



## DVD PLAYER

Chassis : Exino  
DVD-P230  
DVD-P331

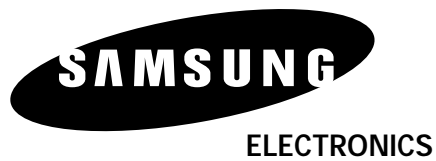
SAMSUNG

SERVICE MANUAL

DVD-P230/P331

# SERVICE Manual

If you want to know additional information which is not including on this Service Manual, please refer to the Training Manual of DVD-P231 (AK82-00303A).



### DVD PLAYER



DVD-P230



DVD-P331

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# 1. Precautions

## 1-1 Safety Precautions

1) Before returning an instrument to the customer, always make a safety check of the entire instrument, including, but not limited to, the following items:

(1) Be sure that no built-in protective devices are defective or have been defeated during servicing. (1) Protective shields are provided to protect both the technician and the customer. Correctly replace all missing protective shields, including any remove for servicing convenience.

(2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including, but not limited to, nonmetallic control knobs, insulating fish papers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning.

(2) Be sure that there are no cabinet openings through which adults or children might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, excessively wide cabinet ventilation slots, and an improperly fitted and/or incorrectly secured cabinet back cover.

(3) Leakage Current Hot Check-With the instrument completely reassembled, plug the AC line cord directly into a 120V AC outlet. (Do not use a isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards institute (ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 1270 (40.7). With the instrument's AC switch first in the ON position and then in the OFF position, measure from a known earth ground (metal water pipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle brackets, metal cabinets, screw-heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis.

Any current measured must not exceed 0.5mA. Reverse the instrument power cord plug in the outlet and repeat the test. See Fig. 1-1.

Any measurements not within the limits specified herein indicate a potential shock hazard that must be eliminated before returning the instrument to the customer.

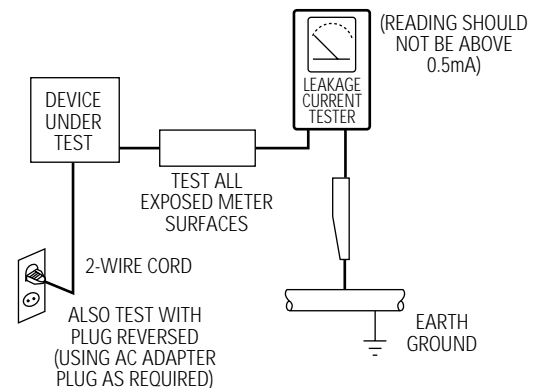


Fig. 1-1 AC Leakage Test

(4) Insulation Resistance Test Cold Check-(1) Unplug the power supply cord and connect a jumper wire between the two prongs of the plug. (2) Turn on the power switch of the instrument. (3) Measure the resistance with an ohmmeter between the jumpered AC plug and all exposed metallic cabinet parts on the instrument, such as screwheads, antenna, control shafts, handle brackets, etc. When an exposed metallic part has a return path to the chassis, the reading should be between 1 and 5.2 megohm. When there is no return path to the chassis, the reading must be infinite. If the reading is not within the limits specified, there is the possibility of a shock hazard, and the instrument must be re-pared and rechecked before it is returned to the customer. See Fig. 1-2.

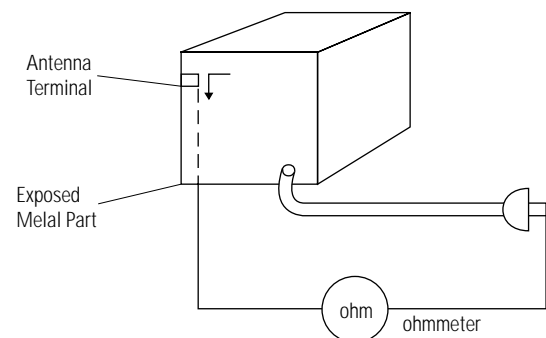




Fig. 1-2 Insulation Resistance Test

- 2) Read and comply with all caution and safety related notes non or inside the cabinet, or on the chassis.
- 3) Design Alteration Warning-Do not alter or add to the mechanical or electrical design of this instrument. Design alterations and additions, including but not limited to, circuit modifications and the addition of items such as auxiliary audio output connections, might alter the safety characteristics of this instrument and create a hazard to the user. Any design alterations or additions will make you, the service, responsible for personal injury or property damage resulting therefrom.
- 4) Observe original lead dress. Take extra care to assure correct lead dress in the following areas:  
(1) near sharp edges, (2) near thermally hot parts (be sure that leads and components do not touch thermally hot parts), (3) the AC supply, (4) high voltage, and (5) antenna wiring. Always inspect in all areas for pinched, out-of-place, or frayed wiring. Do not change spacing between a component and the printed-circuit board. Check the AC power cord for damage.
- 5) Components, parts, and/or wiring that appear to have overheated or that are otherwise damaged should be replaced with components, parts and/or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.
- 6) Product Safety Notice-Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by shading, an () or a () on schematics and parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate.

## 1-2 Servicing Precautions

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**CAUTION :** Before servicing Instruments covered by this service manual and its supplements, read and follow the Safety Precautions section of this manual.

**Note :** If unforeseen circumstance create conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions. Remember: Safety First.

### 1-2-1 General Servicing Precautions

- (1) a. Always unplug the instrument's AC power cord from the AC power source before (1) removing or reinstalling any component, circuit board, module or any other instrument assembly, (2) disconnecting any instrument electrical plug or other electrical connection, (3) connecting a test substitute in parallel with an electrolytic capacitor in the instrument.
- b. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service manual might be equipped.
- c. Do not apply AC power to this instrument and /or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
- d. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

**Note :** Refer to the Safety Precautions section ground lead last.

- (2) The service precautions are indicated or printed on the cabinet, chassis or components. When servicing, follow the printed or indicated service precautions and service materials.
- (3) The components used in the unit have a specified flame resistance and dielectric strength. When replacing components, use components which have the same ratings. Components identified by shading, by (⚡) or by (⚡) in the circuit diagram are important for safety or for the characteristics of the unit. Always replace them with the exact replacement components.

(4) An insulation tube or tape is sometimes used and some components are raised above the printed wiring board for safety. The internal wiring is sometimes clamped to prevent contact with heating components. Install such elements as they were.

(5) After servicing, always check that the removed screws, components, and wiring have been installed correctly and that the portion around the serviced part has not been damaged and so on. Further, check the insulation between the blades of the attachment plug and accessible conductive parts.

### 1-2-2 Insulation Checking Procedure

Disconnect the attachment plug from the AC outlet and turn the power ON. Connect the insulation resistance meter (500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts (see note) should be more than 1 Megohm.

**Note :** Accessible conductive parts include metal panels, input terminals, earphone jacks, etc.

## 1-3 ESD Precautions

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### Electrostatically Sensitive Devices (ESD)

Some semiconductor (solid state) devices can be damaged easily by static electricity.

Such components commonly are called Electrostatically Sensitive Devices(ESD). Examples of typical ESD devices are integrated circuits and some field-effect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

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

- (7) Immediately before removing the protective materials from the leads of a replacement ESD device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

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

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

## 1-4 Handling the optical pick-up

The laser diode in the optical pick up may suffer electrostatic breakdown because of potential static electricity from clothing and your body.

The following method is recommended.

- (1) Place a conductive sheet on the work bench (The black sheet used for wrapping repair parts.)
  - (2) Place the set on the conductive sheet so that the chassis is grounded to the sheet.
  - (3) Place your hands on the conductive sheet (This gives them the same ground as the sheet.)
  - (4) Remove the optical pick up block
  - (5) Perform work on top of the conductive sheet. Be careful not to let your clothes or any other static sources to touch the unit.
- ◆ Be sure to put on a wrist strap grounded to the sheet.
  - ◆ Be sure to lay a conductive sheet made of copper etc. Which is grounded to the table.

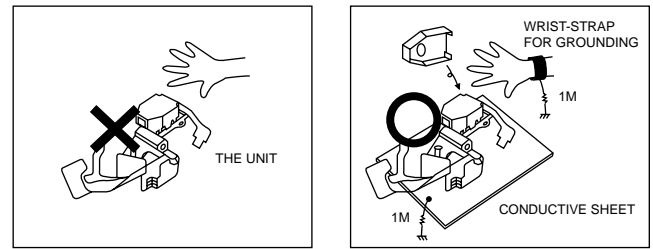


Fig.1-3

- (6) Short the short terminal on the PCB, which is inside the Pick-Up ASS'Y, before replacing the Pick-Up. (The short terminal is shorted when the Pick-Up Ass'y is being lifted or moved.)
- (7) After replacing the Pick-up, open the short terminal on the PCB.

## 1-5 Pick-up disassembly and reassembly

### 1-5-1 Disassembly

- 1) Remove the power cord.
- 2) Disassemble the Deck-Assy.
- 3) Make solder land 2 points short on Pick-up.  
(See Fig. 1-4)
- 4) Disassembly the Pick-up.

### 1-5-2 Assembly

- 1) Replace the Pick-up.
- 2) Remove the soldering 2 points on Pick-up.
- 3) Reassemble the Deck-Assy.

**Note :** If the assembly and disassembly are not done in correct sequence, the Pick-up may be damaged.

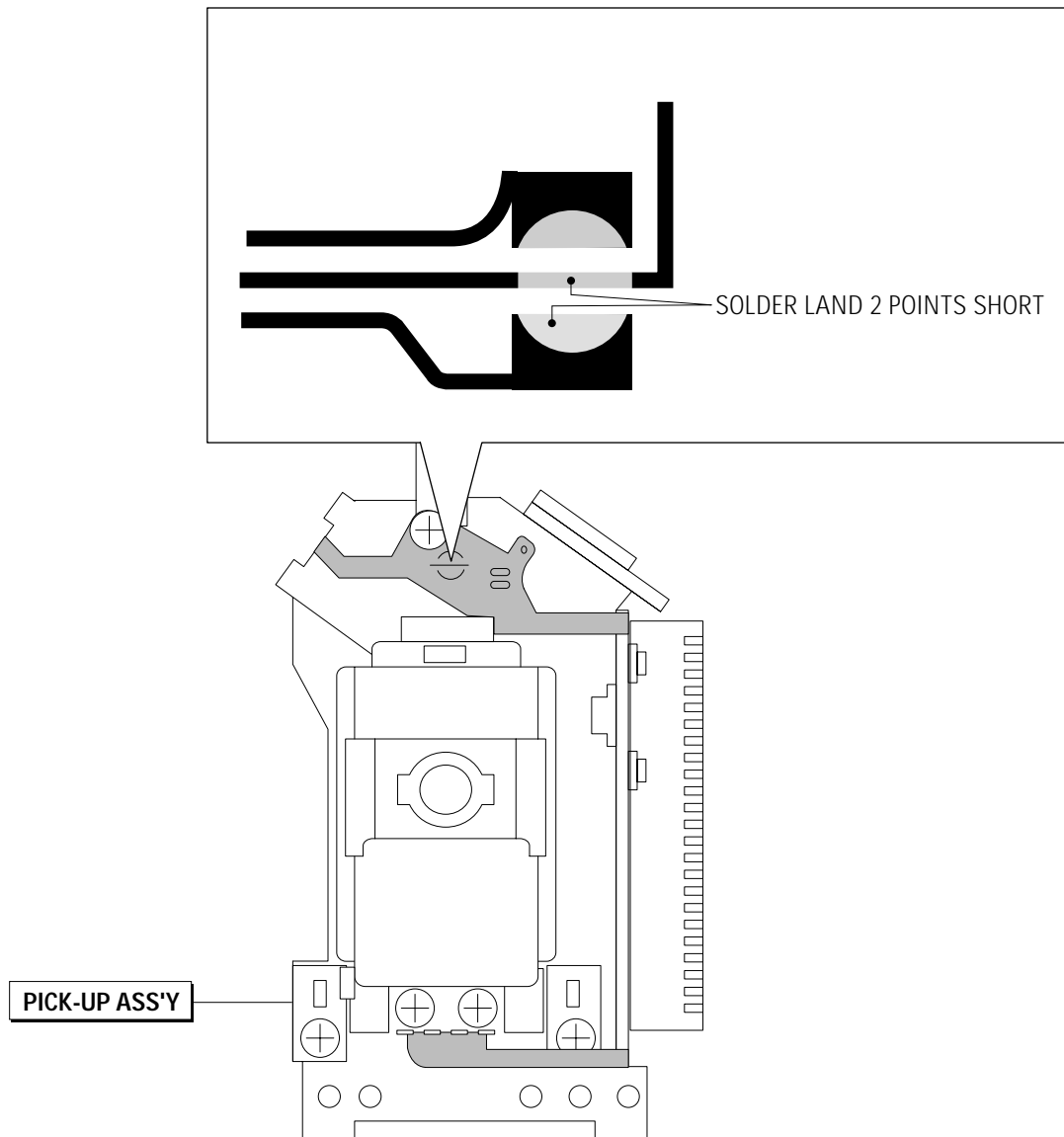


Fig. 1-4

## 2. Alignment and Adjustment

### 2-1 Location of Test Point

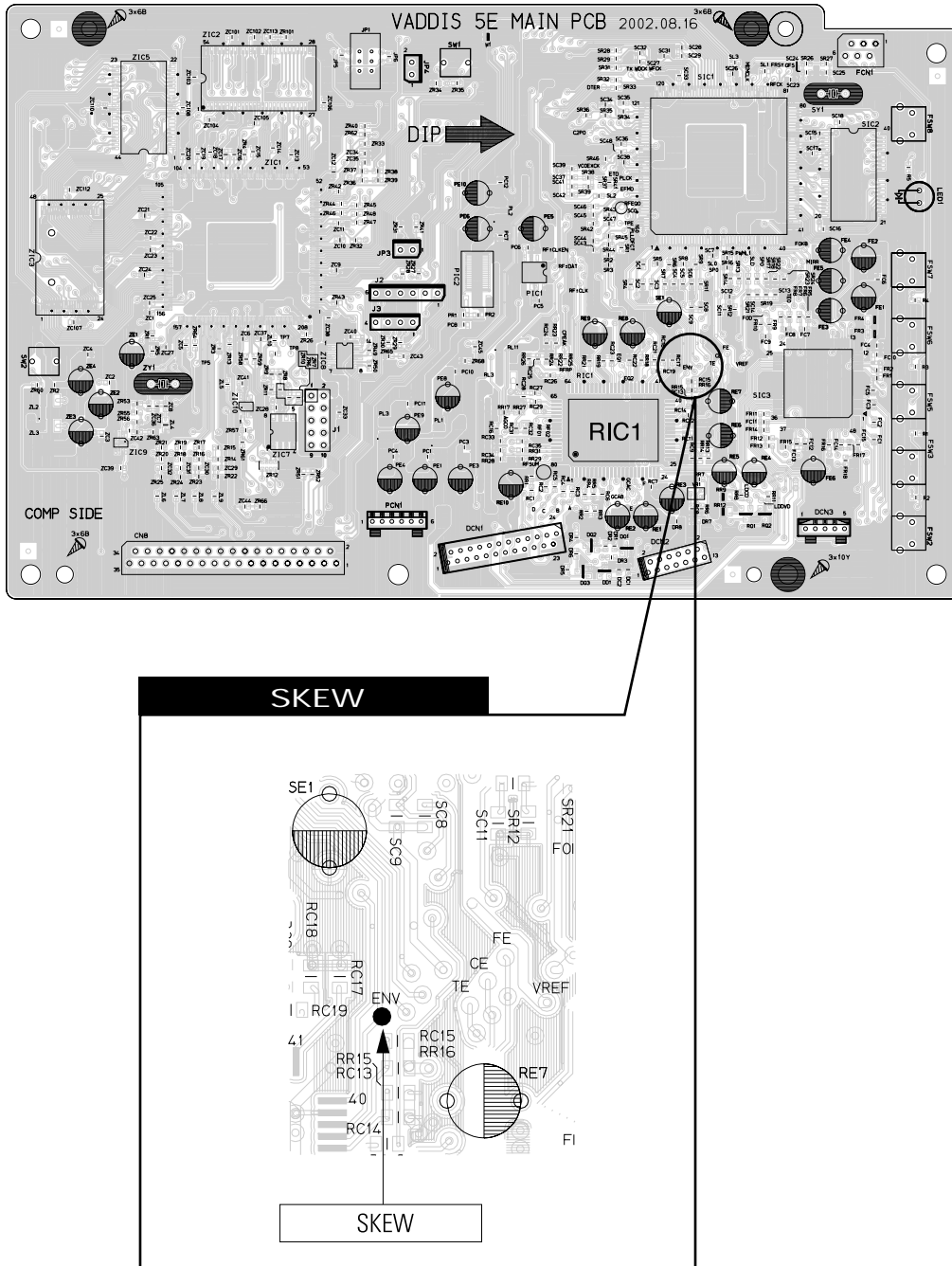


Fig. 2-1 Location of Test Point



## 2-2 Skew Adjustment

### 2-2-1 Adjustment Spec. and Test Point

<Table 2-1>

◆ Test Disc ; Service not Available

Test Disc	Adjustment Spec.	Test Point	Adjustment Location
TDV-533 Chapter 14	Flat Waveform	"ENV" (Main PCB - Component Side) (See Fig. 2-1)	Screw A / B Ass'y Deck - Bottom Side (See Fig. 2-2)

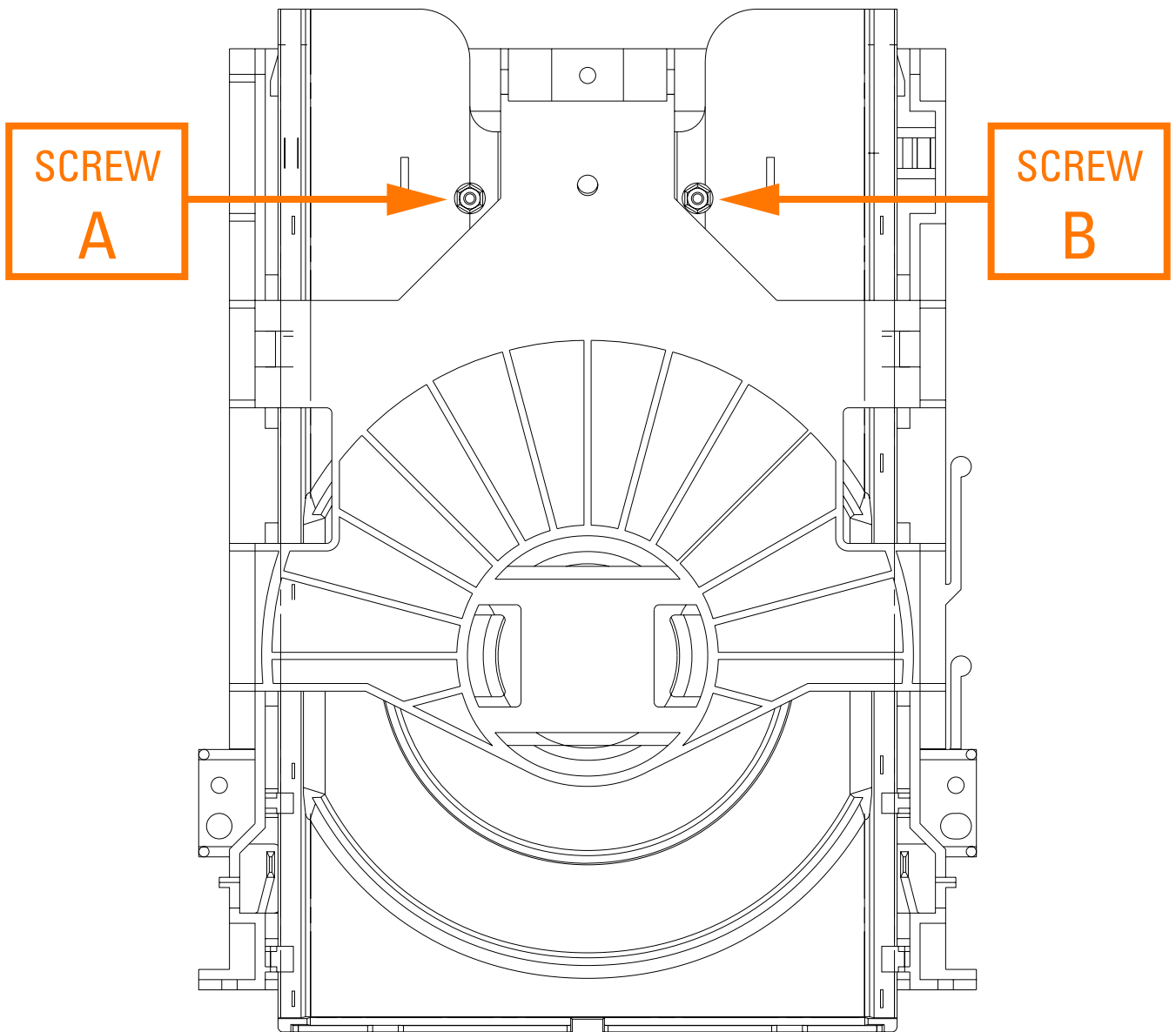


Fig. 2-2 Ass'y Deck (Top Side)

## 2-2-2 SKEW Adjustment Method

Needed to minimize the variations in Skew of the Pickup unit and to provide optimum match with the recorded signal on the Disc.

- 1) Connect an Oscilloscope to the "ENV" Test Point (See Fig. 2-1).
- 2) Connect Power, Open the Tray and Play the TDV-533 Disc, Chapter 14.
  - ◆ Set the Oscilloscope Range as follows :  
(Voltage ; 50mV/Div., Frequency ; 10m Sec.)
- 3) Adjust the Screws "A" and "B" (See Fig. 2-2) using a Hex screwdriver until you obtain a Flat Waveform and the picture is stable.
  - Then, go to Chapter 1 and make sure the Waveform is Flat here as well.
  - If not, you have to go back to Chapter 14 and adjust again.
  - If you cannot obtain a Flat waveform, then the unit is defective.

**Note :** The Deck must be in a horizontal position. Use both "A" and "B" screws to adjust.

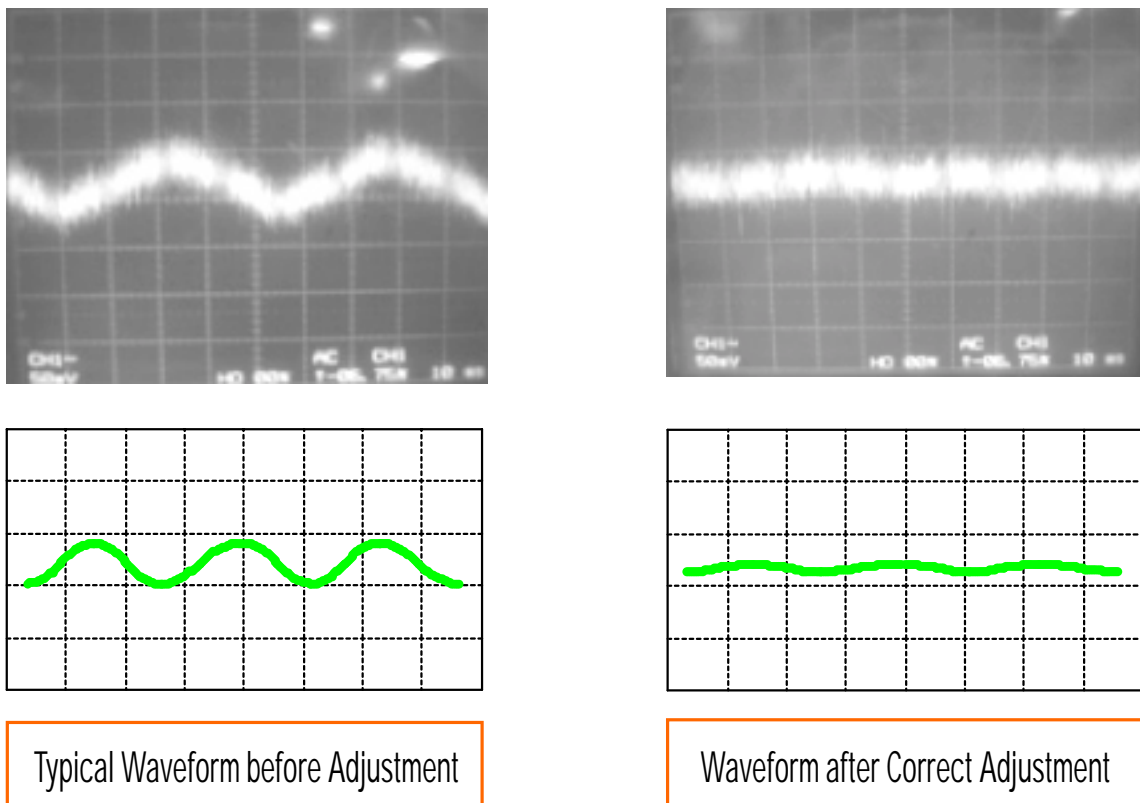


Fig. 2-3 Envelope Waveform

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## 3. Exploded View and Parts List

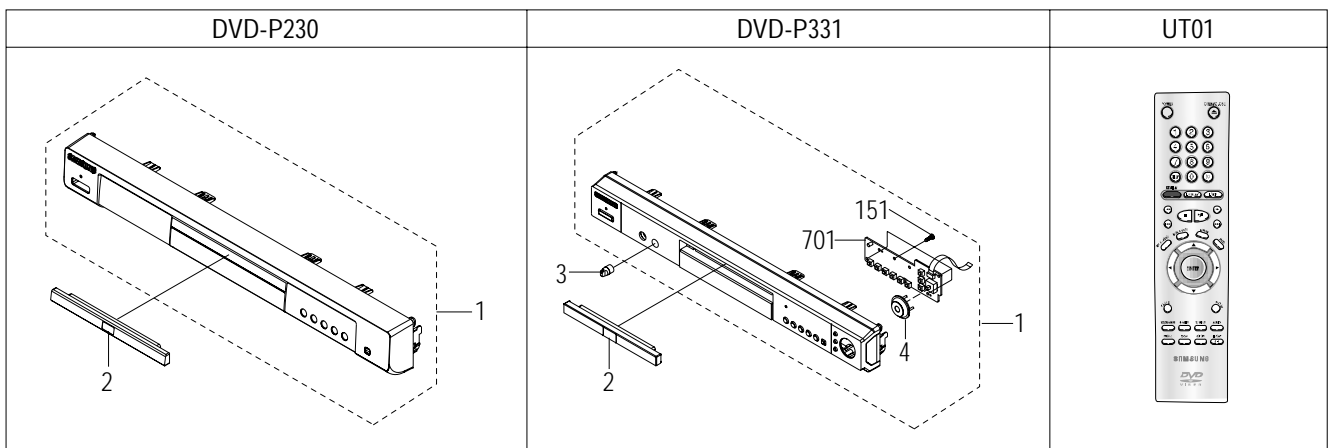
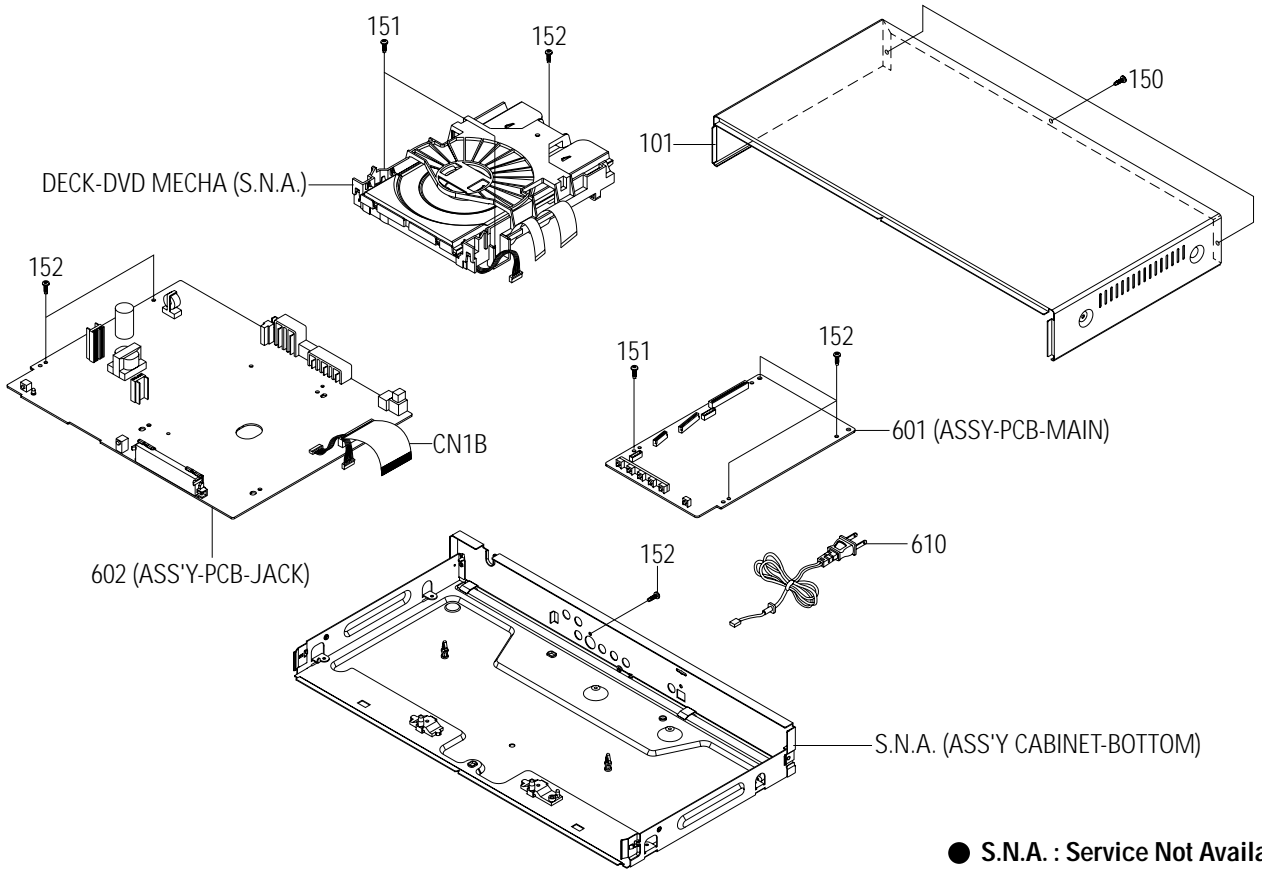
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3-2 Deck Assembly - - - - -	3-4

**Notice**

You can search for the updated part code through ITSELF web site.  
URL; <http://itself.sec.samsung.co.kr>

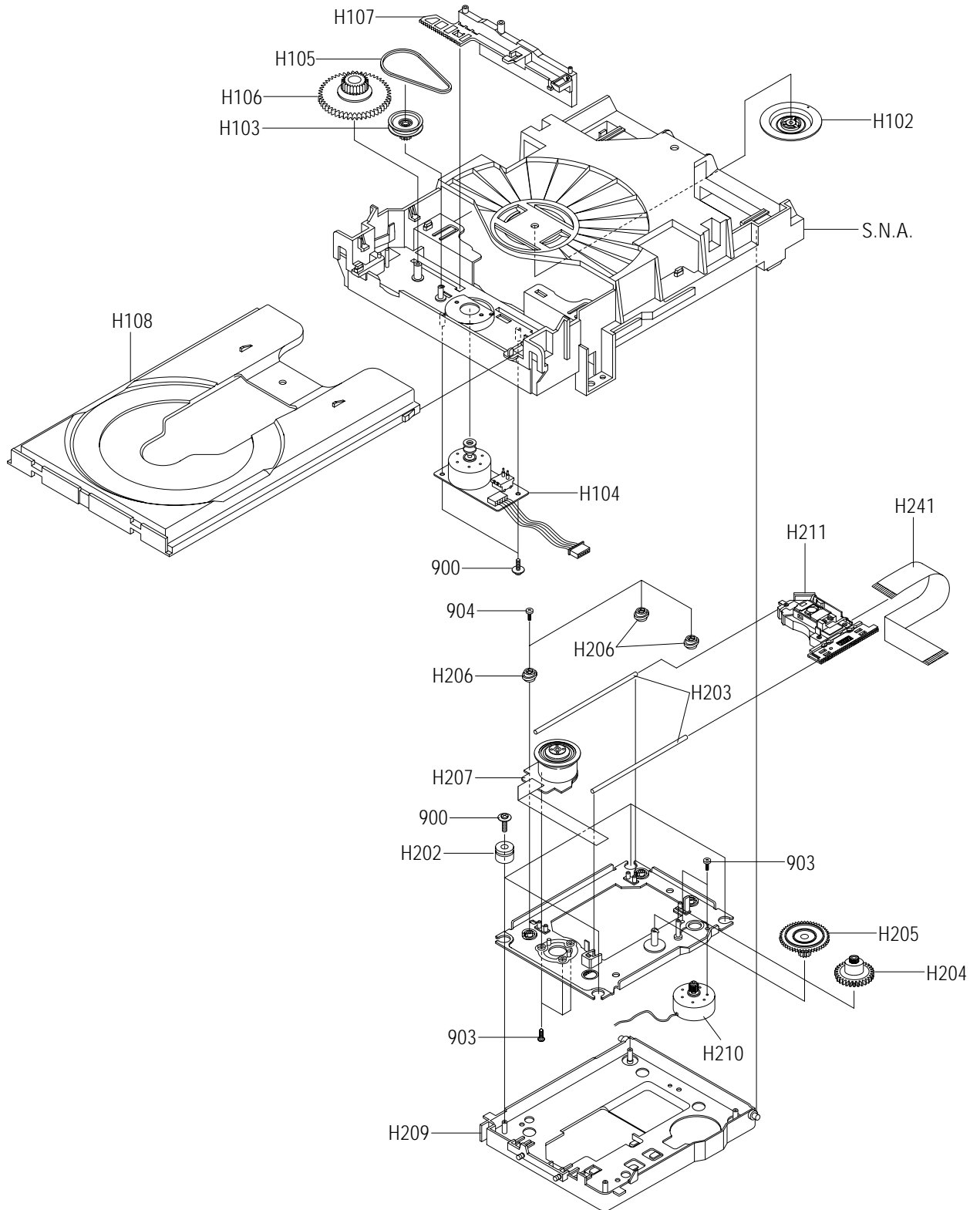
### 3-1 Cabinet Assembly



Loc. No	Parts No.	Description ; Specification	Remark
1	Refer to table below	ASSY FRONT CABINET;ASSY,DVD-P231,XAA	
2	Refer to table below	DOOR-TRAY;DVD-P231,ABS 94HB,-,12,-,-,GRA	
3	AH64-01320G	KNOB-VOLUME;DVD-P331,ABS 94HB,-,-,-,-,A7	Only for DVD-P331
4	AK64-00135C	BUTTON-NAVIGATION;DVD-P331,ABS 94HB,-,-,-,	Only for DVD-P331
101	Refer to table below	CABINET-TOP;EXINO,PCM T0.65,-,-,-,-,GRAY	
150	6003-000275	SCREW-TAPTITE;BH,+ ,B,M3,L10,BLK ,SWCH101	
151	6003-000276	SCREW-TAPTITE;BH,+ ,B,M3,L10,ZPC(YEL),SWC	
152	6003-000282	SCREW-TAPTITE;BH,+ ,B,M3,L8,ZPC(BLK),SWCH	
601	Refer to table below	ASSY PCB-MAIN;DVD-P331/XAA,MAIN PCB ASS'	
602	Refer to table below	ASSY PCB-JACK;DVD-P331/XAA,EXINO JACK PC	
610	AC39-10200N	CBF POWER CORD;EP2,SPT-2,AWG#18,1.8MT,WA	
701	AK92-00148A	ASSY PCB-KEY;DVD-P392,KEY PCB ASS'Y	Only for DVD-P331
CN1B	3809-001180	CABLE-FLAT;30V,-30to+80C,80mm,35P,1.25mm	
UT01	Refer to table below	REMOCON-ASS'Y;DVD-P331/XAA,XAA,-,-,-,-,-	

Models	1	2	101	601	602	UT01
DVD-P230	AK97-00300C	AK97-00301C	AK64-00101A	AK92-00151A	AK92-00130A	AH59-00092S
DVD-P331	AK97-00328A	AK64-00088D	AK64-00101C	AK92-00149A	AK92-00150A	AH59-00092T

### 3-2 Deck Assembly



Loc. No	Parts No.	Description ; Specification	Remark
900	6003-001157	SCREW-TAPTITE;PWH,+,B,M2,L6,ZPC(YEL),SWR	
903	6001-001370	SCREW-MACHINE;CH,+,M1.7,L3.0,ZPC(YEL),SW	
904	6002-001086	SCREW-TAPPING;PH,+,B,M1.7,L5.0,ZPC(YEL),	
H102	AH66-00111B	CLAMPER-ASSY;DP-5,POM+MAGNET,-,-,-,-,-,-	
H103	AK66-00007A	PULLEY-GEAR;DP-9,POM,-,-,-,-,-,-,-	
H104	AK31-00003A	MOTOR-LOAD ASSY;SM-2412L2,DP-9,-,-,-,-,-,-	
H105	6602-001076	BELT-RECTANGULAR;CR,T1.2,4.3%,1.2X25.1,B	
H106	AK66-00008A	GEAR-TRAY;DP-9,POM,-,-,-,-,-,-,-	
H107	AK66-00009A	SLIDER-HOUSING;DP-9,POM,-,-,-,-,-,-	
H108	AK63-00008A	TRAY-DISC;DP-9,ABS,-,-,-,-,BLK,DP-9	
H202	AK73-00005A	RUBBER-INSULATOR;DP-9,BUTYL RUBBER,-,-,-	
H203	AH61-50327A	SHAFT-P/U;DP-3,SUS420J2,L84.7,OD3,-,-,-	
H204	AK66-00010A	GEAR-FEED A;DP-9,POM,-,-,-,-,-,-,-	
H205	AK66-00011A	GEAR-FEED B;DP-9,POM,-,-,-,-,-,-,-	
H206	AK61-00032A	HOLDER-CAM SKEW;DP-9,POM,-,-,-,BLACK,-	
H207	AK31-00004A	MOTOR SPINDLE;RSM-2606A1,DP-9,350MA,-,-,-	
H209	AK64-00052A	CHASSIS-SUB;DP-9,ABS(SR-0320),0,0,0,-,-,-	
H210	AK31-00005A	MOTOR-FEED ASSY,-,DP-9,-,-,-,-,-,-,-,-	
H211	AK97-00166B	ASSY-PICK UP,-,SOH-DSSA, T544C,SEM,W/T	
H241	3809-001409	CABLE-FLAT;30V,80C,230MM,24P,1MM,UL2896	



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## 4. Electrical Parts List

Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
601	AK92-00151A	ASSY PCB-MAIN;DVD-E231/XAA,P331 MAIN PCB	DVD-P230	PC10	2203-000257	C-CERAMIC,CHIP:10nf,10%,50V,X7R,TP,1608	
	AK92-00149A	ASSY PCB-MAIN;DVD-P331/XAA,MAIN PCB ASSY	DVD-P331	PC11	2203-000257	C-CERAMIC,CHIP:10nf,10%,50V,X7R,TP,1608	
CN8	3708-001364	CONNECTOR-FPC/FFC/PIC:35P,1.25MM,STRAIGH		PC12	2203-000257	C-CERAMIC,CHIP:10nf,10%,50V,X7R,TP,1608	
DC1	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608		PC3	2203-000257	C-CERAMIC,CHIP:10nf,10%,50V,X7R,TP,1608	
DC2	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608		PC4	2203-000257	C-CERAMIC,CHIP:10nf,10%,50V,X7R,TP,1608	
DCN1	3708-001696	CONNECTOR-FPC/FFC/PIC:24P,1MM,STRAIGHT,S		PC5	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
DCN2	3708-001695	CONNECTOR-FPC/FFC/PIC:13P,1MM,STRAIGHT,S		PC6	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
DCN3	3711-001018	CONNECTOR-HEADER:BOX,5P,1R,2mm,STRAIGHT,		PC7	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
DD1	0407-000116	DIODE-ARRAY:DAP202K,80V,100mA,CK2-3,SOT-		PC8	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
DO1	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mW,SOT-		PCN1	3711-001062	CONNECTOR-HEADER:BOX,6P,1R,2mm,STRAIGHT,	
DO2	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mW,SOT-		PE1	2401-002165	C-AL:100uf,20%,16V,GP,TP,6.3x7.5	
DO3	0501-000341	TR-SMALL SIGNAL:KSC1623-L,NPN,200mW,SOT-		PE10	2401-002165	C-AL:100uf,20%,16V,GP,TP,6.3x7.5	
DR1	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608		PE3	2401-002165	C-AL:100uf,20%,16V,GP,TP,6.3x7.5	
DR2	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608		PE4	2401-002165	C-AL:100uf,20%,16V,GP,TP,6.3x7.5	
DR3	2007-000075	R-CHIP:220ohm,5%,1/16W,DA,TP,1608		PE5	2401-002165	C-AL:100uf,20%,16V,GP,TP,6.3x7.5	
DR4	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608		PE6	2401-002165	C-AL:100uf,20%,16V,GP,TP,6.3x7.5	
DR5	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608		PE8	2401-002165	C-AL:100uf,20%,16V,GP,TP,6.3x7.5	
DR6	2007-000075	R-CHIP:220ohm,5%,1/16W,DA,TP,1608		PE9	2401-002165	C-AL:100uf,20%,16V,GP,TP,6.3x7.5	
DR7	2007-000116	R-CHIP:120ohm,5%,1/16W,DA,TP,1608		PIC1	1203-002178	IC-VOLTAGE REGULATOR:1563,SOP,7P,173MIL,	
DR8	2007-000116	R-CHIP:120ohm,5%,1/16W,DA,TP,1608		PIC2	1203-002779	IC-VOLTAGE REGULATOR:G952T63U,SOT-223,3P	
FC1	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608		PL1	2703-000398	INDUCTOR-SMD:10uH,10%,3.2x2.5x2.2mm	
FC10	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608		PL2	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216	
FC11	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608		PL3	2703-000398	INDUCTOR-SMD:10uH,10%,3.2x2.5x2.2mm	
FC12	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608		PR1	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
FC13	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608		R1	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
FC15	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608		R2	2007-000080	R-CHIP:2Kohm,5%,1/16W,DA,TP,1608	
FC2	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608		R3	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
FC3	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608		R4	2007-000080	R-CHIP:2Kohm,5%,1/16W,DA,TP,1608	
FC4	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608		R5	2007-001056	R-CHIP:6.2Kohm,5%,1/16W,DA,TP,1608	
FC5	2203-001222	C-CERAMIC,CHIP:820pf,10%,50V,X7R,TP,1608		RC1	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FC6	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608		RC11	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FC7	2203-000140	C-CERAMIC,CHIP:1.5nf,10%,50V,X7R,TP,1608		RC12	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FCN1	3708-001165	CONNECTOR-FPC/FFC/PIC:6P,1.25mm,STRAIGHT	DVD-P331 ONLY	RC13	2203-000975	C-CERAMIC,CHIP:47nf,10%,25V,X7R,TP,1608,	
FE1	2401-002144	C-AL:47uf,20%,16V,GP,TP,5x11.5		RC14	2203-005148	C-CERAMIC,CHIP:47nf,10%,25V,X7R,TP,1608	
FE2	2401-002144	C-AL:47uf,20%,16V,GP,TP,5x11.5		RC15	2203-000975	C-CERAMIC,CHIP:47nf,10%,25V,X7R,TP,1608,	
FE3	2401-002144	C-AL:47uf,20%,16V,GP,TP,5x11.5		RC16	2203-000257	C-CERAMIC,CHIP:10nf,10%,50V,X7R,TP,1608	
FE4	2401-002144	C-AL:47uf,20%,16V,GP,TP,5x11.5		RC17	2203-000560	C-CERAMIC,CHIP:220nf,+80-20%,25V,Y5V,TP,	
FE5	2401-002144	C-AL:47uf,20%,16V,GP,TP,5x11.5		RC18	2203-000236	C-CERAMIC,CHIP:0.1NF,5%,50V,COG,TP,1608	
FE6	2401-000414	C-AL:10uf,20%,16V,GP,TP,4x7.5		RC19	2203-000560	C-CERAMIC,CHIP:220nf,+80-20%,25V,Y5V,TP,	
FR1	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608		RC2	2203-000140	C-CERAMIC,CHIP:1.5nf,10%,50V,X7R,TP,1608	
FR10	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608		RC21	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FR11	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608		RC22	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FR12	2007-000124	R-CHIP:2.2Kohm,5%,1/16W,DA,TP,1608		RC23	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FR13	2007-000124	R-CHIP:2.2Kohm,5%,1/16W,DA,TP,1608		RC24	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FR14	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608		RC25	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FR15	2007-000655	R-CHIP:27Kohm,5%,1/16W,DA,TP,1608		RC27	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FR16	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608		RC28	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FR17	2007-000088	R-CHIP:7.5Kohm,5%,1/16W,DA,TP,1608		RC29	2203-000236	C-CERAMIC,CHIP:0.1NF,5%,50V,COG,TP,1608	
FR18	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608		RC3	2203-000140	C-CERAMIC,CHIP:1.5nf,10%,50V,X7R,TP,1608	
FR2	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608		RC31	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FR3	2007-000034	R-CHIP:10HM,5%,1/4W,DA,TP,3216		RC32	2203-000560	C-CERAMIC,CHIP:220nf,+80-20%,25V,Y5V,TP,	
FR4	2007-000034	R-CHIP:10HM,5%,1/4W,DA,TP,3216		RC33	2203-000715	C-CERAMIC,CHIP:3.3nf,10%,50V,X7R,TP,1608	
FR5	2007-000093	R-CHIP:20Kohm,5%,1/16W,DA,TP,1608		RC34	2203-000140	C-CERAMIC,CHIP:1.5nf,10%,50V,X7R,TP,1608	
FR6	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608		RC35	2203-000236	C-CERAMIC,CHIP:0.1NF,5%,50V,COG,TP,1608	
FR7	2007-000093	R-CHIP:20Kohm,5%,1/16W,DA,TP,1608		RC4	2203-000140	C-CERAMIC,CHIP:1.5nf,10%,50V,X7R,TP,1608	
FR8	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608		RC5	2203-000140	C-CERAMIC,CHIP:1.5nf,10%,50V,X7R,TP,1608	
FR9	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608		RC6	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
JB1	2007-000075	R-CHIP:220ohm,5%,1/16W,DA,TP,1608		RC7	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FSW2	3404-001235	SWITCH-TACT:12V DC,50MA,100GF,6.2x6x10.8,	DVD-P230 ONLY	RC8	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
FSW8	3404-001164	SWITCH-TACT:12V DC,50MA,100GF,7X7x6.7MM,	DVD-P230 ONLY	RC9	2203-005148	C-CERAMIC,CHIP:100nf,10%,16V,X7R,TP,1608	
PC1	2203-000257	C-CERAMIC,CHIP:10nf,10%,50V,X7R,TP,1608		RE1	2401-000913	C-AL:22uf,20%,16V,GP,TP,5x11.5	

Electrical Parts List

Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
RE10	2401-002165	C-AL:100uF,20%,16V,GP,TP,6.3x7,5		SC46	2203-000975	C-CERAMIC,CHIP:47nF,10%,25V,X7R,TP,1608	
RE2	2401-000414	C-AL:10uF,20%,16V,GP,TP,4x7,5		SC47	2203-000140	C-CERAMIC,CHIP:1.5nF,10%,50V,X7R,TP,1608	
RE3	2401-000414	C-AL:10uF,20%,16V,GP,TP,4x7,5		SC48	2203-000815	C-CERAMIC,CHIP:0.033NF,5%,50V,COG,TP,160	
RE4	2401-000913	C-AL:22uF,20%,16V,GP,TP,5x11,5		SC5	2203-002398	C-CERAMIC,CHIP:22nF,10%,50V,X7R,TP,1608	
RE5	2401-000913	C-AL:22uF,20%,16V,GP,TP,5x11,5		SC50	2203-000140	C-CERAMIC,CHIP:1.5nF,10%,50V,X7R,TP,1608	
RE6	2401-000414	C-AL:10uF,20%,16V,GP,TP,4x7,5		SC51	2203-001630	C-CERAMIC,CHIP:330nF,+80-20%,16V,Y5V,TP	
RE7	2401-000414	C-AL:10uF,20%,16V,GP,TP,4x7,5		SC53	2203-000426	C-CERAMIC,CHIP:0.018NF,5%,50V,COG,TP,160	
RE8	2401-000414	C-AL:10uF,20%,16V,GP,TP,4x7,5		SC6	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608	
RE9	2401-000414	C-AL:10uF,20%,16V,GP,TP,4x7,5		SC7	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608	
RIC1	AH13-00009B	IC ASIC:SSL1463A01,DVD-P293,80,+5V,-40		SC8	2203-000491	C-CERAMIC,CHIP:2.2nF,10%,50V,X7R,TP,1608	
RL11	2703-000398	INDUCTOR-SMD:10uH,10%,3.2x2.5x2.2mm		SC9	2203-000491	C-CERAMIC,CHIP:2.2nF,10%,50V,X7R,TP,1608	
RL3	2703-000398	INDUCTOR-SMD:10uH,10%,3.2x2.5x2.2mm		SE1	2401-000414	C-AL:10uF,20%,16V,GP,TP,4x7,5	
RQ1	0501-000279	TR-SMALL SIGNAL:KSA1182-Y,PNP;150mW,SOT-		SIC1	AH13-00006B	IC ASIC:SSL1455X01,DVD-P293,160,+3.3V,	
RQ2	0501-000279	TR-SMALL SIGNAL:KSA1182-Y,PNP;150mW,SOT-		SIC2	1105-001355	IC-DRAM:416256,256KX16BIT,TSOP(II),40P	
RR11	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608		SIC3	1003-001489	IC-MOTOR DRIVER:FAN8728,HCFP48P;14X14MM	
RR12	2007-000312	R-CHIP:100HM,5%,1/8W,DA,TP,3216		SL1	3301-000314	CORE-FERRITE BEAD:AB,120ohm,1.6x0.8x0.8m	
RR15	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608		SL2	3301-000314	CORE-FERRITE BEAD:AB,120ohm,1.6x0.8x0.8m	
RR16	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608		SL3	3301-001419	CORE-FERRITE BEAD:AB,220ohm,1.6x0.8x0.8m	
RR17	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608		SR1	2007-001235	R-CHIP:910Kohm,5%,1/16W,DA,TP,1608	
RR18	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608		SR11	2007-000124	R-CHIP:2.2Kohm,5%,1/16W,DA,TP,1608	
RR19	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608		SR13	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608	
RR2	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608		SR14	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608	
RR21	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608		SR15	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608	
RR22	2007-000655	R-CHIP:27Kohm,5%,1/16W,DA,TP,1608		SR16	2007-000655	R-CHIP:27Kohm,5%,1/16W,DA,TP,1608	
RR23	2007-001235	R-CHIP:910Kohm,5%,1/16W,DA,TP,1608		SR17	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608	
RR24	2007-000134	R-CHIP:33Kohm,5%,1/16W,DA,TP,1608		SR18	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
RR25	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608		SR19	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608	
RR26	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608		SR2	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608	
RR28	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608		SR21	2007-000093	R-CHIP:20Kohm,5%,1/16W,DA,TP,1608	
RR29	2007-000381	R-CHIP:13Kohm,5%,1/16W,DA,TP,1608		SR22	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
RR3	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608		SR23	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
RR31	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608		SR24	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
RR4	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608		SR26	2007-000109	R-CHIP:1Mohm,5%,1/16W,DA,TP,1608	
RR5	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608		SR27	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
RR8	2007-000077	R-CHIP:470ohm,5%,1/16W,DA,TP,1608		SR28	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
RR9	2007-000312	R-CHIP:100HM,5%,1/8W,DA,TP,3216		SR29	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
SC1	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		SR3	2007-000092	R-CHIP:15Kohm,5%,1/16W,DA,TP,1608	
SC11	2203-000560	C-CERAMIC,CHIP:220nF,+80-20%,25V,Y5V,TP,		SR31	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
SC13	2203-001634	C-CERAMIC,CHIP:33nF,10%,50V,X7R,TP,1608,		SR32	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
SC14	2203-000491	C-CERAMIC,CHIP:2.2nF,10%,50V,X7R,TP,1608		SR33	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
SC15	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		SR34	3301-001419	CORE-FERRITE BEAD:AB,220ohm,1.6x0.8x0.8m	
SC16	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608		SR35	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
SC17	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608		SR36	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
SC18	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608		SR39	2007-000116	R-CHIP:120ohm,5%,1/16W,DA,TP,1608	
SC2	2203-001652	C-CERAMIC,CHIP:470nF,+80-20%,16V,Y5V,TP,		SR4	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
SC23	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		SR41	2007-000643	R-CHIP:270ohm,5%,1/16W,DA,TP,1608	
SC24	2203-000681	C-CERAMIC,CHIP:0.027NF,5%,50V,COG,TP,160		SR42	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
SC25	2203-000681	C-CERAMIC,CHIP:0.027NF,5%,50V,COG,TP,160		SR43	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
SC26	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		SR44	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
SC27	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		SR45	2007-000102	R-CHIP:100Kohm,5%,1/16W,DA,TP,1608	
SC28	2203-000815	C-CERAMIC,CHIP:0.033NF,5%,50V,COG,TP,160		SR46	2007-001164	R-CHIP:75ohm,1%,1/16W,DA,TP,1608	
SC29	2203-000815	C-CERAMIC,CHIP:0.033NF,5%,50V,COG,TP,160		SR48	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
SC3	2203-002398	C-CERAMIC,CHIP:22nF,10%,50V,X7R,TP,1608		SR49	2007-000116	R-CHIP:120ohm,5%,1/16W,DA,TP,1608	
SC31	2203-000626	C-CERAMIC,CHIP:0.022NF,5%,50V,COG,TP,160		SR5	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608	
SC32	2203-000815	C-CERAMIC,CHIP:0.033NF,5%,50V,COG,TP,160		SR50	2007-000643	R-CHIP:270ohm,5%,1/16W,DA,TP,1608	
SC33	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608		SR52	2007-000075	R-CHIP:220ohm,5%,1/16W,DA,TP,1608	
SC34	2203-000626	C-CERAMIC,CHIP:0.022NF,5%,50V,COG,TP,160		SR53	2007-000113	R-CHIP:33ohm,5%,1/16W,DA,TP,1608	
SC35	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608		SR54	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
SC36	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608		SR6	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
SC38	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		SR7	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
SC4	2203-001652	C-CERAMIC,CHIP:470nF,+80-20%,16V,Y5V,TP,		SR8	2007-000091	R-CHIP:12Kohm,5%,1/16W,DA,TP,1608	
SC41	2203-000560	C-CERAMIC,CHIP:220nF,+80-20%,25V,Y5V,TP,		SR9	2007-000124	R-CHIP:2.2Kohm,5%,1/16W,DA,TP,1608	
SC42	2203-000140	C-CERAMIC,CHIP:1.5nF,10%,50V,X7R,TP,1608		SY1	2801-000261	CRYSTAL-UNIT:33.8688MHz,50ppm,28-AAA,12p	
SC43	2203-001634	C-CERAMIC,CHIP:33nF,10%,50V,X7R,TP,1608,		W1	2007-000033	R-CHIP:0OHM,5%,1/8W,DA,TP,3216	
SC44	2203-000715	C-CERAMIC,CHIP:3.3nF,10%,50V,X7R,TP,1608		ZC1	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608	
SC45	2203-001126	C-CERAMIC,CHIP:0.68nF,10%,50V,X7R,TP,160		ZC10	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608	

Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
ZC101	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZL9	3301-001419	CORE-FERRITE BEAD:AB,220ohm,1.6x0.8x0.8mm	
ZC102	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR1	2007-000360	R-CHIP:12ohm,1%,1/16W,DA,TP,1608	
ZC103	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR10	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZC104	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR101	2007-001101	R-CHIP:62ohm,5%,1/16W,DA,TP,1608	
ZC105	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR11	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZC106	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR12	2011-000816	R-NETWORK:100ohm,5%,63mW,L,CHIP,8P,TP	
ZC107	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR13	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
ZC108	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR14	2007-001164	R-CHIP:75ohm,1%,1/16W,DA,TP,1608	
ZC110	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR15	2007-001164	R-CHIP:75ohm,1%,1/16W,DA,TP,1608	
ZC111	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR16	2007-001164	R-CHIP:75ohm,1%,1/16W,DA,TP,1608	
ZC112	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR17	2007-001164	R-CHIP:75ohm,1%,1/16W,DA,TP,1608	
ZC113	2203-000426	C-CERAMIC,CHIP:0.018nF,5%,50V,COG,TP,160		ZR18	2007-001164	R-CHIP:75ohm,1%,1/16W,DA,TP,1608	
ZC12	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR19	2007-001164	R-CHIP:75ohm,1%,1/16W,DA,TP,1608	
ZC13	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR2	2007-000360	R-CHIP:12ohm,1%,1/16W,DA,TP,1608	
ZC14	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR20	2007-001164	R-CHIP:75ohm,1%,1/16W,DA,TP,1608	
ZC15	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR21	2007-001164	R-CHIP:75ohm,1%,1/16W,DA,TP,1608	
ZC16	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR22	2007-000113	R-CHIP:33ohm,5%,1/16W,DA,TP,1608	
ZC17	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR23	2007-000113	R-CHIP:33ohm,5%,1/16W,DA,TP,1608	
ZC18	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR24	2007-000113	R-CHIP:33ohm,5%,1/16W,DA,TP,1608	
ZC19	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR25	2007-000113	R-CHIP:33ohm,5%,1/16W,DA,TP,1608	
ZC2	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR26	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
ZC20	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR27	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZC21	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR28	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZC22	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR29	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZC23	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR3	2007-000118	R-CHIP:390ohm,5%,1/16W,DA,TP,1608	
ZC24	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR30	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZC25	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR31	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZC27	2203-000257	C-CERAMIC,CHIP:10nF,10%,50V,X7R,TP,1608		ZR32	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZC28	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR33	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
ZC29	2203-000815	C-CERAMIC,CHIP:0.033nF,5%,50V,COG,TP,160		ZR34	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZC3	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR35	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
ZC30	2203-000815	C-CERAMIC,CHIP:0.033nF,5%,50V,COG,TP,160		ZR36	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
ZC31	2203-000815	C-CERAMIC,CHIP:0.033nF,5%,50V,COG,TP,160		ZR37	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
ZC32	2203-000815	C-CERAMIC,CHIP:0.033nF,5%,50V,COG,TP,160		ZR38	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608	
ZC33	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR39	2007-000090	R-CHIP:10KOHM,5%,1/16W,DA,TP,1608	
ZC34	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR4	3301-001309	CORE-FERRITE BEAD:AB,47ohm,1.6x0.8x0.8mm	
ZC35	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR40	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
ZC36	2203-000681	C-CERAMIC,CHIP:0.027nF,5%,50V,COG,TP,160		ZR41	2007-000078	R-CHIP:1Kohm,5%,1/16W,DA,TP,1608	
ZC37	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR42	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZC38	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR43	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZC39	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR44	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
ZC4	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR45	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
ZC40	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR46	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
ZC41	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR48	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
ZC42	2203-000815	C-CERAMIC,CHIP:0.033nF,5%,50V,COG,TP,160		ZR5	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
ZC44	2203-000426	C-CERAMIC,CHIP:0.018nF,5%,50V,COG,TP,160		ZR56	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
ZC5	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR57	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
ZC6	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR6	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZC7	2203-000681	C-CERAMIC,CHIP:0.027nF,5%,50V,COG,TP,160		ZR60	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
ZC9	2203-005148	C-CERAMIC,CHIP:100nF,10%,16V,X7R,TP,1608		ZR62	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZE1	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		ZR63	2007-001164	R-CHIP:75ohm,1%,1/16W,DA,TP,1608	
ZE2	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		ZR64	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
ZE3	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		ZR66	2007-000113	R-CHIP:33ohm,5%,1/16W,DA,TP,1608	
ZE4	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5		ZR67	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608	
ZIC1	1204-002067	IC-DECODER:ZR36748,0FP,208P,28X28MM,PLAS		ZR69	2007-000074	R-CHIP:100ohm,5%,1/16W,DA,TP,1608	
ZIC2	1105-001305	IC-DRAM:4S641632,1Mx16x4Bit,TSOP,54P,4		ZR7	2007-000084	R-CHIP:4.7Kohm,5%,1/16W,DA,TP,1608	
ZIC3	1107-001369	IC-FLASH MEMORY:MBM29LV800BA-90PFTN,512K		ZY1	2801-003554	CRYSTAL-UNIT:27MHz,10ppm,28-AA,MM,12pF,40	
ZIC7	1103-001204	IC-EEPROM:24C021,256x8Bit,SOP,8P,150MIL,					
ZIC8	0801-002701	IC-CMOS LOGIC:74VHC125A,BUFFER,TSSOP,14					
ZL10	3301-001419	CORE-FERRITE BEAD:AB,220ohm,1.6x0.8x0.8mm					
ZL2	2703-000398	INDUCTOR-SMD:10uH,10%,3.2x2.5x2.2mm					
ZL3	2703-000398	INDUCTOR-SMD:10uH,10%,3.2x2.5x2.2mm					
ZL5	3301-001419	CORE-FERRITE BEAD:AB,220ohm,1.6x0.8x0.8mm					
ZL6	3301-001419	CORE-FERRITE BEAD:AB,220ohm,1.6x0.8x0.8mm					
ZL7	3301-001419	CORE-FERRITE BEAD:AB,220ohm,1.6x0.8x0.8mm					
ZL8	3301-001419	CORE-FERRITE BEAD:AB,220ohm,1.6x0.8x0.8mm					

Electrical Parts List

Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
602	AK92-00130A	ASSY PCB-JACK;DVD-E231/XAA,EXINO JACK PC	DVD-P230	AR405	2001-000977	R-CARBON:8.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
	AK92-00150A	ASSY PCB-JACK;DVD-P331/XAA,EXINO JACK PC	DVD-P331	AR406	2001-000977	R-CARBON:8.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AC201	2203-000192	C-CERAMIC,CHIP:100nf,+80-20%,50V,Y5V,TP,		AR407	2007-001009	R-CHIP:51KOHM,5%,1/10W,DA,TP,2012	
AC202	2202-002037	C-CERAMIC,MLC-AXIAL:100nf,80-20%,50V,Y5V		AR408	2007-001009	R-CHIP:51KOHM,5%,1/10W,DA,TP,2012	
AC203	2203-000260	C-CERAMIC,CHIP:10nf,10%,50V,X7R,TP,2012	DVD-P331 ONLY	AR409	2007-000409	R-CHIP:15KOHM,5%,1/10W,DA,TP,2012	
AC204	2202-000797	C-CERAMIC,MLC-AXIAL:10NF,30%,16V,Y5S,TP,		AR410	2007-000409	R-CHIP:15KOHM,5%,1/10W,DA,TP,2012	
AC401	2203-000495	C-CERAMIC,CHIP:2.2nf,10%,50V,X7R,TP,2012		AR411	2007-000221	R-CHIP:1.2KOHM,5%,1/10W,DA,TP,2012	
AC402	2203-000839	C-CERAMIC,CHIP:0.39NF,5%,50V,COG,TP,2012		AR412	2007-000221	R-CHIP:1.2KOHM,5%,1/10W,DA,TP,2012	
AC403	2203-000495	C-CERAMIC,CHIP:2.2nf,10%,50V,X7R,TP,2012		AR5	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AC404	2203-000839	C-CERAMIC,CHIP:0.39NF,5%,50V,COG,TP,2012		AR51	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AC405	2203-000192	C-CERAMIC,CHIP:100nf,+80-20%,50V,Y5V,TP,		AR54	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AC406	2203-000192	C-CERAMIC,CHIP:100nf,+80-20%,50V,Y5V,TP,		AR55	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AC407	2203-000126	C-CERAMIC,CHIP:1.2nf,10%,50V,X7R,TP,2012		AR56	2001-000780	R-CARBON:470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
AC408	2203-000126	C-CERAMIC,CHIP:1.2nf,10%,50V,X7R,TP,2012		AVJ1	3722-001469	JACK-PIN:3P/4P:3.2mm,NI,BLK,-	
AC409	2203-000316	C-CERAMIC,CHIP:0.12NF,5%,50V,COG,TP,2012		AVJ2	3722-001467	JACK-PIN:3P:3.2mm,NI,BLK,-	
AC410	2203-000316	C-CERAMIC,CHIP:0.12NF,5%,50V,COG,TP,2012		AVJ4	3722-001516	JACK-PIN:1P:3.5mm,NI,BLK,-	
AC413	2203-000192	C-CERAMIC,CHIP:100nf,+80-20%,50V,Y5V,TP,		AVJ5	3707-001052	CONNECTOR-OPTICAL-PLUG:GP1FA550TZ,6dB,2,	DVD-P331 ONLY
AD1	0407-000114	DIODE-ARRAY:DAN202K,80V,100mA,CA2-3,SOT-		CN1	3708-001364	CONNECTOR-FPC/FFC/PIC:35P:1.25MM,STRAIGH	
AD2	0407-000114	DIODE-ARRAY:DAN202K,80V,100mA,CA2-3,SOT-		FC23	2203-000595	C-CERAMIC,CHIP:0.22NF,5%,50V,COG,TP,2012	
AD51	0407-000114	DIODE-ARRAY:DAN202K,80V,100mA,CA2-3,SOT-		FC24	2203-000595	C-CERAMIC,CHIP:0.22NF,5%,50V,COG,TP,2012	
AD54	0403-001158	DIODE-ZENER:MTZJ18C,18,500mV,DO-34,TP		FC25	2203-000595	C-CERAMIC,CHIP:0.22NF,5%,50V,COG,TP,2012	
AD55	0403-001158	DIODE-ZENER:MTZJ18C,18,500mV,DO-34,TP		FC27	2203-000192	C-CERAMIC,CHIP:100nf,+80-20%,50V,Y5V,TP,	
AE10	2401-000414	C-AL:10uF,20%,16V,GPTP,4x7,5		FC28	2202-000173	C-CERAMIC,MLC-AXIAL:1nf,10%,50V,Y5P,TP,1	
AE201	2401-000598	C-AL:1uF,20%,50V,GPTP,4x7,5		FC7	2203-000260	C-CERAMIC,CHIP:10nf,10%,50V,X7R,TP,2012	
AE401	2401-000922	C-AL:22uF,20%,16V,GPTP,5x5,5		FD7	0401-000101	DIODE-SWITCHING:1N4148,100V,200mA,DO-35,	
AE402	2401-002165	C-AL:100uF,20%,16V,GPTP,6.3x7,5		FD9	0403-000551	DIODE-ZENER:MTZ3.9B,3.9V,3.89-4.16V,500m	
AE403	2401-000922	C-AL:22uF,20%,16V,GPTP,5x5,5		FE10	2401-000922	C-AL:22uF,20%,16V,GPTP,5x5,5	
AE404	2401-002144	C-AL:47uF,20%,16V,GPTP,5x11,5		FE7	2401-000922	C-AL:22uF,20%,16V,GPTP,5x5,5	
AE405	2401-002144	C-AL:47uF,20%,16V,GPTP,5x11,5		FE8	2401-001507	C-AL:47uF,20%,16V,GPTP,6.3x5,5	
AE406	2401-000414	C-AL:10uF,20%,16V,GPTP,4x7,5		FE9	2401-001507	C-AL:47uF,20%,16V,GPTP,6.3x5,5	
AE407	2401-000414	C-AL:10uF,20%,16V,GPTP,4x7,5		FEYE	AH59-00010A	MODULE REMOCON:-,37.9KHZ,940NM,-,-,-	
AE51	2401-000414	C-AL:10uF,20%,16V,GPTP,4x7,5		FIC1	AK09-00012A	IC MICOM:GM581C2020,-64PIN,2.7TO 5.5V,	
AE52	2401-000302	C-AL:100uF,20%,25V,GPTP,6.3x11,5		FIC7	1203-001252	IC-VOL. DETECTOR:7545,TO-92,3P,-PLASTIC	
AE6	2401-000913	C-AL:22uF,20%,16V,GPTP,5x11,5		FL1	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm	
AE9	2401-000913	C-AL:22uF,20%,16V,GPTP,5x11,5		FQ29	0501-000398	TR-SMALL SIGNAL:KSC945,NPN,250mW,TO-92,T	DVD-P331 ONLY
AIC3	AH14-10004R	IC:M74HCU04,SOP,TAPE 14P		FQ54	0501-000398	TR-SMALL SIGNAL:KSC945,NPN,250mW,TO-92,T	
AIC4	1002-001294	IC-D/A CONVERTER:PCM1742KE,24BIT,TSSOP,1		FR07	2007-000468	R-CHIP:1KOHM,5%,1/10W,DA,TP,2012	
AL1	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		FR071	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AL2	3301-001461	CORE-FERRITE BEAD:AB,300OHM,1.6X0.8X0.8MM		FR072	2001-000793	R-CARBON:470HM,5%,1/8W,AA,TP,1.8X3.2MM	
AL201	2901-001125	FILTER-EMI ON BOARD:50V,0.5A,-,220pf,7x2		FR1	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
AL3	3301-001419	CORE-FERRITE BEAD:AB,220ohm,1.6x0.8x0.8mm		FR16	2001-000027	R-CARBON:100OHM,5%,1/4W,AA,TP,2.4X6.4MM	
AL4	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		FR17	2001-000027	R-CARBON:100OHM,5%,1/4W,AA,TP,2.4X6.4MM	
AOP4	1201-000163	IC-OP AMP:4560,SOP,8P,173MIL,DUAL,100V/m		FR19	2001-000007	R-CARBON:3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AQ1	0501-000398	TR-SMALL SIGNAL:KSC945,NPN,250mW,TO-92,T		FR191	2001-000890	R-CARBON:6.8KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AQ3	0501-000398	TR-SMALL SIGNAL:KSC945,NPN,250mW,TO-92,T		FR2	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
AQ4	0504-000128	TR-DIGITAL:-,NPN,200MW,22K/22K,SOT-23,TP		FR20	2001-000007	R-CARBON:3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AQ5	0504-000156	TR-DIGITAL:KSR2103,PNP,200MW,22K/22K,SOT		FR201	2001-000591	R-CARBON:3.3KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AQ51	0504-000128	TR-DIGITAL:-,NPN,200MW,22K/22K,SOT-23,TP		FR21	2001-000007	R-CARBON:3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AQ52	0504-000156	TR-DIGITAL:KSR2103,PNP,200MW,22K/22K,SOT		FR22	2001-000007	R-CARBON:3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AQ55	0501-000303	TR-SMALL SIGNAL:KSA733,PNP,250mW,TO-92,T		FR23	2001-000007	R-CARBON:3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AQ6	0504-000128	TR-DIGITAL:-,NPN,200MW,22K/22K,SOT-23,TP		FR24	2001-000007	R-CARBON:3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AQ7	0504-000156	TR-DIGITAL:KSR2103,PNP,200MW,22K/22K,SOT		FR25	2007-000844	R-CHIP:3KOHM,5%,1/10W,DA,TP,2012	
AR201	2001-000003	R-CARBON:330ohm,5%,1/8W,AA,TP,1.8x3.2mm		FR28	2001-000780	R-CARBON:470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR202	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM		FR281	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
AR203	2001-000515	R-CARBON:220OHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	FR29	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012	DVD-P331 ONLY
AR21	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		FR291	2001-000490	R-CARBON:200OHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY
AR22	2001-000515	R-CARBON:220OHM,5%,1/8W,AA,TP,1.8X3.2MM		FR3	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
AR24	2001-000515	R-CARBON:220OHM,5%,1/8W,AA,TP,1.8X3.2MM		FR4	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
AR26	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		FR5	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
AR35	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012		FR54	2001-000490	R-CARBON:200OHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR36	2007-000572	R-CHIP:220OHM,5%,1/10W,DA,TP,2012		FR541	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR38	2001-000515	R-CARBON:220OHM,5%,1/8W,AA,TP,1.8X3.2MM		FR55	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
AR4	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM		FR56	2007-000468	R-CHIP:1KOHM,5%,1/10W,DA,TP,2012	
AR40	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM		FR59	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012	
AR403	2007-001009	R-CHIP:51KOHM,5%,1/10W,DA,TP,2012		FR6	2007-000290	R-CHIP:100OHM,5%,1/10W,DA,TP,2012	
AR404	2007-001009	R-CHIP:51KOHM,5%,1/10W,DA,TP,2012		FR60	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012	

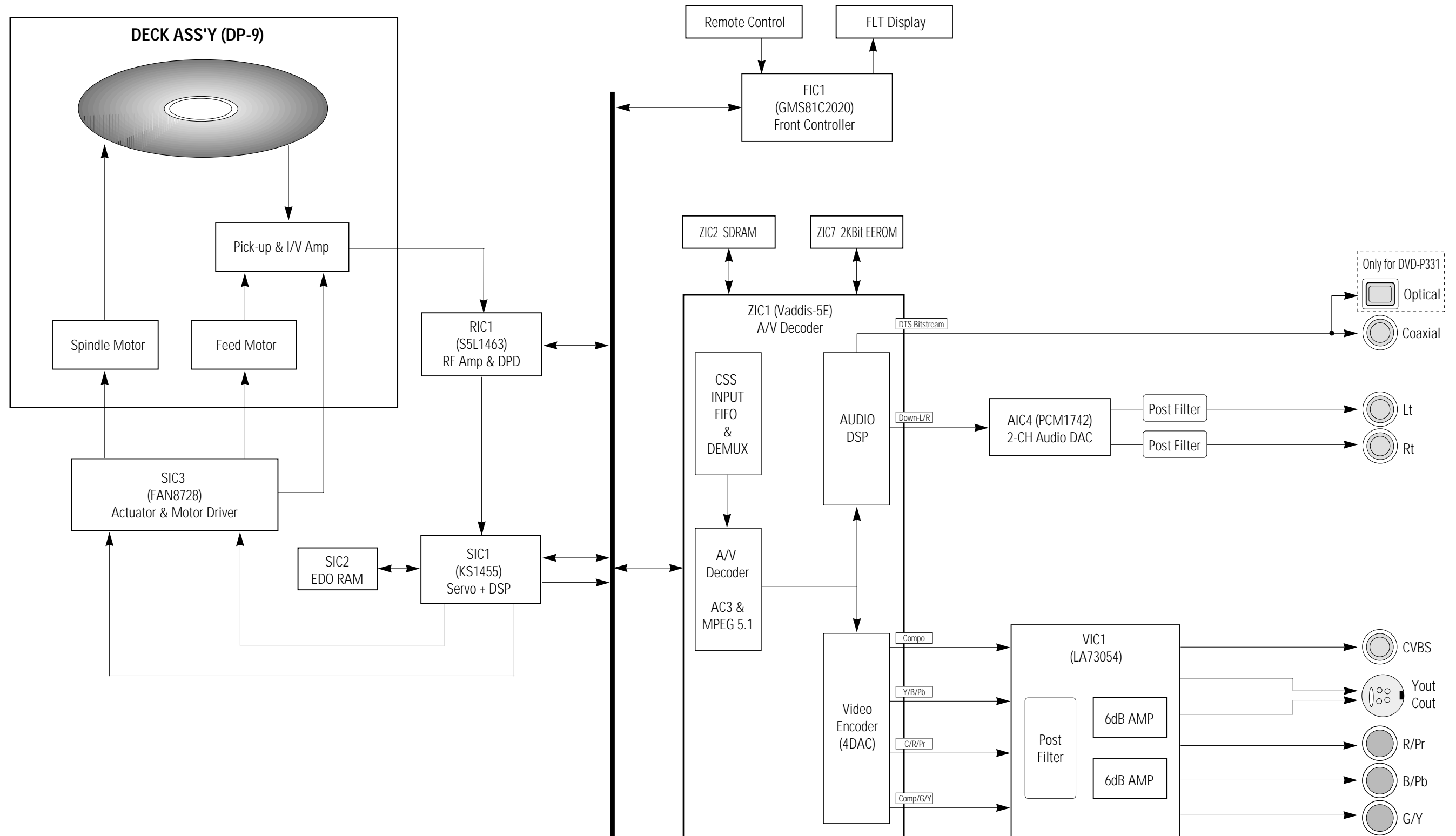
Loc.No	Part No	Description ; Specification	Remark	Loc.No	Part No	Description ; Specification	Remark
FY1	2802-001094	RESONATOR-CERAMIC:4.0MHz,0.5%,TP,8x3x5.5		PDS34	0402-001438	DIODE-RECTIFIER:SHK55-65,60V,3A,AXIAL,BK	
HC1	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	DVD-P331 ONLY	PDS36	0402-001195	DIODE-RECTIFIER:F1T4,400V,1.0A,TS-1,TP	
HCC5	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	DVD-P331 ONLY	PDS51	0401-000101	DIODE-SWITCHING:1N4148,100V,200mA,DO-35,	
HC6	2202-002037	C-CERAMIC,MLC-AXIAL:100nF,80-20%,50V,Y5V	DVD-P331 ONLY	PDS52	0402-000127	DIODE-RECTIFIER:1N4002,100V,1A,DO-41,TP	
HCC1	2202-000173	C-CERAMIC,MLC-AXIAL:1nF,10%,50V,Y5P,TP,1	DVD-P331 ONLY	PER10	2401-003365	C-AL:150uF,20%,200V,GP,TP,18x25,7.5	
HCC2	2202-000173	C-CERAMIC,MLC-AXIAL:1nF,10%,50V,Y5P,TP,1	DVD-P331 ONLY	PERT2	2401-000905	C-AL:22uF,20%,16V,BP,-6x11,2.5mm	
HE10	2401-002075	C-AL:4.7uF,20%,50V,GP,TP,5x11,5	DVD-P331 ONLY	PES31	2401-000302	C-AL:100uF,20%,25V,GP,TP,6.3x11,5	
HE23	2401-000913	C-AL:22uF,20%,16V,GP,TP,5x11,5	DVD-P331 ONLY	PES33	2401-000309	C-AL:1000uF,20%,16V,WT,TP,10x16,5	
HE24	2401-000913	C-AL:22uF,20%,16V,GP,TP,5x11,5	DVD-P331 ONLY	PES34	2401-000118	C-AL:1000uF,20%,10V,GP,TP,10x12,5,5	
HE3	2401-001250	C-AL:4.7uF,20%,35V,GP,TP,4x5,5	DVD-P331 ONLY	PES35	2401-003046	C-AL:47uF,20%,50V,WT,TP,6.3x11,2,5	
HE4	2401-001250	C-AL:4.7uF,20%,35V,GP,TP,4x5,5	DVD-P331 ONLY	PES36	2401-001353	C-AL:470uF,20%,10V,GP,TP,8x11,5,5	
HE7	2401-002075	C-AL:4.7uF,20%,50V,GP,TP,5x11,5	DVD-P331 ONLY	PES37	2401-002042	C-AL:220uF,20%,10V,GP,TP,6.3x11,5	
HE8	2401-002075	C-AL:4.7uF,20%,50V,GP,TP,5x11,5	DVD-P331 ONLY	PES51	2401-000302	C-AL:100uF,20%,25V,GP,TP,6.3x11,5	
HE9	2401-002075	C-AL:4.7uF,20%,50V,GP,TP,5x11,5	DVD-P331 ONLY	PES52	2401-000598	C-AL:1uF,20%,50V,GP,TP,4x7,5	
HL1	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3,4mm	DVD-P331 ONLY	PES54	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5	
HL2	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3,4mm	DVD-P331 ONLY	PES56	2401-002165	C-AL:100uF,20%,16V,GP,TP,6.3x7,5	
HL3	2202-000121	C-CERAMIC,MLC-AXIAL:100pF,10%,50V,Y5P,TP		PES57	2401-002165	C-AL:100uF,20%,16V,GP,TP,6.3x7,5	
HOP1	1201-000163	IC-OP AMP:4560,SOP,8P,173MIL,DUAL,100V/m	DVD-P331 ONLY	PES58	2401-001353	C-AL:470uF,20%,10V,GP,TP,8x11,5,5	
HR1	2001-000666	R-CARBON:330OHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PFD01	3601-000194	FUSE-CARTRIDGE:250V,1A,FAST-ACTING,GLASS	△
HR15	2001-000515	R-CARBON:220OHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PICS1	0604-000186	PHOTO-COUPLER:TR-,200mW,DIP-4,ST	△
HR16	2001-000515	R-CARBON:220OHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PICS2	AC14-12006D	IC-KA431Z,TO-92,TAPING	
HR19	2001-000837	R-CARBON:51KOHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PICS3	1203-000242	IC-POSIFIXED REG.:7812,TO-220,3P,-PLAS	
HR2	2001-001015	R-CARBON:9.1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PICS5	1203-002185	IC-VOLTAGE REGULATOR:3RD13,TO-220,4P,402	
HR20	2001-000837	R-CARBON:51KOHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PLS01	AC29-00003A	FILTER LINE NOISE:-,20mH MIN,-,-	△
HR21	2001-000837	R-CARBON:51KOHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PLS02	AC27-12001N	COIL CHOKE:10UH-15%,RA,K-30,080,150KHZ,-	
HR22	2001-000837	R-CARBON:51KOHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PQL51	0504-000142	TR-DIGITAL:KSR2001,PNP,300MW,4.7K/4.7K,T	
HR23	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M	DVD-P331 ONLY	PQL52	0501-000442	TR-SMALL SIGNAL:KTC3203-Y,NPN,400mW,TO-9	
HR24	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M	DVD-P331 ONLY	PQL57	0504-000126	TR-DIGITAL:KSR1101,NPN,200mW,4.7K/4.7K,S	
HR3	2001-000800	R-CARBON:5.1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PQL58	0501-000303	TR-SMALL SIGNAL:KSA733 PNP,250mW,TO-92,T	
HR4	2001-000666	R-CARBON:330OHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PQR11	0502-000405	TR-POWER:-,NPN,70W,TO-220,BK,10	△
HR5	2001-001015	R-CARBON:9.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	DVD-P331 ONLY	PQR12	0501-000442	TR-SMALL SIGNAL:KTC3203-Y,NPN,400mW,TO-9	
HR6	2001-000800	R-CARBON:5.1KOHM,5%,1/8W,AA,TP,1.8X3.2M	DVD-P331 ONLY	PQS55	0504-000142	TR-DIGITAL:KSR2001,PNP,300MW,4.7K/4.7K,T	
HR7	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PQS56	0504-000118	TR-DIGITAL:KSR1003,NPN,300MW,22K/22K,TO-	
HR8	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PQS57	0501-000616	TR-SMALL SIGNAL:KSC2328A-Y,NPN,1W,TO-92L	
HRR1	2001-000527	R-CARBON:220OHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PQS58	0501-000616	TR-SMALL SIGNAL:KSC2328A-Y,NPN,1W,TO-92L	
HRR2	2001-000527	R-CARBON:220OHM,5%,1/8W,AA,TP,1.8X3.2MM	DVD-P331 ONLY	PRD11	2003-000119	R-METAL OXIDE:0.68ohm,5%,2W,AE,TP,6x16mm	
JR1	2007-000070	R-CHIP:0ohm,5%,1/16W,DA,TP,1608		PRD31	2001-000221	R-CARBON:1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
KVR1	2101-001090	VR-ROTARY:20KOHM,20%,1/20W,SIDE	DVD-P331 ONLY	PRD32	2001-000515	R-CARBON:220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
LED54	0601-001587	LED:ROUND,RED,3.1MM,635NM		PRF01	2002-000121	R-COMPOSITION:1Mohm,10%,1/2W,AA,TP,3.5x9	
MIC2	3722-001465	JACK-PHONE:3P,6.43PI,AG,BLK,-	DVD-P331 ONLY	PRL51	2001-000449	R-CARBON:2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
PBR11	3301-000297	CORE-FERRITE BEAD-AA,3.6x1.2x5.7mm,1400,		PRL52	2001-000290	R-CARBON:10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
PBS01	3301-000297	CORE-FERRITE BEAD-AA,3.6x1.2x5.7mm,1400,		PRL57	2001-000273	R-CARBON:100KOHM,5%,1/8W,AA,TP,1.8X3.2M	
PCD02	2201-000828	C-CERAMIC,DISC:3.3NF,20%,400V,Y5U,TP,15X	△	PRL58	2001-000449	R-CARBON:2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
PCD03	2201-000828	C-CERAMIC,DISC:3.3NF,20%,400V,Y5U,TP,15X	△	PRR11	2003-002117	R-METAL OXIDE(S):330Kohm,5%,1W,AA,TP,3.3	
PCD11	2201-000828	C-CERAMIC,DISC:3.3NF,20%,400V,Y5U,TP,15X		PRR12	2003-000314	R-METAL OXIDE:47ohm,5%,2W,AE,TP,6x16mm	
PCD12	2201-000129	C-CERAMIC,DISC:0.1NF,10%,1KV,Y5P,TP,7X4MM		PRR13	2003-000314	R-METAL OXIDE:47ohm,5%,2W,AE,TP,6x16mm	
PCNS1	AK39-00026A	CONNECT WIRE:-,1007,#26,1007,#26,6P,-,WH		PRR14	2001-000003	R-CARBON:330ohm,5%,1/8W,AA,TP,1.8X3.2mm	
PCNS2	3711-000178	CONNECTOR-HEADER:1WALL,2P,1R,3.96mm,STRA	△	PRR15	2001-000003	R-CARBON:330ohm,5%,1/8W,AA,TP,1.8X3.2mm	
PCR01	2201-000795	C-CERAMIC,DISC:10NF,10%,400V,Y5P,TP,15X1	△	PRR17	2001-000734	R-CARBON:4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
PCR02	2201-000828	C-CERAMIC,DISC:3.3NF,20%,400V,Y5U,TP,15X	△	PRS12	2003-000994	R-METAL OXIDE(S):33Kohm,5%,2W,AE,TP,3.9x	
PCR13	2301-000180	C-FILM,PEF:18nF,0.05,100V,TP,7.2x4.5x8.0		PRS31	2001-000440	R-CARBON:10OHM,5%,1/8W,AA,TP,1.8X3.2MM	
PCR14	2301-000417	C-FILM,PEF:24nF,5%,50V,TP,6.5x10.5x4mm,5		PRS32	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
PCR15	2301-000423	C-FILM,PEF:3.3nF,5%,100V,TP,7x10x4.5mm,5		PRS33	2004-000869	R-METAL:3Kohm,1%,1/8W,AA,TP,1.8x3.2mm	
PCS03	2201-000916	C-CERAMIC,DISC:0.1NF,10%,400V,Y5U,TP,10X	△	PRS34	2004-000459	R-METAL:2.2Kohm,1%,1/8W,AA,TP,1.8x3.2m	
PCS32	2301-000129	C-FILM,PEF:100nF,5%,50V,TP,10X9X4.3X5,5m		PRS54	2007-000493	R-CHIP:2.2KOHM,5%,1/10W,DA,TP,2012	
PDD35	0402-001195	DIODE-RECTIFIER:F1T4,400V,1.0A,TS-1,TP		PRS55	2001-000062	R-CARBON:470OHM,5%,1/4W,AA,TP,2.4x6.4MM	
PDL51	0401-000101	DIODE-SWITCHING:1N4148,100V,200mA,DO-35,		PTD1	AK26-00008A	TRANS SWITCHING:EXINO,RCC,-,120V/230V,-,	△
PDR11	0401-000101	DIODE-SWITCHING:1N4148,100V,200mA,DO-35,		PVA1	1405-000186	VARISTOR:470V,2500A,17.5x7.5mm,TP	△
PDR12	0401-000101	DIODE-SWITCHING:1N4148,100V,200mA,DO-35,		PZR31	0403-001036	DIODE-ZENER:1N4745A,16V,5%,1W,DO-41,TP	
PDS01	0402-001196	DIODE-RECTIFIER:1T5,600V,1A,TS-1,TP	△	PZS51	0403-000717	DIODE-ZENER:MTZJ5.1B,5.1V,4.94-5.2V,500m	
PDS02	0402-001196	DIODE-RECTIFIER:1T5,600V,1A,TS-1,TP	△	SVJ1	3722-001375	JACK-DIN:4P,-,NI,BLK,-	
PDS03	0402-001196	DIODE-RECTIFIER:1T5,600V,1A,TS-1,TP	△	SW1	3404-001164	SWITCH-TACT:12V DC,50MA,100GF,7X7X6.7MM,	
PDS04	0402-001196	DIODE-RECTIFIER:1T5,600V,1A,TS-1,TP	△	VC1	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
PDS11	0402-000012	DIODE-RECTIFIER:UF4007,1KV,1A,DO-41,TP		VC106	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
PDS31	0402-001194	DIODE-RECTIFIER:UG2D,200V,2A,DO-204AC,TP		VC12	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
PDS33	0402-001438	DIODE-RECTIFIER:SHK55-65,60V,3A,AXIAL,BK		VC14	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	

Electrical Parts List

Loc.No	Part No	Description ; Specification	Remark
VC15	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
VC16	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
VC3	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
VC5	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
VC6	2203-000192	C-CERAMIC,CHIP:100nF,+80-20%,50V,Y5V,TP,	
VCC3	2203-000784	C-CERAMIC,CHIP:0.33nF,5%,50V,COG,TP,2012	
VE1	2401-002165	C-AL:100uF,20%,16V,GP,TP,6.3x7,5	
VE11	2401-002144	C-AL:47uF,20%,16V,GP,TP,5x11,5	
VE12	2401-002165	C-AL:100uF,20%,16V,GP,TP,6.3x7,5	
VE3	2401-002165	C-AL:100uF,20%,16V,GP,TP,6.3x7,5	
VE5	2401-001479	C-AL:470uF,20%,10V,GP,TP,-,-	
VE7	2401-001479	C-AL:470uF,20%,10V,GP,TP,-,-	
VE9	2401-001479	C-AL:470uF,20%,10V,GP,TP,-,-	
VFD1	AK07-00003A	VF DISPLAY;-;HNV-08SS42,75X18.5MM,1/10.8	
VIC1	1204-001978	IC-VIDEO PROCESS:LA73054,-,36P,-,SSOP,7V	
VJ12	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012	
VJ14	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012	
VJ2	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012	
VJ3	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012	
VJ6	2007-000029	R-CHIP:0OHM,5%,1/10W,DA,TP,2012	
VL1	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm	
VR11	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
VR12	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
VR121	2007-000572	R-CHIP:220OHM,5%,1/10W,DA,TP,2012	
VR123	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012	
VR124	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012	
VR125	2007-000872	R-CHIP:4.7KOHM,5%,1/10W,DA,TP,2012	
VR127	2007-000300	R-CHIP:10KOHM,5%,1/10W,DA,TP,2012	
VR128	2007-000546	R-CHIP:20KOHM,5%,1/10W,DA,TP,2012	
VR13	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
VR14	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
VR15	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
VR16	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
VR18	2001-000734	R-CARBON:4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	
VR23	2001-000969	R-CARBON:750HM,5%,1/8W,AA,TP,1.8X3.2MM	
VR24	2007-000572	R-CHIP:220OHM,5%,1/10W,DA,TP,2012	
VSW1	AH34-00007A	SWITCH;-;50V DC,-,-,100MOHM,-,-,-,-	
VZD1	0403-000720	DIODE-ZENER:MTZJ9.1B,9.1V,8.57-9.01V,500	
VZD11	0403-000720	DIODE-ZENER:MTZJ9.1B,9.1V,8.57-9.01V,500	
VZD12	0403-000720	DIODE-ZENER:MTZJ9.1B,9.1V,8.57-9.01V,500	
VZD2	0403-000720	DIODE-ZENER:MTZJ9.1B,9.1V,8.57-9.01V,500	

Loc.No	Part No	Description ; Specification	Remark
<b>701</b>	<b>AK92-00148A</b>	<b>ASSY PCB-KEY:DVD-P392,KEY PCB ASS'Y</b>	<b>DVD-P331 ONLY</b>
JOY1	3404-001242	SWITCH-TACT:15V DC,20MA,250GF,12.4X12.4X	
KCN1	3708-001050	CONNECTOR-FPC/FFC/PIC:6P,1.25mm,ANGLE,SN	
KCN1B	3809-001410	FFC CABLE-FLAT:30V,80C,100MM,6P,1.25MM,U	
KR1	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
KR10	2001-000577	R-CARBON:2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
KR11	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
KR2	2001-000577	R-CARBON:2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
KR3	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
KR4	2001-000577	R-CARBON:2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
KR5	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
KR6	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
KR7	2001-000577	R-CARBON:2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
KR8	2001-000878	R-CARBON:6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
KR9	2001-000429	R-CARBON:1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
KSW1	3404-001182	SWITCH-TACT:DC12V,50MA,100GF,6.0X6.0X5.0	
KSW2	3404-001182	SWITCH-TACT:DC12V,50MA,100GF,6.0X6.0X5.0	
KSW3	3404-001182	SWITCH-TACT:DC12V,50MA,100GF,6.0X6.0X5.0	
KSW4	3404-001182	SWITCH-TACT:DC12V,50MA,100GF,6.0X6.0X5.0	
KSW5	3404-001182	SWITCH-TACT:DC12V,50MA,100GF,6.0X6.0X5.0	
KSW6	3404-001182	SWITCH-TACT:DC12V,50MA,100GF,6.0X6.0X5.0	
KSW7	3404-001182	SWITCH-TACT:DC12V,50MA,100GF,6.0X6.0X5.0	
KSW8	3404-001182	SWITCH-TACT:DC12V,50MA,100GF,6.0X6.0X5.0	
KSW9	3404-001182	SWITCH-TACT:DC12V,50MA,100GF,6.0X6.0X5.0	
LED1	0601-000497	LED-ROUND,GRN,3.1mm,565nm	
-	-	<b>MOTOR-LOAD ASSY:SM-2412L2,DP-9,-,-,-,-,-</b>	
HCN1	AH39-00266B	CONNECT WIRE;-;#26,-,-,-,WHT/BLK,-,-,-,-	
HSW1	3409-001138	SWITCH-DETECTOR:5V DC,1A,DPST,30GF,-	

## 5. Block Diagram



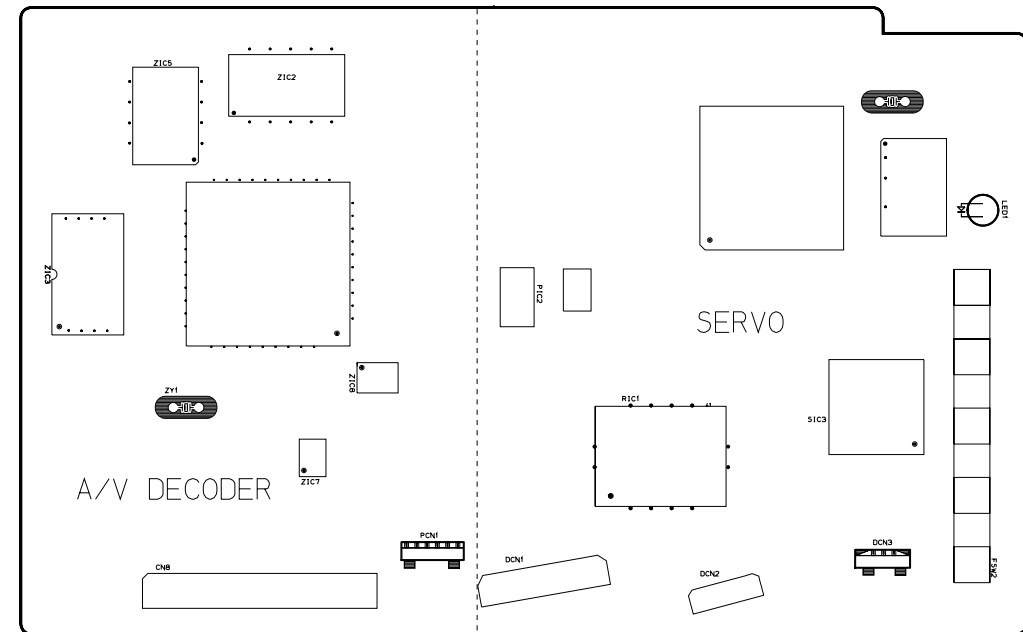


## MEMO

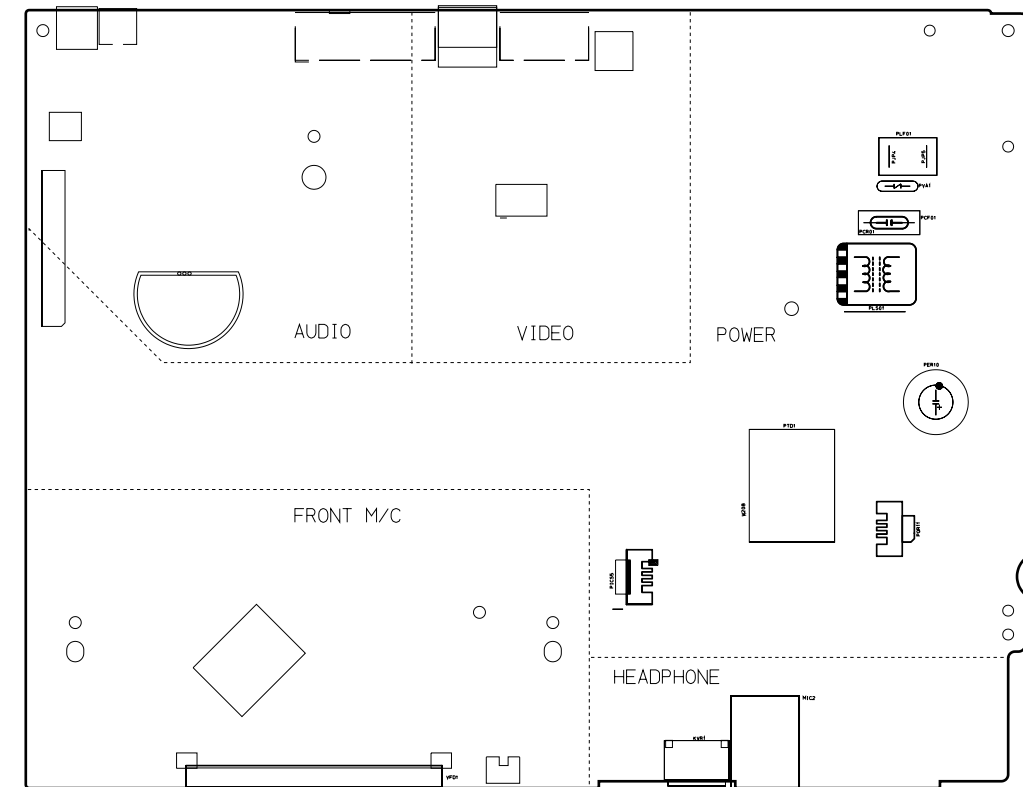
## 6. Schematic Diagrams

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Block Identification of PCB

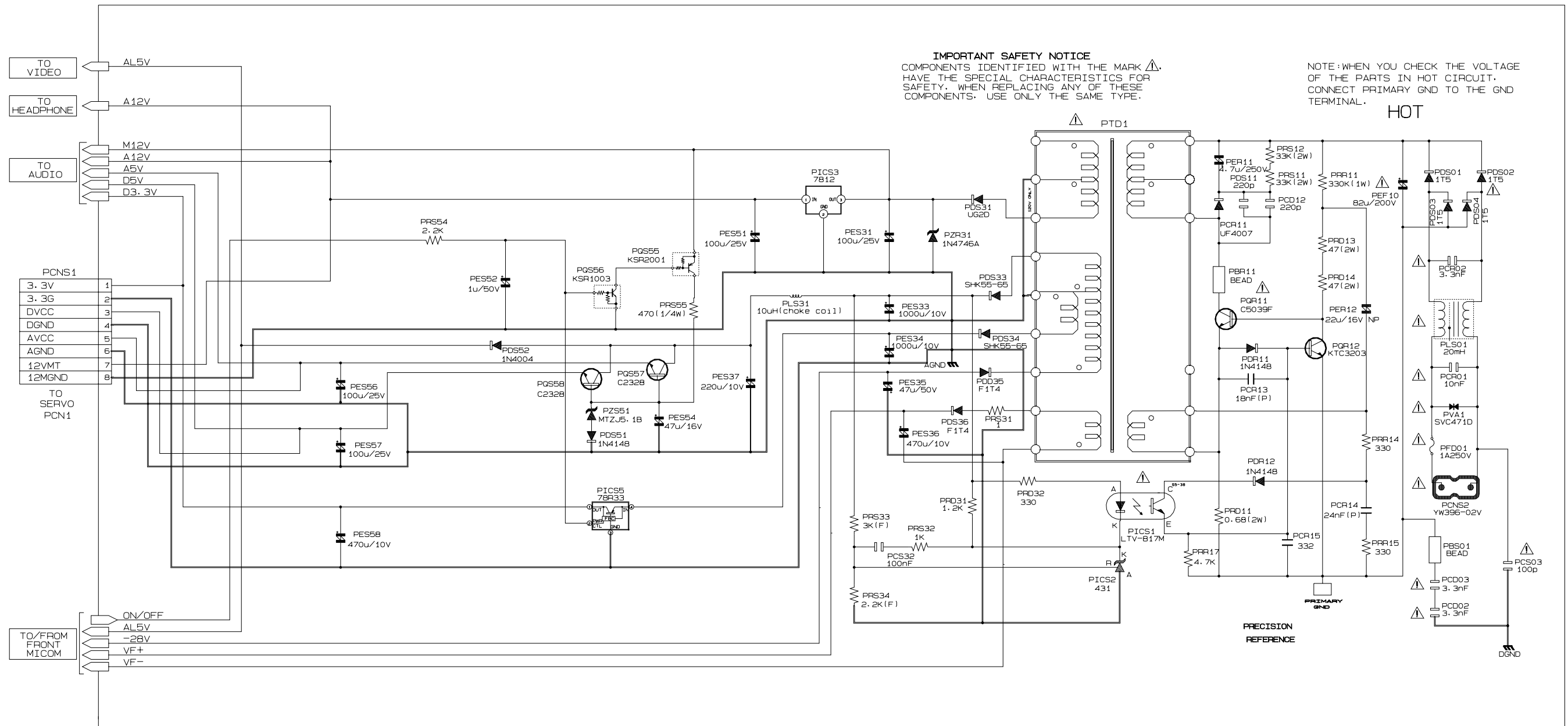


Main PCB (Component Side)

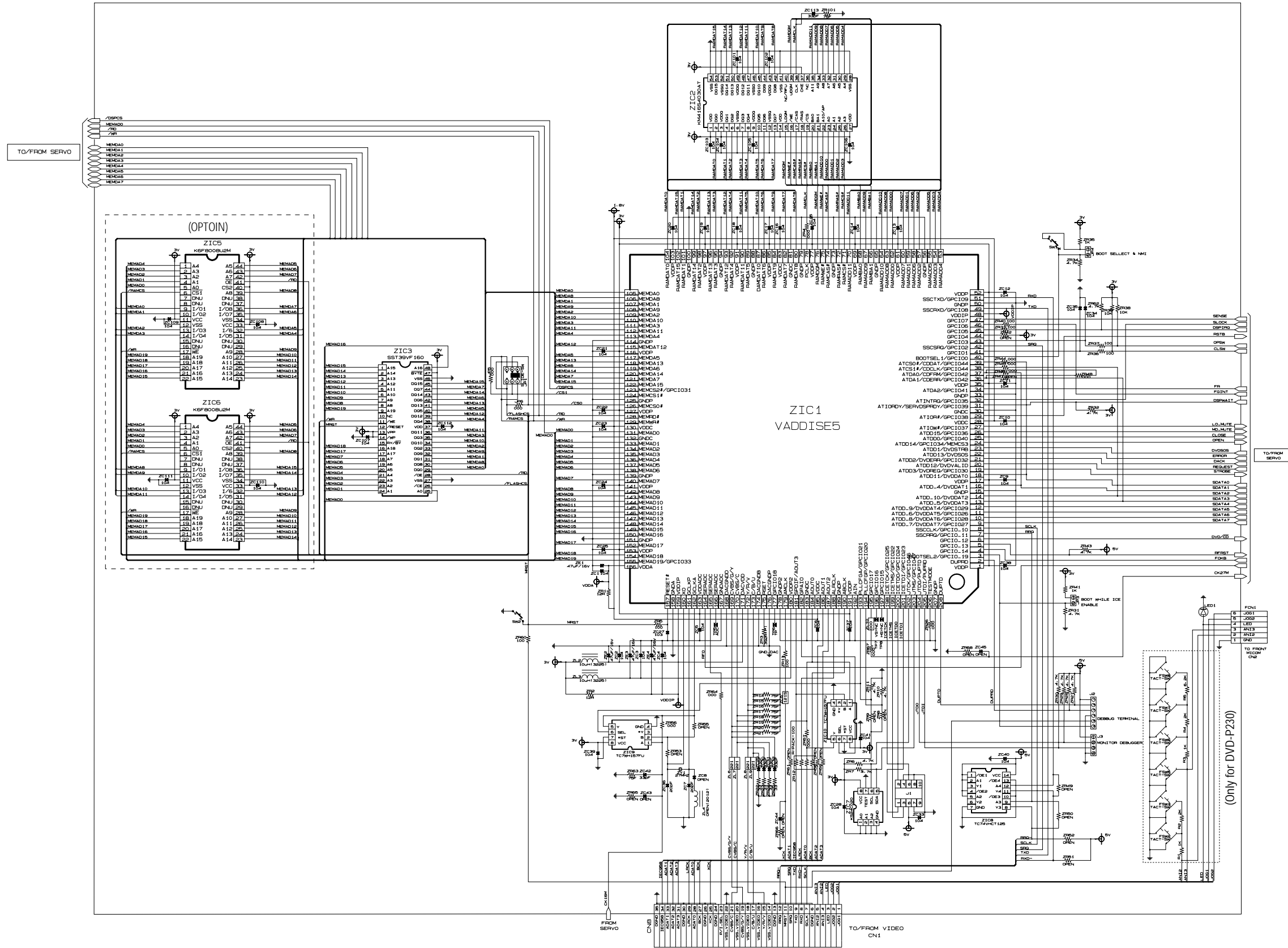


Jack PCB (Conductor Side)

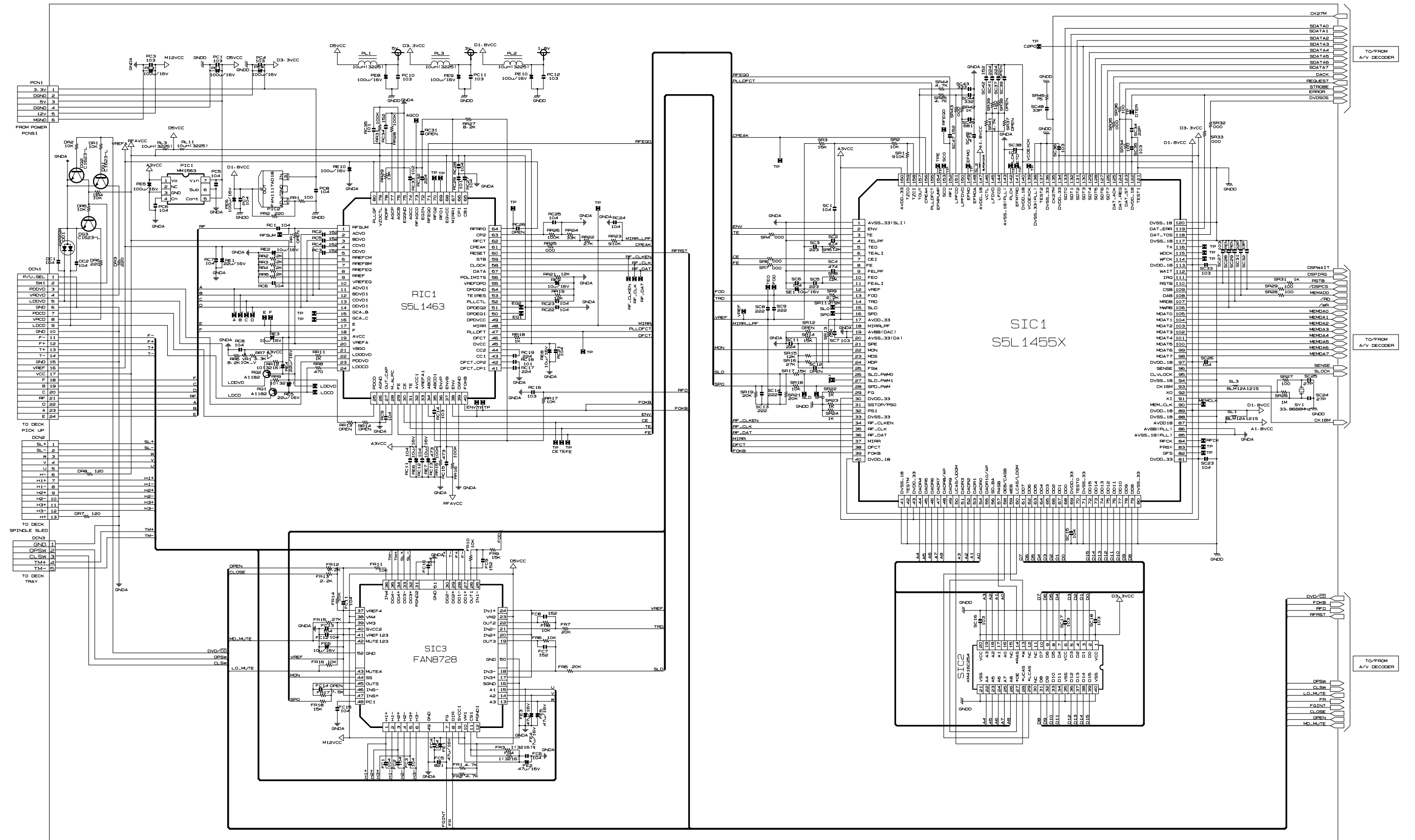
## 6-1 Power



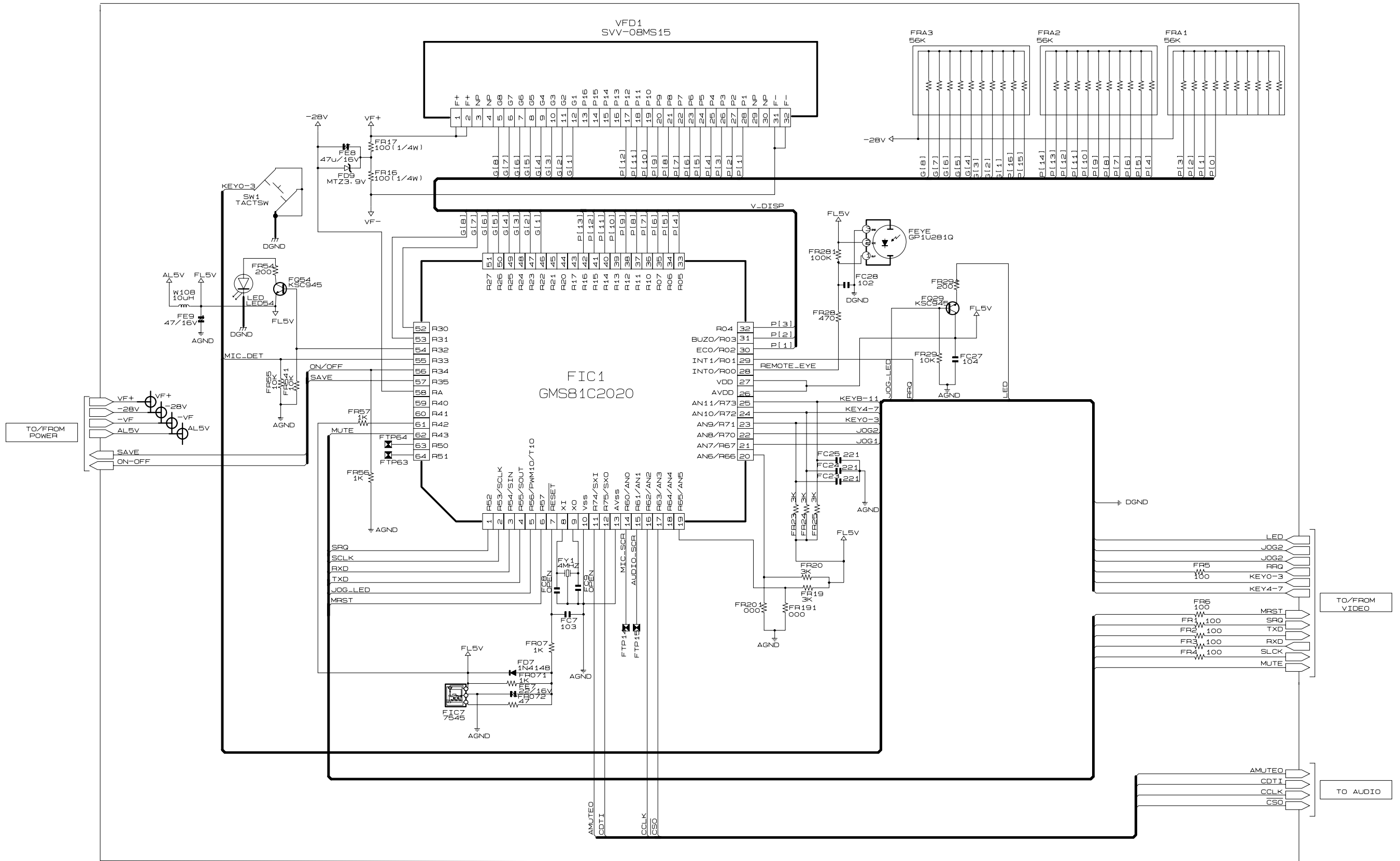
### 6-2 AV-Decoder/Main-Micom/Key



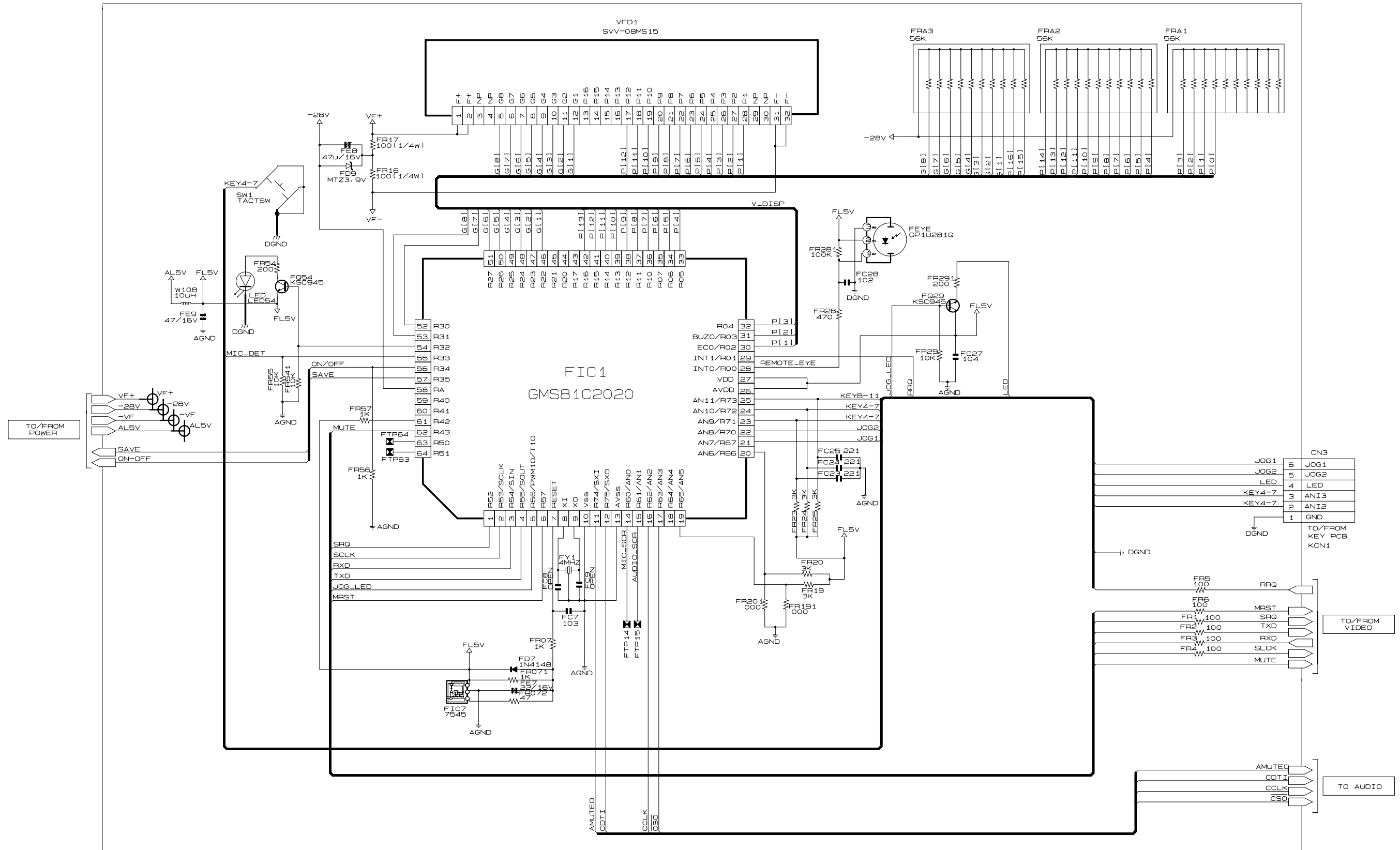
### 6-3 Servo



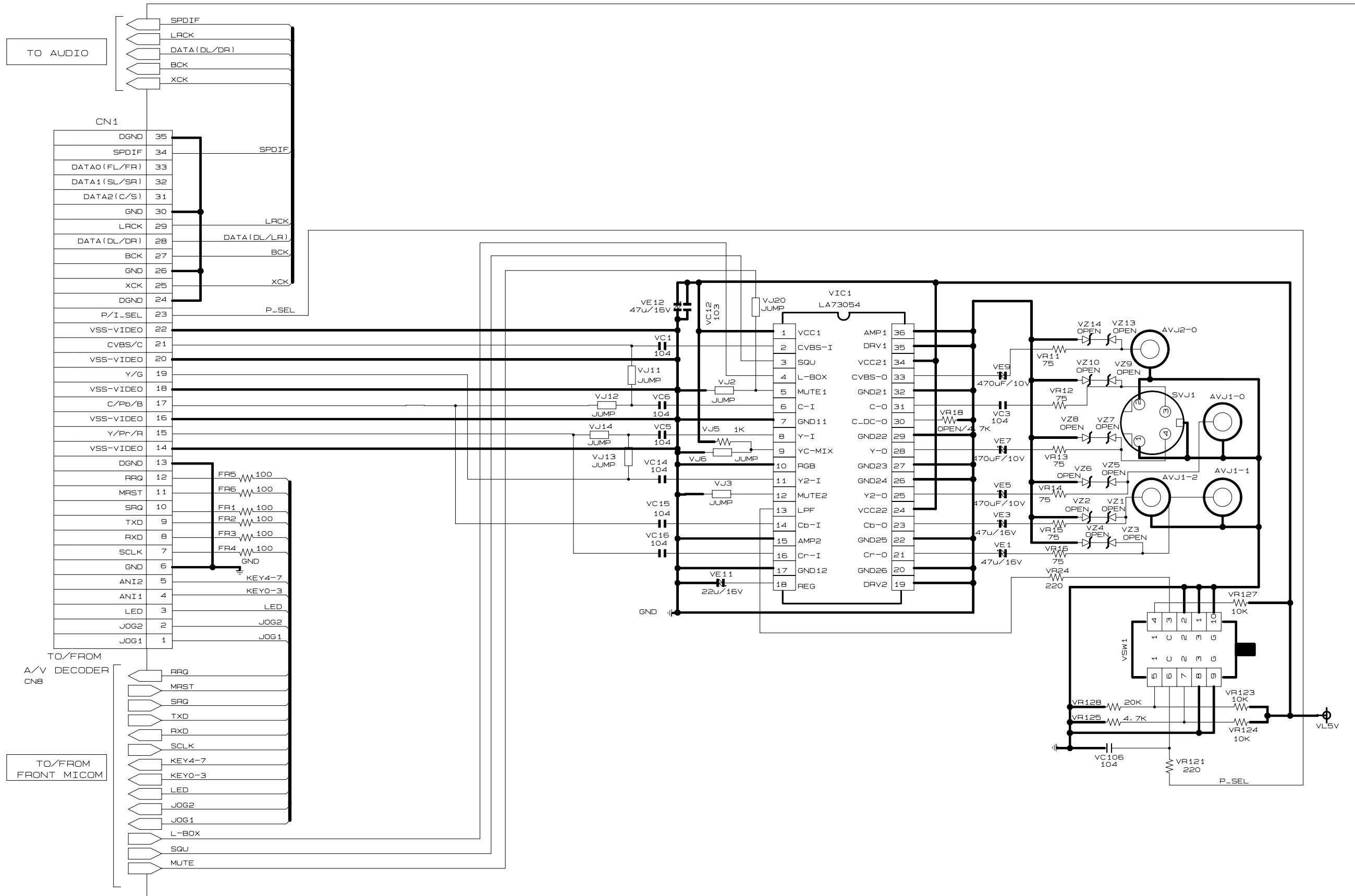
6-4 Front-Micom/VFD Display (Only for DVD-P230)



### 6-5 Front-Micom/VFD Display (Only for DVD-P331)

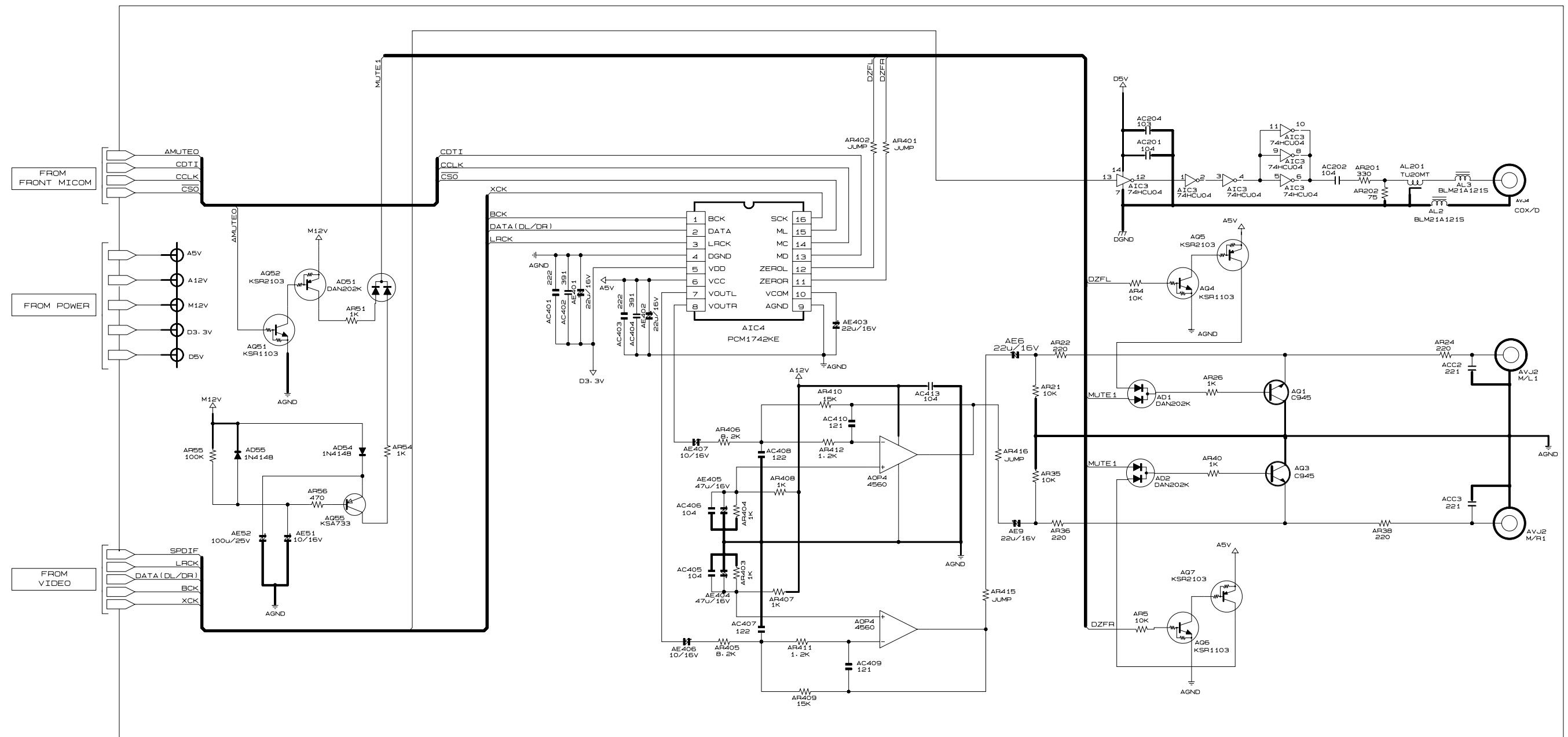


6-6 Video

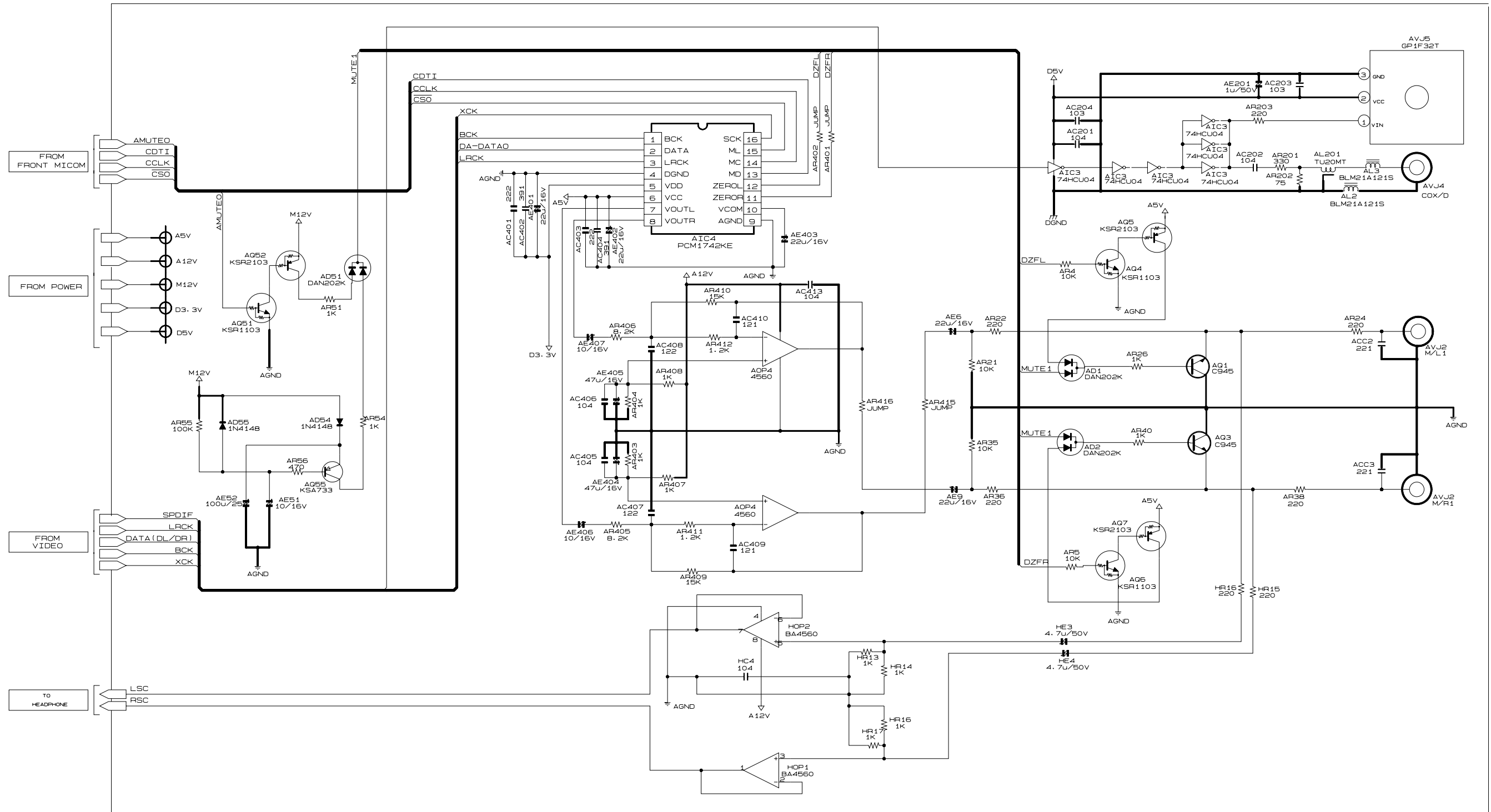




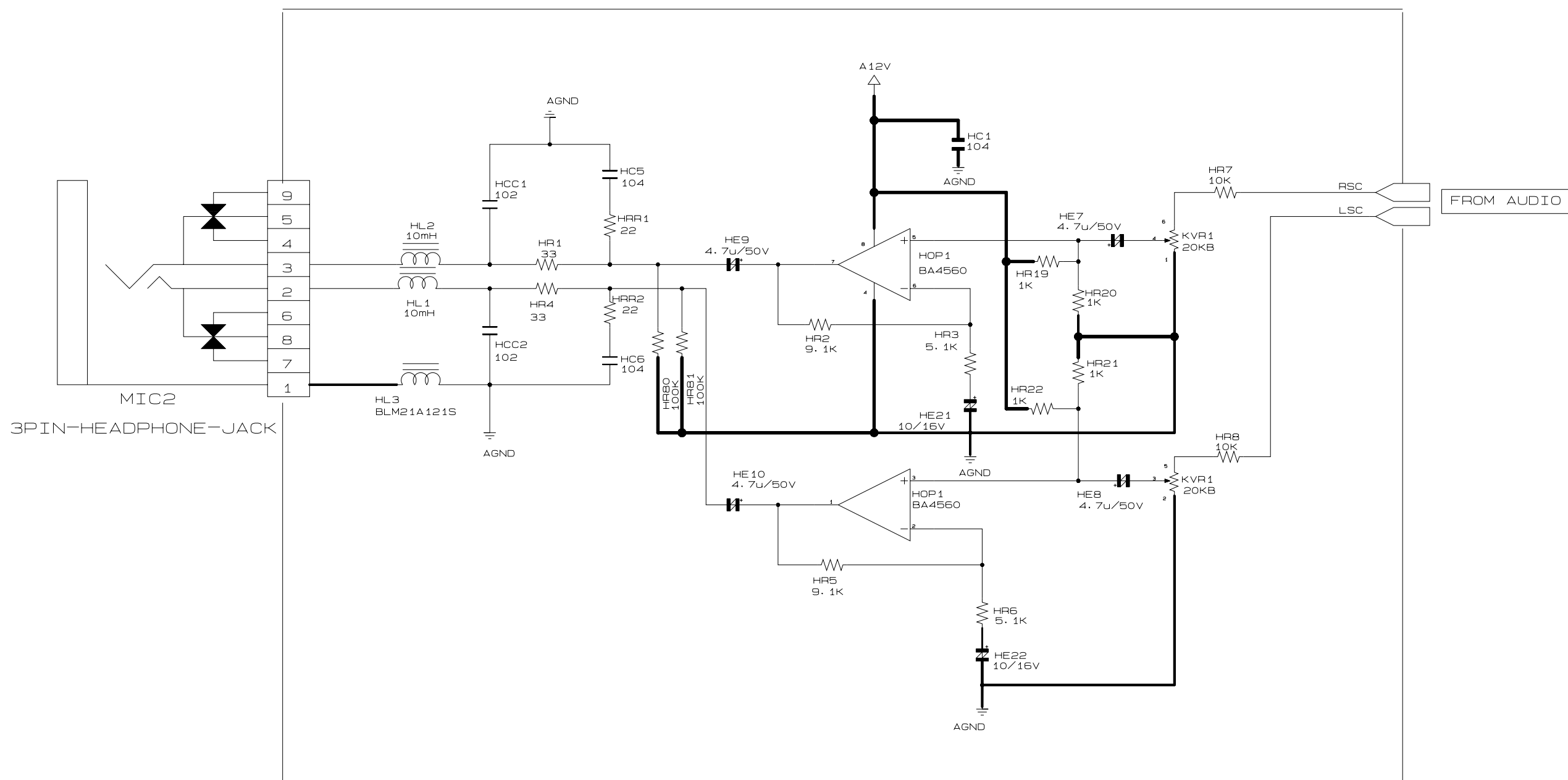
### 6-7 Audio (Only for DVD-P230)



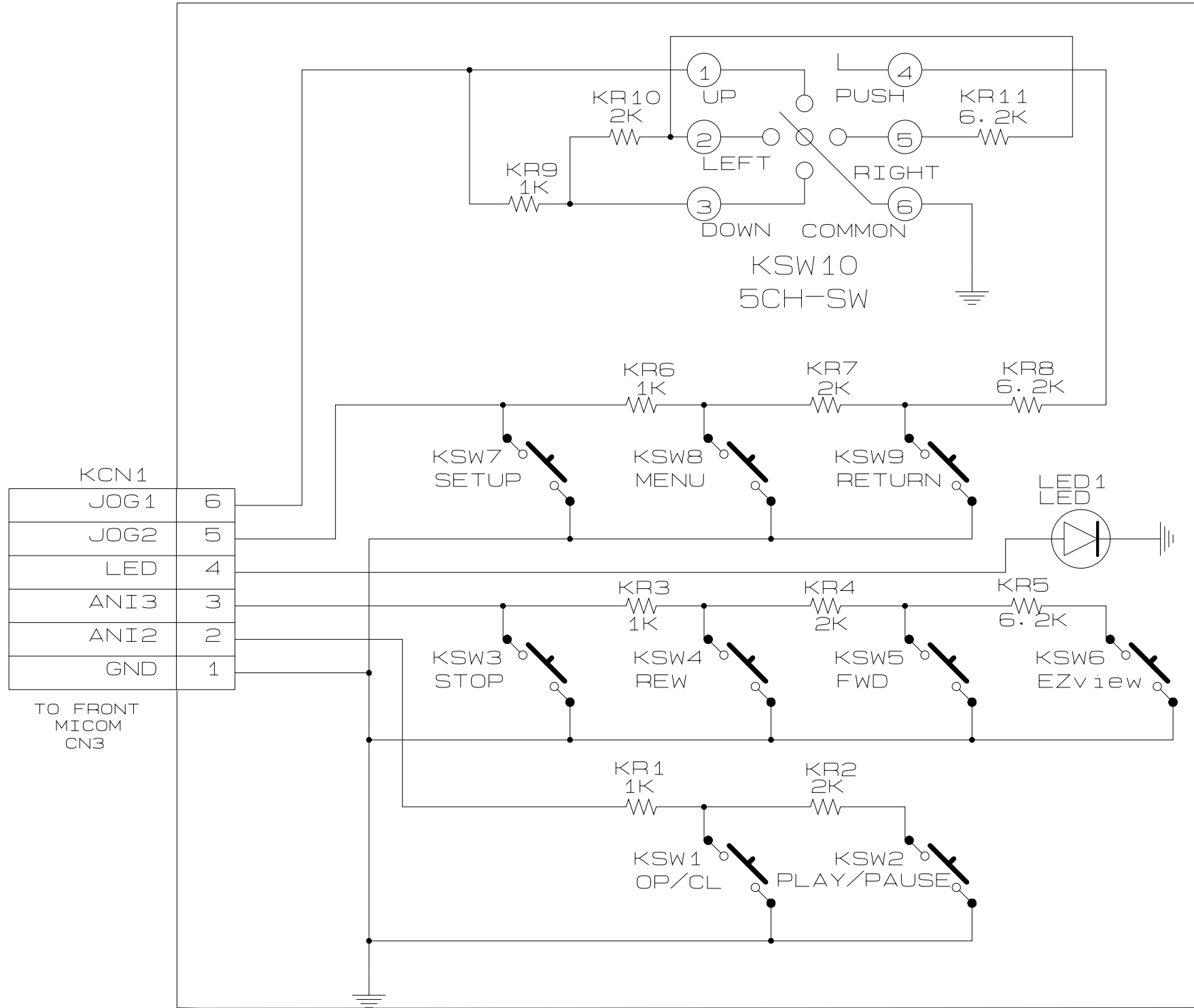
### 6-8 Audio (Only for DVD-P331)



### 6-9 Headphone (Only for DVD-P331)



6-10 Key (Only for DVD-P331)



## **MEMO**