

# TELEFUNKEN

# SERVICE MANUAL

## Sec. 1: Main Section

- Specifications
- Preparation for Servicing
- Adjustment Procedures
- Schematic Diagrams
- CBA's
- Exploded views
- Parts List

## Sec. 2: Deck Mechanism Section

- Standard Maintenance
- Alignment for Mechanism
- Disassembly/Assembly of Mechanism
- Alignment Procedures of Mechanism
- Deck Exploded Views
- Deck Parts List

## DVD PLAYER & VIDEO CASSETTE RECORDER

## TDV-3000(A)



VHS  
PAL

# MAIN SECTION

## DVD PLAYER & VIDEO CASSETTE RECORDER

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- Specifications
- Preparation for Servicing
- Adjustment Procedures
- Schematic Diagrams
- CBA's
- Exploded Views
- Parts List

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# SPECIFICATIONS

## < VCR Section >

Description	Unit	Minimum	Nominal	Maximum	Remark
<b>1. Video</b>					
1-1. Video Output (PB)	Vp-p	0.8	1.0	1.2	SP Mode
1-2. Video Output (R/P)	Vp-p	0.8	1.0	1.2	
1-3. Video S/N Y (R/P)	dB	40	45		SP Mode, W/O Burst
1-4. Video Color S/N AM (R/P)	dB	37	41		SP Mode
1-5. Video Color S/N PM (R/P)	dB	30	36		SP Mode
1-6. Resolution (PB)	Line	230	245		SP Mode
<b>2. Servo</b>					
2-1. Jitter Low	μsec		0.07	0.12	SP Mode
2-2. Wow & Flutter	%		0.3	0.5	SP Mode
<b>3. Normal Audio</b>					
3-1. Output (PB)	dBV	-9	-4	-3	SP Mode
3-2. Output (R/P)	dBV	-9	-4	-1.5	SP Mode
3-3. S/N (R/P)	dB	36	41		SP Mode
3-4. Distortion (R/P)	%		1.0	4.0	SP Mode
3-5. Freq. resp (R/P) at 200Hz	dB	-6	-2		SP Mode
(-20dB ref. 1kHz) at 8kHz	dB	-8	-2		SP Mode
<b>4. Tuner</b>					
4-1. Video output	Vp-p	0.8	1.0	1.2	E-E Mode
4-2. Video S/N	dB	39	44		E-E Mode
4-3. Audio output	dB	-10	-6	-2	E-E Mode
4-4. Audio S/N	dB	40	46		E-E Mode
<b>5. Hi-Fi Audio</b>					
5-1. Output	dBV	-12	-9	-4	SP Mode
5-2. Dynamic Range	dB	70	85		SP Mode
5-3. Freq. resp (6dB B.W)	Hz		20 ~ 20K		SP Mode

**Note:** Nominal specs represent the design specs. All units should be able to approximate these – some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable; In no case should a unit fail to meet limit specs.

## < DVD Section >

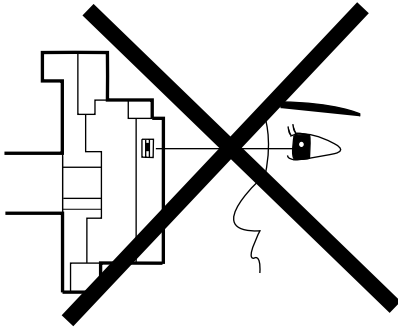
ITEM	CONDITIONS	UNIT	NOMINAL	LIMIT
1. Video Output	75 ohm load	Vpp	1.0	± 0.1
2. Optical Digital Out		dBm	-18	
3. Audio (PCM)				
3-1. Output Level	1 kHz 0 dB	Vrms	2.0	
3-2. S/N		dB	90	
3-3. Freq. Response				
DVD	fs = 48 kHz ± 0.5dB	Hz	20~22 k	
CD	fs = 44.1 kHz ± 0.5dB	Hz	20~20 k	
3-4. THD+N				
DVD	1 kHz 0dB	%	0.01	
CD	1 kHz 0dB	%	0.01	

### NOTES:

1. All Items are measured without pre-emphasis unless otherwise specified.
2. Power supply : 220 - 240 V ~ 50 Hz
3. Load imp. : 100 k ohm
4. Ambient temperature : 5 °C ~ 40 °C

# LASER BEAM SAFETY PRECAUTIONS

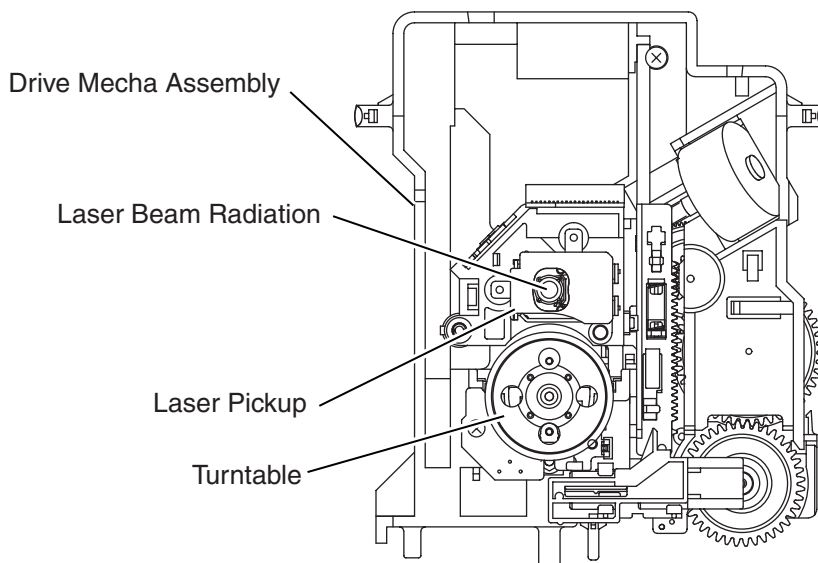
This DVD player uses a pickup that emits a laser beam.



**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.



# IMPORTANT SAFETY PRECAUTIONS

## Product Safety Notice

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

## Precautions during Servicing

- A. Parts identified by the  $\triangle$  symbol are critical for safety. Replace only with part number specified.
- B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements.  
Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.
- C. Use specified internal wiring. Note especially:
  - 1) Wires covered with PVC tubing
  - 2) Double insulated wires
  - 3) High voltage leads
- D. Use specified insulating materials for hazardous live parts. Note especially:
  - 1) Insulation tape
  - 2) PVC tubing
  - 3) Spacers
  - 4) Insulators for transistors
- E. When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.
- F. Observe that the wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
- G. Check that replaced wires do not contact sharp edges or pointed parts.
- H. When a power cord has been replaced, check that 5 - 6 kg of force in any direction will not loosen it.
- I. Also check areas surrounding repaired locations.
- J. Be careful that foreign objects (screws, solder droplets, etc.) do not remain inside the set.
- K. Crimp type wire connector  
The power transformer uses crimp type connectors which connect the power cord and the primary side of the transformer. When replacing the transformer, follow these steps carefully and precisely to prevent shock hazards.  
Replacement procedure
  - 1) Remove the old connector by cutting the wires at a point close to the connector.  
**Important:** Do not re-use a connector. (Discard it.)
  - 2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.
  - 3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.
  - 4) Use a crimping tool to crimp the metal sleeve at its center. Be sure to crimp fully to the complete closure of the tool.
- L. When connecting or disconnecting the internal connectors, first, disconnect the AC plug from the AC outlet.

## Safety Check after Servicing

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

### 1. Clearance Distance

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

**Table 1 : Ratings for selected area**

AC Line Voltage	Clearance Distance ( $d$ ), ( $d'$ )
220 to 240 V	$\geq 3$ mm( $d$ ) $\geq 6$ mm( $d'$ )

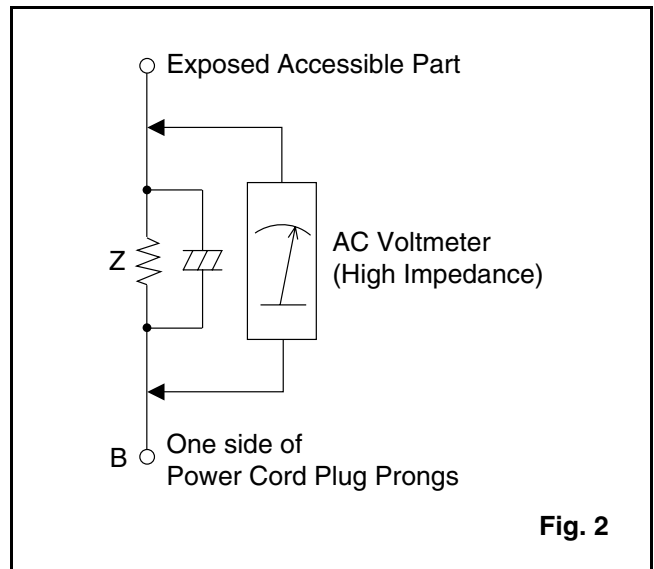
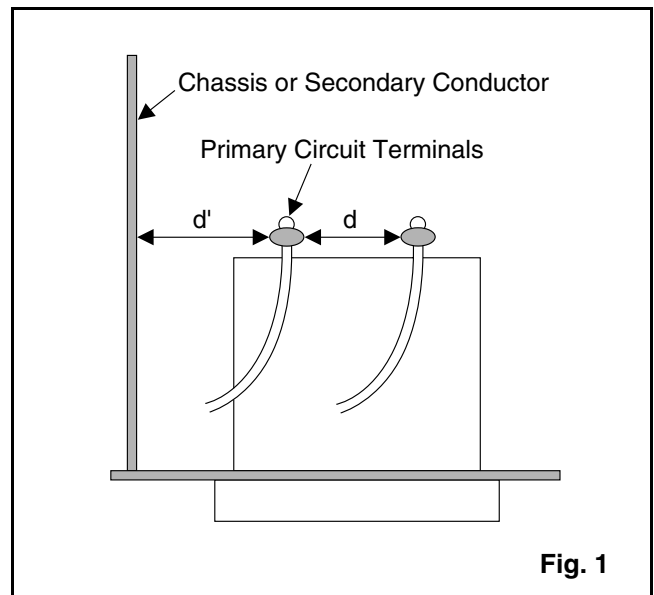
**Note:** This table is unofficial and for reference only. Be sure to confirm the precise values.

### 2. Leakage Current Test

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

#### Measuring Method (Power ON) :

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



**Table 2: Leakage current ratings for selected areas**

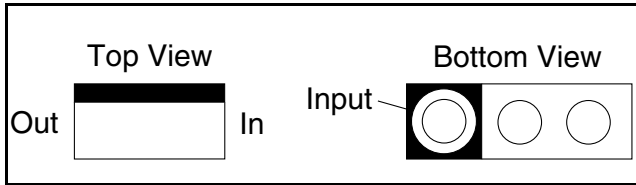
AC Line Voltage	Load $Z$	Leakage Current ( $i$ )	One side of power cord plug prongs (B) to:
220 to 240 V	2k $\Omega$ RES. Connected in parallel	$i \leq 0.7$ mA AC Peak $i \leq 2$ mA DC	RF or Antenna terminals
	50k $\Omega$ RES. Connected in parallel	$i \leq 0.7$ mA AC Peak $i \leq 2$ mA DC	A/V Input, Output

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

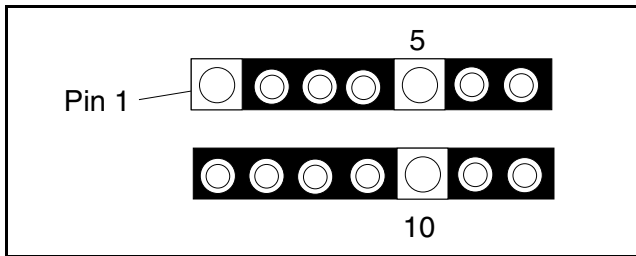
# STANDARD NOTES FOR SERVICING

## Circuit Board Indications

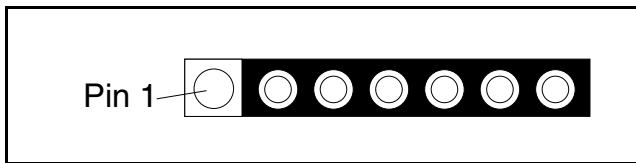
1. The output pin of the 3 pin Regulator ICs is indicated as shown.



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

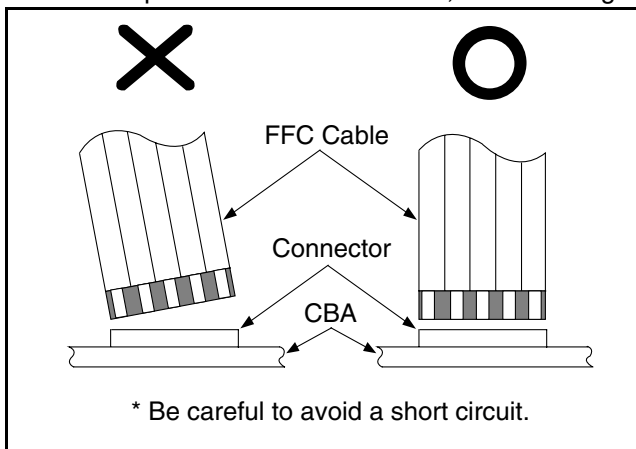


3. The 1st pin of every male connector is indicated as shown.



## Instructions for Connectors

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



## Pb (Lead) Free Solder

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

## How to Remove / Install Flat Pack-IC

### 1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:

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

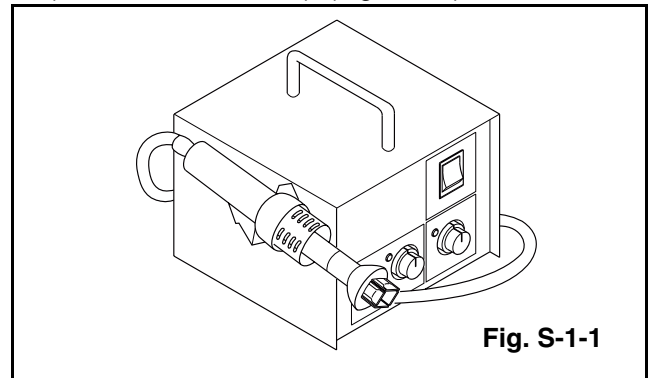


Fig. S-1-1

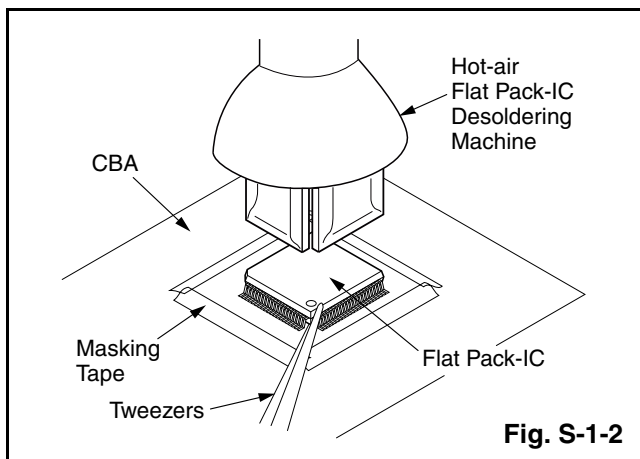
- (2) Remove the flat pack-IC with tweezers while applying the hot air.
- (3) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
- (4) Release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

### Caution:

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

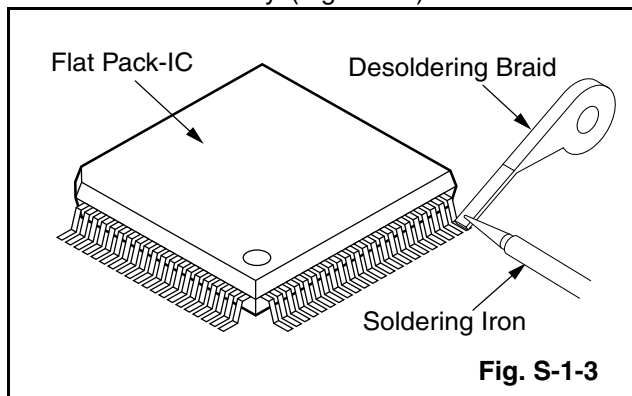


- The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

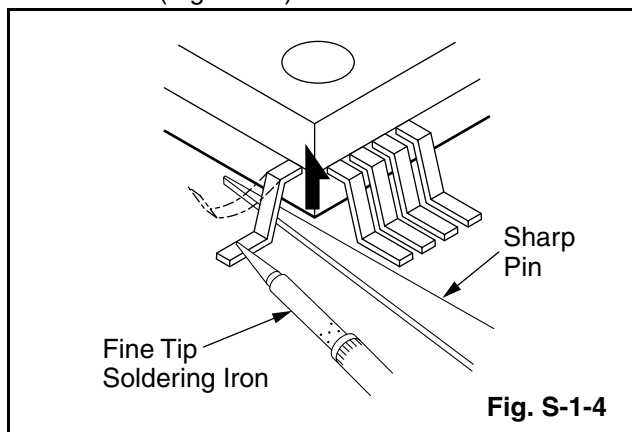


#### With Soldering Iron:

- 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)



- 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)



- 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)
- Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

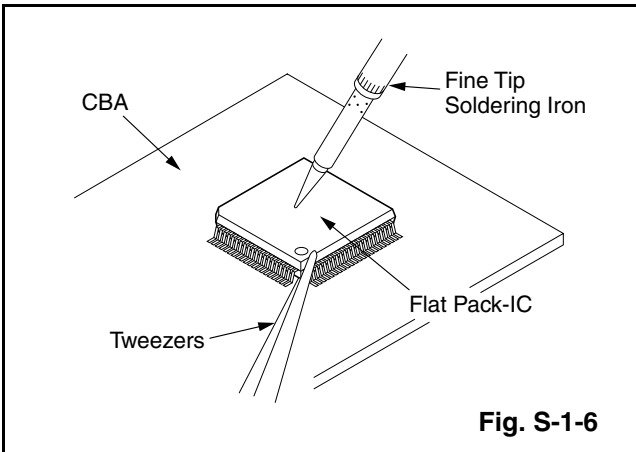
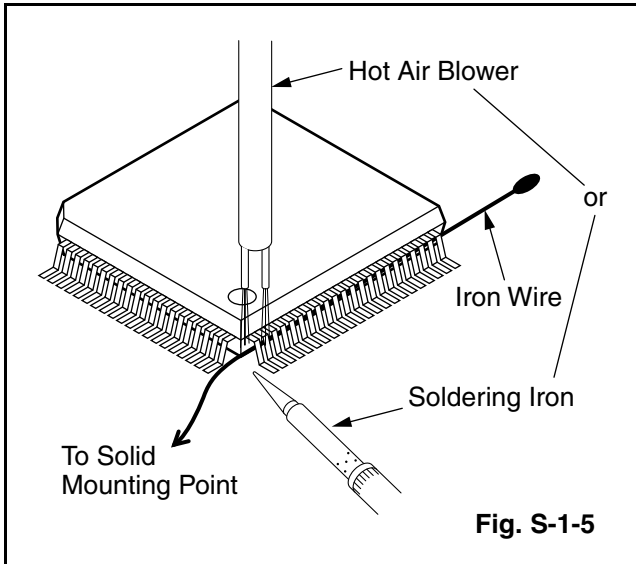
#### With Iron Wire:

- 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)
- Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.
- 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)

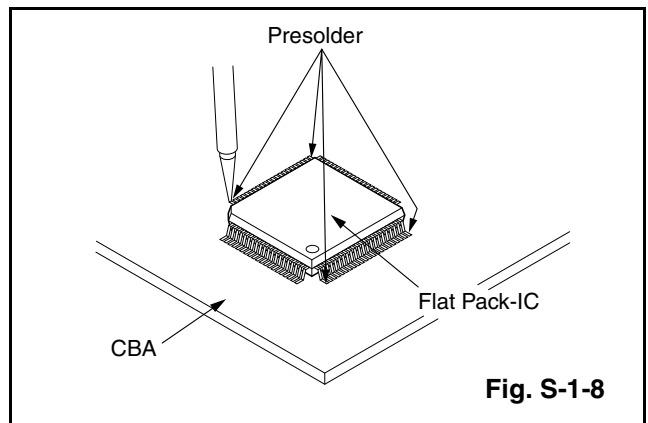
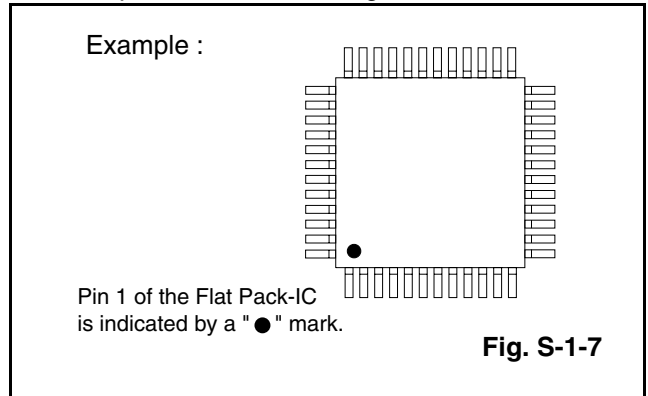
**Note:**

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.



**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.



# Instructions for Handling Semi-conductors

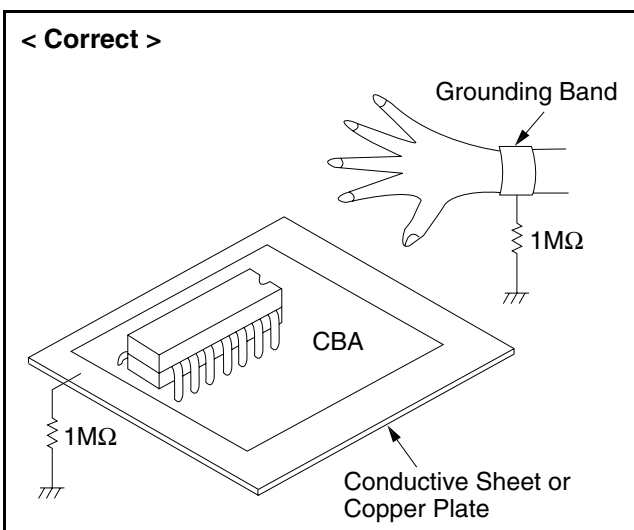
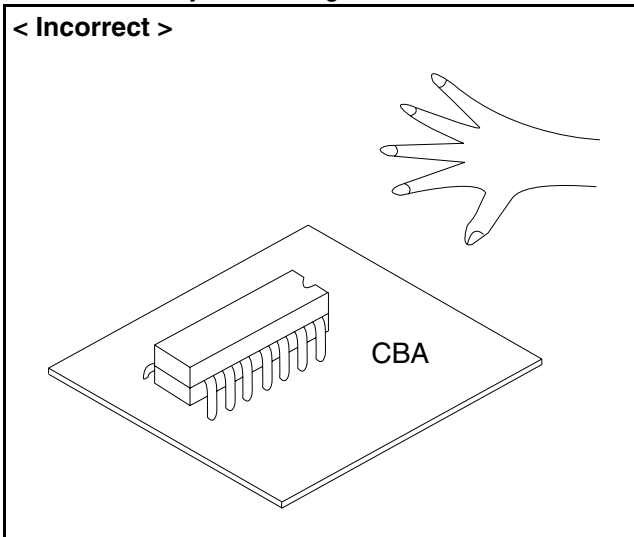
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

## 1. Ground for Human Body

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

## 2. Ground for Workbench

(1) Be sure to place a conductive sheet or copper plate with proper grounding ( $1M\Omega$ ) 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.



# PREPARATION FOR SERVICING

## How to Enter the Service Mode

### About Optical Sensors

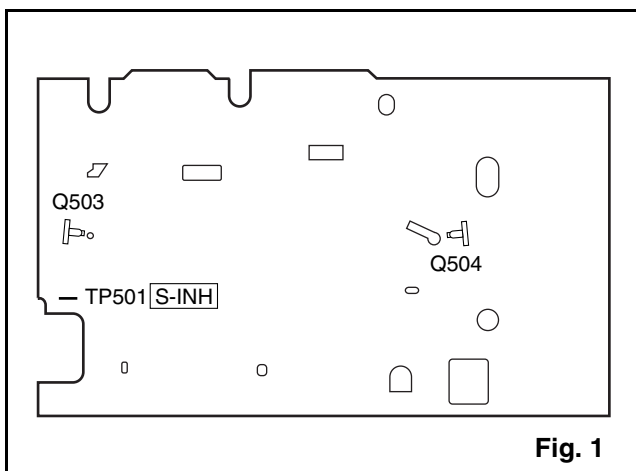
#### **Caution:**

An optical sensor system is used for the Tape Start and End Sensors on this equipment. Carefully read and follow the instructions below. Otherwise the unit may operate erratically.

#### **What to do for preparation**

Insert a tape into the Deck Mechanism Assembly and press the PLAY button. The tape will be loaded into the Deck Mechanism Assembly. Make sure the power is on, connect TP501 (S-INH) to GND. This will stop the function of Tape Start Sensor, Tape End Sensor and Reel Sensors. (If these TPs are connected before plugging in the unit, the function of the sensors will stay valid.) See Fig. 1.

**Note:** Because the Tape End Sensors are inactive, do not run a tape all the way to the start or the end of the tape to avoid tape damage.

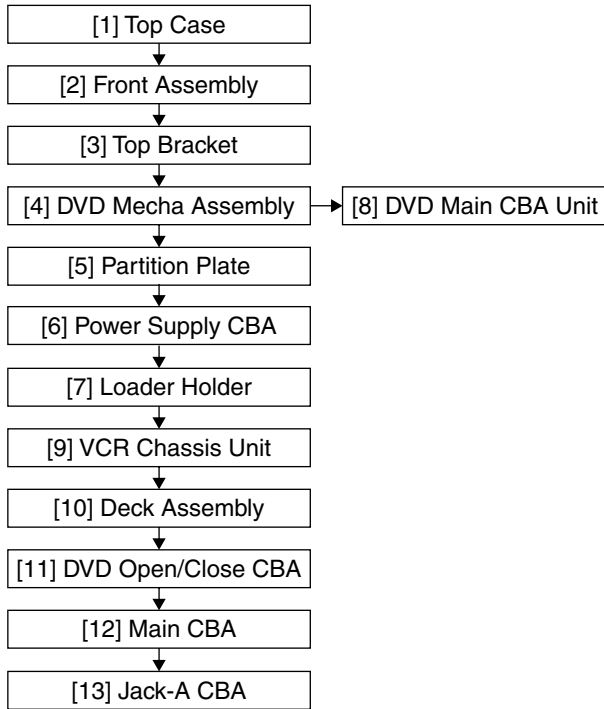


**Fig. 1**

# 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.



ID/ LOC. No.	PART	REMOVAL		
		Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	Note
[8]	DVD Main CBA Unit	D4	2(S-7), *CN201, *CN301	2 2-1 2-2 3
[9]	VCR Chassis Unit	D5	5(S-8), 2(S-9), (S-10), (L-3)	-
[10]	Deck Assembly	D6	Desolder, 2(S-11), (S-12)	4,5
[11]	DVD Open/Close CBA	D6	Desolder	-
[12]	Main CBA	D6	-----	-
[13]	Jack-A CBA	D6	Desolder, 6(S-13)	-

↓ (1)      ↓ (2)      ↓ (3)                      ↓ (4)                      ↓ (5)

## 2. Disassembly Method

ID/ LOC. No.	PART	REMOVAL		
		Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	Note
[1]	Top Case	D1	8(S-1)	-
[2]	Front Assembly	D2	*3(L-1), *3(L-2)	1 1-1 1-2
[3]	Top Bracket	D2	3(S-2)	-
[4]	DVD Mecha Assembly	D3	4(S-3), *CN401, *CN601	-
[5]	Partition Plate	D3	(S-4)	-
[6]	Power Supply CBA	D3	2(S-5), CN501	-
[7]	Loader Holder	D3	2(S-6)	-

### Note:

- (1): Identification (location) No. of parts in the figures
- (2): Name of the part
- (3): Figure Number for reference
- (4): Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.  
 P=Spring, L=Locking Tab, S=Screw, CN=Connector  
 \*=Unhook, Unlock, Release, Unplug, or Desolder  
 e.g. 2(S-2) = two Screws (S-2),  
 2(L-2) = two Locking Tabs (L-2)
- (5): Refer to "Reference Notes."

## Reference Notes

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

- 1-1. Release three Locking Tabs (L-1).
- 1-2. Release three Locking Tabs (L-2), then remove the Front Assembly.

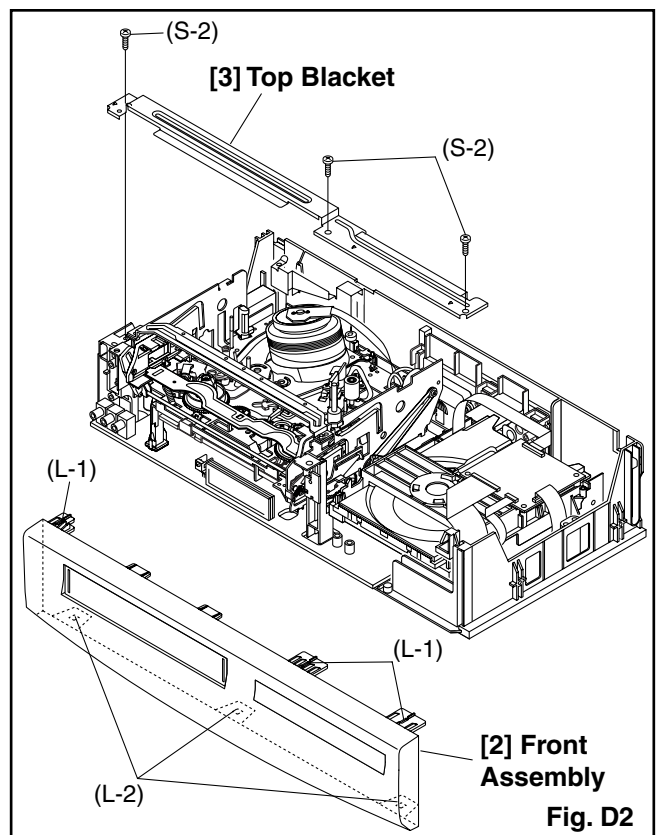
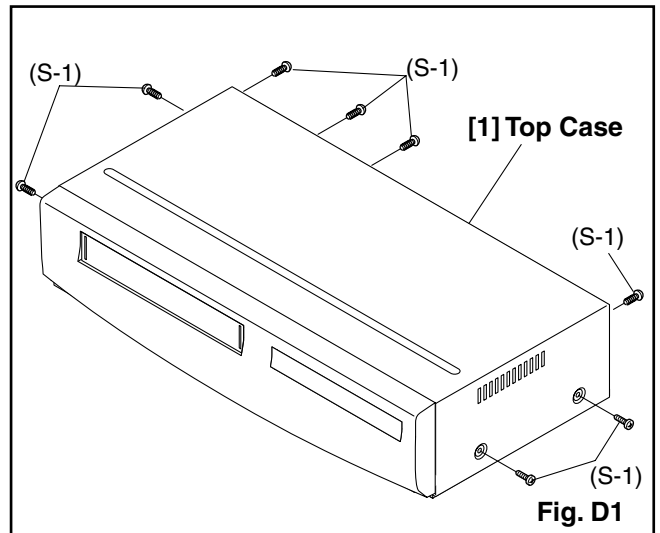
CAUTION 2: Electrostatic breakdown of the laser diode in the optical system block may occur as a potential difference caused by electrostatic charge accumulated on cloth, human body etc, during unpacking or repair work.

To avoid damage of pickup follow next procedures.

- 2-1. Disconnect Connector (CN301). Remove a Screw (S-7) and lift the DVD Main CBA Unit. (Fig. D4)
- 2-2. Short the three short lands of FPC cable with solder before removing the FFC cable (CN201) from it. If you disconnect the FFC cable (CN201), the laser diode of pickup will be destroyed. (Fig. D4)

CAUTION 3: When reassembling, confirm the FFC cable (CN201) is connected completely. Then remove the solder from the three short lands of FPC cable. (Fig. D4)

4. When reassembling, solder wire jumpers as shown in Fig. D6.
5. Before installing the Deck Assembly, be sure to place the pin of LD-SW on Main CBA as shown in Fig. D6. Then, install the Deck Assembly while aligning the hole of Cam Gear with the pin of LD-SW, the shaft of Cam Gear with the hole of LD-SW as shown in Fig. D6.



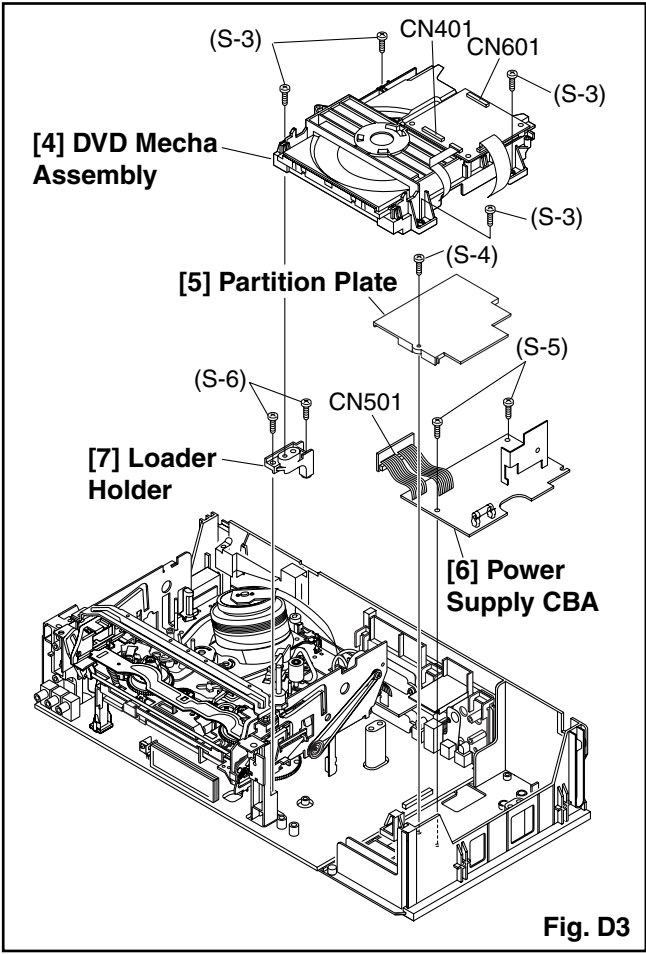


Fig. D3

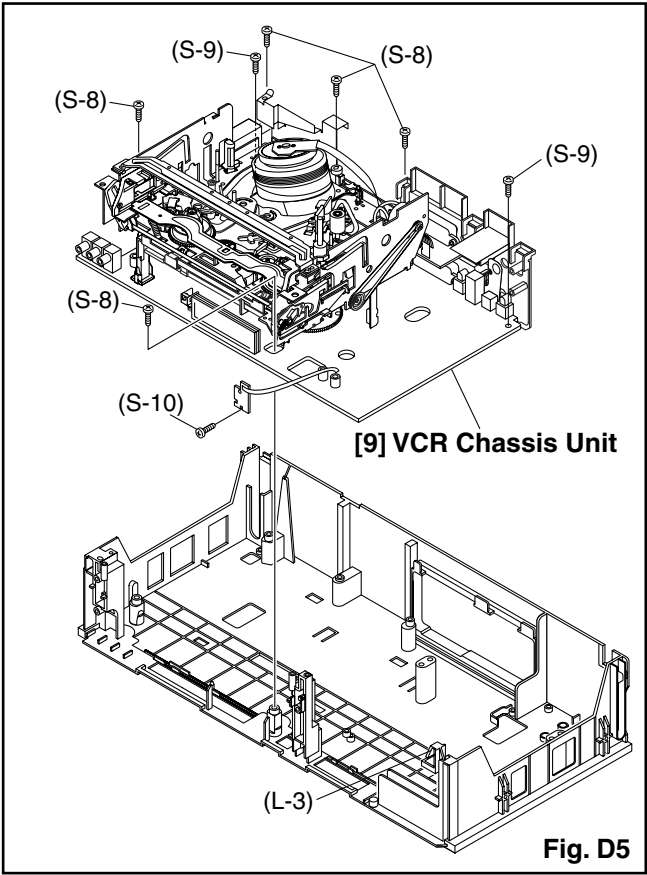


Fig. D5

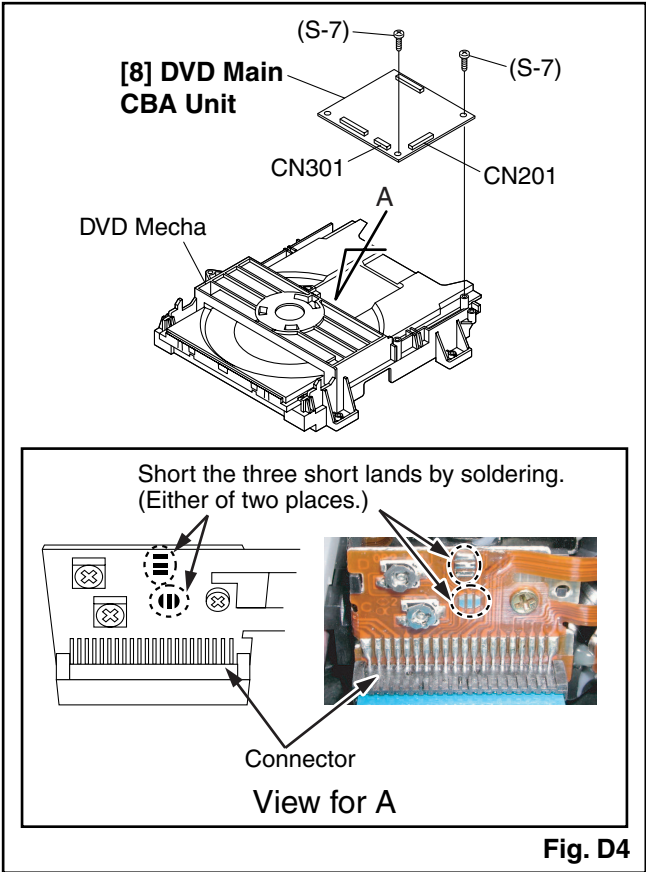


Fig. D4

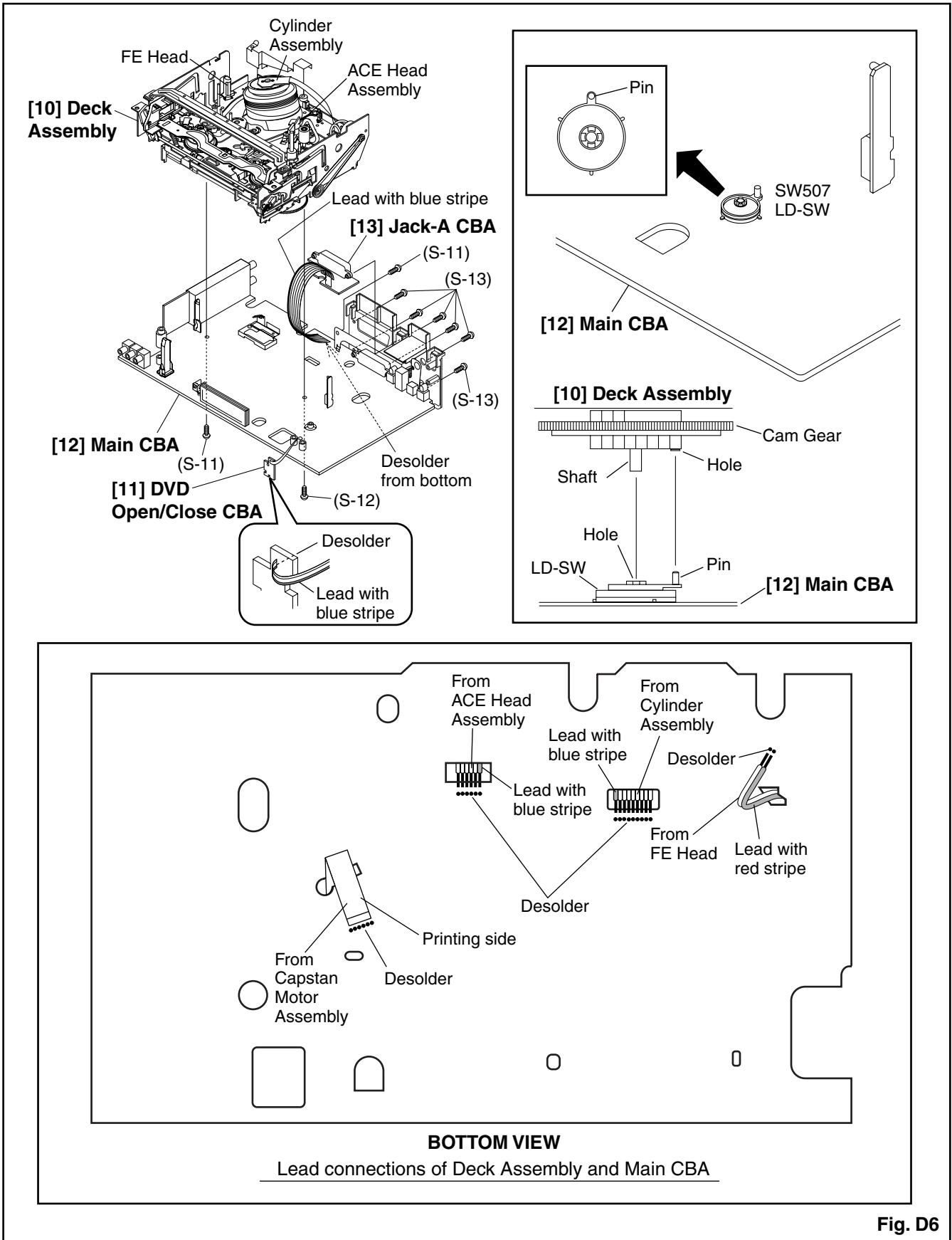
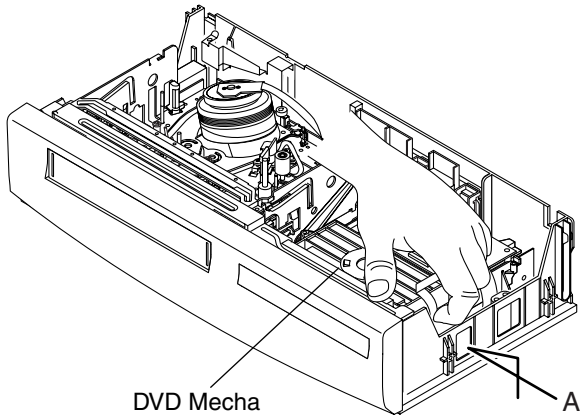


Fig. D6

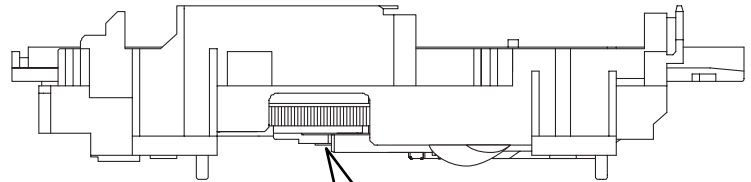


## HOW TO EJECT MANUALLY

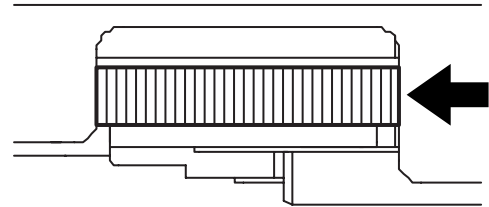
1. Remove the Top Case.
2. Rotate the roulette in the direction of the arrow as shown below.
3. Pull the tray slowly with a hand.



View for A



Rotate this roulette in  
the direction of the arrow



# ELECTRICAL ADJUSTMENT INSTRUCTIONS

**General Note:** "CBA" is an abbreviation for "Circuit Board Assembly."

**NOTE:**

1. Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to do these adjustments only after all repairs and replacements have been completed. Also, do not attempt these adjustments unless the proper equipment is available.
2. To perform these alignment / confirmation procedures, make sure that the tracking control is set in the center position: Press either "CHANNEL ▼" or "CHANNEL ▲" button on the front panel first, then the "PLAY" button on the front panel.

## Test Equipment Required

1. Oscilloscope: Dual-trace with 10:1 probe,  
V-Range: 0.001~50V/Div.,  
F-Range: DC~AC-20MHz
2. Alignment Tape (FL6A)

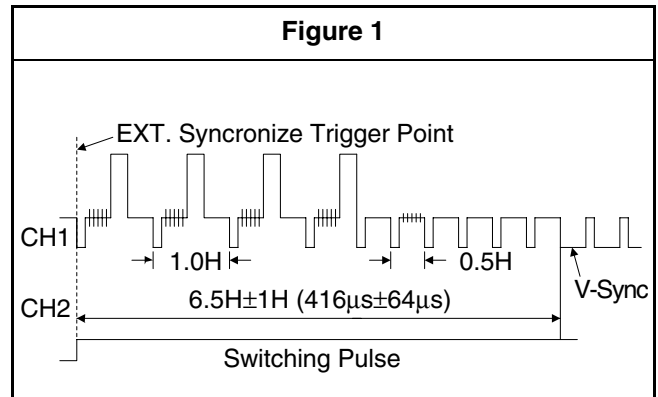
## Head Switching Position Adjustment

**Purpose:**

To determine the Head Switching position during playback.

**Symptom of Misadjustment:**

May cause Head Switching noise or vertical jitter in the picture.



**Reference Notes:**

Playback the Alignment tape and adjust VR501 so that the V-sync front edge of the CH1 video output waveform is at the 6.5H±1H (416µs±64µs) delayed position from the rising edge of the CH2 head switching pulse waveform.

Test point	Adj.Point	Mode	Input
TP751(V-OUT) TP504(RF-SW) GND	VR501 (Switching Point) (MAIN CBA)	PLAY (SP)	-----
Tape	Measurement Equipment	Spec.	
FL6A	Oscilloscope	6.5H±1H (416µs±64µs)	
Connections of Measurement Equipment			

# FIRMWARE RENEWAL MODE

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

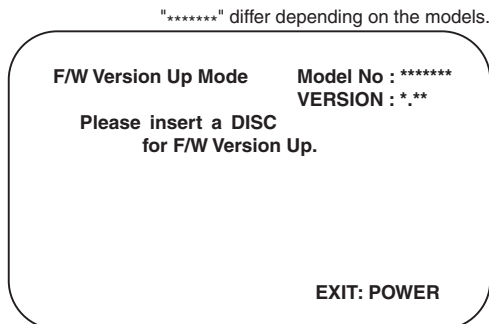


Fig. a Version Up Mode Screen

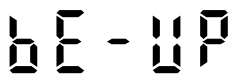


Fig. b VFD in Version Up Mode

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

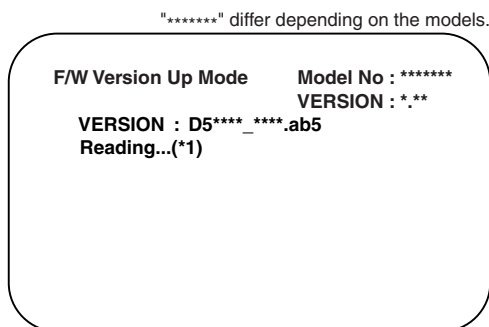


Fig. c Programming Mode Screen



Fig. d VFD in Programming Mode (Example)

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

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

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

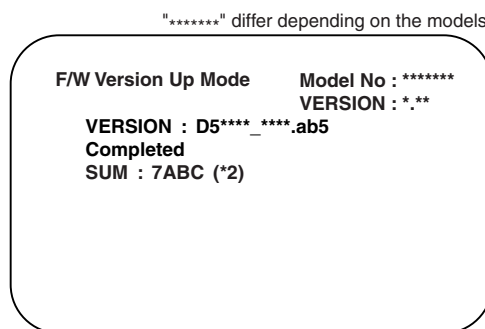


Fig. e Completed Program Mode Screen



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

At this time, no buttons are available.

6. Remove the disc on the tray.
7. Unplug the AC cord from the AC outlet. Then plug it again.
8. Turn the power on by pressing the [FUNCTION] button and the tray will close.
9. Press [1], [2], [3], [4], and [DISPLAY] buttons on the remote control unit in that order. Fig. g appears on the screen.

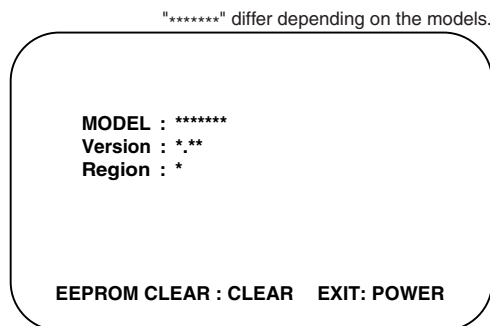


Fig. g

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

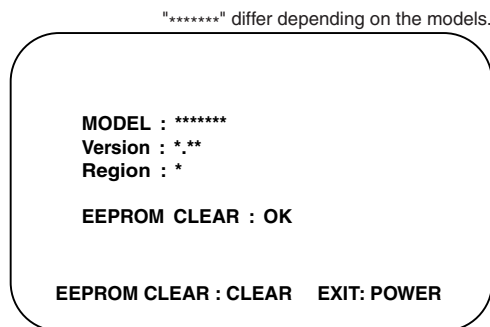


Fig. h

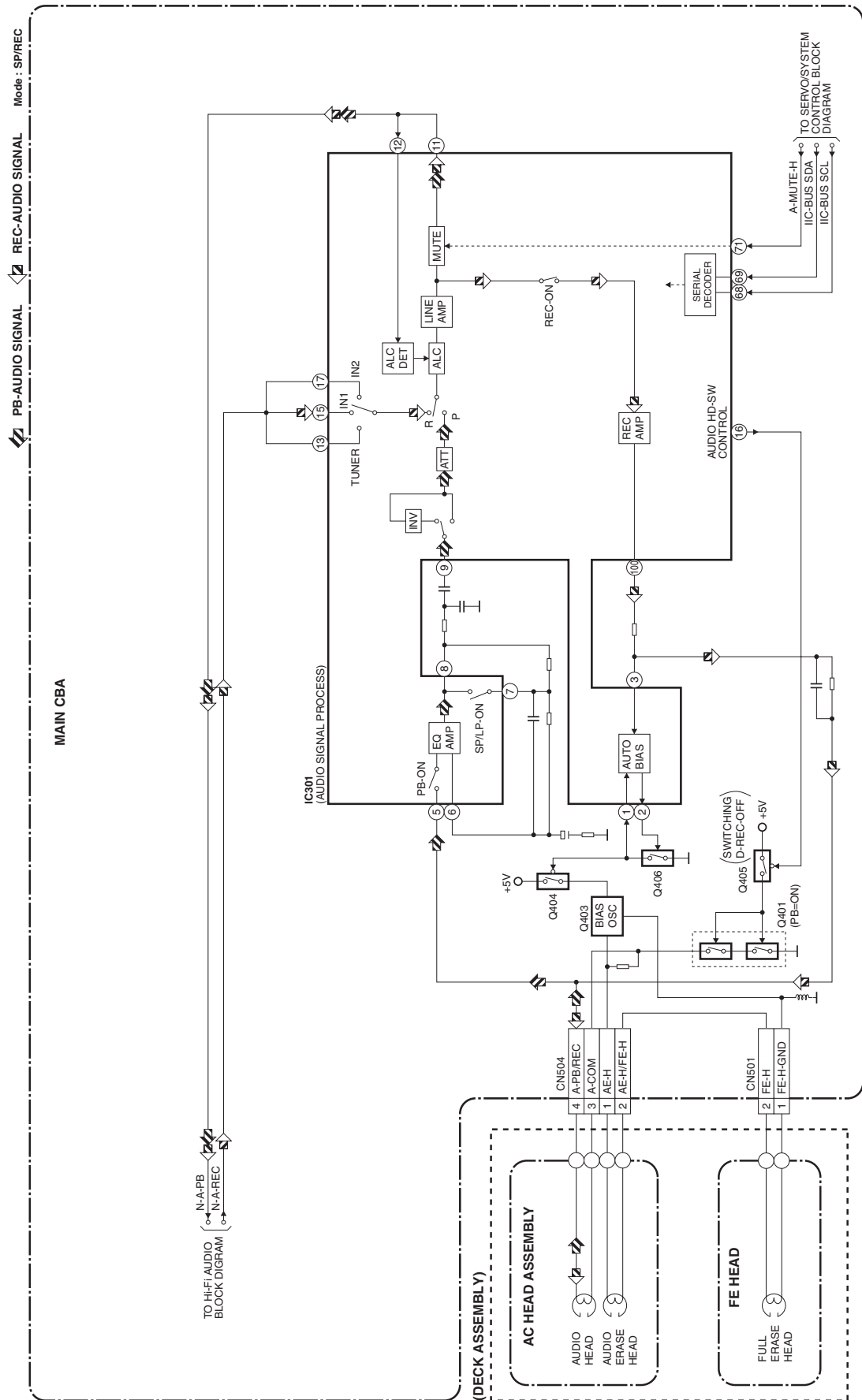
When "OK" appears on the screen, the factory default will be set. Then the firmware renewal mode is complete.

11. To exit this mode, press [FUNCTION] button.

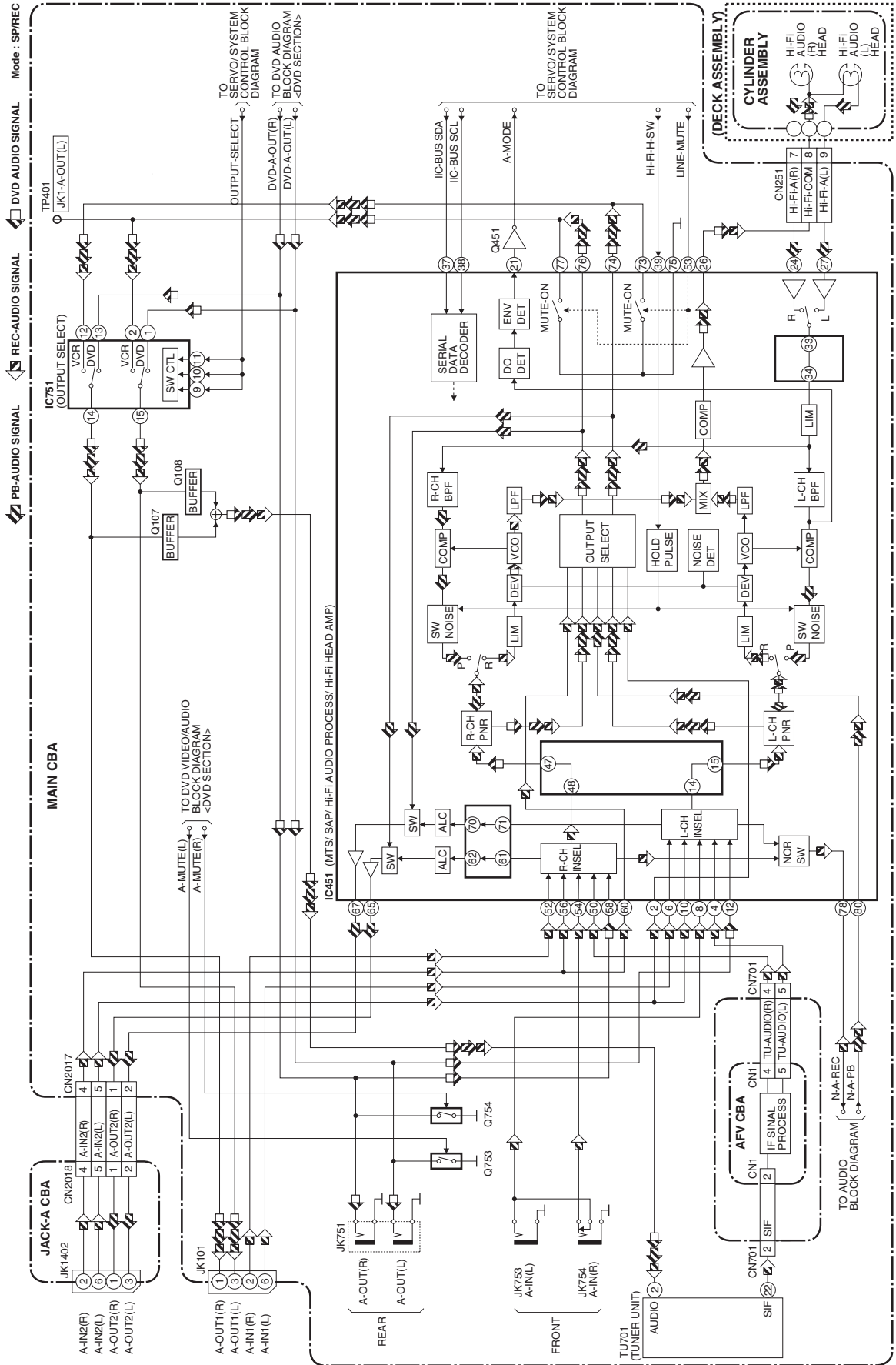




# Audio Block Diagram



# Hi-Fi Audio Block Diagram

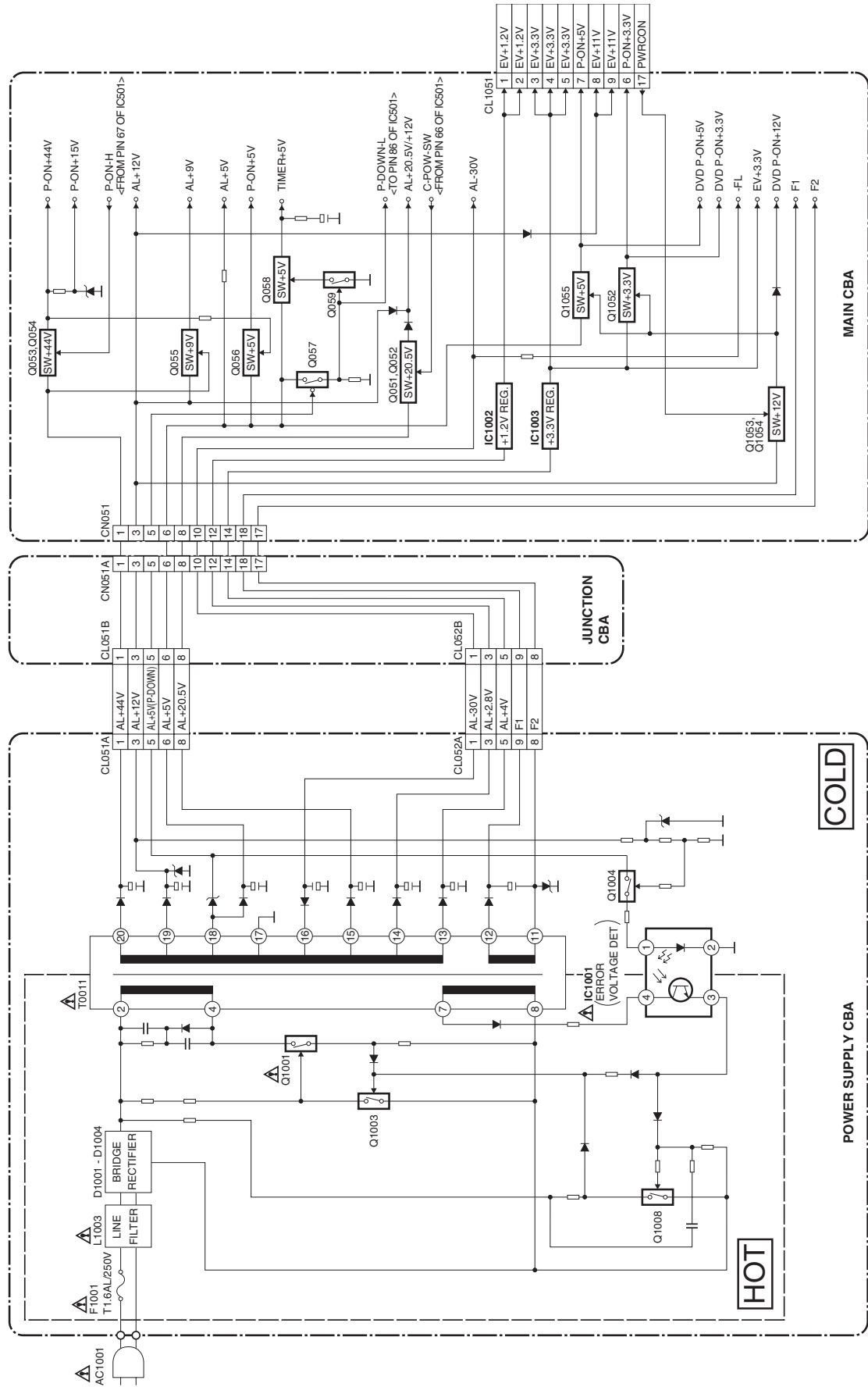


# Power Supply Block Diagram

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

**CAUTION**  
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,  
REPLACE ONLY WITH THE SAME TYPE T1.6AL/250V FUSE.

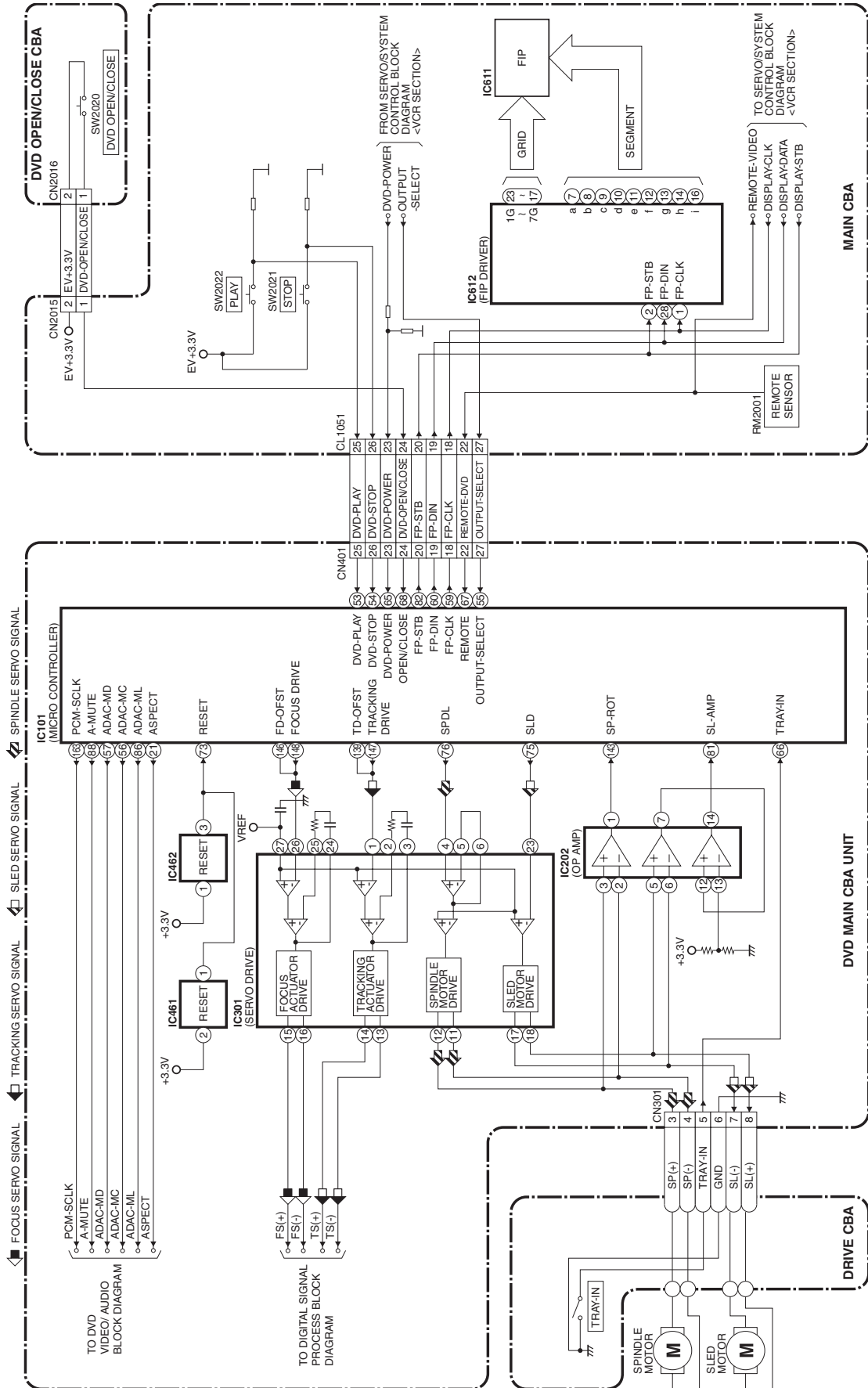
**NOTE :**  
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



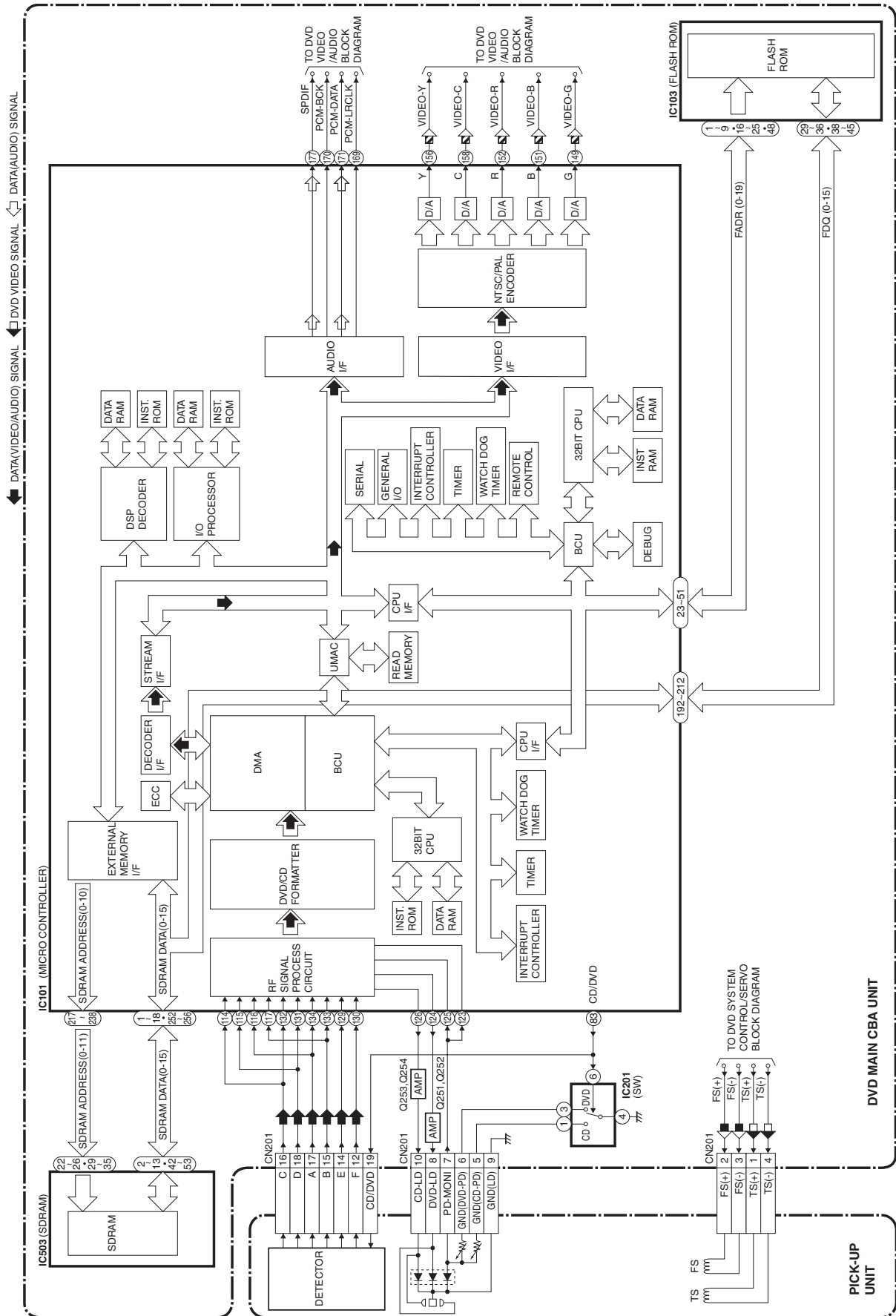


# BLOCK DIAGRAMS <DVD SECTION>

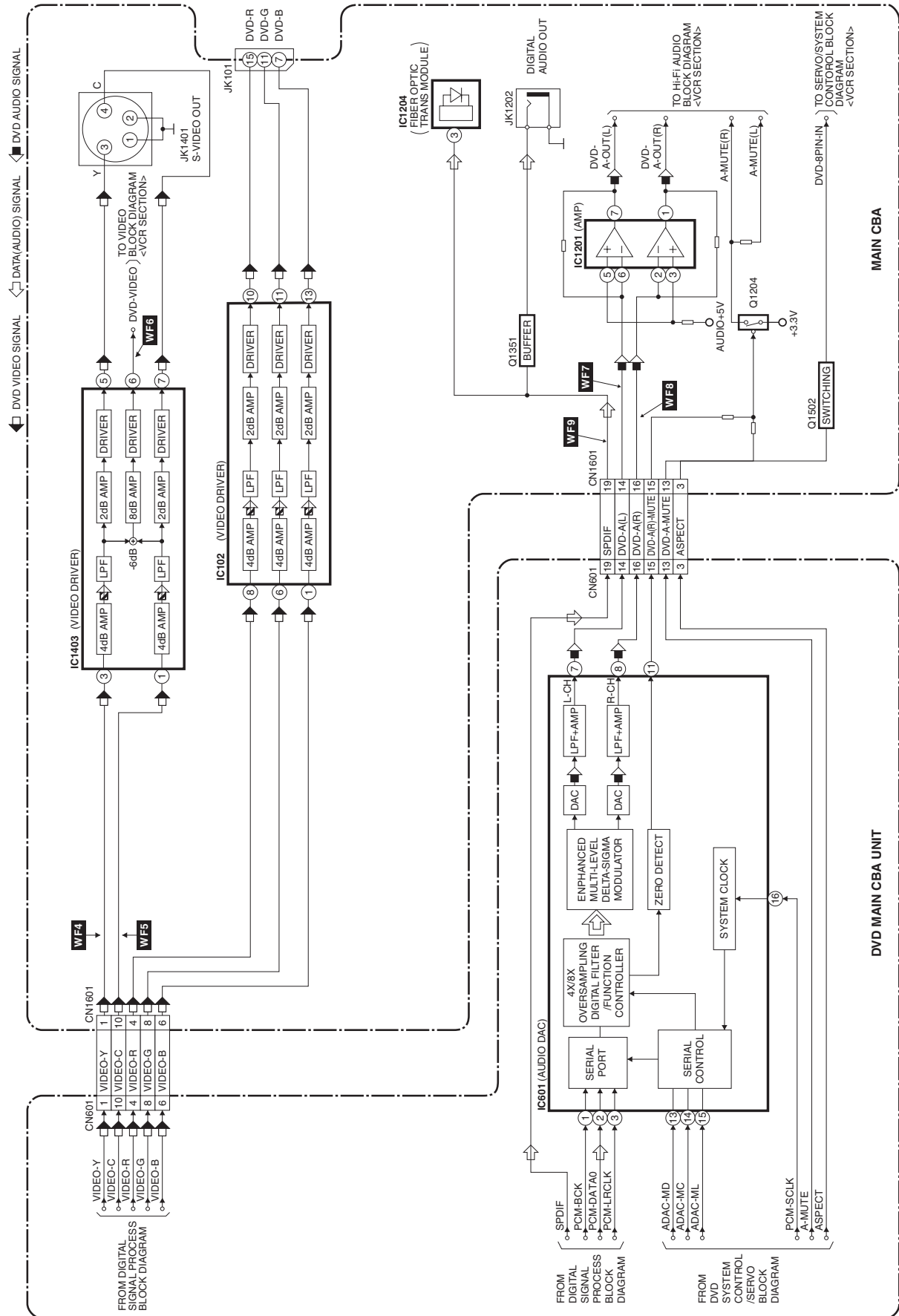
## DVD System Control / Servo Block Diagram



# Digital Signal Process Block Diagram



# DVD Video / Audio Block Diagram



# FUNCTION INDICATOR SYMBOLS

**Note:**

If a mechanical malfunction occurs, the power is turned off. When the power comes on again after that by pressing [FUNCTION] button, an error message is displayed on the TV screen for 5 seconds.

MODE	INDICATOR ACTIVE
When reel or capstan mechanism is not functioning correctly	“▲ R” is displayed on a TV screen. (Refer to Fig. 1.)
When tape loading mechanism is not functioning correctly	“▲ T” is displayed on a TV screen. (Refer to Fig. 2.)
When cassette loading mechanism is not functioning correctly	“▲ C” is displayed on a TV screen. (Refer to Fig. 3.)
When the drum is not working properly	“▲ D” is displayed on a TV screen. (Refer to Fig. 4.)
P-ON Power safety detection	“▲ P” is displayed on a TV screen. (Refer to Fig. 5.)

**TV screen**

When reel or capstan mechanism is not functioning correctly



Fig. 1

When the drum is not working properly



Fig. 4

When tape loading mechanism is not functioning correctly

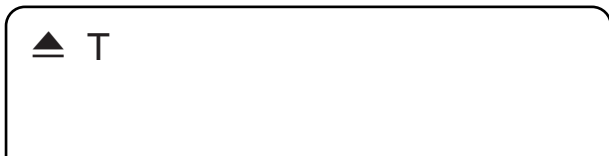


Fig. 2

P-ON Power safety detection



Fig. 5

When cassette loading mechanism is not functioning correctly



Fig. 3

# 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 "  $\triangle$  " 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  $\mu F$  ( $P=10^{-6} \mu F$ ).
5. All voltages are DC voltages unless otherwise specified.
6. Electrical parts such as capacitors, connectors, diodes, IC's, transistors, resistors, switches, and fuses are identified by four digits. The first two digits are not shown for each component. In each block of the diagram, there is a note such as shown below to indicate these abbreviated two digits.

**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.

**2. CAUTION:**

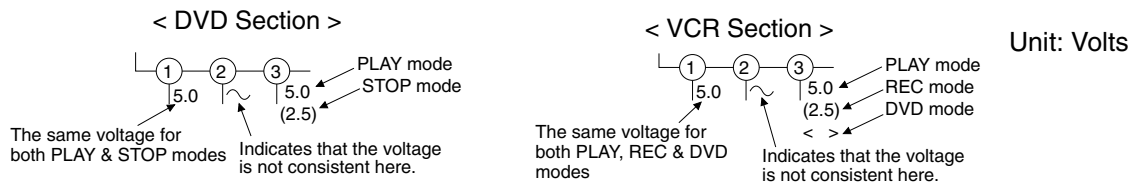
Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.

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

**3. Note:**

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

4. Voltage indications for PLAY and REC modes on the schematics are as shown below:

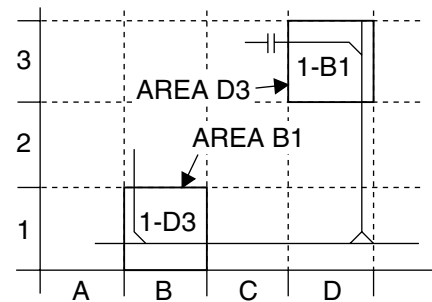


**5. How to read converged lines**

1-D3  
 ↑ Distinction Area  
 ↑ Line Number  
 (1 to 3 digits)

Examples:

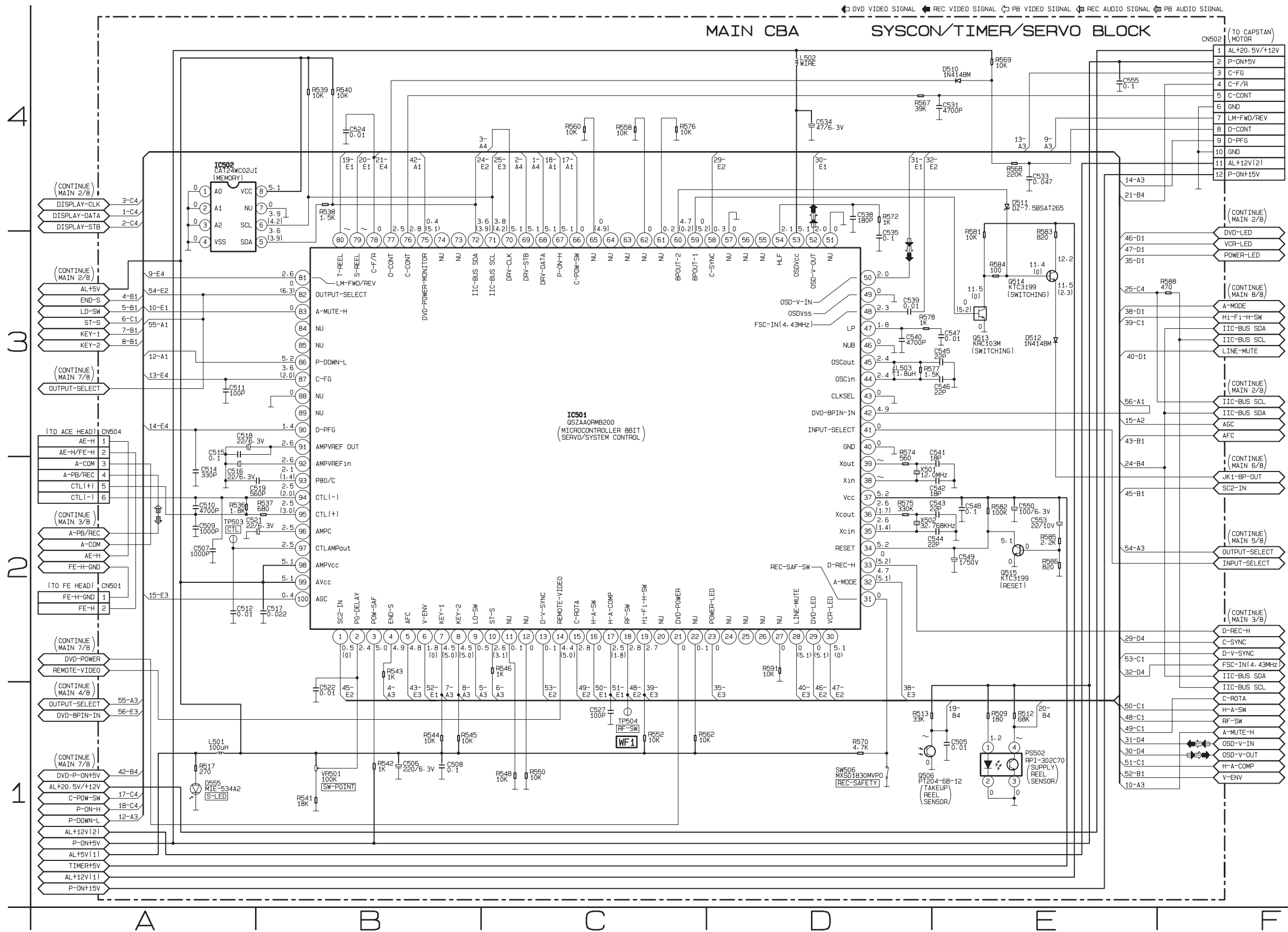
1. "1-D3" means that line number "1" goes to area "D3".
2. "1-B1" means that line number "1" goes to area "B1".



**6. Test Point Information**

- ⊙ : Indicates a test point with a jumper wire across a hole in the PCB.
- : Used to indicate a test point with a component lead on foil side.
- ⊘ : Used to indicate a test point with no test pin.
- : Used to indicate a test point with a test pin.

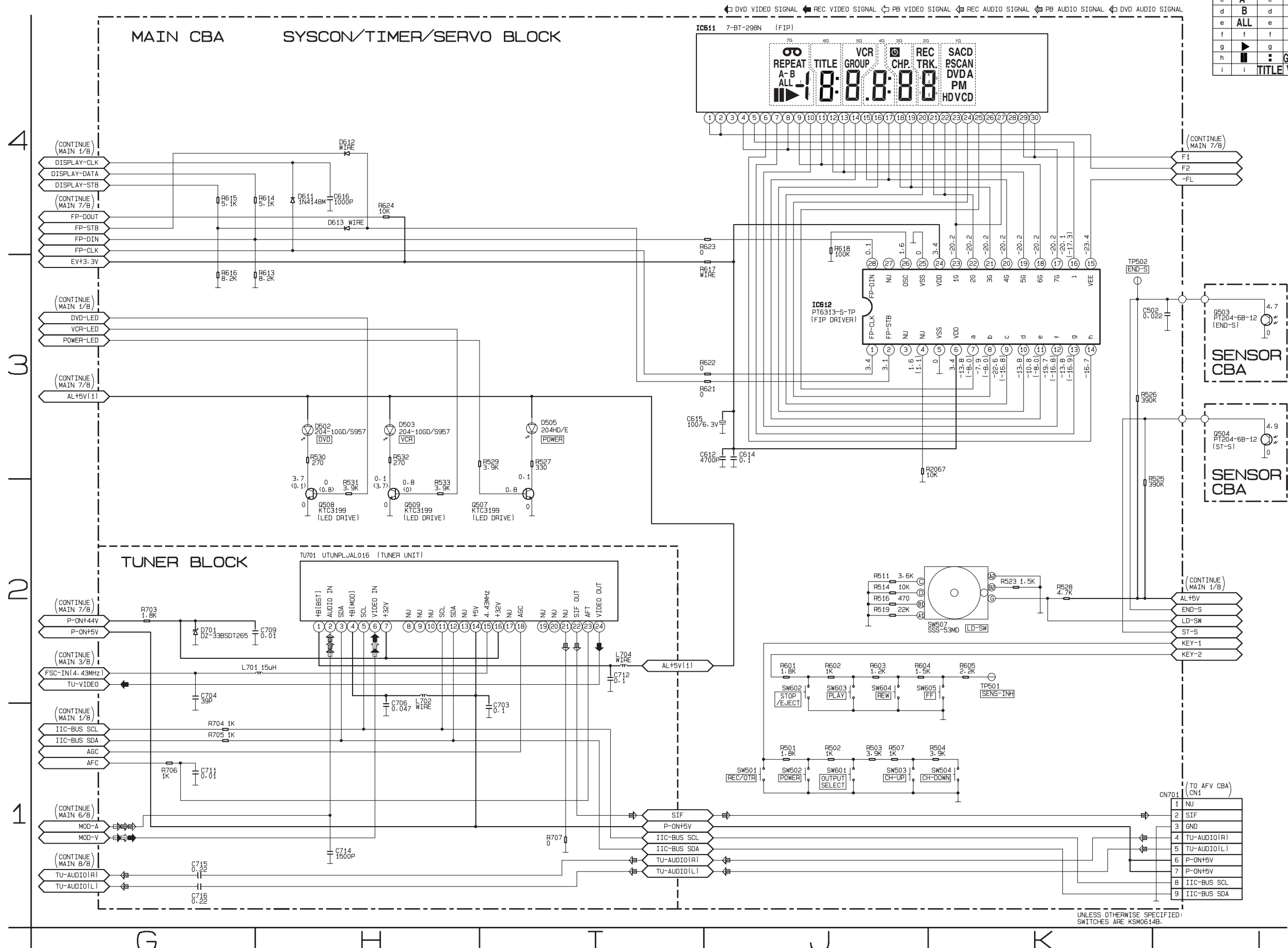
# Main 1/8 Schematic Diagram < VCR Section >



# Main 2/8 & Sensor Schematic Diagrams < VCR Section >

IC611 MATRIX CHART

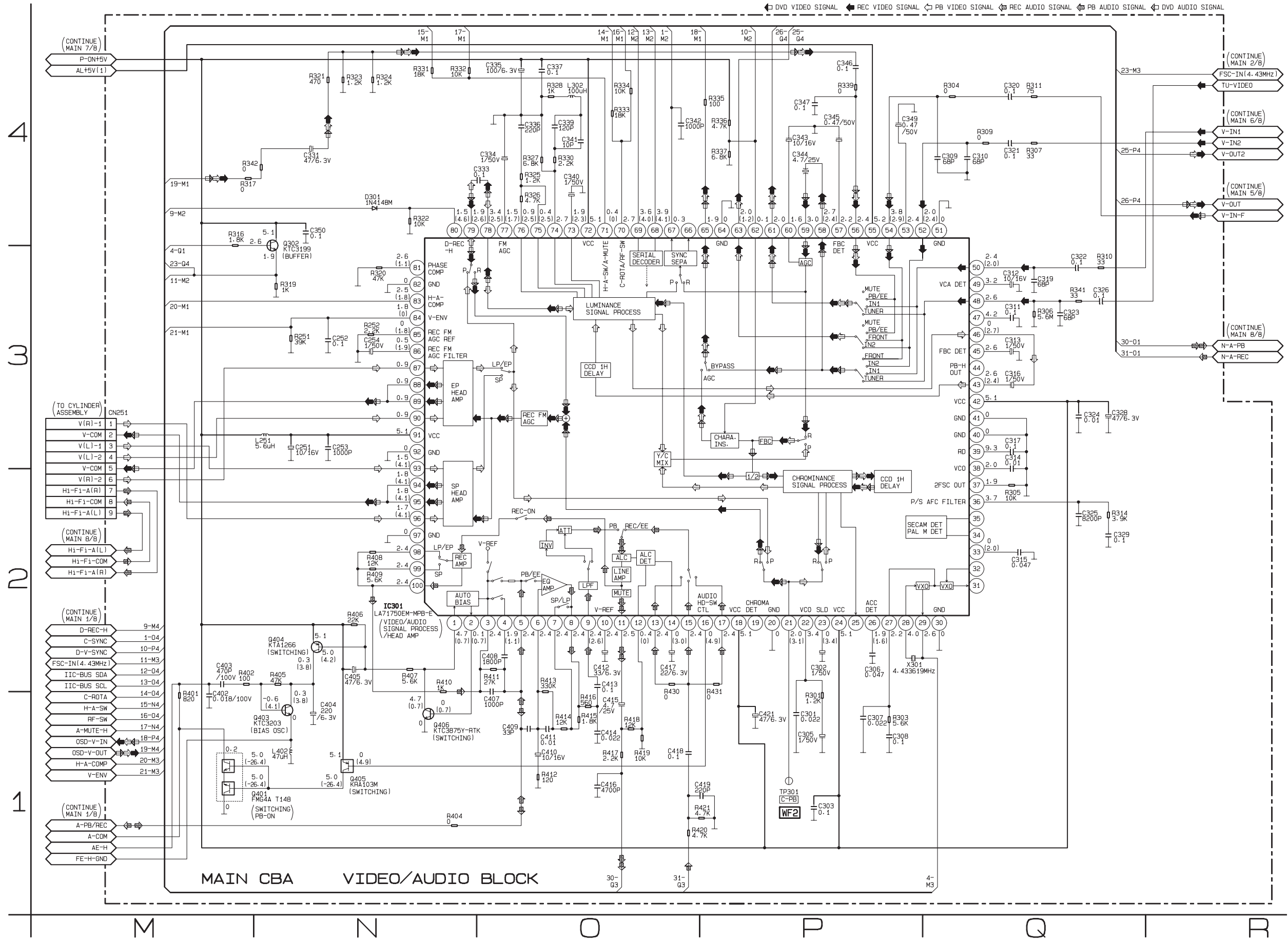
	7G	6G	5G	4G	3G	2G	1G
a	REPEAT	a	a	a	a	a	SACD
b	A-	b	b	b	b	b	RESCAN
c	A-	c	c	c	c	c	DVD
d	B	d	d	d	d	d	A
e	ALL	e	e	e	e	e	P
f	▶	f	f	f	f	f	M
g	▶	g	g	g	g	g	HD
h	▶	g	g	g	g	g	V
i	▶	g	g	g	g	g	CD



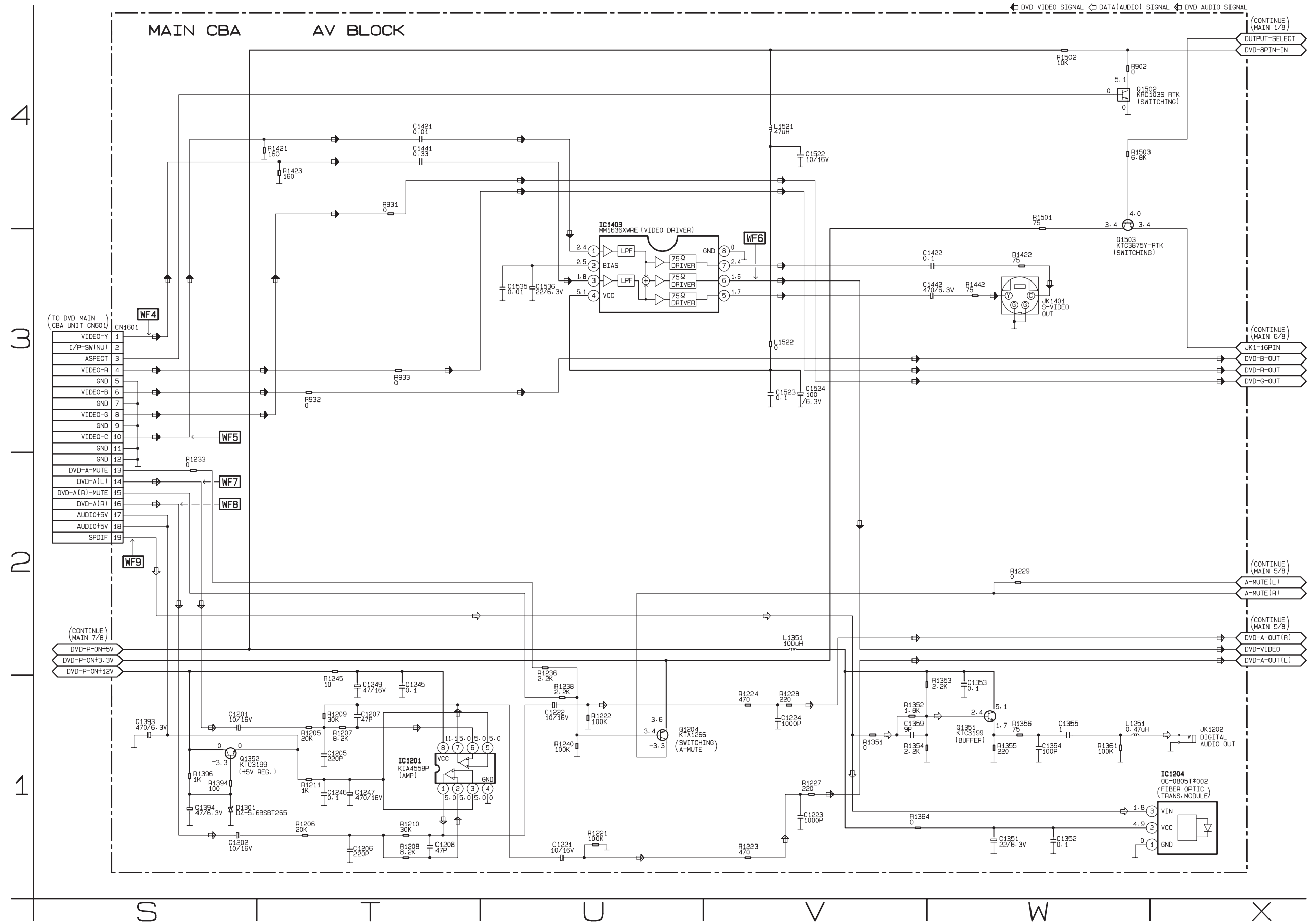
UNLESS OTHERWISE SPECIFIED:  
SWITCHES ARE K5M0614B.



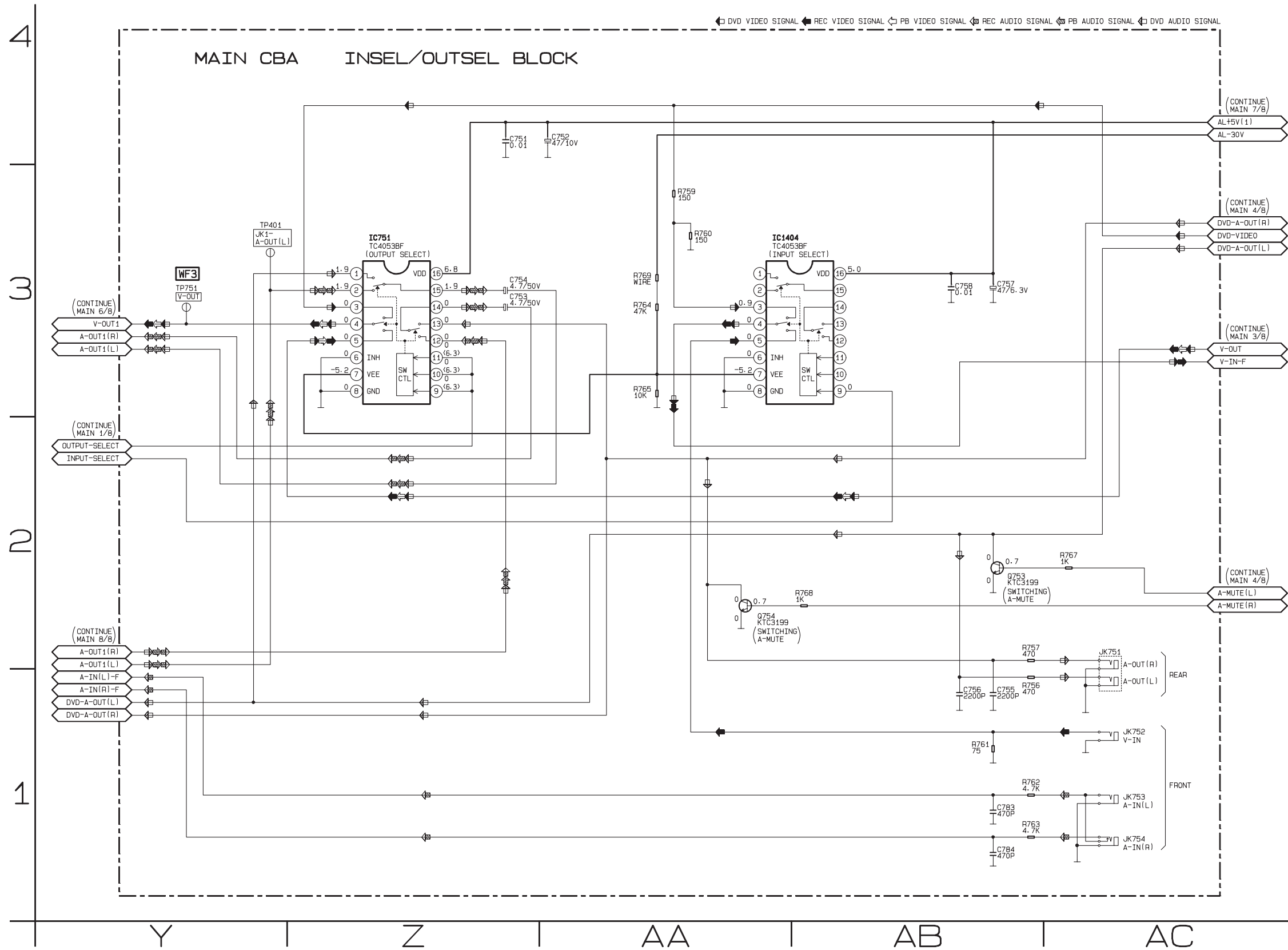
# Main 3/8 Schematic Diagram < VCR Section >



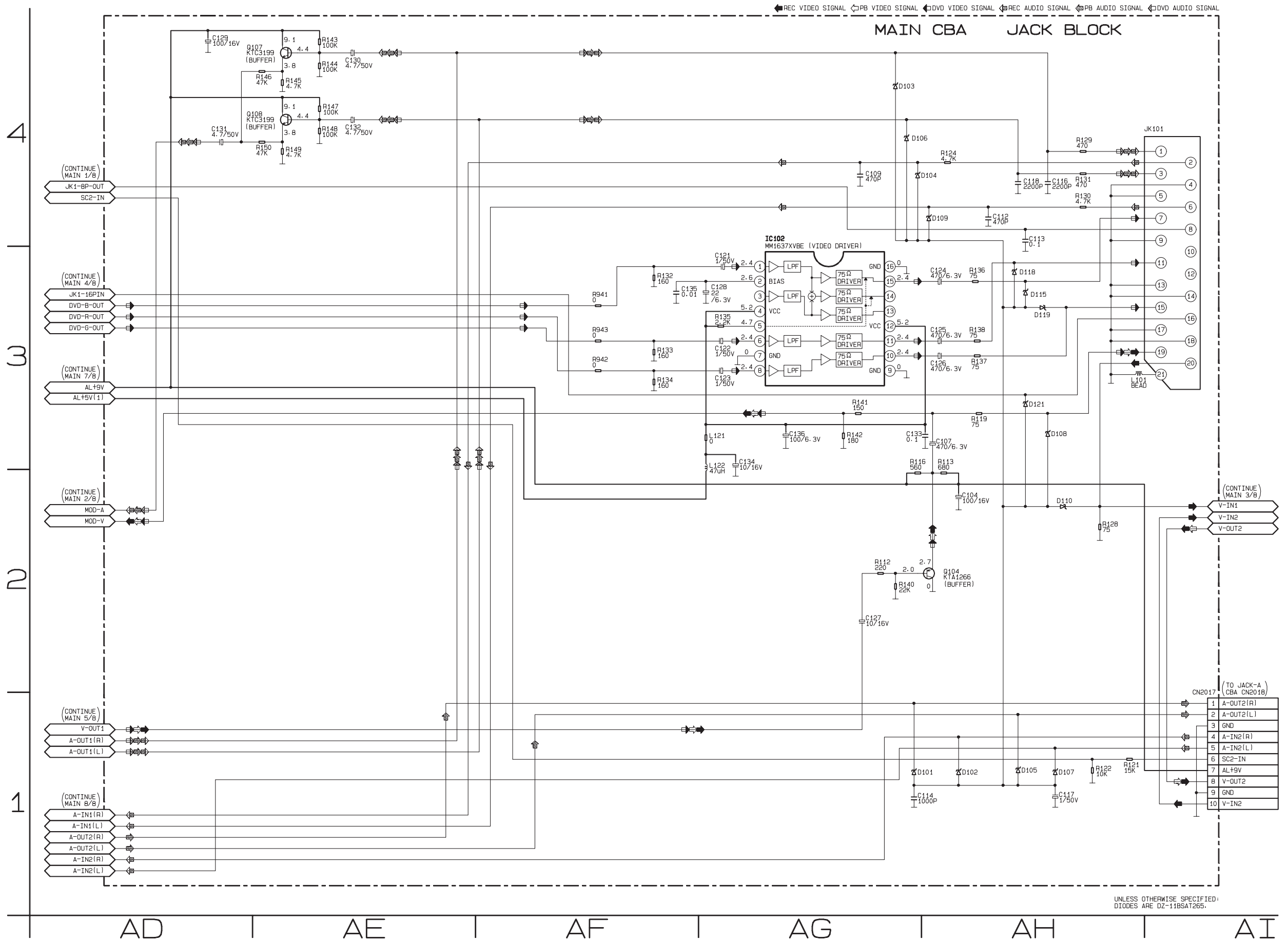
# Main 4/8 Schematic Diagram < VCR Section >



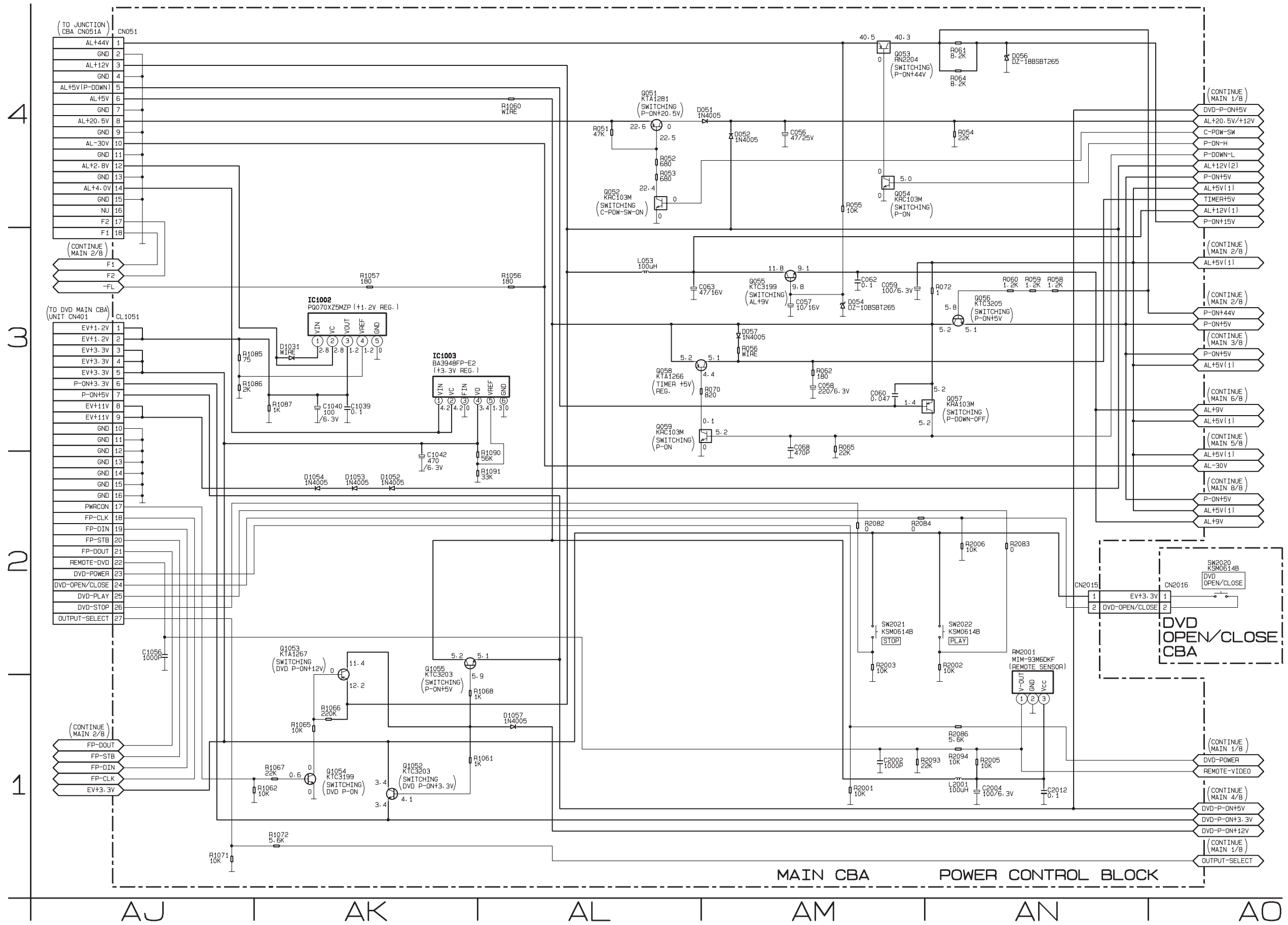
# Main 5/8 Schematic Diagram < VCR Section >



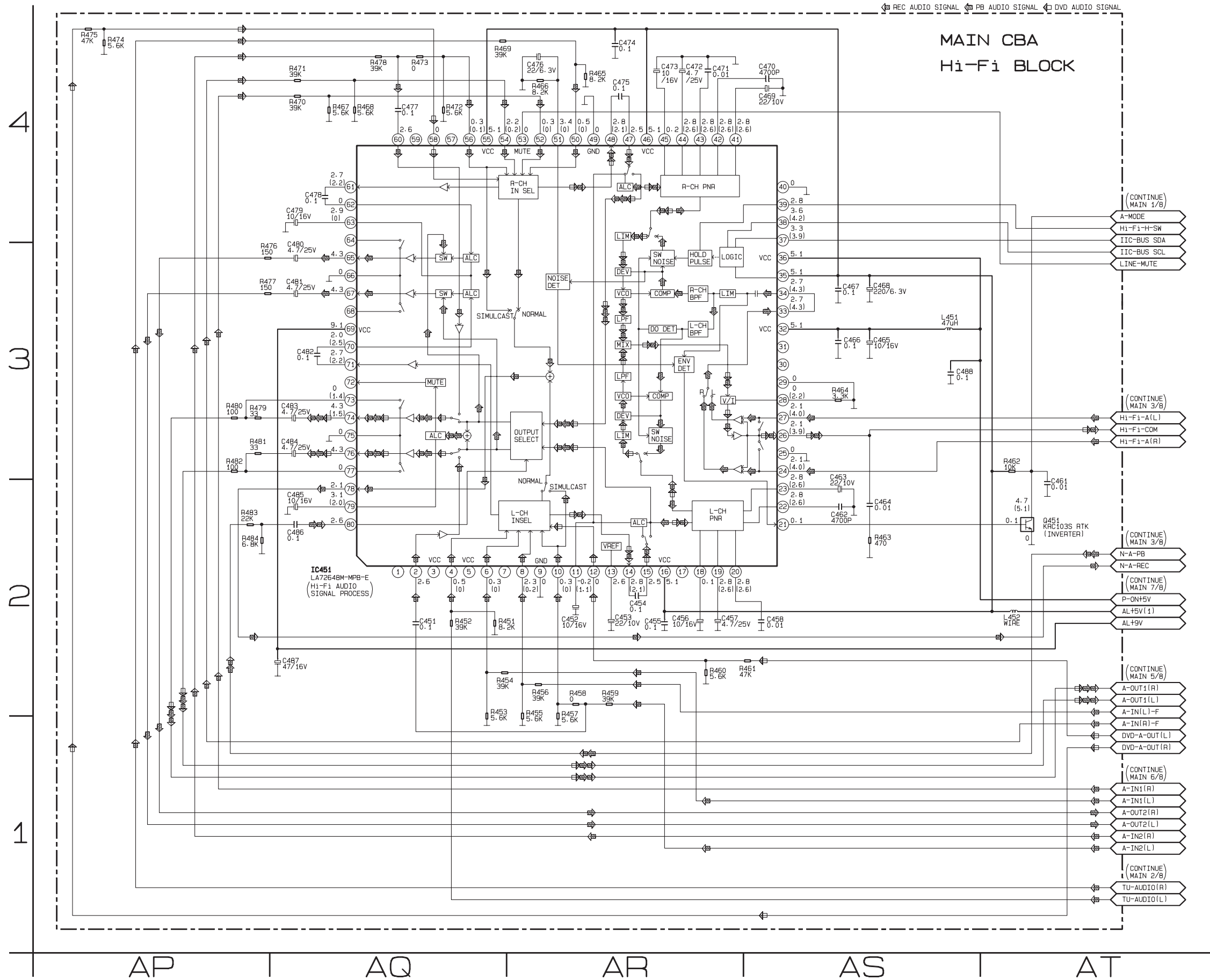
# Main 6/8 Schematic Diagram < VCR Section >



# Main 7/8 & DVD Open/Close Schematic Diagrams < VCR Section >



Main 8/8 Schematic Diagram < VCR Section >



# Power Supply & Junction Schematic Diagram < VCR Section >

**CAUTION !**

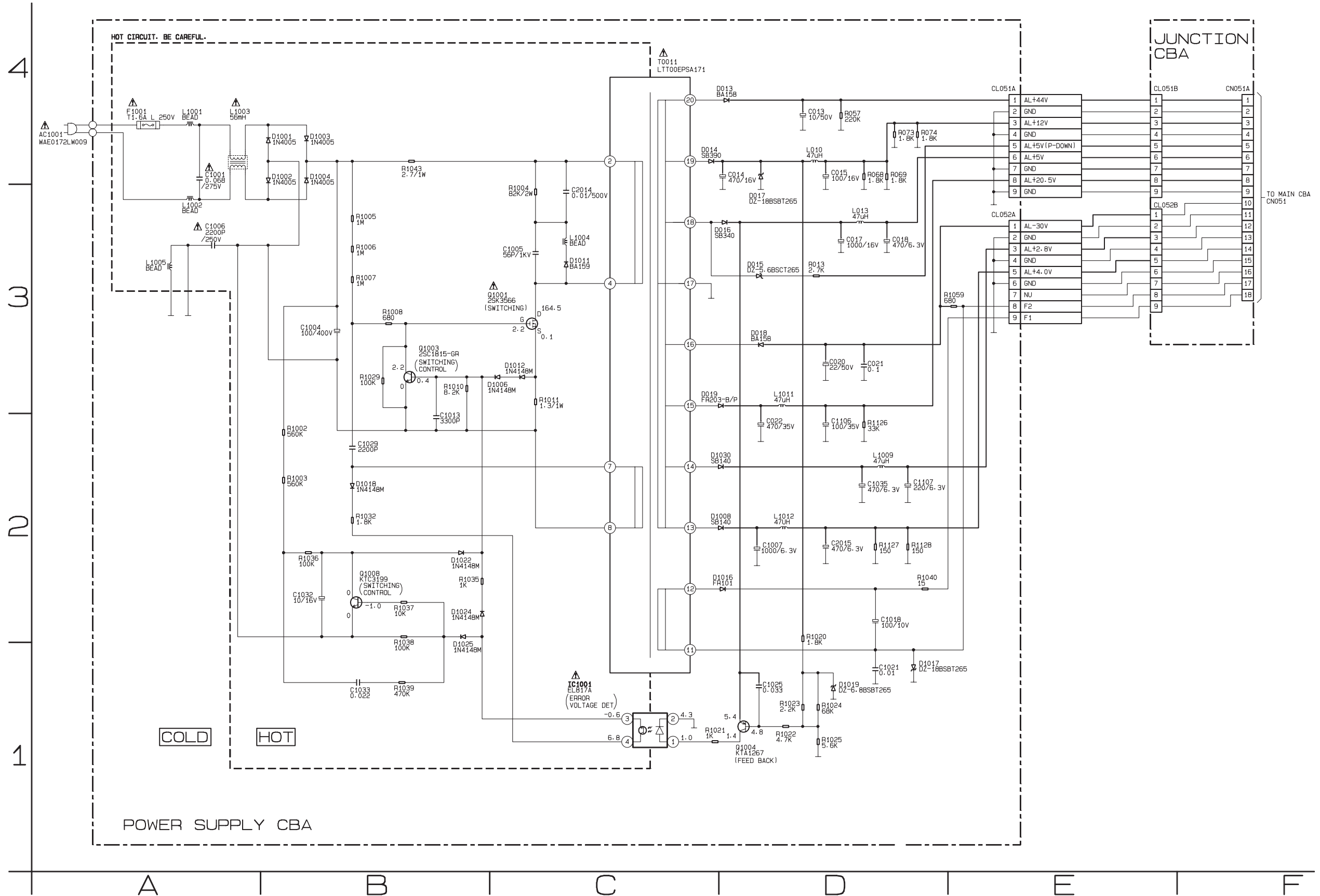
For continued protection against fire hazard, replace only with the same type fuse.

**NOTE :**

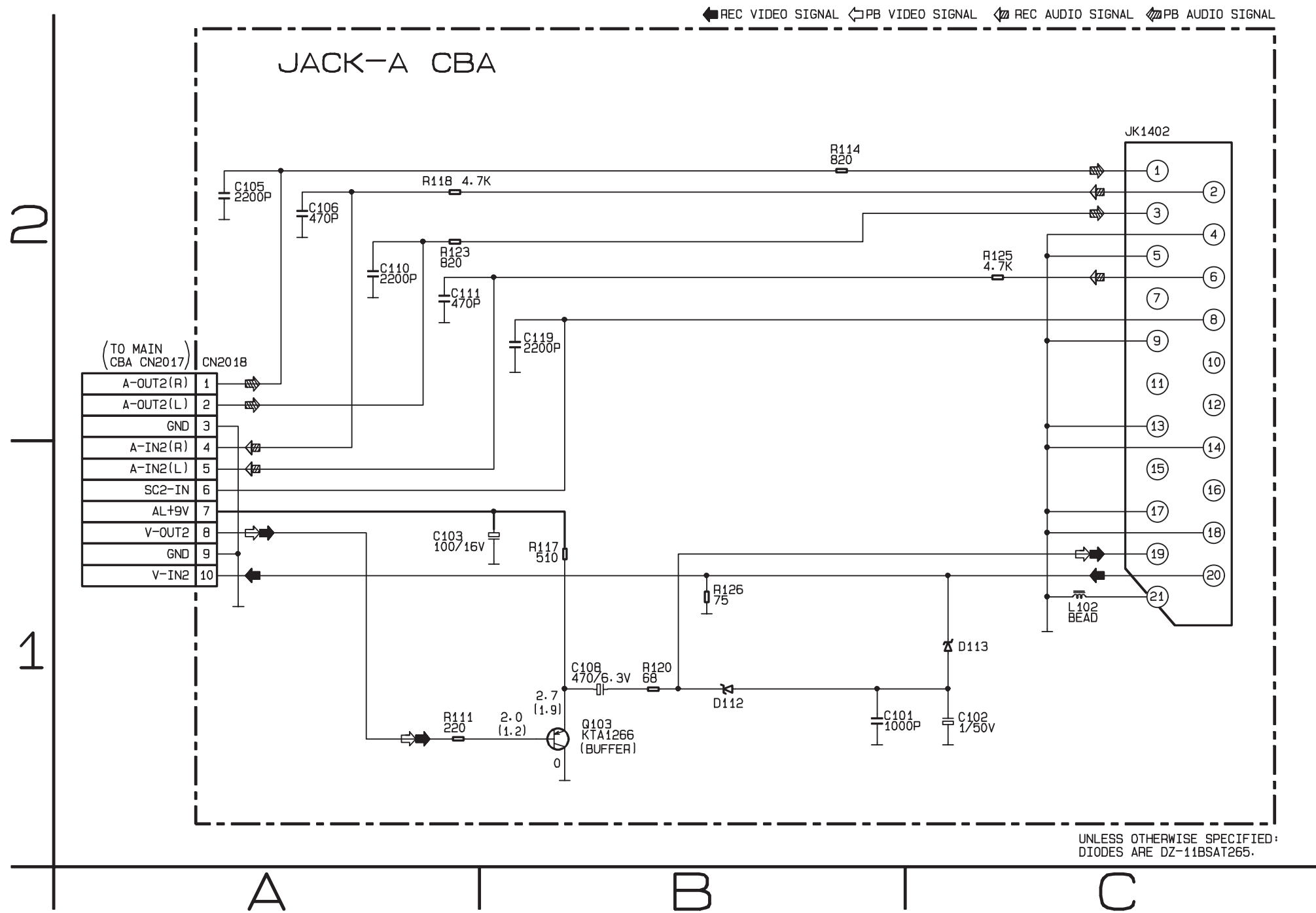
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

**CAUTION !**

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

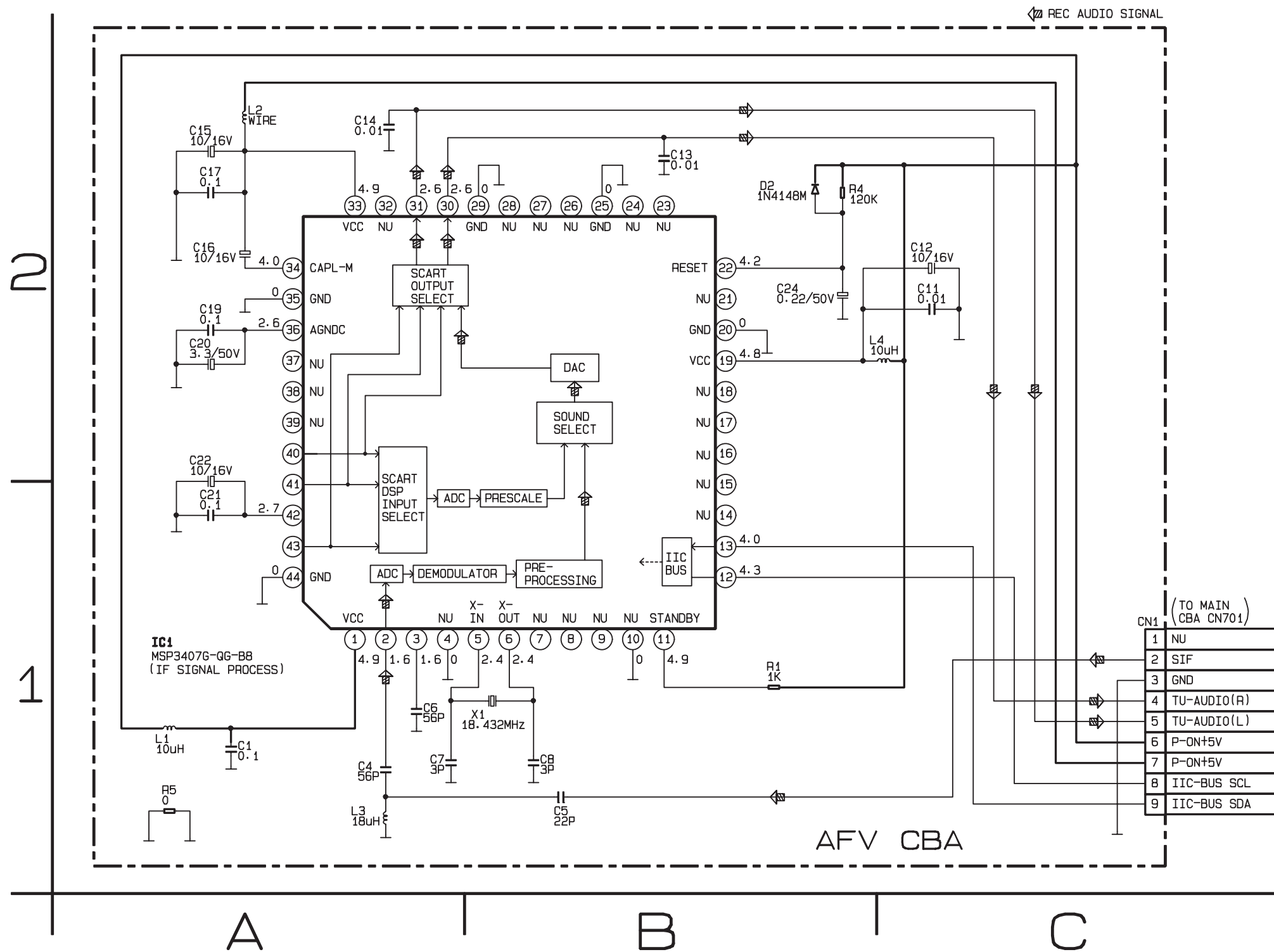


Jack-A Schematic Diagram < VCR Section >



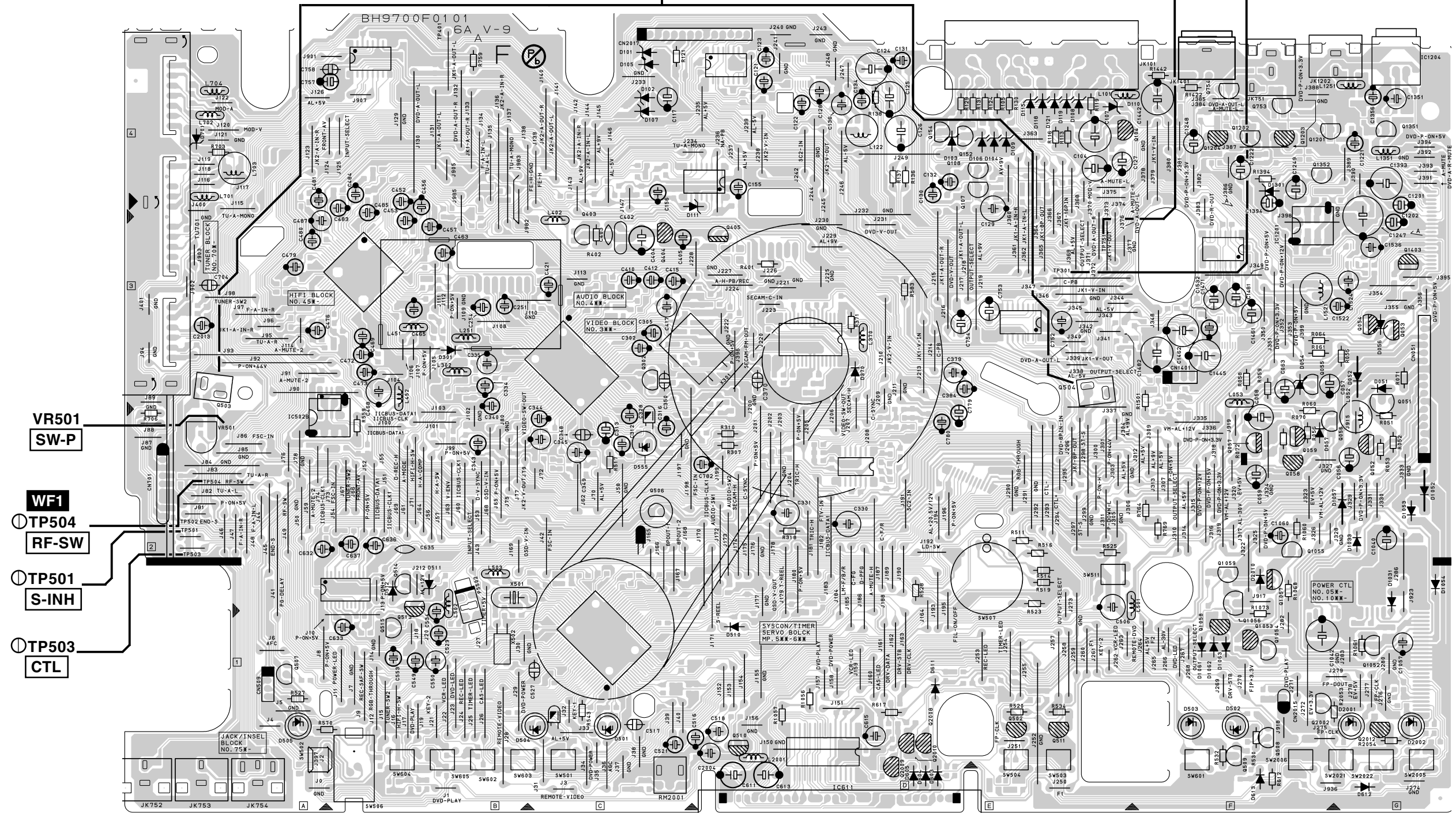
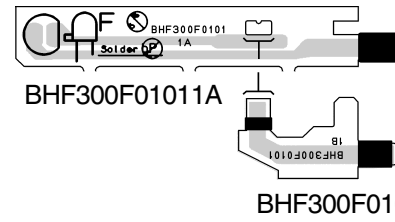


AFV Schematic Diagram < VCR Section >



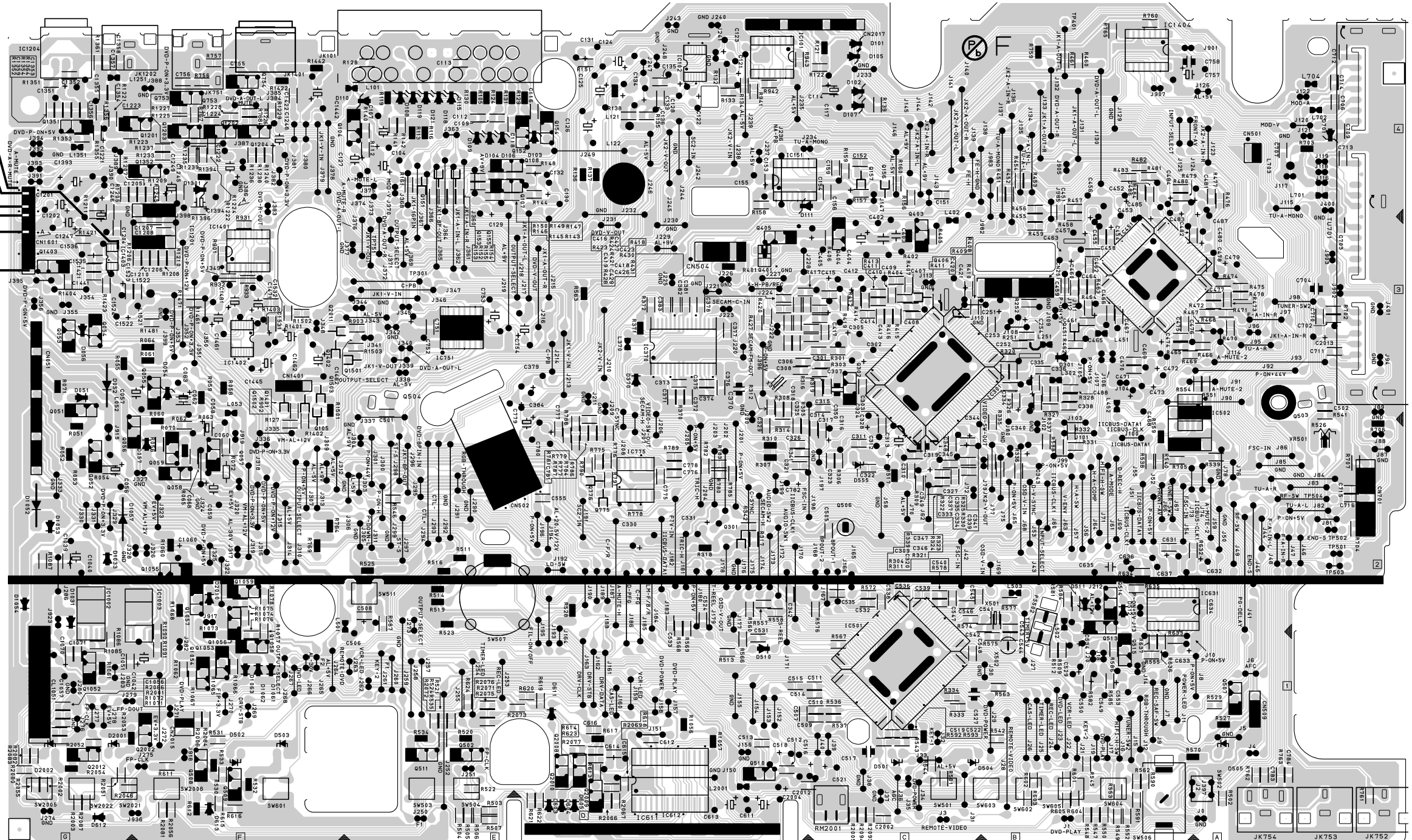
Main CBA & Sensor CBA Top View

Sensor CBA Top View



# Main CBA Bottom View

- WF6**  
PIN 6 OF  
IC1403
- WF9**  
PIN 19 OF  
CN1601
- WF8**  
PIN 16 OF  
CN1601
- WF7**  
PIN 14 OF  
CN1601
- WF5**  
PIN 10 OF  
CN1601
- WF4**  
PIN 1 OF  
CN1601

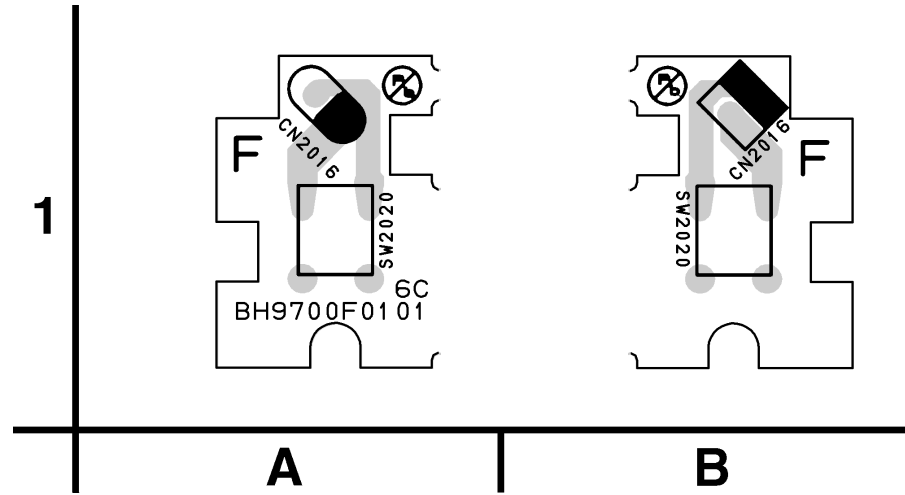


DVD Open/Close  
CBA Top View

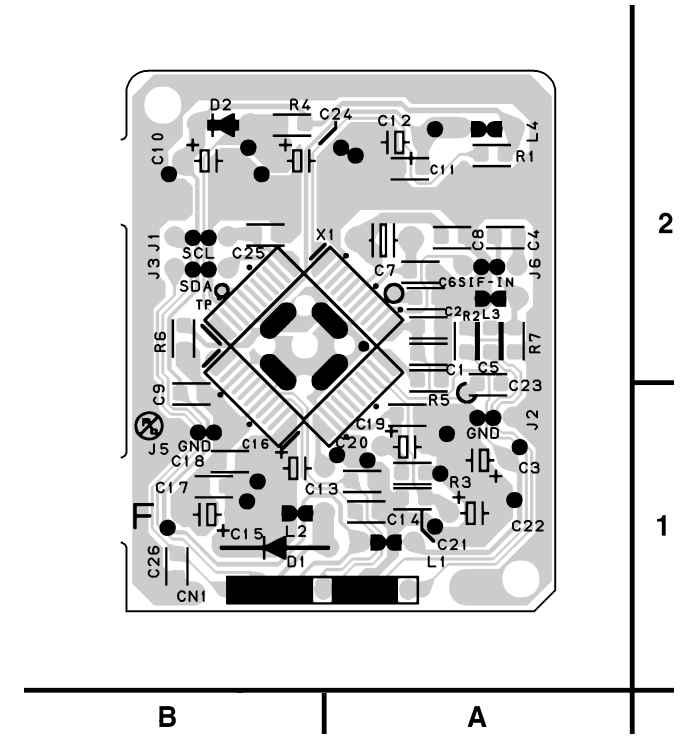
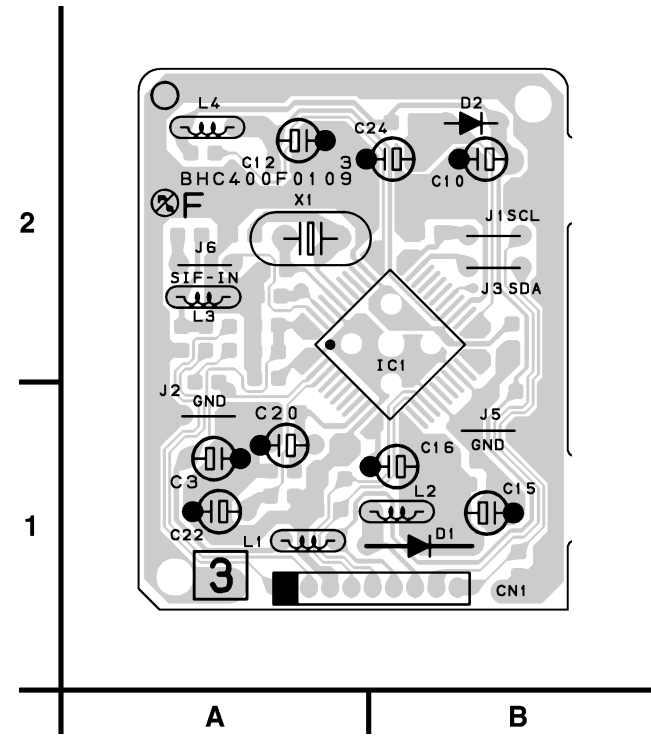
DVD Open /Close  
CBA Bottom View

AFV CBA Top View

AFV CBA Bottom View



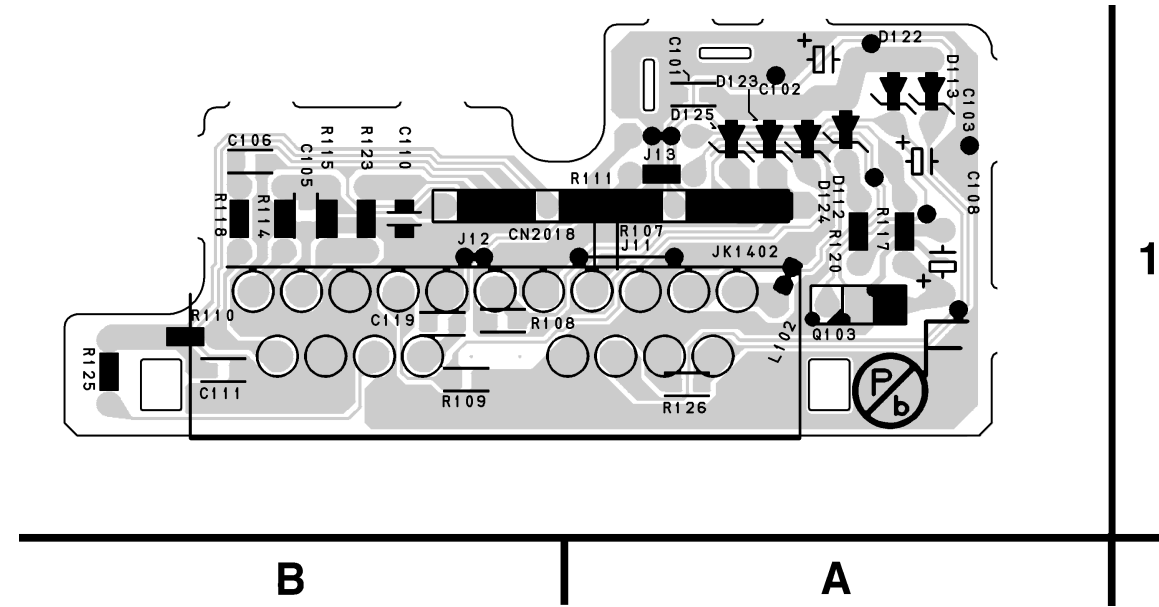
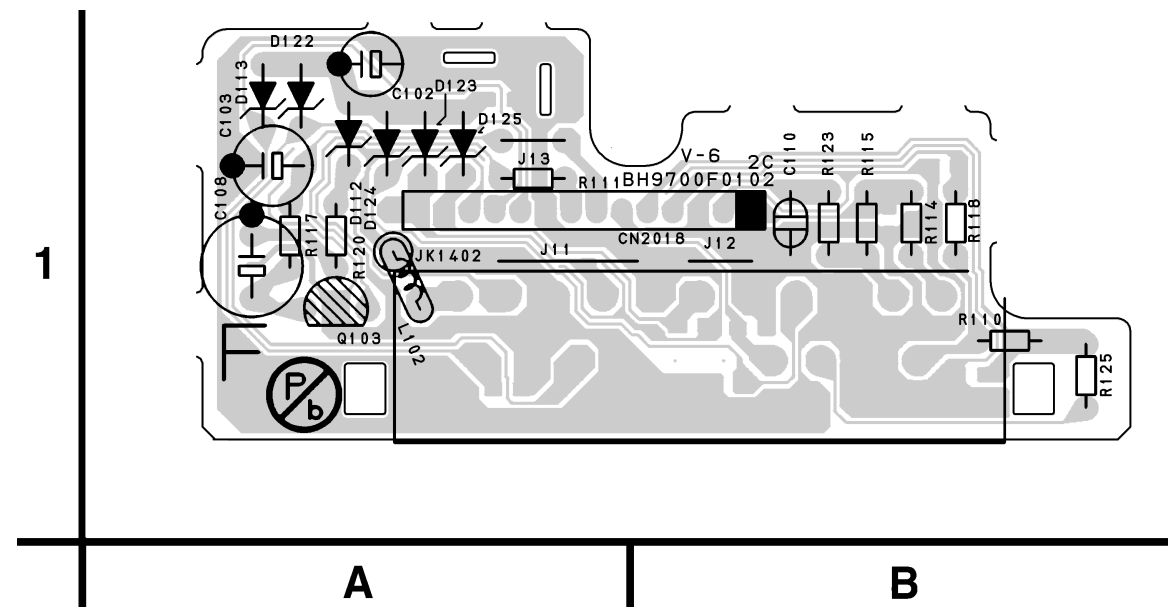
BH9700F01016C



BHC400F01093

Jack-A CBA Top View

Jack-A CBA Bottom View



BH9700F01022C

## Power Supply CBA Top View

### CAUTION !

For continued protection against fire hazard, replace only with the same type fuse.

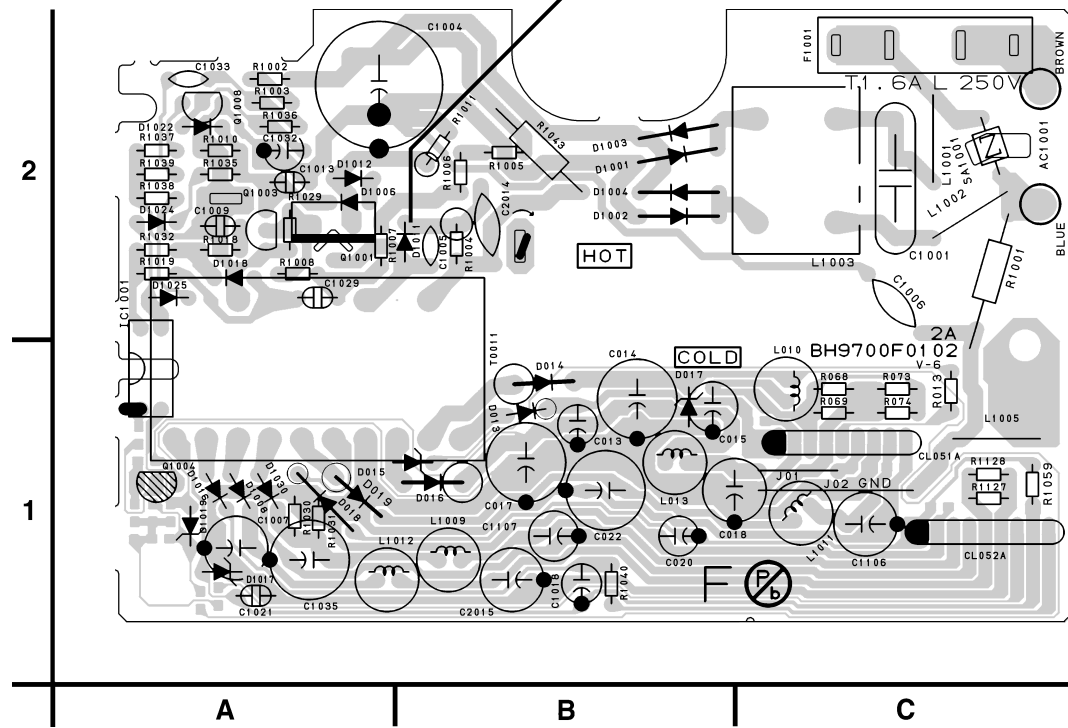
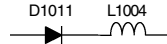
### NOTE :

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

### CAUTION !

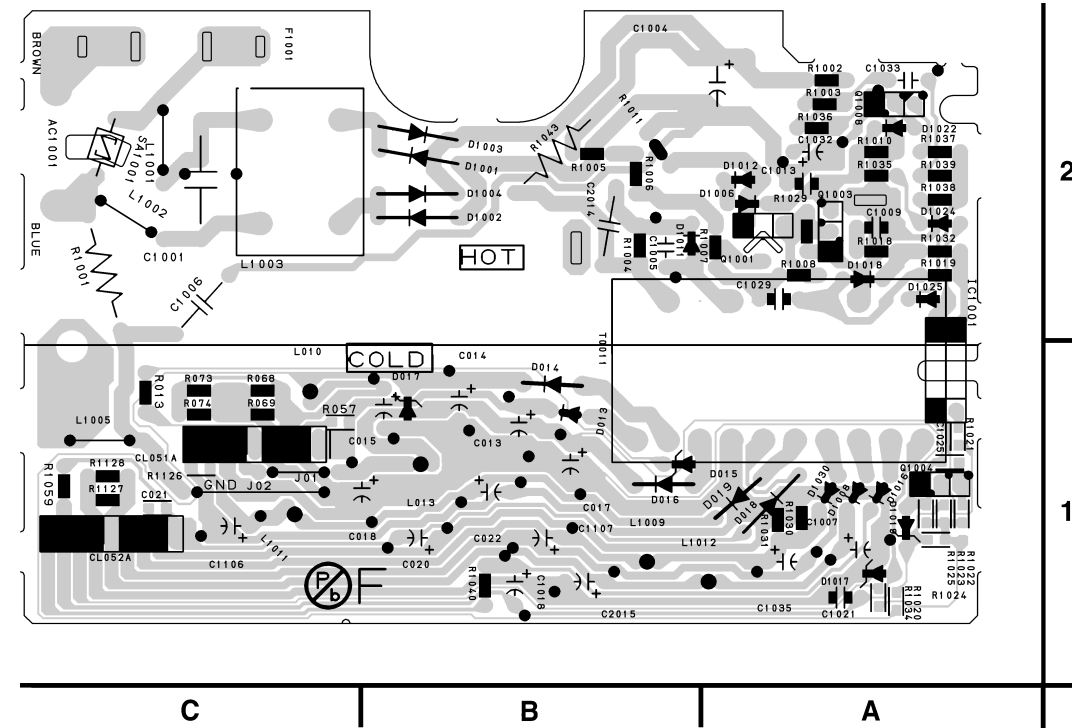
Fixed voltage ( or Auto voltage selectable ) power supply circuit is used in this unit. If Main Fuse (F1001) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power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

Note:  
L1004 is positioned on the Cathode side of D1011 as shown below.



## Power Supply CBA Bottom View

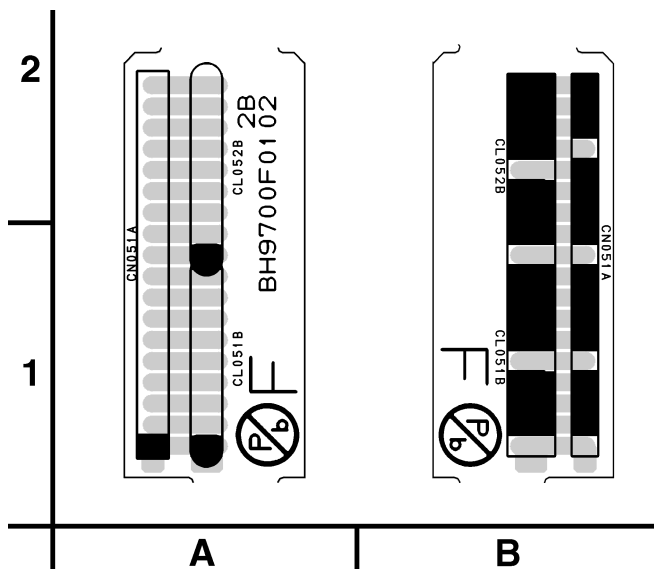
BECAUSE A HOT CHASSIS GROUND IS PRESENT IN THE POWER SUPPLY CIRCUIT , AN ISOLATION TRANSFORMER MUST BE USED. ALSO , IN ORDER TO HAVE THE ABILITY TO INCREASE THE INPUT SLOWLY , WHEN TROUBLESHOOTING THIS TYPE POWER SUPPLY CIRCUIT , A VARIABLE ISOLATION TRANSFORMER IS REQUIRED.



BH9700F01022A

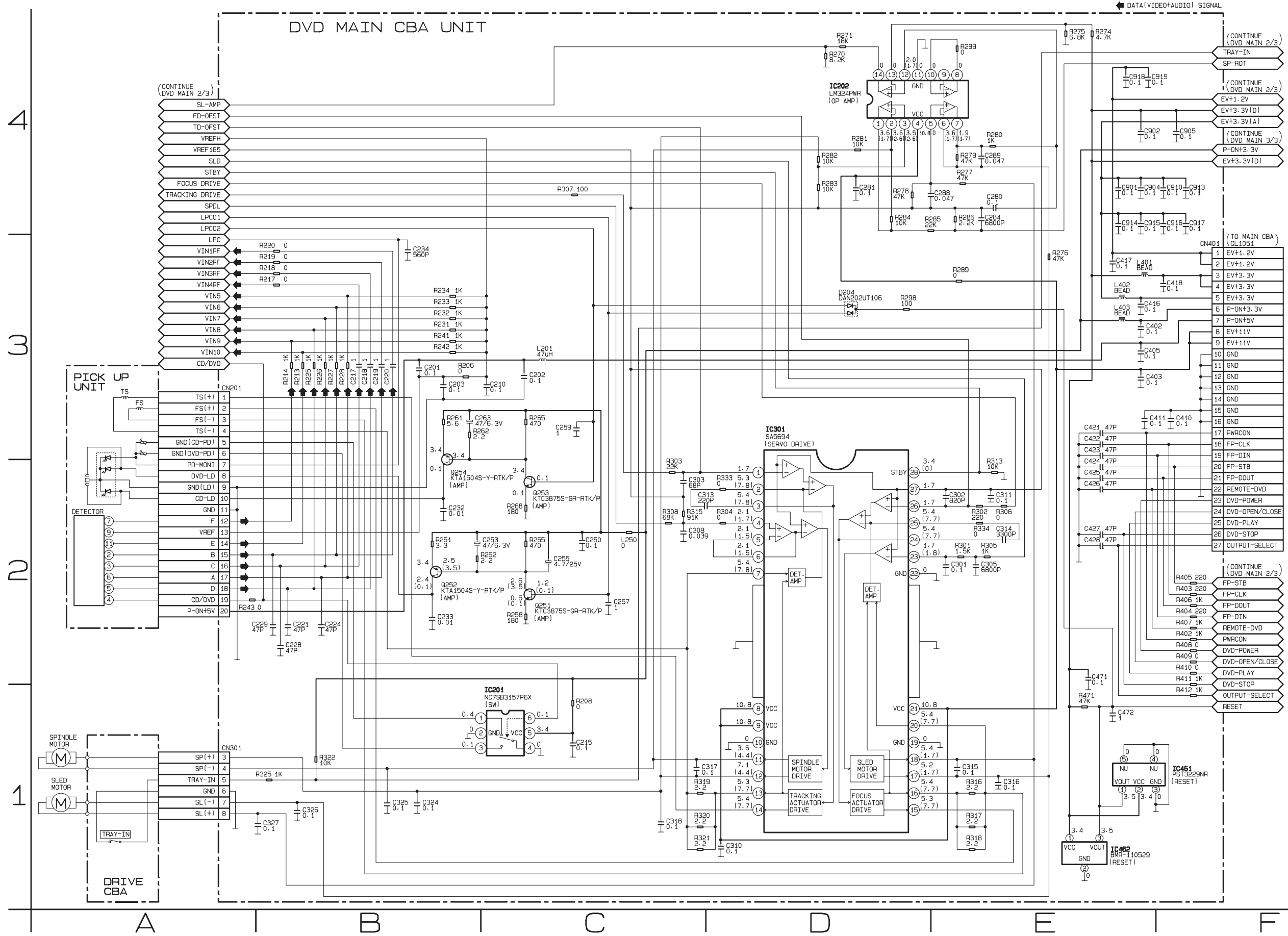
## Junction CBA Top View

## Junction CBA Bottom View

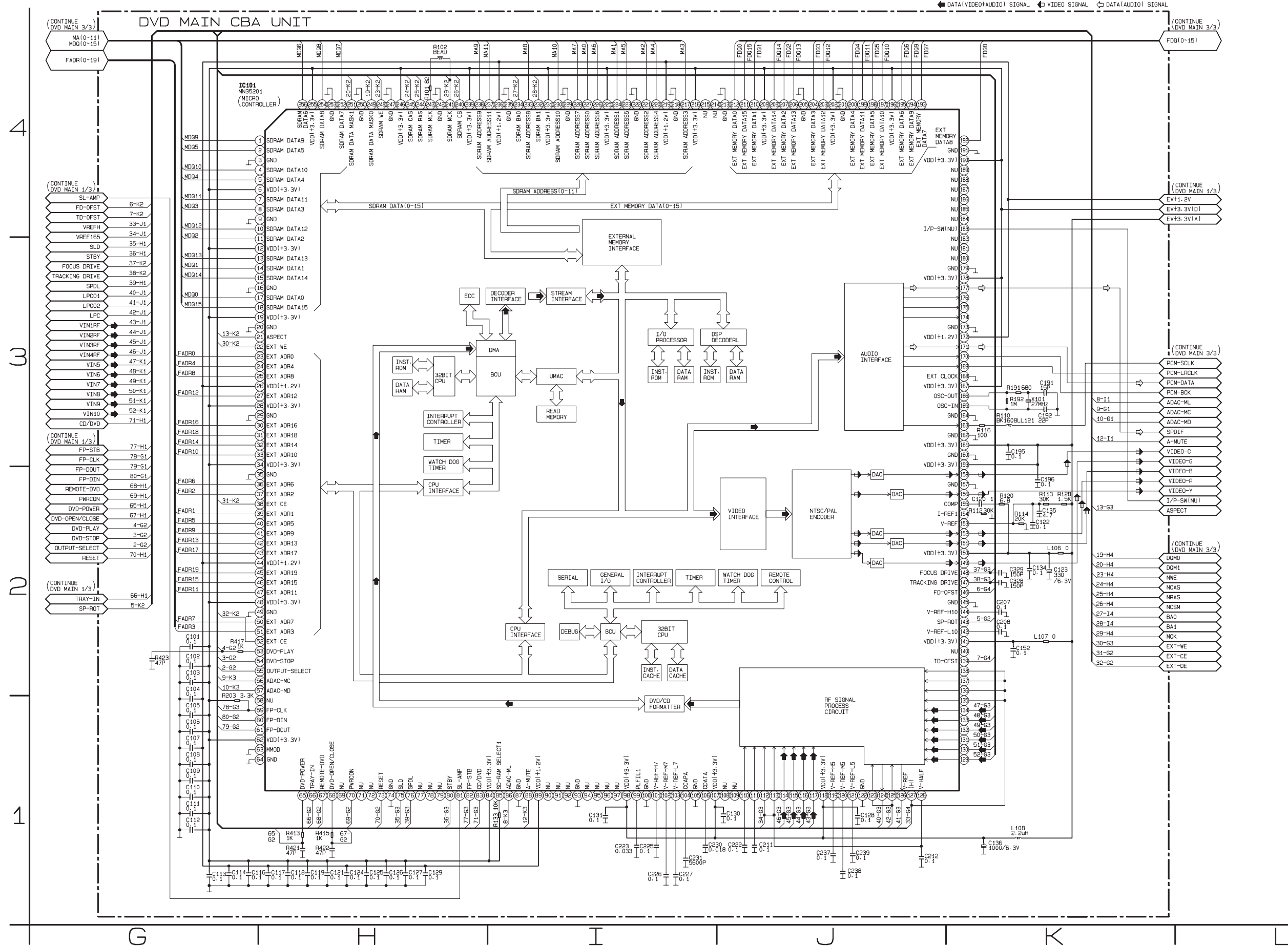


BH9700F01022B

# DVD Main 1/3 Schematic Diagram < DVD Section >



# DVD Main 2/3 Schematic Diagram < DVD Section >

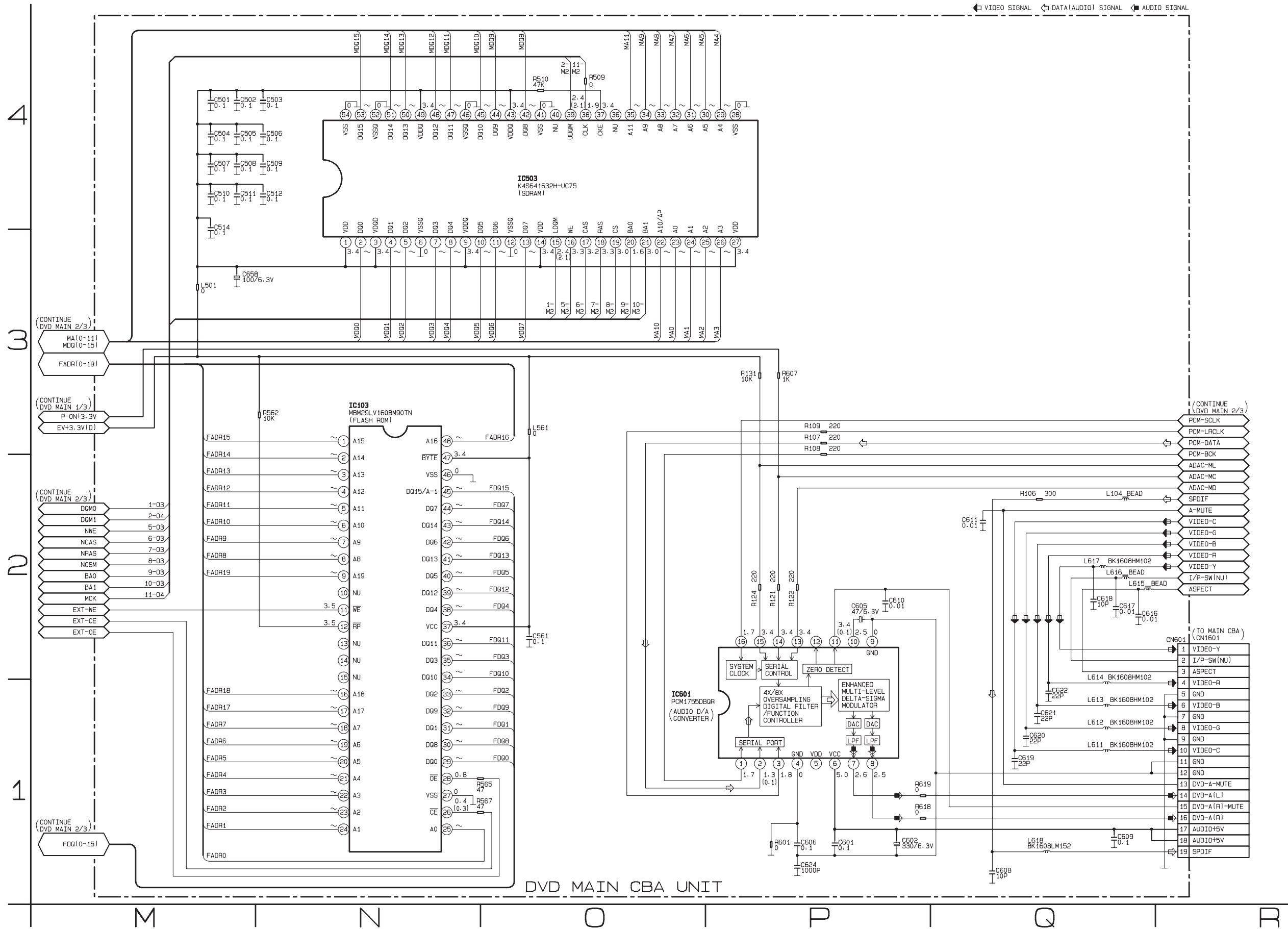


## IC101 VOLTAGE CHART

PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP	PIN.NO	PLAY	STOP
1	~	~	33	~	~	65	0	0	97	----	----	129	2.3	2.3	161	3.4	3.4	193	~	~	225	3.4	3.4
2	~	~	34	3.4	3.4	66	3.4	3.5	98	3.4	3.4	130	2.3	2.3	162	0	0	194	~	~	226	~	~
3	0	0	35	0	0	67	3.2	3.2	99	0.9	0.8	131	2.3	2.3	163	1.8	1.8	195	~	~	227	~	~
4	~	~	36	~	~	68	0	0	100	0	0	132	2.4	2.3	164	0	0	196	3.4	3.4	228	~	~
5	~	~	37	~	~	69	----	----	101	2.4	2.4	133	2.4	2.4	165	1.7	1.8	197	~	~	229	0	0
6	3.4	3.4	38	0.4	0.3	70	3.4	3.4	102	2.2	2.2	134	2.4	2.4	166	1.7	1.7	198	~	~	230	~	~
7	~	~	39	~	~	71	----	----	103	1.9	1.9	135	2.3	2.3	167	3.4	3.4	199	~	~	231	3.4	3.4
8	~	~	40	~	~	72	----	----	104	0.4	0.3	136	2.3	2.3	168	0	0	200	~	~	232	1.3	1.6
9	0	0	41	~	~	73	3.4	3.4	105	0	0	137	2.3	2.3	169	1.8	1.8	201	0	0	233	~	~
10	~	~	42	~	~	74	0	0	106	1.7	1.7	138	2.3	2.3	170	1.7	1.7	202	3.4	3.4	234	1.9	2.3
11	~	~	43	~	~	75	1.7	1.8	107	3.4	3.4	139	1.7	1.7	171	1.3	0.1	203	~	~	235	0	0
12	3.4	3.4	44	1.3	1.3	76	2.3	1.8	108	----	----	140	----	----	172	1.3	1.3	204	~	~	236	1.3	1.3
13	~	~	45	~	~	77	----	----	109	----	----	141	3.4	3.4	173	0	0	205	0	0	237	~	~
14	~	~	46	~	~	78	----	----	110	1.9	1.9	142	1.3	1.3	174	----	----	206	~	~	238	~	~
15	~	~	47	~	~	79	----	----	111	1.9	1.9	143	2.1	1.7	175	----	----	207	~	~	239	3.4	3.4
16	0	0	48	3.4	3.4	80	3.4	0.1	112	1.7	1.7	144	2.2	2.2	176	----	----	208	~	~	240	3.4	3.3
17	~	~	49	0	0	81	0.1	0.1	113	1.7	1.7	145	0	0	177	1.8	1.7	209	3.4	3.4	241	1.9	1.9
18	~	~	50	~	~	82	2.8	2.8	114	1.7	1.7	146	1.7	1.7	178	3.4	3.5	210	~	~	242	0	0
19	3.4	3.4	51	~	~	83	0.1	0.1	115	1.7	1.7	147	1.8	1.7	179	0	0	211	~	~	243	1.9	1.9
20	0	0	52	0.8	0.8	84	3.4	3.4	116	1.7	1.7	148	1.7	1.7	180	----	----	212	~	~	244	3.4	3.3
21	0.1	0.1	53	0	0	85	0.1	0.1	117	1.7	1.7	149	0.6	0.5	181	----	----	213	0	0	245	3.4	3.4
22	3.5	3.5	54	0	0	86	3.6	3.4	118	3.4	3.4	150	3.4	3.4	182	----	----	214	----	----	246	3.4	3.4
23	~	~	55	1.4	1.4	87	0	0	119	2.0	2.0	151	0.5	0.6	183	3.5	3.5	215	----	----	247	0	0
24	~	~	56	3.4	3.4	88	3.5	0.1	120	1.7	1.7	152	0.5	0.4	184	----	----	216	3.4	3.4	248	3.3	3.4
25	~	~	57	3.5	3.5	89	1.3	1.3	121	1.5	1.5	153	1.4	1.3	185	----	----	217	~	~	249	3.2	3
26	1.3	1.3	58	----	----	90	----	----	122	0	0	154	1.4	1.3	186	----	----	218	0	0	250	0	0
27	~	~	59	3.4	3.4	91	----	----	123	0.3	0.1	155	2.4	2.4	187	----	----	219	1.3	1.3	251	3.2	3.0
28	3.4	3.4	60	3.4	3.4	92	----	----	124	1.2	0.1	156	3.4	3.4	188	----	----	220	~	~	252	~	~
29	0	0	61	3.5	3.5	93	0	0	125	0.3	0.1	157	0	0	189	----	----	221	~	~	253	0	0
30	~	~	62	3.4	3.4	94	----	----	126	0.1	0.1	158	0.9	0.9	190	3.4	3.5	222	0	0	254	~	~
31	~	~	63	0	0	95	----	----	127	2.3	2.3	159	3.4	3.4	191	0	0	223	~	~	255	3.4	3.4
32	~	~	64	0	0	96	----	----	128	1.7	1.7	160	0	0	192	~	~	224	~	~	256	~	~



# DVD Main 3/3 Schematic Diagram < DVD Section >



# WAVEFORMS

**NOTE:**

Input

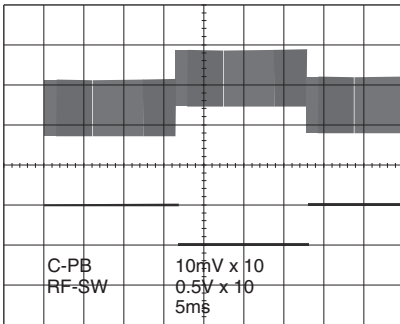
VCR: COLOR BAR SIGNAL  
(WF1~WF3)

DVD: POWER ON (STOP) MODE  
(WF4~WF6)

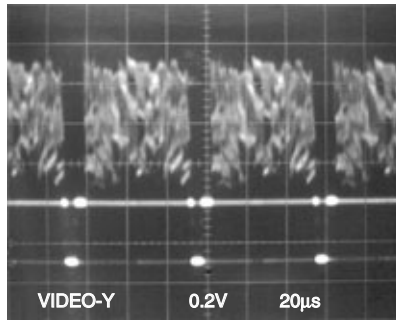
CD: 1kHz PLAY  
(WF7~WF9)

**WF2** UPPER TP301

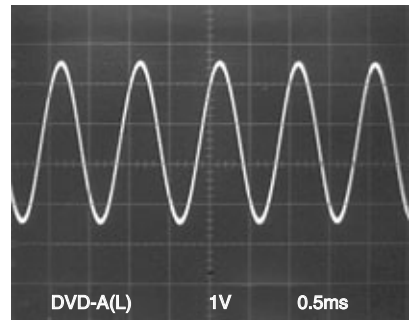
**WF1** LOWER TP504



**WF4** Pin 1 of CN1601

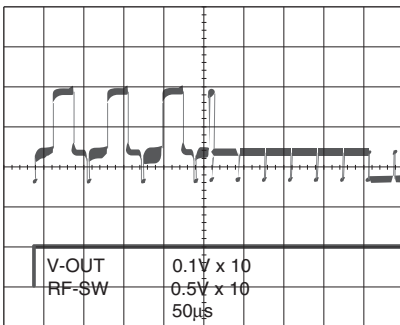


**WF7** Pin 14 of CN1601

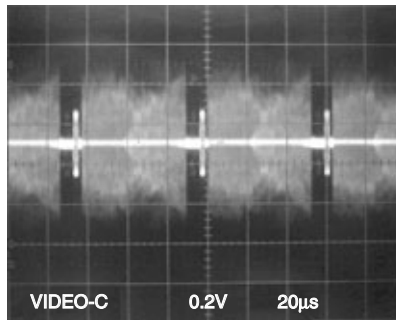


**WF3** UPPER TP751

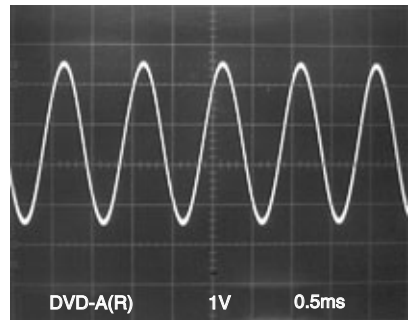
**WF1** LOWER TP504



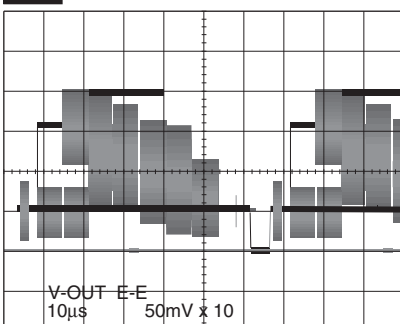
**WF5** Pin 10 of CN1601



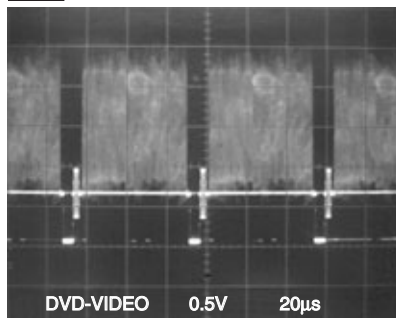
**WF8** Pin 16 of CN1601



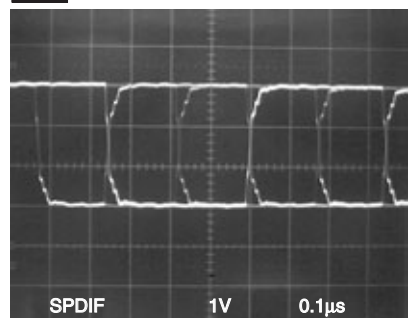
**WF3** TP751



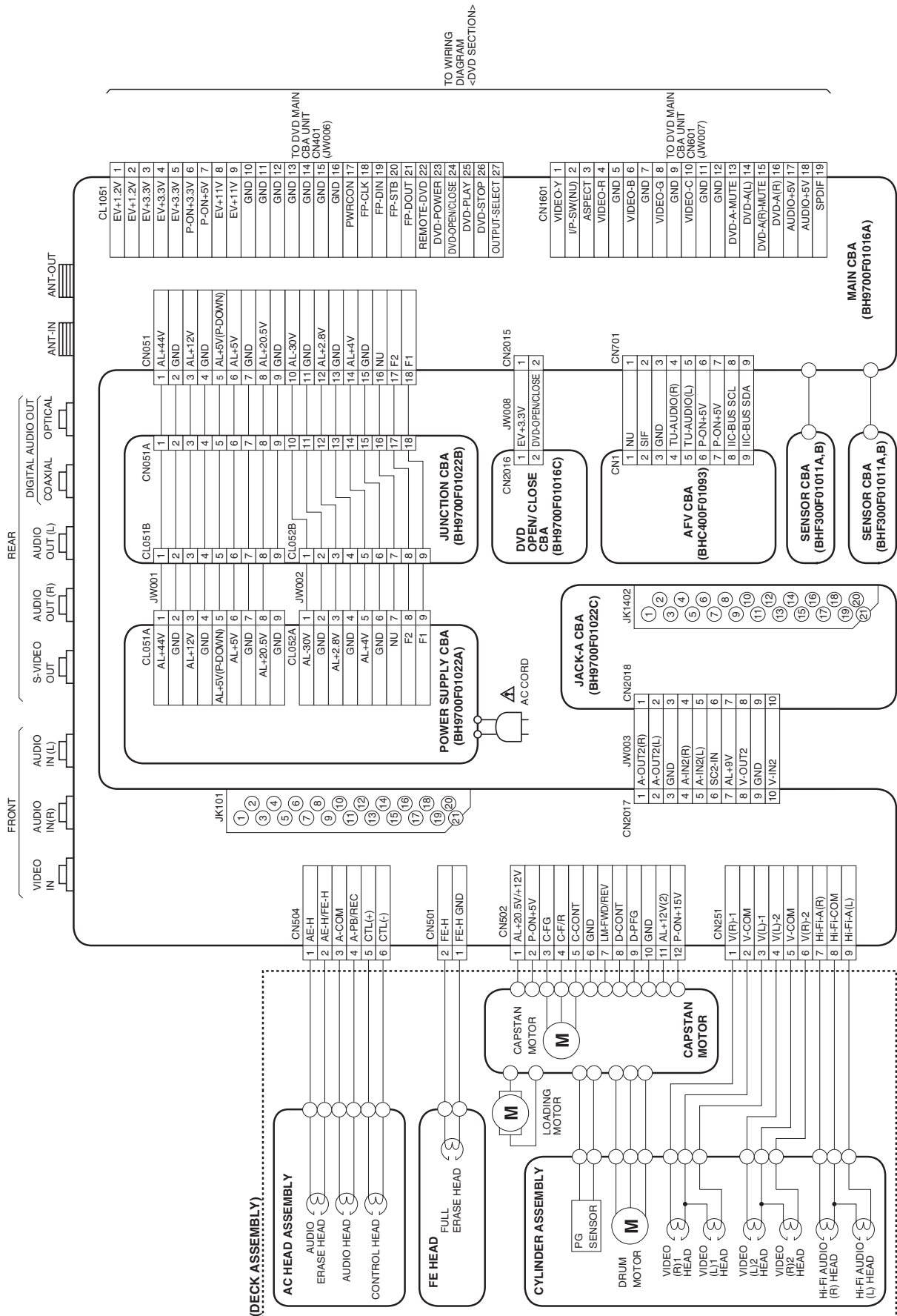
**WF6** Pin 6 of IC1403



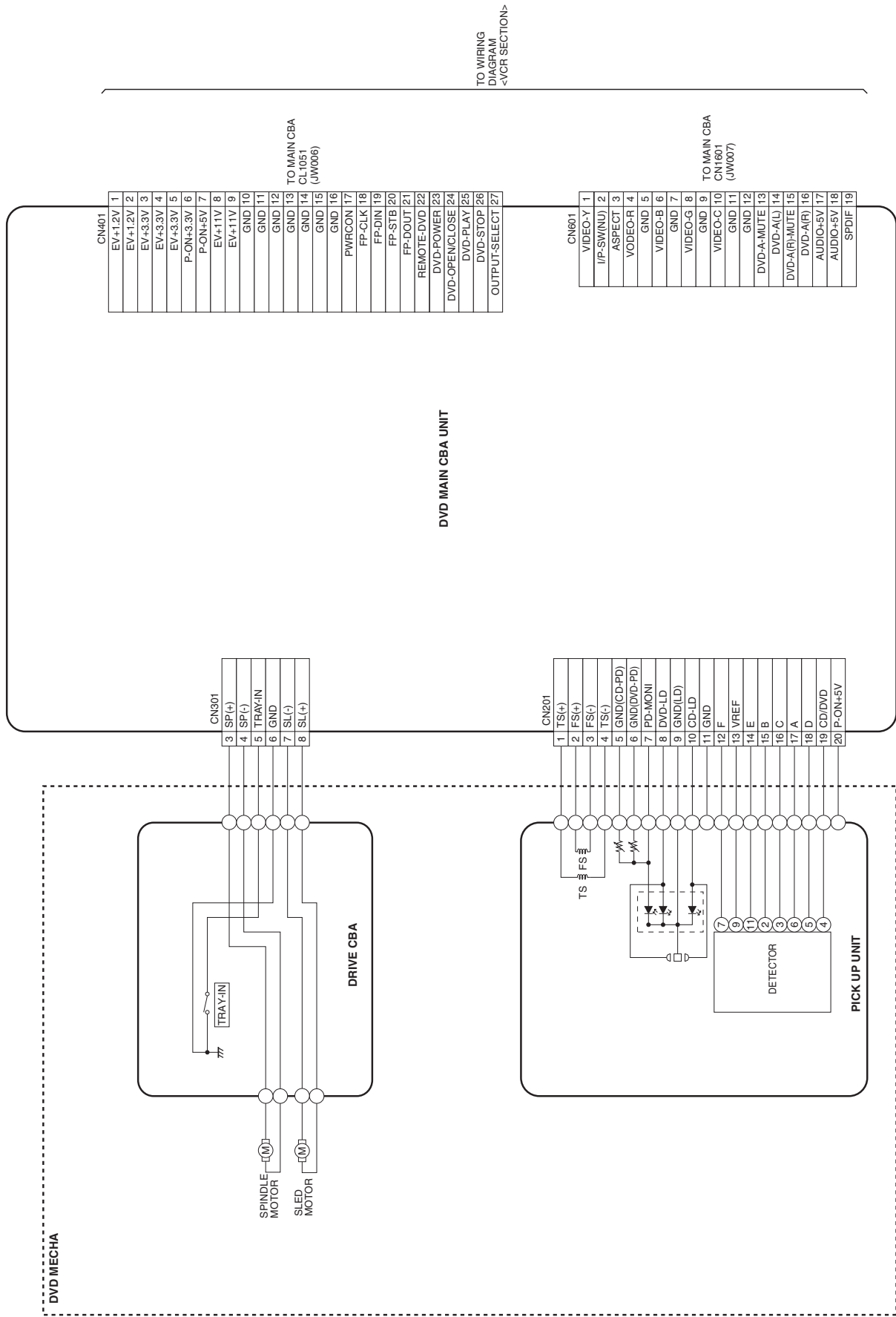
**WF9** Pin 19 of CN1601



# WIRING DIAGRAM < VCR SECTION >



# WIRING DIAGRAM < DVD SECTION >



# IC PIN FUNCTION DESCRIPTIONS

## [ VCR Section ]

### IC501( SERVO / SYSTEM CONTROL IC )

“H” ≥ 4.5V, “L” ≤ 1.0V

Pin No.	IN/OUT	Signal Name	Function	Active Level
1	IN	SC2-IN	Input Signal from Pin 8 of SCART2	A/D
2	IN	PG-Delay	Video Head Switching Pulse Signal Adjusted Voltage	A/D
3	IN	POW-SAF	P-ON Power Detection Input Signal	A/D
4	IN	END-S	Tape End Position Detect Signal	A/D
5	IN	AFC	Automatic Frequency Control Signal	A/D
6	IN	V-ENV	Video Envelope Comparator Signal	A/D
7	IN	KEY-1	Key Scan Input Signal 1	A/D
8	IN	KEY-2	Key Scan Input Signal 2	A/D
9	IN	LD-SW	Deck Mode Position Detector Signal	A/D
10	IN	ST-S	Tape Start Position Detector Signal	A/D
11	-	NU	Not Used	-
12	-	NU	Not Used	-
13	OUT	D-V- SYNC	Dummy V-sync Output	H/Hi-z
14	IN	REMOTE-VIDEO	Remote Control Sensor	L
15	OUT	C-ROTA	Color Phase Rotary Changeover Signal	H/L
16	OUT	H-A-SW	Video Head Amp Switching Pulse	H/L
17	IN	H-A-COMP	Head Amp Comparator Signal	H/L
18	OUT	RF-SW	Video Head Switching Pulse	H/L
19	OUT	Hi-Fi-H-SW	HiFi Audio Head Switching Pulse	H/L
20	-	NU	Not Used	-
21	OUT	DVD-POWER	DVD Power Control Signal	H
22	-	NU	Not Used	-
23	OUT	POWER-LED	“POWER” LED Signal Output	H/L

Pin No.	IN/OUT	Signal Name	Function	Active Level
24	-	NU	Not Used	-
25	-	NU	Not Used	-
26	-	NU	Not Used	-
27	-	NU	Not Used	-
28	OUT	LINE-MUTE	Audio Mute Control Signal	H
29	OUT	DVD-LED	“DVD” LED Signal Output	H/L
30	OUT	VCR-LED	“VCR” LED Signal Output	H/L
31	IN	REC-SAF-SW	Recording Safety SW Detect (With Record tab=“L”/ With out Record tab=“H”)	H/L
32	IN	A-MODE	Hi-Fi Tape Detection Signal	L
33	OUT	D-REC-H	Delayed Record Signal	H
34	IN	RESET	System Reset Signal (Reset=“L”)	L
35	IN	XCin	Sub Clock	-
36	OUT	XCOU	Sub Clock	-
37	-	Vcc	Vcc	-
38	IN	Xin	Main Clock Input	-
39	OUT	Xout	Main Clock Input	-
40	-	GND	Vss(GND)	-
41	OUT	INPUT SELECT	Input Selector Control Signal	H/L
42	IN	DVD-8PIN-IN	SCART 8Pin DVD Input Control Signal	H/L
43	IN	CLKSEL	Clock Select (GND)	L
44	IN	OSCin	Clock Input for letter size	-
45	OUT	OSCO	Clock Output for letter size	-
46	-	NUB	Not Used	-
47	IN	LP	LP	-
48	IN	FSC-IN [4.43MHz]	4.43MHz Clock Input	-
49	-	OSDVss	OSDVss	-
50	IN	OSD-V-IN	OSD Video Signal Input	-
51	-	NU	Not Used	-
52	OUT	OSD-V-OUT	OSD Video Signal Output	-
53	-	OSDVcc	OSDVcc	-

Pin No.	IN/OUT	Signal Name	Function	Active Level
54	-	HLF	LPF Connected Terminal (Slicer)	-
55	-	NU	Not Used	-
56	-	NU	Not Used	-
57	-	NU	Not Used	-
58	IN	C-SYNC	Composite Synchronized Pulse	PULSE
59	OUT	8POUT-1	Control SCART 1 8Pin Level by using 8POUT-1 and 8POUT-2	H/L
60	OUT	8POUT-2	Control SCART 1 8Pin Level by using 8POUT-1 and 8POUT-2	Hi-z/L
61	-	NU	Not Used	-
62	-	NU	Not Used	-
63	-	NU	Not Used	-
64	-	NU	Not Used	-
65	-	NU	Not Used	-
66	OUT	C-POW-SW	Capstan Power Switching Signal	H/L
67	OUT	P-ON-H	Power On Signal at High	H
68	OUT	DRV-DATA	VFD Driver IC Control Data	H/L
69	OUT	DRV-STB	VFD Driver IC Chip Select Signal	H/L
70	OUT	DRV-CLK	VFD Driver IC Control Clock	H/L
71	OUT	IIC-BUS-SCL	IIC BUS Control Clock	H/L
72	IN/OUT	IIC-BUS-SDA	IIC BUS Control Data	H/L
73	-	NU	Not Used	-
74	-	NU	Not Used	-
75	IN	DVD-POWER-MONITOR	DVD Power Monitor Signal (P-off="L", P-on="H")	H/L
76	OUT	C-CONT	Capstan Motor Control Signal	PWM
77	OUT	D-CONT	Drum Motor Control Signal	PWM
78	OUT	C-F/R	Capstan Motor FWD/REV Control Signal (FWD="L"/REV="H")	H/L
79	IN	S-REEL	Supply Reel Rotation Signal	PULSE
80	IN	T-REEL	Take Up Reel Rotation Signal	PULSE

Pin No.	IN/OUT	Signal Name	Function	Active Level
81	OUT	LM-FWD/REV	Loading Motor Control Signal	H/L/Hi-z
82	OUT	OUTPUT-SELECT	Output Select	H/L
83	OUT	A-MUTE-H	Audio Mute Control Signal (Mute = "H")	H
84	-	NU	Not Used	-
85	-	NU	Not Used	-
86	IN	P-DOWN-L	Power Voltage Down Detector Signal	L
87	IN	C-FG	Capstan Motor Rotation Detection Pulse	PULSE
88	-	NU	Not Used	-
89	-	NU	Not Used	-
90	IN	D-PFG	Drum Motor Phase/Frequency Generator	PULSE
91	-	AMPVREF OUT	V-Ref for CTL AMP	-
92	-	AMPVREF in	V-Ref for CTL AMP	-
93	-	P80/C	P80/C Terminal	-
94	IN/OUT	CTL -	Playback/Record Control Signal (-)	H/L
95	IN/OUT	CTL +	Playback/Record Control Signal (+)	H/L
96	-	AMPC	CTL AMP Connected Terminal	-
97	-	CTLAMP out	To Monitor for CTL AMP Output	PULSE
98	-	AMPVcc	AMPVcc	-
99	-	AVcc	A/D Converter Power Input/Standard Voltage Input	-
100	IN	AGC	IF AGC Comparator Signal	A/D

**Notes:**

Abbreviation for Active Level:

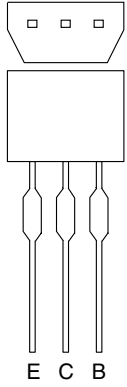
PWM -----Pulse Wide Modulation

A/D-----Analog - Digital Converter

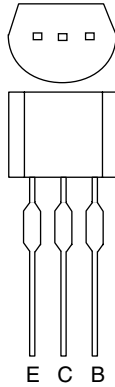
## IC612 ( FIP DRIVER )

Pin No.	IN/ OUT	Signal Name	Name Function
1	IN	FP-CLK	Clock Input
2	IN	FP-STB	Serial Interface Strobe
3	-	NU	Not Used
4	-	NU	Not Used
5	-	VSS	GND
6	-	VDD	Power Supply
7	OUT	a	Segment Output
8		b	
9		c	
10		d	
11		e	
12		f	
13		g	
14		h	
15	-	VEE	Pull Down Level
16	OUT	i	Segment Output
17	OUT	7G	Grid Output
18		6G	
19		5G	
20		4G	
21		3G	
22		2G	
23		1G	
24	-	VDD	Power Supply
25	-	VSS	GND
26	IN	OSC	Oscillator Input
27	-	NU	Not Used
28	IN	FP-DIN	Serial Data Input

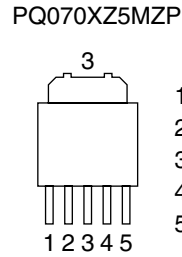
# LEAD IDENTIFICATIONS



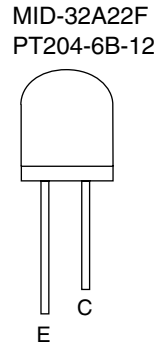
2SA1175(F,H,J)  
2SC2785(F,H,J)  
BA1F4M-T  
BN1F4M-T  
BN1L4M-T  
KRA103M  
KRC103M  
KTA1266(GR)  
KTA1267(GR,Y)  
KTC3199(BL,GR,Y)  
RN2204(T)



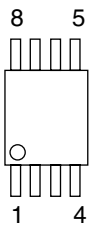
2SA1015-GR(TPE2)  
2SA1020(Y)  
2SC1815-BL(TPE2)  
2SC1815-GR(TPE2)  
2SC1815-Y(TPE2)  
2SC2120-Y(TPE2)  
2SC3266-Y(TPE2)  
KTA1281(Y)  
KTC3203(Y)  
KTC3205(Y)



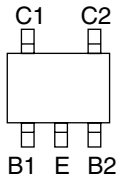
1: Vin  
2: Vc  
3: Vo  
4: Vadj  
5: GND



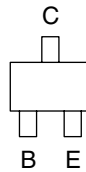
KIA4558P  
NJM4558D  
RC4580IP



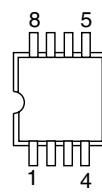
FMG4A T148  
RN1511(TE85R)



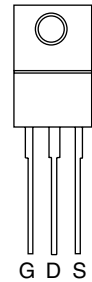
FA1F4M-T1B  
KRC103S RTK  
KTC3875Y-RTK



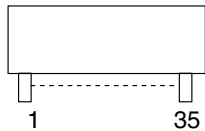
BR24L02F-WE2  
CAT24WC02JI



2SK3566



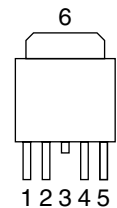
7-BT-298N  
7-BT-298NY



EL817A  
EL817B  
LTV-817B-F  
PS2561A-1(Q,W)

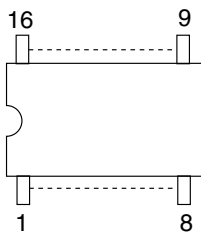


BA3948FP-E2

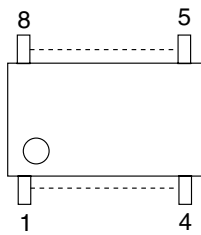


1: CTL  
2: Vcc  
3: N.C.  
4: OUT  
5: C  
6: GND

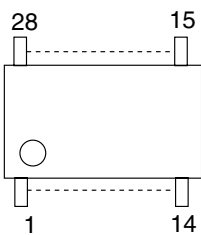
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CD4053BCSJX  
CD4053BNSR  
TC4053BF(N)



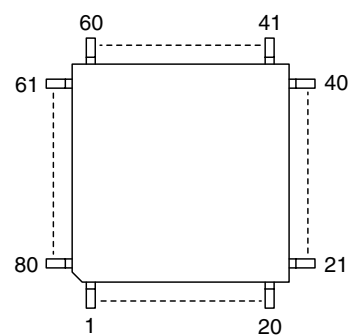
MM1636XWRE



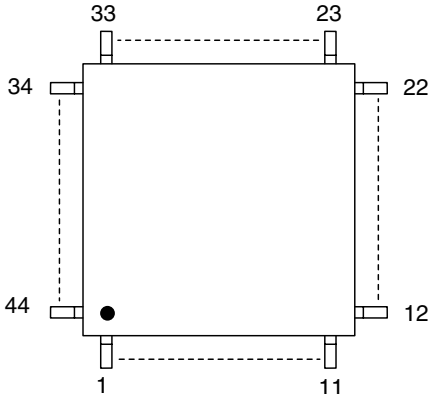
PT6313-S-TP



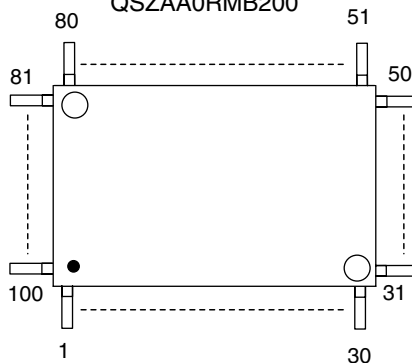
LA72648M-MPB-E



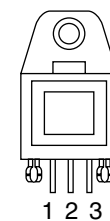
MSP3417G-QG-B8  
MSP3417G-QG-B8-V3



LA71750EM-MPB-E  
QSZAA0RMB200



0C-0805T\*002  
GP1FA513TZ



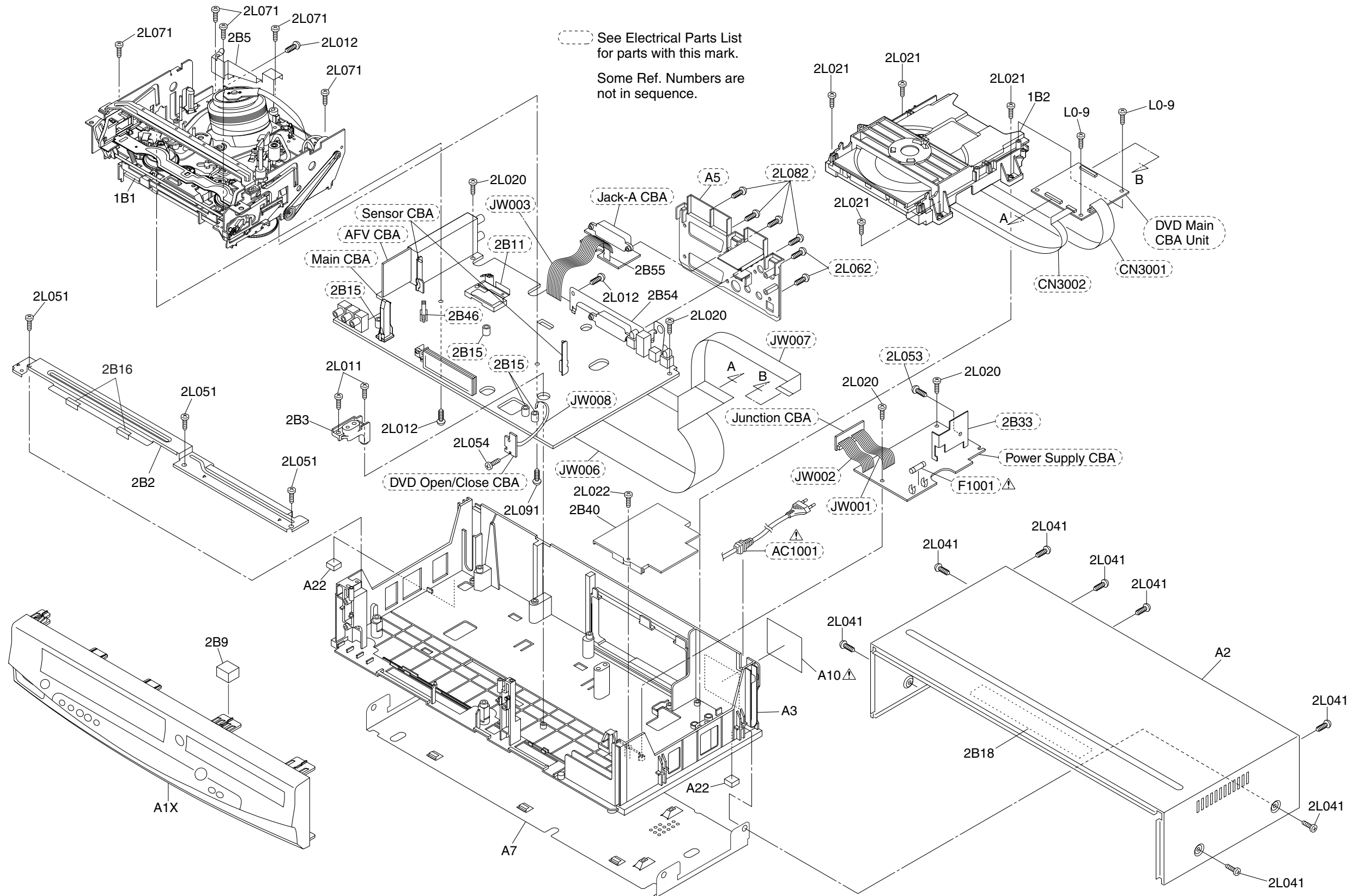
**Note:**

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



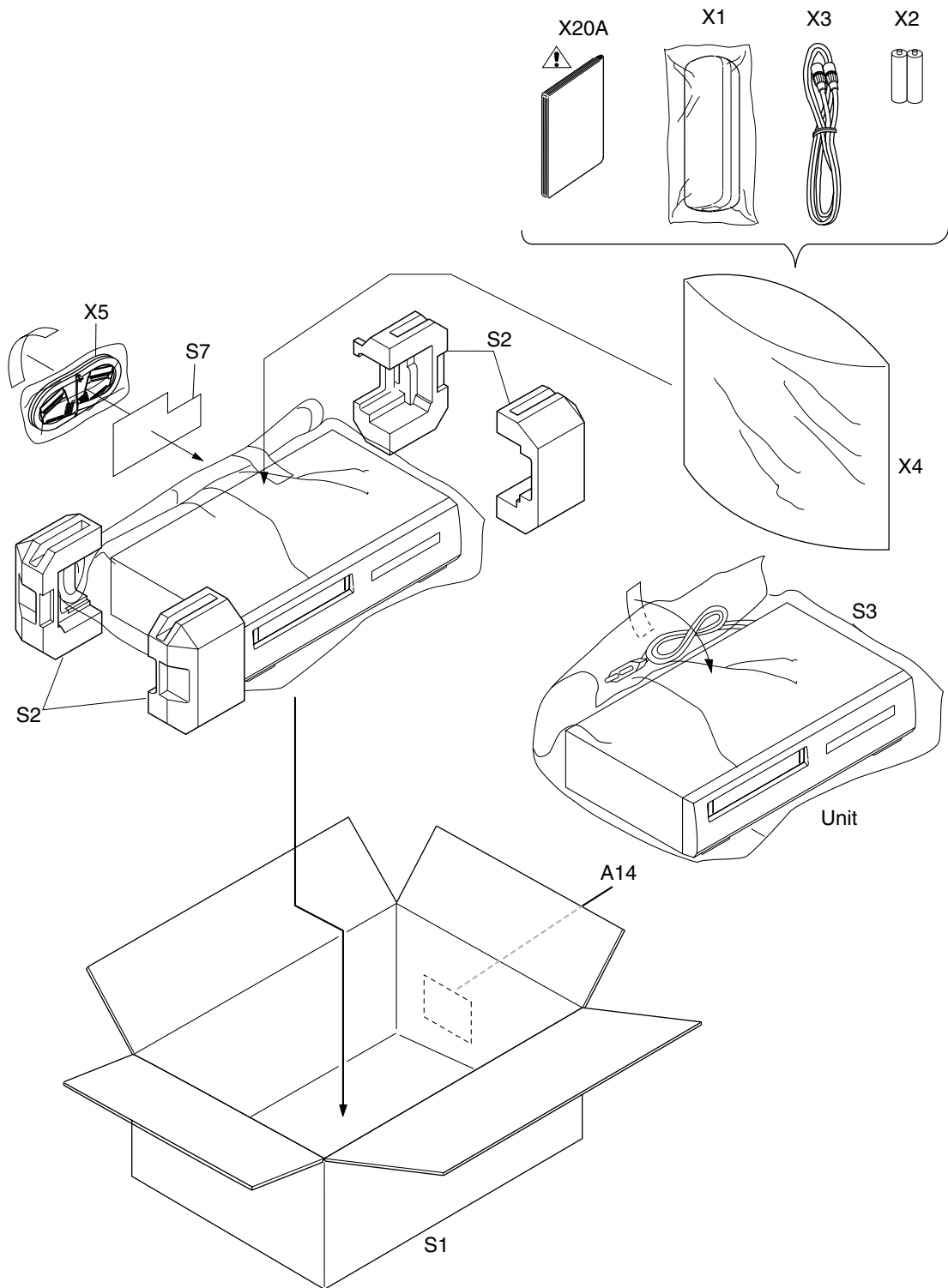
# EXPLODED VIEWS

## Cabinet




# Packing

Some Ref. Numbers are not in sequence.




# 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	PartsNo.
A1X	FRONT ASSEMBLY H97L5YD	1VM220252
A2	TOP CASE(D5 PAL FTZ) H9700ED	0VM101358
A3	CHASSIS(D5 PAL FTZ) H9700ED	0VM000205
A7	PANEL, BOTTOM H9700ED	0VM204530
A10 <sup>△</sup>	RATING LABEL U H97L5YD or	-----
<sup>△</sup>	RATING LABEL D H97L5YD	-----
A14	LABEL, SERIAL NO. HE240ED or	-----
	BARCODE LABEL H97L5YD	-----
A22	CHASSIS FOOT H79P9JD	0VM412315
1B1	DECK ASSEMBLY CZD013/VM23ED	N23E0FL
1B2	DVD MECHA(FG LESS) 0838 VCZL0500	N79F0HVM
2B2	TOP BRACKET H9700ED	0VM204531
2B3	RODER HOLDER H9600UD	0VM306676
2B5	SHEILD, CYLINDER H9700ED	0VM306780
2B9	CUSHION HC460ED	0VM413251
2B16	TAPE, HIMELON H9206JD	0VM413956
2B18	FIBER, TOP CASE HC460ED	0VM412906
2B40	PARTITION PLATE H9700ED	0VM306765
2B54	PLATE, GROUND(RCA) H9700ED	0VM306867
2B55	PLATE, GROUND(21P) H9700ED	0VM416444
2L011	P-TIGHT SCREW 3X8 BIND +	GBMP3080
2L012	SCREW, S-TIGHT M3X6 BIND HEAD+	GBMS3060
2L020	P-TIGHT SCREW 3X8 BIND +	GBMP3080
2L021	SCREW, P-TIGHT 3X12 BIND HEAD+	GBMP3120
2L022	P-TIGHT SCREW 3X8 BIND +	GBMP3080
2L041	SCREW, P-TIGHT 3X6 BIND HEAD+	GBCP3060
2L051	SCREW, P-TIGHT M3X6 BIND HEAD+	GBMP3060
2L054	SCREW, P-TIGHT M3X6 BIND HEAD+	GBMP3060
2L071	SCREW, P-TIGHT M3X10 WASHER HEAD+	GCMP3100
2L091	SCREW, P-TIGHT M3X8 BIND HEAD+	GBCP3080
<b>PACKING</b>		
S1	GIFT BOX CARTON H97L5YD	1VM320527
S2	STYROFOAM H9600UD	0VM204474
S3	UNIT, BAG E5500UD	0VM411683
S7	21P PAD HC463FD	0VM413384
<b>ACCESSORIES</b>		
X1	REMOTE CONTROL UNIT 364/CZF05DD	NB104ED
X2	DRY BATTERY R6P/2S or	XB0M451T0001
	DRY BATTERY ES-GR6M-C	XB0M571GLP01
X3	RF CORD PAL 1.2M or	WPZ0122LG001
	RF CABLE CC1001020012010	WPZ0122LW001
X4	ACCESSORY BAG K8092BA	0VM404632
X5	21P CABLE(BYR SUPPLY) HE2E0YD(BYR SUPPLY)	0VMN04017
X20A <sup>△</sup>	OWNERS MANUAL EN H97L5YD	1VMN20324

# 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:**

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

C.....±0.25%    D.....±0.5%    F.....±1%  
 G.....±2%    J.....±5%    K.....±10%  
 M.....±20%    N.....±30%    Z.....+80/-20%

## DVD MAIN CBA UNIT

Ref. No.	Description	Part No.
	DVD MAIN CBA UNIT	N79GWHEP

## MCV CBA

Ref. No.	Description	Part No.
	MCV CBA Consists of the following:	1VSA10273
	MAIN CBA(MCV-A)	-----
	DVD OPEN/CLOSE CBA(MCV-C)	-----
	SENSOR CBA	1VSA10047

## MAIN CBA

Ref. No.	Description	Part No.
	MAIN CBA (MCV-A) Consists on the following:	-----
<b>CAPACITORS</b>		
C056	ELECTROLYTIC CAP. 47µF/25V M or ELECTROLYTIC CAP. 47µF/25V M	CE1EMASDL470 CE1EMASTL470
C057	ELECTROLYTIC CAP. 10µF/16V M or ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100 CE1CMASTL100
C058	ELECTROLYTIC CAP. 220µF/6.3V M H7	CE0KMASSL221
C059	ELECTROLYTIC CAP. 100µF/6.3V M or ELECTROLYTIC CAP. 100µF/6.3V M	CE0KMASDL101 CE0KMASTL101
C060	CHIP CERAMIC CAP.(1608) B K 0.047µF/50V or CHIP CERAMIC CAP.(1608) B K 0.047µF/25V	CHD1JK30B473 CHD1EK30B473
C062	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ30F104 CHD1EZ30F104 CHD1JZ3FZ104
C063	ELECTROLYTIC CAP. 47µF/16V M or ELECTROLYTIC CAP. 47µF/16V M	CE1CMASDL470 CE1CMASTL470
C068	CHIP CERAMIC CAP.(1608) CH J 470pF/50V or CHIP CERAMIC CAP. CG J 470pF/50V	CHD1JJ3CH471 CHD1JJ3CG471
C104	ELECTROLYTIC CAP. 100µF/16V M or ELECTROLYTIC CAP. 100µF/16V M	CE1CMASDL101 CE1CMASTL101
C107	ELECTROLYTIC CAP. 470µF/6.3V M or ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASDL471 CE0KMASTL471
C109	CHIP CERAMIC CAP.(1608) CH J 470pF/50V or	CHD1JJ3CH471

Ref. No.	Description	Part No.
	CHIP CERAMIC CAP. CG J 470pF/50V	CHD1JJ3CG471
C112	CHIP CERAMIC CAP.(1608) CH J 470pF/50V or CHIP CERAMIC CAP. CG J 470pF/50V	CHD1JJ3CH471 CHD1JJ3CG471
C113	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ30F104 CHD1EZ30F104 CHD1JZ3FZ104
C114	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C116	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C117	ELECTROLYTIC CAP. 1µF/50V M or ELECTROLYTIC CAP. 1µF/50V M	CE1JMASDL1R0 CE1JMASTL1R0
C118	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C121	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMAVSL1R0
C122	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMAVSL1R0
C123	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMAVSL1R0
C124	ELECTROLYTIC CAP. 470µF/6.3V M or ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASDL471 CE0KMASTL471
C125	ELECTROLYTIC CAP. 470µF/6.3V M or ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASDL471 CE0KMASTL471
C126	ELECTROLYTIC CAP. 470µF/6.3V M or ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASDL471 CE0KMASTL471
C127	ELECTROLYTIC CAP. 10µF/16V M or ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100 CE1CMASTL100
C128	ELECTROLYTIC CAP. 22µF/6.3V M H7	CE0KMAVSL220
C129	ELECTROLYTIC CAP. 100µF/16V M H7	CE1CMAVSL101
C130	ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMAVSL4R7
C131	ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMAVSL4R7
C132	ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMAVSL4R7
C133	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ30F104 CHD1EZ30F104 CHD1JZ3FZ104
C134	ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C135	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C136	ELECTROLYTIC CAP. 100µF/6.3V H7	CE0KMAVSL101
C251	ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C252	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ30F104 CHD1EZ30F104 CHD1JZ3FZ104
C253	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C254	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMAVSL1R0
C301	CHIP CERAMIC CAP.(1608) B K 0.022µF/50V or CHIP CERAMIC CAP.(1608) B K 0.022µF/25V	CHD1JK30B223 CHD1EK30B223
C302	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMAVSL1R0
C303	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ30F104 CHD1EZ30F104 CHD1JZ3FZ104
C305	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMAVSL1R0
C306	CHIP CERAMIC CAP.(1608) B K 0.047µF/50V or CHIP CERAMIC CAP.(1608) B K 0.047µF/25V	CHD1JK30B473 CHD1EK30B473
C307	CHIP CERAMIC CAP.(1608) B K 0.022µF/50V or CHIP CERAMIC CAP.(1608) B K 0.022µF/25V	CHD1JK30B223 CHD1EK30B223
C308	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ30F104 CHD1EZ30F104 CHD1JZ3FZ104
C309	CHIP CERAMIC CAP.(1608) CH J 68pF/50V or CHIP CERAMIC CAP. CG J 68pF/50V	CHD1JJ3CH680 CHD1JJ3CG680
C310	CHIP CERAMIC CAP.(1608) CH J 68pF/50V or CHIP CERAMIC CAP. CG J 68pF/50V	CHD1JJ3CH680 CHD1JJ3CG680

Ref. No.	Description	Part No.
C311	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C312	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C313	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMASSL1R0
C314	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C315	CHIP CERAMIC CAP.(1608) B K 0.047μF/50V or	CHD1JK30B473
	CHIP CERAMIC CAP.(1608) B K 0.047μF/25V	CHD1EK30B473
C316	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C317	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C319	CHIP CERAMIC CAP.(1608) CH J 68pF/50V or	CHD1JJ3CH680
	CHIP CERAMIC CAP. CG J 68pF/50V	CHD1JJ3CG680
C320	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C321	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C322	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C323	CHIP CERAMIC CAP.(1608) CH J 68pF/50V or	CHD1JJ3CH680
	CHIP CERAMIC CAP. CG J 68pF/50V	CHD1JJ3CG680
C324	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C325	CHIP CERAMIC CAP. B K 8200pF/50V	CHD1JK30B822
C326	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C328	ELECTROLYTIC CAP. 47μF/6.3V M H7	CE0KMAVSL470
C329	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C331	ELECTROLYTIC CAP. 47μF/6.3V M H7	CE0KMAVSL470
C333	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C334	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C335	ELECTROLYTIC CAP. 100μF/6.3V H7	CE0KMAVSL101
C336	CHIP CERAMIC CAP. CH J 220pF/50V or	CHD1JJ3CH221
	CHIP CERAMIC CAP. CG J 220pF/50V	CHD1JJ3CG221
C337	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C339	CHIP CERAMIC CAP. CH J 120pF/50V or	CHD1JJ3CH121
	CHIP CERAMIC CAP. CG J 120pF/50V	CHD1JJ3CG121
C340	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C341	CHIP CERAMIC CAP.(1608) CH D 10pF/50V or	CHD1JD3CH100
	CHIP CERAMIC CAP.(1608) CG D 10pF/50V	CHD1JD3CG100
C342	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C343	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C344	ELECTROLYTIC CAP. 4.7μF/25V M NP H7	CP1EMAVSB4R7
C345	ELECTROLYTIC CAP. 0.47μF/50V M H7	CE1JMAVSLR47
C346	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C347	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V or	CHD1EK30B104
	CHIP CERAMIC CAP.(1608) B K 0.1μF/16V	CHD1CK30B104
C349	ELECTROLYTIC CAP. 0.47μF/50V M H7	CE1JMAVSLR47
C350	CERAMIC CAP.(AX) F Z 0.1μF/50V	CCA1JZTFZ104

Ref. No.	Description	Part No.
C402	FILM CAP.(P) 0.018μF/100V J or	CMA2AJP00183
	FILM CAP.(P) 0.018μF/50V J or	CMA1JJP00183
	FILM CAP.(P) 0.018μF/50V J	CA1J183MS029
C403	CERAMIC CAP. B K 470pF/100V	CCD2AKS0B471
C404	ELECTROLYTIC CAP. 220μF/6.3V M H7	CE0KMASSL221
C405	ELECTROLYTIC CAP. 47μF/6.3V M H7	CE0KMAVSL470
C407	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C408	CHIP CERAMIC CAP. B K 1800pF/50V	CHD1JK30B182
C409	CHIP CERAMIC CAP.(1608) CH J 33pF/50V or	CHD1JJ3CH330
	CHIP CERAMIC CAP. CG J 33pF/50V	CHD1JJ3CG330
C410	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C411	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C412	ELECTROLYTIC CAP. 33μF/6.3V M H7	CE0KMAVSL330
C413	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C414	CHIP CERAMIC CAP.(1608) B K 0.022μF/50V or	CHD1JK30B223
	CHIP CERAMIC CAP.(1608) B K 0.022μF/25V	CHD1EK30B223
C415	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C416	CHIP CERAMIC CAP.(1608) B K 4700pF/50V	CHD1JK30B472
C417	ELECTROLYTIC CAP. 22μF/6.3V M H7	CE0KMAVSL220
C418	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C419	CHIP CERAMIC CAP. CH J 220pF/50V or	CHD1JJ3CH221
	CHIP CERAMIC CAP. CG J 220pF/50V	CHD1JJ3CG221
C421	ELECTROLYTIC CAP. 47μF/6.3V M H7	CE0KMAVSL470
C451	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C452	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C453	ELECTROLYTIC CAP. 22μF/10V M H7	CE1AMAVSL220
C454	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C455	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C456	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C457	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C458	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C461	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C462	CHIP CERAMIC CAP.(1608) B K 4700pF/50V	CHD1JK30B472
C463	ELECTROLYTIC CAP. 22μF/10V M H7	CE1AMAVSL220
C464	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C465	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C466	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C467	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C468	ELECTROLYTIC CAP. 220μF/6.3V M H7	CE0KMAVSL221
C469	ELECTROLYTIC CAP. 22μF/10V M H7	CE1AMAVSL220
C470	CHIP CERAMIC CAP.(1608) B K 4700pF/50V	CHD1JK30B472
C471	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C472	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C473	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C474	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104

Ref. No.	Description	Part No.
C475	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C476	ELECTROLYTIC CAP. 22μF/6.3V M H7	CE0KMAVSL220
C477	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C478	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C479	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C480	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C481	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C482	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C483	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C484	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMAVSL4R7
C485	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMAVSL100
C486	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C487	ELECTROLYTIC CAP. 47μF/16V M H7	CE1CMAVSL470
C488	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C502	CHIP CERAMIC CAP.(1608) B K 0.022μF/50V or	CHD1JK30B223
	CHIP CERAMIC CAP.(1608) B K 0.022μF/25V	CHD1EK30B223
C505	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C506	ELECTROLYTIC CAP. 220μF/6.3V M H7	CE0KMAVSL221
C507	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C508	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C509	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C510	CHIP CERAMIC CAP.(1608) B K 4700pF/50V	CHD1JK30B472
C511	CHIP CERAMIC CAP.(1608) CH J 100pF/50V or	CHD1JJ3CH101
	CHIP CERAMIC CAP.(1608) CG J 100pF/50V	CHD1JJ3CG101
C512	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C514	CHIP CERAMIC CAP. CH J 330pF/50V or	CHD1JJ3CH331
	CHIP CERAMIC CAP. CG J 330pF/50V	CHD1JJ3CG331
C515	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C516	ELECTROLYTIC CAP. 22μF/6.3V M H7	CE0KMAVSL220
C517	CERAMIC CAP.(AX) F Z 0.022μF/25V	CCA1EZTFZ223
C518	ELECTROLYTIC CAP. 22μF/6.3V M H7	CE0KMAVSL220
C519	CHIP CERAMIC CAP. CH J 560pF/50V or	CHD1JJ3CH561
	CHIP CERAMIC CAP. CG J 560pF/50V	CHD1JJ3CG561
C521	ELECTROLYTIC CAP. 22μF/6.3V M H7	CE0KMAVSL220
C522	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C524	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C527	CERAMIC CAP.(AX) B K 100pF/50V	CCA1JKTOB101
C531	CHIP CERAMIC CAP.(1608) B K 4700pF/50V	CHD1JK30B472
C533	CHIP CERAMIC CAP.(1608) B K 0.047μF/50V or	CHD1JK30B473
	CHIP CERAMIC CAP.(1608) B K 0.047μF/25V	CHD1EK30B473
C534	ELECTROLYTIC CAP. 47μF/6.3V M H7	CE0KMAVSL470
C535	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C538	CHIP CERAMIC CAP. CH J 180pF/50V or	CHD1JJ3CH181

Ref. No.	Description	Part No.
	CHIP CERAMIC CAP. CG J 180pF/50V	CHD1JJ3CG181
C539	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C540	CHIP CERAMIC CAP.(1608) B K 4700pF/50V	CHD1JK30B472
C541	CHIP CERAMIC CAP. CH J 18pF/50V or	CHD1JJ3CH180
	CHIP CERAMIC CAP. CG J 18pF/50V	CHD1JJ3CG180
C542	CHIP CERAMIC CAP. CH J 18pF/50V or	CHD1JJ3CH180
	CHIP CERAMIC CAP. CG J 18pF/50V	CHD1JJ3CG180
C543	CHIP CERAMIC CAP.(1608) CH J 22pF/50V or	CHD1JJ3CH220
	CHIP CERAMIC CAP. CG J 22pF/50V	CHD1JJ3CG220
C544	CHIP CERAMIC CAP.(1608) CH J 22pF/50V or	CHD1JJ3CH220
	CHIP CERAMIC CAP. CG J 22pF/50V	CHD1JJ3CG220
C545	CHIP CERAMIC CAP.(1608) CH J 22pF/50V or	CHD1JJ3CH220
	CHIP CERAMIC CAP. CG J 22pF/50V	CHD1JJ3CG220
C546	CHIP CERAMIC CAP.(1608) CH J 22pF/50V or	CHD1JJ3CH220
	CHIP CERAMIC CAP. CG J 22pF/50V	CHD1JJ3CG220
C547	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C548	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C549	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C550	ELECTROLYTIC CAP. 100μF/6.3V H7	CE0KMAVSL101
C553	ELECTROLYTIC CAP. 22μF/10V M H7	CE1AMAVSL220
C555	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V or	CHD1EK30B104
	CHIP CERAMIC CAP.(1608) B K 0.1μF/16V	CHD1CK30B104
C612	CHIP CERAMIC CAP.(1608) B K 4700pF/50V	CHD1JK30B472
C614	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C615	ELECTROLYTIC CAP. 100μF/6.3V H7	CE0KMAVSL101
C616	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C703	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C704	CERAMIC CAP.(AX) SL J 39pF/50V	CCA1JJTSL390
C706	CHIP CERAMIC CAP.(1608) B K 0.047μF/50V or	CHD1JK30B473
	CHIP CERAMIC CAP.(1608) B K 0.047μF/25V	CHD1EK30B473
C709	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C711	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C712	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ3FZ104
C714	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C715	CHIP CERAMIC CAP. F Z 0.22μF/16V or	CHD1CZ30F224
	CHIP CERAMIC CAP. FZ Z 0.22μF/25V	CHD1EZ3FZ224
C716	CHIP CERAMIC CAP. F Z 0.22μF/16V or	CHD1CZ30F224
	CHIP CERAMIC CAP. FZ Z 0.22μF/25V	CHD1EZ3FZ224
C751	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C752	ELECTROLYTIC CAP. 47μF/10V M H7	CE1AMAVSL470
C753	ELECTROLYTIC CAP. 4.7μF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7μF/50V M	CE1JMASTL4R7
C754	ELECTROLYTIC CAP. 4.7μF/50V M H7	CE1JMASSL4R7
C755	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C756	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C757	ELECTROLYTIC CAP. 47μF/6.3V M H7	CE0KMASSL470
C758	CERAMIC CAP.(AX) Y M 0.01μF/16V	CCA1CMT0Y103
C783	CHIP CERAMIC CAP.(1608) CH J 470pF/50V or	CHD1JJ3CH471
	CHIP CERAMIC CAP. CG J 470pF/50V	CHD1JJ3CG471
C784	CHIP CERAMIC CAP.(1608) CH J 470pF/50V or	CHD1JJ3CH471
	CHIP CERAMIC CAP. CG J 470pF/50V	CHD1JJ3CG471
C1039	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or	CHD1EZ30F104

Ref. No.	Description	Part No.
	CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C1040	ELECTROLYTIC CAP. 100µF/6.3V M or	CE0KMASDL101
	ELECTROLYTIC CAP. 100µF/6.3V M	CE0KMASTL101
C1042	ELECTROLYTIC CAP. 470µF/6.3V M or	CE0KMASDL471
	ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASTL471
C1056	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1201	ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMASL100
C1202	ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMASL100
C1205	CHIP CERAMIC CAP. CH J 220pF/50V or	CHD1JJ3CH221
	CHIP CERAMIC CAP. CG J 220pF/50V	CHD1JJ3CG221
C1206	CHIP CERAMIC CAP. CH J 220pF/50V or	CHD1JJ3CH221
	CHIP CERAMIC CAP. CG J 220pF/50V	CHD1JJ3CG221
C1207	CHIP CERAMIC CAP.(1608) CH J 47pF/50V or	CHD1JJ3CH470
	CHIP CERAMIC CAP. CG J 47pF/50V	CHD1JJ3CG470
C1208	CHIP CERAMIC CAP.(1608) CH J 47pF/50V or	CHD1JJ3CH470
	CHIP CERAMIC CAP. CG J 47pF/50V	CHD1JJ3CG470
C1221	ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C1222	ELECTROLYTIC CAP. 10µF/16V M or	CE1CMASDL100
	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASL100
C1223	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V or	CHD1JJ3CH102
	CHIP CERAMIC CAP. CG J 1000pF/50V	CHD1JJ3CG102
C1224	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1245	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C1246	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C1247	ELECTROLYTIC CAP. 470µF/16V M or	CE1CMASDL471
	ELECTROLYTIC CAP. 470µF/16V M	CE1CMASL471
C1249	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASDL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASL470
C1351	ELECTROLYTIC CAP. 22µF/6.3V M H7	CE0KMAVSL220
C1352	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C1353	CHIP CERAMIC CAP.(1608) B K 0.1µF/25V or	CHD1EK30B104
	CHIP CERAMIC CAP.(1608) B K 0.1µF/16V	CHD1CK30B104
C1354	CHIP CERAMIC CAP.(1608) CH J 100pF/50V or	CHD1JJ3CH101
	CHIP CERAMIC CAP.(1608) CG J 100pF/50V	CHD1JJ3CG101
C1355	CHIP CERAMIC CAP. F Z 1µF/10V or	CHD1AZB0F105
	CHIP CERAMIC CAP. F Z 1µF/10V	CHD1AZ30F105
C1359	CHIP CERAMIC CAP. CH D 9pF/50V	CHD1JD3CH9R0
C1393	ELECTROLYTIC CAP. 470µF/6.3V M or	CE0KMASDL471
	ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASTL471
C1394	ELECTROLYTIC CAP. 47µF/6.3V M or	CE0KMASDL470
	ELECTROLYTIC CAP. 47µF/6.3V M	CE0KMASTL470
C1421	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1422	CHIP CERAMIC CAP.(1608) B K 0.1µF/25V or	CHD1EK30B104
	CHIP CERAMIC CAP.(1608) B K 0.1µF/16V	CHD1CK30B104
C1441	CHIP CERAMIC CAP.(1608) B K 0.33µF/10V	CHD1AK30B334
C1442	ELECTROLYTIC CAP. 470µF/6.3V M or	CE0KMASDL471
	ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASTL471
C1522	ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C1523	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
C1524	ELECTROLYTIC CAP. 100µF/6.3V H7	CE0KMAVSL101
C1535	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1536	ELECTROLYTIC CAP. 22µF/6.3V M H7	CE0KMAVSL220
C2002	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102

Ref. No.	Description	Part No.
C2004	ELECTROLYTIC CAP. 100µF/6.3V H7	CE0KMAVSL101
C2012	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ Z 0.1µF/50V	CHD1JZ3FZ104
<b>CONNECTORS</b>		
CN051	CONNECTOR BASE, 18P TUC-P18P-B1	J3TUA18TG001
CN701	AFV PCB ASSEMBLY CPD0500/9701	H9701AFV
<b>DIODES</b>		
D051	RECTIFIER DIODE 1N4005 or	NDQZ001N4005
	RECTIFIER DIODE 1N4005	NDWZ001N4005
D052	RECTIFIER DIODE 1N4005 or	NDQZ001N4005
	RECTIFIER DIODE 1N4005	NDWZ001N4005
D054	ZENER DIODE DZ-10BSBT265 or	NDTB00DZ10BS
	ZENER DIODE MTZJT-7710B	QDTB00MTZJ10
D056	ZENER DIODE DZ-18BSBT265 or	NDTB00DZ18BS
	ZENER DIODE MTZJT-7718B	QDTB00MTZJ18
D057	RECTIFIER DIODE 1N4005 or	NDQZ001N4005
	RECTIFIER DIODE 1N4005	NDWZ001N4005
D101	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D102	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D103	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D104	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D105	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D106	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D107	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D108	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D109	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D110	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D115	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D118	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D119	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D121	ZENER DIODE DZ-11BSAT265 or	NDTA00DZ11BS
	ZENER DIODE MTZJT-7711A	QDTA00MTZJ11
D301	SWITCHING DIODE 1N4148M or	NDTZ01N4148M
	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D502	LED(GREEN) 204-10GD/S957	NPQZ10GDS957
D503	LED(GREEN) 204-10GD/S957	NPQZ10GDS957
D505	LED(RED) 204HD/E	NPQZ00204HDE
D510	SWITCHING DIODE 1N4148M or	NDTZ01N4148M
	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D511	ZENER DIODE DZ-7.5BSAT265 or	NDTA0DZ7R5BS
	ZENER DIODE MTZJT-777.5A	QDTA0MTZJ7R5
D512	SWITCHING DIODE 1N4148M or	NDTZ01N4148M
	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D555	LED MIE-534A2 or	NPZZM1E534A2
	LED SIR-563ST3F P or	QPQPS1R563ST
	LED SIR-563ST3F Q	QPQPS1R563ST

Ref. No.	Description	Part No.
D611	SWITCHING DIODE 1N4148M or SWITCHING DIODE 1SS133(T-77)	NDTZ01N4148M QDTZ001SS133
D612	PCB JUMPER D0.6-P5.0	JW5.0T
D613	PCB JUMPER D0.6-P5.0	JW5.0T
D701	ZENER DIODE DZ-33B5SDT265 or ZENER DIODE MTZJT-7733D	NDTD00DZ33BS QDTD00MTZJ33
D1031	PCB JUMPER D0.6-P5.0	JW5.0T
D1052	RECTIFIER DIODE 1N4005 or RECTIFIER DIODE 1N4005	NDQZ001N4005 NDWZ001N4005
D1053	RECTIFIER DIODE 1N4005 or RECTIFIER DIODE 1N4005	NDQZ001N4005 NDWZ001N4005
D1054	RECTIFIER DIODE 1N4005 or RECTIFIER DIODE 1N4005	NDQZ001N4005 NDWZ001N4005
D1057	RECTIFIER DIODE 1N4005 or RECTIFIER DIODE 1N4005	NDQZ001N4005 NDWZ001N4005
D1301	ZENER DIODE DZ-5.6BSBT265 or ZENER DIODE MTZJT-775.6B	NDTB0DZ5R6BS QDTB0MTZJ5R6
<b>ICS</b>		
IC102	DRIVER FOR DVD MM1637XVBE	QSZBA0TMM102
IC301	IC:Y/C/A LA71750EM-MPB-E	QSZBA0RSY020
IC451	IC:HIFI LA72648M-MPB-E	QSZBA0RSY033
IC501	SYSCON IC M3776AMCA-AA8GP	QSZAA0RMB200
IC502	IC:EEPROM CAT24WC02JI or IC BR24L02F-WE2	NSZBA0SBG001 QSZBA0TRM068
IC611	V.F.D. 7-BT-298N or V.F.D. 7-BT-298NY	TVFD150FT012 TVFD150FT013
IC612	FL DRIVER IC PT6313-S-TP	NSZBA0TG2006
IC751	IC:SWITCH TC4053BF(N) or IC:SWITCH BU4053BCF-E2 or IC:ANALOG MULTIPLEXERS CD4053BCSJX or IC:ANALOG MULTIPLEXER CD4053BNSR	QSMBA0STS002 QSMDA0TRM010 NSZBA0TF3071 NSZBA0TTY093
IC1002	VOLTAGE REGULATOR PQ070XZ5MZP	QSZBA0TSH034
IC1003	VOLTAGE REGULATOR BA3948FP-E2	QSZBA0TRM073
IC1201	IC:OP AMP KIA4558P or IC:OP AMP NJM4558D or IC:OP AMP RC4580IP	NSZBA0SJY004 QSZBA0SJR006 NSZBA0STY173
IC1204	FIBER OPTIC TRANS.MODULE 0C-0805T*002 or FIBER OPTIC TRANS.MODULE GP1FA513TZ	JWHHA00JD002 JWHHA00SH005
IC1403	DRIVER FOR DVD MM1636XWRE	QSZBA0TMM108
IC1404	IC:SWITCH TC4053BF(N) or IC:SWITCH BU4053BCF-E2 or IC:ANALOG MULTIPLEXERS CD4053BCSJX or IC:ANALOG MULTIPLEXER CD4053BNSR	QSMBA0STS002 QSMDA0TRM010 NSZBA0TF3071 NSZBA0TTY093
<b>COILS</b>		
L053	INDUCTOR(100µH K) LAP02TA101K	LLAXKATTU101
L101	BEAD CORE B16 RH 3.5X10X1.3	XL03010XM001
L121	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
L122	CHOKE COIL 47µH-K or CHOKE COIL 47µH-K or CHOKE COIL 47µH-K	LLBD00PKV007 LLBD00PKV005 LLBD00PKT001
L251	INDUCTOR 5.6µH-K-26T	LLAXKATTU5R6
L302	INDUCTOR(100µH K) LAP02TA101K	LLAXKATTU101
L402	INDUCTOR 47µH-K-5FT	LLARKBSTU470
L451	INDUCTOR 47µH-K-5FT	LLARKBSTU470
L452	PCB JUMPER D0.6-P5.0	JW5.0T
L501	INDUCTOR(100µH K) LAP02TA101K	LLAXKATTU101
L502	PCB JUMPER D0.6-P5.0	JW5.0T
L503	INDUCTOR 1.8µH-K-26T	LLAXKATTU1R8
L701	INDUCTOR 15µH-K-26T	LLAXKATTU150
L702	PCB JUMPER D0.6-P5.0	JW5.0T

Ref. No.	Description	Part No.
L704	PCB JUMPER D0.6-P5.0	JW5.0T
L1251	INDUCTOR(0.47µH K) LAP02TAR47K	LLAXKATTUR47
L1351	INDUCTOR(100µH K) LAP02TA101K	LLAXKATTU101
L1521	CHOKE COIL 47µH-K or CHOKE COIL 47µH-K or CHOKE COIL 47µH-K	LLBD00PKV007 LLBD00PKV005 LLBD00PKT001
L1522	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
L2001	INDUCTOR(100µH K) LAP02TA101K	LLAXKATTU101
<b>TRANSISTORS</b>		
Q051	TRANSISTOR KTA1281(Y) or TRANSISTOR 2SA1020(Y)	NQSY0KTA1281 QQSY02SA1020
Q052	RES. BUILT-IN TRANSISTOR KRC103M or RES. BUILT-IN TRANSISTOR BA1F4M-T	NQSZ0KRC103M QQSZ00BA1F4M
Q053	TRANSISTOR RN2204(TE4, T) or RES. BUILT-IN TRANSISTOR BN1L4M-T	QQSZ00RN2204 QQSZ00BN1L4M
Q054	RES. BUILT-IN TRANSISTOR KRC103M or RES. BUILT-IN TRANSISTOR BA1F4M-T	NQSZ0KRC103M QQSZ00BA1F4M
Q055	TRANSISTOR KTC3199(Y) or TRANSISTOR KTC3199(GR) or TRANSISTOR 2SC2785(J) or TRANSISTOR 2SC2785(H) or TRANSISTOR 2SC2785(F) or TRANSISTOR 2SC1815-Y(TPE2) or TRANSISTOR 2SC1815-GR(TPE2)	NQSY0KTC3199 NQS10KTC3199 QQSJ02SC2785 QQSH02SC2785 QQSF02SC2785 QQSY02SC1815 QQS102SC1815
Q056	TRANSISTOR KTC3205(Y) or TRANSISTOR 2SC3266-Y(TPE2)	NQSY0KTC3205 QQSY02SC3266
Q057	RES. BUILT-IN TRANSISTOR KRA103M or RES. BUILT-IN TRANSISTOR BN1F4M-T	NQSZ0KRA103M QQSZ00BN1F4M
Q058	TRANSISTOR KTA1266(GR) or TRANSISTOR 2SA1015-GR(TPE2)	NQS40KTA1266 QQS102SA1015
Q059	RES. BUILT-IN TRANSISTOR KRC103M or RES. BUILT-IN TRANSISTOR BA1F4M-T	NQSZ0KRC103M QQSZ00BA1F4M
Q104	TRANSISTOR KTA1266(GR) or TRANSISTOR 2SA1015-GR(TPE2)	NQS40KTA1266 QQS102SA1015
Q107	TRANSISTOR KTC3199(Y) or TRANSISTOR KTC3199(GR) or TRANSISTOR 2SC2785(J) or TRANSISTOR 2SC2785(H) or TRANSISTOR 2SC2785(F) or TRANSISTOR 2SC1815-Y(TPE2) or TRANSISTOR 2SC1815-GR(TPE2)	NQSY0KTC3199 NQS10KTC3199 QQSJ02SC2785 QQSH02SC2785 QQSF02SC2785 QQSY02SC1815 QQS102SC1815
Q108	TRANSISTOR KTC3199(Y) or TRANSISTOR KTC3199(GR) or TRANSISTOR 2SC2785(J) or TRANSISTOR 2SC2785(H) or TRANSISTOR 2SC2785(F) or TRANSISTOR 2SC1815-Y(TPE2) or TRANSISTOR 2SC1815-GR(TPE2)	NQSY0KTC3199 NQS10KTC3199 QQSJ02SC2785 QQSH02SC2785 QQSF02SC2785 QQSY02SC1815 QQS102SC1815
Q302	TRANSISTOR KTC3199(Y) or TRANSISTOR KTC3199(GR) or TRANSISTOR 2SC2785(J) or TRANSISTOR 2SC2785(H) or TRANSISTOR 2SC2785(F) or TRANSISTOR 2SC1815-Y(TPE2) or TRANSISTOR 2SC1815-GR(TPE2)	NQSY0KTC3199 NQS10KTC3199 QQSJ02SC2785 QQSH02SC2785 QQSF02SC2785 QQSY02SC1815 QQS102SC1815
Q401	CHIP TRANSISTOR FMG4A T148 or CHIP TRANSISTOR RN1511(TE85R)	QQ2Z000FMG4A QQ2Z00RN1511
Q403	TRANSISTOR KTC3203(Y) or TRANSISTOR 2SC2120-Y(TPE2)	NQSY0KTC3203 QQSY02SC2120
Q404	TRANSISTOR KTA1266(GR) or TRANSISTOR 2SA1015-GR(TPE2)	NQS40KTA1266 QQS102SA1015



Ref. No.	Description	Part No.
Q405	RES. BUILT-IN TRANSISTOR KRA103M or	NQSZ0KRA103M
	RES. BUILT-IN TRANSISTOR BN1F4M-T	QSZ00BN1F4M
Q406	CHIP TRANSISTOR KTC3875Y-RTK	NQ1Y0KTC3875
Q451	CHIP TRANSISTOR KRC103S RTK or	NQ1Z0KRC103S
	CHIP TRANSISTOR FA1F4M-T1B	QQ8Z00FA1F4M
Q506	PHOTO TRANSISTOR PT204-6B-12 or	NPWZT2046B12
	PHOTO TRANSISTOR MID-32A22F	NPWZ1D32A22F
Q507	TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR 2SC2785(J) or	QJSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QJSH02SC2785
	TRANSISTOR 2SC2785(F) or	QJSF02SC2785
	TRANSISTOR 2SC1815-Y(TPE2) or	QJSY02SC1815
	TRANSISTOR 2SC1815-GR(TPE2)	QJS102SC1815
Q508	TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR 2SC2785(J) or	QJSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QJSH02SC2785
	TRANSISTOR 2SC2785(F) or	QJSF02SC2785
	TRANSISTOR 2SC1815-Y(TPE2) or	QJSY02SC1815
	TRANSISTOR 2SC1815-GR(TPE2)	QJS102SC1815
Q509	TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR 2SC2785(J) or	QJSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QJSH02SC2785
	TRANSISTOR 2SC2785(F) or	QJSF02SC2785
	TRANSISTOR 2SC1815-Y(TPE2) or	QJSY02SC1815
	TRANSISTOR 2SC1815-GR(TPE2)	QJS102SC1815
Q513	RES. BUILT-IN TRANSISTOR KRA103M or	NQSZ0KRC103M
	RES. BUILT-IN TRANSISTOR BA1F4M-T	QSZ00BA1F4M
Q514	TRANSISTOR KTC3199(BL) or	NQS50KTC3199
	TRANSISTOR 2SC1815-BL(TPE2)	QJS202SC1815
Q515	TRANSISTOR KTC3199(BL) or	NQS50KTC3199
	TRANSISTOR 2SC1815-BL(TPE2)	QJS202SC1815
Q753	TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR 2SC2785(J) or	QJSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QJSH02SC2785
	TRANSISTOR 2SC2785(F) or	QJSF02SC2785
	TRANSISTOR 2SC1815-Y(TPE2) or	QJSY02SC1815
	TRANSISTOR 2SC1815-GR(TPE2)	QJS102SC1815
Q754	TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR 2SC2785(J) or	QJSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QJSH02SC2785
	TRANSISTOR 2SC2785(F) or	QJSF02SC2785
	TRANSISTOR 2SC1815-Y(TPE2) or	QJSY02SC1815
	TRANSISTOR 2SC1815-GR(TPE2)	QJS102SC1815
Q1052	TRANSISTOR KTC3203(Y) or	NQSY0KTC3203
	TRANSISTOR 2SC2120-Y(TPE2)	QJSY02SC2120
Q1053	TRANSISTOR KTA1267(Y) or	NQSY0KTA1267
	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR 2SA1175(J) or	QJSJ02SA1175
	TRANSISTOR 2SA1175(H) or	QJSH02SA1175
	TRANSISTOR 2SA1175(F)	QJSF02SA1175
Q1054	TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR 2SC2785(J) or	QJSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QJSH02SC2785
	TRANSISTOR 2SC2785(F) or	QJSF02SC2785
	TRANSISTOR 2SC1815-Y(TPE2) or	QJSY02SC1815

Ref. No.	Description	Part No.
	TRANSISTOR 2SC1815-GR(TPE2)	QJS102SC1815
Q1055	TRANSISTOR KTC3203(Y) or	NQSY0KTC3203
	TRANSISTOR 2SC2120-Y(TPE2)	QJSY02SC2120
Q1204	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1015-GR(TPE2)	QJS102SA1015
Q1351	TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR 2SC2785(J) or	QJSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QJSH02SC2785
	TRANSISTOR 2SC2785(F) or	QJSF02SC2785
	TRANSISTOR 2SC1815-Y(TPE2) or	QJSY02SC1815
	TRANSISTOR 2SC1815-GR(TPE2)	QJS102SC1815
Q1352	TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR 2SC2785(J) or	QJSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QJSH02SC2785
	TRANSISTOR 2SC2785(F) or	QJSF02SC2785
	TRANSISTOR 2SC1815-Y(TPE2) or	QJSY02SC1815
	TRANSISTOR 2SC1815-GR(TPE2)	QJS102SC1815
Q1502	CHIP TRANSISTOR KRC103S RTK or	NQ1Z0KRC103S
	CHIP TRANSISTOR FA1F4M-T1B	QQ8Z00FA1F4M
Q1503	CHIP TRANSISTOR KTC3875Y-RTK	NQ1Y0KTC3875
<b>RESISTORS</b>		
R051	CARBON RES. 1/6W J 47k $\Omega$ or	RCX6JATZ0473
	CARBON RES. 1/4W J 47k $\Omega$	RCX4JATZ0473
R052	CARBON RES. 1/4W J 680 $\Omega$	RCX4JATZ0681
R053	CARBON RES. 1/4W J 680 $\Omega$	RCX4JATZ0681
R054	CHIP RES.(1608) 1/10W J 22k $\Omega$	RRXAJR5Z0223
R055	CARBON RES. 1/4W J 10k $\Omega$	RCX4JATZ0103
R056	PCB JUMPER D0.6-P5.0	JW5.0T
R058	CARBON RES. 1/4W J 1.2k $\Omega$	RCX4JATZ0122
R059	CARBON RES. 1/4W J 1.2k $\Omega$	RCX4JATZ0122
R060	CARBON RES. 1/4W J 1.2k $\Omega$	RCX4JATZ0122
R061	CARBON RES. 1/4W J 8.2k $\Omega$	RCX4JATZ0822
R062	CHIP RES.(1608) 1/10W J 180 $\Omega$	RRXAJR5Z0181
R064	CARBON RES. 1/4W J 8.2k $\Omega$	RCX4JATZ0822
R065	CHIP RES.(1608) 1/10W J 22k $\Omega$	RRXAJR5Z0223
R070	CARBON RES. 1/4W J 820 $\Omega$	RCX4JATZ0821
R072	CARBON RES. 1/6W J 1 $\Omega$ or	RCX6JATZ01R0
	CARBON RES. 1/4W J 1 $\Omega$	RCX4JATZ01R0
R112	CHIP RES.(1608) 1/10W J 220 $\Omega$	RRXAJR5Z0221
R113	CARBON RES. 1/4W J 680 $\Omega$	RCX4JATZ0681
R116	CARBON RES. 1/4W J 560 $\Omega$	RCX4JATZ0561
R119	CARBON RES. 1/4W J 75 $\Omega$	RCX4JATZ0750
R121	CARBON RES. 1/6W J 15k $\Omega$ or	RCX6JATZ0153
	CARBON RES. 1/4W J 15k $\Omega$	RCX4JATZ0153
R122	CHIP RES.(1608) 1/10W J 10k $\Omega$	RRXAJR5Z0103
R124	CARBON RES. 1/6W J 4.7k $\Omega$ or	RCX6JATZ0472
	CARBON RES. 1/4W J 4.7k $\Omega$	RCX4JATZ0472
R128	CHIP RES.(1608) 1/10W J 75 $\Omega$	RRXAJR5Z0750
R129	CARBON RES. 1/4W J 470 $\Omega$	RCX4JATZ0471
R130	CARBON RES. 1/6W J 4.7k $\Omega$ or	RCX6JATZ0472
	CARBON RES. 1/4W J 4.7k $\Omega$	RCX4JATZ0472
R131	CARBON RES. 1/4W J 470 $\Omega$	RCX4JATZ0471
R132	CHIP RES. 1/10W F 160 $\Omega$ or	RRXAFR5H1600
	CHIP RES. 1/10W F 160 $\Omega$	RRXAFR5Z1600
R133	CHIP RES. 1/10W F 160 $\Omega$ or	RRXAFR5H1600
	CHIP RES. 1/10W F 160 $\Omega$	RRXAFR5Z1600
R134	CHIP RES. 1/10W F 160 $\Omega$ or	RRXAFR5H1600
	CHIP RES. 1/10W F 160 $\Omega$	RRXAFR5Z1600
R135	CHIP RES.(1608) 1/10W J 2.2k $\Omega$	RRXAJR5Z0222

Ref. No.	Description	Part No.
R136	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R137	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R138	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R140	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R141	CHIP RES.(1608) 1/10W J 150 Ω	RRXAJR5Z0151
R142	CHIP RES.(1608) 1/10W J 180 Ω	RRXAJR5Z0181
R143	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R144	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R145	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R146	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R147	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R148	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R149	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R150	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R251	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R252	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R301	CHIP RES.(1608) 1/10W J 1.2k Ω	RRXAJR5Z0122
R303	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R304	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R305	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R306	CHIP RES.(1608) 1/10W J 5.6M Ω	RRXAJR5Z0565
R307	CARBON RES. 1/6W J 33 Ω or CARBON RES. 1/4W J 33 Ω	RCX6JATZ0330 RCX4JATZ0330
R309	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R310	CARBON RES. 1/6W J 33 Ω or CARBON RES. 1/4W J 33 Ω	RCX6JATZ0330 RCX4JATZ0330
R311	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R314	CHIP RES.(1608) 1/10W J 3.9k Ω	RRXAJR5Z0392
R316	CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R317	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R319	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R320	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R321	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R322	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R323	CHIP RES.(1608) 1/10W J 1.2k Ω	RRXAJR5Z0122
R324	CHIP RES.(1608) 1/10W J 1.2k Ω	RRXAJR5Z0122
R325	CHIP RES.(1608) 1/10W J 1.2k Ω	RRXAJR5Z0122
R326	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R327	CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R328	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R330	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R331	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R332	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R333	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R334	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R335	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R336	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R337	CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R339	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R341	CHIP RES.(1608) 1/10W J 33 Ω	RRXAJR5Z0330
R342	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R401	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R402	CARBON RES. 1/6W J 100 Ω or CARBON RES. 1/4W J 100 Ω	RCX6JATZ0101 RCX4JATZ0101
R404	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R405	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R406	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R407	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R408	CHIP RES.(1608) 1/10W J 12k Ω	RRXAJR5Z0123
R409	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R410	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102

Ref. No.	Description	Part No.
R411	CHIP RES.(1608) 1/10W J 27k Ω	RRXAJR5Z0273
R412	CHIP RES.(1608) 1/10W J 120 Ω	RRXAJR5Z0121
R413	CHIP RES.(1608) 1/10W J 330k Ω	RRXAJR5Z0334
R414	CHIP RES.(1608) 1/10W J 12k Ω	RRXAJR5Z0123
R415	CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R416	CHIP RES.(1608) 1/10W J 560 Ω	RRXAJR5Z0561
R417	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R418	CHIP RES.(1608) 1/10W J 12k Ω	RRXAJR5Z0123
R419	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R420	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R421	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R430	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R431	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R451	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R452	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R453	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R454	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R455	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R456	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R457	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R458	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R459	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R460	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R461	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R462	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R463	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R464	CHIP RES.(1608) 1/10W J 3.3k Ω	RRXAJR5Z0332
R465	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R466	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R467	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R468	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R469	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R470	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R471	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R472	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R473	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R474	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R475	CHIP RES.(1608) 1/10W J 47k Ω	RRXAJR5Z0473
R476	CHIP RES.(1608) 1/10W J 150 Ω	RRXAJR5Z0151
R477	CHIP RES.(1608) 1/10W J 150 Ω	RRXAJR5Z0151
R478	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R479	CHIP RES.(1608) 1/10W J 33 Ω	RRXAJR5Z0330
R480	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R481	CHIP RES.(1608) 1/10W J 33 Ω	RRXAJR5Z0330
R482	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R483	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R484	CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R501	CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R502	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R503	CHIP RES.(1608) 1/10W J 3.9k Ω	RRXAJR5Z0392
R504	CHIP RES.(1608) 1/10W J 3.9k Ω	RRXAJR5Z0392
R507	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R509	CHIP RES.(1608) 1/10W J 180 Ω	RRXAJR5Z0181
R511	CARBON RES. 1/6W G 3.6k Ω or CARBON RES. 1/4W G 3.6k Ω	RCX6GATZ0362 RCX4GATZ0362
R512	CHIP RES.(1608) 1/10W J 68k Ω	RRXAJR5Z0683
R513	CHIP RES.(1608) 1/10W J 33k Ω	RRXAJR5Z0333
R514	CARBON RES. 1/6W G 10k Ω or CARBON RES. 1/4W G 10k Ω	RCX6GATZ0103 RCX4GATZ0103
R516	CARBON RES. 1/6W G 470 Ω or CARBON RES. 1/4W G 470 Ω	RCX6GATZ0471 RCX4GATZ0471

Ref. No.	Description	Part No.
R517	CARBON RES. 1/4W J 270 Ω	RCX4JATZ0271
R519	CARBON RES. 1/6W G 22k Ω or	RCX6GATZ0223
	CARBON RES. 1/4W G 22k Ω	RCX4GATZ0223
R523	CARBON RES. 1/6W G 1.5k Ω or	RCX6GATZ0152
	CARBON RES. 1/4W G 1.5k Ω	RCX4GATZ0152
R525	CARBON RES. 1/6W J 390k Ω or	RCX6JATZ0394
	CARBON RES. 1/4W J 390k Ω	RCX4JATZ0394
R526	CHIP RES.(1608) 1/10W J 390k Ω	RRXAJR5Z0394
R527	CARBON RES. 1/6W J 330 Ω or	RCX6JATZ0331
	CARBON RES. 1/4W J 330 Ω	RCX4JATZ0331
R528	CARBON RES. 1/6W G 4.7k Ω or	RCX6GATZ0472
	CARBON RES. 1/4W G 4.7k Ω	RCX4GATZ0472
R529	CHIP RES.(1608) 1/10W J 3.9k Ω	RRXAJR5Z0392
R530	CARBON RES. 1/4W J 270 Ω	RCX4JATZ0271
R531	CHIP RES.(1608) 1/10W J 3.9k Ω	RRXAJR5Z0392
R532	CARBON RES. 1/4W J 270 Ω	RCX4JATZ0271
R533	CHIP RES.(1608) 1/10W J 3.9k Ω	RRXAJR5Z0392
R536	CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R537	CHIP RES.(1608) 1/10W J 680 Ω	RRXAJR5Z0681
R538	CHIP RES.(1608) 1/10W J 1.5k Ω	RRXAJR5Z0152
R539	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R540	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R541	CHIP RES.(1608) 1/10W J 18k Ω	RRXAJR5Z0183
R542	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R543	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R544	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R545	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R546	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R548	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R550	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R552	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R558	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R560	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R562	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R567	CHIP RES.(1608) 1/10W J 39k Ω	RRXAJR5Z0393
R568	CHIP RES.(1608) 1/10W J 220k Ω	RRXAJR5Z0224
R569	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R570	CARBON RES. 1/6W J 4.7k Ω or	RCX6JATZ0472
	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R572	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R574	CHIP RES.(1608) 1/10W J 560 Ω	RRXAJR5Z0561
R575	CHIP RES.(1608) 1/10W J 330k Ω	RRXAJR5Z0334
R576	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R577	CHIP RES.(1608) 1/10W J 1.5k Ω	RRXAJR5Z0152
R578	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R581	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R582	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R583	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R584	CHIP RES.(1608) 1/10W J 100 Ω	RRXAJR5Z0101
R585	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R586	CHIP RES.(1608) 1/10W J 820 Ω	RRXAJR5Z0821
R588	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R591	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R601	CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R602	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R603	CHIP RES.(1608) 1/10W J 1.2k Ω	RRXAJR5Z0122
R604	CHIP RES.(1608) 1/10W J 1.5k Ω	RRXAJR5Z0152
R605	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R613	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R614	CHIP RES.(1608) 1/10W J 5.1k Ω	RRXAJR5Z0512
R615	CHIP RES.(1608) 1/10W J 5.1k Ω	RRXAJR5Z0512

Ref. No.	Description	Part No.
R616	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R617	PCB JUMPER D0.6-P5.0	JW5.0T
R618	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R621	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R622	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R623	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R624	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R703	CARBON RES. 1/6W J 1.8k Ω or	RCX6JATZ0182
	CARBON RES. 1/4W J 1.8k Ω	RCX4JATZ0182
R704	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R705	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R706	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R707	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R756	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R757	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R759	CARBON RES. 1/6W J 150 Ω or	RCX6JATZ0151
	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R760	CHIP RES.(1608) 1/10W J 150 Ω	RRXAJR5Z0151
R761	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R762	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R763	CHIP RES.(1608) 1/10W J 4.7k Ω	RRXAJR5Z0472
R764	CARBON RES. 1/6W J 47k Ω or	RCX6JATZ0473
	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R765	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R767	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R768	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R769	PCB JUMPER D0.6-P5.0	JW5.0T
R902	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R931	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R932	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R933	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R941	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R942	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R943	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1056	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R1057	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R1060	PCB JUMPER D0.6-P5.0	JW5.0T
R1061	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1062	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1065	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1066	CHIP RES.(1608) 1/10W J 220k Ω	RRXAJR5Z0224
R1067	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R1068	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1071	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1072	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R1085	CHIP RES.(1608) 1/10W F 75 Ω or	RRXAFR5H0750
	CHIP RES.(1608) 1/10W F 75 Ω	RRXAFR5Z0750
R1086	CHIP RES.(1608) 1/10W F 2.0k Ω or	RRXAFR5H0202
	CHIP RES. 1/10W F 2.0k Ω	RRXAFR5Z0202
R1087	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1090	CHIP RES.(1608) 1/10W J 56k Ω	RRXAJR5Z0563
R1091	CHIP RES.(1608) 1/10W J 33k Ω	RRXAJR5Z0333
R1205	CHIP RES.(1608) 1/10W F 20k Ω or	RRXAFR5H2002
	CHIP RES.(1608) 1/10W F 20k Ω	RRXAFR5Z2002
R1206	CHIP RES.(1608) 1/10W F 20k Ω or	RRXAFR5H2002
	CHIP RES.(1608) 1/10W F 20k Ω	RRXAFR5Z2002
R1207	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R1208	CHIP RES.(1608) 1/10W J 8.2k Ω	RRXAJR5Z0822
R1209	CHIP RES.(1608) 1/10W F 30k Ω or	RRXAFR5H3002
	CHIP RES.(1608) 1/10W F 30k Ω	RRXAFR5Z3002
R1210	CHIP RES.(1608) 1/10W F 30k Ω or	RRXAFR5H3002

Ref. No.	Description	Part No.
	CHIP RES.(1608) 1/10W F 30k Ω	RRXAFR5Z3002
R1211	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1221	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R1222	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R1223	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R1224	CHIP RES.(1608) 1/10W J 470 Ω	RRXAJR5Z0471
R1227	CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R1228	CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R1229	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1233	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1236	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1238	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1240	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R1245	CHIP RES.(1608) 1/10W J 10 Ω	RRXAJR5Z0100
R1351	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1352	CHIP RES.(1608) 1/10W J 1.8k Ω	RRXAJR5Z0182
R1353	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1354	CHIP RES.(1608) 1/10W J 2.2k Ω	RRXAJR5Z0222
R1355	CHIP RES.(1608) 1/10W J 220 Ω	RRXAJR5Z0221
R1356	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
R1361	CHIP RES.(1608) 1/10W J 100k Ω	RRXAJR5Z0104
R1364	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R1394	CARBON RES. 1/6W J 100 Ω or	RCX6JATZ0101
	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R1396	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R1421	CHIP RES. 1/10W F 160 Ω or	RRXAFR5H1600
	CHIP RES. 1/10W F 160 Ω	RRXAFR5Z1600
R1422	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R1423	CHIP RES. 1/10W F 160 Ω or	RRXAFR5H1600
	CHIP RES. 1/10W F 160 Ω	RRXAFR5Z1600
R1442	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R1501	CARBON RES. 1/4W J 75 Ω	RCX4JATZ0750
R1502	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R1503	CHIP RES.(1608) 1/10W J 6.8k Ω	RRXAJR5Z0682
R2001	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2002	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2003	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2005	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2006	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2067	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
R2082	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2083	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2084	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R2086	CHIP RES.(1608) 1/10W J 5.6k Ω	RRXAJR5Z0562
R2093	CHIP RES.(1608) 1/10W J 22k Ω	RRXAJR5Z0223
R2094	CHIP RES.(1608) 1/10W J 10k Ω	RRXAJR5Z0103
<b>SWITCHES</b>		
SW501	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH SKQSAF001A or	SST0101AL041
	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW502	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH SKQSAF001A or	SST0101AL041
	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW503	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH SKQSAF001A or	SST0101AL041
	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW504	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH SKQSAF001A or	SST0101AL041
	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW506	LEAF SWITCH MXS01830MVP0	SSC0101MCE03
SW507	ROTARY MODE SWITCH SSS-53MD	SSR0106KB003

Ref. No.	Description	Part No.
SW601	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH SKQSAF001A or	SST0101AL041
	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW602	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH SKQSAF001A or	SST0101AL041
	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW603	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH SKQSAF001A or	SST0101AL041
	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW604	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH SKQSAF001A or	SST0101AL041
	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW605	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH SKQSAF001A or	SST0101AL041
	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW2021	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH SKQSAF001A or	SST0101AL041
	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
SW2022	TACT SWITCH KSM0614B or	SST0101HH013
	TACT SWITCH SKQSAF001A or	SST0101AL041
	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
<b>MISCELLANEOUS</b>		
2B11	NEW SHIELD ASSEMBLY H9700ED	1VM420438
2B15	BUSH, LED(F) H3700UD	0VM409508
2B46	ROHM HOLDER H7770JD	0VM304573
2L062	SCREW, B-TIGHT M3X8 BIND HEAD +	GBK3080
2L082	SCREW, B-TIGHT M3X8 BIND HEAD +	GBK3080
A5	JACK BOARD(RCA) H9700ED	0VM204532
JK101	RGB CONNECTOR MRC-021V-03	JXGL210LY003
JK751	RCA JACK MSP-282V-12 PBSN	JXRL030LY011
JK752	RCA JACK(YELLOW) MSP-281V4-B	JXRL010LY003
JK753	RCA JACK(WHITE) MSP-281V1-B	JXRL010LY005
JK754	RCA JACK(RED) MSP-281V3-A	JYRL010LY002
JK1202	RCA JACK(BLACK) MSP-281V2-B	JXRL010LY062
JK1401	S TYPE JACK MDC-050V-2.4	JXEL040LY001
JW006	FFC CABLE, 27P FFC/P1.00/260	WX1H9700-001
JW007	FFC CABLE, 19P FFC/P1.00/195	WX1H9700-002
PS502	PHOTO INTERRUPTER RPI-302C70	QPWZP1302C70
RM2001	REMOTE RECEIVER MIM-93M6DKF or	USESJRJSUNT01
	REMOTE RECEIVER PIC-37042LU	USESJRJKK033
TP301	PCB JUMPER D0.6-P19.0	JW19.0T
TP401	PCB JUMPER D0.6-P14.5	JW14.5T
TP501	PCB JUMPER D0.6-P5.0	JW5.0T
TP502	PCB JUMPER D0.6-P5.0	JW5.0T
TP503	PCB JUMPER D0.6-P6.0	JW6.0T
TP504	PCB JUMPER D0.6-P15.0	JW15.0T
TU701	TUNER UNIT TMDG2-662A	UTUNPLJAL016
VR501	CARBON P.O.T. 100k Ω B	VRCB104HH014
X301	X'TAL 4.433619MHz or	FXC445LLN001
	X'TAL 4.433619MHz	1811388
X501	X'TAL 12.000MHz	FXD126LDS001
X502	X'TAL 32.768kHz(20PPM) or	FXC323LQUA01
	X'TAL 32.768kHz(20PPM)	FXC323LDS002

## DVD OPEN/CLOSE CBA

Ref. No.	Description	Part No.
	DVD OPEN/CLOSE CBA (MCV-C) Consists on the following:	-----
<b>SWITCHES</b>		
SW2020	TACT SWITCH KSM0614B or	SST0101HH013

Ref. No.	Description	Part No.
	TACT SWITCH SKQSAF001A or	SST0101AL041
	TACT SWITCH TC-1104(H=9.5)	SST0101DNG01
<b>MISCELLANEOUS</b>		
JW008	FLAT CABLE, 2P AWG26#2651/P2.0/120	WX1HC460-001

## SENSOR CBA

Ref. No.	Description	Part No.
	SENSOR CBA Consists on the following:	1VSA10047
<b>TRANSISTORS</b>		
Q503	PHOTO TRANSISTOR PT204-6B-12 or	NPWZT2046B12
	PHOTO TRANSISTOR MID-32A22F	NPWZ1D32A22F
Q504	PHOTO TRANSISTOR PT204-6B-12 or	NPWZT2046B12
	PHOTO TRANSISTOR MID-32A22F	NPWZ1D32A22F

## PSV CBA

Ref. No.	Description	Part No.
	PSV CBA Consists of the following	1VSA10804
	POWER SUPPLY CBA (PSV-A)	-----
	JUNCTION CBA (PSV-B)	-----
	JACK-A CBA (PSV-C)	-----

## POWER SUPPLY CBA

Ref. No.	Description	Part No.
	POWER SUPPLY CBA (PSV-A) Consists on the following:	-----
<b>CAPACITORS</b>		
C013	ELECTROLYTIC CAP. 10 $\mu$ F/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10 $\mu$ F/50V M	CE1JMASTL100
C014	ELECTROLYTIC CAP. 470 $\mu$ F/16V M or	CE1CMASDL471
	ELECTROLYTIC CAP. 470 $\mu$ F/16V M	CE1CMASTL471
C015	ELECTROLYTIC CAP. 100 $\mu$ F/16V M or	CE1CMASDL101
	ELECTROLYTIC CAP. 100 $\mu$ F/16V M	CE1CMASTL101
C017	ELECTROLYTIC CAP. 1000 $\mu$ F/16V M	CE1CMZPTL102
C018	ELECTROLYTIC CAP. 470 $\mu$ F/6.3V M or	CE0KMASDL471
	ELECTROLYTIC CAP. 470 $\mu$ F/6.3V M	CE0KMASTL471
C020	ELECTROLYTIC CAP. 22 $\mu$ F/50V M or	CE1JMASDL220
	ELECTROLYTIC CAP. 22 $\mu$ F/50V M	CE1JMASTL220
C021	CHIP CERAMIC CAP.(1608) F Z 0.1 $\mu$ F/50V or	CHD1JZ30F104
	CHIP CERAMIC CAP.(1608) F Z 0.1 $\mu$ F/25V or	CHD1EZ30F104
	CHIP CERAMIC CAP. FZ 0.1 $\mu$ F/50V	CHD1JZ3F104
C022	ELECTROLYTIC CAP. 470 $\mu$ F/35V M or	CE1GMASDL471
	ELECTROLYTIC CAP. 470 $\mu$ F/35V M	CE1GMASTL471
C1001 $\Delta$	METALLIZED FILM CAP. 0.068 $\mu$ F/275V K or	CT2E683HJE06
$\Delta$	METALLIZED FILM CAP. 0.068 $\mu$ F/250V K or	CT2E683DC011
$\Delta$	METALLIZED FILM CAP. 0.068 $\mu$ F/250V K or	CT2E683DC014
$\Delta$	METALLIZED FILM CAP. 0.068 $\mu$ F/250V M	CT2E683MS037
C1004	ELECTROLYTIC CAP. 100 $\mu$ F/400V M	CA2H101S6016
C1005	CERAMIC CAP. SL K 56pF/1KV or	CCD3AKPSL560
	CERAMIC CAP. SL J 56pF/1KV	CCD3AJPSL560
C1006 $\Delta$	SAFETY CAP. 2200pF/250V or	CCN2EMA0E222
$\Delta$	SAFETY CAP. 2200pF/250V	CA2E222MR049
C1007	ELECTROLYTIC CAP. 1000 $\mu$ F/6.3V M	CE0KMASTL102
C1013	CERAMIC CAP.(AX) X K 3300pF/16V	CCA1CKT0X332
C1018	ELECTROLYTIC CAP. 100 $\mu$ F/10V M or	CE1AMASDL101
	ELECTROLYTIC CAP. 100 $\mu$ F/10V M	CE1AMASTL101
C1021	CERAMIC CAP.(AX) F Z 0.01 $\mu$ F/25V	CDA1EZT0F103
C1025	CHIP CERAMIC CAP.(1608) B K 0.033 $\mu$ F/50V or	CHD1JK30B333
	CHIP CERAMIC CAP.(1608) B K 0.033 $\mu$ F/25V	CHD1EK30B333

Ref. No.	Description	Part No.
C1029	CERAMIC CAP.(AX) X K 2200pF/16V	CCA1CKT0X222
C1032	ELECTROLYTIC CAP. 10 $\mu$ F/16V M or	CE1CMASDL100
	ELECTROLYTIC CAP. 10 $\mu$ F/16V M	CE1CMASTL100
C1033	CERAMIC CAP. YV Z 0.022 $\mu$ F/50V	CCD1JZSYV223
C1035	ELECTROLYTIC CAP. 470 $\mu$ F/6.3V M or	CE0KMASDL471
	ELECTROLYTIC CAP. 470 $\mu$ F/6.3V M	CE0KMASTL471
C1106	ELECTROLYTIC CAP. 100 $\mu$ F/35V M or	CE1GMASDL101
	ELECTROLYTIC CAP. 100 $\mu$ F/35V M	CE1GMASTL101
C1107	ELECTROLYTIC CAP. 220 $\mu$ F/6.3V M or	CE0KMASDL221
	ELECTROLYTIC CAP. 220 $\mu$ F/6.3V M	CE0KMASTL221
C2014	CERAMIC CAP. B K 0.01 $\mu$ F/500V	CCD2JKP0B103
C2015	ELECTROLYTIC CAP. 470 $\mu$ F/6.3V M or	CE0KMASDL471
	ELECTROLYTIC CAP. 470 $\mu$ F/6.3V M	CE0KMASTL471
<b>DIODES</b>		
D013	RECTIFIER DIODE BA158 or	NDQZ000BA158
	RECTIFIER DIODE BA158	NDWZ000BA158
D014	SCHOTTKY BARRIER DIODE SB390	NDQZ000SB390
D015	ZENER DIODE DZ-5.6BSCT265 or	NDC0DZ5R6BS
	ZENER DIODE MTZJT-775.6C	QDTCOMTZJ5R6
D016	SCHOTTKY BARRIER DIODE SB340	NDQZ000SB340
D017	ZENER DIODE DZ-18BSBT265 or	NDTB00DZ18BS
	ZENER DIODE MTZJT-7718B	QDTB00MTZJ18
D018	RECTIFIER DIODE BA158 or	NDQZ000BA158
	RECTIFIER DIODE BA158	NDWZ000BA158
D019	RECTIFIER DIODE FR203-B/P	NDQZ000FR203
D1001	RECTIFIER DIODE 1N4005 or	NDQZ001N4005
	RECTIFIER DIODE 1N4005	NDWZ001N4005
D1002	RECTIFIER DIODE 1N4005 or	NDQZ001N4005
	RECTIFIER DIODE 1N4005	NDWZ001N4005
D1003	RECTIFIER DIODE 1N4005 or	NDQZ001N4005
	RECTIFIER DIODE 1N4005	NDWZ001N4005
D1004	RECTIFIER DIODE 1N4005 or	NDQZ001N4005
	RECTIFIER DIODE 1N4005	NDWZ001N4005
D1006	SWITCHING DIODE 1N4148M or	NDTZ01N4148M
	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1008	SCHOTTKY BARRIER DIODE SB140 or	NDQZ000SB140
	SCHOTTKY BARRIER DIODE SB140 or	NDWZ000SB140
	SCHOTTKY BARRIER DIODE ERB81-004	AERB81004***
D1011	RECTIFIER DIODE BA159 or	NDQZ000BA159
	RECTIFIER DIODE BA159 or	NDWZ000BA159
	RECTIFIER DIODE ERA22-10	QDPZ0ERA2210
D1012	SWITCHING DIODE 1N4148M or	NDTZ01N4148M
	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1016	RECTIFIER DIODE FR101	NDWZ000FR101
D1017	ZENER DIODE DZ-18BSBT265 or	NDTB00DZ18BS
	ZENER DIODE MTZJT-7718B	QDTB00MTZJ18
D1018	SWITCHING DIODE 1N4148M or	NDTZ01N4148M
	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1019	ZENER DIODE DZ-6.8BSBT265 or	NDTB0DZ6R8BS
	ZENER DIODE MTZJT-776.8B	QDTB0MTZJ6R8
D1022	SWITCHING DIODE 1N4148M or	NDTZ01N4148M
	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1024	SWITCHING DIODE 1N4148M or	NDTZ01N4148M
	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1025	SWITCHING DIODE 1N4148M or	NDTZ01N4148M
	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1030	SCHOTTKY BARRIER DIODE SB140 or	NDQZ000SB140
	SCHOTTKY BARRIER DIODE SB140 or	NDWZ000SB140
	SCHOTTKY BARRIER DIODE ERB81-004	AERB81004***
<b>ICS</b>		

Ref. No.	Description	Part No.
IC1001 <sup>△</sup>	PHOTOCOUPLER EL817A or	NPEA000EL817
<sup>△</sup>	PHOTOCOUPLER EL817B or	NPEB000EL817
<sup>△</sup>	PHOTOCOUPLER LTV-817B-F or	NPEB017V817F
<sup>△</sup>	PHOTOCOUPLER PS2561A-1(Q) or	QPEQPS2561A1
<sup>△</sup>	PHOTOCOUPLER PS2561A-1(W)	QPEWPS2561A1
<b>COILS</b>		
L010	CHOKE COIL 47 $\mu$ H-K or	LLBD00PKV007
	CHOKE COIL 47 $\mu$ H-K or	LLBD00PKV005
	CHOKE COIL 47 $\mu$ H-K	LLBD00PKT001
L013	CHOKE COIL 47 $\mu$ H-K or	LLBD00PKV007
	CHOKE COIL 47 $\mu$ H-K or	LLBD00PKV005
	CHOKE COIL 47 $\mu$ H-K	LLBD00PKT001
L1001	BEAD CORE B16 RH 3.5X10X1.3	XL03010XM001
L1002	BEAD CORE B16 RH 3.5X10X1.3	XL03010XM001
L1003 <sup>△</sup>	LINE FILTER 56MH TLF14CB5630R2 or	LLBG00ZTU022
<sup>△</sup>	LINE FILTER 50MH LF-4D-E503	LLBG00ZKQ009
L1004	BEAD CORE B16 RH 3.5X10X1.3	XL03010XM001
L1005	BEAD CORE B16 RH 3.5X10X1.3	XL03010XM001
L1009	CHOKE COIL 47 $\mu$ H-K or	LLBD00PKV007
	CHOKE COIL 47 $\mu$ H-K or	LLBD00PKV005
	CHOKE COIL 47 $\mu$ H-K	LLBD00PKT001
L1011	CHOKE COIL 47 $\mu$ H-K or	LLBD00PKV007
	CHOKE COIL 47 $\mu$ H-K or	LLBD00PKV005
	CHOKE COIL 47 $\mu$ H-K	LLBD00PKT001
L1012	CHOKE COIL 47 $\mu$ H-K or	LLBD00PKV007
	CHOKE COIL 47 $\mu$ H-K or	LLBD00PKV005
	CHOKE COIL 47 $\mu$ H-K	LLBD00PKT001
<b>TRANSISTORS</b>		
Q1001 <sup>△</sup>	FET 2SK3566	QFWZ02SK3566
Q1003	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
Q1004	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1267(Y) or	NQQY0KTA1267
	TRANSISTOR 2SA1175(J) or	QQSJ02SA1175
	TRANSISTOR 2SA1175(H) or	QQSH02SA1175
	TRANSISTOR 2SA1175(F)	QQSF02SA1175
Q1008	TRANSISTOR KTC3199(Y) or	NQSY0KTC3199
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC1815-Y(TPE2) or	QQSY02SC1815
	TRANSISTOR 2SC1815-GR(TPE2)	QQS102SC1815
<b>RESISTORS</b>		
R013	CARBON RES. 1/6W J 2.7k $\Omega$ or	RCX6JATZ0272
	CARBON RES. 1/4W J 2.7k $\Omega$	RCX4JATZ0272
R057	CHIP RES.(1608) 1/10W J 220k $\Omega$	RRXAJR5Z0224
R068	CARBON RES. 1/4W J 1.8k $\Omega$	RCX4JATZ0182
R069	CARBON RES. 1/4W J 1.8k $\Omega$	RCX4JATZ0182
R073	CARBON RES. 1/4W J 1.8k $\Omega$	RCX4JATZ0182
R074	CARBON RES. 1/4W J 1.8k $\Omega$	RCX4JATZ0182
R1002	CARBON RES. 1/4W J 560k $\Omega$	RCX4JATZ0564
R1003	CARBON RES. 1/4W J 560k $\Omega$	RCX4JATZ0564
R1004	METAL OXIDE FILM RES. 2W J 82k $\Omega$ or	RN02JZL0823
	METAL OXIDE FILM RES. 2W J 82k $\Omega$ or	RN02JZQ0823
	METAL OXIDE FILM RES. 2W J 82k $\Omega$	RN02JZP0823
R1005	CARBON RES. 1/4W J 1M $\Omega$	RCX4JATZ0105
R1006	CARBON RES. 1/4W J 1M $\Omega$	RCX4JATZ0105
R1007	CARBON RES. 1/4W J 1M $\Omega$	RCX4JATZ0105
R1008	CARBON RES. 1/4W G 680 $\Omega$	RCX4GATZ0681
R1010	CARBON RES. 1/6W J 8.2k $\Omega$ or	RCX6JATZ0822

Ref. No.	Description	Part No.
	CARBON RES. 1/4W J 8.2k $\Omega$	RCX4JATZ0822
R1011	METAL OXIDE FILM RES. 1W J 1.3 $\Omega$ or	RN01JZLZ01R3
	METAL OXIDE FILM RES. 1W J 1.3 $\Omega$ or	RN01JZQZ01R3
	METAL OXIDE FILM RES. 1W J 1.3 $\Omega$	RN01JZPZ01R3
R1020	CHIP RES.(1608) 1/10W J 1.8k $\Omega$	RRXAJR5Z0182
R1021	CHIP RES.(1608) 1/10W J 1k $\Omega$	RRXAJR5Z0102
R1022	CHIP RES.(1608) 1/10W J 4.7k $\Omega$	RRXAJR5Z0472
R1023	CHIP RES.(1608) 1/10W F 2.2k $\Omega$ or	RRXAFR5H0222
	CHIP RES.(1608) 1/10W F 2.2k $\Omega$	RRXAFR5Z0222
R1024	CHIP RES.(1608) 1/10W J 68k $\Omega$	RRXAJR5Z0683
R1025	CHIP RES. 1/10W F 5.6k $\Omega$ or	RRXAFR5H0562
	CHIP RES. 1/10W F 5.6k $\Omega$	RRXAFR5Z0562
R1029	CARBON RES. 1/6W J 100k $\Omega$ or	RCX6JATZ0104
	CARBON RES. 1/4W J 100k $\Omega$	RCX4JATZ0104
R1032	CARBON RES. 1/4W G 1.8k $\Omega$	RCX4GATZ0182
R1035	CARBON RES. 1/6W J 1k $\Omega$ or	RCX6JATZ0102
	CARBON RES. 1/4W J 1k $\Omega$	RCX4JATZ0102
R1036	CARBON RES. 1/6W J 100k $\Omega$ or	RCX6JATZ0104
	CARBON RES. 1/4W J 100k $\Omega$	RCX4JATZ0104
R1037	CARBON RES. 1/6W J 10k $\Omega$ or	RCX6JATZ0103
	CARBON RES. 1/4W J 10k $\Omega$	RCX4JATZ0103
R1038	CARBON RES. 1/6W J 100k $\Omega$ or	RCX6JATZ0104
	CARBON RES. 1/4W J 100k $\Omega$	RCX4JATZ0104
R1039	CARBON RES. 1/6W J 470k $\Omega$ or	RCX6JATZ0474
	CARBON RES. 1/4W J 470k $\Omega$	RCX4JATZ0474
R1040	CARBON RES. 1/4W J 15 $\Omega$	RCX4JATZ0150
R1043	METAL OXIDE FILM RES. 1W J 2.7 $\Omega$ or	RN012R7ZU001
	METAL OXIDE FILM RES. 1W J 2.7 $\Omega$ or	RN012R7KE009
	METAL OXIDE FILM RES. 1W J 2.7 $\Omega$	RN012R7DP003
R1059	CARBON RES. 1/4W J 680 $\Omega$	RCX4JATZ0681
R1126	CHIP RES.(1608) 1/10W J 33k $\Omega$	RRXAJR5Z0333
R1127	CARBON RES. 1/4W J 150 $\Omega$	RCX4JATZ0151
R1128	CARBON RES. 1/4W J 150 $\Omega$	RCX4JATZ0151
<b>MISCELLANEOUS</b>		
2B33	HEATSINK H9700ED	0VM416271
2L053	SCREW, S-TIGHT M3X8 BIND HEAD+	GBMS3080
AC1001 <sup>△</sup>	AC CORD PE8G2CG9G0AA059	WAE0172LW009
F1001 <sup>△</sup>	FUSE T1.6AL/250V or	PAGC20BW3162
<sup>△</sup>	FUSE 50T016H 1.6A/250V	PAGH20BH1162
FH1001	FUSE HOLDER MSF-015 or	XH01Z00LY001
	FUSE HOLDER DFH-001	XH01Z00RP001
FH1002	FUSE HOLDER MSF-015 or	XH01Z00LY001
	FUSE HOLDER DFH-001	XH01Z00RP001
T0011 <sup>△</sup>	SWITCHING TRANSFORMER CGS-SW0066A or	LTT00EPSA171
<sup>△</sup>	PULSE TRANS. BCK-28-0522	LTT00EPXB015

## JUNCTION CBA

Ref. No.	Description	Part No.
	JUNCTION CBA (PSV-B) Consists on the following:	-----
<b>CONNECTOR</b>		
CN051A	CONNECTOR, 18P TUC-P18X-B1	JCTUS18TG001
<b>MISCELLANEOUS</b>		
JW001	FLAT CABLE, 9P AWG26#2651/P2.0/75	WX3809S6FF07
JW002	FLAT CABLE, 9P AWG26#2651/P2.0/65	WX3809S6FF06

## JACK-A CBA

Ref. No.	Description	Part No.
	JACK-A CBA (PSV-C) Consists on the following:	-----
<b>CAPACITORS</b>		
C101	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C102	ELECTROLYTIC CAP. 1μF/50V M or ELECTROLYTIC CAP. 1μF/50V M	CE1JMASDL1R0 CE1JMASTL1R0
C103	ELECTROLYTIC CAP. 100μF/16V M or ELECTROLYTIC CAP. 100μF/16V M	CE1CMASDL101 CE1CMASTL101
C105	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C106	CHIP CERAMIC CAP.(1608) CH J 470pF/50V or CHIP CERAMIC CAP. CG J 470pF/50V	CHD1JJ3CH471 CHD1JJ3CG471
C108	ELECTROLYTIC CAP. 470μF/6.3V M or ELECTROLYTIC CAP. 470μF/6.3V M	CE0KMASDL471 CE0KMASTL471
C110	CERAMIC CAP.(AX) X K 2200pF/16V	CCA1CKT0X222
C111	CHIP CERAMIC CAP.(1608) CH J 470pF/50V or CHIP CERAMIC CAP. CG J 470pF/50V	CHD1JJ3CH471 CHD1JJ3CG471
C119	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
<b>DIODES</b>		
D112	ZENER DIODE DZ-11BSAT265 or ZENER DIODE MTZJT-7711A	NDTA00DZ11BS QDTA00MTZJ11
D113	ZENER DIODE DZ-11BSAT265 or ZENER DIODE MTZJT-7711A	NDTA00DZ11BS QDTA00MTZJ11
<b>COIL</b>		
L102	BEAD CORE B16 RH 3.5X10X1.3	XL03010XM001
<b>TRANSISTORS</b>		
Q103	TRANSISTOR KTA1266(GR) or TRANSISTOR 2SA1015-GR(TPE2)	NQS40KTA1266 QQS102SA1015
<b>RESISTORS</b>		
R111	CARBON RES. 1/6W J 220 Ω or CARBON RES. 1/4W J 220 Ω	RCX6JATZ0221 RCX4JATZ0221
R114	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R117	CARBON RES. 1/4W J 510 Ω	RCX4JATZ0511
R118	CARBON RES. 1/6W J 4.7k Ω or CARBON RES. 1/4W J 4.7k Ω	RCX6JATZ0472 RCX4JATZ0472
R120	CARBON RES. 1/4W J 68 Ω	RCX4JATZ0680
R123	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R125	CARBON RES. 1/6W J 4.7k Ω or CARBON RES. 1/4W J 4.7k Ω	RCX6JATZ0472 RCX4JATZ0472
R126	CHIP RES.(1608) 1/10W J 75 Ω	RRXAJR5Z0750
<b>MISCELLANEOUS</b>		
JK1402	RGB CONNECTOR MRC-021V-03	JXGL210LY003
JW003	FLAT CABLE, 10P AWG26#2651/P2.0/190	WX3810S6FF19

## AFV CBA

Ref. No.	Description	Part No.
	AFV CBA Consists on the following:	1VSA10062
<b>CAPACITORS</b>		
C1	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ30F104 CHD1EZ30F104 CHD1JZ3FZ104
C4	CHIP CERAMIC CAP. CH J 56pF/50V or CHIP CERAMIC CAP. CG J 56pF/50V	CHD1JJ3CH560 CHD1JJ3CG560
C5	CHIP CERAMIC CAP.(1608) CH J 22pF/50V or CHIP CERAMIC CAP. CG J 22pF/50V	CHD1JJ3CH220 CHD1JJ3CG220
C6	CHIP CERAMIC CAP. CH J 56pF/50V or CHIP CERAMIC CAP. CG J 56pF/50V	CHD1JJ3CH560 CHD1JJ3CG560
C7	CHIP CERAMIC CAP. CH C 3pF/50V or	CHD1JC3CH3R0

Ref. No.	Description	Part No.
	CHIP CERAMIC CAP. CJ C 3pF/50V or	CHD1JC3CJ3R0
	CHIP CERAMIC CAP. CH D 3pF/50V	CHD1JD3CH3R0
C8	CHIP CERAMIC CAP. CH C 3pF/50V or CHIP CERAMIC CAP. CJ C 3pF/50V or CHIP CERAMIC CAP. CH D 3pF/50V	CHD1JC3CH3R0 CHD1JC3CJ3R0 CHD1JD3CH3R0
C11	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C12	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMASL100
C13	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C14	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C15	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMASL100
C16	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMASL100
C17	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ30F104 CHD1EZ30F104 CHD1JZ3FZ104
C19	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ30F104 CHD1EZ30F104 CHD1JZ3FZ104
C20	ELECTROLYTIC CAP. 3.3μF/50V M H7	CE1JMASSL3R3
C21	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V or CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V or CHIP CERAMIC CAP. FZ Z 0.1μF/50V	CHD1JZ30F104 CHD1EZ30F104 CHD1JZ3FZ104
C22	ELECTROLYTIC CAP. 10μF/16V M H7	CE1CMASL100
C24	ELECTROLYTIC CAP. 0.22μF/50V M H7	CE1JMASSLR22
<b>CONNECTOR</b>		
CN1	ANGLE PIN HEADER, 9P 6029B-1-09Z003-T	5700069
<b>DIODES</b>		
D2	SWITCHING DIODE 1N4148M or SWITCHING DIODE 1SS133(T-77)	NDT201N4148M QDT2001SS133
<b>ICS</b>		
IC1	IC:AUDIO PROCESSOR MSP3417G-QG-B8 or IC:AUDIO PROCESSOR MSP3417G-QG-B8-V3	NSZBA0SP3002 NSZBA0SP3005
<b>COILS</b>		
L1	INDUCTOR 10μH-K-26T	LLAXKATTU100
L2	PCB JUMPER D0.6-P5.0	JW5.0T
L3	INDUCTOR 18μH-K-26T	LLAXKATTU180
L4	INDUCTOR 10μH-K-26T	LLAXKATTU100
<b>RESISTORS</b>		
R1	CHIP RES.(1608) 1/10W J 1k Ω	RRXAJR5Z0102
R4	CHIP RES.(1608) 1/10W J 120k Ω	RRXAJR5Z0124
R5	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
<b>MISCELLANEOUS</b>		
X1	X'TAL 18.432MHz	FXD186LLN001

# DECK MECHANISM SECTION

## DVD PLAYER & VIDEO CASSETTE RECORDER

### TDV-3000(A)

- |  |
|--|
| <p><b>Sec. 2: Deck Mechanism Section</b></p> <ul style="list-style-type: none"><li>● Standard Maintenance</li><li>● Mechanism Alignment Procedures</li><li>● Disassembly / Assembly of Mechanism</li><li>● Deck Exploded Views</li><li>● Deck Parts List</li></ul> |
|--|

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# STANDARD MAINTENANCE

## Service Schedule of Components

This maintenance chart shows you the standard of replacement and cleaning time for each part. Because those may replace depending on environment and purpose for use, use the chart for reference.

h: Hours    ○: Cleaning    ●: Replace

Deck		Periodic Service Schedule			
Ref.No.	Part Name	1,000 h	2,000 h	3,000 h	4,000 h
B2	Cylinder Assembly	○	●	○	●
B3	Loading Motor Assembly			●	
B8	Pulley Assembly		●		●
B587	Tension Lever Assembly		●		●
B31	ACE Head Assembly			●	
B573, B574	Reel S, Reel T			●	
B37	Capstan Motor		●		●
B52	Cap Belt		●		●
*B73	FE Head			●	
*B86	F Brake Assembly (HI)		●		●
B133	Idler Assembly (HI)		●		●
B410	Pinch Arm Assembly		●		●
B414	M Brake (SP) Assembly (HI)		●		●
B416	M Brake (TU) Assembly (HI)		●		●
B525	LDG Belt		●		●

### Notes:

1. Clean all parts for the tape transport (Upper Drum with Video Head / Pinch Roller / ACE Head / FE Head) using 90% Isopropyl Alcohol.
2. After cleaning the parts, do all DECK ADJUSTMENTS.
3. For the reference numbers listed above, refer to Deck Exploded Views.
  - \* B73 ----- Recording model only
  - \* B86 ----- Not used in 2 head model.

## Cleaning

### Cleaning of Video Head

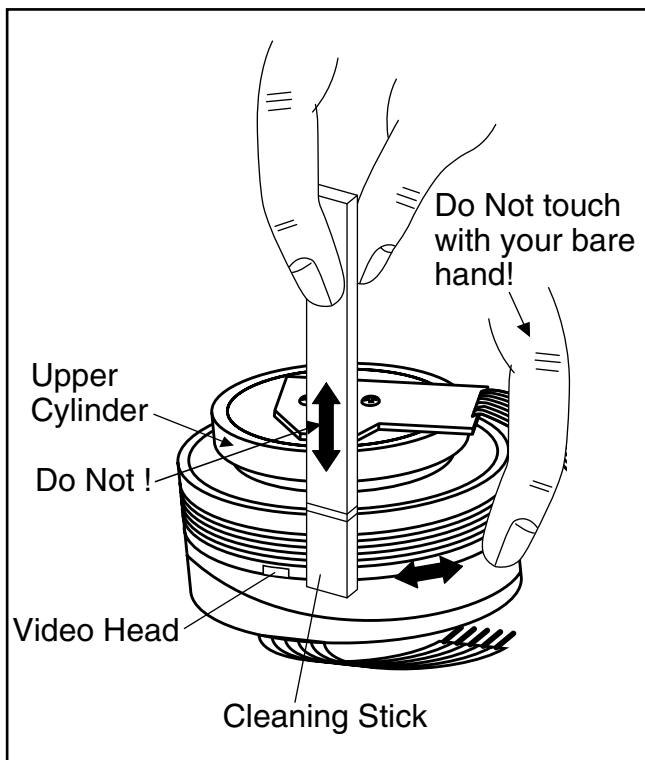
Clean the head with a head cleaning stick or chamois cloth.

#### Procedure

1. Remove the top cabinet.
2. Put on a glove (thin type) to avoid touching the upper and lower drum with your bare hand.
3. Put a few drops of 90% Isopropyl alcohol on the head cleaning stick or on the chamois cloth and, by slightly pressing it against the head tip, turn the upper drum to the right and to the left.

#### Notes:

1. The video head surface is made of very hard material, but since it is very thin, avoid cleaning it vertically.
2. Wait for the cleaned part to dry thoroughly before operating the unit.
3. Do not reuse a stained head cleaning stick or a stained chamois cloth.



### Cleaning of ACE Head

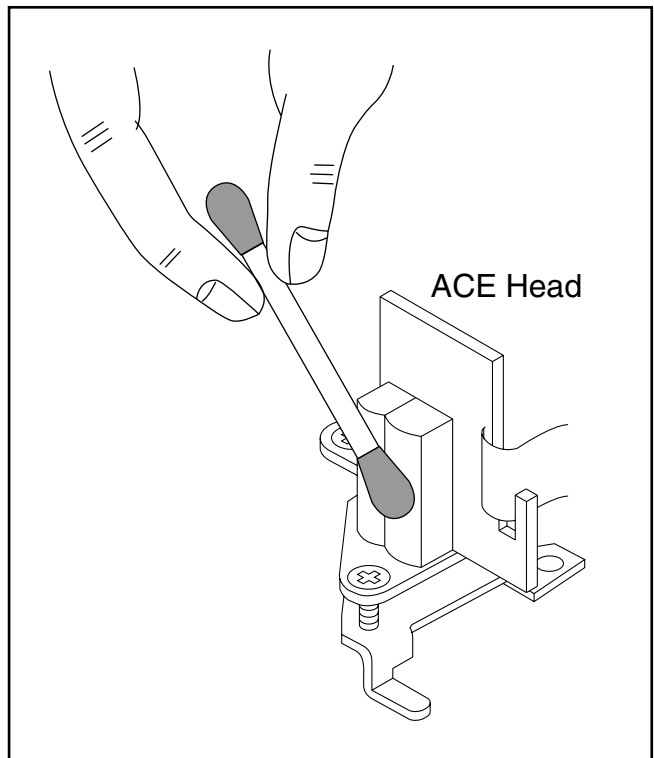
Clean the head with a cotton swab.

#### Procedure

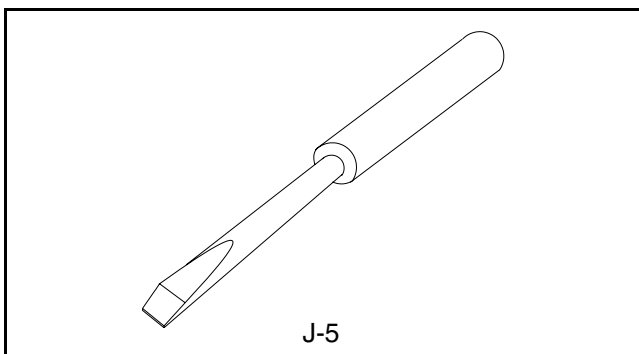
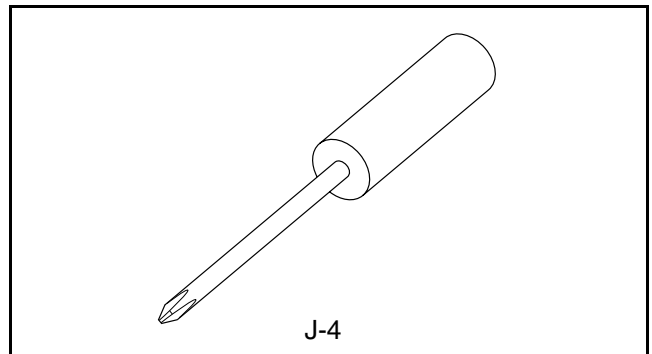
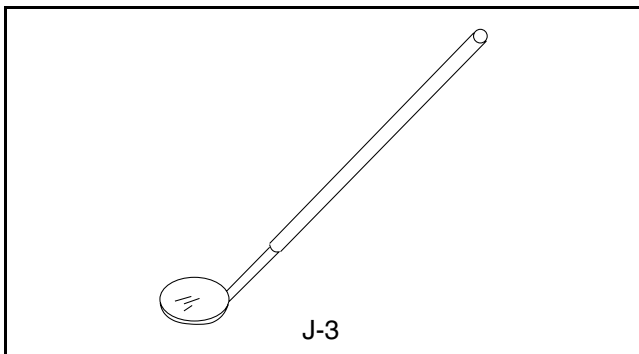
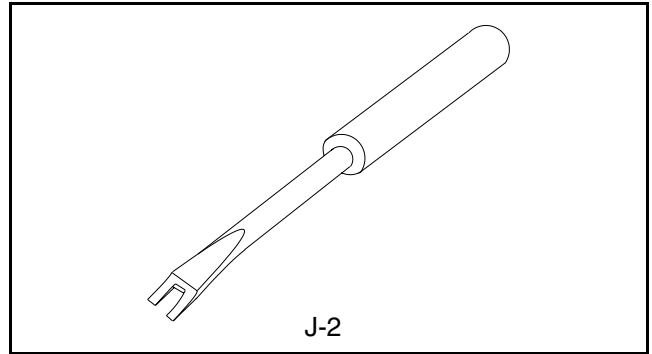
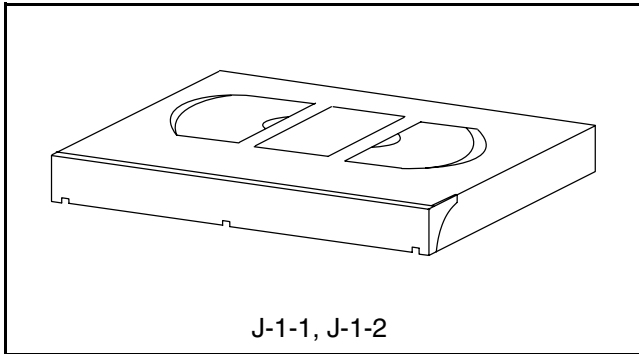
1. Remove the top cabinet.
2. Dip the cotton swab in 90% isopropyl alcohol and clean the ACE Head. Be careful not to damage the upper drum and other tape running parts.

#### Notes:

1. Avoid cleaning the ACE Head vertically.
2. Wait for the cleaned part to dry thoroughly before operating the unit or damage may occur.



# SERVICE FIXTURE AND TOOLS



Ref. No.	Name	Part No.	Adjustment
J-1-1	Alignment Tape	FL6A	Head Adjustment of ACE Head
J-1-2	Alignment Tape	FL6N8 (2 Head model) FL6NS8 (4 Head model)	Azimuth and X Value Adjustment of ACE Head / Adjustment of Envelope Waveform
J-2	Guide Roller Adj. Screwdriver	Available Locally	Guide Roller
J-3	Mirror	Available Locally	Tape Transportation Check
J-4	Azimuth Adj. Screwdriver +	Available Locally	ACE Head Height
J-5	Flat Screwdriver -	Available Locally	X Value

# MECHANICAL ALIGNMENT PROCEDURES

Explanation of alignment for the tape to correctly run starts on the next page. Refer to the information below on this page if a tape gets stuck, for example, in the mechanism due to some electrical trouble of the unit.

## Service Information

### A. Method for Manual Tape Loading/Unloading

To load a cassette tape manually:

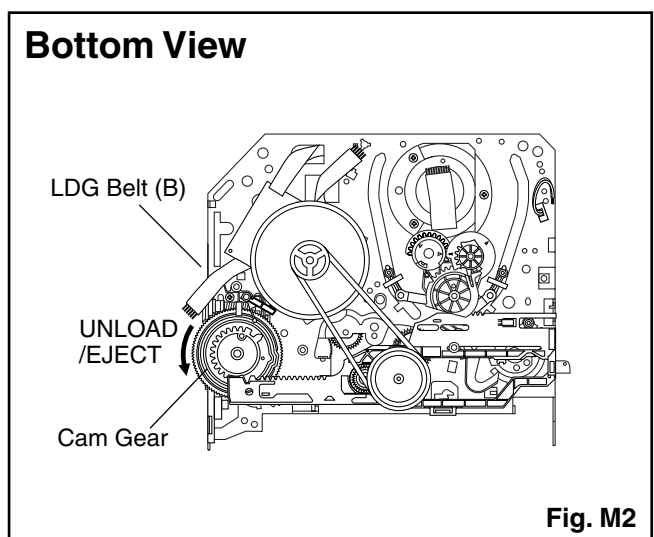
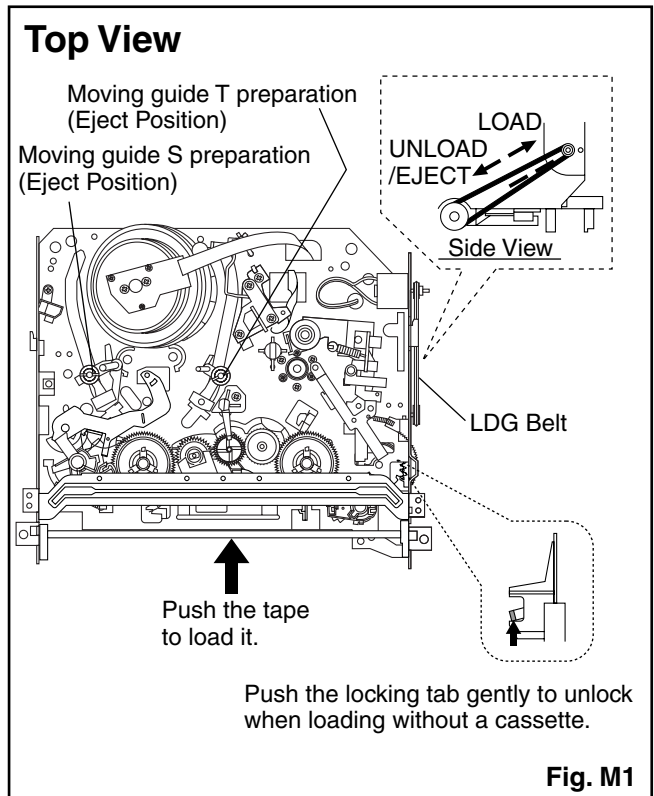
1. Disconnect the AC plug.
2. Remove the Top Case and Front Assembly.
3. Insert a cassette tape. Though the tape will not be automatically loaded, make sure that the cassette tape is all the way in at the inlet of the Cassette Holder. To confirm this, lightly push the cassette tape further in and see if the tape comes back out, by a spring motion, just as much as you have pushed in.
4. Turn the LDG Belt in the appropriate direction shown in Fig. M1 for a minute or two to complete this task.

To unload a cassette tape manually:

1. Disconnect the AC plug.
2. Remove the Top Case and Front Assembly.
3. Make sure that the Moving guide preparations are in the Eject Position.
4. Turn the LDG Belt in the appropriate direction shown in Fig. M1 until the Moving guide preparations come to the Eject Position. Stop turning when the preparations begin clicking or can not be moved further. However, the tape will be left wound around the cylinder.
5. Turn the LDG Belt in the appropriate direction continuously, and the cassette tape will be ejected. Allow a minute or two to complete this task.

### B. Method to place the Cassette Holder in the tape-loaded position without a cassette tape

1. Disconnect the AC Plug.
2. Remove the Top Case and Front Assembly.
3. Turn the LDG Belt in the appropriate direction shown in Fig. M1. Release the locking tabs shown in Fig. M1 and continue turning the LDG Belt until the Cassette Holder comes to the tape-loaded position. Allow a minute or two to complete this task.



# 1. Tape Interchangeability Alignment

Note:

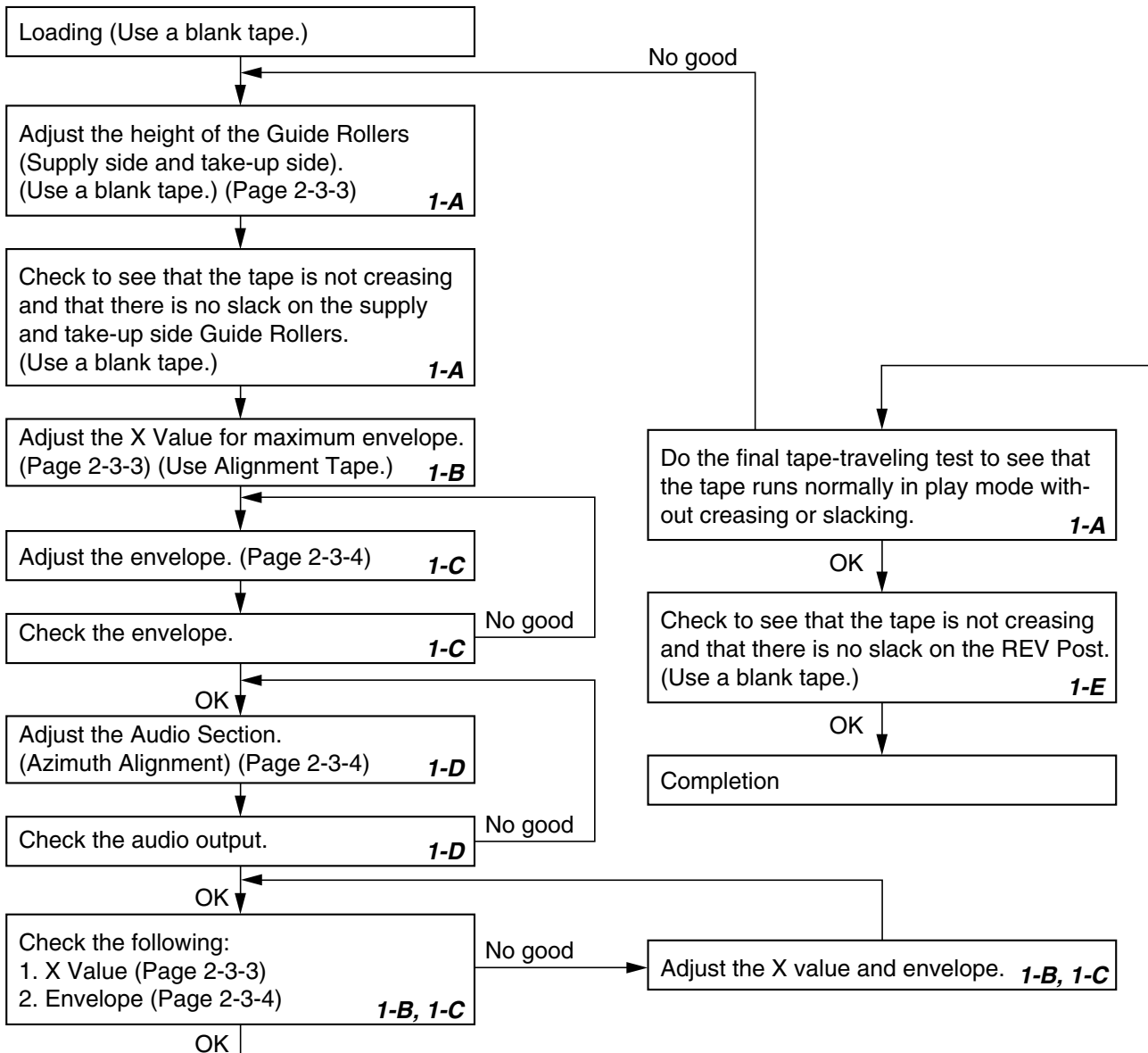
To do these alignment procedures, make sure that the Tracking Control Circuit is set to the preset position every time a tape is loaded or unloaded. (Refer to page 2-3-4, procedure 1-C, step 2.)

## Equipment required:

- Dual Trace Oscilloscope
- VHS Alignment Tape (FL6NS8)
- Guide Roller Adj. Screwdriver
- Flat Screwdriver (Purchase Locally)

Note: Before starting this Mechanical Alignment, do all Electrical Adjustment procedures.

### Flowchart of Alignment for tape traveling



## 1-A. Preliminary/Final Checking and Alignment of Tape Path

### Purpose:

To make sure that the tape path is well stabilized.

### Symptom of Misalignment:

If the tape path is unstable, the tape will be damaged.

**Note:** Do not use an Alignment Tape for this procedure. If the unit is not correctly aligned, the tape may be damaged.

1. Playback a blank cassette tape and check to see that the tape runs without creasing at Guide Rollers [2] and [3], and at points A and B on the lead surface. (Refer to Fig. M3 and M4.)
2. If creasing is apparent, align the height of the guide rollers by turning the top of Guide Rollers [2] and [3] with a Guide Roller Adj. Screwdriver. (Refer to Fig. M3 and M5.)

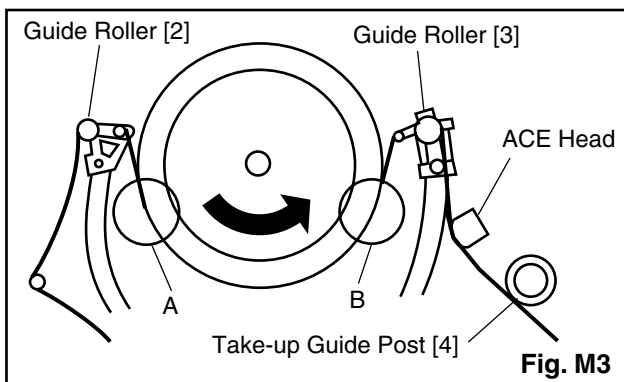


Fig. M3

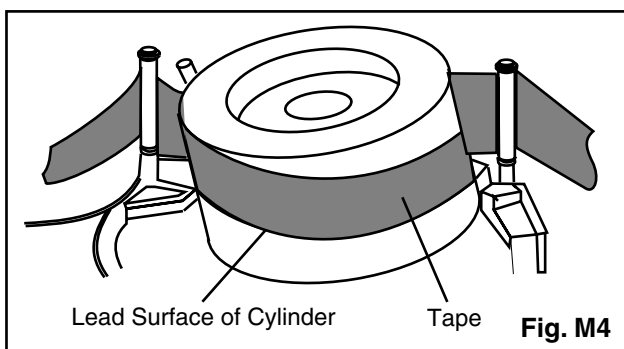


Fig. M4

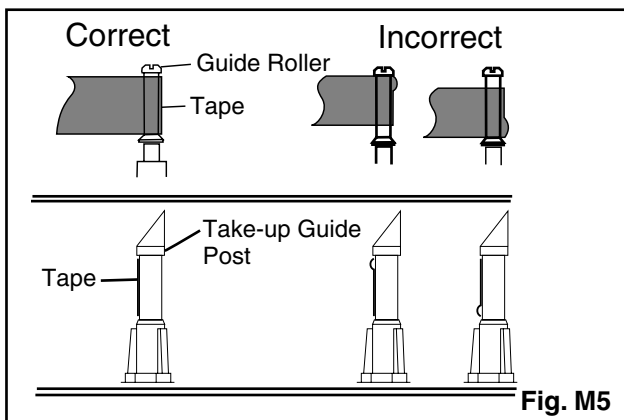


Fig. M5

3. Check to see that the tape runs without creasing at Take-up Guide Post [4] or without snaking between Guide Roller [3] and ACE Head. (Fig. M3 and M5)

4. If creasing or snaking is apparent, adjust the Tilt Adj. Screw of the ACE Head. (Fig. M6)

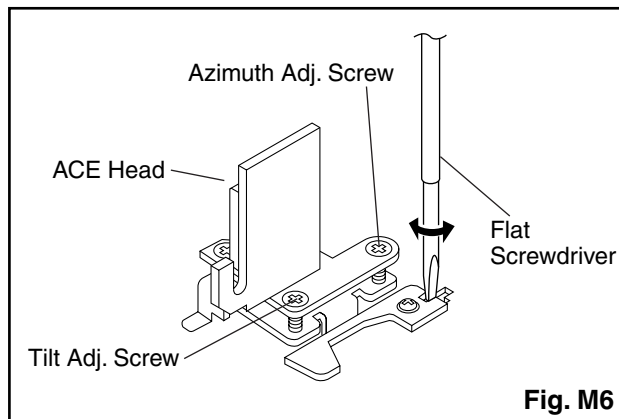


Fig. M6

## 1-B. X Value Alignment

### Purpose:

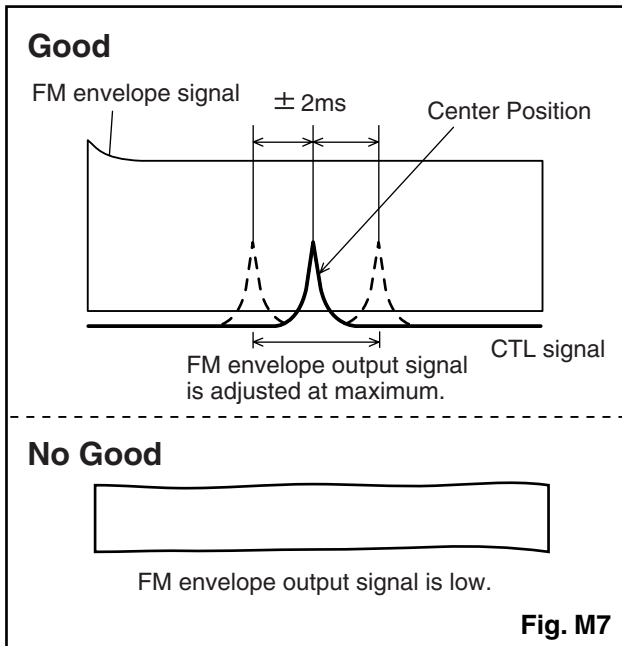
To obtain maximum PB FM envelope signal at the preset position of the Tracking Control Circuit, align the Horizontal Position of the ACE Head.

### Symptom of Misalignment:

If the Horizontal Position of the ACE Head is not properly aligned, maximum PB FM envelope cannot be obtained at the preset position of the Tracking Control Circuit.

1. Connect the oscilloscope to TP301 (C-PB) and TP503 (CTL) on the Main CBA. Use TP504 (RF-SW) as a trigger.
2. Playback the Gray Scale of the Alignment Tape (FL6NS8) and confirm that the PB FM signal is present.
3. Set the Tracking Control Circuit to the preset position by pressing CH UP button on the remote control unit then "PLAY" button on the unit. (Refer to note on bottom of page 2-3-4.)
4. Use the Flat Screwdriver so that the PB FM signal at TP301 (C-PB) is maximum. (Fig. M6)

- To shift the CTL waveform, press CH UP or CH DOWN button on the remote control unit. Then make sure that the maximum output position of PB FM envelope signal become within  $\pm 2\text{ms}$  from pre-set position.



- Set the Tracking Control Circuit to the preset position by pressing CH UP button on the remote control unit. and then "PLAY" button.

### 1-C. Checking/Adjustment of Envelope Waveform

#### Purpose:

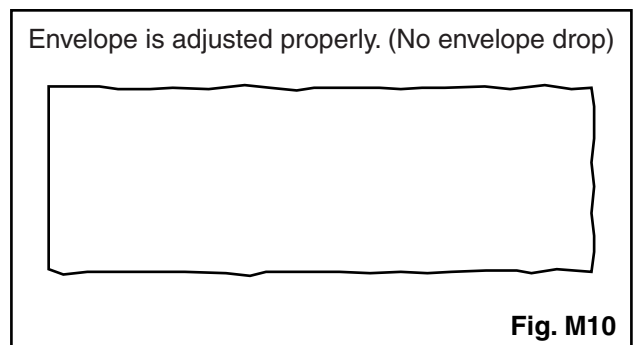
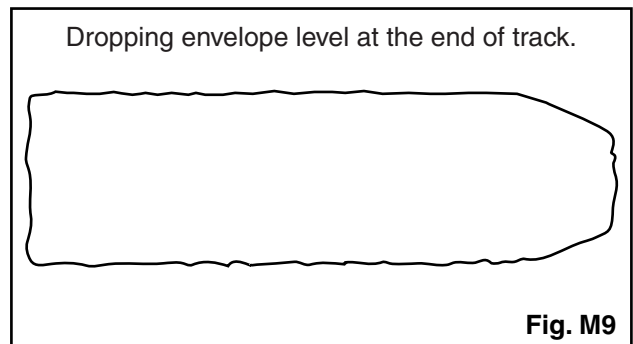
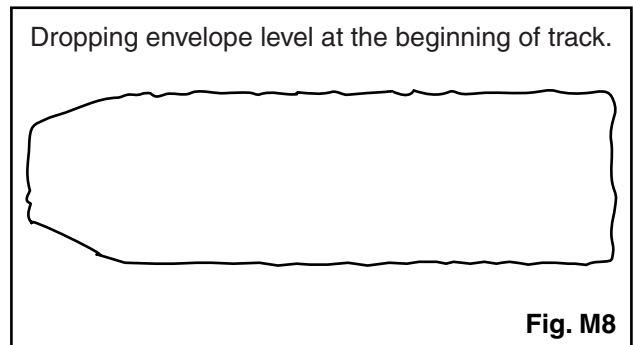
To achieve a satisfactory picture, adjust the PB FM envelope becomes as flat as possible.

#### Symptom of Misalignment:

If the envelope output is poor, noise will appear in the picture. The tracking will then lose precision and the playback picture will be distorted by any slight variation of the Tracking Control Circuit.

- Connect the oscilloscope to TP301 (C-PB) on the Main CBA. Use TP504 (RF-SW) as a trigger.
- Playback the Gray Scale on the Alignment Tape (FL6NS8). Set the Tracking Control Circuit to the preset position by pressing CH UP button and then "PLAY" button on the unit. Adjust the height of Guide Rollers [2] and [3] (Fig. M3, Page 2-3-3) watching the oscilloscope display so that the envelope becomes as flat as possible. To do this adjustment, turn the top of the Guide Roller with the Guide Roller Adj. Screwdriver.
- If the envelope is as shown in Fig. M7, adjust the height of Guide Roller [2] (Refer to Fig. M3) so that the waveform looks like the one shown in Fig. M9.
- If the envelope is as shown in Fig. M8, adjust the height of Guide Roller [3] (Refer to Fig. M3) so that the waveform looks like the one shown in Fig. M9.

- When Guide Rollers [2] and [3] (Refer to Fig. M3) are aligned properly, there is no envelope drop either at the beginning or end of track as shown in Fig. M9.



Note: Upon completion of the adjustment of Guide Rollers [2] and [3] (Refer to Fig. M3), check the X Value by pushing the CH UP or DOWN buttons alternately, to check the symmetry of the envelope. Check the number of pushes to ensure preset position. The number of pushes CH UP button to achieve 1/2 level of envelope should match the number of pushes CH DOWN button from center. If required, redo the "X Value Alignment."

## 1-D. Azimuth Alignment of Audio/Control/ Erase Head

### Purpose:

To correct the Azimuth alignment so that the Audio/Control/Erase Head meets tape tracks properly.

### Symptom of Misalignment:

If the position of the Audio/Control/Erase Head is not properly aligned, the Audio S/N Ratio or Frequency Response will be poor.

1. Connect the oscilloscope to the audio output jack on the rear side of the deck.
2. Playback the alignment tape (FL6NS8) and confirm that the audio signal output level is 8kHz.
3. Adjust Azimuth Adj. Screw so that the output level on the AC Voltmeter or the waveform on the oscilloscope is at maximum. (Fig. M6)

Note: Upon completion of the adjustment of Azimuth Adj. Screw, check the X Value by pushing the CH UP or DOWN buttons alternately, to check the symmetry of the envelope. Check the number of pushes to ensure preset position. The number of pushes CH UP button to achieve 1/2 level of envelope should match the number of pushes CH DOWN button from center. If required, redo the "X Value Alignment."

## 1-E. Checking and Alignment of Tape Path during reversing

### Purpose:

To make sure that the tape path is well stabilized during reversing.

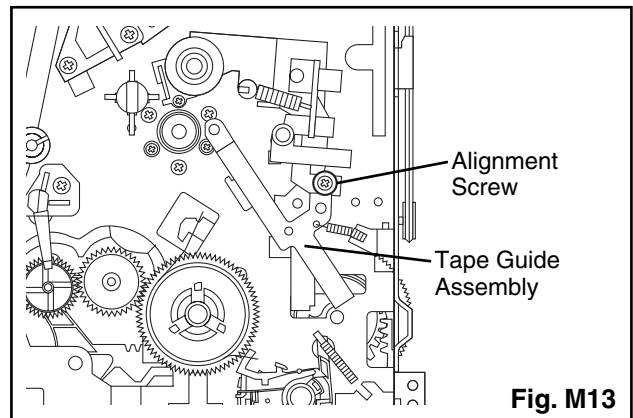
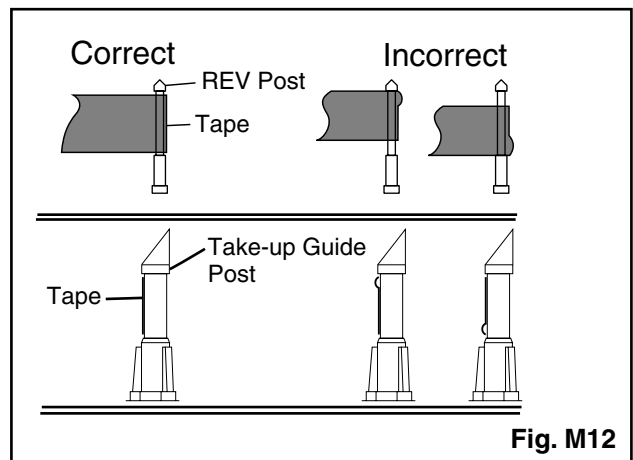
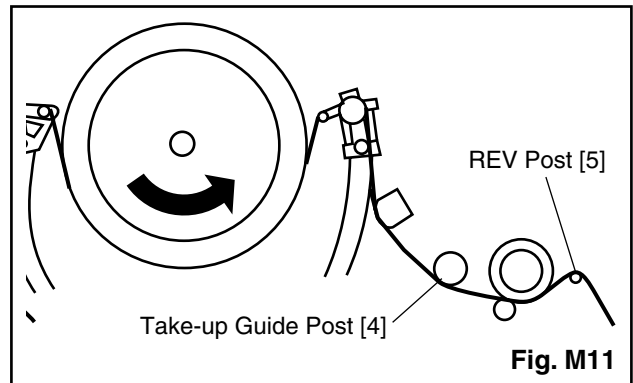
### Symptom of Misalignment:

If the tape path is unstable during reversing, the tape will be damaged.

**Note:** Do not use an Alignment Tape for this procedure. If the unit is not correctly aligned, the tape may be damaged.

1. Insert a black cassette tape into the tray and set the unit to REV. Then confirm if the tape has been curled up or bent at the Take-up Guide Post[4] or REV Post[5]. (Refer to Fig. M11 and M12.)

2. When the tape has been curled up or bent, turn the alignment screw to adjust the height of REV Post. (Refer to Fig. M11 and M13.)





# DISASSEMBLY/ASSEMBLY PROCEDURES OF DECK MECHANISM

Before following the procedures described below, be sure to remove the deck assembly from the cabinet. (Refer to CABINET DISASSEMBLY INSTRUCTIONS.)

All the following procedures, including those for adjustment and replacement of parts, should be done in Eject mode; see the positions of [44] and [45] in Fig. DM1H on page 2-4-3. When reassembling, follow the steps in reverse order.

STEP /LOC. No.	START-ING No.	PART		REMOVAL		INSTALLATION
				Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	ADJUSTMENT CONDITION
[1]	[1]	Guide Holder A	T	DM3H	2(S-1)	
[2]	[1]	Cassette Holder Assembly	T	DM4H		
[3]	[2]	Slider (SP)	T	DM5H	(S-1A), *(L-1)	
[4]	[2]	Slider (TU)	T	DM5H	*(L-2)	
[5]	[4]	Lock Lever	T	DM5H	*(L-3), *(P-1)	
[6]	[2]	Cassette Plate	T	DM5H		
[7]	[7]	Cylinder Assembly	T	DM1H, DM6H	Desolder, 3(S-2)	
[8]	[8]	Loading Motor Assembly	T	DM1H, DM7H	Desolder, LDG Belt, 2(S-3)	
[9]	[9]	ACE Head Assembly	T	DM1H, DM7H	(S-4)	
[10]	[2]	Tape Guide Arm Assembly	T	DM1H, DM8H-1	*(P-2)	
[11]	[10]	C Door Opener	T	DM1H, DM8H-1	(S-4A), *(L-4)	
[12]	[11]	Pinch Arm (B)	T	DM1H, DM8H-1, DM8H-2	*(P-3)	
[13]	[12]	Pinch Arm (A) Assembly	T	DM1H, DM8H-1, DM8H-2		
[14]	[14]	FE Head	T	DM1H, DM9H	(S-5)	
[15]	[15]	Prism	T	DM1H, DM9H	(S-6)	
[16]	[2]	Slider Shaft	T	DM10H	*(L-5)	
[17]	[16]	C Drive Lever (SP)	T	DM10H		
[18]	[16]	C Drive Lever (TU)	T	DM10H	(S-7), *(P-4)	
[19]	[19]	Capstan Motor	B	DM2H, DM11H	3(S-8), Cap Belt	
[20]	[20]	Clutch Assembly (HI)	B	DM2H, DM12H	(C-1)	
[21]	[20]	Center Gear	B	DM12H		
*[22]	[22]	F Brake Assembly (HI)	B	DM2H, DM12H	*(L-6)	
[23]	[22]	Worm Holder	B	DM2H, DM13H-1	(S-9), *(L-7), *(L-8)	
[24]	[22]	Pulley Assembly (HI)	B	DM2H, DM13H-1		
[25]	[25]	Mode Gear (LM)	B	DM2H, DM13H-1	(C-2)	
[26]	[20],[25]	Mode Lever (HI)	B	DM2H, DM13H-1, DM13H-2	(C-3)	
[27]	[22],[23],[26]	Cam Gear (A) (HI)	B	DM2H, DM13H-1, DM13H-2	(C-4)	(+)Refer to Alignment Sec. Page 2-5-1
[28]	[26]	TR Gear C	B	DM2H, DM13H-1	(C-5)	
[29]	[28]	TR Gear Spring	B	DM13H-1		
[30]	[29]	TR Gear A/B	B	DM13H-1		
[31]	[31]	FF Arm (HI)	B	DM1H, DM14H		
[32]	[26]	Idler Assembly (HI)	B	DM1H, DM14H	*(L-9)	

STEP /LOC. No.	START-ING No.	PART		REMOVAL		INSTALLATION
				Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	ADJUSTMENT CONDITION
[33]	[26]	BT Arm	B	DM2H, DM14H	*(P-5)	
[34]	[26]	Loading Arm (SP) Assembly	B	DM2H, DM14H		(+)Refer to Alignment Sec.Page 2-5-1
[35]	[34]	Loading Arm (TU) Assembly	B	DM2H, DM14H		(+)Refer to Alignment Sec.Page 2-5-1
[36]	[16],[26]	M Brake (TU) Assembly (HI)	T	DM1H, DM15H		
[37]	[2],[26]	M Brake (SP) Assembly (HI)	T	DM1H, DM15H	*(P-6)	
[38]	[37]	Tension Lever Assembly	T	DM1H, DM15H		
[39]	[38]	T Lever Holder	T	DM15H	*(L-10)	
[40]	[40]	M Gear (HI)	T	DM1H, DM15H	(C-6)	
[41]	[15],[40]	Sensor Gear (HI)	T	DM1H, DM15H	(C-7)	
[42]	[36],[40]	Reel T	T	DM1H, DM15H		
[43]	[38]	Reel S	T	DM1H, DM15H		
[44]	[34],[38]	Moving Guide S Preparation	T	DM1H, DM16H	(S-11), Slide Plate	
[45]	[35]	Moving Guide T Preparation	T	DM1H, DM16H		
[46]	[19]	TG Post Assembly	T	DM1H, DM16H	*(L-11)	
[47]	[27]	Rack Assembly	R	DM17H		(+)Refer to Alignment Sec.Page 2-5-1
[48]	[47]	F Door Opener	R	DM17H		
[49]	[49]	Cleaner Assembly	T	DM1H, DM6H		
[50]	[49]	CL Post	T	DM6H	*(L-12)	

↓                      ↓                      ↓                      ↓                      ↓                      ↓                      ↓  
 (1)                    (2)                    (3)                    (4)                    (5)                    (6)                    (7)

(1): Follow steps in sequence. When reassembling, follow the steps in reverse order.

These numbers are also used as identification (location) No. of parts in the figures.

(2): Indicates the part to start disassembling with in order to disassemble the part in column (1).

(3): Name of the part

(4): Location of the part: T=Top B=Bottom R=Right L=Left

(5): Figure Number

(6): Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.

P=Spring, W=Washer, C=Cut Washer, S=Screw, \*=Unhook, Unlock, Release, Unplug, or Desolder

e.g., 2(L-2) = two Locking Tabs (L-2).

(7): Adjustment Information for Installation

(+):Refer to Deck Exploded Views for lubrication.

**\* [ 22 ] F Brake Assembly (HI) is not used in 2 head model.**

### Top View

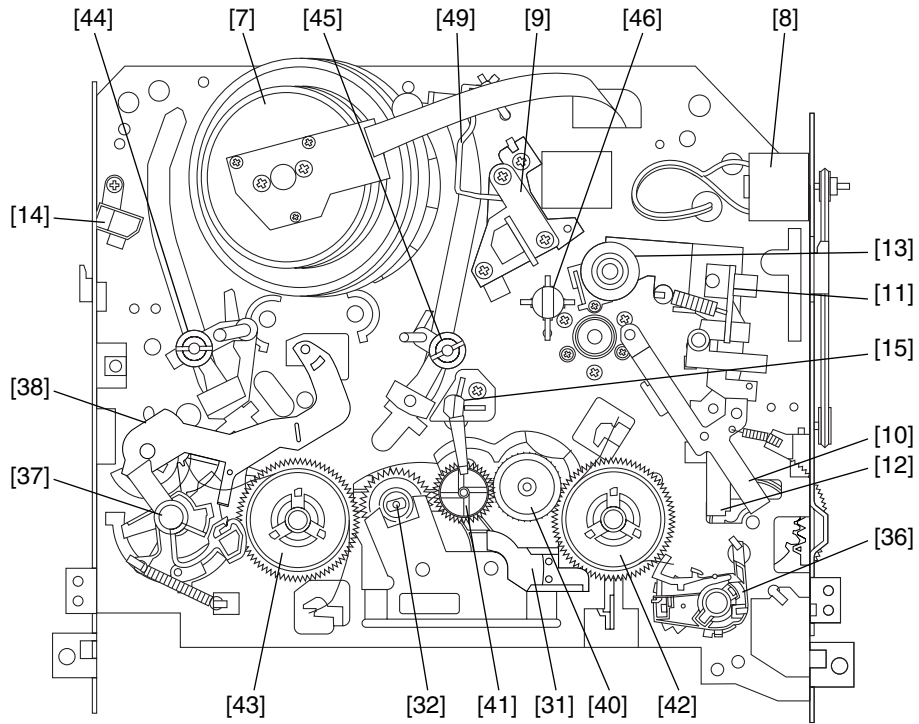


Fig. DM1H

### Bottom View

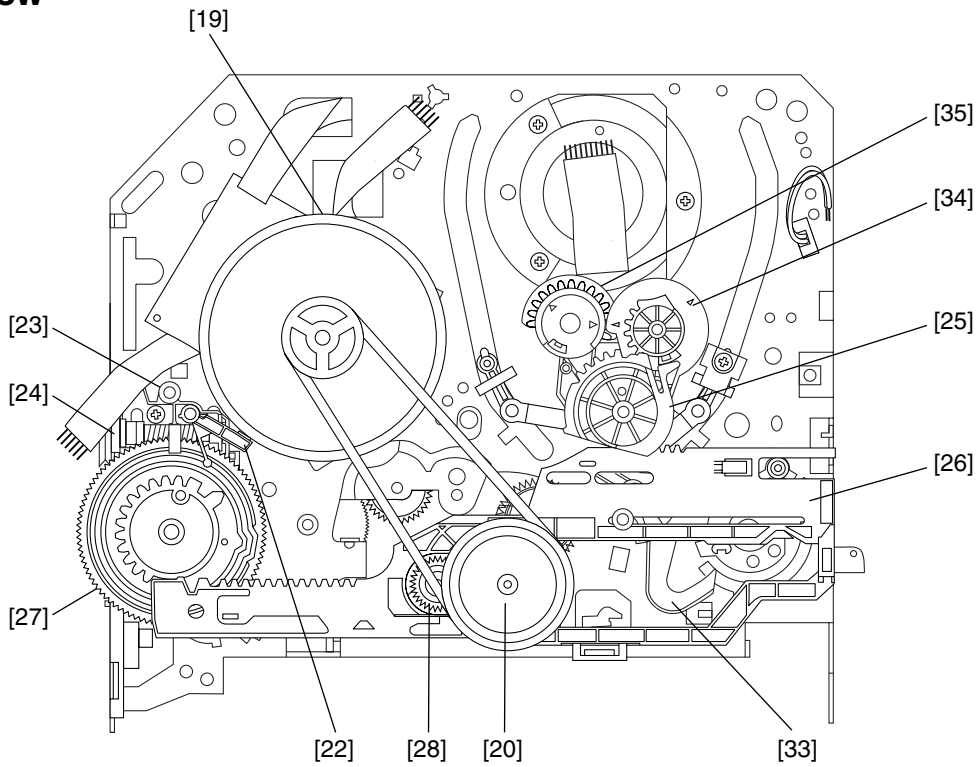
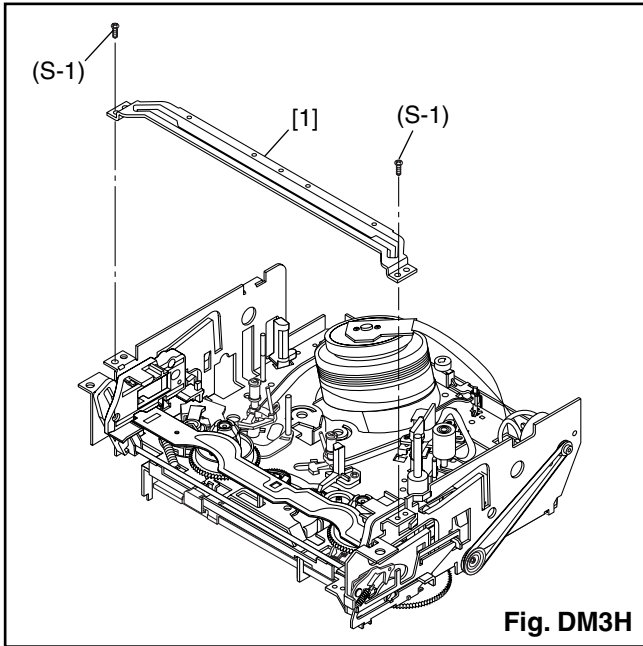
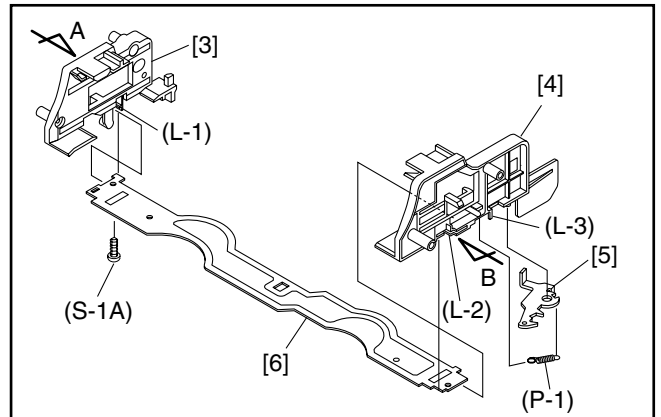


Fig. DM2H

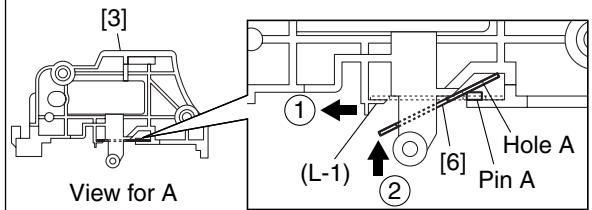


**Fig. DM3H**



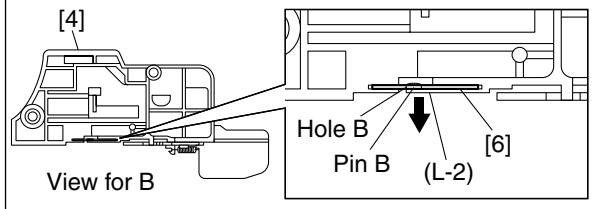
**Installation of [3] and [6]**

First, insert [6] diagonally in [3] as shown below. Then, install [6] in [3] while pushing (L-1) in a direction of arrow. After installing [6] in [3], confirm that pin A of [3] enters hole A of [6] properly.

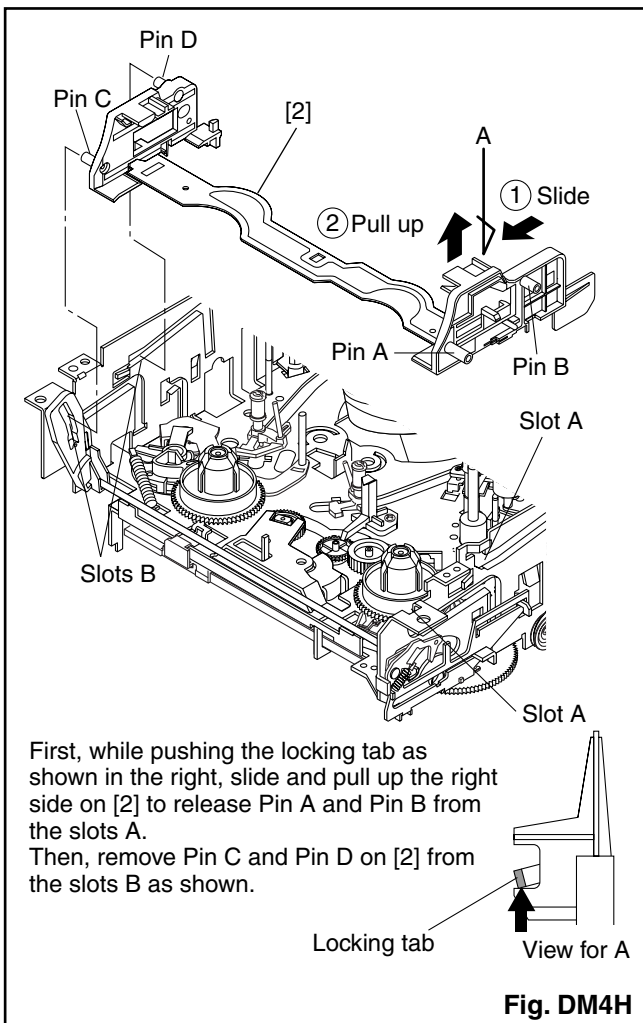


**Installation of [4] and [6]**

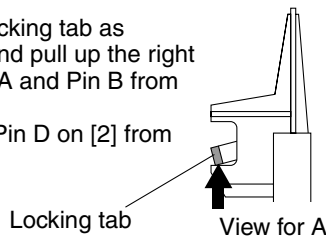
Install [6] in [4] while pulling (L-2) in a direction of arrow. After installing [6] in [4], confirm that pin B of [4] enters hole B of [6] properly.



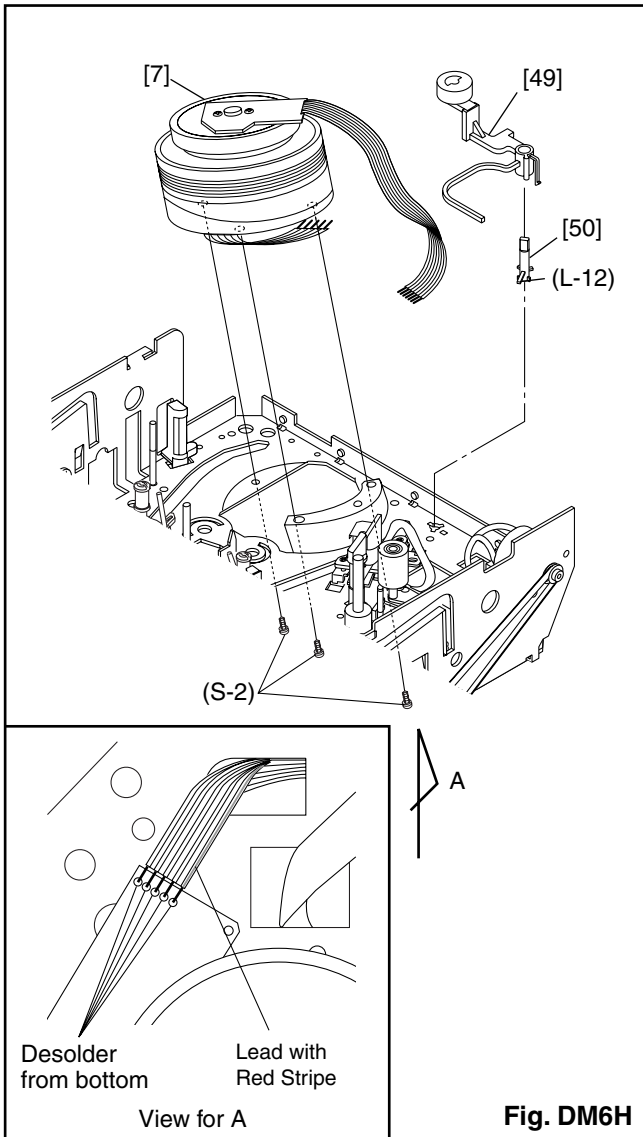
**Fig. DM5H**



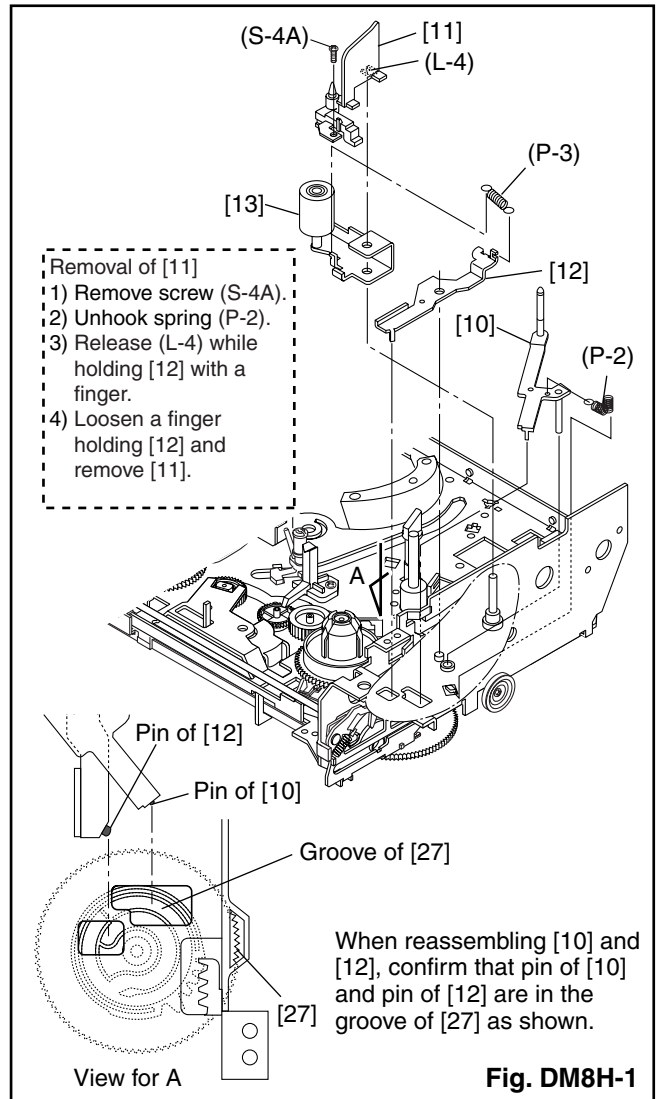
First, while pushing the locking tab as shown in the right, slide and pull up the right side on [2] to release Pin A and Pin B from the slots A. Then, remove Pin C and Pin D on [2] from the slots B as shown.



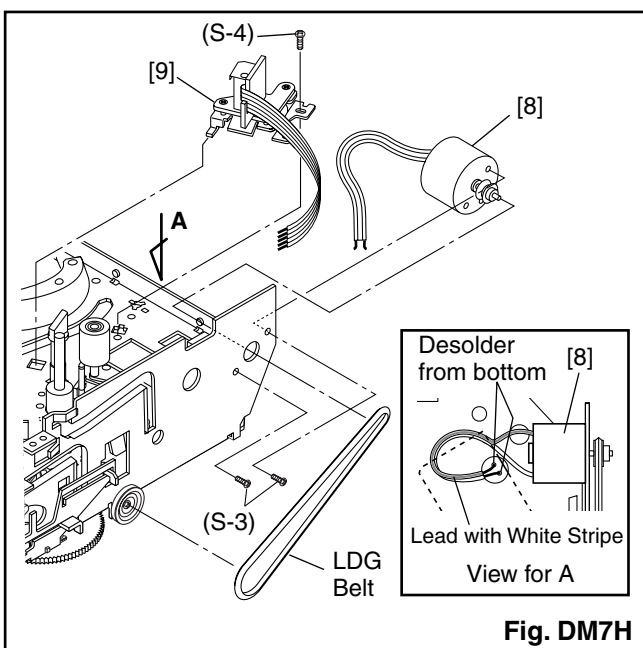
**Fig. DM4H**



**Fig. DM6H**



**Fig. DM8H-1**



**Fig. DM7H**

## Installation of [13] and [12]

Hook spring (P-3) up to [12] and [13], then install them to the specified position so that [12] will be floated slightly while holding [12] and [13]. (Refer to Fig. A.)

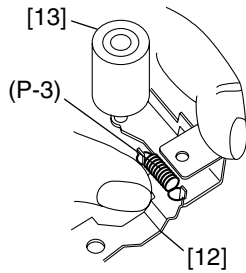


Fig. A

Install pin of [12] in groove of [27]. (Refer to Fig. B.)

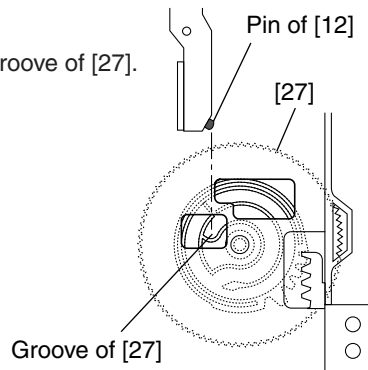


Fig. B (Top view)

Hold [12] and [13] till groove of pin of chassis looks and fit [13] in notch of chassis. Then, turn a few [13] while holding [12]. (Refer to Fig. C.)

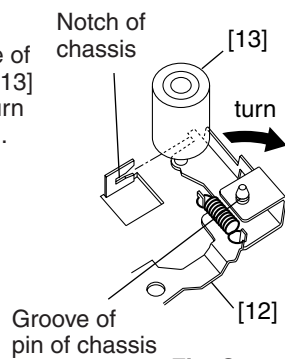


Fig. C

Install [11] and [10] while holding [12]. (Refer to Fig. DM8H-1.)

Fig. DM8H-2

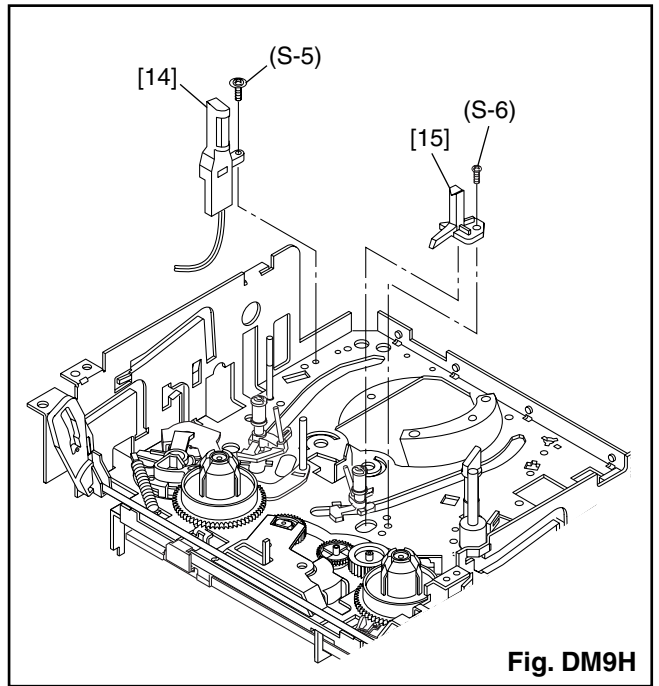


Fig. DM9H

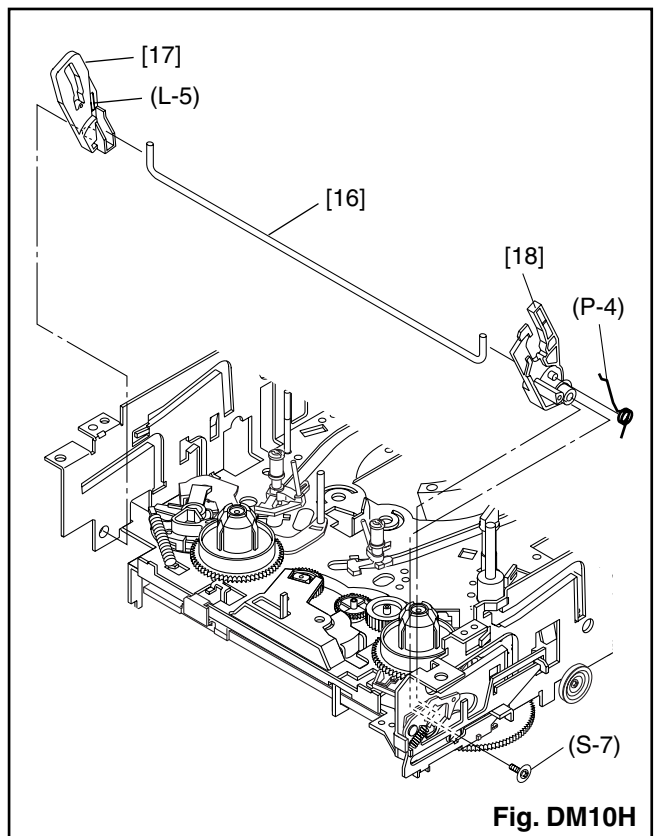
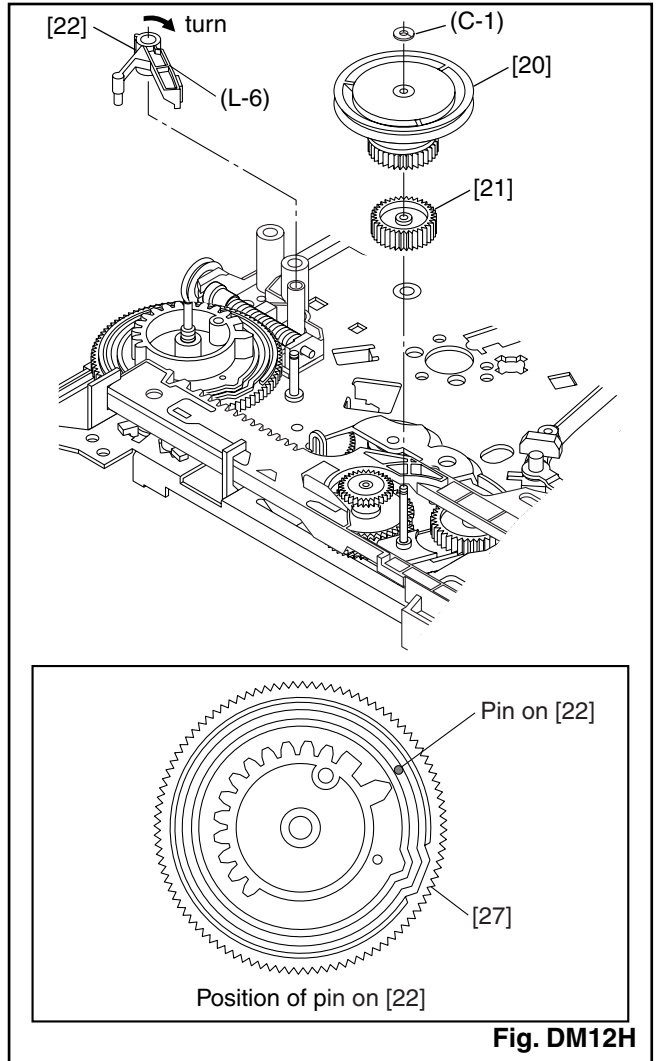
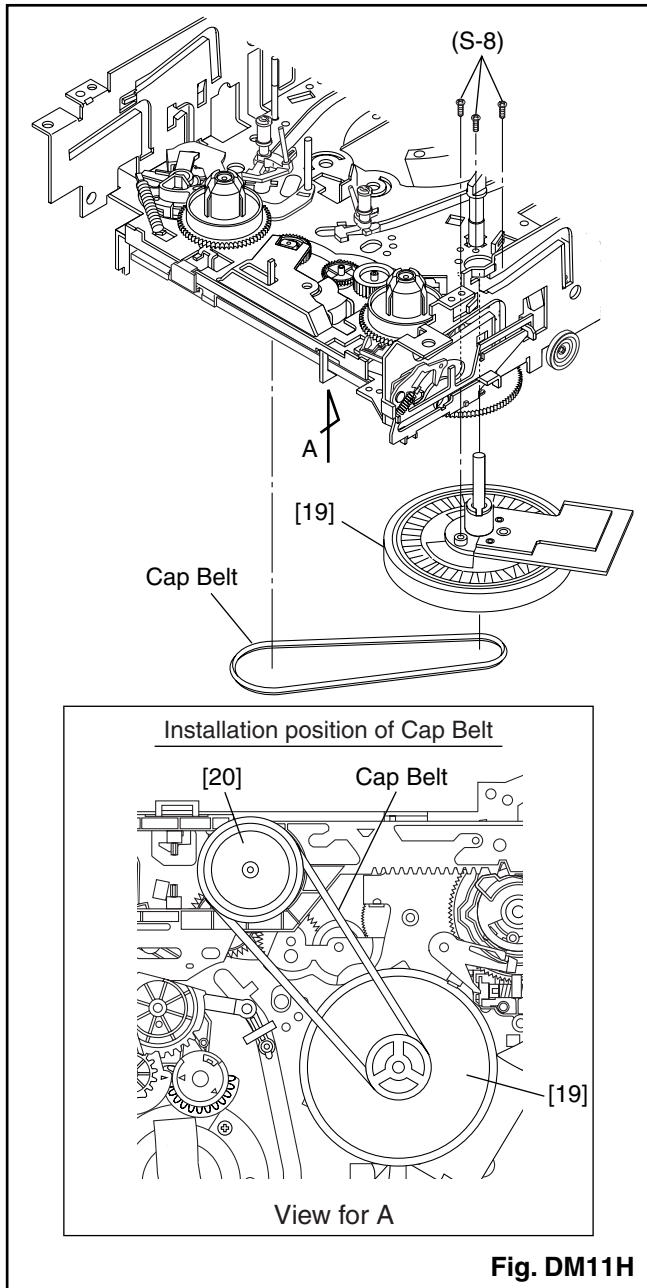
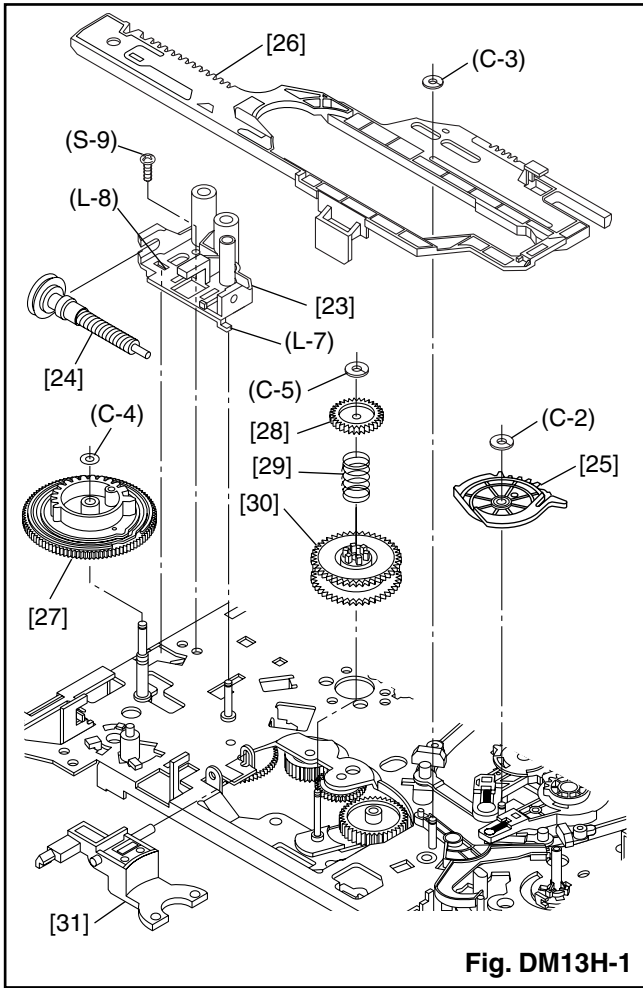
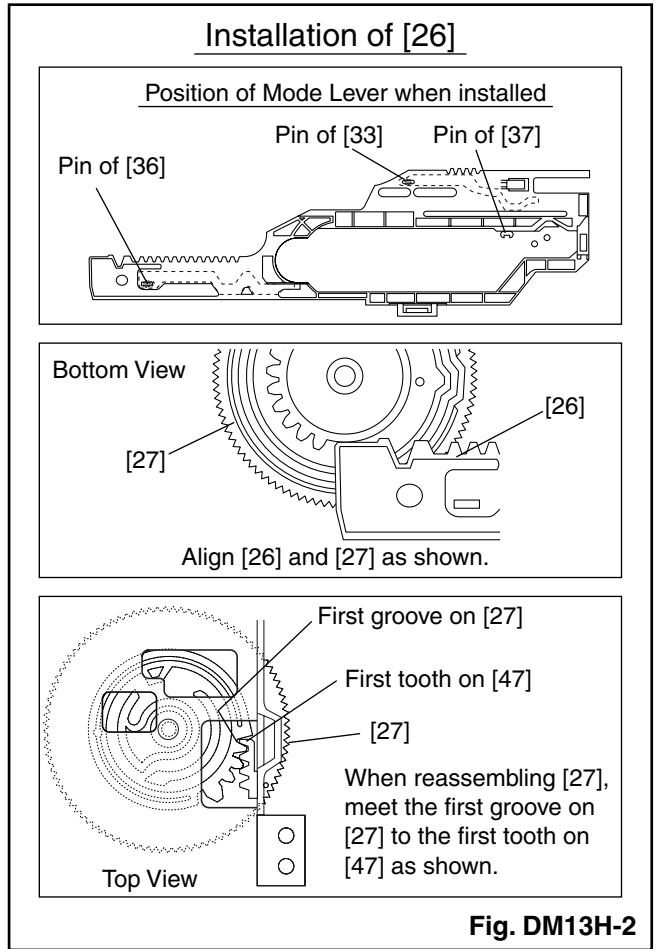


Fig. DM10H

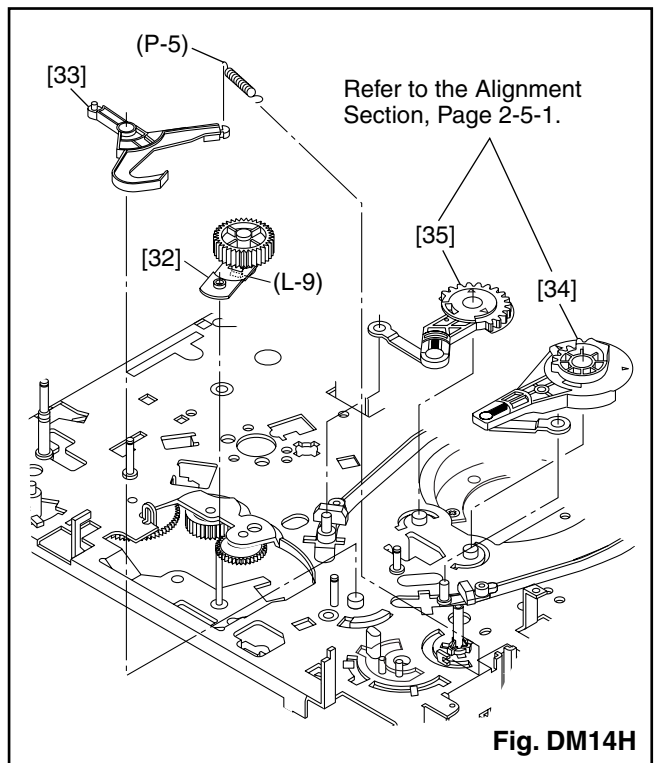




**Fig. DM13H-1**

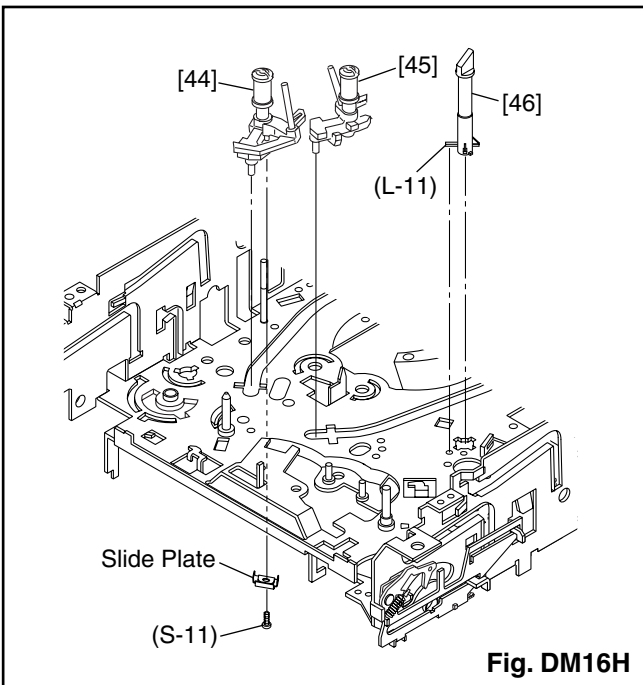
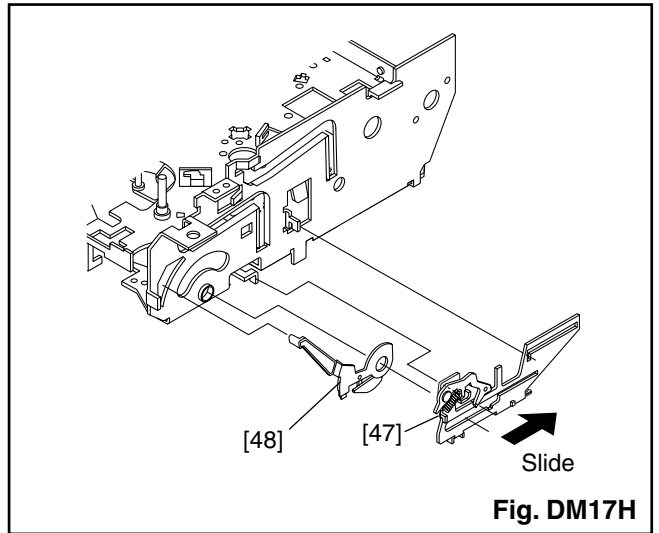
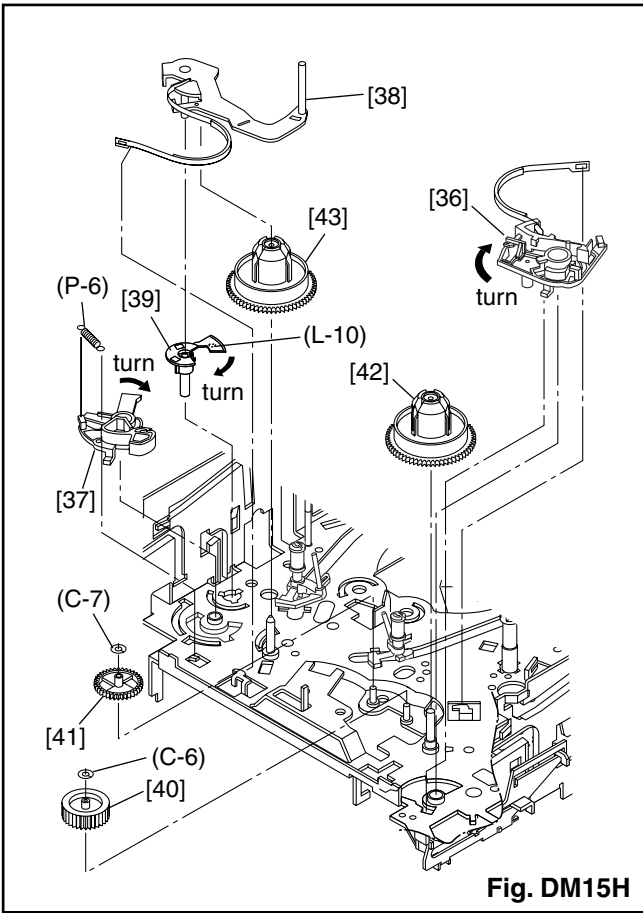


**Fig. DM13H-2**



**Fig. DM14H**





# ALIGNMENT PROCEDURES OF MECHANISM

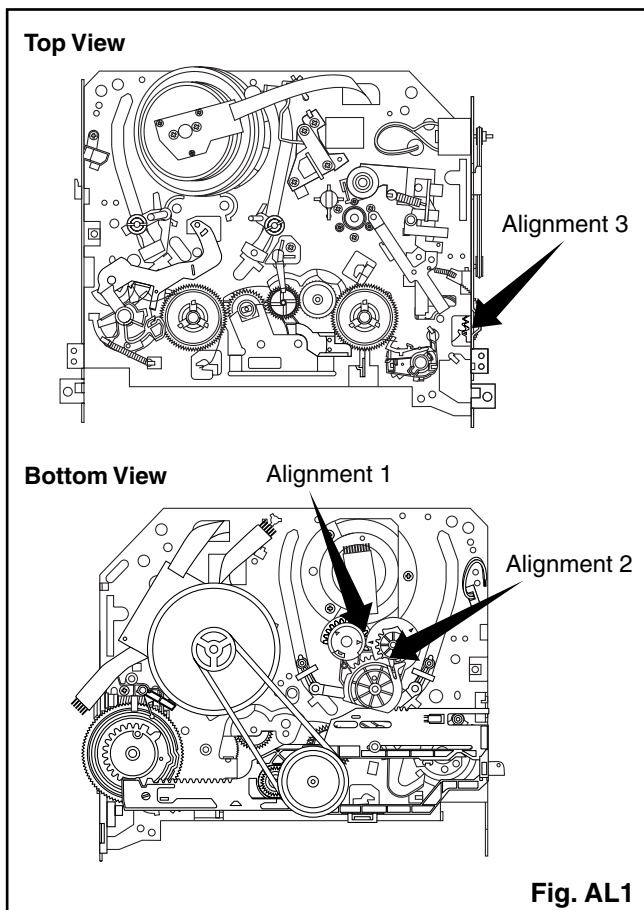
The following procedures describe how to align the individual gears and levers that make up the tape loading/unloading mechanism. Since information about the state of the mechanism is provided to the System Control Circuit only through the Mode Switch, it is essential that the correct relationship between individual gears and levers be maintained.

**All alignments are to be performed with the mechanism in Eject mode, in the sequence given.** Each procedure assumes that all previous procedures have been completed.

## IMPORTANT:

If any one of these alignments is not performed properly, even if off by only one tooth, the unit will unload or stop and it may result in damage to the mechanical or electrical parts.

## Alignment points in Eject Position



## Alignment 1

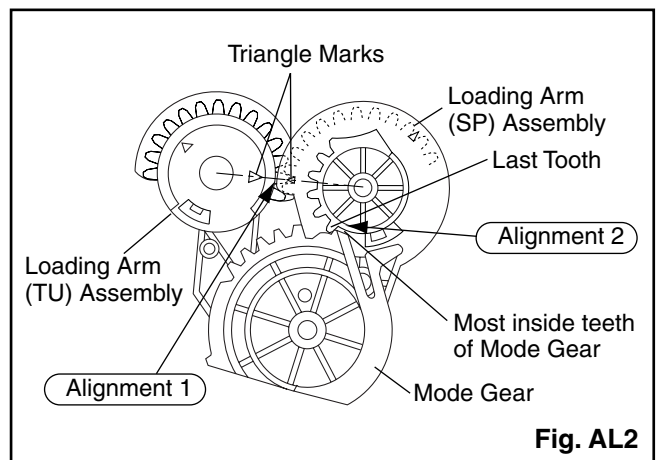
### Loading Arm (SP) and (TU) Assembly

Install Loading Arm (SP) and (TU) Assembly so that their triangle marks point to each other as shown in Fig. AL2.

## Alignment 2

### Mode Gear

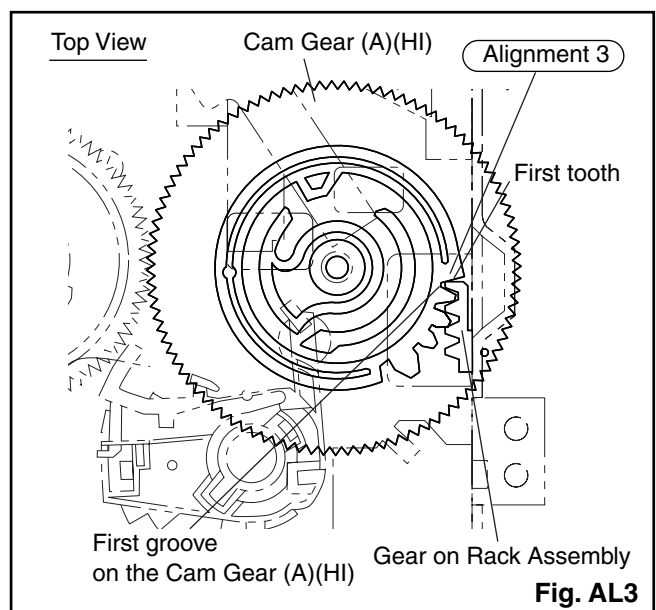
Keeping the two triangles pointing at each other, install the Loading Arm (SP) Assembly so that the last tooth of the gear meets the most inside teeth of the Mode Gear. See Fig. AL2.



## Alignment 3

### Cam Gear (A) (HI), Rack Assembly

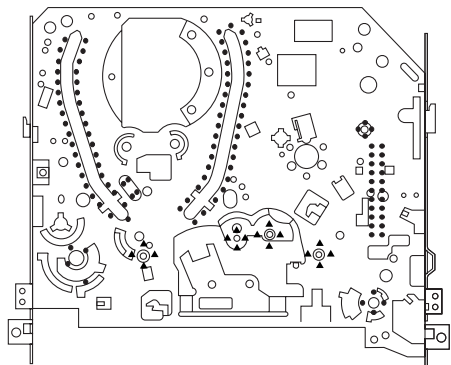
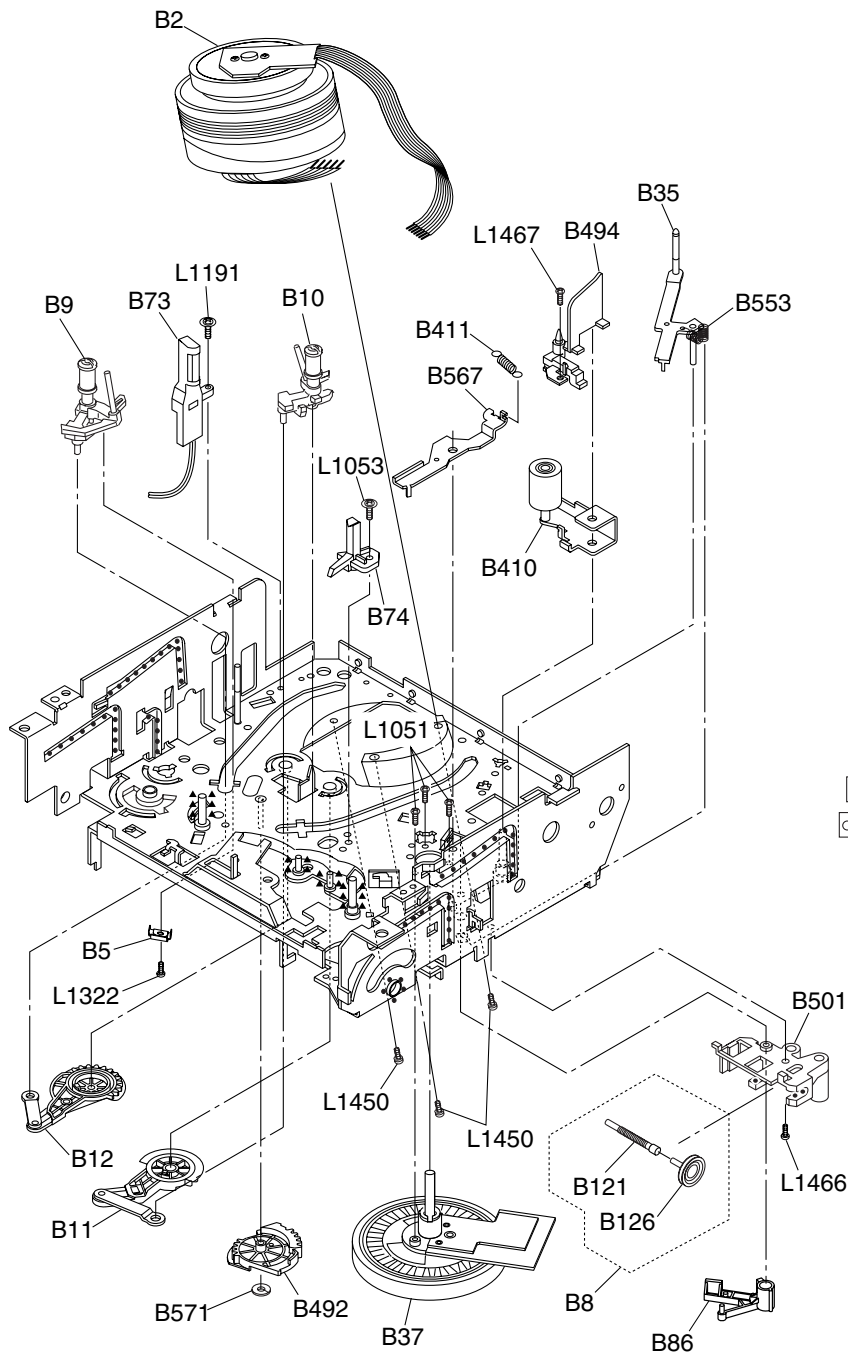
Install the Rack Assembly so that the first tooth on the gear of the Rack Assembly meets the first groove on the Cam Gear (A) (HI) as shown in Fig. AL3.



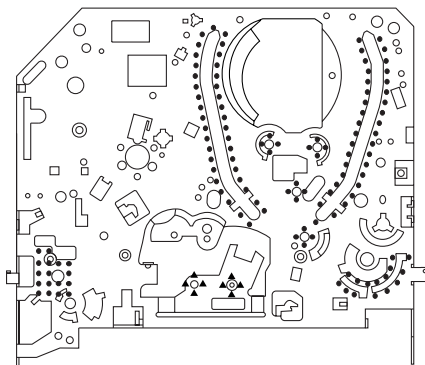
# DECK EXPLODED VIEWS

## Deck Mechanism View 1

Mark	Description
•••••	Foil G-684G or Multemp MH-D (Blue grease)
▲▲▲▲▲	SLIDUS OIL #150



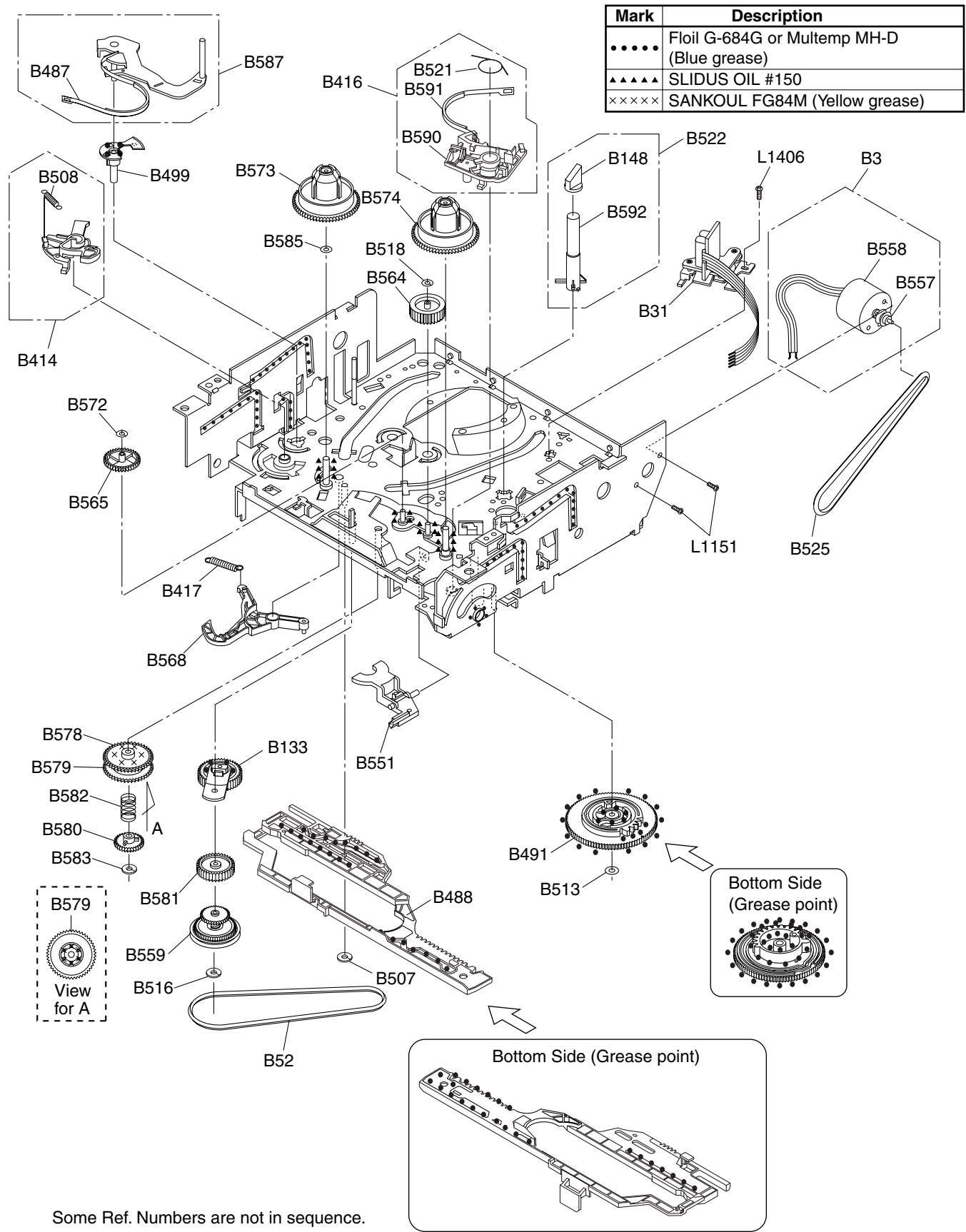
Chassis Assembly  
Top View (Lubricating Point)



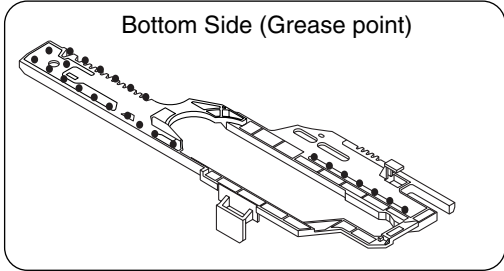
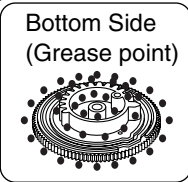
Chassis Assembly  
Bottom View (Lubricating Point)

Some Ref. Numbers are not in sequence.

# Deck Mechanism View 2

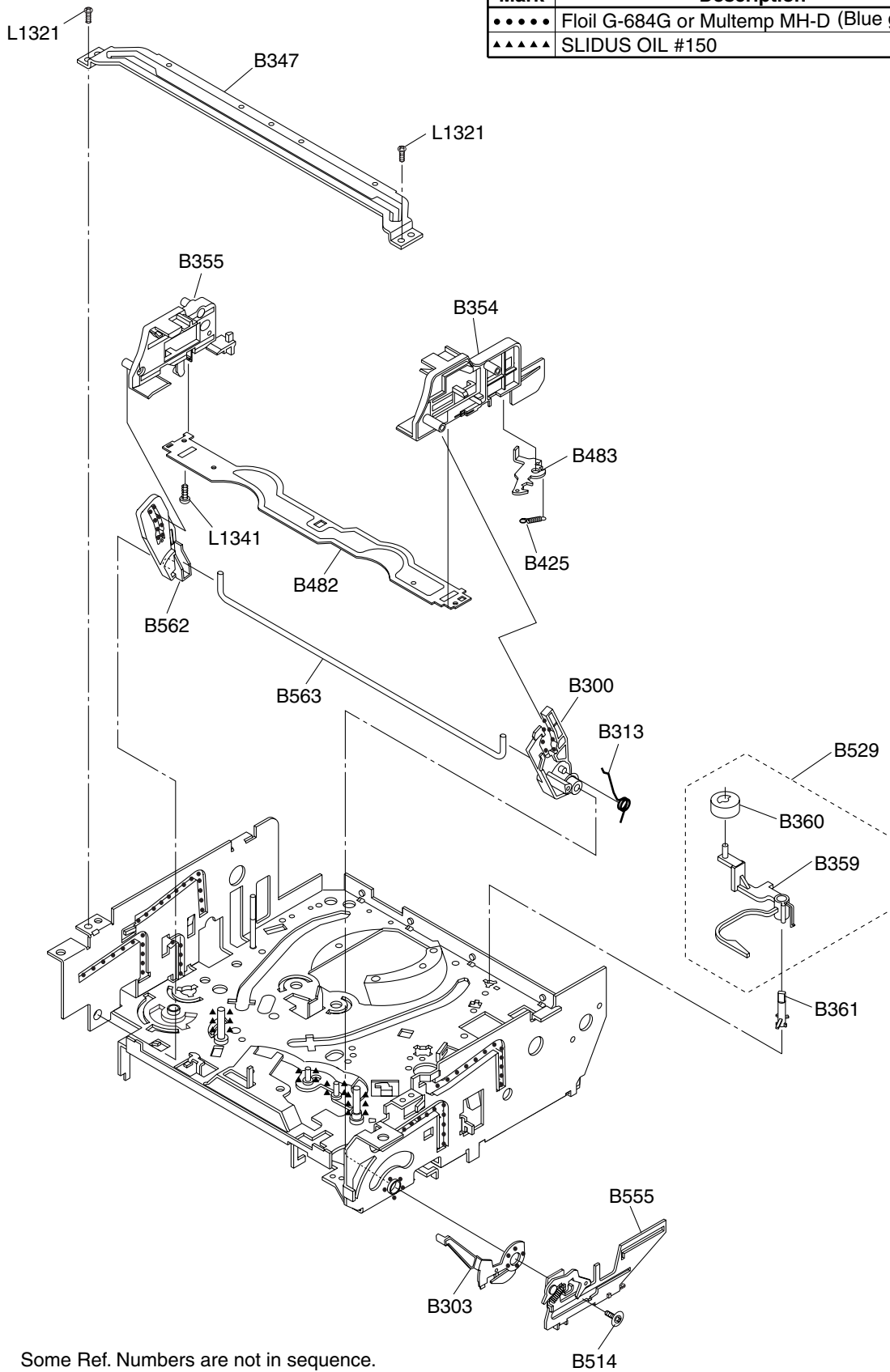


Mark	Description
•••••	Floil G-684G or Multemp MH-D (Blue grease)
▲▲▲▲▲	SLIDUS OIL #150
×××××	SANKOUL FG84M (Yellow grease)



# Deck Mechanism View 3

Mark	Description
•••••	Floil G-684G or Multemp MH-D (Blue grease)
▲▲▲▲▲	SLIDUS OIL #150



Some Ref. Numbers are not in sequence.

# DECK PARTS LIST

Ref.No	Description	Part No.
B2	CYLINDER ASSEMBLY MK12.5 PAL 6HD or CYLINDER ASSEMBLY MK12.5 PAL 6HD(V)	N236ACYL N236BCYL
B3	LOADING MOTOR ASSEMBLY MK12.5	0VSA14636
B5	SLIDE PLATE MK12.5	0VM416429
B8	PULLEY ASSEMBLY(HI) MK12	0VSA13501
B9	MOVING GUIDE S P P MK12.5	0VSA14717
B10	MOVING GUIDE T P P MK12.5	0VSA14639
B11	LOADING ARM(TU) ASSEMBLY MK12	0VSA13300
B12	LOADING ARM(SP) ASSEMBLY MK12	0VSA13299
B31	AC HEAD ASSEMBLY MK12.5	0VSA14841
B35	TAPE GUIDE ARM ASSEMBLY MK12.5	0VSA15014
B37	CAPSTAN MOTOR 288/VCZC1301	N9681CML
B52	CAP BELT MK10	0VM411138
B73	FE HEAD(MK11) MH-131SF11 or FE HEAD(MK12) VTR-1X2ERS11-155 or FE HEAD(MK12) HVFHP0047A	DHVEC01Z0005 DHVEC01TE005 DHVEC01AL007
B74	PRISM MK10	0VM202870
B86	F BRAKE ASSEMBLY(HI) MK12	0VSA13447
B121	WORM MK12	0VM414091
B126	PULLEY MK12	0VM414330B
B133	IDLER ASSEMBLY(HI) MK12	0VSA13451
B148	TG CAP MK6	0VM407664C
B300	C DRIVE LEVER(TU) MK12	0VM203773
B303	F DOOR OPENER MK12	0VM203751C
B313	C DRIVE SPRING MK12	0VM414145
B347	GUIDE HOLDER A MK10	0VM304920
B354	SLIDER(TU) MK12	0VM101172F
B355	SLIDER(SP) MK12	0VM101182H
B359	CLEANER LEVER MK10	0VM304413
B360	CLEANER ROLLER MK9	0VM410032C
B361	CL POST MK10	0VM411114
B410	PINCH ARM(A) ASSEMBLY(6) MK12.5 or PINCH ARM(A) ASSEMBLY(5) MK12	0VSA14935 0VSA13788
B411	PINCH SPRING MK12	0VM414644
B414	M BRAKE(SP) ASSEMBLY(HI) MK12	0VSA13655
B416	M BRAKE(TU) ASSEMBLY(HI) MK12	0VSA13449
B417	TENSION SPG(3002645) MK12.5	0VM414221G
B425	LOCK LEVER SPRING MK10	0VM411110
B482	CASSETTE PLATE MK12	0VM203749
B483	LOCK LEVER MK12	0VM414095
B487	BAND BRAKE(SP) MK12	0VM305723
B488	MODE LEVER(HI) MK12 or MODE LEVER(HI) MK12.5	0VM101175J 0VM101352
B491	CAM GEAR(A)(HI) MK12	0VM101176
B492	MODE GEAR(LM) MK12	0VM204236
B494	C DOOR OPENER MK12	0VM305719
B499	T LEVER HOLDER MK12	0VM305729
B501	WORM HOLDER MK12 or WORM HOLDER(R) MK12	0VM203767 0VM204324
B507	REEL WASHER MK9 5*2.1*0.5	0VM410058
B508	S BRAKE SPRING(HI) MK12	0VM414899
B513	PS.W F 6*2.55*0.5	0VM402629A
B514	SCREW RACK MK10	0VM411535
B516	REEL WASHER MK9 5*2.1*0.5	0VM410058
B518	PS.W CUT 1.6X4.0X0.5T	0VM408485A
B521	REV BRAKE SPG(HI) MK12	0VM414943

Ref.No	Description	Part No.
B522	TG POST ASSEMBLY MK10	0VSA11012
B525	LDG BELT MK11	0VM412804
B529	CLEANER ASSEMBLY MK10	0VSA11161
B551	FF ARM(HI) MK12	0VM306183
B553	REV SPRING MK11	0VM412555
B555	RACK ASSEMBLY MK12	0VSA13289
B557	MOTER PULLEY U5	0VM403205
B558	LOADING MOTOR M31E-1 R-14 7401 or LOADING MOTOR M31E-1 R-14 7402	MMDZB12MM007 MMDZB12MM008
B559	CLUTCH ASSEMBLY(HI) MK12	0VSA13450
B562	C DRIVE LEVER(SP) MK12	0VM203772
B563	SLIDER SHAFT MK12	0VM305762
B564	M GEAR(HI) MK12	0VM305755
B565	SENSOR GEAR(HI) MK12	0VM305756
B567	PINCH ARM(B) MK12	0VM305718
B568	BT ARM MK12	0VM305728
B571	P.S.W CUT 1.6X4.0X0.5T	0VM408485A
B572	P.S.W CUT 1.6X4.0X0.5T	0VM408485A
B573	REEL S MK11	0VM203436
B574	REEL T MK10	0VM202872C
B578	TR GEAR A MK10	0VM304440
B579	TR GEAR B MK12	0VM305900
B580	TR GEAR C MK12	0VM305743A
B581	CENTER GEAR MK11	0VM305081
B582	TR GEAR SPRING MK10	0VM411187C
B583	CAM WASHER MK12	0VM414741
B585	PSW(317505) MK11	0VM413663
B587	TENSION LEVER ASSEMBLY MK12	0VSA13279
B590	BRAKE ARM(TU) MK12	0VM203752E
B591	BAND BRAKE(TU) MK12	0VM305724C
B592	TG POST MK10	0VM411108E
L1051	SCREW, B-TIGHT M2.6X6 PAN HEAD+	GPMB9060
L1053	SCREW, S-TIGHT M2.6X8 WASHER HEAD+	GCMS9080
L1151	SCREW, SEMS M2.6X4 PAN HEAD+	CPM39040
L1191	SCREW, S-TIGHT M2.6X8 WASHER HEAD+	GCMS9080
L1321	SCREW, S-TIGHT M3X6 BIND HEAD+	GBMS3060
L1322	SCREW, B-TIGHT M2.3X4 BIND HEAD+	GBMBY040
L1341	SCREW, P-TIGHT M2X6 PAN HEAD+	GPMP2060
L1406	AC HEAD SCREW MK9	0VM410964
L1450	SCREW, SEMS M2.6X5 PAN HEAD+	CPM39050
L1466	SCREW, S-TIGHT M2.6X6 BIND HEAD+	GBMS9060
L1467	SCREW M2.6X5 WASHER HEAD+	SCM39050

