

**Service
Service
Service**



Service Manual



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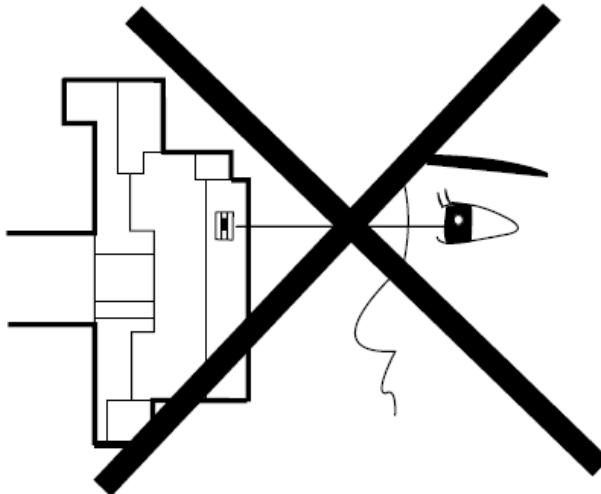
Version 1.0



PHILIPS

LASER BEAM SAFETY PRECAUTIONS

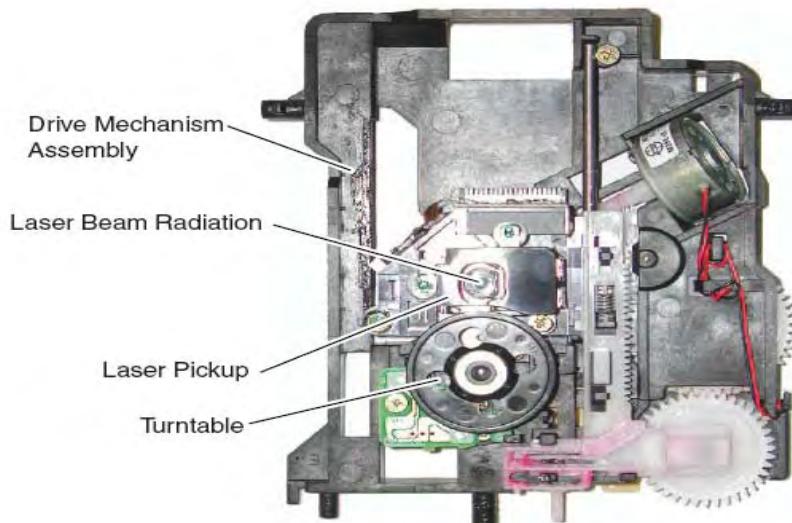
This DVD player uses a pickup that emits a laser beam.



Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 30 cm away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.

CAUTION: Use of controls and adjustments, or doing procedures other than those specified herein, may result in hazardous radiation exposure.



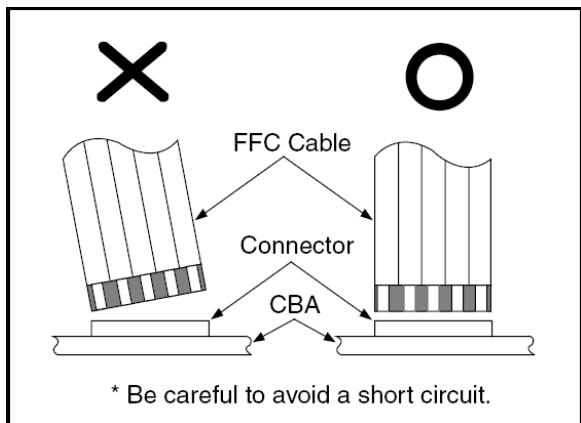
CAUTION
LASER RADIATION
WHEN OPEN. DO NOT
STARE INTO BEAM.

Location: Top of DVD mechanism.

STANDARD NOTES FOR SERVICING

Instructions for Connectors

1. When you connect or disconnect the FFC (Flexible Foil Connector) cable, be sure to first disconnect the AC cord.
2. FFC (Flexible Foil Connector) cable should be inserted parallel into the connector, not at an angle.



Pb (Lead) Free Solder

When soldering, be sure to use the Pb free solder.



IDENTIFICATION:

Regardless of special logo (not always indicated)

One must treat all sets from 1.1.2005 onwards, according next rules.

Important note: In fact also products a little older can also be treated in this way as long as you avoid mixing solder-alloys (leaded/lead-free). So best to always use SAC305 and the higher temperatures belong to this.

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free solder alloy Philips SAC305 with order code 0622 149 00106. If lead-free solder paste is required, please contact the manufacturer of your solder-equipment. In general use of solder paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for leadfree solder alloy. The solder tool must be able
 - To reach at least a solder-temperature of 400°C,
 - To stabilize the adjusted temperature at the solder-tip
 - To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature around 360°C - 380°C is reached and stabilized at the solder joint. Heating-time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C otherwise wear-out of tips will rise drastically and flux-fluid will be destroyed. To avoid wear-out of tips switch off un-used equipment, or reduce heat.
- Mix of lead-free solder alloy / parts with leaded solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed solder alloy types (leaded and lead-free). If one cannot avoid, clean carefully the solder-joint from old solder alloy and re-solder with new solder alloy (SAC305).
- Use only original spare-parts listed in the Service-Manuals. Not listed standard-material (commodities) has to be purchased at external companies.
- Special information for BGA-ICs:
 - always use the 12nc-recognizable soldering temperature profile of the specific BGA (for desoldering always use highest lead-free

temperature profile, in case of doubt)
 - lead free BGA-ICs will be delivered in so-called 'dry-packaging' (sealed pack including a silica gel pack) to protect the IC against moisture. After opening, dependent of MSL-level seen on indicatorlabel in the bag, the BGA-IC possibly still has to be baked dry. This will be communicated via AYS-website.

Do not re-use BGAs at all.

- For sets produced before 1.1.2005, containing leaded soldering-tin and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.

● On our website

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.

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

For additional questions please contact your local repair-helpdesk.

How to Remove / Install Flat Pack-IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:

1. Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)

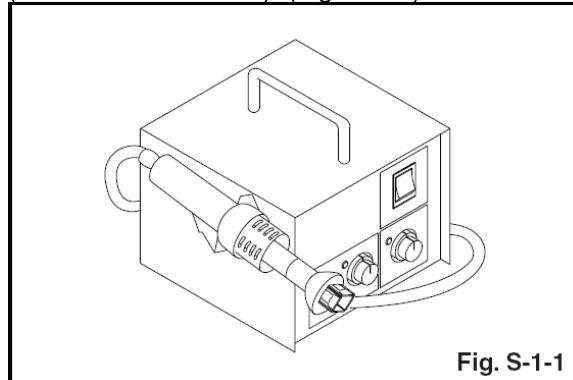


Fig. S-1-1

2. Remove the flat pack-IC with tweezers while applying the hot air.

3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will

be melted). (Fig. S-1-6)

4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

CAUTION:

1. The Flat Pack-IC shape may differ by models. Use an appropriate hot-air flat pack-IC desoldering machine, whose shape matches that of the Flat Pack-IC.
2. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)
3. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

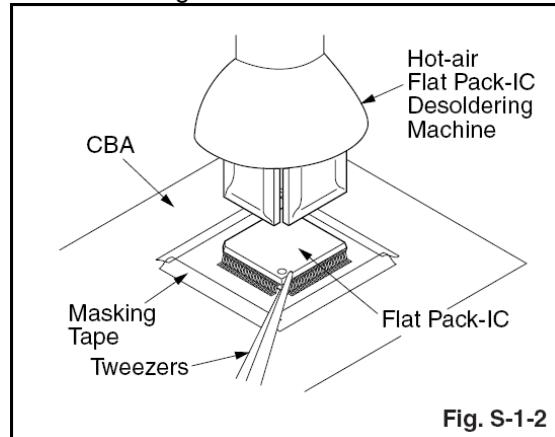


Fig. S-1-2

With Soldering Iron:

1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

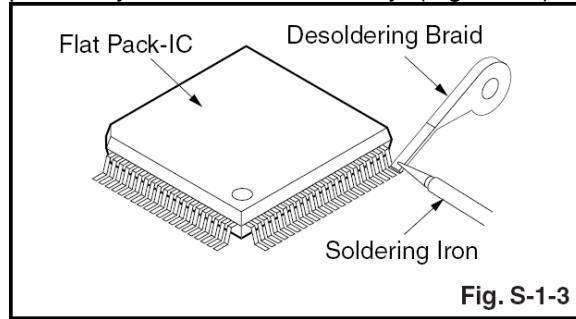


Fig. S-1-3

2. Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig. S-1-4)

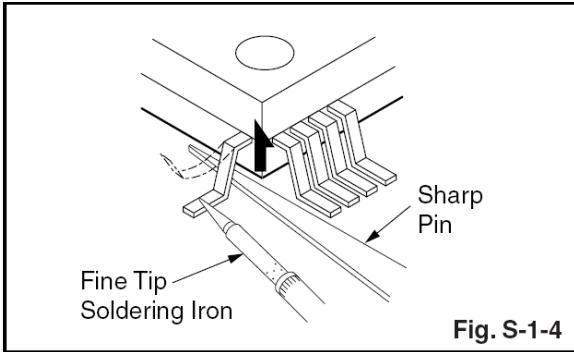


Fig. S-1-4

3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

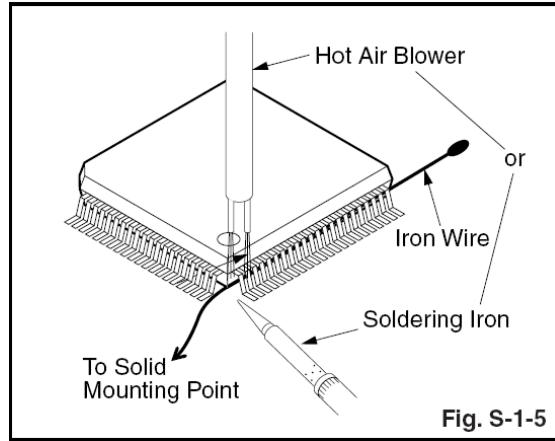


Fig. S-1-5

With Iron Wire:

1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)
 2. Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.
 3. While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5.
 4. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
 5. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)
- Note:** When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.

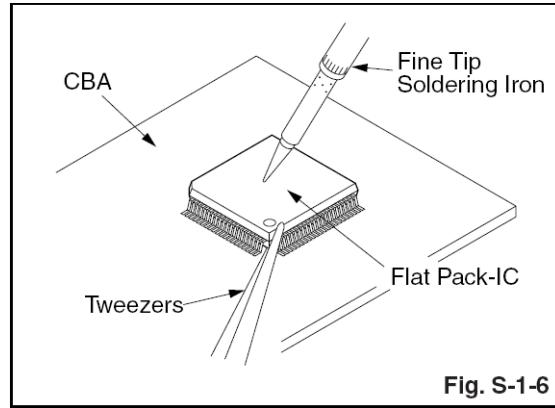
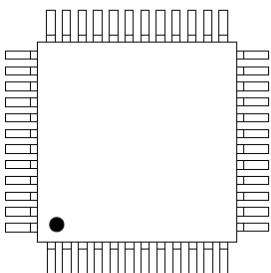


Fig. S-1-6

2. Installation

1. Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.
2. The “●” mark on the flat pack-IC indicates pin 1. (See Fig. S-1-7.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig. S-1-8.)
3. Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.

Example :



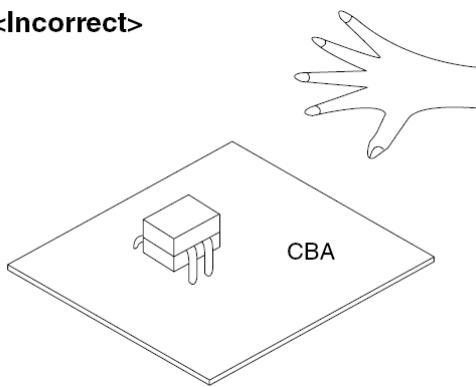
Pin 1 of the Flat Pack-IC
is indicated by a "●" mark.

Fig. S-1-7

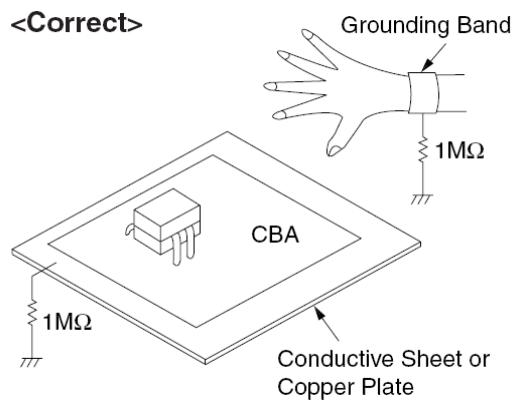
2. Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding ($1 M\Omega$) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors with your clothing.

<Incorrect>



<Correct>



Instructions for Handling

Semiconductors

Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

1. Ground for Human Body

Be sure to wear a grounding band ($1 M\Omega$) that is properly grounded to remove any static electricity that may be charged on the body.

Copyright notice



Be responsible
Respect copyrights

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorised by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorised by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Safety and important notice



Warning

- Risk of overheating! Never install the Home Theater System in a confined space. Always leave a space of at least 4 inches around the Home Theater System for ventilation. Ensure curtains or other objects never cover the ventilation slots on the Home Theater System.
- Never place the Home Theater System, remote control or batteries near naked flames or other heat sources, including direct sunlight.
- Only use this Home Theater System indoors. Keep this Home Theater System away from water, moisture and liquid-filled objects.
- Never place this Home Theater System on other electrical equipment.
- Keep away from this Home Theater System during lightning storms.
- Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- Visible and invisible laser radiation when open. Avoid exposure to beam.

Recycle notice

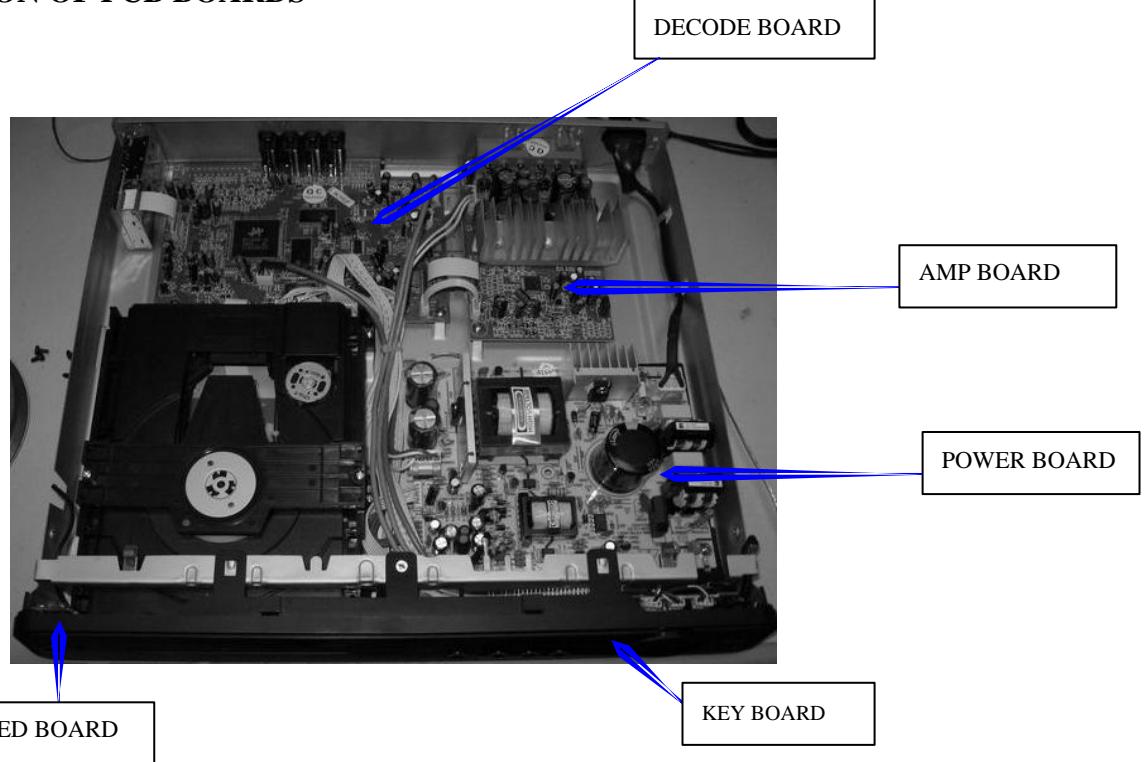


This electronic equipment contains a large number of materials that can be recycled or reused if disassembled by a specialized company. If you are disposing of an old machine, please take it to a recycling center. Please observe the local regulations regarding disposal of packaging materials, exhausted batteries and old equipment.

About Progressive Scan

Consumers should note that not all high definition television sets are fully compatible with this product and may cause artifacts to be displayed in the picture. In case of 525 or 625 progressive scan picture problems, it is recommended that the user switch the connection to the 'standard definition' output. If there are questions regarding our TV set compatibility with this model 525p and 625p DVD player, please contact our customer service center.

LOCATION OF PCB BOARDS



VERSION VARIATION:

Type/Versions	HTS3021	
Features	/94	/98
Output Power-200W	X	X
Voltage(110V-240V)	X	X

SERVICE SCENARIO MATRIX:

Type/Versions	HTS3021	
Board in used	/94	/98
DECODE board	C	C
POWER board	C	C
AMP board	C	C
LED board	C	C
KEY board	C	C

*C=Component Level Repair

Remote Control

∅ (Standby-On)

- Turns on the Home Theater System or switches to standby mode.

▲ (Open/Close)

- Opens or closes the disc compartment.

Source buttons

- AUDIO SOURCE : Selects an audio input source.
- RADIO : Switches to FM band.
- USB : Switches to the USB source.
- DISC : Switches to the disc source.

SETUP

- Accesses or exits the setup menu.

▲▼◀▶ (Navigation buttons)

- Navigates through the menus.
- Press left and right for fast backward or forward search.
- In radio mode, press up and down to tune the radio frequency.
- In radio mode, press left or right to start auto search.

INFO

- For discs, displays information about the current status or the disc.
- For slideshows, displays a thumbnail view of photo files.

▶■ (Play/Pause)

- Starts, pauses or resumes disc play.
- In radio mode, automatically tunes radio stations during first-time setup.

■ (Stop)

- Stops disc play.
- In radio mode, erases the current preset radio station.

SURR (Surround Sound)

- Switches to supported surround sound or stereo sound.

AUDIO SYNC

- Selects an audio language or channel on a disc.
- Press and hold to access the setting for audio sync, then press VOL +/- to set the audio delay time.



Numeric buttons

- Selects an item to play.

SUBTITLE

- Selects the subtitle language on a disc.

VOCAL

- Changes the audio channel of a karaoke disc.

MIC (VOL +/-)

- Increases or decreases microphone volume.

REPEAT / PROGRAM

- Selects or turns off repeat or shuffle mode.
- In radio mode, resets the list of preset stations: press to manually reset; press and hold to automatically reset.

OK

- Confirms an entry or selection.

➡ BACK

- Returns to a previous screen.
- For DVD, goes to the title menu.
- For VCD version 2.0 or SVCD with PBC turned on, returns to the menu during playback.

◀/ ▶(Previous/Next)

- Skips to the previous or next title, chapter, or track.

✖ (Mute)

- Mutes or restores audio output.

VOL +/-

- Increases or decreases volume.

SOUND

- Selects a predefined sound effect.

ZOOM

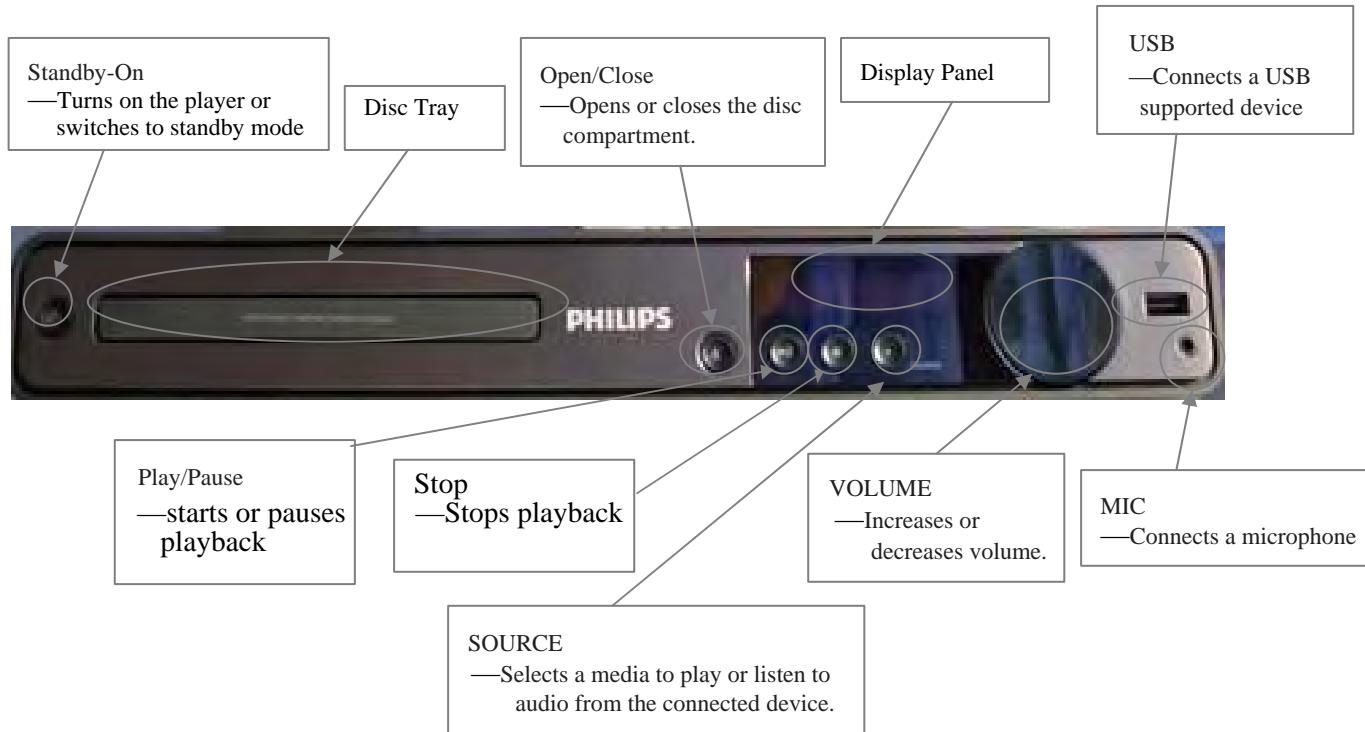
- Zooms in or out of the picture.
- Fits the picture format to the TV screen.

KARAOKE

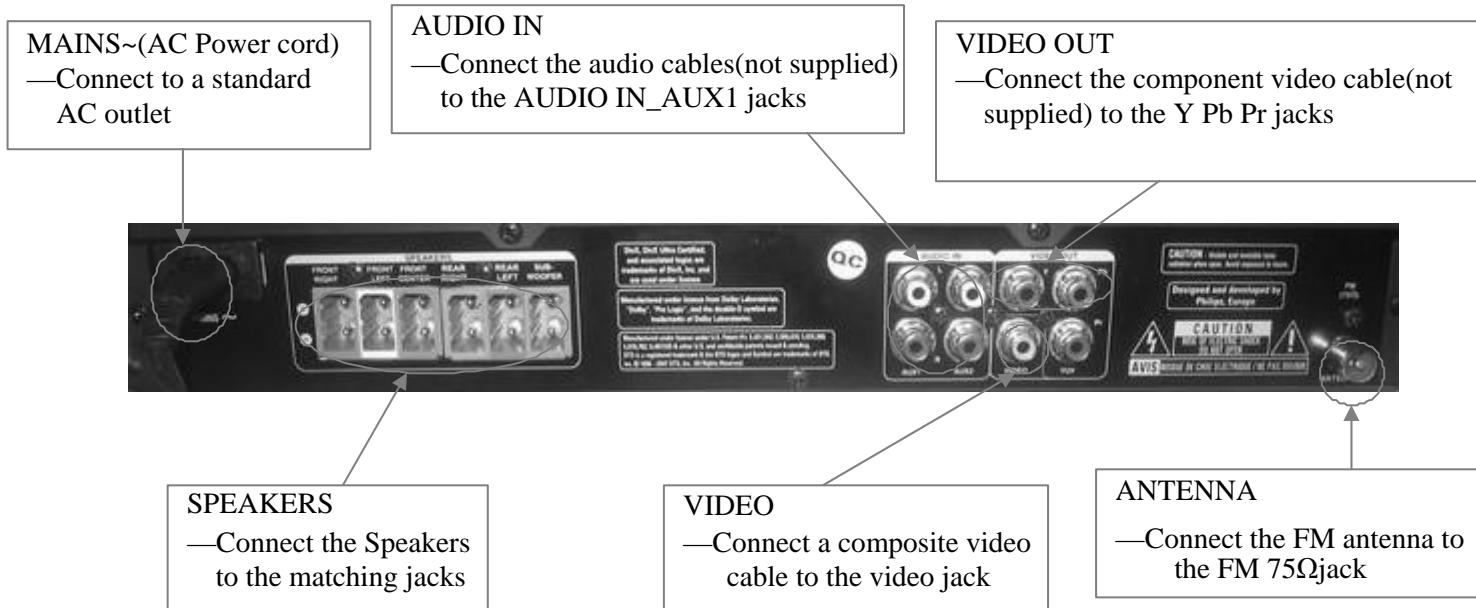
- Accesses or exits the karaoke menu.

OPERATING CONTROLS AND FUNCTIONS

Front Panel



Back Panel



SPECIFICATIONS

AMPLIFIER

Total output power	200 W RMS(10% THD)
Frequency Response	180Hz – 18kHz / ±3 dB
Signal-to-Noise Ratio	> 60 dB (A-weighted)
Input Sensitivity	
- AUX1.....	500 mV
- AUX2.....	500 mV

RADIO

Tuning Range	FM 87.5-108 MHz(50 kHz)
.....	26 dB Quieting
Sensitivity	FM 22 dBf,
IF Rejection Ratio	FM 50 dB
Signal-to-Noise Ratio	FM 30 dB
Harmonic Distortion	FM 3%
Frequency Response	FM 180 Hz–10 kHz / ±3 dB
Stereo Separation	FM 26 dB (1 kHz)
Stereo Threshold	FM 23.5 dB

DISC

Laser Type	Semiconductor
Disc Diametre	12cm / 8cm
Video Decoding	MPEG-1 / MPEG-2 /DivX / DivX Ultra
Video DAC	12 Bits,108MHz
Signal System	PAL / NTSC
Video S/N	56 dB
Audio DAC.....	24bits/96KHz
Frequency Response	4 Hz–20 kHz (44.1 kHz)4 Hz–22 kHz (48 kHz)4 Hz–44 kHz (96 kHz)
PCM	IEC 60958
Dolby Digital	IEC 60958, IEC 61937

MAIN UNIT

Power Supply.....	110 - 240 V~50-60Hz
Standby power consumption.....	<1W
Power Consumption	50 W
Dimensions	360 x 48 x 332 (mm)(w x h x d)
Weight	2.64 kg

SPEAKERS

System	Full range satellite
Speaker impedance	8 ohm (centre),4 ohm(Front/Rear)
Speaker drivers	3" full range speaker
Frequency response	150 Hz – 20 kHz
Dimensions:	
-Center.....	100 x 100x 75 (mm)
-Front/Rear.....	100 x 100x 75 (mm)
.....	(w x h x d)
Weight:	
-Center.....	0.38kg
-Front/Rear.....	0.38 kg/each

USB

Compatibility	USB
Class support	UMS(USB Mass storage Class)
File system.....	FAT12,FAT16,FAT32

SUBWOOFER

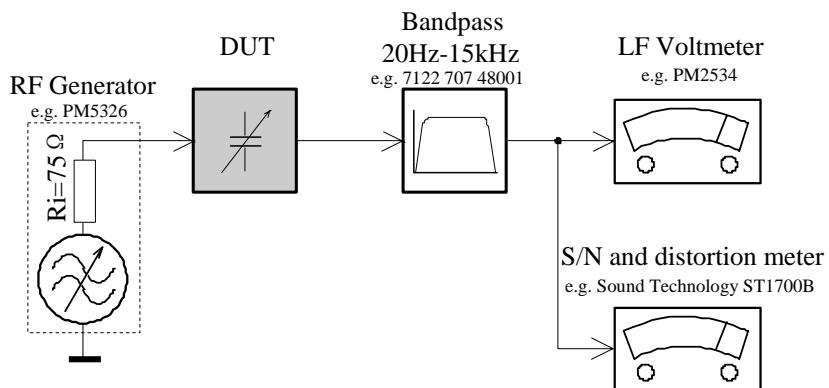
Impedance	8 ohm
Speaker drivers	165mm (6.5") woofer
Frequency response	45Hz – 150 Hz
Dimensions	122.6x 309.5 x 369 (mm)
.....	(w x h x d)
Weight	3.54kg

Laser specification

Type.....	Semiconductor laser GaAlAs(CD)
Wave length.....	645-665nm (DVD) 770-800nm(CD)
Output power	6Mw(DVD) 7Mw(VCD/CD)
Beam divergence.....	60 degrees

MEASUREMENT SETUP

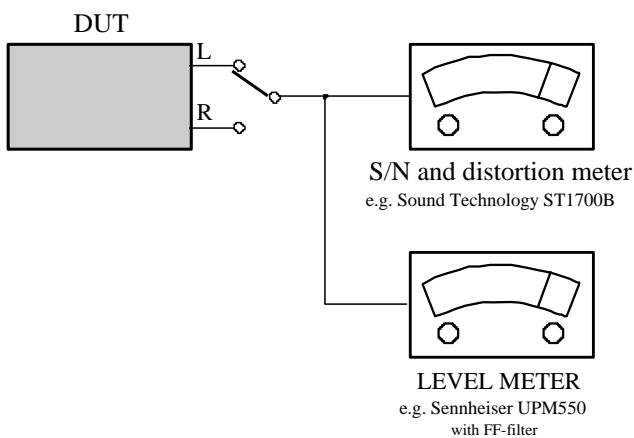
Tuner FM



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

CD

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



System , Region Code , etc. Setting Procedure

1) System Reset

- a) Press "SETUP" button on RC, TV will show setup menu
- b) Select the menu using the ▼ and ► on RC
- c) Go preference page to do system reset

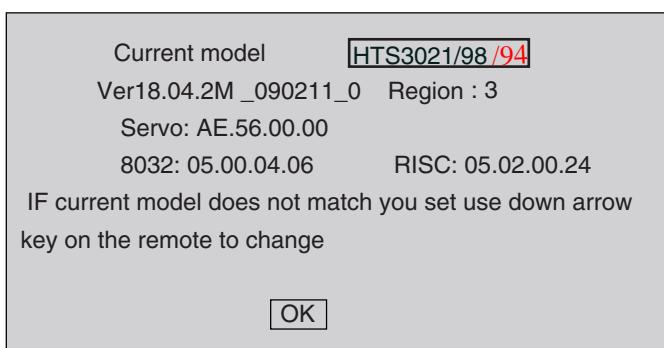
2) Region Code Change

- a) In open model, press "9" "9" "9" "9" on R/C, then input desired number to change region code :

1	USA
2	EU
3	AP
4	Australia , NZ , Latam
5	Russia , INDIA
6	CHINA

3) Version Control Change

- a) In open model, press "1" "5" "9" on RC
- b) Press ► and select version you want using ▼
- c) Press ► and "ok" button to confirm
- d) TV will show message as below:



4) Password Change

- a) Press "SETUP" button on R/C, TV will show setup menu
 - b) Select the menu using the ▼ and ► on RC
 - c) Go preference page select "password" to change
- * 136900 is default password supplied.

5) Check on the Software Version

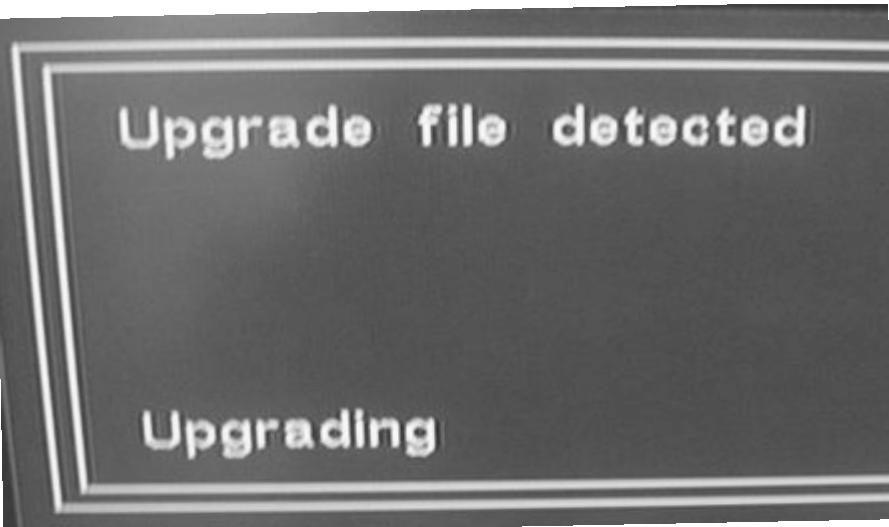
- a) Press "SETUP" button on R/C, TV will show setup menu
 - b) Select the menu using the ▼ and ► on RC
 - c) Go preference page select "Version Info".
- TV will show the version on screen.

6) Trade mode

- a) Press "Open/Close" button on RC
- b) Press "2" "5" "9" on R/C, VFD will display "TRA ON" or "TRA OFF"

7) Upgrading new software

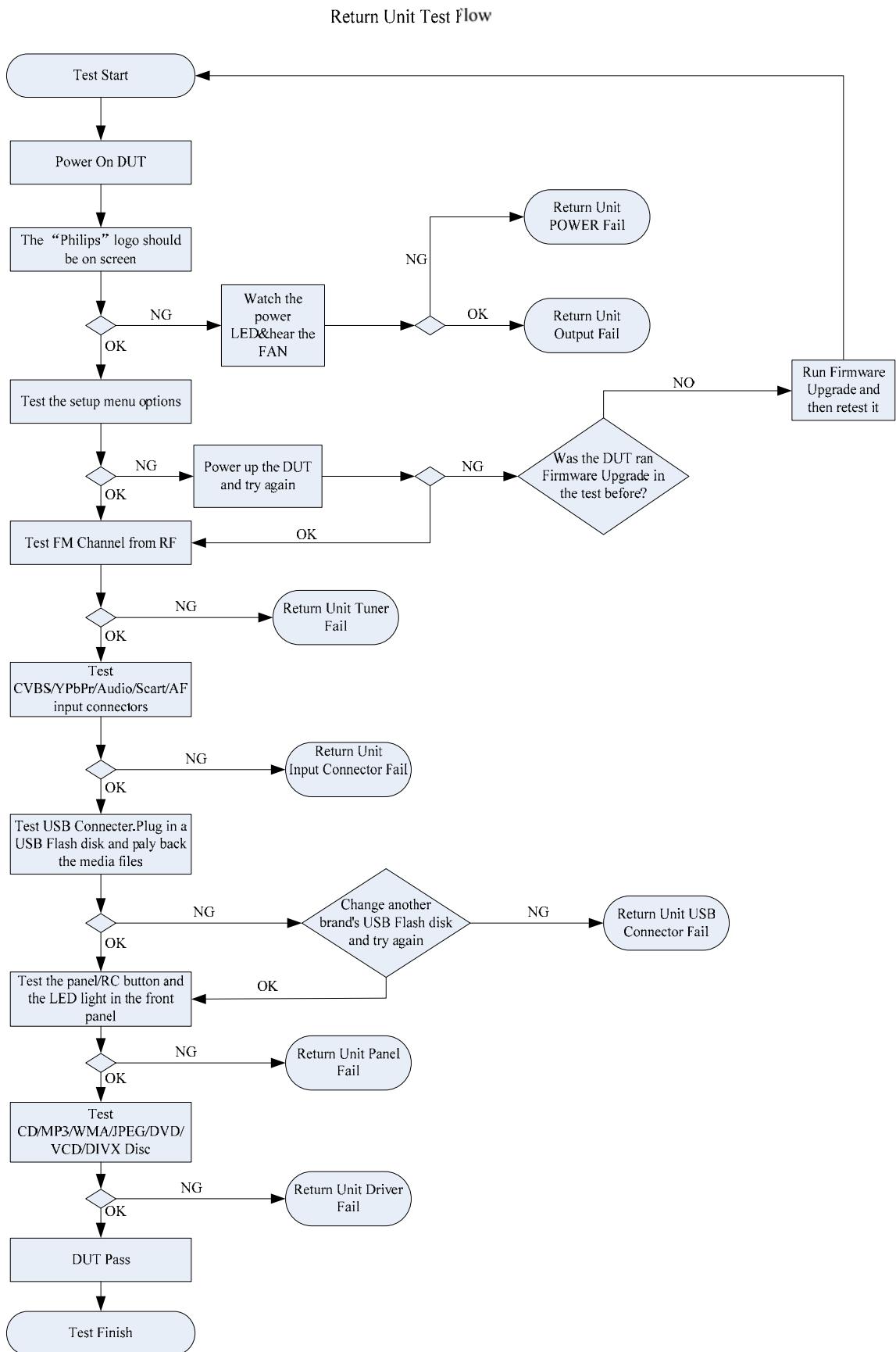
- a) Copy "software files" into a CD-R or USB flash drive.
- b) Insert the CD-R disc or USB flash drive.
- c) Press DISC or USB, the system will identify the update file automatically.
- d) VFD will show "Updating" until update is complete.
* the system will switch off to standby automatically after update is complete.
- e) OSD will show:



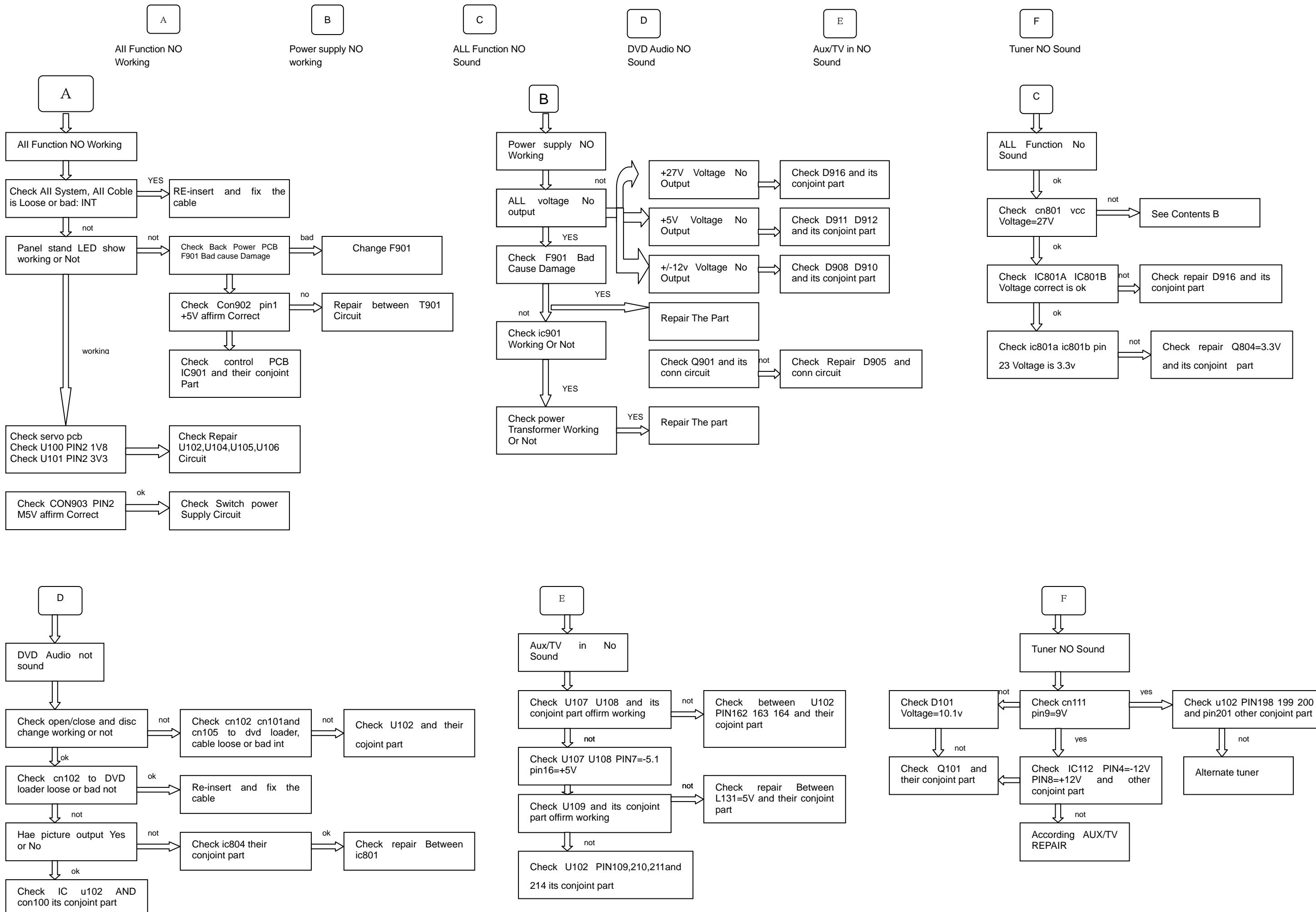
CAUTION!

This information is confidential and may not be distributed. Only a qualified service person should reprogram the Region Code.

Flow chart on how to filter between working &defective sets



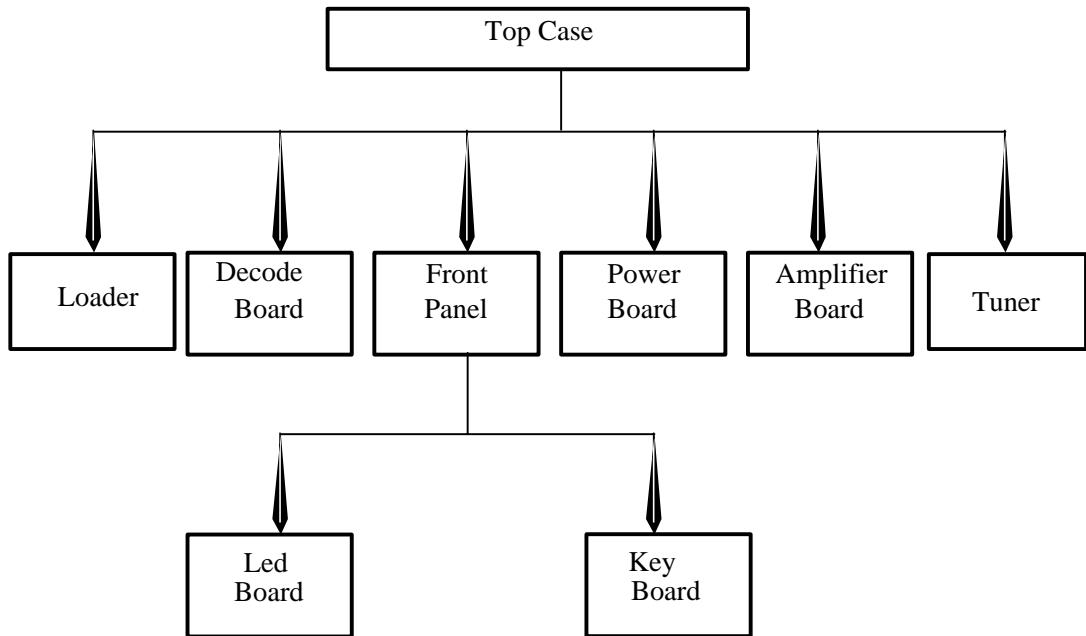
MAIN UNIT REPAIR CHART



DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

This flowchart indicates the disassembly steps to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route, and dress the cables as they were originally.



2. Dismantling of top case

- 2-1. Ensure no disc in the tray and keep tray close, turn off the DVD player and then disconnect the mains supply.
Loosen 6 screws "A" as shown in figure 2-1.

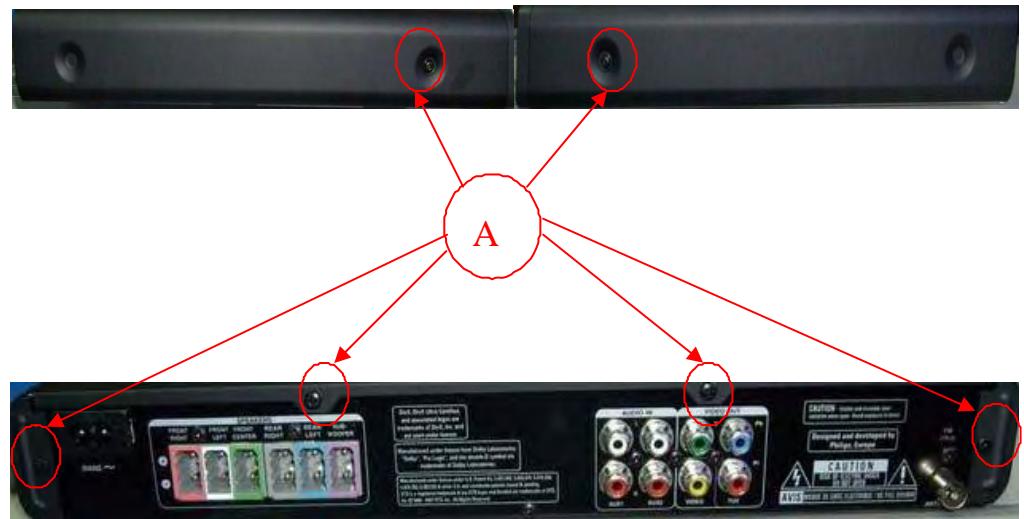


Figure 2-1.

- 2-2. Take off the top case as shown in figure 2-2.



Figure 2-2.

3. Dismantling of led+key board

3-1. Loosen 4 screws “B” as shown in figure 3-1.

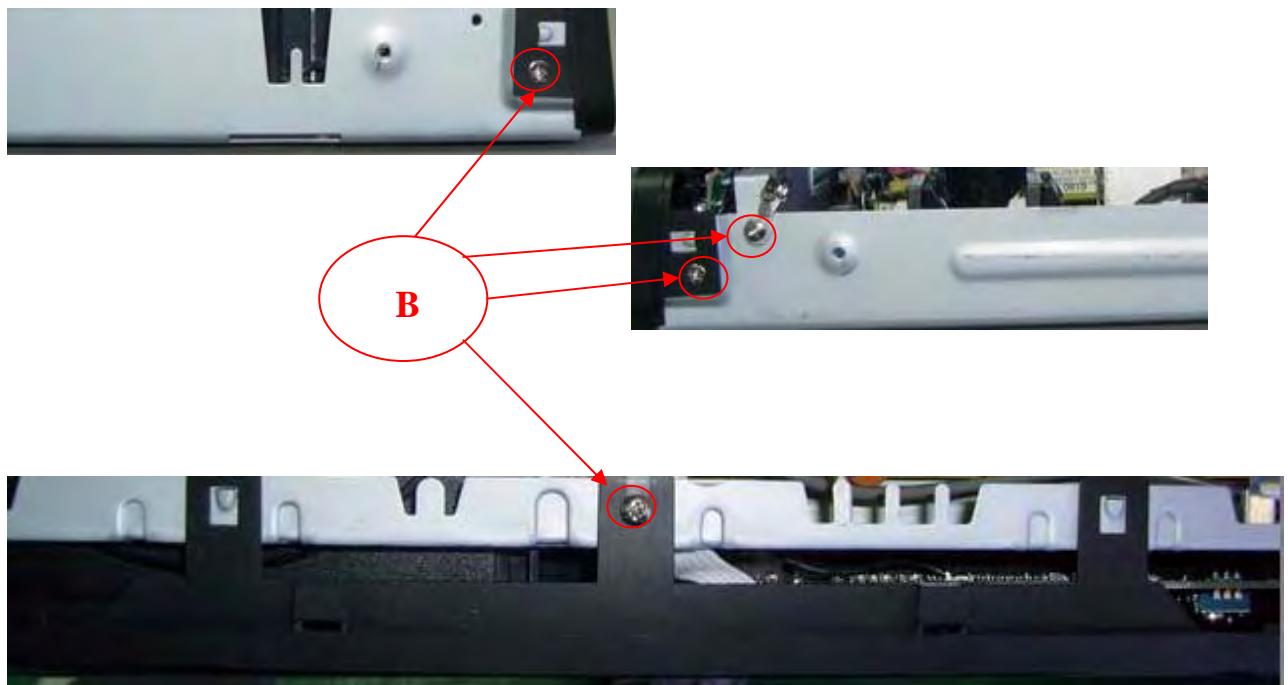


Figure 3-1

3-2. Release the lock “C” at the same time as shown figure 3-2.

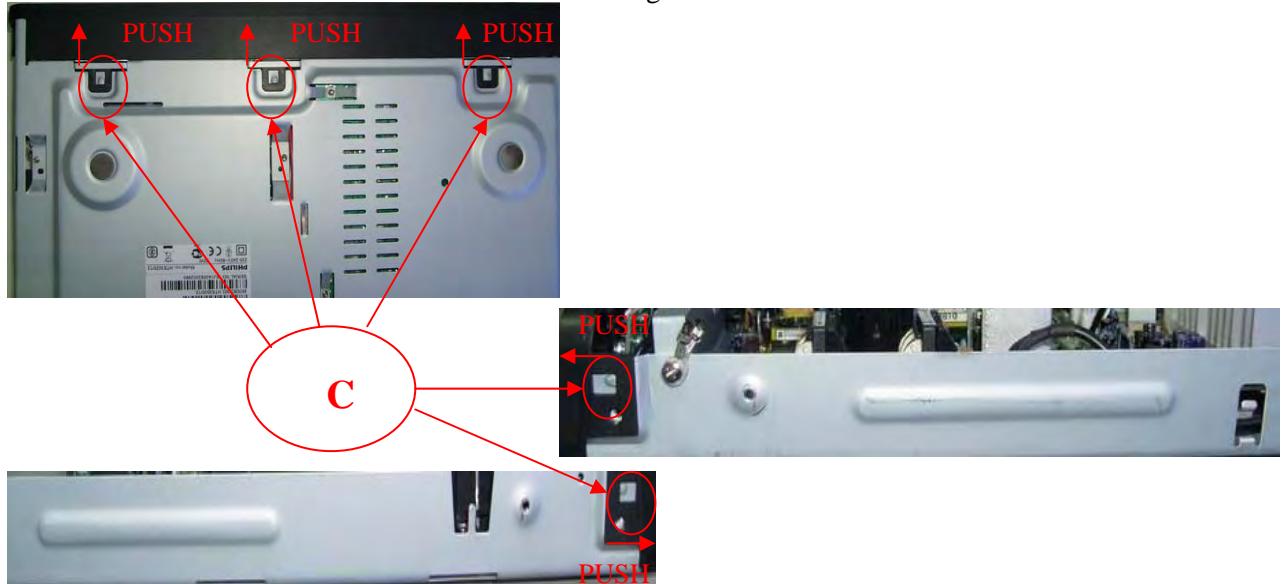


Figure 3-2

3-3. Loosen 5 screws “D” as shown in figure 3-3.

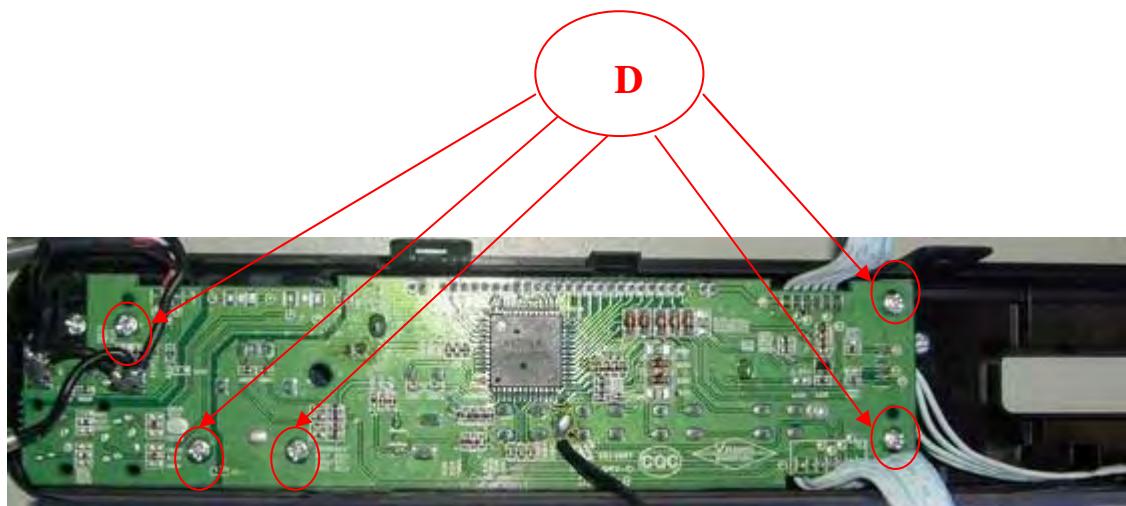


Figure 3-3

4. Dismantling of loader

4-1. Loosen 4 screws “E” as shown in figure 4-1.

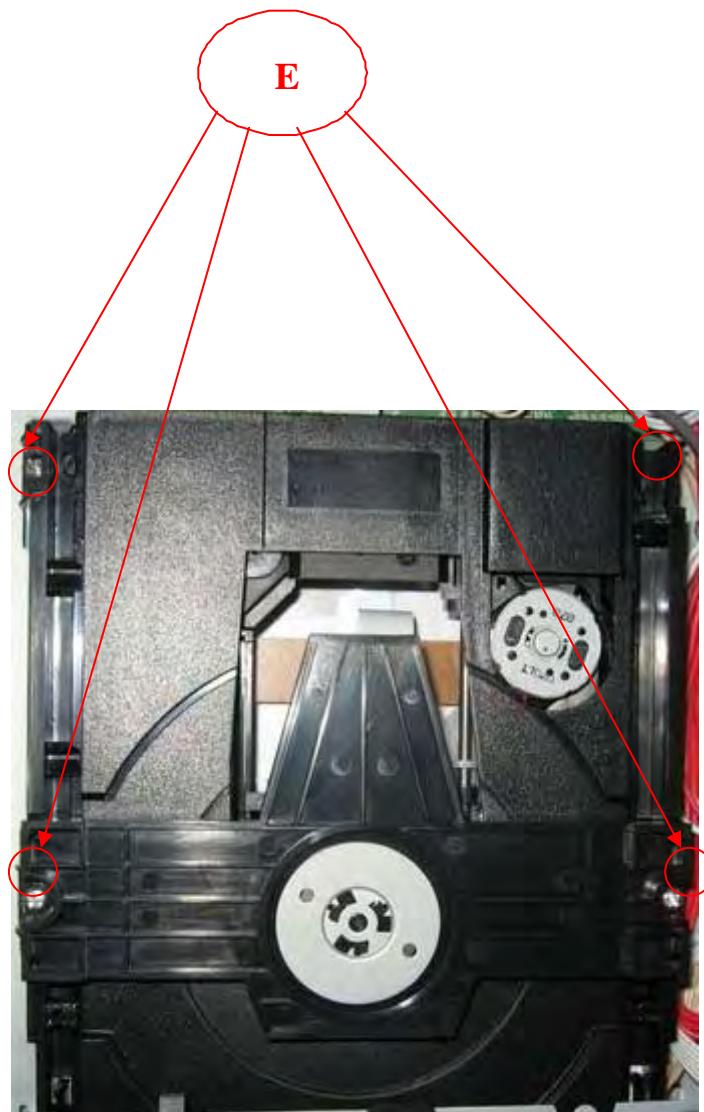


Figure 4-1

5. Dismantling of decode board

5-1. Loosen 5 screws as shown in figure 5-1.

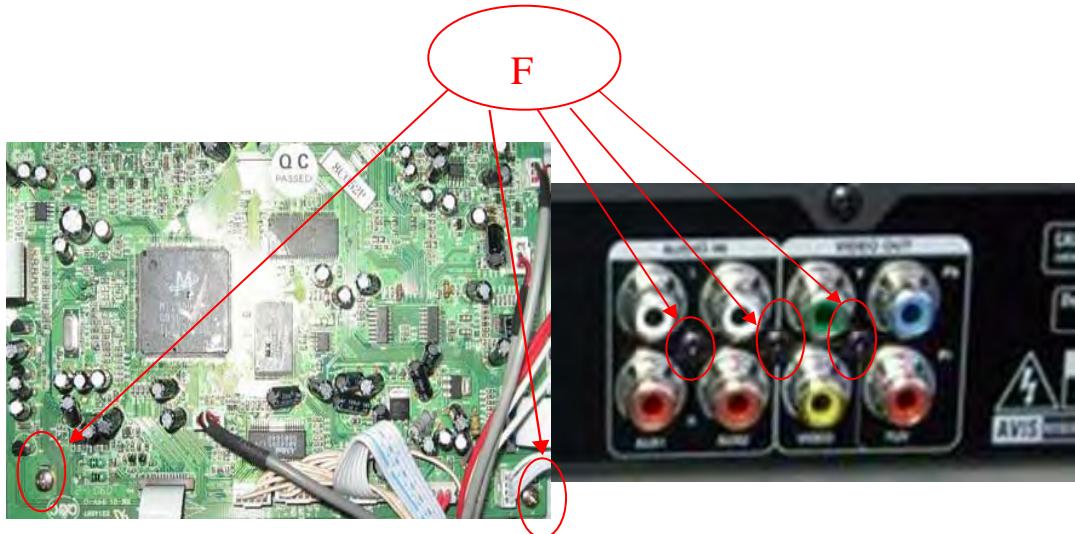


Figure 5-1

6. Dismantling of power board

6-1. Loosen 4 screws "G" as shown in figure 6-1.

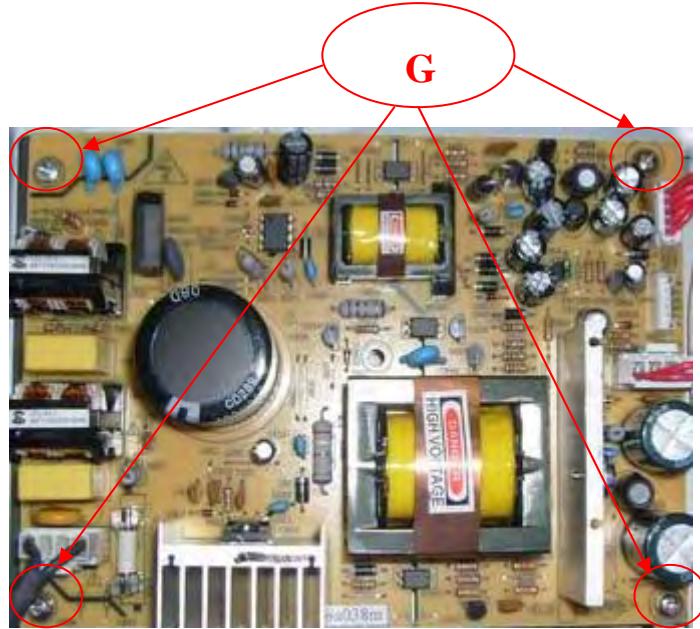


Figure 6-1

7. Dismantling of amplifier board

7-1. Loosen 4 screw "H" as shown in figure 7-1

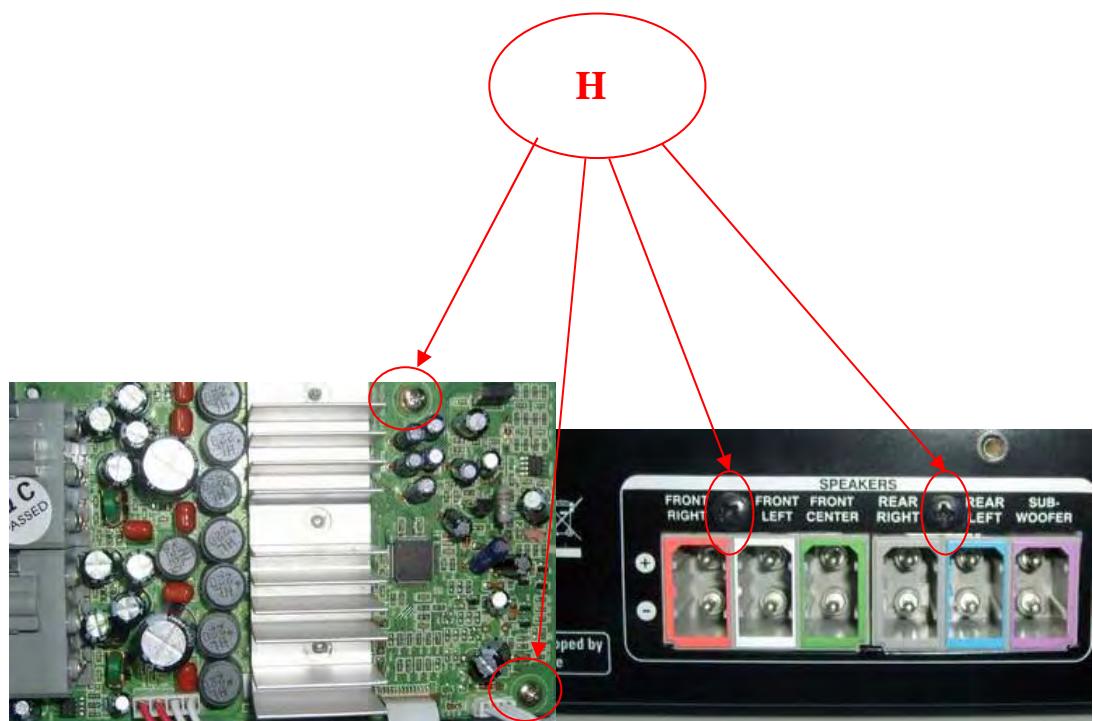


Figure 7-1.

8. Dismantling of tuner

8-1. Loosen 1 screws "I" as shown in figure 8-1.



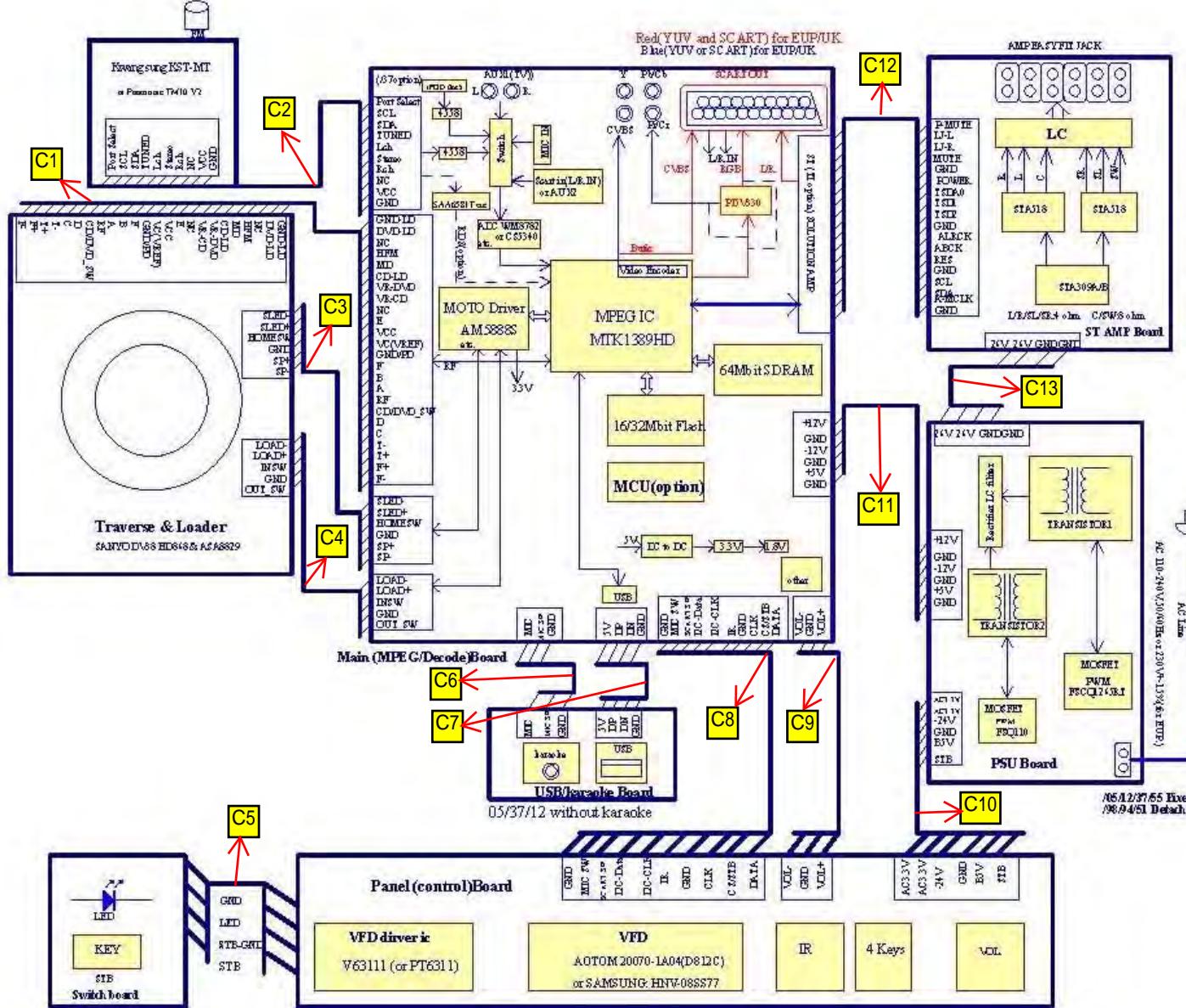
Figure 8-1.

9. Dismantling of Led board

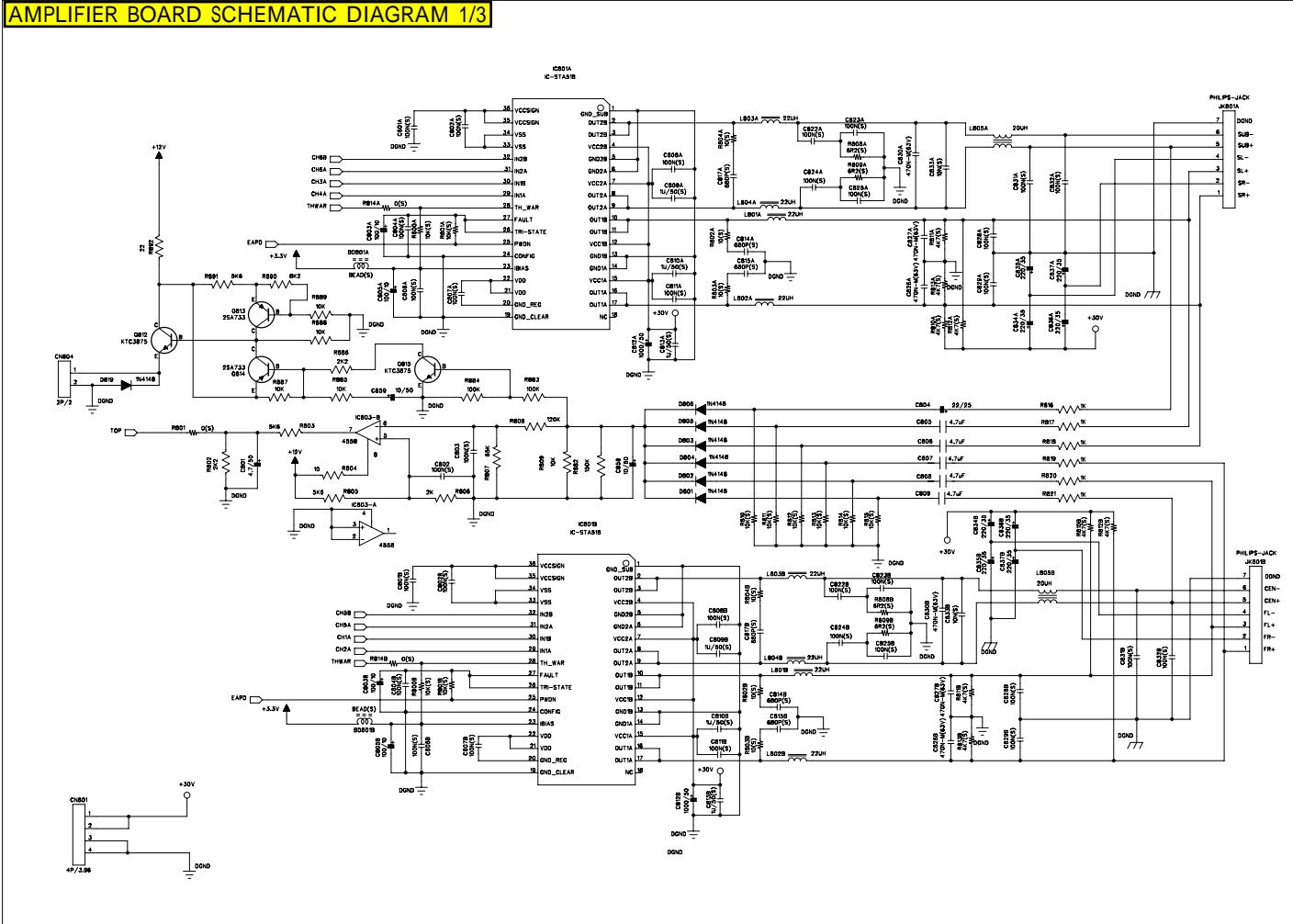
9-1. Loosen 2 screws "J" as shown in figure 9-1.



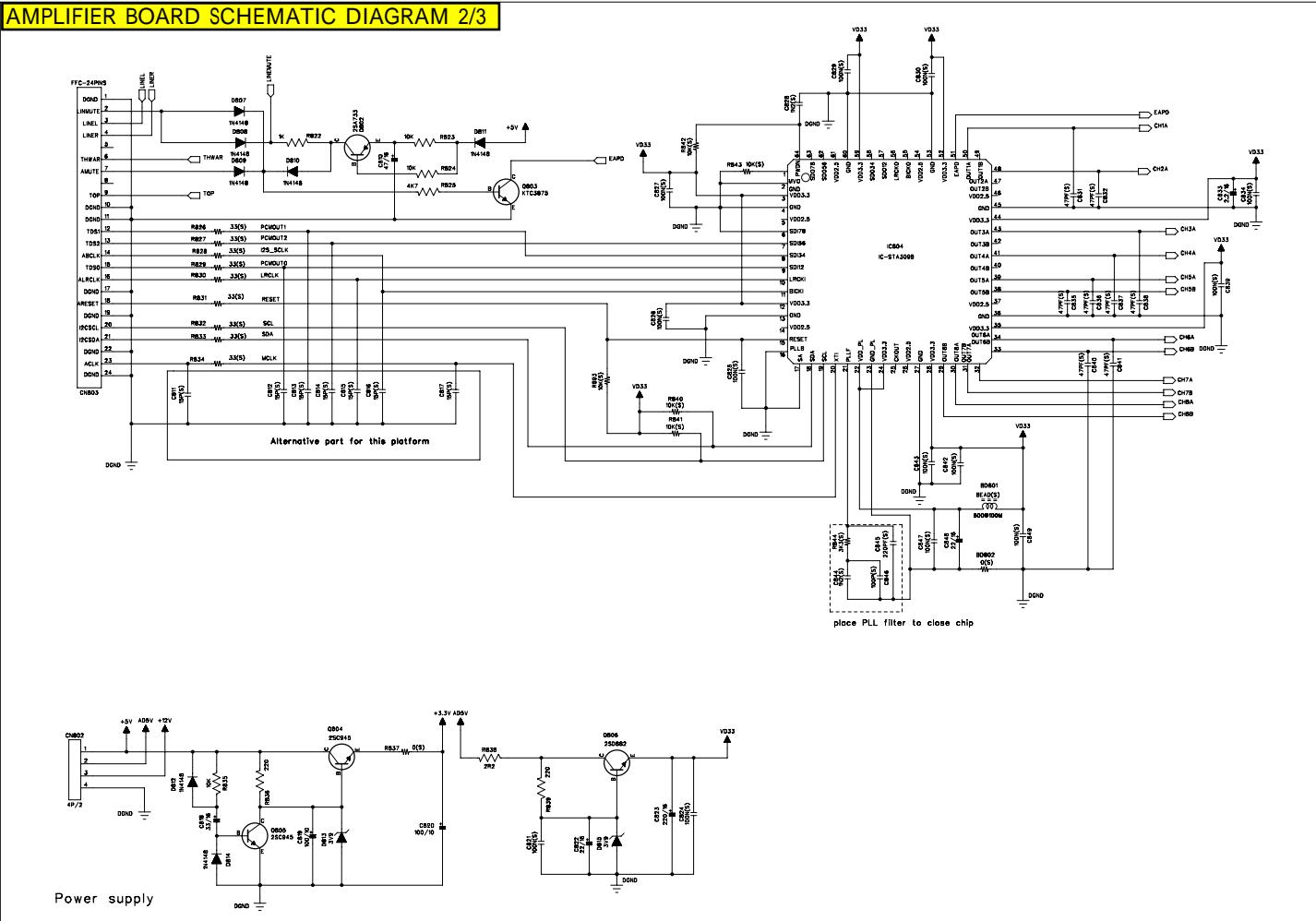
Figure 9-1.



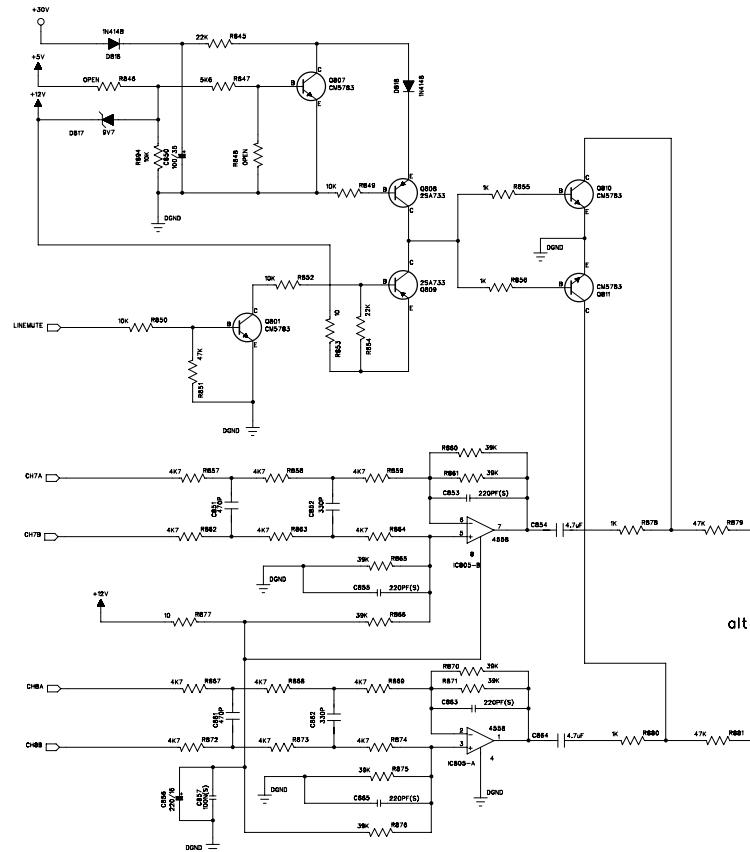
AMPLIFIER BOARD SCHEMATIC DIAGRAM 1/3

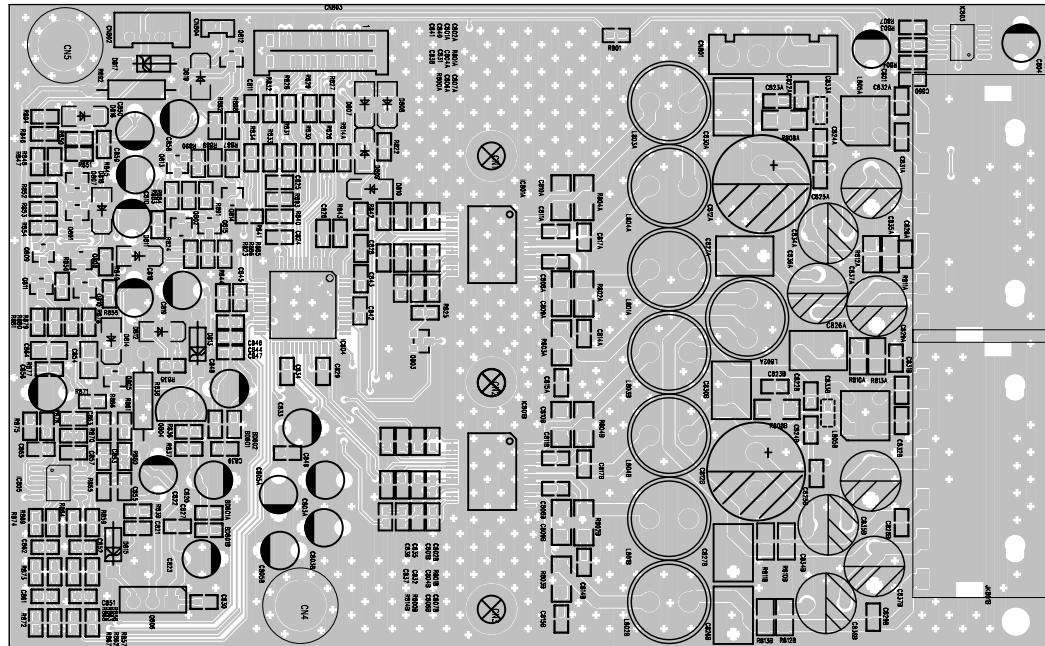


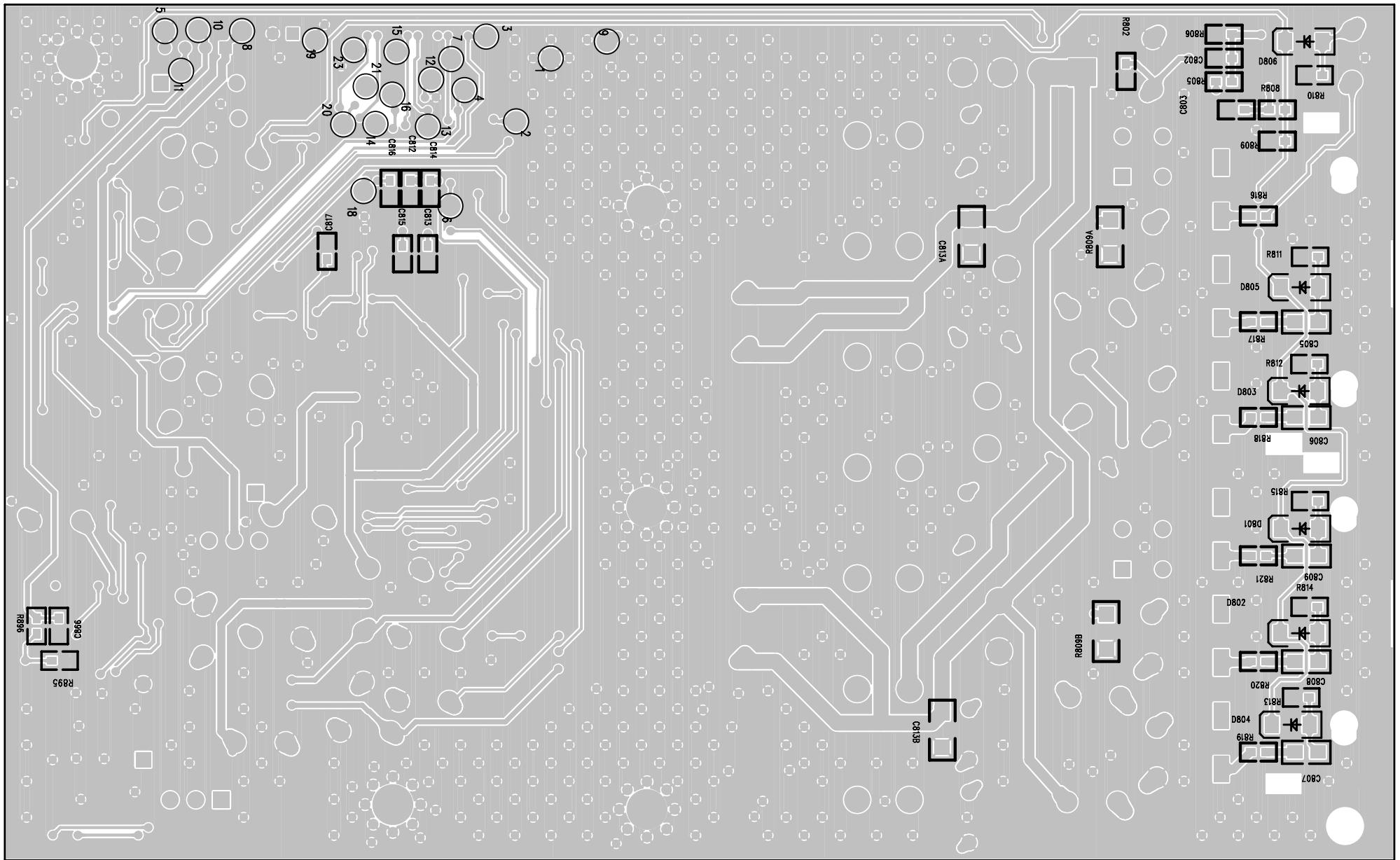
AMPLIFIER BOARD SCHEMATIC DIAGRAM 2/3



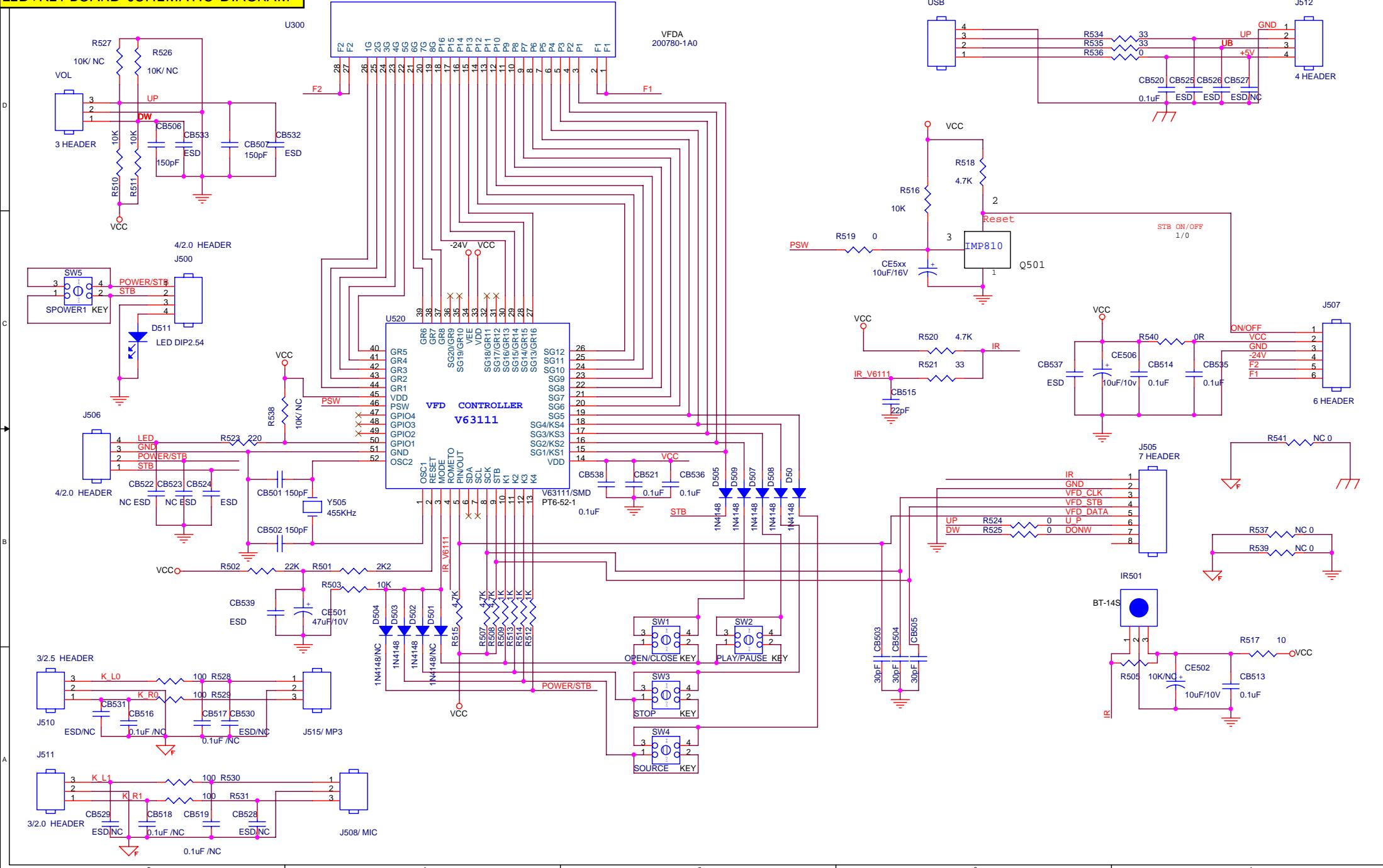
AMPLIFIER BOARD SCHEMATIC DIAGRAM 3/3

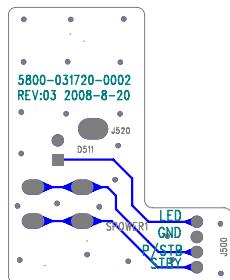
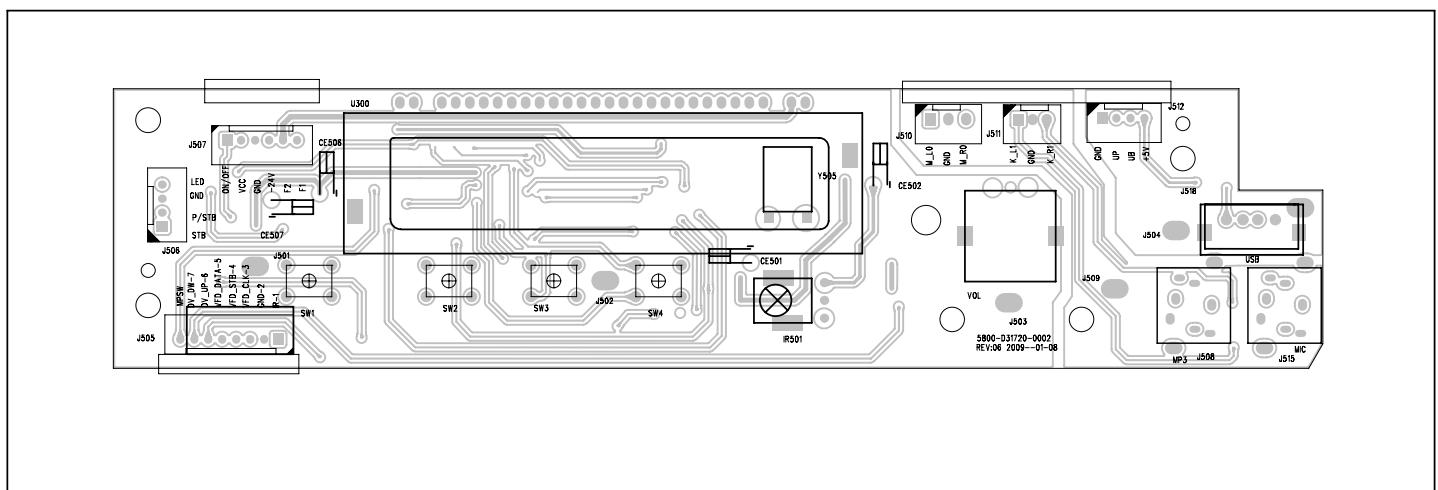




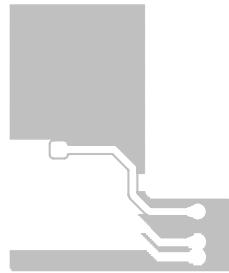


LED+KEY BOARD SCHEMATIC DIAGRAM

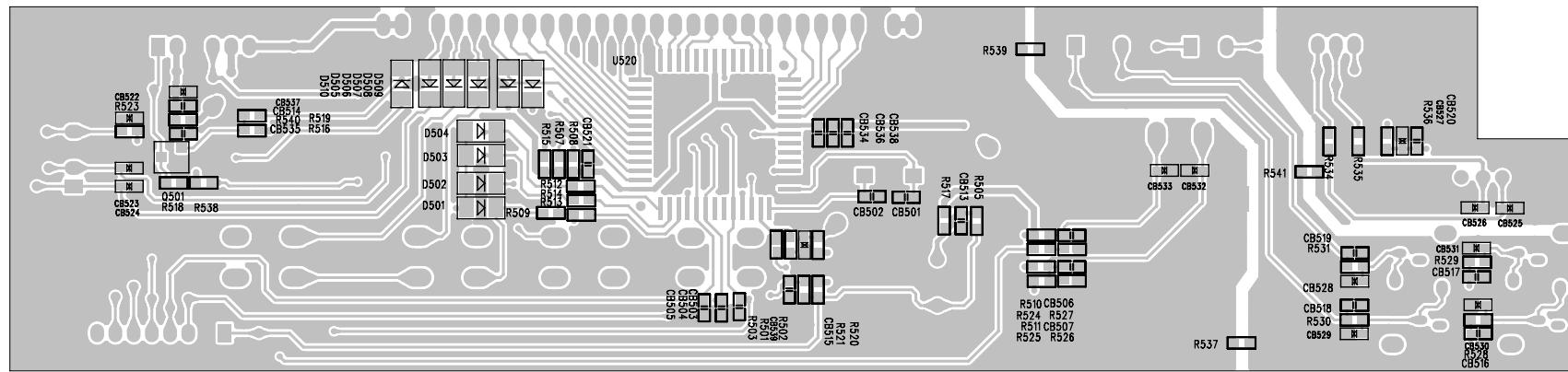


LED BOARD TOP VIEW**KEY BOARD TOP VIEW**

LED BOARD BOTTOM VIEW



KEY BOARD BOTTOM VIEW



DECODE BOARD SCHEMATIC DIAGRAM 1/6

[2] YUV[3..6] >> YUV3..6

[2] MUTE_DAC >> MUTE_DAC

[2] FS0

[2] FS1

RGB_SWITCH

[5] SCART_L

SCART_L

[5] SCART_R

SCART_R

[9] A_MUTE

A_MUTE

[1..2..5] AVCC << AVCC

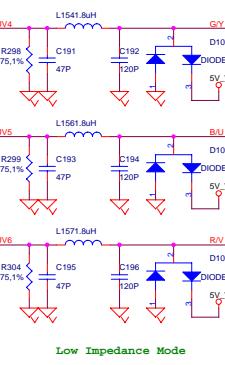
[1..5..6] +12V << +12V

[1..2..3..5..6] DV33 << DV33

[1..2] +5V << +5V

[5] SCART_L_IN << SCART_L_IN

[5] SCART_R_IN << SCART_R_IN



RGB_SWITCH: 0--->RGB,
1--->CVBS/YUV

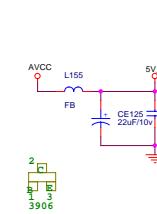
RGB/YUV Switch

IN	Dir	R,G,B
L		Y,U,V
H		

RGB SWITCH

G OUT	1	S1A	/EN	16
V	2	S1B	S2A	14
G/Y	3	S1B	S2B	13
B OUT	4	S2B	DD	12
B/U	5	S2B	DC	11
R OUT	6	S1C	DD	10
R/U	7	S2C	DC	9
5V	8			8
AVCC	9			7
NC	10			6
P5V330W	11			5

SV_VIDEO



SV_VIDEO

Q168
0.1u

3906

3306W

AVCC

L155

CB167
220uF/16v 0.1uF

SV_VIDEO

CE125
220uF/16v 0.1uF

3906

3306W

CE125
220uF/16v 0.1uF

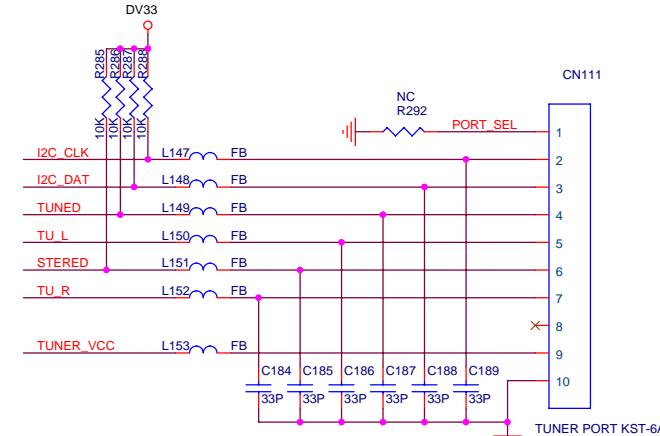
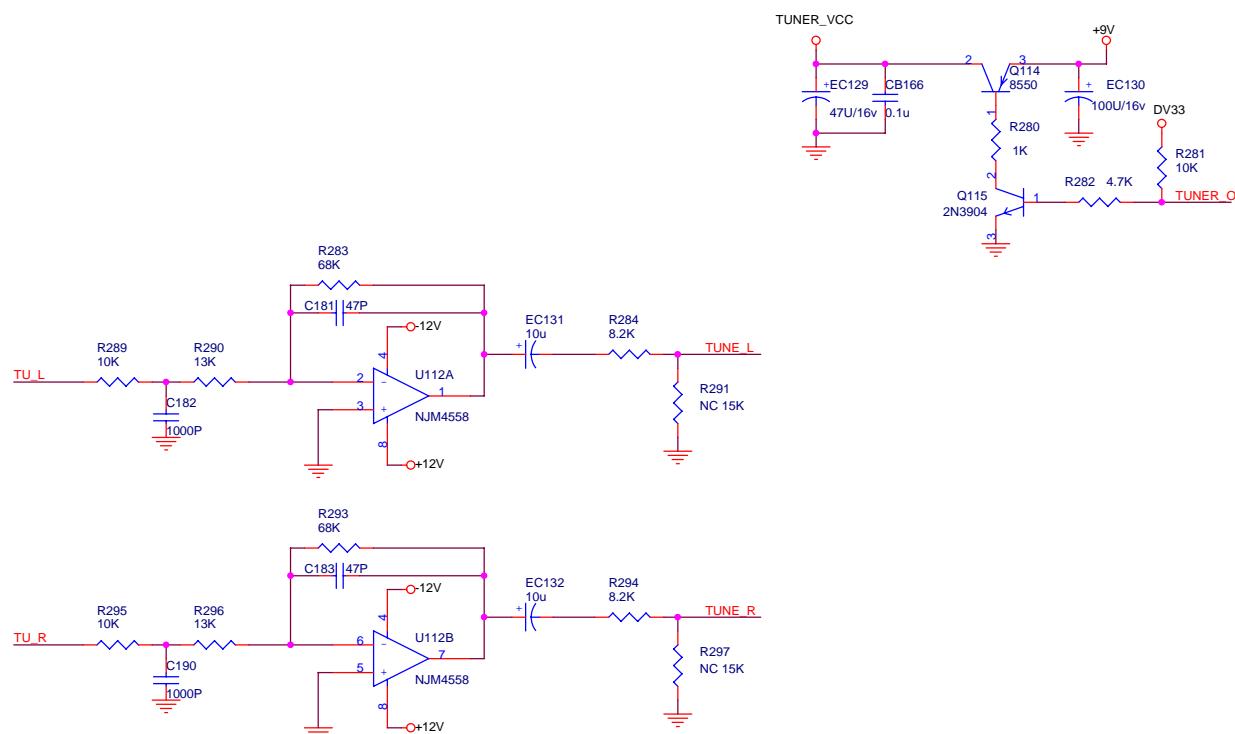
3906

DECODE BOARD SCHEMATIC DIAGRAM 2/6

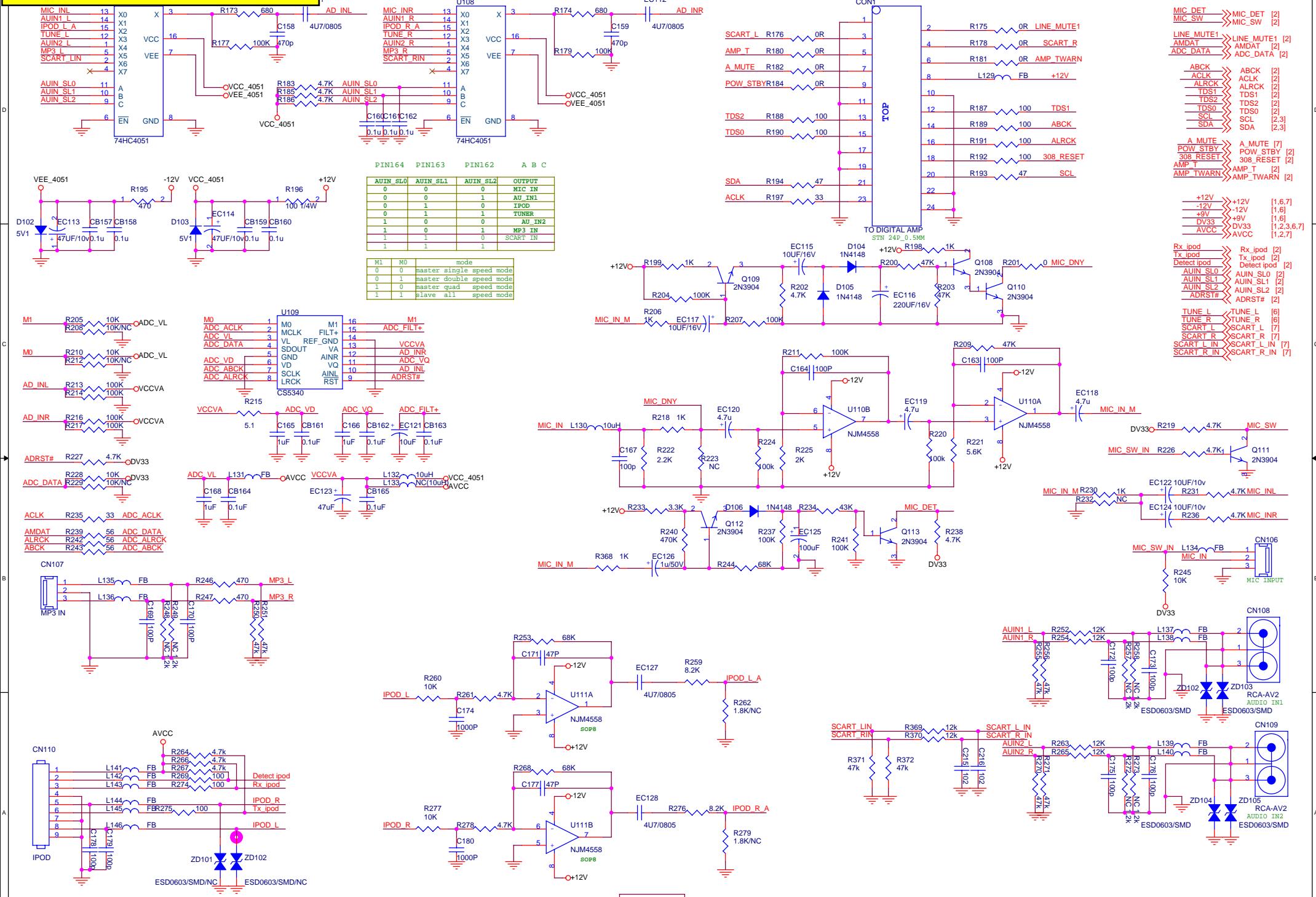
[2] TUNER_ON >> TUNER_ON
 [2] TUNED >> TUNED
 [2] STERED >> STERED
 [2] I2C_CLK >> I2C_CLK
 [2] I2C_DAT >> I2C_DAT

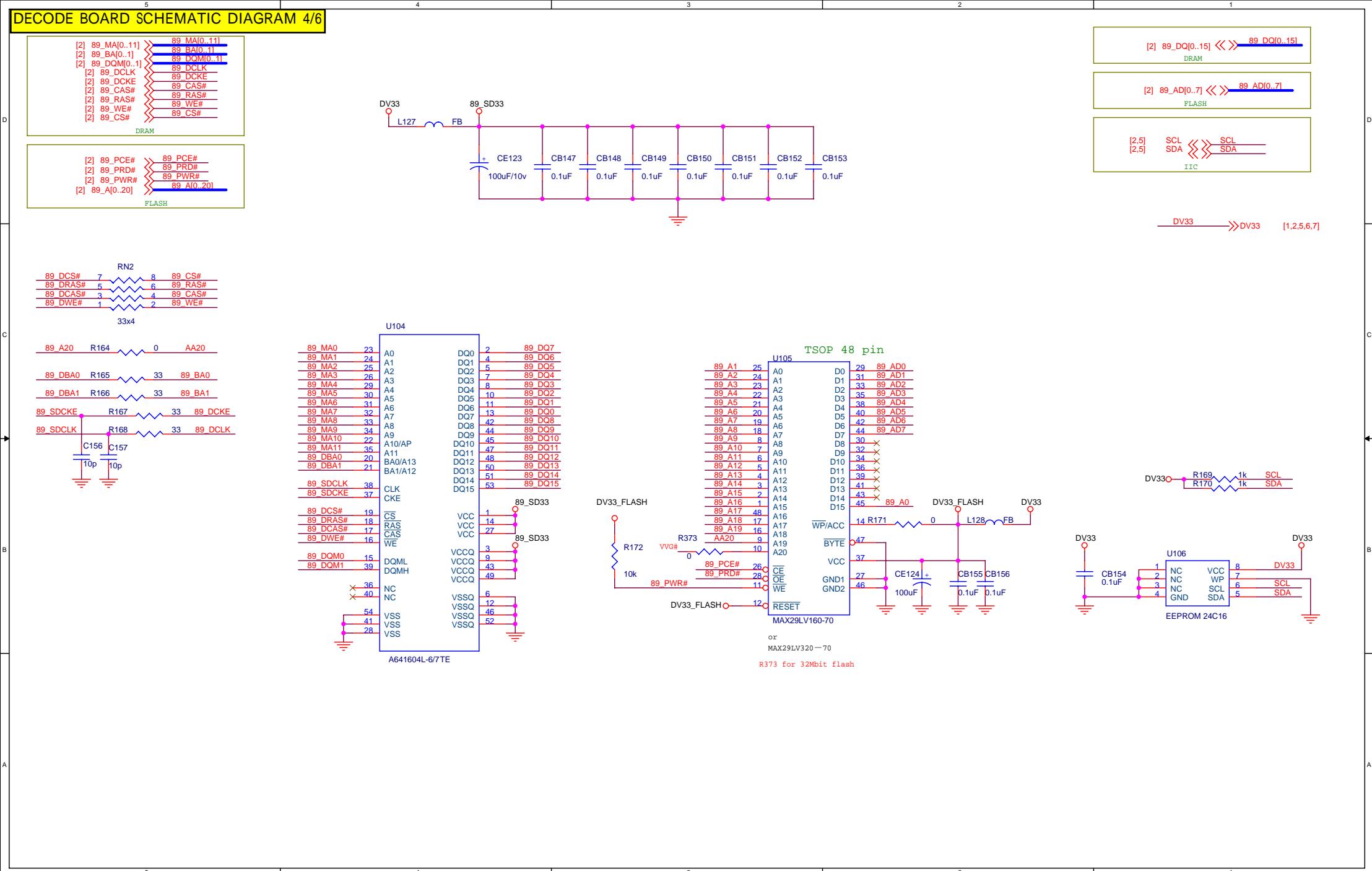
TUNE_L >> TUNE_L [5]
 TUNE_R >> TUNE_R [5]

+9V >> +9V [1]
 DV33 >> DV33 [1,2,3,5,7]
 +12V >> +12V [1,5,7]
 -12V >> -12V [1,5]

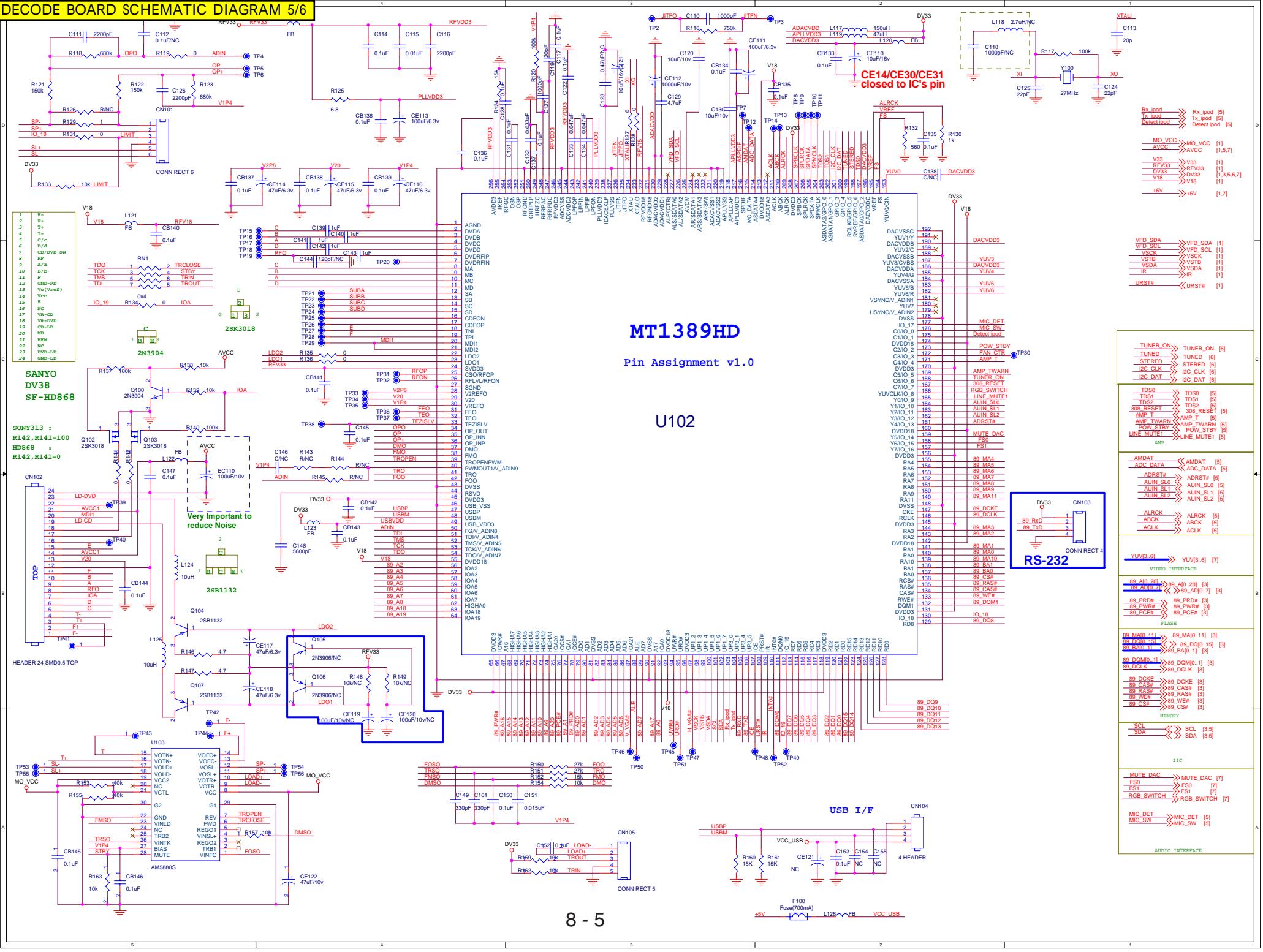


DECODE BOARD SCHEMATIC DIAGRAM 3/6



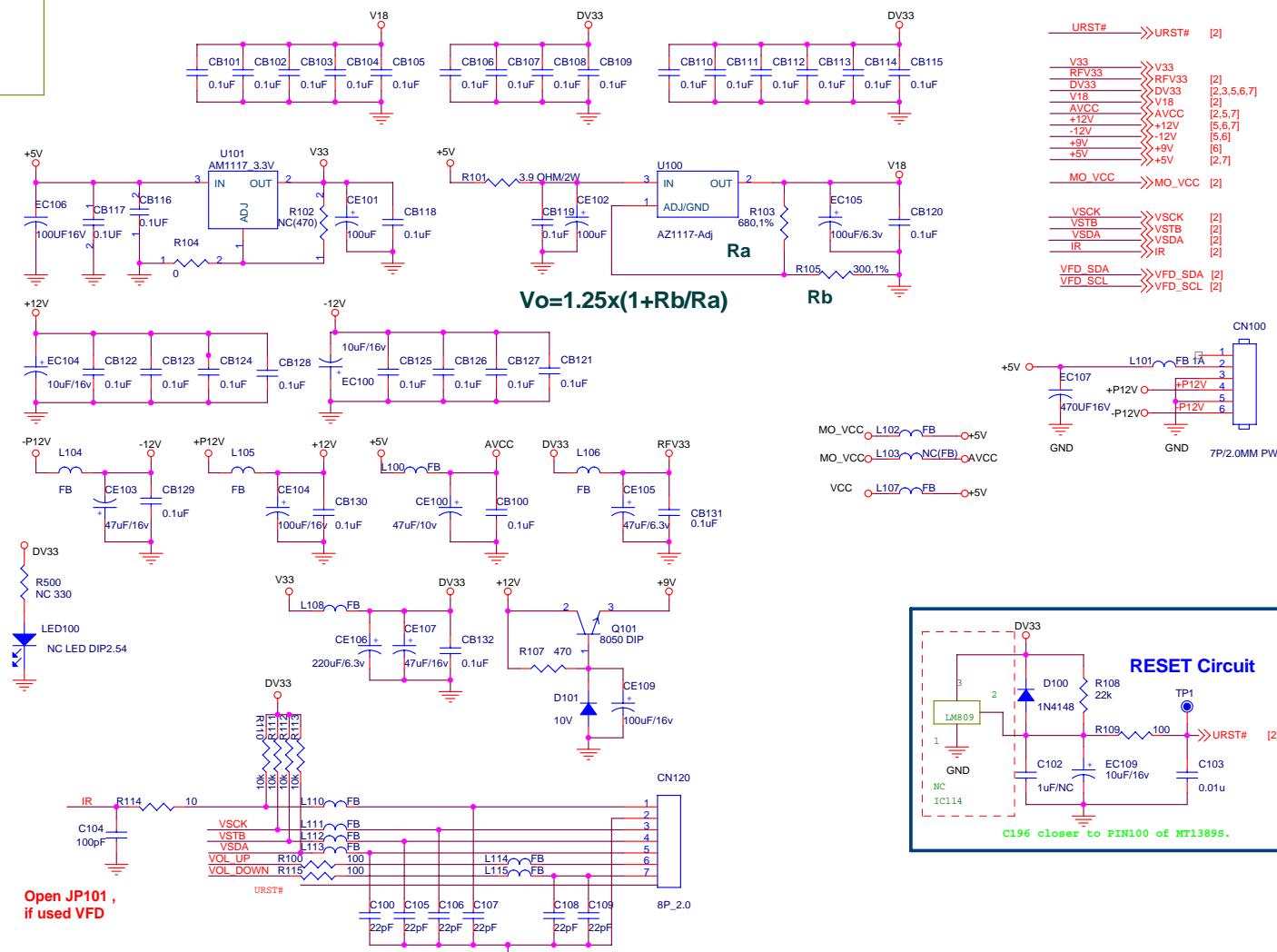


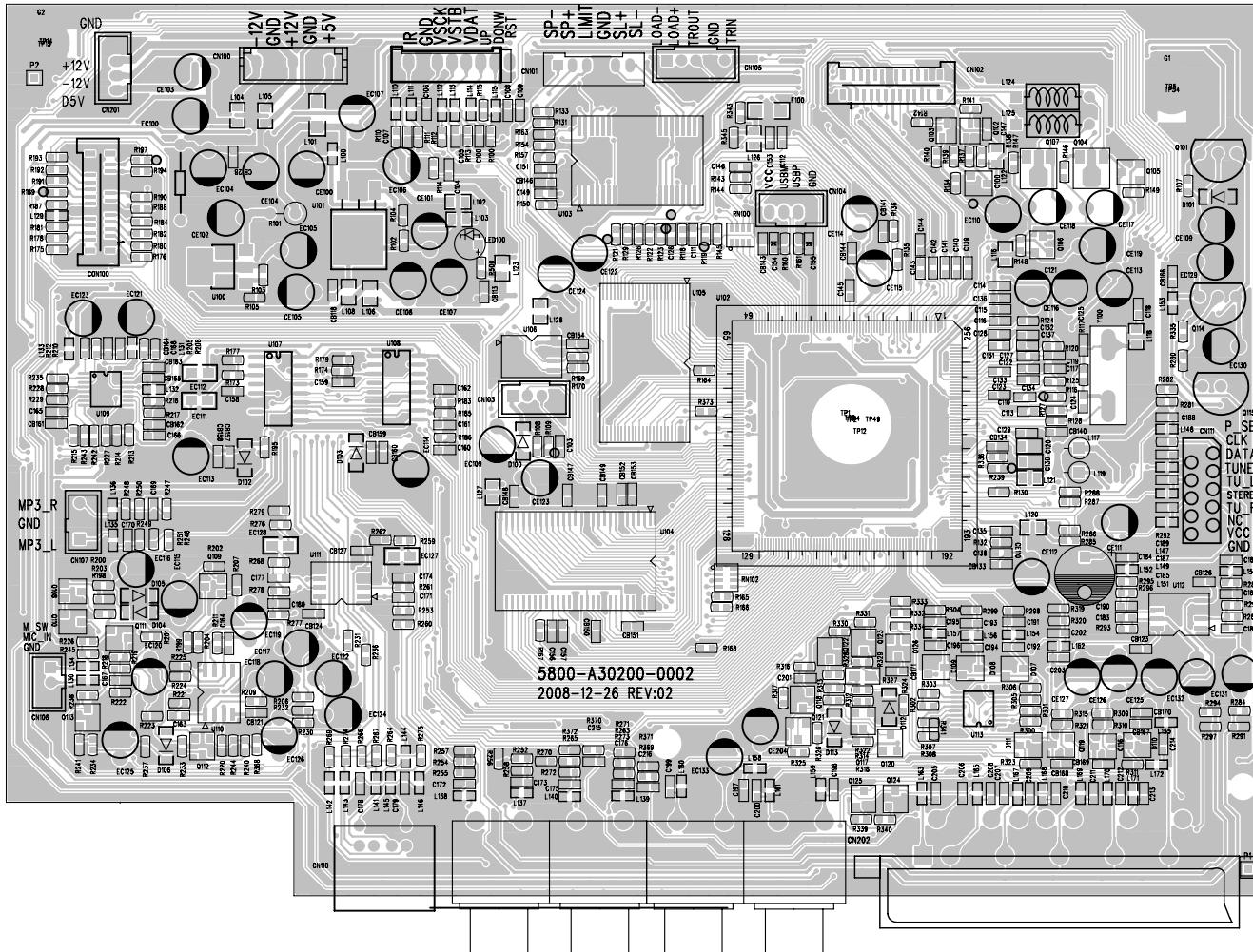
DECODE BOARD SCHEMATIC DIAGRAM 5/6



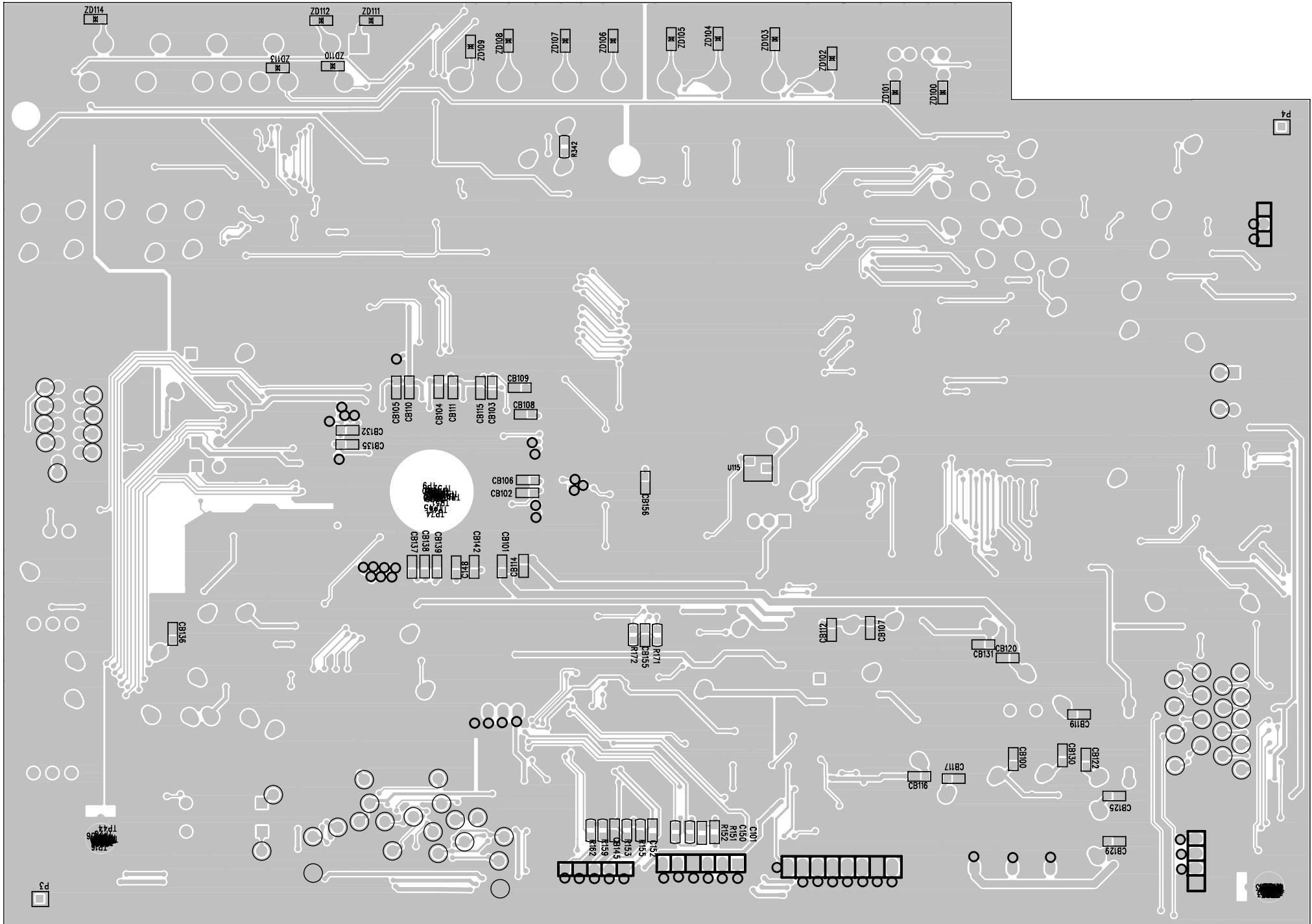
DECODE BOARD SCHEMATIC DIAGRAM 6/6

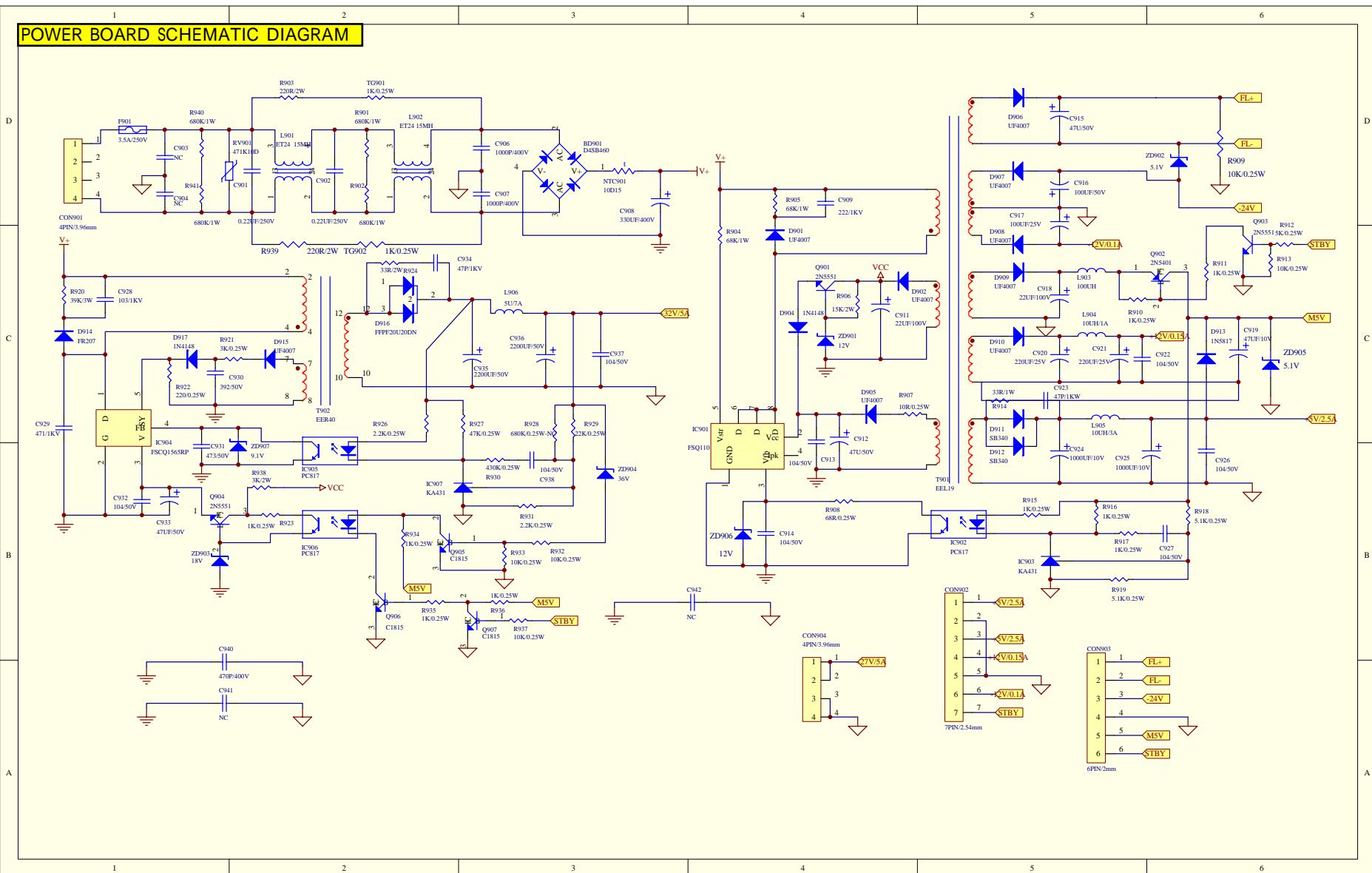
NAME	TYPE	DEVICE
VCC/+5V	Digital 5V	SUPPLY
DV33	Digital 3.3V	MT1389HD
RFV33	Servo 3.3V	MT1389HD
AV33	Laser Diode 3.3V	
V18	Digital 1.8V	MT1389HD
SD33	Digital 3.3V	SDRAM
+12V	Audio +12V	OP AMP.
-12V	Audio -12V	OP AMP.
AVDD5	Audio 5V	Audio DAC
DVDD3	Audio 3.3V	Audio DAC
MCU_3V3	Nxp Mcu 3.3V	MCU

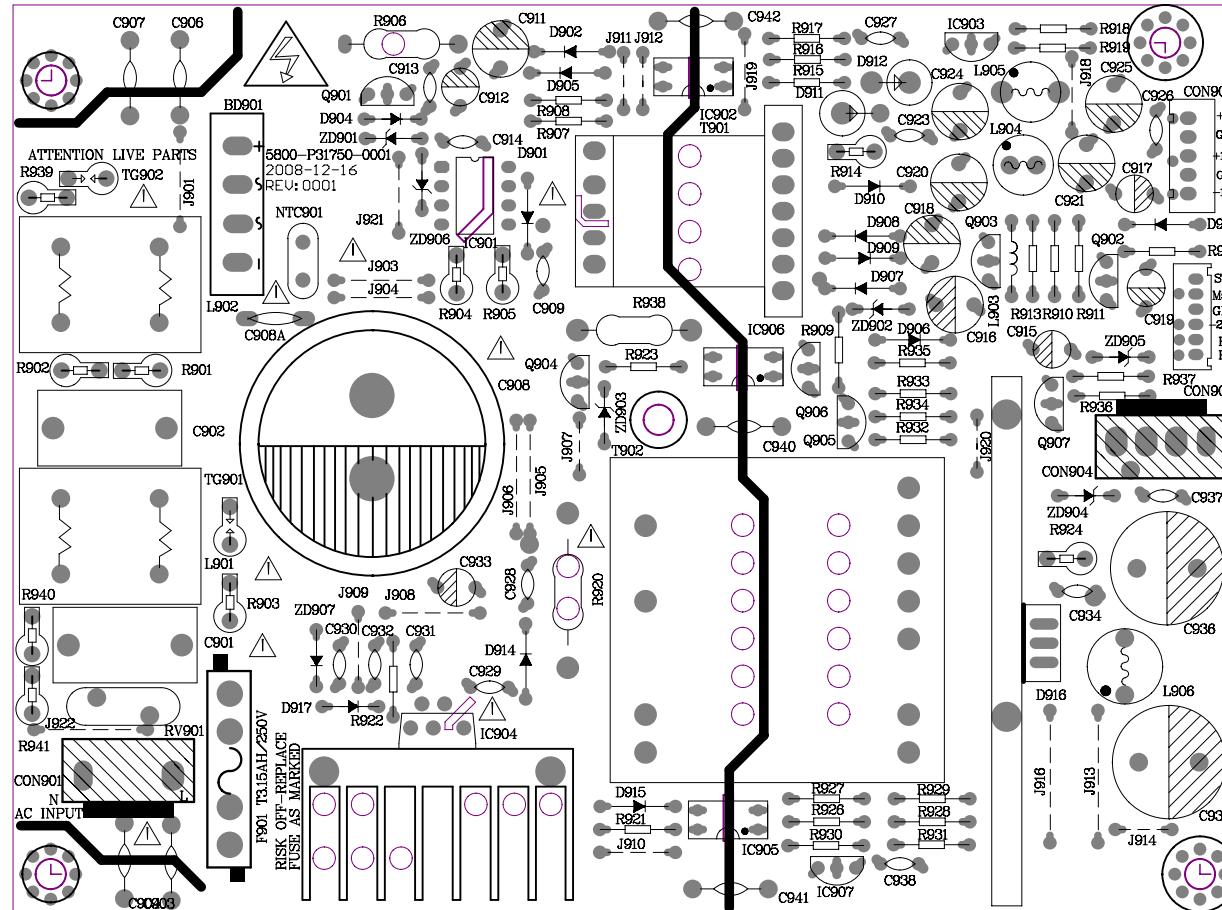


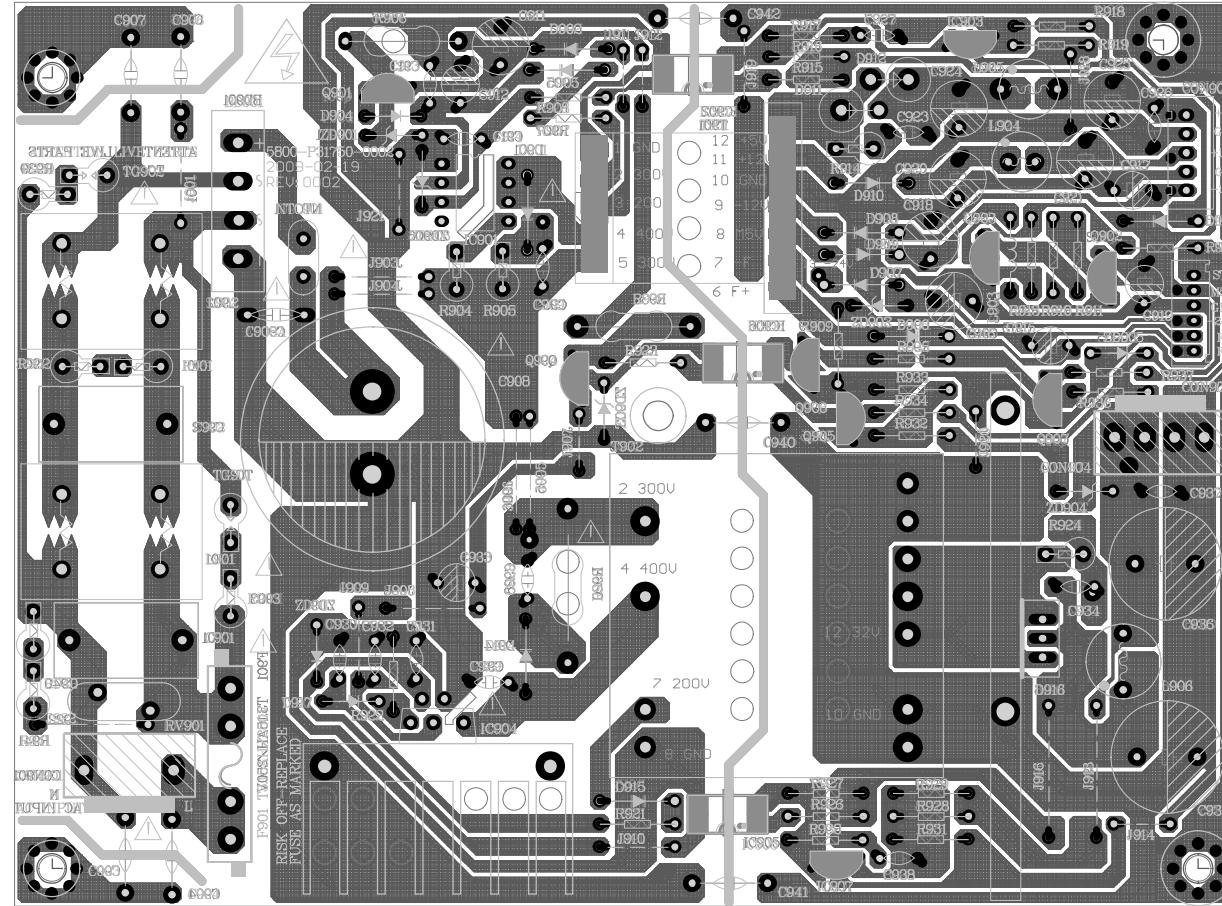


DECODE BOARD BOTTOM VIEW

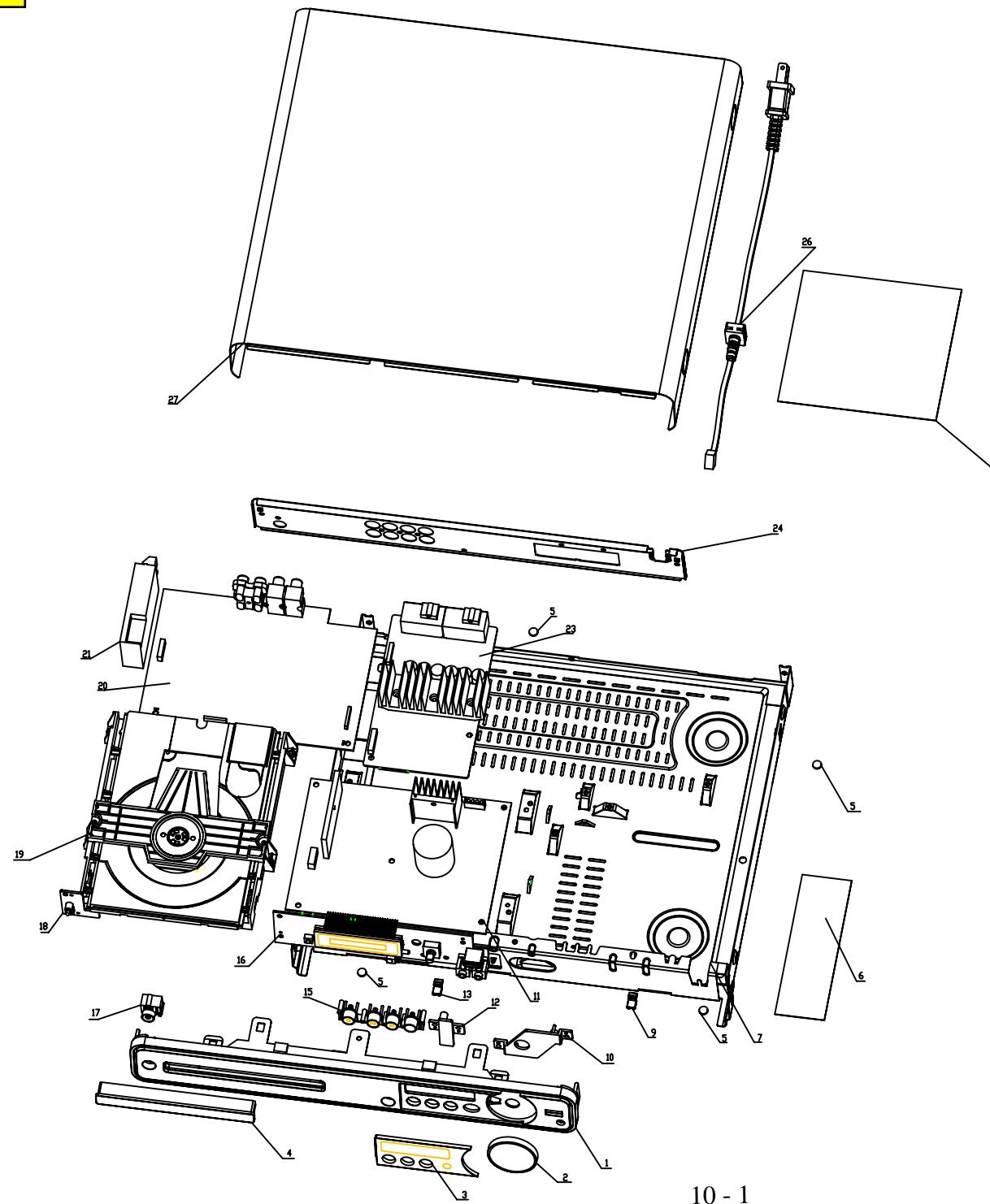








MECHANICAL EXPLODE VIEW



MECHANICAL PART LIST

LOC.	12NC.	Description
1	996510022355	FR.PANEL-ABS/80301/FOILED HL-3
11	996510022372	MY01-HTS3021/94(HI)POWER BOARD(for/94)
11	996510022335	MY01-HTS3021/51(HI)POWER BOARD(for/98)
15	996510021698	FUNCTION BUTTON-ABS/BLACK 8000
16	996510022375	MY01-HTS3021/94(HI) KEY BOARD(for/94)
16	996510022337	MY01-HTS3021/98(HI) KEY BOARD(for/98)
17	996510021715	POWER BUTTON & LED LENS
18	996510022377	MY01-HTS3021/94(HI)LED BOARD(for/94)
18	996510022336	MY01-HTS3021/51(HI)LED BOARD(for/98)
19	996510022159	LOADER ASSY
2	996510021704	VOLUME BUTTON-ABS/BLACK 80007
20	996510022373	MY01-HTS3021/94(HI) DECODE BOA(for/94)
20	996510022328	MY01-HTS3021/98(HI) DECODE BOA(for/98)
21	996510021718	AM/FM TUNER MODEL10.7MHZ KST-M
23	996510022371	MY01-HTS3021/94(HI)AMPLIFIER B(for/94)
23	996510022333	MY01-HTS3021/51(HI)AMPLIFIER B(for/98)
24	996510022389	BACK PANEL-SECC(HTS3021/94)
25	996510021701	INSULATED PLATE(TOP)-BLACK PVC
26	996510022374	AC LINE CORD 1500MM INDIA BS45
27	996510022324	TOP CASE-SPCC/BLACK 80301/NO D
3	996510021711	FRONT LENS-PMMA/BLACK 80248(TR)
4	996510022329	CD DOOR -ABS/BLACK 80301(HTS30)
5	996510021707	RUBBER FOOT
6	996510021702	INSULATED PLATE(BOTTOM)-BLACK
7	996510021709	BOTTOM CASE -SECC
C1	996510021699	FILM FLAT CABLE 24 PIN PITCH=0
C11	996510021725	HOUSING 05(2.5) + HOUSING 05(2
C12	996510021697	FILM FLAT CABLE 24 PIN PITCH=0
C2	996510021729	FILM FLAT CABLE 10 PIN PITCH=1
C4	996510021712	HOUSING 05+ HOUSING 05+230MM M
CVBS	996510021741	RCA TO RCA AV SIGNAL CABLE1515
FM	996510022369	FM antenna
RC	996510022188	REMOTE CONTROL 41 KEYS FOR HTS

SPEAKER ASSY

CS	996510022323	CENTER SPEAKER HTS3021
FLS	996510022338	FRONT LEFT SPEAKER HTS3021
FRL	996510022339	FRONT RIGHT SPEAKER HTS3021
RLS	996510022334	REAR LEFT SPEAKER HTS3021
RRS	996510022331	REAR RIGHT SPEAKER HTS3021
SS	996510022326	SUBWOOFER SPEAKER HTS3021

POWER BOARD

BD901	996510022174	BRIDGE RECTIFER DIODE RS406 4A
C906	996500040565	SCC.0.001UF AC250V 400V +/-20%
C907	996500040565	SCC.0.001UF AC250V 400V +/-20%
C908	996510022376	ELECTROLYTIC CAPACITOR 220UF 4
C909	996510004875	CAPACITOR 470PF 1KV +/-10%
C923	996510004875	CAPACITOR 470PF 1KV +/-10%
C928	996510004875	CAPACITOR 470PF 1KV +/-10%

C929	996510004875	CAPACITOR 470PF 1KV +/-10%
C934	996510004875	CAPACITOR 470PF 1KV +/-10%
C935	996510022126	EC.2200uF 35V +/-20%(105 DEGRE
C936	996510022126	EC.2200uF 35V +/-20%(105 DEGRE
C940	996500040565	SCC.0.001UF AC250V 400V /-20%
CON901	996510022213	180 OEGREE CONNECTOR 2PIN PITC
CON902	996520030993	WAFER 2.5mm H X 5 PIN
CON903	996510016164	CONNECTOR 2MM H X 6 PIN
CON904	996510022209	180 OEGREE CONNECTOR PIN-4 PIT
D901	996510022246	HIGH SPEED RECTIFIER DIODE UF4
D902	996510022246	HIGH SPEED RECTIFIER DIODE UF4
D904	996500040218	NRD. 1N4148 150mA/100V
D905	996510022246	HIGH SPEED RECTIFIER DIODE UF4
D906	996510022246	HIGH SPEED RECTIFIER DIODE UF4
D907	996510022246	HIGH SPEED RECTIFIER DIODE UF4
D908	996510022246	HIGH SPEED RECTIFIER DIODE UF4
D909	996510022246	HIGH SPEED RECTIFIER DIODE UF4
D910	996510022246	HIGH SPEED RECTIFIER DIODE UF4
D911	996510022176	SCHOTTKY BARRIER RECTIFIER SB3
D912	996510022176	SCHOTTKY BARRIER RECTIFIER SB3
D913	996510022241	NORMAL RECTIFIER DIODE 1N5817
D915	996510022246	HIGH SPEED RECTIFIER DIODE UF4
D916	996510016190	NORMAL RECTIFIER DIODE FFPF20U
D917	996500040218	NRD. 1N4148 150mA/100V
F901	996500040615	FUSE T3.15A 250V 5X20MM
IC901	996510022249	I.C. FSQ110 FAIRCHILD(FAIRCHIL
IC902	996500040601	I.C. PC817C (PHOTOCOUPLER)
IC903	996510006016	I.C.KA431Z FAIRCHILD
IC904	996510022197	I.C FSCQ1265RT FAIRCHILD (QUAS
IC905	996500040601	I.C. PC817C (PHOTOCOUPLER)
IC906	996500040601	I.C. PC817C (PHOTOCOUPLER)
IC907	996510006016	I.C.KA431Z FAIRCHILD
L901	996510022256	AC LINE FILTER 20MHX2 LCL-20-2
L902	996510022256	AC LINE FILTER 20MHX2 LCL-20-2
L903	996500040253	PEAKING COIL 100uH /-10%
L904	996510022165	CHOKE COIL 10UH+/-10%7.5MMX9.5
L905	996510022163	CHOKE COIL5UH+/-15% 9MMX21MM P
L906	996510022186	CHOKE COIL 10UH+/-10%7.5MMX9.5
NTC901	996510016185	NTC THERMISTOR RESISTOR 5D2-10
Q901	996510022263	TRANSISTOR 2N5551 NPN HIGH VOL
Q902	996510022258	TRANSISTOR 2N5401 PNP HIGH VOL
Q903	996510022263	TRANSISTOR 2N5551 NPN HIGH VOL
Q904	996510022263	TRANSISTOR 2N5551 NPN HIGH VOL
Q905	996500040232	TRANSISTOR 2SC1815Y/2PC1815
Q906	996500040232	TRANSISTOR 2SC1815Y/2PC1815
Q907	996500040232	TRANSISTOR 2SC1815Y/2PC1815
R920	996510022203	METAL OXIDE FILM RESISTOR39K O
RV901	996510016184	VARISTOR 10D471K 10%
T901	996510022226	SWITCHING TRANSFORMER BK-35-L0
T902	996510022185	SWITCHING TRANSFORMER BCK-60-L
TG901	996510022247	GAS DISCHAR GE TUBE SSA-35IN-A
TG902	996510022247	GAS DISCHAR GE TUBE SSA-35IN-A
ZD901	996500040575	ZENER DIODE 12V 1/2W /-5%
ZD902	996500040221	ZENER DIODE 5V1 1/2W /-5%

ZD903	996510004909	ZENER DIODE 18V 1/2W
ZD904	996510022199	ZENER DIODE 36V 1/2W (TAPE TYP)
ZD905	996500040221	ZENER DIODE 5V1 1/2W /-5%
ZD906	996500040575	ZENER DIODE 12V 1/2W /-5%

KEY BOARD

C10	996510021724	90 DEGREE PIN 06+ HOUSING 06+1
C5	996510021738	90 DEGREE PIN 04+90 DEGREE PIN
C6	996510022267	90 DEGREE PIN 03+HOUSING 03+42
C7	996510021736	90 DEGREE PIN 04+HOUSING 04+40
C8	996510021728	90 DEGREE PIN 07+ HOUSING 07+2
CB524	996510022242	SMD ESD PROTECTION MVS0603E09
CB525	996510022242	SMD ESD PROTECTION MVS0603E09
CB526	996510022242	SMD ESD PROTECTION MVS0603E09
CB532	996510022242	SMD ESD PROTECTION MVS0603E09
CB533	996510022242	SMD ESD PROTECTION MVS0603E09
CB537	996510022242	SMD ESD PROTECTION MVS0603E09
CB539	996510022242	SMD ESD PROTECTION MVS0603E09
D502	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D503	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D505	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D506	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D507	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D508	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D509	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
IR501	996510022211	INFRARED RECEIVER MODULE 36KHZ
J502	996510022183	HOUSING 1 PIN+100MM WIRE UL100
J515	996510022248	EARPHONE SOCKET 3.6MM PJ-3.5-3
Q501	996510022195	I.CI IMP810SEUR-T IMP (RESET I)
SW1	996510022201	TSVT.H = 5mm KPT-1105A 4 PINS
SW2	996510022201	TSVT.H = 5mm KPT-1105A 4 PINS
SW3	996510022201	TSVT.H = 5mm KPT-1105A 4 PINS
SW4	996510022201	TSVT.H = 5mm KPT-1105A 4 PINS
U300	996510022232	VACUUM FLUORESCENT DISPLAY 200
U520	996510022218	SMD IC V63111LF HILED(1/8-TO 1)
USB	996510022257	USB SOCKET (180 PLUG BLACK)
VOL	996510022264	ROTARY VOLUME RESISTOR 0.5MA
Y505	996510022238	CERAMIC RESONATOR 455KHz TW455

LED BOARD

D511	996500040273	LED 3.1mm RED LONG LEAD
J520	996510022183	HOUSING 1 PIN+100MM WIRE UL100
SPOWER1	996510022201	TSVT.H = 5mm KPT-1105A 4 PINS

LOADER ASSY

C3	996510021714	HOUSING 06+ HOUSING 06+190MM F
OPU	996510022224	DVD PLAY HEAD OPTICAL PICK-UP

DECODE BOA

CN100	996520030993	WAFER 2.5mm H X 5 PIN
CN101	996510016164	CONNECTOR 2MM H X 6 PIN
CN102	996510019261	CONNECTOR:24PIN
CN104	996510022187	WAFER 2mm H X 4 PIN

CN105	996510016163	CONNECTOR 2mm H X 5 PIN
CN106	996510022168	WAFER 2mm H X 3PIN
CN111	996510022222	180 DEGREE WAFER PITCH=1.25MM
CN120	996510022227	WAFER 2MM H X 7 PIN
CN201	996510022187	WAFER 2mm H X 4 PIN
CN202	996510022234	RCA JACK X 8 H-TYPE PITCH=14MM
CON100	996510019261	CONNECTOR:24PIN
D100	996510022228	SNRD. LS4148 150mA/100V (3.5 X
D101	996510022208	ZENER DIODE 10V 1/2W SMD
D102	996510022184	ZENER DIODE 5V1 1/2W SMD PACKA
D103	996510022184	ZENER DIODE 5V1 1/2W SMD PACKA
D104	996510022228	SNRD. LS4148 150mA/100V (3.5 X
D105	996510022228	SNRD. LS4148 150mA/100V (3.5 X
D106	996510022228	SNRD. LS4148 150mA/100V (3.5 X
D112	996510022184	ZENER DIODE 5V1 1/2W SMD PACKA
D113	996510022228	SNRD. LS4148 150mA/100V (3.5 X
L100	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L101	996510022164	SMD FERRITE BEAD(3.2 X 1.6mm)Z
L102	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L104	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L105	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L106	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L108	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L110	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L111	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L112	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L113	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L114	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L115	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L116	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L117	996510022173	PEAKING COIL 150uH+/-10%(TAPE
L119	996510022207	PEAKING COIL 47uH +/-10%(TAPE
L120	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L121	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L122	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L123	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L124	996500040252	PEAKING COIL 10uH /-10%
L125	996500040252	PEAKING COIL 10uH /-10%
L126	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L127	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L128	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
L129	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L130	996510022178	SMD CHIP COIL 10UH +/-10% (1.6
L131	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L132	996510022178	SMD CHIP COIL 10UH +/-10% (1.6
L134	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L137	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L138	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L139	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L140	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L147	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L148	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L149	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L150	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)

L151	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L152	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L153	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L154	996510022206	SMD CHIP COIL 1.8UH +/-10%(1.6
L155	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L156	996510022206	SMD CHIP COIL 1.8UH +/-10%(1.6
L157	996510022206	SMD CHIP COIL 1.8UH +/-10%(1.6
L158	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L159	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L160	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L161	996510022193	SMD FERRITE BEAD (1.6 X 0.8mm)
L162	996510022204	SMD CHIP COIL 0.22UH +/-10%(1.
Q100	996500041187	TRANSISTOR SST3904/MMBT3904/PM
Q101	996510022225	TRANSISTOR 8050 PNP TO-92 TAPE
Q102	996510022171	TRANSISTOR 2SK3018 (30V
Q103	996510022171	TRANSISTOR 2SK3018 (30V
Q104	996510022231	TRANSISTOR 2SB1132 SMD PACKAGE
Q107	996510022231	TRANSISTOR 2SB1132 SMD PACKAGE
Q108	996500041187	TRANSISTOR SST3904/MMBT3904/PM
Q109	996500041187	TRANSISTOR SST3904/MMBT3904/PM
Q110	996500041187	TRANSISTOR SST3904/MMBT3904/PM
Q111	996500041187	TRANSISTOR SST3904/MMBT3904/PM
Q112	996500041187	TRANSISTOR SST3904/MMBT3904/PM
Q113	996500041187	TRANSISTOR SST3904/MMBT3904/PM
Q114	996510022166	TRANSISTOR PSS8550 PHILIPS (TA
Q115	996510022202	TRANSISTOR 2N3904 PNP TO-92 TA
Q117	996500041188	TRANSISTOR SST3906/MMBT3906/PM
Q118	996500041187	TRANSISTOR SST3904/MMBT3904/PM
Q119	996500041187	TRANSISTOR SST3904/MMBT3904/PM
Q120	996500041188	TRANSISTOR SST3906/MMBT3906/PM
Q121	996500041188	TRANSISTOR SST3906/MMBT3906/PM
U100	996510022212	I.C. CX117-ADJ SILICON CORD (R
U101	996510022245	SMD IC APL1085 ANPEC TO-252
U102	996510022327	SMD I.C MT1389HD/DXE MEDIATEK
U103	996510016158	I.C.AM5888S HSOP28
U104	996510022162	SMD IC A641604L-6TE AOTOM TSOP
U105	996510022325	I.C. MX29LV160DBTI-70G MXIC TS
U106	996510022169	I.C. AT24C16N-10SA-2.7C ATMEL
U107	996510022265	SMD I. C HEF4051B PHILIPS SO-1
U108	996510022265	SMD I. C HEF4051B PHILIPS SO-1
U109	996510022191	I.C CS5340 CIRRUS LOGIC (101DB
U110	996510022236	I.C. TJM4558CD SGS (WIDE BANDW
U112	996510022236	I.C. TJM4558CD SGS (WIDE BANDW
Y100	996510022332	SMD CRYSTAL 27.000000MHZ MS3HA
ZD102	996510022242	SMD ESD PROTECTION MVS0603E09
ZD103	996510022242	SMD ESD PROTECTION MVS0603E09
ZD104	996510022242	SMD ESD PROTECTION MVS0603E09
ZD105	996510022242	SMD ESD PROTECTION MVS0603E09
ZD106	996510022242	SMD ESD PROTECTION MVS0603E09
ZD107	996510022242	SMD ESD PROTECTION MVS0603E09
ZD108	996510022242	SMD ESD PROTECTION MVS0603E09
ZD109	996510022242	SMD ESD PROTECTION MVS0603E09

AMPLIFIER BOARD

BD801	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
BD801A	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
BD801B	996510022216	SMD FERRITE BEAD (2 X 1.25mm)
C13	996510021716	PIN 04(3.96)+HOUSING 04(3.96)
C801	996500040181	EC.4.7uF 50V-100V /-20%
CN802	996510022187	WAFER 2mm H X 4 PIN
CN803	996510019261	CONNECTOR:24PIN
D801	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D802	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D803	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D804	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D805	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D806	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D807	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D808	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D809	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D810	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D811	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D812	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D813	996500040220	ZENER DIODE 3V9 1/2W /-5%
D814	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D815	996500040220	ZENER DIODE 3V9 1/2W /-5%
D816	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
D817	996500040573	ZENER DIODE 10V 1/2W
D818	996510022228	SNRD. LS4148 150mA/100V (3.5 X)
IC801A	996510022229	SMD IC STA518 ST(40V 3.5A QUAD
IC801B	996510022229	SMD IC STA518 ST(40V 3.5A QUAD
IC803	996510022236	I.C. TJM4558CD SGS (WIDE BANDW
IC804	996510022237	SMD IC STA309A ST TQFP-64
JK801A	996510022215	RCA JACKX3 H-HYPE PITCH=15MM(R
JK801B	996510022251	RCA JACKX3 H-HYPE PITCH=15MM(R
L801A	996510022161	CHOKE COIL 22UH+-15% 10.5MM X1
L801B	996510022161	CHOKE COIL 22UH+-15% 10.5MM X1
L802A	996510022161	CHOKE COIL 22UH+-15% 10.5MM X1
L802B	996510022161	CHOKE COIL 22UH+-15% 10.5MM X1
L803A	996510022161	CHOKE COIL 22UH+-15% 10.5MM X1
L803B	996510022161	CHOKE COIL 22UH+-15% 10.5MM X1
L804A	996510022161	CHOKE COIL 22UH+-15% 10.5MM X1
L804B	996510022161	CHOKE COIL 22UH+-15% 10.5MM X1
L805A	996510022217	CHOKE COIL 20UH+-10% PITCH=4.0
L805B	996510022217	CHOKE COIL 20UH+-10% PITCH=4.0
Q801	996510022235	SMD TRANSISTOR KTC3875LT1 NPN
Q802	996510022253	SMD TRANSISTOR 2SA733LTA NPN S
Q803	996510022235	SMD TRANSISTOR KTC3875LT1 NPN
Q804	996510022182	TRANSISTOR 2SC945 PNP SILICON
Q805	996510022243	SMD TRANSISTOR 2SC945LT1 NPN S
Q806	996510022254	TRANSISTOR 2SD882 PNP SILICON
Q807	996510022235	SMD TRANSISTOR KTC3875LT1 NPN
Q808	996510022253	SMD TRANSISTOR 2SA733LTA NPN S
Q809	996510022253	SMD TRANSISTOR 2SA733LTA NPN S
Q810	996510022235	SMD TRANSISTOR KTC3875LT1 NPN
Q811	996510022235	SMD TRANSISTOR KTC3875LT1 NPN

REVISION LIST

Version 1.0

*Initial release