

# DVD PLAYER DVD-C996 DV-C6280

## SERVICE MANUAL

### IMPORTANT NOTICE

This manual has been provided for the use of authorized YAMAHA Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically YAMAHA Products, are already known and understood by the users, and have therefore not been restated.

**WARNING:** Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components, and failure of the product to perform as specified. For these reasons, we advise all YAMAHA product owners that any service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

**IMPORTANT:** The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of YAMAHA are continually striving to improve YAMAHA products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

**WARNING:** Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

**IMPORTANT:** Turn the unit OFF during disassembly and part replacement. Recheck all work before you apply power to the unit.

## ■ CONTENTS

TO SERVICE PERSONNEL .....	1	SERVICE TOOLS AND EQUIPMENT .....	12
PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTRO STATICALLY SENSITIVE (ES) DEVICES .....	3	DISASSEMBLY PROCEDURES .....	13-16
PRECAUTION, LASER DIODE .....	4	ASSEMBLING AND DISASSEMBLING THE OPTICAL PICKUP .....	17-22
HANDLING PRECAUTIONS FOR TRAVERSE DECK .....	4	ADJUSTMENT .....	23-26
FRONT PANELS .....	5	SPECIAL FUNCTIONS FOR MAINTENANCE .....	27-27
REAR PANELS .....	6-7	IC DATA .....	29-32
SPECIFICATIONS .....	7	DISPLAY DATA .....	33
INTERNAL VIEW .....	8	ABBREVIATIONS .....	34-35
OPTICAL PICKUP SELF-DIAGNOSIS AND REPLACEMENT PROCEDURE .....	9	PRINTED CIRCUIT BOARD .....	36-47
SELF-DIAGNOSIS FUNCTION AND SERVICE MODES .....	10-11	SCHEMATIC DIAGRAM .....	48-64
SERVICE PRECAUTIONS .....	11	BLOCK DIAGRAM .....	65-69
		REMOTE CONTROL TRANSMITTER .....	70
		PARTS LIST .....	71-88




このサービスマニュアルは、エコマーク認定の再生紙を使用しています。  
This Service Manual uses recycled paper.



## ■ TO SERVICE PERSONNEL

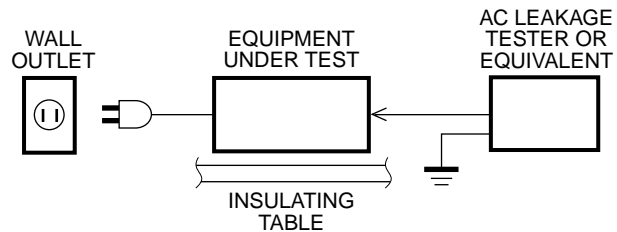
### 1. Critical Components Information

Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.

### 2. Leakage Current Measurement (For 120V Models Only)

When service has been completed, it is imperative to verify that all exposed conductive surfaces are properly insulated from supply circuits.

- Meter impedance should be equivalent to 1500 ohm shunted by 0.15 $\mu$ F.



- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.

## WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

**DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!**

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

## WARNING: Laser Safety

This product contains a laser beam component. This component may emit invisible, as well as visible radiation, which may cause eye damage. To protect your eyes and skin from laser radiation, the following precautions must be used during servicing of the unit.

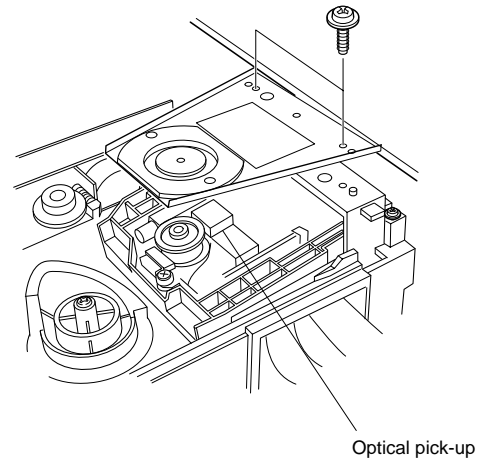
- 1) When testing and/or repairing any component within the product, keep your eyes and skin more than 30 cm away from the laser pick-up unit at all times. Do not stare at the laser beam at any time.
- 2) Do not attempt readjustment, disassembly or repair of the laser pick-up, unless noted elsewhere in this manual.
- 3) CAUTION : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

## Laser Emitting conditions:

- 1) When the Top Cover is removed, and the POWER SW is turned to the "ON" position, the laser component will emit a beam for several seconds to detect if a disc is present. During this time (5-10 sec.) the laser may radiate through the lens of the laser pick-up unit. Do not attempt any servicing during this period!  
If no disc is detected, the laser will stop emitting the beam. When a disc is set, you will not be exposed to any laser emissions.
- 2) The laser power level can be adjusted with the VR on the pick-up PWB, however, this level has been set by the factory prior to shipping from the factory. Do not adjust this laser level control unless instruction is provided elsewhere in this manual. Adjustment of this control can increase the laser emission level from the device.

### Laser Diode Properties

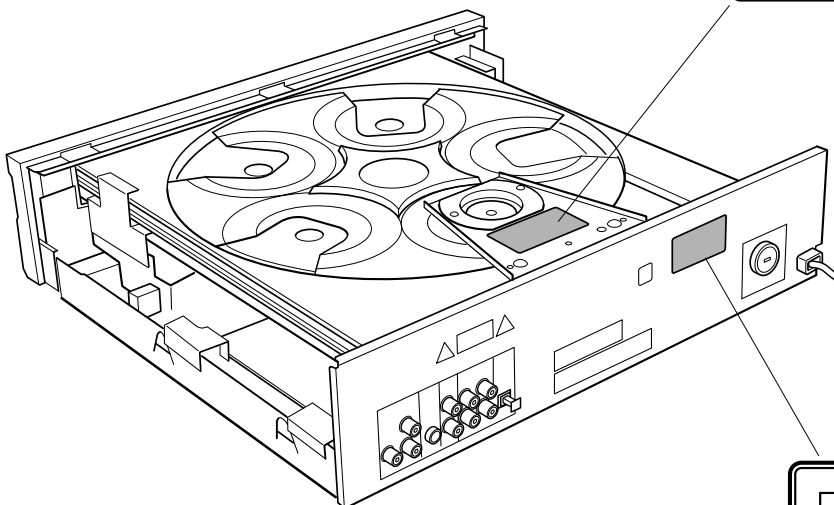
Wave length : 665 nm  
 Laser power : CLASS II  
 Laser output : Max. 1.0mW (Continuous)  
 Output value determined by 21 CFR CHAPTER 1,  
 SUBCHAPTER J



**VARO!** : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER-SÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

**WARNING!** : OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

CAUTION	- VISIBLE AND / OR INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
VARNING	- SYNLIG OCH / ELLER OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STRÅLEN ÄR FARLIG.
VARO!	AVATTAESSA OLET ALTTIINA NÄKYVÄLLE JA / TAI NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING	- SYNLIG OCH / ELLER OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN.
VORSICHT!	SICHTBARE UND / ODER UNSICHTBARE LASERSTRÄHLUNG WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.



A, B, G, R models

CLASS 1 LASER PRODUCT  
 LASER KLASSE 1 PRODUKT  
 LUOKAN 1 LASERLAITE  
 KLASSE 1 LASER APPARAT

## ■ 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).

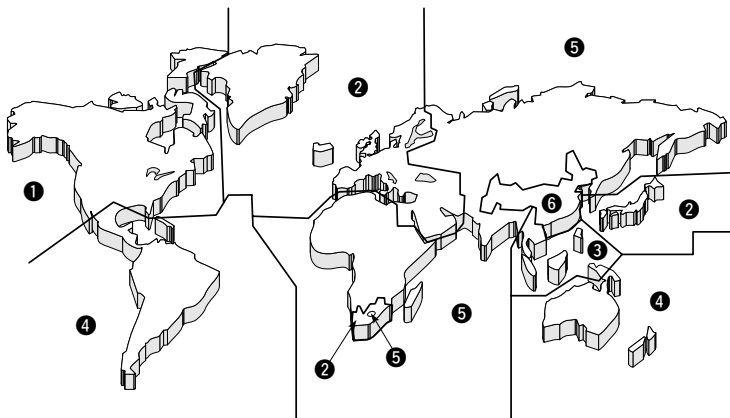
### IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked  $\triangle$  by 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.

## LOCALE MANAGEMENT INFORMATION

Locale Management Information : This DVD player is designed and manufactured to respond to the Locale Management Information that is recorded on a DVD disc. If the Locale number described on the DVD disc does not correspond to the Locale number of this DVD player, this DVD player cannot play this disc.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.





## ■ PRECAUTION, LASER DIODE

### CAUTION:

This unit utilizes a class II laser. Visible 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 manufactures 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.

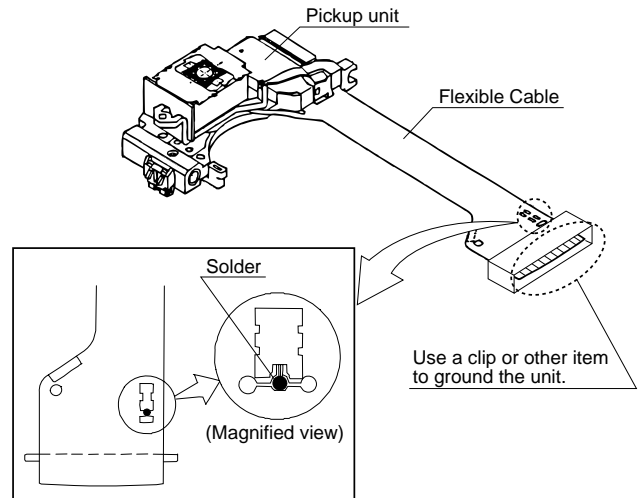
## ■ HANDLING PRECAUTIONS FOR TRAVERSE DECK

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 breakdown during repair of the optical pickup.

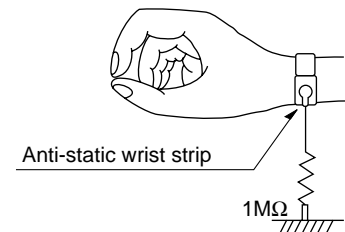
### Handling of optical pickup

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 bridge is soldered into the flexible board (FPC Board).  
When removing or connecting the shorting bridge, 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). It has already been adjusted.



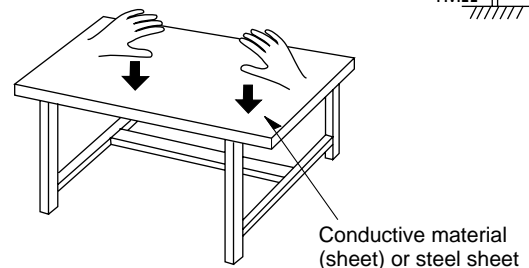
### Grounding for electrostatic breakdown prevention

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.

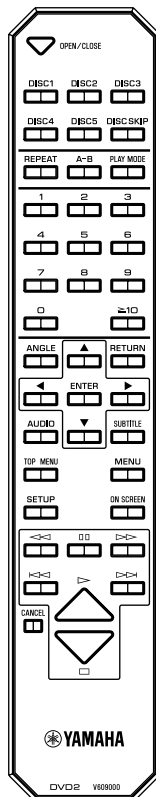
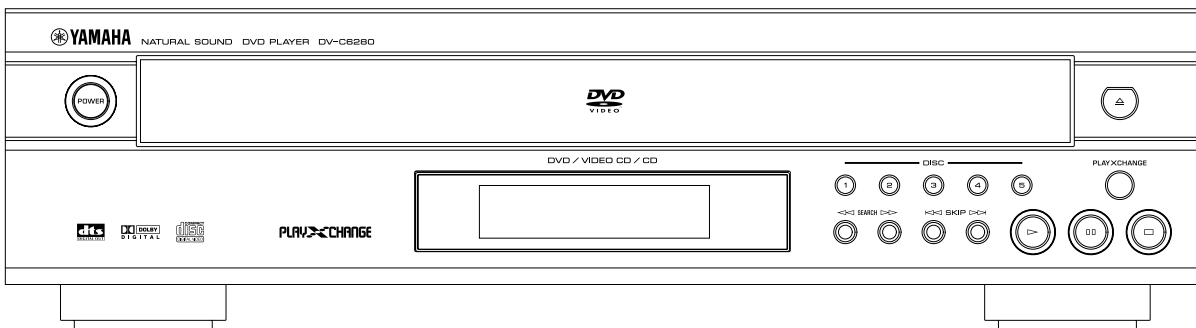


## FRONT PANELS

### ▼ DVD-C996



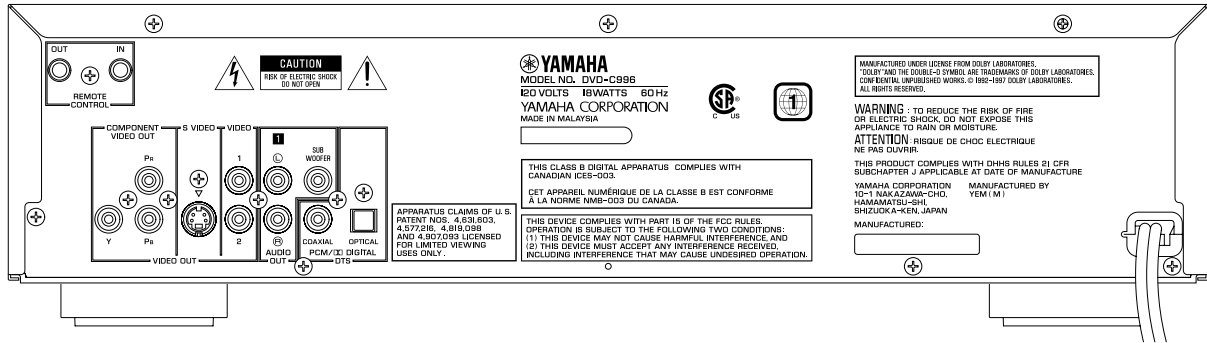
### ▼ DV-C6280



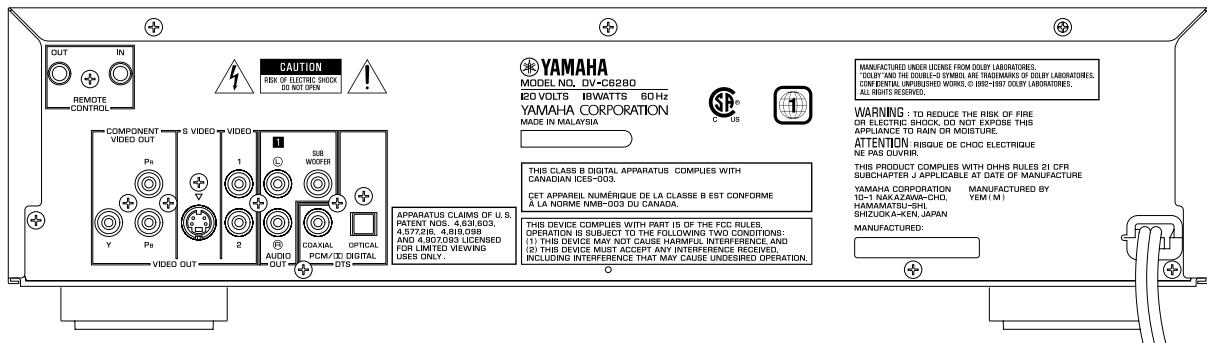
DVD-C996  
DV-C6280

## REAR PANELS

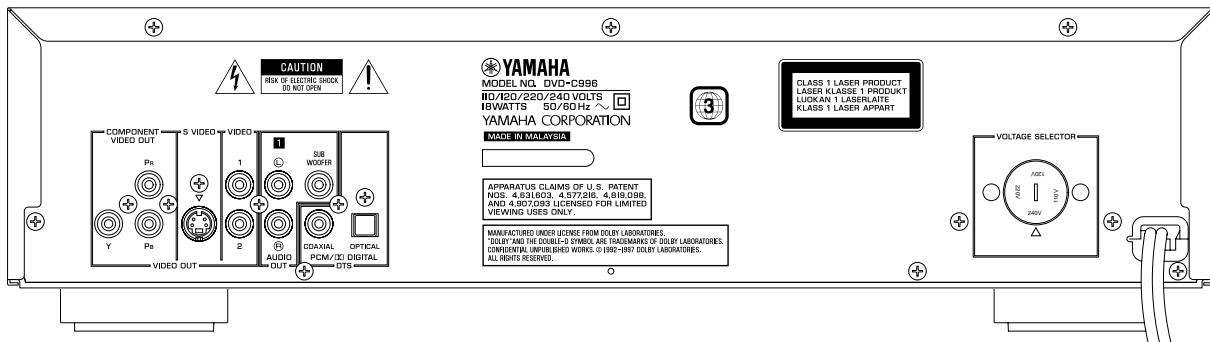
### ▼ DVD-C996 U, C models



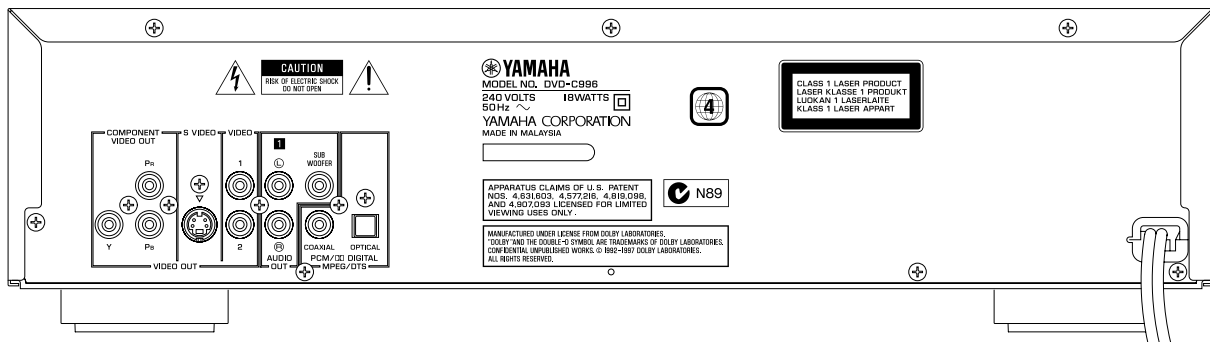
### ▼ DV-C6280 U model



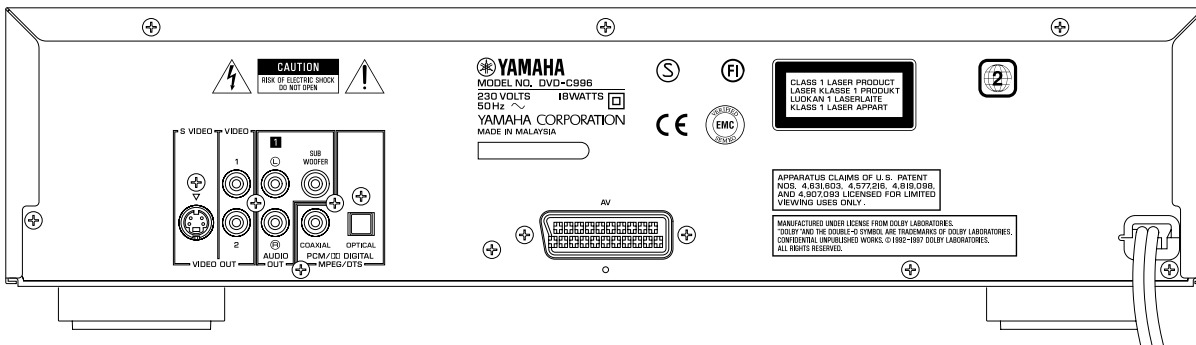
### ▼ DVD-C996 R model



### ▼ DVD-C996 A model



▼ DVD-C996 B, G models



## ■ SPECIFICATIONS

### ■ AUDIO SECTION

**Frequency Response**

DVD (48kHz Sampling)	2 Hz to 22 kHz
DVD (96kHz Sampling)	2 Hz to 44 kHz
CD, Video CD	2 Hz to 20 kHz

**Harmonic Distortion+Noise (1kHz)** 0.002%

**S/N Ratio** 115 dB (Weighted)

**Dynamic Range**

DVD (48kHz, 24 bit)	103 dB
CD, Video CD	99 dB

**Output Voltage (1 kHz, 0 dB)** 2.0 V

### ■ VIDEO SECTION

**VIDEO output** 1 Vp-p (75 ohms)

**S VIDEO output**

Y output 1 Vp-p (75 ohms)

**C output**

U, C, R models 0.286 Vp-p (75 ohms)

A, B, G models 0.3 Vp-p (75 ohms)

**COMPONENT VIDEO output (U, C, R, A only)**

Y output 1 Vp-p (75 ohms)

Pb output 0.7 Vp-p (75 ohms)

Pr output 0.7 Vp-p (75 ohms)

### ■ GENERAL

**Power Requirements**

<b>U, C models</b>	120V, 60Hz
<b>A model</b>	240V, 50Hz
<b>B, G models</b>	230V, 50Hz
<b>R model</b>	110/120/220/240V, 50/60Hz

**Power Consumption** 18W

**Dimensions (W x H x D)** 435 x 116 x 404 mm  
(17-1/8" x 4-9/16" x 15-7/8")

**Weight** 6.1 kg (13 lbs 7 oz)

**Finish**

DVD-C996 (U, C, A, B, G)	Black color
DVD-C996 (U, C, R, A)	Gold color
DV-C6280 (U)	Black color

**Accessories**

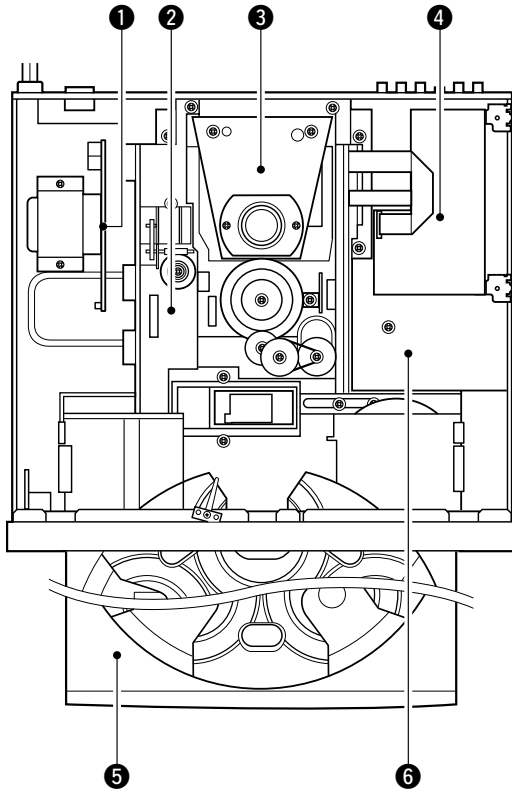
Audio/video connection cord  
Remote control transmitter  
Battery: x2 (Size "AA", R06)

\* Specifications subject to change without notice.

- U ..... USA model
- C ..... Canadian model
- A ..... Australian model
- B ..... British model
- G ..... European model
- R ..... General model

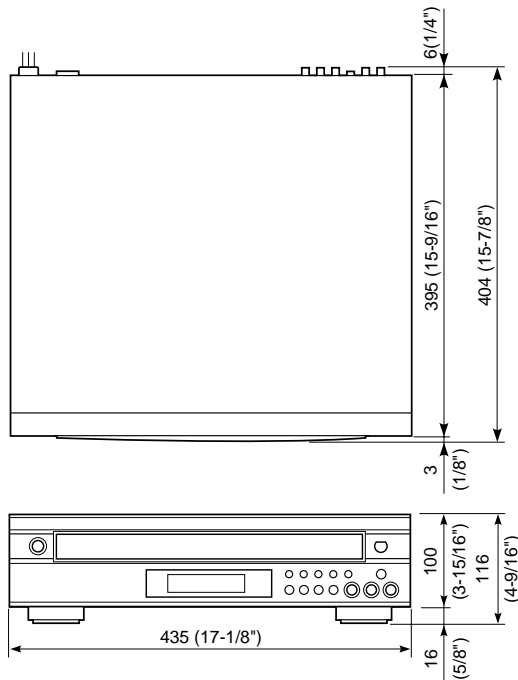
Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

## INTERNAL VIEW



- ① MAIN (3) P.C.B.
- ② CM-220 UNIT
- ③ CLAMPER ASS'Y
- ④ DVD MODULE P.C.B.
- ⑤ TRAY ASS'Y
- ⑥ MAIN (1) P.C.B.

## DIMENSION



Unit : mm (inch)

## ■ OPTICAL PICKUP SELF-DIAGNOSIS AND REPLACEMENT PROCEDURE

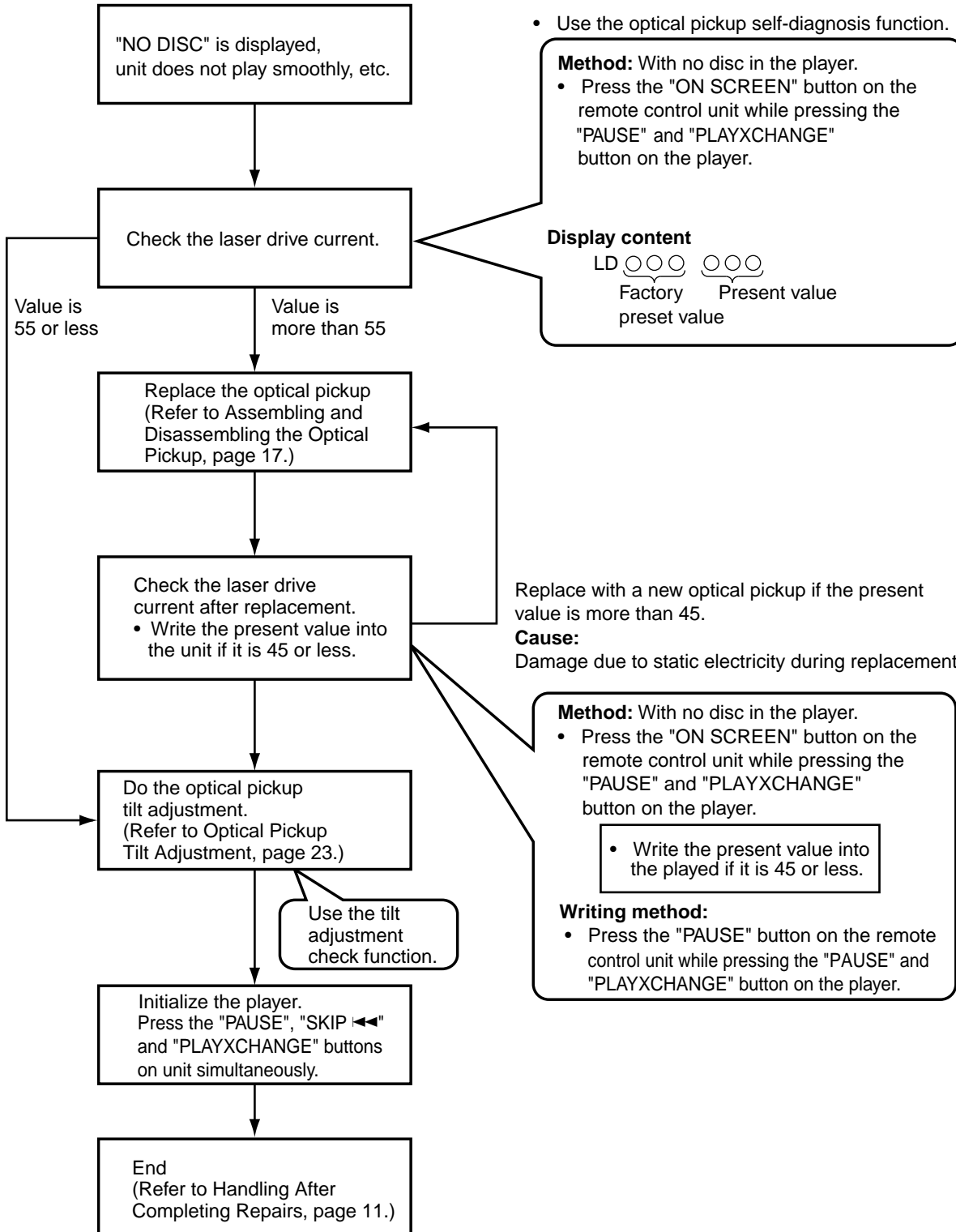
The optical pickup self-diagnosis function and tilt adjustment check function have been newly added to this player. When repairing, use the following procedure for effective Self-diagnosis and tilt adjustment.

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).

- Use the self diagnosis function below when "NO DISC" is displayed or unit doesn't read a disc, before replacing the OPU.



DVD-C996  
DV-C6280

## ■ SELF-DIAGNOSIS FUNCTION AND SERVICE MODES

### 1. Service Mode Table

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

Player buttons	Remote control unit button	Application	Note
PAUSE + PLAYXCHANGE	0	Displaying the UHF display F_ _ _	Refer to Self-Diagnosis Function (UHF Display), in page 10.
	5	Tilt adjustment and jitter check	Refer to Optical Pickup Tilt Adjustment, in page 23.
	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	
	ON SCREEN	Checking the laser drive current	Refer to Optical Pickup Self-Diagnosis and Replacement, in page 9.
	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 ◀◀ PLAYXCHANGE	—	Initializing the DVD player (restoring factory preset settings) Use when replacing a microprocessor, microprocessor peripheral parts, or P.C.B.	Refer to Initializing the DVD Player, in page 11.

### 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.	U11	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	IC202 –205, IC207, IC209, IC351
Press the "0" button on the remote control unit while pressing the "PAUSE" and "PLAYXCHANGE" button on the player.	F0**	Disc format error	If this type of error occurs, refer to Examples of Repairs Using Error Codes, in page 11.
	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		

### 3. Examples of Repairs Using Error Code

Refer to this section when carrying out repairs.

Error display	Malfunction example
F0**	Disc, IC7001
F103	Disc, IC7001
F4FF	IC351
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

## ■ SERVICE PRECAUTIONS

### 1. Initializing the DVD Player

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

#### 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 Setting in the Operating Instructions.

#### 1-2. Initialization Method

The player will be initialized (return to the factory preset condition) when you press the "PAUSE", "SKIP ◀" and "PLAYXCHANGE" buttons simultaneously. When the DVD player is initialized, it also displays "INITIALIZED".

### 2. Handling After Completing Repairs

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

#### 2-1. Method

With the power 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.

#### 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.



## ■ SERVICE TOOLS AND EQUIPMENT

### 1. Service Tools and Equipment Table

Application	Name	Number
General	DVD test disc	DVDT-S15 (AAX07320) or DVDT-S01 (TX946080)
Tilt adjustment	Hex wrench	JZS0100 (TX946380) , 1.2mm
Inspection	Extension cable (module P.C.B. to main P.C.B.)	JGS0116 (AAX16610)
	Extension cable (module P.C.B. to main P.C.B.)	VUC8026 (AAX16590)
Others	Screw lock	RZZ0L01 (TX946400)
	Grease	JGS0091 (TX946260) JGS0092 (TX946270)
	Lubricant	JZS0648 (TX946410)
	Grease	JGS0101 (TX946390)
Confirmation	CD test disc	PVCD_K06 (TX946090)
	VCD test disc	PVCD_K06 (TX946090)
Electrical adjustment	Oscilloscope	
	Probe	
	AV cable	VJA0658 (MX605190)
	TV monitor	
General	General tools (Screwdriver, etc.)	
Static electricity countermeasures	Soldering iron (with ESD countermeasure)	
	Anti-static wrist strap	
	Conductive material (conductive sheet)	

### 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.

## DISASSEMBLY PROCEDURES (Remove parts in the order as numbered.)

### 1. Removal of Top Cover

- Remove 4 screws ( ① ) and also 3 screws ( ② ) in Fig. 1.

### 2. Removal of Tray Ass'y

- Remove 1 screw ( ③ ) in Fig. 1.
- Turn Gear/L0 as shown in Fig. 2 counter clockwise gradually till immediately before the tray starts to move and stop it there.

**CAUTION:** Gear/L0, if turned counter clockwise continuously, will mesh with the gear of the tray and the tray will come out. When removing the tray, use care so that Gear/L0 will not mesh with the gear of the tray.

- Pull out the Tray Ass'y.

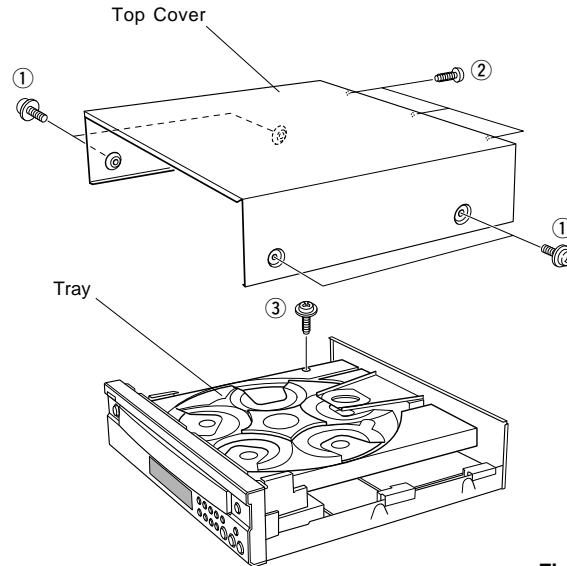


Fig. 1

#### ● Precaution for installation of the Tray Ass'y.

On Tray Ass'y setting.  
Check the Direction of marking "▲" on gear according to this drawing.

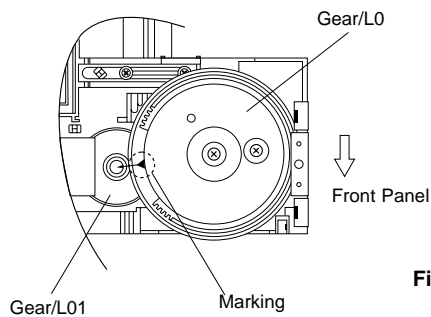


Fig. A

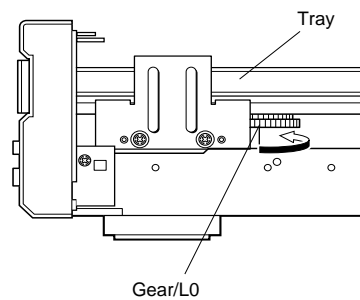


Fig. 2

### 3. Removal of Table

- Remove 2 screws ( ④ ) and then remove the Roller Ass'y in Fig. 3.
- Remove the Plate/Table in Fig. 3.
- Remove 1 screw ( ⑤ ) and then take off the Table in Fig. 3.

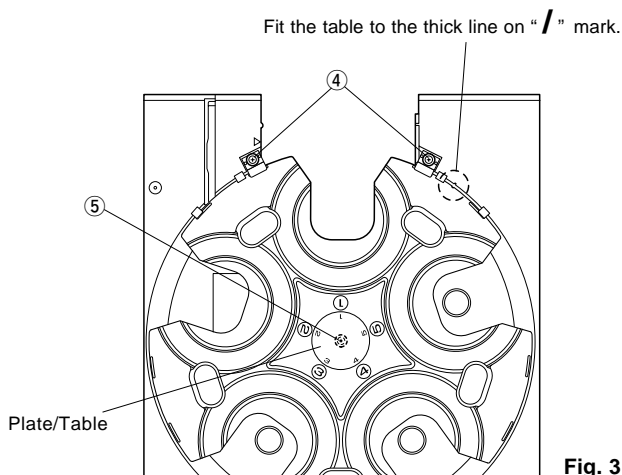


Fig. 3

#### IMPORTANT: Installation of Table.

Install the table according to the following procedure.

- Slide the Lever so that the Gear/RT becomes free. (Fig.B)
- With the "▲" mark on the Gear/RT aligned with the same mark on the Tray, lock it with the Lever. (Fig.B)
- Install the Table by aligning it to the thick line on "/" mark. (Fig.3)

\*Check that the Table is locked after installation.

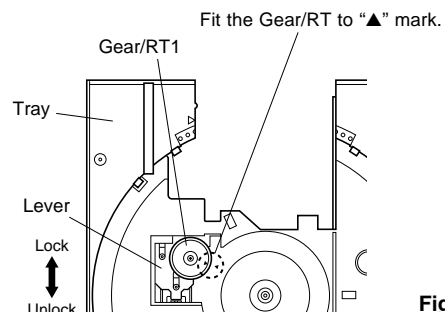


Fig. B

**4. Removal of CM-220 Unit**

- a. Remove 5 screws ( ⑥ ) in Fig. 4.
- b. Disconnect 2 flexible cables (#501, #503) on the Module P.C.B.

**CAUTION**

The flexible cable #501 is used to connect the traverse unit (laser pickup). Its terminal must not be touched. (The laser pickup is easily damaged.)

- c. Disconnect 1 flexible cable (#201) on the Main P.C.B.
- d. Take the CM-220 Unit out slowly.

**5. Removal of Module P.C.B.**

- a. Remove screw ( ⑦ ) and then remove the Main (6) P.C.B. in Fig. 5.
- b. Remove 4 screws ( ⑧ ) and then remove the Support P.C.B. in Fig. 4.
- c. Release 2 hooks ( ⑨ ) in Fig. 4.
- d. Pull out the Module P.C.B. vertically in Fig. 4.

**Note**

There is a danger of damaging the connectors.

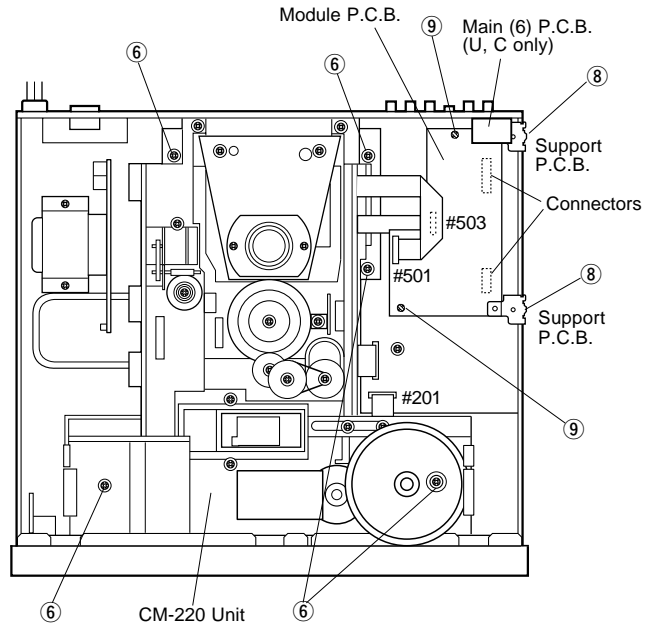


Fig. 4

**6. Removal of Main (1) P.C.B.**

- a. Remove 6 screws ( ⑩ ) in Fig. 5.
- b. Remove 4 screws ( ⑪ ) in Fig. 6.
- d. Pull out the Main (1) P.C.B.

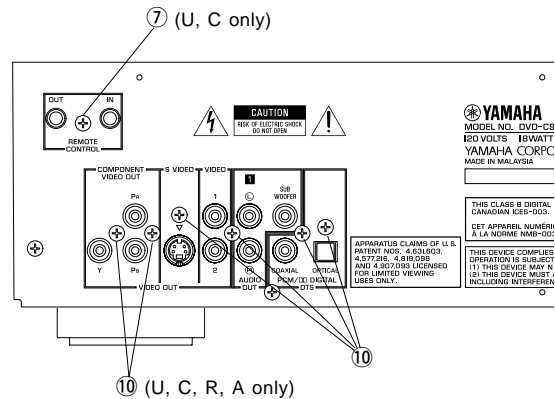


Fig. 5

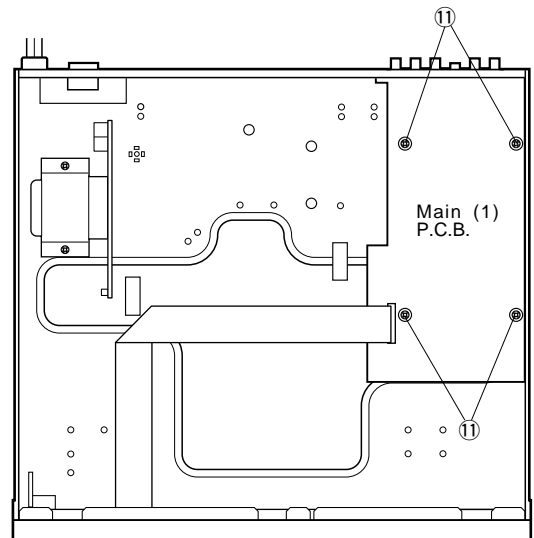


Fig. 6

**7. Removal of Clamper Ass'y**

Remove 2 screws ( ⑫ ) in Fig. 7.

**8. Removal of PU Ass'y**

- a. Remove 2 screws ( ⑬ ) in Fig. 7.
- b. Take the PU Ass'y out slowly.

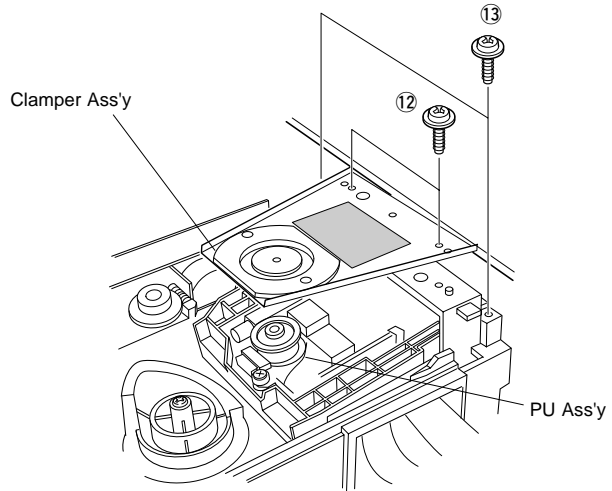


Fig. 7

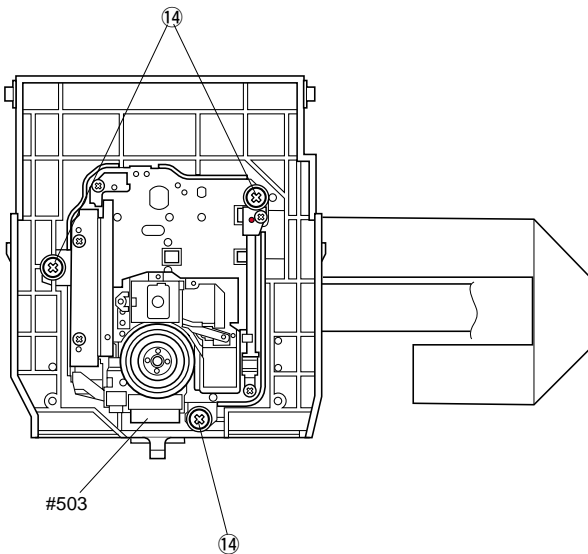
**9. Removal of Traverse Unit**

- a. Remove 3 screws ( ⑭ ) in Fig. 8.

**Note:** Be sure to take static electricity countermeasures before disconnecting the flexible cable. (Refer to page 18, Static Electricity Countermeasures.)

- b. Disconnect 2 flexible cables (#502, #503)

Top



Bottom

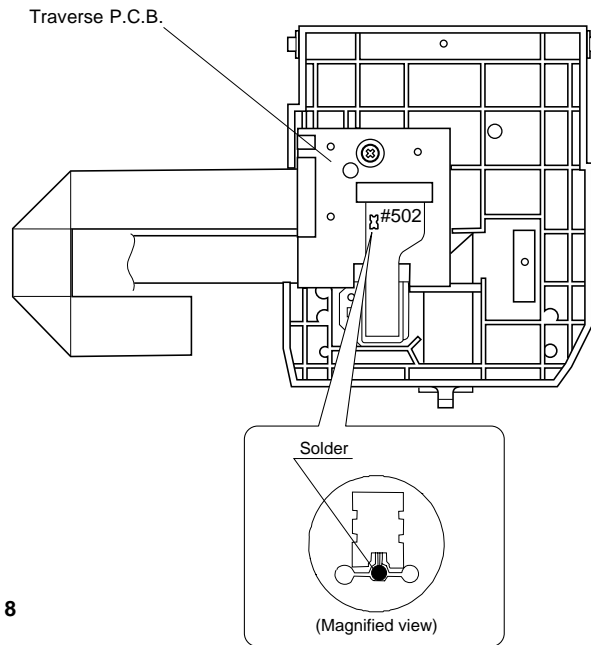


Fig. 8

**● Service Position**

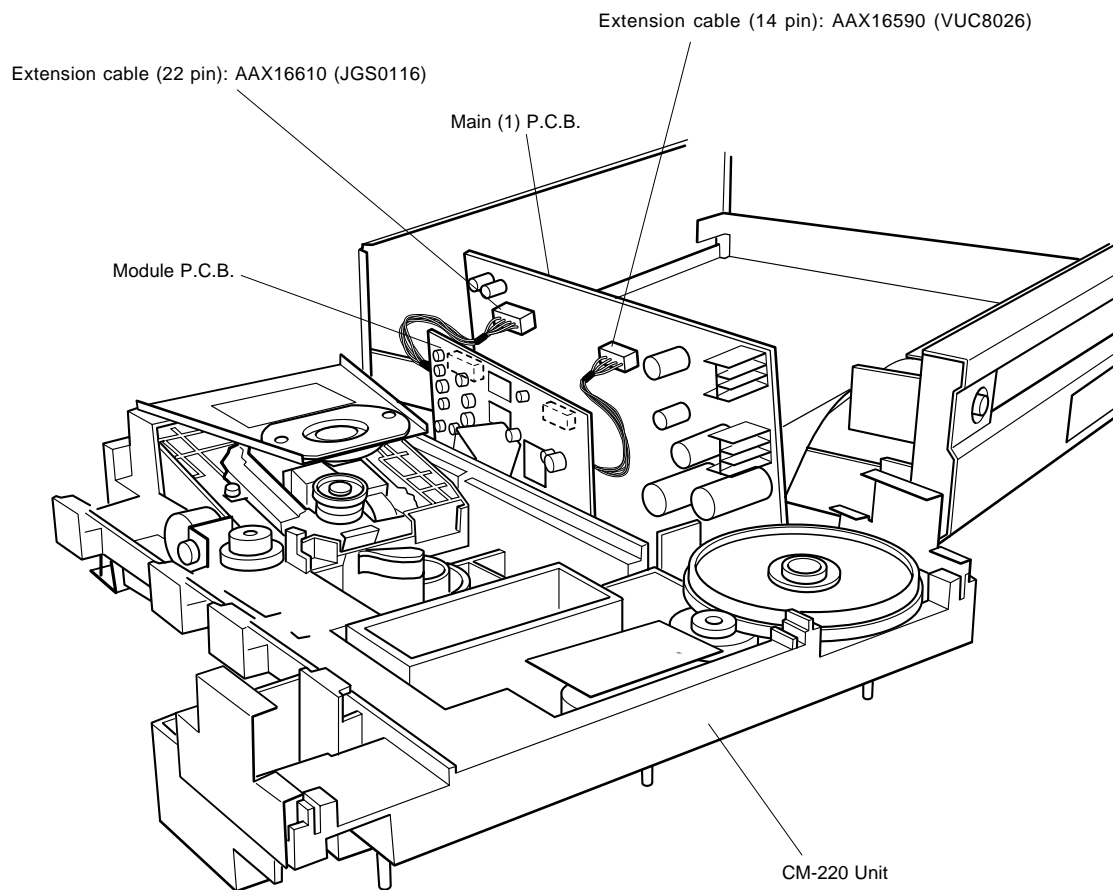
Checked by connecting the Module P.C.B. and the Main P.C.B. with the extension cables.

Extension cable (14 pin): AAX16590 (VUC8026)

Extension cable (22 pin): AAX16610 (JGS0116)

**CAUTION**

- As the grounding becomes loose when the Main P.C.B. is removed from the chassis, ground the board to the chassis.
- Do not allow anything like cloth (insulating material) to enter and contact between the Module P.C.B. and the Main P.C.B.



## ■ 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.

### 1. Handling the Optical Pickup

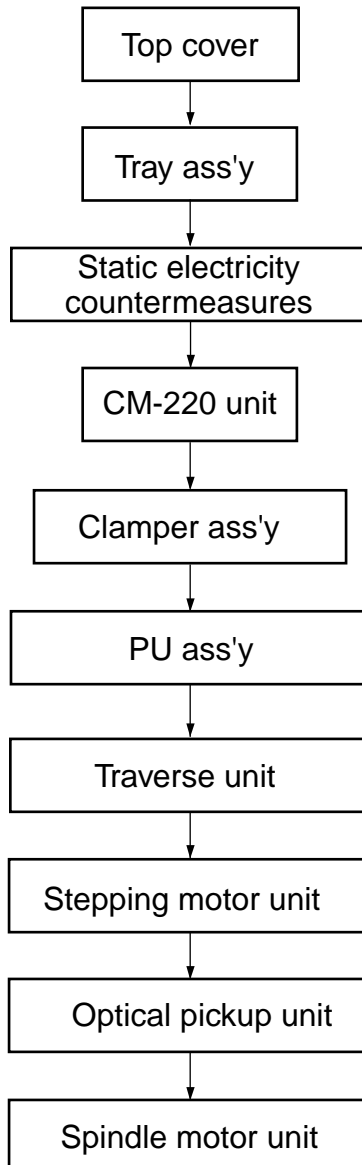
The optical pickup can be damaged by static electricity from your body. Be sure to take static electricity countermeasures when working around the optical pickup.

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 page 22, 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.

### 2. Disassembly Procedure

Use the following procedure to replace major parts.

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



### 3. Static Electricity Countermeasures

The laser diode inside the traverse unit (optical pickup) can be damaged by static electricity from your body. Be sure to take static electricity countermeasures when working around the optical pickup.

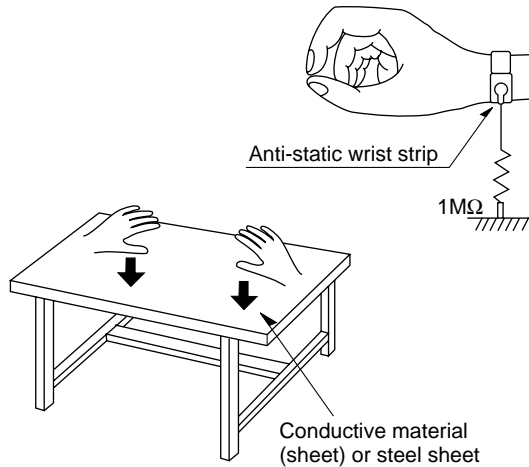
#### 3-1. Static Electricity Countermeasure Methods

1. Ground yourself

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

2. Ground the workbench

Lay a conductive material (sheet) or steel sheet on the surface where the traverse unit (optical pickup) is to be placed, then ground the sheet.

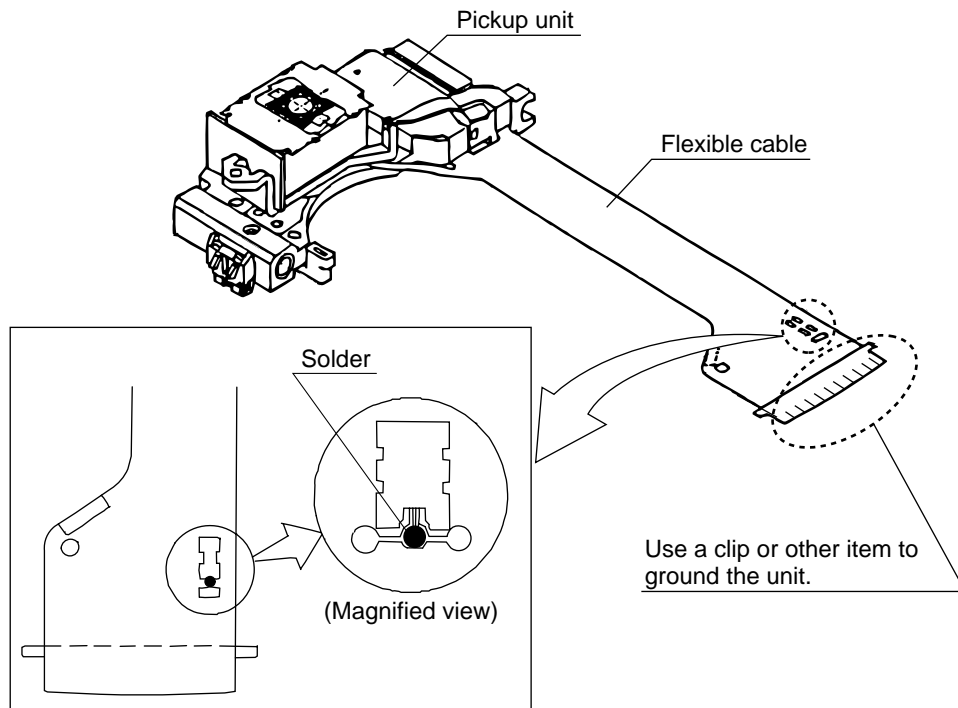


#### 3-2. Short-circuit the laser diode

Solder the land in the flexible cable of the optical pickup.

**Notes**

- Be sure to do this before disconnecting the flexible cable of the optical pickup from the traverse P.C.B.
- Use an anti-static soldering iron to short-circuit and unshort-circuit laser diode. (Recommended soldering iron: Hakko with ESD countermeasure)
- After you have finished repairing the laser diode, follow the correct procedure to remove the solder from the short-circuit location.

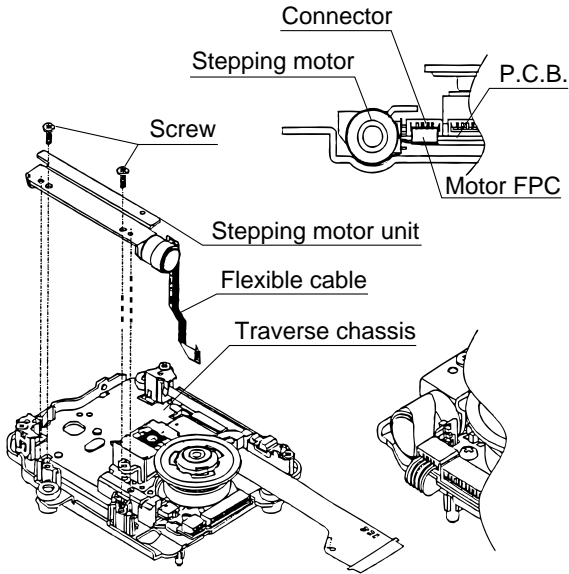


#### 4. Disassembling the Stepping Motor Unit

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.



#### 5. Disassembling the Optical Pickup Unit

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

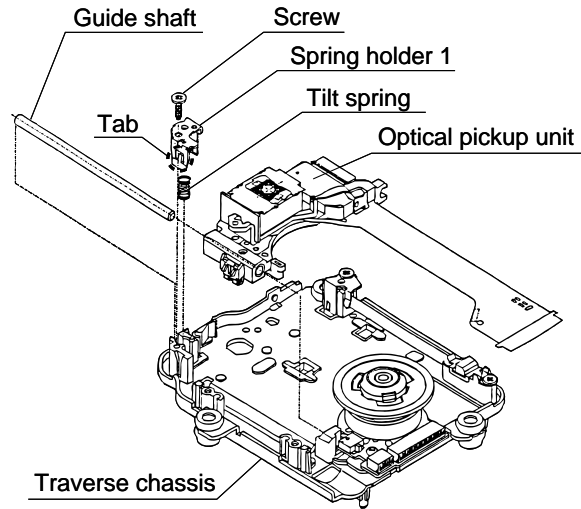
**Note**

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 page 23, Optical Pickup Tilt Adjustment.)



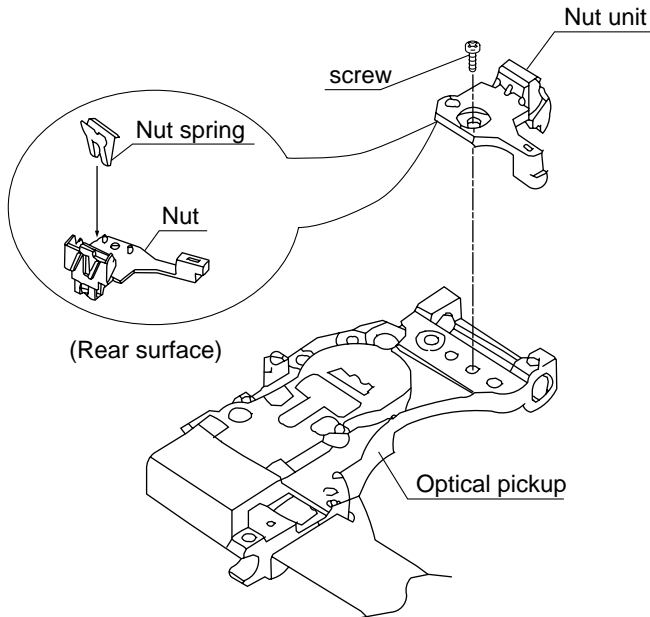


## 6. Disassembling the Nut Unit

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.

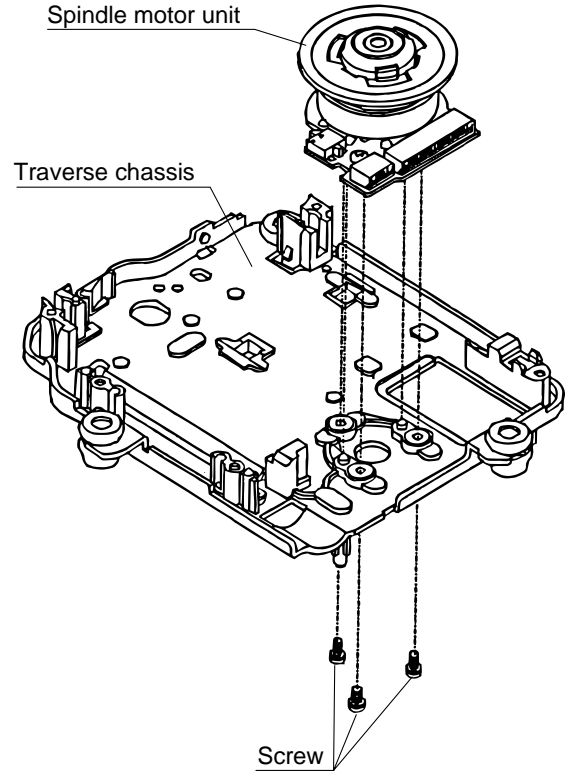


## 8. Disassembling the Spindle Motor Unit

Remove the three screws.

### Note

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

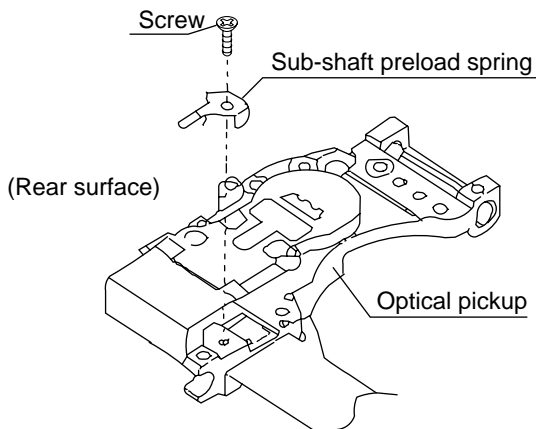


## 7. Disassembling the Sub-Shaft Preload Spring

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.

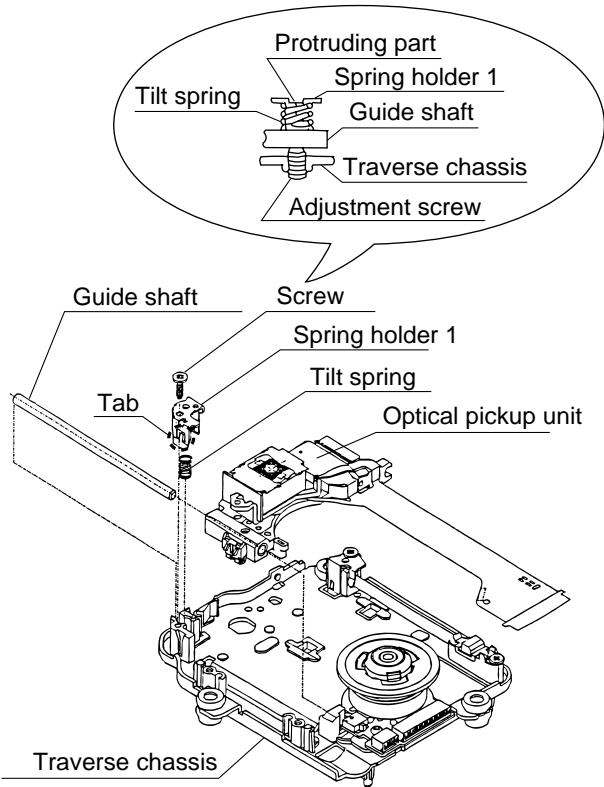


## 9. Assembling the Optical Pickup

1. Install the optical pickup.

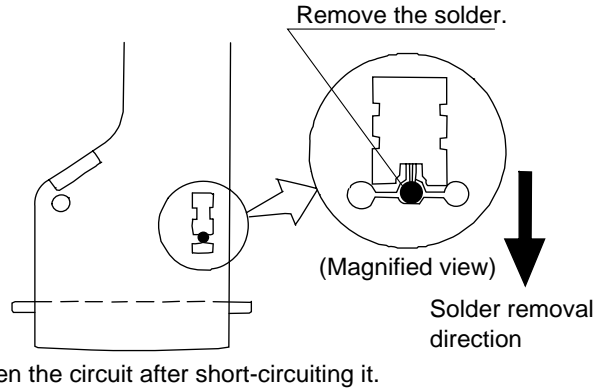
**Note**

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



2. Insert the pickup FPC into connector CB502 on the traverse P.C.B.

3. Remove the protective solder-bridge from the pickup.

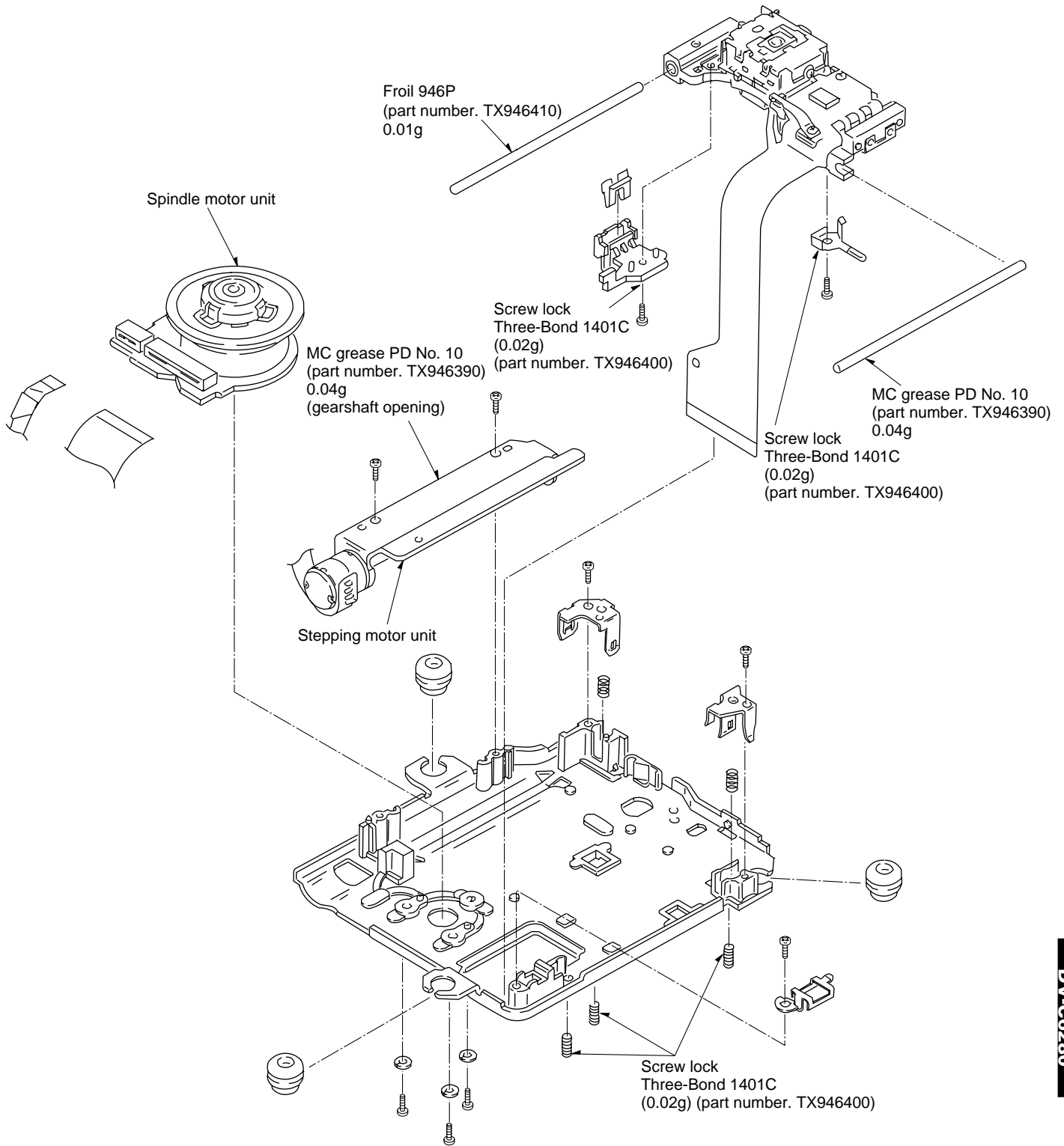


4. If installing a new pickup, write the new head current into memory as shown on page 9. Do this first after turning on the unit with NO disc and while the unit is cold (within the first 3 minutes of power ON), or the jitter reading will not be accurate for the new pickup head.

5. Adjust the optical pickup tilt after removing the solder. (Refer to page 23, Optical Pickup Tilt Adjustment.)

### 10. Lubricating the Optical Pickup and Peripheral Parts

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



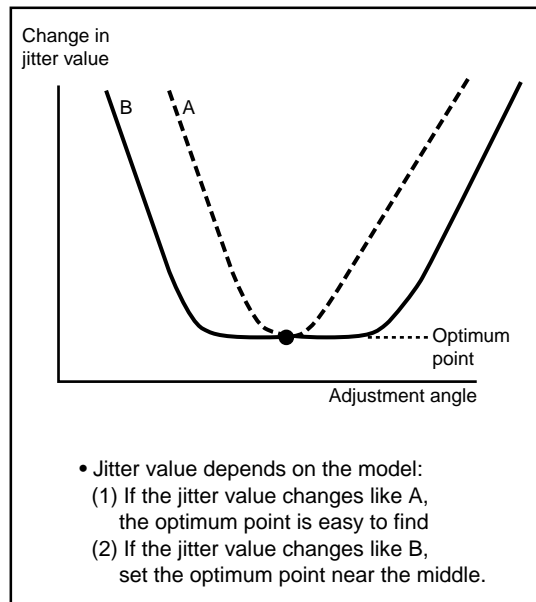
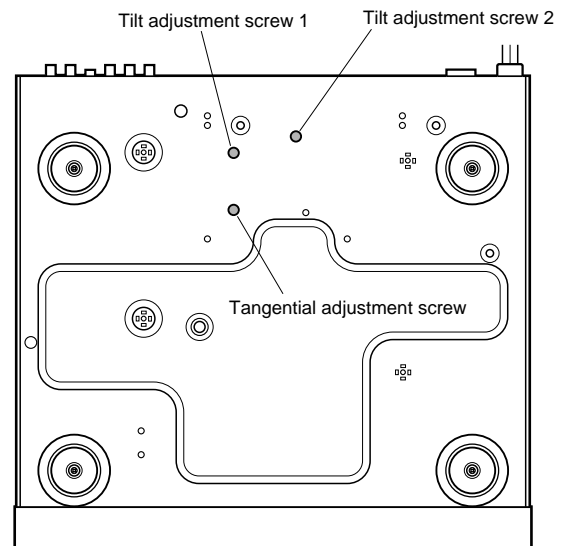
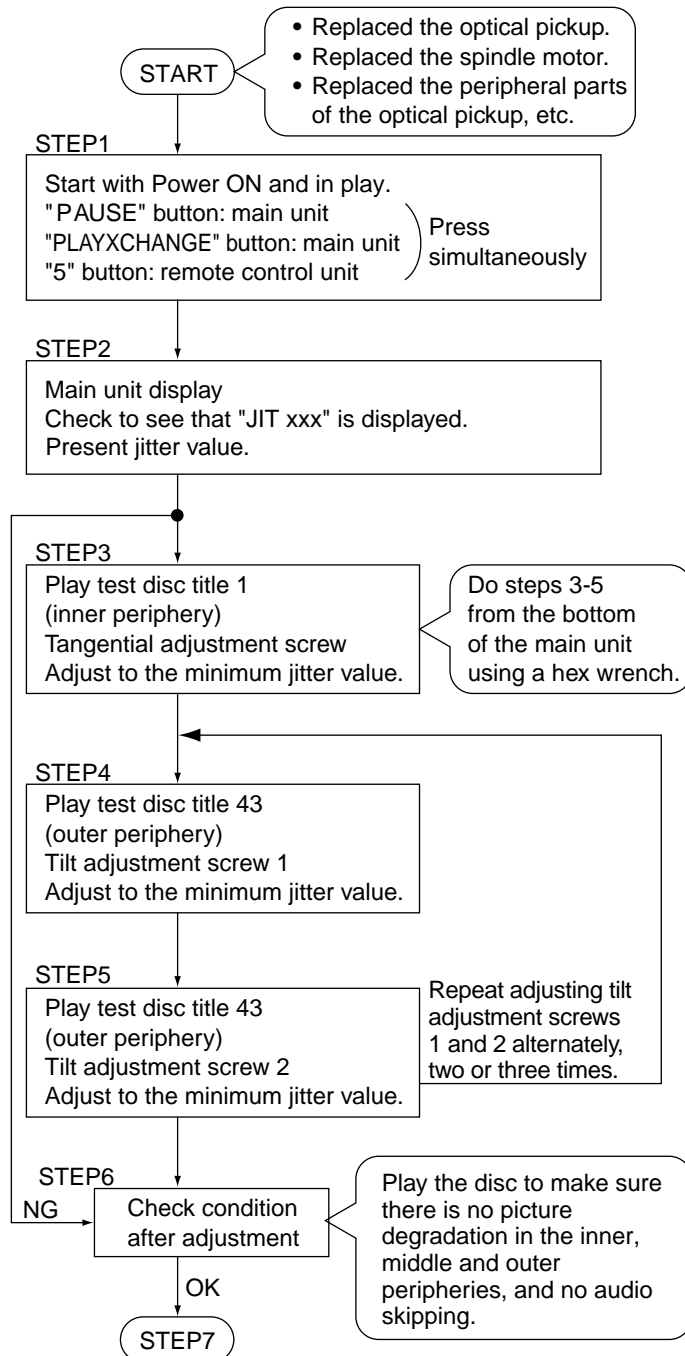
DVD-C996  
DV-C6280

## ADJUSTMENT

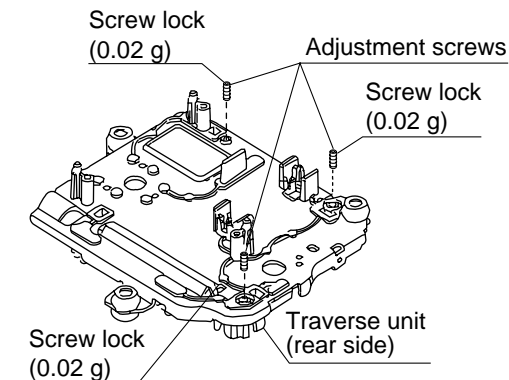
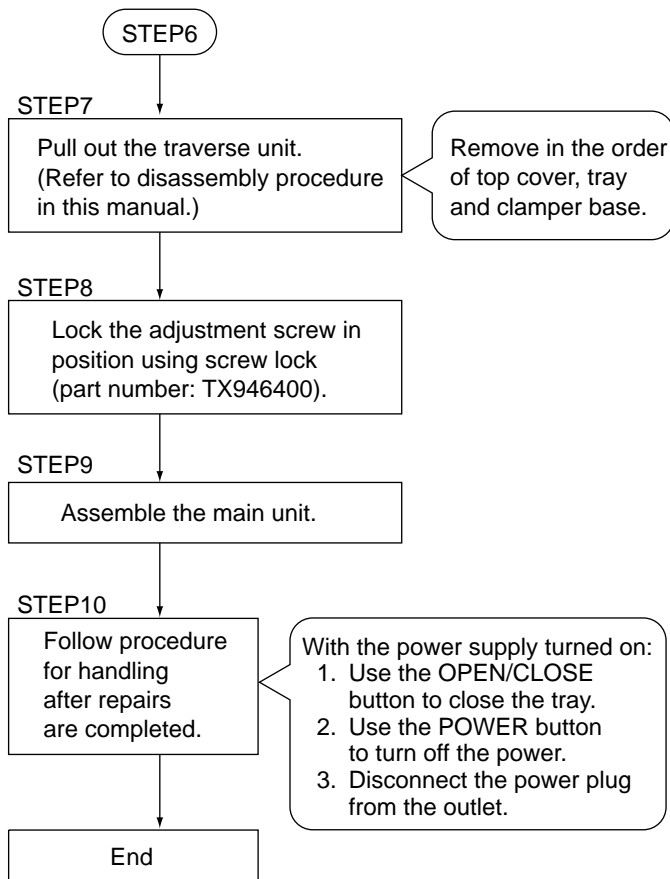
### Optical Pickup Tilt Adjustment

Measurement point	Adjustment point	Mode	Disc
Main unit service display	Tangential adjustment screw Tilt adjustment screw	T1 (inner periphery) play T2 (outer periphery) play	DVDT-S15 (AAX07320) or DVDT-S01 (TX946080)
Measuring equipment, tools		Adjustment value	
Hex wrench (part number: TX946380), 1.2mm Screw lock (part number: TX946400)		Adjust to the minimum jitter value.	

(070 = 7% and 090 = 9% jitter.)



DVD-C996  
DV-C6280



#### 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.

## ELECTRICAL CONFIRMATION

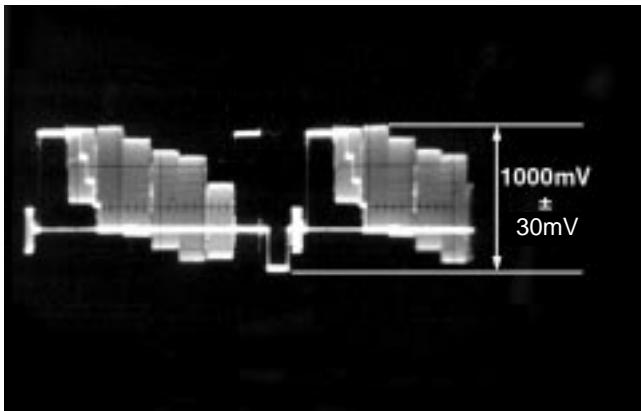
### 1. Video Output (Luminance Signal) Confirmation

Do this confirmation after replacing a P.C.B

Measurement point	Mode	Disc
Video output terminal	Color bar 75% PLAY (Title 46): DVDT-S15 PLAY (Title 10): DVDT-S01	DVDT-S15 (AAX07320) or DVDT-S01 (TX946080)
Measuring equipment, tools	Confirmation value	
Screwdriver, Oscilloscope 200mV/div, 10 usec/div	1000mVp-p±30mV	

**Purpose:** To maintain video signal output compatibility.

1. Connect the oscilloscope to the video output terminal and terminate at 75 ohms.
2. Confirm that the luminance signal (Y+S) level is 1000 mVp-p ±30 mV.



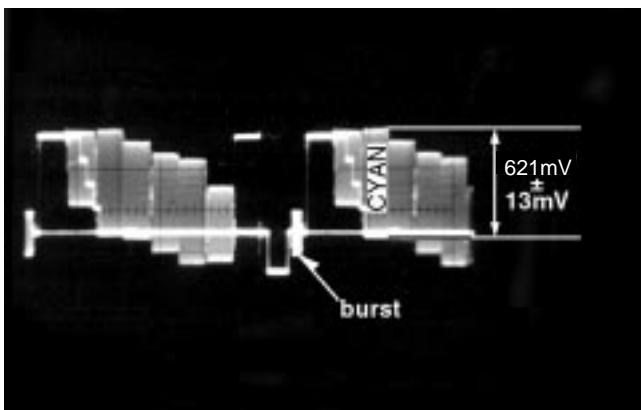
### 2. Video Output (Chrominance Signal) Confirmation

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

Measurement point	Mode	Disc
Video output terminal	Color bar 75% PLAY (Title 46): DVDT-S15 PLAY (Title 10): DVDT-S01	DVDT-S15 (AAX07320) or DVDT-S01 (TX946080)
Measuring equipment, tools	Confirmation value	
Screwdriver, Oscilloscope 200mV/div, 10 usec/div	621mVp-p±13mV	

**Purpose:** To maintain video signal output compatibility.

1. Connect the oscilloscope to the video output terminal and terminate at 75 ohms.
2. Confirm that the chrominance signal (C) level is 621 mVp-p ±13 mV.



DVD-C996  
DV-C6280

### 3. Video Component Signal (CB) Output Confirmation

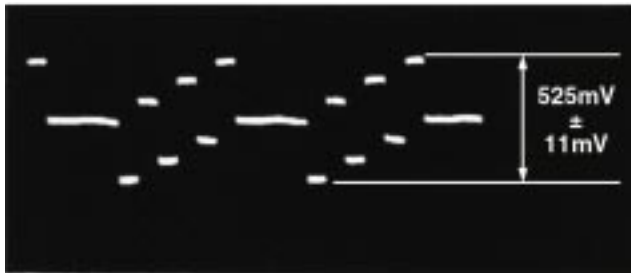
Do this confirmation after replacing a P.C.B.

Measurement point	Mode	Disc
Video output terminal (Y) (CB) Output terminal	Color bar 75% PLAY (Title 46): DVDT-S15 PLAY (Title 10): DVDT-S01	DVDT-S15 (AAX07320) or DVDT-S01 (TX946080)
Measuring equipment, tools	Confirmation value	
Screwdriver, Oscilloscope 100mV/div, 10 usec/div	525mVp-p±11mV (B, A, G Models) 486mVp-p±10mV (U, C, R Models)	

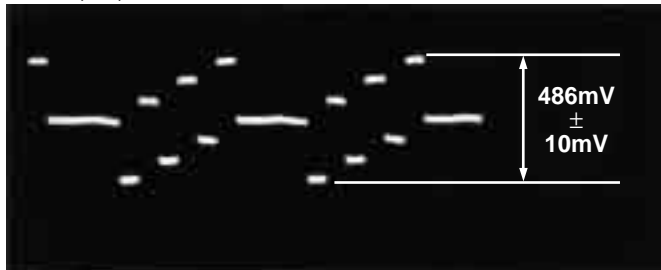
**Purpose:** To maintain video signal output compatibility.

1. Connect the oscilloscope to the video output terminal and terminate at 75 ohms.
2. Apply the trigger at the Y output terminal signal.
3. Confirm that the video component signal (CB) level is 525 mVp-p ±11 mV (B, A, G Models) /486mVp-p ± 10 mV(U, C, R Models).

For B, A, G Models



For U, C, R Models



## ■ SPECIAL FUNCTIONS FOR MAINTENANCE

### 1. Panel microprocessor test mode

#### ● How to enter the test mode

- 1) If the power has been turned on, press the "PLAY" button of the remote controller while pressing the "PAUSE" and "SEARCH ◀◀" buttons on the player.
- 2) If the power has not been turned on, turn on the power while pressing the "PAUSE" and "SEARCH ◀◀" buttons on the player.
- 3) The entire display lights up and then the panel program version appears.
- 4) Select the test mode 1 or 2 by using the OPEN/CLOSE button.

#### ● Test mode 1 ("DVD" segment of FL turned off)

No.	Player button	Action	Remarks
1	DISC 1	Moves the table to DISC1.	The tray must be closed and the clamp set down.
2	DISC 2	Moves the table to DISC2.	Same as above.
3	DISC 3	Moves the table to DISC3.	Same as above.
4	DISC 4	Moves the table to DISC4.	Same as above.
5	DISC 5	Moves the table to DISC5.	Same as above.
6	SEARCH ◀◀	Sets down the clamp.	
7	SEARCH ▶▶	Sets up the clamp.	
8	SKIP ◀◀	Closes the tray.	
9	SKIP ▶▶	Opens the tray.	
10	PLAY	Displays the panel program version.	
11	PAUSE	Returns to the production mode by using the mechanism simulation mode.	
12	STOP	Turns off all FL segments and stops the mechanism.	
13	PLAYXCHANGE	Moves the table to the home position.	The tray must be closed and the clamp set down.
14	OPEN/CLOSE	Enters Test mode 2.	

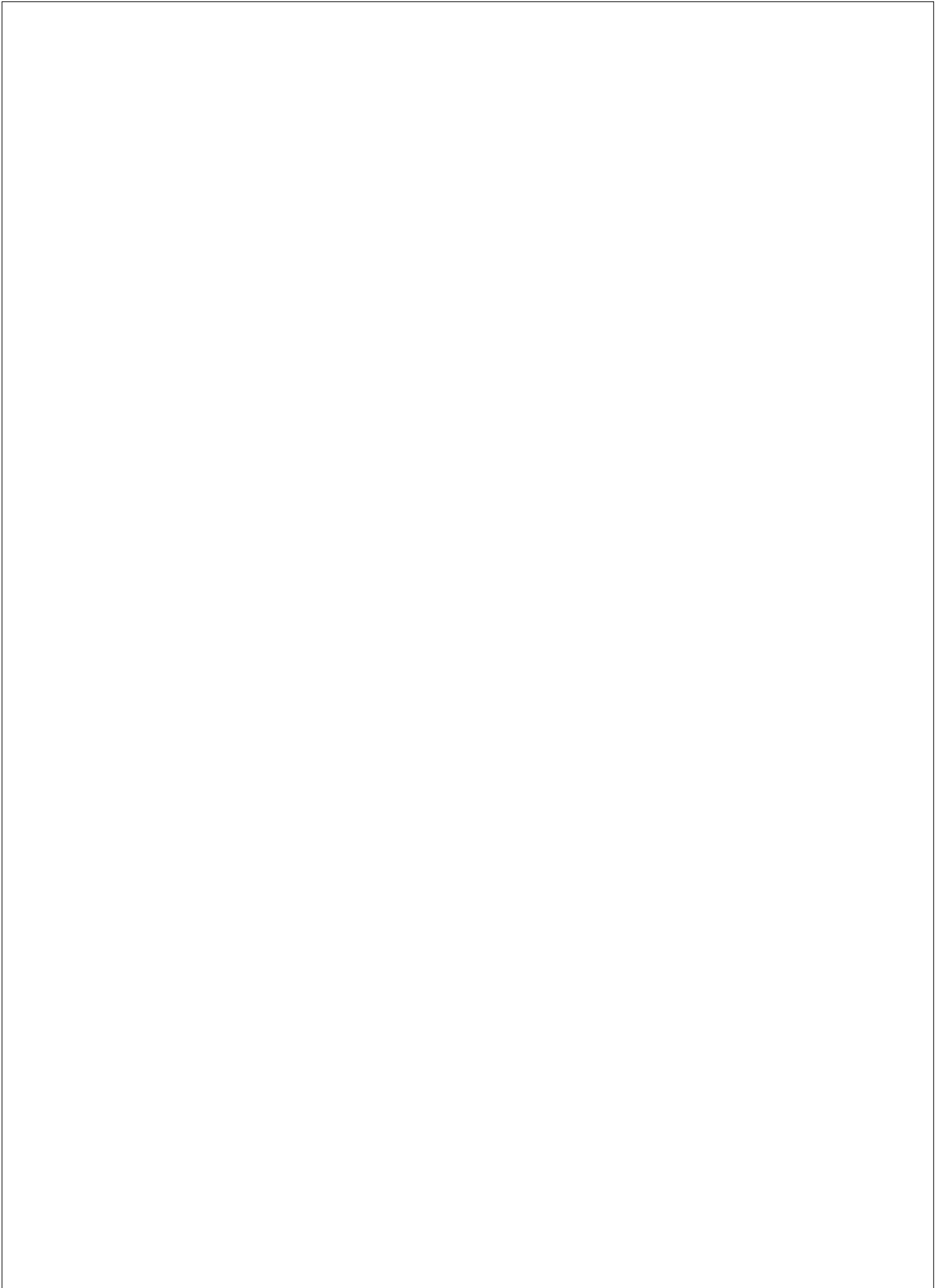
#### ● Test mode 2 ("DVD" segment of FL turned on)

**Not used (Do not use this function as it is not for servicing)**

No.	Player button	Action
1	DISC 1	Changes the current table parameter to "Braking when making a left turn". The numeric value is displayed as "BL-xx" on FL.
2	DISC 2	Changes the current table parameter to "Braking when making a right turn". The numeric value is displayed as "BR-xx" on FL.
3	DISC 3	Changes the current table parameter to "Duty when making a left turn at low speed". The numeric value is displayed as "DL-xx" on FL.
4	DISC 4	Changes the current table parameter to "Duty when making a right turn at low speed". The numeric value is displayed as "DR-xx" on FL.
5	DISC 5	
6	SEARCH ◀◀	Subtracts 10 from the current table parameter.
7	SEARCH ▶▶	Adds 10 from the current table parameter.
8	SKIP ◀◀	Subtracts 1 from the current table parameter.
9	SKIP ▶▶	Adds 1 to the current table parameter.
10	PLAY	Tests EEPROM.
11	PAUSE	Starts the changer mechanism endurance test.
12	STOP	Turns off all FL segments except "DVD" and stops the mechanism.
13	PLAYXCHANGE	1. Turns on the flag to enable display of the measured results of the table parameter. (It cannot be turned off again.) Then displays as "Hxxx Lyyy" in the disc searches degree 14 segment, where; xxx: Time required to pass the normal speed area (Unit: ms) yyy: Low speed driving time (Unit: ms) 2. Turn on the flag to disable/enable automatic adjustment of the table. "VCD"=OFF: Automatic adjustment enabled "VCD"=ON: Automatic adjustment disabled
14	OPEN/CLOSE	Enters Test mode 1.

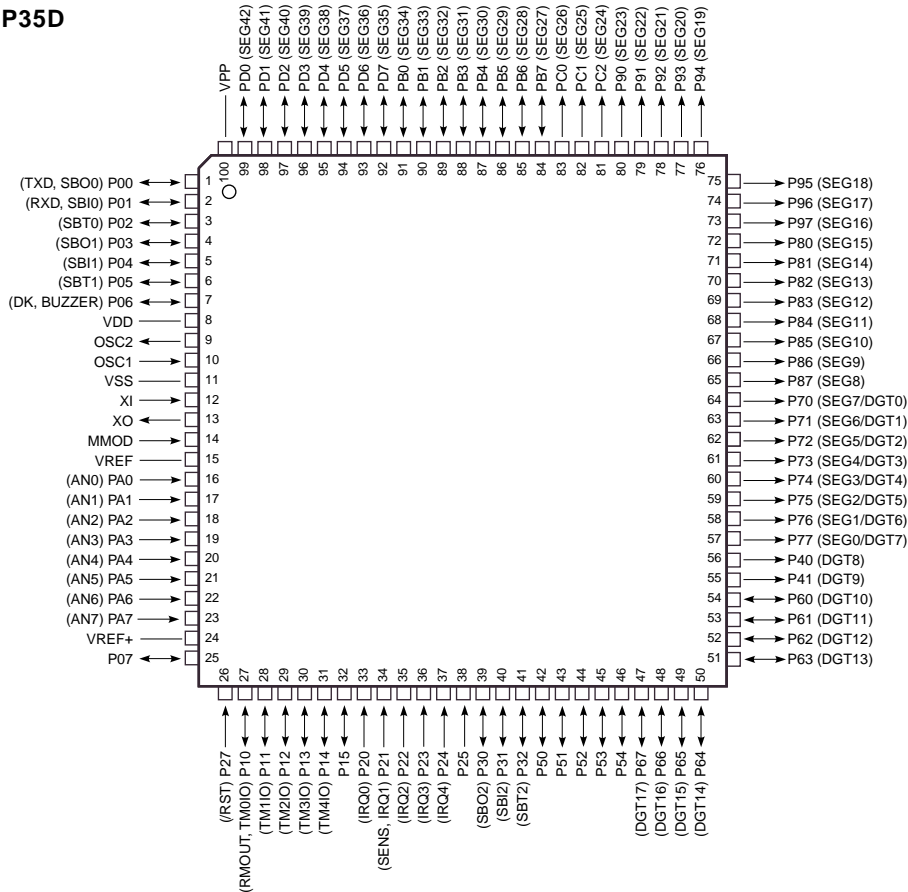


# MEMO



# IC DATA

IC351 : MN101CP35D  
Panel CPU



No.	Port	Name	Function
1	P00 (TXD, SBO0)	CMD	Command signal output to system $\mu$ -com (MN102H55)
2	P01 (RXD, SBI0)	STATUS	Status signal input from system $\mu$ -com (MN102H55)
3	P02 (SBT0)	DSPCLK	Clock input from system $\mu$ -com (MN102H55)
4	P03 (SBO1)	SO	Data signal output to EEPROM
5	P04 (SBI1)	SI	Data signal input from EEPROM
6	P05 (SBT1)	/SCK	Clock signal output to EEPROM
7	P06 (BUZZER)	CS_EEPROM	Chip select output to EEPROM
8	VDD	VDD	+5V
9	OSC2	OSC2	8MHz clock input
10	OSC1	OSC1	8MHz clock output
11	VSS	VSS	GND
12	XI	XI	32.768kHz clock input
13	XO	XO	NC
14	MMOD	MMOD	GND
15	VREF-	VREF-	GND
16	PA0	KEYIN0	Key input 0
17	PA1 (AN1)	KEYIN1	Key input 1
18	PA2 (AN2)	KEYIN2	Key input 2
19	PA3 (AN3)	PA3	NC
20	PA4 (AN4)	UPSW	Clamp Up switch signal input (L: active)
21	PA5 (AN5)	DOWNSW	Clamp Down switch signal input (L: active)
22	PA6 (AN6)	TBL_POS	Table position sensor signal input
23	PA7 (AN7)	PA7	NC
24	VREF+	VREF+	+5V
25	P07	SDATA	Data signal output for SCART multiplexer
26	P27 (/RST)	/RST	Reset signal input

DVD-C996  
DV-C6280

## IC351 : MN101CP35D

## Panel CPU

No.	Port	Name	Function
27	P10 (RMOUT, TM0IO)	OPSW	Tray Open switch signal input (L: active)
28	P11 (TM1IO)	CLSW	Tray Close switch signal input (L: active)
29	P12 (TM2IO)	PWM	Motor drive signal output
30	P13 (TM3IO)	CL_DOWN	Clamp down control output
31	P14 (TM4IO)	CL_UP	Clamp up control output
32	P15	SCLOCK	Clock signal output for SCART multiplexer
33	P20 (IRQ0)	/IR	Remote control signal input
34	P21 (SENS, IRQ1)	P21	NC
35	P22 (IRQ2)	P22	NC
36	P23 (IRQ3)	P23	NC
37	P24 (IRQ4)	P24	NC
38	P25	P25	NC
39	P30 (SBO2)	SEL0	Motor select signal output Bit 0
40	P31 (SBI2)	SWOFF	Control signal output to cut off subwoofer output
41	P32 (SBT2)	SEL1	Motor select signal output Bit 1
42	P50	P50	NC
43	P51	P51	NC
44	P52	P52	NC
45	P53	P53	Model setting terminal
46	P54	P54	Model setting terminal
47	P67 (DGT17)	P67	Model setting terminal
48	P66 (DGT16)	P66	Model setting terminal
49	P65 (DGT15)	P65	Model setting terminal
50	P64 (DGT14)	P64	NC
51	P63 (DGT13)	1G	Grid signal output for FL display
52	P62 (DGT12)	2G	Grid signal output for FL display
53	P61 (DGT11)	3G	Grid signal output for FL display
54	P60 (DGT10)	4G	Grid signal output for FL display
55	P41 (DGT9)	5G	Grid signal output for FL display
56	P40 (DGT8)	6G	Grid signal output for FL display
57	P77 (SEG0/DGT7)	7G	Grid signal output for FL display
58	P76 (SEG1/DGT6)	8G	Grid signal output for FL display
59	P75 (SEG2/DGT5)	9G	Grid signal output for FL display
60	P74 (SEG3/DGT4)	10G	Grid signal output for FL display
61	P73 (SEG4/DGT3)	11G	Grid signal output for FL display
62	P72 (SEG5/DGT2)	12G	Grid signal output for FL display
63	P71 (SEG6/DGT1)	13G	Grid signal output for FL display
64	P70 (SEG7/DGT0)	P70	NC
65	P87 (SEG8)	P87	NC
66	P86 (SEG9)	P15	Segment signal output for FL display
67	P85 (SEG10)	P14	Segment signal output for FL display
68	P84 (SEG11)	P13	Segment signal output for FL display
69	P83 (SEG12)	P12	Segment signal output for FL display
70	P82 (SEG13)	P11	Segment signal output for FL display
71	P81 (SEG14)	P10	Segment signal output for FL display
72	P80 (SEG15)	P9	Segment signal output for FL display
73	P97 (SEG16)	P8	Segment signal output for FL display
74	P96 (SEG17)	P7	Segment signal output for FL display
75	P95 (SEG18)	P6	Segment signal output for FL display
76	P94 (SEG19)	P5	Segment signal output for FL display
77	P93 (SEG20)	P4	Segment signal output for FL display
78	P92 (SEG21)	P3	Segment signal output for FL display
79	P91 (SEG22)	P2	Segment signal output for FL display
80	P90 (SEG23)	P1	Segment signal output for FL display

## IC351 : MN101CP35D

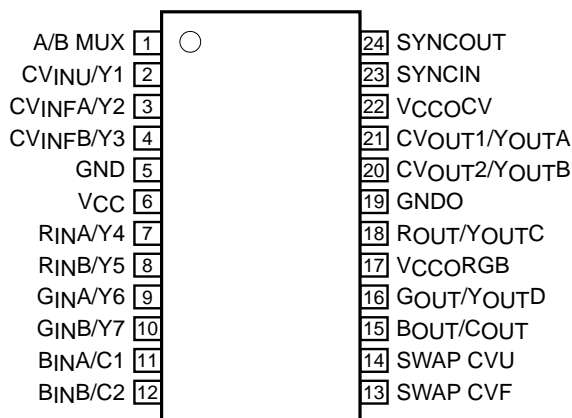
## Panel CPU

No.	Port	Name	Function
81	PC2 (SEG24)	PC2	NC
82	PC1 (SEG25)	PC1	NC
83	PC0 (SEG26)	PC0	NC
84	PB7 (SEG27)	PB7	NC
85	PB6 (SEG28)	PB6	NC
86	PB5 (SEG29)	PB5	NC
87	PB4 (SEG30)	PB4	NC
88	PB3 (SEG31)	PB3	NC
89	PB2 (SEG32)	PB2	NC
90	PB1 (SEG33)	PB1	NC
91	PB0 (SEG34)	PB0	NC
92	PD7 (SEG35)	PD7	NC
93	PD6 (SEG36)	PD6	NC
94	PD5 (SEG37)	PD5	NC
95	PD4 (SEG38)	PD4	NC
96	PD3 (SEG39)	PD3	NC
97	PD2 (SEG40)	PD2	NC
98	PD1 (SEG41)	PD1	NC
99	PD0 (SEG42)	PD0	NC
100	VPP	VPP	-25V

## ● KEY INPUT

Voltage	0.38	0.77	1.16	1.56	2.23	2.65	3.08	3.48	3.88	4.26	4.63
PA0	STOP	PAUSE	PLAY	OPEN/CLOSE	DISC1	DISC2	DISC3	DISC4	DISC5	-	-
PA1	-	-	-	-	-	-	-	-	-	SKIP ◀◀	SKIP ▶▶
PA2	-	PLAY/XCHANGE	-	-	-	-	-	-	SEARCH ◀◀	SEARCH ▶▶	-

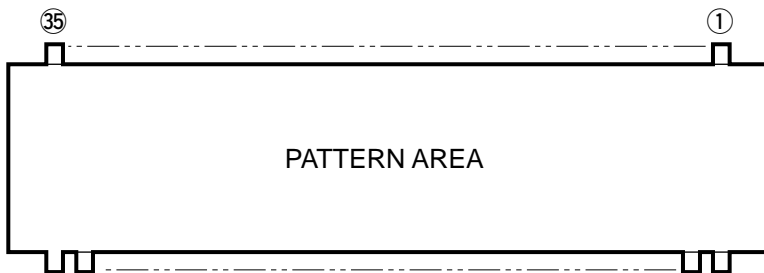
**IC5 : ML6427CS**  
**Lowpass Video Filter**



Pin No.	Pin Name	Function
1	A/B MUX	Logic input pin to select between Bank <A> or <B> of the CV, RGB, or Y/C inputs. Internally pulled high.
2	CVINU/Y1	Unfiltered analog composite video or luma video input. Internally pulled high. A composite or luma or green signal must be present on either the CVINFAY2 or the CVINFB/Y3 input to provide necessary sync signals to other channels (R, G, B, Y, C). Otherwise, sync must be provided at SYNCIN. For RGB applications the green channel with sync can be used as an input to this pin.
3	CVINFAY2	Filtered analog composite video or luma video input for Bank <A>. Note that SYNC is stripped from this signal for the other channels. A composite or luma or green signal must be present on either the CVINFAY2 or the CVINFB/Y3 input to provide necessary sync signals to other channels (R, G, B, Y, C). Otherwise, sync must be provided at SYNCIN. For RGB applications the green channel with sync can be used as an input to this pin.
4	CVINFB/Y3	Filtered analog composite video or luma video input for Bank <B>. Note that SYNC is stripped from this signal for the other channels.
5	GND	Analog ground
6	VCC	Analog 5V supply
7	RINA/Y4	Filtered analog RED video or luma video input for Bank <A>.
8	RINB/Y5	Filtered analog RED video or luma video input for Bank <B>.
9	GINA/Y6	Filtered analog GREEN video or luma video input for Bank <A>.
10	GINB/Y7	Filtered analog GREEN video or luma video input for Bank <B>.
11	BINA/C1	Filtered analog BLUE video or chroma video input for Bank <A>.
12	BINB/C2	Filtered analog BLUE video or chroma video input for Bank <B>.
13	SWAP CVF	Logic input pin to select whether the outputs of CVOUT1/YOUTA and CVOUT2/YOUTB are from filtered or unfiltered CV sources. Internally pulled low.
14	SWAP CVU	Logic input pin to select whether the outputs of CVOUT1/YOUTA and CVOUT2/YOUTB are from filtered or unfiltered CV sources. Internally pulled low.
15	BOUT/COU	Analog BLUE video output or chroma output from either BINA/C1 or BINB/C2
16	GOUT/YOUTD	Analog GREEN video output or luma output from either GINA/Y6 or GINB/Y7
17	VCCORGB	5V-power supply for output buffers of the RGB drivers
18	ROUT/YOUTC	Analog RED video output or luma output from either RINA/Y4 or RINB/Y5
19	GNDO	Ground for output buffers
20	CVOUT2/YOUTB	Composite video output for channel 2 or luma output.
21	CVOUT1/YOUTA	Composite video output for channel 1 or luma output.
22	VCCOCV	5V-power supply for output buffers of the CV drivers
23	SYNCIN	Input for an external H-sync logic signal for filtered channels. TTL or CMOS. For normal operation SYNCOUT is connected to SYNCIN.
24	SYNCOUT	Logic output for H-sync detects for CVINFAY2 or CVINFB/Y3. TTL or CMOS. For normal operation SYNCOUT is connected to SYNCIN.

## ■ DISPLAY DATA

● V351 : 13-BT-178GNK (V6267400)

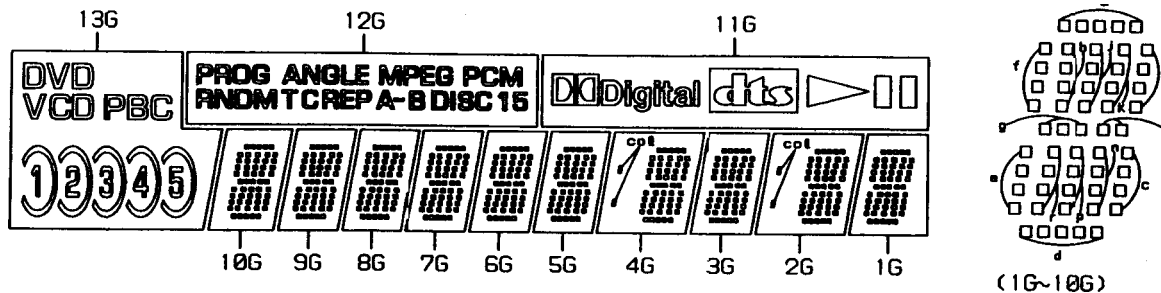


### ● PIN CONNECTION

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Connection	F1	F1	NP	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	NC	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	
Pin No.	31	32	33	34	35																										
Connection	2G	1G	NP	F2	F2																										

Note 1) F1, F2 ..... Filament      3) NC ..... No Connection      5) 1G-13G ..... Grid  
 2) NP ..... No Pin      4) P1-P15 ..... Datum Line

### ● GRID ASSIGNMENT



### ● ANODE CONNECTION

	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	-	5		a	a	a	a	a	a	a	a	a	a
P2	(5) )	1	▷	h	h	h	h	h	h	h	h	h	h
P3	5	DISC	dts	j	j	j	j	j	j	j	j	j	j
P4	(4) )	B	Digital	k	k	k	k	k	k	k	k	k	k
P5	4	A-	-	b	b	b	b	b	b	b	b	b	b
P6	(3) )	PCM	-	f	f	f	f	f	f	f	f	f	f
P7	3	MPEG	-	m	m	m	m	m	m	m	m	m	m
P8	(2) )	REP	-	g	g	g	g	g	g	g	g	g	g
P9	2	ANGLE	-	c	c	c	c	c	c	c	c	c	c
P10	(1) )	(T) C	-	e	e	e	e	e	e	e	e	e	e
P11	1	T (C)	-	r	r	r	r	r	r	r	r	r	r
P12	PBC	RNDM	-	p	p	p	p	p	p	p	p	p	p
P13	CD	PROG	-	n	n	n	n	n	n	n	n	n	n
P14	V	-	-	d	d	d	d	d	d	d	d	d	d
P15	DVD	-	-	-	-	-	-	-	-	col	-	col	-

DVD-C996  
DV-C6280

■ ABBREVIATIONS

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

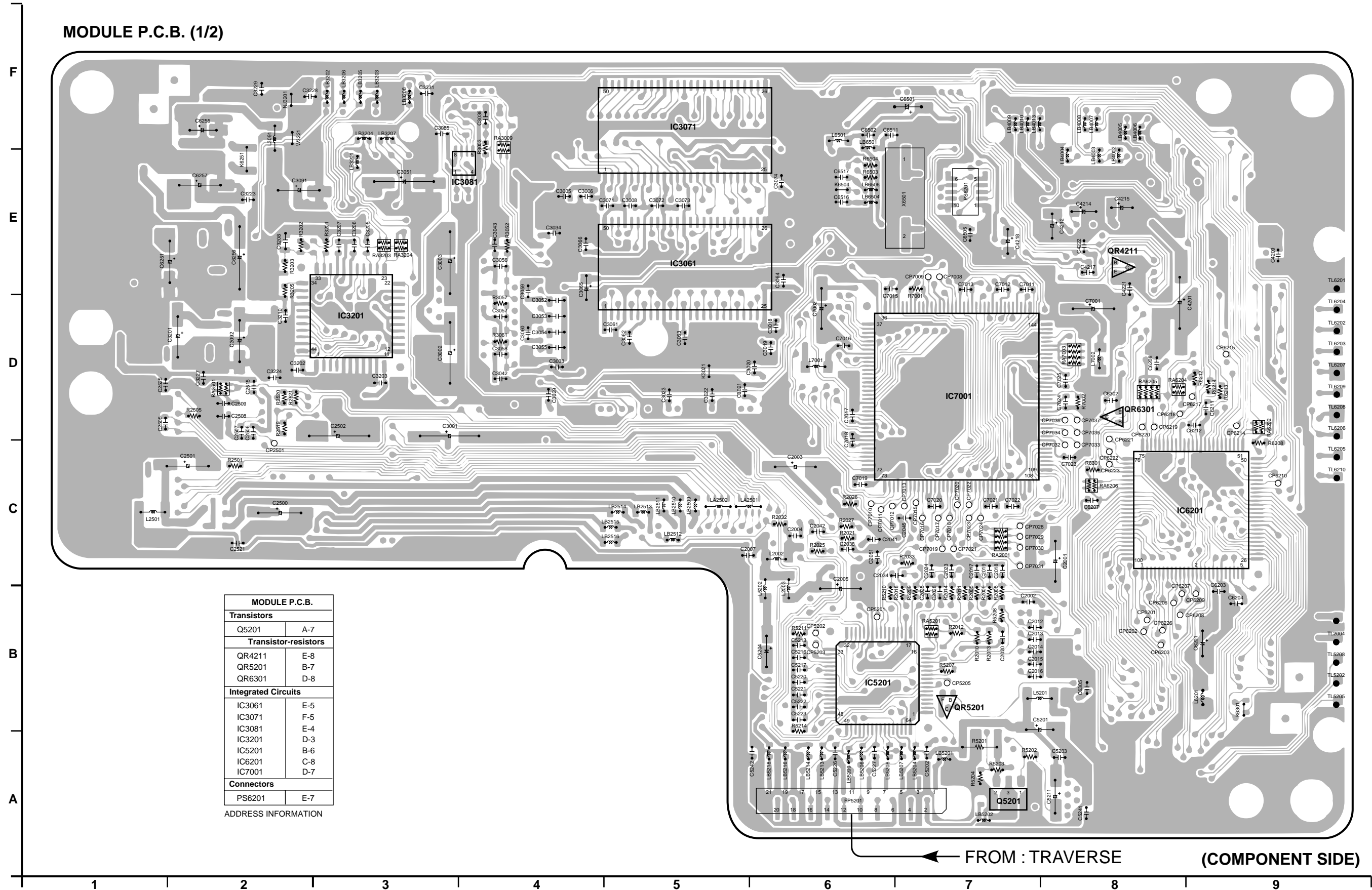
INITIAL/LOGO	ABBREVIATIONS
E	EC ERROR TORQUE CONTROL
	ECR ERROR TORQUE CONTROL REFERENCE
	ENCSEL ENCODER SELECT
	ETMCLK EXTERNAL M CLOCK (81MHz/40.5MHz)
F	ETSCLK EXTERNAL S CLOCK (54MHz)
	FBALFCLK FOCUS BALANCE/FRAME CLOCK
	FE FOCUS ERROR
	FFI FOCUS ERROR AMP INVERTED INPUT
	FEO FOCUS ERROR AMP OUTPUT
	FG FREQUENCY GENERATOR
	FSC FREQUENCY SUB CARRIER
FSCK FS (384 OVER SAMPLING) CLOCK	
G GND COMMON GROUNDING (EARTH)	
H	HA0-UP HOST ADDRESS
	HD0-UP HOST DATA
	HINT HOST INTERRUPT
	HRXW HOST READ/WRITE
I	IECOUT IEC958 FORMAT DATA OUTPUT
	IPFRAG INTERPOLATION FLAG
	IREF I (CURRENT) REFERENCE
	ISEL INTERFACE MODE SELECT
L	LDONL LASER DIODE CONTROL
	LPC LASER POWER CONTROL
	LRCK L CH/R CH DISTINCTION CLOCK
M	MA0-UP MEMORY ADDRESS
	MCK MEMORY CLOCK
	MCKI MEMORY CLOCK INPUT
	MCLK MEMORY SERIAL COMMAND CLOCK
	MDQ0-UP MEMORY SERIAL COMMAND DATA
	MDQM MEMORY DATA INPUT/OUTPUT
	MLD MEMORY DATA I/O MASK
	MPEG MEMORY SERIAL COMMAND LOAD MOTION PICTURE IMAGE CODING EXPERT GROUP
O	ODC OPTICAL DISC CONTROLLER
	OFTR OFF TRACKING
	OSCI OSCILLATOR INPUT
	OSCO OSCILLATOR OUTPUT
	OSD ON SCREEN DISPLAY
P	P1-UP PORT
	PCD CD TRACKING PHASE DIFFERENCE
	PCK PLL CLOCK
	PDVD DVD TRACKING PHASE DIFFERENCE
	PEAK CAP. FOR PEAK HOLD
	PLLCLKPLLO CHANNEL PLL CLOCK
	K PLL LOCK
	PWMCTL PWM OUTPUT CONTROL
	PWMDA PULSE WAVE MOTOR DRIVE A
	PWMOA, B 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 PF POLARITY SELECT
	RST RESET
	RSV RESERVE
S	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
	SQCX 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
W	VREF VOLTAGE REFERENCE
	VSS SOURCE POWER SUPPLY VOLTAGE
	WAIT BUS CYCLE WAIT
X	WDCK WORD CLOCK
	WEH WRITE ENABLE HIGH
	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	

■ PRINTED CIRCUIT BOARD (Component side)

MODULE P.C.B. (1/2)



MODULE P.C.B.	
<b>Transistors</b>	
Q5201	A-7
<b>Transistor-resistors</b>	
QR4211	E-8
QR5201	B-7
QR6301	D-8
<b>Integrated Circuits</b>	
IC3061	E-5
IC3071	F-5
IC3081	E-4
IC3201	D-3
IC5201	B-6
IC6201	C-8
IC7001	D-7
<b>Connectors</b>	
PS6201	E-7

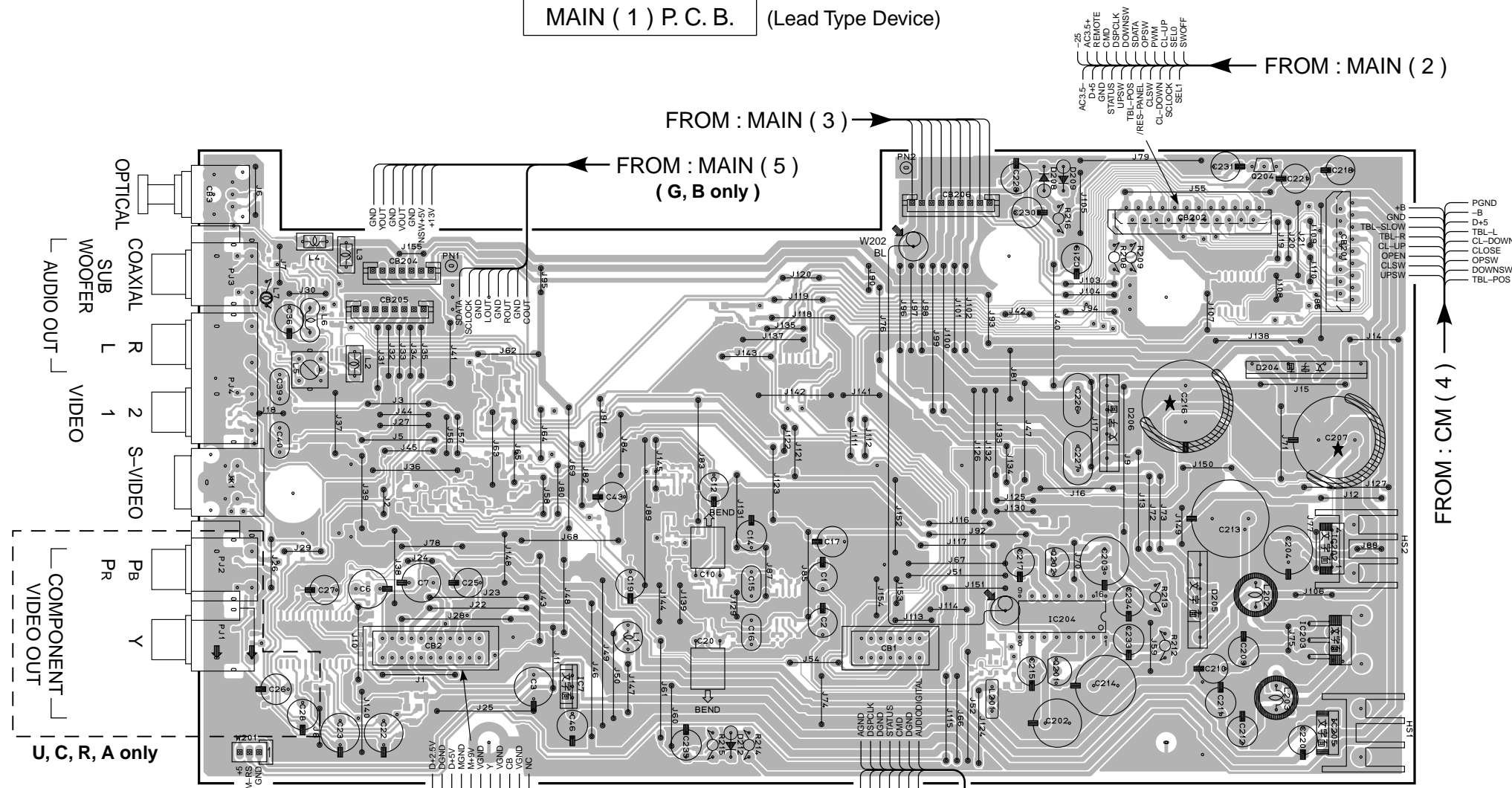
ADDRESS INFORMATION





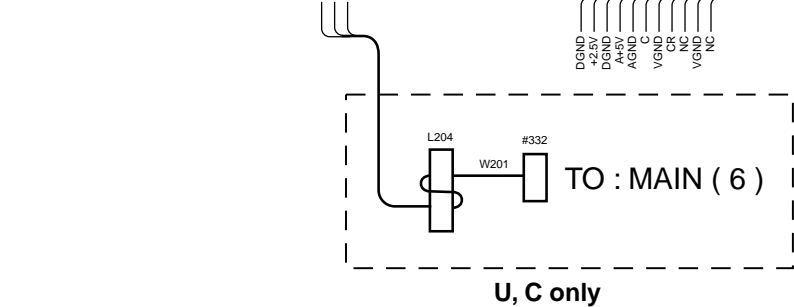
PRINTED CIRCUIT BOARD (Foil side)

MAIN ( 1 ) P. C. B. (Lead Type Device)



- 25
- AC35+
- GND
- REMOTE
- STATUS
- UPSW
- TBL-POS
- /RES
- CL-SW
- CL-DOWN
- SCLOCK
- SEL1
- SWOFF

- +B
- PGND
- B
- D+5
- TBL-L
- TBL-R
- CL-DOWN
- CL-LUP
- OPEN
- CLOSE
- OPSW
- DOWNSW
- TBL-POS



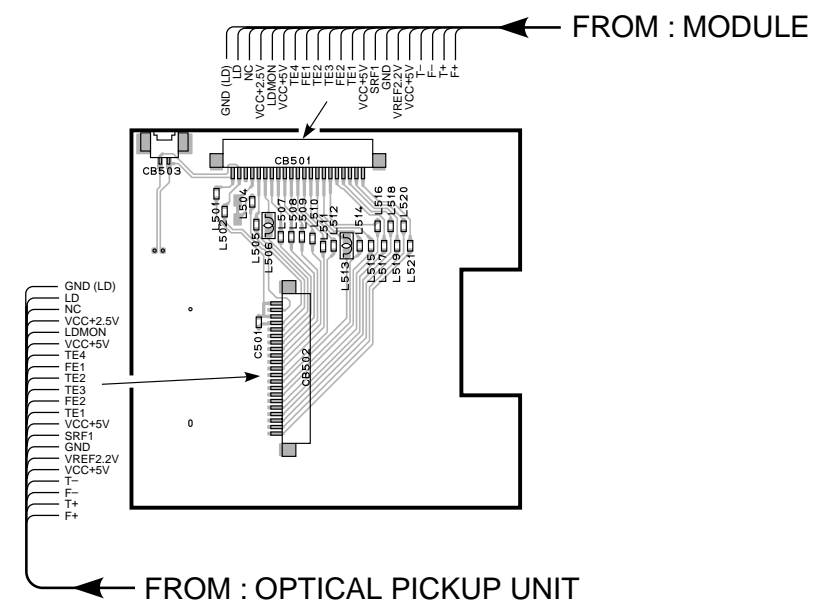
● Semiconductor Location

Ref. No.	Location
D204	E2
D205	E3
D206	E3
D208	D2
D209	E2
D212	C4

Ref. No.	Location
IC7	C3
IC202	E3
IC203	E3
IC204	E3
IC205	E4

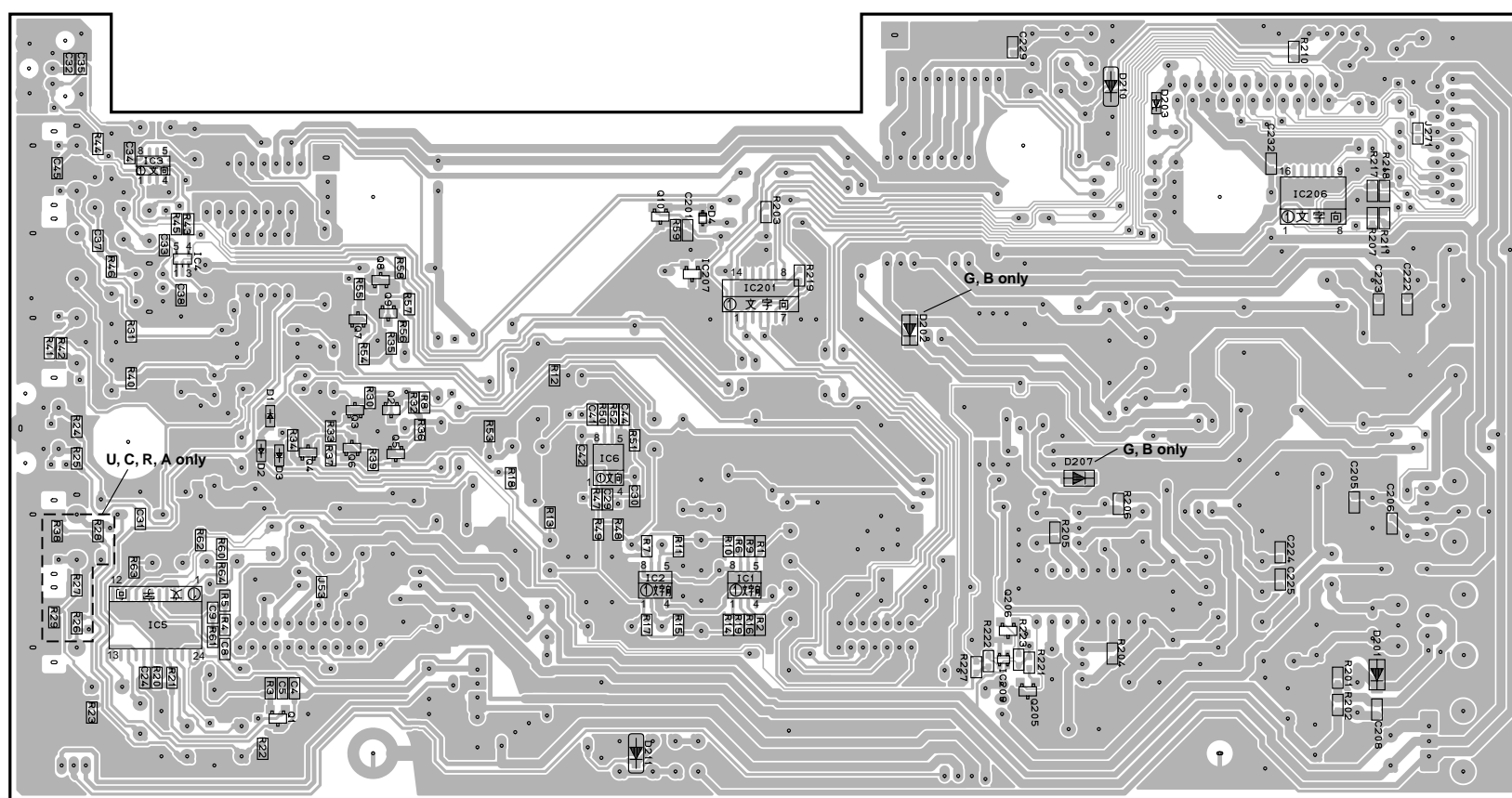
Ref. No.	Location
Q201	E3
Q202	E3
Q204	E2

TRAVERSE P. C. B.



# PRINTED CIRCUIT BOARD (Foil side)

MAIN ( 1 ) P. C. B. (Surface Mount Device)



## ● Semiconductor Location

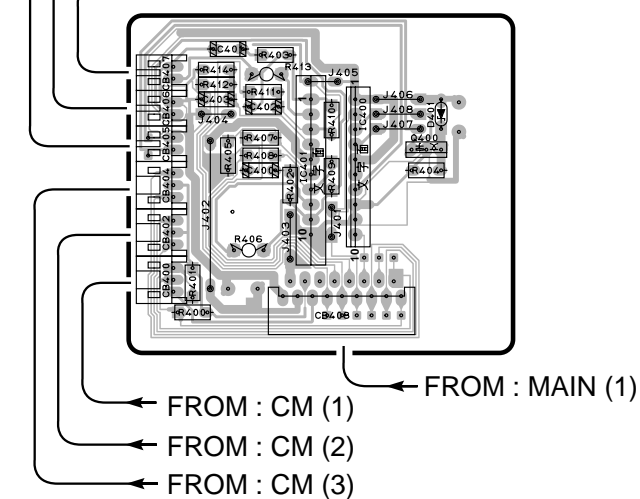
Ref. No.	Location
D1	B3
D2	B3
D3	B3
D4	C2
D201	E3
D202	D2
D203	D2
D207	D3
D210	D2
D211	C4

Ref. No.	Location
IC1	C3
IC2	C3
IC3	A2
IC4	A2
IC5	A3
IC6	C3
IC201	C2
IC206	E2
IC207	C2
IC209	D3

Ref. No.	Location
Q1	B4
Q2	B3
Q3	B3
Q4	B3
Q5	B3
Q6	B3
Q7	B2
Q8	B2
Q9	B2
Q10	C2
Q205	D3
Q206	D3

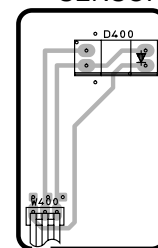
CM ( 4 ) P.C.B.

FROM : LOADING MOTOR  
FROM : DISC CLAMP MOTOR  
FROM : TRAY ROTATE MOTOR



CM ( 1 ) P.C.B.

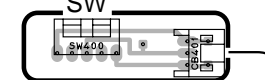
TABLE  
SENSOR



TO : CM ( 4 )

CM ( 2 ) P.C.B.

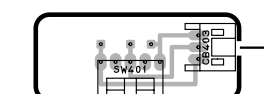
CLAMP  
UP/DOWN  
SW



FROM : CM ( 4 )

CM ( 3 ) P.C.B.

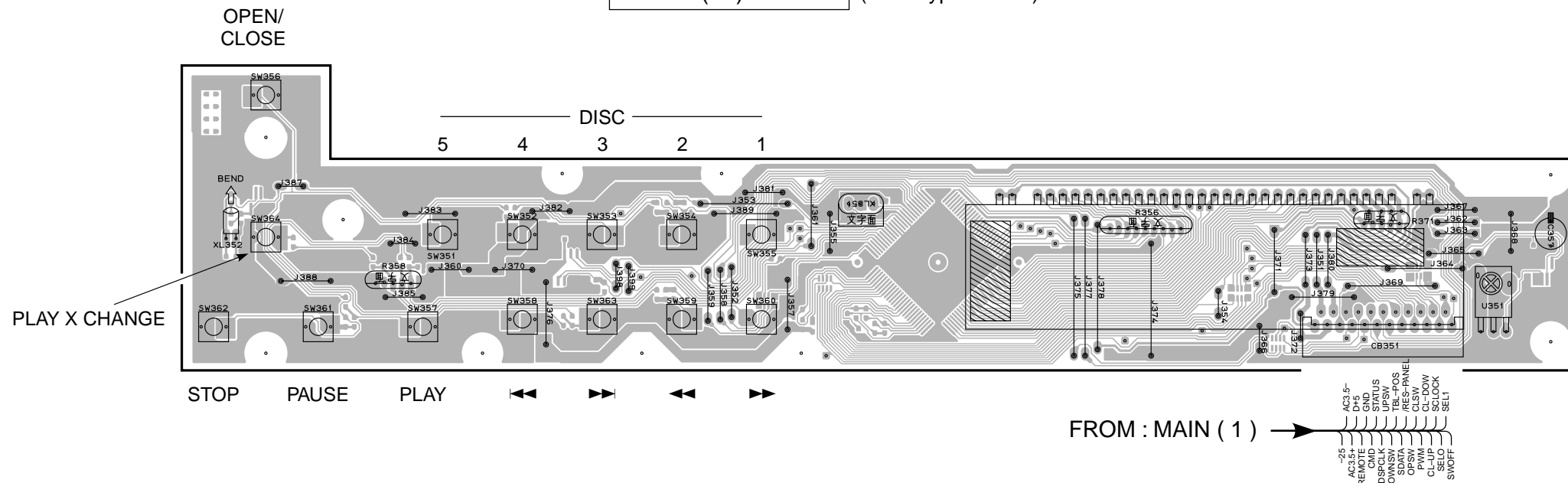
FROM : CM ( 4 )



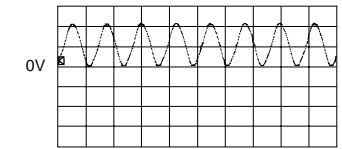
LOADING  
SW

PRINTED CIRCUIT BOARD (Foil side)

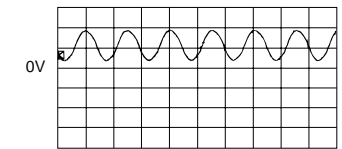
MAIN ( 2 ) P. C. B. (Lead Type Device)



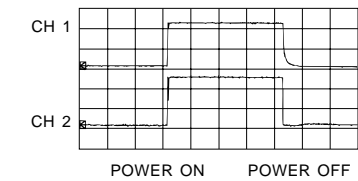
Point ① (Pin10 of IC351)  
 V : 2V/div H : 0.1 μsec/div  
 DC range 1 : 1 probe



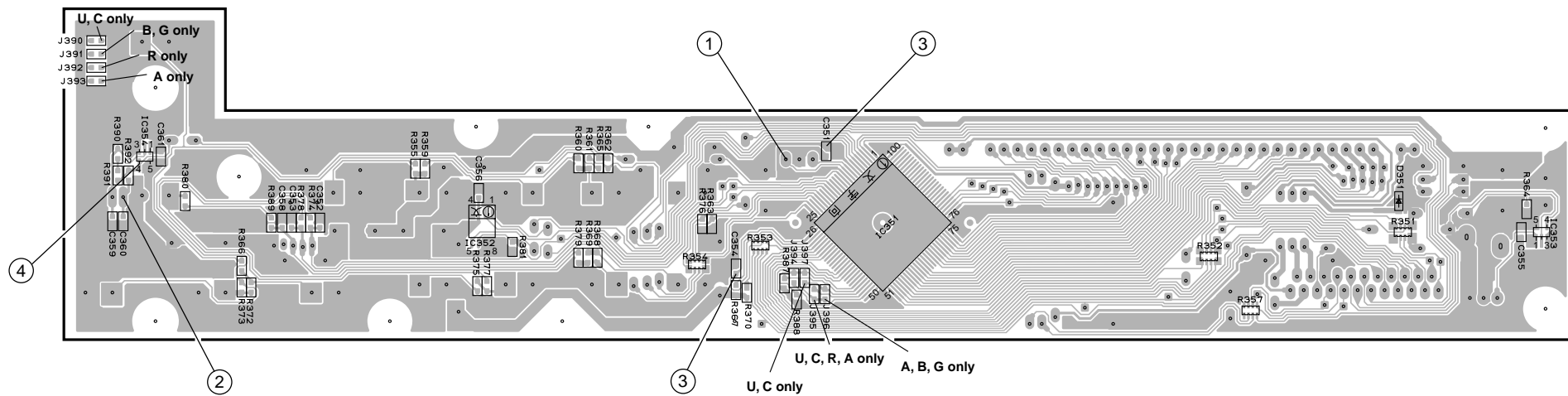
Point ② (XL352)  
 V : 2V/div H : 20 μsec/div  
 DC range 1 : 1 probe



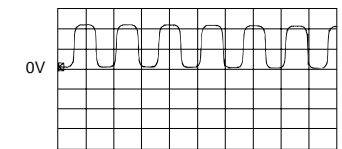
Point ③  
 CH1 : Pin8 of IC351 V : 2V/div (CH1)  
 CH2 : Pin26 of IC351 V : 2V/div (CH2)  
 H : 5 sec/div DC range 1 : 1 probe



MAIN ( 2 ) P. C. B. (Surface Mount Device)



Point ④ (Pin4 of IC354)  
 V : 2V/div H : 20 μsec/div  
 DC range 1 : 1 probe

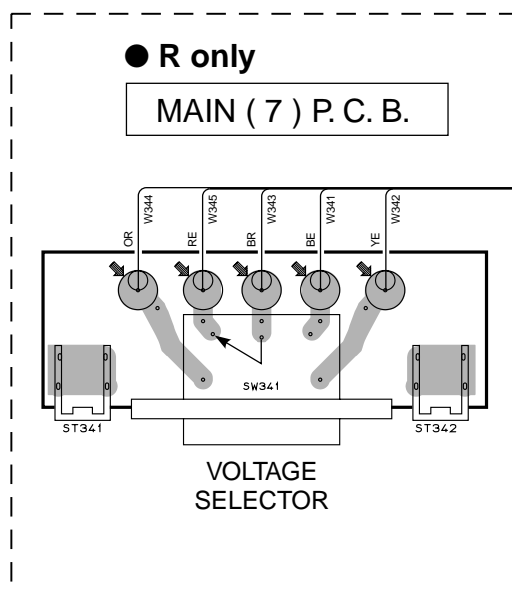


Semiconductor Location

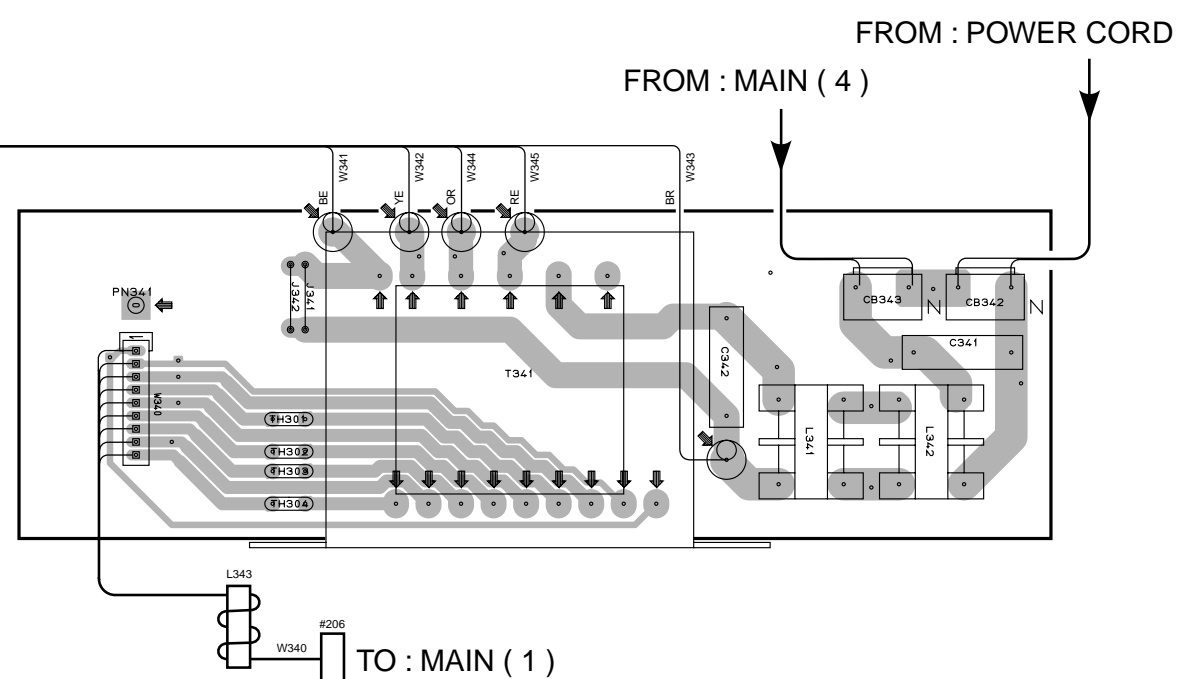
Ref. No.	Location	Ref. No.	Location
D351	F4	IC351	D4
		IC352	C4
		IC353	F4
		IC354	B4

PRINTED CIRCUIT BOARD (Foil side)

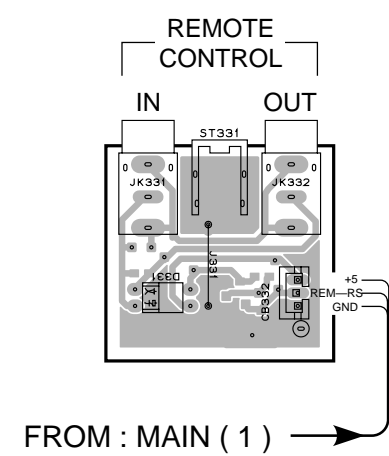
1



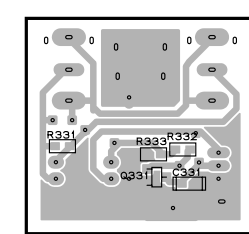
MAIN ( 3 ) P. C. B.



● U, C only  
MAIN ( 6 ) P. C. B. (Lead Type Device)



● U, C only  
MAIN ( 6 ) P. C. B. (Surface Mount Device)



2

3

● Semiconductor Location

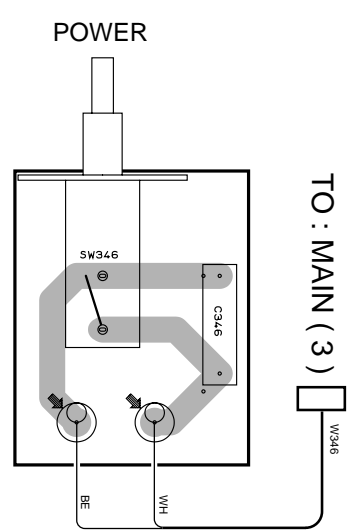
Ref. No.	Location
D286	G5
D331	F2

Ref. No.	Location
IC351	D4
IC352	C4
IC353	F4
IC354	B4

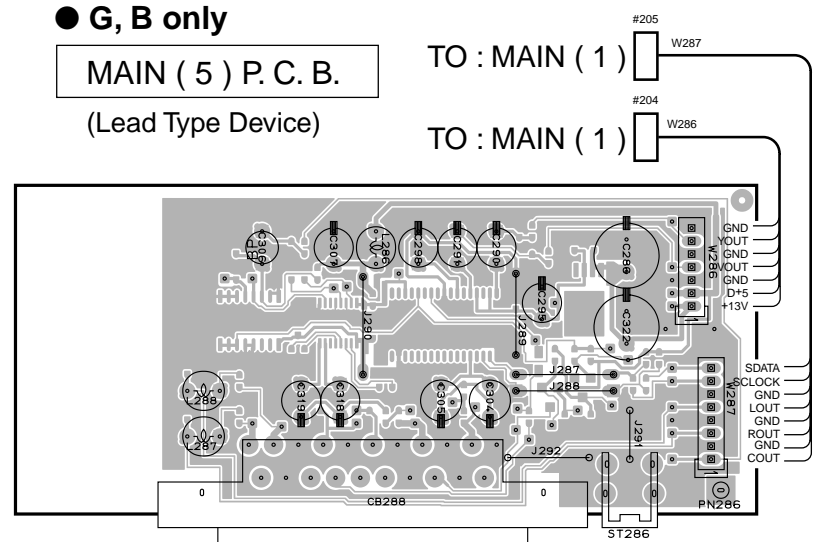
Ref. No.	Location
Q286	G5
Q288	G5
Q331	F4

4

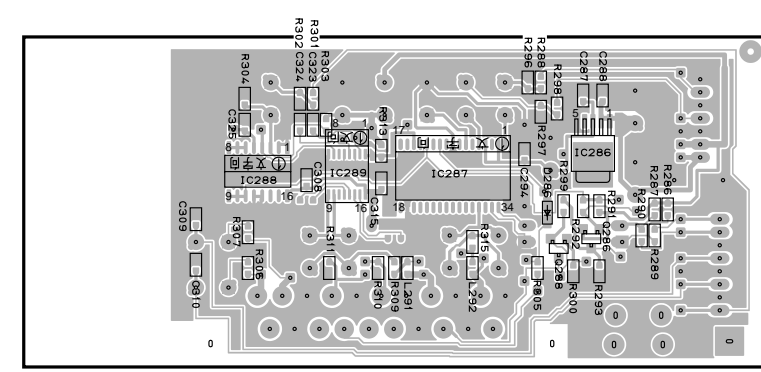
MAIN ( 4 ) P. C. B.



● G, B only  
MAIN ( 5 ) P. C. B. (Lead Type Device)



● G, B only  
MAIN ( 5 ) P. C. B. (Surface Mount Device)

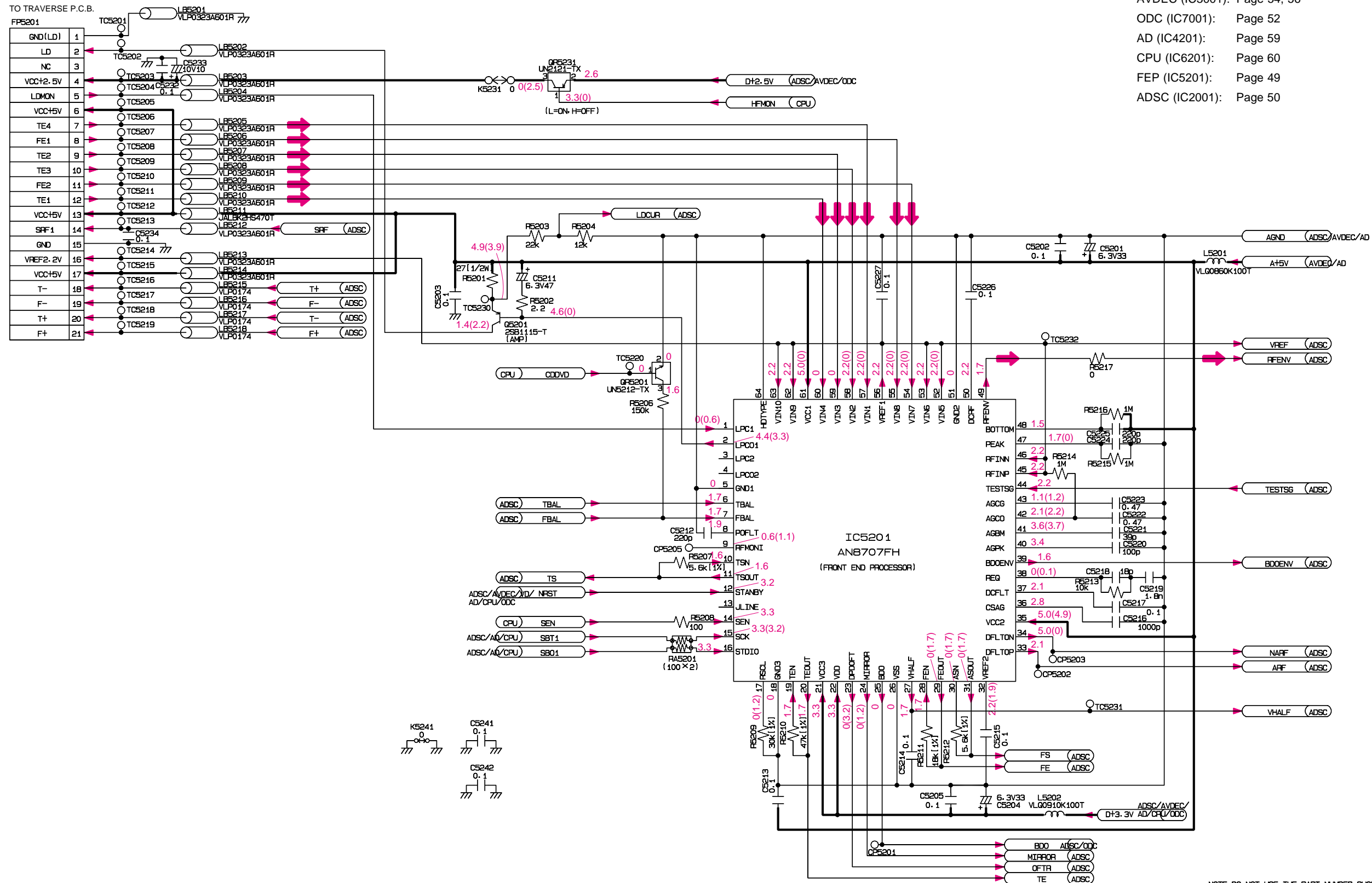


5

6

SCHEMATIC DIAGRAM (MODULE P.C.B. (1/6): FEP SECTION)

MAIN SIGNAL



- AVDEC (IC3001): Page 54, 56
- ODC (IC7001): Page 52
- AD (IC4201): Page 59
- CPU (IC6201): Page 60
- FEP (IC5201): Page 49
- ADSC (IC2001): Page 50

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.



SCHEMATIC DIAGRAM (MODULE P.C.B. (2/6): ADSC SECTION)

1

2

3

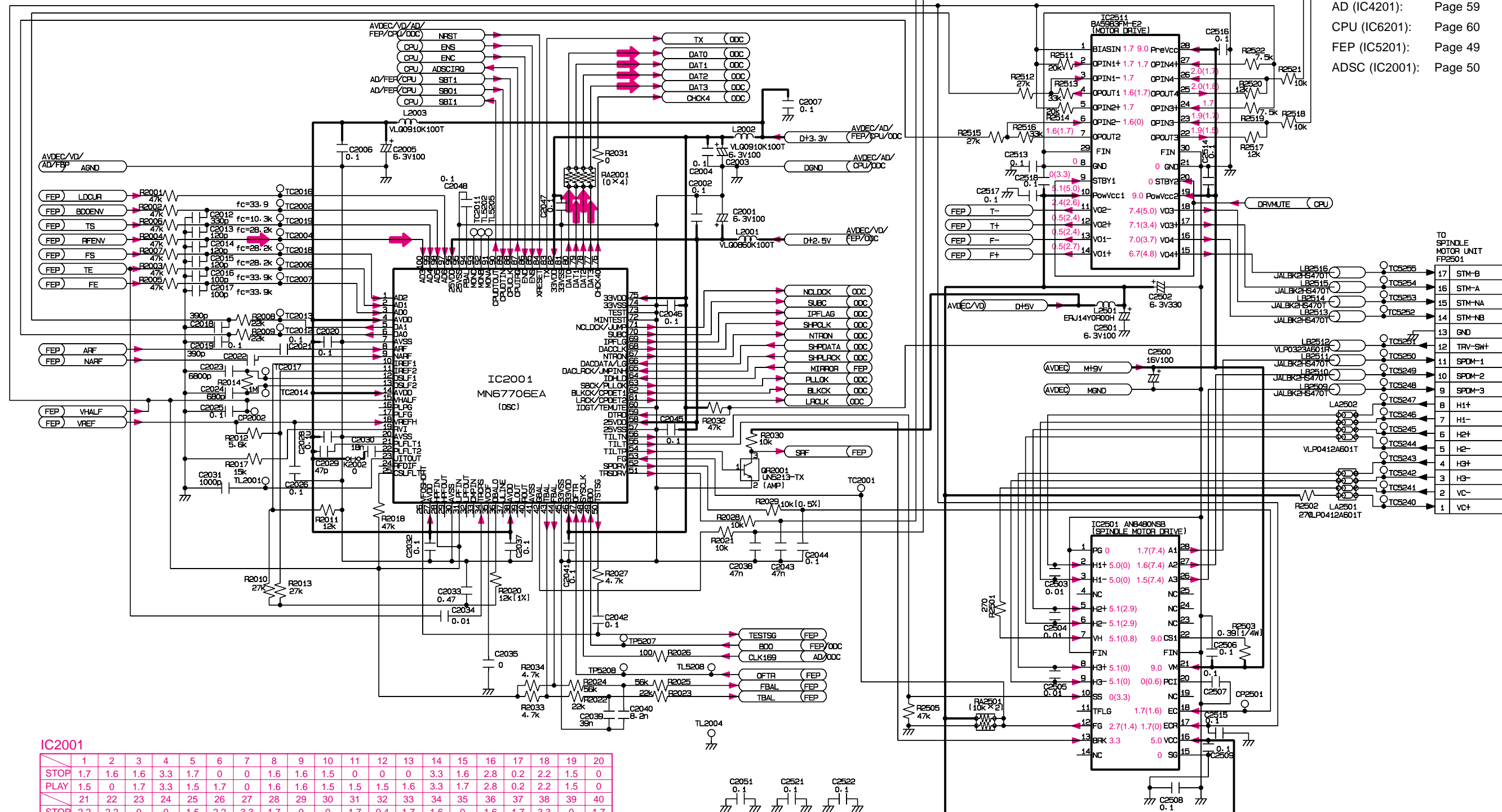
4

5

6

MAIN SIGNAL PATH

- AVDEC (IC3001): Page 54, 56
- ODC (IC7001): Page 52
- AD (IC4201): Page 59
- CPU (IC6201): Page 60
- FEP (IC5201): Page 49
- ADSC (IC2001): Page 50

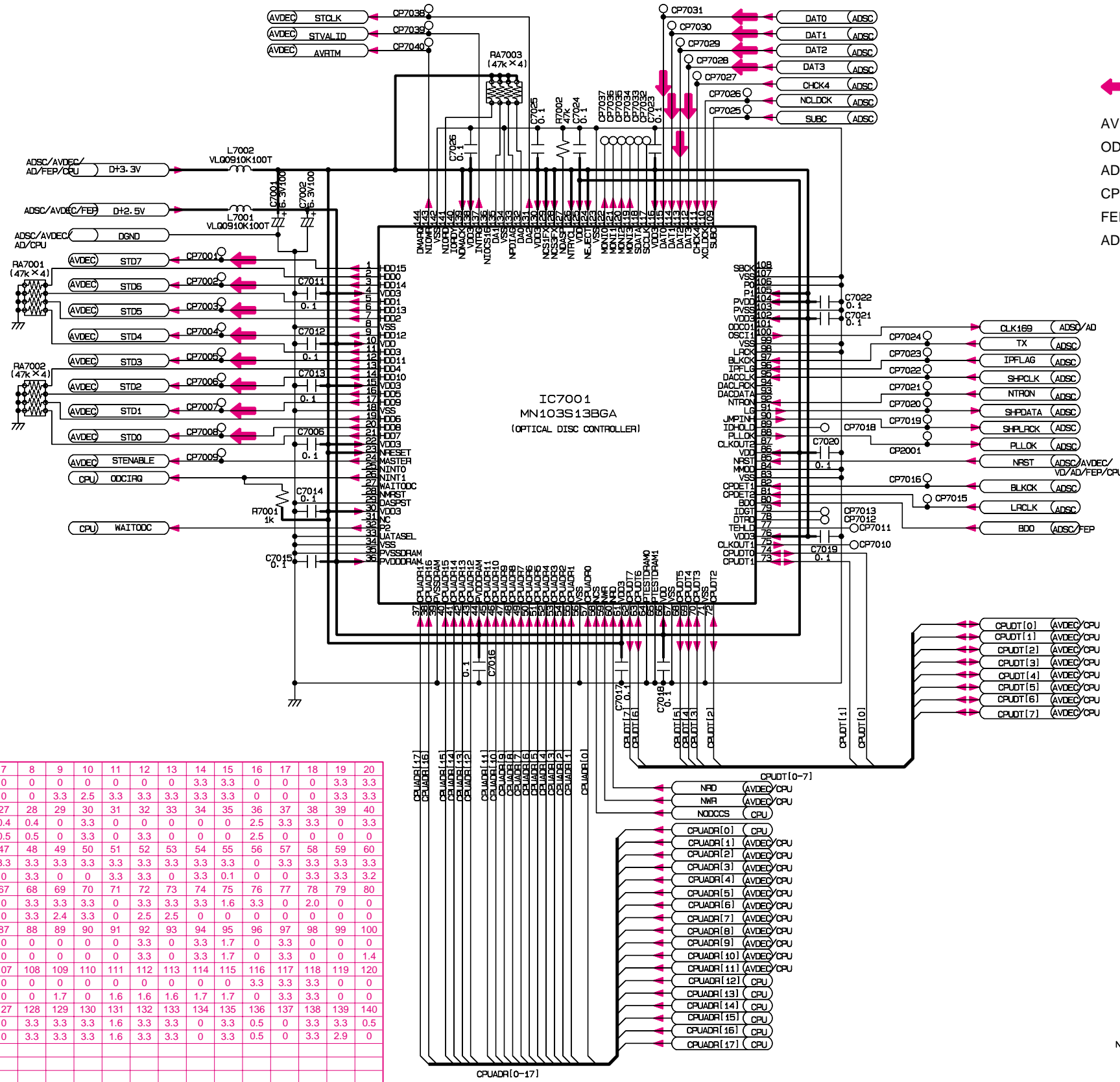


IC2001

	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	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
STOP	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0
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
STOP	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0
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
STOP	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0
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
STOP	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0
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

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.

■ SCHEMATIC DIAGRAM (MODULE P.C.B. (3/6): ODC SECTION)



← MAIN SIGNAL PATH

- AVDEC (IC3001): Page 54, 56
- ODC (IC7001): Page 52
- AD (IC4201): Page 59
- CPU (IC6201): Page 60
- FEP (IC5201): Page 49
- ADSC (IC2001): Page 50

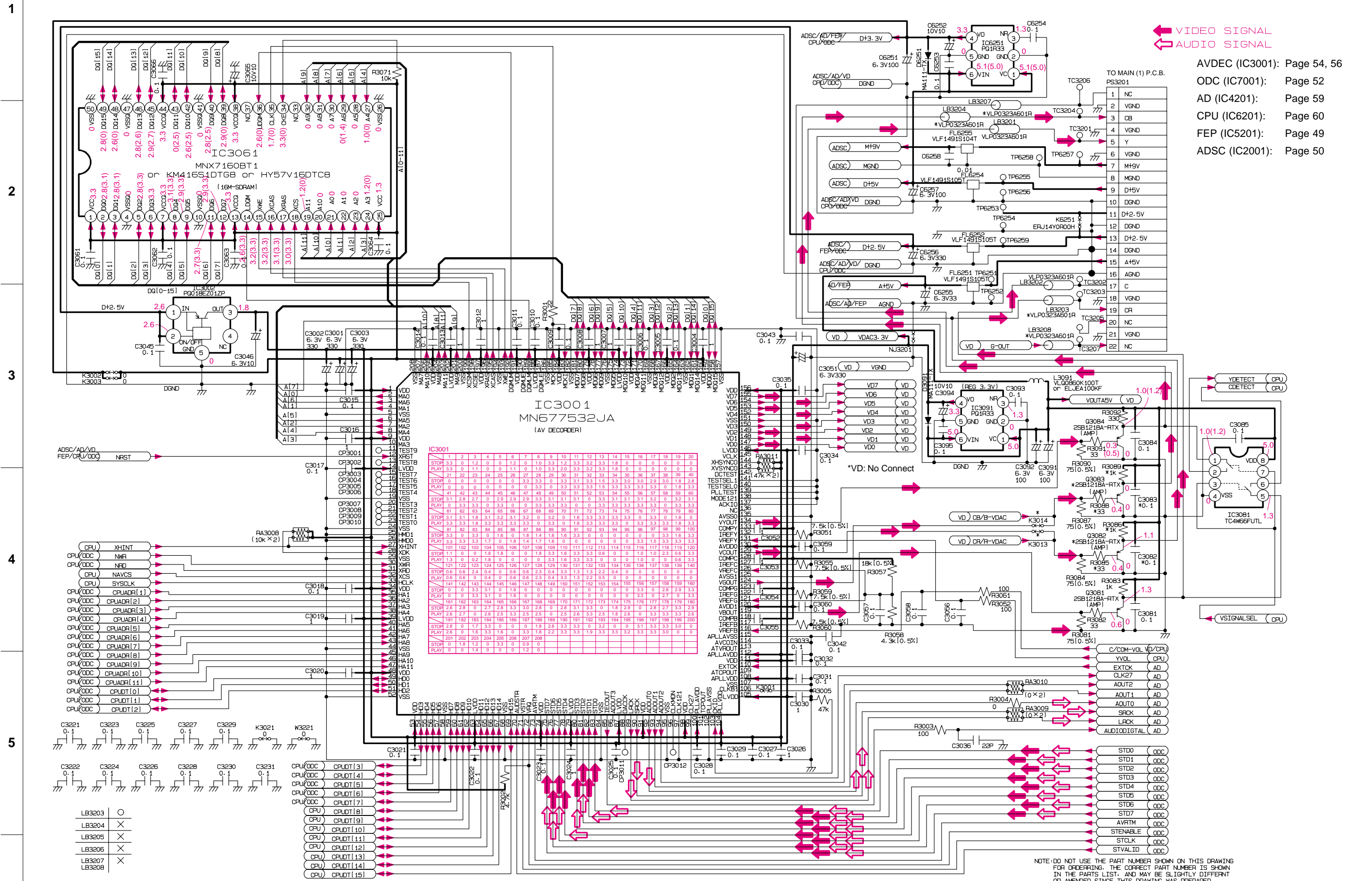
IC7001

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.3	0.6	0	0	3.3	3.3	0	0	0	0	0	0	0	3.3	3.3	0	0	0	3.3	3.3
PLAY	3.3	3.3	3.3	3.3	3.3	3.3	0	0	3.3	2.5	3.3	3.3	3.3	3.3	3.3	0	0	0	3.3	3.3
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
STOP	3.3	3.3	3.3	3.3	0.4	3.3	0.4	0.4	0	3.3	0	0	0	0	2.5	3.3	3.3	0	3.3	
PLAY	3.3	3.3	3.3	3.3	0.5	0	0.5	0.5	0	3.3	0	3.3	0	0	0	2.5	0	0	0	
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
STOP	3.3	3.3	3.3	2.5	0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	3.3	
PLAY	0	0	0	0	3.3	0	0	3.3	0	0	3.3	3.3	0	3.3	0.1	0	0	0	3.3	3.2
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
STOP	3.3	3.3	3.3	0	0	2.5	0	3.3	3.3	3.3	0	3.3	3.3	3.3	1.6	3.3	0	2.0	0	
PLAY	3.3	0	3.3	0	0	2.5	0	3.3	2.4	3.3	0	2.5	2.5	0	0	0	0	0	0	
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	
STOP	3.3	0	0	0	3.2	2.5	0	0	0	0	0	3.3	0	3.3	1.7	0	3.3	0	0	
PLAY	3.3	0	0	0	3.2	2.5	0	0	0	0	0	3.3	0	3.3	1.7	0	3.3	0	0	1.4
101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	
STOP	0	1.6	3.3	3.1	3.3	0	0	0	0	0	0	0	0	0	0	3.3	3.3	3.3	0	
PLAY	1.3	0	0	0	3.3	0	0	0	1.7	0	1.6	1.6	1.6	1.7	1.7	0	3.3	3.3	0	
121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	
STOP	0	0	0	3.3	2.5	3.3	0	3.3	3.3	3.3	1.6	3.3	3.3	0	3.3	0.5	0	3.3	3.3	0.5
PLAY	0	0	0	3.3	2.5	3.3	0	3.3	3.3	3.3	1.6	3.3	3.3	0	3.3	0.5	0	3.3	2.9	0
141	142	143	144																	
STOP	0	0	0	3.3	3.3															
PLAY	0	0	0	3.3																

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.

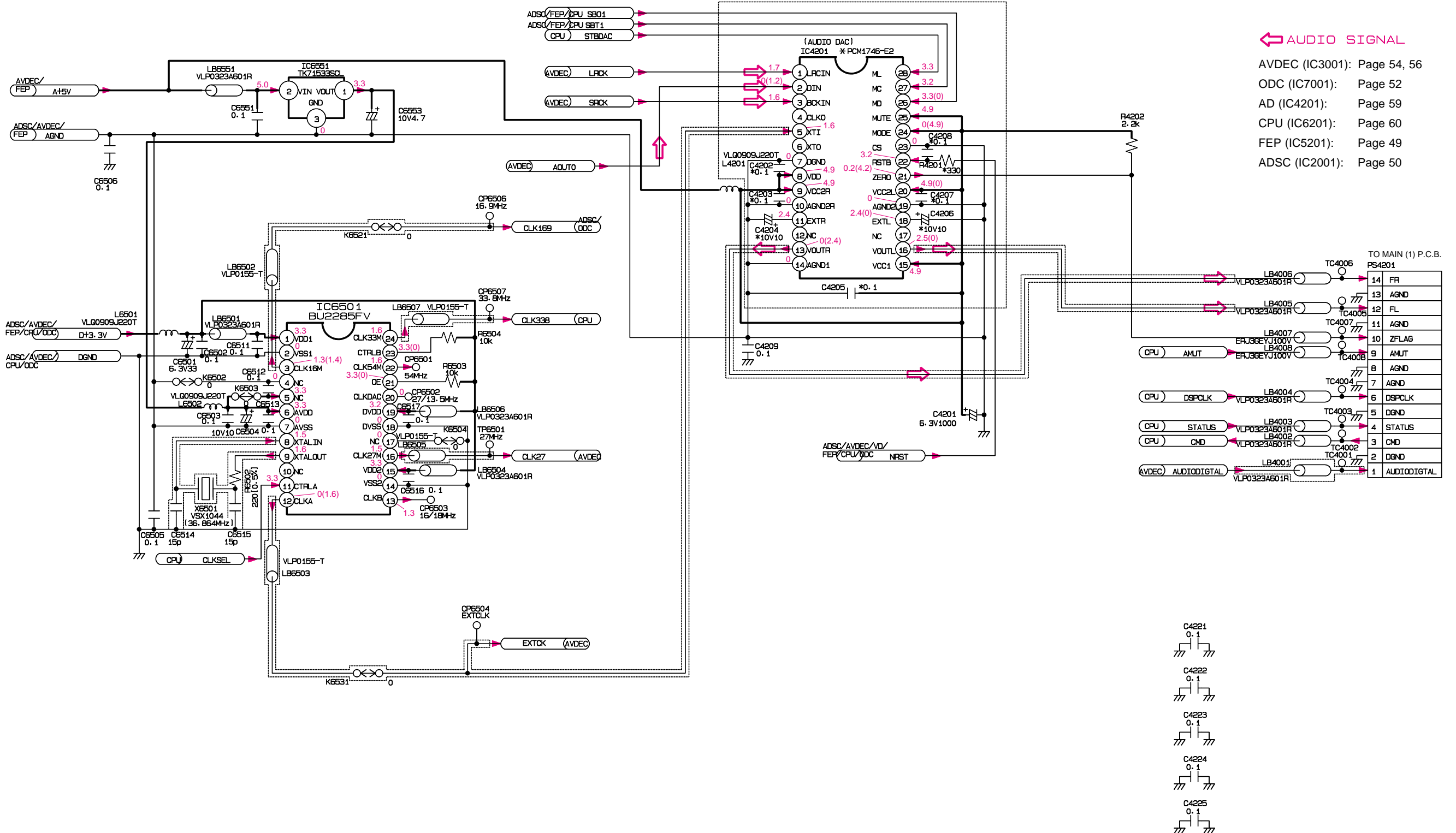


■ SCHEMATIC DIAGRAM (MODULE P.C.B. (4/6): AV DECODER SECTION) (U, C, R, A MODELS)





■ SCHEMATIC DIAGRAM (MODULE P.C.B. (5/6): AUDIO SECTION)



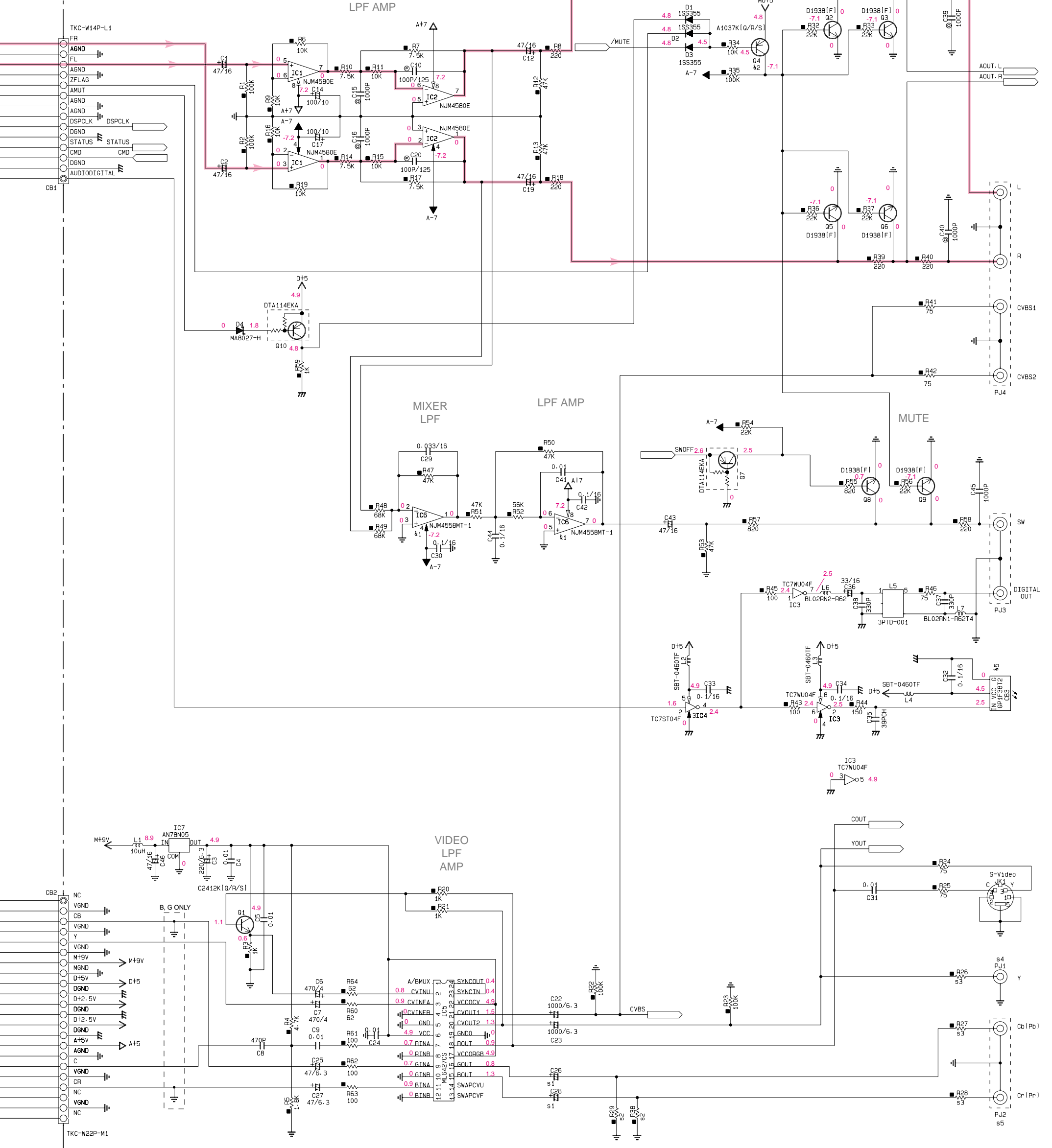
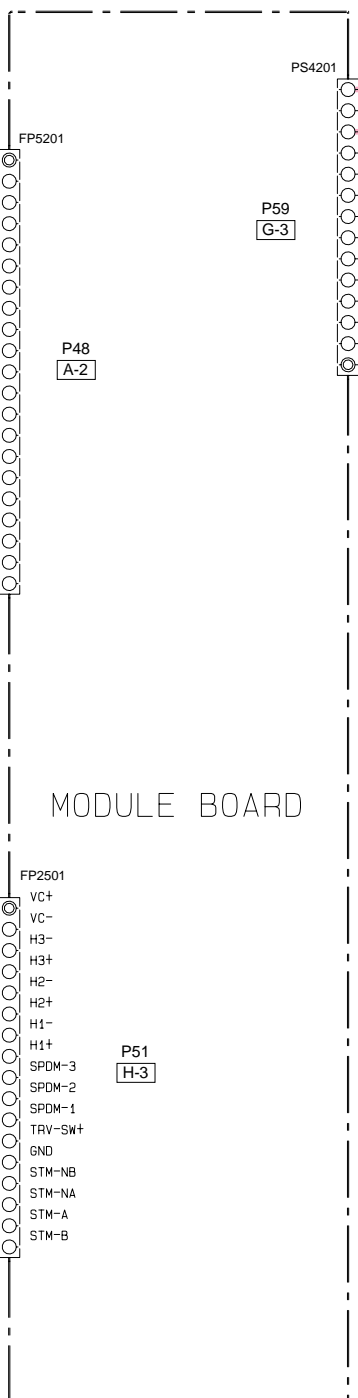
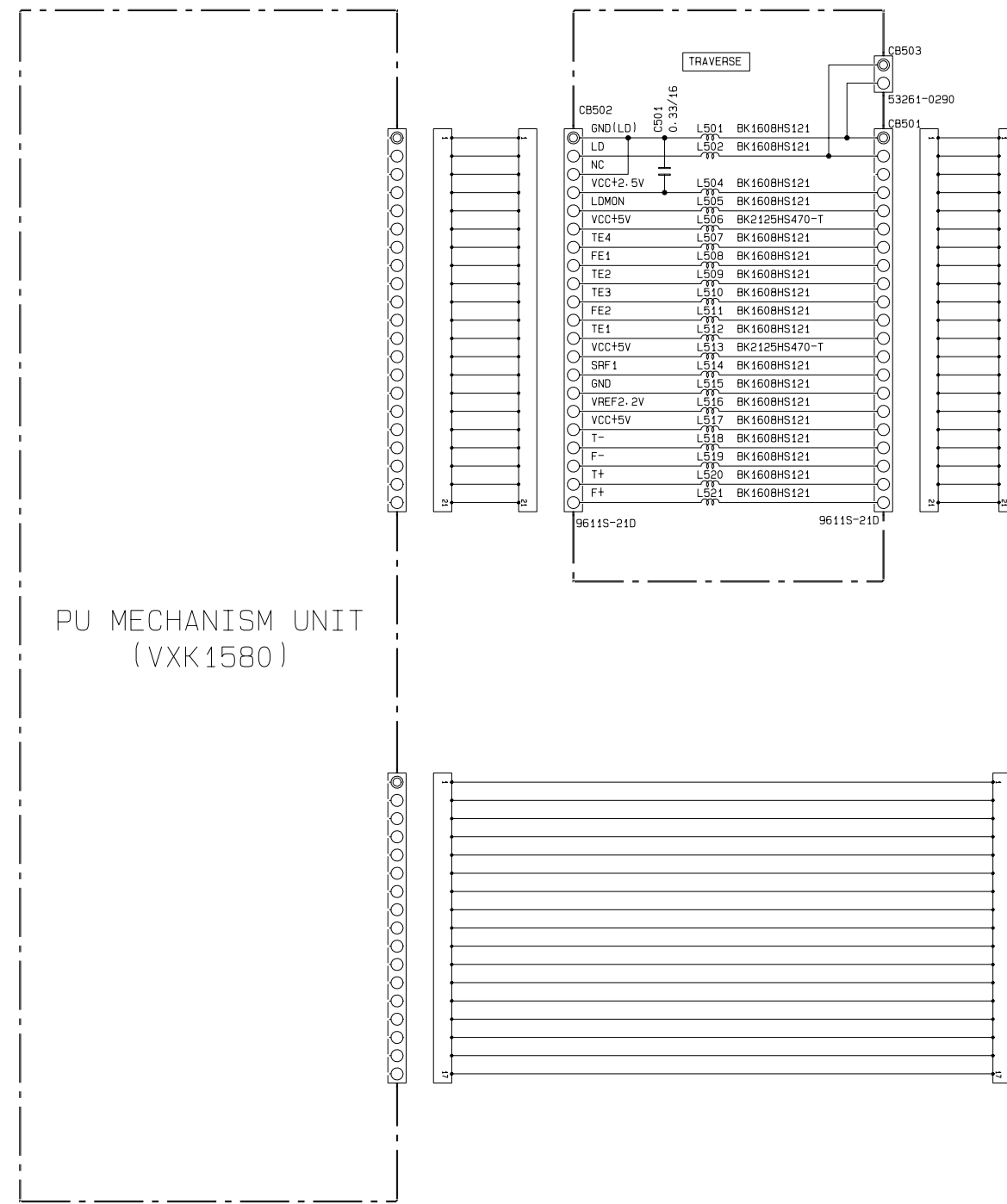
- C4221 0.1
- C4222 0.1
- C4223 0.1
- C4224 0.1
- C4225 0.1

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.





■ SCHEMATIC DIAGRAM (MAIN P.C.B. (1/3) & TRAVERSE P.C.B.)



RESISTOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
⊠	METAL PLATE RESISTOR
⊡	FIRE PROOF CARBON FILM RESISTOR
⊞	CEMENT MOLDED RESISTOR
⊚	SEMI VARIABLE RESISTOR
⊞	CHIP RESISTOR

CIRCUIT CHANGES BY MARKET.

		UC	R	A	B6
s1	C26- C28	100/6.3 UM38810	←	←	—
s2	R29- 3B	100K RD35810	←	←	—
s3	R26- 2B	75 RD35475	←	←	—
s4	PJ1	V626660	←	←	—
s5	PJ2	V626670	←	←	—

CAPACITOR

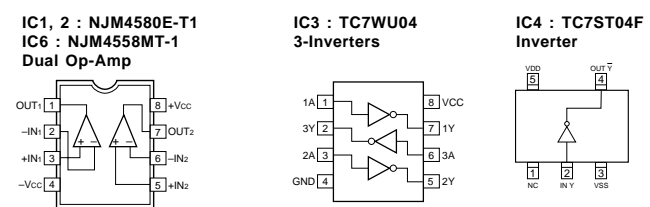
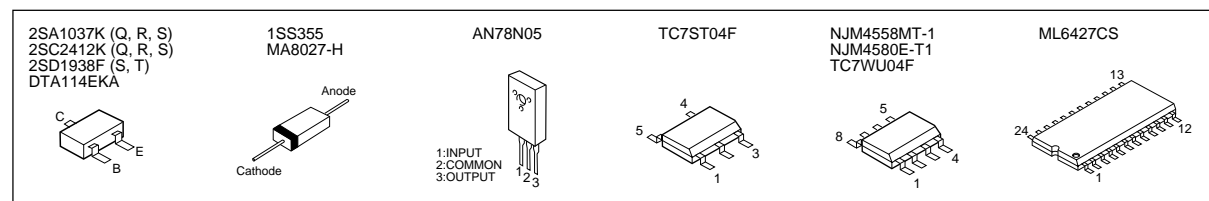
REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊙	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
⊙	POLYESTER FILM CAPACITOR
⊙	POLYSTYRENE FILM CAPACITOR
⊙	MICA CAPACITOR
⊙	POLYPROPYLENE FILM CAPACITOR
⊙	SEMICONDUCTIVE CERAMIC CAPACITOR
⊙	POLYPHENYLENE SULFIDE FILM CAPACITOR

Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
k1	IC6	NJM4558MT-1 NJM4558E-1
k2	Q4	2SA1037K (Q/R/S) 2SB7094P (Q/R/S)
k4	Q204	2SA933S (Q/R) 2SA1151E (F) 2SA1399A (Q/R/S)

NOTICE (mode1)

(J)..... JAPANESE  
(U)..... U. S. A  
(C)..... CANADIAN  
(R)..... GENERAL  
(A)..... AUSTRALIAN  
(B)..... BRITISH  
(G)..... EUROPEAN  
(T)..... CHINA  
(L)..... SINGAPORE



\* All voltage are measured with a 10MΩ/V DC electric volt meter.  
\* Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.  
\* Schematic diagram is subject to change without notice.

■ SCHEMATIC DIAGRAM (MAIN P.C.B. (2/3) & CM P.C.B.)

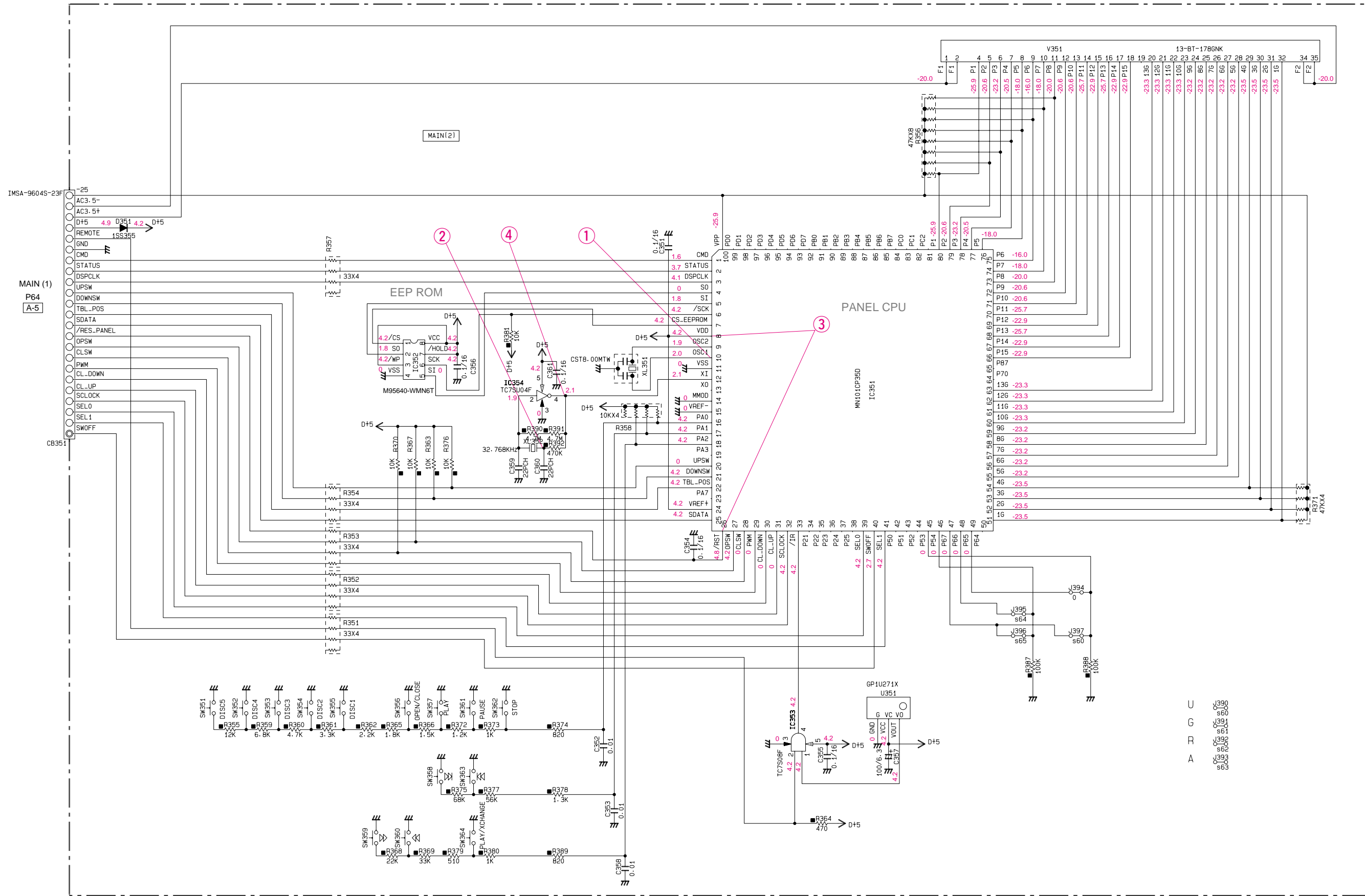
REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR [P=5]
⊠	CARBON FILM RESISTOR [P=10]
△	METAL OXIDE FILM RESISTOR
⊙	METAL FILM RESISTOR
⊞	METAL PLATE RESISTOR
⊞	FIRE PROOF CARBON FILM RESISTOR
⊞	CEMENT MOLDED RESISTOR
⊞	SEMI VARIABLE RESISTOR
⊞	CHIP RESISTOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
⊙	POLYESTER FILM CAPACITOR
⊙	POLYSTYRENE FILM CAPACITOR
⊙	MICA CAPACITOR
⊙	POLYPROPYLENE FILM CAPACITOR
⊙	SEMICONDUCTIVE CERAMIC CAPACITOR
⊙	POLYPHENYLENE SULFIDE FILM CAPACITOR

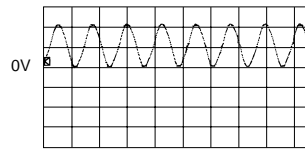
NOTICE (model)  
 (J)..... JAPANESE  
 (U)..... U.S.A  
 (C)..... CANADIAN  
 (R)..... GENERAL  
 (A)..... AUSTRALIAN  
 (B)..... BRITISH  
 (G)..... EUROPEAN  
 (T)..... CHINA  
 (L)..... SINGAPORE

CIRCUIT CHANGES BY MARKET.

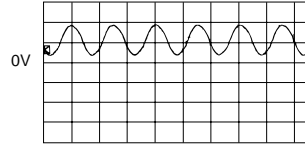
	UC	R	A	B6
860	J390.397	0 RD35000		
861	J391			0 RD35000
862	J392	0 RD35000		
863	J393		0 RD35000	
864	J395	0 RD35000	0 RD35000	
865	J396		0 RD35000	0 RD35000



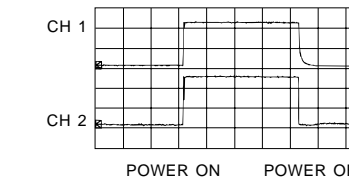
Point ① (Pin10 of IC351)  
 V : 2V/div H : 0.1 μsec/div  
 DC range 1 : 1 probe



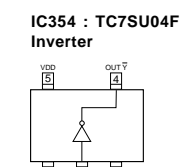
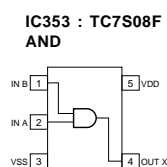
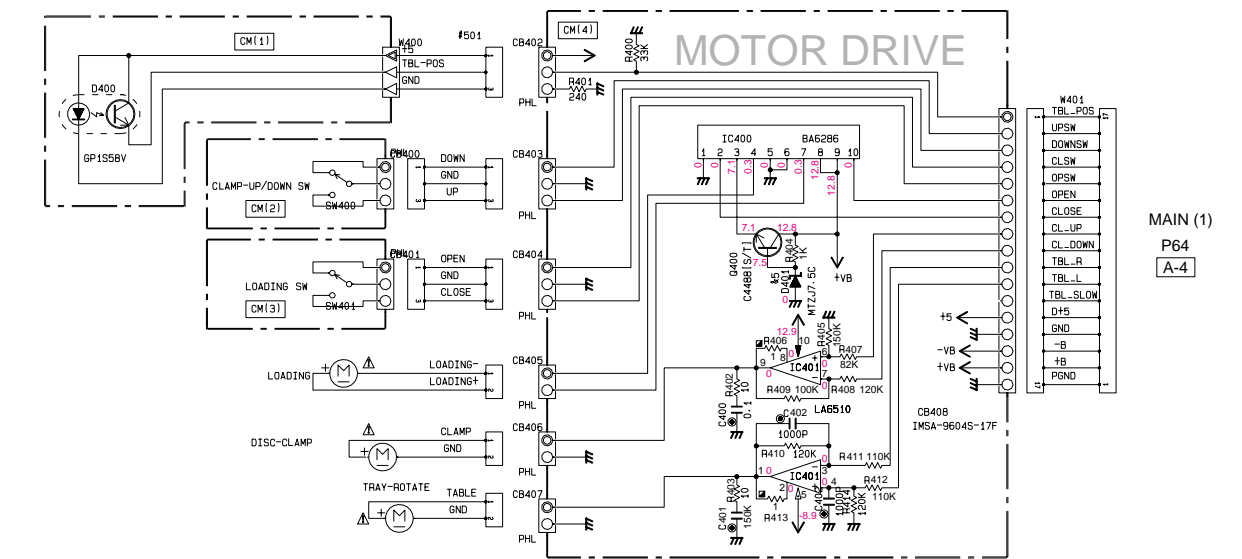
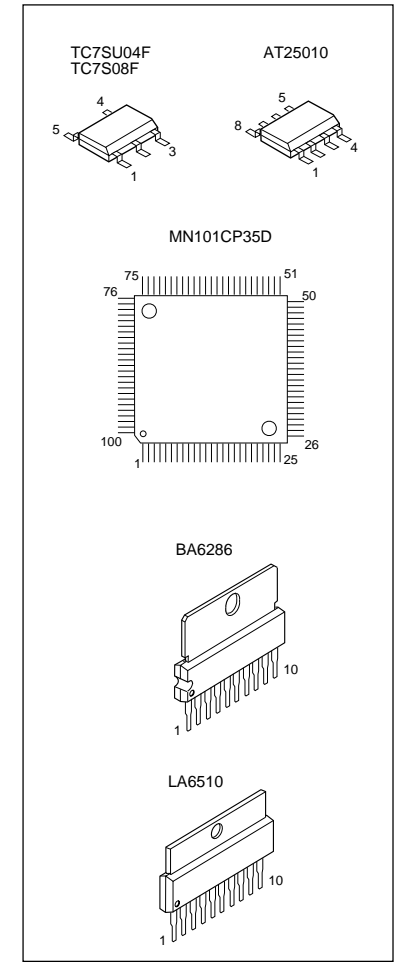
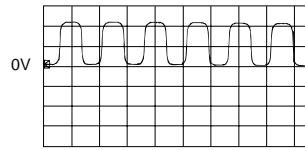
Point ② (XL352)  
 V : 2V/div H : 20 μsec/div  
 DC range 1 : 1 probe



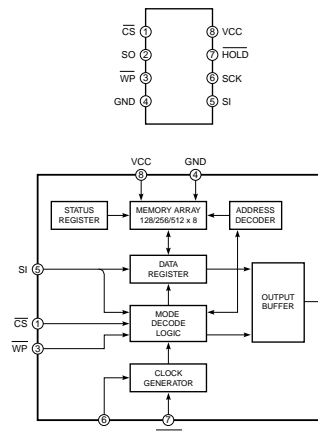
Point ③  
 CH1 : Pin8 of IC351 V : 2V/div (CH1)  
 CH2 : Pin26 of IC351 V : 2V/div (CH2)  
 H : 5 sec/div DC range 1 : 1 probe



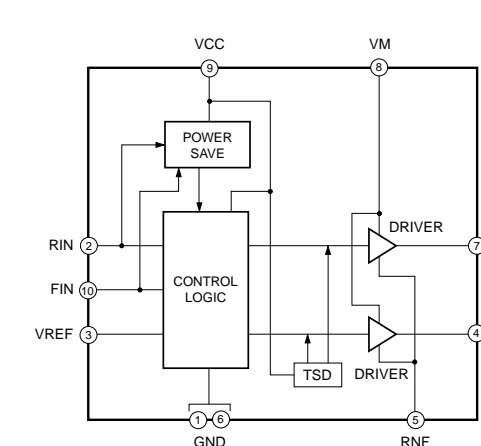
Point ④ (Pin4 of IC354)  
 V : 2V/div H : 20 μsec/div  
 DC range 1 : 1 probe



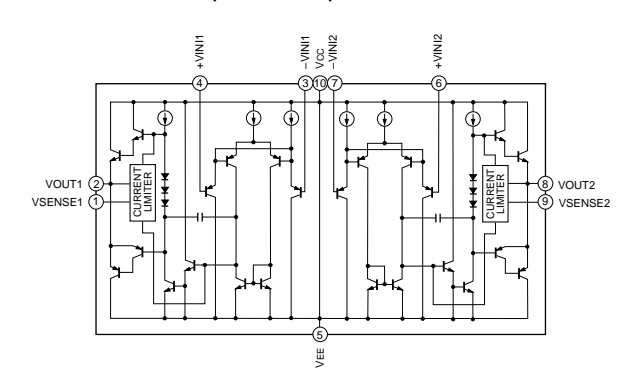
IC352 : M95640-WMN6T Electrically Erasable PROM



IC400 : BA6286 Motor Driver



IC401 : LA6510 Dual Power Operational Amp



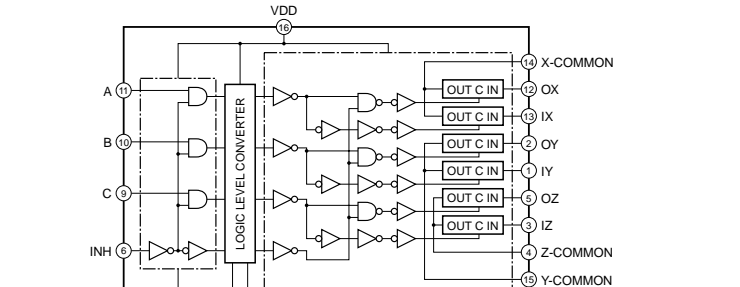
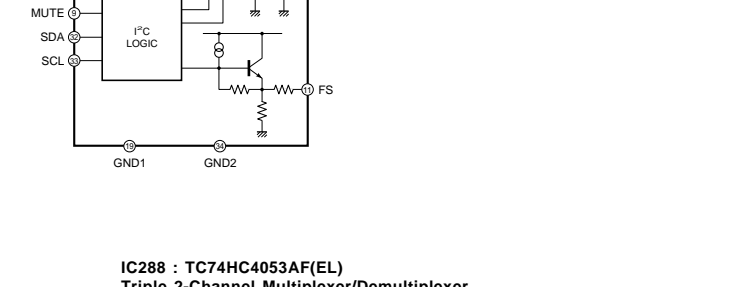
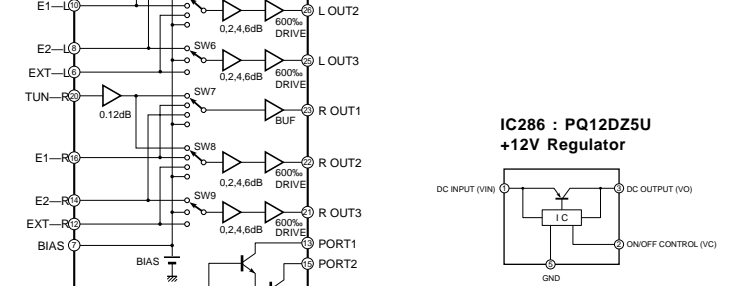
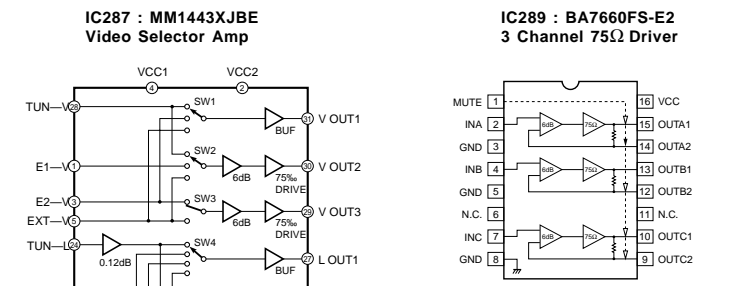
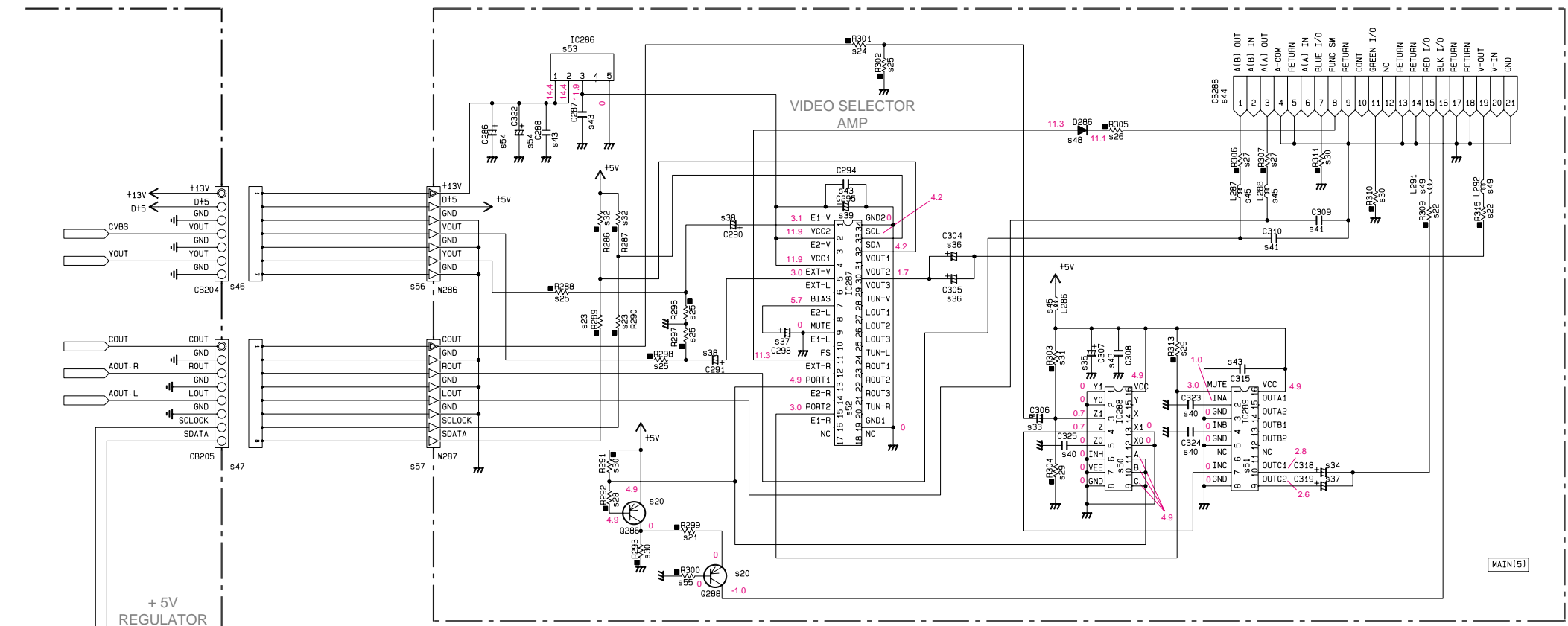
\* All voltage are measured with a 10MΩ/V DC electric volt meter.  
 \* Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.  
 \* Schematic diagram is subject to change without notice.



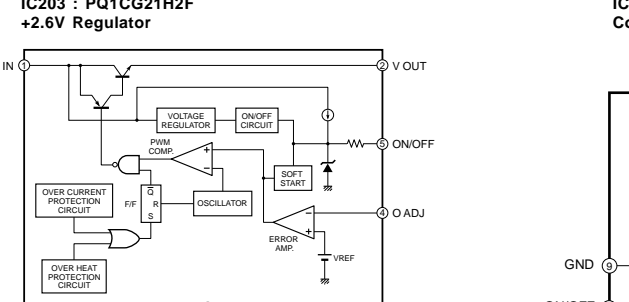
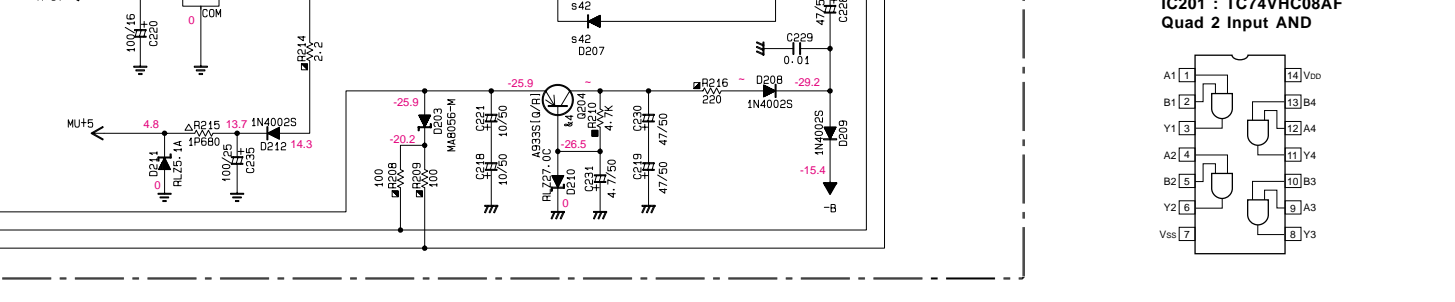
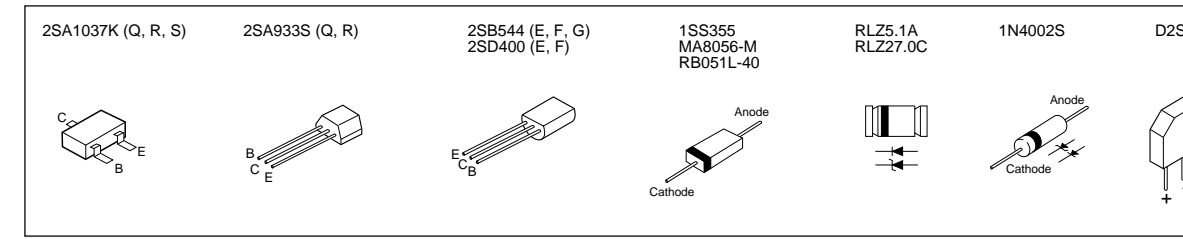
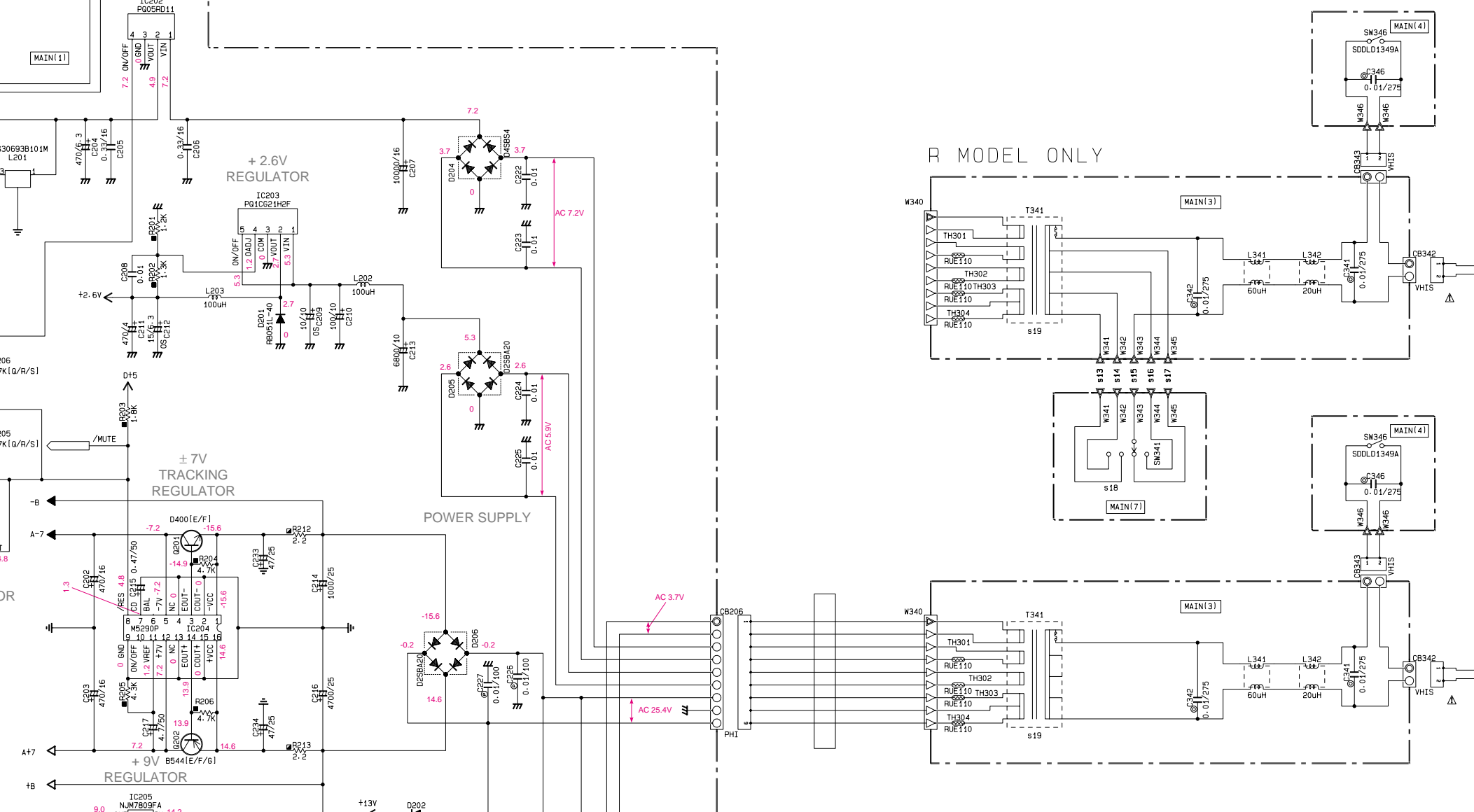
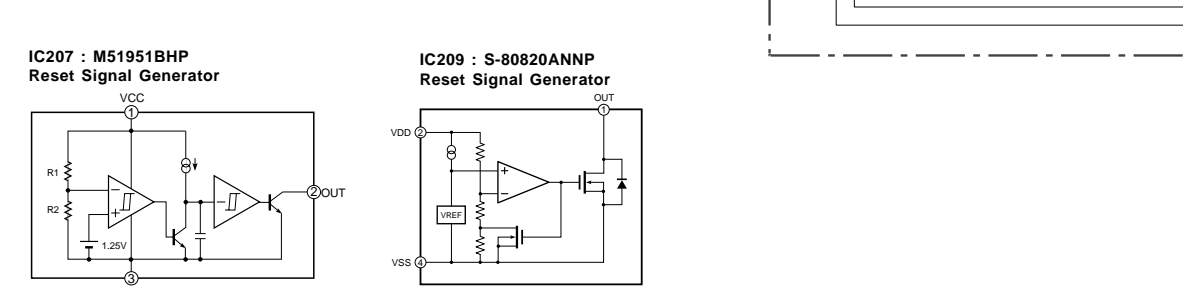
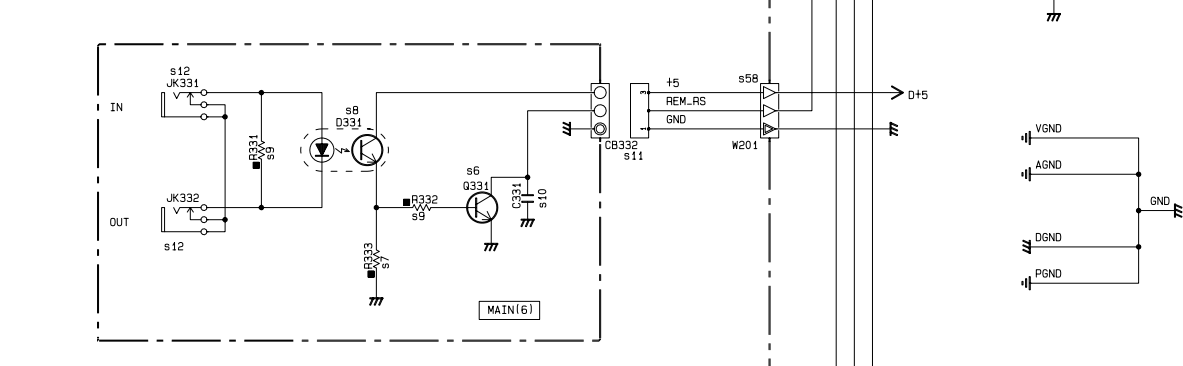
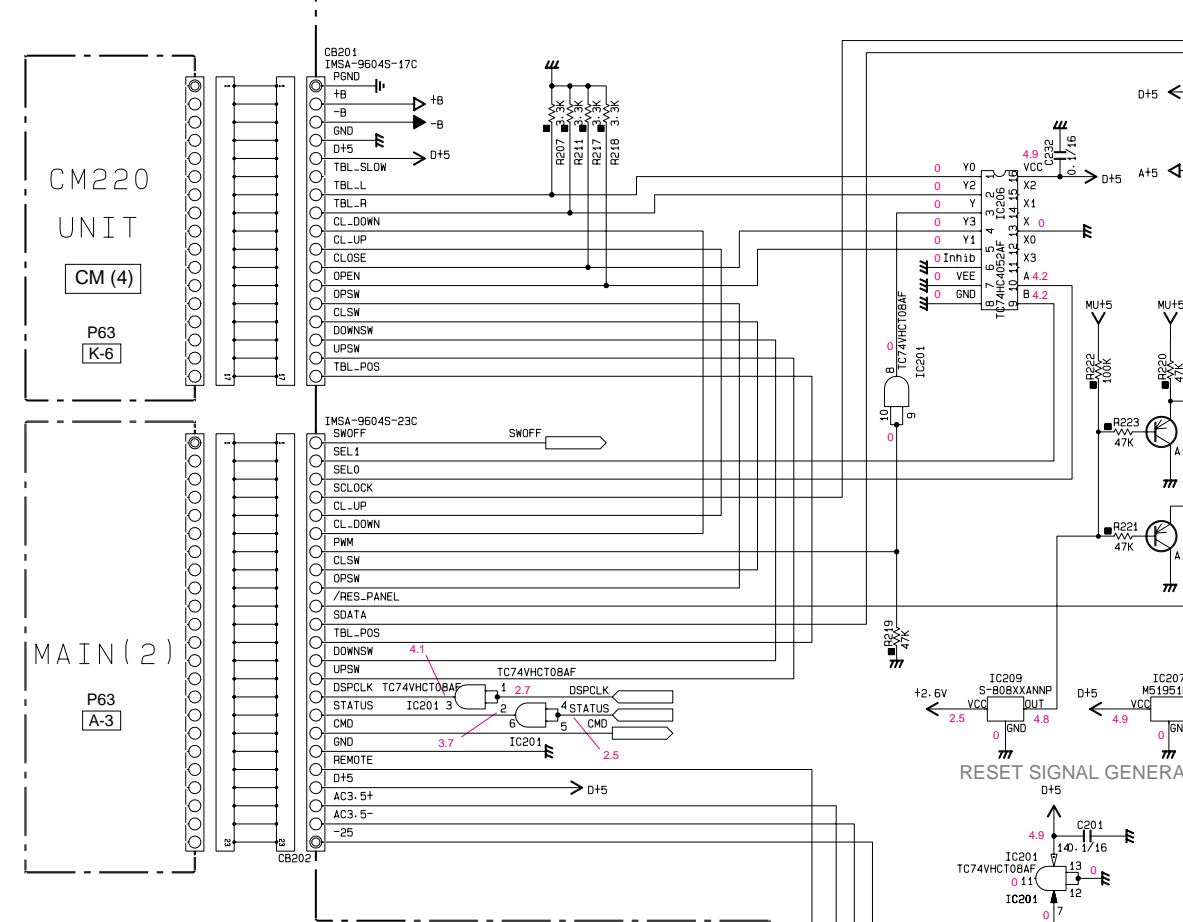
SCHEMATIC DIAGRAM (MAIN P.C.B. (3/3))

CIRCUIT CHANGES BY MARKET.

	UC	R	A	B5		UC	R	A	B5
56	Q331	CP41X(1G/R/S)				S33	C306		47/10
57	R333	170	RD35647			S34	C318		UN82747
58	D331	ON3131	V752086			S35	C307		100/6.3
59	R331-332	10K	RD35710			S36	C304-305		UR81810
60	C331	0.1/16	US13510			S37	C298-319		200/6.3
61	CB203-332	PH1	WB3999			S38	C290-291		UR81833
62	JK331-332	LE16501-0600	VJ72680			S39	C295		22/16
63	W341					S40	C293-325		UR83810
64	W342		MH05018			S41	C309-310		100P
65	W343		MH04016			S42	CR20-207		US20610
66	W344		MH01014			S43	CR27-288-294-308		VE20760
67	W345		MH03016			S44	CR288		RS051-40
68	SW341		MH02014			S45	L286-288		US13510
69	T341					S46	CR204-286		CS55021-1802
70	Q286-288	XY791	XY793	XY794	XY795	S47	CR205-287		V59360
71	R299					S48	CR26		PH1
72	R309-315					S49	LR91-292		VB3940
73	R289-290					S50	IC288		15S355
74	R301					S51	IC289		V133200
75	R288-296-297-298					S52	IC287		BK1608H5121
76	R305					S53	IC286		YV6540
77	R306-307					S54	CR86-302		TC74HC4053AF
78	R292					S55	R300		YV29510
79	R304-313					S56	W286		BA7660FS-E2
80	R291-293-310-311					S57	W287		X155846
81	R303					S58	W201		MM1443XJBE
82	R286-287								



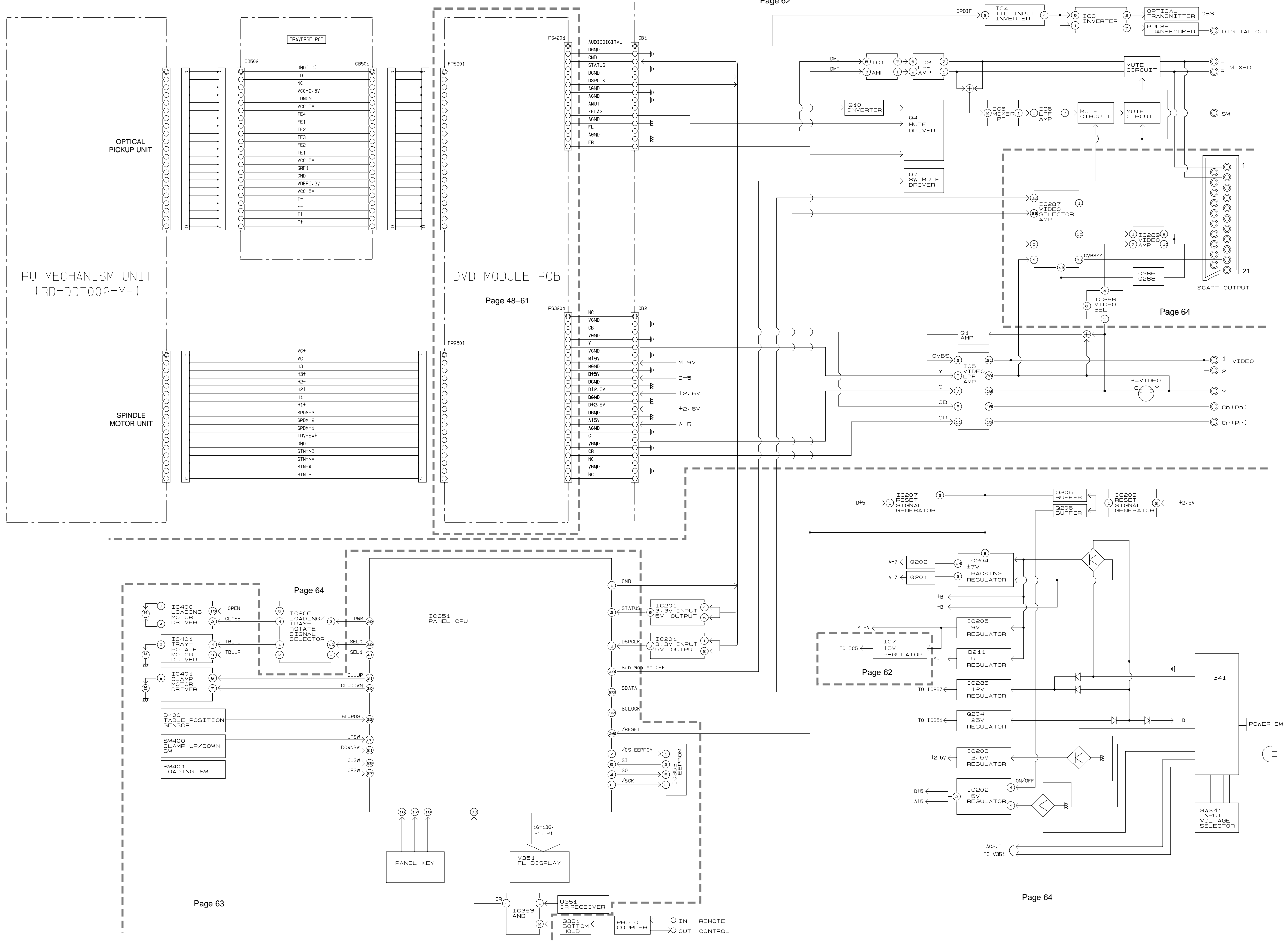
CONTROL INPUTS	A	B	C	INHIBIT	DEC. CHANNEL
(Pin 9)	(Pin 10)	(Pin 11)	(Pin 12)	(Pin 13)	(Pin 14)
L	L	L	L	L	0X, 0Y, 0Z
L	L	L	L	L	0X, 1Y, 0Z
L	L	L	L	L	1X, 0Y, 0Z
L	L	L	L	L	0X, 0Y, 1Z
L	L	L	L	L	1X, 0Y, 1Z
L	L	L	L	L	0X, 1Y, 1Z
L	L	L	L	L	1X, 1Y, 1Z
H	H	H	H	H	NOISE



2SA1037K (Q, R, S)	2SA933S (Q, R)	2SB544 (E, F, G)	1SS355	RLZ5.1A	1N4002S	D2SBA20	D4SBS4	NJM7809FA	PQ05RD11	PQ1CG21H2F	M5294P	M51951BHP	PQ12D25U	S-80820ANPP	TC74VHC08AF	TC74HC4052AF	TC74HC4053AF (EL)	MM1443XJBE
--------------------	----------------	------------------	--------	---------	---------	---------	--------	-----------	----------	------------	--------	-----------	----------	-------------	-------------	--------------	-------------------	------------

\* All voltage are measured with a 10MΩ/V DC electric volt meter.  
 \* Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.  
 \* Schematic diagram is subject to change without notice.

■ BLOCK DIAGRAM



Page 62

DVD MODULE PCB

Page 48-61

Page 64

IC351 PANEL CPU

Page 62

Page 64

Page 63

Page 64



■ BLOCK DIAGRAM (MODULE BLOCK)

1

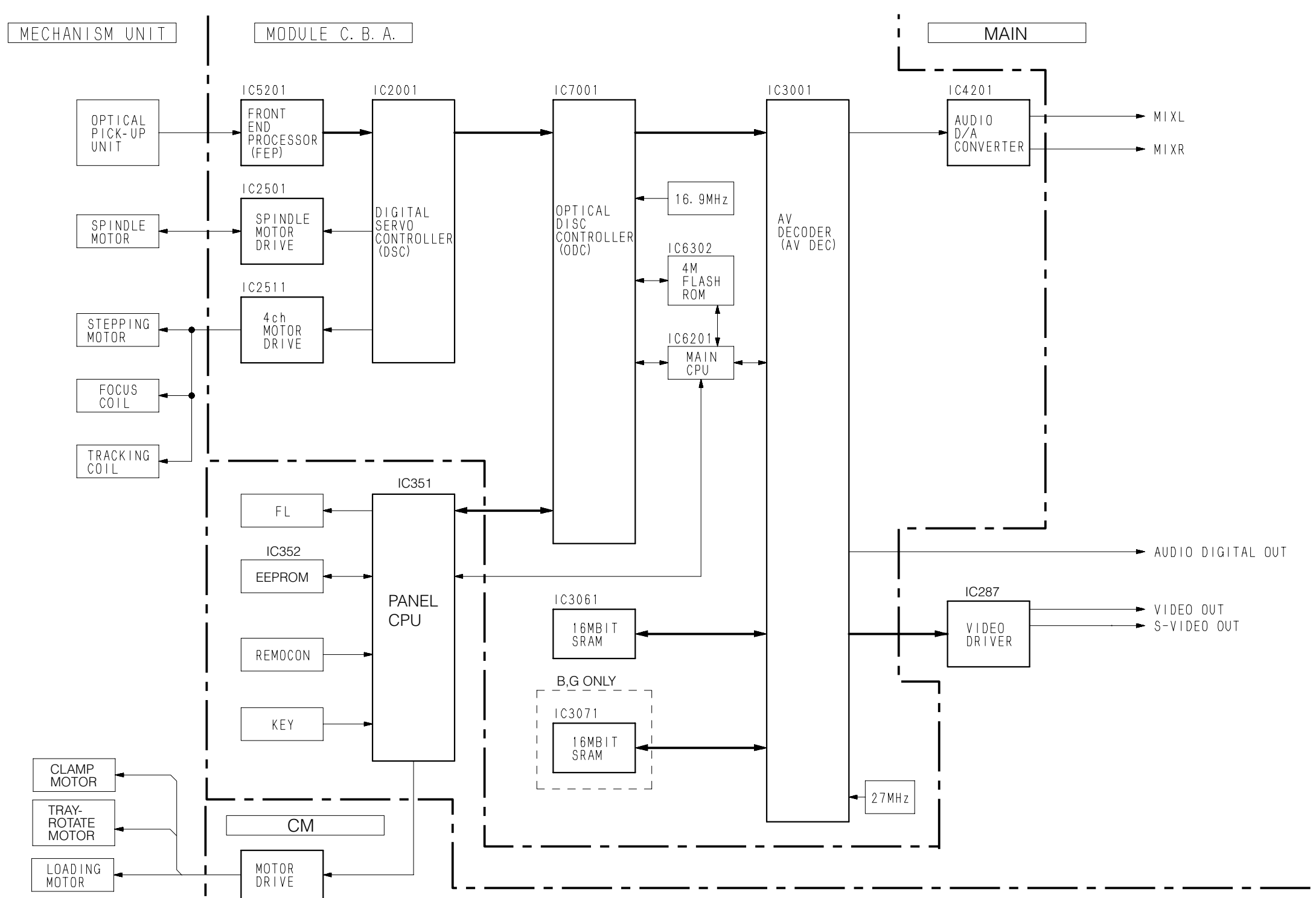
2

3

4

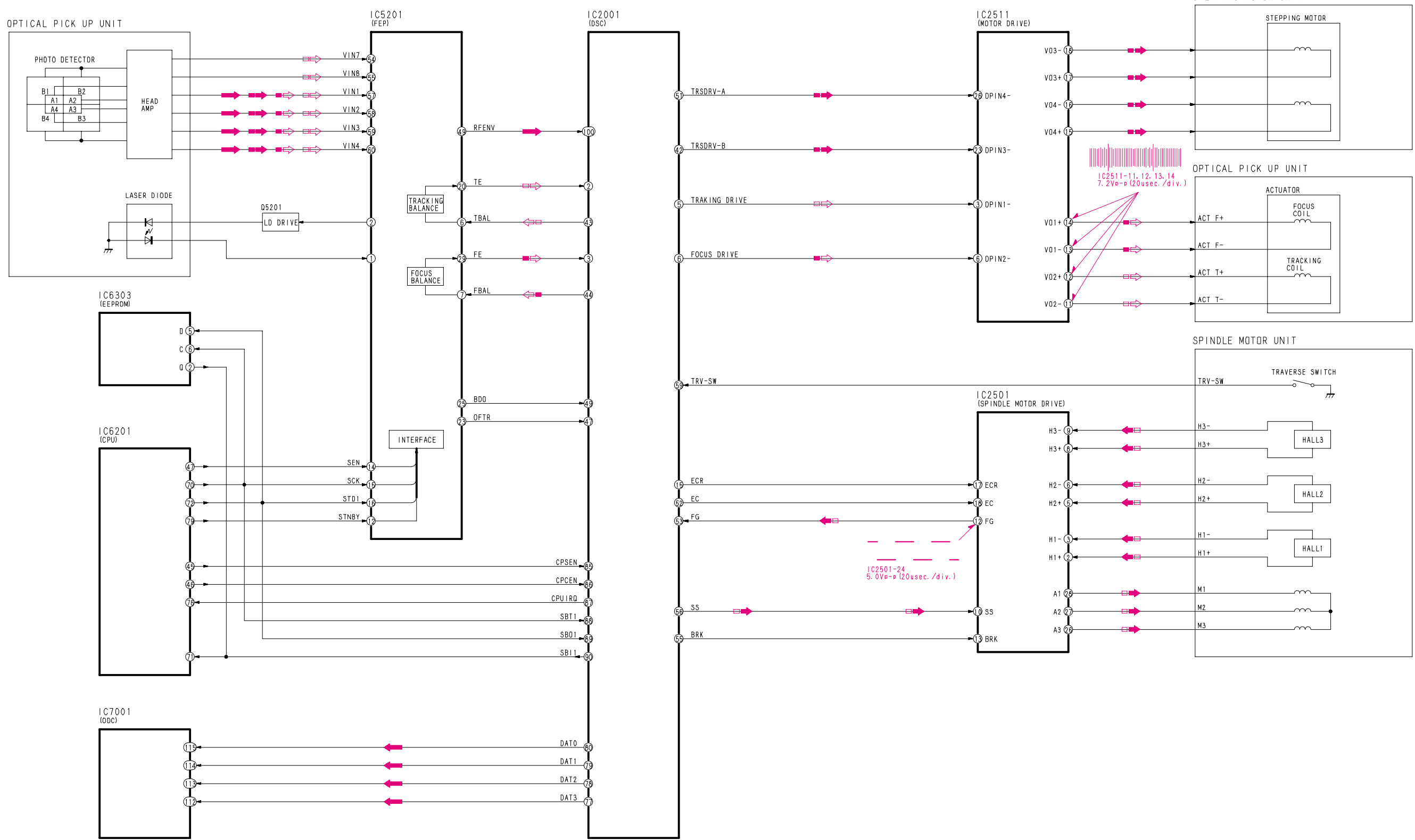
5

6



■ BLOCK DIAGRAM (SERVO BLOCK)

← RF SIGNAL   ← SPINDLE MOTOR DRIVE SIGNAL   ← STEPPING MOTOR DRIVE SIGNAL   ← TRACKING ERROR SIGNAL   ← FOCUS ERROR SIGNAL





# PARTS LIST

## ■ ELECTRICAL PARTS

### ■ WARNING

- Components having special characteristics are marked  $\triangle$  and must be replaced with parts having specifications equal to those originally installed.
- Carbon resistors (1/6W or 1/4W) are not included in the ELECTRICAL PARTS List. For the parts No. of the carbon resistors, refer to last page.
  - Chip resistors are listed on page 71.

### ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS :

C.A.EL.CHP	: CHIP ALUMI. ELECTROLYTIC CAP	L.EMIT	: LIGHT EMITTING MODULE
C.CE	: CERAMIC CAP	LED.DSPLY	: LED DISPLAY
C.CE.ARRAY	: CERAMIC CAP ARRAY	LED.INFRD	: LED, INFRARED
C.CE.CHP	: CHIP CERAMIC CAP	MODUL.RF	: MODULATOR, RF
C.CE.ML	: MULTILAYER CERAMIC CAP	PHOT.CPL	: PHOTO COUPLER
C.CE.M.CHP	: CHIP MULTILAYER CERAMIC CAP	PHOT.INTR	: PHOTO INTERRUPTER
C.CE.SAFTY	: RECOGNIZED CERAMIC CAP	PHOT.RFLCT	: PHOTO REFLECTOR
C.CE.TUBLR	: CERAMIC TUBULAR CAP	PIN.TEST	: PIN, TEST POINT
C.CE.SMI	: SEMI CONDUCTIVE CERAMIC CAP	PLST.RIVET	: PLASTIC RIVET
C.EL	: ELECTROLYTIC CAP	R.ARRAY	: RESISTOR ARRAY
C.MICA	: MICA CAP	R.CAR	: CARBON RESISTOR
C.ML.FLM	: MULTILAYER FILM CAP	R.CAR.CHP	: CHIP RESISTOR
C.MP	: METALLIZED PAPER CAP	R.CAR.FP	: FLAME PROOF CARBON RESISTOR
C.MYLAR	: MYLAR FILM CAP	R.FUS	: FUSABLE RESISTOR
C.MYLAR.ML	: MULTILAYER MYLAR FILM CAP	R.MTL.CHP	: CHIP METAL FILM RESISTOR
C.PAPER	: PAPER CAPACITOR	R.MTL.FLM	: METAL FILM RESISTOR
C.PLS	: POLYSTYRENE FILM CAP	R.MTL.OXD	: METAL OXIDE FILM RESISTOR
C.POL	: POLYESTER FILM CAP	R.MTL.PLAT	: METAL PLATE RESISTOR
C.POLY	: POLYETHYLENE FILM CAP	RSNR.CE	: CERAMIC RESONATOR
C.PP	: POLYPROPYLENE FILM CAP	RSNR.CRYS	: CRYSTAL RESONATOR
C.TNTL	: TANTALUM CAP	R.TW.CEM	: TWIN CEMENT FIXED RESISTOR
C.TNTL.CHP	: CHIP TANTALUM CAP	R.WW	: WIRE WOUND RESISTOR
C.TRIM	: TRIMMER CAP	SCR.BND.HD	: BIND HEAD B-TITE SCREW
CN	: CONNECTOR	SCR.BW.HD	: BW HEAD TAPPING SCREW
CN.BS.PIN	: CONNECTOR, BASE PIN	SCR.CUP	: CUP TITE SCREW
CN.CANNON	: CONNECTOR, CANNON	SCR.TERM	: SCREW TERMINAL
CN.DIN	: CONNECTOR, DIN	SCR.TR	: SCREW, TRANSISTOR
CN.FBRLINK	: CONNECTOR, FIBER LINK	SUPRT.PCB	: SUPPORT, P.C.B.
CN.FLAT	: CONNECTOR, FLAT CABLE	SURG.PRTCT	: SURGE PROTECTOR
CN.POST	: CONNECTOR, BASE POST	SW.TACT	: TACT SWITCH
COIL.MX.AM	: COIL, AM MIX	SW.LEAF	: LEAF SWITCH
COIL.AT.FM	: COIL, FM ANTENNA	SW.LEVER	: LEVER SWITCH
COIL.DT.FM	: COIL, FM DETECT	SW.MICRO	: MICRO SWITCH
COIL.MX.FM	: COIL, FM MIX	SW.PUSH	: PUSH SWITCH
COIL.OUTPT	: OUTPUT COIL	SW.RT.ENC	: ROTARY ENCODER
DIOD.ARRAY	: DIODE ARRAY	SW.RT.MTR	: ROTARY SWITCH WITH MOTOR
DIODE.BRG	: DIODE BRIDGE	SW.RT	: ROTARY SWITCH
DIODE.CHP	: CHIP DIODE	SW.SLIDE	: SLIDE SWITCH
DIODE.VAR	: VARACTOR DIODE	TERM.SP	: SPEAKER TERMINAL
DIOD.Z.CHP	: CHIP ZENER DIODE	TERM.WRAP	: WRAPPING TERMINAL
DIODE.ZENR	: ZENER DIODE	THRMST.CHP	: CHIP THERMISTOR
DSCR.CE	: CERAMIC DISCRIMINATOR	TR.CHP	: CHIP TRANSISTOR
FER.BEAD	: FERRITE BEADS	TR.DGT	: DIGITAL TRANSISTOR
FER.CORE	: FERRITE CORE	TR.DGT.CHP	: CHIP DIGITAL TRANSISTOR
FET.CHP	: CHIP FET	TRANS	: TRANSFORMER
FL.DSPLY	: FLUORESCENT DISPLAY	TRANS.PULS	: PULSE TRANSFORMER
FLTR.CE	: CERAMIC FILTER	TRANS.PWR	: POWER TRANSFORMER ASS'y
FLTR.COMB	: COMB FILTER MODULE	TUNER.AM	: TUNER PACK, AM
FLTR.LC.RF	: LC FILTER, EMI	TUNER.FM	: TUNER PACK, FM
GND.MTL	: GROUND PLATE	TUNER.PK	: FRONT-END TUNER PACK
GND.TERM	: GROUND TERMINAL	VR	: ROTARY POTENTIOMETER
HOLDER.FUS	: FUSE HOLDER	VR.MTR	: POTENTIOMETER WITH MOTOR
IC.PRTCT	: IC PROTECTOR	VR.SW	: POTENTIOMETER WITH ROTARY SW
JUMPER.CN	: JUMPER CONNECTOR	VR.SLIDE	: SLIDE POTENTIOMETER
JUMPER.TST	: JUMPER, TEST POINT	VR.TRIM	: TRIMMER POTENTIOMETER
L.DTCT	: LIGHT DETECTING MODULE		

**Note)** Those parts marked with “#” are not included in the P.C.B. ass'y.

## P.C.B. MAIN

Schm Ref.	PART NO.	Description		
*	V6214300	P.C.B.	MAIN(UC)	
*	V6214400	P.C.B.	MAIN(R)	
*	V6214600	P.C.B.	MAIN(A)	
*	V6214700	P.C.B.	MAIN(BG)	
*	CB1	V6088500	CN	TKC 14P TE
*	CB2	V6088600	CN	TKC 22P TE
*	CB3	V4707800	CN.FBRLINK	1P GP1F38T2
	CB201	VU271700	CN	17P
*	CB202	VU272300	CN	9604S 23P TE
	CB204	VB390300	CN.BS.PIN	7P(BG)
	CB205	VB390400	CN.BS.PIN	8P(BG)
	CB206	VB390500	CN.BS.PIN	9P
*	CB288	V5993600	CN	21P(BG)
	CB332	VB389900	CN.BS.PIN	3P
	CB342	VG879900	CN.BS.PIN	2P
	CB343	VG879900	CN.BS.PIN	2P
*	CB351	VU282300	CN	9604S 23P SE
*	C1	V6511100	C.EL	47uF 16V
*	C2	V6511100	C.EL	47uF 16V
*	C3	V6267900	C.EL	220uF 6.3V
*	C4	US064100	C.CE.M.CHP	0.01uF 50V
*	C5	US064100	C.CE.M.CHP	0.01uF 50V
*	C6	V6267700	C.EL	470uF 4V
*	C7	V6267700	C.EL	470uF 4V
*	C8	US062470	C.CE.M.CHP	470pF 50V
*	C9	US064100	C.CE.M.CHP	0.01uF 50V
*	C10	V6699800	C.PP	100pF 125V
*	C12	V6511100	C.EL	47uF 16V
*	C14	V6511000	C.EL	100uF 10V
	C15	Vi715500	C.MYLAR	1000pF 50V
	C16	Vi715500	C.MYLAR	1000pF 50V
*	C17	V6511000	C.EL	100uF 10V
*	C19	V6511100	C.EL	47uF 16V
	C20	V6699800	C.PP	100pF 125V
	C22	UR819100	C.EL	1000uF 6.3V
	C23	UR819100	C.EL	1000uF 6.3V
*	C24	US064100	C.CE.M.CHP	0.01uF 50V
*	C25	UM517470	C.EL	47uF 6.3V
	C26	UM388100	C.EL	100uF 10V
*	C27	UM517470	C.EL	47uF 6.3V
	C28	UM388100	C.EL	100uF 10V
*	C29	US034330	C.CE.M.CHP	0.0330 16V
*	C30	US135100	C.CE.CHP	0.1uF 16V
*	C31	US064100	C.CE.M.CHP	0.01uF 50V
*	C32	US135100	C.CE.CHP	0.1uF 16V
*	C33	US135100	C.CE.CHP	0.1uF 16V
*	C34	US135100	C.CE.CHP	0.1uF 16V
*	C35	US061390	C.CE.M.CHP	39pF 50V
	C36	UR837330	C.EL	33uF 16V
*	C37	US062330	C.CE.M.CHP	330pF 50V
*	C38	US062330	C.CE.M.CHP	330pF 50V
	C39	Vi715500	C.MYLAR	1000pF 50V
	C40	Vi715500	C.MYLAR	1000pF 50V

\* New Parts

Schm Ref.	PART NO.	Description		
*	C41	US064100	C.CE.M.CHP	0.01uF 50V
*	C42	US135100	C.CE.CHP	0.1uF 16V
*	C43	V6511100	C.EL	47uF 16V
*	C44	US035100	C.CE.M.CHP	0.1uF 16V
*	C45	US063100	C.CE.M.CHP	1000pF 50V
*	C46	UM527470	C.EL	47uF 16V
*	C201	US135100	C.CE.CHP	0.1uF 16V
*	C202	V5618300	C.EL	470uF 16V
*	C203	V5618300	C.EL	470uF 16V
*	C204	V5617400	C.EL	470uF 6.3V
*	C205	US135330	C.CE.CHP	0.33uF 16V
*	C206	US135330	C.CE.CHP	0.33uF 16V
*	C207	UU13A100	C.EL	10000uF 16V
*	C208	US064100	C.CE.M.CHP	0.01uF 50V
*	C209	V6267200	C.AL	10uF 10V
	C210	UR828100	C.EL	100uF 10V
*	C211	V6267700	C.EL	470uF 4V
*	C212	V6267300	C.AL	15uF 6.3V
*	C213	UR729680	C.EL	6800uF 10V
*	C214	VG289300	C.EL	1000uF 25V
*	C215	UM545470	C.EL	0.47uF 50V
*	C216	VN824400	C.EL	4700uF 25V
*	C217	UM546470	C.EL	4.7uF 50V
	C218	UR867100	C.EL	10uF 50V
	C219	UR867470	C.EL	47uF 50V
	C220	UR838100	C.EL	100uF 16V
	C221	UR867100	C.EL	10uF 50V
*	C222	US064100	C.CE.M.CHP	0.01uF 50V
*	C223	US064100	C.CE.M.CHP	0.01uF 50V
*	C224	US064100	C.CE.M.CHP	0.01uF 50V
*	C225	US064100	C.CE.M.CHP	0.01uF 50V
	C226	VF279800	C.PP	0.01uF 100V
	C227	VF279800	C.PP	0.01uF 100V
	C228	UR867470	C.EL	47uF 50V
*	C229	US064100	C.CE.M.CHP	0.01uF 50V
	C230	UR867470	C.EL	47uF 50V
	C231	UR866470	C.EL	4.7uF 50V
*	C232	US135100	C.CE.CHP	0.1uF 16V
	C233	V5618900	C.EL	47uF 25V
	C234	V5618900	C.EL	47uF 25V
	C235	UR848100	C.EL	100uF 25V
	C286	UR848470	C.EL	470uF 25V(BG)
*	C287	US135100	C.CE.CHP	0.1uF 16V(BG)
*	C288	US135100	C.CE.CHP	0.1uF 16V(BG)
	C290	UR837470	C.EL	47uF 16V(BG)
	C291	UR837470	C.EL	47uF 16V(BG)
*	C294	US135100	C.CE.CHP	0.1uF 16V(BG)
	C295	UR838100	C.EL	100uF 16V(BG)
	C298	UR837220	C.EL	22uF 25V(BG)
	C304	UR818330	C.EL	330uF 6.3V(BG)
	C305	UR818330	C.EL	330uF 6.3V(BG)
*	C306	UN827470	C.EL	47uF 10V(BG)
	C307	UR818220	C.EL	220uF 6.3V(BG)

\* New Parts

## P.C.B. MAIN

Schm Ref.	PART NO.	Description
* C308	US135100	C. CE .CHP 0.1uF 16V(BG)
* C309	US062100	C. CE .M. CHP 100pF 50V(BG)
* C310	US062100	C. CE .M. CHP 100pF 50V(BG)
* C315	US135100	C. CE .CHP 0.1uF 16V(BG)
C318	UR818100	C. EL 100uF 6.3V(BG)
C319	UR837220	C. EL 22uF 25V(BG)
C322	UR848470	C. EL 470uF 25V(BG)
* C323	US135330	C. CE .CHP 0.33uF 16V(BG)
* C324	US135330	C. CE .CHP 0.33uF 16V(BG)
* C325	US135330	C. CE .CHP 0.33uF 16V(BG)
* C331	US135100	C. CE .CHP 0.1uF 16V
C341	VS741700	C. CE .SAFTY 0.01uF 275V
C342	VS741700	C. CE .SAFTY 0.01uF 275V
C346	VS741700	C. CE .SAFTY 0.01uF 275V
* C351	US135100	C. CE .CHP 0.1uF 16V
* C352	US064100	C. CE .M. CHP 0.01uF 50V
* C353	US064100	C. CE .M. CHP 0.01uF 50V
* C354	US135100	C. CE .CHP 0.1uF 16V
* C355	US135100	C. CE .CHP 0.1uF 16V
* C356	US135100	C. CE .CHP 0.1uF 16V
C357	UM388100	C. EL 100uF 10V
* C358	US064100	C. CE .M. CHP 0.01uF 50V
* C359	US061220	C. CE .M. CHP 22pF 50V
* C360	US061220	C. CE .M. CHP 22pF 50V
* C361	US135100	C. CE .CHP 0.1uF 16V
D1	VT332900	DIODE 1SS355
D2	VT332900	DIODE 1SS355
D3	VT332900	DIODE 1SS355
* D4	VU990300	DIODE .ZENR MA8027-H 2.8V
* D201	V6267600	DIODE RB051L-40
* D202	V6267600	DIODE RB051L-40(BG)
D203	VU993000	DIODE .ZENR MA8056-M 5.6V
* D204	V4870400	DIODE .BRG D4SBS4 4.0A
D205	V4269600	DIODE .BRG D2SBA20 1.5A 200V
D206	V4269600	DIODE .BRG D2SBA20 1.5A 200V
* D207	V6267600	DIODE RB051L-40(BG)
D208	VV307700	DIODE 1N4002S
D209	VV307700	DIODE 1N4002S
* D210	VV663700	DIODE .ZENR RLZ27.0C 27.0V
* D211	VB506200	DIODE .ZENR RLZ5.1A 5.1V
D212	VV307700	DIODE 1N4002S
D286	VT332900	DIODE 1SS355(BG)
* D331	VT522800	PHOT. CPL ON3131
D351	VT332900	DIODE 1SS355
HS1	VR506800	HEAT. SINK PUH16-25
HS2	VR506800	HEAT. SINK PUH16-25
* IC1	XQ178A00	IC NJM4580E-T1 OP AMP
* IC2	XQ178A00	IC NJM4580E-T1 OP AMP
* IC3	XN567A00	IC TC7WU04F INV
* IC4	XT785A00	IC TC7ST04F NAND
* IC5	XZ232A00	IC ML6427CS VIDEO AMP
* IC6	iG103520	IC NJM4558MT-1
IC7	XA507A00	IC AN78N05

\* New Parts

Schm Ref.	PART NO.	Description
* IC201	XV495A00	IC TC74VHCT08AF AND
* IC202	XU814A00	IC PQ05RD11 +5V 1.0A
* IC203	XY455A00	IC PQ1CG21H2F SW
IC204	XD201A00	IC M5290P
* IC205	XJ609A00	IC NJM7809FA 9V
* IC206	XS790A00	IC TC74HC4052AF MPX
* IC207	XZ223A00	IC M51951BHP
* IC209	XZ418A00	IC S-808XXANNP
* IC286	XZ233A00	IC PQ12DZ5U 12V(BG)
* IC287	XZ132A00	IC MM1443XJBE(BG)
* IC288	XY879A00	IC TC74HC4053AF(BG)
* IC289	XV169A00	IC BA7660FS-E2(BG)
* IC351	XZ159C00	IC CPU WRITTEN BY YEM
* IC352	XZ520A00	IC M95640-WMN6T
* IC353	XM616A00	IC TC7S08F AND
* IC354	XY447A00	IC TC7SU04F INV
JK1	VT034300	CN. DIN 1P
JK331	VJ726800	JACK. MNI
JK332	VJ726800	JACK. MNI
* L1	V6268000	COIL 10uH EL0305RA-100J
L2	VD473700	COIL 60uH
L3	VD473700	COIL 60uH
L4	VD473700	COIL 60uH
L5	Vi530800	TRANS. PULS 3PTD-001
L6	VB871100	FER. BEAD BL02RN2-R62
L7	GE300610	FER. BEAD BL02RN1-R62T4
* L201	VG594300	FLTR. LC. RF DSS30693B101M
* L202	V6267100	COIL 100uH LHL08TB101K
* L203	V6267100	COIL 100uH LHL08TB101K
L204	Vi491100	FER. CORE BP53RB19012080M
* L286	V6268000	COIL 10uH(BG)
* L287	V6268000	COIL 10uH(BG)
* L288	V6268000	COIL 10uH(BG)
* L291	VY656400	COIL. CHP 120uH(BG)
* L292	VY656400	COIL. CHP 120uH(BG)
L341	VU984000	FLTR IE-UU10.5-009
L342	VV900900	FLTR 3071-012-0
L343	Vi491100	FER. CORE BP53RB19012080M
* PJ1	V6266600	JACK. PIN GR YKC21-3919
* PJ2	V6266700	JACK. PIN RE/BL YKC21-4
* PJ3	V6266800	JACK. PIN GR/OR YKC21-4
* PJ4	V6266900	JACK. PIN YKC21-4258
PN1	V3750100	PIN L=50(BG)
PN2	V3750100	PIN L=50
PN286	V3750100	PIN L=50(BG)
PN331	V3750100	PIN L=50
PN341	V3750100	PIN L=50
Q1	VV556400	TR 2SC2412K Q,R,S
Q2	VZ725900	TR 2SD1938F S,T
Q3	VZ725900	TR 2SD1938F S,T
Q4	iA103700	TR. CHP 2SA1037 Q,R,S
Q5	VZ725900	TR 2SD1938F S,T
Q6	VZ725900	TR 2SD1938F S,T

\* New Parts

## P.C.B. MAIN &amp; TRAVERSE

Schm Ref.	PART NO.	Description	
Q7	VV655000	TR. DGT	DTA114EKA
Q8	VZ725900	TR	2SD1938F S,T
Q9	VZ725900	TR	2SD1938F S,T
Q10	VV655000	TR. DGT	DTA114EKA
Q201	iD040040	TR	2SD400
Q202	iB054430	TR	2SB544 D,E,F,G
Q204	iA093320	TR	2SA933S Q,R
Q205	iA103700	TR. CHP	2SA1037 Q,R,S
Q206	iA103700	TR. CHP	2SA1037 Q,R,S
Q286	iA103700	TR. CHP	2SA1037 Q,R,S(BG)
Q288	iA103700	TR. CHP	2SA1037 Q,R,S(BG)
Q331	VV556400	TR	2SC2412K Q,R,S
R208	HV755100	R. CAR. FP	100 1/4W
R209	HV755100	R. CAR. FP	100 1/4W
R212	HV753220	R. CAR. FP	2.2 1/4W
R213	HV753220	R. CAR. FP	2.2 1/4W
R214	HV753220	R. CAR. FP	2.2 1/4W
R215	VP941000	R. MTL. OXD	680 1W
R216	HV755220	R. CAR. FP	220 1/4W
* R303	RD357330	R. MTL. CHP	33K 1/10W(BG)
* R351	RE044330	R. ARRAY	33 x4
* R352	RE044330	R. ARRAY	33 x4
* R353	RE044330	R. ARRAY	33 x4
* R354	RE044330	R. ARRAY	33 x4
R356	VF238600	R. ARRAY	RGLE8X473J
* R357	RE044330	R. ARRAY	33 x4
* R358	VF773500	R. ARRAY	RGLE4X103J
* R369	RD357330	R. MTL. CHP	33K 1/10W
* R371	VF773900	R. ARRAY	RGLE4X473J
ST286	V4040500	SCR. TERM	M3 (BG)
ST331	V4040500	SCR. TERM	M3
ST341	V4040500	SCR. TERM	M3 (R)
ST342	V4040500	SCR. TERM	M3 (R)
* SW341	V5993500	VOLT. SELCT	VSA-14-1 (R)
SW346	VZ364100	SW. PUSH	SDDL1-A2-F-1
SW351	VG392900	SW. TACT	SKHVAA
SW352	VG392900	SW. TACT	SKHVAA
SW353	VG392900	SW. TACT	SKHVAA
SW354	VG392900	SW. TACT	SKHVAA
SW355	VG392900	SW. TACT	SKHVAA
SW356	VG392900	SW. TACT	SKHVAA
SW357	VG392900	SW. TACT	SKHVAA
SW358	VG392900	SW. TACT	SKHVAA
SW359	VG392900	SW. TACT	SKHVAA
SW360	VG392900	SW. TACT	SKHVAA
SW361	VG392900	SW. TACT	SKHVAA
SW362	VG392900	SW. TACT	SKHVAA
SW363	VG392900	SW. TACT	SKHVAA
SW364	VG392900	SW. TACT	SKHVAA
* T341	XY791A00	TRANS. PWR	(UC)
* T341	XY792A00	TRANS. PWR	(BG)
* T341	XY793A00	TRANS. PWR	(R)
* T341	XY794A00	TRANS. PWR	(A)

\* New Parts

Schm Ref.	PART NO.	Description	
* TH301	V6265200	SW. POLY	RUE110 1.1A 30V
* TH302	V6265200	SW. POLY	RUE110 1.1A 30V
* TH303	V6265200	SW. POLY	RUE110 1.1A 30V
* TH304	V6265200	SW. POLY	RUE110 1.1A 30V
U351	VU591000	L. DTCT	GP1U271X
* V351	V6267400	FL. DSPLY	13-BT-178GNK
XL351	VJ802400	RSNR. CE	8MHz
XL352	VQ328900	RSNR. CRYST	32.768KHz
	VQ948800	SHEET. FL	
	V3747400	SPACER. FL	T4x6x18
	EG330030	SCR. BND. HD	3x6 FCRM3-BL
	V6214900	P. C. B	TRAVERSE
* CB501	V6367700	CN	9611S 21P SE
* CB502	V6367700	CN	9611S 21P SE
* CB503	VQ992300	CN	53261-0290 2PIN
* C501	US135330	C. CE. CHP	0.33uF 16V
* L501	VY656400	COIL. CHP	120uH
* L502	VY656400	COIL. CHP	120uH
* L504	VY656400	COIL. CHP	120uH
* L505	VY656400	COIL. CHP	120uH
* L506	VZ250100	COIL. CHP	BK2125HS470-T
* L507	VY656400	COIL. CHP	120uH
* L508	VY656400	COIL. CHP	120uH
* L509	VY656400	COIL. CHP	120uH
* L510	VY656400	COIL. CHP	120uH
* L511	VY656400	COIL. CHP	120uH
* L512	VY656400	COIL. CHP	120uH
* L513	VZ250100	COIL. CHP	BK2125HS470-T
* L514	VY656400	COIL. CHP	120uH
* L515	VY656400	COIL. CHP	120uH
* L516	VY656400	COIL. CHP	120uH
* L517	VY656400	COIL. CHP	120uH
* L518	VY656400	COIL. CHP	120uH
* L519	VY656400	COIL. CHP	120uH
* L520	VY656400	COIL. CHP	120uH
* L521	VY656400	COIL. CHP	120uH

\* New Parts

**P.C.B. CM & CHIP RESISTOR**

Schm Ref.	PART NO.	Description		
	V3172600	P. C. B.	CM	
CB400	VB858200	CN. BS. PIN	3P	
CB401	VB858200	CN. BS. PIN	3P	
CB402	VB858200	CN. BS. PIN	3P	
CB403	VB858200	CN. BS. PIN	3P	
CB404	VB858200	CN. BS. PIN	3P	
CB405	VB858100	CN. BS. PIN	2P	
CB406	VB858100	CN. BS. PIN	2P	
CB407	VB858100	CN. BS. PIN	2P	
CB408	VU281700	CN	17P	
C400	VJ599100	C. CE. TUBLR	0.1uF	50V
C401	VJ599100	C. CE. TUBLR	0.1uF	50V
C402	VF467000	C. CE. TUBLR	1000pF	50V
C403	VF467000	C. CE. TUBLR	1000pF	50V
D400	V2363400	PHOT. INTR	ON1024	
D401	VG438700	DIODE. ZENR	MTZJ7.5C	7.5V
IC400	XQ135A00	IC	BA6286	
IC401	XF947A00	IC	LA6510	
Q400	VP872700	TR	2SC4488	S,T
R406	HV753100	R. CAR. FP	1	1/4W
R413	HV753100	R. CAR. FP	1	1/4W
SW400	Vi294000	SW. LEVER	SSCF21	
SW401	Vi294000	SW. LEVER	SSCF21	

\* New Parts

Schm Ref.	PART NO.	Description		
*	RD350000	R. CAR. CHP	0	1/10W(A)
*	RD354620	R. CAR. CHP	62	1/10W
*	RD354680	R. CAR. CHP	68	1/16W(BG)
*	RD354750	R. CAR. CHP	75	1/10W
*	RD355100	R. CAR. CHP	100	1/10W
*	RD355120	R. CAR. CHP	120	1/10W(BG)
*	RD355150	R. CAR. CHP	150	1/10W(BG)
*	RD355220	R. CAR. CHP	220	1/10W
*	RD355470	R. CAR. CHP	470	1/10W
*	RD355510	R. CAR. CHP	510	1/16W
*	RD355820	R. CAR. CHP	820	1/10W(BG)
*	RD356100	R. CAR. CHP	1K	1/10W
*	RD356120	R. CAR. CHP	1.2K	1/10W
*	RD356130	R. CAR. CHP	1.3K	1/10W
*	RD356150	R. CAR. CHP	1.5K	1/10W
*	RD356180	R. CAR. CHP	1.8K	1/10W
*	RD356220	R. CAR. CHP	2.2K	1/10W
*	RD356330	R. CAR. CHP	3.3K	1/10W
*	RD356430	R. CAR. CHP	4.3K	1/10W
*	RD356470	R. CAR. CHP	4.7K	1/10W(BG)
*	RD356560	R. CAR. CHP	5.6K	1/10W(BG)
*	RD356680	R. CAR. CHP	6.8K	1/10W
*	RD357100	R. CAR. CHP	10K	1/10W
*	RD357120	R. CAR. CHP	12K	1/10W
*	RD357150	R. CAR. CHP	15K	1/10W(BG)
*	RD357220	R. CAR. CHP	22K	1/10W
*	RD357470	R. CAR. CHP	47K	1/10W
*	RD357560	R. CAR. CHP	56K	1/10W
*	RD357680	R. CAR. CHP	68K	1/10W
*	RD358100	R. CAR. CHP	100K	1/10W
*	RD358470	R. CAR. CHP	470K	1/10W
*	RD359470	R. CAR. CHP	4.7M	1/10W
*	RF356750	R. CAR. CHP	7.5K	1/10W
*	RF357100	R. CAR. CHP	10K	1/10W
*	V6266400	R. CAR. CHP	1.2K	1/10W
*	V6266500	R. CAR. CHP	1.3K	1/10W

\* New Parts

DVD-C996  
DV-C6280



## P.C.B. MODULE

Schm Ref.	PART NO.	Description	Remarks
*	V6293000	P. C. B	MODULE (UC)
*	V6293100	P. C. B	MODULE (R)
*	V6293200	P. C. B	MODULE (A)
*	V6293300	P. C. B	MODULE (BG)
C2001	NX702100	C. EL	100uF 6.3V EEVHBOJ101
C2002	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2003	NX702100	C. EL	100uF 6.3V EEVHBOJ101
C2004	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2005	NX702100	C. EL	100uF 6.3V EEVHBOJ101
C2006	FX612210	C. CE	0.1uF 16V CH ECUX1C104KBV
C2007	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2012	FX612430	C. CE	330P 50V CH ECUX1H331JCV
C2013	FX612350	C. CE	120pF 50V CH ECUX1H121JCV
C2014	FX612350	C. CE	120pF 50V CH ECUX1H121JCV
C2015	FX612350	C. CE	120pF 50V CH ECUX1H121JCV
C2016	NX702500	C. CE	10pF 50V CH ECUX1H101JCV
C2017	NX702500	C. CE	10pF 50V CH ECUX1H101JCV
C2018	FG212390	C. CE	390pF 50V ECUX1H391JCV
C2019	FG212390	C. CE	390pF 50V ECUX1H391JCV
C2020	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2021	FX612210	C. CE	0.1uF 16V CH ECUX1C104KBV
C2022	FX612210	C. CE	0.1uF 16V CH ECUX1C104KBV
C2023	NX702560	C. CE	6800pF 50V CH ECUX1H682KBV
C2024	FX612480	C. CE	680pF 50V CH ECUX1H681JCV
C2025	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2026	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2028	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2029	FX612440	C. CE	47pF 50V CH ECUX1H470JCV
C2030	FX612240	C. CE	0.018uF 16V CH ECUX1C183KBV
C2031	NX702510	C. CE	1000pF 50V CH ECUX1H102JCV
C2032	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2033	FX612040	C. CE	0.47uF 16V CH ECUM1C474KBN
C2034	Fi544100	C. CE	0.01uF 16V ECUX1C103KBV
C2037	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
* C2038	AAX15610	C. CE	0.047uF 16V ECUX1C473KBV
C2039	AAX05620	C. CE	0.039uF 16V CH ECUX1C393KBV
* C2040	AAX15620	C. CE	8200pF 50V ECUX1H822KBV
C2041	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2042	FX612210	C. CE	0.1uF 16V CH ECUX1C104KBV
* C2043	AAX15610	C. CE	0.047uF 16V ECUX1C473KBV
C2044	FX612210	C. CE	0.1uF 16V CH ECUX1C104KBV
C2045	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2046	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2047	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2048	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2051	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
* C2500	AAX15520	C. EL	100uF 16V ECEV1CA101W
C2501	NX702100	C. EL	100uF 6.3V EEVHBOJ101
C2502	FX611790	C. EL	330uF 6.3VCH ECEV0JA331
C2503	FX612310	C. CE	0.01uF 50V CH ECUX1H103KBV
C2504	FX612310	C. CE	0.01uF 50V CH ECUX1H103KBV
C2505	FX612310	C. CE	0.01uF 50V CH ECUX1H103KBV
C2506	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV

\* New Parts

Schm Ref.	PART NO.	Description	Remarks
C2507	FX612210	C. CE	0.1uF 16V CH ECUX1C104KBV
C2508	FX612210	C. CE	0.1uF 16V CH ECUX1C104KBV
C2509	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2513	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2514	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2515	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2516	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2517	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2518	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2521	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2522	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2523	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2524	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C2525	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3001	FX611790	C. EL	330uF 6.3VCH ECEV0JA331
C3002	FX611790	C. EL	330uF 6.3VCH ECEV0JA331
C3003	FX611790	C. EL	330uF 6.3VCH ECEV0JA331
* C3004	AAX15600	C. CE	1.0uF 10V ECUX1A105ZFV
C3005	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3006	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
* C3007	AAX15600	C. CE	1.0uF 10V ECUX1A105ZFV
* C3008	AAX15600	C. CE	1.0uF 10V ECUX1A105ZFV
C3009	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3010	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3011	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
* C3012	AAX15600	C. CE	1.0uF 10V ECUX1A105ZFV
* C3012	AAX15600	C. CE	1.0uF 10V ECUX1A105ZFV
C3014	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3015	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
* C3016	AAX15600	C. CE	1.0uF 10V ECUX1A105ZFV
C3017	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3018	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
* C3019	AAX15600	C. CE	1.0uF 10V ECUX1A105ZFV
* C3020	AAX15600	C. CE	1.0uF 10V ECUX1A105ZFV
C3021	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3022	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
* C3024	AAX15600	C. CE	1.0uF 10V ECUX1A105ZFV
C3025	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
* C3026	AAX15600	C. CE	1.0uF 10V ECUX1A105ZFV
C3027	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3028	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3029	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
* C3030	AAX15600	C. CE	1.0uF 10V ECUX1A105ZFV
C3031	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3032	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3033	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3034	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3035	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3036	FX612380	C. CE	22pF 50V CH ECUX1H220JCV
C3042	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3043	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV
C3045	FX612220	C. CE	0.1uF 16V CH ECUX1C104ZFV

\* New Parts

## P.C.B. MODULE

Schm Ref.	PART NO.	Description	Remarks
* C3046	AAX15550	C. T.NTL. CHP 10uF 6.3V	ECSTOJY106Z
C3051	FX611790	C. EL 330uF 6.3VCH	ECEVOJA331
C3052	FX611980	C. CE 1uF 10V CH	ECUM1A105KBN
C3053	FX611980	C. CE 1uF 10V CH	ECUM1A105KBN
C3054	FX611980	C. CE 1uF 10V CH	ECUM1A105KBN
C3055	FX611980	C. CE 1uF 10V CH	ECUM1A105KBN
C3056	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3057	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3058	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3059	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3060	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3061	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3062	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3063	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3064	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
* C3065	AAX16240	C. T.NTL. CHP 10uF 10V	VCS1AS106
C3066	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3071	FX612220	C. CE 0.1uF 16V(BG)	ECUX1C104ZVF
C3072	FX612220	C. CE 0.1uF 16V(BG)	ECUX1C104ZVF
C3073	FX612220	C. CE 0.1uF 16V(BG)	ECUX1C104ZVF
C3074	FX612220	C. CE 0.1uF 16V(BG)	ECUX1C104ZVF
C3075	AAX16240	C. T.NTL. CHP 10uF 10V(BG)	VCS1AS106
C3076	FX612220	C. CE 0.1uF 16V(BG)	ECUX1C104ZVF
C3081	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3082	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3083	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3084	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3085	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3091	NX702100	C. EL 100uF 6.3V	EEVHBJ0101
C3092	NX702100	C. EL 100uF 6.3V	EEVHBJ0101
C3093	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
* C3094	AAX16240	C. T.NTL. CHP 10uF 10V	VCS1AS106
C3095	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3221	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3222	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3223	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3224	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3225	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3226	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3227	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3228	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3229	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3230	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C3231	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C4201	FX612660	C. EL 1000uF 6.3V	ECEVOJA102
C4202	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C4203	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
* C4204	AAX16240	C. T.NTL. CHP 10uF 10V	VCS1AS106
C4205	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
* C4206	AAX16240	C. T.NTL. CHP 10uF 10V	VCS1AS106
C4207	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C4208	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C4209	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF

\* New Parts

Schm Ref.	PART NO.	Description	Remarks
C4221	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C4222	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C4223	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C4224	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C4225	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C5201	FX611880	C. EL 33uF 6.3V	EEVHBJ0330
C5202	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C5203	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C5204	FX611880	C. EL 33uF 6.3V	EEVHBJ0330
C5205	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C5211	AAX05250	C. EL 47uF 6.3V	EEVHBJ0470
C5212	FX612390	C. CE 220pF 50V CH	ECUX1H221JCV
C5213	FX612210	C. CE 0.1uF 16V CH	ECUX1C104KBV
C5214	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C5215	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C5216	NX702510	C. CE 1000pF 50V CH	ECUX1H102JCV
C5217	FX612210	C. CE 0.1uF 16V CH	ECUX1C104KBV
C5218	AAX05640	C. CE 18pF 50V CH	ECUX1H180JCV
C5219	NX702540	C. CE 1800pF 50V CH	ECUX1H182KBV
C5220	NX702500	C. CE 10pF 50V CH	ECUX1H101JCV
C5221	FX611800	C. EL 39pF 50V CH	ECUX1H390JCV
* C5222	AAX15560	C. CE 0.47uF 10V	ECUM1A474KBV
* C5223	AAX15560	C. CE 0.47uF 10V	ECUM1A474KBV
C5224	FX612390	C. CE 220pF 50V CH	ECUX1H221JCV
C5225	FX612390	C. CE 220pF 50V CH	ECUX1H221JCV
C5226	FX612210	C. CE 0.1uF 16V CH	ECUX1C104KBV
C5227	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C5232	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
* C5233	AAX16240	C. T.NTL. CHP 10uF 10V	VCS1AS106
C5234	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C5241	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C5242	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6202	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6203	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6204	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6206	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6207	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6208	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6211	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6212	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6251	NX702100	C. EL 100uF 6.3V	EEVHBJ0101
* C6252	AAX16240	C. T.NTL. CHP 10uF 10V	VCS1AS106
C6253	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6254	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6255	FX611880	C. EL 33uF 6.3V	EEVHBJ0330
C6256	FX611790	C. EL 330uF 6.3VCH	ECEVOJA331
C6257	NX702100	C. EL 100uF 6.3V	EEVHBJ0101
C6258	FX612310	C. CE 0.01uF 50V CH	ECUX1H103KBV
C6301	NX702500	C. CE 10pF 50V CH	ECUX1H101JCV
C6302	FX612210	C. CE 0.1uF 16V CH	ECUX1C104KBV
C6303	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6304	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF
C6305	FX612220	C. CE 0.1uF 16V CH	ECUX1C104ZVF

\* New Parts

## P.C.B. MODULE

Schm Ref.	PART NO.	Description	Remarks
C6501	FX611880	C.EL	33uF 6.3V EEVHBOJ330
C6502	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C6503	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
* C6504	AAX16240	C.TNLT.CHP	10uF 10V VCS1AS106
C6505	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C6506	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C6511	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C6512	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C6513	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C6514	NX702530	C.CE	15pF 50V CH ECUX1H150JCV
C6515	NX702530	C.CE	15pF 50V CH ECUX1H150JCV
C6516	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C6517	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C6551	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
* C6553	AAX16250	C.TNLT.CHP	4.7uF 10V VCS1AS475
C7001	NX702100	C.EL	100uF 6.3V EEVHBOJ101
C7002	NX702100	C.EL	100uF 6.3V EEVHBOJ101
C7006	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7011	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7012	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7013	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7014	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7015	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7016	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7017	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7018	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7019	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7020	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7021	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7022	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7023	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7024	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7025	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
C7026	FX612220	C.CE	0.1uF 16V CH ECUX1C104ZFV
D3091	NX702630	DIODE	MA111 MA111
D6251	NX702630	DIODE	MA111 MA111
D6301	NX702680	DIODE	MA728 MA728
* FL6251	AAX16450	CONNECTOR	VLF1491S105 VLF1491S105
* FL6252	AAX16450	CONNECTOR	VLF1491S105 VLF1491S105
* FL6254	AAX16450	CONNECTOR	VLF1491S105 VLF1491S105
* FL6255	AAX16440	CONNECTOR	VLF1491S104 VLF1491S104
* FP2501	AAX16430	CONNECTOR	17P VJS4383B017B
FP5201	AAX03990	CN	21P VJS3913A021
* IC2001	AAX16050	IC	MN67706EA MN67706EA
* IC2501	AAX15460	IC	AN8480NSB AN8480NSB
IC2511	AAX03430	IC	BA5983FM BA5983FM
* IC3001	AAX16060	IC	MN677532JA MN677532JA
* IC3002	AAX16090	IC	PQ018EZ01ZP PQ018EZ01ZP
IC3061	AAX03520	IC	MNX7160BT1 MNX7160BT1
IC3071	AAX03520	IC	MNX7160BT1(BG) MNX7160BT1
* IC3081	AAX16130	IC	TC4W66FU TC4W66FU
IC3091	NX701770	IC	PQ1R33 PQ1R33
* IC4201	AAX16080	IC	PCM1746E PCM1746E

\* New Parts

Schm Ref.	PART NO.	Description	Remarks
* IC5201	AAX15470	IC	AN8707FH AN8707FH
* IC6201	AAX16040	IC	MN102H55GFB MN102H55GFB
IC6251	NX701770	IC	PQ1R33 PQ1R33
IC6301	AAX03570	IC	PST596JNR PST596JNR
* IC6302	AAX16530	IC	VUB8011C430(UCAR) VUB8011C430
* IC6302	AAX18280	IC	VUB8011C492(BG) VUB8011C492
* IC6303	AAX15480	IC	AT25020NSI27 AT25020NSI27
* IC6501	AAX15500	IC	BU2285FV BU2285FV
* IC6551	AAX16150	IC	TK71533SCL TK71533SCL
* IC7001	AAX16670	IC	MN103S13BGA MN103S13BGA
K2002	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
K3001	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
K3002	HX610350	R.MTL.CHP	0 1/10W ERJ6GEYOR00
K3003	HX610350	R.MTL.CHP	0 1/10W ERJ6GEYOR00
K3013	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
K3014	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
K3021	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
K5231	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
K5241	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
K6251	HX609860	R.MTL.CHP	0 1/4W ERJ14YOR00
K6301	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
K6502	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
K6503	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
K6504	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
K6521	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
K6531	HX609880	R.MTL.CHP	0 1/16W ERJ3GEYOR00
* L2001	AAX16490	COIL	10uH VLQ0860K100
* L2002	AAX16510	COIL	10uH VLQ0910K100
* L2003	AAX16510	COIL	10uH VLQ0910K100
L2501	HX609860	R.MTL.CHP	0 1/4W ERJ14YOR00
* L3091	AAX16490	COIL	10uH VLQ0860K100
* L4201	AAX16500	COIL	22uH VLQ0909J220
* L5201	AAX16490	COIL	10uH VLQ0860K100
* L5202	AAX16510	COIL	10uH VLQ0910K100
L6201	NX702750	COIL.CHP	VLP0323A601T VLP0323A601T
* L6501	AAX16500	COIL	22uH VLQ0909J220
* L6502	AAX16500	COIL	22uH VLQ0909J220
* L7001	AAX16510	COIL	10uH VLQ0910K100
* L7002	AAX16510	COIL	10uH VLQ0910K100
* LA2501	AAX16480	COIL.CHP	VLP0412A601
* LA2502	AAX16480	COIL.CHP	VLP0412A601
LB2509	GX609400	COIL	JALBK2HS470T
LB2510	GX609400	COIL	JALBK2HS470T
LB2511	GX609400	COIL	JALBK2HS470T
LB2512	NX702750	COIL.CHP	VLP0323A601T VLP0323A601T
LB2513	GX609400	COIL	JALBK2HS470T
LB2514	GX609400	COIL	JALBK2HS470T
LB2515	GX609400	COIL	JALBK2HS470T
LB2516	GX609400	COIL	JALBK2HS470T
LB3201	NX702750	COIL.CHP	VLP0323A601T VLP0323A601T
LB3202	NX702750	COIL.CHP	VLP0323A601T VLP0323A601T
LB3203	NX702750	COIL.CHP	VLP0323A601T(UCAR) VLP0323A601T
LB3204	NX702750	COIL.CHP	VLP0323A601T(UCAR) VLP0323A601T

\* New Parts

P.C.B. MODULE

Schm Ref.	PART NO.	Description	Remarks
LB4001	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB4002	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB4003	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB4004	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB4005	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB4006	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB4007	HX609980	R .MTL .CHP 10 1/16W	ERJ3GEYJ100
LB4008	HX609980	R .MTL .CHP 10 1/16W	ERJ3GEYJ100
LB5201	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB5202	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB5203	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB5204	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB5205	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB5206	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB5207	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB5208	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB5209	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB5210	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB5211	GX609400	C01L	JALBK2HS470T
LB5212	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB5213	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB5214	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
* LB5215	AAX16460	C01L	VLP0174
* LB5216	AAX16460	C01L	VLP0174
* LB5217	AAX16460	C01L	VLP0174
* LB5218	AAX16460	C01L	VLP0174
LB6201	GX609450	C01L	VLP0155
LB6501	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB6502	GX609450	C01L	VLP0155
LB6503	GX609450	C01L	VLP0155
LB6504	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB6505	GX609450	C01L	VLP0155
LB6506	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
LB6507	GX609450	C01L	VLP0155
LB6551	NX702750	C01L .CHP VLP0323A601T	VLP0323A601T
* PS3201	AAX16410	CONNECTOR 22P FEMALE(UCAR)	VJS4222C022B
PS3201	AAX16400	CONNECTOR 14P FEMALE(BG)	VJS4222A014B
* PS4201	AAX16400	CONNECTOR 14P	VJS4222A014B
PS6201	AAX03930	CN	VJS2961A010
Q3081	NX702830	TR	2SB1218A-R
Q3082	NX702830	TR	2SB1218A-R(UCAR)
Q3083	NX702830	TR	2SB1218A-R(UCAR)
Q3084	NX702830	TR	2SB1218A-R
Q5201	iX637190	TR	2SB1115T(BG)
Q5201	AAX05780	TR	2SB1115
QR2001	AAX04240	TR .DGT	UN5213
QR5201	iX637160	TR .DGT	UN5212
* QR5231	AAX16160	TR	UN2121
QR6301	iX637160	TR .DGT	UN5212
R2001	HX610190	R .MTL .CHP 47K 1/16W	ERJ3GEYJ473
R2002	HX610190	R .MTL .CHP 47K 1/16W	ERJ3GEYJ473
R2003	HX610190	R .MTL .CHP 47K 1/16W	ERJ3GEYJ473
R2004	HX610190	R .MTL .CHP 47K 1/16W	ERJ3GEYJ473

\* New Parts

Schm Ref.	PART NO.	Description	Remarks
R2005	HX610190	R .MTL .CHP 47K 1/16W	ERJ3GEYJ473
R2006	HX610190	R .MTL .CHP 47K 1/16W	ERJ3GEYJ473
R2007	HX610190	R .MTL .CHP 47K 1/16W	ERJ3GEYJ473
R2008	HX610120	R .MTL .CHP 22K 1/16W	ERJ3GEYJ223
R2009	HX610120	R .MTL .CHP 22K 1/16W	ERJ3GEYJ223
R2010	HX610160	R .MTL .CHP 27K 1/16W	ERJ3GEYJ273
R2011	HX610040	R .MTL .CHP 12K 1/16W	ERJ3GEYJ123
R2012	HX610220	R .MTL .CHP 5.6K 1/16W	ERJ3GEYJ562
R2013	HX610160	R .MTL .CHP 27K 1/16W	ERJ3GEYJ273
R2014	NX703300	R .MTL .CHP 1M 1/16W	ERJ3GEYJ105
* R2017	AAX15810	R .MTL .CHP 15K 1/16W	ERJ3GEYF153
R2018	HX610190	R .MTL .CHP 47K 1/16W	ERJ3GEYJ473
R2020	AAX06360	R .MTL .CHP 12K 1/16W	ERJ3GEYF123
R2021	HX610010	R .MTL .CHP 10K 1/16W	ERJ3GEYJ103
R2022	HX610120	R .MTL .CHP 22K 1/16W	ERJ3GEYJ223
R2023	HX610120	R .MTL .CHP 22K 1/16W	ERJ3GEYJ223
R2024	NX703380	R .MTL .CHP 56K 1/16W	ERJ3GEYJ563
R2025	NX703380	R .MTL .CHP 56K 1/16W	ERJ3GEYJ563
R2026	HX609990	R .MTL .CHP 100 1/16W	ERJ3GEYJ101
R2027	HX609950	R .MTL .CHP 4.7K 1/16W	ERJ3GEYJ472
R2028	HX610010	R .MTL .CHP 10K 1/16W	ERJ3GEYJ103
R2029	NX703420	R .MTL .CHP 10K 1/16W	ERJ3RBD103
R2030	HX610010	R .MTL .CHP 10K 1/16W	ERJ3GEYJ103
R2031	HX609880	R .MTL .CHP 0 1/16W	ERJ3GEYOR00
R2032	HX610190	R .MTL .CHP 47K 1/16W	ERJ3GEYJ473
R2033	HX609950	R .MTL .CHP 4.7K 1/16W	ERJ3GEYJ472
R2034	HX609950	R .MTL .CHP 4.7K 1/16W	ERJ3GEYJ472
R2501	HX610140	R .MTL .CHP 270 1/16W	ERJ3GEYJ271
R2502	HX610140	R .MTL .CHP 270 1/16W	ERJ3GEYJ271
R2503	NX703240	R .MTL .CHP 0.39 1/4W	ERJ14YKR39
R2505	HX610190	R .MTL .CHP 47K 1/16W	ERJ3GEYJ473
* R2511	AAX15880	R .MTL .CHP 20K 1/16W	ERJ3GEYJ203
R2512	HX610160	R .MTL .CHP 27K 1/16W	ERJ3GEYJ273
R2513	NX703340	R .MTL .CHP 33K 1/16W	ERJ3GEYJ333
* R2514	AAX15880	R .MTL .CHP 20K 1/16W	ERJ3GEYJ203
R2515	HX610160	R .MTL .CHP 27K 1/16W	ERJ3GEYJ273
R2516	NX703340	R .MTL .CHP 33K 1/16W	ERJ3GEYJ333
R2517	HX610040	R .MTL .CHP 12K 1/16W	ERJ3GEYJ123
R2518	HX610010	R .MTL .CHP 10K 1/16W	ERJ3GEYJ103
R2519	NX703390	R .MTL .CHP 7.5K 1/16W	ERJ3GEYJ752
R2520	HX610040	R .MTL .CHP 12K 1/16W	ERJ3GEYJ123
R2521	HX610010	R .MTL .CHP 10K 1/16W	ERJ3GEYJ103
R2522	NX703390	R .MTL .CHP 7.5K 1/16W	ERJ3GEYJ752
R3001	HX610090	R .MTL .CHP 22 1/16W	ERJ3GEYJ220
R3002	HX609950	R .MTL .CHP 4.7K 1/16W	ERJ3GEYJ472
R3003	HX609990	R .MTL .CHP 100 1/16W	ERJ3GEYJ101
R3004	HX609880	R .MTL .CHP 0 1/16W	ERJ3GEYOR00
R3005	HX610190	R .MTL .CHP 47K 1/16W	ERJ3GEYJ473
R3051	AAX06630	R .MTL .CHP 7.5K 1/16W	ERJ3RBD752
R3052	HX609990	R .MTL .CHP 100 1/16W	ERJ3GEYJ101
R3055	AAX06630	R .MTL .CHP 7.5K 1/16W	ERJ3RBD752
R3057	AAX06540	R .MTL .CHP 18K 1/16W	ERJ3RBD183
* R3058	AAX15890	R .MTL .CHP 4.3K 1/16W	ERJ3RBD432

\* New Parts

DVD-C996  
DV-C6280

## P.C.B. MODULE

Schm Ref.	PART NO.	Description	Remarks
R3059	AAX06630	R.MTL.CHP 7.5K 1/16W	ERJ3RBD752
R3060	AAX06630	R.MTL.CHP 7.5K 1/16W	ERJ3RBD752
R3061	HX609990	R.MTL.CHP 100 1/16W	ERJ3GEYJ101
R3071	HX610010	R.MTL.CHP 10K 1/16W	ERJ3GEYJ103
* R3081	AAX15900	R.MTL.CHP 75 1/16W	ERJ3RED750
R3082	NX703330	R.MTL.FLM 33 1/16W	ERJ3GEYJ330
R3083	HX609890	R.MTL.CHP 1K 1/16W	ERJ3GEYG102
* R3084	AAX15900	R.MTL.CHP 75 1/16W	ERJ3RED750
R3085	NX703330	R.MTL.FLM 33 1/16W(UCAR)	ERJ3GEYJ330
R3086	HX609890	R.MTL.CHP 1K 1/16W(UCAR)	ERJ3GEYG102
* R3087	AAX15900	R.MTL.CHP 75 1/16W	ERJ3RED750
R3088	NX703330	R.MTL.FLM 33 1/16W(UCAR)	ERJ3GEYJ330
R3089	HX609890	R.MTL.CHP 1K 1/16W(UCAR)	ERJ3GEYG102
* R3090	AAX15900	R.MTL.CHP 75 1/16W	ERJ3RED750
R3091	NX703330	R.MTL.FLM 33 1/16W	ERJ3GEYJ330
R3092	HX610170	R.MTL.CHP 330 1/16W	ERJ3GEYJ331
R4201	HX610170	R.MTL.CHP 330 1/16W	ERJ3GEYJ331
R4202	HX610110	R.MTL.CHP 2.2K 1/16W	ERJ3GEYJ222
R5201	AAX07260	R.MTL 27 1/2W	ERJ12YJ270
R5202	NX703320	R.MTL.CHP 2.2 1/16W	ERJ3GEYJ2R2
R5203	HX610120	R.MTL.CHP 22K 1/16W	ERJ3GEYJ223
R5204	HX610040	R.MTL.CHP 12K 1/16W	ERJ3GEYJ123
R5206	HX610070	R.MTL.CHP 150K 1/16W	ERJ3GEYJ154
* R5207	AAX15870	R.MTL.CHP 5.6K 1/16W	ERJ3GEYF562
R5208	HX609990	R.MTL.CHP 100 1/16W	ERJ3GEYJ101
* R5209	AAX15830	R.MTL.CHP 30K 1/16W	ERJ3GEYF303
* R5210	AAX15860	R.MTL.CHP 47K 1/16W	ERJ3GEYF473
* R5211	AAX15820	R.MTL.CHP 18K 1/16W	ERJ3GEYF183
* R5212	AAX15870	R.MTL.CHP 5.6K 1/16W	ERJ3GEYF562
R5213	HX610010	R.MTL.CHP 10K 1/16W	ERJ3GEYJ103
R5214	NX703300	R.MTL.CHP 1M 1/16W	ERJ3GEYJ105
R5215	NX703300	R.MTL.CHP 1M 1/16W	ERJ3GEYJ105
R5216	NX703300	R.MTL.CHP 1M 1/16W	ERJ3GEYJ105
R5217	HX609880	R.MTL.CHP 0 1/16W	ERJ3GEYOR00
R6201	HX610010	R.MTL.CHP 10K 1/16W	ERJ3GEYJ103
R6208	HX610190	R.MTL.CHP 47K 1/16W	ERJ3GEYJ473
* R6209	AAX15800	R.MTL.CHP 150 1/16W	ERJ3GEYF151
* R6210	AAX15850	R.MTL.CHP 470 1/16W	ERJ3GEYF471
* R6211	AAX15840	R.MTL.CHP 390 1/16W	ERJ3GEYF391
R6212	HX610190	R.MTL.CHP 47K 1/16W	ERJ3GEYJ473
R6213	HX609890	R.MTL.CHP 1K 1/16W	ERJ3GEYG102
R6214	HX609890	R.MTL.CHP 1K 1/16W	ERJ3GEYG102
R6301	HX610010	R.MTL.CHP 10K 1/16W	ERJ3GEYJ103
R6302	HX609950	R.MTL.CHP 4.7K 1/16W	ERJ3GEYG472
R6303	HX609950	R.MTL.CHP 4.7K 1/16W	ERJ3GEYG472
R6502	AAX06550	R.MTL.CHP 220 1/16W	ERJ3RBD221
R6503	HX610010	R.MTL.CHP 10K 1/16W	ERJ3GEYJ103
R6504	HX610010	R.MTL.CHP 10K 1/16W	ERJ3GEYJ103
R7001	HX609890	R.MTL.CHP 1K 1/16W	ERJ3GEYG102
R7002	HX610190	R.MTL.CHP 47K 1/16W	ERJ3GEYJ473
RA2001	AAX07220	R.ARRAY 0 x4	EXBV8VR000
RA2501	NX703070	R.ARRAY EXBV4V103J	EXBV4V103J
RA3008	NX703070	R.ARRAY EXBV4V103J	EXBV4V103J

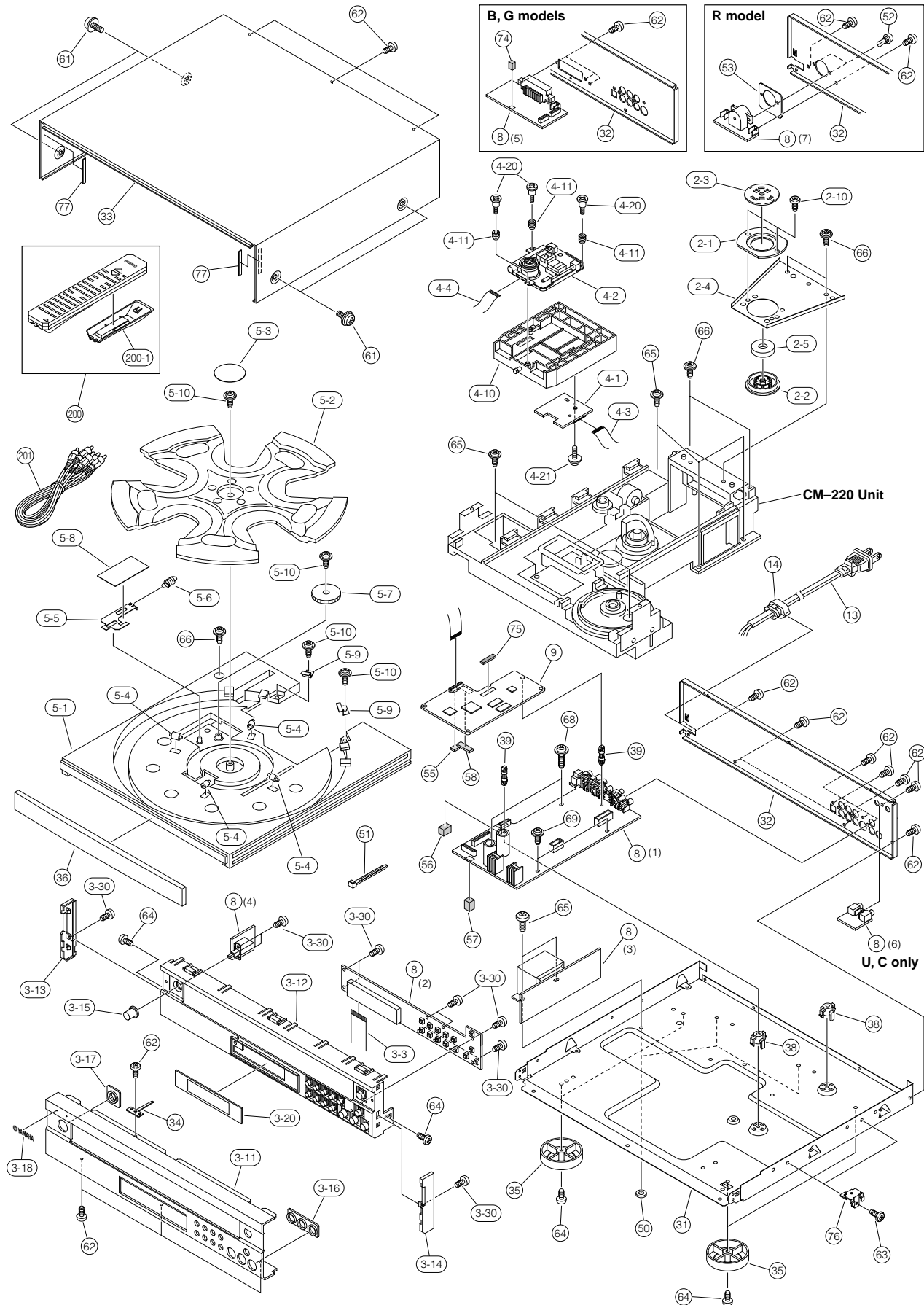
\* New Parts

Schm Ref.	PART NO.	Description	Remarks
* RA3009	AAX15970	R.ARRAY 0	EXBV4VR000
* RA3010	AAX15970	R.ARRAY 0	EXBV4VR000
RA3011	NX703100	R.ARRAY EXBV4V473J	EXBV4V473J
* RA5201	AAX15960	R.ARRAY 100	EXBV4V101J
RA6201	NX703070	R.ARRAY EXBV4V103J	EXBV4V103J
RA6202	NX703100	R.ARRAY EXBV4V473J	EXBV4V473J
RA6203	NX703100	R.ARRAY EXBV4V473J	EXBV4V473J
RA6204	NX703100	R.ARRAY EXBV4V473J	EXBV4V473J
RA6205	NX703110	R.ARRAY EXBV8V473J	EXBV8V473J
RA6206	NX703100	R.ARRAY EXBV4V473J	EXBV4V473J
RA7001	NX703110	R.ARRAY EXBV8V473J	EXBV8V473J
RA7002	NX703110	R.ARRAY EXBV8V473J	EXBV8V473J
RA7003	NX703110	R.ARRAY EXBV8V473J	EXBV8V473J
S6401	KX604670	SW	EVQ11G07K
S6402	KX604670	SW	EVQ11G07K
S6403	KX604670	SW	EVQ11G07K
S6404	KX604670	SW	EVQ11G07K
S6405	KX604670	SW	EVQ11G07K
S6406	KX604670	SW	EVQ11G07K
S6407	KX604670	SW	EVQ11G07K
S6408	KX604670	SW	EVQ11G07K
W3221	HX609880	R.MTL.CHP 0 1/16W	ERJ3GEYOR00
X6501	AAX04680	RSNR	V SX1044

\* New Parts

DVD-C996/DV-C6280

EXPLODED VIEW



## MECHANICAL PARTS

Ref. No.	PART NO.	Description	Remarks	Markets
* 2-1	V6090300	HOLDER/CLAMPER/M		
* 2-2	V6124800	CLAMPER/M		
* 2-3	V6248000	CLAMPER WEIGHT	VMA0E54	
2-4	VZ762600	FRAME, CLAMPER		
* 2-5	V6247900	MAGNET	RHM245ZA	
2-10	EP600820	BIND HEAD B-TITE SCREW	3x6 FCRM3-BL	
* 3-3	MF123350	FLEXIBLE FLAT CABLE	23P 350mm P=1.25	
* 3-11	V5677500	FRONT PANEL		BL DVD-C996
* 3-11	V5677600	FRONT PANEL		GD DVD-C996
* 3-11	V5956700	FRONT PANEL		BL DV-C6280
* 3-12	V5678100	SUB PANEL		BL DVD-C996
* 3-12	V5678200	SUB PANEL		GD DVD-C996
* 3-12	V6094200	SUB PANEL		BL DV-C6280
* 3-13	V5954500	PLATE SIDE 996	L	BL DVD-C996
* 3-13	V5954600	PLATE SIDE 996	L	GD DVD-C996
* 3-14	V5954700	PLATE SIDE 996	R	BL DVD-C996
* 3-14	V5954800	PLATE SIDE 996	R	GD DVD-C996
* 3-15	V5914500	BUTTON/D12		BL DVD-C996
* 3-15	V5914600	BUTTON/D12		GD DVD-C996
* 3-15	V5914700	BUTTON/D12		BL DV-C6280
* 3-16	V6094600	ESCUTCHEON/PLAY		BL
* 3-16	V6094700	ESCUTCHEON/PLAY		GD
* 3-17	V6094800	ESCUTCHEON/PW		BL
* 3-17	V6094900	ESCUTCHEON/PW		GD
* 3-18	V6034100	EMBLEM		BL
* 3-18	V6034200	EMBLEM		GD
* 3-20	V5678500	WINDOW PANEL, LID		
3-30	EP600730	BIND HEAD P-TITE SCREW	3x8 FCRM3-BL	
4-1	V6214900	P.C.B. ASS'Y	TRAVERSE	
* 4-2	V6158100	DVD TRAVERSE MECH	VXK1580	
* 4-3	V6303800	CONNECTOR, FLAT CABLE	21P 190mm P=1.00	
* 4-4	V6303700	CONNECTOR, FLAT CABLE	17P 240mm P=1.00	
* 4-10	V6090200	HOLDER/PU/M		
* 4-11	V6667700	DAMPER/M		BLACK
* 4-20	V6247800	SCREW	VHD1223	
4-21	VA775100	PW HEAD P-TITE SCREW	3x8-10 FCRM3-BL	
5-1	VZ761500	TRAY	B	
* 5-2	VZ761600	TABLE/D	B	
5-3	V2133100	PLATE, TABLE		
5-4	VS037300	ROLLER		
5-5	VV014400	LEVER	PO	
5-6	VS036900	SPRING, RT		
5-7	VZ761800	GEAR, RT1		
5-8	VS037900	SHEET, TRAY	B	
* 5-9	V6090400	SUPPORT/M		
5-10	VA775100	PW HEAD P-TITE SCREW	3x8-10 FCRM3-BL	
* 8	V6214300	P.C.B. ASS'Y	MAIN	(UC)
* 8	V6214400	P.C.B. ASS'Y	MAIN	(R)
* 8	V6214600	P.C.B. ASS'Y	MAIN	(A)
* 8	V6214700	P.C.B. ASS'Y	MAIN	(BG)
* 9	V6293000	DVD MODULE PCB		(UC)
* 9	V6293100	DVD MODULE PCB		(R)
* 9	V6293200	DVD MODULE PCB		(A)

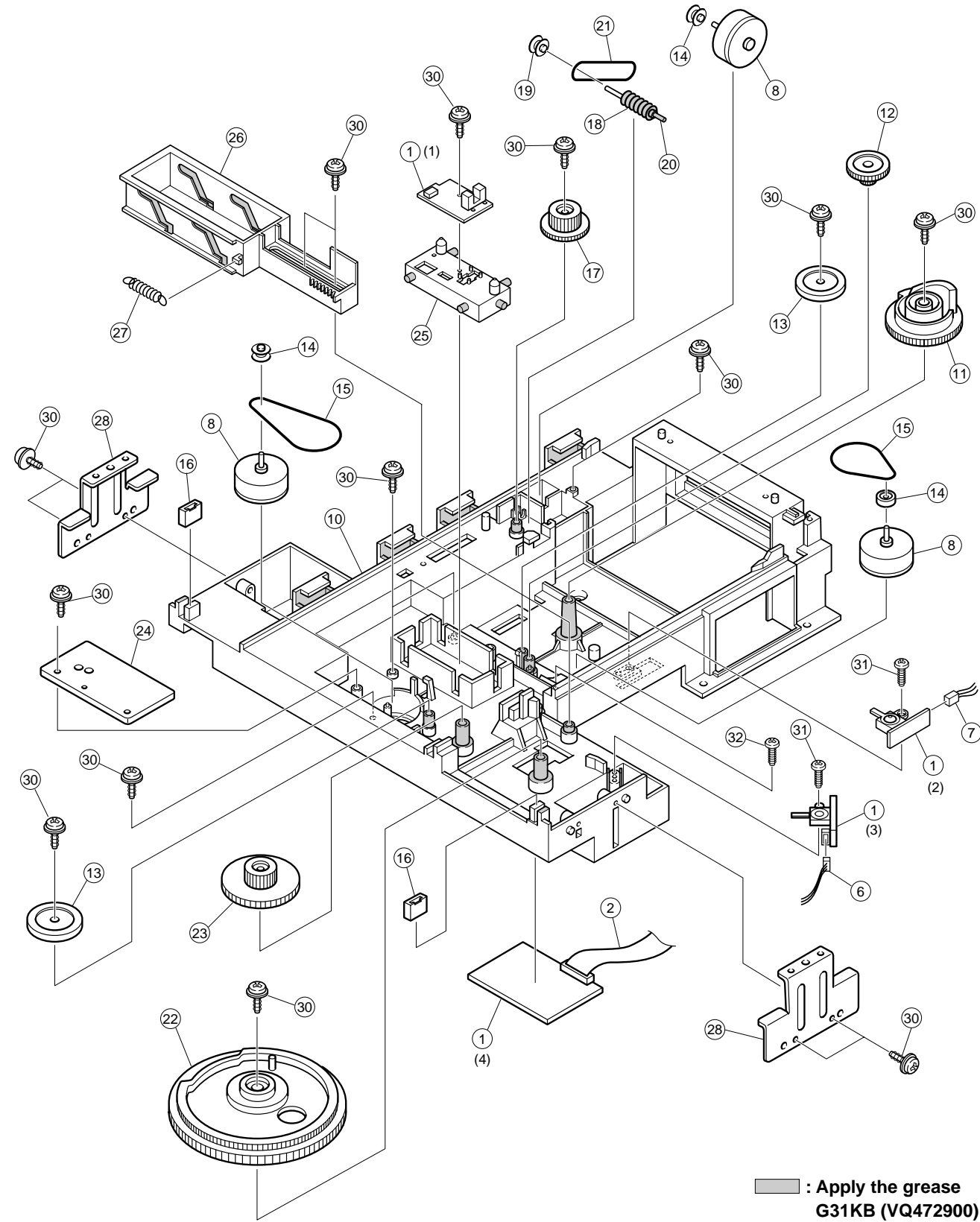
\* New Parts

Ref. No.	PART NO.	Description	Remarks	Markets
* 9	V6293300	DVD MODULE PCB		(BG)
△ 13	V2296800	POWER CORD ASS'Y		(A)
△ 13	V2363800	POWER CORD ASS'Y		(UC)
△ 13	VN363700	POWER CORD ASS'Y		(G)
△ 13	VV437300	POWER CORD ASS'Y		(B)
△ 13	VZ542500	POWER CORD ASS'Y		(R)
14	V2438700	CORD STOPPER	10P1	
31	VZ876600	CHASSIS, MAIN		
* 32	V5677700	REAR PANEL		DVD-C996 (UC)
* 32	V5677800	REAR PANEL		DVD-C996 (R)
* 32	V5678000	REAR PANEL		DVD-C996 (BG)
* 32	V5953400	REAR PANEL		DV-C6280 (U)
* 32	V5953500	REAR PANEL		DVD-C996 (A)
* 33	V6145700	TOP COVER		GD
33	VZ876700	TOP COVER		BL
34	VQ775900	GROUND PLATE		
35	V0049900	LEG	D60xH16	GD DVD-C996
35	VQ780300	LEG	D60xH16	BL DVD-C996
35	VQ982800	LEG	D60xH16	BL DV-C6280
* 36	V5678300	LID		BL DVD-C996
* 36	V5678400	LID		GD DVD-C996
* 36	V5953300	LID		BL DV-C6280
38	VR264400	SPACER	H8	
* 39	V5575000	SUPPORT, P.C.B.	Y 2V70 WD-50	
50	VU984400	RING	D14	
51	VU590000	BINDING TIE	CBTD001B	
* 52	VR101100	PUSH RIVET	P3065-B	(R)
* 53	V6270600	PLATE/SELECTOR		BL (R)
55	VQ366100	DAMPER, PCB		
56	V2879500	SPACER PCB-M		
* 57	V6270700	SPACER	DVD-T15	
58	VT593700	CUSHION	2x8x25	
61	21991500	PW HEAD S-TITE SCREW	4x8-10 FCRM3-BL	BL
61	VD069600	PW HEAD S-TITE SCREW	4x8-10 MFNI-33	GD
62	VN413300	BIND HEAD BONDING B-T. SCREW	3x8 MFZN2-BL	
63	EP600820	BIND HEAD B-TITE SCREW	3x6 MFZN2-BL	
64	EP600250	BIND HEAD B-TITE SCREW	3x8 ZMC2-Y	
65	V2728500	BIND HEAD S-TITE SCREW	4x7 MFZN2-BL	
66	VN559500	PW HEAD P-TITE SCREW	3x12-10 ZMC2-Y	
68	VT669400	PW HEAD B-TITE SCREW	3x15-8 MFC2	
69	VT669300	PW HEAD B-TITE SCREW	3x8-8 MFC2	
74	VZ092400	DAMPER	6x5x10	(BG)
75	VV499900	SPACER, FL	T7.5x10x15	
* 76	V6648800	SUPPORT, PCB		
77	V2269100	DAMPER	T1/6/45	
		ACCESSORIES		
* 200	V6090000	REMOTE CONTROL TRANSMITTER	DVD2	
200-1	AAX13340	LID	BLJYE 60050001	
* 201	V6400700	PIN-PLUG CORD BATTERY, MANGANESE	3P 1.5m RE/WH/YE SUM-3,AA,R06	

\* New Parts

DVD-C996/DV-C6280

1 ■ EXPLODED VIEW (CM-220 UNIT)



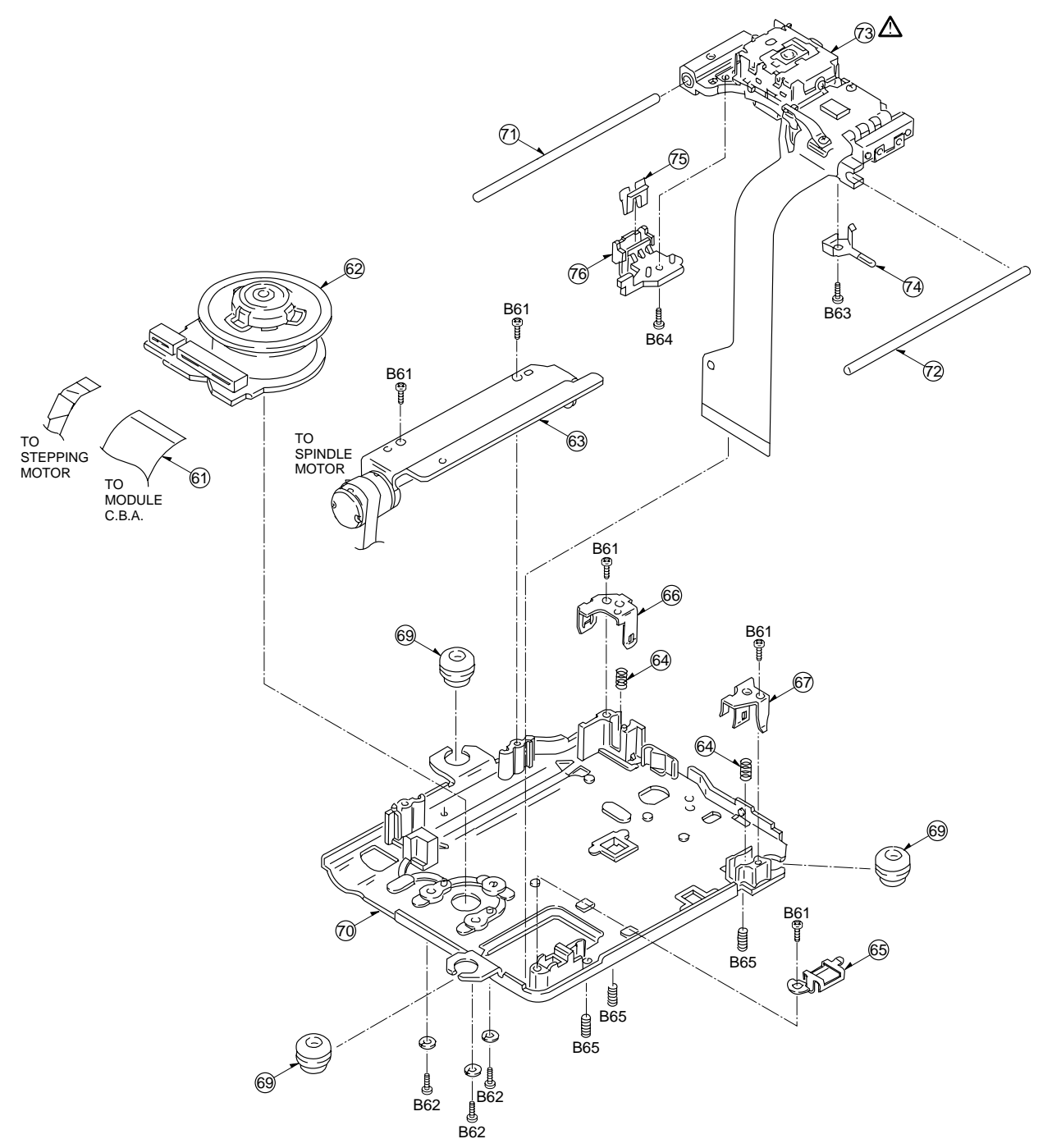
■ MECHANICAL PARTS (CM-220 UNIT)

Ref. No.	PART NO.	Description	Remarks	Markets
1	V3172600	P.C.B. ASS'Y	CM	
* 2	MF117080	FLEXIBLE FLAT CABLE	17P 80mm P=1.25	
6	V3175700	CONNECTOR ASS'Y	3P 220mm	
7	V3175900	CONNECTOR ASS'Y	3P 220mm	
△ 8	VM444200	MOTOR	RF-500TB-14415	
10	VZ760500	CHASSIS	B	
11	VZ760600	CAM, CL		
12	VS035400	GEAR, CL2		
13	VS036100	GEAR PULLEY		
14	VS036200	PULLEY		
15	VQ776900	BELT	V	
16	VQ775500	DAMPER, TRAY		
17	VS035800	GEAR, WW		
18	VS035700	GEAR		
19	V2009500	PULLEY, RT		
20	VS036600	SHAFT, 2		
21	VS036500	BELT, RT		
22	VZ760700	GEAR, L01		
23	VS035300	GEAR, L01		
24	VZ760800	SHEET, BELT		
25	VZ761000	HOLDER, SENSOR		
26	VZ761200	CAM, SLIDE		
27	VS036800	SPRING, CAM		
28	VS037400	SUPPORT, TRAY		
30	VA775100	PW HEAD P-TITE SCREW	3x8-10 FCRM3-BL	
31	VF617600	PAN HEAD P-TITE SCREW	2.6x8 FCRM3-BL	
32	03786010	BIND HEAD SCREW	2.6x5 ZMC2-BL	

\* New Parts



**EXPLODED VIEW (TRAVERSE UNIT)**



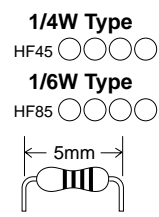
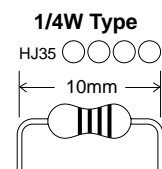
**MECHANICAL PARTS (TRAVERSE UNIT)**

Ref. No.	PART NO.	Description	Remarks	Markets
*	V6158100	DVD TRAVERSE MECH	VXK1580	
* 61	AAX15330	SPINDLE FFC		VWJ1388
* 62	AAX15170	SPINDLE MOTOR		BML3E4CRU
* 63	AAX15210	STEPPING MOTOR UNIT		VEM0720
64	AAX03740	SPRING		VMB3278
65	AAX04770	SPRING		VMC1487
* 66	AAX15260	SPRING HOLDER 1		VMC1606
* 67	AAX15270	SPRING HOLDER 2		VMC1607
69	AAX04500	FLOATING RUBBER		VMG1166
* 70	AAX15280	TRAVERSE CHASSIS		VMK0502
71	AAX03750	GUIDE SHAFT	1	VMS6471
72	AAX03760	GUIDE SHAFT	2	VMS6472
* 73	AAX15200	OPTICAL PICK-UP		VED04021
74	AAX04780	SPRING		VMC1491
75	AAX04330	NUT SPRING		VMC1490
76	AAX04320	NUT		VMD3260
B61	AAX04350	SCREW		VHD1224
* B62	AAX15240	SCREW		VHD1358
B63	EXG03950	SCREW		VHD1057
B64	EXG03980	SCREW		XQNQC17+3
B65	AAX04410	SCREW		XXE26C6FN

\* New Parts

## Parts List for Carbon Resistors

Value	1/4W Type Part No.	1/6W Type Part No.	Value	1/4W Type Part No.	1/6W Type Part No.
1.0 Ω	HJ35 3100	HF85 3100	10 kΩ	HF45 7100	HF45 7100
1.8 Ω	HJ35 3180	*	11 kΩ	HF45 7110	HF45 7110
2.2 Ω	HJ35 3220	HF85 3220	12 kΩ	HJ35 7120	HF85 7120
3.3 Ω	HJ35 3330	HF85 3330	13 kΩ	HF45 7130	HF45 7130
4.7 Ω	HJ35 3470	HF85 3470	15 kΩ	HF45 7150	HF45 7150
5.6 Ω	HJ35 3560	HF85 3560	18 kΩ	HF45 7180	HF45 7180
10 Ω	HF45 4100	HF45 4100	22 kΩ	HF45 7220	HF45 7220
15 Ω	HJ35 4150	HF85 4150	24 kΩ	HF45 7240	HF45 7240
22 Ω	HF45 4220	HF45 4220	27 kΩ	HJ35 7270	HF85 7270
27 Ω	HJ35 4270	HF85 4270	30 kΩ	HF45 7300	HF45 7300
33 Ω	HF45 4330	HF45 4330	33 kΩ	HF45 7330	HF45 7330
39 Ω	HJ35 4470	HF85 4390	36 kΩ	HF45 7360	HF45 7360
47 Ω	HF45 4470	HF45 4470	39 kΩ	HF45 7390	HF45 7390
56 Ω	HF45 4560	HF45 4560	47 kΩ	HF45 7470	HF45 7470
68 Ω	HF45 4680	HF45 4680	51 kΩ	HF45 7510	HF45 7510
75 Ω	HF45 4750	HF45 4750	56 kΩ	HF45 7560	HF45 7560
82 Ω	HF45 4820	HF45 4820	62 kΩ	HF45 7620	HF45 7620
91 Ω	HF45 4910	HF45 4910	68 kΩ	HF45 7680	HF45 7680
100 Ω	HF45 5100	HF45 5100	82 kΩ	HF45 7820	HF45 7820
110 Ω	HJ35 5110	HF85 5110	91 kΩ	HF45 7910	HF45 7910
120 Ω	HF45 5120	HF45 5120	100 kΩ	HF45 8100	HF45 8100
150 Ω	HF45 5150	HF45 5150	110 kΩ	HF45 8110	HF45 8110
160 Ω	HJ35 5160	*	120 kΩ	HF45 8120	HF45 8120
180 Ω	HF45 5180	HF45 5180	150 kΩ	HF45 8150	HF45 8150
200 Ω	HF45 5200	HF45 5200	180 kΩ	HF45 8180	HF45 8180
220 Ω	HF45 5220	HF45 5220	220 kΩ	HJ35 8220	HF85 8220
270 Ω	HF45 5270	HF45 5270	270 kΩ	HF45 8270	HF45 8270
330 Ω	HF45 5330	HF45 5330	300 kΩ	HF45 8300	HF45 8300
390 Ω	HF45 5390	HF45 5390	330 kΩ	HF45 8330	HF45 8330
430 Ω	HF45 5430	HF45 5430	390 kΩ	HJ35 8390	HF85 8390
470 Ω	HF45 5470	HF45 5470	470 kΩ	HF45 8470	HF45 8470
510 Ω	HF45 5510	HF45 5510	560 kΩ	HJ35 8560	HF85 8560
560 Ω	HF45 5560	HF45 5560	680 kΩ	HJ35 8680	HF85 8680
680 Ω	HF45 5680	HF45 5680	820 kΩ	HJ35 8820	HF85 8820
820 Ω	HF45 5820	HF45 5820	1.0 MΩ	HF45 9100	HF45 9100
910 Ω	HF45 5910	HF45 5910	1.2 MΩ	HJ35 9120	*
1.0 kΩ	HF45 6100	HF45 6100	1.5 MΩ	HJ35 9150	HF85 9150
1.2 kΩ	HF45 6120	HF45 6120	1.8 MΩ	HJ35 9180	HF85 9180
1.5 kΩ	HF45 6150	HF45 6150	2.2 MΩ	HJ35 9220	HF85 9220
1.8 kΩ	HF45 6180	HF45 6180	3.3 MΩ	HJ35 9330	HF85 9330
2.0 kΩ	HJ35 6200	HF85 6200	3.9 MΩ	HJ35 9390	*
2.2 kΩ	HF45 6220	HF45 6220	4.7 MΩ	HJ35 9470	HF85 9470
2.4 kΩ	HJ35 6240	HF85 6240			
2.7 kΩ	HF45 6270	HF45 6270			
3.0 kΩ	HF45 6300	HF45 6300			
3.3 kΩ	HF45 6330	HF45 6330			
3.6 kΩ	HJ35 6360	HF85 6360			
3.9 kΩ	HF45 6390	HF45 6390			
4.7 kΩ	HF45 6470	HF45 6470			
5.1 kΩ	HF45 6510	HF45 6510			
5.6 kΩ	HF45 6560	HF45 6560			
6.8 kΩ	HF45 6680	HF45 6680			
8.2 kΩ	HF45 6820	HF45 6820			
9.1 kΩ	HF45 6910	HF45 6910			



# DVD-C996/DV-C6280

# YAMAHA