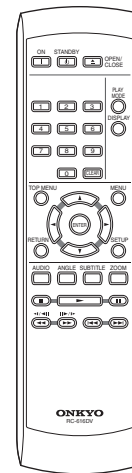
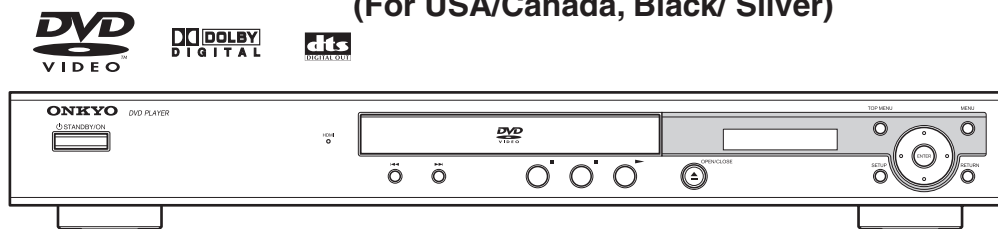


ONKYO SERVICE MANUAL

DVD PLAYER

MODEL DV-SP404

(For USA/Canada, Black/ Silver)




RC-616DV

Black and Silver models

BTUA, STUA	110-240V AC, 50/60Hz
BTDD, STDD	120V AC, 60Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

CAUTION

THIS DIGITAL VIDEO PLAYER EMPLOYS A LASER SYSTEM.

TO ENSURE PROPER USE OF THIS PRODUCT, PLEASE READ THIS SERVICE MANUAL CAREFULLY AND RETAIN FOR FUTURE REFERENCE. SHOULD THE UNIT REQUIRE MAINTENANCE, CONTACT AN AUTHORIZED SERVICE LOCATION-SEE SERVICE PROCEDURE.

USE OF CONTROLS, ADJUSTMENTS OR THE PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

TO PREVENT DIRECT EXPOSURE TO LASER BEAM, DO NOT TRY TO OPEN THE ENCLOSURE. VISIBLE LASER RADIATION MAY BE PRESENT WHEN THE ENCLOSURE IS OPENED. DO NOT STARE INTO BEAM.

PREPARATION OF SERVICING

The laser diode used for a pickup head may be destroyed with external static electricity.

Moreover, even if it is operating normally after repair, when static electricity discharge is received at the time of repair, the life of the product may be shortened.

Please perform the following measure against static electricity, be careful of destruction of a laser diode at the time of repair.

- Place the unit on a workstation equipped to protect against static electricity, such as conductive mat.
- Soldering iron with ground wire or ceramic type is used.
- A worker needs to use a ground conductive wrist strap for body.

IMPORTANT SERVICE SAFETY INFORMATION

Safety precautions to be followed during servicing:

- 1. Parts marked with an \triangle are critical parts for safety. Replace only with the one described in the parts list.
- 2. Before returning the DVD product to the customer, make the appropriate leakage current check or resistance measurements to ensure that exposed parts are properly insulated from the supply circuit.

A leakage current check is recommended for this unit. Plug the AC line cord directly into a 120V 60Hz AC outlet (do not use an isolation transformer for this check). Use a leakage current tester (Fig. 1) or a metering system which complies with Underwriters Laboratories (UL 1492). Measure for current from all exposed metal parts of the cabinet to a known earth ground: particularly, any exposed metal part having a return path to the chassis. Any current measured must not exceed 0.5mA. Any measurement not within the limits outlined above are indicative of a potential shock hazard and corrective action must be taken before returning the unit to the customer.

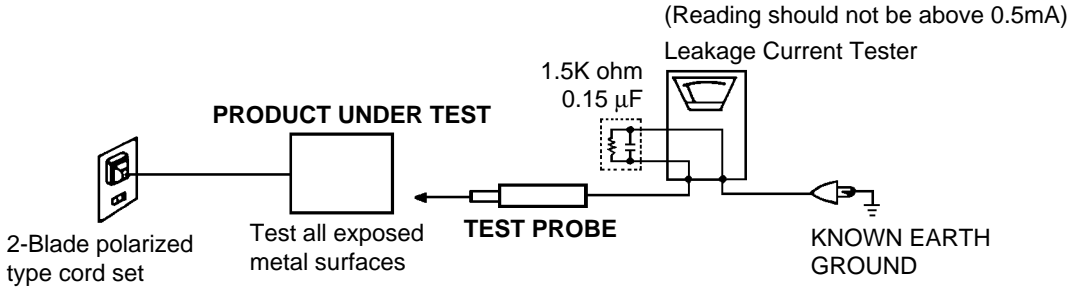


Fig. 1 AC Leakage Test

IMPORTANT SAFEGUARDS

1. READ INSTRUCTIONS

All the safety and operating instructions should be read before the unit is operated.

2. RETAIN INSTRUCTIONS

The safety and operating instructions should be retained for future reference.

3. HEED WARNINGS

All warnings on the unit and in the operating instructions should be adhered to.

4. FOLLOW INSTRUCTIONS

All operating and use instructions should be followed.

5. CLEANING

Unplug this unit from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

6. ATTACHMENTS

Do not use attachments not recommended by the unit's manufacturer as they may cause hazards.

7. WATER AND MOISTURE

Do not use this unit near water. For example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.

8. ACCESSORIES

Do not place this unit on an unstable cart, stand, tripod, bracket, or table. The unit may fall, causing serious injury, and serious damage to the unit. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer.

- 8A. 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. VENTILATION

Slots and openings in the cabinet and in the back or bottom are provided for ventilation, to ensure reliable operation of the unit, and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the unit on a bed, sofa, rug, or other similar surface. This unit should never be placed near or over a radiator or heat source. This unit should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

10. POWER SOURCES

This unit should be operated only from the type of power source indicated on the rating plate. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For units intended to operate from battery power, or other sources, refer to the operating instructions.

11. GROUNDING OR POLARIZATION

This unit is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug. If your unit is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin, this plug will only fit into a grounding-type power outlet. This too, is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

12. 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.

13. LIGHTNING

To protect your unit from 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 unit due to lightning and power line surges.

14. POWER LINES

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them might be fatal.

15. OVERLOADING

Do not overload wall outlets and extension cords, as this can result in a risk of fire or electric shock.

16. OBJECT AND LIQUID ENTRY

Do not push objects through any openings in this unit, as they may touch dangerous voltage points or short out parts that could result in fire or electric shock. Never spill or spray any type of liquid into the unit.

PORTABLE CART WARNING
(symbol provided by RETAC)



S3125A

17. OUTDOOR ANTENNA GROUNDING

If an outside antenna or cable system is connected to the unit, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

18. SERVICING

Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

19. DAMAGE REQUIRING SERVICE

Unplug this unit from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a. When the power-supply cord or plug is damaged.
- b. If liquid has been spilled, or objects have fallen into the unit.
- c. If the unit has been exposed to rain or water.
- d. If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.
- e. If the unit has been dropped or the cabinet has been damaged.
- f. When the unit exhibits a distinct change in performance, this indicates a need for service.

20. REPLACEMENT PARTS

When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original parts.

Unauthorized substitutions may result in fire, electric shock or other hazards.

21. SAFETY CHECK

Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

22. WALL OR CEILING MOUNTING

The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

23. HEAT

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

24. DISC TRAY

Keep your fingers well clear of the disc tray as it is closing. It may cause serious personal injury.

25. CONNECTING

When you connect the product to other equipment, turn off the power and unplug all of the equipment from the wall outlet. Failure to do so may cause an electric shock and serious personal injury. Read the owner's manual of the other equipment carefully and follow the instructions when making any connections.

26. SOUND VOLUME

Reduce the volume to the minimum level before you turn on the product. Otherwise, sudden high volume sound may cause hearing or speaker damage.

27. SOUND DISTORTION

Do not allow the product output distorted sound for a longtime. It may cause speaker overheating and fire.

28. HEADPHONES

When you use the headphones, keep the volume at a moderate level. If you use the headphones continuously with high volume sound, it may cause hearing damage.

29. LASER BEAM

Do not look into the opening of the disc tray or ventilation opening of the product to see the source of the laser beam. It may cause sight damage.

30. DISC

Do not use a cracked, deformed, or repaired disc. These discs are easily broken and may cause serious personal injury and product malfunction.

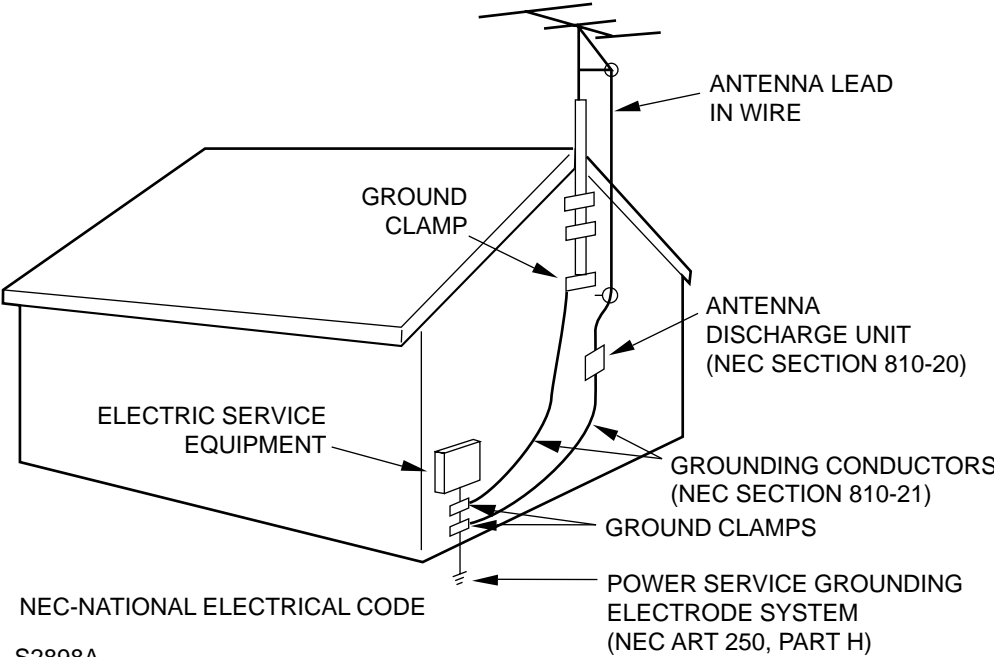
31. NOTE TO CATV SYSTEM INSTALLER

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

IMPORTANT SAFEGUARDS

(CONTINUED)

EXAMPLE OF ANTENNA GROUNDING AS PER THE NATIONAL ELECTRICAL CODE



ONKYO

DV-SP404 (For USA/CANADA, SILVER)

SERVICE MANUAL

DVD VIDEO PLAYER



This SUPPLEMENT must be used together SERVICE MANUAL for DV-SP404 (For USA/CANADA, BLACK).

All other test and repair procedures are as shown in the ORIGINAL MANUAL.

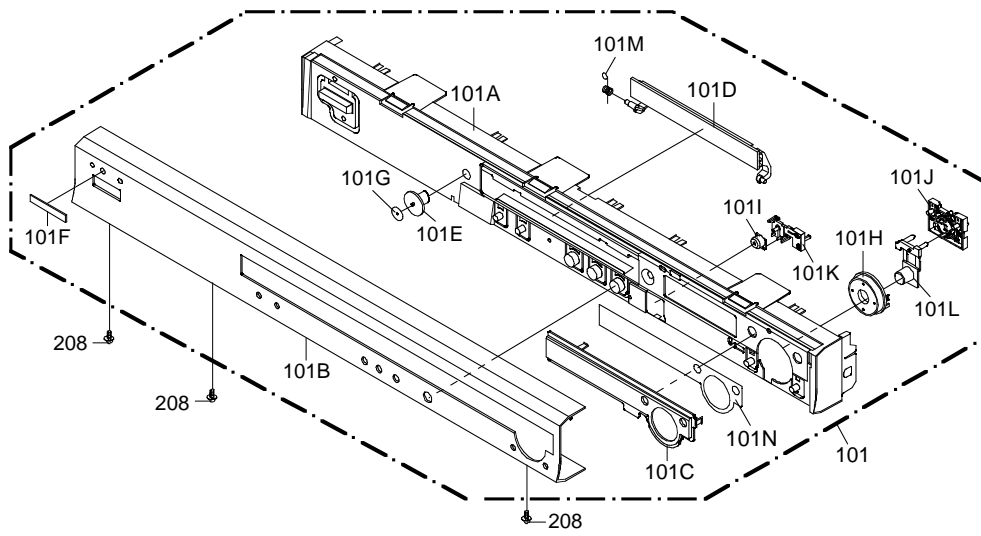
Please file this SUPPLEMENT with the ORIGINAL VERSIONS.

**SUPPLEMENT
MFR'S VERSION A**

MECHANICAL REPLACEMENT PARTS LIST

REF. NO.	DV-SP404 (For USA/CANADA, BLACK)		DV-SP404 (For USA/CANADA, SILVER)	
	PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
101	7A701A785A	FRONT CABI ASS'Y	7A701A798A	FRONT CABI ASS'Y
101A	701WPBA069	CABINET FRONT	701WPBA073	CABINET FRONT
101B	701WADA004	PANEL FRONT	701WADA005	PANEL FRONT
101C	711WPAA143	PLATE DISPLAY	711WPAA146	PLATE DISPLAY
101D	712WPJC280	FLAP DVD	712WPJC283	FLAP DVD
101F	723656A002	BADGE BRAND	723656A003	BADGE BRAND
101H	737WPAA018	BUTTON CAP	737WPEA020	BUTTON CAP
101I	737WPA0027	BUTTON CAP EJECT	737WPE0033	BUTTON CAP EJECT
101L	738WPJA030	BUTTON FRAME 1	738WPJA035	BUTTON FRAME 1
101N		—————	724000A009	SHEET PC
110	702WSBA071	CABINET TOP	702WSBA070	CABINET TOP
206	8109K3060S	SCREW TAP TITE(B) BIND(3D) 3x6	8109K3060U	SCREW TAP TITE(B) BIND(3D) 3x6
208	811022680S	SCREW TAP TITE(P)BIND 2.6x8	811022680U	SCREW TAP TITE(P)BIND 2.6x8
---	723000D382	CARTON LABEL	723000D388	CARTON LABEL
---	793WCDD254	GIFT BOX	793WCDD275	GIFT BOX

MECHANICAL EXPLODED VIEW DV-SP404 (For USA/CANADA, SILVER)



ADD: 101N

WHEN REPLACING DVD DECK

[When removing the DVD Deck]

Before removing Pick Up PCB and DVD PCB connector, the short circuit the position shown in **Fig. 1** using a soldering iron. If you remove the DVD Deck with no soldering, the Laser may be damaged.

[When installing the DVD Deck]

Remove all the soldering on the short circuit position after the connection of Pick Up PCB and DVD PCB connector.

NOTE

- Before your operation, please read "PREPARATION OF SERVICING".
- Use the Lead Free solder.
- Manual soldering conditions
 - Soldering temperature: $320 \pm 20^{\circ}\text{C}$
 - Soldering time: Within 3 seconds
 - Soldering combination: Sn-3.0Ag-0.5Cu
- When Soldering/Removing of solder, use the draw in equipment over the Pick Up Unit to keep the Flux smoke away from it.

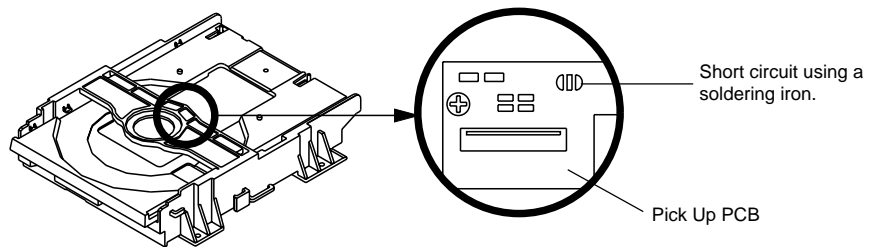


Fig. 1

DISC REMOVAL METHOD AT NO POWER SUPPLY

1. Slide the Rack Loading (White) toward the arrow direction by using a minus driver to release the lock.
(Refer to Fig. 1)
2. Manually open the Tray.

NOTE: Please strongly pushing Rack Loading (White) to release the lock because the tray doesn't go out easily.

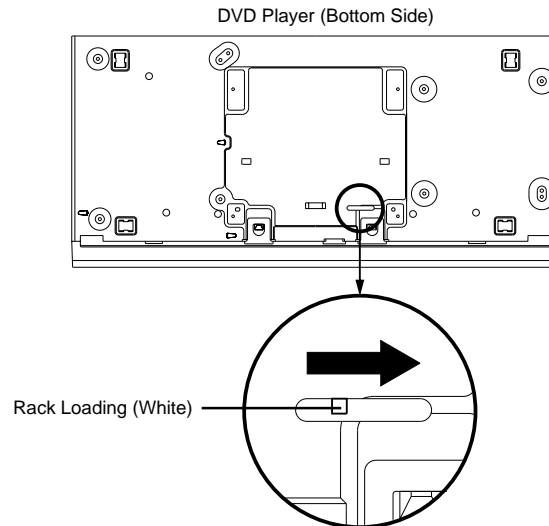


Fig. 1

PARENTAL CONTROL - RATING LEVEL 4 DIGIT PASSWORD CANCELLATION

If the stored 4 digit password in the Rating Level menu needs to be cancelled, please follow the steps below.

1. Set the DVD to the Stand-by Mode.
2. Press and hold the 'STOP' key on the front panel.
3. Simultaneously press and hold the POWER key on the front panel.
4. The 4 digit password has now been cleared.

NOTE: The above procedure will reset ALL of the player's settings to the default factory state.

PREPARATION OF SERVICING

The laser diode used for a pickup head may be destroyed with external static electricity. Moreover, even if it is operating normally after repair, when static electricity discharge is received at the time of repair, the life of the product may be shortened. Please perform the following measure against static electricity, be careful of destruction of a laser diode at the time of repair.

- Place the unit on a workstation equipped to protect against static electricity, such as conductive mat.
- Soldering iron with ground wire or ceramic type is used.
- A worker needs to use a ground conductive wrist strap for body.

ABOUT LEAD FREE SOLDER (PbF)

Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.
(Please refer to figures.)



Caution:

- Pb free solder has a higher melting point than standard solder;
Typically the melting point is 86°F~104°F(30°C~40°C) higher.
Please use a soldering iron with temperature control and adjust it to 650°F ± 20°F (350°C ± 10°C).
In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).
- All products with the printed circuit board with PbF printing must be serviced with lead free solder.
When soldering or unsoldering, completely remove all of the solder from the pins or solder area,
and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

Recommendations

Recommended lead free solder composition is Sn-3.0Ag-0.5Cu.

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GENERAL SPECIFICATIONS

G-1	DVD System	Color System		NTSC	
		Disc		DVD, CD-DA, CD-R/RW, Video CD, SVCD DVD-R/RW, DVD+R/+RW (w/o VCPS)	
		Disc Diameter		120 mm , 80 mm	
		Drive		DM4PB	
		Search speed	Fwd		4 step
			Fwd-Actual		4, 8, 16, 32 times
Rev			4 step		
Rev-Actual			4, 8, 16, 32 times		
Slow speed	Fwd		4 step		
	Fwd-Actual		1/16, 1/8, 1/4, 1/2 times		
	Rev		4 step		
	Rev-Actual		1/16, 1/8, 1/4, 1/2 times		
Zoom	Zoom		2 step		
	Zoom-Actual		2, 4 times		
G-2	Power	Power Source	AC	120V 60Hz	
			DC	--	
		Power Consumption		7 W	
			Stand by Per Year	0.9 W -- W	
			Energy Star	No	
Protector	Power Fuse	Yes			
	Safety Circuit IC Protector (Micro Fuse)	Yes No			
G-3	Regulation	Safety	UL/CSA(C-UL)		
		Radiation	FCC/IC		
		Laser	DHHS		
G-4	Temperature	Operation	5 oC - 40 oC		
		Storage	-20 oC - 60 oC		
G-5	Operating Humidity		Less than 80% RH		
G-6	Signal	Video Signal	Output Level	1 V p-p / 75 ohm	
			S/N Ratio (Weighted)	65 dB	
			Horizontal Resolution at DVD	500 Lines	
		RGB Signal	Output Level	--	
		Component Video	Output Level (Y)	1.0V p-p / 75 ohm	
			Output Level (Cb, Cr)	0.7V p-p / 75 ohm	
		Audio Signal	Input Level Microphone	--- dBm / --- ohm	
			Output Level Line	-12 dBm/ 1k ohm (-20dBfs, 0dBfs=2.0Vrms)	
			S/N Ratio at (Weighted)	90dB	
			Harmonic Distortion :	0.0065% (1KHz)	
Frequency Response : at DVD	4 Hz - 44 KHz (96KHz)				
Frequency Response : at SVCD	4 Hz - 20 KHz				
Frequency Response : at VIDEO CD	4 Hz - 20 KHz				
Frequency Response : at CD	4 Hz - 20 KHz				
Frequency Response : at DVD Audio	--				
Frequency Response : at SACD	--				
Digital Audio Signal Output Level		0.5 V p-p / 75 ohm			
G-7	OSD Language		English/French/Spanish/German/Italian		

GENERAL SPECIFICATIONS

G-8	Remote Control Unit	Unit	RC-LP
		Glow in Dark Remocon	No
		Remocon Format	ONKYO
		Format	NEC
		Custom Code	D2-2B
		Power Source	3V
		Voltage (D.C)	
		UM size x pcs	UM-3 x 2 pcs
		Total Keys	36 Keys
		Power ON	Yes
		Power Off (STAND BY)	Yes
		Open/Close	Yes
		Audio	Yes
		Subtitle	Yes
		Angle	Yes
		1	Yes
		2	Yes
		3	Yes
		4	Yes
		5	Yes
		6	Yes
		7	Yes
		8	Yes
		9	Yes
		0	Yes
		Clear	Yes
		Enter	Yes
		Top Menu	Yes
		Menu	Yes
		Set up (Home Menu)	Yes
		Return	Yes
		Up	Yes
		Down	Yes
		Right	Yes
		Left	Yes
		Enter	No
		<< (Scan/Slow/Step)	Yes
		>> (Scan/Slow/Step)	Yes
		Play	Yes
		<< (Search)	Yes
		>> (Search)	Yes
		Pause	Yes
		Stop	Yes
		Play Mode	Yes
		Surround	No
		Zoom	Yes
		Display	Yes
		Key Control b	No
		Key Control #	No

GENERAL SPECIFICATIONS

G-9	DVD Features	Progressive Video Out	Yes			
		Echo	No			
		Mic Mixing	No			
		Digital Out	(Dolby Digital) (MPEG) (PCM) (DTS)	Yes Yes Yes Yes		
		Down Mix Out	(Dolby Digital) (DTS) (SACD) (DVD Audio)	Yes No No No		
		Surround	MTK original Surround			
		Screen Saver	Yes			
		Auto Stop	No			
		BNR	No			
		Dynamic Range Control	Yes			
		Disc Navigator	Yes			
		Video CD Playback	Yes			
		SVCD Playback	Yes			
		SACD Playback	No			
		DVD Audio Playback	No			
		DivX Playback	Yes			
			DMF Support	No		
		VR Format Playback	Yes			
		Fujicolor CD	Yes			
		KODAK Picture CD	Yes			
		MP3 Playback	Yes			
		WMA Playback	Yes			
		JPEG Playback	Yes			
		Audio DAC	96kHz / 24bit			
		Auto Power Off	Yes			
		Closed Caption signal in VBI (DVD Playback)	Yes			
		G-10	Accessories	Owner's Manual	Language w/Guarantee Card	English No
				Remote Control Unit		Yes
Guarantee Card				Yes		
Warning Sheet				No		
Service Station List				No		
Important Tag				No		
AC Plug Adapter				No		
Quick Set-up Sheet				No		
Battery	UM size x pcs OEM Brand			Yes UM-3 x 2 pcs No		
AC Cord				No		
AV Cord				Yes (1.2m)		
1Pin RCA Cable				Yes (1.2m)		
HDMI Cable				No		
S-Video Cable				No		
21pin Cable (Double Shield)				No		
800 No Sticker				No		
Toll Free Insert Sheet				No		
Safety Tip				No		
Security Tag				No		
Sheet Information (Return)				No		
Registration Card				No		
Netflix Sheet				No		
Helpline Sheet				No		
Helpline Sticker				No		
Information Sheet				No		

GENERAL SPECIFICATIONS

G-11	Interface	Switch-Front	Standby/On	Yes	
			Play	Yes	
			Open/Close	Yes	
			Skip (>>)	Yes	
			Skip (<<)	Yes	
			Pause	Yes	
			Stop	Yes	
			Top Menu	Yes	
			Home Menu	Yes	
			Menu	Yes	
Return	Yes				
Enter	Yes				
Up	Yes				
Down	Yes				
Right	Yes				
Left	Yes				
Shuttle (Search/REV/FWD)		No			
Main Power SW		No			
Display			DISPLAY Type	Yes	
			Fluorescent Indicator		
			Pause/Play	Yes	
			Progressive	Yes	
			DVD		No
			Remain	Yes	
			Surround		No
			Track		No
			A		No
			-B		No
			Video		No
			CD		No
			All		No
			PROG		No
			Mic Mark		No
			Title	Yes	
			Repeat	Yes	
Angle	Yes				
Chapter	Yes				
Music Calendar (1-14, Play)		No			
7-seg Digit (8)	Yes				
Terminals-Front			Mic In		No
			Volume Control		No
			Echo Control		No
Terminals-Rear			Video Output	RCA x 1	
			S-Video Output	S-Jack x1	
			Component Video Output	RCA x3 (Y, Cr, Cb)	
			D1		No
			Audio Output	RCA x 2 (Stereo)	
			Euro Scart		No
			Digital Audio Output	RCA x 1 (Digital Audio)	
			5.1ch Audio Output		No
			HDMI Output	Yes	
AC Inlet		No			
Indicator		HDMI	Yes(Red)		
G-12	Set Size	Dimensions (Approx.) W x D x H (mm)	435 x 208 x 60.5		
G-13	Weight	Net (Approx.)	1.9kg (4.2 lbs)		
		Gross (Approx.)	2.8kg (6.2 lbs)		

GENERAL SPECIFICATIONS

G-14	Carton	Master Carton	Content Material Dimensions W x D x H (mm) Description of Origin	--- Sets --- / --- --- ---	No
		Gift Box	Material W/Color Photo Label Dimensions W x D x H (mm) Description of Origin	Single/Brown 507 x 290 x 130 Yes	No
		Drop Test	Height (cm)	Natural Dropping At 1 Corner / 3 Edges / 6 Surface 80cm	
		Container Stuffing		3,220 Sets/40' container	
		G-15	Cabinet Material	Cabinet Front PCB	Non-Halogen Demand Eyelet Demand
G-16	Environment	Environmental standard requirement (by buyer)		Green procurement of Pioneer	
		WEEE			No
		Pb-free		Phase3 (Phase3A)	
		Measures for Whisker		Yes	

DISASSEMBLY INSTRUCTIONS

1. REMOVAL OF MECHANICAL PARTS AND P.C. BOARDS

1-1: TOP CABINET/FRONT CABINET/OPERATION 1/2/3/4 PCB (Refer to Fig. 1-1)

1. Remove the 5 screws ①.
2. Remove the Top Cabinet in the direction of arrow (A).
3. Remove the 2 screws ②.
4. Remove the Leg in the direction of arrow (B).
5. Remove the 3 screws ③.
6. Disconnect the following connector: (CP4002).
7. Unlock the 2 supports ④.
8. Remove the Front Cabinet in the direction of arrow (C).
9. Remove the 10 screws ⑤.
10. Remove the 2 screws ⑥.
11. Remove the Operation 1/2/3/4 PCB in the direction of arrow (D).

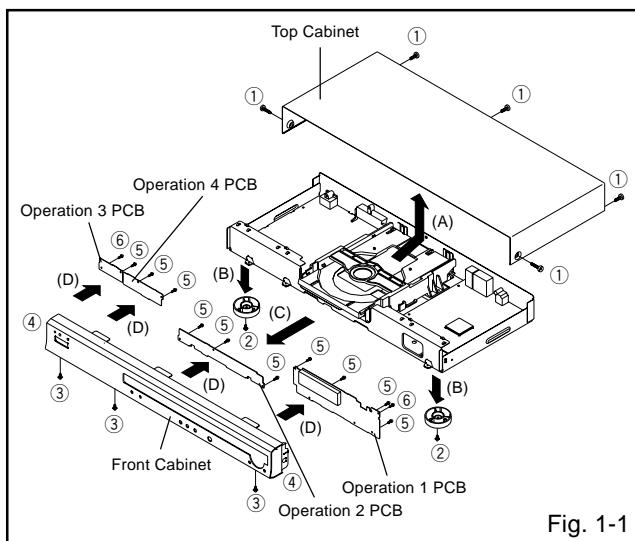


Fig. 1-1

1-2: POWER PCB (Refer to Fig. 1-2)

1. Disconnect the following connector: (CP502).
2. Remove the 4 screws ①.
3. Remove the Power PCB in the direction of arrow.

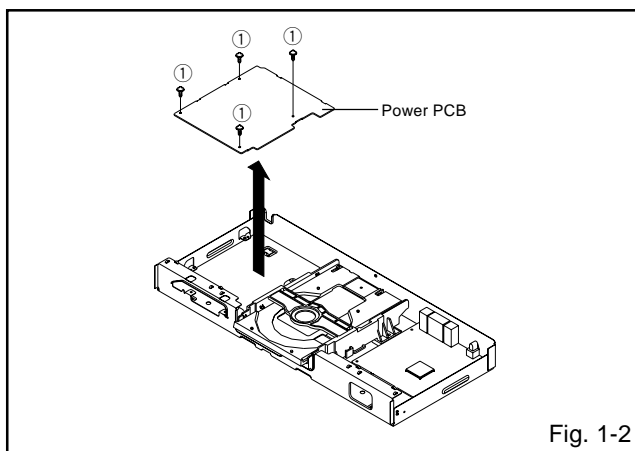


Fig. 1-2

1-3: DVD DECK (Refer to Fig. 1-3)

1. Short circuit the position shown in Fig. 1-3 using a soldering iron. If you remove the DVD Deck with no soldering, the Laser may be damaged.
2. Disconnect the following connectors: (CP2301, CP2302, CP2303).
3. Remove the 4 screws ①.
4. Remove the DVD Deck in the direction of arrow.

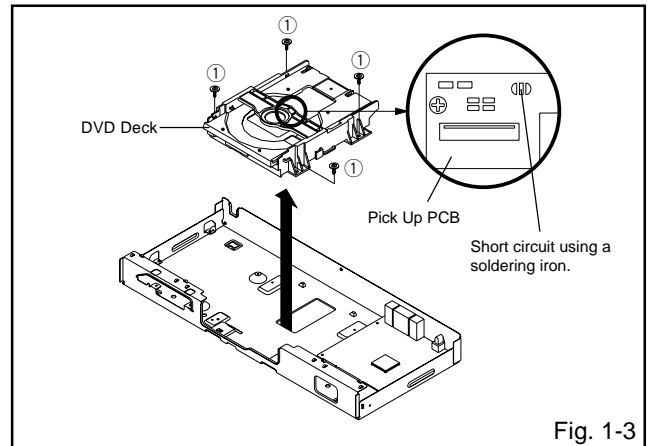


Fig. 1-3

NOTE

1. Before your operation, please read "PREPARATION OF SERVICING".
2. Use the Lead Free solder.
3. Manual soldering conditions
 - Soldering temperature: $320 \pm 20^\circ\text{C}$
 - Soldering time: Within 3 seconds
 - Soldering combination: Sn-3.0Ag-0.5Cu
4. When Soldering/Removing of solder, use the drawing equipment over the Pick Up Unit to prevent the Flux smoke from it.
5. When installing the DVD Deck, remove all the soldering on the short circuit position after the connection of Pick Up PCB and DVD MT PCB connector.

1-4: DVD MT PCB (Refer to Fig. 1-4)

1. Remove the 3 screws ①.
2. Remove the screw ②.
3. Remove the 4 screws ③.
4. Remove the DVD MT PCB in the direction of arrow.

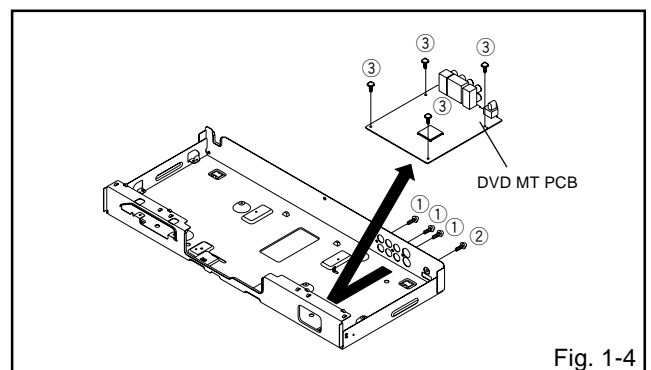


Fig. 1-4

DISASSEMBLY INSTRUCTIONS

2. REMOVAL OF DVD DECK PARTS

NOTE

1. Disassemble only the DVD DECK PARTS parts listed here. Minute adjustments are needed if the disassembly is done. If the repair is needed except listed parts, replace the DVD MECHA ASS'Y.

2-1: TRAY (Refer to Fig. 2-1-A)

1. Set the Tray opened. (Refer to the DISC REMOVAL METHOD AT NO POWER SUPPLY)
2. Unlock the 2 supports ① and draw it while sagging the Tray.

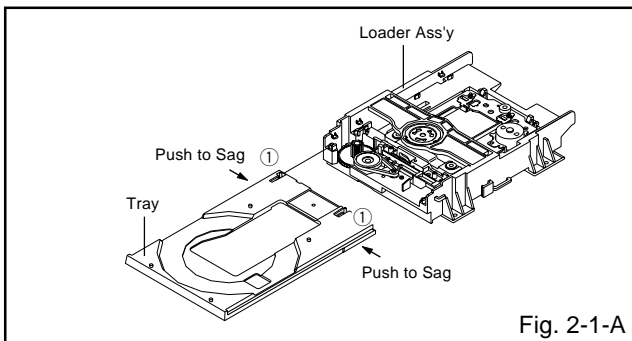


Fig. 2-1-A

NOTE

1. In case of the Tray installation, install them as the circled section of Fig. 2-1-B so that the each markers are met.

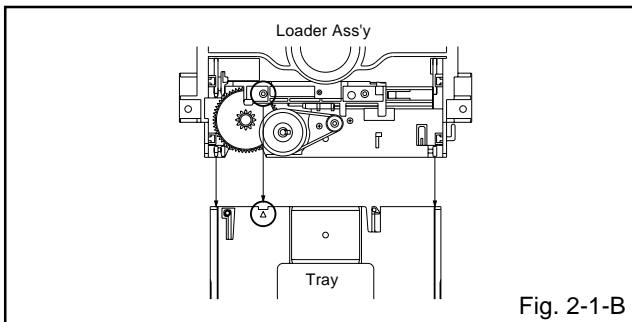


Fig. 2-1-B

2-2: TRAVERSE ASS'Y (Refer to Fig. 2-2-A)

1. Remove the screw ①.
2. Unlock the 2 supports ②.
3. Remove the Insulator (R) from the Loader Sub Ass'y.
4. Remove the Traverse Ass'y.

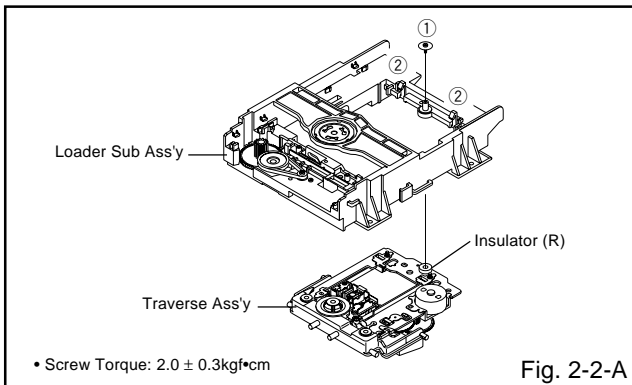


Fig. 2-2-A

NOTE

1. In case of the Traverse Ass'y, install it from (1) to (4) in order. (Refer to Fig. 2-2-B)
2. In case of the Traverse Ass'y installation, hook the wire on the Loader Ass'y as shown Fig. 2-2-C.

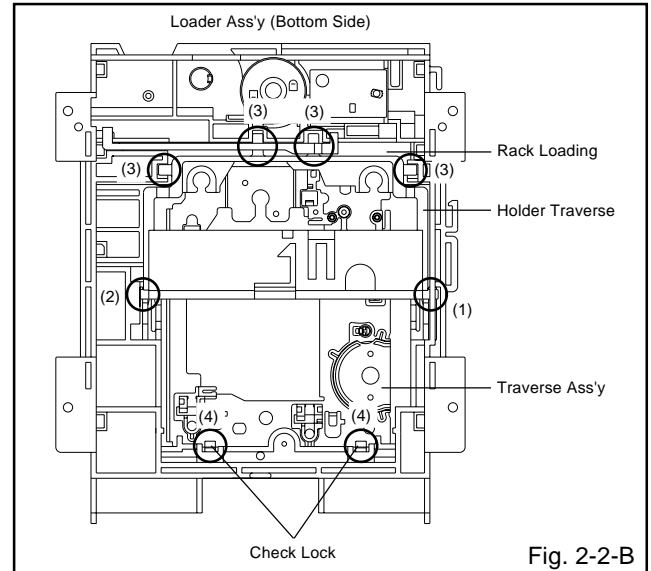


Fig. 2-2-B

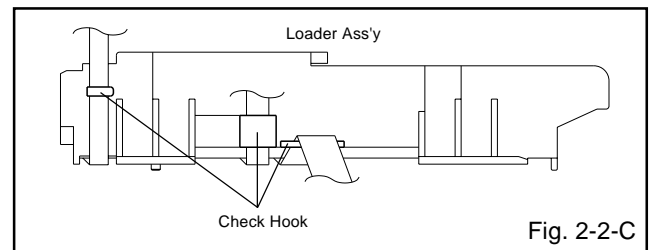


Fig. 2-2-C

2-3: LOADING MOTOR PCB ASS'Y/ LOADING BELT (Refer to Fig. 2-3-A)

1. Remove the Loading Belt.
2. Remove the screw ①.
3. Remove the Loading Motor PCB Ass'y.
4. Remove the 2 screws ②.
5. Remove the Loading Motor.
6. Remove the Gear Pulley.

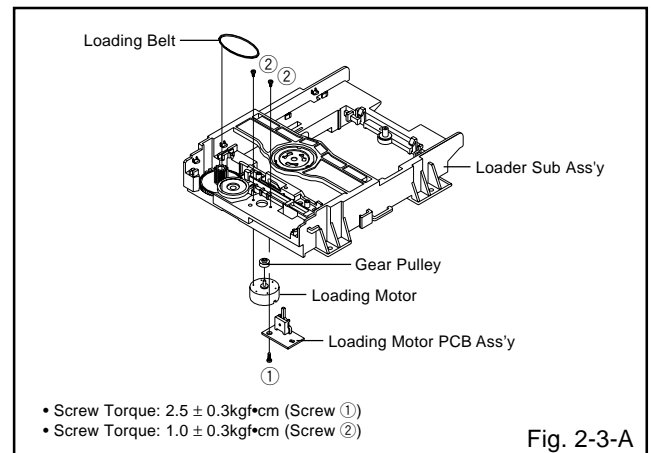


Fig. 2-3-A

DISASSEMBLY INSTRUCTIONS

NOTE

1. In case of the Pulley Motor installation, check if the value of the Fig. 2-3-B is correct.
2. When installing the wire of the Loading Motor PCB Ass'y, install it correctly as Fig. 2-3-C.
Manual soldering conditions
 - Soldering temperature: $320 \pm 20^\circ\text{C}$
 - Soldering time: Within 3 seconds
 - Soldering combination: Sn-3.0Ag-0.5Cu
3. When installing the Loading Motor PCB Ass'y, install it correctly as Fig. 2-3-D.
4. In case of the Loading Motor PCB Ass'y installation, hook the wire on the Loader Sub Ass'y as shown Fig. 2-3-E.

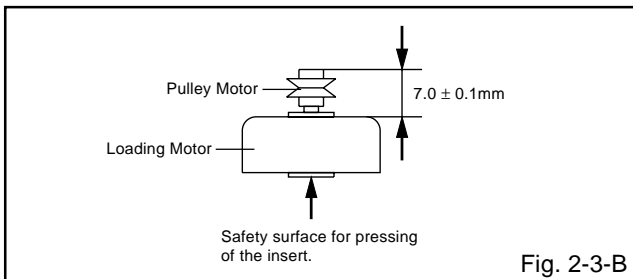


Fig. 2-3-B

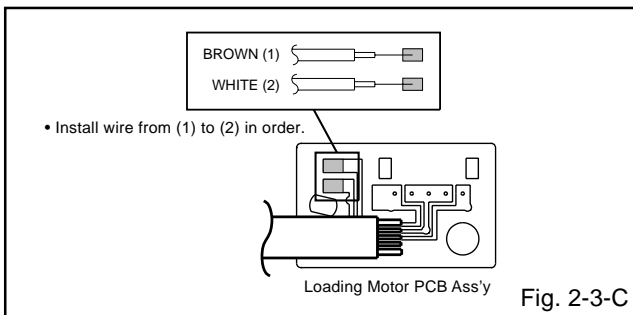


Fig. 2-3-C

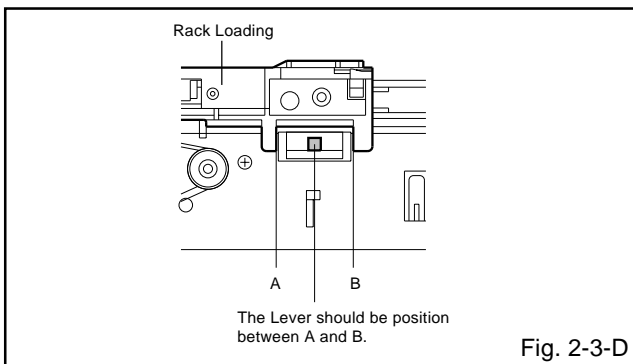


Fig. 2-3-D

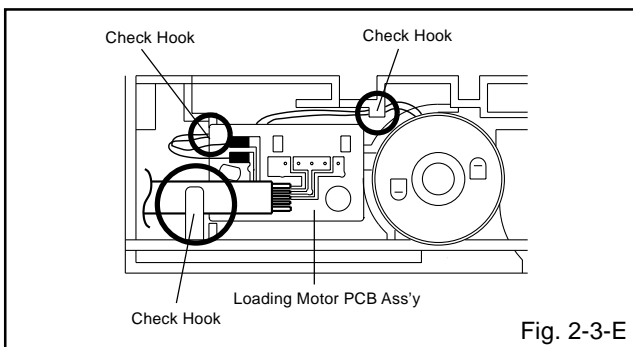


Fig. 2-3-E

2-4: RACK LOADING/MAIN GEAR/PULLEY GEAR (Refer to Fig. 2-4-A)

1. Unlock the support ② and remove the Gear Pulley.
2. Remove the Gear Main.
3. Press down the catcher ① and slide the Rack Loading.

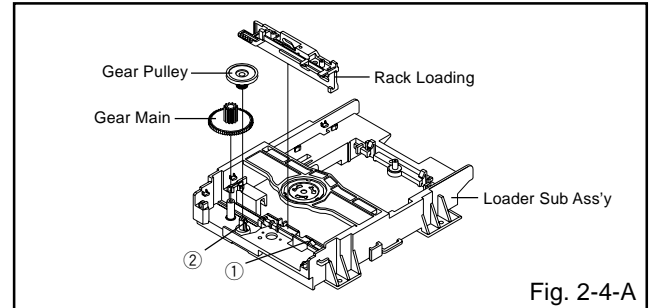


Fig. 2-4-A

NOTE

1. In case of the Rack Loading installation, hook the Rack Loading on the Loader Sub Ass'y as shown Fig. 2-4-B.
2. When installing the Gear Main, take care the direction of up or down as shown Fig. 2-4-C.

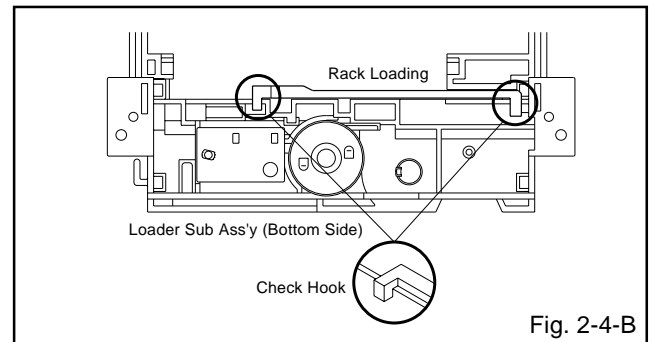


Fig. 2-4-B

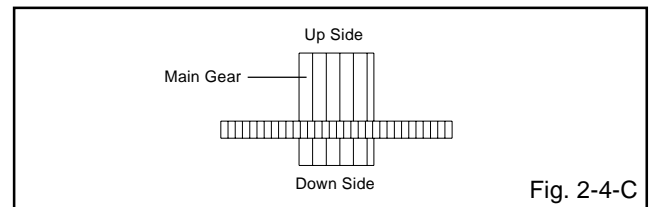


Fig. 2-4-C

2-5: CLAMPER ASS'Y (Refer to Fig. 2-5-A)

1. Press the Clamper and rotate the Plate Clamper clockwise, then unlock the 3 supports ①.
2. Remove the Plate Clamper, Magnet Clamper and Clamper.

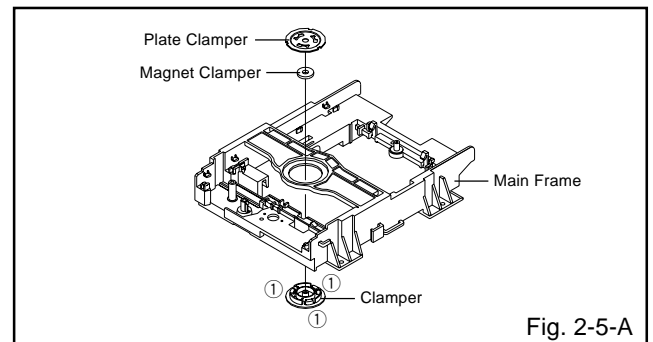


Fig. 2-5-A

DISASSEMBLY INSTRUCTIONS

NOTE

1. In case of the Clamper Ass'y installation, install correctly as Fig. 2-5-B.

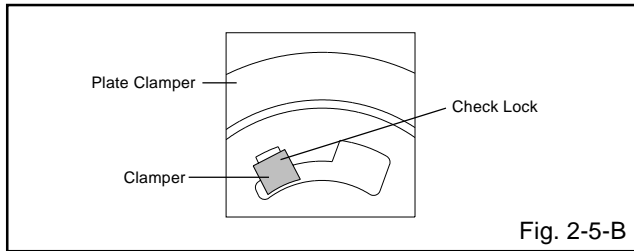


Fig. 2-5-B

2-6: HOLDER TRAVERSE/INSULATOR (F)/INSULATOR (R) (Refer to Fig. 2-6-A)

1. Remove the Holder Traverse.
2. Remove the 2 Insulator (F).
3. Remove the Insulator (R).

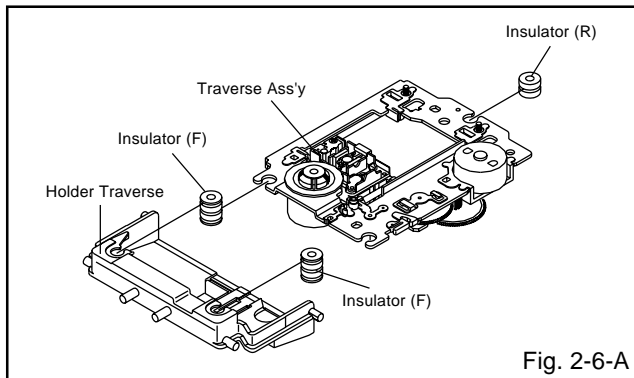


Fig. 2-6-A

NOTE

1. In case of the Insulator (F) installation, install correctly as Fig. 2-6-B.

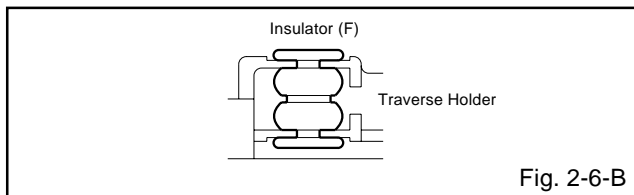


Fig. 2-6-B

2-7: SWITCH PCB ASS'Y/GEAR MIDDLE/GEAR FEED/RACK FEED ASS'Y/FEED MOTOR (Refer to Fig. 2-7-A)

1. Unlock the support ①.
2. Remove the Gear Middle.
3. Remove the screw ②.
4. Remove the Rack Feed Ass'y.
5. Remove the screw ③.
6. Remove the Switch PCB Ass'y.
7. Remove the screw ④.
8. Remove the Gear Feed.
9. Remove the 2 screws ⑤.
10. Remove the Feed Motor.
11. Remove the Gear Motor.

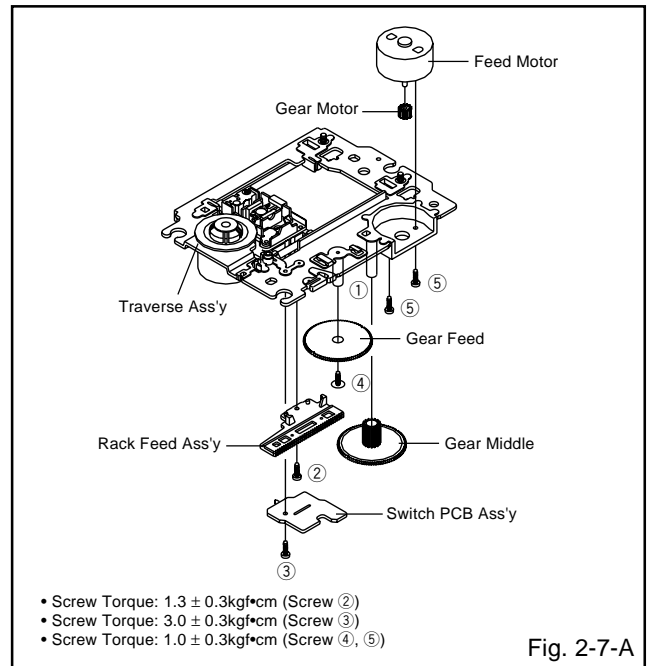


Fig. 2-7-A

NOTE

1. When installing the Rack Feed Ass'y, push both ends to align the teeth as shown Fig. 2-7-B. Then install it.
2. In case of the Gear Motor installation, check if the value of the Fig. 2-7-C is correct.
3. When installing the wire of the Switch PCB Ass'y, install it correctly as Fig. 2-7-D.
Manual soldering conditions
 - Soldering temperature: $320 \pm 20^\circ\text{C}$
 - Soldering time: Within 3 seconds
 - Soldering combination: Sn-3.0Ag-0.5Cu
4. After the assembly of the Traverse Ass'y, hook the wire on the Traverse Ass'y as shown Fig. 2-7-E.

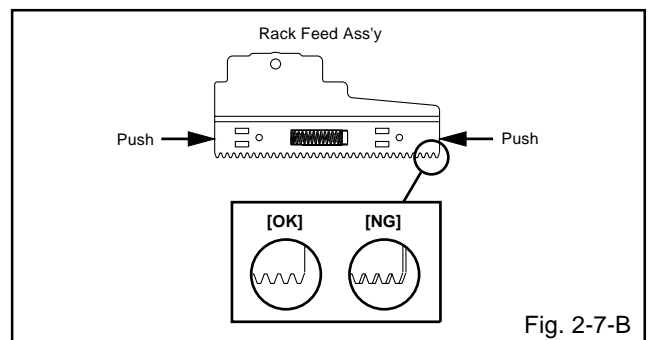


Fig. 2-7-B

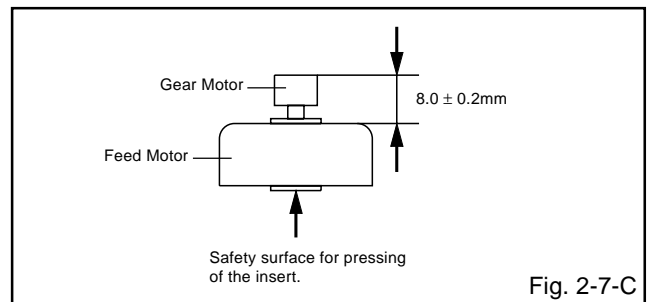
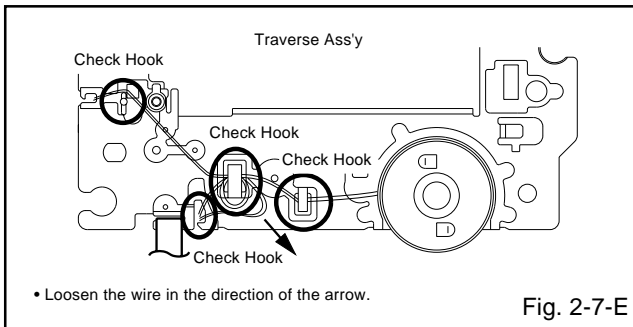
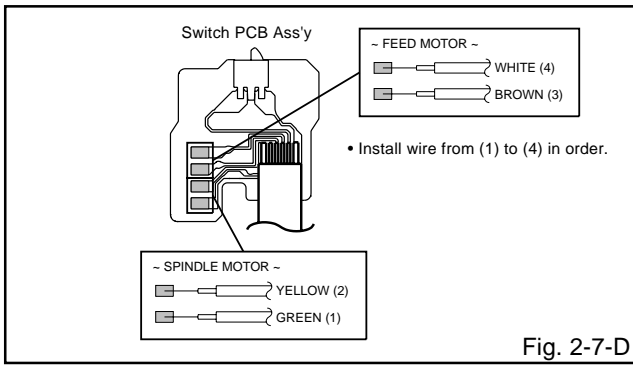


Fig. 2-7-C

DISASSEMBLY INSTRUCTIONS

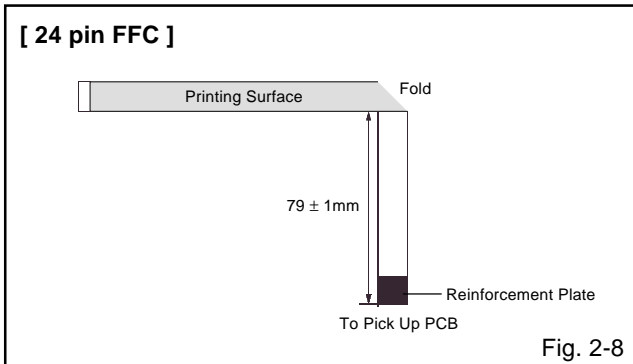


2-8: FFC WIRE HANDLING

1. When installing the FFC, fold it correctly and install it as shown from Fig. 2-8.

NOTE

1. Do not make the folding lines except the specified positions for the FFC.



DISASSEMBLY INSTRUCTIONS

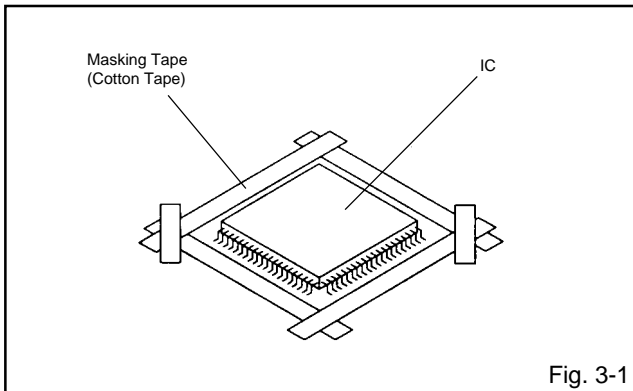
3. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC

REMOVAL

1. Put Masking Tape (cotton tape) around the Flat Package IC to protect other parts from any damage. (Refer to Fig. 3-1.)

NOTE

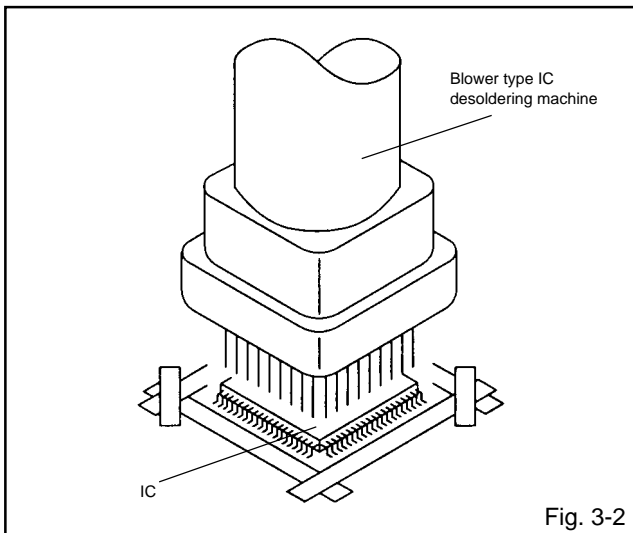
Masking is carried out on all the parts located within 10 mm distance from IC leads.



2. Heat the IC leads using a blower type IC desoldering machine. (Refer to Fig. 3-2.)

NOTE

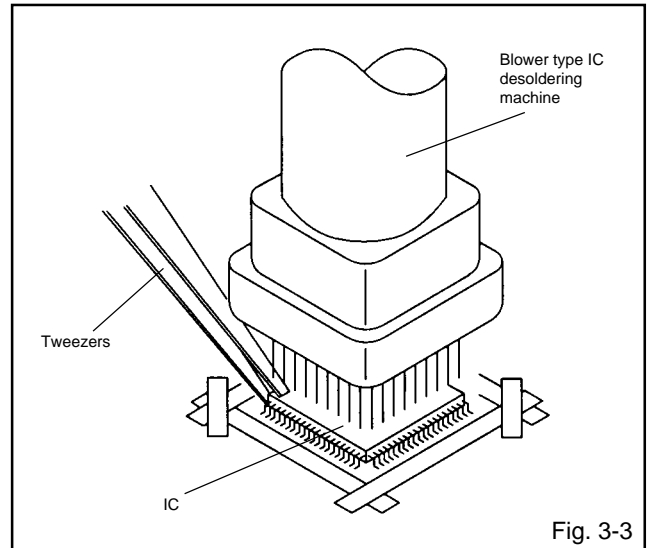
Do not rotate or move the IC back and forth, until IC can move back and forth easily after desoldering the leads completely.



3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using a tweezers and remove the IC by moving with the IC desoldering machine. (Refer to Fig. 3-3.)

NOTE

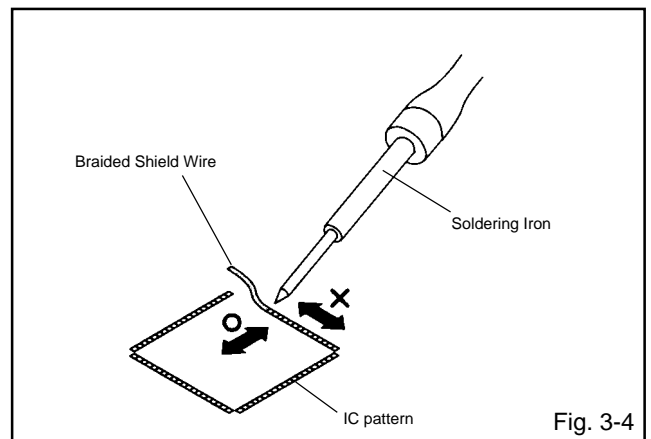
Some ICs on the PCB are affixed with glue, so be careful not to break or damage the foil of each IC leads or solder lands under the IC when removing it.



4. Peel off the Masking Tape.
5. Absorb the solder left on the pattern using the Braided Shield Wire. (Refer to Fig. 3-4.)

NOTE

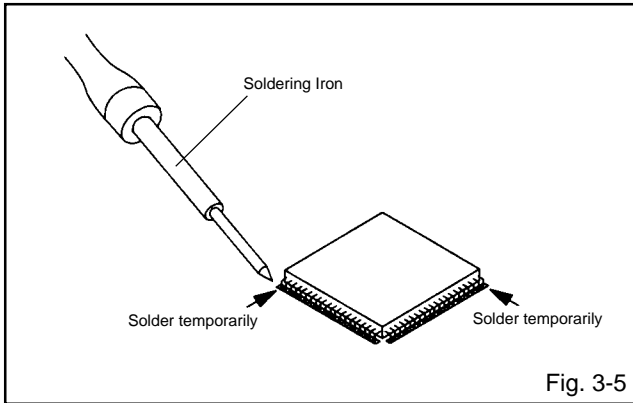
Do not move the Braided Shield Wire in the vertical direction towards the IC pattern.



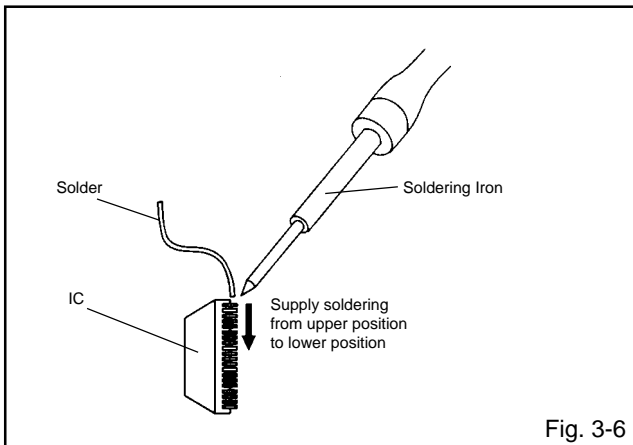
DISASSEMBLY INSTRUCTIONS

INSTALLATION

1. Take care of the polarity of new IC and then install the new IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily. (Refer to Fig. 3-5.)



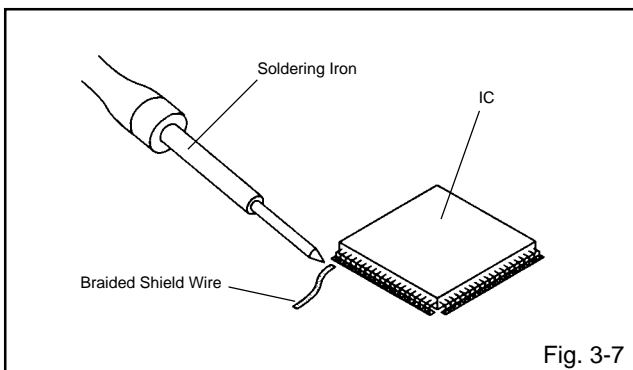
2. Supply the solder from the upper position of IC leads sliding to the lower position of the IC leads. (Refer to Fig. 3-6.)



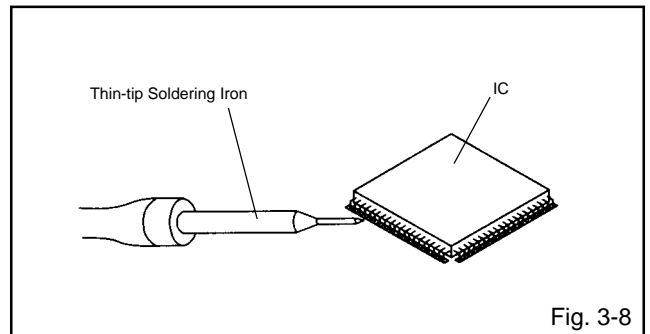
3. Absorb the solder left on the lead using the Braided Shield Wire. (Refer to Fig. 3-7.)

NOTE

Do not absorb the solder to excess.



4. When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Soldering Iron. (Refer to Fig. 3-8.)

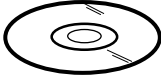


5. Finally, confirm the soldering status on four sides of the IC using a magnifying glass. Confirm that no abnormality is found on the soldering position and installation position of the parts around the IC. If some abnormality is found, correct by resoldering.

NOTE

When the IC leads are bent during soldering and/or repairing, do not repair the bending of leads. If the bending of leads are repaired, the pattern may be damaged. So, always be sure to replace the IC in this case.

SERVICING FIXTURES AND TOOLS

Remote control JIG	JG176 Up-Date Disc 
--------------------	---

Ref. No.	Part No.	Parts Name	Remarks
—	—	Remote control JIG	Check for the Firmware version Up-Date of the Firmware
JG176	APJG176112	Up-Date Disc	Up-Date of the Firmware

RE-WRITE FOR DVD FIRMWARE

1. Turn on the power.
2. Open the DVD tray.
3. Place the Up-Date Disc and close the tray. **(Refer to SERVICING FIXTURE AND TOOLS)**
The reading will start and the **Fig. 1** screen will appear.

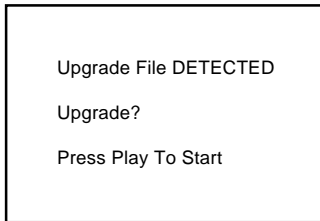


Fig. 1

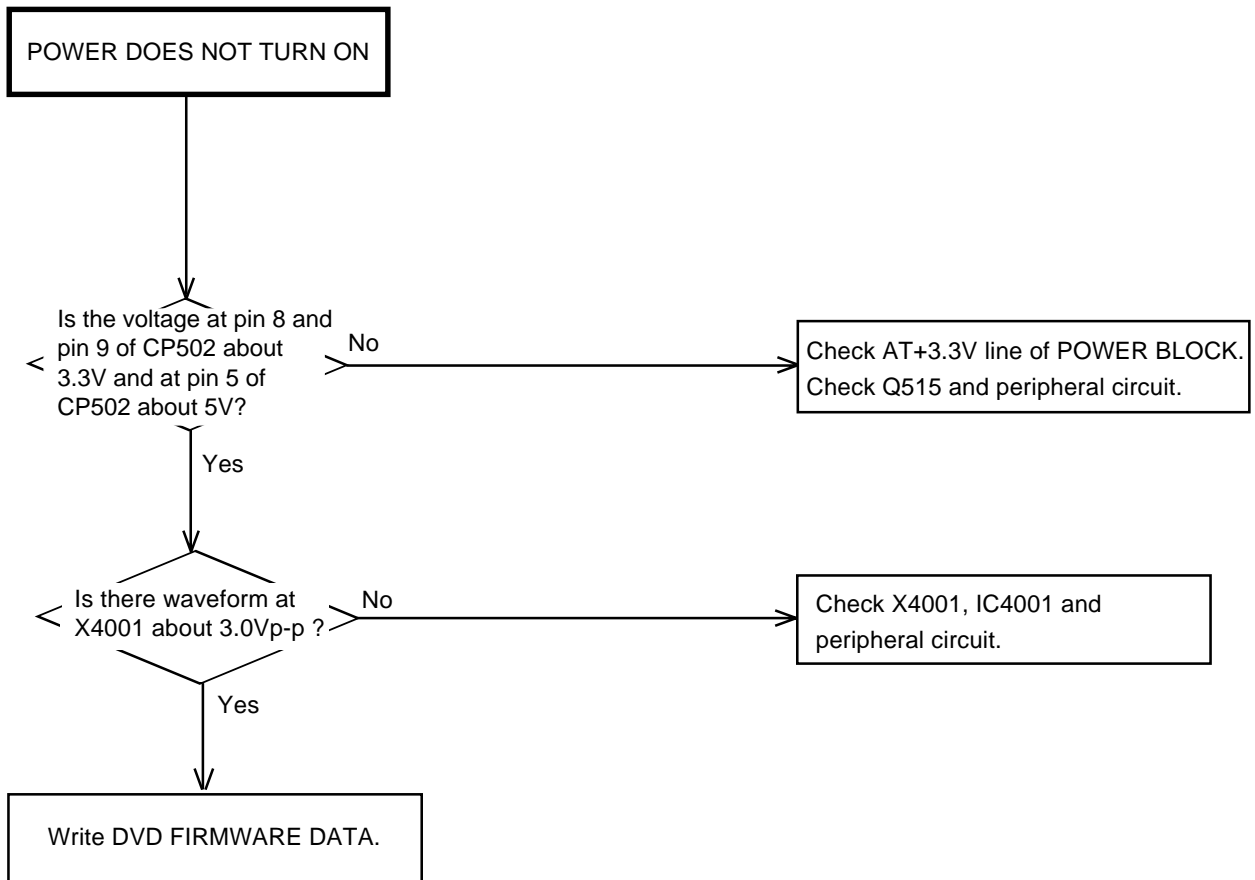
4. Press the PLAY key on the set.
The data reading will start.
And, "File Copying" appears on the TV monitor.
After the finishing of the data reading, tray will open automatically.
The display will change to "CLEAR".
5. Remove the Up-Date Disc.
6. **CHECK FOR THE FIRMWARE VERSION**
Turn on the power, then press "CHECK SUM" key on the remote control JIG for more than 1 second.
Firmware version will be displayed on the screen.
When the changed version displays, the Re-write will be completed.

AREA: WY REAGION: 1 ROM NUMBER YEB6420A REG CHK 10 SUM CHK 02A5 FL VERSION 1.16 CHIP VERSION 1389FE	<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center; border-bottom: 1px solid black;">Y</td> <td style="text-align: center; border-bottom: 1px solid black;">E</td> <td style="text-align: center; border-bottom: 1px solid black;">B</td> <td style="text-align: center; border-bottom: 1px solid black;">6</td> <td style="text-align: center; border-bottom: 1px solid black;">4</td> <td style="text-align: center; border-bottom: 1px solid black;">2</td> <td style="text-align: center; border-bottom: 1px solid black;">0</td> <td style="text-align: center; border-bottom: 1px solid black;">A</td> </tr> <tr> <td style="text-align: center;">Fixed</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Released times on the same date</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Release date (Example: 2006.4.20)</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">A = October B = November C = December</td> </tr> </table>	Y	E	B	6	4	2	0	A	Fixed							Released times on the same date								Release date (Example: 2006.4.20)								A = October B = November C = December
Y	E	B	6	4	2	0	A																										
Fixed							Released times on the same date																										
							Release date (Example: 2006.4.20)																										
							A = October B = November C = December																										

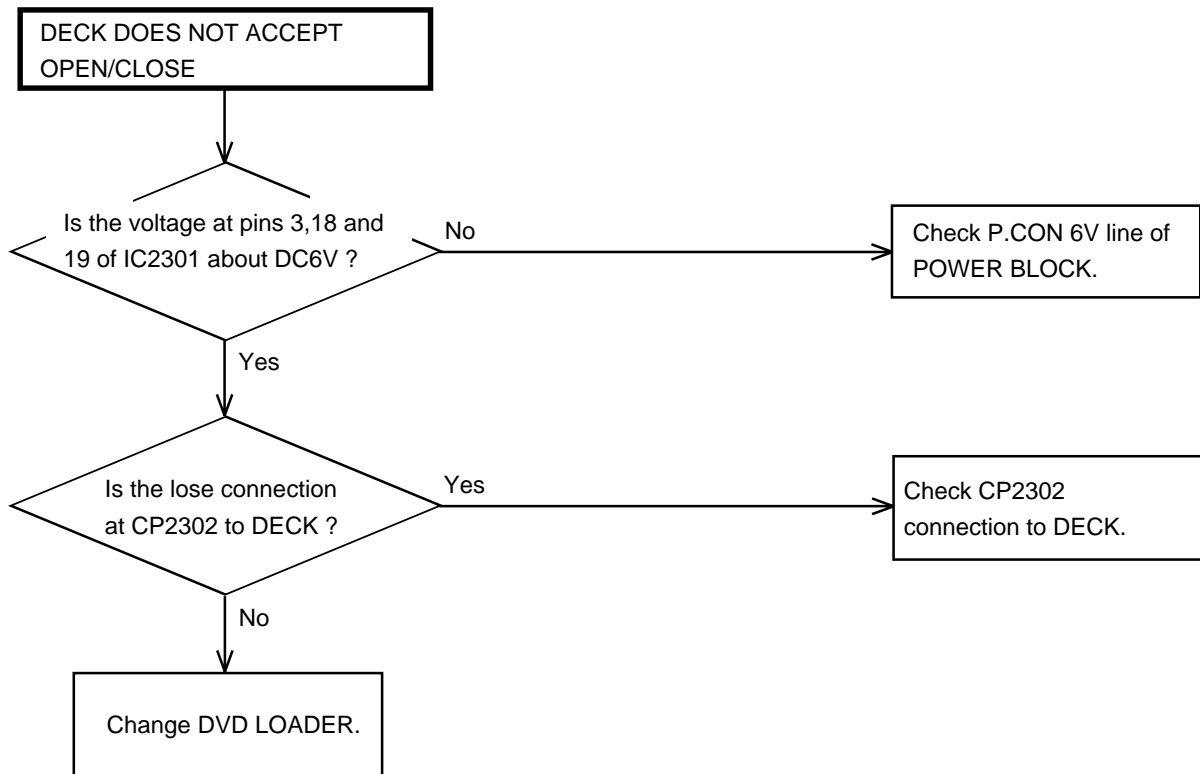
Fig. 2

7. Turn off the power

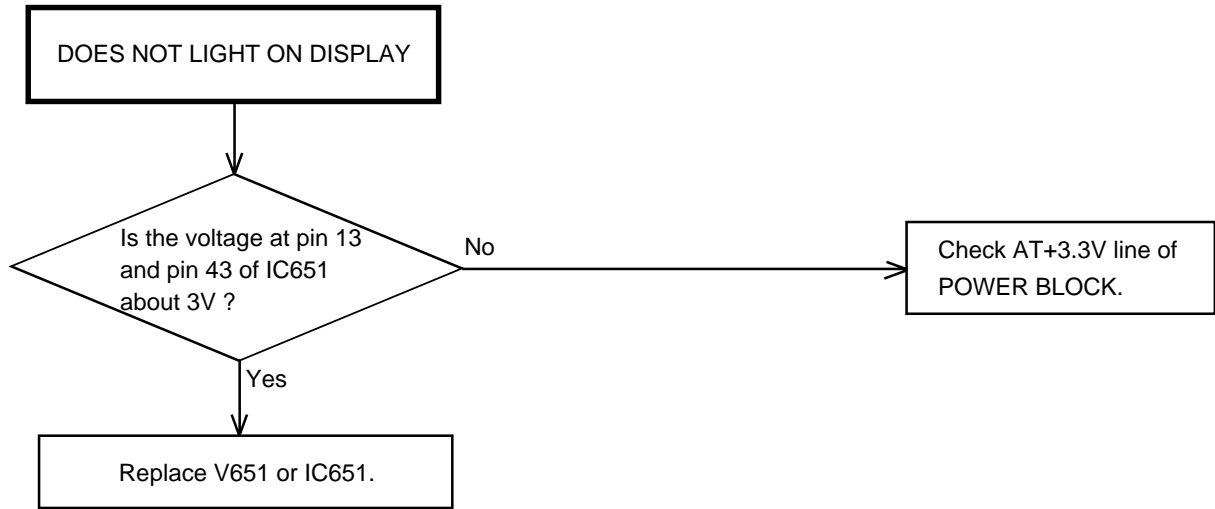
TROUBLESHOOTING GUIDE



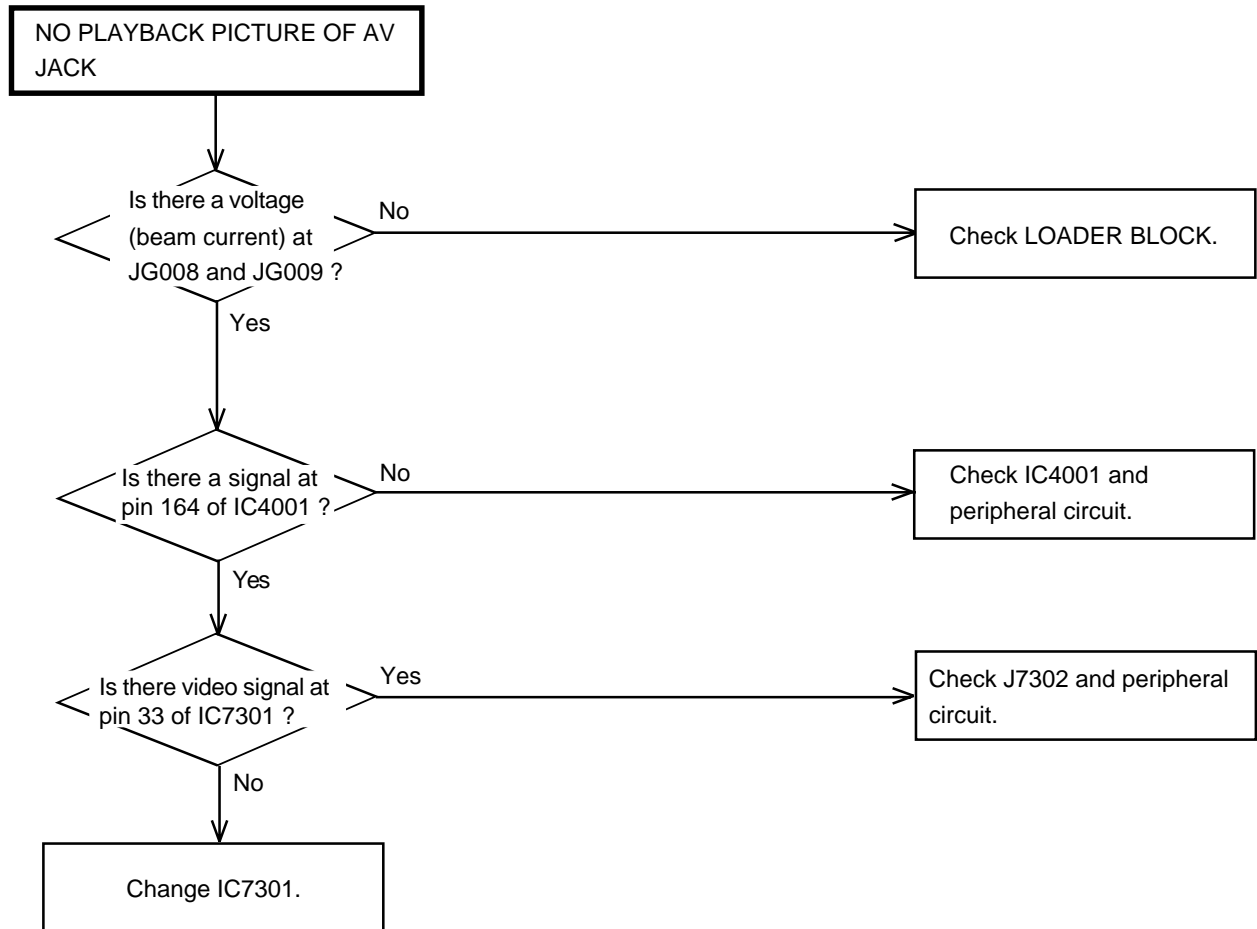
TROUBLESHOOTING GUIDE



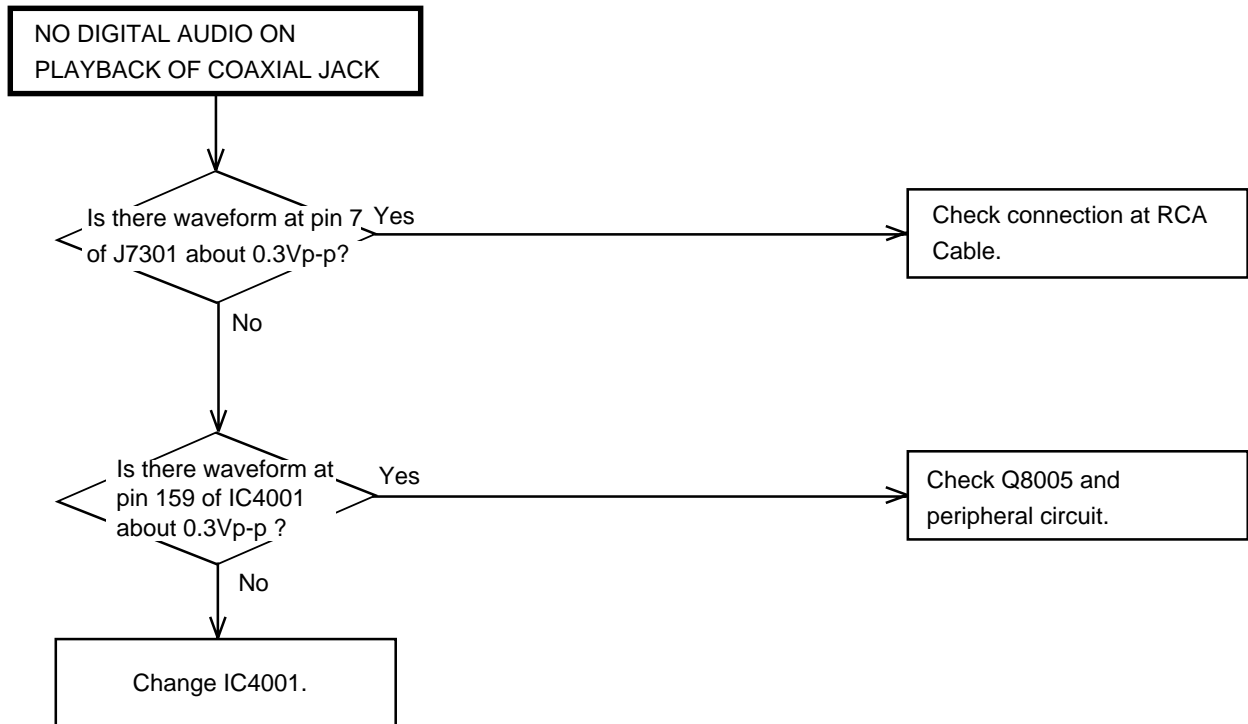
TROUBLESHOOTING GUIDE



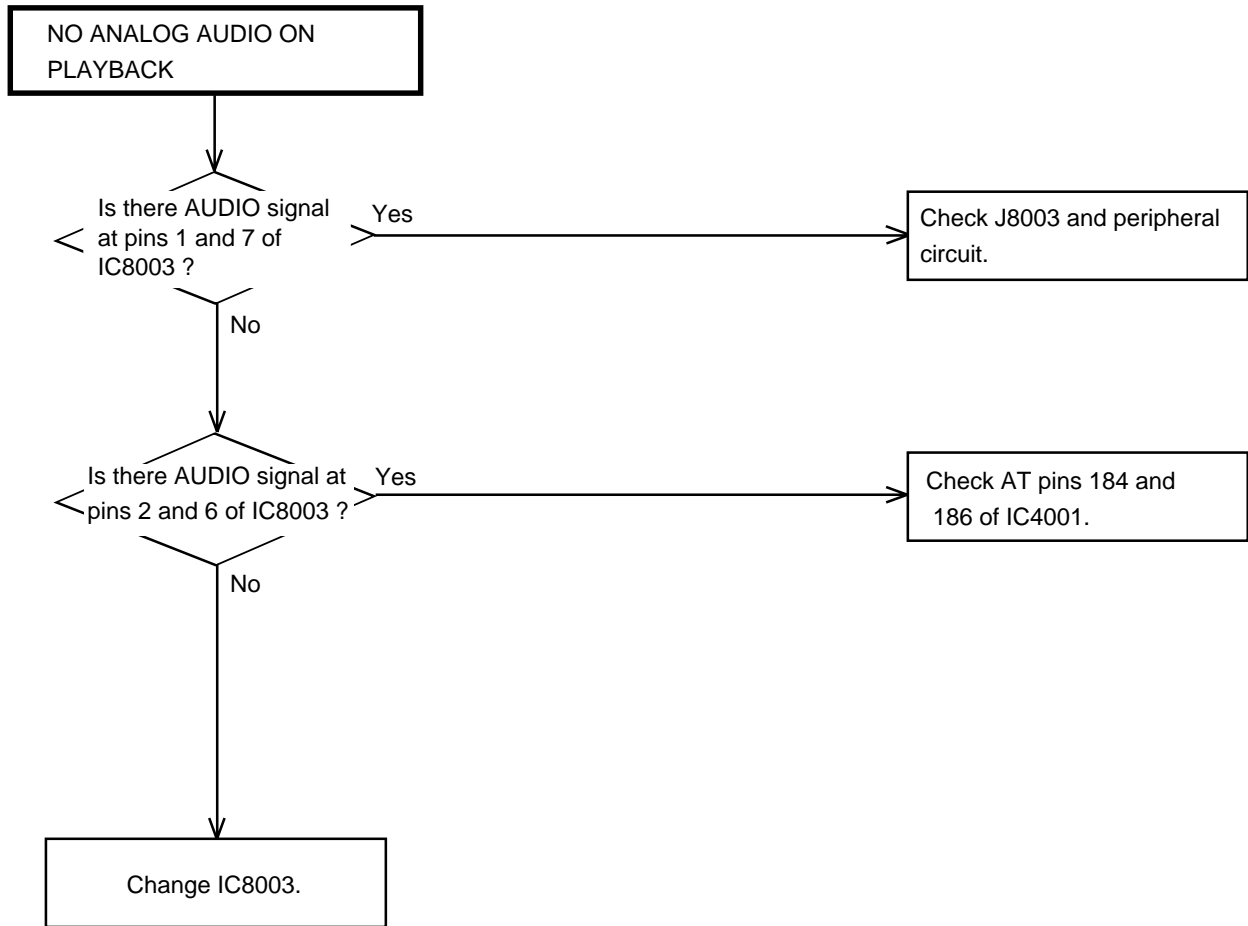
TROUBLESHOOTING GUIDE



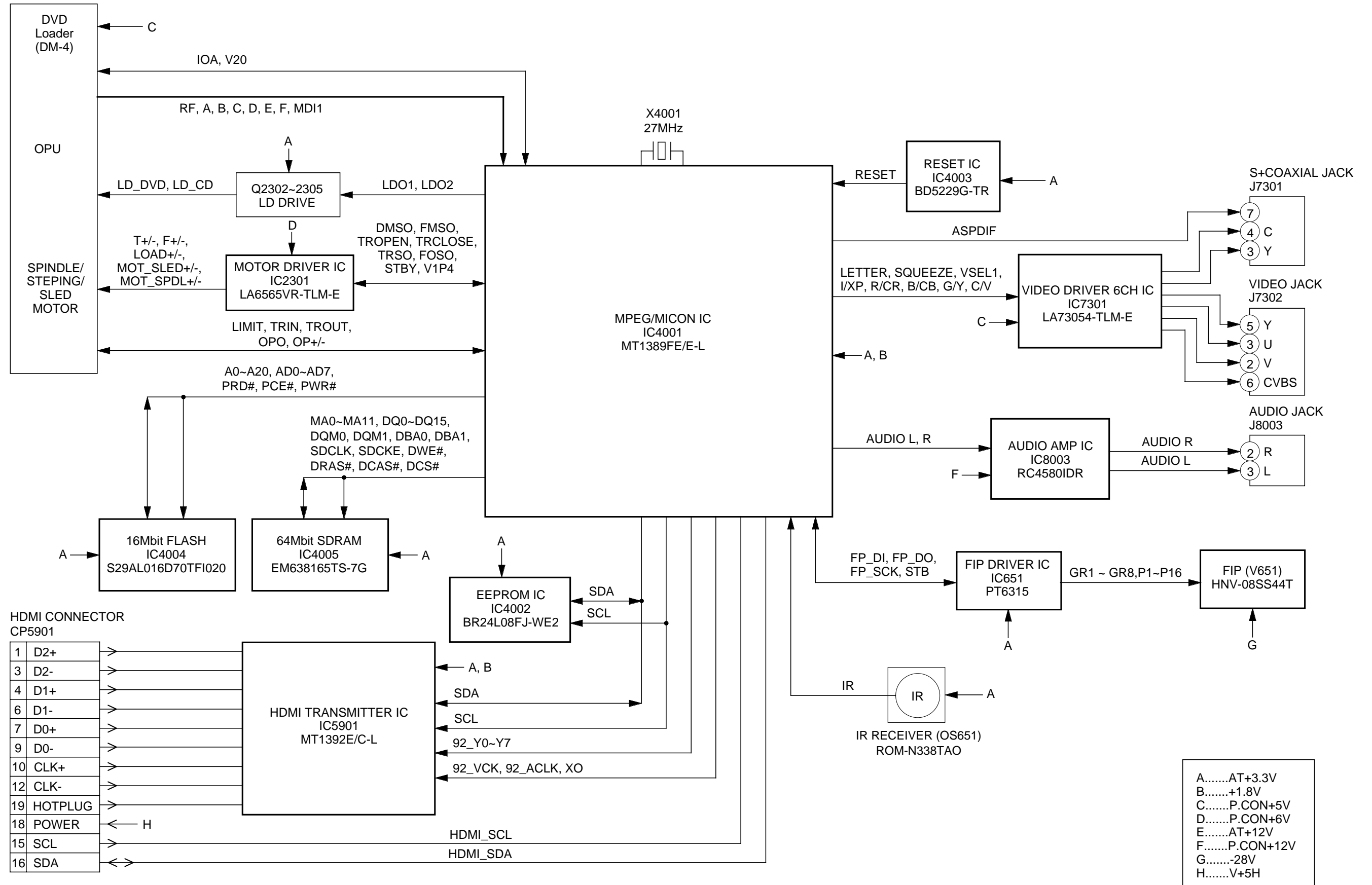
TROUBLESHOOTING GUIDE



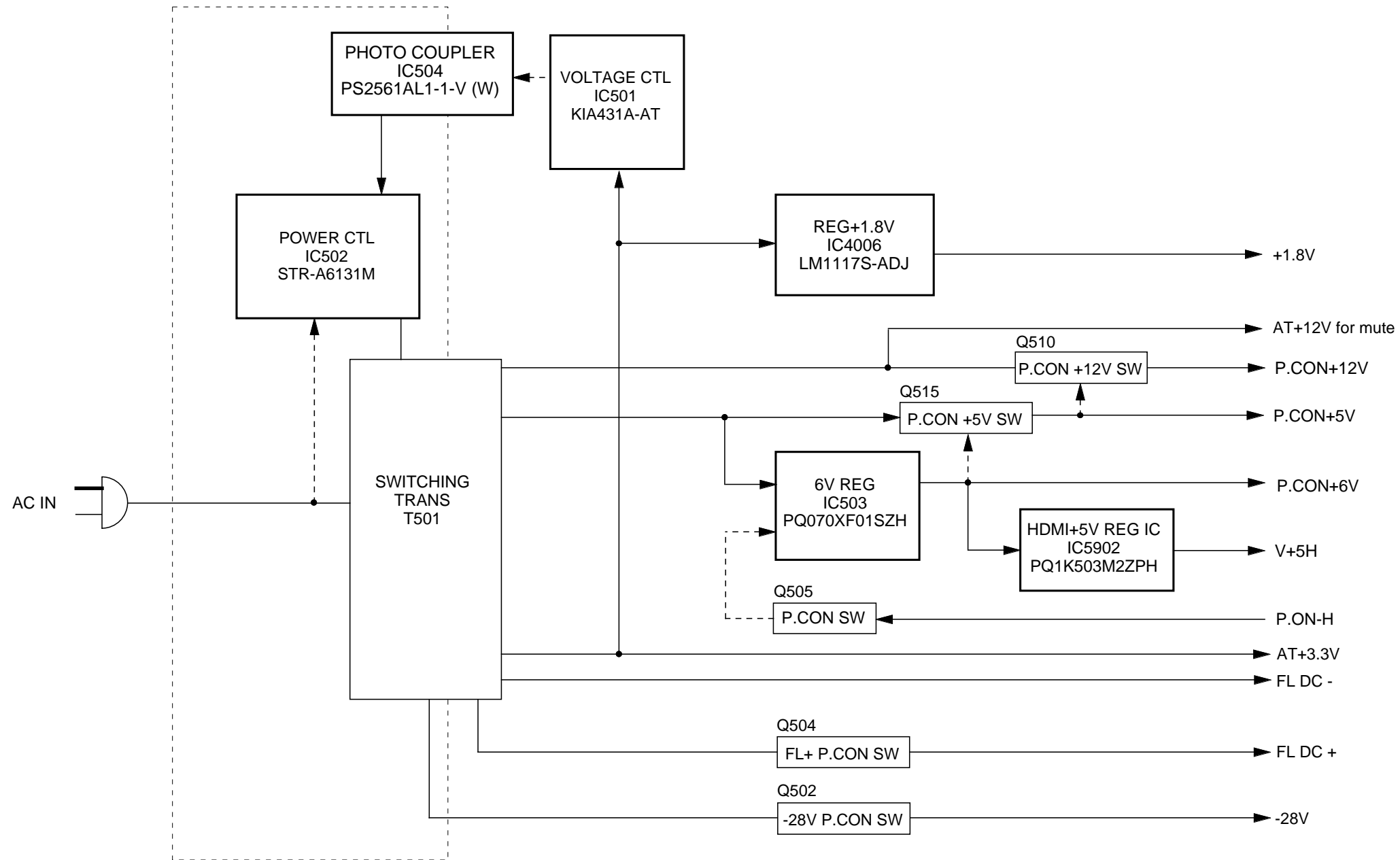
TROUBLESHOOTING GUIDE



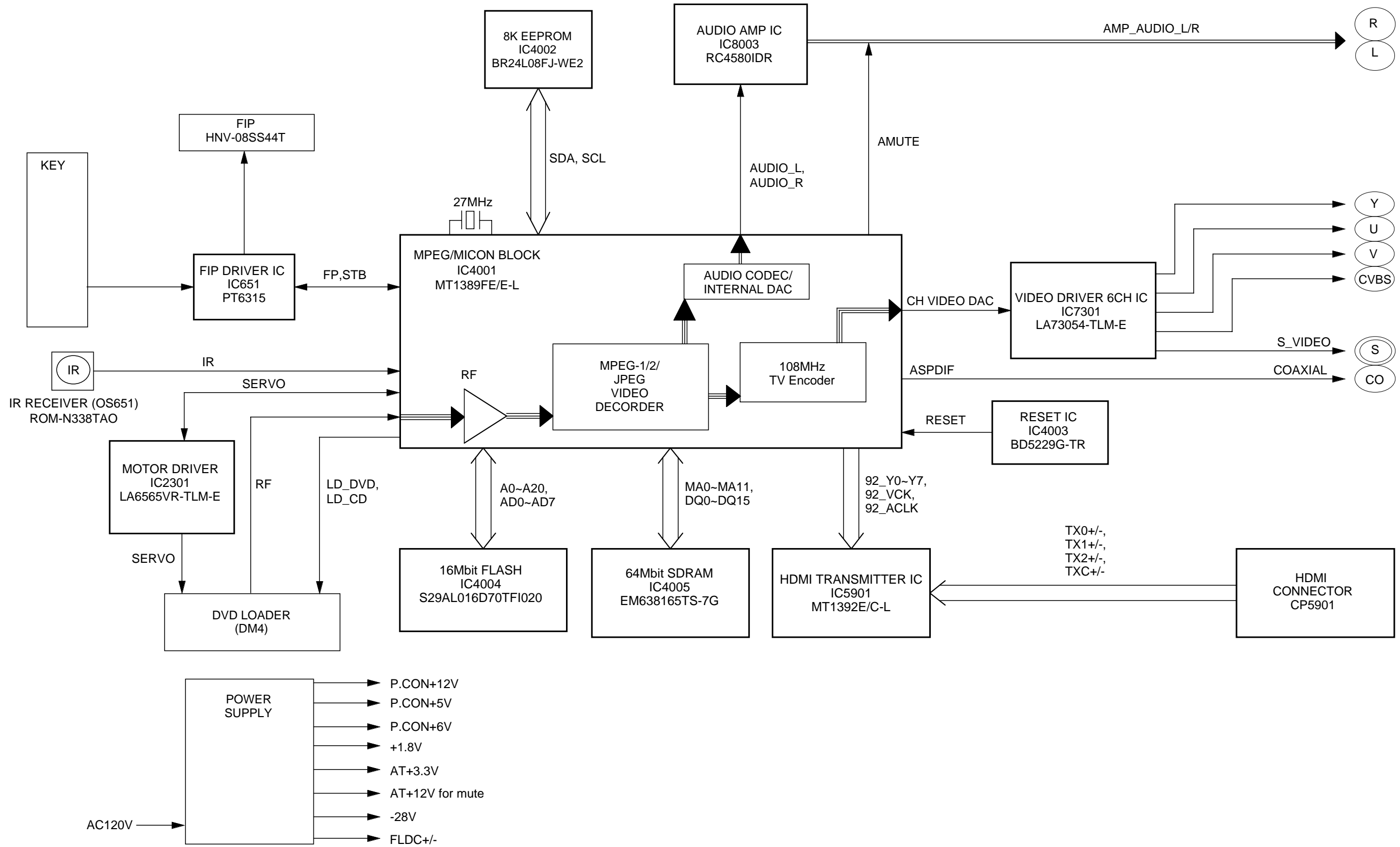
DVD LOADER/MPEG BLOCK DIAGRAM



POWER BLOCK DIAGRAM

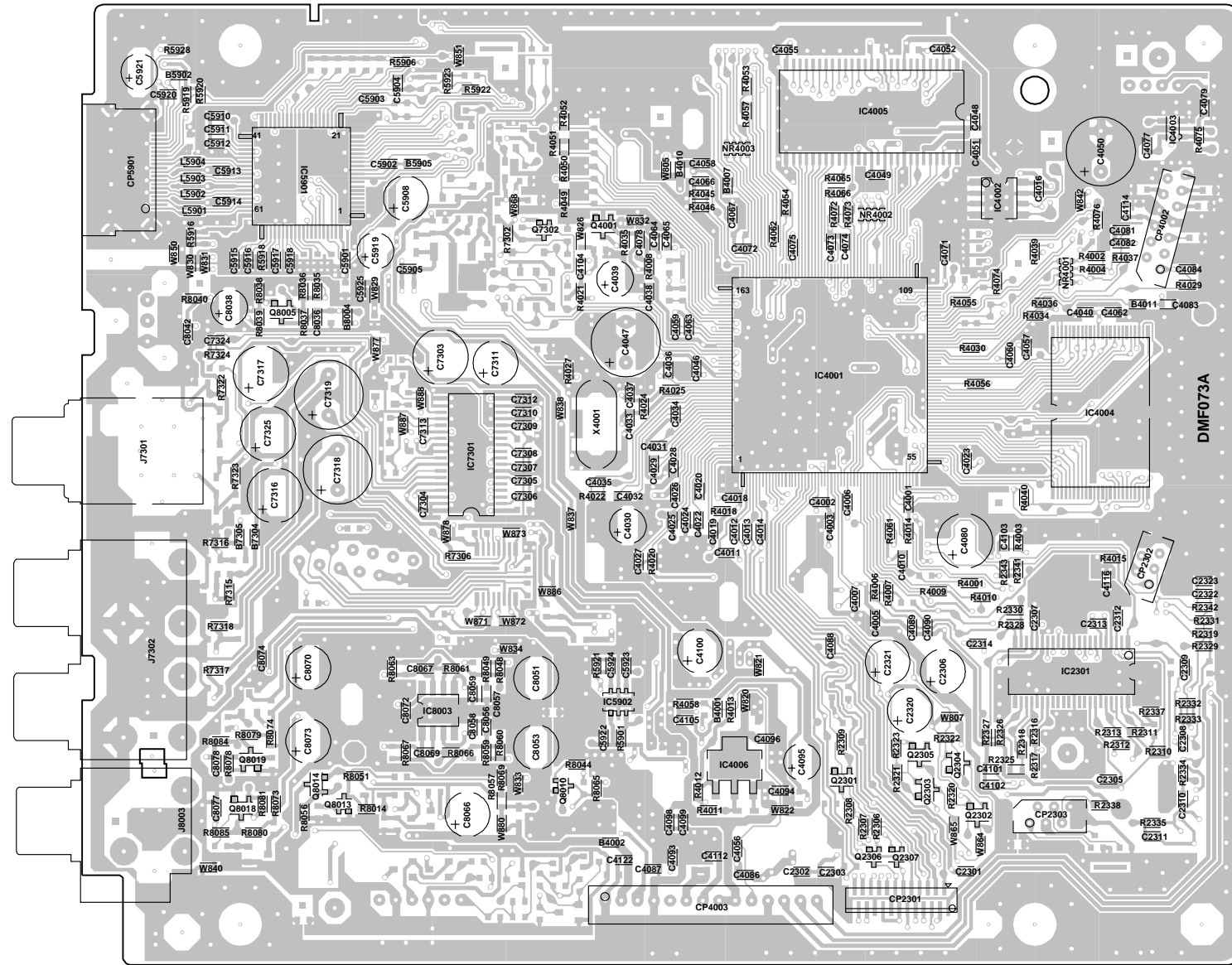


OVERALL BLOCK DIAGRAM

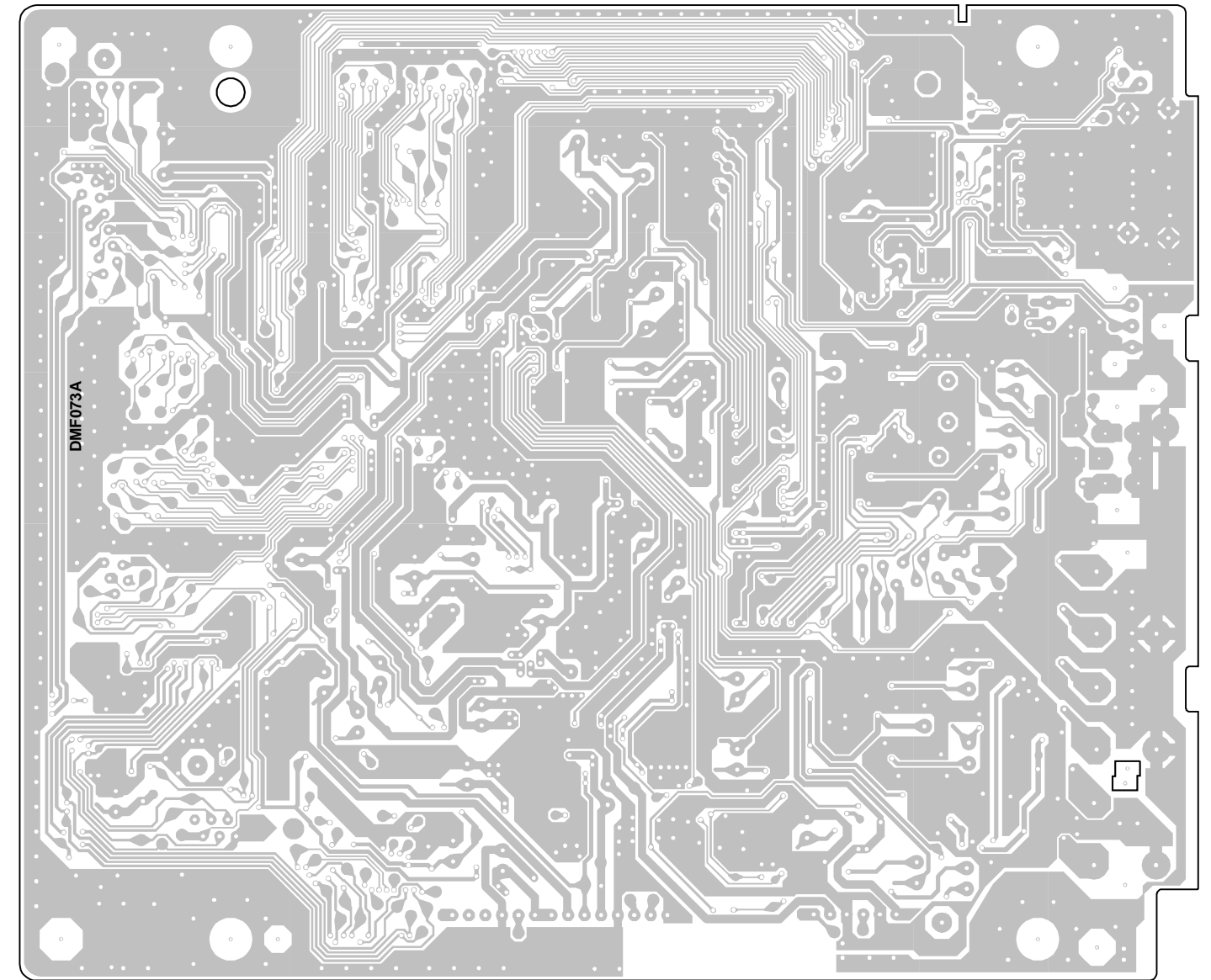


PRINTED CIRCUIT BOARDS

DVD MT (TOP SIDE)

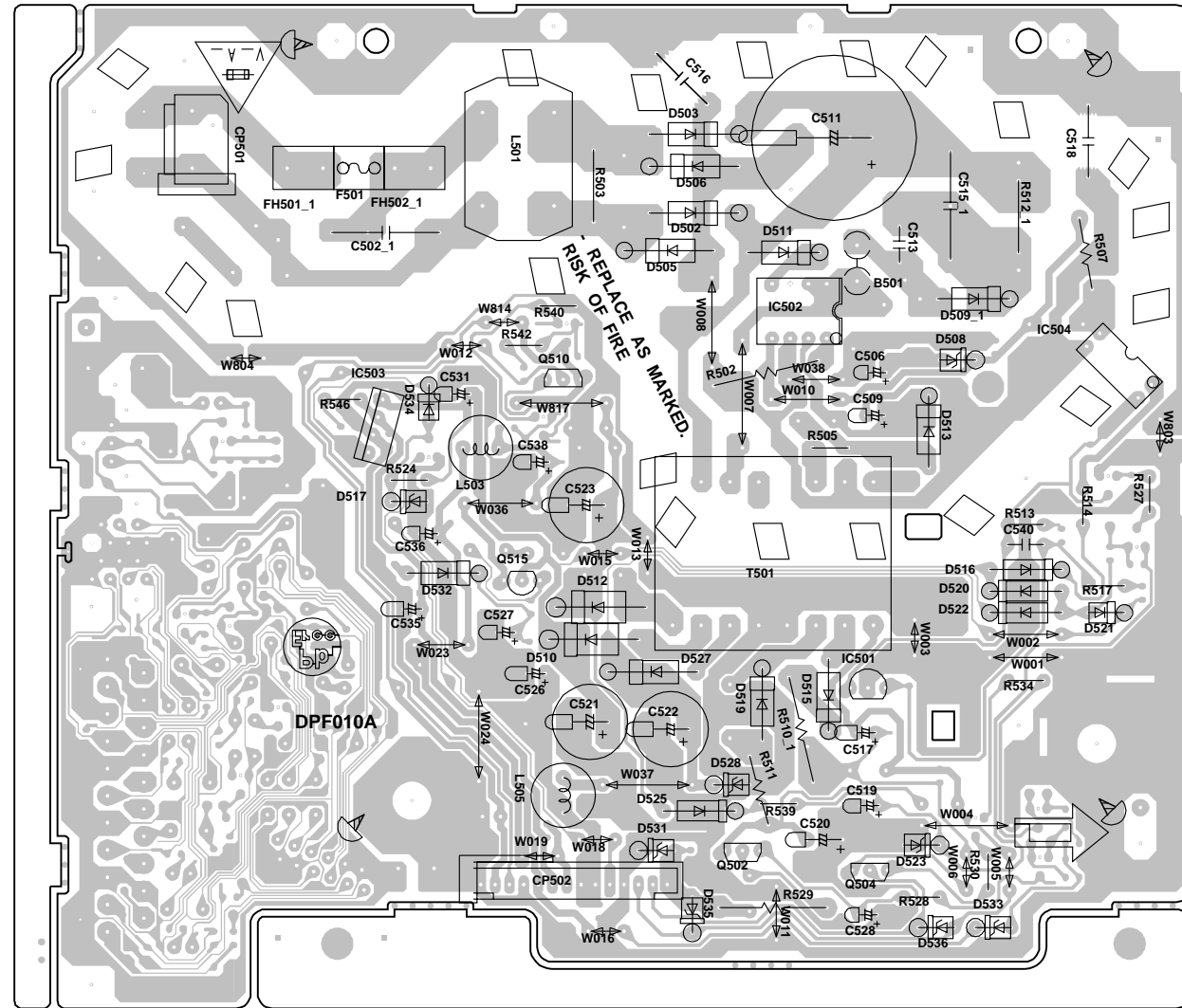


DVD MT (BOTTOM SIDE)

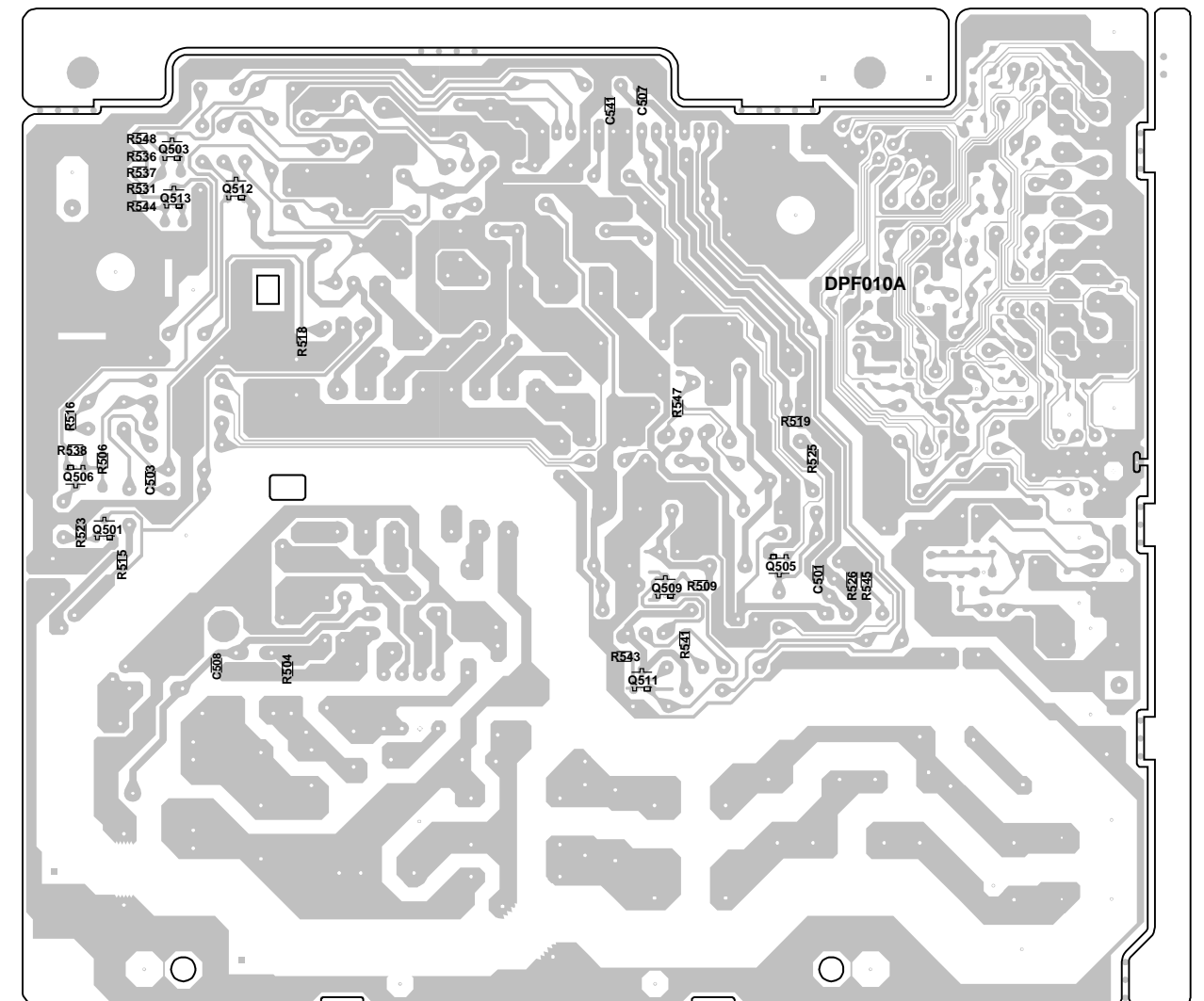


PRINTED CIRCUIT BOARDS

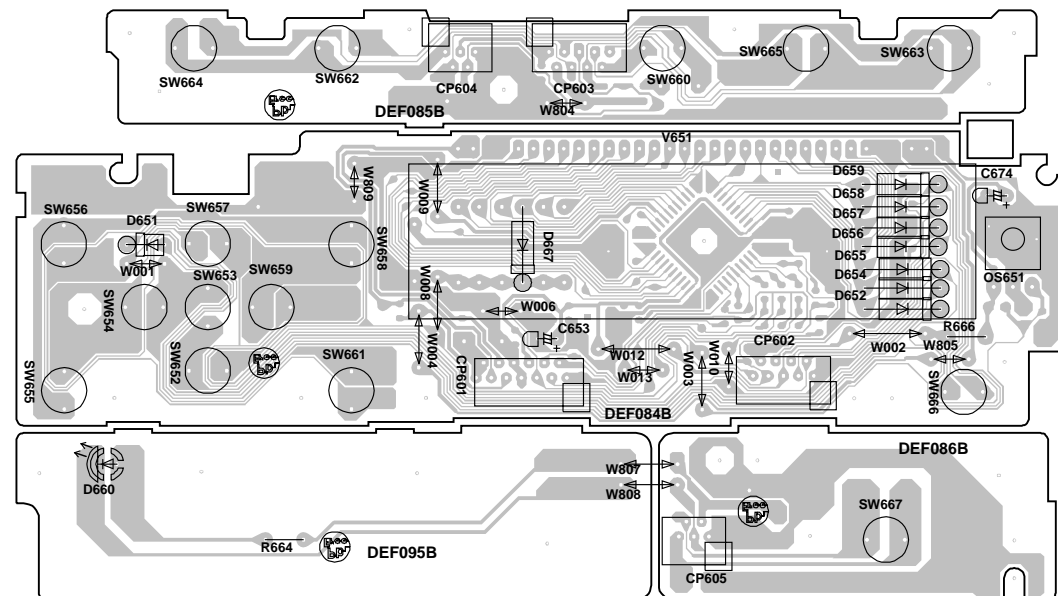
POWER (INSERTED PARTS)
SOLDER SIDE



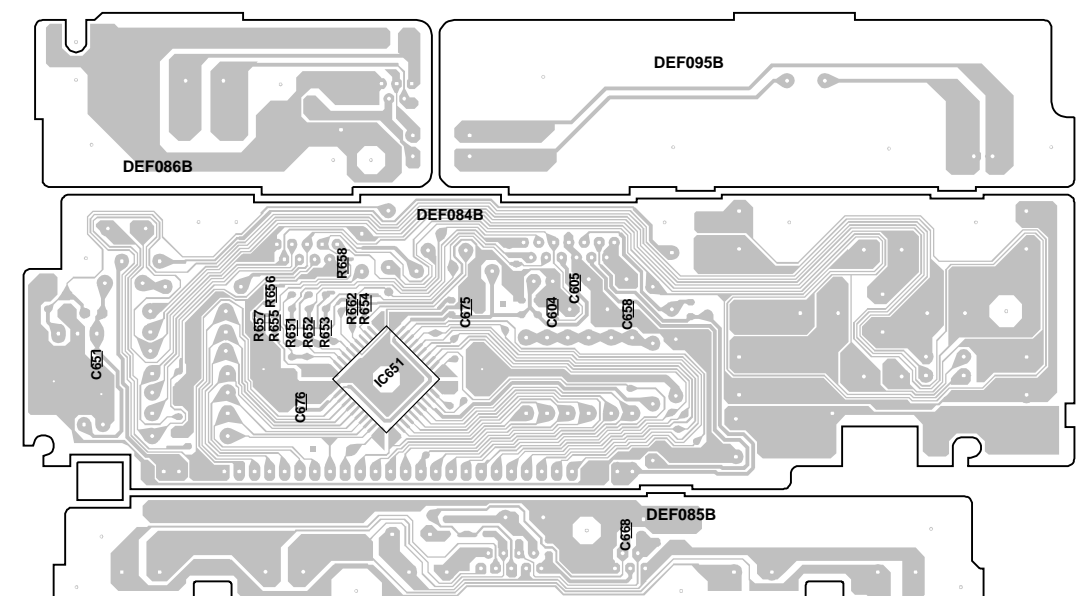
POWER (CHIP MOUNTED PARTS)
SOLDER SIDE



OPERATION/OPERATION 2/OPERATION 3/OPERATION 4 (INSERTED PARTS)
SOLDER SIDE

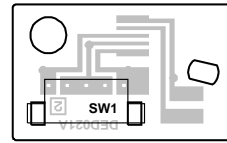


OPERATION/OPERATION2 (CHIP MOUNTED PARTS)
SOLDER SIDE

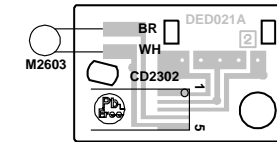


PRINTED CIRCUIT BOARDS

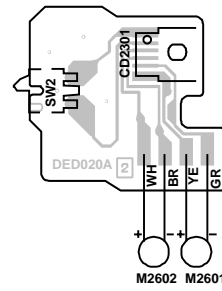
LOADING MOTOR (INSERTED PARTS) SOLDER SIDE



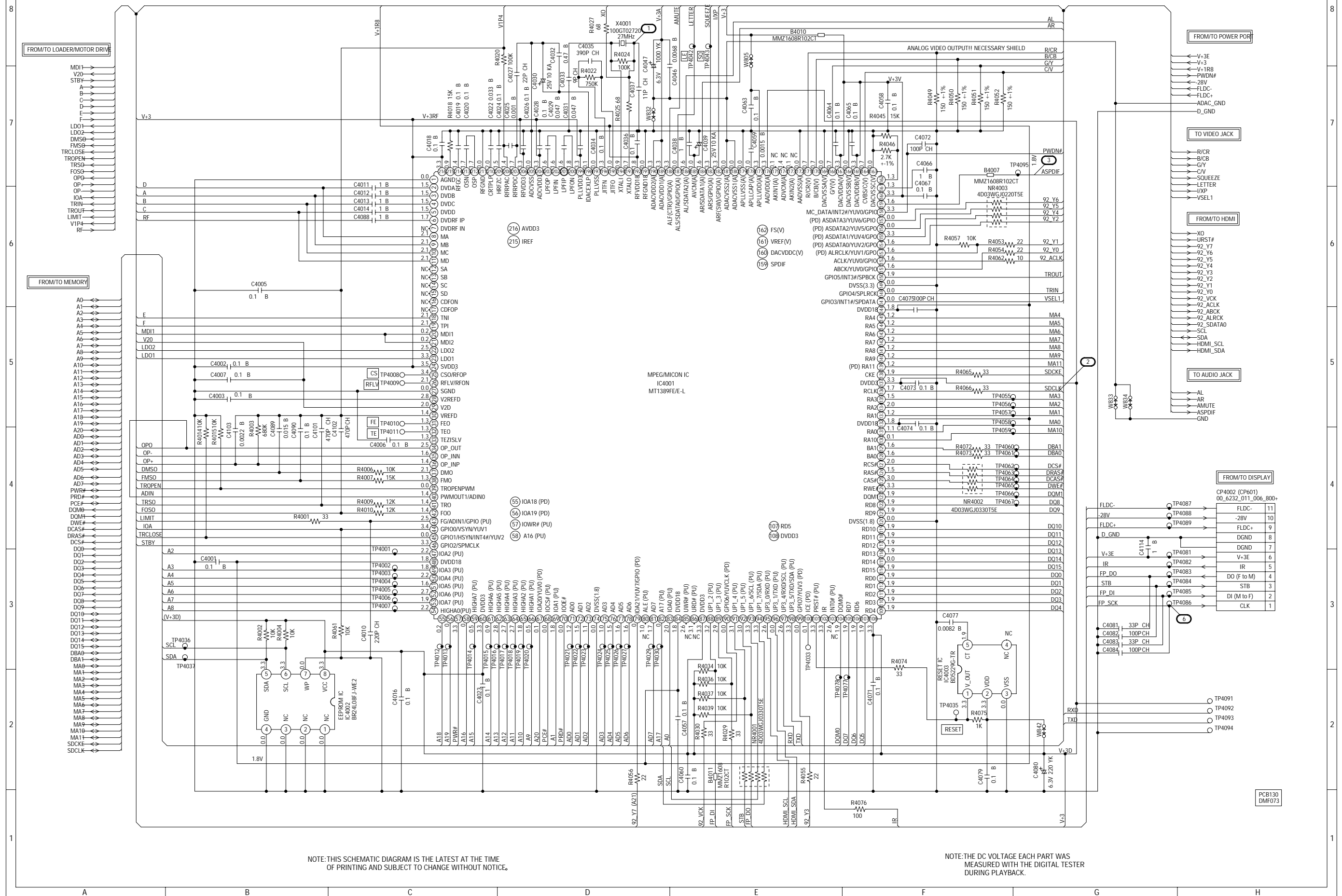
LOADING MOTOR (CHIP MOUNTED PARTS) SOLDER SIDE



SW SOLDER SIDE



MPEG/MICON/DSP SCHEMATIC DIAGRAM (DVD MT PCB)

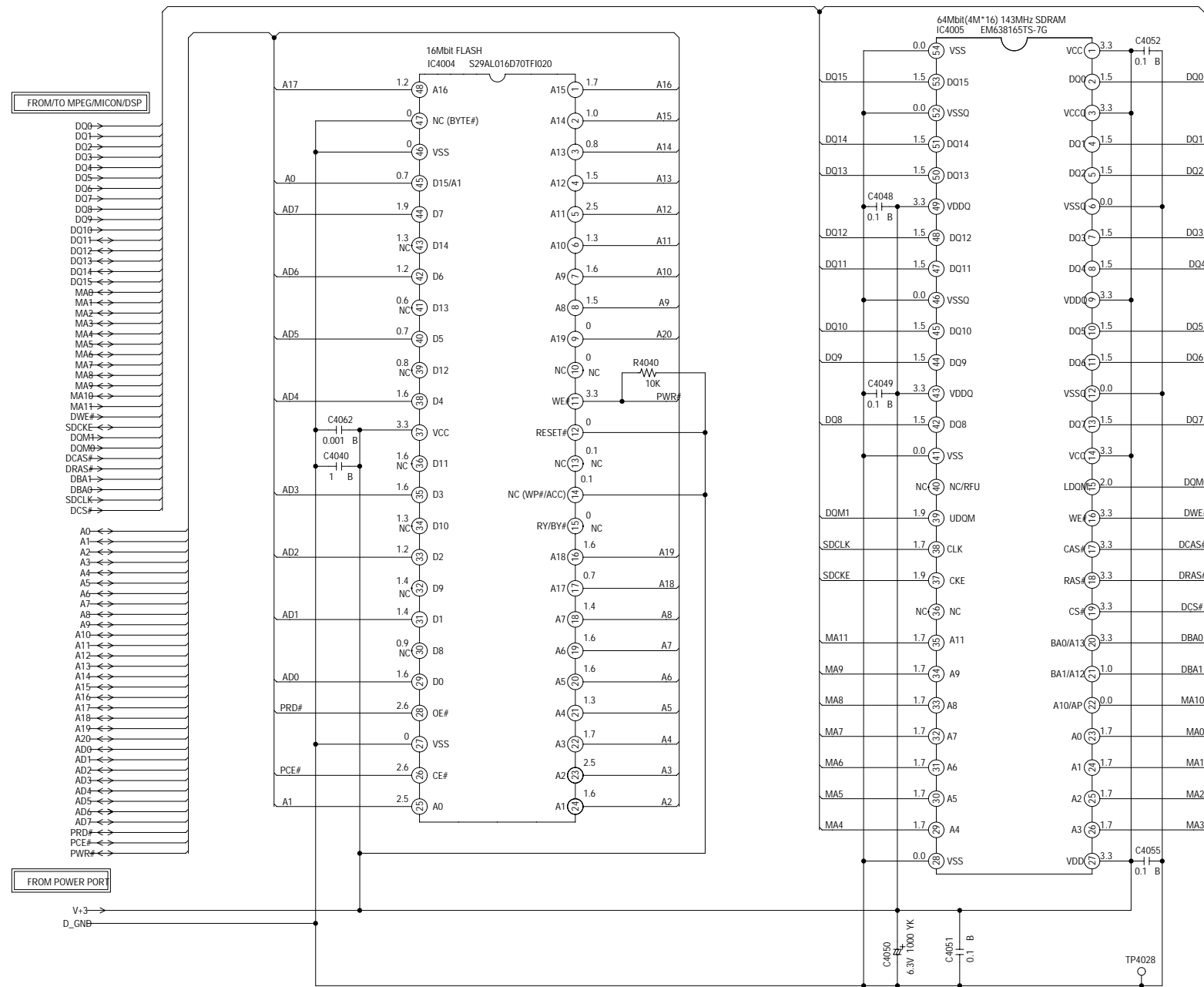


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

PCB130 DMF073

MEMORY SCHEMATIC DIAGRAM (DVD MT PCB)



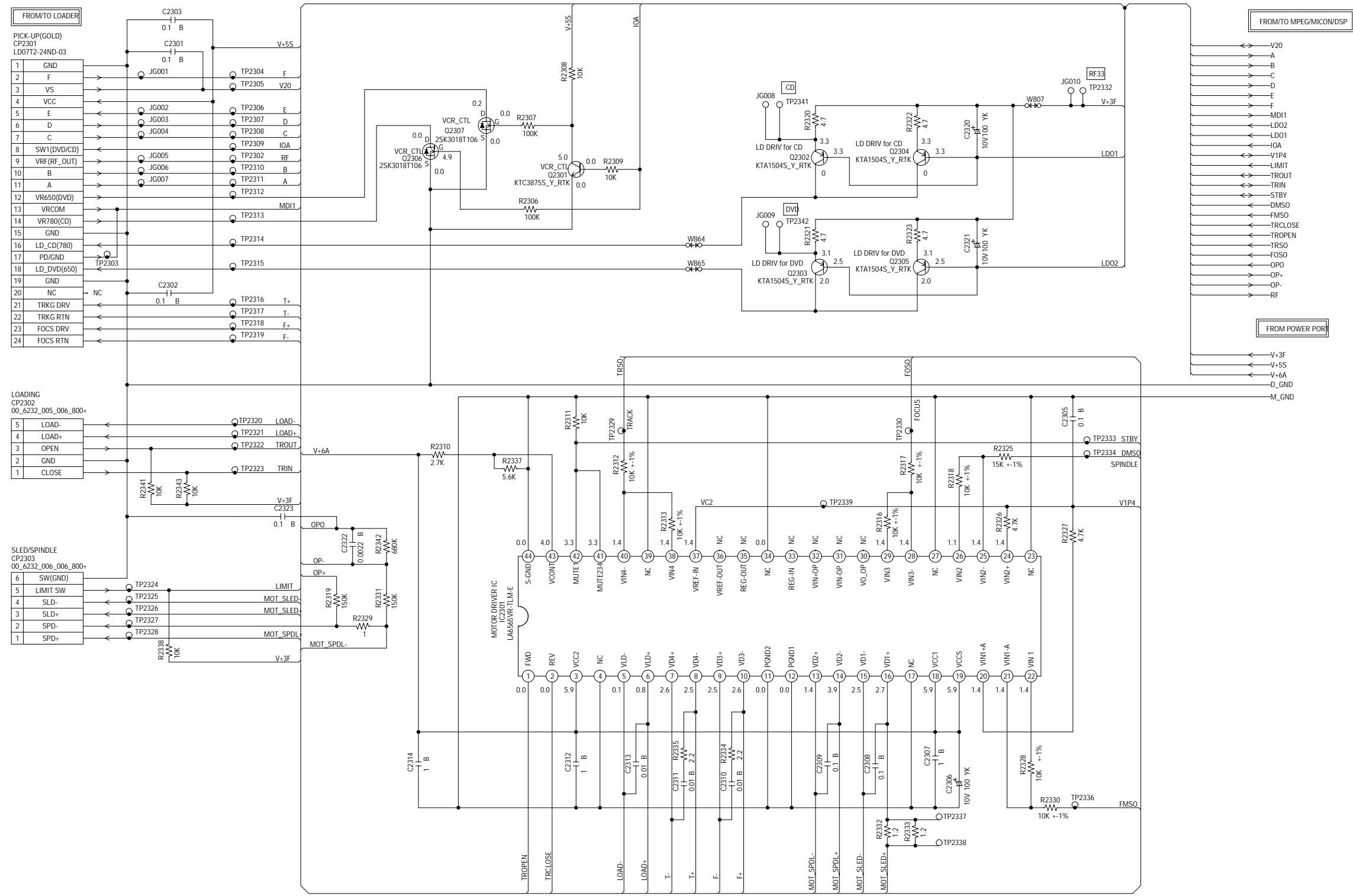
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

PCB130
DMF073

LOADER/MOTOR DRIVE SCHEMATIC DIAGRAM

(DVD MT PCB)



FROM/TO LOADER

1	GND	TP2304	F
2	F	TP2305	V20
3	VS		
4	VCC		
5	E	TP2306	E
6	D	TP2307	D
7	C	TP2308	C
8	SW1(DVD/CD)	TP2309	IOA
9	VRF(RF_OUT)	TP2302	RF
10	B	TP2310	B
11	A	TP2311	A
12	VR650(DVD)	TP2312	
13	VRCOM		MD11
14	VR780(CD)	TP2313	
15	GND		
16	LD_CD(780)	TP2314	
17	PD/GND	TP2315	
18	LD_DVD(650)		
19	GND		
20	NC		
21	TRKG DRV	TP2316	T+
22	TRKG RTN	TP2317	T-
23	FOCS DRV	TP2318	F+
24	FOCS RTN	TP2319	F-

LOADING

5	LOAD-	TP2320	LOAD-
4	LOAD+	TP2321	LOAD+
3	OPEN	TP2322	TROUT
2	GND		
1	CLOSE	TP2323	TRIN

SLED/SPINDLE

6	SW(GND)	TP2324	LIMIT
5	LIMIT SW	TP2325	MOT_SLED-
4	SLD-	TP2326	MOT_SLED-
3	SLD+	TP2327	MOT_SLED-
2	SPD-	TP2328	MOT_SPDL-
1	SPD+		

FROM/TO MPEG/MICRON/DSP

V20	
A	
B	
C	
D	
E	
F	
MD11	
LD02	
LD01	
IOA	
V1P4	
LIMIT	
TROUT	
TRIN	
STBY	
DMSO	
FMSO	
TRCLOSE	
TROPEN	
TRSO	
FOSO	
OPO	
OP+	
OP-	
RF	

FROM POWER PORT

V+3F	
V+5S	
V+6A	
D_GND	
M_GND	

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

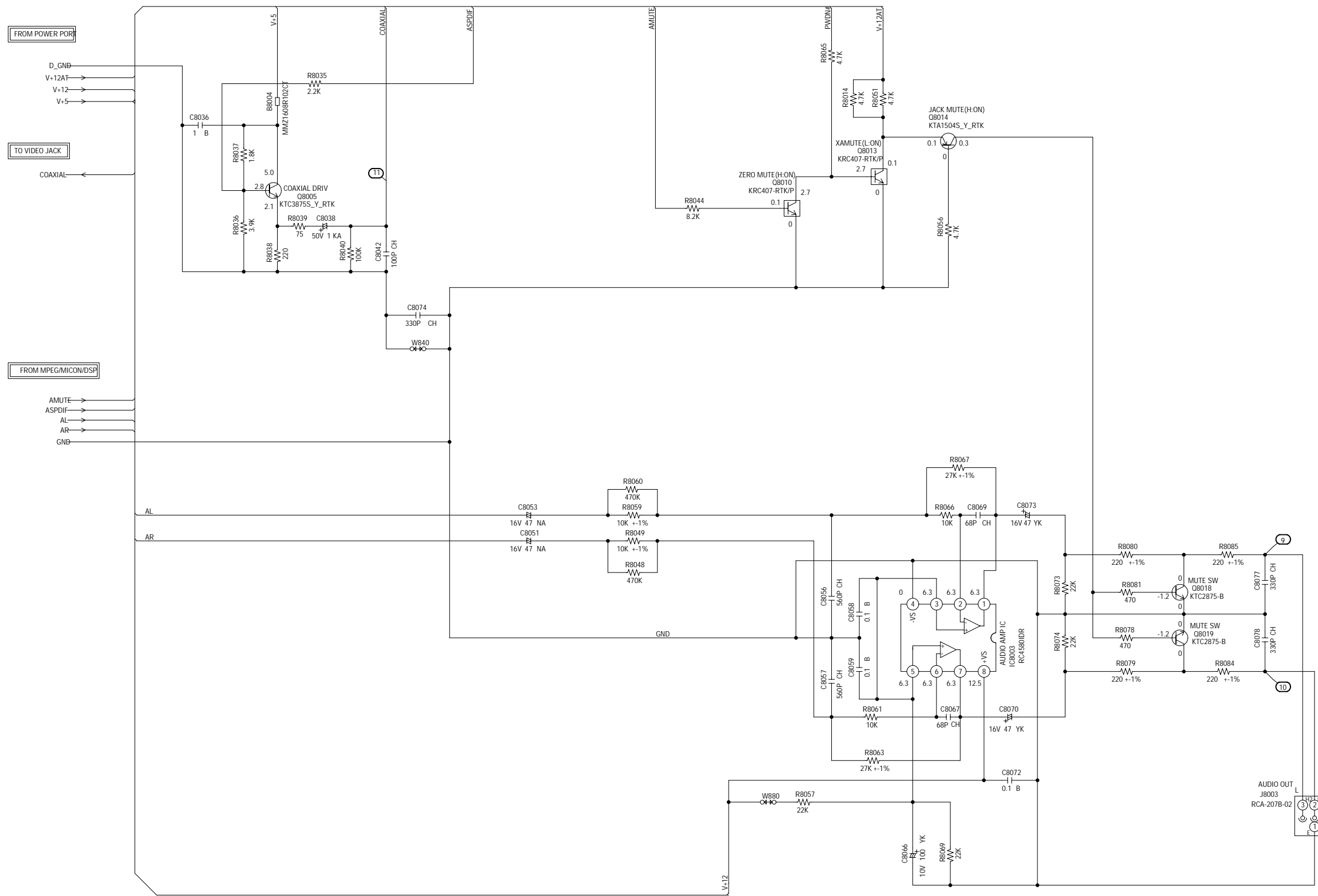
NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

ATTENTION: LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIÈCES

CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

PCB130 DMF073

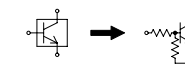
AUDIO JACK SCHEMATIC DIAGRAM (DVD MT PCB)



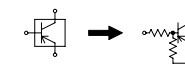
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

CAUTION: DIGITAL TRANSISTOR

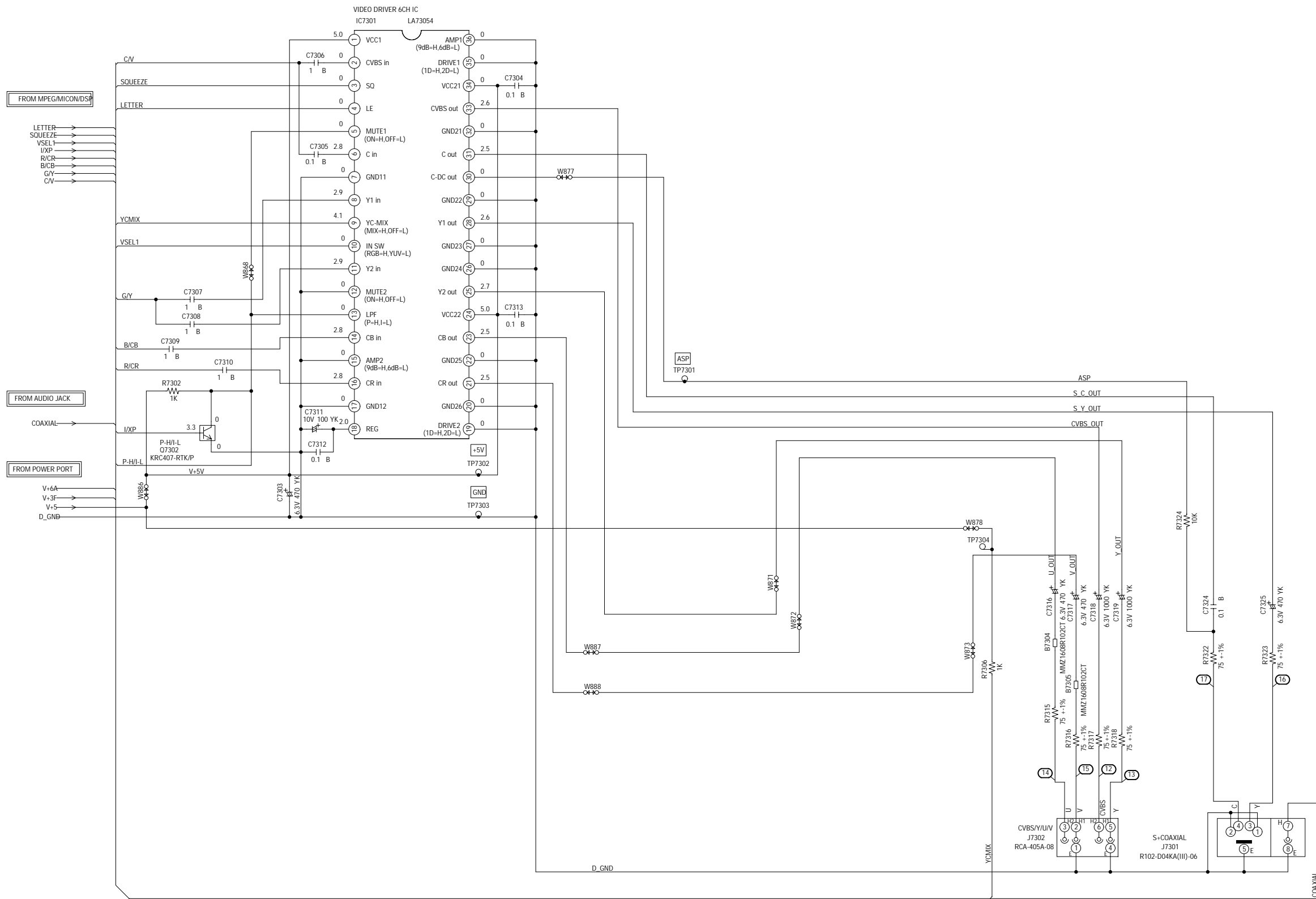


CAUTION: DIGITAL TRANSISTOR



PCB130
DMF073

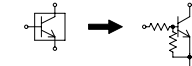
VIDEO JACK SCHEMATIC DIAGRAM (DVD MT PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

CAUTION: DIGITAL TRANSISTOR

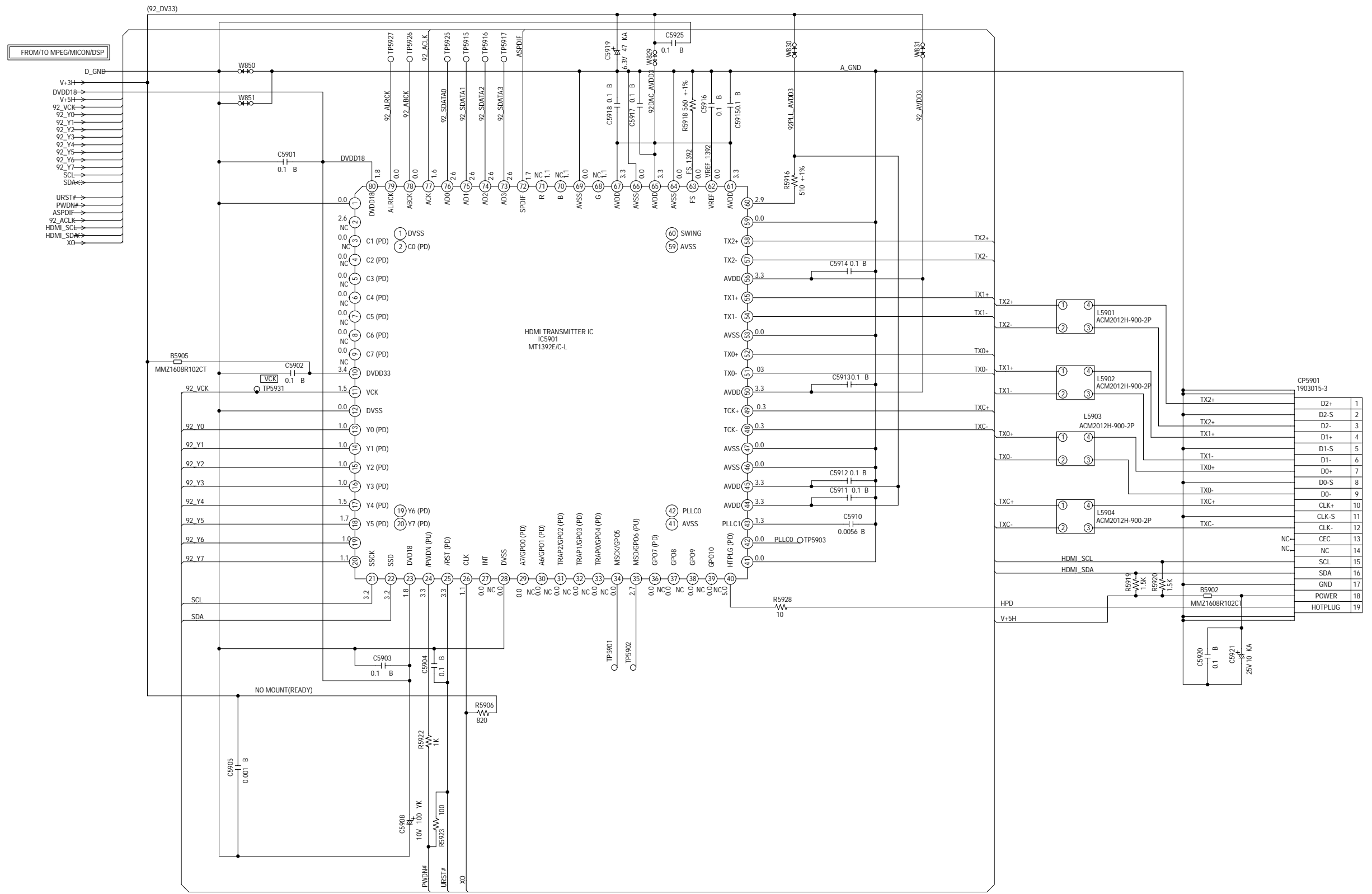


CAUTION: DIGITAL TRANSISTOR



PCB130 DMF073

HDMI SCHEMATIC DIAGRAM (DVD MT PCB)

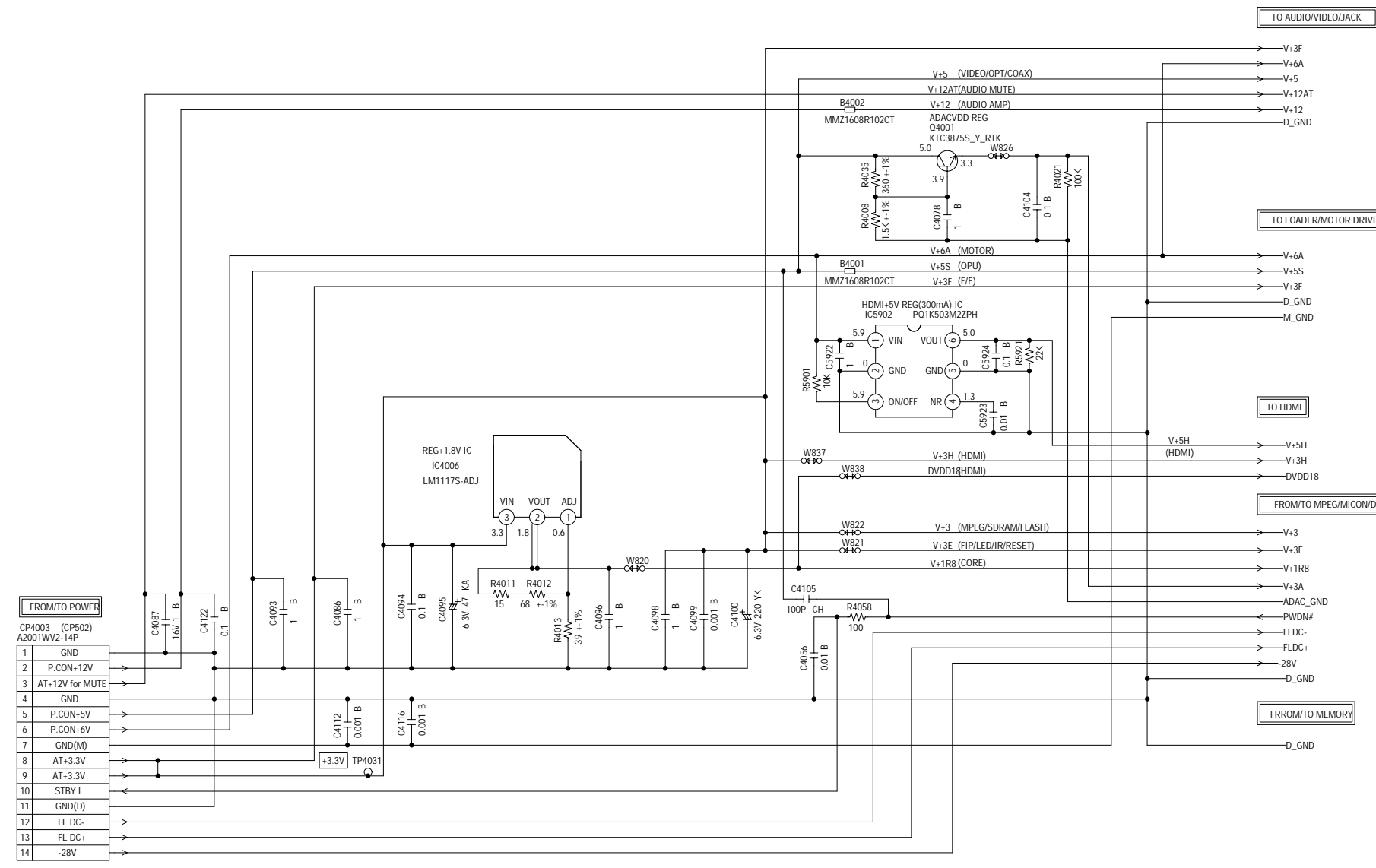


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCB130
DMF073

POWER PORT SCHEMATIC DIAGRAM (DVD MT PCB)



FROM/TO POWER	
1	GND
2	P.CON+12V
3	AT+12V for MUTE
4	GND
5	P.CON+5V
6	P.CON+6V
7	GND(M)
8	AT+3.3V
9	AT+3.3V
10	STBY L
11	GND(D)
12	FL DC-
13	FL DC+
14	-28V

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

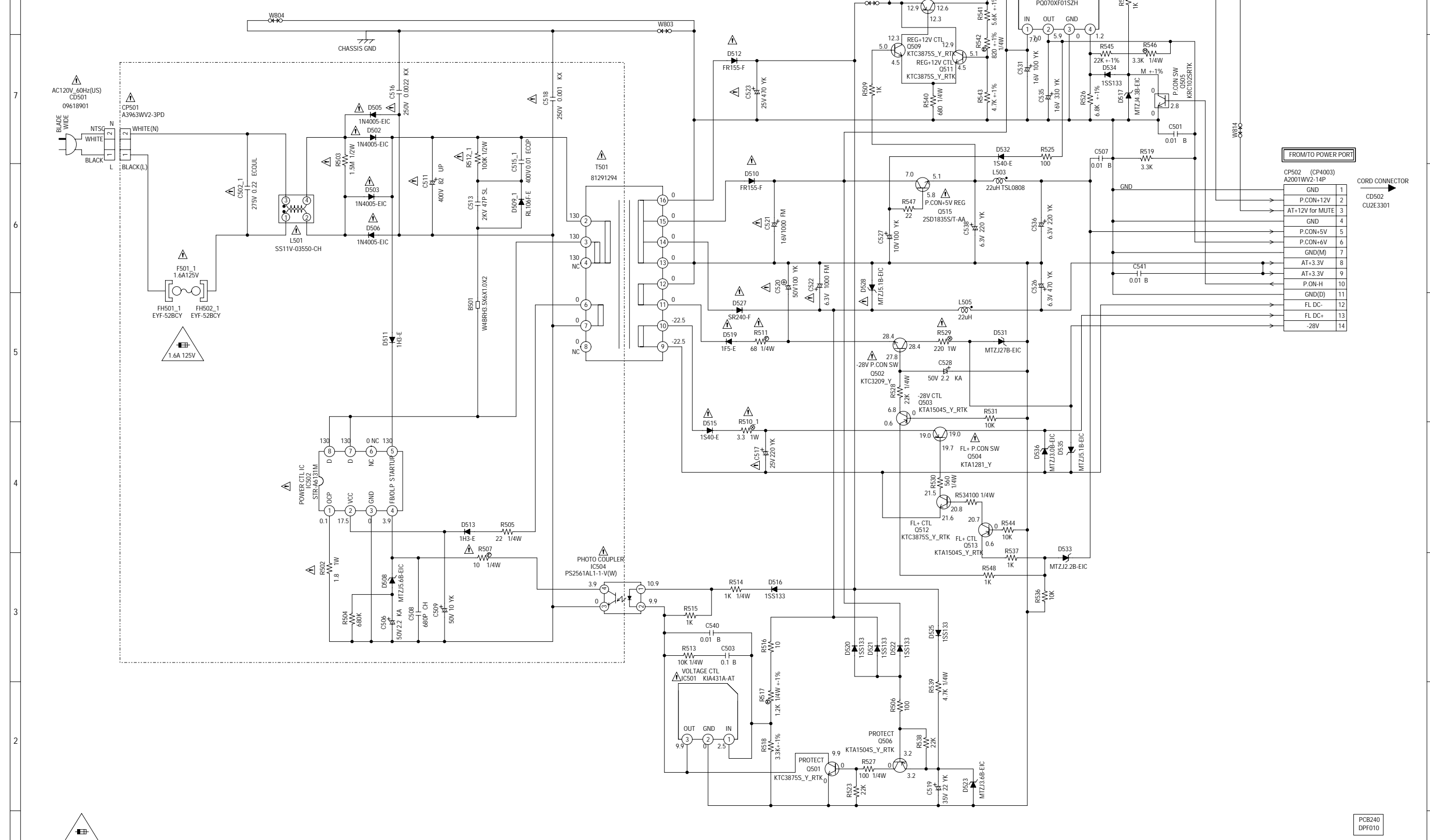
NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

ATTENTION: LES PIÈCES MARQUÉES PAR UN ETANT DANGEREUSES À UN POINT DE VUE SÉCURITÉ, N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

PCB130
DMF073

POWER SCHEMATIC DIAGRAM (POWER PCB)



FROM TO POWER PORT	
GND	1
P.CON+12V	2
AT+12V for MUTE	3
GND	4
P.CON+5V	5
P.CON+6V	6
GND(M)	7
AT+3.3V	8
AT+3.3V	9
P.ON(H)	10
GND(D)	11
FL DC-	12
FL DC+	13
-28V	14

CAUTION FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE 1.6A 125V(F501)
ATTENTION POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEINDE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 1.6A 125V(F501)

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

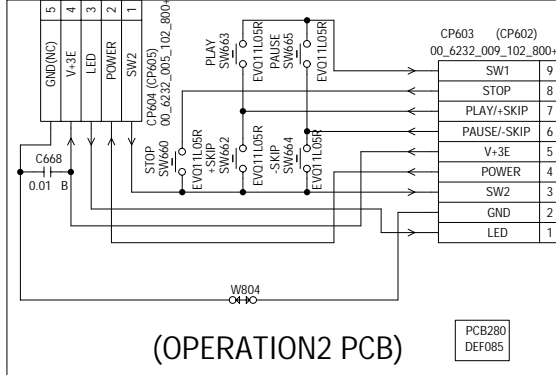
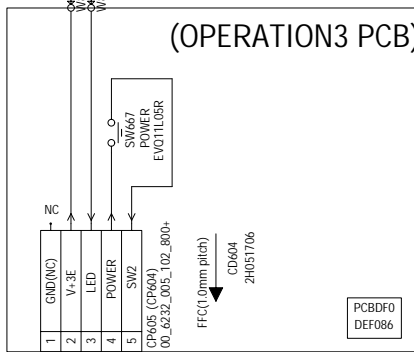
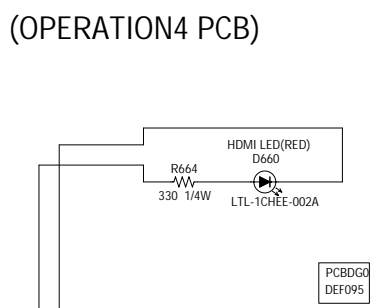
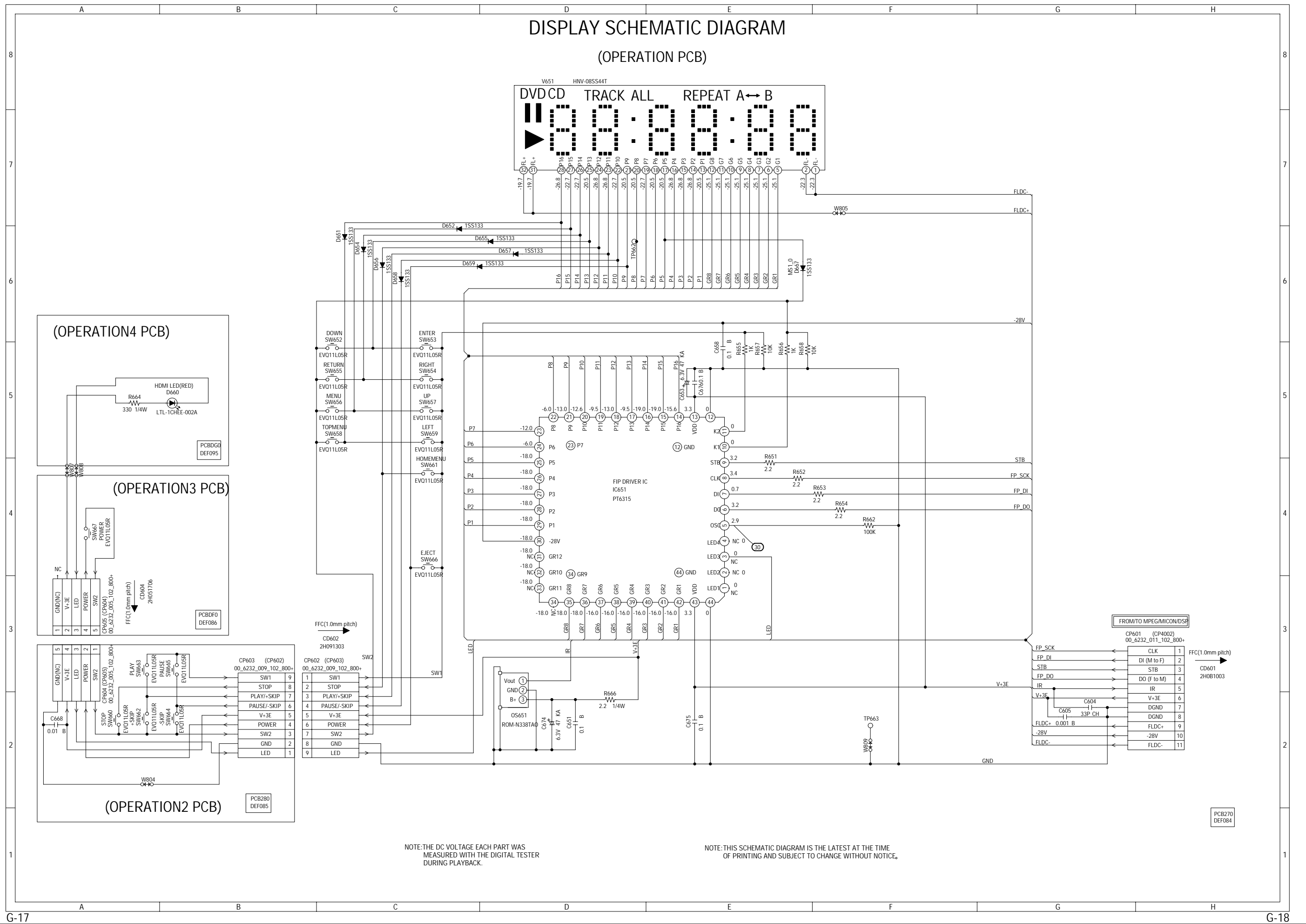
ATTENTION LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLES DECRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

CAUTION: DIGITAL TRANSISTOR

DISPLAY SCHEMATIC DIAGRAM

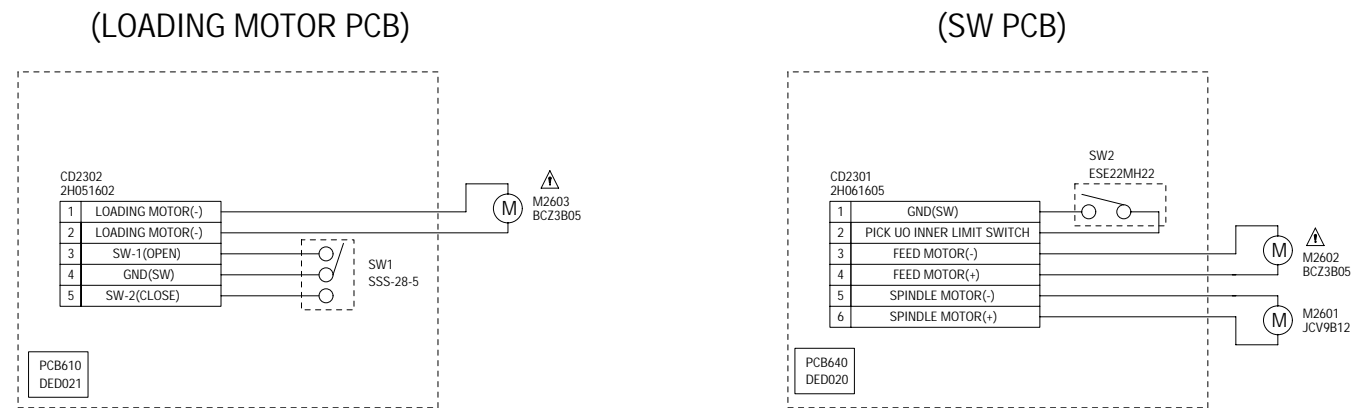
(OPERATION PCB)



NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

LOADING MOTOR/SW SCHEMATIC DIAGRAM

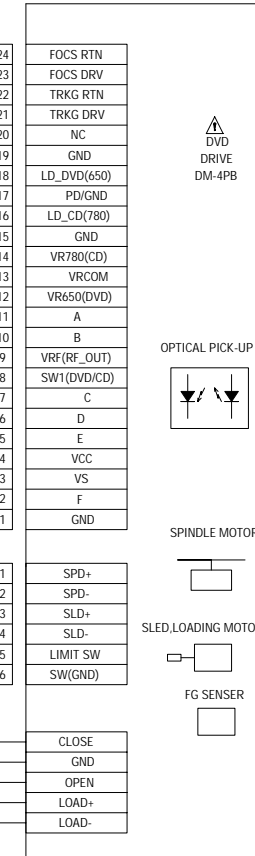
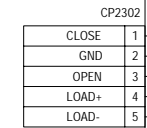
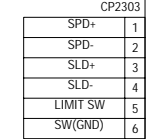
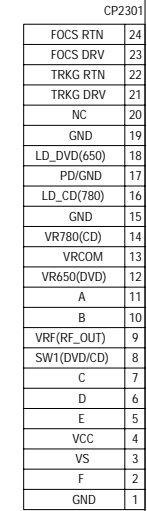
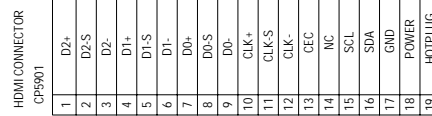
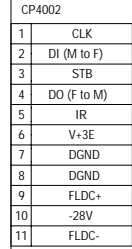
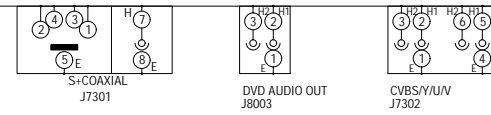
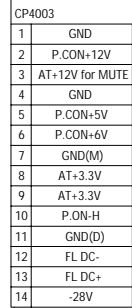
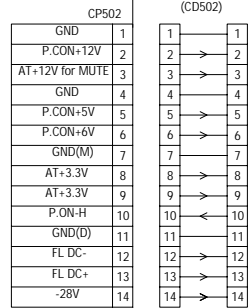
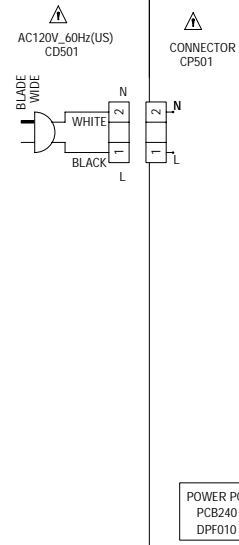
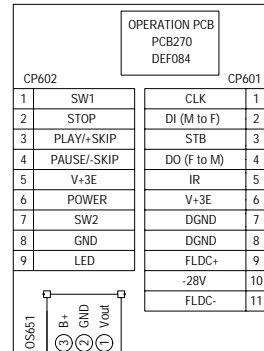
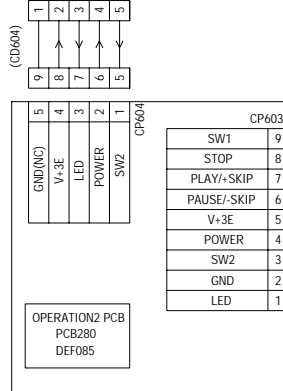
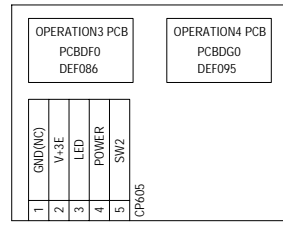


CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

INTERCONNECTION DIAGRAM



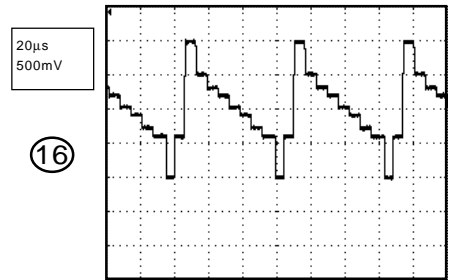
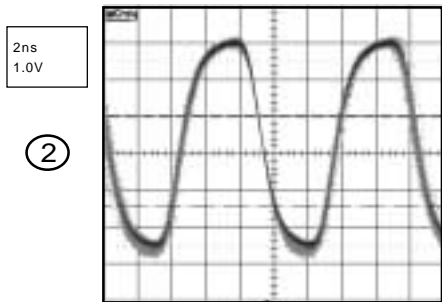
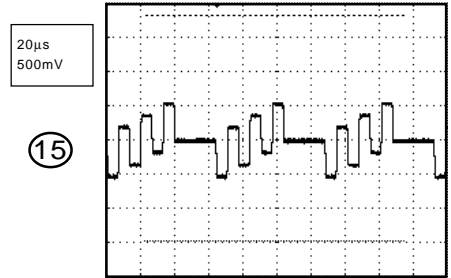
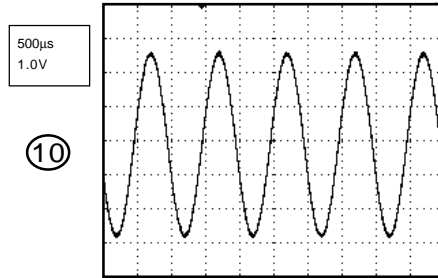
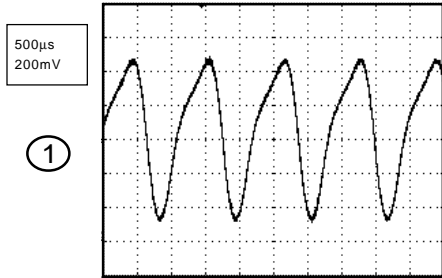
NOTE: THIS INTERCONNECTION DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

ATTENTION LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLES DECRITES DANS LA NOMENCLATURE DES PIÈCES

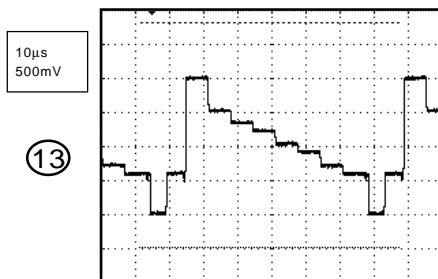
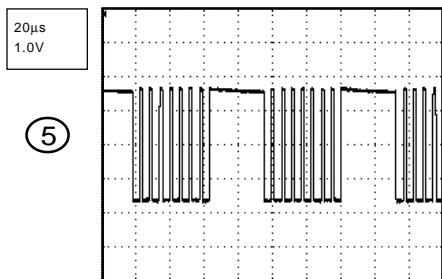
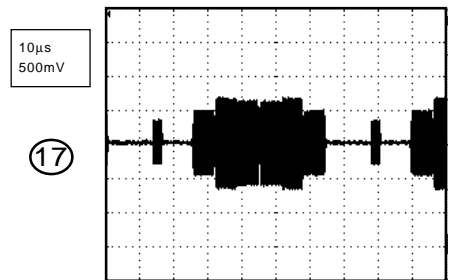
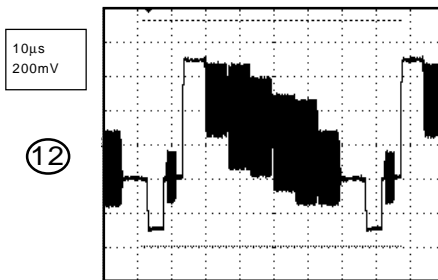
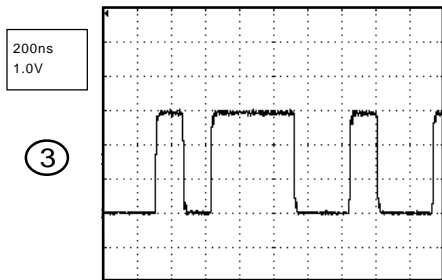
CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

WAVEFORMS

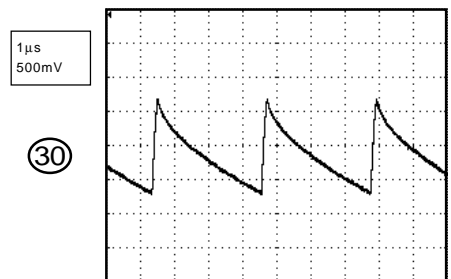
MPEG/MICON/DSP



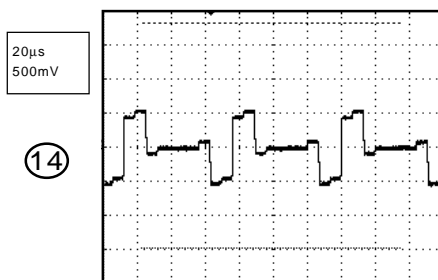
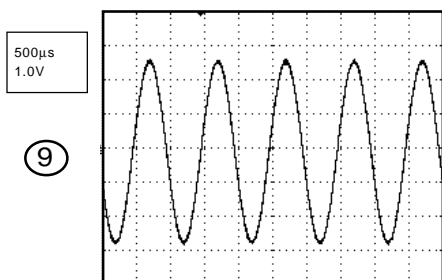
VIDEO JACK



DISPLAY

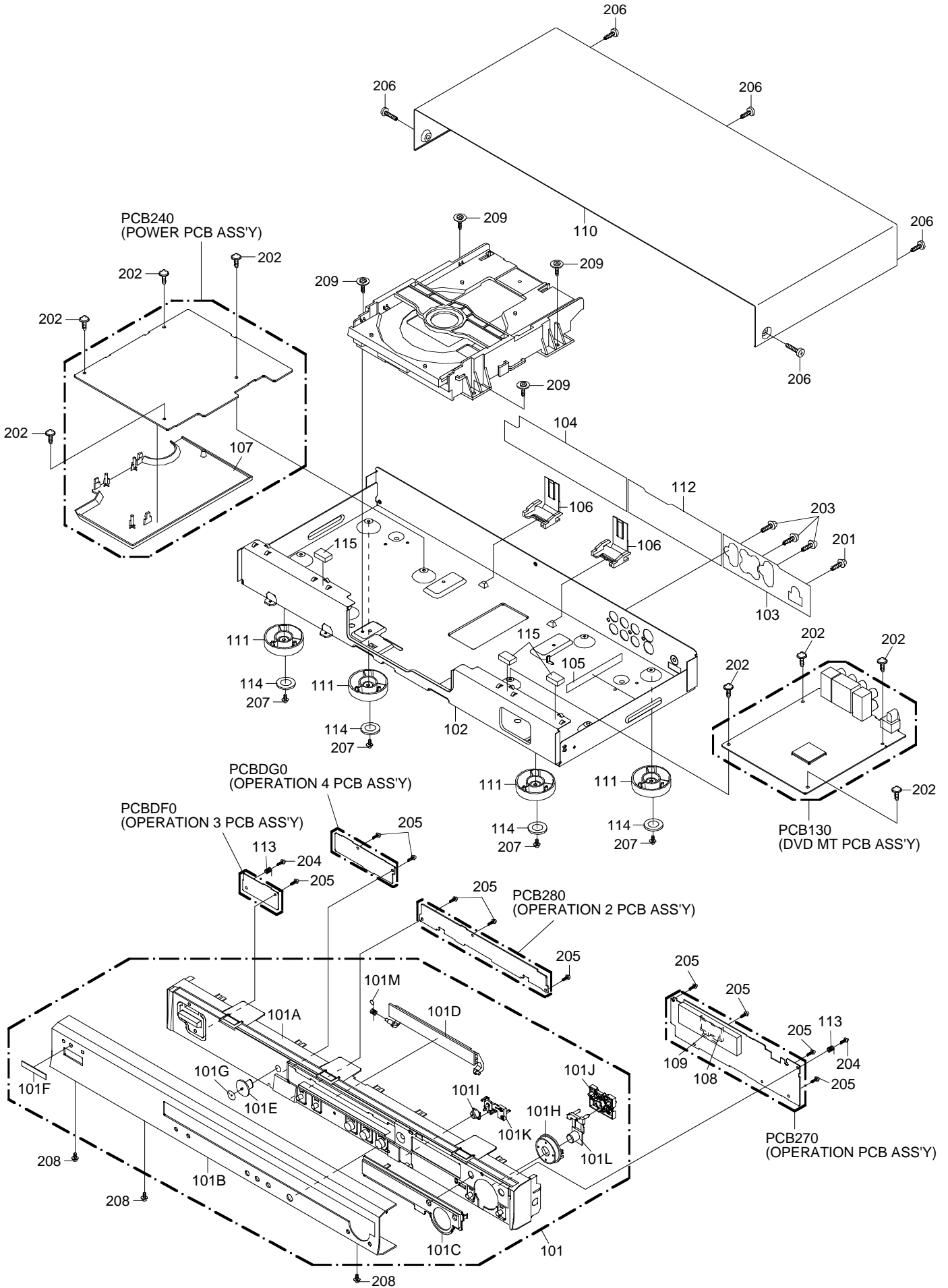


AUDIO JACK

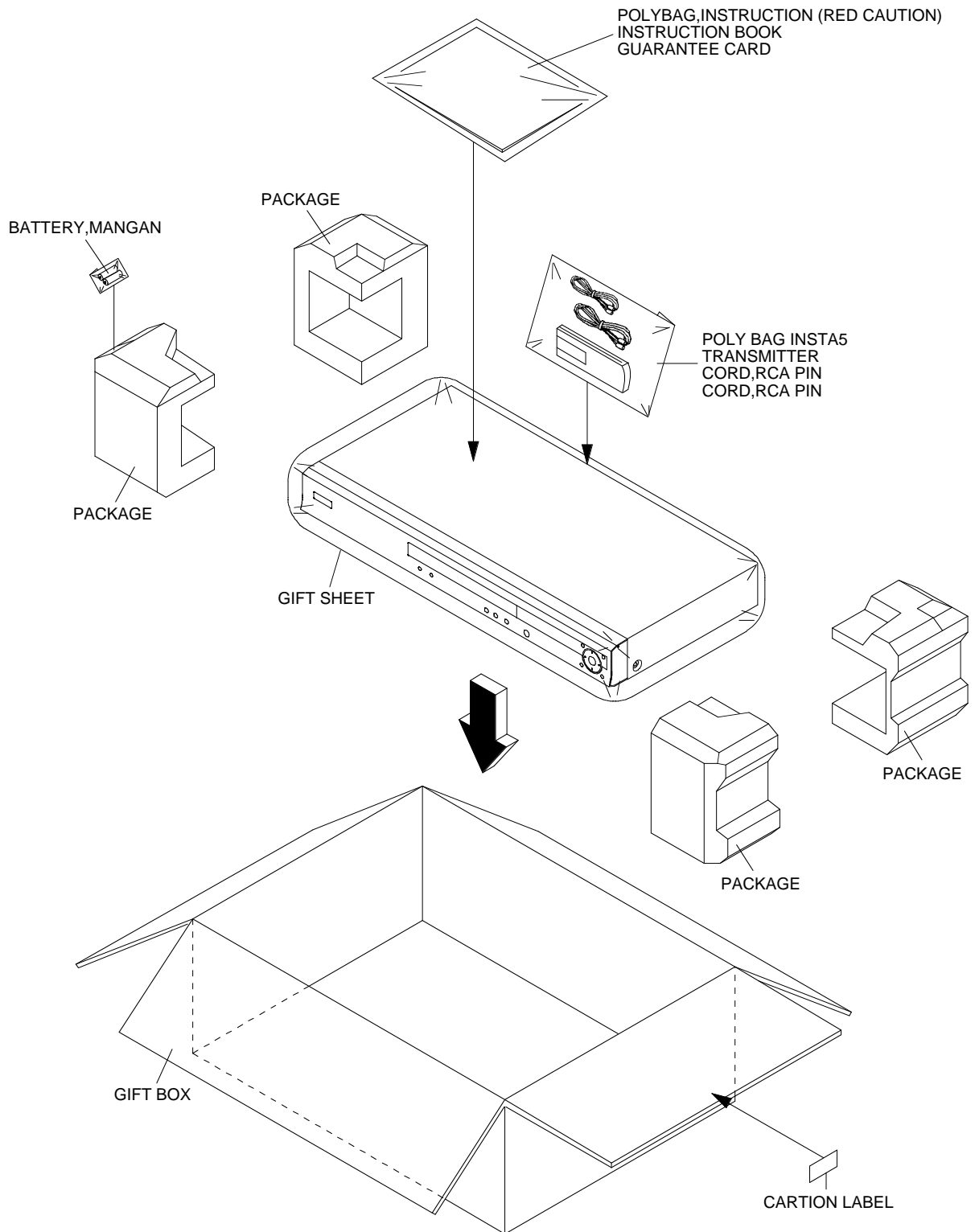


NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

MECHANICAL EXPLODED VIEW



MECHANICAL EXPLODED VIEW (PACKING DIAGRAM)



MECHANICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
101	7A701A785A	FRONT CABI ASS'Y	
101A	—	CABINET FRONT	
101B	—	PANEL FRONT	
101C	—	PLATE DISPLAY	
101D	—	FLAP DVD	
101E	—	GLASS LED	
101F	—	BADGE BRAND	
101G	—	SHEET DOUBLE TAPE	
101H	—	BUTTON CAP	
101I	—	BUTTON CAP EJECT	
101J	—	BUTTON FRAME 2	
101K	—	BUTTON FRAME 3	
101L	—	BUTTON FRAME 1	
101M	—	SPRING FLAP-DVD	
102	NSP	PLATE BOTTOM	
103	NSP	SHEET JACK 1	
104	NSP	SHEET JACK 3	
105	NSP	SHEET CAUTION	
106	761WPA0396	HOLDER FFC	
107	755WPAA031	PLATE COVER POWER	or
	755WPAA032	PLATE COVER POWER	
108	7290000156	DOUBLE FACE-TAPE	
109	752WSA0466	PLATE FIP	
110	702WSBA071	CABINET TOP	
111	704WPA0054	LEG	
112	NSP	SHEET JACK 2	
113	743WKAA015	SPRING EARTH	
114	800WR0A028	CUSHION LEG	
115	8965TS1015	CUSHION 65TS10-5	10x5x15
201	810213060U	SCREW PAN	M3x6
202	8107D3055U	SCREW TAP TITE(S)R WH8	3x5.5
203	810913060U	SCREW TAP TITE(B) PAN	3x6
204	811012680U	SCREW TAP TITE(P)BIND WH7	M2.6x8
205	811022680U	SCREW TAP TITE(P) BIND	2.6x8
206	8109K3060S	SCREW TAP TITE(B) BIND(3D)	3x6
207	810923070U	SCREW TAP TITE(B) R BIND	3x7
208	811022680S	SCREW TAP TITE(P)BIND	2.6x8
209	816423063U	SCREW TAP TITE(S)-R BIND WASHER8	3x6.3
---	723000D382	CARTON LABEL	
---	791WHA0113	GIFT SHEET	
---	791WHA040	POLY BAG INSTA5	
---	792WHA0169	PACKAGE	
---	793WCDD254	GIFT BOX	
---	A21918A975	INSTRUCTION BOOK KIT	
---	J2191801A	INSTRUCTION BOOK	
---	NSP	GUARANTEE CARD	
---	JB5UD200	POLYBAG INSTRUCTION(RED CAUTION)	

NOTE: "NSP" is Not Service Part.

DVD DECK REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
△ 600	A2I802A650	DVD MECHA ASS'Y	A2I802A650
601	92P100125A	HOLDER, TRAVERSE	
602	92P100122A	CLAMPER	
603	92P100088A	GEAR, MOTOR	
604	92P100117A	GEAR, MIDDLE	
605	92P200013A	INSULATOR(F)	
606	92P200016A	INSULATOR(R)	
607	92AAA0019B	LOADER SUB ASS'Y(B)	
608	92P100123A	GEAR, PULLEY	
609	92P100097A	PULLEY, MOTOR	
610	92P100124A	GEAR, MAIN	
611	92P200015A	BELT, LOADING	
612	92P000023A	PLATE, CLAMPER	
613	92P100121A	RACK, LOADING	
614	92P100119A	FRAME, MAIN	
615	92P100127B	TRAY(B)	
616	92P100116A	GEAR, FEED	
617	92AAA0017A	FEED RACK ASS'Y	
701	811022680U	SCREW, TAP TITE(P) BIND	2.6x8
702	814011723U	SCREW, PAN	M1.7x2.3 P3
703	816112080U	SEMS. TAP TITE(P) PAN W10	2x8
704	814011730U	SCREW, PAN	M1.7x3 P3
705	811022080U	SCREW, TAP TITE(P) BIND	2x8
706	813381750U	SCREW, T-TITE(B)CAMERA PAN	M1.7x5.0 P3
707	92P700007A	SCREW, GEAR FEED	
CD2001	122J4O2202	CORD JUMPER	127000-2929
CD2301	122H061605	CORD JUMPER	2H061605
CD2302	122H051602	CORD JUMPER	2H051602
△ M2602	1515S98004	MOTOR	BCZ3B05
△ M2603	1515S98004	MOTOR	BCZ3B05
PCB610	A2F101A610	LOADING MOTOR PCB ASS'Y	DED021A
PCB640	A2F101A640	SW PCB ASS'Y	DED020A
SW1	0515S32003	SWITCH (SLIDE)	SSS-28-5
SW2	0500101036	PUSH SWITCH	ESE22MH22

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
		RESISTORS			RESISTORS
R502		R,METAL OXIDE 1.8 OHM 1W	R2335	RC	2.2 OHM 1/16W
R503		RC 1.5M OHM 1/2W	R2337	RC	5.6K OHM 1/16W
R504		RC 680K OHM 1/16W	R2338	RC	10K OHM 1/16W
R505		RC 22 OHM 1/4W	R2341	RC	10K OHM 1/16W
R506		RC 100 OHM 1/16W	R2342	RC	680K OHM 1/16W
R507		R,FUSE 10 OHM 1/4W	R2343	RC	10K OHM 1/16W
R509		RC 1K OHM 1/16W	R4001	RC	33 OHM 1/16W
R510		R,METAL OXIDE 3.3 OHM 1W	R4002	RC	10K OHM 1/16W
R511		R,FUSE 68 OHM 1/4W	R4003	RC	680K OHM 1/16W
R512		RC 100K OHM 1/2W	R4004	RC	10K OHM 1/16W
R513		RC 10K OHM 1/4W	R4006	RC	10K OHM 1/16W
R514		RC 1K OHM 1/4W	R4007	RC	15K OHM 1/16W
R515		RC 1K OHM 1/16W	R4008	RC	1.5K OHM 1/16W
R516		RC 10 OHM 1/16W	R4009	RC	12K OHM 1/16W
R517		R,METAL 1.2K OHM 1/4W	R4010	RC	12K OHM 1/16W
R518		RC 3.3K OHM 1/16W	R4011	RC	15 OHM 1/16W
R519		RC 3.3K OHM 1/16W	R4012	RC	68 OHM 1/16W
R523		RC 22K OHM 1/16W	R4013	RC	39 OHM 1/16W
R524		RC 1K OHM 1/4W	R4014	RC	10K OHM 1/16W
R525		RC 100 OHM 1/16W	R4015	RC	10K OHM 1/16W
R526		RC 6.8K OHM 1/16W	R4018	RC	15K OHM 1/16W
R527		RC 100 OHM 1/4W	R4020	RC	100K OHM 1/16W
R528		RC 22K OHM 1/4W	R4021	RC	100K OHM 1/16W
R529		R,METAL OXIDE 220 OHM 1W	R4022	RC	750K OHM 1/16W
R530		RC 560 OHM 1/4W	R4024	RC	100K OHM 1/16W
R531		RC 10K OHM 1/16W	R4025	RC	68 OHM 1/16W
R534		RC 100 OHM 1/4W	R4027	RC	68 OHM 1/16W
R536		RC 10K OHM 1/16W	R4029	RC	33 OHM 1/16W
R537		RC 1K OHM 1/16W	R4030	RC	33 OHM 1/16W
R538		RC 22K OHM 1/16W	R4034	RC	10K OHM 1/16W
R539		RC 4.7K OHM 1/4W	R4035	RC	360 OHM 1/16W
R540		RC 680 OHM 1/4W	R4036	RC	10K OHM 1/16W
R541		RC 5.6K OHM 1/16W	R4037	RC	10K OHM 1/16W
R542		R,METAL 820 OHM 1/4W	R4039	RC	10K OHM 1/16W
R543		RC 4.7K OHM 1/16W	R4040	RC	10K OHM 1/16W
R544		RC 10K OHM 1/16W	R4045	RC	15K OHM 1/16W
R545		RC 22K OHM 1/16W	R4046	RC	2.7K OHM 1/16W
R546		R,METAL 3.3K OHM 1/4W	R4049	RC	150 OHM 1/16W
R547		RC 22 OHM 1/16W	R4050	RC	150 OHM 1/16W
R548		RC 1K OHM 1/16W	R4051	RC	150 OHM 1/16W
R651		RC 2.2 OHM 1/16W	R4052	RC	150 OHM 1/16W
R652		RC 2.2 OHM 1/16W	R4053	RC	22 OHM 1/16W
R653		RC 2.2 OHM 1/16W	R4054	RC	22 OHM 1/16W
R654		RC 2.2 OHM 1/16W	R4055	RC	22 OHM 1/16W
R655		RC 1K OHM 1/16W	R4056	RC	22 OHM 1/16W
R656		RC 1K OHM 1/16W	R4057	RC	10K OHM 1/16W
R657		RC 10K OHM 1/16W	R4058	RC	100 OHM 1/16W
R658		RC 10K OHM 1/16W	R4061	RC	10K OHM 1/16W
R662		RC 100K OHM 1/16W	R4062	RC	10 OHM 1/16W
R664		RC 330 OHM 1/4W	R4065	RC	33 OHM 1/16W
R666		RC 2.2 OHM 1/4W	R4066	RC	33 OHM 1/16W
R2306		RC 100K OHM 1/16W	R4072	RC	33 OHM 1/16W
R2307		RC 100K OHM 1/16W	R4073	RC	33 OHM 1/16W
R2308		RC 10K OHM 1/16W	R4074	RC	33 OHM 1/16W
R2309		RC 10K OHM 1/16W	R4075	RC	1K OHM 1/16W
R2310		RC 2.7K OHM 1/16W	R4076	RC	100 OHM 1/16W
R2311		RC 10K OHM 1/16W	R5901	RC	10K OHM 1/16W
R2312		RC 10K OHM 1/16W	R5906	RC	820 OHM 1/16W
R2313		RC 10K OHM 1/16W	R5916	RC	510 OHM 1/16W
R2316		RC 10K OHM 1/16W	R5918	RC	560 OHM 1/16W
R2317		RC 10K OHM 1/16W	R5919	RC	1.5K OHM 1/16W
R2318		RC 10K OHM 1/16W	R5920	RC	1.5K OHM 1/16W
R2319		RC 150K OHM 1/16W	R5921	RC	22K OHM 1/16W
R2320		RC 4.7 OHM 1/16W	R5922	RC	1K OHM 1/16W
R2321		RC 4.7 OHM 1/16W	R5923	RC	100 OHM 1/16W
R2322		RC 4.7 OHM 1/16W	R5928	RC	10 OHM 1/16W
R2323		RC 4.7 OHM 1/16W	R7302	RC	1K OHM 1/16W
R2325		RC 15K OHM 1/16W	R7306	RC	1K OHM 1/16W
R2326		RC 4.7K OHM 1/16W	R7315	RC	75 OHM 1/16W
R2327		RC 4.7K OHM 1/16W	R7316	RC	75 OHM 1/16W
R2328		RC 10K OHM 1/16W	R7317	RC	75 OHM 1/16W
R2329		RC 1 OHM 1/16W	R7318	RC	75 OHM 1/16W
R2330		RC 10K OHM 1/16W	R7322	RC	75 OHM 1/16W
R2331		RC 150K OHM 1/16W	R7323	RC	75 OHM 1/16W
R2332		RC 1.2 OHM 1/16W	R7324	RC	10K OHM 1/16W
R2333		RC 1.2 OHM 1/16W	R8014	RC	4.7K OHM 1/16W
R2334		RC 2.2 OHM 1/16W	R8035	RC	2.2K OHM 1/16W

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			CAPACITORS		
R8036	RC	3.9K OHM 1/16W	C2320	CE	100 UF 10V
R8037	RC	1.8K OHM 1/16W	C2321	CE	100 UF 10V
R8038	RC	220 OHM 1/16W	C2322	CC	0.0022UF 50V B
R8039	RC	75 OHM 1/16W	C2323	CC	0.1 UF 25V B
R8040	RC	100K OHM 1/16W	C4001	CC	0.1 UF 25V B
R8044	RC	8.2K OHM 1/16W	C4002	CC	0.1 UF 25V B
R8048	RC	470K OHM 1/16W	C4003	CC	0.1 UF 25V B
R8049	RC	10K OHM 1/16W	C4005	CC	0.1 UF 25V B
R8051	RC	4.7K OHM 1/16W	C4006	CC	0.1 UF 25V B
R8056	RC	4.7K OHM 1/16W	C4007	CC	0.1 UF 25V B
R8057	RC	22K OHM 1/16W	C4010	CC	220 PF 50V CH
R8059	RC	10K OHM 1/16W	C4011	CC	1 UF 10V B
R8060	RC	470K OHM 1/16W	C4012	CC	1 UF 10V B
R8061	RC	10K OHM 1/16W	C4013	CC	1 UF 10V B
R8063	RC	27K OHM 1/16W	C4014	CC	1 UF 10V B
R8065	RC	4.7K OHM 1/16W	C4016	CC	0.1 UF 25V B
R8066	RC	10K OHM 1/16W	C4018	CC	0.1 UF 25V B
R8067	RC	27K OHM 1/16W	C4019	CC	0.1 UF 25V B
R8069	RC	22K OHM 1/16W	C4020	CC	0.1 UF 25V B
R8073	RC	22K OHM 1/16W	C4022	CC	0.033 UF 25V B
R8074	RC	22K OHM 1/16W	C4023	CC	0.1 UF 25V B
R8078	RC	470 OHM 1/16W	C4024	CC	0.1 UF 25V B
R8079	RC	220 OHM 1/16W	C4025	CC	0.001 UF 50V B
R8080	RC	220 OHM 1/16W	C4026	CC	0.1 UF 25V B
R8081	RC	470 OHM 1/16W	C4027	CC	22 PF 50V CH
R8084	RC	220 OHM 1/16W	C4028	CC	0.1 UF 25V B
R8085	RC	220 OHM 1/16W	C4029	CC	0.047 UF 25V B
CAPACITORS			C4030	CE	10 UF 25 V
C501	CC	0.01 UF 50V B	C4031	CC	0.047 UF 25V B
C502	CMP	0.22 UF 275V ECQUL	C4032	CC	0.47 UF 10V B
C503	CC	0.1 UF 25V B	C4033	CC	9 PF 50V CH
C506	CE	2.2 UF 50V	C4034	CC	0.1 UF 25V B
C507	CC	0.01 UF 50V B	C4035	CC	390 PF 50V CH
C508	CC	680 PF 50V CH	C4036	CC	0.1 UF 25V B
C509	CE	10 UF 50V	C4037	CC	11 PF 50V CH
C511	CE	82 UF 400V	C4038	CC	1 UF 10V B
C513	CC	47 PF 2KV SL	C4039	CE	10 UF 25 V
C515	CP	0.01 UF 400V ECQP	C4040	CC	1 UF 10V B
C516	CC	0.0022UF 250V	C4046	CC	0.0068UF 50V B
C517	CE	220 UF 25V	C4047	CE	1000 UF 6.3V
C518	CC	0.001 UF 250V	C4048	CC	0.1 UF 25V B
C519	CE	22 UF 35V	C4049	CC	0.1 UF 25V B
C520	CE	100 UF 50V	C4050	CE	1000 UF 6.3V
C521	CE	1000 UF 16V	C4051	CC	0.1 UF 25V B
C522	CE	1000 UF 6.3V	C4052	CC	0.1 UF 25V B
C523	CE	470 UF 25V	C4055	CC	0.1 UF 25V B
C526	CE	470 UF 6.3V	C4056	CC	0.01 UF 50V B
C527	CE	100 UF 10V	C4057	CC	0.1 UF 25V B
C528	CE	2.2 UF 50V	C4058	CC	0.1 UF 25V B
C531	CE	100 UF 16V	C4059	CC	0.0015UF 50V B
C535	CE	330 UF 16V	C4060	CC	0.1 UF 25V B
C536	CE	220 UF 6.3V	C4062	CC	0.001 UF 50V B
C538	CE	220 UF 6.3V	C4063	CC	0.1 UF 25V B
C540	CC	0.01 UF 50V B	C4064	CC	0.1 UF 25V B
C541	CC	0.01 UF 50V B	C4065	CC	0.1 UF 25V B
C604	CC	33 PF 50V CH	C4066	CC	1 UF 10V B
C605	CC	0.001 UF 50V B	C4067	CC	0.1 UF 25V B
C651	CC	0.1 UF 25V B	C4071	CC	0.1 UF 25V B
C653	CE	47 UF 6.3V	C4072	CC	100 PF 50V CH
C658	CC	0.1 UF 50V B	C4073	CC	0.1 UF 25V B
C668	CC	0.01 UF 50V B	C4074	CC	0.1 UF 25V B
C674	CE	47 UF 6.3V	C4075	CC	100 PF 50V CH
C675	CC	0.1 UF 25V B	C4077	CC	0.0082UF 50V B
C676	CC	0.1 UF 25V B	C4078	CC	1 UF 10V B
C2301	CC	0.1 UF 25V B	C4079	CC	0.1 UF 25V B
C2302	CC	0.1 UF 25V B	C4080	CE	220 UF 6.3V
C2303	CC	0.1 UF 25V B	C4081	CC	33 PF 50V CH
C2305	CC	0.1 UF 25V B	C4082	CC	100 PF 50V CH
C2306	CE	100 UF 10V	C4083	CC	33 PF 50V CH
C2307	CC	1 UF 10V B	C4084	CC	100 PF 50V CH
C2308	CC	0.1 UF 25V B	C4086	CC	1 UF 10V B
C2309	CC	0.1 UF 25V B	C4087	CC	1 UF 16V B
C2310	CC	0.01 UF 50V B	C4088	CC	1 UF 10V B
C2311	CC	0.01 UF 50V B	C4089	CC	0.015 UF 50V B
C2312	CC	1 UF 10V B	C4090	CC	0.1 UF 25V B
C2313	CC	0.01 UF 50V B	C4093	CC	1 UF 10V B
C2314	CC	1 UF 10V B	C4094	CC	0.1 UF 25V B

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
CAPACITORS			DIODES		
C4095		CE 47 UF 6.3V	D509		DIODE,RECTIFIER RL106F-E
C4096		CC 1 UF 10V B	D510		DIODE,SILICON FR155-F
C4098		CC 1 UF 10V B	D511		DIODE,RECTIFIER 1H3-E
C4099		CC 0.001 UF 50V B	D512		DIODE,SILICON FR155-F
C4100		CE 220 UF 6.3V	D513		DIODE,RECTIFIER 1H3-E
C4101		CC 470 PF 50V CH	D515		DIODE,SCHOTTKY 1S40-E
C4102		CC 470 PF 50V CH	D516		DIODE,SILICON 1SS133T-77
C4103		CC 0.0022UF 50V B	D517		DIODE,ZENER MTZJ4.3B-EIC
C4104		CC 0.1 UF 25V B	D519		DIODE,SILICON 1F5-E
C4105		CC 100 PF 50V CH	D520		DIODE,SILICON 1SS133T-77
C4112		CC 0.001 UF 50V B	D521		DIODE,SILICON 1SS133T-77
C4114		CC 1 UF 10V B	D522		DIODE,SILICON 1SS133T-77
C4116		CC 0.001 UF 50V B	D523		DIODE,ZENER MTZJ3.6B-EIC
C4122		CC 0.1 UF 50V B	D525		DIODE,SILICON 1SS133T-77
C5901		CC 0.1 UF 25V B	D527		DIODE,SCHOTTKY SR240-F
C5902		CC 0.1 UF 25V B	D528		DIODE,ZENER MTZJ5.1B-EIC
C5903		CC 0.1 UF 25V B	D531		DIODE,ZENER MTZJ27B-EIC
C5904		CC 0.1 UF 50V B	D532		DIODE,SCHOTTKY 1S40-E
C5905		CC 0.001 UF 50V B	D533		DIODE,ZENER MTZJ2.2B-EIC
C5908		CE 100 UF 10V	D534		DIODE,SILICON 1SS133T-77
C5910		CC 0.0056UF 50V B	D535		DIODE,ZENER MTZJ5.1B-EIC
C5911		CC 0.1 UF 25V B	D536		DIODE,ZENER MTZJ3.0B-EIC
C5912		CC 0.1 UF 25V B	D651		DIODE,SILICON 1SS133T-77
C5913		CC 0.1 UF 25V B	D652		DIODE,SILICON 1SS133T-77
C5914		CC 0.1 UF 25V B	D654		DIODE,SILICON 1SS133T-77
C5915		CC 0.1 UF 25V B	D655		DIODE,SILICON 1SS133T-77
C5916		CC 0.1 UF 25V B	D656		DIODE,SILICON 1SS133T-77
C5917		CC 0.1 UF 25V B	D657		DIODE,SILICON 1SS133T-77
C5918		CC 0.1 UF 25V B	D658		DIODE,SILICON 1SS133T-77
C5919		CE 47 UF 6.3V	D659		DIODE,SILICON 1SS133T-77
C5920		CC 0.1 UF 25V B	D660		LED LTL-1CHEE-002A
C5921		CE 10 UF 25 V	D667		DIODE,SILICON 1SS133T-77
C5922		CC 1 UF 10V B	ICS		
C5923		CC 0.01 UF 50V B	IC501	I1KJ9A431A	IC KIA431A-AT
C5924		CC 0.1 UF 25V B	IC502	I0BD061310	IC STR-A6131M
C5925		CC 0.1 UF 50V B	IC503	I0GA9XF010	IC PQ070XF01SZH
C7303		CE 470 UF 6.3V	IC504	000220002W	PHOTO COUPLER PS2561AL1-1-V(W)
C7304		CC 0.1 UF 25V B	IC651	IF4K063150	IC PT6315
C7305		CC 0.1 UF 25V B	IC2301	I03FV65650	IC LA6565VR-TLM-E
C7306		CC 1 UF 10V B	IC4001	IC8K0389E0	IC MT1389FE/E-L
C7307		CC 1 UF 10V B	IC4002	I57F04L080	IC BR24L08FJ-WE2
C7308		CC 1 UF 10V B	IC4003	I97F052290	IC BD5229G-TR
C7309		CC 1 UF 10V B	IC4004	S2I918AF02	MEMORY DATA S29AL016D70TFI020
C7310		CC 1 UF 10V B	IC4005	IG2J081657	IC EM638165TS-7G
C7311		CE 100 UF 10V	IC4006	I1TF911170	IC LM1117S-ADJ
C7312		CC 0.1 UF 25V B	IC5901	IC8K013920	IC MT1392E/C-L
C7313		CC 0.1 UF 25V B	IC5902	I0GF9K5030	IC PQ1K503M2ZPH
C7316		CE 470 UF 6.3V	IC7301	I03FG30540	IC LA73054-TLM-E
C7317		CE 470 UF 6.3V	IC8003	I04J045800	IC RC4580IDR
C7318		CE 1000 UF 6.3V	TRANSISTORS		
C7319		CE 1000 UF 6.3V	Q501		TRANSISTOR,SILICON KTC3875S_Y_RTK
C7324		CC 0.1 UF 50V B	Q502		TRANSISTOR,SILICON KTC3209_Y-AT
C7325		CE 470 UF 6.3V	Q503		TRANSISTOR,SILICON KTA1504S_Y_RTK
C8036		CC 1 UF 10V B	Q504		TRANSISTOR,SILICON KTA1281_Y
C8038		CE 1 UF 50V	Q505		COMPOUND TRANSISTOR KRC102SRTK
C8042		CC 100 PF 50V CH	Q506		TRANSISTOR,SILICON KTA1504S_Y_RTK
C8051		CE 47 UF 16V	Q509		TRANSISTOR,SILICON KTC3875S_Y_RTK
C8053		CE 47 UF 16V	Q510		TRANSISTOR,SILICON KTA1281_Y
C8056		CC 560 PF 50V CH	Q511		TRANSISTOR,SILICON KTC3875S_Y_RTK
C8057		CC 560 PF 50V CH	Q512		TRANSISTOR,SILICON KTC3875S_Y_RTK
C8058		CC 0.1 UF 25V B	Q513		TRANSISTOR,SILICON KTA1504S_Y_RTK
C8059		CC 0.1 UF 25V B	Q515		TRANSISTOR,SILICON 2SD1835S/T-AA
C8066		CE 100 UF 10V	Q2301		TRANSISTOR,SILICON KTC3875S_Y_RTK
C8067		CC 68 PF 50V CH	Q2302		TRANSISTOR,SILICON KTA1504S_Y_RTK
C8069		CC 68 PF 50V CH	Q2303		TRANSISTOR,SILICON KTA1504S_Y_RTK
C8070		CE 47 UF 16V	Q2304		TRANSISTOR,SILICON KTA1504S_Y_RTK
C8072		CC 0.1 UF 25V B	Q2305		TRANSISTOR,SILICON KTA1504S_Y_RTK
C8073		CE 47 UF 16V	Q2306		FET 2SK3018T106
C8074		CC 330 PF 50V CH	Q2307		FET 2SK3018T106
C8077		CC 330 PF 50V CH	Q4001		TRANSISTOR,SILICON KTC3875S_Y_RTK
C8078		CC 330 PF 50V CH	Q7302		COMPOUND TRANSISTOR KRC407-RTK/P
DIODES			Q8005		TRANSISTOR,SILICON KTC3875S_Y_RTK
D502		DIODE,SILICON 1N4005-EIC	Q8010		COMPOUND TRANSISTOR KRC407-RTK/P
D503		DIODE,SILICON 1N4005-EIC	Q8013		COMPOUND TRANSISTOR KRC407-RTK/P
D505		DIODE,SILICON 1N4005-EIC	Q8014		TRANSISTOR,SILICON KTA1504S_Y_RTK
D506		DIODE,SILICON 1N4005-EIC	Q8018		TRANSISTOR,SILICON KTC2875-B-RTK/P
D508		DIODE,ZENER MTZJ5.6B-EIC	Q8019		TRANSISTOR,SILICON KTC2875-B-RTK/P

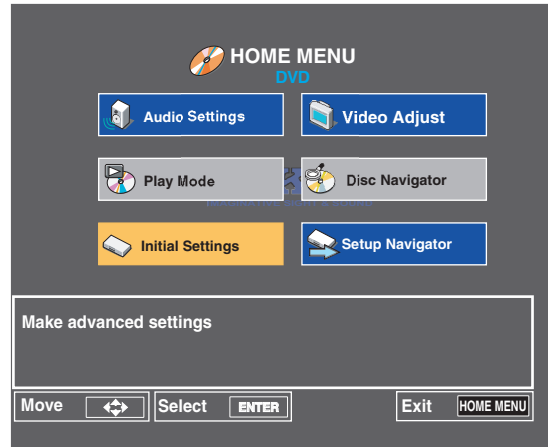
ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
COILS & TRANSFORMERS			MISCELLANEOUS		
L501		COIL,LINE FILTER	SS11V-03550-CH	TM601	TRANSMITTER
L503		COIL	R7 22 UH	V651	TUBE FLUORESCENT DISPLAY
L505		COIL	R7 22 UH	X4001	CRYSTAL
L5901		COIL,CHOKE	ACM2012H-900-2P-T		SBBM00102A
L5902		COIL,CHOKE	ACM2012H-900-2P-T		HNV-08SS44T
L5903		COIL,CHOKE	ACM2012H-900-2P-T		B27000C005
L5904		COIL,CHOKE	ACM2012H-900-2P-T		
T501		TRANSFORMER,SWITCHING	81291294		
JACKS			RESISTOR		
J7301		JACK PLATE	R102-D04KA(III)-06	RC.....	CARBON RESISTOR
J7302		RCA JACK	RCA-405A-08		
J8003		RCA JACK	RCA-207B-02		
SWITCHES			CAPACITORS		
SW652		SWITCH TACT	EVQ11L05R	CC.....	CERAMIC CAPACITOR
SW653		SWITCH TACT	EVQ11L05R	CE.....	ALUMI ELECTROLYTIC CAPACITOR
SW654		SWITCH TACT	EVQ11L05R	CP.....	POLYESTER CAPACITOR
SW655		SWITCH TACT	EVQ11L05R	CPP.....	POLYPROPYLENE CAPACITOR
SW656		SWITCH TACT	EVQ11L05R	CPL.....	PLASTIC CAPACITOR
SW657		SWITCH TACT	EVQ11L05R	CMP.....	METAL POLYESTER CAPACITOR
SW658		SWITCH TACT	EVQ11L05R	CMPL.....	METAL PLASTIC CAPACITOR
SW659		SWITCH TACT	EVQ11L05R	CMPP.....	METAL POLYPROPYLENE CAPACITOR
SW660		SWITCH TACT	EVQ11L05R		
SW661		SWITCH TACT	EVQ11L05R		
SW662		SWITCH TACT	EVQ11L05R		
SW663		SWITCH TACT	EVQ11L05R		
SW664		SWITCH TACT	EVQ11L05R		
SW665		SWITCH TACT	EVQ11L05R		
SW666		SWITCH TACT	EVQ11L05R		
SW667		SWITCH TACT	EVQ11L05R		
P.C.BOARD ASSEMBLIES					
PCB130	A2I918A130	DVD MT PCB ASS'Y	DMF073A		
PCB240	A2I801A240	POWER PCB ASS'Y	DPF010A		
PCB270	A2I918A270	OPERATION PCB ASS'Y	DEF084B		
PCB280	A2I922A280	OPERATION 2 PCB ASS'Y	DEF085B		
PCBDF0	A2I922ADF0	OPERATION 3 PCB ASS'Y	DEF086B		
PCBDG0	A2I922ADG0	OPERATION 4 PCB ASS'Y	DEF095B		
MISCELLANEOUS					
B501		CORE,BEADS	W4BRH3.5X6X1.0X2		
B4001		CORE,BEADS	MMZ1608R102CT		
B4002		CORE,BEADS	MMZ1608R102CT		
B4007		CORE,BEADS	MMZ1608R102CT		
B4010		CORE,BEADS	MMZ1608R102CT		
B4011		CORE,BEADS	MMZ1608R102CT		
B5902		CORE,BEADS	MMZ1608R102CT		
B5905		CORE,BEADS	MMZ1608R102CT		
B7304		CORE,BEADS	MMZ1608R102CT		
B7305		CORE,BEADS	MMZ1608R102CT		
B8004		CORE,BEADS	MMZ1608R102CT		
BT601		BATTERY,MANGAN	R6P(AR)XICI		
CD501		CORD,AC BUSH	9618901		
CD502	06CU2E3301	CORD,CONNECTOR	CU2E3301		
CD601	122H0B1003	CORD,JUMPER	2H0B1003		
CD602	122H091303	CORD,JUMPER	2H091303		
CD604	122H051706	CORD,JUMPER	2H051706		
CP501		CONNECTOR PCB SIDE	A3963WV2-3PD		
CP502		CONNECTOR PCB SIDE	A2001WV2-14P		
CP601		CONNECTOR PCB SIDE	00_6232_011_102_800+		
CP602		CONNECTOR PCB SIDE	00_6232_009_102_800+		
CP603		CONNECTOR PCB SIDE	00_6232_009_102_800+		
CP604		CONNECTOR PCB SIDE	00_6232_005_102_800+		
CP605		CONNECTOR PCB SIDE	00_6232_005_102_800+		
CD6002	06CPBA2007	CORD,RCA PIN	TD-OR0213R		
CD6003		CORD,RCA PIN	TD-OR0201R		
CP2301		CONNECTOR PCB SIDE	LD07T2-24ND-03		
CP2302		CONNECTOR PCB SIDE	00_6232_005_006_800+		
CP2303		CONNECTOR PCB SIDE	00_6232_006_006_800+		
CP4002		CONNECTOR PCB SIDE	00_6232_011_006_800+		
CP4003		CONNECTOR PCB SIDE	A2001WV2-14P		
CP5901		CONNECTOR PCB SIDE	1903015-3		
F501	081PC1R605	FUSE	51MS016L		
FH501		HOLDER,FUSE	EYF-52BCY		
FH502		HOLDER,FUSE	EYF-52BCY		
NR4001		R,NETWORK	4D03WVGJ0330T5E		
NR4002		R,NETWORK	4D03WVGJ0330T5E		
NR4003		R,NETWORK	4D03WVGJ0220T5E		
OS651		REMOTE RECEIVER	ROM-N338TAO		

FIRMWARE DOWN LOADING

• Confirm the Regional code and Firmware version.

1. Connect the TV monitor to the DV-SP404.
2. Turn ON the standby switch ON. (No Disc)
3. Press "SET UP" key of remote controller (RC-616DV).
Appear a HOME MENU. (Photo-1)
4. Select "Initial Settings" menu and press "ENTER".
5. Select "Options" menu, and press the "DISPLAY" button.
6. Appear regional code and firmware ROM number.
Confirm the regional cord and firmware version.
When close the menu, press "RETURN" button of the unit. (Photo-2)



(Photo-1)

• Down load the firmware

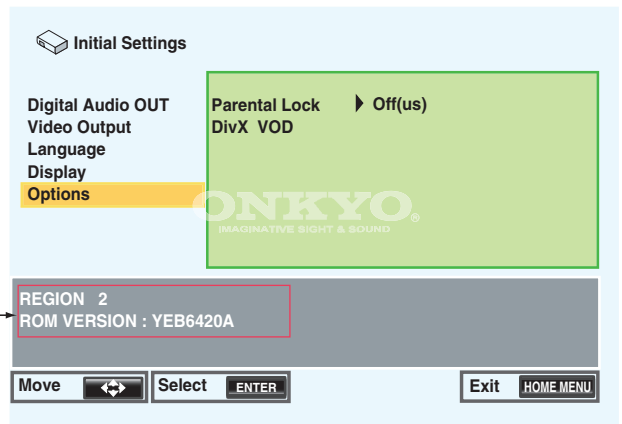
1. Newest FW is written in CD-R with a personal computer.
2. Pees "Standby" button and "Disc Tray" button.
3. Set the CD-R on the Disc tray and press "Play" button.
Waiting 2 seconds and open the tray automatically.
DISC TRAY waits for about 2 minutes in the tray open condition.

Cautions: Do not close the disc tray.

Close the tray automatically.

4. Press "Standby" button. (Off)
5. Press "Standby" button (On).

Confirm the regional code and firmware version at above method.



(Photo-2)

Writing CD-R of upgraded FW.

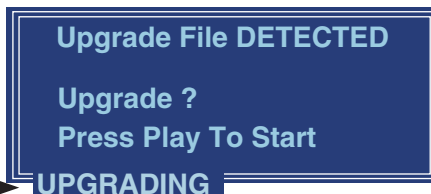
1. Download the newest firmware.
ex: YEB6704AB4DA.BIN
2. Volume label name is "PIONEER"

Volume label

PIONEER

Firmware data
YEB6704A.BIN

6. Set the disc on the tray and press play key.
7. Open the tray (Automatically) and remove the disc and waiting about 30 second then close the tray (automatically).
It is displayed in the FL tube, "NO DISC".



File Copy →

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