

Service  
Service  
**Service**



# Service Manual

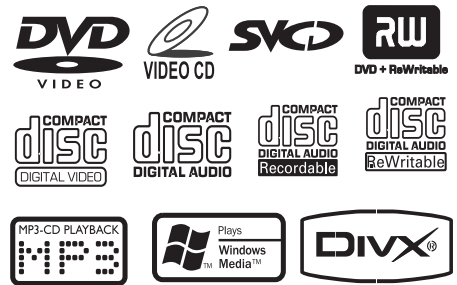


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## SERVICE AIDS

### Service Tools:

Universal Torx driver holder .....	4822 395 91019
Torx bit T10 150mm .....	4822 395 50456
Torx driver set T6-T20 .....	4822 395 50145
Torx driver T10 extended .....	4822 395 50423

### Compact Disc:

SBC426/426A Test disc 5 + 5A .....	4822 397 30096
SBC442 Audio Burn-in test disc 1kHz .....	4822 397 30155
SBC429 Audio Signals disc .....	4822 397 30184
Dolby Pro-logic Test Disc .....	4822 395 10216

### **GB** WARNING


All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.  
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

### ESD



### **GB**

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used

Safety components are marked by the symbol .

**CLASS 1  
LASER PRODUCT**

## INFORMATION ABOUT LEAD-FREE SOLDERING

Philips CE is producing lead-free sets from 1.1.2005 onwards.

### IDENTIFICATION:

Regardless of special logo (not always indicated) one must treat all sets from 1 Jan 2005 onwards, according next rules:



- On our website [www.atyourservice.ce.Philips.com](http://www.atyourservice.ce.Philips.com) you find more information to:
  - \* BGA-de-/soldering (+ baking instructions)
  - \* Heating-profiles of BGAs and other ICs used in Philips-sets
  - \* Lead free

You will find this and more technical information within the "magazine", chapter "workshop news".

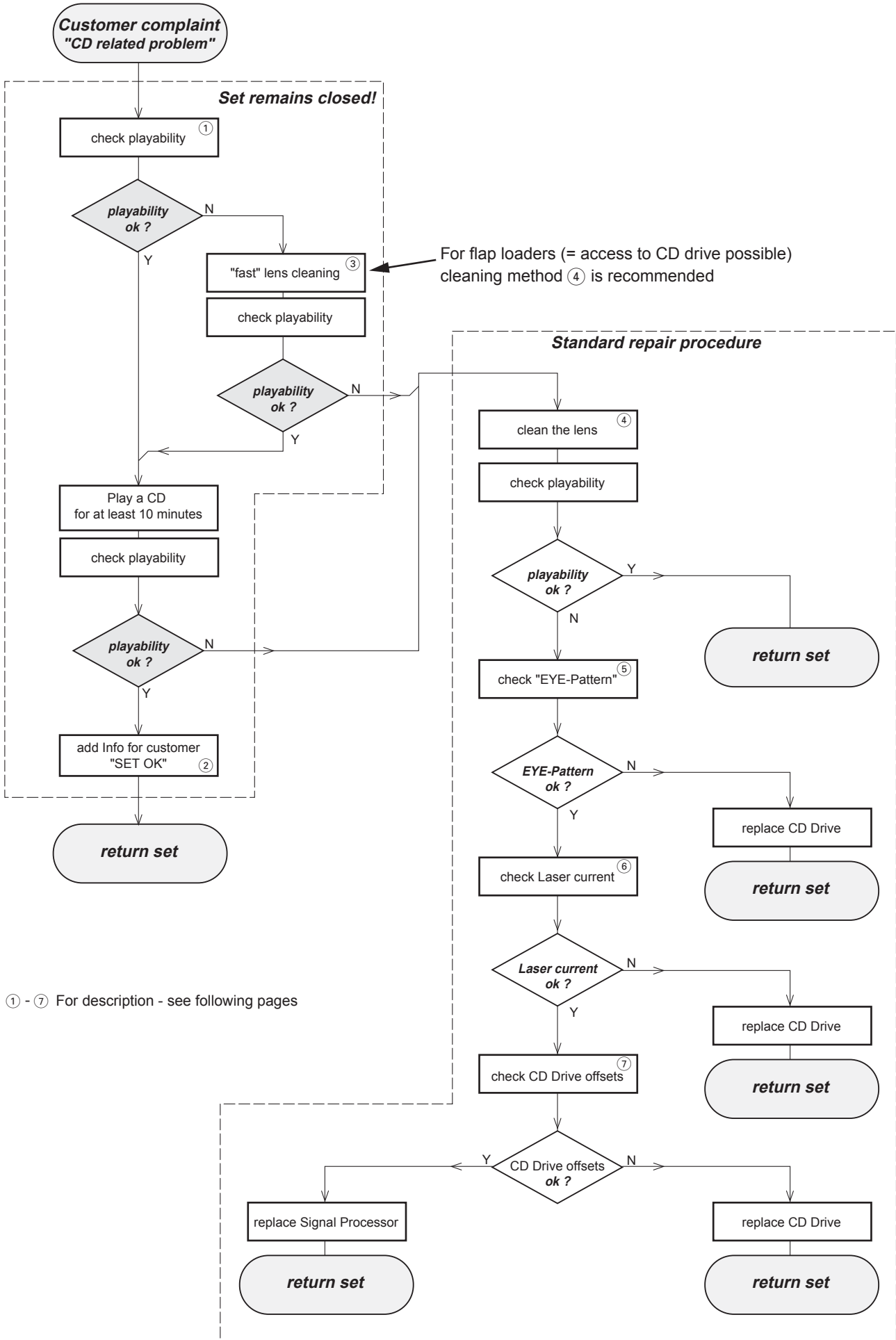
For additional questions please contact your local repair-helpdesk.

## SERVICE INSTRUCTION

Safety regulations require that after a repair, the set must be returned in its original condition. Pay in particular attention to the following points:

- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the AC Power lead for external damage.
- Check the strain relief of the AC Power cord for proper function.
- Check the electrical DC resistance between the AC Power Plug and the secondary side (only for sets which have a AC Power isolated power supply):
  1. Unplug the AC Power cord and connect a wire between the two pins of the AC Power plug.
  2. Set the AC Power switch to the "on" position (keep the AC Power cord unplugged!).
  3. Measure the resistance value between the pins of the AC Power plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be larger than 4.5 Mohm (For U.S. it should be between 4.2 Mohm and 12 Mohm).
  4. Switch "off" the set, and remove the wire between the two pins of the AC Power plug.
- Check the cabinet for defects, to avoid touching of any inner parts by the customer.

# CD PLAYABILITY CHECK



## CD PLAYABILITY CHECK

①

### PLAYABILITY CHECK

For sets which are compatible with **CD-RW** discs  
 use CD-RW Printed Audio Disc.....7104 099 96611  
 TR 3 (Fingerprint)  
 TR 8 (600µ Black dot) **maximum at 01:00**

- playback of these two tracks without audible disturbance  
 playing time for: Fingerprint ≥10seconds  
 Black dot from 00:50 to 01:10
- jump forward/backward (search) within a reasonable time

For all other sets  
 use CD-DA SBC 444A.....4822 397 30245  
 TR 14 (600µ Black dot) **maximum at 01:15**  
 TR 19 (Fingerprint)  
 TR 10 (1000µ wedge)

- playback of all these tracks without audible disturbance  
 playing time for: 1000µ wedge ≥10seconds  
 Fingerprint ≥10seconds  
 Black dot from 01:05 to 01:25
- jump forward/backward (search) within a reasonable time

②

### CUSTOMER INFORMATION

It is proposed to add an addendum sheet to the set which informs the customer that the set has been checked carefully - but no fault was found. The problem was obviously caused by a scratched, dirty or copy-protected CD. In case problems remain, the customer is requested to contact the workshop directly. The lens cleaning (method ③) should be mentioned in the addendum sheet.

The final wording in national language as well as the printing is under responsibility of the Regional Service Organizations.

③

### FAST LENS CLEANING (dry brush)

Use lens cleaning CD  
 SBC AC300.....9082 100 00043

Insert the lens cleaning CD, press PLAY and follow the voice guide's instructions on the CD.

④

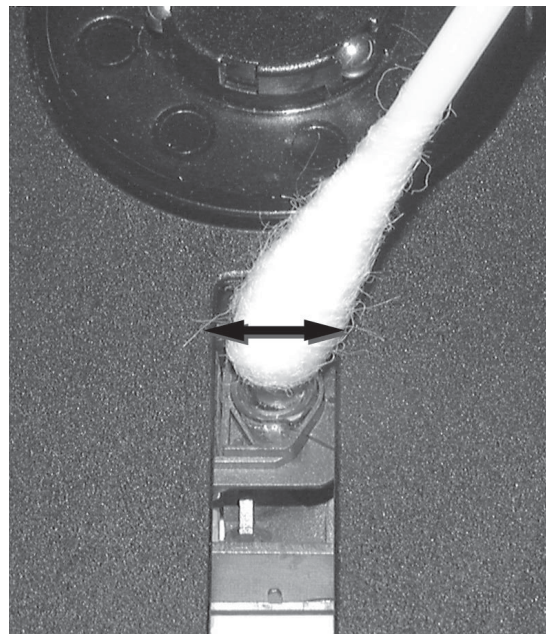
### LIQUID LENS CLEANING

**Before touching the lens it is advised to clean the surface of the lens by blowing clean air over it. This to avoid that little particles make scratches on the lens.**

Because the material of the lens is synthetic and coated with a special anti-reflectivity layer, cleaning must be done with a non-aggressive cleaning fluid. It is advised to use "Cleaning Solvent B4-No2", available with codenumber 4822 389 10026.

The actuator is a very precise mechanical component and may not be damaged in order to guarantee its full function. Clean the lens gently (don't press too hard) with a soft and clean cotton bud moistened with the special lens cleaner.

The direction of cleaning must be in the way as indicated in the picture below.

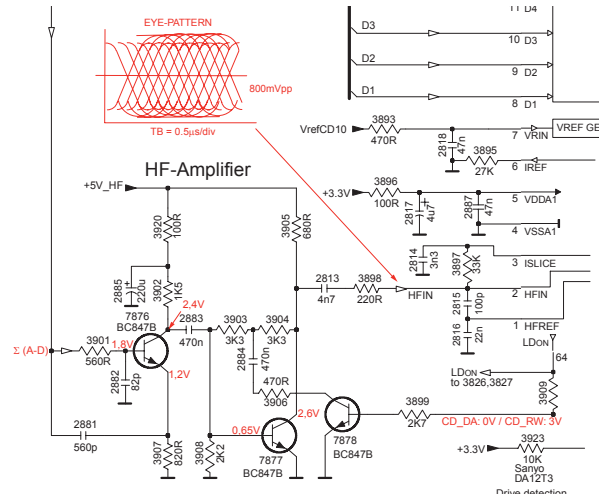


# CD PLAYABILITY CHECK

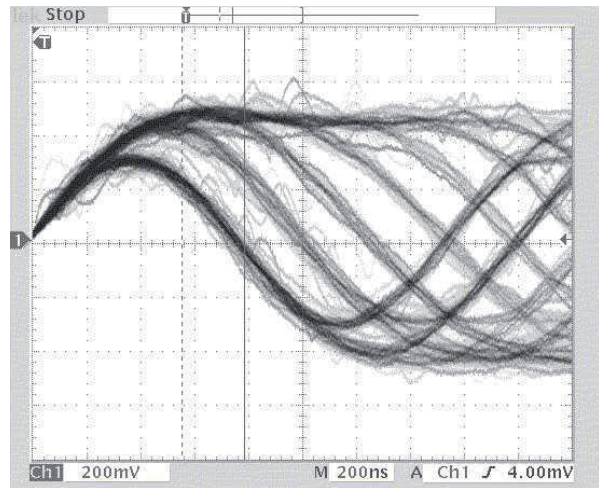
5

## EYE-PATTERN SIGNAL – JITTER MEASUREMENT

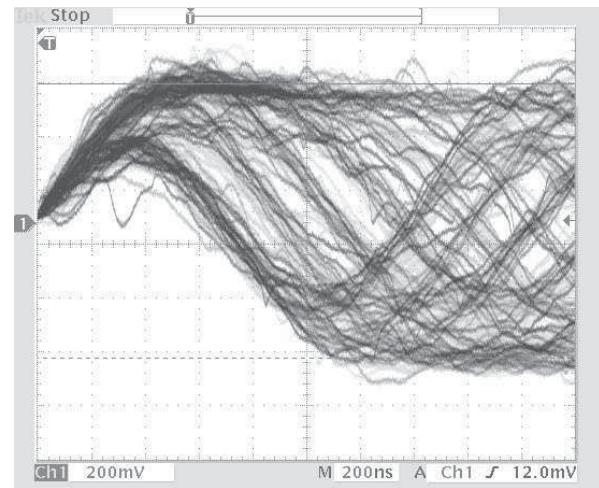
Measure the signal on the input of the Signal processor using an **analog** oscilloscope. Please find the exact measuring point in your Service Manual.



See below examples of the signal. Amplitude should read at least 700mVpp using SBC444A.



good



bad

If the oscilloscope shows a signal like the 'bad' one, and/or the amplitude decreases within 1 minute - the CD drive has to be replaced.

6

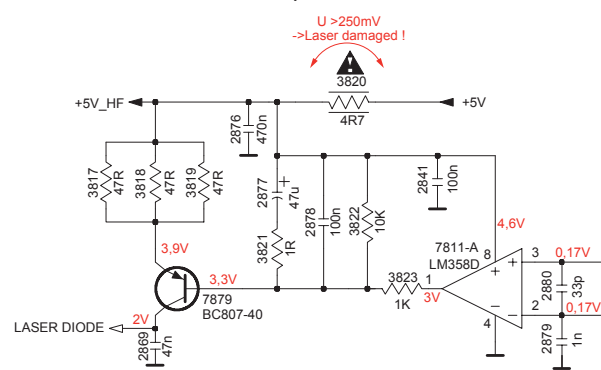
## CD DRIVE – LASER CURRENT MEASUREMENT

The laser current can be measured as a voltage drop on a resistor. The resistor is marked in every Service Manual. The value depends on the type of CD drive.

	typical value	most probably defect
VAMxxxx	: 150-230mV	≥350mV
MCDxx	: 170-230mV	≥300mV
DA1x	: 210-250mV	≥350mV
DA2x	: 175-200mV	≥250mV

Use SBC444A (CD-DA) for measurement.

### Laser power control



7

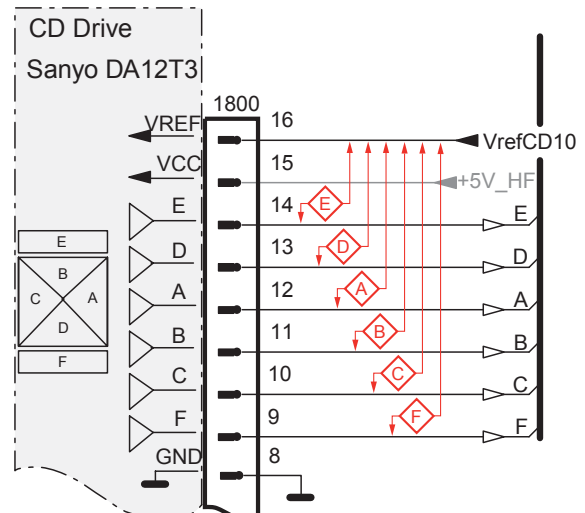
## CD DRIVE – OFFSET MEASUREMENT

The photodiodes of the CD-drive may have an offset. These offsets have to be compensated by the signal processor. High offsets can lead to poor playability of some CDs (skipping tracks).

To measure the offset values, start the **Service Test Program** - section "Focus Test" without a CD.

The offsets can be measured with a DC Millivoltmeter directly on the connector (see drawing below). Pin numbering varies from drive to drive.

The values from diode A-D should read 0±10mV. Diodes E and F are less critical.



If one of the offsets is higher than ±10mV the CD drive has to be replaced. Otherwise replace the Signal Processor.

## TECHNICAL SPECIFICATIONS

### SYSTEM

Total output power .....	400W RMS
Power supply .....	220 – 240V / 50 Hz
Rated working power consumption (1/8 rated output power) .....	≤ 85W
AUX input sensitivity .....	≤ 500mV
Channel Separation .....	≥ 40dB
Distortion .....	0.7%
Eco power Standby .....	< 1W

### DVD

Frequency response	100Hz-20kHz (+0.5/-2 dB)
Video output .....	1 V <sub>P-P</sub>
HDMI 480p (60Hz), 720p (60Hz), 1080i (60Hz), 576p (50Hz), 720p (50Hz), 1080i (50Hz)	
Horizontal definition .....	500 (TV)
Dimensions . 430 (W) x 225 (H) x 141 (D) mm	
Weight .....	2.13 kg

### AMPLIFIER

Rated output power (THD = 10%) .....	2x75W (4Ω)
Frequency response	100Hz-20kHz (+0.5/-2 dB)
S/N Ratio .....	≥ 60dB
Loaded impedance .....	4 Ω

### TUNER

FM Frequency range .....	87.5-108 MHz
FM Noise limit sensitivity .....	≤ 20μ V/M
FM S/N .....	≥ 46dB

### SPEAKER

Impedance .....	4 Ω
Output power .....	75W
Sensitivity .....	80 ± 4dB
Frequency response .....	80Hz-16kHz
Dimensions . 198 (W) x 649 (H) x 163 (D) mm	
Weight .....	3.66 kg each

### SUBWOOFER

Subwoofer (not magnetically shielded design) .....	8" (active)
Impedance .....	8 Ω
Dimensions . 430 (W) x 265 (H) x 292 (D) mm	
Weight .....	8.6 kg
Output power .....	150W

### REMOTE

Distance .....	6m
Angle .....	± 30°

**Specifications subject to change without prior notice**

## SERVICE TOOLS

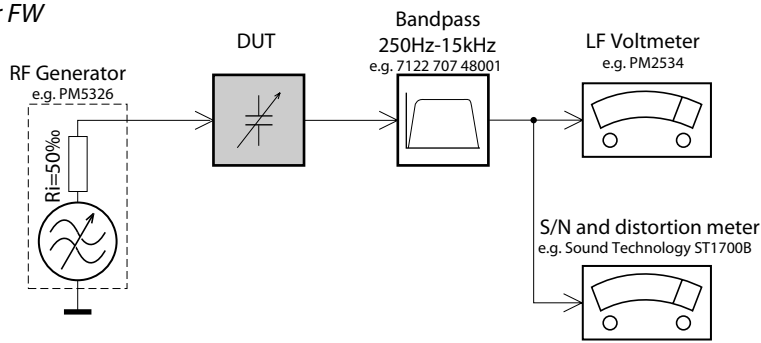
<b>TORX T10</b> screwdriver with shaftlength 150mm.....	4822 395 50423
<b>TORX screwdriver set</b> SBC 163.....	4822 295 50145
<b>Audio signal disc</b> SBC 429.....	4822 397 30184
<b>Playability test disc</b> SBC 444.....	4822 397 30245
<b>Test disc 5</b> (disc without errors) +	
<b>Test disc 5A</b> (disc with dropout errors, black spots and fingerprints)	
SBC 426/426A.....	4822 397 30096
<b>Burn in test disc</b> (65 min. 1kHz signal at -30 dB level without "pause").....	4822 397 30155
<b>Universal test cassette</b> Fe SBC 420.....	4822 397 30071

## AVAILABLE ESD PROTECTION EQUIPMENT

<b>anti-static table mat</b> large 1200x650x1.25mm	4822 466 10953
small 600x650x1.25mm	4822 466 10958
<b>anti-static wristband</b>	4822 395 10223
<b>connection box</b> (3 press stud connections, 1MΩ)	4822 320 11307
<b>extendible cable</b> (2m, 2MΩ, to connect wristband to connection box)	4822 320 11305
<b>connecting cable</b> (3m, 2MΩ, to connect table mat to connection box)	4822 320 11306
<b>earth cable</b> (1MΩ, to connect any product to mat or to connection box)	4822 320 11308
<b>KIT ESD3</b> (combining all 6 prior products - small table mat)	4822 310 10671
<b>wristband tester</b>	4822 344 13999

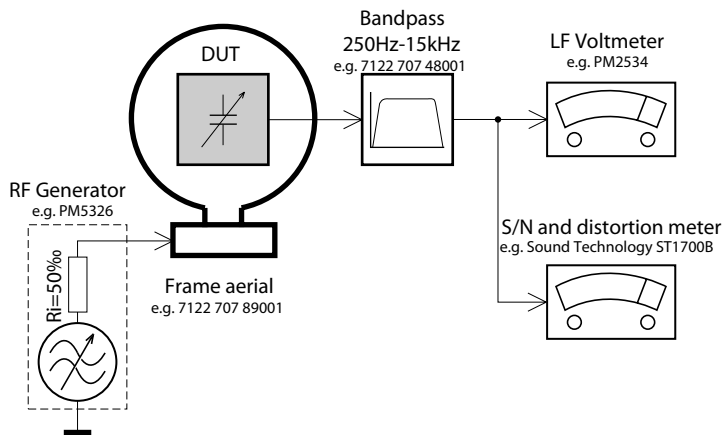
SERVICE MEASUREMENT

*Tuner FW*



Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilotone (19kHz, 38kHz).

*Tuner AM (MW,LW)*



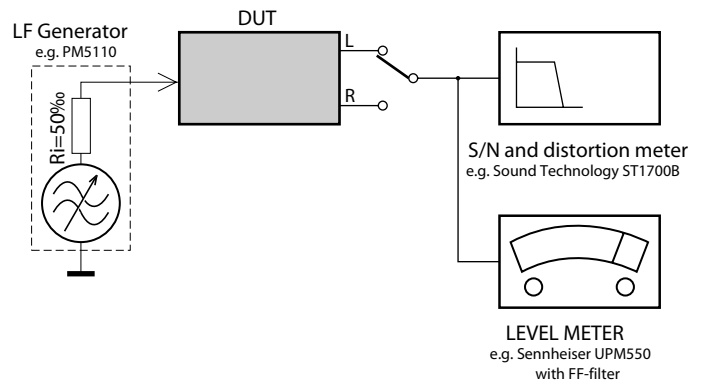
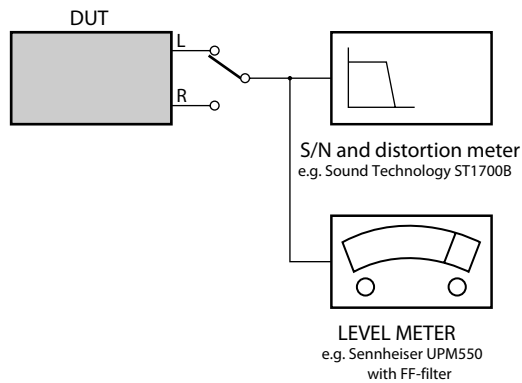
To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday« cage. Use a bandpass filter (or at least a high pass filter with 250kHz) to eliminate hum (50Hz, 100Hz).

*CD*

Use Audio Signal Disc SBC429 4822 397 30184 (replaces test disc 3)

*RECORDER*

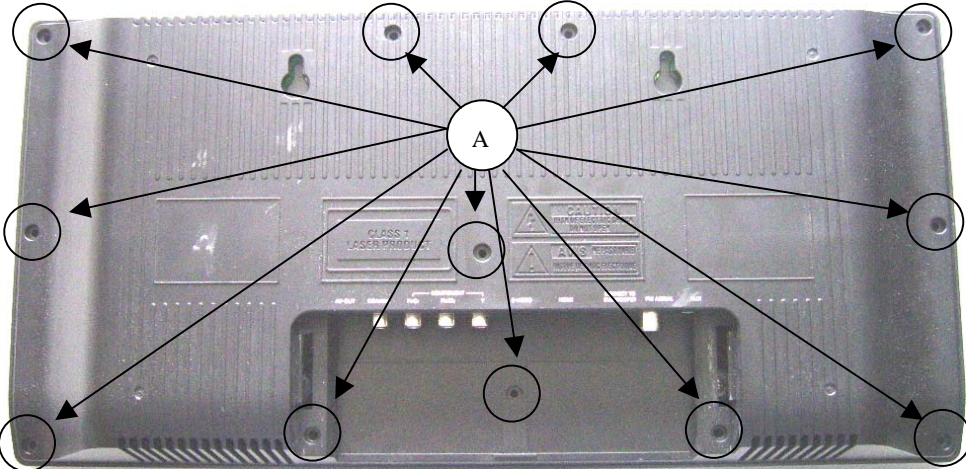
Use Universal Test Cassette Fe SBC420 4822 397 30071



Disassembly diagram

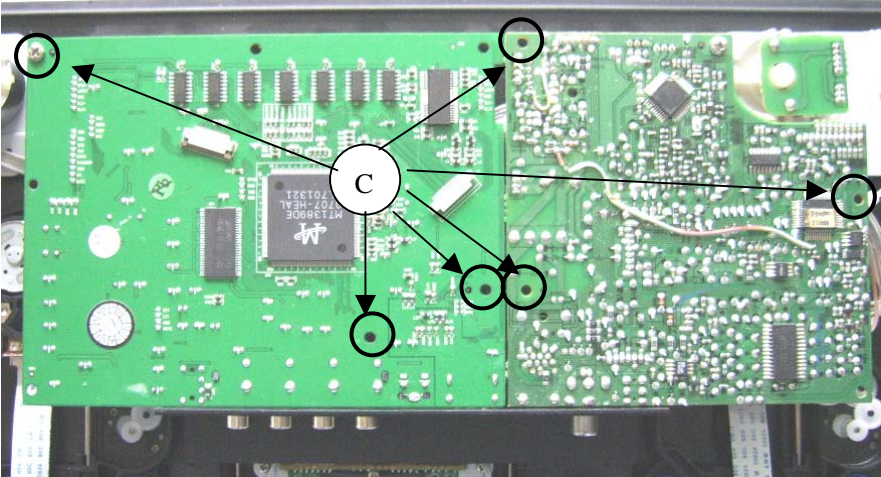
A Remove Bottom Cover

A1. Remove Screws M3×12 (12PCS)

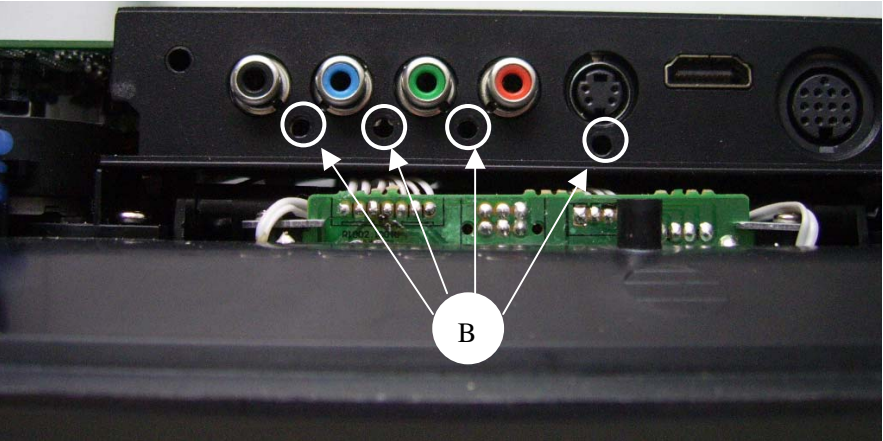


C Remove DVD Decoder and CPU board Assy

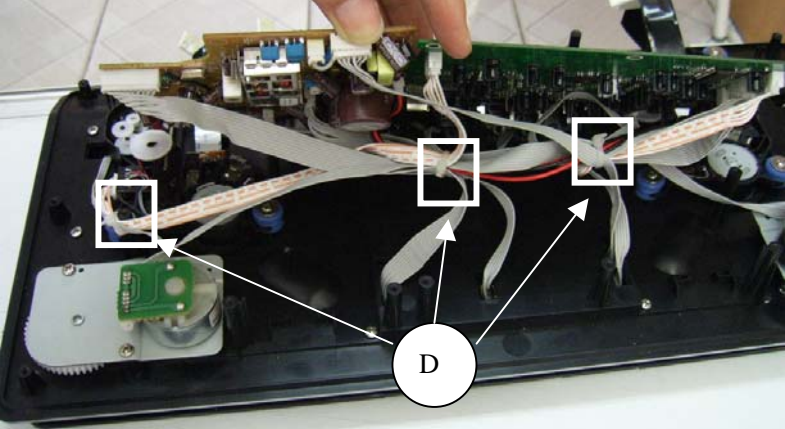
C1. Remove Screws M3×8 (6PCS)



B. Remove Fan-out Screws M 3 × 8 (4PCS)



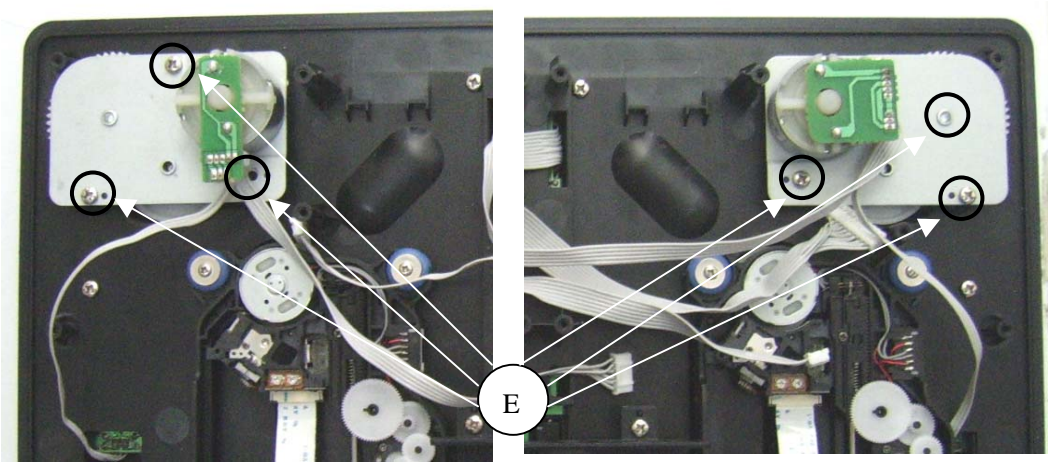
D Cut Plastic Wires (3PCS)





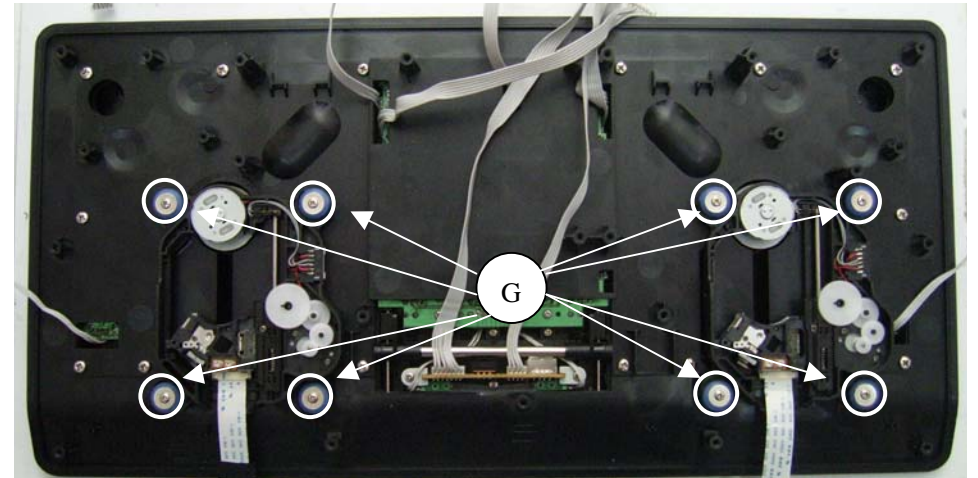
E Remove Motor

E1 Remove Screws M3×6 (6PCS)



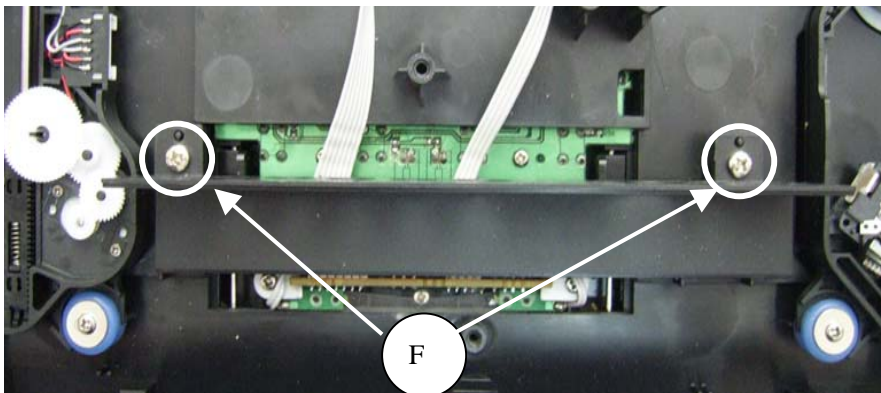
G Remove CD Mechanism

G1 Remove Screws M2.6×10 (8PCS)



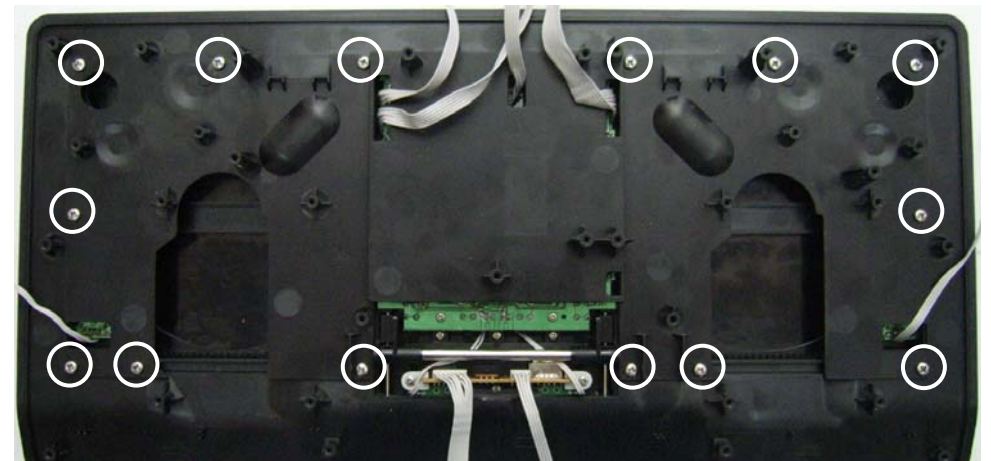
F Remove PCB Plank

F1 Remove Screws M3×6 (2PCS)



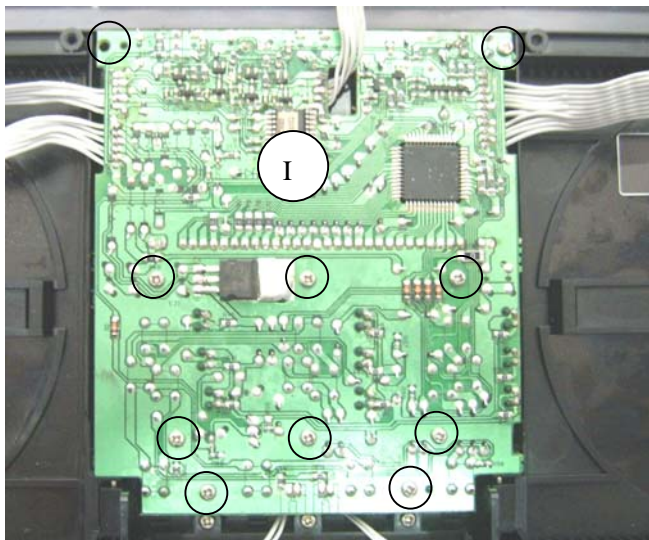
H Remove Main Panel

H1 Remove Screws M3×6 (14PCS)



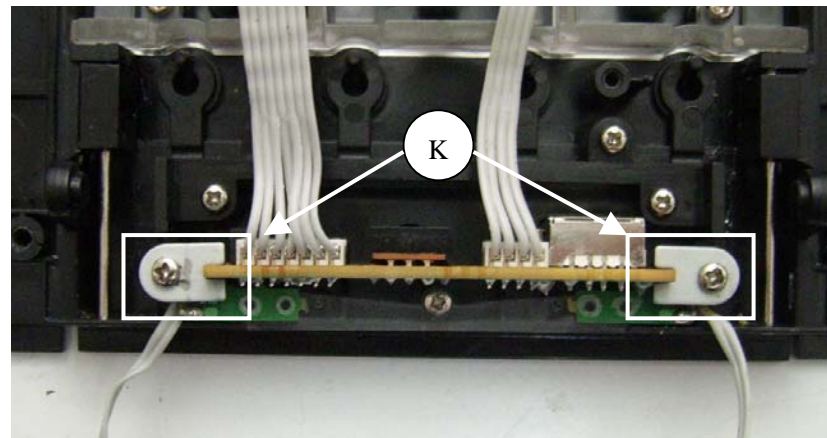
I Remove VFD Board Assy

I1 Remove Screws M2.6×8 (10PCS)

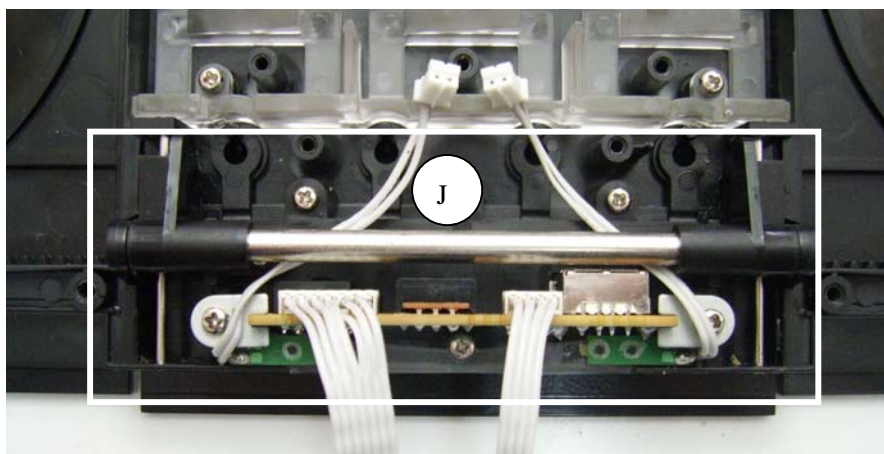


K Remove USB board

K1 Remove Screws M3×10 (2PCS)

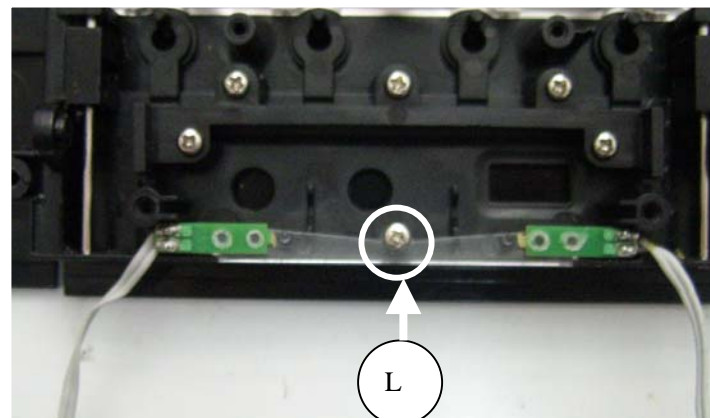


J Remove Slide Plank and Slide Spring

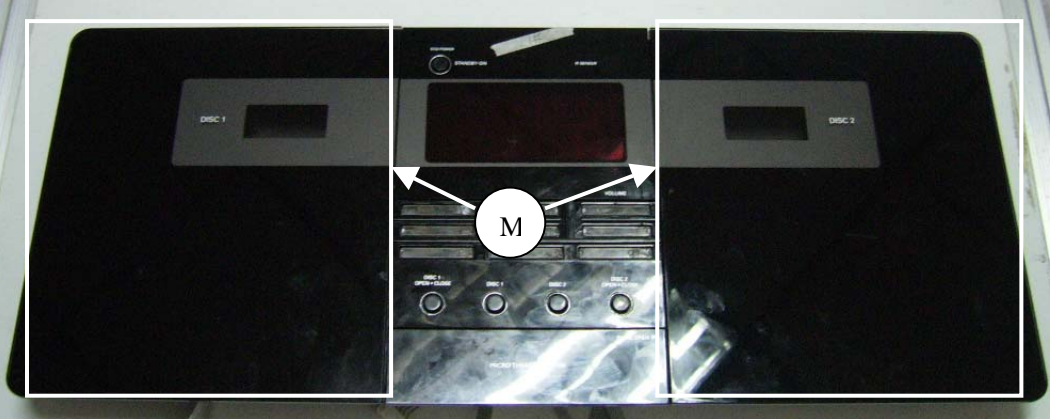


L Remove Decorate Lamp

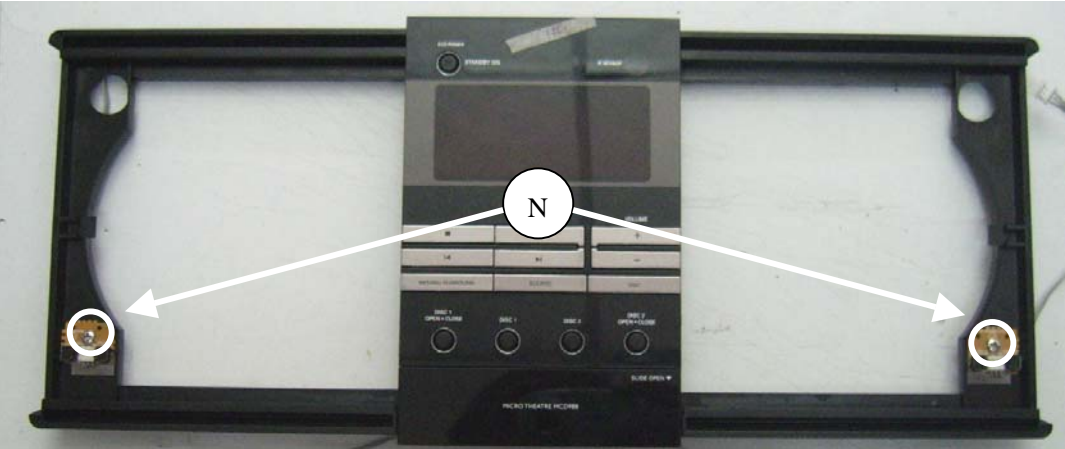
L1 Remove Screws M2×8 (1PCS)



M Remove DVD door



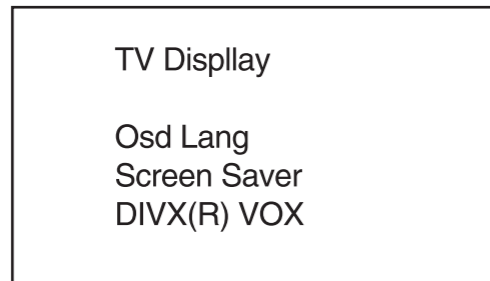
N Remove Gating Plate  
N1 Remove Screws M2.6×8 (2PCS)



**SOFTWARE VERSION CHECK AND UPGRADING****A.MPEG SOFTWARE VERSION CHECK**

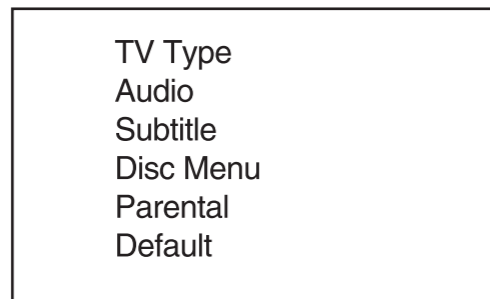
1.Press SYSTEM key (on the remote control) to open setup page,

TV Screen shows:



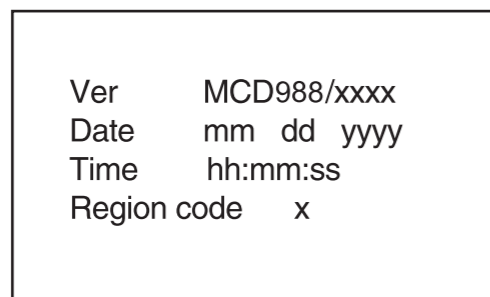
2.Press REMOVAL key (on the remote control) to the original setup page,

TV Screen shows:



3.Enter the password "811502" (on the remote control)

TV Screen shows:

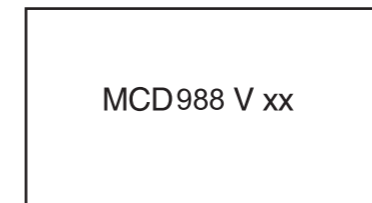


4.Press ▲ or ▼ button (on the remote control) to change region.  
Press OK to confirm.

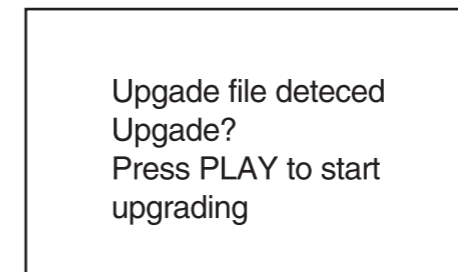
**B.CPU VERSION CHECK**

Keep PLAY/PAUSE and STOP buttons (on the set) depressed while pressing POWER on.

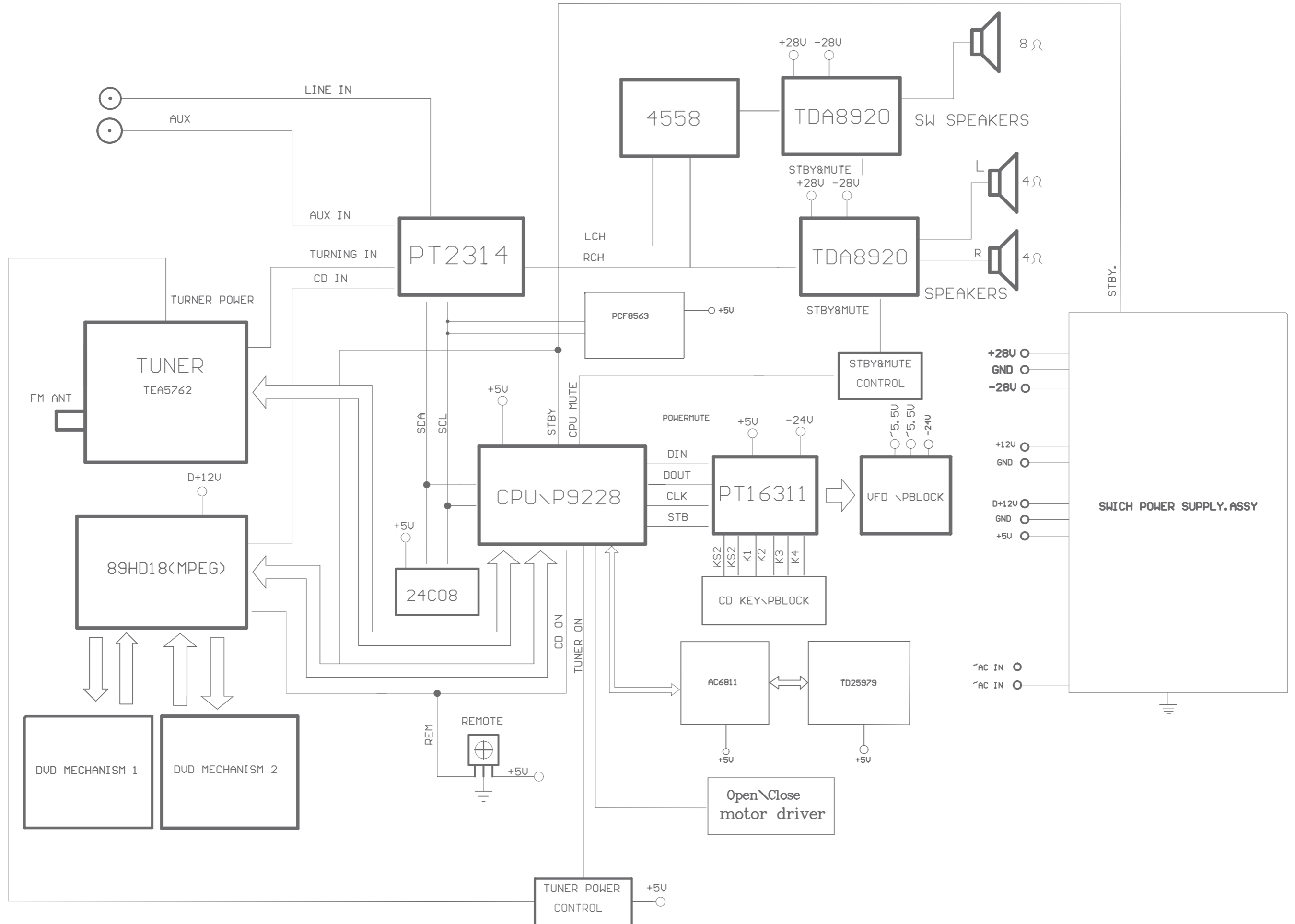
TV screen shows

**C. MPEG SOFTWARE UPGRADING**

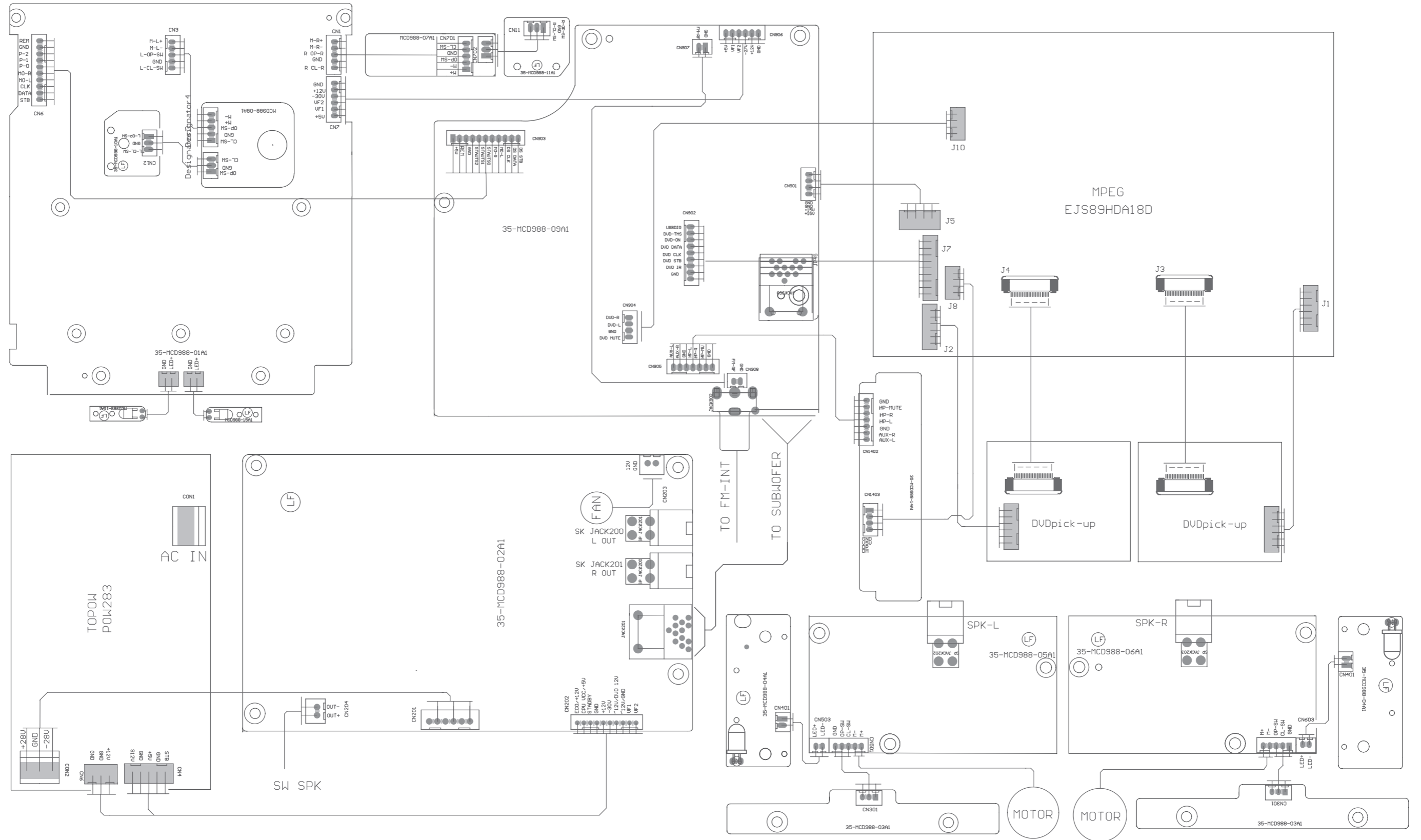
1. download the firmware from Philips support website  
<http://www.philips.com/support>
2. Prepare a uploading CD
3. Put the CD in the CD tray
4. TV Screen shows



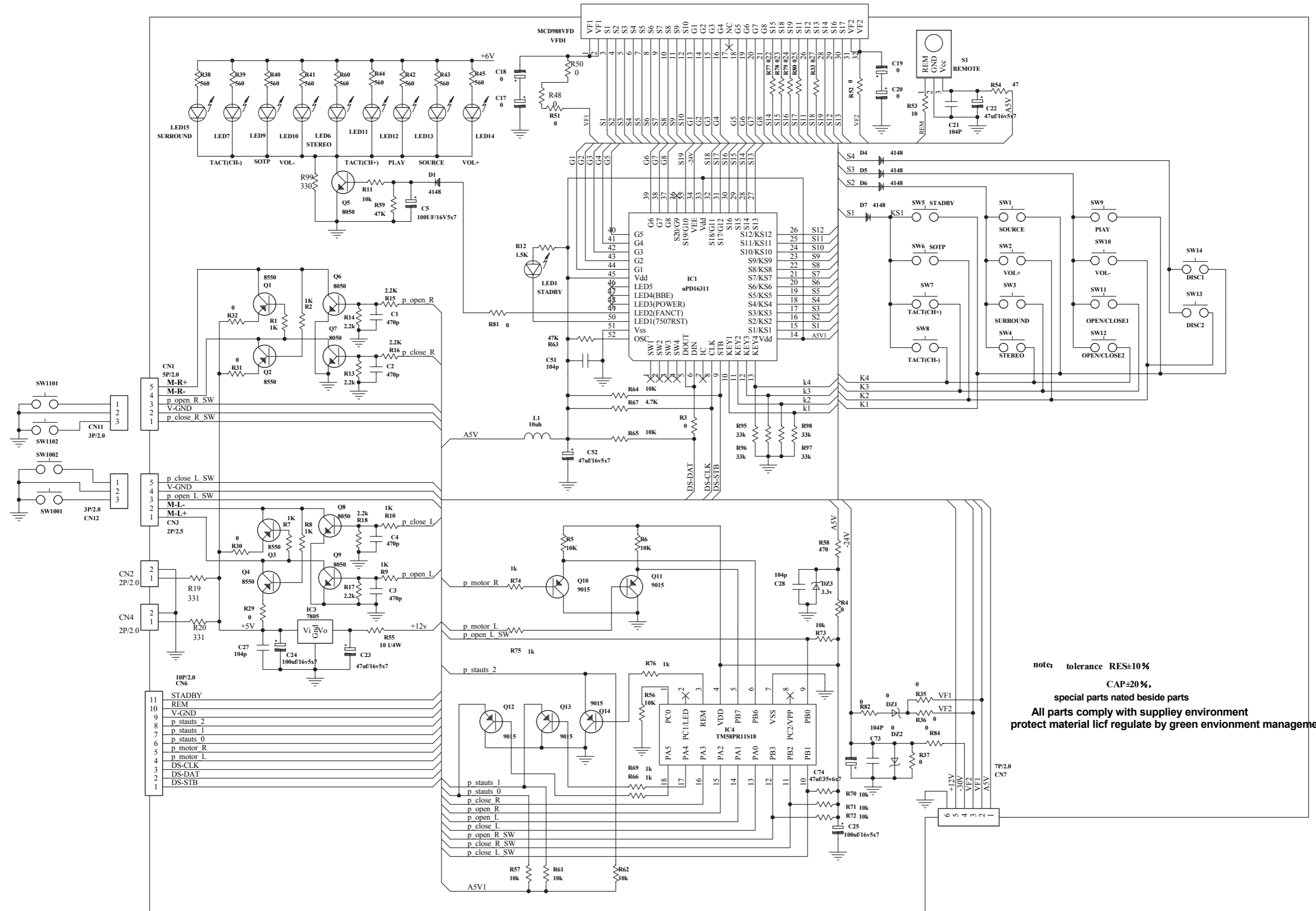
# SET BLOCK DIAGRAM



# SET WIRING DIAGRAM

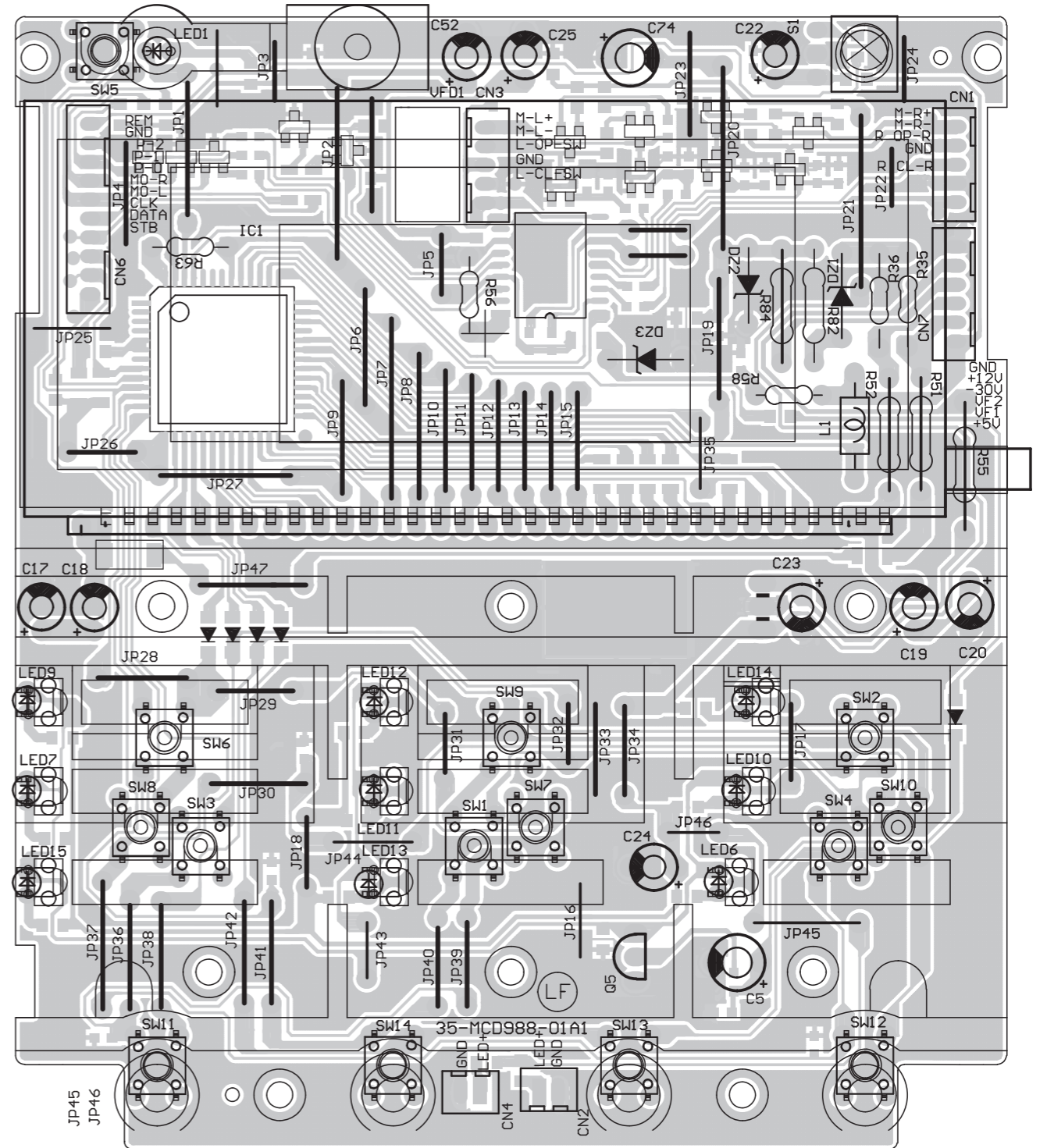
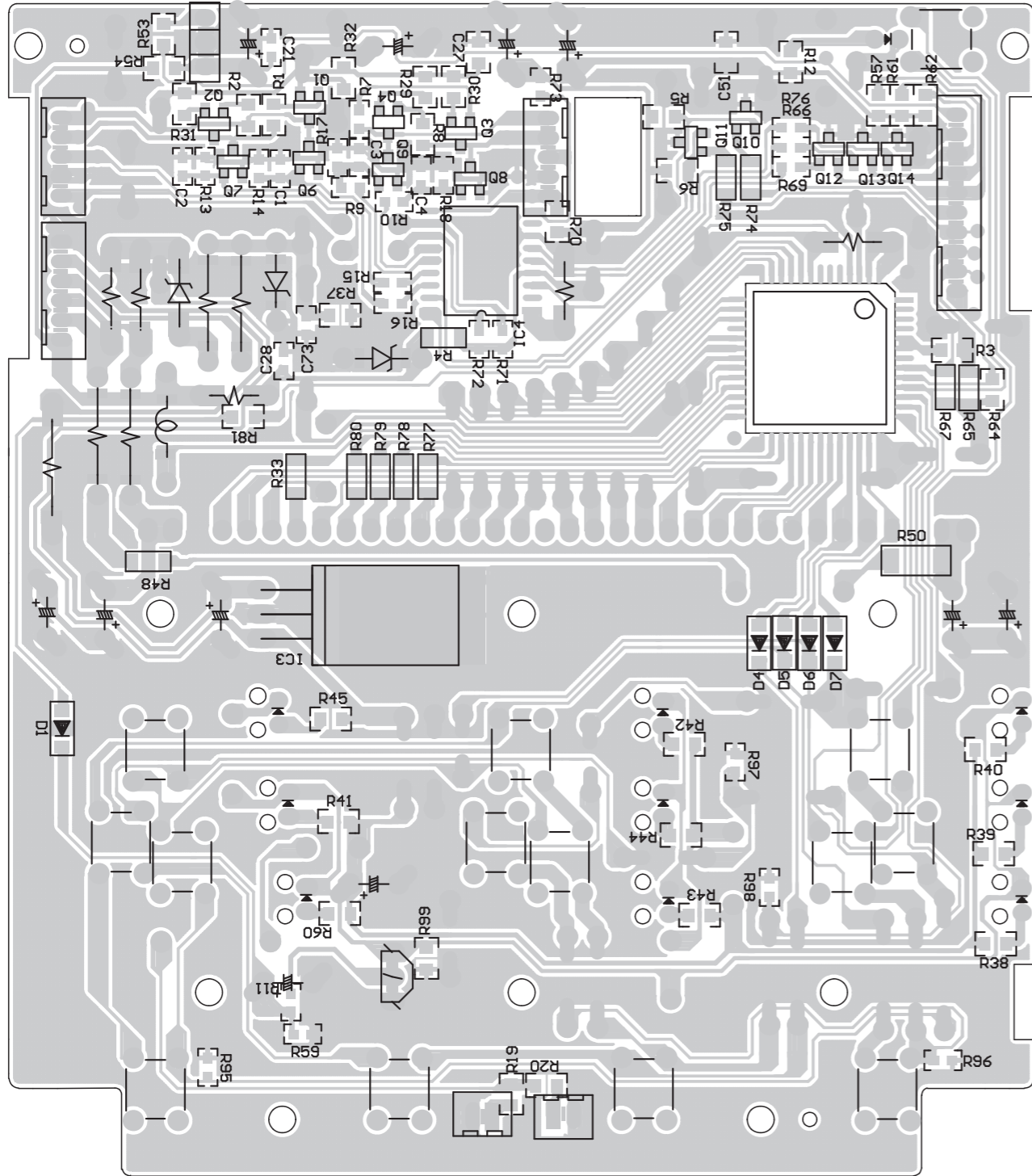


# CIRCUIT DIAGRAM - VFD BOARD



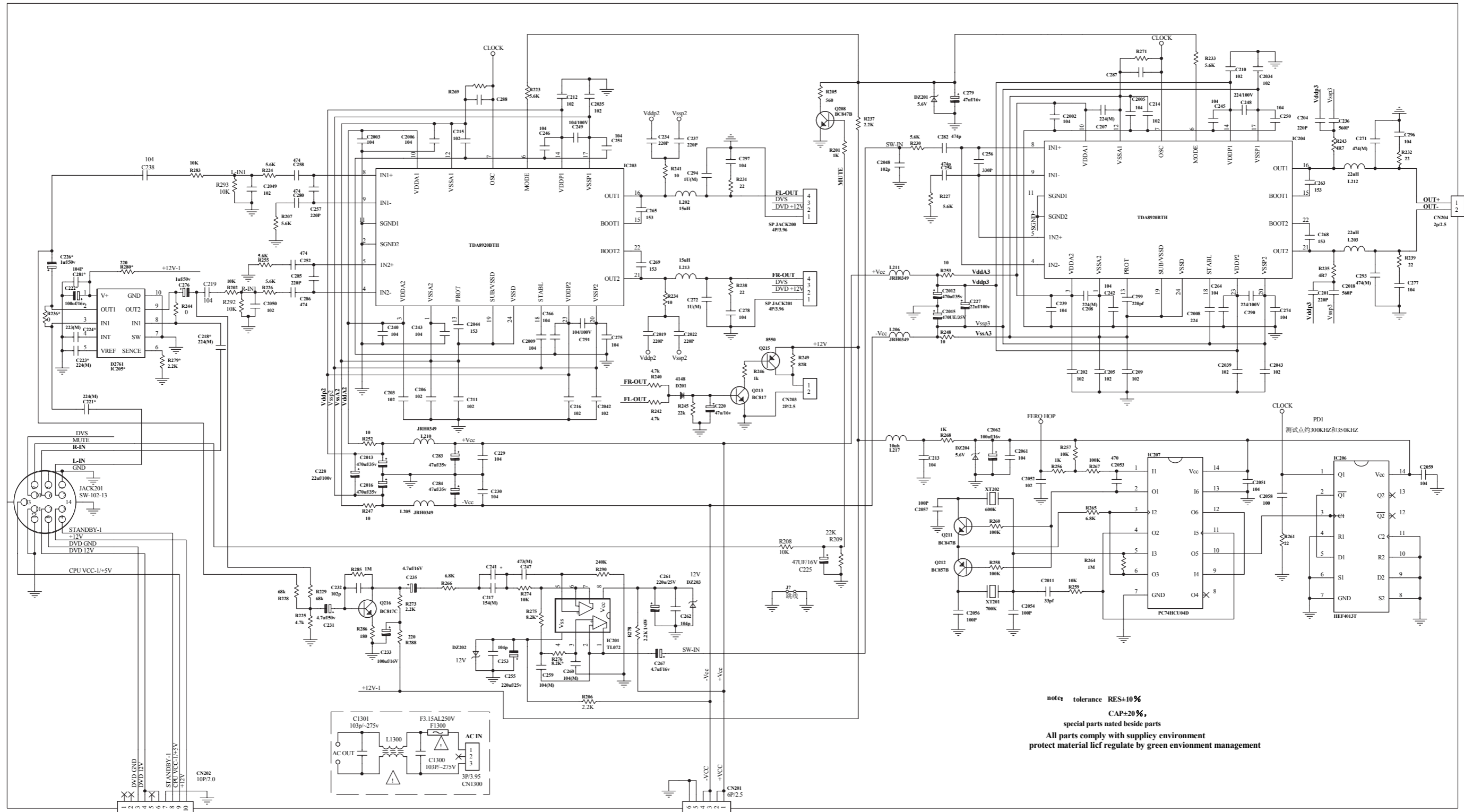
note: tolerance RES±10%  
 CAP±20%,  
 special parts nated beside parts  
 All parts comply with supply environment  
 protect material licf regulate by green environment management

LAYOUT DIAGRAM - VFD BOARD



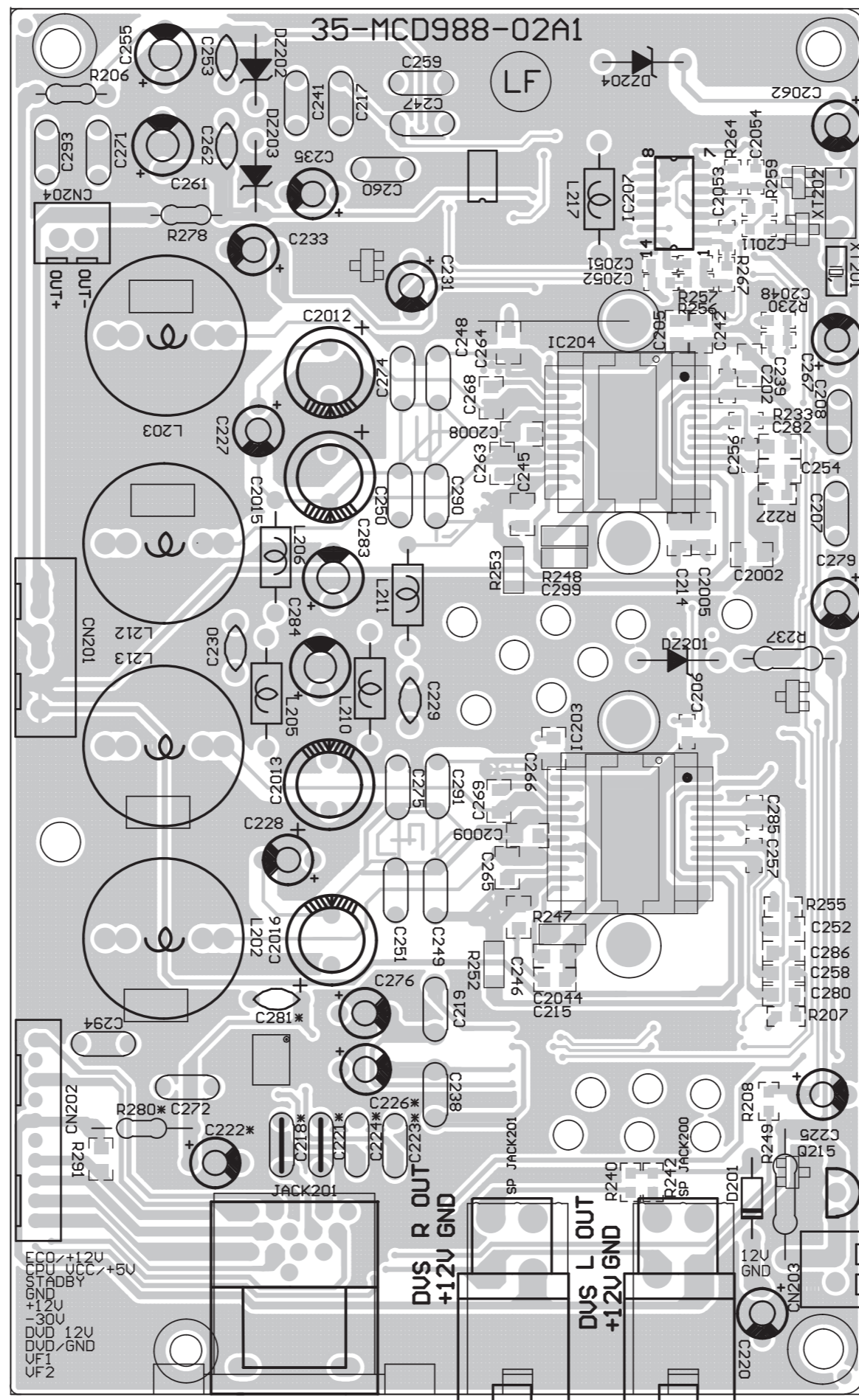


# CIRCUIT DIAGRAM - AMP BOARD

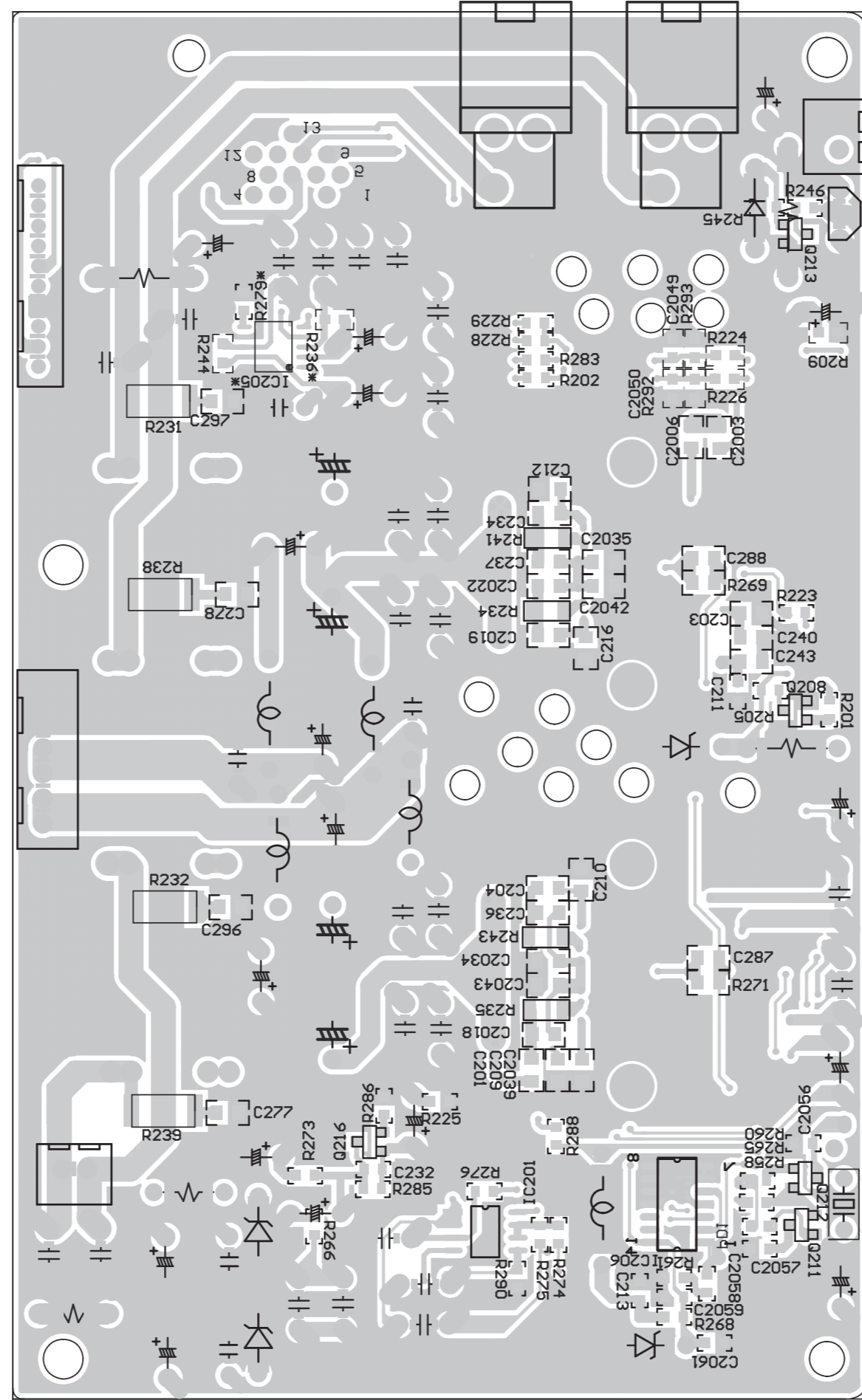


not tolerance RES±10%  
 CAP±20%,  
 special parts noted beside parts  
 All parts comply with supply environment  
 protect material lief regulate by green envionment management

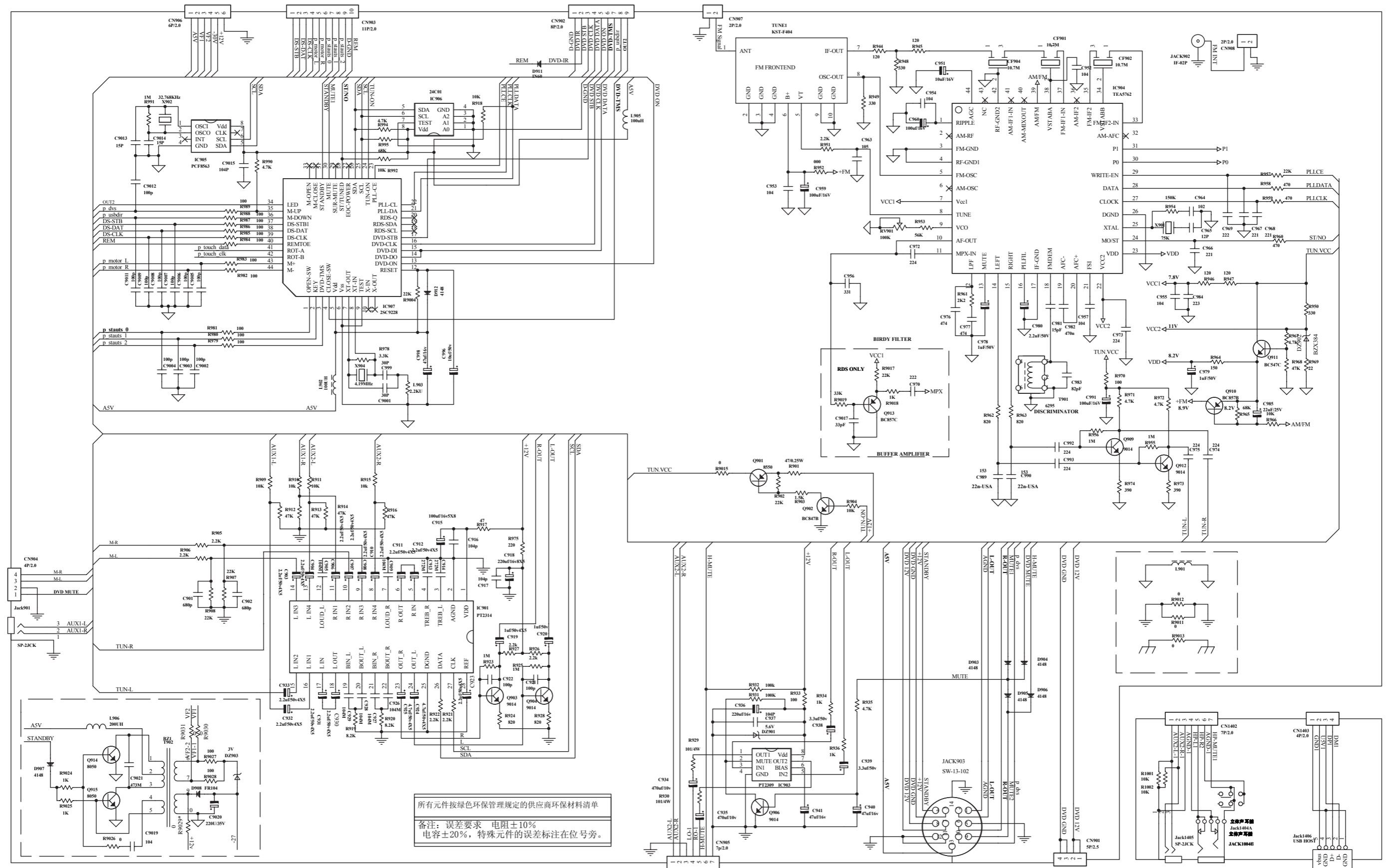
LAYOUT DIAGRAM - AMP BOARD



LAYOUT DIAGRAM - AMP BOARD

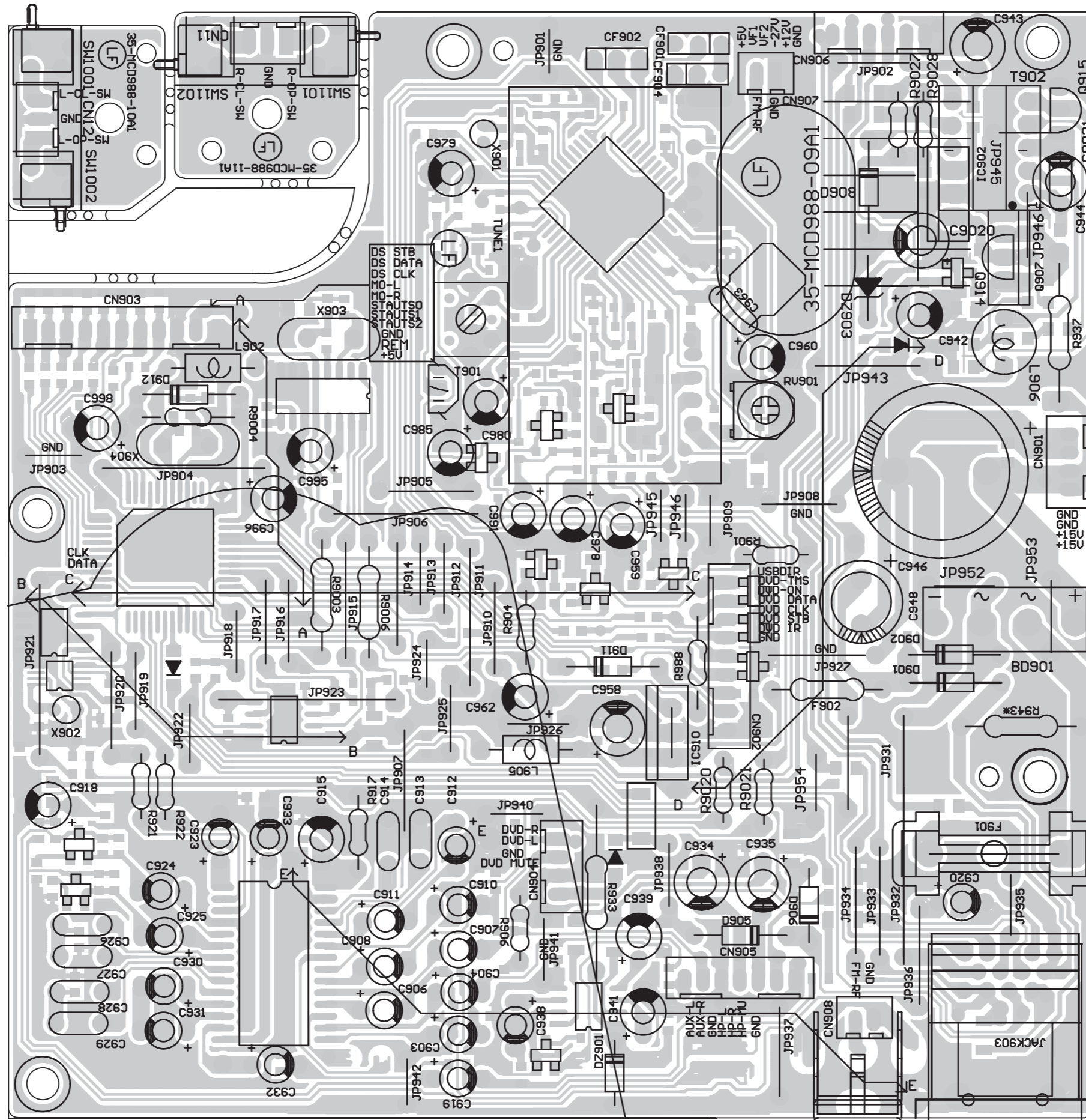


# CIRCUIT DIAGRAM - CPU & TUENR BOARD

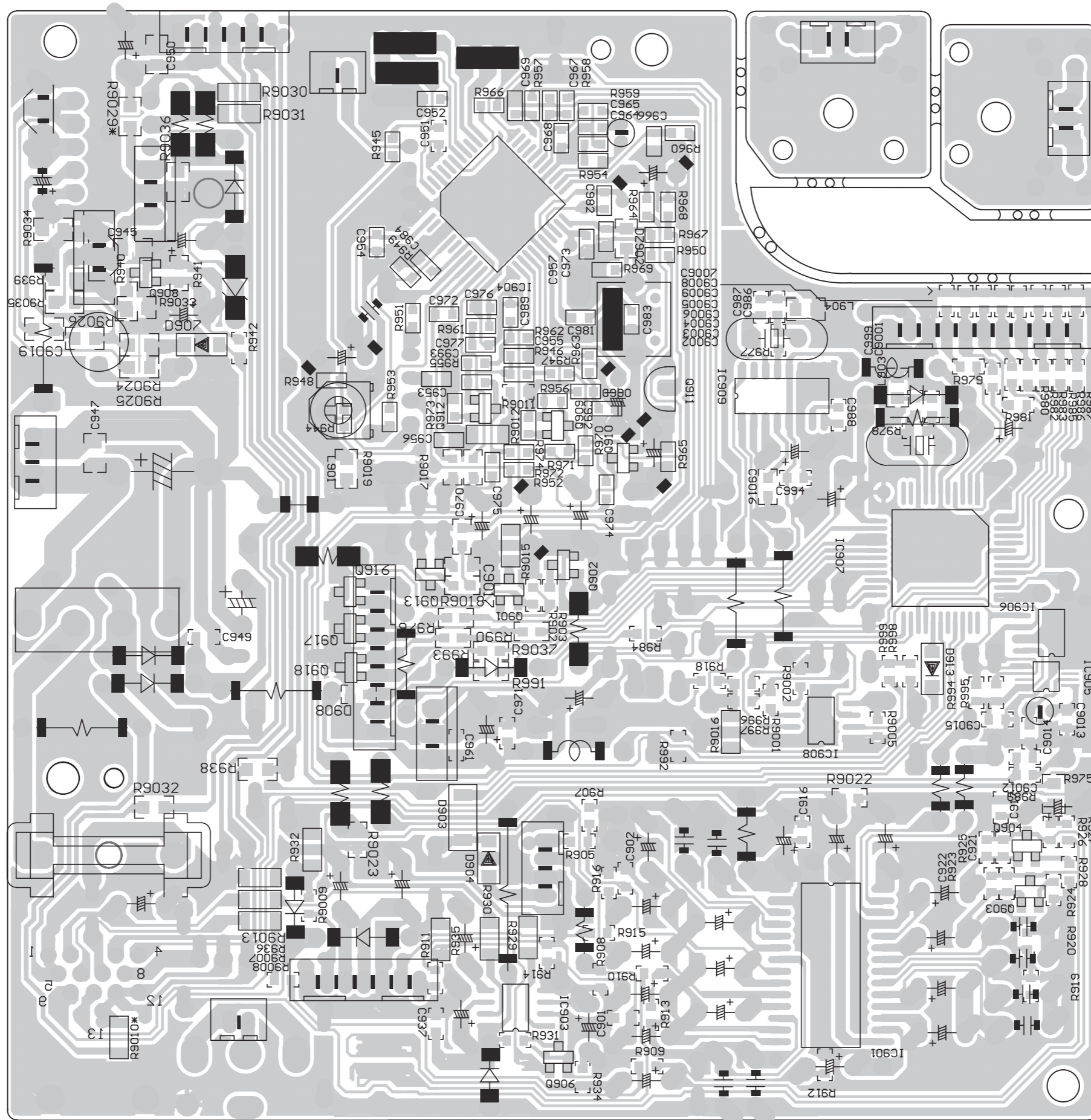


所有元件按绿色环保管理规定的供应商环保材料清单  
 备注：误差要求 电阻±10%  
 电容±20%，特殊元件的误差标注在位号旁。

LAYOUT DIAGRAM - CPU & TUENR BOARD

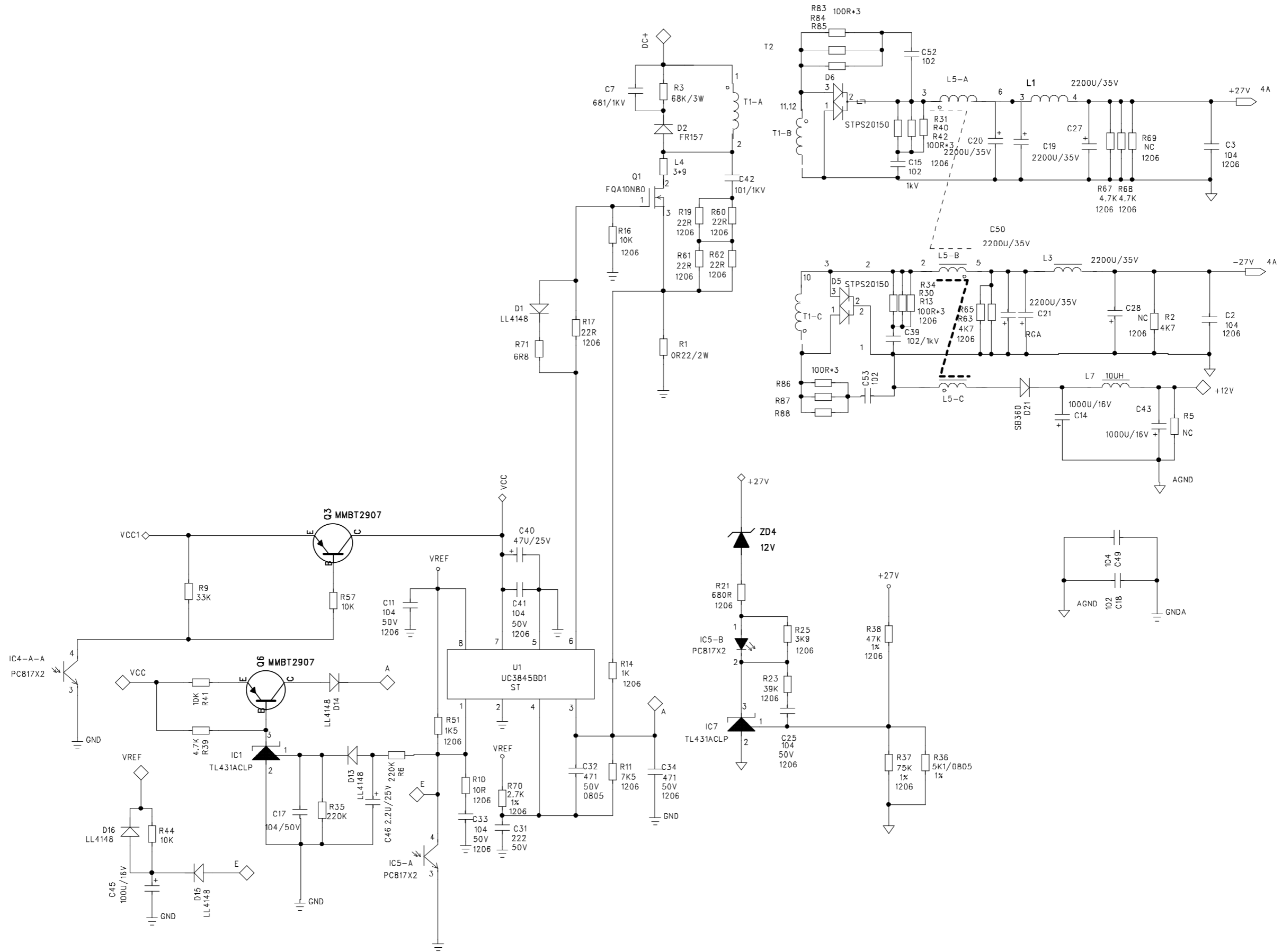


# LAYOUT DIAGRAM - CPU & TUENR BOARD



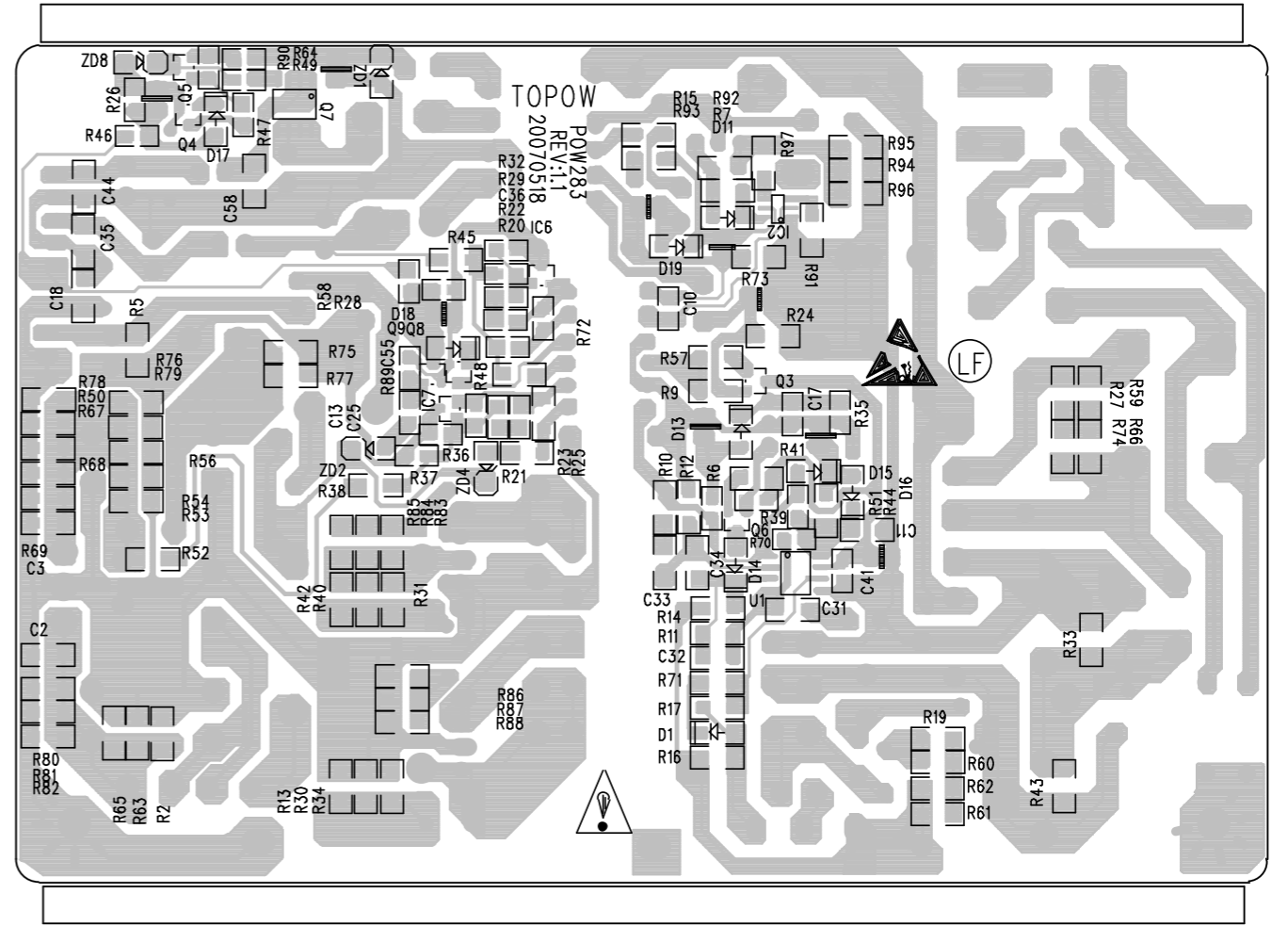
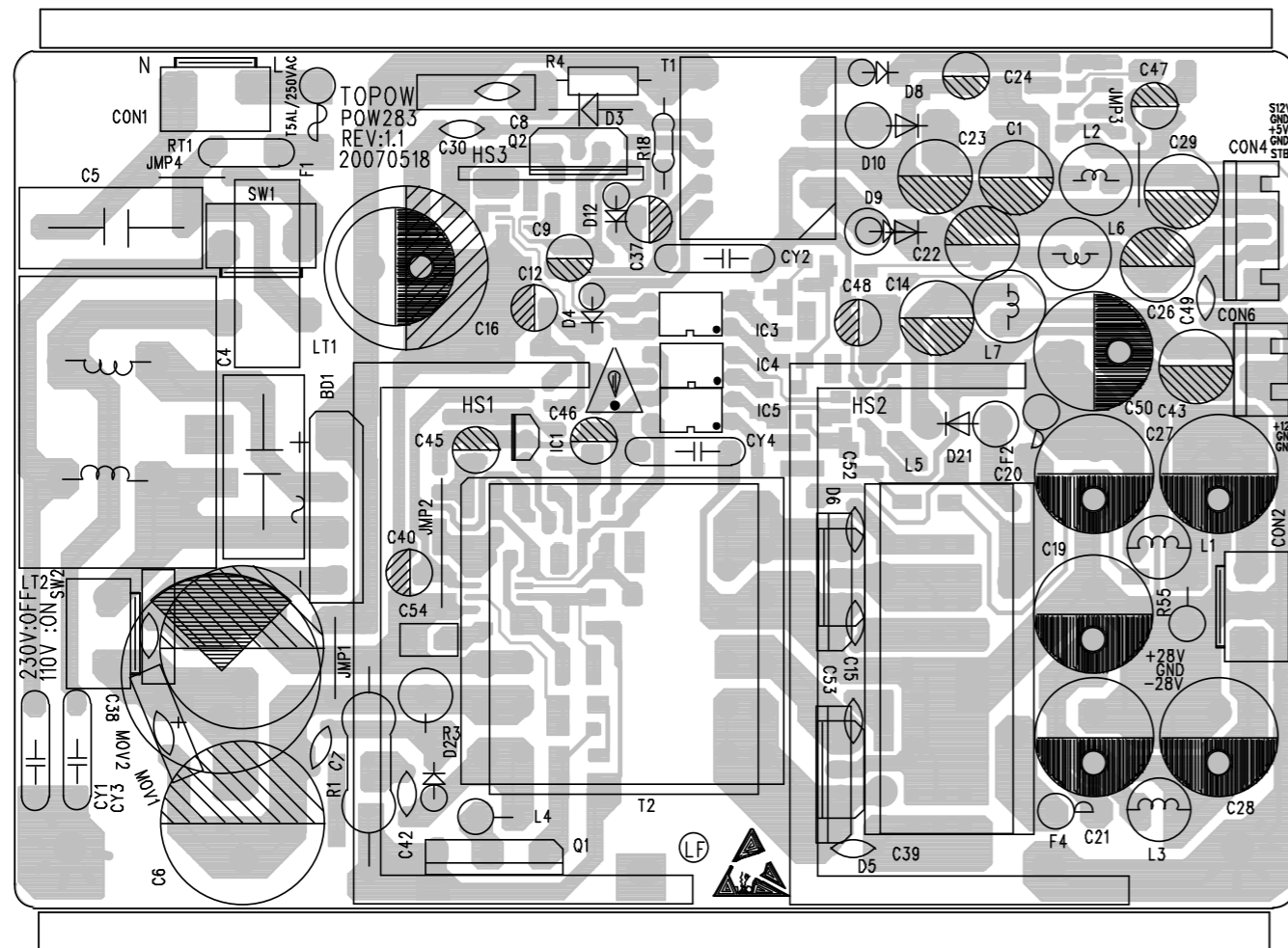


# CIRCUIT DIAGRAM - POWER BOARD PART 2

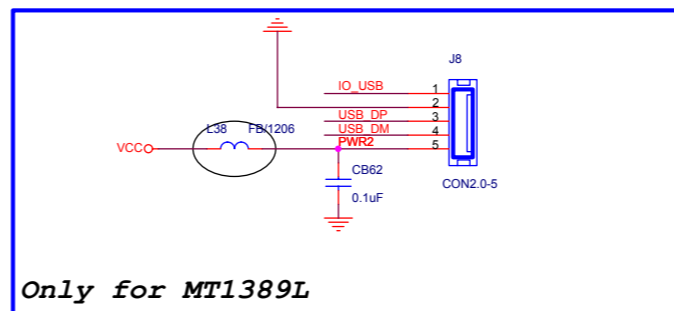
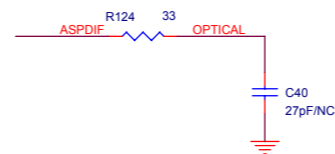
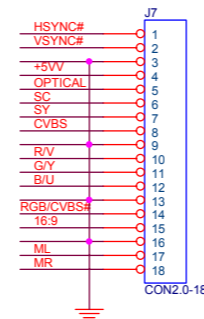
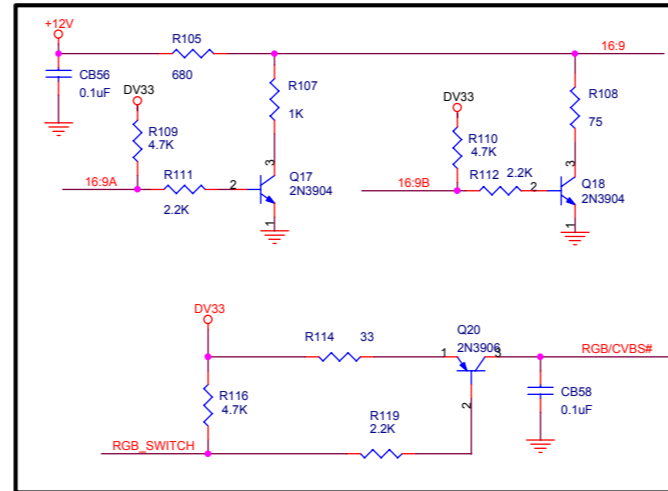
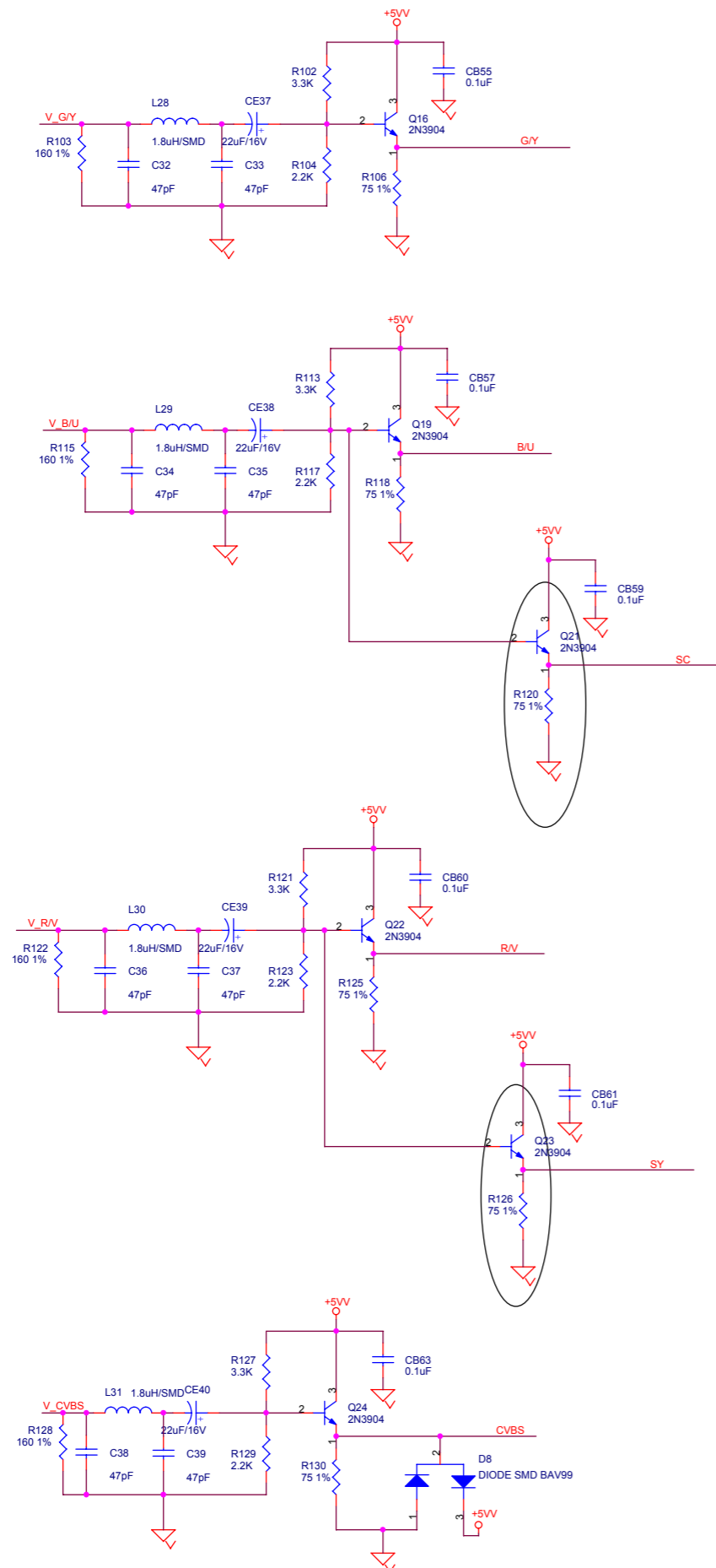




LAYOUT DIAGRAM - POWER BOARD

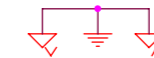


**CIRCUIT DIAGRAM - DVD MPEG BOARD**  
MPEG is not repaired, diagram for reference only.



**Card Reader Solution:**  
1) ,extend 373;  
2) ,2CH audio (Not 5.1CH audio);

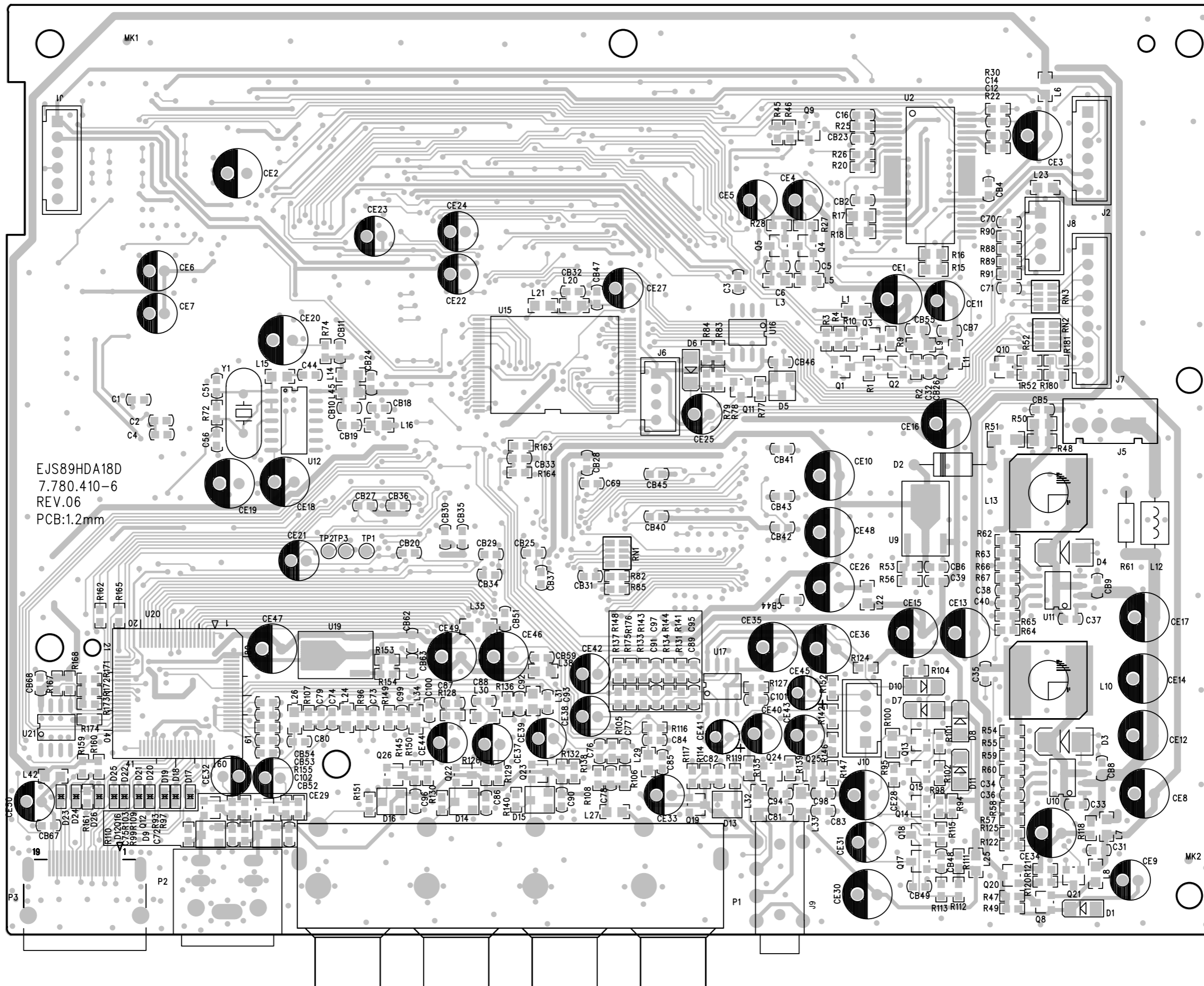
V_CVBS	↔	V_CVBS
V_R/V	↔	V_R/V
V_B/U	↔	V_B/U
V_G/Y	↔	V_G/Y
<b>VIDEO I/F</b>		
IO_USB	↔	IO_USB
USB_DP	↔	USB_DP
USB_DM	↔	USB_DM
<b>USB</b>		
ASPDIF	↔	ASPDIF
ML	↔	ML
MR	↔	MR
<b>AUDIO I/F</b>		
16.9A	↔	16.9A
16.9B	↔	16.9B
RGB_SWITCH	↔	RGB_SWITCH
HSYNC#	↔	HSYNC#
VSYNC#	↔	VSYNC#
<b>SCART I/F</b>		





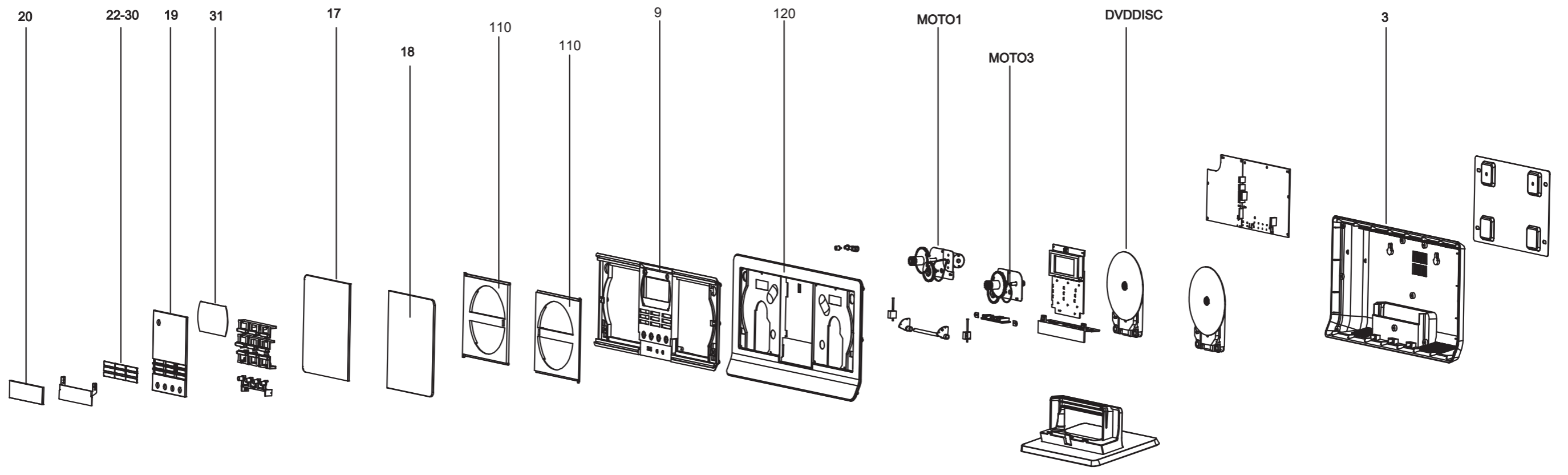


**LAYOUT DIAGRAM - DVD MPEG BOARD**  
 MPEG is not repaired, diagram for reference only.



EXPLODED VIEW DIAGRAM

110



**ACCESSORIES**

ACLIN	99400004988	AC LINE CORD 1.8M(not for -/93)
RC	996510006197	REMOTE CONTROL(only for -/05/12)
RC	996510006545	REMOTE CONTROL(only for -/98)
RC	996510007614	REMOTE CONTROL(only for -/93)
SPKL	996510006199	SPEAKER BOX ASSY(L)(only for -/05/12)
SPKR	996510006200	SPEAKER BOX ASSY(R)(only for -/05/12)
416	996510007611	SPEAKER BOX ASSY(L)(only for -/93)
417	996510007612	SPEAKER BOX ASSY R(only for -/93)
SPKL	996510006546	SPEAKER BOX ASSY(L)(only for -/98)
SPKR	996510006547	SPEAKER BOX ASSY R(only for -/98)
WFSPK	996510006201	WOOFER SPK ASSY(only for -/05/12)
418	996510007613	WOOFER SPEAKER BOX ASSY(only for -/93)
WFSPK	996510006548	WOOFER SPEAKER BOX ASSY(only for -/98)
420	994000005166	AC LINE CORD 1.8M (only for -/93)
SWITCH	996510006198	SCART SWITCH JACK RCA-329(IN)
421	996500042000	VIDEO CABLE WIRE(W&RCA)
422	996510007615	CABLE LINE 13P 2M ROUND JACK
423	996510007616	SPEAKER CORDS 3M 5559/4P
424	996510007617	SPEAKER CORDS 3M 5559/4P
58	996500041018	FM ANTENNA WIRE 1.5m

**MECHANICAL PARTSLIST**

	996510006190	MCD988 KNOB(DISC CHOOSE)
	996510006191	MCD988 KNOB(ECO POWER)
	996510006192	MCD988 ARM ABST100 BLACK
17	996510006155	DVD DOOR LENS DISC1 PMMA
18	996510006156	DVD DOOR LENS DISC2 PMMA
19	996510006157	MCD988 DVD DISPLAY LENS PMMA
20	996510006158	MCD988 USB LENS PMMA
	996510006159	MCD988 RING ABS727
22	996510006160	MCD988 PUSH KNOB(STOP)
23	996510006161	MCD988 PUSH KNOB(PAUSE PLAY)
24	996510006162	MCD988 PUSH KNOB(VOL LOWER )
25	996510006163	MCD988 PUSH KNOB(VOL LOWER)
26	996510006164	MCD988 PUSH KNOB(SURROUND)
27	996510006165	MCD988 PUSH KNOB(SOURCE)
28	996510006166	MCD988 PUSH KNOB (STEREO)
29	996510006167	MCD988 PUSH KNOB(FB)
3	996510006182	MAIN CABINET BACKHIPS 80007
30	996510006168	MCD988 PUSH KNOB(FF)
31	996510006193	MCD288 FILTER LENS
MOTO1	996510006176	MOTOR ASSY(L) MCD988
MOTO3	996510006178	MOTOR ASSY(R)MCD988
DVDDISC	996510004184	DVD DISC ASS'Y
110	996510010193	SLIDE DOOR BRACKET
120	996510010194	DVD FRONT PANEL
9	996510006189	DISPLAY PANEL BRACKET
17	996510006544	DVD DECORDER PCBA -/98
111	996510015266	FFC CABLE 24P
PCB3	996520032104	CPU BOARD ASSY -/93/98

**Note: Only these parts mentioned in the list are normal service parts.**

**ELECTRICAL PARTSLIST****- CPU BOARD -**

C944	996510006154	MYLAR CAP. 473J 100V K
C946	996510006153	ELECTROLYTIC CAP. 3300u 35V
D908	996510002976	DIODE FR104
D911	996510000495	DIODE IN60 L26
DZ901	996510000497	ZENER DIODE 5.6V
DZ902	996510006169	CHIP ZENER DIODE BZX384-C11
DZ903	996510002926	ZENER DIODE 3V 1/2W-52
IC901	994000005136	I.C.PT2314 PRINCETON
IC903	994000004952	IC PT2309-S(L)
IC904	996510000007	IC TEA5762
IC905	996510002918	IC PCF8563 SOP8
IC906	996510006171	IC AT24C128 (SOP8)
IC907	996510006152	MCU PARTS ASSY MCD988/12
IC908	994000004955	IC AC6811(RDS) /12
IC909	996510006170	IC PT2579-S(SOL16)
JACK902	996510006172	FM OUTPUT SOCKET IF-02P 75
JACK903	996510006173	S-VIDEO SOCKET SW-13-102
T902	996510002975	TRANSFORMER EE13 5V
X901	996510000003	CRYSTAL 75KHz
X902	996510000012	CRYSTAL OSC FREQ.32.768KHz
X903	994000005497	CRYSTAL OSC. 4.332 49S MHZ
X904	994000004945	CER. FILTER FREQUENCY 4.19MHZ
Q914	996510014243	TRANSISTOR SS8050-5 1.5A(-/05/12)
Q915	996510014243	TRANSISTOR SS8050-5 1.5A(-/05/12)
TUNE1	996500041012	FM TUNER KST-F404HA-11A

**- VFD BOARD -**

DZ3	996510002926	ZENER DIODE 3V 1/2W-52
IC1	996510000500	IC PT6311/SC16311/CD16311
IC3	996510000010	IC LM7805/LM340T5 7805
IC4	994000005221	IC TM58PR11S18C
LED1	994000005495	LED DIODE RED
LED10	996510000260	WHITE LED DIODE 3R41W71W-EB
LED11	996510000260	WHITE LED DIODE 3R41W71W-EB
LED12	996510000260	WHITE LED DIODE 3R41W71W-EB
LED13	996510000260	WHITE LED DIODE 3R41W71W-EB
LED14	996510000260	WHITE LED DIODE 3R41W71W-EB
LED15	996510000260	WHITE LED DIODE 3R41W71W-EB
LED6	996510000260	WHITE LED DIODE 3R41W71W-EB
LED7	996510000260	WHITE LED DIODE 3R41W71W-EB
LED9	996510000260	WHITE LED DIODE 3R41W71W-EB
SW1	996510000263	LIGHT TOUCH SWITCH 6X6X5
SW10	996510000263	LIGHT TOUCH SWITCH 6X6X5
SW11	996510000263	LIGHT TOUCH SWITCH 6X6X5
SW12	996510000263	LIGHT TOUCH SWITCH 6X6X5
SW13	996510000263	LIGHT TOUCH SWITCH 6X6X5
SW14	996510000263	LIGHT TOUCH SWITCH 6X6X5
SW2	996510000263	LIGHT TOUCH SWITCH 6X6X5
SW3	996510000263	LIGHT TOUCH SWITCH 6X6X5
SW4	996510000263	LIGHT TOUCH SWITCH 6X6X5
SW5	996510000263	LIGHT TOUCH SWITCH 6X6X5
SW6	996510000263	LIGHT TOUCH SWITCH 6X6X5



## ELECTRICAL PARTSLIST

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### - VFD BOARD -

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SW7	996510000263	LIGHT TOUCH SWITCH 6X6X5
SW8	996510000263	LIGHT TOUCH SWITCH 6X6X5
SW9	996510000263	LIGHT TOUCH SWITCH 6X6X5
VFD	996510006151	VFD DISPLAY MCD988

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### - MISCELLANEOUS -

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SW1001	996510002972	SPECIAL SWITCH TC-V030A
SW1002	996510002972	SPECIAL SWITCH TC-V030A
SW1101	996510002972	SPECIAL SWITCH TC-V030A
SW1102	996510002972	SPECIAL SWITCH TC-V030A
DVDDISC	996510004184	DVD DISC ASS'Y
HP	996510006174	HEADPHONE PCB ASSY MCD988
MAINLAMP	996510006175	MAIN LAMP PCB ASSY MCD988
MOTO1	996510006176	MOTOR ASSY(L) MCD988
MOTO2	996510006177	MOTOR PCB ASSY(L) MCD988
MOTO3	996510006178	MOTOR ASSY(R)MCD988
MOTO4	996510006179	MOTOR PCB ASSY(R) MCD988

**Note:** Only these parts mentioned in the list are normal service parts.

**ELECTRICAL PARTSLIST(PCBA IN SUB.BOX)**

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**- AMP BOARD -**

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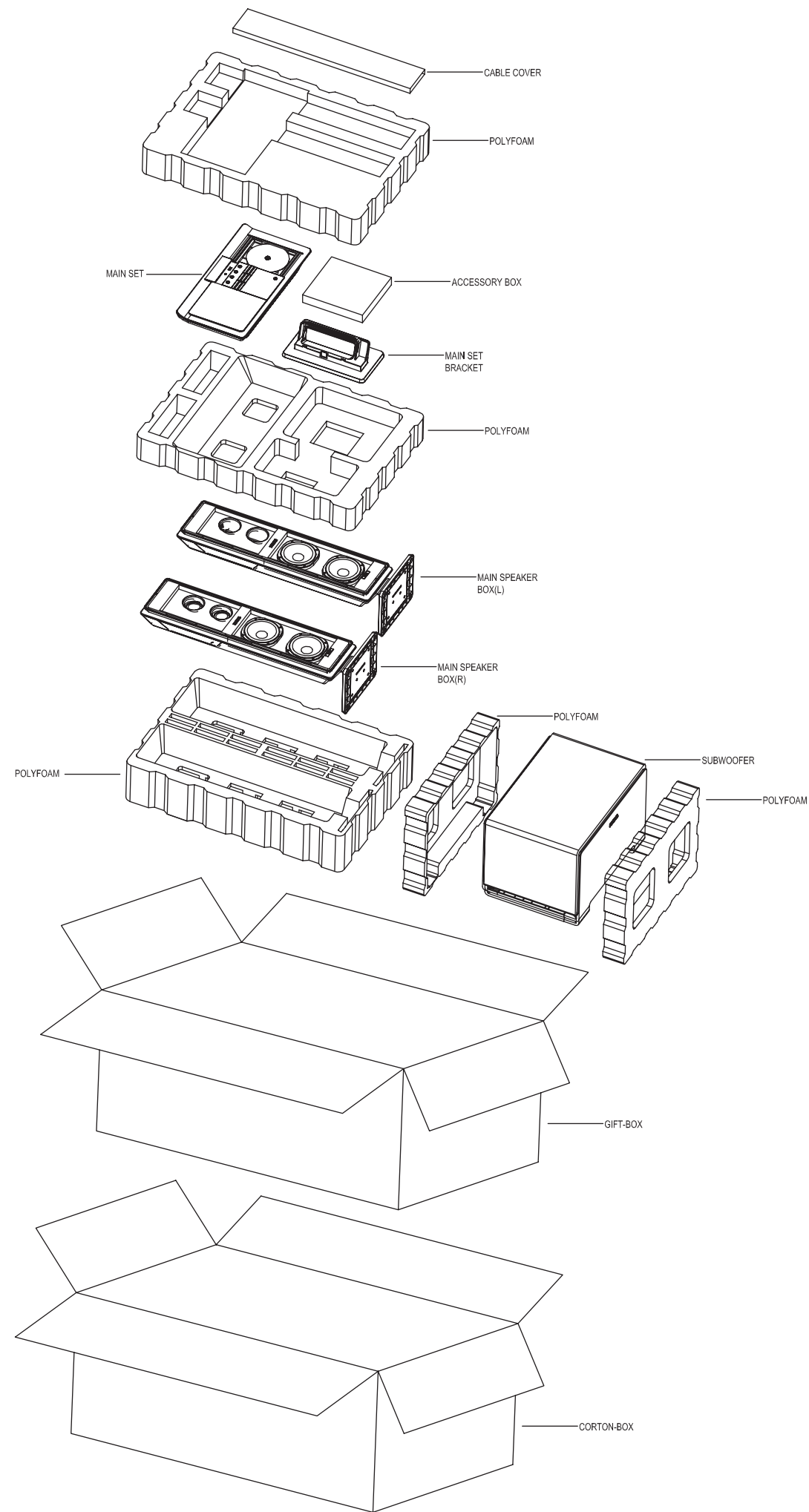
IC201	996510002941	IC TL072 SOP
IC203	996510000464	CHIP IC TDA8920(PACKING)
IC204	996510000464	CHIP IC TDA8920(PACKING)
IC206	996510000267	IC HEF4013T CHIP
IC207	996510000463	CHIP IC 74HCU04D
JACK201	996510015793	S-VIDEO SOCKET DSW-1
XT202	996510000265	CERMIC FILTER CRB 600KHz

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**- POWER BOARD -**

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PCB2	996510015898	POW283-98 POWER BOARD ASSY
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**PACKING MATERIAL PARTSLIST (only for -/93)**

50	996510017423	QUICK START GUIDE
51	996510017424	INSTRUCTION MANUAL
52	996510017425	WARRANTY CARD(PH 996510007956)
53	996510017426	ELIGIBILITY CERT.(V93 35X46)
54	996510017427	WARRANTY CARD ENGLISH/CHINESE
55	996510017428	SERVICWEBSITE(PH314107521791)
56	996510017429	MCD988 PAPER SHEET
57	996510017430	PLASTIC BAG(PE) 29X18cm
59	996510017431	PLASTIC BAG(PE)27X10cm PHILIPS
60	996510017430	PLASTIC BAG(PE) 29X18cm
61	996510017432	SPEAKER BOX HANG MATAL PLATE
62	996510017433	MAIN SET HANG MATAL PLATE
63	996510017434	PLASTIC GRANULE 6X30
64	996510017435	SCREW 4 X 30 BA NICKLE-PLATE
65	996510017436	PLASTIC BAG(PE) 15X10cm
66	996520031811	PE POLYBAG 26X17cm
67	996510017437	PLASTIC BAG(PE) 13X5cm
68	996510014065	CABLE COVER PVC L=600MM
69	996510017434	PLASTIC GRANULE 6X30
70	996510017437	PLASTIC BAG(PE) 13X5cm
71	996510017438	PLASTIC BAG(PE) 70X15cm
72	996510017439	SCREW 4 X 10 BM (PLATING)
73	996510017440	ACCESSORY PRESENT BOX
74	996510018103	GIFT BOX
75	996510018104	CARTON BOX
76	996510018105	MCD988 POLYFOAM(SET)

**ACCESSORIES**

416	996510007611	SPEAKER BOX ASSY(L)
417	996510007612	SPEAKER BOX ASSY R
418	996510007613	WOOFER SPEAKER BOX ASSY
419	996510007614	REMOTE CONTROL ASSY PRC501-06
420	⚠ 994000005166	AC LINE CORD 1.8M
421	996500042000	VIDEO CABLE WIRE(W&RCA)
422	996510007615	CABLE LINE 13P 2M ROUND JACK
423	996510007616	SPEAKER CORDS 3M 5559/4P
424	996510007617	SPEAKER CORDS 3M 5559/4P
58	996500041018	FM ANTENNA WIRE 1.5m

**Note:** Only these parts mentioned in the list are normal service parts.