

# Service Service Service



# Service Manual



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Version 1.5



**CLASS 1  
LASER PRODUCT**

**PHILIPS**

## SPECIFICATION

### AMPLIFIER

Output power .....	2 x 50 W RMS
Signal-to-noise ratio .....	≥ 70 dBA
Frequency response .....	20 Hz – 20 KHz, ± 3 dB
Input sensitivity AUX .....	0.5 V (max. 2 V)
Impedance loudspeakers .....	4 Ω
Impedance headphones .....	32 Ω
Output power headphones .....	<50 mW

### CD PLAYER

Frequency range .....	20 Hz – 20 kHz
Signal-to-noise ratio .....	70 dBA

### TUNER

FM wave range .....	87.5 – 108 MHz
Sensitivity at 75 Ω .....	
– FM .....	20dBf
Selectivity .....	≥ 25 dB
Total harmonic distortion .....	≤ 1%
Frequency response .....	
– FM .....	63 – 6000 Hz
Signal-to-noise-ratio .....	
– FM .....	≥ 50 dBA

### USB PLAYER

USB .....	12Mb/s, V1.1
.....	support MP3 and WMA files
Number of albums/folders .....	maximum 99
Number of tracks/titles .....	maximum 400

### SPEAKERS

Bass reflex system	
Dimensions (w x h x d) .	145 × 230 × 215 (mm)

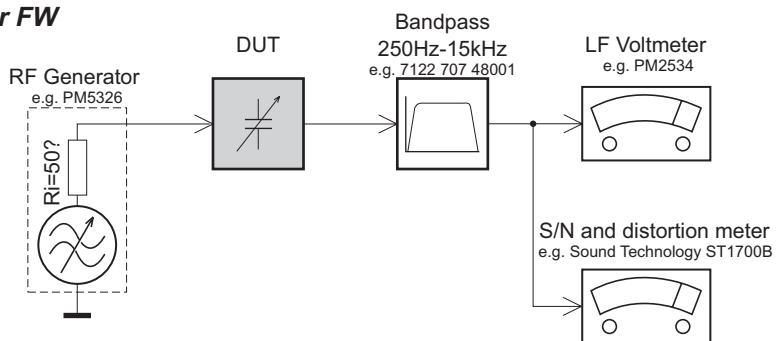
### GENERAL INFORMATION

AC Power .....	230 – 240V / 50 Hz
Dimensions (w x h x d) .	208 × 156 × 268 (mm)
Weight(without speakers) .....	4.30 / 2.31 kg
Standby power consumption .....	<7 W
Eco power standby .....	<1 W

***Specifications and external appearance are subject to change without notice.***

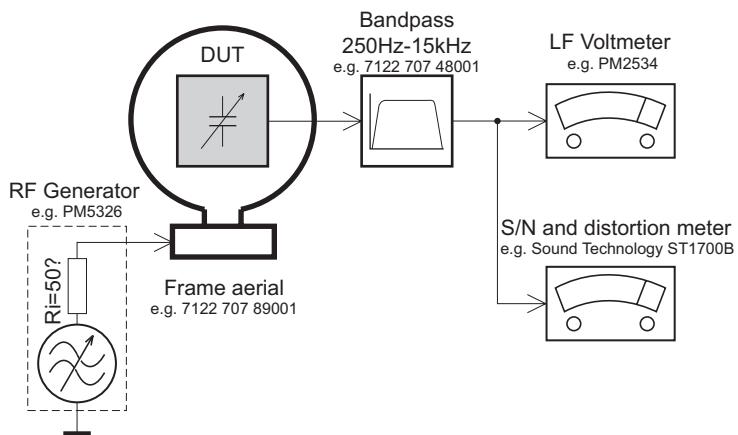
## SERVICE MEASUREMENT

### Tuner FW



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

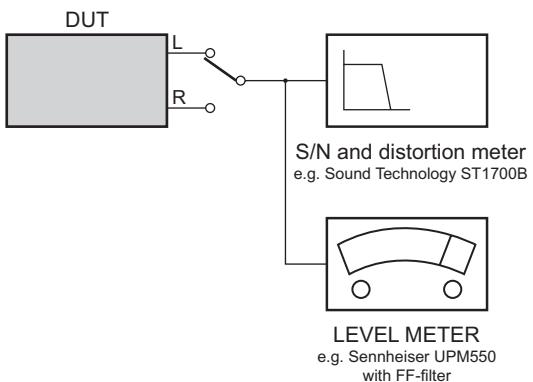
### Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's 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)



## 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



### WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

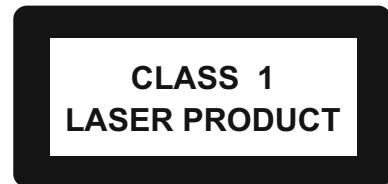
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

### ESD



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  $\triangle$ .



## 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".

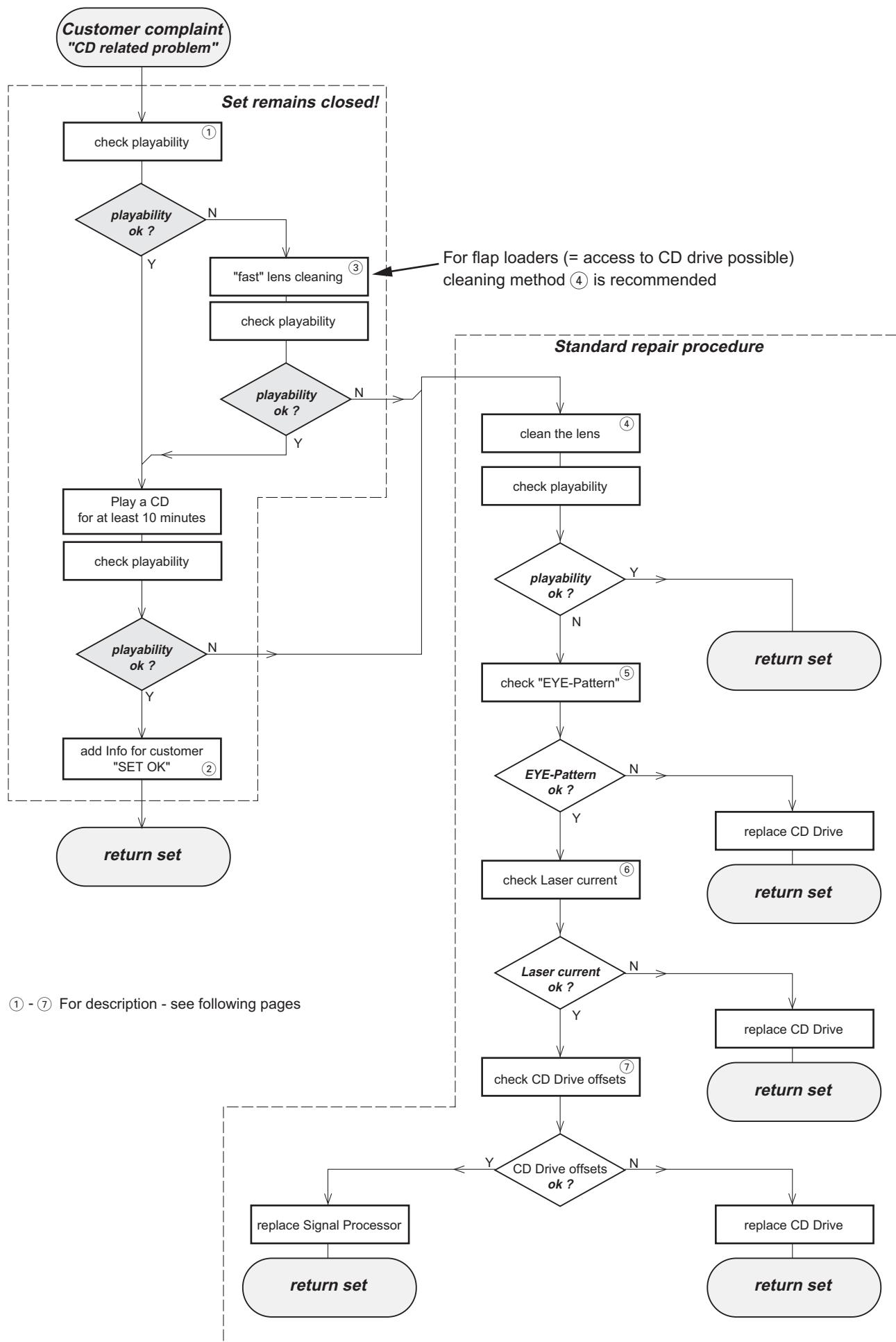
For additional questions please contact your local repair-helpdesk.

## 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):
- Unplug the AC Power cord and connect a wire between the two pins of the AC Power plug.
- Set the AC Power switch to the "on" position (keep the AC Power cord unplugged!).
- 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).
- 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.

## INSTRUCTIONS ON CD PLAYABILITY



① - ⑦ For description - see following pages

## INSTRUCTIONS ON CD PLAYABILITY

(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 (600 $\mu$  Black dot) **maximum at 01:00**

- playback of these two tracks without audible disturbance  
playing time for: Fingerprint  $\geq$  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 (600 $\mu$  Black dot) **maximum at 01:15**  
TR 19 (Fingerprint)  
TR 10 (1000 $\mu$  wedge)

- playback of all these tracks without audible disturbance  
playing time for: 1000 $\mu$  wedge  $\geq$  10seconds  
Fingerprint  $\geq$  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.

(4)

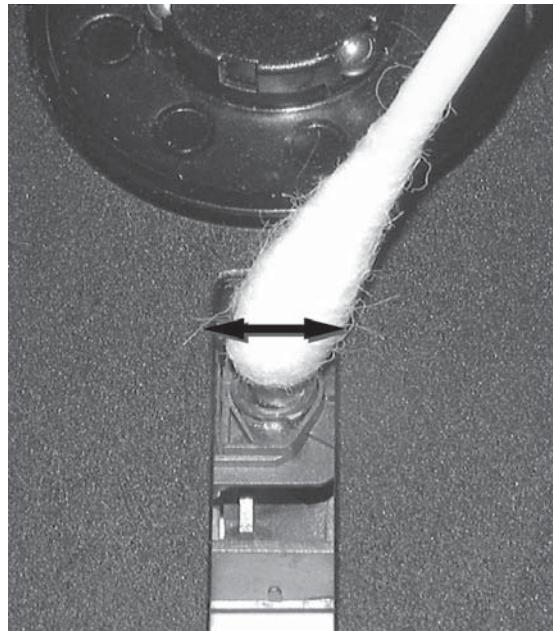
### LIQUID LENS CLEANING

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.



(3)

### FAST LENS CLEANING (*dry brush*)

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

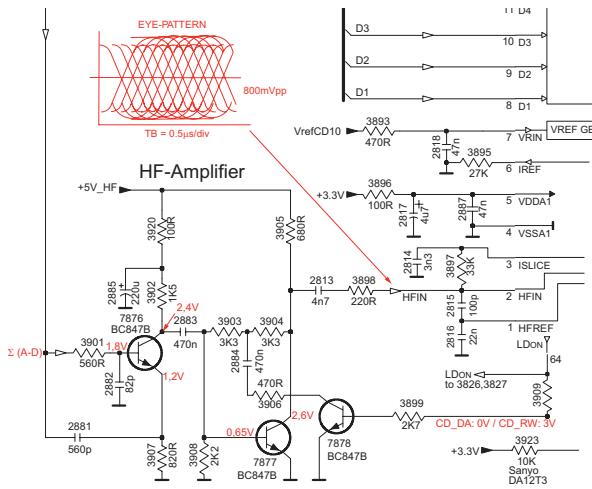
Insert the lens cleaning CD, press PLAY and follow the voice guide's instructions on the CD.

## **INSTRUCTIONS ON CD PLAYABILITY**

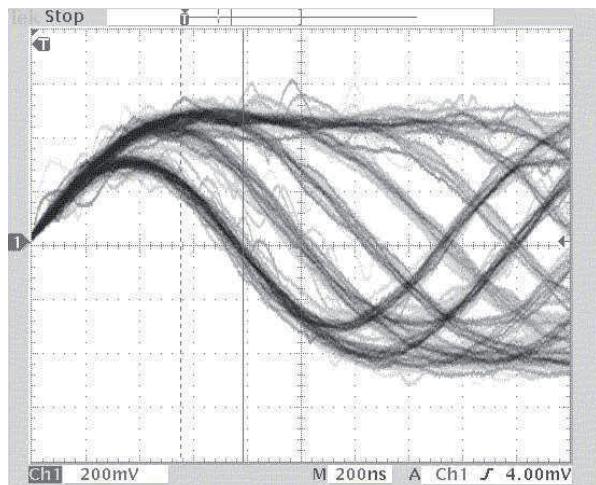
5

## EYE-PATTERN SIGNAL – JITTER MEASUREMENT

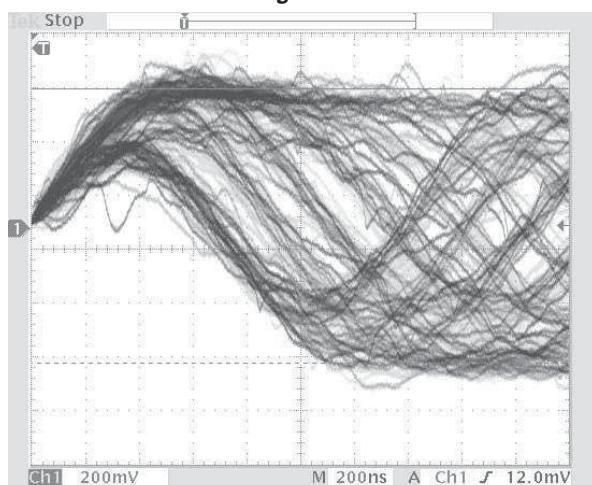
Measure the signal on the input of the Signal processor using an **analog** oscilloscope. Please find the exact measuring point in your Service Manual.



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



*good*



had

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**

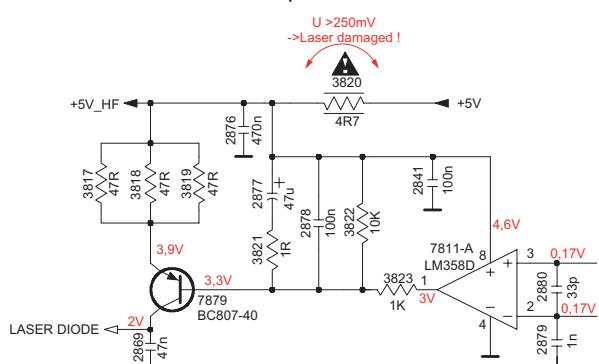
The laser current can be measured as a voltage drop on a resistor. The resistor is marked in every Service Manual. The value depends on the type of CD drive.

	typical value	most probable defect
VAMxxxx	: 150-230mV	$\geq$ 350mV
MCDxx	: 170-230mV	$\geq$ 300mV
DA1x	: 210-250mV	$\geq$ 350mV
DA2x	: 175-200mV	$\geq$ 250mV

Use SBC444A (CD-DA) for measurement.

Use SBC444A (CD-DA) for measurement.

## Laser power control



7

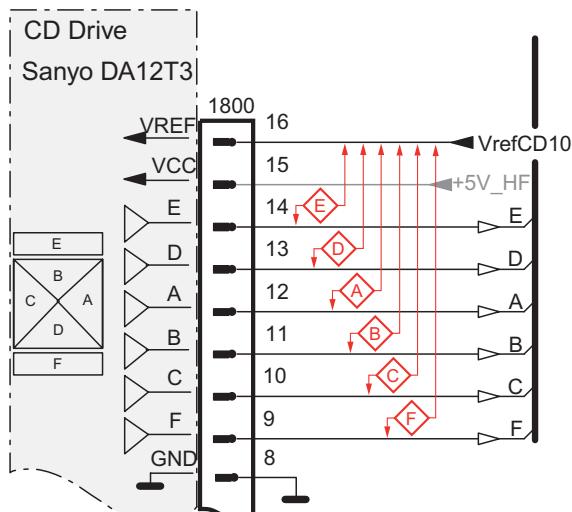
## **CD DRIVE – OFFSET MEASUREMENT**

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.

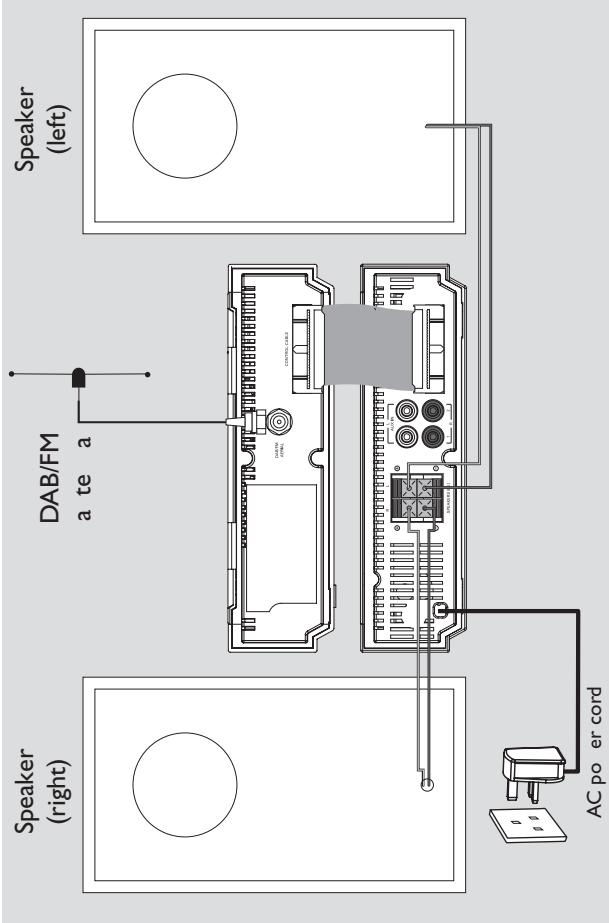
The values from diode A-D should read  $0\pm10\text{mV}$ .  
Diodes E and F are less critical.



If one of the offsets is higher than  $\pm 10\text{mV}$  the CD drive has to be replaced. Otherwise replace the Signal Processor.

# Preparations

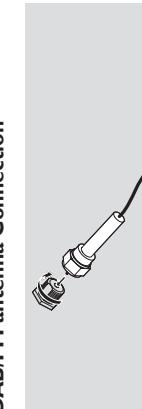
## Preparations



### Rear connections

**The type plate is located at the rear of the system.**  
For users in the U.K.: please follow the instructions on page 2.

### (C) DAB/FM antenna Connection



- Warning!**
- For optimal performance, use only the original power cable.
  - Never make or change any connections with the power switched on.

**To avoid overheating of the system, a safety circuit has been built in. Therefore, your system may switch to Standby mode automatically under extreme conditions. If this happens, let the system cool down before reusing it (not available for all versions).**

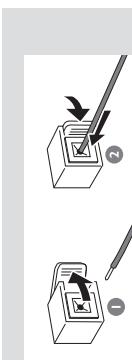
**Note:**

- The pin on the connector of the antenna should be in alignment with the hole in the "DAB/FM AERIAL" port.

### Preparations

### (C) Speakers Connection

Connect the speaker wires to the SPEAKERS (8Ω) terminals; right speaker to "R" and left speaker to "L"; the wire marked in red "+" and the wire marked in black to "-".



Fully insert the stripped portion of the speaker wire into the terminal as shown.

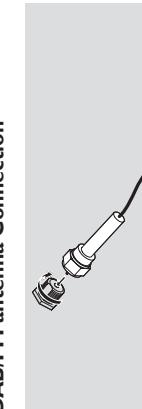
**Notes:**

- For optimal sound performance, use the supplied speakers.
- Do not connect more than one speaker to any one pair of +/- speaker terminals.
- Do not connect speakers with an impedance lower than the speakers supplied. Please refer to the SPECIFICATIONS section of this manual.

### (B) Connecting the control cable

Connect the serial port marked **CONTROL CABLE** at the rear of the CD player to the same port at the rear of the power amplifier with the supplied flat control cable.

### (C) DAB/FM antenna Connection



- Note:**
- If you are connecting equipment with a mono output (a single audio out terminal), connect it to the AUX IN (1 or 2) left terminal. Alternatively, you can use a 'single to double' cinch cable (the output sound still remain mono).

### (A) Power

Before connecting the AC power cord to the wall outlet, ensure that all other connections have been made.

### (A) Power

- CAUTION!**
- Batteries contain chemical substances, so they should be disposed of properly.
- 1 Connect the supplied DAB/FM antenna to the **DAB/FM AERIAL** port on the rear of the CD player.
  - 2 Fasten the nut on the connector of the antenna to ensure firm connection.

Position the antenna as far as possible from a TV, VCR or other radiation source.

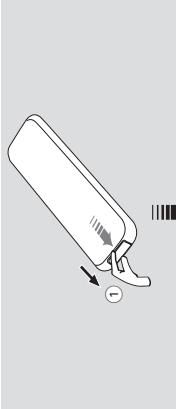
**Note:**

- The pin on the connector of the antenna should be in alignment with the hole in the "DAB/FM AERIAL" port.

### (B) Replacing battery (lithium CR2025) into the remote control

1 Pull out the slot on the battery compartment.  
2 Press the slot on the battery compartment.

- 3 Pull out the battery compartment.
- 4 Replace a new battery and fully insert the battery compartment back to the original position.



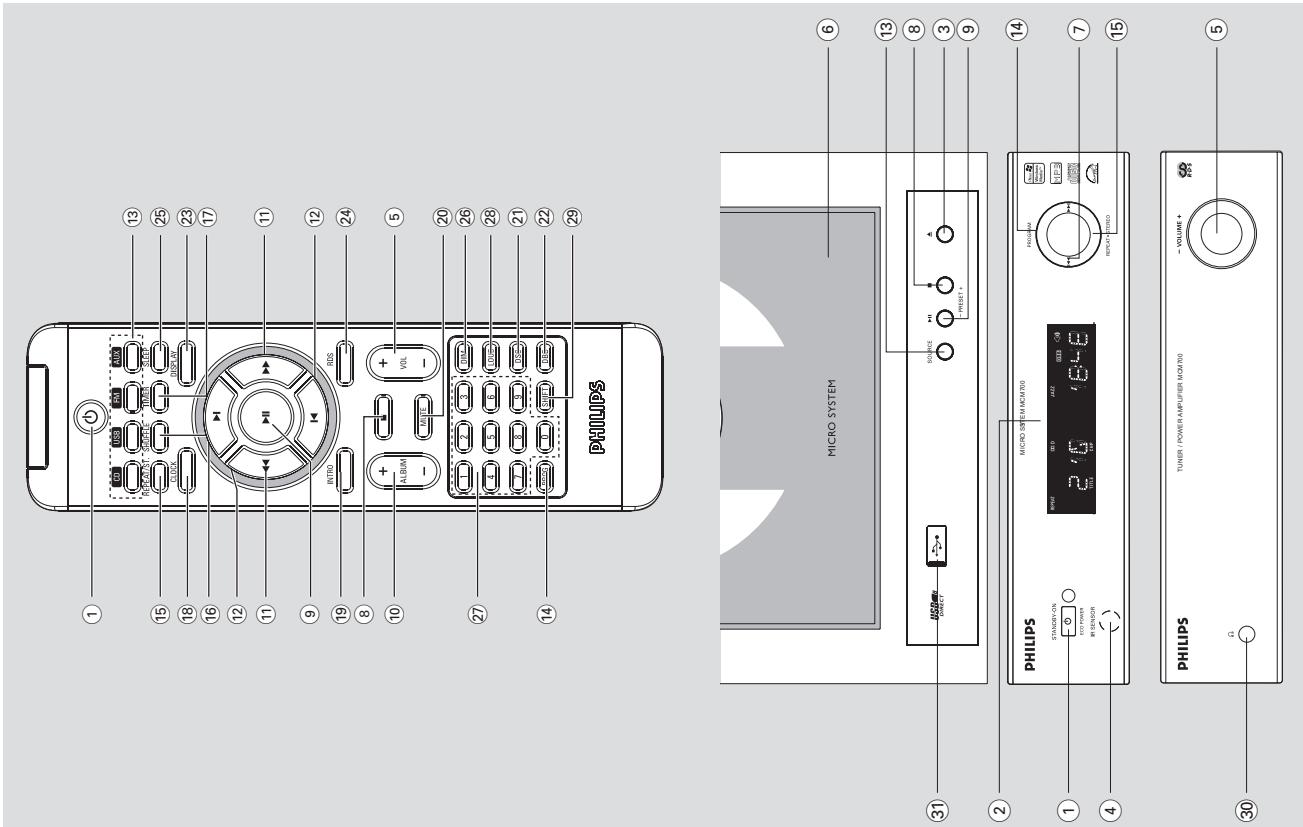
# PREPARATIONS

## CONTROLS

### Controls

#### Controls on the system and remote control

- (1) STANDBY-ON/ECO POWER**
- switches the system on or to Eco Power standby/normal standby with clock display.
- (2) Display screen**
- shows the status of the system.
- (3) ▲**
- opens/closes the CD door.
- (4) IR SENSOR**
- remote sensor.
- (5) VOLUME —/+ (VOL +/—)**
- adjusts the volume level.
  - adjusts the hours and minutes for the clock/timer function.
- (6) CD Door**
- (7) ▶◀▶◀▶**
- for CD/MP3-CD/WMA/USB
  - fast searches back and forward within a track/disc (press and hold).
- (8) ■/PRESET +**
- ... skips to the beginning of a current/previous/next track.
- (9) ▶ II/PRESET —**
- starts or interrupts playback.
  - (for FM; on the system only) selects a preset radio station.
- (10) ALBUM +/-**
- for MP3-CD/WMA/USB
  - skips to the beginning of a current/previous/next album.
- (11) ▶◀▶◀▶**
- for CD/MP3-CD/WMA/USB
  - fast searches back and forward within a track/disc (press and hold).
- (12) ▶ / ▶**
- for CD/MP3-CD/WMA/USB
  - ... skips to the beginning of a current/previous/track.
- (13) SOURCE**
- selects the respective sound source for CD/USB/FM/AUX (1 or 2).
- (14) PROGRAM (PROG)**
- for CD/MP3/WMA/USB programs tracks.
- (15) REPEAT/STEREO (REPEAT/ST.)**
- for FM ... programs radio stations.
  - selects a repeat playback mode.
- (16) SHUFFLE**
- plays disc tracks randomly.
- (17) TIMER**
- sets the timer function.
- (18) CLOCK**
- sets the clock function.
- (19) INTRO**
- for CD/MP3/WMA/USB
  - starts scanning of all tracks.
- (20) MUTE**
- interrupts and resumes sound production.
- (21) DSC (Digital Sound Control)**
- selects sound characteristics: POP/JAZZ/CLASSIC/ROCK/FLAT.
- (22) DBB (Dynamic Bass Boost)**
- enhances the bass.
- (23) DISPLAY**
- selects different disc information display modes during playback.
- (24) RDS**
- for FM, displays RDS information.
- (25) SLEEP**
- selects the sleeper time.



## Controls

- (26) **DIM**  
– selects different levels of brightness for the display screen.
- (27) **Numerical Keypad (0-9)**  
– (for CD/MP3) selects a track directly.
- (28) **LOUD**  
– enables or disables automatic loudness adjustment.

- (29) **SHIFT**  
– inputs a number larger than 10 (used together with the Numerical Keypad).
- (30)  – connects a headphone.
- (31) **USB DIRECT**   
– jack for the external USB mass storage device.

### WARNIN

Under no circumstances should you try to repair the system yourself, as this will invalidate the warranty. Do not open the system as there is a risk of electric shock.

If a fault occurs, first check the points listed below before taking the system for repair. If you are unable to remedy a problem by following these hints, consult your dealer or Philips for help.

## Troubleshooting

3 - 3

### CONTROLS AND TROUBLESHOOTING

Problem	Solution
“NO DISC” is displayed.	✓ Insert a disc. ✓ Check if the disc is inserted upside down. ✓ Wait until the moisture condensation at the lens has cleared. ✓ Replace or clean the disc, see “Maintenance”. ✓ Use a finalised CD-RW or correct format disc.
Radio reception is poor.	✓ Increase the distance between the Micro HiFi System and your TV or VCR. ✓ Hang up one end of the T-shape antenna and keep the other end at horizontal angle to it. ✓ Remove and reconnect the AC power plug and switch on the system again.
The system does not react when buttons are pressed.	✓ Adjust the volume. ✓ Disconnect the headphones. ✓ Check that the speakers are connected correctly. ✓ Check if the stripped speaker wire is clamped. ✓ Check the speaker connections and location.
Sound cannot be heard or is of poor quality.	✓ Select the source (DISC or FM, for example) before pressing the function button (▶▶, ▶◀ / ▶◀).
The left and right sound outputs are reversed.	✓ Reduce the distance between the remote control and the system. ✓ Insert the battery with its polarities (+/- signs) aligned as indicated. ✓ Replace the battery. ✓ Point the remote control directly toward IR sensor on the front of the system.
The timer is not working.	✓ Set the clock correctly. ✓ Switch on the timer.
The Clock/Timer setting is erased.	✓ Power has been interrupted or the power cord has been disconnected. Reset the clock/timer:

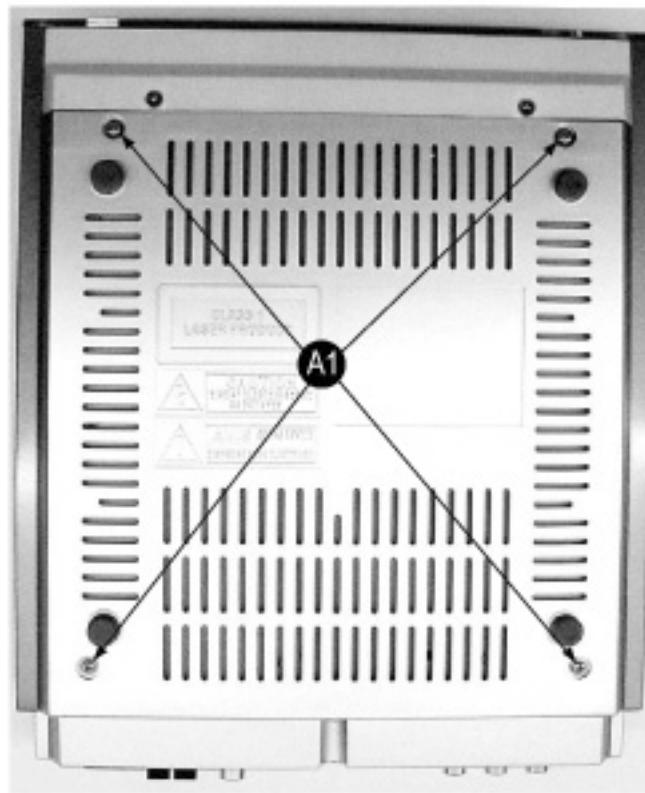
#### Notes for remote control:

- First select the source you wish to control by pressing one of the source select keys on the remote control for example DISC, FM.
- Then select the desired function for example ▶ II, ▶◀, ▶▶.

## DISASSEMBLY INSTRUCTION - CD PART

### A. Remove Bottom Cover

A1 remove screws M2.5x4 (washer head) - 4 pcs.

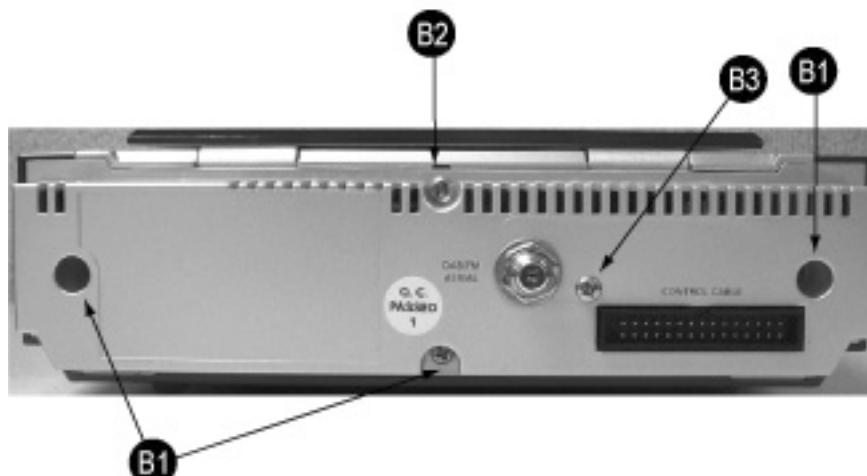


### B. Remove Back Panel

B1 remove screws M3x6 - 3 pcs.

B2 remove screw ST 3x10 - 1 pc.

B3 remove screws ST 3x10 - 1 pcs. (for jacks)



### C. Remove Side Panel (L & R)

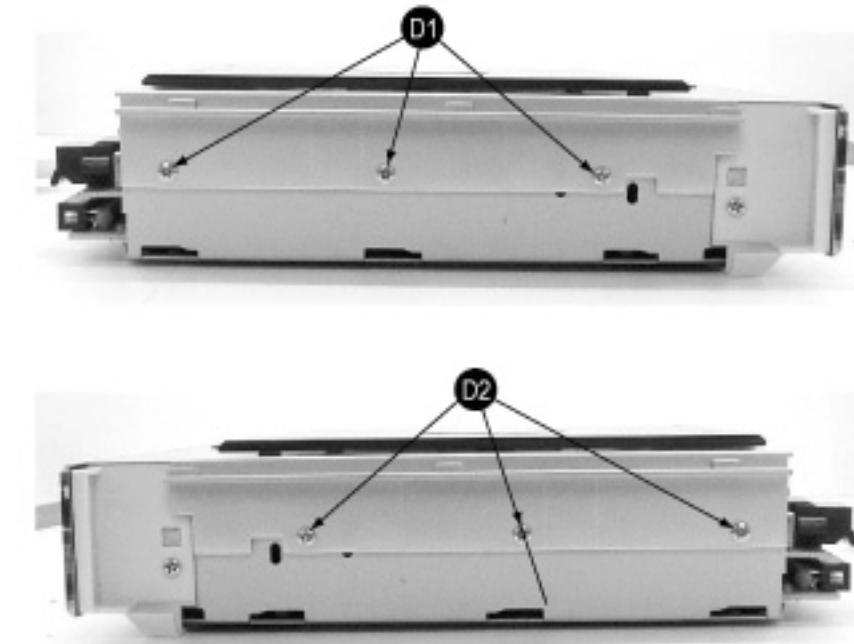
C1 Slide out the Side Panels.



### D. Remove Top Cabinet

D1 remove screws M3x6 - 3 pcs.

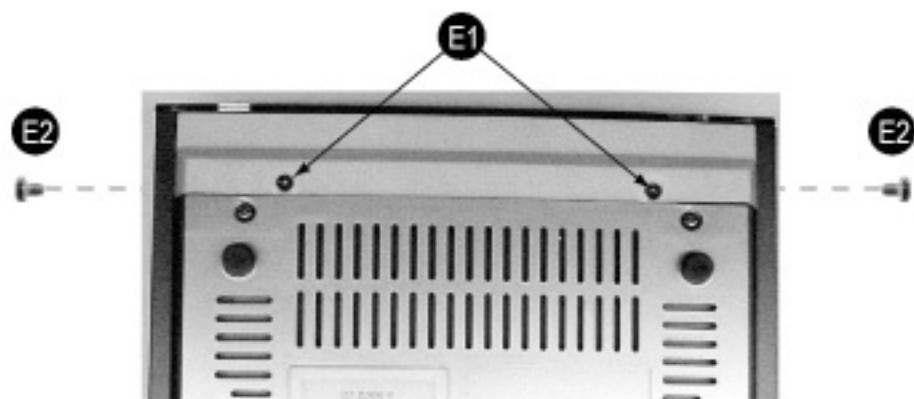
D2 remove screws M3x6 - 3 pcs.



### E. Remove Front Cabinet

E1 remove screws MK3x10 - 2 pcs.

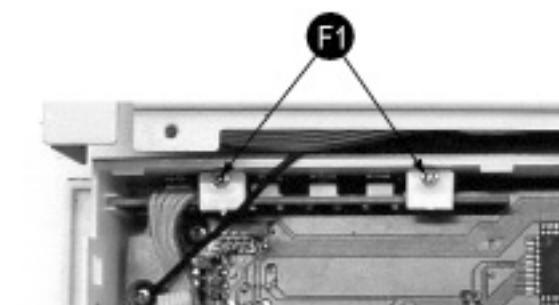
E2 remove screws M3x4 - 2 pcs.



### F. Remove Display Board Assembly

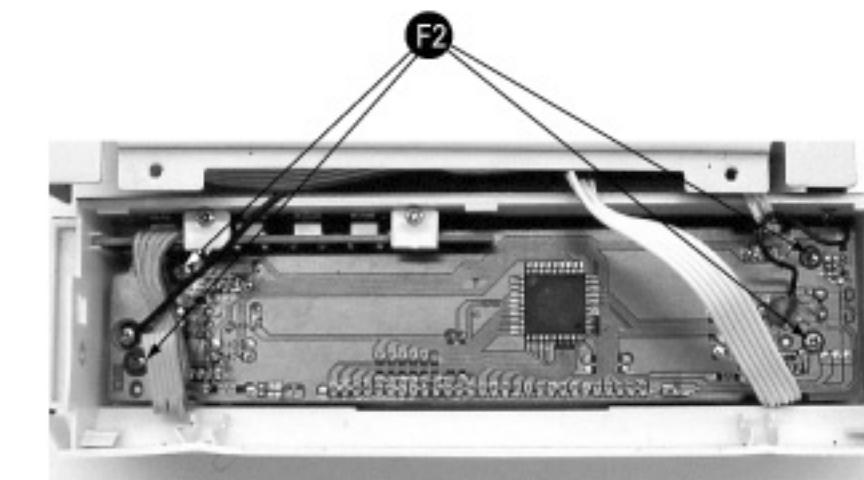
F1 remove screws ST 2.5x8 - 2 pcs.

(take out Push Key PCB Assy)



### G. Remove Display Board Assembly

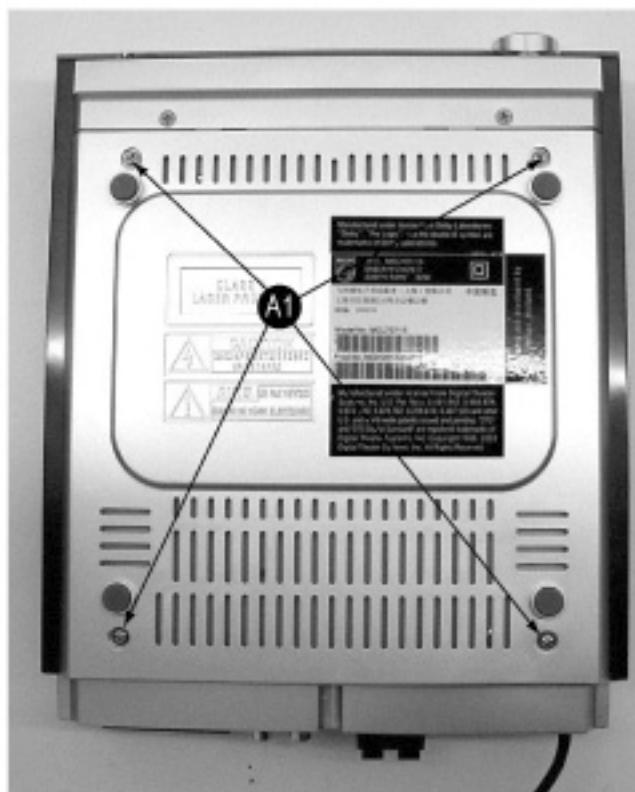
F2 remove screws ST 2.5x8 - 4 pcs.



## DISASSEMBLY INSTRUCTION - TUNER & AMP PART

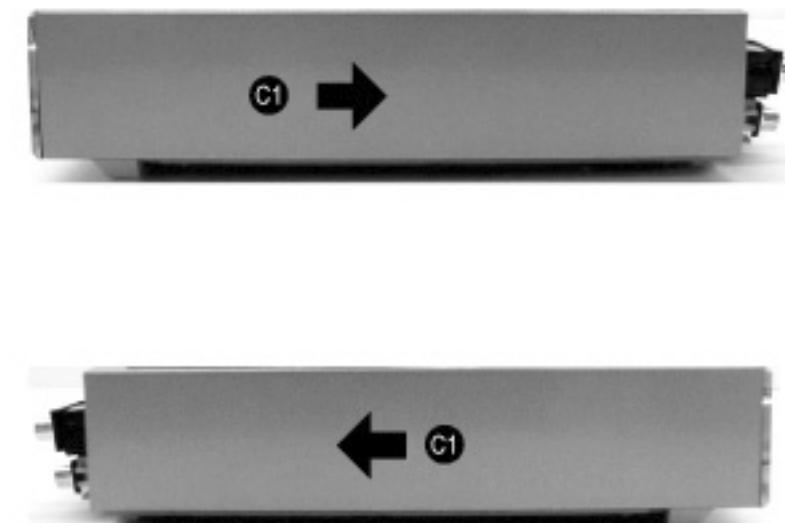
### A. Remove Bottom Cover

A1 remove screws M2.5x4 (washer head) - 4 pcs.



### C. Remove Side Panel (L & R)

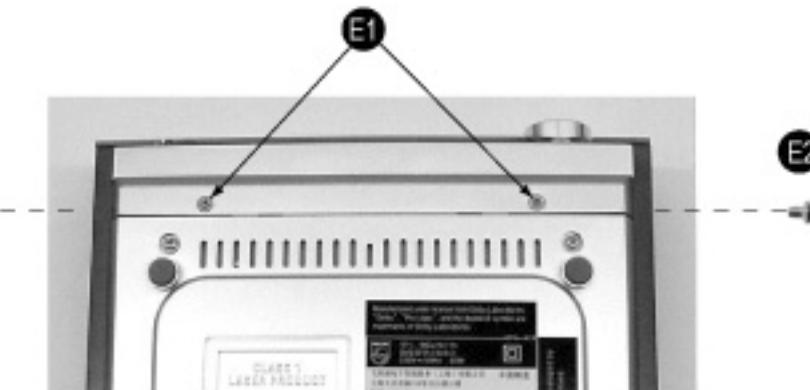
C1 Slide out the Side Panels.



### E. Remove Front Cabinet

E1 remove screws MK3x10 - 2 pcs.

E2 remove screws M3x4 - 2 pcs.

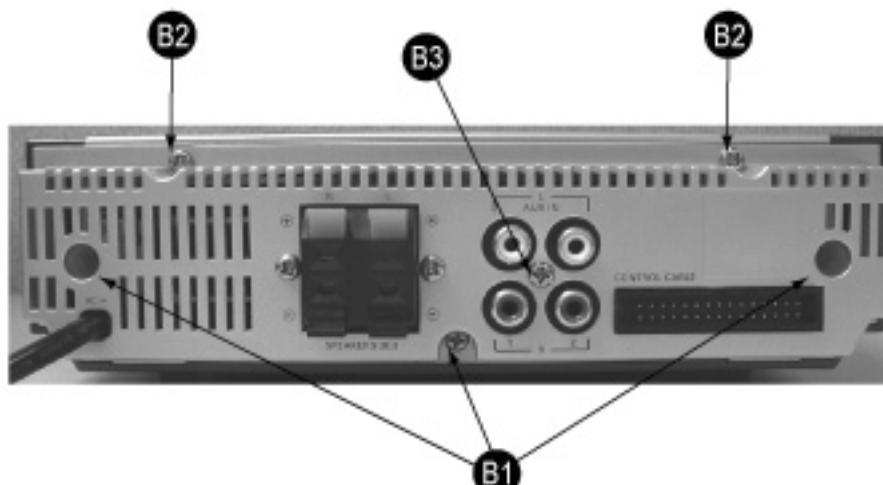


### B. Remove Back Panel

B1 remove screws M3x6 - 3 pcs.

B2 remove screw ST 3x10 - 2 pc.

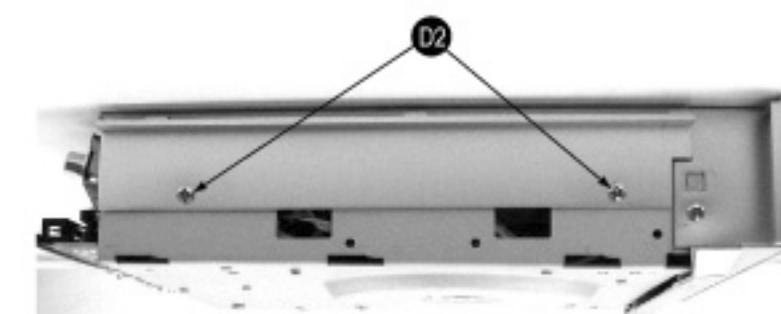
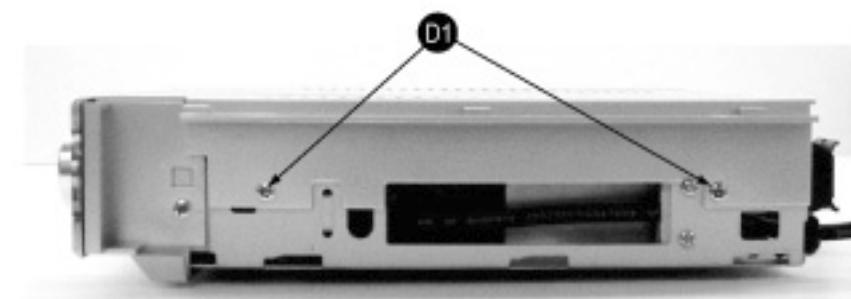
B3 remove screws ST 3x10 - 1 pcs. (for jacks)



### D. Remove Top Cabinet

D1 remove screws M3x6 - 2 pcs.

D2 remove screws M3x6 - 2 pcs.



## SOFTWARE VERSION CHECKING

---

### **MCM700 Inspecting software version No.**

#### **CD/MP3 VERSION CHECK**

1. Press DISPLAY button on remote control 4 times, display shows as below:

**Vxx 700 xxxx**

#### **CPU VERSION CHECK**

1. Keep PLAY/PAUSE & STOP buttons (on the set) depressed while plug in the power cord.  
VFD shown as below:

**700 Vxx YYMMDD**

## **Upgrade Software**

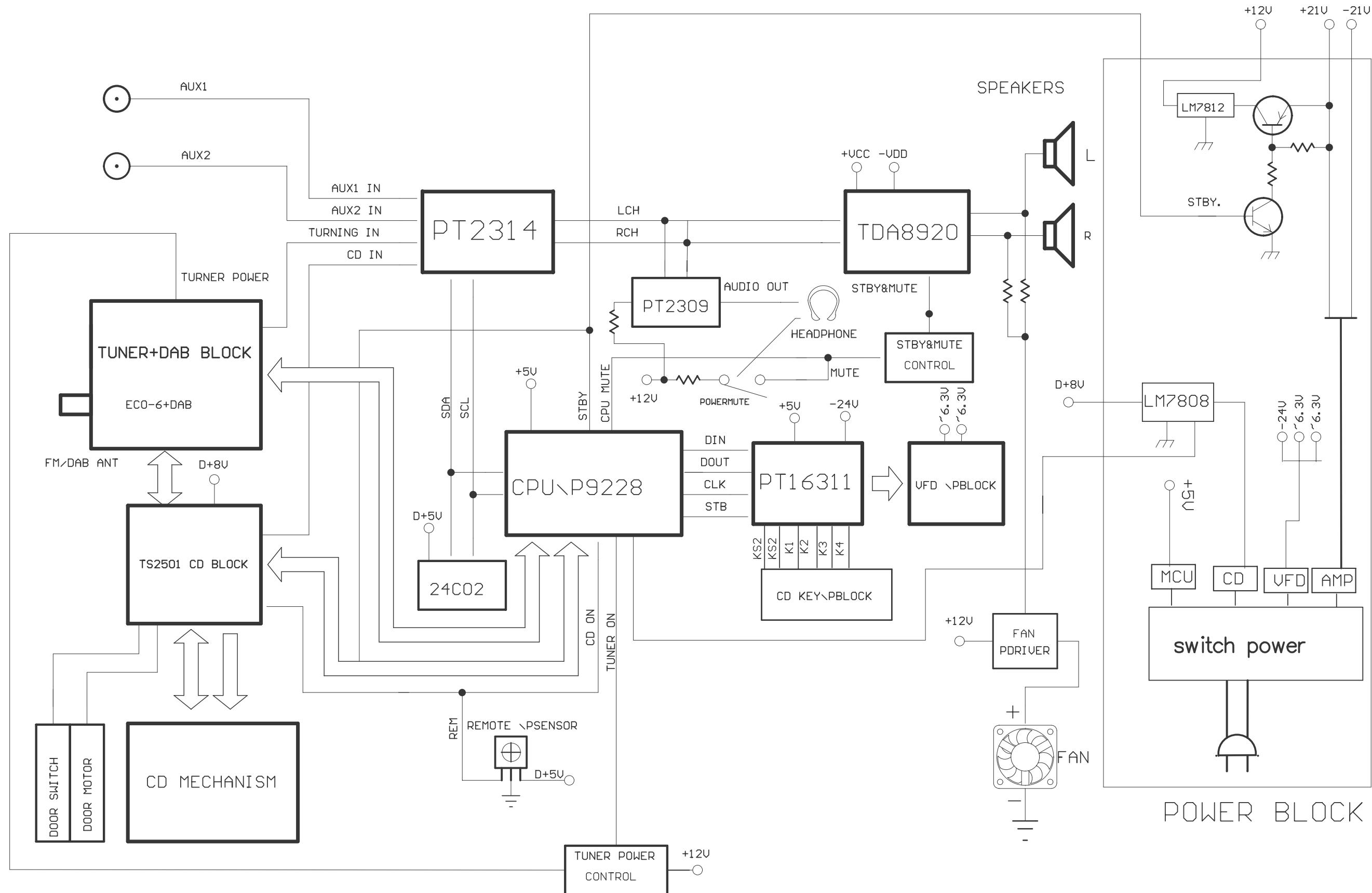
1. Install the upgrade DISC or USB device , CD player can be upgraded automatically,VFD is as below

**READ DISC**

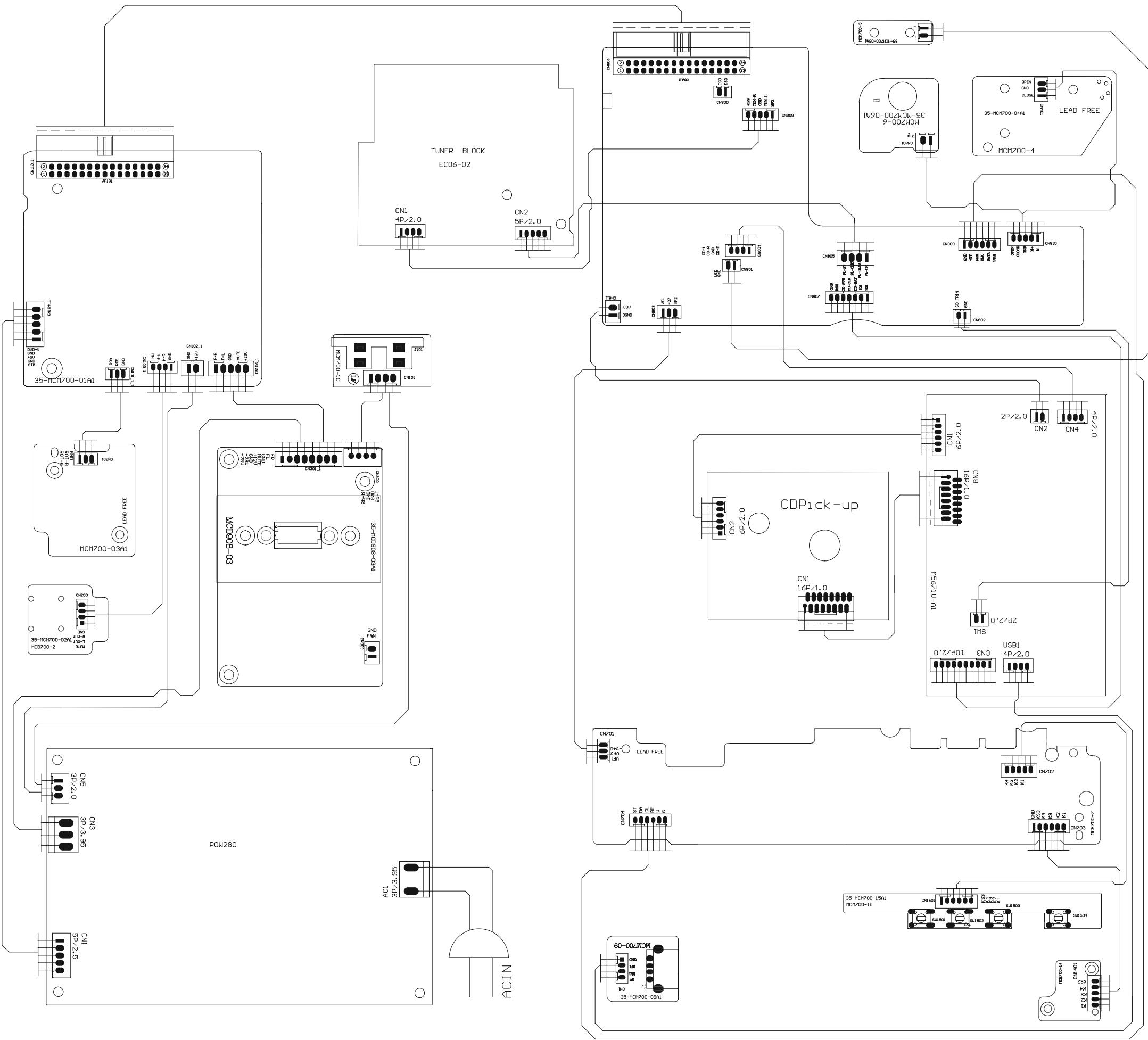
**or**

**READ USB**

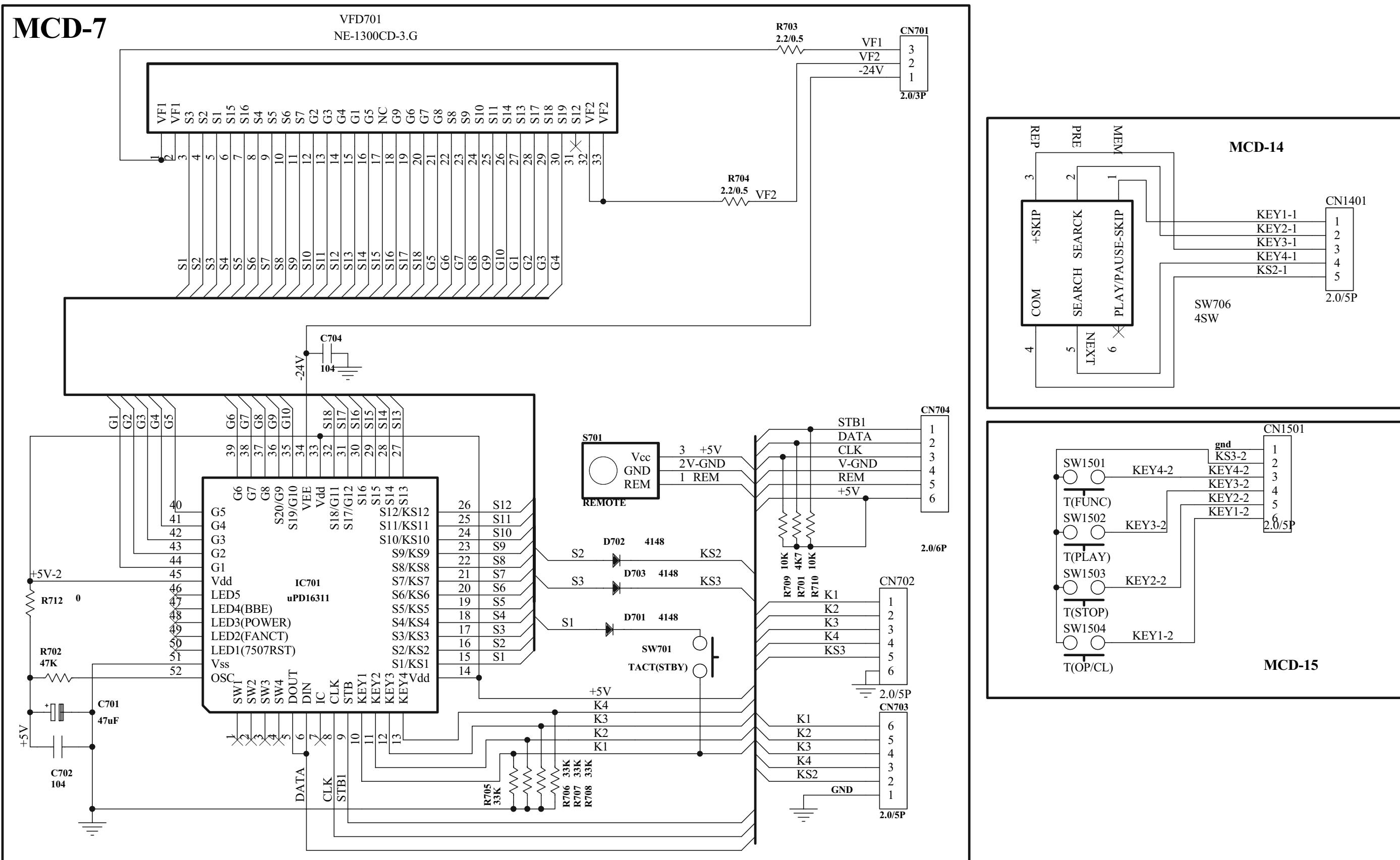
**Wait for 1 to 2 minutes till the speaker box make a sound or music, then the software upgrade is finished.**

**SET BLOCK DIAGRAM**

## **SET WIRING DIAGRAM**

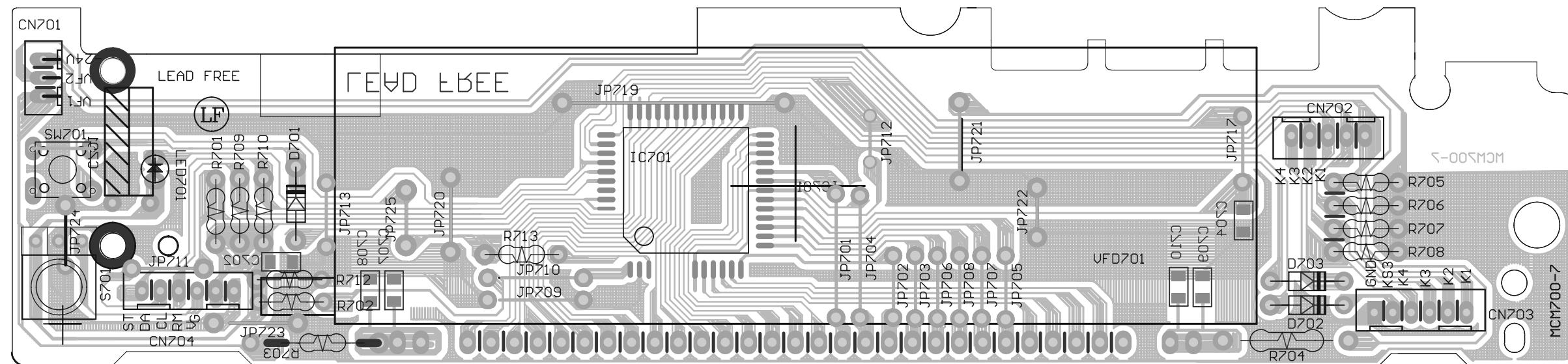
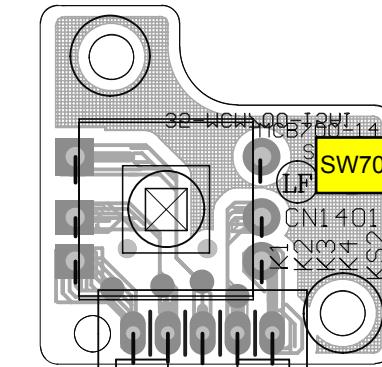
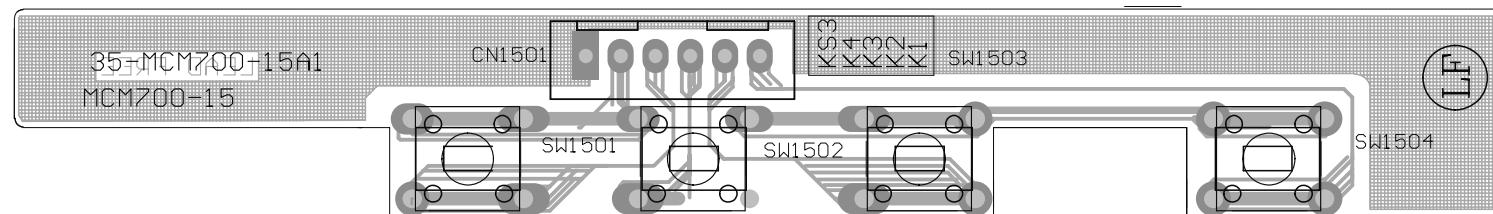


## CIRCUIT DIAGRAM - VFD / KEY BOARD ASSEMBLY

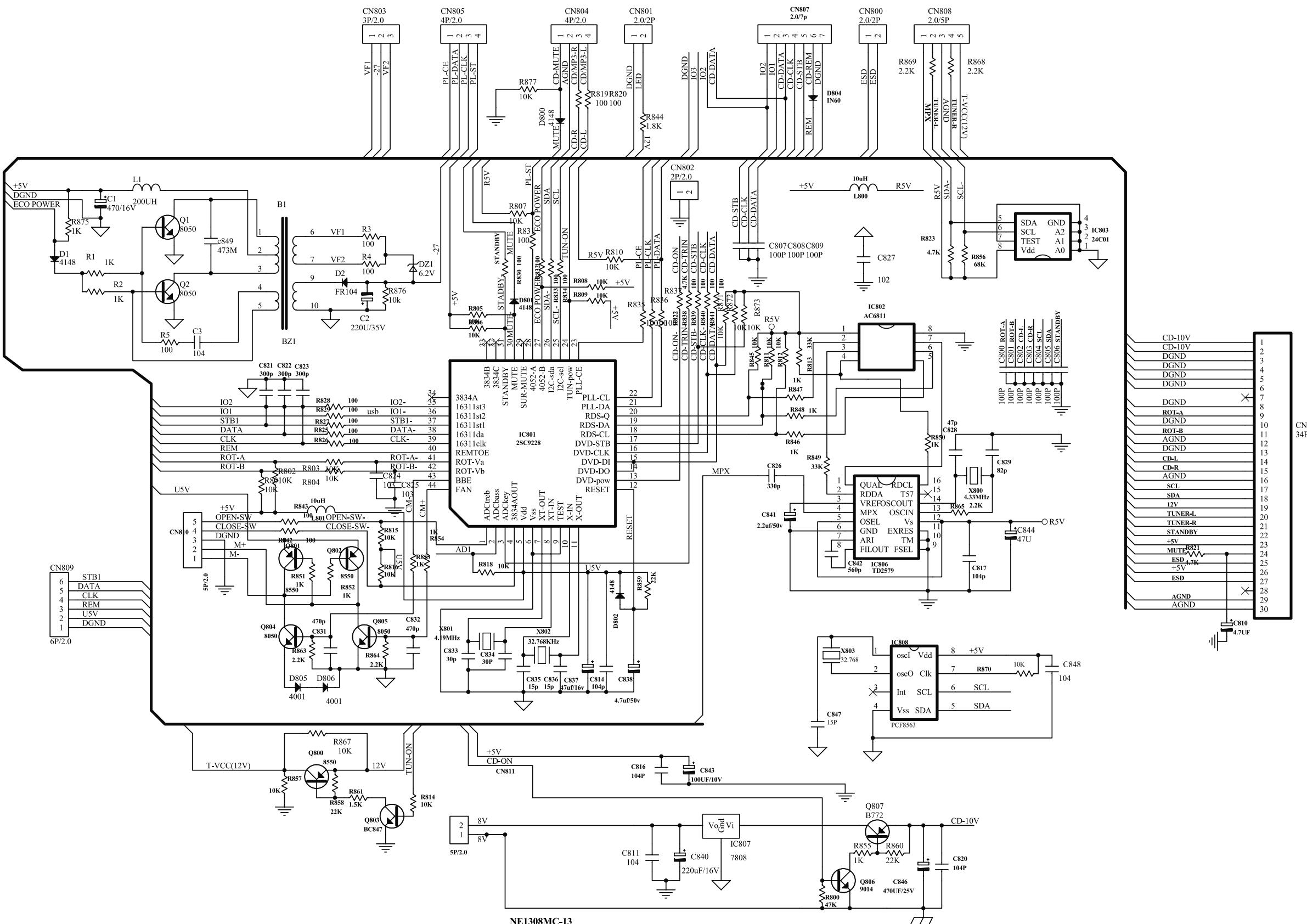


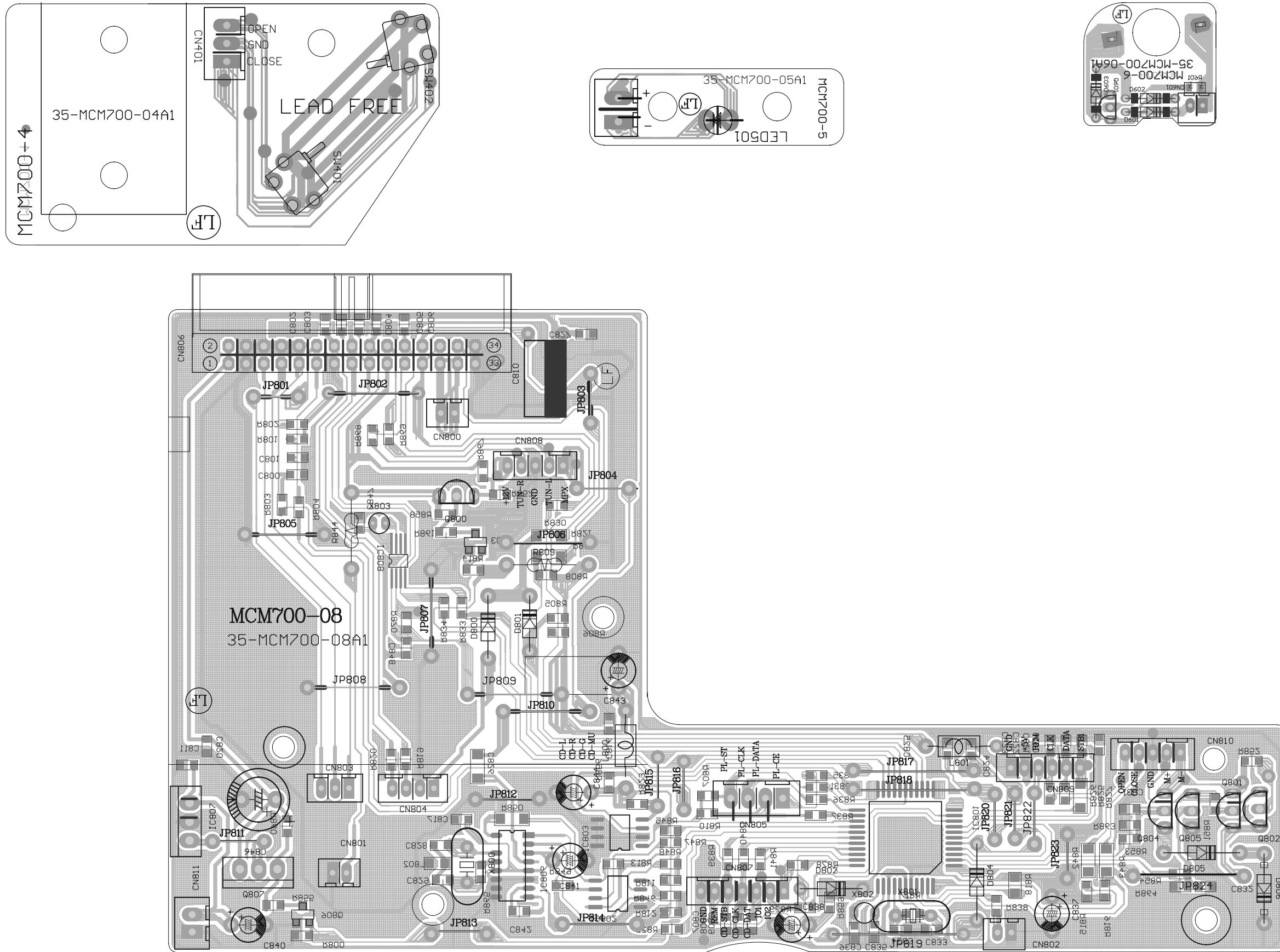
## LAYOUT DIAGRAM - VFD / KEY BOARD ASSEMBLY

## COMPONENT SIDE

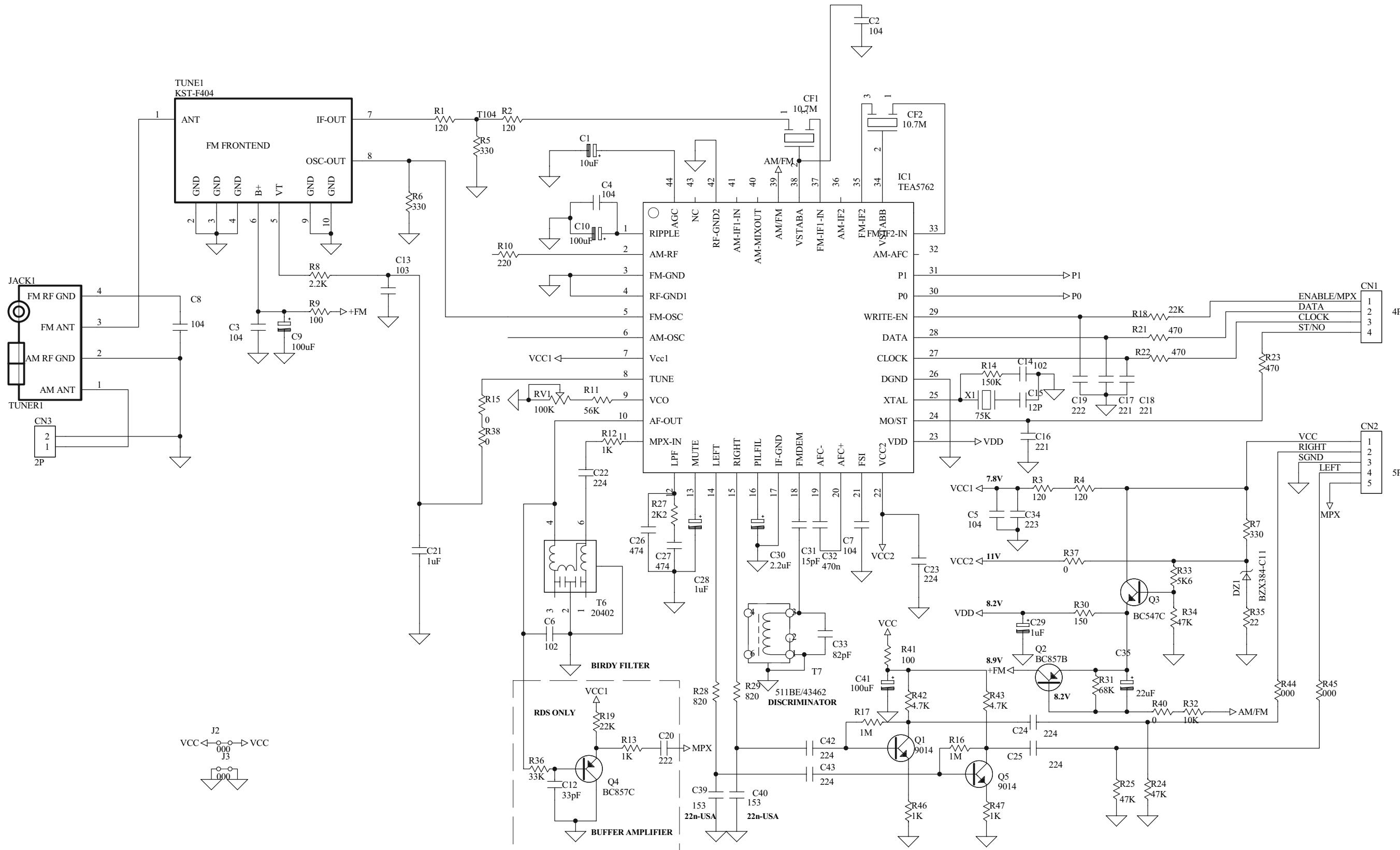


## CIRCUIT DIAGRAM - CD BLOCK

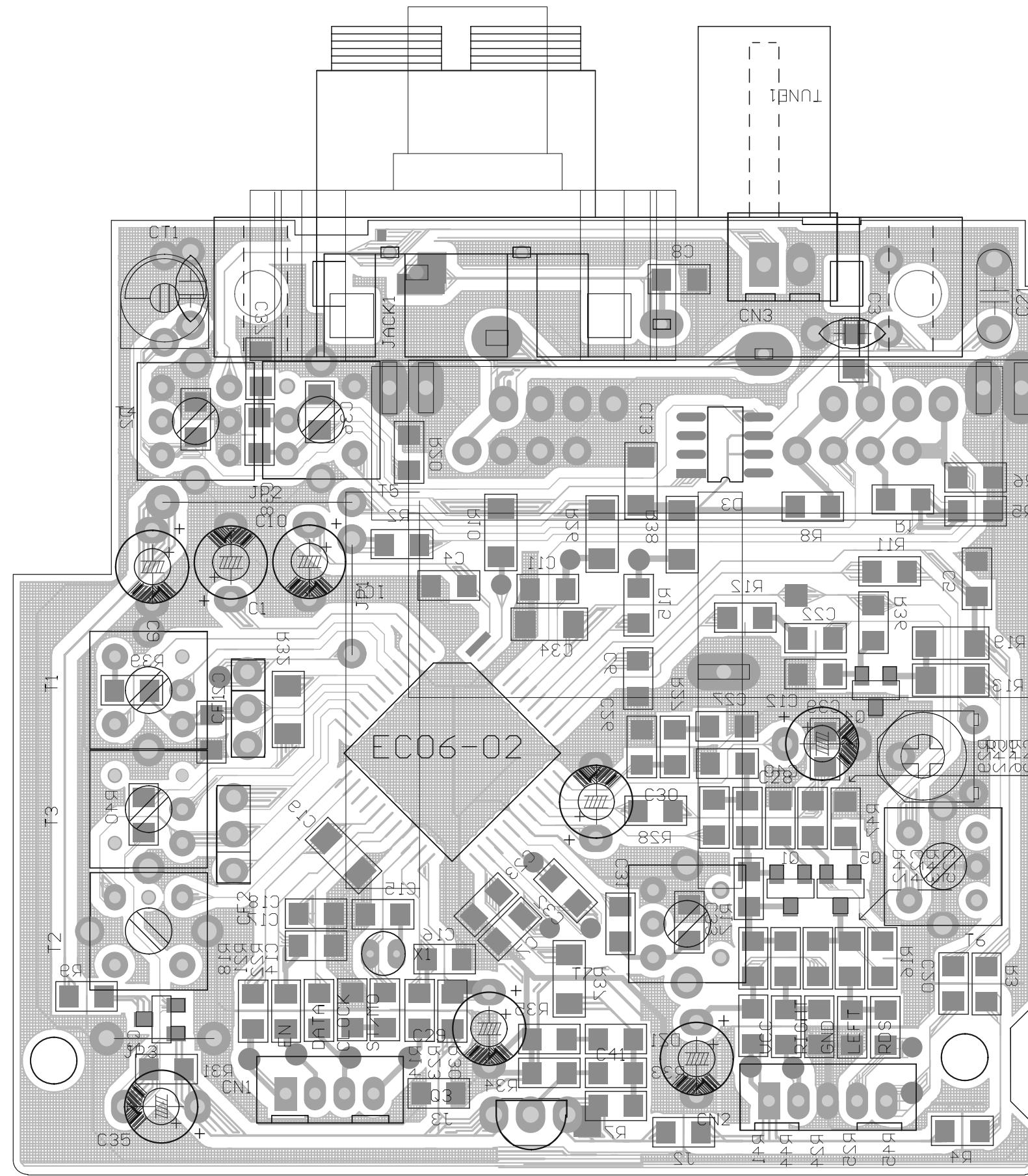


**LAYOUT DIAGRAM - CD BLOCK****COMPONENT SIDE**

## CIRCUIT DIAGRAM - TUNER BOARD

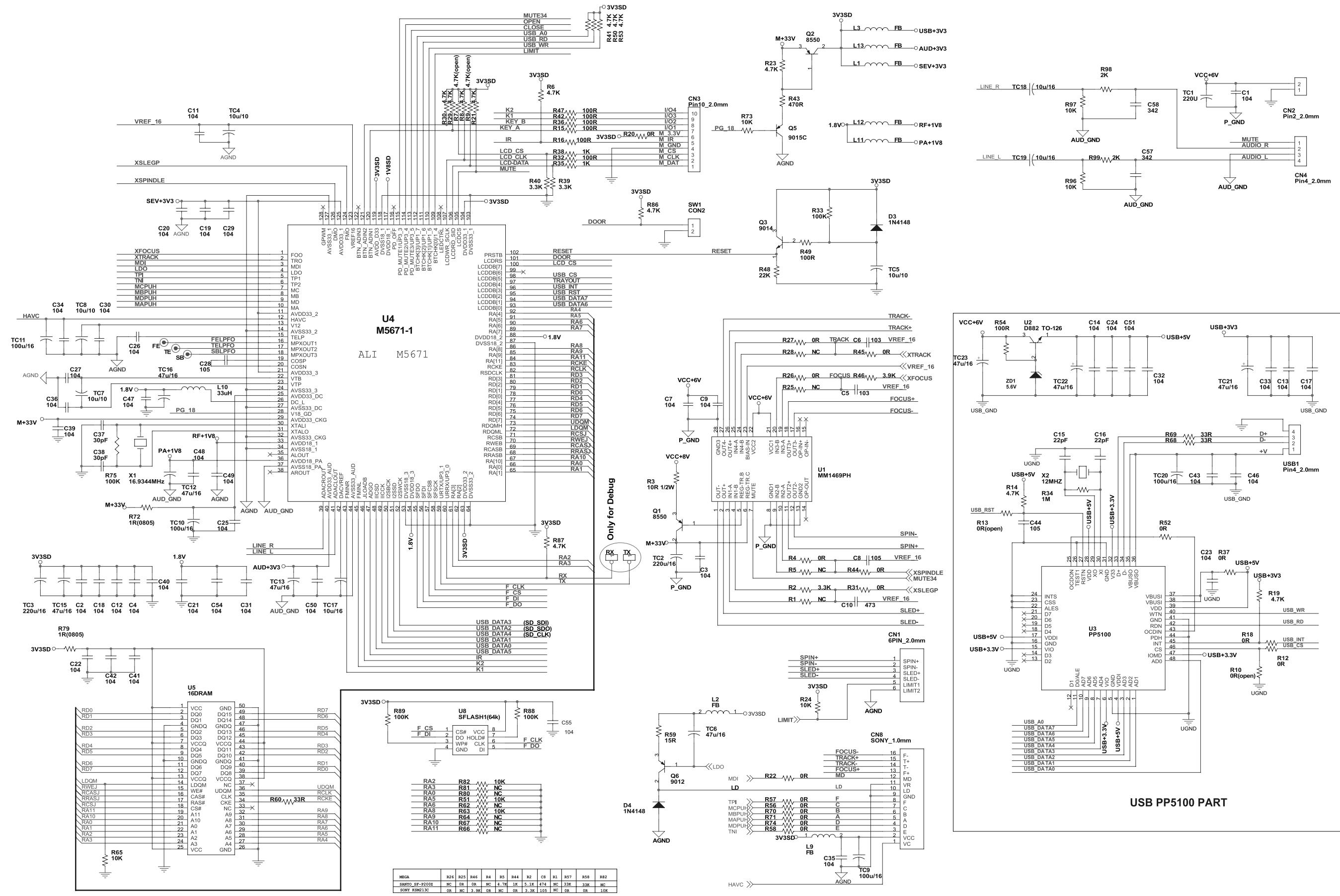


## LAYOUT DIAGRAM - TUNER BOARD



## CIRCUIT DIAGRAM - SERVO BOARD(MPEG DECODER CARD ASS'Y)

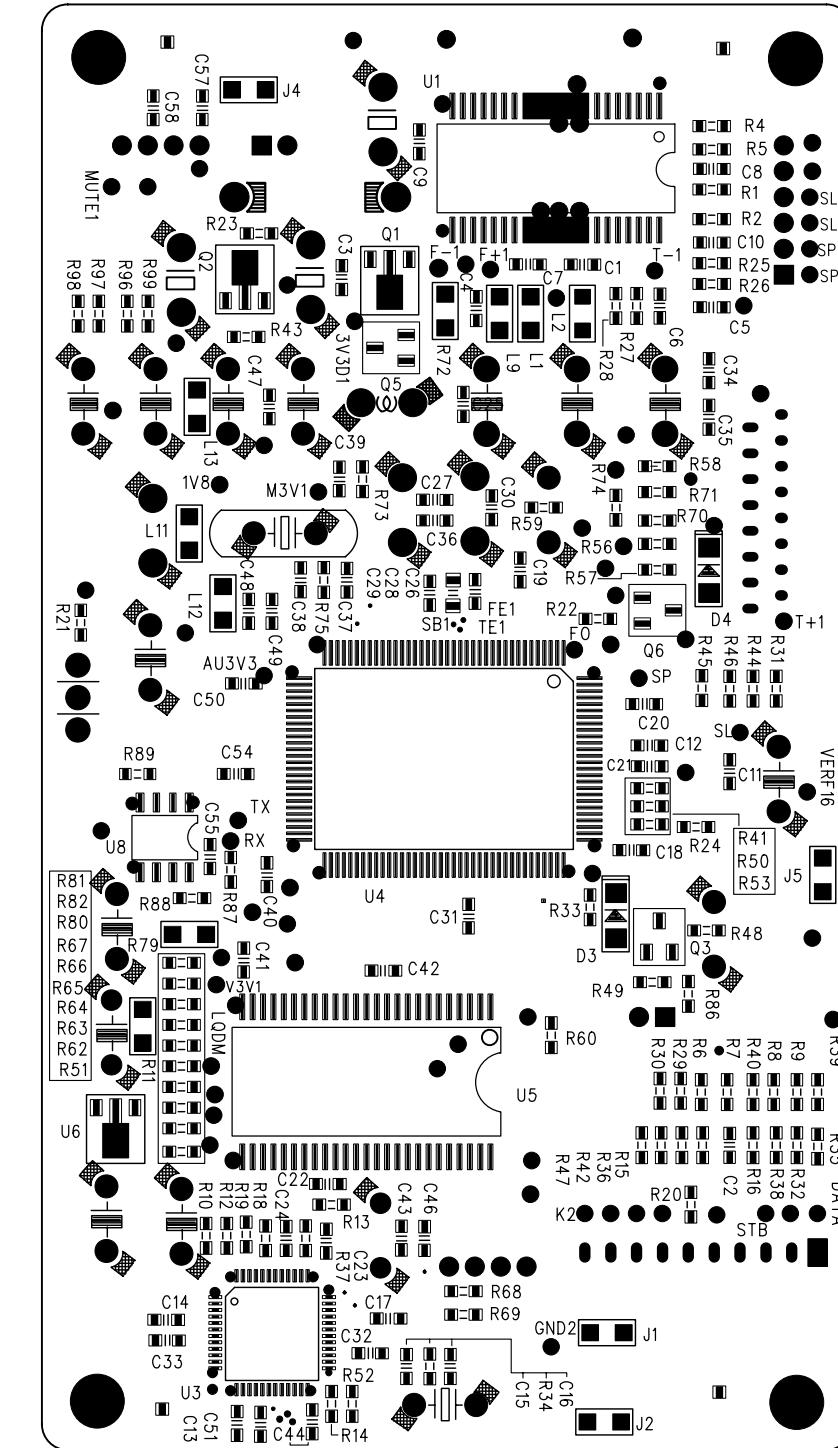
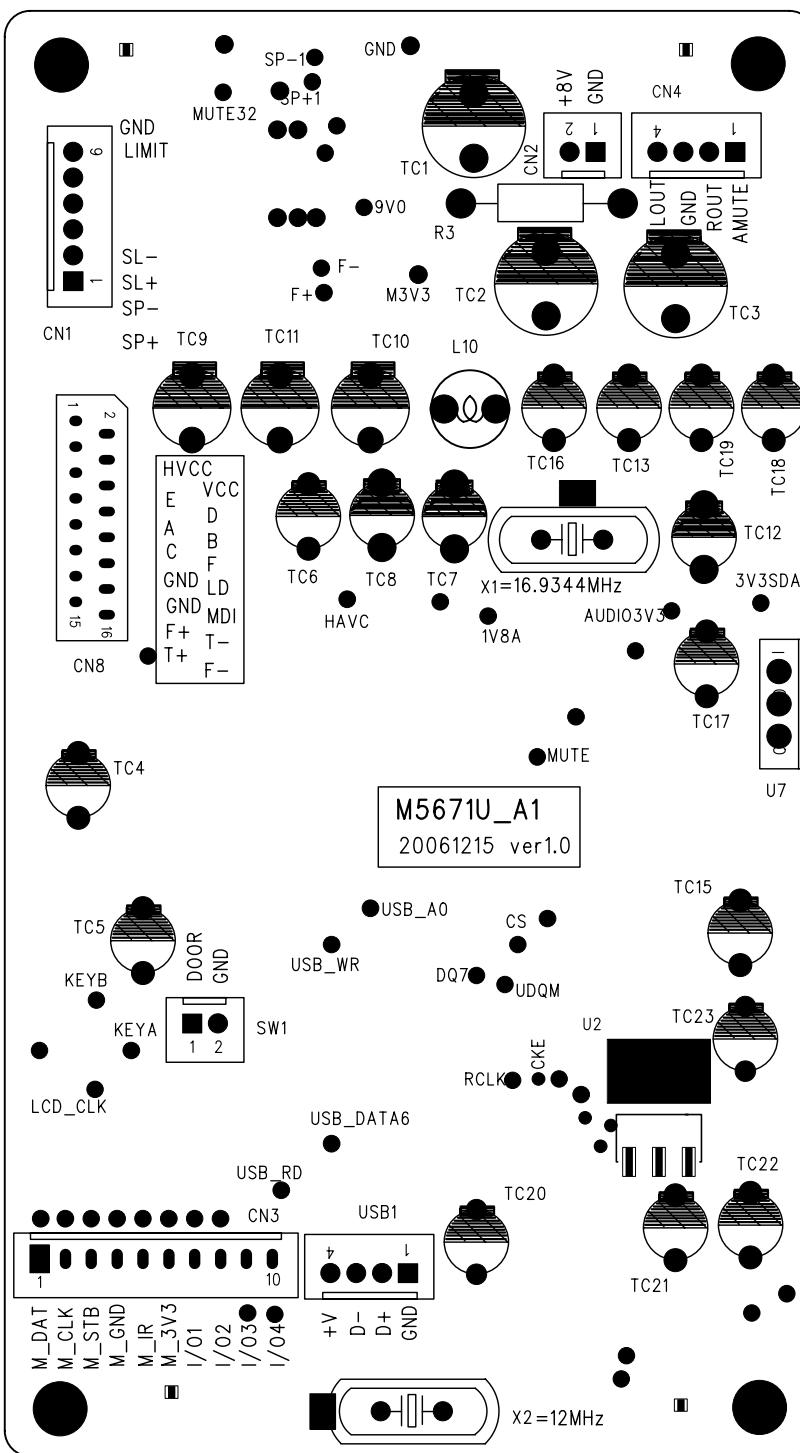
(This Board is not intended to repair. The diagram for reference)



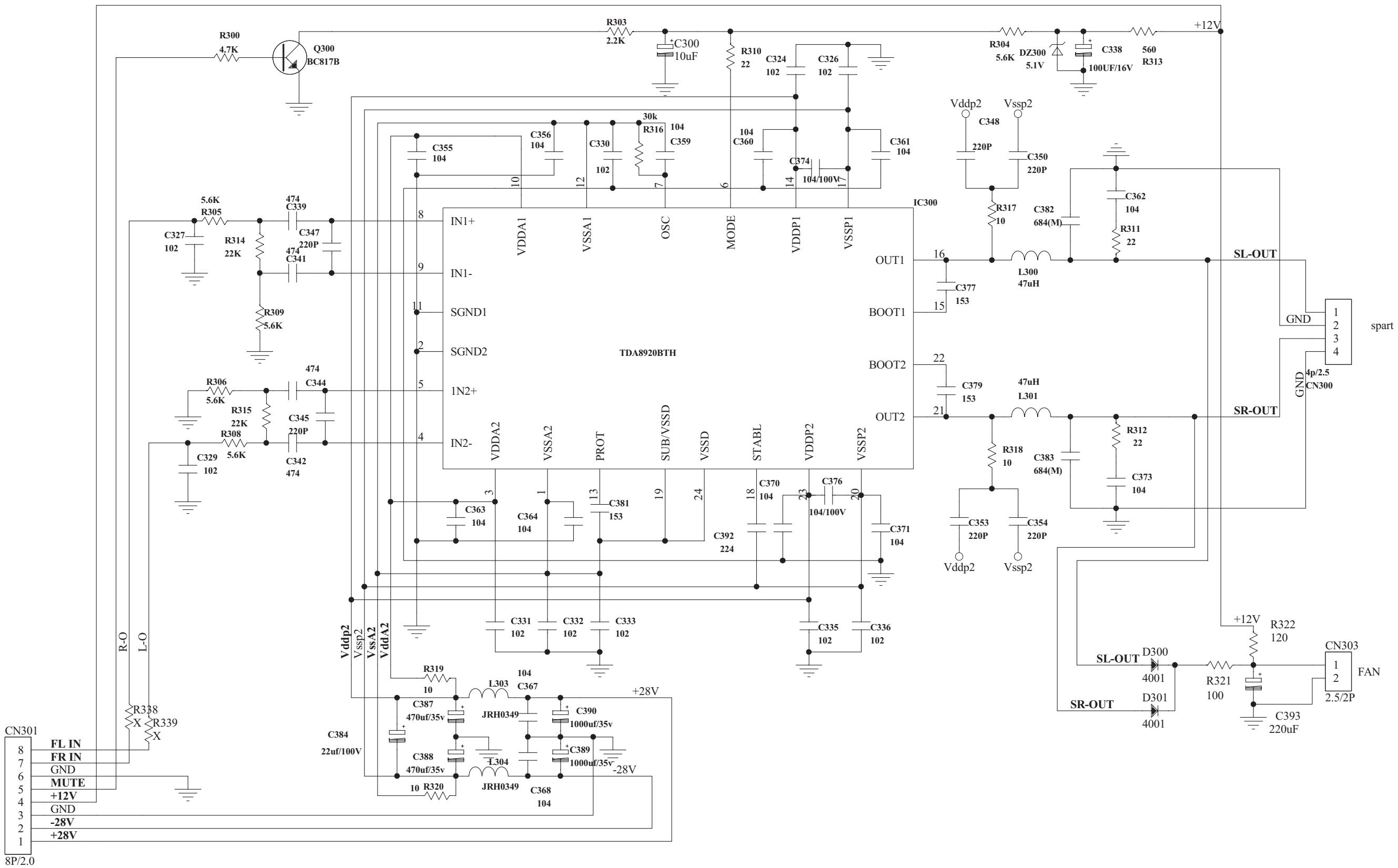
MEGA	R24	R25	R46	R4	R5	R44	R2	C8	R1	R57	R58	R82
SANYO ST-E200S	NC	0R	0R	NC	4.7K	1K	5.1K	474	NC	33K	33K	NC
SONY KSM213C	0R	NC	3.9K	0R	NC	0R	3.3K	105	NC	0R	0R	10K

# LAYOUT DIAGRAM - SERVO BOARD(MPEG DECODER CARD ASS'Y)

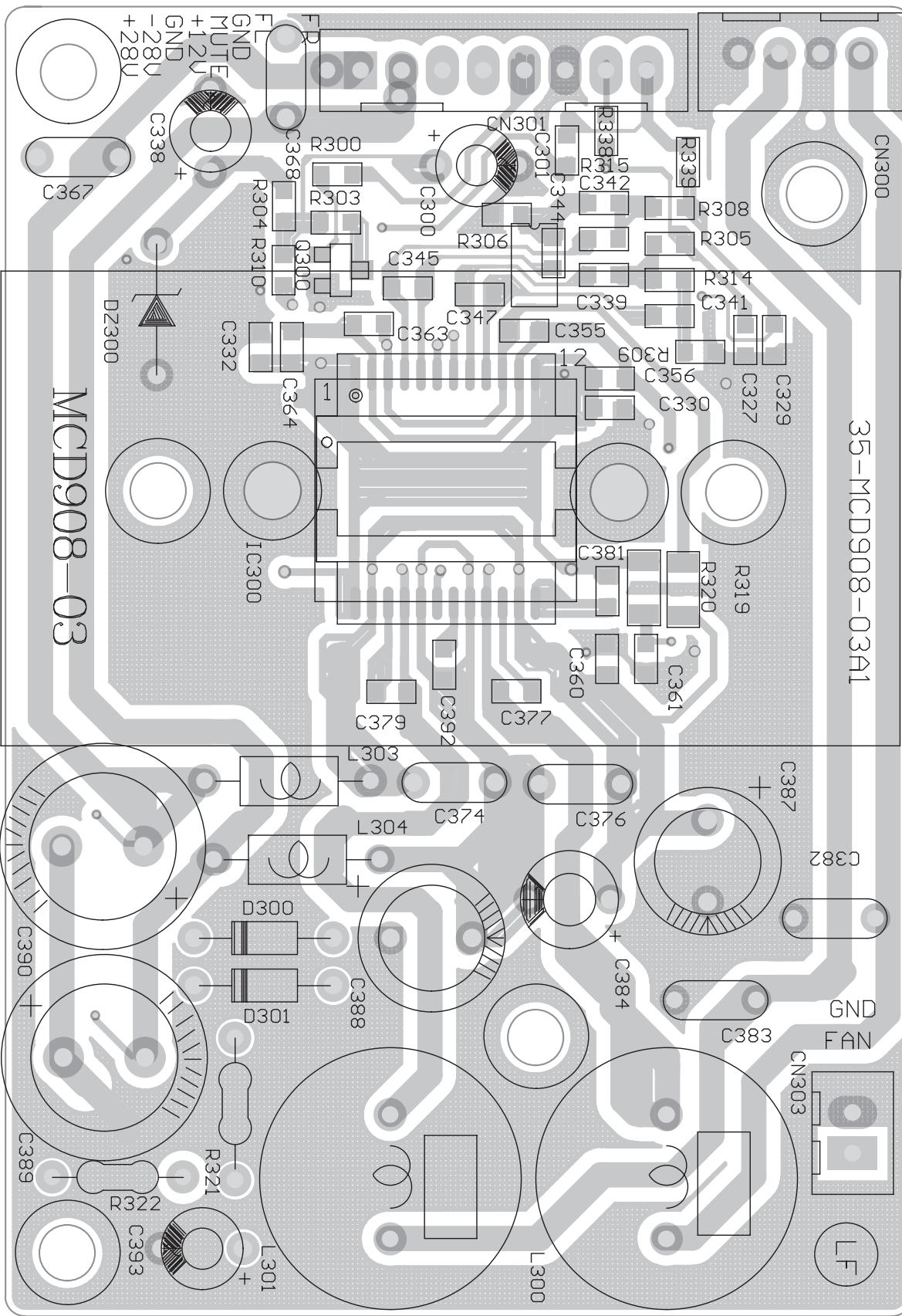
(This Board is not intended to repair. The diagram for reference)



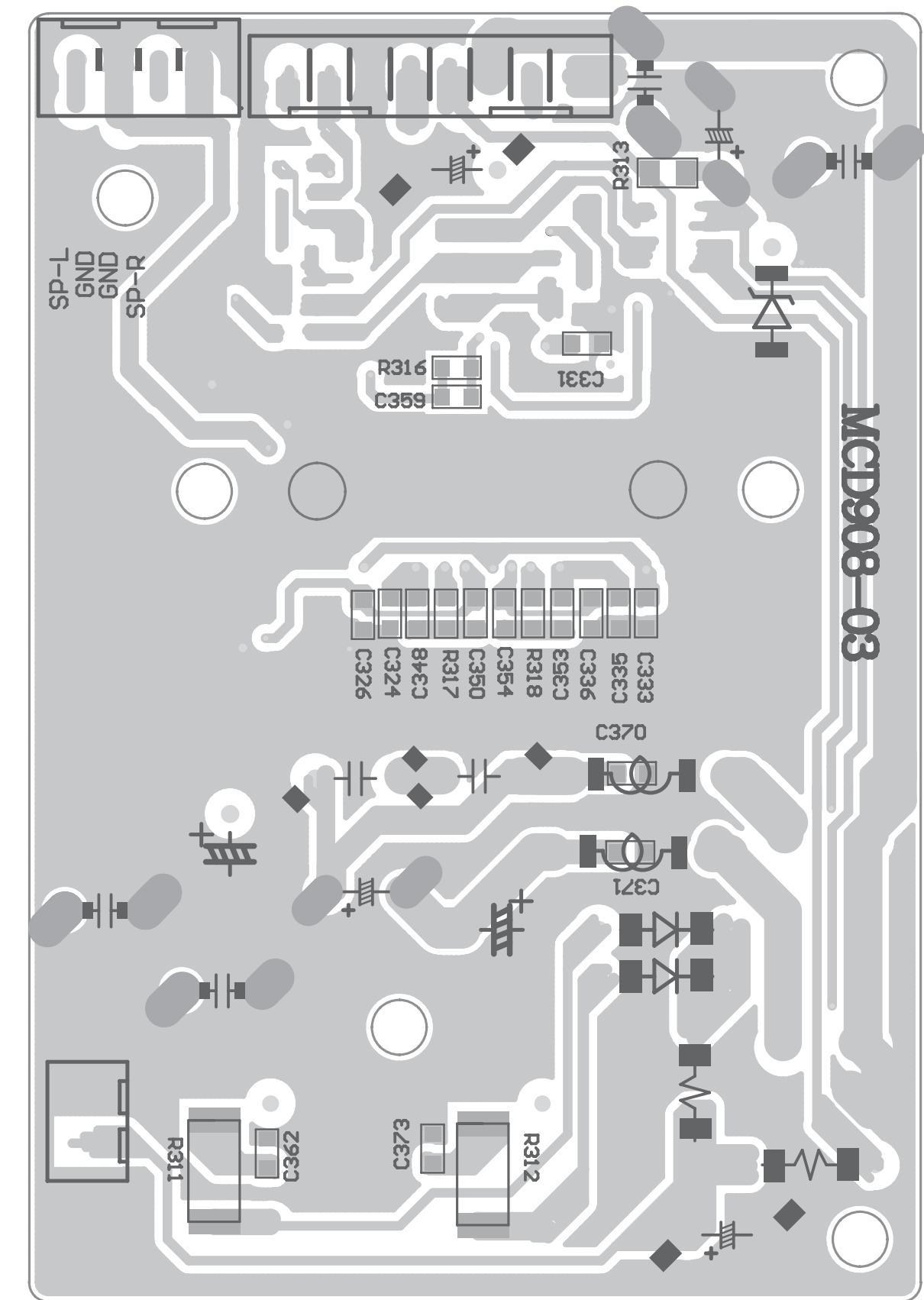
## LAYOUT DIAGRAM - AMP BOARD

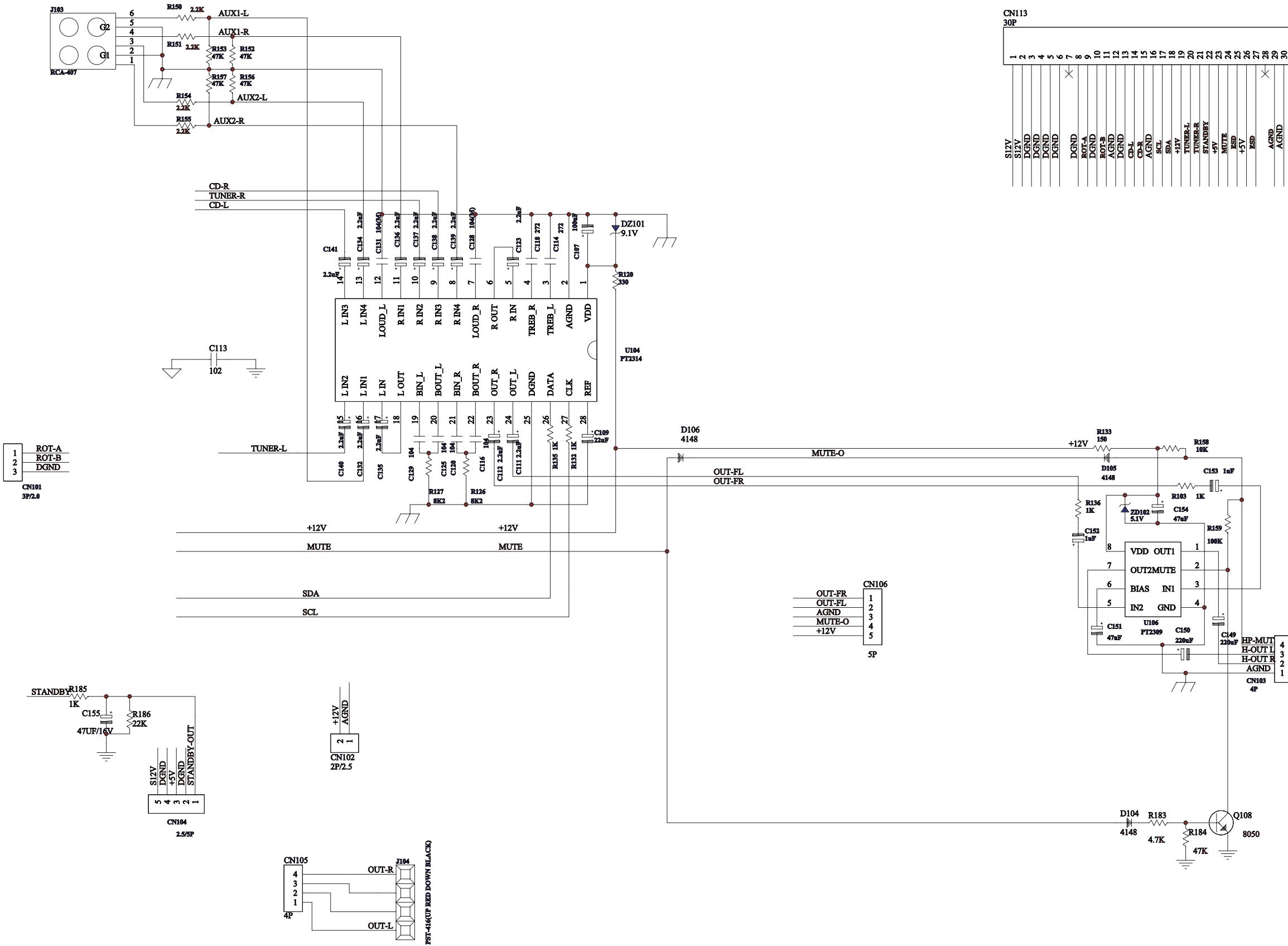


## LAYOUT DIAGRAM - AMP BOARD

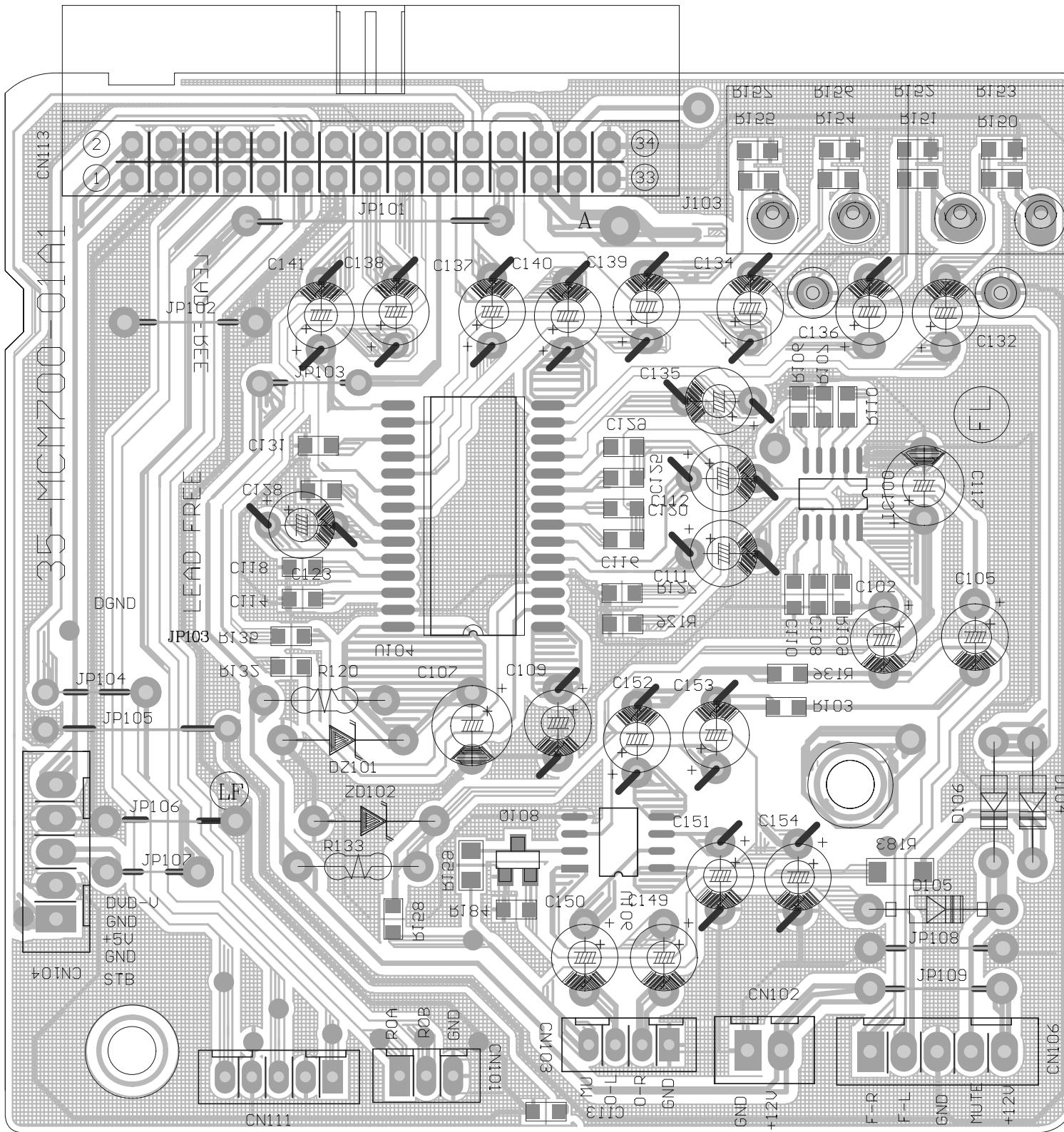


MCD908-03

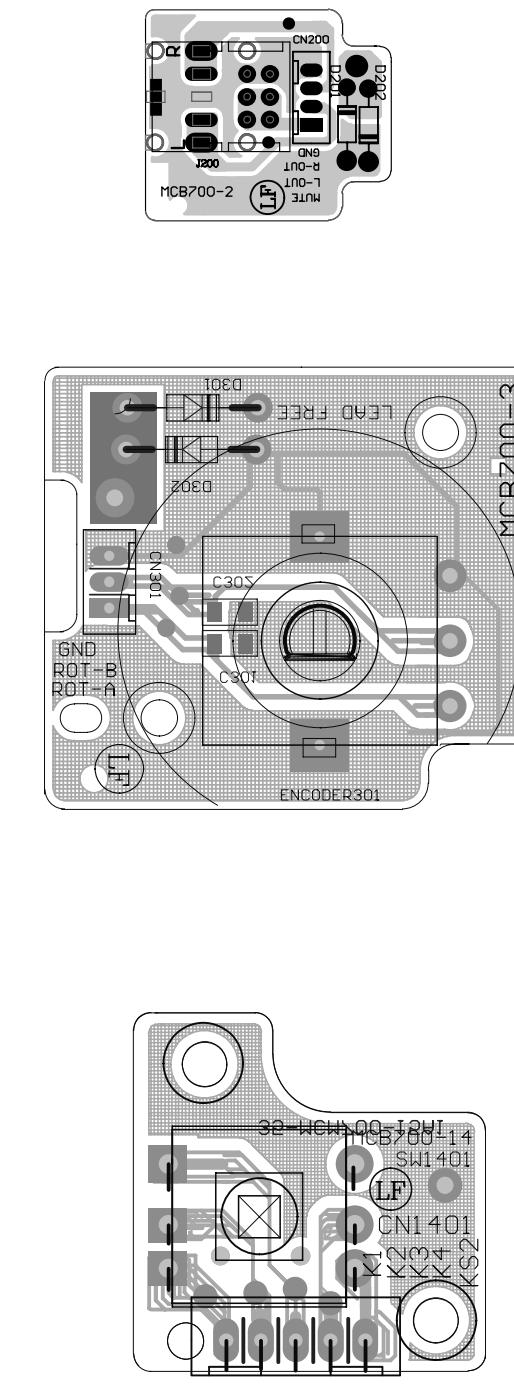


**CIRCUIT DIAGRAM - AMP BLOCK  
PRE-AMP BOARD**


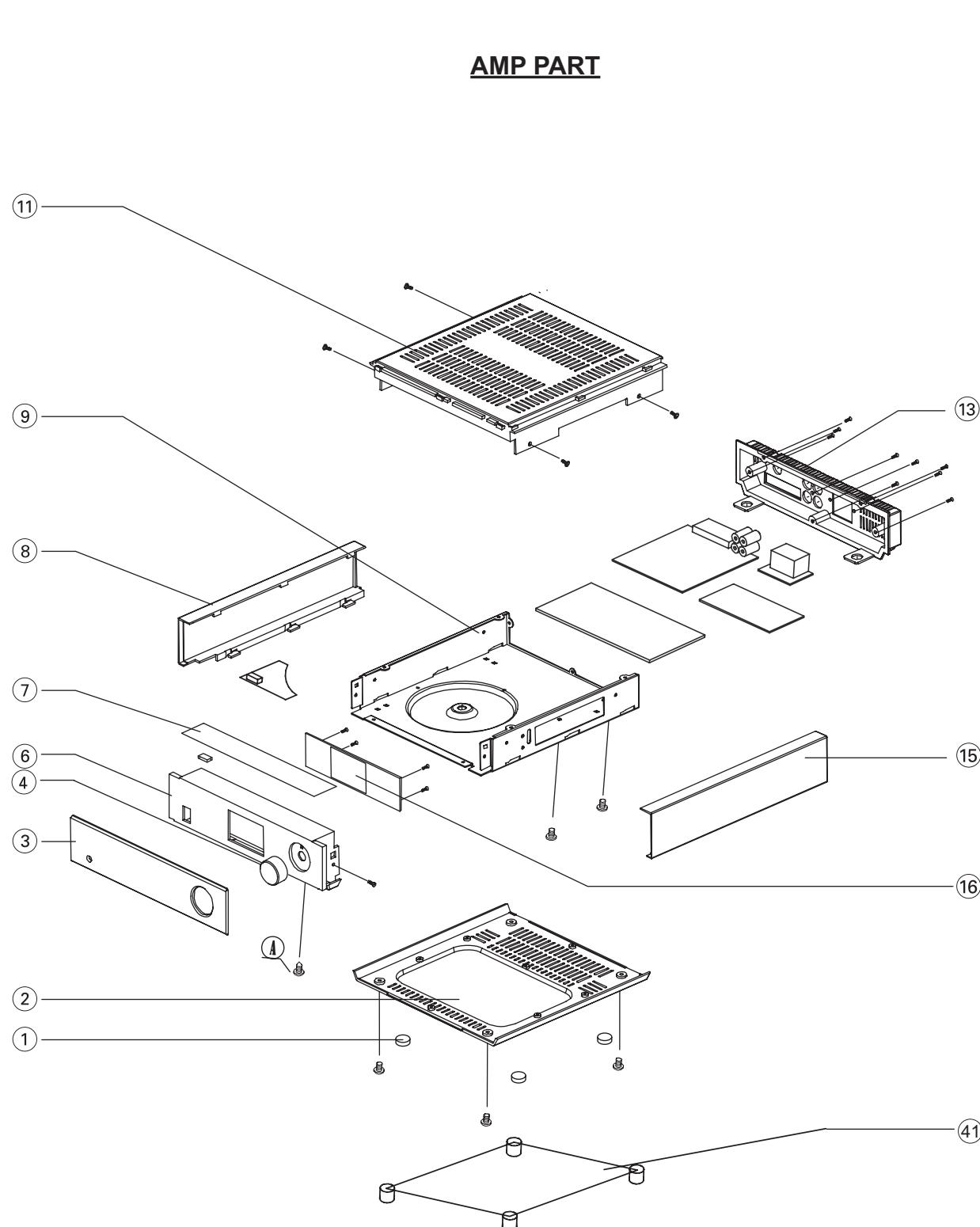
**LAYOUT DIAGRAM - AMP BLOCK  
PRE-AMP BOARD**



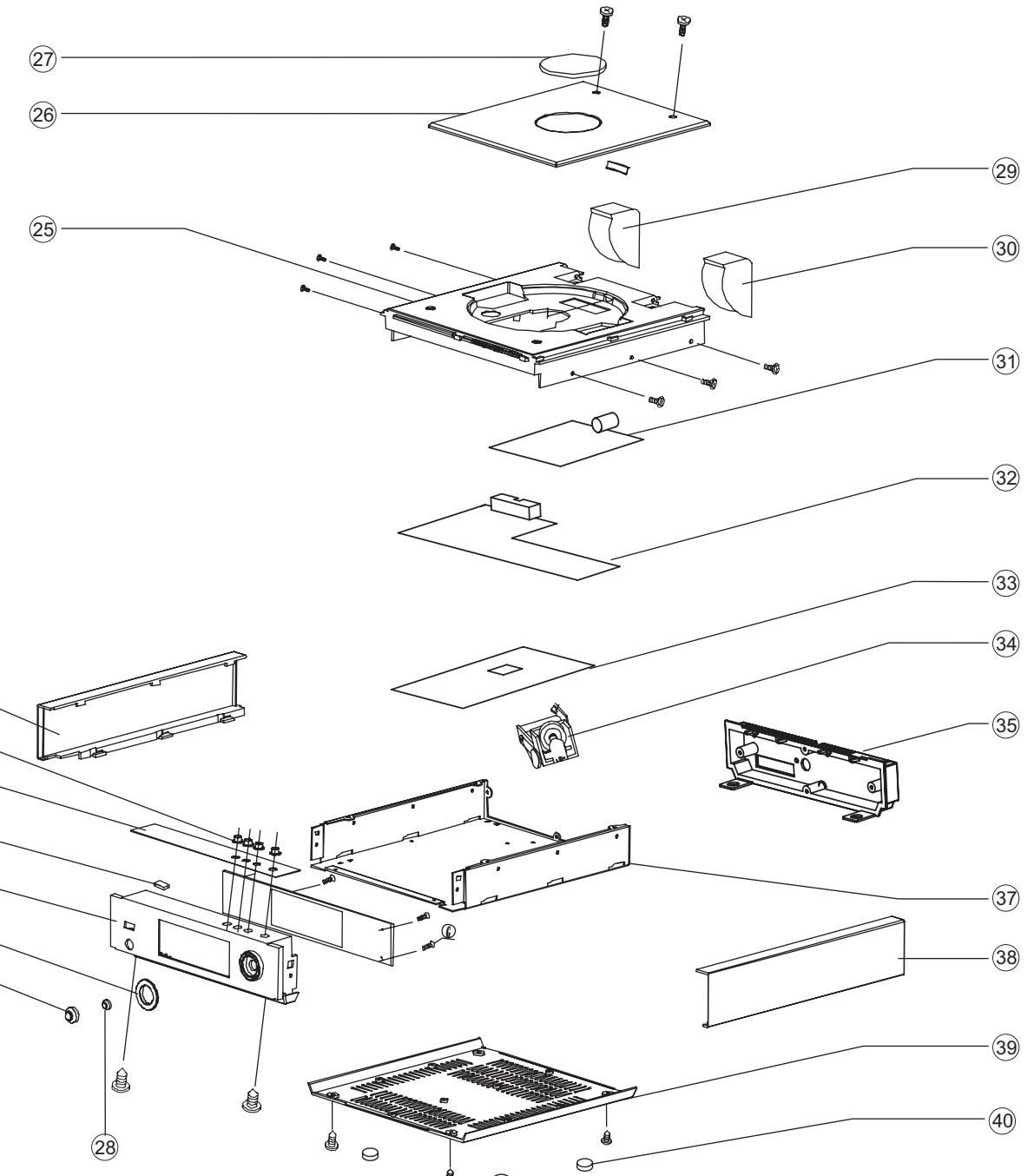
**LAYOUT DIAGRAM - AMP BLOCK  
HP & VOLUME & SWITCH BOARD**



**EXPLODED VIEW DIAGRAM**



CD PART



**MECHANICAL & ACCESSORIES PARTS LIST - AMP PART**

02	996500041980	CABINET BOTTOM
03	996510003235	MCM700 AMP UNIT DISPLAY LENS
04	996510003233	VOLUME KNOB MCD700
06	996500041982	AMP CABINET FRONT
08	996500042075	SIDE PLATE-L ASH
11	996500042061	MCD700 AMP CABINET TOP
13	996510003234	MCD700 AMP BACK CABINET
15	996500042076	SIDE PLATE-R ASH
41	994000005075	PEDESTAL
A	△ 996510003237	AC LINE CORD 1.95M
B	996510003238	MAIN SPEAKER BOX ASS'Y-L
C	996510003239	TREBLE SPEAKER GRILLE
D	996510003240	PLASTIC GRILLE
E	996510003241	MAIN SPEAKER BOX ASS'Y-R
F	996510003239	MCD700 TREBLE SPEAKER GRILLE
G	996510003240	MCD700 PLASTIC GRILLE
H	996500041019	CONTROL CABLE WIRE 300 2.5/30P
I	996500041018	FM ANTENNA WIRE 1.5m
J	996510003245	SPEAKER WIRE 1.5M
K	996510003244	REMOTE CONTROL

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

**MECHANICAL & ACCESSORIES PARTS LIST - CD PART**

17	996510003058	MCM700 DISPLAY LENS
18	994000002497	POWER BUTTON
19	996510003052	MCD700 FUNCTION KNOB
19	996510003060	MCD700 SWITCH PUSH KNOB
21	996510003055	MCM700 FRONT PANEL
23	996510003059	MCD700 TOP BUTTON
24	996500042075	SIDE PLATE-L ASH
25	996510003056	MCD700 CD TOP CABINET
26	996500041006	MCM700 CD DOOR
29	996500041989	CD DOOR LEFT BRACKET
30	996500041990	CD DOOR RIGHT BRACKET
33	996510003603	SERVO PCB ASS'Y M5671U-A1
38	996500042076	SIDE PLATE-R ASH
39	996500042055	MCD700 DVD CABINET BOTTOM
70	996510013934	CD FRONT SEMI-ASSEMBLED PARTS
L	996510003048	CD MODULE
M	996510003062	MCM700 USB COVER T100
N	996510003063	FLAT FLEXIBLE CABLE
O	996510003064	MCM700 USB DOOR SPRING
P	996520000296	SWITCH PCB ASS'Y

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

**ELECTRICAL PARTS LIST - AMP PART**

U 996510006394 SWITCH POWER BOARD POW280 160W

***PRE-AMP PCB ASS'Y MCM700***

J103 996500042474 4 PINS RCA SOCKET RCA-407

U104 994000005136 I.C.PT2314 PRINCETON

U106 994000004952 IC PT2309-S(L)

***PHONE PCB ASS'Y MCM700***

J200 996510003230 HEADPHONE SOCKET D3.5

***VOLUME PCB ASS'Y MCM700***

COD301 996500041645 ROT ENCODER

***OUTPUT PCB ASS'Y MCM700***

CN101 996510003231 PINS CONNECTOR 2.5/4P

J101 996510003232 SPEAKER TERMINAL 4P WP4-3

***AMP PCB ASS'Y MCM700***

IC300 996510000464 CHIP IC TDA8920(PACKING)

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

**ELECTRICAL PARTS LIST - CD PART**

P	996510002977	MOTOR PCB ASS'Y MCM700	<b>SERVO PCB ASS'Y M5671U-A1 (only for reference)</b>		
		<b>DOOR SWITCH PCB ASS'Y MCM700</b>	U8	996510002981	IC EN25P10(SOP-8)
SW401	996510002972	SPECIAL SWITCH TC-V030A	X1	996510002987	XTAL OSCILLATOR 16.9344MHZ
SW402	996510002972	SPECIAL SWITCH TC-V030A	X2	996510002986	XTAL OSC FREQ 12mHz 20PPm
		<b>LAMP PCB ASS'Y MCM700</b>	R	996510002988	<b>USB PCB ASS'Y MCM700</b>
LED	994000004948	LED LAMP(BLUE) /12	HOST	994000004968	USB JACK A-TYPE 4P FEMALE
		<b>PUSH KEY PCB ASS'Y MCM700</b>	S	996510002989	<b>TUNER PCB ASS'Y EC06-02</b>
SW1501	996510002973	LIGHT TOUCH SWITCH 6X6X4.3	CF1	996510000004	FM TUNER KST-F404HA-11A
SW1502	996510002973	LIGHT TOUCH SWITCH 6X6X4.3	CF2	996510000004	FM CER.FILTER 10.7MHz 3P
SW1503	996510002973	LIGHT TOUCH SWITCH 6X6X4.3	IC1	996510000007	FM CER.FILTER 10.7MHz 3P
SW1504	996510002973	LIGHT TOUCH SWITCH 6X6X4.3	JACK1	996510003046	IC TEA5762
		<b>SWITCH PCB ASS'Y MCM700</b>	Q1	996510000005	FM OUTPUT SOCKET F1-16
SW706	996510002974	SWITCH (4-DIRECTIONS) 10X10	Q5	996510000005	CHIP TRANSISTOR 9014
		<b>DISPLAY PCB ASS'Y MCM700</b>	RV1	996510003047	CHIP TRANSISTOR 9014
VFD701	996500041321	VFD DISPLAY	T7	994000005137	RELAY 100KR SF-065J-B1
Q	994000005215	LED DIODE RED 2R3JSD-UR101			I.F.T. COIL BROWN 6295
IC701	996510000500	IC PT6311/SC16311/CD16311			
S701	996510002905	IR SENSOR			
SW701	994000004963	LIGHT TOUCH SW. TC103 H5			
<b>CPU PCB ASS'Y MCM700</b>					
B1	△ 996510002975	TRANSFORMER EE13 5V	<b>Note:</b> Only these parts mentioned in the list are normal service parts.		
D2	996510002976	DIODE FR104			
IC801	996510003049	CPU U252 MCU PARTS ASS'Y			
IC802	994000004955	IC AC6811(RDS) /12			
IC803	994000004951	IC 24C01A-SC27			
IC806	994000005147	IC PT2579-SN SMALL			
IC807	996510000498	IC 7806CT			
IC808	996510002918	IC PCF8563 SOP8			
L1	996510019915	FIXED INDUCTOR 200UH 6X5			
Q1	994000004928	TRANSISTOR 8050C-5			
Q2	994000004928	TRANSISTOR 8050C-5			
Q807	994000004938	TRANSISTOR 2SB772A			
X800	994000005497	CRYSTAL OSC. 4.332 49S MHZ			
X801	994000004945	CER. FILTER FREQUENCY 4.19MHZ			
X803	996510000012	CRYSTAL OSC FREQ.32.768KHz			
<b>SERVO PCB ASS'Y M5671U-A1 (only for reference)</b>					
Q1	996510002980	CHIP RESISTOR 8550C (SOT-89)			
Q2	996510002980	CHIP RESISTOR 8550C (SOT-89)			
R3	996510002943	CARBON FILM RESISTOR 10 1/2W			
U1	996510002985	IC SA1469PH(HOP-28)			
U3	996510002982	IC PP5100 TQFP-48			
U4	996510002983	IC M5671(QFP-128)			
U5	996510005749	IC KS161622D SOP50			
U7	996510000010	IC LM7805/LM340T5 7805			

## REVISION LIST

### 1.0 Manual 3141 785 31750

Initial Service Manual released.

### 1.1 Manual 3141 785 31751

In this version,

- 1) the instruction of CD playability check is added.
- 2) Chapter11 has been revised according to latest diagrams.
- 3) P12-1 Set Mechanical Exploded View has been revised according to latest information.
- 4) P12-2 & P12-3 Mechanical and Accessories Partslist updated.
- 5) P13-1 & P13-2 Electrical Partslist updated.

### 1.2 Manual 3141 785 31752

In this version,

- 1) Chapter11 AMP Board diagrams has been revised according to latest information.

### 1.3 Manual 3141 785 31753

In this version,

- 1) P5-1 Software version checking updated.
- 2) P8-1 CD BLOCK Circuit Diagram updated.
- 3) P11-3 AMP Block Circuit Diagram revised.
- 4) P12-3 CD Mechanical Partslist updated.

### 1.3 Manual 3141 785 31754

In this version,

- 1) P12-3 CD Mechanical Partslist updated.

Add:

33 996510003603 SERVO PCB ASS'Y M5671U-A1

70 996510013934 CD FRONT SEMI-ASSEMBLED PARTS (Refer to Page 14-2 picture)

Remark: 996510013934 include the materials as below:

- A SWITCH BOARD ASS'Y MCM700
- B DISPLAY BOARD ASS'Y MCM700
- C USB BOARD ASS'Y MCM700
- D FUNCTION KNOB COVER
- E FUNCTION KNOB COVER
- F SWITCH KNOB(4-DIRECTIONS)
- G MCM700 USB DOOR SPRING
- H DVD KEY-PRESS PLATE(ALUMINIUM)
- I FUNCTION KNOB RING
- J MCM700 DVD FRONT COVER
- K POWER BUTTON
- L MCM700 USB BRACKET
- M MCM700 USB COVER
- N PANEL PAD H=4.5
- O MCM700/12 DISPLAY LENS
- P BLACK SPONGE 35X6X1 40°
- Q METAL PLATE 11X7X1 D3
- R SCREW 2.6X8 FA (PLATING)
- S SCREW 2.6X6 PT (PLATING)
- T SCREW 2.6X8 PT (PLATING)

### 1.3 Manual 3141 785 31755

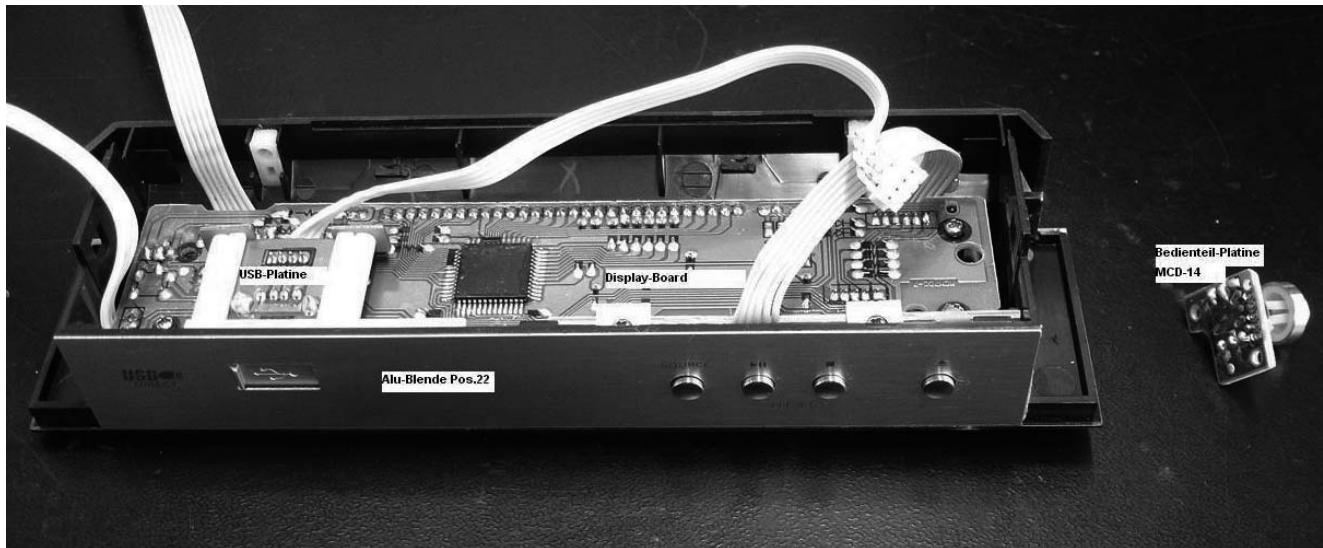
In this version,

- 1) P13-2 ELECTRICAL PARTS LIST - CD PART (CPU PCB ASS'Y MCM700) updated.

Add:

L1 996510019915 FIXED INDUCTOR 200UH 6X5

996510013934 -- CD FRONT SEMI-ASSEMBLED PARTS:



Remark: 996510013934 not include wires and cables.