

9CD8308000

Service Manual

Mini Component Sound System

Model : NC-8809E/NC-8809EK



DAEWOO **DAT** CO., LTD.

May. 2009

Mini component sound system

NC-8809E/NC-8809EK

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Safety Precautions

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

	CAUTION RISK OF ELECTRIC SHOCKS DO NOT OPEN	
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		
	THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.	
	THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.	

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

LASER SAFETY

THIS UNIT EMPLOYS A LASER. ONLY QUALIFIED SERVICE PERSONNEL SHOULD REMOVE THE COVER OR ATTEMPT TO SERVICE THIS DEVICE DUE TO POSSIBLE EYE INJURY.

CAUTION : USE OF ANY CONTROLS, ADJUSTMENTS, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION : TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION : POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

Important Safety Instructions

- All the safety and operating instructions should be read before the appliance is operated.
 - The safety and operating instructions should be retained for future reference.
 - All warnings on the appliance and in the operating instructions should be adhered to.
 - All operating and use instructions should be followed.
1. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink,

laundry tub, in a wet basement, or near a swimming pool, and the like.

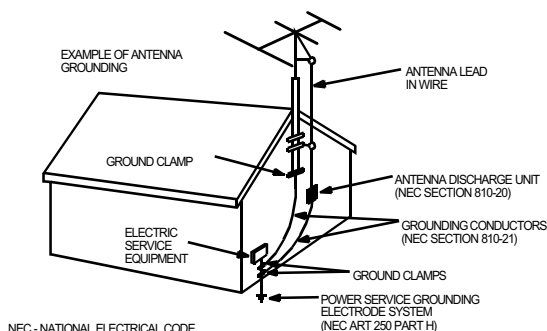
PORTABLE CART



Figure 2

2. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
3. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
4. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
5. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
6. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
7. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
8. Grounding or Polarization - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
9. Power - Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
10. Protective Attachment Plug - If the appliance is equipped with an attachment plug having overload protection. This is a safety feature. See Instruction Manual for replacement or resetting of protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug specified by the manufacturer that has the same overload protection as the original plug.
11. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
12. Power Lines - An outdoor antenna should be located away from power lines.

13. Outdoor Antenna Grounding - If an outside antenna is connected to the receiver be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes and requirements for the grounding electrode. See Figure 1.



14. Non-use Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

15. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

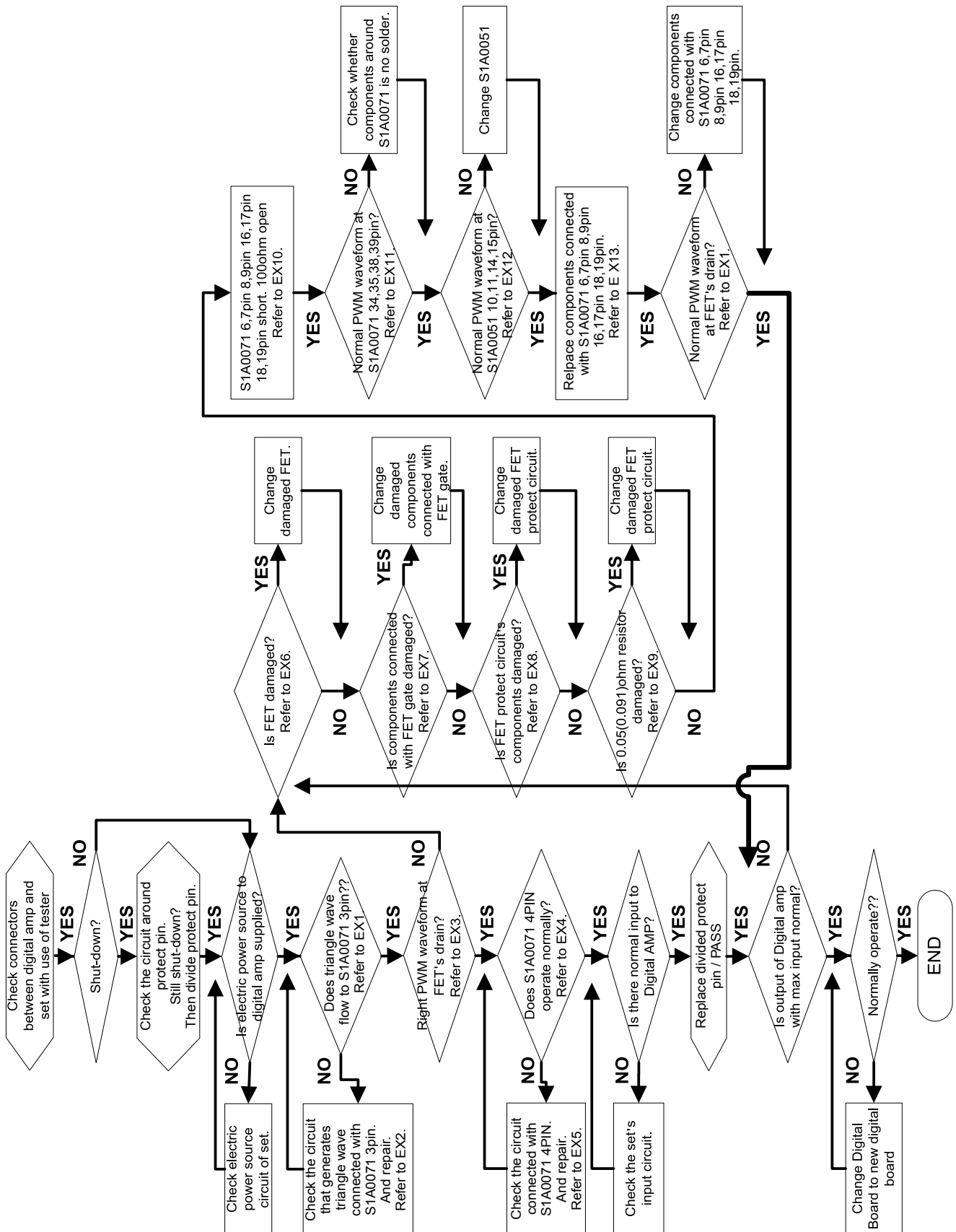
16. Damage Requiring Service - The appliance should be serviced by qualified service personnel when:

- a) The power-supply cord or the plug has been damaged; or
- b) Objects have fallen, or liquid has been spilled into the appliance; or
- c) The appliance has been exposed to rain; or
- d) The appliance does not appear to operate normally or exhibits a marked change in performance; or
- e) The appliance has been dropped, or the enclosure damaged.

17. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

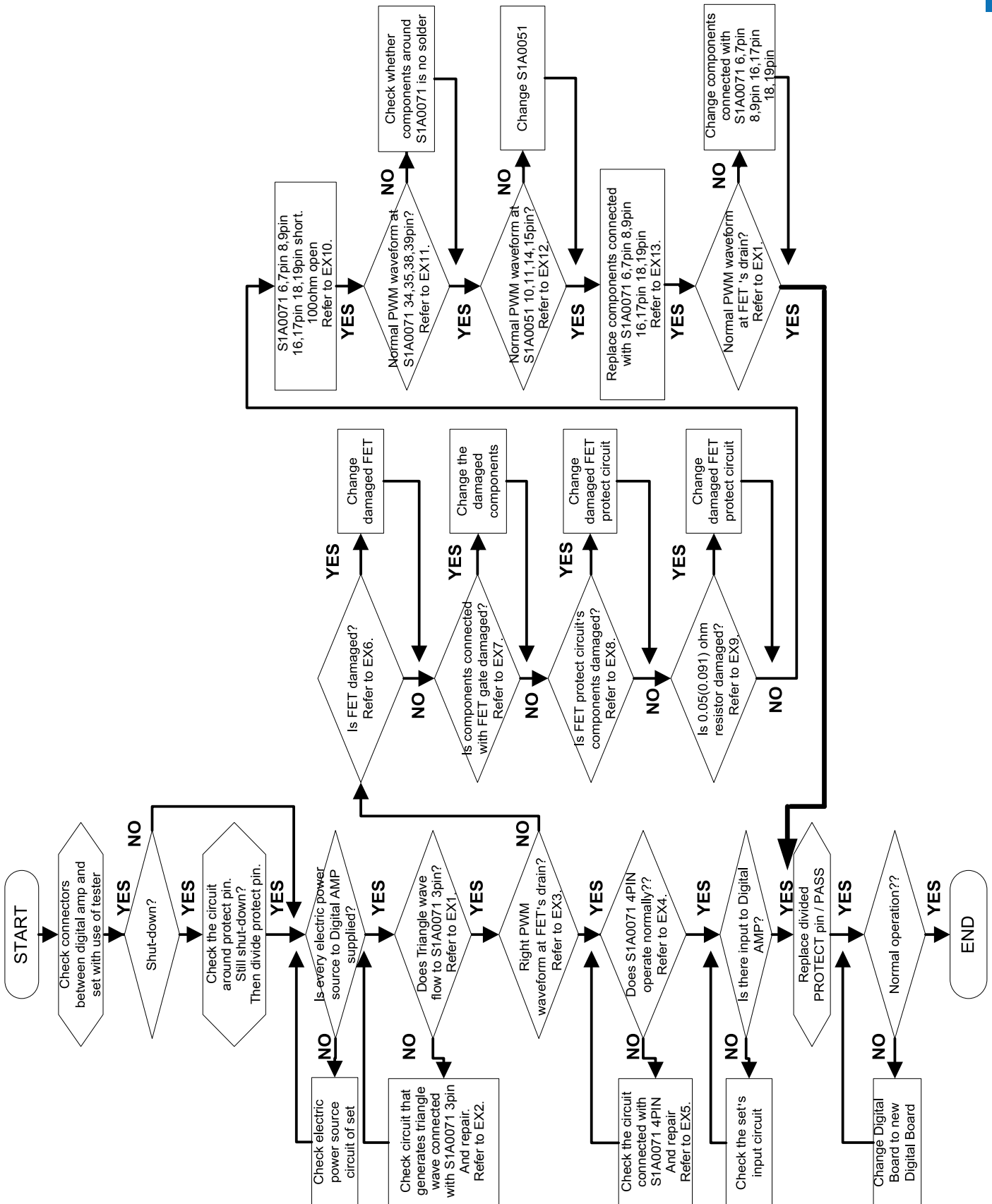
Trouble Shooting Guide

● AMP Flow Chart-No Output Signal



Trouble Shooting Guide

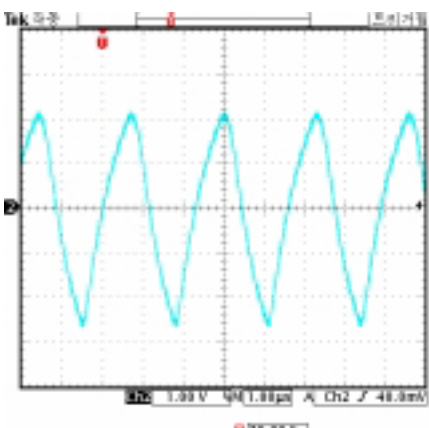
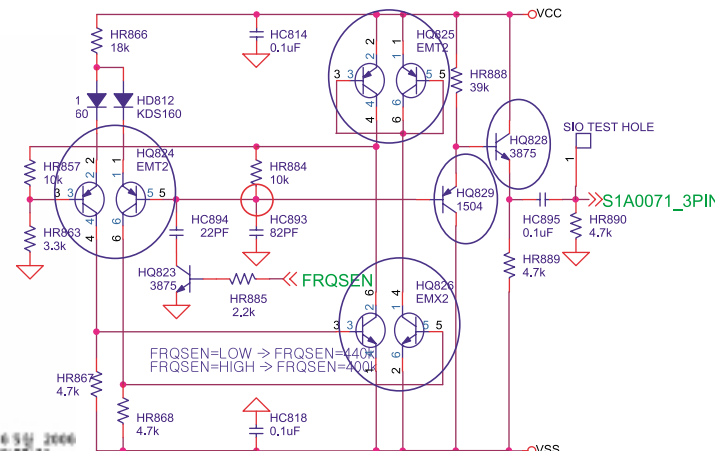
● AMP Flow Chart-Abnormal Output Signal



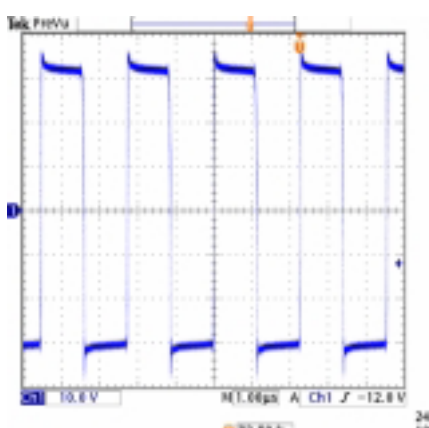
Trouble Shooting Guide

2

● AMP Flow Chart-Test Point and Expected Results(Ex1, 2)

EX.	DESCRIPTION
EX1. EX2.	 FIG1. TRIANGLE WAVE  FIG2. TRIANGLE WAVE GENERATOR CIRCUIT □ Triangle wave's frequency is about 440kHz. (tolerance is roughly 5% by component 'devition.) □ If output at S1A0071 3Pin is Abnormal triangle wave, 1)open HQ829, 2) check HQ829' Base(also must be trinagle wave) if ok => check HQ 828 and etc if no => HQ824/825/825/823 and etc □ CAUTION : Before AC cord in, check HQ824/825/826 is short or open

● AMP Flow Chart-Test Point and Expected Results(Ex3)

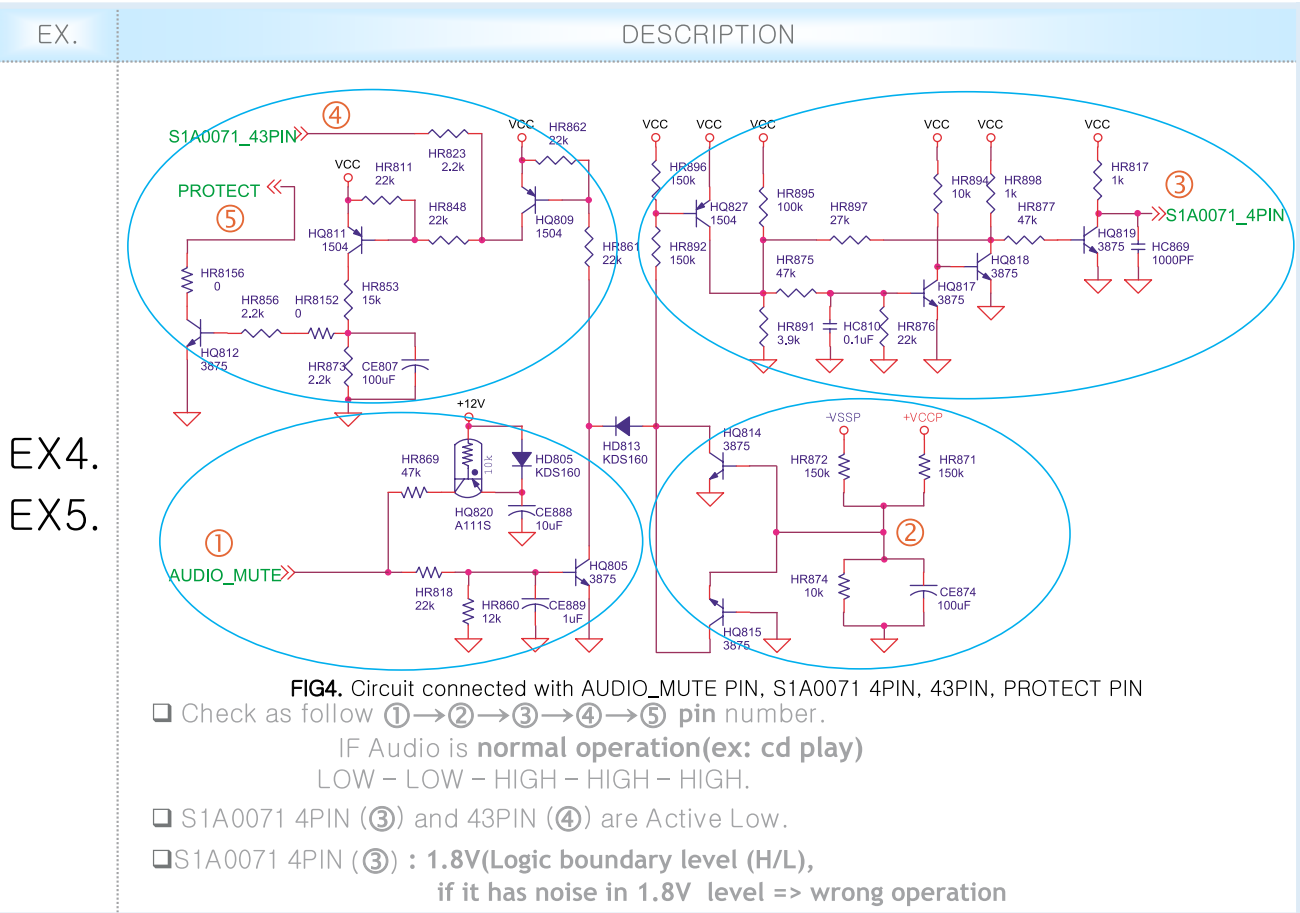
EX.	DESCRIPTION
EX3.	 FIG3. FET Drain Waveform (PWM Waveform) FET Drain waveform □ IF no singnal source =>FET drain waveform. 1) Period: 2.3us(440kHz). 2) DUTY : 50%. 3) Amplitude is $\pm$AMP POWER.

Trouble Shooting Guide

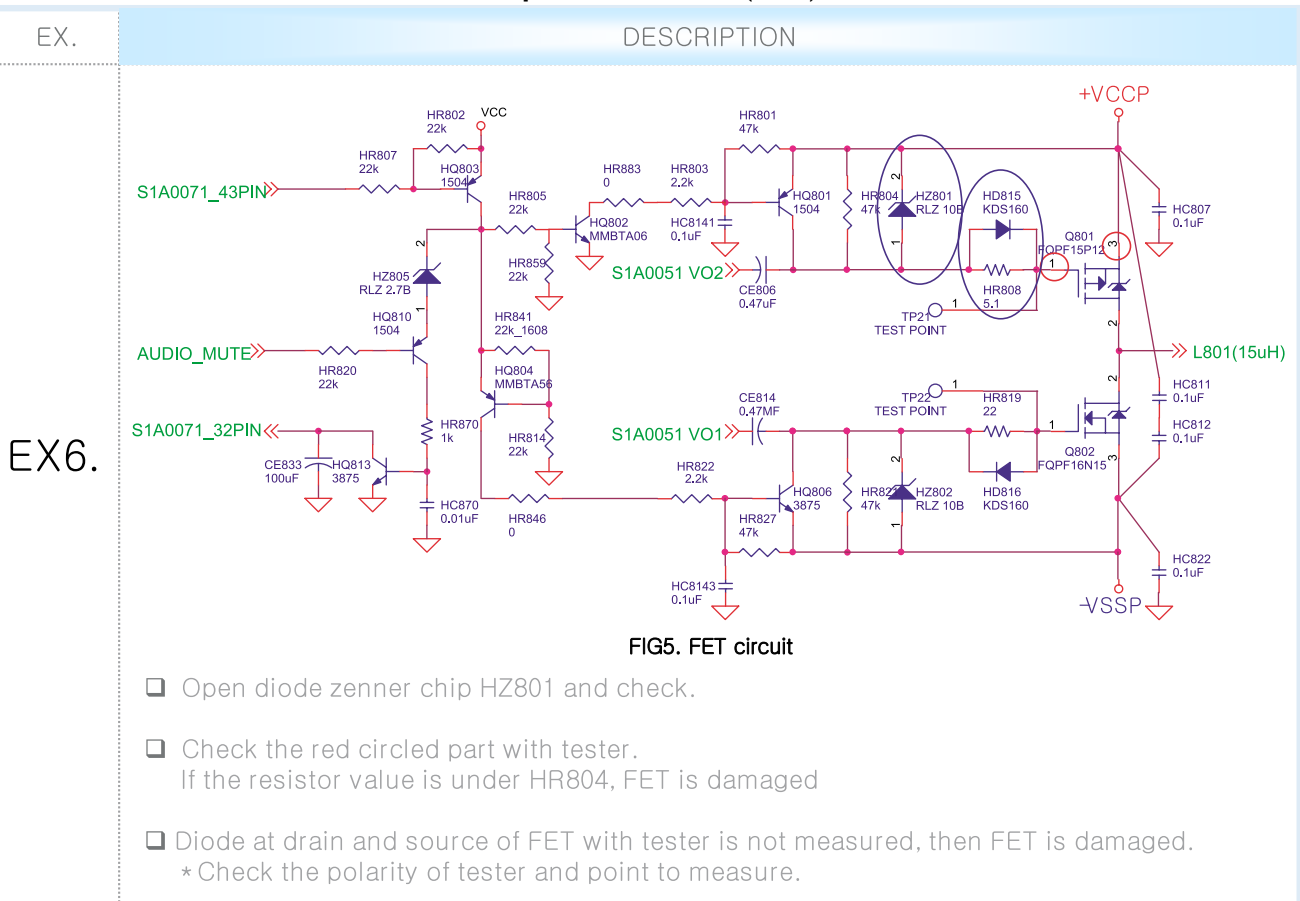
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● AMP Flow Chart-Test Point and Expected Results(Ex4, 5)

2



● AMP Flow Chart-Test Point and Expected Results(Ex6)



2

EX7.
EX8.

- ❑ Check the component's values connected with FET gate with use of tester.
- ❑ Check whether TR chip **used in FET protect circuit** is damaged.
(If base and emitter are not measured with tester, HQ801 Transistor is damaged.)
* Check the tester's polarity.

EX7.
EX8.

EX7.
EX8.

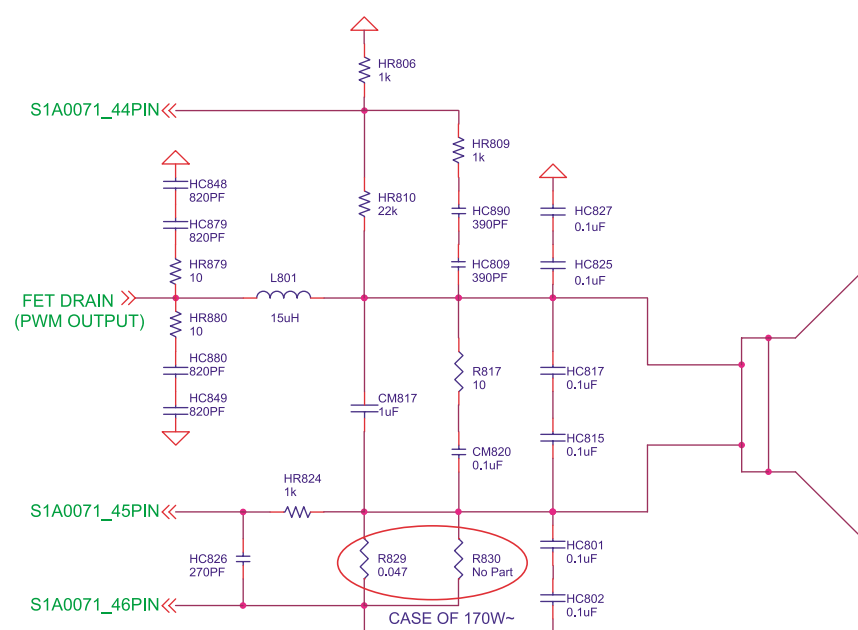
- ❑ Check the component's values connected with FET gate with use of tester.
- ❑ Check whether TR chip **used in FET protect circuit** is damaged.
(If base and emitter are not measured with tester, HQ801 Transistor is damaged.)
* Check the tester's polarity.

Trouble Shooting Guide

2

● AMP Flow Chart-Test Point and Expected Results(Ex9)

2

EX.	DESCRIPTION
EX9.	 FIG7. 0.047Ω(0.091Ω) resistor location □ Check whether R829 value is 0.047Ω with tester. > Normal measurement apparatus can't this point (At over 170Watt channel, value of R829 and R830 is 0.091Ω. They are parallel connection so their each value is 0.0455Ω)

● AMP Flow Chart-Test Point and Expected Results(Ex10, 13)

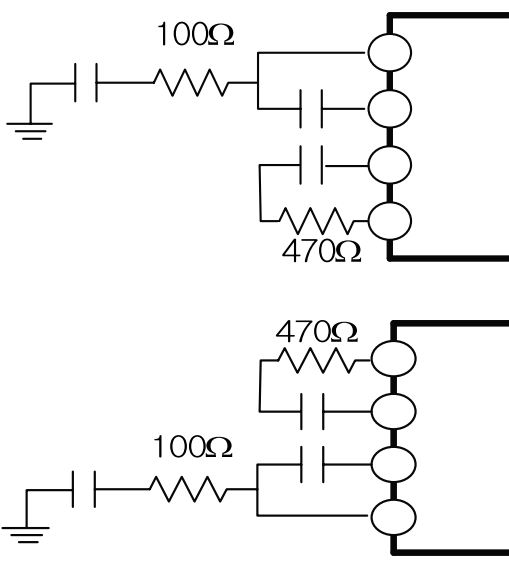
EX.	DESCRIPTION
EX10. EX13.	 □ Component values not to set as FIG8 are cause of wrong operation. (Refer to S1A0071 PIN DESCRIPTION) □ Check whether FET protect circuit is damaged. (If Diode of base and emitter isn't measured, TR is damaged.) * Check the tester's polarity. If this values NG -> sometimes OSC To test 6,7,8,9 pin short. 16,17,18,19 pin short. 100ohm open > Current Feedback is stable > But THD is not good

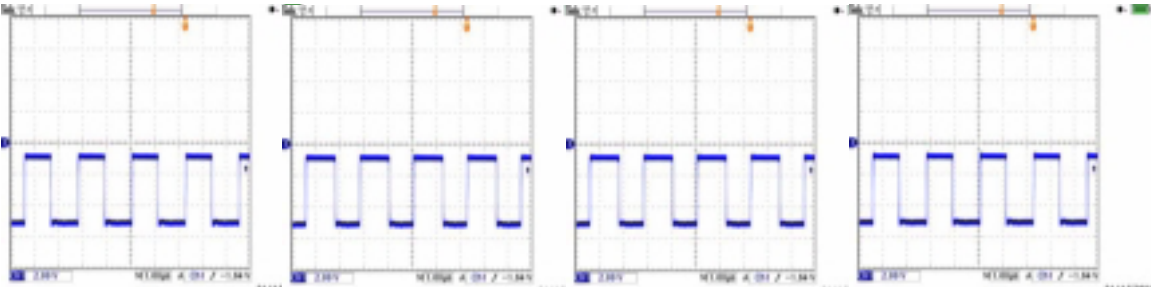
FIG8. S1A0071 6, 7, 8, 9 PIN and 16, 17, 18, 19 PIN

Trouble Shooting Guide

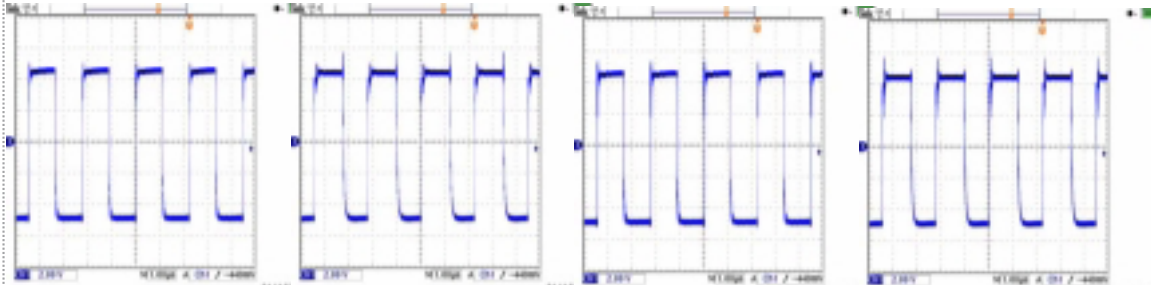
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● AMP Flow Chart-Test Point and Expected Results(Ex11)

2

EX.	DESCRIPTION
EX11.	 FIG9. S1A0071 34PIN FIG10. S1A0071 35PIN FIG11. S1A0071 38PIN FIG12. S1A0071 39PIN □ Waveform's period is about 2.3us(440kHz). □ Waveform's amplitude is values between -0.7V and -5V.

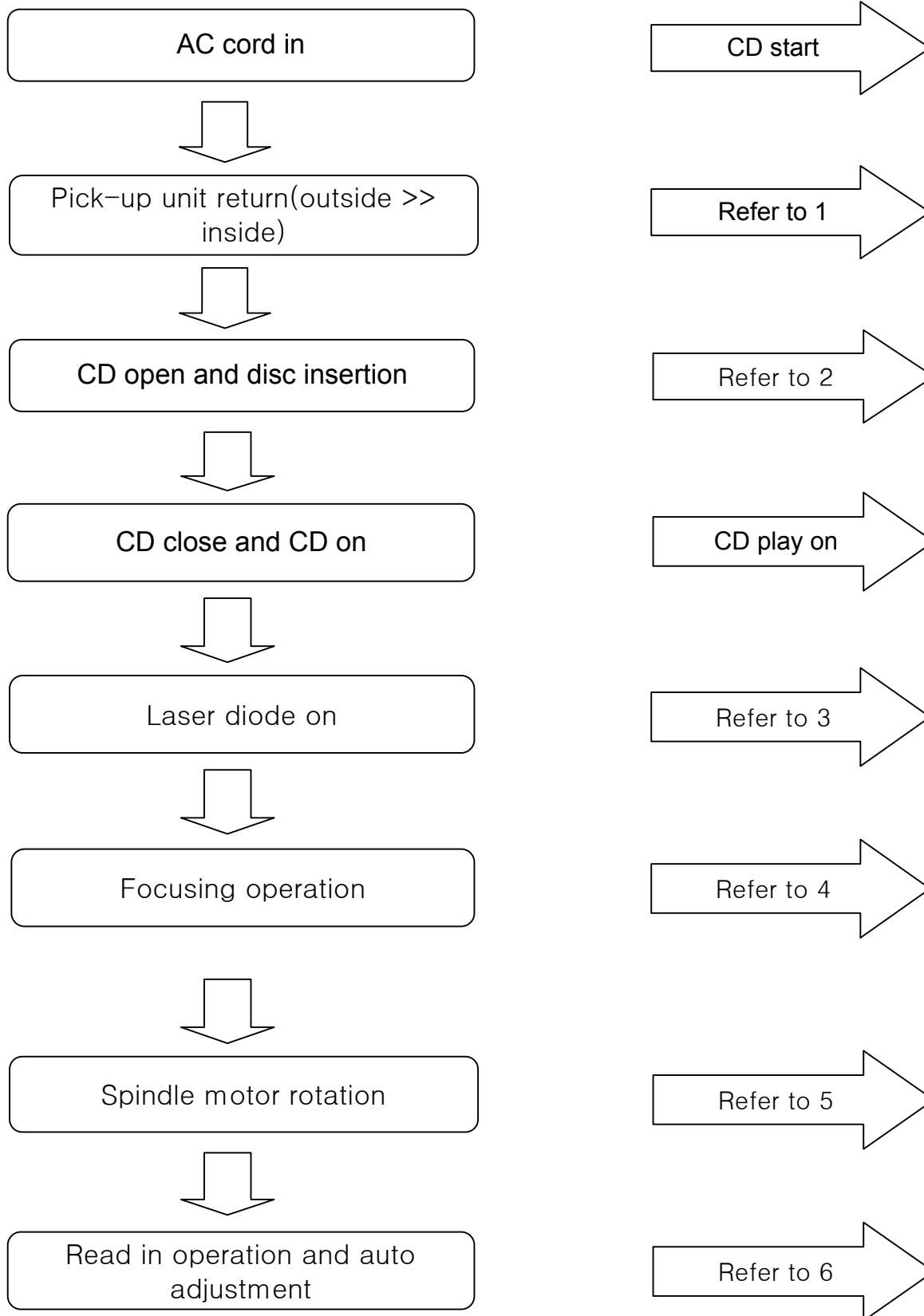
● AMP Flow Chart

EX.	DESCRIPTION
EX12.	 FIG13. S1A0051 10PIN FIG14. S1A0051 11PIN FIG15. S1A0051 14PIN FIG16. S1A0051 15PIN □ Waveform period is about 2.3us(440kHz). □ Waveform's amplitude is value between +5V and -5V.

Trouble Shooting Guide

2

● MP3/CD Section

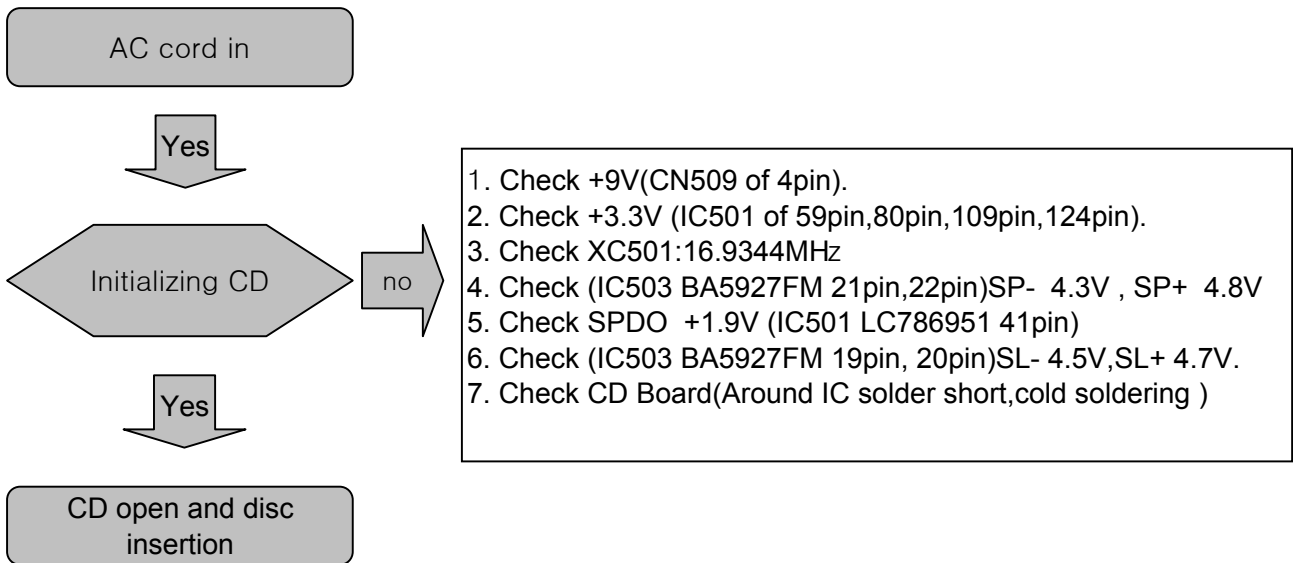


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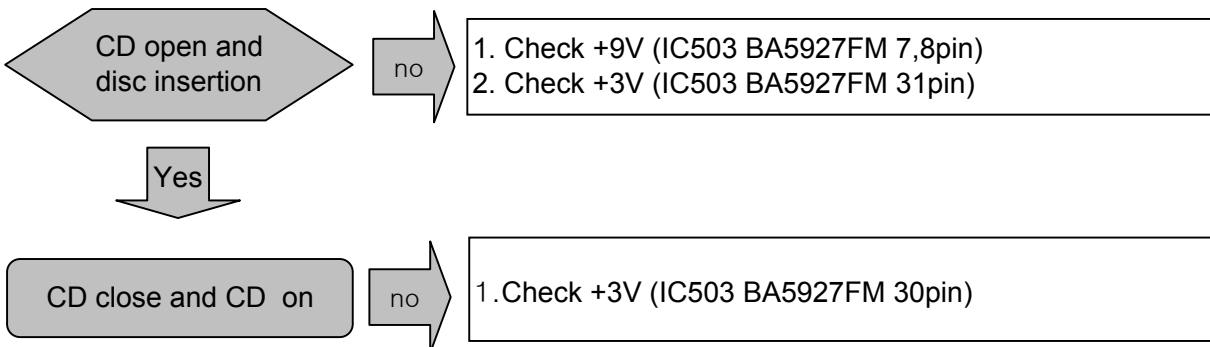
Trouble Shooting Guide

● MP3/CD Section

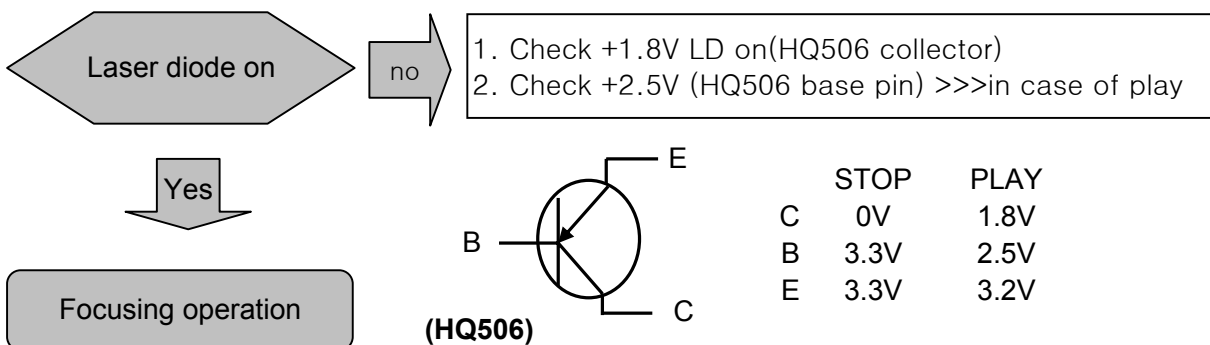
1. Pick-up unit return and roulette rotation



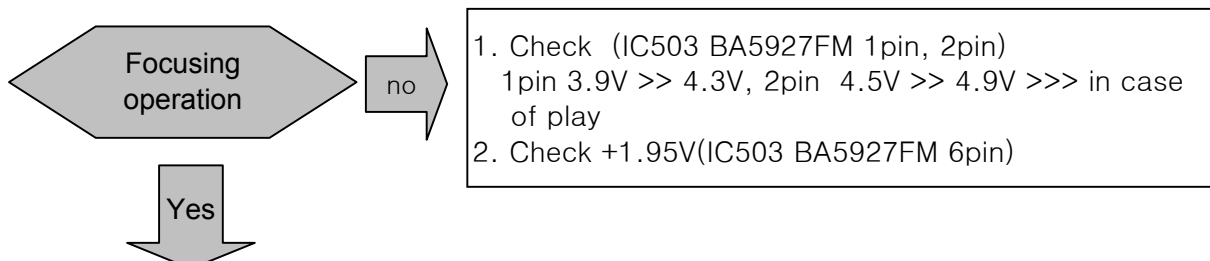
2. CD open and disc insert



3. Laser diode on



4. Focusing operation

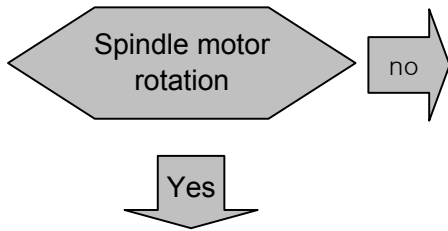


Trouble Shooting Guide

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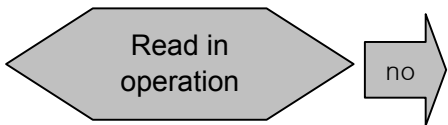
● MP3/CD Section

5. Spindle motor rotation

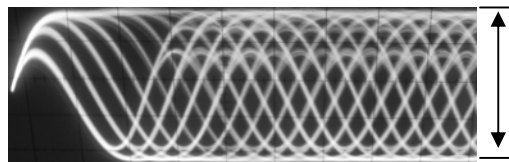
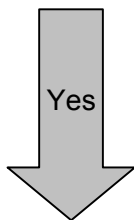


1. Check SPDO +1.9V(IC501 LC786951 41pin) >>> in case of play.
2. Check IC503 BA5927FM 20pin SL+ 4.7V, 19pin SL- 4.5V, 21pin SP- 4.3V, 22pin SP+ 4.8V.

6. Read in operation



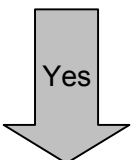
1. Check RFO eye pattern 0.8V ~ 1.2V (IC501 LC786951 8pin)



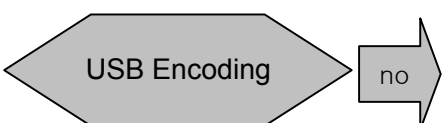
RF:0.8V ~ 1.2V



1. Check +9V(CN509 of 4pin).
2. Check +3.3V (IC501 of 59pin,80pin,109pin,124pin).
3. Check XC501:16.9344MHZ
4. Check (IC503 BA5927FM 21pin,22pin)SP- 4.3V , SP+ 4.8V
5. Check SPDO +1.9V (IC501 LC786951 41pin)
6. Check (IC503 BA5927FM 19pin, 20pin)SL- 4.5V,SL+ 4.7V.
7. Check CD Board(Around IC solder short,cold soldering)



1. Check +3.3V(IC502 LC87F1HC8A 3pin, 8pin,19pin,39pin)
2. Check XC502:12MHz
3. Check CD Board(IC504 Around pin solder short, cold soldering)



1. Check IC506 (NJM4558) 4pin(-9V),8pin(9V).
2. Check IC506(NJM4558) 3pin,5pin input signal.
3. Check IC506(NJM4558) 1pin,7pin output signal.
4. Check IC505(AK5358) 6pin(5V),7pin(3V).
5. Check IC505(AK5358) 1pin,2pin input signal.
6. Check IC504(A2V64S40CTP) Around pin solder short, cold soldering)

2

Trouble Shooting Guide

● Front Section

AC cord in

Yes

VFD display

no

Yes

CD initial

no

Yes

Function command

no

Yes

Tuner function

no

Yes

Function LED

no

Yes

1. Check CN701 of 7 pin: 4V.
2. Check IC701 of VCC 17 pin, 72 pin, 90 pin voltage: 3.3V.
3. Check -VPP voltage: -31.9V (IC701 of 51 pin).
4. Check between FIL1 and FIL2 AC voltage: 5.6V (FD701 of 1 pin and 33 pin).
5. Check XC701: 12MHZ.

1. Check CW703: 2pin, 4pin, 8pin, 9pin, 10pin, 11pin, 12pin, 13pin.
2. Check IC701: 5pin, 7pin, 71pin, 81pin, 94pin, 95pin, 96pin, 97pin.

1. Check IC701: 24pin, 25pin, 26pin.
2. Check IC701: 85pin, 87pin.

1. Check CW702: 16pin, 17pin, 18pin, 19pin, 20pin.
2. Check CW702: 13pin, 14pin (only RDS).
3. Check IC704 VCC 14pin voltage: 3.3V.
4. Check IC704: 1pin, 4pin, 10pin, 11pin.
5. Check IC701: 3pin, 64pin, 66pin, 85pin, 86pin.
6. Check IC701: 27pin, 65pin (only RDS)

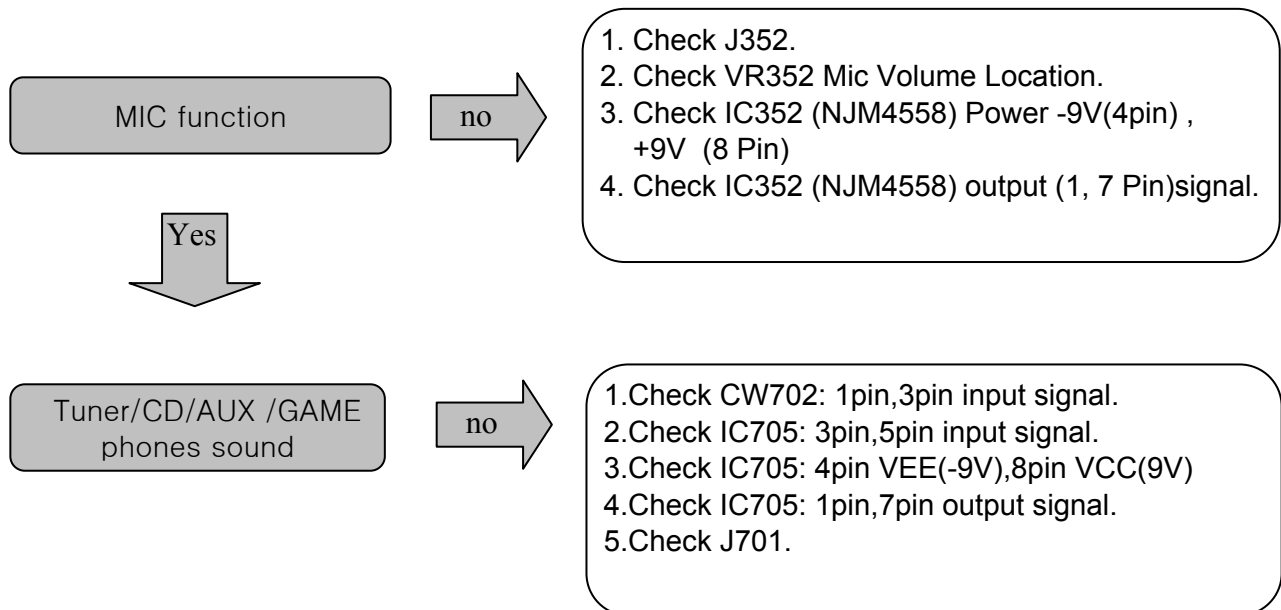
1. Check HQ723, HQ724
2. Check LD703, LD704, LD705, LD706, LD713, LD714, LD715, LD716, LD717, LD718, LD719, LD720.
3. Check HQ711, HQ712, HQ713, HQ714, HQ715, HQ716.
4. Check IC701: 73pin, 74pin, 75pin, 76pin, 77pin, 78pin.

Trouble Shooting Guide

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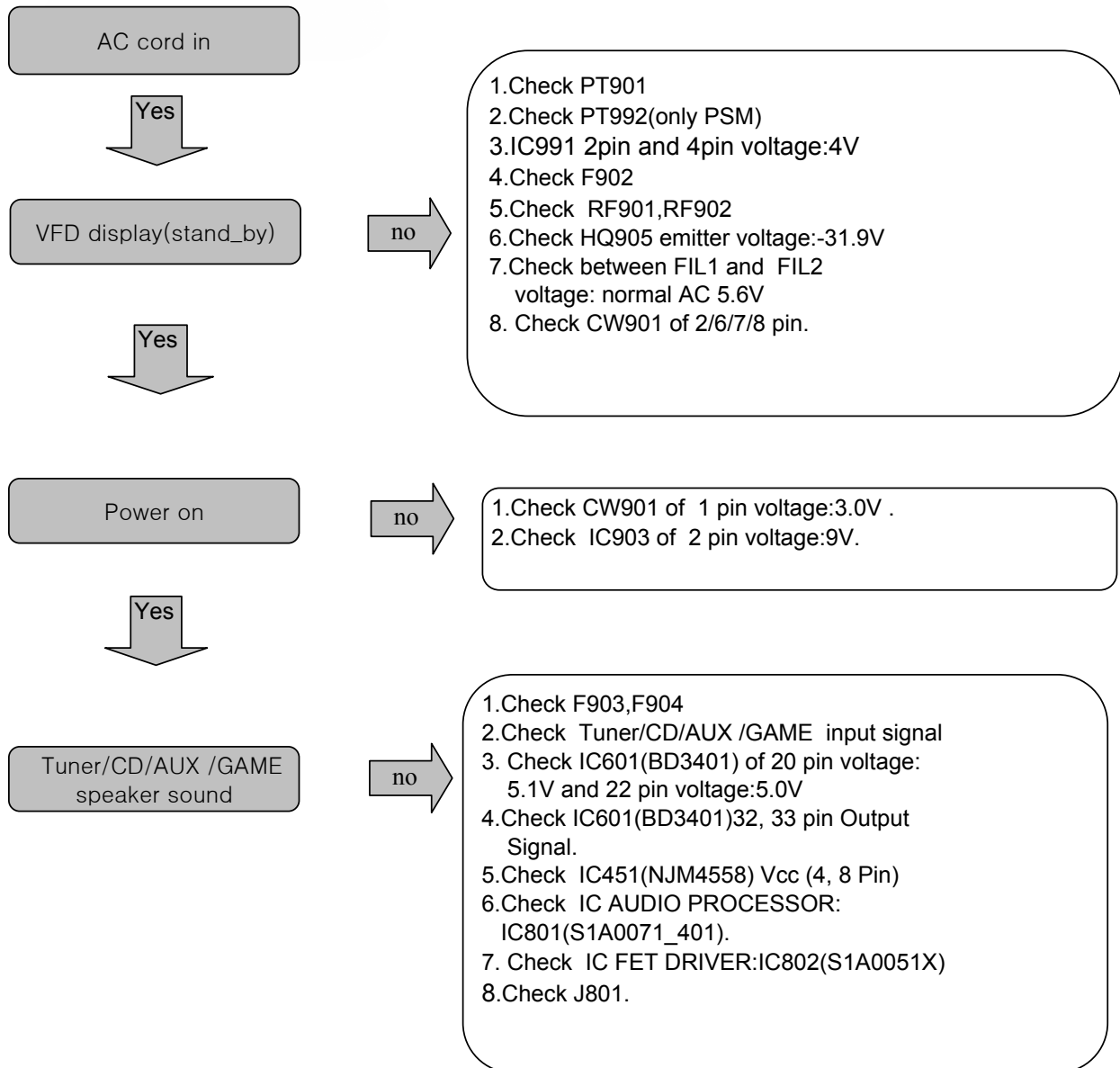
● Front Section

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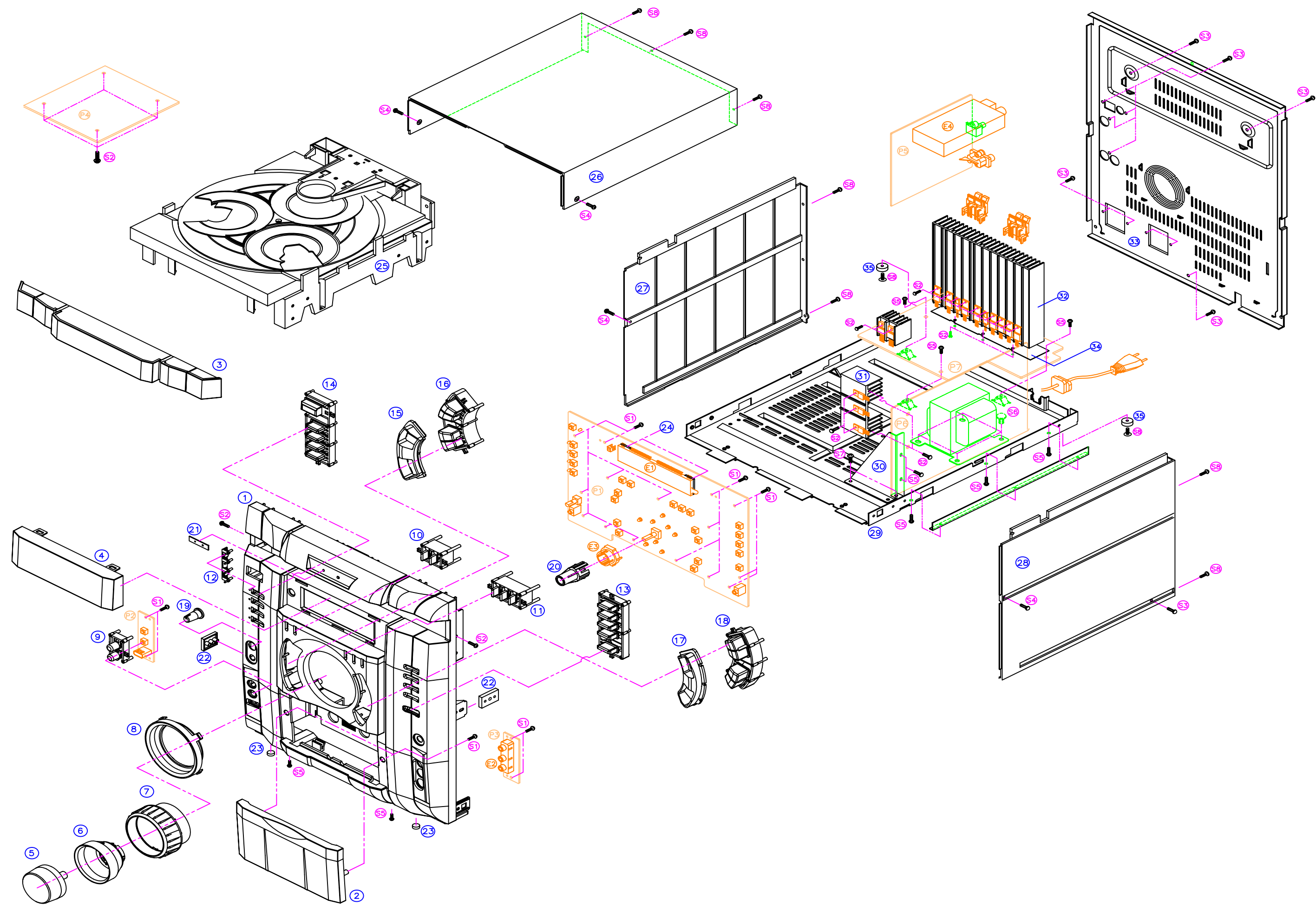


Trouble Shooting Guide

● POWER & AUDIO & AMP Section



Exploded View and Mechanical Parts List



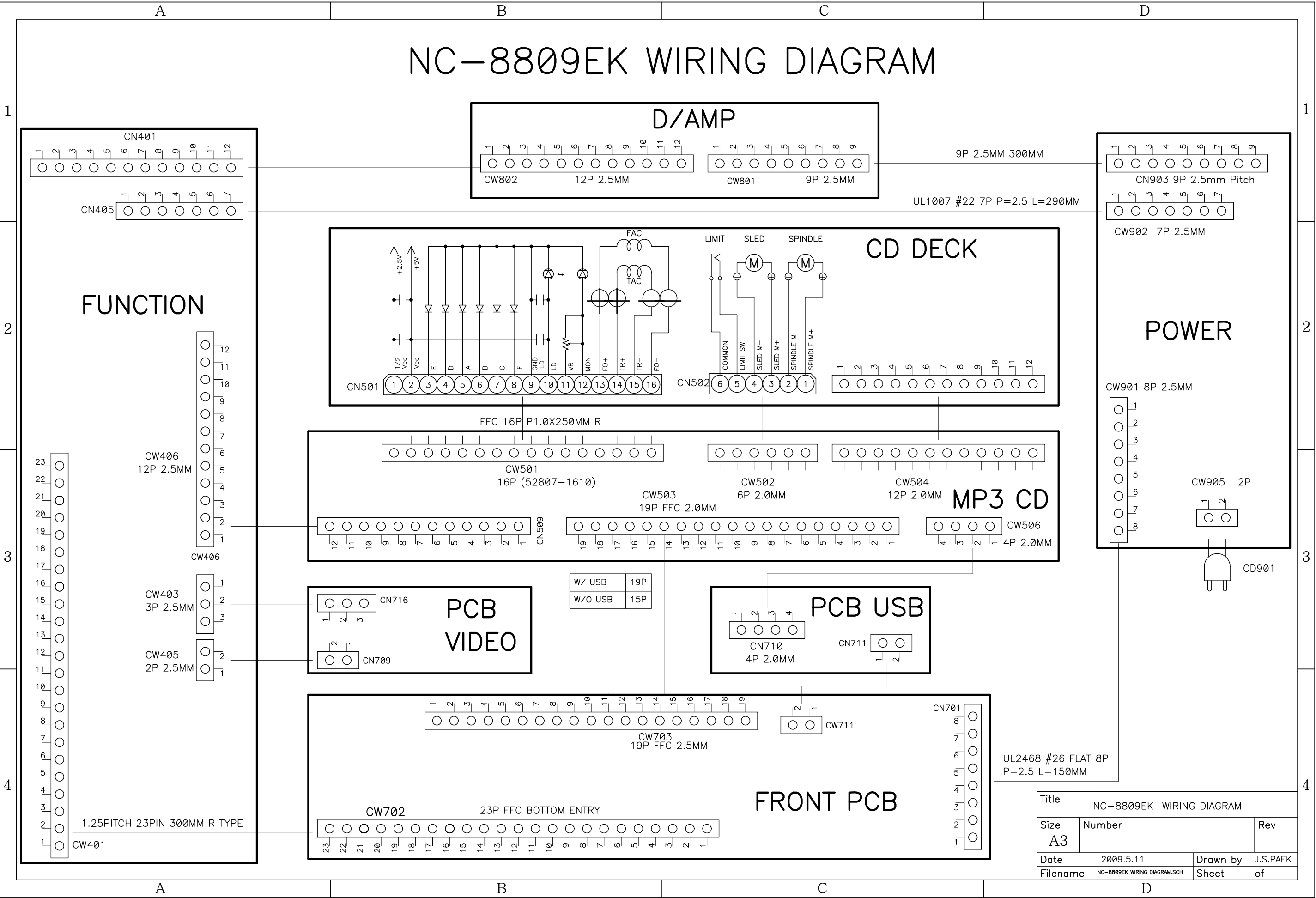
M-7. EXPLODED VIEW PARTS LIST

MODEL : NC-8809EK

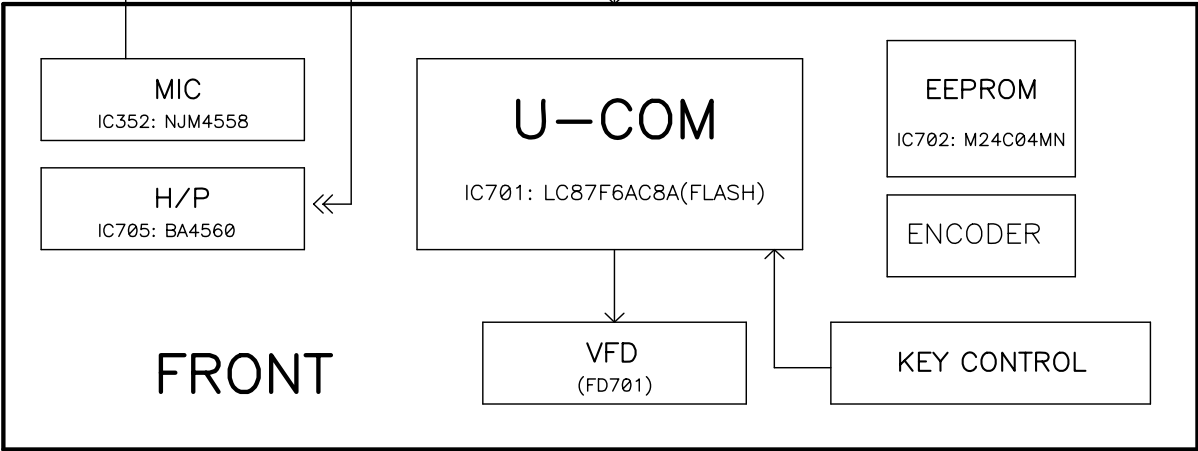
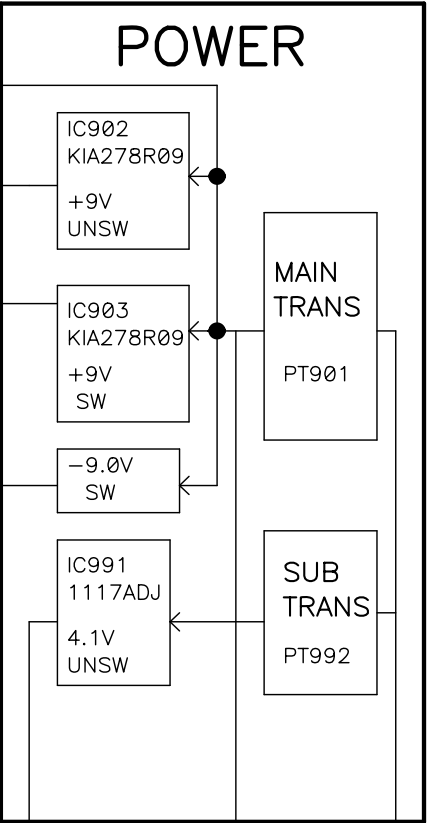
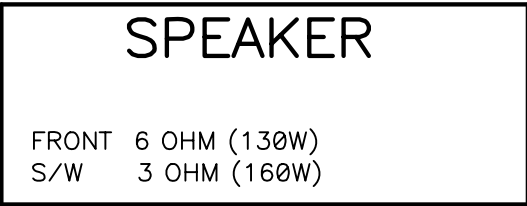
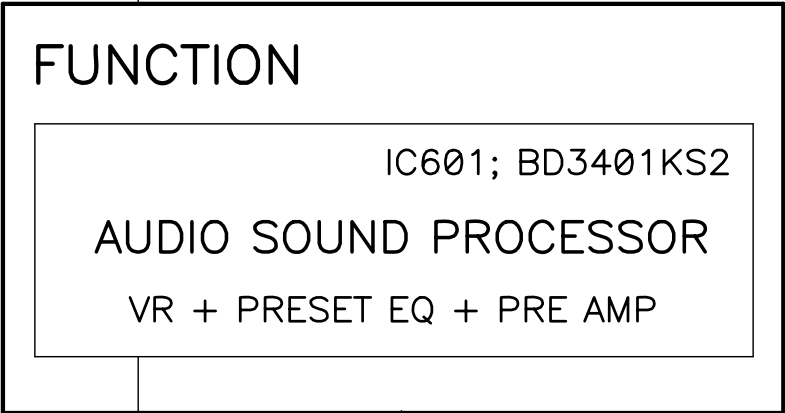
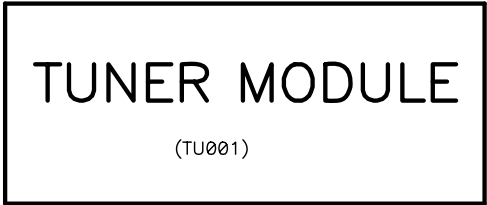
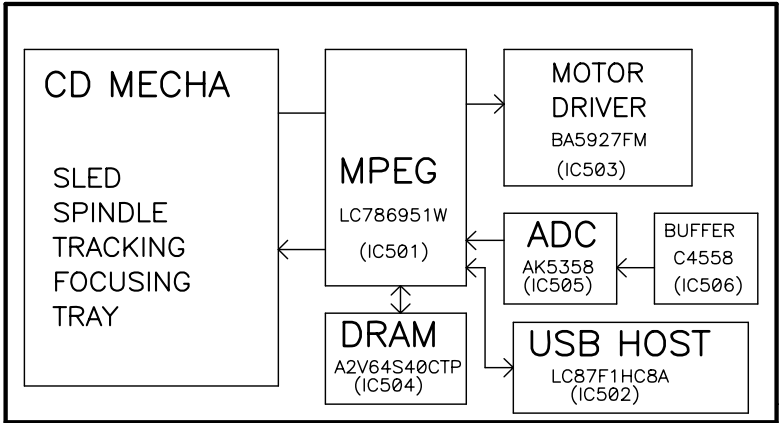
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NO	PARTS NAME	CODE NO.	DESCRIPTIONS	Q'TY	
1	PANEL FRONT	9CD0317800	HIPS, SPRAY	1	
2	COVER DECK	9CD0420900	HIPS, SPRAY	1	
3	DOOR CD	9CD1817600	HIPS, SPRAY	1	
4	WINDOW FLT	9CD1625500	ACRYL, SMOG	1	
5	KNOB VOLUME	9CD1362000	HIPS, SPRAY	1	
6	DECO VOLUME	9CD1012100	ACRYL	1	
7	KNOB JOG	9CD1362100	HIPS,SPRAY	1	
8	DECO JOG	9CD1012200	ACRYL	1	
9	KNOB REC	9CD1362200	HIPS, SPRAY	1	
10	KNOB GAME	9CD1362600	SPRAY	1	
11	KNOB SURR	9CD1362700	SPRAY	1	
12	LENS FUNCTION	9CD1625600	ACRYL	1	
13	KNOB DISC	9CD1361900	HIPS,SPRAY	1	
14	KNOB POWER	9CD1361800	HIPS,SPRAY	1	
15	DECO PRESET L	9CD10124L0	HIPS, SPRAY	1	
16	KNOB PRESET L	9CD13625L0	HIPS, SPRAY	1	
17	DECO PRESET R	9CD10124R0	HIPS, SPRAY	1	
18	KNOB PRESET R	9CD13625R0	HIPS, SPRAY	1	
19	KNOB MIC	9CD1362400	HIPS, SPRAY	1	
20	GUIDE VOLUME	9CD2508400	HIPS	1	
21	BADGE BRAND	9CD1505300	AL	1	OPTIONAL
22	BRKT SIDE	9CD2412900	ABS	2	
23	CUSHION FOOT	9CD4207700	URETHANE D10*4.0T	2	
24	CUSHION VFD	9CD4210001	EVA T4.5	2	
25	CD DECK MECHA	9CD6014500	DCC-02DA11 (DA11VZ)	1	
26	COVER TOP	9CD0409600	HIPS	1	
27	COVER SIDE "L"	9CD04177L1	HIPS	1	
28	COVER SIDE "R"	9CD04177R1	HIPS	1	
29	CHASSIS BOTTOM	9CD0612621	SECC T1.0	1	
30	BRACKET PCB D	9CD2417801	SECC T1.0	1	
31	HEATSINK PW	9CD4409710	AL H=47	1	
32	HEATSINK AMP 2.2CH	9CD4414900	AL	1	
33	CHASSIS BACK	9CD0612504	SECC T0.8	1	

NO	PARTS NAME	CODE NO.	DESCRIPTIONS	Q'TY	
34	PLATE PCB AMP	9CD0916700	PC	1	
35	RUBBER FOOT	9CD0801000	RUBBER	2	
36	HEAT SINK IC	9CD4408100	AL	1	
37	FRAME BOTTOM	9CD0607800	SECC T1.0		
S1	SCREW TAPTITE	7173261011	TT2 BIN 2.6*10 MFZN	21	
S2	SCREW TAPTITE	7173301011	TT2 BIN 3*10 MFZN	24	
S3	SCREW TAPTITE	7173301012	TT2 BIN 3*10 BK	12	
S4	SCREW TAPTITE	7173301212	TT2 BIN 3*12 BK	4	
S5	SCREW TAPTITE	7173300811	TT2 BIN 3*8 MFZN	12	
S6	SCREW TAPTITE	7173400611	TT2 BIN 4*6 MFZN	4	
S7	SCREW TAPTITE	7173300611	TT2 BIN 3*6 MFZN	2	
S8	WASHER SCREW	9CD3102403	TT2 BIN 3*10 WAS + D8	9	
P1	PCB FRONT			1	
P2	PCB USB			1	
P3	PCB VIDEO			1	
P4	PCB CD			1	
P5	PCB FUNCTION			1	
P6	PCB POWER			1	
P7	PCB AMP			1	
E1	VFD			1	
E2	VIDEO JACK			1	
E3	ENCODER JOG			1	
E4	TUNER MODULE			1	
E5	VOLTAGE SELECTOR			1	



NC-8809EK BLOCK DIAGRAM



Title NC-8809EK BLOCK DIAGRAM			
Size A3	Number	Rev	
Date 2009.5.11	Drawn by J.S.PAEK		
Filename NC-8809EK BLOCK DIAGRAM.SCH	Sheet	of	

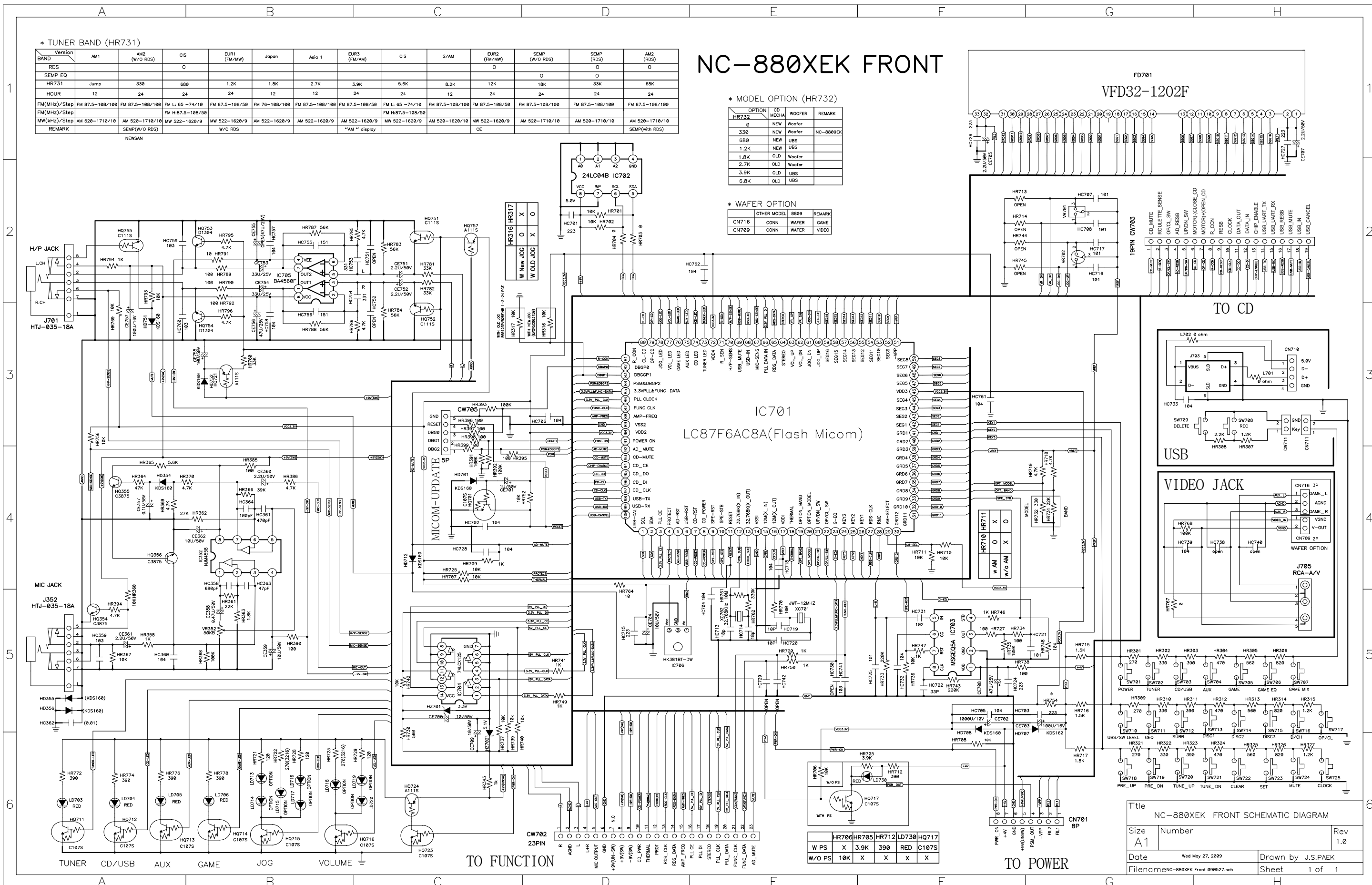
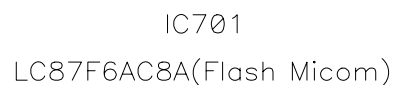
- **FRONT Section**



OPTION	CD MECHA	WOOFER	REMARK
HR732			
Ø	NEW	Woofier	
33Ø	NEW	Woofier	NC-8809E
68Ø	NEW	UBS	
1.2K	NEW	UBS	
1.8K	OLD	Woofier	
2.7K	OLD	Woofier	
3.9K	OLD	UBS	
6.8K	OLD	UBS	

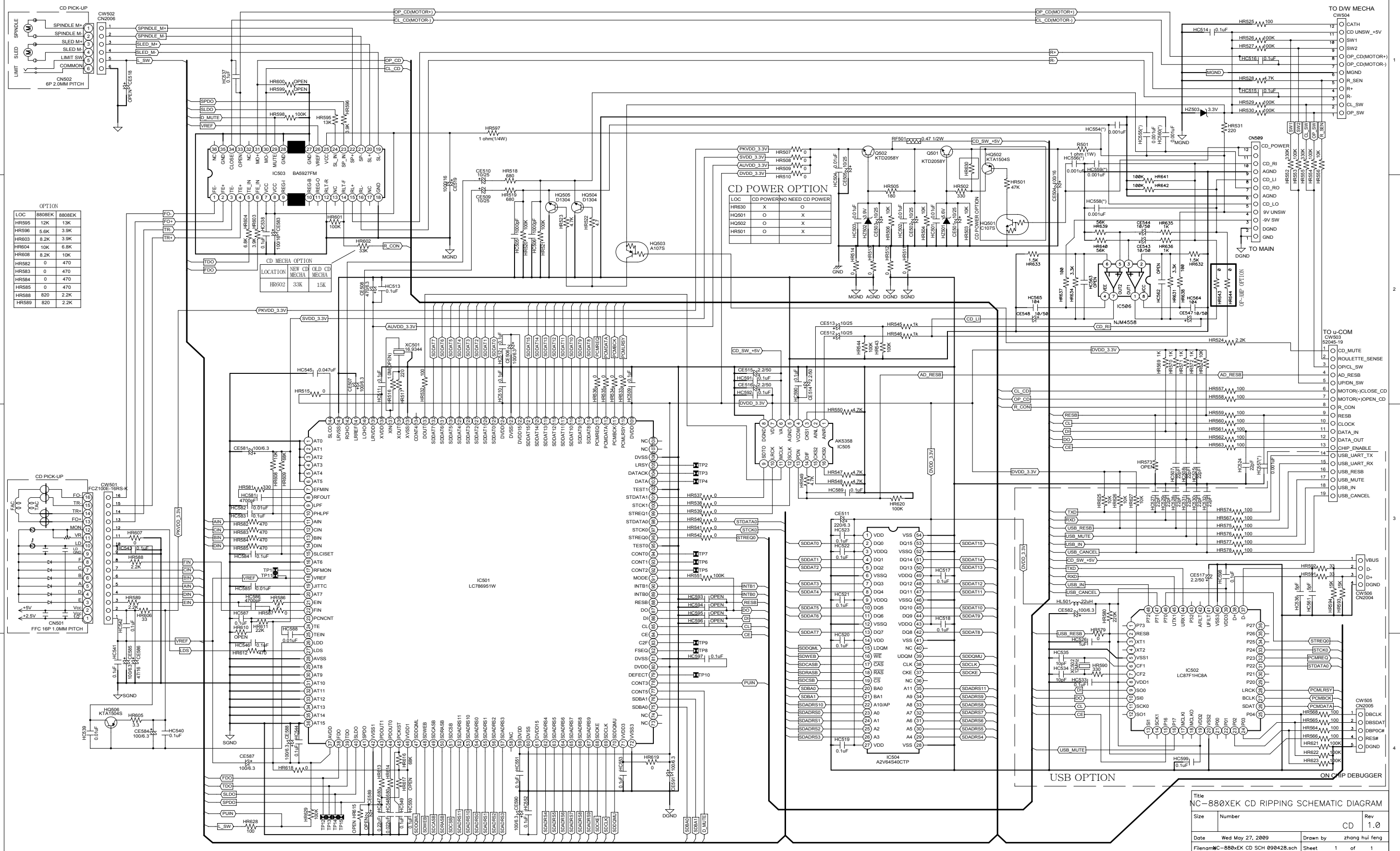
* WAFER OPTION

	OTHER MODEL	8809	REMARK
CN716	CONN	WAFER	GAME
CN709	CONN	WAFER	VIDEO

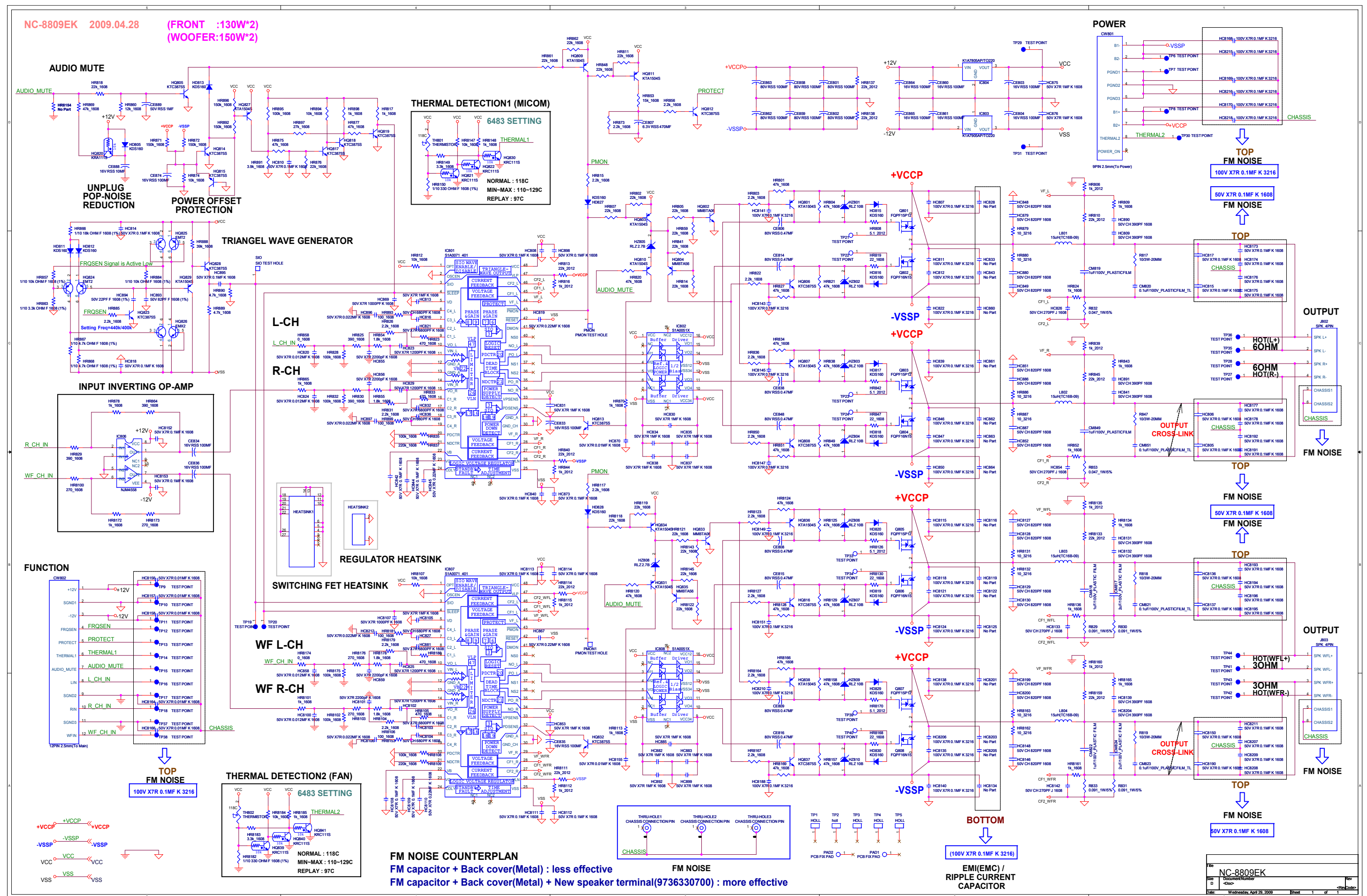


Title			NC-880XEK FRONT SCHEMATIC DIAGRAM		
Size	Number				Rev
A 1					1.0
Date			Drawn by		
Wed May 27, 2009			J.S.PAEK		
Filename			Sheet		
nc-880XEK Front 090522.sch			1 of 1		

● **MP3 / CD Section**

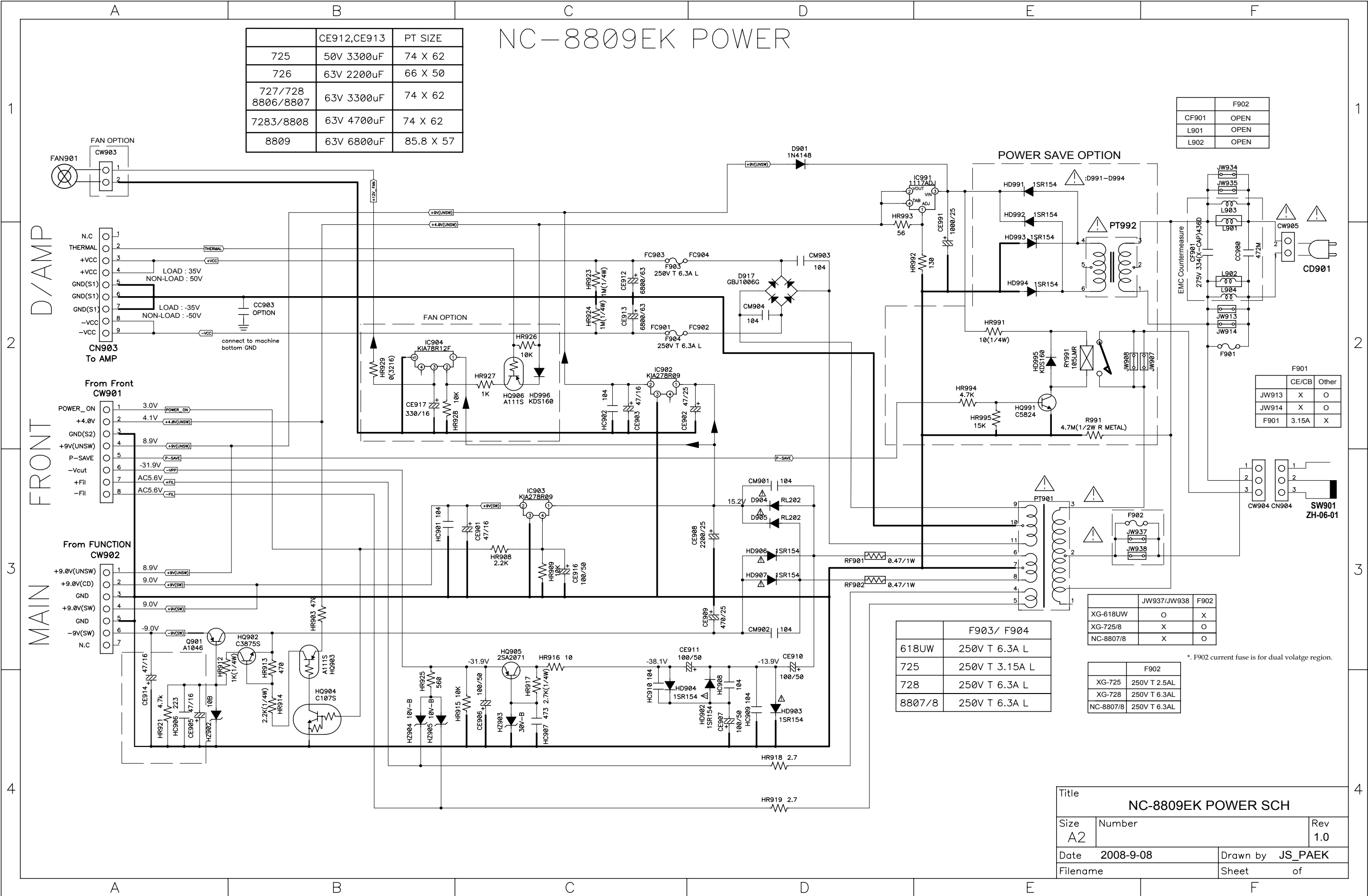


● AMP Section : NC-880E/NC-880EK



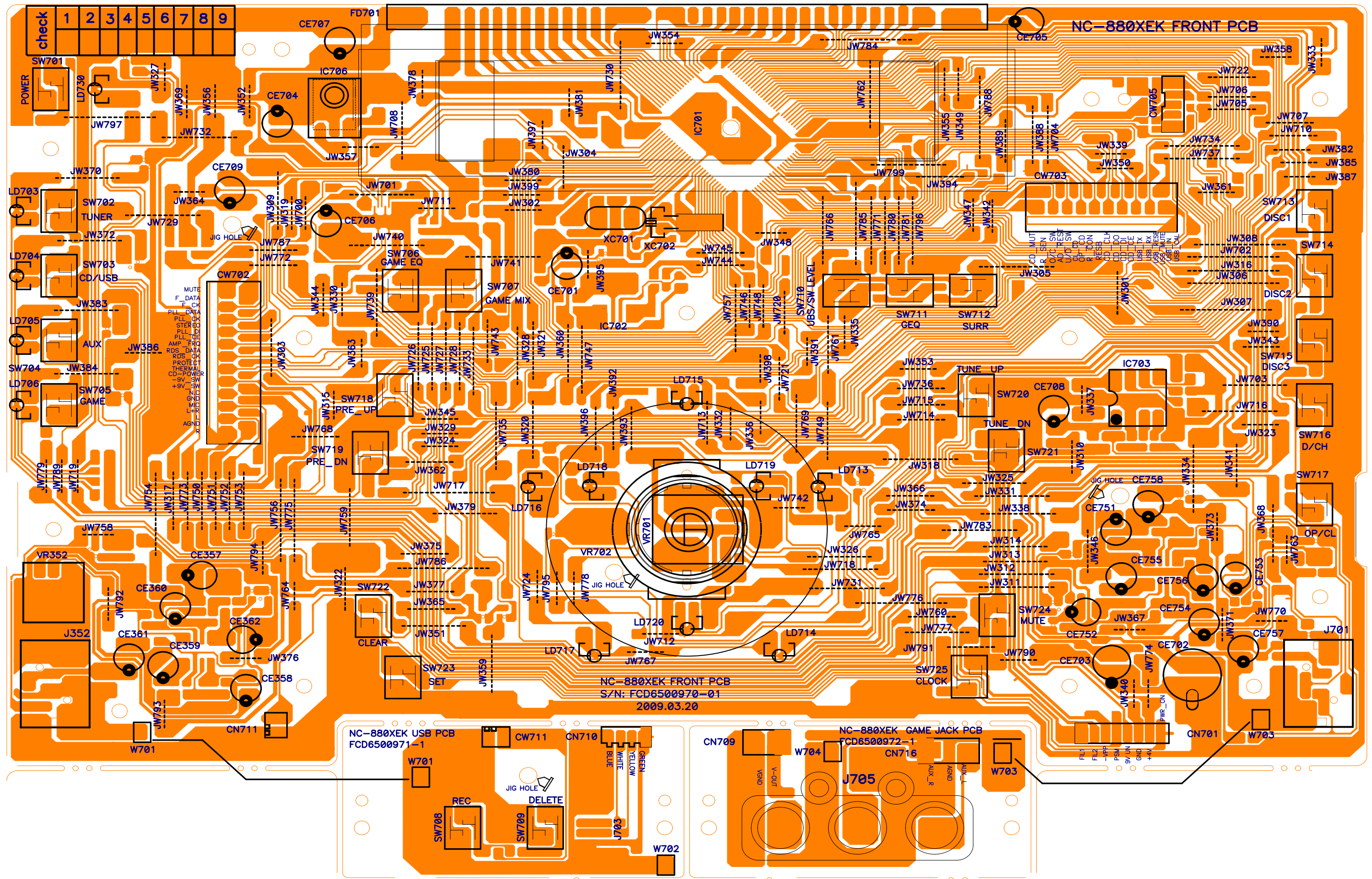
Schematic Diagram

● POWER Section



- **FRONT Section**

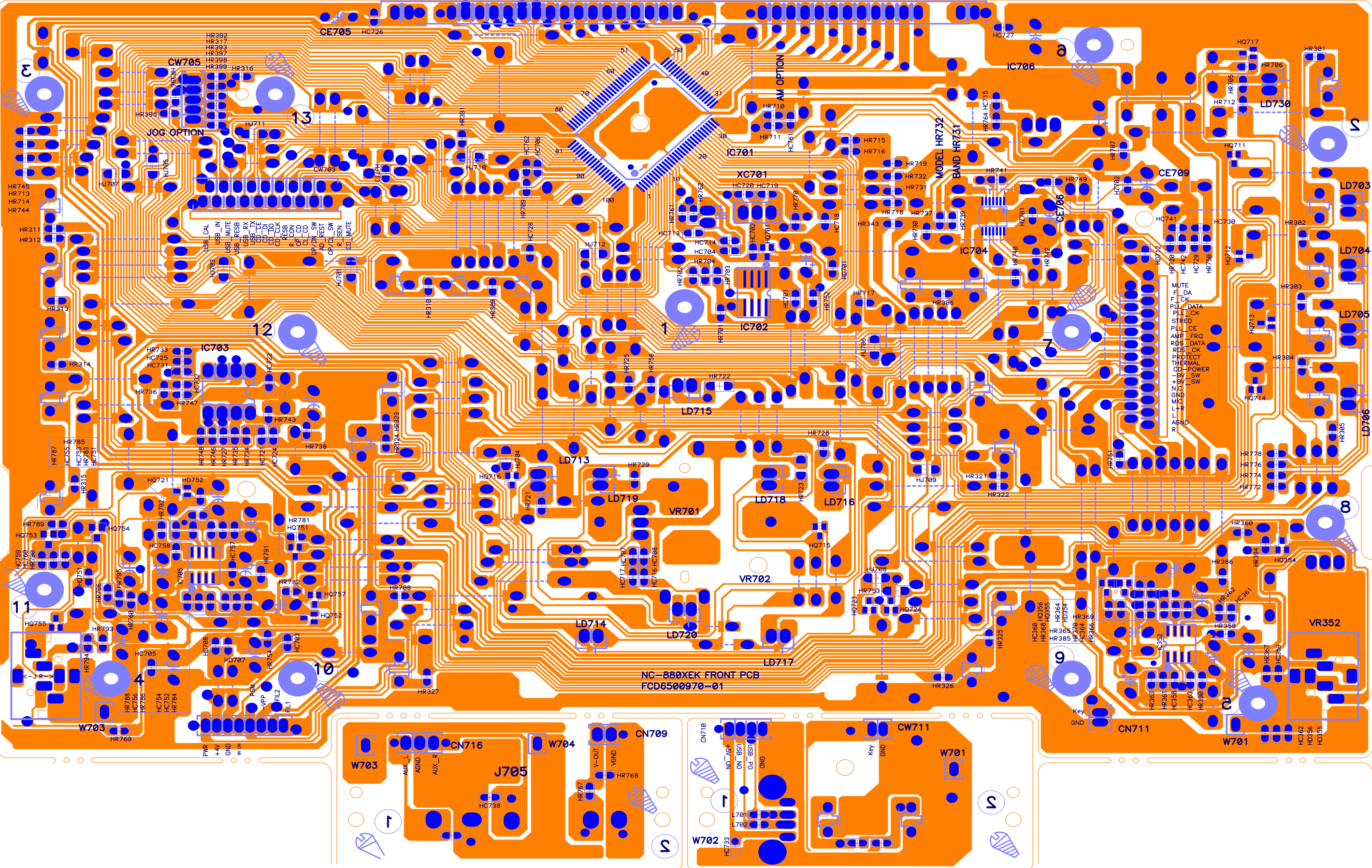
<Top View>



P.C.B Pattern Layout

● FRONT Section

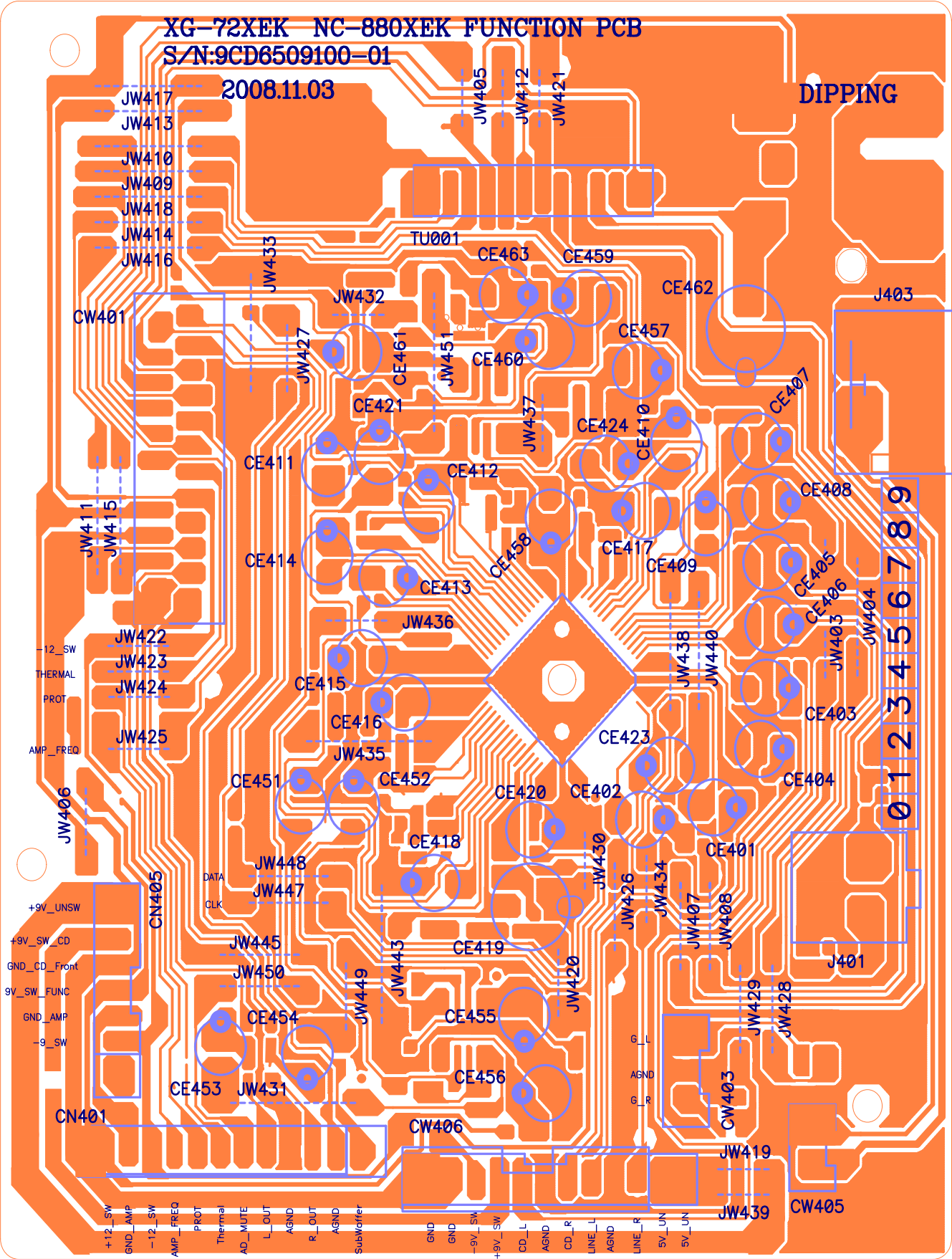
<Bottom View>



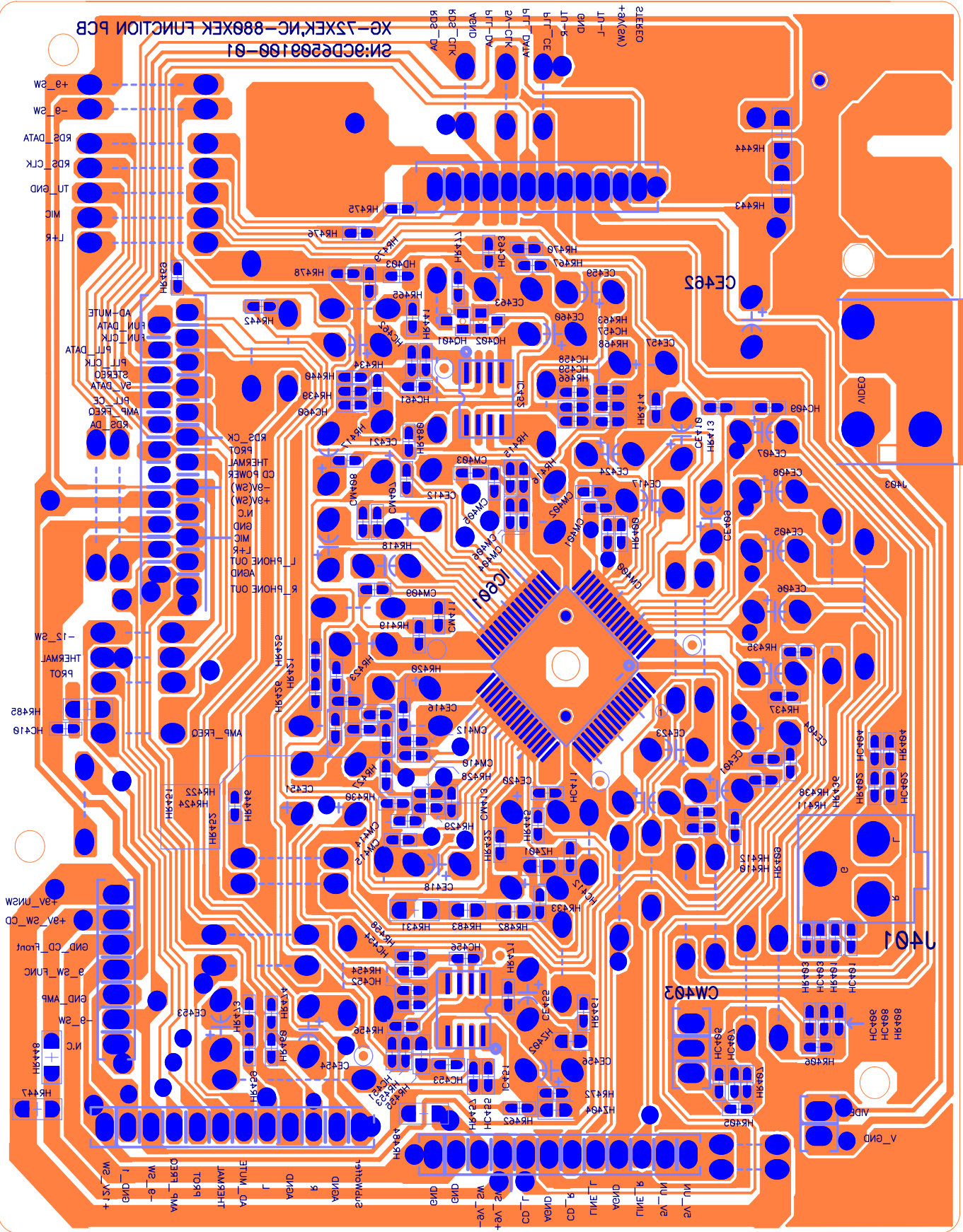
P.C.B Pattern Layout

● FUNCTION Section

<Top View>

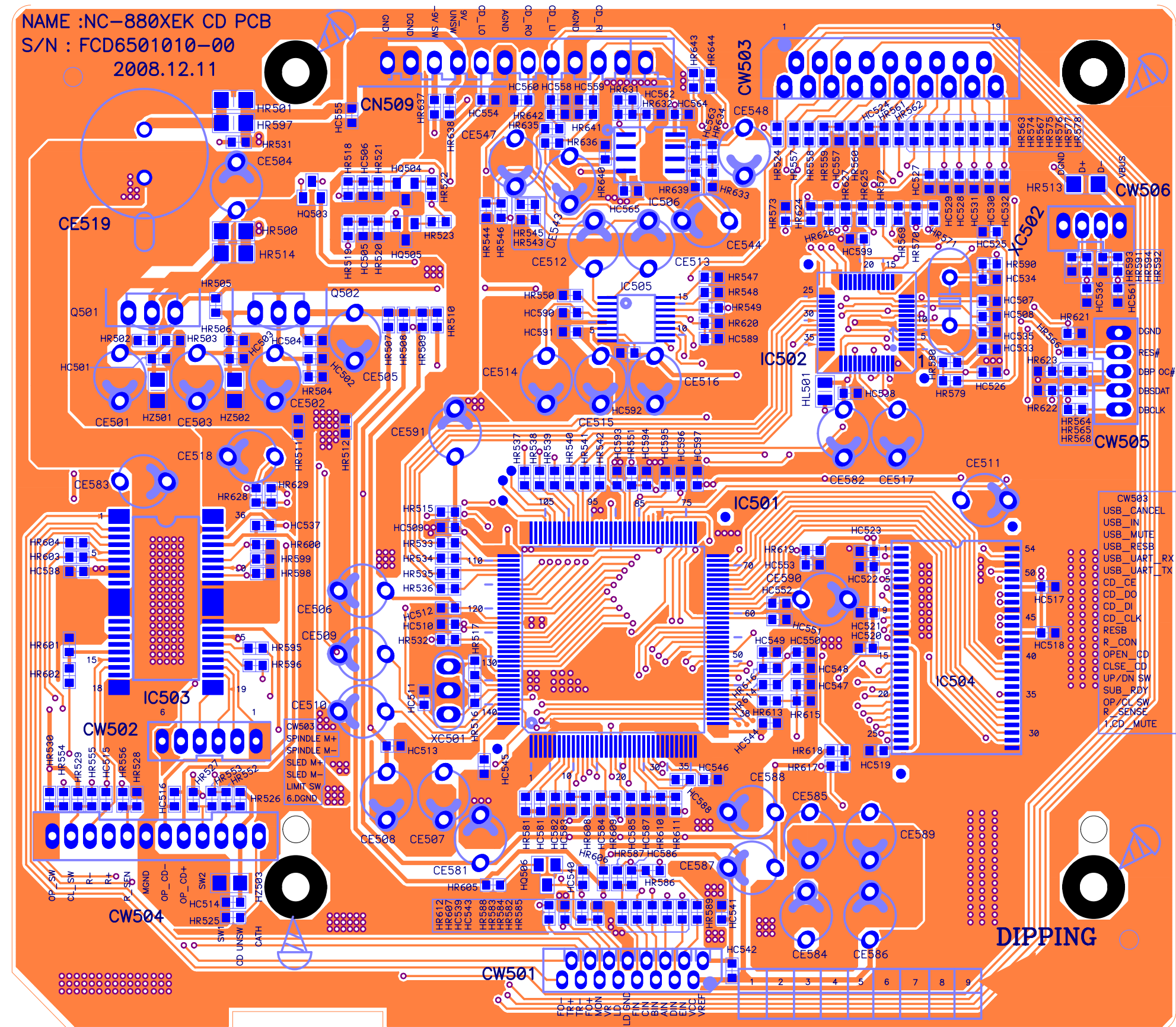


<Bottom View>



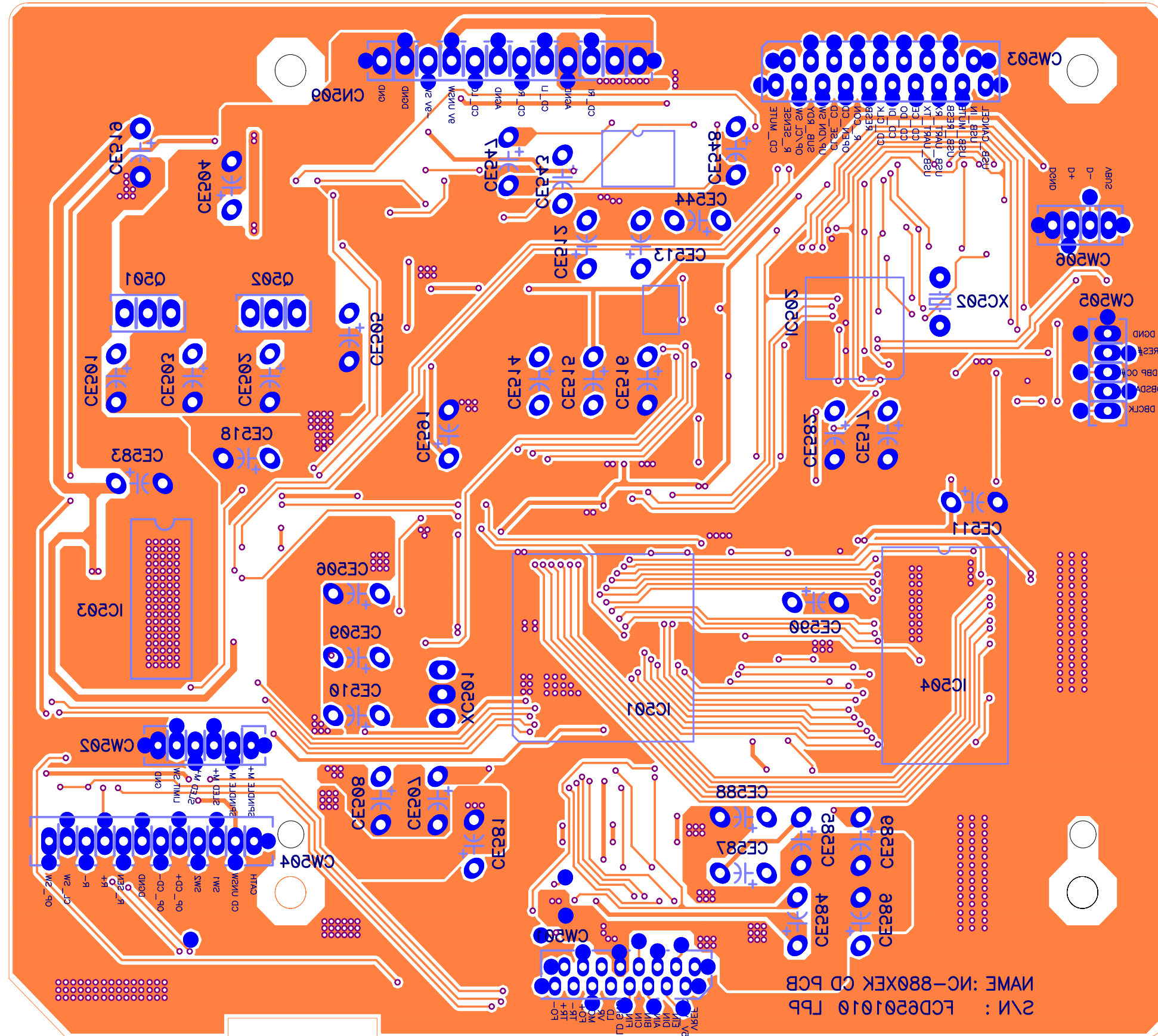
● **MP3 / CD Section**

<Top View>



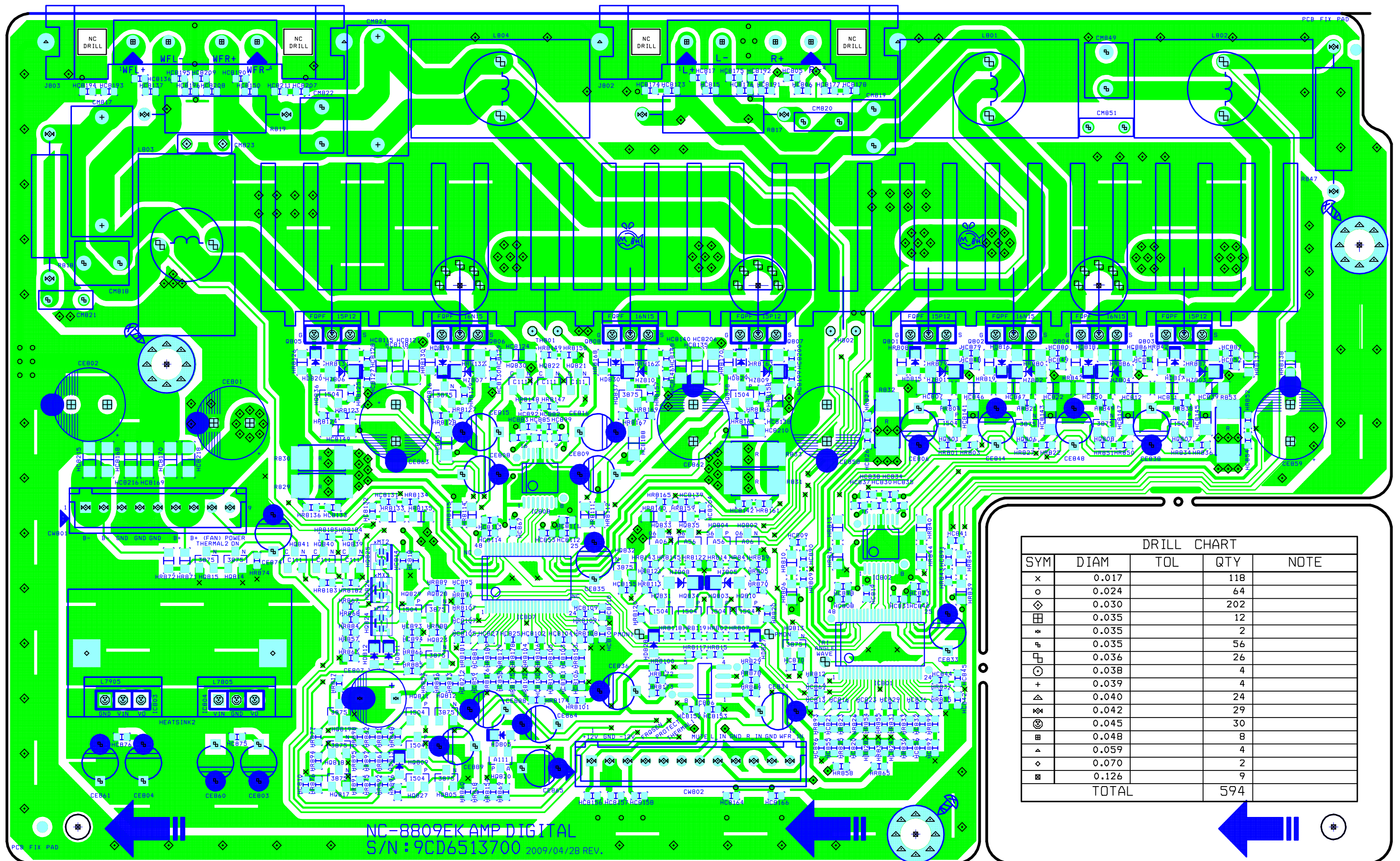
- **MP3 / CD Section**

<Bottom View>



● AMP Section : NC-880E/NC-880EK

<Top View>



● AMP Section : NC-880E/NC-880EK

<Bottom View>

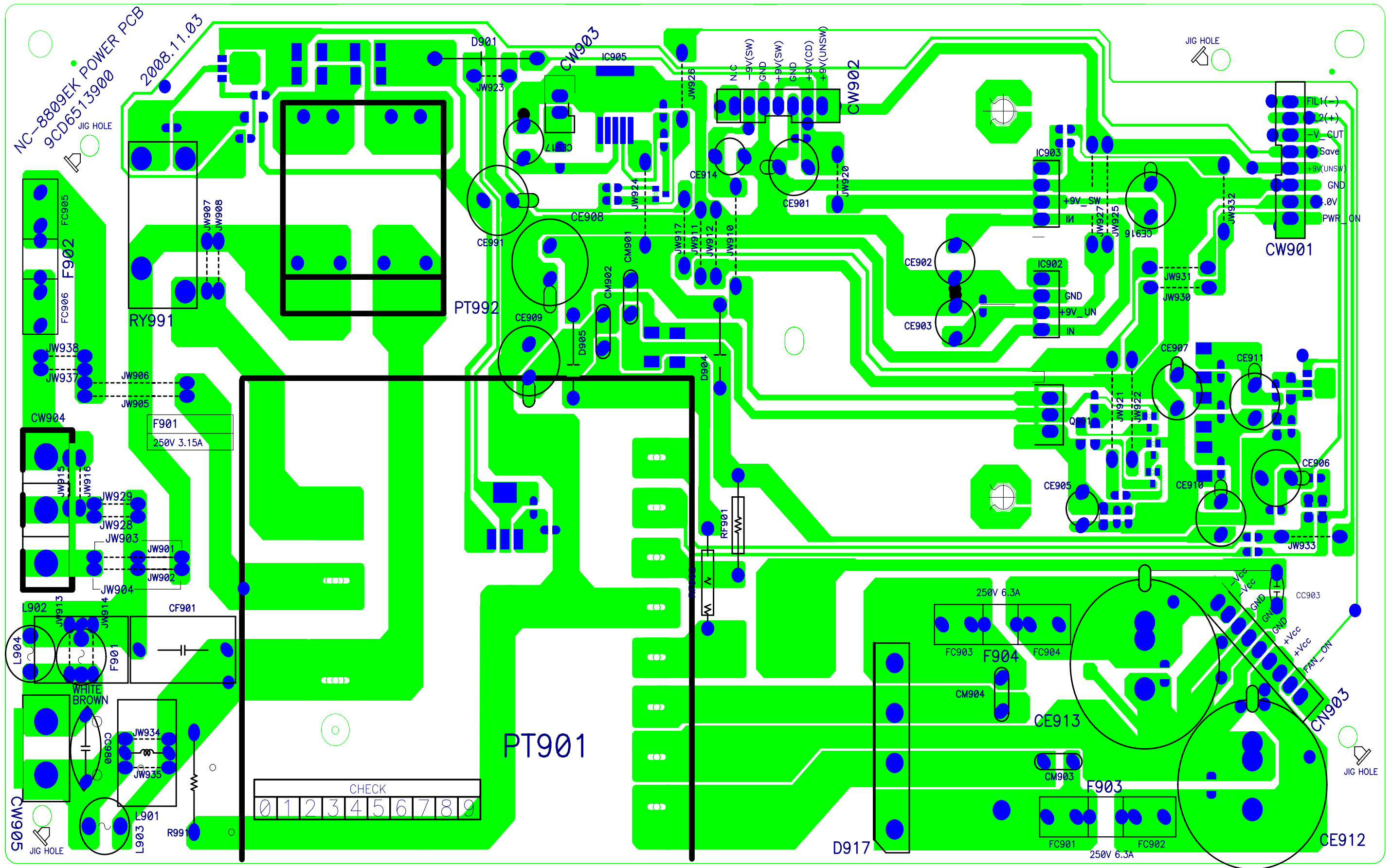
DRILL CHART			
SYMBOL	DIA	TOL	NOTE
×	0.017		1118
○	0.025		44
◇	0.030		202
田	0.030		12
※	0.032		2
≡	0.030		22
⌐	0.030		22
⊙	0.030		4
+	0.030		4
△	0.040		24
⊗	0.050		22
☺	0.040		20
田	0.040		8
△	0.020		4
◇	0.030		2
⊠	0.012		2
TOTAL		242	

NC-8809EK AMP DIGITAL
S/N: 9CD6513700 2009/04/28 REV.

P.C.B Pattern Layout

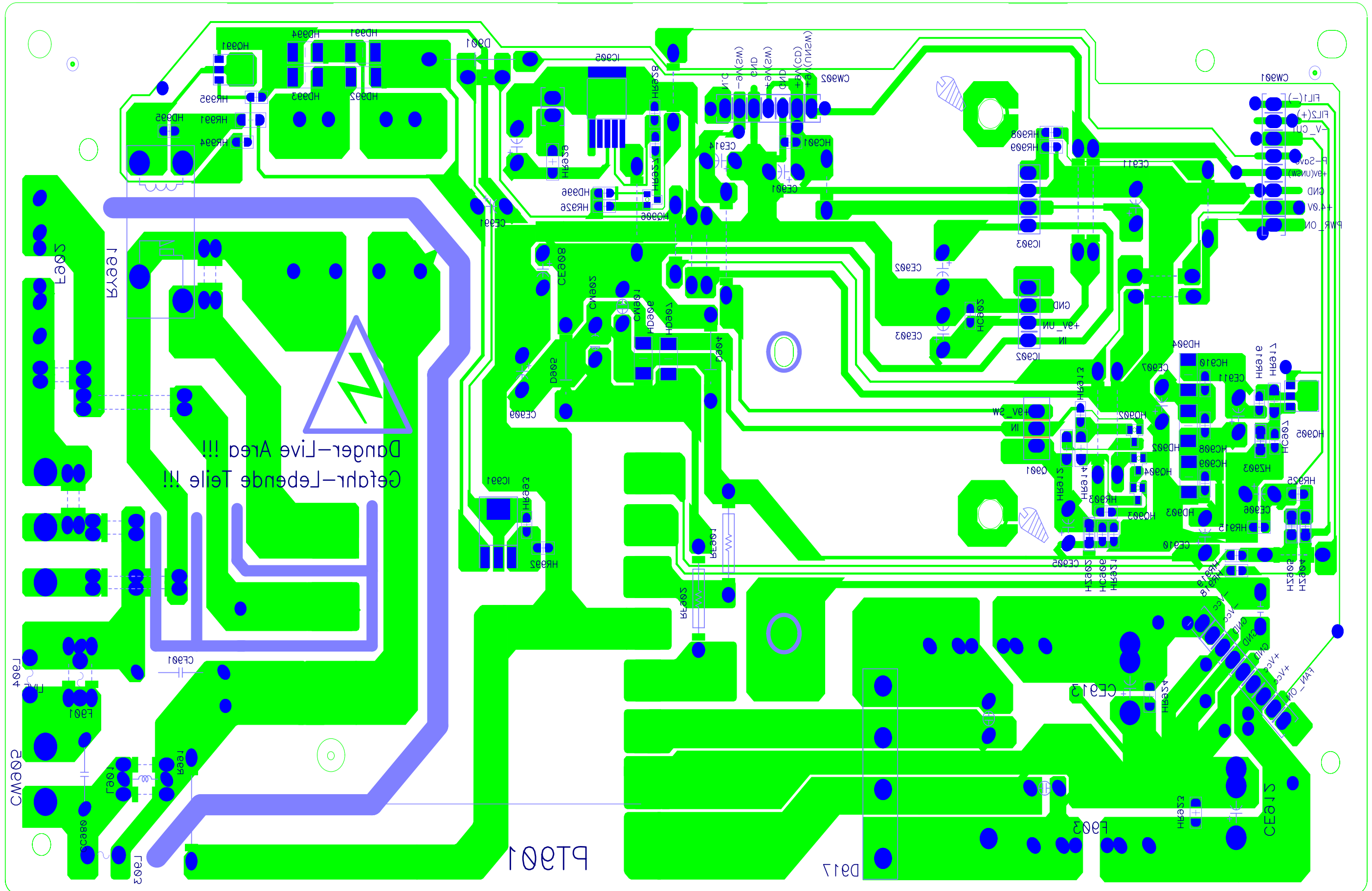
● POWER Section : NC-880E/NC-880EK

<Top View>



● POWER Section : NC-880E/NC-880EK

<Bottom View>



APPENDIX - ELECTRICAL PART LIST

NC-8809E/NC-8809EK SVC BOM

ASS'Y	LOC	PART-CODE	PART-NAME	PART-DESC	REMARK
-------	-----	-----------	-----------	-----------	--------

FUNCTION	10000	9CDC0A2000	PCB FUNCTION AS	NC-8809EK	REMARK
FUNCTION	CE419,462	CEXF1C102V-X	C ELECTRO	16V RSS 1000MF (10X17) TP	
FUNCTION	HZ401	DMTZ5R1B--	DIODE ZENER CHIP	UDZS5.1B 17X12	
FUNCTION	HZ402	DMTZ3R6B--	DIODE ZENER CHIP	UDZ3.6B 17X12	
FUNCTION	HZ404	DMTZ3R6B--	DIODE ZENER CHIP	UDZ3.6B 17X12	
FUNCTION	IC451,452	1NJM4558M-	IC	NJM4558M	
FUNCTION	IC601	1BD3401KS2	IC PROCESSOR	BD3401KS2	
FUNCTION	J401	9736329000	JACK RCA	S-436P RED-WHITE	
FUNCTION	J403	9736322900	JACK RCA	RCA-108 YW	
FUNCTION	TU001	F737600402	TUNER MODULE	KST-ML000MV0-E67T	

FRONT	11000	FCDC003950	PCB FRONT AS	NC-8808EK	REMARK
FRONT	FD701	D32-1202F-	VFD	VFD32-1202F	
FRONT	IC352	1NJM4558M-	IC	NJM4558M	
FRONT	IC701		IC MICOM	LC87F6AC8AU6(FLASH)	
FRONT	IC702	1M24C04MN-	IC	M24C04MN S0P	
FRONT	IC703	1MSGEQ5A--	IC	MSGEQ5A	
FRONT	IC704	174LCX125-	IC	74LCX125	
FRONT	IC705	1BA4560F--	IC H/P AMP	BA4560F	
FRONT	IC706	1HK381BV3T	IC PRE AMP	HK381BV3T-12DW	
FRONT	J352,701	9736325300	JACK H/P	HTJ-035-18A	
FRONT	LD703,704,705,706	DZLR332VC3F	LED	SLR332VC3F(RED)PI3	
FRONT	LD713,714,715,716 LD717,718,719,720	DBZ-BZ52V1	LED	BZ-BZ52V1-M36-TBS18A	
FRONT	VR701	5SH1224375	SW ENCODER	RE0123PVB25FINB 1-2-24 PCE	
FRONT	VR702	5SH2830A05	SW ENCODER	EVQV5C00315B	
FRONT	XC701	5XE12M000J	CRYSTAL QUARTZ	12.000MHz	
FRONT	XC702	5XA32R768CCQ	X-TAL	SF-32.768-JU3820	

USB	12000	FCDC003960	PCB USB AS	NC-8808EK	REMARK
USB	CN710	F728800037	CONN AS	UL 1007 #26 P2.0 4P L=250MM	
USB	J703	9736329300	JACK USB	USAF-046N-WP-01	

VIDEO	13000	9CDC0A2300	PCB VIDEO AS	NC-8809EK	REMARK
VIDEO	CN709	9728854000	WAFER	2P. P=2.5MM, ANGLE TYPE	
VIDEO	CN716	9728854100	WAFER	3P. P=2.5MM, ANGLE TYPE	
VIDEO	J705	9736329100	JACK	RCA-308HG video Jack	

MP3CD	14000	9CDC0A2200	PCB MP3CD	NC-8809EK	REMARK
MP3CD	IC501	1LC786951W	IC CD MP3	LC786951W	
MP3CD	IC502	1LC87F1HC8	IC USB DECODER	LC87F1HC8A	
MP3CD	IC503	1BA5927FM-	IC MOTOR DRIVE	BA5927FM	
MP3CD	IC504	1A2V64S-G6	IC	A2V64S40CTP	
MP3CD	IC505	1AK5358A--	IC	AK5358A	
MP3CD	IC506	1NJM4558M-	IC	NJM4558M	
MP3CD	Q501	TZTD2058Y-	TR	KTD-2058-Y	
MP3CD	Q502	TZTD2058Y-	TR	KTD-2058-Y	
MP3CD	XC501	5PQZTT1693	RESONATOR CERA	QTTT16.93MMX(3PIN)	
MP3CD	XC502	5XE12M000J	CRYSTAL QUARTZ	12.000MHz	

AMP	15000	9CDC0A1200	PCB AMP DIGITAL AS	NC-8809EK DIGITAL AMP	REMARK
AMP	IC801	1S1A0071--	IC AUDIO PROCESSOR	S1A0071_401	
AMP	IC807	1S1A0071--	IC AUDIO PROCESSOR	S1A0071_401	

APPENDIX - ELECTRICAL PART LIST

AMP	IC802	1S1A0051X-	IC FET DRIVER	S1A0051X	
AMP	IC808	1S1A0051X-	IC FET DRIVER	S1A0051X	
AMP	HZ805	DRLZ2R7B--	DIODE ZENER CHIP	RLZ2.7B	
AMP	HZ808	DRLZ2R7B--	DIODE ZENER CHIP	RLZ2.7B	
AMP	J802	9736332600	JACK SPEAKER	PTB-408SA-03 4P PUSH SHIELD TYPE	
AMP	J803	9736332600	JACK SPEAKER	PTB-408SA-03 4P PUSH SHIELD TYPE	
AMP	IC806	1NJM4558M-	IC	NJM4558M	
AMP	HQ804	TMMBTA56--	TR CHIP	MMBTA56	
AMP	HQ835	TMMBTA56--	TR CHIP	MMBTA56	
AMP	HQ802	TMMBTA06--	TR CHIP	MMBTA06	
AMP	HQ833	TMMBTA06--	TR CHIP	MMBTA06	
AMP	CM817,824	CMXK2A205J	C MYLAR	MC 100V 2MF J	
AMP	CM818,819,822,849	CMXK2A105J	C MYLAR	MC 100V 1MF J	
AMP	CM820,821,823,851	CMXK2A104J	C MYLAR	MC 100V 0.1MF J	
AMP	IC803	1K1A7905AP	IC REGULATOR	KIA7905AP	
AMP	IC804	1K1A7805AP	IC REGULATOR	KIA7805AP	
AMP	TH801	DTD5410K--	THERMISTOR	FTD5-410 100K OHM +/- 10% LUG (THERMAL DETECTION)	
AMP	HQ826	TEMX2-----	TR CHIP	EMX2 2SC2412AK X 2	
AMP	HQ824,825	TEMT2-----	TR CHIP	EMT2 2SA1037AK X 2	
AMP	L801,802,803,804	5LF150K855	COIL FILTER	15uH(TC16B-09)	

POWER	16000	9CDC0A1700	PCB POWER AS	NC-8809EK	REMARK
POWER	RF901,RF902	RF01F4780J-32	R FUSEABLE	1W 0.47 OHM (32 times)	
POWER	D901	DZN4148---	DIODE	IN4148 AUTO 52MM TAPPING	
POWER	D904,905	DRL202----	DIODE	RL202	
POWER	D917	DGBJ1006--	DIODE	GBJ1006	
POWER	CE912,913	CEXF1J682V	C ELECTRO	63V RSS 6800MF	
POWER	F901	5FFPS3122S	MINIATURE FUSE	VDE TL 3.15A 250V	
POWER	F903	5FSGB6322R	FUSE GLASS TUBE	TL6.3A 250V	
POWER	F904	5FSGB6322R	FUSE GLASS TUBE	TL6.3A 250V	
POWER	IC991	1AIC1117CY-	IC REGULATOR	AIC117-CY	
POWER	PT901	5TP8086002	TRANS POWER	EI=85.8X57 230V/50HZ	
POWER		5TP0086004	TRANS POWER	EI=85.8X57 127/230V 50/60HZ	for CE
POWER	PT992	5TP8028985	TRANS POWER	EI=28X12 230V/50HZ	for CE
POWER	RY991	5SC2001A01	SW RELAY	SDT-S-105LMR	With PSM
POWER	HD991,992,993,994	D1SR154---	DIODE RECTIFIER	1SR154-400 4526	With PSM