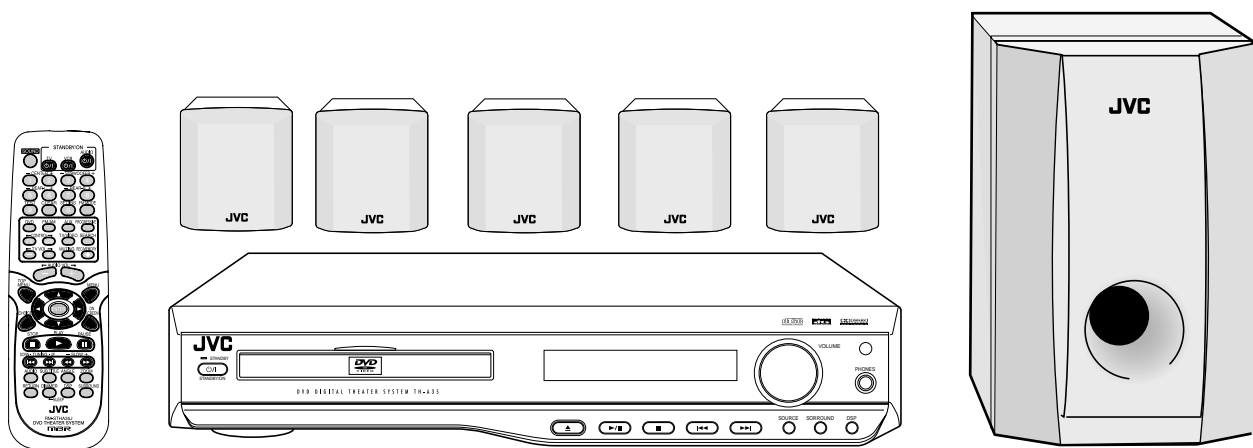


# JVC

## SERVICE MANUAL

### DVD DIGITAL CINEMA SYSTEM

## TH-A35



#### Area Suffix

J ..... U.S.A.  
C ..... Canada

### Contents

Safety precautions .....	1- 2	Disassembly method .....	1- 5
Preventing static electricity .....	1- 3	Description of major ICs .....	1-15
Important for laser products .....	1- 4	Wiring connection .....	1-20

## Safety Precautions

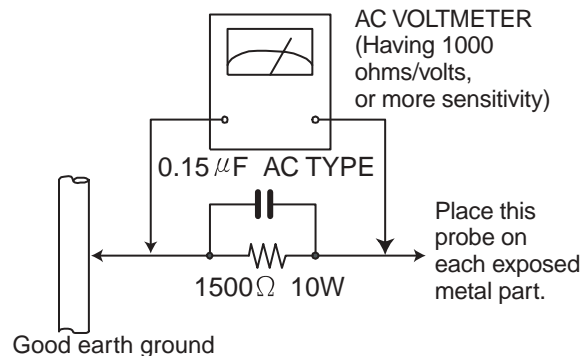
1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by ( $\triangle$ ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)  
After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.)

- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 $\Omega$  10W resistor paralleled by a 0.15  $\mu$ F AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured Any must not exceed 0.75 V AC(r.m.s.). This corresponds to 0.5 mA AC(r.m.s.).



## Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

## $\triangle$ CAUTION

**Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.**

## Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

### 1.1. Grounding to prevent damage by static electricity

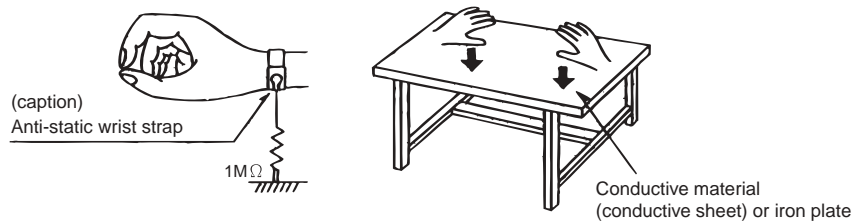
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as DVD players. Be careful to use proper grounding in the area where repairs are being performed.

#### 1.1.1. Ground the workbench

1. Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

#### 1.1.2. Ground yourself

1. Use an anti-static wrist strap to release any static electricity built up in your body.



#### 1.1.3. Handling the optical pickup

1. In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
2. Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

### 1.2. Handling the traverse unit (optical pickup)

1. Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
2. Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
3. Handle the flexible cable carefully as it may break when subjected to strong force.
4. It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

# Important for laser products

**1. CLASS 1 LASER PRODUCT**

- 2. CAUTION :** Visible and invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
- 3. CAUTION :** There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.
- 4. CAUTION :** The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

- 5. CAUTION :** If safety switches malfunction, the laser is able to function.
- 6. CAUTION :** Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

**⚠ CAUTION** Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

**VARNING :** Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.

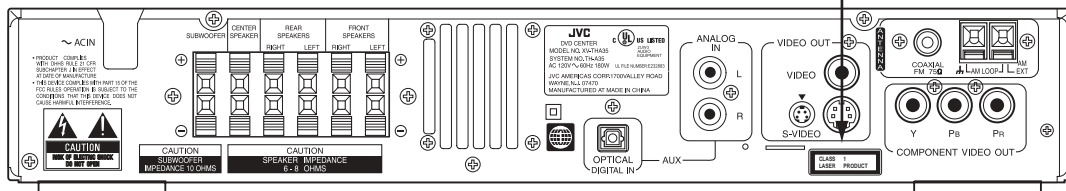
**VARO :** Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

**ADVARSEL :** Usynlig laserstrålning ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

**ADVARSEL :** Usynlig laserstrålning ved åbning, når sikkerhedsbryteren er avslott. Unngå utsettelse for stråling.

## REPRODUCTION AND POSITION OF LABELS

### CLASS 1 LABEL



### WARNING LABEL



<p><b>CAUTION :</b> Visible and invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)</p>	<p><b>ADVARSEL :</b> Synlig og usynlig laserstrålning når maskinen er åben eller interlocken fejler. Undgå direkte eksponering til stråling. (d)</p>
<p><b>VARNING :</b> Synlig och osynlig laserstrålning när den öppnas och spårren är urkopplad. Betrakta ej strålen. (s)</p>	<p><b>VARO :</b> Avattaessa ja suojalukitus ohitettuna tai viallisena olet alttiina näkyvälle ja näkymättömälle lasersäteilylle. Vältä säteen kohdistumista suoraan itseesi. (f)</p>

# Disassembly method

Commence disassembly of this set by removing the main units and then proceed to the components and assemblies inside the units.

## < MAIN BODY >

- Removing the cabinet top
- Removing the tray Door
- Removing the cabinet front
- Removing the TUNER and panel rear

## < CHAS, MAIN ASSEMBLY >

- Removing the MPEG BOARD
- Removing the MAIN BOARD
- Removing FAN
- Removing the Thermal - Regifer
- Removing the VCD mechanism base assembly
- Removing PWB, AMP
- Removing Power , fruformer

### 2. PIN CONFIGURATION

## < Front panel ASSEMBLY >

- Removing the FRONT PWB & LED PWB

## < MAIN BODY >

### ■ Removing the cabinet top (See Fig.1)

1. Unscrew the 6 screw A
2. Lift the cabinet top by holding the two sides of it, while moving it upward and backward.

### ■ Removing the Tray Door (See Fig.2)

1. Eject the disc tray.  
(Rotate the screw B counter - clockwise if no supply)
2. Lift up the tray door in the indicated direction

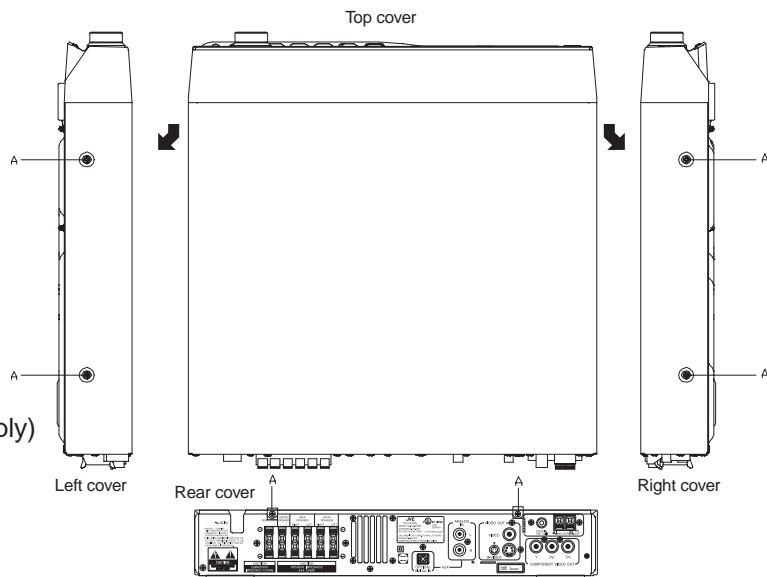


Fig.1

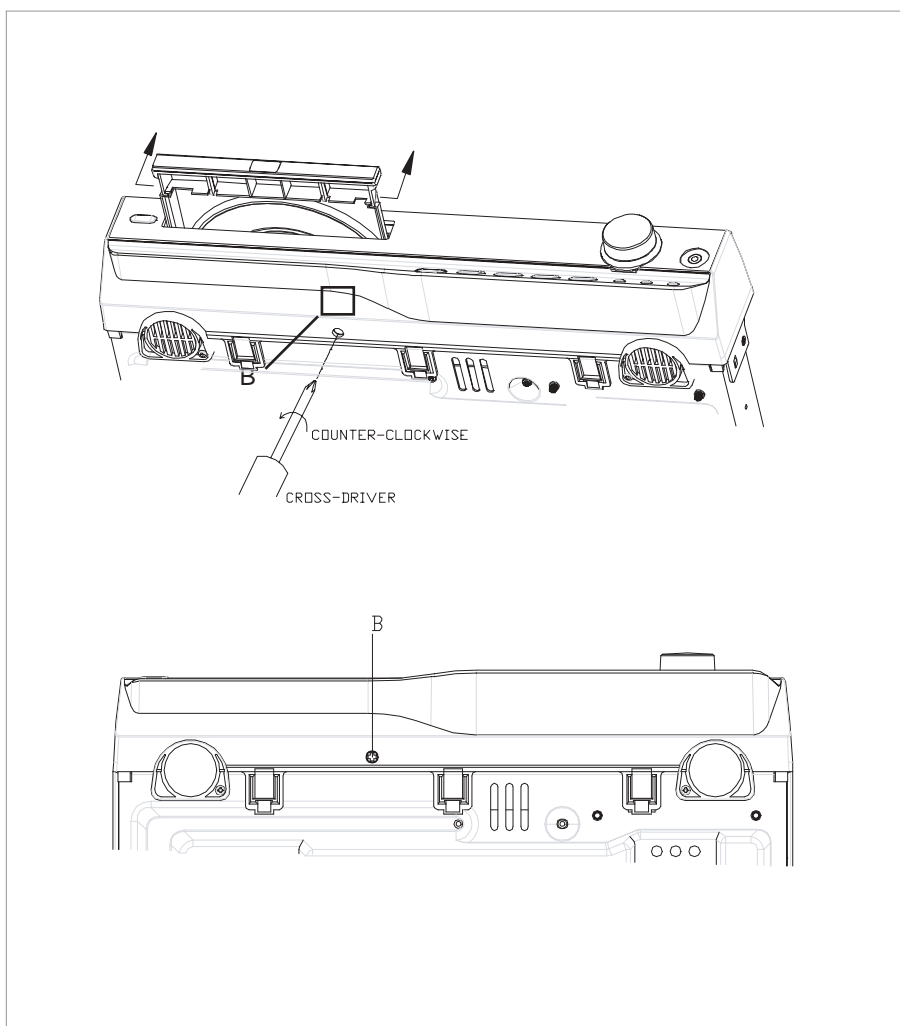


Fig.2

**■ Removing the cabinet front  
(See Fig.3)**

**[Caution]** You must ensure the TRAY door isn't its place before you remove the panel front from body.

1. Unscrew the serew 2 C & 2 D.
2. Pull the panel front toward yourself while pressing 5 stoppers to disengage.

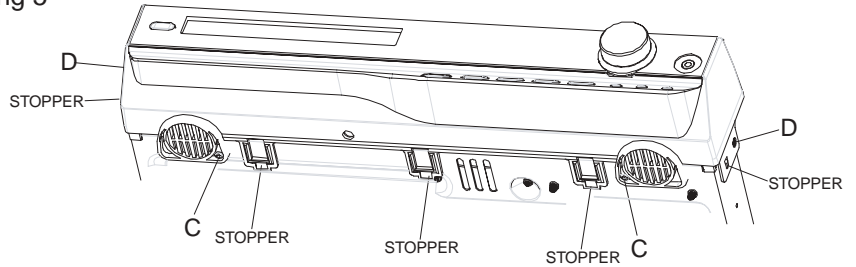


Fig.3

**■ Removing the TUNER and panel rear  
(See Fig.4)**

1. Unserew the screw H form mpeg board unit and unit and main board unit.
2. Unserw the screw K form body.
3. Take the supply cord out of panel rear.
4. Remove teh panel rear with tuner .

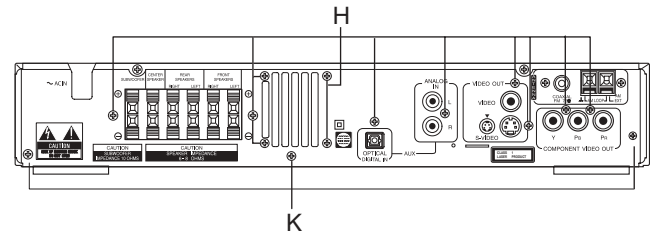


Fig.4

**< CHAS, MAIN ASSEMBLY >**

**■ Removing the MPEG BOARD  
(See Fig.5)**

**[Caution]** Mpeg board may be taken out only when the panel rear and Tunet have been taken away.

1. Pull the cable connetor mpeg board.
2. Unscrew the screw M.
3. Separate the mpeg board from main board vertically.

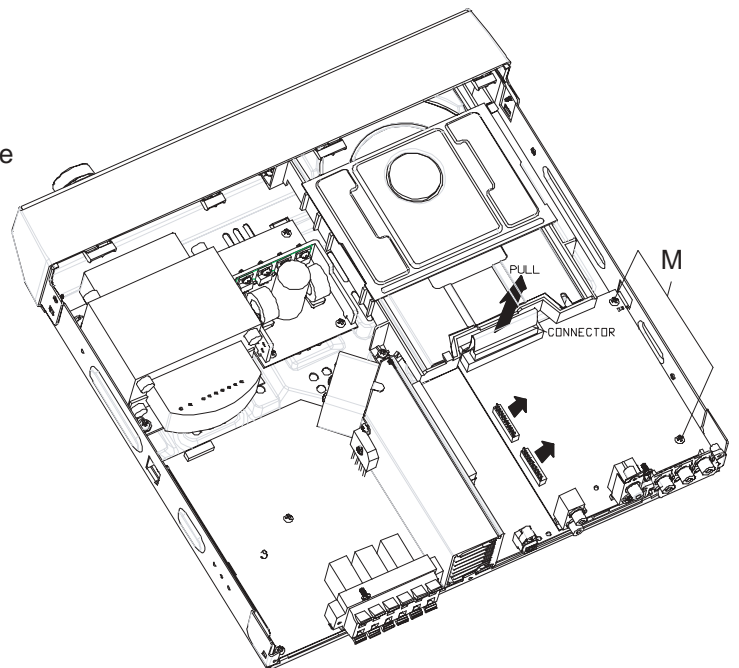


Fig.5

**■ Removing the MAIN Board  
( See Fig.6 & 7 )**

[Caution] Main board may be taken out when the mpeg board has been taken away.

1. Force the PCB spacer Q to exit the holes of main board.
2. Unscrew the screw P.
3. Unscrew the screw R then you can remove the main board with heat sink.
4. Untie or open connectors to power transformer, PWB, AMP, DVD - mech.

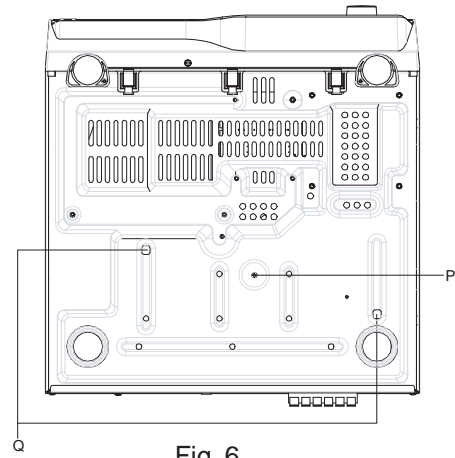


Fig. 6

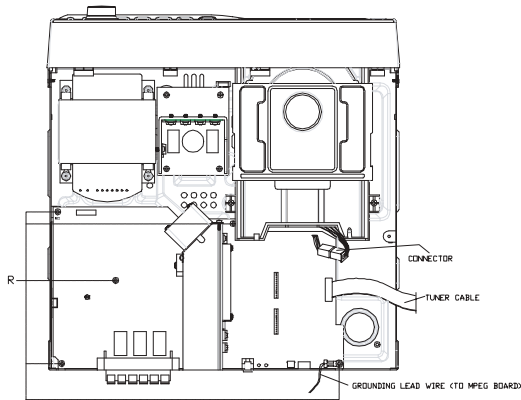


Fig. 7

**■ Removing FAN  
(See Fig.8)**

1. Unscrew 3 screws R with HOLDER, pull out connector from PWB, main.
2. Unscrew 2 screws S from HLDR.

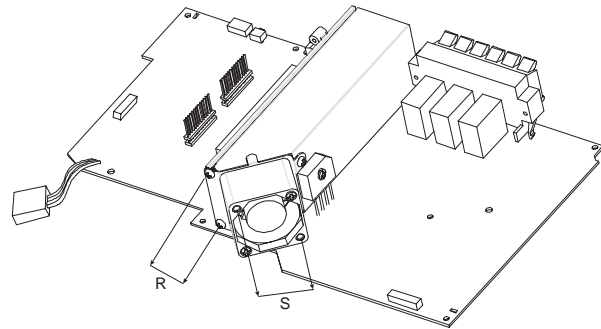


Fig. 8

**■ Removing the Thermal - Regifer  
(See Fig.9)**

1. Unscrew the screws though power IC and thermal- HOLDER.
2. Pull wire of thermal - register from PWB main.

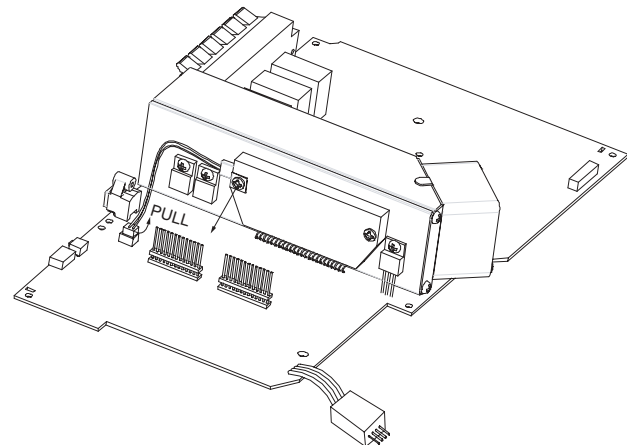


Fig. 9



## ■ Removing the CD mechanism base assembly

(See Fig.10)

- Prior to performing the following procedure, remove the cabinet front assembly.
1. Disconnect the harnesses from connector CN191 and CN192 on the main board and release them from the cord stopper respectively.
  2. Remove the four screws M attaching the transformer assembly.

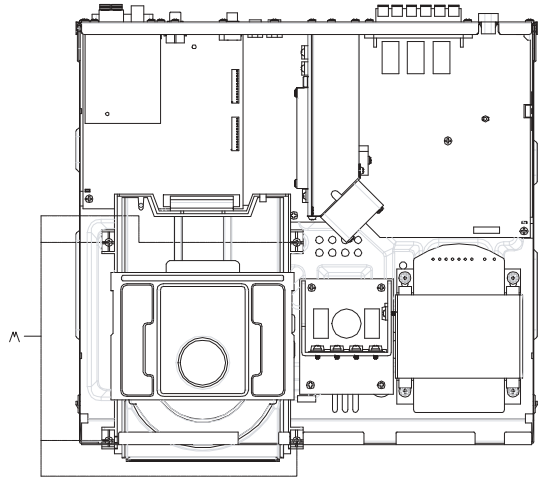


Fig. 10

## ■ Removing PWB,AMP

(See Fig.11)

1. Unscrew 4 screws L.
2. Pull out connector from PWB, AMP.

## ■ Removing Power, frusformer

(See Fig.11)

1. Unscrew 4 screws N
2. Untie wire connector to PWB, MAIN.

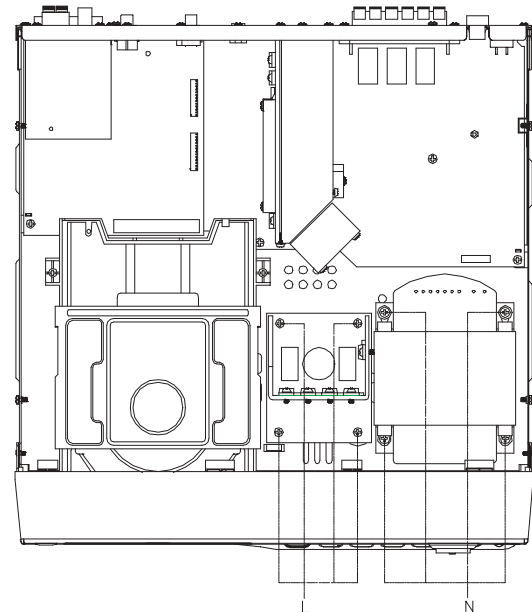


Fig. 11

<Front panel assembly>

■ Removing the front PWB & Led, PWB  
(See Fig.12-13)

- Prior to performing the following procedure, remove the front panel assembly.
1. Remove the seven screws X and 3 screws attaching the front panel board inside the front panel assembly.
  2. Push out KNOB, VOLUME through PWB, FR.

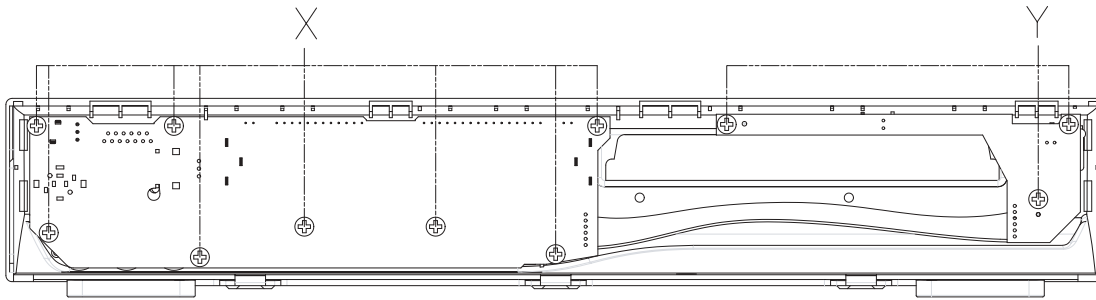


Fig. 12

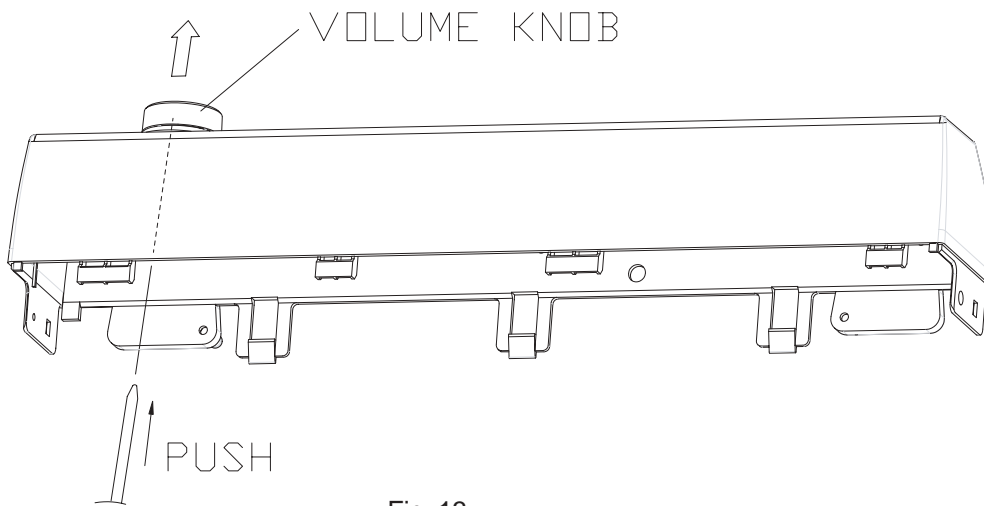


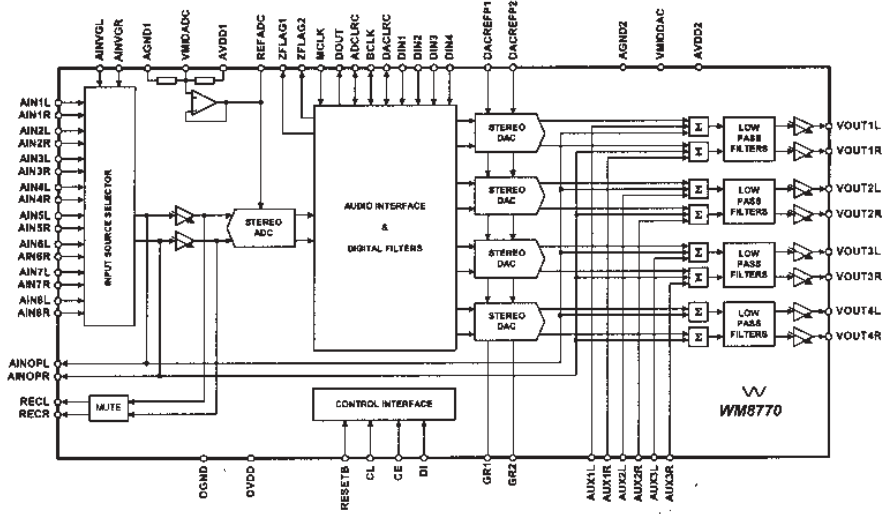
Fig. 13



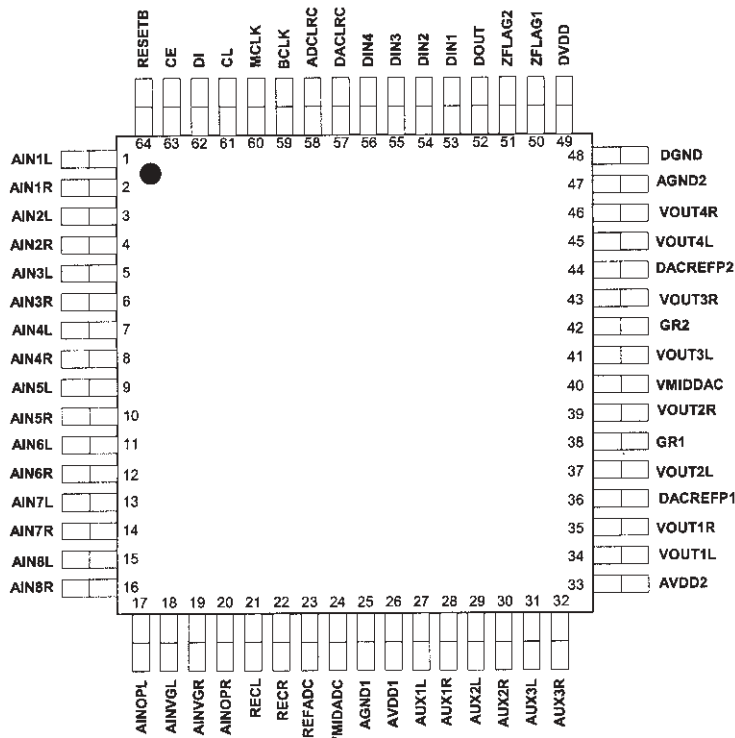
■ WM8770 ( U1 ) : 8-channel code c & volume control

1. BLOCK DIAGRAM

- Surround Sound AV Processors and Hi-Fi systems
- Automotive Audio

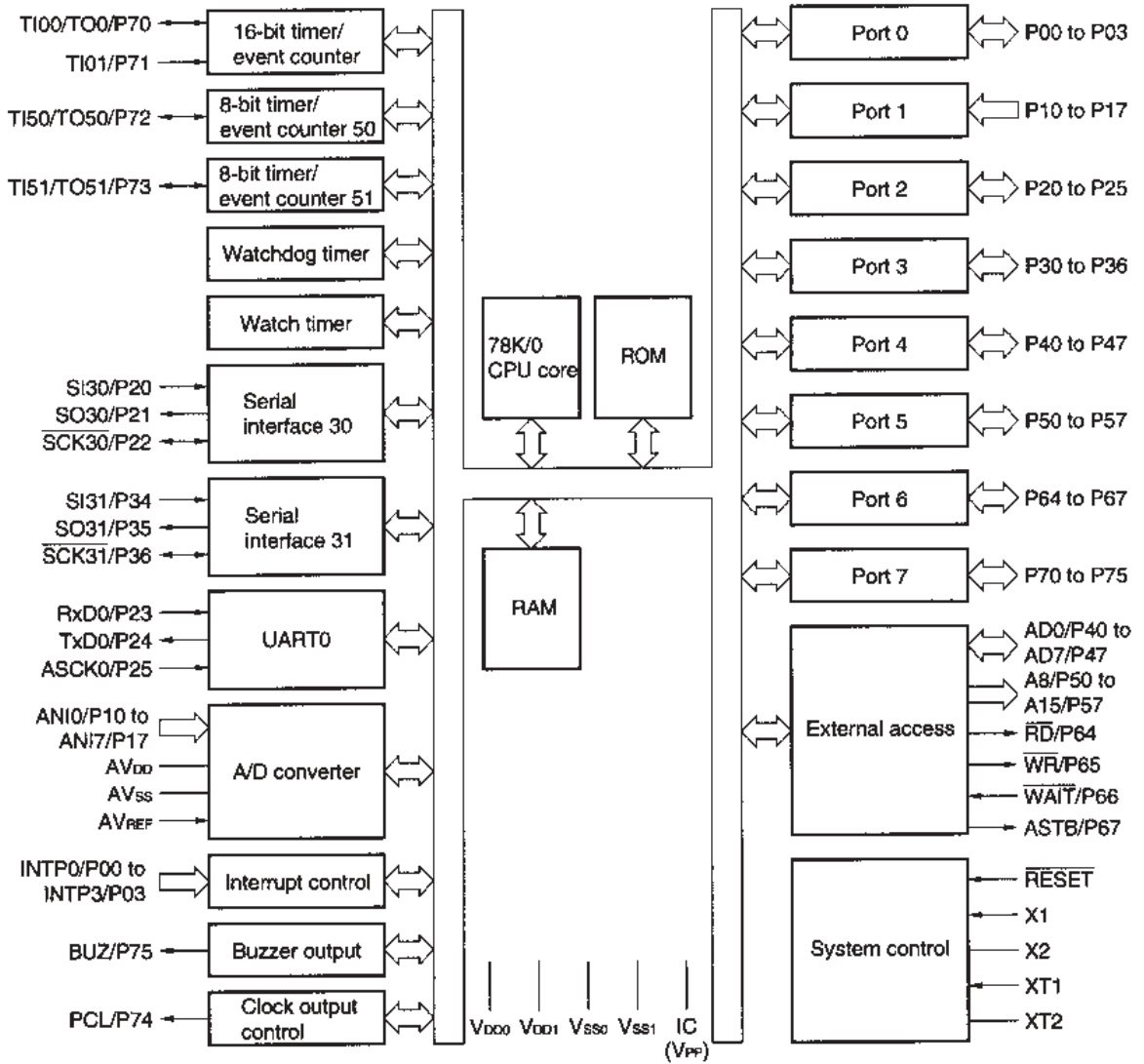


2. PIN CONFIGURATION



■ UPD78F0034A ( IC 401 ) : CPU

1. Block Diagram



## 2. Outline of Function

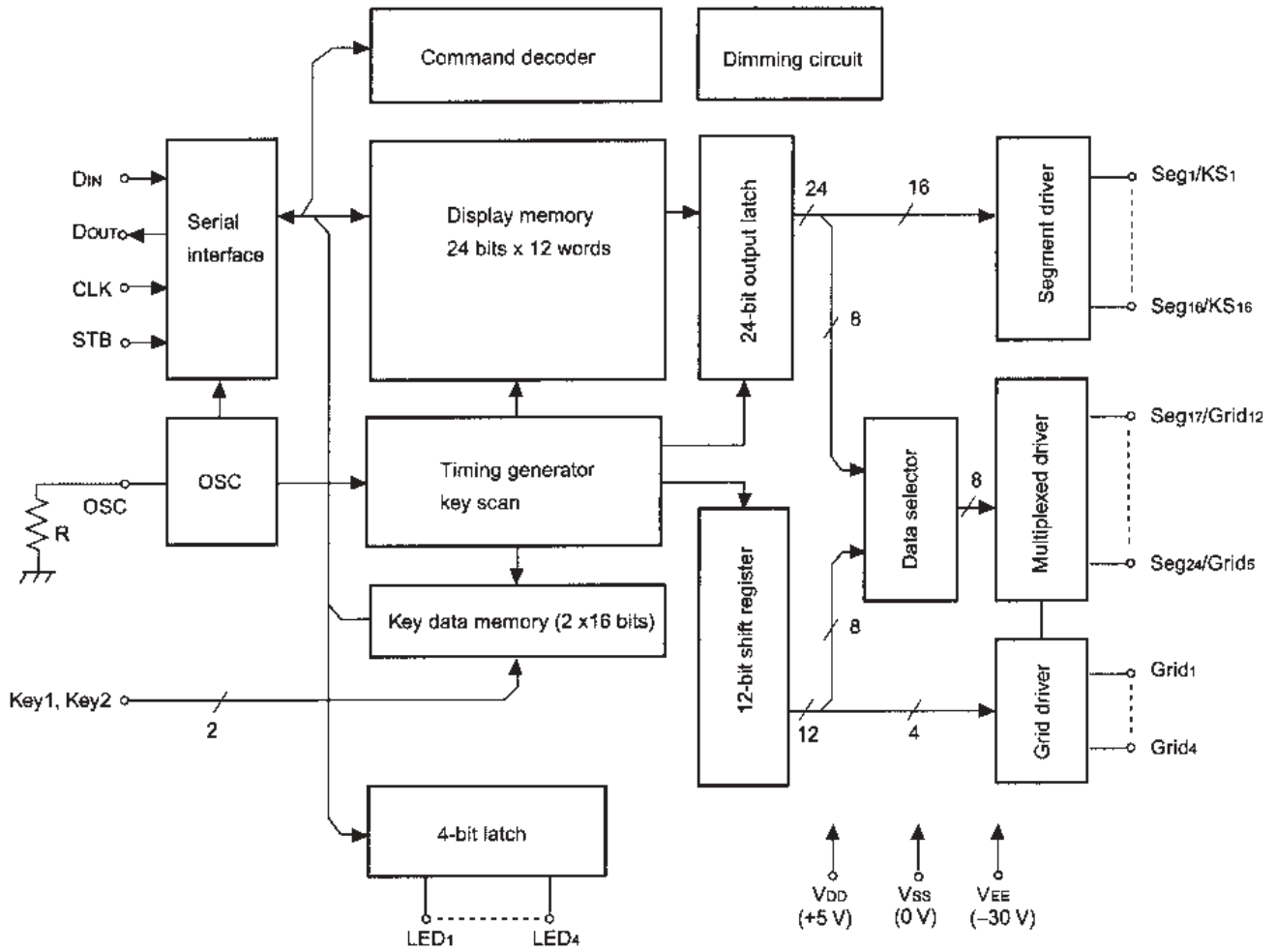
Item		Part Number		$\mu$ PD780021A	$\mu$ PD780022A	$\mu$ PD780023A	$\mu$ PD780024A	$\mu$ PD78F0034A
				$\mu$ PD780031A	$\mu$ PD780032A	$\mu$ PD780033A	$\mu$ PD780034A	
Internal memory	ROM	8 KB (Mask ROM)	16 KB (Mask ROM)	24 KB (Mask ROM)	32 KB (Mask ROM)	32 KB <sup>Note</sup> (Flash memory)		
	High-speed RAM	512 bytes		1024 bytes		1024 bytes <sup>Note</sup>		
Memory space		64 KB						
General-purpose register		8 bits $\times$ 32 registers (8 bits $\times$ 8 registers $\times$ 4 banks)						
Minimum instruction execution time		Minimum instruction execution time changeable function						
When main system clock selected	0.24 $\mu$ s/0.48 $\mu$ s/0.95 $\mu$ s/1.91 $\mu$ s/3.81 $\mu$ s (@ 8.38 MHz operation)							
	122 $\mu$ s (@ 32.768 kHz operation)							
Instruction set		<ul style="list-style-type: none"> <li>• 16-bit operation</li> <li>• Multiply/divide (8 bits <math>\times</math> 8 bits, 16 bits <math>\div</math> 8 bits)</li> <li>• Bit manipulate (set, reset, test, and Boolean operation)</li> <li>• BCD adjust, etc.</li> </ul>						
I/O port		Total: 51 <ul style="list-style-type: none"> <li>• CMOS input: 8</li> <li>• CMOS I/O: 39</li> <li>• N-ch open-drain I/O (5 V breakdown): 4</li> </ul>						
A/D converter		<ul style="list-style-type: none"> <li>• 8-bit resolution <math>\times</math> 8 channels (<math>\mu</math>PD780021A, 780022A, 780023A, 780024A)</li> <li>• 10-bit resolution <math>\times</math> 8 channels (<math>\mu</math>PD780031A, 780032A, 780033A, 780034A, 78F0034A)</li> <li>• Low-voltage operation: <math>V_{DD} = 1.8</math> to 5.5 V</li> </ul>						
Serial interface		<ul style="list-style-type: none"> <li>• 3-wire serial I/O mode: 2 channels</li> <li>• UART mode: 1 channel</li> </ul>						
Timer		<ul style="list-style-type: none"> <li>• 16-bit timer/event counter: 1 channel</li> <li>• 8-bit timer/event counter: 2 channels</li> <li>• Watch timer: 1 channel</li> <li>• Watchdog timer: 1 channel</li> </ul>						
Timer output		Three outputs (8-bit PWM output enable: 2)						
Clock output		<ul style="list-style-type: none"> <li>• 65.5 kHz, 131 kHz, 262 kHz, 524 kHz, 1.05 MHz, 2.10 MHz, 4.19 MHz, 8.38 MHz (8.38 MHz with main system clock)</li> <li>• 32.768 kHz (32.768 kHz with subsystem clock)</li> </ul>						
Buzzer output		1.02 kHz, 2.05 kHz, 4.10 kHz, 8.19 kHz (8.38 MHz with main system clock)						
Vectored interrupt source	Maskable	Internal: 13, External: 5						
	Non-maskable	Internal: 1						
	Software	1						
Power supply voltage		$V_{DD} = 1.8$ to 5.5 V						
Operating ambient temperature		$T_A = -40$ to $+85^\circ\text{C}$						
Package		<ul style="list-style-type: none"> <li>• 64-pin plastic SDIP (19.05 mm (750))</li> <li>• 64-pin plastic QFP (14 <math>\times</math> 14)</li> <li>• 64-pin plastic TQFP (12 <math>\times</math> 12)</li> <li>• 64-pin plastic LQFP (10 <math>\times</math> 10)</li> </ul>						

★

# Description of major ICs

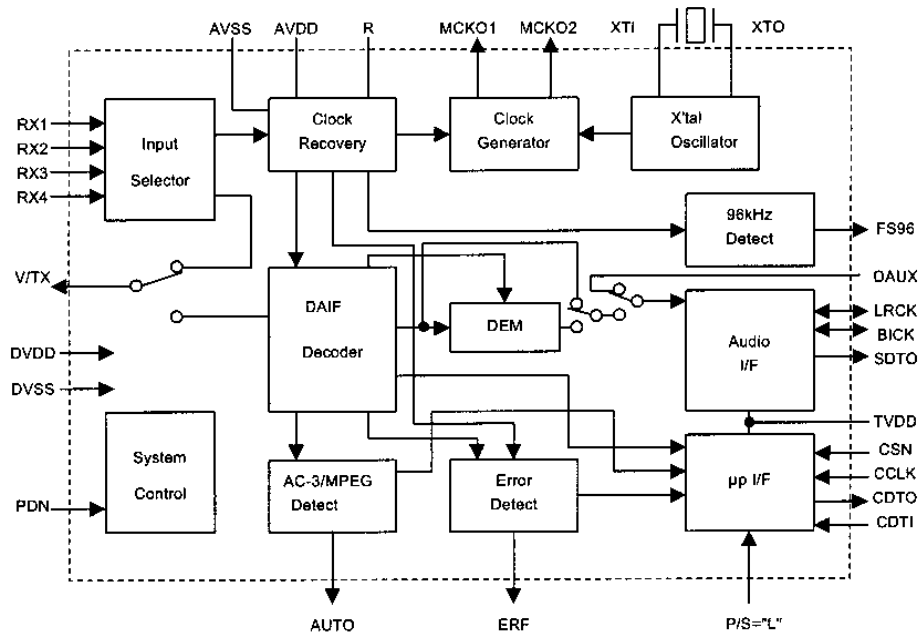
## UPD 16315 ( IC904 ): VFD control ler / driver

### 1. BLOCK DIAGRAM

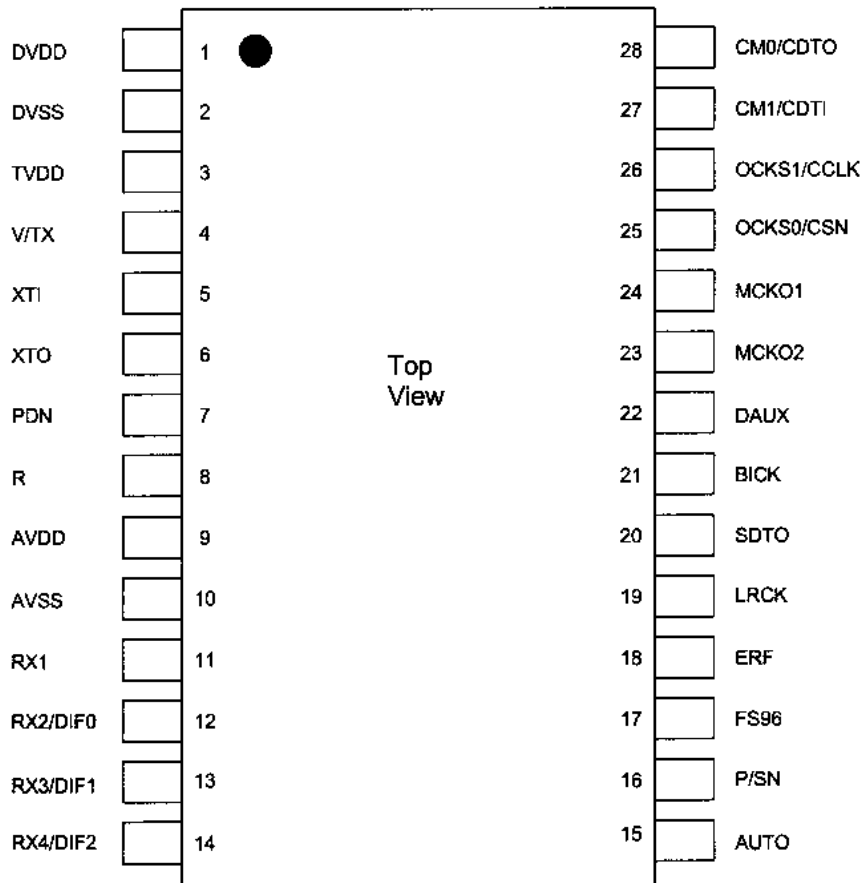


■ AK4112 ( U17 ) : Digital audio receiver

1. BLOCK DIAGRAM



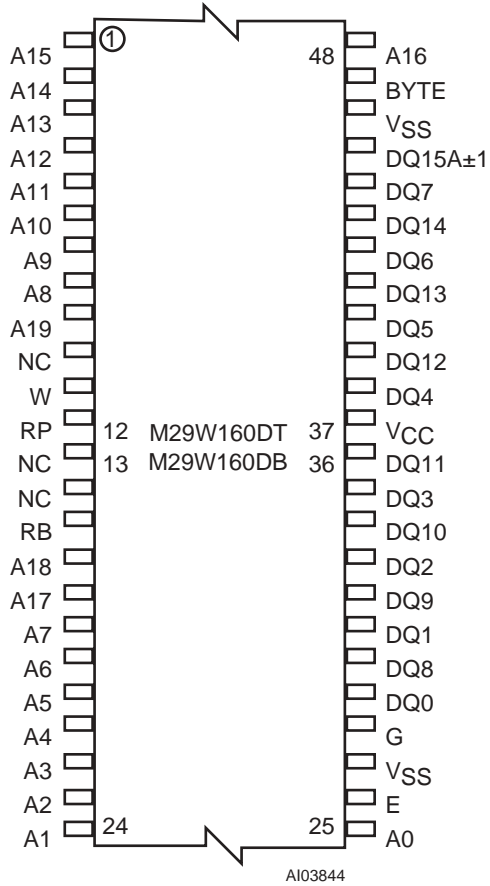
2. Pin Layout ( AK4112BVF )



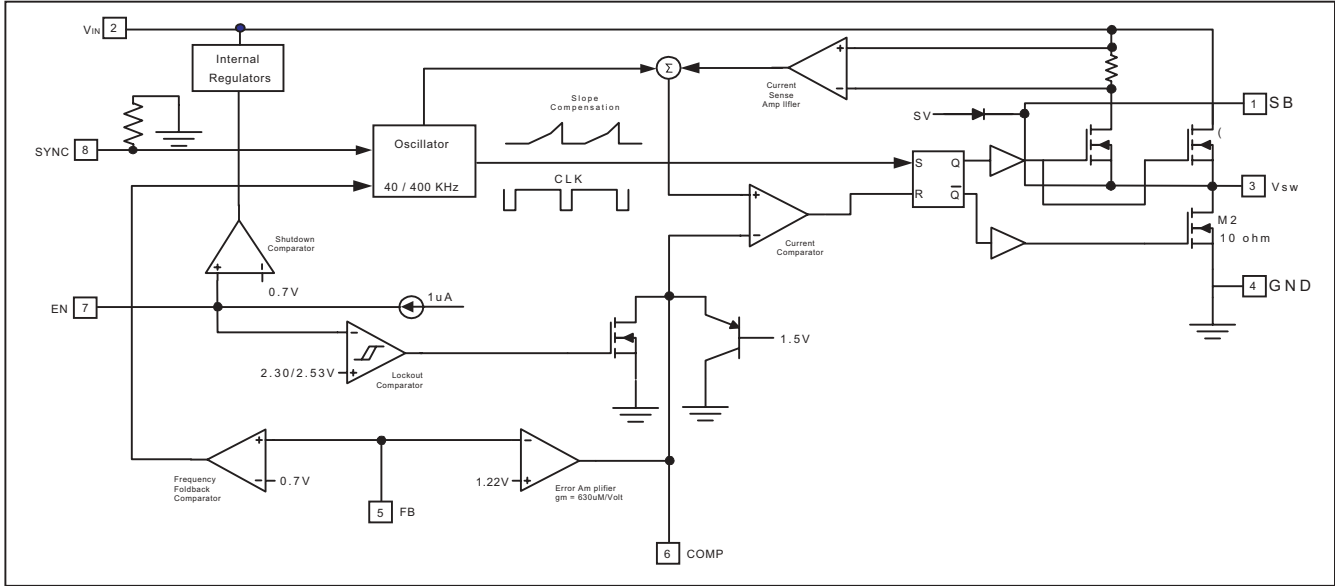


■ M29W160DB ( U12 ) : 16M Flash memory

.Pim layout

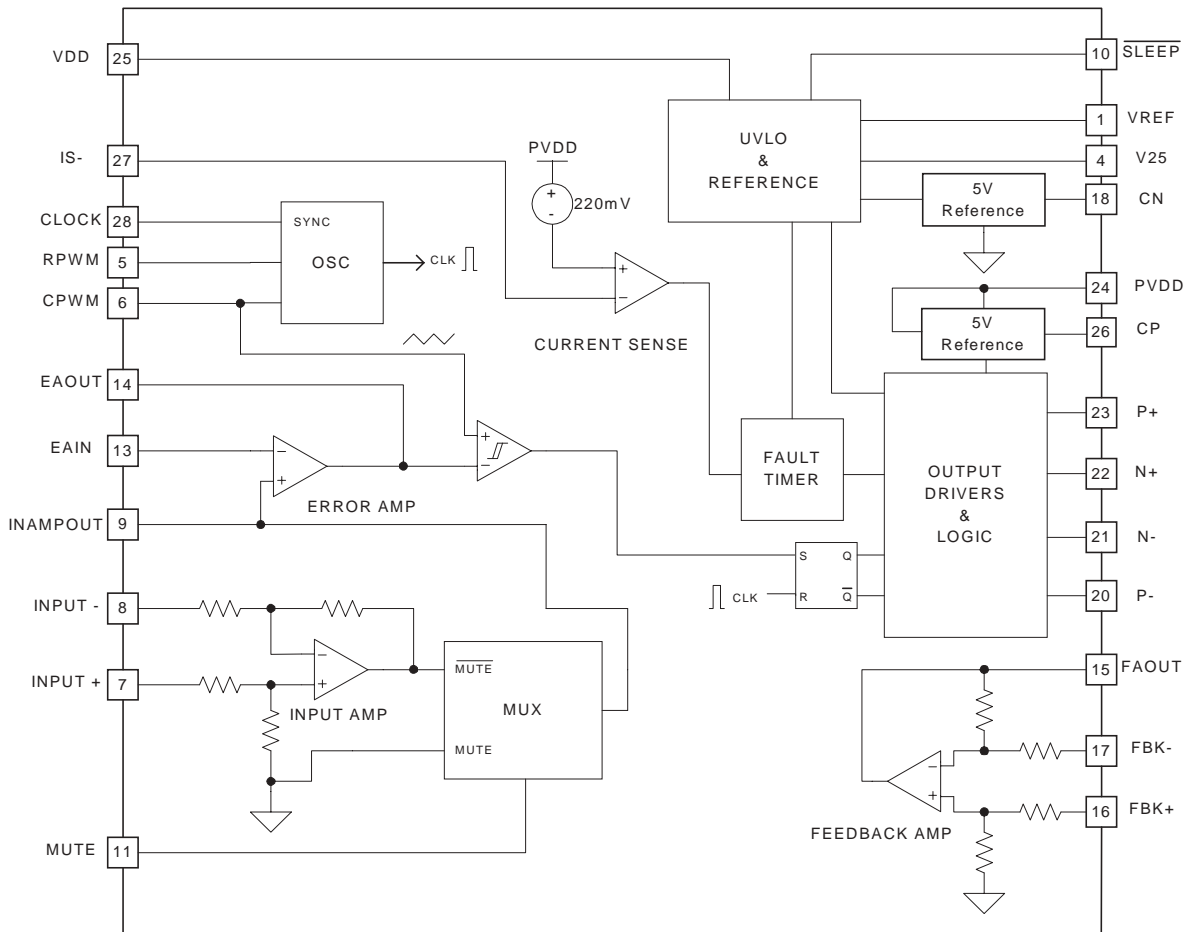


■ 2a3020 ( IC 701 ): DC - DC Regulator



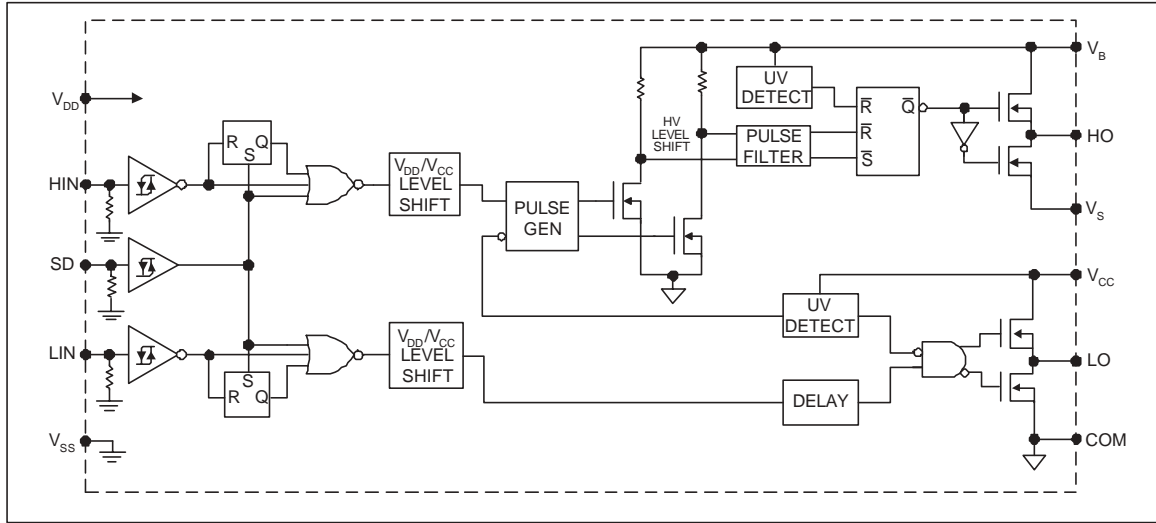
■ LX171/LX1711 ( IC603 ) :

Class-D mono power amplifier controller



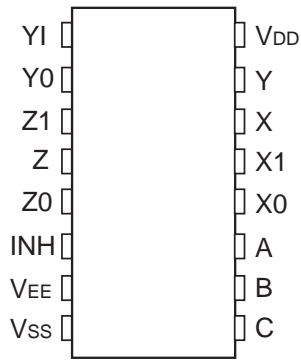
■ IR2110 ( IC603,604 ): Low and high side driver

Functional Block Diagram

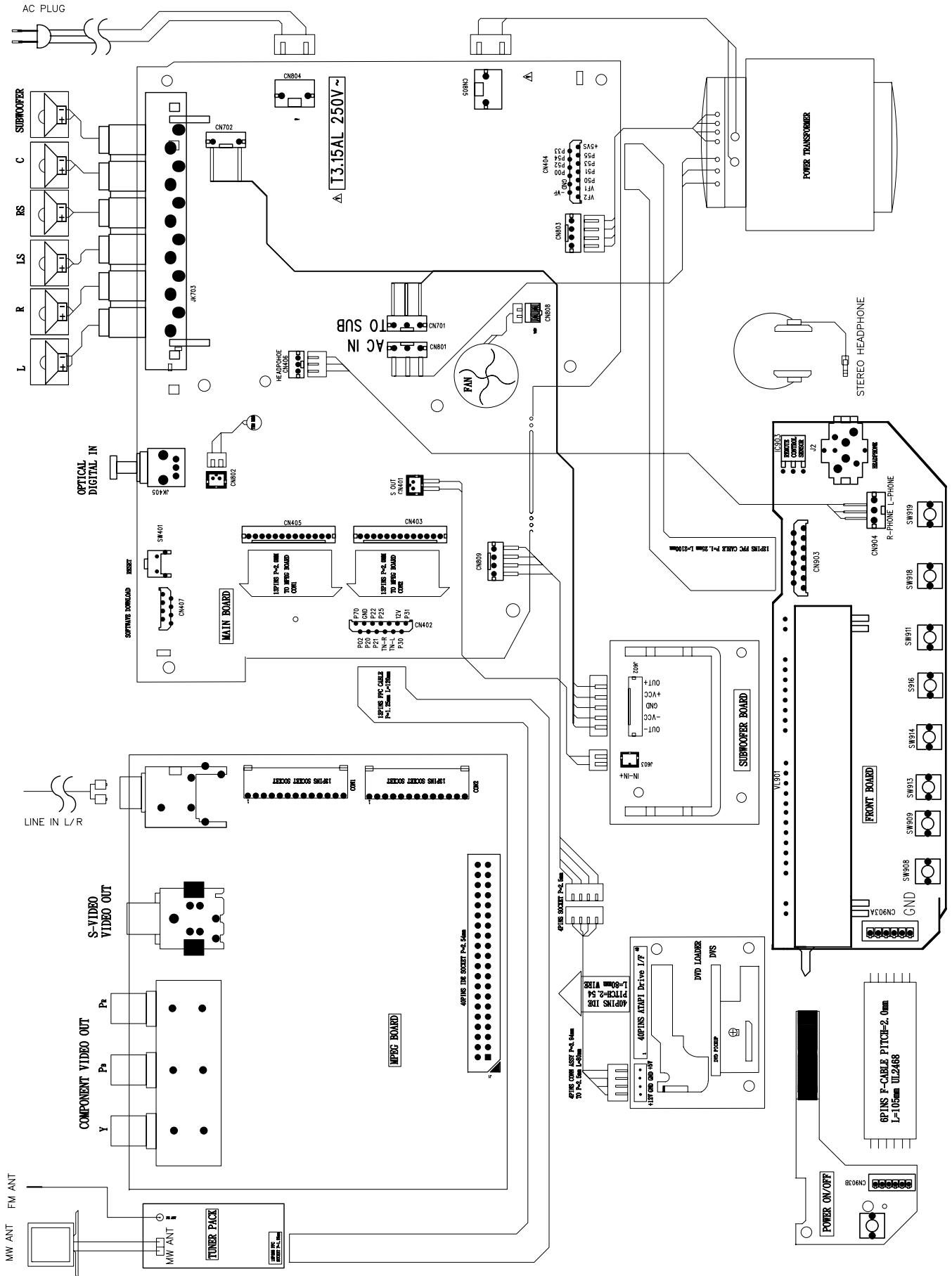


■ MC 14053B ( U21 ): digitally - controlled analog switch

Pin layout



# Wiring connection



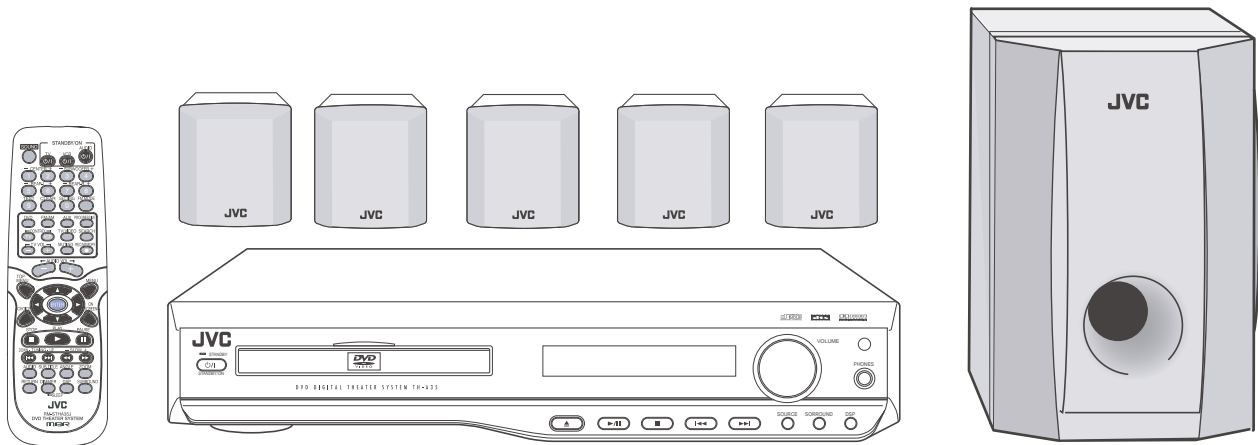
# JVC

# SCHEMATIC DIAGRAMS

## DVD DIGITAL CINEMA SYSTEM

### TH-A35

CD-ROM No.SML200306



#### Area Suffix

J ..... U.S.A.  
C ..... Canada

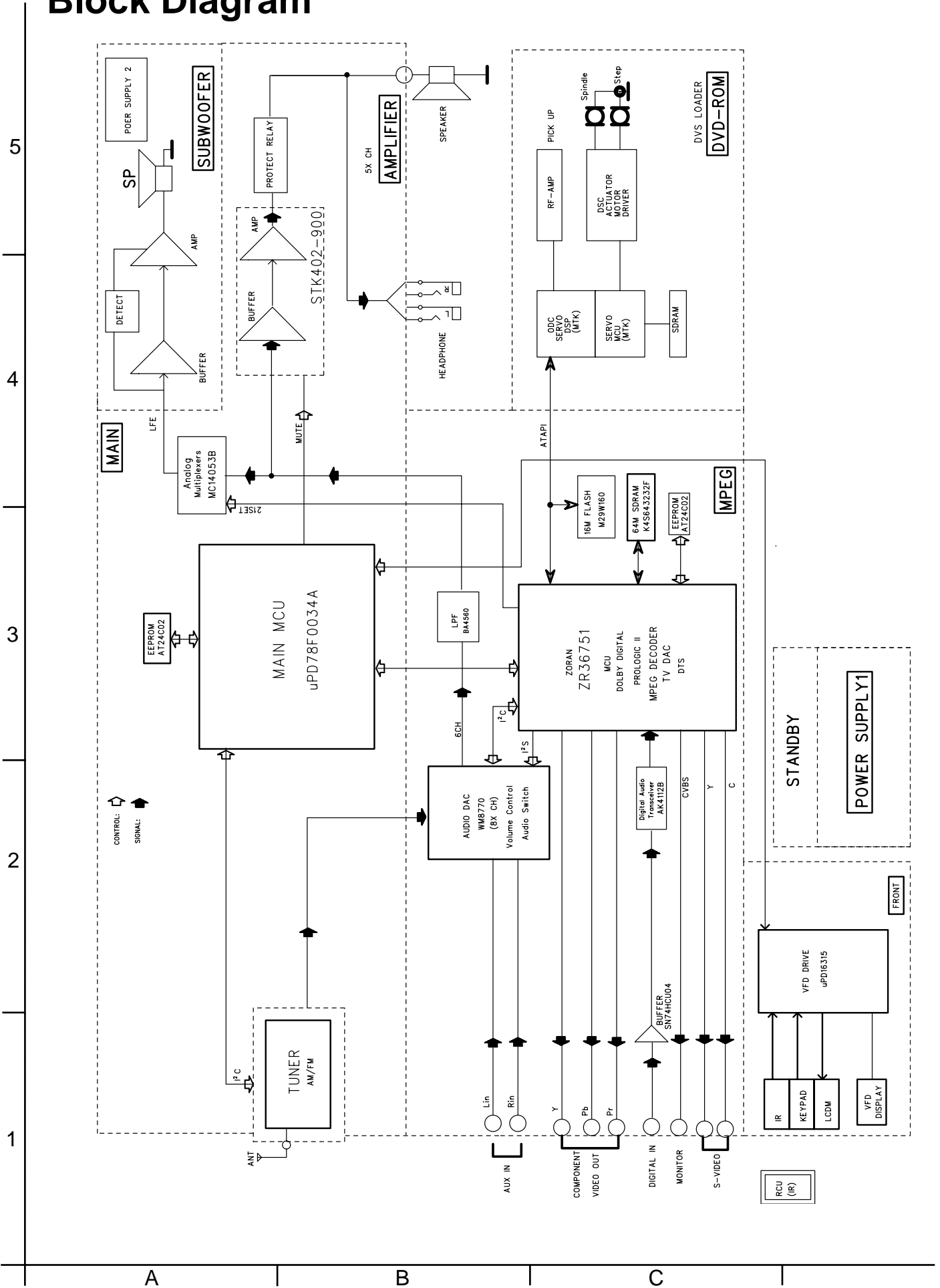
### Contents

Block diagram .....	2-1
Standard schematic diagrams .....	2-2
Printed circuit boards .....	2-20~2-31

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (⚡) and ICP (●) or identified by the "⚠" mark nearby are critical for safety.

(This regulation does not correspond to J and C version.)

# Block Diagram



# Standard schematic diagrams

## AUDIO CODEC & AUDIO/VIDEO POST

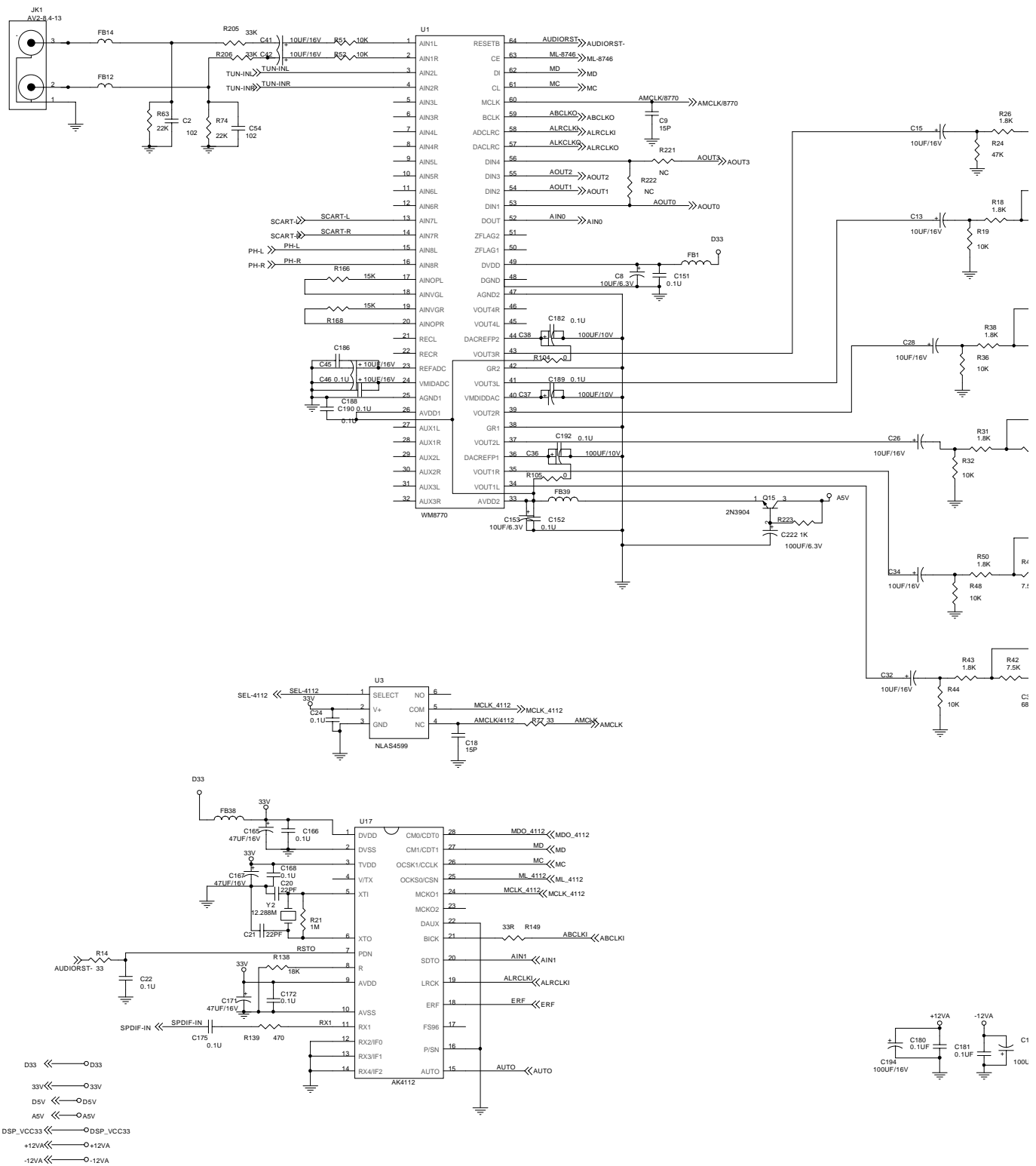
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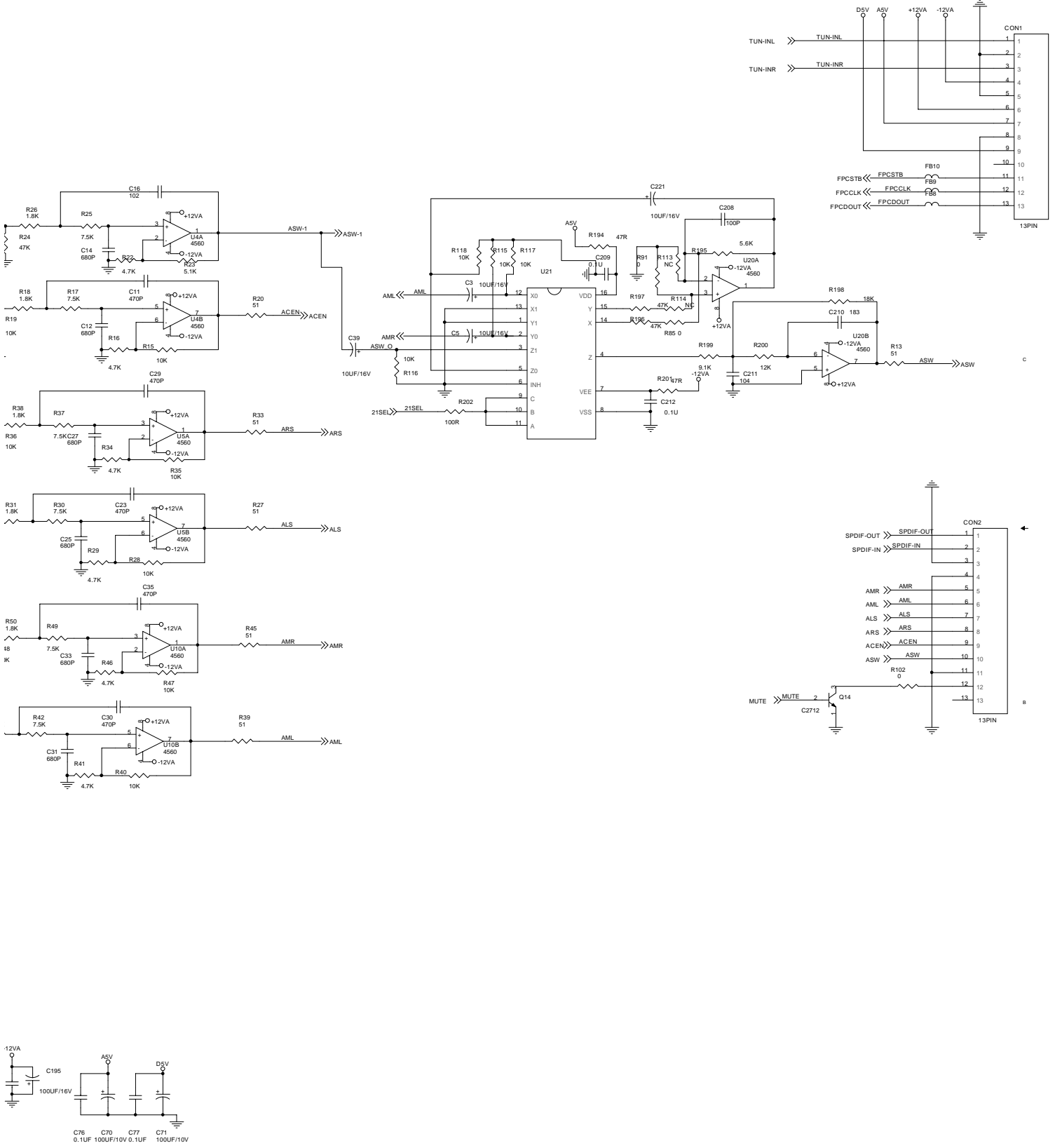
3

2

1







# VIDEO\_OUT & POWER

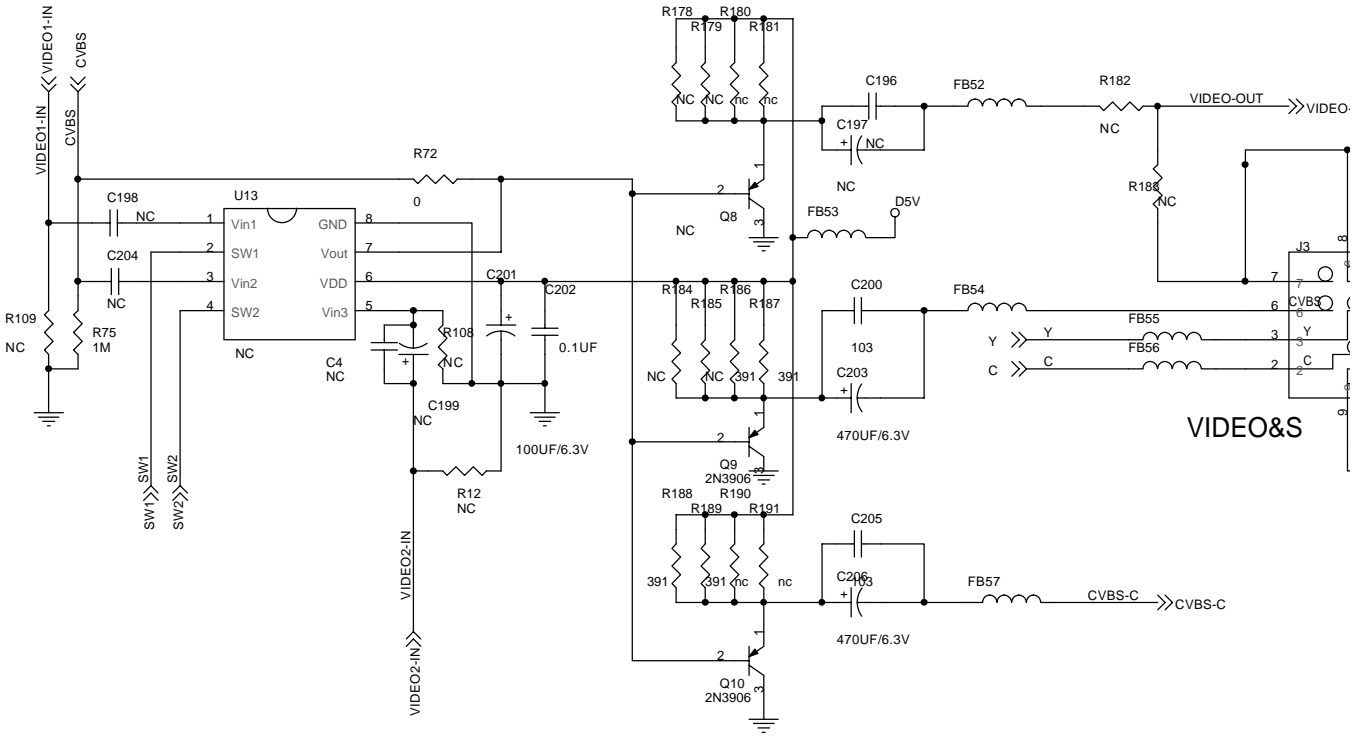
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2

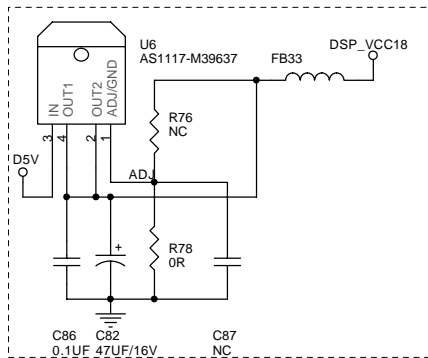
1



VIDEO&S

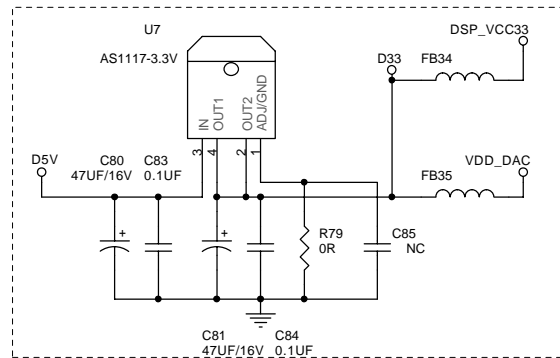
USE FOR  
74HCU04

USE FOR  
OPTICAL



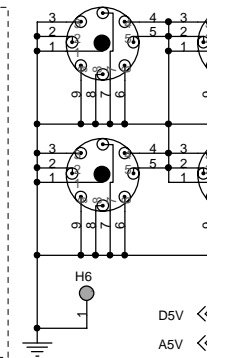
1.8V ADJ REGULATOR

NOTE: PLACE 1.8V REGULATOR  
CLOSE TO ZR36751

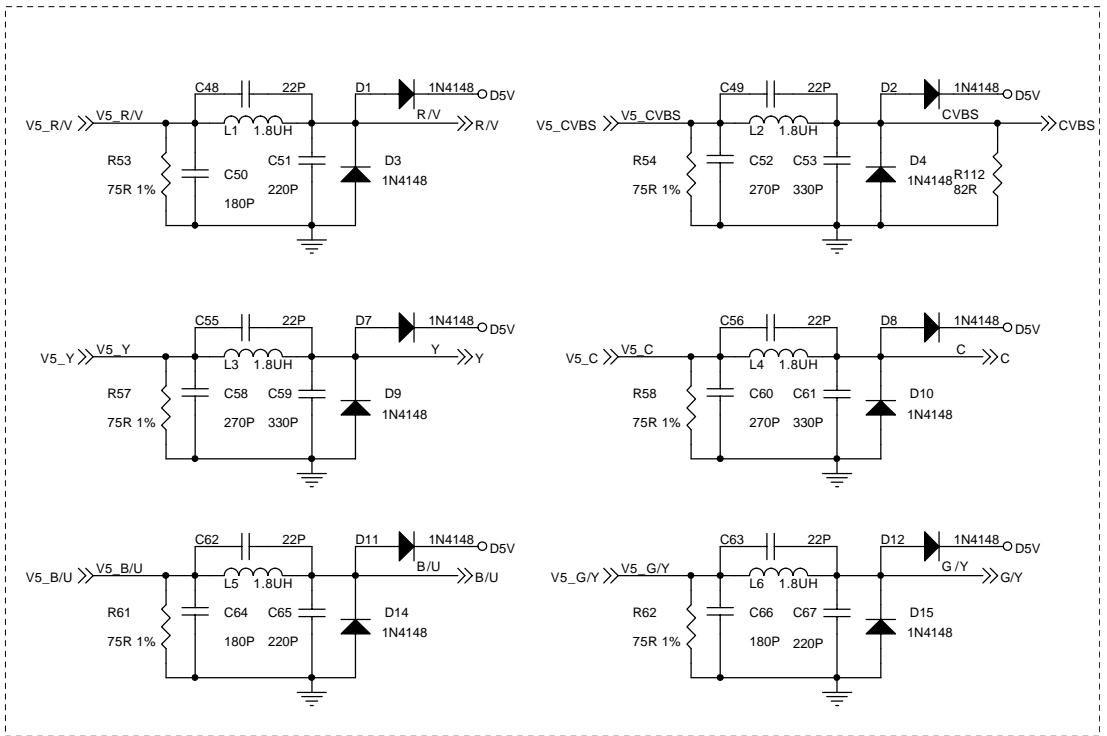
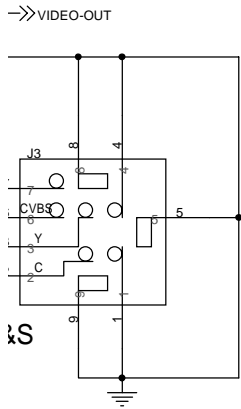


3.3V FIXED/ADJ REGULATOR

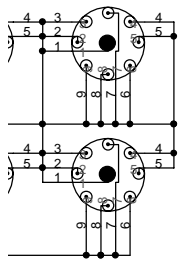
Ver: D81AN



VDD\_DAC <<<  
D33 <<<  
DSP\_VCC33 <<  
DSP\_VCC18 <<



IE FOR  
PTICAL



D5V <<< D5V

A5V <<< A5V

DAC <<< VDD\_DAC

333 <<< D33

P\_VCC33 <<< DSP\_VCC33

P\_VCC18 <<< DSP\_VCC18

D5V <<< D5V

A5V <<< A5V

**DRIVE I/F**

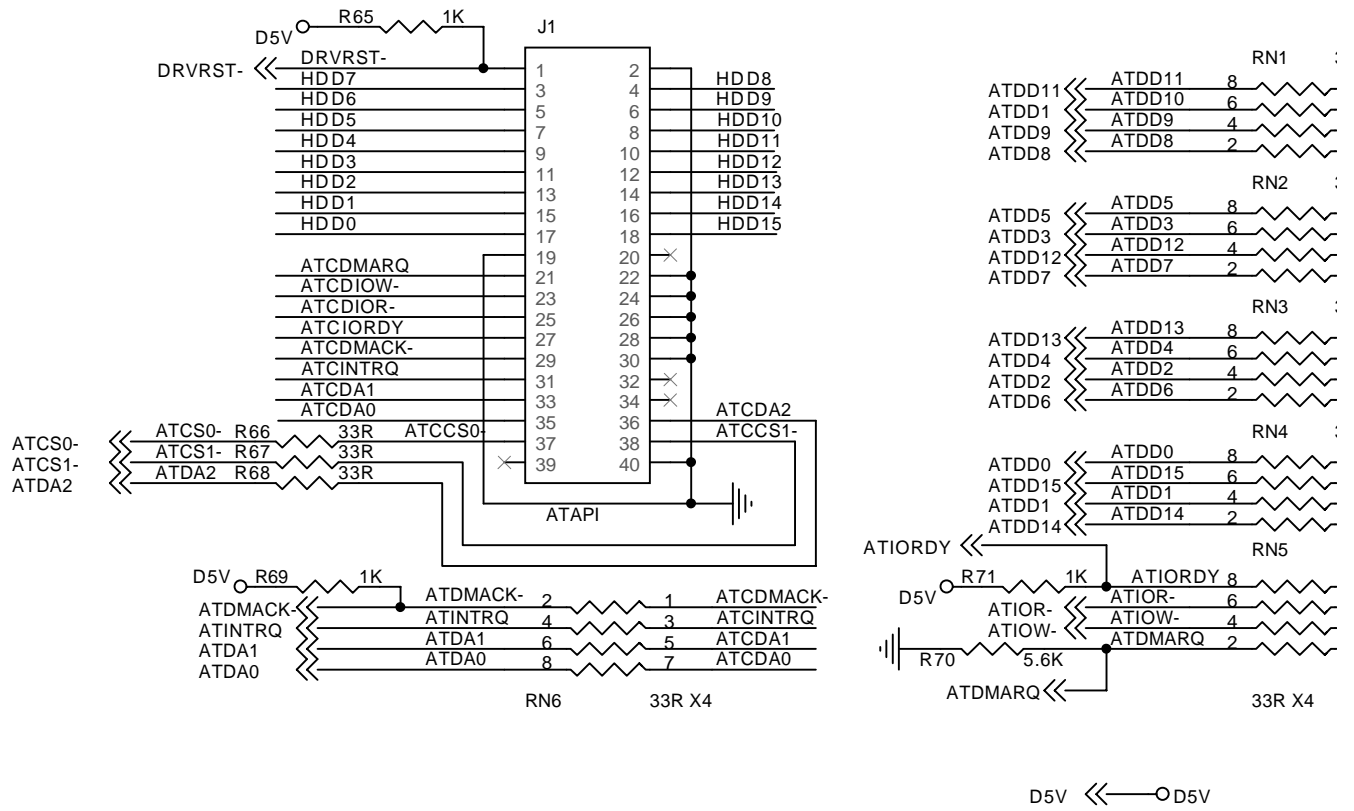
5

4

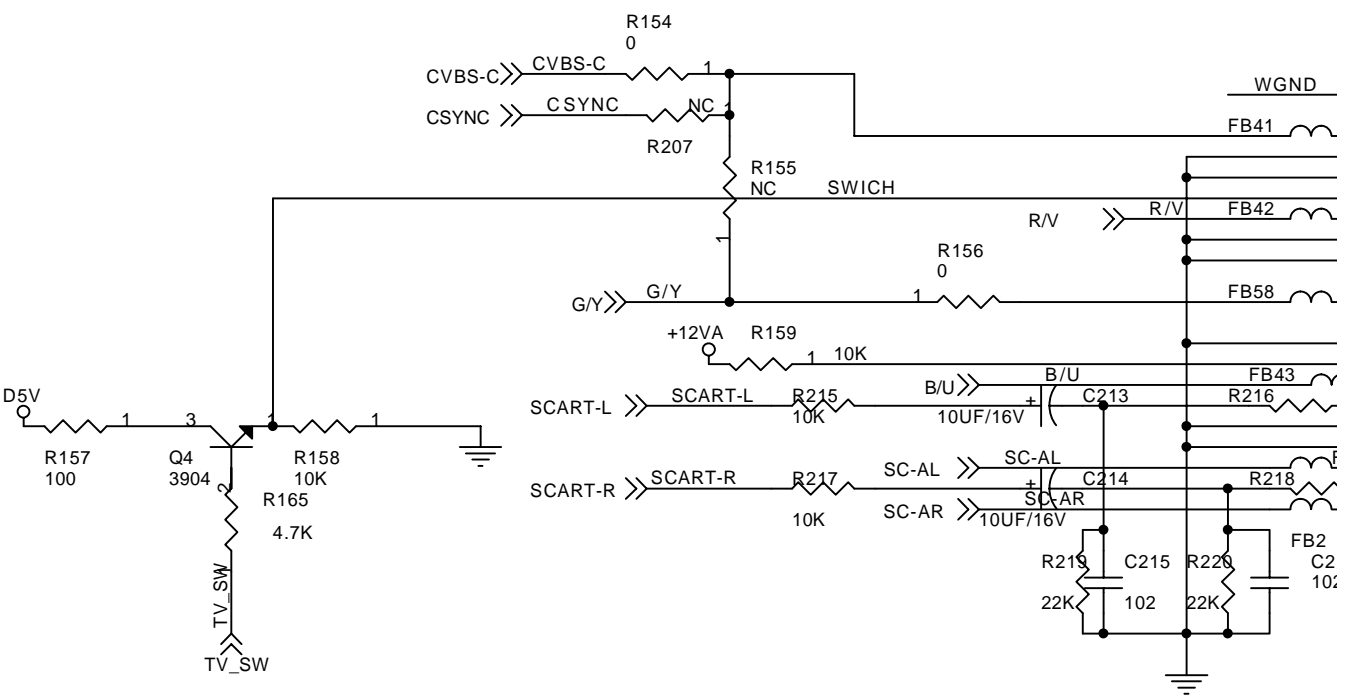
3

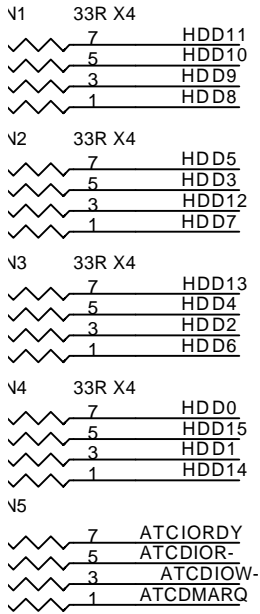
2

1

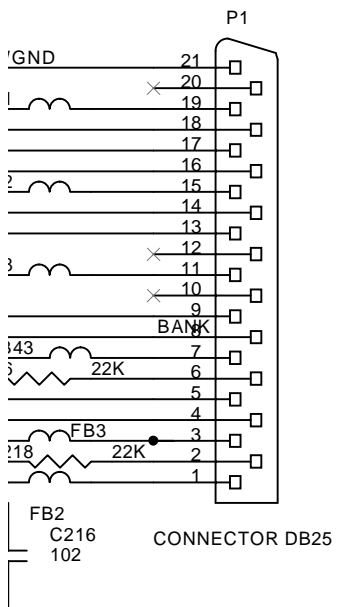
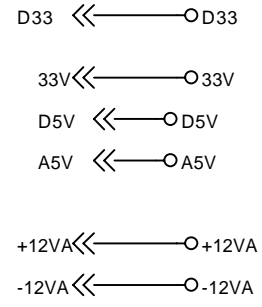


D5V <<—○D5V





IR X4



# MPEG SECTION

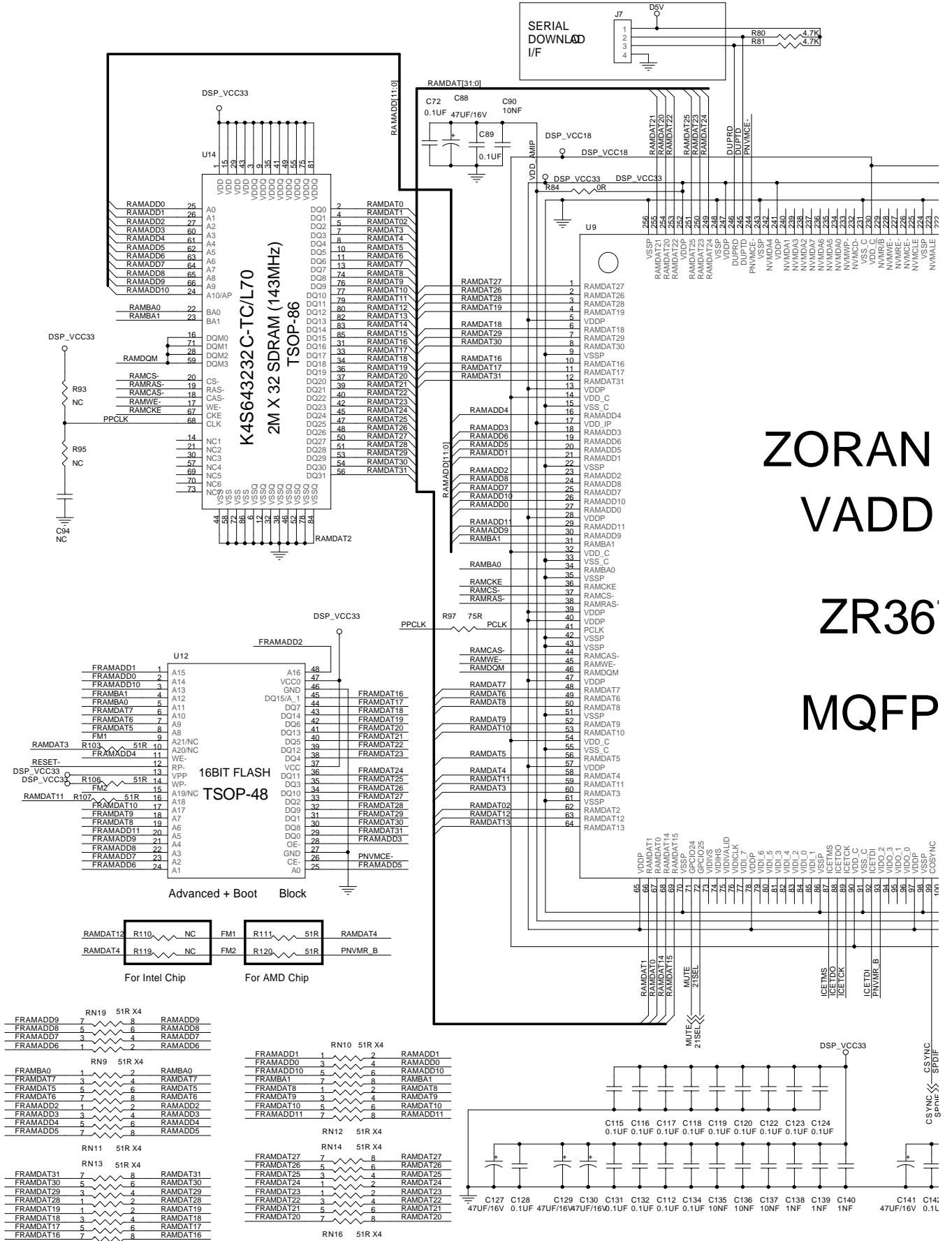
5

4

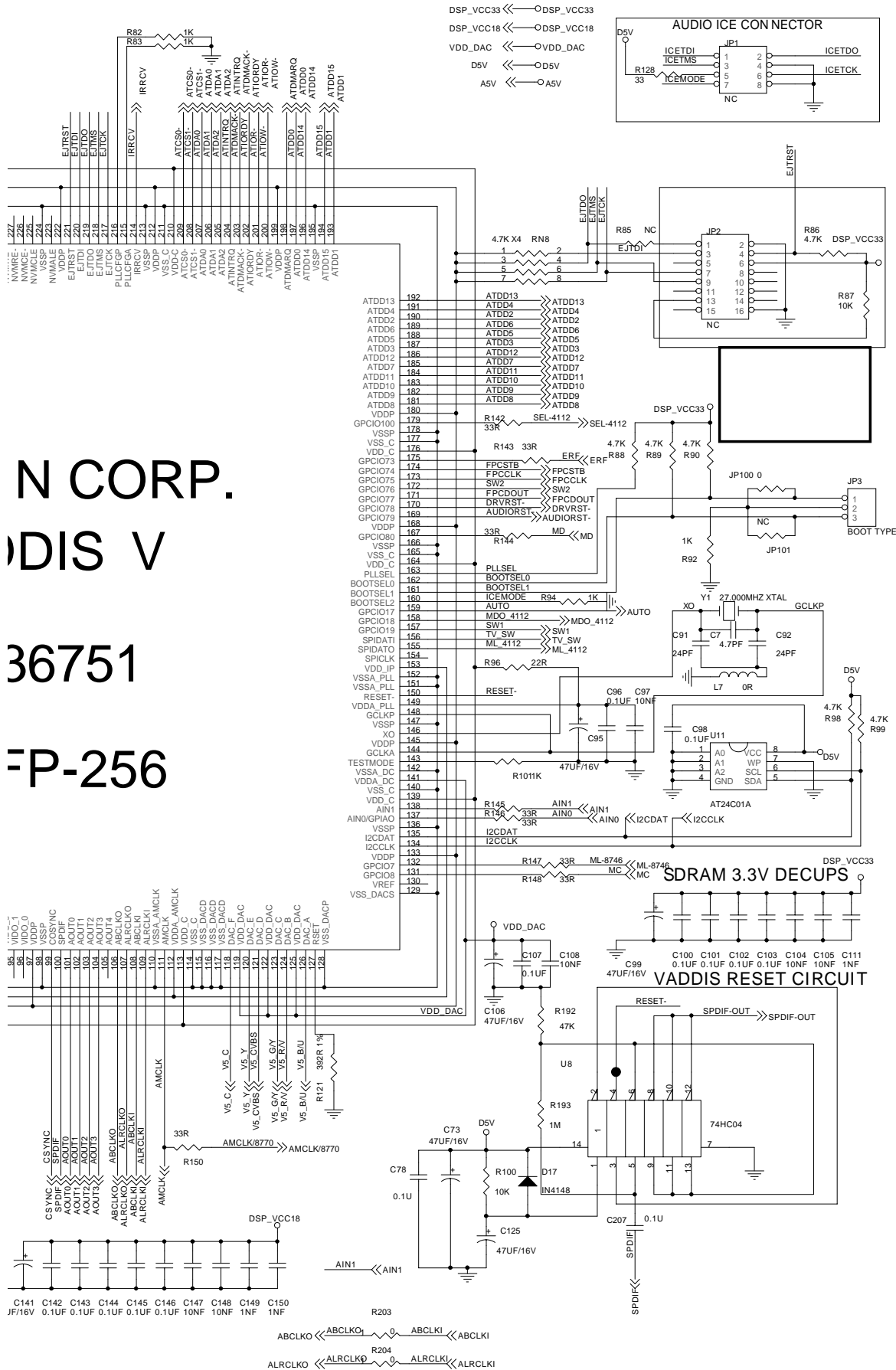
3

2

1



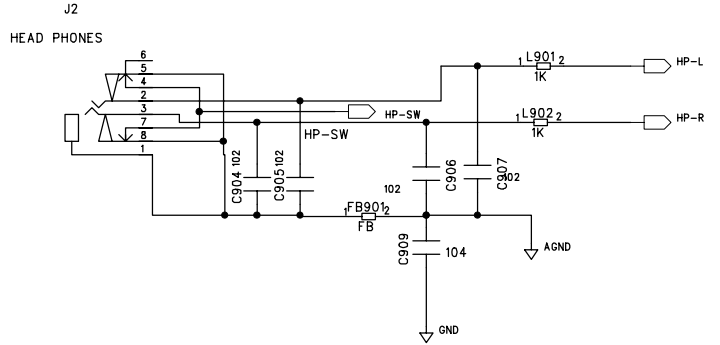
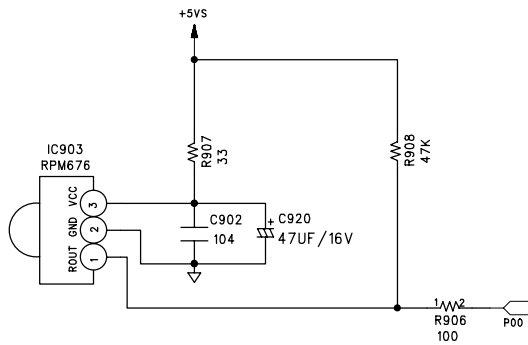
ZORAN  
VADD  
ZR36  
MQFP



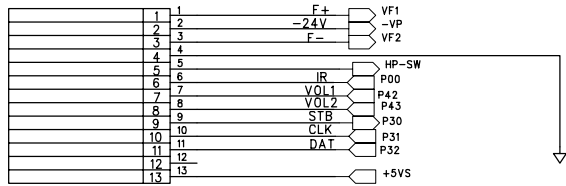
N CORP.  
 DIS V  
 36751  
 P-256

# FL Display and Control

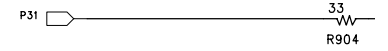
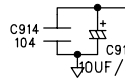
5



4

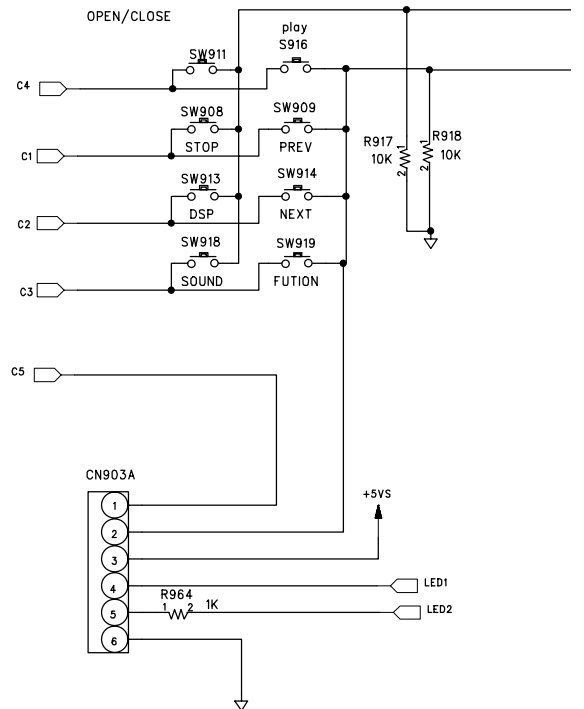
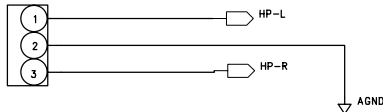


FFC/FPC-13P/1.25  
CN903  
FFC/FPC-13P/1.25

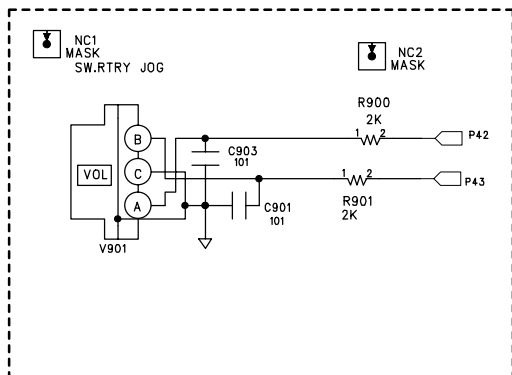


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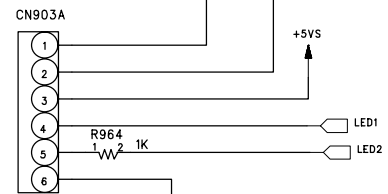
CN904  
CN03P/2.5



2



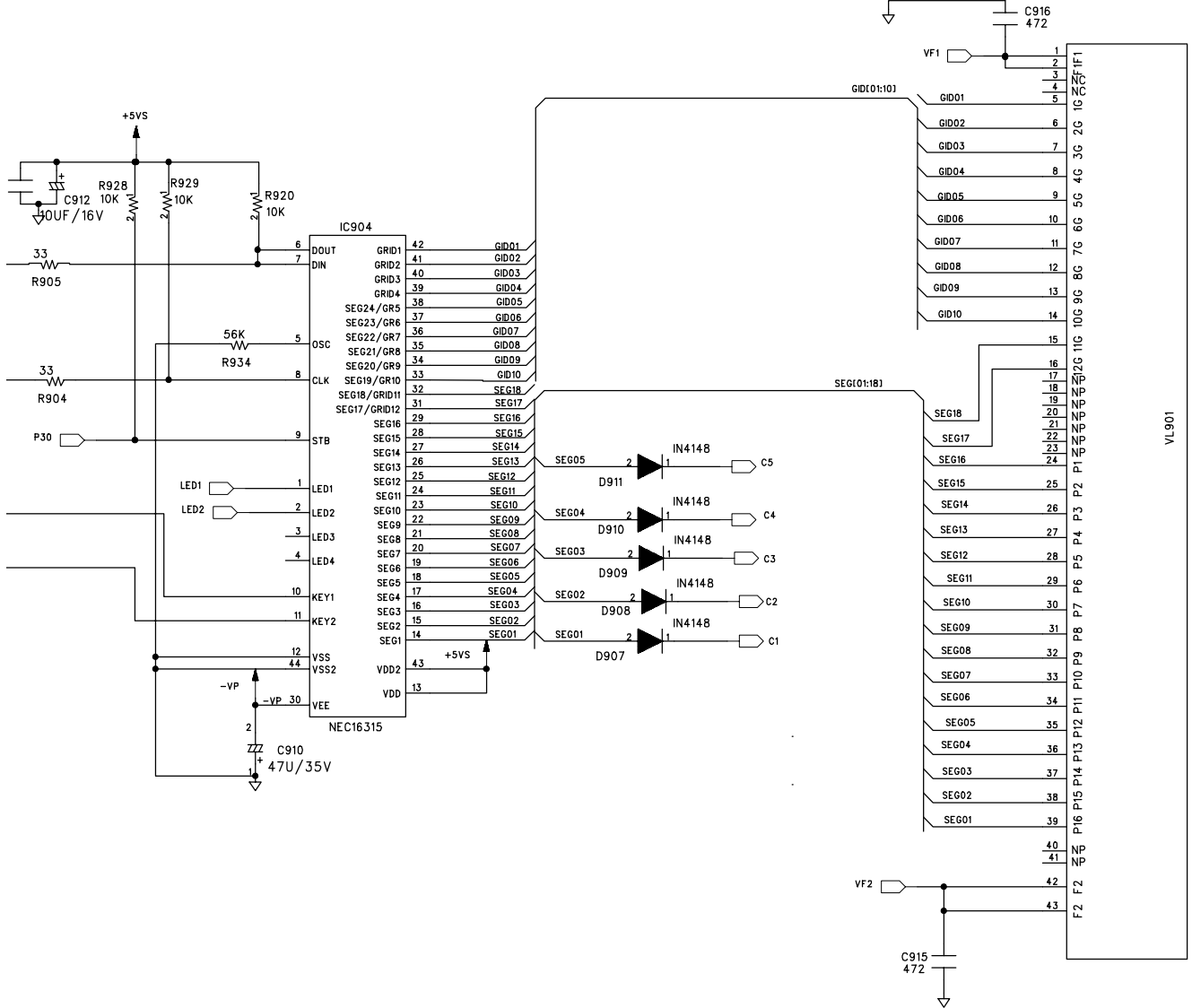
1





HP-L

HP-R



# SUBWOOFER Section

5

4

3

2

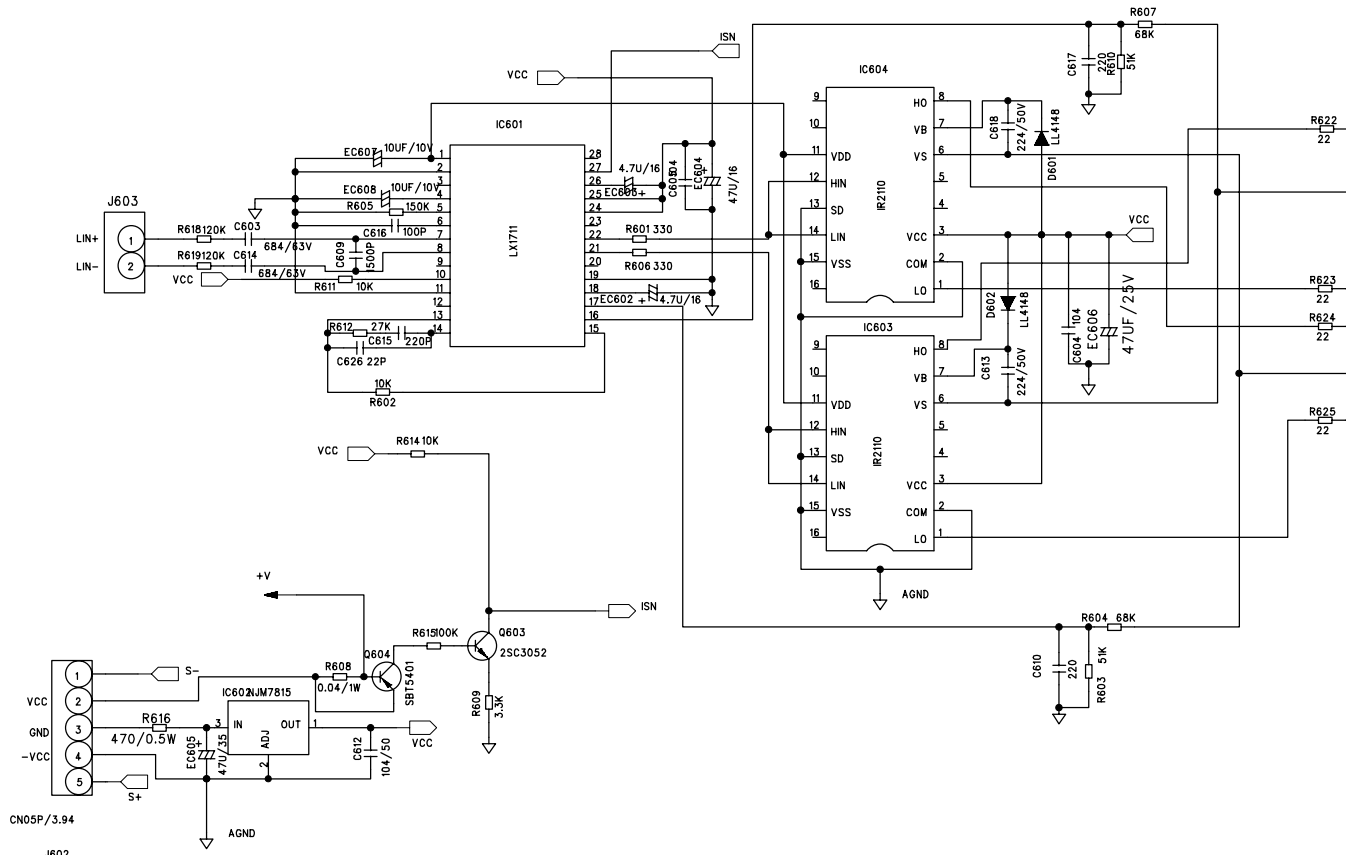
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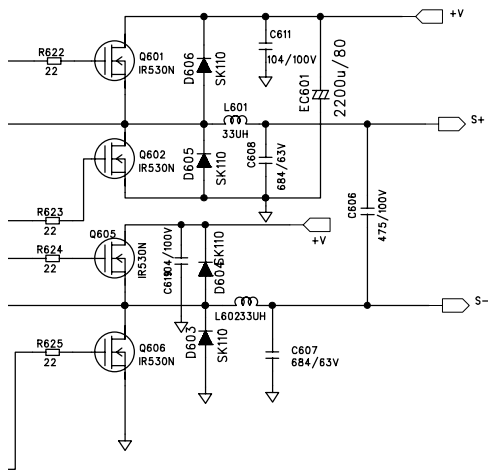
A

B

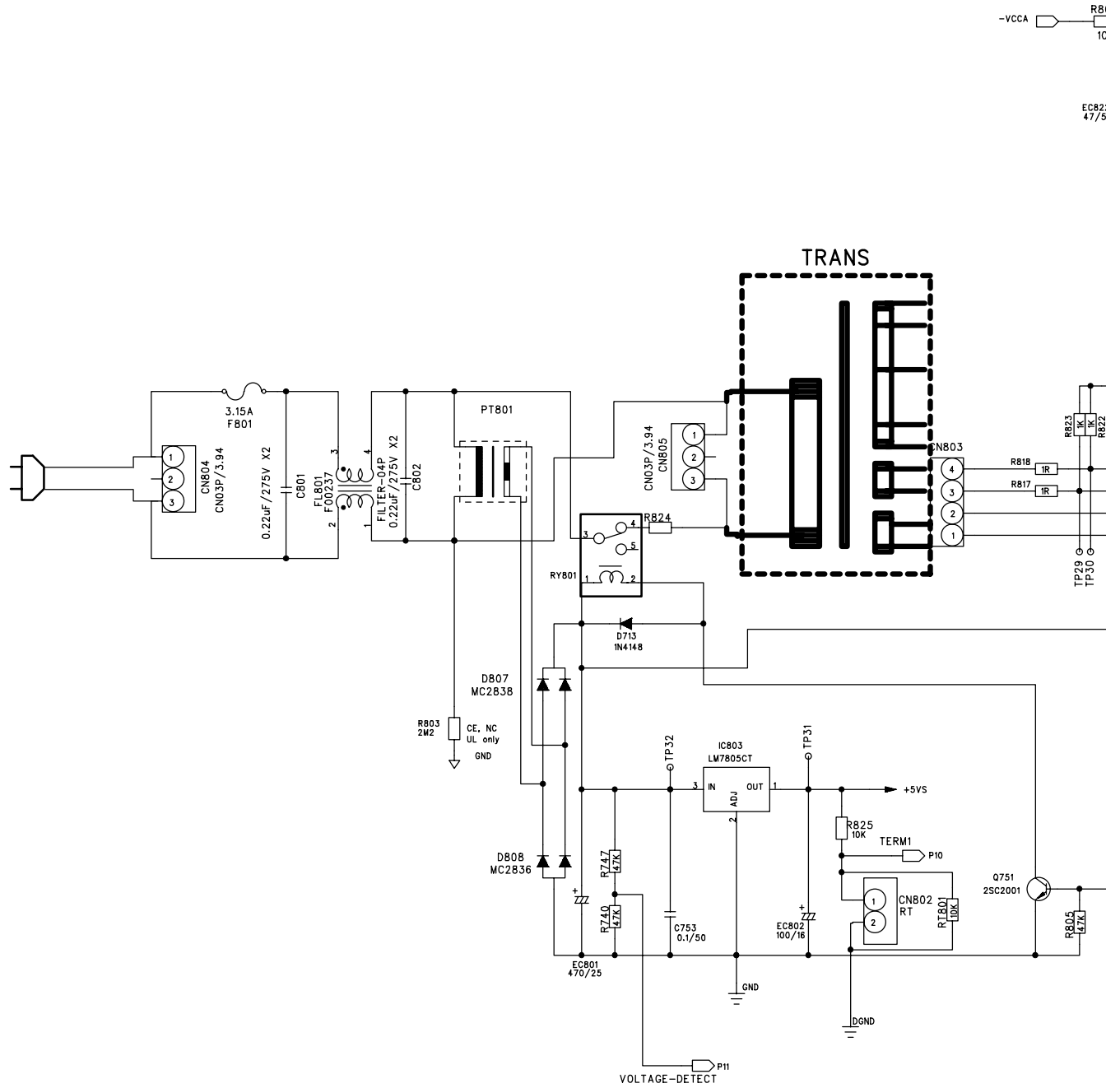
C

D





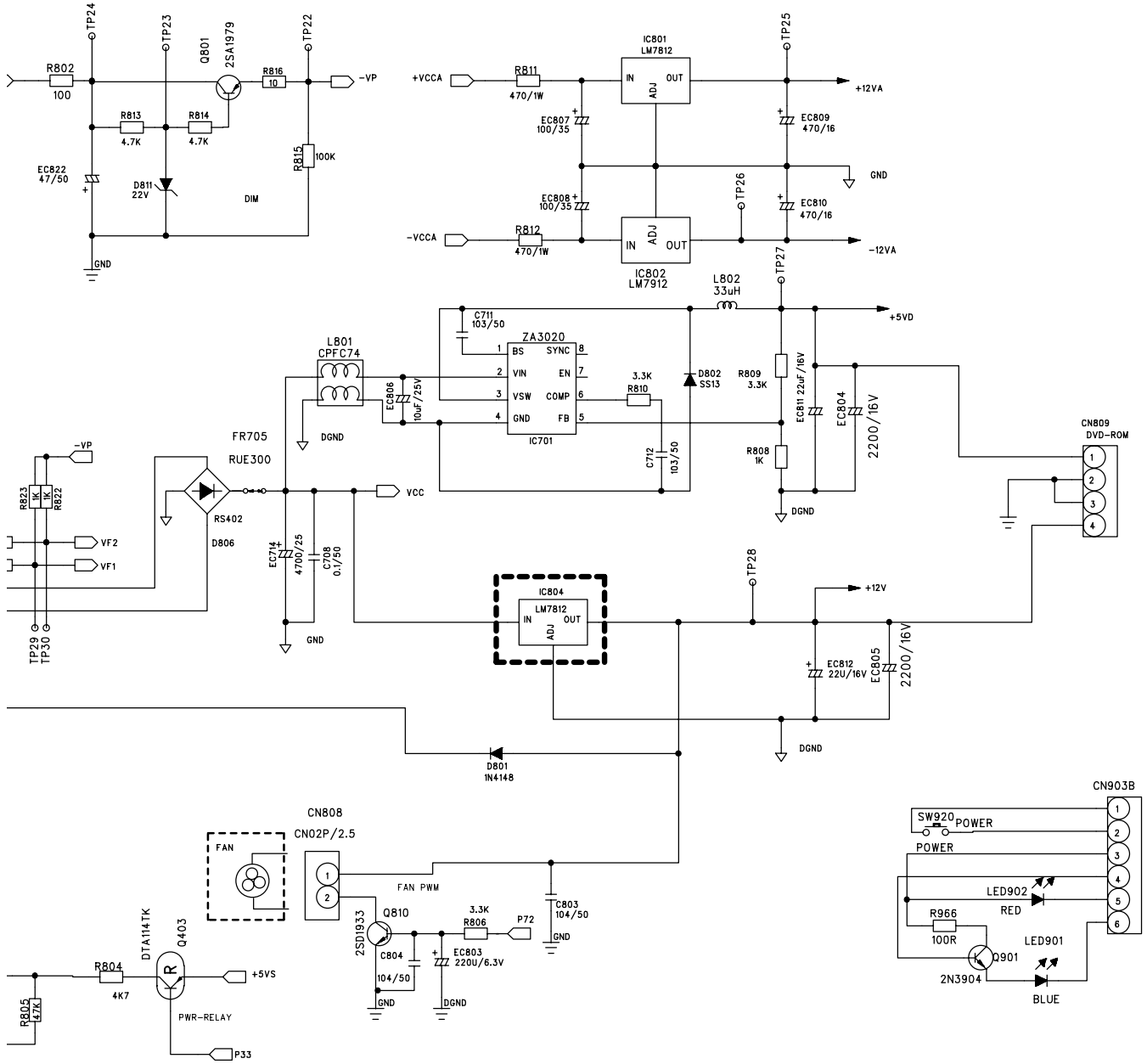
# MAIN POWER section



-VCCA R81  
1C

EC82:  
47/5

TRANS



# Amplifier

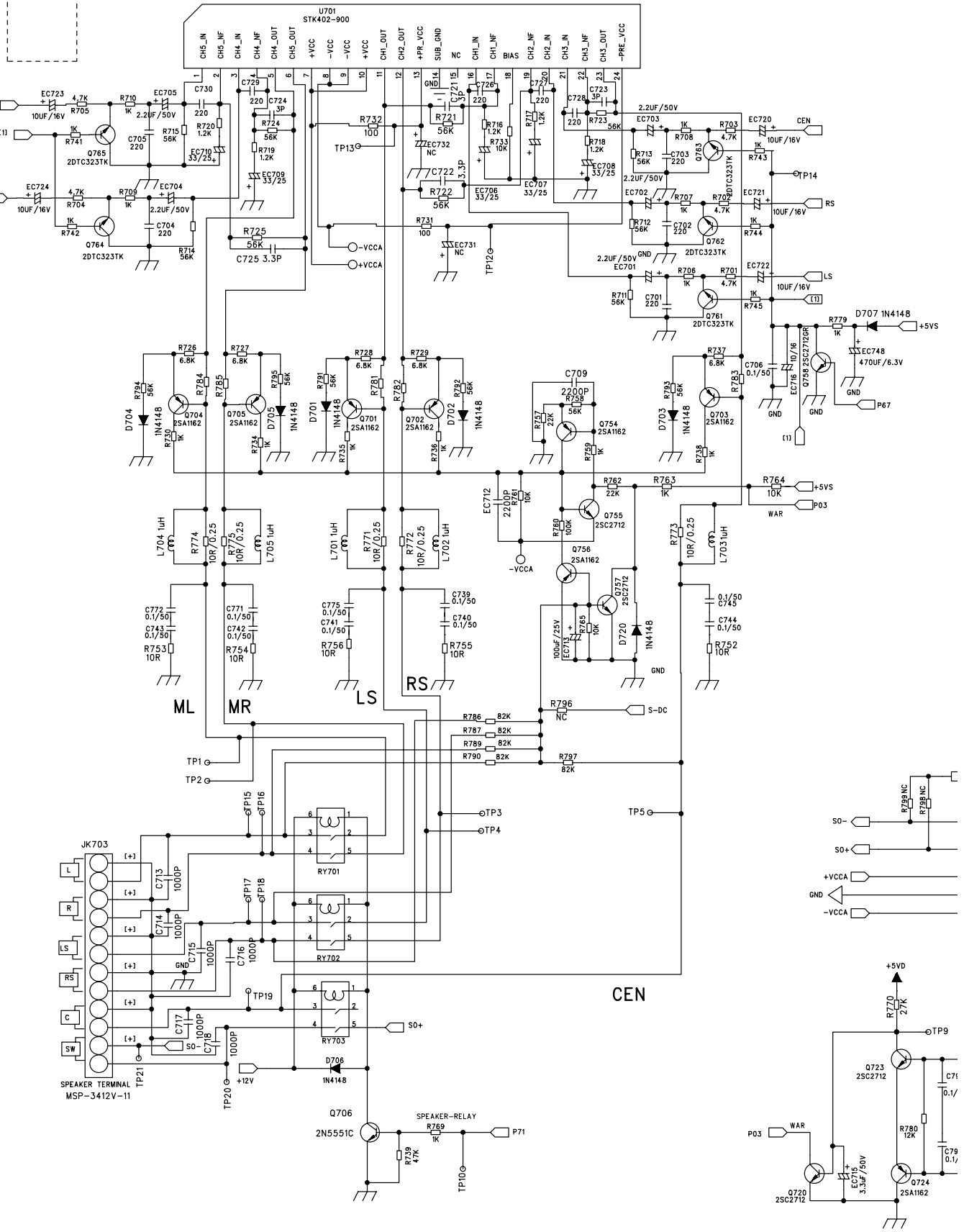
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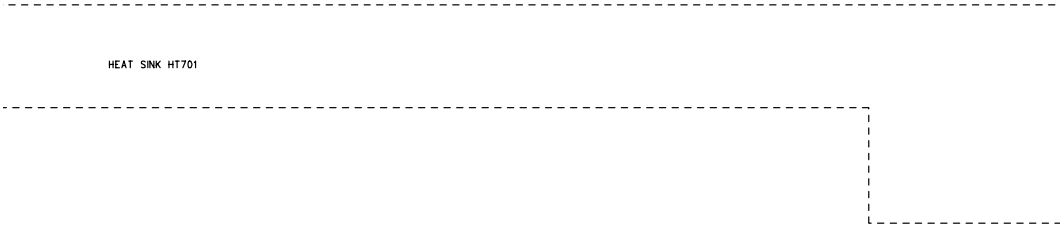
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3

2

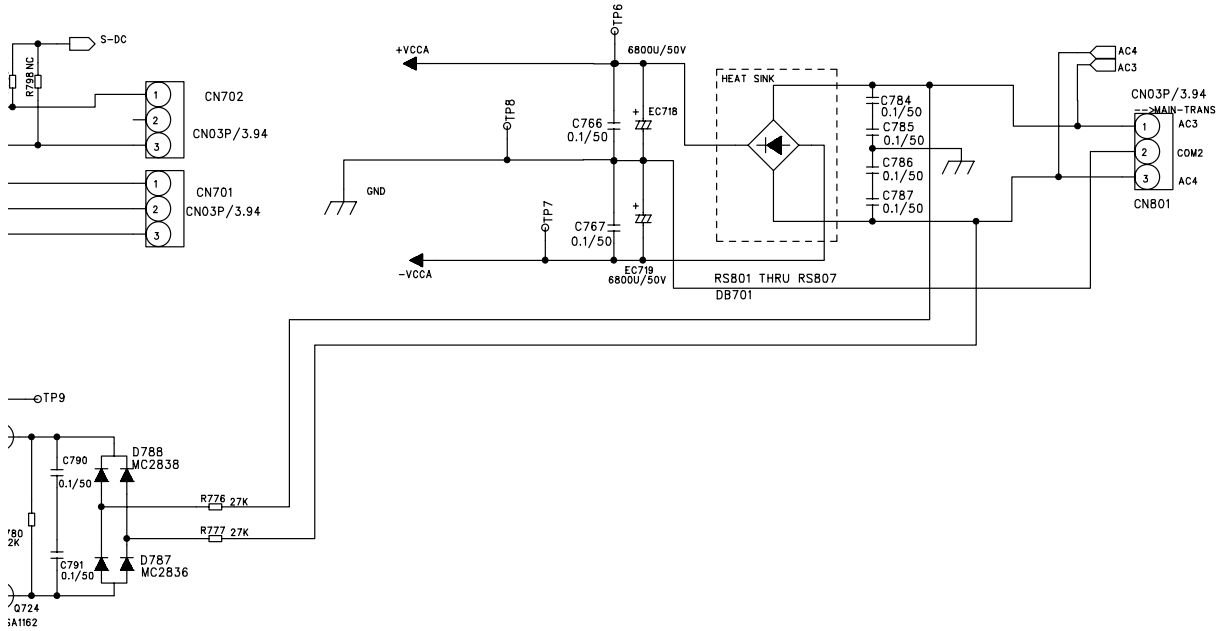
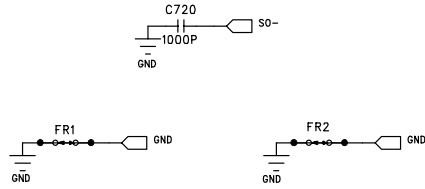
1





HEAT SINK HT701

3  
+5VS



D

E

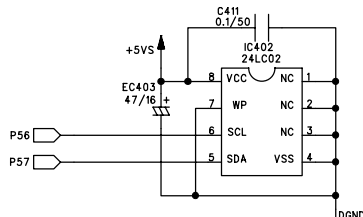
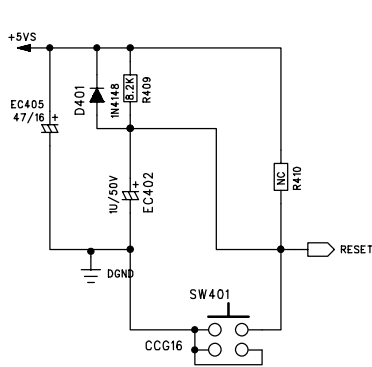
F

G

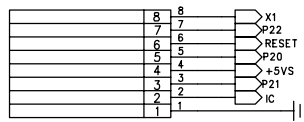
H

# MCU section

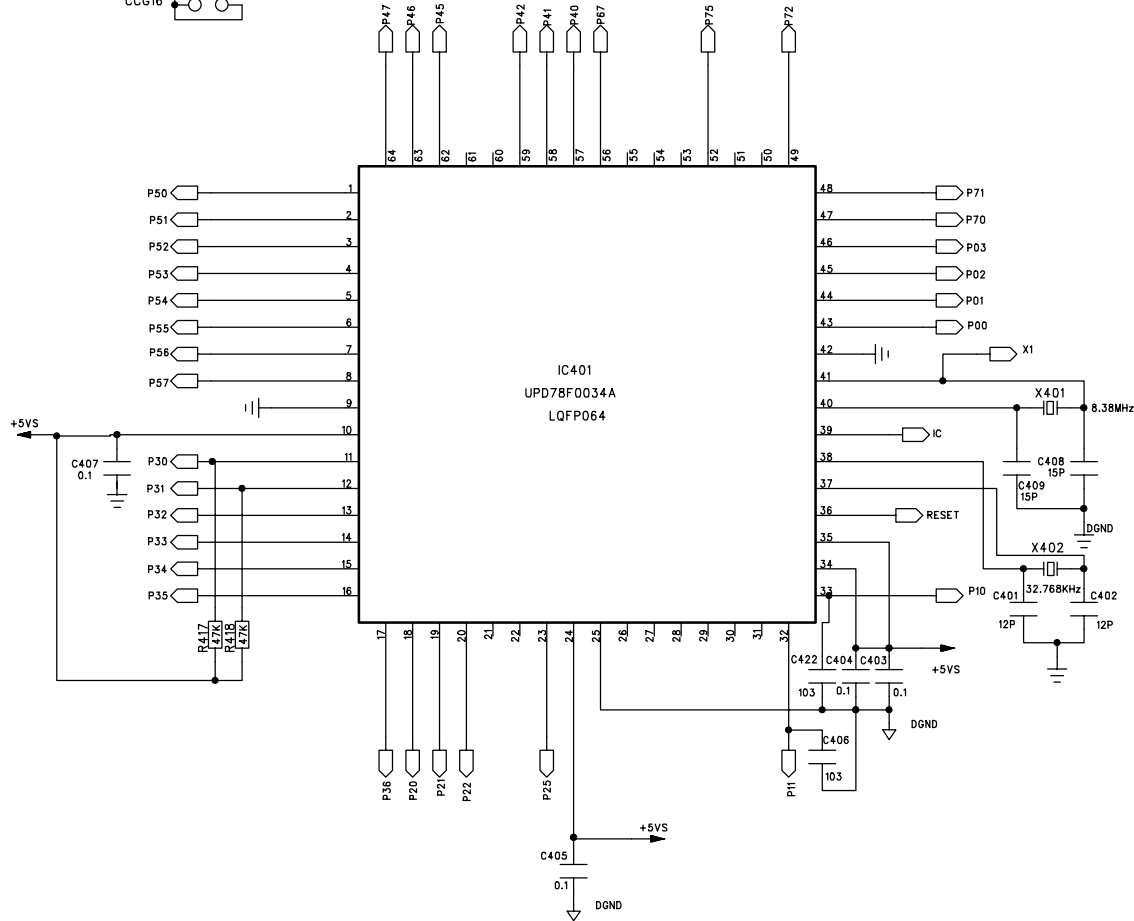
5



CN407  
FFC/FPC-08P/1.25



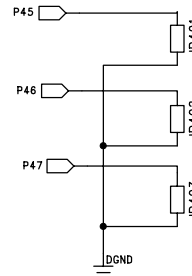
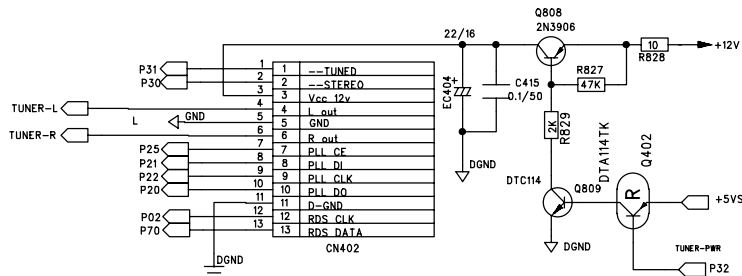
4



3

2

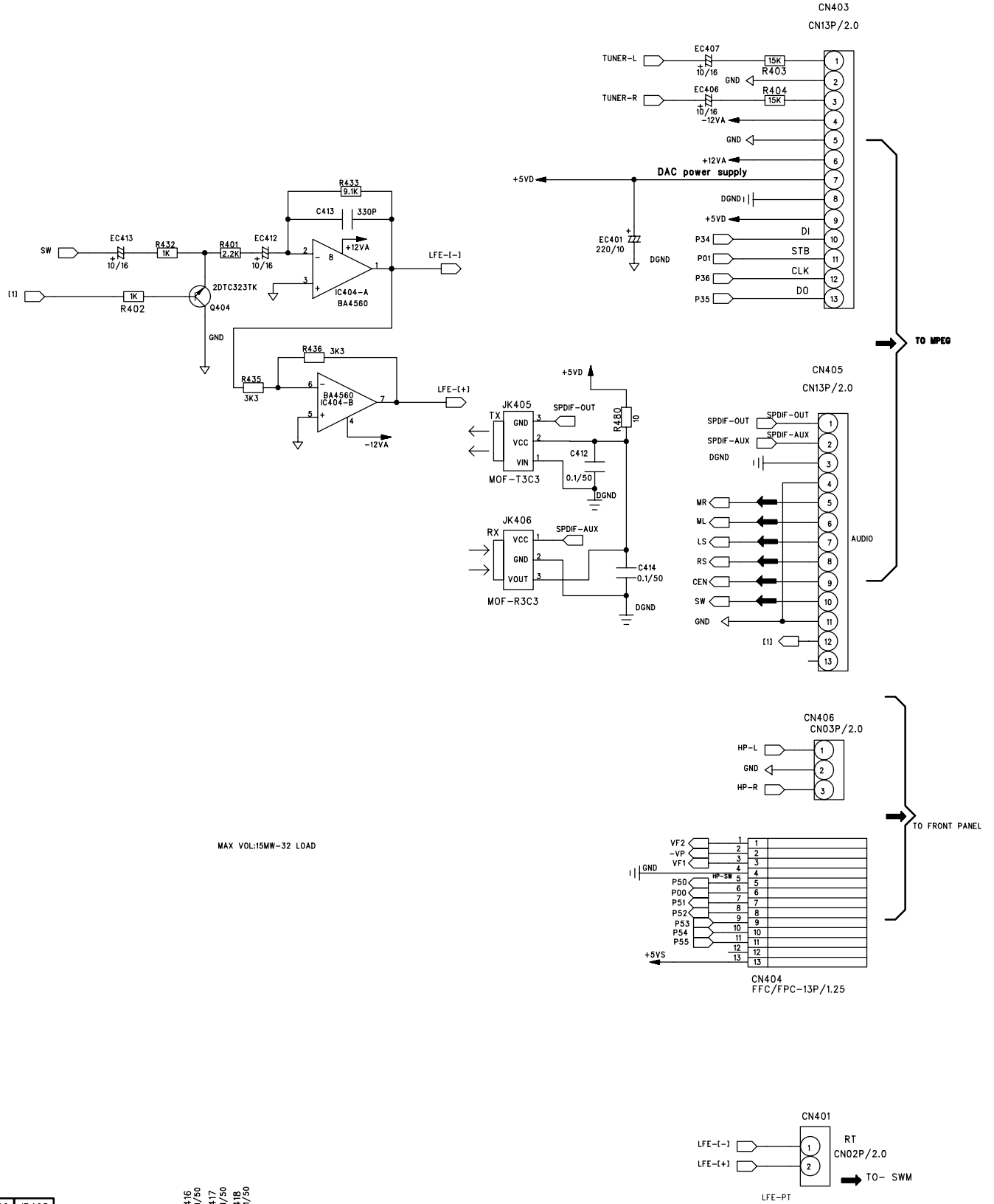
1



	JP401	JP4
EU		
USA		
ASIA		
JP		

0==== SHORT  
1==== OPEN

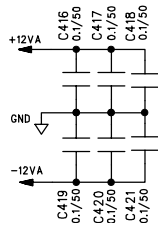




MAX VOL:15MW-32 LOAD

P401	JP402	JP403

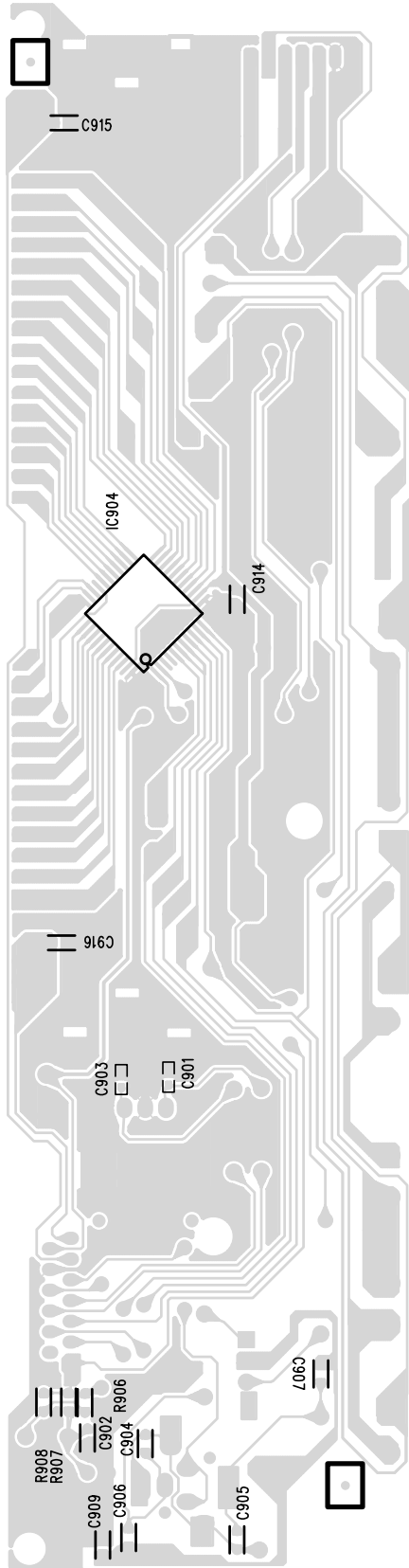
ORT  
EN



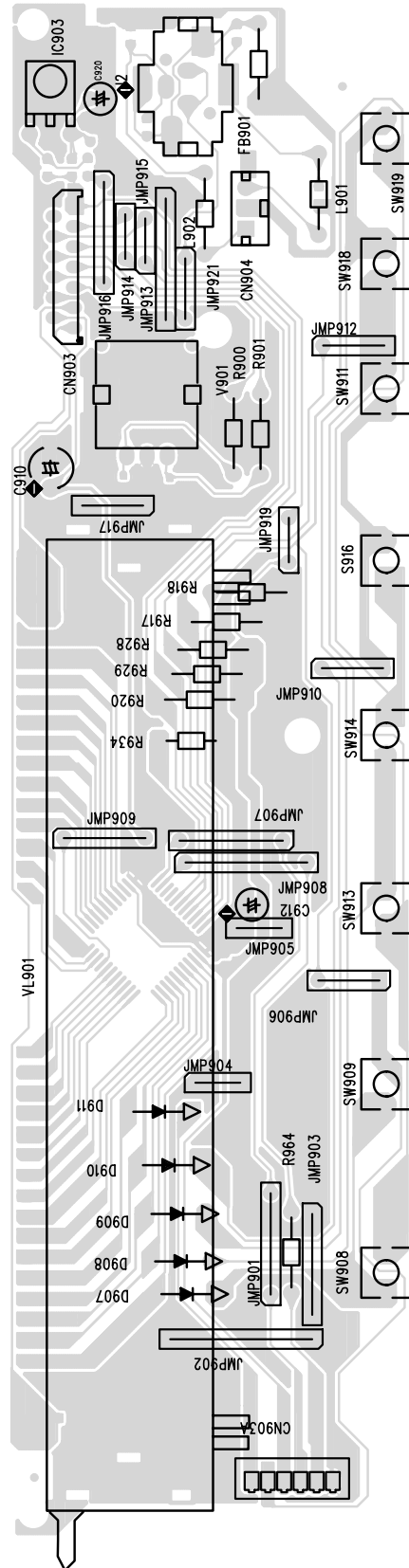
# Printed circuit board

## FRONT CIRCUIT BOARD

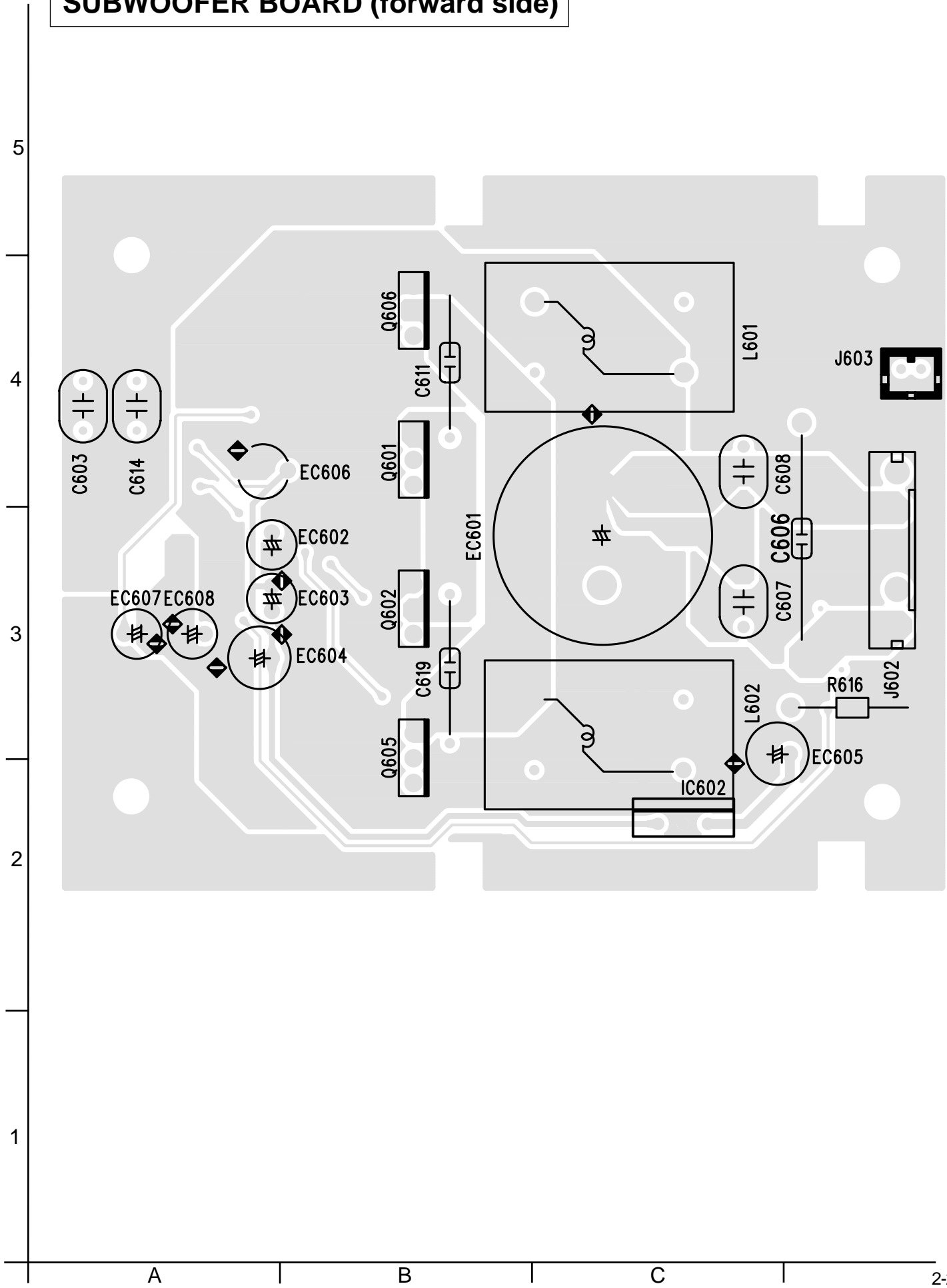
\*Front board (reverse side )



\*Front board (forward side )



**SUBWOOFER BOARD (forward side)**



# SUBWOOFER BOARD (Reverse side)

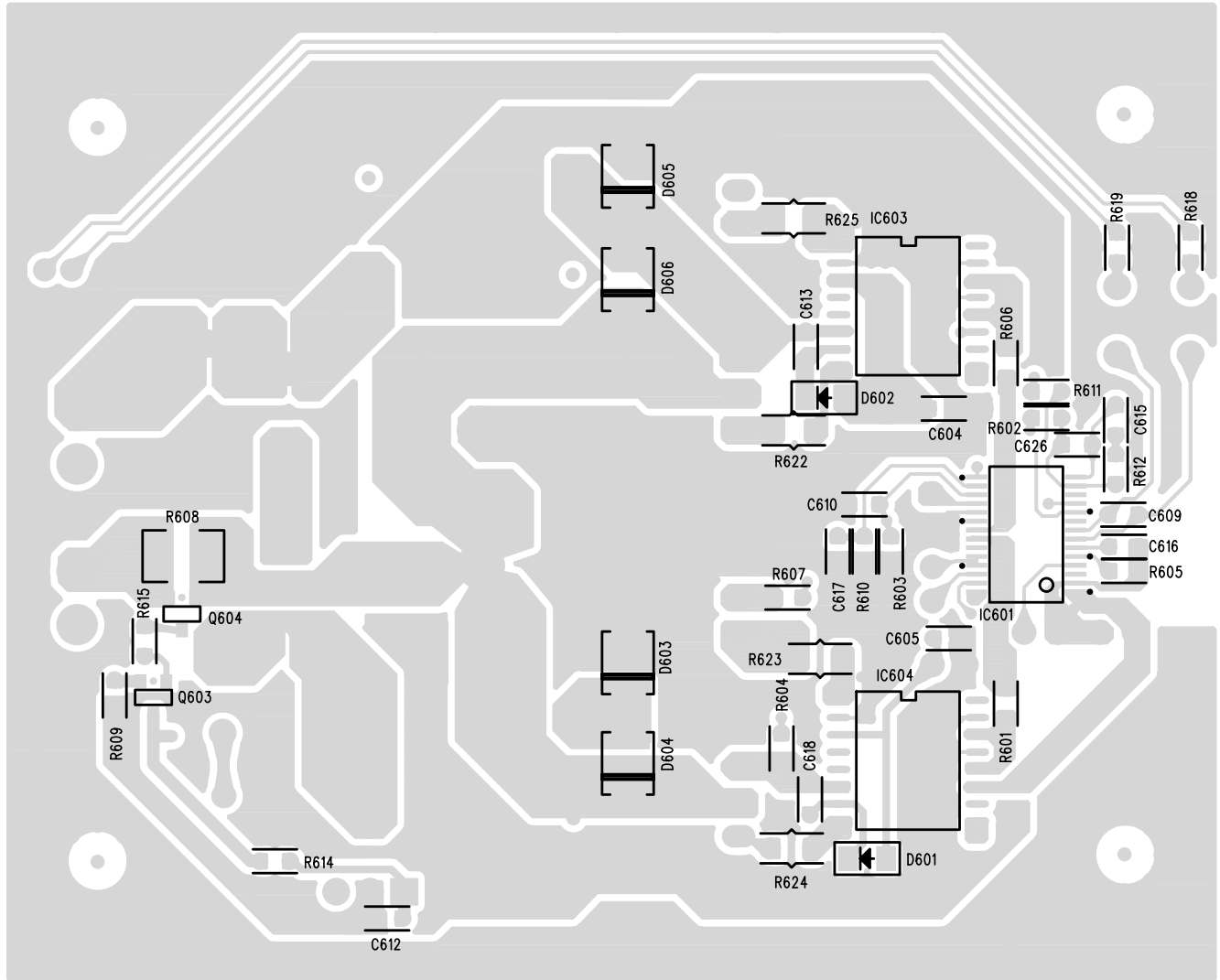
5

4

3

2

1



< MEMO >

5  
4  
3  
2  
1

FR2  
FR1

FAN

AC IN  
SUB

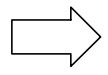
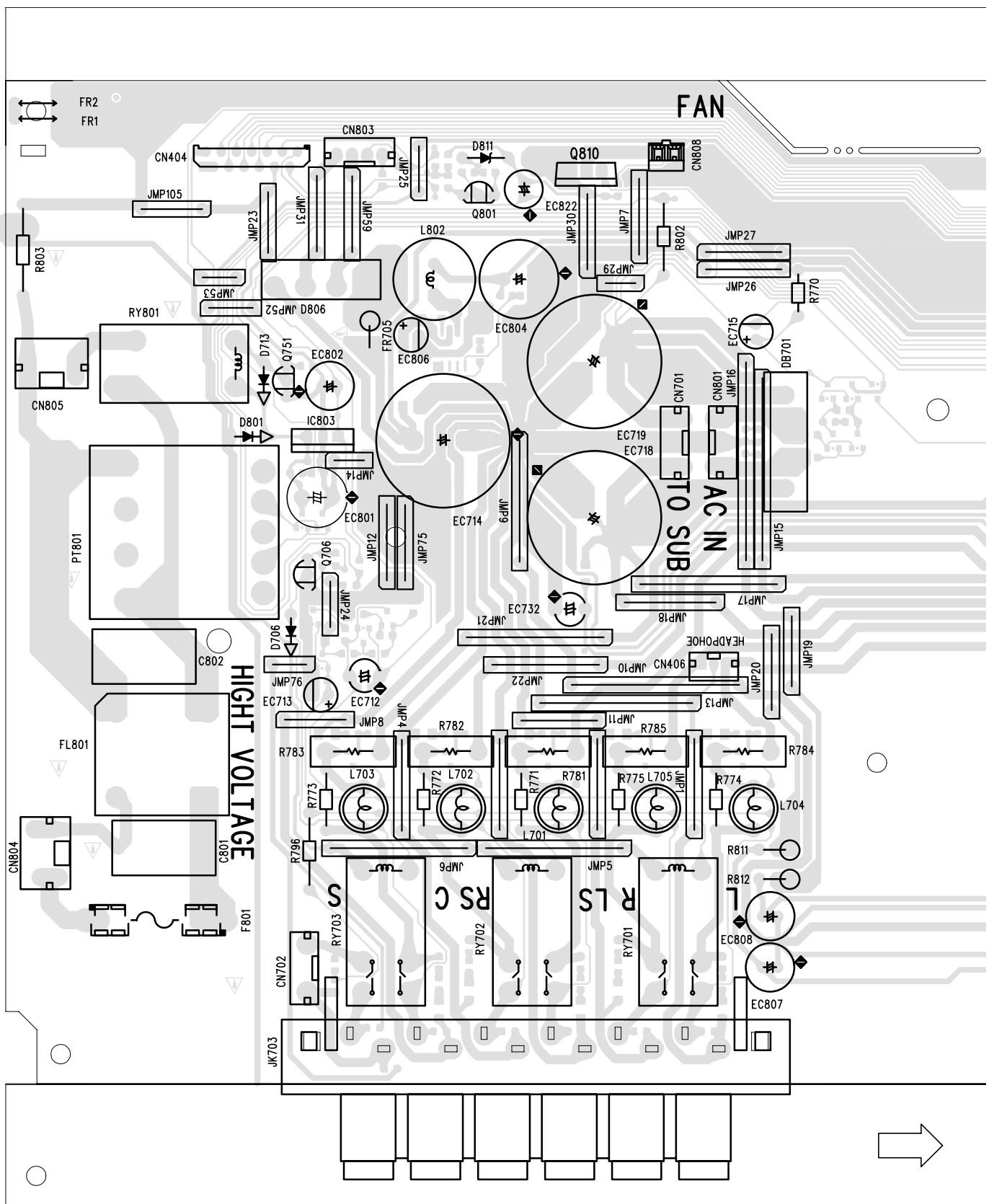
HIGH VOLTAGE

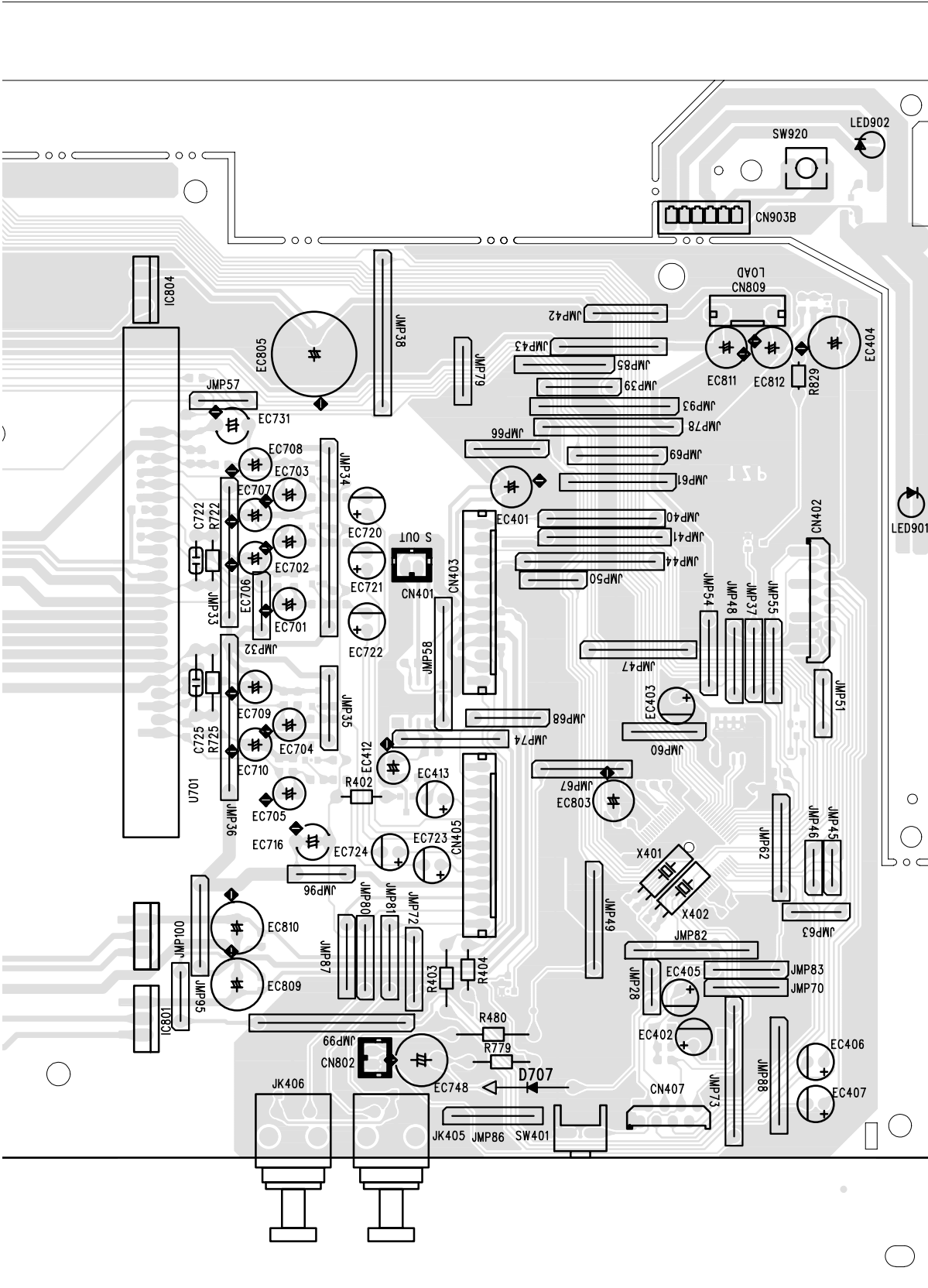
A

B

C

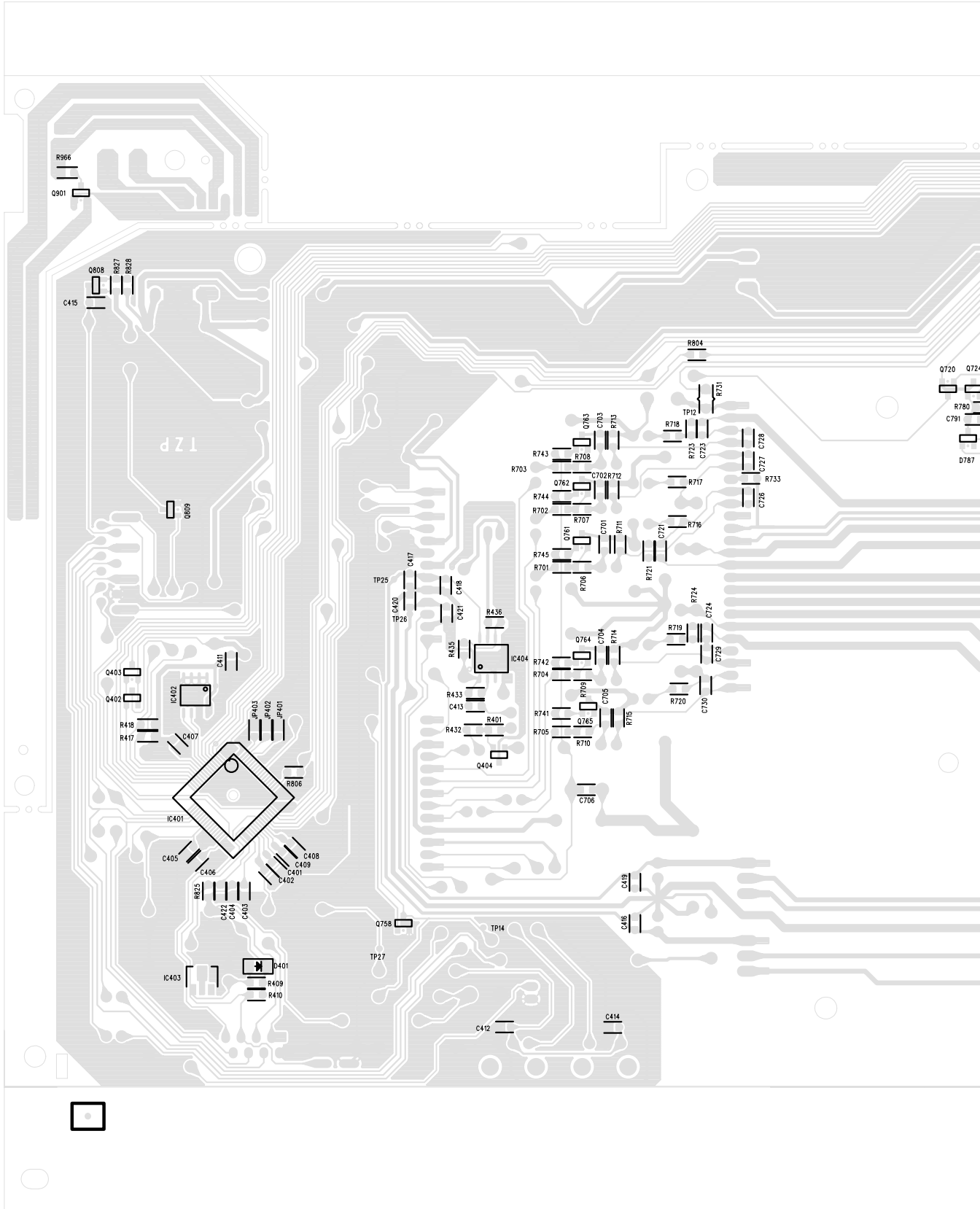
D



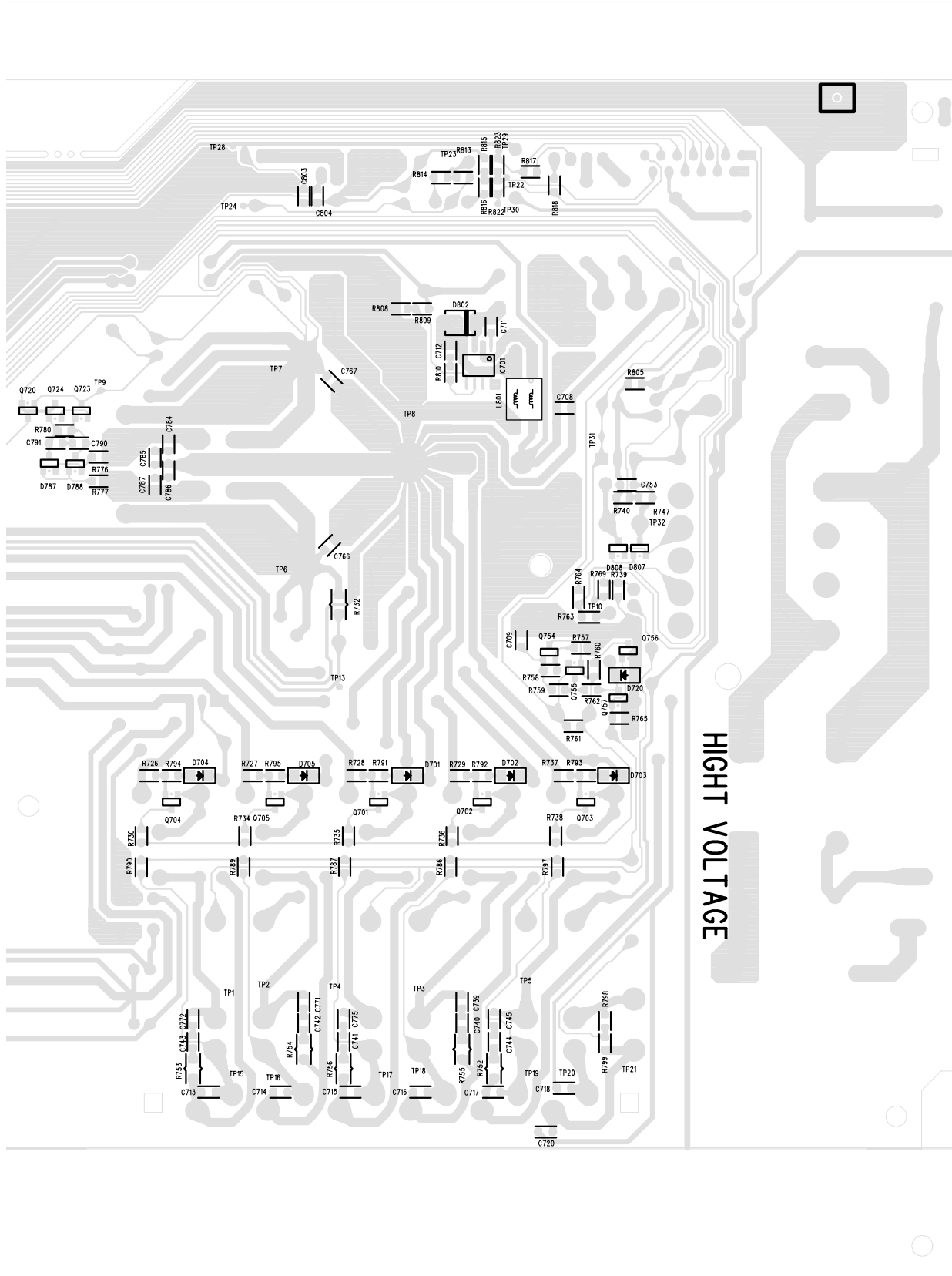


# MAIN BOARD (Reverse side)

5  
4  
3  
2  
1



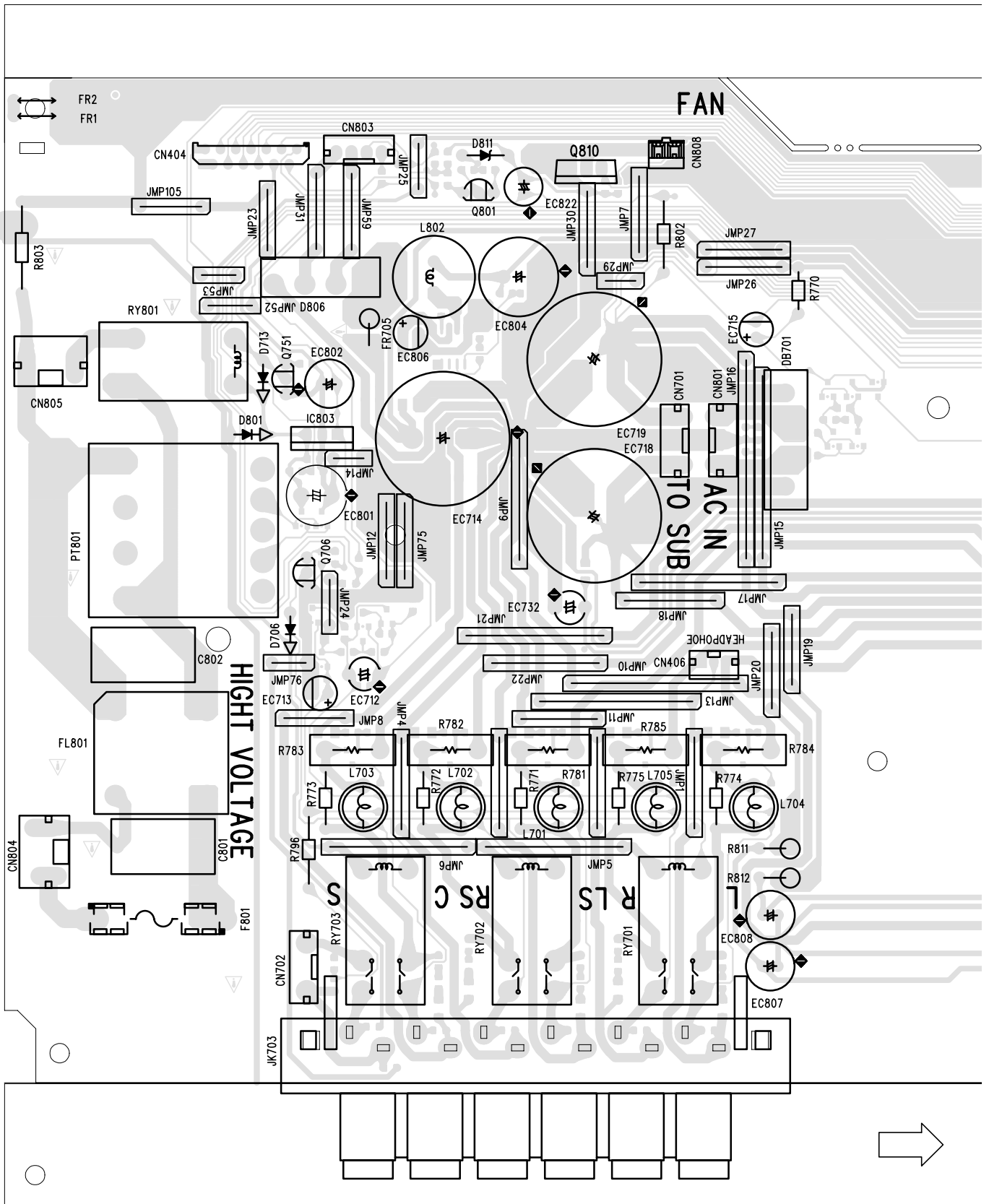




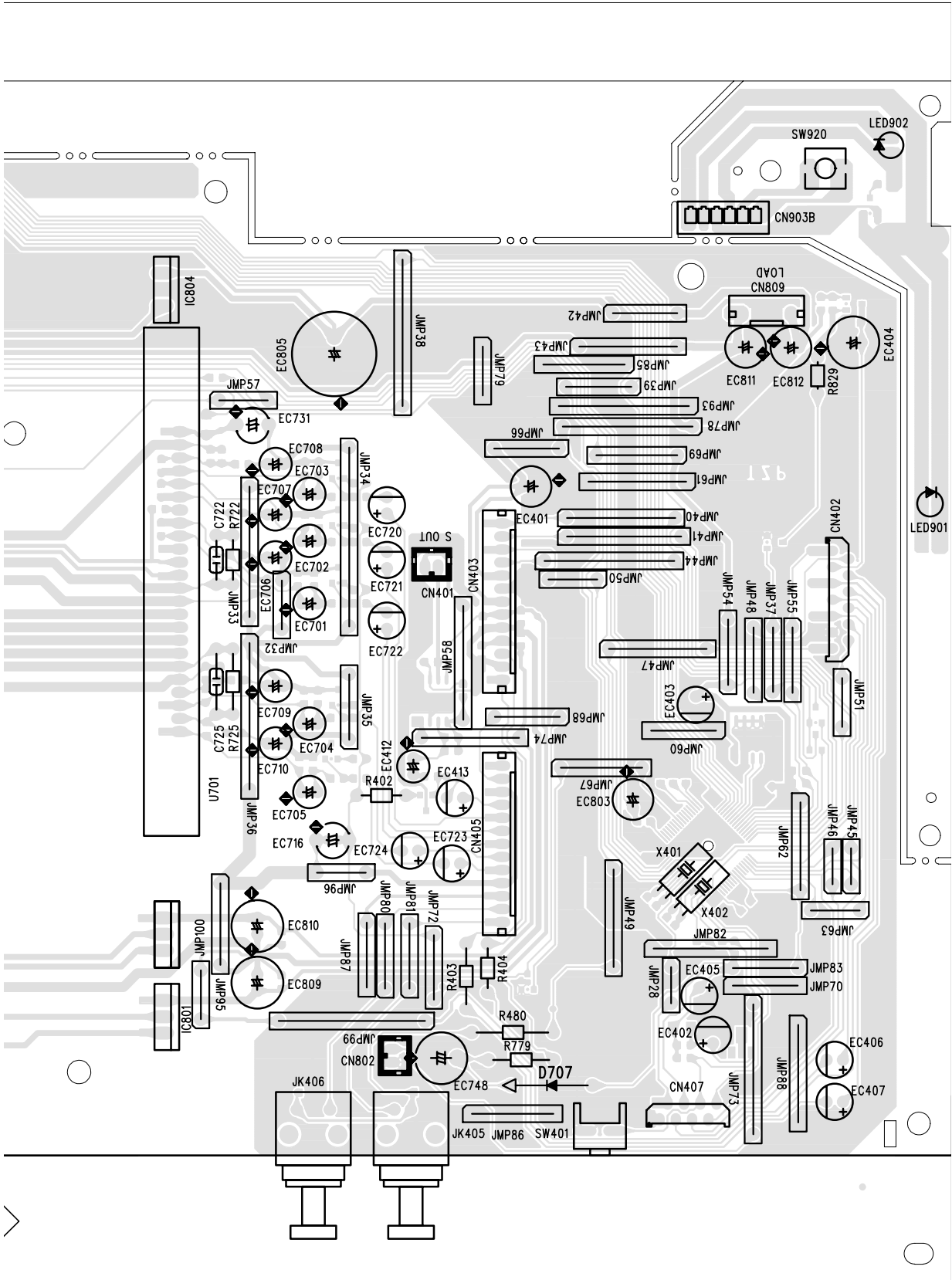
HIGHT VOLTAGE

# MAIN P.C.BOARD TOP

5  
4  
3  
2  
1

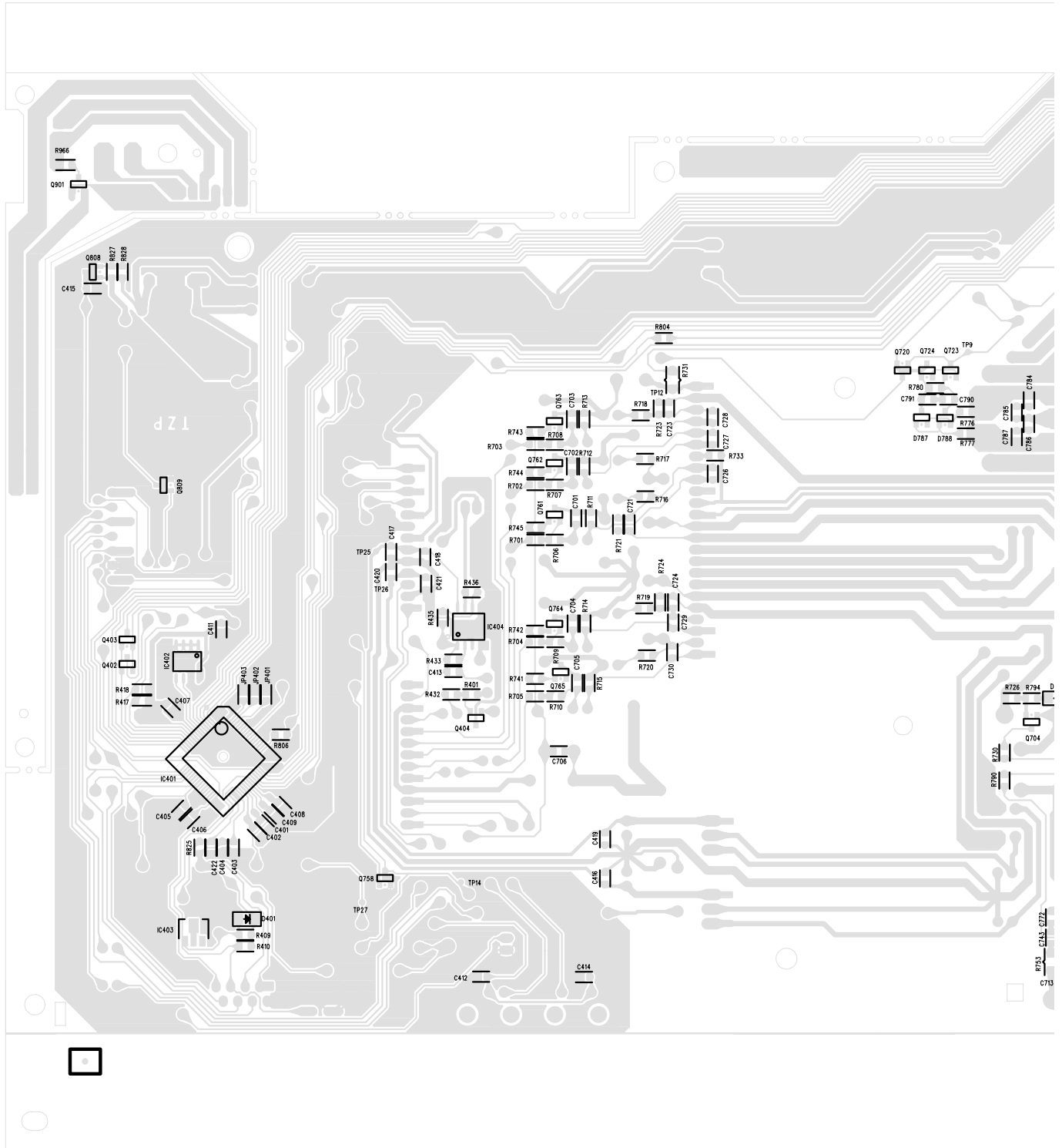


A B C D

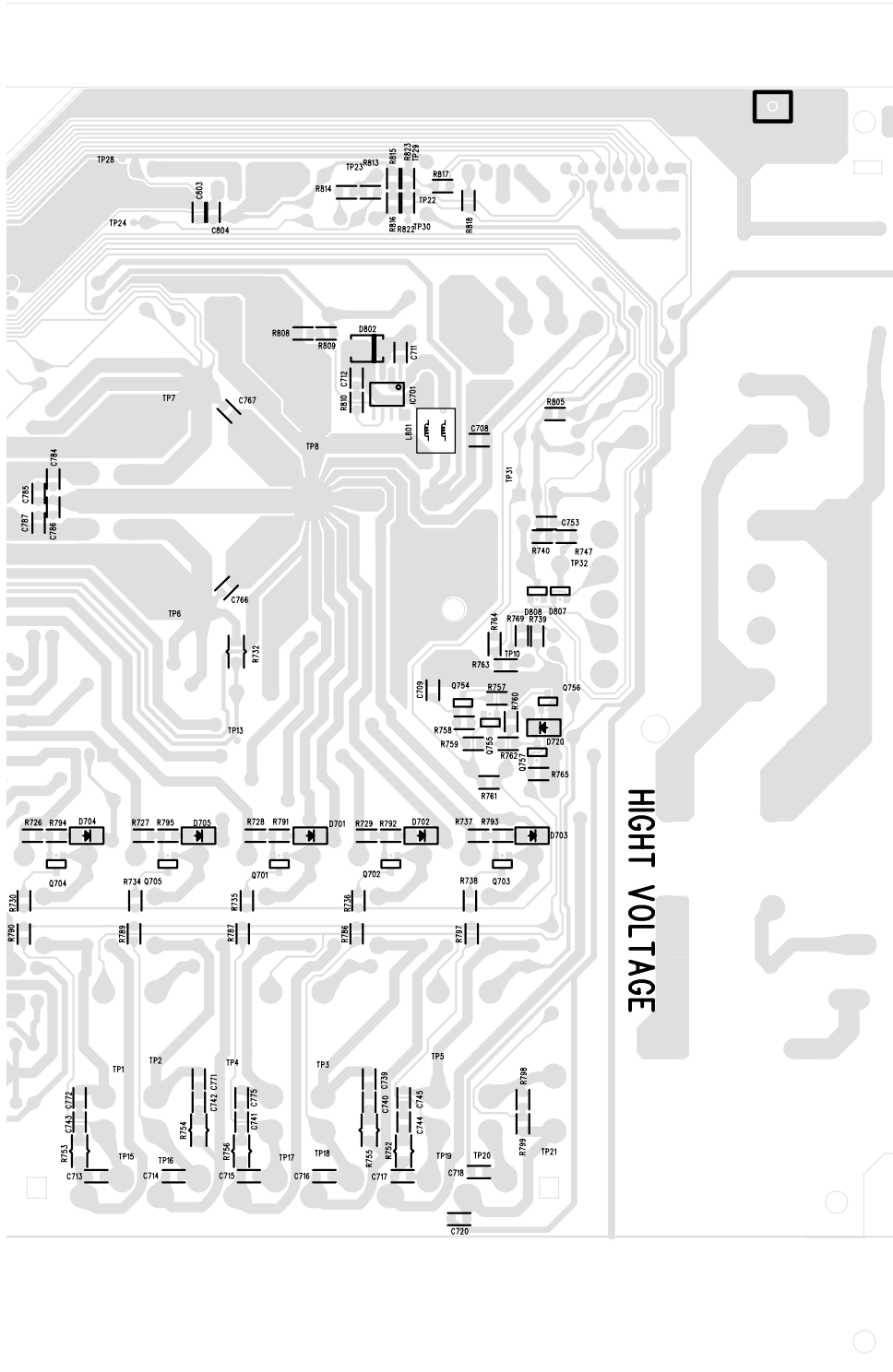


# MAIN P.C.BOARD BOTTOM

5  
4  
3  
2  
1



2-30 A B C D



# PARTS LIST

[ TH-A35 ]

\* All printed circuit boards and its assemblies are not available as service parts.

## Area suffix

J ----- U.S.A.  
C ----- Canada

### - Contents -

Exploded view of general assembly and parts list (Block No.M1) .....	3- 2
Electrical parts list (Block No.01~05).....	3- 6
Packing materials and accessories parts list (Block No.M3,M5).....	3-10

### - Note-

Parts number of normal capacitors and normal resistors doesn't listed on the parts list

# Exploded view of general assembly and parts list

Block No. M 1 M M

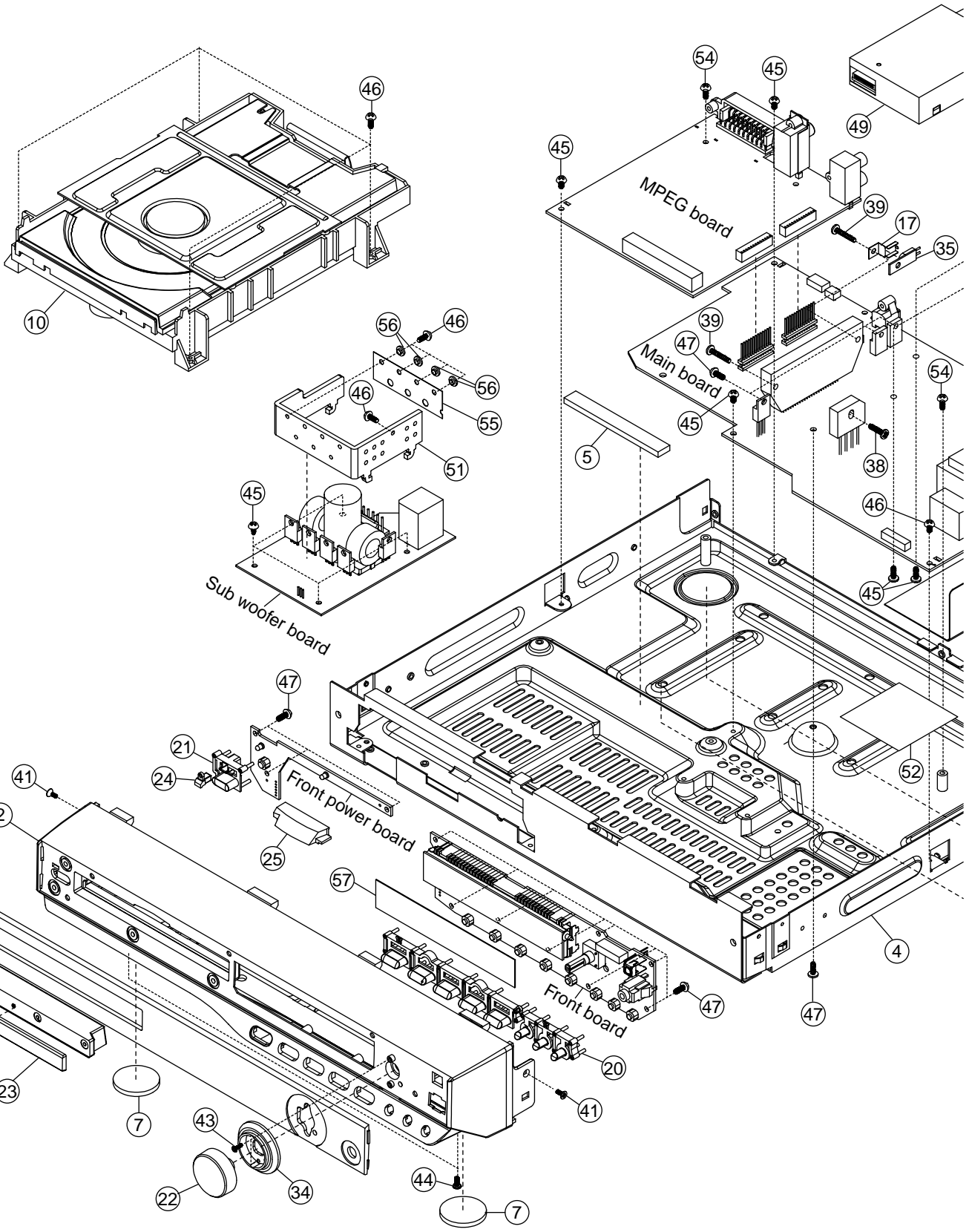
5

4

3

2

1

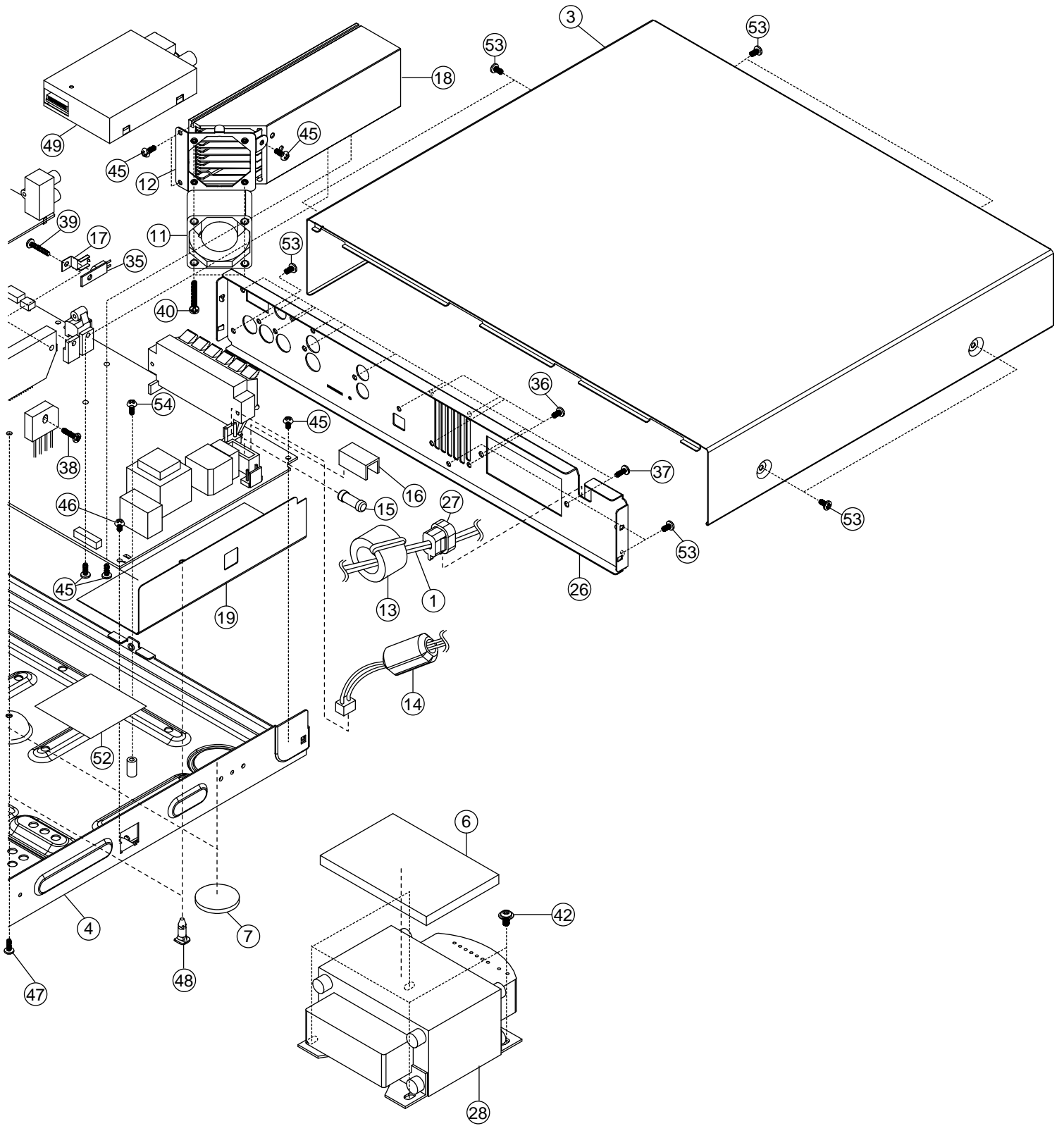


A

B

C

D





## ■ Parts list (General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
△	1	BI1401181	AC-CORD	1		
	2	BI107373010101	FRONT CABINET	1		
	3	BI202514010101	TOP CABINET	1		
	4	BI202516010101	CHAS MAIN	1		
	5	BI301968010101	COPPER-CLOTH-PAD	1		
	6	BI301935010101	CUSHION-PT	1		
	7	BI301934010101	CUSHION FOOT	4		
	8	BI107381010101	DVD DOOR	1		
	9	BI107499010101	DVD LOGO	1		
	10	BI3800111U	DVD MECHA	1	DSL-710A	
	11	BI2400131	FAN4028	1	RDH4028S	
	12	BI202518010101	FAN HLDR	1		
	13	BI18A00401	FERRITE RING	1	M193120190H3	
	14	BI18A00411U	FERRITE TUBE	1	ECRK7-CA2G-B	
△	15	BI403101	FUSE	1	F801/T3.15AL 250V	
	16	BI202591010101	FUSE COVER	1	F801	
	17	BI202603010101	HLDR THERM-R	1	SUS304	
	18	BI202519010101	HT SINK-MAIN	1	6063-T5	
	19	BI301936010101	INSULATION PLATE	1	PC THK=0.5MM	
	20	BI107378010101	KEY FUNC	1		
	21	BI107380010101	KEY POWER	1		
	22	BI107376010101	KNOB VOL	1		
	23	BI107375010101	LENS DOOR-DVD	1		
	24	BI107529010101	LENS POWER	1		
	25	BI107447010101	LENS REFRACT	1		
	26	BI202515010101	PANEL REAR	1		
△	27	BI301789010101	PINCERS	1		
△	28	BI2110210110010	POWER TRANS	1	120V 50HZ	
	34	BI107377010101	RING VOL	1		
	35	BIRT103THMSP015	R THERM	1		
	36	BIBT000604P1	SCREW	4	M3X6MM SILVER	
	37	BIBT000605P1	SCREW	10	M3X8MM SILVER	
	38	BIBT000649	SCREW	1	3X12	
	39	BIBT000654	SCREW	2	3X16	
	40	BIBT000645	SCREW	2	3X30	
	41	BIKM000301	SCREW	2	23X6	
	42	BIPMW001101S31	SCREW	4	4X8	
	43	BIPT000203	SCREW	2	2X6	
	44	BIPT000626	SCREW	2	3X6	
	45	BIRT000604S3	SCREW	13	3X6	
	46	BIRT000624S3	SCREW	10	3X8	
	47	BIRT000611B3	SCREW	15	M3X8 YELLOW	
	48	BI301937010101	SPACER	2	NYLON66	
	49	BIZ25091801V	TUNER-BOX	1	KST-MV114MA1-B	
	50	BI107374010101	WINDOW DISP	1		
	51	BI202521010101	HEAT SINK	1		
	52	BI3020190101U1	INSULATION PLATE	1		
	53	BIBT000604S1	SCREW	9	M3X6MM SILVER	

## ■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	54	BIRT000606S3	SCREW	2	3X8	
	55	BI301939010101	SILICONE RUBBER	1		
	56	BI3017520101U1	WASHER	4		
	57	BI107500010101	VFD FILTER	1		

## ■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	CN402	BI12S130034	CONNECTOR	13P FFC/FPC P=1.25	
	CN403	BI12S130031	HEADER	13PINS P=2.0	
	CN404	BI12S130027	CONNECTOR	13P V FFC/FPC P=1.25	
	CN405	BI12S130031	HEADER	13PINS P=2.0	
	CN406	BI12S30063	SOCKET CONNECTOR	3PINS	
	CN802	BI12S200161	SOCKET CONNECTOR	2PINS	
	CN803	BI12S40072	SOCKET CONNECTOR	4PINS	
	CN804	BI12S30068	SOCKET CONNECTOR	3PIN	
	CN805	BI12S30068	SOCKET CONNECTOR	3PIN	
	CN808	BI12S200161	SOCKET CONNECTOR	2PINS	
	CN809	BI12S40074	CONNECTOR	4PINS PITCH 90	
△	C801	BICT224275M	CAPACITANCE	0.22UF 275V	
△	C802	BICT224275M	CAPACITANCE	0.22UF 275V	
	DB701	BI3RS8021	BRIDGERECTIFIER	8A/100V	
	D401	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D701	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D702	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D703	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D704	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D705	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D706	IN4148	DIODE	BI31N4148M0007	
	D713	IN4148	DIODE	BI31N4148M0007	
	D720	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D787	MC2836	SMD C-DIODE	BI3MC2836A002H	
	D788	MC2838	SMD C-DIODE	BI3MC2838A002H	
	D801	IN4148	DIODE	BI31N4148M0007	
	D802	SS13	SMD SCHOTTKY	BI3SS13A0080	
	D806	RS402	C-DIODE	BI3RS4021	
	D807	MC2838	SMD C-DIODE	BI3MC2838A002H	
	D808	MC2836	SMD C-DIODE	BI3MC2836A002H	
	D811	MTZJ22B	ZENER DIODE	BI3MTZJ22BM0007	
△	FL801	BI2601081	INDICTOR	10MH	
△	FR705	BI43001060N000	PROTECTOR	3A 491 SERIES	
△	F801	BI403101	FUSE	T3.15AL 250V	
	IC401	UPD780034	U-COM	BI115051	
	IC402	AT24C02	IC	BI111731	
	IC402	PST3445	IC	BI115201	
	IC404	NJM4560	IC	BI112971	
	IC701	7812	IC	BI113041	
	IC701	ZA3020	IC	BI113451	
	IC802	7912	IC	BI113051	
	IC803	KA7805	IC	BI102026	
	IC804	L7812CV	IC	BI115341	
	JK406	BI23F0481	OPTICAL RX	MOF-R3C3	
	JK703	BI2301281	SPEAKER TERMINAL	6CH	
	LED91	BI2801081	LED	BLUE DIA 3MM	
	LED92	BI28SLR342VP010	LED	RED	
	L701	BI2600702	CHOCK COIL	1.0UH	
	L702	BI2600702	CHOCK COIL	1.0UH	
	L703	BI2600702	CHOCK COIL	1.0UH	
	L704	BI2600702	CHOCK COIL	1.0UH	
	L705	BI2600702	CHOCK COIL	1.0UH	
	L801	BI2601121U	SMD CHOKE COIL	CHOKO COIL DC	
	L802	BI26A00101	CHOKE	33UH/2A	
	PCB	BI251199G01VU	MAIN PCB		
△	PT801	BI211021016001	POWER TRANS	120VAC 60HZ	
	Q402	DTA114TK	SMD TRANSISTOR	BI2DTA114TKA011	
	Q403	DTA114TK	SMD TRANSISTOR	BI2DTA114TKA011	
	Q404	DTC323TK	SMD TRANSISTOR	BI2DTC323TKA011	
	Q701	2SA1162GR	SMD TRANSISTOR	BI2SA1162GRA014	
	Q702	2SA1162GR	SMD TRANSISTOR	BI2SA1162GRA014	
	Q703	2SA1162GR	SMD TRANSISTOR	BI2SA1162GRA014	
	Q704	2SA1162GR	SMD TRANSISTOR	BI2SA1162GRA014	

△	Item	Parts number	Parts name	Remarks	Area
	Q705	2SA1162GR	SMD TRANSISTOR	BI2SA1162GRA014	
	Q706	2N5551C	TRANSISTOR	BI2N5551CP000U	
	Q720	2SC2712GR	SMD TRANSISTOR	BI2SC2712GRA014	
	Q723	2SC2712GR	SMD TRANSISTOR	BI2SC2712GRA014	
	Q724	2SA1162GR	SMD TRANSISTOR	BI2SA1162GRA014	
	Q751	2SC2001K	TRANSISTOR	BI2SC2001KP0001	
	Q754	2SA1162GR	SMD TRANSISTOR	BI2SA1162GRA014	
	Q755	2SC2712GR	SMD TRANSISTOR	BI2SC2712GRA014	
	Q756	2SA1162GR	SMD TRANSISTOR	BI2SA1162GRA014	
	Q757	2SC2712GR	SMD TRANSISTOR	BI2SC2712GRA014	
	Q758	2SC2712GR	SMD TRANSISTOR	BI2SC2712GRA014	
	Q761	DTC323TK	SMD TRANSISTOR	BI2DTC323TKA011	
	Q762	DTC323TK	SMD TRANSISTOR	BI2DTC323TKA011	
	Q763	DTC323TK	SMD TRANSISTOR	BI2DTC323TKA011	
	Q764	DTC323TK	SMD TRANSISTOR	BI2DTC323TKA011	
	Q765	DTC323TK	SMD TRANSISTOR	BI2DTC323TKA011	
	Q801	2SA1979	TRANSISTOR	BI2SA19790P0001	
	Q808	2N3906	SMD TRANSISTOR	BI2N3906A0000	
	Q809	DTC114EK	SMD TRANSISTOR	BI2DTC114EKA011	
	Q810	2SD1933	TRANSISTOR	BI22SD19331	
	Q901	2N3904	SMD TRANSISTOR	BI2N3904A0000	
	RY701	BI8RL00191	RELAY	DC 12V ME-7C-012-2H	
	RY702	BI8RL00191	RELAY	DC 12V ME-7C-012-2H	
△	RY703	BI8RL00191	RELAY	DC 12V ME-7C-012-2H	
△	RY801	BI8RL00181	RELAY	DC 12V ME-7-012-HL	
	SW401	BI804721	SWITCH	1101VA-1	
	SW920	BI8EVQ11G05P015	SWITCH	EVQ11G	
	U701	STK402-950	IC	BI115431	
	XXX	BI12P20205U	CONN ASSY	2PIN P=2.0MM	
	XXX	BI12P40257U	F-CADLE	4PNS L=50MM	
	XXX	BI12P50124U	CONN ASSY		
	XXX	BI1205361	CONNECTOR	5PINS 2P=250MM 3P	
	XXX	BI12P20204U	CONNECTOR	2P P=2.0MM	
	X401	BI2102461	CRYSTAL	8.38MHZ	
	X402	BI2101016U	CRYSTAL	32.768KHZ	

## ■ Electrical parts list (Front board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	CN903	BI12S130027	CONNECTOR	13P V FFC/FPC P=1.25	
	CN904	BI12P30217	CONNECTOR	3PINS	
	D907	IN4148	DIODE	BI31N4148M0007	
	D908	IN4148	DIODE	BI31N4148M0007	
	D909	IN4148	DIODE	BI31N4148M0007	
	D910	IN4148	DIODE	BI31N4148M0007	
	D911	IN4148	DIODE	BI31N4148M0007	
	FB901	BI18A843556N000	FILTER BEAD	843556 TB36	
	IC903	RPM676	IC	BI114831	
	IC904	UPD16315	IC	BI115171	
	J2	BI23B0292	HEADPHONE JACK	HTJ-035-1	
	PCB	BI251197G01VU	FRONT PCB		
	SW908	BI8EVQ11G05P015	LIGHT TOUCH SWITCH	EVQ11G	
	SW909	BI8EVQ11G05P015	LIGHT TOUCH SWITCH	EVQ11G	
	SW911	BI8EVQ11G05P015	LIGHT TOUCH SWITCH	EVQ11G	
	SW913	BI8EVQ11G05P015	LIGHT TOUCH SWITCH	EVQ11G	
	SW914	BI8EVQ11G05P015	LIGHT TOUCH SWITCH	EVQ11G	
	SW916	BI8EVQ11G05P015	LIGHT TOUCH SWITCH	EVQ11G	
	SW918	BI8EVQ11G05P015	LIGHT TOUCH SWITCH	EVQ11G	
	SW919	BI8EVQ11G05P015	LIGHT TOUCH SWITCH	EVQ11G	
	VL901	BI2701951	VFD		
	Y901	BI804291	ROTRY SWITCH	RE012104PVB25FINB	
	XXX	BI12P60144U	CONNECTOR	6PIN WIRE PITCH=2.0MM	
	XXX	BI202520010101	HLDR VFD	HLDR VFD	
	XXX	BI202579010101	HLDR SENSOR	0.3MM SPTE	
	XXX	BI301903010101	VFD PAD	CORD WITH TWO ADH	

## ■ Electrical parts list (Electrical assembly)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area
	XXX	BI11AT060W0	WIRE ASSY	1P L=60MM W 8M	
	XXX	BI12P20205U	CONN ASSY	2P P=2.0MM L=60MM	
	XXX	BI1205411	F-CABLE	4PINS P=3.94MM	
	XXX	BI12P40254U	CONN ASSY	4P P=2.5MM L=80MM	
	XXX	BI1205431	DRIVE CABLE	40PINS IDE	
	XXX	BI1205461	F-FFC	13PINS P=1.25MM	
	XXX	BI1205471	F-FFC	13PINS P=1.25MM	

## ■ Electrical parts list (Sub woofer board)

Block No. 03

△	Item	Parts number	Parts name	Remarks	Area
	D601	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D602	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D603	SK110	SMD SCHOTTKY DIODE	BI3SK110A0000	
	D604	SK110	SMD SCHOTTKY DIODE	BI3SK110A0000	
	D605	SK110	SMD SCHOTTKY DIODE	BI3SK110A0000	
	D606	SK110	SMD SCHOTTKY DIODE	BI3SK110A0000	
	IC601	LX1711CDB	IC	BI115351	
	IC602	NJM7815	IC	BI115071	
	IC603	IR2110	IC	BI115361	
	IC604	IR2110	IC	BI115361	
	J602	BI12S50144	SOCKET	5PINS P/3.96M	
	J603	BI12S30063	SOCKET CONNECTOR	3PINS	
	L601	BI26A00131	COIL	33UH/5A K	
	L602	BI26A00131	COIL	33UH/5A K	
	PCB	BI251209B01V	SUB WOOFER PCB		
	Q601	IRF530N	POWER MOSFET	BI221RF530N1	
	Q602	IRF530N	POWER MOSFET	BI221RF530N1	
	Q603	2SC3052	SMD TRANSISTOR	BI2SC3052FA013	
	Q604	2SBT5401	SMD TRANSISTOR	BI2SBT5401A017	
	Q605	IRF530N	POWER MOSFET	BI221RF530N1	
	Q606	IRF530N	POWER MOSFET	BI221RF530N1	

## ■ Electrical parts list (MPEG board)

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area
	CON1	BI12S130032	SOCKET	13PINS P=2.0	
	CON2	BI12S130032	SOCKET	13PINS P=2.0	
	D1	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D10	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D11	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D12	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D14	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D15	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D17	IN4148	DIODE	BI31N4148M0007	
	D2	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D3	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D4	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D7	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D8	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	D9	LL4148	SMD SWITCH DIODE	BI3LL4148A0180	
	FB1	BI18A843556N00	FILTER BEAD	843556 TB36	
	FB10	BI26BLM21BA000	SMD COIL	BLM21B272S	
	FB12	BI26BLM21BA000	SMD COIL	BLM21B272S	
	FB14	BI26BLM21BA000	SMD COIL	BLM21B272S	
	FB33	BI18A843556N000	FILTER BEAD	843556 TB36	
	FB34	BI26BLM21BA000	SMD COIL	BLM21B272S	
	FB35	BI18A843556N000	FILTER BEAD	843556 TB36	
	FB38	BI18A843556N000	FILTER BEAD	843556 TB36	
	FB39	BI18A843556N000	FILTER BEAD	843556 TB36	
	FB44	BI18A916221A005	SMD FILTER BEAD	220OHM 100MHZ	
	FB45	BI18A916221A005	SMD FILTER BEAD	220OHM 100MHZ	
	FB46	BI18A916221A005	SMD FILTER BEAD	220OHM 100MHZ	
	FB53	BI26BLM21BA000	SMD COIL	BLM21B272S	
	FB54	BI18A916221A005	SMD FILTER BEAD	220OHM 100MHZ	
	FB55	BI18A916221A005	SMD FILTER BEAD	220OHM 100MHZ	
	FB56	BI18A916221A005	SMD FILTER BEAD	220OHM 100MHZ	
	FB6	BI26BLM21BA000	SMD COIL	BLM21B272S	
	FB8	BI26BLM21BA000	SMD COIL	BLM21B272S	
	FB9	BI26BLM21BA000	SMD COIL	BLM21B272S	
	JK1	BI2301131	CONNECTOR	CONNECTOR	
	JR5	BI2301141	RCA CONN.	AV2-8.4-13	
	J1	BI12S400006	VERTICAL IDE SOCKET	40PIN	
	J3	BI2301121	CONNECTOR	CONNECTOR	
	J7	BI12S40072	SOCKET CONNECTOR	4PINS	
	L1	BI26018000KA002	SMD C-COIL	1.8UH K 2012	
	L2	BI26018000KA002	SMD C-COIL	1.8UH K 2012	
	L3	BI26018000KA002	SMD C-COIL	1.8UH K 2012	
	L4	BI26018000KA002	SMD C-COIL	1.8UH K 2012	
	L5	BI26018000KA002	SMD C-COIL	1.8UH K 2012	
	L6	BI26018000KA002	SMD C-COIL	1.8UH K 2012	
	L7	BI18HG102SNA005	SMD FILTER BEAD	1000OHM 100MHZ	
	PCB	BI251198B01V	MPEG PCB		
	P1	BI2301221	SCART	21PINS FEMALE	
	Q14	2SC2712GR	TRANSISTOR	BI2SC2712GRA014	
	Q15	2N3904	SMD TRANSISTOR	BI2N3904A0000	
	Q9	2N3906	SMD TRANSISTOR	BI2N3906A0000	
	RN1	BIRN3300165A006	SMD RES. ARRAY	4X33OHM	
	RN10	BIRN5100165A006	SMD RES. ARRAY	4X51OHM	
	RN11	BIRN5100165A006	SMD RES. ARRAY	4X51OHM	
	RN12	BIRN5100165A006	SMD RES. ARRAY	4X51OHM	
	RN13	BIRN5100165A006	SMD RES. ARRAY	4X51OHM	
	RN14	BIRN5100165A006	SMD RES. ARRAY	4X51OHM	
	RN15	BIRN5100165A006	SMD RES. ARRAY	4X51OHM	
	RN16	BIRN5100165A006	SMD RES. ARRAY	4X51OHM	
	RN19	BIRN5100165A006	SMD RES. ARRAY	4X51OHM	
	RN2	BIRN3300165A006	SMD RES. ARRAY	4X33OHM	
	RN3	BIRN3300165A006	SMD RES. ARRAY	4X33OHM	
	RN4	BIRN3300165A006	SMD RES. ARRAY	4X33OHM	

△	Item	Parts number	Parts name	Remarks	Area
	RN5	BIRN3300165A006	SMD RES. ARRAY	4X33OHM	
	RN6	BIRN3300165A006	SMD RES. ARRAY	4X33OHM	
	RN7	BIRN4720165A006	SMD RES. ARRAY	4X4.7K	
	RN8	BIRN4720165A006	SMD RES. ARRAY	4X4.7K	
	RN9	BIRN5100165A006	SMD RES. ARRAY	4X51OHM	
	U1	WM8770	SMD IC	BI115041	
	U10	NJM4560	SMD IC OP-AMP	BI112971	
	U11	AT24C0	SMD IC	BI111731	
	U12	16BITFLASH	SMD IC	BI114591	
	U14	K4S643232F	SMD IC	BI115181	
	U17	AK4112B	SMD IC	BI114571	
	U20	NJM4560	SMD IC OP-AMP	BI112971	
	U21	MC14053B	SMD IC	BI115151	
	U3	NLAS4599	SMD IC	BI114581	
	U4	NJM4560	SMD IC OP-AMP	BI112971	
	U5	NJM4560	SMD IC OP-AMP	BI112971	
	U6	AS1117	SMD IC	BI113411	
	U7	AMS1117-3.3	SMD IC	BI111501	
	U8	SN74HCU04	SMD IC	BI111413U	
	U9	ZR36751	SMD IC	BI114541	
	Y1	BI2102271	CRYSTAL	27.000MHZ	
	Y2	BI2102441	CRYSTAL	12.288MHZ	

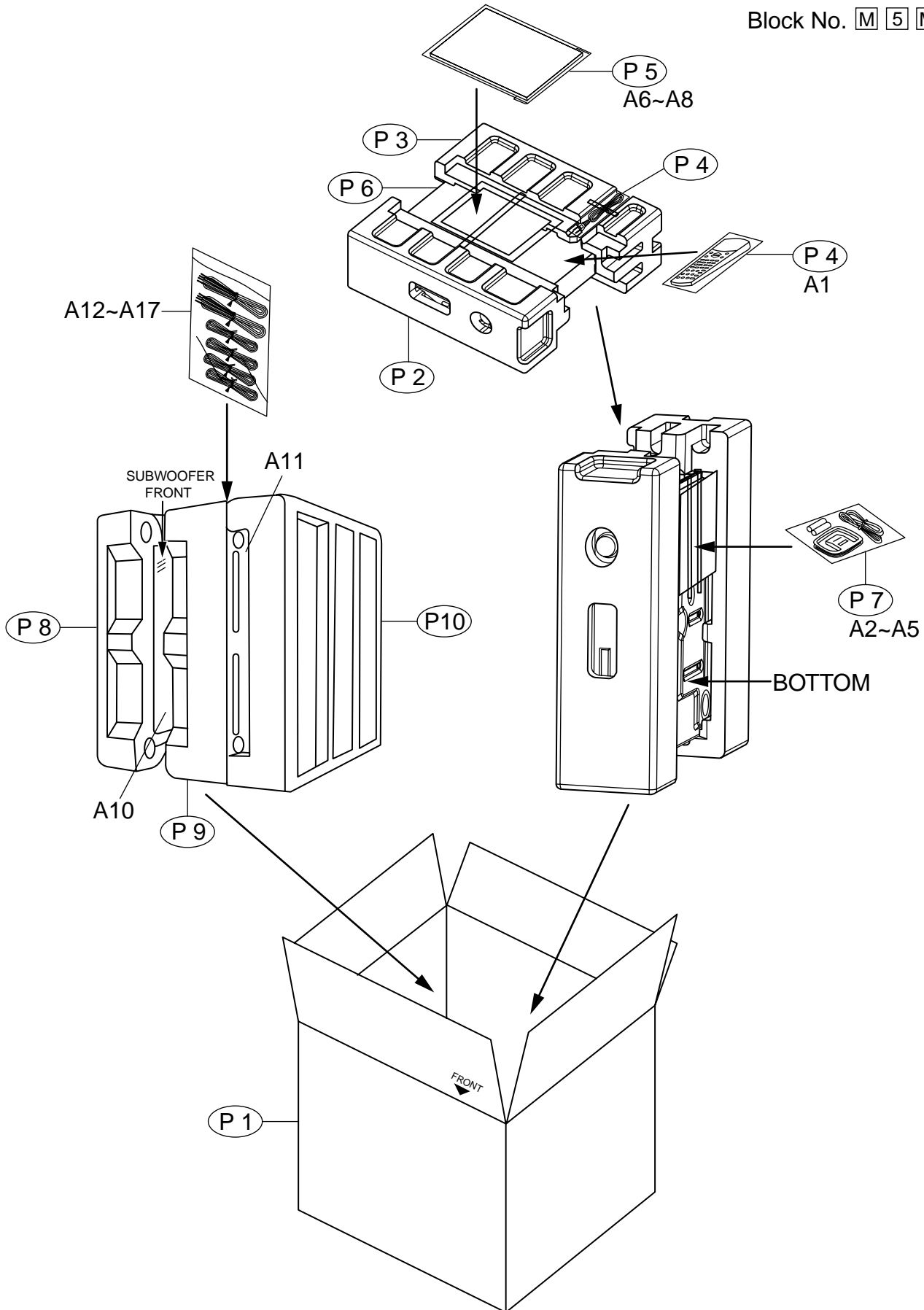
# Packing materials and accessories parts list

Block No. 

M	3	M	M
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Block No. 

M	5	M	M
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### ■ Parts list (Packing)

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	BI4312931	CARTON BOX	1		
	P 2	BI4512071	POLY FORM	1	FRONT	
	P 3	BI4512081	POLY FORM	1	REAR	
	P 4	BI4005355	POLY BAG	2	REMOTE&POWER CORD	
	P 5	BI4710311	POLY BAG	1	INSTRUCTIONS	
	P 6	BI4512151	EPE FOAM BAG	1	UNIT	
	P 7	BI4710571U	POLY BAG	1	ANT LOOP	
	P 8	BI4512371	POLY FORM	1	LEFT	
	P 9	BI4512381	POLY FORM	1	MIDDLE	
	P10	BI4512391	POLY FORM	1	RIGHT	

### ■ Parts list (Accessories)

Block No. M5MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	BI600THA35050	REMOTE CONTROL	1		
	A 2	BIAN01141	ANTENN LOOP	1		
	A 3	-----	ABTTERY	2		
	A 4	BIAN01051	FM ANT WIRE	1		
	A 5	BI11F3000SA30U	VIDE AUDIO CABLE	1		
	A 6	BI4411701	INSTRUXIONS	1	LVT1009-001C	J
		BI4412231U	INSTRUXIONS	1	LVT1009-002B	C
	A 7	BI4032612	REGISTRATION CARD	1		J
		BI4032602	SAFETY GUID	1		
	A 8	BI4032831	SERVICE CENTRES	1		C
		BI4032823	WARV CARD	1		C
	A10	BI601WTH35050	SUB WOOFER SPEAKER	1	SP-WA35	
	A11	BI601STH35050	SATELLITE SPEAKER	5	SP-THA35F	
	A12	BI11C6000R11	SPEAKER CORD SUB	1	6M/BLUE	
	A13	BI11C6000R12	SPEAKER CORD L	1	6M/WHITE	
	A14	BI11C6000R13	SPEAKER CORD R	1	6M/RED	
	A15	BI11C6000R14	SPEAKER CORD C	1	6M/YELLOW	
	A16	BI11C10000R15	SPEAKER CORD RS	1	10M/BROWN	
	A17	BI11C10000R16	SPEAKER CORD LS	1	10M/GREEN	

**JVC**

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