

DVD Player

DVP5160 ,DVP5166K ,DVP5168K

Service

DVP5160/05/12

DVP5166K/56/98

DVP5168K/51

Service

Service



Service Manual

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Published by TCL-HY 0705 Service Audio Printed in The Netherlands Subject to modification

Version 1.0

**CLASS 1
LASER PRODUCT**



3139 785 32600

PHILIPS

Technical Specifications

TV standard (PAL/50Hz) (NTSC/60Hz)

Number of lines	625	525
Playback	Multi standard	(PAL/NTSC)

Video performance

Video DAC	12 bit, 108MHz
YPbPr	0.7Vpp ---- 75 ohm
Video output	1Vpp ---- 75 ohm
RGB (SCART)	0.7Vpp ---- 75 ohm (For Europe version)

Video format

Digital Compression	MPEG 2 for DVD,SVCD MPEG 1 for VCD DivX®
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DVD	50Hz	60Hz
Horiz resolution	720 pixels	720 pixels
Vertical resolution	576lines	480 lines

VCD	50Hz	60Hz
Horiz. resolution	352 pixels	352 pixels
Vertical resolution	288lines	240 lines

Audio format

Digital	MPEG/AC-3/ PCM	Compressed Digital 16, 20, 24bits fs, 44.1, 48, 96kHz MP3(ISO 9660) 96,112,128,256kbps & variable bit rate fs,32, 44.1,48 kHz
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Analogue Sound Stereo
Dolby surround compatible downmix from Dolby Digital multi-channel sound

Audio performance

DA converter	24bits, 192KHz
DVD	fs 96kHz 4Hz----44kHz fs 48kHz 4Hz----22kHz
SVCD	fs 48kHz 4Hz----22kHz fs 44.1kHz 4Hz----20kHz
CD/ VCD	fs 44.1kHz 4Hz----20kHz
Signal-Noise (1kHz)	>90dB
Dynamic Range (1kHz)	>80dB
Cross talk (1kHz)	>80dB
Distortion/Noise (1kHz)	>80dB
MPEG MP3	MPEG Audio L3

Connections

Scart Output	Euroconnector (For Europe version)
YPbPr output	Cinch 3x
Video output	Cinch(yellow)
Audio output (L+R)	Cinch(white/red)
Digital output	1 coaxial IEC60958 for CDDA/ LPCM IEC61937 for MPEG1/2, Dolby Digital
6 Channal analog ouput (For DVP5166K/98)	
Audio Front L/R	Cinch(White/Red)
Audio Rear L/R	Cinch(White/Red)
Audio Center	Cinch(Blue)
Audio Subwoofer	Cinch(Black)

Cabinet

Dimensions (w X h X d)	435 x 38 x 210 mm
Weight	Approximately 2 kg

Power consumption

Power supply Rating	110V-240V; 50/60HZ
Power consumption	<10W
Power consumption in standby mode	<1W

Specifications subject to change without prior notice.

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 1M .
 - 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 handling 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 handling 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.

Notes: Manufactured under licence from Dolby Laboratories. The double-D symbol is trademarks of Dolby Laboratories, Inc. All rights reserved.

Notes

Lead-Free requirement for service

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 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.

Mechanical and Dismantling Instructions

Dismantling Instruction

The following guideline is a general instruction for how to dismantle the player, Detailed operation done according the set unit.

Step1: Remove 5 screws around the Top Cover, then remove the Top Cover (Figure 1).



Figure 1

Step2: If it is necessary to dismantle Loader or Front Panel, It should be remove the Front door assembly first. (Figure 2)

Note: Make sure to operate gently otherwise the guider would be damaged.

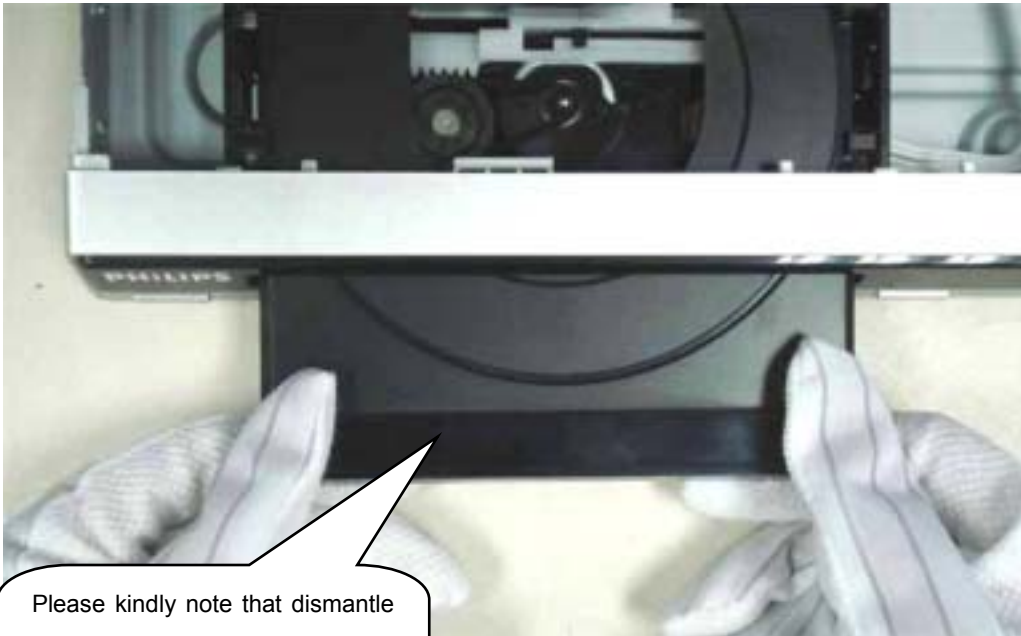


Figure 2

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

Mechanical and Dismantling Instructions

Dismantling Instruction

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.

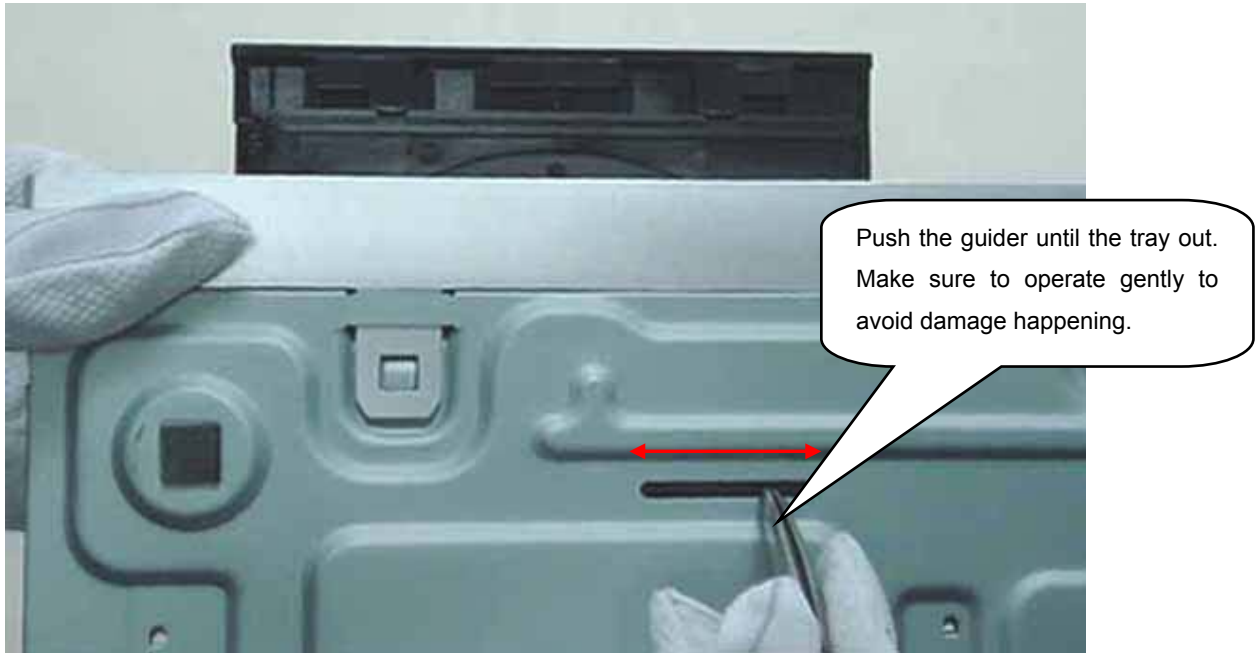


Figure 3

Step4: Dismantling Loader, disconnect the 3 connectors aiming in the below figure, and remove 1 screw around the Loader. (Figure 4)

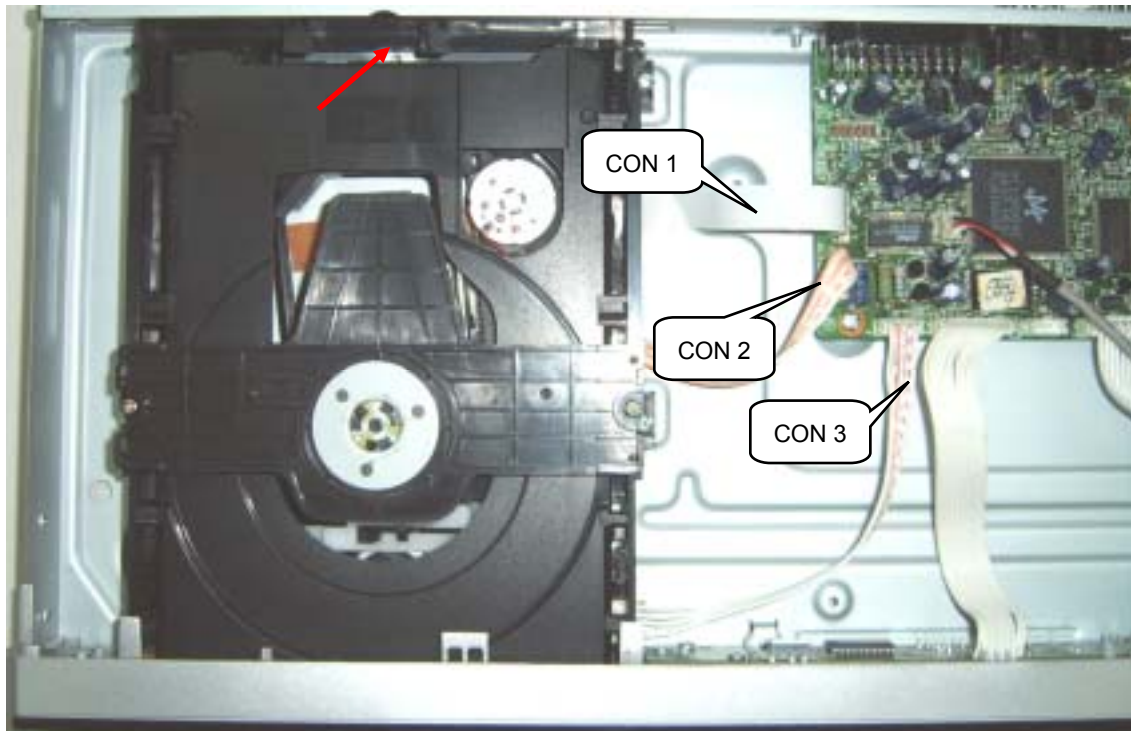


Figure 4

Mechanical and Dismantling Instructions

Dismantling Instruction

Step5: Dismantling Front Panel, disconnect the 3 connector, then release the snaps on the both sides of Front Panel and bottom cabinet , then gently pull the Panel out from the set. (Figure 5 & 6 & 7)

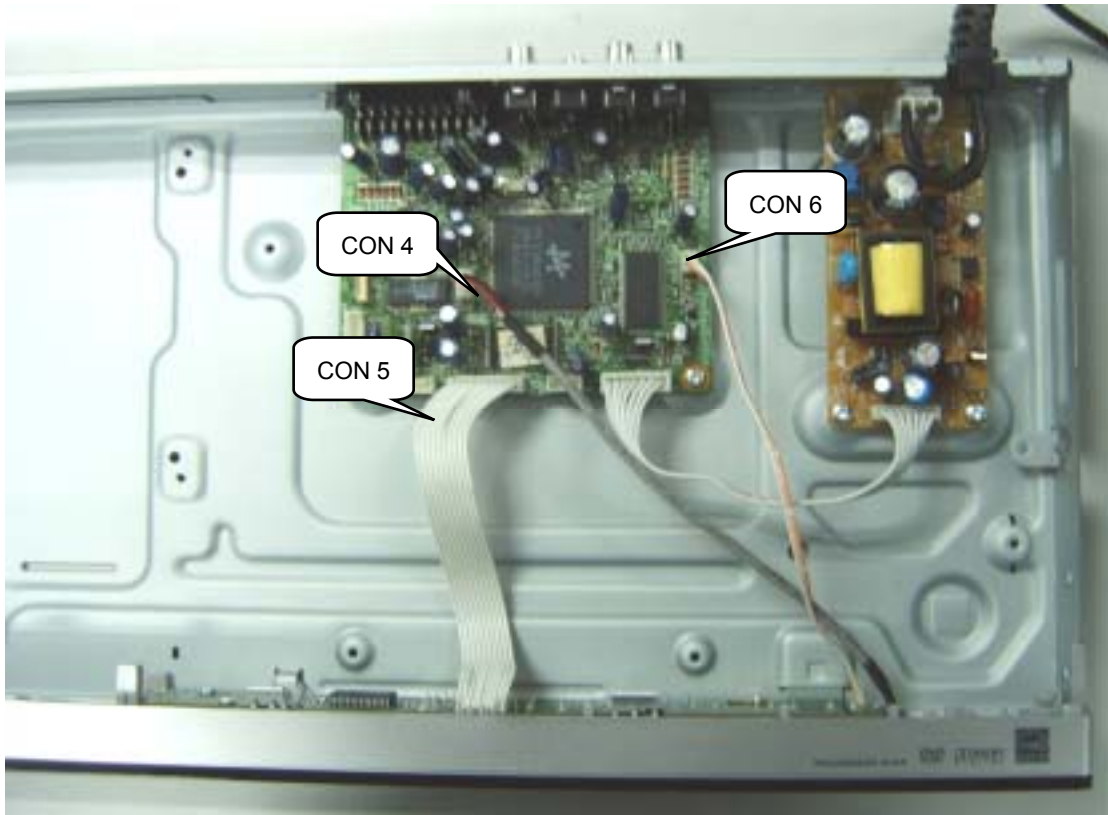


Figure 5

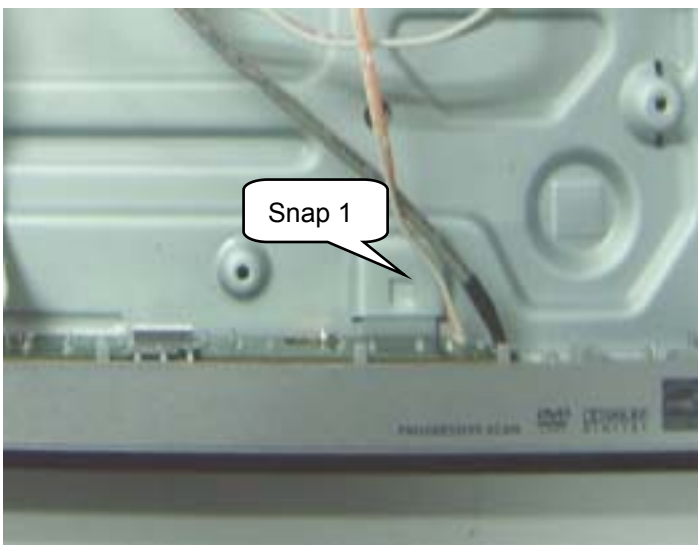


Figure 6

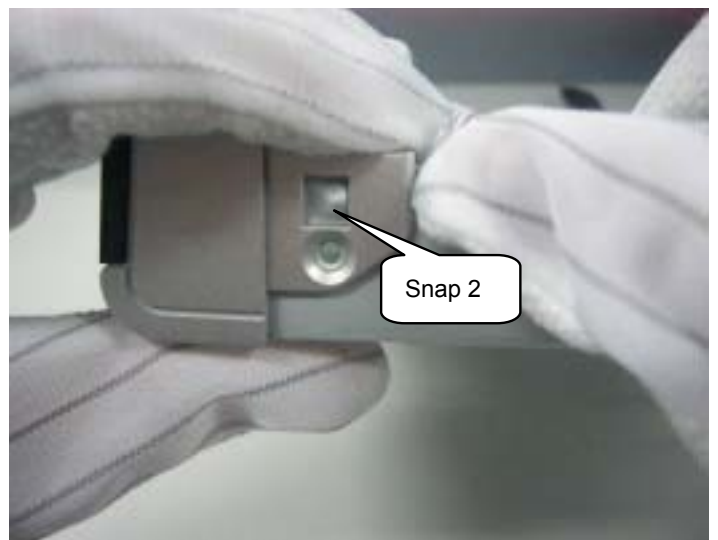


Figure 7

Mechanical and Dismantling Instructions

Dismantling Instruction

Step6: Dismantling Main Board, first disconnect the connector, and then remove 4 screws. (Figure 8)

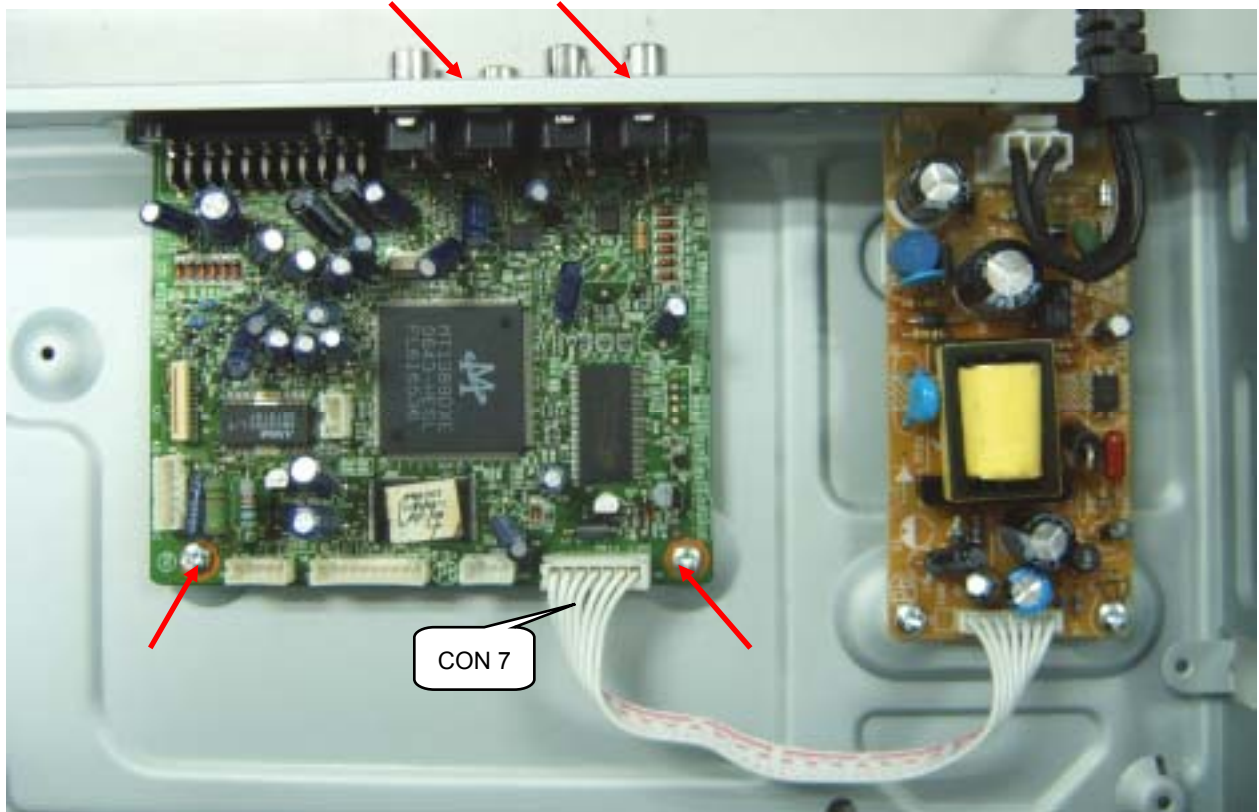


Figure 8

Step7: Remove the 2 screws on Power Board to dismantle the Power Board. (Figure 9)



Figure 9

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: DVP5XXX (No need the label name)
 File Name: DVPXXX_XX.BIN
 Power on the set and open the tray, then press <5><5> 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 disc will automatically out when files coping complete, then take out the disc.
- 5) About 1 minute later, the tray 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<1><3><7><9>button to check the software information.

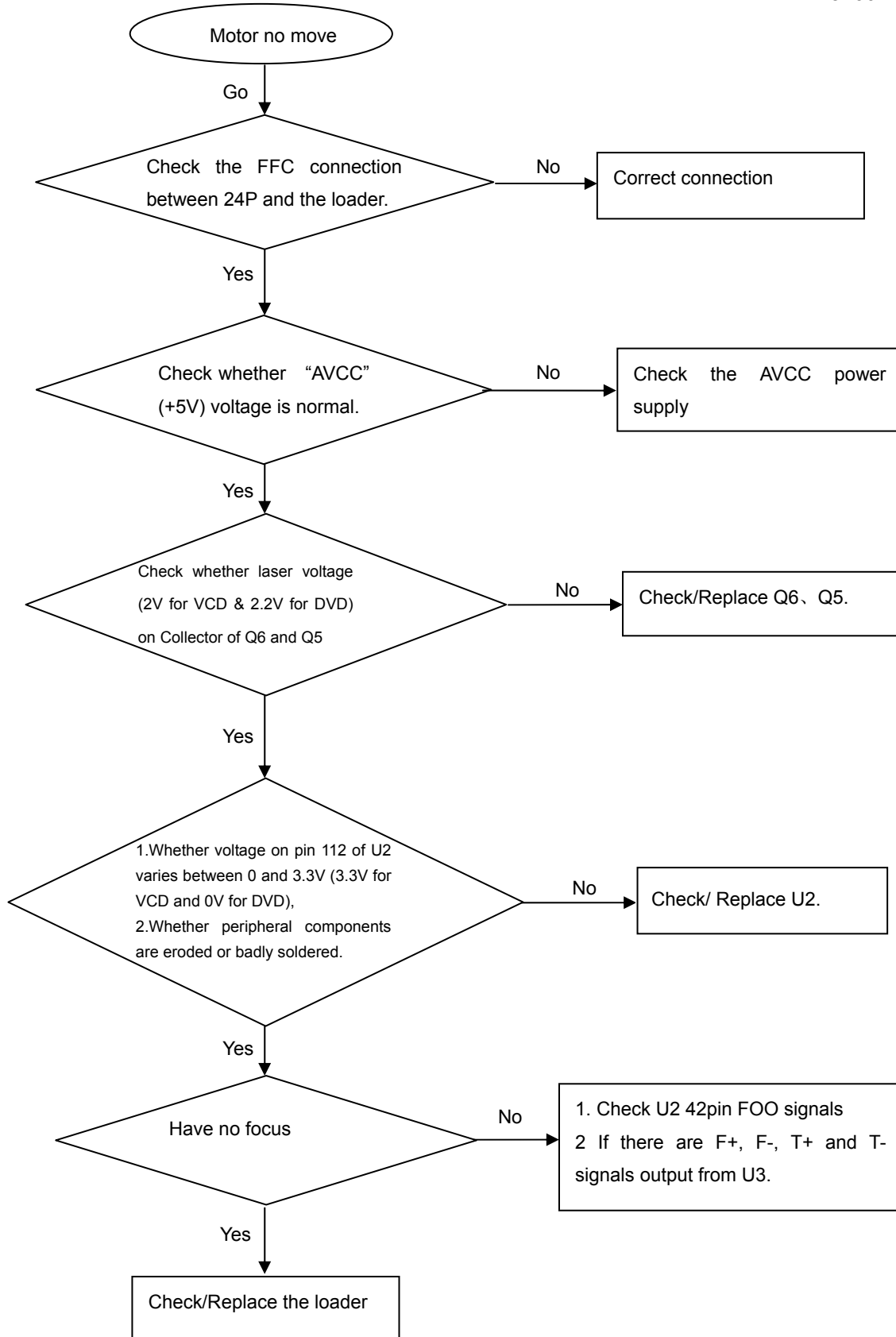
The software version and other information are display on the TV screen as follows:

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)
RISC	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.

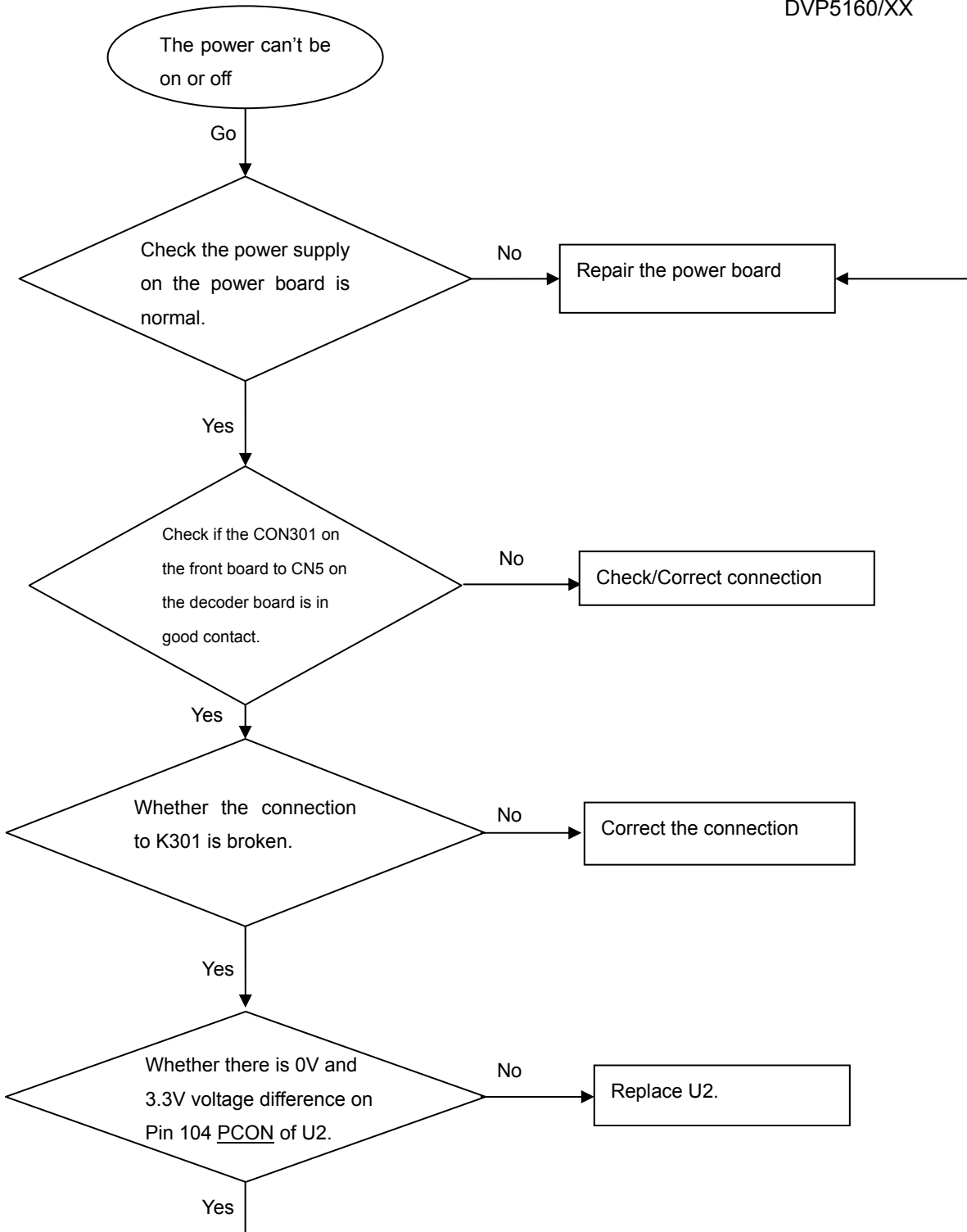
Spindle motor does not move

Remark: Trouble shooting chart for DVP5160/XX



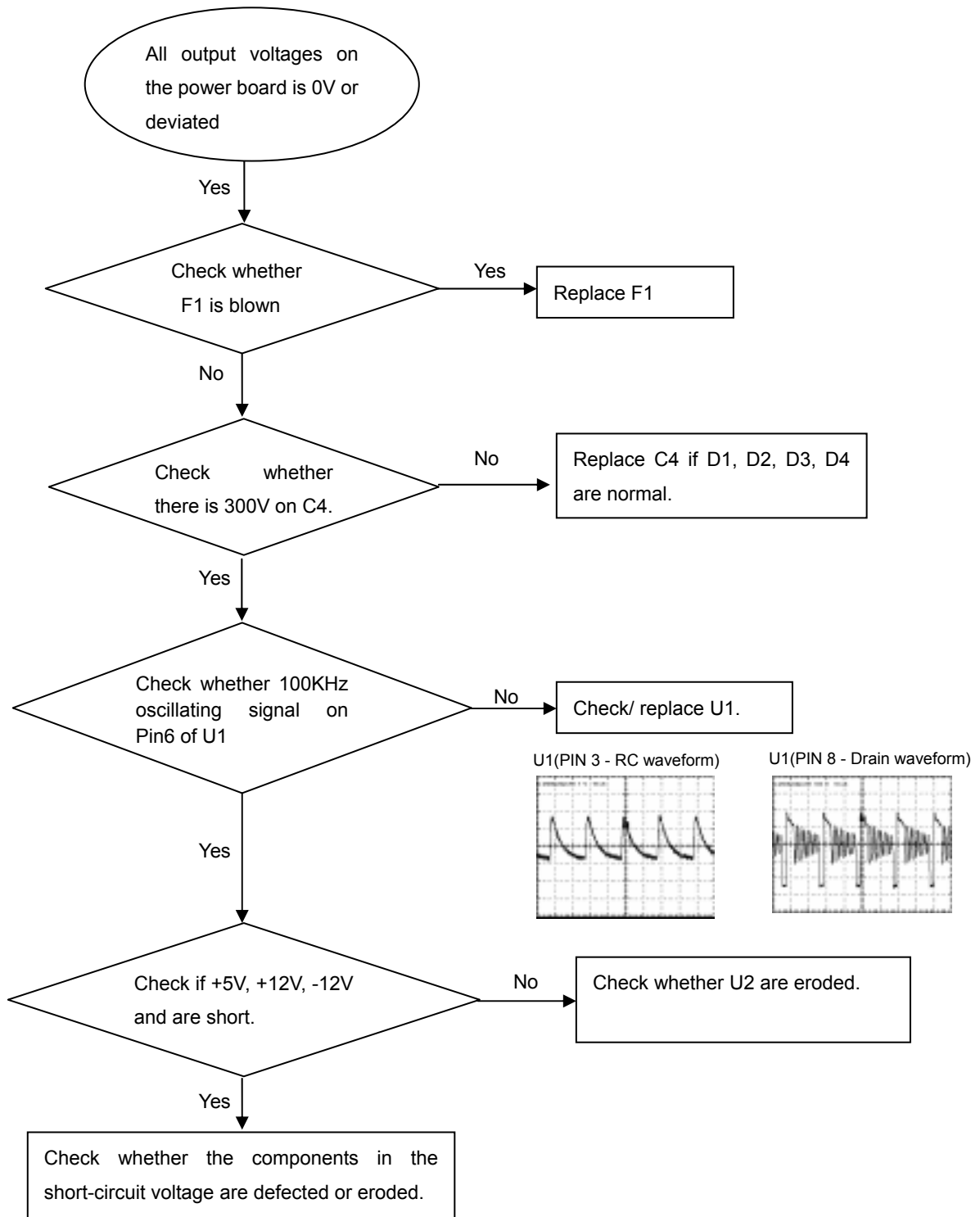
The power can not be on or off

Remark: Trouble shooting chart for DVP5160/XX



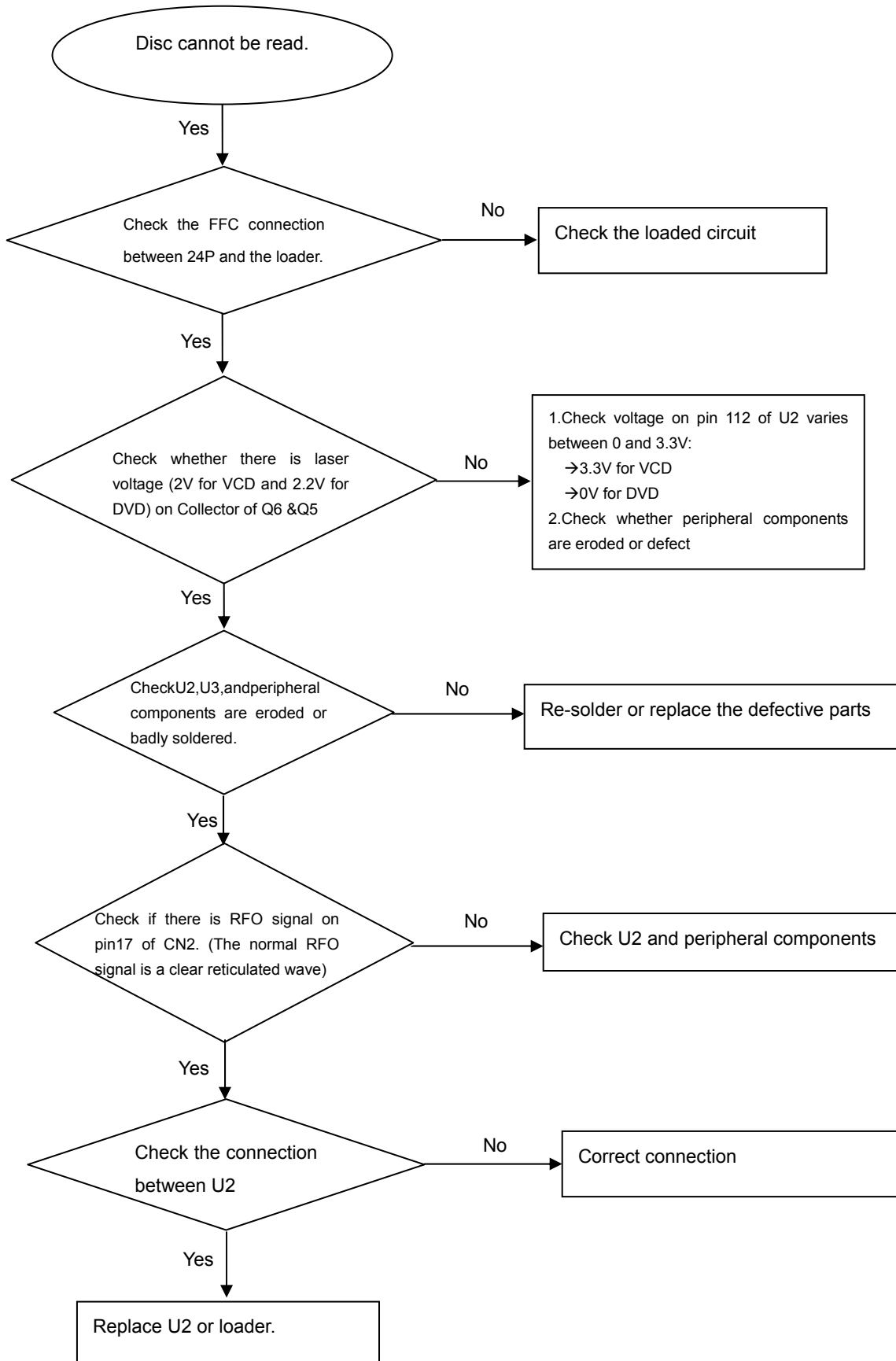
All output voltages on the power board is 0V or deviated.

Remark: Trouble shooting chart for DVP5160/XX



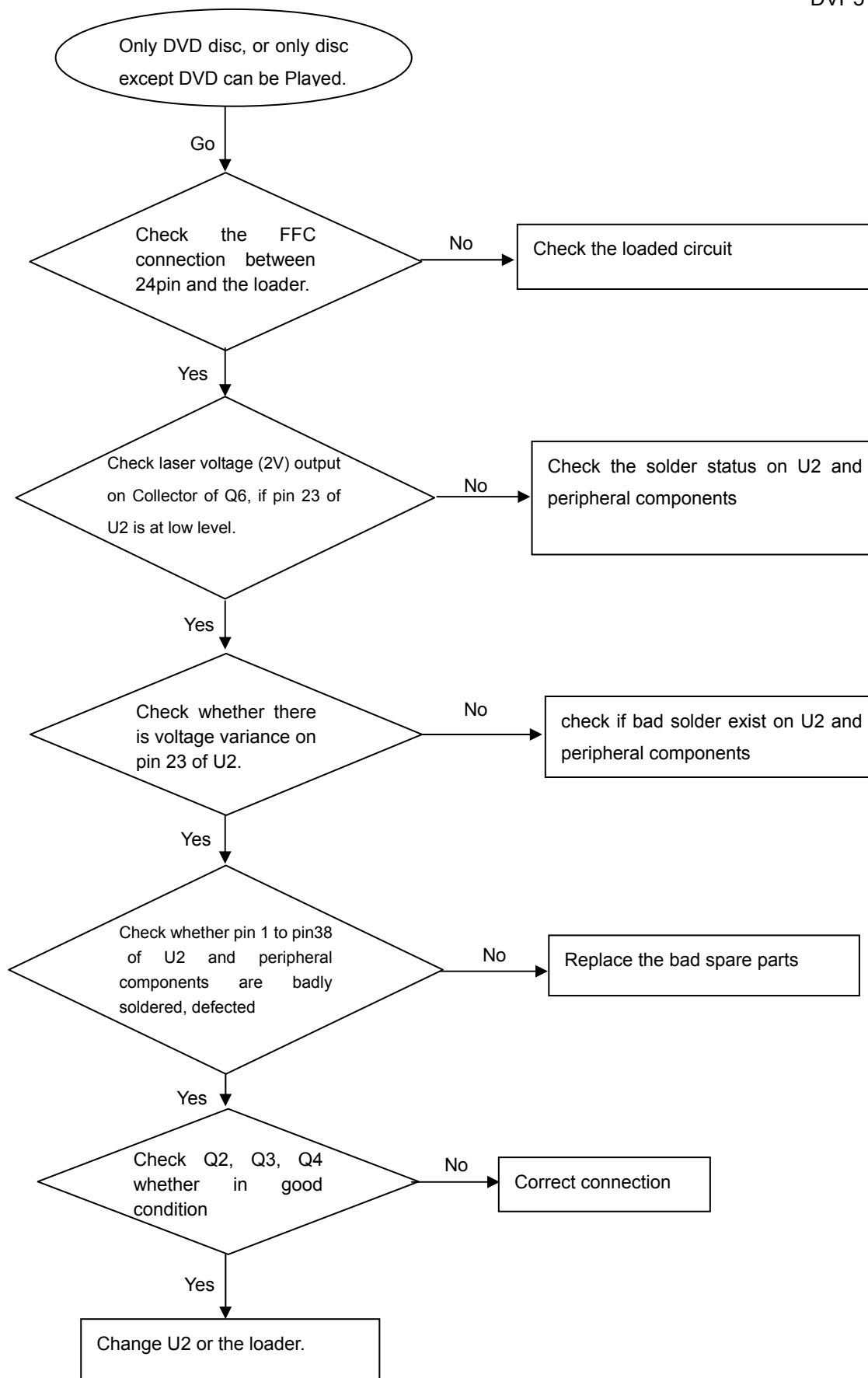
Disc cannot be read.

Remark: Trouble shooting chart for DVP5160/XX



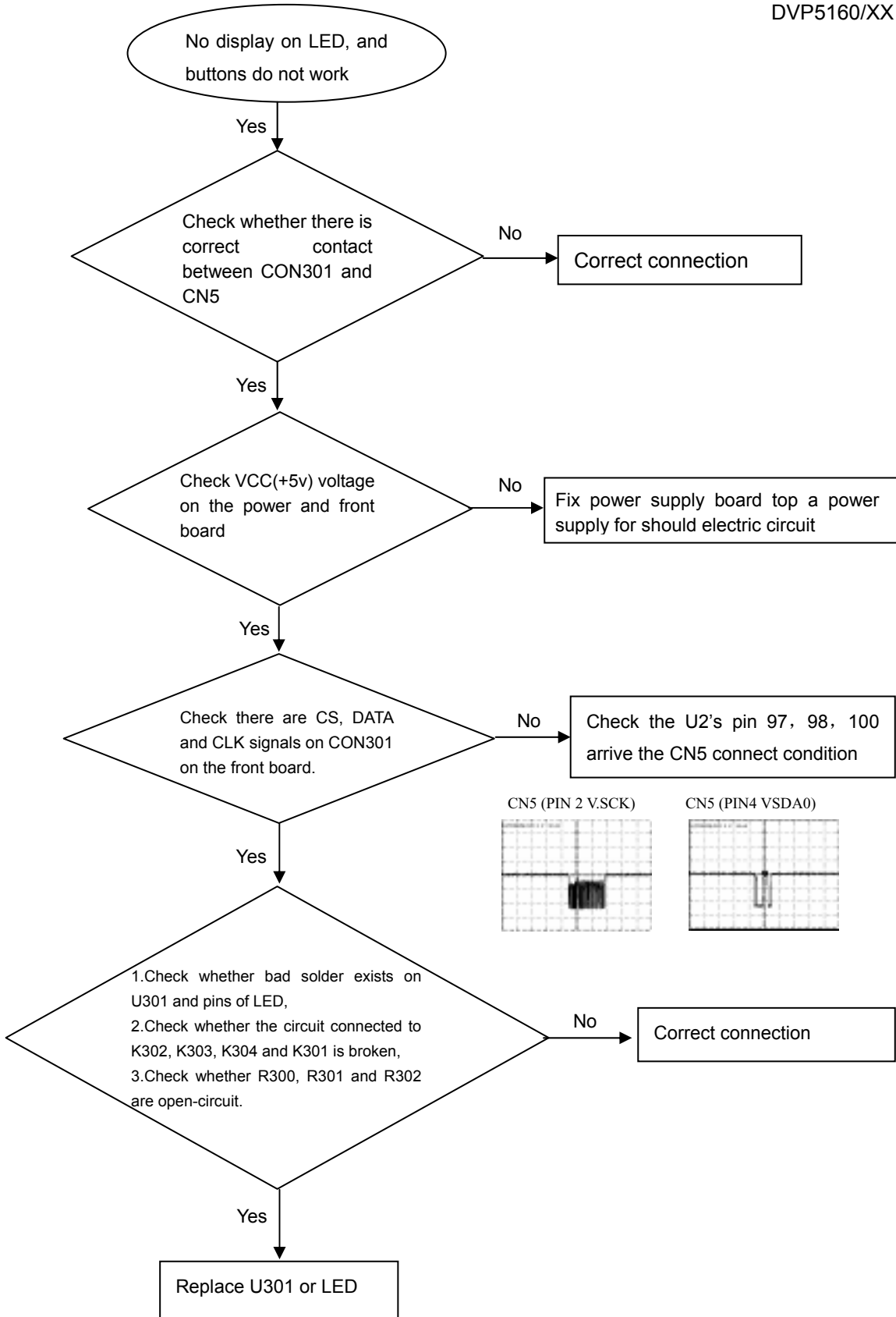
Only DVD disc or only disc except DVD can be played

Remark: Trouble shooting chart for DVP5160/XX



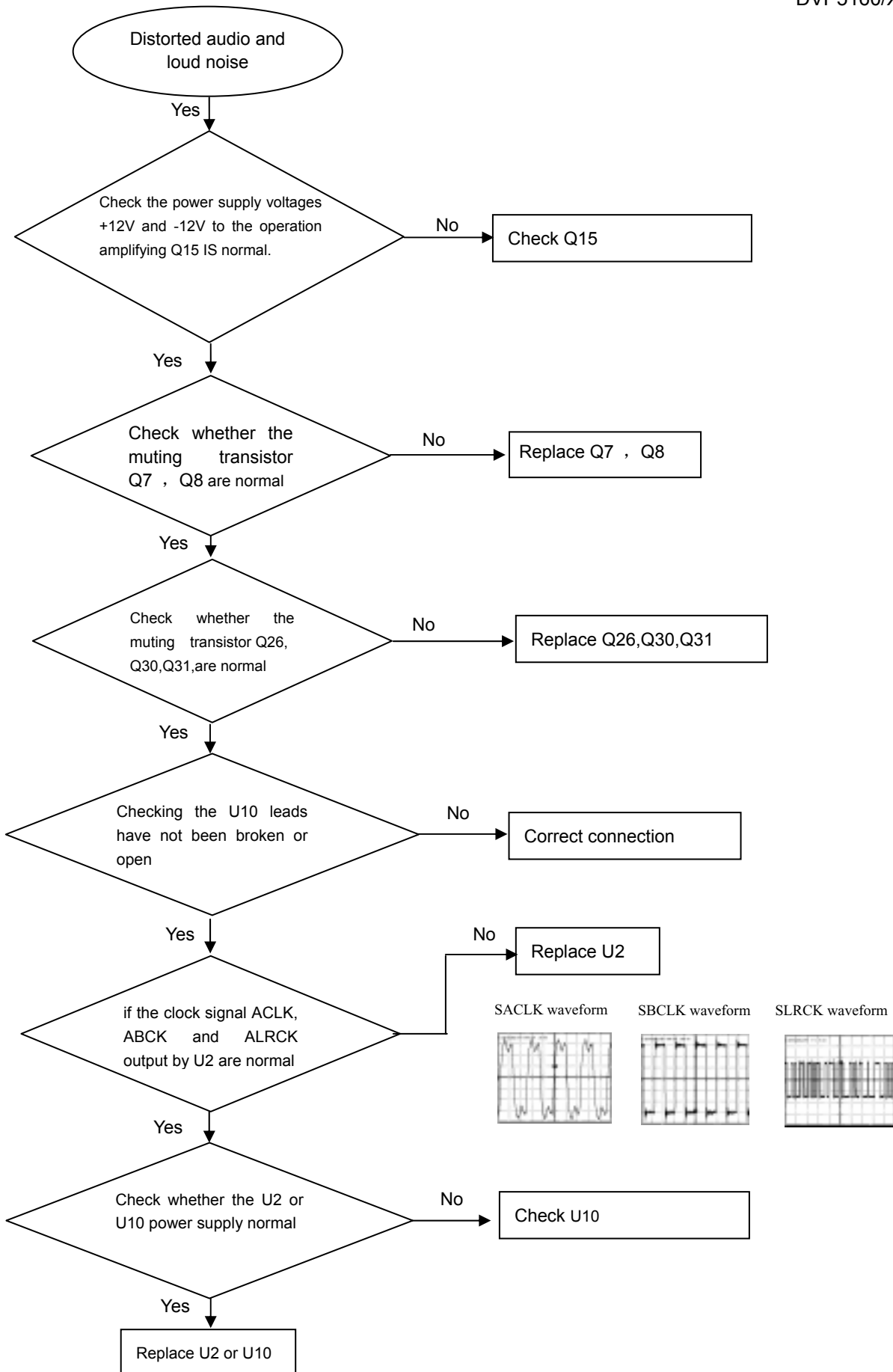
No display on LEDD, and buttons do not work

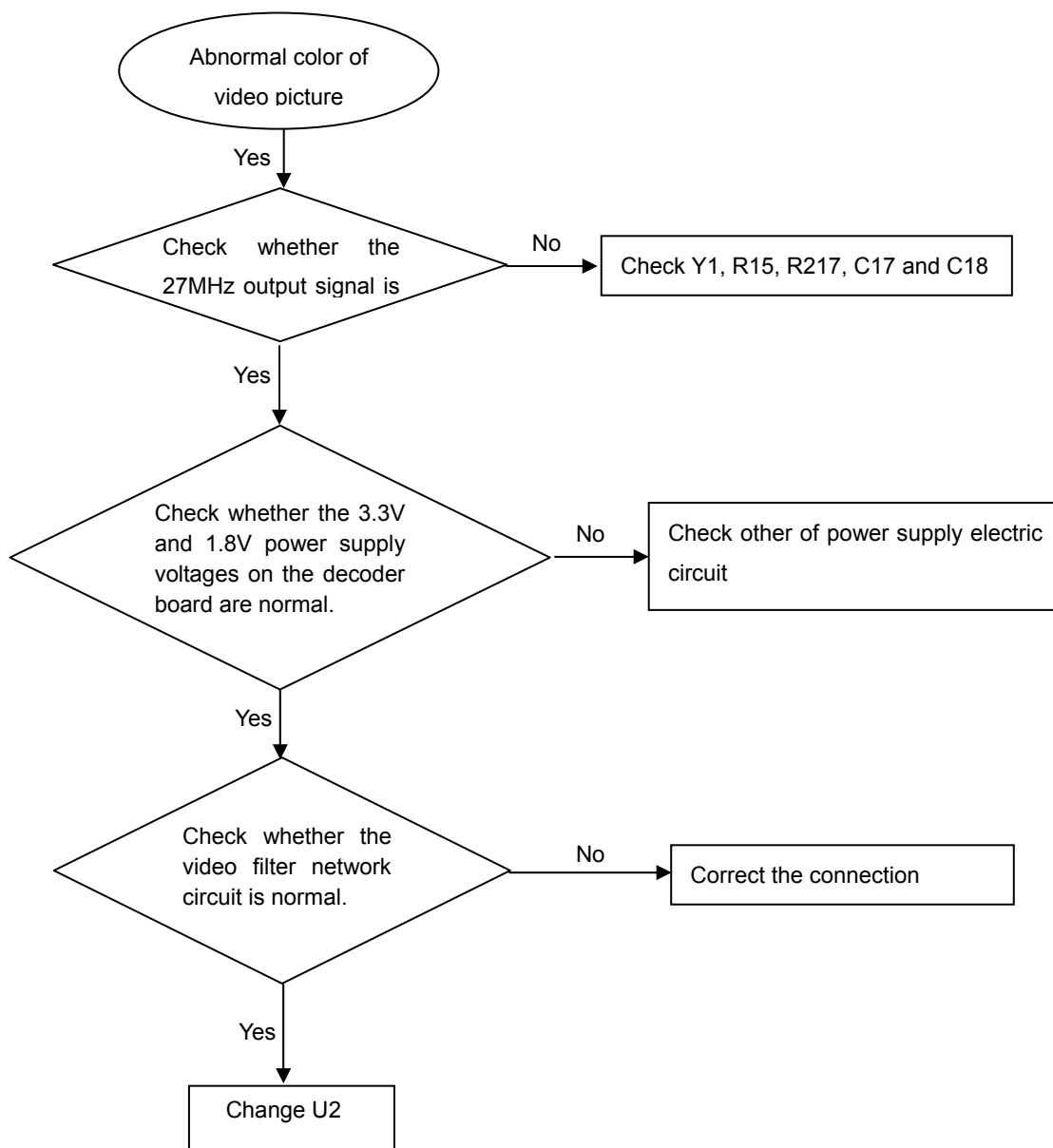
Remark: Trouble shooting chart for DVP5160/XX



Distorted audio and loud noise

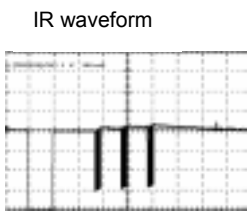
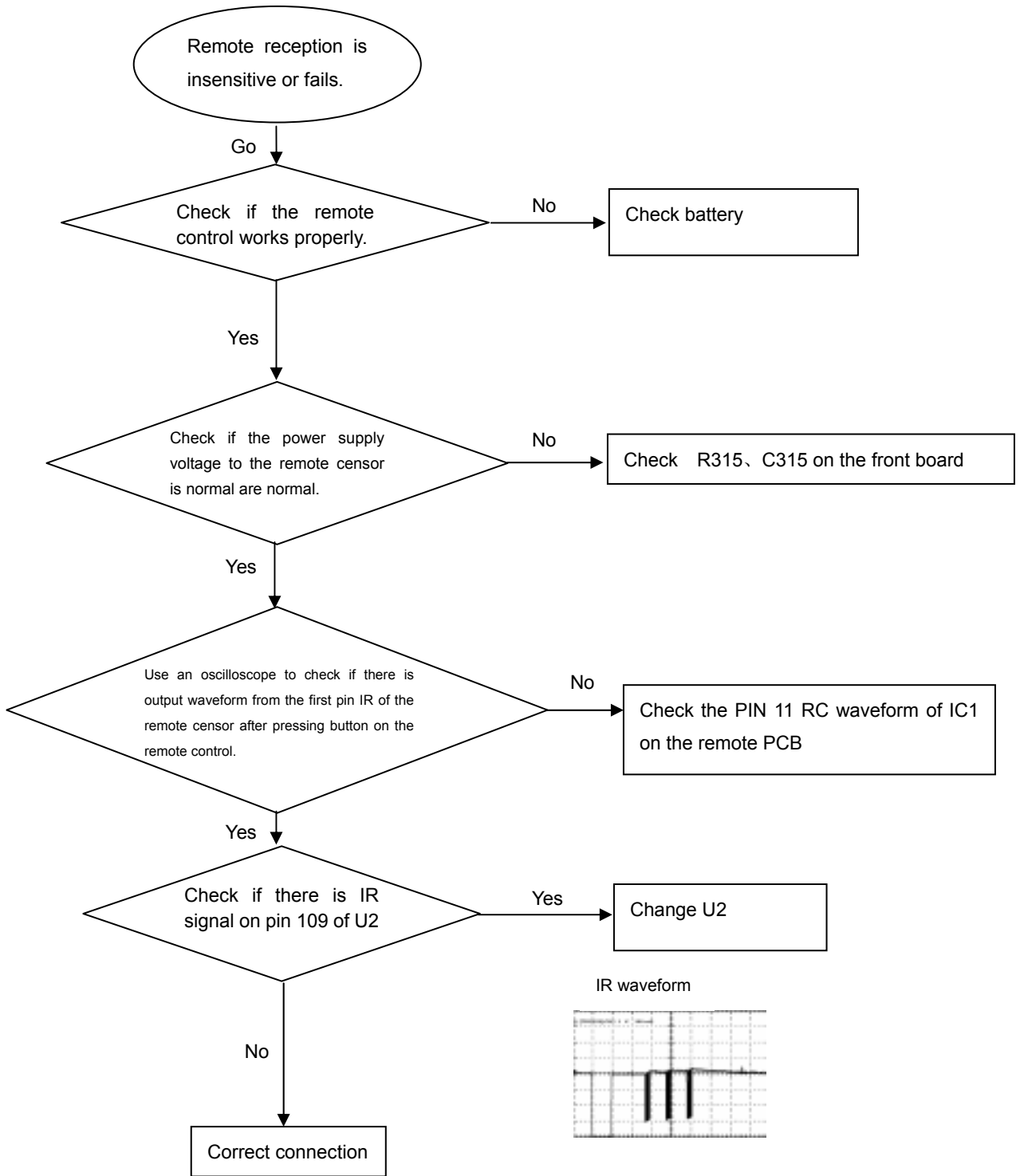
Remark: Trouble shooting chart for DVP5160/XX



Abnormal color of video pictureRemark: Trouble shooting chart for
DVP5160/XX

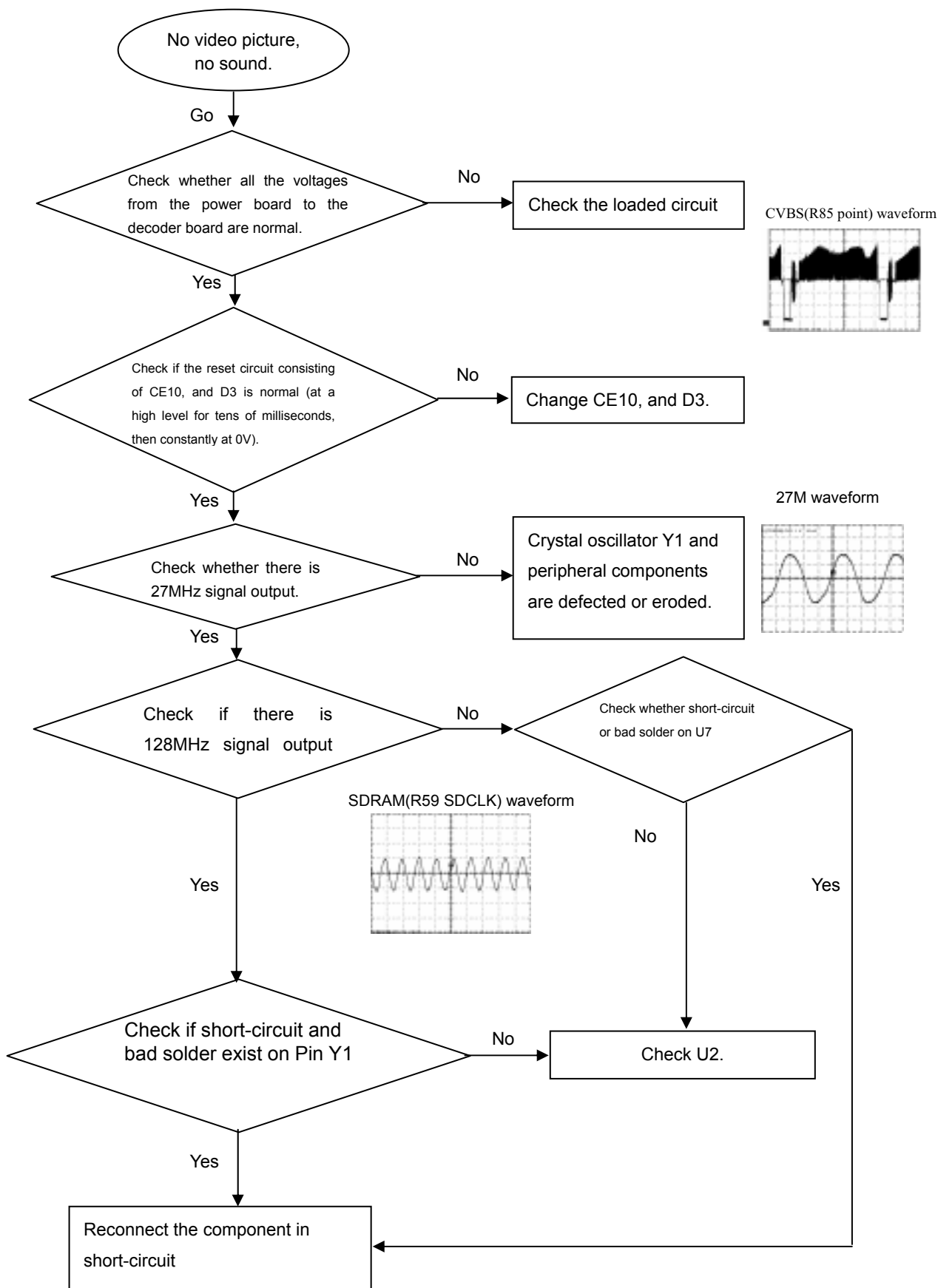
Remote reception is insensitive or fails.

Remark: Trouble shooting chart for DVP5160/XX



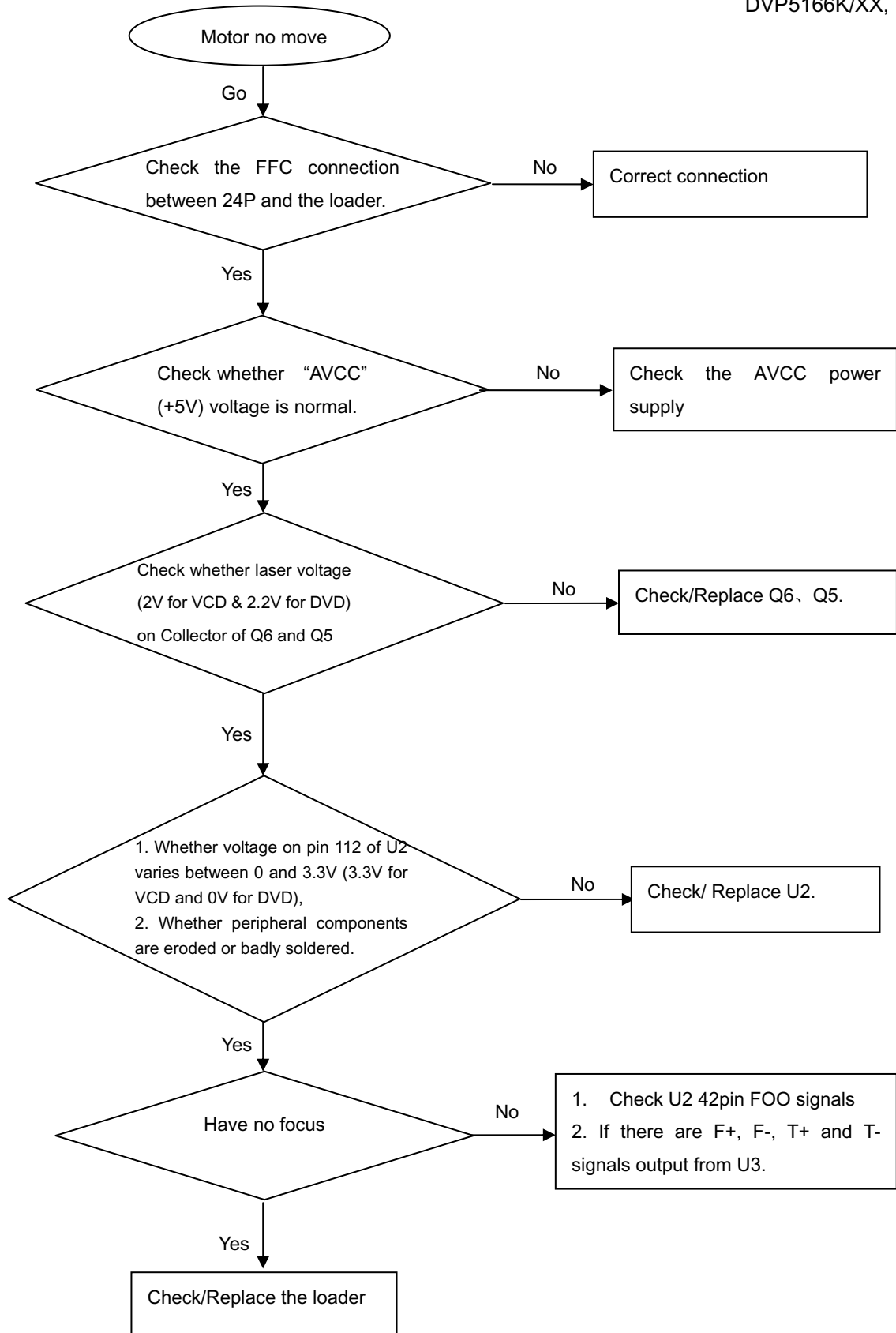
No video picture, no sound.

Remark: Trouble shooting chart for DVP5160/XX



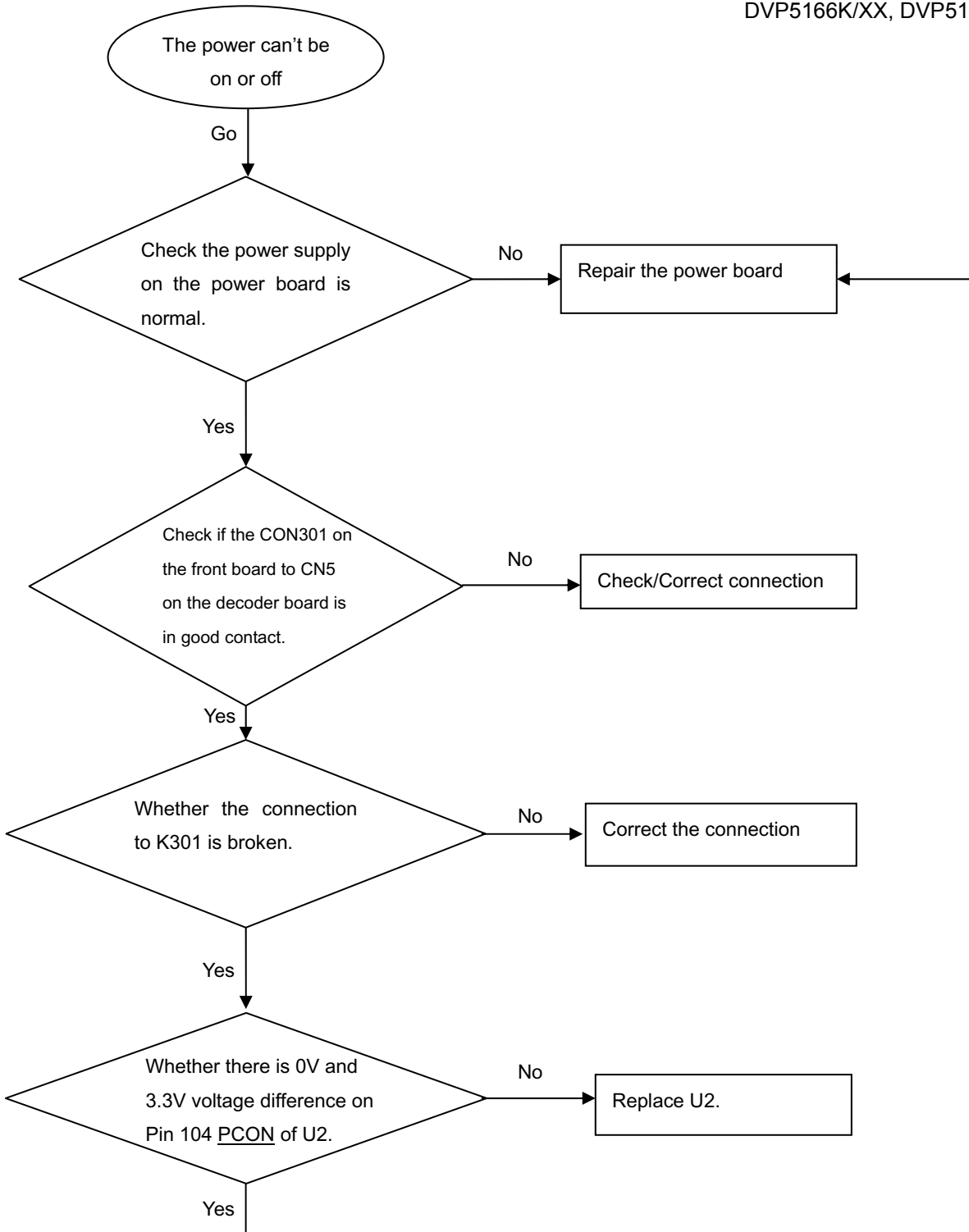
Spindle motor does not move

Remark: Trouble shooting chart for
DVP5166K/XX, DVP5168K/XX



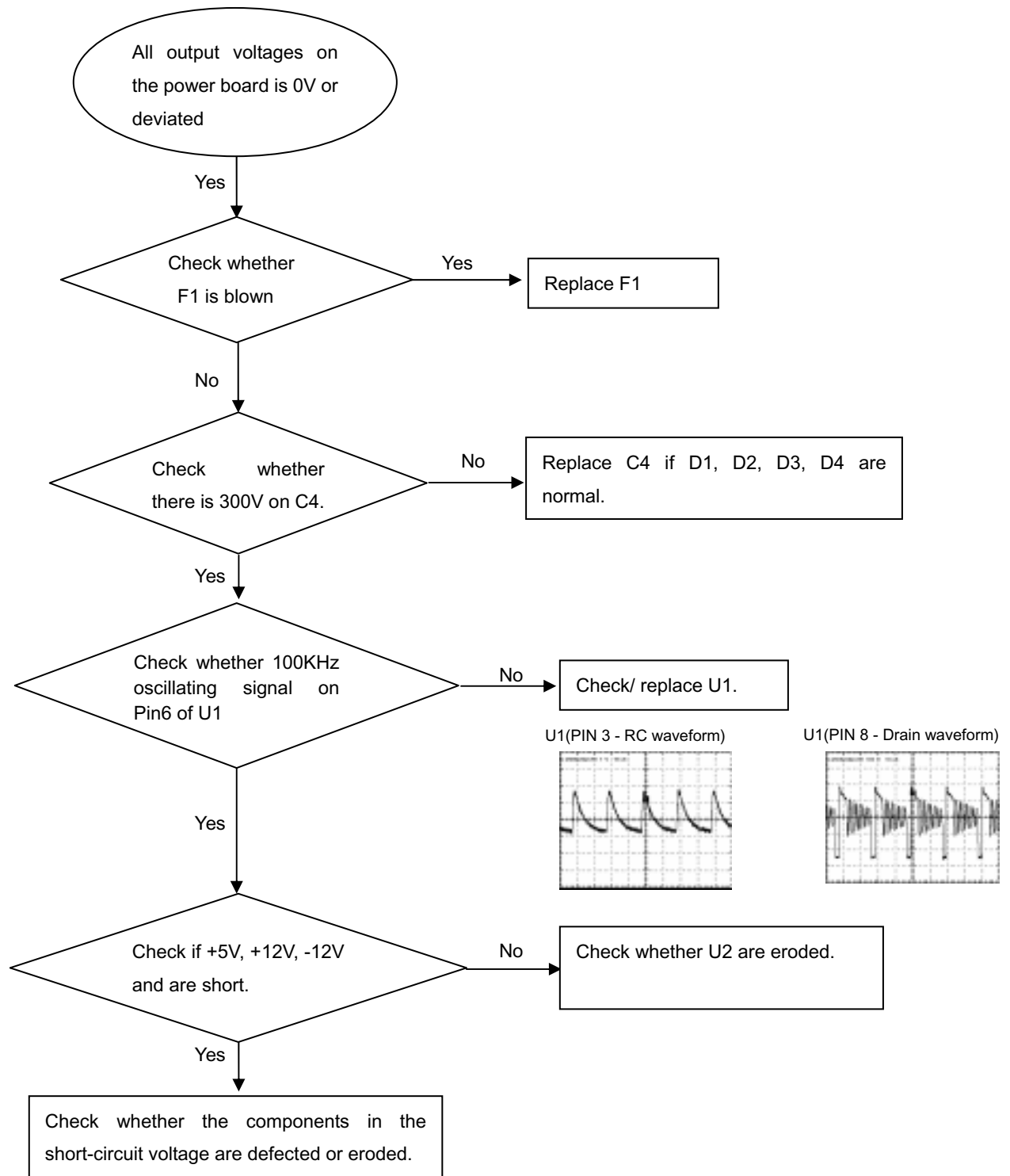
The power can not be on or off

Remark: Trouble shooting chart for DVP5166K/XX, DVP5168K/XX



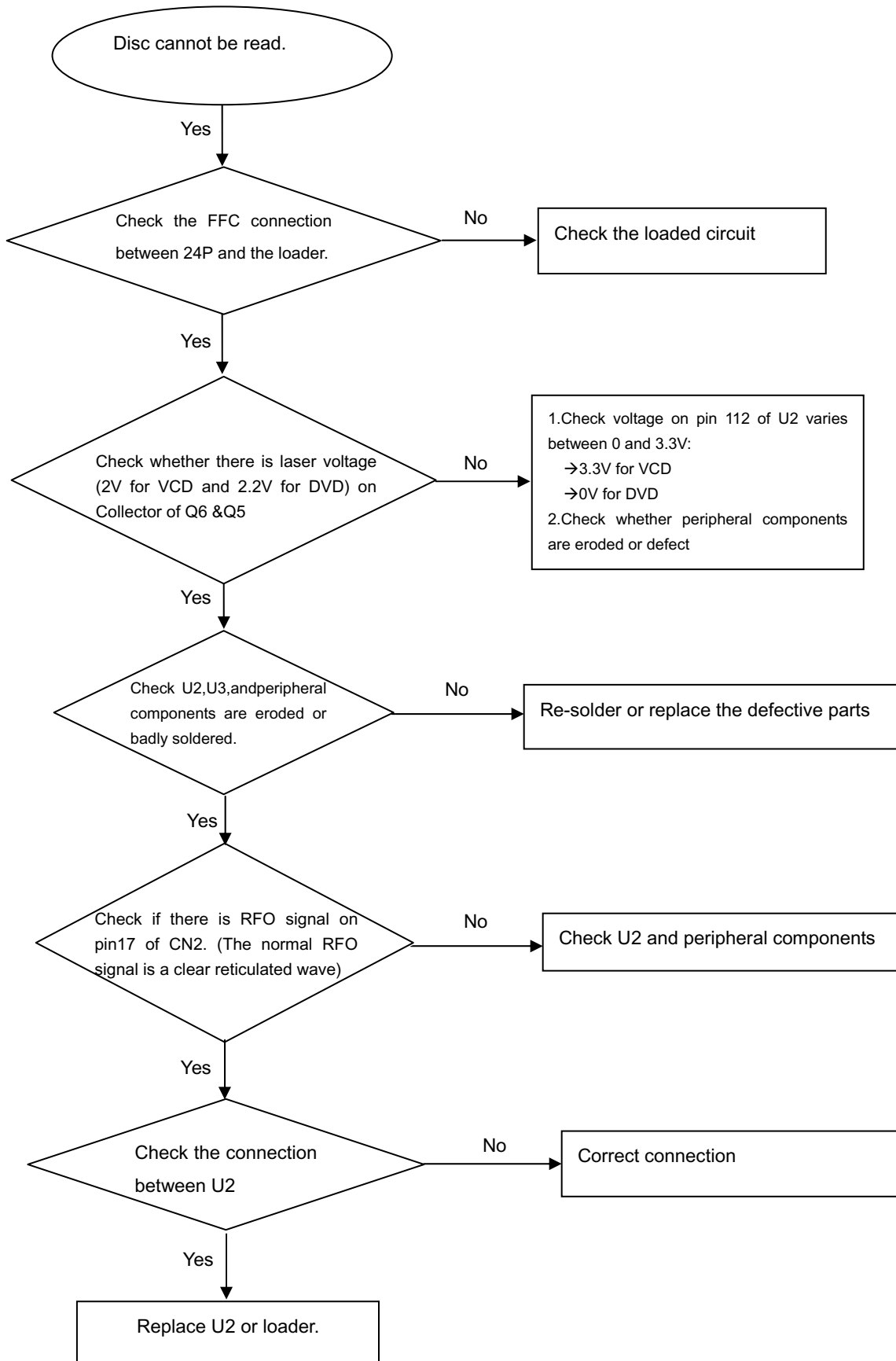
All output voltages on the power board is 0V or deviated.

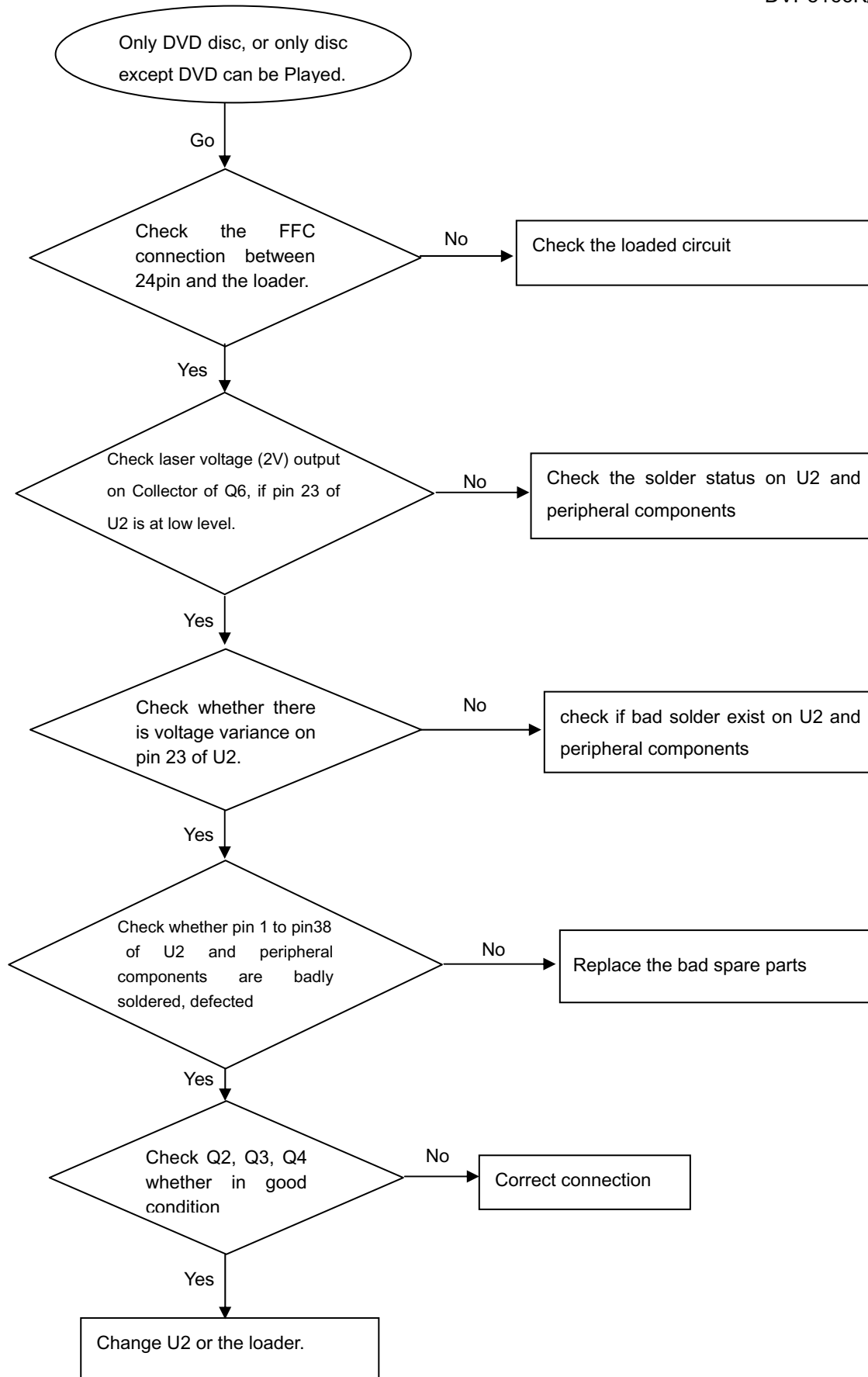
Remark: Trouble shooting chart for DVP5166K/XX, DVP5168K/XX



Disc cannot be read.

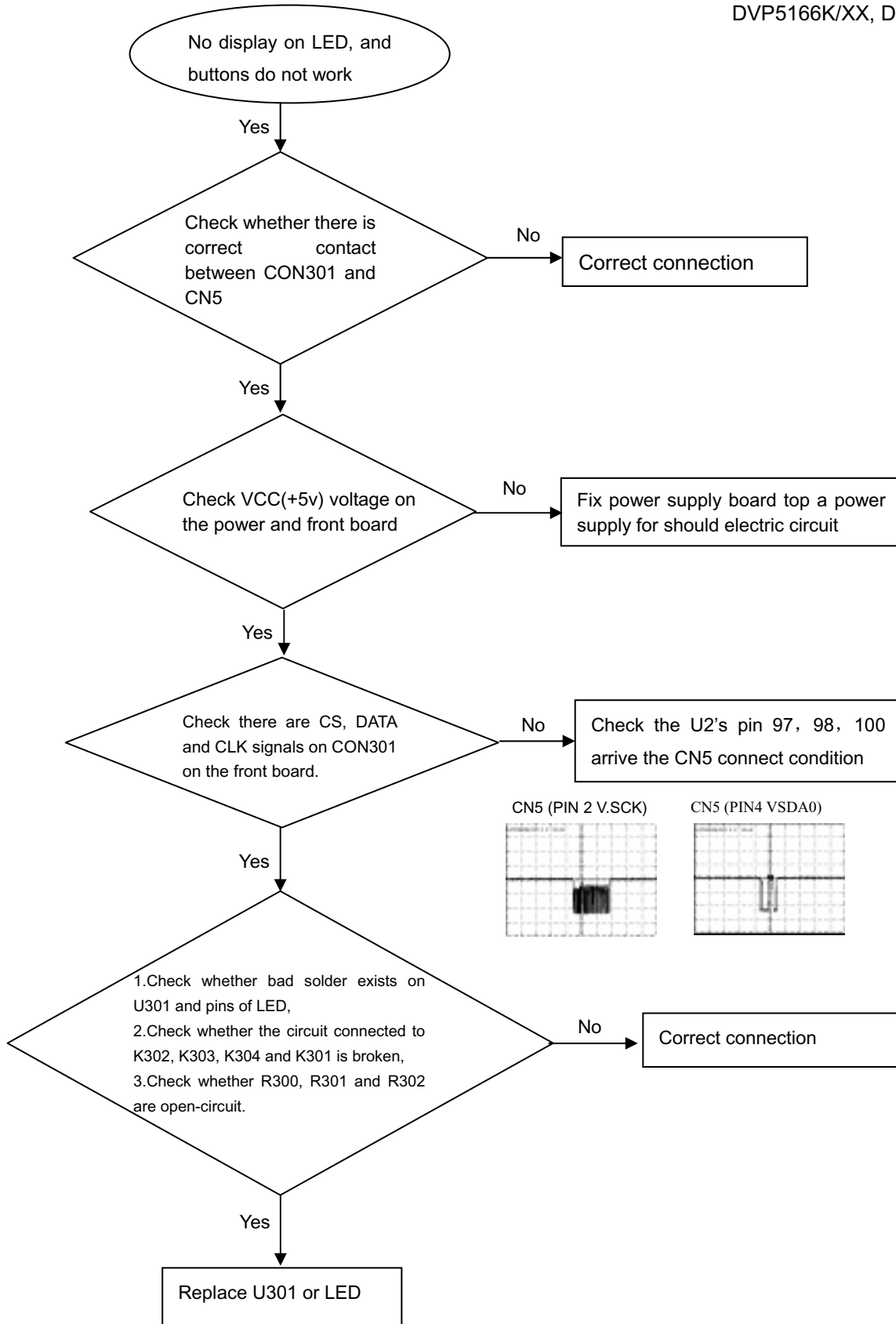
Remark: Trouble shooting chart for
DVP5166K/XX, DVP5168K/XX



Only DVD disc or only disc except DVD can be playedRemark: Trouble shooting chart for
DVP5166K/XX, DVP5168K/XX

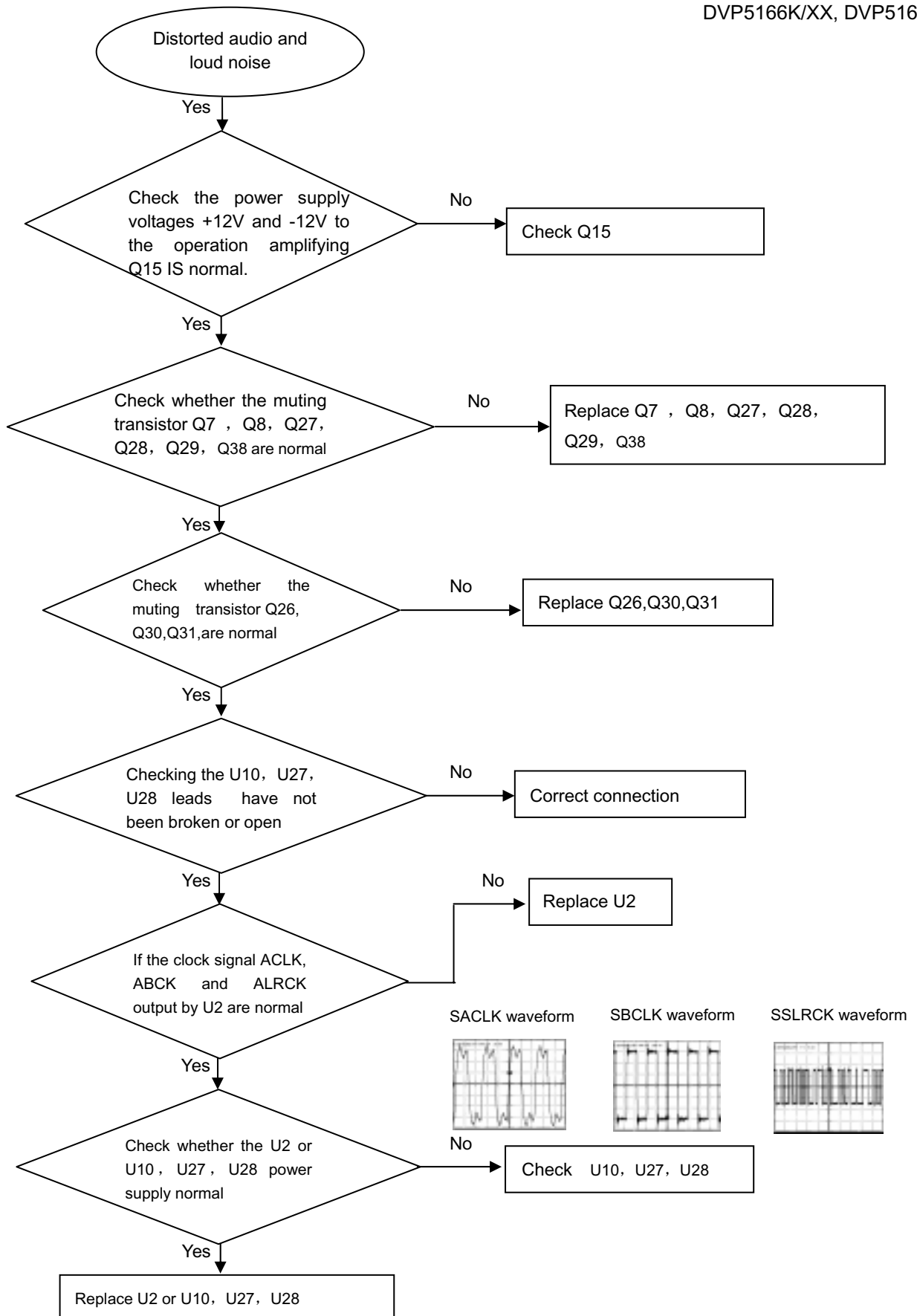
No display on LEDD, and buttons do not work

Remark: Trouble shooting chart for DVP5166K/XX, DVP5168K/XX



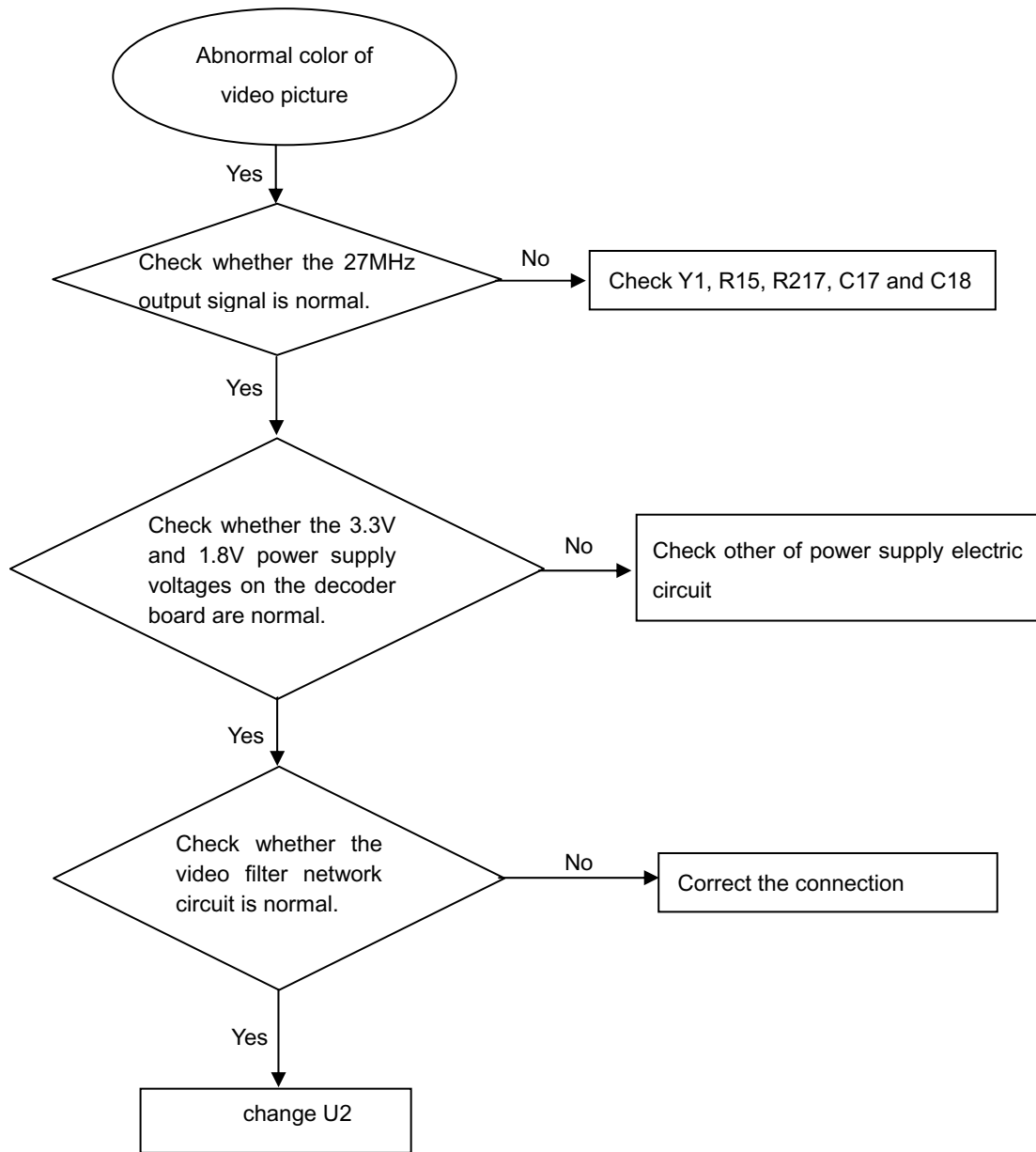
Distorted audio and loud noise

Remark: Trouble shooting chart for DVP5166K/XX, DVP5168K/XX



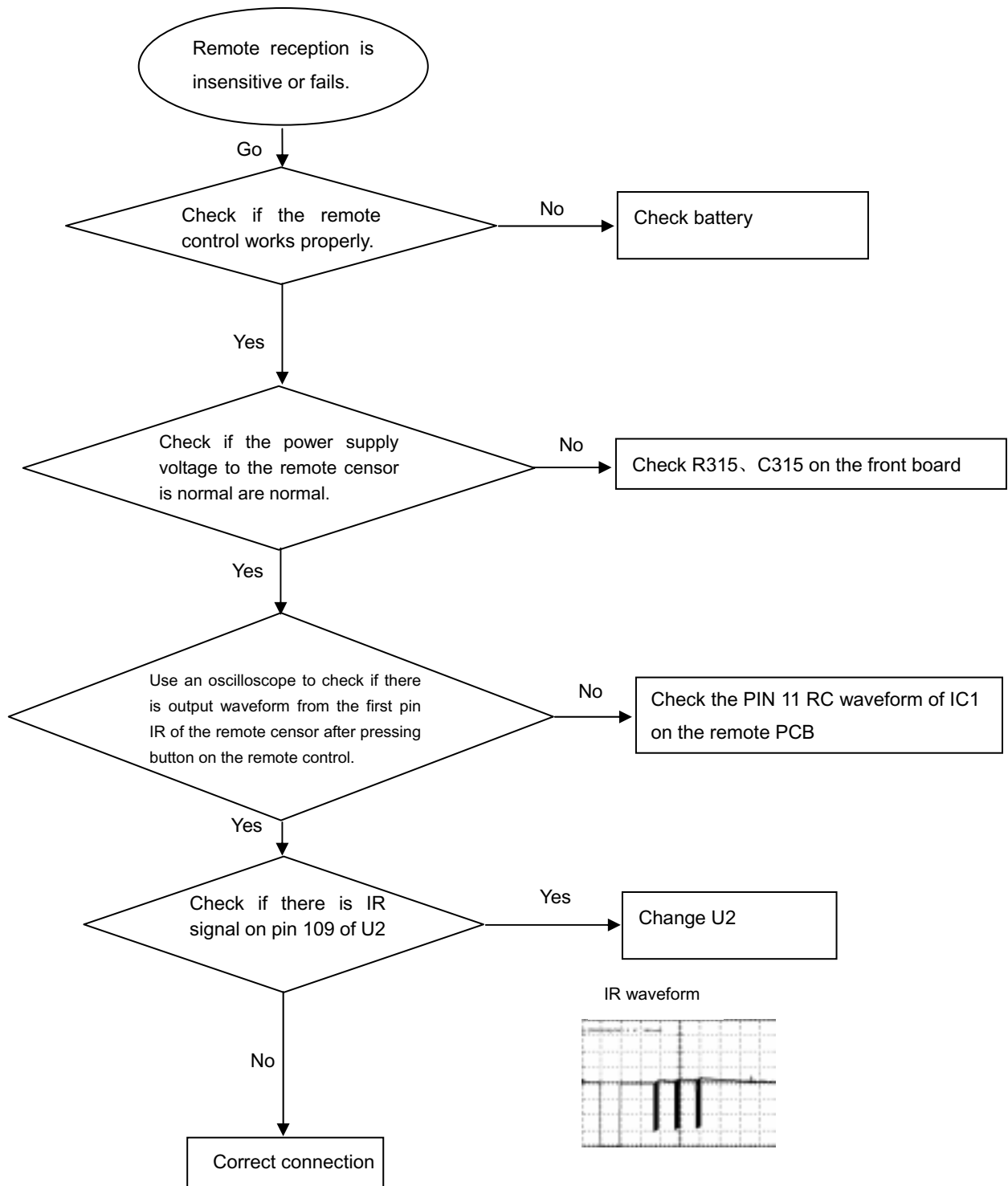
Abnormal color of video picture

Remark: Trouble shooting chart for
DVP5166K/XX, DVP5168K/XX



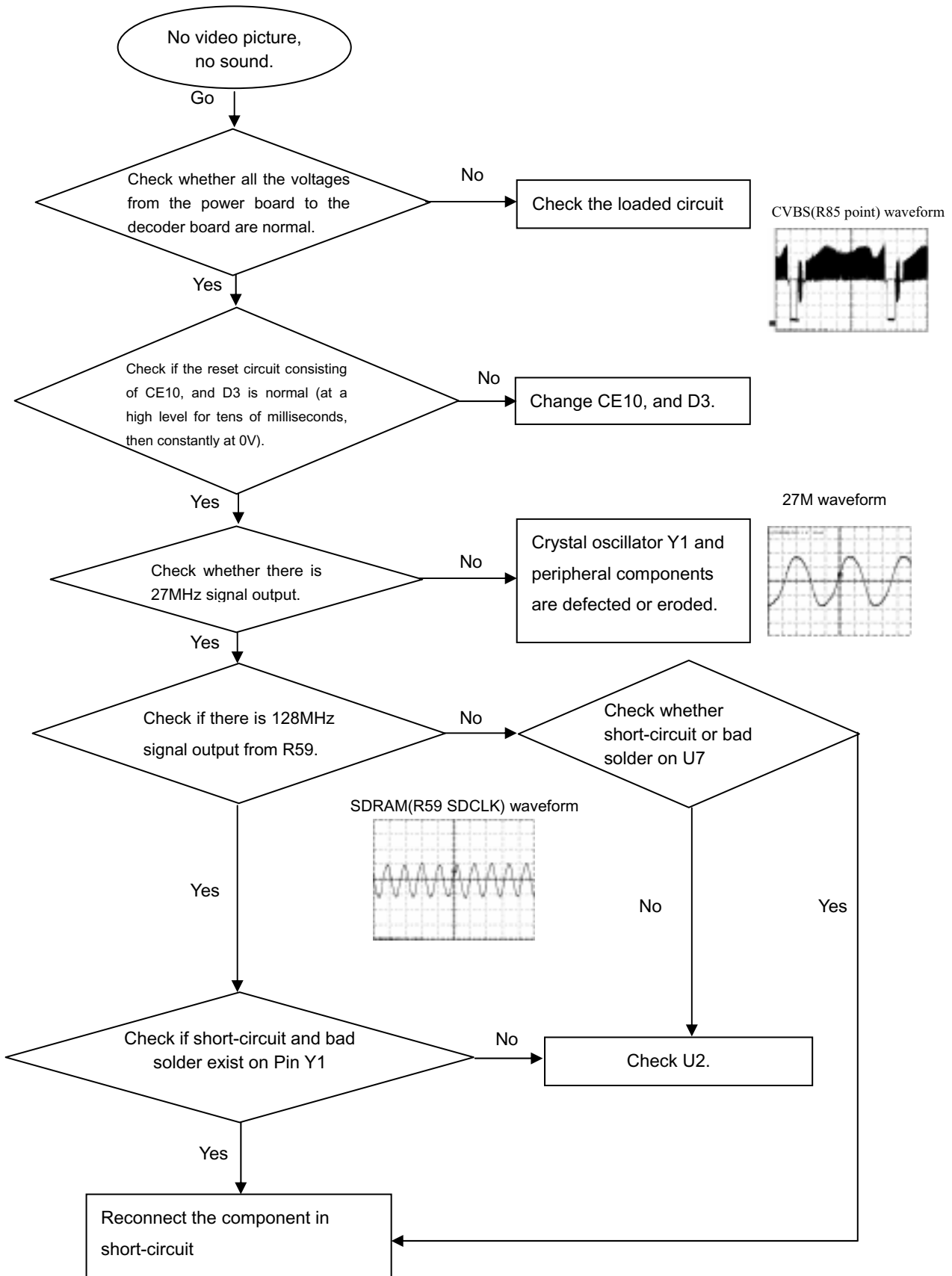
Remote reception is insensitive or fails.

Remark: Trouble shooting chart for DVP5166K/XX, DVP5168K/XX

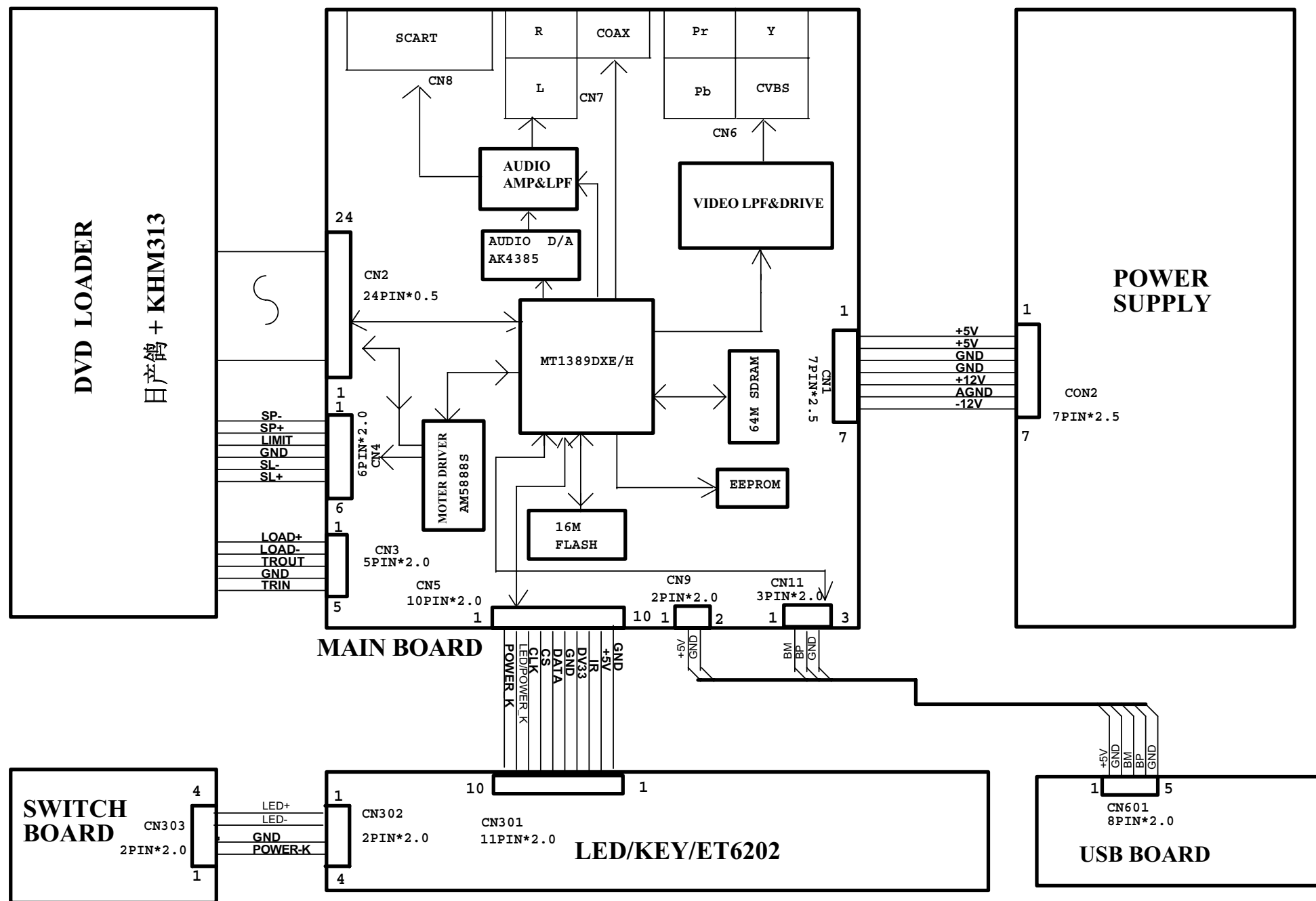


No video picture, no sound.

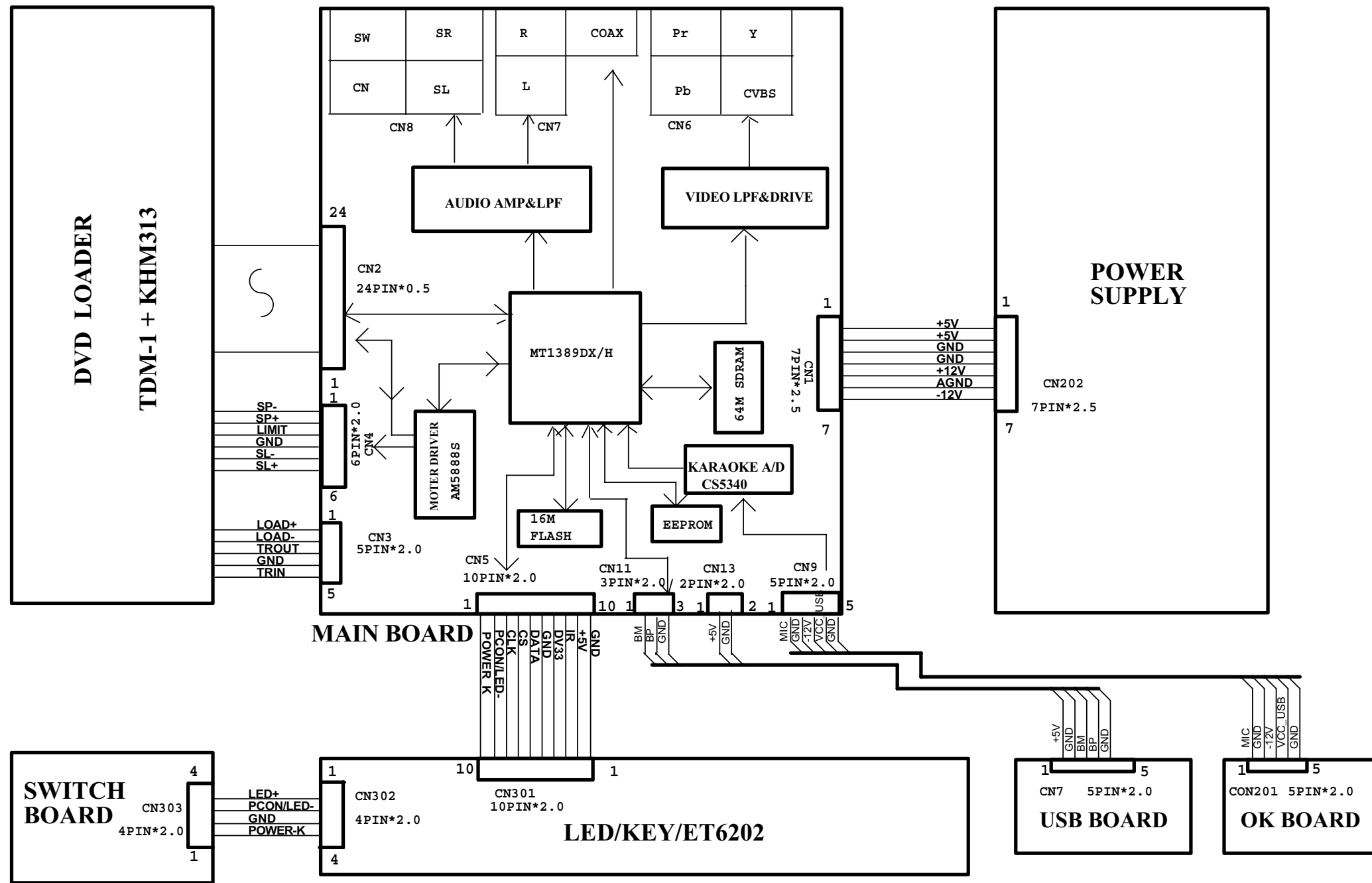
Remark: Trouble shooting chart for DVP5166K/XX, DVP5168K/XX



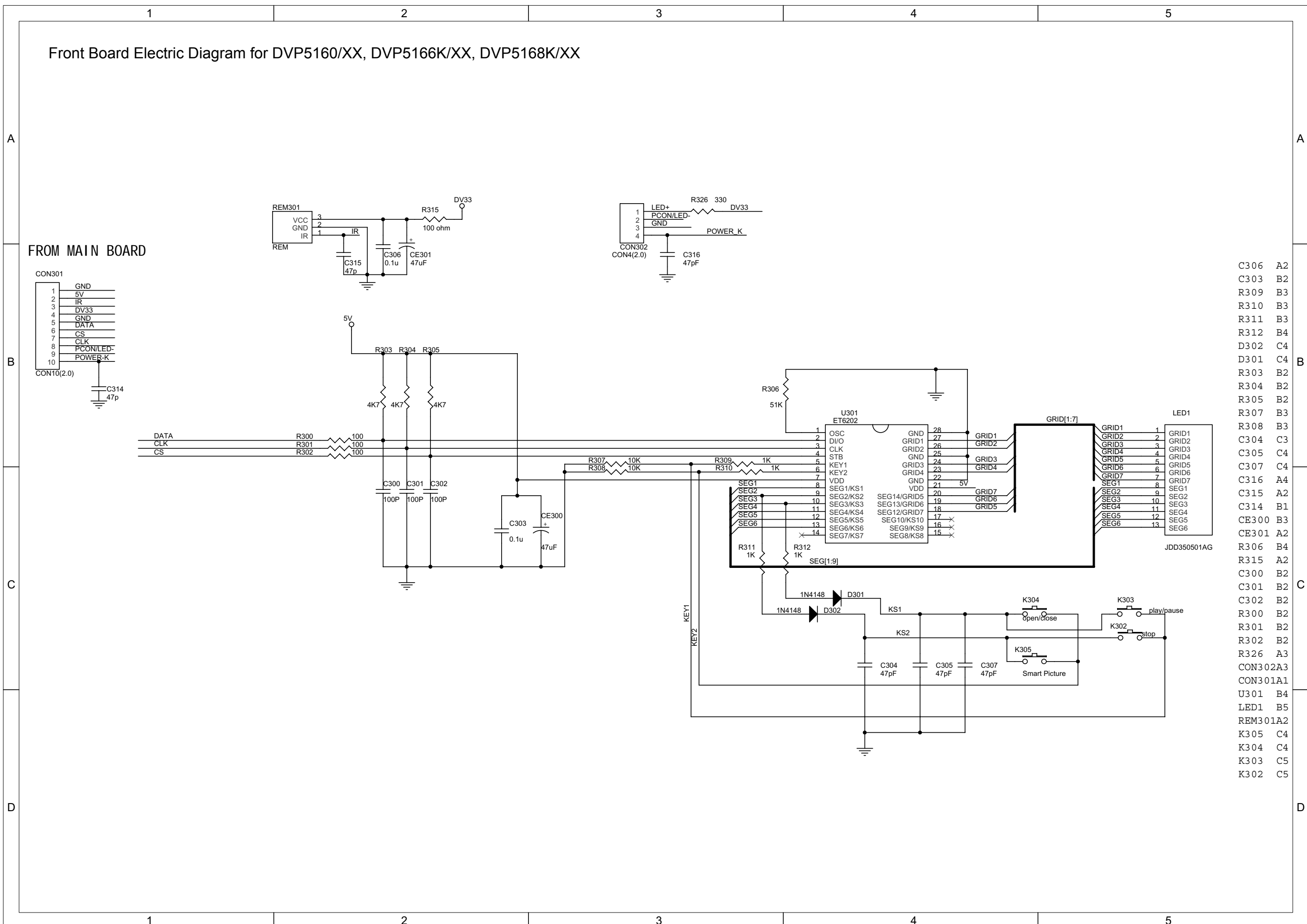
DVP5160/XX WIRING DIAGRAM



DVP5166K/XX, 5168K/XX WIRING DIAGRAM

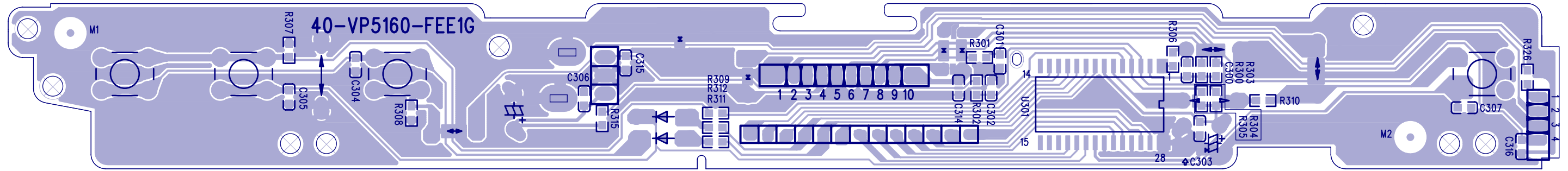


Front Board Electric Diagram for DVP5160/XX, DVP5166K/XX, DVP5168K/XX

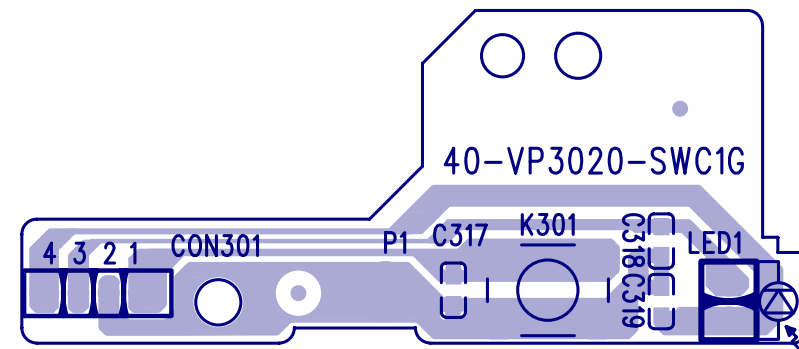


- C306 A2
- C303 B2
- R309 B3
- R310 B3
- R311 B3
- R312 B4
- D302 C4
- D301 C4
- R303 B2
- R304 B2
- R305 B2
- R307 B3
- R308 B3
- C304 C3
- C305 C4
- C307 C4
- C316 A4
- C315 A2
- C314 B1
- CE300 B3
- CE301 A2
- R306 B4
- R315 A2
- C300 B2
- C301 B2
- C302 B2
- R300 B2
- R301 B2
- R302 B2
- R326 A3
- CON302A3
- CON301A1
- U301 B4
- LED1 B5
- REM301A2
- K305 C4
- K304 C4
- K303 C5
- K302 C5

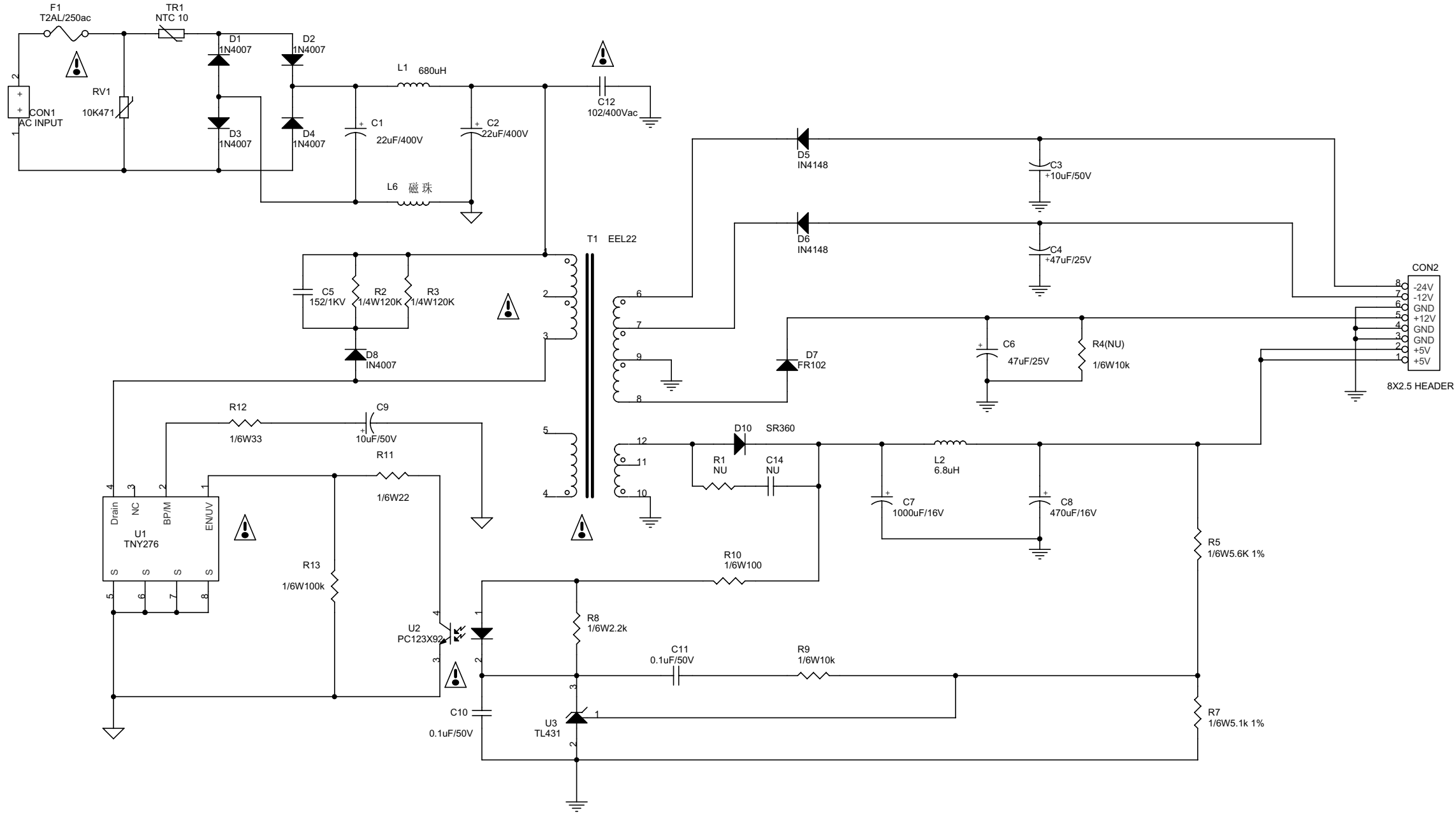
Front Board Print-Layout (Bottom Side) for DVP5160/XX, DVP5166K/XX, DVP5168K/XX




Switch Board Print-Layout (Bottom Side) for DVP5160/XX, DVP5166K/XX, DVP5168K/XX



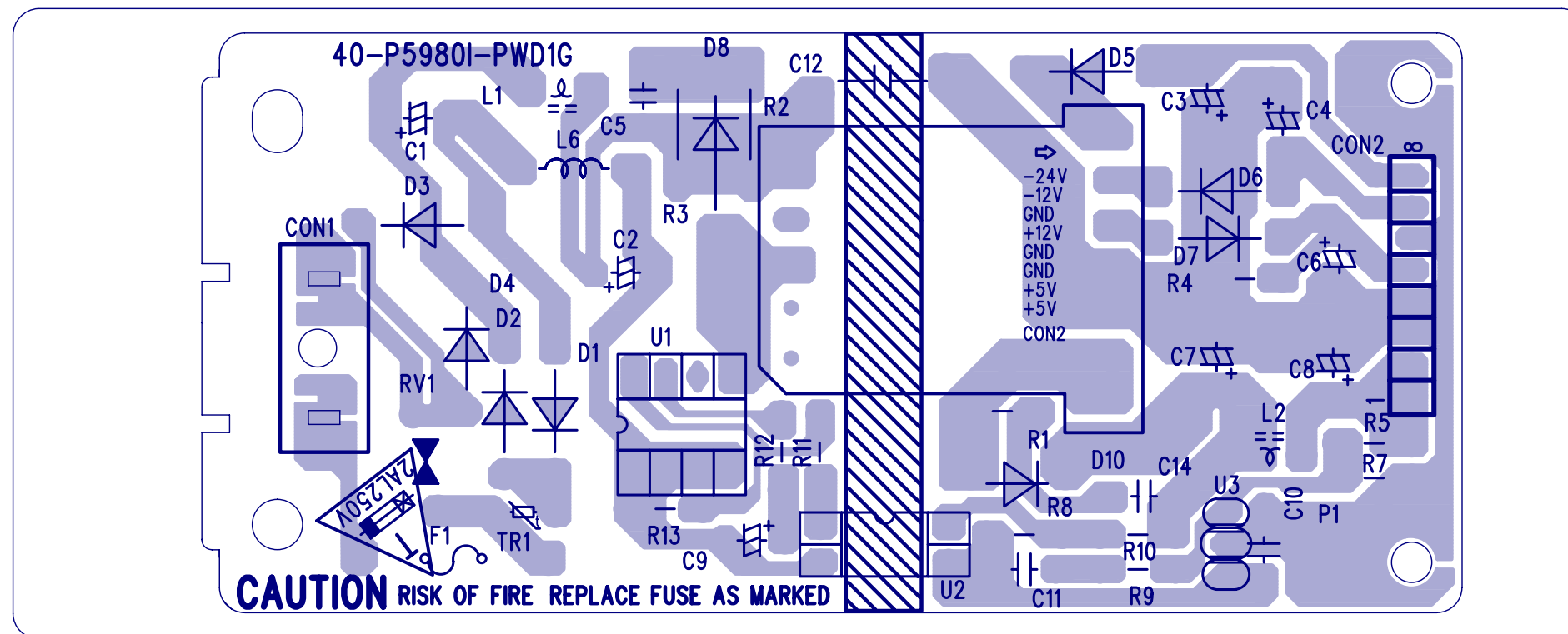
Power Board Electric Diagram for DVP5160/XX, DVP5166K/98, DVP5168K/XX



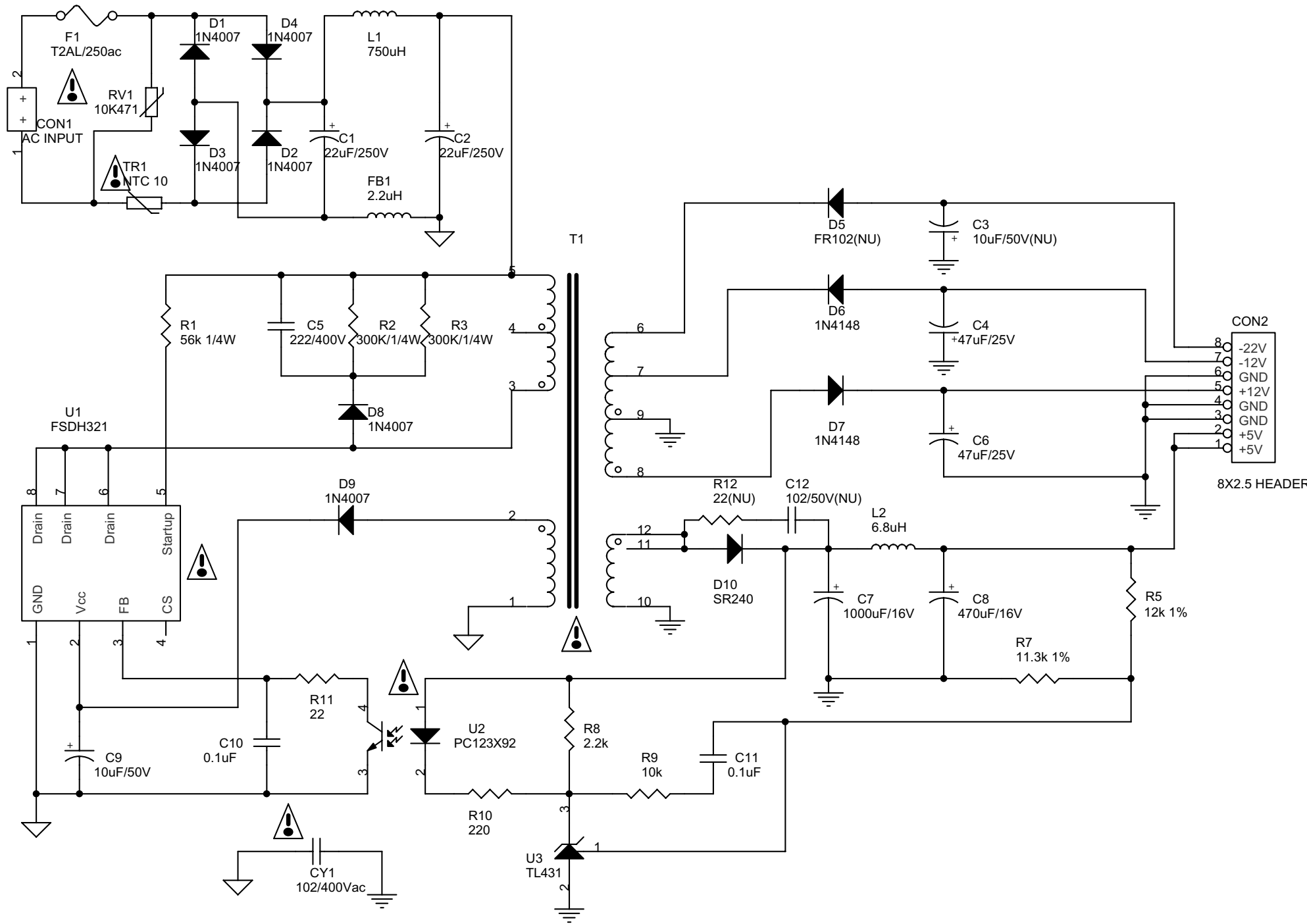
- C1 A1
- C10 B1
- C11 B2
- C12 A2
- C14 B2
- C2 A1
- C3 A3
- C4 A3
- C5 A1
- C6 A2
- C7 B2
- C8 B3
- C9 B1
- CON1 A1
- CON2 A3
- D1 A1
- D10 B2
- D2 A1
- D3 A1
- D4 A1
- D5 A2
- D6 A2
- D7 A2
- D8 A1
- F1 A1
- L1 A1
- L2 B2
- L6 A1
- R1 B2
- R10 B2
- R11 B1
- R12 B1
- R13 B1
- R2 A1
- R3 A1
- R4 A3
- R5 B3
- R7 B3
- R8 B2
- R9 B2
- RV1 A1
- T1 A2
- TR1 A1
- U1 B1
- U2 B1
- U3 B2

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

Power Board Print-Layout (Bottom Side) for DVP5160/XX, DVP5166K/98, DVP5168K/XX



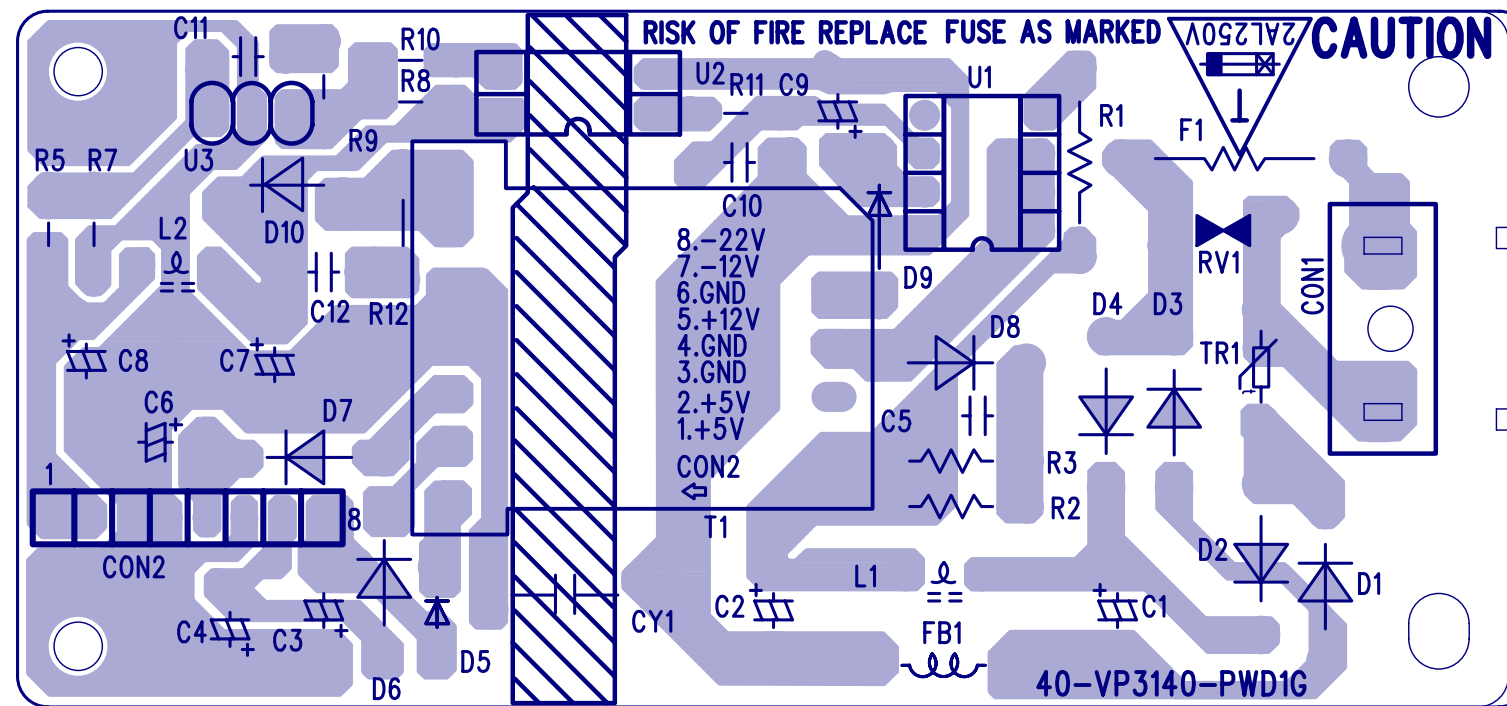
Power Board Electric Diagram for DVP5166K/56



C1	B1
C10	A3
C11	C3
C12	C2
C2	B1
C3	C1
C4	C2
C5	A2
C6	C2
C7	C3
C8	C3
C9	A3
CON1	A1
CON2	D2
CY1	B4
D1	A1
D10	C3
D2	A1
D3	A1
D4	A1
D5	C1
D6	C2
D7	C2
D8	B2
D9	B2
F1	A1
FB1	B1
L1	B1
L2	C3
R1	A2
R10	B3
R11	A3
R12	C2
R2	B2
R3	B2
R5	D3
R7	D3
R8	B3
R9	B3
RV1	A1
T1	B2
TR1	A1
U1	A2
U2	B3
U3	B3

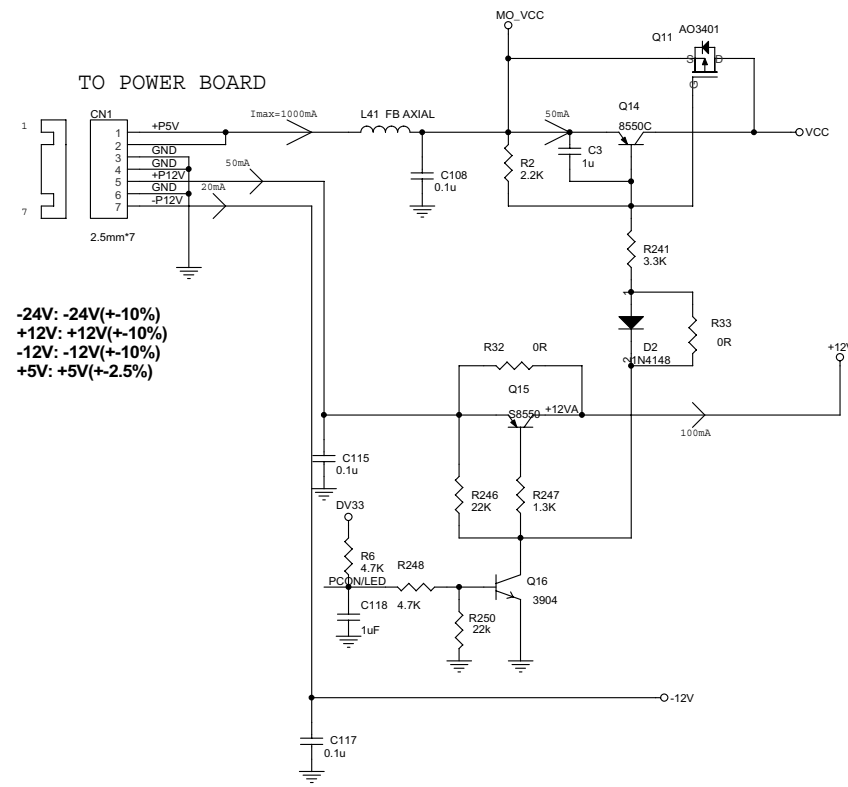
*** CAUTION :**
 THE PARTS MARKED WITH  ARE IMPORTANT PARTS ON THE SAFETY.
 PLEASE USE THE PARTS HAVING THE DESIGNATED PARTS NUMBER WITHOUT FAIL.

Power Board Print-Layout (Bottom Side) for DVP5166K/56



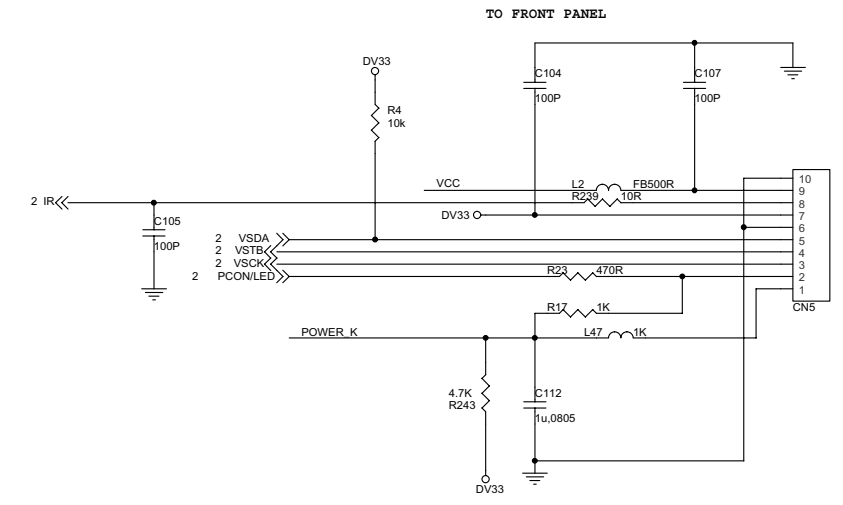
Main Board Electric Diagram for DVP5160/XX:POWER&CONNECTOR

MT1389HD (LQFP256) DVD MP Board for SONY KHM313AAA

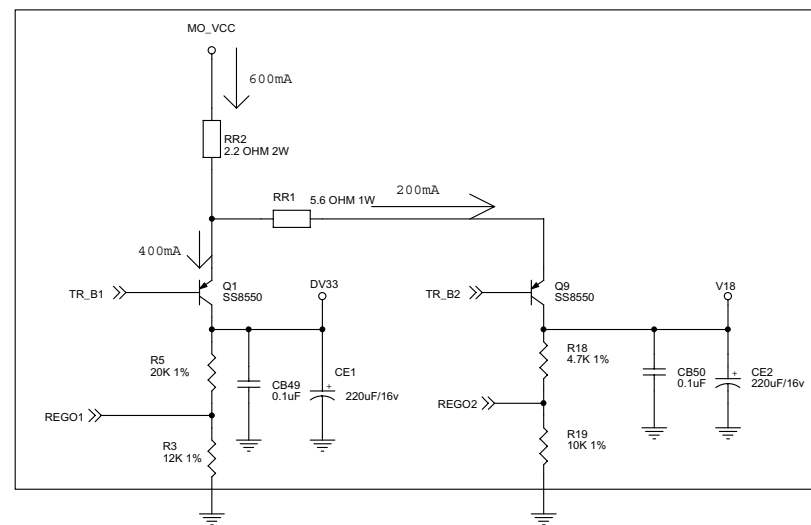
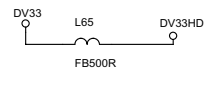
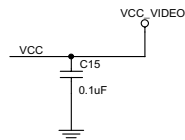
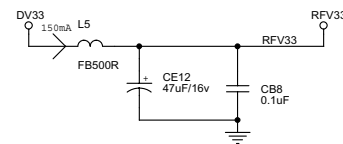
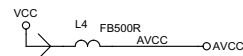
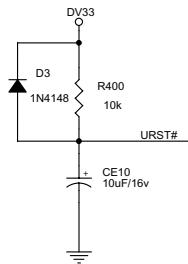


-24V: -24V(+10%)
 +12V: +12V(+10%)
 -12V: -12V(+10%)
 +5V: +5V(+2.5%)

IR	>>IR	2
V\$CK	>>V\$CK	2
V\$TB	>>V\$TB	2
V\$DA	>>V\$DA	2
UR\$T#	>>UR\$T#	2
PCON\$LED	>>PCON\$LED	2
POWER_K	>>POWER_K	2

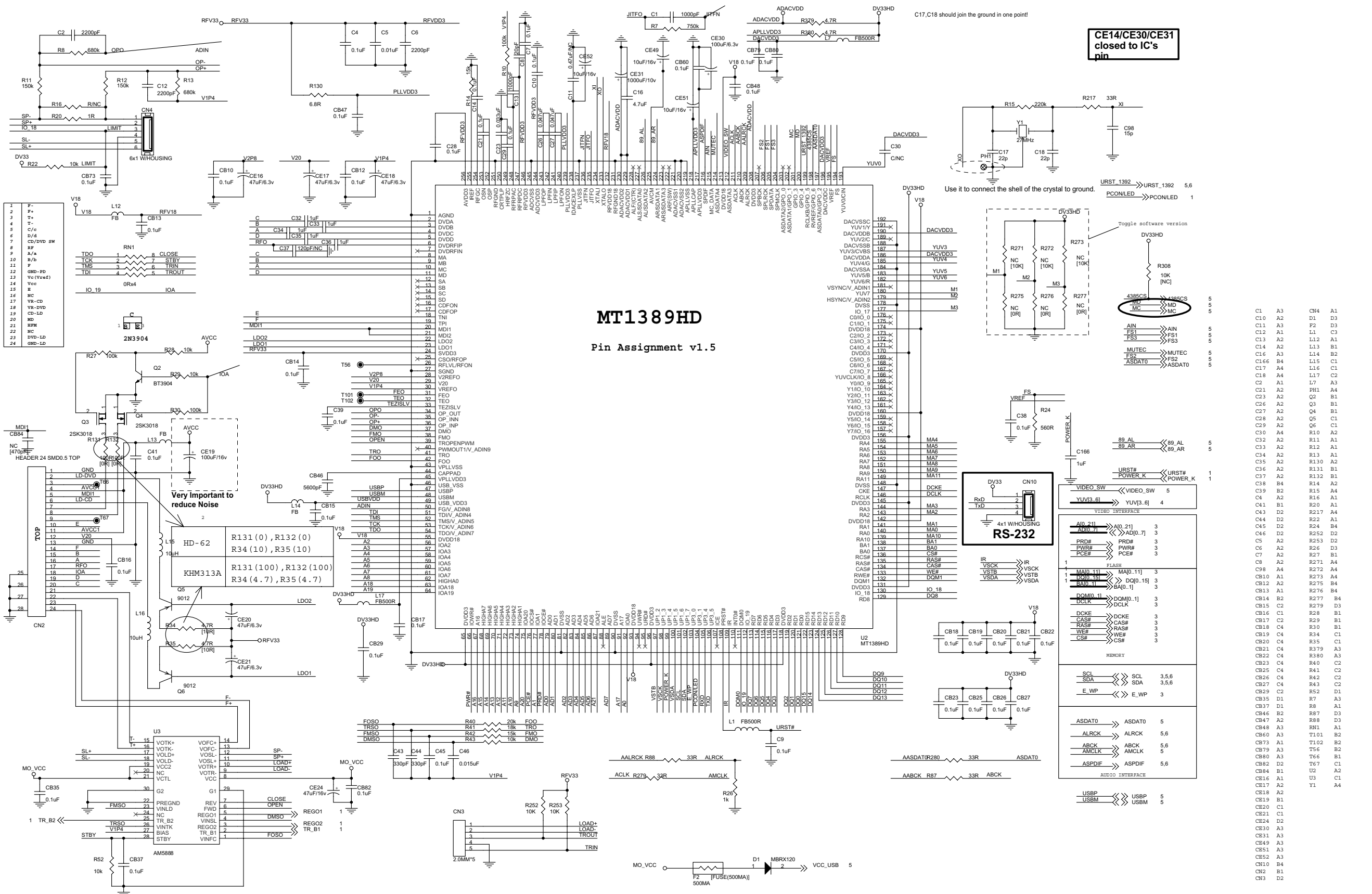


RESET Circuit

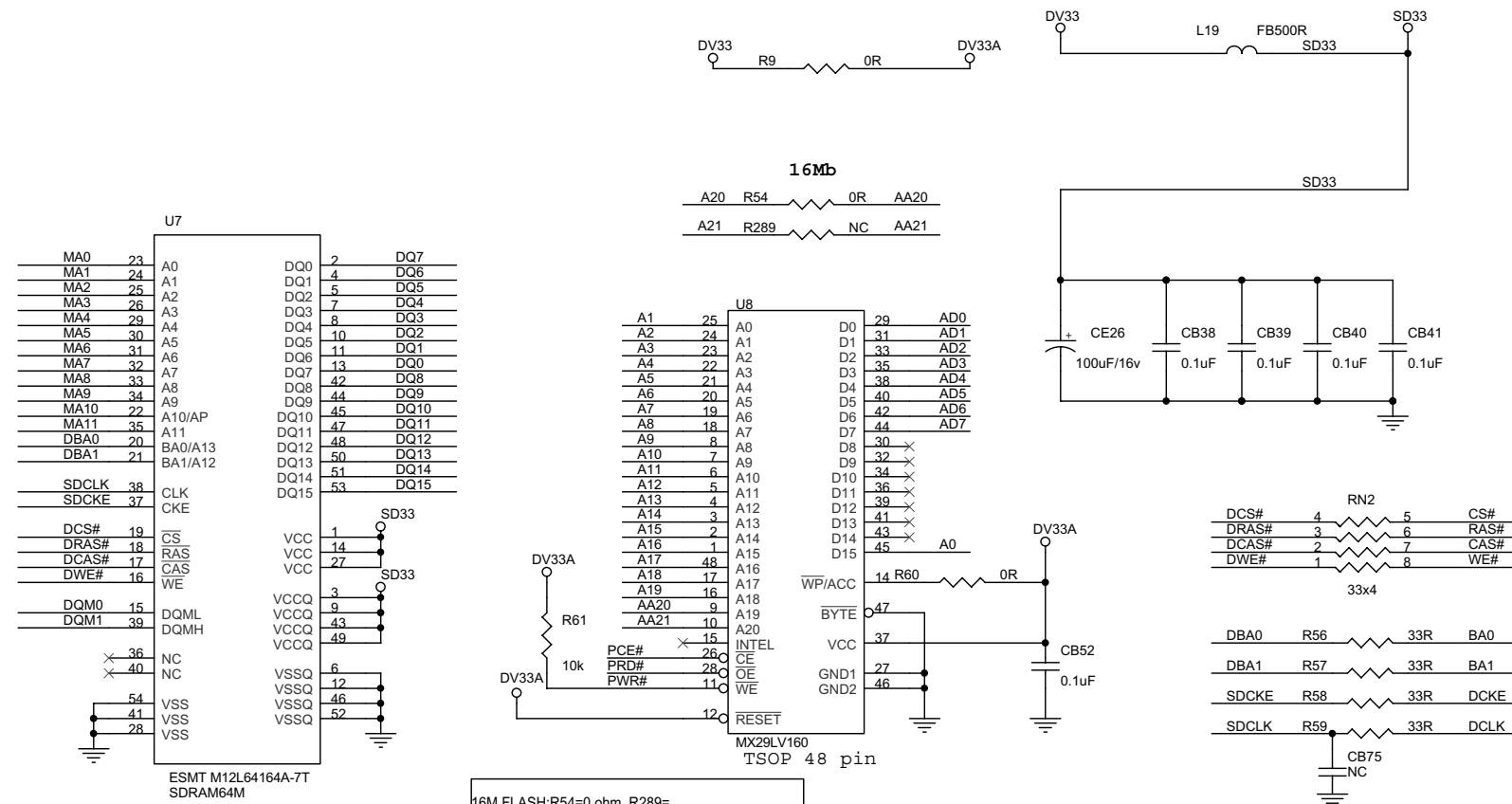


C105	A4
C108	A3
C112	A5
C118	B3
C3	A3
C51	A5
C52	A5
C53	A5
CB49	D3
CB50	D4
CB8	D2
CE1	D3
CE10	C1
CE12	D2
CE2	D4
CN1	A2
CN5	A5
D2	A3
D3	C1
L2	A5
L4	D1
L41	A3
L42	A5
L47	A5
L5	D2
L65	D2
Q1	D3
Q11	A3
Q14	A3
Q15	A3
Q16	B3
Q9	D4
R17	A5
R18	D4
R19	D4
R2	A3
R23	A5
R239	A5
R241	A3
R243	A4
R246	B3
R247	B3
R248	B3
R250	B3
R3	D3
R33	A3
R4	A4
R400	C1
R5	D3
R6	B3
R11	C3
RR2	C3

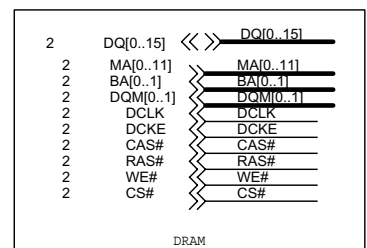
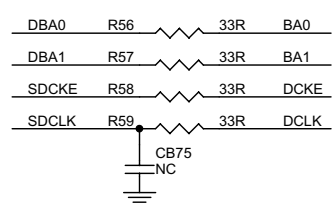
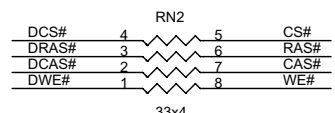
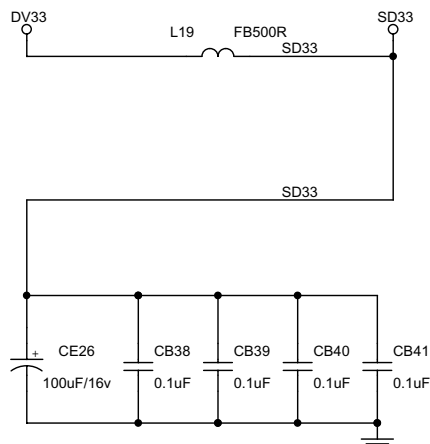
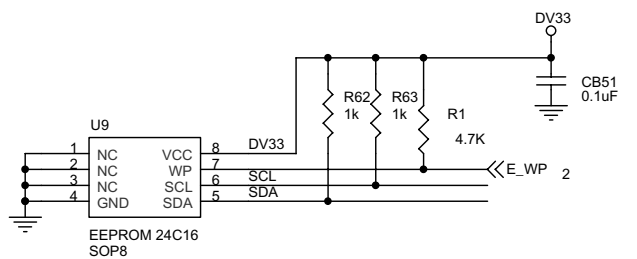
Main Board Electric Diagram for DVP5160/XX: MT1389HD&FRONTEND



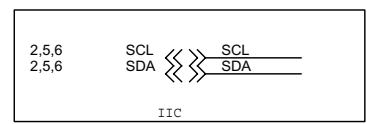
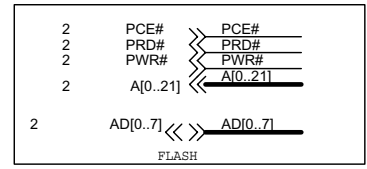
Main Board Electric Diagram for DVP5160/XX: SDRAM & FLASH



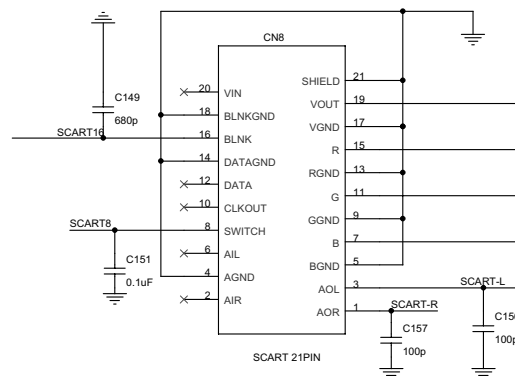
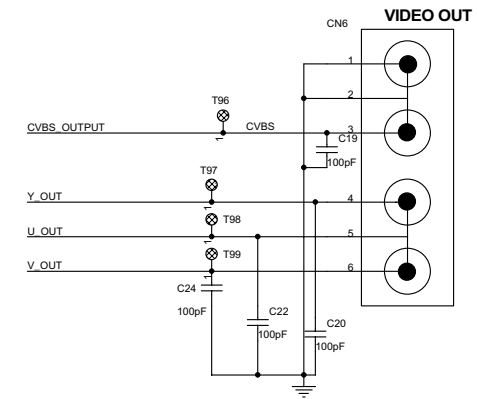
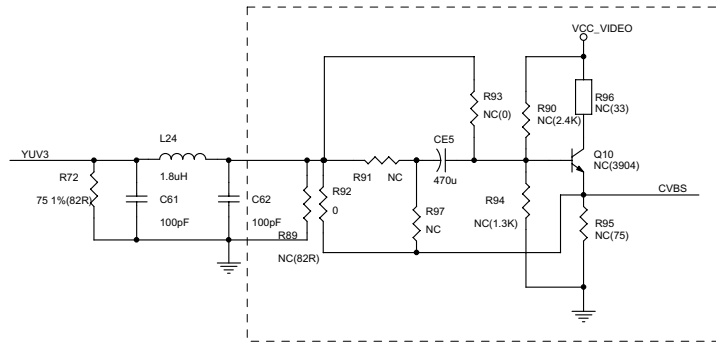
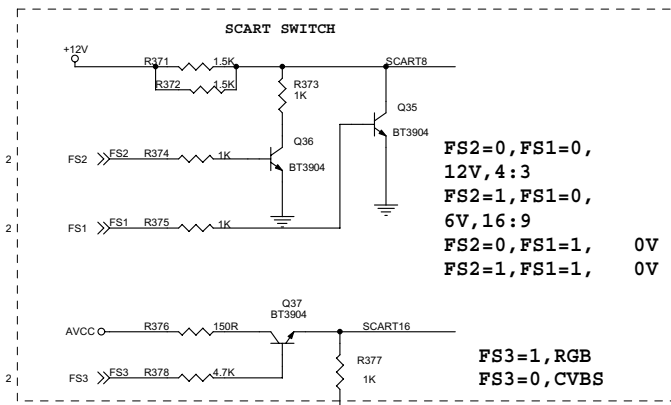
16M FLASH: R54=0 ohm, R289= OPEN
 32M FLASH: R54=0 ohm, R289=0 ohm



- CB38 A3
- CB39 A3
- CB40 A3
- CB51 C2
- CB52 B3
- CB75 B3
- CE26 A3
- L19 A3
- R1 C2
- R289 A2
- R54 A2
- R56 B3
- R57 B3
- R58 B3
- R59 B3
- R60 B2
- R61 B2
- R62 C2
- R63 C2
- R9 A2
- RN2 B3
- U7 A1
- U8 A2
- U9 C2

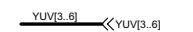
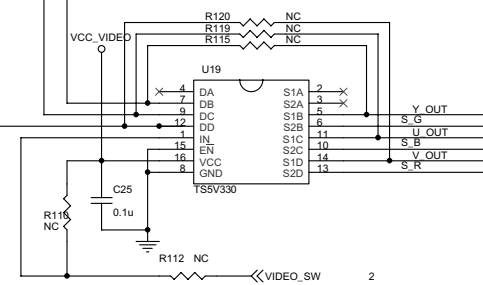
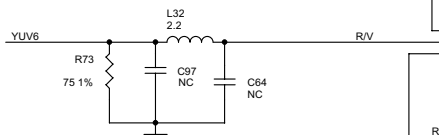
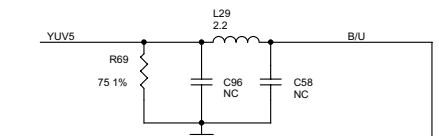
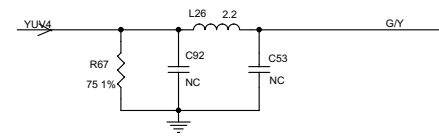
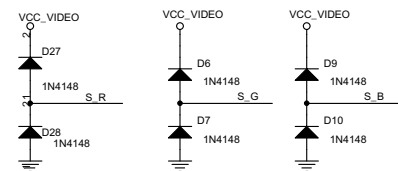
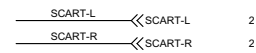


Main Board Electric Diagram for DVP5160/XX: VIDEO OUT



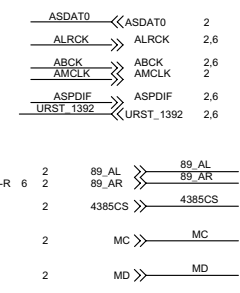
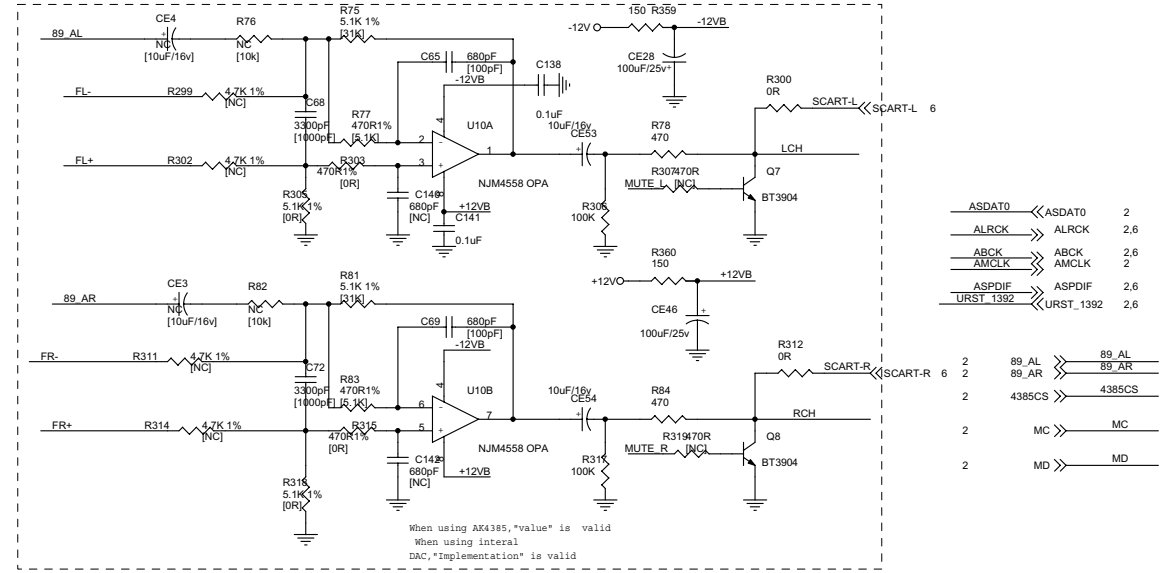
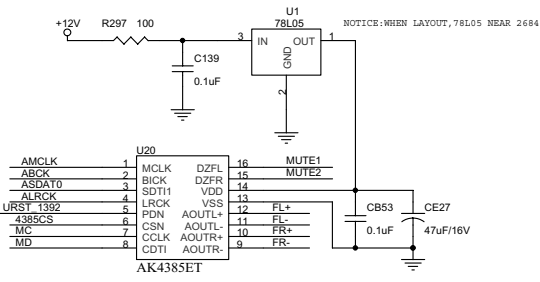
FS3	FS1	FS2	SCART8	SCART16
1	0	0	12V (9.5V - 12V 4:3)	3V (RGB)
1	0	1	6V (5V - 8V 16:9)	3V (RGB)
0	1	0	0V (TV MODE)	0V (CVBS)

When have no SCART, this inside of circle a piece is "OPEN"

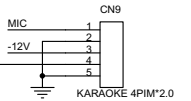
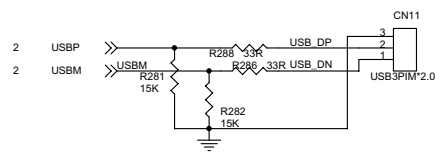
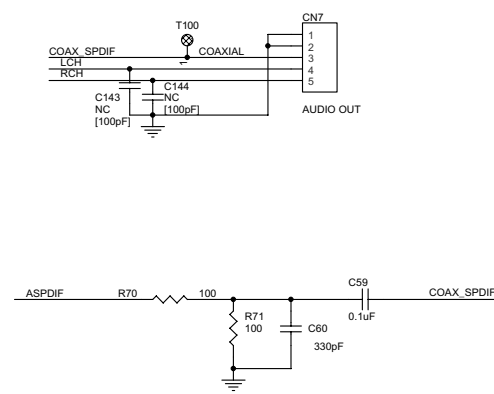
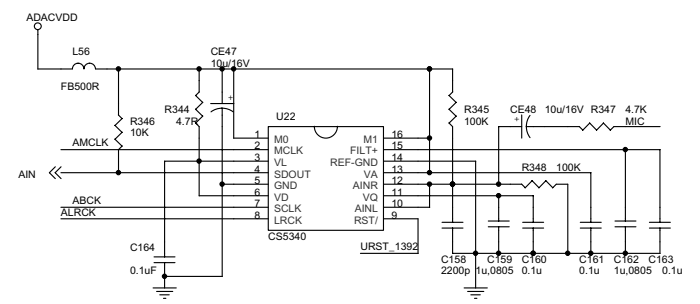
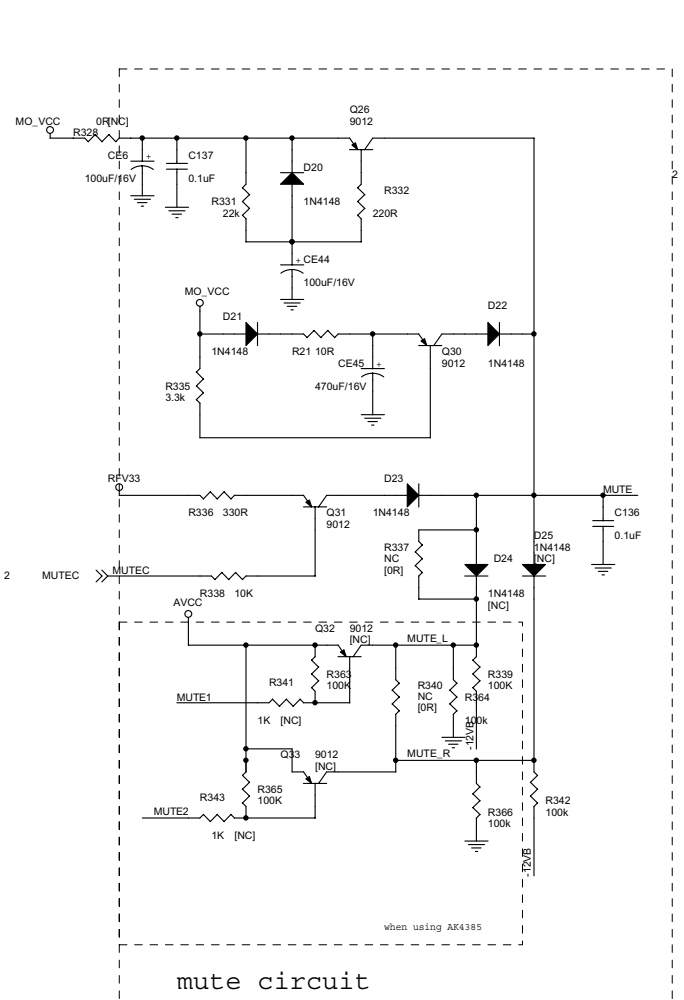


- C151 C1 R119 C4
- C25 C4 R120 C4
- R92 A3 CN8 C1
- R372 B1 U19 C4
- R371 B1 CN6 A4
- L24 A2 T96 A4
- R373 B1 T97 A4
- R374 B1 T98 A4
- R375 B1 T99 A4
- R377 B1
- D6 D2
- D7 D2
- D9 D3
- D10 D3
- L26 B3
- L29 C3
- L32 C3
- R378 B1
- R72 A2
- R67 B3
- R69 C3
- R73 C3
- C62 A3
- C61 A2
- C20 A4
- C24 A4
- C22 A4
- C19 A4
- C152 C2
- C153 C2
- C154 C2
- C155 C2
- C156 C2
- C157 C2
- R376 B1
- CE5 A3
- C149 C1
- Q35 B1
- Q36 B1
- Q37 B1
- R93 A3
- R94 A3
- R90 A3
- R96 A3
- R95 A3
- R89 A3
- Q10 A3
- C53 B3
- C58 C3
- C64 C3
- C92 B3
- C96 C3
- C97 C3
- D28 D2
- D27 D2
- R97 A3
- R91 A3
- R110 C3
- R112 C4
- R115 C4

Main Board Electric Diagram for DVP5160/XX: AUDIO OUT & SCART

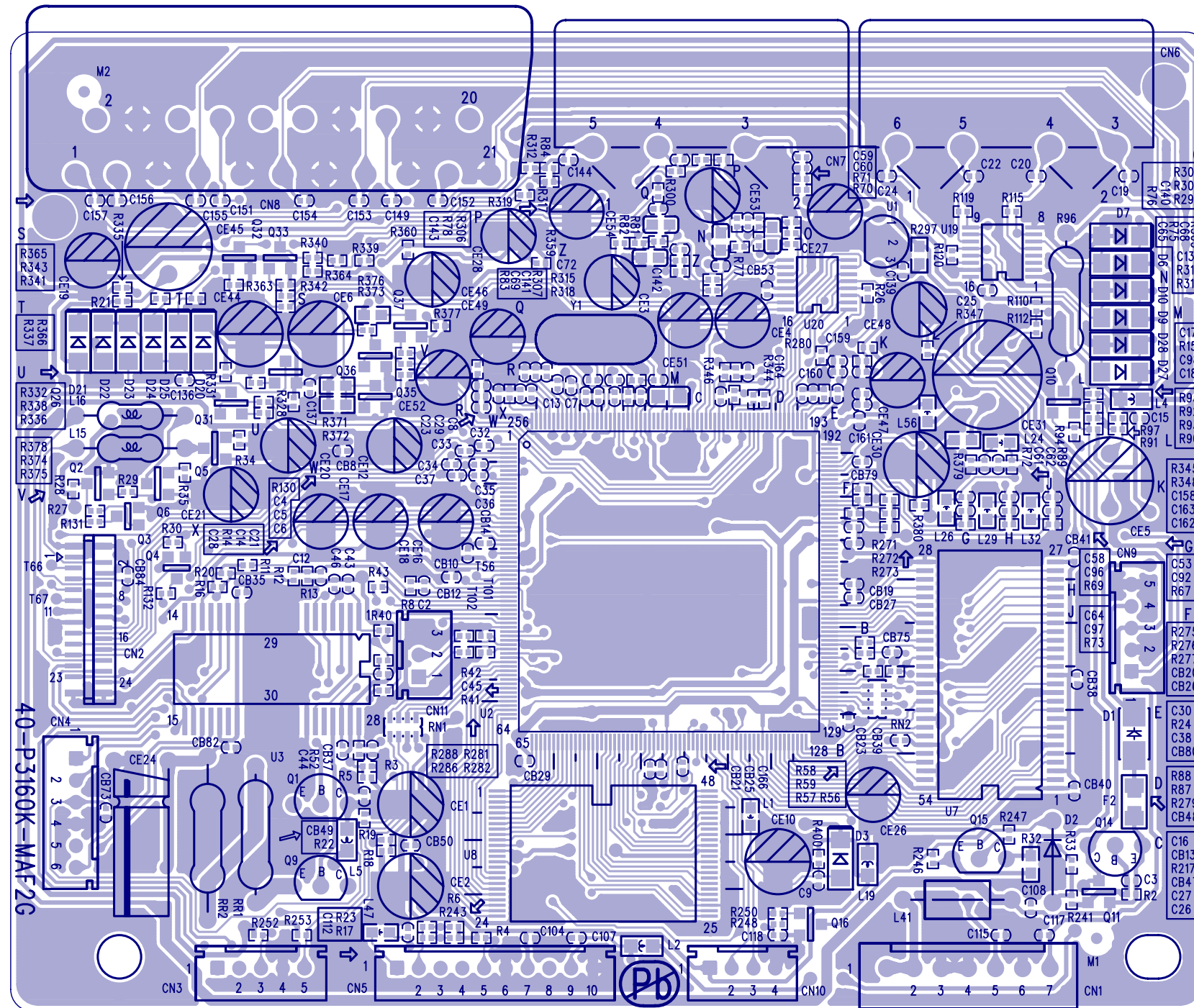


- C59 C4
- C136 C2
- C137 B1
- C138 A3
- C139 A1
- C141 A3
- R297 A1
- CB53 A1
- C164 C2
- R360 A4
- C160 B3
- R332 B1
- C161 B3
- R336 C1
- C163 B3
- C60 C4
- R300 A4
- R315 A3
- R312 A4
- R303 A3
- R328 B1
- R83 A3
- R341 C1
- R77 A3
- R343 D1
- R319 A4
- D20 B1
- R307 A4
- D21 C1
- CE45 C1
- D22 C1
- R84 A4
- D23 C1
- R78 A4
- D24 C1
- C65 A3
- C269 A3
- C159 B3
- C140 A3
- C162 B3
- C142 A3
- R335 C1
- C158 B3
- R299 A3
- C68 A3
- R302 A3
- C72 A3
- R311 A3
- Q26 B1
- R314 A3
- Q30 C1
- R347 B3
- Q31 C1
- R344 B2
- Q33 D1
- R75 A3
- Q32 C1
- R81 A3
- U20 A1
- R305 A3
- CN7 B4
- R318 B3
- Q7 A4
- R346 B2
- Q8 A4
- R338 C1
- U22 B2
- R21 C1
- L56 B2
- CE48 B3
- CN9 D3
- CE47 B2
- CE3 A3
- CE54 A3
- CE4 A3
- CE53 A3
- C144 B4
- R281 C3
- C143 B4
- R282 C3
- R82 A3
- R331 B1
- R76 A3
- R288 C3
- R337 C1
- R286 C3
- R340 C1
- CE27 A2
- U10B A3
- U1 A1
- U10A A3
- R306 A3
- CN11 C3
- R319 A3
- T100 B4
- R339 C1
- R363 C1
- R365 D1
- R342 D2
- R345 B3
- R348 B3
- R364 C1
- R366 D1
- CE6 B1

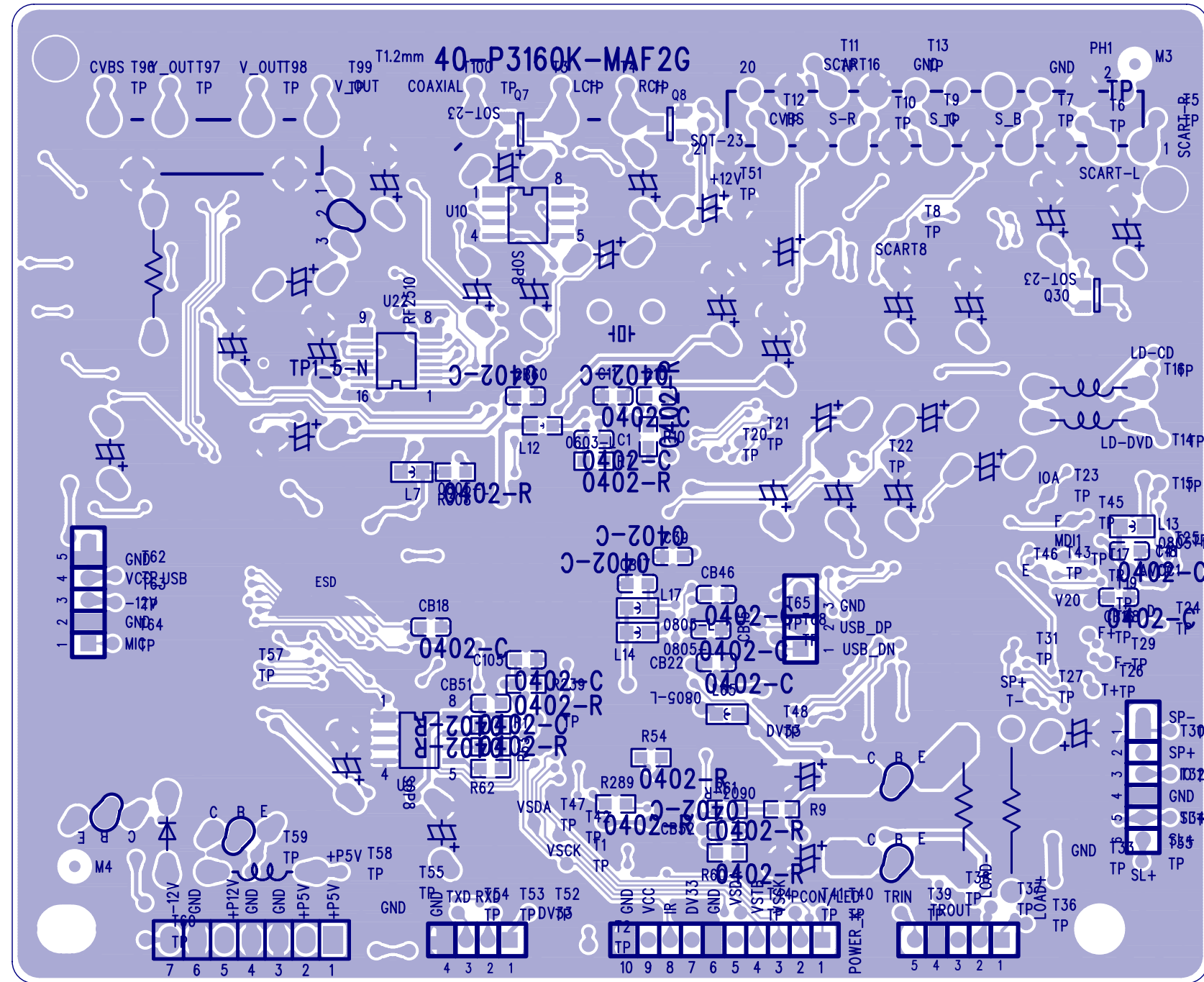


mute circuit

Main Board Print-Layout (Top Side) for DVP5160/XX

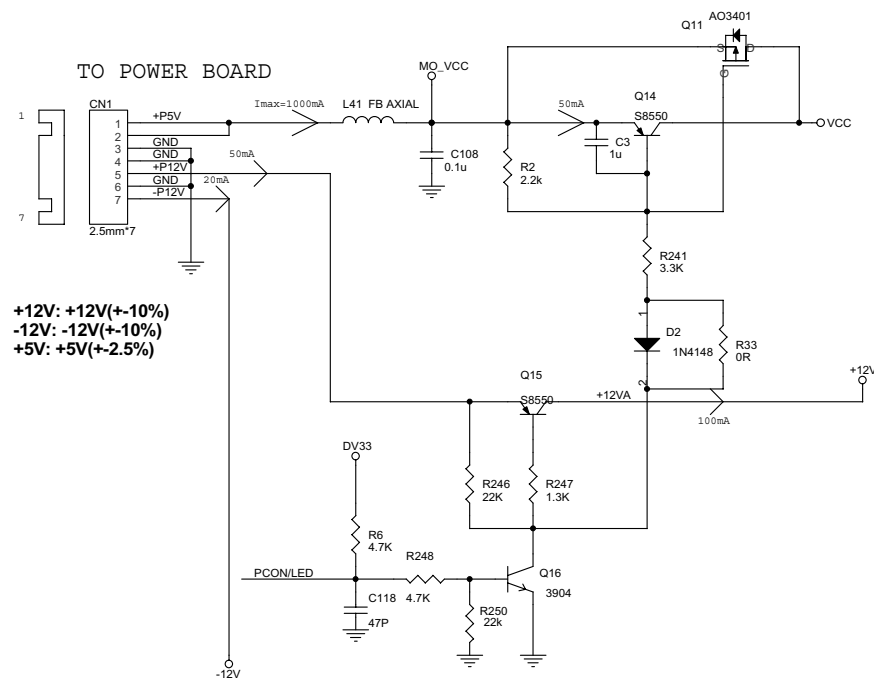


Main Board Print-Layout (Bottom Side) for DVP5160/XX

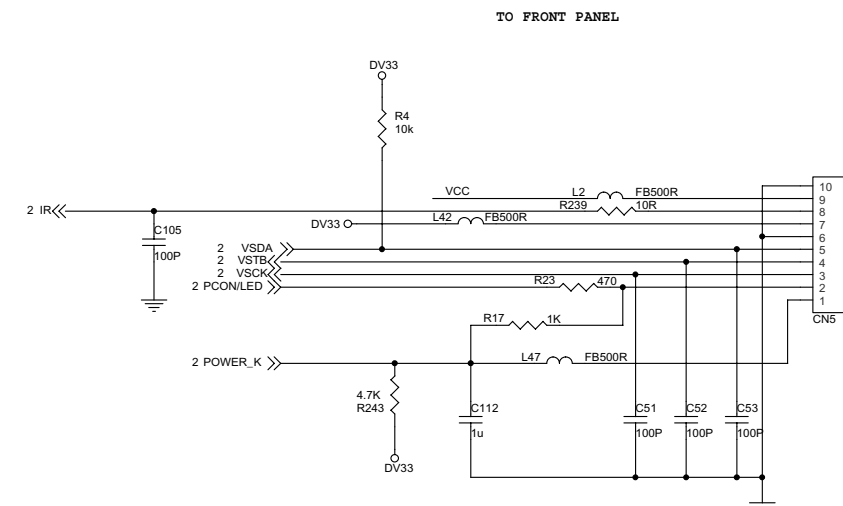


Main Board Electric Diagram for DVP5166K/XX,DVP5168K/XX: POWER&CONNECTOR

MT1389HD (LQFP256) DVD MP Board for SONY KHM313AAA

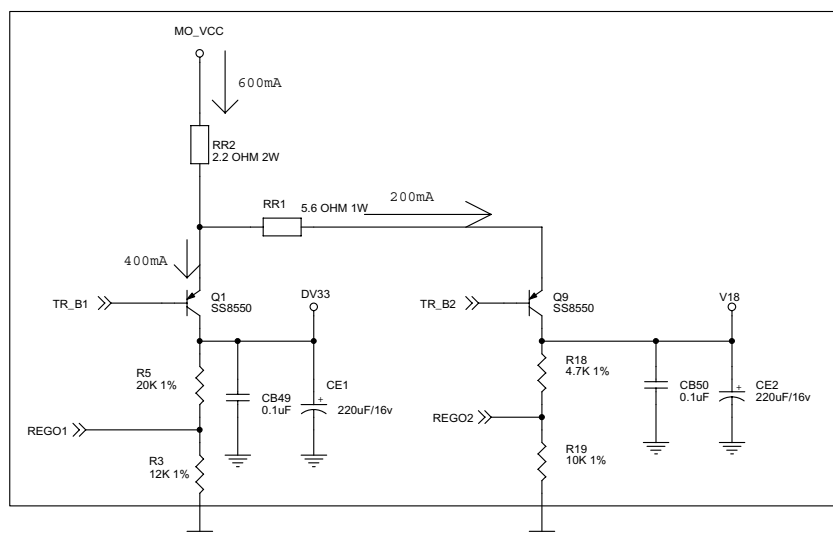
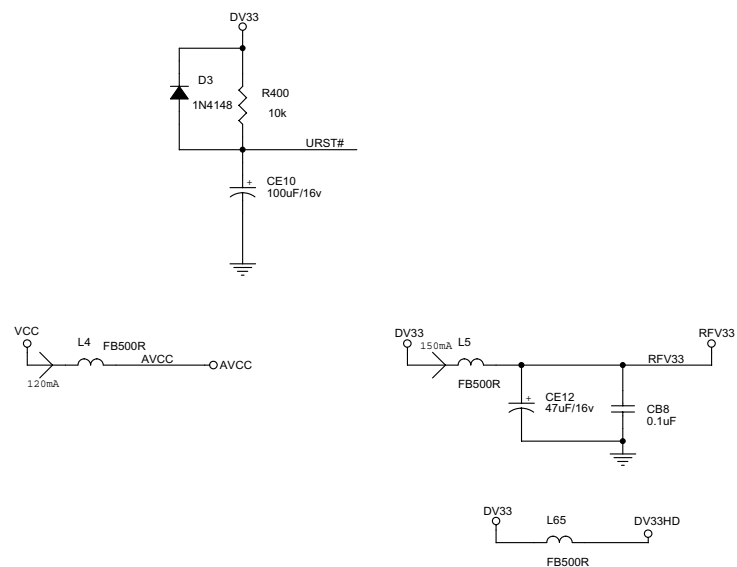


+12V: +12V(+10%)
 -12V: -12V(+10%)
 +5V: +5V(+2.5%)



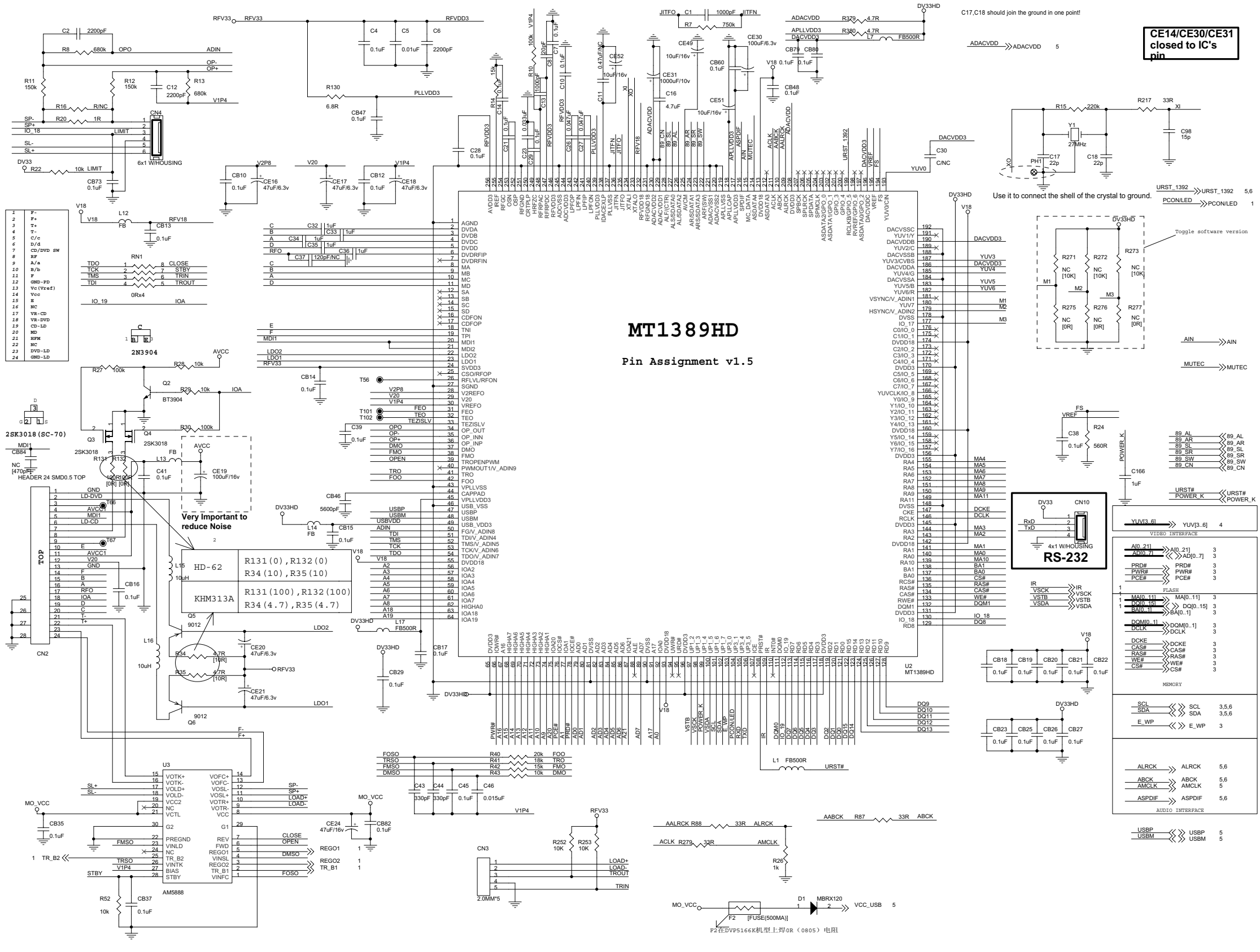
IR	IR	2
VSCCK	VSCCK	2
VSTB	VSTB	2
VSDA	VSDA	2
URST#	URST#	2
PCON/LED	PCON/LED	2
POWER_K	POWER_K	2

RESET Circuit



C105	A4
C108	A3
C112	A5
C118	B3
C3	A3
C51	A5
C52	A5
C53	A5
CB49	D3
CB50	D4
CB8	D2
CB1	D3
CB10	C1
CB12	D2
CB2	D4
CN1	A2
CN5	A5
D2	A3
D3	C1
L2	A5
L4	D1
L41	A3
L42	A5
L47	A5
L5	D2
L65	D2
Q1	D3
Q11	A3
Q14	A3
Q15	A3
Q16	B3
Q9	D4
R17	A5
R18	D4
R19	D4
R2	A3
R23	A5
R239	A5
R241	A3
R243	A4
R246	B3
R247	B3
R248	B3
R250	B3
R3	D3
R33	A3
R4	A4
R400	C1
R5	D3
R6	B3
RR1	C3
RR2	C3

Main Board Electric Diagram for DVP5166K/XX, DVP5168K/XX: MT1389HD&FRONTEND



CE14/CE30/CE31 closed to IC's pin

C17,C18 should join the ground in one point!

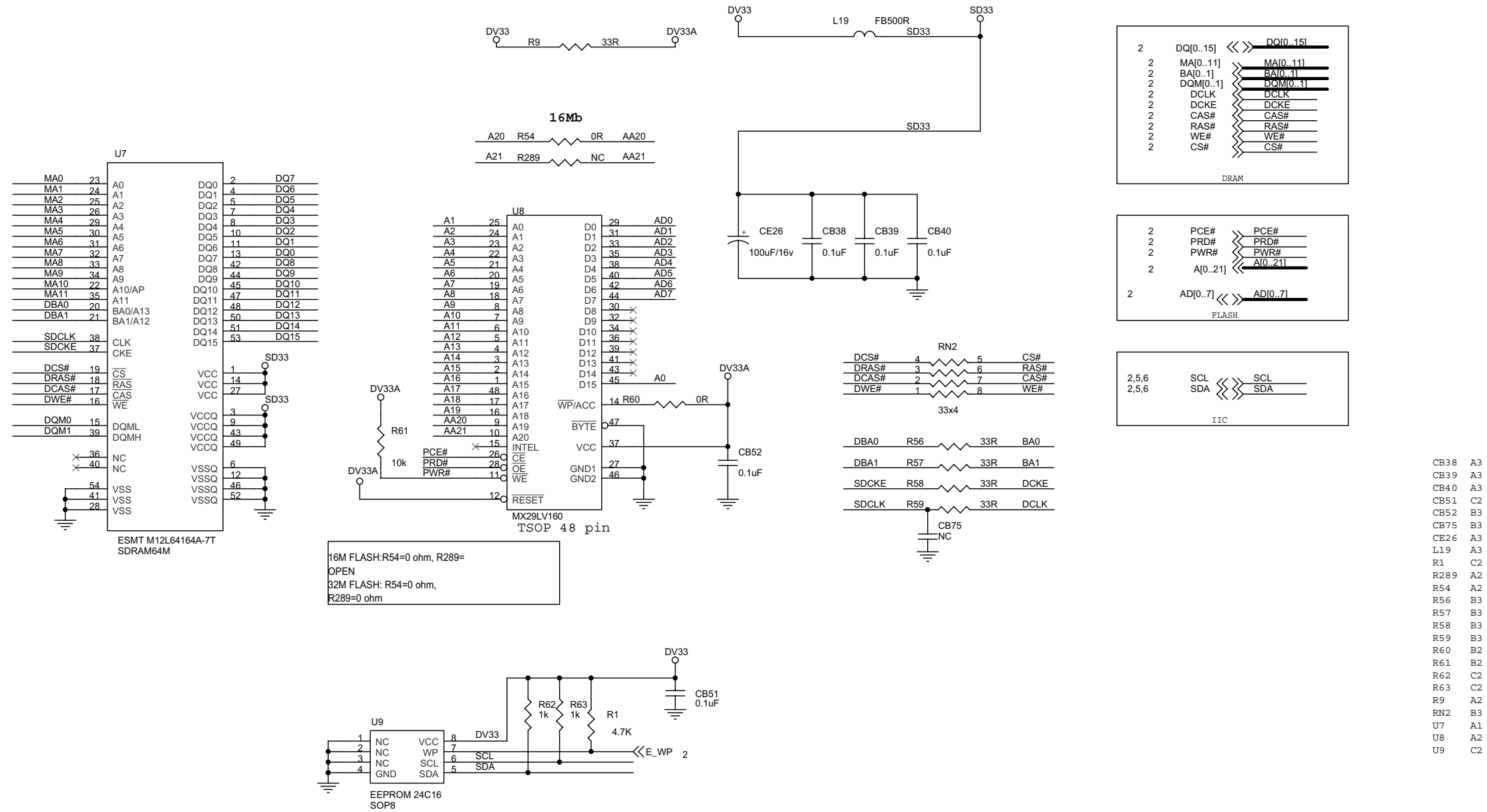
Use it to connect the shell of the crystal to ground.

Toggle software version

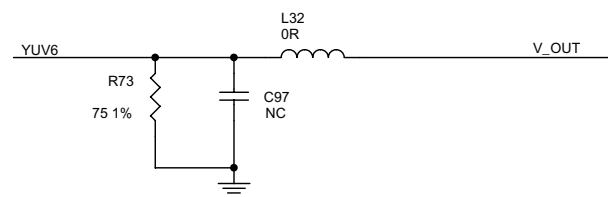
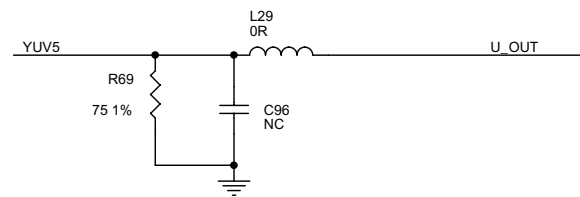
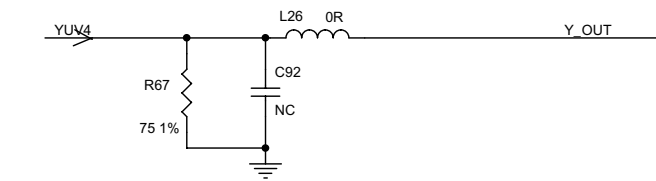
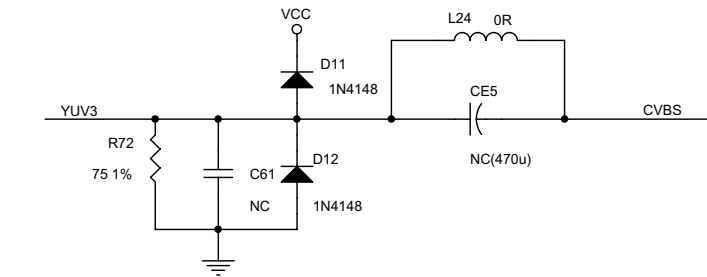
Very Important to reduce Noise

F2 in DVP5166K/XX board or (0805) 电阻

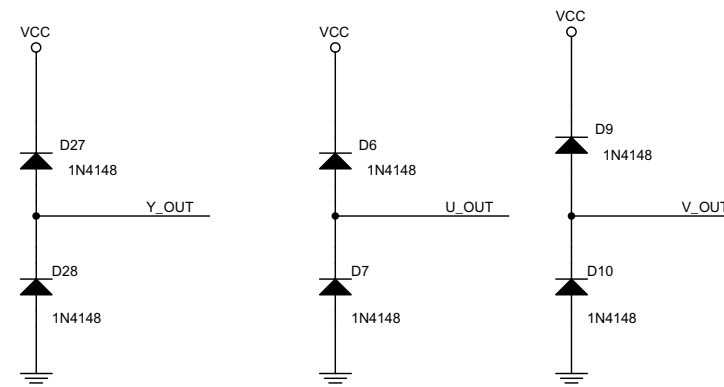
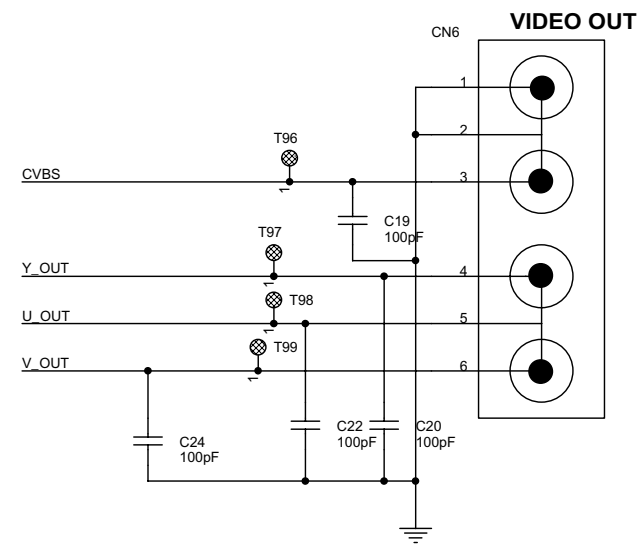
Main Board Electric Diagram for DVP5166K/XX,DVP5168K/XX: SDRAM & FLASH



Main Board Electric Diagram for DVP5166K/XX,DVP5168K/XX: VIDEO OUT

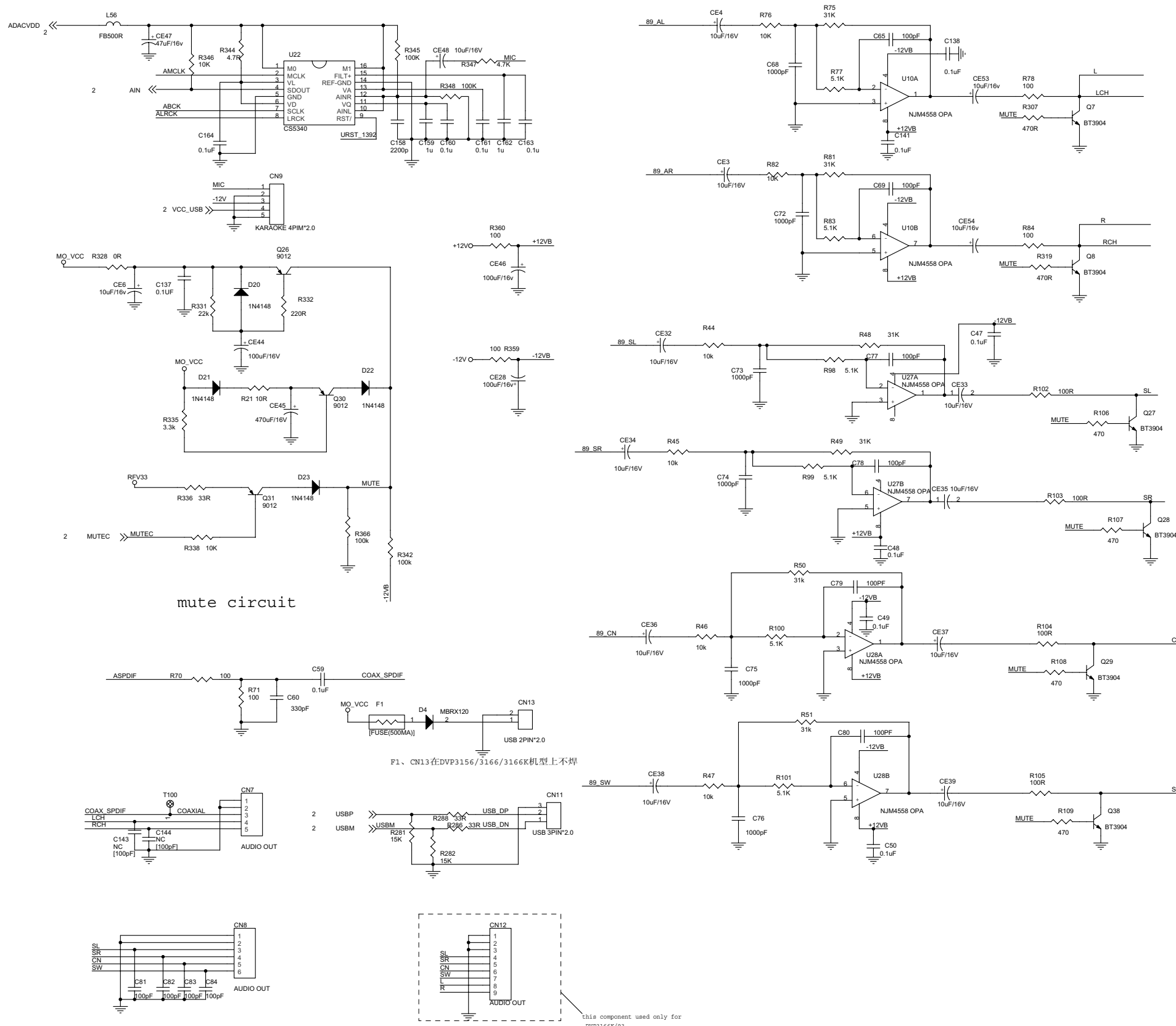


YUV[3..6] << YUV[3..6] 2



- L24 A2
- L26 B2
- L29 B2
- L32 C2
- D6 B3
- D7 C3
- D9 B4
- D10 C4
- D11 A2
- D12 A2
- D27 B3
- D28 C3
- R69 B1
- R72 A1
- R73 C1
- R67 B1
- C19 A3
- C20 B3
- C22 B3
- C24 B3
- CE5 A2
- C61 A2
- C92 B2
- C96 B2
- C97 C2
- CN6 A4
- T96 A3
- T97 A3
- T98 B3
- T99 B3

Main Board Electric Diagram for DVP5166K/XX,DVP5168K/XX: AUDIO OUT



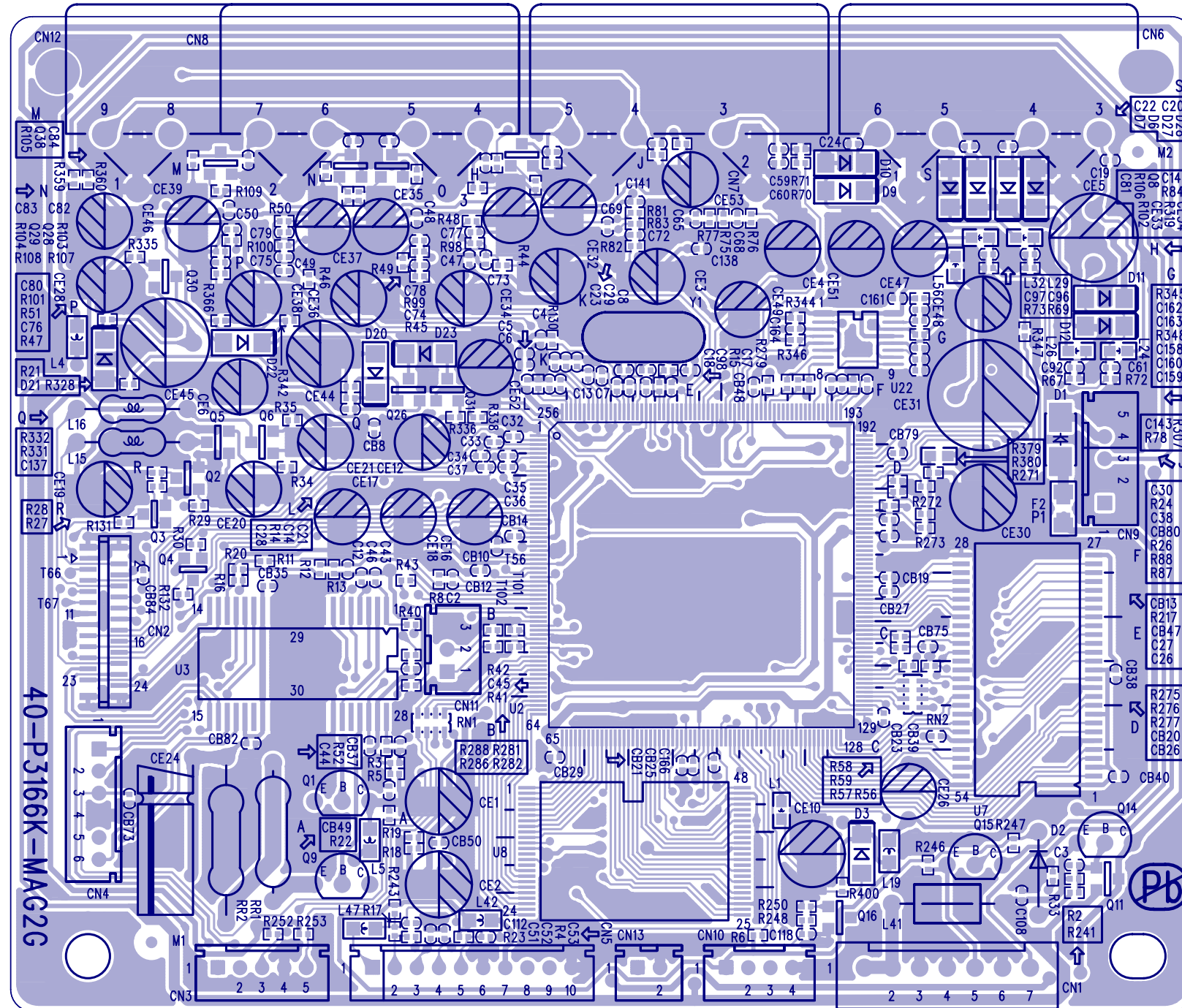
ALRCK	>>	ALRCK	2.6
ABCK	>>	ABCK	2.6
AMCLK	>>	AMCLK	2
ASPDIF	>>	ASPDIF	2.6
URST_1392	>>	URST_1392	2.6

89_AL	>>	89_AL	
89_AR	>>	89_AR	
89_SL	>>	89_SL	
89_SR	>>	89_SR	
89_SW	>>	89_SW	
89_CN	>>	89_CN	

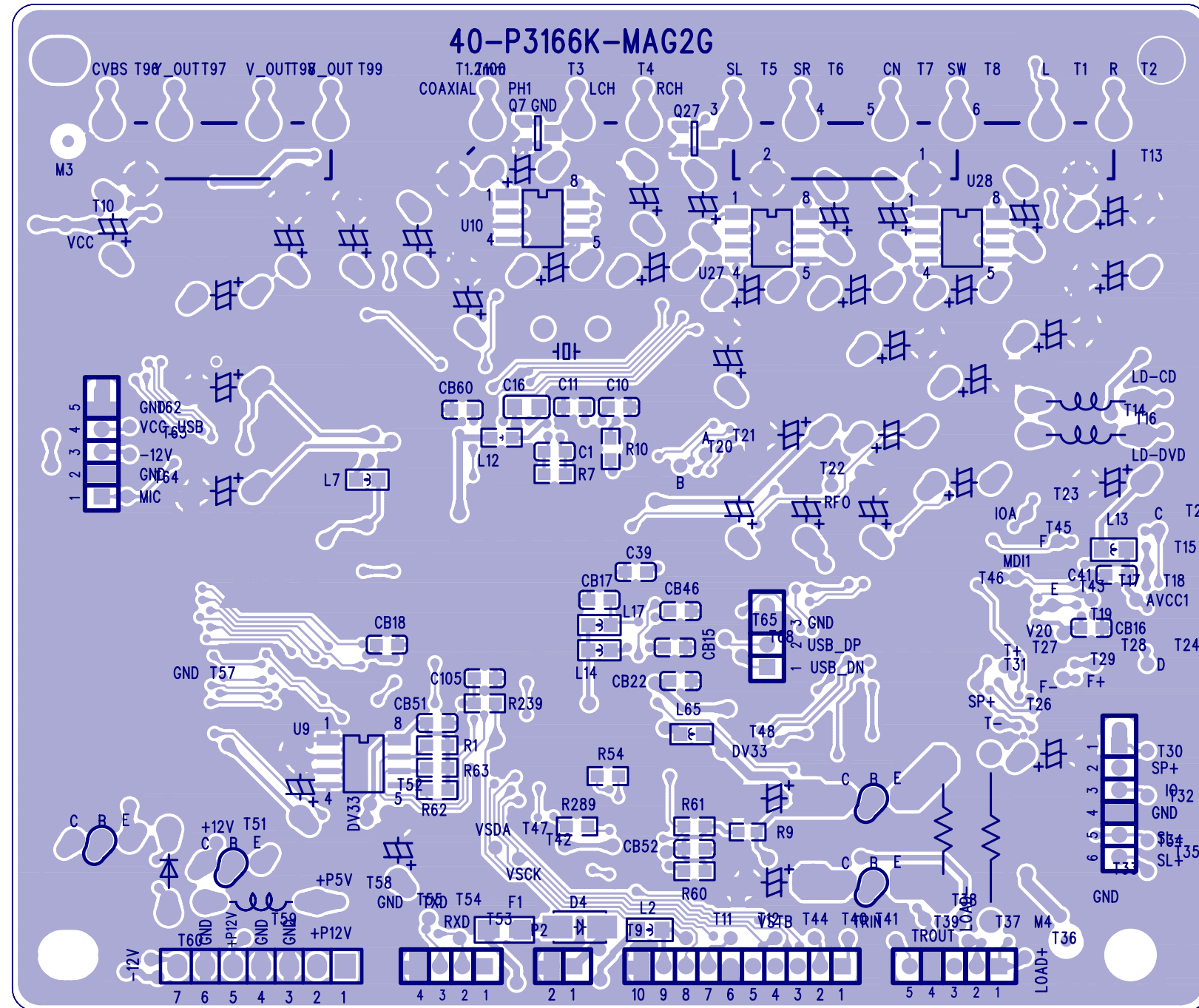
C137	A1	R307	A4
C138	A3	R319	A4
C141	A3	R328	A1
C143	C1	R331	B1
C144	C1	R332	B1
C158	A2	R335	B1
C159	A2	R336	B1
C160	A2	R338	B1
C161	A2	R342	B2
C162	A2	R344	A1
C164	A1	R345	A2
C47	B3	R346	A1
C48	B3	R347	A2
C49	C3	R348	A2
C50	C3	R359	B2
C59	C1	R360	A2
C60	C1	R366	B2
C65	A3	R44	B3
C68	A3	R45	B2
C69	A3	R46	C3
C72	A3	R47	C3
C73	B3	R48	B3
C74	B3	R49	B3
C75	C3	R50	B3
C76	C3	R51	C3
C77	B3	R70	C1
C78	B3	R71	C1
C79	B1	R75	A3
C80	B1	R76	A3
C81	D1	R77	A3
C82	D1	R78	A3
C84	D1	R82	A3
CE28	B2	R83	A3
CE3	A3	R84	A4
CE32	B2	R98	B3
CE33	B3	R99	B3
CE34	B2	T100	C1
CE35	B3	U10A	A3
CE36	C2	U10B	A3
CE37	C3	U22	A1
CE38	C2	U27A	B3
CE39	C3	U27B	B3
CE4	A3	U28A	C3
CE44	B1	U28B	C3
CE45	B1		
CE46	A2		
CE47	A1		
CE48	A2		
CE53	A3		
CE54	A3		
CE55	A3		
CE5	A1		
CN11	C2		
CN12	D2		
CN13	C2		
CN7	C1		
CN8	D1		
CN9	B1		
CN10	B2		
CN11	B1		
CN12	B2		
CN13	B1		
D4	C2		
F1	C2		
L56	A1		
Q26	A1		
Q27	B4		
Q28	B4		
Q29	C4		
Q30	B1		
Q31	B1		
Q38	C4		
Q7	A4		
Q8	A4		
R100	C3		
R101	C3		
R102	B4		
R103	C4		
R104	C4		
R105	C4		
R106	B4		
R107	B4		
R108	C4		
R109	C4		
R21	B1		
R281	C2		
R282	C2		
R286	C2		
R288	C2		

this component used only for DVP316K/93

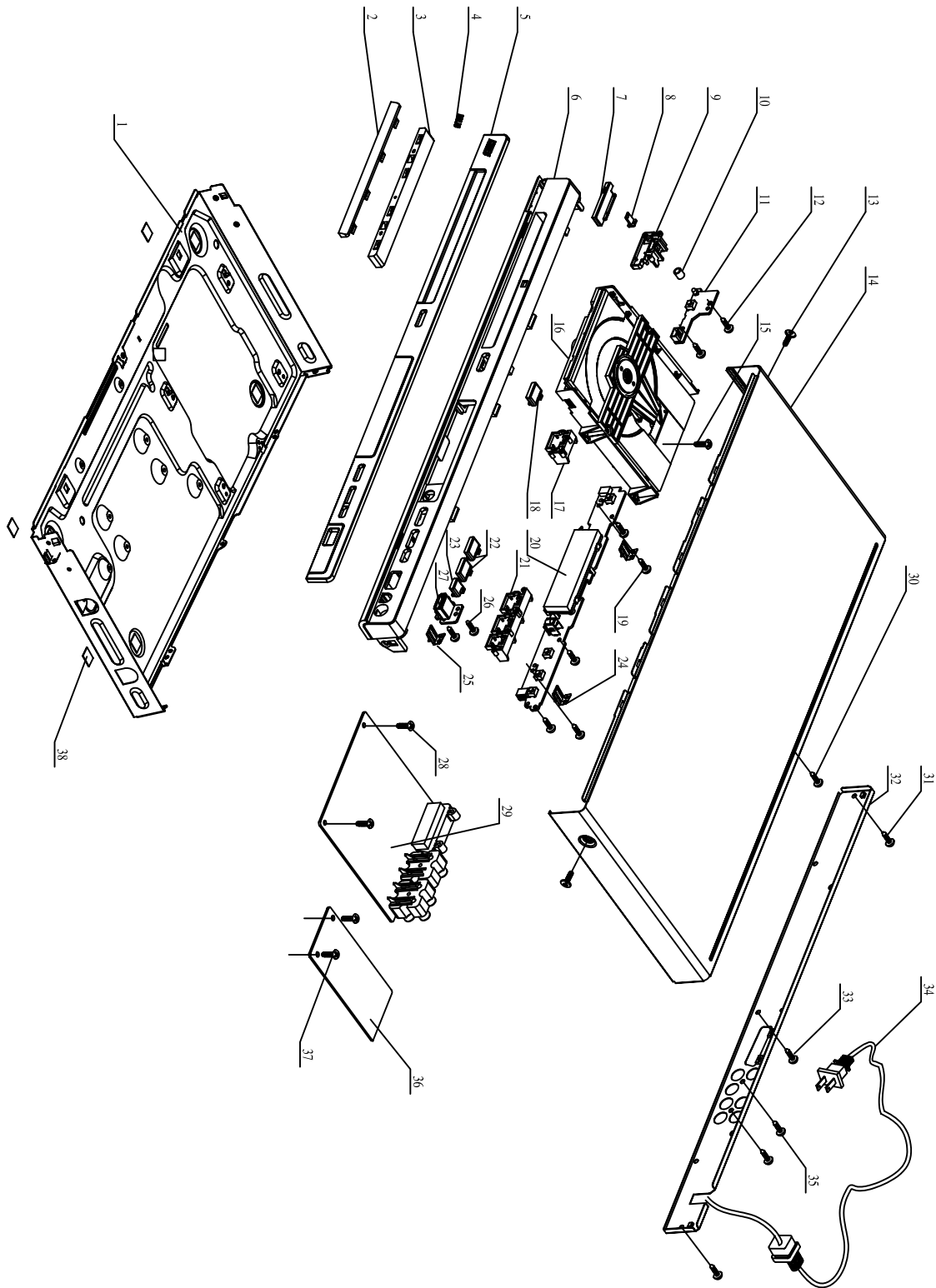
Main Board Print-Layout (Top Side) for DVP5166K/XX,DVP5168K/XX



Main Board Print-Layout (Bottom Side) for DVP5166K/XX,DVP5168K/XX



DVP5160/XX Mechanical Exploded View



Remark:

Ass'y1 is the component for location 2,3

Ass'y2 is the assemble compoient for location 4,5,6,7,8,9,17,18,21,22,23

It's a general Mechanical Exploded View for DVP5160/XX, Detailed information please refer to Model set.

ENCASING & ACCESSORIES PARTS LIST**SCREW LIST**

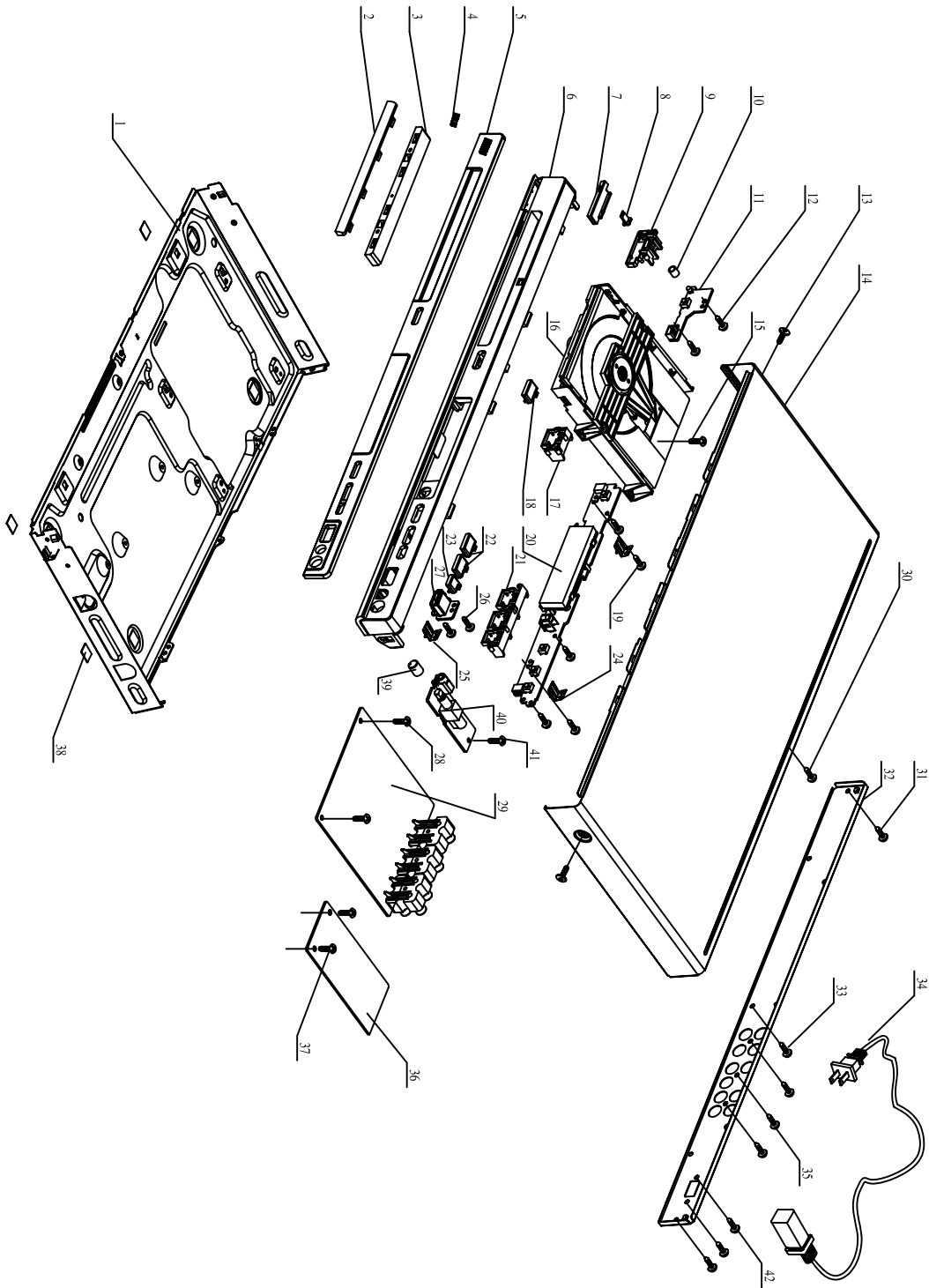
No	12NC No.	Part Name	Q'ty	No	12NC No.	Part Name	Q"ty
1	996510001539	Bottom Cabinet	1	12	/	S/T Screw B 2.6 X 8 BF	2
Ass'y1	/	Front Door Ass'y	1	13	/	M/C Screw Triangle W 3 X 6	2
Ass'y2	/	Front Panel Ass'y	1	15	/	Machine Screw	1
10	/	LED Supporter	1	19	/	S/T Screw B 2.6 X 8 BF	5
11	996500034178	Ass'y-Switch Board	1	26	/	Triangle M/C Screw B 3 X 6	2
14	996510001540	Top cover	1	28	/	Triangle M/C Screw B 3 X 6	2
16	996500034190	Loader	1	30	/	Triangle M/C Screw B 3 X 6	1
20	996510001523	Ass'y- Front Board	1	31	/	Triangle M/C Screw B 3 X 6	2
24	/	Earthing Plate	1	33	/	Triangle M/C Screw B 3 X 6	1
25	/	Earthing Plate	1	35	/	S/T Screw B 3 X 8 BF	2
				37	/	Triangle M/C Screw B 3 X 6	2
27	996510001525	Ass'y - USB Board	1				
29	/	Ass'y-Main Board	1				
32	/	Rear Cabinet	1				
34	/	Power Cord for DVP5160/05	1				
	/	Power Cord for DVP5160/12					
36	/	Ass'y-Power Board	1				
38	/	PAD	4				

Accessory

RC	996500035359	REMOTE CONTROL	1
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Note: Only the parts mentioned in this list are normal service spare parts

DVP5166K/XX Mechanical Exploded View



Remark:

Ass'y1 is the component for location 2,3

Ass'y2 is the assemble compoient for location 4,5,6,7,8,9,17,18,21,22,23

It's a general Mechanical Exploded View for DVP5166K/XX, Detailed information please refer to Model set.

ENCASING & ACCESSORIES PARTS LIST**SCREW LIST**

No	12NC No.	Part Name	Q'ty	No	12NC No.	Part Name	Q'ty
1	996510001539	Bottom Cabinet	1	12	/	S/T Screw B 2.6 X 8 BF	2
Ass'y1	996510001535	Front Door Ass'y	1	13	/	M/C Screw Triangle W 3 X 6	2
Ass'y2	996510001536	Front Panel Ass'y	1	15	/	Machine Screw	1
10	/	LED Supporter	1	19	/	S/T Screw B 2.6 X 8 BF	5
11	996500034178	Ass'y-Switch Board	1	26	/	Triangle M/C Screw B 3 X 6	2
14	996510001540	Top cover	1	28	/	Triangle M/C Screw B 3 X 6	2
16	996500034190	Loader	1	30	/	Triangle M/C Screw B 3 X 6	1
20	996510001523	Ass'y- Front Board	1	31	/	Triangle M/C Screw B 3 X 6	2
24	/	ESD Washer	1	33	/	Triangle M/C Screw B 3 X 6	1
25	/	Earthing Plate	1	35	/	S/T Screw B 3 X 8 BF	3
27	996510001525	Ass'y - USB Board	1	37	/	Triangle M/C Screw B 3 X 6	2
29	996510001521	Ass'y-Main Board	1	41	/	Triangle M/C Screw B 3 X 6	1
32	/	Rear Cabinet for DVP5166K/56	1	42	/	S/T Screw B 3 X 8 BF	2
	/	Rear Cabinet for DVP5166K/98					
34	996510001537	Power Cord for DVP5166K/98	1				
	/	Power Cord for DVP5166K/56					
36	/	Ass'y-Power Board for DVP5166K/56	1				
	996510001522	Ass'y-Power Board for DVP5166K/98					
38	/	PAD	4				
39	/	Knob	1				
40	996510001524	Ass'y-OK Board	1				

Accessory

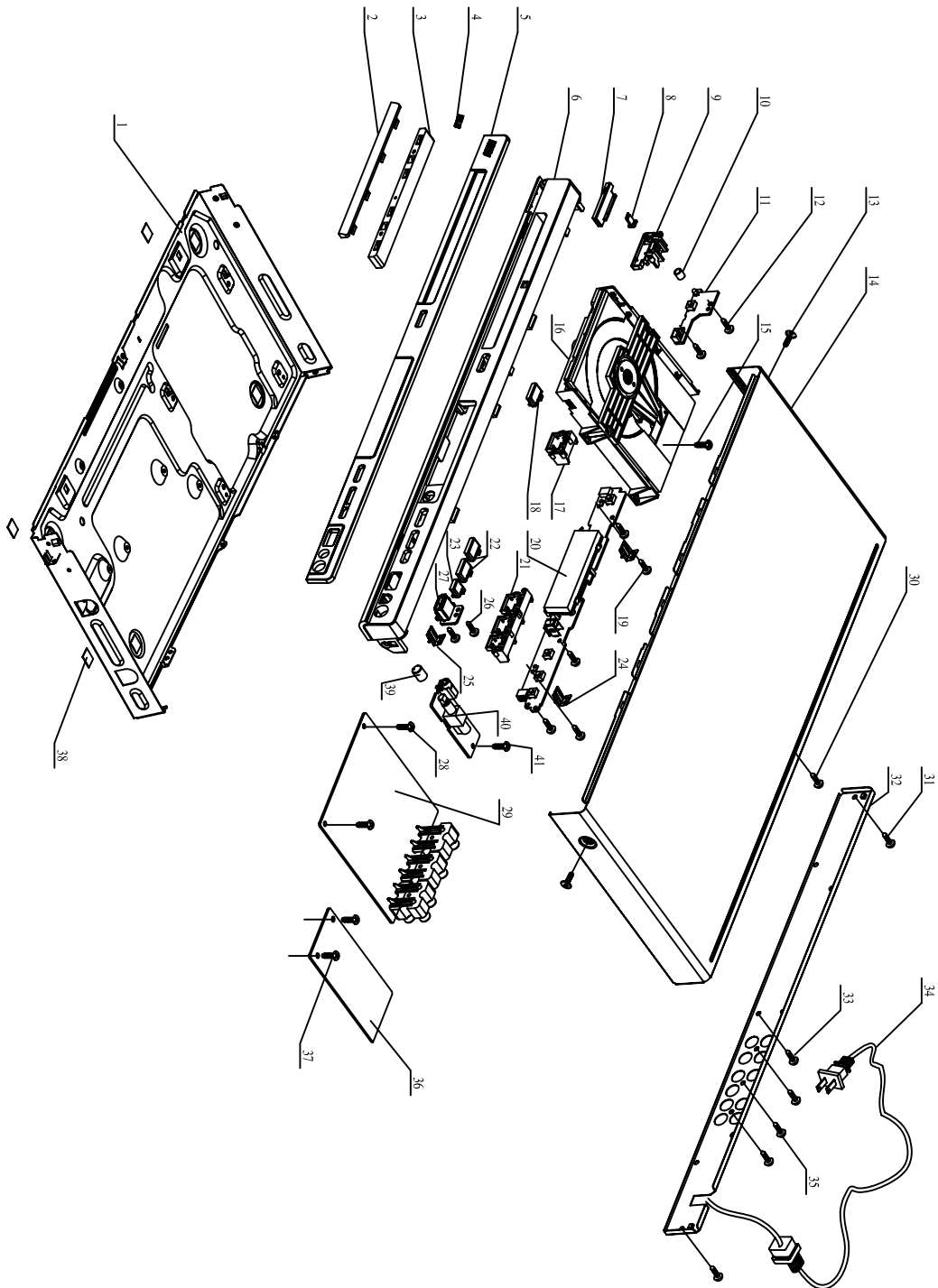
AV Cable	996510001106	VIDEO CABLE 1500mm	1
RC	996500035367	REMOTE CONTROL	1

Cable

CON201	996510001527	CABLE 4PIN HS	1
CON302	996510000547	4P HS	1
CN7	996510001526	CABLE 5P HS	1
CN2	996510001528	CABLE 24P HS	1
MAINCN4	996510001222	HS 6P PH-6Y/PH-6Y	1
CN202	996510001529	CABLE 7PIN TJC3-7P/SCW-7P	1
LOADER	996510001192	PH-5Y/PH-5Y L=130MM	1
CON301	996510001530	CABLE 10P HS	1

Note: Only the parts mentioned in this list are normal service spare parts

DVP5168K/XX Mechanical Exploded View



Remark:

Ass'y1 is the component for location 2,3

Ass'y2 is the assemble compoient for location 4,5,6,7,8,9,17,18,21,22,23

It's a general Mechanical Exploded View for DVP5168K/XX, Detailed information please refer to Model set.

ENCASING & ACCESSORIES PARTS LIST**SCREW LIST**

No	12NC No.	Part Name	Q'ty	No	12NC No.	Part Name	Q"ty
1	996510001539	Bottom Cabinet	1	12	/	S/T Screw B 2.6 X 8 BF	2
Ass'y1	/	Front Door Ass'y	1	13	/	M/C Screw Triangle W 3 X 6	2
Ass'y2	/	Front Panel Ass'y	1	15	/	Machine Screw	1
10	/	LED Supporter	1	19	/	S/T Screw B 2.6 X 8 BF	5
11	996500034178	Ass'y-Switch Board	1	26	/	Triangle M/C Screw B 3 X 6	2
14	996510001540	Top cover	1	28	/	Triangle M/C Screw B 3 X 6	2
16	996500034190	Loader	1	30	/	Triangle M/C Screw B 3 X 6	1
20	996510001523	Ass'y- Front Board	1	31	/	Triangle M/C Screw B 3 X 6	2
24	/	ESD Washer	1	33	/	Triangle M/C Screw B 3 X 6	1
25	/	Earthing Plate	1	35	/	S/T Screw B 3 X 8 BF	3
27	996510001525	Ass'y - USB Board	1	37	/	Triangle M/C Screw B 3 X 6	2
29	996510001521	Ass'y-Main Board	1	41	/	Triangle M/C Screw B 3 X 6	1
32	/	Rear Cabinet	1				
34	/	Power Cord	1				
36	/	Ass'y-Power Board	1				
38	/	PAD	4				
39	/	Knob	1				
40	996510001524	Ass'y-OK Board	1				

Note:Only the parts mentioned in this list are normal service spare parts

REVISION LIST

Version 1.0

* Initial release

Remark: This Service manual only for Philips Service repairment, Please Don't transmittte or forward it to others.