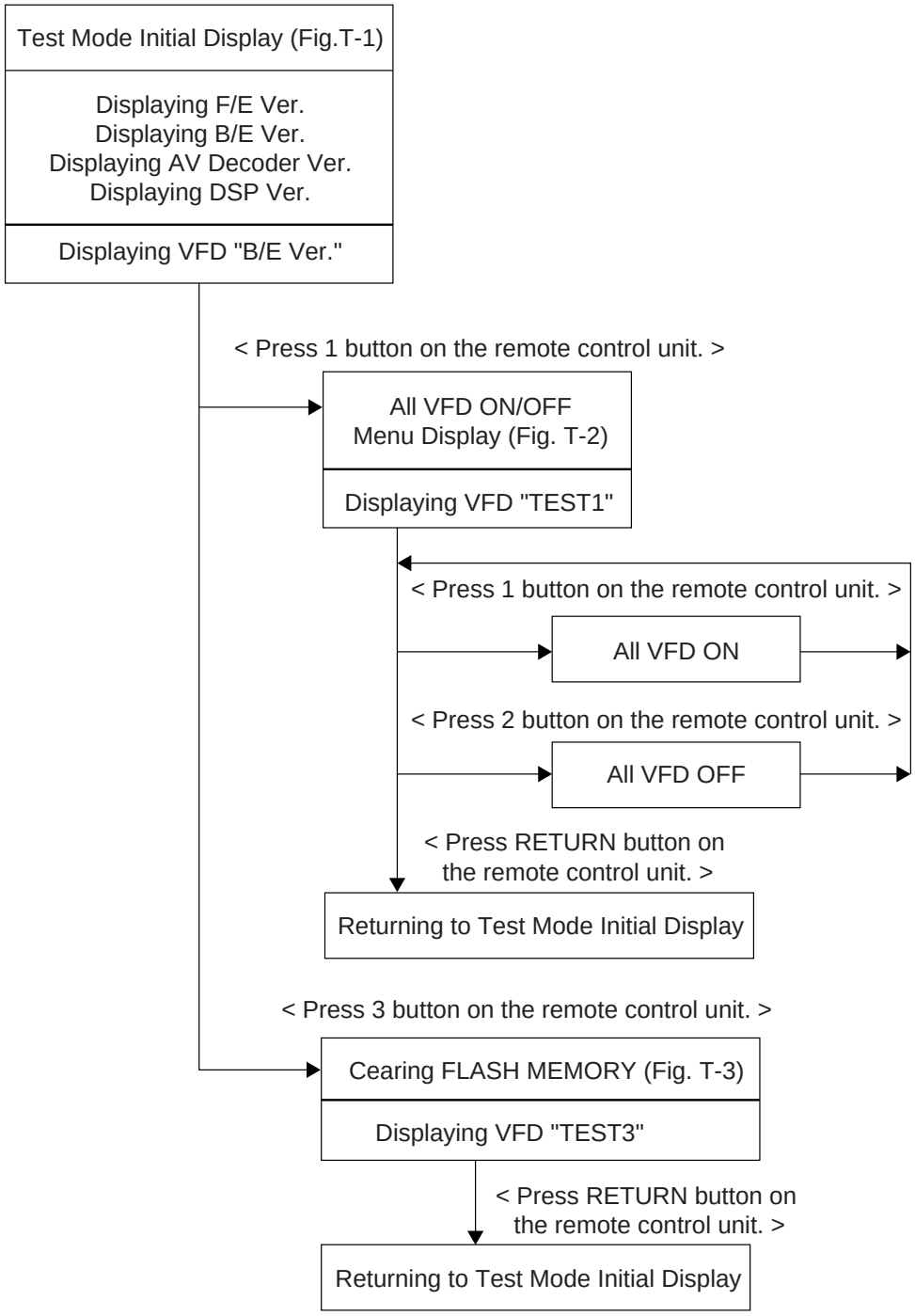


TEST MODE

Test Mode	A power source is put, and [1], [2], [3], [4], and [ON SCREEN] buttons on the remote control unit are pushed in that order while the tray is opening or after the “NO DISC” display at the same time.
ROM Renewal Mode	A power source is put, and [9], [8], [7], [6], and [DIRECT SKIP] buttons on the remote control unit are pushed in that order while the tray is opening or after the “NO DISC” display at the same time.

[TEST MODE]

Test Mode Flow Chart



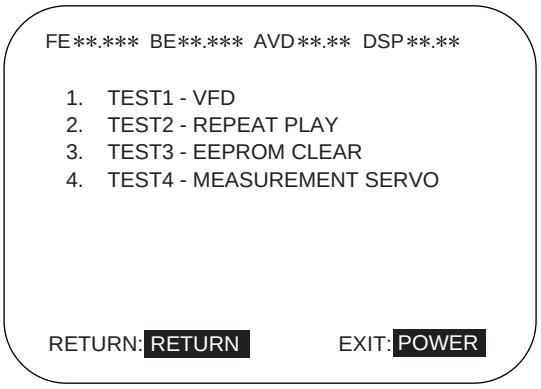


Fig. T-1: Test Mode Initial Display

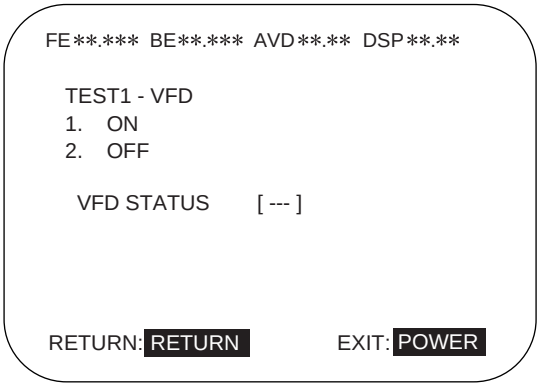


Fig. T-2: All VFD ON/OFF Menu Display

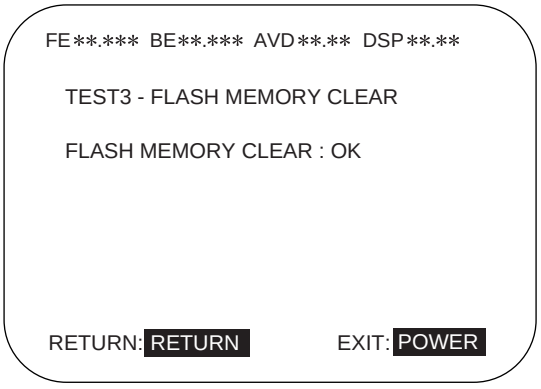


Fig. T-3: Clearing FLASH MEMORY Display

[ROM 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 [DIRECT SKIP] 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.

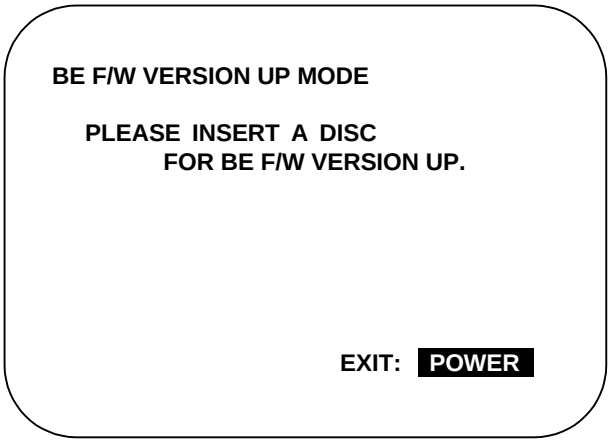


Fig. a Version Up Mode Screen

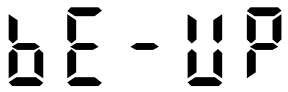


Fig. b VFD in Version Up Mode

   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. (For closing the tray, only the "OPEN/CLOSE" button is available.)
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.

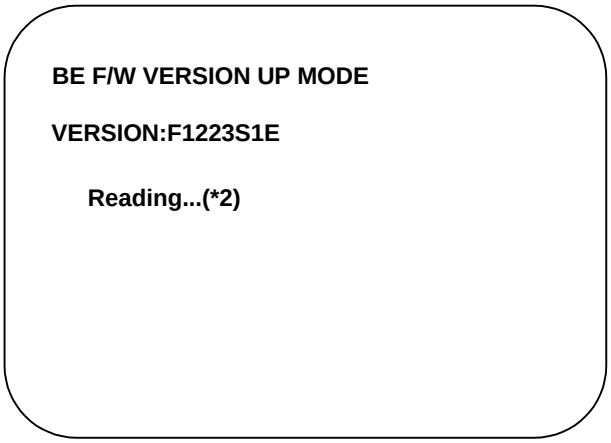


Fig. c Programming Mode Screen

Fig. d VFD in Programming Mode (Example)

   The appearance shown in (*2) 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 (*3) of Fig. e appears on the VFD. (Fig. f)

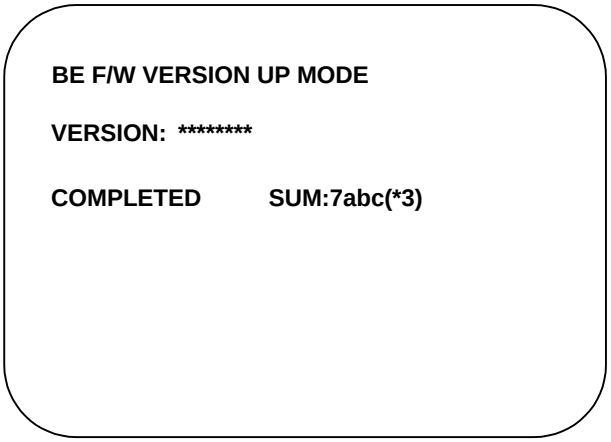


Fig. e Completed Program Mode Screen

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

   At this time, no buttons are available.

6. For tray opening, plug the AC cord into the AC outlet.
7. Turn the power on by pressing the power button and the tray will close.

[ERROR RATE MEASUREMENT]

1. Turn the power on, remove the disc from the tray and close the tray.
2. To put the DVD player into test mode, press [1], [2], [3], [4], and [ON SCREEN] buttons on the remote control unit in that order.

   Fig. a will appear on the screen and the current B/E version will appear on the VFD. (Fig. b)

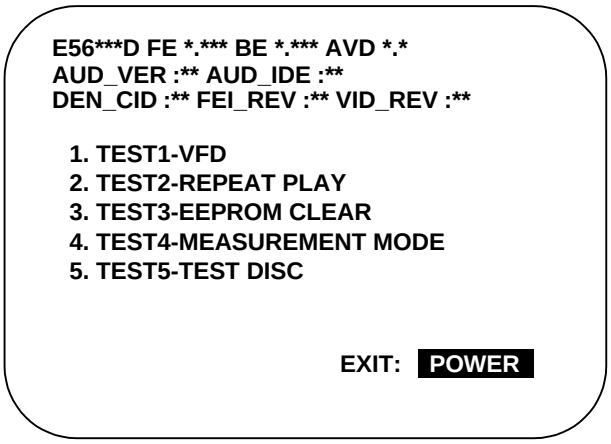


Fig. a Test Mode Screen

Fig. b VFD in Test Mode

3. To select No. 4 "TEST4-MEASUREMENT MODE," press button [4] on the remote control unit.

   Fig. c will appear on the screen and Fig. d will appear on the VFD.

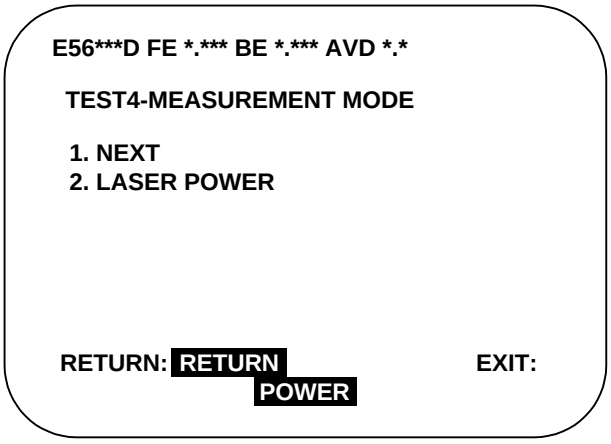


Fig. c TEST4-MEASUREMENT MODE Screen

Fig. d VFD in TEST4-MEASUREMENT MODE

4. To select No. 1 "NEXT," press button [1] on the remote control unit.

   Fig. e will appear on the screen. VFD will not change.

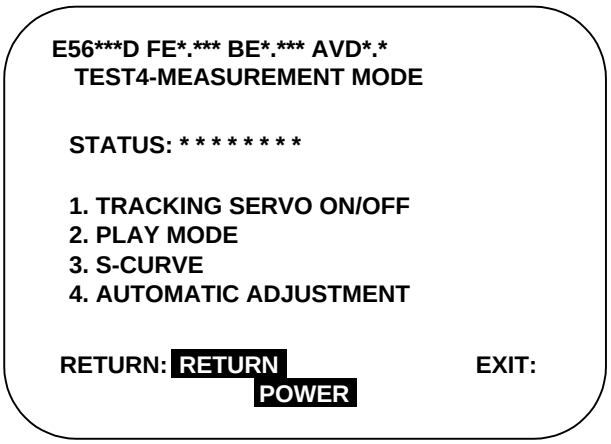


Fig. e Next Mode Screen

5. To select No. 2 "PLAY MODE," press button [2] on the remote control unit.

   The screen will not change and the unit open the tray automatically. VFD will not change.

6. Load the disc to measure the error rate and press [OPEN/CLOSE] button or [PLAY] button. The unit will close the tray automatically and fig. f will appear on the screen.

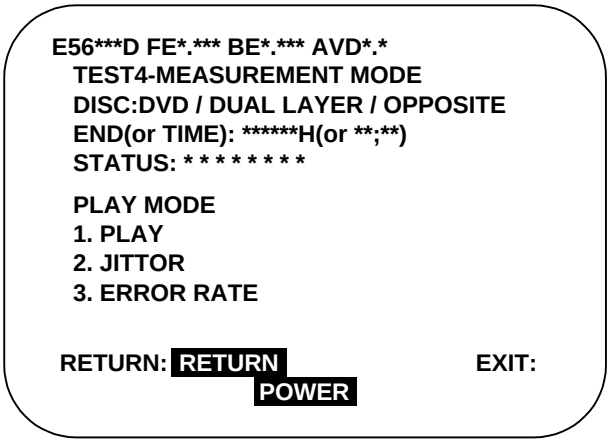
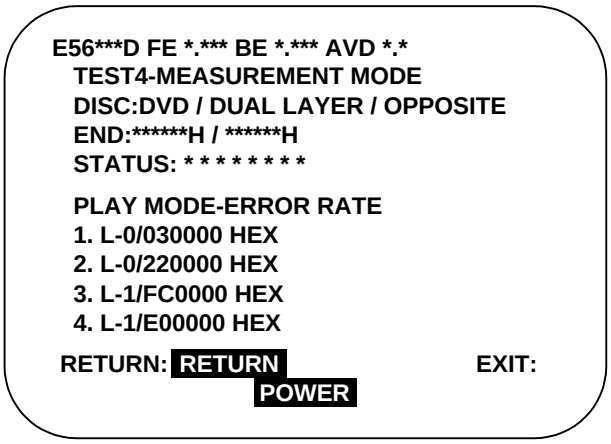


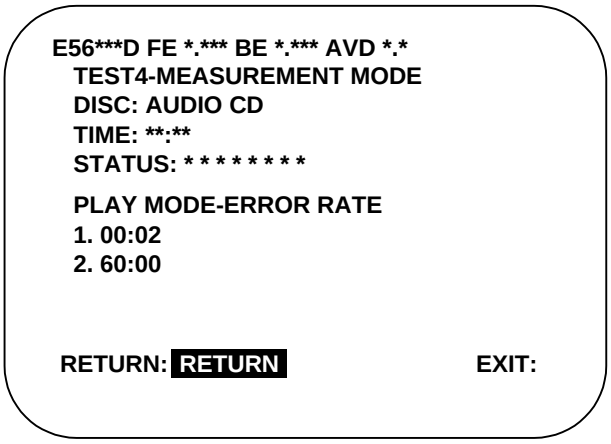
Fig. f Play Mode Screen

7. To select No. 3 "ERROR RATE," press button [3] on the remote control unit.

   Fig. g will appear on the screen and Fig. d will appear on the VFD.



(I) when loading DVD



(II) when loading CD/VCD

Fig. g Error Rate Mode Screen

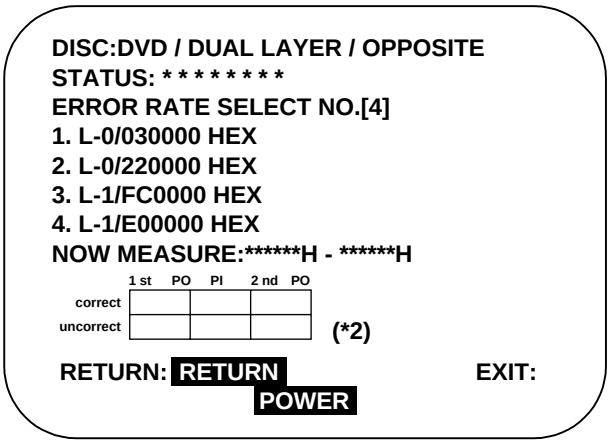
In "PLAY MODE-ERROR RATE" of fig. g, each item means the following:

1. Inner circumference of loaded disc (on DVD: inner circumference of layer 0)
2. Outer circumference of loaded disc (on DVD: outer circumference of layer 0)
3. Outer circumference of layer 1 on loaded disc (on DVD only: when in parallel, inner circumference)
4. Inner circumference of layer 1 on loaded disc (on DVD only: when in parallel, outer circumference)

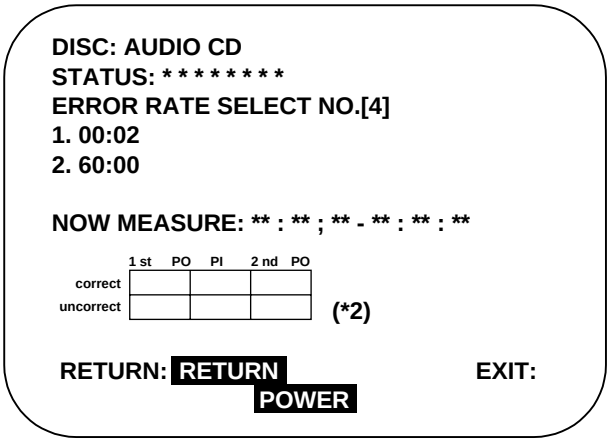
In some cases, items 2,3 and 4 may not be shown on the screen depending on the content of the loaded disc.

8. Select the address where the error rate is to be measured using number buttons on the remote control unit.

   Fig. h will appear on the screen. In table (*2), the screen will show for each 80ECC block, the number of errors corrected on the 1st PO/PI/2nd PO and the number of uncorrected errors. The number of corrected errors will appear on the VFD. (Fig. i)



(I) when loading DVD



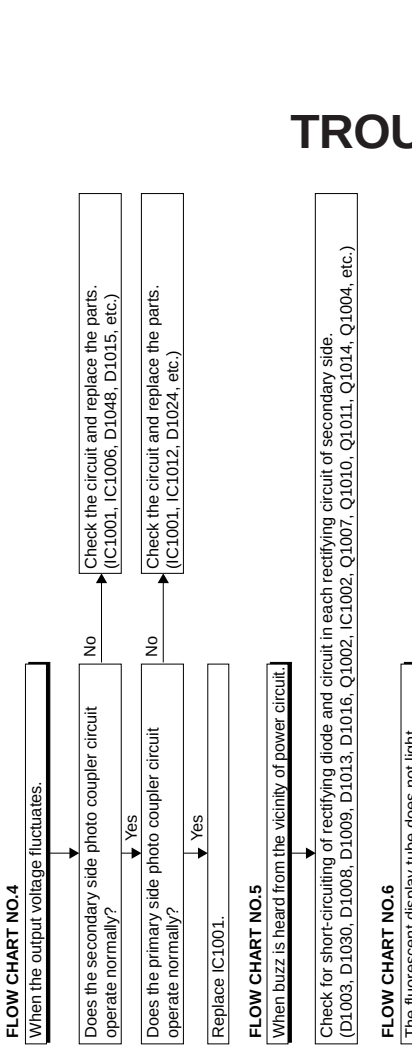
(II) when loading CD/VCD

Fig. h Measuring Error Rate Mode Screen

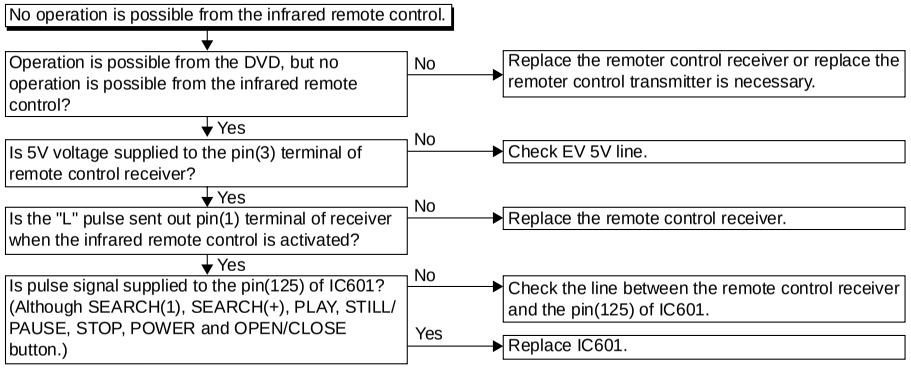
Fig. i VFD in Measuring Error Rate Mode (example)

9. To finish measuring the error rate, remove the disc and turn the power off.

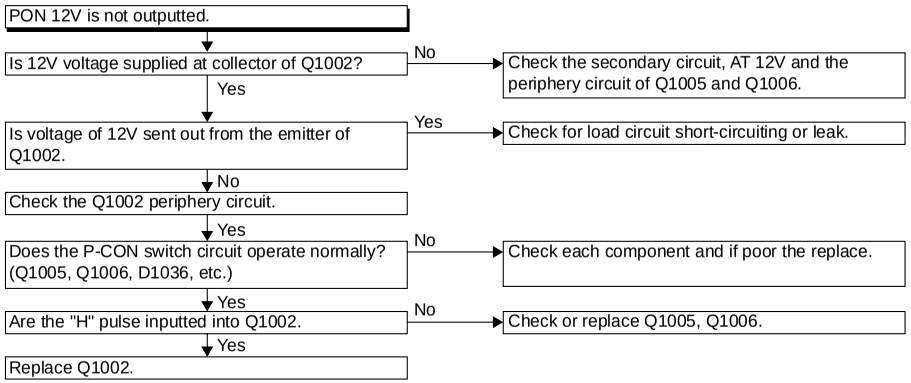
TROUBLESHOOTING



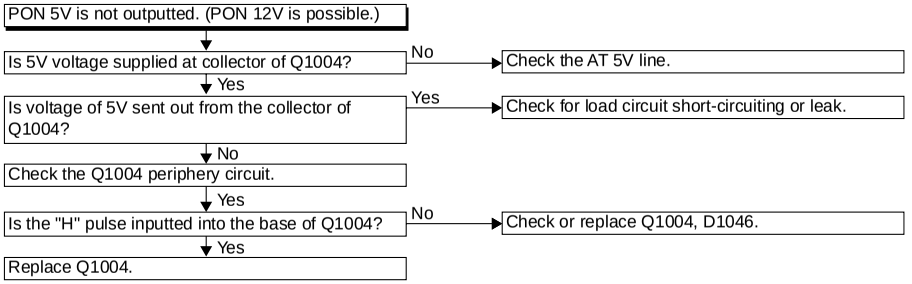
FLOW CHART NO.8



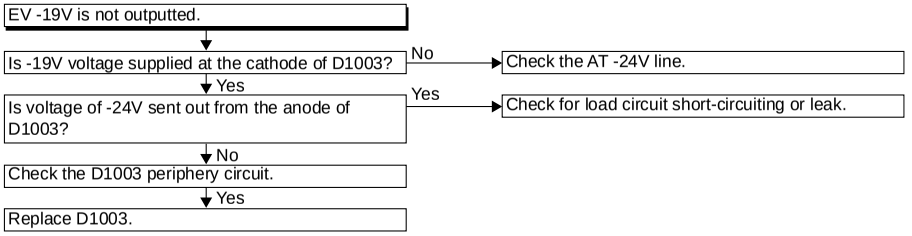
FLOW CHART NO.9



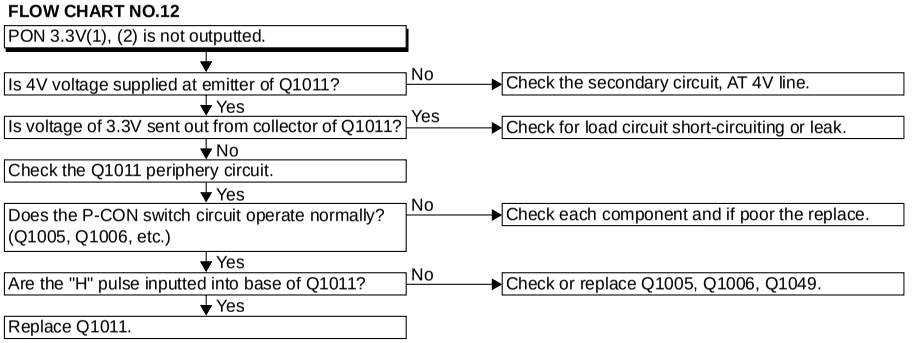
FLOW CHART NO.10



FLOW CHART NO.11



FLOW CHART NO.12



FLOW CHART NO.13

PON 1.8V is not outputted. (PC 3.3V(1), (2) is possible)

Is 5V voltage supplied at pin(1) of IC1002? — No → Check the secondary circuit, AT 5V line.

Yes ↓

Is voltage of 1.8V sent out from the pin(2) of IC1002? — Yes → Check for load circuit short-circuiting of leak.

No ↓

Check the IC1002 periphery circuit. — Yes → Replace IC1002.

FLOW CHART NO.14

The disc tray cannot be opened and closed.
(For remote control is possible.)

Is 0V voltage supplied at pin(25) of CN1001 when the OPEN/CLOSE button is activated on the DVD? — No → Check the SW2014 and OPEN/CLOSE KEY line.

Yes ↓

See FLOW CHART NO. 15. <The disc tray cannot be opened and closed.>

FLOW CHART NO.15

The disc tray cannot be opened and closed.

Is the signal from the pins(200, 201) of IC601 inputted into the pins(1, 2) of IC401? — No → Check the TFWD/TREV signal line between IC401 and IC601.

Yes ↓

Is loading motor drive voltage output from the pins(9, 10) of IC401? — No → Is 9V voltage applied to the pins (7, 8, 20) of IC401? — Yes ↑ / No → Check PC 8V line. / Yes → Replace IC401.

Yes ↓

Is the loading motor drive voltage applied to the terminal of loading motor? — No → Check the line between the IC401 and the loading motor.

Yes ↓

Check for mechanism and gear engagement and breakage.

FLOW CHART NO.16

The [No Disc] indication. (In case of focus error)

Is FE signal outputted to the pin(22) of IC101 when the disc is set? — No → Is there input signal on the pins(57~60) of IC101. — Yes ↑ Replace IC101. / No → Check the connection of optical pickup cable. If it is normal, replace the optical pickup.

Yes ↓

Is FE signal inputted into the pin(117) of IC201? — No → Check the line between the IC101 and IC201.

Yes ↓

Check or replace IC201?

FLOW CHART NO.17

The [No Disc] indication. (In case focus servo does not function.)

Is the focus control signal outputted to the pin(115) of IC201? — No → Check the periphery circuit of pins(57, 78, 88, 99, 109, 116, 125, 143, 156, 162) of IC201 and power source. If it is normal, replace IC201.

Yes ↓

Is the focus control signal from the pin(115) of IC201 inputted into the pin(6) of IC401. — No → Check the focus control signal (DA0) line between the IC201 and IC401.

Yes ↓

Is the focus control drive voltage outputted from the pins(11, 12) of IC401. — No → Is 8V voltage applied to the pins(7, 8, 20) of IC401. — No ↑ / Yes → Replace IC401. / Yes → Check EV 9V line.

Yes ↓

Is the focus control drive voltage applied to the terminal of focus actuator? — No → Check the line between the IC401 and the focus actuator.

Yes ↓

Check the connection of optical pickup cable.
If it is normal, replace the optical pickup.

FLOW CHART NO.18

The [No Disc] indication. (When the laser beam does not light.)

Is the Q101 and Q102(LD POWER ON) drive signal(LDCOI and LDCOZ) outputted to the pins(2,4) of IC101. (Checking of symptom.) — No → Check the line between the pins(2,4) of IC101 and the base of Q101 through Q102.

Yes ↓

Is 5V voltage applied to the emitter of Q101 and Q102. — No → Check the A 5V line.

Yes ↓

Is the 5V voltage supplied to the pin(12)(DVD) and pin(20)(CD) of pickup terminal? — No → Check the line between the Q101, Q102 and pickup terminal.

Yes ↓

Check the connection of optical pickup cable
If it is normal, replace the optical pickup.

FLOW CHART NO.19

Both picture and sound do not operate normally.

Set the disc on the disc tray.

Yes ↓

Is it possible to hold normally the disc with the check? — No → Check the loading switch.

Yes ↓

Is the level of RF signal which is outputted from pin(35) of IC101, normal? — No → Check for contamination of objective lens of optical pickup.

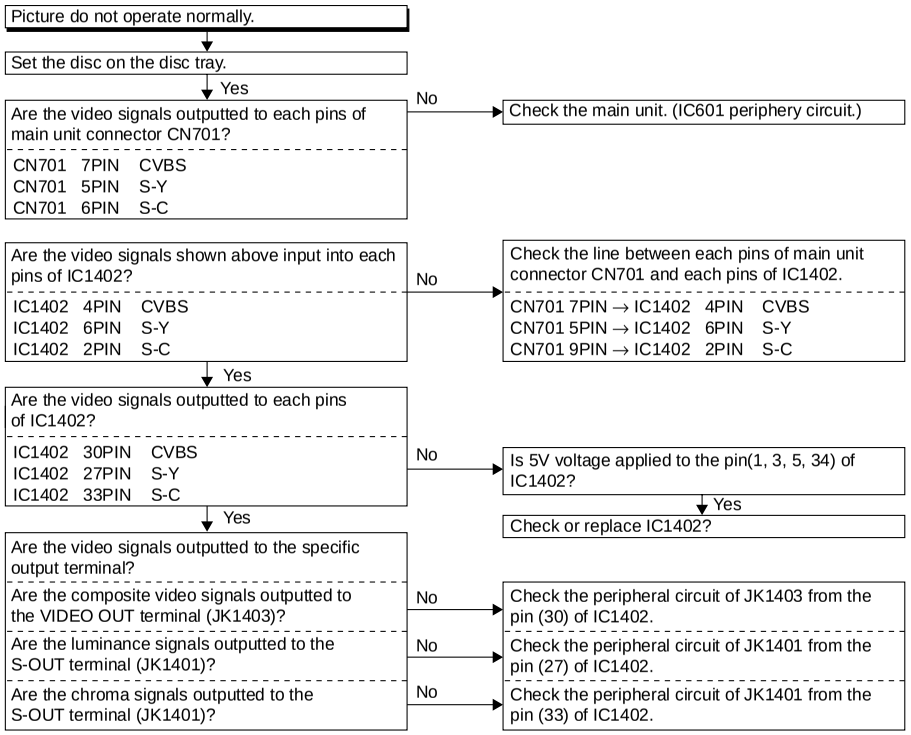
Yes ↓

Replace the main PWB unit. — No → Replace the optical pickup unit.

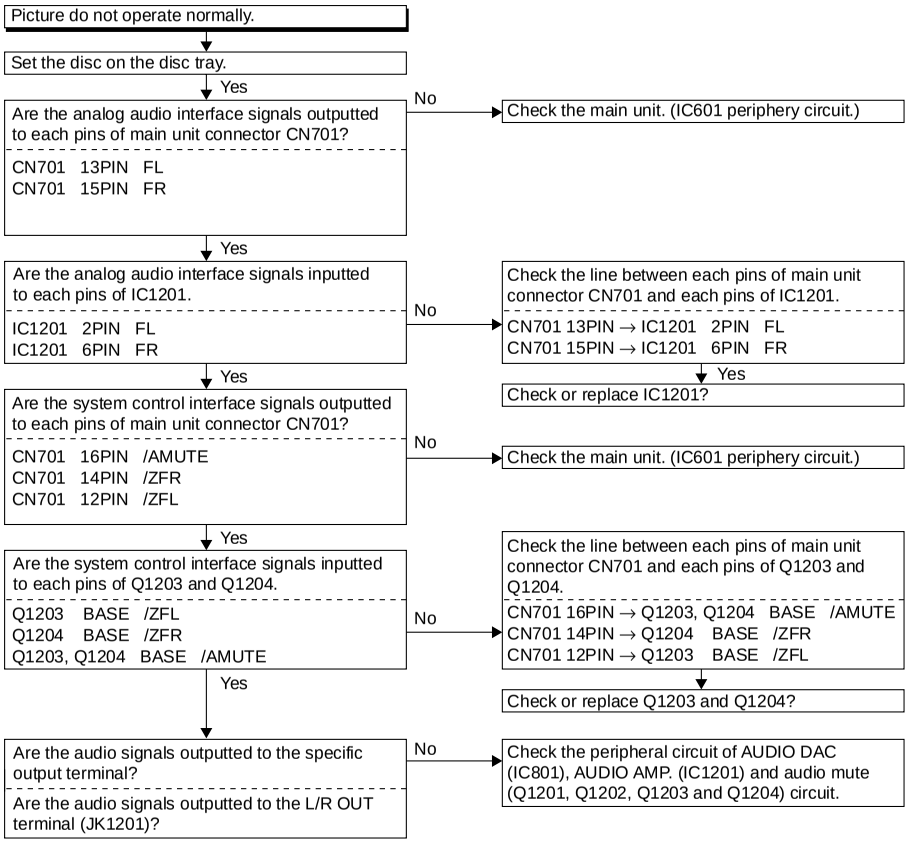
Yes ↓

Check the video amplifier unit and the audio amplifier unit. (IC1402, IC1201)

FLOW CHART NO.20

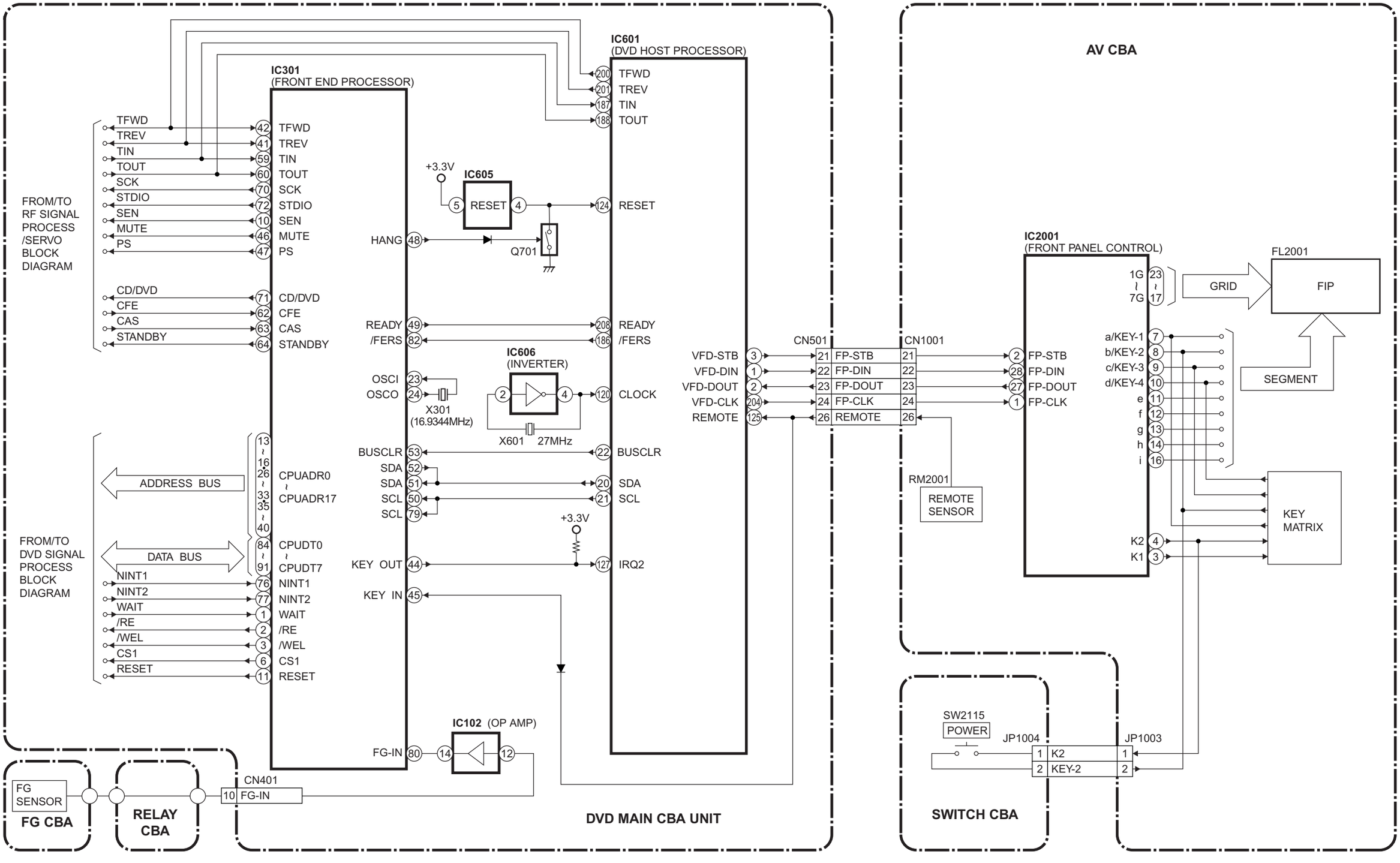


FLOW CHART NO.21

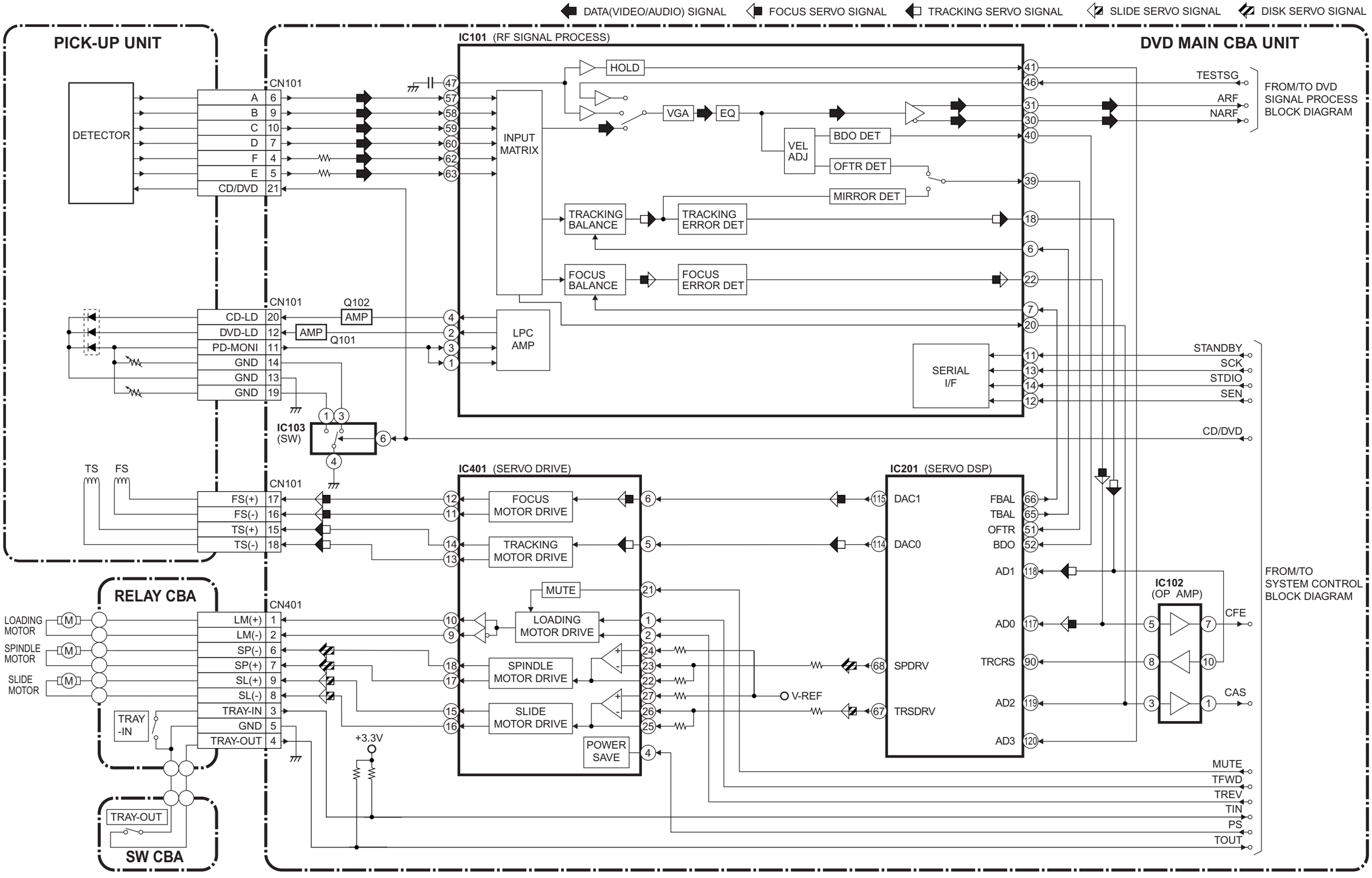


BLOCK DIAGRAMS

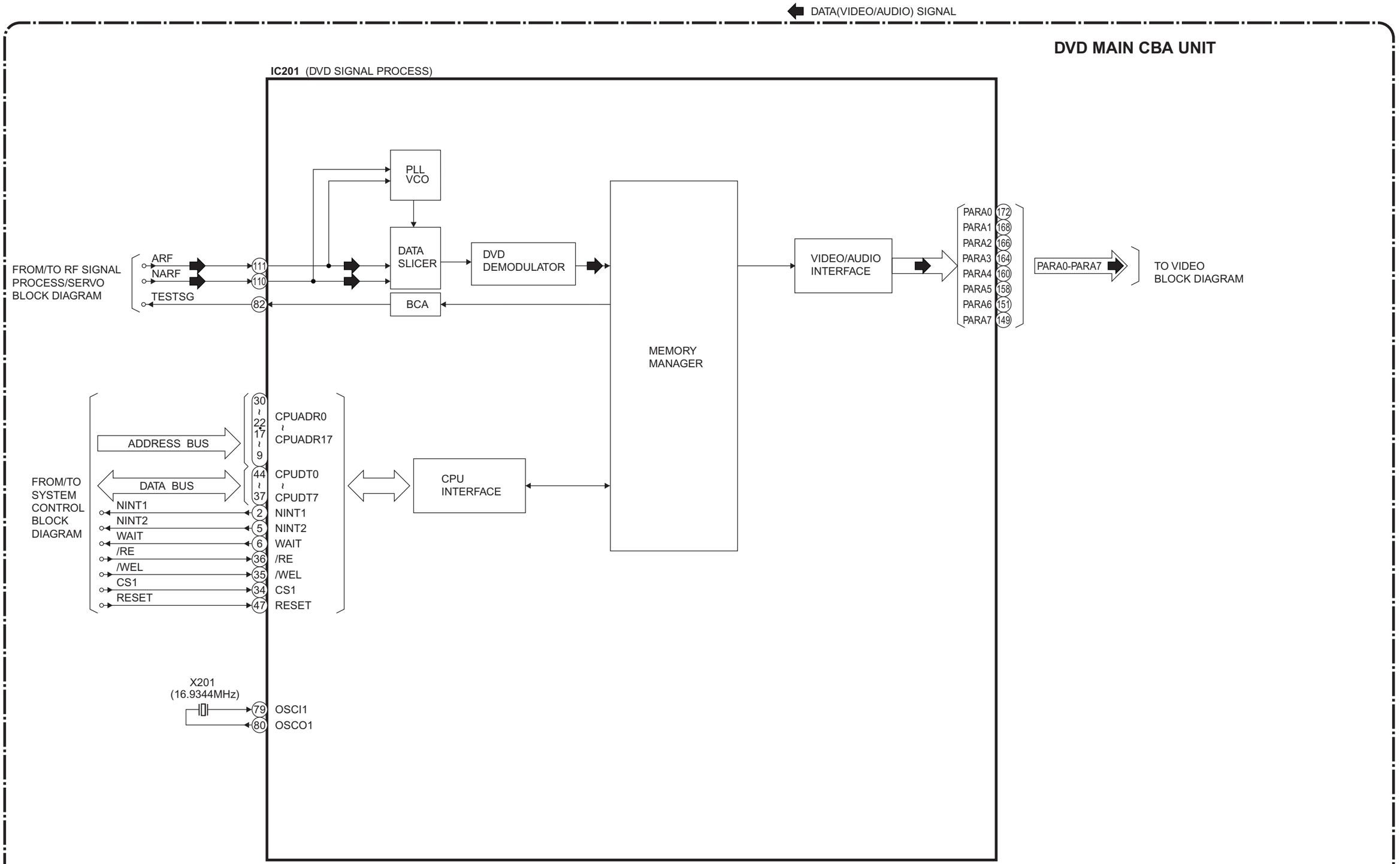
System Control Block Diagram



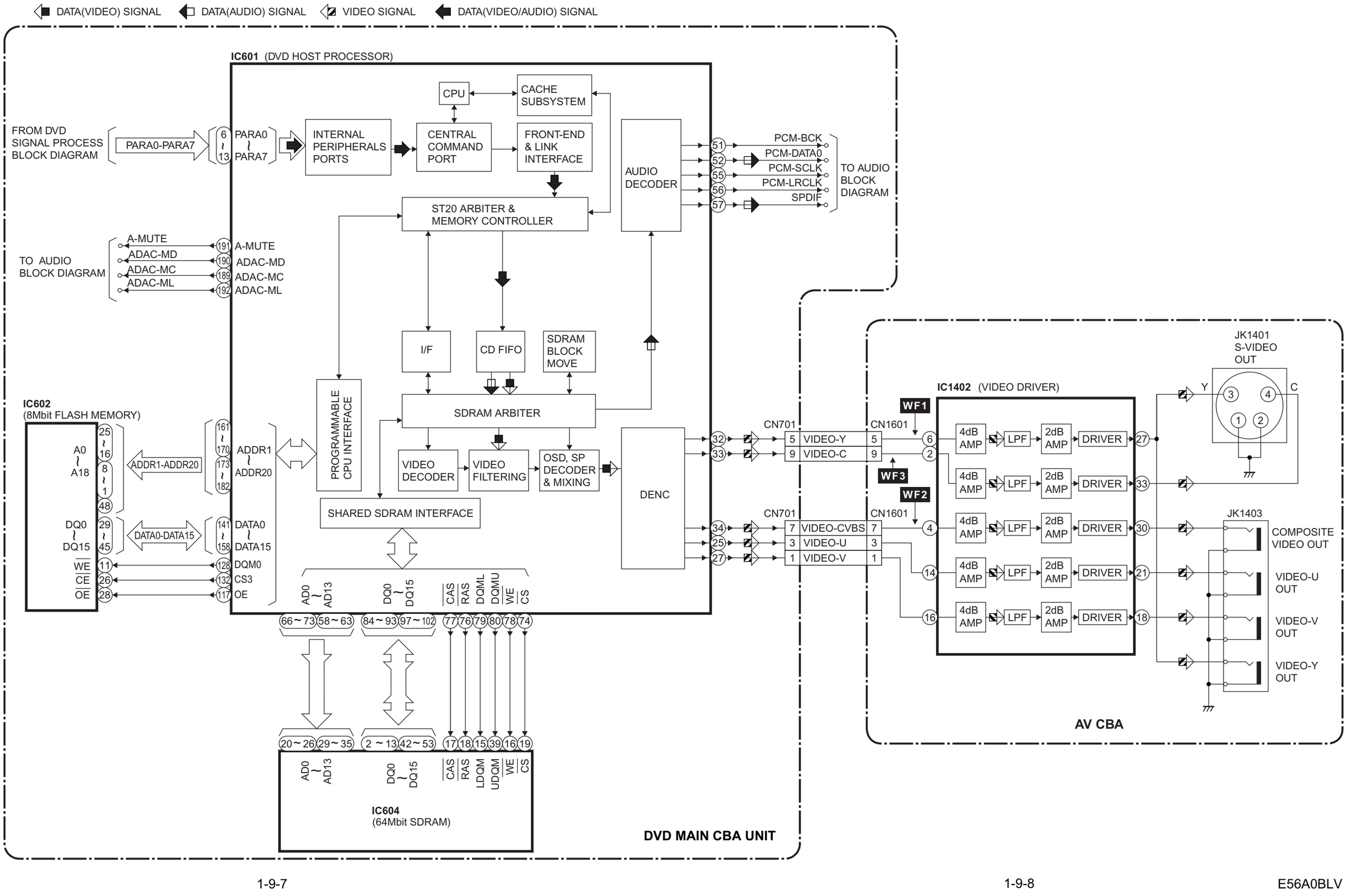
RF Signal Process/Servo Block Diagram



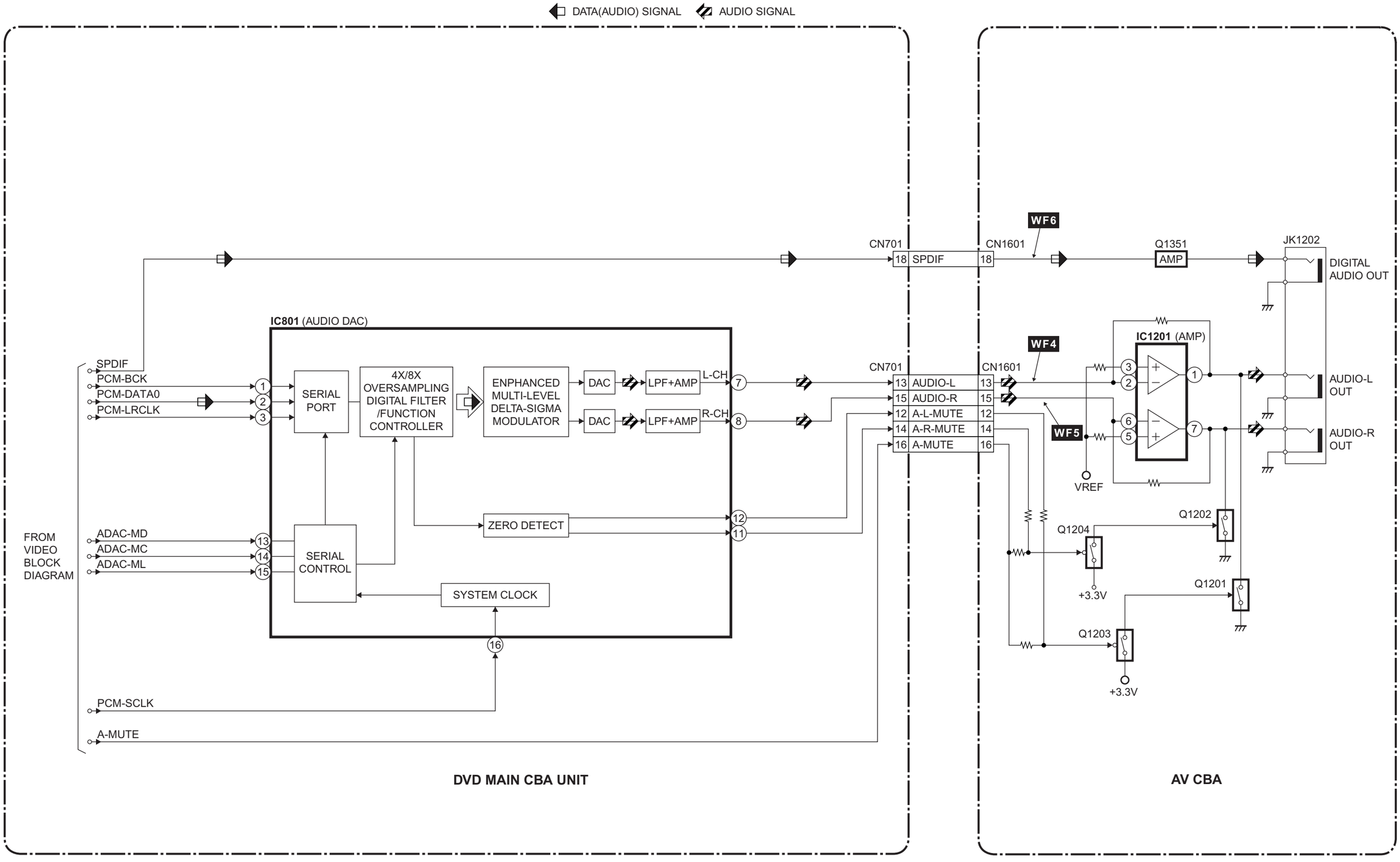
DVD Signal Process Block Diagram



Video Block Diagram



Audio Block Diagram

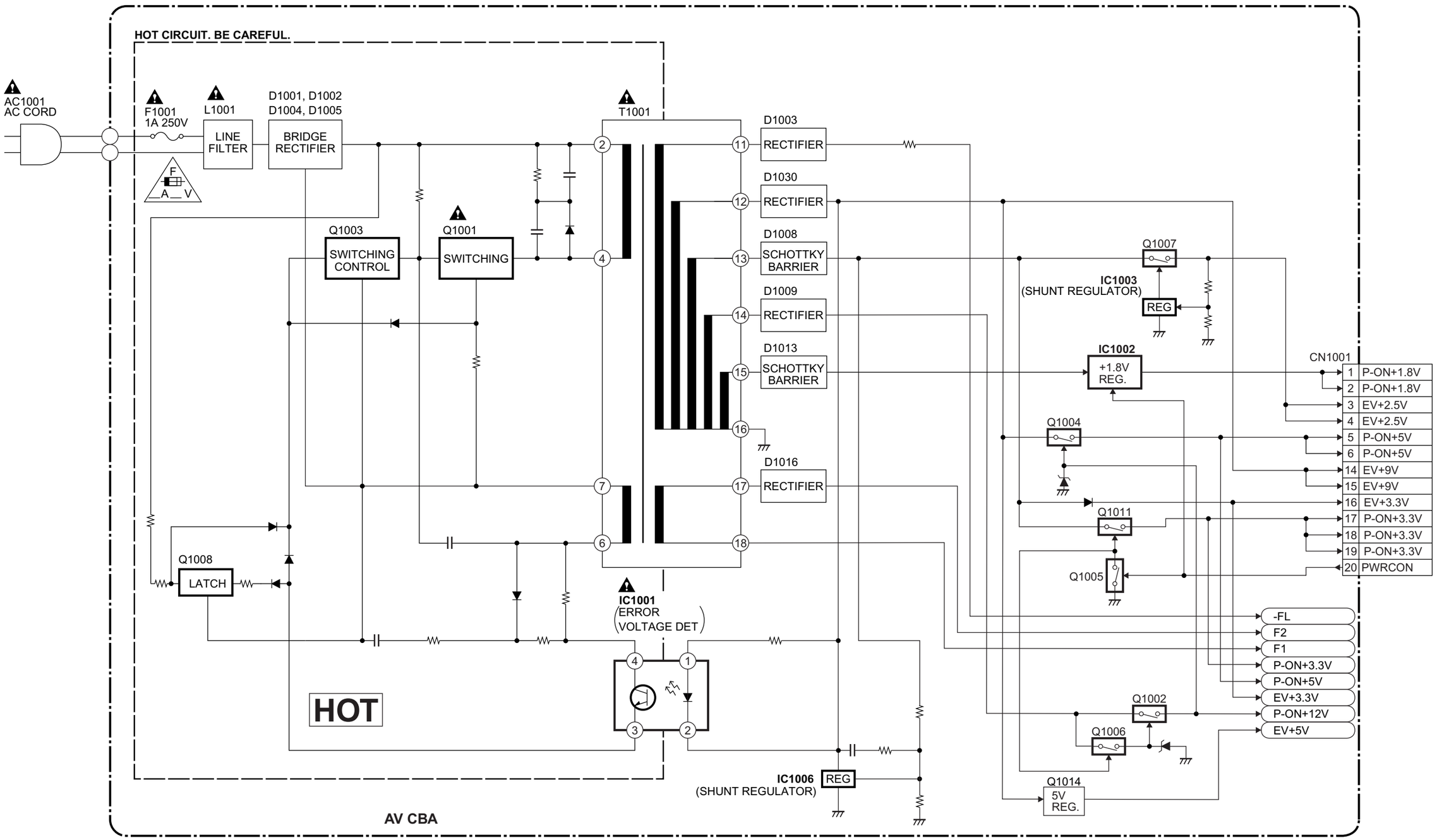


Power Supply Block Diagram

CAUTION !
Switching 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 MEMO TYPE.
RISK OF FIRE -REPLACE FUSE AS MARKED.
"This symbol means fast operating fuse."
"Ce symbole reprèsente un fusible à fusion rapide."

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



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.

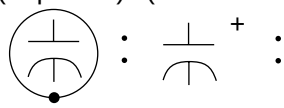
Capacitor Temperature Markings

Mark	Capacity change rate	Standard temperature	Temperature range
(B)	±10%	20°C	-25~+85°C
(F)	+30 - 80%	20°C	-25~+85°C
(SR)	±15%	20°C	-25~+85°C
(Z)	+30 - 80%	20°C	-10~+70°C

Capacitors and transistors are represented by the following symbols.

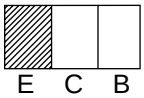
CBA Symbols

(Top View) (Bottom View)



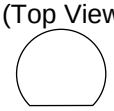
Electrolytic Capacitor

(Bottom View)



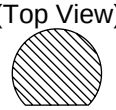
Transistor or Digital Transistor

(Top View)



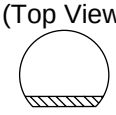
NPN Transistor

(Top View)



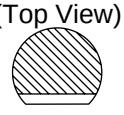
PNP Transistor

(Top View)



NPN Digital Transistor

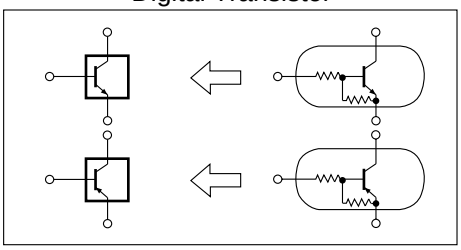
(Top View)



PNP Digital Transistor

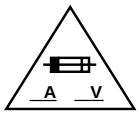
Schematic Diagram Symbols

Digital Transistor



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 MEMO 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.

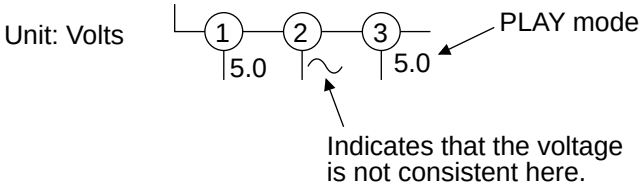
4. Wire Connectors

(1) Prefix symbol "CN" means "connector" (can disconnect and reconnect).

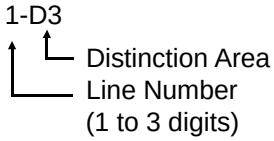
(2) Prefix symbol "CL" means "wire-solder holes of the PCB" (wire is soldered directly).

5. Mode: SP

6. Voltage indications for PLAY mode on the schematics are as shown below:

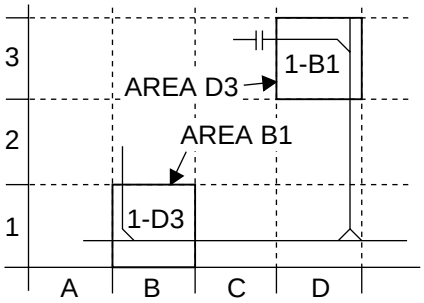


7. How to read converged lines



Examples:

1. "1-D3" means that line number "1" goes to area "D3".
2. "1-B1" means that line number "1" goes to area "B1".



8. Test Point Information

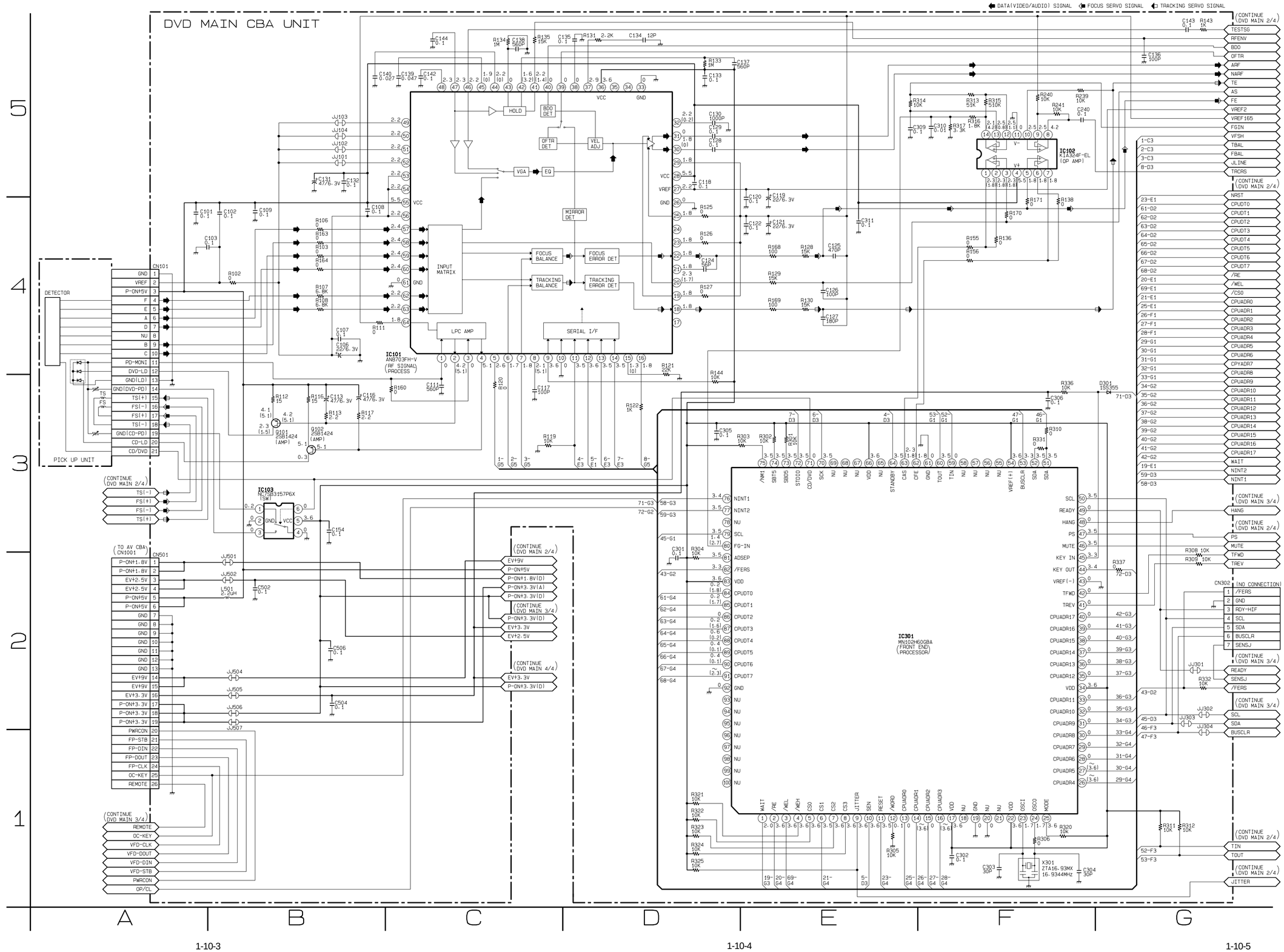
 : Indicates a test point with a jumper wire across a hole in the PCB.

 : 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.

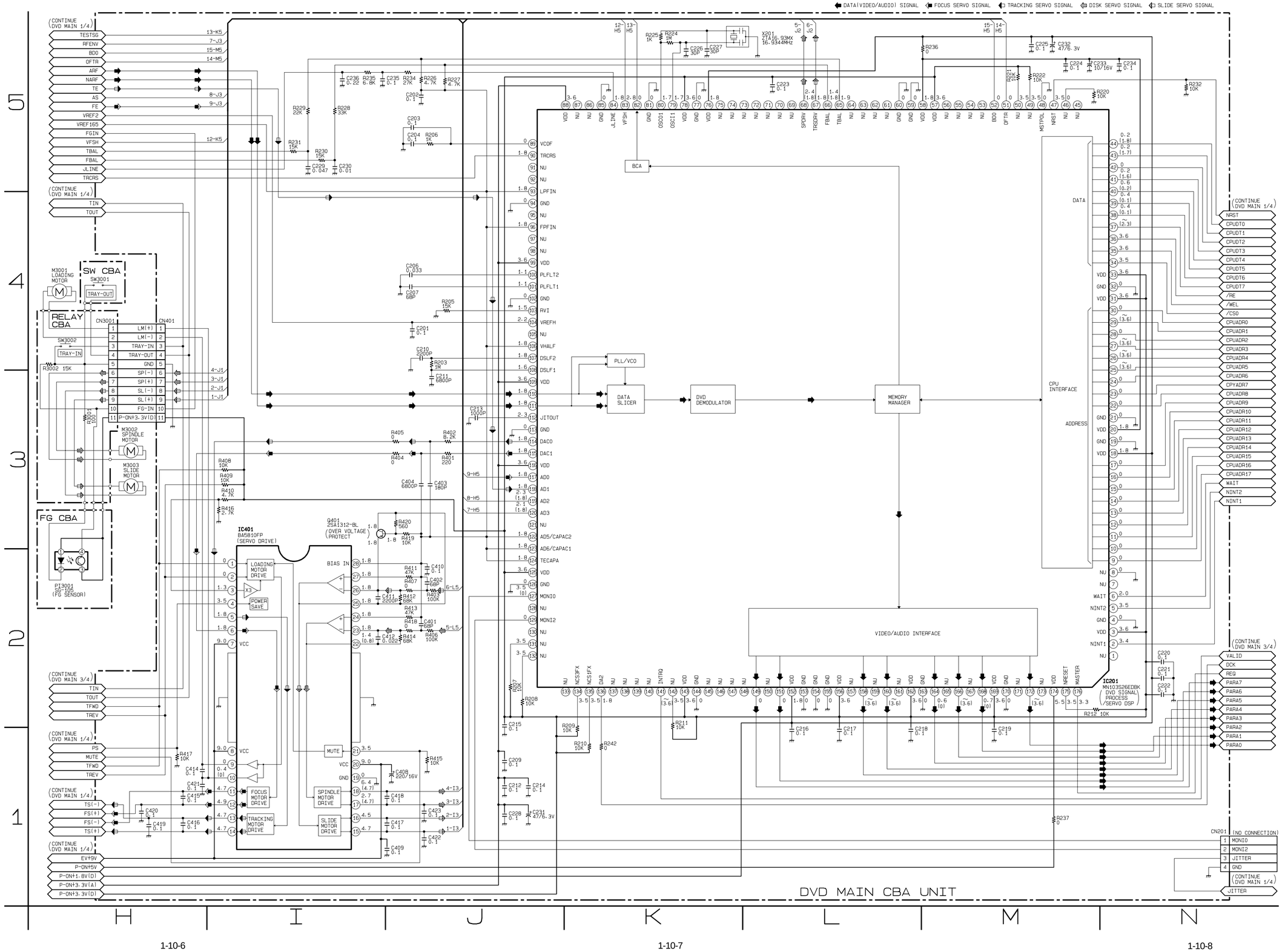
DVD Main 1/4 Schematic Diagram



MAIN 1/4

Ref No.	Position
ICS	
IC101	C-4
IC102	F-5
IC103	B-3
IC301	E-2
TRANSISTORS	
Q101	B-3
Q102	B-3
CONNECTORS	
CN101	A-4
CN302	G-2
CN501	A-2

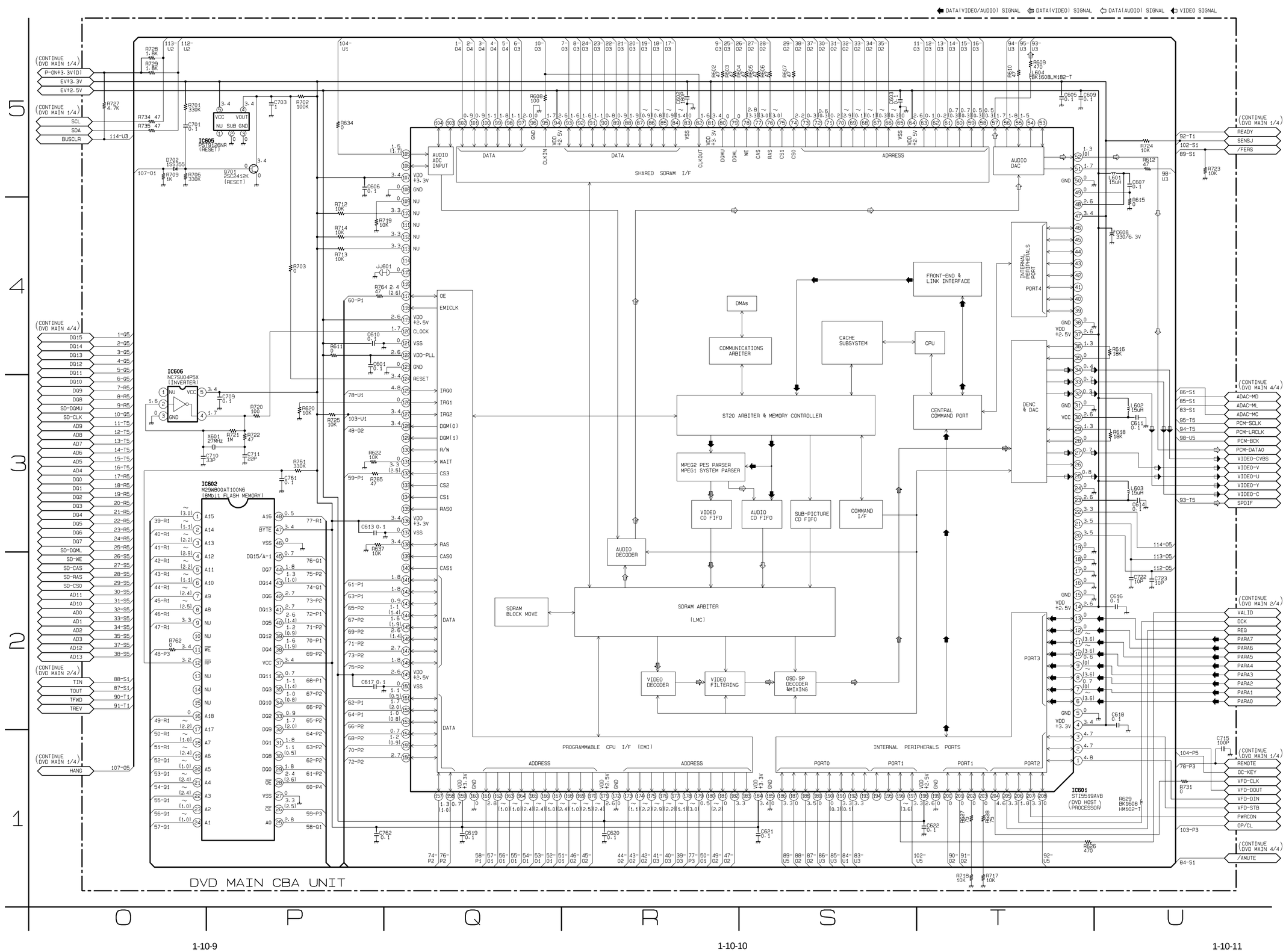
DVD Main 2/4 Schematic Diagram



MAIN 2/4

Ref No.	Position
ICS	
IC201	N-2
IC401	I-3
TRANSISTOR	
Q401	I-3
CONNECTORS	
CN201	N-1
CN401	H-4

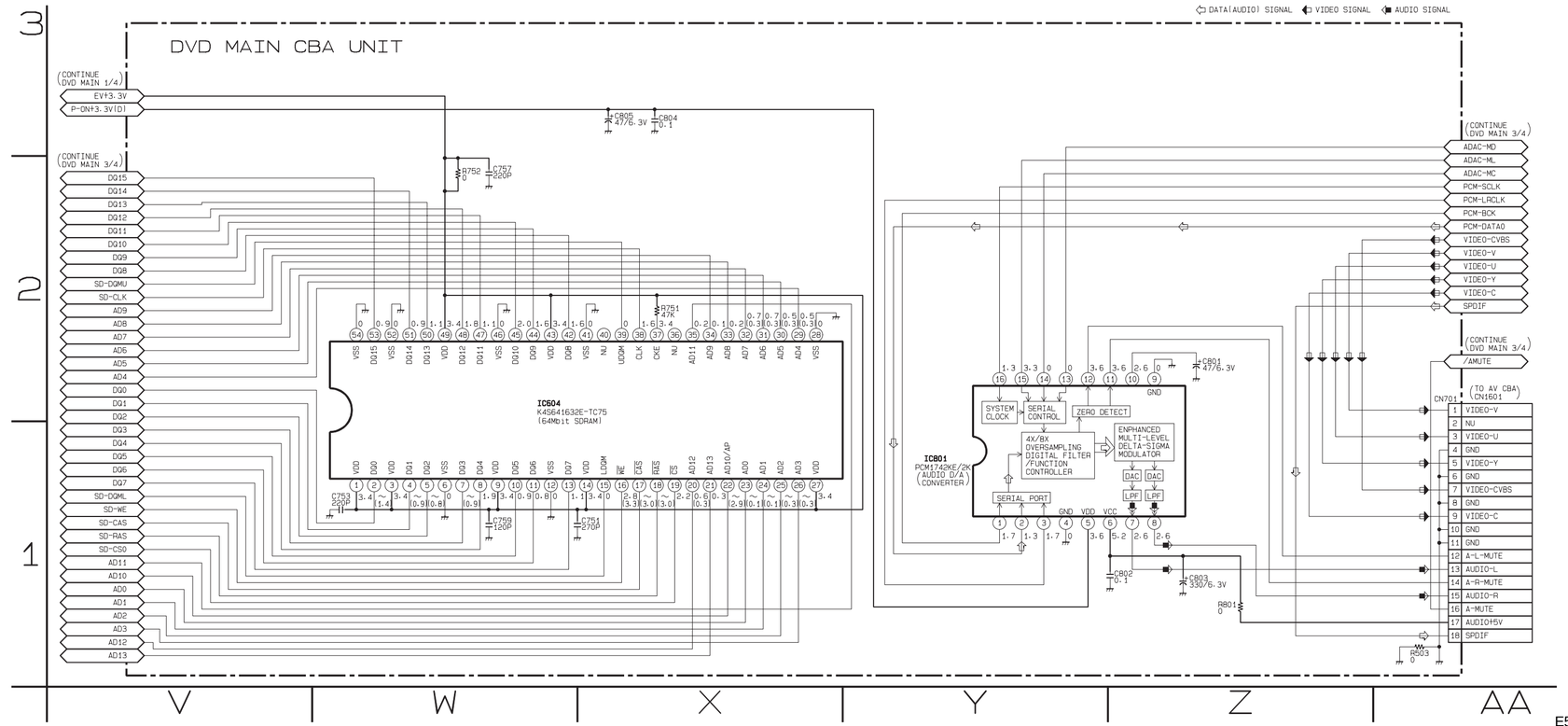
DVD Main 3/4 Schematic Diagram



MAIN 3/4

Ref No.	Position
ICS	
IC601	T-1
IC602	O-3
IC605	O-5
IC606	O-4
TRANSISTOR	
Q701	P-5
CONNECTOR	
CN601	O-5

DVD Main 4/4 Schematic Diagram

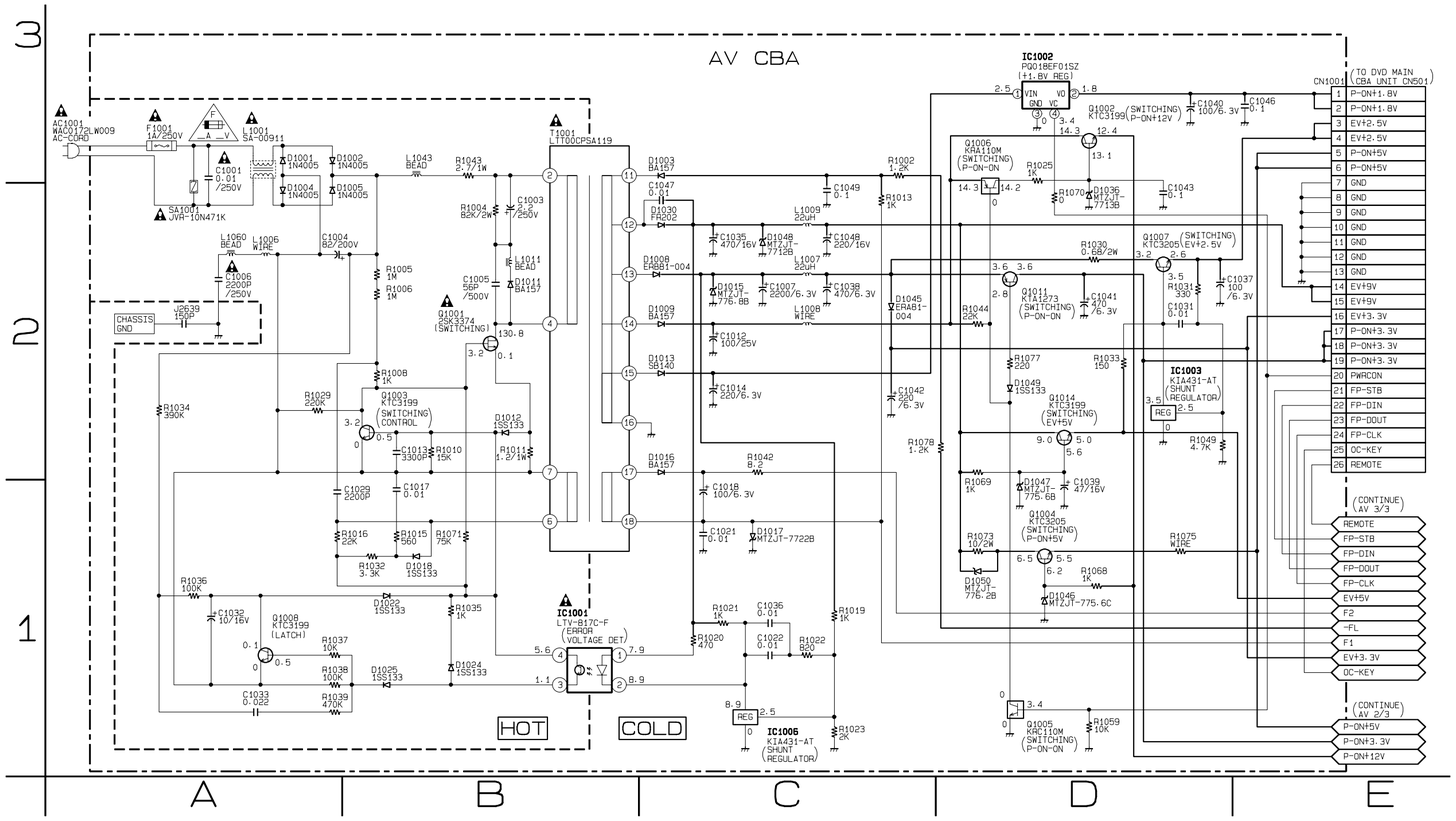


MAIN 4/4

Ref No.	Position
ICS	
IC604	W-2
IC801	Y-1
CONNECTOR	
CN701	AA-2

E56A0SCD4

AV 1/3 Schematic Diagram



AV 1/3

Ref No.	Position
ICS	
IC1001	B-1
IC1002	D-3
IC1003	D-2
IC1006	C-1
TRANSISTORS	
Q1001	B-2
Q1002	D-3
Q1003	B-2
Q1004	D-1
Q1005	D-1
Q1006	D-3
Q1007	D-2
Q1008	A-1
Q1011	D-2
Q1014	D-2
CONNECTOR	
CN1001	E-3

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

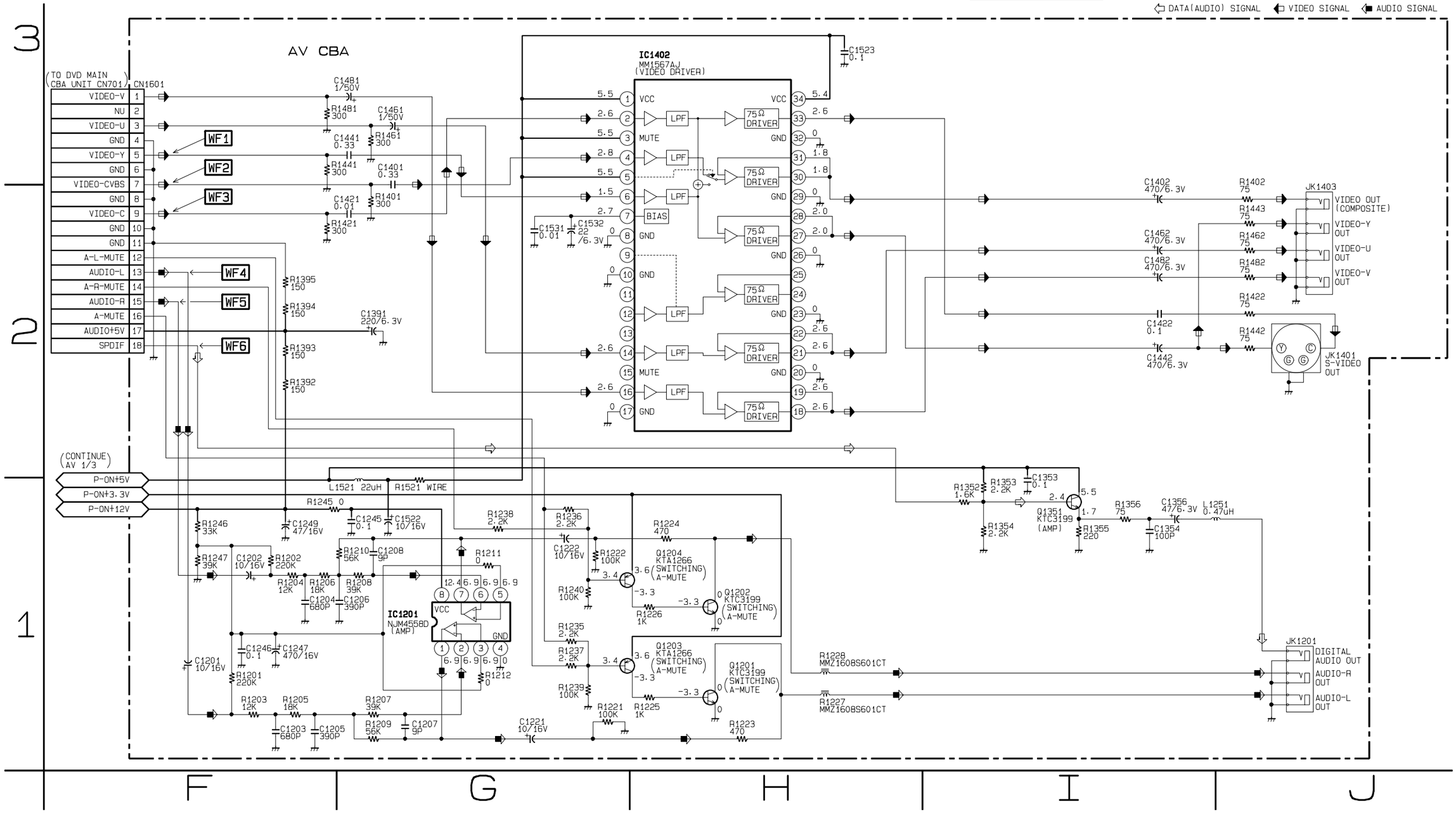
CAUTION !
Fixed voltage power supply circuit is used in this unit.
If Main Fuse (F1001) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to 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 MEMO TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.
"This symbol means fast operating fuse."
"Ce symbole représente un fusible à fusion rapide."

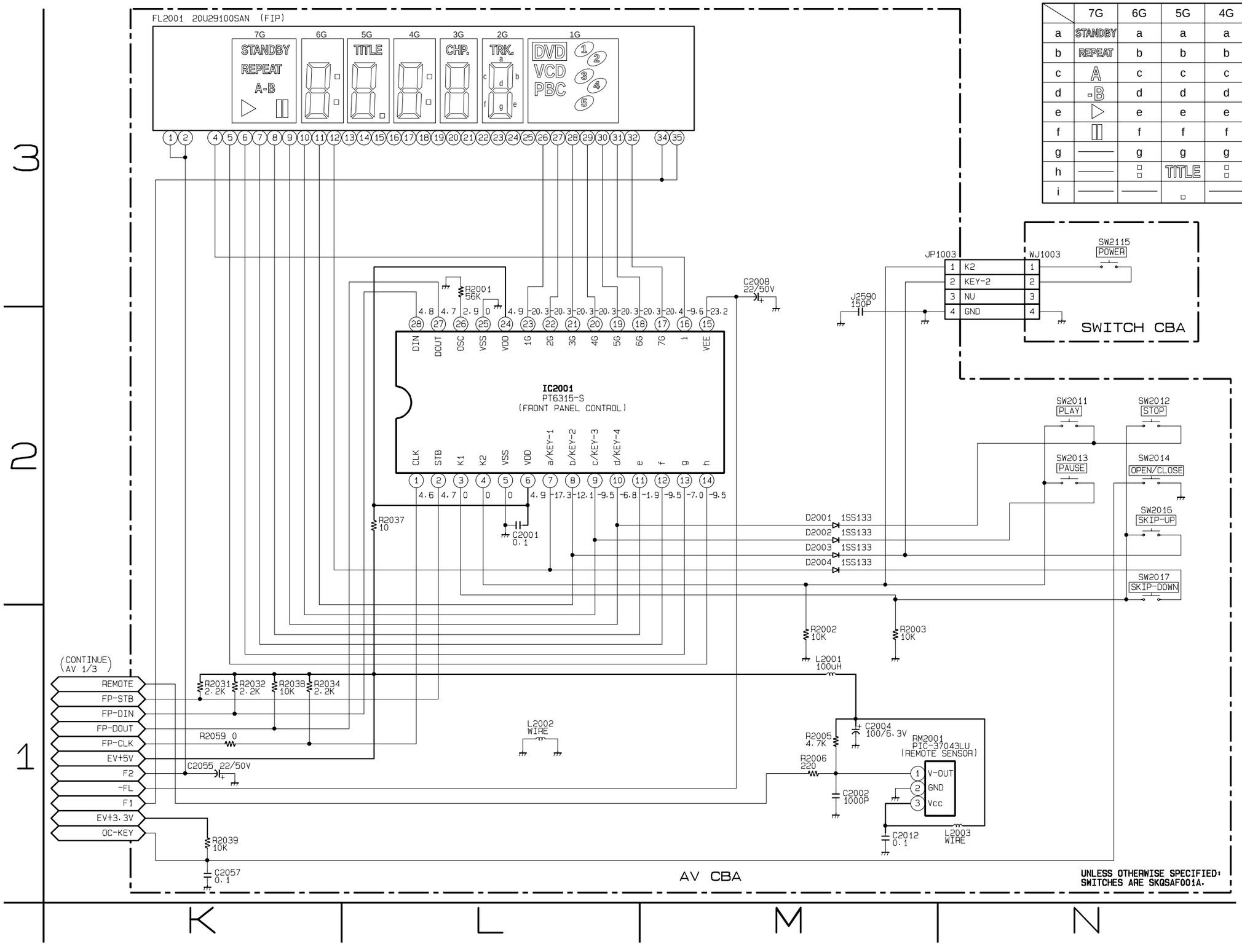
AV 2/3 Schematic Diagram

AV 2/3

Ref No.	Position
ICS	
IC1201	G-1
IC1402	H-3
TRANSISTORS	
Q1201	H-1
Q1202	H-1
Q1203	H-1
Q1204	H-1
Q1351	I-3
CONNECTOR	
CN1601	F-3



AV 3/3 & Switch Schematic Diagram



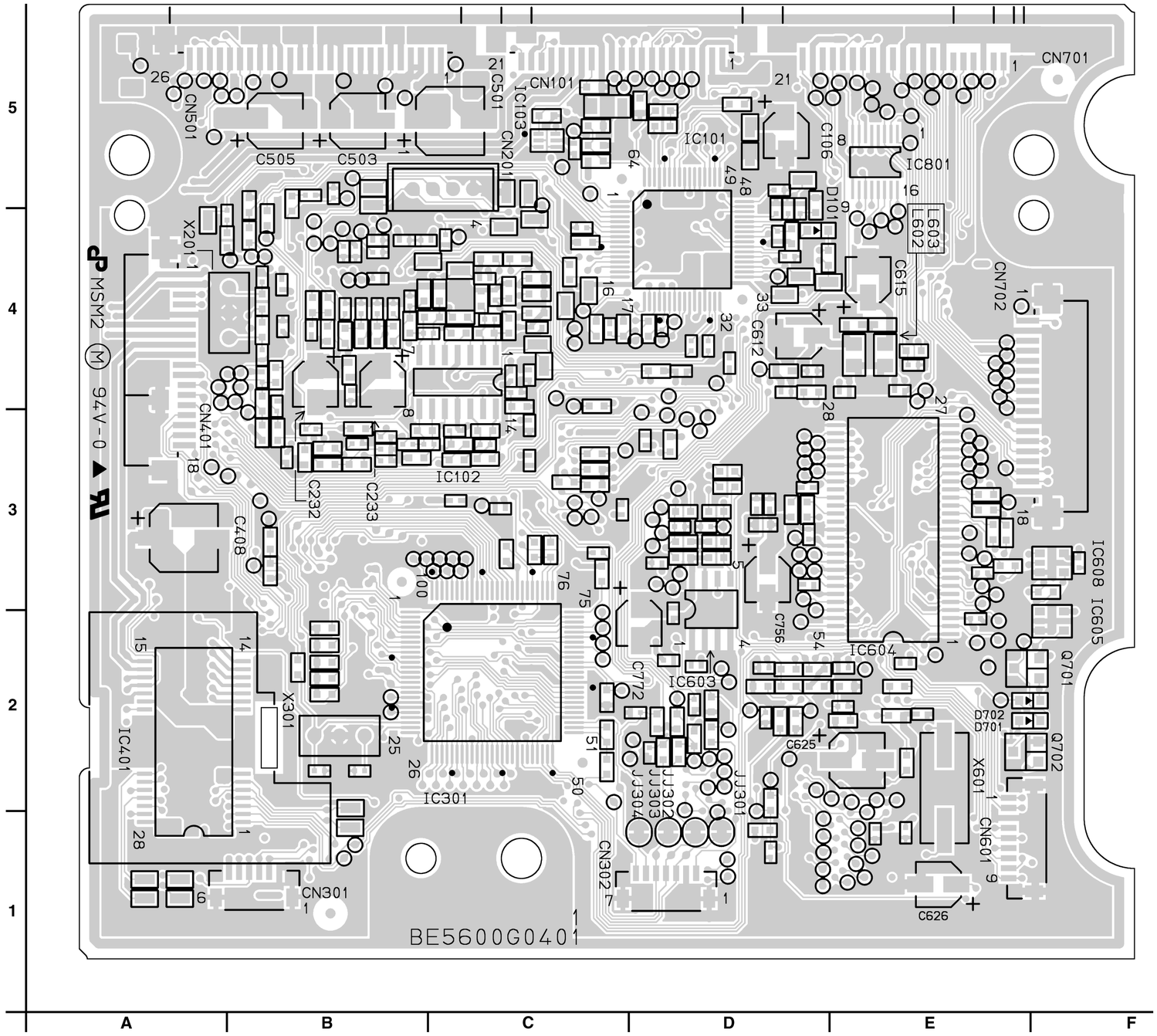
FL2001 MATRIX CHART

	7G	6G	5G	4G	3G	2G	1G
a	STANDBY	a	a	a	a	a	1
b	REPEAT	b	b	b	b	b	2
c	A	c	c	c	c	c	3
d	B	d	d	d	d	d	4
e	▷	e	e	e	e	e	5
f	▯▯	f	f	f	f	f	DVD
g	——	g	g	g	g	g	PBC
h	——	□□	TITLE	□□	CHP.	TRK.	CD
i	——	——	□	——	——	——	V

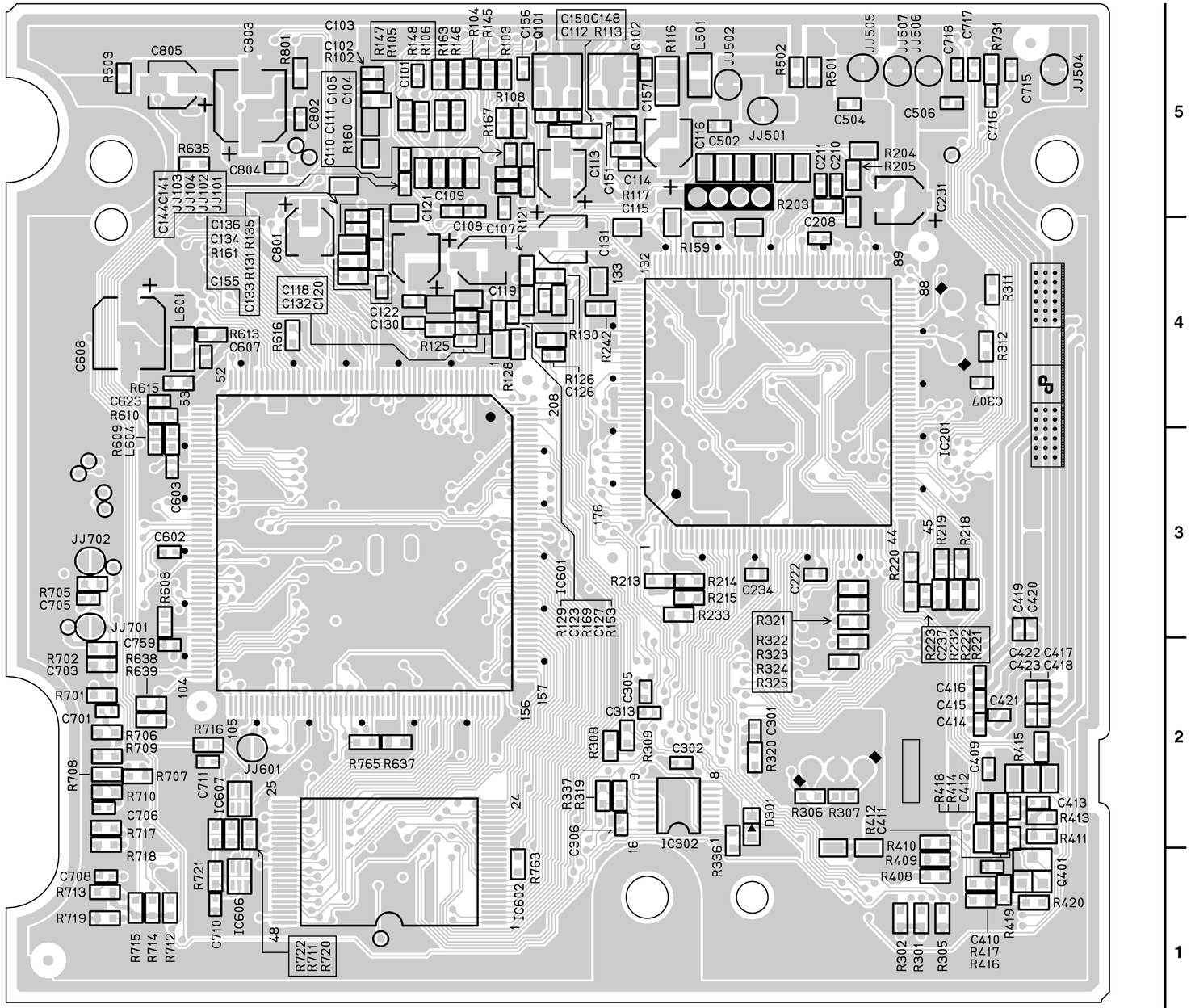
AV 3/3

Ref No.	Position
IC	
IC2001	L-2
CONNECTOR	
JP1003	M-3

DVD Main CBA Top View



DVD Main CBA Bottom View

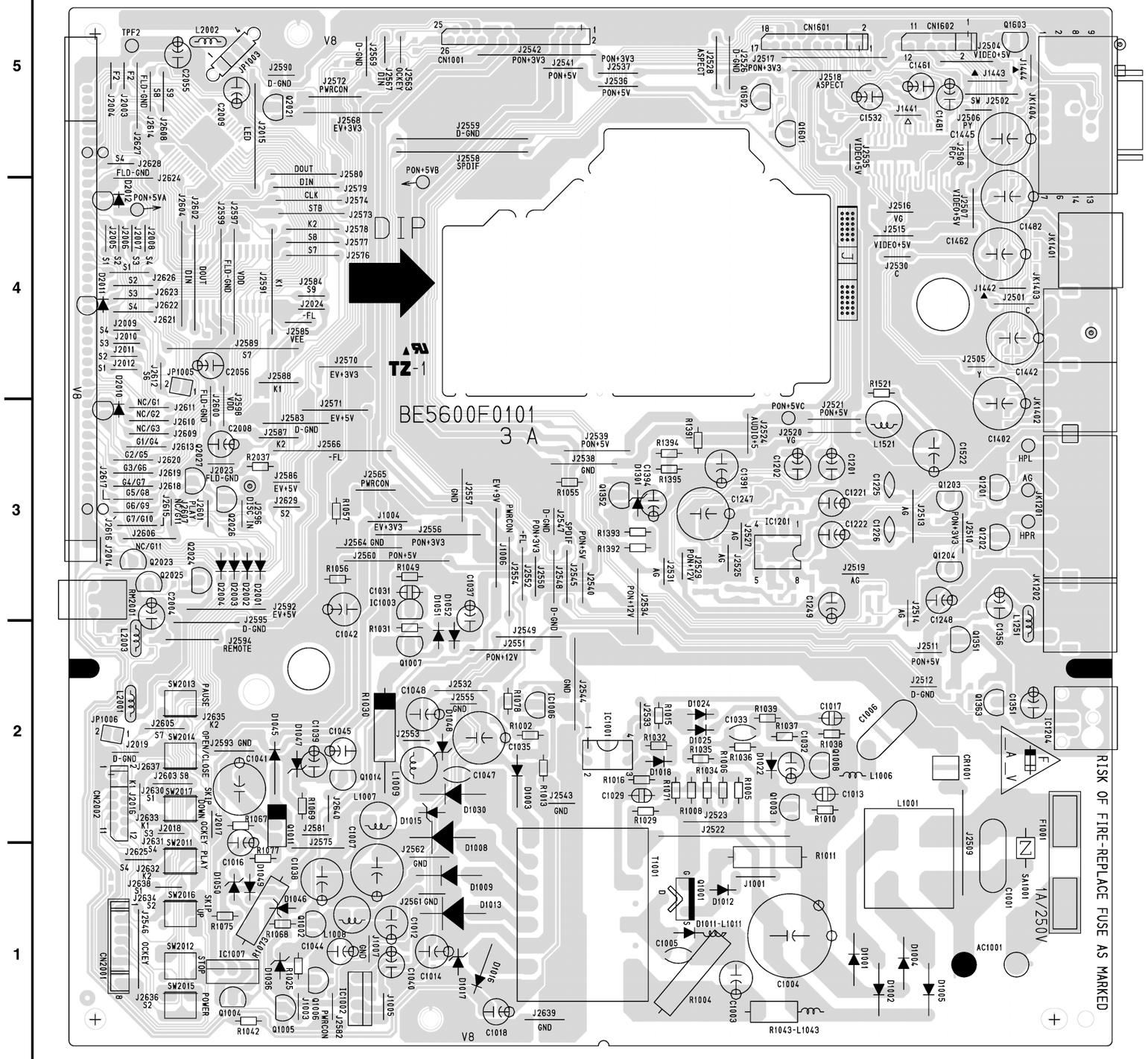


F E D C B A

5 4 3 2 1

1-10-22 1-10-23 1-10-24 BE5600G04011

AV CBA Top View



CAUTION !
Switching 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.

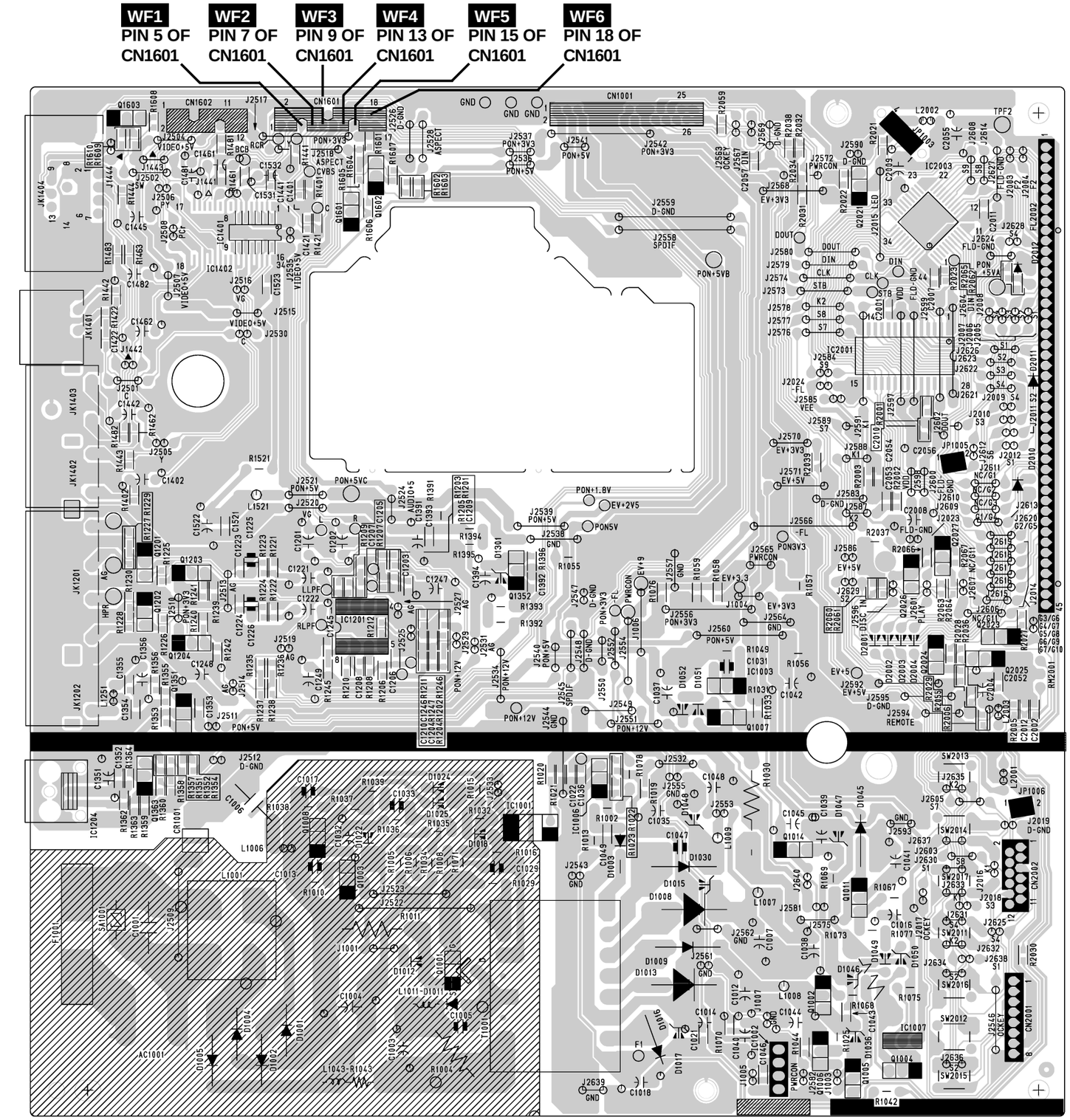
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION : POUR UNE PROTECTION CONTINUE LES RISQES D'INCELE N'UTILISER QUE DES FUSIBLE DE MEMO TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.
"This symbol means fast operating fuse."
"Ce symbole représente un fusible à fusion rapide."

BECAUSE A HOT CHASSIS GROUND IS PRESENT IN THE POWER SUPPLY CIRCUIT, 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.

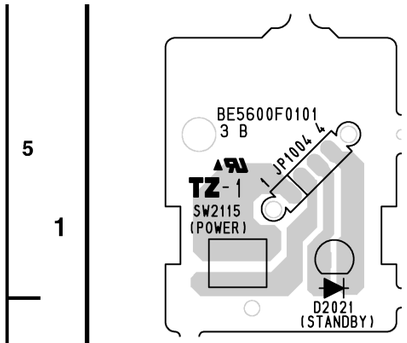
AV CBA

Ref No.	Position
ICS	
IC1001	C-2
IC1002	B-1
IC1003	B-3
IC1006	C-2
IC1201	D-3
IC1402	D-4
IC2001	B-4
TRANSISTORS	
Q1001	C-1
Q1002	B-1
Q1003	D-2
Q1004	A-1
Q1005	B-1
Q1006	B-1
Q1007	B-2
Q1008	D-2
Q1011	B-2
Q1014	B-2
Q1201	E-3
Q1202	E-3
Q1203	E-3
Q1204	E-3
Q1351	E-3
CONNECTORS	
CN1001	C-5
CN1601	D-5
JP1003	A-5

AV CBA Bottom View



Switch CBA Top View Switch CBA Bottom View



CAUTION !
Switching 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 MEMO TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.

"This symbol means fast operating fuse."
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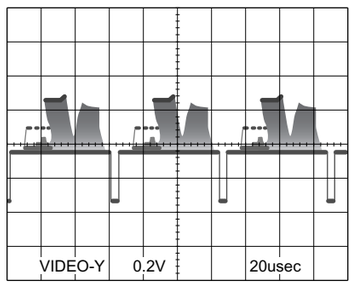
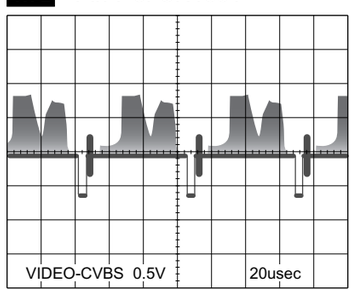
BECAUSE A HOT CHASSIS GROUND IS PRESENT IN THE POWER SUPPLY CIRCUIT, AN ISOLATION TRANSFORMER MUST BE USED. ALSO, IN ORDER TO HAVE THE ABILITY TO INCREASE THE INPUT SLOWLY, WHEN TROUBLESHOOTING THIS TYPE POWER SUPPLY CIRCUIT, A VARIABLE ISOLATION TRANSFORMER IS REQUIRED.

WAVEFORMS

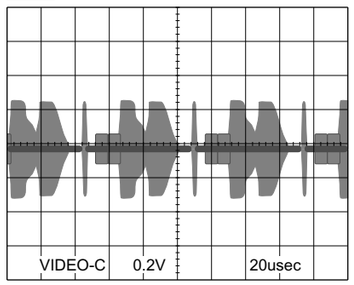
WF1 Pin 5 of CN1601



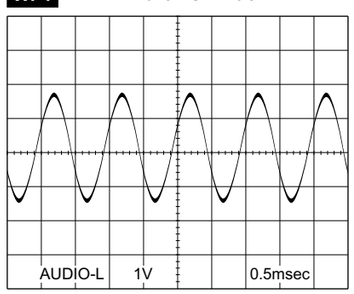
WF2 Pin 7 of CN1601



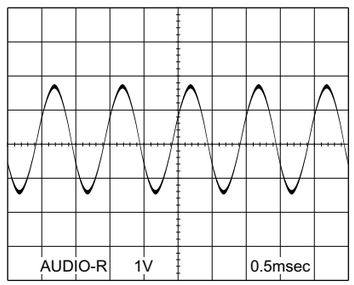
WF3 Pin 9 of CN1601



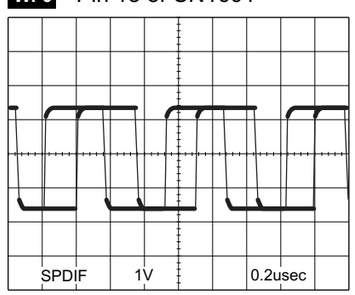
WF4 Pin 13 of CN1601



WF5 Pin 15 of CN1601

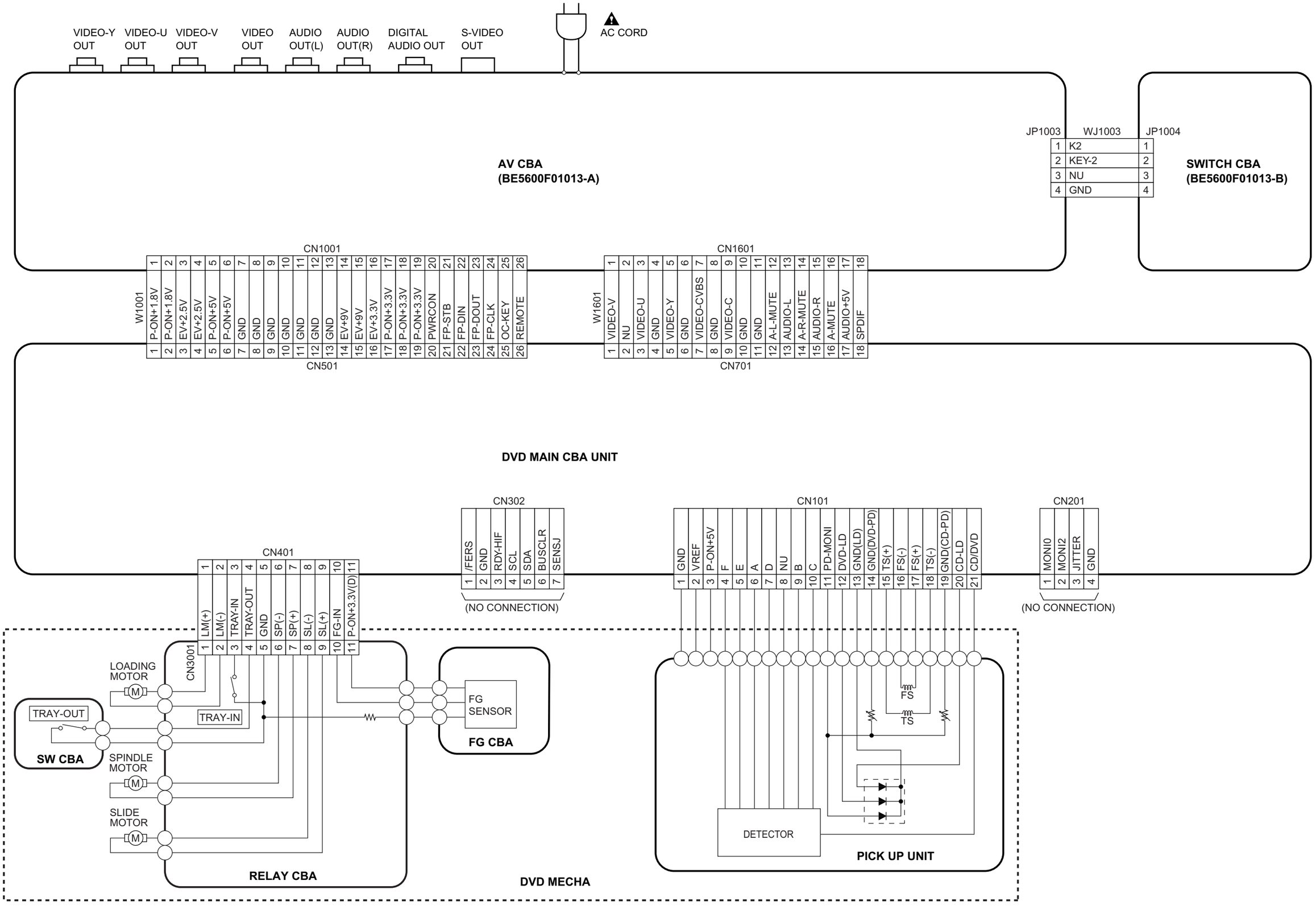


WF6 Pin 18 of CN1601



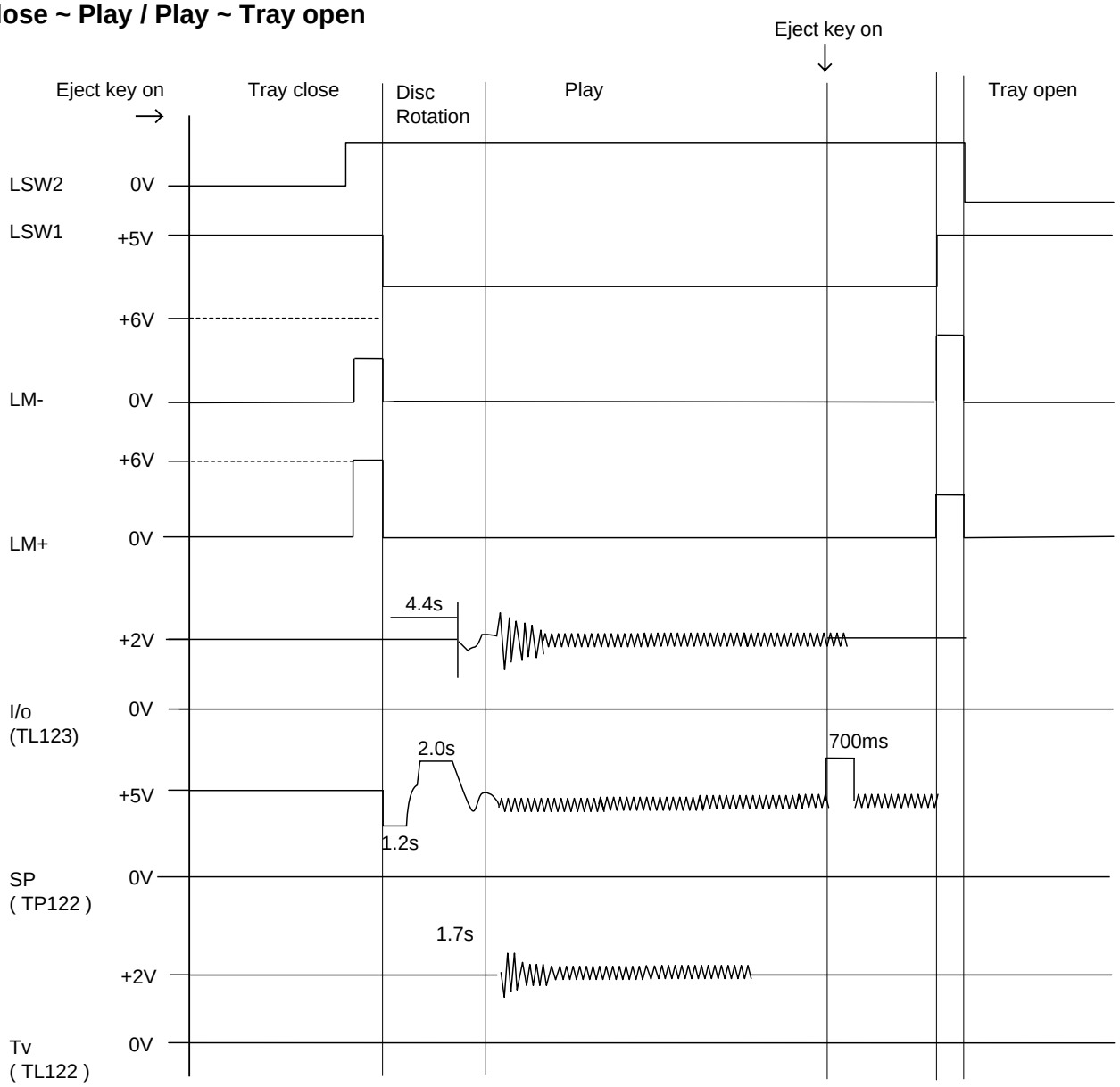
NOTE:
Input
CD: 1kHz PLAY
(WF4~WF6)
DVD: POWER ON (STOP) MODE
(WF1~WF3)

WIRING DIAGRAM



SYSTEM CONTROL TIMING CHARTS

Tray close ~ Play / Play ~ Tray open

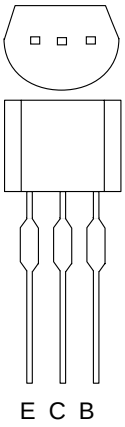


IC PIN FUNCTION DESCRIPTIONS

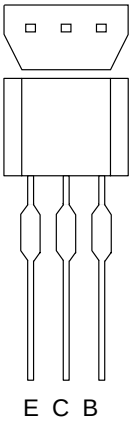
IC2001 (PT6315-S)

Pin No.	In/Out	Signal Name	Name Function
1	In	CLK	Clock Input
2	In	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 Souce-1
8	Out	b / Key-2	Segment Output / Key Souce-2
9	Out	c / Key-3	Segment Output / Key Souce-3
10	Out	d / Key-4	Segment Output/ Key Souce-4
11	Out	e	Segment Output
12	In	f	
13	In	g	
14	Out	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	DOUT	Serial Data Output
28	In	DIN	Serial Data Input

LEAD IDENTIFICATIONS

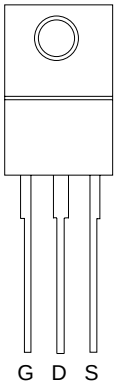


2SA1015-Y (TPE2)
2SC1815-Y (TPE2)
KTA1266 (Y)
2SA966 (Y)
2SC2236-Y-TPE6,C

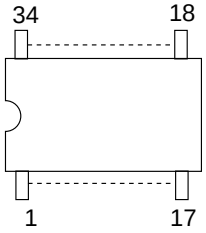


2SC2785 (J, H)
KTC3199 (GR)
KRA110M
KTA1273 (Y)
KRC110M-AT
BA1L3Z-T
BA1L3Z (P)
KTC3205 (Y)

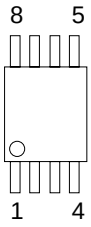
2SK3374



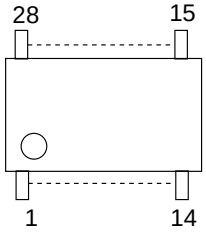
MM1567AJ



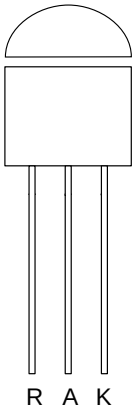
NJM4558D
KIA4558P



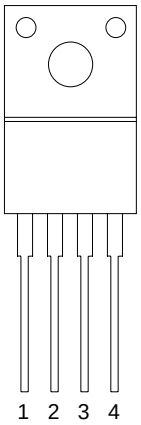
PT6315-S
PT6315-S(-TP)



KIA431-AT



PQ018EF01SZ

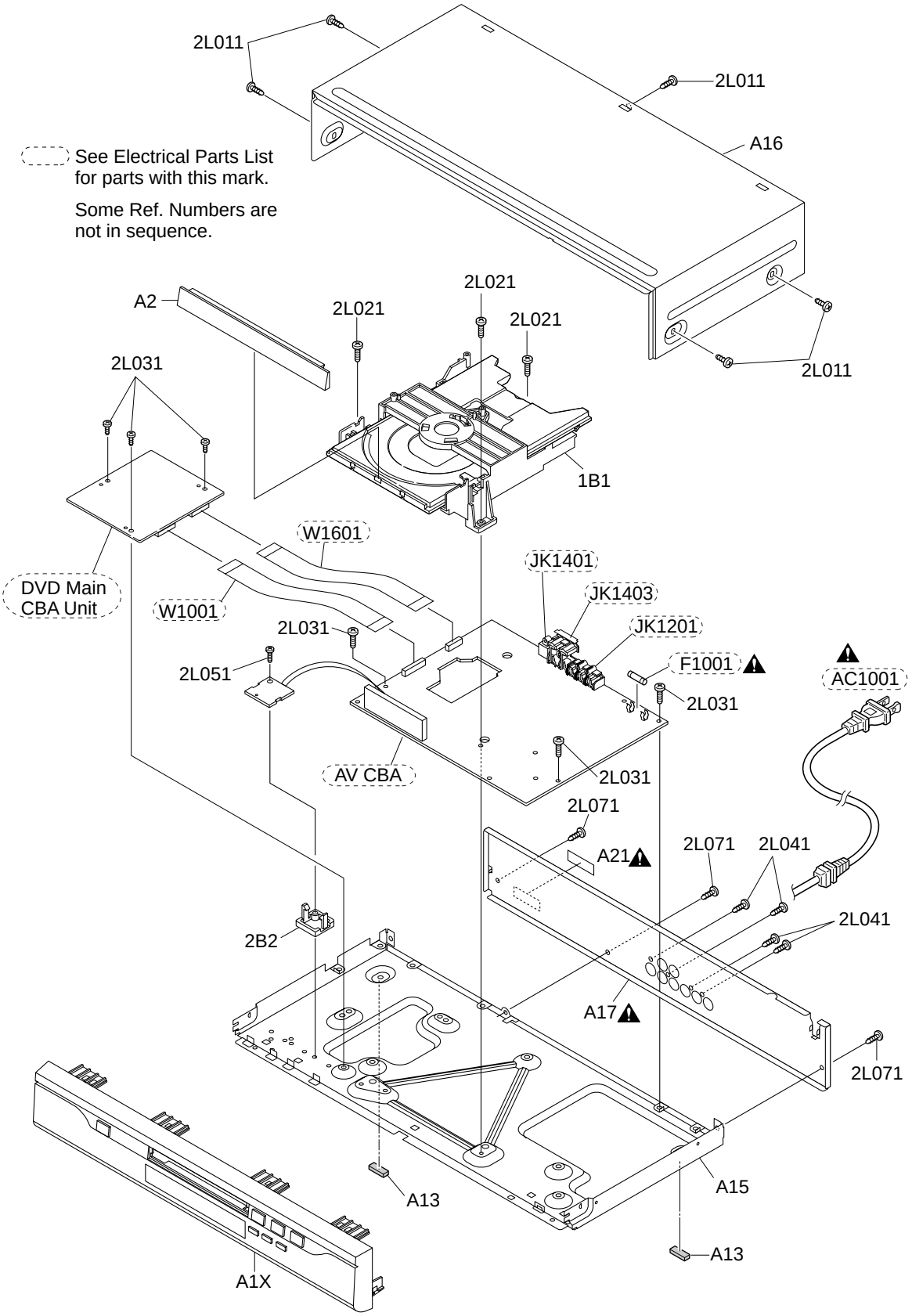


LTV-817(B,C)-F
EL817(B,C)

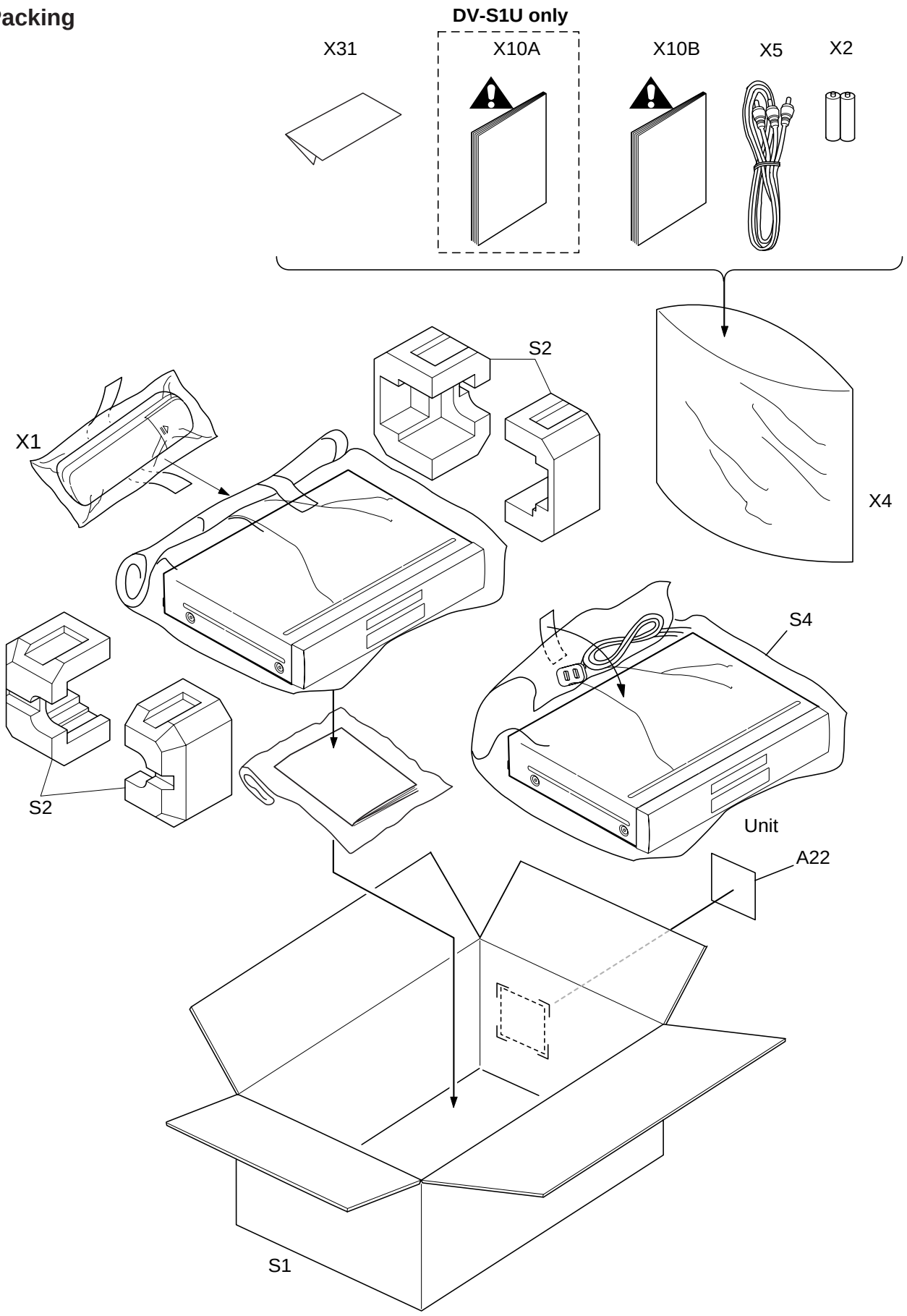
Note:
A: Anode
K: Cathode
E: Emitter
C: Collector
B: Base
R: Reference
1 VCC
2 GND
3 OUT

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.

Ref. No.	Description	Part No.	Code
A1X	FRONT ASSEMBLY	9HS0VM203465	AU
A2	TRAY PANEL	9HS0VM203414	AF
A13	FOOT H7700UD	9HS0VM411398	AB
A15	MAIN CHASSIS E5600UD	9HS0VM101037	AM
A16	TOP COVER:SILVER E56A0UD	9HS0VM305312	AP
A17	REAR PANEL	9HS0VM203464	AK
A21 ⚠	LABEL, RATING	9HS0VM413084	AB
A22	LABEL, BAR CODE	9HS0VM413083	AC
1B1	DVD MECHA	9HSN79F1FVM	BS
2B2	POWER PCB HOLDER E5520UD	9HS0VM411657	AB
2L011	SCREW, C-TIGHT M3X5 BIND HEAD +	9HSGBNC3050	AA
2L021	SCREW, S-TIGHT M3X10 BIND HEAD+	9HSGBMS3100	AA
2L031	SCREW, C-TIGHT M3X6 BIND HEAD	9HSGBMC3060	AA
2L041	SCREW, B-TIGHT M3X8 BIND HEAD +	9HSGBKB3080	AA
2L051	SCREW, S-TIGHT M3X10 BIND HEAD+	9HSGBMS3100	AA
2L071	SCREW, C-TIGHT M3X5 BIND HEAD +	9HSGBKC3050	AA
	PACKING		
S1	GIFT BOX CARTON	9HS0VM305320	AK
S2	STYROFOAM E56A0UD	9HS0VM101096	AE
S4	UNIT, BAG E5500UD	9HS0VM411683	AC
	ACCESSORIES		
X1	REMOTE CONTROL UNIT	9HSREMT42MM002	BB
X4	ACCESSORY BAG E56A0UD	9HS0VM413280	AB
X5	AV CORD TSCKA-Y/RW100	9HSPZ0102TM015	AL
X10A ⚠	OWNER'S MANUAL E56A0UD	9HS0VMN02953	AF
X14	NETFLIX CARD E56A0UD	9HS0VM413202	AD
X31	REGISTRATION CARD E56A0UD	9HS0VM305316	AE

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 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.	Code
	DVD MAIN CBA UNIT Consists of the following	9HSN79S0FUP	CC
	CAPACITORS		
C101	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C102	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C103	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C106	CHIP ELECTROLYTIC CAP. 22µF/6.3V M(WX)	9HSE0KMR1CL220	AC
C106	CHIP ELECTROLYTIC CAP. 22µF/6.3V M	9HSA0K220SP012	AC
C107	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C108	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C109	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C111	CHIP CERAMIC CAP.(1005) B K 560pF/50V	9HSHB1JK30B561	AA
C113	CHIP ELECTROLYTIC CAP. 47µF/6.3V WX(WR)	9HSA0K470NC156	AC
C113	CHIP ELECTROLYTIC CAP. 47µF/6.3V M BSS	9HSA0K470SP057	AC
C116	CHIP ELECTROLYTIC CAP. 47µF/6.3V WX(WR)	9HSA0K470NC156	AC
C116	CHIP ELECTROLYTIC CAP. 47µF/6.3V M BSS	9HSA0K470SP057	AC
C117	CHIP CERAMIC CAP.(1005) CH J 100pF/50V	9HSHB1JJ3CH101	AA
C118	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C119	CHIP ELECTROLYTIC CAP. 22µF/6.3V M(WX)	9HSE0KMR1CL220	AC
C119	CHIP ELECTROLYTIC CAP. 22µF/6.3V M	9HSA0K220SP012	AC
C120	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C121	CHIP ELECTROLYTIC CAP. 22µF/6.3V M(WX)	9HSE0KMR1CL220	AC
C121	CHIP ELECTROLYTIC CAP. 22µF/6.3V M	9HSA0K220SP012	AC
C122	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C124	CHIP CERAMIC CAP.(1005) CH J 56pF/50V	9HSHB1JJ3CH560	AA
C125	CHIP CERAMIC CAP.(1005) B K 470pF/50V	9HSHB1JK30B471	AA
C126	CHIP CERAMIC CAP.(1005) CH J 100pF/50V	9HSHB1JJ3CH101	AA
C127	CHIP CERAMIC CAP.(1005) CH J 180pF/50V	9HSHB1JJ3CH181	AA
C128	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C129	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C130	CHIP CERAMIC CAP.(1005) B K 1000pF/50V	9HSHB1JK30B102	AA
C131	CHIP ELECTROLYTIC CAP. 47µF/6.3V WX(WR)	9HSA0K470NC156	AC
C131	CHIP ELECTROLYTIC CAP. 47µF/6.3V M BSS	9HSA0K470SP057	AC
C132	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C133	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C134	CHIP CERAMIC CAP.(1005) CH J 12pF/50V	9HSHB1JJ3CH120	AA
C135	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C136	CHIP CERAMIC CAP.(1005) CH J 100pF/50V	9HSHB1JJ3CH101	AA
C137	CHIP CERAMIC CAP.(1005) B K 560pF/50V	9HSHB1JK30B561	AA
C138	CHIP CERAMIC CAP.(1005) B K 560pF/50V	9HSHB1JK30B561	AA
C139	CHIP CERAMIC CAP.(1005) B K 0.047µF/16V	9HSHB1CK30B473	AA
C140	CHIP CERAMIC CAP.(1005) B K 0.027µF/16V	9HSHB1CK30B273	AA
C142	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C143	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C144	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C154	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C201	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C202	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C203	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C204	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C206	CHIP CERAMIC CAP.(1005) B K 0.033µF/16V	9HSHB1CK30B333	AA

Ref. No.	Description	Part No.	Code
C207	CHIP CERAMIC CAP.(1005) CH J 68pF/50V	9HSHB1JJ3CH680	AA
C209	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C210	CHIP CERAMIC CAP.(1005) B K 2200pF/50V	9HSHB1JK30B222	AA
C211	CHIP CERAMIC CAP.(1005) B K 6800pF/25V	9HSHB1EK30B682	AA
C212	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C213	CHIP CERAMIC CAP.(1005) B K 1000pF/50V	9HSHB1JK30B102	AA
C214	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C215	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C216	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C217	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C218	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C219	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C220	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C221	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C222	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C223	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C224	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C225	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C226	CHIP CERAMIC CAP.(1005) CH J 30pF/50V	9HSHB1JJ3CH300	AA
C227	CHIP CERAMIC CAP.(1005) CH J 30pF/50V	9HSHB1JJ3CH300	AA
C228	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C229	CHIP CERAMIC CAP.(1005) B K 0.047µF/16V	9HSHB1CK30B473	AA
C230	CHIP CERAMIC CAP.(1005) B K 0.01µF/25V	9HSHB1EK30B103	AA
C231	CHIP ELECTROLYTIC CAP. 47µF/6.3V WX(WR)	9HSA0K470NC156	AC
C231	CHIP ELECTROLYTIC CAP. 47µF/6.3V M BSS	9HSA0K470SP057	AC
C232	CHIP ELECTROLYTIC CAP. 47µF/6.3V WX(WR)	9HSA0K470NC156	AC
C232	CHIP ELECTROLYTIC CAP. 47µF/6.3V M BSS	9HSA0K470SP057	AC
C233	CHIP ELECTROLYTIC CAP. 10µF/16V M(WX)	9HSE1CMR1CL100	AC
C233	CHIP ELECTROLYTIC CAP. 10µF/16V M	9HSA1C100SP012	AC
C234	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C235	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C236	CHIP CERAMIC CAP. B K 0.22µF/10V	9HSHD1AK30B224	AC
C240	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C301	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C302	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C303	CHIP CERAMIC CAP.(1005) CH J 30pF/50V	9HSHB1JJ3CH300	AA
C304	CHIP CERAMIC CAP.(1005) CH J 30pF/50V	9HSHB1JJ3CH300	AA
C305	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C306	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C309	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C310	CHIP CERAMIC CAP.(1005) B K 0.01µF/25V	9HSHB1EK30B103	AA
C311	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C401	CHIP CERAMIC CAP.(1005) CH J 68pF/50V	9HSHB1JJ3CH680	AA
C402	CHIP CERAMIC CAP.(1005) CH J 68pF/50V	9HSHB1JJ3CH680	AA
C403	CHIP CERAMIC CAP.(1005) CH J 180pF/50V	9HSHB1JJ3CH181	AA
C404	CHIP CERAMIC CAP.(1005) B K 6800pF/25V	9HSHB1EK30B682	AA
C408	CHIP ELECTROLYTIC CAP. 220µF/16V UR	9HSE1CMR1FL221	AD
C408	CHIP ELECTROLYTIC CAP. 220µF/16V	9HSA1C221SP012	AD
C409	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C410	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C411	CHIP CERAMIC CAP.(1005) B K 2200pF/50V	9HSHB1JK30B222	AA
C412	CHIP CERAMIC CAP.(1005) B K 0.022µF/25V	9HSHB1EK30B223	AA
C414	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C415	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C416	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C417	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C418	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C419	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C420	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C421	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C422	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C423	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C502	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C504	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C506	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C601	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C602	CHIP CERAMIC CAP.(1005) CH J 180pF/50V	9HSHB1JJ3CH181	AA
C603	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C605	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA

Ref. No.	Description	Part No.	Code
C606	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C607	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C608	CHIP ELECTROLYTIC CAP. 330µF/6.3V UD	9HSE0KMR1GH331	AD
C608	CHIP ELECTROLYTIC CAP. 330µF/6.3V M(L•Z)	9HSA0K331SP042	AD
C609	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C610	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C611	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C613	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C614	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C616	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C617	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C618	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C619	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C620	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C621	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C622	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C701	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C703	CHIP CERAMIC CAP. F Z 1µF/10V	9HSHD1AZ30F105	AB
C709	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C710	CHIP CERAMIC CAP.(1005) CH J 33pF/50V	9HSHB1JJ3CH330	AA
C711	CHIP CERAMIC CAP.(1005) CH J 22pF/50V	9HSHB1JJ3CH220	AA
C715	CHIP CERAMIC CAP.(1005) CH J 100pF/50V	9HSHB1JJ3CH101	AA
C722	CHIP CERAMIC CAP.(1005) CH D 10pF/50V	9HSHB1JD3CH100	AA
C723	CHIP CERAMIC CAP.(1005) CH D 10pF/50V	9HSHB1JD3CH100	AA
C751	CHIP CERAMIC CAP.(1005) CH J 270pF/50V	9HSHB1JJ3CH271	AA
C753	CHIP CERAMIC CAP.(1005) CH J 220pF/50V	9HSHB1JJ3CH221	AA
C757	CHIP CERAMIC CAP.(1005) CH J 220pF/50V	9HSHB1JJ3CH221	AA
C759	CHIP CERAMIC CAP.(1005) CH J 120pF/50V	9HSHB1JJ3CH121	AA
C761	CHIP CERAMIC CAP.(1005) B K 0.1µF/10V	9HSHB1AK30B104	AA
C762	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C801	CHIP ELECTROLYTIC CAP. 47µF/6.3V WX(WR)	9HSA0K470NC156	AC
C801	CHIP ELECTROLYTIC CAP. 47µF/6.3V M BSS	9HSA0K470SP057	AC
C802	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C803	CHIP ELECTROLYTIC CAP. 330µF/6.3V UR	9HSE0KMR1FL331	AD
C803	CHIP ELECTROLYTIC CAP. 330µF/6.3V M(L•Z)	9HSA0K331SP042	AD
C804	CHIP CERAMIC CAP.(1005) F Z 0.1µF/16V	9HSHB1CZ30F104	AA
C805	CHIP ELECTROLYTIC CAP. 47µF/6.3V WX(WR)	9HSA0K470NC156	AC
C805	CHIP ELECTROLYTIC CAP. 47µF/6.3V M BSS	9HSA0K470SP057	AC
	CONNECTORS		
CN101	FFC CONNECTOR 21P 9611S-21Y901	9HSC96D21ER006	AF
CN201	CONNECTOR BASE, 4P TUC-P04P-B1	9HS3TUC04TG001	AB
CN302	1.0MM CONNECTOR BASE 7P BM07B-SRSS-TB	9HS3SHD07JG003	AF
CN401	FFC CONNECTOR 11P IMSA-9611S-11Y901	9HSC96D11ER006	AD
CN501	FFC CONNECTOR 26P 9611S-26Y901	9HSC96D26ER006	AG
CN701	FFC CONNECTOR 18P 9611S-18Y901	9HSC96D18ER006	AE
	DIODES		
D301	CHIP DIODE 1SS355 TE-17	9HSD1Z001SS355	AC
D702	CHIP DIODE 1SS355 TE-17	9HSD1Z001SS355	AC
	ICS		
IC101	DVD FEP AN8703FH-V	9HSSZBA0RMS009	AW
IC102	IC,OPERATIONNAL AMPLIFIERKIA324F-EL	9HSSBLA0TJY044	AE
IC103	1CIRCUIT ANALOG SWITCH NC7SB3157P6X	9HSSZBA0TF3063	AE
IC201	DVD SODC MN103S26EDBK	9HSSZBA0RMS008	BG
IC301	16BITMCU MN102H60GBA	9HSSZAA0RMS003	AX
IC301	16BITMCU VER.RAM MN102HF60GYD	9HSSZBA0RMS010	BE
IC401	DRIVER IC FOR CD/CD-ROM BA5810FP	9HSSZBA0TRM014	AN
IC601	MPEG2DECORDER IC WITH CPUSTI5519AVB	9HSSZBA0RSS095	BM
IC602	8MB FLASH MEMORY 90NS MBM29LV800TA-90PFTN	9HSSZBA0RFJ005	AW
IC602	8MB FLASH MEMORY 90NS MX29LV800TTC-90	9HSSZBA0RM0001	AW
IC604	IC(SDRAM) K4S641632E-TC75	9HSSZBB0RSM018	AR
IC604	IC(SDRAM) HY57V641620HGT-H	9HSSZBA0THY019	AZ
IC605	IC(RESET) PST9126NR	9HSSBLA0TMM080	AE
IC606	INVERTERCIRCUIT NC7SU04P5X	9HSSZBA0TF3064	AE
IC801	AUDIO D/A COVERTER PCM1742KE/2K	9HSSZBA0TPW009	AM
	COILS		
L501	CHIP INDUCTOR LB2016T2R2M	9HSLC2R2MTU007	AC
L601	CHIP INDUCTOR 15µH LEMF2520T150K	9HSLC150KTU013	AC
L602	CHIP INDUCTOR 15µH LEMF2520T150K	9HSLC150KTU013	AC
L603	CHIP INDUCTOR 15µH LEMF2520T150K	9HSLC150KTU013	AC

Ref. No.	Description	Part No.	Code
L604	CHIP INDUCTOR BK1608 LM 182-T	9HSLBC003TU061	AB
	TRANSISTORS		
Q101	CHIP TRANSISTOR 2SB1424 T100R	9HSQ2R02SB1424	AD
Q102	CHIP TRANSISTOR 2SB1424 T100R	9HSQ2R02SB1424	AD
Q401	CHIP TRANSISTOR KTA1504O-RTK	9HSQ100KTA1504	AC
Q701	CHIP TRANSISTOR KTC3875BL-RTK	9HSQ150KTC3875	AC
	RESISTORS		
R102	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R103	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R106	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R107	CHIP RES.(1608) 1/10W J 6.8k Ω	9HSRXAJR5Z0682	AA
R108	CHIP RES.(1608) 1/10W J 6.8k Ω	9HSRXAJR5Z0682	AA
R111	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R112	CHIP RES.(3216) 1/4W J 15 Ω	9HSRX4JR7Z0150	AA
R113	CHIP RES.(1608) 1/10W J 2.2 Ω	9HSRXAJR5Z02R2	AA
R116	CHIP RES.(3216) 1/4W J 15 Ω	9HSRX4JR7Z0150	AA
R117	CHIP RES.(1608) 1/10W J 2.2 Ω	9HSRXAJR5Z02R2	AA
R119	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R120	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R121	CHIP RES.(1608) 1/10W F 22k Ω	9HSRXAFR5H2202	AA
R122	CHIP RES.(1608) 1/10W J 1k Ω	9HSRXAJR5Z0102	AA
R125	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R126	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R127	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R128	CHIP RES.(1608) 1/10W J 15k Ω	9HSRXAJR5Z0153	AA
R129	CHIP RES.(1608) 1/10W J 15k Ω	9HSRXAJR5Z0153	AA
R130	CHIP RES.(1608) 1/10W J 15k Ω	9HSRXAJR5Z0153	AA
R131	CHIP RES.(1608) 1/10W J 2.2k Ω	9HSRXAJR5Z0222	AA
R133	CHIP RES.(1608) 1/10W J 1M Ω	9HSRXAJR5Z0105	AA
R134	CHIP RES.(1608) 1/10W J 1M Ω	9HSRXAJR5Z0105	AA
R135	CHIP RES.(1608) 1/10W J 15k Ω	9HSRXAJR5Z0153	AA
R136	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R138	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R143	CHIP RES.(1608) 1/10W J 1k Ω	9HSRXAJR5Z0102	AA
R144	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R155	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R156	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R160	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R163	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R164	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R168	CHIP RES.(1608) 1/10W J 100 Ω	9HSRXAJR5Z0101	AA
R169	CHIP RES.(1608) 1/10W J 100 Ω	9HSRXAJR5Z0101	AA
R170	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R171	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R203	CHIP RES.(1608) 1/10W J 1M Ω	9HSRXAJR5Z0105	AA
R205	CHIP RES.(1608) 1/10W J 15k Ω	9HSRXAJR5Z0153	AA
R206	CHIP RES.(1608) 1/10W J 1k Ω	9HSRXAJR5Z0102	AA
R207	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R208	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R209	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R210	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R211	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R212	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R220	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R221	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R222	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R224	CHIP RES.(1608) 1/10W J 1M Ω	9HSRXAJR5Z0105	AA
R225	CHIP RES.(1608) 1/10W J 100 Ω	9HSRXAJR5Z0101	AA
R226	CHIP RES.(1608) 1/10W J 4.7k Ω	9HSRXAJR5Z0472	AA
R227	CHIP RES.(1608) 1/10W J 4.7k Ω	9HSRXAJR5Z0472	AA
R228	CHIP RES.(1608) 1/10W J 33k Ω	9HSRXAJR5Z0333	AA
R229	CHIP RES.(1608) 1/10W J 22k Ω	9HSRXAJR5Z0223	AA
R230	CHIP RES.(1608) 1/10W J 15k Ω	9HSRXAJR5Z0153	AA
R231	CHIP RES.(1608) 1/10W J 15k Ω	9HSRXAJR5Z0153	AA
R232	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R234	CHIP RES.(1608) 1/10W J 27k Ω	9HSRXAJR5Z0273	AA
R235	CHIP RES.(1608) 1/10W J 6.8k Ω	9HSRXAJR5Z0682	AA
R236	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R237	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA

Ref. No.	Description	Part No.	Code
R239	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R240	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R241	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R242	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R301	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R302	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R303	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R304	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R305	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R306	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R308	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R309	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R310	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R311	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R312	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R313	CHIP RES.(1608) 1/10W J 51k Ω	9HSRXAJR5Z0513	AA
R314	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R315	CHIP RES.(1608) 1/10W J 510k Ω	9HSRXAJR5Z0514	AA
R316	CHIP RES.(1608) 1/10W J 1.8k Ω	9HSRXAJR5Z0182	AA
R317	CHIP RES.(1608) 1/10W J 3.3k Ω	9HSRXAJR5Z0332	AA
R320	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R321	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R322	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R323	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R324	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R325	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R331	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R332	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R334	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R336	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R337	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R401	CHIP RES.(1608) 1/10W J 220 Ω	9HSRXAJR5Z0221	AA
R402	CHIP RES.(1608) 1/10W J 8.2k Ω	9HSRXAJR5Z0822	AA
R403	CHIP RES.(1608) 1/10W J 100k Ω	9HSRXAJR5Z0104	AA
R404	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R405	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R406	CHIP RES.(1608) 1/10W J 100k Ω	9HSRXAJR5Z0104	AA
R407	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R408	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R409	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R410	CHIP RES.(1608) 1/10W J 4.7k Ω	9HSRXAJR5Z0472	AA
R411	CHIP RES.(1608) 1/10W J 47k Ω	9HSRXAJR5Z0473	AA
R412	CHIP RES.(1608) 1/10W J 68k Ω	9HSRXAJR5Z0683	AA
R413	CHIP RES.(1608) 1/10W J 47k Ω	9HSRXAJR5Z0473	AA
R414	CHIP RES.(1608) 1/10W J 68k Ω	9HSRXAJR5Z0683	AA
R415	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R416	CHIP RES.(1608) 1/10W J 2.7k Ω	9HSRXAJR5Z0272	AA
R417	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R418	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R419	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R420	CHIP RES.(1608) 1/10W J 560 Ω	9HSRXAJR5Z0561	AA
R503	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R602	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R603	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R604	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R605	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R606	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R607	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R608	CHIP RES.(1608) 1/10W J 100 Ω	9HSRXAJR5Z0101	AA
R609	CHIP RES.(1608) 1/10W J 470 Ω	9HSRXAJR5Z0471	AA
R610	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R611	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R612	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R615	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R616	CHIP RES.(100PPM) 1/10W F 18k Ω	9HSRXAFR5H1802	AA
R618	CHIP RES.(100PPM) 1/10W F 18k Ω	9HSRXAFR5H1802	AA
R620	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R622	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R624	CHIP RES.(1608) 1/10W J 33 Ω	9HSRXAJR5Z0330	AA

Ref. No.	Description	Part No.	Code
R625	CHIP RES.(1608) 1/10W J 33 Ω	9HSRXAJR5Z0330	AA
R626	CHIP RES.(1608) 1/10W J 470 Ω	9HSRXAJR5Z0471	AA
R627	CHIP RES.(1608) 1/10W J 75 Ω	9HSRXAJR5Z0750	AA
R627	CHIP RES.(1608) 1/16W J 75 Ω	9HSRXGJR5Z0750	AA
R628	CHIP RES.(1608) 1/10W J 75 Ω	9HSRXAJR5Z0750	AA
R628	CHIP RES.(1608) 1/16W J 75 Ω	9HSRXGJR5Z0750	AA
R629	CHIP INDUCTOR BK1608HM102-T	9HSLBC003TU055	AA
R634	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R637	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R701	CHIP RES.(1608) 1/10W J 330k Ω	9HSRXAJR5Z0334	AA
R702	CHIP RES.(1608) 1/10W J 100k Ω	9HSRXAJR5Z0104	AA
R703	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R706	CHIP RES.(1608) 1/10W J 330k Ω	9HSRXAJR5Z0334	AA
R709	CHIP RES.(1608) 1/10W J 1k Ω	9HSRXAJR5Z0102	AA
R712	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R713	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R714	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R717	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R718	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R719	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R720	CHIP RES.(1608) 1/10W J 100 Ω	9HSRXAJR5Z0101	AA
R721	CHIP RES.(1608) 1/10W J 1M Ω	9HSRXAJR5Z0105	AA
R722	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R723	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R724	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R725	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R727	CHIP RES.(1608) 1/10W J 4.7k Ω	9HSRXAJR5Z0472	AA
R728	CHIP RES.(1608) 1/10W J 1.8k Ω	9HSRXAJR5Z0182	AA
R729	CHIP RES.(1608) 1/10W J 1.8k Ω	9HSRXAJR5Z0182	AA
R731	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R734	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R735	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R751	CHIP RES.(1608) 1/10W J 47k Ω	9HSRXAJR5Z0473	AA
R752	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R761	CHIP RES.(1608) 1/10W J 330k Ω	9HSRXAJR5Z0334	AA
R762	CHIP RES. 1/16W J 0 Ω	9HSRXGJR5Z0000	AA
R764	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R765	CHIP RES.(1608) 1/10W J 47 Ω	9HSRXAJR5Z0470	AA
R801	CHIP INDUCTOR BK1608 LM 182-T	9HSLBC003TU061	AB
	MISCELLANEOUS		
X201	CERAMIC RESONATOR ZTA16.93MX	9HSY0166PLN001	AD
X301	CERAMIC RESONATOR ZTA16.93MX	9HSY0166PLN001	AD
X601	QUARTZ CRYSTAL SAF2H2-19-27.000	9HSX0276CJNY02	AF

AV CBA (contain SWITCH CBA)

Ref. No.	Description	Part No.	Code
	AV CBA (SUB-A CBA + SWITCH CBA) Consists of the following	9HS0VSA12374	BW
	SUB-A CBA	9HS0VSA12374A	BW
	SWITCH (SUB-B) CBA	9HS0VSA12374B	AM

SUB-A CBA

Ref. No.	Description	Part No.	Code
	SUB-A CBA Consists of the following	9HS0VSA12374A	BW
	CAPACITORS		
C1001 ⚠	METALLIZED FILM CAP. 0.01µF/250V K	9HST2E103DC011	AC
C1001 ⚠	METALLIZED FILM CAP. 0.01µF/275V K	9HST2E103HJE05	AC
C1001 ⚠	METALLIZED FILM CAP. 0.01µF/250V M	9HST2E103MS037	AC
C1003	ELECTROLYTIC CAP. 2.2µF/250V M	9HSA2E2R2S6009	AB
C1004	ELECTROLYTIC CAP. 82µF/200V M	9HSA2D820S6014	AD
C1004	ELECTROLYTIC CAP. 82µF/200V M	9HSA2D820NC002	AF
C1005	CERAMIC CAP. B K 120pF/500V	9HSCD2JJPCH560	AC
C1006 ⚠	SAFETY CAP. 2200pF/250V	9HSCG2EMA0E222	AC
C1006 ⚠	SAFETY CAP. 2200pF/250V	9HSCG2EMA0F222	AC
C1007	ELECTROLYTIC CAP. 2200µF/6.3V M	9HSE0KMZPDL222	AF
C1012	ELECTROLYTIC CAP. 100µF/25V M	9HSE1EMASDL101	AB

Ref. No.	Description	Part No.	Code
C1013	CERAMIC CAP.(AX) B K 3300pF/50V	9HSA1J332TU011	AB
C1014	ELECTROLYTIC CAP. 220µF/6.3V M	9HSE0KMASDL221	AB
C1017	CERAMIC CAP.(AX) Y M 0.01µF/16V	9HSCA1CMT0Y103	AA
C1018	ELECTROLYTIC CAP. 100µF/6.3V M	9HSE0KMASDL101	AB
C1021	CHIP CERAMIC CAP. B K 0.01µF/50V	9HSHD1JK30B103	AA
C1022	CHIP CERAMIC CAP. B K 0.01µF/50V	9HSHD1JK30B103	AA
C1029	CERAMIC CAP.(AX) X K 2200pF/16V	9HSCA1CKT0X222	AA
C1031	CERAMIC CAP.(AX) B K 0.01µF/50V	9HSA1J103TU011	AB
C1032	ELECTROLYTIC CAP. 10µF/16V M	9HSE1CMASDL100	AB
C1033	FILM CAP.(P) 0.022µF/50V J	9HSMA1JJS00223	AB
C1035	ELECTROLYTIC CAP. 470µF/16V M	9HSE1CMASDL471	AB
C1036	CHIP CERAMIC CAP. B K 0.01µF/50V	9HSHD1JK30B103	AA
C1037	ELECTROLYTIC CAP. 100µF/6.3V M H7	9HSE0KMASSL101	AB
C1038	ELECTROLYTIC CAP. 470µF/6.3V M	9HSE0KMASDL471	AB
C1039	ELECTROLYTIC CAP. 47µF/16V M	9HSE1CMASDL470	AB
C1040	ELECTROLYTIC CAP. 100µF/6.3V M	9HSE0KMASDL101	AB
C1041	ELECTROLYTIC CAP. 470µF/6.3V M	9HSE0KMASDL471	AB
C1042	ELECTROLYTIC CAP. 220µF/6.3V M H7	9HSE0KMASSL221	AB
C1043	CHIP CERAMIC CAP. F Z 0.1µF/50V	9HSHD1JZ30F104	AA
C1046	CHIP CERAMIC CAP. F Z 0.1µF/50V	9HSHD1JZ30F104	AA
C1047	FILM CAP.(P) 0.01µF/50V J	9HSMA1JJS00103	AB
C1048	ELECTROLYTIC CAP. 220µF/16V M	9HSE1CMASDL221	AB
C1049	CHIP CERAMIC CAP. F Z 0.1µF/50V	9HSHD1JZ30F104	AA
C1201	ELECTROLYTIC CAP. 10µF/16V M	9HSE1CMASDL100	AB
C1202	ELECTROLYTIC CAP. 10µF/16V M	9HSE1CMASDL100	AB
C1203	CHIP CERAMIC CAP. CH J 680pF/50V	9HSHD1JJ3CH681	AB
C1204	CHIP CERAMIC CAP. CH J 680pF/50V	9HSHD1JJ3CH681	AB
C1205	CHIP CERAMIC CAP. CH J 390pF/50V	9HSHD1JJ3CH391	AA
C1206	CHIP CERAMIC CAP. CH J 390pF/50V	9HSHD1JJ3CH391	AA
C1207	CHIP CERAMIC CAP. CH D 9pF/50V	9HSHD1JD8CH9R0	AB
C1208	CHIP CERAMIC CAP. CH D 9pF/50V	9HSHD1JD8CH9R0	AB
C1221	ELECTROLYTIC CAP. 10µF/16V M	9HSE1CMASDL100	AB
C1222	ELECTROLYTIC CAP. 10µF/16V M	9HSE1CMASDL100	AB
C1245	CHIP CERAMIC CAP. F Z 0.1µF/50V	9HSHD1JZ30F104	AA
C1246	CHIP CERAMIC CAP. F Z 0.1µF/50V	9HSHD1JZ30F104	AA
C1247	ELECTROLYTIC CAP. 470µF/16V M	9HSE1CMASDL471	AB
C1249	ELECTROLYTIC CAP. 47µF/16V M H7	9HSE1CMASSL470	AB
C1353	CHIP CERAMIC CAP.(1608) B K 0.1µF/25V	9HSHD1EK30B104	AB
C1354	CHIP CERAMIC CAP. CH J 100pF/50V	9HSHD1JJ3CH101	AA
C1356	ELECTROLYTIC CAP. 47µF/6.3V M	9HSE0KMASDL470	AB
C1391	ELECTROLYTIC CAP. 220µF/6.3V M	9HSE0KMASDL221	AB
C1401	CHIP CERAMIC CAP.(1608) B K 0.33µF/10V	9HSHD1AK30B334	AC
C1402	ELECTROLYTIC CAP. 470µF/6.3V M	9HSE0KMASDL471	AB
C1421	CHIP CERAMIC CAP. B K 0.01µF/50V	9HSHD1JK30B103	AA
C1422	CHIP CERAMIC CAP.(1608) B K 0.1µF/25V	9HSHD1EK30B104	AB
C1441	CHIP CERAMIC CAP.(1608) B K 0.33µF/10V	9HSHD1AK30B334	AC
C1442	ELECTROLYTIC CAP. 470µF/6.3V M	9HSE0KMASDL471	AB
C1461	ELECTROLYTIC CAP. 1µF/50V M H7	9HSE1JMASSL010	AB
C1462	ELECTROLYTIC CAP. 470µF/6.3V M	9HSE0KMASDL471	AB
C1481	ELECTROLYTIC CAP. 1µF/50V M	9HSE1JMASDL010	AB
C1482	ELECTROLYTIC CAP. 470µF/6.3V M	9HSE0KMASDL471	AB
C1522	ELECTROLYTIC CAP. 10µF/16V M	9HSE1CMASDL100	AB
C1523	CHIP CERAMIC CAP. F Z 0.1µF/50V	9HSHD1JZ30F104	AA
C1531	CHIP CERAMIC CAP. B K 0.01µF/50V	9HSHD1JK30B103	AA
C1532	ELECTROLYTIC CAP. 22µF/6.3V M H7	9HSE0KMASSL220	AB
C2001	CHIP CERAMIC CAP. F Z 0.1µF/50V	9HSHD1JZ30F104	AA
C2002	CHIP CERAMIC CAP. B K 1000pF/50V	9HSHD1JK30B102	AA
C2004	ELECTROLYTIC CAP. 100µF/6.3V M	9HSE0KMASDL101	AB
C2008	ELECTROLYTIC CAP. 22µF/50V M	9HSE1JMASDL220	AB
C2012	CHIP CERAMIC CAP. F Z 0.1µF/50V	9HSHD1JZ30F104	AA
C2055	ELECTROLYTIC CAP. 22µF/50V M	9HSE1JMASDL220	AB
C2057	CHIP CERAMIC CAP.(1608) B K 0.1µF/25V	9HSHD1EK30B104	AB
	CONNECTORS		
CN1001	FMN CONNECTOR, TOP 26P 26FMN-BTRK	9HSCFNG26JG002	AE
CN1601	FMN CONNECTOR, TOP 18P 18FMN-BTK	9HSCFNG18JG001	AD
	DIODES		
D1001	RECTIFIER DIODE 1N4005	9HSDQZ001N4005	AB
D1002	RECTIFIER DIODE 1N4005	9HSDQZ001N4005	AB
D1003	RECTIFIER DIODE BA157	9HSDQZ000BA157	AB

Ref. No.	Description	Part No.	Code
D1004	RECTIFIER DIODE 1N4005	9HSDQZ001N4005	AB
D1005	RECTIFIER DIODE 1N4005	9HSDQZ001N4005	AB
D1008	SCHOTTKY BARRIER DIODE ERB81-004	9HSERB81004***	AD
D1009	RECTIFIER DIODE BA157	9HSDQZ000BA157	AB
D1011	RECTIFIER DIODE BA157	9HSDQZ000BA157	AB
D1012	SWITCHING DIODE 1N4148M	9HSDTZ01N4148M	AA
D1013	SCHOTTKY BARRIER DIODE SB140	9HSDQZ000SB140	AC
D1015	ZENER DIODE DZ-6.8BSBT265	9HSDTB0DZ6R8BS	AB
D1016	RECTIFIER DIODE BA157	9HSDQZ000BA157	AB
D1017	ZENER DIODE DZ-22BSBT265	9HSDTB00DZ22BS	AB
D1018	SWITCHING DIODE 1N4148M	9HSDTZ01N4148M	AA
D1022	SWITCHING DIODE 1N4148M	9HSDTZ01N4148M	AA
D1024	SWITCHING DIODE 1N4148M	9HSDTZ01N4148M	AA
D1025	SWITCHING DIODE 1N4148M	9HSDTZ01N4148M	AA
D1030	RECTIFIER DIODE FR202	9HSDQZ000FR202	AB
D1036	ZENER DIODE DZ-13BSBT265	9HSDTB00DZ13BS	AB
D1045	SCHOTTKY BARRIER DIODE SB140	9HSDQZ000SB140	AC
D1046	ZENER DIODE DZ-5.6BSCT265	9HSDTC0DZ5R6BS	AB
D1047	ZENER DIODE DZ-5.6BSBT265	9HSDTB0DZ5R6BS	AB
D1048	ZENER DIODE DZ-12BSBT265	9HSDTB00DZ12BS	AB
D1049	SWITCHING DIODE 1N4148M	9HSDTZ01N4148M	AA
D1050	ZENER DIODE DZ-6.2BSBT265	9HSDTB0DZ6R2BS	AB
D2001	SWITCHING DIODE 1N4148M	9HSDTZ01N4148M	AA
D2002	SWITCHING DIODE 1N4148M	9HSDTZ01N4148M	AA
D2003	SWITCHING DIODE 1N4148M	9HSDTZ01N4148M	AA
D2004	SWITCHING DIODE 1N4148M	9HSDTZ01N4148M	AA
	ICS		
IC1001 ⚠	PHOTOCOUPLER EL817B	9HSPEB000EL817	AD
IC1001 ⚠	PHOTOCOUPLER LTV-817C-F	9HSPEC0LTV817F	AD
IC1002	1.8V REGULATOR PQ018EF01SZ	9HSSZBA0SSH012	AG
IC1003	IC KIA431-AT	9HSSZLA0TJY001	AE
IC1006	IC KIA431-AT	9HSSZLA0TJY001	AE
IC1201	IC OP AMP KIA4558P	9HSSZBA0SJY004	AE
IC1402	DRIVER FOR DVD (6CH) MM1567AJ	9HSSZBA0SMM084	BG
IC2001	FL DRIVER IC PT6315-S	9HSSZBA0SG2002	AL
	COILS		
L1001 ⚠	LINE FILTER 20MH SA-00911	9HSLBG00ZSA003	AE
L1006	PCB JUMPER D0.6-P5.0	9HSJW5.0T	AL
L1007	CHOKE COIL 22µH-K	9HSLBD00PKV006	AB
L1009	CHOKE COIL 22µH-K	9HSLBD00PKV006	AB
L1011	BEAD CORE B16 RH 3.5X3X1.3	9HSL03003XM002	AA
L1043	BEAD CORE B16 RH 4X3X2	9HSL03003XM001	AA
L1060	BEAD CORE B16 RH 3.5X3X1.3	9HSL03003XM002	AA
L1251	INDUCTOR 0.47µH-K-26T	9HSLAXKATTUR47	AB
L1521	CHOKE COIL 22µH-K	9HSLBD00PKV006	AB
L2001	INDUCTOR 100µH-K-26T	9HSLAXKATTU101	AB
	TRANSISTORS		
Q1001	FET 2SK3374	9HSFWZ02SK3374	AF
Q1002	TRANSISTOR KTC3199(GR)	9HSQS10KTC3199	AB
Q1003	TRANSISTOR KTC3199(GR)	9HSQS10KTC3199	AB
Q1004	TRANSISTOR KTC3205(Y)	9HSQSY0KTC3205	AD
Q1005	RES. BUILT-IN TRANSISTOR KRC110M-AT	9HSQSZ0KRC110M	AB
Q1006	RES. BUILT-IN TRANSISTOR KRA110M	9HSQSZ0KRA110M	AB
Q1007	TRANSISTOR KTC3205(Y)	9HSQSY0KTC3205	AD
Q1008	TRANSISTOR KTC3199(GR)	9HSQS10KTC3199	AB
Q1011	TRANSISTOR KTA1273(Y)	9HSQSY0KTA1273	AD
Q1014	TRANSISTOR KTC3199(GR)	9HSQS10KTC3199	AB
Q1201	TRANSISTOR KTC3199(GR)	9HSQS10KTC3199	AB
Q1202	TRANSISTOR KTC3199(GR)	9HSQS10KTC3199	AB
Q1203	TRANSISTOR KTA1266(Y)	9HSQSY0KTA1266	AB
Q1204	TRANSISTOR KTA1266(Y)	9HSQSY0KTA1266	AB
Q1351	TRANSISTOR KTC3199(GR)	9HSQS10KTC3199	AB
	RESISTORS		
R1002	CARBON RES. 1/6W J 1.2k Ω	9HSCX6JATZ0122	AA
R1004	METAL OXIDE FILM RES. 2W J 82KΩ	9HSN02823ZU001	AB
R1005	CARBON RES. 1/4W J 1M Ω	9HSCX4JATZ0105	AA
R1006	CARBON RES. 1/4W J 1M Ω	9HSCX4JATZ0105	AA
R1008	CARBON RES. 1/4W J 1k Ω	9HSCX4JATZ0102	AA
R1010	CARBON RES. 1/6W J 15k Ω	9HSCX6JATZ0153	AA

Ref. No.	Description	Part No.	Code
R1011	METAL OXIDE FILM RES. 1W J 1.2 Ω	9HSN011R2ZU001	AA
R1013	CARBON RES. 1/4W J 1k Ω	9HSCX4JATZ0102	AA
R1015	CARBON RES. 1/6W J 560 Ω	9HSCX6JATZ0561	AA
R1016	CARBON RES. 1/6W J 22k Ω	9HSCX6JATZ0223	AA
R1019	CHIP RES.(1608) 1/10W J 1k Ω	9HSRXAJR5Z0102	AA
R1020	CHIP RES.(1608) 1/10W J 470 Ω	9HSRXAJR5Z0471	AA
R1021	CHIP RES.(1608) 1/10W J 1k Ω	9HSRXAJR5Z0102	AA
R1022	CHIP RES.(1608) 1/10W J 820 Ω	9HSRXAJR5Z0821	AA
R1023	CHIP RES.(1608) 1/10W J 2k Ω	9HSRXAJR5Z0202	AA
R1023	CHIP RES.(1608) 1/16W J 2k Ω	9HSRXGJR5Z0202	AA
R1025	CARBON RES. 1/6W J 1k Ω	9HSCX6JATZ0102	AA
R1029	CARBON RES. 1/6W J 220k Ω	9HSCX6JATZ0224	AA
R1030	METAL OXIDE FILM RES. 2W J 0.68 Ω	9HSN02R68ZU001	AB
R1031	CARBON RES. 1/4W G 330 Ω	9HSCX4GATZ0331	AA
R1032	CARBON RES. 1/6W J 3.3k Ω	9HSCX6JATZ0332	AA
R1033	CHIP RES.(1608) 1/10W J 150 Ω	9HSRXAJR5Z0151	AA
R1034	CARBON RES. 1/4W J 390k Ω	9HSCX4JATZ0394	AA
R1035	CARBON RES. 1/6W J 1k Ω	9HSCX6JATZ0102	AA
R1036	CARBON RES. 1/6W J 100k Ω	9HSCX6JATZ0104	AA
R1037	CARBON RES. 1/6W J 10k Ω	9HSCX6JATZ0103	AA
R1038	CARBON RES. 1/6W J 100k Ω	9HSCX6JATZ0104	AA
R1039	CARBON RES. 1/6W J 470k Ω	9HSCX6JATZ0474	AA
R1042	CARBON RES. 1/4W J 8.2 Ω	9HSCX4JATZ08R2	AA
R1043	METAL OXIDE FILM RES. 1W J 2.7 Ω	9HSN012R7ZU001	AA
R1044	CHIP RES.(1608) 1/10W J 22k Ω	9HSRXAJR5Z0223	AA
R1049	CARBON RES. 1/4W G 4.7k Ω	9HSCX4GATZ0472	AA
R1059	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R1068	CARBON RES. 1/6W J 1k Ω	9HSCX6JATZ0102	AA
R1069	CARBON RES. 1/6W J 1k Ω	9HSCX6JATZ0102	AA
R1070	CHIP RES.(1608) 1/16W 0 Ω	9HSRXGZR5Z0000	AA
R1071	CARBON RES. 1/6W J 75k Ω	9HSCX6JATZ0753	AA
R1073	METAL OXIDE FILM RES. 2W J 10 Ω	9HSN02100ZU001	AB
R1077	CARBON RES. 1/6W J 220 Ω	9HSCX6JATZ0221	AA
R1078	CARBON RES. 1/6W J 1.2k Ω	9HSCX6JATZ0122	AA
R1201	CHIP RES.(1608) 1/10W J 220k Ω	9HSRXAJR5Z0224	AA
R1202	CHIP RES.(1608) 1/10W J 220k Ω	9HSRXAJR5Z0224	AA
R1203	CHIP RES.(1608) 1/16W F 12k Ω	9HSRXGFR5Z0123	AA
R1204	CHIP RES.(1608) 1/16W F 12k Ω	9HSRXGFR5Z0123	AA
R1205	CHIP RES. 1/16W F 18k Ω	9HSRXGFR5Z0183	AA
R1206	CHIP RES. 1/16W F 18k Ω	9HSRXGFR5Z0183	AA
R1207	CHIP RES.(1608) 1/10W J 39k Ω	9HSRXAJR5Z0393	AA
R1208	CHIP RES.(1608) 1/10W J 39k Ω	9HSRXAJR5Z0393	AA
R1209	CHIP RES. 1/16W F 56k Ω	9HSRXGFR5Z0563	AA
R1210	CHIP RES. 1/16W F 56k Ω	9HSRXGFR5Z0563	AA
R1211	CHIP RES.(1608) 1/16W 0 Ω	9HSRXGZR5Z0000	AA
R1212	CHIP RES.(1608) 1/16W 0 Ω	9HSRXGZR5Z0000	AA
R1221	CHIP RES.(1608) 1/10W J 100k Ω	9HSRXAJR5Z0104	AA
R1222	CHIP RES.(1608) 1/10W J 100k Ω	9HSRXAJR5Z0104	AA
R1223	CHIP RES.(1608) 1/10W J 470 Ω	9HSRXAJR5Z0471	AA
R1224	CHIP RES.(1608) 1/10W J 470 Ω	9HSRXAJR5Z0471	AA
R1225	CHIP RES.(1608) 1/10W J 1k Ω	9HSRXAJR5Z0102	AA
R1226	CHIP RES.(1608) 1/10W J 1k Ω	9HSRXAJR5Z0102	AA
R1227	CHIP BEAD MMZ1608S601CT	9HSL06001TE001	AB
R1228	CHIP BEAD MMZ1608S601CT	9HSL06001TE001	AB
R1235	CHIP RES.(1608) 1/10W J 2.2k Ω	9HSRXAJR5Z0222	AA
R1236	CHIP RES.(1608) 1/10W J 2.2k Ω	9HSRXAJR5Z0222	AA
R1237	CHIP RES.(1608) 1/10W J 2.2k Ω	9HSRXAJR5Z0222	AA
R1238	CHIP RES.(1608) 1/10W J 2.2k Ω	9HSRXAJR5Z0222	AA
R1239	CHIP RES.(1608) 1/10W J 100k Ω	9HSRXAJR5Z0104	AA
R1240	CHIP RES.(1608) 1/10W J 100k Ω	9HSRXAJR5Z0104	AA
R1245	CHIP RES.(1608) 1/16W 0 Ω	9HSRXGZR5Z0000	AA
R1246	CHIP RES.(1608) 1/10W J 33k Ω	9HSRXAJR5Z0333	AA
R1247	CHIP RES.(1608) 1/10W J 39k Ω	9HSRXAJR5Z0393	AA
R1352	CHIP RES.(1608) 1/10W J 1.6k Ω	9HSRXAJR5Z0162	AA
R1353	CHIP RES.(1608) 1/10W J 2.2k Ω	9HSRXAJR5Z0222	AA
R1354	CHIP RES.(1608) 1/10W J 2.2k Ω	9HSRXAJR5Z0222	AA
R1355	CHIP RES.(1608) 1/10W J 220 Ω	9HSRXAJR5Z0221	AA
R1356	CHIP RES.(1608) 1/10W J 75 Ω	9HSRXAJR5Z0750	AA
R1356	CHIP RES.(1608) 1/16W J 75 Ω	9HSRXGJR5Z0750	AA

Ref. No.	Description	Part No.	Code
R1392	CARBON RES. 1/4W G 150 Ω	9HSCX4GATZ0151	AA
R1393	CARBON RES. 1/4W G 150 Ω	9HSCX4GATZ0151	AA
R1394	CARBON RES. 1/4W G 150 Ω	9HSCX4GATZ0151	AA
R1395	CARBON RES. 1/4W G 150 Ω	9HSCX4GATZ0151	AA
R1401	CHIP RES. 1/16W F 300 Ω	9HSRXGFR5Z3000	AA
R1402	CHIP RES.(1608) 1/10W J 75 Ω	9HSRXAJR5Z0750	AA
R1402	CHIP RES.(1608) 1/16W J 75 Ω	9HSRXGJR5Z0750	AA
R1421	CHIP RES. 1/16W F 300 Ω	9HSRXGFR5Z3000	AA
R1422	CHIP RES.(1608) 1/10W J 75 Ω	9HSRXAJR5Z0750	AA
R1422	CHIP RES.(1608) 1/16W J 75 Ω	9HSRXGJR5Z0750	AA
R1441	CHIP RES. 1/16W F 300 Ω	9HSRXGFR5Z3000	AA
R1442	CHIP RES.(1608) 1/10W J 75 Ω	9HSRXAJR5Z0750	AA
R1442	CHIP RES.(1608) 1/16W J 75 Ω	9HSRXGJR5Z0750	AA
R1443	CHIP RES.(1608) 1/10W J 75 Ω	9HSRXAJR5Z0750	AA
R1443	CHIP RES.(1608) 1/16W J 75 Ω	9HSRXGJR5Z0750	AA
R1461	CHIP RES. 1/16W F 300 Ω	9HSRXGFR5Z3000	AA
R1462	CHIP RES.(1608) 1/10W J 75 Ω	9HSRXAJR5Z0750	AA
R1462	CHIP RES.(1608) 1/16W J 75 Ω	9HSRXGJR5Z0750	AA
R1481	CHIP RES. 1/16W F 300 Ω	9HSRXGFR5Z3000	AA
R1482	CHIP RES.(1608) 1/10W J 75 Ω	9HSRXAJR5Z0750	AA
R1482	CHIP RES.(1608) 1/16W J 75 Ω	9HSRXGJR5Z0750	AA
R2001	CHIP RES.(1608) 1/10W J 56k Ω	9HSRXAJR5Z0563	AA
R2002	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R2003	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R2005	CHIP RES.(1608) 1/10W J 4.7k Ω	9HSRXAJR5Z0472	AA
R2006	CHIP RES.(1608) 1/10W J 220 Ω	9HSRXAJR5Z0221	AA
R2031	CHIP RES.(1608) 1/10W J 2.2k Ω	9HSRXAJR5Z0222	AA
R2032	CHIP RES.(1608) 1/10W J 2.2k Ω	9HSRXAJR5Z0222	AA
R2034	CHIP RES.(1608) 1/10W J 2.2k Ω	9HSRXAJR5Z0222	AA
R2037	CARBON RES. 1/6W J 10 Ω	9HSCX6JATZ0100	AA
R2038	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R2039	CHIP RES.(1608) 1/10W J 10k Ω	9HSRXAJR5Z0103	AA
R2059	CHIP RES.(1608) 1/16W 0 Ω	9HSRXGZR5Z0000	AA
	SWITCHES		
SW2011	TACT SWITCH KSM0614B	9HSST0101HH013	AB
SW2012	TACT SWITCH KSM0614B	9HSST0101HH013	AB
SW2013	TACT SWITCH KSM0614B	9HSST0101HH013	AB
SW2014	TACT SWITCH KSM0614B	9HSST0101HH013	AB
SW2016	TACT SWITCH KSM0614B	9HSST0101HH013	AB
SW2017	TACT SWITCH KSM0614B	9HSST0101HH013	AB
	MISCELLANEOUS		
2B4	EARTH PLATE S H9000UD	9HS0VM411284	AC
AC1001 ⚠	AC CORD A0A0280-007WN	9HSAC0172LTE05	AG
AC1001 ⚠	AC CORD PB8K9F9110A-057	9HSAC0172LW008	AG
F1001 ⚠	FUSE 1A/250V	9HSAGA20CW3102	AC
FH1001	FUSE HOLDER MSF-015	9HSH01Z00LY001	AA
FH1002	FUSE HOLDER MSF-015	9HSH01Z00LY001	AA
FL2001	V.F.D. 20U29100SAN	9HSVFD150FT007	AV
J2590	CERAMIC CAP.(AX) B K 150pF/50V	9HSCA1JKT0B151	AB
J2639	CERAMIC CAP.(AX) B K 150pF/50V	9HSCA1JKT0B151	AB
JK1201	3PIN JACK MSP-253V1-14 PBSN	9HSXRL030LY058	AF
JK1401	S TYPE JACK MDC-050V-2.4	9HSXEL040LY001	AE
JK1403	RCA JACK MSP-244V10-46 PBSN	9HSXRL040LY042	AF
RM2001	REMOTE RECEIVER PIC-37043LU	9HSSESJRSKK039	AR
SA1001	SURGE ABSORBER CNR-10D471K	9HSVQZR10D471K	AC
SA1001	SURGE ABSORBER JVR-10N471K	9HSVQZR10N471K	AC
SA1001	SURGE ABSORBER PVR-10D471KB	9HSVQZ10D471KB	AC
T1001 ⚠	PULSE TRANS CSA-SW***	9HSTT00CPSA119	AH
W1001	26P FFC AV PCB TO MAIN	9HSX1E5600-001	AE
W1601	18P FFC AV PCB TO MAIN	9HSX1E5600-005	AD

SWITCH (SUB-B) CBA

Ref. No.	Description	Part No.	Code
	SWITCH CBA Consists of the following	9HSVSA12374B	AM
WJ1003	4P P-WIRE ASSEMBLY	9HSX1E5520-001	AD
SW2115	TACT SWITCH KSM0614B	9HSST0101HH013	AB

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