



DVD Player Service Manual

Model Group: DVD-2338

**Model:
DVD-2338W**

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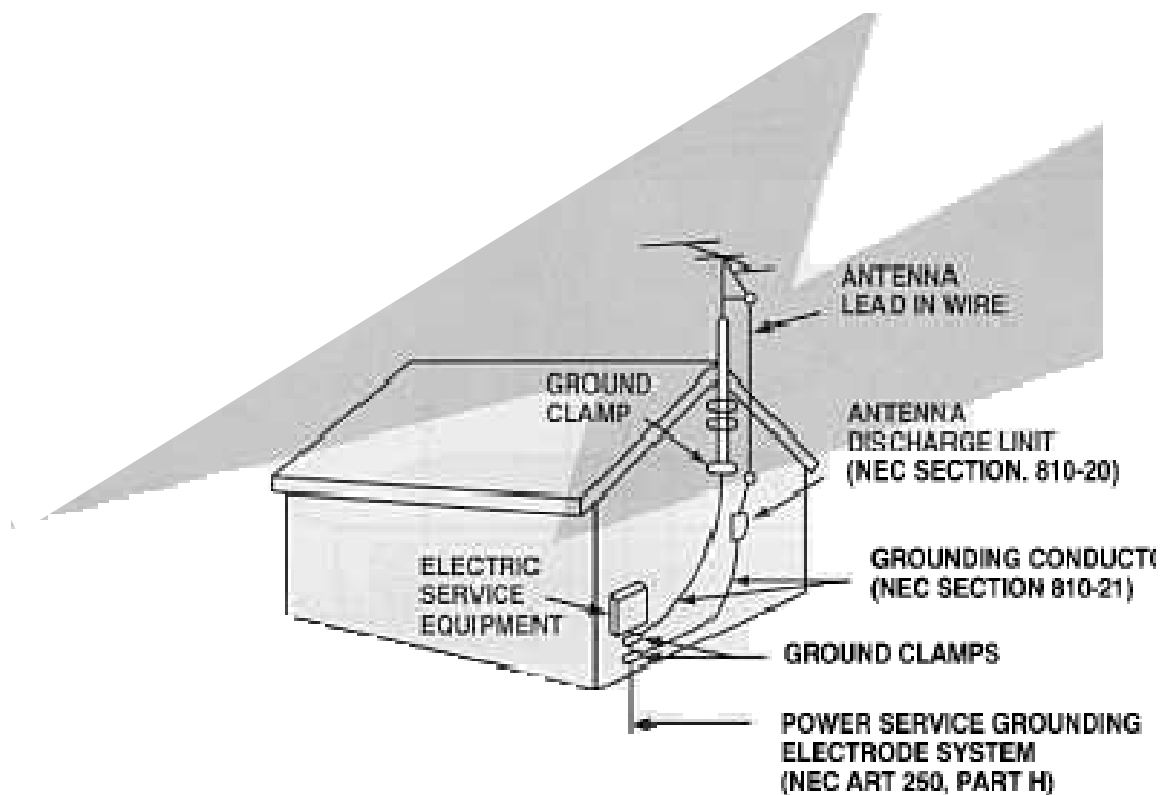
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SAFETY INSTRUCTIONS WARNING AND NOTES

ELECTRIC SHOCK WARNING

	CAUTION RISK OF ELECTRIC SHOCKS DO NOT OPEN	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL		
	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE UNINSULATED “DANGEROUS VOLTAGE” WITHIN THE PRODUCTS ENCLOSURE THAT MAY BE SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.	
	THE EXCLAMATION POINT SYMBOL WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.	
CAUTION TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.		
LASER SAFETY THIS UNIT EMPLOYS LASER. ONLY QUALIFIED SERVICE PERSONNEL SHOULD REMOVE THE COVER OR ATTEMPT TO SERVICE THIS DEVICE DUE TO POSSIBLE EYE INJURY. CAUTION: USE OF ANY CONTROLS, ADJUSTMENTS, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.		

EXAMPLE OF ANTENNA GROUNDING



EXAMPLE OF ANTENNA GROUNDING ACCORDING TO
NATIONAL ELECTRICAL CODE INSTRUCTIONS
CONTAINED IN ARTICLE 810-RADIO AND TELEVISION EQUIPMENT

NOTE TO CATV SYSTEM INSTALLER

This reminder is provided to call the CATV (Cable- TV) system installer's attention to Article 820-40 of the NEC, which provides guidelines for proper grounding and, in particular that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

ATTENTION

This equipment has been tested and found to comply with the limits for the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

NOTE: Change or modifications may cause this unit to fail to comply with part 15 of the FCC Rules and may void the user's authority to operate the equipment.

SAFETY INSTRUCTIONS

1. This production was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions, which you should be particularly aware of.
2. Read Instruction - All the safety and operating instructions should be read before the appliance is operated.
3. Retain Instruction -The safety and operating instructions should be retained for future reference.
4. Follow Instructions - All operating and use instructions should be followed.
5. Heed Warnings - All warning on the appliance and in the operating instructions should be adhered to.
6. **Water and Moisture** -The appliance should not be used near water, for example, near a bathtub, wash-bowl, kitchen sink laundry tub, in a wet basement or near a swimming pool.
7. **Do not turn on and off too frequently.** Please accord to follow steps. Turning on: AC cord Power button on front panel; Turning off: Power button on remote-Power button on front panel-AC code.

8. **An appliance and Cart combination should be moved with care.**



Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

9. **Wall or Ceiling Mounting-** the appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
10. **Ventilation** - the appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug or similar, surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation opening.
11. **Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances(including amplifiers) that produce heat.
12. **Power Sources** -The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
13. **Grounding or Polarization** - The precautions that should be taken so that grounding or polarization means of an appliance is not defeated.
14. **Cleaning** - The appliance should be cleaned only as recommended by the manufacturer.
15. **Power Lines** - An outdoor antenna should be located away from power lines.
16. **Power-Cord Protection** - Power-supply cords should be routed so-that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
17. **Outdoor Antenna Grounding-** If an outside antenna connected to the receiver, be sure the antenna system grounded so as to provide some protection against voltage surges and built up static charges.

Section 810 of the National Electrical Code, ANSI/NFPA Number 70-1984 provides information with respect to proper grounding of the lead-in wire to an antenna discharge unit, connection to grounding electrodes, and requirements for the ground unit electrode.

18. **Non-use Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
19. **Object and Liquid Entry** -Care should be taken objects do not fall and liquids are not spilled into the enclosure through openings.

20. **Damage Requiring Service** -The appliance should be serviced by qualified service personnel when:
- The power -supply cord or the plug has been damaged
 - Objects have fallen, or liquid has spilled into the appliance
 - The appliance has been exposed to rain
 - The appliance does not appear to operate normally
 - Exhibits a marked change in performance
 - The appliance has been dropped or the enclosure damaged.
21. **Servicing** - The user should not attempt to service the appliance beyond that described in the operation instructions. All other servicing should be referred to qualified service personnel.
22. **Replacement Parts** - When replacement parts are required, be sure the service technician or that have the same characteristics as the original part. Unauthorised substitutions may result in fire, electric shock or other hazards
23. **Lightning** - For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightening and power-line surges.

INTRODUCTION

PLAYABLE DISCS

TYPE	MARK	CONTENT	SIZE	PLAYING TIME
DVD		Audio + Video (Motion pictures)	12cm	About 4 hrs (single-side disc) About 8 hrs (double-side disc)
			8cm	About 80 mins (single-side disc) About 160 mins (double-side disc)
CD		Audio	12cm	About 75 mins
			8cm	About 20 mins
VCD		Video + Audio	12cm	About 75 mins
Mp3		Audio	12cm	About 500 mins

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.

PREPARATIONS BEFORE OPERATION

SAFETY

- Before operation, check if the voltage of the unit is in line with the local voltage. Hold the plug to disconnect it from the main outlet. Do not pull the power cord.
- When the plug of the unit is connected to the main outlet, the unit will still be connected to AC even if the power is turned off.
- Disconnect the plug as soon as liquid or objects enter the unit. The unit cannot be used without being fully checked by experts.
- Do not open the cabinet. Laser rays employed by the unit may damage eyes. Any servicing should be done by qualified service personnel.

PRECAUTIONS FOR DISCS

PLACEMENT

- Put the unit where ventilation is good enough to prevent overheating. Never put the unit in direct sunlight or near heat sources.
- Put the unit horizontally, never put any heavy object on the unit.
- To protect the laser, do not put the unit where there is dust. If there is dust on the laser, use a cleaning disc to clean it. Refer to the operation instructions of the cleaning disc you bought.

CONDENSATION

Water will appear on the pickup lens in the following cases:

- The unit is suddenly from a cold place to a warm place.
- Use the unit in a humid place.

In these cases, if the unit cannot work. Unload the disc and let the unit run empty for about one hour to evaporate the condensation.

CLEANING

- Use soft cloth with a little neutral detergent to wipe the cabinet, panel and controls. Never use abrasive paper, polish powder or solvent like alcohol and gasoline.

HANDLING DISC

- To keep the disc clean, do not touch the play sides the disc, Do not attach paper or tape to the disc.
- Do not attach paper or tape to the disc.



- Keep the disc away from direct sunlight or heat sources.
- Store the disc in a disc case after playback.

CLEANING DISC

- Wipe the disc outwards from the center with clean cloth.



- Do not use any type of solvent such as thinner, benzene, commercially available cleaners or antistatic spray.

USE OF REMOTE CONTROL

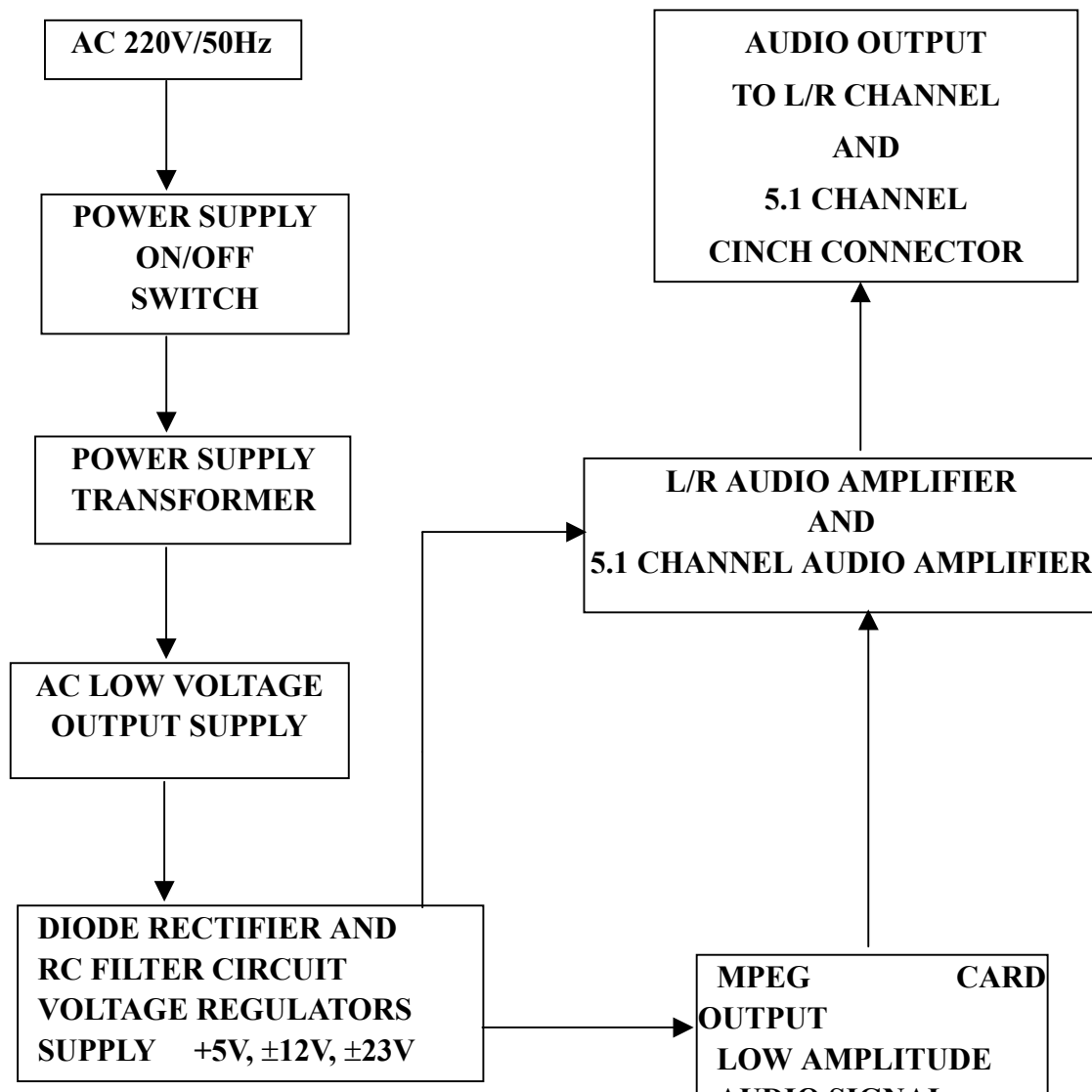
1. Open the battery
2. Insert two AAA batteries (not supplied), make sure to match" + " and" -" of the batteries to marks inside the battery compartment.
3. Point the remote control at the remote sensor, operate in the range of 5 metres and 60° from the front of the remote sensor. Make sure there is no barrier between them.

Note: -

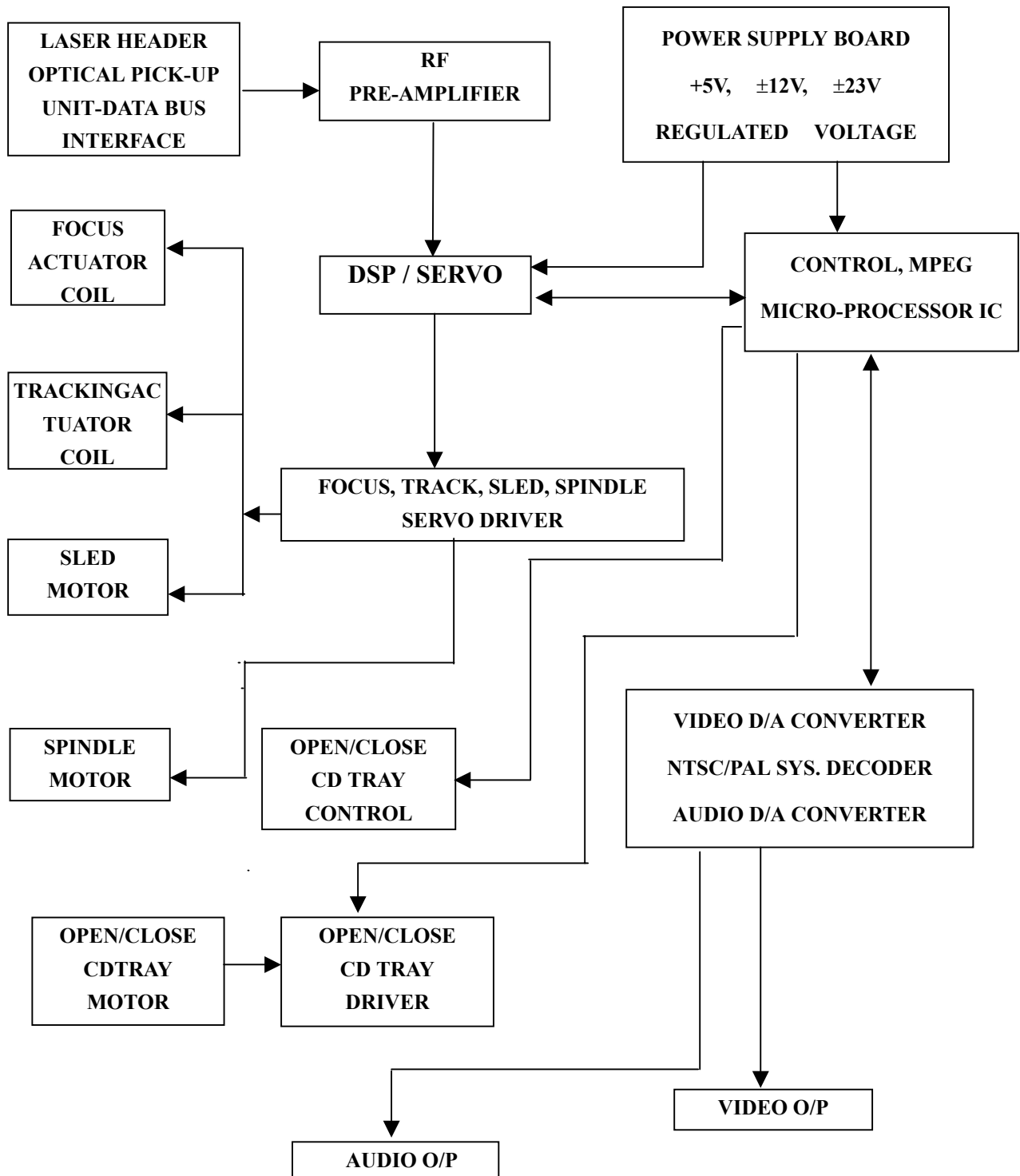
- Batteries can last about 6 months Change the batteries if the remote control does not work.
- If he remote control is not used for a long time, remove the batteries to prevent battery leakage.

DVD FUNCTIONAL BLOCK DIAGRAMS

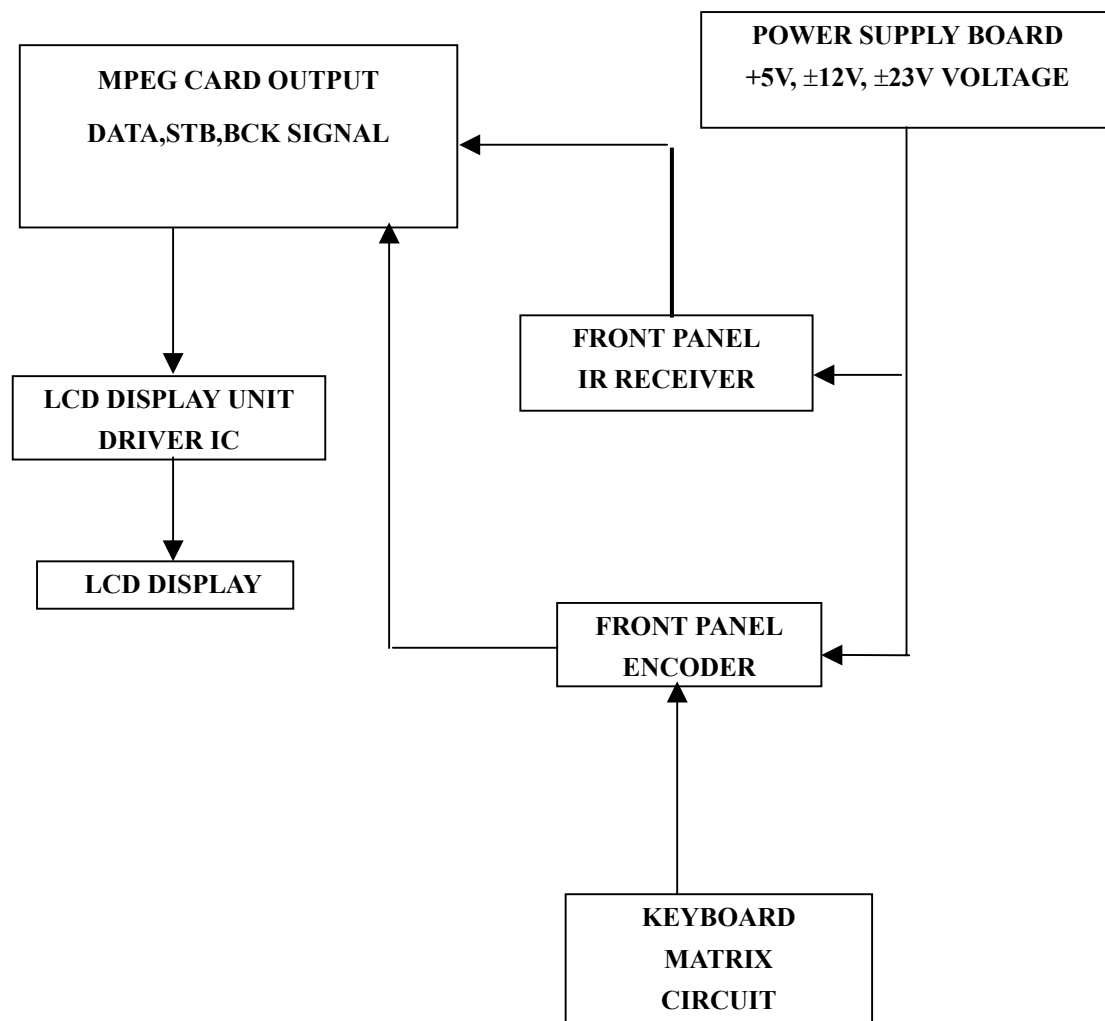
POWER SUPPLY BLOCK DIAGRAM



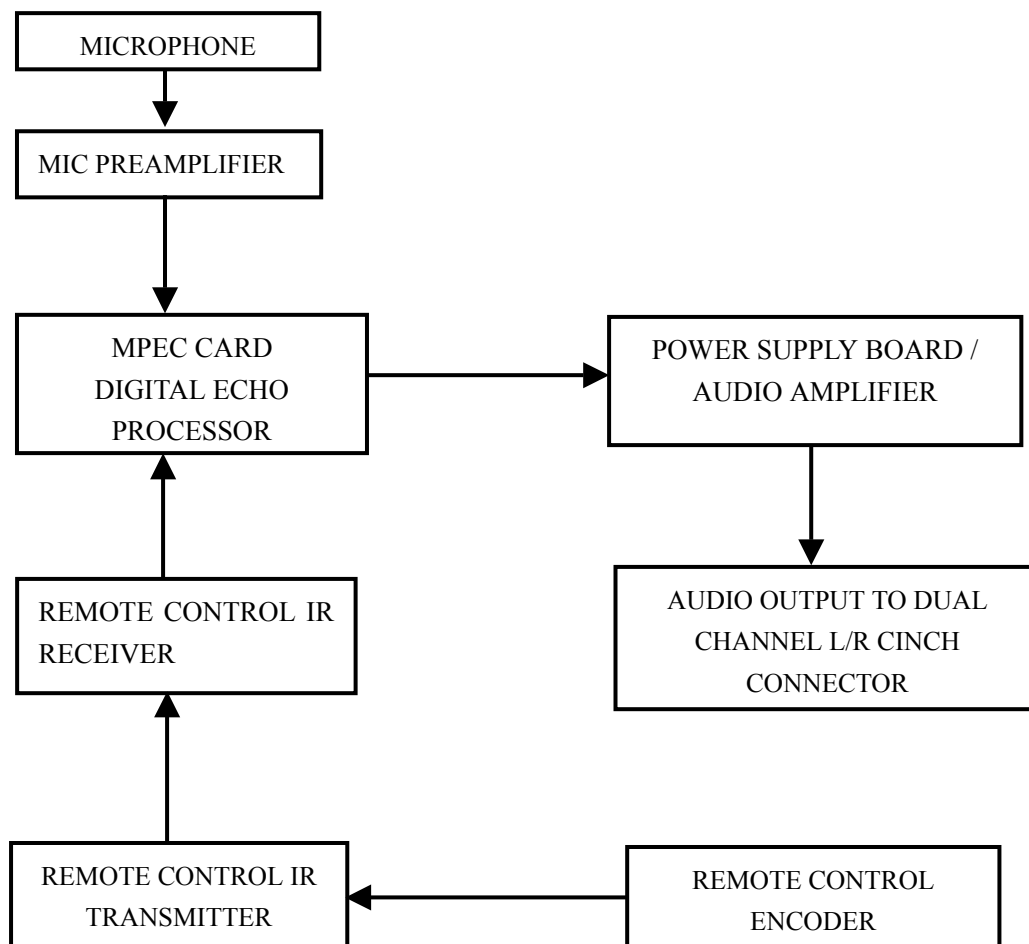
MPEG CARD BLOCK DIAGRAM



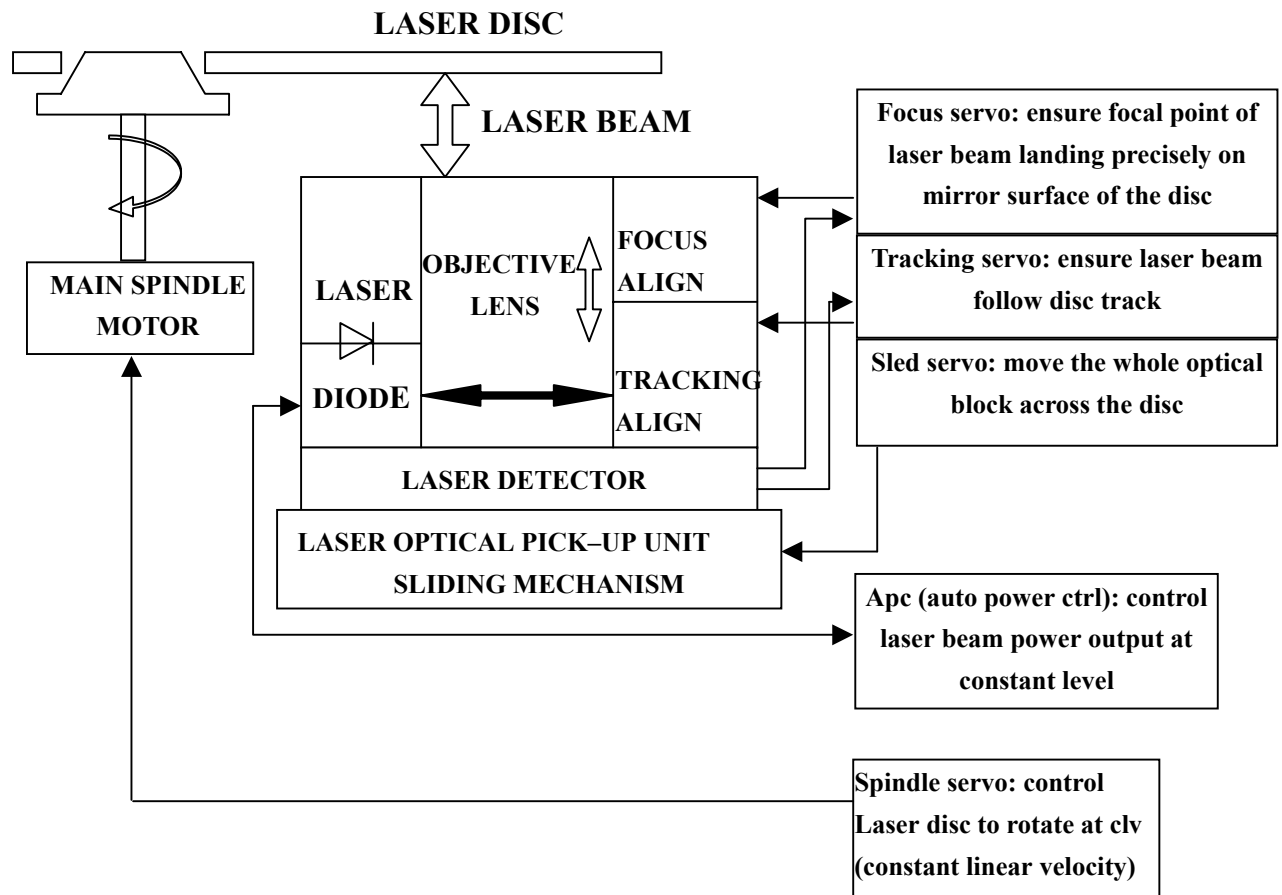
FRONT PANEL BLOCK DIAGRAM



KARAOKE BLOCK DIAGRAM



SERVO MOTOR FUNCIONAL BLOCK DIAGRAM



TROUBLESHOOTING

PRELIMINARY CHECK

If you experience the following problems while using the player, this trouble shooting guide can help you.

No sound

- Check if the unit is connected securely.
- Make sure you operate the TV or amplifier correctly.
- Make sure you have selected DVD player position on the amplifier
- Check the Audio Setting, Coaxial for Digital, Analog for standard.

No Image

- Check if the unit is connected securely.
- Make sure you operate the TV correctly

Bad Sound Quality

- Make sure the audio output mode is set correctly.
- Make sure the audio connection between the player and amplifier is right.
-

Image Rolls and No Color

- The color system set by this unit does not match with that label side up.
- TV TYPE proper setup needed to selected according disc system for SETUP at GENERAL PAGE.

Disc can not be played

- There is no disc in the unit.
- Put the disc; on the disc tray properly with the label side up.
- Moisture has condensed in the unit.
- Remove the disc and leave the unit on for about one hour (at power on condition)
- DVD may be wrong region.

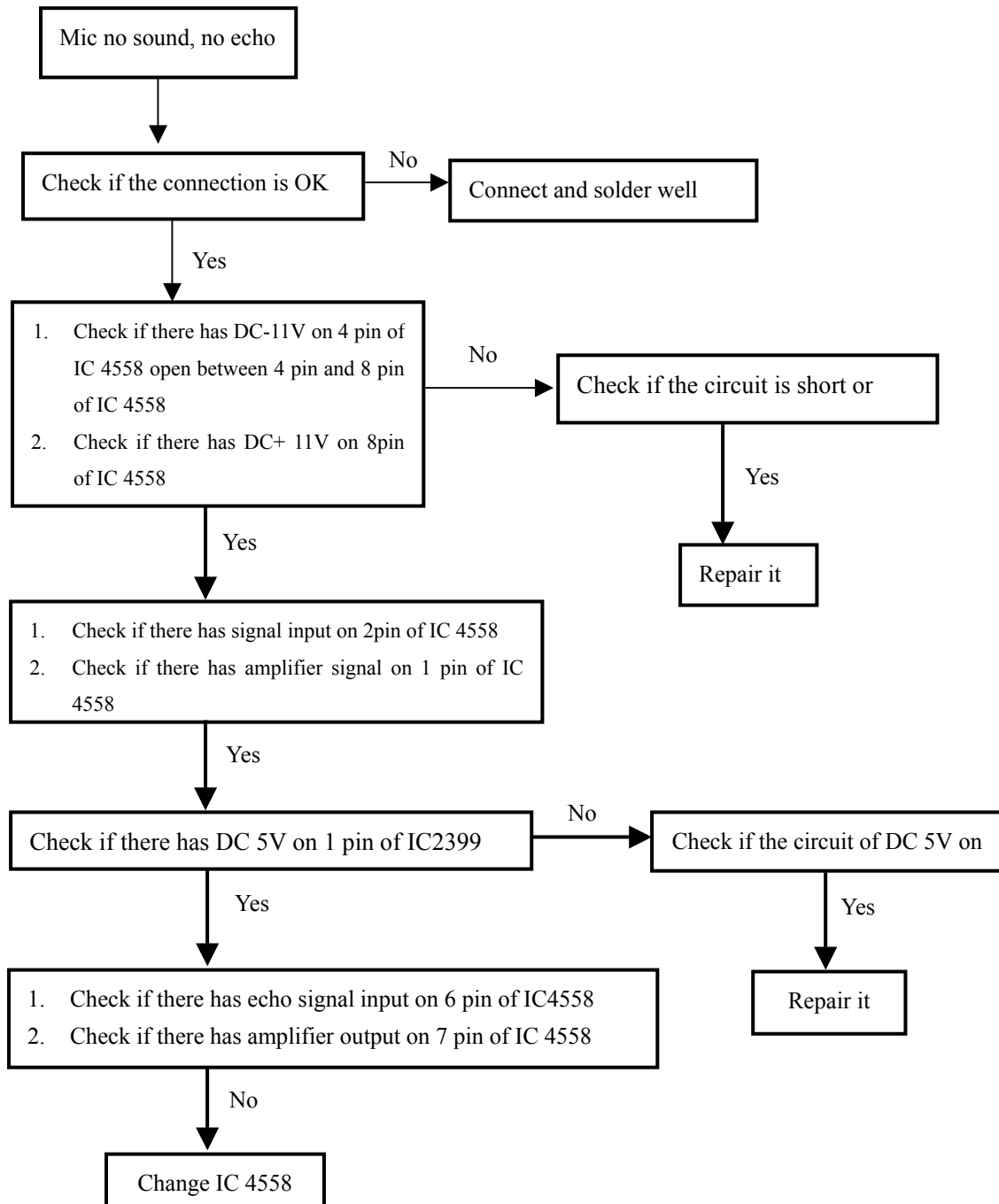
Remote Control does not work

- Obstruction due to objects in between the player & the remote
- Point the remote control at the remote control sens
- Replace the batteries with new ones.

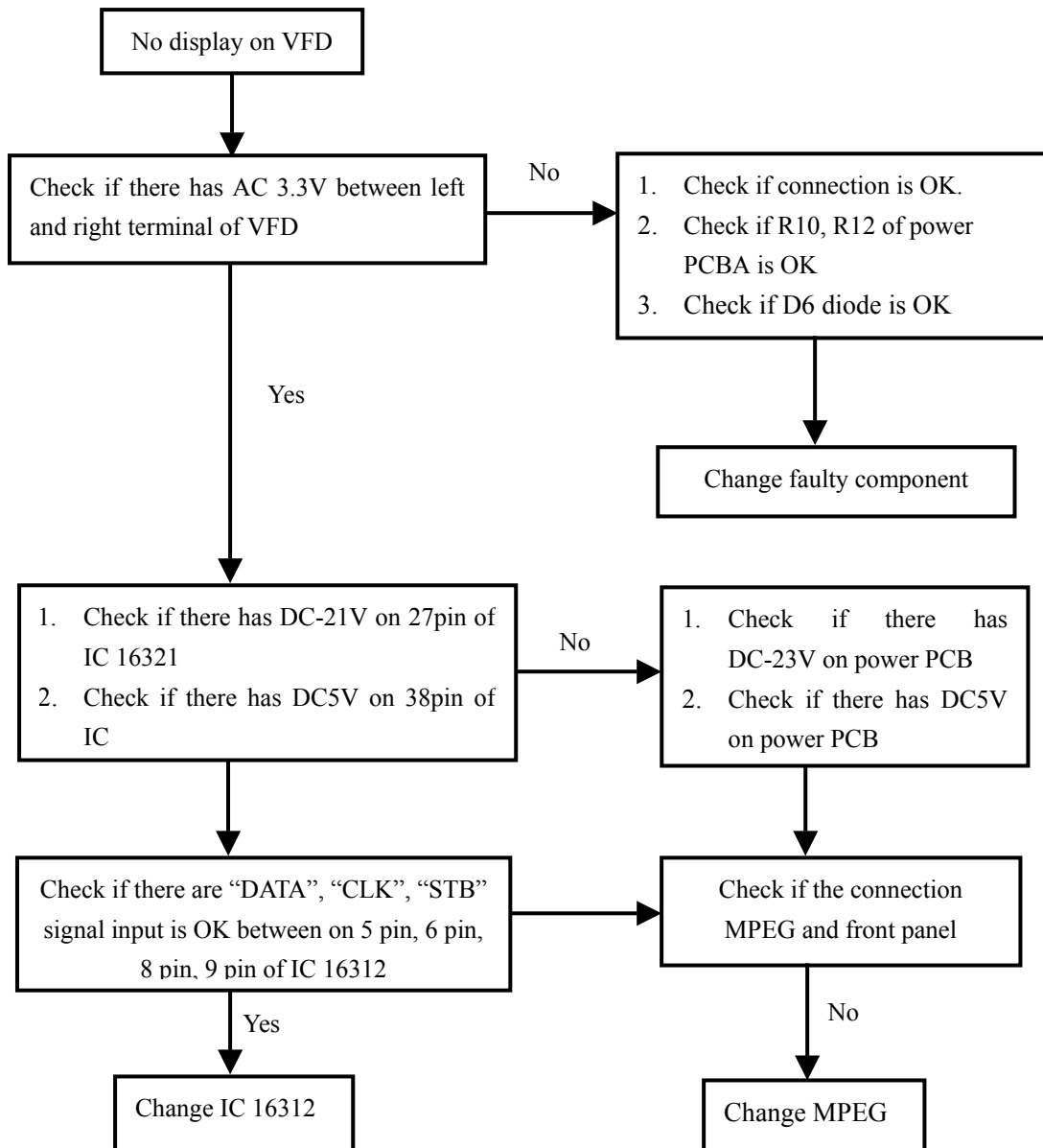
Player buttons & remote do not work

- In very rare occasions the player may not respond when you press buttons on the remote or on the player's front panel. To remedy this problem simply turn off the power or unplug the player, wait one minute and resume normal operation.

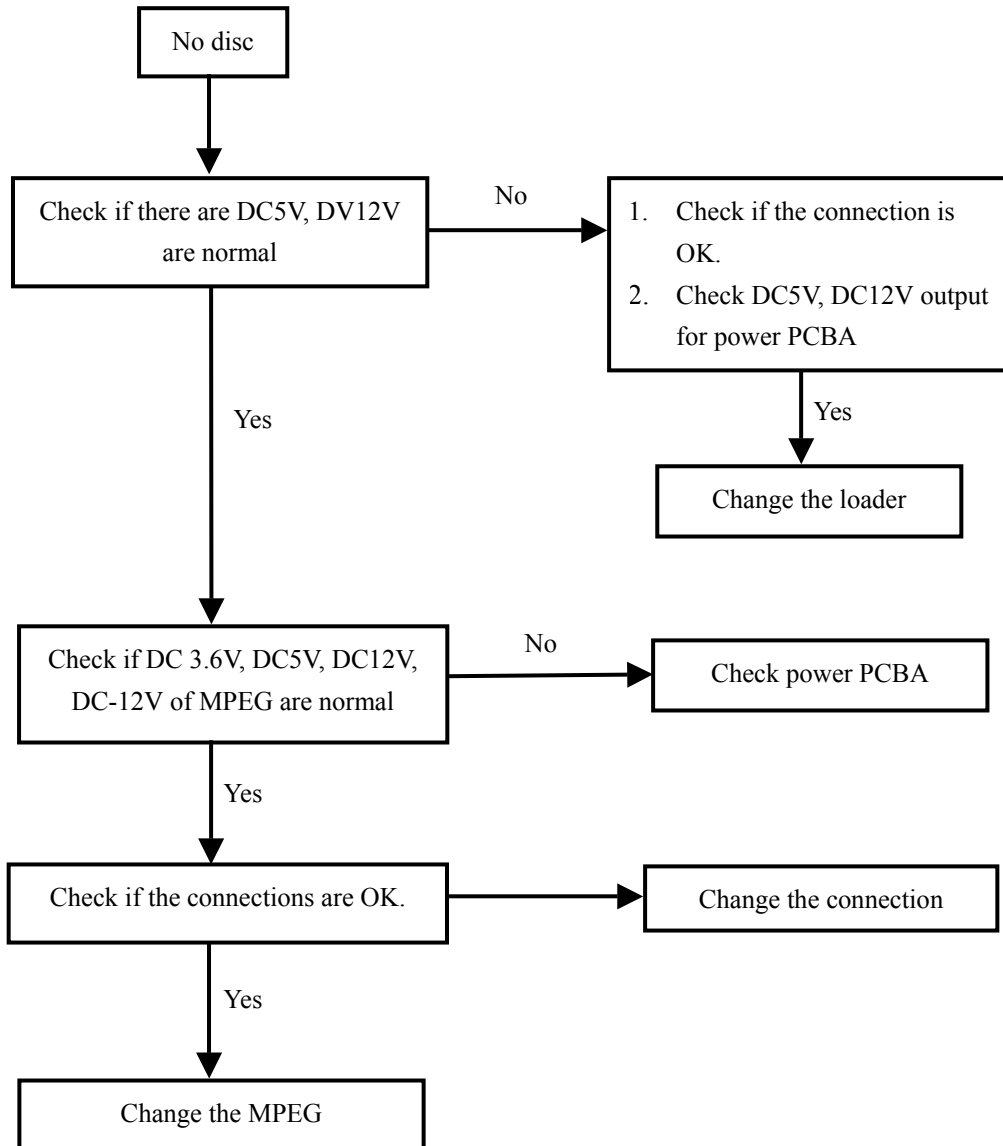
REPAIR PROCEDURE FOR MIC



REPAIR PROCEDURE FOR FRONT PANEL CONTROL

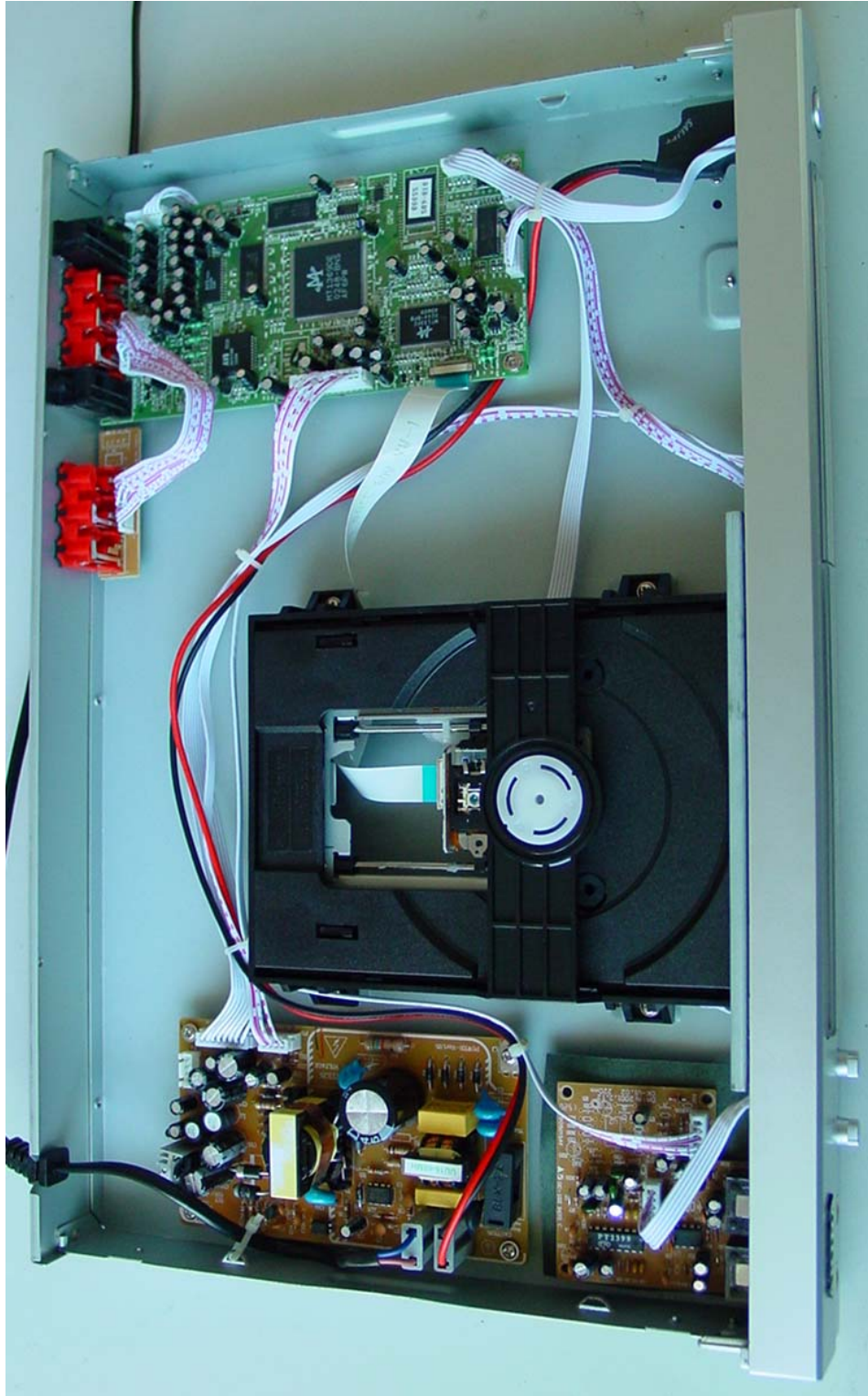


REPAIR PROCEDURE FOR NO DISC

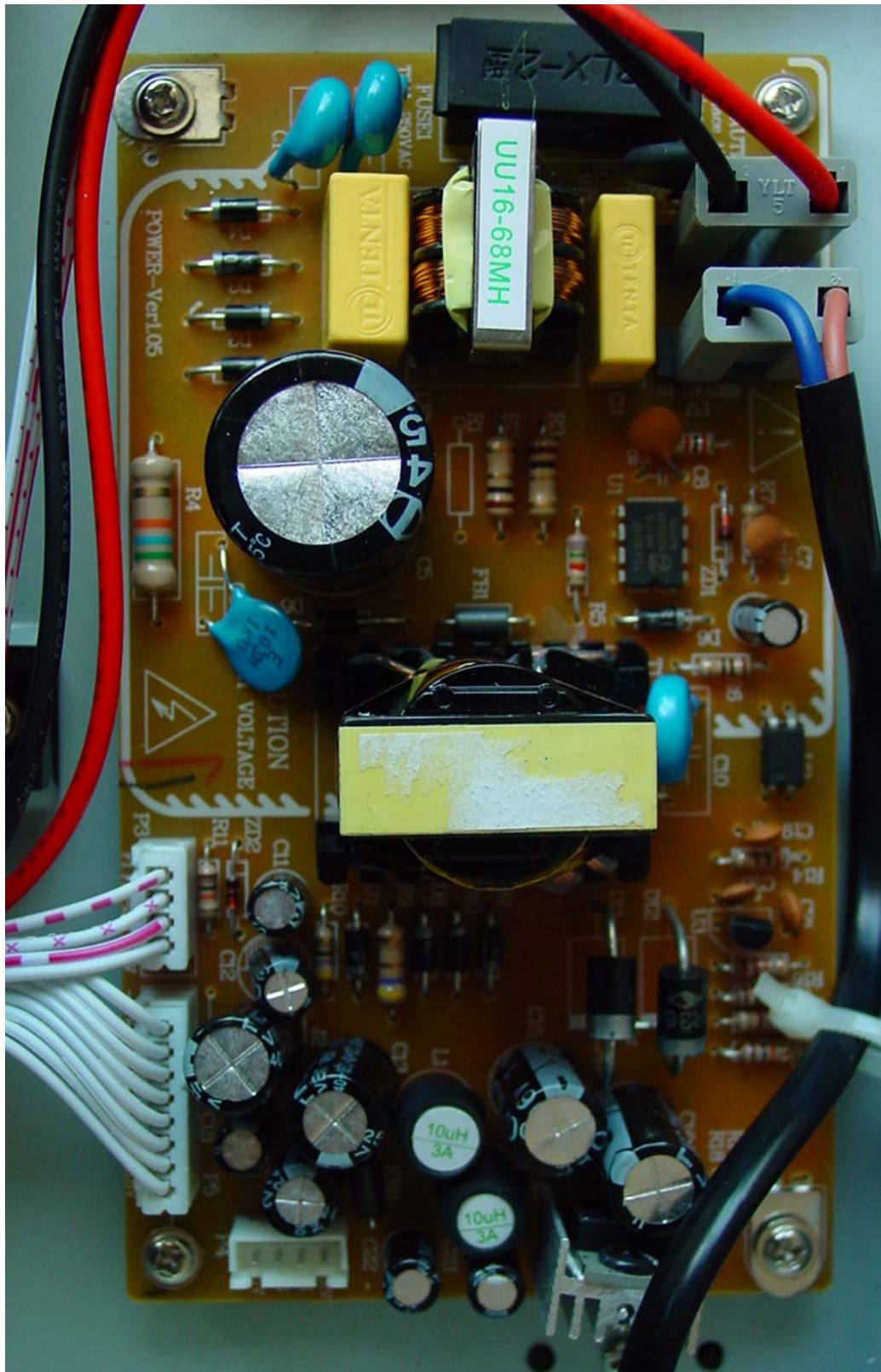


BUILT-UP ASSEMBLY BOARDS

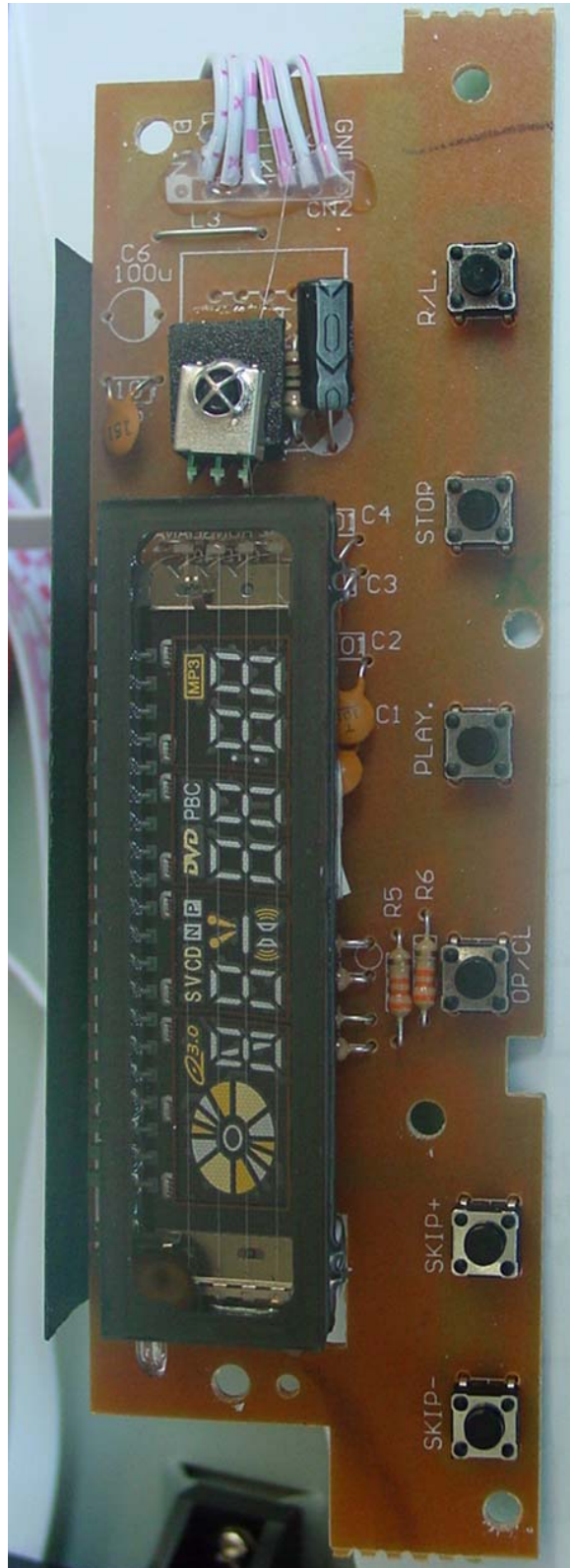
DVD-2338W OVERALL VIEW



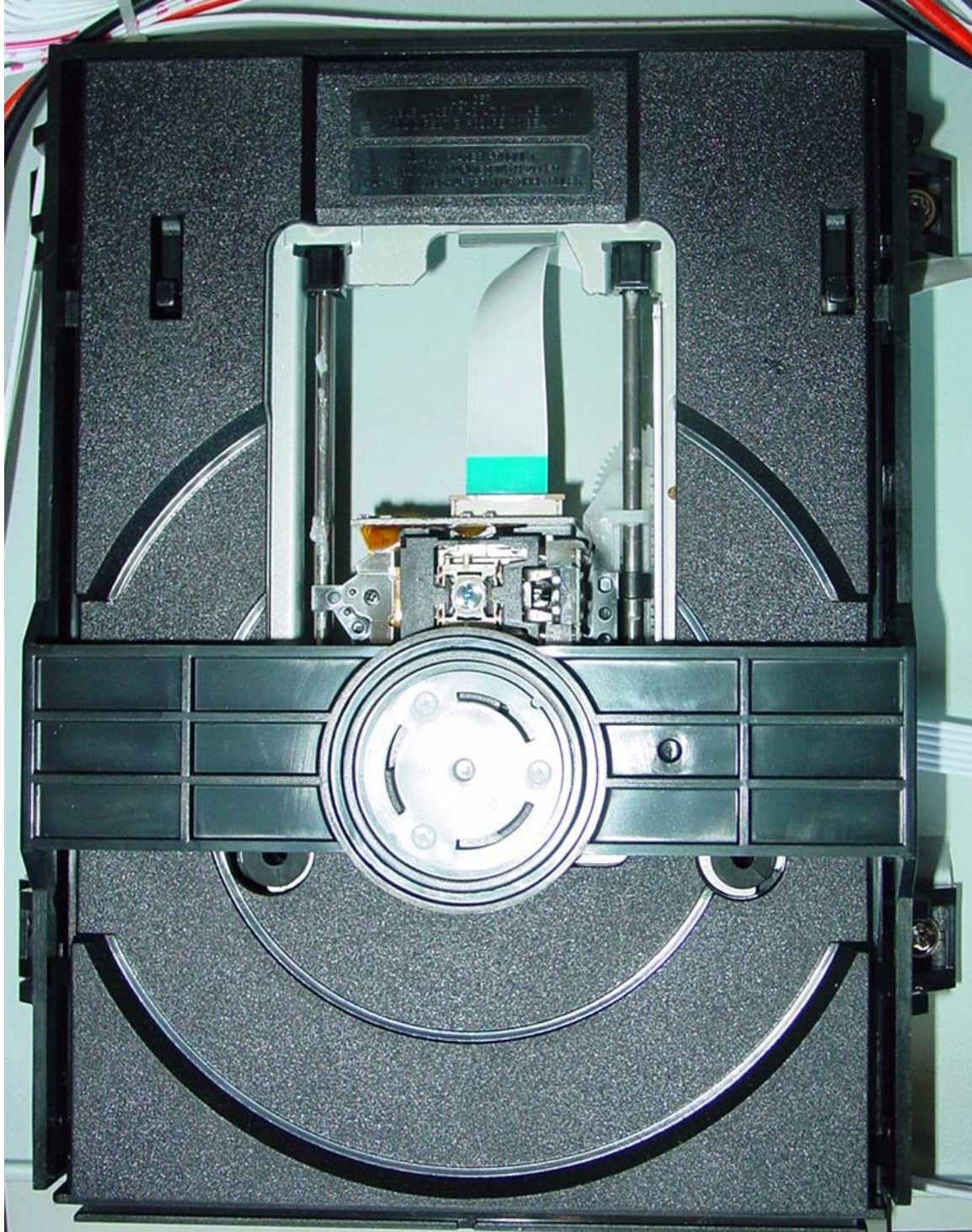
POWER SUPPLY BOARD



FRONT CONTROL AND DISPLAY BOARD



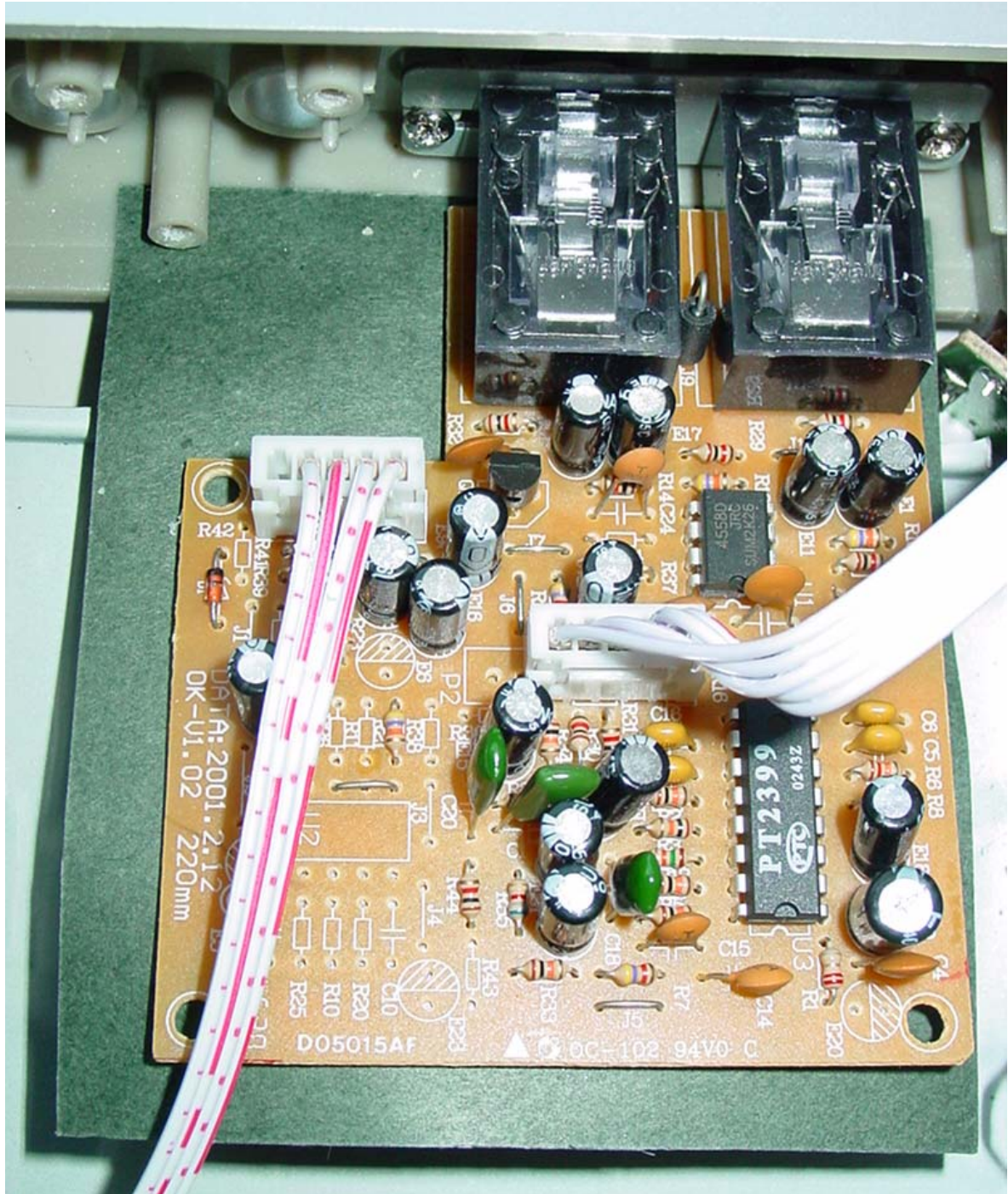
LASER PICK-UP LOADER ASSEMBLY



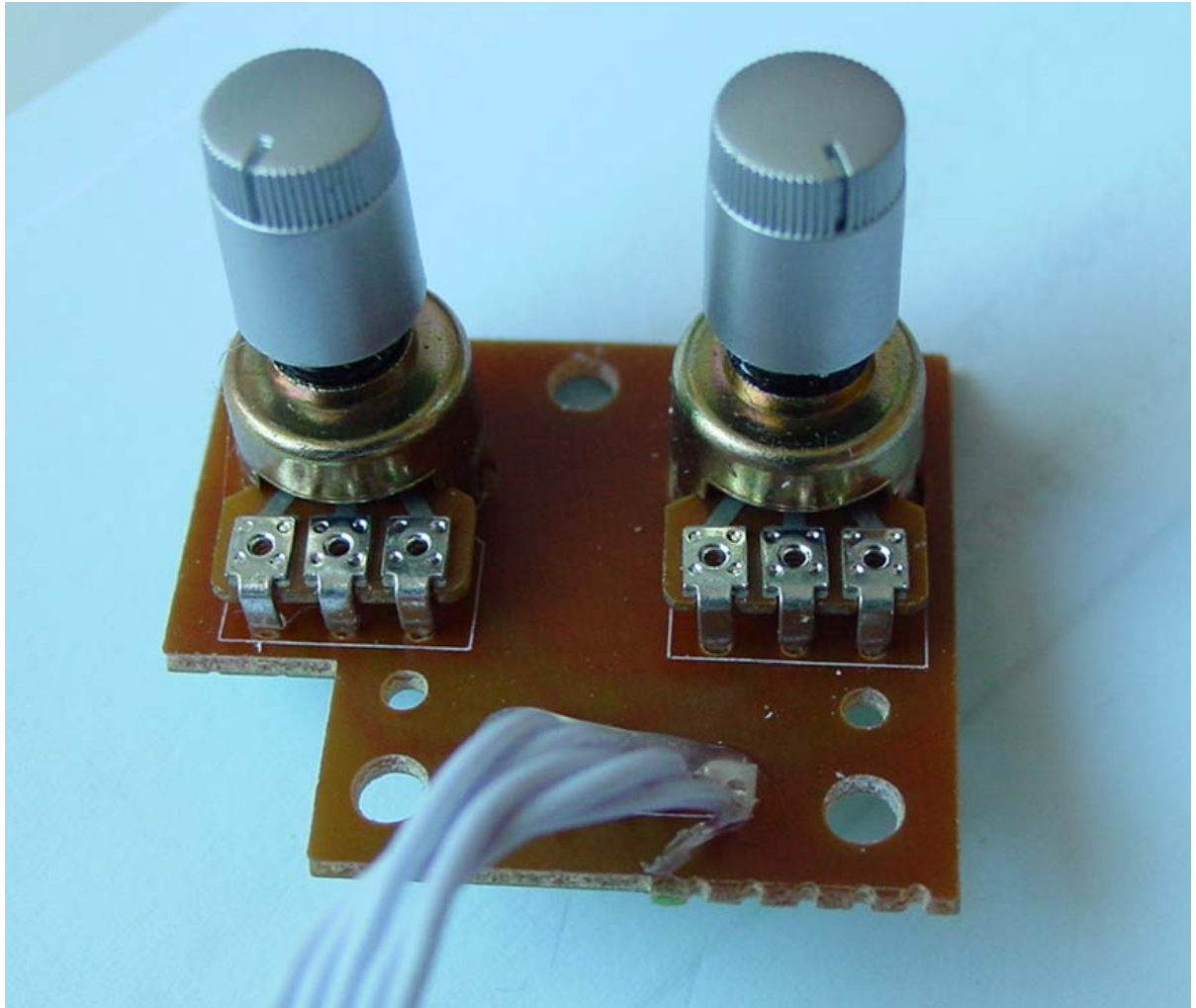
DVD-2338W MPEG AND 5.1 CHANNEL AV BOARD



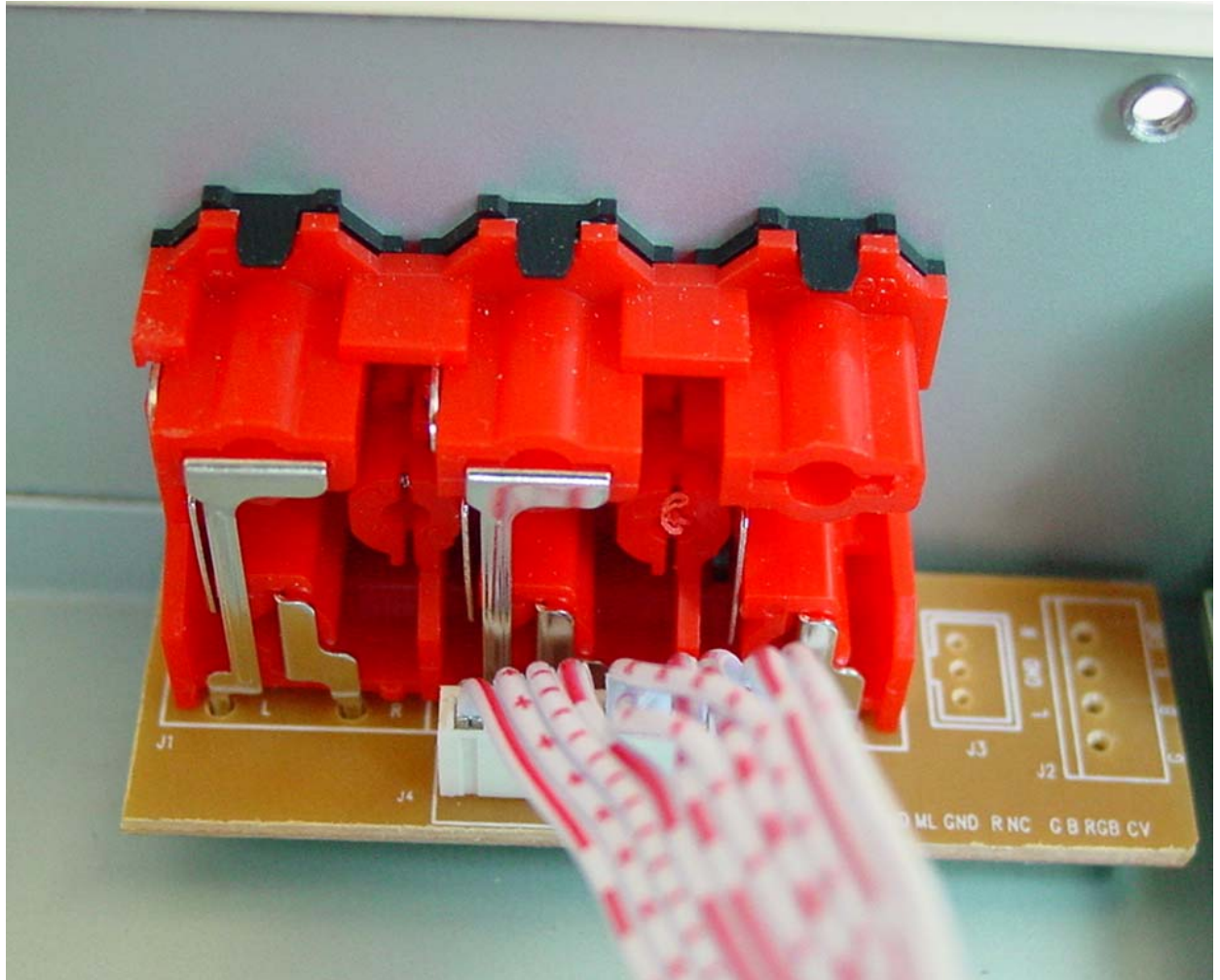
MIC INPUT BOARD



MIC VOL BOARD

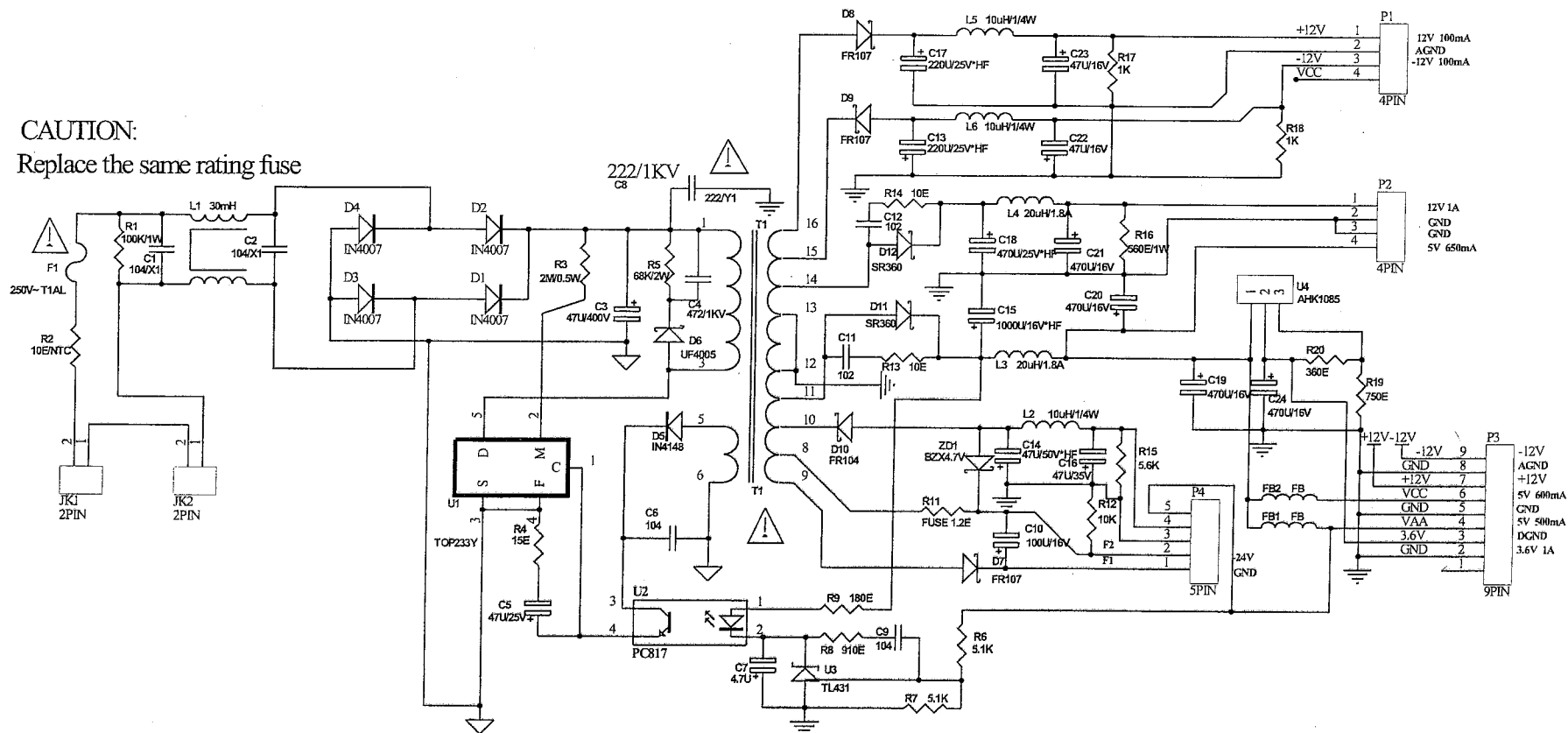


Y C_r C_b AND AUDIO BOARD

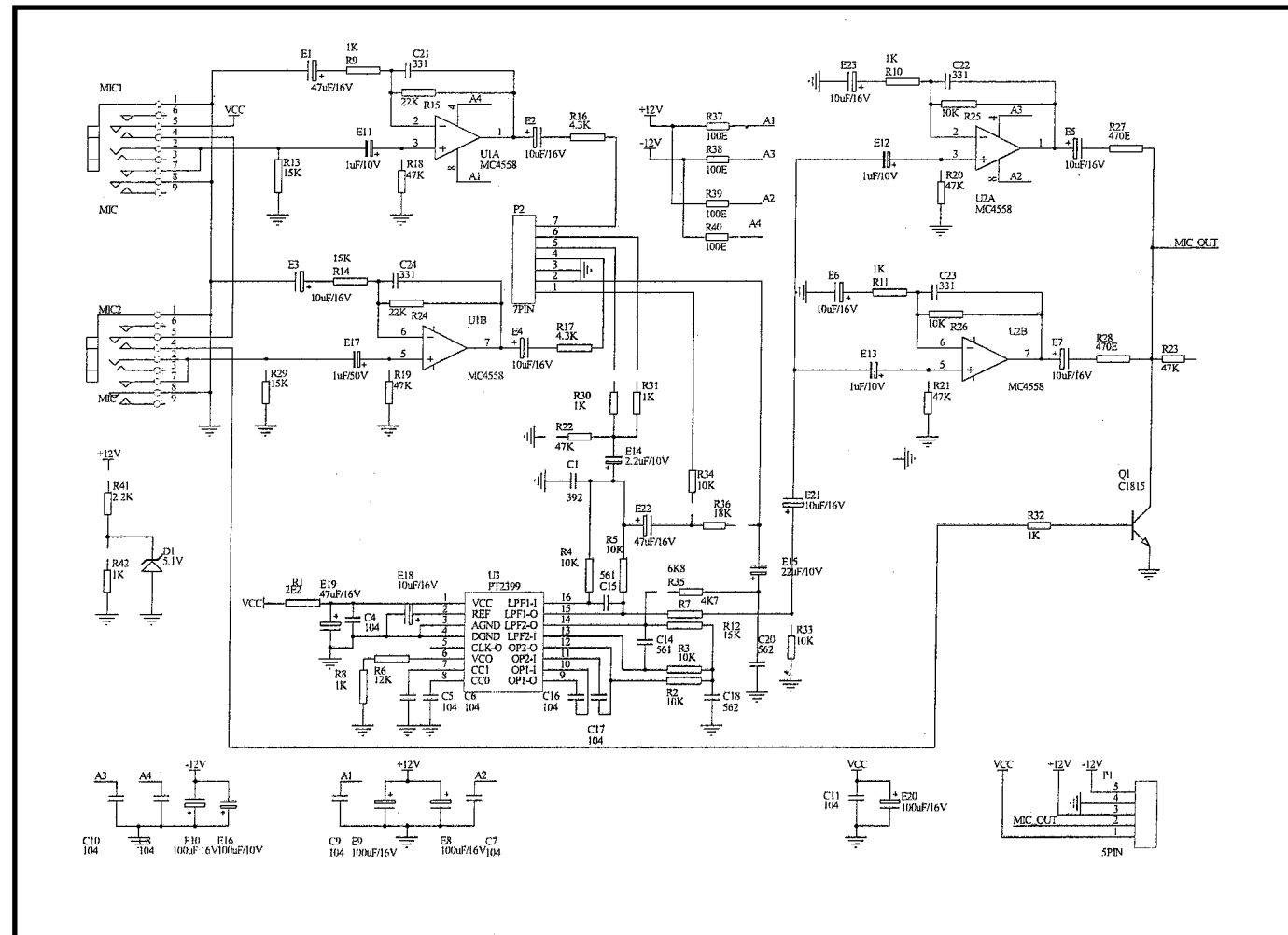


POWER SUPPLY SCHEMATIC DIAGRAM

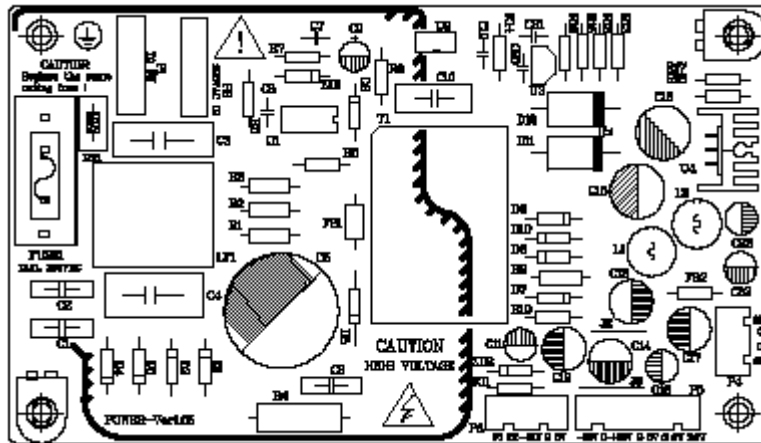
CAUTION:
Replace the same rating fuse



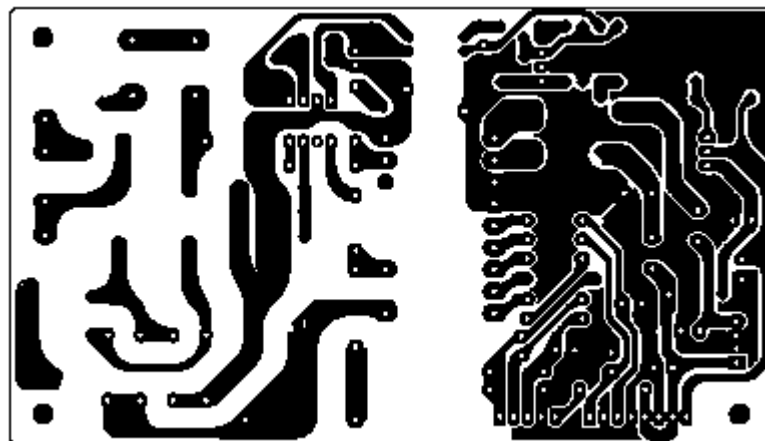
KARAOKE MIC SCHEMATIC DIAGRAM



POWER SUPPLY PCB LAYOUT



COMPONENT SIDE



COPPER SIDE

TECHNICAL SPECIFICATIONS

Laser Bandwidth		WAVELENGTH 650nm
Video System		PAL / MULTI / NTSC
Frequency Respond		20Hz ~ 20KHz
Signal / Noise Ratio		≥ 98dB
Audio Distortion + Noise		≤ -80dB (1 KHz)
Channel Separation		≥ 98dB (1 KHz)
Dynamic Range		≥ 85dB (1 KHz)
Output	Audio Out (analog audio)	Output level: 2V Load impedance: 10KΩ
	Audio Out (digital audio)	Output level: 0.5V p-p Load impedance: 75Ω
	Video Out	Output level: 1.0V p-p Load impedance: 75Ω, Unbalance, negative polarity
	S-Video Out	Output level: (Y) = 1.0V p-p (C) = 0.3V p-p Load impedance: 75Ω
Power Supply		AC 90V ~ 240V 50Hz/60Hz
Power Consumption		< 25W
Dimension		465 x 87 x 300 mm
Weight		Approximately 4Kg