

Final Test

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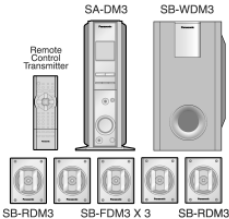
DVD Home Theatre Sound System

- SA-DM3EE

Colour

(S)... Silver Type

Service Manual



Specifications

AMPLIFIER SECTION

RMS TTL POWER OUTPUT (10% total harmonic distortion)	200 W
FRONT 1 kHz	20 W per channel (8Ω)
CENTER 1 kHz	50 W (8Ω)
SURROUND 1 kHz	25 W per channel (8Ω)
SUBWOOFER 80 Hz	60 W (8Ω)
DIN TTL POWER OUTPUT (1% total harmonic distortion)	164 W
FRONT 1 kHz	14 W per channel (8Ω)
CENTER 1 kHz	45 W (8Ω)
SURROUND 1 kHz	18 W per channel (8Ω)
SUBWOOFER 80 Hz	55 W (8Ω)
Input sensitivity/ input impedance	
AUX	250 mV, 10 kΩ

DISC SECTION

Disc played	DVD-VIDEO, DVD-R (DVD-VIDEO formatted discs), CD (CD-DA), VIDEO-CD, CD-R/ RW (CD-DA, VIDEO-CD, MP3 formatted discs)
Audio	
Number of channels	5.1 (FL, FR, SL, SR, C, SW)
Video	
Signal system	PAL, PAL60/ NTSC
Output terminal	RCA (composite video) S terminal (Y, C)
Pick up	
Beam Source	Semiconductor Laser
Wavelength	
DVD	658 nm
CD/ VCD	790 nm
FM TUNER SECTION	
Frequency range	87.50-108.00 MHz (50-kHz steps)

Antenna Terminals	75Ω (unbalanced)
AM TUNER SECTION	
Frequency range	522 - 1629 kHz (9-kHz steps)
GENERAL	
Power supply	AC 230 V, 50 Hz
Power consumption	105 W
Dimensions (W x H x D)	
Vertically with stand	135 x 298 x 390 mm
Horizontally with feet attached	292 x 100 x 390 mm
Mass	6.2 kg
SYSTEM	
SC-DM3 (EE)	Main unit: SA-DM3 (EE) Front and center speakers: SB-FDM3 (P) Surround speakers: SB-RDM3 (P) Subwoofer: SB-WDM3 (P)
Power consumption in standby mode : 0.9 W	

Notes:

- 1. Specifications are subject to change without notice. Weight and dimensions are approximate.
- 2. Total harmonic distortion is measured by the digital spectrum analyzer.

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WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

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1 Before Repair and Adjustment

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Disconnect AC power, discharge Power Supply Capacitors C556-C559 through a 10 Ω , 5W resistor to ground.

DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

Current consumption at AC 230V, 50Hz in NO SIGNAL mode should be ~850 mA .

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2 Protection Circuitry

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The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are

“shorted”, or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note :

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

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3 Accessories

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AC mains lead



Linear Antenna



FM Indoor Antenna



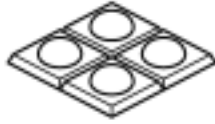
Video Cable



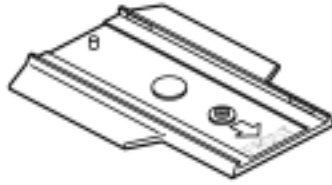
Remote Control



Prepared Leg



Stand



Skirt Terminal Adapt



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5 Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

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Some semiconductor (solid state) devices can be damaged easily by electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor “chip” components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminium foil, to prevent electrostatic charge build up or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder remover device. Some solder removal devices not classified as “anti-static (ESD protected)” can generate electrical charge to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminium foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD)sufficient to damage an ES device).



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6 Precaution of Laser Diode

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Caution:

This product utilizes a class 1 laser. Invisible laser radiation is emitted from the optical pick up lens.

When the unit is turned on:

1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

ACHTUNG:

Dieses Produkt enthält eine Laserdiode. Im eingeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt.

Wellenlänge : 780nm

Maximale Strahlungsleistung der Lasereinheit : 100 μ W/VDE

Die Strahlung an der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

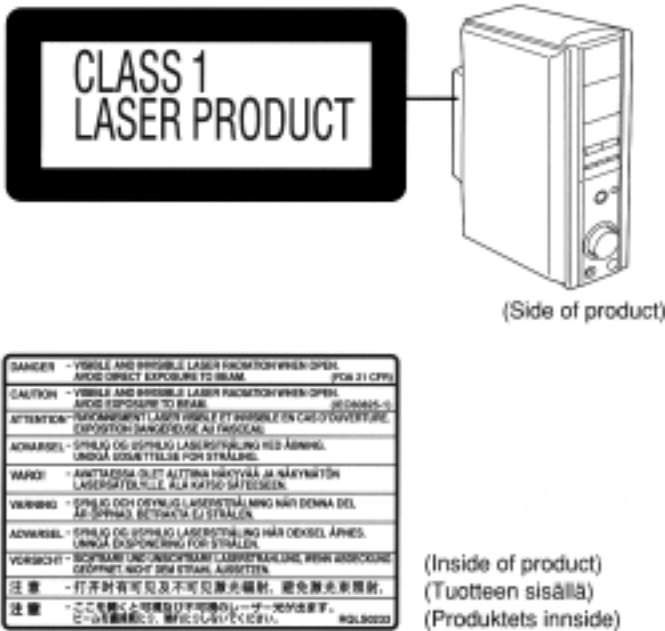
1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinheit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.

ADVARSEL: I dette a apparat anvendes laser.

CAUTION!

THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED
HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

Use of Caution Labels



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7 Handling Precaution for Traverse Deck

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The laser diode in the optical pickup may break down due to potential difference caused by static electricity of clothes or human body.

So be careful of electrostatic break down during repair of the optical pickup.

[7.1 Handling of optical pickup](#)

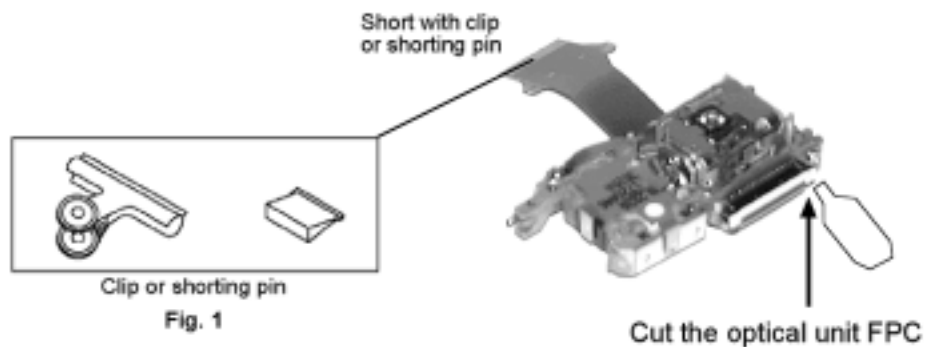
[7.2 Grounding for electrostatic breakdown prevention](#)

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7.1 Handling of optical pickup

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1. Do not subject the optical pickup to static electricity as it is extremely sensitive to electrical shock.
2. Cut the optical unit FPC at the point as shown when replacing a new optical unit. When removing or connecting the short pin, finish the job in as short time as possible.
3. Take care not to apply excessive stress to the flexible board (FPC).
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.



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7.2 Grounding for electrostatic breakdown prevention

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1. Human body grounding

Use the anti-static wrist strap to discharge the static electricity from your body.

2. Work table grounding

Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

Caution :

The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).



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8 Disassembly and Main Component Replacement Procedures

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“ATTENTION SERVICER”

Some chassis components may have sharp edges.

Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.

Special reassembly procedures are described only when required.

3. Select items from the following index when checks or replacement are required.

Contents

- Disassembly and assembly main unit
 1. Checking of the major P.C.B..
- Disassembly and assembly of the Traverse Unit

Warning:

This product uses a laser diode. Refer to caution statement “Precaution of Laser Diode”.

ACHTUNG:

Die Lasereinheit nicht zerlegen.

Die Lasereinheit darf nur gegen eine vom Hersteller spezifizierte Einheit ausgetauscht werden.

[8.1 Checking Procedure for each major P.C.B..](#)

[8.2 Disassembly and assembly of the Traverse Unit](#)

[8.2.1 Disassembling the Middle Chassis](#)

[8.2.2 Terminal P.C.B.](#)

[8.2.3 Traverse Gear](#)

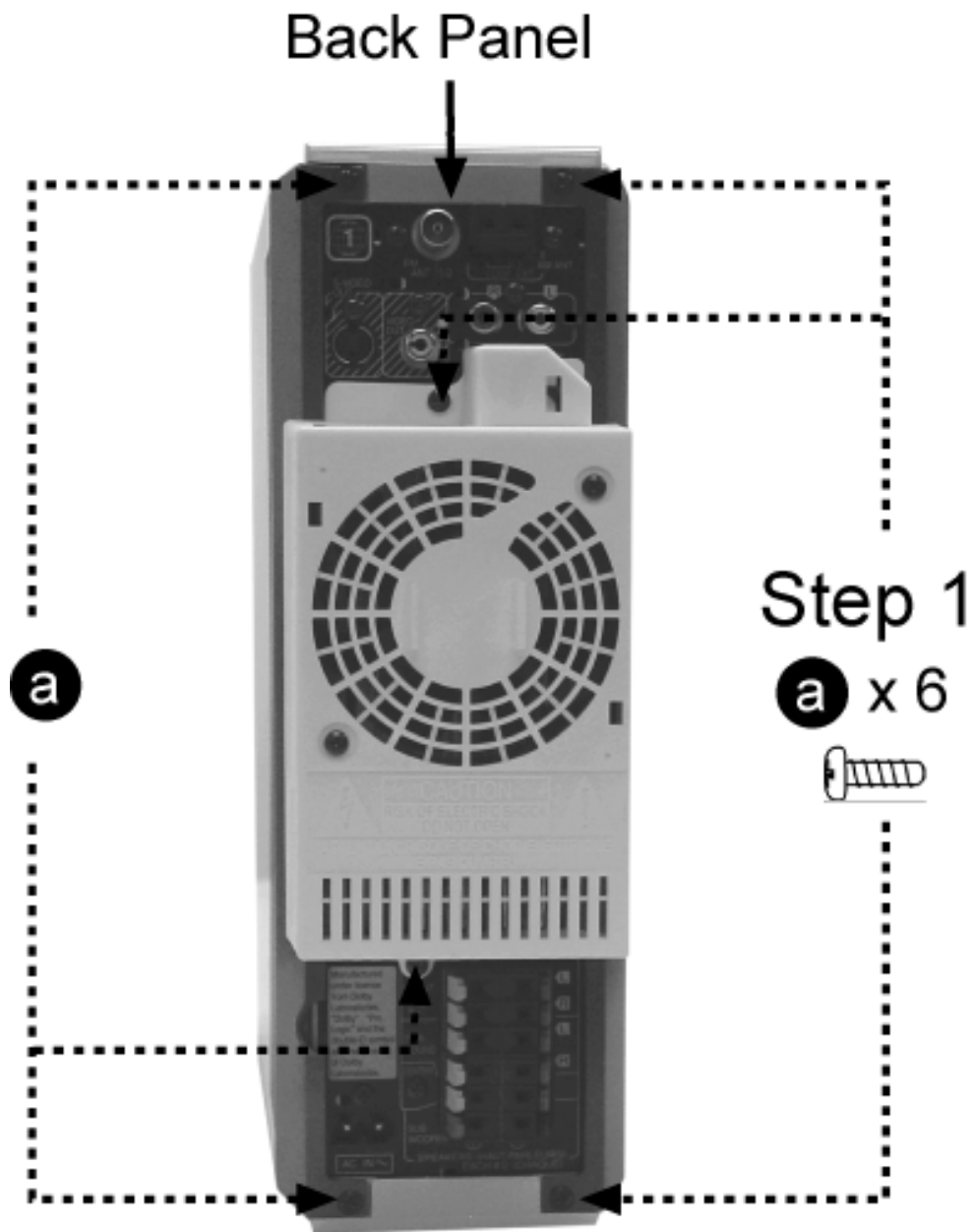
[8.2.4 Optical Pickup Unit](#)

[8.2.5 Disassembling the Spindle Motor Unit](#)

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8.1 Checking Procedure for each major P.C.B..

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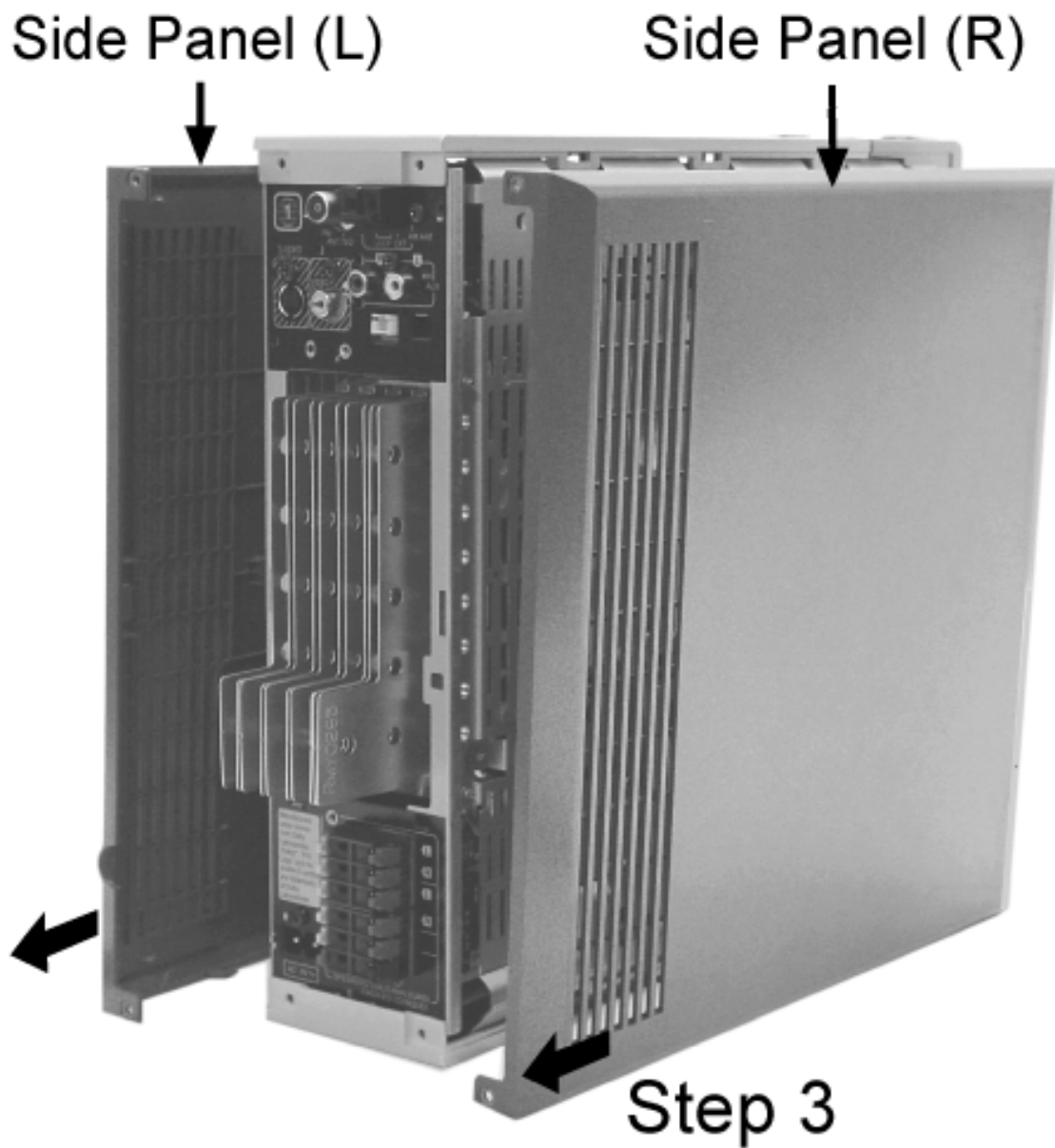


Step 1 Remove all screws from back panel.

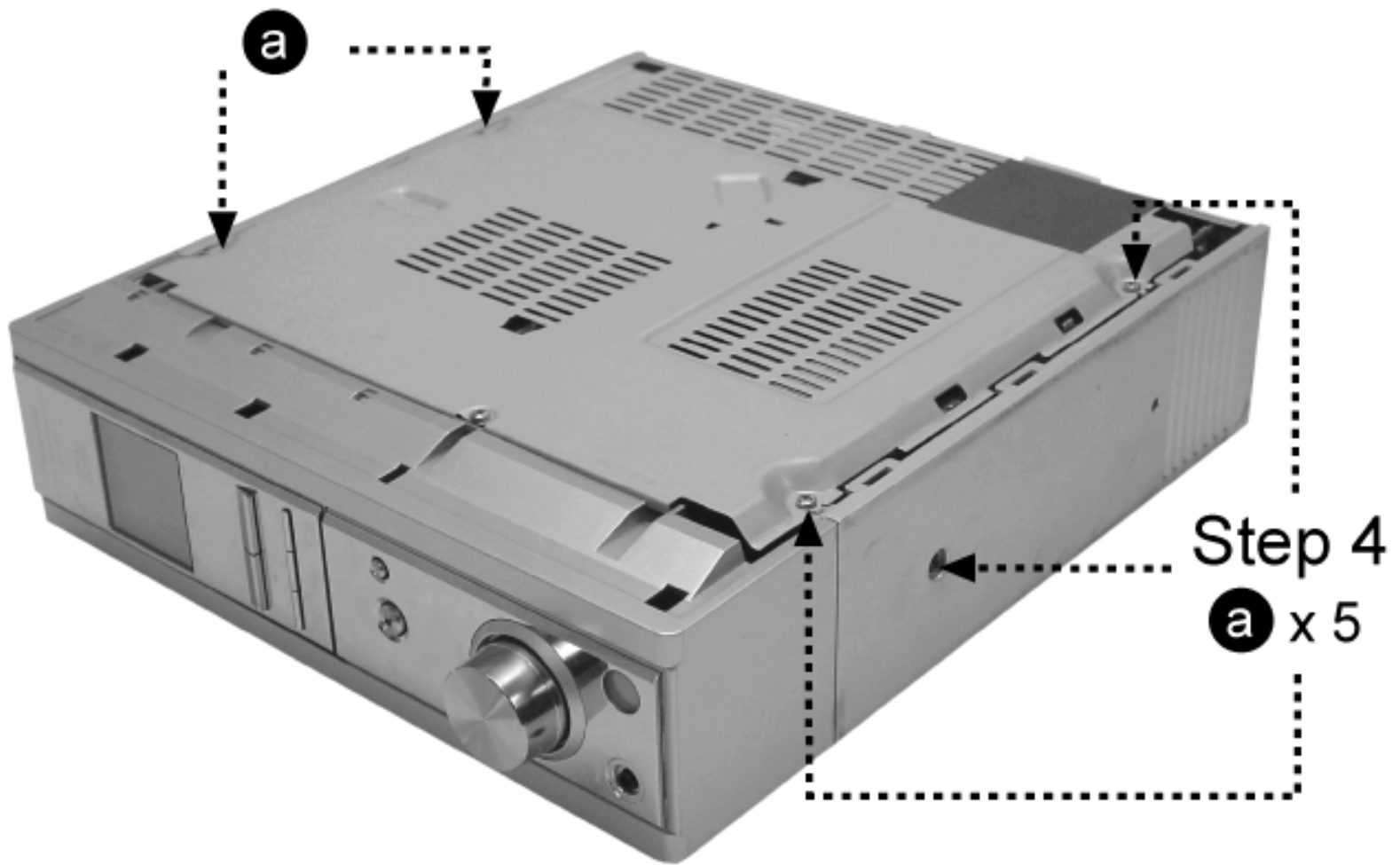
Back Panel



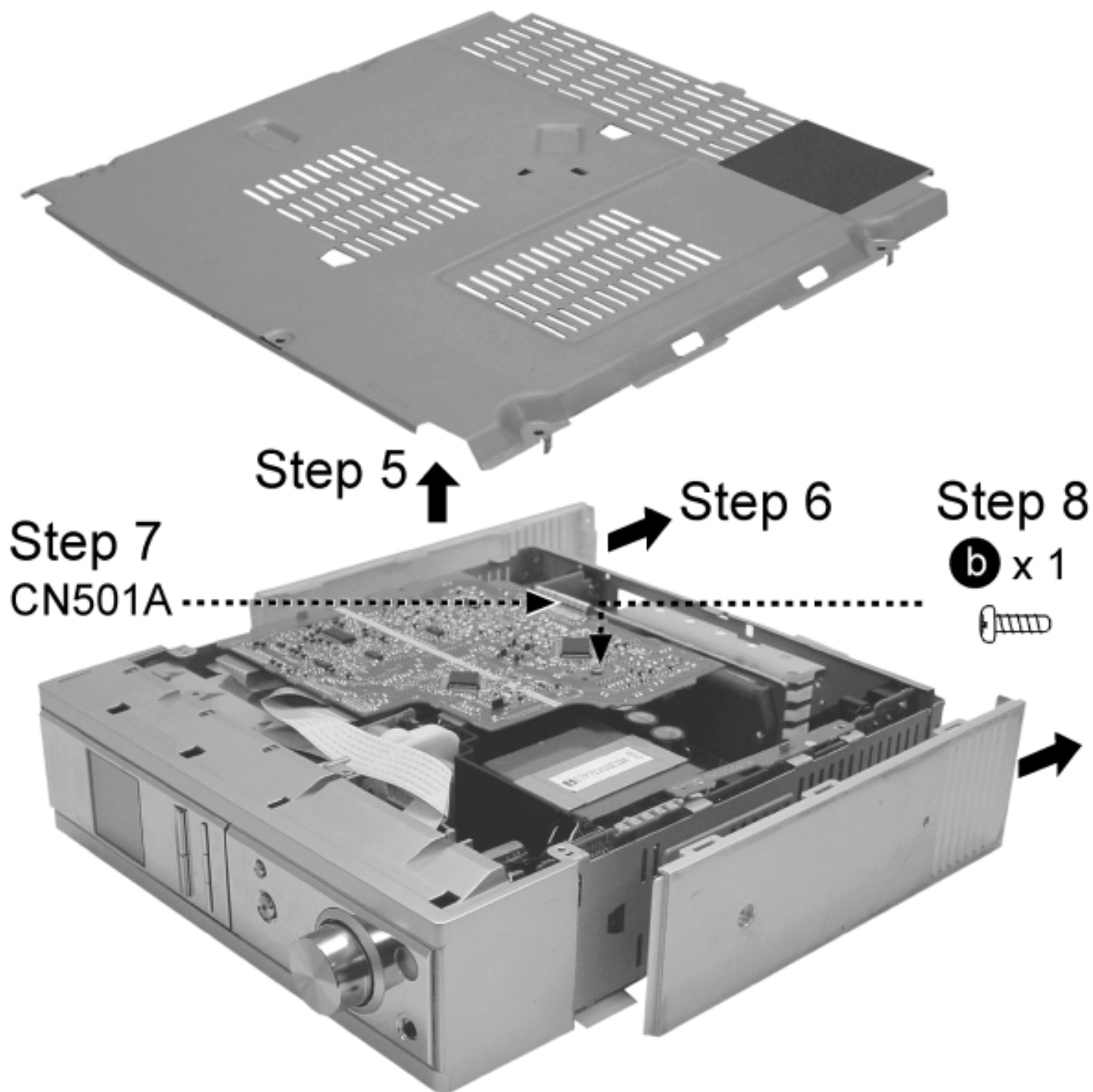
Step 2 Disconnect the connector CN351 from back panel .



Step 3 Remove the side panel (L) and side panel (R) as arrow shown.



Step 4 Remove all the screws.

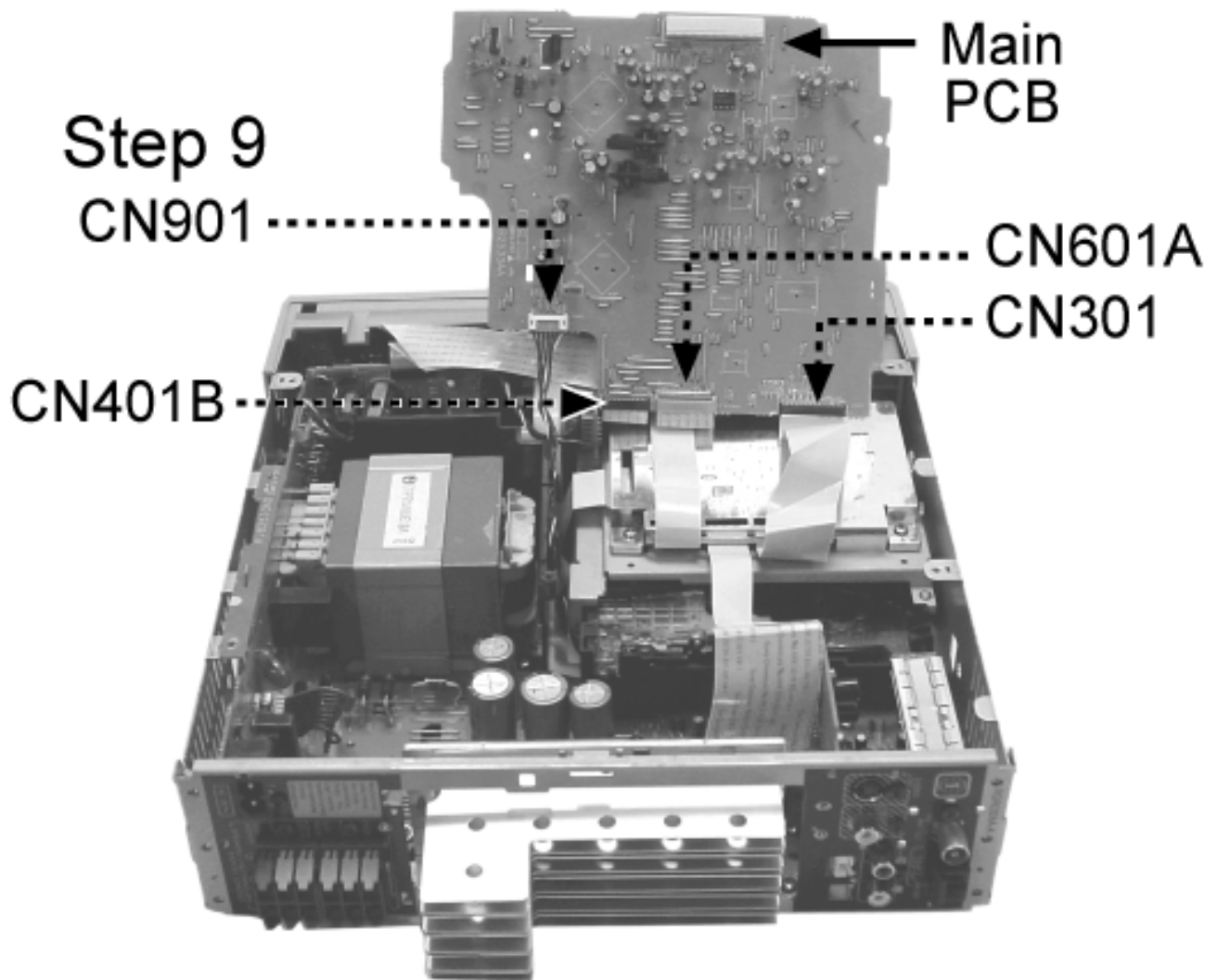


Step 5 Remove the cabinet as arrow shown.

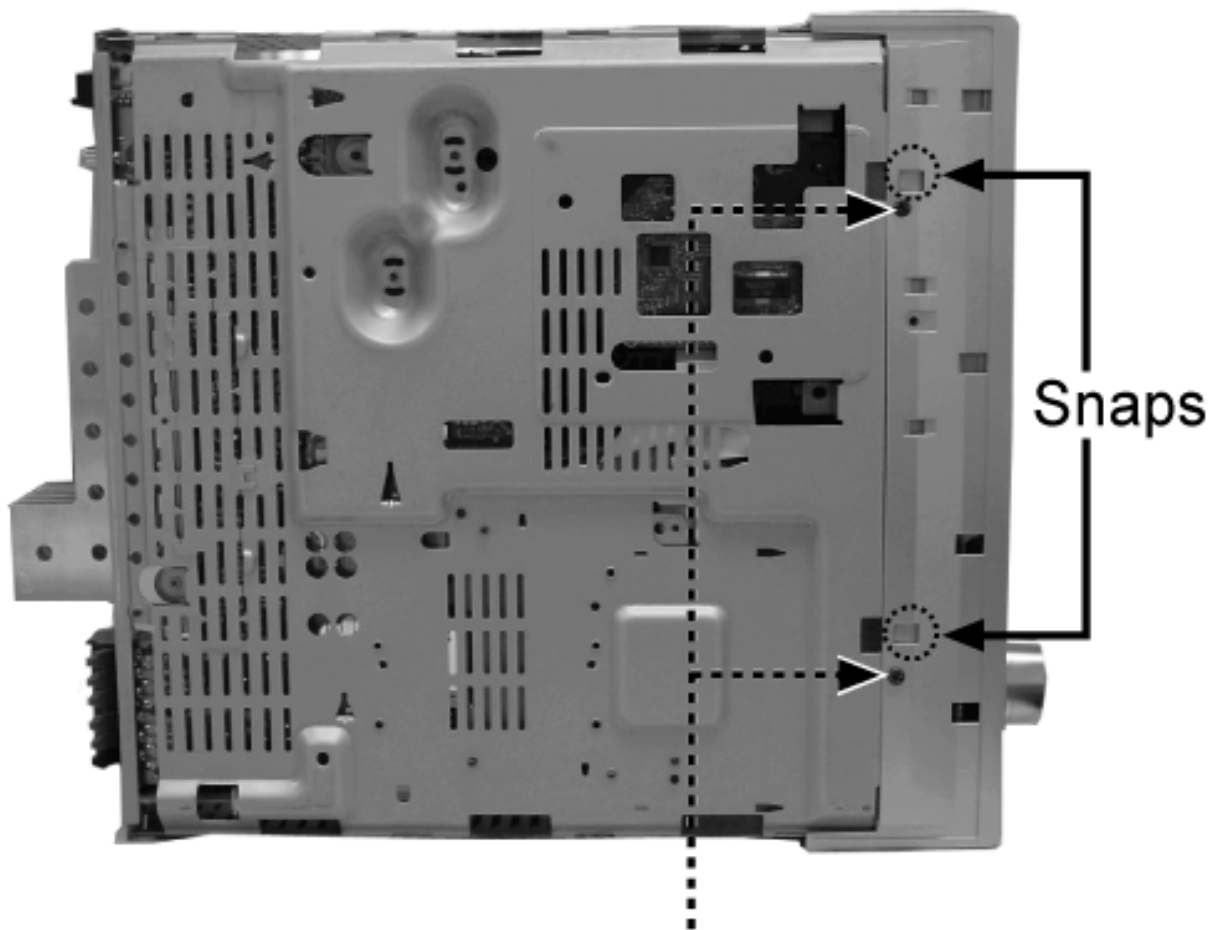
Step 6 Remove the both side panels as arrow shown.

Step 7 Disconnect the connector CN501A.

Step 8 Remove the screw.

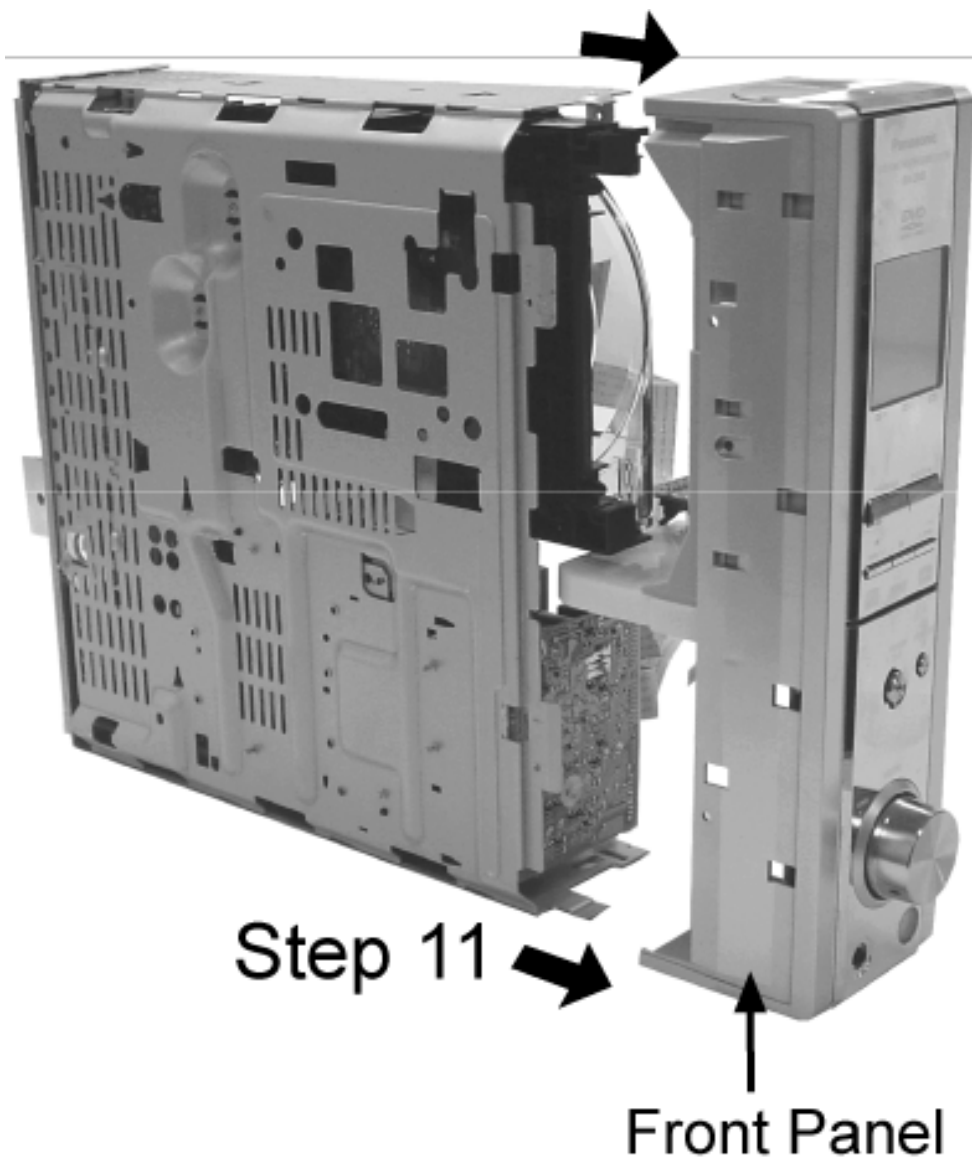


Step 9 Disconnect all the connectors CN901, CN401B, CN301 and CN601A from Main P.C.B..



Step 10
a x 2

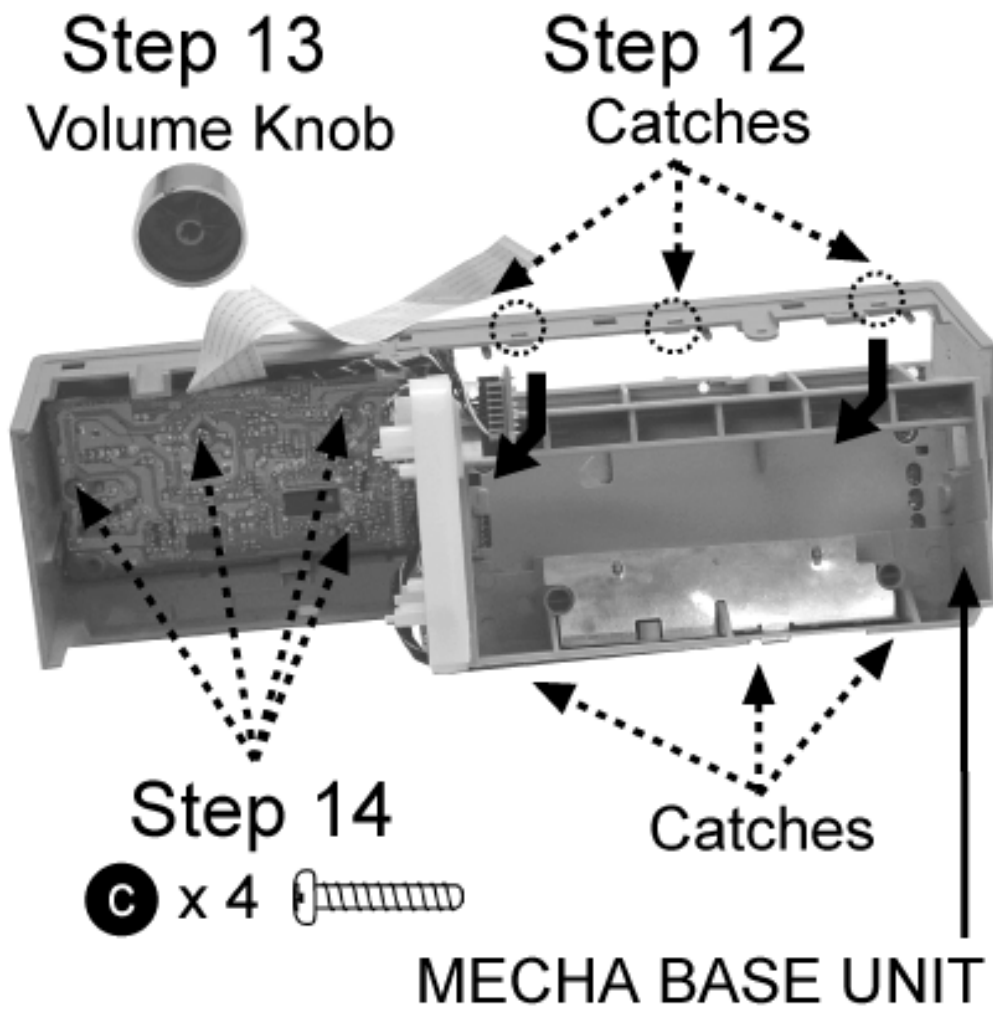
Step 10 Remove 2 screws, lift up the snaps at 2 locations shown.



Step 11

Front Panel

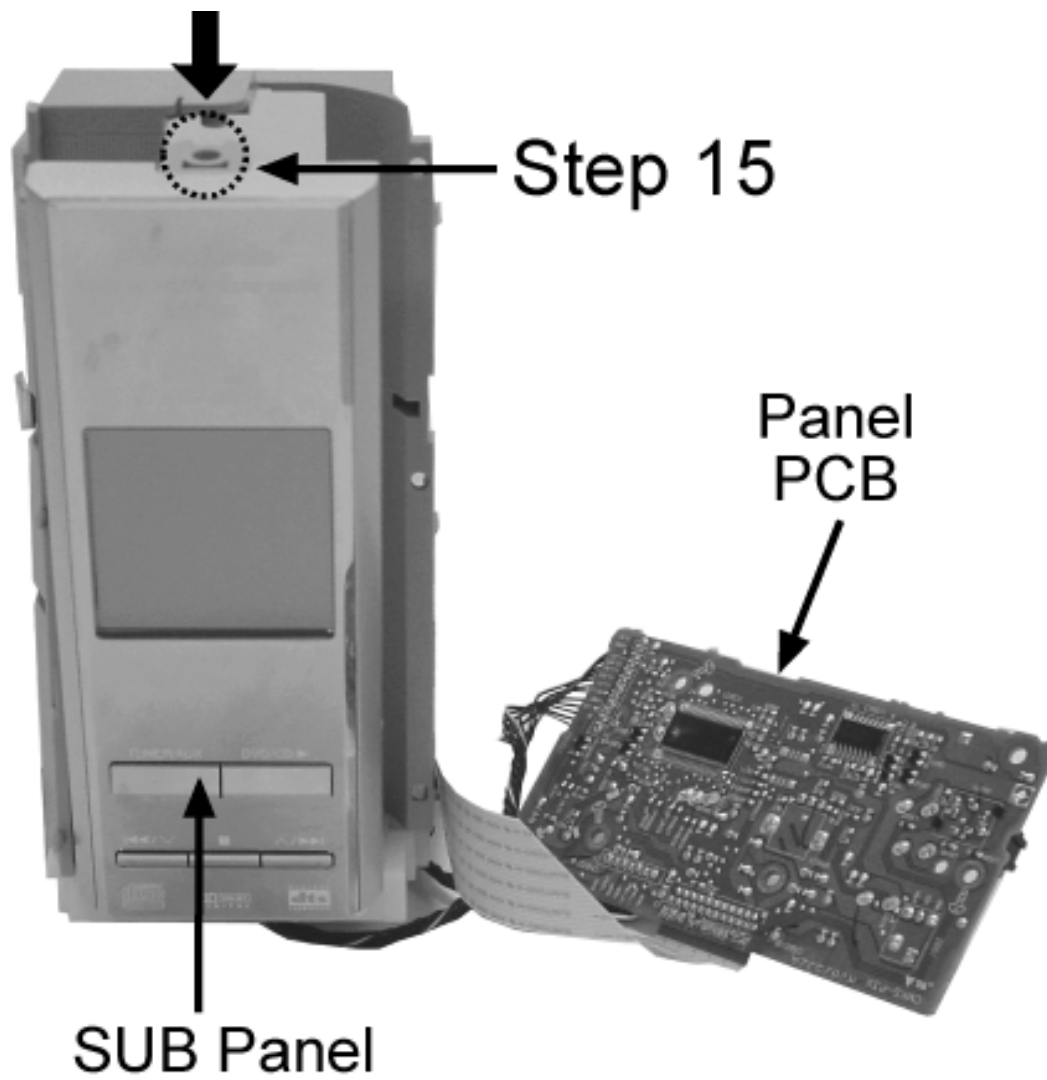
Step 11 Remove the front panel as arrow shown.



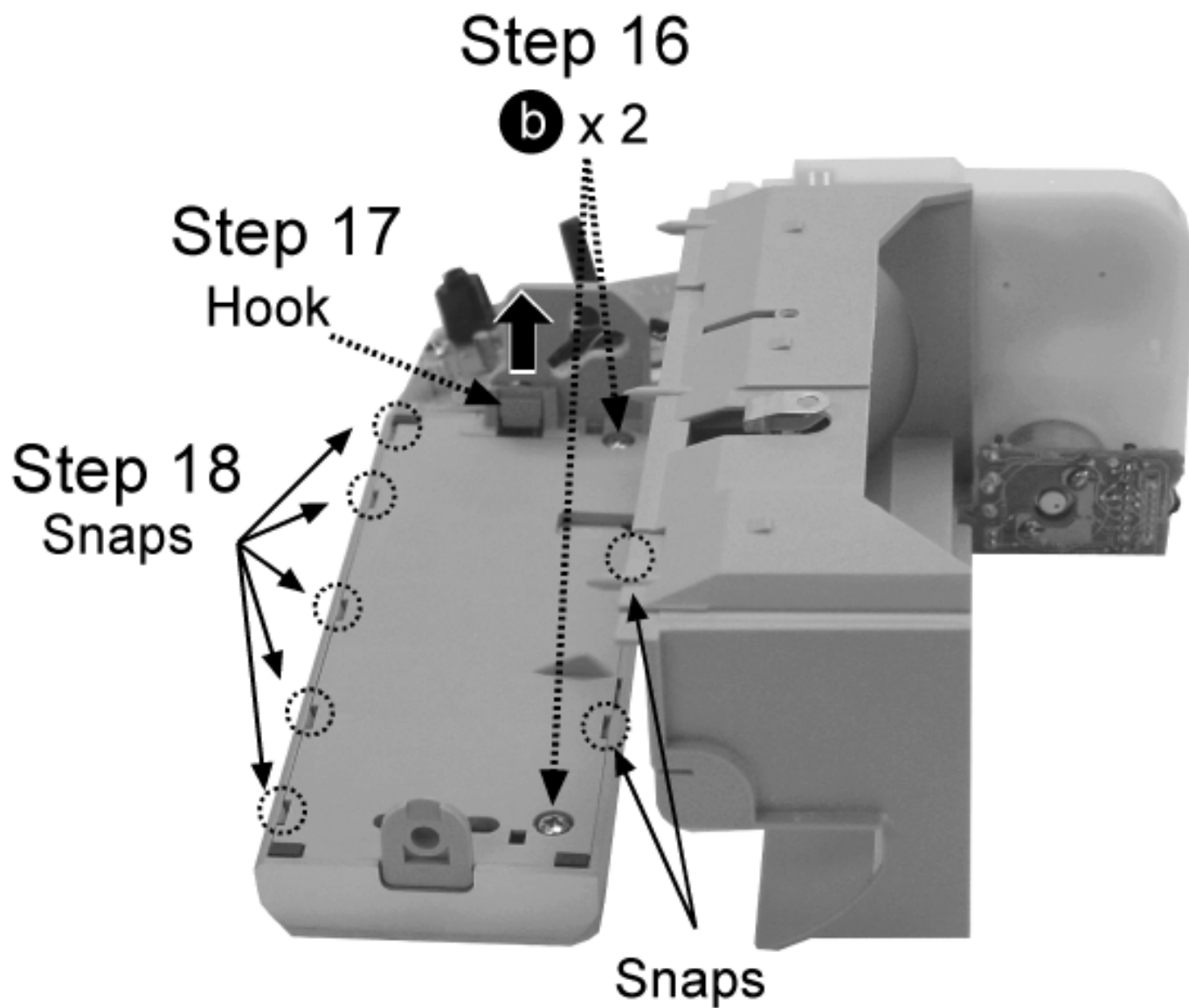
Step 12 Release all the catches and pull out the MECHA BASE as arrow shown.

Step 13 Remove the volume knob from front panel.

Step 14 Remove all the screws.



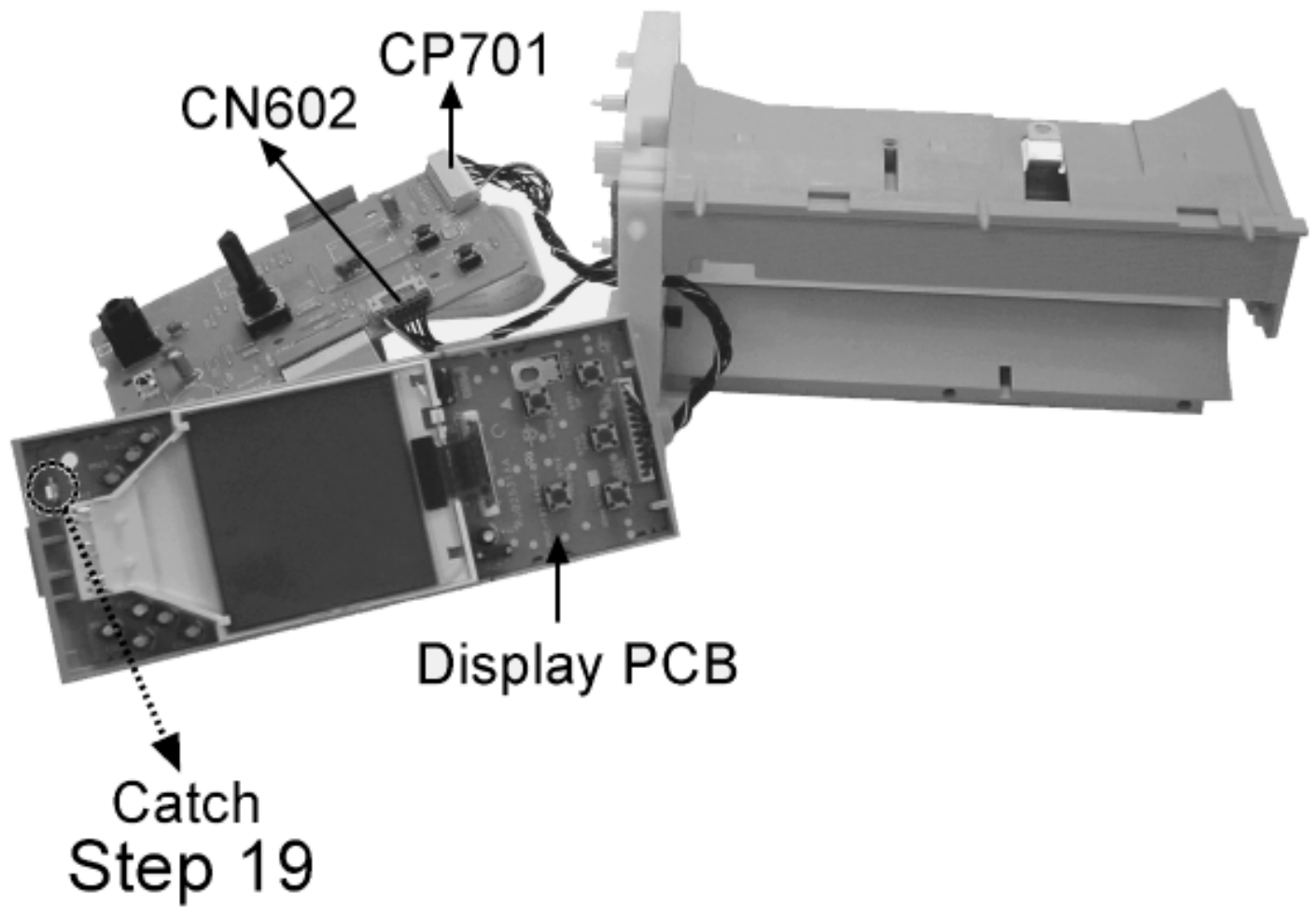
Step 15 Slightly push down the claw and pull out the SUB Panel.



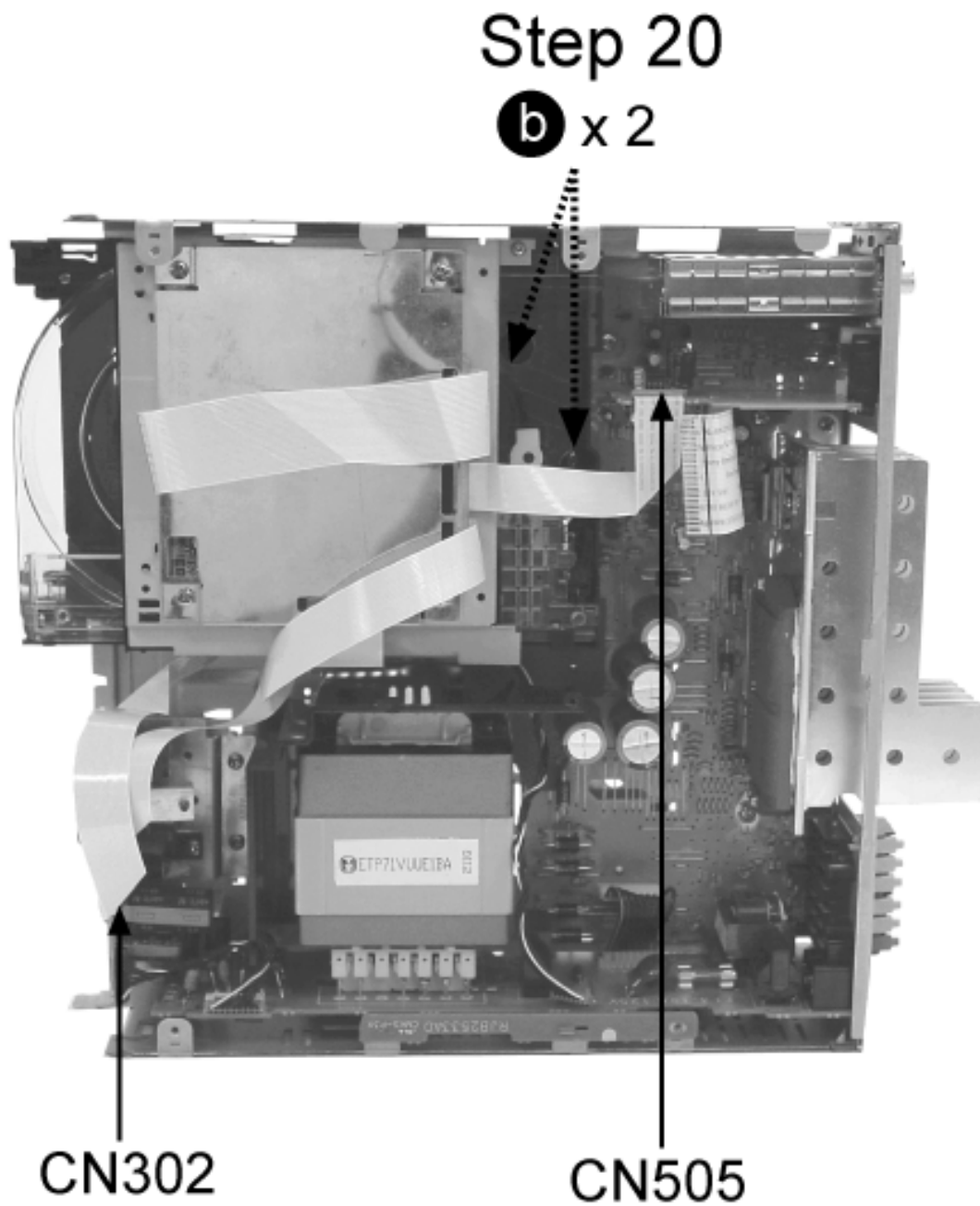
Step 16 Remove the screws.

Step 17 Push up the Hook as arrow shown.

Step 18 Release all the snaps and remove the cover from SUB Panel.



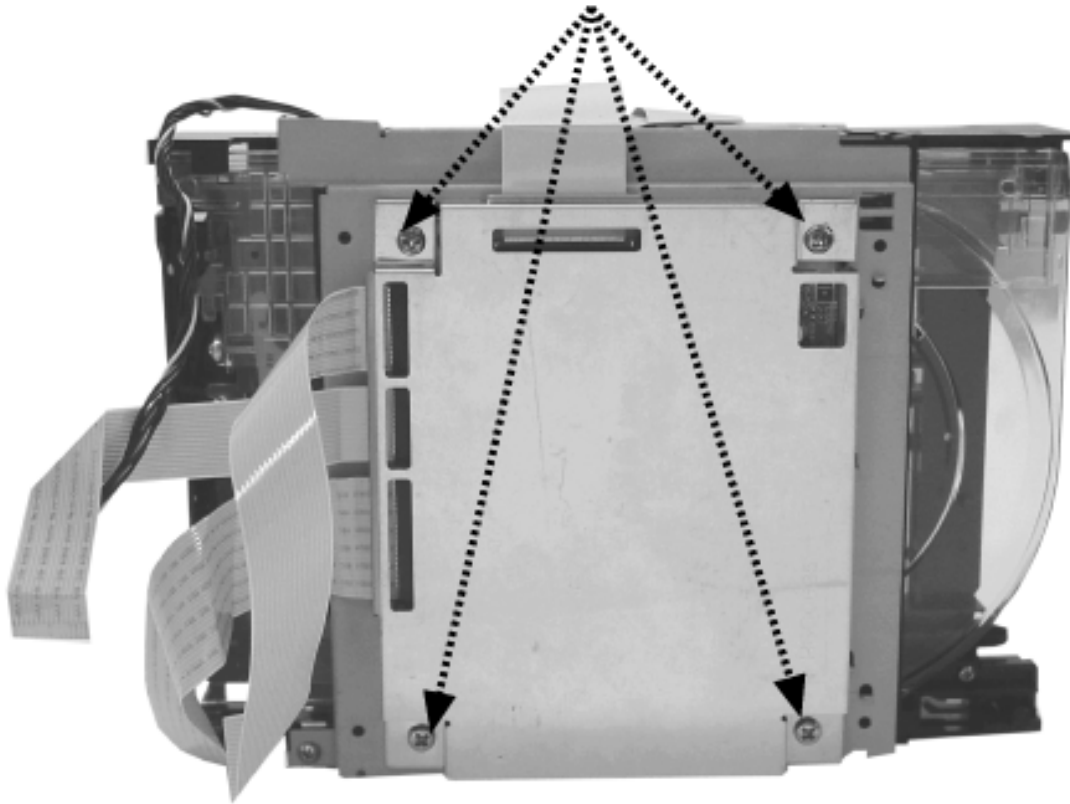
Step 19 Release the catch and disconnect all the connectors (CN602 and CP701).



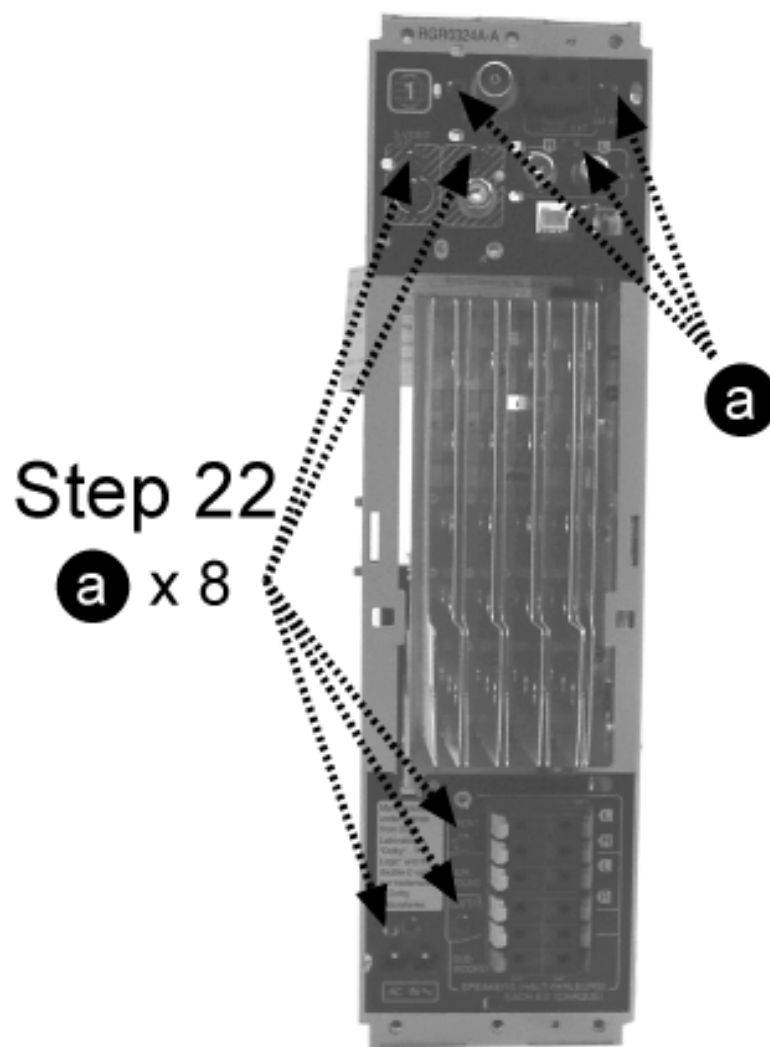
Step 20 Remove all the screws and disconnect all the connectors (CN302 and CN505).

Step 21

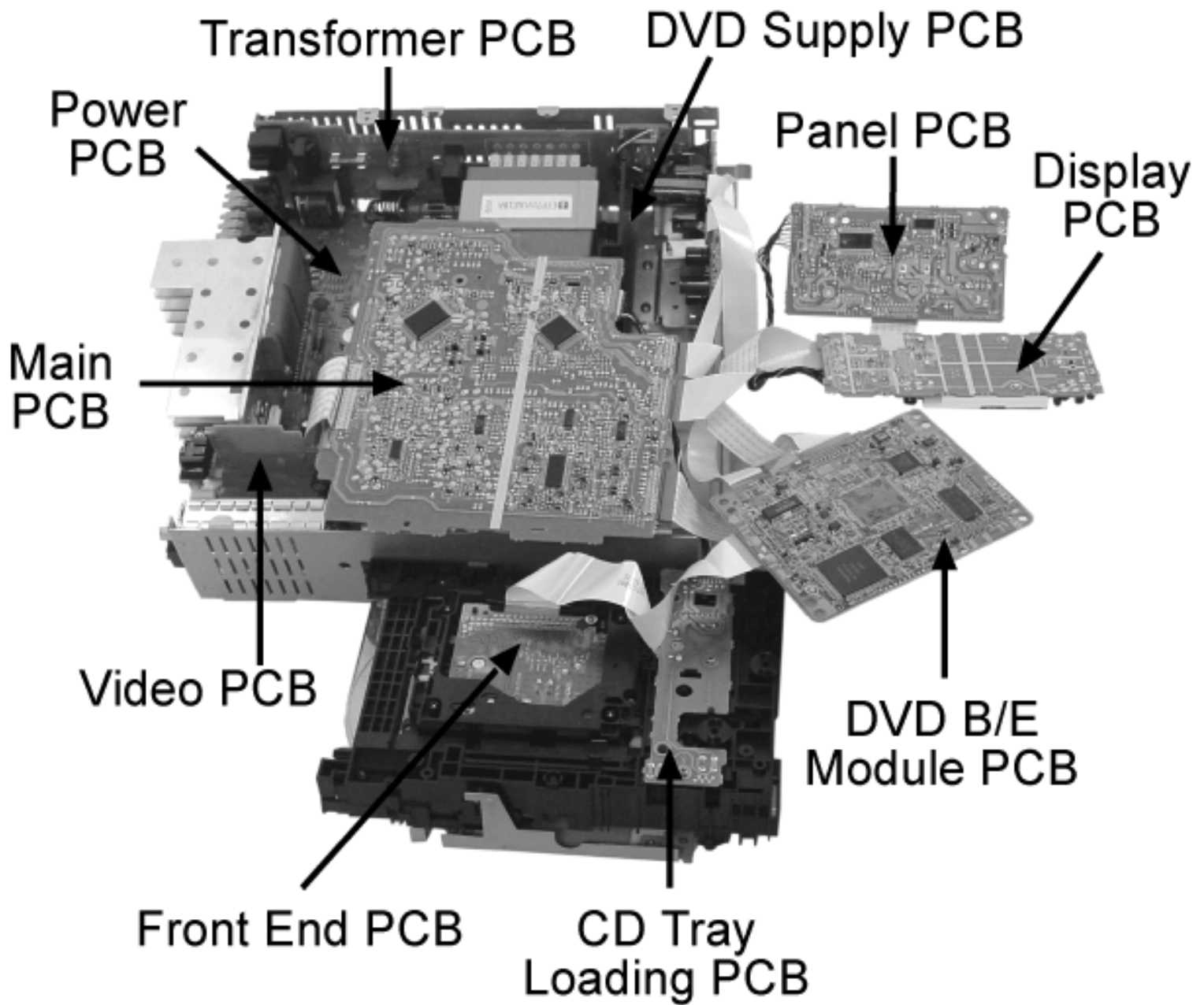
b x 4



Step 21 Remove all the screws.



Step 22 Remove all the screws.



[Step 23](#) Reconnect back all the connectors before testing.

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8.2 Disassembly and assembly of the Traverse Unit

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[8.2.1 Disassembling the Middle Chassis](#)

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[8.2.3 Traverse Gear](#)

[8.2.4 Optical Pickup Unit](#)

[8.2.5 Disassembling the Spindle Motor Unit](#)

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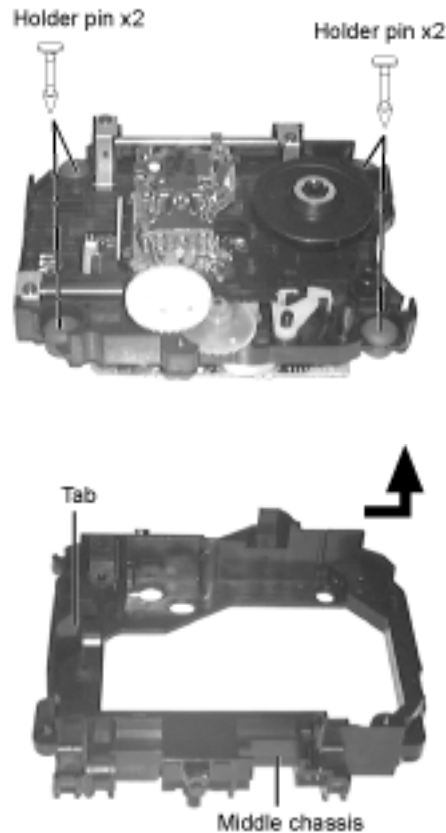
8.2.1 Disassembling the Middle Chassis

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Step 1 Remove the holder pins.

Step 2 Remove the tab.

Step 3 It lifts while pulling it in the direction of the arrow.



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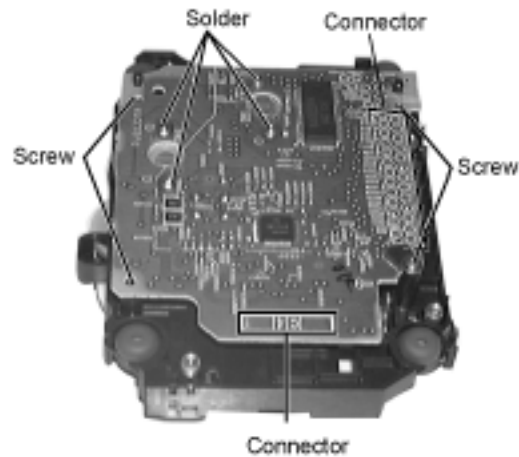
8.2.2 Terminal P.C.B.

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[Step 1](#) Unscrew the screw.

[Step 2](#) Remove the solders.

[Step 3](#) Remove the connector.



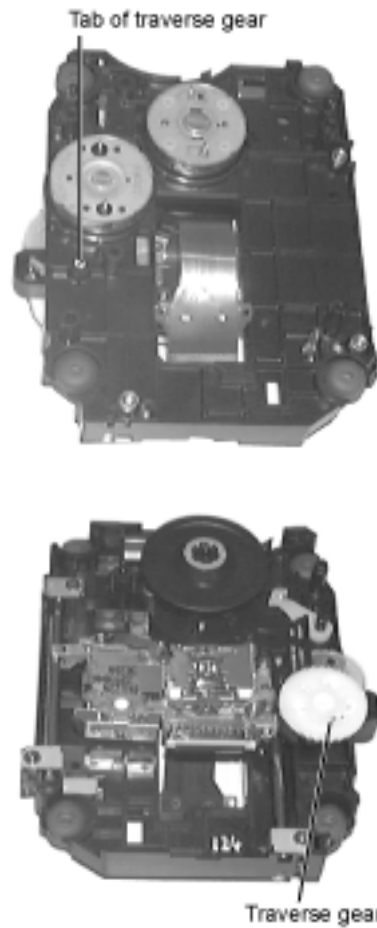
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8.2.3 Traverse Gear

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Step 1 Disengage the tabs from the traverse gear.

Step 2 Remove the traverse gear.



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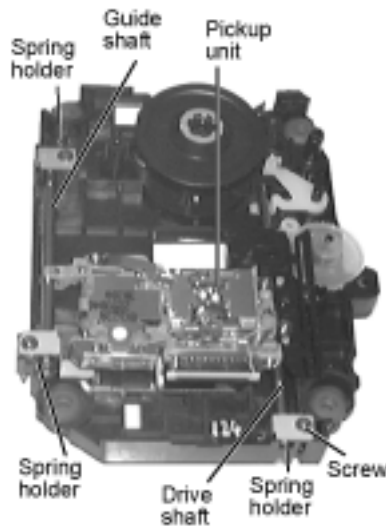
8.2.4 Optical Pickup Unit

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Step 1 Unscrew the screws.

Step 2 Remove the spring holders and the springs.

Step 3 Pull out the drive shaft and guide shaft.



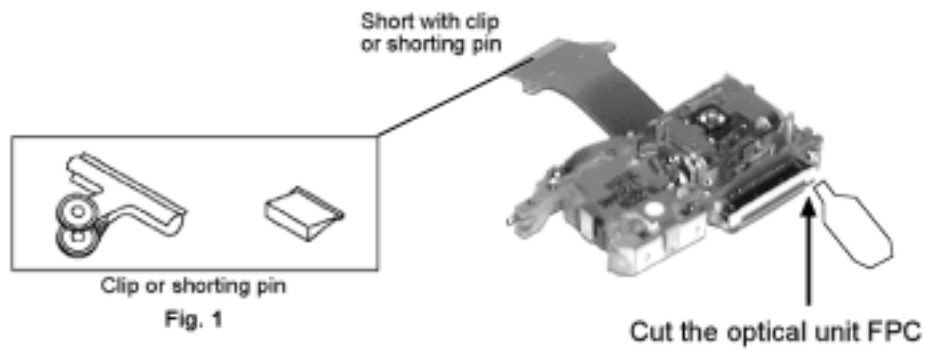
8.2.4.1 Precautions in optical pickup replacement

The optical pickup can be damaged by static electricity from your body. Be sure to take static electricity countermeasures when working around the optical pickup. (Refer to the related page in this Manual about the countermeasures.)

1. Do not touch laser diode, actuator and their peripheries.
2. Do not use tester to check laser diode. (Laser diode can be damaged easily.)
3. The use of soldering iron with anti-static feature is recommended when providing short-circuit to laser diode or when removing it.
4. Solder the land on flexible cable of optical pickup unit.

Caution

- When using the soldering iron without anti-static feature, short circuit the flexible cable terminal with a clip before short-circuiting the land.
- After intended repair is finished, remove the solder for short-circuit of laser diode in a correct way following the procedure described in this Manual.

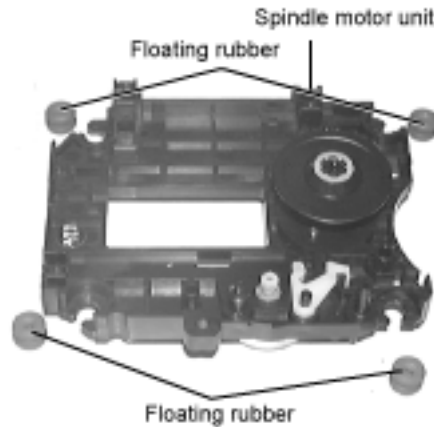


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8.2.5 Disassembling the Spindle Motor Unit

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Step 1 Remove the floating rubbers.



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9 Optical Pickup Self-Diagnosis and Replacement Procedure

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[9.1 Self-diagnosis](#)

[9.2 Cautions to Be Used Before Replacing the Optical Pickup Unit and Spindle Motor Assembly](#)

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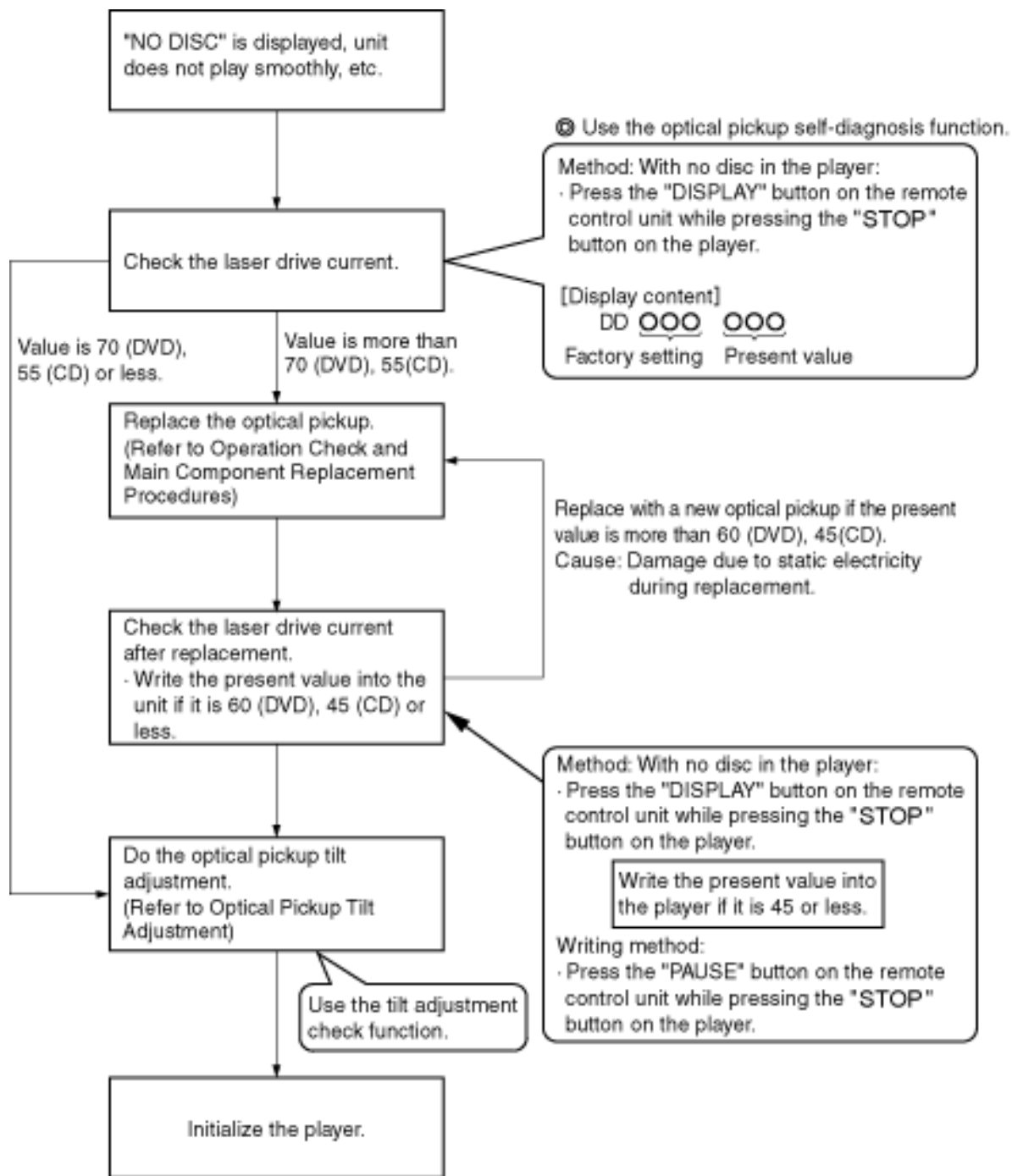
9.1 Self-diagnosis

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The optical pickup self-diagnosis function and tilt adjustment check function have been included in this unit. When repairing, use the following procedure for effective Self-diagnosis and tilt adjustment. Be sure to use the self-diagnosis function before replacing the optical pickup when “NO DISC” is displayed. As a guideline, you should replace the optical pickup when the value of the laser drive current is more than 55.

Note:

Press the power button to turn on the power, and check the value within three minutes before the unit warms up. (Otherwise, the result will be incorrect.)



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9.2 Cautions to Be Used Before Replacing the Optical Pickup Unit and Spindle Motor Assembly

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Before replacing the optical pickup unit and spindle motor assembly, check the total using hours for each of them. The checking method is as follow:

	Operating state & Key operation	Display
Using hours of CD laser	Press “STOP” and “  ” on the remote control in this order while the unit is stopped.	_xxxx_yyyy yyyy:Total hours are displayed by 4-digit figures (unit: 10 hours).
Using hours of DVD laser	Press “STOP” and “  ” on the remote control in this order while the unit is stopped.	_xxxx_yyyy xxxx:Total hours are displayed by 4-digit figures (unit: 10 hours).
Using hours of SP motor	Press “STOP” and “  ” on the remote control in this order while the unit is stopped.	T2_xxxx xxxx:Total hours are displayed by 4-digit figures (unit: 10 hours).
Resetting using hours of CD and DVD lasers (Simultaneous resetting)	Press “STOP” and “  ” on the remote control in this order while the unit is stopped.	_0000_0000
Resetting using hours of the motor	Press “STOP” and “  ” on the remote control in this order while the unit is stopped.	__T2_0000

Cautions to be taken when replacing the optical pickup

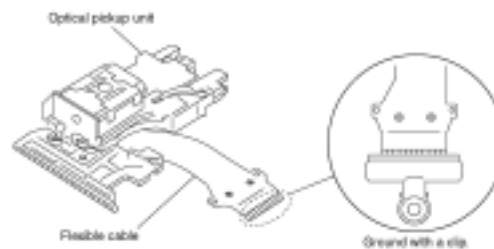
The optical pickup may break down due to the static electricity of human body. Take proper protection measures against static electricity before repairing the parts around the optical pickup. (See the page describing the PREVENTING OF STATIC ELECTRICITYDISCHARGE.)

1. Do not touch the areas around the laser diode and actuator.
2. Do not judge the laser diode with a tester. (The tester will be damaged easily.)

3. It is recommended to use a destaticized soldering iron for short-circuiting or removing the laser diode. (Recommended soldering iron) HAKKO ESD Product
4. Solder the land of the flexible cable in the optical pickup.

Note:

- When using a soldering iron which is not destaticized, short-circuit the terminal face of the flexible case with a clip. After that, short-circuit the land.
- After the repairing work is completed, remove the solder according to the correct procedure shown in this Technical Guide.



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10 Self-Diagnosis Function and Service Mode

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[10.3 Service Mode Table 1](#)

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10.1 Overview

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- This is a self-diagnostic function of the equipment for the user by our regulation.
- There are two ways, namely one displays on LCD when the error is occurred and the other displays the result of certain operations in the self-diagnostic mode on LCD.
- Function overview.

SELECTOR	INTEGRATED OPERATION	FL DISPLAY AT MODE- IN	NEXT OPERATION	TEST CONTENTS
DVD/CD	Unit [STOP]Unit [F.SKIP]	T_____	[OPEN/CLOSE]	Self-Diagnostic CODE ACQUISITION
			[STOP] single press	Self-Diagnostic CODE display
			[STOP] hold down	Error memory contents clearance
DVD/CD	Unit [STOP]Remote control [0]		Nil	DVD module self-diagnostic display (Error code display)
	Unit [STOP]otherRemote control			Special commands to DVD module such as Remote control [5] [6] [7] [9] [≥ 10] → [0] [≥ 10] → [ENTER][PAUSE] [DISPLAY] ETC.
TUNER	Unit [STOP]Unit [F.SKIP]	Key checkdisplay	All keys	Key check, all LCD turn on.
DVD/CD	Unit [STOP]Unit [F.SKIP]	T_____	[PLAY]	AD input value display [FF] From the left of LCD [AND].

Notes : The display in the self-diagnostic mode by [STOP] KEY shows all stored self-diagnostic code from DVD/CD.

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10.2 Setting and display of a self-diagnostic mode.

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10.2.1 Power source related

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1. Display sample.

_____F61__

- Self-diagnostic code

Error display	Error item	Detect method
F61	Abnormal output of POWER AMP or Power circuit error	When DCDET becomes L during the normal operation, switch PCNT to L immediately, instead of normal POWER OFF processing, and perform an error display of F61 without displaying GOODBYE. Do not perform demo when F61 is displayed. When an error occurred, store the contents and display the error contents in the error detecting mode.

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10.2.2 CD/ DVD mechanism (DL2V)

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- Confirmation of error detecting result and error storing contents

No.	Operating procedure	Operating, processing and so on of MPU
1	Switch SELECTOR to CD/DVD.The tray is containing no disk and closed.	
2	With holding the [STOP] KEY down for more than 2 seconds and pressing the [F. SKIP] KEY concurrently, the self-diagnostic mode is activated 2 seconds after the [STOP] KEY is released.	If the disk remains in the tray, the self-diagnostic mode is not activated.
3	Display [T] on LCD upon a self-diagnostic mode.	
4	Press the [OPEN/CLOSE] KEY	Perform following operations consecutively. The receiving of KEYs related to the mechanism is prohibited. 1. Open the tray 2. Close the tray 1 second after opened. 3. Initialize the mechanism. Finish at the play position
5	When the [STOP] KEY is pressed during pausing in the -diagnostic mode, the confirmation of trouble detecting result and trouble stored contents is performed.	Display the error item code on FL one by one with pressing the [STOP] KEY. Example of DVD module contents display: [_DVD_H05_] Example of normal self-diagnostic code display:[T____.H02_]
6	When the [STOP] KEY is holding down for more than 5 seconds during pausing in the self-diagnostic mode, auto-clearance of stored trouble contents is performed.	Clear the stored trouble contents and perform the next display.Display [CLEAR] for 1 second and return to [T] display.
7	The self-diagnostic mode is cleared upon pressing the [POWER] KEY	Turn POWER OFF.The normal operation is retrieved at the next POWER ON.

- If the trouble occurred during RAM check at MPU resetting, clear all stored contents of detected trouble at the initializing RAM.
- It is possible to move to the aforesaid procedure 6, skipping the aforesaid procedure 4, to display the self-diagnostic only.

3. Display sample.

T____H15__

- Self-diagnostic code

Error display	Error item	Detect method
H15	OPEN SW error	If there is a SW trouble and a failsafe operation during the normal operation, store it and display the trouble contents in the self-diagnostic mode. Also detect SW trouble in the trouble detectingmode.
H15	CLOSE SW error	

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10.2.3 CD/ DVD module

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No.	Operating procedure	Operating, processing and so on of MPU
1	Turn SELECTOR to CD/DVD	
2	Hold the [STOP] Key down and press the [0] key of the remote control	For more details, see [Error display] of [DVD/CD]

1. DVD syscon detects the trouble of DVD/CD module, and the opecon displays upon receiving the code.
2. As the self-diagnostic code of DVD/CD module is duplicated with usual audio code, the character of DVD and the self-diagnostic code are displayed concurrently.

_DVD_F010_

- Self-diagnostic code

Error display	Error details	Cause (IC no. etc.)
F010	The designated value is larger than the parental value of the designated country	Disk → IC7001
F020	There is no TT_SRPT (RLBN is 0)	Disk → IC7001
F021	TT_SRP number is 0	Disk → IC7001
F022	The designated value is larger than TT_SRP number	Disk → IC7001
F023	There is no SRP which corresponds with VTS_TTN	Disk → IC7001
F024	The designated value is larger than TT_SRP.NTT_Ns	Disk → IC7001
F030	TTU_SRP number is 0	Disk → IC7001
F031	The designated value is larger than TTU_SRP number	Disk → IC7001
F040	SRP1 number is 0	Disk → IC7001
F041	PGCI_SRP number is 0	Disk → IC7001
F042	The designated value is larger than PGCI_SRP number	Disk → IC7001
F043	There is no PGCI_SRP which corresponds with menu ID	Disk → IC7001
F050	TNAP_SRP number is 0	Disk → IC7001
F051	The designated value is larger than TMAP_SRP	Disk → IC7001
F052	The designated TMAP_SA is 0	Disk → IC7001

F053	MAP_EN number is 0	Disk → IC7001
F060	C_POSIT is existing but no PGMAP in PGC	Disk → IC7001
F061	C_POSIT is existing but PG number in PGC is 0	Disk → IC7001
F062	The designated value is larger than PG number in PGC	Disk → IC7001
F063	C_POSIT is existing but no C_PBIT in PGC	Disk → IC7001
F064	C_POSIT is existing but PG number in PGC is 0	Disk → IC7001
F065	The designated cell number is 0	Disk → IC7001
F066	The designated value is larger than cell number in PGC	Disk → IC7001
F067	It must be the block cell	Disk → IC7001
F070	It is not NV_PCK data	Disk → IC7001
F080	Searching cell number is not found	Disk → IC7001
F0E0	Unable due to no PGC control file for user guide as DVD object	
F0E1	Downloading is not possible because there is no DFD type compatibility with DFD main MPU	
F0E2	Starting DFD downloading, PGC replay error	
F0E3	Waiting DFD download completion, PGC replay error	
F0E4	AVDEC at DFD downloading	
F0E5	Firm file read error at DFD downloading	
F0E6	DFD alteration check error of read firm wear	
F0F1	Downloading is not necessary as the DFD object firm file is not found	
F0F2	Not necessary as the firm wear which corresponds with DFD downloading condition	
F103	Illegal Highlight Position	Disk → IC7001
F4FF	No ACK in spite of forced initialization to the panecon	Panecon → IC6001
F500	DSC Error	IC2001
F501	DSC Not Ready Error	IC2001
F502	DSC Time Out Error	IC2001
F503	DSC Communication failure	IC2001
F504	DSC data slice offset adjustment failure	IC2001
F505	DSC Attention Error	IC2001
F506	Unable to determine the media (Invalid media)	IC7001
F600	Unable to acquire a control information due to the recovery error	IC7001
F601	Requesting invalid sector ID	IC7001
F602	Unable to acquire LEAD-IN information due to the recovery error	IC7001
F603	Unable to acquire KEY_DET due to the recovery error	IC7001

F610	ODC out-of-control	IC7001
F611	No output of CRCOK for a certain time (CD system)	IC7001
F612	No output of CRCOK for a certain time (DVD system)	IC7001
F620	Laser protection "High temperature condition"	
F621	Laser protection "Circuit failure condition"	
F700	MBX Overflow	Syscon bug → IC6201
F701	Message Command Not Complete Error	Syscon bug → IC6201
F702	Message Command Changed	Syscon bug → IC6201
F880	Improper task number	Syscon bug → IC6201
F890	Tried to transmit message to AV task during communication	Syscon bug → IC6201
F891	Message transmission to AV task was failed (Mail box, overflow and so on)	Syscon bug → IC6201
F8A0	Improper message command	Syscon bug → IC6201
F893	Flash ROM is altered	IC6302
F894	EEPROM is not normal	IC6303

Error display	Error details	Cause (IC no. etc.)
U11	Focus Support Error	
H01	Tray Loading Error	
H02	Spindle Servo Error	
	DSC Disk Motor Error	
	6626 CLVS FAILURE	
H03	Travers Motor Error	
H04	Tracking Servo Error	
H05	SEEK Timeout Error	

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10.3 Service Mode Table 1

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- When the selector is DVD/CD, transmit corresponding communication command to the mechacon MPU by following operations.
- The mechacon MPU transfers these commands to DVD module without modification.
- DVD module transfers information to the opecon according to the command.
- Opecon displays DATA, which is sent from DVD module, in ten figures with right alignment.
- Command table.

Special operation	Command	Operation and display	Clearance
Jitter display (Servo test mode)	B5	Unit [STOP] + Remote control [5]	STOP or OPEN operation
		"xxx_yyy_zz"	
		xxx: Jitter measured value (DEC)	
		yyy: Read error counter (DEC)	
		zz: Focus drive value (HEX)	
		Character string form DVD MODULE is "J_w_xy_zzz_"	
Region display (Locale display)	B6	Unit [STOP] + Remote control [6]	Automatically turn off 5 seconds later
		"_w_xy_zzz"	
		w : Region number	
		x : N noPAL P PAL	
		y : N NTSC G PALGO	
		zzz : panecon jumper information	
		Character string form DVD MODULE is "_w_xy_zzz_"	
Version display	B7	Unit [STOP] + Remote control [7]	Automatically turn off 5 seconds later
		"srrrxyzzz"	
		"____xyzzz"	
		s : Model type of the panecon	
		rrr : Release number of the panecon	

		x: Syscon generation (45)	
		y: Model type of the syscon	
		zzz: syscon release number	
		The character string from DVD MODULE is "srrr__xyzzz"	
		srrr is blank in minicon	
Error code display	BA + requiring history number	Unit [STOP] + Remote control [0]	Automatically turn off 5 seconds later
		"__DVD_Fxxx", "__DVD_Uxxx", "__DVD_Hxxx"	
		xxx: Error number	
		Able to designate the error history by S6	
		(Possible to call up to 20 cases of S6="01h~14h")	
		Set at S6=01h when the above operation is carried out.	
		Input the remote control key [↓] during an error code is displayed: the value, added by the error history number from the syscon, is set at S6 and the command is issued.	
		Input the remote control key [↑]: the value, decreased by the error history number from the syscon, is set at S6 and the command is issued.	
		Increment and decrement must be performed within "01h~14h".	
Laser current initial value measurement (Laser power saved value)	C2	Unit [STOP] + Remote control [PAUSE]	
		"DD_034_028"	
		034 :DVD current measured value (mA) (DEC)	
		028: CD current measured value (mA) (DEC)	
		The character string from DVD MODULE is "LDD_034_028"	
DVD laser current measurement	C3	Unit [STOP] + Remote control [DISPLAY]	
		"DD_034_032"	
		034 : Initial current value (mA) stored in EPROM (DEC)	

		032: Present current value (mA) (DEC)	
		The character string from DVD MODULE is "LDD_034_032"	
ADSC internal RAM display	C4	Unit [STOP] + Remote control [1]	STOP or OPEN operation
		"A_OFA_6901"	
		OFA: Address (HEX)	
		6901 : RAM value of the displayed address (HEX)	
ADSC internal RAM display	C5	Unit [STOP] + Remote control [2]	STOP or OPEN operation
		"A_OFA_6901"	
		OFA: Address (HEX)	
		6901 : RAM value of the displayed address (HEX)	
Kink measurement display (Pick defect detection)	C6	Unit [STOP] + Remote control [9]	STOP or OPEN operation
		"FK_109_101"	
		109: The maximum value of calculation	
		101: The ratio of maximum value and minimum value	
		"FK_ER_9101"	
		ER: showing that error was occurred	
		9101: Error code of ADSC command	
Initialize (For users)	BC + Model table	Unit [STOP] + Remote control [	-
		≥10]	
		[INITIALIZED]	
		Restore the user setting to the default setting at the factory	
All reset (for designing service)	BC + Model table	Perform user initialization, and during [INITIALIZED] is displayed,	-
		Unit [STOP] + Remote control [ENTER]	
		"_DVD_RESET"	
		Restore the user setting to the default at the factory.	
		Referring to the panecon jumper, deploy the model table initial value of an appropriate number to EEPROM and a global area.	

		Do not initialize laser time and spindle time.	
All set (for manufacturing process)	F1	Receiving 22F1 of the remote control code	-
		Or, unit [STOP] + Remote control 1DDF	
		"_ALL_SET"	
		Restore the user setting to the default at the factory.	
		Referring to the panecon jumper, deploy the model table initial value of an appropriate number to EEPROM and a global area.	
		Initialize laser time and spindle time as well.	
Device name display	B1 + Ox13	Unit [STOP] + Remote control [4]	Display is changed in every 3 seconds and turn off after displaying the last device
		"FEP_?????" "SRV_?????" "ODC_?????"	
		"AV_?????" "SYS_?????"	
Laser operating time	B1 + Ox14	Unit [STOP] + Remote control [$\frac{A}{1}$]	Automatically turn off 5 seconds later
		"_1234_5678"	
		1234: DVD laser operating time	
		5678: CD laser operation time	
		Four figures display on ten hours	
		The character string from DVD MODULE is "T1_1234_5678"	
Laser operating time reset	B2 + Ox14	During the display of the operating time, unit [STOP] + Remote control [$\frac{A}{2}$]	Automatically turn off 5 seconds later
		"_0000_0000"	
		Reset DVD and CD at the same time	
Spindle operating time	B1 + Ox15	Unit [STOP] + Remote control [$\frac{A}{3}$]	Automatically turn off 5 seconds later
		"__T2_1234"	
		1234: four figures display on ten hours	

		The character string from DVD MODULE is "T2_1234____"	
Spindle operating time reset	B2 + Ox15	During the display of the operating time, unit [STOP] + remote control [	Automatically turn off 5 seconds later
		____]	
		"__T2_0000"	
CD laser current measurement	B1 + Ox92	Unit [STOP] + Remote control [3]	-
		"DC_028_026"	
		028: Initial current value (mA) stored in EEPROM	
		026: Present current value (mA)	
		The character string from DVD MODULE is "LDC_028__026"	
Region + Firm version display	BF + Ox92	Unit [STOP] + Remote control [8]	Automatically turn off 5 seconds later
		"__r_xyzzz"	
		r : Region number	
		x : Generation of syscon	
		y : Model type of syscon	
		zzz : Release number of syscon	
		The character string from DVD MODULE is "____r_xyzzz"	

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11 Adjustment Procedures

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11.1 Service Tools and Equipment

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Application	Name	Number
Tilt adjustment	DVD test disc	DVDT-S15 or DVDT-S01
	Hex wrench	Availabel on sale route.
Inspection	Extension cable (module P.C.B. to mother P.C.B.)	JGS0116
	Extension cable (module P.C.B. to mother P.C.B.)	JGS0098
Others	Screw lock	RZZ0L01
	Frease (1)	RFKXGAK152
	Grease (2)	RFKXGP641
	Oil (1)	RFKXGA1280
	DISPLAY	Checking the laser drive current
Confirmation	CD test disc	PVCD-K06 or any other commerically available disc
	VCD test disc	PVCD-K06 or any other commerically available disc
	Recovery disc	RFKZD5TR006

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11.2 Important points in adjustment

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[11.2.1 Important points in optical adjustment](#)

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11.2.1 Important points in optical adjustment

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- Before starting optical adjustment, be sure to take anti-static measures.
- Optical pickup tilt adjustment is needed after replacement of the following components.
 1. Optical pickup unit
 2. Spindle motor unit
 3. Optical pickup peripheral parts (such as rail)

Notes

Adjustment is generally unnecessary after replacing other parts of the traverse unit. However, make adjustment if there is a noticeable degradation in picture quality. Optical adjustments cannot be made inside the optical pickup. Adjustment is generally unnecessary after replacing the traverse unit.

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11.2.2 Important points in electrical adjustment

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- Follow the adjustment procedures described in this Manual.

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11.3 Storing and Handling Test Discs

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- Surface precision is vital for DVD test discs. Be sure to store and handle them carefully.
1. Do not place discs directly onto the workbench, etc., after use.
 2. Handle discs carefully in order to maintain their flatness. Place them into their case after use and store them vertically. Store discs in a cool place where they are not exposed to direct sunlight or air from air conditioners.
 3. Accurate adjustment will not be possible if the disc is warped when placed on a surface made of glass, etc. If this happens, use a new test disc to make optical adjustments.
 4. If adjustment is done using a warped disc, the adjustment will be incorrect and some discs will not be payable.

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11.4 Optical Adjustment

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[11.4.1 Optical pickup tilt adjustment](#)

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11.4.1 Optical pickup tilt adjustment

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Measurement point	Adjustment point	Mode	Disc
	Tangential adjustment screw Tilt adjustment screw	T01 (inner periphery) play T43 (outer periphery) play	DVDR-S15 or DVDT-S01
Measuring equipment		Adjustment value	
None (Main unit display for servicing is used.)		Adjust to the minimum jitter value.	

11.4.1.1 Adjustment Procedure

1. While pressing STOP button on the main unit, press “5” on the remote control unit.
2. Confirm that “xxx_yyy_zz” is shown on the front display.

For your information

“yyy” and “zz” shown to the right have nothing to do with the jitter value. “yyy” is the error counter, while “zz” is the focus drive value.

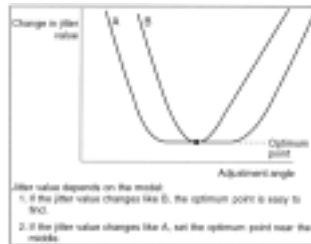
Note:

Jitter value appears on the front display.

3. Play test disc T01 (inner periphery).
4. Adjust tangential adjustment screw so that the jitter value is minimized.
5. Play test disc T43 (Outer periphery).
6. Adjust tilt adjustment screw 1 so that the jitter value is minimized.
7. Play test disc T43 (outer periphery).
8. Adjust tilt adjustment screw 2 so staht the jitter value is minimized.
9. Repeat adjusting tilt adjustment screws 1 and 2 alternately until the jitter value is minimized.

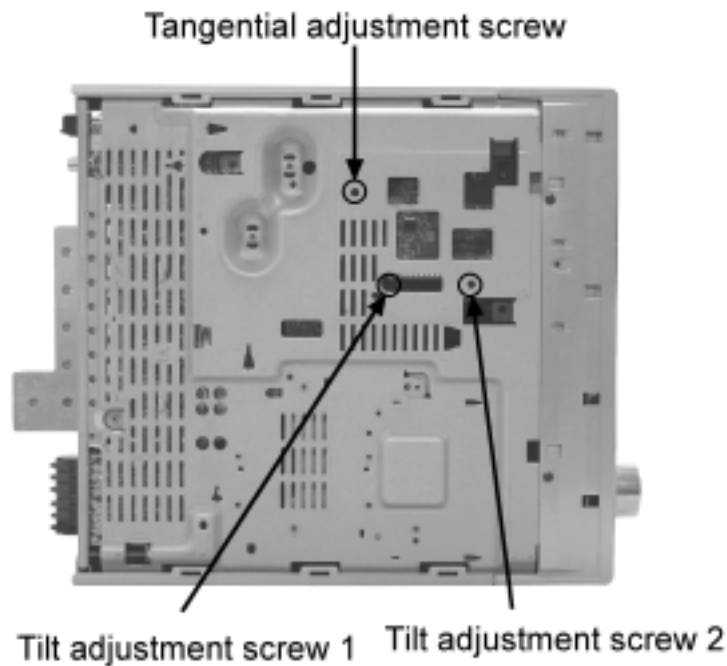
11.4.1.2 Important points

1. Make tangential adjustment first, and then make tilt adjustment.
2. Repeat adjusting two or three times to find the optimum point.
3. Finish the procedure with tilt adjustment.



1. Before make tangential adjustment, carry out step1 to step 2 from “[Checking Procedure for each major P.C.B.](#)” .
2. Remove the side panel (R) as arrow shown.





11.4.1.3 Check after adjustment

Play test disc or any other disc to make sure there is no picture degradation in the inner, middle and outer peripheries, and no audio skipping. After adjustment is finished, lock each adjustment screw in position using screw lock.

11.4.1.4 Procedure for screw lock

1. After adjustment, remove top cover, tray, clamper base and traverse unit in this sequence.
2. Lay the traverse unit upside down, and fix adjustment screw with screw lock.
3. After fixing, reassemble traverse unit, clamper base, tray and top cover.



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12 Electrical Adjustment

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[12.1 Video Output \(Brightness Signal\) adjustment](#)

[12.2 Video Output \(Colour Signal\) adjustment](#)

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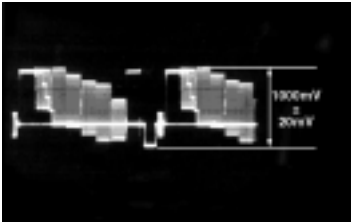
12.1 Video Output (Brightness Signal) adjustment

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Carry out this adjustment after board replacement.

Measurement Point	Adjustment Mode	Test Disc
Video output jack	Colour bar 75%Playback (Title 46) : DVDTS15Playback (Title 12): DVDTS15	DVDT- S15 or DVDT-S01
Required equirment	Adjustment	
Screwdriver, oscilloscope	1000mVp-p±20mV	

Purpose: To ensure compatibility of video signal output.1. Connect the oscilloscope to the video output jacks and set 75Ω.



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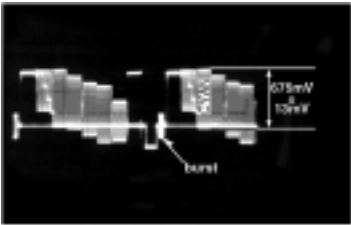
12.2 Video Output (Colour Signal) adjustment

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Carry out this adjustment after board replacement.

Measurement Point	Adjustment Mode	Test Disc
Video output jack	Colour bar 75%Playback (Title 46) : DVDT-S15Playback (Title 12): DVDT-S15	DVDT- S15 or DVDT-S01
Required equirment	Adjustment	
Screwdriver, oscilloscope	675mVp-p±13mV	
200mV/div, 10 μ sec/div		

Purpose: To ensure compatibility of video signal output.1. Connect the oscilloscope to the video output jacks and set 75Ω.



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13 Illustration of IC' s, Transistors and Diodes

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[TOP](#) [PREVIOUS](#) [NEXT](#)

C0JBAR000292 (16p) M5228FPE1 (14p) C0CBCBD00002 (6p) C1AB00001393 (16p) C1DB00000582 (16p) M62444FPE1 (42p) C2BBGE000593 (42p) M62456FPE1 (24p)	C2HBZC000013 (80p) C2BBGF000367 (64p) MN102H60GFB (100p) MN677531KA (208p) MN103S26EGA (176p) C0FBBK000022 (48p) AN8703FH-V (64p)	TA7291S	M5218AP		
LM2940T5M	C0JBAA000001 C0JBAB000356 C0EBE0000070	C0DBAJG00002 C0DBFFG00004	TC4050BF (16p)	C0CBCBE00001	BA6283N
C0GBG0000033	C0ABBA000121	RFKFMA502160	RSN311W64B-P	C0JBAR000155 C0ABHB000004	C3ABPG000068
C0DAAHG00012	B1BDBF000004	2SB621ARSTA	B1ABCF000011 B1GDCFJJ0002 B1GBCFJA0002 B1GBCFJN0004 B1ADCF000001 2SD1819A0L 2SA15320XL 2SC39300XL DTC124EKA146	UNR511M00L UNR521100L UNR212100L	2SD21370PA
KTC3199GRTA B1ACCF000037 B1AAGC000007	KRA102MTA KRC102MTA	KTA1046 KTC2026	2SB14170QA	B1FGFCAA0001	MA2J11100L 1SS380TE-17
B0ADCC000002 MA3X71600L	SFPB-72V	B0BC9R000008	1SS355TE17	MA2J72800L	B0BC5R000009 B0BC7R500001
B0BA6R800007 B0BA9R000007	B0AACK000004	RK306LFU1	MA729TX	RL1N4003N02 B0EAKM000085 B0HANM000012	1N5402BM21
MA2C700A0F	SPR325MVWT31	NSPWF50BS			

14 Terminal Function of IC' s

[TOP](#) [PREVIOUS](#) [NEXT](#)

[14.1 IC901 \(C2BBGF000367\) System Control](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

14.1 IC901 (C2BBGF000367) System Control

[TOP](#) [PREVIOUS](#) [NEXT](#)

Pin No.	Mark	I/O	Function
1	ANGLE_SW2	I/O	Posture detective switch2
2	KEY1	I/O	KEY1 input
3	ANGLE_SW1		Posture detective switch1
4	DC DET	I/O	DC DET input
5	WIDE1	I/O	WIDE1 setting
6	JOG_A	I/O	VOL JOG input A
7	JOG_B	I/O	VOL JOG input B
8	DSP_CS	I/O	DSP CS output
9	DSP_CK	I/O	DSP CLOCK output
10	DSP_DA	I/O	DSP DATA output
11	DSP_RST	I/O	DSP RESET output
12	LCD_CS	I/O	Display conversion MPU, CS output
13	LCD_CK	I/O	Display conversion MPU, clock output
14	LCD_DA	I/O	Display conversion MPU, data output
15	N.C.	I/O	Not in use (leave open)
16	RMT	I/O	Remocon input
17	SYNC	I/O	Blackout detection input
18	CNVSS	-	Connect GND with 10kΩ
19	RESET	I	RESET input
20	BUSY	I/O	Display conversion MPU, LCD busy
21	LCDRS	I/O	Display conversion MPU, reset
22	XIN	I	16MHz Main clock
23	XOUT	O	16MHz Main clock
24	VSS	-	Connect GND
25	BREAK_H	I/O	CD TRAY SPEED CONTROL
26	TRY_CW	I/O	TRAY CW output
27	TRY_CCW	I/O	TRAY CCW output
28	TRY_CLS	I/O	TRAY PLAY SW input

29	TRY_OPN	I/O	TRAY OPEN SW input
30	N.C.	I/O	Not in use (leave open)
31	N.C.	I/O	Not in use (leave open)
32	PNL_SW	I/O	PANEL OPEN SW input
33	PCNT	I/O	PCNT output
34	DVD-PWCNT	I/O	DVD MODULE POWER CONT
35	N.C.	I/O	Not in use (leave open)
36	N.C.	I/O	Not in use (leave open)
37	N.C.	I/O	Not in use (leave open)
38	N.C.	I/O	Not in use (leave open)
39	N.C.	I/O	Not in use (leave open)
40	EDA	I/O	EEPROM CS output
41	VOL-LA	I/O	4ch VOL LATCH
42	ECS	I/O	EEPROM CS output
43	ECK	I/O	EEPROM CLOCK output
44	DVD-MUTE	I/O	DVD-MUTE
45	VOL_ATT	I/O	VOL ATT
46	SUW_MIXSW	I/O	SUW_ MIXSW
47	MUTE-S	I/O	MUTE S output
48	MUTE_A	I/O	MUTE A output
49	SD	I/O	TUNER SIGNAL DET input
50	DVD_CK	I/O	DVD CLOCK input
51	DVD_CMD	I/O	DVD COMMAND output
52	DVD_STATUS	I/O	DVD STATUS input
53	DO/ST	I/O	TUNER DD/ST input
54	PLLCK	I/O	PLL CLOCK output
55	PLLDA	I/O	PLL DATA output
56	PLLCE	I/O	PLL CE output
57	VCC	-	BACK UP +5V
58	VREF	-	REFERENCE +5V
59	AVSS	-	GROUND
60	HP_SW	I/O	PHONE DET inputL: No phone
61	DES4-_DVD	I/O	Destination 4DVD REGION setting
62	DES3_DM3/5	I/O	Destination 3DSP, DNR related function setting

63	DES2_SP	I/O	Destination2SP related function setting
64	DES1_TU	I/O	Destination1TUNER related function setting

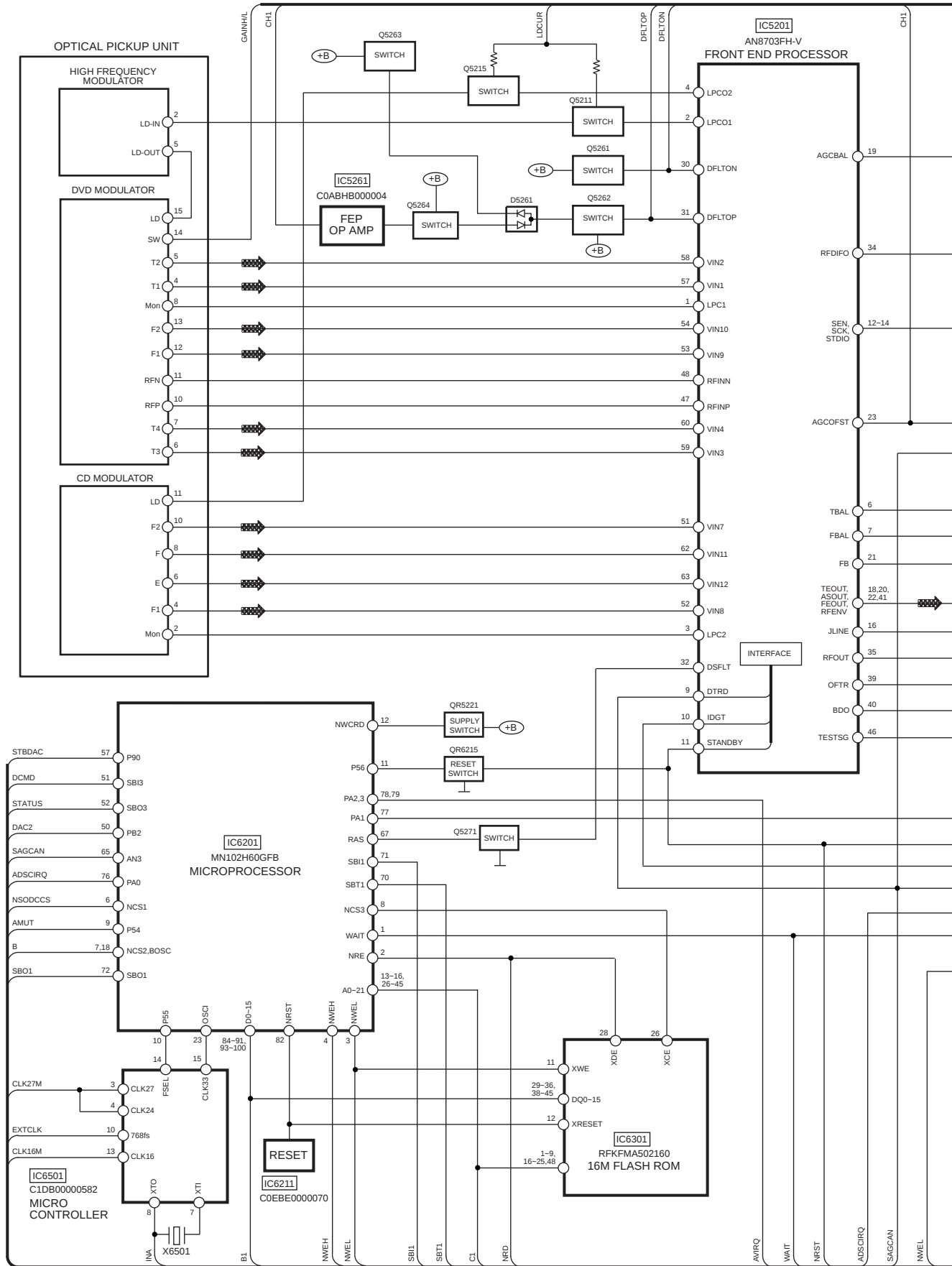
[TOP](#) [PREVIOUS](#) [NEXT](#)

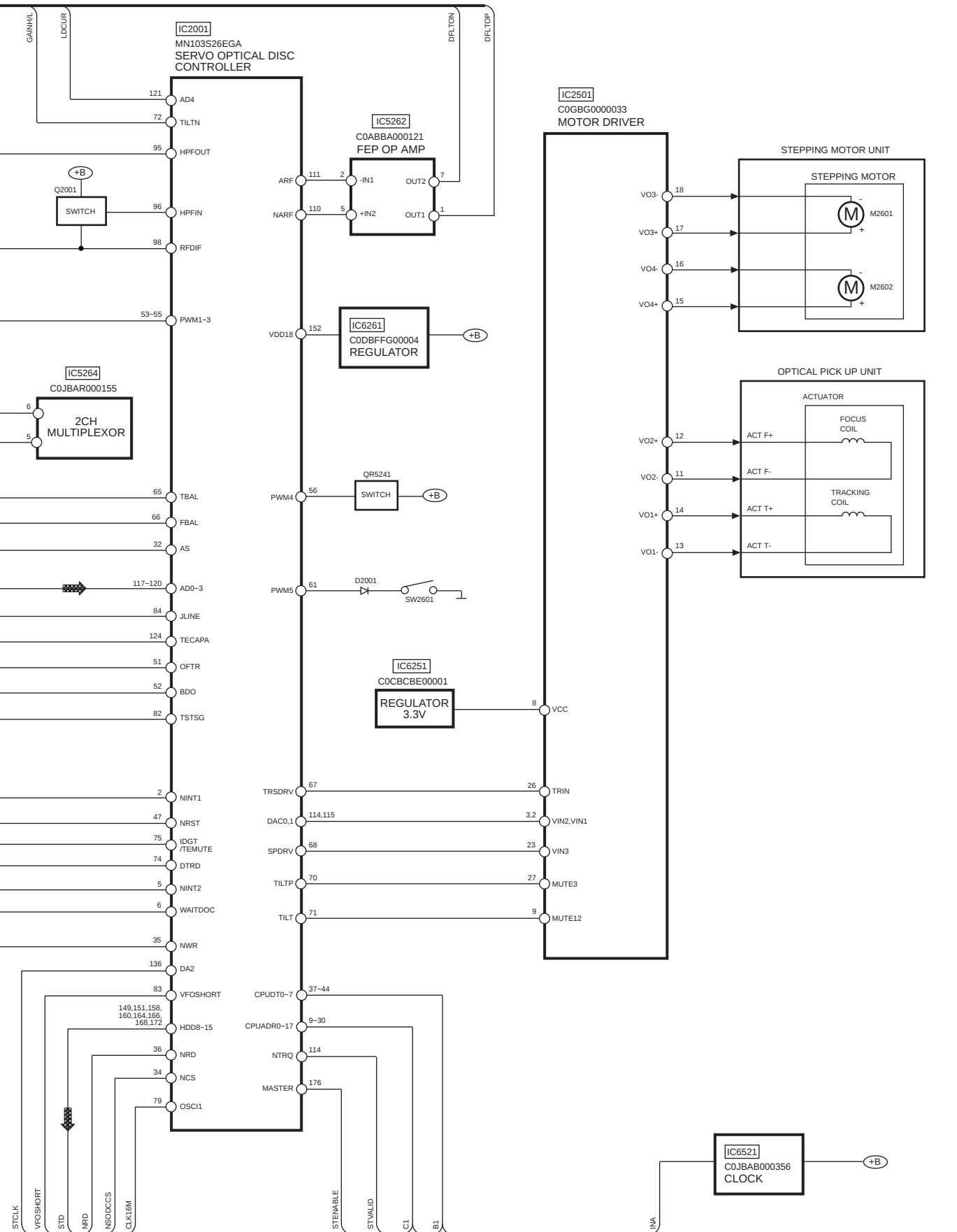
15 Block Diagram

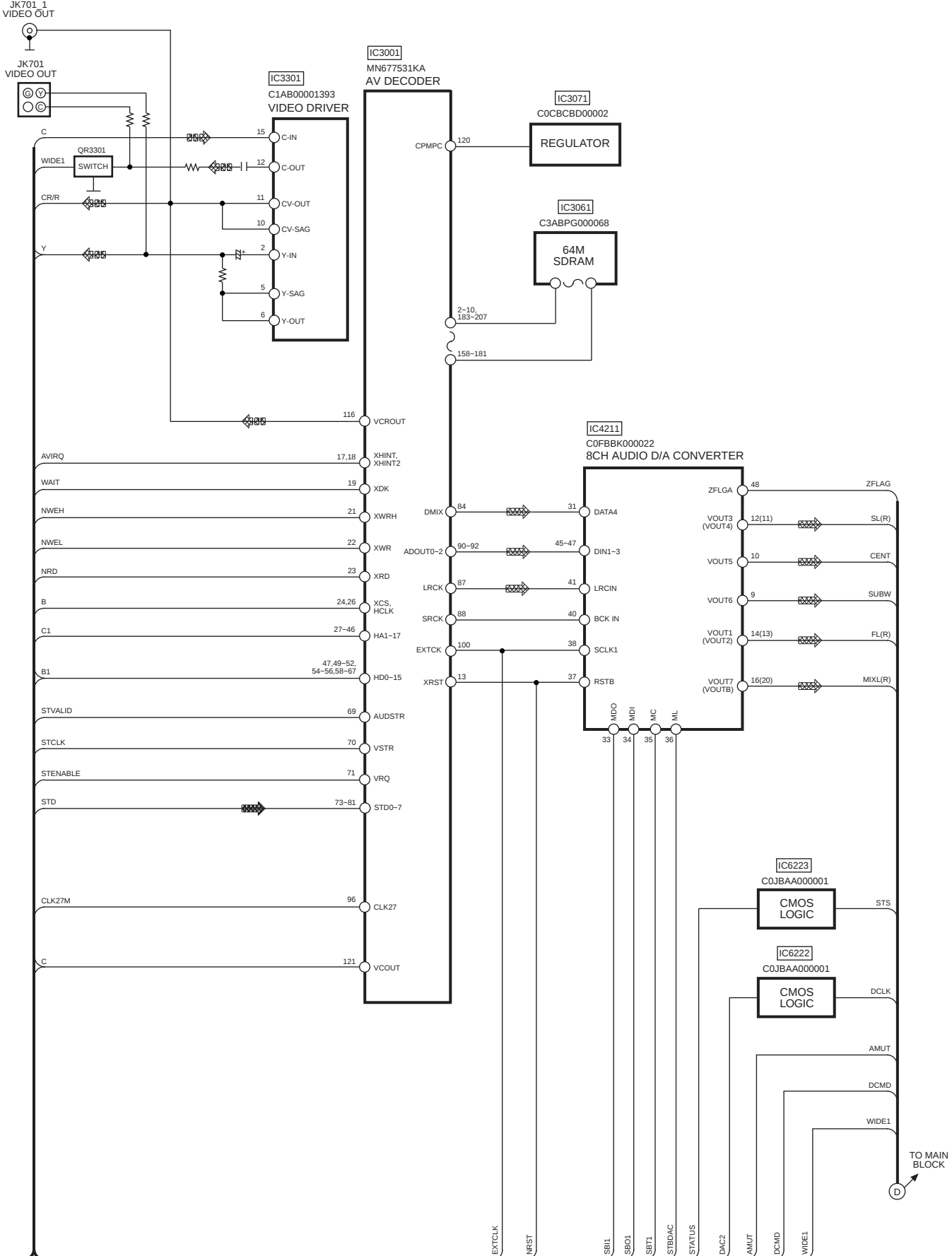
[TOP](#) [PREVIOUS](#) [NEXT](#)



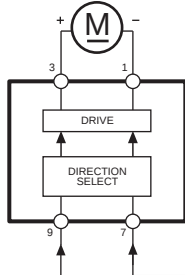
[TOP](#) [PREVIOUS](#) [NEXT](#)







RM751
(LOADING MOTOR)



IC751
BA6283N
MOTOR DRIVER

PNEL_CW

PNEL_CW

BRAKE_H

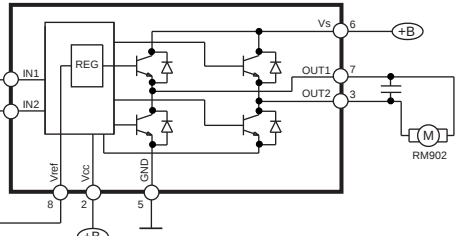
TRAY_CW

TRAY_CW

IC904

TA7291S

REFLECTIVE PHOTO SENSOR

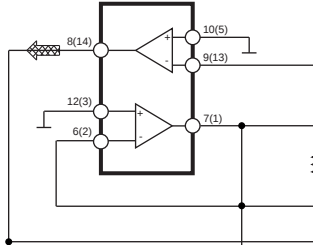


Q902
SWITCH

IC205

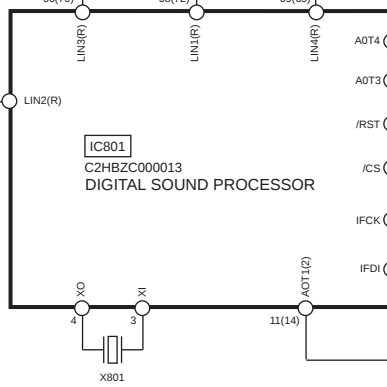
M5228FPE1

QUAD OP AMP



JK201
AUX

IC801
C2HBZC000013
DIGITAL SOUND PROCESSOR



TO DVD
BLOCK

SUBW

SL(R)

AOT4

MIXL(R)

CENT

AOT3

FL(R)

TUNL

AOT4

AOT3

DRST1

DCSI

CLOCK

DATA

DCS1

BRAKE_H

TRAY_CW

TUNL

SUBW

SL(R)

MIXL(R)

FL(R)

CENT

DCLK

STS

WIDE1

DCMD

AMUT

ZFLAG

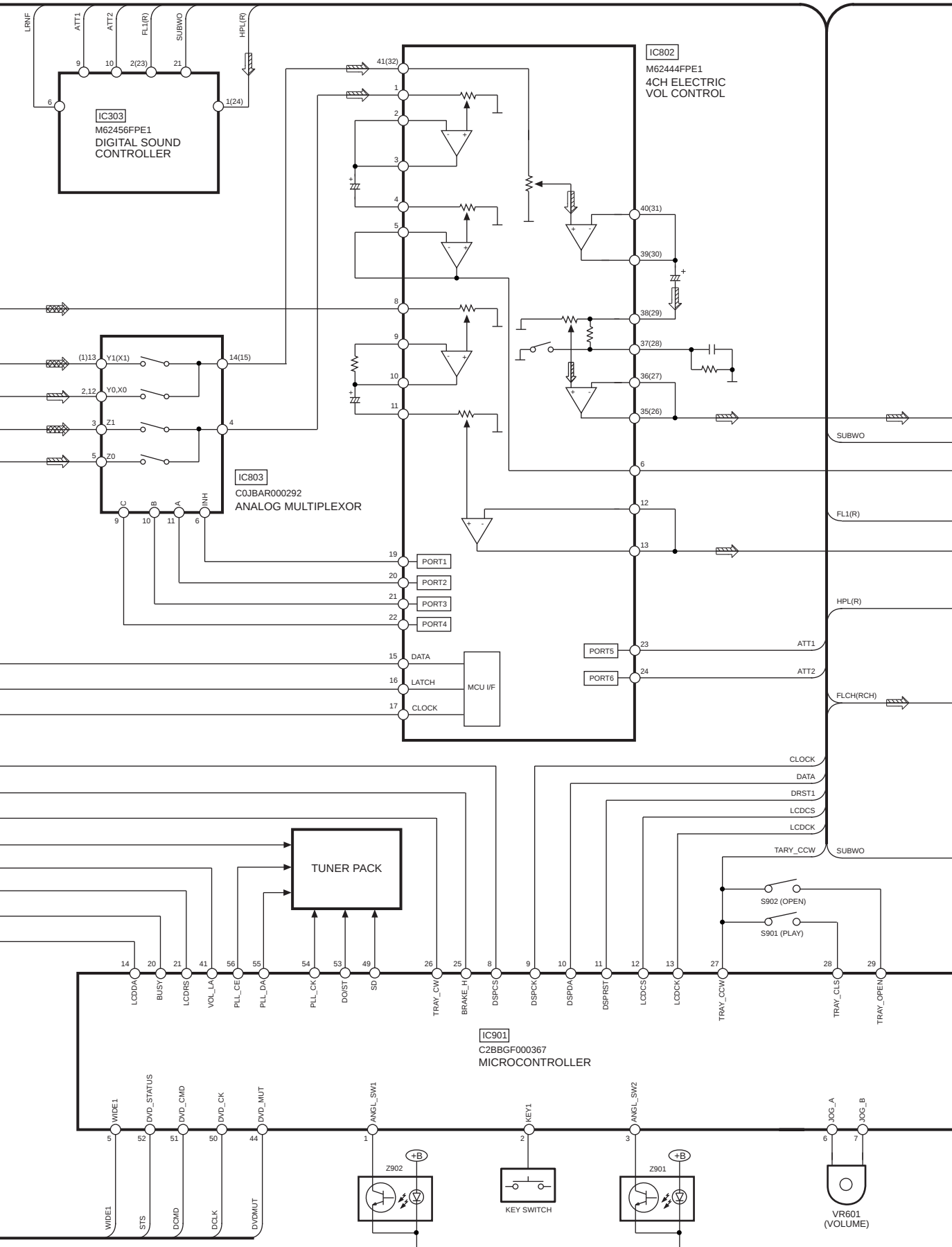
DVD MUT

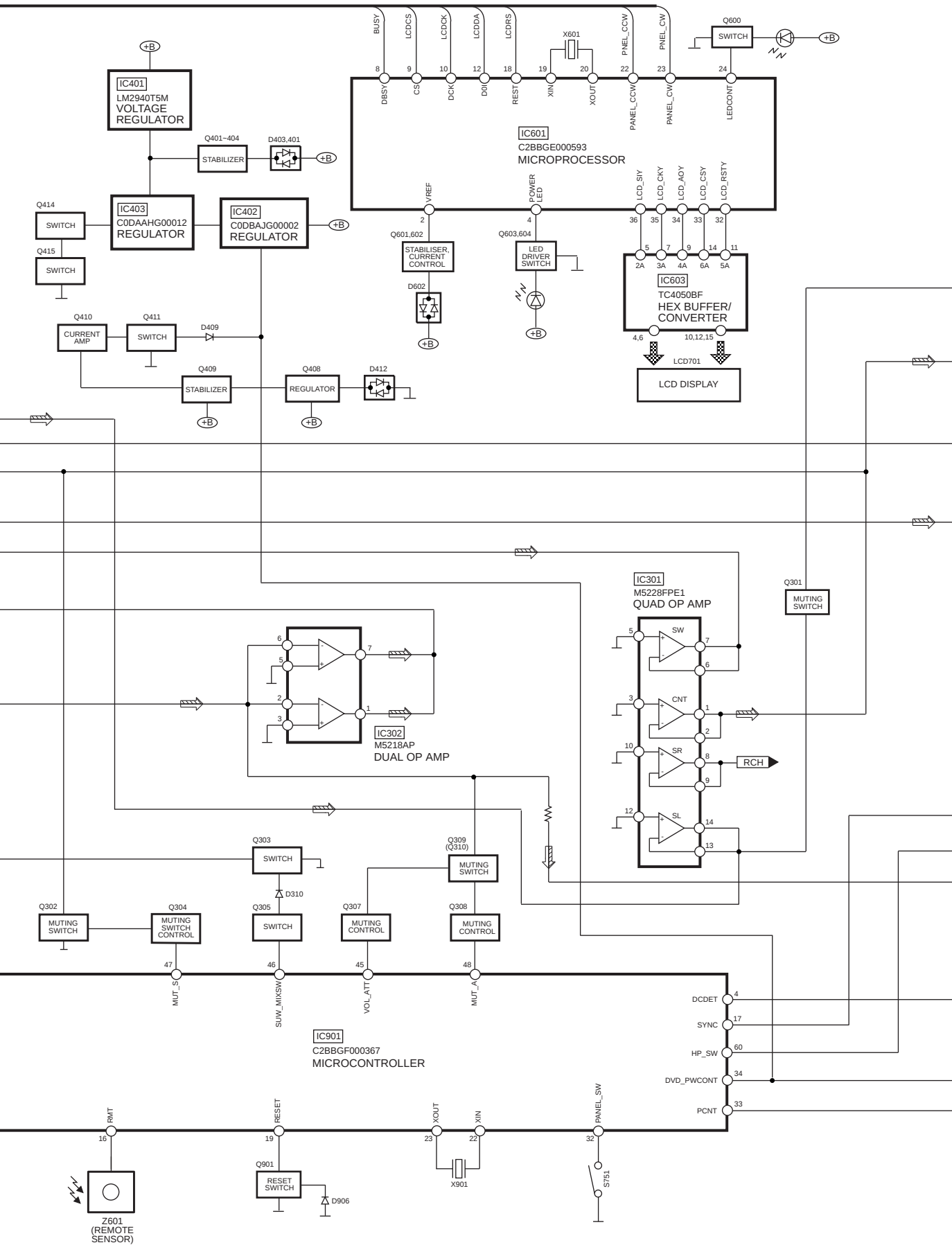
DCMD

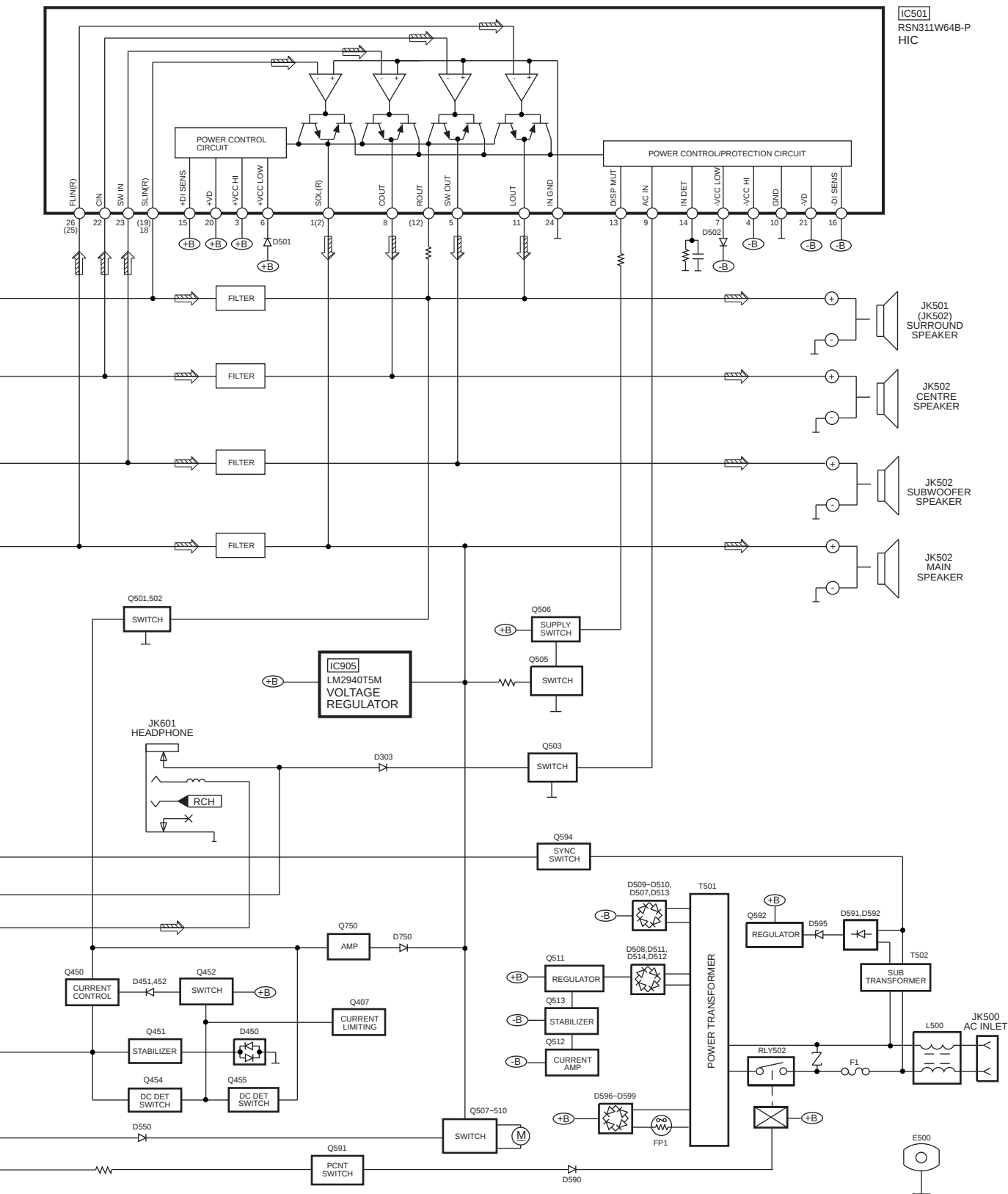
WIDE1

STS

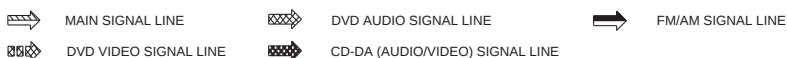
DCLK







SIGNAL LINES



() indicates Right Channel Pin No.

16 Schematic Diagram

[TOP](#) [PREVIOUS](#) [NEXT](#)

(All schematic diagrams may be modified at any time with the development of the new technology)

Note:

- [S601](#)

: POWER switch

- [S602](#)

: OPEN/CLOSE switch

- [S701](#)

: F.SKIP switch

- [S702](#)

: TUNER/AUX switch

- [S703](#)

: DVD switch

- [S704](#)

: R.SKIP switch

- [S705](#)

: STOP switch

- [S751](#)

: OPEN switch

- [S901](#)

: PLAY switch

- [S902](#)

: OPEN switch

- [SW 2601](#)

: LEAF switch

- [VR601](#)

: VR Volume Jog

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

(()) : CD < : FM
 >

- [Importance safety notice :](#)

Components identified by  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution !

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.

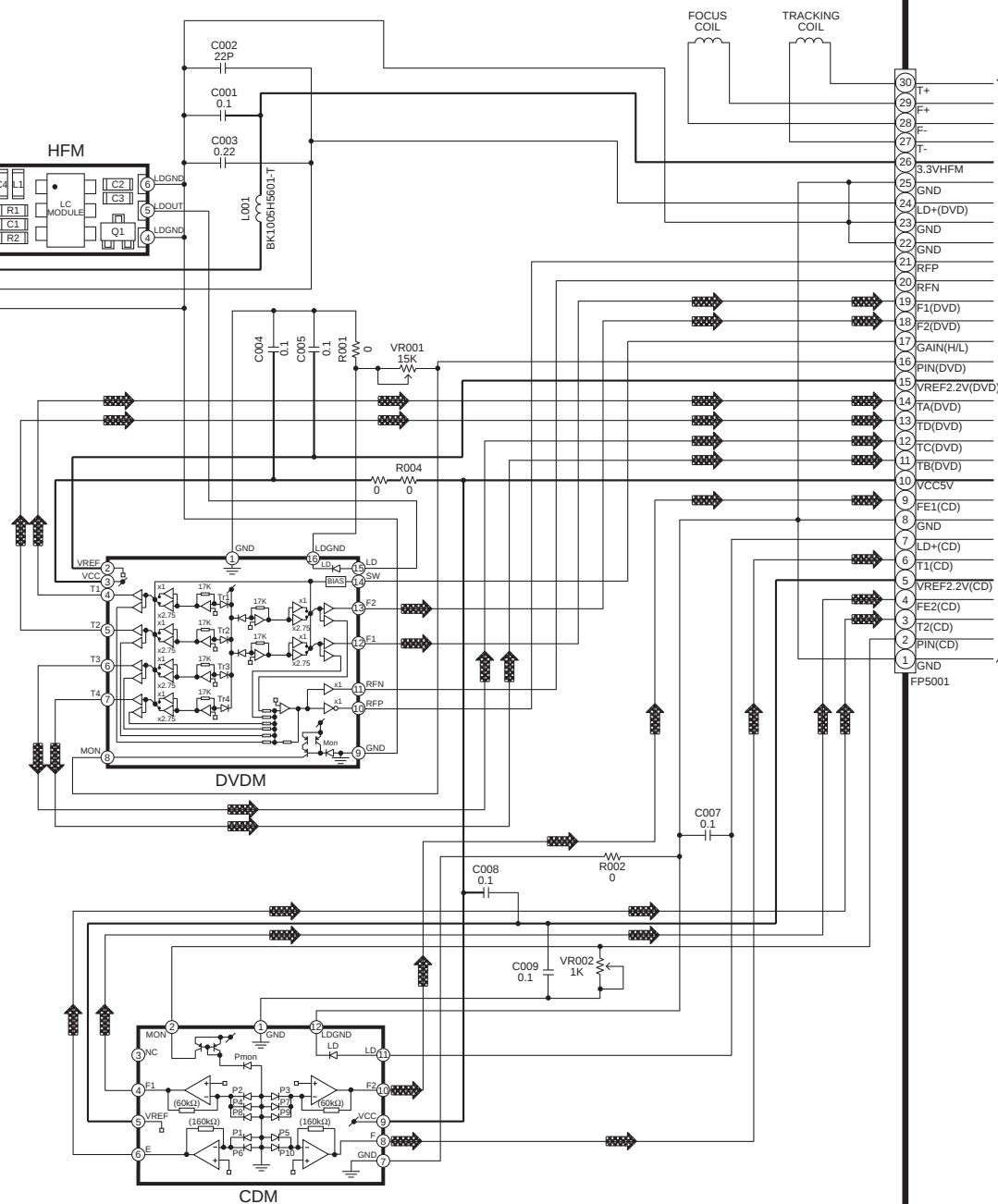
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.



[TOP](#) [PREVIOUS](#) [NEXT](#)

— : +B SIGNAL LINE

 : CD-DA SIGNAL LINE



TO **A**
DVD MODULE (1)
CIRCUIT
(FP5001) ON
SCHEMATIC
DIAGRAM-2

SCHEMATIC DIAGRAM - 2

— : +B SIGNAL LINE

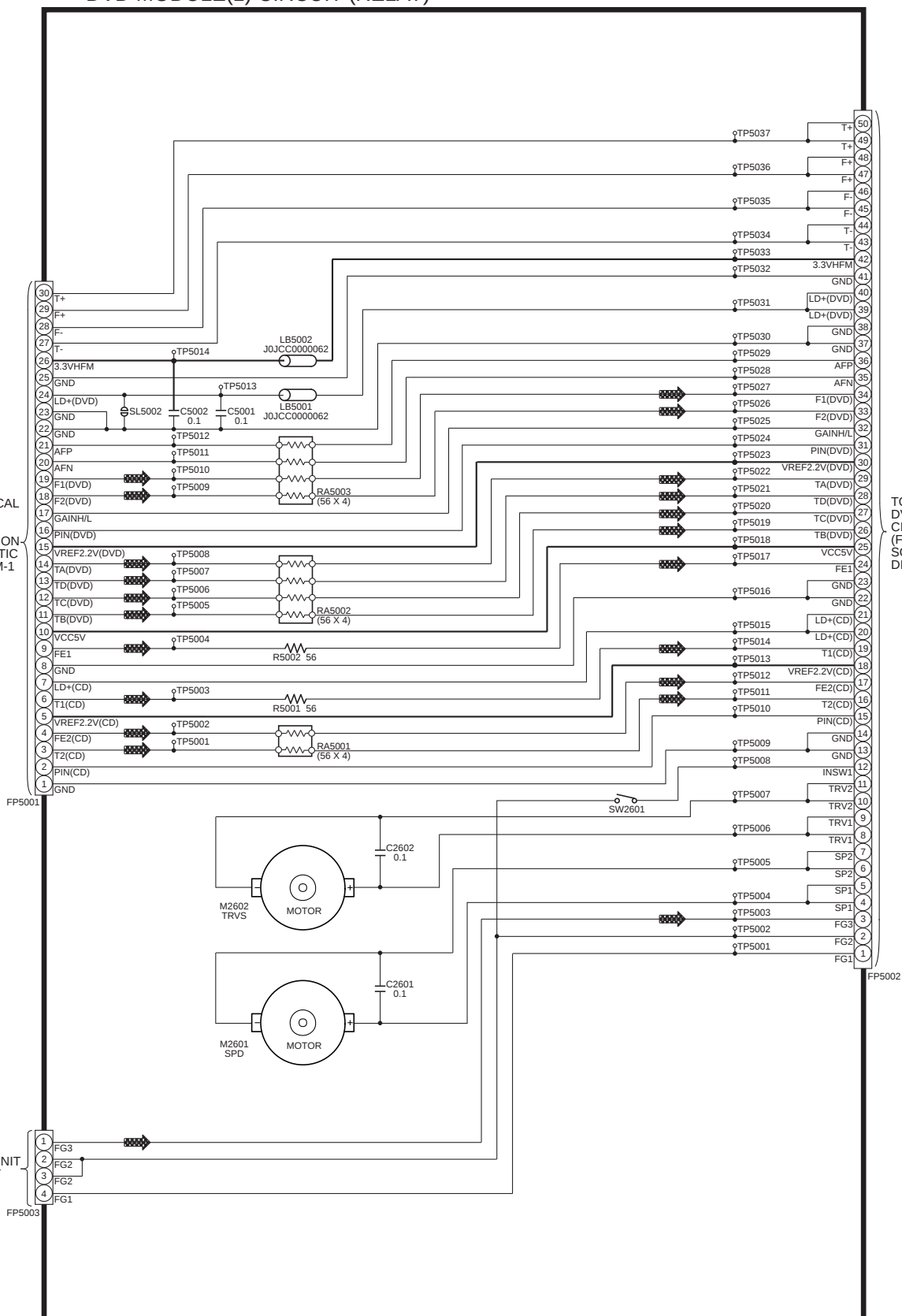
⬢ : CD-DA SIGNAL LINE

A

DVD MODULE(1) CIRCUIT (RELAY)

TO OPTICAL
PICKUP
CIRCUIT
(FP5001) ON
SCHEMATIC
DIAGRAM-1

B
TO DVD MODULE(2)
CIRCUIT
(FP5201) ON
SCHEMATIC
DIAGRAM-3



TO FG UNIT
CIRCUIT

FP5003

FP5002

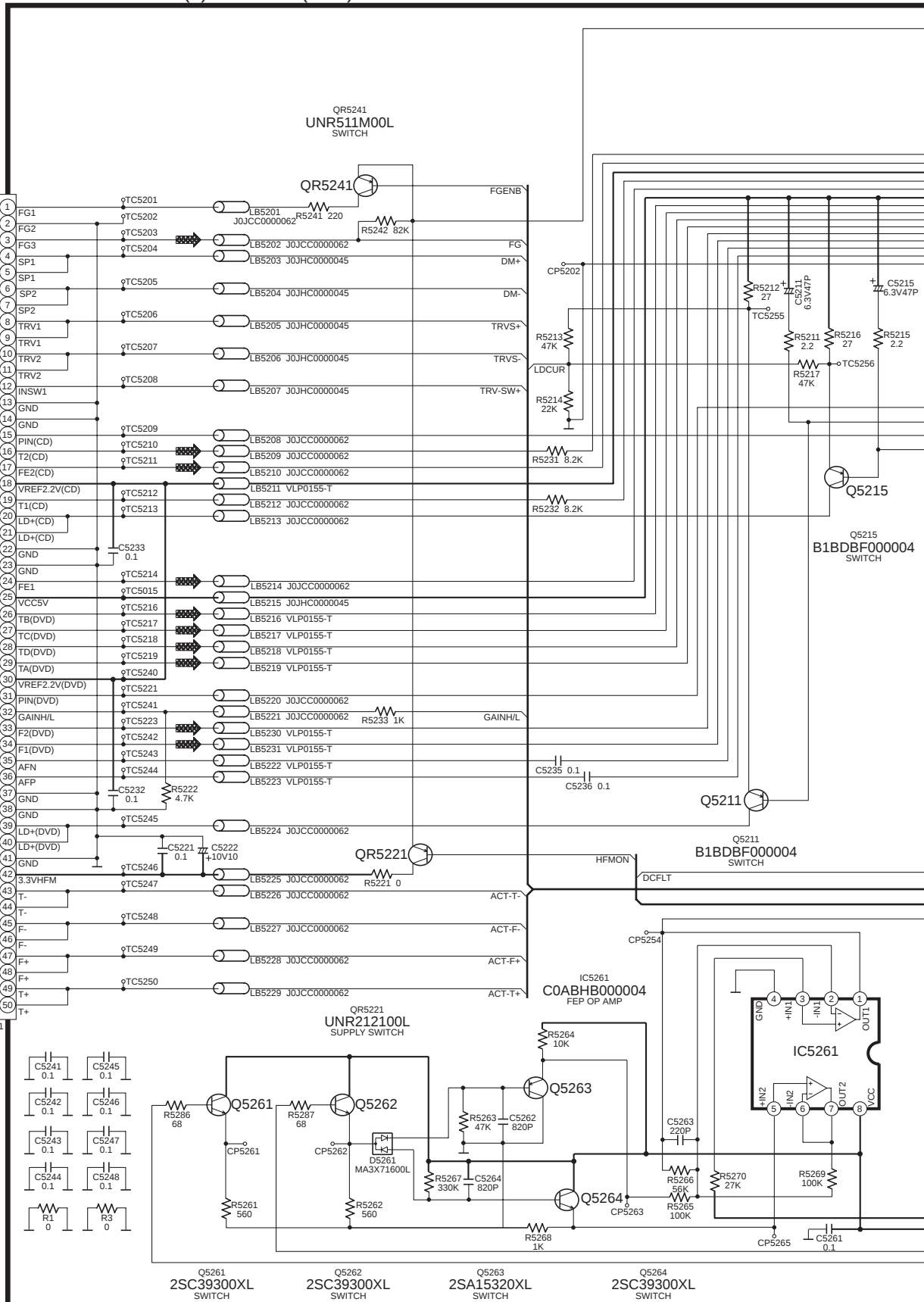
SCHEMATIC DIAGRAM - 3

— : +B SIGNAL LINE  : CD-DA SIGNAL LINE

B DVD MODULE(2) CIRCUIT (FEP)

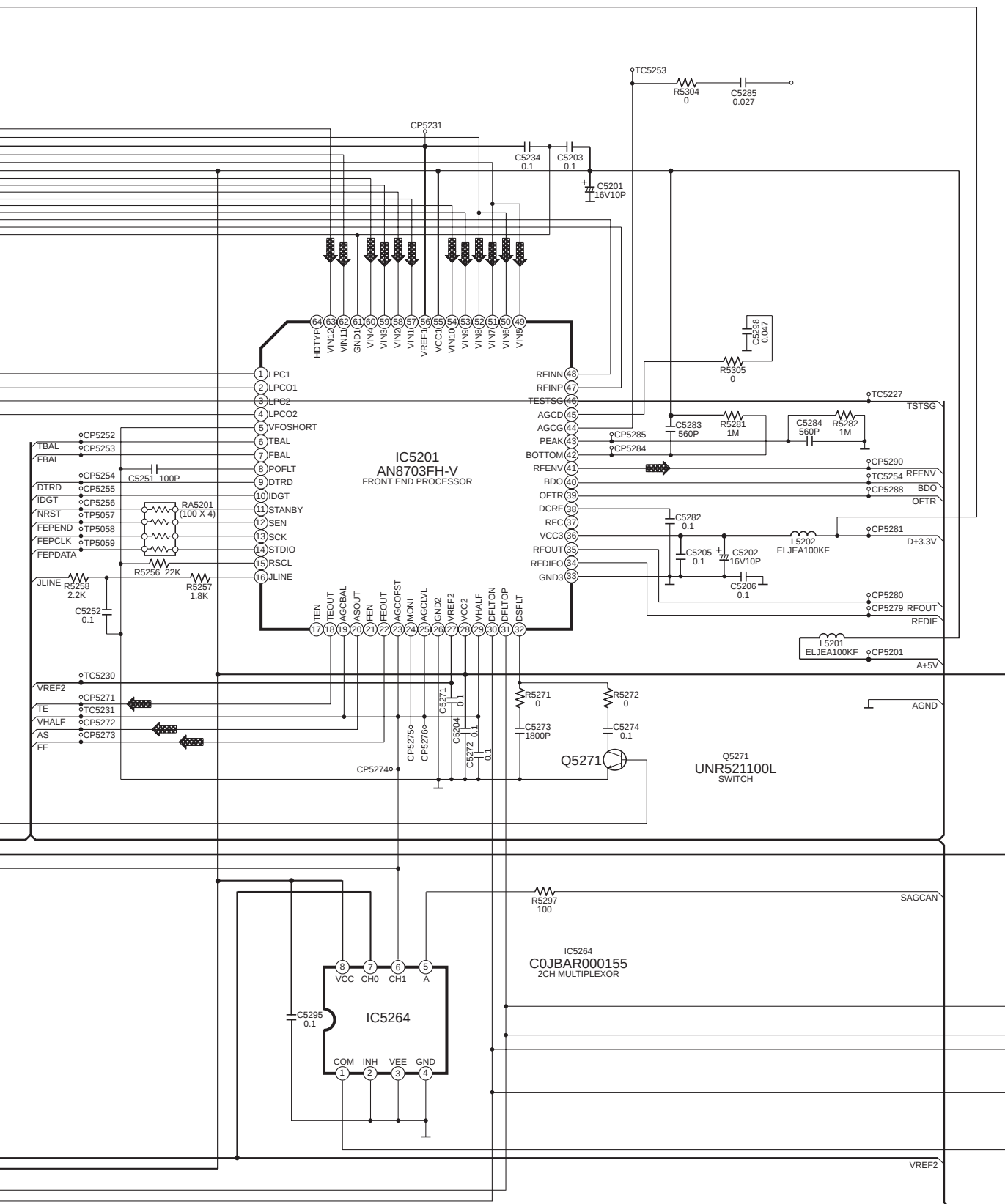
TO **A** DVD MODULE(1) CIRCUIT (FP5002) ON SCHEMATIC DIAGRAM-2

FP5201



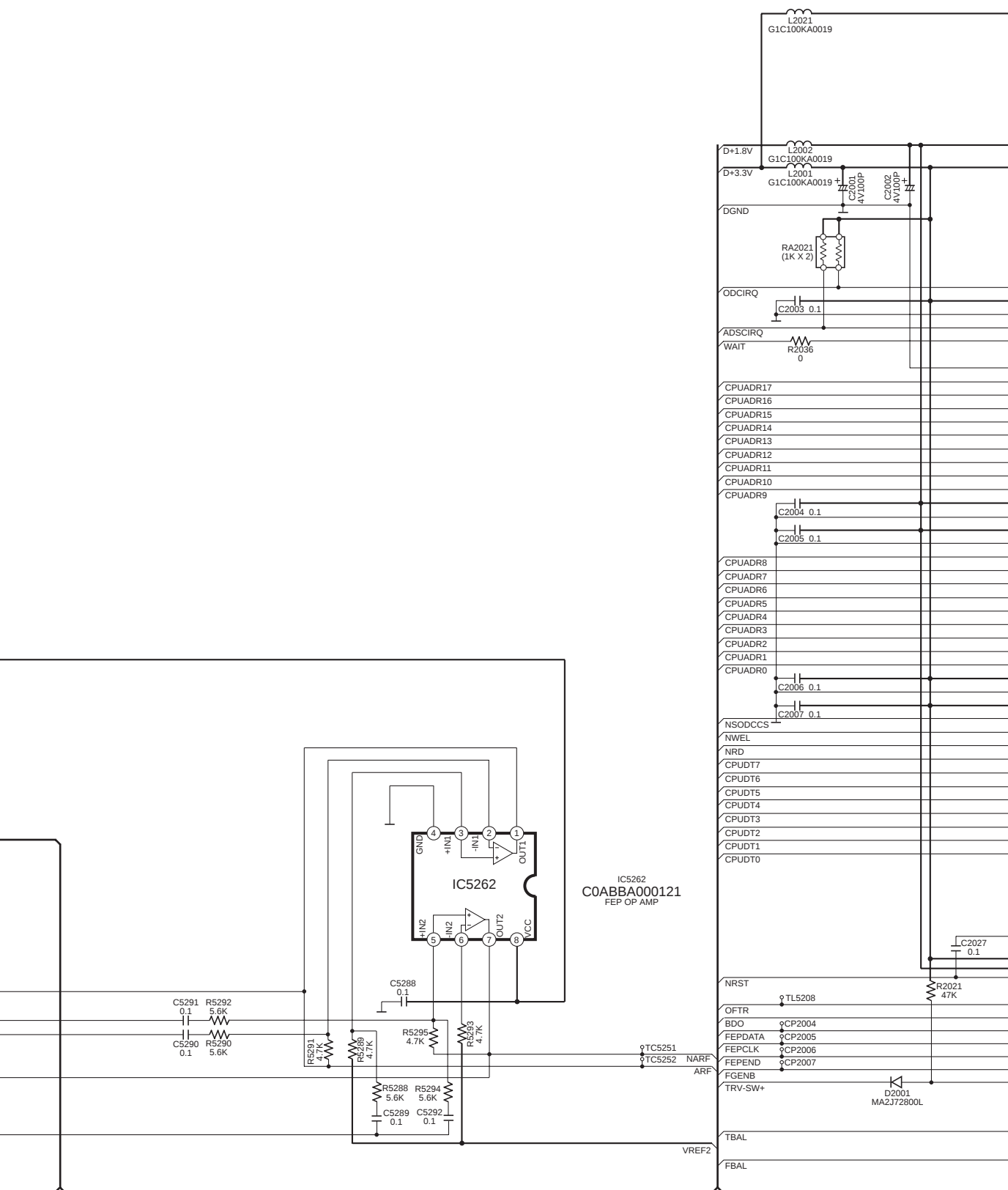
B

DVD MODULE(2) CIRCUIT (FEP)

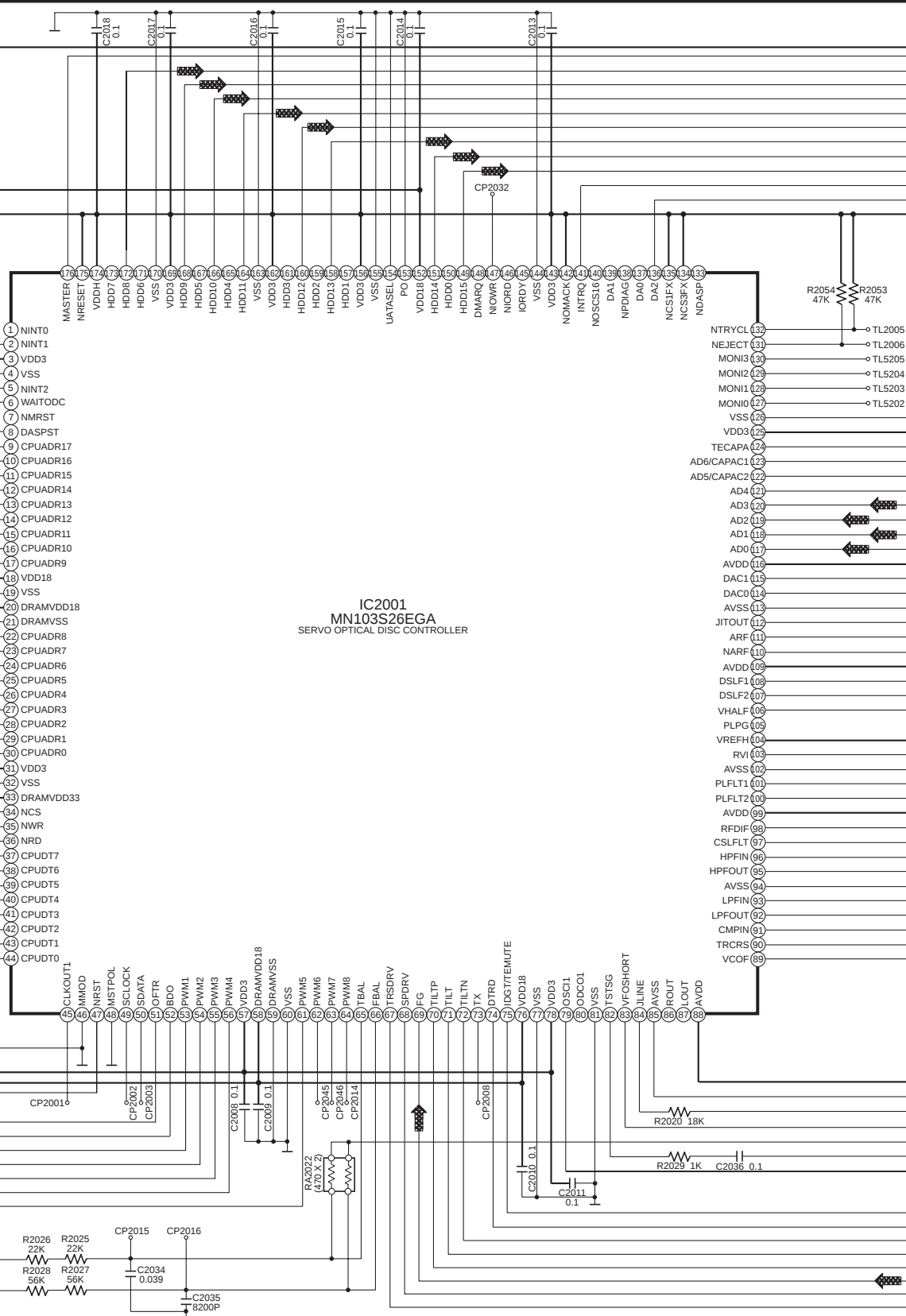


B

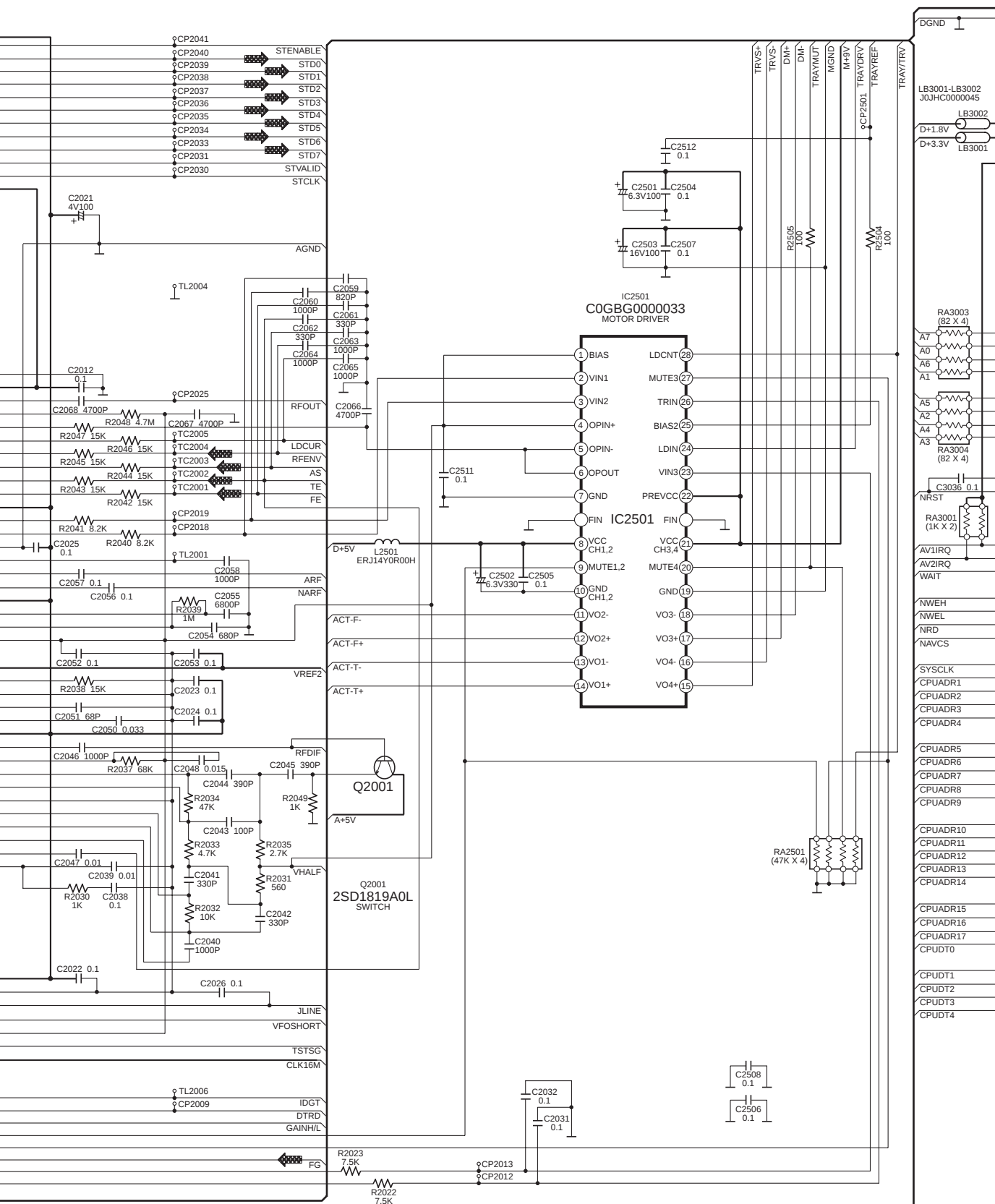
DVD MODULE(2) CIRCUIT (FEP)



B DVD MODULE(2) CIRCUIT (SODC/DRV)



B DVD MODULE(2) CIRCUIT (SODC/DRV)

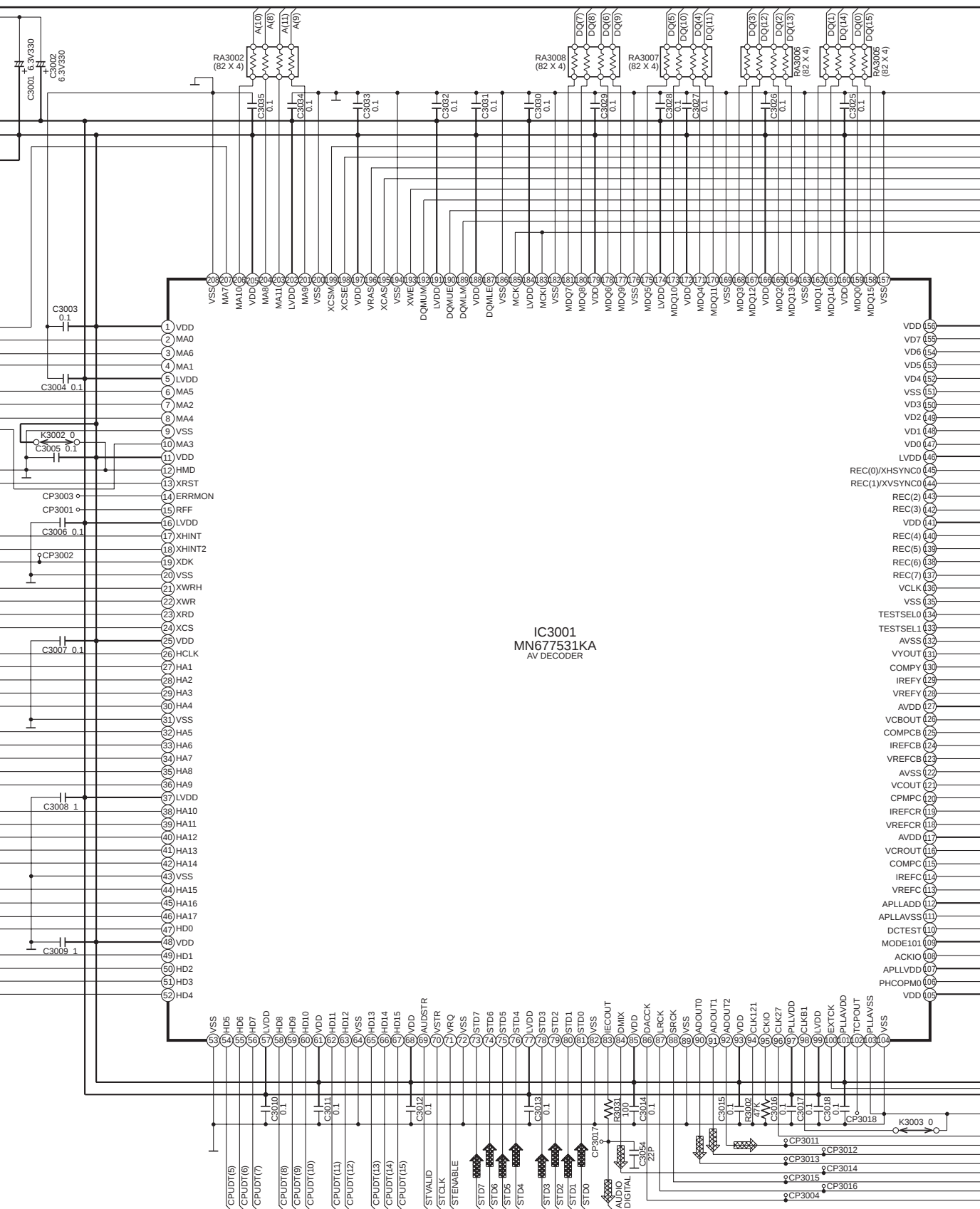


B

 : CD-DA SIGNAL LINE

 : DVD AUDIO SIGNAL LINE

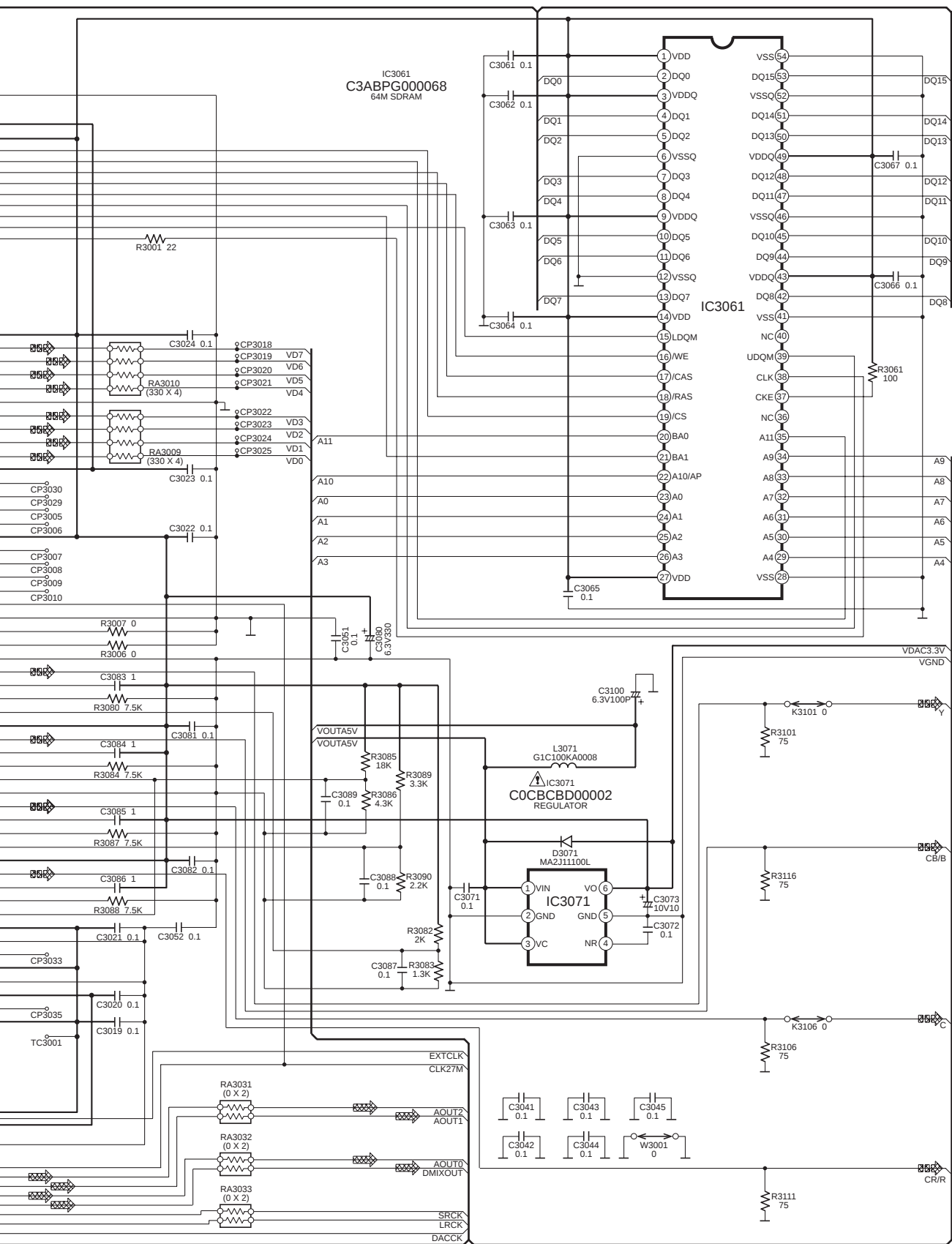
DVD MODULE(2) CIRCUIT (AVDEC)



SCHEMATIC DIAGRAM - 9

B : +B SIGNAL LINE : DVD VIDEO SIGNAL LINE : DVD AUDIO SIGNAL LINE

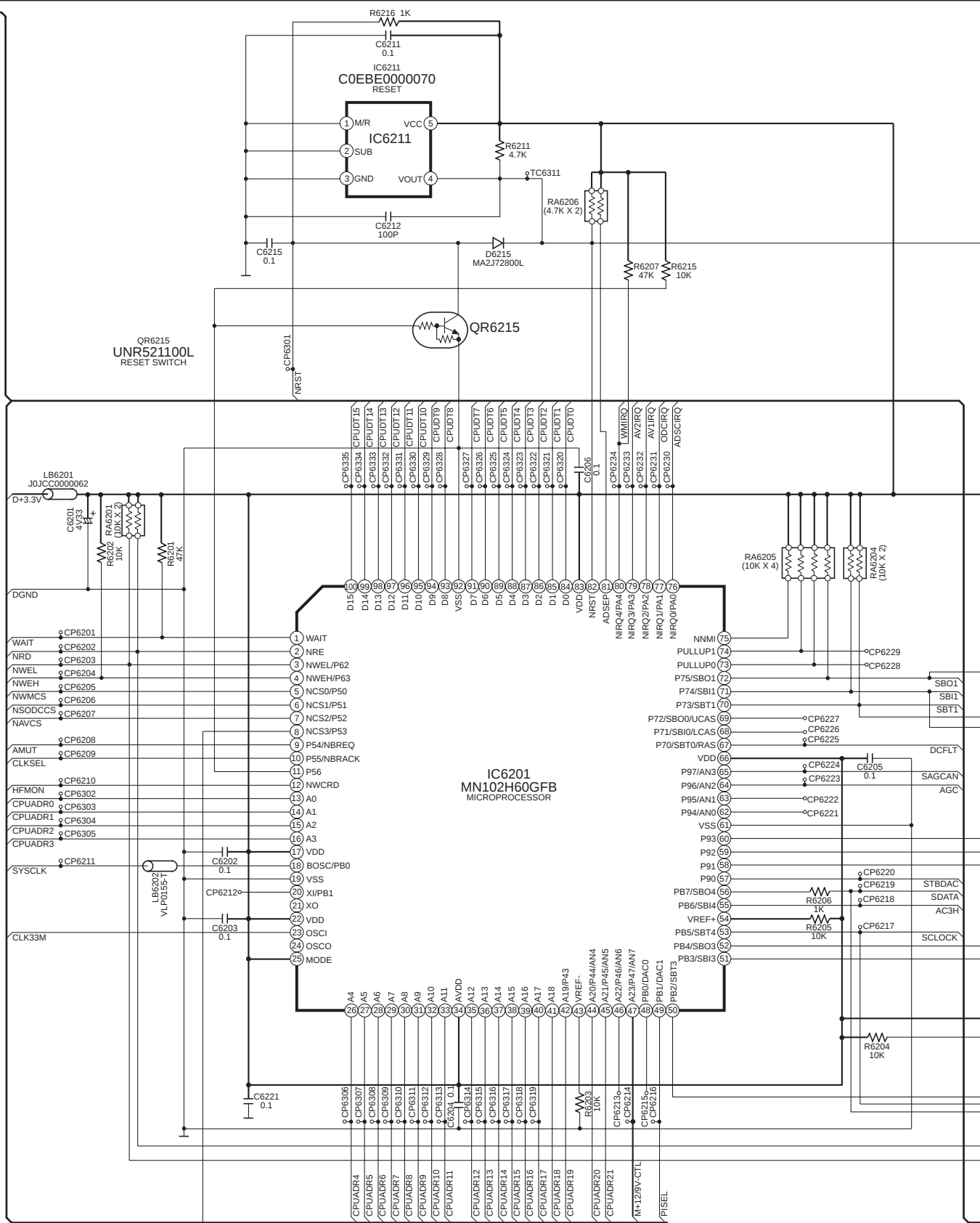
DVD MODULE(2) CIRCUIT (AVDEC)



SCHEMATIC DIAGRAM - 10

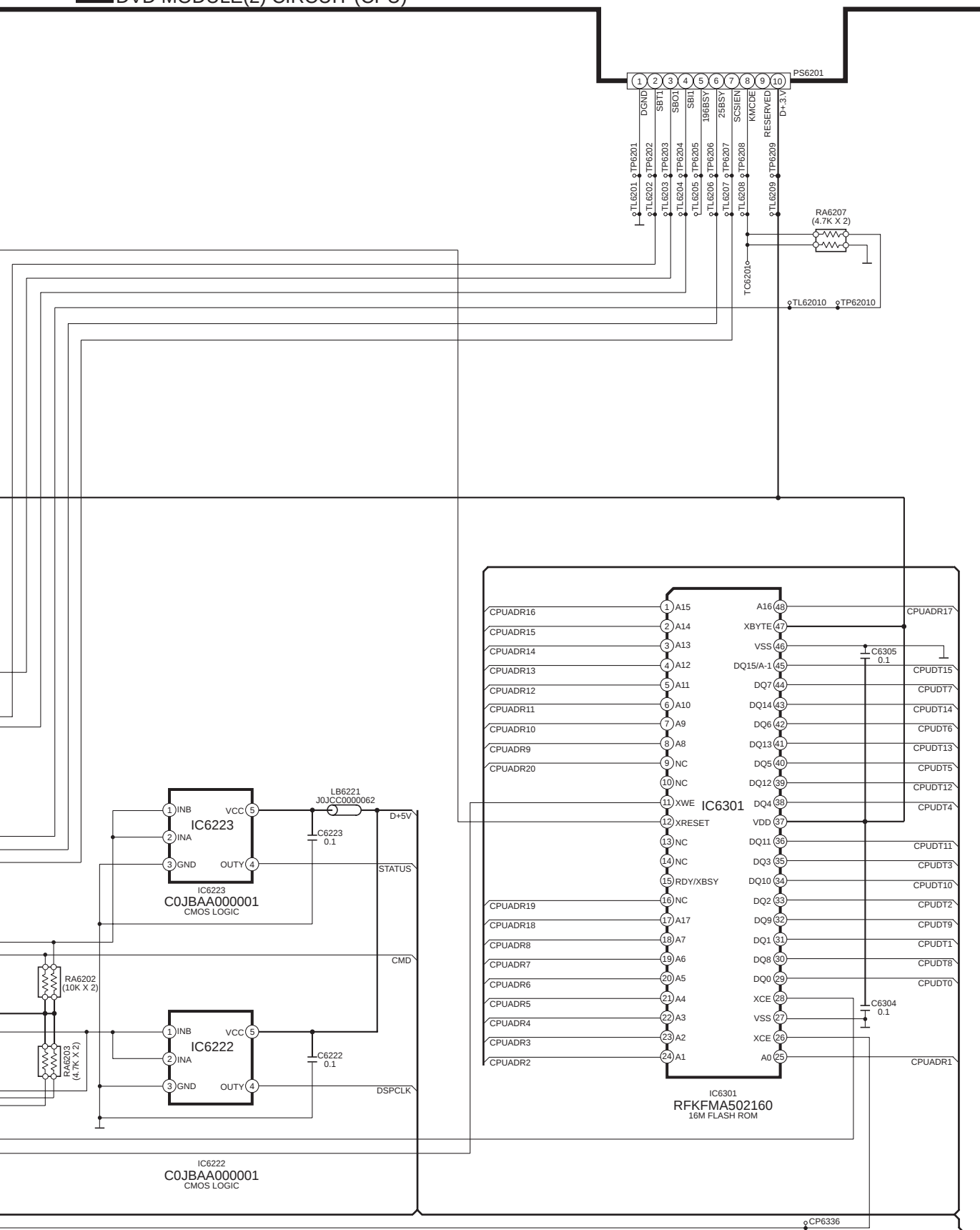
— : +B SIGNAL LINE

B DVD MODULE(2) CIRCUIT (CPU)



B

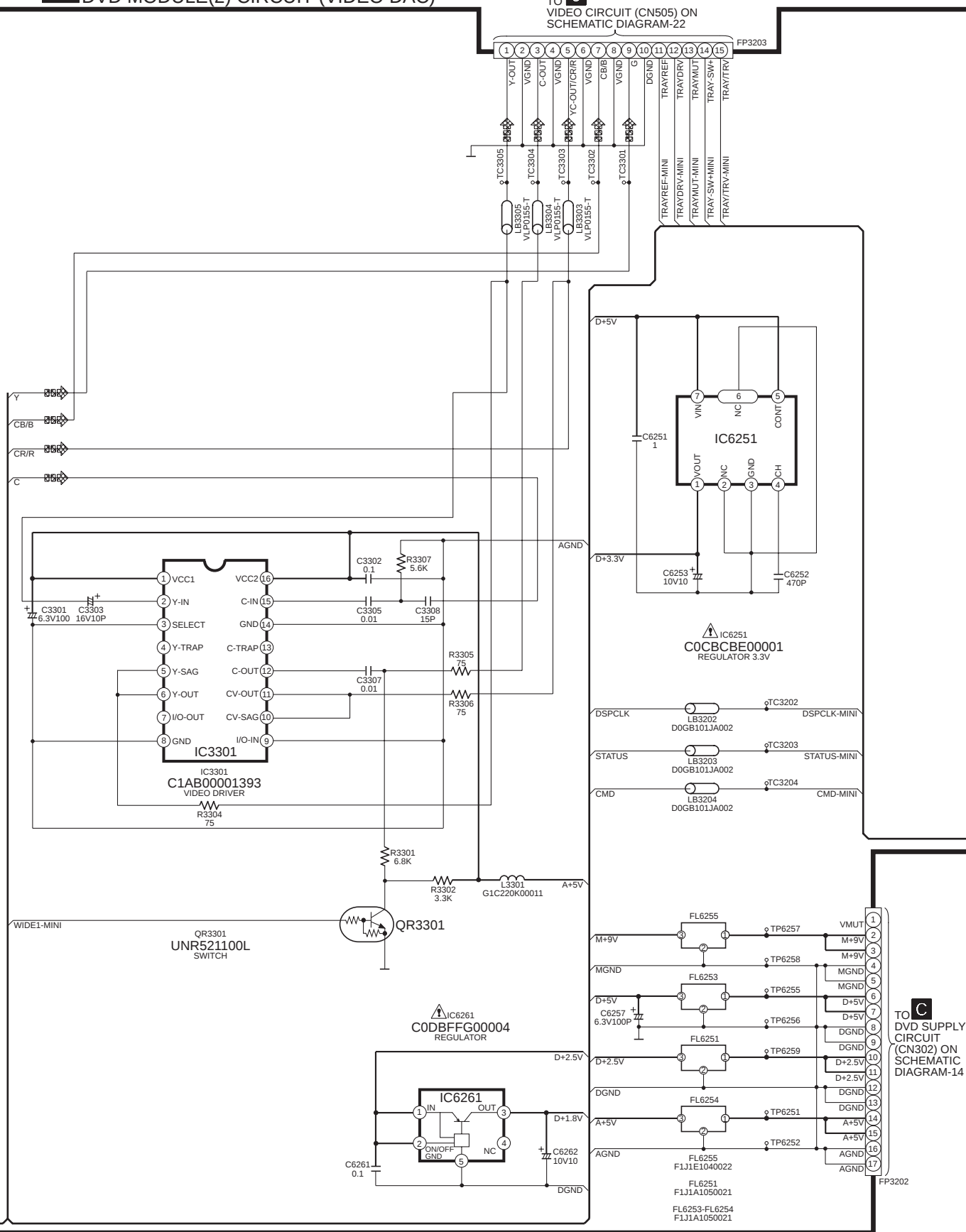
DVD MODULE(2) CIRCUIT (CPU)



SCHEMATIC DIAGRAM - 12

B : +B SIGNAL LINE : DVD VIDEO SIGNAL LINE
DVD MODULE(2) CIRCUIT (VIDEO DAC)

TO **J**
 VIDEO CIRCUIT (CN505) ON
 SCHEMATIC DIAGRAM-22

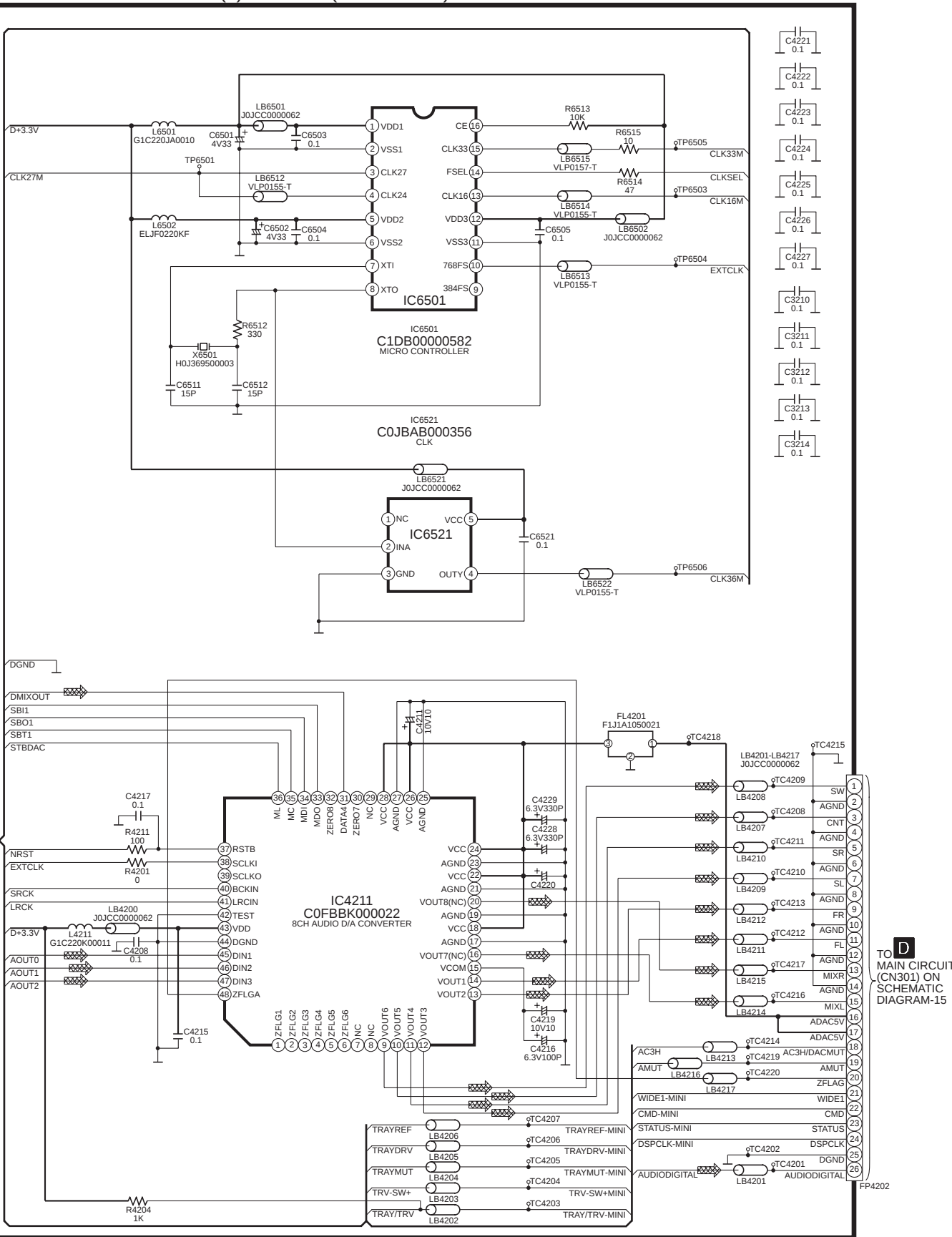


TO **C**
 DVD SUPPLY
 CIRCUIT (CN302) ON
 SCHEMATIC DIAGRAM-14

SCHEMATIC DIAGRAM - 13

B DVD MODULE(2) CIRCUIT (AUDIO DAC)

— : +B SIGNAL LINE : DVD AUDIO SIGNAL LINE



TO **D** MAIN CIRCUIT (CN301) ON SCHEMATIC DIAGRAM-15

SCHEMATIC DIAGRAM - 14

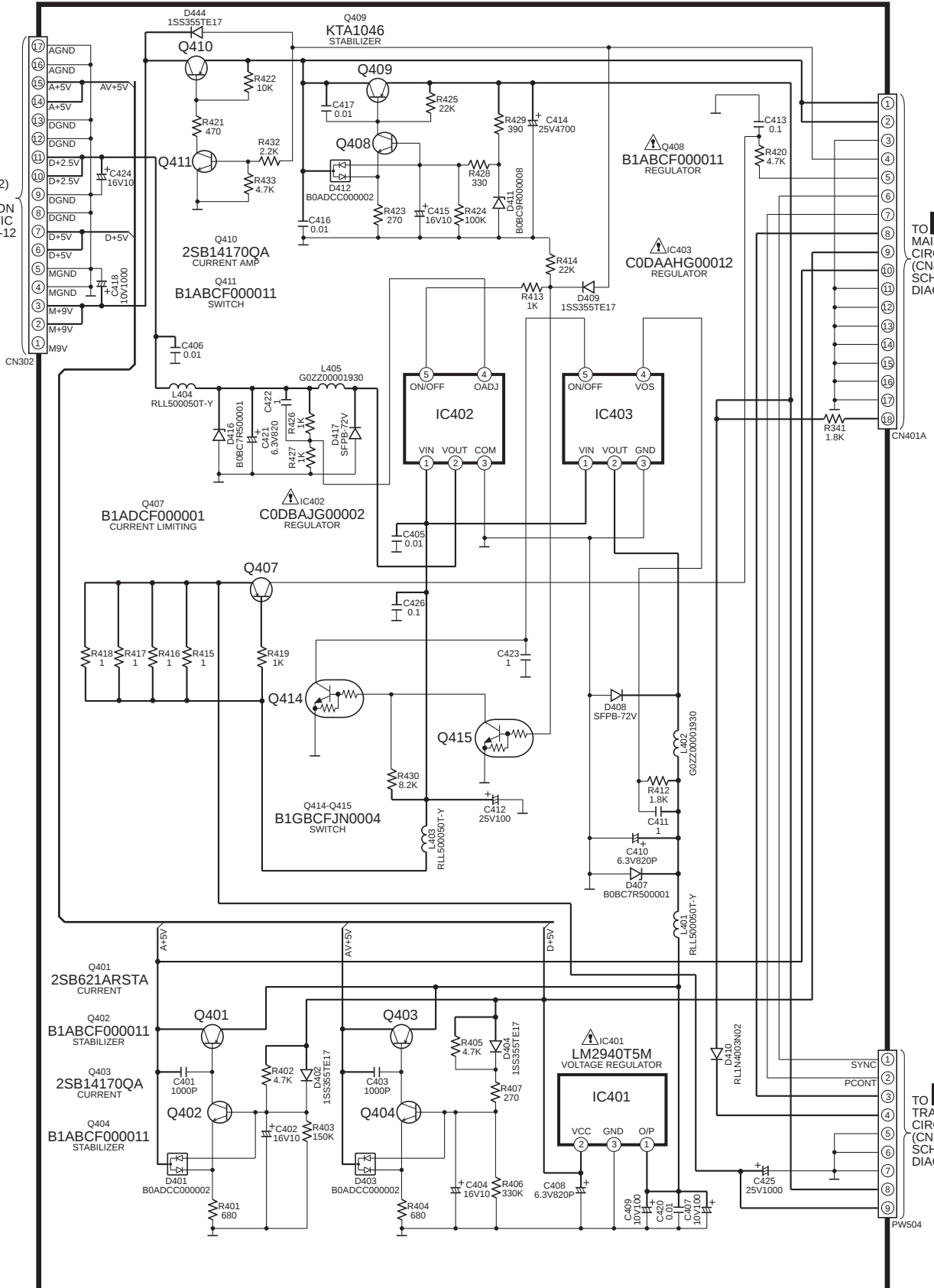
— : +B SIGNAL LINE

C DVD SUPPLY CIRCUIT

TO DVD MODULE(2) CIRCUIT (FP3202) ON SCHEMATIC DIAGRAM-12

TO MAIN CIRCUIT (CN401B) ON SCHEMATIC DIAGRAM-15

TO TRANS CIRCUIT (CN504) ON SCHEMATIC DIAGRAM-23



SCHEMATIC DIAGRAM - 15

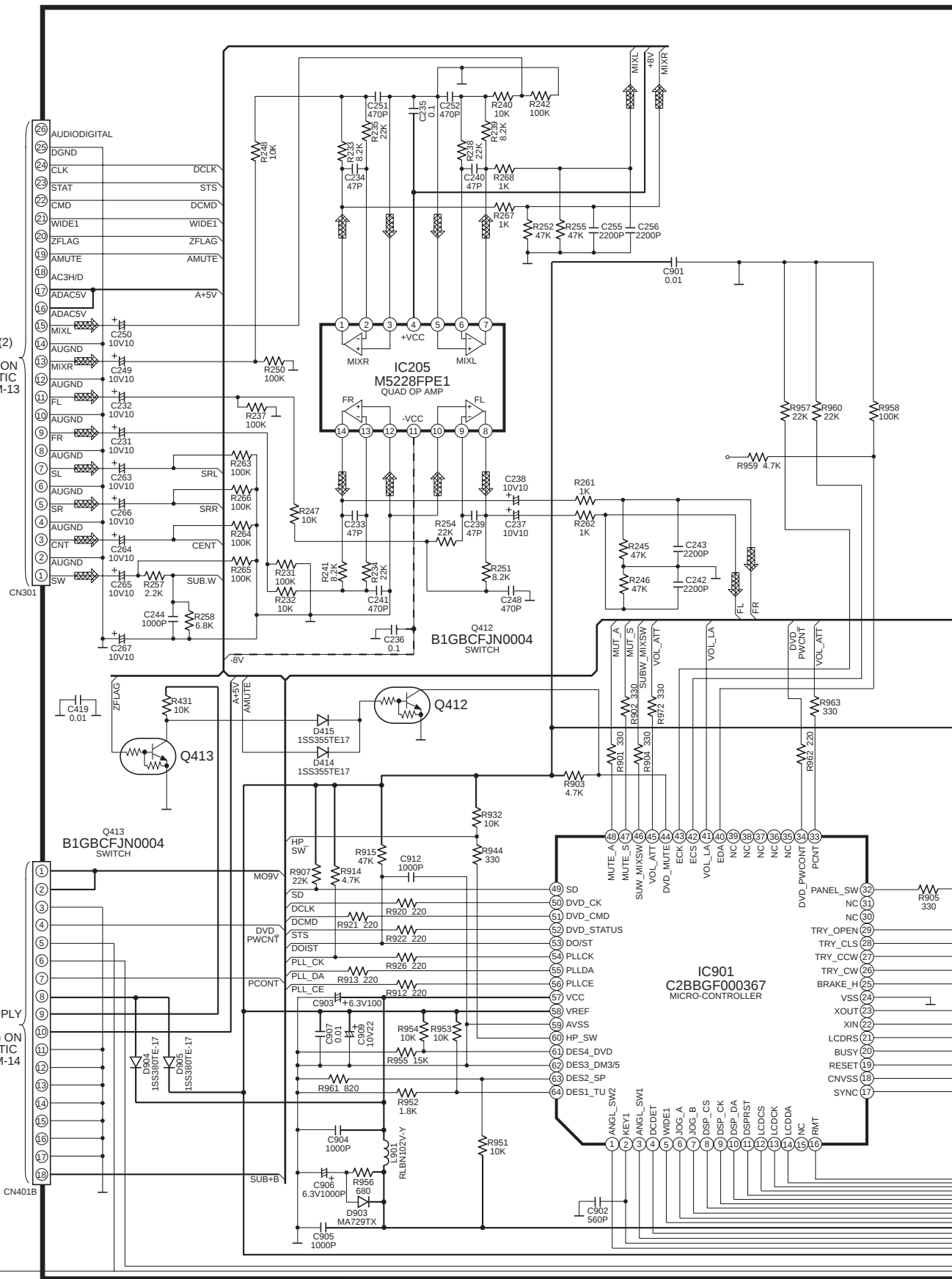
D

MAIN CIRCUIT

— : +B SIGNAL LINE - - : -B SIGNAL LINE  : DVD AUDIO SIGNAL LINE

TO DVD MODULE(2) CIRCUIT (FP4202) ON SCHEMATIC DIAGRAM-13

TO DVD SUPPLY CIRCUIT (CN401A) ON SCHEMATIC DIAGRAM-14



SCHEMATIC DIAGRAM - 16

D MAIN CIRCUIT

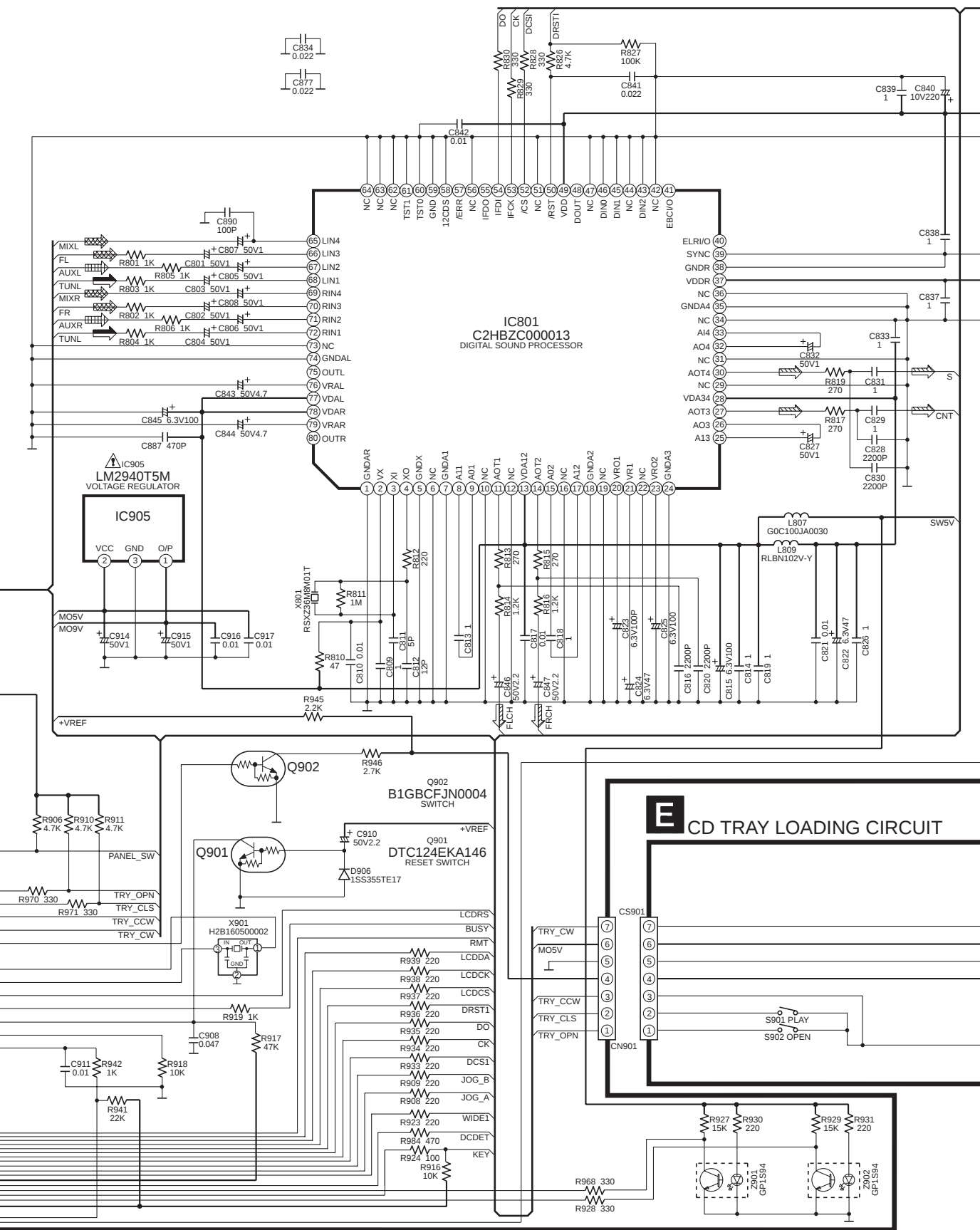
— : +B SIGNAL LINE

⊠ : DVD AUDIO SIGNAL LINE

⬇ : FM/AM SIGNAL LINE

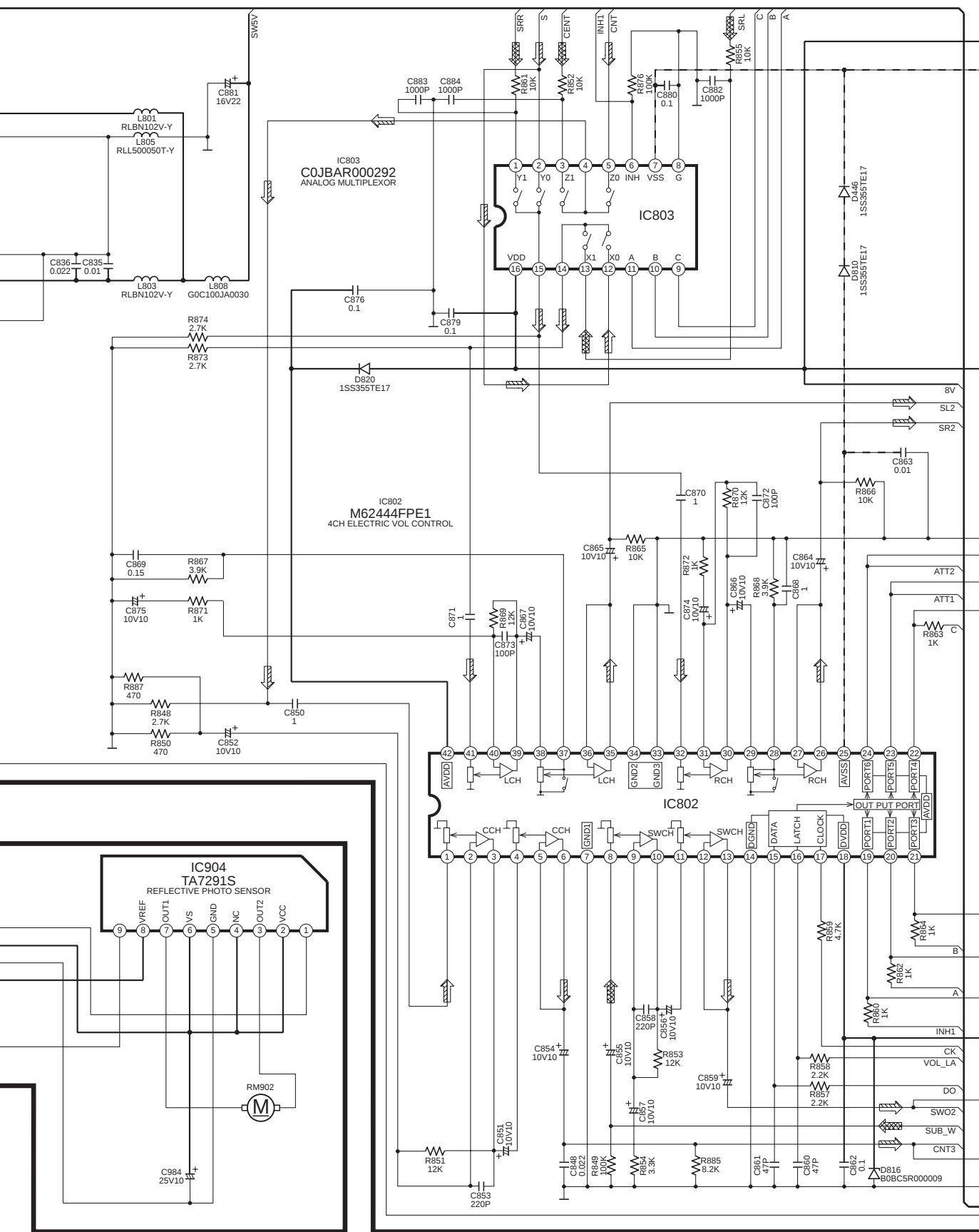
⊠ : AUXILIARY SIGNAL LINE

⬇ : MAIN SIGNAL LINE



SCHEMATIC DIAGRAM - 17

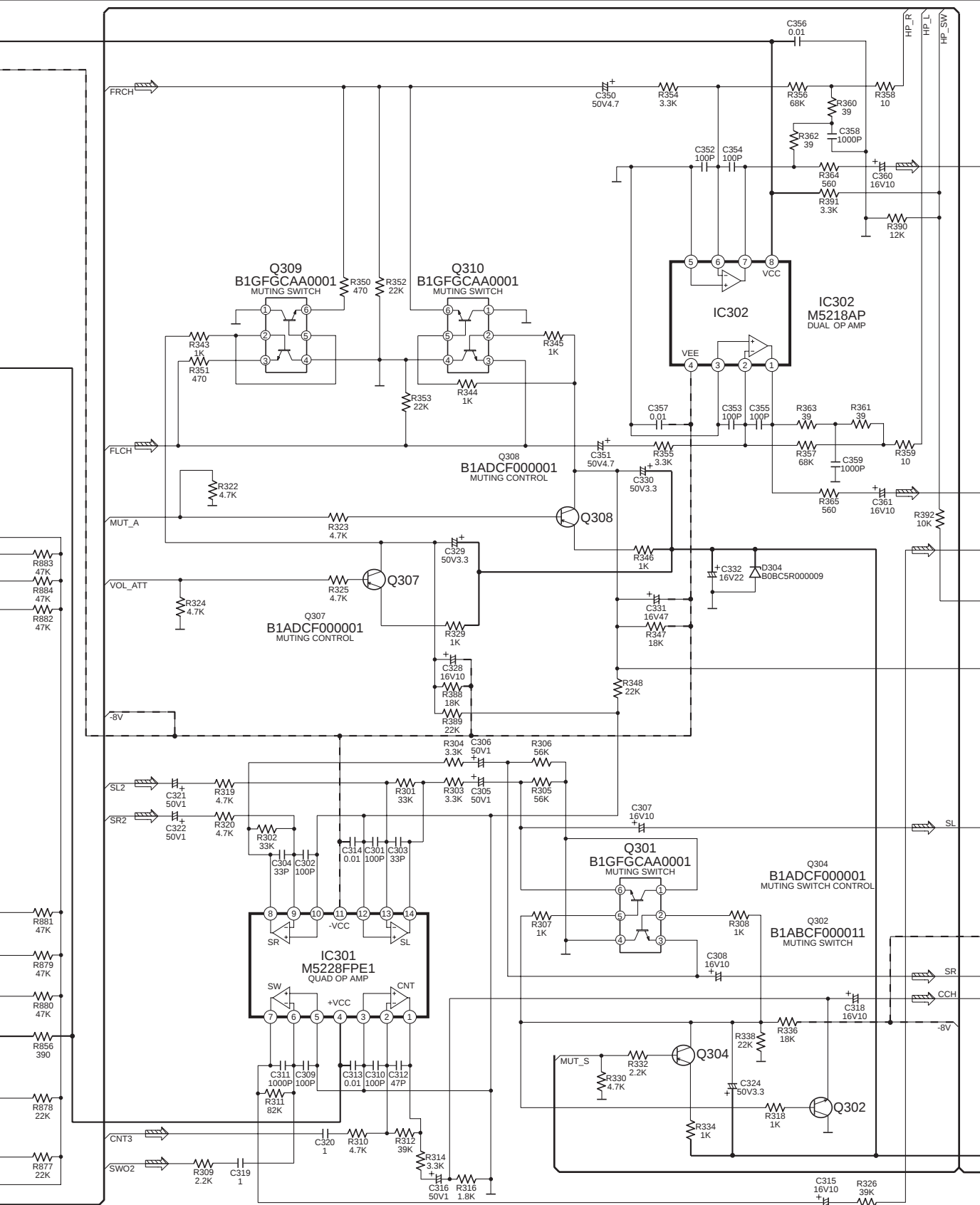
D MAIN CIRCUIT
 — : +B SIGNAL LINE
- - : -B SIGNAL LINE
⏏ : DVD AUDIO SIGNAL LINE
➡ : MAIN SIGNAL LINE



SCHEMATIC DIAGRAM - 18

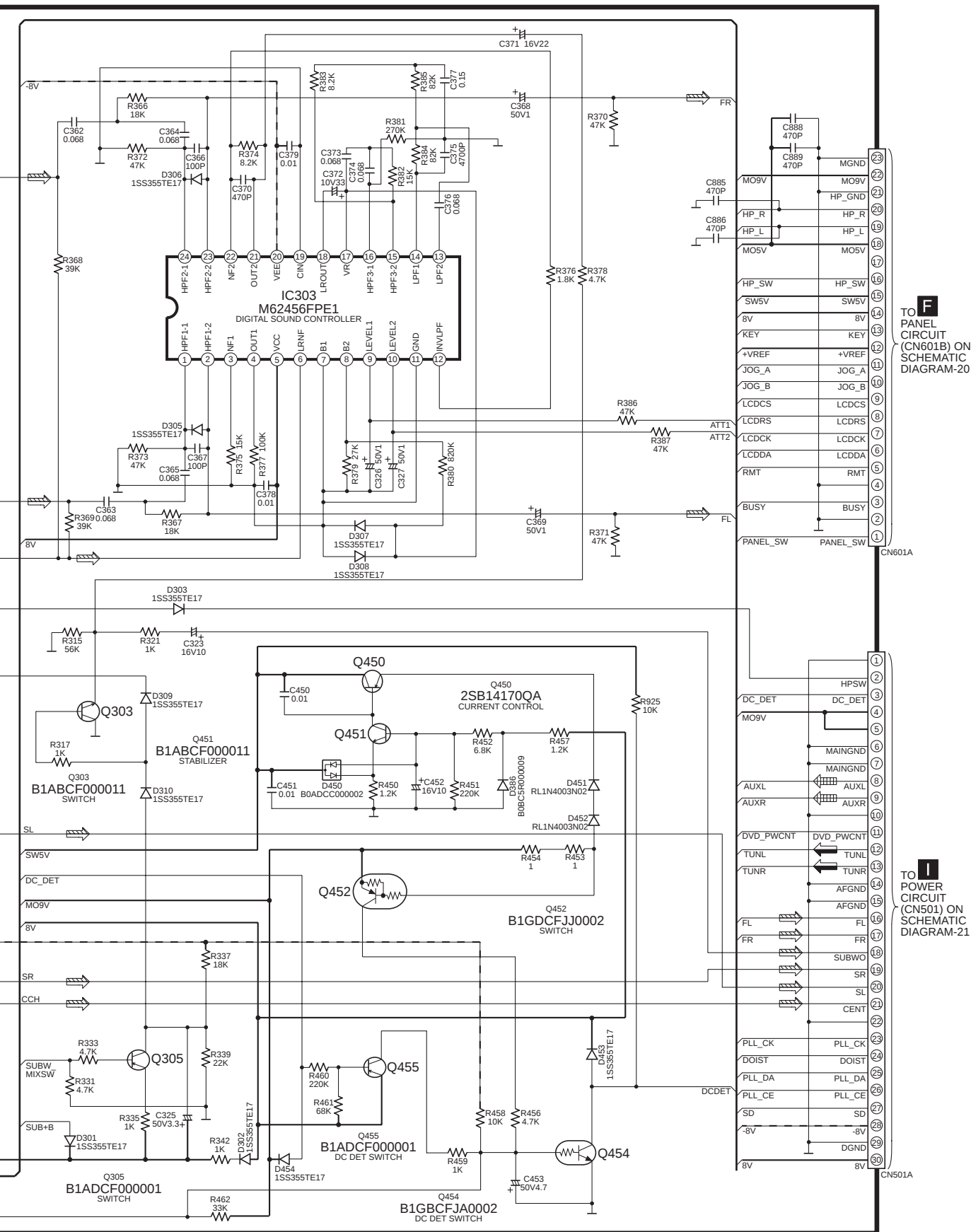
— : +B SIGNAL LINE - - - : -B SIGNAL LINE ⇨ : MAIN SIGNAL LINE

D MAIN CIRCUIT



D

— : +B SIGNAL LINE : AUXILLARY SIGNAL LINE : MAIN SIGNAL LINE
 - - : -B SIGNAL LINE : FM/AM SIGNAL LINE



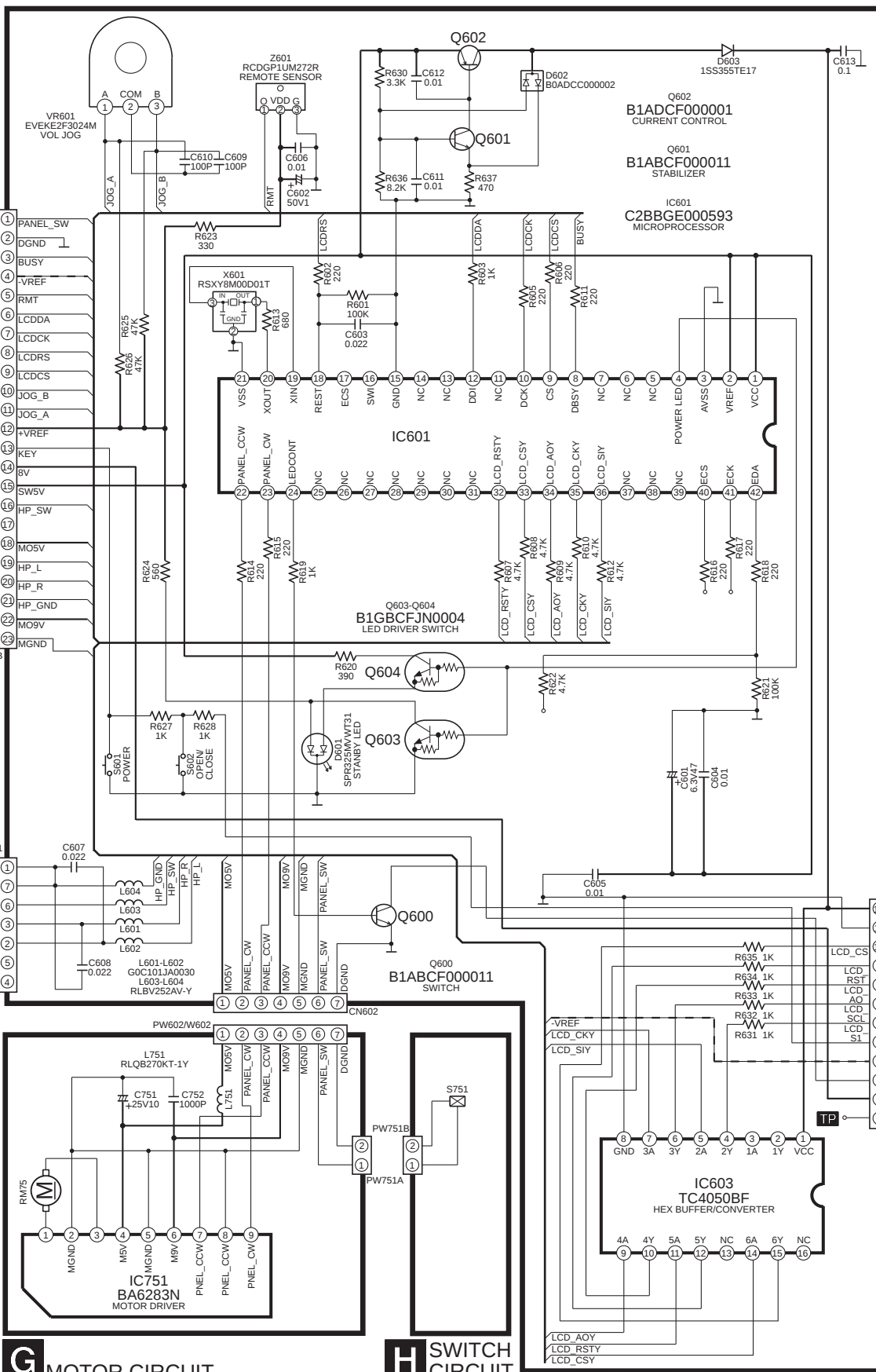
SCHEMATIC DIAGRAM - 20

— : +B SIGNAL LINE - - : -B SIGNAL LINE

F PANEL CIRCUIT

TO MAIN CIRCUIT (CN601A) ON SCHEMATIC DIAGRAM-19

HEADPHONE

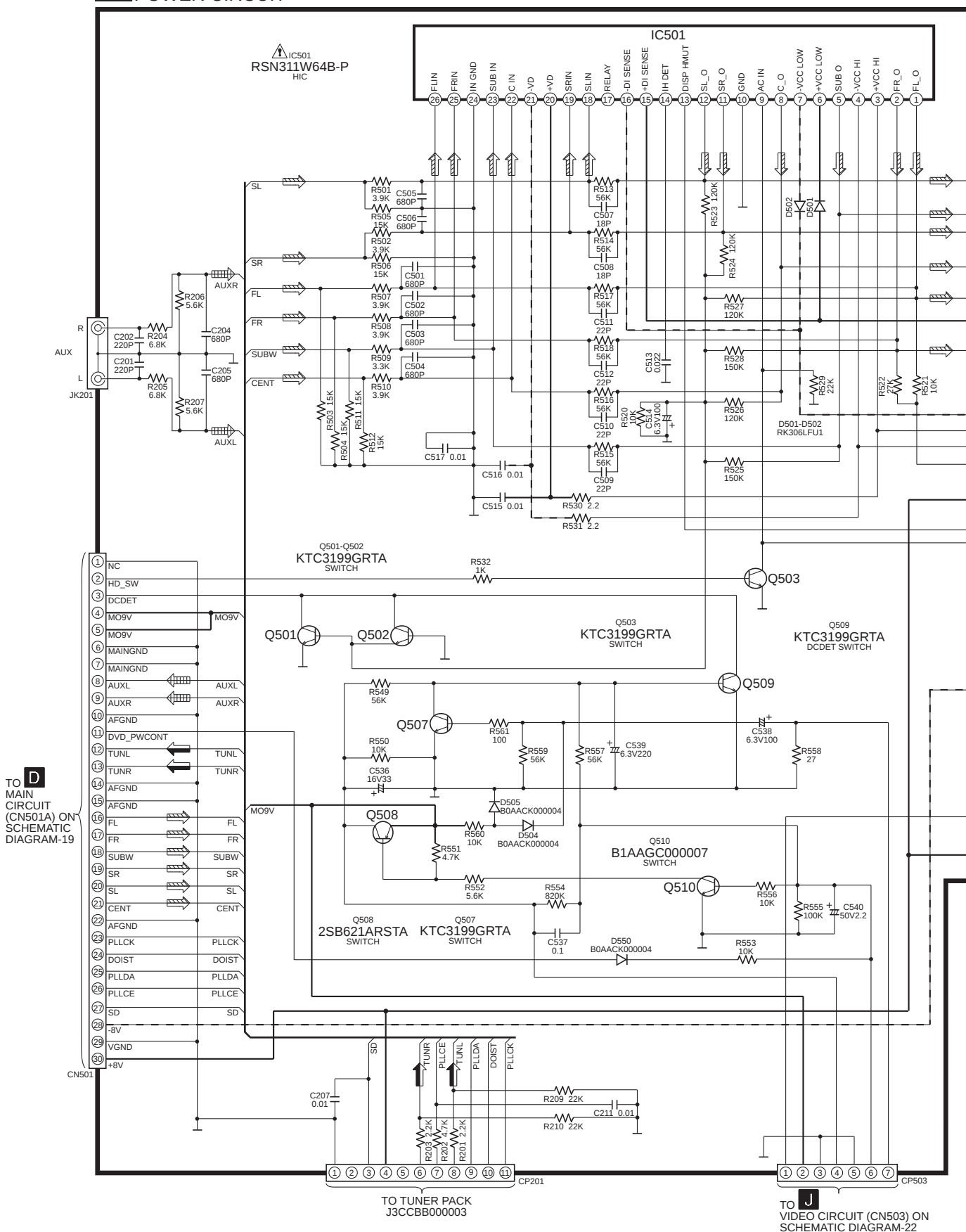


TO DISPLAY CIRCUIT (PW701) ON SCHEMATIC DIAGRAM-23

G MOTOR CIRCUIT

H SWITCH CIRCUIT

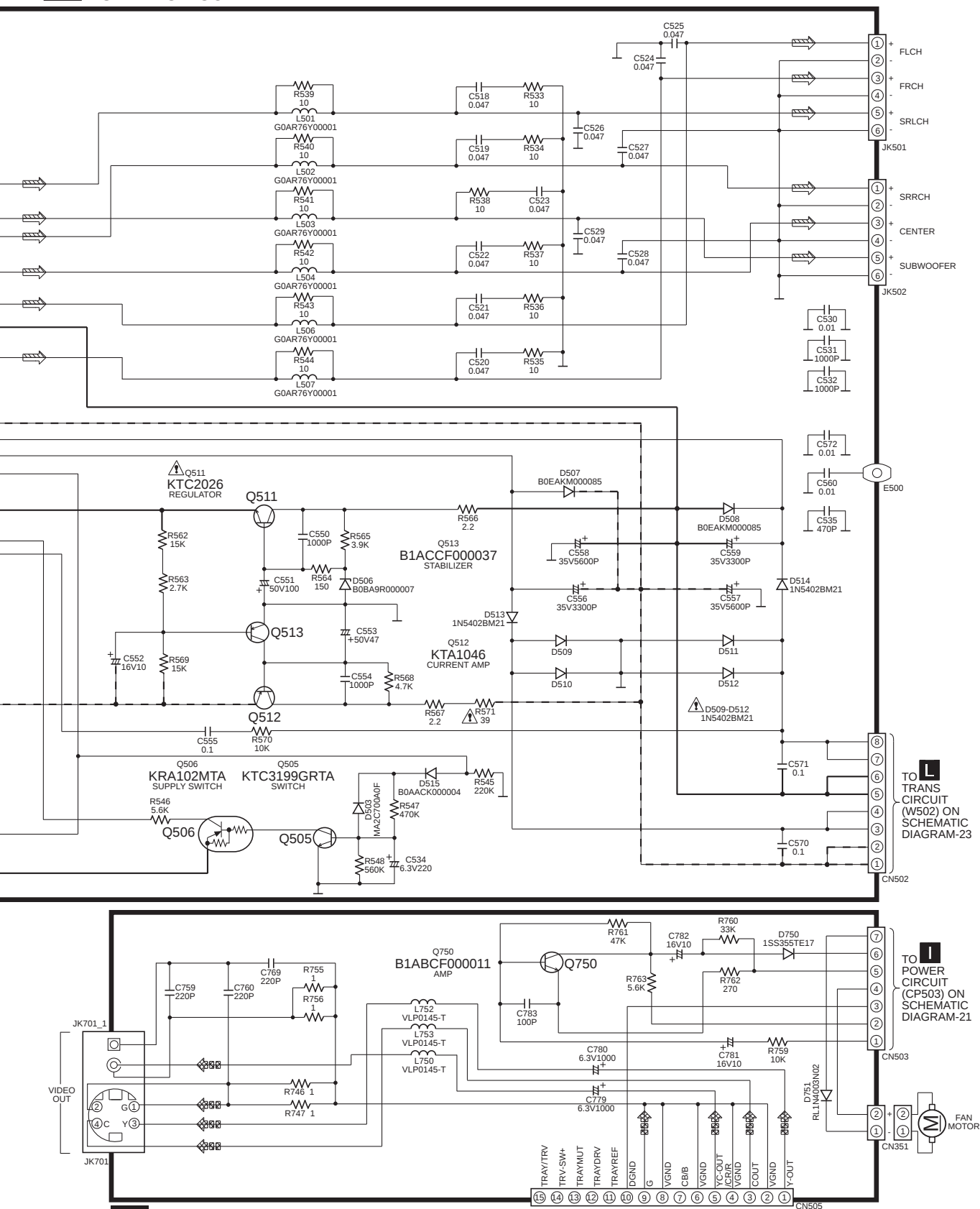
 : +B SIGNAL LINE
 : -B SIGNAL LINE
 : AUXILLARY SIGNAL LINE
 : FM/AM SIGNAL LINE
 : MAIN SIGNAL LINE



SCHEMATIC DIAGRAM - 22

I POWER CIRCUIT

— : +B SIGNAL LINE
 - - : -B SIGNAL LINE
 : MAIN SIGNAL LINE
 : DVD VIDEO SIGNAL LINE



J VIDEO CIRCUIT

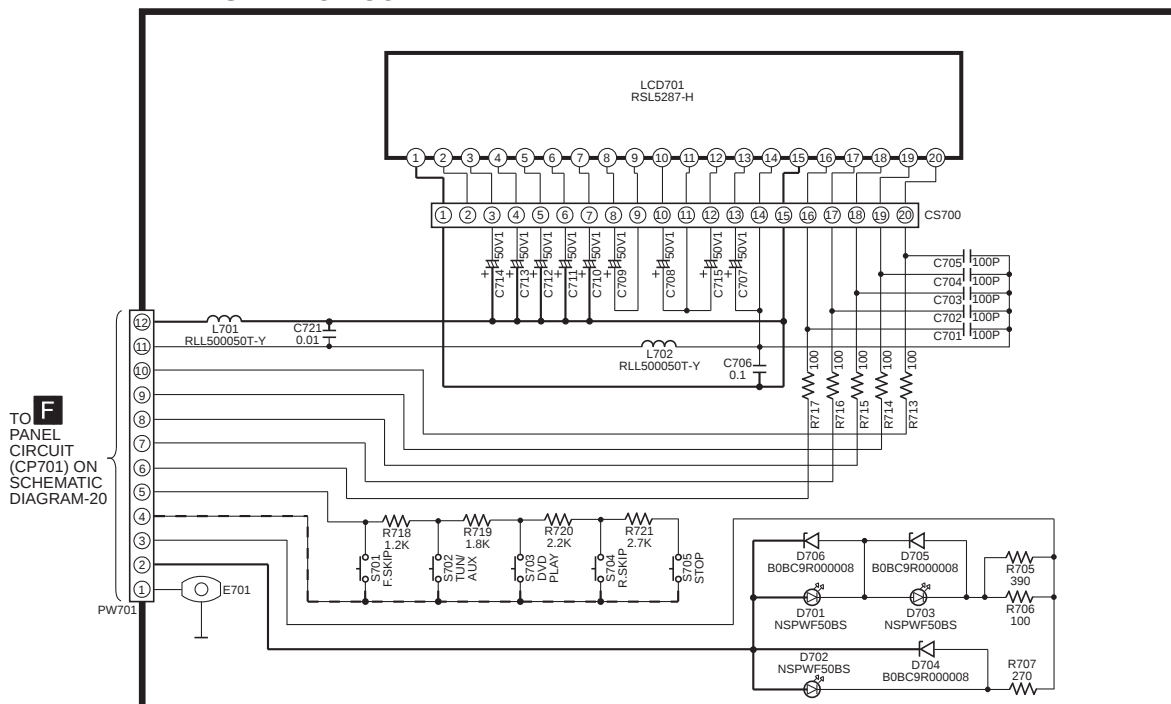
TO B
 DVD MODULE (2) CIRCUIT (FP3203)
 ON SCHEMATIC DIAGRAM-12

SCHEMATIC DIAGRAM - 23

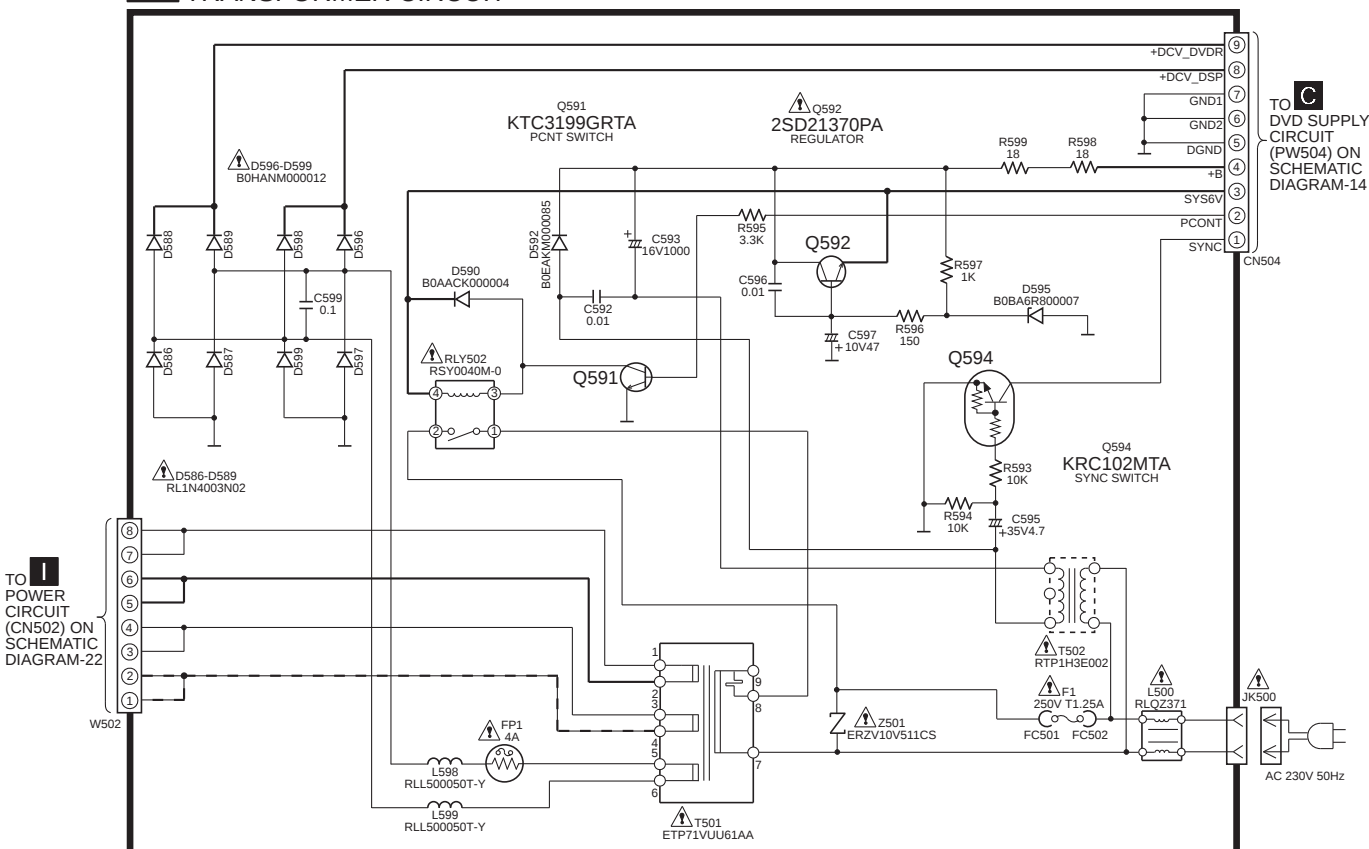
K DISPLAY CIRCUIT

— : +B SIGNAL LINE

- - : -B SIGNAL LINE



L TRANSFORMER CIRCUIT



17 Printed Circuit Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Note: Circuit board diagrams may be modified at any time with the development of new technology.



[TOP](#) [PREVIOUS](#) [NEXT](#)

A B C D E F G

1

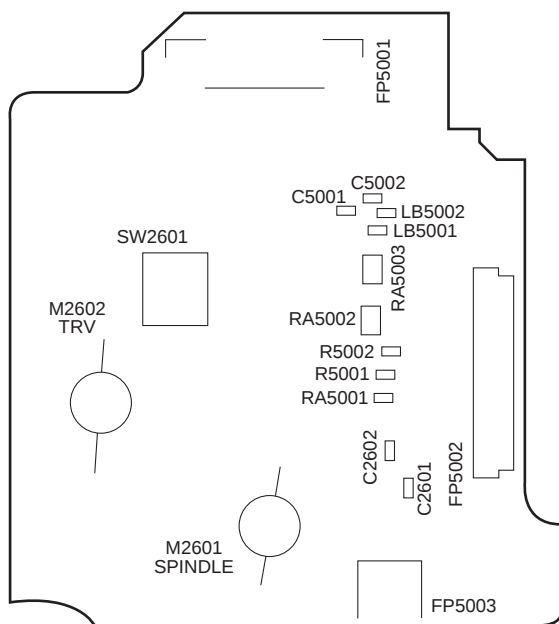
A DVD Module (1) P.C.B. (REP3382A-N)

2

3

4

5



(SIDE: A)

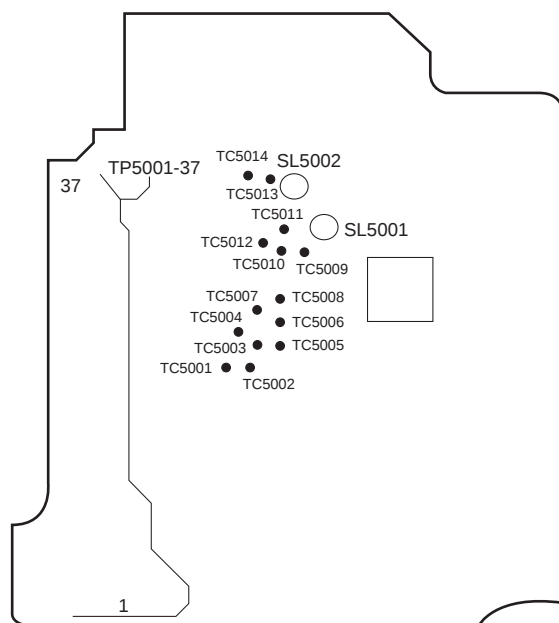
6

A DVD Module (1) P.C.B. (REP3382A-N)

7

8

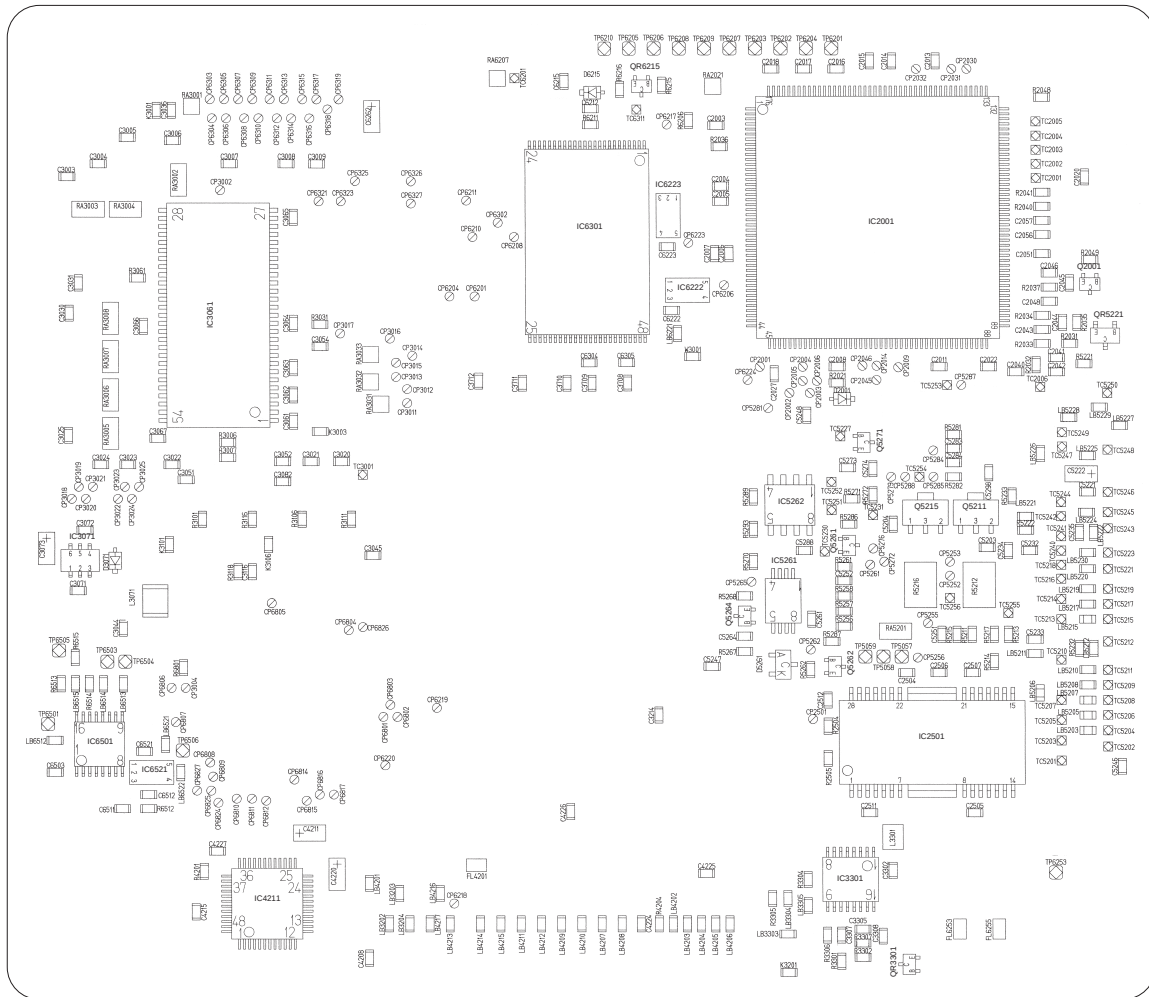
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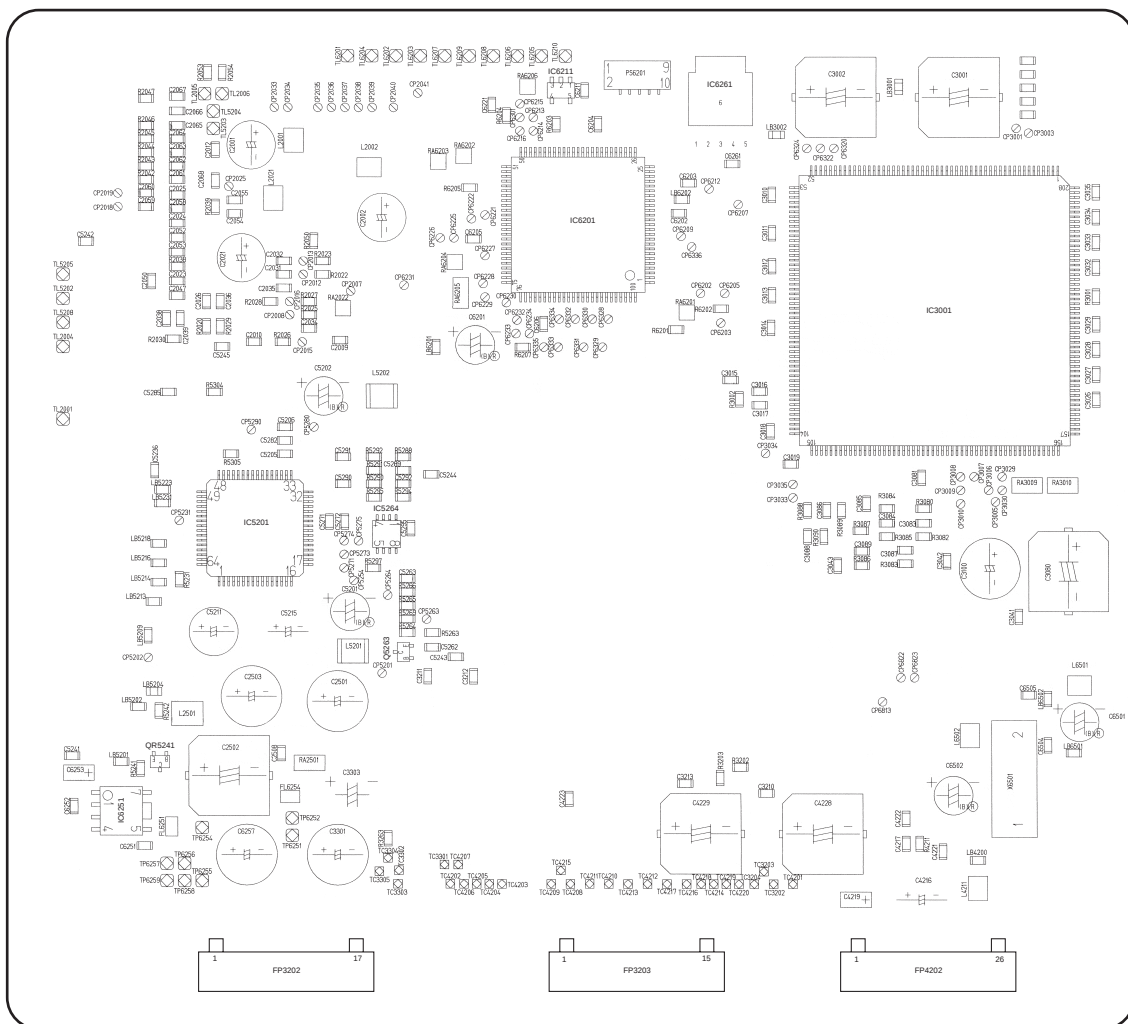
(SIDE: B)

G

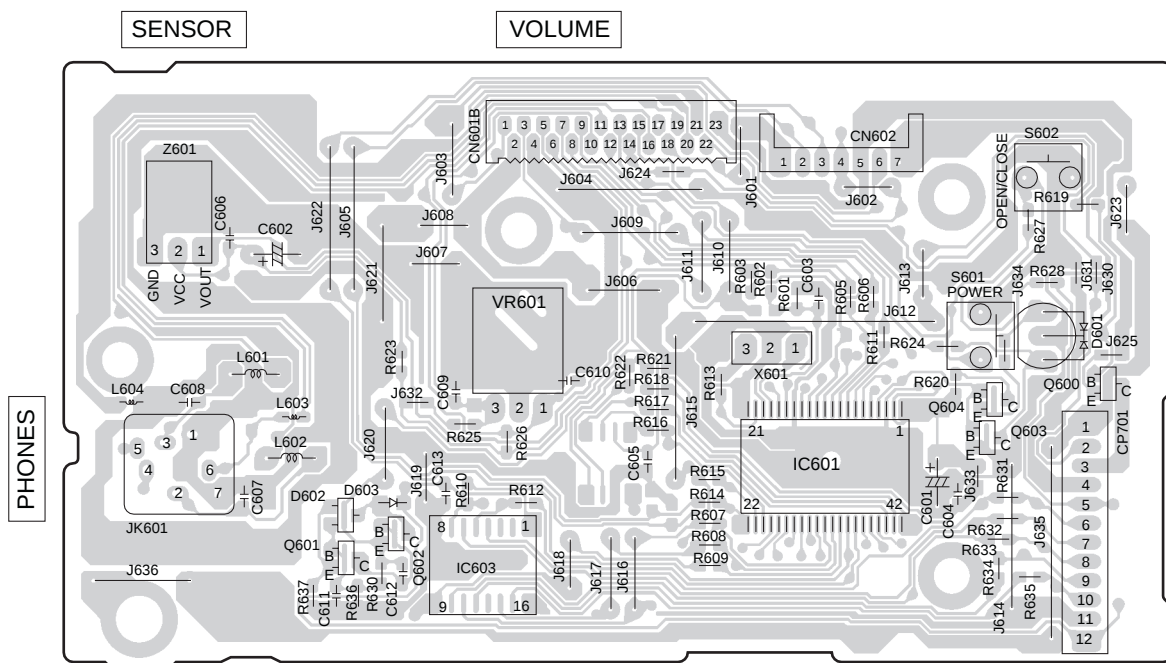
B



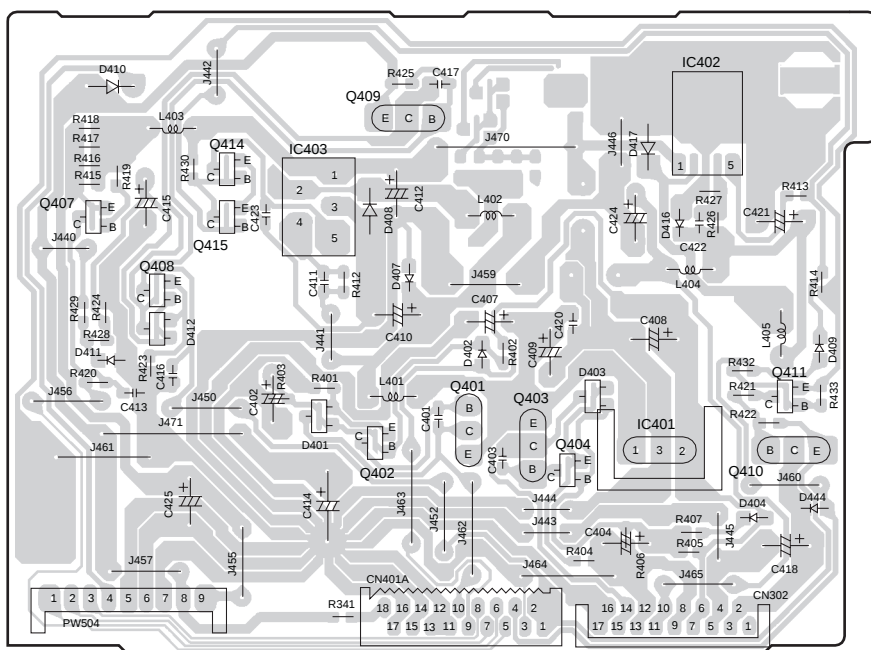
G



F PANEL P.C.B. (REP3294A)



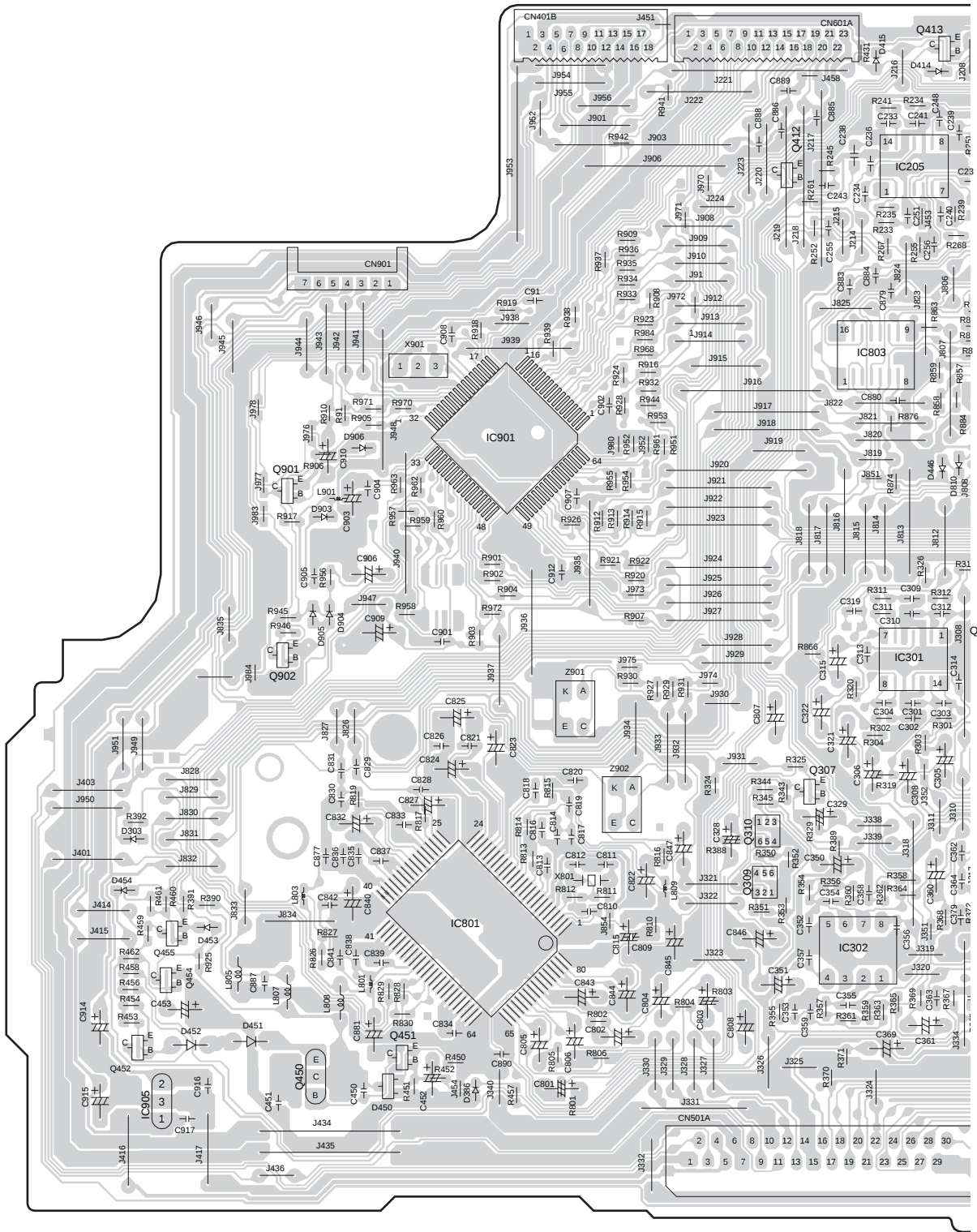
C DVD SUPPLY P.C.B. (REP3295E)



A B C D E F G

D

MAIN P.C.B. (REP3295E)



G

H

I

J

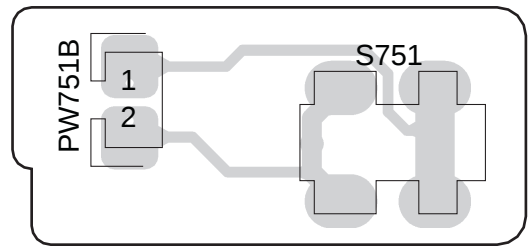
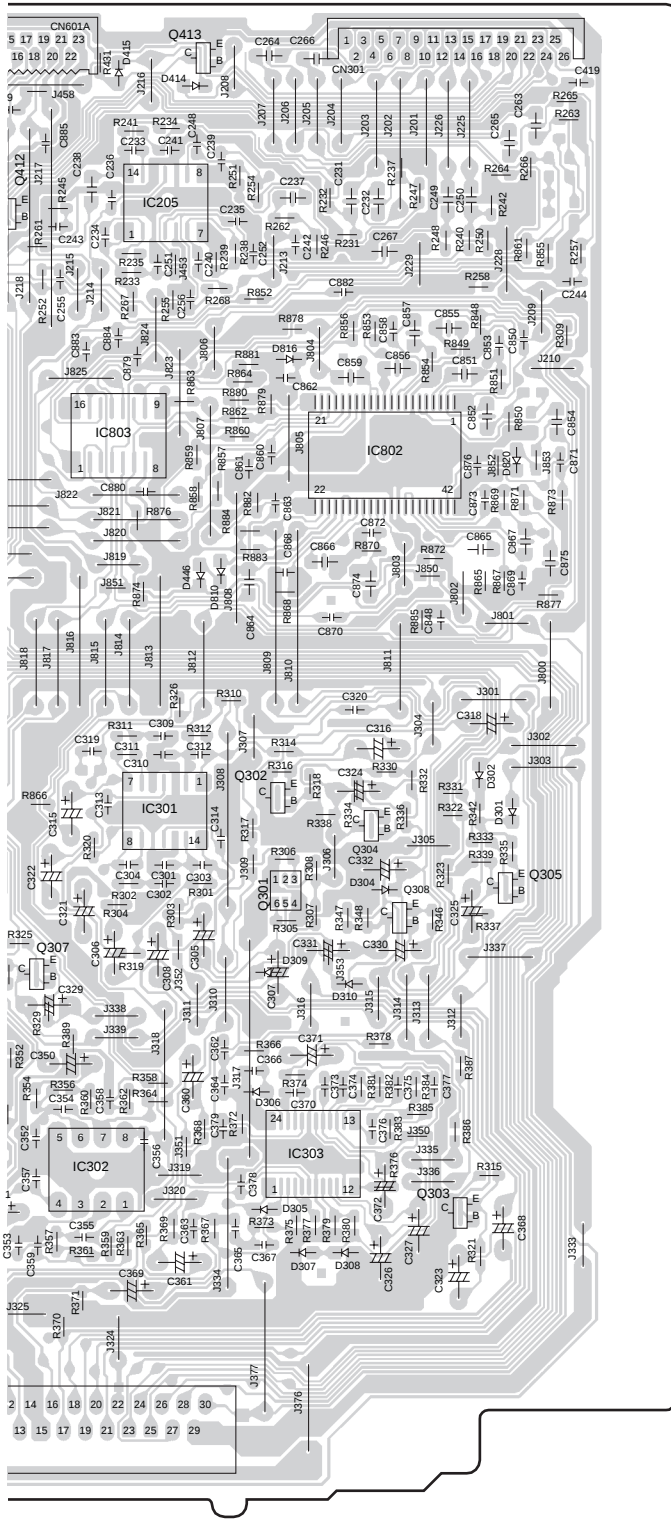
K

L

M

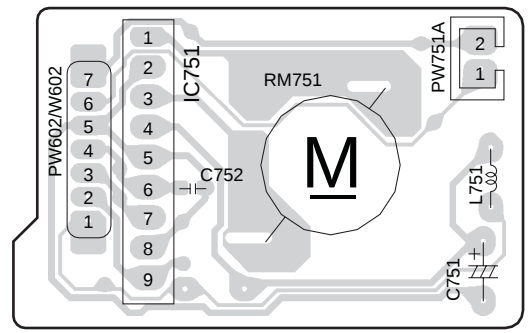
H

SWITCH P.C.B. (REP3293A)



G

MOTOR P.C.B. (REP3293A)



A B C D E F G

1

I POWER P.C.B. (REP3296B)

2

SUB WOOFER	CENTER SPEAKERS	SURROUND SPEAKERS	FRONT SPEAKERS
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3

4

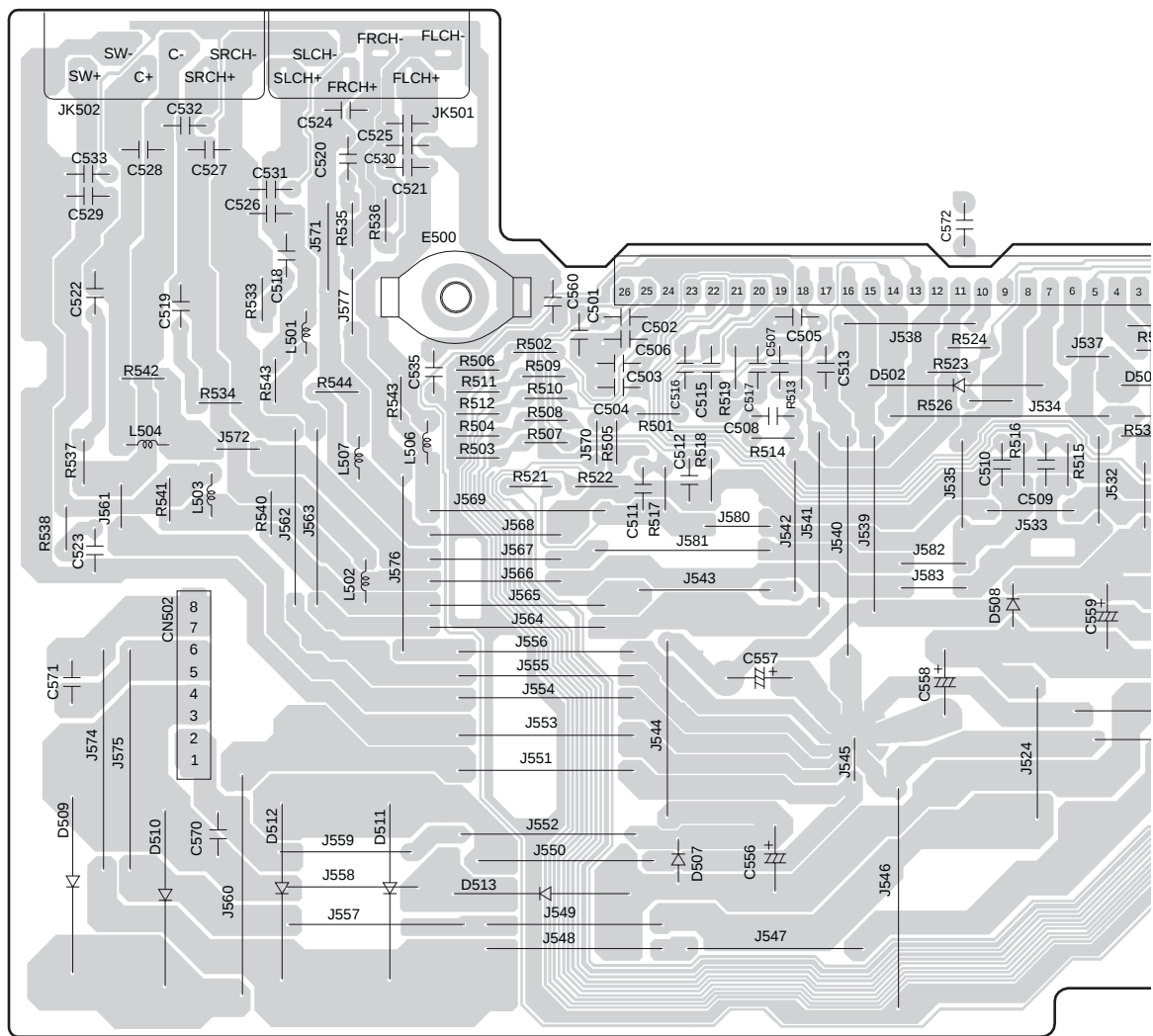
5

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G

H

I

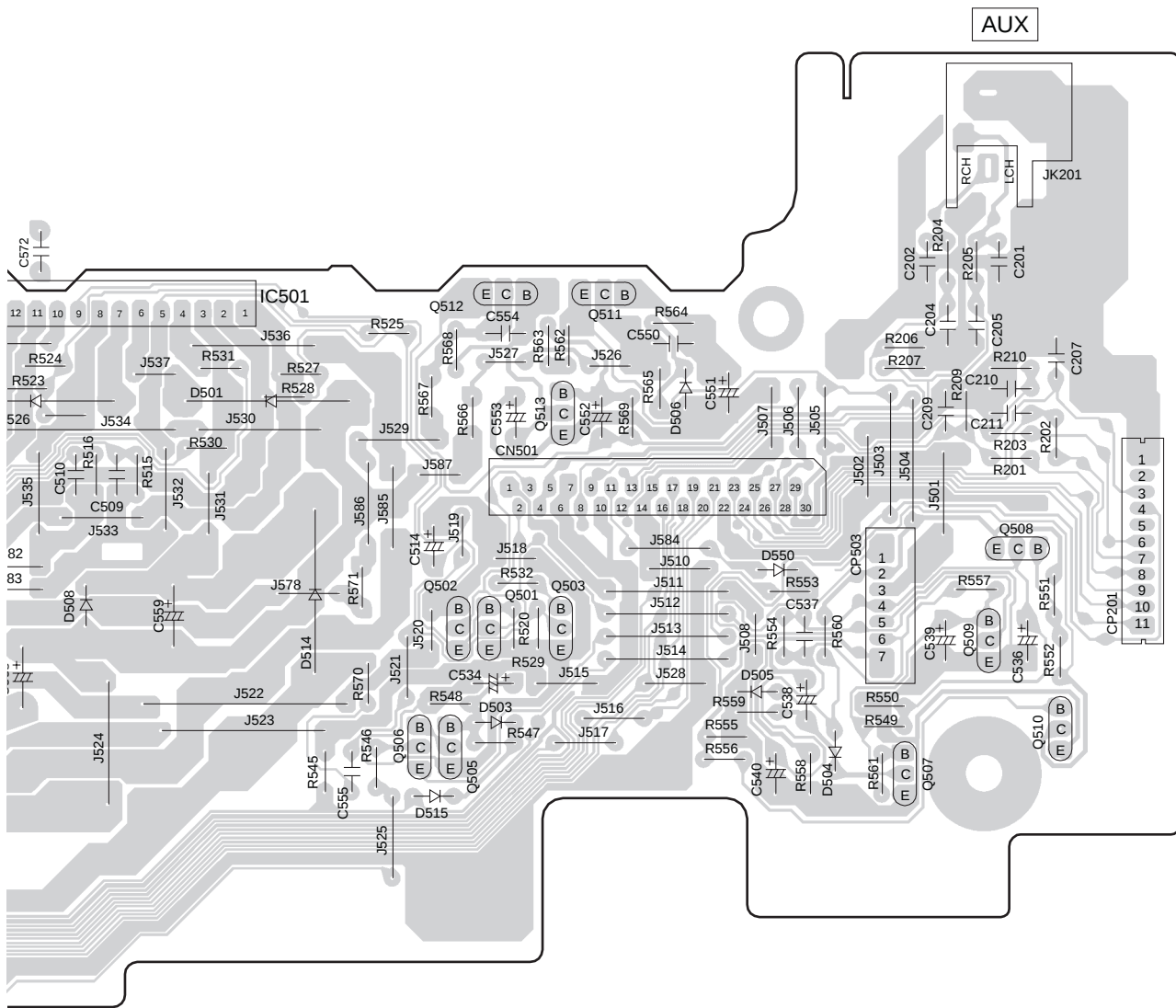
J

K

L

M

AUX

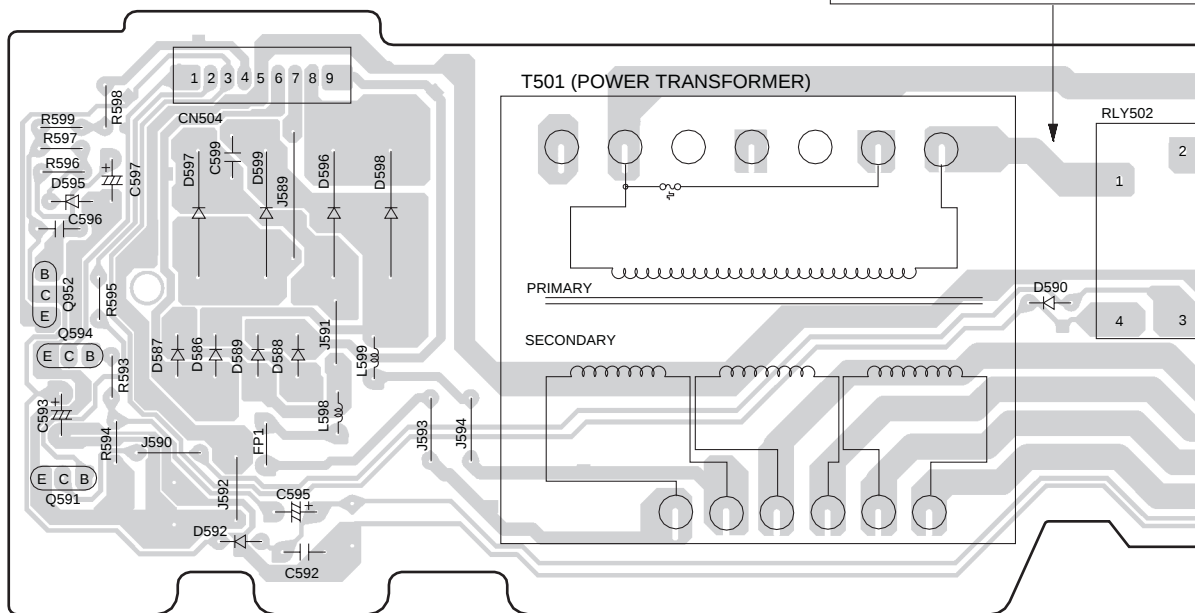


A B C D E F G

1

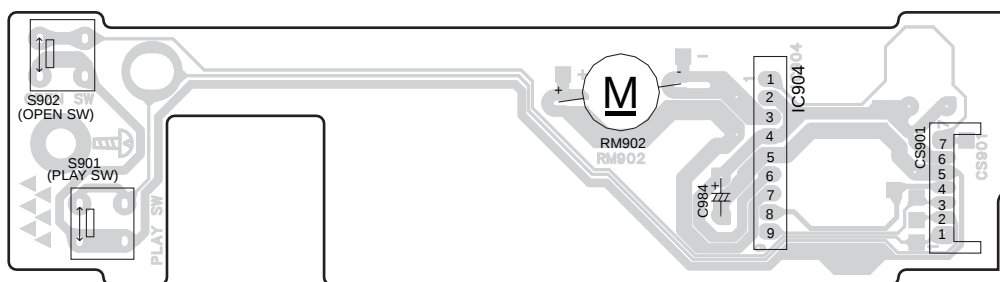
L TRANSFORMER P.C.B. (REP3296B)

CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE. PLEASE
TOUCH THIS P.C.B



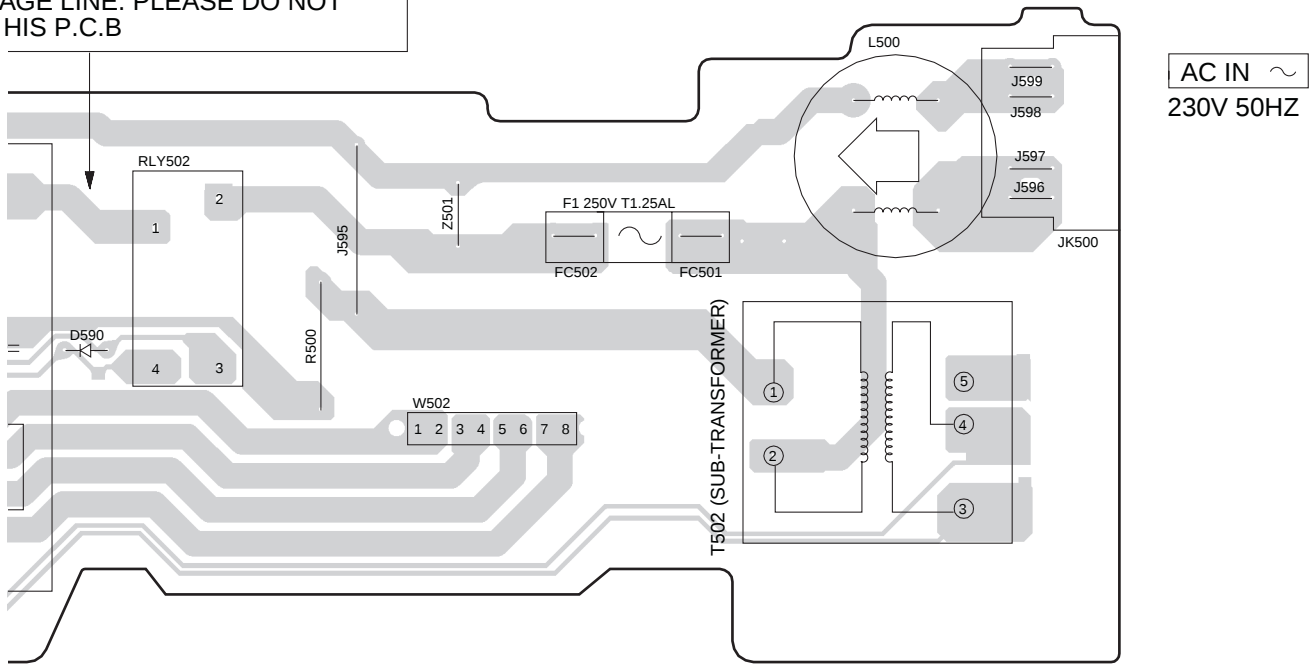
6

E CD TRAY LOADING P.C.B. (REP3288A)

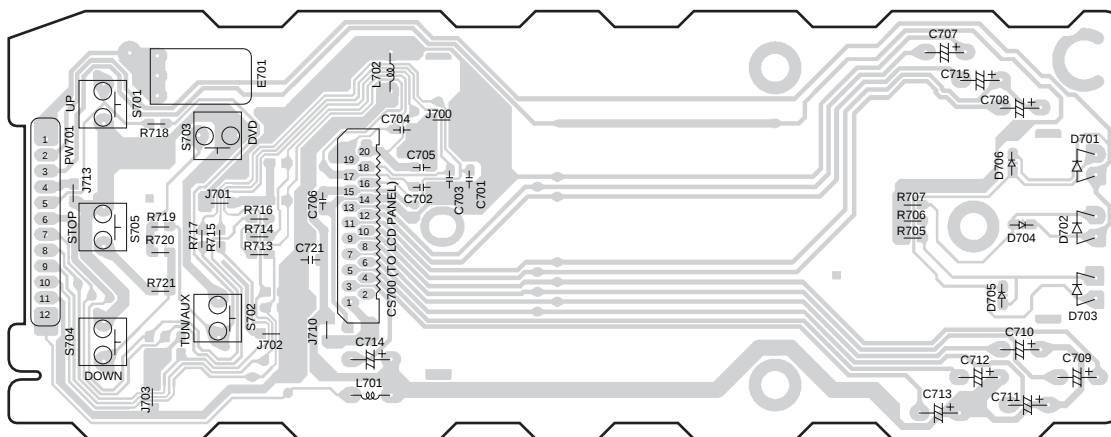


9

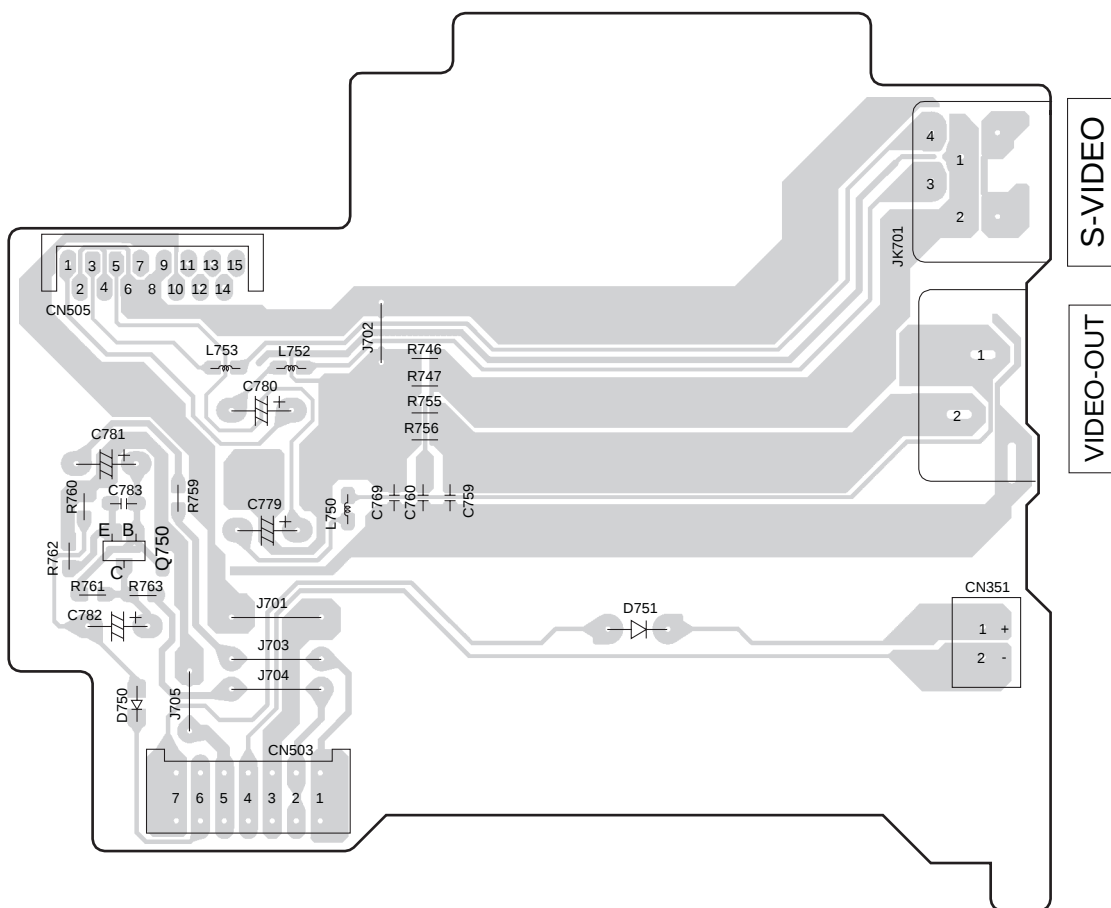
ELECTRIC SHOCK
DANGER LINE. PLEASE DO NOT
TAMPER WITH THIS P.C.B



K DISPLAY P.C.B. (REP3293A)



J VIDEO P.C.B. (REP3295E)

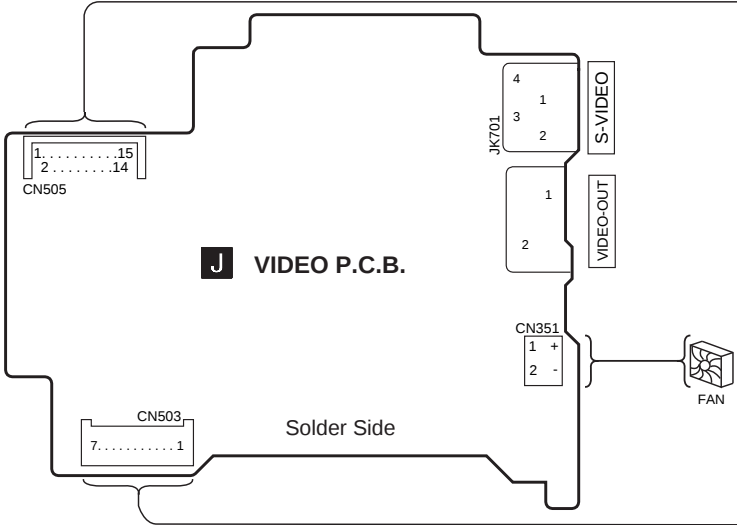
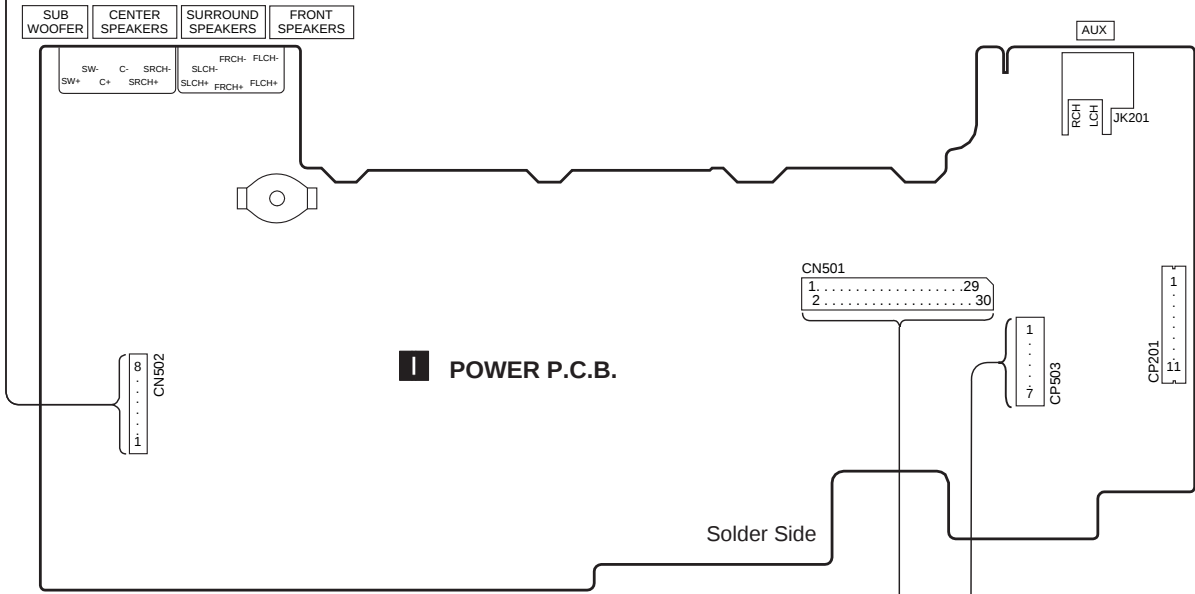
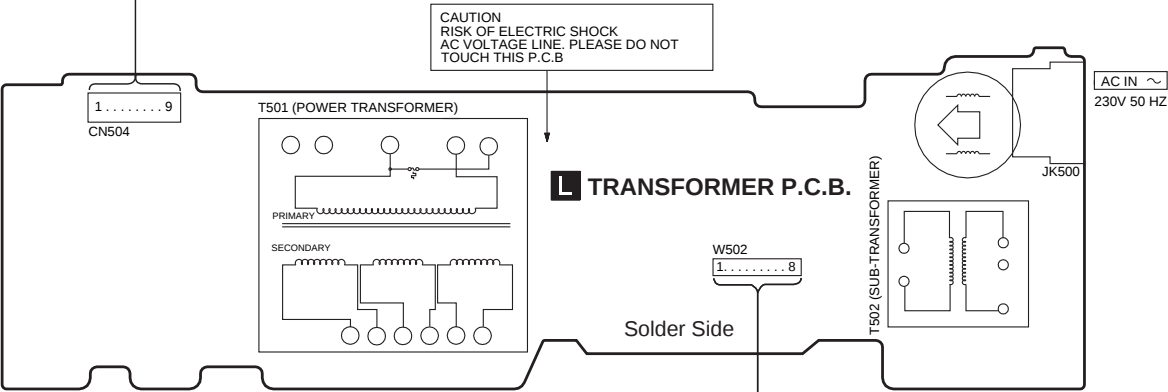
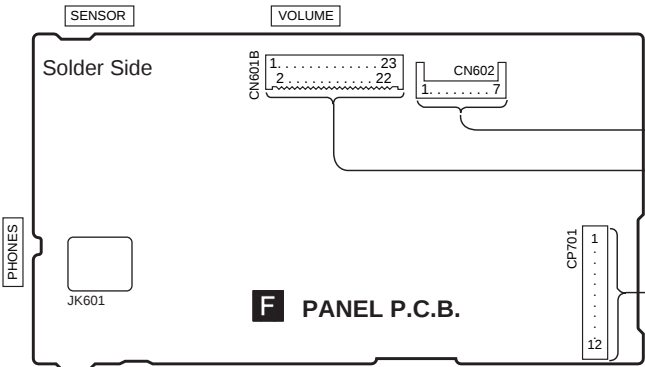
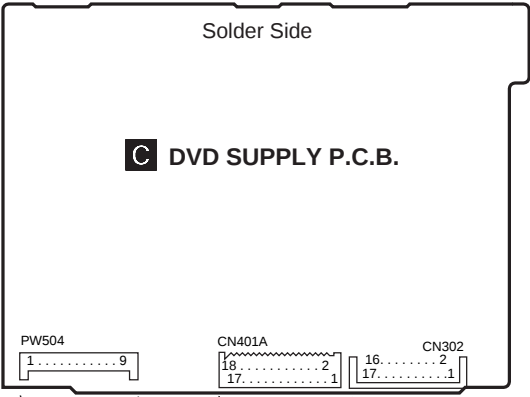


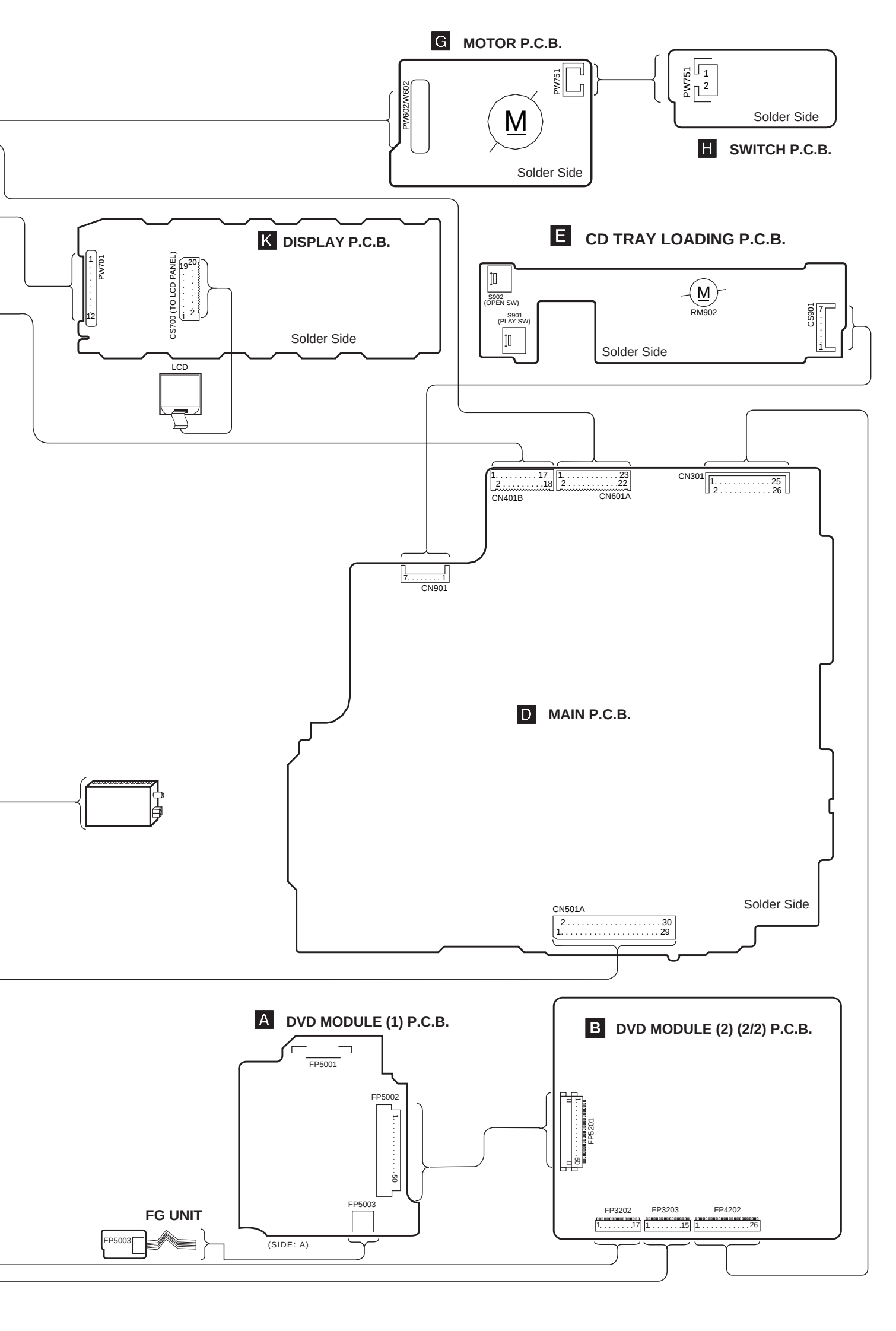
18 Wiring Connection Diagram

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19 Parts Location and Replacement Parts List

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Notes:

- Important safety notice:

Components identified by  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardent (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.

When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.

- The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)

Parts without these indications can be used for all areas.

- Warning: This product uses a laser diode. Refer to caution statements on "Precaution of Laser Diode".

ACHTUNG:

Die Lasereinheit nicht zerlegen.

Die Lasereinheit darf nur gegen eine vom Hersteller spezifizierte Einheit ausgetauscht werden.

- Capacitor values are in microfarads (μ F) unless specified otherwise, P= Pico-farads (pF), F= Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).
- The marking (RTL) indicates that the Retention Time is limited for this items. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of a availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

- [M] Indicates in the Remarks columns indicates parts supplied by [MESA](#).
- The “(SF)” mark denotes the standard part.
- Reference for O/I book languages are as follows:

Ar : Arabic	Du : Dutch	It : Italian	Sp : Spanish
Cf : Canadian French	En : English	Ko : Korean	Sw : Swedish
Cz : Czech	Fr : French	Po : Polish	Co : Traditional Chinese
Da : Danish	Ge : German	Ru : Russian	Cn : Simplified Chinese

[19.1 CD Loading Mechanism \(RD-DDM018-S\)](#)

[19.1.1 CD Loading Mechanism Parts Location](#)

[19.1.2 CD Loading Mechanism Parts List](#)

[19.2 Cabinet](#)

[19.2.1 Cabinet Parts Location](#)

[19.2.2 Cabinet Parts List](#)

[19.3 Component Parts List](#)

[19.4 Packing Materials & Accessories Parts List](#)

[19.5 Packaging](#)

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19.1 CD Loading Mechanism (RD-DDM018-S)

[TOP](#) [PREVIOUS](#) [NEXT](#)

[19.1.1 CD Loading Mechanism Parts Location](#)

[19.1.2 CD Loading Mechanism Parts List](#)

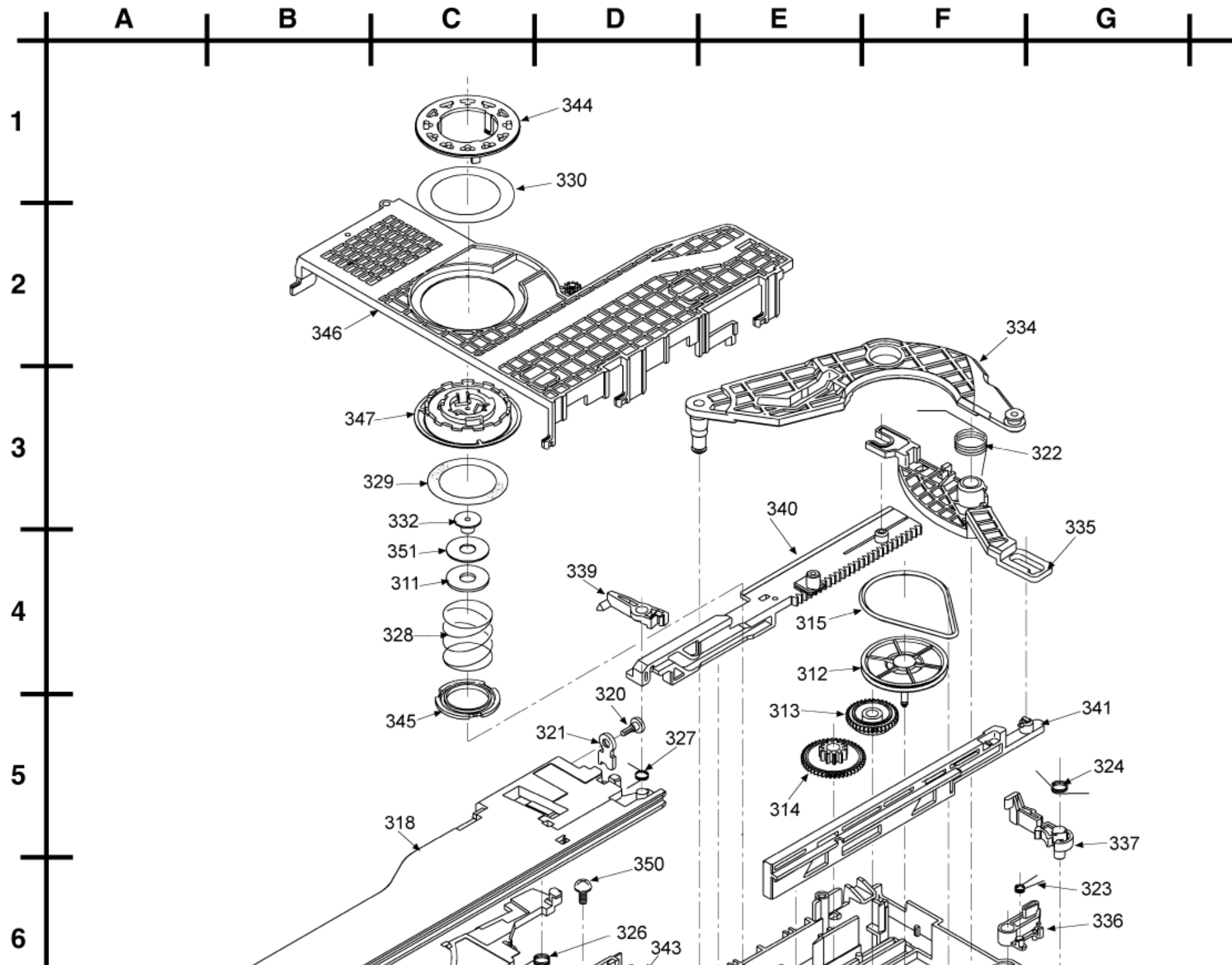
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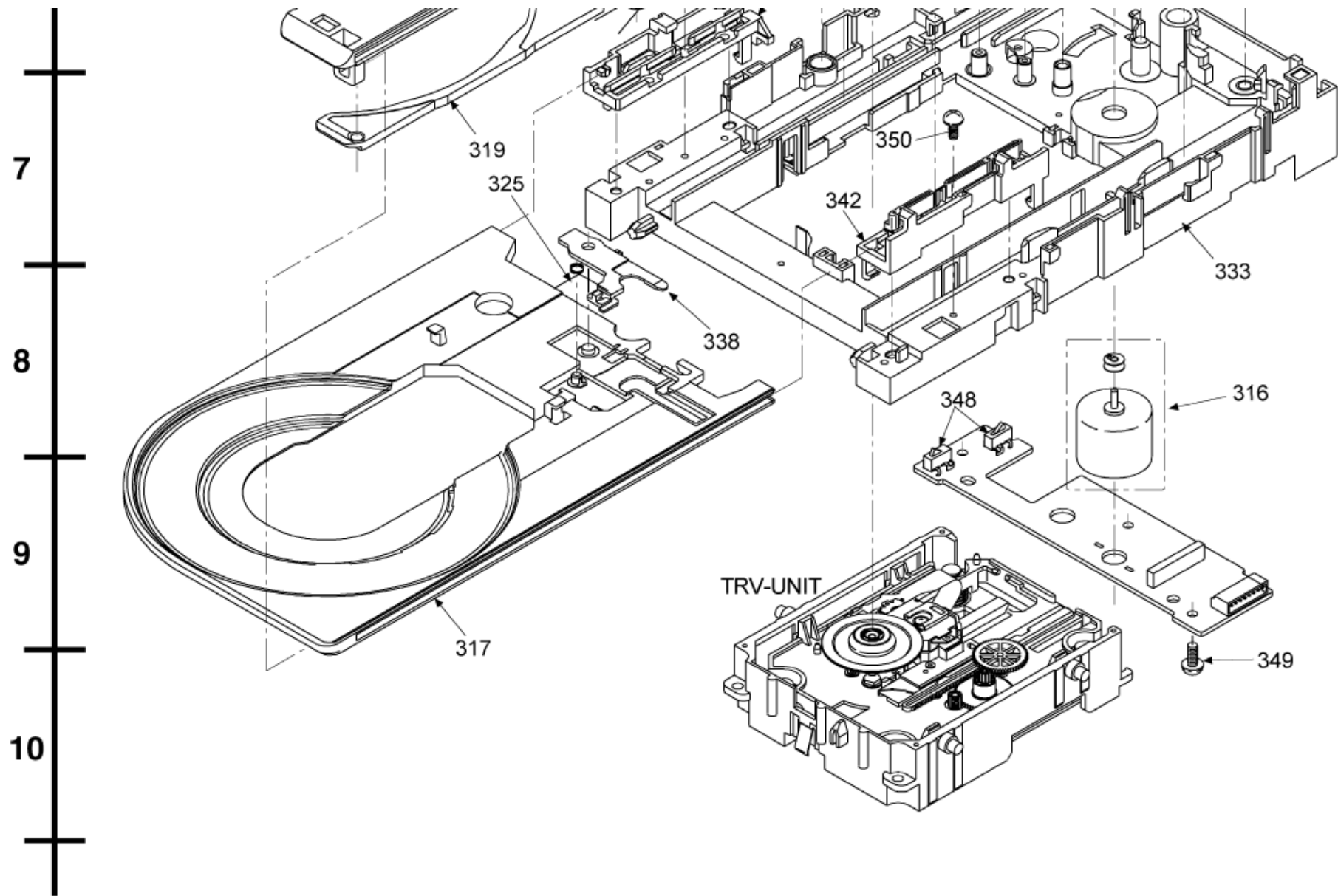
19.1.1 CD Loading Mechanism Parts Location

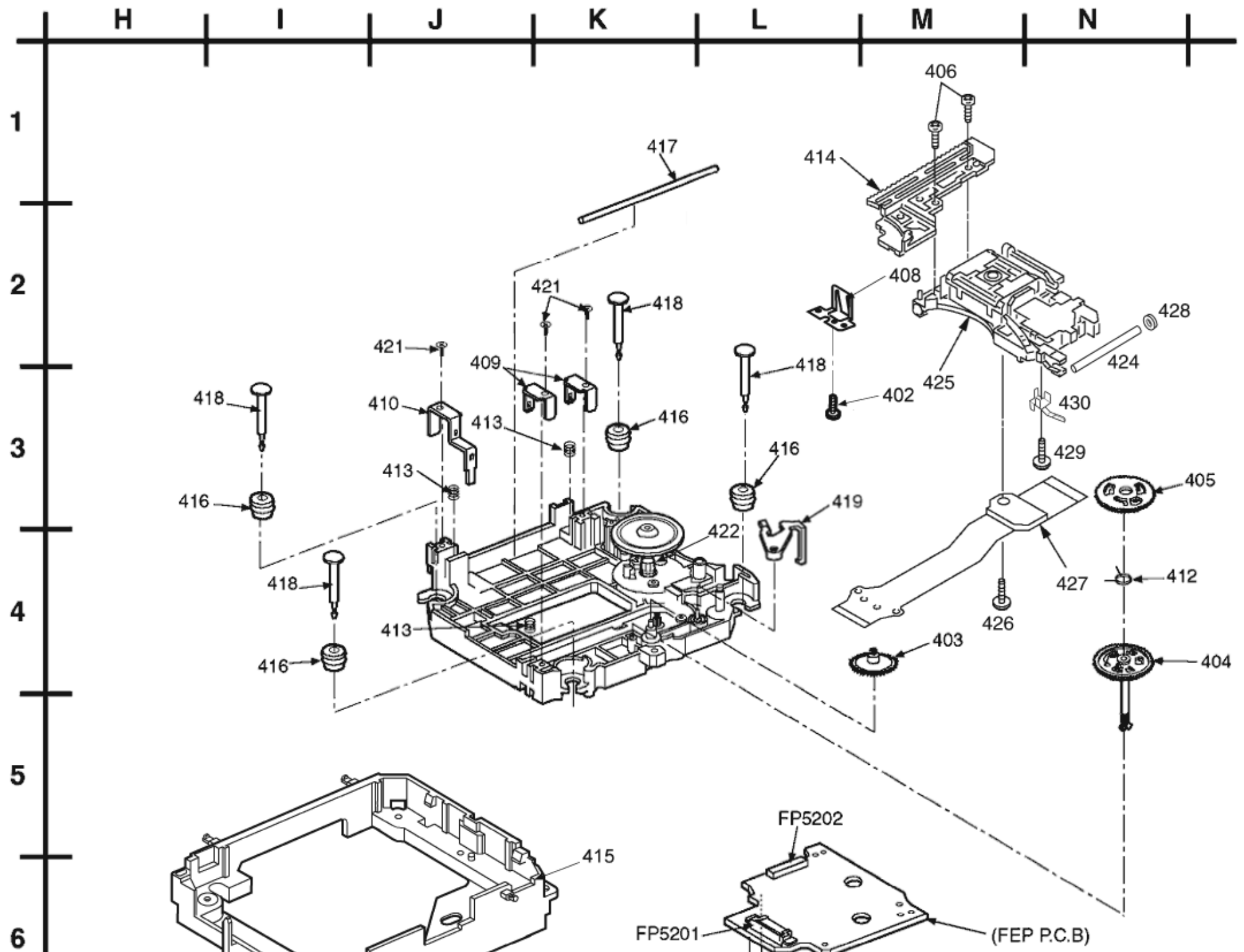
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19.1.2 CD Loading Mechanism Parts List

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Ref. No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK	
311	JSM0048	MAGNET	[M]
312	RDG0547	PULLEY GEAR	[M]
313	RDG0548	RELAY GEAR	[M]
314	RDG0549	DRIVE GEAR	[M]
315	RDV0070	BELT	[M]
316	REM0102	MOTOR UNIT	[M]
317	RGQ0319-Q	TRAY	[M]
318	RGQ0320-Q	SUB-TRAY	[M]
319	RGQ0321-Q	GUIDE TRAY	[M]
320	RHD20061	SENSOR LEVER SCREW	[M]
321	RMA1521	SENSOR LEVER	[M]
322	RME0350	CHANGE LEVER SPRING	[M]
323	RME0351	LOCK LEVER SPRING	[M]
324	RME0352	HORIZONTAL LOCK LEVE	[M]
325	RME0353	TRAY SLIDER SPRING	[M]
326	RME0354	GUIDE TRAY SPRING	[M]
327	RME0355	VERTICAL LOCK LEVER	[M]
328	RME0356	CLAMPER SPRING	[M]
329	RMF0308	CLAMPER SHEET	[M]
330	RMF0314	UPPER SHEET	[M]
332	RMG0546-A	CLAMP RUBBER	[M]
333	RMK0511	MECHA CHASSIS	[M]
334	RML0627	DRIVE ARM	[M]
335	RML0628	CHANGE LEVER	[M]

336	RML0629	LOCK LEVER	[M]
337	RML0630	HORIZONTAL LOCK LEVE	[M]
338	RML0631	TRAY SLIDER	[M]
339	RML0632	VERTICAL LOCK LEVER	[M]
340	RMM0247	DRIVE RACK	[M]
341	RMM0248	SUB RACK	[M]
342	RMM0249	GUIDE PIECE (R)	[M]
343	RMM0250	GUIDE PIECE (L)	[M]
344	RMR1318-K	SPRING HOOK	[M]
345	RMR1321-K	SPRING HOLDER	[M]
346	RMR1423-K	CLAMP PLATE	[M]
347	RMR1424-X	CLAMPER	[M]
348	RSH1A044-1A	OPEN SWITCH	[M]
349	XTN26+6G	SCREW	[M]
350	XTN26+8G	GUIDE PIECE SCREW	[M]
351	XWG6FFY	WASHER	[M]
401	RMG0558-K	P.C.B. RUBBER	[M]
402	XTV2+6G	PCB SCREW	[M]
403	RDG0499	TRV GEAR A	[M]
404	RDG0500	TRV GEAR B	[M]
405	RDG0501	TRV GEAR C	[M]
406	RHD17044	RACK SCREW	[M]
408	RMC0387	SUPPORT SPRING	[M]
409	RMC0415	ADJUST SPRING HOLDER	[M]
410	RMC0416	ADJUST SPRING HOLDER	[M]
412	RME0319	TRV GEAR SPRING	[M]
413	RME0320	ADJUSTMENT SPRING	[M]
414	RMM0234-1	TRAVERSE DRIVE RACK	[M]
415	RMR1422-K	UNIT CHASSIS	[M]
416	RMG0580-H	FLOATING RUBBER	[M]
417	RMS0711	GUIDE SHAFT	[M]

418	RMS0712-1	FIXED PIN	[M]
419	RMX0192	INNER STOPPER	[M]
421	VHD1224	ADJ SPRING HOLDER SC	[M]
422	RXQ1028	SPINDLE MOTOR ASS'Y	[SPC]
424	RMS0710	DRIVE SHAFT	[M]
425	RD-DD-0060S	OPU DVD	[M]
426	RHD14095	FPC SCREW	[M]
427	RJB2308A-1	INTERFACE FPC	[M]
428	RMG0561-T	CUSHION RUBBER	[M]
429	RHD14096	SHAFT APRING SCREW	[M]
430	RMC0418	SHAFT SPRING	[M]

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19.2 Cabinet

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[19.2.1 Cabinet Parts Location](#)

[19.2.2 Cabinet Parts List](#)

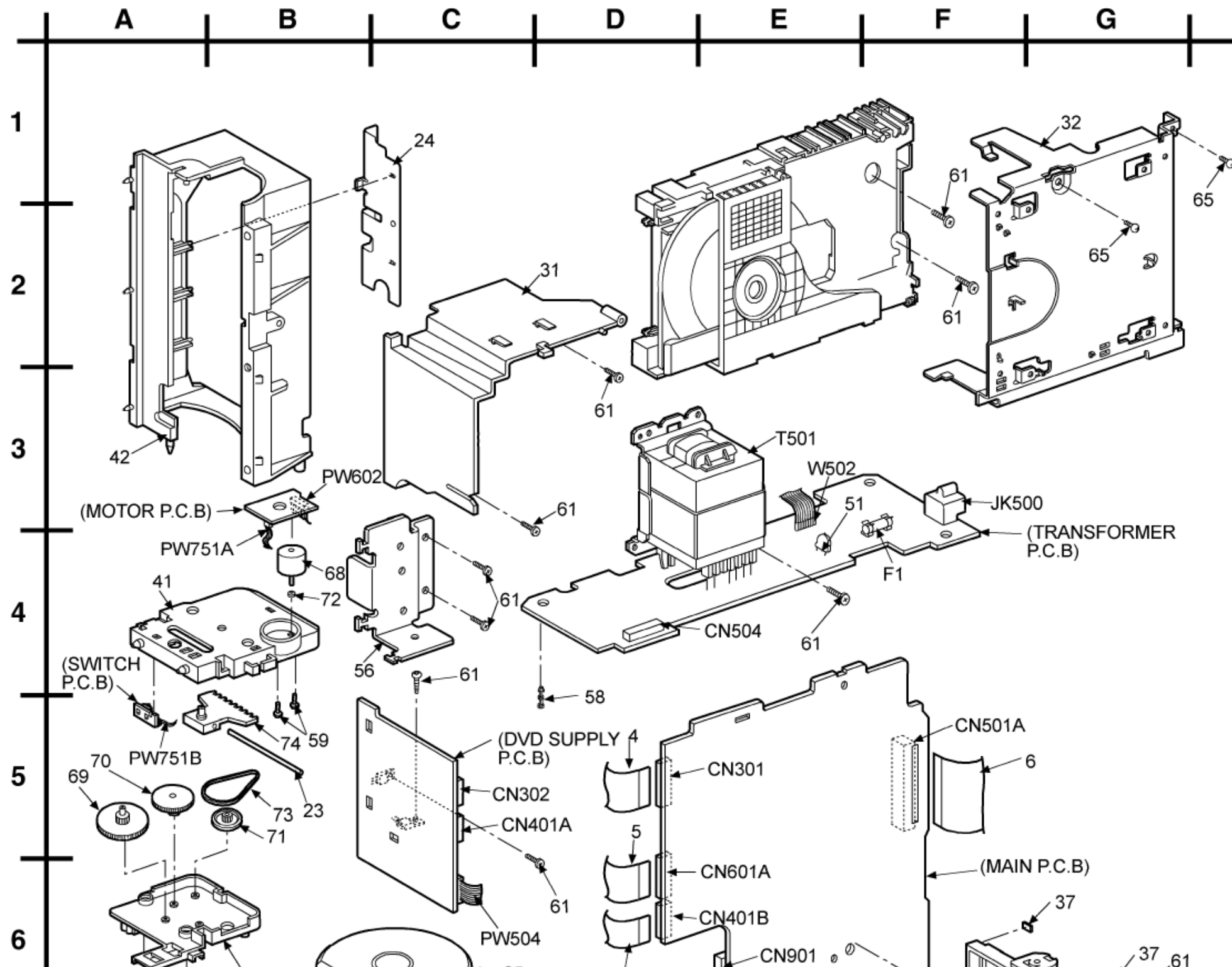
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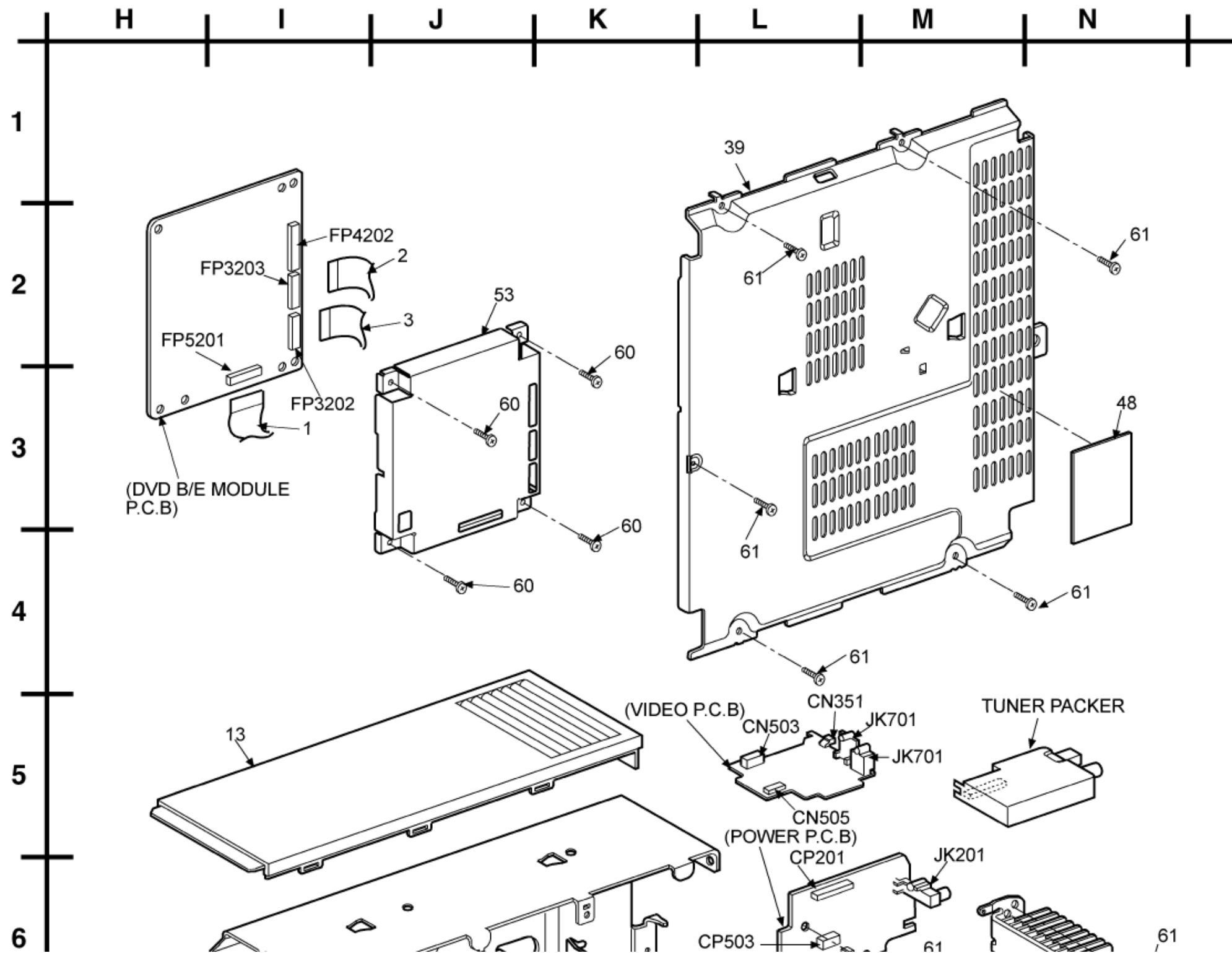
19.2.1 Cabinet Parts Location

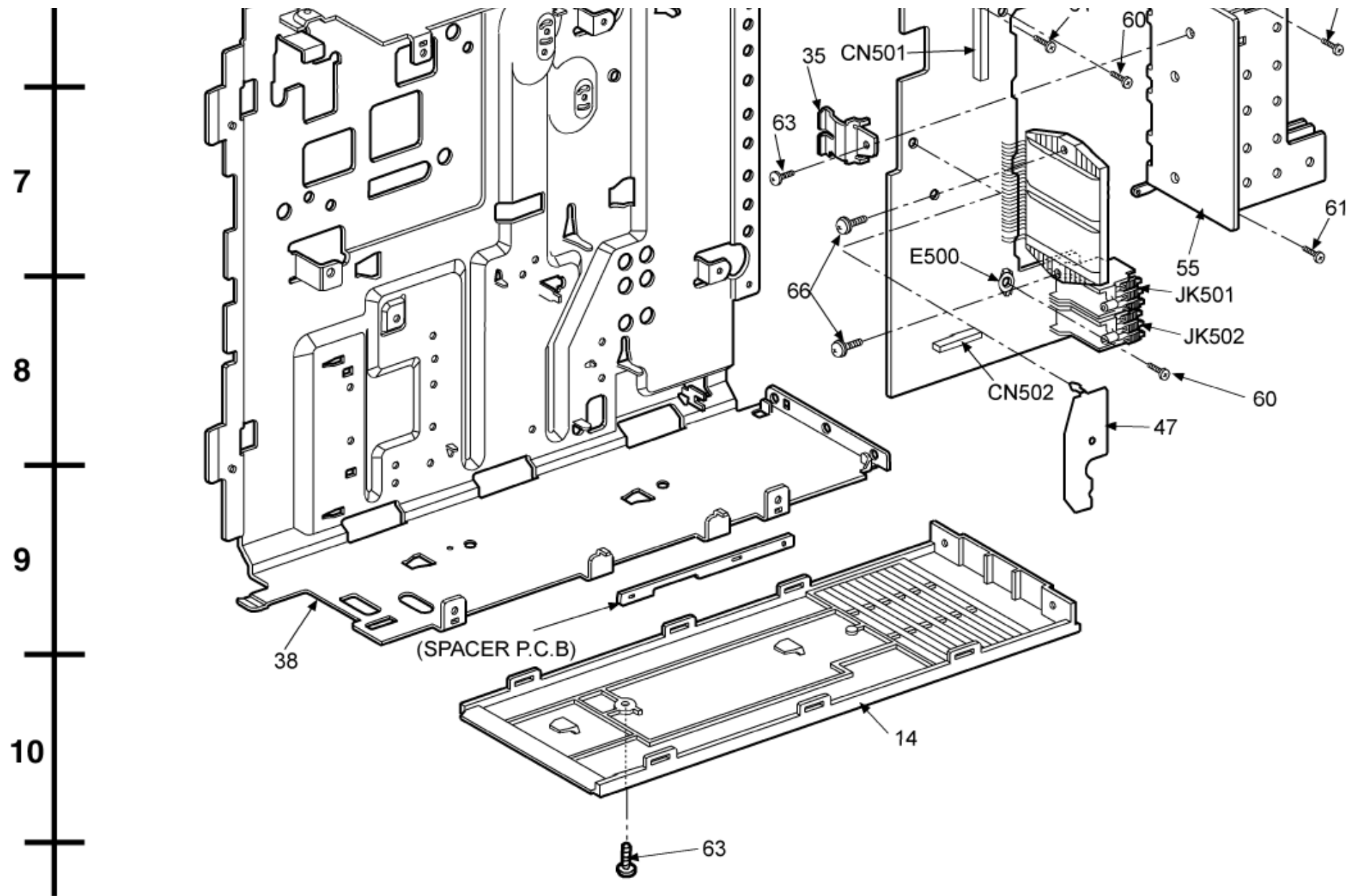
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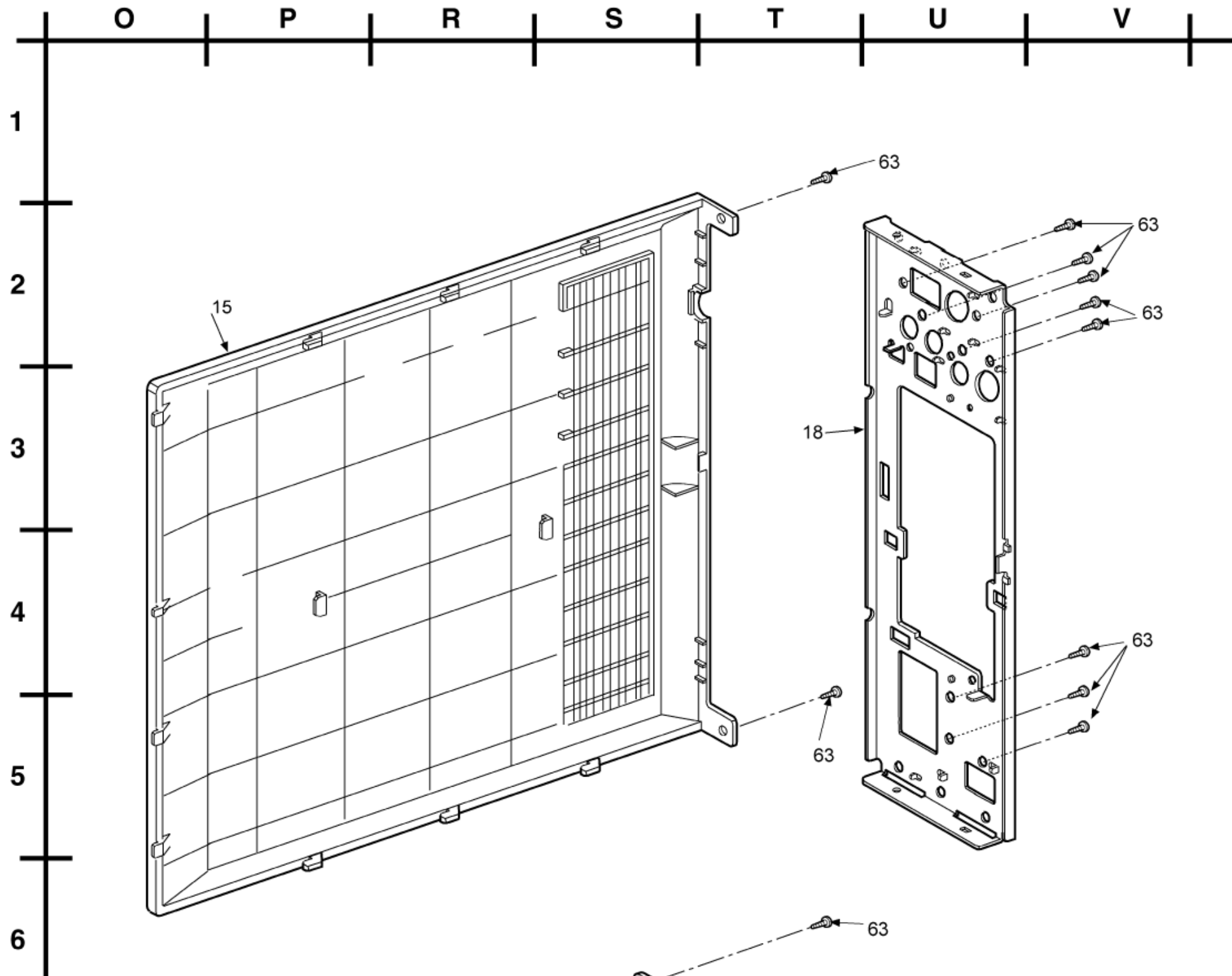


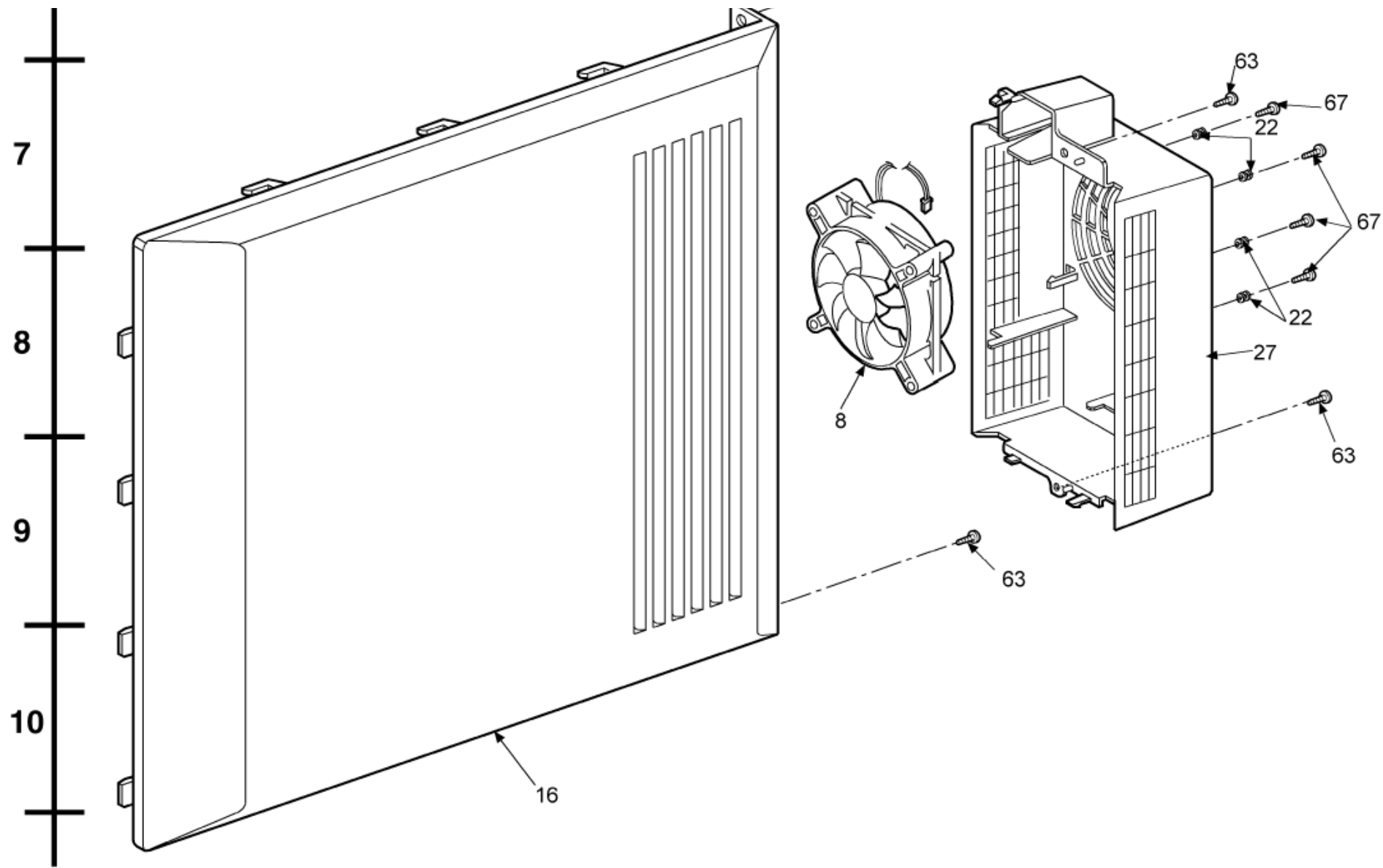
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19.2.2 Cabinet Parts List

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Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	REE1197	50P FFC (E/G SERIES)	[M]
2	REE1152	15P FFC	[M]
3	REE1153	17P FFC	[M]
4	REE1154	26P FFC	[M]
5	REE1155	23P FFC	[M]
6	REE1156	30P FFC	[M]
7	REE1176	18P FFC	[M]
8	REM0072-3	FAN	[M]
9	RGK1441B-S	CD ORNAMENT	[M]
10	RGK1489A-S	FRONT ORNAMENT	[M]
11	RGL0580-Q	LIGHTING CHIP	[M]
12	RGP0886-S	SUB PANEL	[M]
13	RGP0888A-S	SIDE PANEL L	[M]
14	RGP0889A-S	SIDE PANEL R	[M]
15	RGP0890A-S	UPPER PANEL	[M]
16	RGP0891A-S	LOWER PANEL	[M]
17	RGP0911-S	FRONT PANEL	[M]
18	RGR0324A-E	REAR PANEL	[M]
19	RGU2035-S	VOLUME BUTTON	[M]
20	RGU2079-S	POWER BTN	[M]
21	RGW0383-S	VOL KNOB	[M]
22	RMG0606-K	FAN INSULATOR	[M]
23	RMS0774	SHAFT	[M]
24	RSC0626	DVD FRONT SHIELD	[M]

25	RGK1439-S	SIDE CAP	[M]
27	RFKHAD3EE-S	REAR COVER ASS'Y	[M]
28	RKW0674A-Q	LCD WINDOW	[M]
29	RKW0677-Q	SENSOR WINDOW	[M]
30	RKW0678-S	SENSOR PANEL	[M]
31	RMN0692	TRANS COVER	[M]
32	RMA1534	D5 ANGLE	[M]
33	RMB0700	EARTH SPRING A	[M]
34	RMB0710	EARTH SPR. FOR ORNA	[M]
35	RMC0158-S	TR-FIXTURE	[M]
36	RMN0710	HOOK	[M]
37	RMG0547-K	CUSHION	[M]
38	RMK0508-1	BOTTOM CHASSIS	[M]
39	RMK0509	TOP CHASSIS	[M]
40	RMQ1069	SUB REAR PANEL	[M]
41	RMQ1070	GEAR BASE	[M]
42	RMQ1071	MECHA BASE	[M]
43	RMQ1072	GEAR FIXTURE	[M]
45	RMR1520-W	LCD SHEET	[M]
46	RMR1437-A	SPACER SHEET	[M]
47	RMV0234	BARRIER SHEET	[M]
48	RMV0235	VENTILATION HOLE COV	[M]
51	RMZ0339	COVER	[M]
53	RSC0625	D5 SHIELD	[M]
55	RXX0250	HEAT SINK UNIT	[M]
56	RXX0259-1	COMPLETE SUB HEAT SI	[M]
58	SHR8006	PCB SUPPORT	[M]
59	XQN2+C3	SCREW	[M]
60	XTB3+8J	SCREW	[M]
61	XTB3+8JFZ	SCREW	[M]
62	XTBS26+10J	SCREW	[M]

63	XTBS3+8JFZ1	SCREW	[M]
64	XTN2+6G	SCREW	[M]
65	XTV26+6G	SCREW	[M]
66	XTW3+15T	SCREW	[M]
67	RHD30065-K	FAN SCREW	[M]
68	MDN4RB6PZA	MOTOR	[M]
69	RDG0544	GEAR A	[M]
70	RDG0545	GEAR B	[M]
71	RDG0546	BELT PULLEY	[M]
72	RDP0088	MOTOR PULLEY	[M]
73	RMG0158	BELT	[M]
74	RMQ1073	SLIDE RACK	[M]

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19.3 Component Parts List

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Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARD	
	REP3382A-N	DVD MODULE (1) P.C.B.	[M](RTL)
	REP3380G	DVD MODULE (2) (1/2) P.C.B.	[M](RTL)
	REP3380G	DVD MODULE (2) (2/2) P.C.B.	[M](RTL)
	REP3295E	VIDEO P.C.B.	[M](RTL)
	REP3293A	DISPLAY P.C.B.	[M](RTL)
	REP3295E	DVD SUPPLY P.C.B.	[M](RTL)
	REP3288A	CD TRAY LOADING P.C.B.	[M](RTL)
	REP3294A	PANEL P.C.B.	[M](RTL)
	REP3296B	POWER P.C.B.	[M](RTL)
	REP3293A	MOTOR P.C.B.	[M](RTL)
	REP3295E	MAIN P.C.B.	[M](RTL)
	REP3293A	SWITCH P.C.B.	[M](RTL)
	REP3296B	TRANSFORMER P.C.B.	[M](RTL)
	REP3383A	FG UNIT	[M](RTL)
		INTEGRATED CIRCUITS	
IC205	M5228FPE1	IC QUAD OP AMP	[M]
IC301	M5228FPE1	IC QUAD OP AMP	[M]
IC302	M5218AP	IC DUAL OP AMP	[M]
IC303	M62456FPE1	IC DIGITAL SOUND CONTROLLER	[M]
IC401	LM2940T5M	IC VOLTAGE REGULATOR	[M] 
IC402	C0DBAJG00002	IC REGULATOR	[M] 
IC403	C0DAAHG00012	IC REGULATOR	[M] 
IC501	RSN311W64B-P	IC HIC	[M] 
IC601	C2BBGE000593	IC MICROPROCESSOR	[M]

IC603	TC4050BF	IC HEX BUFFER/CONVERTER	[M]
IC751	BA6283N	IC MOTOR DRIVER	[M]
IC801	C2HBZC000013	IC DSP	[M]
IC802	M62444FPE1	IC 4CH VOL	[M]
IC803	C0JBAR000292	IC ANALOG MULTIPLEXOR	[M]
IC901	C2BBGF000367	IC MICRO-CONTROLLER	[M]
IC904	TA7291S	IC REFLECTIVE PHOTO SENSOR	[M]
IC905	LM2940T5M	IC VOLTAGE REGULATOR	[M] 
IC2001	MN103S26EGA	IC SODC	[M]
IC2501	C0GBG0000033	IC MOTOR DRIVER	[M]
IC3001	MN677531KA	IC AV-DECODER	[M]
IC3061	C3ABPG000068	IC 64M SDRAM	[M]
IC3071	C0CBCBD00002	IC REGULATOR	[M] 
IC3301	C1AB00001393	IC VIDEO DRIVER	[M]
IC4211	C0FBBK000022	IC 8CH AUDIO DAC	[M]
IC5201	AN8703FH-V	IC FEP	[M]
IC5261	C0ABHB000004	IC FEP OP AMP	[M]
IC5262	C0ABBA000121	IC FEP OP AMP	[M]
IC5264	C0JBAR000155	IC 2CH MULTIPLEXOR	[M]
IC6201	MN102H60GFB	IC MICROPROCESSOR	[M]
IC6211	C0EBE0000070	IC RESET	[M]
IC6222	C0JBAA000001	IC CMOS LOGIC	[M]
IC6223	C0JBAA000001	IC CMOS LOGIC	[M]
IC6251	C0CBCBE00001	IC REGULATOR 3.3V	[M] 
IC6261	C0DBFFG00004	IC REGULATOR	[M] 
IC6301	RFKFMA502160	IC 16M FLASH ROM	SPC
IC6501	C1DB00000582	IC MICROCONTROLLER	[M]
IC6521	C0JBAB000356	IC CLK	[M]
		TRANSISTORS	
Q301	B1GFGCAA0001	TRANSISTOR	[M]
Q302	B1ABCF000011	TRANSISTOR	[M]
Q303	B1ABCF000011	TRANSISTOR	[M]

Q304	B1ADCF000001	TRANSISTOR	[M]
Q305	B1ADCF000001	TRANSISTOR	[M]
Q307	B1ADCF000001	TRANSISTOR	[M]
Q308	B1ADCF000001	TRANSISTOR	[M]
Q309	B1GFGCAA0001	TRANSISTOR	[M]
Q310	B1GFGCAA0001	TRANSISTOR	[M]
Q401	2SB621ARSTA	TRANSISTOR	[M]
Q402	B1ABCF000011	TRANSISTOR	[M]
Q403	2SB14170QA	TRANSISTOR	[M]
Q404	B1ABCF000011	TRANSISTOR	[M]
Q407	B1ADCF000001	TRANSISTOR	[M]
Q408	B1ABCF000011	TRANSISTOR	[M] 
Q409	KTA1046	TRANSISTOR	[M]
Q410	2SB14170QA	TRANSISTOR	[M]
Q411	B1ABCF000011	TRANSISTOR	[M]
Q412	B1GBCFJN0004	TRANSISTOR	[M]
Q413	B1GBCFJN0004	TRANSISTOR	[M]
Q414	B1GBCFJN0004	TRANSISTOR	[M]
Q415	B1GBCFJN0004	TRANSISTOR	[M]
Q450	2SB14170QA	TRANSISTOR	[M]
Q451	B1ABCF000011	TRANSISTOR	[M]
Q452	B1GDCFJJ0002	TRANSISTOR	[M]
Q454	B1GBCFJA0002	TRANSISTOR	[M]
Q455	B1ADCF000001	TRANSISTOR	[M]
Q501	KTC3199GRTA	TRANSISTOR	[M]
Q502	KTC3199GRTA	TRANSISTOR	[M]
Q503	KTC3199GRTA	TRANSISTOR	[M]
Q505	KTC3199GRTA	TRANSISTOR	[M]
Q506	KRA102MTA	TRANSISTOR	[M]
Q507	KTC3199GRTA	TRANSISTOR	[M]
Q508	2SB621ARSTA	TRANSISTOR	[M]
Q509	KTC3199GRTA	TRANSISTOR	[M]
Q510	B1AAGC000007	TRANSISTOR	[M]
Q511	KTC2026	TRANSISTOR	[M] 

Q512	KTA1046	TRANSISTOR	[M]
Q513	B1ACCF000037	TRANSISTOR	[M]
Q591	KTC3199GRTA	TRANSISTOR	[M]
Q592	2SD21370PA	TRANSISTOR	[M] 
Q594	KRC102MTA	TRANSISTOR	[M]
Q600	B1ABCF000011	TRANSISTOR	[M]
Q601	B1ABCF000011	TRANSISTOR	[M]
Q602	B1ADCF000001	TRANSISTOR	[M]
Q603	B1GBCFJN0004	TRANSISTOR	[M]
Q604	B1GBCFJN0004	TRANSISTOR	[M]
Q750	B1ABCF000011	TRANSISTOR	[M]
Q901	DTC124EKA146	TRANSISTOR	[M]
Q902	B1GBCFJN0004	TRANSISTOR	[M]
Q2001	2SD1819A0L	TRANSISTOR	[M]
Q5211	B1BDBF000004	TRANSISTOR	[M]
Q5215	B1BDBF000004	TRANSISTOR	[M]
Q5261	2SC39300XL	TRANSISTOR	[M]
Q5262	2SC39300XL	TRANSISTOR	[M]
Q5263	2SA15320XL	TRANSISTOR	[M]
Q5264	2SC39300XL	TRANSISTOR	[M]
Q5271	UNR521100L	TRANSISTOR	[M]
QR3301	UNR521200L	CHIP TRANSISTOR	[M]
QR5221	UNR212100L	TRANSISTOR	[M]
QR5241	UNR511M00L	TRANSISTOR	[M]
QR6215	UNR521200L	CHIP TRANSISTOR	[M]
		DIODES	
D301	1SS355TE17	DIODE	[M]
D302	1SS355TE17	DIODE	[M]
D303	1SS355TE17	DIODE	[M]
D304	B0BC5R000009	DIODE	[M]
D305	1SS355TE17	DIODE	[M]
D306	1SS355TE17	DIODE	[M]

D307	1SS355TE17	DIODE	[M]
D308	1SS355TE17	DIODE	[M]
D309	1SS355TE17	DIODE	[M]
D310	1SS355TE17	DIODE	[M]
D386	B0BC5R000009	DIODE	[M]
D401	B0ADCC000002	DIODE	[M]
D402	1SS355TE17	DIODE	[M]
D403	B0ADCC000002	DIODE	[M]
D404	1SS355TE17	DIODE	[M]
D407	B0BC7R500001	DIODE	[M]
D408	SFPB-72V	DIODE	[M]
D409	1SS355TE17	DIODE	[M]
D410	RL1N4003N02	DIODE	[M]
D411	B0BC9R000008	DIODE	[M]
D412	B0ADCC000002	DIODE	[M]
D414	1SS355TE17	DIODE	[M]
D415	1SS355TE17	DIODE	[M]
D416	B0BC7R500001	DIODE	[M]
D417	SFPB-72V	DIODE	[M]
D444	1SS355TE17	DIODE	[M]
D446	1SS355TE17	DIODE	[M]
D450	B0ADCC000002	DIODE	[M]
D451	RL1N4003N02	DIODE	[M]
D452	RL1N4003N02	DIODE	[M]
D453	1SS355TE17	DIODE	[M]
D454	1SS355TE17	DIODE	[M]
D501	RK306LFU1	DIODE	[M]
D502	RK306LFU1	DIODE	[M]
D503	MA2C700A0F	DIODE	[M]
D504	B0AACK000004	DIODE	[M]
D505	B0AACK000004	DIODE	[M]
D506	B0BA9R000007	DIODE	[M]
D507	B0EAKM000085	DIODE	[M]
D508	B0EAKM000085	DIODE	[M]

D509	1N5402BM21	DIODE	[M] 
D510	1N5402BM21	DIODE	[M] 
D511	1N5402BM21	DIODE	[M] 
D512	1N5402BM21	DIODE	[M] 
D513	1N5402BM21	DIODE	[M]
D514	1N5402BM21	DIODE	[M]
D515	B0AACK000004	DIODE	[M]
D550	B0AACK000004	DIODE	[M]
D586	RL1N4003N02	DIODE	[M] 
D587	RL1N4003N02	DIODE	[M] 
D588	RL1N4003N02	DIODE	[M] 
D589	RL1N4003N02	DIODE	[M] 
D590	B0AACK000004	DIODE	[M]
D592	B0EAKM000085	DIODE	[M]
D595	B0BA6R800007	DIODE	[M]
D596	B0HANM000012	DIODE	[M] 
D597	B0HANM000012	DIODE	[M] 
D598	B0HANM000012	DIODE	[M] 
D599	B0HANM000012	DIODE	[M] 
D601	SPR325MVWT31	DIODE	[M]
D602	B0ADCC000002	DIODE	[M]
D603	1SS355TE17	DIODE	[M]
D701	NSPWF50BS	DIODE	[M]
D702	NSPWF50BS	DIODE	[M]
D703	NSPWF50BS	DIODE	[M]
D704	B0BC9R000008	DIODE	[M]
D705	B0BC9R000008	DIODE	[M]
D706	B0BC9R000008	DIODE	[M]
D750	1SS355TE17	DIODE	[M]
D751	RL1N4003N02	DIODE	[M]
D810	1SS355TE17	DIODE	[M]
D816	B0BC5R000009	DIODE	[M]
D820	1SS355TE17	DIODE	[M]

D903	MA729TX	DIODE	[M]
D904	1SS380TE-17	DIODE	[M]
D905	1SS380TE-17	DIODE	[M]
D906	1SS355TE17	DIODE	[M]
D2001	MA2J72800L	DIODE	[M]
D3071	MA2J11100L	DIODE	[M]
D5261	MA3X71600L	DIODE	[M]
D6215	MA2J72800L	DIODE	[M]
LB3001	J0JHC0000045	CHIP CAPACITOR	[M]
LB3002	J0JHC0000045	CHIP CAPACITOR	[M]
LB3202	D0GB101JA002	100 1/16W	[M]
LB3203	D0GB101JA002	100 1/16W	[M]
LB3204	D0GB101JA002	100 1/16W	[M]
LB3303	VLP0155-T	CHIP BEAD	[M]
LB3304	VLP0155-T	CHIP BEAD	[M]
LB3305	VLP0155-T	CHIP BEAD	[M]
LB4200	J0JCC0000062	CHIP INDUCTOR	[M]
LB4201	J0JCC0000062	CHIP INDUCTOR	[M]
LB4202	J0JCC0000062	CHIP INDUCTOR	[M]
LB4203	J0JCC0000062	CHIP INDUCTOR	[M]
LB4204	J0JCC0000062	CHIP INDUCTOR	[M]
LB4205	J0JCC0000062	CHIP INDUCTOR	[M]
LB4206	J0JCC0000062	CHIP INDUCTOR	[M]
LB4207	J0JCC0000062	CHIP INDUCTOR	[M]
LB4208	J0JCC0000062	CHIP INDUCTOR	[M]
LB4209	J0JCC0000062	CHIP INDUCTOR	[M]
LB4210	J0JCC0000062	CHIP INDUCTOR	[M]
LB4211	J0JCC0000062	CHIP INDUCTOR	[M]
LB4212	J0JCC0000062	CHIP INDUCTOR	[M]
LB4213	J0JCC0000062	CHIP INDUCTOR	[M]
LB4214	J0JCC0000062	CHIP INDUCTOR	[M]
LB4215	J0JCC0000062	CHIP INDUCTOR	[M]
LB4216	J0JCC0000062	CHIP INDUCTOR	[M]

LB4217	J0JCC0000062	CHIP INDUCTOR	[M]
LB5001	J0JCC0000062	CHIP INDUCTOR	[M]
LB5002	J0JCC0000062	CHIP INDUCTOR	[M]
LB5201	J0JCC0000062	CHIP INDUCTOR	[M]
LB5202	J0JCC0000062	CHIP INDUCTOR	[M]
LB5203	J0JHC0000045	CHIP CAPACITOR	[M]
LB5204	J0JHC0000045	CHIP CAPACITOR	[M]
LB5205	J0JHC0000045	CHIP CAPACITOR	[M]
LB5206	J0JHC0000045	CHIP CAPACITOR	[M]
LB5207	J0JHC0000045	CHIP CAPACITOR	[M]
LB5208	J0JCC0000062	CHIP INDUCTOR	[M]
LB5209	J0JCC0000062	CHIP INDUCTOR	[M]
LB5210	J0JCC0000062	CHIP INDUCTOR	[M]
LB5211	VLP0155-T	CHIP BEAD	[M]
LB5212	J0JCC0000062	CHIP INDUCTOR	[M]
LB5213	J0JCC0000062	CHIP INDUCTOR	[M]
LB5214	J0JCC0000062	CHIP INDUCTOR	[M]
LB5215	J0JHC0000045	CHIP CAPACITOR	[M]
LB5216	VLP0155-T	CHIP BEAD	[M]
LB5217	VLP0155-T	CHIP BEAD	[M]
LB5218	VLP0155-T	CHIP BEAD	[M]
LB5219	VLP0155-T	CHIP BEAD	[M]
LB5220	J0JCC0000062	CHIP INDUCTOR	[M]
LB5221	J0JCC0000062	CHIP INDUCTOR	[M]
LB5222	VLP0155-T	CHIP BEAD	[M]
LB5223	VLP0155-T	CHIP BEAD	[M]
LB5224	J0JCC0000062	CHIP INDUCTOR	[M]
LB5225	J0JCC0000062	CHIP INDUCTOR	[M]
LB5226	J0JDC0000002	CHIP INDUCTOR	[M]
LB5227	J0JDC0000002	CHIP INDUCTOR	[M]
LB5228	J0JDC0000002	CHIP INDUCTOR	[M]
LB5229	J0JDC0000002	CHIP INDUCTOR	[M]
LB5230	VLP0155-T	CHIP BEAD	[M]
LB5231	VLP0155-T	CHIP BEAD	[M]

LB6201	J0JCC0000062	CHIP INDUCTOR	[M]
LB6202	VLP0155-T	CHIP BEAD	[M]
LB6221	J0JCC0000062	CHIP INDUCTOR	[M]
LB6501	J0JCC0000062	CHIP INDUCTOR	[M]
LB6502	J0JCC0000062	CHIP INDUCTOR	[M]
LB6512	VLP0155-T	CHIP BEAD	[M]
LB6513	VLP0155-T	CHIP BEAD	[M]
LB6514	VLP0155-T	CHIP BEAD	[M]
LB6515	VLP0157-T	CHIP INDUCTOR	[M]
LB6521	J0JCC0000062	CHIP INDUCTOR	[M]
LB6522	VLP0155-T	CHIP BEAD	[M]
		VARIABLE RESISTORS	
VR601	EVEKE2F3024M	VR VOLUME JOG	[M]
		SWITCHES	
S601	EVQ21405R	SW POWER	[M]
S602	EVQ21405R	SW OPEN/CLOSE	[M]
S701	EVQ21405R	SW UP	[M]
S702	EVQ21405R	SW TUNER/BAND	[M]
S703	EVQ21405R	SW DVD	[M]
S704	EVQ21405R	SW DOWN	[M]
S705	EVQ21405R	SW STOP	[M]
S751	RSH1A044-1A	SW OPEN	[M]
S901	RSH1A044-1A	SW PLAY	[M]
S902	RSH1A044-1A	SW OPEN	[M]
SW2601	RSH1A048-A	SW LEAF	[M]
		CONNECTORS	
CN301	RJS2A7726	FFC CONNECTOR	[M]
CN302	RJS2A7717	FFC CONNECTOR	[M]
CN351	K1KA02B00047	LAMP CONNECTOR	[M]

CN401A	RJS2A7718	P1MM FFC CONNECTOR	[M]
CN401B	RJS2A7718	P1MM FFC CONNECTOR	[M]
CN501	RJS1A6830	FFC CONNECTOR	[M]
CN501A	RJS1A6230-1	30P CONNECTOR	[M]
CN502	RJT029W08V-1	CONNECTOR	[M]
CN503	RJU057G07	7P CONNECTOR	[M]
CN504	RJP9G17ZA	CONNECTOR	[M]
CN505	K1MN15B00057	CONNECTOR	[M]
CN601A	K1MN23B00029	CONNECTOR	[M]
CN601B	K1MN23B00029	CONNECTOR	[M]
CN602	K1KA07B00027	CONNECTOR	[M]
CN901	K1KA07B00027	CONNECTOR	[M]
CP201	RJT100W11	11P CONNECTOR	[M]
CP503	RJT057G07	7P CONNECTOR	[M]
CP701	K1KA12B00021	CONNECTOR	[M]
CS700	K1MN20A00009	CONNECTOR	[M]
CS901	K1KA07B00027	CONNECTOR	[M]
PS6201	K1MN10A00030	CONNECTOR	[M]
		COILS & TRANSFORMERS	
L401	RLL500050T-Y	RF CHOKE COIL	[M]
L402	G0ZZ00001930	COIL	[M]
L403	RLL500050T-Y	RF CHOKE COIL	[M]
L404	RLL500050T-Y	RF CHOKE COIL	[M]
L405	G0ZZ00001930	COIL	[M]
L500	RLQZ371	LINE FILTER	[M] 
L501	G0AR76Y00001	CHOKE COIL	[M]
L502	G0AR76Y00001	CHOKE COIL	[M]
L503	G0AR76Y00001	CHOKE COIL	[M]
L504	G0AR76Y00001	CHOKE COIL	[M]
L506	G0AR76Y00001	CHOKE COIL	[M]

L507	G0AR76Y00001	CHOKE COIL	[M]
L598	RLL500050T-Y	RF CHOKE COIL	[M]
L599	RLL500050T-Y	RF CHOKE COIL	[M]
L601	G0C101JA0030	INDUCTOR	[M]
L602	G0C101JA0030	INDUCTOR	[M]
L603	RLBV252AV-Y	LINE COIL	[M]
L604	RLBV252AV-Y	LINE COIL	[M]
L701	RLL500050T-Y	RF CHOKE COIL	[M]
L702	RLL500050T-Y	RF CHOKE COIL	[M]
L750	VLP0145-T	CHIP INDUCTOR	[M]
L751	RLQB270KT-1Y	COIL	[M]
L752	VLP0145-T	CHIP INDUCTOR	[M]
L753	VLP0145-T	CHIP INDUCTOR	[M]
L801	RLBN102V-Y	CHIP INDUCTOR	[M]
L803	RLBN102V-Y	CHIP INDUCTOR	[M]
L805	RLL500050T-Y	RF CHOKE COIL	[M]
L807	G0C100JA0030	INDUCTOR	[M]
L808	G0C100JA0030	INDUCTOR	[M]
L809	RLBN102V-Y	CHIP INDUCTOR	[M]
L901	RLBN102V-Y	CHIP INDUCTOR	[M]
L2001	G1C100KA0019	CHIP INDUCTOR	[M]
L2002	G1C100KA0019	CHIP INDUCTOR	[M]
L2021	G1C100KA0019	CHIP INDUCTOR	[M]
L2501	ERJ14Y0R00H	CHIP RESISTOR	[M]
L3071	G1C100KA0008	CHIP INDUCTOR	[M]
L3301	G1C220K00011	CHIP INDUCTOR	[M]
L4211	G1C220K00011	CHIP INDUCTOR	[M]
L5201	ELJEA100KF	CHIP INDUCTOR	[M]
L5202	ELJEA100KF	CHIP INDUCTOR	[M]
L6501	G1C220JA0010	CHIP INDUCTOR	[M]
L6502	ELJFC220KF	CHIP INDUCTOR	[M]
T1	J3CCBC000003	TUNER PACK	[M]
T501	ETP71VUU61AA	TRANSFORMER	[M] 

T502	RTP1H3E002	BACK UP TRANSFORMER	[M] 
		COMPONENT COMBINATION	
Z501	ERZV10V511CS	ZENER	[M] 
Z601	RCDGP1UM272R	REMOTE SENSOR	[M]
Z901	GP1S94	PHOTO INTERRUPTOR	[M]
Z902	GP1S94	PHOTO INTERRUPTOR	[M]
		RELAY	
RLY502	RSY0040M-0	PRIMARY RELAY	[M] 
		OSCILLATORS	
X601	RSXY8M00D01T	CERAMIC RESONATOR	[M]
X801	RSXZ36M8M01T	RESONATOR	[M]
X901	H2B160500002	RESONATOR	[M]
X6501	H0J368500003	OSCILLATOR	[M]
		DISPLAY TUBE	
FL4201	F1J1A1050021	CHIP FILTER	[M]
FL6251	F1J1A1050021	CHIP FILTER	[M]
FL6253	F1J1A1050021	CHIP FILTER	[M]
FL6254	F1J1A1050021	CHIP FILTER	[M]
FL6255	F1J1E1040022	CHIP FILTER	[M]
		FUSES	
F1	K5D122BK0004	FUSE	[M] 
		FUSE HOLDERS	
FC501	EYF52BC	FUSE HOLDER	[M]

FC502	EYF52BC	FUSE HOLDER	[M]
		FUSE PROTECTOR	
FP1	K5G402AA0002	FUSE PROTECTOR	[M] 
FP3202	K1MN17B00041	CONNECTOR	[M]
FP3203	K1MN15B00037	CONNECTOR	[M]
FP4202	K1MN26B00037	CONNECTOR	[M]
FP5001	K1MN30B00098	CONNECTOR	[M]
FP5002	K1MN50B00010	CONNECTOR	[M]
FP5003	K1MN04B00036	CONNECTOR	[M]
FP5201	K1MN50B00010	CONNECTOR	[M]
		HOLDERS	
H1	RGL0567-Q	LIGHTING GUIDE	[M]
H2	RMN0671	LCD HOLDER	[M]
H3	RMN0690	LCD COVER	[M]
H4	RMN0673	SENSOR BASE	[M]
H4	RMN0674	SENSOR ARM	[M]
H6	RMN0673	SENSOR BASE	[M]
H6	RMN0674	SENSOR ARM	[M]
H7	REX1104	8P WIRE	[M]
		LCD	
LCD701	RSL5287-H	FL DISPLAY	[M]
		JACKS	
JK201	RJH2213N-2	JK 2P RCA	[M]
JK500	K2AA2B000004	JK AC INLET	[M] 
JK501	K4BC06B00026	JK SPEAKER TERMINAL	[M]
JK502	K4BC06B00026	JK SPEAKER TERMINAL	[M]
JK601	RJJ37TK07-X	JK HP/MIC	[M]

JK701	RJH2110	JK S-VIDEO	[M]
JK701_1	SJS9418-1	JK VIDEO OUT	[M]
		EARTH TERMINAL	
E500	SNE1004-2	EARTH TERMINAL	[M]
E701	K9ZZ00000424	TERMINAL	[M]
		WIRE	
W502	RJS1A5508	WIRE HOLDER	[M]
W602	REX1106Y	7P WIRE	[M]
W3001	ERJ3GEY0R00V	0 1/16W	[M]
		WIRES	
PW504	REX1103Y	9P WIRE	[M]
PW602	REX1105Y	7P WIRE	[M]
PW701	REX1107Y	12P WIRE	[M]
PW751A	REX1096	2P WIRE	[M]
PW751B	REX1096	2P WIRE	[M]
		RESISTORS	
R1	ERJ3GEY0R00V	0 1/16W	[M]
R3	ERJ3GEY0R00V	0 1/16W	[M]
R201	ERDS2TJ222T	2.2K 1/4W	[M]
R202	ERDS2TJ472T	4.7K 1/4W	[M]
R203	ERDS2TJ222T	2.2K 1/4W	[M]
R204	ERDS2TJ682T	6.8K 1/4W	[M]
R205	ERDS2TJ682T	6.8K 1/4W	[M]
R206	ERDS2TJ562T	5.6K 1/4W	[M]
R207	ERDS2TJ562T	5.6K 1/4W	[M]
R209	ERDS2TJ223T	22K 1/4W	[M]
R210	ERDS2TJ223T	22K 1/4W	[M]

R231	ERJ3GEYJ104V	100K 1/16W	[M]
R232	ERJ3GEYJ103V	10K 1/16W	[M]
R233	ERJ3GEYJ822V	8.2K 1/16W	[M]
R234	ERJ3GEYJ223V	22K 1/16W	[M]
R235	ERJ3GEYJ223V	22K 1/16W	[M]
R237	ERJ3GEYJ104V	100K 1/16W	[M]
R238	ERJ3GEYJ223V	22K 1/16W	[M]
R239	ERJ3GEYJ822V	8.2K 1/16W	[M]
R240	ERJ3GEYJ103V	10K 1/16W	[M]
R241	ERJ3GEYJ822V	8.2K 1/16W	[M]
R242	ERJ3GEYJ104V	100K 1/16W	[M]
R245	ERJ3GEYJ473V	47K 1/16W	[M]
R246	ERJ3GEYJ473V	47K 1/16W	[M]
R247	ERJ3GEYJ103V	10K 1/16W	[M]
R248	ERJ3GEYJ103V	10K 1/16W	[M]
R250	ERJ3GEYJ104V	100K 1/16W	[M]
R251	ERJ3GEYJ822V	8.2K 1/16W	[M]
R252	ERJ3GEYJ473V	47K 1/16W	[M]
R254	ERJ3GEYJ223V	22K 1/16W	[M]
R255	ERJ3GEYJ473V	47K 1/16W	[M]
R257	ERJ3GEYJ222V	2.2K 1/16W	[M]
R258	ERJ3GEYJ682V	6.8K 1/16W	[M]
R261	ERJ3GEYJ102V	1K 1/16W	[M]
R262	ERJ3GEYJ102V	1K 1/16W	[M]
R263	ERJ3GEYJ104V	100K 1/16W	[M]
R264	ERJ3GEYJ104V	100K 1/16W	[M]
R265	ERJ3GEYJ104V	100K 1/16W	[M]
R266	ERJ3GEYJ104V	100K 1/16W	[M]
R267	ERJ3GEYJ102V	1K 1/16W	[M]
R268	ERJ3GEYJ102V	1K 1/16W	[M]
R301	D0GB333JA002	33K 1/16W	[M]
R302	D0GB333JA002	33K 1/16W	[M]
R303	D0GB332JA002	3.3K 1/16W	[M]
R304	D0GB332JA002	3.3K 1/16W	[M]

R305	D0GB563JA002	56K 1/16W	[M]
R306	D0GB563JA002	56K 1/16W	[M]
R307	ERJ3GEYJ102V	1K 1/16W	[M]
R308	ERJ3GEYJ102V	1K 1/16W	[M]
R309	ERJ3GEYJ222V	2.2K 1/16W	[M]
R310	ERJ3GEYJ472V	4.7K 1/16W	[M]
R311	ERJ3GEYJ823V	82K 1/16W	[M]
R312	D0GB393JA002	39K 1/16W	[M]
R314	D0GB332JA002	3.3K 1/16W	[M]
R315	D0GB563JA002	56K 1/16W	[M]
R316	ERJ3GEYJ182V	1.8K 1/16W	[M]
R317	ERJ3GEYJ102V	1K 1/16W	[M]
R318	ERJ3GEYJ102V	1K 1/16W	[M]
R319	ERJ3GEYJ472V	4.7K 1/16W	[M]
R320	ERJ3GEYJ472V	4.7K 1/16W	[M]
R321	ERJ3GEYJ102V	1K 1/16W	[M]
R322	ERJ3GEYJ472V	4.7K 1/16W	[M]
R323	ERJ3GEYJ472V	4.7K 1/16W	[M]
R324	ERJ3GEYJ472V	4.7K 1/16W	[M]
R325	ERJ3GEYJ472V	4.7K 1/16W	[M]
R326	D0GB393JA002	39K 1/16W	[M]
R329	ERJ3GEYJ102V	1K 1/16W	[M]
R330	ERJ3GEYJ472V	4.7K 1/16W	[M]
R331	ERJ3GEYJ472V	4.7K 1/16W	[M]
R332	ERJ3GEYJ222V	2.2K 1/16W	[M]
R333	ERJ3GEYJ472V	4.7K 1/16W	[M]
R334	ERJ3GEYJ102V	1K 1/16W	[M]
R335	ERJ3GEYJ102V	1K 1/16W	[M]
R336	D0GB183JA002	18K 1/16W	[M]
R337	D0GB183JA002	18K 1/16W	[M]
R338	ERJ3GEYJ223V	22K 1/16W	[M]
R339	ERJ3GEYJ223V	22K 1/16W	[M]
R341	ERJ3GEYJ182V	1.8K 1/16W	[M]
R342	ERJ3GEYJ102V	1K 1/16W	[M]

R343	ERJ3GEYJ102V	1K 1/16W	[M]
R344	ERJ3GEYJ102V	1K 1/16W	[M]
R345	ERJ3GEYJ102V	1K 1/16W	[M]
R346	ERJ3GEYJ102V	1K 1/16W	[M]
R347	D0GB183JA002	18K 1/16W	[M]
R348	ERJ3GEYJ223V	22K 1/16W	[M]
R350	ERJ3GEYJ471V	470 1/16W	[M]
R351	ERJ3GEYJ471V	470 1/16W	[M]
R352	ERJ3GEYJ223V	22K 1/16W	[M]
R353	ERJ3GEYJ223V	22K 1/16W	[M]
R354	D0GB332JA002	3.3K 1/16W	[M]
R355	D0GB332JA002	3.3K 1/16W	[M]
R356	D0GB683JA002	68K 1/16W	[M]
R357	D0GB683JA002	68K 1/16W	[M]
R358	D0GB100JA002	10 1/16W	[M]
R359	D0GB100JA002	10 1/16W	[M]
R360	D0GB390JA019	39 1/16W	[M]
R361	D0GB390JA019	39 1/16W	[M]
R362	D0GB390JA019	39 1/16W	[M]
R363	D0GB390JA019	39 1/16W	[M]
R364	ERJ3GEYJ561V	560 1/16W	[M]
R365	ERJ3GEYJ561V	560 1/16W	[M]
R366	D0GB183JA002	18K 1/16W	[M]
R367	D0GB183JA002	18K 1/16W	[M]
R368	D0GB393JA002	39K 1/16W	[M]
R369	D0GB393JA002	39K 1/16W	[M]
R370	ERJ3GEYJ473V	47K 1/16W	[M]
R371	ERJ3GEYJ473V	47K 1/16W	[M]
R372	ERJ3GEYJ473V	47K 1/16W	[M]
R373	ERJ3GEYJ473V	47K 1/16W	[M]
R374	ERJ3GEYJ822V	8.2K 1/16W	[M]
R375	ERJ3GEYJ153V	15K 1/16W	[M]
R376	ERJ3GEYJ182V	1.8K 1/16W	[M]
R377	ERJ3GEYJ104V	100K 1/16W	[M]

R378	ERJ3GEYJ472V	4.7K 1/16W	[M]
R379	D0GB273JA002	27K 1/16W	[M]
R380	ERJ3GEYJ824V	820K 1/16W	[M]
R381	D0GB274JA002	270K 1/16W	[M]
R382	ERJ3GEYJ153V	15K 1/16W	[M]
R383	ERJ3GEYJ822V	8.2K 1/16W	[M]
R384	ERJ3GEYJ823V	82K 1/16W	[M]
R385	ERJ3GEYJ823V	82K 1/16W	[M]
R386	ERJ3GEYJ473V	47K 1/16W	[M]
R387	ERJ3GEYJ473V	47K 1/16W	[M]
R388	D0GB183JA002	18K 1/16W	[M]
R389	ERJ3GEYJ223V	22K 1/16W	[M]
R390	ERJ3GEYJ123V	12K 1/16W	[M]
R391	D0GB332JA002	3.3K 1/16W	[M]
R392	ERJ3GEYJ103V	10K 1/16W	[M]
R401	ERJ3GEYJ681V	680 1/16W	[M]
R402	ERJ3GEYJ472V	4.7K 1/16W	[M]
R403	D0GB154JA002	150K 1/16W	[M]
R404	ERJ3GEYJ681V	680 1/16W	[M]
R405	ERJ3GEYJ472V	4.7K 1/16W	[M]
R406	D0GB334JA002	330K 1/16W	[M]
R407	D0GB271JA002	270 1/16W	[M]
R412	ERJ3GEYJ182V	1.8K 1/16W	[M]
R413	ERJ3GEYJ102V	1K 1/16W	[M]
R414	ERJ3GEYJ223V	22K 1/16W	[M]
R415	ERJ6GEYJ1R0V	1 1/10W	[M]
R416	ERJ6GEYJ1R0V	1 1/10W	[M]
R417	ERJ6GEYJ1R0V	1 1/10W	[M]
R418	ERJ6GEYJ1R0V	1 1/10W	[M]
R419	ERJ3GEYJ102V	1K 1/16W	[M]
R420	ERJ3GEYJ472V	4.7K 1/16W	[M]
R421	ERJ3GEYJ471V	470 1/16W	[M]
R422	ERJ3GEYJ103V	10K 1/16W	[M]
R423	D0GB271JA002	270 1/16W	[M]

R424	ERJ3GEYJ104V	100K 1/16W	[M]
R425	ERJ3GEYJ223V	22K 1/16W	[M]
R426	ERJ3GEYJ102V	1K 1/16W	[M]
R427	ERJ3GEYJ102V	1K 1/16W	[M]
R428	ERJ3GEYJ331V	330 1/16W	[M]
R429	ERJ3GEYJ391V	390 1/16W	[M]
R430	ERJ3GEYJ822V	8.2K 1/16W	[M]
R431	ERJ3GEYJ103V	10K 1/16W	[M]
R432	ERJ3GEYJ222V	2.2K 1/16W	[M]
R433	ERJ3GEYJ472V	4.7K 1/16W	[M]
R450	D0GB122JA019	1.2K 1/16W	[M]
R451	ERJ3GEYJ224V	220K 1/16W	[M]
R452	ERJ3GEYJ682V	6.8K 1/16W	[M]
R453	D0GB1R0JA002	1 1/16W	[M]
R454	D0GB1R0JA002	1 1/16W	[M]
R456	ERJ3GEYJ472V	4.7K 1/16W	[M]
R457	D0GB122JA019	1.2K 1/16W	[M]
R458	ERJ3GEYJ103V	10K 1/16W	[M]
R459	ERJ3GEYJ102V	1K 1/16W	[M]
R460	ERJ3GEYJ224V	220K 1/16W	[M]
R461	D0GB683JA002	68K 1/16W	[M]
R462	D0GB333JA002	33K 1/16W	[M]
R501	ERDS2TJ392T	3.9K 1/4W	[M]
R502	ERDS2TJ392T	3.9K 1/4W	[M]
R503	ERDS2TJ153T	15K 1/4W	[M]
R504	ERDS2TJ153T	15K 1/4W	[M]
R505	ERDS2TJ153T	15K 1/4W	[M]
R506	ERDS2TJ153T	15K 1/4W	[M]
R507	ERDS2TJ392T	3.9K 1/4W	[M]
R508	ERDS2TJ392T	3.9K 1/4W	[M]
R509	ERDS2TJ332T	3.3K 1/4W	[M]
R510	ERDS2TJ392T	3.9K 1/4W	[M]
R511	ERDS2TJ153T	15K 1/4W	[M]
R512	ERDS2TJ153T	15K 1/4W	[M]

R513	ERDS2TJ563T	56K 1/4W	[M]
R514	ERDS2TJ563T	56K 1/4W	[M]
R515	ERDS2TJ563T	56K 1/4W	[M]
R516	ERDS2TJ563T	56K 1/4W	[M]
R517	ERDS2TJ563T	56K 1/4W	[M]
R518	ERDS2TJ563T	56K 1/4W	[M]
R520	ERDS2TJ103T	10K 1/4W	[M]
R521	ERDS2TJ103T	10K 1/4W	[M]
R522	ERDS2TJ273T	27K 1/4W	[M]
R523	ERDS2TJ124T	120K 1/4W	[M]
R524	ERDS2TJ124T	120K 1/4W	[M]
R525	ERDS2TJ154T	150K 1/4W	[M]
R526	ERDS2TJ124T	120K 1/4W	[M]
R527	ERDS2TJ124T	120K 1/4W	[M]
R528	ERDS2TJ154T	150K 1/4W	[M]
R529	ERDS2TJ223T	22K 1/4W	[M]
R530	ERDS2TJ2R2T	2.2 1/4W	[M]
R531	ERDS2TJ2R2T	2.2 1/4W	[M]
R532	ERDS2TJ102T	1K 1/4W	[M]
R533	ERDS1FVJ100T	10 1/2W	[M]
R534	ERDS1FVJ100T	10 1/2W	[M]
R535	ERDS1FVJ100T	10 1/2W	[M]
R536	ERDS1FVJ100T	10 1/2W	[M]
R537	ERDS1FVJ100T	10 1/2W	[M]
R538	ERDS1FVJ100T	10 1/2W	[M]
R539	ERDS2TJ100T	10 1/4W	[M]
R540	ERDS2TJ100T	10 1/4W	[M]
R541	ERDS2TJ100T	10 1/4W	[M]
R542	ERDS2TJ100T	10 1/4W	[M]
R543	ERDS2TJ100T	10 1/4W	[M]
R544	ERDS2TJ100T	10 1/4W	[M]
R545	ERDS2TJ224T	220K 1/4W	[M]
R546	ERDS2TJ562T	5.6K 1/4W	[M]
R547	ERDS2TJ474T	470K 1/4W	[M]

R548	ERDS2TJ564T	560K 1/4W	[M]
R549	ERDS2TJ563T	56K 1/4W	[M]
R550	ERDS2TJ103T	10K 1/4W	[M]
R551	ERDS2TJ472T	4.7K 1/4W	[M]
R552	ERDS2TJ562T	5.6K 1/4W	[M]
R553	ERDS2TJ103T	10K 1/4W	[M]
R554	ERDS2TJ824T	820K 1/4W	[M]
R555	ERDS2TJ104T	100K 1/4W	[M]
R556	ERDS2TJ103T	10K 1/4W	[M]
R557	ERDS2TJ563T	56K 1/4W	[M]
R558	ERDS1FVJ270T	27 1/2W	[M]
R559	ERDS2TJ563T	56K 1/4W	[M]
R560	ERDS2TJ103T	10K 1/4W	[M]
R561	ERDS2TJ101T	100 1/4W	[M]
R562	ERDS2TJ153T	15K 1/4W	[M]
R563	ERDS2TJ272T	2.7K 1/4W	[M]
R564	ERDS2TJ151T	150 1/4W	[M]
R565	ERDS1FVJ392T	3.9K 1/2W	[M]
R566	ERDS1FVJ2R2T	2.2 1/2W	[M]
R567	ERDS1FVJ2R2T	2.2 1/2W	[M]
R568	ERDS2TJ472T	4.7K 1/4W	[M]
R569	ERDS2TJ153T	15K 1/4W	[M]
R570	ERDS2TJ103T	10K 1/4W	[M]
R571	ERD2FCVG390T	39 1/4W	[M] 
R593	ERDS2TJ103T	10K 1/4W	[M]
R594	ERDS2TJ103T	10K 1/4W	[M]
R595	ERDS2TJ332T	3.3K 1/4W	[M]
R596	ERDS2TJ151T	150 1/4W	[M]
R597	ERDS2TJ102T	1K 1/4W	[M]
R598	ERDS2TJ180T	18 1/4W	[M]
R599	ERDS2TJ180T	18 1/4W	[M]
R601	ERJ3GEYJ104V	100K 1/16W	[M]
R602	ERJ3GEYJ221V	220 1/16W	[M]
R603	ERJ3GEYJ102V	1K 1/16W	[M]

R605	ERJ3GEYJ221V	220 1/16W	[M]
R606	ERJ3GEYJ221V	220 1/16W	[M]
R607	ERJ3GEYJ472V	4.7K 1/16W	[M]
R608	ERJ3GEYJ472V	4.7K 1/16W	[M]
R609	ERJ3GEYJ472V	4.7K 1/16W	[M]
R610	ERJ3GEYJ472V	4.7K 1/16W	[M]
R611	ERJ3GEYJ221V	220 1/16W	[M]
R612	ERJ3GEYJ472V	4.7K 1/16W	[M]
R613	ERJ3GEYJ681V	680 1/16W	[M]
R614	ERJ3GEYJ221V	220 1/16W	[M]
R615	ERJ3GEYJ221V	220 1/16W	[M]
R616	ERJ3GEYJ221V	220 1/16W	[M]
R617	ERJ3GEYJ221V	220 1/16W	[M]
R618	ERJ3GEYJ221V	220 1/16W	[M]
R619	ERJ3GEYJ102V	1K 1/16W	[M]
R620	ERJ3GEYJ391V	390 1/16W	[M]
R621	ERJ3GEYJ104V	100K 1/16W	[M]
R622	ERJ3GEYJ472V	4.7K 1/16W	[M]
R623	ERJ3GEYJ331V	330 1/16W	[M]
R624	ERJ3GEYJ561V	560 1/16W	[M]
R625	ERJ3GEYJ473V	47K 1/16W	[M]
R626	ERJ3GEYJ473V	47K 1/16W	[M]
R627	ERJ3GEYJ102V	1K 1/16W	[M]
R628	ERJ3GEYJ102V	1K 1/16W	[M]
R630	D0GB332JA002	3.3K 1/16W	[M]
R631	ERJ3GEYJ102V	1K 1/16W	[M]
R632	ERJ3GEYJ102V	1K 1/16W	[M]
R633	ERJ3GEYJ102V	1K 1/16W	[M]
R634	ERJ3GEYJ102V	1K 1/16W	[M]
R635	ERJ3GEYJ102V	1K 1/16W	[M]
R636	ERJ3GEYJ822V	8.2K 1/16W	[M]
R637	ERJ3GEYJ471V	470 1/16W	[M]
R705	ERJ3GEYJ391V	390 1/16W	[M]
R706	D0GB101JA002	100 1/16W	[M]

R707	D0GB271JA002	270 1/16W	[M]
R713	D0GB101JA002	100 1/16W	[M]
R714	D0GB101JA002	100 1/16W	[M]
R715	D0GB101JA002	100 1/16W	[M]
R716	D0GB101JA002	100 1/16W	[M]
R717	D0GB101JA002	100 1/16W	[M]
R718	D0GB122JA019	1.2K 1/16W	[M]
R719	ERJ3GEYJ182V	1.8K 1/16W	[M]
R720	ERJ3GEYJ222V	2.2K 1/16W	[M]
R721	D0GB272JA002	2.7K 1/16W	[M]
R746	D0GB1R0JA002	1 1/16W	[M]
R747	D0GB1R0JA002	1 1/16W	[M]
R755	D0GB1R0JA002	1 1/16W	[M]
R756	D0GB1R0JA002	1 1/16W	[M]
R759	ERJ3GEYJ103V	10K 1/16W	[M]
R760	D0GB333JA002	33K 1/16W	[M]
R761	ERJ3GEYJ473V	47K 1/16W	[M]
R762	D0GB271JA002	270 1/16W	[M]
R763	D0GB562JA002	5.6K 1/16W	[M]
R801	ERJ3GEYJ102V	1K 1/16W	[M]
R802	ERJ3GEYJ102V	1K 1/16W	[M]
R803	ERJ3GEYJ102V	1K 1/16W	[M]
R804	ERJ3GEYJ102V	1K 1/16W	[M]
R805	ERJ3GEYJ102V	1K 1/16W	[M]
R806	ERJ3GEYJ102V	1K 1/16W	[M]
R810	ERJ3GEYJ470V	47 1/16W	[M]
R811	D0GB105JA002	1M 1/16W	[M]
R812	ERJ3GEYJ221V	220 1/16W	[M]
R813	D0GB271JA002	270 1/16W	[M]
R814	D0GB122JA019	1.2K 1/16W	[M]
R815	D0GB271JA002	270 1/16W	[M]
R816	D0GB122JA019	1.2K 1/16W	[M]
R817	D0GB271JA002	270 1/16W	[M]
R819	D0GB271JA002	270 1/16W	[M]

R826	ERJ3GEYJ472V	4.7K 1/16W	[M]
R827	ERJ3GEYJ104V	100K 1/16W	[M]
R828	ERJ3GEYJ331V	330 1/16W	[M]
R829	ERJ3GEYJ331V	330 1/16W	[M]
R830	ERJ3GEYJ331V	330 1/16W	[M]
R848	D0GB272JA002	2.7K 1/16W	[M]
R849	ERJ3GEYJ104V	100K 1/16W	[M]
R850	ERJ3GEYJ471V	470 1/16W	[M]
R851	ERJ3GEYJ123V	12K 1/16W	[M]
R852	ERJ3GEYJ103V	10K 1/16W	[M]
R853	ERJ3GEYJ123V	12K 1/16W	[M]
R854	D0GB332JA002	3.3K 1/16W	[M]
R855	ERJ3GEYJ103V	10K 1/16W	[M]
R856	ERJ3GEYJ391V	390 1/16W	[M]
R857	ERJ3GEYJ222V	2.2K 1/16W	[M]
R858	ERJ3GEYJ222V	2.2K 1/16W	[M]
R859	ERJ3GEYJ472V	4.7K 1/16W	[M]
R860	ERJ3GEYJ102V	1K 1/16W	[M]
R861	ERJ3GEYJ103V	10K 1/16W	[M]
R862	ERJ3GEYJ102V	1K 1/16W	[M]
R863	ERJ3GEYJ102V	1K 1/16W	[M]
R864	ERJ3GEYJ102V	1K 1/16W	[M]
R865	ERJ3GEYJ103V	10K 1/16W	[M]
R866	ERJ3GEYJ103V	10K 1/16W	[M]
R867	D0GB392JA002	3.9K 1/16W	[M]
R868	D0GB392JA002	3.9K 1/16W	[M]
R869	ERJ3GEYJ123V	12K 1/16W	[M]
R870	ERJ3GEYJ123V	12K 1/16W	[M]
R871	ERJ3GEYJ102V	1K 1/16W	[M]
R872	ERJ3GEYJ102V	1K 1/16W	[M]
R873	D0GB272JA002	2.7K 1/16W	[M]
R874	D0GB272JA002	2.7K 1/16W	[M]
R876	ERJ3GEYJ104V	100K 1/16W	[M]
R877	ERJ3GEYJ223V	22K 1/16W	[M]

R878	ERJ3GEYJ223V	22K 1/16W	[M]
R879	ERJ3GEYJ473V	47K 1/16W	[M]
R880	ERJ3GEYJ473V	47K 1/16W	[M]
R881	ERJ3GEYJ473V	47K 1/16W	[M]
R882	ERJ3GEYJ473V	47K 1/16W	[M]
R883	ERJ3GEYJ473V	47K 1/16W	[M]
R884	ERJ3GEYJ473V	47K 1/16W	[M]
R885	ERJ3GEYJ222V	2.2K 1/16W	[M]
R887	ERJ3GEYJ471V	470 1/16W	[M]
R901	ERJ3GEYJ331V	330 1/16W	[M]
R902	ERJ3GEYJ331V	330 1/16W	[M]
R903	ERJ3GEYJ472V	4.7K 1/16W	[M]
R904	ERJ3GEYJ331V	330 1/16W	[M]
R905	ERJ3GEYJ331V	330 1/16W	[M]
R906	ERJ3GEYJ472V	4.7K 1/16W	[M]
R907	ERJ3GEYJ223V	22K 1/16W	[M]
R908	ERJ3GEYJ221V	220 1/16W	[M]
R909	ERJ3GEYJ221V	220 1/16W	[M]
R910	ERJ3GEYJ472V	4.7K 1/16W	[M]
R911	ERJ3GEYJ472V	4.7K 1/16W	[M]
R912	ERJ3GEYJ221V	220 1/16W	[M]
R913	ERJ3GEYJ221V	220 1/16W	[M]
R914	ERJ3GEYJ472V	4.7K 1/16W	[M]
R915	ERJ3GEYJ473V	47K 1/16W	[M]
R916	ERJ3GEYJ103V	10K 1/16W	[M]
R917	ERJ3GEYJ473V	47K 1/16W	[M]
R918	ERJ3GEYJ103V	10K 1/16W	[M]
R919	ERJ3GEYJ102V	1K 1/16W	[M]
R920	ERJ3GEYJ221V	220 1/16W	[M]
R921	ERJ3GEYJ221V	220 1/16W	[M]
R922	ERJ3GEYJ221V	220 1/16W	[M]
R923	ERJ3GEYJ221V	220 1/16W	[M]
R924	D0GB101JA002	100 1/16W	[M]
R925	ERJ3GEYJ103V	10K 1/16W	[M]

R926	ERJ3GEYJ221V	220 1/16W	[M]
R927	ERJ3GEYJ153V	15K 1/16W	[M]
R928	ERJ3GEYJ331V	330 1/16W	[M]
R929	ERJ3GEYJ153V	15K 1/16W	[M]
R930	ERJ3GEYJ221V	220 1/16W	[M]
R931	ERJ3GEYJ221V	220 1/16W	[M]
R932	ERJ3GEYJ103V	10K 1/16W	[M]
R933	ERJ3GEYJ221V	220 1/16W	[M]
R934	ERJ3GEYJ221V	220 1/16W	[M]
R935	ERJ3GEYJ221V	220 1/16W	[M]
R936	ERJ3GEYJ221V	220 1/16W	[M]
R937	ERJ3GEYJ221V	220 1/16W	[M]
R938	ERJ3GEYJ221V	220 1/16W	[M]
R939	ERJ3GEYJ221V	220 1/16W	[M]
R941	ERJ3GEYJ223V	22K 1/16W	[M]
R942	ERJ3GEYJ102V	1K 1/16W	[M]
R944	ERJ3GEYJ331V	330 1/16W	[M]
R945	ERJ3GEYJ222V	2.2K 1/16W	[M]
R946	D0GB272JA002	2.7K 1/16W	[M]
R951	ERJ3GEYJ103V	10K 1/16W	[M]
R952	ERJ3GEYJ182V	1.8K 1/16W	[M]
R953	ERJ3GEYJ103V	10K 1/16W	[M]
R954	ERJ3GEYJ103V	10K 1/16W	[M]
R955	ERJ3GEYJ153V	15K 1/16W	[M]
R956	ERJ3GEYJ681V	680 1/16W	[M]
R957	ERJ3GEYJ223V	22K 1/16W	[M]
R958	ERJ3GEYJ104V	100K 1/16W	[M]
R959	ERJ3GEYJ472V	4.7K 1/16W	[M]
R960	ERJ3GEYJ223V	22K 1/16W	[M]
R961	D0GB821JA002	820 1/16W	[M]
R962	ERJ3GEYJ221V	220 1/16W	[M]
R963	ERJ3GEYJ331V	330 1/16W	[M]
R968	ERJ3GEYJ331V	330 1/16W	[M]
R970	ERJ3GEYJ331V	330 1/16W	[M]

R971	ERJ3GEYJ331V	330 1/16W	[M]
R972	ERJ3GEYJ331V	330 1/16W	[M]
R984	ERJ3GEYJ471V	470 1/16W	[M]
R2020	D0GB183JA002	18K 1/16W	[M]
R2021	ERJ3GEYJ473V	47K 1/16W	[M]
R2022	D0GB752JA008	7.5K 1/16W	[M]
R2023	D0GB752JA008	7.5K 1/16W	[M]
R2025	ERJ3GEYJ223V	22K 1/16W	[M]
R2026	ERJ3GEYJ223V	22K 1/16W	[M]
R2027	D0GB563JA002	56K 1/16W	[M]
R2028	D0GB563JA002	56K 1/16W	[M]
R2029	ERJ3GEYJ102V	1K 1/16W	[M]
R2030	ERJ3GEYJ102V	1K 1/16W	[M]
R2031	ERJ3GEYJ561V	560 1/16W	[M]
R2032	ERJ3GEYJ103V	10K 1/16W	[M]
R2033	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2034	ERJ3GEYJ473V	47K 1/16W	[M]
R2035	D0GB272JA002	2.7K 1/16W	[M]
R2036	ERJ3GEY0R00V	0 1/16W	[M]
R2037	D0GB683JA002	68K 1/16W	[M]
R2038	ERJ3GEYJ153V	15K 1/16W	[M]
R2039	D0GB105JA002	1M 1/16W	[M]
R2040	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2041	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2042	ERJ3GEYJ153V	15K 1/16W	[M]
R2043	ERJ3GEYJ153V	15K 1/16W	[M]
R2044	ERJ3GEYJ153V	15K 1/16W	[M]
R2045	ERJ3GEYJ153V	15K 1/16W	[M]
R2046	ERJ3GEYJ153V	15K 1/16W	[M]
R2047	ERJ3GEYJ153V	15K 1/16W	[M]
R2048	D0GB475JA008	4.7M 1/16W	[M]
R2049	ERJ3GEYJ102V	1K 1/16W	[M]
R2053	ERJ3GEYJ473V	47K 1/16W	[M]
R2054	ERJ3GEYJ473V	47K 1/16W	[M]

R2504	D0GB101JA002	100 1/16W	[M]
R2505	D0GB101JA002	100 1/16W	[M]
R3001	D0GB220JA002	22 1/16W	[M]
R3002	ERJ3GEYJ473V	47K 1/16W	[M]
R3006	ERJ3GEY0R00V	0 1/16W	[M]
R3007	ERJ3GEY0R00V	0 1/16W	[M]
R3031	D0GB101JA002	100 1/16W	[M]
R3061	D0GB101JA002	100 1/16W	[M]
R3080	ERJ3RBD752V	7.5K 3W	[M]
R3082	ERJ3RBD202V	2K 3W	[M]
R3083	ERJ3RBD132V	1.3K 3W	[M]
R3084	ERJ3RBD752V	7.5K 3W	[M]
R3085	ERJ3RBD183V	18K 3W	[M]
R3086	ERJ3RBD432V	4.3K 3W	[M]
R3087	ERJ3RBD752V	7.5K 3W	[M]
R3088	ERJ3RBD752V	7.5K 3W	[M]
R3089	ERJ3RBD332V	3.3K 3W	[M]
R3090	ERJ3RBD222V	2.2K 3W	[M]
R3101	ERJ3RED750V	75 3W	[M]
R3106	ERJ3RED750V	75 3W	[M]
R3111	ERJ3RED750V	75 3W	[M]
R3116	ERJ3RED750V	75 3W	[M]
R3301	ERJ3GEYJ682V	6.8K 1/16W	[M]
R3302	D0GB332JA002	3.3K 1/16W	[M]
R3304	D0HB750ZA003	75 3W	[M]
R3305	D0HB750ZA003	75 3W	[M]
R3306	D0HB750ZA003	75 3W	[M]
R3307	D0GB562JA002	5.6K 1/16W	[M]
R4201	ERJ3GEY0R00V	0 1/16W	[M]
R4204	ERJ3GEYJ102V	1K 1/16W	[M]
R4211	D0GB101JA002	100 1/16W	[M]
R5001	D0GB560JA002	56 1/16W	[M]
R5002	D0GB560JA002	56 1/16W	[M]
R5211	ERJ3GEYJ2R2V	2.2 1/16W	[M]

R5212	ERJ12YJ270H	27 1/2W	[M]
R5213	ERJ3GEYJ473V	47K 1/16W	[M]
R5214	ERJ3GEYJ223V	22K 1/16W	[M]
R5215	ERJ3GEYJ2R2V	2.2 1/16W	[M]
R5216	ERJ12YJ270H	27 1/2W	[M]
R5217	ERJ3GEYJ473V	47K 1/16W	[M]
R5221	ERJ3GEY0R00V	0 1/16W	[M]
R5222	ERJ3GEYJ472V	4.7K 1/16W	[M]
R5231	ERJ3GEYJ822V	8.2K 1/16W	[M]
R5232	ERJ3GEYJ822V	8.2K 1/16W	[M]
R5233	ERJ3GEYJ102V	1K 1/16W	[M]
R5241	ERJ3GEYJ221V	220 1/16W	[M]
R5242	ERJ3GEYJ823V	82K 1/16W	[M]
R5256	ERJ3GEYF223V	22K 1/16W	[M]
R5257	ERJ3GEYJ182V	1.8K 1/16W	[M]
R5258	ERJ3GEYJ222V	2.2K 1/16W	[M]
R5261	ERJ3GEYJ561V	560 1/16W	[M]
R5262	ERJ3GEYJ561V	560 1/16W	[M]
R5263	ERJ3GEYJ473V	47K 1/16W	[M]
R5264	ERJ3GEYJ103V	10K 1/16W	[M]
R5265	ERJ3GEYJ104V	100K 1/16W	[M]
R5266	D0GB563JA002	56K 1/16W	[M]
R5267	D0GB334JA002	330K 1/16W	[M]
R5268	ERJ3GEYJ102V	1K 1/16W	[M]
R5269	ERJ3GEYJ104V	100K 1/16W	[M]
R5270	D0GB273JA002	27K 1/16W	[M]
R5271	ERJ3GEY0R00V	0 1/16W	[M]
R5272	ERJ3GEY0R00V	0 1/16W	[M]
R5281	D0GB105JA002	1M 1/16W	[M]
R5282	D0GB105JA002	1M 1/16W	[M]
R5286	D0GB680JA019	68 1/16W	[M]
R5287	D0GB680JA019	68 1/16W	[M]
R5288	D0GB562JA002	5.6K 1/16W	[M]
R5289	ERJ3GEYJ472V	4.7K 1/16W	[M]

R5290	D0GB562JA002	5.6K 1/16W	[M]
R5291	ERJ3GEYJ472V	4.7K 1/16W	[M]
R5292	D0GB562JA002	5.6K 1/16W	[M]
R5293	ERJ3GEYJ472V	4.7K 1/16W	[M]
R5294	D0GB562JA002	5.6K 1/16W	[M]
R5295	ERJ3GEYJ472V	4.7K 1/16W	[M]
R5297	D0GB101JA002	100 1/16W	[M]
R5304	ERJ3GEY0R00V	0 1/16W	[M]
R5305	ERJ3GEY0R00V	0 1/16W	[M]
R6201	ERJ3GEYJ473V	47K 1/16W	[M]
R6202	ERJ3GEYJ103V	10K 1/16W	[M]
R6203	ERJ3GEYJ103V	10K 1/16W	[M]
R6204	ERJ3GEYJ103V	10K 1/16W	[M]
R6205	ERJ3GEYJ103V	10K 1/16W	[M]
R6206	ERJ3GEYJ102V	1K 1/16W	[M]
R6207	ERJ3GEYJ473V	47K 1/16W	[M]
R6211	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6215	ERJ3GEYJ103V	10K 1/16W	[M]
R6216	ERJ3GEYJ102V	1K 1/16W	[M]
R6512	ERJ3RBD331V	330 3W	[M]
R6513	ERJ3GEYJ103V	10K 1/16W	[M]
R6514	ERJ3GEYJ470V	47 1/16W	[M]
R6515	D0GB100JA002	10 1/16W	[M]
K3002	ERJ3GEY0R00V	0 1/16W	[M]
K3003	ERJ3GEY0R00V	0 1/16W	[M]
K3101	ERJ3GEY0R00V	0 1/16W	[M]
K3106	ERJ3GEY0R00V	0 1/16W	[M]
RA2021	EXBV4V102JV	1K 1/16W	[M]
RA2022	EXBV4V472JV	CHIP RESISTOR	[M]
RA2501	EXBV8V473JV	47K 1/16W	[M]
RA3001	EXBV4V102JV	1K 1/16W	[M]
RA3002	EXBV8V820JV	82 1/16W	[M]
RA3003	EXBV8V820JV	82 1/16W	[M]

RA3004	EXBV8V820JV	82 1/16W	[M]
RA3005	EXBV8V820JV	82 1/16W	[M]
RA3006	EXBV8V820JV	82 1/16W	[M]
RA3007	EXBV8V820JV	82 1/16W	[M]
RA3008	EXBV8V820JV	82 1/16W	[M]
RA3009	EXBV8V331JV	330 1/16W	[M]
RA3010	EXBV8V331JV	330 1/16W	[M]
RA3031	EXBV4VR000V	0 1/16W	[M]
RA3032	EXBV4VR000V	0 1/16W	[M]
RA3033	EXBV4VR000V	0 1/16W	[M]
RA5001	EXBV4V560JV	56 1/16W	[M]
RA5002	EXBV8V560JV	56 1/16W	[M]
RA5003	EXBV8V560JV	56 1/16W	[M]
RA5201	EXBV8V101JV	100 1/16W	[M]
RA6201	EXBV4V103JV	10K 1/16W	[M]
RA6202	EXBV4V103JV	10K 1/16W	[M]
RA6203	EXBV4V472JV	4.7K 1/16W	[M]
RA6204	EXBV4V103JV	10K 1/16W	[M]
RA6205	EXBV8V103JV	10K 1/16W	[M]
RA6206	EXBV4V473JV	CHIP RESISTOR	[M]
RA6207	EXBV4V472JV	4.7K 1/16W	[M]
		CAPACITORS	
C201	ECBT1H221KB5	220P 50V	[M]
C202	ECBT1H221KB5	220P 50V	[M]
C204	ECBT1H681KB5	680P 50V	[M]
C205	ECBT1H681KB5	680P 50V	[M]
C207	ECBT1C103NS5	0.01 16V	[M]
C211	ECBT1C103NS5	0.01 16V	[M]
C231	TCSCS1A106KA	10 10V	[M]
C232	TCSCS1A106KA	10 10V	[M]
C233	ECJ2VC1H470J	47P 50V	[M]
C234	ECJ2VC1H470J	47P 50V	[M]
C235	F1J1E104A137	0.1 25V	[M]

C236	F1J1E104A137	0.1 25V	[M]
C237	TCSCS1A106KA	10 10V	[M]
C238	TCSCS1A106KA	10 10V	[M]
C239	ECJ2VC1H470J	47P 50V	[M]
C240	ECJ2VC1H470J	47P 50V	[M]
C241	ECJ2VB1H471K	470P 50V	[M]
C242	ECJ2VB1H222K	2200P 50V	[M]
C243	ECJ2VB1H222K	2200P 50V	[M]
C244	ECJ2VB1H102K	1000P 50V	[M]
C248	ECJ2VB1H471K	470P 50V	[M]
C249	TCSCS1A106KA	10 10V	[M]
C250	TCSCS1A106KA	10 10V	[M]
C251	ECJ2VB1H471K	470P 50V	[M]
C252	ECJ2VB1H471K	470P 50V	[M]
C255	ECJ2VB1H222K	2200P 50V	[M]
C256	ECJ2VB1H222K	2200P 50V	[M]
C263	TCSCS1A106KA	10 10V	[M]
C264	TCSCS1A106KA	10 10V	[M]
C265	TCSCS1A106KA	10 10V	[M]
C266	TCSCS1A106KA	10 10V	[M]
C267	TCSCS1A106KA	10 10V	[M]
C301	ECJ2VC1H101J	100P 50V	[M]
C302	ECJ2VC1H101J	100P 50V	[M]
C303	ECUV1H330JCN	33P 50V	[M]
C304	ECUV1H330JCN	33P 50V	[M]
C305	ECEA1HKA010B	1 50V	[M]
C306	ECEA1HKA010B	1 50V	[M]
C307	ECEA1CKA100B	10 16V	[M]
C308	ECEA1CKA100B	10 16V	[M]
C309	ECJ2VC1H101J	100P 50V	[M]
C310	ECJ2VC1H101J	100P 50V	[M]
C311	ECJ2VB1H102K	1000P 50V	[M]
C312	ECJ2VC1H470J	47P 50V	[M]
C313	ECJ2VB1H103K	0.01 50V	[M]

C314	ECJ2VB1H103K	0.01 50V	[M]
C315	ECEA1CKA100B	10 16V	[M]
C316	ECEA1HKA010B	1 50V	[M]
C318	ECEA1CKA100B	10 16V	[M]
C319	ECUVNA105KBN	1 10V	[M]
C320	ECUVNA105KBN	1 10V	[M]
C321	ECEA1HKA010B	1 50V	[M]
C322	ECEA1HKA010B	1 50V	[M]
C323	ECEA1CKA100B	10 16V	[M]
C324	ECEA1HKA3R3B	3.3 50V	[M]
C325	ECEA1HKA3R3B	3.3 50V	[M]
C326	ECEA1HKA010B	1 50V	[M]
C327	ECEA1HKA010B	1 50V	[M]
C328	ECEA1CKA100B	10 16V	[M]
C329	ECEA1HKA3R3B	3.3 50V	[M]
C330	ECEA1HKA3R3B	3.3 50V	[M]
C331	ECEA1CKA470B	47 16V	[M]
C332	ECEA1CKA220B	22 16V	[M]
C350	ECEA1HKA4R7B	4.7 50V	[M]
C351	ECEA1HKA4R7B	4.7 50V	[M]
C352	ECJ2VC1H101J	100P 50V	[M]
C353	ECJ2VC1H101J	100P 50V	[M]
C354	ECJ2VC1H101J	100P 50V	[M]
C355	ECJ2VC1H101J	100P 50V	[M]
C356	ECJ2VB1H103K	0.01 50V	[M]
C357	ECJ2VB1H103K	0.01 50V	[M]
C358	ECJ2VB1H102K	1000P 50V	[M]
C359	ECJ2VB1H102K	1000P 50V	[M]
C360	ECEA1CKA100B	10 16V	[M]
C361	ECEA1CKA100B	10 16V	[M]
C362	F1H1C683A075	0.068 16V	[M]
C363	F1H1C683A075	0.068 16V	[M]
C364	F1H1C683A075	0.068 16V	[M]
C365	F1H1C683A075	0.068 16V	[M]

C366	ECJ2VC1H101J	100P 50V	[M]
C367	ECJ2VC1H101J	100P 50V	[M]
C368	ECEA1HKA010B	1 50V	[M]
C369	ECEA1HKA010B	1 50V	[M]
C370	ECJ2VB1H471K	470P 50V	[M]
C371	ECEA1CKA220B	22 16V	[M]
C372	ECEA1AKA330B	33 10V	[M]
C373	F1H1C683A075	0.068 16V	[M]
C374	F1H1C683A075	0.068 16V	[M]
C375	ECJ1VB1H472K	4700P 50V	[M]
C376	F1H1C683A075	0.068 16V	[M]
C377	ECUVNA154KBV	0.15 10V	[M]
C378	ECJ2VB1H103K	0.01 50V	[M]
C379	ECJ2VB1H103K	0.01 50V	[M]
C401	ECJ2VB1H102K	1000P 50V	[M]
C402	ECEA1CKA100B	10 16V	[M]
C403	ECJ2VB1H102K	1000P 50V	[M]
C404	ECEA1CKA100B	10 16V	[M]
C405	ECJ2VB1H103K	0.01 50V	[M]
C406	ECKR1H103ZF5	0.01 50V	[M]
C407	ECEA1AKA101B	100 10V	[M]
C408	EEUFC0J821B	820 6.3V	[M]
C409	ECEA1AKA101B	100 10V	[M]
C410	EEUFC0J821B	820 6.3V	[M]
C411	ECUVNA105KBN	1 10V	[M]
C412	ECA1EM101B	100 25V	[M]
C413	ECUVNC104KBV	0.1 16V	[M]
C414	ECA1EM472B	4700 25V	[M]
C415	ECEA1CKA100B	10 16V	[M]
C416	ECJ2VB1H103K	0.01 50V	[M]
C417	ECJ2VB1H103K	0.01 50V	[M]
C418	ECA1AM102B	1000 10V	[M]
C419	ECJ1VB1E103K	0.01 25V	[M]
C420	ECJ2VB1H103K	0.01 50V	[M]

C421	EEUFC0J821B	820 6.3V	[M]
C422	ECUVNA105KBN	1 10V	[M]
C423	ECUVNA105KBN	1 10V	[M]
C424	ECEA1CKA100B	10 16V	[M]
C425	ECA1EM102B	1000 25V	[M]
C426	ECQE1104KF3	0.1 100V	[M]
C450	ECJ2VB1H103K	0.01 50V	[M]
C451	ECJ2VB1H103K	0.01 50V	[M]
C452	ECEA1CKA100B	10 16V	[M]
C453	ECEA1HKA4R7B	4.7 50V	[M]
C501	ECBT1H681KB5	680P 50V	[M]
C502	ECBT1H681KB5	680P 50V	[M]
C503	ECBT1H681KB5	680P 50V	[M]
C504	ECBT1H681KB5	680P 50V	[M]
C505	ECBT1H681KB5	680P 50V	[M]
C506	ECBT1H681KB5	680P 50V	[M]
C507	ECBT1H180JC5	18P 50V	[M]
C508	ECBT1H180JC5	18P 50V	[M]
C509	ECBT1H220JC5	22P 50V	[M]
C510	ECBT1H220JC5	22P 50V	[M]
C511	ECBT1H220JC5	22P 50V	[M]
C512	ECBT1H220JC5	22P 50V	[M]
C513	ECBT1H223KB5	0.022 50V	[M]
C514	ECEA0JKA101B	100 6.3V	[M]
C515	ECKR2H103ZF5	0.01 500V	[M]
C516	ECKR2H103ZF5	0.01 500V	[M]
C517	ECBT1C103NS5	0.01 16V	[M]
C518	ECBT1H473KB5	0.047 50V	[M]
C519	ECBT1H473KB5	0.047 50V	[M]
C520	ECBT1H473KB5	0.047 50V	[M]
C521	ECBT1H473KB5	0.047 50V	[M]
C522	ECBT1H473KB5	0.047 50V	[M]
C523	ECBT1H473KB5	0.047 50V	[M]
C524	ECBT1H473KB5	0.047 50V	[M]

C525	ECBT1H473KB5	0.047 50V	[M]
C526	ECBT1H473KB5	0.047 50V	[M]
C527	ECBT1H473KB5	0.047 50V	[M]
C528	ECBT1H473KB5	0.047 50V	[M]
C529	ECBT1H473KB5	0.047 50V	[M]
C530	ECBT1H103KB5	0.01 50V	[M]
C531	ECBT1H102KB5	1000P 50V	[M]
C532	ECBT1H102KB5	1000P 50V	[M]
C533	ECBT1H102KB5	1000P 50V	[M]
C534	ECA0JM221B	220 6.3V	[M]
C535	ECBT1H471KB5	470P 50V	[M]
C536	ECEA1CKA330B	33 16V	[M]
C537	ECBT1H104KB5	0.1 50V	[M]
C538	ECEA0JKA101B	100 6.3V	[M]
C539	ECEA0JKA221B	220 6.3V	[M]
C540	ECEA1HKA2R2B	2.2 50V	[M]
C550	ECBT1H102KB5	1000P 50V	[M]
C551	ECA1HM101B	100 50V	[M]
C552	ECEA1CKA100B	10 16V	[M]
C553	ECA1HM470B	47 50V	[M]
C554	ECBT1H102KB5	1000P 50V	[M]
C555	ECBT1H104KB5	0.1 50V	[M]
C556	F2A1V332A156	3300P 35V	[M]
C557	F2A1V562A157	5600P 35V	[M]
C558	F2A1V562A157	5600P 35V	[M]
C559	F2A1V332A156	3300P 35V	[M]
C560	ECBT1C103NS5	0.01 16V	[M]
C570	ECQE1104KF3	0.1 100V	[M]
C571	ECQE1104KF3	0.1 100V	[M]
C572	ECKR2H103ZF5	0.01 500V	[M]
C592	ECBT1H103KB5	0.01 50V	[M]
C593	ECEA1CM102B	1000 16V	[M]
C595	ECEA1VKA4R7B	4.7 35V	[M]
C596	ECBT1H103KB5	0.01 50V	[M]

C597	ECEA1AKA470B	47 10V	[M]
C599	ECQE1104KF3	0.1 100V	[M]
C601	ECEA0JKA470B	47 6.3V	[M]
C602	ECEA1HKA010B	1 50V	[M]
C603	ECJ2VB1E223K	0.022 25V	[M]
C604	ECJ2VB1H103K	0.01 50V	[M]
C605	ECJ2VB1H103K	0.01 50V	[M]
C606	F1H1H103A753	0.01 50V	[M]
C607	ECUVNE223KBV	0.022 25V	[M]
C608	ECUVNE223KBV	0.022 25V	[M]
C609	ECJ2VC1H101J	100P 50V	[M]
C610	ECJ2VC1H101J	100P 50V	[M]
C611	ECJ2VB1H103K	0.01 50V	[M]
C612	ECJ2VB1H103K	0.01 50V	[M]
C613	ECUVNC104KBV	0.1 16V	[M]
C701	ECJ2VC1H101J	100P 50V	[M]
C702	ECJ2VC1H101J	100P 50V	[M]
C703	ECJ2VC1H101J	100P 50V	[M]
C704	ECJ2VC1H101J	100P 50V	[M]
C705	ECJ2VC1H101J	100P 50V	[M]
C706	ECUVNC104KBV	0.1 16V	[M]
C707	ECEA1HKS010B	1 50V	[M]
C708	ECEA1HKS010B	1 50V	[M]
C709	ECEA1HKS010B	1 50V	[M]
C710	ECEA1HKS010B	1 50V	[M]
C711	ECEA1HKS010B	1 50V	[M]
C712	ECEA1HKS010B	1 50V	[M]
C713	ECEA1HKS010B	1 50V	[M]
C714	ECEA1HKS010B	1 50V	[M]
C715	ECEA1HKS010B	1 50V	[M]
C721	ECJ2VB1H103K	0.01 50V	[M]
C751	ECEA1EKA100B	10 25V	[M]
C752	ECJ1VB1H102K	1000P 50V	[M]
C759	ECJ1VB1H221K	220P 50V	[M]

C760	ECJ1VB1H221K	220P 50V	[M]
C769	ECJ1VB1H221K	220P 50V	[M]
C779	ECA0JM102B	1000 6.3V	[M]
C780	ECA0JM102B	1000 6.3V	[M]
C781	ECEA1CKA100B	10 16V	[M]
C782	ECEA1CKA100B	10 16V	[M]
C783	ECJ2VC1H101J	100P 50V	[M]
C801	ECEA1HKA010B	1 50V	[M]
C802	ECEA1HKA010B	1 50V	[M]
C803	ECEA1HKA010B	1 50V	[M]
C804	ECEA1HKA010B	1 50V	[M]
C805	ECEA1HKA010B	1 50V	[M]
C806	ECEA1HKA010B	1 50V	[M]
C807	ECEA1HKA010B	1 50V	[M]
C808	ECEA1HKA010B	1 50V	[M]
C809	ECUVNA105KBN	1 10V	[M]
C810	ECJ2VB1H103K	0.01 50V	[M]
C811	ECJ2VC1H050D	5P 50V	[M]
C812	ECJ2VC1H120J	12P 50V	[M]
C813	ECUVNA105KBN	1 10V	[M]
C814	ECUVNA105KBN	1 10V	[M]
C815	EEAFC0J101B	100P 6.3V	[M]
C816	ECJ2VB1H222K	2200P 50V	[M]
C817	ECJ2VB1H103K	0.01 50V	[M]
C818	ECUVNA105KBN	1 10V	[M]
C819	ECUVNA105KBN	1 10V	[M]
C820	ECJ2VB1H222K	2200P 50V	[M]
C821	ECJ2VB1H103K	0.01 50V	[M]
C822	ECEA0JKA470B	47 6.3V	[M]
C823	EEAFC0J101B	100P 6.3V	[M]
C824	ECEA0JKA470B	47 6.3V	[M]
C825	ECEA0JKA101B	100 6.3V	[M]
C826	ECUVNA105KBN	1 10V	[M]
C827	ECEA1HKA010B	1 50V	[M]

C828	ECJ2VB1H222K	2200P 50V	[M]
C829	ECUVNA105KBN	1 10V	[M]
C830	ECJ2VB1H222K	2200P 50V	[M]
C831	ECUVNA105KBN	1 10V	[M]
C832	ECEA1HKA010B	1 50V	[M]
C833	ECUVNA105KBN	1 10V	[M]
C834	ECJ2VB1H223K	0.022 50V	[M]
C835	ECJ2VB1H103K	0.01 50V	[M]
C836	ECJ2VB1E223K	0.022 25V	[M]
C837	ECUVNA105KBN	1 10V	[M]
C838	ECUVNA105KBN	1 10V	[M]
C839	ECUVNA105KBN	1 10V	[M]
C840	ECEA1AKA221Q	220 10V	[M]
C841	ECJ2VB1E223K	0.022 25V	[M]
C842	ECJ2VB1H103K	0.01 50V	[M]
C843	ECEA1HKA4R7B	4.7 50V	[M]
C844	ECEA1HKA4R7B	4.7 50V	[M]
C845	ECEA0JKA101B	100 6.3V	[M]
C846	ECEA1HKA2R2B	2.2 50V	[M]
C847	ECEA1HKA2R2B	2.2 50V	[M]
C848	ECJ2VB1E223K	0.022 25V	[M]
C850	ECUVNA105KBN	1 10V	[M]
C851	TCSCS1A106KA	10 10V	[M]
C852	TCSCS1A106KA	10 10V	[M]
C853	ECJ1VB1H221K	220P 50V	[M]
C854	TCSCS1A106KA	10 10V	[M]
C855	TCSCS1A106KA	10 10V	[M]
C856	TCSCS1A106KA	10 10V	[M]
C857	TCSCS1A106KA	10 10V	[M]
C858	ECJ1VB1H221K	220P 50V	[M]
C859	TCSCS1A106KA	10 10V	[M]
C860	ECJ2VC1H470J	47P 50V	[M]
C861	ECJ2VC1H470J	47P 50V	[M]
C862	ECUVNC104KBV	0.1 16V	[M]

C863	F1H1H103A753	0.01 50V	[M]
C864	TCSCS1A106KA	10 10V	[M]
C865	TCSCS1A106KA	10 10V	[M]
C866	TCSCS1A106KA	10 10V	[M]
C867	TCSCS1A106KA	10 10V	[M]
C868	ECUVNA105KBN	1 10V	[M]
C869	ECUVNA154KBV	0.15 10V	[M]
C870	ECUVNA105KBN	1 10V	[M]
C871	ECUVNA105KBN	1 10V	[M]
C872	ECJ2VC1H101J	100P 50V	[M]
C873	ECJ2VC1H101J	100P 50V	[M]
C874	TCSCS1A106KA	10 10V	[M]
C875	TCSCS1A106KA	10 10V	[M]
C876	ECUVNC104KBV	0.1 16V	[M]
C877	ECJ2VB1H223K	0.022 50V	[M]
C879	ECUVNC104KBV	0.1 16V	[M]
C880	ECUVNC104KBV	0.1 16V	[M]
C881	ECEA1CKA220B	22 16V	[M]
C882	ECJ2VB1H102K	1000P 50V	[M]
C883	ECJ2VB1H102K	1000P 50V	[M]
C884	ECJ2VB1H102K	1000P 50V	[M]
C885	ECJ1VB1H471K	470P 50V	[M]
C886	ECJ1VB1H471K	470P 50V	[M]
C887	ECJ1VB1H471K	470P 50V	[M]
C888	ECJ1VB1H471K	470P 50V	[M]
C889	ECJ1VB1H471K	470P 50V	[M]
C890	ECJ2VC1H101J	100P 50V	[M]
C901	F1H1H103A753	0.01 50V	[M]
C902	ECUV1H561KBV	560P 50V	[M]
C903	ECEA0JKA101B	100 6.3V	[M]
C904	ECJ1VB1H102K	1000P 50V	[M]
C905	ECJ1VB1H102K	1000P 50V	[M]
C906	ECA0JM102B	1000 6.3V	[M]
C907	ECJ1VB1E103K	0.01 25V	[M]

C908	F1H1H473A753	0.047 50V	[M]
C909	ECEA1AKA220B	22 10V	[M]
C910	ECEA1HKA2R2B	2.2 50V	[M]
C911	F1H1H103A753	0.01 50V	[M]
C912	ECJ1VB1H102K	1000P 50V	[M]
C914	ECEA1HKA010B	1 50V	[M]
C915	ECEA1HKA010B	1 50V	[M]
C916	ECJ1VB1E103K	0.01 25V	[M]
C917	ECJ1VB1E103K	0.01 25V	[M]
C984	ECA1EAK100XE	10 25V	[M]
C2001	ECEV0GA101SR	100 4V	[M]
C2002	ECEV0GA101SR	100 4V	[M]
C2003	ECUVNC104ZFV	0.1 16V	[M]
C2004	ECUVNC104ZFV	0.1 16V	[M]
C2005	ECUVNC104ZFV	0.1 16V	[M]
C2006	ECUVNC104ZFV	0.1 16V	[M]
C2007	ECUVNC104ZFV	0.1 16V	[M]
C2008	ECUVNC104ZFV	0.1 16V	[M]
C2009	ECUVNC104ZFV	0.1 16V	[M]
C2010	ECUVNC104ZFV	0.1 16V	[M]
C2011	ECUVNC104ZFV	0.1 16V	[M]
C2012	ECUVNC104ZFV	0.1 16V	[M]
C2013	ECUVNC104ZFV	0.1 16V	[M]
C2014	ECUVNC104ZFV	0.1 16V	[M]
C2015	ECUVNC104ZFV	0.1 16V	[M]
C2016	ECUVNC104ZFV	0.1 16V	[M]
C2017	ECUVNC104ZFV	0.1 16V	[M]
C2018	ECUVNC104ZFV	0.1 16V	[M]
C2021	ECEV0GA101SR	100 4V	[M]
C2022	ECUVNC104ZFV	0.1 16V	[M]
C2023	ECUVNC104ZFV	0.1 16V	[M]
C2024	ECUVNC104ZFV	0.1 16V	[M]
C2025	ECUVNC104ZFV	0.1 16V	[M]
C2026	ECUVNC104KBV	0.1 16V	[M]

C2027	ECUVNC104ZFV	0.1 16V	[M]
C2031	ECUVNC104KBV	0.1 16V	[M]
C2032	ECUVNC104KBV	0.1 16V	[M]
C2034	F1H1C393A089	0.039 16V	[M]
C2035	F1H1H822A022	8200P 50V	[M]
C2036	ECUVNC104KBV	0.1 16V	[M]
C2038	ECUVNC104KBV	0.1 16V	[M]
C2039	ECJ1VB1C103K	0.01 16V	[M]
C2040	ECJ1VC1H102J	1000P 50V	[M]
C2041	F1H1H331A765	330P 50V	[M]
C2042	F1H1H331A765	330P 50V	[M]
C2043	ECUV1H101JCV	100P 50V	[M]
C2044	F1H1H391A765	390P 50V	[M]
C2045	F1H1H391A765	390P 50V	[M]
C2046	ECJ1VC1H102J	1000P 50V	[M]
C2047	ECJ1VB1C103K	0.01 16V	[M]
C2048	ECUV1C153KBV	0.015 16V	[M]
C2050	ECUV1C333KBV	0.033 16V	[M]
C2051	ECUV1H680JCV	68P 50V	[M]
C2052	ECUVNC104ZFV	0.1 16V	[M]
C2053	ECUVNC104ZFV	0.1 16V	[M]
C2054	F1H1H681A796	680P 50V	[M]
C2055	ECJ1VB1H682K	6800P 50V	[M]
C2056	ECUVNC104KBV	0.1 16V	[M]
C2057	ECUVNC104KBV	0.1 16V	[M]
C2058	ECJ1VC1H102J	1000P 50V	[M]
C2059	ECUV1H821JCV	820P 50V	[M]
C2060	ECJ1VC1H102J	1000P 50V	[M]
C2061	F1H1H331A765	330P 50V	[M]
C2062	F1H1H331A765	330P 50V	[M]
C2063	ECJ1VC1H102J	1000P 50V	[M]
C2064	ECJ1VC1H102J	1000P 50V	[M]
C2065	ECJ1VC1H102J	1000P 50V	[M]
C2066	ECJ1VB1H472K	4700P 50V	[M]

C2067	ECJ1VB1H472K	4700P 50V	[M]
C2068	ECJ1VB1H472K	4700P 50V	[M]
C2501	EEVHB0J101P	100P 6.3V	[M]
C2502	ECEV0JA331P	330 6.3V	[M]
C2503	ECEV1CA101WP	100 16V	[M]
C2504	ECUVNC104ZFV	0.1 16V	[M]
C2505	ECUVNC104ZFV	0.1 16V	[M]
C2506	ECUVNC104ZFV	0.1 16V	[M]
C2507	ECUVNC104ZFV	0.1 16V	[M]
C2508	ECUVNC104ZFV	0.1 16V	[M]
C2511	ECUVNC104ZFV	0.1 16V	[M]
C2512	ECUVNC104ZFV	0.1 16V	[M]
C2601	ECUV1C104ZFV	0.1 16V	[M]
C2602	ECUV1C104ZFV	0.1 16V	[M]
C3001	ECEV0JA331P	330 6.3V	[M]
C3002	ECEV0JA331P	330 6.3V	[M]
C3003	ECUVNC104ZFV	0.1 16V	[M]
C3004	ECUVNC104ZFV	0.1 16V	[M]
C3005	ECUVNC104ZFV	0.1 16V	[M]
C3006	ECUVNC104ZFV	0.1 16V	[M]
C3007	ECUVNC104ZFV	0.1 16V	[M]
C3008	F1H1A105A038	1 10V	[M]
C3009	F1H1A105A038	1 10V	[M]
C3010	ECUVNC104ZFV	0.1 16V	[M]
C3011	ECUVNC104ZFV	0.1 16V	[M]
C3012	ECUVNC104ZFV	0.1 16V	[M]
C3013	ECUVNC104ZFV	0.1 16V	[M]
C3014	ECUVNC104ZFV	0.1 16V	[M]
C3015	ECUVNC104ZFV	0.1 16V	[M]
C3016	ECUVNC104ZFV	0.1 16V	[M]
C3017	ECUVNC104ZFV	0.1 16V	[M]
C3018	ECUVNC104ZFV	0.1 16V	[M]
C3019	ECUVNC104ZFV	0.1 16V	[M]
C3020	ECUVNC104ZFV	0.1 16V	[M]

C3021	ECUVNC104ZFV	0.1 16V	[M]
C3022	ECUVNC104ZFV	0.1 16V	[M]
C3023	ECUVNC104ZFV	0.1 16V	[M]
C3024	ECUVNC104ZFV	0.1 16V	[M]
C3025	ECUVNC104ZFV	0.1 16V	[M]
C3026	ECUVNC104ZFV	0.1 16V	[M]
C3027	ECUVNC104ZFV	0.1 16V	[M]
C3028	ECUVNC104ZFV	0.1 16V	[M]
C3029	ECUVNC104ZFV	0.1 16V	[M]
C3030	ECUVNC104ZFV	0.1 16V	[M]
C3031	ECUVNC104ZFV	0.1 16V	[M]
C3032	ECUVNC104ZFV	0.1 16V	[M]
C3033	ECUVNC104ZFV	0.1 16V	[M]
C3034	ECUVNC104ZFV	0.1 16V	[M]
C3035	ECUVNC104ZFV	0.1 16V	[M]
C3036	ECUVNC104ZFV	0.1 16V	[M]
C3041	ECUVNC104ZFV	0.1 16V	[M]
C3042	ECUVNC104ZFV	0.1 16V	[M]
C3043	ECUVNC104ZFV	0.1 16V	[M]
C3044	ECUVNC104ZFV	0.1 16V	[M]
C3045	ECUVNC104ZFV	0.1 16V	[M]
C3051	ECUVNC104ZFV	0.1 16V	[M]
C3052	ECUVNC104ZFV	0.1 16V	[M]
C3054	ECJ1VC1H220J	22P 50V	[M]
C3061	ECUVNC104ZFV	0.1 16V	[M]
C3062	ECUVNC104ZFV	0.1 16V	[M]
C3063	ECUVNC104ZFV	0.1 16V	[M]
C3064	ECUVNC104ZFV	0.1 16V	[M]
C3065	ECUVNC104ZFV	0.1 16V	[M]
C3066	ECUVNC104ZFV	0.1 16V	[M]
C3067	ECUVNC104ZFV	0.1 16V	[M]
C3071	ECUVNC104ZFV	0.1 16V	[M]
C3072	ECUVNC104ZFV	0.1 16V	[M]
C3073	RCST1AY106RE	10 10V	[M]

C3080	ECEV0JA331P	330 6.3V	[M]
C3081	ECUVNC104ZFV	0.1 16V	[M]
C3082	ECUVNC104ZFV	0.1 16V	[M]
C3083	F1H0J1050005	1 6.3V	[M]
C3084	F1H0J1050005	1 6.3V	[M]
C3085	F1H0J1050005	1 6.3V	[M]
C3086	F1H0J1050005	1 6.3V	[M]
C3087	ECUVNC104ZFV	0.1 16V	[M]
C3088	ECUVNC104ZFV	0.1 16V	[M]
C3089	ECUVNC104ZFV	0.1 16V	[M]
C3100	EEVHB0J101P	100P 6.3V	[M]
C3210	ECUVNC104ZFV	0.1 16V	[M]
C3211	ECUVNC104ZFV	0.1 16V	[M]
C3212	ECUVNC104ZFV	0.1 16V	[M]
C3213	ECUVNC104ZFV	0.1 16V	[M]
C3214	ECUVNC104ZFV	0.1 16V	[M]
C3301	EEVHB0J101P	100P 6.3V	[M]
C3302	ECUVNC104ZFV	0.1 16V	[M]
C3303	EEVHB1C100R	10P 16V	[M]
C3305	ECJ1VB1C103K	0.01 16V	[M]
C3307	ECJ1VB1C103K	0.01 16V	[M]
C3308	ECJ1VC1H150J	15P 50V	[M]
C4208	ECUVNC104ZFV	0.1 16V	[M]
C4211	RCST1AY106RE	10 10V	[M]
C4215	ECUVNC104ZFV	0.1 16V	[M]
C4216	F2G0J101A015	100P 6.3V	[M]
C4217	ECUVNC104ZFV	0.1 16V	[M]
C4219	RCST1AY106RE	10 10V	[M]
C4220	RCST1AY106RE	10 10V	[M]
C4221	ECUVNC104ZFV	0.1 16V	[M]
C4222	ECUVNC104ZFV	0.1 16V	[M]
C4223	ECUVNC104ZFV	0.1 16V	[M]
C4224	ECUVNC104ZFV	0.1 16V	[M]
C4225	ECUVNC104ZFV	0.1 16V	[M]

C4226	ECUVNC104ZFV	0.1 16V	[M]
C4227	ECUVNC104ZFV	0.1 16V	[M]
C4228	F2G0J331A015	330P 6.3V	[M]
C4229	F2G0J331A015	330P 6.3V	[M]
C5001	ECUV1C104ZFV	0.1 16V	[M]
C5002	ECUV1C104ZFV	0.1 16V	[M]
C5201	EEVHB1C100R	10P 16V	[M]
C5202	EEVHB1C100R	10P 16V	[M]
C5203	ECUVNC104ZFV	0.1 16V	[M]
C5204	ECUVNC104ZFV	0.1 16V	[M]
C5205	ECUVNC104ZFV	0.1 16V	[M]
C5206	ECUVNC104ZFV	0.1 16V	[M]
C5211	EEVHB0J470R	47 6.3V	[M]
C5215	EEVHB0J470R	47 6.3V	[M]
C5221	ECUVNC104ZFV	0.1 16V	[M]
C5222	RCST1AY106RE	10 10V	[M]
C5232	ECUVNC104ZFV	0.1 16V	[M]
C5233	ECUVNC104ZFV	0.1 16V	[M]
C5234	ECUVNC104ZFV	0.1 16V	[M]
C5235	ECUVNC104KBV	0.1 16V	[M]
C5236	ECUVNC104KBV	0.1 16V	[M]
C5241	ECUVNC104ZFV	0.1 16V	[M]
C5242	ECUVNC104ZFV	0.1 16V	[M]
C5243	ECUVNC104ZFV	0.1 16V	[M]
C5244	ECUVNC104ZFV	0.1 16V	[M]
C5245	ECUVNC104ZFV	0.1 16V	[M]
C5246	ECUVNC104ZFV	0.1 16V	[M]
C5247	ECUVNC104ZFV	0.1 16V	[M]
C5248	ECUVNC104ZFV	0.1 16V	[M]
C5251	ECUV1H101JCV	100P 50V	[M]
C5252	ECUVNC104KBV	0.1 16V	[M]
C5261	ECUVNC104ZFV	0.1 16V	[M]
C5262	ECUV1H821JCV	820P 50V	[M]
C5263	ECUV1H221JCV	220P 50V	[M]

C5264	ECUV1H821JCV	820P 50V	[M]
C5271	ECUVNC104ZFV	0.1 16V	[M]
C5272	ECUVNC104ZFV	0.1 16V	[M]
C5273	ECJ1VB1H182K	1800P 50V	[M]
C5274	ECUVNC104KBV	0.1 16V	[M]
C5282	ECUVNC104ZFV	0.1 16V	[M]
C5283	F1H1H561A765	560P 50V	[M]
C5284	F1H1H561A765	560P 50V	[M]
C5285	ECUV1C273KBV	0.027 16V	[M]
C5288	ECUVNC104ZFV	0.1 16V	[M]
C5289	ECUVNC104KBV	0.1 16V	[M]
C5290	ECUVNC104KBV	0.1 16V	[M]
C5291	ECUVNC104KBV	0.1 16V	[M]
C5292	ECUVNC104KBV	0.1 16V	[M]
C5295	ECUVNC104ZFV	0.1 16V	[M]
C5298	F1H1C473A088	0.047 16V	[M]
C6201	ECEV0GA330SR	33 4V	[M]
C6202	ECUVNC104ZFV	0.1 16V	[M]
C6203	ECUVNC104ZFV	0.1 16V	[M]
C6204	ECUVNC104ZFV	0.1 16V	[M]
C6205	ECUVNC104ZFV	0.1 16V	[M]
C6206	ECUVNC104ZFV	0.1 16V	[M]
C6211	ECUVNC104ZFV	0.1 16V	[M]
C6212	ECUV1H101JCV	100P 50V	[M]
C6215	ECUVNC104KBV	0.1 16V	[M]
C6221	ECUVNC104ZFV	0.1 16V	[M]
C6222	ECUVNC104ZFV	0.1 16V	[M]
C6223	ECUVNC104ZFV	0.1 16V	[M]
C6251	F1H1A105A038	1 10V	[M]
C6252	ECJ1VC1H471J	470P 50V	[M]
C6253	RCST1AY106RE	10 10V	[M]
C6257	EEVHB0J101P	100P 6.3V	[M]
C6261	ECUVNC104ZFV	0.1 16V	[M]
C6262	RCST1AY106RE	10 10V	[M]

C6304	ECUVNC104ZFV	0.1 16V	[M]
C6305	ECUVNC104ZFV	0.1 16V	[M]
C6501	ECEV0GA330SR	33 4V	[M]
C6502	ECEV0GA330SR	33 4V	[M]
C6503	ECUVNC104ZFV	0.1 16V	[M]
C6504	ECUVNC104ZFV	0.1 16V	[M]
C6505	ECUVNC104ZFV	0.1 16V	[M]
C6511	ECJ1VC1H150J	15P 50V5	[M]
C6512	ECJ1VC1H150J	15P 50V5	[M]
C6521	ECUVNC104ZFV	0.1 16V	[M]

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19.4 Packing Materials& Accessories Parts List

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Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPG6052	PACKING CASE	[M]
P2	RPN1504	POLYFOAM	[M]
P3	RPFX0047	MIRAMAT BAG	[M]
		ACCESSORIES	
A1	N2QAJB000057	REMOTE CONTROL	[M]
A1-1	RKK-HTR0283H	R/C BATTERY COVER	[M]
A2	RJA0019-2X	AC CORD	[M] 
A3	RQT6282-B	O/I BOOK	[M]
A3	RQT6498-1R	O/I BOOK (Ru)	[M]
A4	N1DAAAA00001	LINEAR ANTENNA	[M]
A5	RSA0007	FM ANT	[M]
A6	RFA0631A-K	PREPARED LEG	[M]
A7	RJL1P016B15A	VIDEO CABLE	[M]
A8	K1JZ24D00001	SKIRT TERMINAL ADAPT	[M]
A9	RYK1173-H	STAND UNIT	[M]

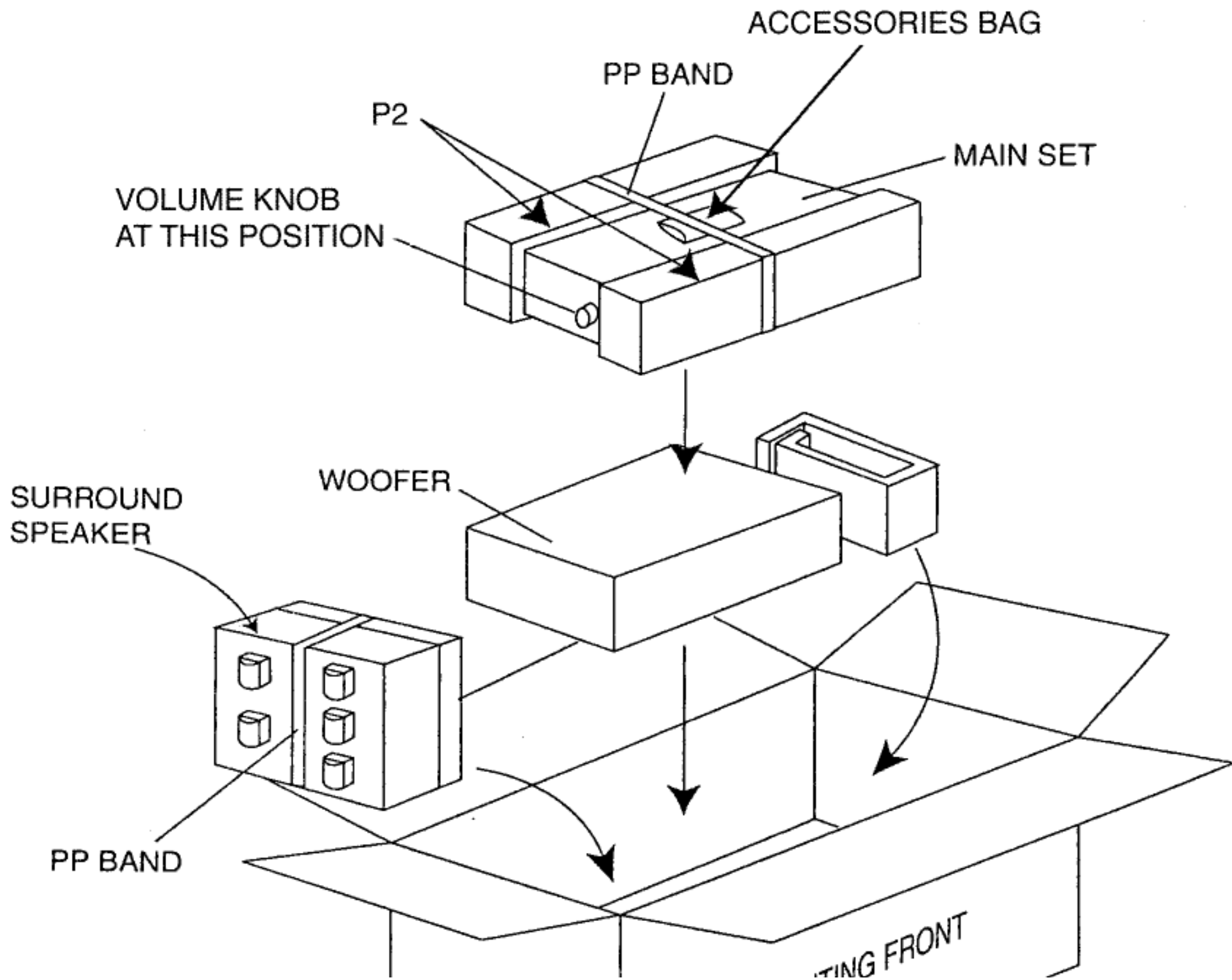
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19.5 Packaging

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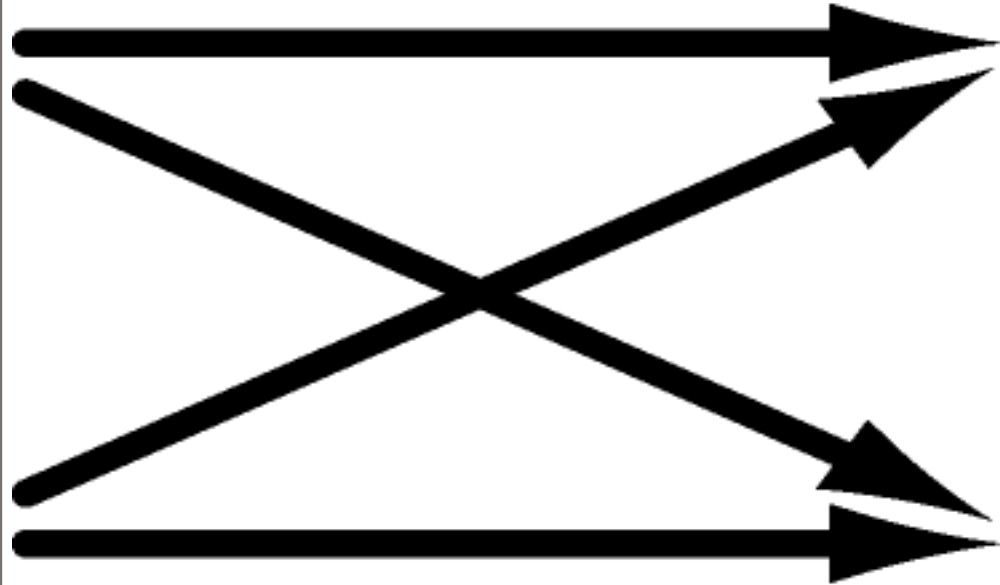
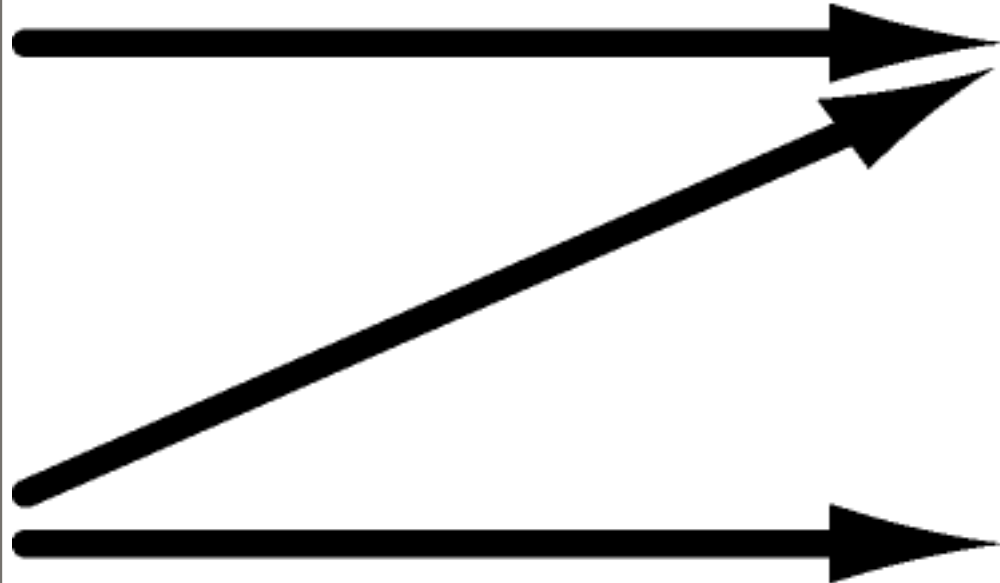
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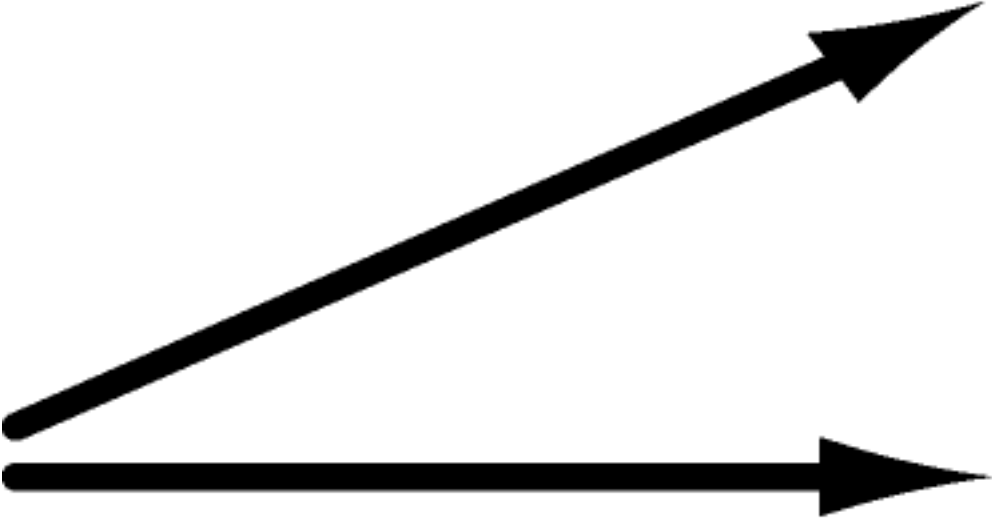
20.1 Differences of Spindle Motor Assembly (RXQ1028)

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Reason for Change		
*The circled item indicates the reason. If no marking, see the Notes in the bottom column.		
	1. Improve performance	
	2. Change of material or dimension	
	3. To meet approved specification	
	4. Standardization	
	5. Addition	
	6. Deletion	
	7. Correction	
O	8. Other	

Interchangeability Code					
**The circled item indicates the interchangeability. If no marking, see the Notes in the bottom column.					
		Parts		Set Production	
	A	Original New		Early Late	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.

					
B	Original New		Early Late	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts where possible, then stock new parts.	

	C	Original New		Early Late	New parts only may be used in early or late production sets. Stock new parts.
	D	Original New		Early Late	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
O	E	Other			

Important Information when replacing the Spindle Motor Assembly (RXQ1028)

Please refer to this supplement regarding the use of 2 types of SPM assemblies and their differences.

- Since May 2002 production, the projection in the Traverse base of the (SPM) Spindle Motor Assembly has been modified and the inner stopper has been deleted.

Therefore, in the course of servicing DVD changers and DVD Home Theater systems, you will encounter 2 types of SPM assemblies.

The 2 types of SPM assemblies are described below.

1. The original Type A (with the inner stopper)
2. The revised Type B (without the inner stopper)

Refer to the pictures in section 1.1

- In addition, there are two types of Spindle Motor Assemblies (SPM) supplied as replacement parts.

They are SPM Type (1) [short projection WITH inner stopper] and Type (2) [short projection WITHOUT inner stopper].

Refer to the pictures in section 1.2

[20.1.1 Spindle Motor Assembly used in Products](#)

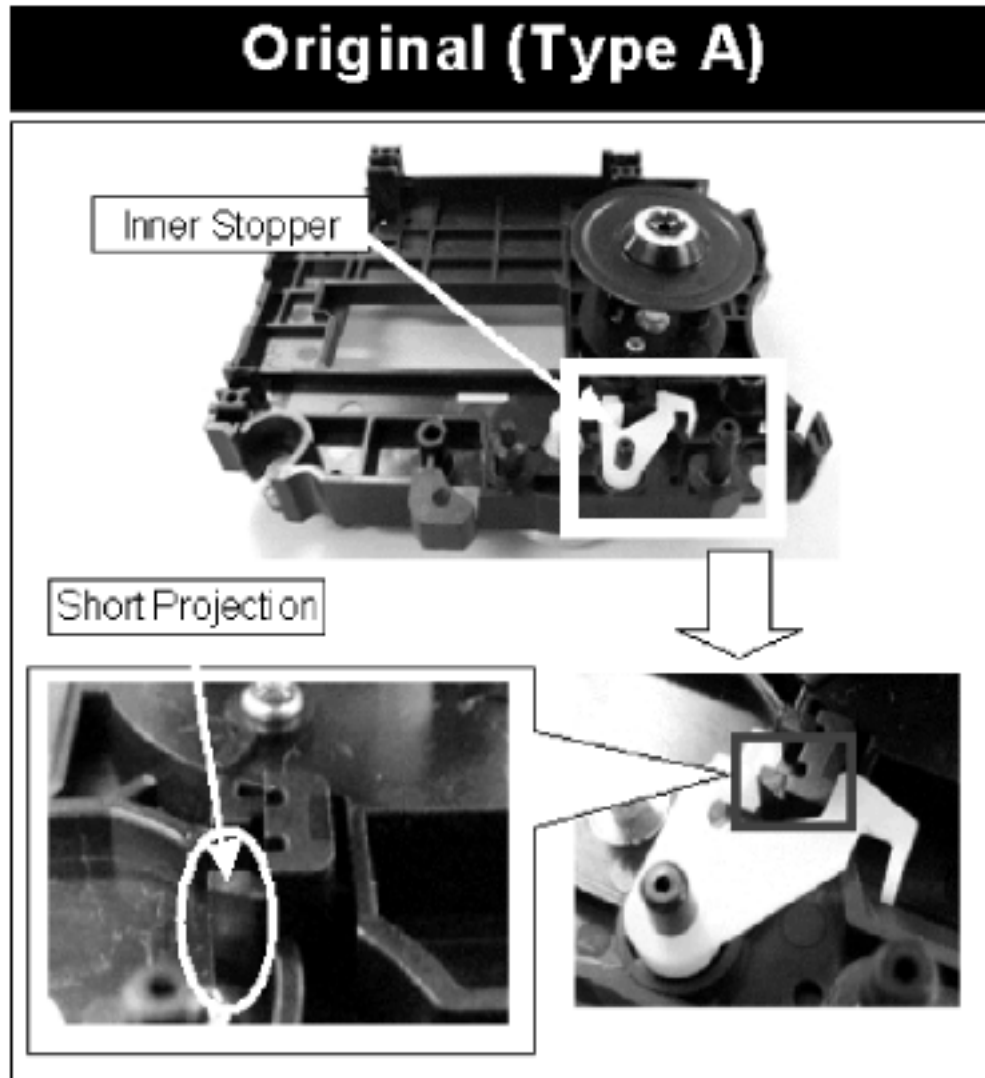
[20.1.2 Spindle Motor Assembly for service parts \(RXQ1028\)](#)

[20.1.3 Remedy](#)

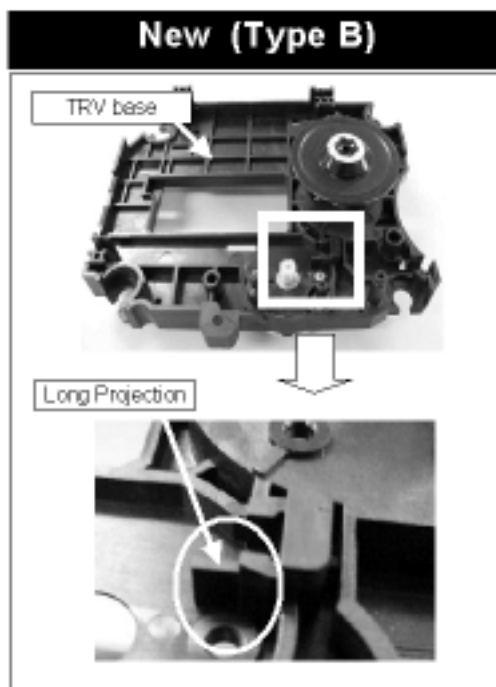
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20.1.1 Spindle Motor Assembly used in Products

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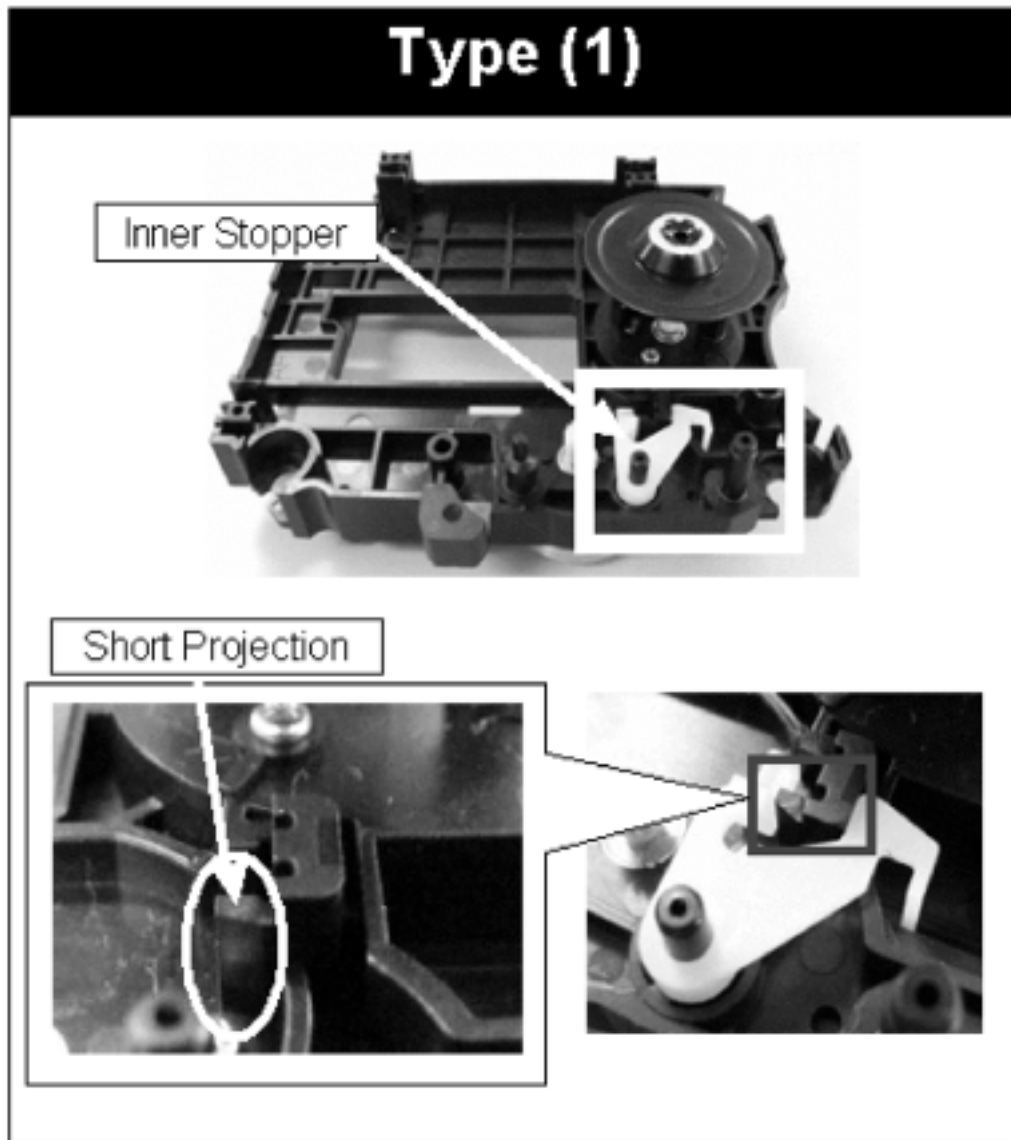
The TRV base which has a projection has to be equipped with an inner stopper

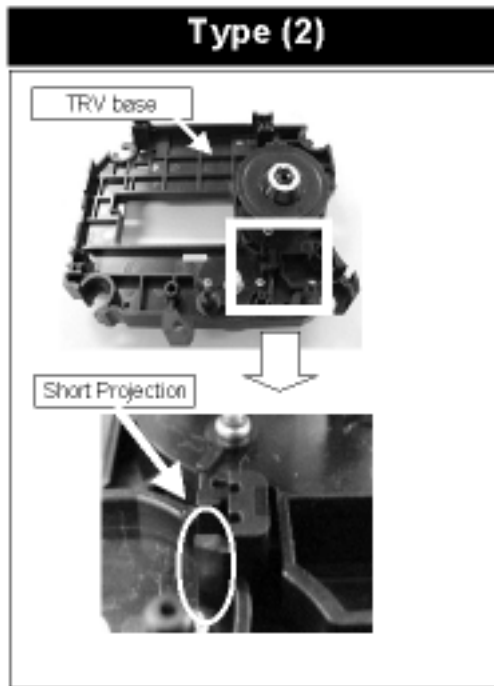


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20.1.2 Spindle Motor Assembly for service parts (RXQ1028)

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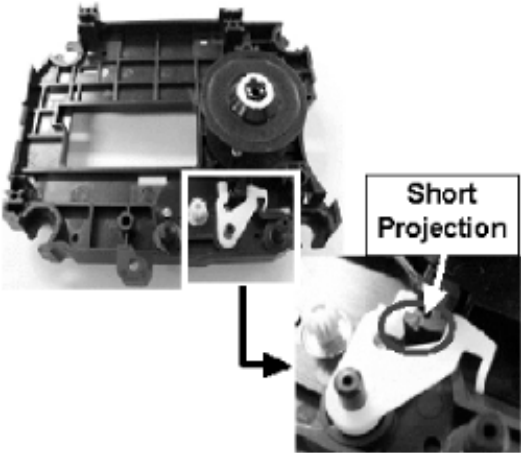
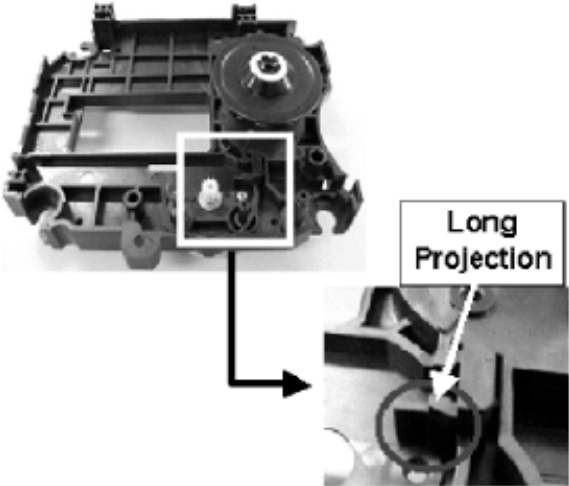


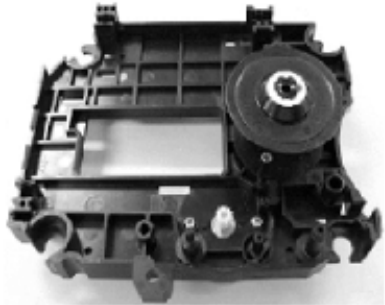
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20.1.3 Remedy

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Please confirm the SPM Assembly type in the repair unit first, and take proper remedy in repair service for respective combination, refer to the table below.

SPM Assembly used in the products		Type (A) Short projection with an Inner stopper	Type (B) Long projection without an Inner stopper
SPM Assembly for Service parts			
	Type (1) Short projection with an inner stopper	<u>When Type (A) is replaced with Type (1)</u> Just replace a service part Type (1) with repair unit.	<u>When Type (B) is replaced with Type (1)</u> Just replace a service part Type (1) with repair unit. * Be sure to keep the inner stopper in the service part Type (1)

		service part type (1).
Type (2) Short projection without an inner stopper	<u>When Type (A) is replaced with Type (2)</u>	<u>When type (A) is replaced with type (2)</u>
	Remove an inner stopper from the repair unit Type (A) and install it into the service part Type (2). Then, replace a service part Type (2) with repair unit.	Please order an inner stopper (RMX0192) Additionally order an inner stopper and install it into a service part Type (2). Then, replace a service part Type (2) with repair unit.

* In order to prevent any confusion in the service field, the supplier (SPC) will supply only Type (1) as service parts from end of September, 2003.

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ORDER NO. MD0206151C2

Service Manual

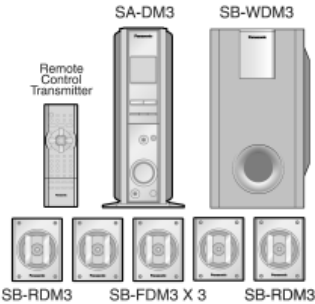
DVD Home Theatre Sound System



- SA-DM3EE

Colour

(S)... Silver Type



Specifications

AMPLIFIER SECTION

RMS TTL POWER OUTPUT (10% total harmonic distortion)	200 W
FRONT 1 kHz	20 W per channel (8Ω)
CENTER 1 kHz	50 W (8Ω)
SURROUND 1 kHz	25 W per channel (8Ω)
SUBWOOFER 80 Hz	60 W (8Ω)
DIN TTL POWER OUTPUT (1% total harmonic distortion)	164 W
FRONT 1 kHz	14 W per channel (8Ω)
CENTER 1 kHz	45 W (8Ω)
SURROUND 1 kHz	18 W per channel (8Ω)

SUBWOOFER 80 Hz	55 W (8Ω)
Input sensitivity/ input impedance	
AUX	250 mV, 10 kΩ
DISC SECTION	
Disc played	DVD-VIDEO, DVD-R (DVD-VIDEO formatted discs), CD (CD-DA), VIDEO-CD, CD-R/ RW (CD-DA, VIDEO-CD, MP3 formatted discs)
Audio	
Number of channels	5.1 (FL, FR, SL, SR, C, SW)
Video	
Signal system	PAL, PAL60/ NTSC
Output terminal	RCA (composite video) S terminal (Y, C)
Pick up	
Beam Source	Semiconductor Laser
Wavelength	
DVD	658 nm
CD/ VCD	790 nm
FM TUNER SECTION	
Frequency range	87.50-108.00 MHz (50-kHz steps)
Antenna Terminals	75Ω (unbalanced)
AM TUNER SECTION	
Frequency range	522 - 1629 kHz (9-kHz steps)
GENERAL	
Power supply	AC 230 V, 50 Hz
Power consumption	105 W
Dimensions (W x H x D)	
Vertically with stand	135 x 298 x 390 mm
Horizontally with feet attached	292 x 100 x 390 mm
Mass	6.2 kg
SYSTEM	
SC-DM3 (EE)	Main unit: SA-DM3 (EE) Front and center speakers: SB-FDM3 (P) Surround speakers: SB-RDM3 (P) Subwoofer: SB-WDM3 (P)
Power consumption in standby mode : 0.9 W	

Notes:

1. Specifications are subject to change without notice. Weight and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.



WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

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