

Service Manual

DVD Player



DVD-RV30BR

Specifications

●General

Power requirements:	AC 110-240 V, 50/60 Hz
Power consumption:	17 W (approx. 4.0 W in STANDBY mode)
Dimensions:	430 (W)×273 (D)×82 (H) mm (excluding protrusions)
Mass:	2.9 kg
Signal system:	NTSC
Operating temperature range:	+5 to +35°C
Operating humidity range:	5-90 % RH (no condensation)
Region number:	Region No.4

●Discs played

(1) DVD-Video disc:

- 12 cm single-sided, single-layer
- 12 cm single-sided, dual-layer
- 12 cm double-sided, single-layer
- 8 cm single-sided, single-layer
- 8 cm single-sided, dual-layer
- 8 cm double-sided, single-layer

(2) Compact disc (CD-DA, Video CD):

- 12 cm disc
- 8 cm disc

●Video output

Output level:	1 Vp-p (75 Ω)
Output terminal:	Pin jack (1 system)

●S video output

Y output level:	1 Vp-p (75 Ω)
C output level:	0.286 Vp-p (75 Ω)
Output terminal:	S terminal (1 system)

●Component video output

Y output level:	1 Vp-p (75 Ω)
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P _B output level:	0.7 Vp-p (75 Ω)
P _R output level:	0.7 Vp-p (75 Ω)
Output terminal:	Pin jack (Y: green, P _B : blue, P _R : red)

●Audio output

Output level:	2 Vrms (1 kHz, 0 dB)
Output terminal:	
Mixed output (L/R):	Pin jack (1 system)
Subwoofer output:	Pin jack (1 system)

●Audio signal output characteristics

(1) Frequency response:

DVD (linear audio):	4 Hz-22 kHz (48 kHz sampling)
	4 Hz-44 kHz (96 kHz sampling)
CD audio:	4 Hz-20 kHz (EIAJ)

(2) S/N ratio:

CD audio:	115 dB (EIAJ)
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(3) Dynamic range:

DVD (linear audio):	102 dB
CD audio:	98 dB (EIAJ)

(4) Total harmonic distortion:

CD audio:	0.0025 % (EIAJ)
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●Digital audio output

Optical digital output:	Optical terminal
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●Pickup

Wave length	665 nm
Laser power:	CLASS 2

Notes:

Specifications are subject to change without notice.
Mass and dimensions are approximate.

⚠ 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.

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1 SAFETY PRECAUTIONS

1.1. GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between $1\text{M}\Omega$ and $5.2\text{M}\Omega$.

When the exposed metal does not have a return path to the chassis, the reading must be ∞ .

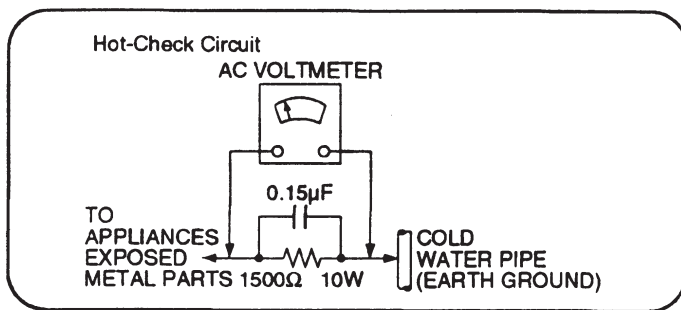


Figure 1

1.1.2. LEAKAGE CURRENT HOT CHECK (See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15µF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

2 PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static 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 aluminum foil, to prevent electrostatic charge buildup 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 removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient 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, aluminum 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).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by $\triangle$ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

3 PRECAUTION OF LASER DIODE

Caution

This unit utilizes a class I laser. Invisible laser radiation is emitted from the optical pickup lens when the unit is turned on:

1. Do not look directly into the pickup lens.
2. Do not use optical instruments to look at the pickup lens.
3. Do not adjust the preset variable resistor on the optical pickup.
4. Do not disassemble the optical pickup unit.
5. If the optical pickup is replaced, use the manufacturer's specified replacement pickup only.
6. Use of control or adjustment or performance of procedures other than those specified herein may result in hazardous radiation exposure.

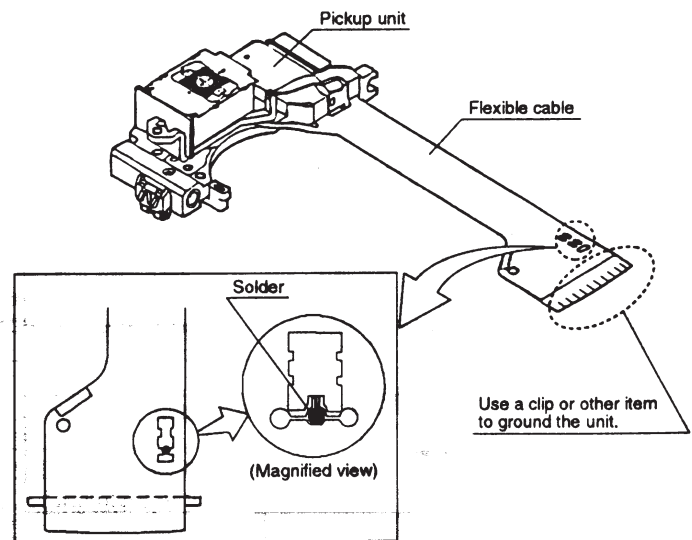
4 HANDLING PRECAUTIONS FOR TRAVERSE DECK

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.

4.1. Handling of optical pickup

1. Do not subject the optical pickup to static electricity as it is extremely sensitive to electrical shock.
2. To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into the flexible board (FPC Board). When removing or connecting the short pin, finish the job in as short times as possible.
3. Be careful not to apply excessive stress to the flexible board (FPC Board).
4. Do not turn the variable resistor (Laser power adjustment).

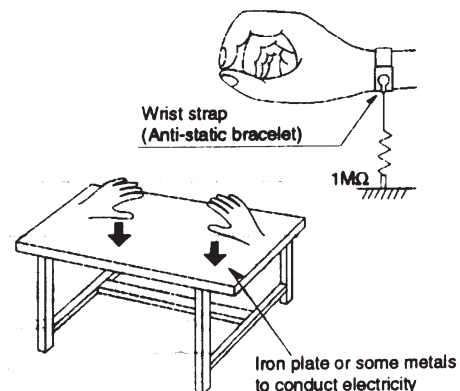


4.2. Grounding for electrostatic breakdown prevention

1. Human body grounding
Use the antistatic 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 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 optical pickup.



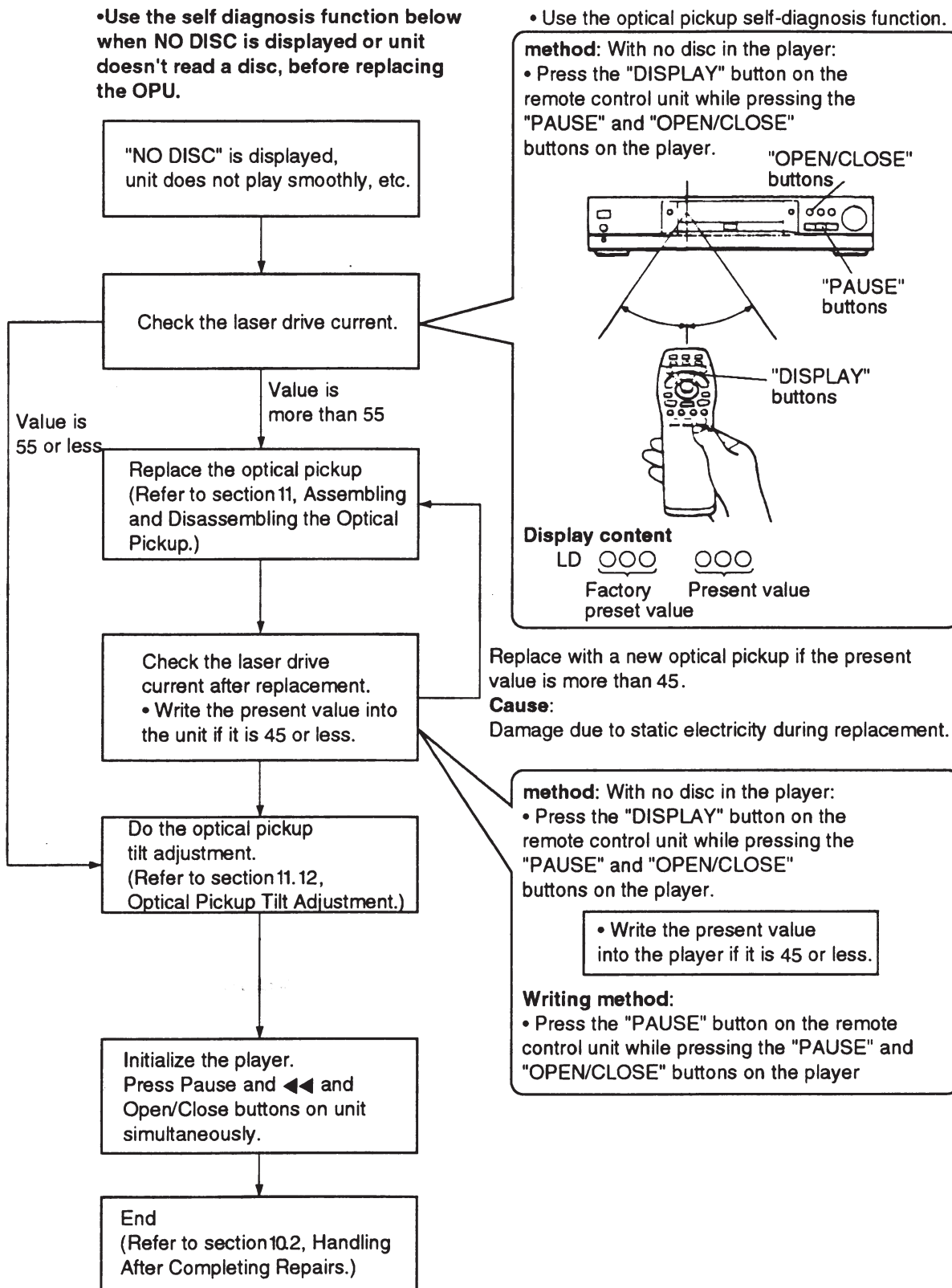
5 Optical Pickup Self-Diagnosis and Replacement Procedure

The optical pickup self-diagnosis function and tilt adjustment check function have been newly added to this player. 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 before the unit warms up (within three minutes).



6 Self-Diagnosis Function and Service Modes

6.1. Service Mode Table

The service modes can be activated by pressing various button combinations on the player and remote control unit.

Player buttons	Remote control unit buttons	Application	Note
PAUSE + OPEN/CLOSE	0	Displaying the UHF display F _ _ _	Refer to section 6.2, Self-Diagnosis Function (UHF Display).
	5	Jitter check, Tilt adjustment *Display shows JITXXX * * * The 3 digit number (JITXXX) indicates the Jitter rate (JIT088=8.8%) The 3 digit number * * * the right of JITXXX displays an error counter (increases as errors occur) but does not necessarily mean picture/ playback problems will occur. (This number is not as important as the JITXXX) Refer to section 11.12 for Optical Pickup Tilt Adjustment Procedure	Refer to section 11.12, Optical Pickup Tilt Adjustment.
	6	Checking the region numbers and broadcast system	
	7	Checking the program version	Check the IC6302 FLASH ROM program.
	9	Lighting Confirmation Function of Display Tube	
	DISPLAY	Checking the laser drive current	Refer to section 5, Optical Pickup Self-Diagnosis and Replacement
	PAUSE	Writing the laser drive current value after replacing the optical pickup (do not use for anything other than optical pickup replacement)	Procedure.
PAUSE SKIP/SEARCH<< OPEN/CLOSE		Initializing the DVD player (restoring factory preset settings) *Use when replacing a microprocessor, microprocessor peripheral parts, or P.C.B.	Refer to section 10.1, Initializing the DVD Player

6.2. Self-Diagnosis Function (UHF Display)

This unit incorporates a convenient self-diagnosis function for use in troubleshooting.

Display method	Display	Diagnosis	Checkpoints
Service numbers displayed during use	CHECK THE DISC	Focus error	IC2001, IC2511, IC5201, pickup
	H01	Tray loading error	IC2001, IC2511, loading motor
	H02	Spindle servo error	Spindle motor, IC2501, IC2001
	H03	Traverse error	Stepping motor, IC2511, IC2001
	H04	Tracking servo error	IC2001, IC2501, IC5201, pickup, disc
	H05	Seek error	Stepping motor, IC2511, IC2001
	H06	Power supply error	IC1125, IC1151, IC6001
Press the "0" button on the remote control unit while pressing the "PAUSE" and "OPEN/CLOSE" button on the player.	F0**	Disc format error	If this type of error occurs, refer to section 6.3, Examples of Repairs Using Error Codes.
	F1**	Disc code error	
	F2**	Decoder LSI error	
	F3**	SDRAM error	
	F4**	IIC BUS error	
	F5**	DSC	
	F6**	ECC error	
	F7**	Microprocessor error	
	F8**	Microprocessor error	

6.3. Examples of Repairs Using Error Codes

Refer to this section when carrying out repairs.

Error display	Malfunction example
F0**	Disc, IC7001
F103	Disc, IC7001
F4FF	IC6001
F500	Optical pickup, IC2001, IC5201, IC2511, IC2501
F501	IC2001, IC6201
F502	IC2501, IC2511, IC2001, IC5201
F504	IC5201, IC2001
F505	Disc, IC2501, IC2511, IC5201, IC2001
F506	Disc, Optical pickup, IC2001
F600	Disc, IC7001, IC5201, IC2001
F601	Disc, IC7001
F602	Disc, IC5201, IC2001
F603	Disc, IC5201, IC2001
F610	IC7001
F611	IC7001, IC5201, IC2001
F612	IC7001, IC5201, IC2001
F620	Laser drive circuit
F621	Laser drive circuit
F700	IC6201
F701	IC6201
F702	IC6201
F880	IC6201
F890	IC6201
F891	IC6201
F8A0	IC6201
F893	IC6302
F894	IC6303

6.4. Sales Demonstration Lock Function

This function prevents discs from being lost when the unit is used for sales demonstrations, by disabling the disc eject function. "LOCKED" is displayed on the unit, and ordinary operation is disabled.

6.4.1. Setting Method

The sales demonstration lock function is set by simultaneously pressing the "POWER" button of DVD Player on the remote control unit and the "STOP" button on the main unit. ("LOCKED" is displayed when the lock function is engaged.)

6.4.2. Release Method

The function can be released using the same procedure as for setting. If the remote control unit is not at hand, the function can be released by using the same method as for player initialization (pressing the "PAUSE," "SKIP/SEARCH<<" and "OPEN/CLOSE" buttons simultaneously).

7 Service Tools and Equipment

7.1. Service Tools and Equipment Table

Application	Name	Number
General	DVD test disc	DVDT-S15 or DVDT-S01
Tilt adjustment	Hex wrench	JGS0100
	Adjustment table	VFK0539
Inspection	Extension cable (power supply P.C.B. to mother P.C.B.)	JGS0099
	Extension cable (mechanism loading P.C.B. to mother P.C.B.)	VUC8027
	Extension cables (module P.C.B. to mother P.C.B.)	JGS0116, VUC8026
Others	Screw lock	RZZ0L01
	Grease	JGS0091
		JGS0092
	Lubricant	JZS0648
Confirmation	CD test disc	SZZP1054C
	VCD test disc	PVCD_K06
Electrical adjustment	Oscilloscope	
	Probe	
	AV cable	VJA0658
	TV monitor	
General	General tools (Screw driver. etc)	
Static electricity countermeasures	Soldering iron (with ESD countermeasure)	
	Anti-static wrist strap	
	Conductive material (conductive sheet)	

7.2. Storing and Handling Test Discs

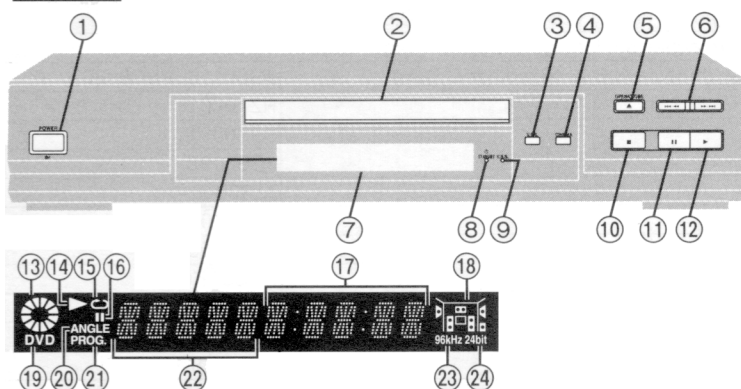
- Surface precision is vital for DVD test discs. Be sure to store and handle them carefully.
 1. Do not place discs directly onto the workbench, etc., after use.
 2. Handle discs carefully in order to maintain their flatness.
Place them into their case after use and store them vertically. Store discs 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 from being 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 playable.

8 General Description

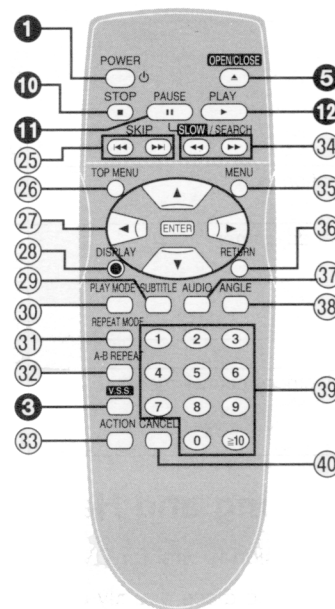
8.1. Operating Instructions

Control reference guide

DVD-RV30

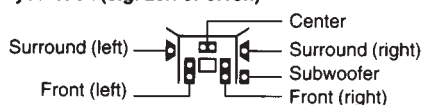


Buttons such as ❶ function in exactly the same way as the buttons on the player.



Player

	Page
❶ Power button (POWER ❶/I)	11
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.	
❷ Disc tray	11
❸ Virtual Surround Sound button (V.S.S.)	18
❹ DVD-RV30 Cinema button (CINEMA)	18
❺ Disc tray open/close button (▲OPEN/CLOSE)	11
❻ Skip/Search button (◀◀/◀▶, ▶▶/▶▶)	13
❼ FL display	
❽ For units sold outside U.S.A. and Canada	
STANDBY indicator (⏻ STANDBY)	
When the unit is connected to the AC power supply, this indicator lights up in standby mode and goes out when the unit is turned on.	
❾ Virtual Surround Sound indicator (V.S.S.)	18
❿ Stop button (■)	12
⓫ Pause button (⏸)	13
⓬ Play button (▶)	11
⓬  Rotates during play.	
Rotates fast clockwise or counterclockwise during rapid advance (reverse).	
Rotates slowly clockwise or counterclockwise during slow-motion play. [DVD] [VCD]	
⓬  Illuminates in the stop mode.	
⓭ Illuminates during playback.	
Flashes when the RESUME function is ON.	
⓮ Illuminates during repeat play.	
⓯ Illuminates in the still picture (pause) mode.	
⓰ Elapsed playing time from the start of the title/track during play	
⓱ Audio channel information recorded in the disc being played back (e.g. 2ch or 5.1ch)	



- ⓱ **A DVD is loaded.**
- ⓲ **It is possible to switch the angle.** [DVD]
- ⓳ **Illuminates during program play.** [VCD] [CD]
- ⓴ **Title/chapter number** [DVD]
- Track number** [VCD] [CD]
- ⓶ **Linear PCM of 96 kHz sampling is being played.**
- ⓷ **Linear PCM of 24 bit is being played.**

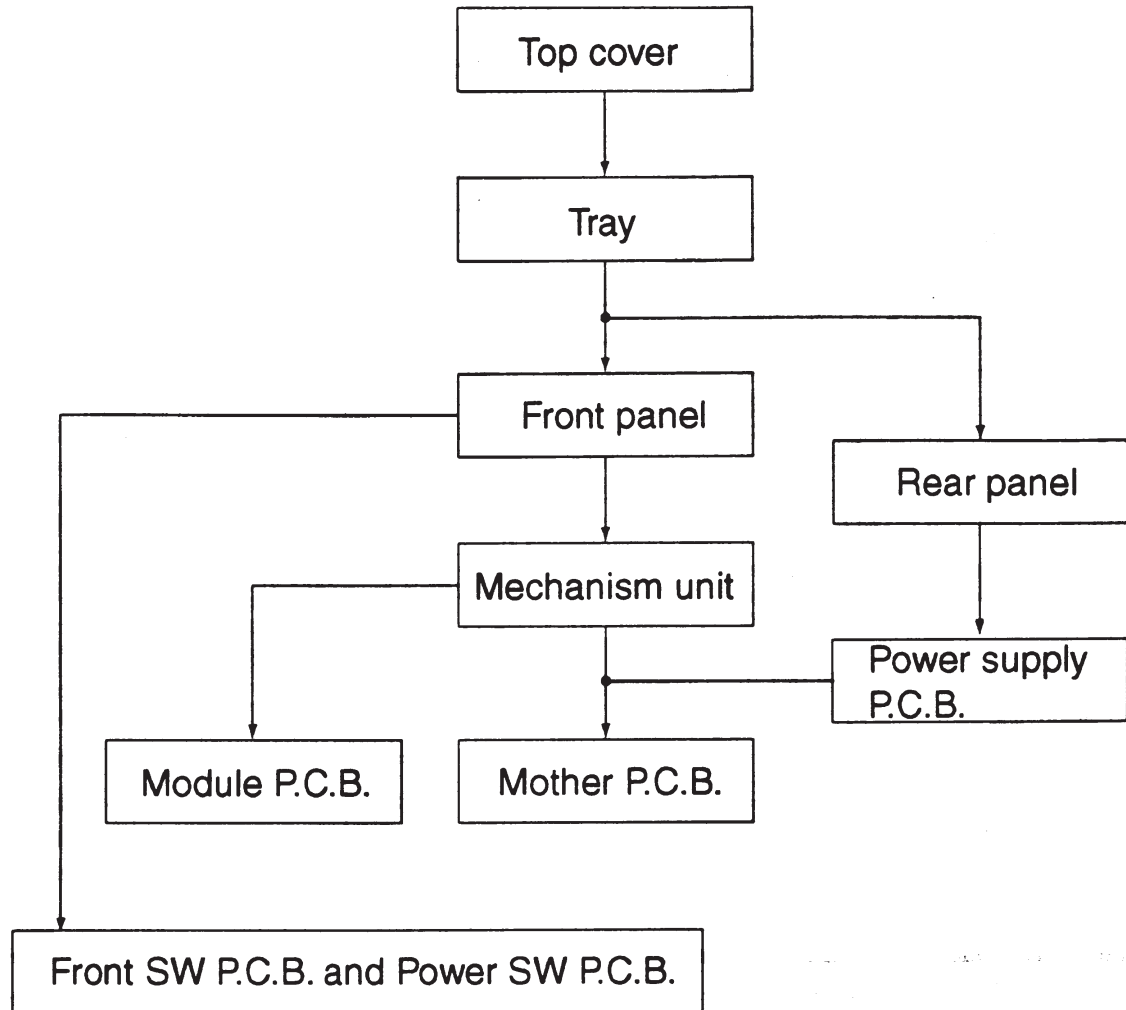
Remote control

	Page
⓴ Skip buttons (◀◀, ▶▶) SKIP	13
⓴ Top menu button (TOP MENU)	11
⓴ Cursor buttons (▲, ▼, ◀, ▶)/Enter button (ENTER)	11
⓴ Display button (● DISPLAY)	21
⓴ Subtitle button (SUBTITLE)	17
⓴ Play mode button (PLAY MODE)	20
⓴ Repeat mode button (REPEAT MODE)	19
⓴ A-B repeat button (A-B REPEAT)	19
⓴ Action button (ACTION)	24
⓴ Slow/Search buttons (◀◀, ▶▶) SLOW/SEARCH	14
⓴ Menu button (MENU)	11
⓴ Return button (RETURN)	11
⓴ Audio button (AUDIO)	16
⓴ Angle button (ANGLE)	17
⓴ Numeric buttons (1–9, 0, ≥10)	11
• To select a 2-digit number	
Example: To select track 23	
Press [≥10], then [2] and [3].	
⓴ Cancel button (CANCEL)	20

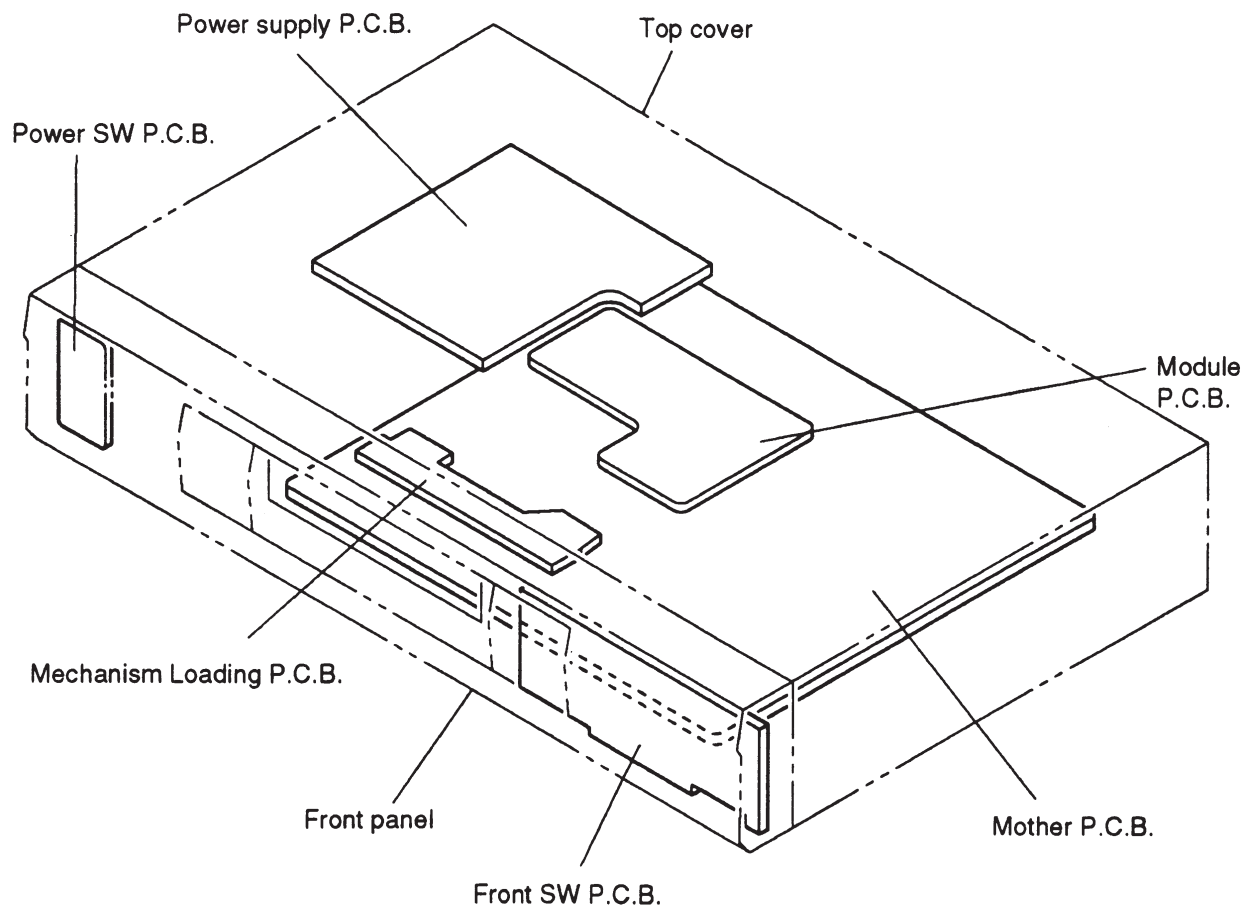
9 Assembling and Disassembling the Casing and Checking P.C.B.s

9.1. Disassembly Procedure

When servicing the unit, use the following procedure to disassemble the casing and inside parts for internal inspection.



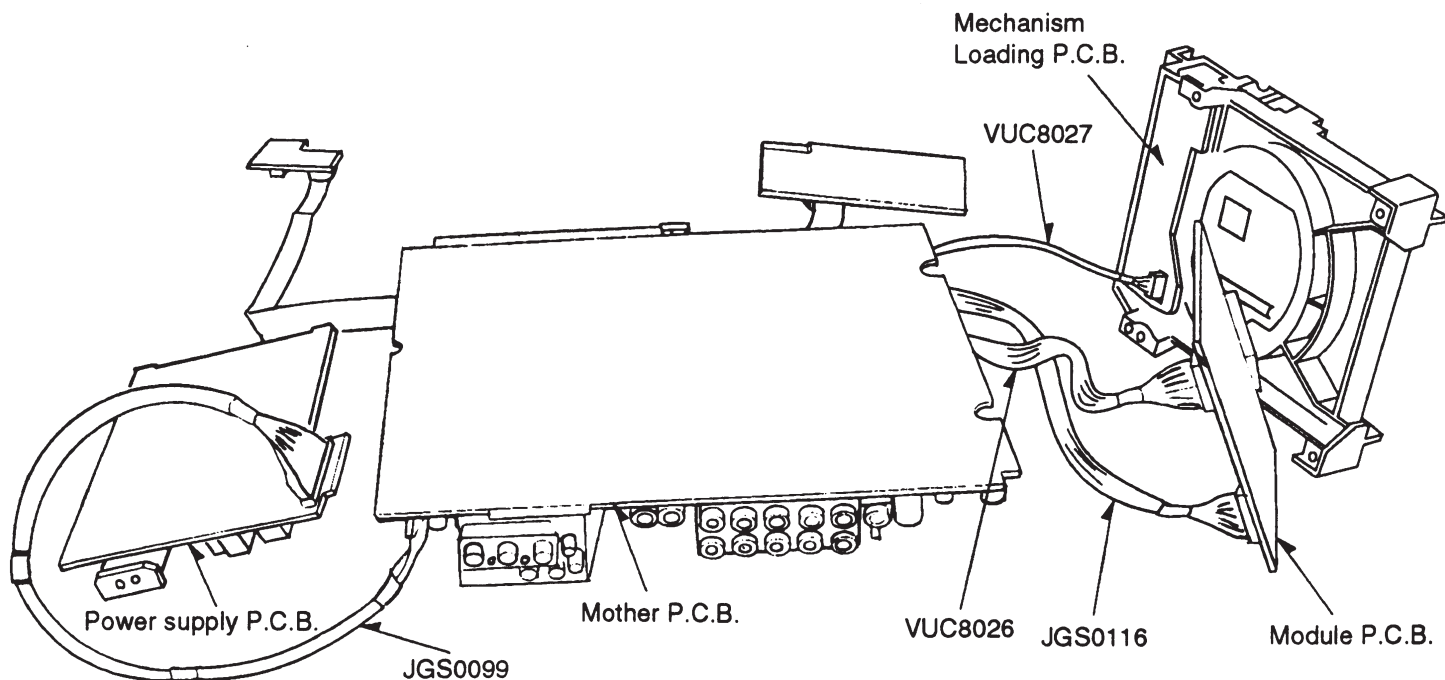
9.2. Casing Parts and P.C.B. Positions



9.3. Service Positions

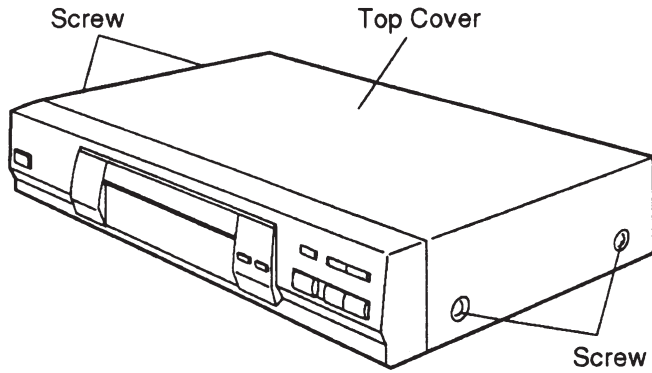
Note

To inspect the loading base unit, position the left side upward (as viewed from the front).

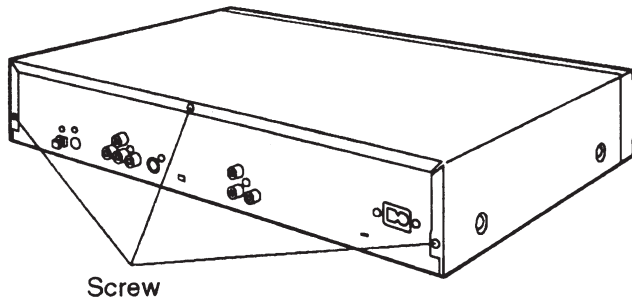


9.4. Disassembling the Top Cover

1. Remove the 4 screws.

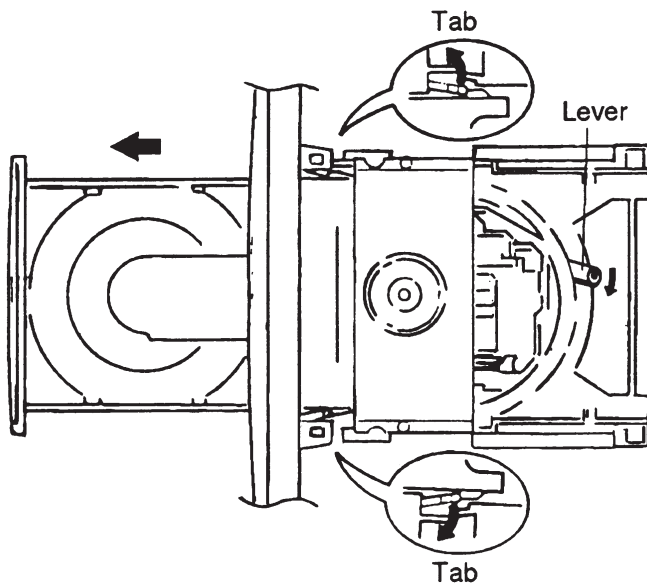


2. Remove the 3 screws.



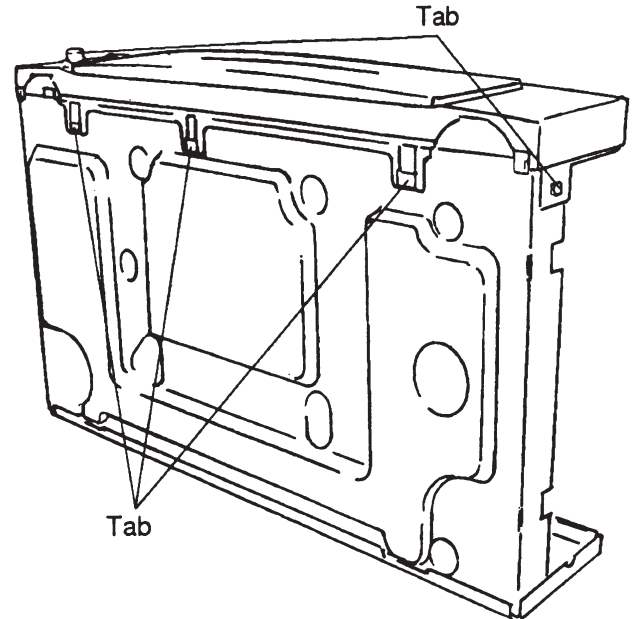
9.5. Disassembling the Tray

1. Turn the lever clockwise.
2. Move the tray in the direction of the arrow until it locks.
3. Release the tab locks on the left and right, then pull out the tray.

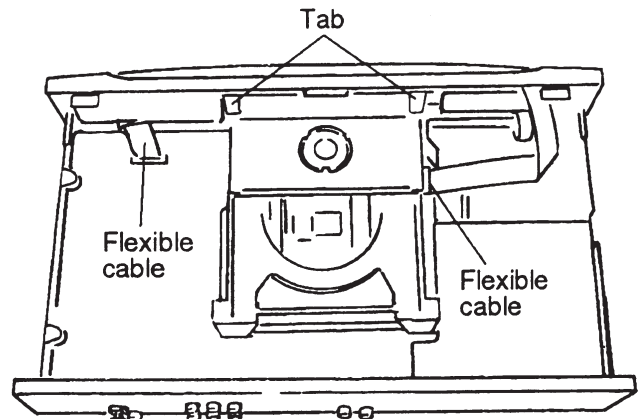


9.6. Disassembling the Front Panel

1. Release the 3 tabs on the bottom.
2. Release the 2 tabs on the left and right.



3. Release the 2 tabs.
4. Disconnect the 2 flexible cables.

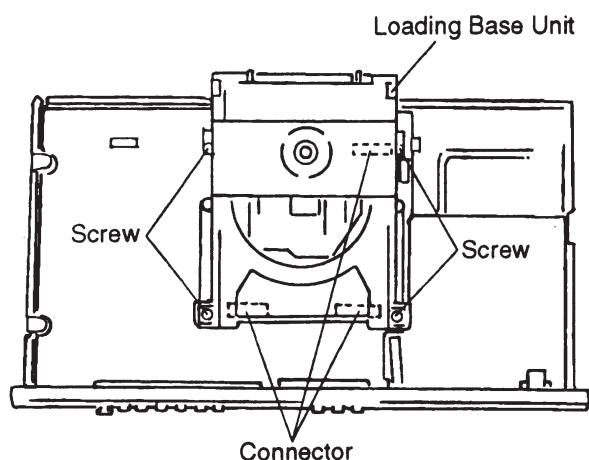


9.7. Disassembling the Loading Base Unit

1. Remove the 4 screws.
2. Pull out the loading base unit vertically.

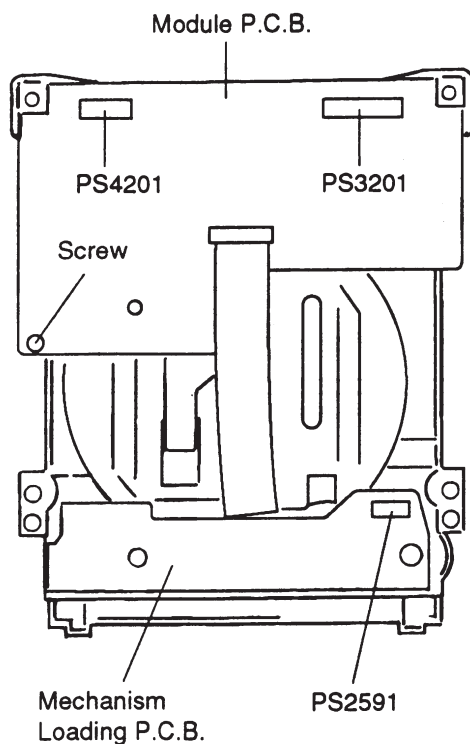
Note

There is a danger of damaging the connectors.



9.8. Checking the Module P.C.B.

1. Remove the screw.



2. Connect the module P.C.B. to the mother P.C.B. with the extension cables for inspection.

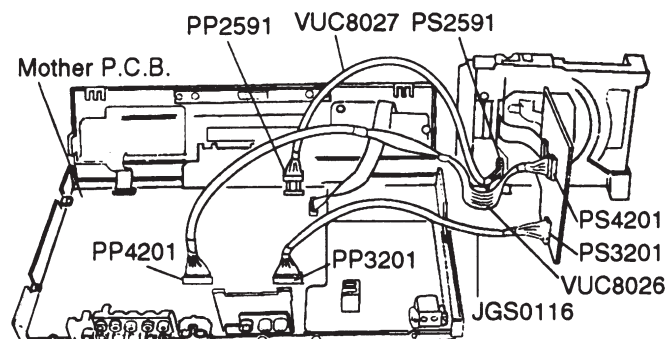
- Extension cable: VUC8026
- Extension cable: JGS0116

Mother P.C.B. Module P.C.B.
PP4201-PS4201
PP3201-PS3201

3. Connect the mechanism loading P.C.B. to the mother P.C.B. with the extension cable: for inspection.

- Extension cable: VUC8027

Mother P.C.B. Mechanism Loading P.C.B.
PP2591-PS2591

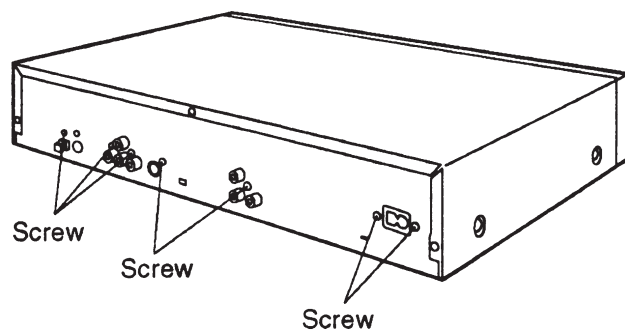


Note

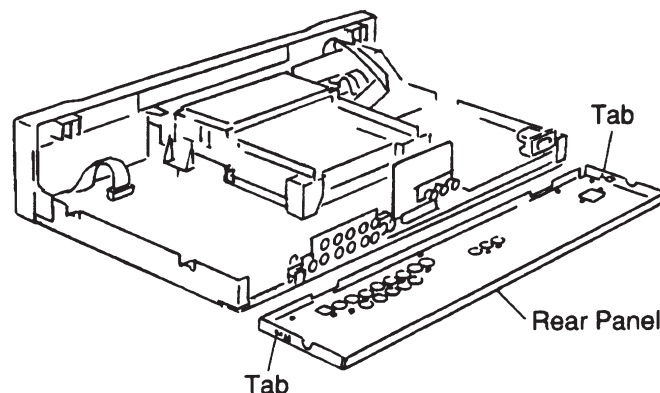
Be sure to initialize the player whenever you replace a P.C.B. (Refer to section 10.1, Initializing the DVD Player.)

9.9. Disassembling the Rear Panel

1. Remove all of the screws connected to the rear panel. (The number of screws varies according to the model).

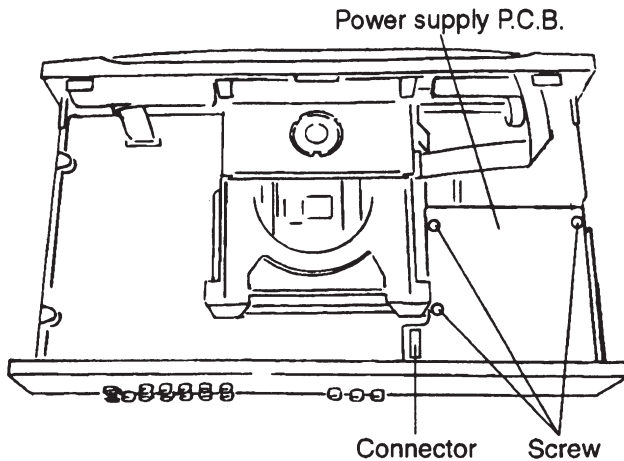


2. Release the two tabs on the left and right.



9.10. Checking the Power Supply P.C.B.

1. Remove the 3 screws.



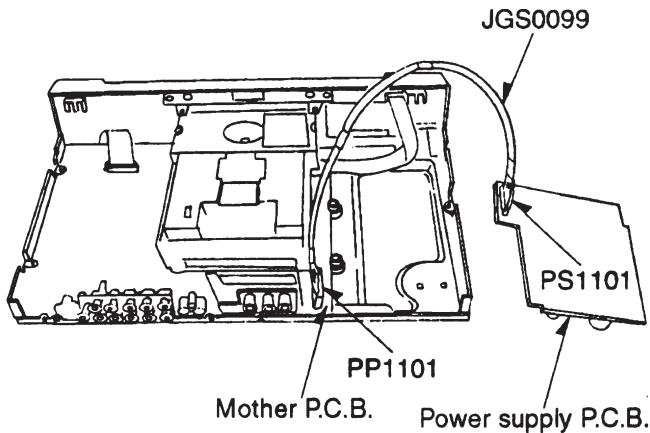
2. Carefully pull out the power supply P.C.B.

Note

There is a danger of damaging the connectors.

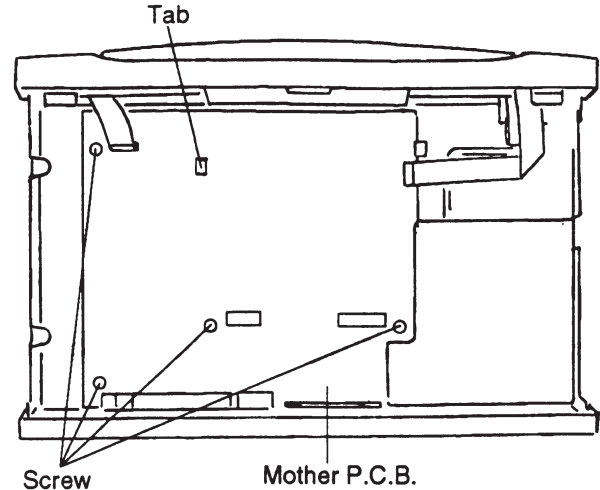
3. Connect the power supply P.C.B. and the mother P.C.B. with the extension cable for inspection.

- Extension cable: JGS0099 (connects the power supply P.C.B. PS1101 and the mother P.C.B. PP1101)



9.11. Checking the Mother P.C.B.

1. Remove the 4 screws.
2. Release the tab.



3. Check by connecting the module P.C.B. and the mother P.C.B. with the extension cables.

- Extension cable: JGS0116

- Extension cable: VUC8026

Module P.C.B. Mother P.C.B.

PS3201-PP3201

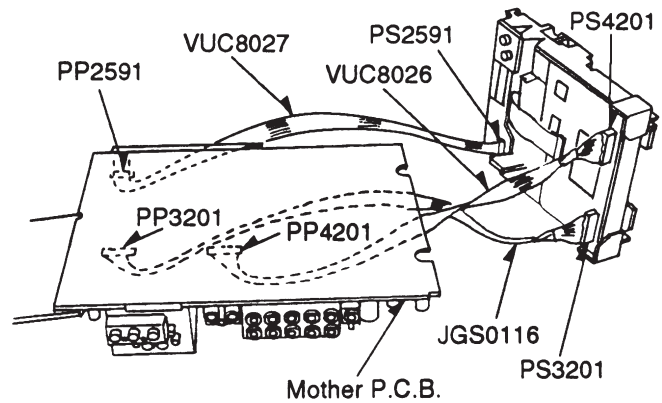
PS4201-PP4201

4. Check by connecting the mechanism loading P.C.B. and the mother P.C.B. with the extension cable.

- Extension cable: VUC8027

Mechanism Loading P.C.B. Mother P.C.B.

PS2591-PP2591



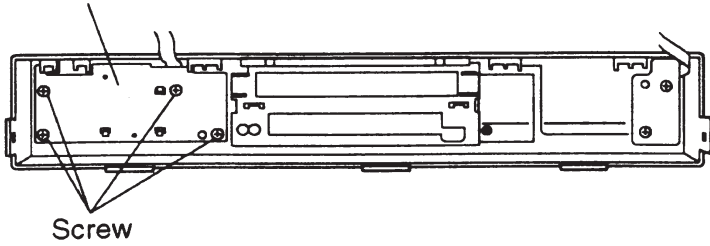
Note

Be sure to initialize the player whenever you replace a P.C.B. (Refer to section 10.1, Initializing the DVD player.)

9.12. Checking the Front Switch P.C.B.

1. Remove the 4 screws.

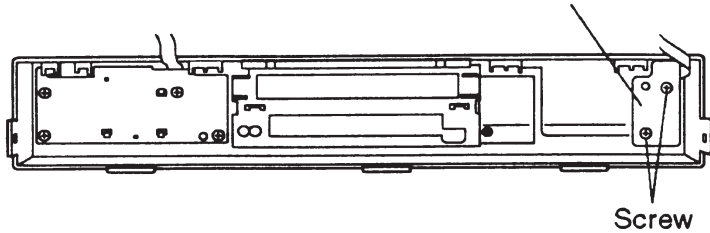
Front SW P.C.B.



9.13. Checking the Power Switch P.C.B.

1. Remove the 2 screws.

Power SW P.C.B.



10 Service Precautions

10.1. Initializing the DVD Player

Initialize the DVD player whenever you replace a microprocessor, microprocessor peripheral parts, module P.C.B. or mother P.C.B.

10.1.1. Precautions

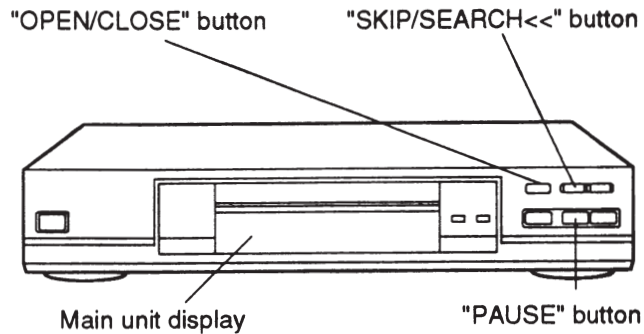
The customer settings will return to factory preset settings when the player is initialized. Make a note of the settings and reset them after initializing.

- When resetting, see the Initial Settings in the Operating Instructions.

10.1.2. Initialization Method

The player will be initialized (return to the factory preset condition) when you press the "PAUSE," "SKIP/SEARCH<<" and "OPEN/CLOSE" buttons simultaneously. When the DVD player is initialized, "Initialized" appears on screen, it also displays "INITIALIZE".

Press them at the least for three seconds after you confirmed the display.



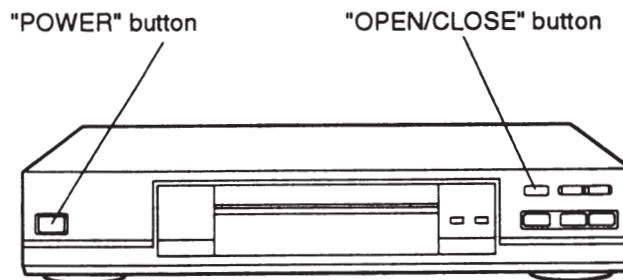
10.2. Handling After Completing Repairs

Use the following procedure to secure the traverse unit in the standby position.

10.2.1. Method

Confirm that the power is turned on:

1. Press the "OPEN/CLOSE" button to close the tray.
2. Press the "POWER" button to turn off the power.
3. Disconnect the power plug from the outlet.



10.2.2. Precautions

Do not disconnect the power plug from the outlet with the tray still open, then close the tray manually. If you were to do so, the traverse unit would not go to the upper (standby) position, and the player could not be transported.

11 Assembling and Disassembling the Optical Pickup (Mechanical Parts)

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.

11.1. Handling the Optical Pickup

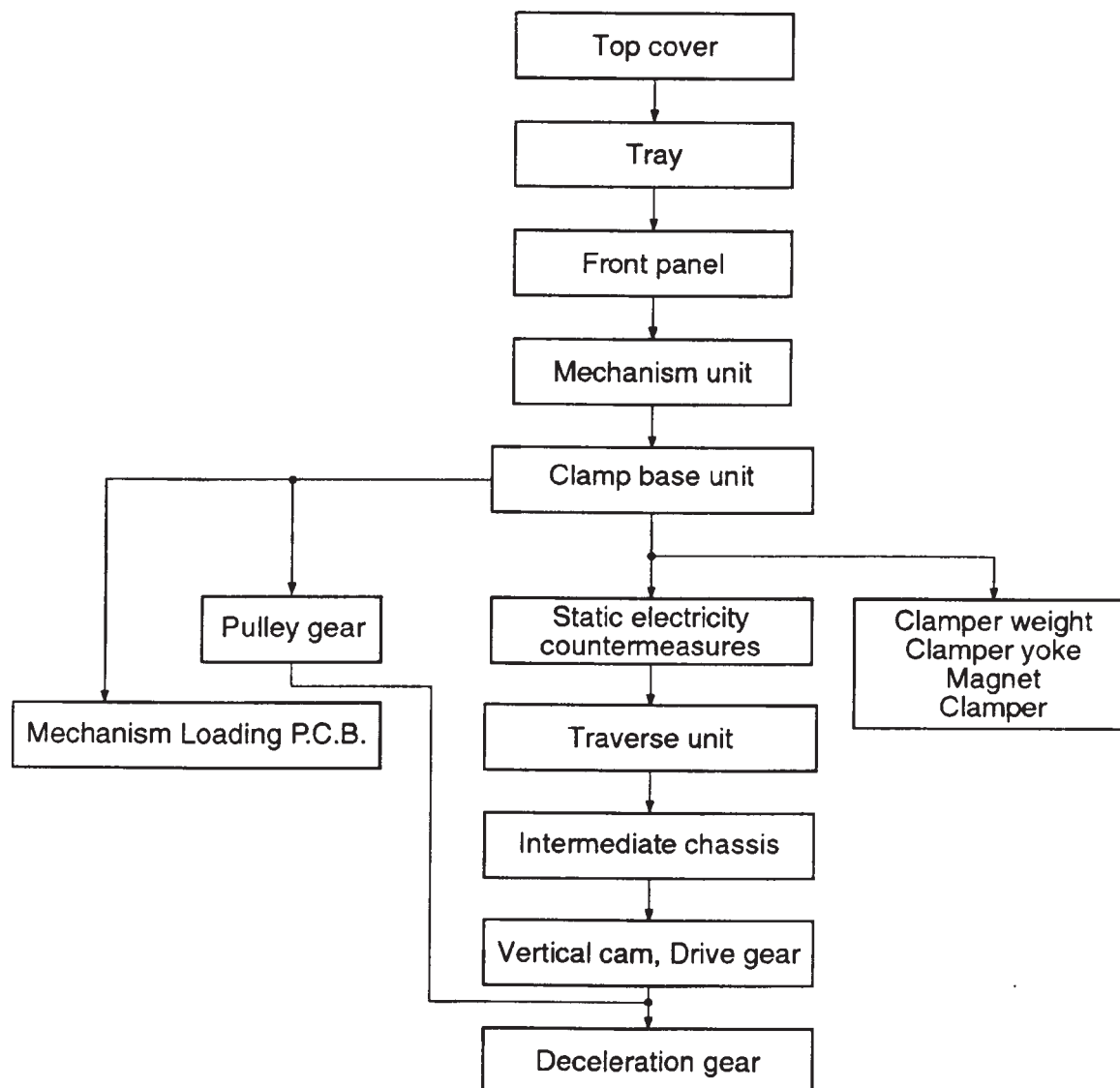
The optical pickup can be damaged by static electricity from your body. Be sure to take static electricity countermeasures when working around the optical pickup.

1. The optical pickup is an extremely high-precision mechanism. Do not subject it to strong impact.
2. To preserve the quality of the optical pickup replacement parts during transport and installation, the terminals of the laser diode are short-circuited. After replacing the parts, use the proper procedure to return the laser diode to its original condition. (Refer to section 11.10, Assembling the Optical Pickup.)
3. Testers cannot be used to check the laser diode of the optical pickup. The power supply inside the tester can easily damage the laser diode.
4. Take care when handling the flexible cable because excessive force can cause it to break.
5. You cannot adjust the semifixed resistor for laser power adjustment. Do not turn it.

11.2. Disassembly Procedure

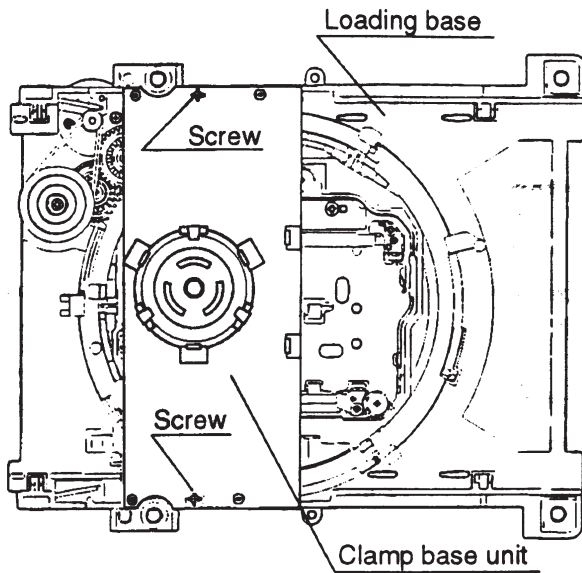
Use the following procedure to replace major parts.

For the assembly procedure, follow the flow chart in reverse.

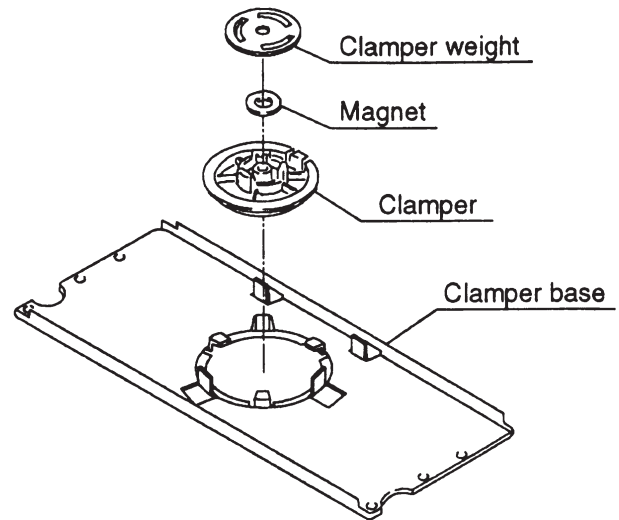
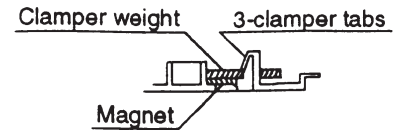


11.3. Disassembling the Clamp Base Unit

1. Remove the 2 screws.

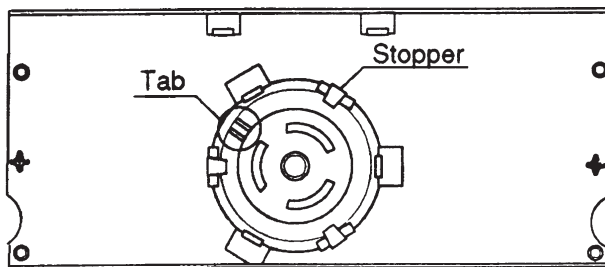
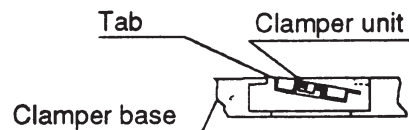


2. Release the 3 tabs on the clumper.



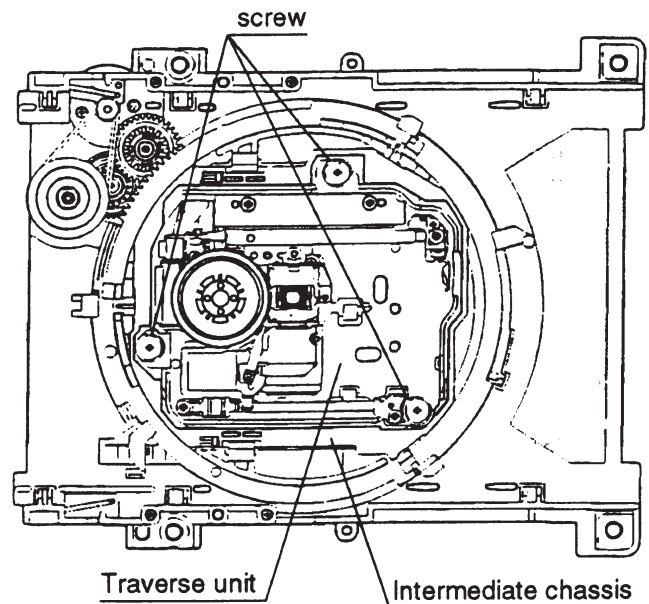
11.4. Disassembling the Clumper Weight, Clumper Yoke, Magnet and Clumper

1. Release the tab, and pull out the clumper.



11.5. Disassembling the Traverse Unit

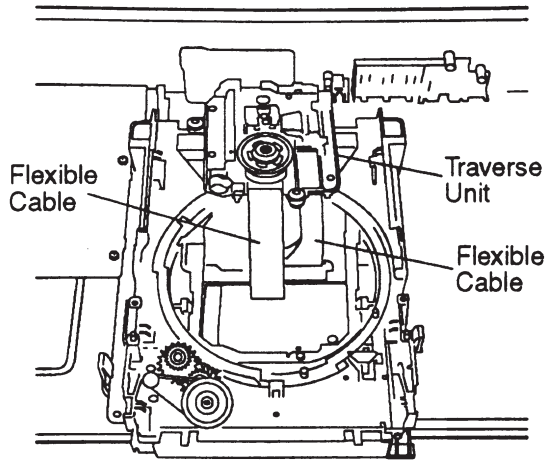
1. Remove the 3 screws.



Note

Be sure to take static electricity countermeasures before disconnecting the flexible cable. (Refer to section 4, HANDLING PRECAUTIONS FOR TRAVERSE DECK.)

2. Disconnect the 2 flexible cables.

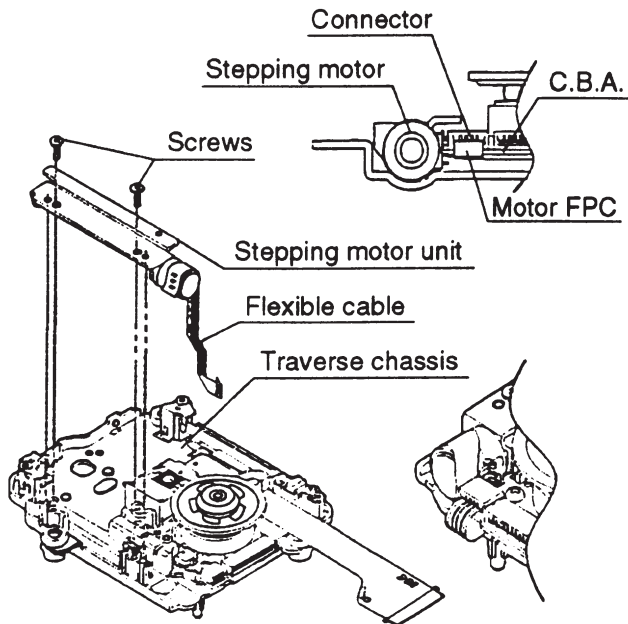


11.6. Disassembling the Stepping Motor Unit

1. Disconnect the flexible cable.
2. Remove the 2 screws.

Note

Take care when handling the flexible cable because it can be broken by excessive force.



11.7. Disassembling the Optical Pickup Unit

1. Remove the screw.
2. Release the tab, then remove spring holder 1.

Note

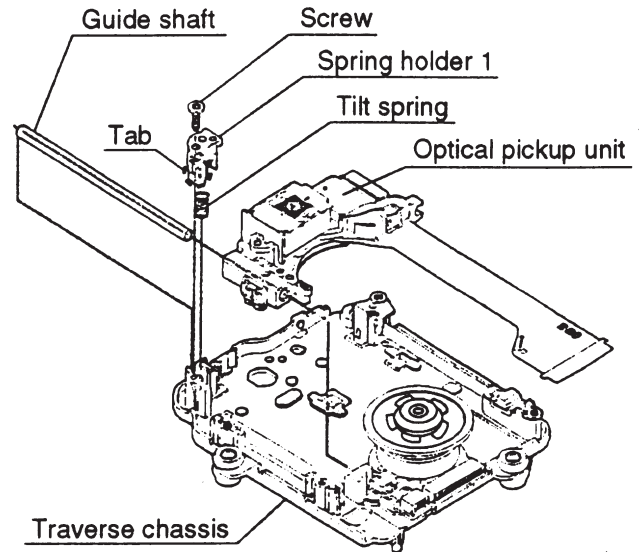
Be sure not to lose the spring.

3. Remove the guide shaft.

Note

Be sure to adjust the optical pickup tilt after replacing the optical pickup.

(Refer to section 11.12, Optical Pickup Tilt Adjustment.)

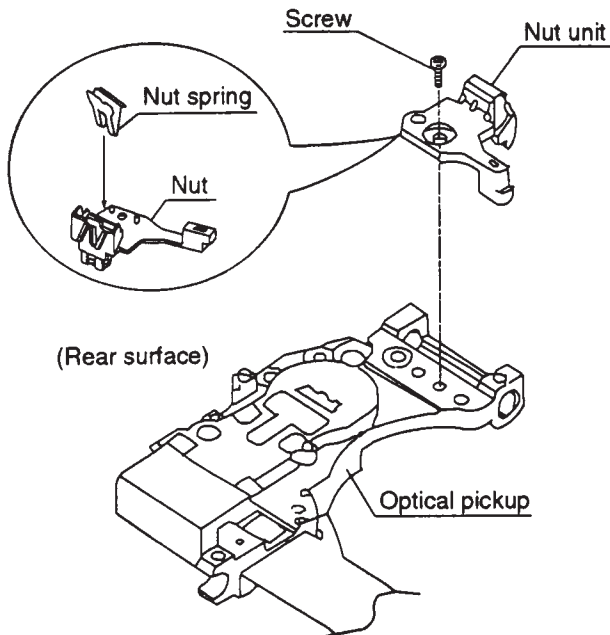


11.8. Disassembling the Nut Unit

1. Remove the screw.

Notes

- The nut unit is not part of the optical pickup.
- Before replacing the optical pickup, remove the nut unit for use with the new optical pickup.
- After installation, use screw lock to lock the screw in position.
- When reassembling, use screw lock to lock the screw in position after attaching it.

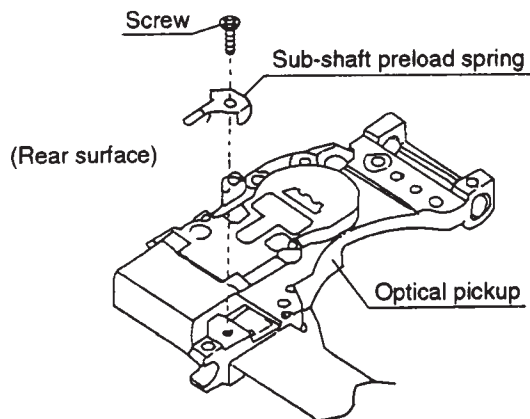


11.9. Disassembling the Sub-Shaft Preload Spring

1. Remove the screw.

Notes

- Handle the sub-shaft preload spring carefully because the shape of the tip is easily deformed.
- The sub-shaft preload spring is not part of the optical pickup. Before replacing the optical pickup, remove the sub-shaft preload spring for use with the new optical pickup.
- After installation, use screw lock to lock the screw in position.

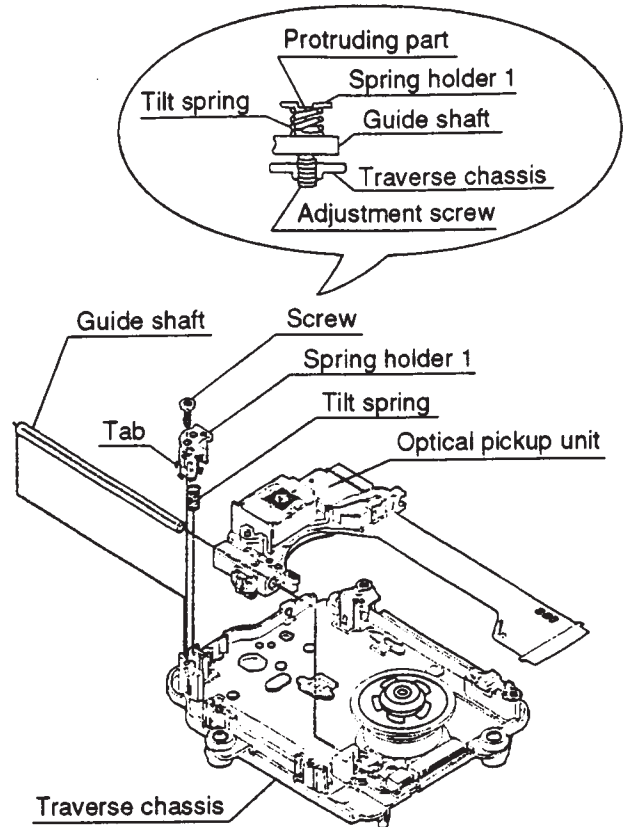


11.10. Assembling the Optical Pickup

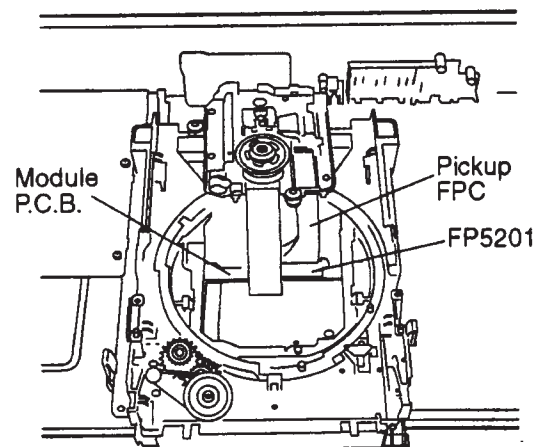
1. Install the optical pickup.

Note

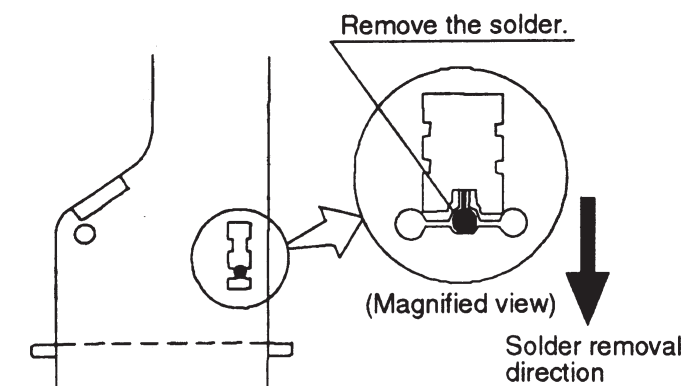
Take care not to attach the tilt spring and guide shaft in the wrong order.



2. Insert the pickup FPC into connector FP5201 on the module P.C.B.



3. Remove the solder from the pickup FPC's soldered short-circuit.



Open the circuit after short-circuiting it.

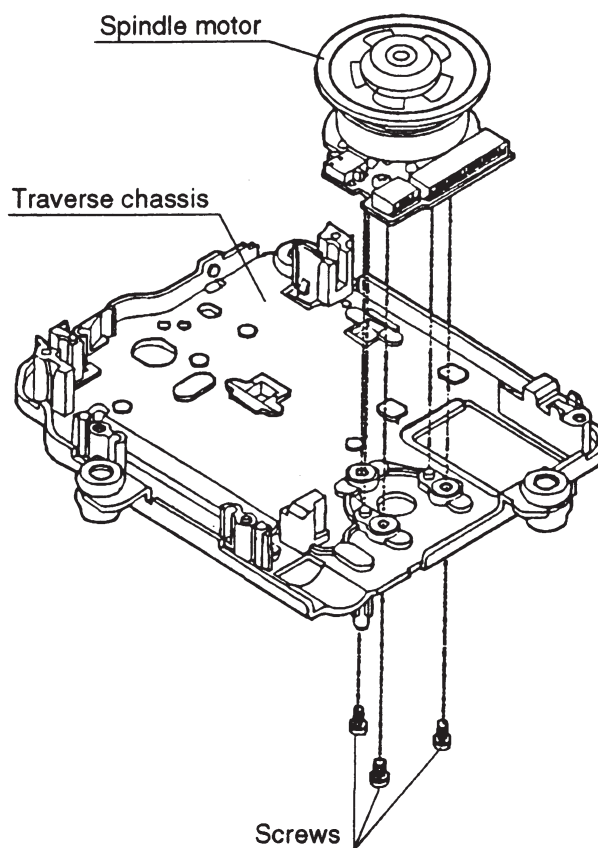
4. Adjust the optical pickup tilt after removing the solder.
(Refer to section 11.12, Optical Pickup Tilt Adjustment.)

11.11. Disassembling the Spindle Motor Unit

1. Remove the three screws.

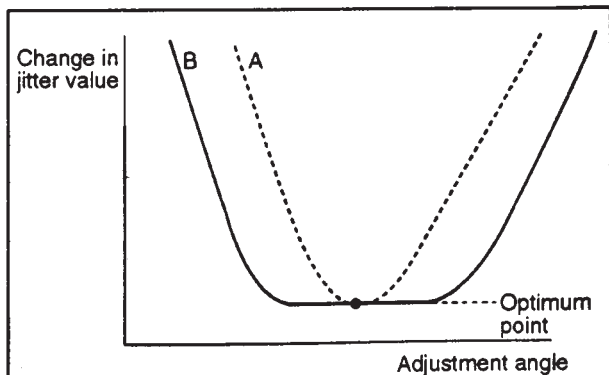
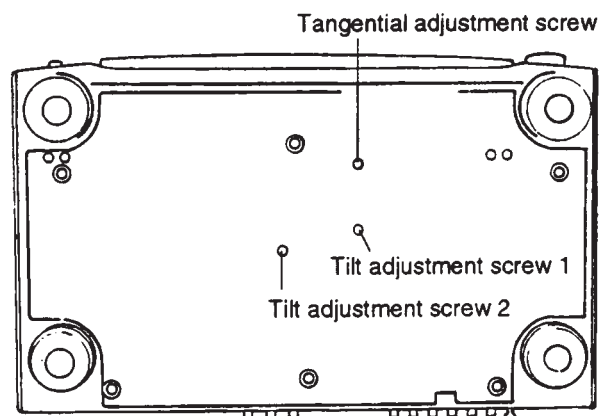
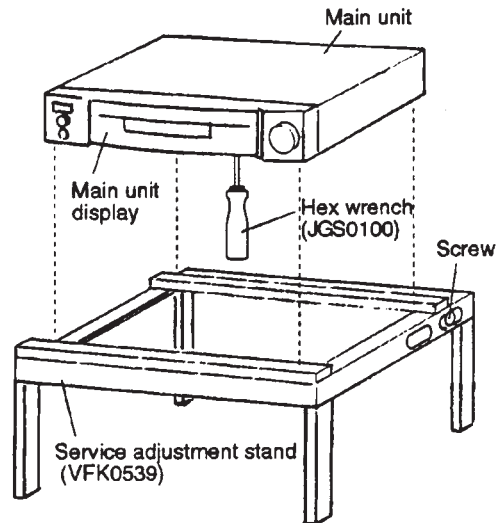
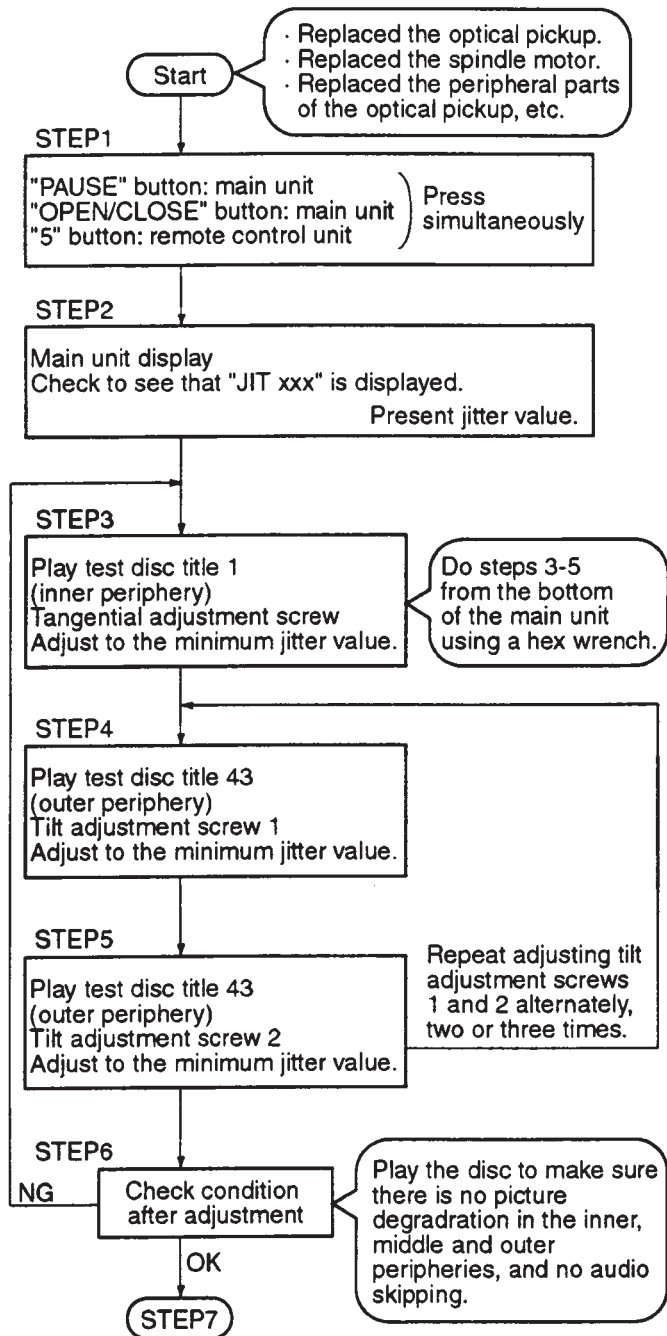
Note

Be sure to adjust the optical pickup tilt after replacing the spindle motor unit.

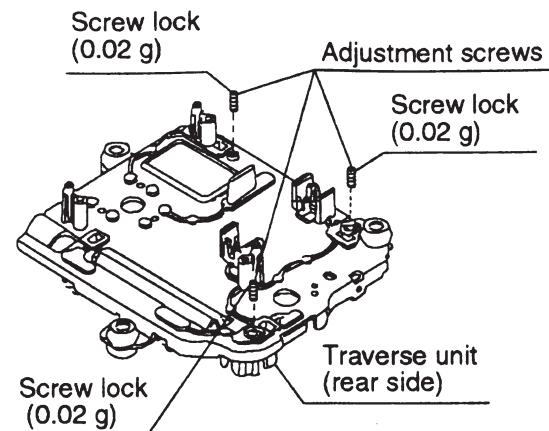
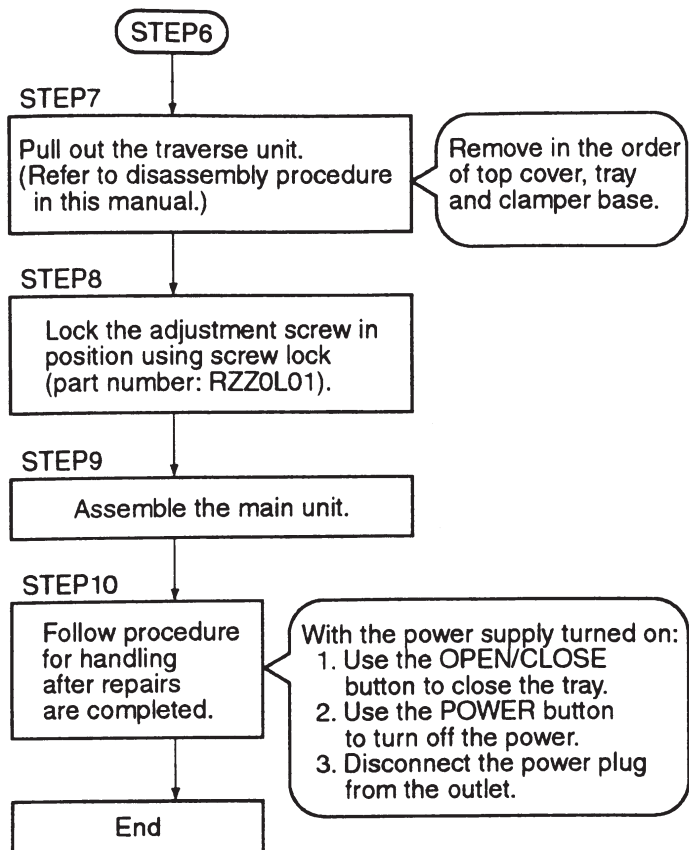


11.12. Optical Pickup Tilt Adjustment

Measurement point	Adjustment point	Mode	Disc
Main unit service display	Tangential adjustment screw Tilt adjustment screw	T1 (inner periphery) play T43 (outer periphery) play	DVDT-S15 or DVDT-S01
Measuring equipment, tools		Adjustment value	
Hex wrench (part number: JGS0100) Screw lock (part number: RZZ0L01)		Adjust to the minimum jitter value.	



- Jitter value depends on the model:
- (1) If the jitter value changes like A, the optimum point is easy to find.
- (2) If the jitter value changes like B, set the optimum point near the middle.

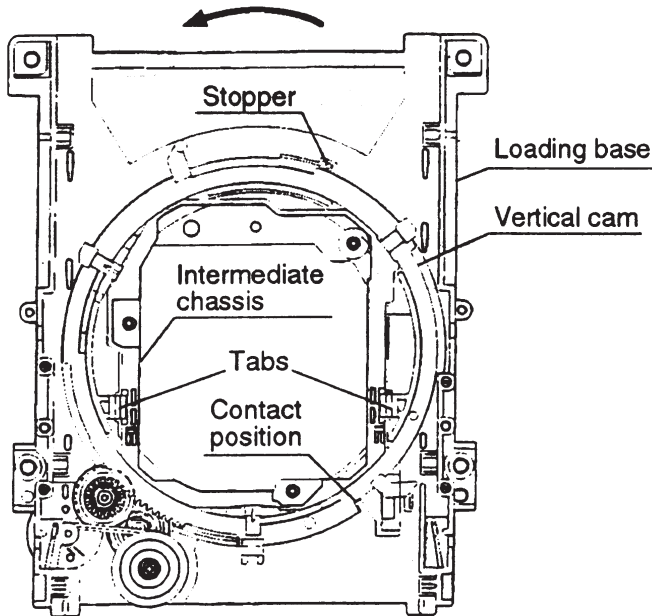


Notes

- Adjustment is generally unnecessary after replacing other parts of the traverse unit. However, adjust 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.

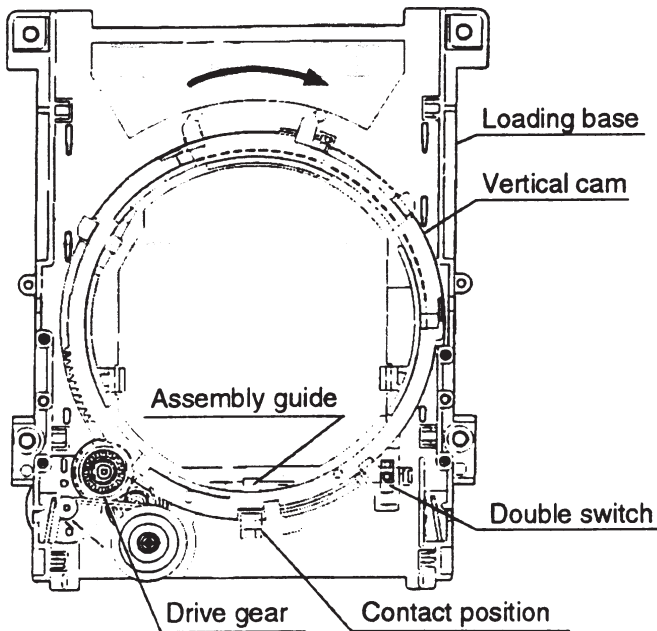
11.13. Disassembling the Intermediate Chassis

1. Push the stopper downward, then rotate it until it contacts the Vertical cam.
2. Release the 2 tabs.



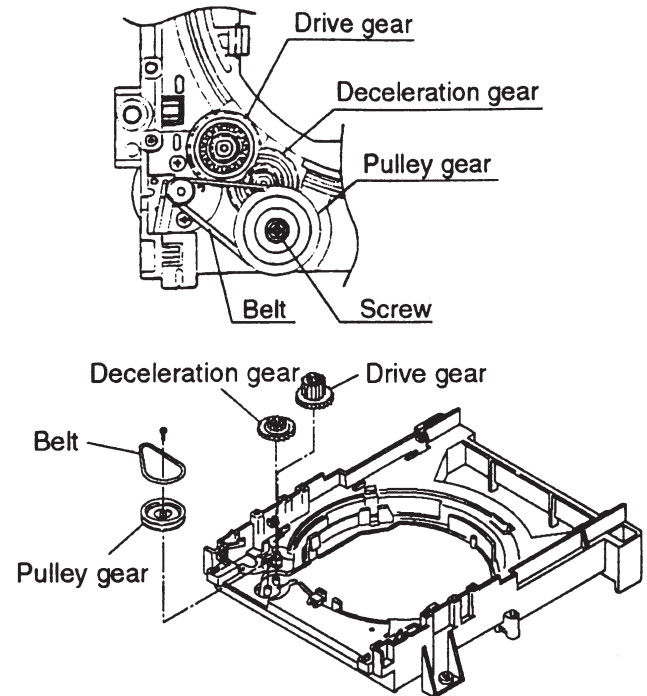
11.14. Disassembling the Vertical cam and Drive gear

1. Rotate the Vertical cam until it reaches the contact position.
2. Lift the Vertical cam straight upward to pull it out.
3. Remove the Drive gear.



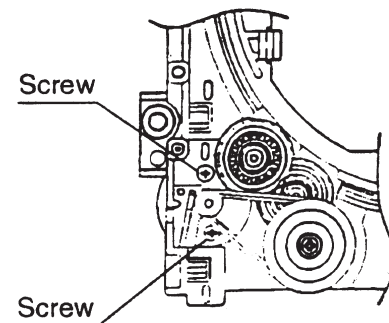
11.15. Disassembling the Pulley Gear and Deceleration Gear

1. Remove the screw.
2. Remove the pulley gear.
3. Remove the belt.
4. Remove the deceleration gear.



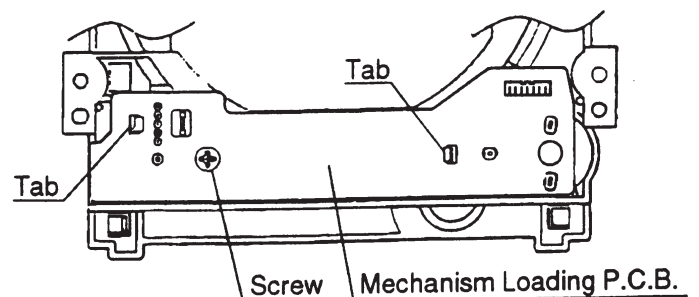
11.16. Disassembling the Mechanism Loading P.C.B.

1. Remove the 2 screws.



2. Remove the 2 screws.
3. Release the 2 tabs.

(Rear surface)



12 Electrical Adjustment

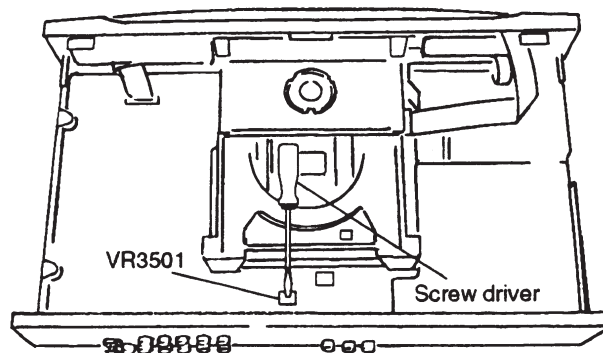
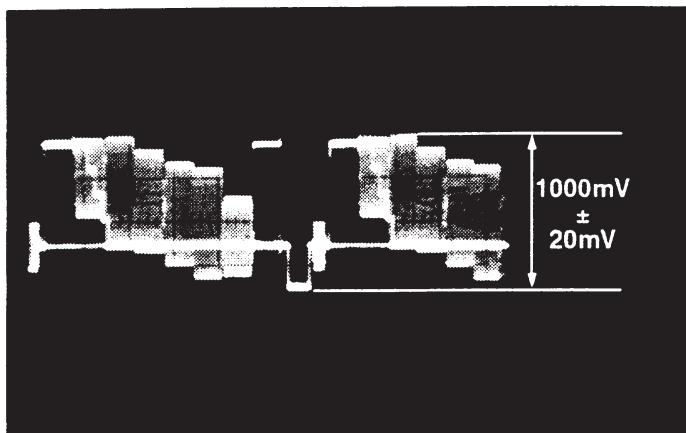
12.1. Video Output (Luminance Signal) Adjustment

Do this adjustment after replacing a P.C.B.

Measurement point	Adjustment point	Mode	Disc
Video output terminal	VR3501 (mother P.C.B.)	Color bar 75% PLAY (Title 46):DVDT-S15 PLAY (Title 12):DVDT-S01	DVDT-S15 or DVDT-S01
Measuring equipment, tools		Adjustment value	
Screwdriver, Oscilloscope 200mV/div, 10μsec/div		1000mVp-p±20mV	

Purpose: To maintain video signal output compatibility.

1. Connect the oscilloscope to the video output terminal and terminate at 75 ohms.
2. Adjust VR3501 so that the luminance signal (Y+S) level becomes 1000 mVp-p±20 mV.



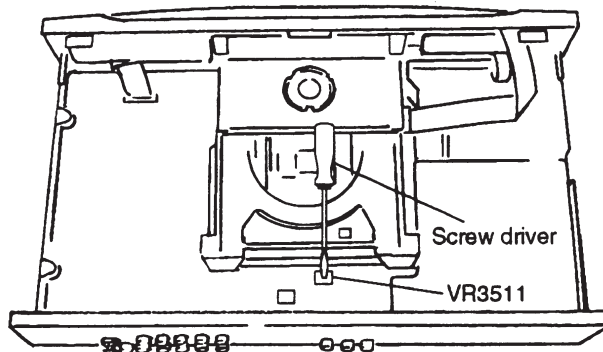
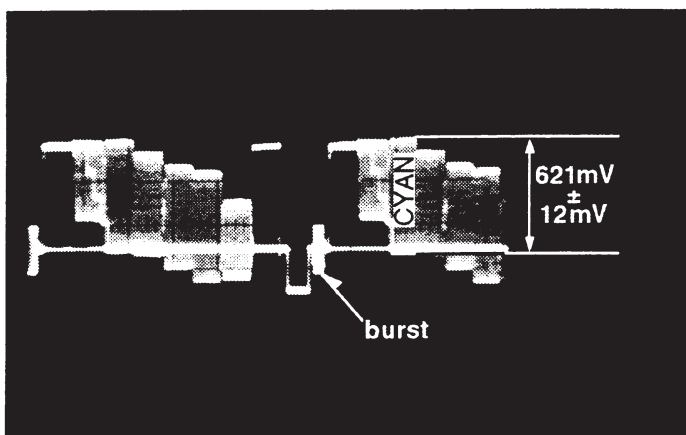
12.2. Video Output (Chrominance Signal) Adjustment

Do this adjustment after replacing a P.C.B.

Measurement point	Adjustment point	Mode	Disc
Video output terminal	VR3511 (mother P.C.B.)	Color bar 75% PLAY (Title 46):DVDT-S15 PLAY (Title 12):DVDT-S01	DVDT-S15 or DVDT-S01
Measuring equipment, tools		Adjustment value	
Screwdriver, Oscilloscope 200mV/div, 10μsec/div		621mVp-p±12mV	

Purpose: To maintain video signal output compatibility.

1. Connect the oscilloscope to the video output terminal and terminate at 75 ohms.
2. Adjust VR3511 so that the chrominance signal (C) level becomes 621 mVp-p±12 mV.



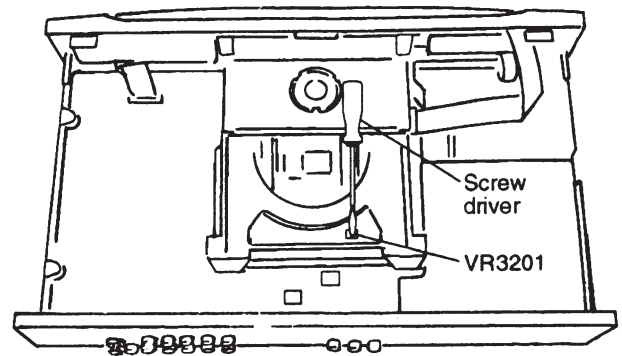
12.3. Video Component Signal (CB) Output Adjustment

Do this adjustment after replacing a P.C.B.

Measurement point	Adjustment point	Mode	Disc
Video output terminal (Y) (CB) Output terminal	VR3201 (module P.C.B.)	Color bar 75% PLAY (Title 46):DVDT-S15 PLAY (Title 12):DVDT-S01	DVDT-S15 or DVDT-S01
Measuring equipment, tools		Adjustment value	
Screwdriver, Oscilloscope 100mV/div, 10μsec/div		486mVp-p±10mV	

Purpose: To maintain video signal output compatibility.

1. Connect the oscilloscope to the video component output terminal and terminate at 75 ohms.
2. Apply the trigger at the Y output terminal signal.
3. Adjust VR3201 so that the video component signal (CB) level becomes 486 mVp-p ±10 mV.



13 Abbreviations

INITIAL/LOGO	ABBREVIATIONS
A	A0~UP ACLK AD0~UP ADATA ALE AMUTE AREQ ARF ASI ASO ASYNC ADDRESS AUDIO CLOCK ADDRESS BUS AUDIO PES PACKET DATA ADDRESS LATCH ENABLE AUDIO MUTE AUDIO PES PACKET REQUEST AUDIO RF SERVO AMP INVERTED INPUT SERVO AMP OUTPUT AUDIO WORD DISTINCTION SYNC
B	BCK BCKIN BDO BLKCK BOTTOM BYP BYTCK BIT CLOCK (PCM) BIT CLOCK INPUT BLACK DROP OUT SUB CODE BLOCK CLOCK CAP. FOR BOTTOM HOLD BYPATH BYTE CLOCK
C	CAV CBDO CD CDSCK CDSRDATA CDRF CDV CHNDATA CKSL CLV COFTR CPA CPCS CPDT CPUADR CPUADT CPUIRQ CPRD CPWR CS CSYNCIN CSYNCOUT CONSTANT ANGULAR VELOCITY CAP. BLACK DROP OUT COMPACT DISC CD SERIAL DATA CLOCK CD SERIAL DATA CD RF (EFM) SIGNAL COMPACT DISC-VIDEO CHANNEL DATA SYSTEM CLOCK SELECT CONSTANT LINEAR VELOCITY CAP. OFF TRACK CPU ADDRESS CPU CHIP SELECT CPU DATA CPU ADDRESS LATCH CPU ADDRESS DATA BUS CPU INTERRUPT REQUEST CPU READ ENABLE CPU WRITE ENABLE CHIP SELECT COMPOSITE SYNC IN COMPOSITE SYNC OUT
D	DACCK DEEMP DEMPH DIG0~UP DIN DMSRCK DMUTE DO DOUT0~UP DRF DRPOUT DREQ DRESP DSC DSLF DVD D/A CONVERTER CLOCK DEEMPHASIS BIT ON/OFF DEEMPHASIS SWITCHING FL DIGIT OUTPUT DATA INPUT DM SERIAL DATA READ CLOCK DIGITAL MUTE CONTROL DROP OUT DATA OUTPUT DATA SLICE RF (BIAS) DROP OUT SIGNAL DATA REQUEST DATA RESPONSE DIGITAL SERVO CONTROLLER DATA SLICE LOOP FILTER DIGITAL VIDEO DISC

INITIAL/LOGO	ABBREVIATIONS
E	EC ECR ENCSSEL ETMCLK ETSCCLK ERROR TORQUE CONTROL ERROR TORQUE CONTROL REFERENCE ENCODER SELECT EXTERNAL M CLOCK (81MHz/40.5MHz) EXTERNAL S CLOCK (54MHz)
F	FBAL FCLK FE FFI FEO FG FSC FSCK FOCUS BALANCE FRAME CLOCK FOCUS ERROR FOCUS ERROR AMP INVERTED INPUT FOCUS ERROR AMP OUTPUT FREQUENCY GENERATOR FREQUENCY SUB CARRIER FS (384 OVER SAMPLING) CLOCK
G	GND COMMON GROUNDING (EARTH)
H	HA0~UP HD0~UP HINT HRXW HOST ADDRESS HOST DATA HOST INTERRUPT HOST READ/WRITE
I	IECOUT IPFRAG IREF ISEL IEC958 FORMAT DATA OUTPUT INTERPOLATION FLAG I (CURRENT) REFERENCE INTERFACE MODE SELECT
L	LDON LPC LRCK LASER DIODE CONTROL LASER POWER CONTROL L CH/R CH DISTINCTION CLOCK
M	MA0~UP MCK MCKI MCLK MDATA MDQ0~UP MDQM MLD MPEG MEMORY ADDRESS MEMORY CLOCK MEMORY CLOCK INPUT MEMORY SERIAL COMMAND CLOCK MEMORY SERIAL COMMAND DATA MEMORY DATA INPUT/OUTPUT MEMORY DATA I/O MASK MEMORY SERIAL COMMAND LOAD MOVING PICTURE EXPERTS GROUP
O	ODC OFTR OSCI OSCO OSD OPTICAL DISC CONTROLLER OFF TRACKING OSCILLATOR INPUT OSCILLATOR OUTPUT ON SCREEN DISPLAY
P	P1~UP PCD PCK PDVD PEAK PLLCLK PLLCK PWMCTL PWMDA PWMOA, B PORT CD TRACKING PHASE DIFFERENCE PLL CLOCK DVD TRACKING PHASE DIFFERENCE CAP. FOR PEAK HOLD CHANNEL PLL CLOCK PLL LOCK PWM OUTPUT CONTROL PULSE WAVE MOTOR DRIVE A PULSE WAVE MOTOR OUT A, B

INITIAL/LOGO		ABBREVIATIONS
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE OUTPUT
	RS	(CD-ROM) REGISTER SELECT
	RSEL	RF POLARITY SELECT
	RST	RESET
S	RSV	RESERVE
	SBI0, 1	SERIAL DATA INPUT
	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK RECEIVER
	SCL	SERIAL CLOCK
	SCLK	SERIAL CLOCK
	SDA	SERIAL DATA
	SEG0~UP	FL SEGMENT OUTPUT
	SELCLK	SELECT CLOCK
	SEN	SERIAL PORT ENABLE
	SIN1, 2	SERIAL DATA IN
	SOUT1, 2	SERIAL DATA OUT
	SPDI	SERIAL PORT DATA INPUT
	SPDO	SERIAL PORT DATA OUTPUT
	SPEN	SERIAL PORT R/W ENABLE
	SPRCLK	SERIAL PORT READ CLOCK
	SPWCLK	SERIAL PORT WRITE CLOCK
	SQCK	SUB CODE Q CLOCK
	SQCK	SUB CODE Q DATA READ CLOCK
	SRDATA	SERIAL DATA
	SRMADR	SRAM ADDRESS BUS
	SRMDT0~7	SRAM DATA BUS 0~7
	SS	START/STOP
	STAT	STATUS
	STCLK	STREAM DATA CLOCK
	STD0~UP	STREAM DATA
	STENABLE	STREAM DATA INPUT ENABLE
	STSEL	STREAM DATA POLARITY SELECT
	STVALID	STREAM DATA VALIDITY
	SUBC	SUB CODE SERIAL
	SBCK	SUB CODE CLOCK
	SUBQ	SUB CODE Q DATA
	SYSCLK	SYSTEM CLOCK
T	TE	TRACKING ERROR
	TIBAL	BALANCE CONTROL
	TID	BALANCE OUTPUT 1
	TIN	BALANCE INPUT
	TIP	BALANCE INPUT
	TIS	BALANCE OUTPUT 2
	TPSN	OP AMP INPUT
	TPSO	OP AMP OUTPUT
	TPSP	OP AMP INVERTED INPUT
	TRCRS	TRACK CROSS SIGNAL
	TRON	TRACKING ON
	TRSON	TRAVERSE SERVO ON

INITIAL/LOGO		ABBREVIATIONS
V	VBLANK	V BLANKING
	VCC	COLLECTOR POWER SUPPLY VOLTAGE
	VCDCONT	VIDEO CD CONTROL (TRACKING BALANCE)
	VDD	DRAIN POWER SUPPLY VOLTAGE
	VFB	VIDEO FEED BACK
	VREF	VOLTAGE REFERENCE
W	VSS	SOURCE POWER SUPPLY VOLTAGE
	WAIT	BUS CYCLE WAIT
	WDCK	WORD CLOCK
	WEH	WRITE ENABLE HIGH
X	WSR	WORD SELECT RECEIVER
	X	X' TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST
	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPT REQUEST
	XI	X' TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
	XMW	X MEMORY WRITE ENABLE
	XO	X' TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIP SELECT
	XVDS	X V-DEC CONTROL BUS STROBE
	XVSYNCO	X VERTICAL SYNC OUTPUT

14 VOLTAGE CHART

14.1. POWER SUPPLY P.C.B.

Ref No.	IC1021							IC2201			IC1125			
MODE	1	2	3	4	5	6	7	A	K	R	1	2	3	4
STOP	-26.0	0	0	0	17.0	0.5	0.2	0	3.9	2.5	5.1	3.3	0	3.4
PLAY	-26.0	0	0	0	17.0	0.5	0.2	0	3.9	2.5	5.1	3.3	0	3.4

Ref No.	IC1151														
MODE	1	2	3	4	5										
STOP	0	3.4	8.9	8.9	12.5										
PLAY	0	3.4	8.9	8.9	12.5										

Ref No.	Q1051				Q1111										
MODE	1	2	3	4	S	D	G								
STOP	5.2	4.1	0.5	16.6	5.1	5.1	0								
PLAY	5.2	4.1	0.5	16.6	5.1	5.1	0								

Ref No.	QR1111														
MODE	E	C	B												
STOP	0	0	3.4												
PLAY	0	0	3.4												

14.2. MODULE P.C.B.

Ref No.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	1.7	1.6	1.6	3.3	1.7	0	0	1.6	1.6	1.5	0	0	0	3.3	1.6	2.8	0.2	2.2	1.5	0
PLAY	1.5	0	1.7	3.3	1.5	1.7	0	1.6	1.6	1.5	1.5	1.5	1.6	3.3	1.7	2.8	0.2	2.2	1.5	0

Ref No.	IC2001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.2	2.2	0	0	1.5	2.2	3.3	1.7	0	0	1.7	0.4	1.7	1.6	0	1.6	1.7	3.3	0	1.7
PLAY	1.8	1.7	1.5	1.7	1.5	2.2	3.3	1.7	1.2	0	1.7	1.2	1.7	1.6	0	1.6	1.7	3.3	1.7	1.7

Ref No.	IC2001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	0	2.1	1.4	1.6	0	3.3	3.0	1.5	0	0	0	0	0	0	0	0	0	2.5	0	0
PLAY	0	2.0	1.6	1.7	0	3.3	0	0	0	0.4	1.5	1.6	1.4	3.3	3.3	0	0	3.0	3.0	0

Ref No.	IC2001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	3.3	0	0	0	0	0	3.3	0	0	1.4	0	0	0	0	3.3	1.6	1.6	1.6	1.6	0
PLAY	3.3	0	3.3	0	0	0	0	1.7	0	1.4	0	0	0	0	0	1.6	1.6	1.6	1.6	1.6

Ref No.	IC2001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	0	0	0	3.2	3.3	3.3	3.3	3.1	3.3	3.1	0	0	0	0.1	0	2.5	1.7	1.6	1.6	1.7
PLAY	0	3.3	3.3	3.3	0	0	3.3	3.2	3.3	3.1	0	0	0	0	0	2.5	1.4	1.8	1.4	2.2

Ref No.	IC2501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	5.0	5.0	0	5.1	5.1	5.1	5.1	5.1	0	5.0	2.7	3.3	0	0	5.0	1.7	1.7	0	0
PLAY	0	0	0	0	2.9	2.9	0.8	0	0	3.3	5.0	1.4	3.3	0	0	5.0	0	1.6	0	0.6

Ref No.	IC2501																			
MODE	21	22	23	24	25	26	27	28												
STOP	9.0	9.0	0	0	0	1.5	1.6	1.7												
PLAY	9.0	9.0	0	0	0	7.4	7.4	7.4												

Ref No.	IC2511																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	1.7	1.7	1.7	1.6	1.7	1.6	1.6	0	0	5.1	2.4	0.5	0.5	0.5	6.7	7.0	7.1	7.4	9.0	0
PLAY	1.7	1.7	1.7	1.7	1.7	0	1.7	0	3.3	5.0	2.6	2.4	2.4	2.7	4.8	3.7	3.4	5.0	9.0	0

Ref No.	IC2511																			
MODE	21	22	23	24	25	26	27	28												
STOP	0	1.9	1.9	1.7	2.0	2.0	1.7	9.0												
PLAY	0	1.5	1.7	1.7	1.8	1.7	1.7	9.0												

14.3. MOTHER P.C.B.

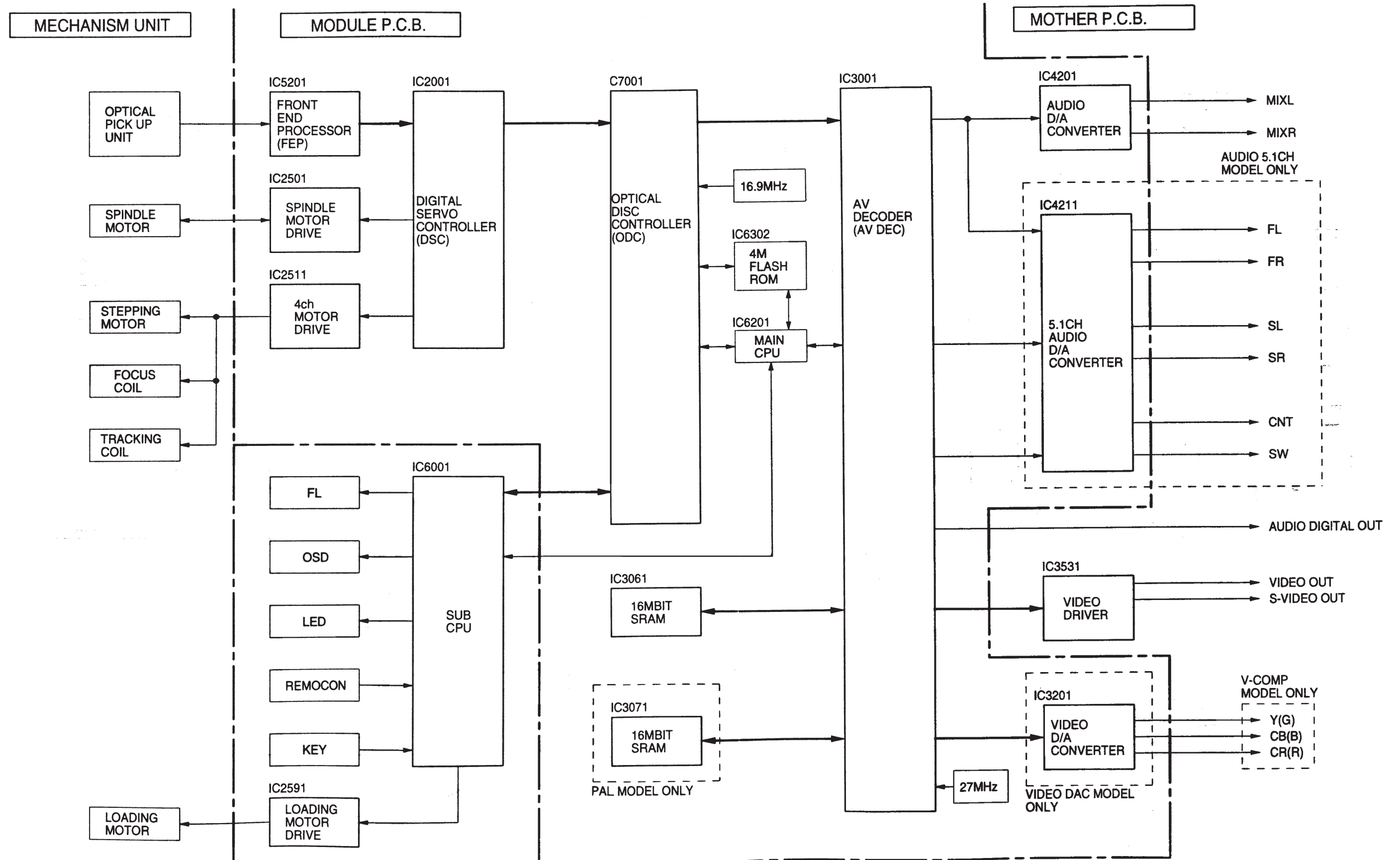
Ref No.	IC2591																			
MODE	1	2	3	4	5	6	7	8	9											
STOP	7.4	0.2	0	0.2	9.0	9.0	0	0	0											
PLAY	7.4	2.8	0	2.8	9.0	9.0	0	0	0											
Ref No.	IC3511																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.2	0.7	1.0	0	0	4.9	0.7	0	0.7	0	0.9	0	0.1	0.1	1.3	0.9	4.9	0.9	0	1.5
PLAY	3.2	0.9	1.2	0	0	4.9	0.7	0	0.7	0	0	0	0.1	0.1	1.3	0.9	4.9	0.9	0	1.8
Ref No.	IC3511																			
MODE	21	22	23	24																
STOP	1.5	4.9	0	0.4																
PLAY	1.9	0	0.4	0.4																
Ref No.	IC4321										IC4471									
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8			
STOP	0	0	0	-8.1	0	0	0	8.1		0	0	0	-8.1	0	0	0	8.1			
PLAY	0	0	0	-8.1	0	0	0	8.1		0	0	0	-8.1	0	0	0	8.1			
Ref No.	IC4781				IC4902				IC4911											
MODE	1	2	3		1	2	3		1	2	3									
STOP	1.7	5.1	0		8.1	0	10.1		0	-10.2	-8.1									
PLAY	1.7	5.1	0		8.1	0	10.1		0	-10.2	-8.1									
Ref No.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	1.5	3.8	4.3	5.1	5.1	5.1	0	5.1	2.4	2.5	0	0	5.1	0	0	5.1	5.1	5.1	1.9	1.9
PLAY	1.5	3.8	4.3	5.1	0	5.1	0	5.1	2.4	2.5	0	0	5.1	0	0	5.1	5.1	5.1	1.2	1.2
Ref No.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	1.8	1.9	1.8	5.1	0	5.1	5.1	0	0	0	0	0	5.1	2.0	1.9	1.3	1.4	1.0	5.1	0
PLAY	1.2	1.3	1.3	5.1	0	5.1	5.1	0	0	0	0	0	5.1	0.7	0.7	0.7	0.7	0.7	5.1	0
Ref No.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	1.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.8	4.9	-25.0	-25.0	-25.0	-24.9	-24.9	-24.9	-24.9	-24.9	-24.9
PLAY	0.8	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-4.8	4.9	-25.1	-25.1	-25.1	-24.9	-24.9	-24.9	-24.9	-24.9	-24.9
Ref No.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	-24.9	-24.9	-24.9	-24.9	-15.5	-24.6	-24.6	-24.6	-20.0	-20.0	-20.0	-20.1	-22.5	-20.3	-24.9	-24.9	-24.9	-22.5	-15.5	3.8
PLAY	-24.9	-24.9	-24.9	-24.9	-8.6	-22.4	-20.0	-24.7	-8.7	-8.6	-20.2	-20.2	-9.0	-13.6	-24.9	-24.9	-24.9	-18.1	-11.2	3.7
Ref No.	IC6001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	3.7	3.8	3.8	4.1	3.8	4.4	4.4	4.4	4.5	4.1	4.6	4.6	4.2	4.4	4.5	4.5	4.5	4.4	4.4	-27.1
PLAY	0	0	3.6	3.9	0	0	0	4.2	4.2	0	4.4	4.5	0	4.3	0	4.3	4.3	4.3	4.3	-27.3
Ref No.	IC6002				IC6003				IC6004				IC6005							
MODE	1	2	3	4		1	2	3		1	2	3	4	5		1	2	3	4	5
STOP	0	0	5.1	5.1		5.1	0	5.1		2.8	2.8	0	4.3	5.1		2.5	2.5	0	3.9	5.1
PLAY	0	0	5.1	5.1		5.1	0	5.1		2.8	2.8	0	4.3	5.1		2.5	2.5	0	3.8	5.1

Ref No.	Q3501				Q4501				Q4511				Q4521				Q4531			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
STOP	0.6	4.9	1.2		0	0	0.7		0	0	0.7		0	0	-4.8		0	0	0.7	
PLAY	0.7	4.9	1.4		0	0	-4.8		0	0	-4.8		0	0	-4.8		0	0	-4.8	
Ref No.	Q6009																			
MODE	E	C	B																	
STOP	-20.2	-20.1	-19.4																	
PLAY	-20.1	-20.1	-19.4																	

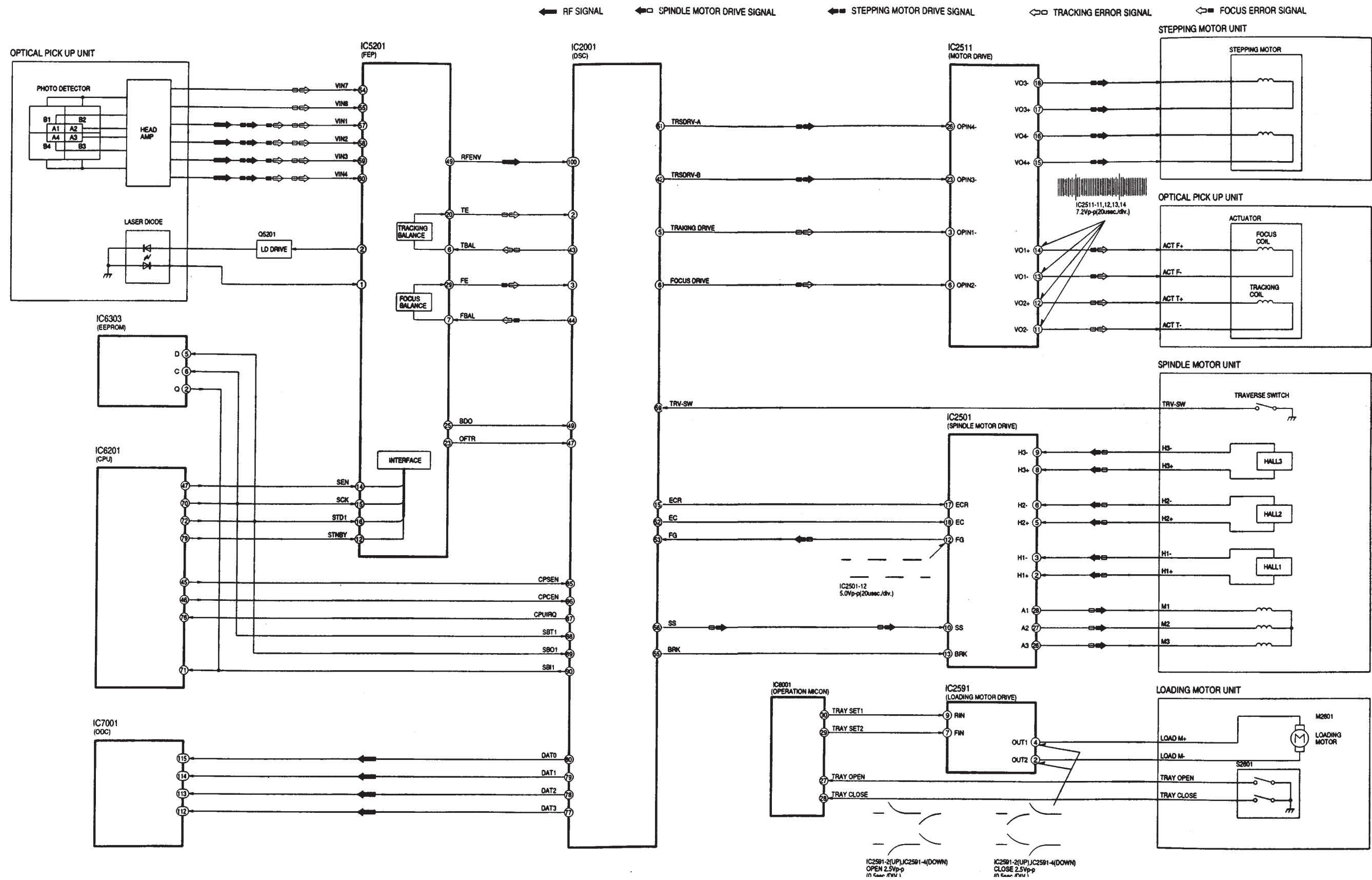
Ref No.	QR3521				QR4521				QR4593				QR4594				QR4596			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
STOP	0	5.0	0		0	-4.8	0		0	2.9	0.2		2.9	2.8	0		2.9	2.8	0	
PLAY	0	5.0	0		0	-4.8	0		0	0.1	3.8		0.1	-4.8	0		0	-4.8	0	
Ref No.	QR6009																			
MODE	E	C	B																	
STOP	5.1	-2.1	5.1																	
PLAY	5.1	-2.0	5.1																	

15 BLOCK DIAGRAM

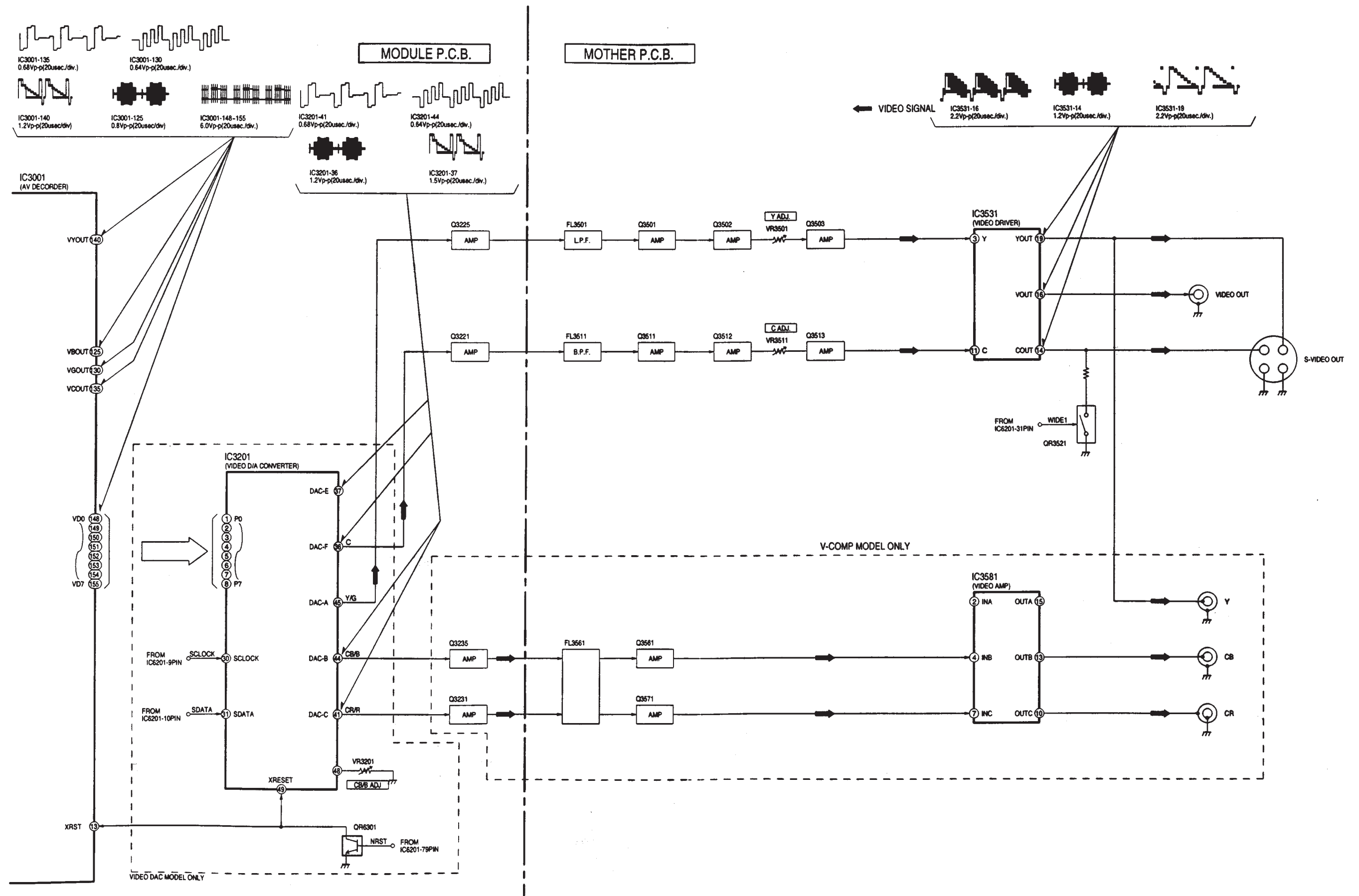
15.1. OVERALL BLOCK DIAGRAM



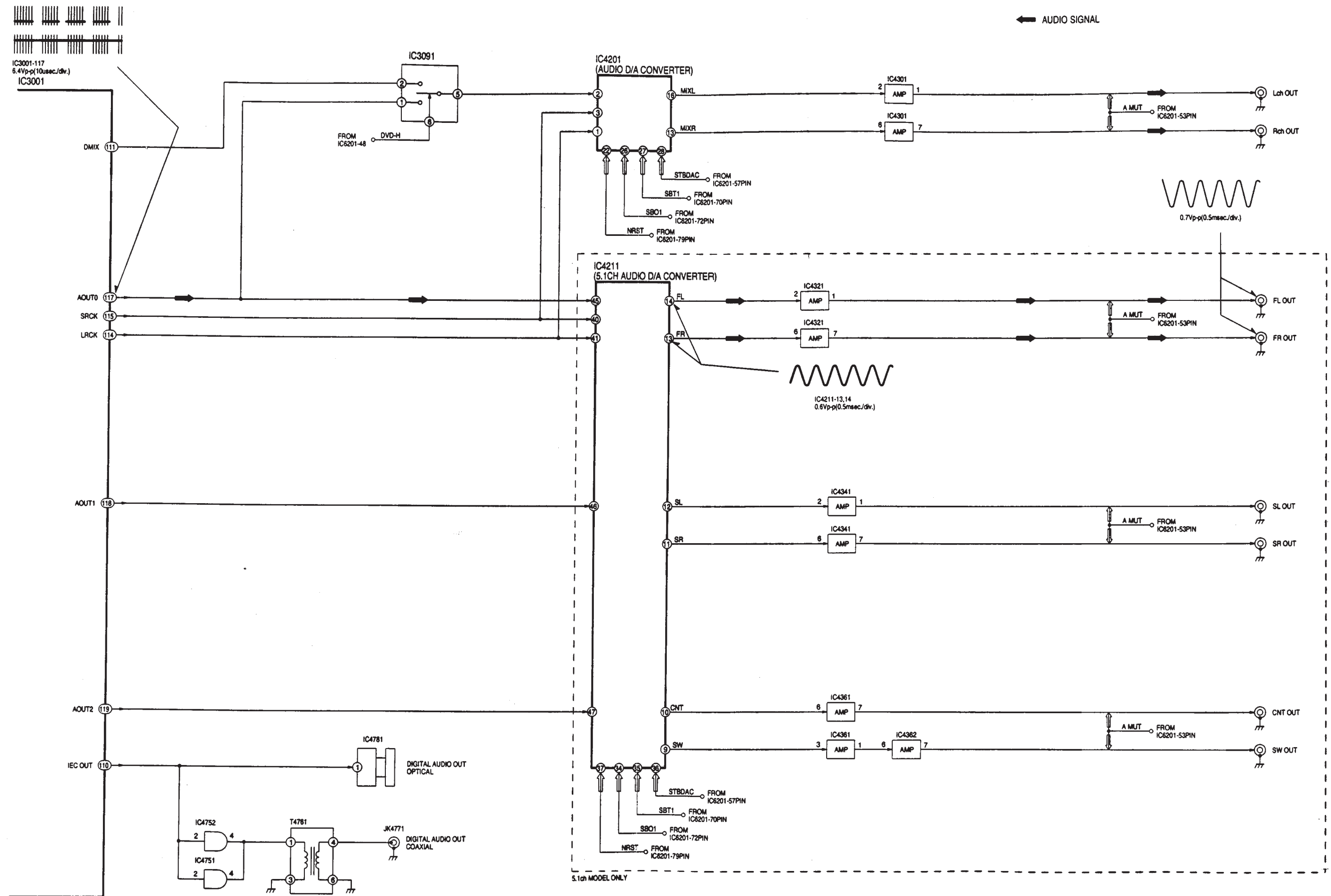
15.2. SERVO BLOCK DIAGRAM



15.3. VIDEO BLOCK DIAGRAM

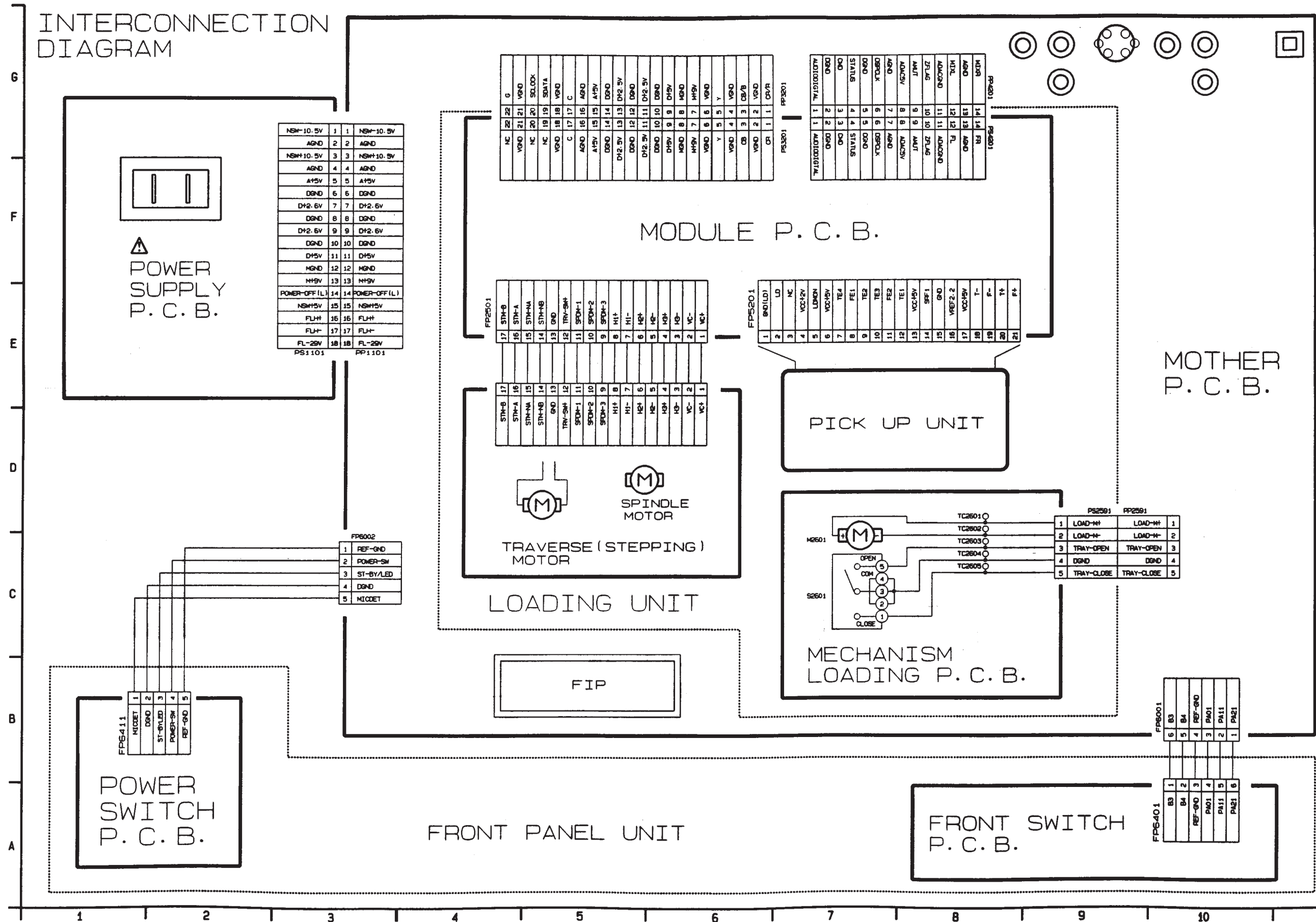


15.4. AUDIO BLOCK DIAGRAM

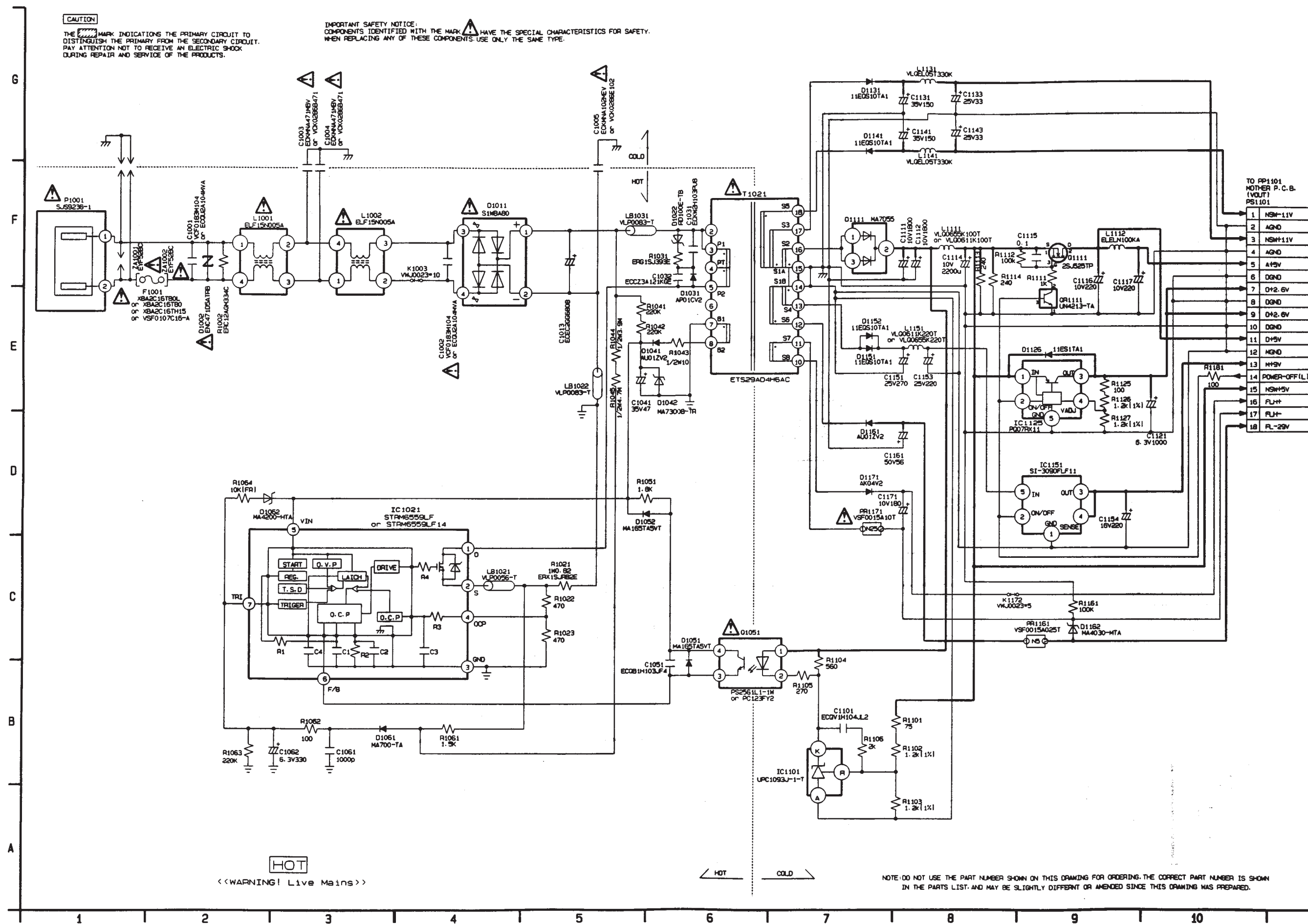


16 SCHEMATIC DIAGRAM

16.1. INTERCONNECTION SCHEMATIC DIAGRAM



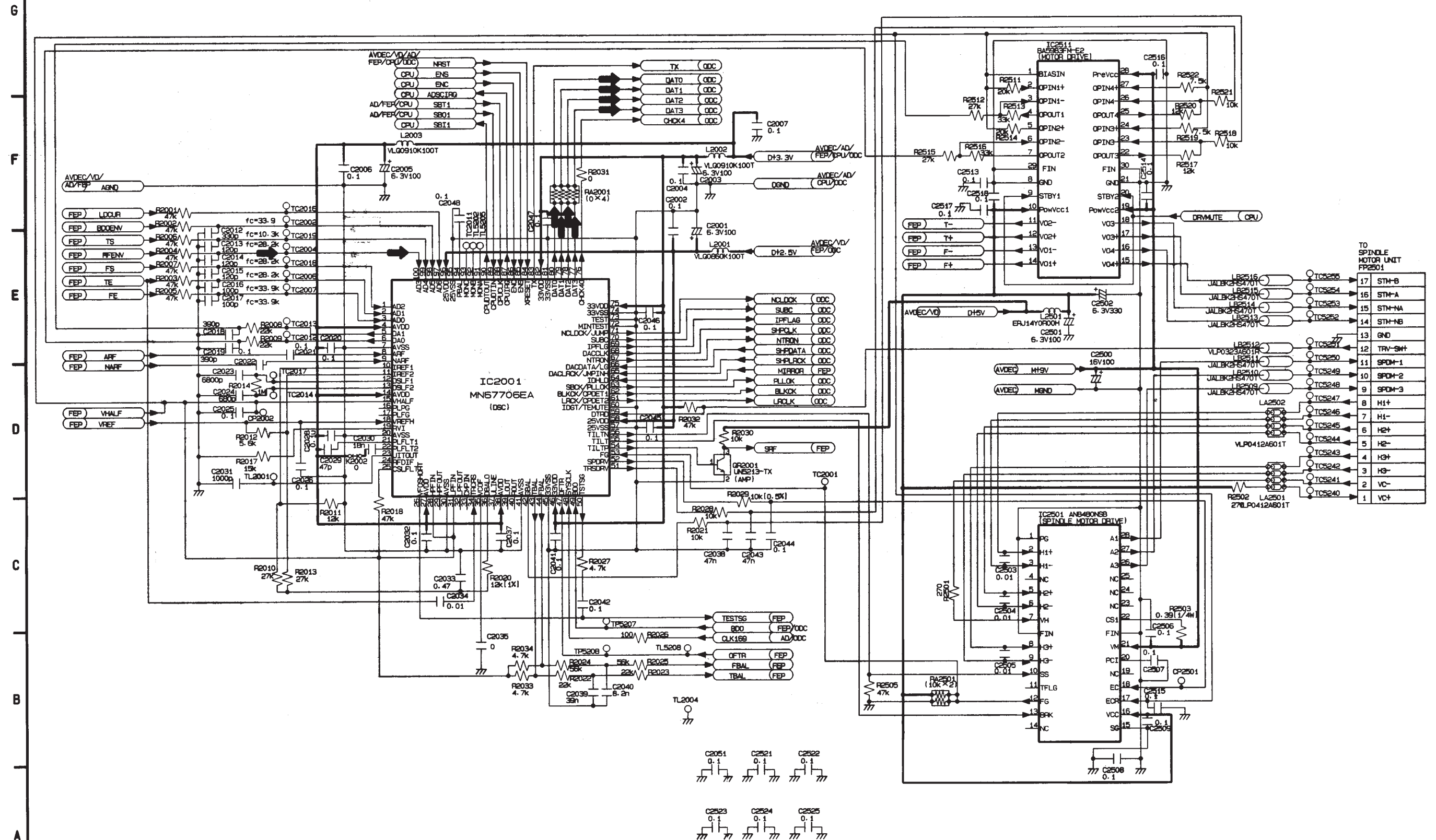
16.2. POWER SUPPLY SCHEMATIC DIAGRAM



16.3. ADSC SECTION (MODULE C.B.A. (1/7) SCHEMATIC DIAGRAM

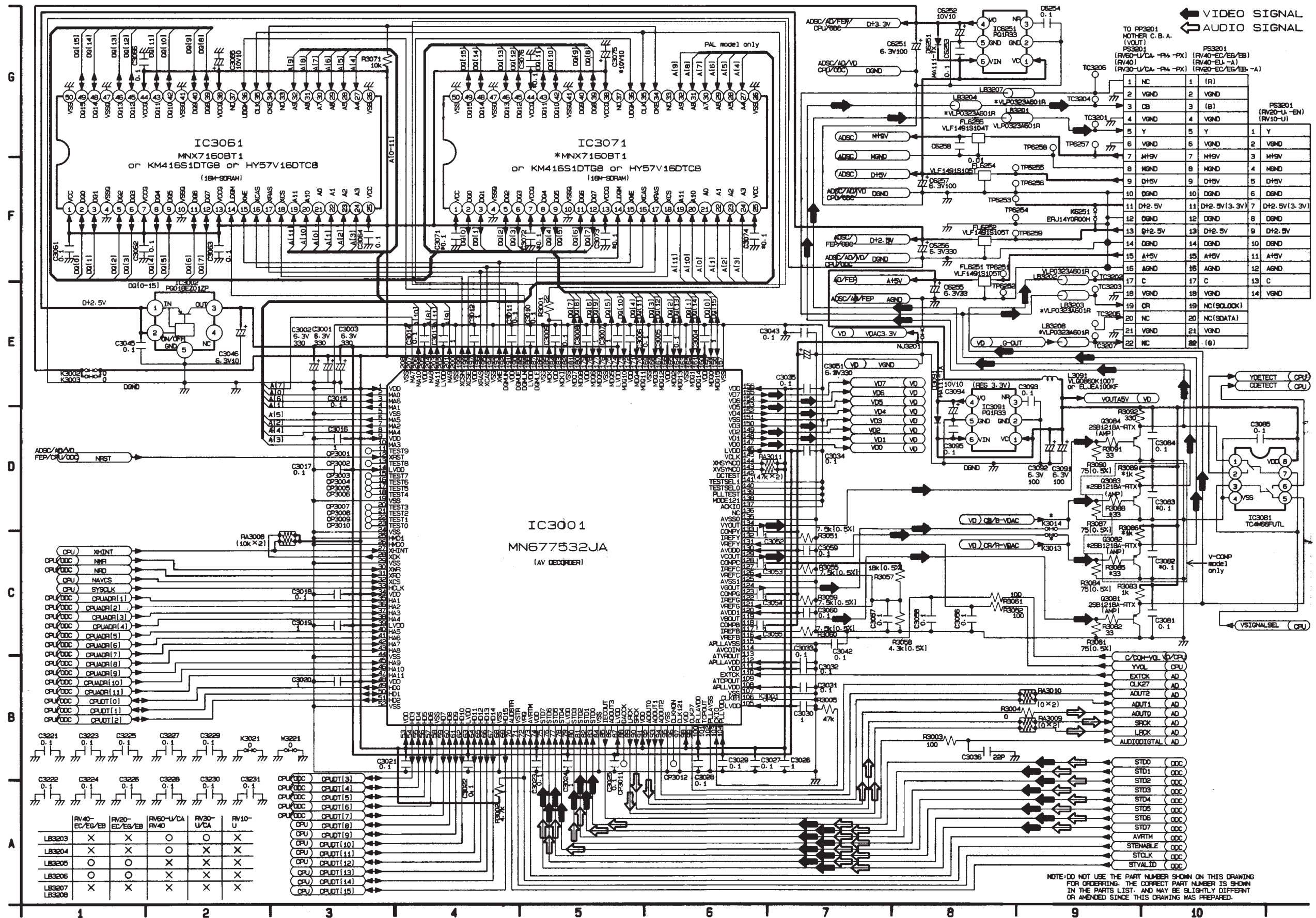
ADSC SECTION: Page 43, AVDEC SECTION: Page 44, VD SECTION: Page 45,
AD SECTION: Page 46, FEP SECTION: Page 47, CPU SECTION: Page 48, ODC SECTION: Page 49

← MAIN SIGNAL PATH



16.4. AV DECODER SECTION (MODULE C.B.A. (2/7) SCHEMATIC DIAGRAM

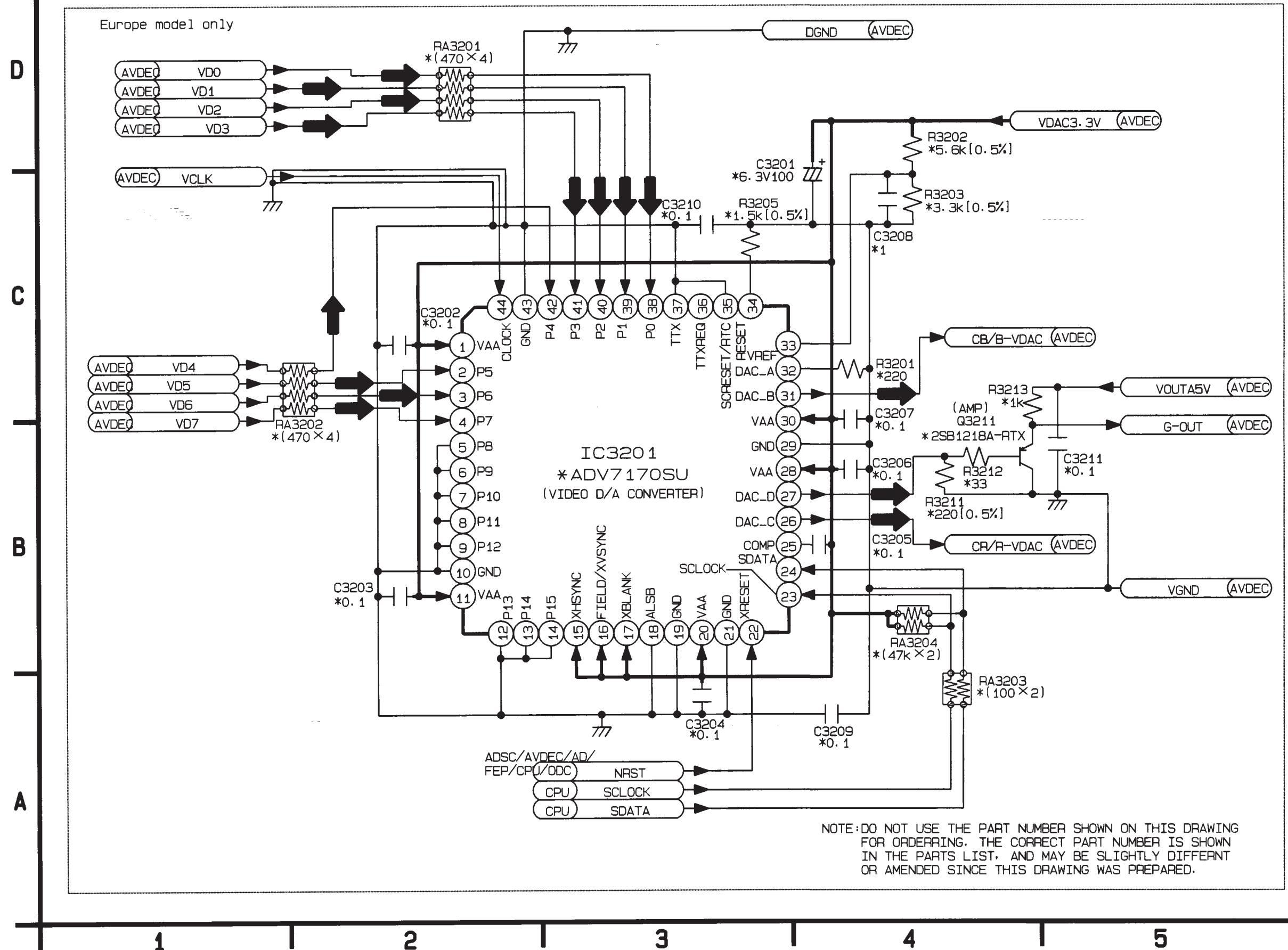
ADSC SECTION: Page 43, AVDEC SECTION: Page 44, VD SECTION: Page 45,
AD SECTION: Page 46, FEP SECTION: Page 47, CPU SECTION: Page 48, ODC SECTION: Page 49



16.5. VIDEO D/A CONVERTER SECTION (MODULE C.B.A. (3/7) SCHEMATIC DIAGRAM

ADSC SECTION: Page 43, AVDEC SECTION: Page 44, VD SECTION: Page 45,
AD SECTION: Page 46, FEP SECTION: Page 47, CPU SECTION: Page 48, ODC SECTION: Page 49

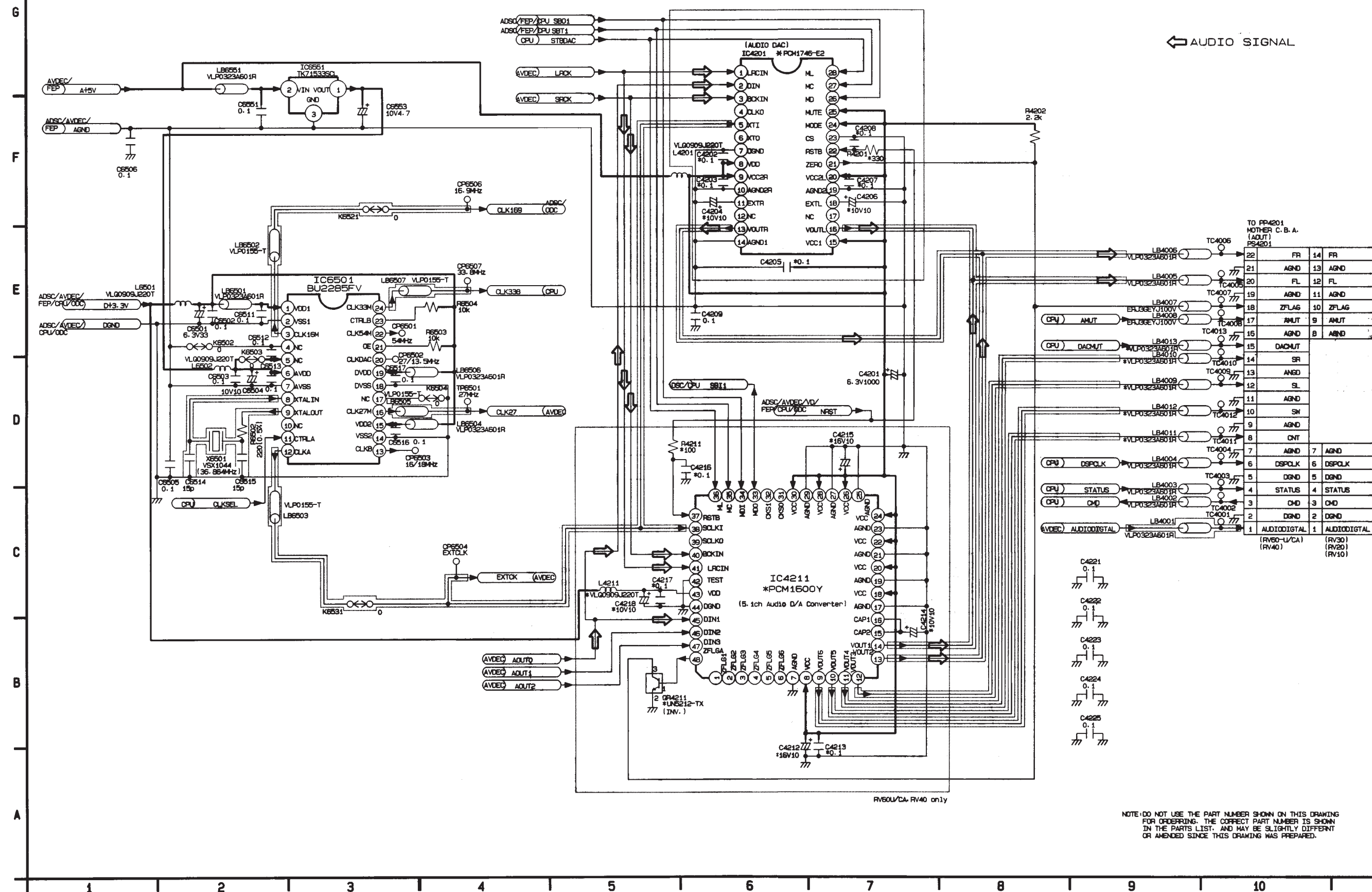
← VIDEO SIGNAL



16.6. AUDIO SECTION (MODULE C.B.A. (4/7) SCHEMATIC DIAGRAM

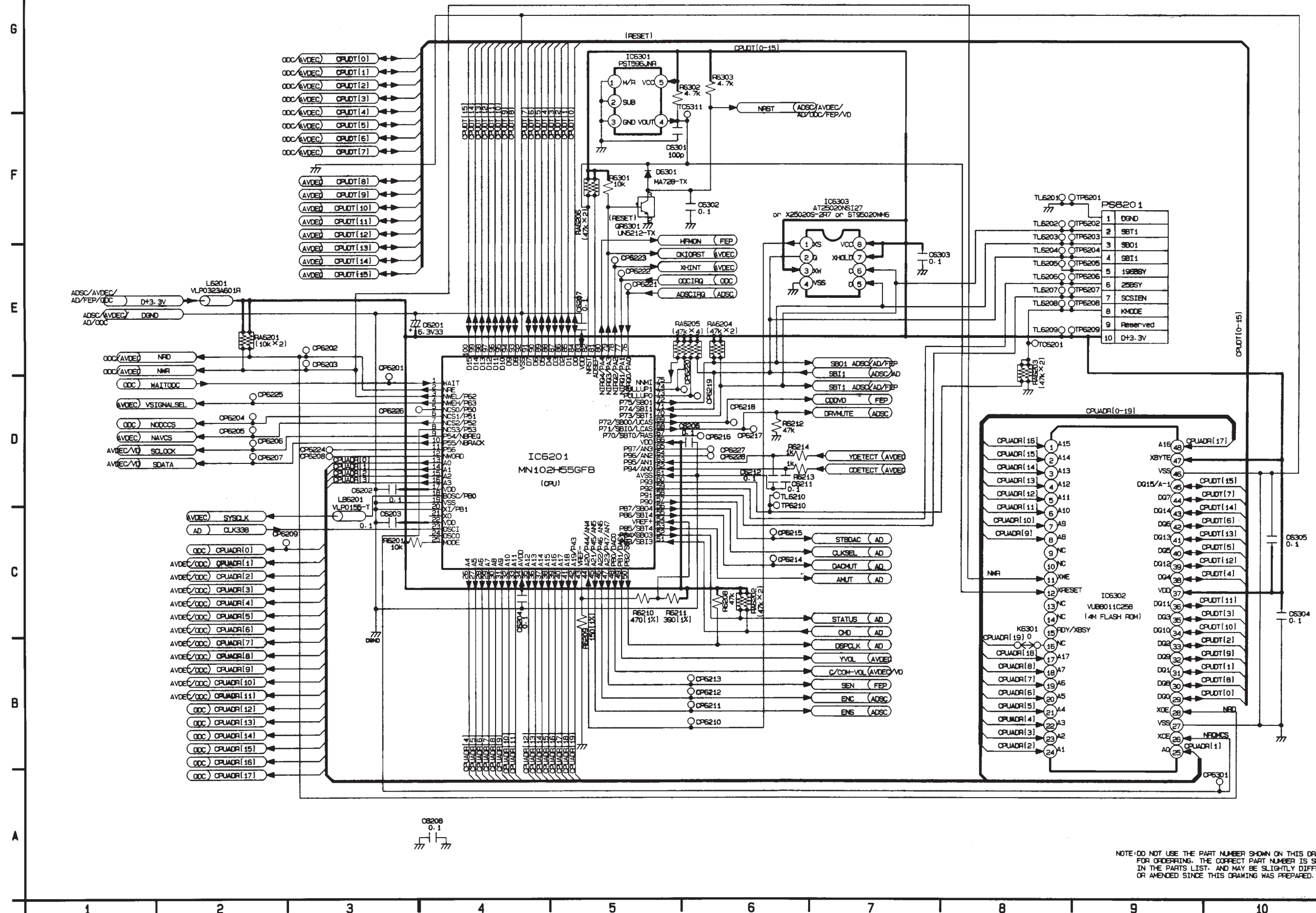
ADSC SECTION: Page 43, AVDEC SECTION: Page 44, VD SECTION: Page 45,

AD SECTION: Page 46, FEP SECTION: Page 47, CPU SECTION: Page 48, ODC SECTION: Page 49



16.8. CPU SECTION (MODULE C.B.A. (6/7) SCHEMATIC DIAGRAM

ADSC SECTION: Page 43, AVDEC SECTION: Page 44, VD SECTION: Page 45,
AD SECTION: Page 46, FEP SECTION: Page 47, CPU SECTION: Page 48, ODC SECTION: Page 49



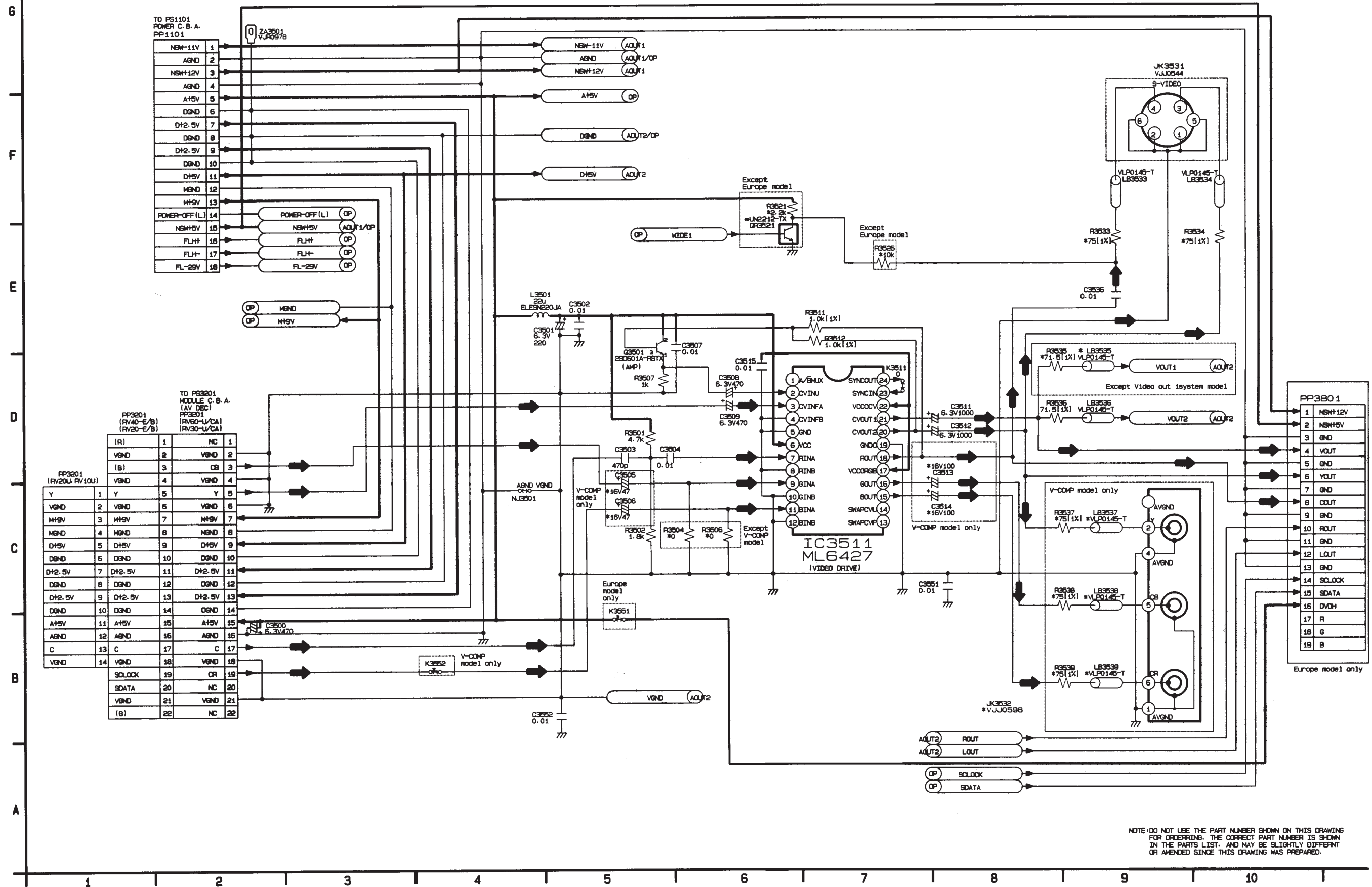
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.



16.10. VIDEO OUT SECTION (MOTHER C.B.A. (1/4) SCHEMATIC DIAGRAM

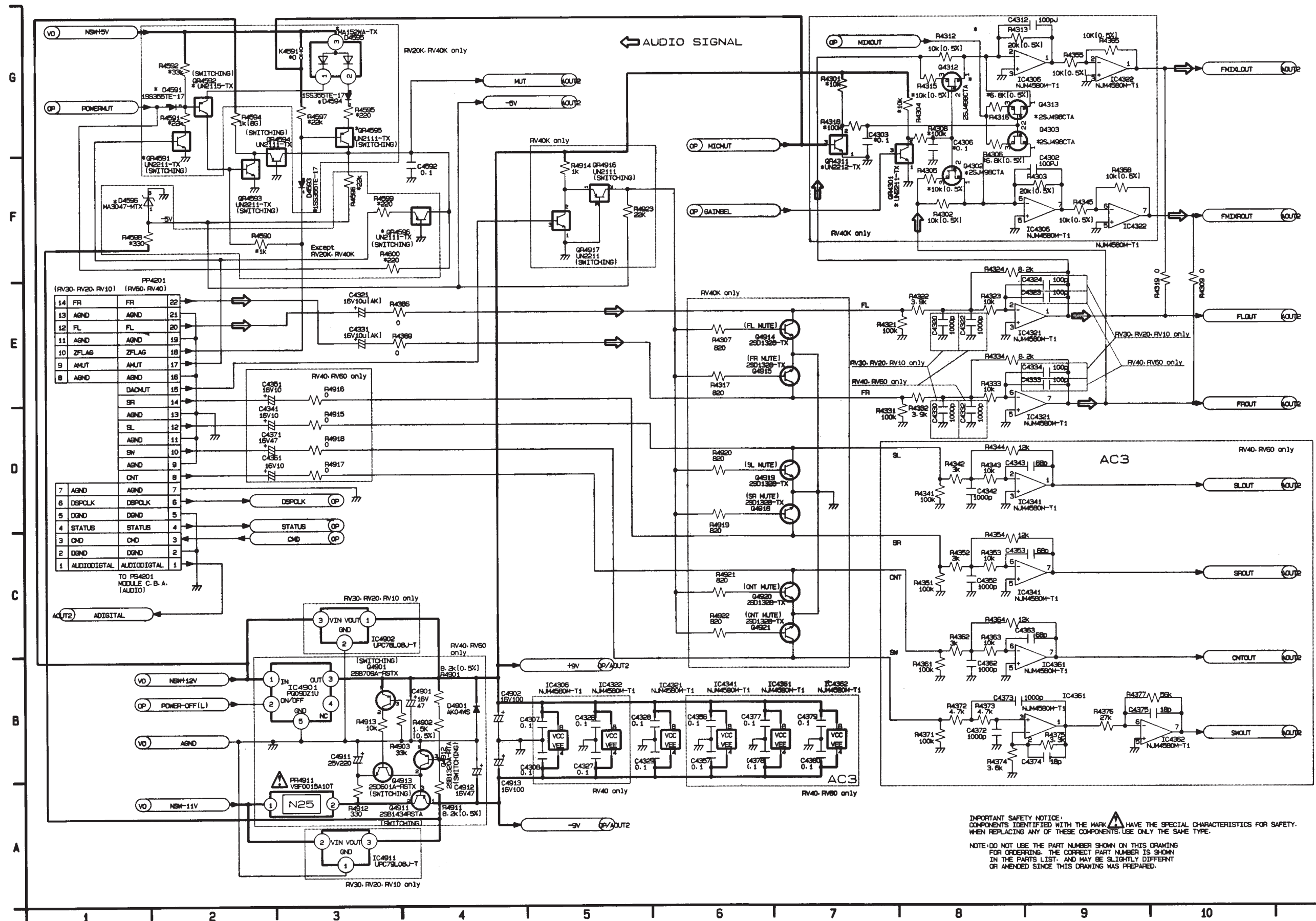
VO SECTION: Page 50, AOUT1 SECTION: Page 51, AOUT2 SECTION: Page 52, OP SECTION: Page 53

VIDEO SIGNAL



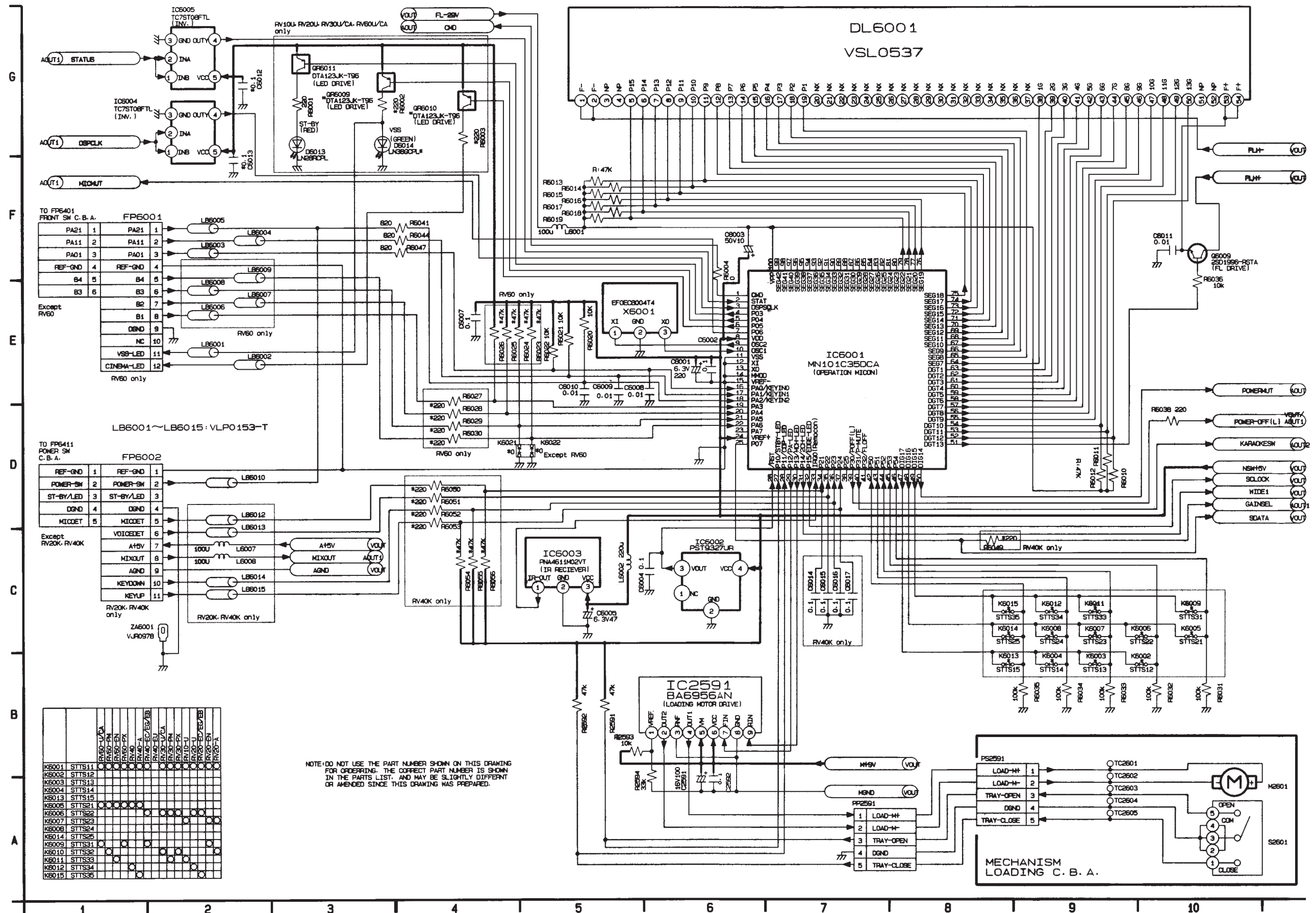
16.11. AUDIO OUT1 SECTION (MOTHER C.B.A. (2/4) SCHEMATIC DIAGRAM

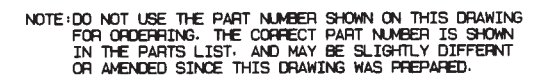
VO SECTION: Page 50, AOUT1 SECTION: Page 51, AOUT2 SECTION: Page 52, OP SECTION: Page 53



16.13. OPERATION SECTION (MOTHER C.B.A. (4/4) SCHEMATIC DIAGRAM

VO SECTION: Page 50, AOUT1 SECTION: Page 51, AOUT2 SECTION: Page 52, OP SECTION: Page 53

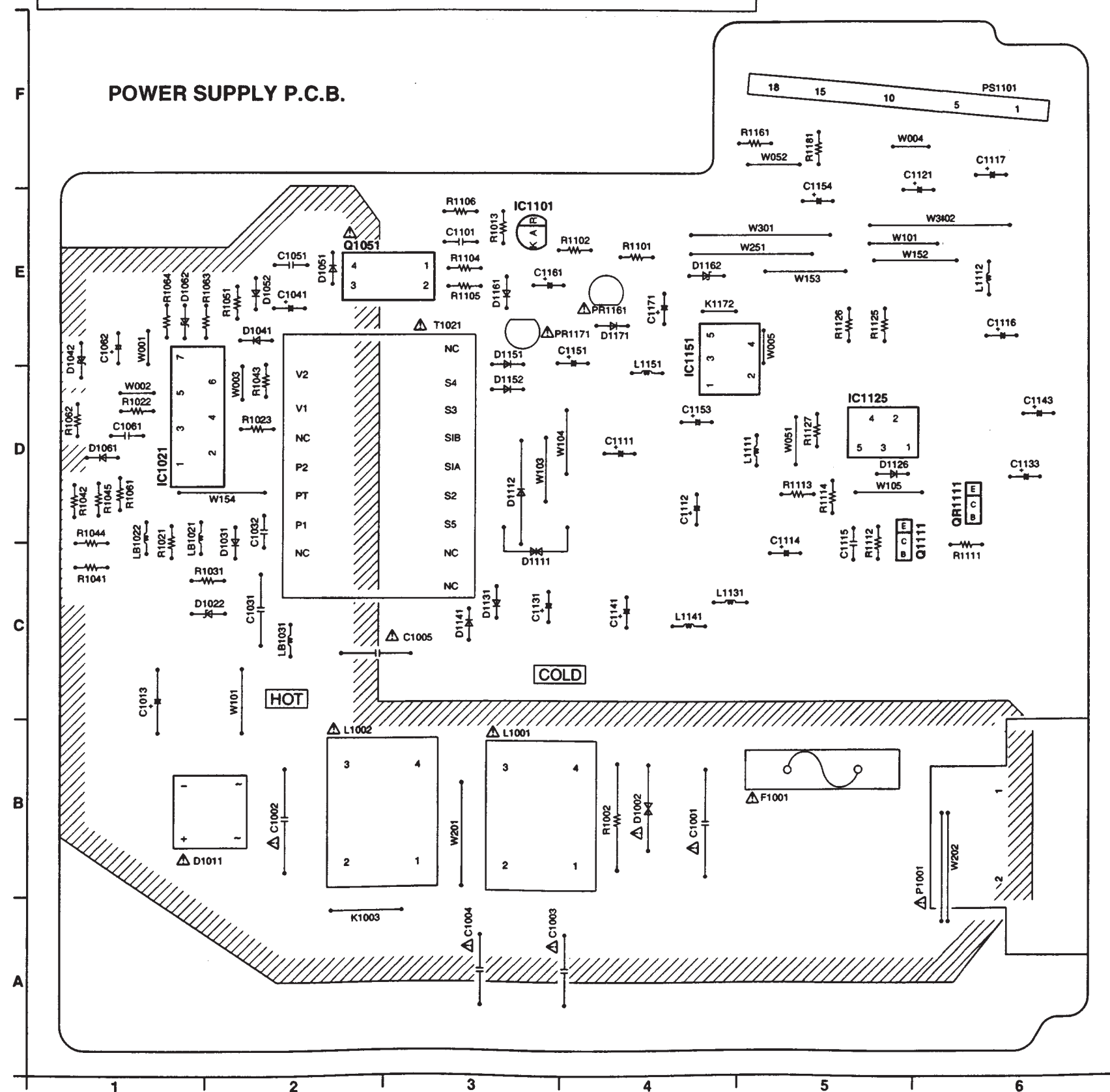




17 PRINTED CIRCUIT BOARD DIAGRAM

17.1. POWER SUPPLY P.C.B.

CAUTION THE STRIPED FRAME INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT. PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.



POWER SUPPLY P.C.B.			
Transistors		Integrated Circuits	
Q1051	E-2	IC1021	D-1
Q1111	D-6	IC1101	E-3
Transistor-resistors		IC1125	D-5
		IC1151	E-4
QR1111	D-7	Connectors	
		P1001	B-6
		PS1101	F-6

ADDRESS INFORMATION

17.4. MODULE P.C.B. AND MOTHER P.C.B ADDRESS INFORMATION

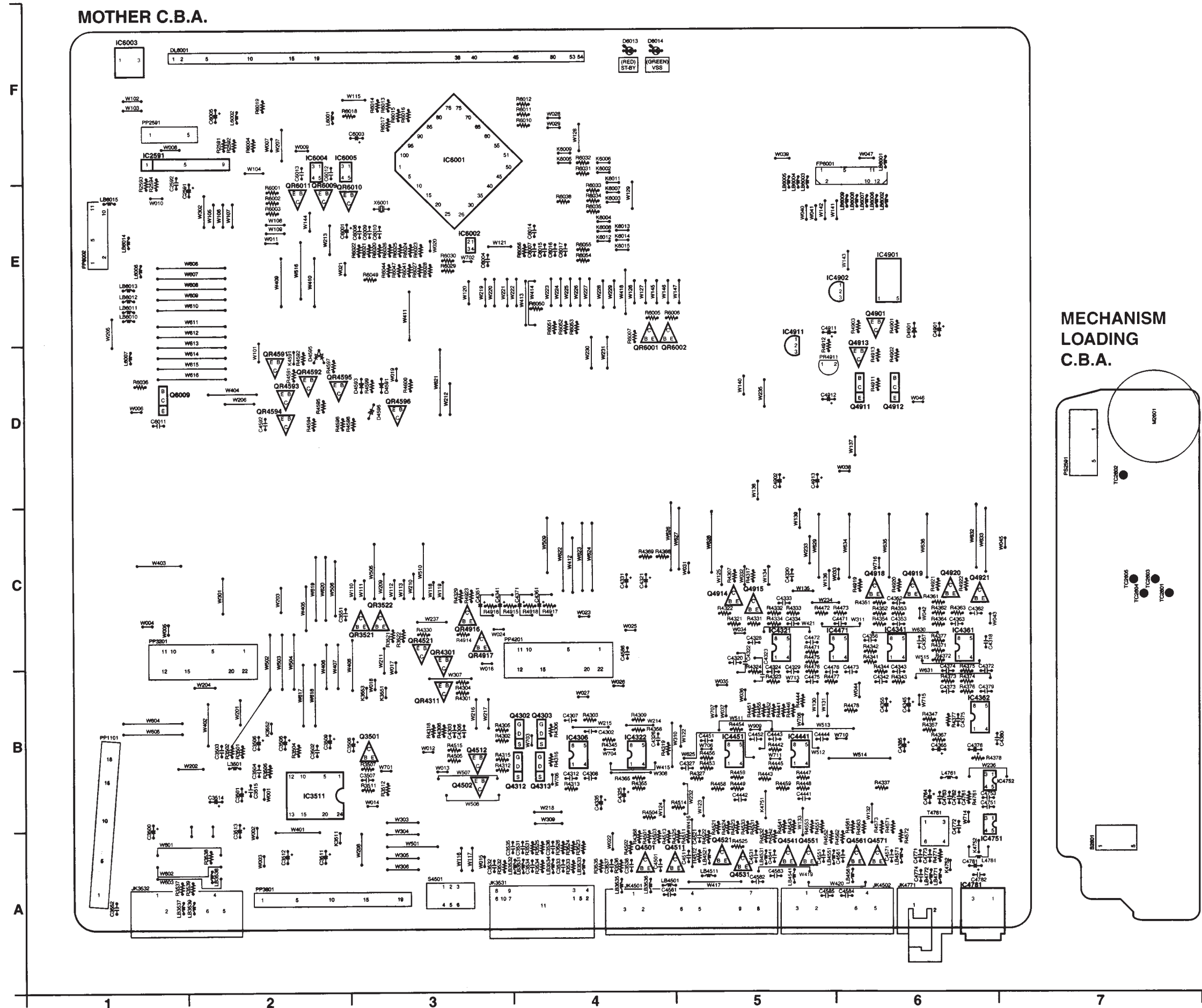
MODULE P.C.B.									
Transistors			IC3201	D-3	C	TP6207	D-1	F	
Q3221	E-7	F	IC3251	D-8	F	TP6208	D-1	F	
Q3225	E-8	F	IC4201	E-2	F	TP6209	D-1	F	
Q3231	E-8	F	IC4211	E-3	F	TP6210	C-1	F	
Q3235	E-8	F	IC5201	B-6	C	TP6251	F-8	F	
Q3241	E-8	F	IC6201	C-8	C	TP6252	F-8	F	
Q5201	A-7	C	IC6251	E-9	F	TP6253	F-9	F	
Transistor-resistors			IC6301	D-2	F	TP6254	E-8	F	
QR2001	C-4	F	IC6302	D-2	F	TP6255	E-8	F	
QR4211	E-8	C	IC6303	D-2	F	TP6256	E-8	F	
QR5201	B-7	C	IC6501	E-4	F	TP6257	E-8	F	
QR5231	A-3	F	IC6551	E-3	F	TP6258	E-8	F	
QR6301	D-8	C	IC7001	D-7	C	TP6259	F-9	F	
Integrated Circuits			Test Points			TP6501	E-4	F	
IC2001	C-4	F	TP5207	C-3	F	Adjustments			
IC2501	C-9	F	TP5208	B-3	F	VR3201	E-4	C	
IC2511	C-8	F	TP6201	E-1	F	Connectors			
IC3001	E-5	F	TP6202	D-1	F	FP2501	C-5	F	
IC3061	E-5	C	TP6203	D-1	F	FP5201	A-6	F	
IC3071	F-5	C	TP6204	D-1	F	PS3201	F-8	F	
IC3081	E-4	C	TP6205	C-1	F	PS4201	F-3	F	
IC3091	F-4	C	TP6206	D-1	F	PS6201	E-7	C	

ADDRESS INFORMATION
C ... COMPONENT SIDE
F ... FOIL SIDE

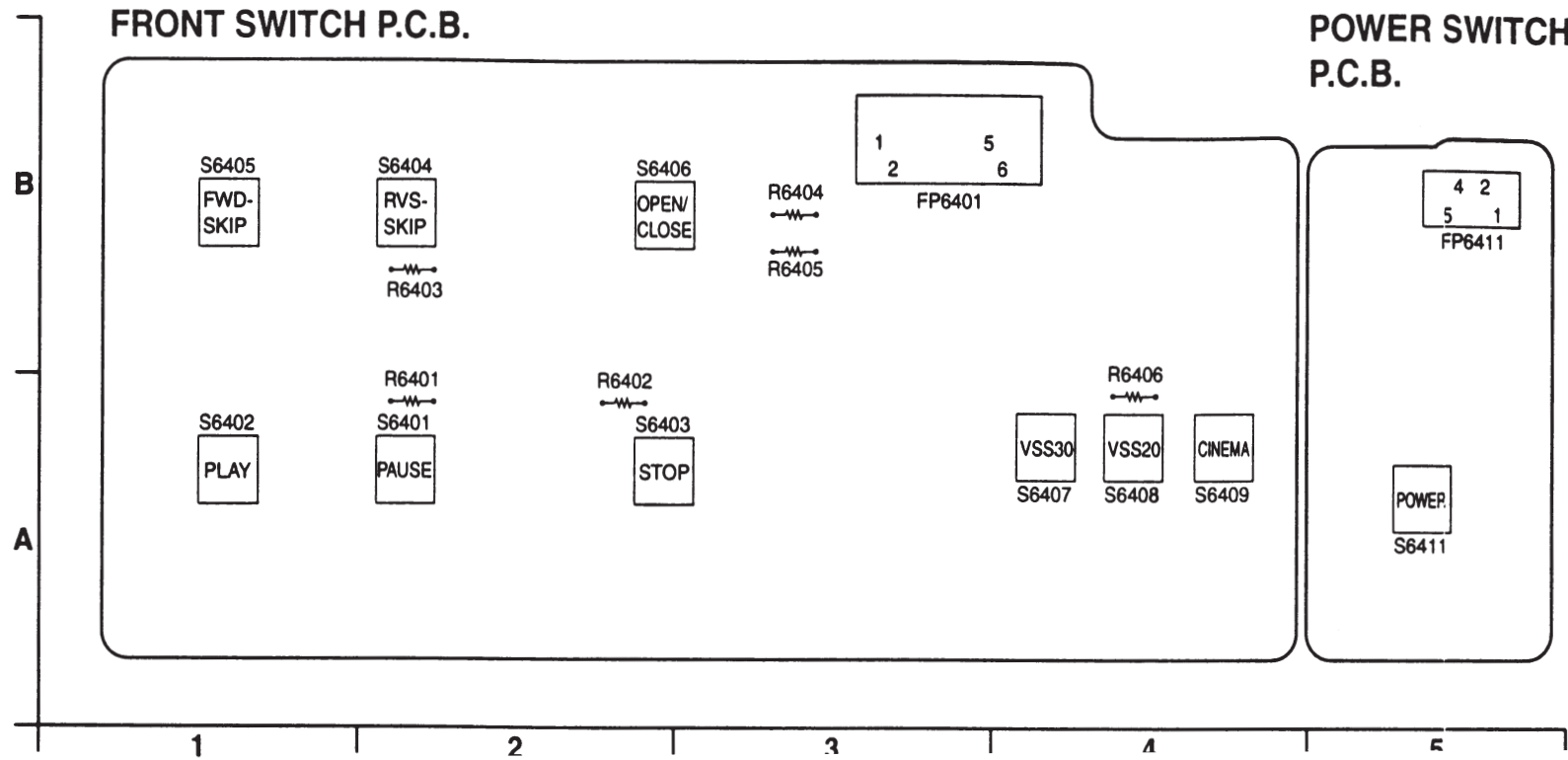
MOTHER P.C.B.							
Transistors		Q4911	F-4	IC4341	F-3	PP3201	A-3
Q3501	C-3	Q4912	F-4	IC4361	F-3	PP3801	B-1
Q3502	C-3	Q4913	F-5	IC4362	F-2	PP4201	C-3
Q3503	C-2	Q4921	E-4	IC4471	F-2	JK3541	C-1
Q3511	B-3	Q4931	F-4	IC4701	D-2	JK3591	A-1
Q3512	B-3	Q5421	E-1	IC4751	F-1	JK4501	D-1
Q3531	B-2	Q6009	A-4	IC4752	F-2	JK4502	E-1
Q3551	C-3	Transistor-resistors		IC4781	F-1	JK4771	F-1
Q3561	B-2	QR3521	B-1	IC4901	F-5		
Q3571	B-2	QR4381	F-3	IC6001	C-6		
Q4381	F-3	QR4521	C-4	IC6002	C-5		
Q4501	D-1	QR4594	B-4	IC6003	A-6		
Q4502	E-2	QR4596	C-4	IC6004	B-6		
Q4511	D-1	QR6009	B-5	IC6005	B-6		
Q4512	E-2	QR6010	B-5	Adjustments			
Q4531	E-1	QR6011	B-5	VR3501	B-2		
Q4541	E-1	Integrated Circuits		VR3511	B-2		
Q4551	E-1	IC2591	A-6	Connectors			
Q4561	E-1	IC3531	C-2	FP6001	E-6		
Q4571	F-1	IC3581	A-2	FP6002	A-5		
Q4593	B-4	IC4301	E-3	PP1101	A-1		
Q4901	F-5	IC4321	E-3	PP2591	A-6		

ADDRESS INFORMATION

17.5. MOTHER C.B.A.

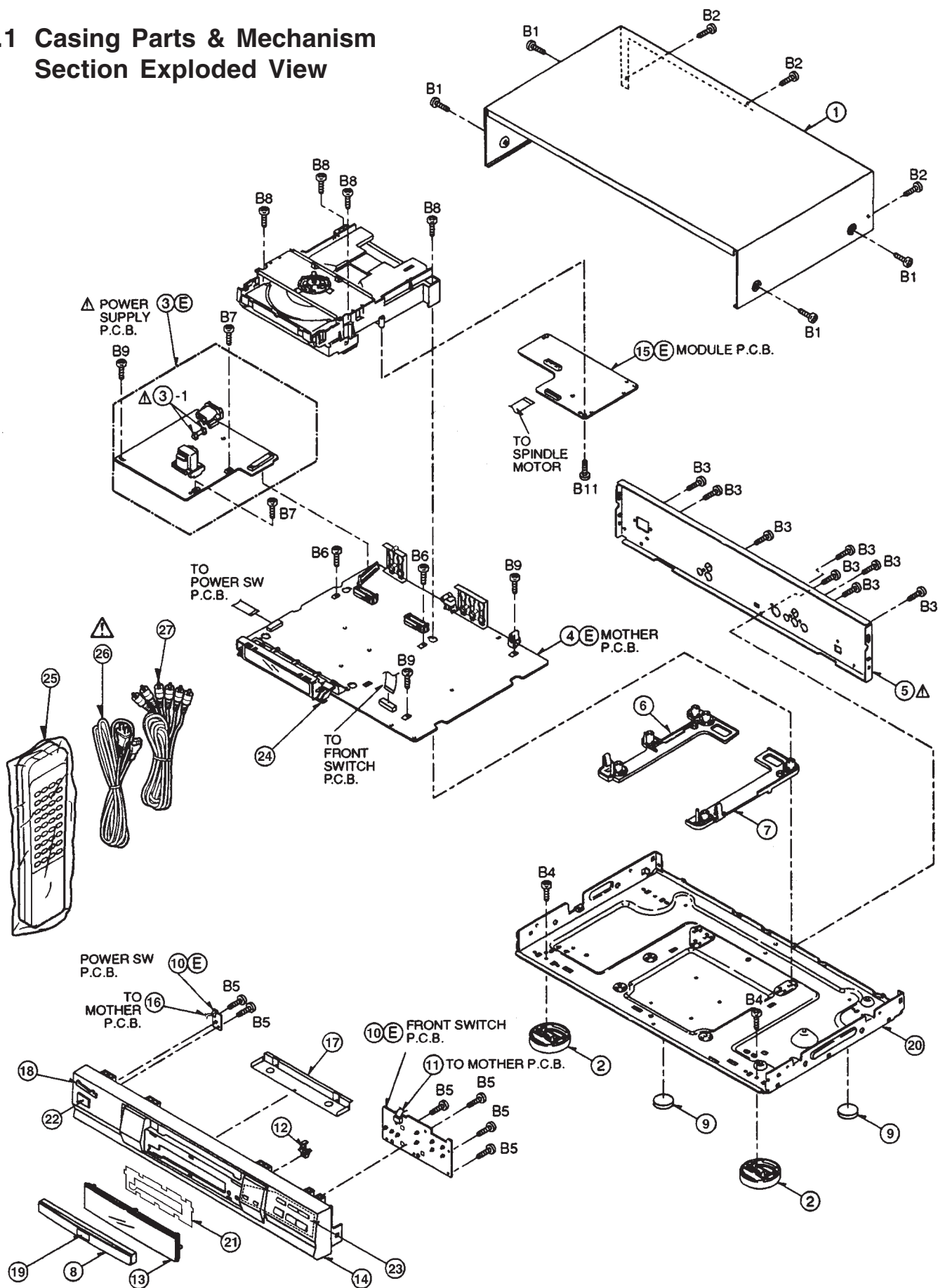


17.6. FRONT SWITCH P.C.B. AND POWER SWITCH P.C.B.



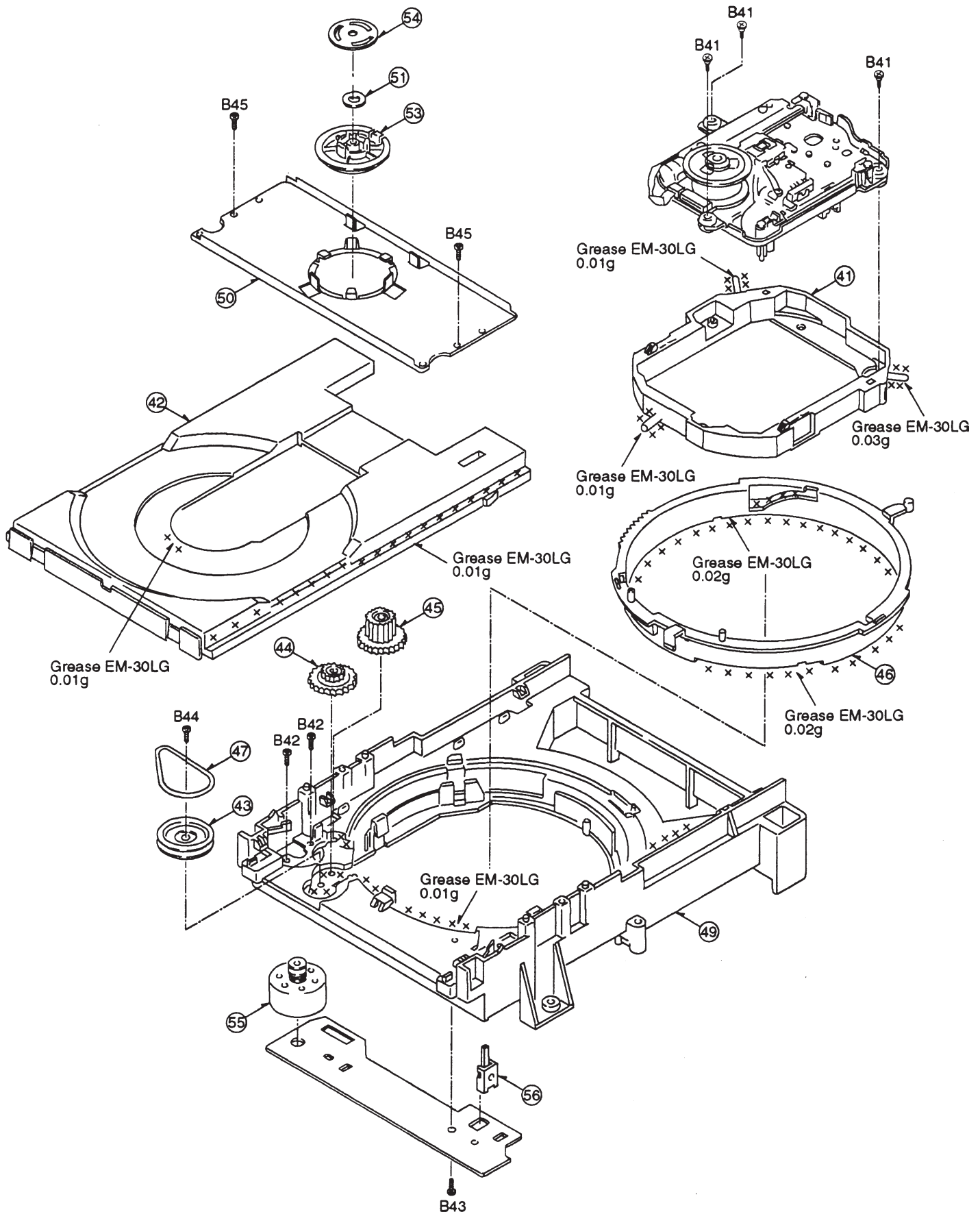
18 EXPLODED VIEWS

18.1 Casing Parts & Mechanism Section Exploded View



18.2. Loading Mechanism Section Exploded View

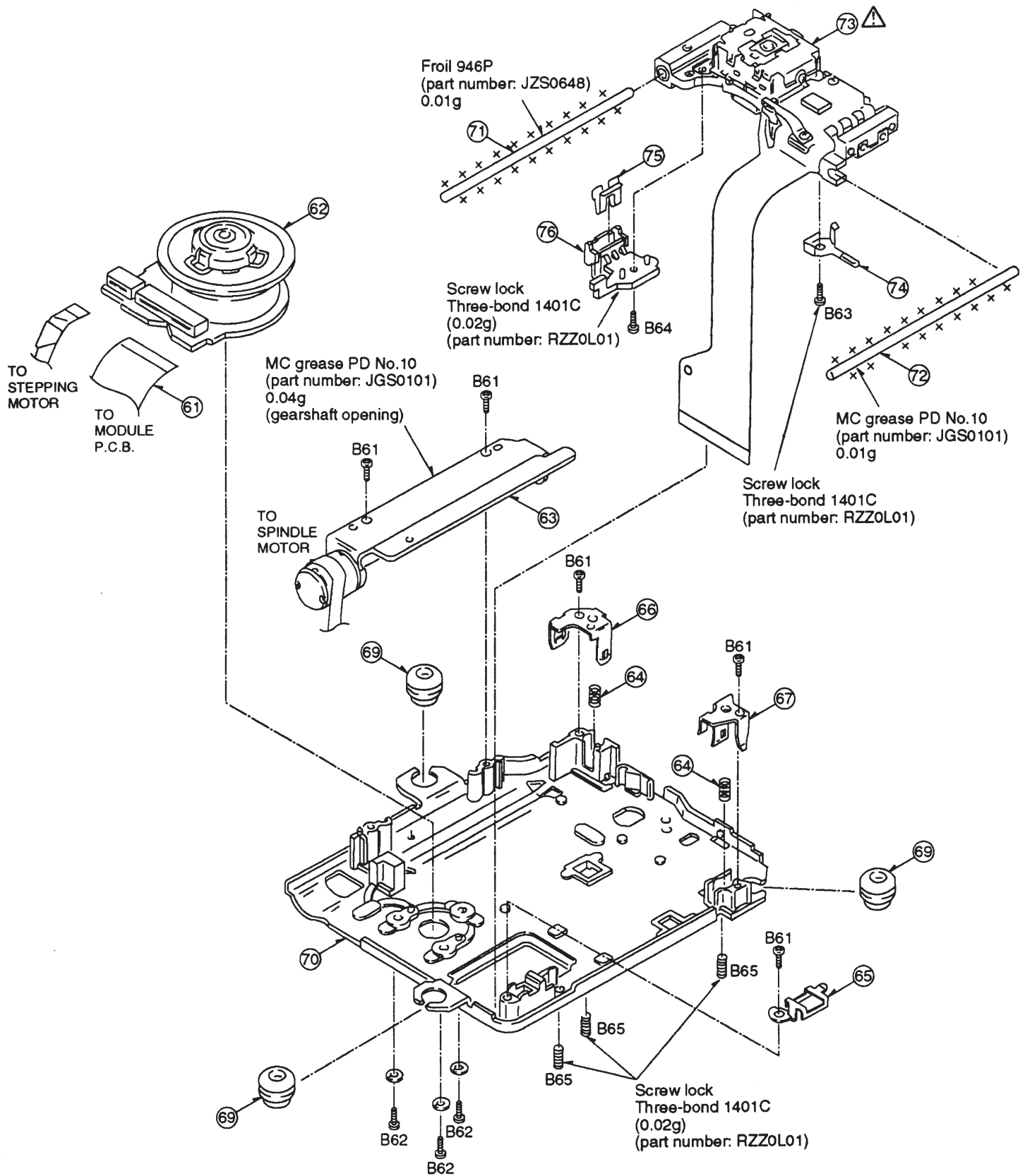
When replacing parts, lubricate the parts marked "xxx" in the diagram.



	Parts number	Service Tool
Grease	JGS0091	Grease EM-30LB

18.3. Traverse Section Exploded View

When replacing parts, lubricate the parts marked "xxx" in the diagram.



	Parts number	Service Tool
Screw	RZZ0L01	Three-bond 1401C
Lubricating	JZS0648	Froil 946P
Grease	JGS0101	MC grease PD No.10

19 LISTA DE PEÇAS

19.1 Casing Parts & Mechanism Section Parts List

REF. NO.	PART NO.	DESCRIPTION
1	VGM2B1696-1	TAMPA SUPERIOR - DOBRADA
2	VYK8895	PE DO APARELHO
3	VEP2B91251A	PLACA FONTE
3-1	EYF52BC	SUPORTE METÁLICO DO FUSÍVEL
4	VEP2B99144AD	PLACA PRINCIPAL MONTADA
5	VMA0E62	PAINEL TRASEIRO - KITFOR
6	VMD3854	ESPAÇADOR DO MECANISMO - ESQUERDO
7	VMD3855	ESPAÇADOR DO MECANISMO - DIREITO
8	VGK2581	ORNAMENTO DA BANDEJA DO CD
9	VKA0339	PE DE BORRACHA
10	VEP2B96578A	PLACA OPERAÇÕES/CHAVE POWER
11	VWJ06A0115BB	FFC - OPERAÇÕES/PRINCIPAL 6 VIAS
12	VGL0812-1	GUIA DE LUZ
13	VKW2781	VISOR DO DISPLAY - RV30
14	VGP5267	PAINEL FRONTAL - RV30
15	VEP96572F-Q	PLACA MODULO - RV30
16	VWJ05D4205BB	FFC - CHAVE POWER/PRINCIPAL 5 VIAS
17	VMA0E29	ATERRAMENTO FRONTAL
18	VGB0483	LOGOTIPO PANASONIC
19	VGB0536-1	LOGOTIPO DVD
20	VKU0561-1	TAMPA INFERIOR
21	VGQ5639	MASCARA DO VISOR
22	VGU8458	BOTAO POWER - RV30
23	VGU8459	BOTAO OPERACOES - RV30
24	VYQ1654	SUPORTE DO DISPLAY
25	VEQ2B2378	CONTROLE REMOTO DVD-RV30BR
26	VJA2B004	CABO AC DESTACAVEL
27	VJA2B1062	CABO AV ESTÉREO

19.3 Traverse Section Parts List

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
61 (3)	VMJ1388	SPINDLE FFC	1	(DISC MOTOR- FP2501)
62 (3)	BML3E4CRU	SPINDLE MOTOR	1	
63 (3)	VEM0720	STEPPING MOTOR UNIT	1	
64 (3)	VMB3278	TILT SPRING	2	
65 (3)	VMC1487	SUB-SHAFT TILT SPRING	1	
66 (3)	VMC1606	SPRING HOLDER 1	1	
67 (3)	VMC1607	SPRING HOLDER 2	1	
69 (3)	VMG1166	FLOATING RUBBER	3	
70 (3)	VMK0502	TRAVERSE CHASSIS	1	
71 (3)	VMS6471	GUIDE SHAFT 1	1	
72 (3)	VMS6472	GUIDE SHAFT 2	1	
73 (3)	VED0402-1	OPTICAL PICK-UP	1	△
74 (3)	VMC1491	SUB-SHAFT PRELOAD SPRING	1	
75 (3)	VMC1490	SCREW NUT	1	
76 (3)	VMD3260	NUT	1	

19.2 Loading Mechanism Section Parts List

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
41 (2)	VMD3270	INTERMEDIATE CHASSIS	1	
42 (2)	VMD3265	TRAY	1	
43 (2)	VDG1308	PULLEY GEAR	1	
44 (2)	VDG1309	DECELERATION GEAR	1	
45 (2)	VDG1310	DRIVE GEAR	1	
46 (2)	VDK0156	VERTICAL CAM	1	
47 (2)	VDV0373	BELT	1	
49 (2)	VMD3266	LOADING BASE	1	
50 (2)	VMA0E55-2	CLAMPER BASE	1	
51 (2)	RHM245ZA	MAGNET	1	
53 (2)	VMD3884	CLAMPER	1	
54 (2)	VMA0E54	CLAMPER WEIGHT	1	
55 (2)	VEM0664	LOADING MOTOR UNIT	1	
56 (2)	VSH0170	DOUBLE SWITCH	1	
B41 (2)	VHD1223	SCREW	3	
B42 (2)	XQNQC17+3	SCREW	2	
B43 (2)	XTV3+10G	SCREW	1	
B44 (2)	VHD1330	SCREW	1	
B45 (2)	XTV3+10G	SCREW	2	

19.5 Lista de Peças Elétricas

REF.	CÓDIGO	DESCRIÇÃO
PLACAS MONTADAS		
3	VEP2B91251A	PLACA FONTE
10	VEP2B96578A	PL. OPERACOES/CHAVE POWER
4	VEP2B99144AD	PLACA PRINCIPAL - RV30 MONTADA
CAPACITORES		
C1001	VCF0183M104	CAP. DE POLIESTER 0,1UF 250V
C1002	VCF0183M104	CAP. DE POLIESTER 0,1UF 250V
C1003	ECKMNA471MBV	CAP. POLIESTER
C1004	ECKMNA471MBV	CAP. POLIESTER
C1005	ECKMNA102MEV	CAP. POLIESTER 1NF
C1013	ECEC2GG680B	CAP. ELETROLITICO 400V 68U
C1031	ECKW2H103PU8	CAP. CERAMICO 10NF; 500V
C1032	ECCZ3A121KGE	CAP. CERAMICO 120PF 1KV
C1041	VCEA1VJC470B	CAP. ELETROLITICO 47UF 35V
C1051	ECQB1H103JF4	CAP. POLIESTER 0,01UF 50V
C1061	ECKR1H102KB5	CAP. CERAMICO 1NF 50V
C1062	VCEA0JJC331B	CAP. ELETROLITICO 330UF 6,3V
C1101	ECQV1H104JL2	CAP. CERAMICO 100NF 50V
C1111	VCEA1AJH182B	CAP. ELETROLITICO 1800UF 10V
C1112	VCEA1AJH182B	CAP. ELETROLITICO 1800UF 10V
C1114	VCEA1AJC222B	CAP. ELETROLITICO 2200UF 10V
C1115	ECFR1E104ZF5	CAP. CERAMICO 100NF Z 25V ENF.
C1116	VCEA1AJC221B	CAP. ELETROLITICO 220UF 10V
C1117	ECA1APX221B	CAP. ELETROLITICO 220UF 10V
C1121	ECA0JM102B	CAP. ELETROLITICO 1000UF 6,3V
C1131	VCEA1VJH151B	CAP. ELETROLITICO 150UF 35V
C1133	VCEA1EJC330B	CAP. ELETROLITICO 33UF 25V
C1141	VCEA1VJH151B	CAP. ELETROLITICO 150UF 35V
C1143	VCEA1EJC330B	CAP. ELETROLITICO 33UF 25V
C1151	VCEA1EJH271B	CAP. ELETROLITICO 270UF 25V
C1153	VCEA1EJC221B	CAP. ELETROLITICO 220UF 25V
C1154	VCEA1CJC221B	CAP. ELETROLITICO 220UF 16V
C1161	VCEA1HJH560B	CAP. ELETROLITICO 56UF 50V
C1171	VCEA1AJH181B	CAP. ELETROLITICO 180UF 10V
C2591	ECEA1CKA101B	CAP. ELETROLITICO 100UF 16V
C2592	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C3500	ECA0JM471B	CAP. ELETROLITICO 470UF 6,3V
C3501	ECA0JM221B	CAP. ELETROLITICO 220UF 6,3V
C3502	ECJ2VF1H103Z	CAP. CERAMICO SMD 10NF 50V
C3503	ECUV1H471KBN	CAP. CERAMICO 470PF 50V
C3504	ECJ2VB1H103K	CAP. CERAMICO 10NF 50V
C3505	ECEA1CKA470B	CAP. ELETROLITICO 47UF 16V
C3506	ECEA1CKA470B	CAP. ELETROLITICO 47UF 16V
C3507	ECJ2VF1H103Z	CAP. CERAMICO SMD 10NF 50V
C3508	ECA0JM471B	CAP. ELETROLITICO 470UF 6,3V
C3509	ECA0JM471B	CAP. ELETROLITICO 470UF 6,3V
C3511	ECA0JM102B	CAP. ELETROLITICO 1000UF 6,3V
C3512	ECA0JM102B	CAP. ELETROLITICO 1000UF 6,3V
C3513	ECEA1CKA101B	CAP. ELETROLITICO 100UF 16V
C3514	ECEA1CKA101B	CAP. ELETROLITICO 100UF 16V
C3515	ECJ2VF1H103Z	CAP. CERAMICO SMD 10NF 50V
C3536	ECJ2VB1H103K	CAP. CERAMICO 10NF 50V
C3551	ECJ2VF1H103Z	CAP. CERAMICO SMD 10NF 50V
C3552	ECJ2VF1H103Z	CAP. CERAMICO SMD 10NF 50V
C4320	ECUV1H102JCX	CAP. CERAMICO SMD 1000PF 50V
C4321	ECA1CAK220XB	CAP. ELETROLITICO 22UF 16V
C4324	ECUV1H101JCG	CAP. CERAMICO 100PF 50V
C4325	ECA1CAK470XB	CAP. ELETR. ALUMINIO 47UF 16V
C4328	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C4329	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C4330	ECUV1H102JCX	CAP. CERAMICO SMD 1000PF 50V
C4331	ECA1CAK220XB	CAP. ELETROLITICO 22UF 16V
C4334	ECUV1H101JCG	CAP. CERAMICO 100PF 50V
C4335	ECA1CAK470XB	CAP. ELETR. ALUMINIO 47UF 16V
C4385	ECA1CAK470XB	CAP. ELETR. ALUMINIO 47UF 16V
C4471	ECJ2VB1H333K	CAP. CERAMICO 33NF 50V

REF. NO.	PART NO.	DESCRIPTION
C4472	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C4473	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C4475	ECJ2VB1H104K	CAP. CERAMICO SMD 100NF 50V
C4476	ECJ2VB1H103K	CAP. CERAMICO 10NF 50V
C4501	ECUV1H102JCX	CAP. CERAMICO SMD 1000PF 50V
C4511	ECUV1H102JCX	CAP. CERAMICO SMD 1000PF 50V
C4531	ECUV1H102JCX	CAP. CERAMICO SMD 1000PF 50V
C4581	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C4582	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C4592	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C4781	ECEA1HKA4R7B	CAP. ELETROLITICO 4,7UF 50V
C4782	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C4902	ECA1CAK101XB	CAP. ELETR. ALUMINIO 100UF 16V
C4913	ECA1CAK101XB	CAP. ELETR. ALUMINIO 100UF 16V
C6001	ECEA0JKA221B	CAP. ELETROLITICO 220UF 6,3V
C6002	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C6003	ECEA1HKA100B	CAP. ELETR. ALUMINIO 10UF 50V
C6004	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C6005	ECEA0JKA470B	CAP. ELETROLITICO 47UF 6,3V
C6007	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C6008	ECJ2VF1H103Z	CAP. CERAMICO SMD 10NF 50V
C6009	ECJ2VF1H103Z	CAP. CERAMICO SMD 10NF 50V
C6011	ECJ2VF1H103Z	CAP. CERAMICO SMD 10NF 50V
C6012	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
C6013	ECJ2VF1H104Z	CAP. CERAMICO SMD 100NF 50V
DIODOS		
D1002	ENC471D5ATRB	DIODO DE SILICIO
D1011	S1WBA80	DIODO RETIFICADOR
D1022	RD100E-TB	DIODO
D1031	AP01CV2	DIODO RETIFICADOR
D1041	AU01ZV2	DIODO RETIFICADOR
D1042	MA7300B-TR	DIODO RETIFICADOR
D1051	MA165TA5VT	DIODO SILICIO EPIT.PLANAR
D1052	MA165TA5VT	DIODO SILICIO EPIT.PLANAR
D1061	MA700-TA	DIODO SWITCHING
D1062	MA4200-HTA	DIODO ZENER TUNEL
D1111	MA7D55	DIODO SILICIO, RETIFICADOR
D1126	11ES1TA1	DIODO RETIFICADOR
D1131	11EQS10TA1	DIODO RETIFICADOR
D1141	11EQS10TA1	DIODO RETIFICADOR
D1151	11EQS10TA1	DIODO RETIFICADOR
D1152	11EQS10TA1	DIODO RETIFICADOR
D1161	AU01ZV2	DIODO RETIFICADOR
D1162	MA4030-MTA	DIODO ZENER VZ=3V
D1171	AK04V2	DIODO RETIFICADOR
D4596	MA3047-MTX	DIODO SMD
D6013	LN28RCPL	LED STAND-BY RED PITCH 2,5mm
D6014	LN38GCPL	LED VSS VERDE PITCH 2,5mm
CIRCUITOS INTEGRADOS		
IC1021	STRM6559LF	IC BI-POLAR
IC1101	UPC1093J-1-T	IC RETIF. CONTROLADO DE SILICIO
IC1125	PQ07RX11	IC REGULADOR
IC1151	SI-3090FLF11	REGULADOR DE TENSÃO
IC2591	BA6956AN	IC DRIVER DE CARREGAMENTO
IC3511	ML6427	IC BUFFER DE VIDEO
IC4321	NJM4580M-TE1	IC OP-AMP MONOLITICO ANALOGICO
IC4471	NJM4558M-TE1	IC DUPLO AMP. OPERACIONAL
IC4781	GP1FA550TZ	IC SAIDA OTICA
IC4902	UPC78L08J-T	IC REG. TENSÃO POSITIVA 8V
IC4911	UPC79L08J-T	IC REG. TENSÃO NEGATIVA 8V
IC6001	MN101C35DCC	IC MICROPROCESSADOR
IC6002	PST9327UR	IC RESET ANALOGICO DIGITAL
IC6003	PNA4611M02VT	FOTO TRANSISTOR
IC6004	TC7ST08FTL	IC LOGICO MONOLITICO DIGITAL
IC6005	TC7ST08FTL	IC LOGICO MONOLITICO DIGITAL
PR1161	VSF0015A025T	IC DE PROTECAO
PR1171	VSF0015A10T	IC DE PROTECAO

REF. NO.	PART NO.	DESCRIPTION
JUMPERS SMD		
K3511	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
K3552	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
K4752	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
K6002	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
K6006	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
K6011	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W701	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W702	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W703	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W704	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W705	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W706	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W707	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W708	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W709	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W711	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W713	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W714	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W715	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
W716	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W

BOBINAS		
L1001	ELF15N005A	BOBINA
L1002	ELF15N005A	BOBINA
L1111	VLQ0611K100T	BOBINA 10UH
L1112	ELELN100KA	INDUTOR 10UH
L1131	VLQEL05T330K	BOBINA 33UH
L1141	VLQEL05T330K	BOBINA 33UH
L1151	VLQ0611K220T	INDUTOR 22UH
L3501	ELESN220JA	INDUTOR 22UH
L4781	ELESN220JA	INDUTOR 22UH
L6001	VLQEL05T101J	INDUTOR 100UH
L6002	VLQEL05T221J	INDUTOR 220UH
LB1021	VLP0056-T	BOBINA
LB1022	VLP0083-T	BOBINA
LB1031	VLP0083-T	BOBINA
LB3533	VLP0145-T	BOBINA
LB3534	VLP0145-T	BOBINA
LB3536	VLP0145-T	BOBINA
LB3537	VLP0145-T	BOBINA
LB3538	VLP0145-T	BOBINA
LB3539	VLP0145-T	BOBINA
LB450	VLP0145-T	BOBINA
LB4511	VLP0145-T	BOBINA
LB4531	VLP0145-T	BOBINA
LB6003	VLP0153-T	BOBINA SMD EMI FILTER
LB6004	VLP0153-T	BOBINA SMD EMI FILTER
LB6005	VLP0153-T	BOBINA SMD EMI FILTER
LB6010	VLP0153-T	BOBINA SMD EMI FILTER

TRANSISTORES		
Q1051	PS2561L1-1W	FOTO ACOPLADOR
Q1111	2SJ525TP	TRANSISTOR FET, BAIXA POTENCIA
Q3501	2SD601A-RSTX	TRANSISTOR SMD SILICIO
Q4501	2SD1328-TX	TRANSISTOR SMD SILICIO
Q4511	2SD1328-TX	TRANSISTOR SMD SILICIO
Q4521	2SD1328-TX	TRANSISTOR SMD SILICIO
Q4531	2SD1328-TX	TRANSISTOR SMD SILICIO
Q6009	2SD1996-RSTA	TRANSISTOR NPN 600MW
QR1111	UN4213-TA	TRANSISTOR/RESISTOR
QR3521	UN2212-TX	TRANSISTOR SMD
QR4521	UN2111-TX	TRANSISTOR SMD
QR4593	UN2211-TX	TRANSISTOR SMD
QR4594	UN2111-TX	TRANSISTOR SMD
QR4596	UN2111-TX	TRANSISTOR SMD
QR6009	DTA123JK-T96	TRANSISTOR SMD SILICIO
QR6011	DTA123JK-T96	TRANSISTOR SMD SILICIO
R1002	ERC12AGM334C	RESISTOR 330K 1,2W

REF. NO.	PART NO.	DESCRIPTION
RESISTORES		
R1021	ERX1SJR82E	RES. FILME METALICO 0,820. 1W
R1022	ERDS2FJ471T	RES. NÃO INFLAMAVEL 4700. 1/4W
R1023	ERDS2FJ471T	RES. NÃO INFLAMAVEL 4700. 1/4W
R1031	ERG1SJ393E	RESISTOR 39KO. 1W
R1041	ERDS2FJ224T	RES. NÃO INFLAMAVEL 220KO. 1/4W
R1042	ERDS2FJ224T	RES. NÃO INFLAMAVEL 220KO. 1/4W
R1043	ERG12SJ100E	RESISTOR 100. 1,2W
R1044	ERDS1VJ395T	RESISTOR 39MO. 1/2W
R1045	ERDS1VJ475T	RESISTOR 47MO. 1/2W
R1051	ERDS2FJ182T	RESISTOR NÃO INFLAMAVEL 1,8KO.
R1061	ERDS2FJ152T	RES. NÃO INFLAMAVEL 1,5KO. 1/4W
R1062	ERDS2FJ101T	RESISTOR 100 OHMS 0,25W
R1063	ERDS2FJ224T	RES. NÃO INFLAMAVEL 220KO. 1/4W
R1064	ERDS2FJ103T	RES. 10KO. 1/4W
R1101	ERDS2TJ750T	RESISTOR DE CARBONO 750. 1/2W
R1102	EROS2TKF1201	RESISTOR 1,2KO. 250MW
R1103	EROS2TKF1201	RESISTOR 1,2KO. 250MW
R1104	ERDS2TJ561T	RESISTOR DE CARBONO 5600. 1/5W
R1105	ERDS2TJ271T	RESISTOR DE CARBONO 2700. 1/4W
R1106	ERDS2TJ202T	RESISTOR DE CARBONO 2KO. 1/4W
R1111	ERDS2TJ102T	RESISTOR DE CARBONO 1KO. 1/4W
R1112	ERDS2TJ104T	RES. DE CARBONO 100KO. 1/4W
R1113	ERDS2TJ241T	RESISTOR DE CARBONO 2400. 1/4W
R1114	ERDS2TJ241T	RESISTOR DE CARBONO 2400. 1/4W
R1125	ERDS2TJ101T	RESISTOR DE CARBONO 1000. 1/4W
R1126	EROS2TKF1201	RESISTOR 1,2KO. 250MW
R1127	EROS2TKF1201	RESISTOR 1,2KO. 250MW
R1161	ERDS2TJ104T	RES. DE CARBONO 100KO. 1/4W
R1181	ERDS2TJ101T	RES. DE CARBONO 1000. 1/4W
R2591	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R2592	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R2593	ERJ6GEYJ103V	RESISTOR METAL 10KO. 1/10W
R2594	ERJ6GEYJ333V	RESISTOR METAL 33KO. 1/10W
R3501	ERJ6GEYJ472V	RESISTOR METAL 4,7KO. 1/10W
R3502	ERJ6GEYJ182V	RESISTOR METAL 1,8KO. 1/10W
R3507	ERJ6GEYJ102V	RESISTOR METAL 1KO. 1/10W
R3511	ERJ6ENF1001V	RES. SMD PRECISO 1KO. 1/10W
R3512	ERJ6ENF1001V	RES. SMD PRECISO 1KO. 1/10W
R3521	ERJ6GEYJ222V	RESISTOR METAL 2200. 1/10W
R3526	ERJ6GEYJ103V	RESISTOR METAL 10KO. 1/10W
R3533	ERJ6ENF75R0V	RESISTOR SMD 750. 1/10W
R3534	ERJ6ENF75R0V	RESISTOR SMD 750. 1/10W
R3536	ERJ6ENF71R5V	RESISTOR SMD 71,50. 1/10W
R3537	ERJ6ENF75R0V	RESISTOR SMD 750. 1/10W
R3538	ERJ6ENF75R0V	RESISTOR SMD 750. 1/10W
R3539	ERJ6ENF75R0V	RESISTOR SMD 750. 1/10W
R4309	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
R4319	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
R4321	ERJ6GEYJ104V	RESISTOR METAL 10KO. 1/10W
R4322	ERA6YED392V	RESISTOR SMD 3,9KO. 1/10W
R4323	ERA6YED103V	RESISTOR SMD 10KO. 1/10W
R4324	ERA6YED822V	RESISTOR SMD 8,2KO. 1/10W
R4327	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R4329	ERJ6GEYJ223V	RESISTOR CHIP 2,2KO. 1/10W
R4331	ERJ6GEYJ104V	RESISTOR METAL 100KO. 1/10W
R4332	ERA6YED392V	RESISTOR SMD 3,9KO. 1/10W
R4333	ERA6YED103V	RESISTOR SMD 10KO. 1/10W
R4334	ERA6YED822V	RESISTOR SMD 8,2KO. 1/10W
R4337	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R4338	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R4366	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
R4369	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
R4458	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
R4459	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
R4471	ERJ6GEYJ683V	RESISTOR METAL 68KO. 1/10W
R4472	ERJ6GEYJ683V	RESISTOR METAL 68KO. 1/10W
R4473	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R4475	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W

REF. NO.	PART NO.	DESCRIPTION
RESISTORES		
R4477	ERJ6GEYJ563V	RESISTOR METAL 56KO. 1/10W
R4478	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
R4501	ERJ6GEYJ821V	RESISTOR METAL 8200. 1/10W
R4502	ERJ6GEYJ221V	RESISTOR METAL 2200. 1/10W
R4503	ERJ6GEYJ821V	RESISTOR METAL 8200. 1/10W
R4511	ERJ6GEYJ821V	RESISTOR METAL 8200. 1/10W
R4512	ERJ6GEYJ221V	RESISTOR METAL 2200. 1/10W
R4513	ERJ6GEYJ821V	RESISTOR METAL 8200. 1/10W
R4524	ERJ6GEYJ332V	RESISTOR METAL 3,3KO. 1/10W
R4525	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
R4531	ERJ6GEYJ821V	RESISTOR METAL 8200. 1/10W
R4532	ERJ6GEYJ221V	RESISTOR METAL 2200. 1/10W
R4533	ERJ6GEYJ821V	RESISTOR METAL 8200. 1/10W
R4590	ERJ6GEYJ102V	RESISTOR METAL 1KO. 1/10W
R4594	ERJ8GEYJ102V	RESISTOR SMD 1KO. 1/8W
R4596	ERJ6GEYJ223V	RESISTOR CHIP 22KO. 1/10W
R4598	ERJ6GEYJ331V	RESISTOR METAL 3300. 1/10W
R4599	ERJ6GEYJ681V	RESISTOR METAL 6800. 1/10W
R4600	ERJ6GEYJ221V	RESISTOR METAL 2200. 1/10W
R6001	ERJ6GEYJ221V	RESISTOR METAL 2200. 1/10W
R6002	ERJ6GEYJ221V	RESISTOR METAL 2200. 1/10W
R6004	ERJ6GEY0R00V	JUMPER SMD 00. 1/10W
R6010	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R6011	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R6012	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R6013	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R6014	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R6015	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R6016	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R6017	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R6018	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R6019	ERJ6GEYJ473V	RESISTOR METAL 47KO. 1/10W
R6020	ERJ6GEYJ103V	RESISTOR METAL 10KO. 1/10W
R6021	ERJ6GEYJ103V	RESISTOR METAL 10KO. 1/10W
R6022	ERJ6GEYJ103V	RESISTOR METAL 10KO. 1/10W
R6031	ERJ6GEYJ104V	RESISTOR METAL 100KO. 1/10W
R6032	ERJ6GEYJ104V	RESISTOR METAL 100KO. 1/10W
R6033	ERJ6GEYJ104V	RESISTOR METAL 100KO. 1/10W
R6034	ERJ6GEYJ104V	RESISTOR METAL 100KO. 1/10W
R6035	ERJ6GEYJ104V	RESISTOR METAL 100KO. 1/10W
R6036	ERJ6GEYJ103V	RESISTOR METAL 10KO. 1/10W
R6038	ERJ6GEYJ221V	RESISTOR METAL 2200. 1/10W
R6041	ERJ6GEYJ821V	RESISTOR METAL 8200. 1/10W
R6047	ERJ6GEYJ821V	RESISTOR METAL 8200. 1/10W
R6401	ERDS2TJ102T	RESISTOR DE CARBONO 1KO. 1/4W
R6402	ERDS2TJ122T	RESISTOR DE CARBONO 1,2KO. 1/4W
R6403	ERDS2TJ102T	RESISTOR DE CARBONO 1KO. 1/4W
R6404	ERDS2TJ102T	RESISTOR DE CARBONO 1KO. 1/4W
R6405	ERDS2TJ122T	RESISTOR DE CARBONO 1,2KO. 1/4W
R6406	ERDS2TJ152T	RESISTOR DE CARBONO 1,5KO. 1/4W

CHAVES

S6401	EVQ11G07K	CHAVE 1 POLO. 15VDC. 20mA.
S6402	EVQ11G07K	CHAVE 1 POLO. 15VDC. 20mA.
S6403	EVQ11G07K	CHAVE 1 POLO. 15VDC. 20mA.
S6404	EVQ11G07K	CHAVE 1 POLO. 15VDC. 20mA.
S6405	EVQ11G07K	CHAVE 1 POLO. 15VDC. 20mA.
S6406	EVQ11G07K	CHAVE 1 POLO. 15VDC. 20mA.
S6407	EVQ11G07K	CHAVE 1 POLO. 15VDC. 20mA.
S6411	EVQ11G07K	CHAVE 1 POLO. 15VDC. 20mA.

TRANSFORMADOR

T1021	ETS29AD4H6AC	TRANSFORMADOR CHAVEADO
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CRISTAL

X6001	EFOEC8004T4	OSCILADOR CERAMICO
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REF. NO.	PART NO.	DESCRIPTION
CONECTORES		
FP6001	VJS3537A006G	CONECTOR 6 VIAS
FP6002	VJS3537A005G	CONECTOR 5 VIAS
FP6401	VJS3537B006G	CONECTOR PARA FLAT 6 VIAS
FP6411	VJS3537B005G	CONECTOR PARA FLAT 5 VIAS
JK3531	VJJ0544	CONECTOR S-VHS
JK3532	VJJ0598	CONECTOR VIDEO COMP. BLINDADO
JK4501	VJJ0690	CONECTOR AV OUT/SUB-WOOFER
P1001	SJS9236-1	CONECTOR
PP1101	VJP4368A018B	CONECTOR PL. FONTE MACHO 18P
PP2591	VJP4366A005B	CONECTOR PL. LOADING 5P
PS2591	VJS4366A005B	CONECTOR PL. LOADING 5P
PP3201	VJP4370E022B	CONECTOR PL. MODULO 22P
PP4201	VJP4369E014B	CONECTOR PL. MODULO 14P
PS1101	VJS4223E018T	CONECTOR 18 PINOS, FEMEA

DIVERSOS

ZA1001	EYF52BC	SUPORTE METALICO DE FUSÍVEL
ZA1002	EYF52BC	SUPORTE METÁLICO DE FUSÍVEL
DL6001	VSL0537	DISPLAY DVD
F1001	XBA2C16TB0L	FUSÍVEL 1,6A 250V

19.5.1 Lista de Peças Elétricas PLACA MÓDULO

ATENÇÃO !

Esta Lista de Peças Elétricas refere-se somente aos componentes da Placa Módulo.

VEP96572F-Q

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ 15	VEP96572F-Q	MODULE C.B.A.	1	(RTL)
C2001	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C2002	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2003	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C2004	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2005	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C2006	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2007	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2012	ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C2013	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C2014	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C2015	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C2016	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C2017	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C2018	ECUX1H391JCV	C.CAPACITOR CH 50V 390P	1	
C2019	ECUX1H391JCV	C.CAPACITOR CH 50V 390P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C2020	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2021	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2022	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2023	ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	1	
C2024	ECUX1H681JCV	C.CAPACITOR CH 50V 680P	1	
C2025	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2026	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2028	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2029	ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C2030	ECUX1C183KBV	C.CAPACITOR CH 16V 0.018U	1	
C2031	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C2032	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2033	ECUM1C474KB N	C.CAPACITOR CH 16V 0.47U	1	
C2034	ECUX1C103KBV	C.CAPACITOR CH 16V 0.01U	1	
C2035	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
C2037	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2038	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C2039	ECUX1C393KBV	C.CAPACITOR CH 16V 0.039U	1	
C2040	ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C2041	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2042	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2043	ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C2044	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2045	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2046	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2047	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2048	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2051	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2500	ECEV1CA101W	E.CAPACITOR CH 16V 100U	1	
C2501	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C2502	ECEV0JA331	E.CAPACITOR CH 6.3V 330U	1	
C2503	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2504	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2505	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2506	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2507	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2508	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C2508	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C2509	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2513	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2514	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2515	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2516	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2517	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2518	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2521	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2522	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2523	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2524	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2525	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3001	ECEV0JA331	E.CAPACITOR CH 6.3V 330U	1	
C3002	ECEV0JA331	E.CAPACITOR CH 6.3V 330U	1	
C3003	ECEV0JA331	E.CAPACITOR CH 6.3V 330U	1	
C3004	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3005	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3006	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3007	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3008	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3009	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3010	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3011	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3012	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3013	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3014	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3015	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3016	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3017	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3018	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3019	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3020	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3021	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3022	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3023	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3024	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3025	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3026	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3027	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3028	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C3029	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3030	ECUX1A105ZFV	C.CAPACITOR CH 10V 1U	1	
C3031	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3032	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3033	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3034	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3035	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3036	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3042	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3043	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3045	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3046	ECST0JY106Z	T.CAPACITOR CH 6.3V 10U	1	
C3051	ECEV0JA331	E.CAPACITOR CH 6.3V 330U	1	
C3052	ECUM1A105KB N	C.CAPACITOR CH 10V 1U	1	
C3053	ECUM1A105KB N	C.CAPACITOR CH 10V 1U	1	
C3054	ECUM1A105KB N	C.CAPACITOR CH 10V 1U	1	
C3055	ECUM1A105KB N	C.CAPACITOR CH 10V 1U	1	
C3056	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3057	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3058	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3059	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3060	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3061	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3062	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3063	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3064	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3065	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C3066	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3081	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3082	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3083	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3084	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3085	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3091	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C3092	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C3093	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3094	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C3095	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C3222	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3223	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3224	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3225	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3226	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3227	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3228	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3229	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3230	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3231	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4201	ECEV0JA102	E.CAPACITOR CH 6.3V 1000U	1	
C4202	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4203	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4204	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C4205	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4206	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C4207	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4208	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4209	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4221	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4222	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4223	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4224	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4225	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5201	EEVHB0J330	E.CAPACITOR 6.3V 33U	1	
C5202	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5203	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5204	EEVHB0J330	E.CAPACITOR 6.3V 33U	1	
C5205	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5211	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	
C5212	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C5213	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C5214	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5215	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5216	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C5217	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C5218	ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C5219	ECUX1H182KBV	C.CAPACITOR CH 50V 1800P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C5220	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C5221	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C5222	ECUM1A474KBV	C.CAPACITOR CH 10V 0.47U	1	
C5223	ECUM1A474KBV	C.CAPACITOR CH 10V 0.47U	1	
C5224	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C5225	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C5226	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C5227	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5232	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5233	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C5234	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5241	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5242	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6201	EEVHB0J330	E.CAPACITOR 6.3V 33U	1	
C6202	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6203	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6204	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6206	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6207	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6208	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6211	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6212	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6251	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C6252	VCS1AS106	T.CAPACITOR CH 10V 10U	1	
C6253	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6254	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6255	EEVHB0J330	E.CAPACITOR 6.3V 33U	1	
C6256	ECEV0JA331	E.CAPACITOR CH 6.3V 330U	1	
C6257	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C6258	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C6301	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C6302	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C6303	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6304	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6305	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6501	EEVHB0J330	E.CAPACITOR 6.3V 33U	1	
C6502	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6503	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6504	VCS1AS106	T.CAPACITOR CH 10V 10U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C6505	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6506	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6511	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6512	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6513	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6514	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C6515	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C6516	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6517	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6551	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6553	VCS1AS475	T.CAPACITOR CH 10V 4.7U	1	
C7001	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C7002	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C7006	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7011	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7012	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7013	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7014	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7015	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7016	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7017	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7018	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7019	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7020	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7021	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7022	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7023	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7024	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7025	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7026	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
D3091	MA111	DIODE	1	
D6251	MA111	DIODE	1	
D6301	MA728	DIODE	1	
FL6251	VLF1491S105	FILTER	1	
FL6252	VLF1491S105	FILTER	1	
FL6254	VLF1491S105	FILTER	1	
FL6255	VLF1491S104	FILTER	1	
FP2501	VJS4383B017B	CONNECTOR (FEMALE) 17P	1	
FP5201	VJS3913A021	CONNECTOR (FEMALE) 21P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC2001	MN67706EA	IC	1	
IC2501	AN8480NSB	IC	1	
IC2511	BA5983FM	IC	1	
IC3001	MN677532JA	IC	1	
IC3002	PQ018EZ01ZP	IC	1	
IC3061	MX7160BT1	IC	1	
IC3081	TC4W66FU	IC	1	
IC3091	PQ1R33	IC	1	
IC4201	PCM1746	IC	1	
IC5201	AN8707FH	IC	1	
IC6201	MN102H55GFB	IC	1	
IC6251	PQ1R33	IC	1	
IC6301	PST596JNR	IC	1	
IC6302	VUB8011C258	IC	1	
IC6303	AT25020NSI27	IC	1	
IC6501	BU2285FV	IC	1	
IC6551	TK71533SCL	IC	1	
IC7001	MN103S13BGA	IC	1	
K2002	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K3001	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K3002	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
K3003	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
K3013	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K3014	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K3021	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K5231	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K5241	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K6251	ERJ14Y0R00	M.RESISTOR CH 1/4W 0	1	
K6301	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K6502	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K6503	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K6504	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K6521	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K6531	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
L2001	VLQ0860K100	COIL 10UH	1	
L2002	VLQ0910K100	COIL 10UH	1	
L2003	VLQ0910K100	COIL 10UH	1	
L2501	ERJ14Y0R00	M.RESISTOR CH 1/4W 0	1	
L3091	VLQ0860K100	COIL 10UH	1	
L4201	VLQ0909J220	COIL 22UH	1	
L5201	VLQ0860K100	COIL 10UH	1	
L5202	VLQ0910K100	COIL 10UH	1	
L6201	VLP0323A601T	CHIP SOLID INDUCTOR	1	
L6501	VLQ0909J220	COIL 22UH	1	
L6502	VLQ0909J220	COIL 22UH	1	
L7001	VLQ0910K100	COIL 10UH	1	
L7002	VLQ0910K100	COIL 10UH	1	
LA2501	VLP0412A601	CHIP SOLID INDUCTOR	1	
LA2502	VLP0412A601	CHIP SOLID INDUCTOR	1	
LB2509	JALBK2HS470T	COIL	1	
LB2510	JALBK2HS470T	COIL	1	
LB2511	JALBK2HS470T	COIL	1	
LB2512	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB2513	JALBK2HS470T	COIL	1	
LB2514	JALBK2HS470T	COIL	1	
LB2515	JALBK2HS470T	COIL	1	
LB2516	JALBK2HS470T	COIL	1	
LB3201	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB3202	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB3203	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB3204	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB4001	VLP0323A601T	CHIP SOLID INDUCTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
LB4002	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB4003	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB4004	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB4005	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB4006	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB4007	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
LB4008	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
LB5201	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5202	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5203	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5204	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5205	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5206	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5207	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5208	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5209	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5210	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5211	JALBK2HS470T	COIL	1	
LB5212	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5213	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5214	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB5215	VLP0174	COIL	1	
LB5216	VLP0174	COIL	1	
LB5217	VLP0174	COIL	1	
LB5218	VLP0174	COIL	1	
LB6201	VLP0155	COIL	1	
LB6501	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB6502	VLP0155	COIL	1	
LB6503	VLP0155	COIL	1	
LB6504	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB6505	VLP0155	COIL	1	
LB6506	VLP0323A601T	CHIP SOLID INDUCTOR	1	
LB6507	VLP0155	COIL	1	
LB6551	VLP0323A601T	CHIP SOLID INDUCTOR	1	
PS3201	VJS4222C022B	CONNECTOR (FEMALE) 22P	1	
PS4201	VJS4222A014B	CONNECTOR (FEMALE) 14P	1	
PS6201	VJS2961A010	CONNECTOR (FEMALE) 10P	1	
Q3081	2SB1218A-R	TRANSISTOR	1	
Q3082	2SB1218A-R	TRANSISTOR	1	
Q3083	2SB1218A-R	TRANSISTOR	1	
Q3084	2SB1218A-R	TRANSISTOR	1	
Q5201	2SB1115-T	TRANSISTOR	1	
QR2001	UN5213	TRANSISTOR-RESISTOR	1	
QR5201	UN5212	TRANSISTOR-RESISTOR	1	
QR5231	UN2121	TRANSISTOR-RESISTOR	1	
QR6301	UN5212	TRANSISTOR-RESISTOR	1	
R2001	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2002	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2003	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2004	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2005	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2006	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2007	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2008	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R2009	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R2010	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R2011	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R2012	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R2013	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R2014	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R2017	ERJ3GEYF153	M.RESISTOR CH 1/16W 15K	1	
R2018	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2020	ERJ3GEYF123	M.RESISTOR CH 1/16W 12K	1	
R2021	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2022	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R2023	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R2024	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R2025	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R2026	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R2027	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2028	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2029	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R2030	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2031	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R2032	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2033	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2034	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2501	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R2502	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R2503	ERJ14YKR39	M.RESISTOR CH 1/4W 0.39	1	
R2505	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2511	ERJ3GEYJ203	M.RESISTOR CH 1/16W 20K	1	
R2512	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R2513	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R2514	ERJ3GEYJ203	M.RESISTOR CH 1/16W 20K	1	
R2515	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R2516	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R2517	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R2518	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2519	ERJ3GEYJ752	M.RESISTOR CH 1/16W 7.5K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2519	ERJ3GEYJ752	M.RESISTOR CH 1/16W 7.5K	1	
R2520	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R2521	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2522	ERJ3GEYJ752	M.RESISTOR CH 1/16W 7.5K	1	
R3001	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R3002	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3003	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3004	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3005	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3051	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R3052	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3055	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R3057	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	1	
R3058	ERJ3RBD432	M.RESISTOR CH 1/16W 4.3K	1	
R3059	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R3060	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R3061	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3071	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3081	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R3082	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R3083	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3084	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R3085	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R3086	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3087	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R3088	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R3089	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3090	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R3091	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R3092	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R4201	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R4202	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R5201	ERJ12YJ270	M.RESISTOR CH 1/2W 27	1	
R5202	ERJ3GEYJ2R2	M.RESISTOR CH 1/16W 2.2	1	
R5203	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R5204	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R5206	ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R5207	ERJ3GEYF562	M.RESISTOR CH 1/16W 5.6K	1	
R5208	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R5209	ERJ3GEYF303	M.RESISTOR CH 1/16W 30K	1	
R5210	ERJ3GEYF473	M.RESISTOR CH 1/16W 47K	1	
R5211	ERJ3GEYF183	M.RESISTOR CH 1/16W 18K	1	
R5212	ERJ3GEYF562	M.RESISTOR CH 1/16W 5.6K	1	
R5213	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5214	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R5215	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R5216	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R5217	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6201	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6208	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6209	ERJ3GEYF151	M.RESISTOR CH 1/16W 150	1	
R6210	ERJ3GEYF471	M.RESISTOR CH 1/16W 470	1	
R6211	ERJ3GEYF391	M.RESISTOR CH 1/16W 390	1	
R6212	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6213	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6214	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6301	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6302	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6303	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6502	ERJ3RBD221	M.RESISTOR CH 1/16W 220	1	
R6503	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6504	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7001	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R7002	ERJ3GEYJ473	M.RES CH 1/16W 47K	1	
RA2001	EXBV8VR000	RESISTOR-RESISTOR	1	
RA2501	EXBV4V103J	RESISTOR-RESISTOR	1	
RA3008	EXBV4V103J	RESISTOR-RESISTOR	1	
RA3009	EXBV4VR000	RESISTOR-RESISTOR	1	
RA3010	EXBV4VR000	RESISTOR-RESISTOR	1	
RA3011	EXBV4V473J	RESISTOR-RESISTOR	1	
RA5201	EXBV4V101J	RESISTOR-RESISTOR	1	
RA6201	EXBV4V103J	RESISTOR-RESISTOR	1	
RA6202	EXBV4V473J	RESISTOR-RESISTOR	1	
RA6203	EXBV4V473J	RESISTOR-RESISTOR	1	
RA6204	EXBV4V473J	RESISTOR-RESISTOR	1	
RA6205	EXBV8V473J	RESISTOR-RESISTOR	1	
RA6206	EXBV4V473J	RESISTOR-RESISTOR	1	
RA7001	EXBV8V473J	RESISTOR-RESISTOR	1	
RA7002	EXBV8V473J	RESISTOR-RESISTOR	1	
RA7003	EXBV8V473J	RESISTOR-RESISTOR	1	
X6501	VSX1044	CRYSTAL OSCILLATOR	1	

Panasonic do Brasil Ltda.

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