Philips Consumer Electronics Company
A Division of Philips Electronics North America Corporation

MANUAL 5888

Technical Service Data

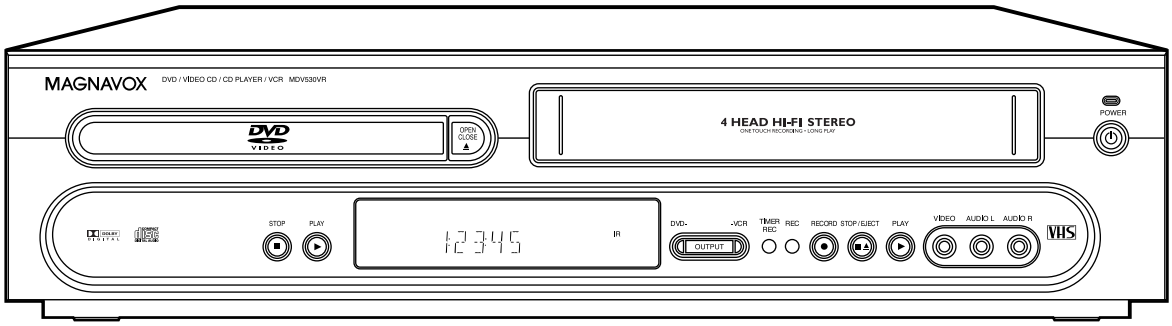
Service Solutions Group
Technical Publications Dept.
P.O. Box 555, 401 E. Old Andrew Johnson Hwy.
Jefferson City,TN 37760

Sec. 1A: Main Section
(MDV530VR/17)
Specifications
Operating Instructions
Adjustment Procedures
Schematic Diagrams and CBA's
Exploded Views
Cabinet & Electrical Parts Lists

Sec. 2: Deck Mechanism Section

Digital Video Disc Player & Video Cassette Recorder

Service Manual



MAGNAVOX
Model: MDV530VR/17

Digital Video Disc Player & Video Cassette Recorder

First Issue: 3/03

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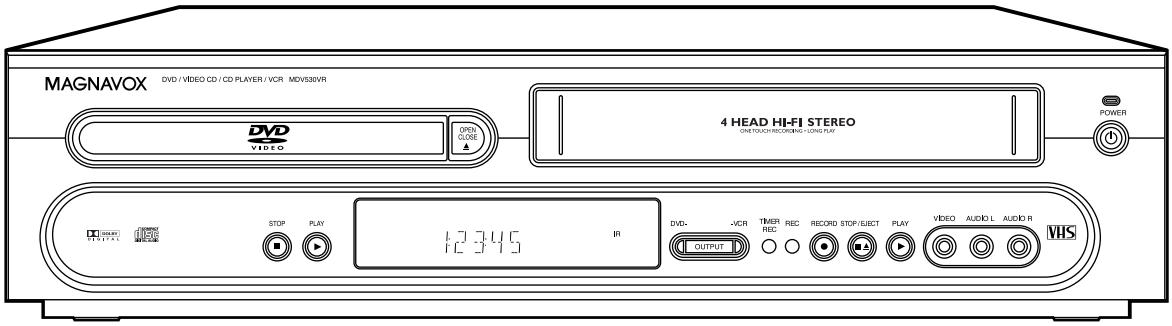

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Model: MDV530VR/17

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IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all Philips Consumer Electronics Company Equipment. The service procedures recommended by Philips and described in this service manual are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.**

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

**** Hereafter throughout this manual, Philips Consumer Electronics Company will be referred to as Philips.**

WARNING

Critical components having special safety characteristics are identified with a ⚠ by the Ref. No. in the parts list and enclosed within a broken line* (where several critical components are grouped in one area) along with the safety symbol ⚠ on the schematics or exploded views.

Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire, or other hazards.

Under no circumstances should the original design be modified or altered without written permission from Philips. Philips assumes no liability, express or implied, arising out of any unauthorized modification of design. Servicer assumes all liability.

*** Broken Line** — - — - — - —

TABLE OF CONTENTS

[Main Section]

SPECIFICATIONS

< VCR Section >

Description	Unit	Minimum	Nominal	Maximum	Remark
1. Video					
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	48		SP Mode
1-4. Video Color S/N AM (R/P)	dB	38	44		SP Mode
1-5. Video Color S/N PM (R/P)	dB	36	40		SP Mode
1-6. Resolution (R/P)	Line	220	240		SP Mode
2. Servo					
2-1. Jitter Low (R/P)	µsec		0.05	0.15	SP Mode
2-2. Wow & Flutter (R/P)	%		0.15	0.35	SP Mode
3. Normal Audio					
3-1. Output (PB)	dBV	-10	-6	-2	SP Mode
3-2. Output (R/P)	dBV	-10	-6	-2	SP Mode
3-3. S/N (R/P)	dB	40	44		SP Mode
3-4. Distortion (R/P)	%		1.5	5.0	SP Mode
3-5. Freq. Response (R/P) at 100Hz	dB	-9.5	-3.5	2.5	SP Mode
(-20dB ref. 1kHz) at 8kHz	dB	-6.5	-0.5	5.5	SP Mode
4. Tuner					
4-1. Video output (E-E)	Vp-p	0.8	1.0	1.2	E-E Mode
4-2. Video S/N (E-E)	dB	40	46		E-E Mode
4-3. Audio output (E-E)	dBV	-10	-6	-2	E-E Mode
4-4. Audio S/N (E-E)	dB	40	44		E-E Mode
5. Hi-Fi Audio					
5-1. Output (PB)	dBV	-12	-8	-4	SP Mode
5-2. Output (R/P)	dBV	-12	-8	-4	SP Mode
5-3. S/N (A WTD)	dB		70		SP Mode
5-4. Freq. Response at 20Hz	dB	-4	0	+4	SP Mode
at 20kHz	dB	-4	0	+4	SP Mode

Other Specifications

Operating Temperature : 41°F (5°C) to 104°F (40°C)
Relative Humidity : 30% to 80%
Power Requirements : AC 120 V, 60 Hz
Power Consumption : 24 W
Dimensions : 17-1/8” (W) x 3-7/8” (H) x 10-1/2” (D)
/ 435 mm (W) x 99 mm (H) x 266 mm (D)
Weight : 8.8 lbs. (4.0 kg)

Test Tape VFMS0001H6

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 >

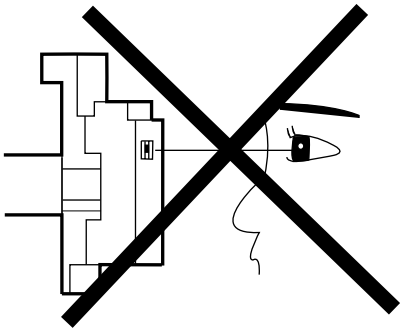
ITEM	CONDITIONS	UNIT	NOMINAL	LIMIT
1. Video Output	75 ohm load	Vpp	1.0	± 0.1
2. Coaxial Digital Out	75 ohm load	mVpp	500	± 100
3. Audio (PCM)				
3-1. Output Level	1kHz 0dB	Vrms	2.0	
3-2. S/N		dB	120	
3-3. Freq. Response				
DVD	fs=48kHz 20~22kHz	dB	± 0.5	
CD	fs=44.1kHz 20~20 kHz	dB	± 0.5	
3-4. THD+N				
DVD	1 kHz 0dB	%	0.0025	
CD	1 kHz 0dB	%	0.003	

NOTES:

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

LASER BEAM SAFETY PRECAUTIONS

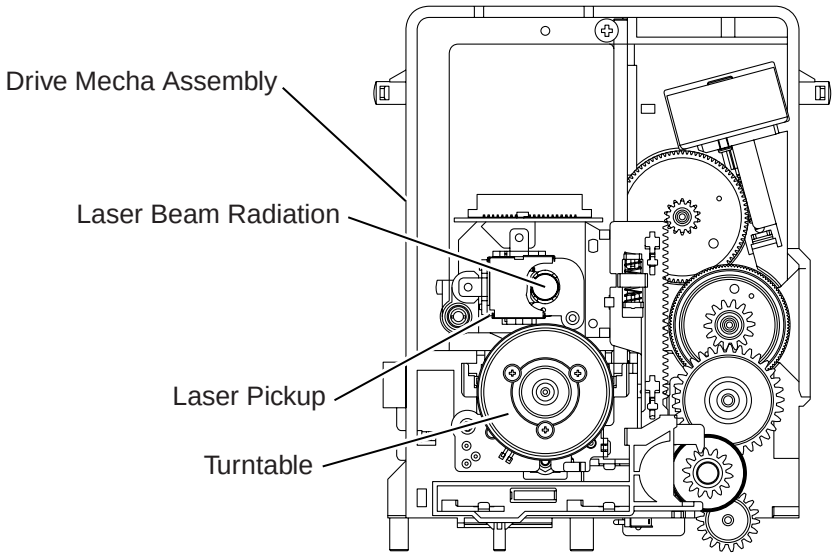
This DVD player uses a pickup that emits a laser beam.



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

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

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



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

Location: Inside Top of DVD mechanism.

IMPORTANT SAFETY PRECAUTIONS

Product Safety Notice

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

Precautions during Servicing

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

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

C. Use specified internal wiring. Note especially:

1)Wires covered with PVC tubing

2)Double insulated wires

3)High voltage leads

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

1)Insulation tape

2)PVC tubing

3)Spacers

4)Insulators for transistors

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

F. Observe that the wires do not contact heat producing parts (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')
120 V	≥ 3.2mm (0.126 inches)

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

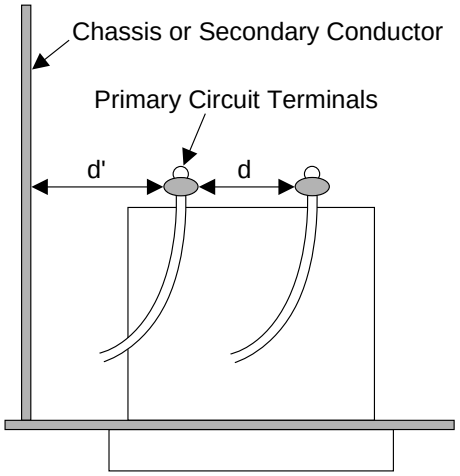


Fig. 1

2. Leakage Current Test

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

Measuring Method (Power ON) :

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

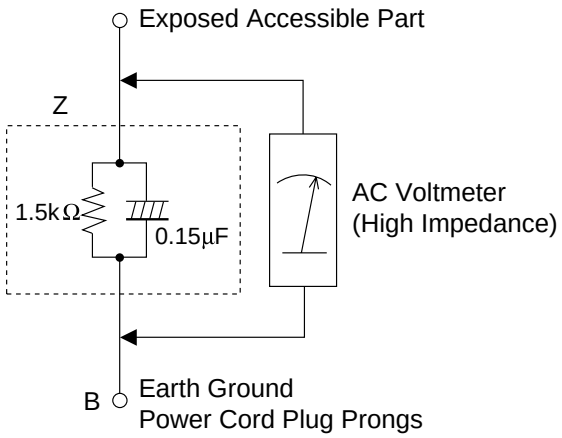


Fig. 2

Table 2: Leakage current ratings for selected areas

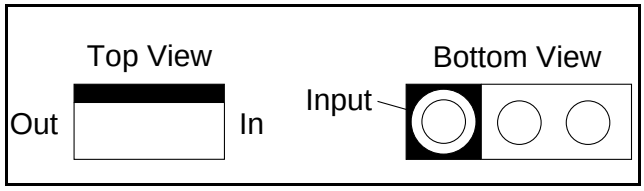
AC Line Voltage	Load Z	Leakage Current (i)	Earth Ground (B) to:
120 V	0.15μF CAP. & 1.5kΩ RES. Connected in parallel	i≤0.5mA Peak	Exposed accessible parts

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

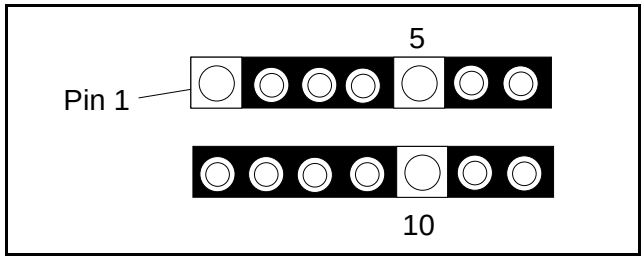
STANDARD NOTES FOR SERVICING

Circuit Board Indications

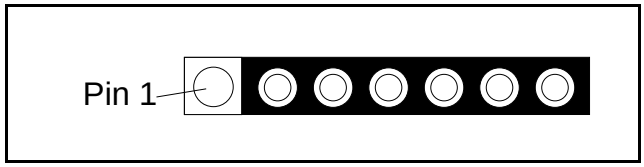
a. The output pin of the 3 pin Regulator ICs is indicated as shown.



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

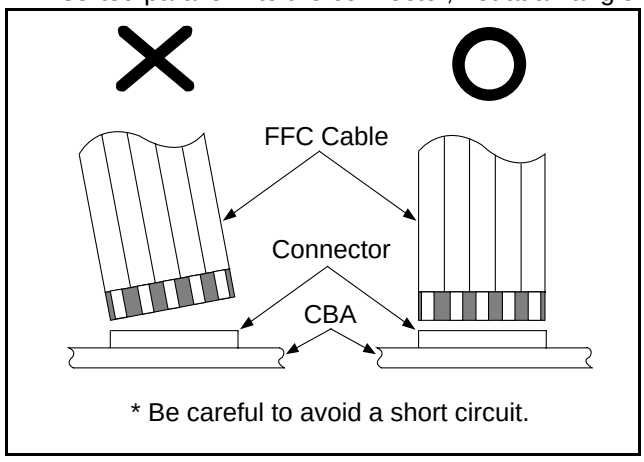


c. The 1st pin of every male connector is indicated as shown.



Instructions for Connectors

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



* Be careful to avoid a short circuit.

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)

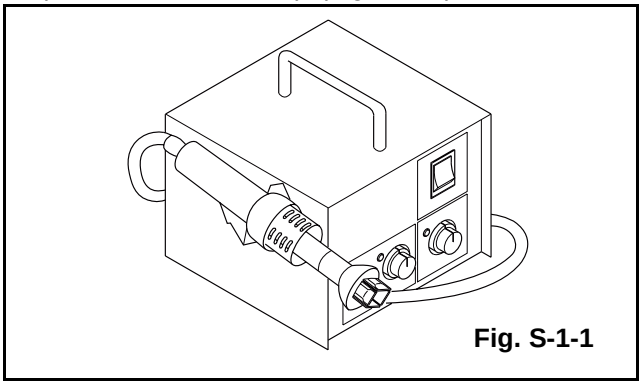


Fig. S-1-1

(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)

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

Caution:

1. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)
2. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

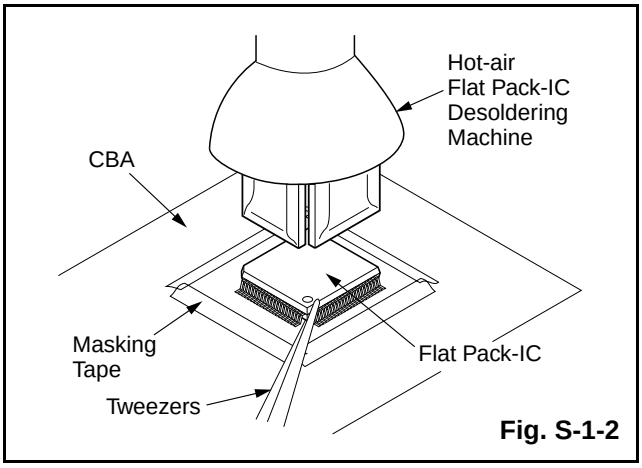


Fig. S-1-2

With Soldering Iron:

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

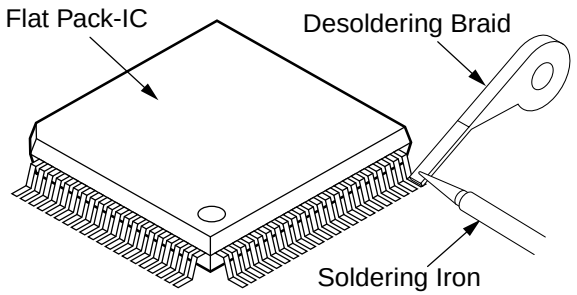


Fig. S-1-3

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

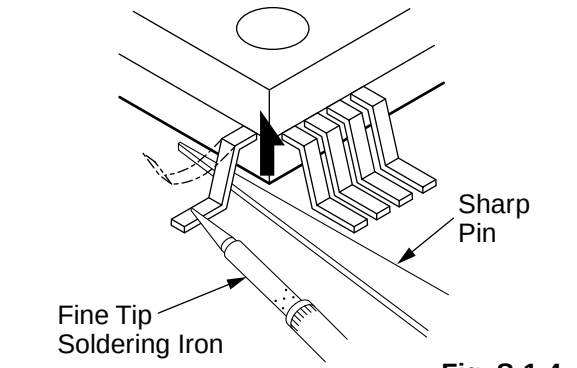


Fig. S-1-4

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

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

With Iron Wire:

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

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

(3) While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5

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

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

Note:

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

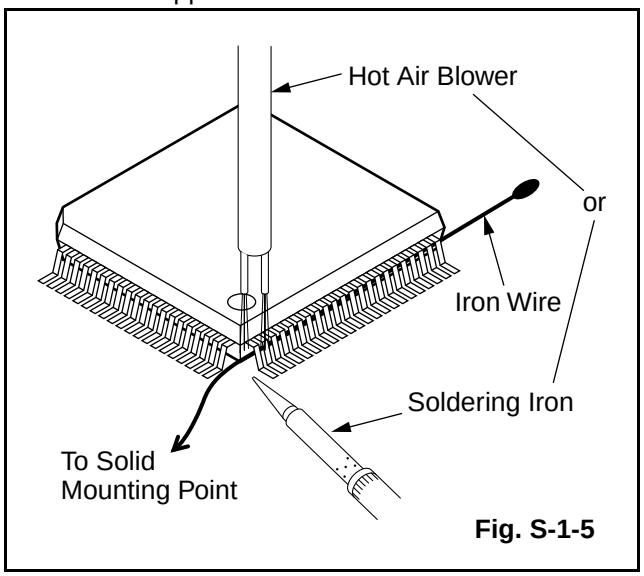


Fig. S-1-5

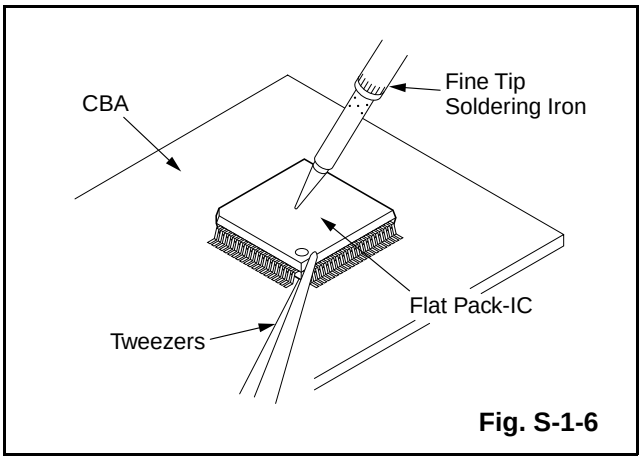


Fig. S-1-6

2. Installation

(1) Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.

(2) The "●" mark on the flat pack-IC indicates pin 1. (See Fig. S-1-7.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig. S-1-8.)

(3) Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.

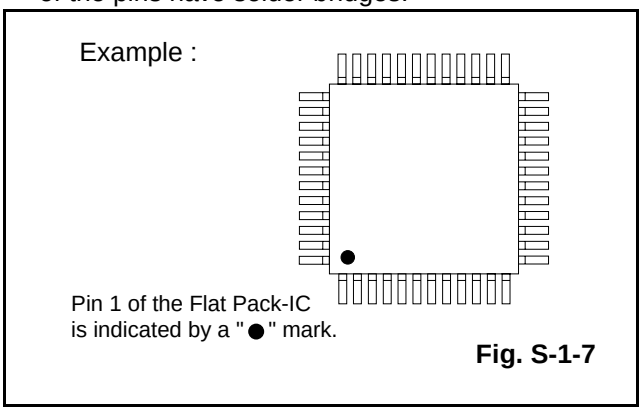


Fig. S-1-7

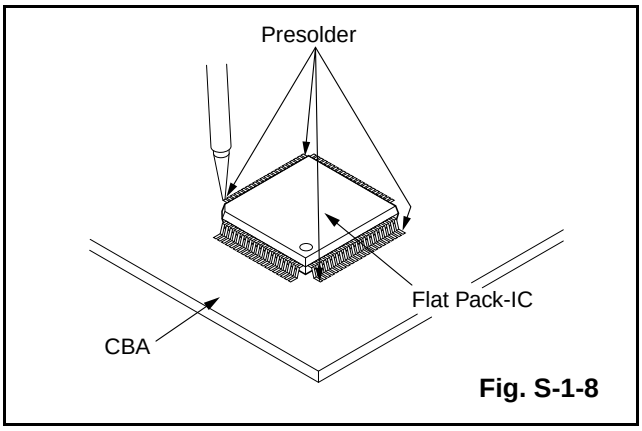


Fig. S-1-8

Instructions for Handling Semi-conductors

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

1. Ground for Human Body

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

2. Ground for Workbench

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

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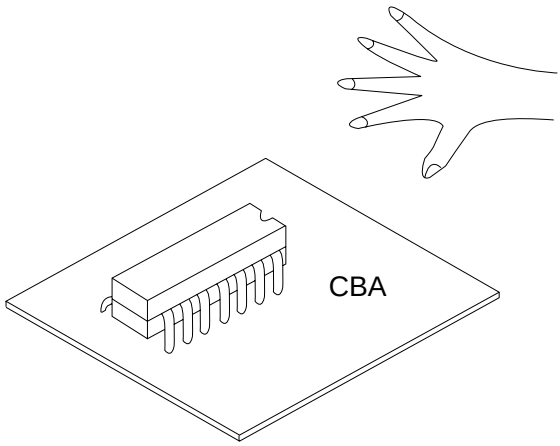

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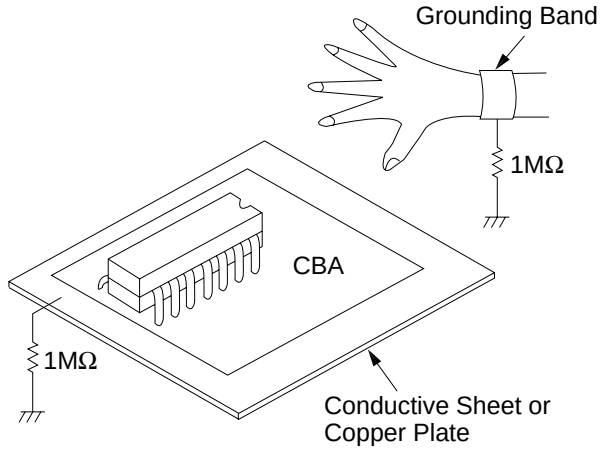


PREPARATION FOR SERVICING

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, TP502 (SENSOR INHIBITION) 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.

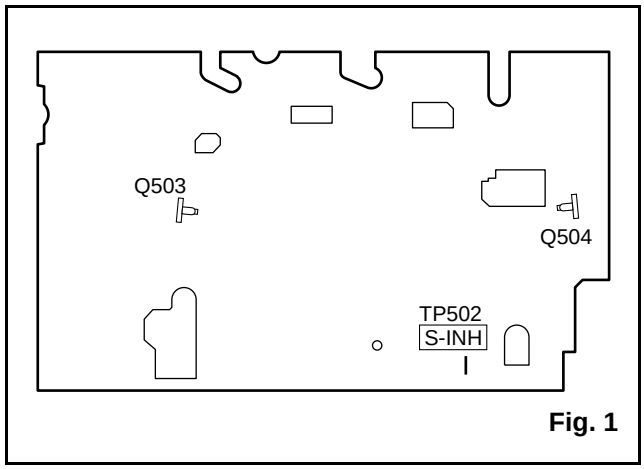
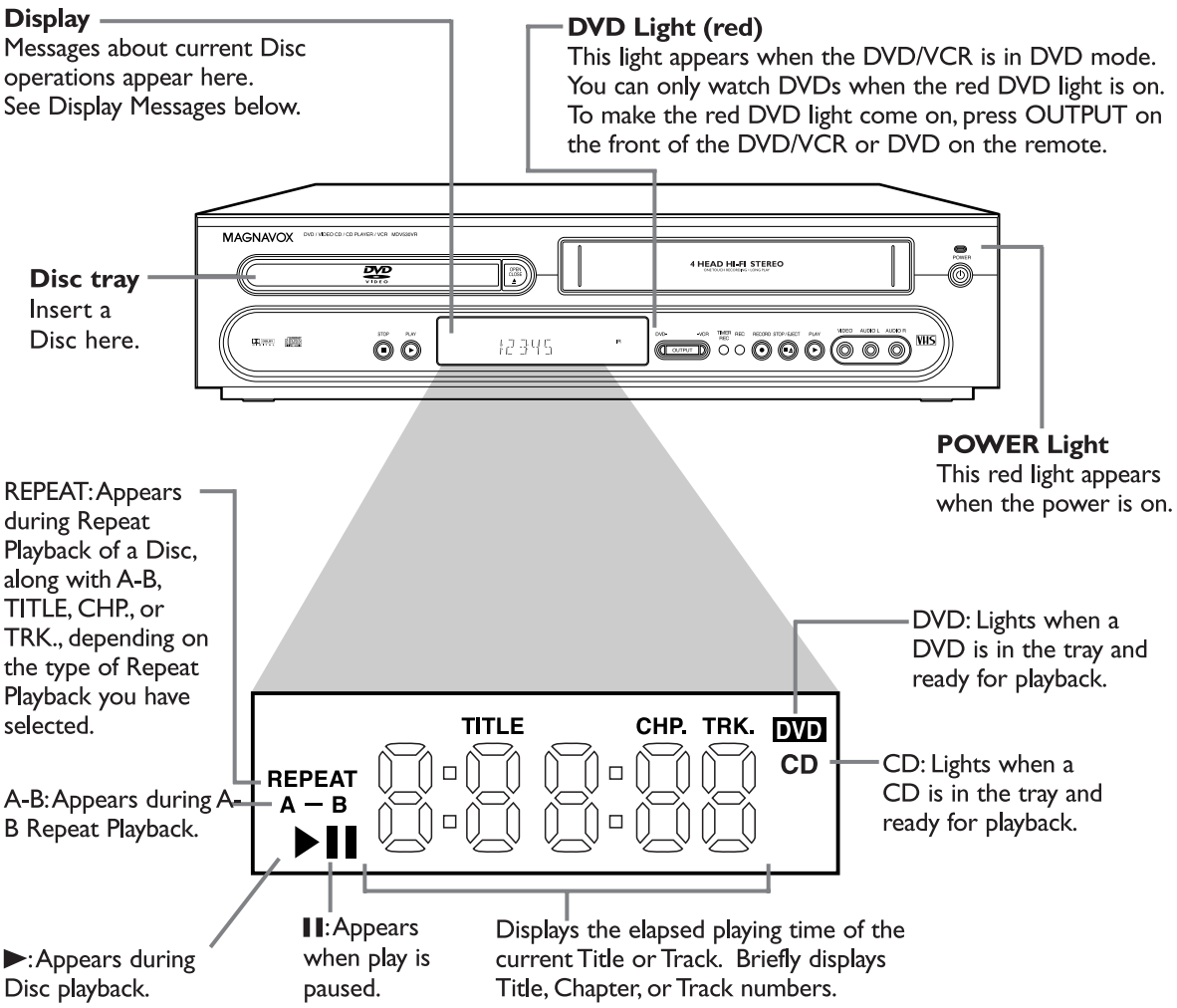


Fig. 1

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.

OPERATING CONTROLS AND FUNCTIONS

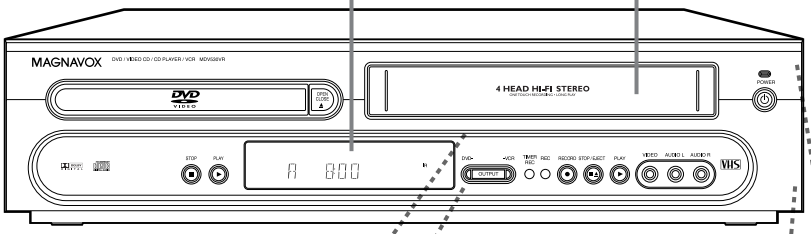


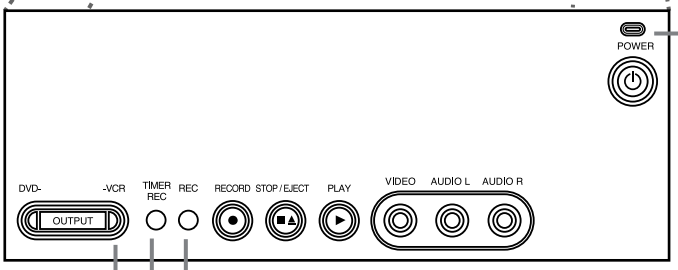
Display Messages

- - - - -	Appears after the disc tray closes if the tray is empty, if there is an error reading the disc, or if an unacceptable disc is installed.
OPEN	Tray is opening or is open.
CLOSE	Tray is closing.
Load	Disc is loading.

Counter/Clock/Channel
If there is a tape in the VCR, the tape counter will appear. The remaining time will appear during a One-Touch Recording.
If there is not a tape in the VCR, the current time will appear when the clock is set. An A or P will appear beside the time to indicate AM or PM. The DVD/VCR must be in VCR mode. The channel number will appear here briefly when you change TV channels.

Cassette Compartment
Insert a video cassette here.





POWER Light
This red light appears when the power is on.

REC (record) Light
This red light appears during VCR recording. It flashes when recording is paused.

VCR light (green)
This light appears when the DVD/VCR is in VCR mode. You can only watch videotapes or access VCR features and TV channels when the green VCR light is on.
To make the green VCR light come on, press VCR on the remote control or OUTPUT on the front of the DVD/VCR.

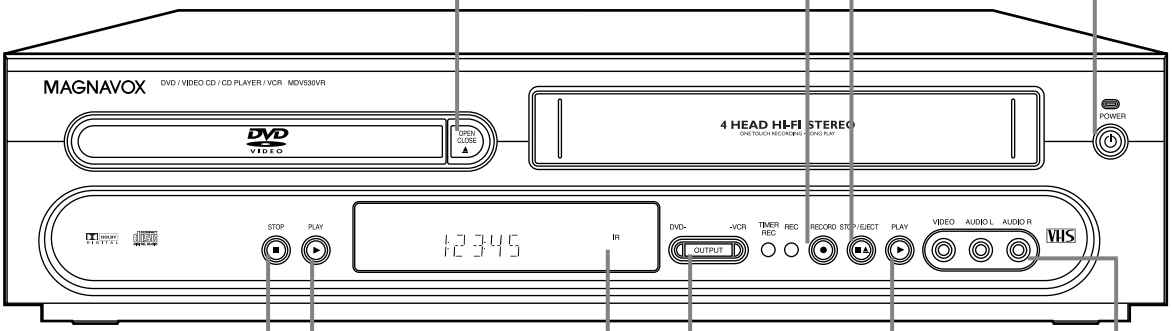
TIMER REC Light
This red light glows when the DVD/VCR is set for a timer recording or during a One-Touch Recording.
It flashes if a timer recording is set but no tape is in the DVD/VCR.
It flashes when all timer recordings or One-Touch Recordings are finished.

RECORD ● button (VCR)
Press once to start a recording. Press repeatedly to start a One-Touch Recording.

STOP/EJECT ■⏏ Button (VCR)
Press once to stop tape playback. When playback is stopped, press to eject the tape.

OPEN/CLOSE ⏏ Button (DVD)
Press to open or close the Disc tray.

POWER ⏻ Button
Press to turn the power on or off.



STOP ■ Button (DVD)
Press to stop Disc playback.

PLAY ► Button (DVD)
Press to start Disc playback.

PLAY ► Button (VCR)
Press to play a video cassette. Press to release Slow, Search, or Still mode and return to playback.

IR (Infrared) Remote Sensor
Receives a signal from your remote control so you can work your DVD/VCR from a distance. Point the remote control toward the DVD/VCR's IR sensor, not your TV.

AUDIO and VIDEO In Jacks
Connect audio and video cables coming from the audio and video out jacks of a camcorder, another VCR, another DVD Player, or audio system here. This will be useful if you want to copy a videotape or watch material that is playing on other equipment.

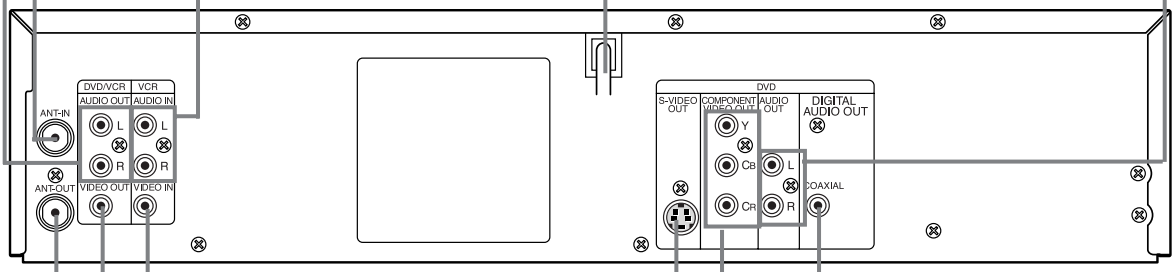
OUTPUT Button
Press to select DVD mode or VCR mode. The red DVD light appears in DVD mode. The green VCR light appears in the VCR mode.

DVD/VCR AUDIO OUT Jacks
Connect the supplied audio cables here and to the Audio In jacks of a television or other audio equipment. *There are two sets of AUDIO OUT jacks in case you want to connect the second pair of jacks to additional equipment (for example, a stereo receiver in addition to the TV hookup).*

ANT-IN (Antenna In) Jack
Connect your antenna or Cable TV signal here.

AUDIO IN (right/left) Jacks
Connect audio cables coming from the audio out jacks of a camcorder, another VCR, or an audio source here.

AC Power Cord
Connect to a standard AC outlet to supply power to the DVD/VCR.



S-VIDEO OUT Jack
Connect an optional S-Video cable here and to the S-Video In jack of a television.

COAXIAL DIGITAL AUDIO OUT Jack
Connect an optional coaxial digital audio cable here and to the Coaxial Digital Audio In jack of a decoder or stereo receiver.

VIDEO IN Jack
Connect a cable coming from the video out jack of a camcorder, another VCR, or another DVD Player here.

DVD/VCR VIDEO OUT Jack
Connect the yellow video cable (supplied) here and to the TV's Video In jack.

ANT-OUT (Antenna Out) Jack
Use the supplied RF coaxial cable to connect this jack to the ANTENNA IN Jack on your TV, Cable Box, or Direct Broadcast System.

COMPONENT VIDEO OUT (Y CB CR) Jacks
Connect optional component video cables here and to the Component Video In jacks of a television.

Helpful Hint
• *The S-VIDEO OUT, COMPONENT VIDEO OUT, and COAXIAL DIGITAL AUDIO OUT jacks are only useful in DVD mode.*

REMOTE CONTROL OPERATION

TIMER SET Button
Press to set a timer recording.

SETUP Button
Press to access or remove the DVD Player's Setup menu.

RECORD Button
Press once to start a VCR recording. Press repeatedly to start a One-Touch Recording.

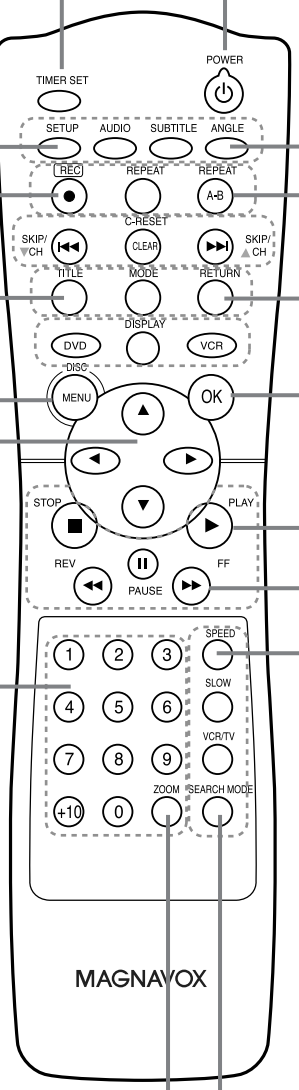
TITLE Button
Press to see a DVD Title menu.

DISC/MENU Button
Press to see a DVD Disc menu or the VCR menu.

Arrow ◄ ►▲▼ Buttons
Press to select an item in the DVD Player Setup menu or in the DVD Disc menu.

Number Buttons
In DVD mode, press to select a Track or Chapter for Disc playback. Press to set up a Program.
In VCR mode, use to set up VCR features or to select TV channels. Enter channel numbers as a two-digit number for the quickest results (to select channel 6, press 0,6). Otherwise, there may be a brief delay. For channels 100 and above, enter a three-digit number (for channel 117, press 1, 1, 7). If you have Cable TV, channels 1-125 are available. If you have an antenna, channels 2-69 are available.
The +10 button has no effect in VCR mode.

ZOOM Button
Press to enlarge the DVD picture.



POWER ⏻ Button
Press to turn the power on and off.

ANGLE Button
Press to see a DVD picture from a different angle (if available).

A-B REPEAT Button
Press to set up A-B Repeat.

RETURN Button
Press to return to the previous DVD Player's Setup menu or to remove the Setup menu.

OK Button
Press to confirm or select DVD Player menu items.

PLAY ► (▲) Button
Press to begin Disc or tape playback. Press to select an item in the VCR menu.

FF ►► (►) (fast forward) Button
In DVD mode, press to fast forward the Disc. Press when DVD playback is paused to start slow motion playback.
In VCR mode, press to fast forward the tape. Press to go to the next VCR menu or to change a VCR menu item.

SPEED Button
Press to select the VCR's recording speed (SP or SLP).

SEARCH MODE Button
In DVD mode, press to search for a specific Title/Chapter/Track/Time.
In VCR mode, press to fast forward or rewind the tape a specific length of time.

Helpful Hints

- *For DVD Player features, press DVD first before pressing other buttons. To make sure the DVD/VCR is in DVD mode, press OUTPUT SELECT so the red DVD light appears on the front of the DVD/VCR.*
- *For VCR features, press VCR before pressing any other buttons. To make sure the DVD/VCR is in VCR mode, press OUTPUT SELECT so the green VIDEO light appears on the front of the DVD/VCR.*

AUDIO Button
Press to choose a DVD audio language. Press to choose a sound mode.

REPEAT Button
Press to play a Track, Audio CD, Title, or Chapter repeatedly.

C-RESET / CLEAR Button
Press to erase incorrect information. In VCR mode, press to reset the real-time tape counter.

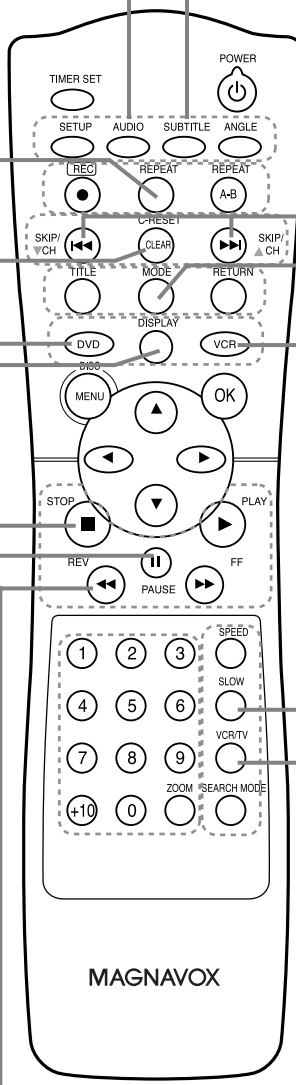
DVD Button
Press before using the remote control for DVD features.

DISPLAY Button
In VCR mode, press to access or remove the VCR's on-screen status display. Press to exit on-screen VCR menus.
In DVD mode, press to access Disc information.

STOP ■ (▼) Button
Press to stop Disc playback, tape playback, or recording.
Press to select an item in the VCR menu.

PAUSE ❚❚ Button
Press to pause Disc playback or to advance the picture one frame at a time. Press to pause or resume VCR recording.
Press during tape playback to freeze or unfreeze the picture.

REW ◄◄(◄) (rewind) Button
Press to fast reverse a DVD or Audio CD. Press to rewind a tape.
Press to go to a previous VCR menu.



SUBTITLE Button
Press to select a language for DVD subtitles.

SKIP/▼/▲ CH |◄◄/►►| Buttons
In DVD mode, press to skip Chapters or Tracks. In VCR mode, press to change TV channels at the DVD/VCR.

MODE Button
Press to set a Program. Press to start Random playback.

VCR Button
Press before using the remote control for VCR features.

SLOW Button
Press to view a tape in slow motion; press again to resume normal playback.

VCR/TV Button
Use to select VCR or TV position. The VCR/TV light appears when the DVD/VCR is in VCR position.

- **VCR Position**

In VCR mode (the green VIDEO light is on), watch a tape or watch/record TV programs. Use CHANNEL/SKIP |◄◄/►►| (▼/▲) or the Number buttons to change channels at the DVD/VCR.
In DVD mode (the red DVD light is on), use the DVD Player and its features.

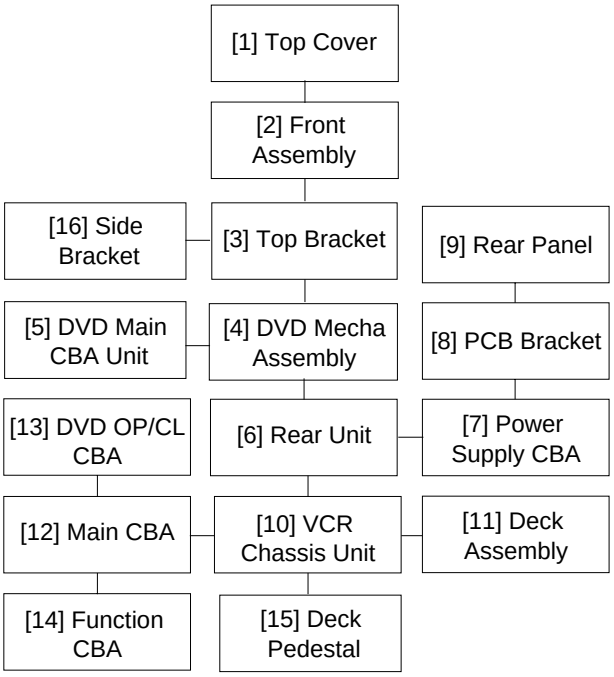
- **TV Position**

In VCR mode, watch TV channels or watch one program while recording another.

CABINET DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

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



2. Disassembly Method

ID/ LOC. No.	PART	REMOVAL		
		Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	Note
[1]	Top Cover	D1	7(S-1)	-
[2]	Front Assembly	D2	(S-3), *7(L-1)	1 1-1 1-2
[3]	Top Bracket	D2	4(S-2)	-
[4]	DVD Mecha Assembly	D3	3(S-4), *CN401, *CN302, *CN601	-
[5]	DVD Main CBA Unit	D4	2(S-5), *CN201, *CN301	2 2-1 2-2 2-3 3
[6]	Rear Unit	D5	5(S-6), 3(S-7), CN1005	-
[7]	Power Suppy CBA	D6	4(S-8)	-
[8]	PCB Brackt	D6	3(S-9)	-
[9]	Rear Panel	D6	----------	-
[10]	VCR Chassis Unit	D7	5(S-10), 4(S-11)	-
[11]	Deck Assembly	D8	Desolder, 2(S-12)	4,5
[12]	Main CBA	D8	----------	-
[13]	DVD OP/ CL CBA	D8	----------	-
[14]	Function CBA	D8	----------	-
[15]	Deck Pedestal	D9	7(S-13)	-
[16]	Side Bracket	D9	(S-14)	-
↓ (1)	↓ (2)	↓ (3)	↓ (4)	↓ (5)

Note:

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

(2): Name of the part

(3): Figure Number for reference

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

(5): Refer to “Reference Notes.”

Reference Notes

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

1-1. Remove Screw (S-3).

1-2. Release seven Locking Tabs (L-1) (to do this, first release five Locking Tabs (A) at the side and top, and then release two Locking Tabs (B) at the bottom.)

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

To avoid damage of pickup follow next procedures.

2-1. Slide the pickup unit as shown in Fig. D4.

2-2. Short the three short lands of FPC cable with solder before removing the FFC cable (CN301) from it. If you disconnect the FFC cable (CN301), the laser diode of pickup will be destroyed. (Fig. D4)

2-3. Disconnect Connector (CN201). Remove two Screws (S-5) and lift the DVD Main CBA Unit. (Fig. D4)

CAUTION 3: When reassembling, confirm the FFC cable (CN301) 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. D8.

5. Before installing the Deck Assembly, be sure to place the pin of LD-SW on Main CBA as shown in Fig. D8. 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. D8.

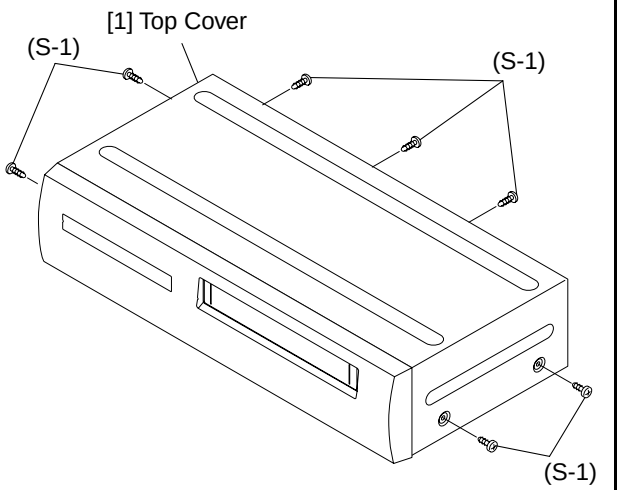


Fig. D1

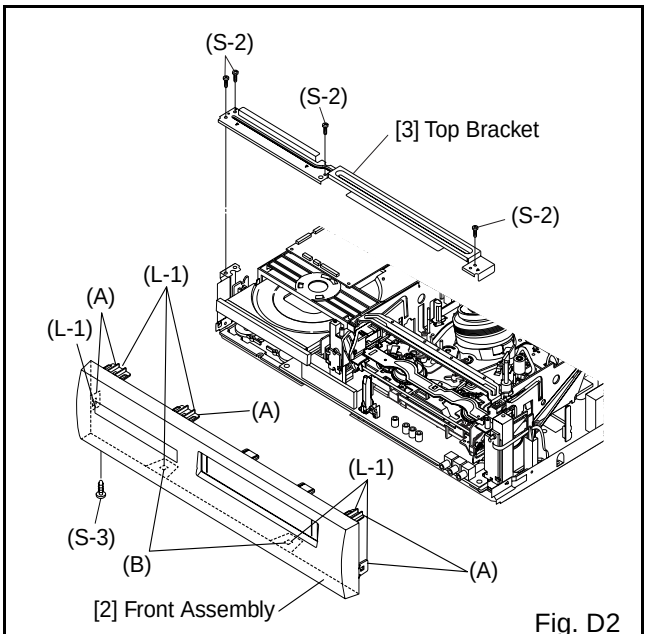


Fig. D2

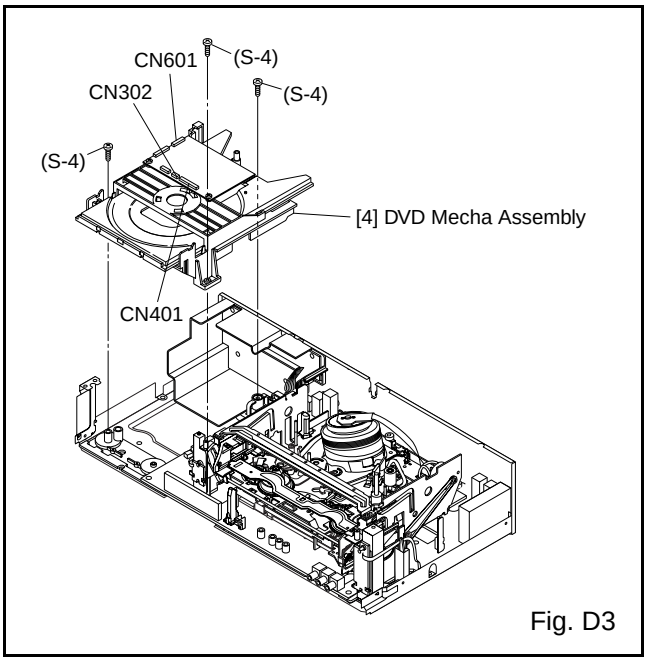


Fig. D3

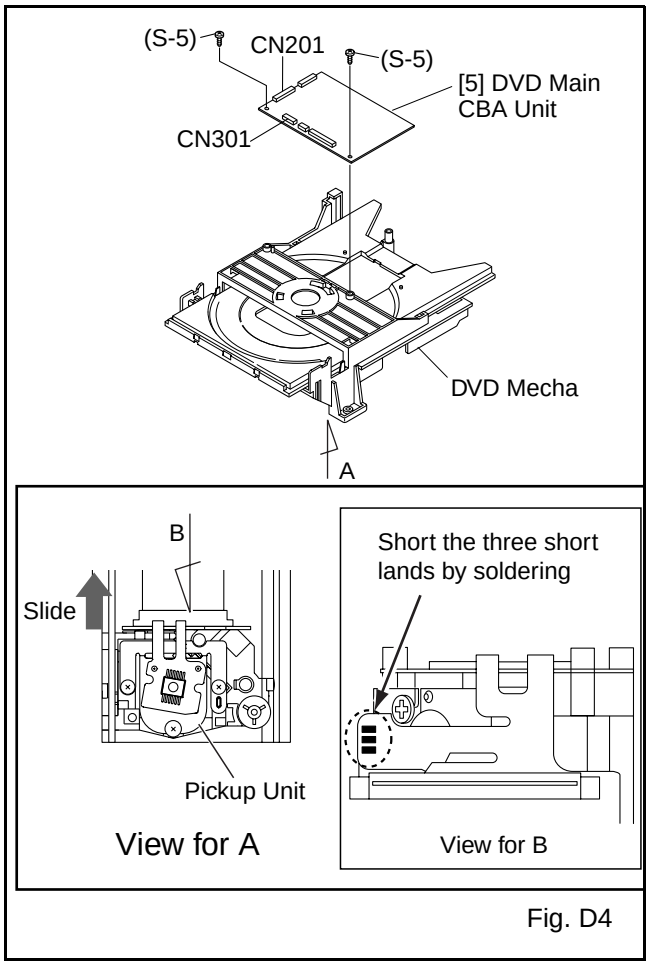


Fig. D4

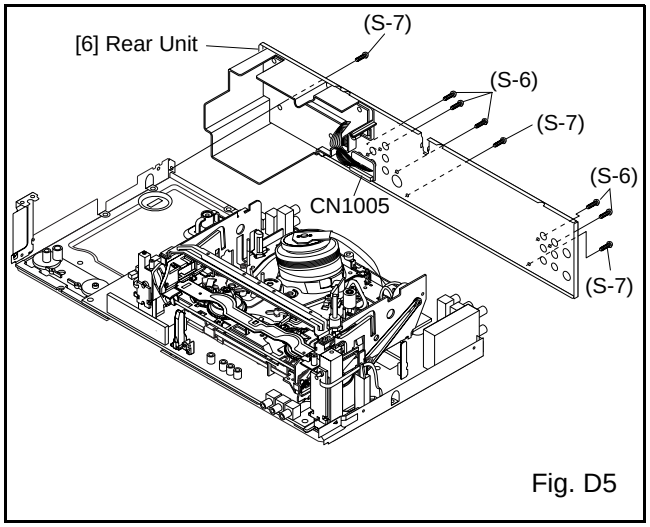


Fig. D5

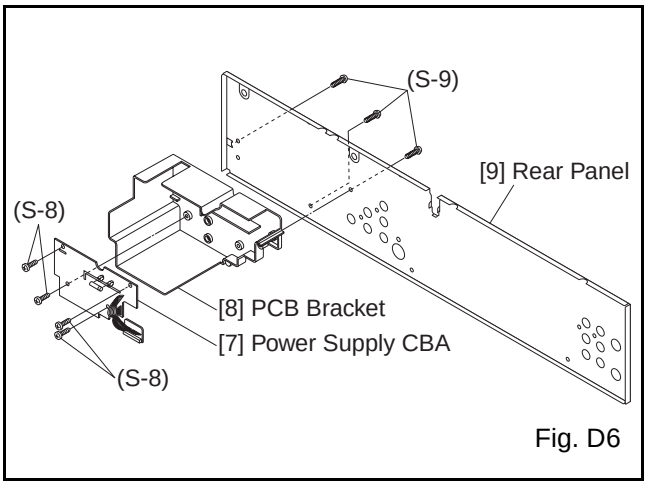


Fig. D6

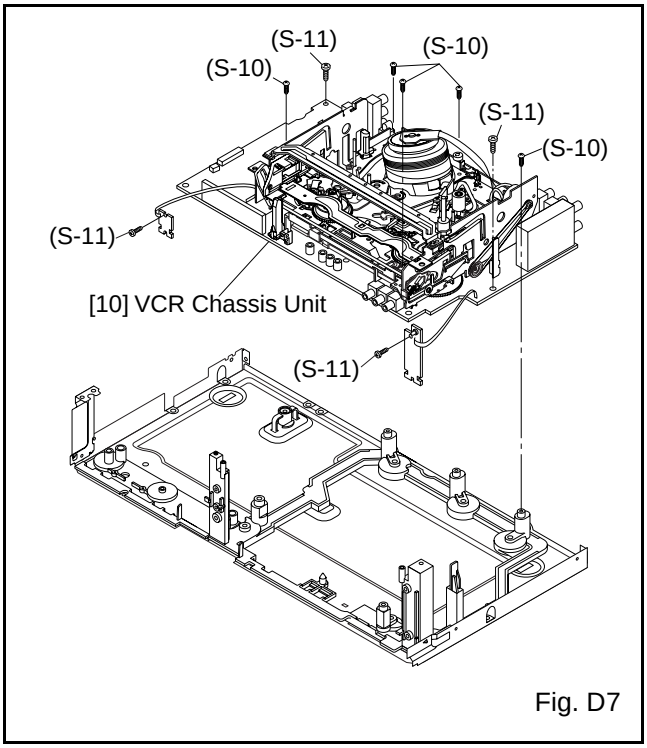
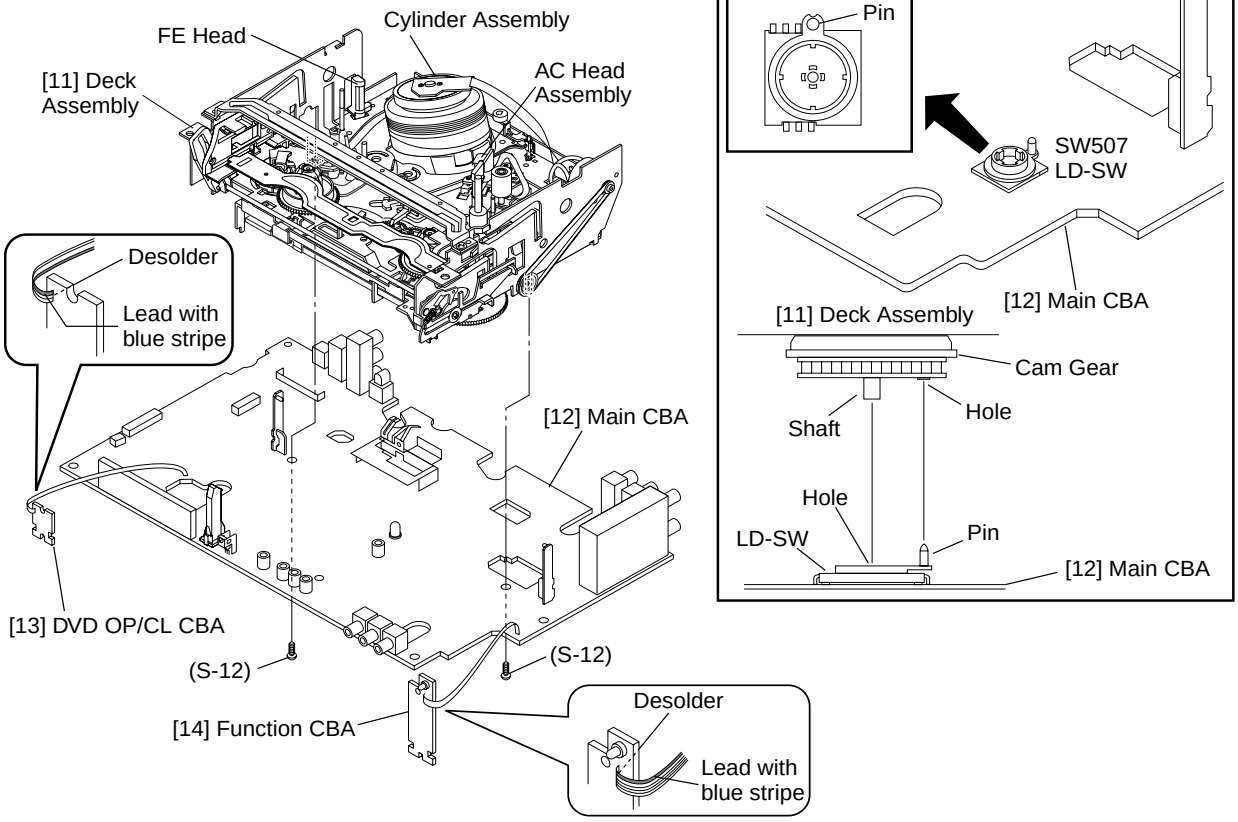
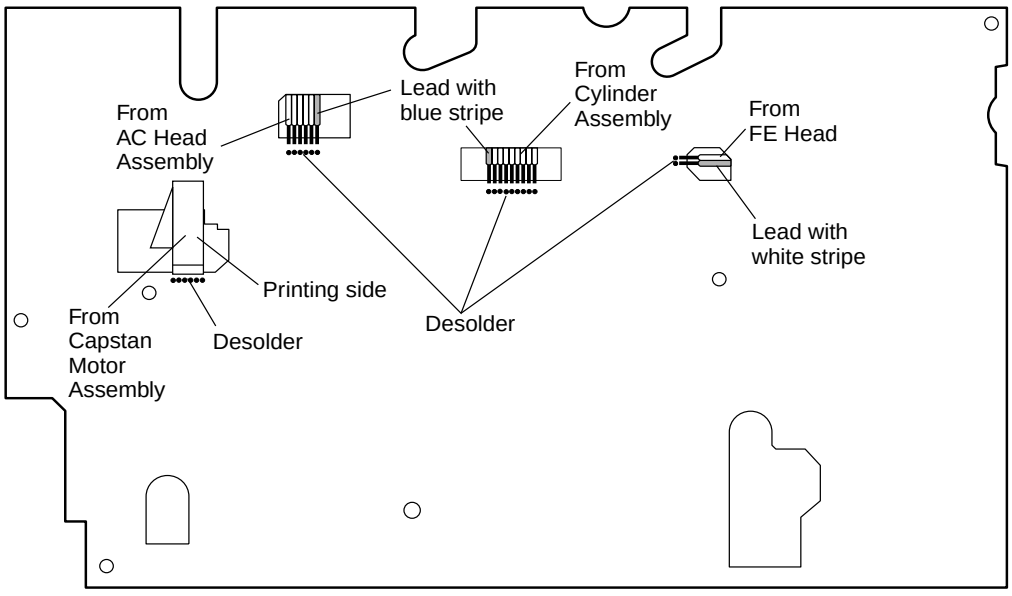


Fig. D7





BOTTOM VIEW

Lead connections of Deck Assembly and Main CBA

Fig. D8

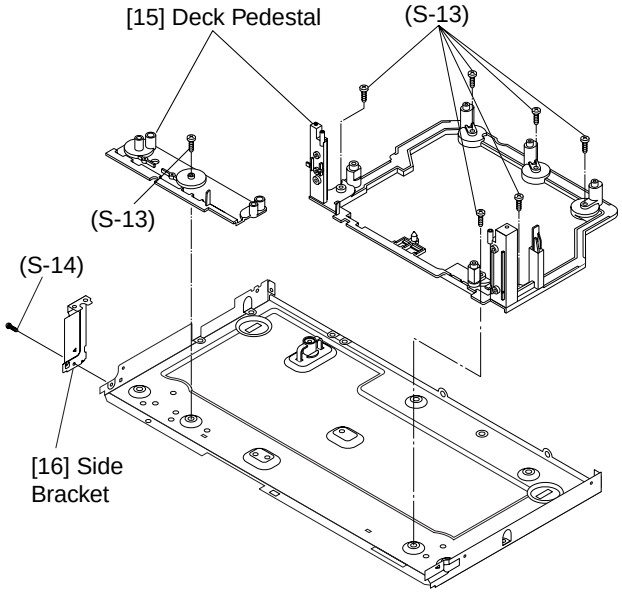
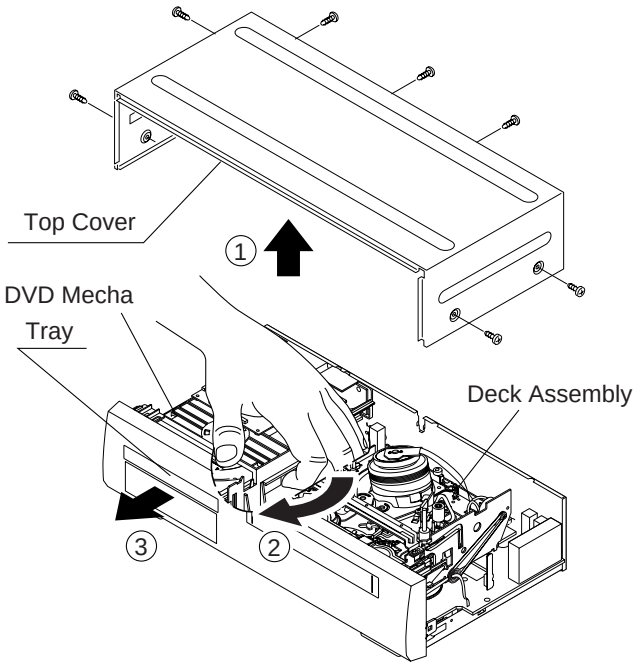
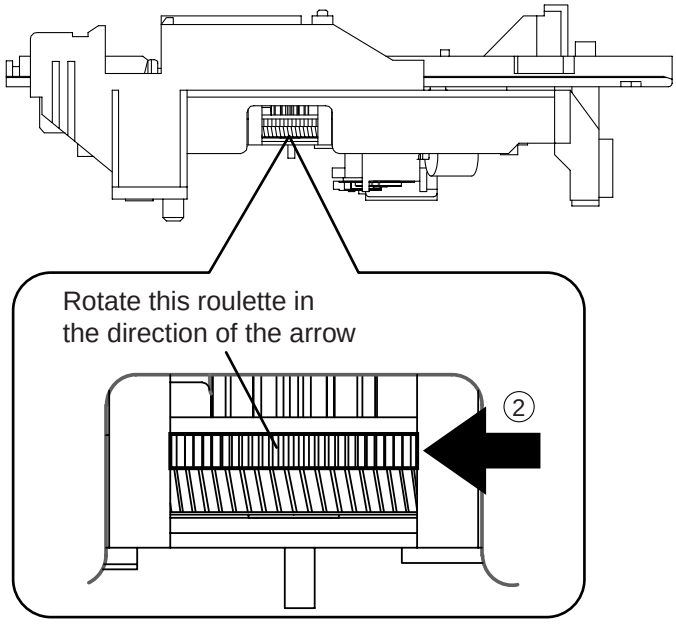


Fig. D9

HOW TO MANUAL EJECT

1. Remove the Top Case.
2. Rotate this roulette in the direction of the arrow as shown below.





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 (VFMS0001H6)

Head Switching Position Adjustment

Purpose:

To determine the Head Switching point during playback.

Symptom of Misadjustment:

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

Test point	Adj.Point	Mode	Input
TP751(V-OUT) TP302(RF-SW) GND	VR501 (Switching Point) (MAIN CBA)	PLAY (SP)	-----
Tape	**Measurement Equipment**	**Spec.**	
VFMS0001H6	Oscilloscope	6.5H±1H (412.7µs±60µs)	

Connections of Measurement Equipment

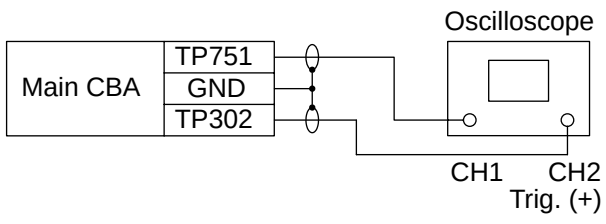
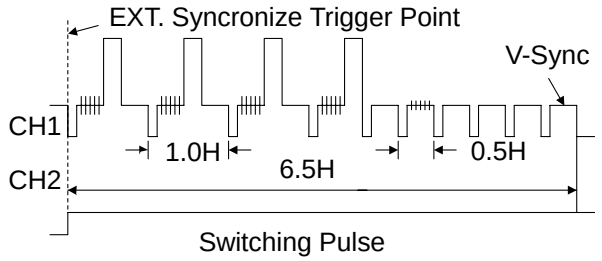


Figure 1

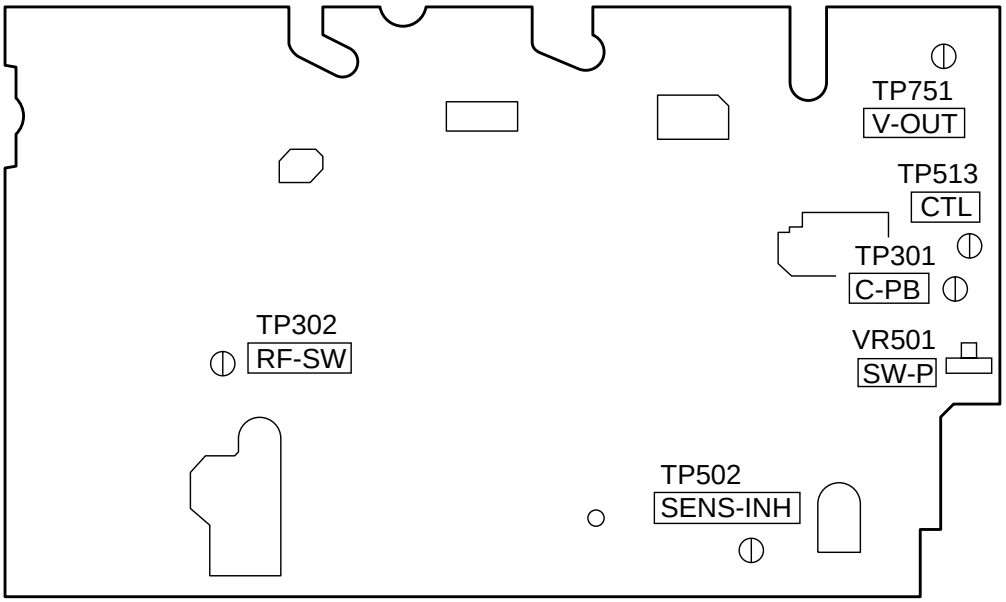


Reference Notes:

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(412.7µs) delayed position from the rising edge of the CH2 head switching pulse waveform.

Adjustment Points and Test Points

Main CBA Top View

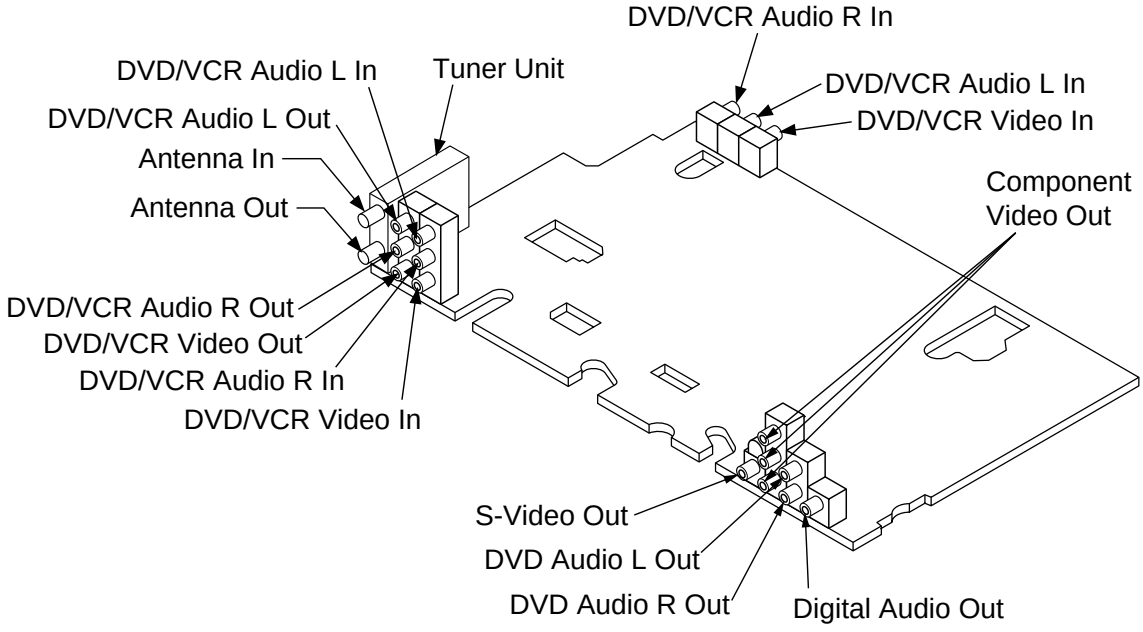


TEST POINT INFORMATION

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

TEST POINTS NOT USED IN ELECTRICAL ADJUSTMENTS

Test Point	Used in:	Page No.
TP301	Mechanical Alignment Procedures	2-3-3, 2-3-4
TP302	Mechanical Alignment Procedures	2-3-3, 2-3-4
TP513	Mechanical Alignment Procedures	2-3-3
TP502	Preparation for Servicing	1-5-1



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.

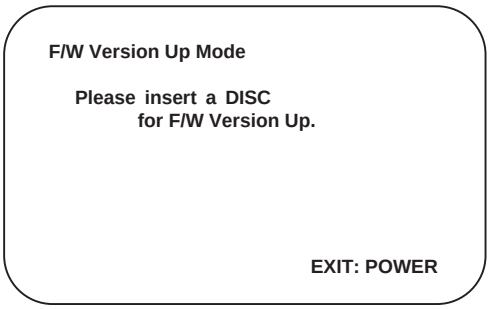


Fig. a Version Up Mode Screen

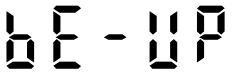


Fig. b VFD in Version Up Mode

   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.

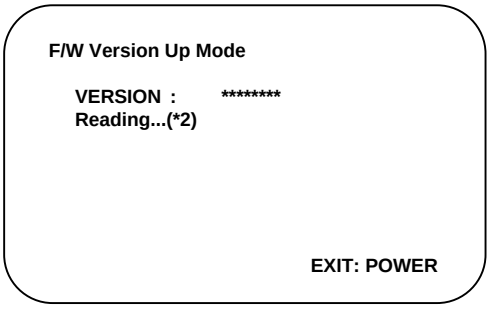


Fig. c Programming Mode Screen

Fig. d VFD in Programming Mode (Example)

   The appearance shown in (*2) of Fig. c is described as follows:

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

5. After programming is finished, the tray opens automatically. Fig. e appears on the screen and the checksum in (*3) of Fig. e appears on the VFD. (Fig. f)

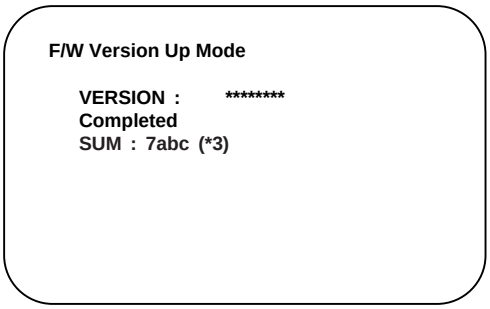


Fig. e Completed Program Mode Screen

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

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

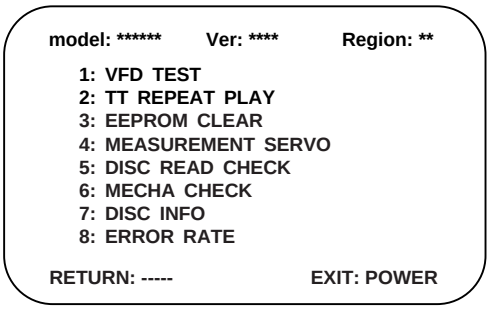


Fig. g

9. Press [3] button on the remote control unit.
   Fig. h appears on the screen.

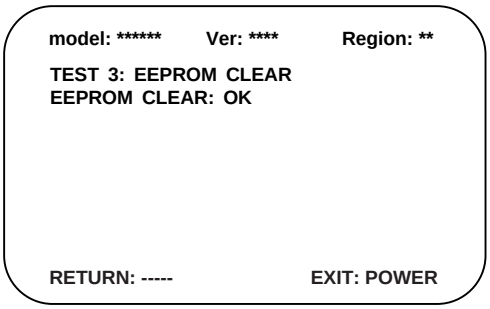


Fig. h

10. To finish this mode, press [POWER] button.

BLOCK DIAGRAMS <VCR SECTION>

Servo/System Control Block Diagram

"● " = SMD

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.

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)

(DECK ASSEMBLY)

AC HEAD ASSEMBLY
CONTROL HEAD

CN504
5 CTL(+)
6 CTL(-)

MAIN CBA

AL+5V
D555 S-LED

FROM/TO DVD SYSTEM CONTROL BLOCK DIAGRAM <DVD SECTION>
REMOTE-VIDEO
DISPLAY-CLK
DISPLAY-DATA
DISPLAY-ENA

TP513 CTL

SW512 LD-SW

TP506 ST-S
TP505 T-REEL
TP507 END-S

Q504 ST-S
SENSOR CBA
Q503 END-S

Q506 T-REEL

TIMER+5V
Q501 RESET

AL+5V
VR501 SW-POINT

AL+5V
SW511 REC SW

SENSOR CBA

CYLINDER ASSEMBLY
PG SENSOR
DRUM MOTOR M

CAPSTAN MOTOR
CAPSTAN MOTOR M

LOADING MOTOR M

CL502
1 AL+12V
2 P-ON+5V
3 C-FG
4 C-F/R
5 C-CONT
6 GND
7 LM-FWD/REV
8 D-CONT
9 D-PFG
10 GND
11 AL+12V
12 AL+15V

● IC501
(SERVO/SYSTEM CONTROL)

5 REMOTE-VIDEO
6 DISPLAY-CLK
8 DISPLAY-DATA
9 DISPLAY-ENA
58 CTL
56 CTL(+)
57 CTL(-)
68 LD-SW
69 ST-S
62 END-S
3 T-REEL
20 RESET
65 PG-DELAY
2 REC-SAF-SW
49 C-FG
27 C-F/R
28 C-CONT
21 LM-FWD/REV
29 D-CONT
47 D-PFG

KEY- 1 67
KEY- 2 66
REC-IND 72
TIMER-IND 75
VCR-IND 70
DVD-IND 71
DVD-POWER 26
VCR/TV 77
IIC-BUS SCL 13
IIC-BUS SDA 12
Hi-Fi-H-SW 25
Hi-Fi/NOR-IN 59
ST/SAP-IN 61
A-MUTE-H 7
D-REC-H 24
D-PB-L 23
INSEL/ST-SL 16
C-SYNC 41
D-V SYNC 19
V-ENV 64
C-ROTA 78
RF-SW 18
TRICK-H 11
SP/LP/SLP 14
H-A-SW 79
H-A-COMP 80
OUTPUT-SELECT 46
P-ON-L 22
P-DOWN-L 1

P-ON+9V
CL509
1 POWER-LED
2 KEY-1
CL508
KEY SWITCH
KEY SWITCH
TP502 S-INH
KEY SWITCH

FUNCTION CBA
D561 POWER
D565 REC
D564 TIMER
D566 VCR
D567 DVD
AL+5V
Q565
Q563
Q566
Q567

DVD POWER
TO DVD SYSTEM CONTROL BLOCK DIAGRAM <DVD SECTION>

TU701(TUNER UNIT)
11 CLOCK
12 DATA
5 VCR/TV

FROM/TO Hi-Fi AUDIO BLOCK
IIC-BUS SCL
IIC-BUS SDA
Hi-Fi-H-SW
NORMAL-H
ST/SAP-MODE
A-MUTE-H

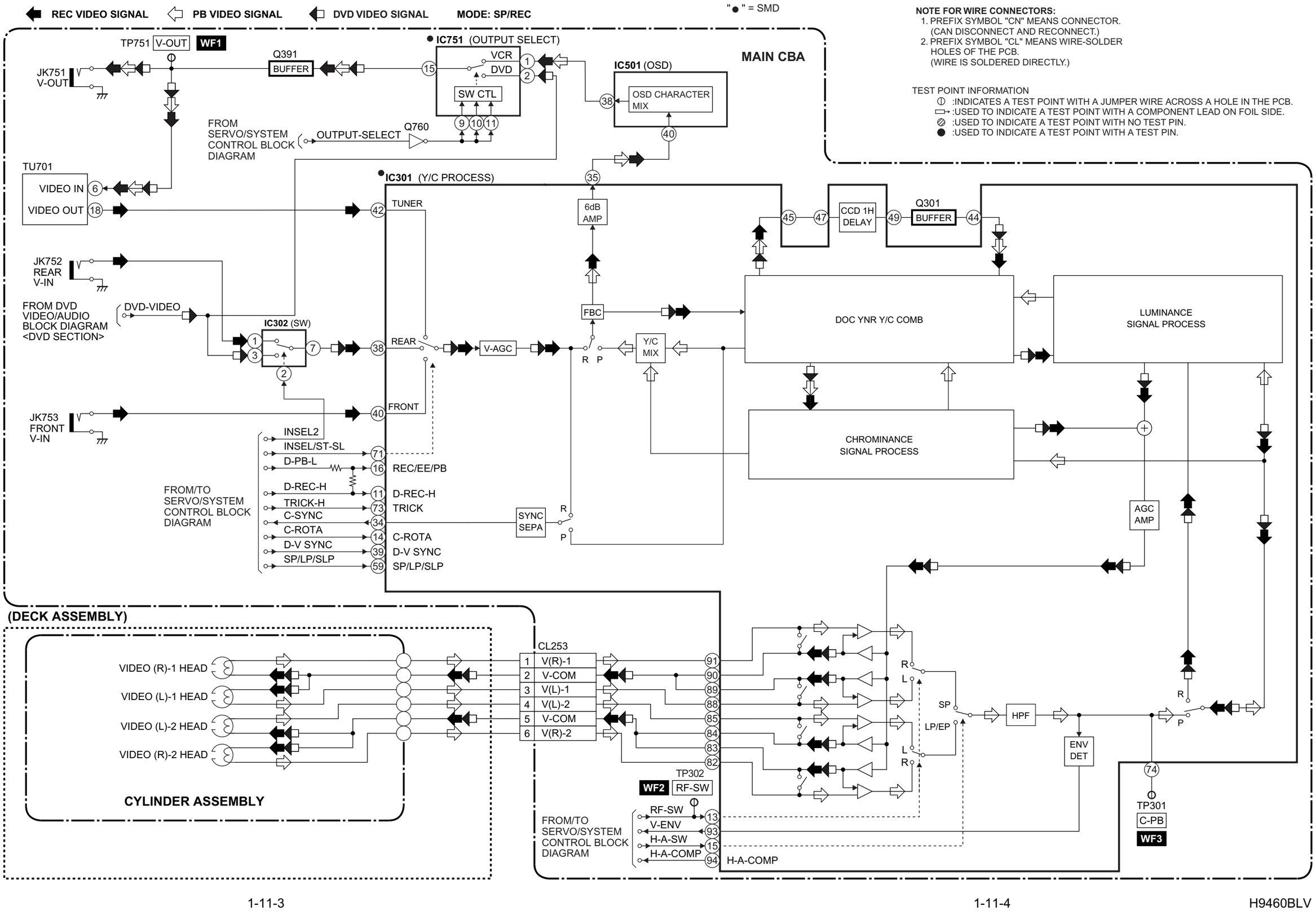
TO AUDIO BLOCK
A-MUTE-H
D-REC-H
D-PB-L
OUTPUT-SELECT

FROM/TO VIDEO BLOCK
D-REC-H
D-PB-L
INSEL/ST-SL
C-SYNC
D-V SYNC
V-ENV
C-ROTA
RF-SW
TRICK-H
SP/LP/SLP
H-A-SW
H-A-COMP
OUTPUT-SELECT

FROM/TO POWER SUPPLY BLOCK
P-ON-L
P-DOWN-L

TO DVD SYSTEM CONTROL BLOCK DIAGRAM
OUTPUT-SELECT

Video Block Diagram



Audio Block Diagram

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.

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)

"●" = SMD

PB-AUDIO SIGNAL **REC-AUDIO SIGNAL** **DVD AUDIO SIGNAL** **Mode : SP/REC**

MAIN CBA

TU701
SIF 15
MOD-A 2

REAR
JK751
A-OUT (R)
A-OUT (L)
JK756
A-OUT (R)
A-OUT (L)
JK752
A-IN (R)
A-IN (L)

FRONT
JK754
A-IN (L)-F
JK755
A-IN (R)-F

TP753
A-OUT (R)
TP754
A-OUT (L)

●IC751
(OUTPUT SELECT)
DVD
VCR
DVD
VCR
SW CTL
4 5 3 14 12 13 9 10 11

Q760
OUTPUT-SELECT
FROM SERVO/SYSTEM CONTOL BLOCK DIAGRAM

DVD-A(R)
DVD-A(L)
FROM DVD VIDEO/ AUDIO BLOCK DIAGRAM <DVD SECTION>

MOD-A
SIF
A-IN (L)-F
A-IN (R)-F
A-OUT (R)
A-IN (R)
A-IN (L)
A-OUT (L)
N-A-OUT
N-A-IN
FROM/TO Hi-Fi AUDIO BLOCK DIAGRAM

●IC301
(AUDIO PROCESS)
80 76 78 4 1 2 3 100 96 98 99 6 7
TUNER
REAR
FRONT
ALC
R
P
LINE AMP
MUTE
EQ AMP
SP/LP-ON
AUTO BIAS
REC AMP
D-REC-H
REC/EE/PB
11 12 16

(DECK ASSEMBLY)

AC HEAD ASSEMBLY
AUDIO HEAD
AUDIO ERASE HEAD

FE HEAD
FULL ERASE HEAD

CL504
4 A-PB/REC
3 A-COM
1 AE-H
2 AE-H/FE-H

CL501
1 FE-H
2 FE-H-GND

Q422
BIAS OSC
Q421
P-ON+5V
Q423 (PB=ON)
Q425 (SWITCHING D-REC OFF)
P-ON+5V
Q424 (PB=ON)

D-PB-L
A-MUTE-H
D-REC-H
FROM SERVO/SYSTEM CONTROL BLOCK DIAGRAM

Hi-Fi Audio Block Diagram

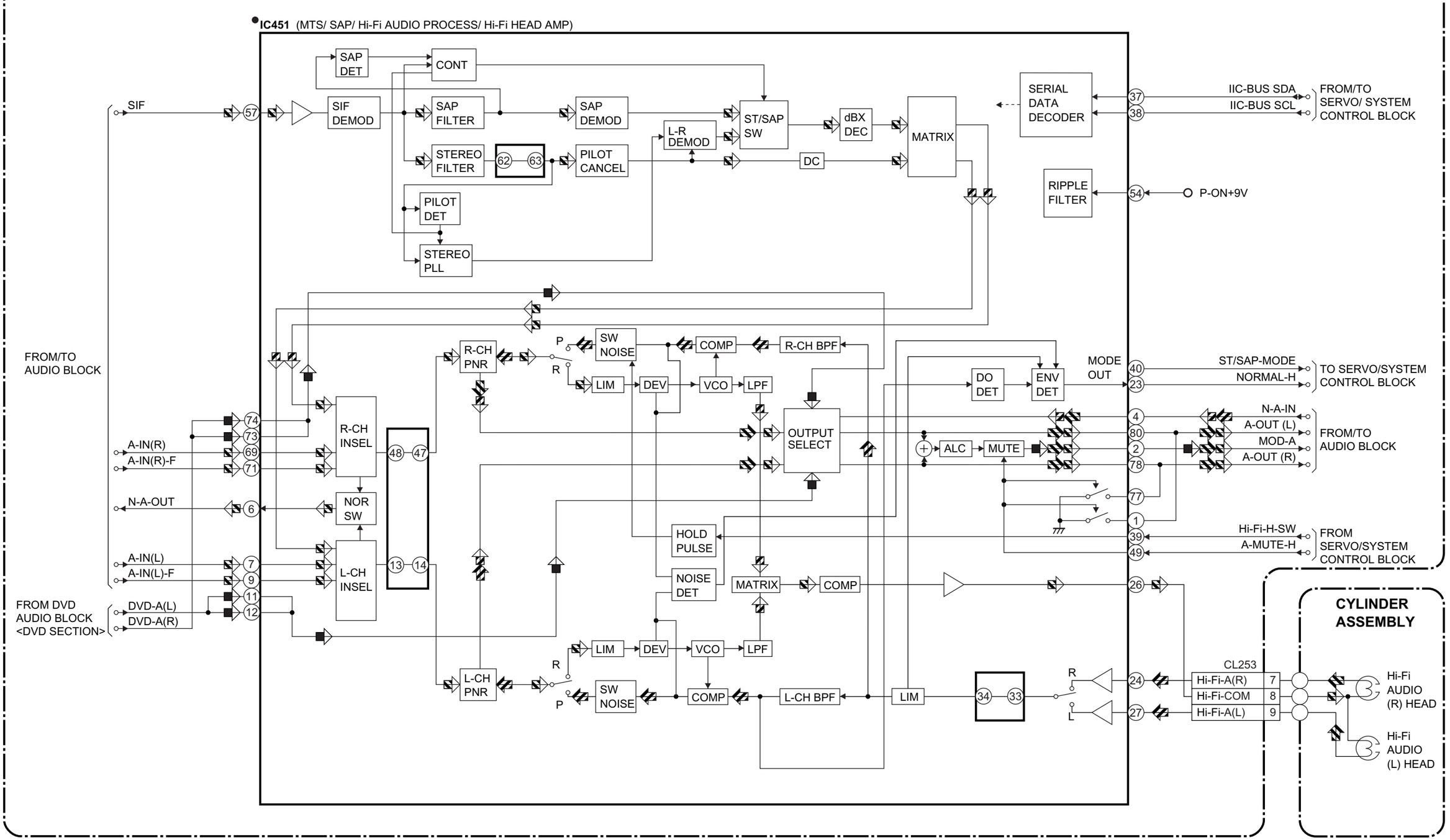
NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)

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.

"● " = SMD

PB-AUDIO SIGNAL REC-AUDIO SIGNAL DVD AUDIO SIGNAL **Mode : SP/REC**

MAIN CBA



Power Supply Block Diagram

CAUTION !

Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit. If Main Fuse (F001) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

CAUTION

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

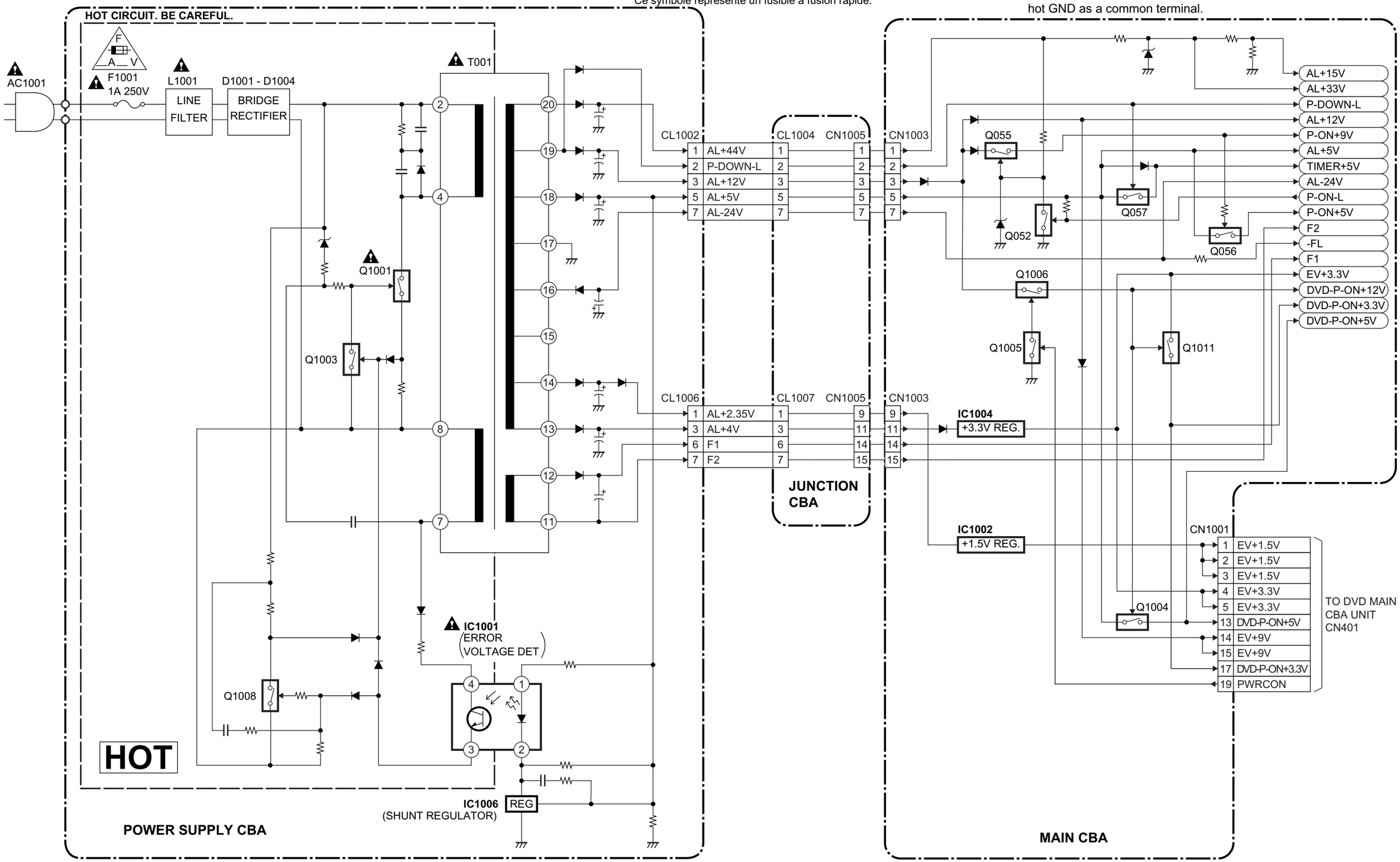
"This symbol means fast operating fuse."
"Ce symbole représente un fusible à fusion rapide."

NOTE FOR WIRE CONNECTORS:

1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)

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

"● " = SMD

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)

FOCUS SERVO SIGNAL
TRACKING SERVO SIGNAL
SLED SERVO SIGNAL
SPINDLE SERVO SIGNAL

IC101 (MICRO CONTROLLER)
172 EXT CLOCK
92 CLK33M
170 BE CLOCK
17 FSEL
95 DVD-A-MUTE
51 ADAC-MD
50 ADAC-MC
96 ADAC-ML
48 PLAY
47 STOP
62 POWER
94 OPEN /CLOSE
152 FOCUS DRIVE
150 TRACKING DRIVE
71 SPDL
70 SLD
68 RESET
97 TRAY-OUT
60 TRAY-IN
66 FG-IN
55 OUT-SEL
59 FP-STB
54 FP-DIN
53 FP-CLK
61 REMOTE-DVD

IC451 (CLOCK GENERATOR)
X451 36.864MHz OSC
X'TAL OSC
MULTI PLL
1/4
PLL2

IC301 (SERVO DRIVE)
FOCUS ACTUATOR DRIVE
TRACKING ACTUATOR DRIVE
SPINDLE MOTOR DRIVE
SLED MOTOR DRIVE

IC461
+3.3V
RESET

IC202 (OP AMP)

TO DVD VIDEO/ AUDIO BLOCK DIAGRAM
PCM-SCLK
DVD-A-MUTE
ADAC-MD
ADAC-MC
ADAC-ML

PICK-UP UNIT
TS
FS
CN201
FS(+) 18
FS(-) 19
TS(+) 20
TS(-) 17

TRAY-OUT
TRAY-IN
SPINDLE MOTOR
SLED MOTOR
FG CBA
FG SENSOR

CN3002
CN301
SP(+) 3
SP(-) 4
TRAY-OUT 5
TRAY-IN 6
GND 7
SL(-) 8
SL(+) 9
FG-IN 1

DRIVE CBA

DVD MAIN CBA UNIT

CN302
CN401
CN2001
CN1001
PLAY 1
STOP 2
POWER 3
OPEN/CLOSE 4
OUT-SEL 20
FP-STB 16
FP-DIN 18
FP-CLK 21
REMOTE-DVD 22

CL2003 2 OPEN/CLOSE 2 CL2002
SW2001 DVD OPEN /CLOSE

DVD OPEN/CLOSE CBA

SW2003 PLAY
SW2002 STOP

Q2001
OUTPUT-SELECT
DVD-POWER
FROM SERVO /SYSTEM CONTROL BLOCK DIAGRAM <VCR SECTION>

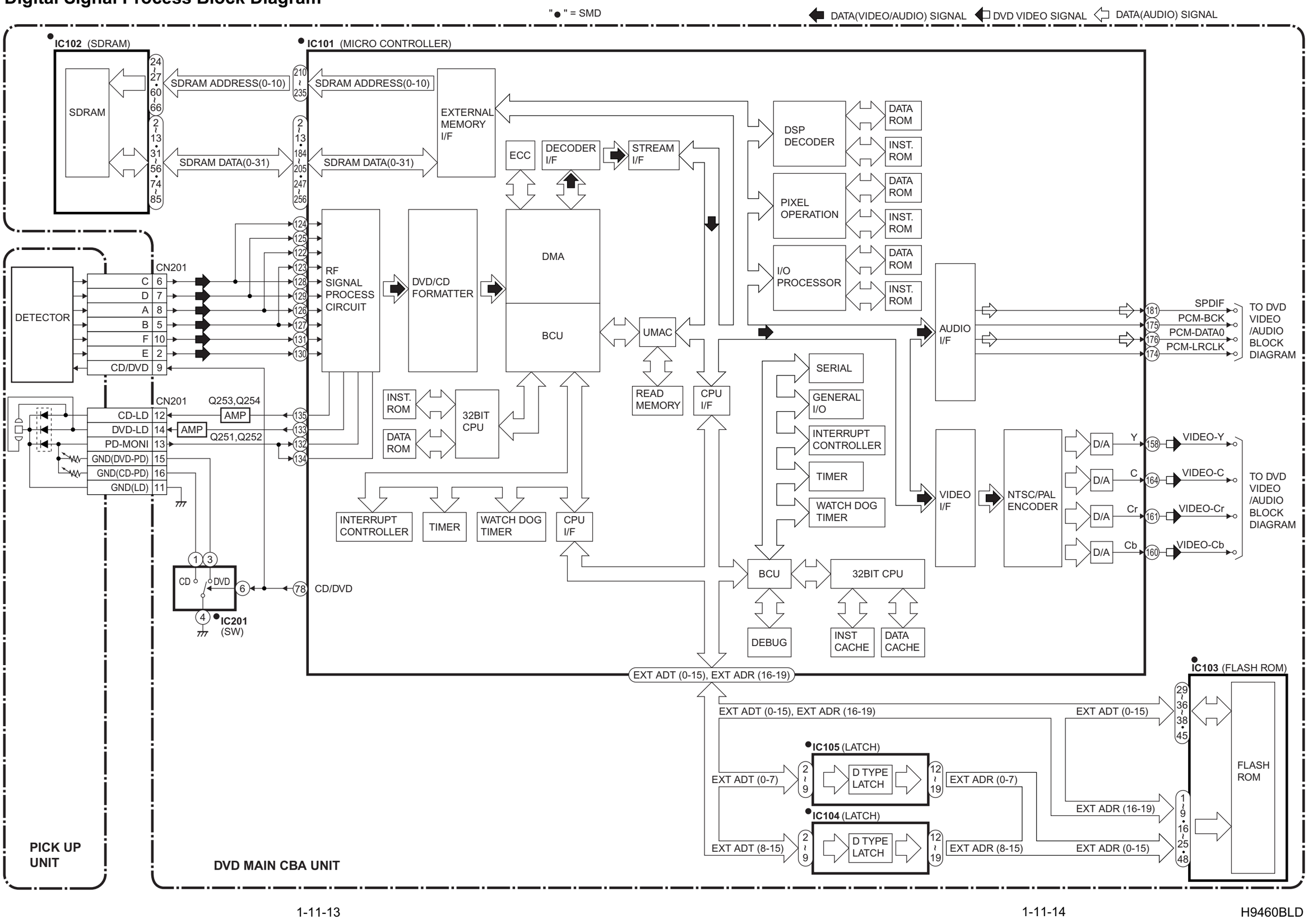
IC571 (FRONT PANEL CONTROL)
1G ~ 7G 23 ~ 17
GRID
FIP502 FIP
STB 2
DIN 28
CLK 1
a ~ h 7 ~ 14 ~ 16
SEGMENT

RM2001 REMOTE SENSOR

DISPLAY-CLK
DISPLAY-DATA
DISPLAY-ENA
REMOTE-VIDEO
FROM/TO SERVO /SYSTEM CONTROL BLOCK DIAGRAM <VCR SECTION>

MAIN CBA

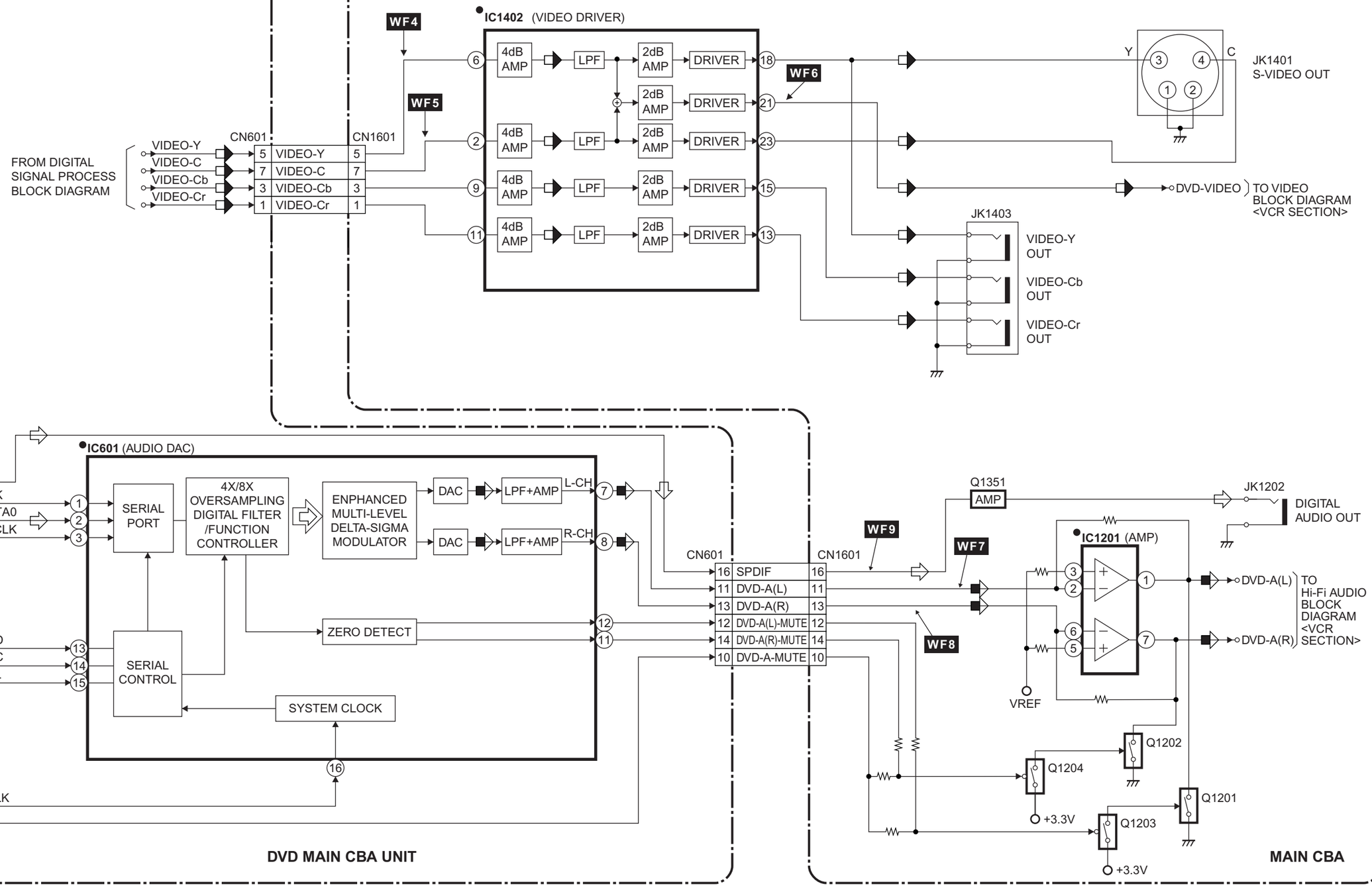
Digital Signal Process Block Diagram



DVD Video / Audio Block Diagram

"● " = SMD

DVD VIDEO SIGNAL　DATA(AUDIO) SIGNAL　DVD AUDIO SIGNAL



SCHEMATIC DIAGRAMS / CBA'S AND TEST POINTS

Standard Notes

WARNING

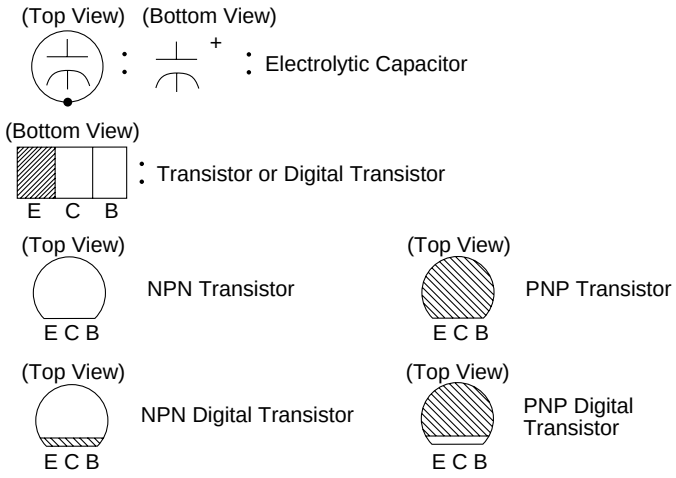
Critical components having special safety characteristics are identified with a ⚠ by the Ref. No. in the parts list and enclosed within a broken line (where several critical components are grouped in one area) along with the safety symbol ⚠ on the schematics or exploded views.
Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire or other hazards.
Under no circumstances should the original design be modified or altered without written permission from Philips Consumer Electronics Company. Philips assumes no liability, express or implied, arising out of any unauthorized modification of design. Servicer assumes all liability.
* Broken Line : ▬ ▬ ▬ ▬ ▬

Capacitor Temperature Markings

Mark	Capacity change rate	Standard temperature	Temperature range
(B)	±10%	20°C	-25~+85°C
(F)	+30 - 80%	20°C	–25~+85°C
(SR)	±15%	20°C	–25~+85°C
(Z)	±22.5%	20°C	–25~+85°C

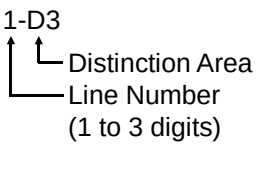
Capacitors and transistors are represented by the following symbols.

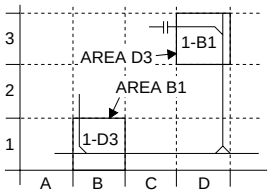
< PCB Symbols >



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. 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.
3. Prefix symbol "CN" means "connector" (can disconnect and reconnect).
   Prefix symbol "CL" means "wire-solder holes of the PCB" (wire is soldered directly).
4. How to read converged lines.

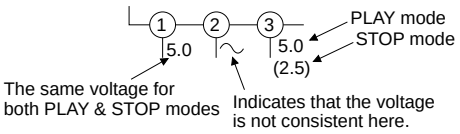




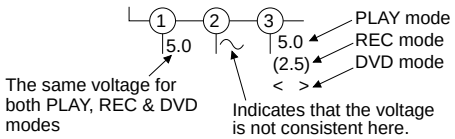
Examples:
(1). "1-D3" means that line number "1" goes to area "D3."
(2). "1-B1" means that line number "1" goes to area "B1."

5. All resistance values are indicated in ohms ($K=10^3$, $M=10^6$).
6. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
7. All capacitance values are indicated in μF ($P=10^{-6}$ μF).
8. All voltages are DC voltages unless otherwise specified.
9. Voltage indications PLAY and REC modes on the schematics are as shown below.

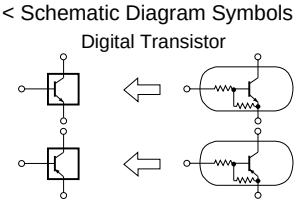
< DVD Section > Unit: Volts



< VCR Section >



< Schematic Diagram Symbols >



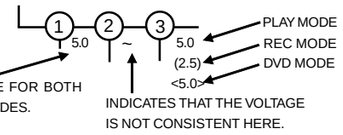
Main 1/8 Schematic Diagram Parts Location Guide

Ref No.	Position
CAPACITORS	
C023	E-4
C502	B-1
C505	D-1
C507	D-1
C508	D-3
C509	E-3
C511	D-3
C512	D-3
C514	D-3
C515	D-3
C521	E-3
C522	E-4
C523	C-4
C525	C-4
C527	E-4
C529	D-4
C530	D-4
C531	C-4
C532	C-4
C533	C-4
C534	C-4
C535	C-4
C536	C-4
C537	B-4
CONNECTORS	
CL501	A-4
CL502	F-4
CL504	A-4
DIODES	
D501	E-4
D510	F-3
D555	A-1
ICS	
IC501	C-3
COILS	
L501	A-1
L502	E-3
TRANSISTORS	
Q501	D-1
Q506	A-3
RESISTORS	
R502	D-1

Ref No.	Position
RESISTORS	
R503	D-1
R504	D-1
R507	D-3
R508	D-3
R511	E-4
R517	E-4
R518	E-4
R521	C-4
R523	D-4
R524	C-4
R525	B-3
R526	B-4
R527	B-3
R528	B-3
R529	E-1
R530	B-2
R537	A-3
R542	A-1
R543	A-2
R544	B-4
R545	C-2
R546	C-2
R551	D-2
R610	C-1
R611	D-2
R614	D-2
R616	D-4
R618	B-2
R619	B-2
R626	C-1
R640	E-2
SWITCHES	
SW511	A-2
VARIABLE RESISTORS	
VR501	B-4
CRYSTAL OSCILLATORS	
X501	D-3
X502	D-3
TEST POINTS	
TP505	B-3
TP513	B-4

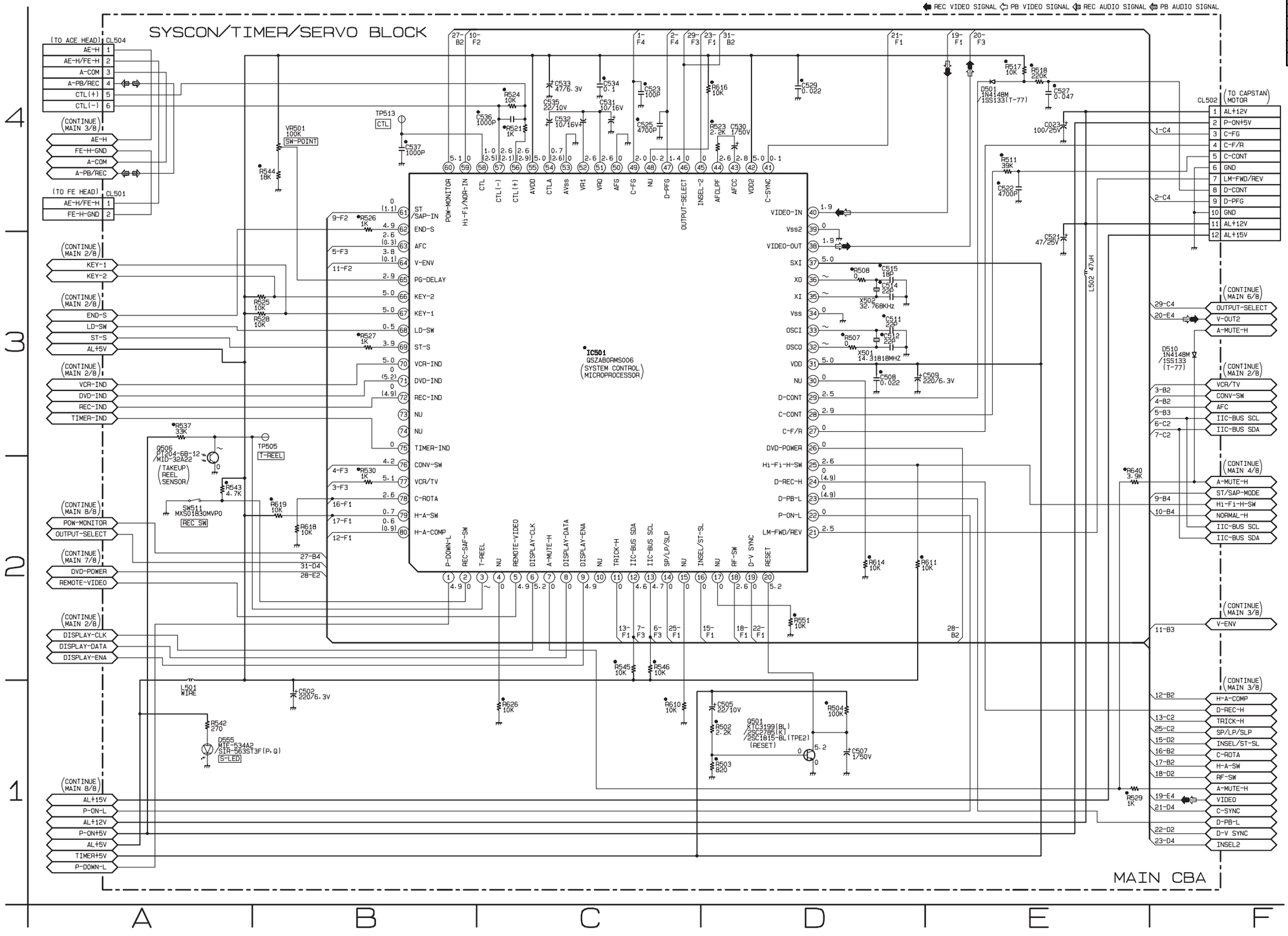
Main 1/8 Schematic Diagram < VCR Section >

"●" = SMD



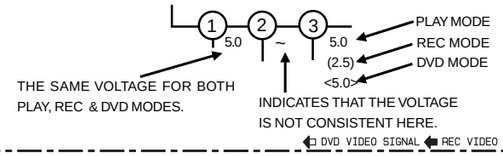
IC501 KEY VOLTAGE CHART

Pin No. / Voltage	KEY 1 (67PIN)	KEY 2 (66 PIN)
0.00 ~ 0.51V	REW	OUTPUT
0.51 ~ 0.92V	POWER	STOP/EJECT
0.92 ~ 1.27V	----------	PLAY
1.27 ~ 1.61V	----------	----------
1.61 ~ 1.98V	----------	----------
1.98 ~ 2.39V	----------	S-INH
2.39 ~ 2.90V	----------	----------
2.90 ~ 3.60V	----------	----------
3.60 ~ 4.30V	----------	----------
4.30 ~ 5.00V	KEY OFF	KEY OFF



Main 2/8 Schematic Diagram < VCR Section >

"●" = SMD



DVD VIDEO SIGNAL | REC VIDEO SIGNAL | PB VIDEO SIGNAL | REC AUDIO SIGNAL | PB AUDIO SIGNAL | DVD AUDIO SIGNAL

MAIN CBA — SYSCON/TIMER/SERVO BLOCK

TUNER BLOCK

UNLESS OTHERWISE SPECIFIED:
SWITCHES ARE KSM0614B, SKGSAF001A OR TC-1104(H=9.5) AND
NPN TRANSISTORS ARE KTC3199(Y,GR), 2SC2785(J,H,F) OR 2SC1815-(Y,GR)(TPE2).

Main 2/8 Schematic Diagram Parts Location Guide

Ref No.	Position
CAPACITORS	
C540	K-1
C550	J-4
C571	K-2
C572	K-2
C574	K-2
C701	I-1
C703	I-1
C704	H-1
C708	H-1
C709	H-1
CONNECTORS	
CL509	G-4
DIODES	
D502	H-3
D564	H-2
D565	H-2
D566	I-2
D567	I-2
ICS	
IC571	J-3
COILS	
L701	H-1
TRANSISTORS	
Q503	L-1
Q504	L-1
Q563	H-3
Q565	H-3
Q566	I-3
Q567	I-3
RESISTORS	
R467	I-1
R531	K-2
R532	J-2
R533	J-2
R534	J-2
R535	J-2
R536	J-2
R540	K-2
R541	K-2
R561	H-4

Ref No.	Position
RESISTORS	
R566	H-3
R567	H-3
R568	H-3
R570	I-3
R571	J-3
R572	K-3
R573	I-3
R574	I-3
R575	I-3
R576	I-3
R583	I-4
R590	I-4
R593	H-4
R594	H-4
R600	G-3
R602	G-3
R603	G-3
R605	G-3
R701	H-1
R704	H-1
R705	H-1
R706	H-1
R2025	G-3
R2033	G-3
R2041	G-3
R2042	H-3
SWITCHES	
SW502	H-4
SW503	I-4
SW504	I-4
SW505	H-4
SW512	J-1
MISCELLANEOUS	
FIP502	J-4
TU701	H-2
TEST POINTS	
TP502	I-4
TP506	K-1
TP507	K-1

Main 3/8 Schematic Diagram Parts Location Guide

Ref No.	Position	Ref No.	Position	Ref No.	Position
CAPACITORS		CAPACITORS		RESISTORS	
C253	N-2	C409	N-2	R323	R-3
C255	N-2	C410	N-2	R324	R-3
C256	N-4	C411	N-1	R326	Q-3
C257	N-4	C413	O-1	R327	Q-4
C308	P-1	C415	O-1	R328	P-4
C309	P-1	C417	O-1	R329	Q-4
C310	O-1	C418	O-1	R331	P-4
C311	P-2	C419	O-1	R332	P-4
C312	Q-1	C421	N-1	R341	P-1
C314	Q-1	C422	N-1	R342	P-1
C315	Q-1	C423	N-1	R343	Q-4
C320	Q-2	C424	N-1	R357	Q-2
C321	Q-2	C425	M-1	R370	Q-1
C322	Q-2	CONNECTORS		R371	R-1
C324	Q-3	CL253	M-4	R391	Q-1
C325	Q-3	ICS		R392	Q-1
C326	Q-3	IC301	N-2	R395	P-1
C328	Q-4	IC302	Q-2	R397	P-1
C329	Q-4	COILS		R401	O-4
C330	Q-4	L251	N-4	R402	O-4
C331	Q-4	L303	N-4	R407	O-4
C332	P-4	L304	N-4	R408	N-2
C333	P-4	L421	N-1	R409	N-2
C335	P-4	L422	M-1	R410	N-2
C336	P-4	TRANSISTORS		R411	N-2
C337	P-4	Q301	Q-3	R412	N-2
C339	P-4	Q302	Q-4	R413	N-2
C340	P-4	Q391	P-1	R414	O-1
C341	O-4	Q421	N-1	R415	O-1
C344	P-4	Q422	N-1	R416	O-1
C345	P-4	Q423	N-1	R417	O-1
C346	P-4	Q424	N-1	R418	O-1
C347	P-4	Q425	N-1	R419	O-1
C348	O-4	RESISTORS		R421	N-2
C349	O-4	JC02	O-1	R422	N-1
C352	Q-3	JC03	O-1	R424	N-1
C353	P-4	R253	N-2	R425	N-1
C354	Q-3	R254	N-2	R426	N-1
C370	Q-1	R303	O-1	R428	N-1
C371	Q-1	R304	P-1	R429	N-1
C391	Q-1	R305	P-1	R430	O-4
C392	Q-1	R306	P-1	R431	N-4
C401	O-4	R309	P-1	CRYSTAL OSCILLATORS	
C404	O-4	R311	P-1	X301	P-4
C405	N-4	R312	Q-1	TEST POINTS	
C406	O-4	R313	Q-1	TP301	O-1
C408	N-2	R322	Q-3	TP302	P-1

Main 3/8 Schematic Diagram < VCR Section >

"●" = SMD

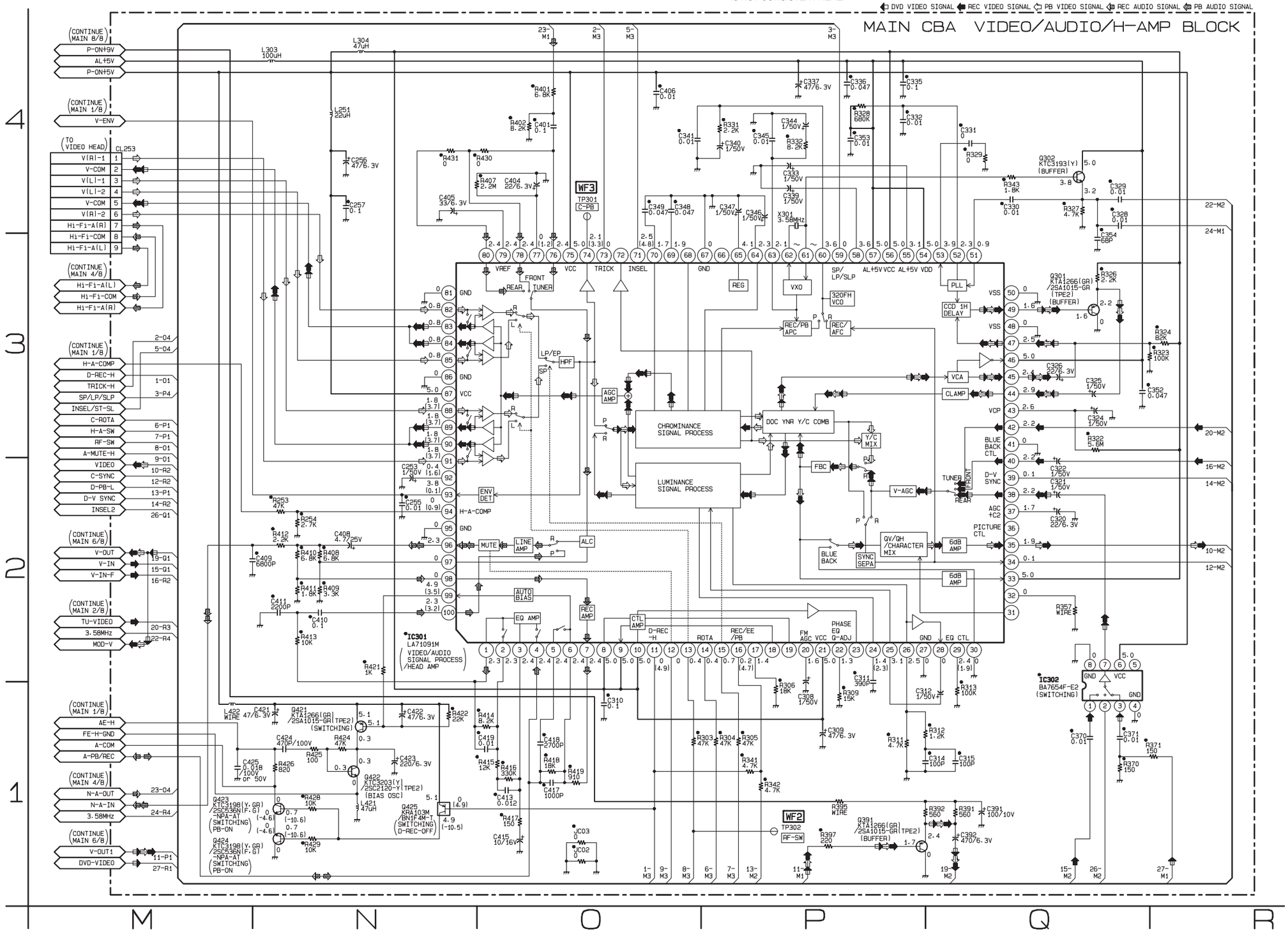
THE SAME VOLTAGE FOR BOTH PLAY, REC & DVD MODES.

INDICATES THAT THE VOLTAGE IS NOT CONSISTENT HERE.

PLAY MODE
REC MODE
DVD MODE

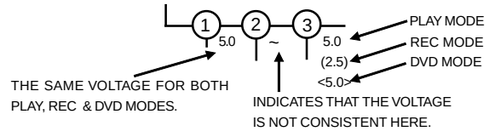
DVD VIDEO SIGNAL | REC VIDEO SIGNAL | PB VIDEO SIGNAL | REC AUDIO SIGNAL | PB AUDIO SIGNAL

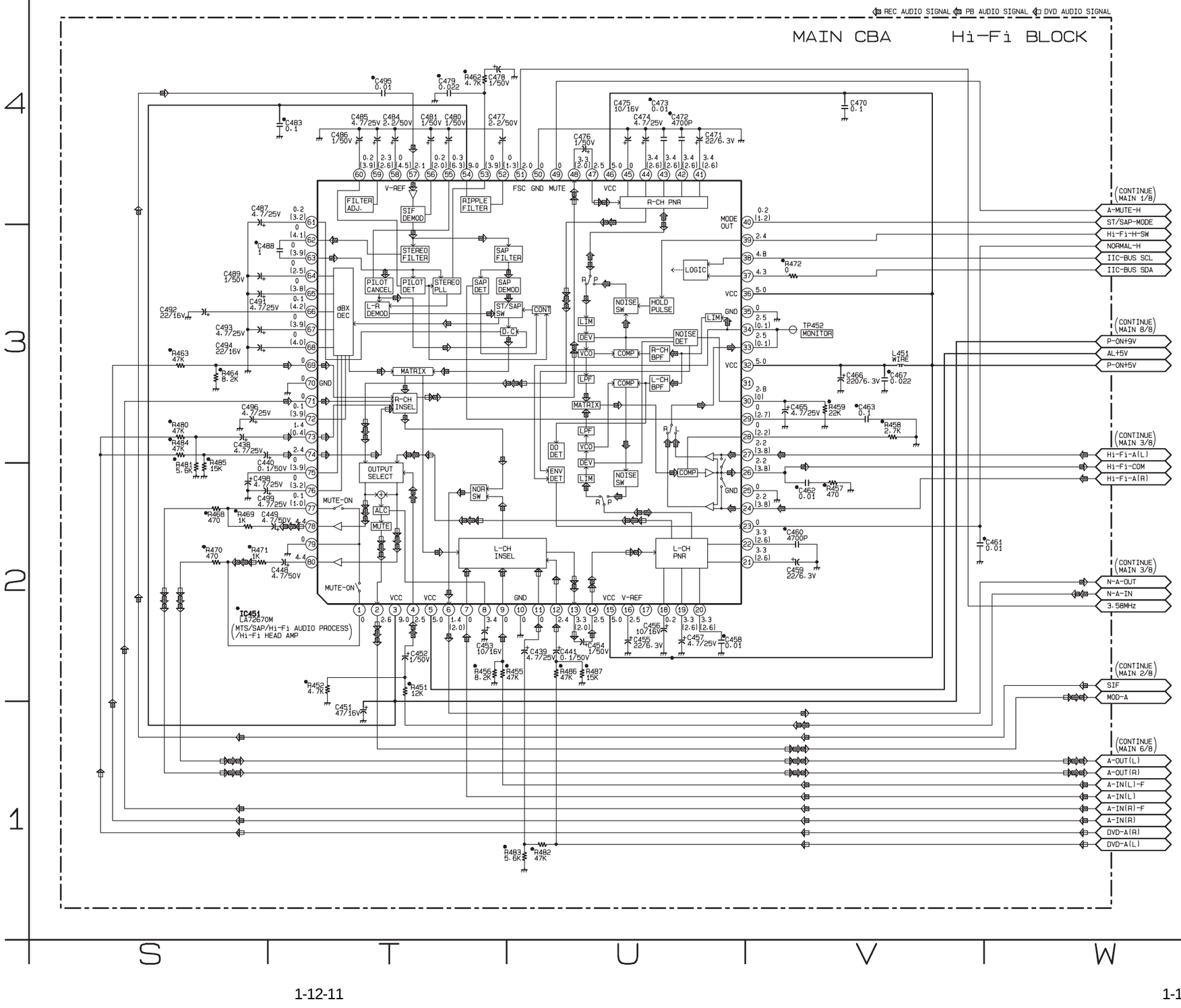
MAIN CBA VIDEO/AUDIO/H-AMP BLOCK



Main 4/8 Schematic Diagram < VCR Section >

"●" = SMD





Main 4/8 Schematic Diagram Parts Location Guide

Ref No.	Position	Ref No.	Position
CAPACITORS		CAPACITORS	
C438	S-3	C489	S-3
C439	U-2	C491	S-3
C440	S-3	C492	S-3
C441	U-2	C493	S-3
C448	T-2	C494	S-3
C449	T-2	C495	T-4
C451	T-1	C496	S-3
C452	T-2	C498	S-2
C453	T-2	C499	S-2
C454	U-2	ICS	
C455	U-2	IC451	S-2
C456	U-2	COILS	
C457	U-2	L451	V-3
C458	U-2	RESISTORS	
C459	V-2	R451	T-2
C460	V-2	R452	T-2
C461	V-2	R455	T-2
C462	V-2	R456	T-2
C463	V-3	R457	V-2
C465	V-3	R458	V-3
C466	V-3	R459	V-3
C467	V-3	R462	T-4
C470	V-4	R463	S-3
C471	U-4	R464	S-3
C472	U-4	R468	S-2
C473	U-4	R469	S-2
C474	U-4	R470	S-2
C475	U-4	R471	S-2
C476	U-4	R472	V-3
C477	T-4	R480	S-3
C478	T-4	R481	S-2
C479	T-4	R482	U-1
C480	T-4	R483	U-1
C481	T-4	R484	S-3
C483	T-4	R485	S-2
C484	T-4	R486	U-2
C485	T-4	R487	U-2
C486	T-4	TEST POINTS	
C487	S-4	TP452	V-3
C488	T-3		

Main 5/8 Schematic Diagram Parts Location Guide

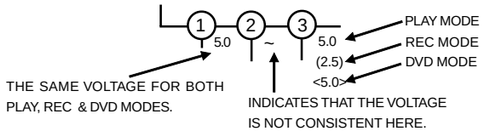
Ref No.	Position
CAPACITORS	
C1201	X-1
C1202	X-1
C1205	Y-1
C1206	Y-1
C1207	Y-1
C1208	Y-1
C1221	Y-1
C1222	Y-1
C1223	Z-1
C1224	Z-1
C1245	Y-1
C1246	X-1
C1247	Y-1
C1249	Y-1
C1350	AA-1
C1351	AA-2
C1353	AA-1
C1354	AA-1
C1355	Z-1
C1358	AA-1
C1394	Y-2
C1395	Y-2
C1402	AA-3
C1421	Y-3
C1422	AA-2
C1441	Y-3
C1442	AA-2
C1461	Y-3
C1462	AA-2
C1481	Y-3
C1482	AA-2
C1523	Y-3
C1524	Z-3
C1531	Y-2
C1532	Y-2
CONNECTORS	
CN1601	X-3

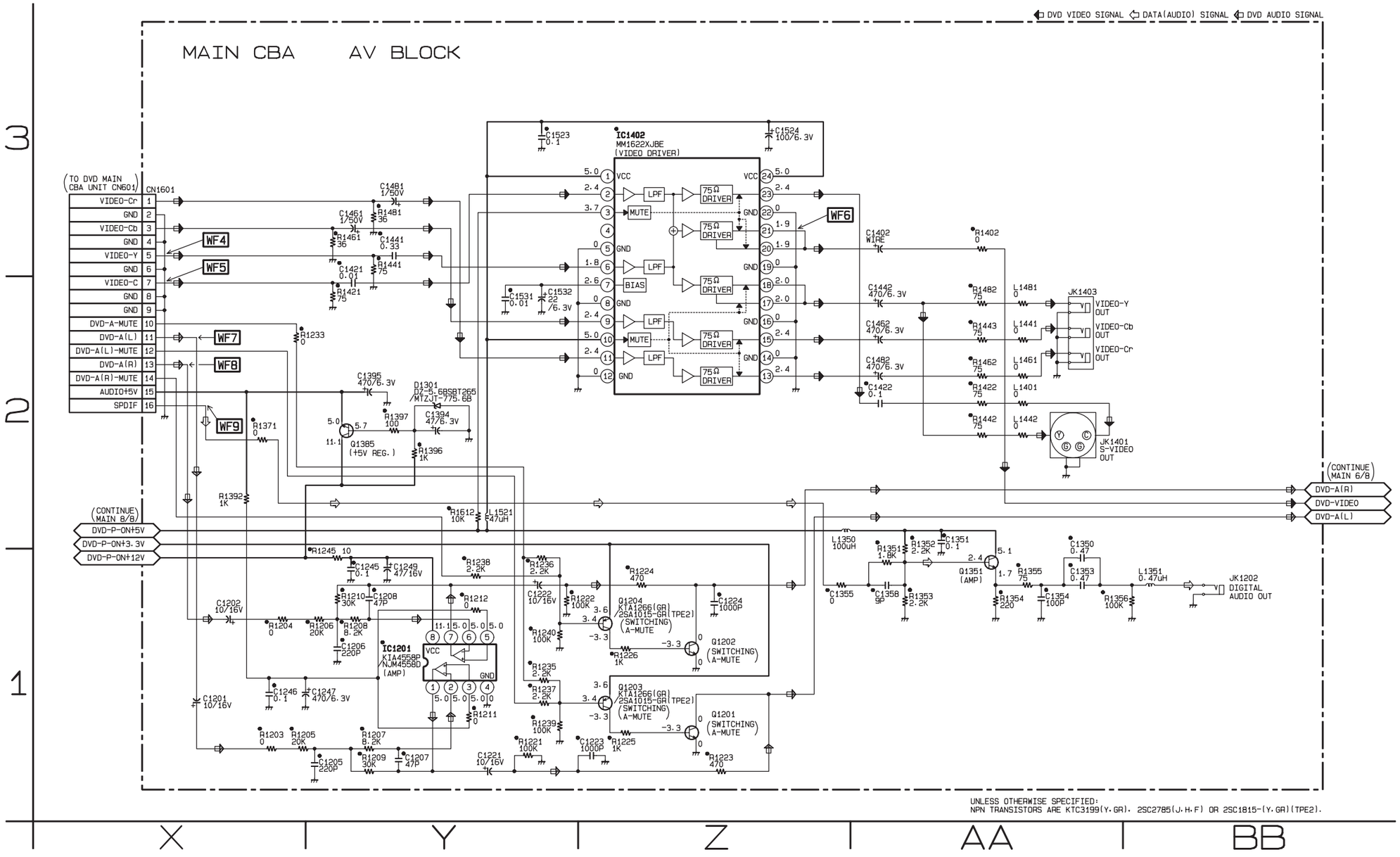
Ref No.	Position
DIODES	
D1301	Y-2
ICS	
IC1201	Y-1
IC1402	Z-3
COILS	
L1350	Z-2
L1351	BB-1
L1401	AA-2
L1441	AA-2
L1442	AA-2
L1461	AA-2
L1481	AA-2
L1521	Y-2
TRANSISTORS	
Q1201	Z-1
Q1202	Z-1
Q1203	Z-1
Q1204	Z-1
Q1351	AA-1
Q1385	Y-2
RESISTORS	
R1203	X-1
R1204	X-1
R1205	X-1
R1206	Y-1
R1207	Y-1
R1208	Y-1
R1209	Y-1
R1210	Y-1
R1211	Y-1
R1212	Y-1
R1221	Y-1
R1222	Y-1
R1223	Z-1
R1224	Z-1
R1225	Z-1
R1226	Z-1

Ref No.	Position
RESISTORS	
R1233	X-2
R1235	Y-1
R1236	Y-1
R1237	Y-1
R1238	Y-1
R1239	Y-1
R1240	Y-1
R1245	Y-1
R1351	AA-1
R1352	AA-1
R1353	AA-1
R1354	AA-1
R1355	AA-1
R1356	BB-1
R1371	X-2
R1392	X-2
R1396	Y-2
R1397	Y-2
R1402	AA-3
R1421	Y-2
R1422	AA-2
R1441	Y-3
R1442	AA-2
R1443	AA-2
R1461	Y-3
R1462	AA-2
R1481	Y-3
R1482	AA-2
R1612	Y-2
MISCELLANEOUS	
JK1202	BB-1
JK1401	AA-2
JK1403	AA-2

Main 5/8 Schematic Diagram < VCR Section >

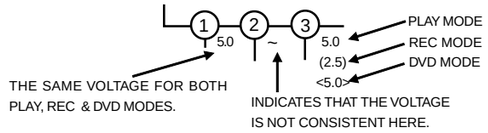
"●" = SMD

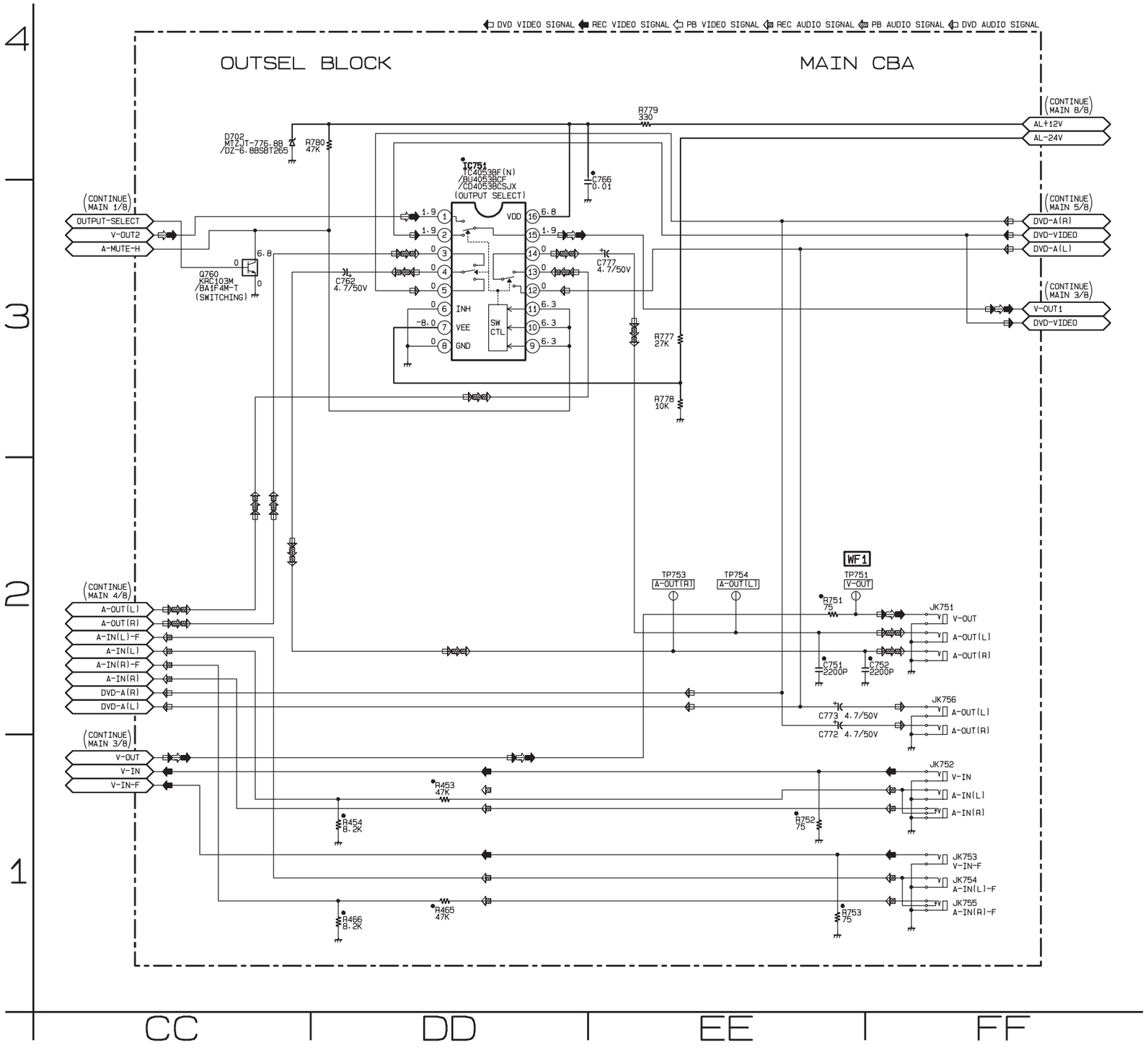




Main 6/8 Schematic Diagram < VCR Section >

"●" = SMD



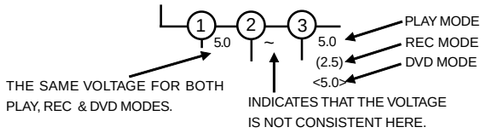


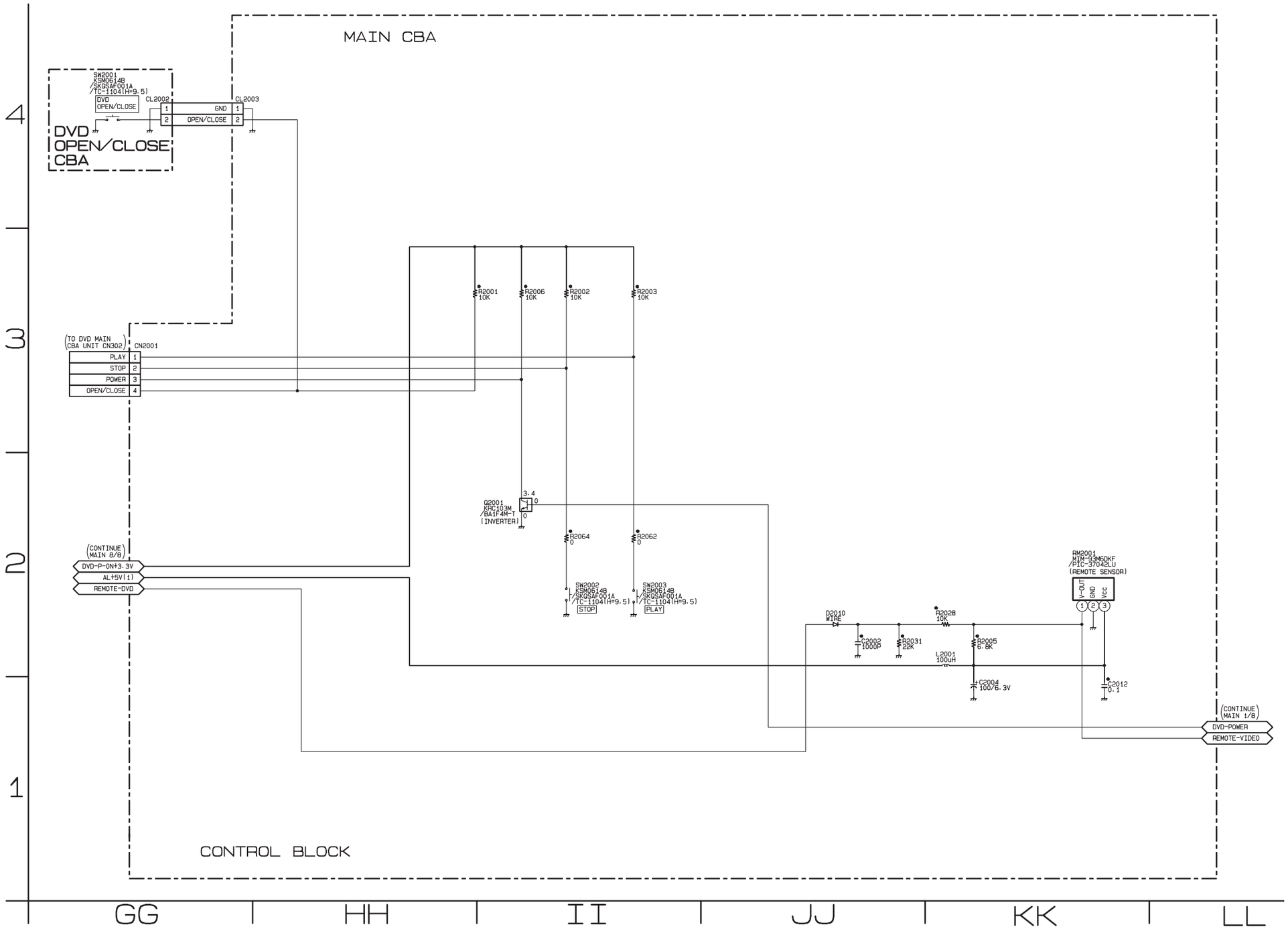
MAIN 6/8 Schematic Diagram
Parts Location Guide

Ref No.	Position
CAPACITORS	
C751	EE-2
C752	FF-2
C762	DD-3
C766	EE-3
C772	EE-2
C773	EE-2
C777	EE-3
DIODES	
D702	CC-4
ICS	
IC751	DD-4
TRANSISTORS	
Q760	CC-3
RESISTORS	
R453	DD-1
R454	DD-1
R465	DD-1
R466	DD-1
R751	EE-2
R752	EE-1
R753	EE-1
R777	EE-3
R778	EE-3
R779	EE-4
R780	DD-4
MISCELLANEOUS	
JK751	FF-2
JK752	FF-1
JK753	FF-1
JK754	FF-1
JK755	FF-1
JK756	FF-2
TEST POINTS	
TP751	EE-2
TP753	EE-2
TP754	EE-2

Main 7/8 Schematic Diagram < VCR Section >

"●" = SMD



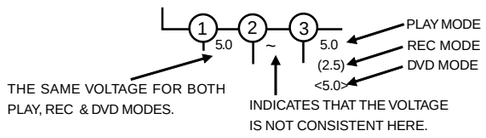


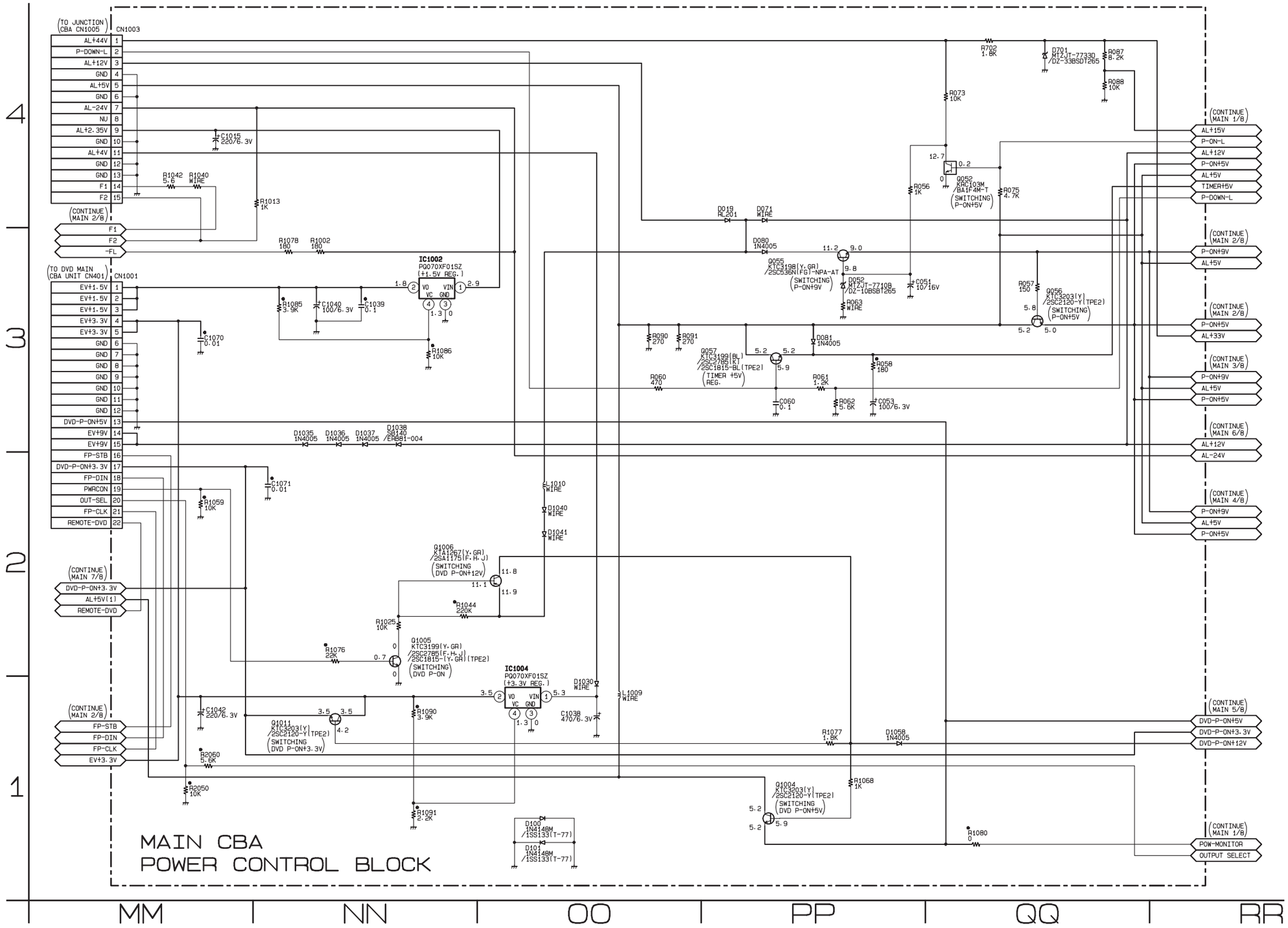
MAIN 7/8 Schematic Diagram
Parts Location Guide

Ref No.	Position
CAPACITORS	
C2002	JJ-2
C2004	KK-1
C2012	KK-1
CONNECTORS	
CL2002	GG-4
CL2003	GG-4
CN2001	GG-3
DIODES	
D2010	JJ-2
COILS	
L2001	KK-2
TRANSISTORS	
Q2001	II-2
RESISTORS	
R2001	II-3
R2002	II-3
R2003	II-3
R2005	KK-2
R2006	II-3
R2028	KK-2
R2031	JJ-2
R2062	II-2
R2064	II-2
SWITCHES	
SW2001	GG-4
SW2002	II-2
SW2003	II-2
MISCELLANEOUS	
RM2001	KK-2

Main 8/8 Schematic Diagram < VCR Section >

"●" = SMD



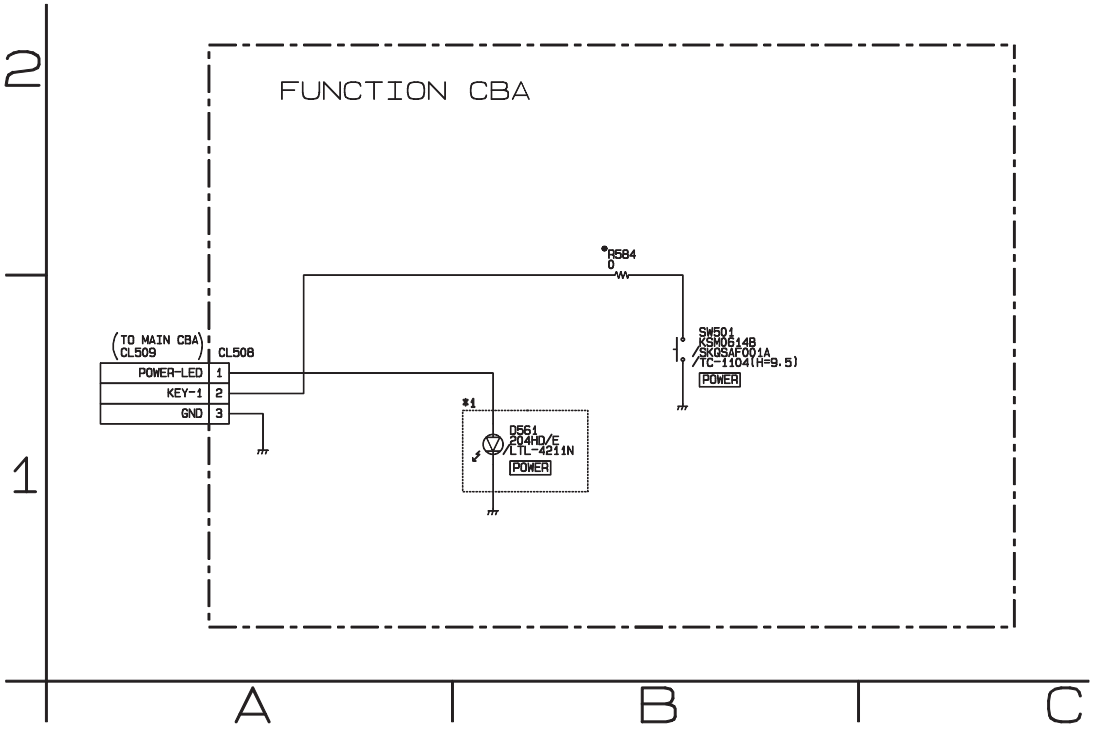


Main 8/8 Schematic Diagram Parts Location Guide

Ref No.	Position	Ref No.	Position
CAPACITORS		TRANSISTORS	
C051	PP-3	Q056	QQ-3
C053	PP-3	Q057	PP-3
C060	PP-3	Q1004	PP-1
C1015	MM-4	Q1005	NN-2
C1038	OO-1	Q1006	OO-2
C1039	NN-3	Q1011	NN-1
C1040	NN-3	RESISTORS	
C1042	MM-1	R056	PP-4
C1070	MM-3	R057	QQ-3
C1071	NN-2	R058	PP-3
CONNECTORS		R060	OO-3
CN1001	MM-3	R061	PP-3
CN1003	MM-4	R062	PP-3
DIODES		R063	PP-3
D019	PP-3	R073	QQ-4
D052	PP-3	R075	QQ-4
D071	PP-3	R087	QQ-4
D080	PP-3	R088	QQ-4
D081	PP-3	R090	OO-3
D100	OO-1	R091	OO-3
D101	OO-1	R702	QQ-4
D701	QQ-4	R1002	NN-3
D1030	OO-1	R1013	NN-4
D1035	NN-3	R1025	NN-2
D1036	NN-3	R1040	MM-4
D1037	NN-3	R1042	MM-4
D1038	NN-3	R1044	NN-2
D1040	OO-2	R1059	MM-2
D1041	OO-2	R1068	PP-1
D1058	PP-1	R1076	NN-2
ICS		R1077	PP-1
IC1002	NN-3	R1078	NN-3
IC1004	OO-1	R1080	QQ-1
COILS		R1085	NN-3
L1009	OO-1	R1086	NN-3
L1010	OO-2	R1090	NN-1
TRANSISTORS		R1091	NN-1
Q052	QQ-4	R2050	MM-1
Q055	PP-3	R2060	MM-1

Function Schematic Diagram < VCR Section >

***1 Note:**
When it is necessary to replace one or more of the following Diodes, all one should be replaced: D561.



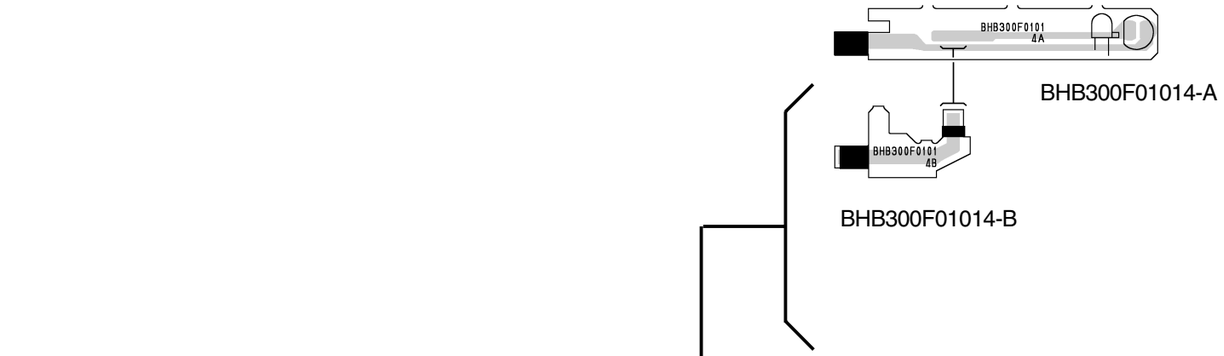
H9460SCF

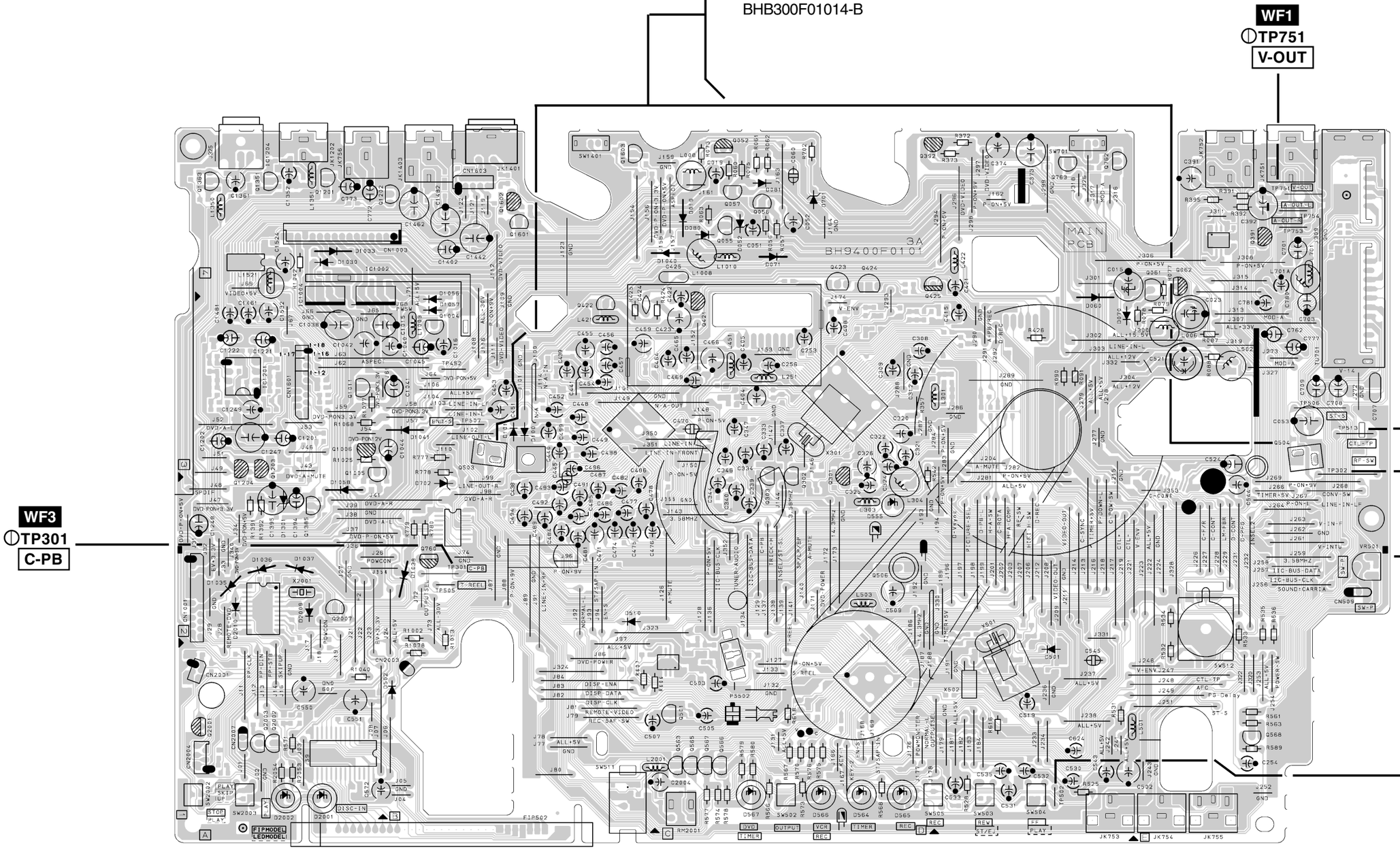
FUNCTION Schematic Diagram
Parts Location Guide

Ref No.	Position
CONNECTORS	
CL508	A-1
DIODES	
D561	B-1
RESISTORS	
R584	B-2
SWITCHES	
SW501	B-1

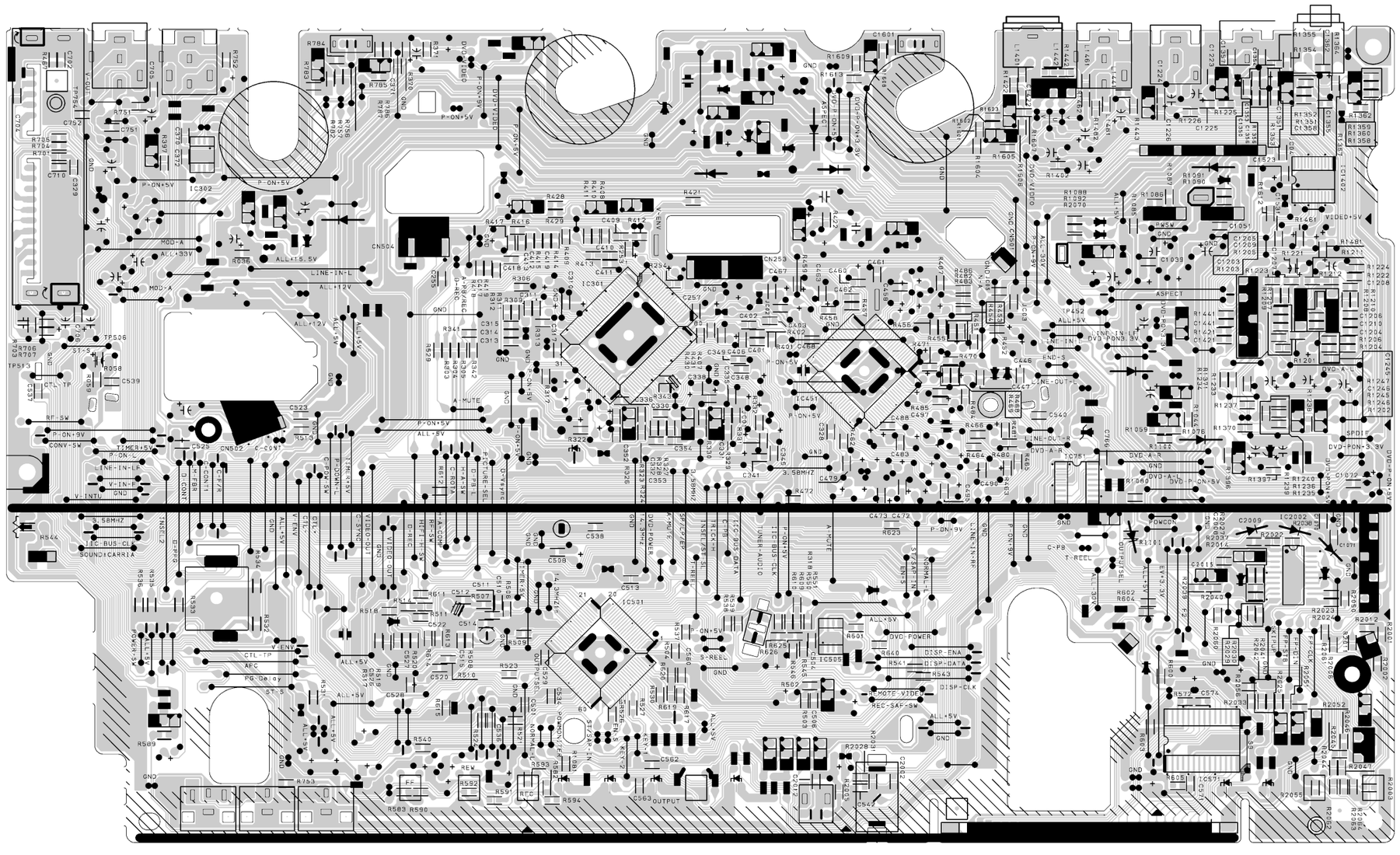
Main CBA Top View

Sensor CBA Top View





Main CBA Bottom View



Main CBA Parts Location Guide

Ref No.	Position
CAPACITORS	
C023	E-3
C051	C-4
C053	E-3
C060	C-4
C253	C-3
C255	D-3
C256	C-3
C257	C-3
C308	C-3
C309	C-3
C310	C-3
C311	C-3
C312	C-3
C314	D-3
C315	D-3
C320	C-3
C321	C-3
C322	C-3
C324	C-2
C325	C-2
C326	C-3
C328	C-2
C329	E-4
C330	C-3
C331	C-2
C332	C-2
C333	C-3
C335	C-3
C336	C-3
C337	C-3
C339	C-2
C340	C-2
C341	C-2
C344	C-2
C345	C-2
C346	C-3
C347	C-3
C348	C-3
C349	C-3
C352	C-2
C353	C-2
C354	C-2
C370	E-4
C371	D-4
C391	E-4
C392	E-4
C401	C-3
C404	C-3
C405	C-3
C406	C-3
C408	C-3
C409	C-3
C410	C-3
C411	C-3
C413	D-3
C415	D-3
C417	D-3
C418	D-3
C419	C-3

Ref No.	Position
CAPACITORS	
C421	D-4
C422	C-3
C423	C-3
C424	B-3
C425	C-4
C438	B-2
C439	B-3
C440	B-3
C441	B-3
C448	B-3
C449	B-3
C451	B-3
C452	B-3
C453	B-3
C454	B-3
C455	B-3
C456	B-3
C457	B-3
C458	B-3
C459	B-3
C460	C-3
C461	B-1
C462	B-3
C463	C-3
C465	C-3
C466	C-3
C467	C-3
C470	C-3
C471	B-2
C472	B-2
C473	B-2
C474	B-2
C475	B-2
C476	B-2
C477	B-2
C478	B-2
C479	C-2
C480	B-3
C481	B-3
C483	B-2
C484	B-2
C485	B-2
C486	B-3
C487	B-3
C488	B-3
C489	B-2
C491	B-2
C492	B-2
C493	B-2
C494	B-2
C495	B-2
C496	B-3
C498	B-3
C499	B-3
C502	E-1
C505	C-1
C507	B-1
C508	C-2
C509	C-2

Ref No.	Position
CAPACITORS	
C511	D-2
C512	D-2
C514	D-1
C515	D-1
C521	E-3
C522	D-1
C523	D-3
C525	E-2
C527	D-1
C529	C-1
C530	D-1
C531	D-1
C532	D-1
C533	D-1
C534	D-1
C535	D-1
C536	D-1
C537	E-3
C540	B-3
C550	A-1
C571	A-1
C572	A-1
C574	A-1
C701	E-4
C703	E-3
C704	E-4
C708	E-3
C709	E-3
C751	E-4
C752	E-4
C762	E-3
C766	B-2
C772	A-4
C773	A-4
C777	E-3
C1015	B-3
C1038	A-3
C1039	A-3
C1040	B-3
C1042	A-3
C1070	A-2
C1071	A-2
C1201	A-3
C1202	A-3
C1205	A-3
C1206	A-3
C1207	A-3
C1208	A-3
C1221	A-3
C1222	A-3
C1223	A-4
C1224	A-4
C1245	A-3
C1246	B-4
C1247	A-3
C1249	A-3
C1350	A-4
C1351	A-4
C1353	A-4

Ref No.	Position
CAPACITORS	
C1354	A-4
C1355	A-4
C1358	A-4
C1394	A-2
C1395	A-2
C1402	B-4
C1421	A-3
C1422	B-4
C1441	A-3
C1442	B-4
C1461	A-3
C1462	B-4
C1481	A-3
C1482	B-4
C1523	A-4
C1524	A-4
C1531	A-4
C1532	A-3
C2002	B-1
C2004	C-1
C2012	C-1
CONNECTORS	
CL253	C-3
CL501	B-3
CL502	E-3
CL504	D-3
CL509	E-3
CL2003	B-1
CN1001	A-2
CN1003	A-4
CN1601	A-3
CN2001	A-1
DIODES	
D019	C-4
D052	C-4
D071	C-4
D080	C-4
D081	C-4
D100	B-3
D101	B-3
D501	D-1
D502	B-1
D510	B-2
D555	C-2
D564	C-1
D565	C-1
D566	C-1
D567	C-1
D701	C-4
D702	B-2
D1030	A-4
D1035	A-2
D1036	A-2
D1037	A-2
D1038	B-2
D1040	C-4
D1041	B-3
D1058	A-2
D1301	A-2

Ref No.	Position
DIODES	
D2010	A-2
ICS	
IC301	C-3
IC302	E-4
IC451	C-3
IC501	C-2
IC571	A-1
IC751	B-2
IC1002	A-4
IC1004	A-3
IC1201	A-3
IC1402	A-4
COILS	
L251	C-3
L303	C-2
L304	C-3
L421	B-3
L422	D-4
L451	C-3
L501	E-1
L502	E-3
L701	E-4
L1009	B-3
L1010	C-4
L1350	A-4
L1351	A-4
L1401	B-4
L1441	B-4
L1442	B-4
L1461	B-4
L1481	B-4
L1521	A-4
L2001	B-1
TRANSISTORS	
Q052	C-4
Q055	C-4
Q056	C-4
Q057	C-4
Q301	C-2
Q302	C-2
Q391	E-4
Q421	C-3
Q422	B-3
Q423	C-4
Q424	C-4
Q425	C-4
Q501	C-1
Q503	B-3
Q504	E-3
Q506	C-2
Q563	C-1
Q565	C-1
Q566	C-1
Q567	C-1
Q760	B-2
Q1004	B-3
Q1005	A-3
Q1006	A-3
Q1011	A-3

Ref No.	Position
TRANSISTORS	
Q1201	A-4
Q1202	A-4
Q1203	A-3
Q1204	A-2
Q1351	A-4
Q1385	A-2
Q2001	A-1
RESISTORS	
JC02	C-3
JC03	B-3
R056	C-4
R057	C-4
R058	E-3
R060	C-4
R061	C-4
R062	C-4
R063	C-4
R073	C-4
R075	C-4
R087	E-3
R088	E-3
R090	D-3
R091	D-3
R253	C-3
R254	C-3
R303	D-3
R304	D-3
R305	D-3
R306	D-3
R309	D-3
R311	D-3
R312	D-3
R313	C-3
R322	C-2
R323	C-2
R324	C-2
R326	C-2
R327	C-2
R328	C-2
R329	C-2
R331	C-2
R332	C-3
R341	D-3
R342	D-3
R343	C-3
R357	C-3
R370	D-4
R371	D-4
R391	E-4
R392	E-4
R395	E-4
R397	E-4
R401	C-3
R402	C-3
R407	C-3
R408	C-4
R409	C-3
R410	C-4
R411	C-4

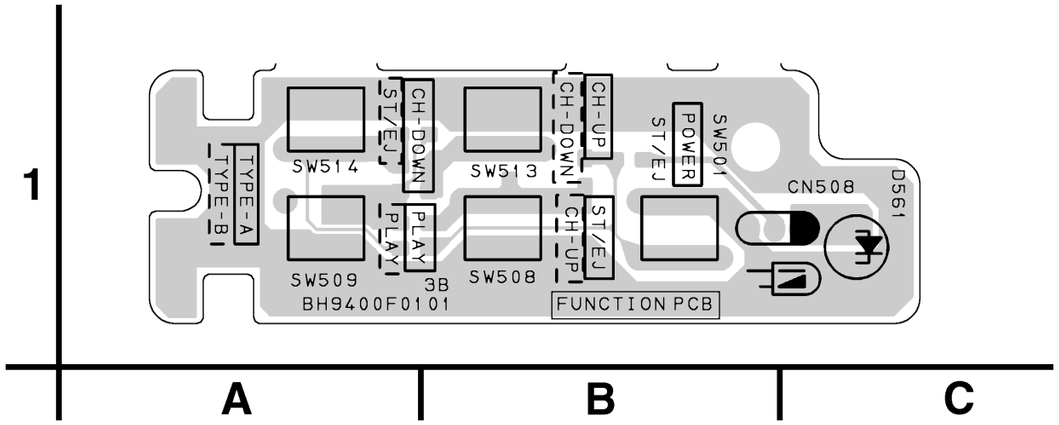
Ref No.	Position
RESISTORS	
R412	C-3
R413	C-3
R414	C-3
R415	C-3
R416	D-3
R417	D-3
R418	D-3
R419	D-3
R421	C-4
R422	C-4
R424	C-3
R425	B-3
R426	D-3
R428	C-4
R429	C-4
R430	C-3
R431	C-3
R451	B-3
R452	B-3
R453	B-3
R454	B-3
R455	B-3
R456	B-3
R457	B-3
R458	C-3
R459	C-3
R462	B-2
R463	B-2
R464	B-2
R465	B-2
R466	B-2
R469	B-3
R470	B-3
R471	B-3
R472	C-2
R480	B-2
R481	B-3
R482	B-3
R483	B-3
R484	B-3
R485	B-3
R486	B-3
R487	B-3
R502	C-1
R503	C-1
R504	C-1
R507	D-2
R508	D-1
R511	D-1
R517	D-1
R518	D-2
R521	D-1
R523	D-1
R524	D-1
R525	D-1
R526	C-1
R527	C-1

Ref No.	Position
RESISTORS	
R528	D-1
R529	D-3
R530	C-1
R531	D-1
R532	E-1
R533	E-2
R534	E-2
R535	E-2
R536	E-2
R537	C-1
R540	D-1
R541	B-1
R542	C-2
R543	B-1
R544	E-2
R545	C-1
R546	C-1
R551	C-2
R561	E-1
R566	C-1
R567	C-1
R568	C-1
R570	C-1
R571	A-1
R572	A-1
R573	C-1
R574	C-1
R575	C-1
R576	C-1
R583	D-1
R590	D-1
R593	C-1
R594	C-1
R600	A-1
R602	B-2
R603	B-1
R605	A-1
R610	C-2
R611	D-2
R614	D-1
R616	D-1
R618	C-1
R619	C-1
R626	C-1
R640	B-1
R701	E-4
R702	C-4
R704	E-4
R705	E-4
R706	E-3
R751	E-4
R752	E-4
R753	D-1
R777	B-3
R778	B-3
R779	B-2
R780	B-2
R1002	B-2
R1013	B-2

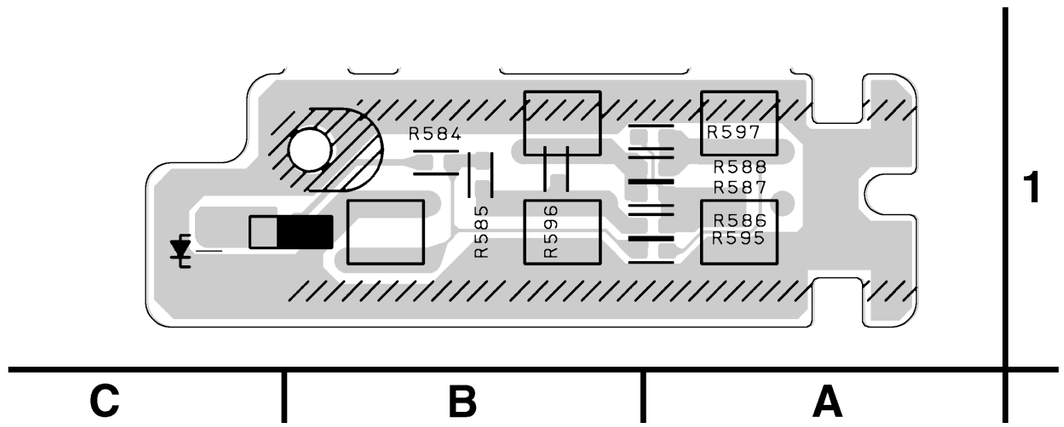
Ref No.	Position
RESISTORS	
R1025	A-3
R1040	A-1
R1042	A-4
R1044	A-3
R1059	B-2
R1068	A-3
R1076	B-2
R1077	A-3
R1078	B-1
R1080	B-2
R1085	B-4
R1086	B-4
R1090	A-4
R1091	A-4
R1203	A-3
R1204	A-3
R1205	A-3
R1206	A-3
R1207	A-3
R1208	A-3
R1209	A-3
R1210	A-3
R1211	A-3
R1212	A-3
R1221	A-3
R1222	A-3
R1223	A-3
R1224	A-3
R1225	A-4
R1226	A-4
R1233	A-3
R1235	A-2
R1236	A-2
R1237	A-3
R1238	A-2
R1239	A-2
R1240	A-2
R1245	A-3
R1351	A-4
R1352	A-4
R1353	A-4
R1354	A-4
R1355	A-4
R1356	A-4
R1371	A-3
R1392	A-2
R1396	A-2
R1397	A-2
R1402	B-4
R1421	A-3
R1422	B-4
R1441	A-3
R1442	B-4
R1443	B-4
R1461	A-3
R1462	B-4
R1481	A-3
R1482	B-4
R1612	A-4

Ref No.	Position
RESISTORS	
R2001	A-1
R2002	A-1
R2003	A-1
R2005	B-1
R2006	A-1
R2025	A-1
R2028	B-1
R2031	B-1
R2033	A-1
R2041	A-1
R2042	A-1
R2050	A-2
R2060	A-1
R2062	A-1
R2064	A-1
SWITCHES	
SW502	C-1
SW503	D-1
SW504	D-1
SW505	C-1
SW511	B-1
SW512	E-1
SW2002	A-1
SW2003	A-1
VARIABLE RESISTOR	
VR501	E-2
CRYSTAL OSCILLATORS	
X301	C-3
X501	D-2
X502	D-1
MISCELLANEOUS	
FIP502	B-1
JK751	E-4
JK752	E-4
JK753	D-1
JK754	E-1
JK755	E-1
JK756	A-4
JK1202	A-4
JK1401	B-4
JK1403	B-4
RM2001	C-1
TU701	E-3
TEST POINTS	
TP301	B-2
TP302	E-3
TP452	B-3
TP502	D-2
TP505	B-2
TP506	E-3
TP507	B-3
TP513	E-3
TP751	E-4
TP753	E-4
TP754	E-4

Function CBA Top View



Function CBA Bottom View

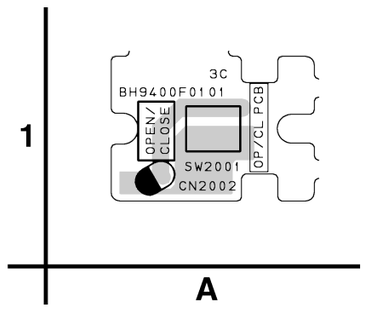


BH9400F01013B

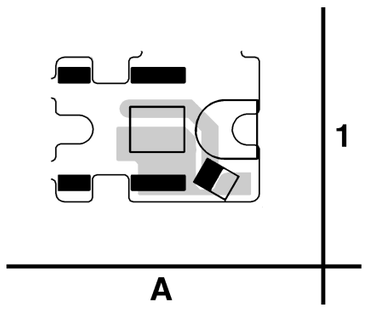
FUNCTION CBA
Parts Location Guide

Ref No.	Position
CONNECTORS	
CL508	C-1
DIODES	
D561	C-1
RESISTORS	
R584	B-1
SWITCH	
SW501	B-1

DVD OP/CL CBA Top View



DVD OP/CL CBA Bottom View



BH9400F01013C

Power Supply Schematic Diagram < VCR Section >

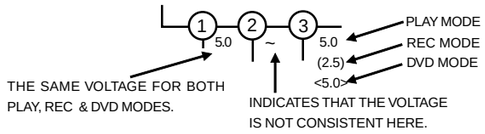
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION : POUR UNE PROTECTION CONTINUE LES RISQES
D'INCELE N'UTILISER QUE DES FUSIBLE DE MÊME TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.

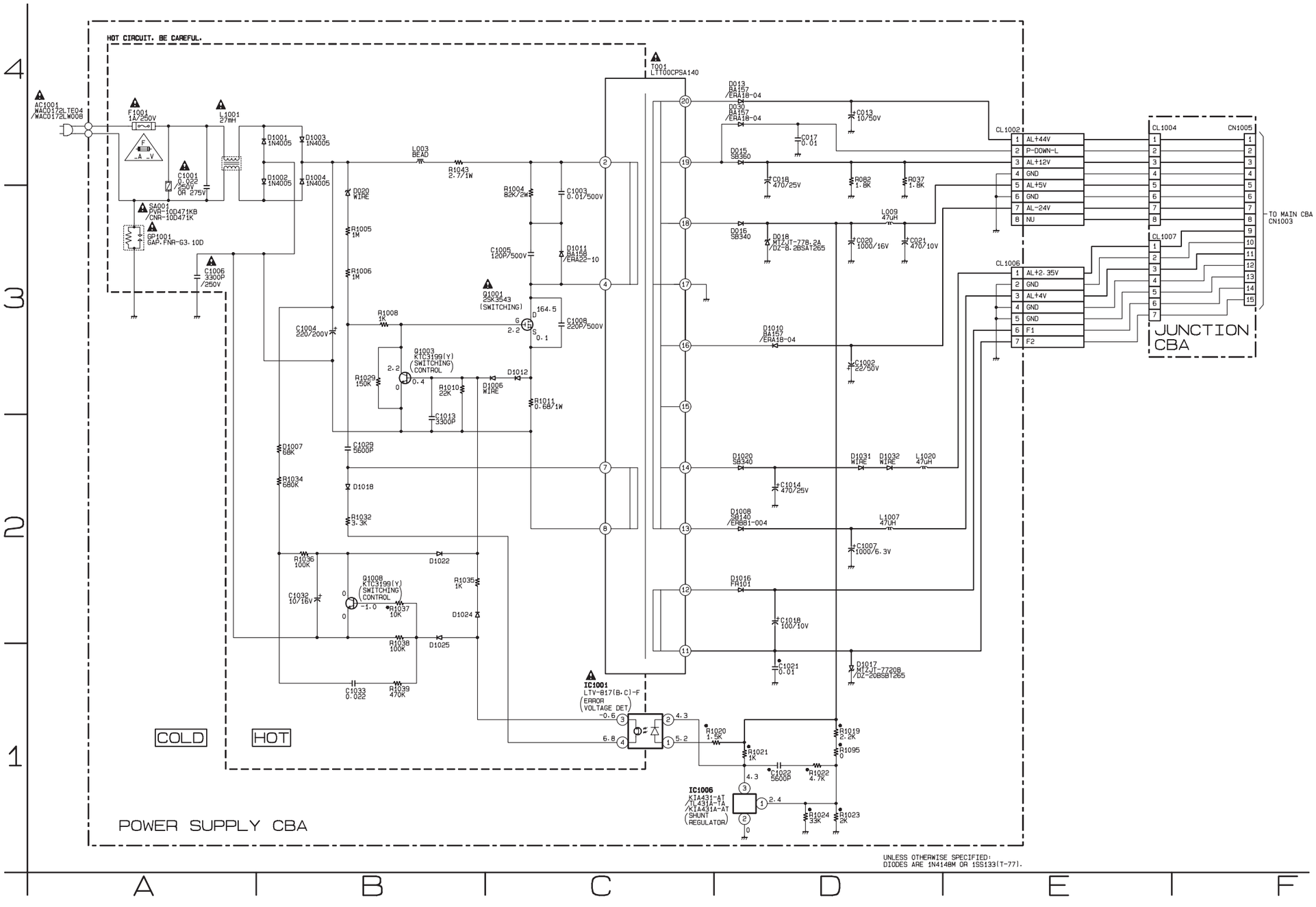
"This symbol means fast operating fuse."
"Ce symbole reprèsente un fusible à fusion rapide."

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

"●" = SMD





Power Supply Schematic Diagram Parts Location Guide

Ref No.	Position
CAPACITORS	
C013	D-4
C017	D-4
C018	D-4
C020	D-3
C021	D-3
C1001	A-4
C1002	D-3
C1003	C-3
C1004	B-3
C1005	C-3
C1006	A-3
C1007	D-2
C1008	C-3
C1013	B-2
C1014	D-2
C1018	D-2
C1021	D-1
C1022	D-1
C1029	B-2
C1032	B-2
C1033	B-1
CONNECTORS	
CL1002	E-4
CL1004	E-4
CL1005	F-4
CL1006	E-3
CL1007	E-3
DIODES	
D013	D-4
D015	D-4
D016	D-3
D018	D-3
D020	B-3

Ref No.	Position
DIODES	
D030	D-4
D1001	B-4
D1002	B-4
D1003	B-4
D1004	B-4
D1006	C-3
D1007	B-2
D1008	D-2
D1010	D-3
D1011	C-3
D1012	C-3
D1016	D-2
D1017	D-1
D1018	B-2
D1020	D-2
D1022	B-2
D1024	B-2
D1025	B-2
D1031	D-2
D1032	D-2
ICS	
IC1001	C-1
IC1006	D-1
COILS	
L003	B-4
L009	D-3
L1001	A-4
L1007	D-2
L1020	D-2
TRANSISTORS	
Q1001	C-3
Q1003	B-3
Q1008	B-2

Ref No.	Position
RESISTORS	
R037	D-4
R082	D-4
R1004	C-3
R1005	B-3
R1006	B-3
R1008	B-3
R1010	B-3
R1011	C-3
R1019	D-1
R1020	D-1
R1021	D-1
R1022	D-1
R1023	D-1
R1024	D-1
R1029	B-3
R1032	B-2
R1034	B-2
R1035	B-2
R1036	B-2
R1037	B-2
R1038	B-2
R1039	B-1
R1043	B-4
R1095	D-1
MISCELLANEOUS	
AC1001	A-4
F1001	A-4
GP1001	A-3
SA1001	A-3
T001	C-4

Power Supply CBA Parts Location Guide

Ref No.	Position
CAPACITORS	
C013	B-2
C017	B-2
C018	C-2
C020	C-2
C021	C-2
C1001	B-2
C1002	C-2
C1003	B-2
C1004	A-1
C1005	B-2
C1006	A-2
C1007	C-1
C1008	A-2
C1013	A-2
C1014	C-2
C1018	C-2
C1021	B-1
C1022	B-1
C1029	A-2
C1032	A-2
C1033	A-2
CONNECTORS	
CL1002	C-2
CL1006	C-1
DIODES	
D013	B-2
D015	B-2
D016	B-2
D018	C-2
D020	A-2
D030	B-2

Ref No.	Position
DIODES	
D1001	B-2
D1002	B-2
D1003	B-2
D1004	B-2
D1006	A-2
D1007	A-2
D1008	B-1
D1010	B-1
D1011	B-2
D1012	C-2
D1016	B-1
D1017	C-1
D1018	A-1
D1020	B-1
D1022	A-2
D1024	B-1
D1025	B-1
D1031	C-2
D1032	C-2
ICS	
IC1001	B-1
IC1006	B-1
COILS	
L003	A-2
L009	C-2
L1001	B-2
L1007	C-1
L1020	C-2
TRANSISTORS	
Q1001	B-1
Q1003	A-2

Ref No.	Position
TRANSISTORS	
Q1008	A-2
RESISTORS	
R037	D-2
R082	D-2
R1004	A-2
R1005	A-2
R1006	A-2
R1008	B-2
R1010	A-2
R1011	A-2
R1019	C-1
R1020	B-1
R1021	B-1
R1022	B-1
R1023	B-1
R1024	B-1
R1029	A-2
R1032	B-1
R1034	A-2
R1035	A-1
R1036	A-2
R1037	A-2
R1038	A-2
R1039	A-2
R1043	B-2
R1095	B-1
MISCELLANEOUS	
F1001	C-2
GP1001	C-2
SA1001	B-2
T001	B-2

Power Supply CBA Top View

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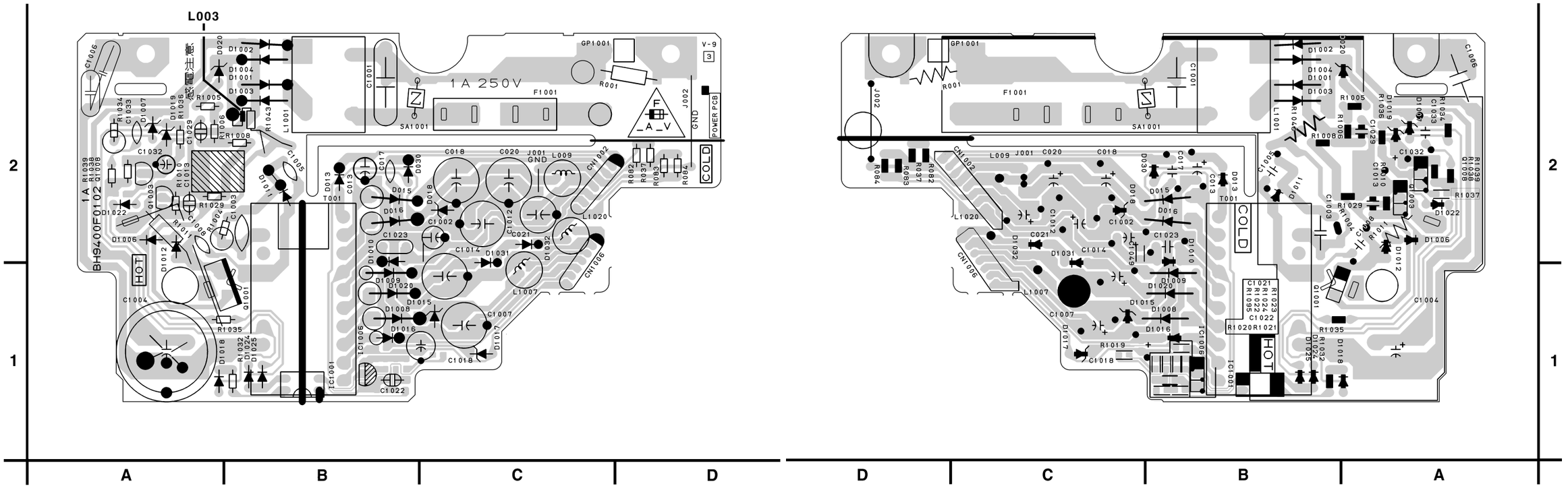
NOTE :
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

Power Supply CBA Bottom View

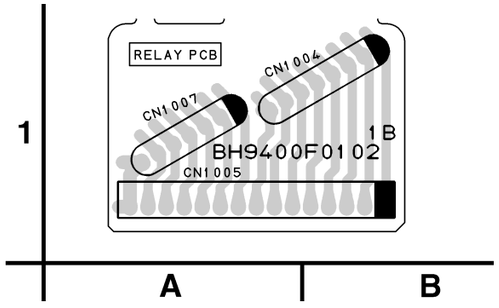
BECAUSE A HOT CHASSIS GROUND IS PRESENT IN THE POWER SUPPLY CIRCUIT , AN ISOLATION TRANSFORMER MUST BE USED. ALSO , IN ORDER TO HAVE THE ABILITY TO INCREASE THE INPUT SLOWLY , WHEN TROUBLESHOOTING THIS TYPE POWER SUPPLY CIRCUIT , A VARIABLE ISOLATION TRANSFORMER IS REQUIRED.

NOTE :
Either BH9400F01021, BH9400F01022
is used for the Power Supply CBA in this S/M.

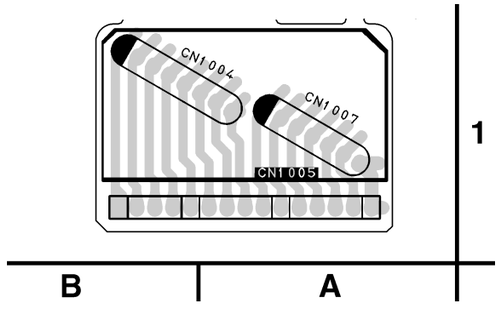


BH9400F01021A

Junction CBA Top View



Junction CBA Bottom View



BH9400F01021B

NOTE :
Either BH9400F01021, BH9400F01022
is used for the Junction CBA in this S/M.

Power Supply CBA Top View

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Power Supply CBA Bottom View

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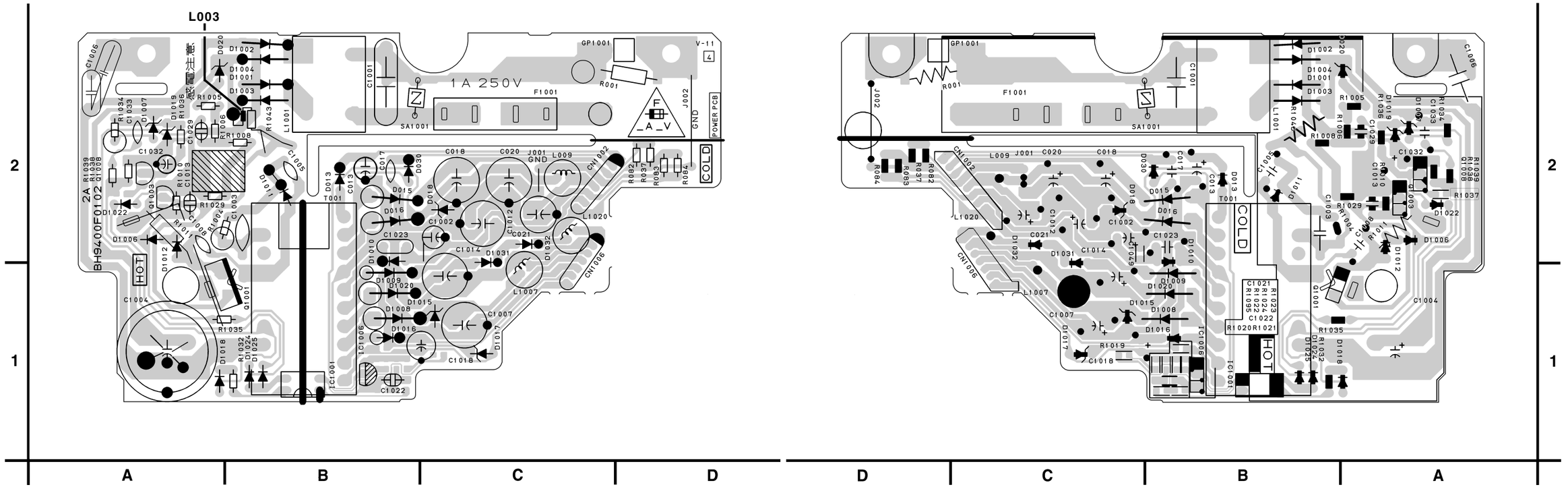
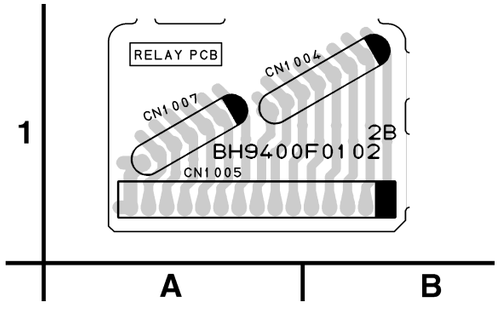
Either BH9400F01021, BH9400F01022
is used for the Power Supply CBA in this S/M.

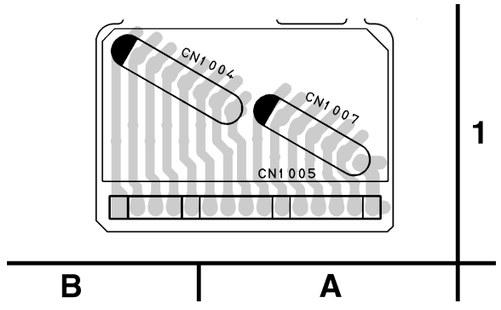


BH9400F01022A

Junction CBA Top View



Junction CBA Bottom View



BH9400F01022B

NOTE :
Either BH9400F01021, BH9400F01022
is used for the Junction CBA in this S/M.

DVD Main 1/3 Schematic Diagram < DVD Section >

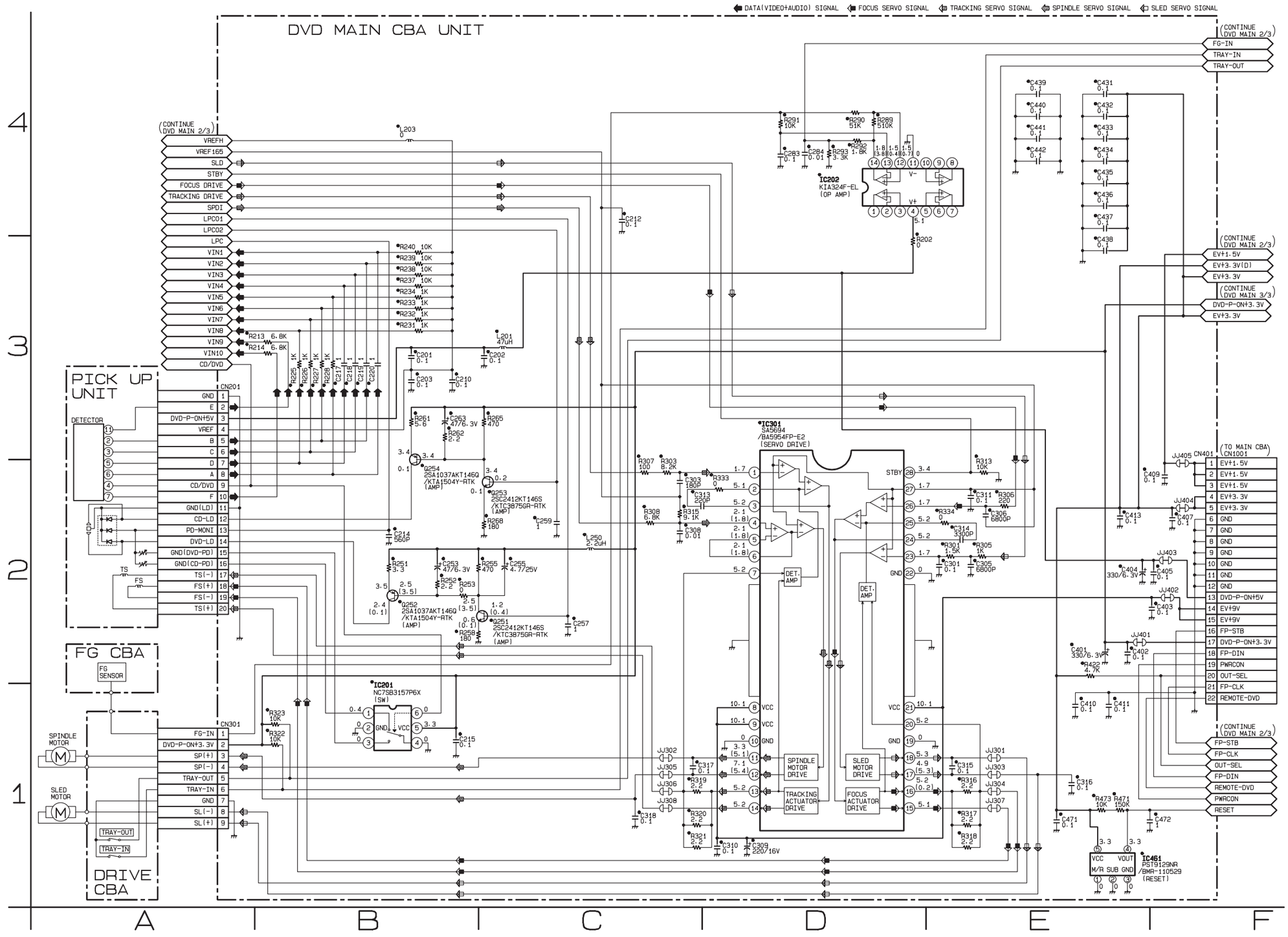
"●" = SMD

1 5.0 2 ~ 3 5.0 (2.5)

PLAY MODE
STOP MODE

THE SAME VOLTAGE FOR BOTH PLAY & STOP MODES.

INDICATES THAT THE VOLTAGE IS NOT CONSISTENT HERE.

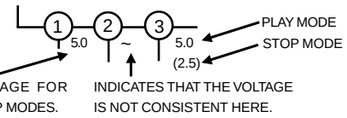


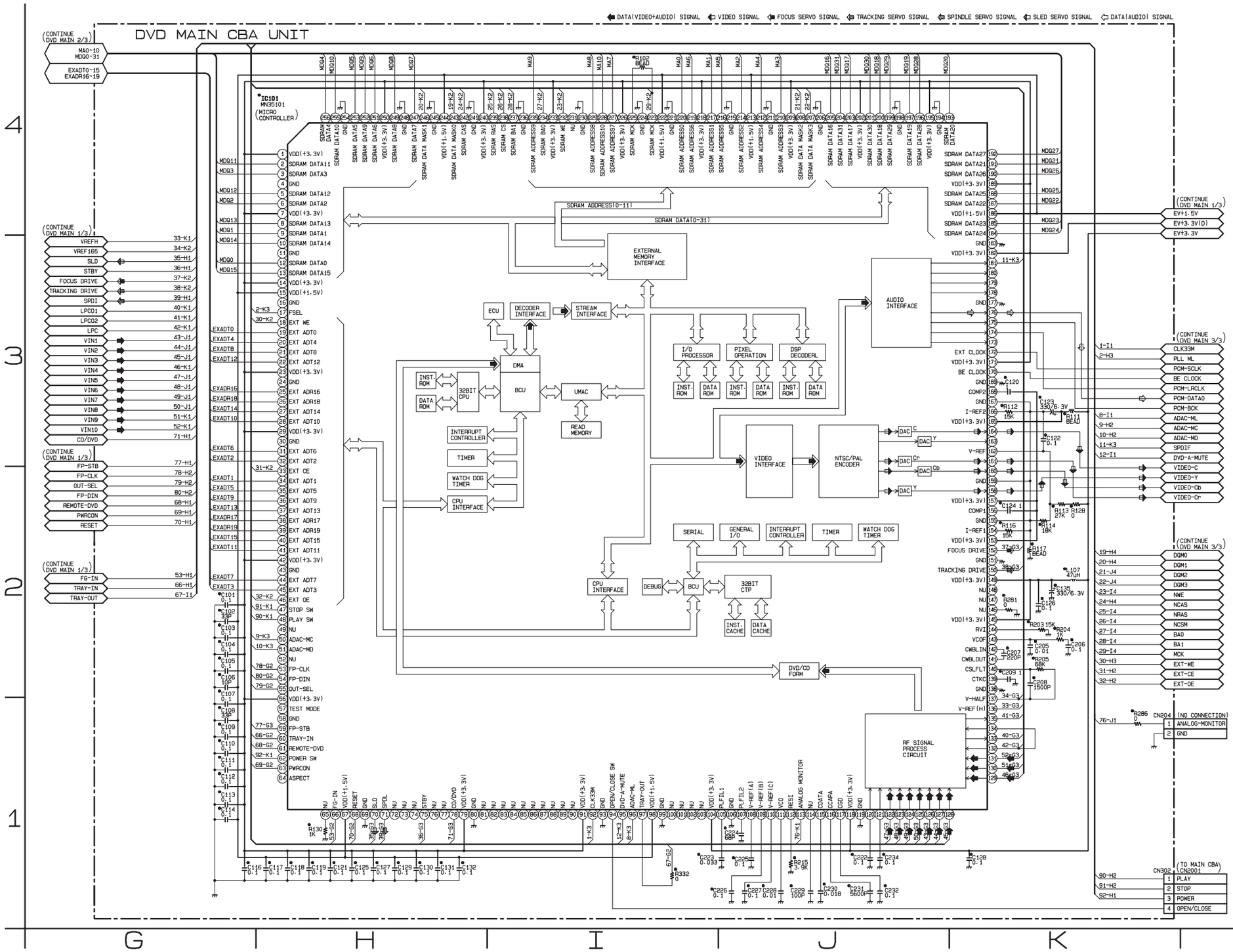
IC101 VOLTAGE CHART

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	3.3	3.3	33	2.2	2.9	65	0.1	0.1	97	3.4	3.4	129	2.0	2.0	161	0.5	0.5	193	~	~	225	1.9	1.9
2	~	~	34	~	~	66	1.2	2.5	98	1.6	1.6	130	2.2	2.2	162	1.4	1.4	194	0	0	226	3.3	3.3
3	~	~	35	~	~	67	1.6	1.6	99	0	0	131	2.3	2.3	163	-----	-----	195	3.3	3.3	227	~	~
4	0	0	36	~	~	68	3.4	3.4	100	-----	-----	132	0.4	0.1	164	0.9	0.9	196	~	~	228	~	~
5	~	~	37	~	~	69	0	0	101	-----	-----	133	1.2	0.4	165	3.3	3.3	197	~	~	229	~	~
6	~	~	38	0.3	0.5	70	1.7	1.7	102	-----	-----	134	0.4	0.1	166	1.5	1.5	198	0	0	230	0	0
7	3.3	3.3	39	0.1	0.1	71	2.4	1.7	103	-----	-----	135	0.2	0.2	167	0	0	199	~	~	231	-----	-----
8	~	~	40	~	~	72	-----	-----	104	3.3	3.3	136	2.3	2.3	168	2.1	2.1	200	~	~	232	3.3	3.3
9	~	~	41	~	~	73	-----	-----	105	0.9	0.9	137	1.7	1.7	169	0	0	201	~	~	233	3.3	3.3
10	~	~	42	3.3	3.3	74	-----	-----	106	0	0	138	0	0	170	0.8	0.8	202	3.3	3.3	234	1.6	1.6
11	0	0	43	0	0	75	3.4	3.4	107	0.8	0.8	139	1.7	1.7	171	3.3	3.3	203	~	~	235	~	~
12	~	~	44	~	~	76	-----	-----	108	1.6	1.6	140	1.7	1.7	172	1.6	1.6	204	~	~	236	0	0
13	~	~	45	~	~	77	-----	-----	109	2.1	2.1	141	1.7	1.7	173	-----	-----	205	~	~	237	1.7	1.7
14	3.3	3.3	46	2.0	2.6	78	0.1	0.1	110	2.6	2.6	142	1.7	1.7	174	1.8	1.8	206	0	0	238	3.0	3.0
15	1.5	1.5	47	3.3	3.4	79	3.3	3.3	111	2.0	2.0	143	0.5	0.5	175	1.7	1.7	207	2.4	3.5	239	3.3	3.3
16	0	0	48	3.2	3.4	80	0	0	112	0.7	0.9	144	1.6	1.6	176	1.4	0.1	208	2.4	2.1	240	3.3	3.3
17	3.4	3.4	49	-----	-----	81	-----	-----	113	2.1	2.1	145	3.3	3.3	177	0	0	209	3.3	3.3	241	0	0
18	3.4	3.4	50	3.4	3.4	82	-----	-----	114	1.8	1.8	146	0	0	178	-----	-----	210	~	~	242	3.2	3.2
19	~	~	51	3.4	3.4	83	-----	-----	115	1.4	1.4	147	-----	-----	179	-----	-----	211	0	0	243	2.4	2.1
20	~	~	52	-----	-----	84	-----	-----	116	0.3	0.3	148	-----	-----	180	-----	-----	212	~	~	244	1.5	1.5
21	~	~	53	3.4	3.4	85	-----	-----	117	1.6	1.6	149	3.3	3.3	181	1.7	1.7	213	1.5	1.5	245	0	0
22	~	~	54	3.4	3.4	86	-----	-----	118	3.3	3.3	150	1.7	1.7	182	3.3	3.3	214	~	~	246	2.4	2.1
23	3.3	3.3	55	3.3	3.3	87	-----	-----	119	0	0	151	0	0	183	0	0	215	0	0	247	~	~
24	0	0	56	3.3	3.3	88	-----	-----	120	1.9	1.9	152	1.7	1.7	184	~	~	216	~	~	248	0	0
25	0.4	0.4	57	0	0	89	-----	-----	121	1.9	1.9	153	3.3	3.3	185	~	~	217	~	~	249	~	~
26	0.9	0.6	58	0	0	90	-----	-----	122	2.4	2.4	154	1.4	1.4	186	1.5	1.5	218	3.3	3.3	250	3.3	3.3
27	~	~	59	3.3	3.3	91	3.3	3.3	123	2.4	2.4	155	0	0	187	~	~	219	~	~	251	~	~
28	~	~	60	3.4	3.4	92	1.7	1.5	124	2.4	2.4	156	2.2	2.2	188	~	~	220	~	~	252	~	~
29	3.3	3.3	61	3.1	3.1	93	0	0	125	2.4	2.4	157	3.3	3.3	189	3.3	3.3	221	0	0	253	~	~
30	0	0	62	3.2	3.4	94	-----	-----	126	2.0	2.0	158	0.7	0.7	190	~	~	222	1.5	1.5	254	0	0
31	~	~	63	3.4	3.4	95	3.4	0.1	127	2.0	2.0	159	0	0	191	~	~	223	1.9	1.9	255	~	~
32	~	~	64	-----	-----	96	3.4	3.4	128	2.0	2.0	160	0.5	0.5	192	~	~	224	0	0	256	~	~

DVD Main 2/3 Schematic Diagram < DVD Section >

"●" = SMD





DVD Main 3/3 Schematic Diagram < DVD Section >

"●" = SMD

PLAY MODE
STOP MODE
THE SAME VOLTAGE FOR BOTH PLAY & STOP MODES.
INDICATES THAT THE VOLTAGE IS NOT CONSISTENT HERE.

VIDEO SIGNAL DATA(AUDIO) SIGNAL AUDIO SIGNAL

DVD MAIN CBA UNIT

IC102 HY57V643220CT-7 /HY57V643220CT-55 /K4S643232E-TC60 /MT48LC2M32B2TG-6 (SDRAM)

IC104 74LVX573MTCX /TC74LVX573FT(EL) (LATCH)

IC105 74LVX573MTCX /TC74LVX573FT(EL) (LATCH)

IC103 MBM29LV160BE90TN-K /MBM29LV160B90PFTNSFK /HY29LV160BT-90 /HY29LV160BT-90V /MX29LV160BTC-90 /M29W160DB70N6 (FLASH ROM)

IC451 BU2363FV-E2 (CLOCK GENERATOR)

IC601 PCM1751DBQR (AUDIO D/A CONVERTER)

L501 FBMH160BHM331-T

X451 SMD-49 36.864MHz

(CONTINUE DVD MAIN 2/3): MA0~10, MDQ0~31, EXADT0~15, EXADR16~19, DQM0, DQM1, DQM2, DQM3, NWE, NCAS, NRAS, NCSM, BA0, BA1, MCK, EXT-WE, EXT-CE, EXT-OE

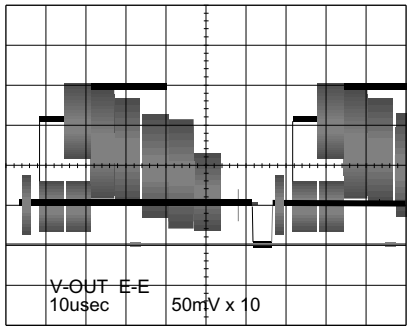
(CONTINUE DVD MAIN 1/3): DVD-P-ON+3.3V, EV+3.3V

(CONTINUE DVD MAIN 2/3): CLK33M, PLL ML, PCM-SCLK, BE CLOCK, PCM-LRCLK, PCM-DATA0, PCM-BCK, ADAC-ML, ADAC-MC, ADAC-MD, SPDIF, DVD-A-MUTE, VIDEO-C, VIDEO-Y, VIDEO-Cb, VIDEO-Cr

(TO MAIN CBA CN1601) CN601:
1 VIDEO-Cr
2 GND
3 VIDEO-Cb
4 GND
5 VIDEO-Y
6 GND
7 VIDEO-C
8 GND
9 GND
10 DVD-A-MUTE
11 DVD-A(L)
12 DVD-A(L)-MUTE
13 DVD-A(R)
14 DVD-A(R)-MUTE
15 AUDIO+5V
16 SPDIF

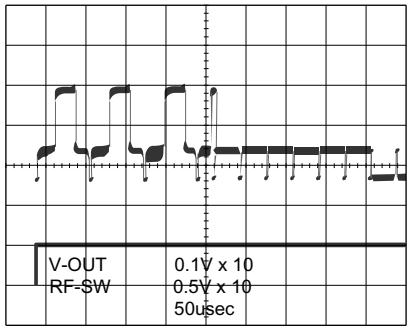
WAVEFORMS

WF 1 (TP751 of Main CBA)



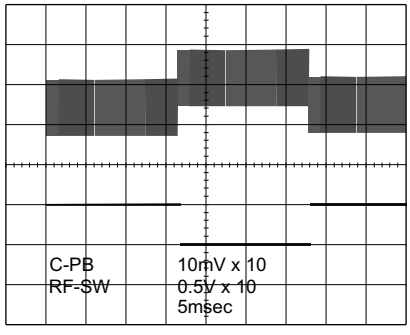
WF1 UPPER (TP751 of Main CBA)

WF2 LOWER (TP302 of Main CBA)



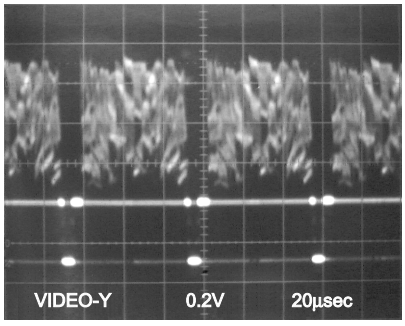
WF3 UPPER (TP301 of Main CBA)

WF2 LOWER (TP302 of Main CBA)

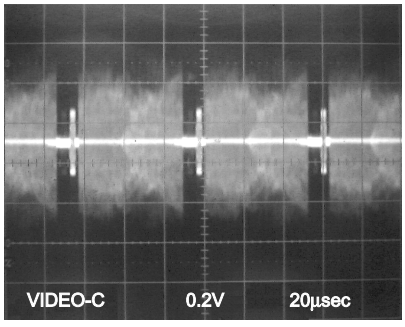


WAVEFORMS

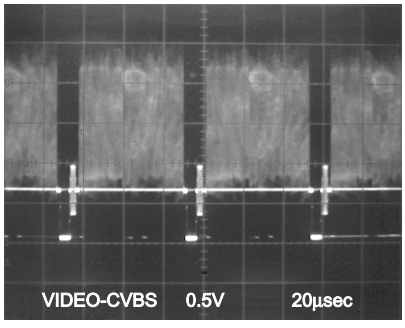
WF4 Pin 5 of CN1601



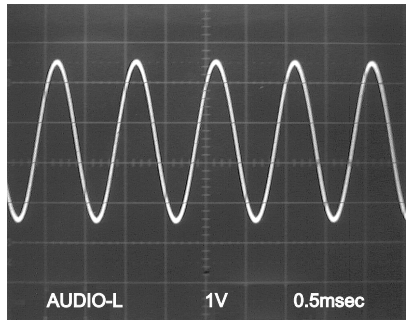
WF5 Pin 7 of CN1601



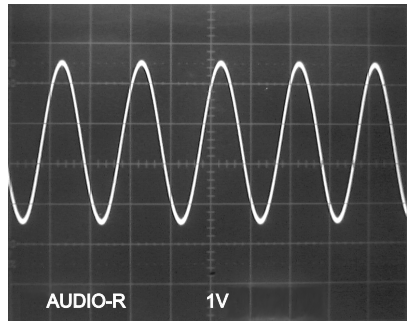
WF6 Pin 21 of IC1402



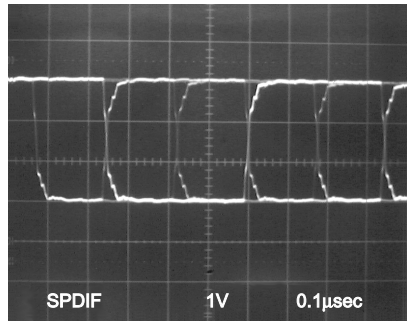
WF7 Pin 11 of CN1601



WF8 Pin 13 of CN1601



WF9 Pin 16 of CN1601



WIRING DIAGRAM < VCR SECTION >

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR. (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER HOLES OF THE PCB. (WIRE IS SOLDERED DIRECTLY.)

(DECK ASSEMBLY)

FRONT / REAR

VIDEO IN | AUDIO IN (R) | AUDIO IN (L) | S-VIDEO OUT | AUDIO OUT (R) | AUDIO OUT (L) | VIDEO IN | AUDIO IN (R) | AUDIO IN (L) | VIDEO OUT | AUDIO OUT (R) | AUDIO OUT (L) | VIDEO-Cr | VIDEO-Y | VIDEO-Cb | DIGITAL AUDIO OUT

AC HEAD ASSEMBLY

AUDIO ERASE HEAD, AUDIO HEAD, CONTROL HEAD

CL504
1	AE-H
2	AE-H/FE-H
3	A-COM
4	A-PB/REC
5	CTL(+)
6	CTL(-)

FE HEAD

FULL ERASE HEAD

CL501
1	AE-H/FE-H
2	FE-H GND

CAPSTAN MOTOR

LOADING MOTOR (M)

CAPSTAN MOTOR (M)

CL502
1	AL+12V
2	P-ON+5V
3	C-FG
4	C-F/R
5	C-CONT
6	GND
7	LM-FWD/REV
8	D-CONT
9	D-PFG
10	GND
11	AL+12V
12	AL+15V

CYLINDER ASSEMBLY

PG SENSOR

DRUM MOTOR (M)

VIDEO (R)1 HEAD
VIDEO (L)1 HEAD
VIDEO (L)2 HEAD
VIDEO (R)2 HEAD
Hi-Fi AUDIO (R) HEAD
Hi-Fi AUDIO (L) HEAD

CL253
1	V(R)-1
2	V-COM
3	V(L)-1
4	V(L)-2
5	V-COM
6	V(R)-2
7	Hi-Fi-A(R)
8	Hi-Fi-COM
9	Hi-Fi-A(L)

MAIN CBA
(BH9400F01013A)

CN1003
AL+44V	1
P-DOWN-L	2
AL+12V	3
GND	4
AL+5V	5
GND	6
AL-24V	7
NU	8
AL+2.35V	9
GND	10
AL+4V	11
GND	12
GND	13
F1	14
F2	15

CN1005 (1–15) — CL1004 (1–8) — CL1002
1	AL+44V
2	P-DOWN-L
3	AL+12V
4	GND
5	AL+5V
6	GND
7	AL-24V
8	NU

CL1007 (1–7) — CL1006
1	AL+2.35V
2	GND
3	AL+4V
4	GND
5	GND
6	F1
7	F2

JUNCTION CBA
(BH9400F01021B /BH9400F01022B)

POWER SUPPLY CBA
(BH9400F01021A /BH9400F01022A)

AC CORD

SENSOR CBA
(BHB300F01014)

SENSOR CBA
(BHB300F01014)

CL2003 — CL2002
1	GND	1	**DVD OPEN/CLOSE CBA (BH9400F01013C)**
2	OPEN/CLOSE	2	

CL509 — CL508
1	POWER-LED	1	**FUNCTION CBA (BH9400F01013B)**
2	KEY-1	2	
3	GND	3	

ANT-IN

ANT-OUT

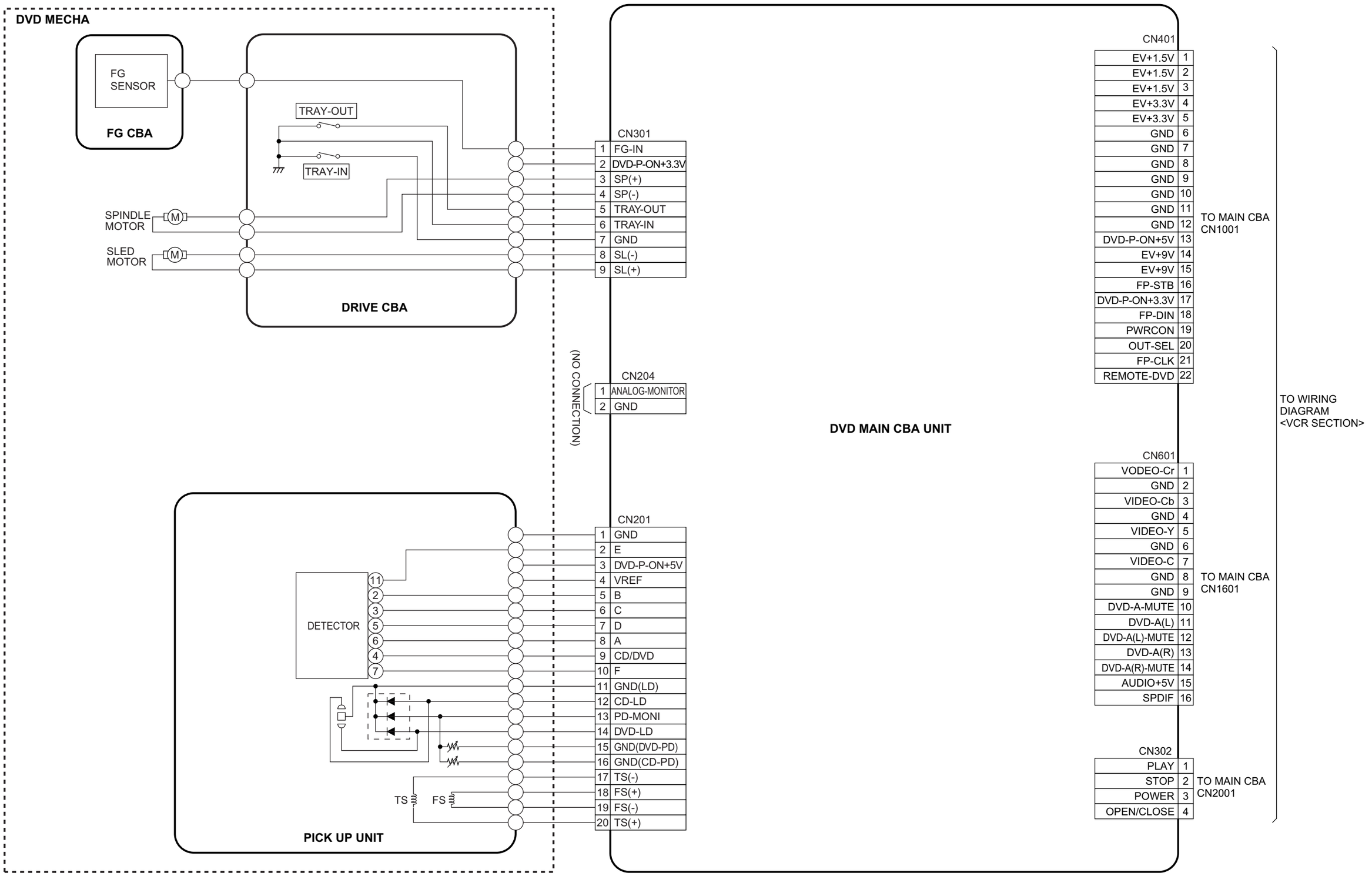
CN1001
EV+1.5V	1	TO DVD MAIN CBA UNIT CN401
EV+1.5V	2	
EV+1.5V	3	
EV+3.3V	4	
EV+3.3V	5	
GND	6	
GND	7	
GND	8	
GND	9	
GND	10	
GND	11	
GND	12	
DVD-P-ON+5V	13	
EV+9V	14	
EV+9V	15	
FP-STB	16	
DVD-P-ON+3.3V	17	
FP-DIN	18	
PWRCON	19	
OUT-SEL	20	
FP-CLK	21	
REMOTE-DVD	22	TO WIRING DIAGRAM <DVD SECTION>

CN1601
VODEO-Cr	1	TO DVD MAIN CBA UNIT CN601
GND	2	
VIDEO-Cb	3	
GND	4	
VIDEO-Y	5	
GND	6	
VIDEO-C	7	
GND	8	
GND	9	
DVD-A-MUTE	10	
DVD-A(L)	11	
DVD-A(L)-MUTE	12	
DVD-A(R)	13	
DVD-A(R)-MUTE	14	
AUDIO+5V	15	
SPDIF	16	

CN2001
PLAY	1	TO DVD MAIN CBA UNIT CN302
STOP	2	
POWER	3	
OPEN/CLOSE	4	

WIRING DIAGRAM < DVD SECTION >

NOTE FOR WIRE CONNECTORS:
1. PREFIX SYMBOL "CN" MEANS CONNECTOR.
   (CAN DISCONNECT AND RECONNECT.)
2. PREFIX SYMBOL "CL" MEANS WIRE-SOLDER
   HOLES OF THE PCB.
   (WIRE IS SOLDERED DIRECTLY.)



SYSTEM CONTROL TIMING CHARTS

[VCR Section]

Mode SW : LD-SW

LD-SW Position detection A/D Input voltage Limit (Calculated voltage)	Symbol
3.76V~4.50V (4.12V)	EJ
4.51V~5.00V (5.00V)	CL
0.00V~0.25V (0.00V)	SB
1.06V~1.50V (1.21V)	TL
0.66V~1.05V (0.91V)	FB
1.99V~2.60V (2.17V)	SF
1.51V~1.98V (1.80V)	SM
3.20V~3.75V (3.40V)	AU
0.26V~0.65V (0.44V)	AL
4.51V~5.00V (5.00V)	SS
2.61V~3.19V (2.97V)	RS

Note:

Note:

EJ → RS: Loading FWD (LM-FWD/REV “H”)
RS → EJ: Loading REV (LM-FWD/REV “L”)
Stop (A) = Loading
Stop (B) = Unloading

Note:

Symbol	Loading Status
EJ	Eject
CL	Eject ~ REW Reel
SB	REW Reel ~ Stop(B)
TL	Stop(B) ~ Brake Cancel
FB	Brake Cancel ~ FF / REW
SF	FF / REW ~ Stop(M), (FF / REW)
SM	Stop(M), (FF / REW) ~ Stop(A)
AU	Stop(A) ~ Play / REC
AL	Play / REC ~ Still / Slow
SS	Still / Slow ~ RS (REW Search)
RS	RS (REW Search)

Still/Slow Control
Frame Advance Timing Chart

1) SP Mode

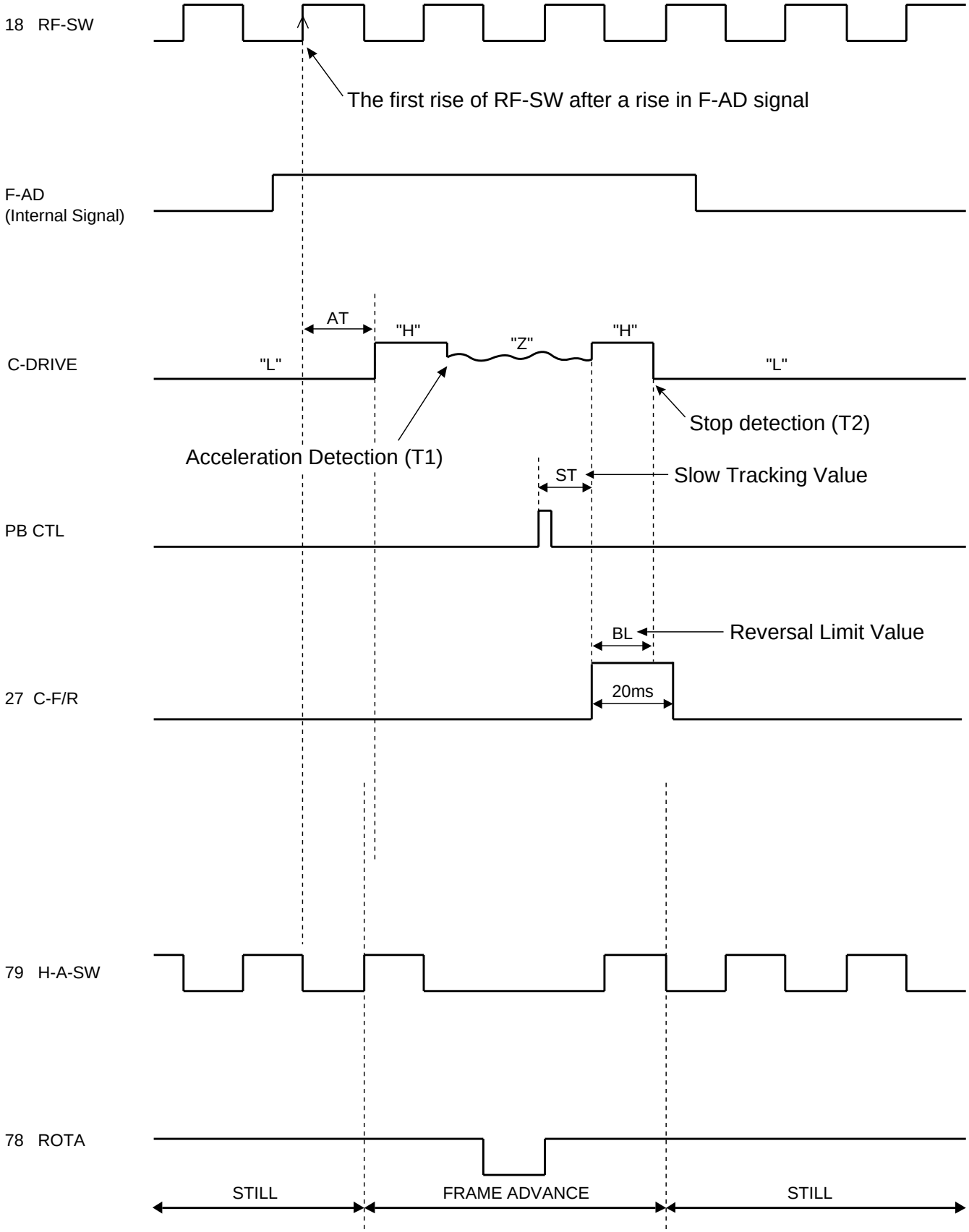


Fig. 1

2) LP/SLP Mode

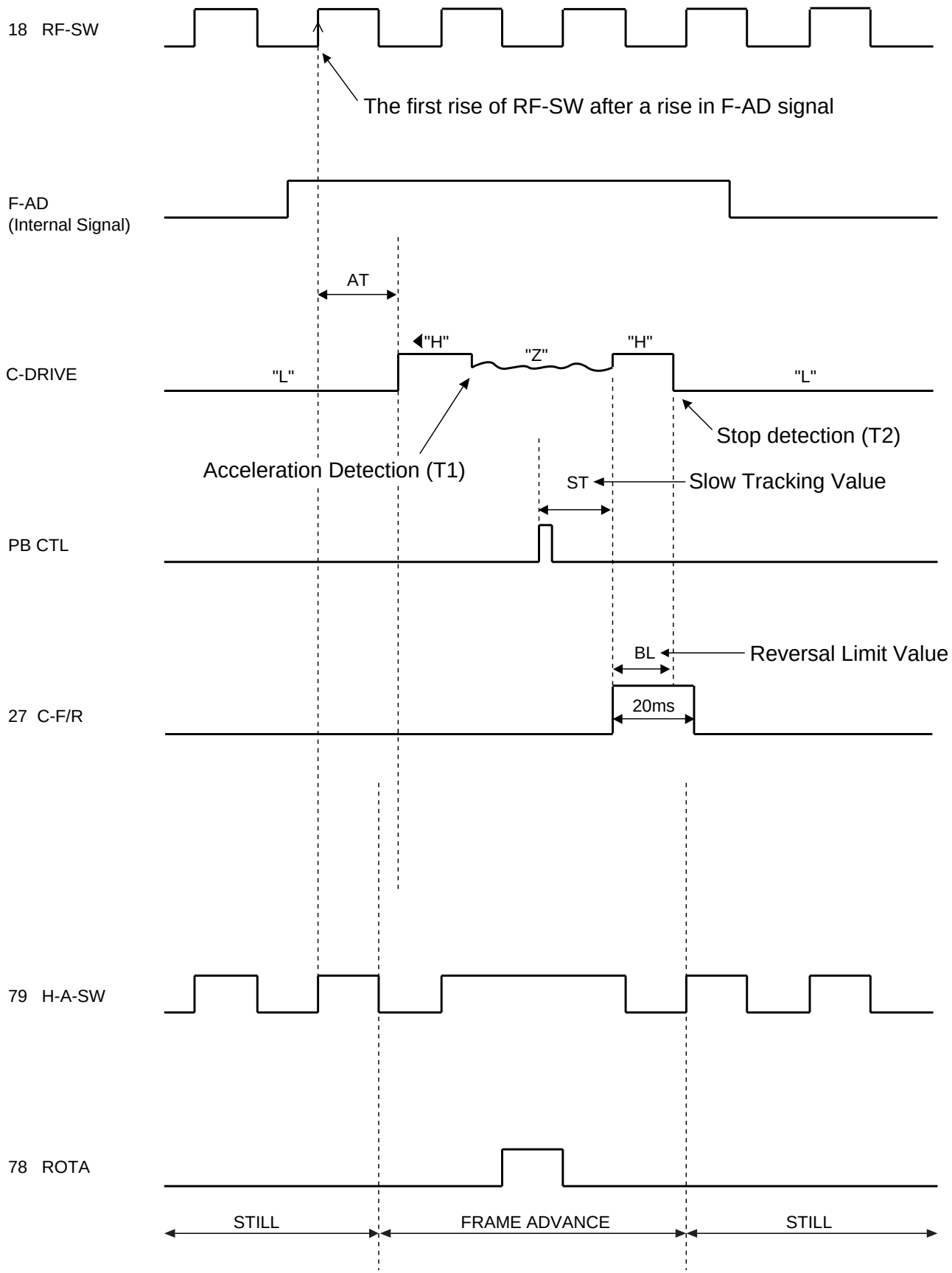


Fig. 2

1. EJECT (POWER OFF) -> CASSETTE IN (POWER ON) -> STOP(B) -> STOP(A) -> PLAY -> RS -> FS -> PLAY -> STILL -> PLAY -> STOP(A)

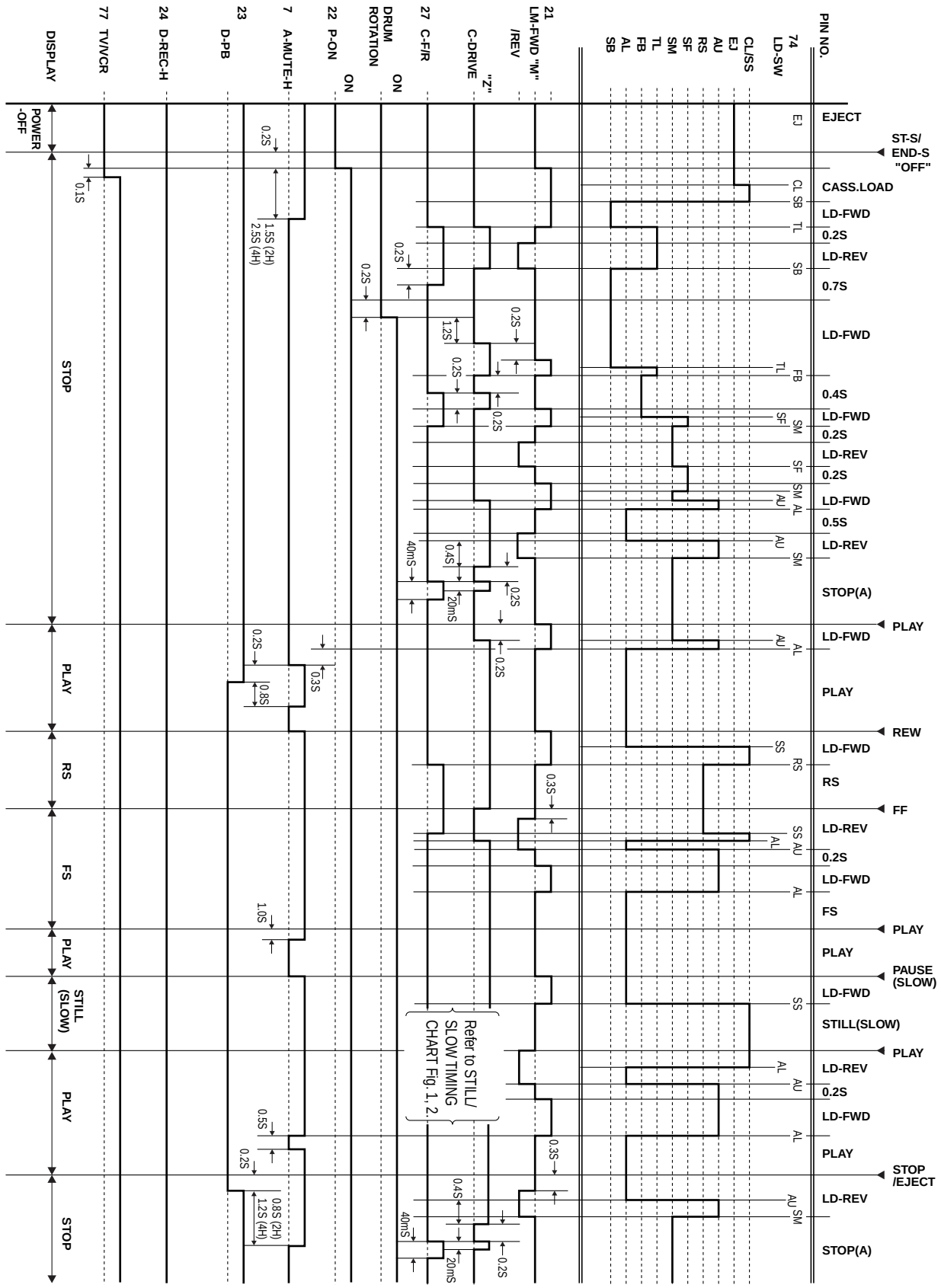


Fig. 3

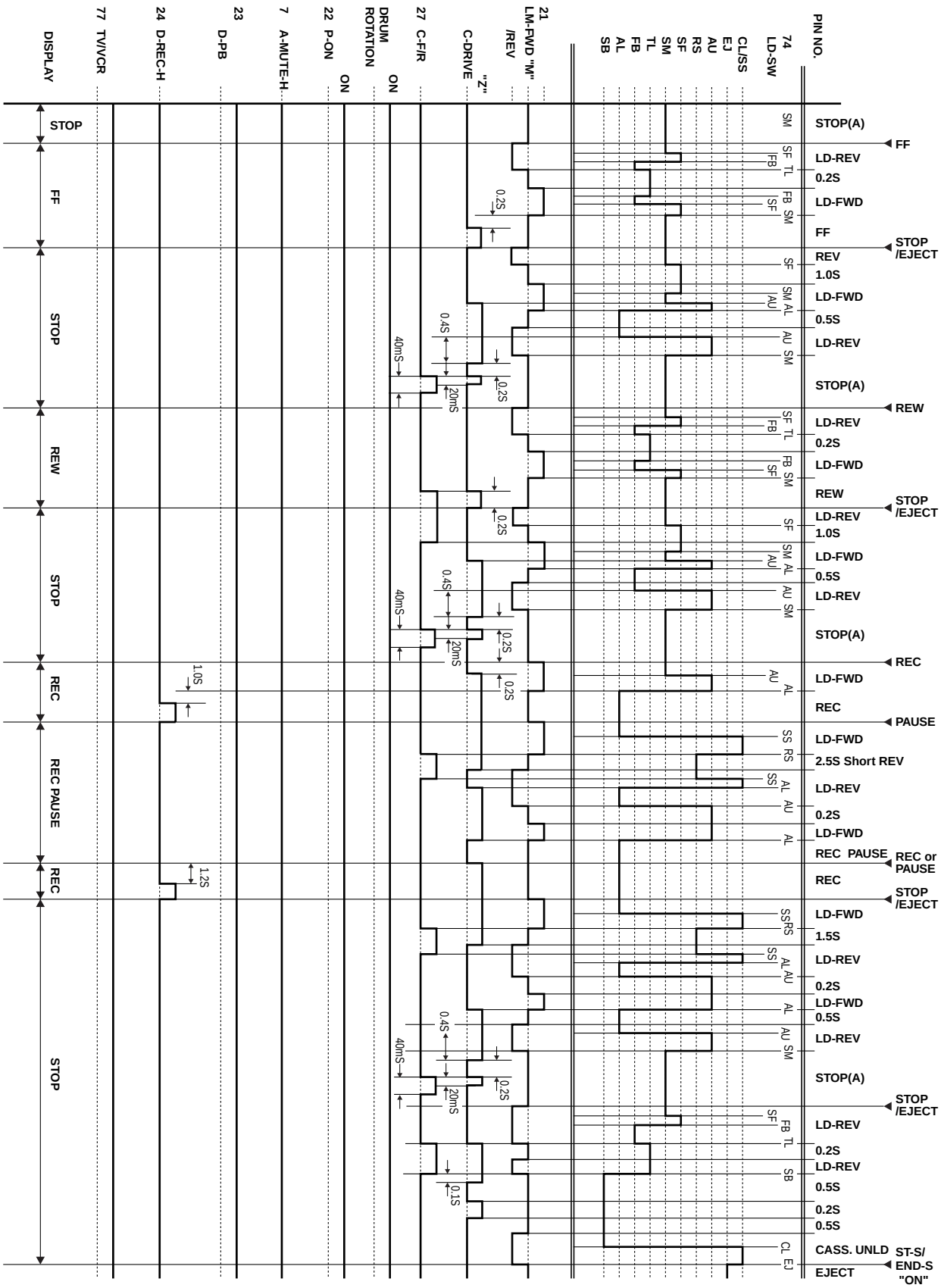
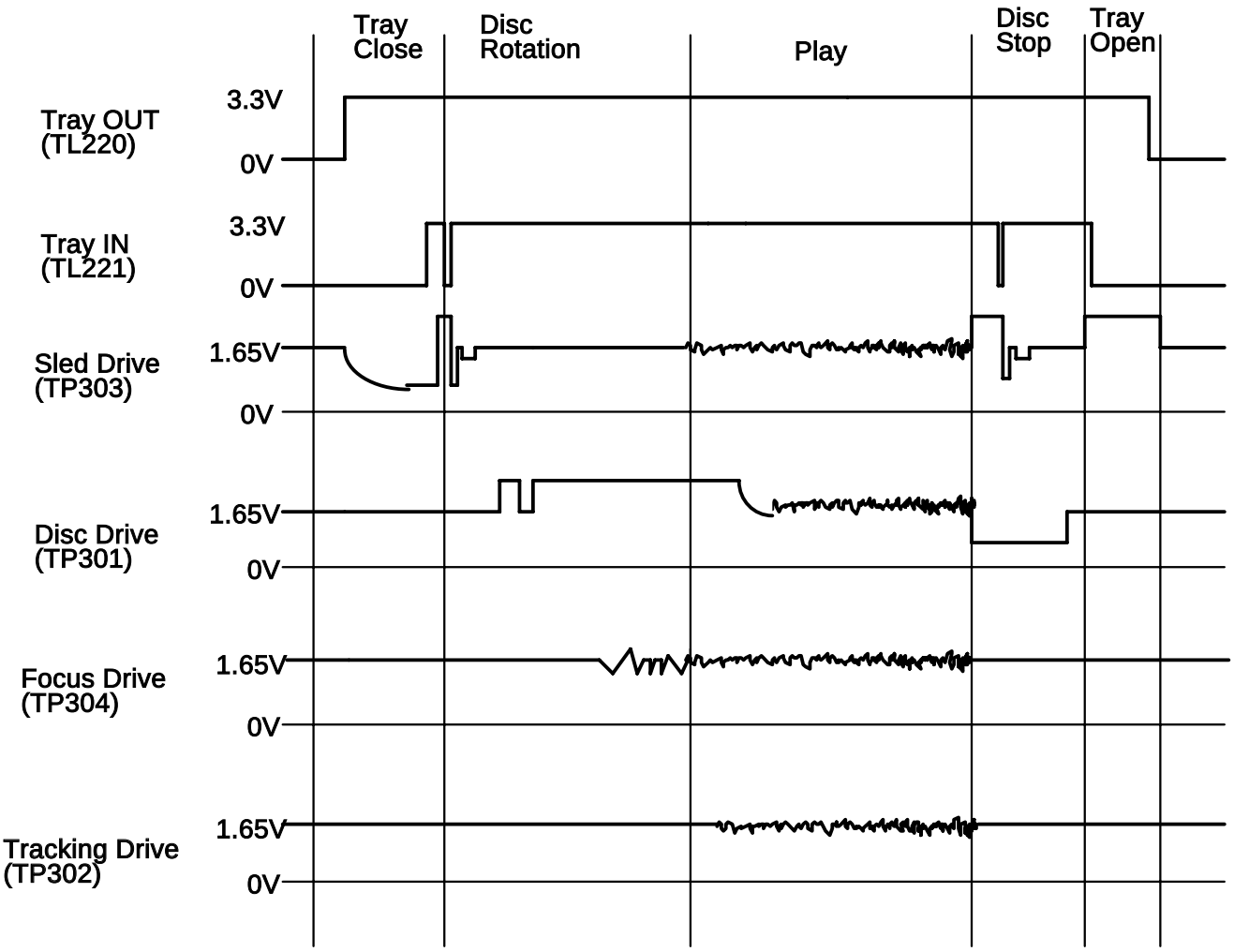

2. STOP(A) -> FF -> STOP(A) -> REW -> STOP(A) -> REC -> PAUSE -> PAUSE or REC -> STOP(A) -> EJECT
PIN NO.
74 LD-SW
CL/SS
EJ
AU
RS
SF
SM
TL
FB
AL
SB
21 LM-FWD "M" /REV
"Z" C-DRIVE
27 C-F/R
DRUM ROTATION
22 P-ON
7 A-MUTE-H
23 D-PB
24 D-REC-H
77 TV/VCR
DISPLAY
STOP
FF
REW
REC
REC PAUSE
STOP(A)
FF
LD-REV
0.2S
LD-FWD
FF
REV
1.0S
0.5S
REW
2.5S Short REV
1.5S
REC PAUSE
CASS. UNLD
EJECT
STOP /EJECT
REC or PAUSE
ST-S/ END-S "ON"
0.4S
40mS
20mS
0.1S
1.0S
1.2S

Fig. 4

[DVD Section]

Tray Close ~ Play / Play ~ Tray Open



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	P-DOWN -L	Power Voltage Down Detector Signal	L
2	IN	REC-SAF-SW	Recording Safety SW Detect (With Record tab = "L"/ With out Record tab = "H")	H/L
3	IN	T-REEL	Take Up Reel Rotation Signal	PULSE
4	-	N.U.	Not Used	-
5	IN	REMOTE-VIDEO	Remote Control Sensor	L
6	OUT	DISPLAY-CLK	7seg. Driver IC Clock Control Output Signal	H/L
7	OUT	A-MUTE-H	Audio Mute Control Signal (Mute = "H")	H
8	OUT	DISPLAY-DATA	7seg. Driver IC Data Control Output Signal	H/L
9	OUT	DISPLAY-ENA	7seg. Driver IC Enable Control Output Signal	L
10	-	N.U.	Not Used	-
11	OUT	TRICK-H	Special Playback= "H"	H/Z/L
12	IN/ OUT	IIC-BUS-SDA	IIC BUS Control Data	H/L
13	OUT	IIC-BUS-SCL	IIC BUS Control Clock	H/L
14	OUT	SP/LP/ SLP	Top Speed Select Signal (SP="L"/ LP="Z"/SLP="H")	H/Z/L
15	-	N.U.	Not Used	-
16	OUT	INSEL/ ST-SL	Input Selector Control Signal (EE/Rec)/Still/Slow (Playback)	H/Hi-z /L
17	-	N.U.	Not Used	-
18	OUT	RF-SW	Video Head Switching Pulse	H/L
19	OUT	D-V SYNC	Dummy V-sync Output	H/Hi-z
20	IN	RESET	System Reset Signal (Reset="L")	L
21	OUT	LM-FWD/ REV	Loading Motor FWD/ REV Output	H/Z/L
22	OUT	P-ON-L	Power On Signal to Low	L
23	OUT	D-PB-L	Playback Instruction Signal	L
24	OUT	D-REC-H	Delayed Record Signal	H
25	OUT	HiFi-H-SW	HiFi Audio Head Switching Pulse	H/L
26	OUT	DVD-POWER	DVD Power Control Signal	H
27	OUT	C-F/R	Capstan Motor FWD/ REV Control Signal (FWD="L"/REV="H")	H/L
28	OUT	C-CONT	Capstan Motor Control Signal	PWM
29	OUT	D-CONT	Drum Motor Control Signal	PWM
30	-	N.U.	Not Used	-
31	-	VDD	VDD	-
32	OUT	OSCO	Main Clock Output 14.31818MHz	-
33	IN	OSCI	Main Clock Input 14.31818MHz	-
34	-	VSS	VSS	
35	IN	XI	Sub Clock Input 32.768 MHz	-
36	OUT	XO	Sub Clock Output 32.768 MHz	-
37	IN	SXI	Operation Mode Selecting Input Signal	-
38	OUT	VIDEO-OUT	Composite Video Signal Output	-
39	-	Vss2	Vss2	-
40	IN	VIDEO-IN	Composite Video Signal Input	
41	IN	C-SYNC	Composite Synchronized Pulse	PULSE
42	-	VDD2	VDD2	-
43	IN	AFCC	Low Path Filter Input Signal For AFC	-
44	OUT	AFCLPF	Low Path Filter Output Signal For AFC	-
45	OUT	INSEL-2	Input Select	H/L

Pin No.	IN/ OUT	Signal Name	Function	Active Level
46	OUT	OUTPUT-SELECT	Output Select	H/L
47	IN	D-PFG	Drum PG/FG Input Signal	PULSE
48	-	N.U.	Not Used	-
49	IN	C-FG	Capstan Motor Rotation Detection Pulse	PULSE
50	-	AFG	GND	-
51	OUT	VRO	Servo Standard Voltage Output	-
52	IN	VRI	Servo Standard Voltage Input	-
53	-	AVss	AVSS	-
54	IN	CTLA	CTL Amp. AC GND	-
55	-	AVDD	AVDD	-
56	IN/ OUT	CTL (+)	Playback/Record Control Signal (+)	-
57	IN/ OUT	CTL (-)	Playback/Record Control Signal (-)	-
58	OUT	CTL	Amp. Output Control Signal for Test Point	-
59	IN	HiFi/NOR-IN	Audio Mode Input HiFi=”L”/ Normal=”H”	A/D
60	IN	POW-MONITOR	DVD Power Monitor Signal (P-off="L", P-on="H")	H/L
61	IN	ST/SAP-IN	Tuner Stereo/Sap Detector Signal Input	A/D
62	IN	END-S	Tape End Position Detect Signal	A/D
63	IN	AFC	Automatic Frequency Control Signal	A/D
64	IN	V-ENV	Video Envelope Comparator Signal	A/D
65	IN	PG-DELAY	Video Head Switching Pulse Signal Adjusted Voltage	A/D
66	IN	KEY-2	A/D Key Data Signal 2	A/D
67	IN	KEY-1	A/D Key Data Signal 1	A/D
68	IN	LD-SW	Deck Mode Position Detector Signal	A/D
69	IN	ST-S	Tape Start Position Detector Signal	A/D
70	OUT	VCR-IND	VCR Mode LED Signal Output	H/L
71	OUT	DVD-IND	DVD Mode LED Signal Output	H/L
72	OUT	REC-IND	REC Mode LED Signal Output	H/L
73	-	N.U.	Not Used	-
74	-	N.U.	Not Used	-
75	OUT	TIMER-IND	“TIMER” LED Signal Output	H/L
76	OUT	CONV-SW	RF Conv. Output Channel Switching Signal 3ch=”Hi-z”, 4ch=”L”	Hi-z/L
77	OUT	VCR/TV	RF Conv. ON/OFF Signal (TV="L"/ VCR="H")	H/L
78	OUT	C-ROTA	Color Phase Rotary Changeover SIgnal	H/L
79	OUT	H-A-SW	Video Head Amp Switching Pulse	H/L
80	IN	H-A-COMP	Head Amp Comparator Signal	H/L

Notes:

Abbreviation for Active Level:

PWM -----Pulse Wide Modulation

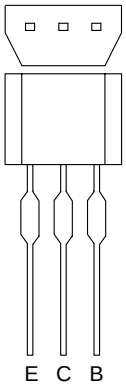
A/D--------Analog - Digital Converter

[DVD Section]

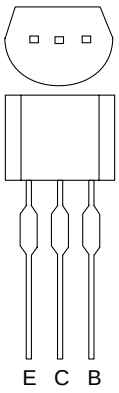
IC571 [PT6313-S-TP]

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

LEAD IDENTIFICATIONS

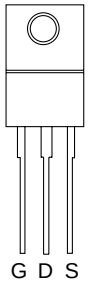


2SA1175(J,H,F)
KTA1267(GR,Y)
BA1F4M-T
KTA1266(GR)
KTC3193(Y)
KTC3199(Y,GR,BL)
2SC2785(J,H,F,K)
KRC103M
KRA103M

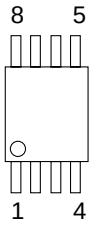


2SC1815-BL(TPE2)
2SC1815-Y(TPE2)
2SC1815-GR(TPE2)
2SC2120-Y(TPE2)
KTC3203(Y)
2SA1015-GR(TPE2)
KTC3198(Y,GR)

2SK3543



BA7654F-E2
NJM4558D
KIA4558P



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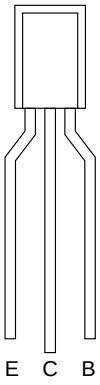

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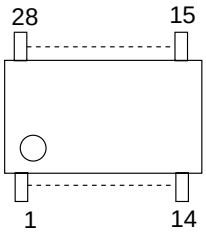
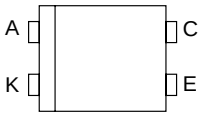
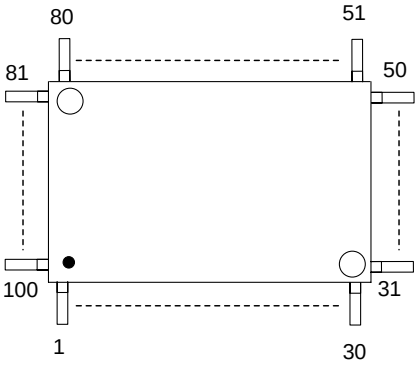


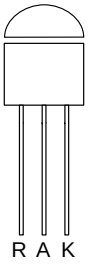
LTV-817(B,C)-F



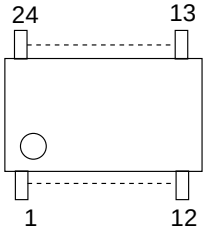
LA71091M



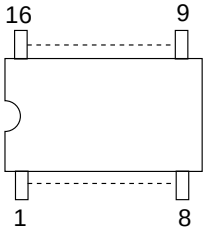
KIA431-AT
KIA431A-AT
TL431A-TA



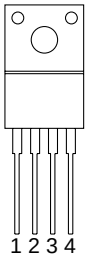
MM1622XJBE



TC4053BF(N)
BU4053BCF



PQ070XF01SZ



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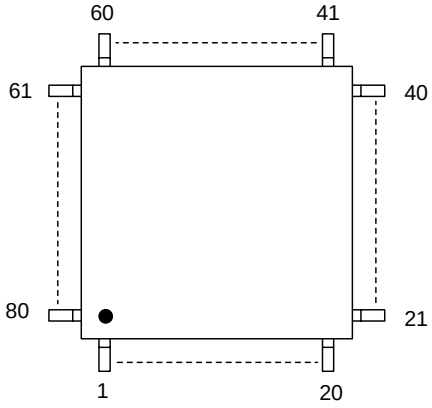

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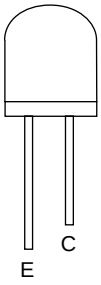
PT204-6B-12



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

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.

To order parts call the TOLL FREE Philips Sales Center number: 1 - 800 - 851 - 8885
(In Canada) 1 - 800 - 363 - PART.
1 - 800 - 535 - 3715 (Fax).

NOTES:

1. Parts that are not assigned part numbers (---- --- ----- or blank) are not normally available.
2. " ● "=SMD
3. LED Type:
   When it is necessary to replace one or more of the following diodes, all four should be replaced: D564, D565, D566, and D567 on the Main CBA.

DVD MAIN CBA UNIT

Ref. No.	Description	ID No.	Part No.
	DVD MAIN CBA UNIT	N79PMGUP	

MCV CBA

Ref. No.	Description	ID No.	Part No.
	MCV CBA Consists of the following:	0VSA13609	
	MAIN CBA (MCV-A) FUNCTION CBA (MCV-B) DVD OPEN/CLOSE CBA (MCV-C SENSOR CBA	---------- ---------- ---------- 0VSA13627	

MAIN CBA

Ref.	⚠	Description	ID No.	Part No.
		MAIN CBA (MCV-A) Consists of the following:	----------	
		CAPACITORS		
C023		ELECTROLYTIC CAP. 100µF/25V ±20% or	CE1EMASDL101	4835 124 47033
		ELECTROLYTIC CAP. 100µF/25V ±20%	CE1EMASTL101	4835 124 97082
C051		ELECTROLYTIC CAP. 10µF/16V ±20% H7	CE1CMAVSL100	4835 124 47268
C053		ELECTROLYTIC CAP. 100µF/6.3V ±20% or	CE0KMASDL101	4835 124 47165
		ELECTROLYTIC CAP. 100µF/6.3V ±20%	CE0KMASTL101	4835 124 47263
C060		CERAMIC CAP.(AX) 0.1µF/25V ±10% (B)	CCA1EKT0B104	4835 122 47682
C253		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
●C255		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F) or	CZM1CZB0F103	4835 122 87647
		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F)	CZM1CZ30F103	
C256		ELECTROLYTIC CAP. 47µF/6.3V ±20% H7	CE0KMAVSL470	4835 124 47265
●C257		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZB0F104	4835 122 87645
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZB0F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZ30F104	
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZ30F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (FZ)	CHD1JZ3FZ104	
C308		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C309		ELECTROLYTIC CAP. 47µF/6.3V ±20% H7	CE0KMAVSL470	4835 124 47265
●C310		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZB0F104	4835 122 87645
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZB0F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZ30F104	
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZ30F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (FZ)	CHD1JZ3FZ104	
●C311		CHIP CERAMIC CAP. 390pF/50V ±5% (CH) or	CHD1JJBCH391	
		CHIP CERAMIC CAP. 390pF/50V ±5% (CH) or	CHD1JJ3CH391	
		CHIP CERAMIC CAP. 390pF/50V ±5% (CG)	CHD1JJ3CG391	
C312		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
●C314		CHIP CERAMIC CAP.(MELF) 100pF/50V ±5% (SL) or	CZM1JJBSL101	
		CHIP CERAMIC CAP.(MELF) 100pF/50V ±5% (SL)	CZM1JJ3SL101	
●C315		CHIP CERAMIC CAP.(MELF) 100pF/50V ±5% (SL) or	CZM1JJBSL101	
		CHIP CERAMIC CAP.(MELF) 100pF/50V ±5% (SL)	CZM1JJ3SL101	
C320		ELECTROLYTIC CAP. 22µF/6.3V ±20% H7	CE0KMAVSL220	
C321		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C322		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C324		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C325		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C326		ELECTROLYTIC CAP. 22µF/6.3V ±20% H7	CE0KMAVSL220	
●C328		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F) or	CZM1CZB0F103	4835 122 87647
		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F)	CZM1CZ30F103	
●C329		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F) or	CZM1CZB0F103	4835 122 87647
		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F)	CZM1CZ30F103	
●C330		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F) or	CZM1CZB0F103	4835 122 87647
		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F)	CZM1CZ30F103	
●C331		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●C332		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B) or	CHD1JKB0B103	4835 122 87255
		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
C333		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
●C335		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZB0F104	4835 122 87645
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZB0F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZ30F104	
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZ30F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (FZ)	CHD1JZ3FZ104	
●C336		CHIP CERAMIC CAP. 0.047µF/50V ±10% (B) or	CHD1JKB0B473	4835 122 87162
		CHIP CERAMIC CAP. 0.047µF/25V ±10% (B) or	CHD1EKB0B473	4835 122 87185
		CHIP CERAMIC CAP. 0.047µF/50V ±10% (B) or	CHD1JK30B473	
		CHIP CERAMIC CAP. 0.047µF/25V ±10% (B)	CHD1EK30B473	4835 122 87185
C337		ELECTROLYTIC CAP. 47µF/6.3V ±20% H7	CE0KMAVSL470	4835 124 47265
C339		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C340		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
●C341		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B) or	CHD1JKB0B103	4835 122 87255

Ref.	⚠	Description	ID No.	Part No.
		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
C344		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
●C345		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B) or	CHD1JKB0B103	4835 122 87255
		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
C346		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C347		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
●C348		CHIP CERAMIC CAP. 0.047µF/50V ±10% (B) or	CHD1JKB0B473	4835 122 87162
		CHIP CERAMIC CAP. 0.047µF/25V ±10% (B) or	CHD1EKB0B473	4835 122 87185
		CHIP CERAMIC CAP. 0.047µF/50V ±10% (B) or	CHD1JK30B473	
		CHIP CERAMIC CAP. 0.047µF/25V ±10% (B)	CHD1EK30B473	4835 122 87185
●C349		CHIP CERAMIC CAP. 0.047µF/50V ±10% (B) or	CHD1JKB0B473	4835 122 87162
		CHIP CERAMIC CAP. 0.047µF/25V ±10% (B) or	CHD1EKB0B473	4835 122 87185
		CHIP CERAMIC CAP. 0.047µF/50V ±10% (B) or	CHD1JK30B473	
		CHIP CERAMIC CAP. 0.047µF/25V ±10% (B)	CHD1EK30B473	4835 122 87185
●C352		CHIP CERAMIC CAP. 0.047µF/50V ±10% (B) or	CHD1JKB0B473	4835 122 87162
		CHIP CERAMIC CAP. 0.047µF/25V ±10% (B) or	CHD1EKB0B473	4835 122 87185
		CHIP CERAMIC CAP. 0.047µF/50V ±10% (B) or	CHD1JK30B473	
		CHIP CERAMIC CAP. 0.047µF/25V ±10% (B)	CHD1EK30B473	4835 122 87185
●C353		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B) or	CHD1JKB0B103	4835 122 87255
		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
●C354		CHIP CERAMIC CAP. 68pF/50V ±5% (CH) or	CHD1JJBCH680	
		CHIP CERAMIC CAP. 68pF/50V ±5% (CH) or	CHD1JJ3CH680	4835 122 87057
		CHIP CERAMIC CAP. 68pF/50V ±5% (CG)	CHD1JJ3CG680	4835 122 87057
●C370		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F) or	CZM1CZB0F103	4835 122 87647
		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F)	CZM1CZ30F103	
●C371		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F) or	CZM1CZB0F103	4835 122 87647
		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F)	CZM1CZ30F103	
C391		ELECTROLYTIC CAP. 100µF/10V ±20% H7	CE1AMAVSL101	4822 124 40178
C392		ELECTROLYTIC CAP. 470µF/6.3V ±20% or	CE0KMASDL471	4835 124 47239
		ELECTROLYTIC CAP. 470µF/6.3V ±20%	CE0KMASTL471	4835 124 47239
●C401		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZB0F104	4835 122 87645
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZB0F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZ30F104	
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZ30F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (FZ)	CHD1JZ3FZ104	
C404		ELECTROLYTIC CAP. 22µF/6.3V ±20% H7	CE0KMAVSL220	
C405		ELECTROLYTIC CAP. 33µF/6.3V ±20% H7	CE0KMAVSL330	4835 124 47169
●C406		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F) or	CZM1CZB0F103	4835 122 87647
		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F)	CZM1CZ30F103	
C408		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	
●C409		CHIP CERAMIC CAP.(MELF) 6800pF/16V ±10% (Y) or	CZM1CKB0Y682	
		CHIP CERAMIC CAP.(MELF) 6800pF/16V ±10% (Y)	CZM1CK30Y682	
●C410		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZB0F104	4835 122 87645
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZB0F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZ30F104	

Ref.	⚠	Description	ID No.	Part No.
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZ30F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (FZ)	CHD1JZ3FZ104	
●C411		CHIP CERAMIC CAP.(MELF) 2200pF/35V ±10% (Y) or	CZM1GKB0Y222	4835 122 87649
		CHIP CERAMIC CAP.(MELF) 2200pF/35V ±10% (Y) or	CZM1GK30Y222	
		CHIP CERAMIC CAP. 2200pF/50V ±10% (B) or	CHD1JKB0B222	
		CHIP CERAMIC CAP. 2200pF/50V ±10% (B)	CHD1JK30B222	4835 122 87207
●C413		CHIP CERAMIC CAP. 0.012µF/50V ±10% (B) or	CHD1JKB0B123	
		CHIP CERAMIC CAP. 0.012µF/50V ±10% (B)	CHD1JK30B123	
C415		ELECTROLYTIC CAP. 10µF/16V ±20% H7	CE1CMAVSL100	4835 124 47268
●C417		CHIP CERAMIC CAP.(MELF) 1000pF/35V ±10% (Y) or	CZM1GKB0Y102	4835 122 87648
		CHIP CERAMIC CAP.(MELF) 1000pF/35V ±10% (Y)	CZM1GK30Y102	
●C418		CHIP CERAMIC CAP. 2700pF/50V ±10% (B) or	CHD1JKB0B272	4835 122 87098
		CHIP CERAMIC CAP. 2700pF/50V ±10% (B)	CHD1JK30B272	4835 122 87098
●C419		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B) or	CHD1JKB0B103	4835 122 87255
		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
C421		ELECTROLYTIC CAP. 47µF/6.3V ±20% H7	CE0KMAVSL470	4835 124 47265
C422		ELECTROLYTIC CAP. 47µF/6.3V ±20% H7	CE0KMAVSL470	4835 124 47265
C423		ELECTROLYTIC CAP. 220µF/6.3V ±20% H7	CE0KMAVSL221	4835 124 47168
C424		CERAMIC CAP. 470pF/100V ±10% (B)	CCD2AKS0B471	4835 122 47691
C425		FILM CAP.(P) 0.018µF/100V ±5% or	CMA2AJS00183	4835 121 47665
		FILM CAP.(P) 0.018µF/50V ±5%	CA1J183MS029	4822 121 42701
C438		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	
C439		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	
C440		ELECTROLYTIC CAP. 0.1µF/50V ±20% H7	CE1JMAVSLR10	
C441		ELECTROLYTIC CAP. 0.1µF/50V ±20% H7	CE1JMAVSLR10	
C448		ELECTROLYTIC CAP. 4.7µF/50V ±20% H7	CE1JMAVSL4R7	4835 124 97061
C449		ELECTROLYTIC CAP. 4.7µF/50V ±20% H7	CE1JMAVSL4R7	4835 124 97061
C451		ELECTROLYTIC CAP. 47µF/16V ±20% H7	CE1CMAVSL470	
C452		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C453		ELECTROLYTIC CAP. 10µF/16V ±20% H7	CE1CMAVSL100	4835 124 47268
C454		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C455		ELECTROLYTIC CAP. 22µF/6.3V ±20% H7	CE0KMAVSL220	
C456		ELECTROLYTIC CAP. 10µF/16V ±20% H7	CE1CMAVSL100	4835 124 47268
C457		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	
●C458		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B) or	CHD1JKB0B103	4835 122 87255
		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
C459		ELECTROLYTIC CAP. 22µF/6.3V ±20% H7	CE0KMAVSL220	
●C460		CHIP CERAMIC CAP.(MELF) 4700pF/16V ±10% (Y) or	CZM1CKB0Y472	4835 122 87646
		CHIP CERAMIC CAP.(MELF) 4700pF/16V ±10% (Y)	CZM1CK30Y472	
●C461		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F) or	CZM1CZB0F103	4835 122 87647
		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F)	CZM1CZ30F103	
●C462		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B) or	CHD1JKB0B103	4835 122 87255
		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
●C463		CHIP CERAMIC CAP. 0.1µF/25V ±10% (B) or	CHD1EKB0B104	
		CHIP CERAMIC CAP. 0.1µF/16V ±10% (B) or	CHD1CKB0B104	

Ref.	⚠	Description	ID No.	Part No.
		CHIP CERAMIC CAP. 0.1µF/25V ±10% (B) or	CHD1EK30B104	
		CHIP CERAMIC CAP. 0.1µF/16V ±10% (B)	CHD1CK30B104	4835 122 87634
C465		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	
C466		ELECTROLYTIC CAP. 220µF/6.3V ±20% H7	CE0KMAVSL221	4835 124 47168
●C467		CHIP CERAMIC CAP. 0.022µF/50V ±10% (B) or	CHD1JKB0B223	4835 122 87209
		CHIP CERAMIC CAP. 0.022µF/25V ±10% (B) or	CHD1EKB0B223	4835 122 87152
		CHIP CERAMIC CAP. 0.022µF/50V ±10% (B) or	CHD1JK30B223	4835 122 87209
		CHIP CERAMIC CAP. 0.022µF/25V ±10% (B)	CHD1EK30B223	4835 122 87152
C470		CERAMIC CAP.(AX) 0.1µF/50V +80/-20% (F)	CCA1JZTFZ104	4835 122 47731
C471		ELECTROLYTIC CAP. 22µF/6.3V ±20% H7	CE0KMAVSL220	
●C472		CHIP CERAMIC CAP.(MELF) 4700pF/ 16V ±10% (Y) or	CZM1CKB0Y472	4835 122 87646
		CHIP CERAMIC CAP.(MELF) 4700pF/ 16V ±10% (Y)	CZM1CK30Y472	
●C473		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B) or	CHD1JKB0B103	4835 122 87255
		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
C474		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	
C475		ELECTROLYTIC CAP. 10µF/16V ±20% H7	CE1CMAVSL100	4835 124 47268
C476		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C477		ELECTROLYTIC CAP. 2.2µF/50V ±20% H7	CE1JMAVSL2R2	4835 124 47049
C478		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
●C479		CHIP CERAMIC CAP. 0.022µF/50V ±10% (B) or	CHD1JKB0B223	4835 122 87209
		CHIP CERAMIC CAP. 0.022µF/25V ±10% (B) or	CHD1EKB0B223	4835 122 87152
		CHIP CERAMIC CAP. 0.022µF/50V ±10% (B) or	CHD1JK30B223	4835 122 87209
		CHIP CERAMIC CAP. 0.022µF/25V ±10% (B)	CHD1EK30B223	4835 122 87152
C480		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C481		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
●C483		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZB0F104	4835 122 87645
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZB0F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZ30F104	
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZ30F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (FZ)	CHD1JZ3FZ104	
C484		ELECTROLYTIC CAP. 2.2µF/50V ±20% H7	CE1JMAVSL2R2	4835 124 47049
C485		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	
C486		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C487		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	
●C488		CHIP CERAMIC CAP. 1µF/10V +80/-20% (F) or	CHD1AZB0F105	4835 122 87639
		CHIP CERAMIC CAP. 1µF/10V +80/-20% (F)	CHD1AZ30F105	4835 122 87639
C489		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C491		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	
C492		ELECTROLYTIC CAP. 22µF/16V ±20% H7	CE1CMAVSL220	4835 124 47175
C493		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	
C494		ELECTROLYTIC CAP. 22µF/16V ±20% H7	CE1CMAVSL220	4835 124 47175
●C495		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F) or	CZM1CZB0F103	4835 122 87647
		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F)	CZM1CZ30F103	
C496		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	
C498		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	

Ref.	⚠	Description	ID No.	Part No.
C499		ELECTROLYTIC CAP. 4.7µF/25V ±20% H7	CE1EMAVSL4R7	
C502		ELECTROLYTIC CAP. 220µF/6.3V ±20% H7	CE0KMAVSL221	4835 124 47168
C505		ELECTROLYTIC CAP. 22µF/10V ±20% H7	CE1AMAVSL220	
C507		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
●C508		CHIP CERAMIC CAP. 0.022µF/50V ±10% (B) or	CHD1JKB0B223	4835 122 87209
		CHIP CERAMIC CAP. 0.022µF/25V ±10% (B) or	CHD1EKB0B223	4835 122 87152
		CHIP CERAMIC CAP. 0.022µF/50V ±10% (B) or	CHD1JK30B223	4835 122 87209
		CHIP CERAMIC CAP. 0.022µF/25V ±10% (B)	CHD1EK30B223	4835 122 87152
C509		ELECTROLYTIC CAP. 220µF/6.3V ±20% H7	CE0KMAVSL221	4835 124 47168
●C511		CHIP CERAMIC CAP. 22pF/50V ±5% (CH) or	CHD1JJBCH220	
		CHIP CERAMIC CAP. 22pF/50V ±5% (CH) or	CHD1JJ3CH220	4835 122 87049
		CHIP CERAMIC CAP. 22pF/50V ±5% (CG)	CHD1JJ3CG220	
●C512		CHIP CERAMIC CAP. 22pF/50V ±5% (CH) or	CHD1JJBCH220	
		CHIP CERAMIC CAP. 22pF/50V ±5% (CH) or	CHD1JJ3CH220	4835 122 87049
		CHIP CERAMIC CAP. 22pF/50V ±5% (CG)	CHD1JJ3CG220	
●C514		CHIP CERAMIC CAP.(MELF) 22pF/50V ±5% (SL) or	CZM1JJBSL220	4835 122 87653
		CHIP CERAMIC CAP.(MELF) 22pF/50V ±5% (SL)	CZM1JJ3SL220	
●C515		CHIP CERAMIC CAP.(MELF) 18pF/50V ±5% (SL) or	CZM1JJBSL180	
		CHIP CERAMIC CAP.(MELF) 18pF/50V ±5% (SL) or	CZM1JJ3SL180	
		CHIP CERAMIC CAP. 18pF/50V ±5% (CH) or	CHD1JJBCH180	
		CHIP CERAMIC CAP. 18pF/50V ±5% (CH) or	CHD1JJ3CH180	
		CHIP CERAMIC CAP. 18pF/50V ±5% (CG)	CHD1JJ3CG180	
C521		ELECTROLYTIC CAP. 47µF/25V ±20% H7	CE1EMAVSL470	4835 124 47084
●C522		CHIP CERAMIC CAP. 4700pF/50V ±10% (B) or	CHD1JKB0B472	4835 122 87326
		CHIP CERAMIC CAP. 4700pF/50V ±10% (B)	CHD1JK30B472	4835 122 87326
●C523		CHIP CERAMIC CAP.(MELF) 100pF/50V ±5% (SL) or	CZM1JJBSL101	
		CHIP CERAMIC CAP.(MELF) 100pF/50V ±5% (SL)	CZM1JJ3SL101	
●C525		CHIP CERAMIC CAP. 4700pF/50V ±10% (B) or	CHD1JKB0B472	4835 122 87326
		CHIP CERAMIC CAP. 4700pF/50V ±10% (B)	CHD1JK30B472	4835 122 87326
●C527		CHIP CERAMIC CAP. 0.047µF/50V ±10% (B) or	CHD1JKB0B473	4835 122 87162
		CHIP CERAMIC CAP. 0.047µF/25V ±10% (B) or	CHD1EKB0B473	4835 122 87185
		CHIP CERAMIC CAP. 0.047µF/50V ±10% (B) or	CHD1JK30B473	
		CHIP CERAMIC CAP. 0.047µF/25V ±10% (B)	CHD1EK30B473	4835 122 87185
●C529		CHIP CERAMIC CAP. 0.022µF/50V ±10% (B) or	CHD1JKB0B223	4835 122 87209
		CHIP CERAMIC CAP. 0.022µF/25V ±10% (B) or	CHD1EKB0B223	4835 122 87152
		CHIP CERAMIC CAP. 0.022µF/50V ±10% (B) or	CHD1JK30B223	4835 122 87209
		CHIP CERAMIC CAP. 0.022µF/25V ±10% (B)	CHD1EK30B223	4835 122 87152
C530		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C531		ELECTROLYTIC CAP. 10µF/16V ±20% H7	CE1CMAVSL100	4835 124 47268
C532		ELECTROLYTIC CAP. 10µF/16V ±20% H7	CE1CMAVSL100	4835 124 47268
C533		ELECTROLYTIC CAP. 47µF/6.3V ±20% H7	CE0KMAVSL470	4835 124 47265
●C534		CHIP CERAMIC CAP. 0.1µF/25V ±10% (B) or	CHD1EKB0B104	
		CHIP CERAMIC CAP. 0.1µF/16V ±10% (B) or	CHD1CKB0B104	
		CHIP CERAMIC CAP. 0.1µF/25V ±10% (B) or	CHD1EK30B104	

Ref.	⚠	Description	ID No.	Part No.
		CHIP CERAMIC CAP. 0.1µF/16V ±10% (B)	CHD1CK30B104	4835 122 87634
C535		ELECTROLYTIC CAP. 22µF/10V ±20% H7	CE1AMAVSL220	
●C536		CHIP CERAMIC CAP. 1000pF/50V ±10% (B) or	CHD1JKB0B102	4835 122 87443
		CHIP CERAMIC CAP. 1000pF/50V ±10% (B)	CHD1JK30B102	4835 122 87153
●C537		CHIP CERAMIC CAP. 1000pF/50V ±10% (B) or	CHD1JKB0B102	4835 122 87443
		CHIP CERAMIC CAP. 1000pF/50V ±10% (B)	CHD1JK30B102	4835 122 87153
●C540		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F) or	CZM1CZB0F103	4835 122 87647
		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F)	CZM1CZ30F103	
C550		ELECTROLYTIC CAP. 22µF/50V ±20% H7	CE1JMAVSL220	
●C571		CHIP CERAMIC CAP. 0.1µF/25V ±10% (B) or	CHD1EKB0B104	
		CHIP CERAMIC CAP. 0.1µF/16V ±10% (B) or	CHD1CKB0B104	
		CHIP CERAMIC CAP. 0.1µF/25V ±10% (B) or	CHD1EK30B104	
		CHIP CERAMIC CAP. 0.1µF/16V ±10% (B)	CHD1CK30B104	4835 122 87634
C572		ELECTROLYTIC CAP. 100µF/6.3V H7	CE0KMAVSL101	4835 124 47127
●C574		CHIP CERAMIC CAP. 4700pF/50V ±10% (B) or	CHD1JKB0B472	4835 122 87326
		CHIP CERAMIC CAP. 4700pF/50V ±10% (B)	CHD1JK30B472	4835 122 87326
C701		ELECTROLYTIC CAP. 0.47µF/50V ±20% or	CE1JMASDLR47	4835 124 47155
		ELECTROLYTIC CAP. 0.47µF/50V ±20%	CE1JMASTLR47	4835 124 47155
C703		ELECTROLYTIC CAP. 100µF/6.3V ±20% or	CE0KMASDL101	4835 124 47165
		ELECTROLYTIC CAP. 100µF/6.3V ±20%	CE0KMASTL101	4835 124 47263
●C704		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZB0F104	4835 122 87645
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZB0F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZ30F104	
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZ30F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (FZ)	CHD1JZ3FZ104	
C708		ELECTROLYTIC CAP. 0.22µF/50V ±20% or	CE1JMASDLR22	4835 124 47107
		ELECTROLYTIC CAP. 0.22µF/50V ±20%	CE1JMASTLR22	4835 124 47107
C709		ELECTROLYTIC CAP. 1µF/50V ±20% or	CE1JMASDL1R0	4835 124 47305
		ELECTROLYTIC CAP. 1µF/50V ±20%	CE1JMASTL1R0	4835 124 47014
●C751		CHIP CERAMIC CAP.(MELF) 2200pF/ 35V ±10% (Y) or	CZM1GKB0Y222	4835 122 87649
		CHIP CERAMIC CAP.(MELF) 2200pF/ 35V ±10% (Y) or	CZM1GK30Y222	
		CHIP CERAMIC CAP. 2200pF/50V ±10% (B) or	CHD1JKB0B222	
		CHIP CERAMIC CAP. 2200pF/50V ±10% (B)	CHD1JK30B222	4835 122 87207
●C752		CHIP CERAMIC CAP.(MELF) 2200pF/ 35V ±10% (Y) or	CZM1GKB0Y222	4835 122 87649
		CHIP CERAMIC CAP.(MELF) 2200pF/ 35V ±10% (Y) or	CZM1GK30Y222	
		CHIP CERAMIC CAP. 2200pF/50V ±10% (B) or	CHD1JKB0B222	
		CHIP CERAMIC CAP. 2200pF/50V ±10% (B)	CHD1JK30B222	4835 122 87207
C762		ELECTROLYTIC CAP. 4.7µF/50V ±20% H7	CE1JMASSL4R7	4835 124 47403
●C766		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F) or	CZM1CZB0F103	4835 122 87647
		CHIP CERAMIC CAP.(MELF) 0.01µF/16V +80/-20% (F)	CZM1CZ30F103	
C772		ELECTROLYTIC CAP. 4.7µF/50V ±20% H7	CE1JMASSL4R7	4835 124 47403
C773		ELECTROLYTIC CAP. 4.7µF/50V ±20% H7	CE1JMASSL4R7	4835 124 47403
C777		ELECTROLYTIC CAP. 4.7µF/50V ±20% H7	CE1JMASSL4R7	4836 124 47403
C1015		ELECTROLYTIC CAP. 220µF/6.3V ±20% or	CE0KMASDL221	4835 124 47168
		ELECTROLYTIC CAP. 220µF/6.3V ±20%	CE0KMASTL221	4835 124 47168
C1038		ELECTROLYTIC CAP. 470µF/6.3V ±20% or	CE0KMASDL471	4835 124 47239
		ELECTROLYTIC CAP. 470µF/6.3V ±20%	CE0KMASTL471	4835 124 47239
●C1039		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZB0F104	4835 122 87645
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZB0F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZ30F104	
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZ30F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (FZ)	CHD1JZ3FZ104	
C1040		ELECTROLYTIC CAP. 100µF/6.3V H7	CE0KMAVSL101	4835 124 47127
C1042		ELECTROLYTIC CAP. 220µF/6.3V ±20% H7	CE0KMAVSL221	4835 124 47168
●C1070		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B) or	CHD1JKB0B103	4835 122 87255
		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
●C1071		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B) or	CHD1JKB0B103	4835 122 87255
		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
C1201		ELECTROLYTIC CAP. 10µF/16V ±20% H7	CE1CMASSL100	4835 124 47268
C1202		ELECTROLYTIC CAP. 10µF/16V ±20% H7	CE1CMASSL100	4835 124 47268
●C1205		CHIP CERAMIC CAP. 220pF/50V ±5% (CH) or	CHD1JJBCH221	4835 122 87137
		CHIP CERAMIC CAP. 220pF/50V ±5% (CH) or	CHD1JJ3CH221	4835 122 87137
		CHIP CERAMIC CAP. 220pF/50V ±5% (CG)	CHD1JJ3CG221	
●C1206		CHIP CERAMIC CAP. 220pF/50V ±5% (CH) or	CHD1JJBCH221	4835 122 87137
		CHIP CERAMIC CAP. 220pF/50V ±5% (CH) or	CHD1JJ3CH221	4835 122 87137
		CHIP CERAMIC CAP. 220pF/50V ±5% (CG)	CHD1JJ3CG221	
●C1207		CHIP CERAMIC CAP. 47pF/50V ±5% (CH) or	CHD1JJBCH470	4835 122 87148
		CHIP CERAMIC CAP. 47pF/50V ±5% (CH) or	CHD1JJ3CH470	4835 122 87148
		CHIP CERAMIC CAP. 47pF/50V ±5% (CG)	CHD1JJ3CG470	4835 122 87034
●C1208		CHIP CERAMIC CAP. 47pF/50V ±5% (CH) or	CHD1JJBCH470	4835 122 87148
		CHIP CERAMIC CAP. 47pF/50V ±5% (CH) or	CHD1JJ3CH470	4835 122 87148
		CHIP CERAMIC CAP. 47pF/50V ±5% (CG)	CHD1JJ3CG470	4835 122 87034
C1221		ELECTROLYTIC CAP. 10µF/16V ±20% H7	CE1CMASSL100	4835 124 47268
C1222		ELECTROLYTIC CAP. 10µF/16V ±20% H7	CE1CMASSL100	4835 124 47268
●C1223		CHIP CERAMIC CAP. 1000pF/50V ±10% (B) or	CHD1JKB0B102	4835 122 87443
		CHIP CERAMIC CAP. 1000pF/50V ±10% (B)	CHD1JK30B102	4835 122 87153
●C1224		CHIP CERAMIC CAP. 1000pF/50V ±10% (B) or	CHD1JKB0B102	4835 122 87443
		CHIP CERAMIC CAP. 1000pF/50V ±10% (B)	CHD1JK30B102	4835 122 87153
●C1245		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZB0F104	4835 122 87645
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZB0F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZ30F104	
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZ30F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (FZ)	CHD1JZ3FZ104	
●C1246		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZB0F104	4835 122 87645
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZB0F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZ30F104	
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZ30F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (FZ)	CHD1JZ3FZ104	
C1247		ELECTROLYTIC CAP. 470µF/6.3V ±20% or	CE0KMASDL471	4835 124 47239
		ELECTROLYTIC CAP. 470µF/6.3V ±20%	CE0KMASTL471	4835 124 47239

Ref.	⚠	Description	ID No.	Part No.
C1249		ELECTROLYTIC CAP. 47µF/16V ±20% H7	CE1CMAVSL470	
●C1350		CHIP CERAMIC CAP. 0.47µF/10V ±10% (B) or	CHD1AKB0B474	
		CHIP CERAMIC CAP. 0.47µF/10V ±10% (B)	CHD1AK30B474	4835 122 87633
●C1351		CHIP CERAMIC CAP. 0.1µF/25V ±10% (B) or	CHD1EKB0B104	
		CHIP CERAMIC CAP. 0.1µF/16V ±10% (B) or	CHD1CKB0B104	
		CHIP CERAMIC CAP. 0.1µF/25V ±10% (B) or	CHD1EK30B104	
		CHIP CERAMIC CAP. 0.1µF/16V ±10% (B)	CHD1CK30B104	4835 122 87634
●C1353		CHIP CERAMIC CAP. 0.47µF/10V ±10% (B) or	CHD1AKB0B474	
		CHIP CERAMIC CAP. 0.47µF/10V ±10% (B)	CHD1AK30B474	4835 122 87633
●C1354		CHIP CERAMIC CAP. 100pF/50V ±5% (CH) or	CHD1JJBCH101	4835 122 87193
		CHIP CERAMIC CAP. 100pF/50V ±5% (CH) or	CHD1JJ3CH101	4835 122 87193
		CHIP CERAMIC CAP. 100pF/50V ±5% (CG)	CHD1JJ3CG101	
●C1355		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●C1358		CHIP CERAMIC CAP. 9pF/50V ±0.5% (CH)or	CHD1JDBCH9R0	
		CHIP CERAMIC CAP. 9pF/50V ±0.5% (CH)	CHD1JD3CH9R0	
C1394		ELECTROLYTIC CAP. 47µF/6.3V ±20% H7	CE0KMASSL470	4835 124 47154
C1395		ELECTROLYTIC CAP. 470µF/6.3V ±20% or	CE0KMASDL471	4835 124 47239
		ELECTROLYTIC CAP. 470µF/6.3V ±20%	CE0KMASTL471	4835 124 47239
C1402		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
●C1421		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B) or	CHD1JKB0B103	4835 122 87255
		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
●C1422		CHIP CERAMIC CAP. 0.1µF/25V ±10% (B) or	CHD1EKB0B104	
		CHIP CERAMIC CAP. 0.1µF/16V ±10% (B) or	CHD1CKB0B104	
		CHIP CERAMIC CAP. 0.1µF/25V ±10% (B) or	CHD1EK30B104	
		CHIP CERAMIC CAP. 0.1µF/16V ±10% (B)	CHD1CK30B104	4835 122 87634
●C1441		CHIP CERAMIC CAP. 0.33µF/10V ±10% (B) or	CHD1AKB0B334	
		CHIP CERAMIC CAP. 0.33µF/10V ±10% (B)	CHD1AK30B334	
C1442		ELECTROLYTIC CAP. 470µF/6.3V ±20% or	CE0KMASDL471	4835 124 47239
		ELECTROLYTIC CAP. 470µF/6.3V ±20%	CE0KMASTL471	4835 124 47239
C1461		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C1462		ELECTROLYTIC CAP. 470µF/6.3V ±20% or	CE0KMASDL471	4835 124 47239
		ELECTROLYTIC CAP. 470µF/6.3V ±20%	CE0KMASTL471	4835 124 47239
C1481		ELECTROLYTIC CAP. 1µF/50V ±20% H7	CE1JMAVSL1R0	4835 124 47014
C1482		ELECTROLYTIC CAP. 470µF/6.3V ±20% or	CE0KMASDL471	4835 124 47239
		ELECTROLYTIC CAP. 470µF/6.3V ±20%	CE0KMASTL471	4835 124 47239
●C1523		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZB0F104	4835 122 87645
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZB0F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZ30F104	
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZ30F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (FZ)	CHD1JZ3FZ104	
C1524		ELECTROLYTIC CAP. 100µF/6.3V H7	CE0KMAVSL101	4835 124 47127
●C1531		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B) or	CHD1JKB0B103	4835 122 87255
		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
C1532		ELECTROLYTIC CAP. 22µF/6.3V ±20% H7	CE0KMAVSL220	
●C2002		CHIP CERAMIC CAP. 1000pF/50V ±10% (B) or	CHD1JKB0B102	4835 122 87443
		CHIP CERAMIC CAP. 1000pF/50V ±10% (B)	CHD1JK30B102	4835 122 87153

Ref.	⚠	Description	ID No.	Part No.
C2004		ELECTROLYTIC CAP. 100µF/6.3V H7	CE0KMAVSL101	4835 124 47127
●C2012		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZB0F104	4835 122 87645
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZB0F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (F) or	CHD1JZ30F104	
		CHIP CERAMIC CAP. 0.1µF/25V +80/-20% (F) or	CHD1EZ30F104	4835 122 87213
		CHIP CERAMIC CAP. 0.1µF/50V +80/-20% (FZ)	CHD1JZ3FZ104	
CONNECTORS				
CN1001		FMN CONNECTOR, SIDE 22P 22FMN-STRK	JCFNG22JG004	
CN1003		CONNECTOR BASE, 15P TUC-P15P-B1	J3TUA15TG001	
CN1601		FMN CONNECTOR, TOP 16P 16FMN-BTK	JCFNG16JG001	
CN2001		FMN CONNECTOR, TOP 4P 04FMN-BTRK	JCFNG04JG002	
DIODES				
D019		RECTIFIER DIODE RL201	NDQZ000RL201	
D052		ZENER DIODE DZ-10BSBT265 or	NDTB00DZ10BS	
		ZENER DIODE MTZJT-7710B	QDTB00MTZJ10	4835 130 37956
D071		PCB JUMPER D0.6-P7.5	JW7.5T	
D080		RECTIFIER DIODE 1N4005	NDQZ001N4005	4835 130 37047
D081		RECTIFIER DIODE 1N4005	NDQZ001N4005	4835 130 37047
D100		SWITCHING DIODE 1N4148M or	NDTZ01N4148M	4835 130 37048
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133	4835 130 37235
D101		SWITCHING DIODE 1N4148M or	NDTZ01N4148M	4835 130 37048
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133	4835 130 37235
D501		SWITCHING DIODE 1N4148M or	NDTZ01N4148M	4835 130 37048
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133	4835 130 37235
D502		SWITCHING DIODE 1N4148M or	NDTZ01N4148M	4835 130 37048
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133	4835 130 37235
D510		SWITCHING DIODE 1N4148M or	NDTZ01N4148M	4835 130 37048
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133	4835 130 37235
D555		LED MIE-534A2 or	NPZZM1E534A2	
		LED SIR-563ST3F P or	QPQPS1R563ST	4835 130 87163
		LED SIR-563ST3F Q	QPQQS1R563ST	4835 130 87162
D701		ZENER DIODE DZ-33BSDT265 or	NDTD00DZ33BS	
		ZENER DIODE MTZJT-7733D	QDTD00MTZJ33	4835 130 37694
D702		ZENER DIODE DZ-6.8BSBT265 or	NDTB0DZ6R8BS	4835 130 38027
		ZENER DIODE MTZJT-776.8B	QDTB0MTZJ6R8	4835 130 37881
D1030		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
D1033		RECTIFIER DIODE 1N4005	NDQZ001N4005	4835 130 37047
D1035		RECTIFIER DIODE 1N4005	NDQZ001N4005	4835 130 37047
D1036		RECTIFIER DIODE 1N4005	NDQZ001N4005	4835 130 37047
D1037		RECTIFIER DIODE 1N4005	NDQZ001N4005	4835 130 37047
D1038		SCHOTTKY BARRIER DIODE SB140 or	NDQZ000SB140	4835 130 37894
		SCHOTTKY BARRIER DIODE ERB81-004	AERB81004***	4835 130 37233
D1040		PCB JUMPER D0.6-P7.5	JW7.5T	
D1041		PCB JUMPER D0.6-P10.0	JW10.0T	---- --- -----
D1058		RECTIFIER DIODE 1N4005	NDQZ001N4005	4835 130 37047
D1301		ZENER DIODE DZ-5.6BSBT265 or	NDTB0DZ5R6BS	4835 130 38026
		ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6	4835 130 37329
D2010		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
		LED EXCLUSIVE(A)		
D564		LED(RED) 204HD/E	NPQZ00204HDE	
D565		LED(RED) 204HD/E	NPQZ00204HDE	
D566		LED(GREEN) 204-10GD/S957	NPQZ10GDS957	
D567		LED(RED) 204HD/E	NPQZ00204HDE	
		LED EXCLUSIVE(B)		
D564		LED(RED) LTL-4211N	NPQZLTL4211N	4835 130 87155
D565		LED(RED) LTL-4211N	NPQZLTL4211N	4835 130 87155
D566		LED(GREEN) LTL-4231N	NPQZLTL4231N	4835 130 87156
D567		LED(RED) LTL-4211N	NPQZLTL4211N	4835 130 87155
ICS				
IC301		IC, VIDEO/AUDIO/SIGNAL PROCESS/ HEAD AMP LA71091M	QSZBA0RSY012	4835 209 47583
IC302		IC,SWITCHING BA7654F-E2	QSZBA0TRM051	
IC451		IC, MTS/SAP/Hi-Fi AUDIO PROCESS/Hi-Fi HEAD AMP LA72670M	QSZBA0RSY034	

Ref.	⚠	Description	ID No.	Part No.
IC501		IC, SYSTEM CONTROL MICROPRO-CESSOR 8BIT MN101D08EFD1	QSZAB0RMS006	
IC571		FIP DRIVER IC PT6313-S-TP	NSZBA0TG2006	
IC751		IC, OUTPUT SELECT TC4053BF(N) or	QSMBA0STS002	4835 209 47549
		IC, OUTPUT SELECT BU4053BCF	QSMDA0SRM010	
IC1002		IC, +1.5V REGULATOR PQ070XF01SZ	QSZBA0SSH026	
IC1004		IC, +3.3V REGULATOR PQ070XF01SZ	QSZBA0SSH026	
IC1201		IC, AMP KIA4558P or	NSZBA0SJY004	
		IC, AMP NJM4558D	QSZBA0SJR006	4835 209 47544
IC1402		IC, VIDEO DRIVER (6CH) MM1622XJBE	QSZBA0TMM085	
COILS				
L251		INDUCTOR 22µH-K-26T	LLAXKATTU220	4835 157 57641
L303		INDUCTOR 100µH-K-26T	LLAXKATTU101	4835 157 57369
L304		CHOKE COIL 47µH-K	LLBD00PKV007	4835 157 58208
L421		INDUCTOR 47µH-K-5FT	LLARKBSTU470	4835 157 57375
L422		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
L451		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
L501		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
L502		CHOKE COIL 47µH-K	LLBD00PKV007	4835 157 58208
L701		INDUCTOR 4.7µH-K-26T	LLAXKATTU4R7	4835 157 57374
L1009		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
L1010		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
L1350		INDUCTOR 100µH-K-26T	LLAXKATTU101	4835 157 57369
L1351		INDUCTOR 0.47µH-K-26T	LLAXKATTUR47	4835 157 58018
●L1401		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●L1441		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●L1442		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●L1461		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●L1481		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
L1521		INDUCTOR 47µH-K-5FT	LLARKBSTU470	4835 157 57375
L2001		INDUCTOR 100µH-K-26T	LLAXKATTU101	4835 157 57369
TRANSISTORS				
Q052		SWITCHING P-ON+5V KRC103M "NPN" or	NQSZ0KRC103M	4835 130 47909
		SWITCHING P-ON+5V BA1F4M-T	QQSZ00BA1F4M	4835 130 48204
Q055		SWITCHING P-ON+9V KTC3198(Y) "NPN" or	NQSY0KTC3198	
		SWITCHING P-ON+9V KTC3198(GR) "NPN" or	NQS40KTC3198	4835 130 47946
		SWITCHING P-ON+9V 2SC536NF-NPA-AT "NPN" or	QQSFC536NNPA	4835 130 48202
		SWITCHING P-ON+9V 2SC536NG-NPA-AT "NPN"	QQSGC536NNPA	4835 130 48203
Q056		SWITCHING P-ON+5V KTC3203(Y) "NPN" or	NQSY0KTC3203	4835 130 48126
		SWITCHING P-ON+5V 2SC2120-Y(TPE2) "NPN"	QQSY02SC2120	4835 130 48047
Q057		TIMER +5V REGULATOR KTC3199(BL) "NPN" or	NQS50KTC3199	4835 130 47914
		TIMER +5V REGULATOR 2SC2785(K) "NPN" or	QQSK02SC2785	4835 130 47722
		TIMER +5V REGULATOR 2SC1815-BL(TPE2) "NPN"	QQS202SC1815	4835 130 47358
Q301		BUFFUR KTA1266(GR) "PNP" or	NQS40KTA1266	4835 130 47422
		BUFFUR 2SA1015-GR(TPE2) "PNP"	QQS102SA1015	4835 130 47399
Q302		BUFFUR KTC3193(Y) "NPN"	NQSY0KTC3193	4835 130 48016
Q391		BUFFUR KTA1266(GR) "PNP" or	NQS40KTA1266	4835 130 47422
		BUFFUR 2SA1015-GR(TPE2) "PNP"	QQS102SA1015	4835 130 47399
Q421		SWITCHING KTA1266(GR) "PNP" or	NQS40KTA1266	4835 130 47422
		SWITCHING 2SA1015-GR(TPE2) "PNP"	QQS102SA1015	4835 130 47399
Q422		BIAS OSC KTC3203(Y) "NPN" or	NQSY0KTC3203	4835 130 48126
		BIAS OSC 2SC2120-Y(TPE2) "NPN"	QQSY02SC2120	4835 130 48047
Q423		SWITCHING PB-ON KTC3198(Y) "NPN" or	NQSY0KTC3198	
		SWITCHING PB-ON KTC3198(GR) "NPN" or	NQS40KTC3198	4835 130 47946
		SWITCHING PB-ON 2SC536NF-NPA-AT "NPN" or	QQSFC536NNPA	4835 130 48202
		SWITCHING PB-ON 2SC536NG-NPA-AT "NPN"	QQSGC536NNPA	4835 130 48203

Ref.	⚠	Description	ID No.	Part No.
Q424		SWITCHING PB-ON KTC3198(Y) "NPN" or	NQSY0KTC3198	
		SWITCHING PB-ON KTC3198(GR) "NPN" or	NQS40KTC3198	4835 130 47946
		SWITCHING PB-ON 2SC536NF-NPA-AT "NPN" or	QQSFC536NNPA	4835 130 48202
		SWITCHING PB-ON 2SC536NG-NPA-AT "NPN"	QQSGC536NNPA	4835 130 48203
Q425		SWITCHING D-REC-OFF KRA103M "PNP" or	NQSZ0KRA103M	4835 130 47907
		SWITCHING D-REC-OFF BN1F4M-T	QQSZ00BN1F4M	4835 130 48201
Q501		RESET KTC3199(BL) "NPN" or	NQS50KTC3199	4835 130 47914
		RESET 2SC2785(K) "NPN" or	QQSK02SC2785	4835 130 47722
		RESET 2SC1815-BL(TPE2) "NPN"	QQS202SC1815	4835 130 47358
Q506		TAKEUP REEL SENSOR PT204-6B-12 or	NPWZT2046B12	4835 130 48222
		TAKEUP REEL SENSOR MID-32A22	NPWZM1D32A22	4835 130 48231
Q563		LED DRIVE KTC3199(Y) "NPN" or	NQSY0KTC3199	4835 130 47914
		LED DRIVE KTC3199(GR) "NPN" or	NQS10KTC3199	4835 130 47914
		LED DRIVE 2SC2785(J) "NPN" or	QQSJ02SC2785	4835 130 47722
		LED DRIVE 2SC2785(H) "NPN" or	QQSH02SC2785	4835 130 47722
		LED DRIVE 2SC2785(F) "NPN" or	QQSF02SC2785	4835 130 47722
		LED DRIVE 2SC1815-Y(TPE2) "NPN" or	QQSY02SC1815	4835 130 47076
		LED DRIVE 2SC1815-GR(TPE2) "NPN"	QQS102SC1815	4835 130 47358
Q565		LED DRIVE KTC3199(Y) "NPN" or	NQSY0KTC3199	4835 130 47914
		LED DRIVE KTC3199(GR) "NPN" or	NQS10KTC3199	4835 130 47914
		LED DRIVE 2SC2785(J) "NPN" or	QQSJ02SC2785	4835 130 47722
		LED DRIVE 2SC2785(H) "NPN" or	QQSH02SC2785	4835 130 47722
		LED DRIVE 2SC2785(F) "NPN" or	QQSF02SC2785	4835 130 47722
		LED DRIVE 2SC1815-Y(TPE2) "NPN" or	QQSY02SC1815	4835 130 47076
		LED DRIVE 2SC1815-GR(TPE2) "NPN"	QQS102SC1815	4835 130 47358
Q566		LED DRIVE KTC3199(Y) "NPN" or	NQSY0KTC3199	4835 130 47914
		LED DRIVE KTC3199(GR) "NPN" or	NQS10KTC3199	4835 130 47914
		LED DRIVE 2SC2785(J) "NPN" or	QQSJ02SC2785	4835 130 47722
		LED DRIVE 2SC2785(H) "NPN" or	QQSH02SC2785	4835 130 47722
		LED DRIVE 2SC2785(F) "NPN" or	QQSF02SC2785	4835 130 47722
		LED DRIVE 2SC1815-Y(TPE2) "NPN" or	QQSY02SC1815	4835 130 47076
		LED DRIVE 2SC1815-GR(TPE2) "NPN"	QQS102SC1815	4835 130 47358
Q567		LED DRIVE KTC3199(Y) "NPN" or	NQSY0KTC3199	4835 130 47914
		LED DRIVE KTC3199(GR) "NPN" or	NQS10KTC3199	4835 130 47914
		LED DRIVE 2SC2785(J) "NPN" or	QQSJ02SC2785	4835 130 47722
		LED DRIVE 2SC2785(H) "NPN" or	QQSH02SC2785	4835 130 47722
		LED DRIVE 2SC2785(F) "NPN" or	QQSF02SC2785	4835 130 47722
		LED DRIVE 2SC1815-Y(TPE2) "NPN" or	QQSY02SC1815	4835 130 47076
		LED DRIVE 2SC1815-GR(TPE2) "NPN"	QQS102SC1815	4835 130 47358
Q760		SWITCHING KRC103M "NPN" or	NQSZ0KRC103M	4835 130 47909
		SWITCHING BA1F4M-T	QQSZ00BA1F4M	4835 130 48204
Q1004		SWITCHING P-ON+5V KTC3203(Y) "NPN" or	NQSY0KTC3203	4835 130 48126
		SWITCHING P-ON+5V 2SC2120Y(TPE2) "NPN"	QQSY02SC2120	4835 130 48047
Q1005		SWITCHING DVD P-ON KTC3199(Y) "NPN" or	NQSY0KTC3199	4835 130 47914
		SWITCHING DVD P-ON KTC3199(GR) "NPN" or	NQS10KTC3199	4835 130 47914
		SWITCHING DVD P-ON 2SC2785(J) "NPN" or	QQSJ02SC2785	4835 130 47722
		SWITCHING DVD P-ON 2SC2785(H) "NPN" or	QQSH02SC2785	4835 130 47722
		SWITCHING DVD P-ON 2SC2785(F) "NPN" or	QQSF02SC2785	4835 130 47722
		SWITCHING DVD P-ON 2SC1815-Y(TPE2) "NPN" or	QQSY02SC1815	4835 130 47076
		SWITCHING DVD P-ON 2SC1815-GR(TPE2) "NPN"	QQS102SC1815	4835 130 47358
Q1006		SWITCHING DVD P-ON+12V KTA1267(Y) "PNP" or	NQSY0KTA1267	4835 130 47913
		SWITCHING DVD P-ON+12V KTA1267(GR) "PNP" or	NQS10KTA1267	4835 130 47913
		SWITCHING DVD P-ON+12V 2SA1175(J) "PNP" or	QQSJ02SA1175	4835 130 47645
		SWITCHING DVD P-ON+12V 2SA1175(H) "PNP" or	QQSH02SA1175	4835 130 47645
		SWITCHING DVD P-ON+12V 2SA1175(F) "PNP"	QQSF02SA1175	4835 130 47645
Q1011		SWITCHING DVD P-ON+3.3V KTC3203(Y) "NPN" or	NQSY0KTC3203	4835 130 48126
		SWITCHING DVD P-ON+3.3V 2SC2120-Y(TPE2) "NPN"	QQSY02SC2120	4835 130 48047

Ref.	⚠	Description	ID No.	Part No.
Q1201		SWITCHING A-MUTE KTC3199(Y) "NPN" or	NQSY0KTC3199	4835 130 47914
		SWITCHING A-MUTE KTC3199(GR) "NPN" or	NQS10KTC3199	4835 130 47914
		SWITCHING A-MUTE 2SC2785(J) "NPN" or	QQSJ02SC2785	4835 130 47722
		SWITCHING A-MUTE 2SC2785(H) "NPN" or	QQSH02SC2785	4835 130 47722
		SWITCHING A-MUTE 2SC2785(F) "NPN" or	QQSF02SC2785	4835 130 47722
		SWITCHING A-MUTE 2SC1815-Y(TPE2) "NPN" or	QQSY02SC1815	4835 130 47076
		SWITCHING A-MUTE 2SC1815-GR(TPE2) "NPN"	QQS102SC1815	4835 130 47358
Q1202		SWITCHING A-MUTE KTC3199(Y) "NPN" or	NQSY0KTC3199	4835 130 47914
		SWITCHING A-MUTE KTC3199(GR) "NPN" or	NQS10KTC3199	4835 130 47914
		SWITCHING A-MUTE 2SC2785(J) "NPN" or	QQSJ02SC2785	4835 130 47722
		SWITCHING A-MUTE 2SC2785(H) "NPN" or	QQSH02SC2785	4835 130 47722
		SWITCHING A-MUTE 2SC2785(F) "NPN" or	QQSF02SC2785	4835 130 47722
		SWITCHING A-MUTE 2SC1815-Y(TPE2) "NPN" or	QQSY02SC1815	4835 130 47076
		SWITCHING A-MUTE 2SC1815-GR(TPE2) "NPN"	QQS102SC1815	4835 130 47358
Q1203		SWITCHING A-MUTE KTA1266(GR) "PNP" or	NQS40KTA1266	4835 130 47422
		SWITCHING A-MUTE 2SA1015-GR(TPE2) "PNP"	QQS102SA1015	4835 130 47399
Q1204		SWITCHING A-MUTE KTA1266(GR) "PNP" or	NQS40KTA1266	4835 130 47422
		SWITCHING A-MUTE 2SA1015-GR(TPE2) "PNP"	QQS102SA1015	4835 130 47399
Q1351		AMP KTC3199(Y) "NPN" or	NQSY0KTC3199	4835 130 47914
		AMP KTC3199(GR) "NPN" or	NQS10KTC3199	4835 130 47914
		AMP 2SC2785(J) "NPN" or	QQSJ02SC2785	4835 130 47722
		AMP 2SC2785(H) "NPN" or	QQSH02SC2785	4835 130 47722
		AMP 2SC2785(F) "NPN" or	QQSF02SC2785	4835 130 47722
		AMP 2SC1815-Y(TPE2) "NPN" or	QQSY02SC1815	4835 130 47076
		AMP 2SC1815-GR(TPE2) "NPN"	QQS102SC1815	4835 130 47358
Q1385		+5V REGULATOR KTC3199(Y) "NPN" or	NQSY0KTC3199	4835 130 47914
		+5V REGULATOR KTC3199(GR) "NPN" or	NQS10KTC3199	4835 130 47914
		+5V REGULATOR 2SC2785(J) "NPN" or	QQSJ02SC2785	4835 130 47722
		+5V REGULATOR 2SC2785(H) "NPN" or	QQSH02SC2785	4835 130 47722
		+5V REGULATOR 2SC2785(F) "NPN" or	QQSF02SC2785	4835 130 47722
		+5V REGULATOR 2SC1815-Y(TPE2) "NPN" or	QQSY02SC1815	4835 130 47076
		+5V REGULATOR 2SC1815-GR(TPE2) "NPN"	QQS102SC1815	4835 130 47358
Q2001		INVERTER KRC103M "NPN" or	NQSZ0KRC103M	4835 130 47909
		INVERTER BA1F4M-T	QQSZ00BA1F4M	4835 130 48204
RESISTORS				
R056		CARBON RES. 1/4W 1k Ω ±5%	RCX4JATZ0102	4835 110 57025
R057		CARBON RES. 1/6W 150 Ω ±5% or	RCX6JATZ0151	4835 111 37167
		CARBON RES. 1/4W 150 Ω ±5%	RCX4JATZ0151	4835 110 57031
●R058		CHIP RES.(1608) 1/10W 180 Ω ±5% or	RRXAJB5Z0181	4835 111 17509
		CHIP RES.(1608) 1/10W 180 Ω ±5%	RRXAJR5Z0181	4835 111 17509
R060		CARBON RES. 1/4W 470 Ω ±5%	RCX4JATZ0471	4835 110 57167
R061		CARBON RES. 1/6W 1.2k Ω ±5% or	RCX6JATZ0122	4835 110 57126
		CARBON RES. 1/4W 1.2k Ω ±5%	RCX4JATZ0122	4835 110 57027
R062		CARBON RES. 1/6W 5.6k Ω ±5% or	RCX6JATZ0562	4835 111 37199
		CARBON RES. 1/4W 5.6k Ω ±5%	RCX4JATZ0562	4835 110 57304
R063		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
R073		CARBON RES. 1/4W 10k Ω ±5%	RCX4JATZ0103	4835 110 57026
R075		CARBON RES. 1/6W 4.7k Ω ±5% or	RCX6JATZ0472	4835 111 37194
		CARBON RES. 1/4W 4.7k Ω ±5%	RCX4JATZ0472	4836 110 57051
R087		CARBON RES. 1/6W 8.2k Ω ±5% or	RCX6JATZ0822	4835 111 37209
		CARBON RES. 1/4W 8.2k Ω ±5%	RCX4JATZ0822	4835 110 57264
R088		CARBON RES. 1/4W 10k Ω ±5%	RCX4JATZ0103	4835 110 57026
R090		CARBON RES. 1/4W 270 Ω ±5%	RCX4JATZ0271	4835 110 57041
R091		CARBON RES. 1/4W 270 Ω ±5%	RCX4JATZ0271	4835 110 57041
●R253		CHIP RES.(1608) 1/10W 47k Ω ±5% or	RRXAJB5Z0473	4835 111 17408
		CHIP RES.(1608) 1/10W 47k Ω ±5%	RRXAJR5Z0473	4835 111 37427

Ref.	⚠	Description	ID No.	Part No.
●R254		CHIP RES.(1608) 1/10W 2.7k Ω ±5% or	RRXAJB5Z0272	4835 111 17255
		CHIP RES.(1608) 1/10W 2.7k Ω ±5%	RRXAJR5Z0272	4835 111 37243
●R303		CHIP RES.(1608) 1/10W 47k Ω ±5% or	RRXAJB5Z0473	4835 111 17408
		CHIP RES.(1608) 1/10W 47k Ω ±5%	RRXAJR5Z0473	4835 111 37427
●R304		CHIP RES.(1608) 1/10W 47k Ω ±5% or	RRXAJB5Z0473	4835 111 17408
		CHIP RES.(1608) 1/10W 47k Ω ±5%	RRXAJR5Z0473	4835 111 37427
●R305		CHIP RES.(1608) 1/10W 47k Ω ±5% or	RRXAJB5Z0473	4835 111 17408
		CHIP RES.(1608) 1/10W 47k Ω ±5%	RRXAJR5Z0473	4835 111 37427
●R306		CHIP RES.(1608) 1/10W 18k Ω ±5% or	RRXAJB5Z0183	4835 111 17396
		CHIP RES.(1608) 1/10W 18k Ω ±5%	RRXAJR5Z0183	4835 111 37232
●R309		CHIP RES.(1608) 1/10W 15k Ω ±5% or	RRXAJB5Z0153	4835 111 17153
		CHIP RES.(1608) 1/10W 15k Ω ±5%	RRXAJR5Z0153	4835 111 37458
●R311		CHIP RES.(1608) 1/10W 4.7k Ω ±5% or	RRXAJB5Z0472	4835 111 17166
		CHIP RES.(1608) 1/10W 4.7k Ω ±5%	RRXAJR5Z0472	4835 111 37426
●R312		CHIP RES.(1608) 1/10W 1.2k Ω ±5% or	RRXAJB5Z0122	4835 111 17394
		CHIP RES.(1608) 1/10W 1.2k Ω ±5%	RRXAJR5Z0122	4835 111 37222
●R313		CHIP RES.(1608) 1/10W 100k Ω ±5% or	RRXAJB5Z0104	4835 111 17147
		CHIP RES.(1608) 1/10W 100k Ω ±5%	RRXAJR5Z0104	4835 111 37434
●R322		CHIP RES.(1608) 1/10W 5.6M Ω ±5% or	RRXAJB5Z0565	4835 111 17644
		CHIP RES.(1608) 1/10W 5.6M Ω ±5%	RRXAJR5Z0565	
●R323		CHIP RES.(1608) 1/10W 100k Ω ±5% or	RRXAJB5Z0104	4835 111 17147
		CHIP RES.(1608) 1/10W 100k Ω ±5%	RRXAJR5Z0104	4835 111 37434
●R324		CHIP RES.(1608) 1/10W 82k Ω ±5% or	RRXAJB5Z0823	4835 111 17173
		CHIP RES.(1608) 1/10W 82k Ω ±5%	RRXAJR5Z0823	
●R326		CHIP RES.(1608) 1/10W 2.2k Ω ±5% or	RRXAJB5Z0222	4835 111 17156
		CHIP RES.(1608) 1/10W 2.2k Ω ±5%	RRXAJR5Z0222	4835 111 37234
●R327		CHIP RES.(1608) 1/10W 4.7k Ω ±5% or	RRXAJB5Z0472	4835 111 17166
		CHIP RES.(1608) 1/10W 4.7k Ω ±5%	RRXAJR5Z0472	4835 111 37426
●R328		CHIP RES.(1608) 1/10W 680k Ω ±5% or	RRXAJB5Z0684	4835 111 17414
		CHIP RES.(1608) 1/10W 680k Ω ±5%	RRXAJR5Z0684	
●R329		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R331		CHIP RES.(1608) 1/10W 2.2k Ω ±5% or	RRXAJB5Z0222	4835 111 17156
		CHIP RES.(1608) 1/10W 2.2k Ω ±5%	RRXAJR5Z0222	4835 111 37234
●R332		CHIP RES.(1608) 1/10W 8.2k Ω ±5% or	RRXAJB5Z0822	4835 111 17416
		CHIP RES.(1608) 1/10W 8.2k Ω ±5%	RRXAJR5Z0822	4835 111 37448
●R341		CHIP RES.(1608) 1/10W 4.7k Ω ±5% or	RRXAJB5Z0472	4835 111 17166
		CHIP RES.(1608) 1/10W 4.7k Ω ±5%	RRXAJR5Z0472	4835 111 37426
●R342		CHIP RES.(1608) 1/10W 4.7k Ω ±5% or	RRXAJB5Z0472	4835 111 17166
		CHIP RES.(1608) 1/10W 4.7k Ω ±5%	RRXAJR5Z0472	4835 111 37426
●R343		CHIP RES.(1608) 1/10W 1.8k Ω ±5% or	RRXAJB5Z0182	4835 111 17154
		CHIP RES.(1608) 1/10W 1.8k Ω ±5%	RRXAJR5Z0182	4835 111 37231
R357		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
●R370		CHIP RES.(1608) 1/10W 150 Ω ±5% or	RRXAJB5Z0151	4835 111 17151
		CHIP RES.(1608) 1/10W 150 Ω ±5%	RRXAJR5Z0151	4835 111 37334
●R371		CHIP RES.(1608) 1/10W 150 Ω ±5% or	RRXAJB5Z0151	4835 111 17151
		CHIP RES.(1608) 1/10W 150 Ω ±5%	RRXAJR5Z0151	4835 111 37334
R391		CARBON RES. 1/4W 560 Ω ±5%	RCX4JATZ0561	4835 110 57052
R392		CARBON RES. 1/4W 560 Ω ±5%	RCX4JATZ0561	4835 110 57052
R395		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
●R397		CHIP RES.(1608) 1/10W 220 Ω ±5% or	RRXAJB5Z0221	4835 111 17397
		CHIP RES.(1608) 1/10W 220 Ω ±5%	RRXAJR5Z0221	4835 111 37371
●R401		CHIP RES.(1608) 1/10W 6.8k Ω ±5% or	RRXAJB5Z0682	4835 111 17413
		CHIP RES.(1608) 1/10W 6.8k Ω ±5%	RRXAJR5Z0682	4835 111 37272
●R402		CHIP RES.(1608) 1/10W 8.2k Ω ±5% or	RRXAJB5Z0822	4835 111 17416
		CHIP RES.(1608) 1/10W 8.2k Ω ±5%	RRXAJR5Z0822	4835 111 37448
●R407		CHIP RES.(1608) 1/10W 2.2M Ω ±5% or	RRXAJB5Z0225	4835 111 17514
		CHIP RES.(1608) 1/10W 2.2M Ω ±5%	RRXAJR5Z0225	4835 111 17514
●R408		CHIP RES.(1608) 1/10W 6.8k Ω ±5% or	RRXAJB5Z0682	4835 111 17413
		CHIP RES.(1608) 1/10W 6.8k Ω ±5%	RRXAJR5Z0682	4835 111 37272
●R409		CHIP RES.(1608) 1/10W 3.3k Ω ±5% or	RRXAJB5Z0332	4835 111 17162
		CHIP RES.(1608) 1/10W 3.3k Ω ±5%	RRXAJR5Z0332	4835 111 17162
●R410		CHIP RES.(1608) 1/10W 6.8k Ω ±5% or	RRXAJB5Z0682	4835 111 17413
		CHIP RES.(1608) 1/10W 6.8k Ω ±5%	RRXAJR5Z0682	4835 111 37272
●R411		CHIP RES.(1608) 1/10W 1.8k Ω ±5% or	RRXAJB5Z0182	4835 111 17154
		CHIP RES.(1608) 1/10W 1.8k Ω ±5%	RRXAJR5Z0182	4835 111 37231
●R412		CHIP RES.(1608) 1/10W 2.2k Ω ±5% or	RRXAJB5Z0222	4835 111 17156
		CHIP RES.(1608) 1/10W 2.2k Ω ±5%	RRXAJR5Z0222	4835 111 37234
●R413		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027

Ref.	⚠	Description	ID No.	Part No.
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R414		CHIP RES.(1608) 1/10W 8.2k Ω ±5% or	RRXAJB5Z0822	4835 111 17416
		CHIP RES.(1608) 1/10W 8.2k Ω ±5%	RRXAJR5Z0822	4835 111 37448
●R415		CHIP RES.(1608) 1/10W 12k Ω ±5% or	RRXAJB5Z0123	4835 111 17148
		CHIP RES.(1608) 1/10W 12k Ω ±5%	RRXAJR5Z0123	
●R416		CHIP RES.(1608) 1/10W 330k Ω ±5% or	RRXAJB5Z0334	4835 111 17404
		CHIP RES.(1608) 1/10W 330k Ω ±5%	RRXAJR5Z0334	
●R417		CHIP RES.(1608) 1/10W 150 Ω ±5% or	RRXAJB5Z0151	4835 111 17151
		CHIP RES.(1608) 1/10W 150 Ω ±5%	RRXAJR5Z0151	4835 111 37334
●R418		CHIP RES.(1608) 1/10W 18k Ω ±5% or	RRXAJB5Z0183	4835 111 17396
		CHIP RES.(1608) 1/10W 18k Ω ±5%	RRXAJR5Z0183	4835 111 37232
●R419		CHIP RES.(1608) 1/10W 910 Ω ±5% or	RRXAJB5Z0911	
		CHIP RES.(1608) 1/10W 910 Ω ±5%	RRXAJR5Z0911	
●R421		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
●R422		CHIP RES.(1608) 1/10W 22k Ω ±5% or	RRXAJB5Z0223	4835 111 17287
		CHIP RES.(1608) 1/10W 22k Ω ±5%	RRXAJR5Z0223	4835 111 37441
R424		CARBON RES. 1/6W 47k Ω ±5% or	RCX6JATZ0473	4835 110 57189
		CARBON RES. 1/4W 47k Ω ±5%	RCX4JATZ0473	4835 110 57189
R425		CARBON RES. 1/6W 100 Ω ±5% or	RCX6JATZ0101	4835 111 37161
		CARBON RES. 1/4W 100 Ω ±5%	RCX4JATZ0101	4836 110 57003
R426		CARBON RES. 1/6W 820 Ω ±5% or	RCX6JATZ0821	4835 110 57059
		CARBON RES. 1/4W 820 Ω ±5%	RCX4JATZ0821	4835 110 57059
●R428		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R429		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R430		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R431		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R451		CHIP RES.(1608) 1/10W 12k Ω ±5% or	RRXAJB5Z0123	4835 111 17148
		CHIP RES.(1608) 1/10W 12k Ω ±5%	RRXAJR5Z0123	
●R452		CHIP RES.(1608) 1/10W 4.7k Ω ±5% or	RRXAJB5Z0472	4835 111 17166
		CHIP RES.(1608) 1/10W 4.7k Ω ±5%	RRXAJR5Z0472	4835 111 37426
●R453		CHIP RES.(1608) 1/10W 47k Ω ±5% or	RRXAJB5Z0473	4835 111 17408
		CHIP RES.(1608) 1/10W 47k Ω ±5%	RRXAJR5Z0473	4835 111 37427
●R454		CHIP RES.(1608) 1/10W 8.2k Ω ±5% or	RRXAJB5Z0822	4835 111 17416
		CHIP RES.(1608) 1/10W 8.2k Ω ±5%	RRXAJR5Z0822	4835 111 37448
●R455		CHIP RES.(1608) 1/10W 47k Ω ±5% or	RRXAJB5Z0473	4835 111 17408
		CHIP RES.(1608) 1/10W 47k Ω ±5%	RRXAJR5Z0473	4835 111 37427
●R456		CHIP RES.(1608) 1/10W 8.2k Ω ±5% or	RRXAJB5Z0822	4835 111 17416
		CHIP RES.(1608) 1/10W 8.2k Ω ±5%	RRXAJR5Z0822	4835 111 37448
●R457		CHIP RES.(1608) 1/10W 470 Ω ±5% or	RRXAJB5Z0471	4835 111 17263
		CHIP RES.(1608) 1/10W 470 Ω ±5%	RRXAJR5Z0471	4835 111 37259
●R458		CHIP RES.(1608) 1/10W 2.7k Ω ±5% or	RRXAJB5Z0272	4835 111 17255
		CHIP RES.(1608) 1/10W 2.7k Ω ±5%	RRXAJR5Z0272	4835 111 37243
●R459		CHIP RES.(1608) 1/10W 22k Ω ±5% or	RRXAJB5Z0223	4835 111 17287
		CHIP RES.(1608) 1/10W 22k Ω ±5%	RRXAJR5Z0223	4835 111 37441
●R462		CHIP RES.(1608) 1/10W 4.7k Ω ±5% or	RRXAJB5Z0472	4835 111 17166
		CHIP RES.(1608) 1/10W 4.7k Ω ±5%	RRXAJR5Z0472	4835 111 37426
●R463		CHIP RES.(1608) 1/10W 47k Ω ±5% or	RRXAJB5Z0473	4835 111 17408
		CHIP RES.(1608) 1/10W 47k Ω ±5%	RRXAJR5Z0473	4835 111 37427
●R464		CHIP RES.(1608) 1/10W 8.2k Ω ±5% or	RRXAJB5Z0822	4835 111 17416
		CHIP RES.(1608) 1/10W 8.2k Ω ±5%	RRXAJR5Z0822	4835 111 37448
●R465		CHIP RES.(1608) 1/10W 47k Ω ±5% or	RRXAJB5Z0473	4835 111 17408
		CHIP RES.(1608) 1/10W 47k Ω ±5%	RRXAJR5Z0473	4835 111 37427
●R466		CHIP RES.(1608) 1/10W 8.2k Ω ±5% or	RRXAJB5Z0822	4835 111 17416
		CHIP RES.(1608) 1/10W 8.2k Ω ±5%	RRXAJR5Z0822	4835 111 37448
●R467		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R468		CHIP RES.(1608) 1/10W 470 Ω ±5% or	RRXAJB5Z0471	4835 111 17263
		CHIP RES.(1608) 1/10W 470 Ω ±5%	RRXAJR5Z0471	4835 111 37259
●R469		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
●R470		CHIP RES.(1608) 1/10W 470 Ω ±5% or	RRXAJB5Z0471	4835 111 17263
		CHIP RES.(1608) 1/10W 470 Ω ±5%	RRXAJR5Z0471	4835 111 37259
●R471		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068

Ref.	⚠	Description	ID No.	Part No.
●R472		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R480		CHIP RES.(1608) 1/10W 47k Ω ±5% or	RRXAJB5Z0473	4835 111 17408
		CHIP RES.(1608) 1/10W 47k Ω ±5%	RRXAJR5Z0473	4835 111 37427
●R481		CHIP RES.(1608) 1/10W 5.6k Ω ±5% or	RRXAJB5Z0562	4835 111 17168
		CHIP RES.(1608) 1/10W 5.6k Ω ±5%	RRXAJR5Z0562	4835 111 37376
●R482		CHIP RES.(1608) 1/10W 47k Ω ±5% or	RRXAJB5Z0473	4835 111 17408
		CHIP RES.(1608) 1/10W 47k Ω ±5%	RRXAJR5Z0473	4835 111 37427
●R483		CHIP RES.(1608) 1/10W 5.6k Ω ±5% or	RRXAJB5Z0562	4835 111 17168
		CHIP RES.(1608) 1/10W 5.6k Ω ±5%	RRXAJR5Z0562	4835 111 37376
●R484		CHIP RES.(1608) 1/10W 47k Ω ±5% or	RRXAJB5Z0473	4835 111 17408
		CHIP RES.(1608) 1/10W 47k Ω ±5%	RRXAJR5Z0473	4835 111 37427
●R485		CHIP RES.(1608) 1/10W 15k Ω ±5% or	RRXAJB5Z0153	4835 111 17153
		CHIP RES.(1608) 1/10W 15k Ω ±5%	RRXAJR5Z0153	4835 111 37458
●R486		CHIP RES.(1608) 1/10W 47k Ω ±5% or	RRXAJB5Z0473	4835 111 17408
		CHIP RES.(1608) 1/10W 47k Ω ±5%	RRXAJR5Z0473	4835 111 37427
●R487		CHIP RES.(1608) 1/10W 15k Ω ±5% or	RRXAJB5Z0153	4835 111 17153
		CHIP RES.(1608) 1/10W 15k Ω ±5%	RRXAJR5Z0153	4835 111 37458
●R502		CHIP RES.(1608) 1/10W 2.2k Ω ±5% or	RRXAJB5Z0222	4835 111 17156
		CHIP RES.(1608) 1/10W 2.2k Ω ±5%	RRXAJR5Z0222	4835 111 37234
●R503		CHIP RES.(1608) 1/10W 820 Ω ±5% or	RRXAJB5Z0821	4835 111 17415
		CHIP RES.(1608) 1/10W 820 Ω ±5%	RRXAJR5Z0821	4835 111 37466
●R504		CHIP RES.(1608) 1/10W 100k Ω ±5% or	RRXAJB5Z0104	4835 111 17147
		CHIP RES.(1608) 1/10W 100k Ω ±5%	RRXAJR5Z0104	4835 111 37434
●R507		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R508		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R511		CHIP RES.(1608) 1/10W 39k Ω ±5% or	RRXAJB5Z0393	4835 111 37255
		CHIP RES.(1608) 1/10W 39k Ω ±5%	RRXAJR5Z0393	4835 111 37255
●R517		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R518		CHIP RES.(1608) 1/10W 220k Ω ±5% or	RRXAJB5Z0224	4835 111 17398
		CHIP RES.(1608) 1/10W 220k Ω ±5%	RRXAJR5Z0224	4835 111 37235
●R521		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
●R523		CHIP RES.(1608) 1/10W 2.2k Ω ±5% or	RRXAJB5Z0222	4835 111 17156
		CHIP RES.(1608) 1/10W 2.2k Ω ±5%	RRXAJR5Z0222	4835 111 37234
●R524		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
R525		CARBON RES. 1/4W 10k Ω ±5%	RCX4JATZ0103	4835 110 57026
●R526		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
●R527		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
R528		CARBON RES. 1/4W 10k Ω ±5%	RCX4JATZ0103	4835 110 57026
●R529		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
●R530		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
R531		CARBON RES. 1/6W 4.7k Ω ±2% or	RCX6GATZ0472	4835 111 37194
		CARBON RES. 1/4W 4.7k Ω ±2%	RCX4GATZ0472	4835 110 57278
R532		CARBON RES. 1/6W 1.5k Ω ±2% or	RCX6GATZ0152	4835 111 37306
		CARBON RES. 1/4W 1.5k Ω ±2%	RCX4GATZ0152	4835 110 57186
R533		CARBON RES. 1/6W 22k Ω ±2% or	RCX6GATZ0223	4835 111 37177
		CARBON RES. 1/4W 22k Ω ±2%	RCX4GATZ0223	4835 110 57283
R534		CARBON RES. 1/6W 470 Ω ±2% or	RCX6GATZ0471	4835 110 57167
		CARBON RES. 1/4W 470 Ω ±2%	RCX4GATZ0471	4835 110 57167
R535		CARBON RES. 1/6W 10k Ω ±2% or	RCX6GATZ0103	4835 111 37163
		CARBON RES. 1/4W 10k Ω ±2%	RCX4GATZ0103	4835 110 57214
R536		CARBON RES. 1/6W 3.6k Ω ±2% or	RCX6GATZ0362	4835 110 57373
		CARBON RES. 1/4W 3.6k Ω ±2%	RCX4GATZ0362	4835 110 57373
●R537		CHIP RES.(1608) 1/10W 33k Ω ±5% or	RRXAJB5Z0333	4835 111 17403
		CHIP RES.(1608) 1/10W 33k Ω ±5%	RRXAJR5Z0333	4835 111 37248
●R540		CHIP RES.(1608) 1/10W 390k Ω ±5% or	RRXAJB5Z0394	4835 111 17406
		CHIP RES.(1608) 1/10W 390k Ω ±5%	RRXAJR5Z0394	4835 111 37256
●R541		CHIP RES.(1608) 1/10W 390k Ω ±5% or	RRXAJB5Z0394	4835 111 17406
		CHIP RES.(1608) 1/10W 390k Ω ±5%	RRXAJR5Z0394	4835 111 37256
R542		CARBON RES. 1/4W 270 Ω ±5%	RCX4JATZ0271	4835 110 57041

Ref.	⚠	Description	ID No.	Part No.
●R543		CHIP RES.(1608) 1/10W 4.7k Ω ±5% or	RRXAJB5Z0472	4835 111 17166
		CHIP RES.(1608) 1/10W 4.7k Ω ±5%	RRXAJR5Z0472	4835 111 37426
●R544		CHIP RES.(1608) 1/10W 18k Ω ±5% or	RRXAJB5Z0183	4835 111 17396
		CHIP RES.(1608) 1/10W 18k Ω ±5%	RRXAJR5Z0183	4835 111 37232
●R545		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R546		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R551		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
R561		CARBON RES. 1/6W 820 Ω ±5% or	RCX6JATZ0821	4835 110 57059
		CARBON RES. 1/4W 820 Ω ±5%	RCX4JATZ0821	4835 110 57059
R566		CARBON RES. 1/6W 220 Ω ±5% or	RCX6JATZ0221	4835 111 37175
		CARBON RES. 1/4W 220 Ω ±5%	RCX4JATZ0221	4835 110 57037
R567		CARBON RES. 1/6W 3.9k Ω ±5% or	RCX6JATZ0392	4835 111 37188
		CARBON RES. 1/4W 3.9k Ω ±5%	RCX4JATZ0392	4835 110 57049
R568		CARBON RES. 1/6W 220 Ω ±5% or	RCX6JATZ0221	4835 111 37175
		CARBON RES. 1/4W 220 Ω ±5%	RCX4JATZ0221	4835 110 57037
R570		CARBON RES. 1/6W 3.9k Ω ±5% or	RCX6JATZ0392	4835 111 37188
		CARBON RES. 1/4W 3.9k Ω ±5%	RCX4JATZ0392	4835 110 57049
R571		CARBON RES. 1/6W 10 Ω ±5% or	RCX6JATZ0100	4835 111 37159
		CARBON RES. 1/4W 10 Ω ±5%	RCX4JATZ0100	4836 110 57002
●R572		CHIP RES.(1608) 1/10W 100k Ω ±5% or	RRXAJB5Z0104	4835 111 17147
		CHIP RES.(1608) 1/10W 100k Ω ±5%	RRXAJR5Z0104	4835 111 37434
R573		CARBON RES. 1/6W 150 Ω ±5% or	RCX6JATZ0151	4835 111 37167
		CARBON RES. 1/4W 150 Ω ±5%	RCX4JATZ0151	4835 110 57031
R574		CARBON RES. 1/6W 330 Ω ±5% or	RCX6JATZ0331	4835 111 37184
		CARBON RES. 1/4W 330 Ω ±5%	RCX4JATZ0331	4835 110 57045
R575		CARBON RES. 1/6W 3.9k Ω ±5% or	RCX6JATZ0392	4835 111 37188
		CARBON RES. 1/4W 3.9k Ω ±5%	RCX4JATZ0392	4835 110 57049
R576		CARBON RES. 1/6W 3.9k Ω ±5% or	RCX6JATZ0392	4835 111 37188
		CARBON RES. 1/4W 3.9k Ω ±5%	RCX4JATZ0392	4835 110 57049
●R583		CHIP RES.(1608) 1/10W 4.7k Ω ±5% or	RRXAJB5Z0472	4835 111 17166
		CHIP RES.(1608) 1/10W 4.7k Ω ±5%	RRXAJR5Z0472	4835 111 37426
●R590		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
●R593		CHIP RES.(1608) 1/10W 1.8k Ω ±5% or	RRXAJB5Z0182	4835 111 17154
		CHIP RES.(1608) 1/10W 1.8k Ω ±5%	RRXAJR5Z0182	4835 111 37231
●R594		CHIP RES.(1608) 1/10W 1.8k Ω ±5% or	RRXAJB5Z0182	4835 111 17154
		CHIP RES.(1608) 1/10W 1.8k Ω ±5%	RRXAJR5Z0182	4835 111 37231
●R600		CHIP RES.(1608) 1/10W 5.1k Ω ±5% or	RRXAJB5Z0512	
		CHIP RES.(1608) 1/10W 5.1k Ω ±5%	RRXAJR5Z0512	4835 111 37264
●R602		CHIP RES.(1608) 1/10W 5.1k Ω ±5% or	RRXAJB5Z0512	
		CHIP RES.(1608) 1/10W 5.1k Ω ±5%	RRXAJR5Z0512	4835 111 37264
●R603		CHIP RES.(1608) 1/10W 8.2k Ω ±5% or	RRXAJB5Z0822	4835 111 17416
		CHIP RES.(1608) 1/10W 8.2k Ω ±5%	RRXAJR5Z0822	4835 111 37448
●R605		CHIP RES.(1608) 1/10W 8.2k Ω ±5% or	RRXAJB5Z0822	4835 111 17416
		CHIP RES.(1608) 1/10W 8.2k Ω ±5%	RRXAJR5Z0822	4835 111 37448
●R610		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R611		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R614		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
R616		CARBON RES. 1/4W 10k Ω ±5%	RCX4JATZ0103	4835 110 57026
R618		CARBON RES. 1/4W 10k Ω ±5%	RCX4JATZ0103	4835 110 57026
●R619		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R626		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R640		CHIP RES.(1608) 1/10W 3.9k Ω ±5% or	RRXAJB5Z0392	4835 111 17129
		CHIP RES.(1608) 1/10W 3.9k Ω ±5%	RRXAJR5Z0392	4835 111 37254
●R701		CHIP RES.(1608) 1/10W 330 Ω ±5% or	RRXAJB5Z0331	4835 111 17402
		CHIP RES.(1608) 1/10W 330 Ω ±5%	RRXAJR5Z0331	4835 111 37443
R702		CARBON RES. 1/4W 1.8k Ω ±5%	RCX4JATZ0182	4835 110 57033
●R704		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
●R705		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068

Ref.	⚠	Description	ID No.	Part No.
●R706		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R751		CHIP RES.(1608) 1/10W 75 Ω ±5% or	RRXAJB5Z0750	4835 111 17131
		CHIP RES.(1608) 1/10W 75 Ω ±5%	RRXAJR5Z0750	4835 111 17131
●R752		CHIP RES.(1608) 1/10W 75 Ω ±5% or	RRXAJB5Z0750	4835 111 17131
		CHIP RES.(1608) 1/10W 75 Ω ±5%	RRXAJR5Z0750	4835 111 17131
●R753		CHIP RES.(1608) 1/10W 75 Ω ±5% or	RRXAJB5Z0750	4835 111 17131
		CHIP RES.(1608) 1/10W 75 Ω ±5%	RRXAJR5Z0750	4835 111 17131
R777		CARBON RES. 1/6W 27k Ω ±5% or	RCX6JATZ0273	4835 111 37182
		CARBON RES. 1/4W 27k Ω ±5%	RCX4JATZ0273	4835 111 37182
R778		CARBON RES. 1/4W 10k Ω ±5%	RCX4JATZ0103	4835 110 57026
R779		CARBON RES. 1/6W 330 Ω ±5% or	RCX6JATZ0331	4835 111 37184
		CARBON RES. 1/4W 330 Ω ±5%	RCX4JATZ0331	4835 110 57045
R780		CARBON RES. 1/6W 47k Ω ±5% or	RCX6JATZ0473	4835 110 57189
		CARBON RES. 1/4W 47k Ω ±5%	RCX4JATZ0473	4835 110 57189
R1002		CARBON RES. 1/4W 180 Ω ±5%	RCX4JATZ0181	4835 110 57219
R1013		CARBON RES. 1/4W 1k Ω ±5%	RCX4JATZ0102	4835 110 57025
R1025		CARBON RES. 1/4W 10k Ω ±5%	RCX4JATZ0103	4835 110 57026
R1040		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
R1042		CARBON RES. 1/6W 5.6 Ω ±5% or	RCX6JATZ05R6	4835 110 57246
		CARBON RES. 1/4W 5.6 Ω ±5%	RCX4JATZ05R6	4835 110 57246
●R1044		CHIP RES.(1608) 1/10W 220k Ω ±5% or	RRXAJB5Z0224	4835 111 17398
		CHIP RES.(1608) 1/10W 220k Ω ±5%	RRXAJR5Z0224	4835 111 37235
●R1059		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
R1068		CARBON RES. 1/4W 1k Ω ±5%	RCX4JATZ0102	4835 110 57025
●R1076		CHIP RES.(1608) 1/10W 22k Ω ±5% or	RRXAJB5Z0223	4835 111 17287
		CHIP RES.(1608) 1/10W 22k Ω ±5%	RRXAJR5Z0223	4835 111 37441
R1077		CARBON RES. 1/4W 1.8k Ω ±5%	RCX4JATZ0182	4835 110 57033
R1078		CARBON RES. 1/4W 180 Ω ±5%	RCX4JATZ0181	4835 110 57219
●R1080		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R1085		CHIP RES.(1608) 1/10W 3.9k Ω ±5% or	RRXAJB5Z0392	4835 111 17129
		CHIP RES.(1608) 1/10W 3.9k Ω ±5%	RRXAJR5Z0392	4835 111 37254
●R1086		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R1090		CHIP RES.(1608) 1/10W 3.9k Ω ±5% or	RRXAJB5Z0392	4835 111 17129
		CHIP RES.(1608) 1/10W 3.9k Ω ±5%	RRXAJR5Z0392	4835 111 37254
●R1091		CHIP RES.(1608) 1/10W 2.2k Ω ±5% or	RRXAJB5Z0222	4835 111 17156
		CHIP RES.(1608) 1/10W 2.2k Ω ±5%	RRXAJR5Z0222	4835 111 37234
●R1203		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R1204		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R1205		CHIP RES.(1608) 1/10W 20k Ω ±1% or	RRXAFB5H2002	
		CHIP RES.(1608) 1/10W 20k Ω ±1% or	RRXAFB5Z2002	
		CHIP RES.(1608) 1/10W 20k Ω ±1% or	RRXAFR5H2002	
		CHIP RES.(1608) 1/10W 20k Ω±1%	RRXAFR5Z2002	
●R1206		CHIP RES.(1608) 1/10W 20k Ω ±1% or	RRXAFB5H2002	
		CHIP RES.(1608) 1/10W 20k Ω ±1% or	RRXAFB5Z2002	
		CHIP RES.(1608) 1/10W 20k Ω ±1% or	RRXAFR5H2002	
		CHIP RES.(1608) 1/10W 20k Ω±1%	RRXAFR5Z2002	
●R1207		CHIP RES.(1608) 1/10W 8.2k Ω ±5% or	RRXAJB5Z0822	4835 111 17416
		CHIP RES.(1608) 1/10W 8.2k Ω ±5%	RRXAJR5Z0822	4835 111 37448
●R1208		CHIP RES.(1608) 1/10W 8.2k Ω ±5% or	RRXAJB5Z0822	4835 111 17416
		CHIP RES.(1608) 1/10W 8.2k Ω ±5%	RRXAJR5Z0822	4835 111 37448
●R1209		CHIP RES.(1608) 1/10W 30k Ω ±1% or	RRXAFB5H3002	
		CHIP RES.(1608) 1/10W 30k Ω ±1% or	RRXAFB5Z3002	
		CHIP RES.(1608) 1/10W 30k Ω ±1% or	RRXAFR5H3002	
		CHIP RES.(1608) 1/10W 30k Ω±1%	RRXAFR5Z3002	
●R1210		CHIP RES.(1608) 1/10W 30k Ω ±1% or	RRXAFB5H3002	
		CHIP RES.(1608) 1/10W 30k Ω ±1% or	RRXAFB5Z3002	
		CHIP RES.(1608) 1/10W 30k Ω ±1% or	RRXAFR5H3002	
		CHIP RES.(1608) 1/10W 30k Ω ±1%	RRXAFR5Z3002	
●R1211		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R1212		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R1221		CHIP RES.(1608) 1/10W 100k Ω ±5% or	RRXAJB5Z0104	4835 111 17147

Ref.	⚠	Description	ID No.	Part No.
		CHIP RES.(1608) 1/10W 100k Ω ±5%	RRXAJR5Z0104	4835 111 37434
●R1222		CHIP RES.(1608) 1/10W 100k Ω ±5% or	RRXAJB5Z0104	4835 111 17147
		CHIP RES.(1608) 1/10W 100k Ω ±5%	RRXAJR5Z0104	4835 111 37434
●R1223		CHIP RES.(1608) 1/10W 470 Ω ±5% or	RRXAJB5Z0471	4835 111 17263
		CHIP RES.(1608) 1/10W 470 Ω ±5%	RRXAJR5Z0471	4835 111 37259
●R1224		CHIP RES.(1608) 1/10W 470 Ω ±5% or	RRXAJB5Z0471	4835 111 17263
		CHIP RES.(1608) 1/10W 470 Ω ±5%	RRXAJR5Z0471	4835 111 37259
●R1225		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
●R1226		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
●R1233		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R1235		CHIP RES.(1608) 1/10W 2.2k Ω ±5% or	RRXAJB5Z0222	4835 111 17156
		CHIP RES.(1608) 1/10W 2.2k Ω ±5%	RRXAJR5Z0222	4835 111 37234
●R1236		CHIP RES.(1608) 1/10W 2.2k Ω ±5% or	RRXAJB5Z0222	4835 111 17156
		CHIP RES.(1608) 1/10W 2.2k Ω ±5%	RRXAJR5Z0222	4835 111 37234
●R1237		CHIP RES.(1608) 1/10W 2.2k Ω ±5% or	RRXAJB5Z0222	4835 111 17156
		CHIP RES.(1608) 1/10W 2.2k Ω ±5%	RRXAJR5Z0222	4835 111 37234
●R1238		CHIP RES.(1608) 1/10W 2.2k Ω ±5% or	RRXAJB5Z0222	4835 111 17156
		CHIP RES.(1608) 1/10W 2.2k Ω ±5%	RRXAJR5Z0222	4835 111 37234
●R1239		CHIP RES.(1608) 1/10W 100k Ω ±5% or	RRXAJB5Z0104	4835 111 17147
		CHIP RES.(1608) 1/10W 100k Ω ±5%	RRXAJR5Z0104	4835 111 37434
●R1240		CHIP RES.(1608) 1/10W 100k Ω ±5% or	RRXAJB5Z0104	4835 111 17147
		CHIP RES.(1608) 1/10W 100k Ω ±5%	RRXAJR5Z0104	4835 111 37434
●R1245		CHIP RES.(1608) 1/10W 10 Ω ±5% or	RRXAJB5Z0100	4835 111 17393
		CHIP RES.(1608) 1/10W 10 Ω ±5%	RRXAJR5Z0100	4835 111 17393
●R1351		CHIP RES.(1608) 1/10W 1.8k Ω ±5% or	RRXAJB5Z0182	4835 111 17154
		CHIP RES.(1608) 1/10W 1.8k Ω ±5%	RRXAJR5Z0182	4835 111 37231
●R1352		CHIP RES.(1608) 1/10W 2.2k Ω ±5% or	RRXAJB5Z0222	4835 111 17156
		CHIP RES.(1608) 1/10W 2.2k Ω ±5%	RRXAJR5Z0222	4835 111 37234
●R1353		CHIP RES.(1608) 1/10W 2.2k Ω ±5% or	RRXAJB5Z0222	4835 111 17156
		CHIP RES.(1608) 1/10W 2.2k Ω ±5%	RRXAJR5Z0222	4835 111 37234
●R1354		CHIP RES.(1608) 1/10W 220 Ω ±5% or	RRXAJB5Z0221	4835 111 17397
		CHIP RES.(1608) 1/10W 220 Ω ±5%	RRXAJR5Z0221	4835 111 37371
●R1355		CHIP RES.(1608) 1/10W 75 Ω ±5% or	RRXAJB5Z0750	4835 111 17131
		CHIP RES.(1608) 1/10W 75 Ω ±5%	RRXAJR5Z0750	4835 111 17131
●R1356		CHIP RES.(1608) 1/10W 100k Ω ±5% or	RRXAJB5Z0104	4835 111 17147
		CHIP RES.(1608) 1/10W 100k Ω ±5%	RRXAJR5Z0104	4835 111 37434
●R1371		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
R1392		CARBON RES. 1/4W 1k Ω ±5%	RCX4JATZ0102	4835 110 57025
●R1396		CHIP RES.(1608) 1/10W 1k Ω ±5% or	RRXAJB5Z0102	4835 111 17068
		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
●R1397		CHIP RES.(1608) 1/10W 100 Ω ±5% or	RRXAJB5Z0101	4835 111 37432
		CHIP RES.(1608) 1/10W 100 Ω ±5%	RRXAJR5Z0101	4835 111 37432
●R1402		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R1421		CHIP RES.(1608) 1/10W 75 Ω ±1% or	RRXAFB5H75R0	
		CHIP RES.(1608) 1/10W 75 Ω ±1% or	RRXAFB5Z75R0	
		CHIP RES.(1608) 1/10W 75 Ω ±1% or	RRXAFR5H75R0	
		CHIP RES.(1608) 1/10W 75 Ω ±1%	RRXAFR5Z75R0	
●R1422		CHIP RES.(1608) 1/10W 75 Ω ±5% or	RRXAJB5Z0750	4835 111 17131
		CHIP RES.(1608) 1/10W 75 Ω ±5%	RRXAJR5Z0750	4835 111 17131
●R1441		CHIP RES.(1608) 1/10W 75 Ω ±1% or	RRXAFB5H75R0	
		CHIP RES.(1608) 1/10W 75 Ω ±1% or	RRXAFB5Z75R0	
		CHIP RES.(1608) 1/10W 75 Ω ±1% or	RRXAFR5H75R0	
		CHIP RES.(1608) 1/10W 75 Ω ±1%	RRXAFR5Z75R0	
●R1442		CHIP RES.(1608) 1/10W 75 Ω ±5% or	RRXAJB5Z0750	4835 111 17131
		CHIP RES.(1608) 1/10W 75 Ω ±5%	RRXAJR5Z0750	4835 111 17131
●R1443		CHIP RES.(1608) 1/10W 75 Ω ±5% or	RRXAJB5Z0750	4835 111 17131
		CHIP RES.(1608) 1/10W 75 Ω ±5%	RRXAJR5Z0750	4835 111 17131
●R1461		CHIP RES.(1608) 1/10W 36 Ω ±1% or	RRXAFB5H36R0	
		CHIP RES.(1608) 1/10W 36 Ω ±1% or	RRXAFB5Z36R0	
		CHIP RES.(1608) 1/10W 36 Ω ±1% or	RRXAFR5H36R0	
		CHIP RES.(1608) 1/10W 36 Ω ±1%	RRXAFR5Z36R0	
●R1462		CHIP RES.(1608) 1/10W 75 Ω ±5% or	RRXAJB5Z0750	4835 111 17131
		CHIP RES.(1608) 1/10W 75 Ω ±5%	RRXAJR5Z0750	4835 111 17131
●R1481		CHIP RES.(1608) 1/10W 36 Ω ±1% or	RRXAFB5H36R0	

Ref.	⚠	Description	ID No.	Part No.
		CHIP RES.(1608) 1/10W 36 Ω ±1% or	RRXAFB5Z36R0	
		CHIP RES.(1608) 1/10W 36 Ω ±1% or	RRXAFR5H36R0	
		CHIP RES.(1608) 1/10W 36 Ω ±1%	RRXAFR5Z36R0	
●R1482		CHIP RES.(1608) 1/10W 75 Ω ±5% or	RRXAJB5Z0750	4835 111 17131
		CHIP RES.(1608) 1/10W 75 Ω ±5%	RRXAJR5Z0750	4835 111 17131
●R1612		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R2001		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R2002		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R2003		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R2005		CHIP RES.(1608) 1/10W 6.8k Ω ±5% or	RRXAJB5Z0682	4835 111 17413
		CHIP RES.(1608) 1/10W 6.8k Ω ±5%	RRXAJR5Z0682	4835 111 37272
●R2006		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R2025		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R2028		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R2031		CHIP RES.(1608) 1/10W 22k Ω ±5% or	RRXAJB5Z0223	4835 111 17287
		CHIP RES.(1608) 1/10W 22k Ω ±5%	RRXAJR5Z0223	4835 111 37441
●R2033		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R2041		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R2042		CHIP RES.(1608) 1/10W 3.3k Ω ±5% or	RRXAJB5Z0332	4835 111 17162
		CHIP RES.(1608) 1/10W 3.3k Ω ±5%	RRXAJR5Z0332	4835 111 17162
●R2050		CHIP RES.(1608) 1/10W 10k Ω ±5% or	RRXAJB5Z0103	4835 111 27027
		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
●R2060		CHIP RES.(1608) 1/10W 5.6k Ω ±5% or	RRXAJB5Z0562	4835 111 17168
		CHIP RES.(1608) 1/10W 5.6k Ω ±5%	RRXAJR5Z0562	4835 111 37376
●R2062		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●R2064		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
SWITCHES				
SW502		TACT SWITCH KSM0614B or	SST0101HH013	4835 276 17282
		TACT SWITCH SKQSAF001A or	SST0101AL041	4835 276 17282
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01	
SW503		TACT SWITCH KSM0614B or	SST0101HH013	4835 276 17282
		TACT SWITCH SKQSAF001A or	SST0101AL041	4835 276 17282
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01	
SW504		TACT SWITCH KSM0614B or	SST0101HH013	4835 276 17282
		TACT SWITCH SKQSAF001A or	SST0101AL041	4835 276 17282
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01	
SW505		TACT SWITCH KSM0614B or	SST0101HH013	4835 276 17282
		TACT SWITCH SKQSAF001A or	SST0101AL041	4835 276 17282
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01	
SW511		LEAF SWITCH MXS01830MVP0	SSC0101MCE03	
SW512		ROTARY MODE SWITCH SSS-50MD	SSR0106KB002	4835 276 17352
SW2002		TACT SWITCH KSM0614B or	SST0101HH013	4835 276 17282
		TACT SWITCH SKQSAF001A or	SST0101AL041	4835 276 17282
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01	
SW2003		TACT SWITCH KSM0614B or	SST0101HH013	4835 276 17282
		TACT SWITCH SKQSAF001A or	SST0101AL041	4835 276 17282
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01	
MISCELLANEOUS				
2B11		SHIELD ASSEMBLY	0VM413279	
2B15		BUSH, LED(F)	0VM409508	
2B33		HEATSINK	0VM414786	
2L013		SCREW, S-TIGHT M3X8 BIND + CHROME	GBMS3080	
FIP502		V.F.D. 7-BT-292GN or	TVFD150FT010	
		V.F.D. 20U29100SAN	TVFD150FT007	
●JC02		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
●JC03		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----

Ref.	⚠	Description	ID No.	Part No.
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
JK751		RCA JACK MSP-213V1-324 PBSN	JXRL030LY064	
JK752		RCA JACK MSP-213V3-324 PBSN	JYRL030LY021	
JK753		RCA JACK(YELLOW) MSP-281V4-B	JXRL010LY003	4835 265 97402
JK754		RCA JACK(WHITE) MSP-281V1-B	JXRL010LY005	4835 265 97401
JK755		RCA JACK(RED) MSP-281V3-A	JYRL010LY002	4835 265 97426
JK756		RCA JACK MSP-382V-12 PBSN	JXRL020LY063	
JK1202		RCA JACK(BLACK) MSP-281V2-B	JXRL010LY062	
JK1401		S TYPE JACK MDC-050V-2.4	JXEL040LY001	4835 265 97507
JK1403		RCA JACK MSP-213V1-652 PBSN	JXRL030LY061	
RM2001		REMOTE RECEIVER MIM-93M6DKF or	USESJRSUNT01	4835 210 27058
		REMOTE RECEIVER PIC-37042LU	USESJRSKK033	4835 210 27058
TP301		PCB JUMPER D0.6-P10.0	JW10.0T	---- --- -----
TP302		PCB JUMPER D0.6-P16.0	JW16.0T	
TP452		PCB JUMPER D0.6-P6.5	JW6.5T	
TP502		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
TP505		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
TP506		PCB JUMPER D0.6-P14.0	JW14.0T	
TP507		PCB JUMPER D0.6-P7.5	JW7.5T	
TP513		PCB JUMPER D0.6-P10.0	JW10.0T	---- --- -----
TP751		PCB JUMPER D0.6-P10.0	JW10.0T	---- --- -----
TP753		PCB JUMPER D0.6-P7.5	JW7.5T	
TP754		PCB JUMPER D0.6-P7.5	JW7.5T	
TU701		TUNER UNIT VH025AP or	UTUNNTUSP024	
		TUNER UNIT TMZH2-001A or	UTUNNTUAL030	
		TUNER UNIT TMZH2-010A	UTUNNTUAL034	
VR501		CARBON P.O.T. 100k Ω B	VRCB104HH014	4835 100 97191
W011		FFC CABLE, 22P FFC/P1.00/250	WX1H9400-011	
W014		FFC CABLE, 16P FFC/P1.00/220	WX1H9400-014	
W017		FFC CABLE, 4P FFC/P1.00/210	WX1H9400-017	
X301		CRYSTAL OSCILLATOR 3.579545MHz(20PPM) or	FXC355LLN003	4835 242 77093
		CRYSTAL OSCILLATOR 3.579545MHz(20PPM) or	FXC355LCHE01	4835 242 77093
		CRYSTAL OSCILLATOR 3.579545MHz(20PPM) or	FXC355LDS001	4835 242 77093
		CRYSTAL OSCILLATOR 3.579545MHz(20PPM)	FXC355LDYN01	
X501		CRYSTAL OSCILLATOR 14.31818MHz	FXD146LDS003	4835 242 77305
X502		CRYSTAL OSCILLATOR 32.768kHz(20PPM) or	FXC323LQUA01	4835 242 77091
		CRYSTAL OSCILLATOR 32.768kHz(20PPM)	FXC323LDS002	4835 242 77091

FUNCTION CBA

Ref.	⚠	Description	ID No.	Part No.
		FUNCTION CBA (MCV-B) Consists of the following:	---------	
DIODES				
		LED EXCLUSIVE(A)		
D561		LED(RED) 204HD/E	NPQZ00204HDE	
		LED EXCLUSIVE(B)		
D561		LED(RED) LTL-4211N	NPQZLTL4211N	4835 130 87155
RESISTORS				
●R584		CHIP RES.(1608) 1/10W 0 Ω or	RRXAZB5Z0000	---- --- -----
		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
SWITCHES				
SW501		TACT SWITCH KSM0614B or	SST0101HH013	4835 276 17282
		TACT SWITCH SKQSAF001A or	SST0101AL041	4835 276 17282
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01	
MISCELLANEOUS				
2B13		BUSH, LED(E)	0VM408832	
W004		PARALLEL WIRE, 3P AWG26#2651/ P2.0/125	WX1H9400-004	

DVD OPEN/CLOSE CBA

Ref.	⚠	Description	ID No.	Part No.
		DVD OPEN/CLOSE CBA (MCV-C) Consists of the following:	---------	
SWITCHES				
SW2001		TACT SWITCH KSM0614B or	SST0101HH013	4835 276 17282
		TACT SWITCH SKQSAF001A or	SST0101AL041	4835 276 17282
		TACT SWITCH TC-1104(H=9.5)	SST0101DNG01	
MISCELLANEOUS				
W003		PARALLEL WIRE, 2P AWG26#2651/ P2.0/100	WX1H9400-003	

SENSOR CBA

Ref.	⚠	Description	ID No.	Part No.
		SENSOR CBA Consists of the following:	0VSA13627	
TRANSISTORS				
Q503		END-S PT204-6B-12 or	NPWZT2046B12	4835 130 48222
		END-S MID-32A22	NPWZM1D32A22	4835 130 48231
Q504		ST-S PT204-6B-12 or	NPWZT2046B12	4835 130 48222
		ST-S MID-32A22	NPWZM1D32A22	4835 130 48231

PSV CBA

Ref. No.	⚠	Description	ID No.	Part No.
		PSV CBA Consists of the following	0VSA13758	
		POWER SUPPLY CBA(PSV-A) JUNCTION CBA(PSV-B)	---------- ----------	

POWER SUPPLY CBA

Ref.	⚠	Description	ID No.	Part No.
		POWER SUPPLY CBA(PSV-A) Consists of the following	---------	
CAPACITORS				
C013		ELECTROLYTIC CAP. 10µF/50V ±20% H7	CE1JMASSL100	4835 124 47202
C017		CERAMIC CAP. YV +80/-20% 0.01µF/ 50V	CCD1JZSYV103	4835 122 37011
C018		ELECTROLYTIC CAP. 470µF/25V ±20% or	CE1EMASDL471	4835 124 47044
		ELECTROLYTIC CAP. 470µF/25V ±20%	CE1EMASTL471	
C020		ELECTROLYTIC CAP. 1000µF/16V ±20% or	CE1CMZPDL102	4835 124 47005
		ELECTROLYTIC CAP. 1000µF/16V ±20%	CE1CMZPTL102	4835 124 47005
C021		ELECTROLYTIC CAP. 470µF/10V ±20% or	CE1AMASDL471	4835 124 47286
		ELECTROLYTIC CAP. 470µF/10V ±20%	CE1AMASTL471	4835 124 47286
C1001	⚠	METALLIZED FILM CAP. 0.022µF/275V ±10% or	CT2E223HJE13	
	⚠	METALLIZED FILM CAP. 0.022µF/275V ±10% or	CT2E223HJE05	
	⚠	METALLIZED FILM CAP. 0.022µF/250V ±10%	CT2E223DC011	4835 121 47513
C1002		ELECTROLYTIC CAP. 22µF/50V ±20% or	CE1JMASDL220	4835 124 47051
		ELECTROLYTIC CAP. 22µF/50V ±20%	CE1JMASTL220	4835 124 47051
C1003		CERAMIC CAP. 0.01µF/500V ±10% (B)	CCD2JKP0B103	4835 122 47423
C1004		ELECTROLYTIC CAP. 220µF/200V ±20%	CA2D221S6008	4835 124 47022
C1005		CERAMIC CAP. 120pF/500V ±10% (B)	CCD2JKP0B121	4835 122 47408
C1006	⚠	SAFETY CAP. 3300pF/250V or	CCG2EMA0F332	4835 125 97024
	⚠	SAFETY CAP. 3300pF/250V	CCD2EMA0E332	
C1007		ELECTROLYTIC CAP. 1000µF/6.3V ±20% or	CE0KMASDL102	4835 124 47203
		ELECTROLYTIC CAP. 1000µF/6.3V ±20%	CE0KMASTL102	4835 124 47203
C1008		CERAMIC CAP. 220pF/500V ±10% (B)	CCD2JKP0B221	4835 122 47031
C1013		CERAMIC CAP.(AX) 3300pF/16V ±10% (X)	CCA1CKT0X332	
C1014		ELECTROLYTIC CAP. 470µF/25V ±20% or	CE1EMASDL471	4835 124 47044
		ELECTROLYTIC CAP. 470µF/25V ±20%	CE1EMASTL471	
C1018		ELECTROLYTIC CAP. 100µF/10V ±20% H7	CE1AMAVSL101	4822 124 40178
●C1021		CHIP CERAMIC CAP. 0.01µF/50V ±10% (B)	CHD1JK30B103	4835 122 87255
●C1022		CHIP CERAMIC CAP. 5600pF/50V ±10% (B)	CHD1JK30B562	

Ref.	⚠	Description	ID No.	Part No.
C1029		CERAMIC CAP.(AX) 5600pF/16V ±10% (X)	CCA1CKT0X562	
C1032		ELECTROLYTIC CAP. 10µF/16V ±20% H7	CE1CMAVSL100	4835 124 47268
C1033		CERAMIC CAP. YV +80/-20% 0.022µF/ 50V	CCD1JZSYV223	4835 122 47013
DIODES				
D013		RECTIFIER DIODE BA157 or	NDQZ000BA157	4835 130 37052
		FAST RECOVERY DIODE ERA18-04	QDPZ0ERA1804	4835 130 37641
D015		SCHOTTKY BARRIER DIODE SB360	NDQZ000SB360	
D016		SCHOTTKY BARRIER DIODE SB340	NDQZ000SB340	4835 130 37887
D018		ZENER DIODE DZ-8.2BSAT265 or	NDTA0DZ8R2BS	
		ZENER DIODE MTZJT-778.2A	QDTA0MTZJ8R2	4835 130 37963
D020		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
D030		RECTIFIER DIODE BA157 or	NDQZ000BA157	4835 130 37052
		FAST RECOVERY DIODE ERA18-04	QDPZ0ERA1804	4835 130 37641
D1001		RECTIFIER DIODE 1N4005	NDQZ001N4005	4835 130 37047
D1002		RECTIFIER DIODE 1N4005	NDQZ001N4005	4835 130 37047
D1003		RECTIFIER DIODE 1N4005	NDQZ001N4005	4835 130 37047
D1004		RECTIFIER DIODE 1N4005	NDQZ001N4005	4835 130 37047
D1006		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
D1007		CARBON RES. 1/4W J 68k Ω	RCX4JATZ0683	4835 110 57168
D1008		SCHOTTKY BARRIER DIODE SB140 or	NDQZ000SB140	4835 130 37894
		SCHOTTKY BARRIER DIODE ERB81-004	AERB81004***	4835 130 37233
D1010		RECTIFIER DIODE BA157 or	NDQZ000BA157	4835 130 37052
		FAST RECOVERY DIODE ERA18-04	QDPZ0ERA1804	4835 130 37641
D1011		RECTIFIER DIODE BA158 or	NDQZ000BA158	4835 130 37976
		RECTIFIER DIODE ERA22-10	QDPZ0ERA2210	4835 130 37978
D1012		SWITCHING DIODE 1N4148M or	NDTZ01N4148M	4835 130 37048
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133	4835 130 37235
D1016		RECTIFIER DIODE FR101	NDWZ000FR101	
D1017		ZENER DIODE DZ-20BSBT265 or	NDTB00DZ20BS	4835 130 38032
		ZENER DIODE MTZJT-7720B	QDTB00MTZJ20	4835 130 37965
D1018		SWITCHING DIODE 1N4148M or	NDTZ01N4148M	4835 130 37048
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133	4835 130 37235
D1020		SCHOTTKY BARRIER DIODE SB340	NDQZ000SB340	4835 130 37887
D1022		SWITCHING DIODE 1N4148M or	NDTZ01N4148M	4835 130 37048
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133	4835 130 37235
D1024		SWITCHING DIODE 1N4148M or	NDTZ01N4148M	4835 130 37048
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133	4835 130 37235
D1025		SWITCHING DIODE 1N4148M or	NDTZ01N4148M	4835 130 37048
		SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133	4835 130 37235
D1031		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
D1032		PCB JUMPER D0.6-P5.0	JW5.0T	---- --- -----
ICS				
IC1001	⚠	IC, ERROR VOLTAGE DET LTV-817B-F or	NPEB0LTV817F	4835 130 37977
	⚠	IC, ERROR VOLTAGE DET LTV-817C-F	NPEC0LTV817F	4835 130 37977
IC1006		IC, SHUNT REGULATOR KIA431-AT or	NSZLA0TJY001	4835 209 88194
		IC, SHUNT REGULATOR TL431A-TA or	NSZBA0TQ2003	
		IC, SHUNT REGULATOR KIA431A-AT	NSZBA0TJY018	
COILS				
L003		BEAD CORE B16 RH 3.5X10X1.3	XL03010XM001	
L009		CHOKE COIL 47µH-K	LLBD00PKV007	4835 157 58208
L1001	⚠	LINE FILTER 27MH TLF14CB2730R4 or	LLBG00ZTU034	
	⚠	LINE FILTER 27MH CSA-LF199A	LLBG00ZSA008	
L1007		CHOKE COIL 47µH-K	LLBD00PKV007	4835 157 58208
L1020		CHOKE COIL 47µH-K	LLBD00PKV007	4835 157 58208
TRANSISTORS				
Q1001		SWITCHING 2SK3543	QFWZ02SK3543	4835 130 48229
Q1003		SWITCHING CONTROL KTC3199(Y) "NPN"	NQSY0KTC3199	4835 130 47914
Q1008		SWITCHING CONTROL KTC3199(Y) "NPN"	NQSY0KTC3199	4835 130 47914
RESISTORS				
R037		CARBON RES. 1/4W 1.8k Ω ±5%	RCX4JATZ0182	4835 110 57033
R082		CARBON RES. 1/4W 1.8k Ω ±5%	RCX4JATZ0182	4835 110 57033
R1004		METAL OXIDE FILM RES. 2W 82k Ω ±5% or	RN02JZLZ0823	
		METAL OXIDE FILM RES. 2W 82k Ω ±5%	RN02JZQZ0823	

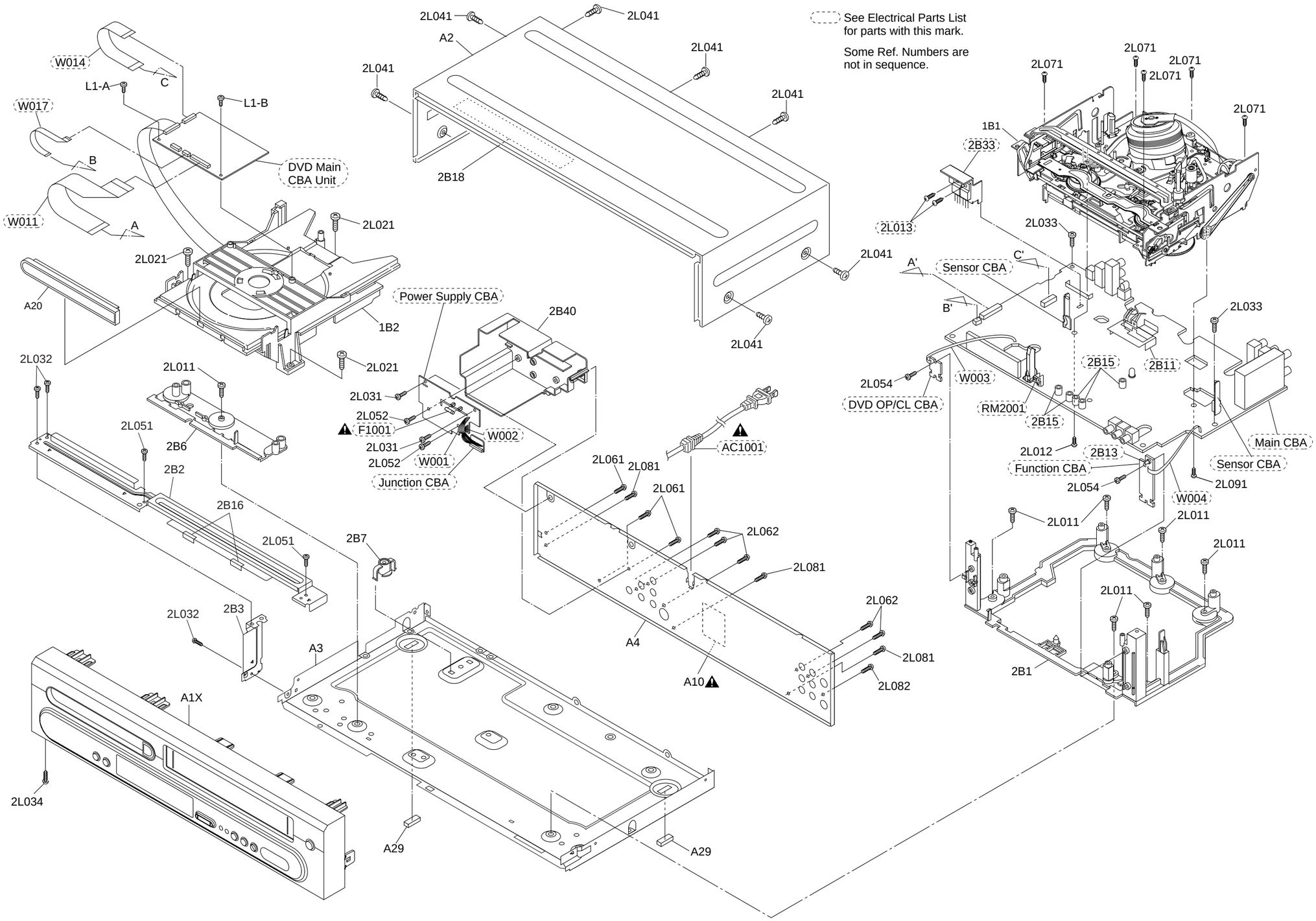
Ref.	⚠	Description	ID No.	Part No.
R1005		CARBON RES. 1/4W 1M Ω ±5%	RCX4JATZ0105	4835 110 57272
R1006		CARBON RES. 1/4W 1M Ω ±5%	RCX4JATZ0105	4835 110 57272
R1008		CARBON RES. 1/4W 1k Ω ±5%	RCX4JATZ0102	4835 110 57025
R1010		CARBON RES. 1/6W 22k Ω ±5% or	RCX6JATZ0223	4835 111 37177
		CARBON RES. 1/4W 22k Ω ±5%	RCX4JATZ0223	4835 110 57038
R1011		METAL OXIDE FILM RES. 1W 0.68 Ω ±5% or	RN01R68ZU001	
		METAL OXIDE FILM RES. 1W 0.68 Ω ±5%	RN01R68KE009	
●R1019		CHIP RES.(1608) 1/10W 2.2k Ω ±1% or	RRXAFR5H2201	
		CHIP RES.(1608) 1/10W 2.2k Ω ±1%	RRXAFR5Z2201	
●R1020		CHIP RES.(1608) 1/10W 1.5k Ω ±5%	RRXAJR5Z0152	4835 111 37437
●R1021		CHIP RES.(1608) 1/10W 1k Ω ±5%	RRXAJR5Z0102	4835 111 17068
●R1022		CHIP RES.(1608) 1/10W 4.7k Ω ±5%	RRXAJR5Z0472	4835 111 37426
●R1023		CHIP RES.(1608) 1/10W 2k Ω ±1% or	RRXAFR5H2001	
		CHIP RES.(1608) 1/10W 2k Ω ±1%	RRXAFR5Z2001	
●R1024		CHIP RES.(1608) 1/10W 33k Ω ±5%	RRXAJR5Z0333	4835 111 37248
R1029		CARBON RES. 1/6W 150k Ω ±5% or	RCX6JATZ0154	4835 111 37316
		CARBON RES. 1/4W 150k Ω ±5%	RCX4JATZ0154	4835 110 57206
R1032		CARBON RES. 1/6W 3.3k Ω ±5% or	RCX6JATZ0332	4835 111 37185
		CARBON RES. 1/4W 3.3k Ω ±5%	RCX4JATZ0332	4835 110 57046
R1034		CARBON RES. 1/4W 680k Ω ±5%	RCX4JATZ0684	4835 110 57227
R1035		CARBON RES. 1/4W 1k Ω ±5%	RCX4JATZ0102	4835 110 57025
R1036		CARBON RES. 1/6W 100k Ω ±5% or	RCX6JATZ0104	4835 110 57068
		CARBON RES. 1/4W 100k Ω ±5%	RCX4JATZ0104	4835 110 57185
●R1037		CHIP RES.(1608) 1/10W 10k Ω ±5%	RRXAJR5Z0103	4835 111 37216
R1038		CARBON RES. 1/6W 100k Ω ±5% or	RCX6JATZ0104	4835 110 57068
		CARBON RES. 1/4W 100k Ω ±5%	RCX4JATZ0104	4835 110 57185
R1039		CARBON RES. 1/6W 470k Ω ±5% or	RCX6JATZ0474	4835 110 57225
		CARBON RES. 1/4W 470k Ω ±5%	RCX4JATZ0474	4835 110 57225
R1043		METAL OXIDE FILM RES. 1W 2.7 Ω ±5% or	RN01JZLZ02R7	
		METAL OXIDE FILM RES. 1W 2.7 Ω ±5%	RN01JZQZ02R7	
●R1095		CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000	4835 111 37215
MISCELLANEOUS				
AC1001	⚠	AC CORD A0A0280-007 or	WAC0172LTE04	4835 321 17153
	⚠	AC CORD PB8K9F9110A-057	WAC0172LW008	4835 321 17153
F1001	⚠	FUSE SIC 1A 250V UC/T or	PAGG20CW3102	
	⚠	FUSE 1A/250V	PAGG20CAG102	4835 253 97152
FH1001		FUSE HOLDER MSF-015	XH01Z00LY001	
FH1002		FUSE HOLDER MSF-015	XH01Z00LY001	
GP1001	⚠	GAP. FNR-G3.10D	FAZ000LD6005	4835 252 27025
SA1001	⚠	SURGE ABSORBER PVR-10D471KB or	NVQZ10D471KB	
	⚠	SURGE ABSORBER CNR-10D471K	NVQZR10D471K	4835 252 27024
T001	⚠	SWITCHING TRANSFOMER CSA-SW0230C	LTT00CPSA140	
W001		PARALLEL WIRE, 8P AWG26#2651/ P2.0/65	WX1H9400-001	
W002		PARALLEL WIRE, 7P AWG26#2651/ P2.0/50	WX1H9400-002	

JUNCTION CBA

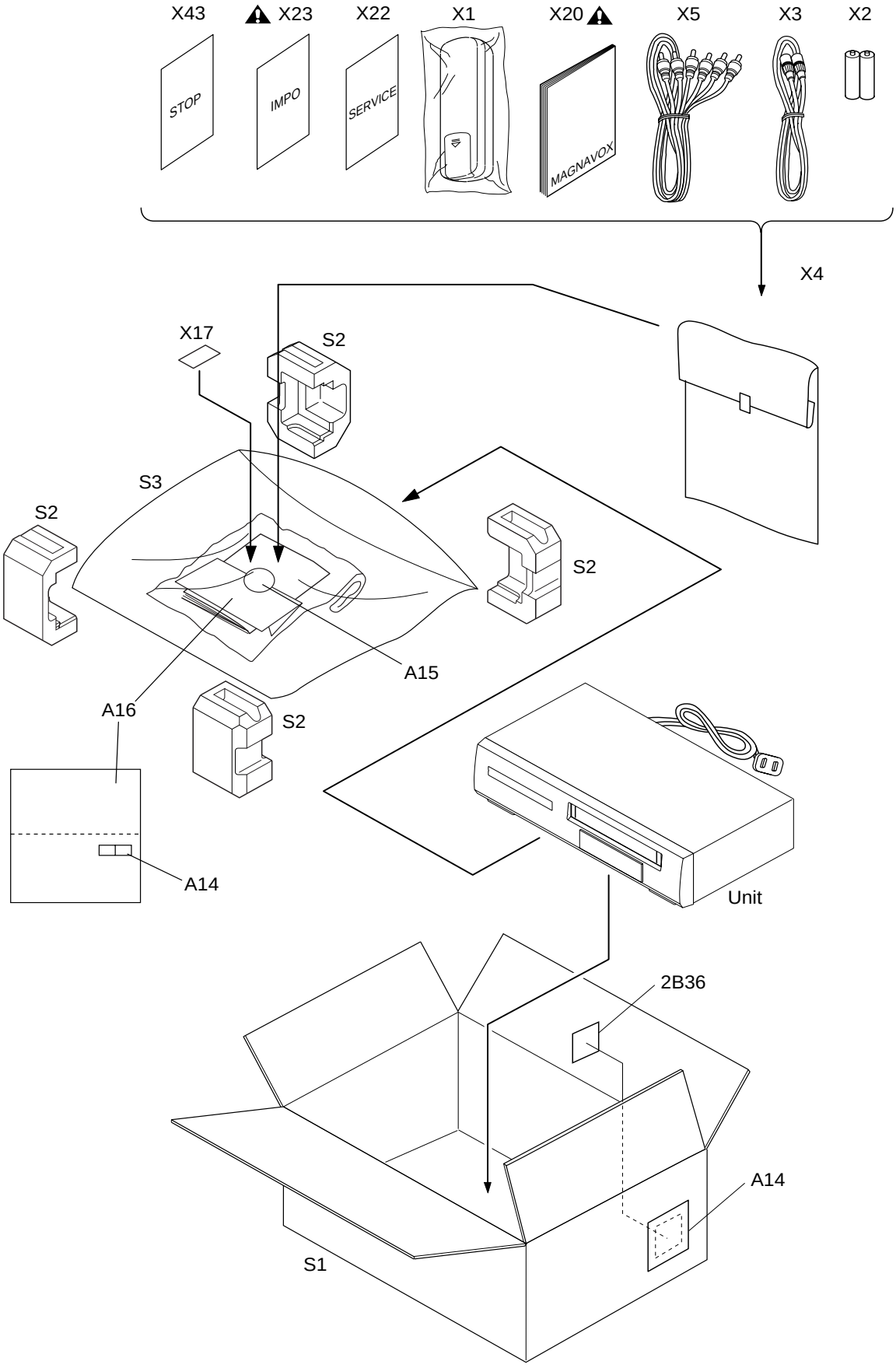
Ref.	⚠	Description	ID No.	Part No.
		JUNCTION CBA(PSV-B) Consists of the following	---------	
CONNECTORS				
CN1005		CONNECTOR, 15P TUC-P15X-B1	JCTUS15TG001	

EXPLODED VIEWS

Cabinet



Packing


X43
X23
X22
X1
X20
X5
X3
X2
STOP
IMPO
SERVICE
MAGNAVOX
X4
X17
S2
S3
S2
S2
A15
A16
S2
A14
Unit
2B36
A14
S1

MECHANICAL PARTS LIST

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

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

To order parts call the TOLL FREE Philips Sales Center number: 1 - 800 - 851 - 8885
(In Canada) 1 - 800 - 363 - PART.
1 - 800 - 535 - 3715 (Fax).

Ref.	⚠	Description	ID No.	Part No.
A1X		FRONT ASSEMBLY	0VM204044	
A2		TOP COVER	0VM101208	
A3		CHASSIS(E4+U27)	0VM101207	
A4		PANEL, REAR	0VM204025	
A10	⚠	LABEL, RATING	---------	
A14		LABEL, BAR CODE	---------	
A15		LABEL, IMPORTANT	---------	
A16		REGISTRATION CARD	0VMN03333	
A20		PANEL, TRAY	0VM203941	
A29		FOOT K7010UA	0VM403657A	4835 462 17018
1B1		DECK ASSEMBLY	N1660FL	
1B2		DVD MECHA 0838	N79F0GVM	
2B1		DECK PEDESTAL-1	0VM101201-1	
2B2		TOP BRACKET	0VM203252A	
2B3		SIDE BRACKET	0VM305013	
2B6		DECK PEDESTAL-2	0VM101201-2	
2B7		DECK PEDESTAL-3	0VM101201-3	
2B16		TAPE, HIMELON	0VM413956	
2B18		FIBER, TOP CASE HC460ED	0VM412906	
2B36		LABEL, EAS	---------	
2B40		INSULATOR	0VM305872	
2L011		SCREW, S-TIGHT M3X8 BIND + CHROME	GBMS3080	
2L012		SCREW, S-TIGHT M3X8 BIND + CHROME	GBMS3080	
2L021		SCREW, S-TIGHT M3X26 H9400UD	0VM414507	
2L031		SCREW, S-TIGHT M3X5 BIND HEAD+	GBMS3050	---- --- -----
2L032		SCREW, S-TIGHT M3X5 BIND HEAD+	GBMS3050	---- --- -----
2L033		SCREW, S-TIGHT M3X5 BIND HEAD+	GBMS3050	---- --- -----
2L034		SCREW, S-TIGHT M3X6 BIND HEAD+	GBMS3060	
2L041		SCREW, C-TIGHT M3X5 BIND HEAD +	GBCC3050	
2L051		SCREW, P-TIGHT M3X6 BIND HEAD+	GBMP3060	---- --- -----
2L052		SCREW, P-TIGHT M3X6 BIND HEAD+	GBMP3060	---- --- -----
2L054		SCREW, P-TIGHT M3X6 BIND HEAD+	GBMP3060	---- --- -----
2L061		SCREW, B-TIGHT M3X8 BIND HEAD +	GBKB3080	
2L062		SCREW, B-TIGHT M3X8 BIND HEAD +	GBKB3080	
2L071		SCREW, P-TIGHT M3X10 WASHER HEAD+	GCMP3100	
2L081		SCREW, S-TIGHT M3X5 BIND HEAD +	GBKS3050	
2L082		SCREW, S-TIGHT M3X5 BIND HEAD +	GBKS3050	
2L091		SCREW, P-TIGHT M3X8 BIND HEAD+	GBCP3080	---- --- -----
PACKING				
S1		GIFT BOX CARTON	0VM306145	
S2		STYROFOAM(2)	0VM203377C	
S3		UNIT, BAG	0VM411683	
ACCESSORIES				
X1		REMOTE CONTROL UNIT	NA504UD	4835 218 37349
X2		DRY BATTERY R6P/2S or	XB0M451T0001	4835 138 17012
		DRY BATTERY ES-GR6M-C	XB0M571GLP01	4835 138 17012
X3		RF CABLE 2.5C-2V	WPZ0901TM002	4835 321 17157
X4		ACCESSORY BAG H3600UD T=0.03	0VM409454	
X5		AV CORD TSCKA-Y/RW100 or	WPZ0102TM015	4835 321 17148
		AV CORD RCA(M*2)TO RCA(M*2)	WPZ0102LTE01	
X17		QUICK USE GUIDE	0VMN03697	8239 300 26711
X20	⚠	OWNER'S MANUAL	0VMN03481	00IB 841 2E001
X22		SERVICE LOCATION MAP	0VMN03463	
X23	⚠	IMPORTANT SAFEGUARD	0VMN01910	
X43		STOP SHEET	0VMN03201	

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