DVD Player

DVP3800(X)

Service

Service

Service

Second Generation

DVP3800/55
DVP3800/96/98
DVP3800/93
DVP3800/79
DVP3800X/77

Service Manual

TABLE OF CONTENTS

This service manual is for DVP3800 second generation model, which is different from the first generation DVP3800 model.

For second generation model, the serial number begins with KX 2Axxxxxxxxx

CLASS 1 LASER PRODUCT

Published by LLL - 1202BU AVM Printed in The Netherlands Subject to modification

GB 3141 785 36984

Version 1.4

PHILIPS

Specifications For DVP3800/55

Note

- Specifications are subject to change without notice

DVD region code	Countries
	Latin America

Playable media

- Disc
  - DVD, DVD-Video, VCD, SVCD, Audio CD
  - DVD+R/+RW, DVD-R/-RW, DVD+R/-R DL (Dual Layer), CD-R/-RW (Maximum number of files: 648)
- File
  - Video: .avi, .divx, .mp4, .xvid
  - Audio: .mp3, .wma
  - Picture: .jpg, .jpeg

Video

- Signal system: PAL, NTSC
- Composite video output: 1 Vp-p (75 Ohm)
- Component video output: 0.7 Vp-p (75 Ohm)

Audio

- 2-channel analog output
  - Audio Front L&R : 2 Vrms (47k Ohm)
- Digital output: 0.5 Vp-p (75 Ohm)
  - Coaxial
- Sampling frequency:

    - MP3: 8 kHz, 11 kHz, 12 kHz, 16 kHz, 22 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz
    - WMA: 44.1 kHz, 48 kHz
- Constant bit rate:
    - MP3: 8 kbps - 320 kbps
    - WMA: 64 kbps - 192 kbps

Main unit

- Dimensions (W x H x D): 360 x 42 x 209 (mm)
- Net Weight: 1.44 kg

Power

- Power supply rating: 110 - 240~V, 50/60 Hz
- Power consumption: < 8 W
- Power consumption in standby mode: < 0.3 W

Accessories supplied

- Remote control and one battery
- Audio/Video cables
- AC Power cord
- User Manual
- Power Plug Adapter

Laser specification

- Type: Semiconductor laser InGaAlP (DVD), AlGaAs (CD)
- Wave length: 658 nm (DVD), 790 nm (CD)
- Output Power: 7.0 mW (DVD), 10.0 mW (VCD/CD)
- Beam divergence: 60 degrees

Specifications for DVP3800/96

Note

- Specifications are subject to change without notice.

DVD region code	Countries
	Asia Pacific, Taiwan, Korea

Playable media

- Disc
  - DVD, DVD-Video, VCD, SVCD, Audio CD
  - DVD+R/+RW, DVD-R/-RW, DVD+R/-R DL (Dual Layer), CD-R/-RW (Maximum number of files: 648)
- File
  - Video: .avi, .divx, .mp4, .xvid
  - Audio: .mp3, .wma
  - Picture: .jpg, .jpeg

Video

- Signal system: PAL, NTSC
- Composite video output: 1 Vp-p (75 Ohm)
- Component video output: 0.7 Vp-p (75 Ohm)

Audio

- 2-channel analog output
  - Audio Front L&R : 2 Vrms (47k Ohm)
- Digital output: 0.5 Vp-p (75 Ohm)
  - Coaxial
- Sampling frequency:
  - MP3: 8 kHz, 11 kHz, 12 kHz, 16 kHz, 22 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz
  - WMA: 44.1 kHz, 48 kHz
- Constant bit rate:
  - MP3: 8 kbps - 320 kbps
  - WMA: 64 kbps - 192 kbps

Main unit

- Dimensions (W x H x D): 360 x 42 x 209 (mm)
- Net Weight: 1.35 kg

Power

- Power supply rating: 110–240 V~, 50/60 Hz
- Power consumption: < 8 W
- Power consumption in standby mode: < 0.3 W

Accessories supplied

- Remote control and one battery
- Audio/Video cables
- User Manual

Laser specification

- Type: Semiconductor laser InGaAlP (DVD), AlGaAs (CD)
- Wave length: 658 nm (DVD), 790 nm (CD)
- Output Power: 7.0 mW (DVD), 10.0 mW (VCD/CD)
- Beam divergence: 60 degrees

Specifications for DVP3800/98

Note

- Specifications are subject to change without notice.

DVD region code	Countries
3	Asia Pacific, Taiwan, Korea

Playable media

- Disc
  - DVD, DVD-Video, VCD, SVCD, Audio CD
  - DVD+R/+RW, DVD-R/-RW, DVD+R/-R DL (Dual Layer), CD-R/-RW (Maximum number of files: 648)
- File
  - Video: .avi, .divx, .mp4, .xvid
  - Audio: .mp3, .wma
  - Picture: .jpg, .jpeg

Video

- Signal system: PAL, NTSC
- Composite video output: 1 Vp-p (75 Ohm)
- Component video output: 0.7 Vp-p (75 Ohm)

Audio

- 2-channel analog output
  - Audio Front L&R : 2 Vrms (47k Ohm)
- Digital output: 0.5 Vp-p (75 Ohm)
  - Coaxial
- Sampling frequency:
  - MP3: 8 kHz, 11 kHz, 12 kHz, 16 kHz, 22 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz
  - WMA: 44.1 kHz, 48 kHz
- Constant bit rate:
  - MP3: 8 kbps - 320 kbps
  - WMA: 64 kbps - 192 kbps

Main unit

- Dimensions (W x H x D): 360 x 42 x 209 (mm)
- Net Weight: 1.34 kg

Power

- Power supply rating: 110–240 V~, 50/60 Hz
- Power consumption: < 8 W
- Power consumption in standby mode: < 0.3 W

Accessories supplied

- Remote control and one battery
- Power cord
- Audio/Video cables
- User Manual

Laser specification

- Type: Semiconductor laser InGaAlP (DVD), AlGaAs (CD)
- Wave length: 658 nm (DVD), 790 nm (CD)
- Output Power: 7.0 mW (DVD), 10.0 mW (VCD/CD)
- Beam divergence: 60 degrees

Specifications For DVP3800/93

Note

- Specifications are subject to change without notice

DVD region code	Countries
6	China

Playable media

- Disc
  - DVD, DVD-Video, VCD, SVCD, Audio CD
  - DVD+R/+RW, DVD-R/-RW, DVD+R/-R DL (Dual Layer), CD-R/-RW (Maximum number of files: 648)
- File
  - Video: .avi, .divx, .mp4, .xvid
  - Audio: .mp3, .wma
  - Picture: .jpg, .jpeg

Video

- Signal system: PAL, NTSC
- Composite video output: 1 Vp-p (75 ohm)

Audio

- 2-channel analog output
  - Audio Front L&R : 2 Vrms (47k Ohm)
- Digital output: 0.5 Vp-p (75 ohm)
  - Coaxial
- Sampling frequency:
  - MP3: 8 kHz, 11 kHz, 12 kHz, 16 kHz, 22 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz
  - WMA: 44.1 kHz, 48 kHz
- Constant bit rate:
  - MP3: 8 kbps - 320 kbps
  - WMA: 64 kbps - 192 kbps

Main unit

- Dimensions (W x H x D): 360 x 42 x 209 (mm)
- Net Weight: 1.31 kg

Power

- Power supply rating: 110–240 V~, 50/60 Hz
- Power consumption: < 8 W
- Power consumption in standby mode: < 0.3 W

Accessories supplied

- Remote control and one battery
- Audio/Video cables
- QSG

Laser specification

- Type: Semiconductor laser InGaAlP (DVD), AlGaAs (CD)
- Wave length: 658 nm (DVD), 790 nm (CD)
- Output Power: 7.0 mW (DVD), 10.0 mW (VCD/CD)
- Beam divergence: 60 degrees

DVP3800/79 Specification

Note

- Specifications are subject to change without notice.

DVD region code	Countries
	Australia, New Zealand

Playable media

- Disc
  - DVD, DVD-Video, VCD, SVCD, Audio CD
  - DVD+R/+RW, DVD-R/-RW, DVD+R/-R DL (Dual Layer), CD-R/-RW (Maximum number of files: 648)
- File
  - Video: .avi, .divx, .mp4 (MPEG-4 Part 2), .xvid
  - Audio: .mp3, .wma
  - Picture: .jpg, .jpeg

Video

- Signal system: PAL, NTSC
- Composite video output: 1 Vp-p (75 Ohm)
- Component video output: 0.7 Vp-p (75 Ohm)

Audio

- 2-channel analog output
  - AUDIO OUT L&R : 2 Vrms (47k Ohm)
- Digital output: 0.5 Vp-p (75 Ohm)
  - Coaxial
- Sampling frequency:
  - MP3: 8 kHz, 11 kHz, 12 kHz, 16 kHz, 22 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz
  - WMA: 44.1 kHz, 48 kHz
- Constant bit rate:
  - MP3: 8 kbps - 320 kbps
  - WMA: 64 kbps - 192 kbps

Main unit

- Dimensions (W x H x D): 360 x 42 x 209 (mm)
- Net Weight: 1.35 kg

Power

- Power supply rating: 230–240 V~, 50 Hz
- Power consumption: < 8 W
- Power consumption in standby mode: < 0.3 W

Accessories supplied

- Remote control and one battery
- Audio/Video cables
- User Manual

Laser specification

- Type: Semiconductor laser InGaAlP (DVD), AlGaAs (CD)
- Wave length: 658 nm (DVD), 790 nm (CD)
- Output Power: 7.0 mW (DVD), 10.0 mW (VCD/CD)
- Beam divergence: 60 degrees

Safety instruction, Warning & Notes

Safety instruction

1. General safety

Safety regulations require that during a repair:

. Connect the unit to the mains via an isolation transformer.

. Replace safety components indicated by the symbol ⚠, only by components identical to the original ones. Any other component substitution (other than original type) may increase risk of fire or electrical shock hazard.

Safety regulations require that after a repair, you must return the unit in its original condition. Pay, in particular, attention to the following points:

. Route the wires/cables correctly, and fix them with the mounted cable clamps.

. Check the insulation of the mains lead for external damage.

. Check the electrical DC resistance between the mains plug and the secondary side:

1) Unplug the mains cord, and connect a wire between the two pins of the mains plug.
2) Set the mains switch the "on" position (keep the mains cord unplug).
3) Measure the resistance value between the mains plug and the front panel, controls, and chassis bottom.
4) Repair or correct unit when the resistance measurement is less than 1MΩ.
5) Verify this, before you return the unit to the customer/user (ref. UL-standard no. 1492).
6) Switch the unit "off", and remove the wire between the two pins of the mains plug.

2.Laser safety

This unit employs a laser. Only qualified service personnel may remove the cover, or attempt to service this device (due to possible eye injury).

Laser device unit

Type : Semiconductor laser GaAlAs

Wavelength : 650nm (DVD)

: 780nm (VCD/CD)

Output power : 7mW (DVD)

: 10mW (DVD /CD)

Beam divergence: 60 degree

Note: Use of controls or adjustments or performance of procedure other than those specified herein, may result in hazardous radiation exposure. Avoid direct exposure to beam.

Warning

1.General

. All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handing during repair can reduce life drastically. Make sure that, during repair, you are at the same potential as the mass of the set by a wristband with resistance. Keep components and tools at this same potential. Available ESD protection equipment:

1) Complete kit ESD3 (small tablemat, wristband, connection box, extension cable and earth cable) 4822 310 10671.
2) Wristband tester 4822 344 13999.

. Be careful during measurements in the live voltage section. The primary side of the power supply , including the heat sink, carries live mains voltage when you connect the player to the mains (even when the player is “off”!). It is possible to touch copper tracks and/or components in this unshielded primary area, when you service the player. Service personnel must take precautions to prevent touching this area or components in this area. A “lighting stroke” and a stripe-marked printing on the printed wiring board, indicate the primary side of the power supply.

. Never replace modules, or components, while the unit is “on”.

2. Laser

. The use of optical instruments with this product, will increase eye hazard.

. Only qualified service personnel may remove the cover or attempt to service this device, due to possible eye injury.

. Repair handing should take place as much as possible with a disc loaded inside the player.

. Text below is placed inside the unit, on the laser cover shield:

CAUTION: VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM.

Service Hints

CAUTION

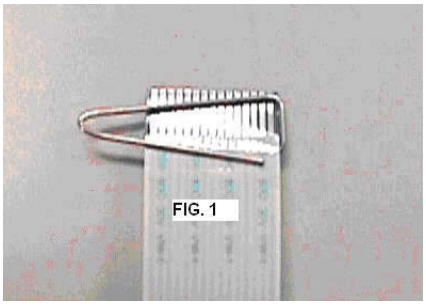
CHARGED CAPACITORS ON THE SERVO BOARD MAY DAMAGE THE DRIVE ELECTRONICS WHEN CONNECTING A NEW DRIVE.THAT'S WHY, BESIDES THE SAFETY MEASURES LIKE

- **SWITCH OFF POWER SUPPLY**
- **ESD PROTECTION**

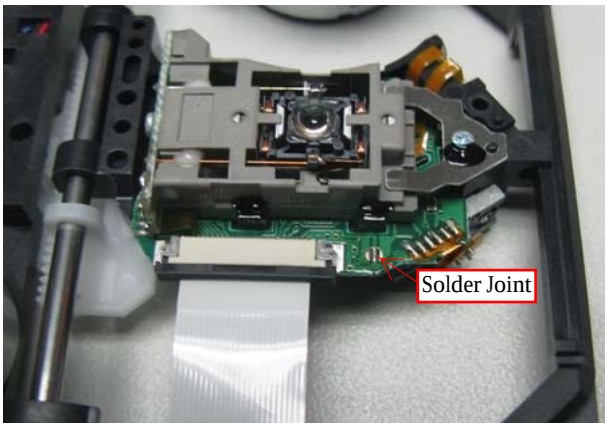
ADDITIONAL ACTIONS MUST BE TAKEN BY THE REPAIR TECHNICIAN.

The following steps have to be done when replacing the defective loader :

1. Dismantling of the loader to access the ESD protection point if necessary.
2. **Solder the ESD protection point*.**
3. Disconnect flexfoil cable from the defective loader.
4. Put a paper clip on the flexfoil to short-circuit the contacts (fig.1)
5. Replace the defective loader with a new loader.
6. Remove paperclip from the flexfoil and connect it to the new loader.
7. Remove solder joint on the ESD protection point.



ATTENTION: The laser diode of this loader is protected against ESD by a solder joint which shortcircuits the laserdiode to ground. For proper functionality of the loader this solder joint must be remove **after** connection loader to the set.



(ESD protection point is accessible from top of loader)

Only applicable for defective loader needed to be sent back to supplier for failure analysis and to support backcharging evidence.
This is also applicable for all partnership workshops.

Notes

Lead-Free requirement for service

INDENTIFICATION:

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 lead-free 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 de-soldering 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 indicator-label 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

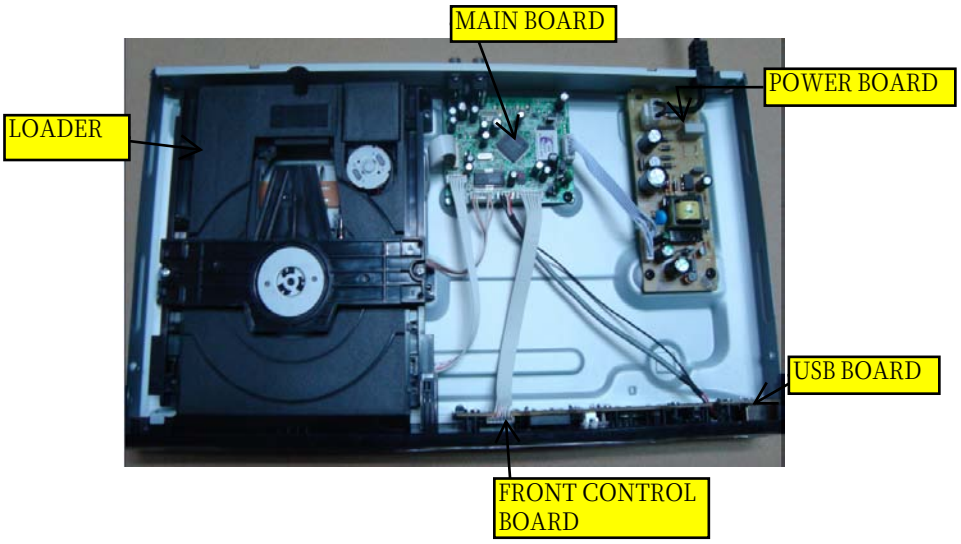
You find more information to:

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.

LOCATION OF PCB BOARDS：



VERSION VARIATIONS

Type/Versions / Board in used	DVP3800			
	/55	/93	/96	/98
Main Board	C/M	C/M	C/M	C/M
Front Control Board	C/M	C/M	C/M	C/M
Power Board	C/M	C/M	C/M	C/M
USB Board	M	M	M	M

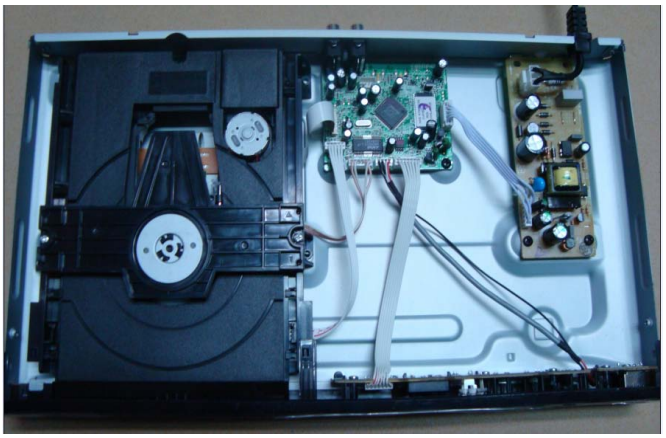
***C:Component Level Repair**
***M:Module Level Repair**
***X:Used**

Mechanical and Dismantling Instructions

Dismantling Instruction

Detailed information please refer to the model set.

The following guidelines show how to dismantle the player.
Step1: Remove 5 screws around the Top Cover, and then remove the Top Cover (Figure 1).



The sample is DVP3800/93.

Figure 1

Step2: If it is necessary to dismantle Loader or Front Panel, the Front door should be removed first. (Figure 2)
Note: Make sure to operate gently otherwise the guider would be damaged.

Please kindly note that dismantle the front door assembly carefully to avoid damage tray and the front door.

Figure 2

Mechanical and Dismantling Instructions

Dismantling Instruction

Detailed information please refer to the model set.

Step3: If the tray can't open in normal way, you can make it through the instruction as below (Figure 3).
Note: Make sure to operate gently otherwise the guider would be damaged.

Figure 3

Step4: Dismantling Front Panel, disconnect the connectors (XP7, XP82), need release 4 snaps of Front Panel & 2 snaps of bottom cabinet , then gently pull the Panel out from the set. (Figure 4 - Figure 6)

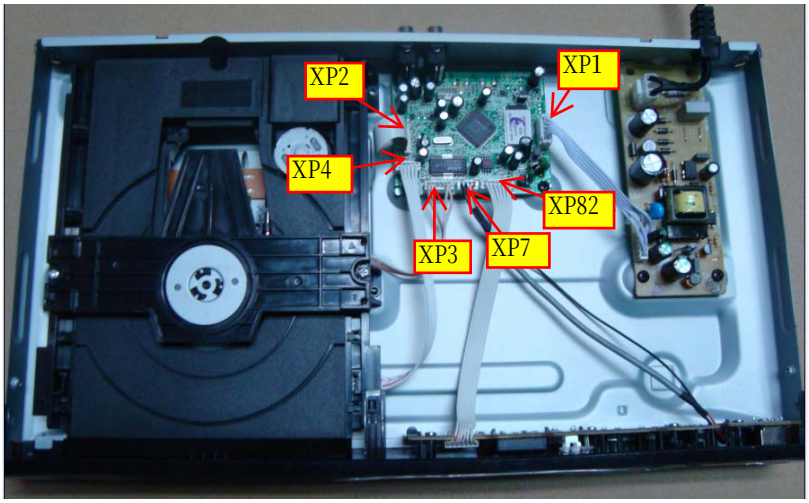


Figure 4

Mechanical and Dismantling Instructions

Dismantling Instruction

Detailed information please refer to the model set.

Step5: Dismantling Loader, disconnect the 3 connectors (XP2, XP3, XP4) aiming in the below figure, and remove 1 screw that connects the loader and the bottom cabinet. (Figure 5)

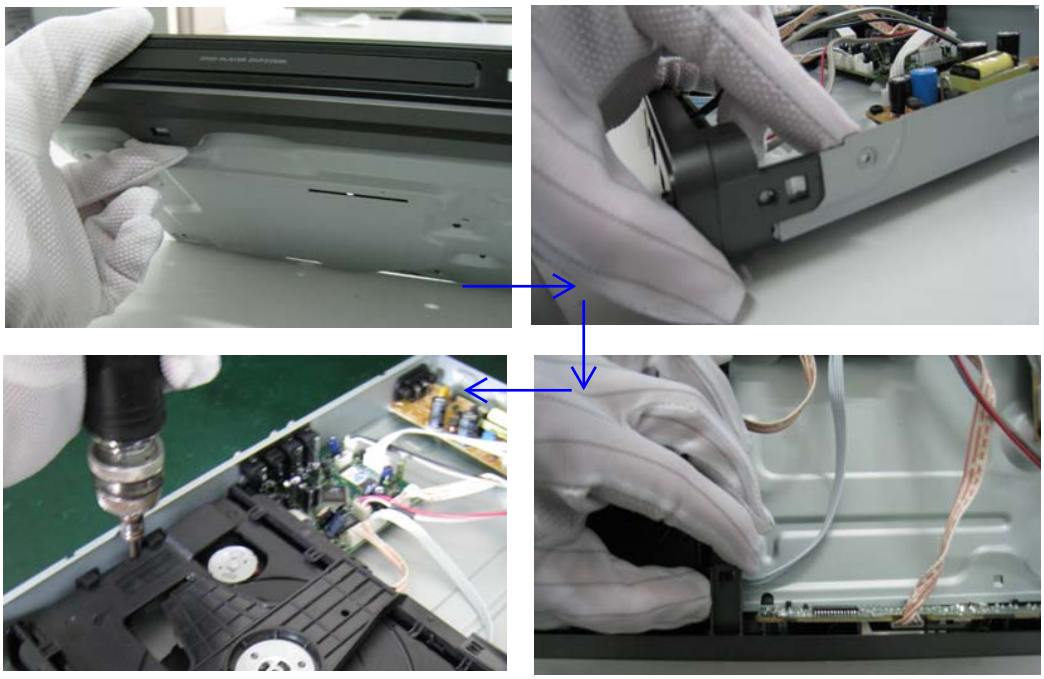


Figure 5

Step6: Dismantling Main Board, first disconnect the connector (XP1), and then remove 3 screws. (Figure 6)

Step7: Remove the 2 screws on Power Board to dismantle the Power Board. (Figure 6)

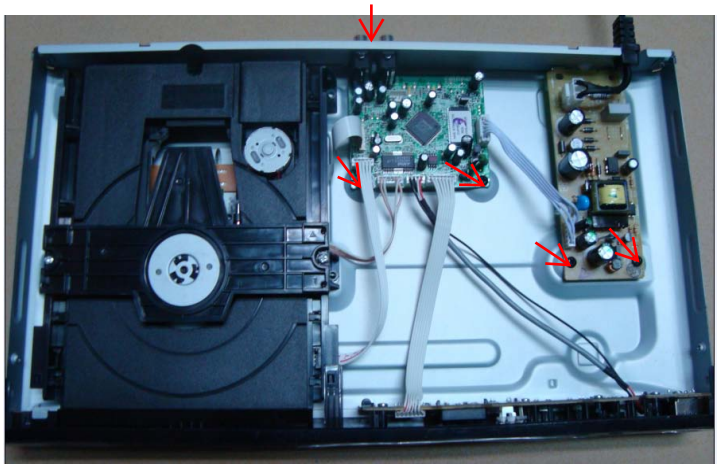


Figure 6

Software upgrade

Preparation to upgrade software

1) Start the CD Burning software and create a new CD project (Data Disc) with the following setting:

Label: DVP3XXX (No need the label name)

File Name: DVPXXXX_XX.BIN

Power on the set and open the tray, then press <option> to check the File Name.

Note: It is required capital letter for the File System name.

2) Burn the data onto a blank CDR

A. Procedure for software upgrade:

1) Power on the set and insert the prepared Upgrade CDR.

2) The set will starts reading disc & response with the following display TV screen:

Upgrade File DETECTED

Upgrade?

Press Play TO START.

3) Press <OK> button to confirm, then screen will display :

Files coping…

UPGRADING…

4) The upgraded tray will automatically open when files coping complete, then take out the disc.

5) About 1 minute later, the trace will automatically close when upgrading complete.

B. Read out the software versions to confirm upgrading

1) Power on the set and press <Setup> button on the remote control.

2) Press <Next><Next><Prev><Prev> button.

The software version and other information are display on the TV screen as follows:

Version XX.XX.XX.XX (Main version)

SUB-VER XX.XX.XX.XX (software version of application software)

8032 XX.XX.XX.XX

Servo XX.XX.XX.XX (software version of servo)

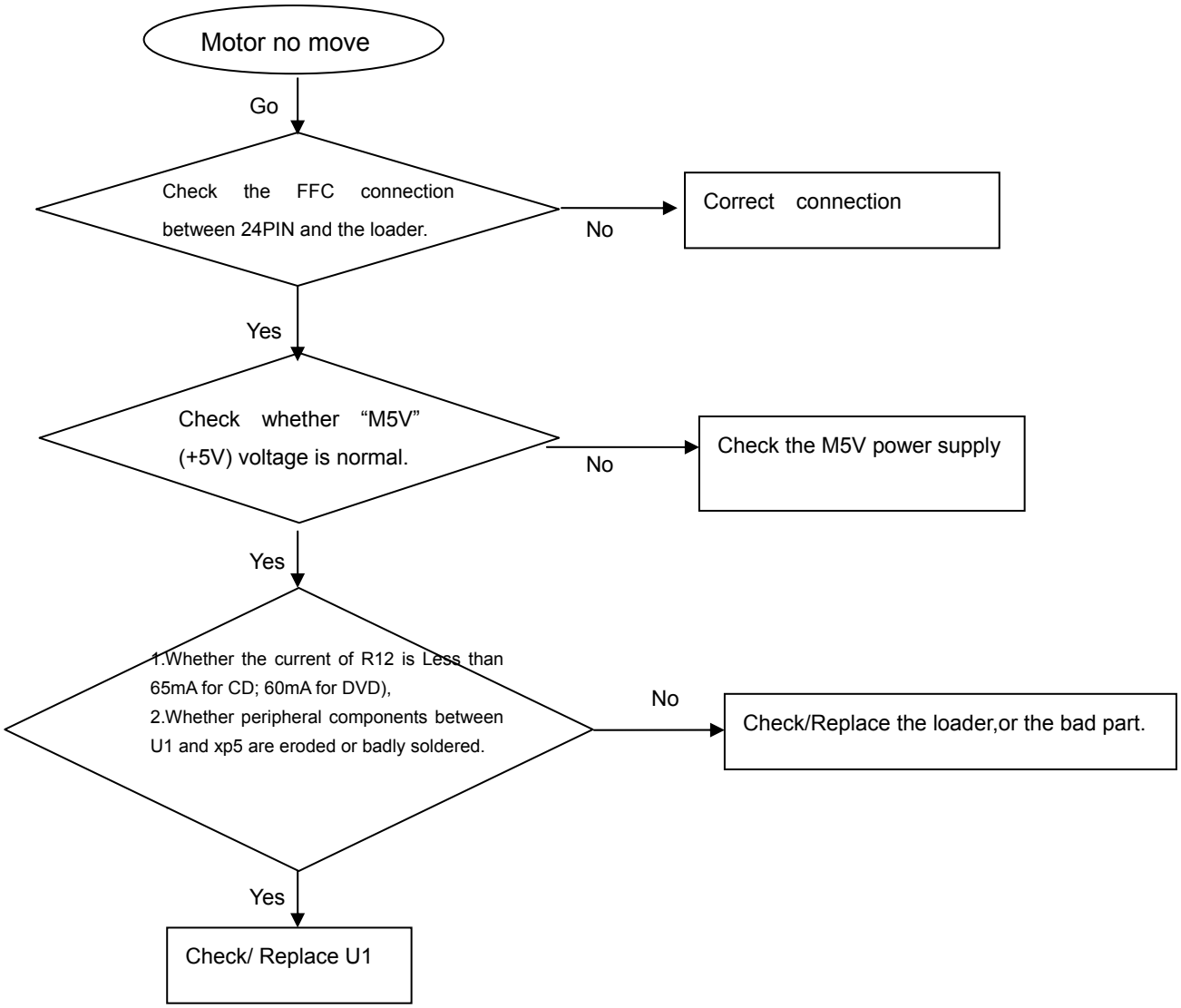
RIS XX.XX.XX.XX

DSP XX.XX.XX.XX

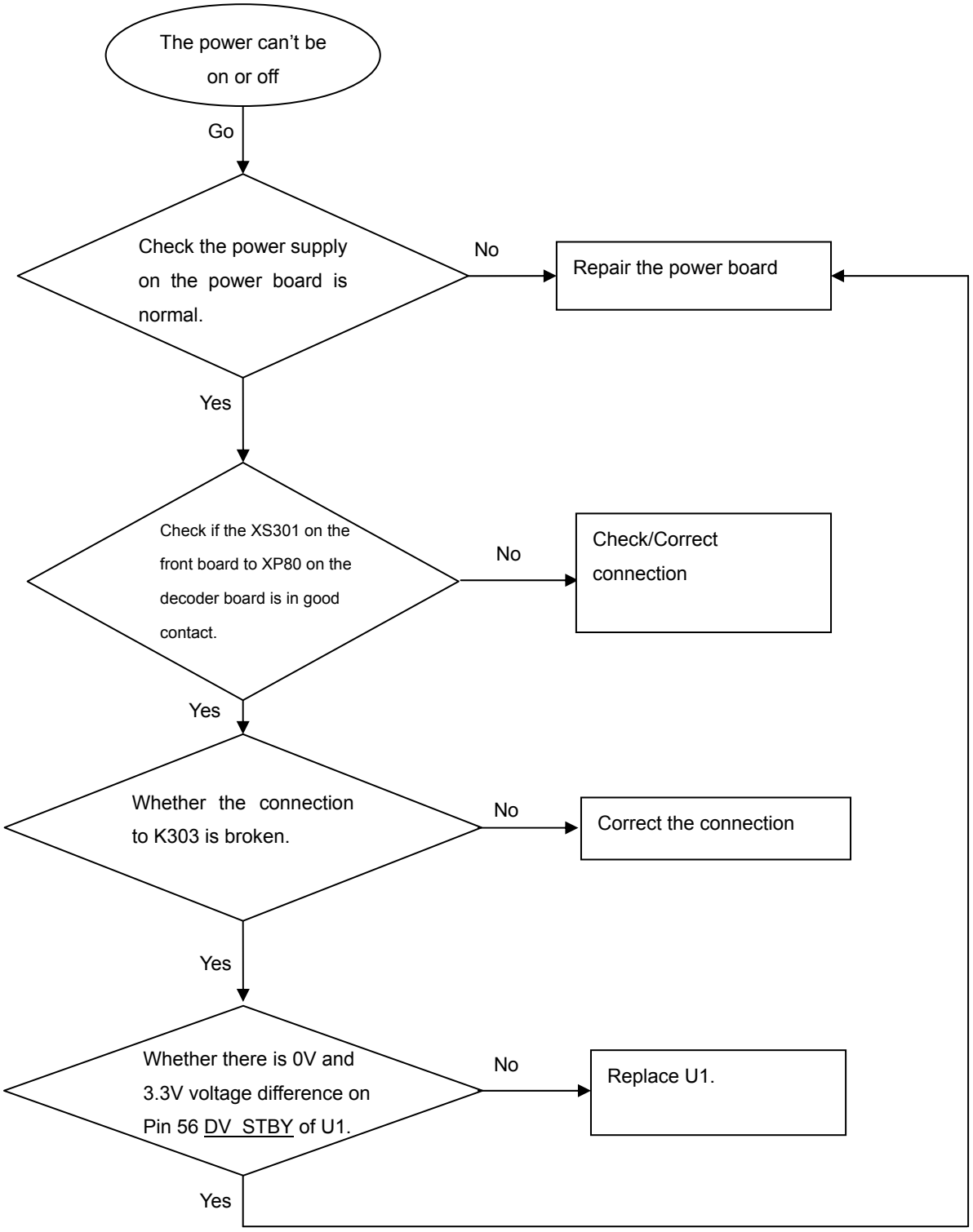
Region Code X

Caution: The set must not be power off during upgrading, Otherwise the Main board will be damaged entirely.

Spindle motor does not move



The power can not be on or off



All output voltages on the power board is 0V or deviated.

All output voltages on the power board is 0V or deviated

Yes

Check whether F501 is blown

Yes

Replace F501

No

Check whether there is 300V on C501 or C502.

No

Replace C501&C502 if D501, D502, D503, D504 are normal.

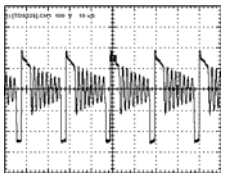
Yes

Check whether 100KHz oscillating signal on Pin4 of U1

No

Check/ replace U1.

U1(PIN 4 - Drain waveform)



Yes

Check if +5V and +12V are short.

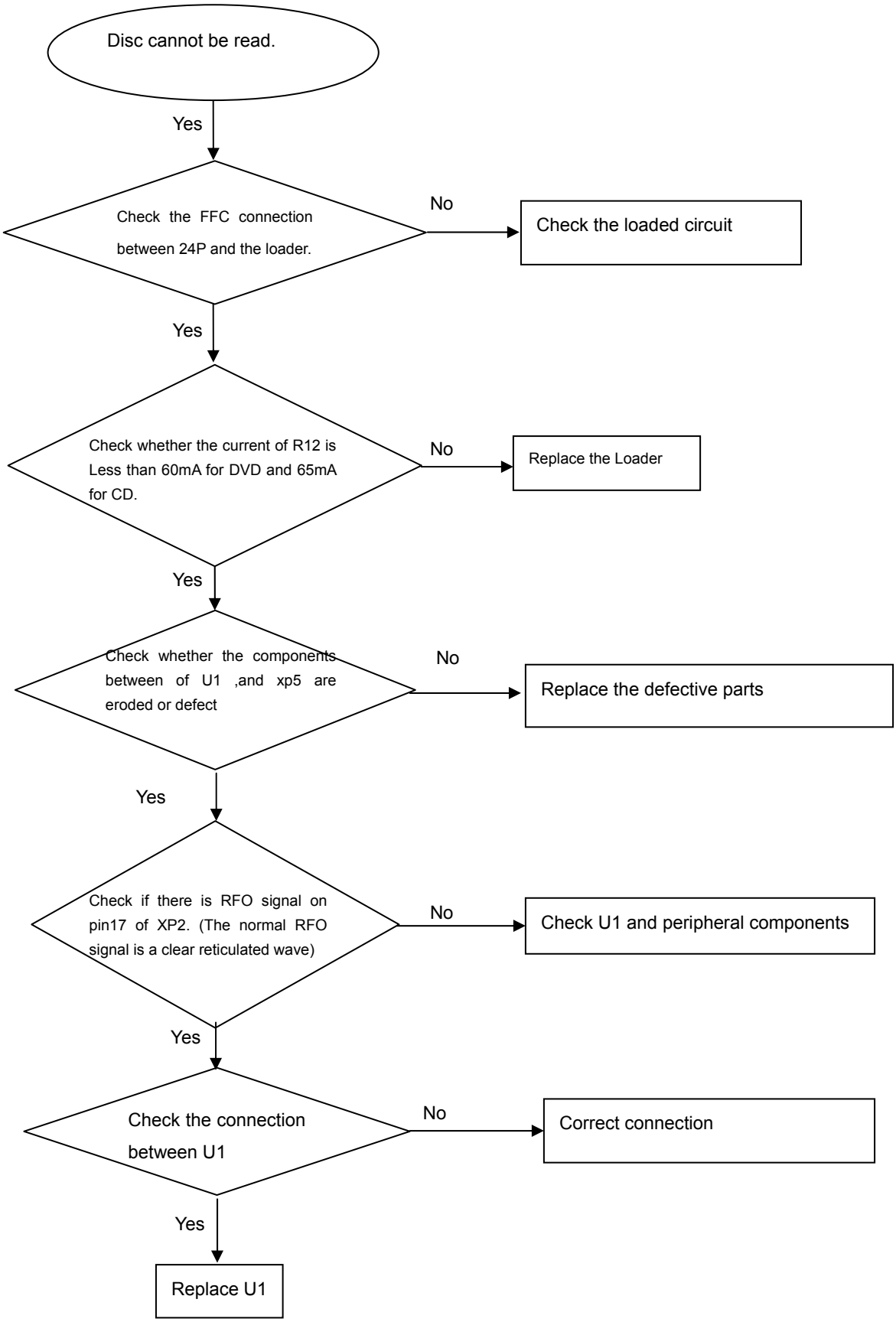
No

Check whether U1 are eroded.

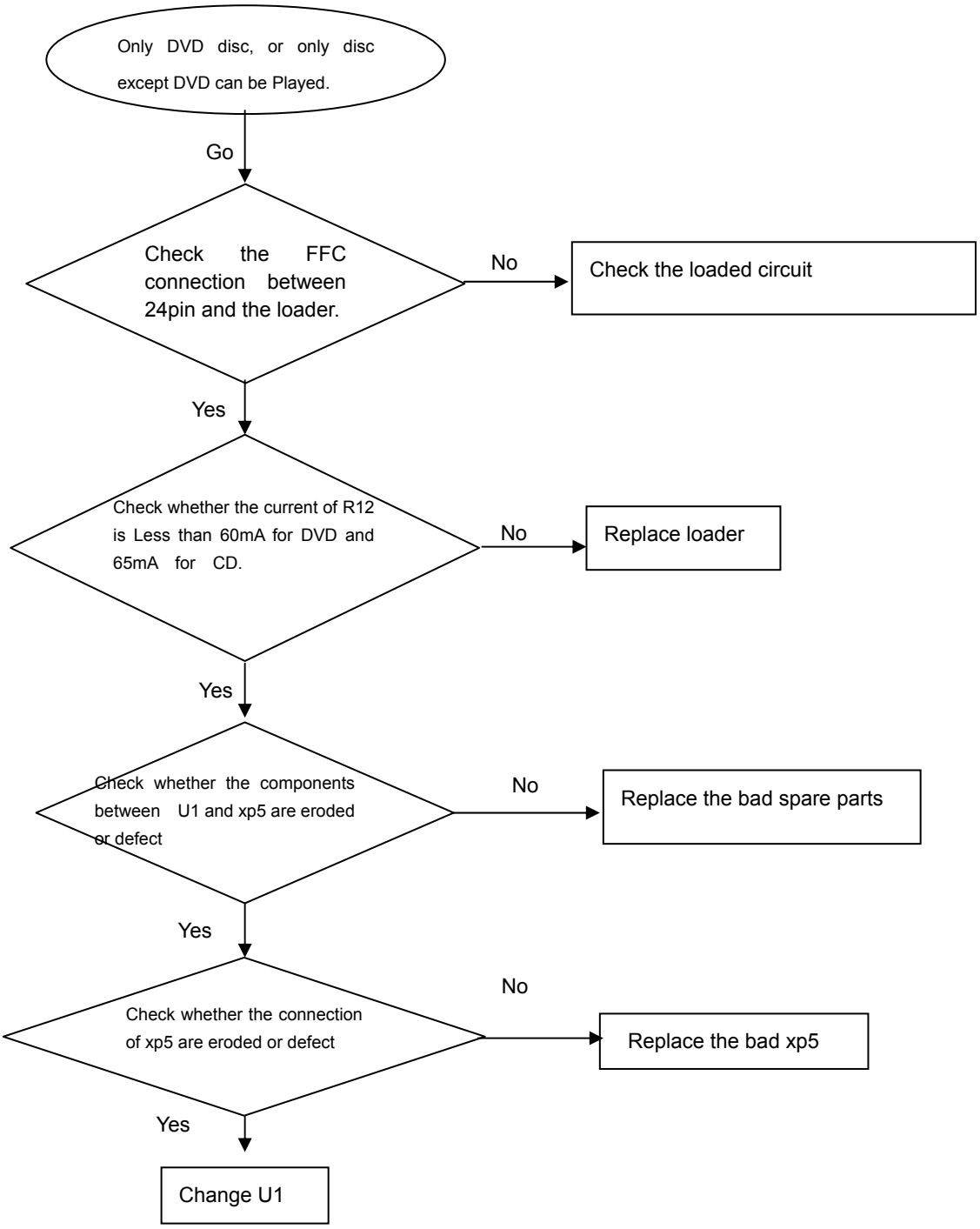
Yes

Check whether the components in the short-circuit voltage are defected or eroded.

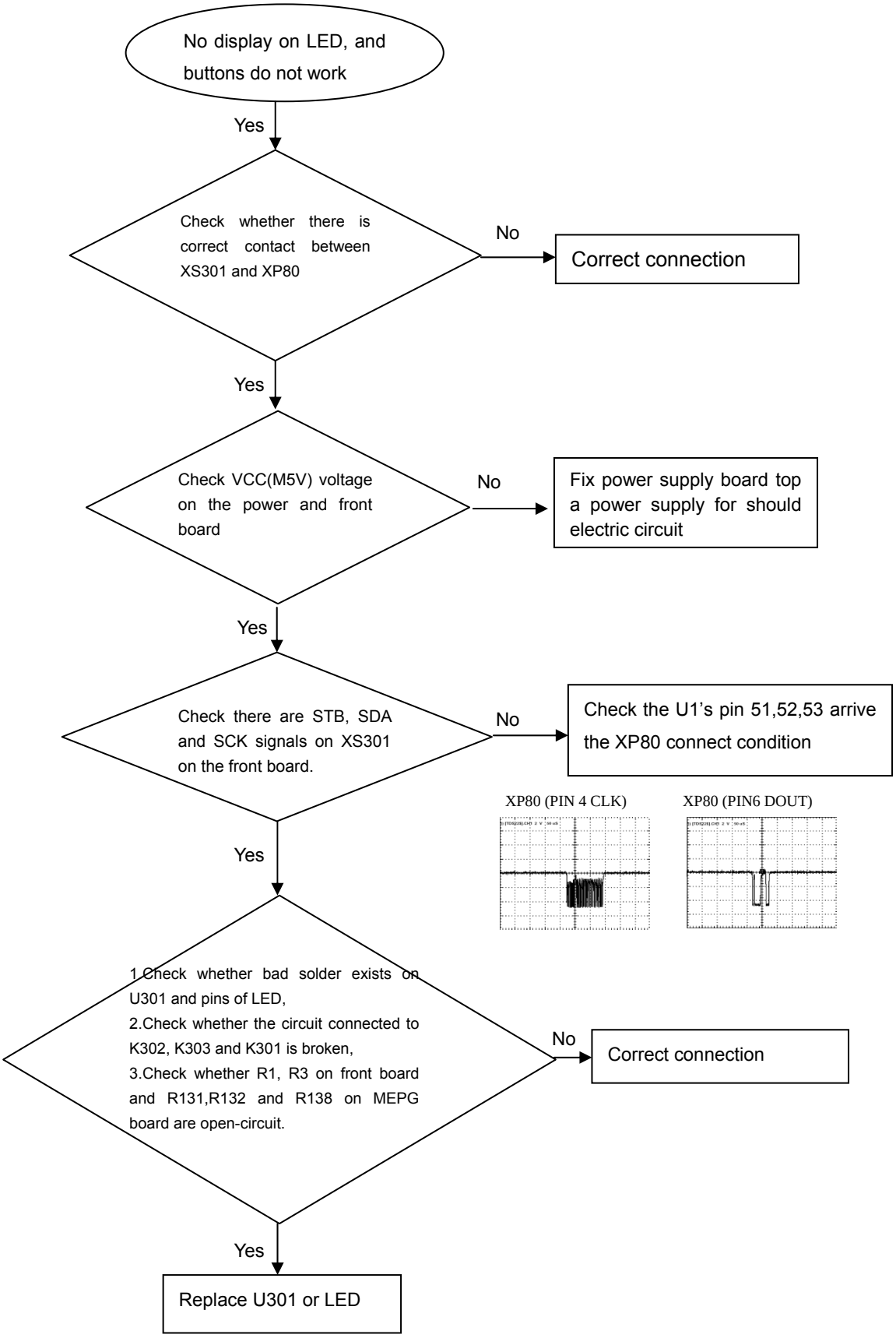
Disc cannot be read.



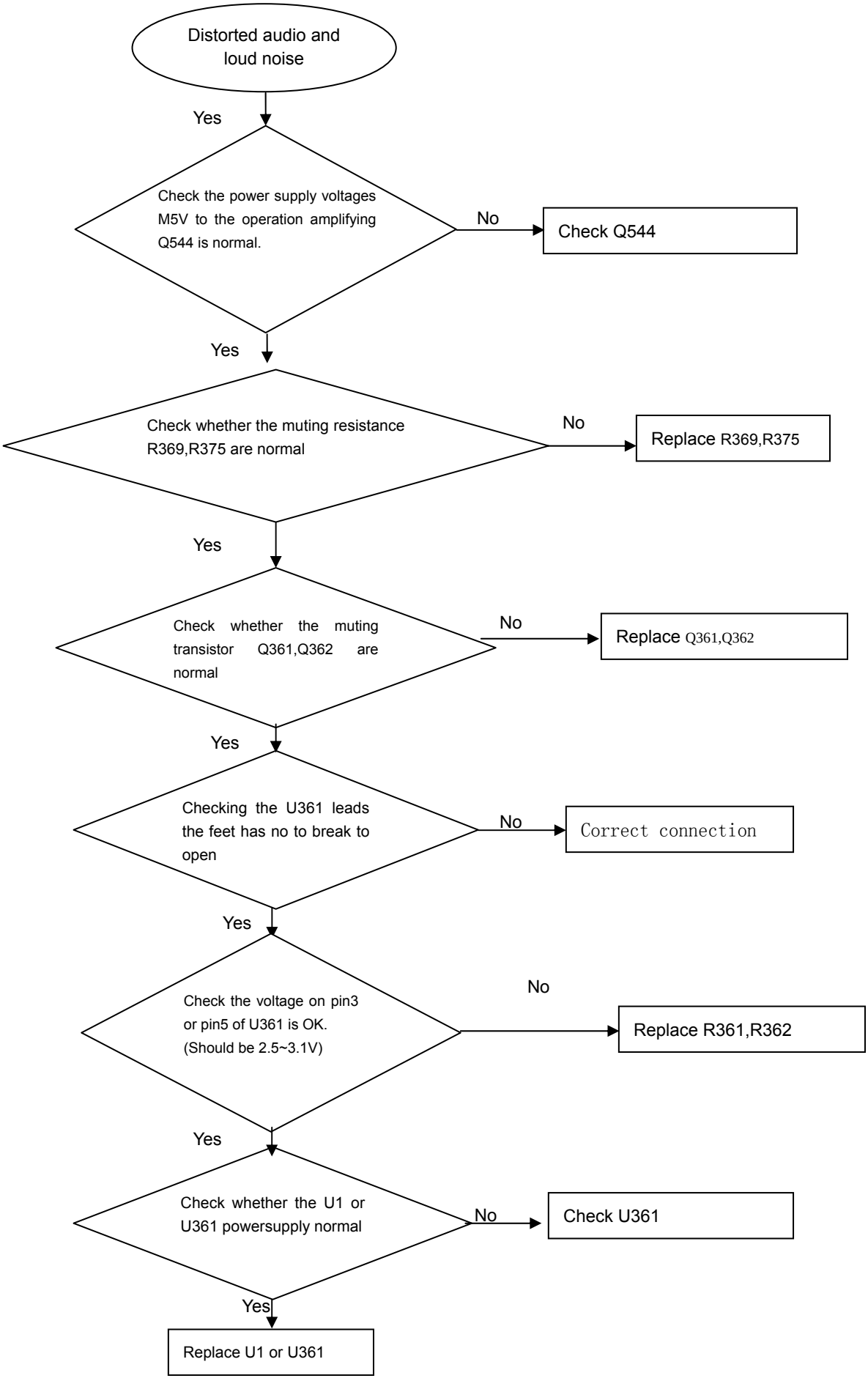
Only DVD disc or only disc except DVD can be played



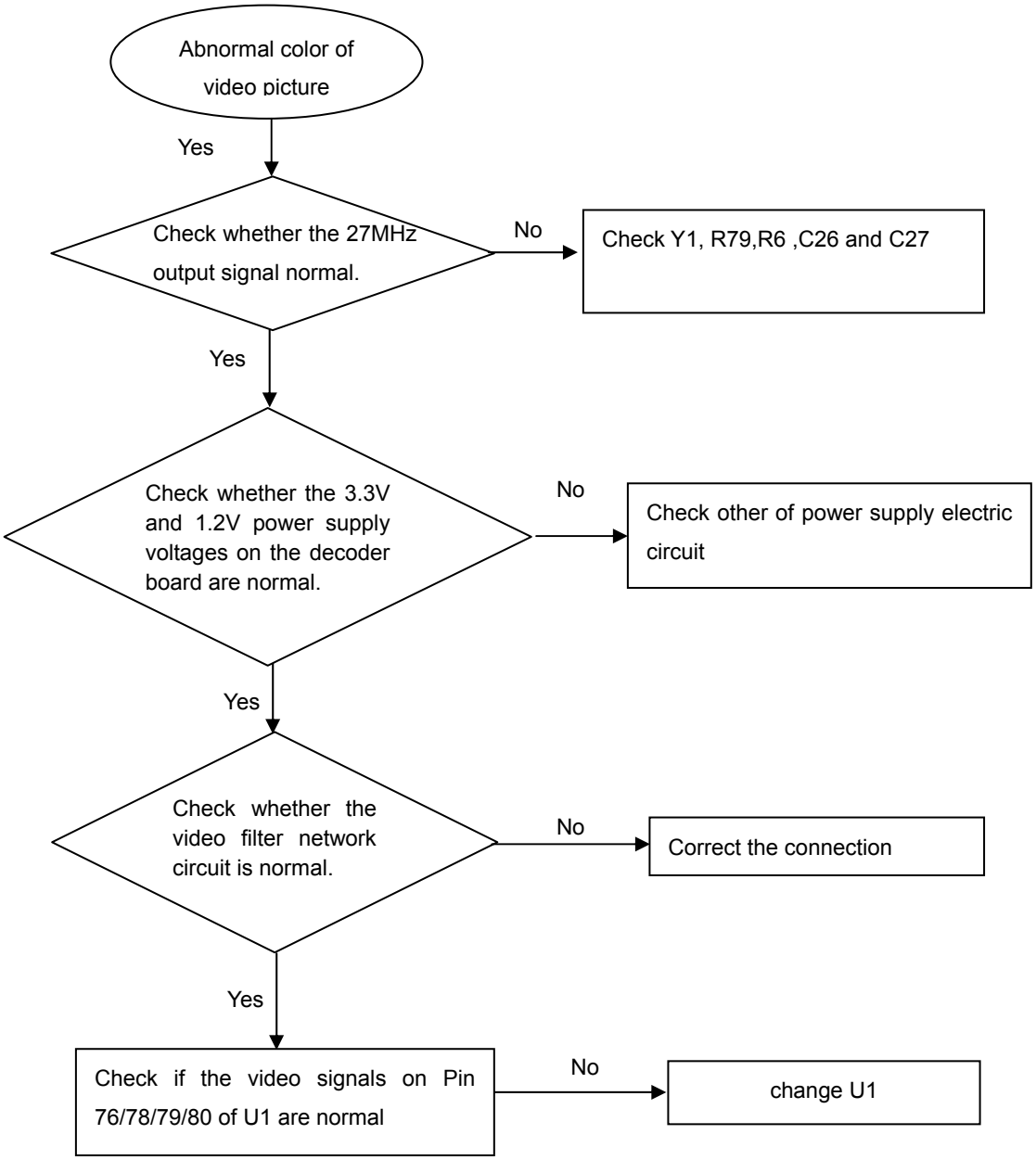
No display on LED, and buttons do not work



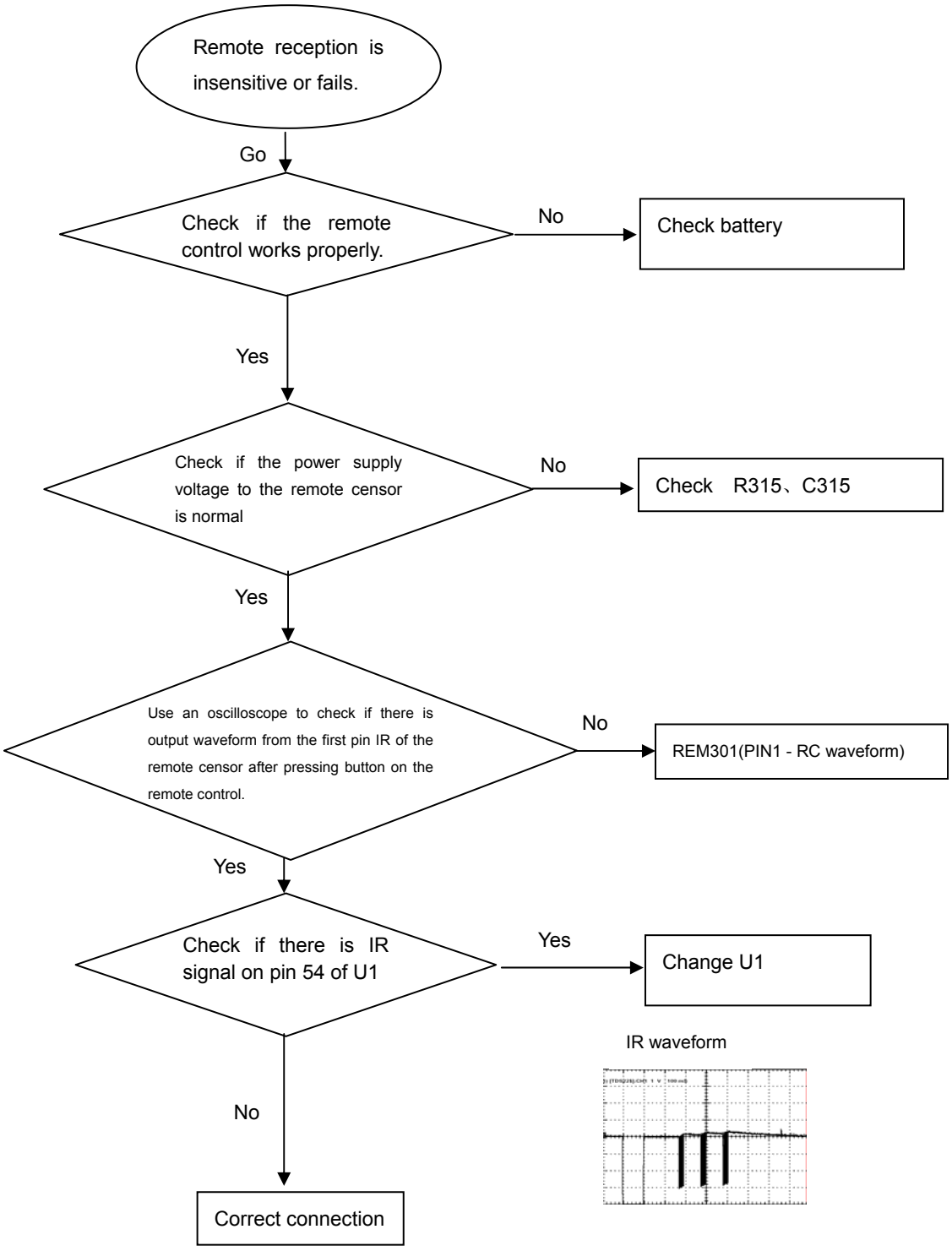
Distorted audio and loud noise



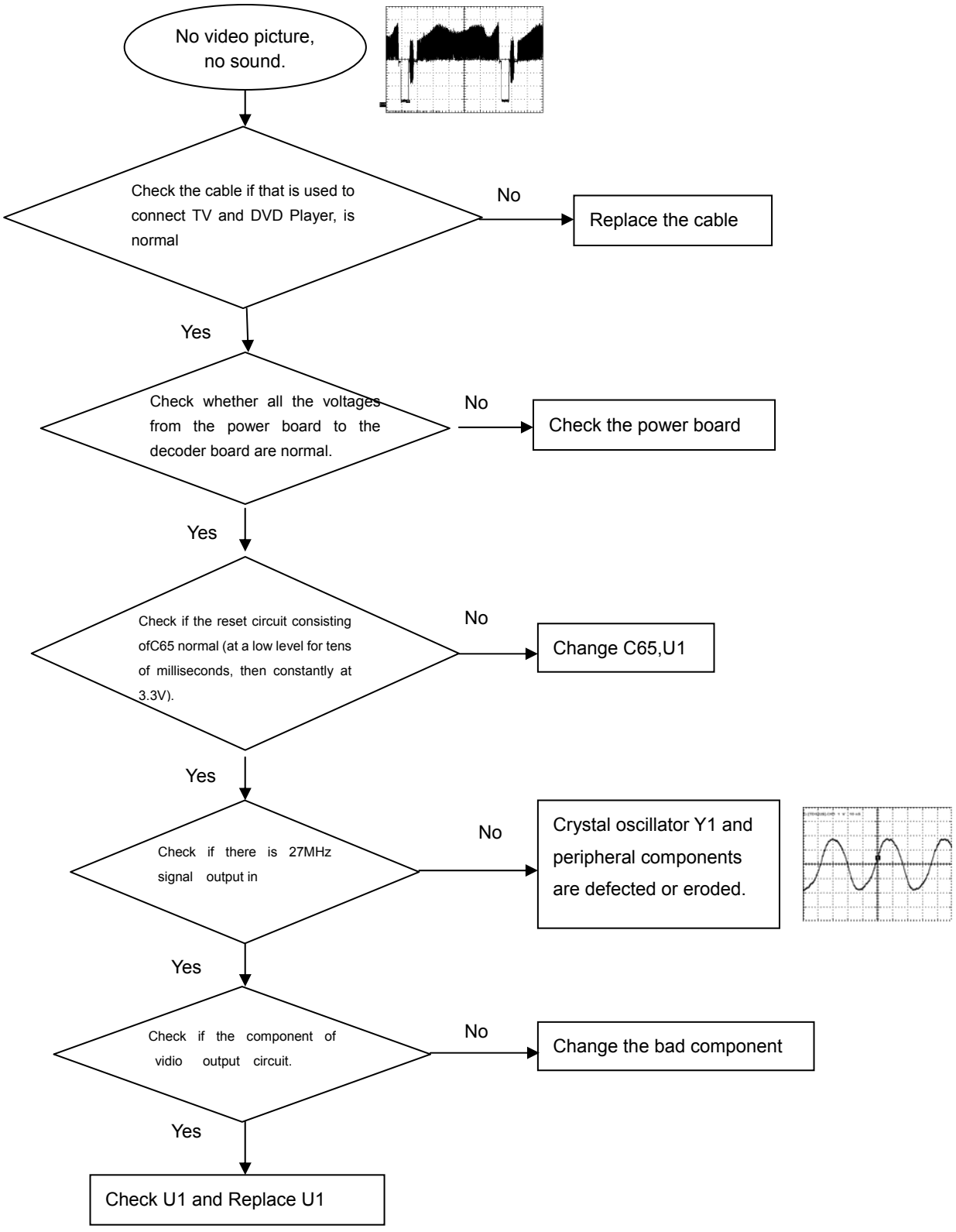
Abnormal color of video picture



Remote reception is insensitive or fails.



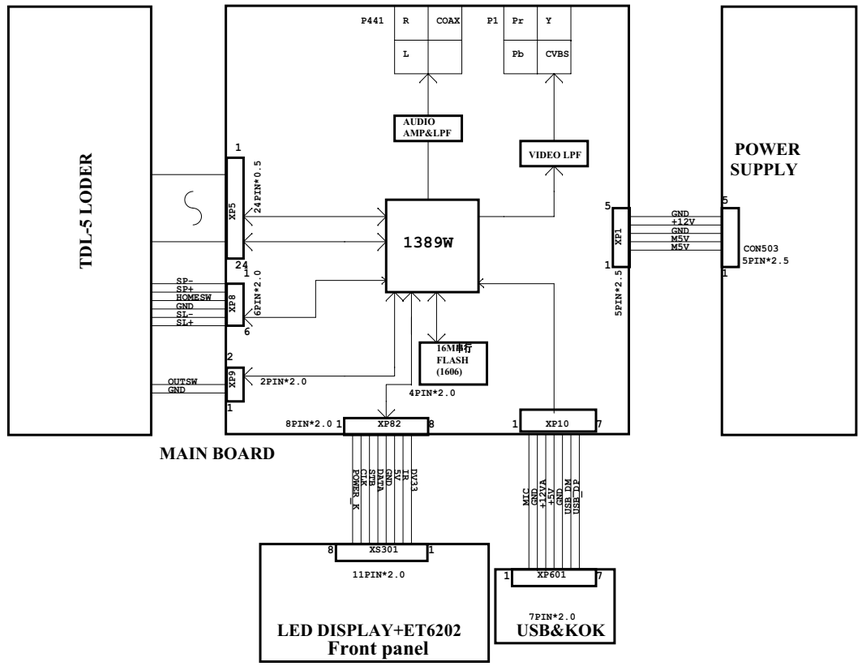
No video picture, no sound.



5-1

DVP3800 WIRING DIAGRAM:

1389W 2CH+YUV

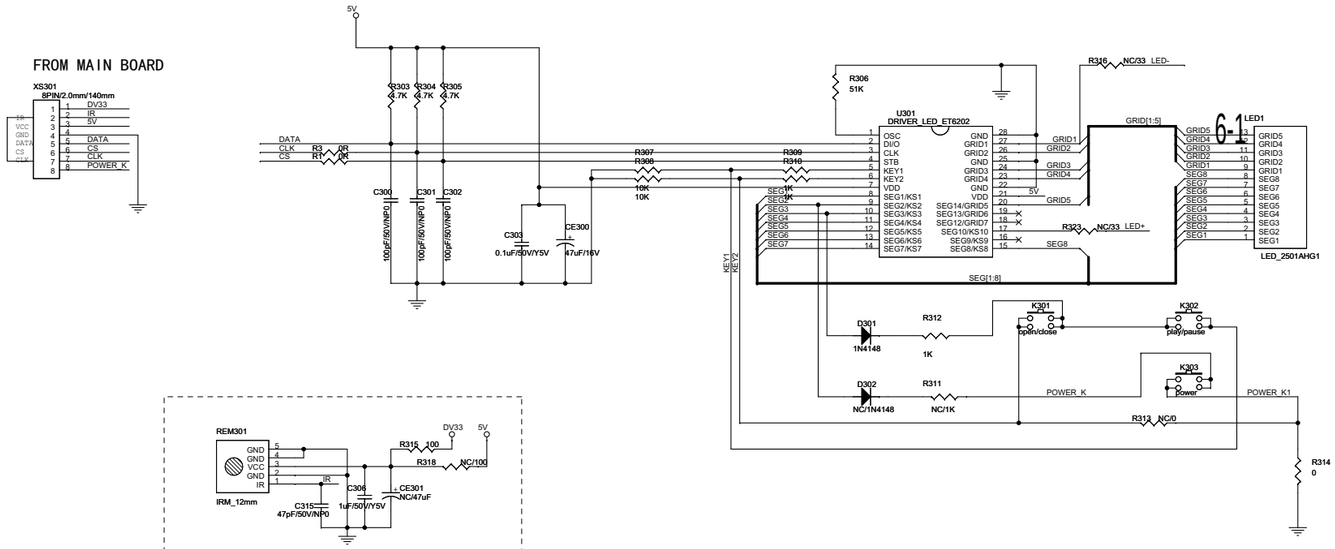


MT1389W General GPIO List

Name	PIN	Features
VR_CD	5	VR_CD
VR_DVD	6	VR_DVD
PAD_FG	99	TRIN
GPI36	98	LIMIT TROUT
GPIOA	36	IOA
UP1_6	52	VSCK
UP1_7	53	VSDA
GPIO13	51	VSTB
GPIO9	58	MS_D0 SD_D0
GPIO8	59	MS_BS SD_CMD
GPIO7	60	MS_CLK SD_CLK
GPIO20	69	MSC_DET
GPIO6	40	RS232_RXD1 UART_RXD1
GPIO11	41	RS232_TXD1 UART_TXD1
GPIO29	61	Gxyz_LOAD
GPIO30	62	Gxyz_CLK
GPIO31	63	Gxyz_DA1
GPIO32	64	Gxyz_DA2
GPIO12	66	ASPDIF
AKIN1	83	AKIN1
AKIN2	82	/
GPIO14	73	AUDIO_MUTE
KEY_IN1	71	ADC_KEY
KEY_IN2	70	POWER_KEY
GPIO3	56	DVP_STBY
GPIO10	67	SCART1 HSYNC
GPIO33	68	SCART2 VSYNC

6-1

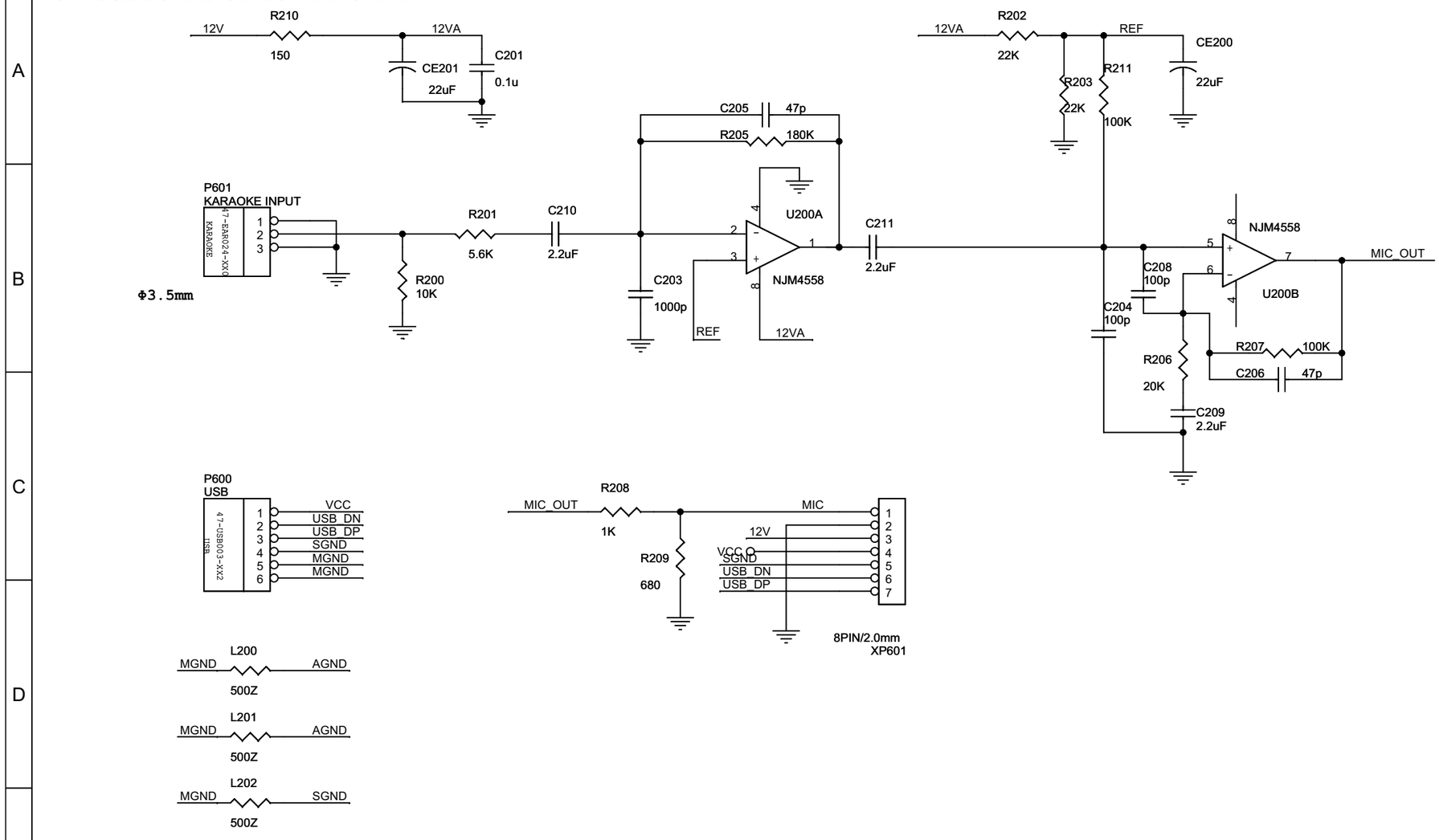
FRONT CONTROL BOARD CIRCUIT DIAGRAM:



功耗	Q1	R317	R319	R321	R322	R323	R316	R313
0.3W	Y	Y	Y	Y	Y	N	N	N
1W	N	N	N	N	N	Y	Y	Y

6-2

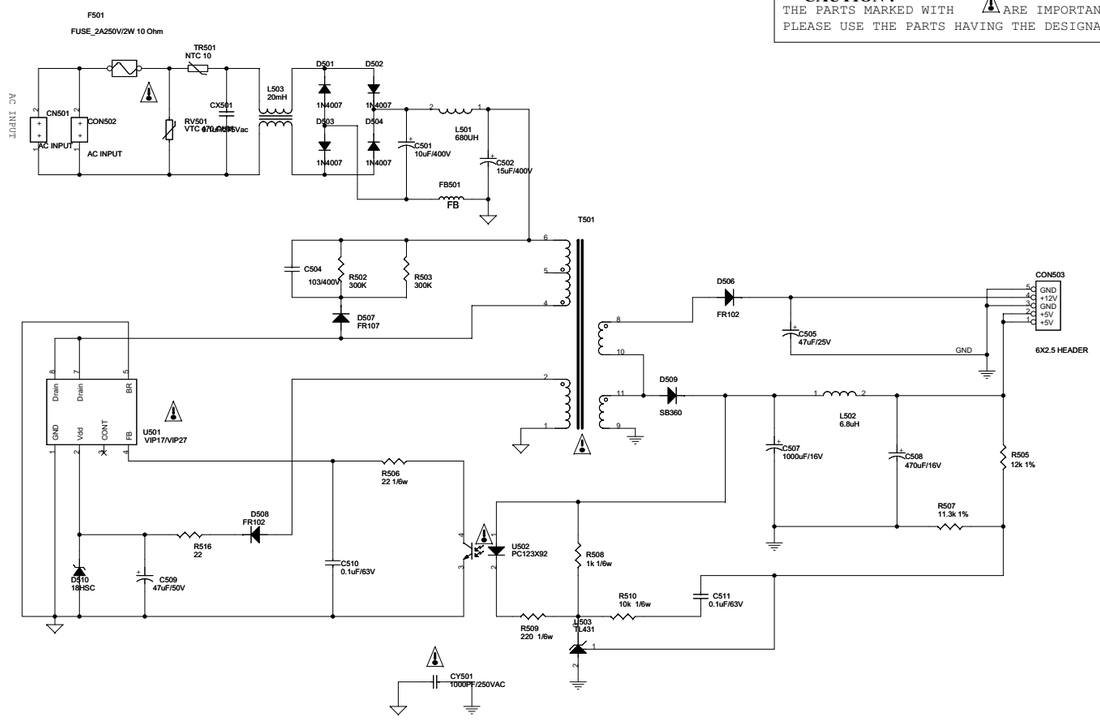
OK+USB BOARD CIRCUIT DIAGRAM:



6-3

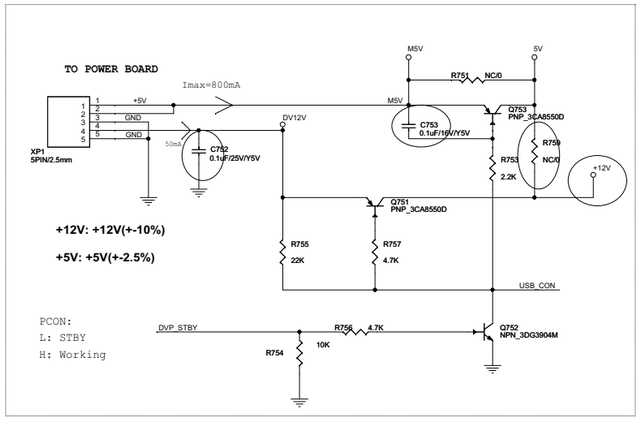
POWER SUPPLY BOARD CIRCUIT DIAGRAM:

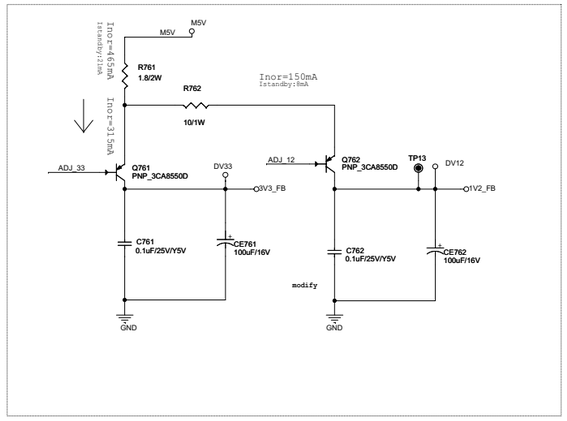
*** CAUTION :**
THE PARTS MARKED WITH ⚠ ARE IMPORTANT PARTS ON THE SAFETY.
PLEASE USE THE PARTS HAVING THE DESIGNATED PARTS NUMBER WITHOUT FAIL.

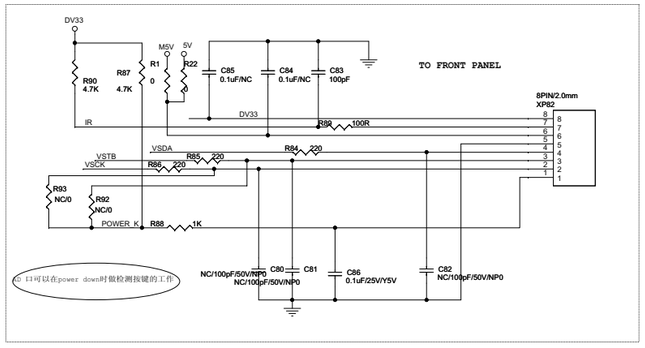


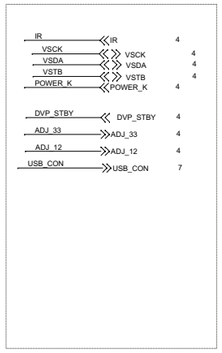
6-4

MAIN BOARD CIRCUIT DIAGRAM:power









6-5

MAIN BOARD CIRCUIT DIAGRAM:flash&opu

SERVO RF DeCAP.

DV12 — RFV12-1 — C1 0.1uF/25V/Y5V
DV33 — R18 0 — RFVDD3 — C25 0.1uF/25V/Y5V
RFV12-2 — C10 0.1uF/25V/Y5V

DV12 — R17 0 — AVDD12_AUDIG — C15 0.1uF/25V/Y5V
DV33 — R16 4.7 — AADVDD — C29 6800pF/50V/X7R

ADACVDD — R15 4.7 — DV33
DACVDD3 — R14 0
C2 0.1uF/50V/Y5V

Crystal

R79 100K
XI — Y1 — XO
33pF/50V/NP0 C26 — 27MHz/30PPM — 33pF/50V/NP0 C27

Put these circuits as closer as possible to MT1389W

C28 0.1uF/25V/Y5V
CE10 220uF/16V
C30 1uF/16V/Y5V
C31 1uF/16V/Y5V
TP6 TP5 TP4 TP3 TP1

MT1389W
QFN 108
v1.0

U1

DV33 — R11 0 — C14 0.1uF/50V/Y5V
C13 0.47uF/25V/Y5V
3V3_FB — ADJ_33
MD_VCC — MD_VCC1
DV33 — R12 0 — C16 0.1uF/25V/Y5V
C7 47uF/16V
M5V — MD_VCC — R13 0 — CE5 NC/100uF/16V — C18 0.1uF/50V/Y5V

R5 51
R10 0
R7 0

XI 1 PAD_XTALI
XO 2 PAD_XTALO
AVDD33 3 AVDD33_2_1
V20 4 PAD_V20
VR_CD 5 PAD_VR_CD
VR_DVD 6 PAD_VR_DVD
LD-DVD 7 LD_D
RESET_C 8 RESET_C
9 V33
ADJ_33 10 TRB1
MD_VCC 11 MOROR_VCC1
LD-CD 12 LD_C
LOAD- 13 VOTR-
LOAD+ 14 VOTR+
15 LD_VCC
V1P4 16 V14/VBIAS
Y- 17 VOTK+
T+ 18 VOTK-
F- 19 VOFC-
F+ 20 VOFC+
LD_IN 21 LD_IN
SL+ 22 VOSL+
SL- 23 VOSL-
SP+ 24 VOLD+
SP- 25 VOLD-
26 MOTOR_VCC2B
27 MOTOR_VCC2A

EPAD/GND 28
AVDD33_1 29
AVDD12_2 30
RFF 31
RFE 32
RFC 33
RFB 34
RFA 35
PAD_FG 36
PAD_SPDIF 37
PAD_RFIP 38
AVDD12_1 39
AVDD12_AUDIG 40
ADACVDD2 41
ALF / CENTER / GPIO 42
ALS / GPIO 43
AL 44
AVCM 45
AR 46
ARS / GPIO 47
ARF / LFE / GPIO 48
AVSS33_ADC 49
AVDD33_ADC 50
AUDIO_MUTE / GPIO19 / Audio_mute 51
KIN1 / GPIO20 / Audio_mute 52
AKIN1 / GPIO19 / Audio_mute 53
AVSS3_ADC 81
R 80
B 79
G 78
AVDD33 77
IOC 76
FS 75
AVDD33 74
PAD_GPIO14 73
DVDD12 72
KEY_IN1/PAD_ADCKEY 71
KEY_IN2/PAD_GPIO4 70
PAD_GPIO20 69
GPIO33 68
GPIO10 67
SPDIF/GPIO12 66
DVDD33 65
GPIO32 64
GPIO31 63
GPIO30 62
GPIO29 61
GPIO7 60
GPIO8 59
GPIO9 58
DVDD33 57
GPIO3 56
GND_I 55

GND 26
MOTOR_TR2 29
MOTOR_VT2 30
DVDD33 31
DVDD12 32
DVDD12 33
PRSTN 34
GPIO2 35
RSTN 36
GPIO81 37
GPIO82 38
GPIO11 39
USB_DM 40
USB_DP 41
USB_VBUS 42
AVDD12_USB 43
USB_VR 44
AVDD12_USB 45
SF_CS 46
SF_DO 47
SF_DI 48
SF_CK 49
UP1_6/SCL 50
UP1_7/SDA 51
GPIO13 52
IR 53

ADJ_12
URST#
USB_DM
USB_DP
SF_CS
SF_DO
SF_DI
SF_CK
UP1_6/SCL
UP1_7/SDA
IR

TP8 TP9
1V2_FB
DV33 — R8 10K
DV12
C6 0.1uF/50V/Y5V
C4 0.1uF/25V/Y5V
R9 5.1K/1%
DV33 — R19 0 — USB_3V3
C12 0.1uF/50V/Y5V

DV33 — R20 100K — URST#
C65 0.47uF/25V/Y5V

DV12 — R4 560
C8 0.1uF/25V/Y5V
DV33 — C9 0.1uF/25V/Y5V

MT1389G
QFN108-472472-0.4

OFF-PAGE CONNECTION

CVBS_OUT — CVBS_OUT 6
V_R — V_R 6
V_B — V_B 6
V_G — V_G 6

VIDEO I/F

AR — AR 5
AL — AL 5
ASPDIF — ASPDIF 5
AKIN1 — AKIN1 7
AUDIO_MUTE — AUDIO_MUTE 5

AUDIO I/F

USB_DM — USB_DM 7
USB_DP — USB_DP 7

USB I/F

DVP_STBY — DVP_STBY 3

Power

POWER_K — POWER_K 3
VSCK — VSCK 3
VSDA — VSDA 3
VSTB — VSTB 3
IR — IR 3
ADJ_33 — ADJ_33 3
ADJ_12 — ADJ_12 3

ADC_KEY2 — R21 NC/1K — SL+
ADC_KEY1 — R54 NC/0 — POWER_K
GPIO9 — R55 — POWER_K
GPIO13 — VSTB
UP1_6 — VSCK
UP1_7 — VSDA
GPI36 — LIMIT — TROUT
GPIO3 — DVP_STBY
GPIO14 — AUDIO_MUTE

S-FLASH

DV33 — R51 10K — SF_CS
U6: SF_CS 1 CE# VDD 8; SF_DO 2 SO HOLD# 7; WP# SCK 6; VSS SI 5; SF_CK 6; SF_DI 5
SPI_16Mb_EN25T160
DV33 — R91 10K
C66 0.1uF/25V/Y5V
DV33 — R52 NC/10K — SF_CS — R53 10K

RF Reference

V20 — CE1 NC/47uF/16V — C3 0.1uF/25V/Y5V — V1P4 — CE2 NC/47uF/16V

RS-232

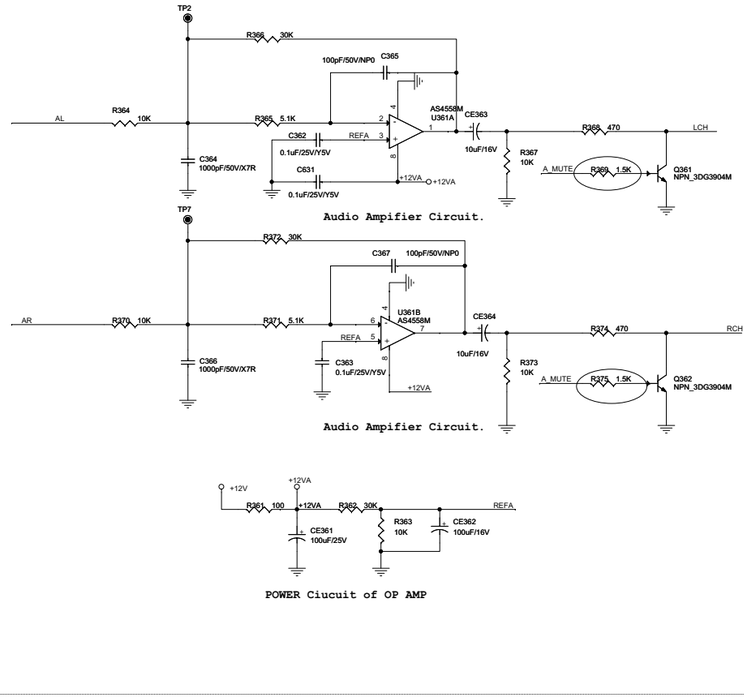
DV33 — R78 4.7K
GPIO11 — RxD — XP3 4PIN/2.0mm pins 1 2 3 4
GPIO6 — TxD

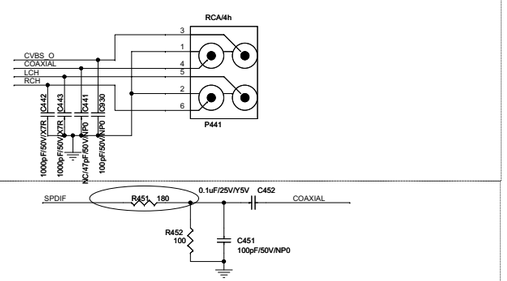
24PIN/0.5mm XP5
TO5
LD-DVD
LD-CD
VR_DVD
VR_CD
E
5V_OPU
V20
F
B
A
RFO
LDSW
D
C
T-
T+
F+
F-
0ohm/500/200mA — L101 — 5V
C101 0.1uF/25V/Y5V
C104 0.1uF/25V/Y5V

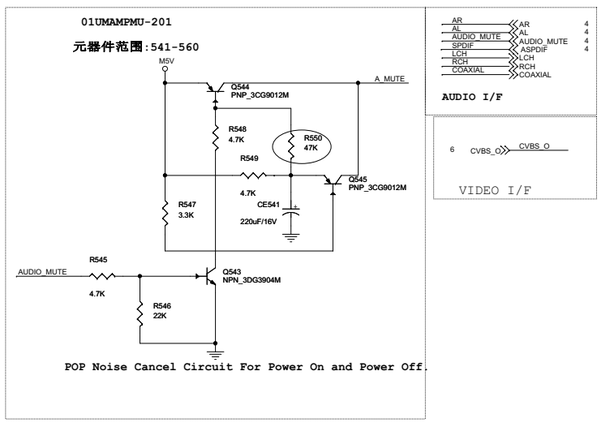
DV33 — R138 10K
LIMIT — R120 1K — C111 0.1uF/25V/Y5V
XP8 6PIN/2.0mm: SP- SP+ GND SL- SL+
XP9 5PIN/2.0mm
R137 10K — R121 10K
R123 1K — LOAD- — LOAD+ — C114 0.1uF/25V/Y5V
R124 1K — TRIN — TROUT
C113 100pF/50V/NP0
C112 100pF/50V/NP0

6-6

MAIN BOARD CIRCUIT DIAGRAM:audio

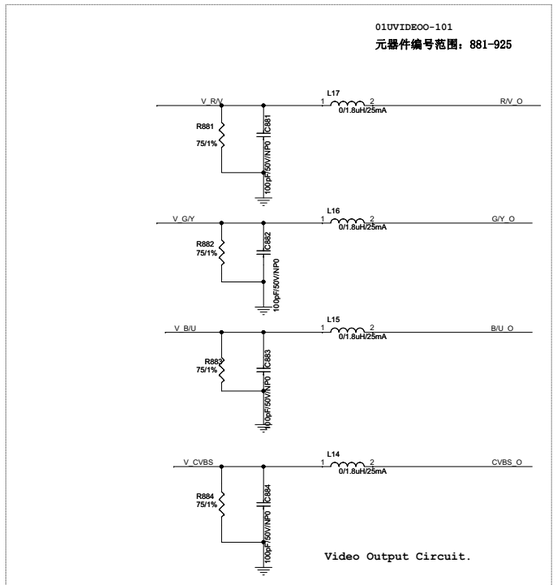






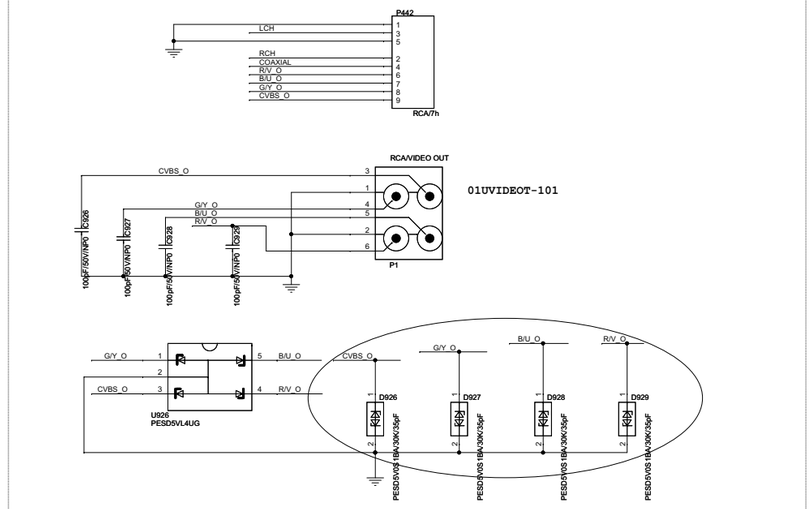
6-7

MAIN BOARD CIRCUIT DIAGRAM:vedio

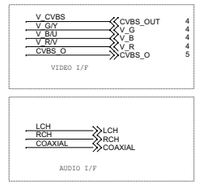


Video Output Circuit.

Note:Only CE61(470uF/6.3V) use for India stroke.unless other use R230(0 OHM)

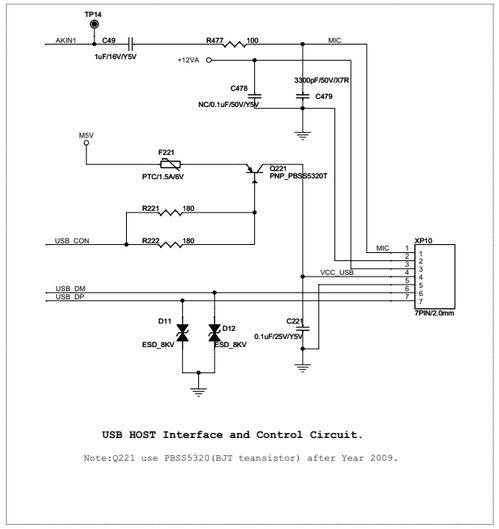


NOTE1:D926,D927,D928,D929 only for 94/55/77/78(ie.India/Latin America /Argentine/Brazil) stroke,Other Stroke use U926



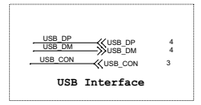
6-8

MAIN BOARD CIRCUIT DIAGARAM:USB



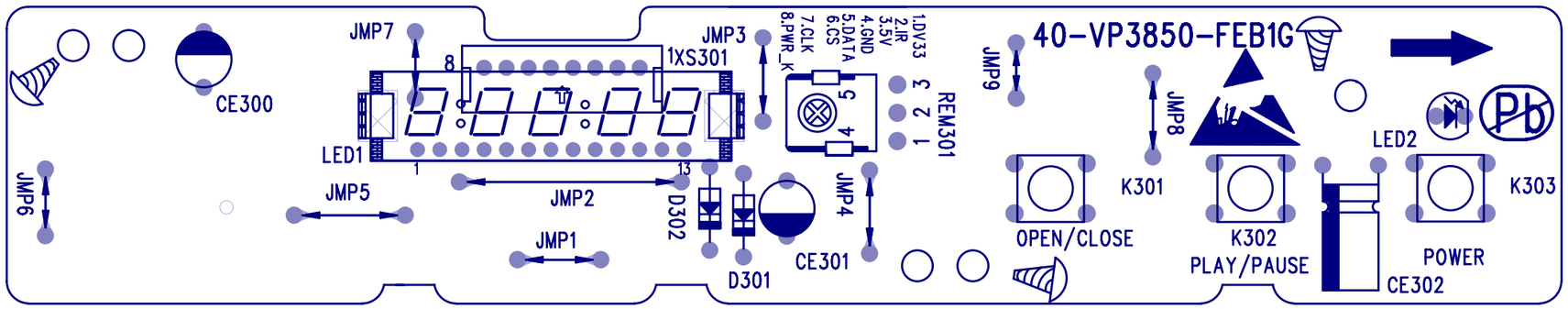
USB HOST Interface and Control Circuit.

Note:Q221 use PBSS5320(BJT teansistor) after Year 2009.



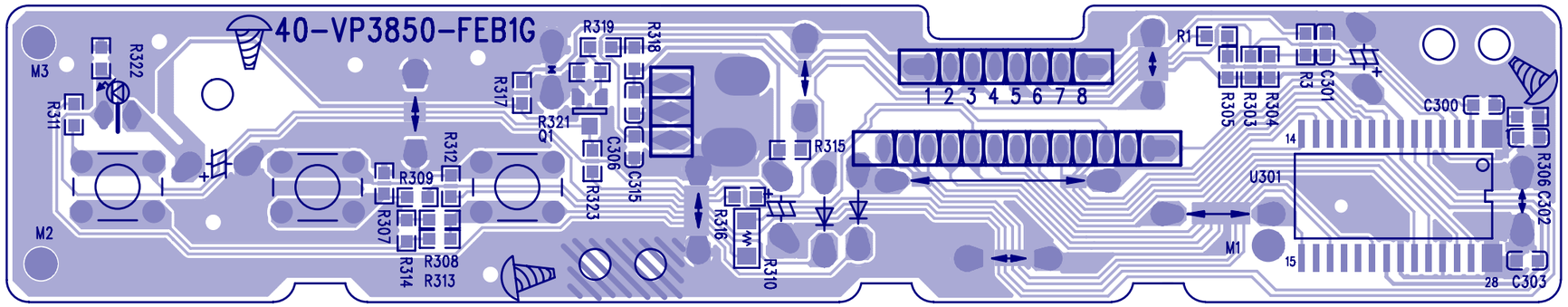
6-9

FRONT CONTROL BOARD Print-layout(top side):



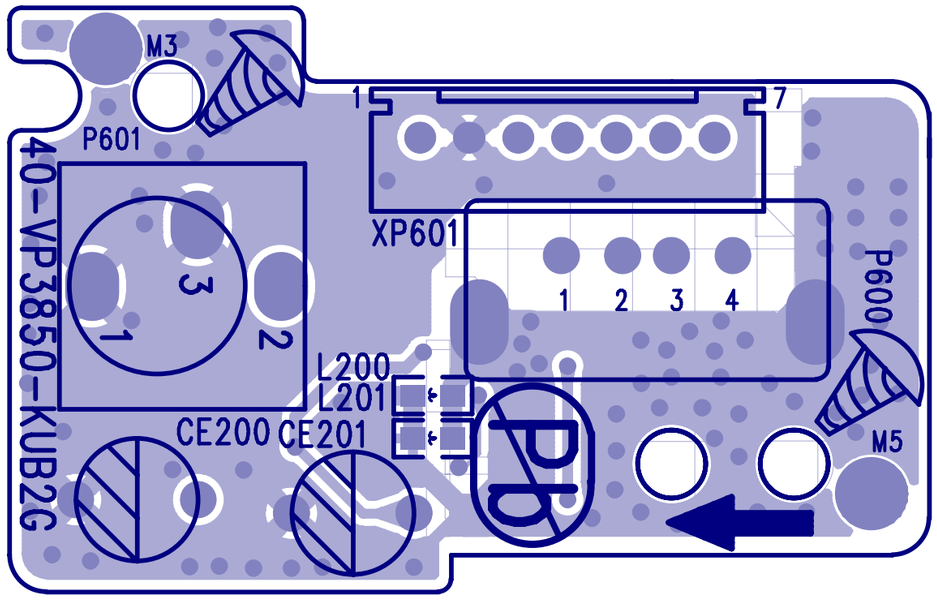
6-10

FRONT CONTROL BOARD Print-layout(bottom side):



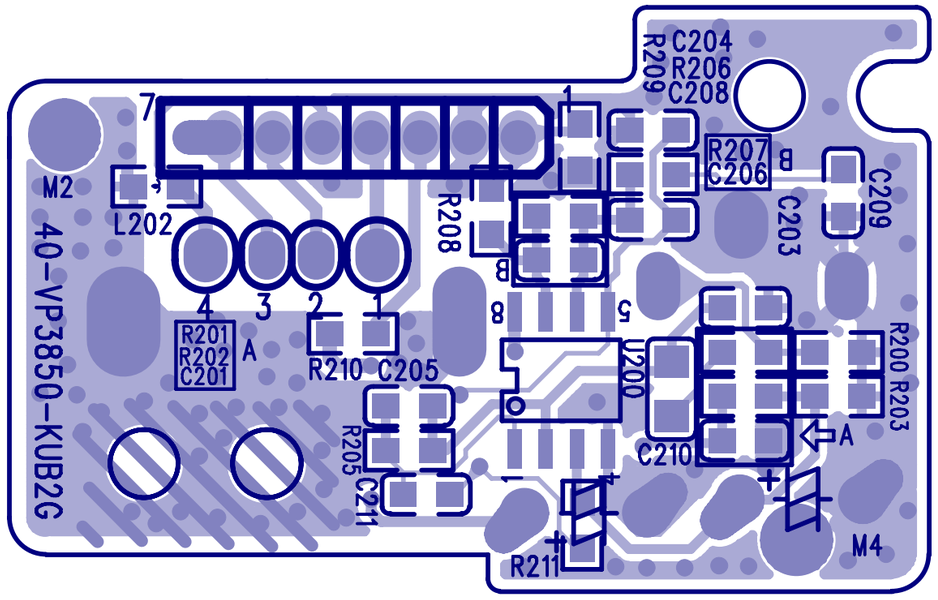
6-11

OK+USB Print-layout(top side):



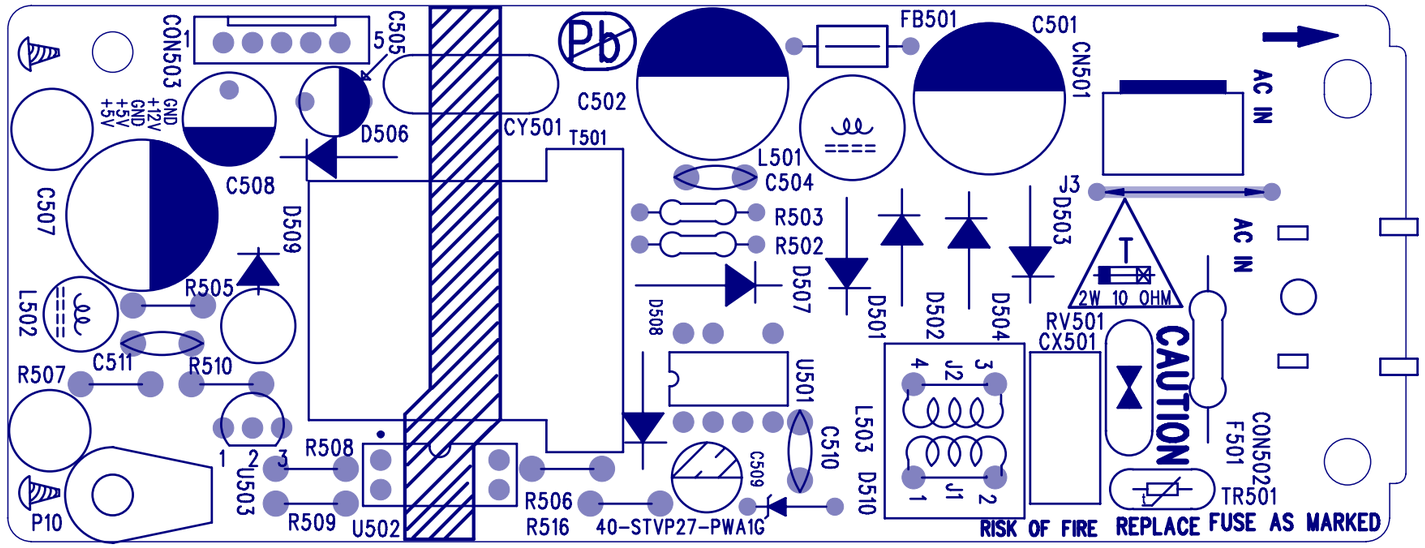
6-12

OK+USB Print-layout(bottom side):



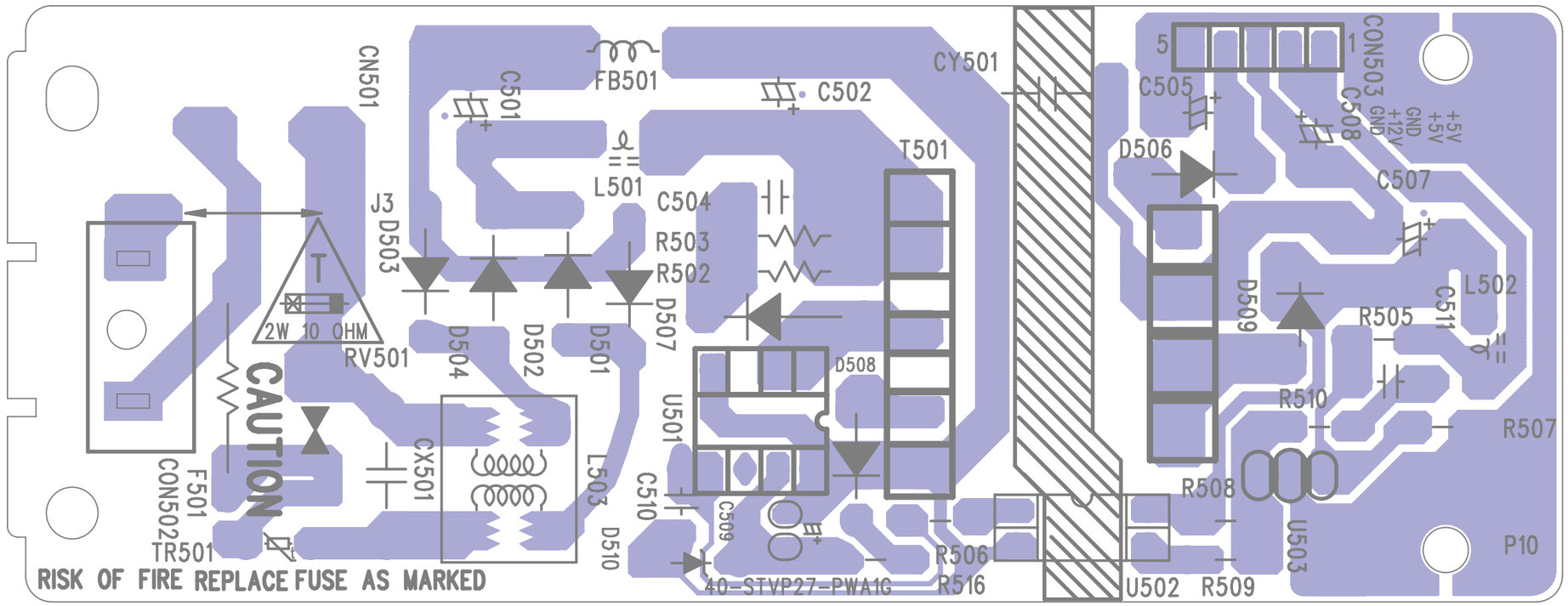
6-13

POWER BOARD Print-layout(top side):



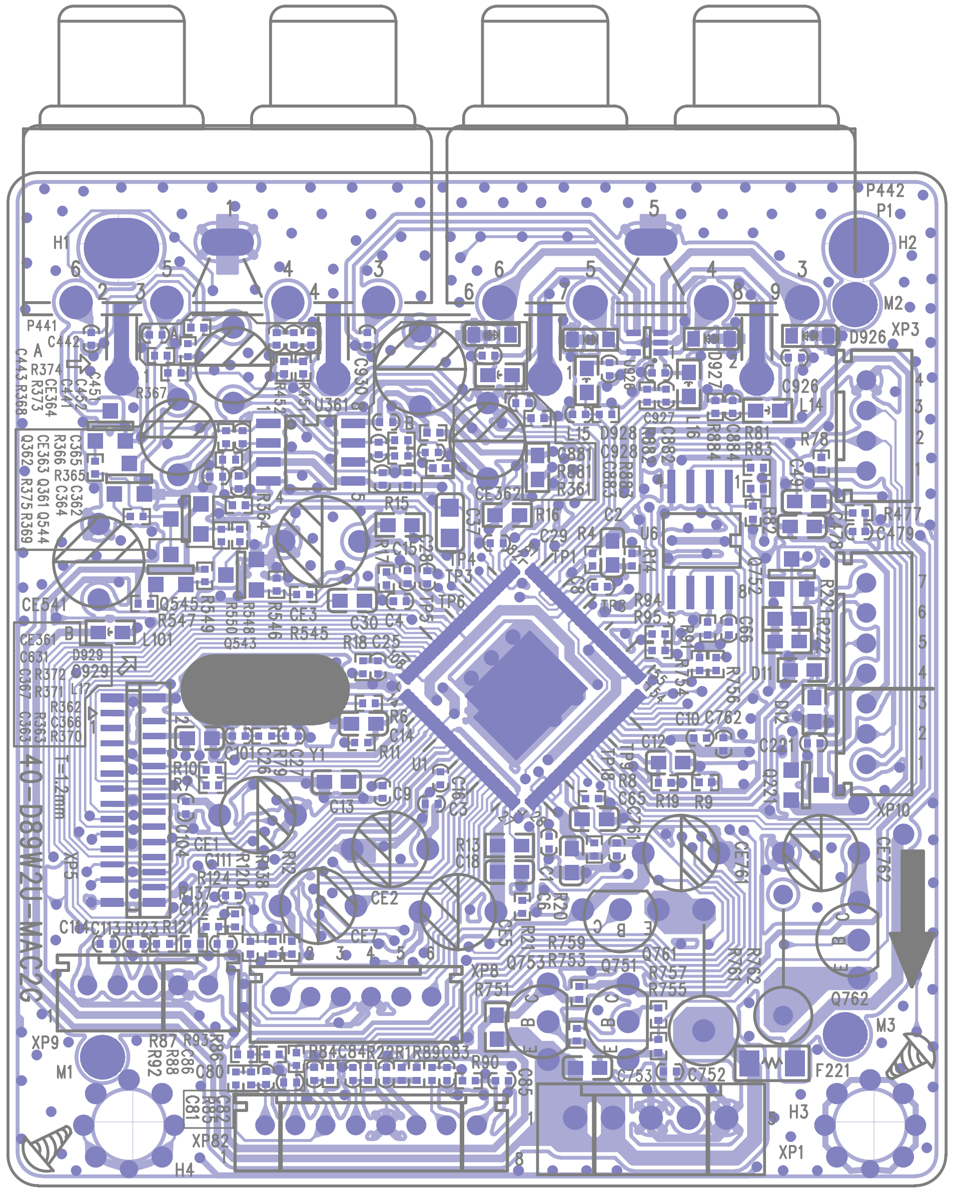
6-14

POWER BOARD Print-layout(bottom side):



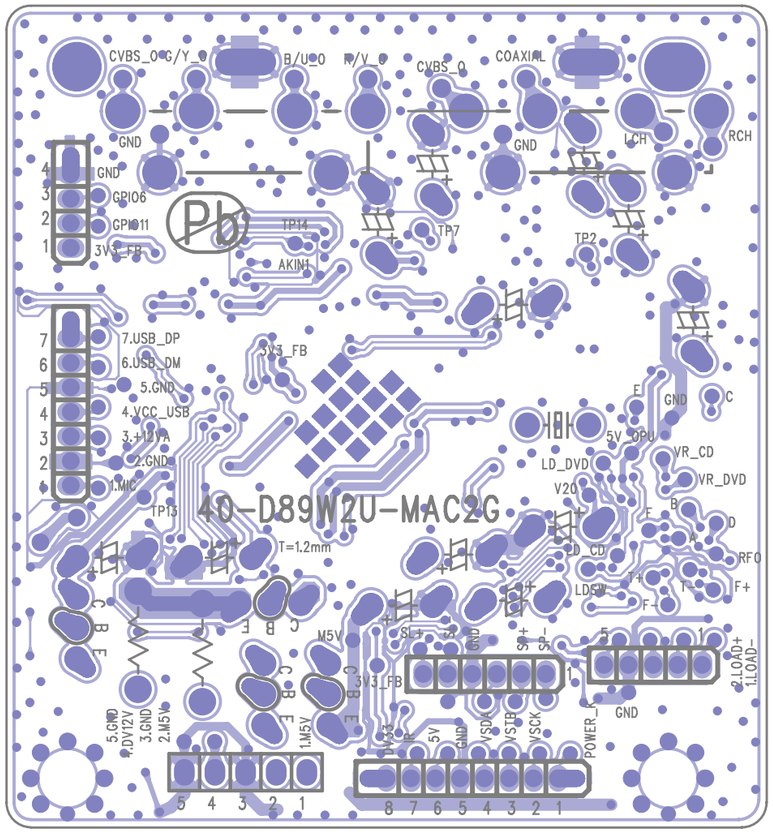
6-15

MAIN BOARD Print-layout(top side):

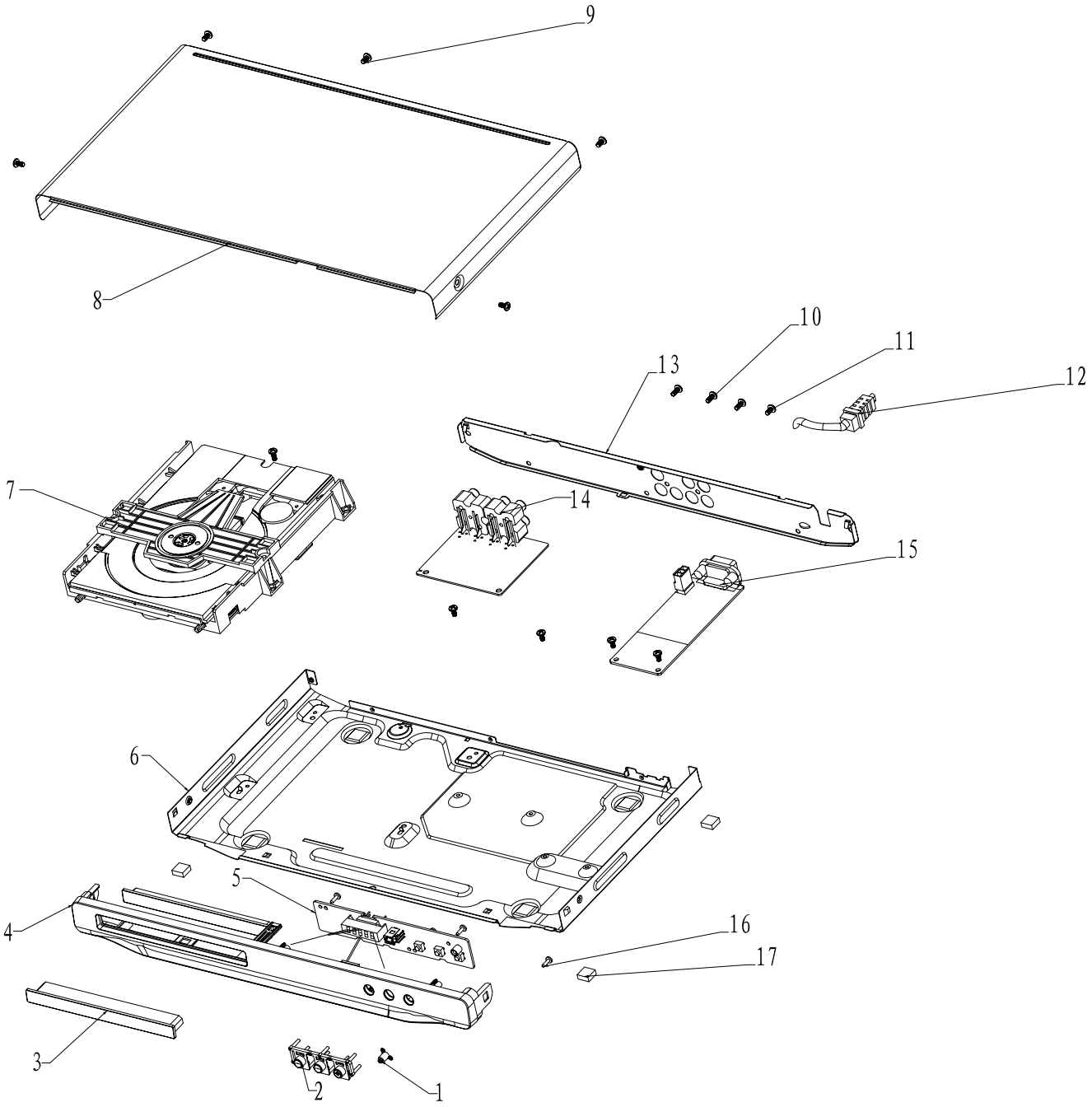


6-16

MAIN BOARD Print-layout(bottom side):

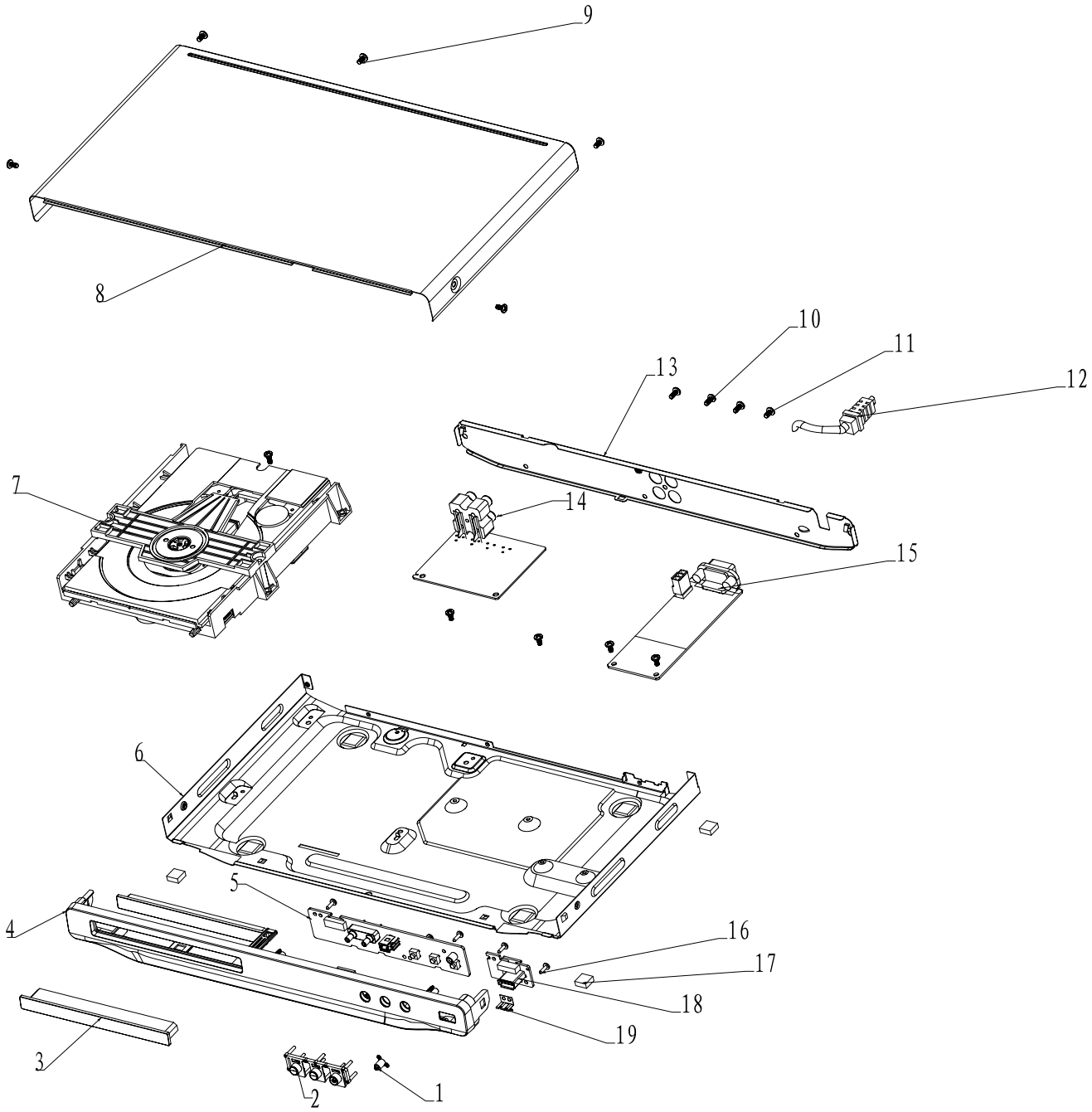


Exploded view for DVP3800(X)/55/96/98/79/77:



This is general mechanical exploded view for DVP3800/55/98.Please refer to the model set for the detailed information.
ASSY includes components:1,2,4.

Exploded view for DVP3800/93:



This is general mechanical exploded view for DVP3800/93.Please refer to the model set for the detailed information.

ASSY1 includes components :1,2,4.

Revision List

Version 1.0

* Initial Release for DVP3800/55.

Version 1.1

*Add DVP3800/96/98

Version 1.2

*Add DVP3800/93

Version 1.3

*Add DVP3800/79

Version 1.4

*Add DVP3800X/77