

DVD Player

DVP3120(K)

Service

DVP3120/05/12/51/55/94/75/77/78,DVP3120x/94

DVP3120K/55/93/98

Service

Service



Service Manual

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GB

3139 785 32912

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
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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)	>70dB
Distortion/Noise (1kHz)	>65dB
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

Cabinet

Dimensions (w X h X d)	360 x 37 x 235 mm 360 x 37 x 209 mm (For DVP3120 /05/12/55)
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 Ω .
 - 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)

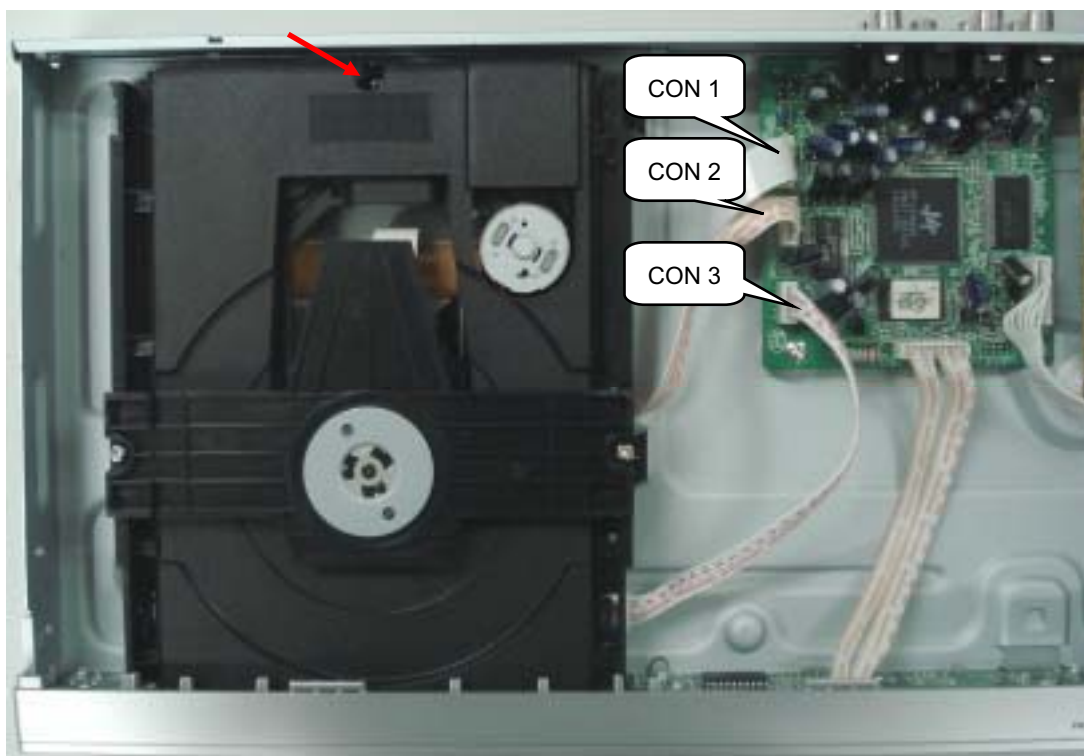


Figure 4

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

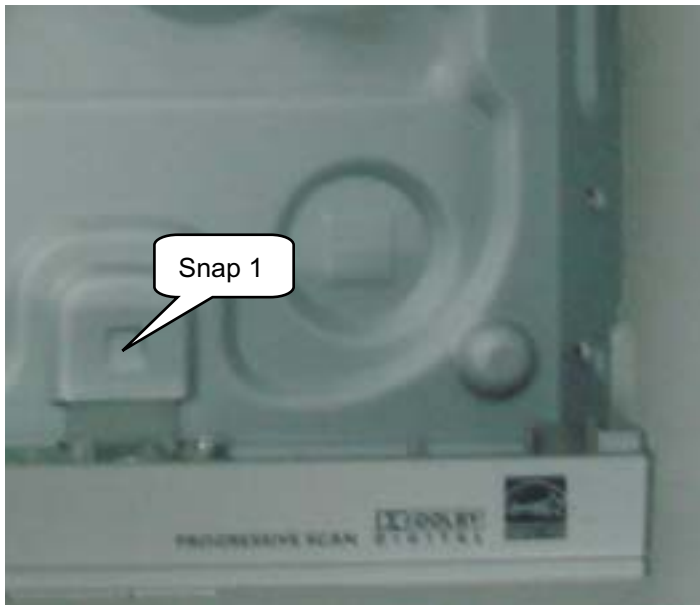


Figure 6

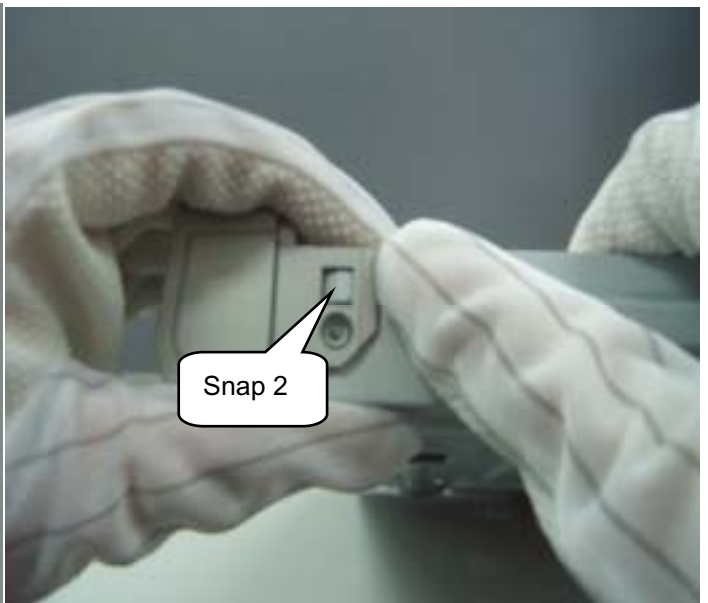


Figure 7

Mechanical and Dismantling Instructions

Dismantling Instruction

Step6: Dismantling Main Board, first disconnect the 1 connector, then remove 4 screws to remove the Main board. (Figure 8)

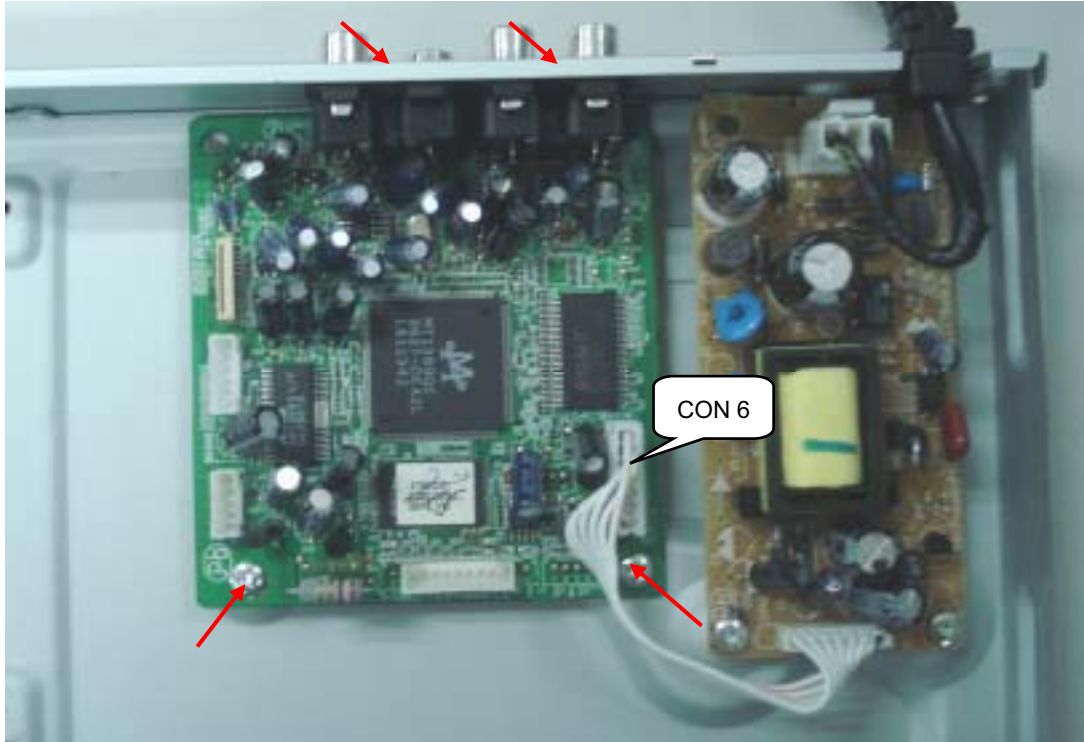


Figure 8

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: DVP312X (No need the label name)
File Name: DVPXXXX_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 into 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.

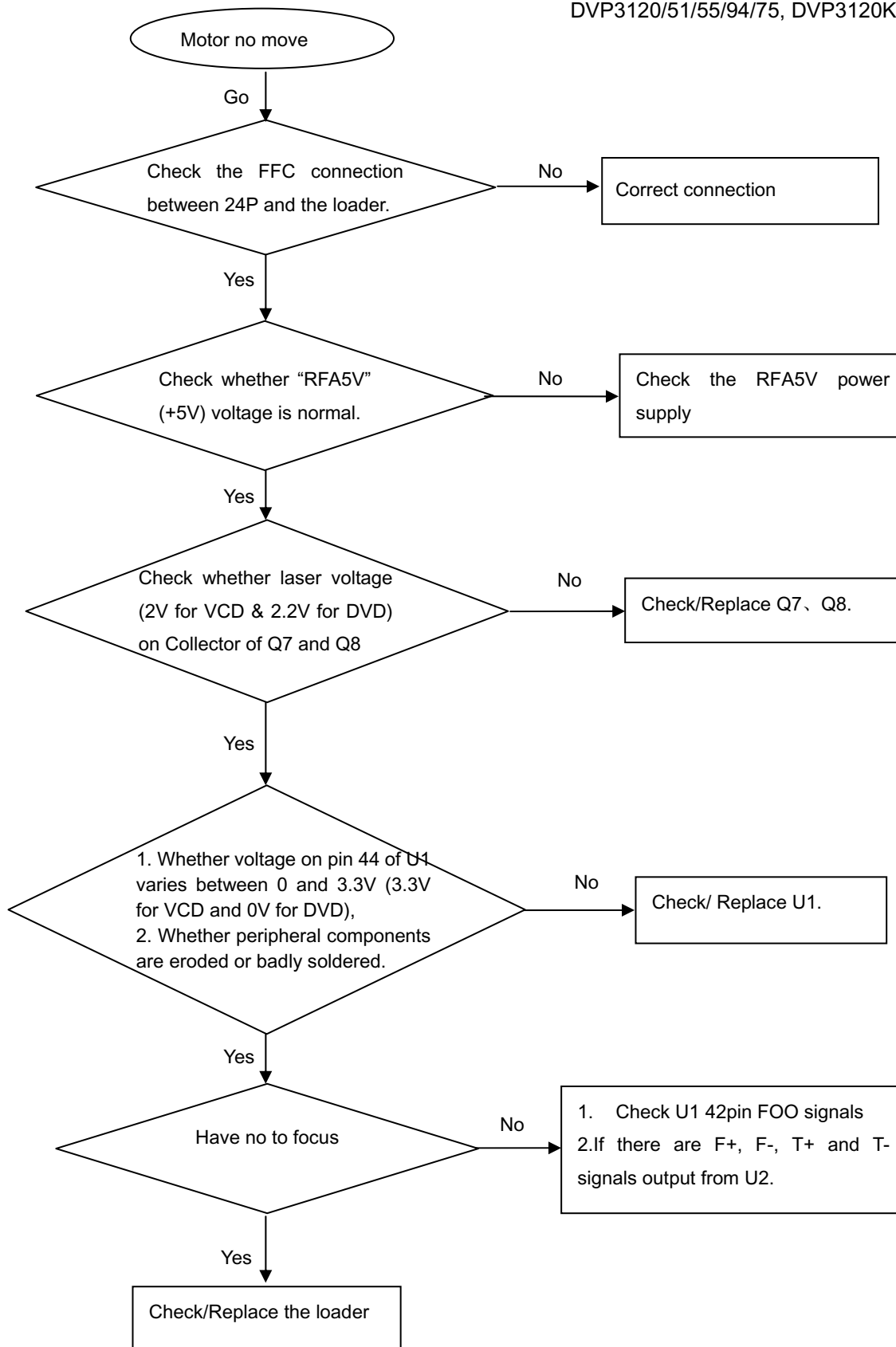
The software version and other information are display on the TV screen as follows:

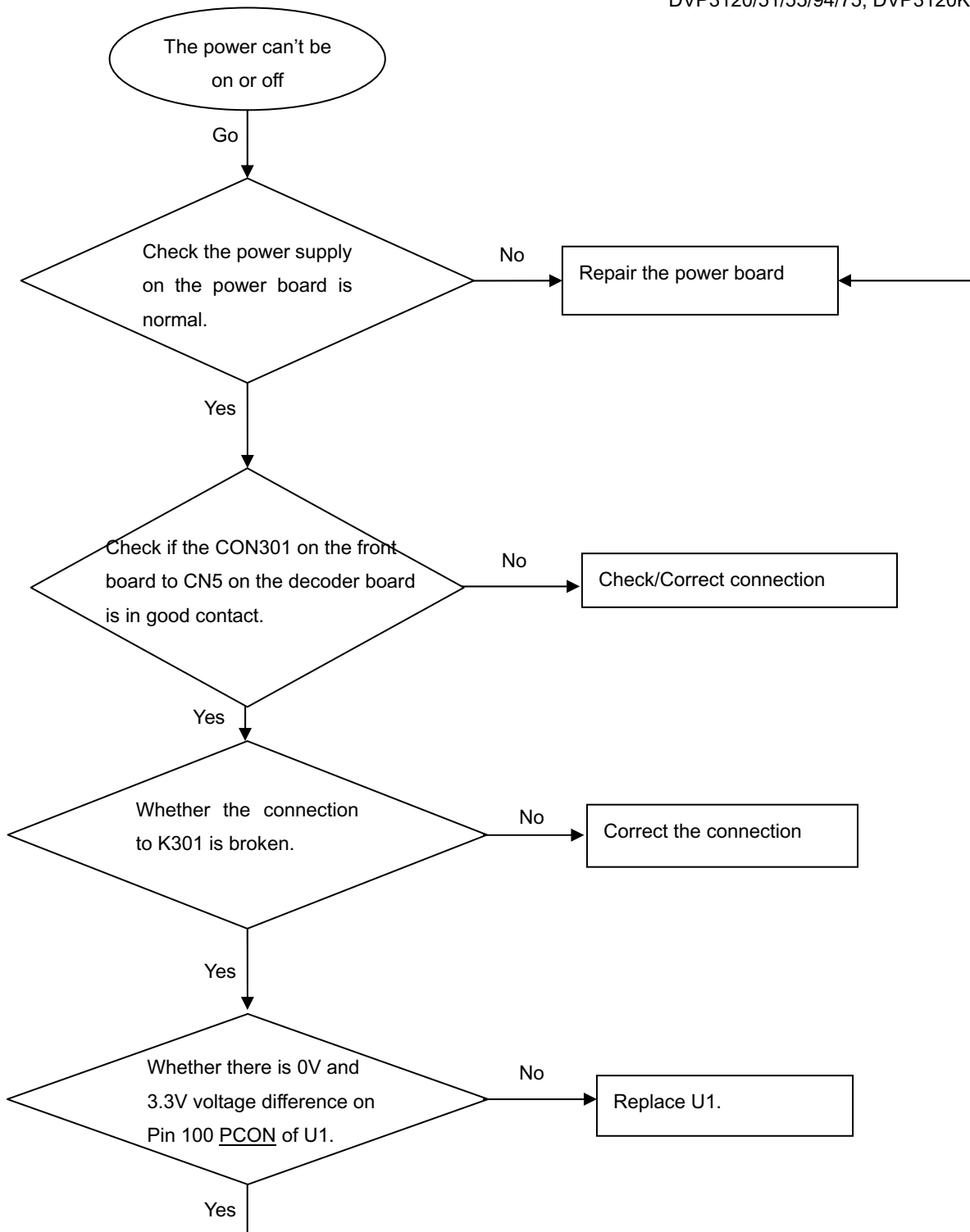
Version	XX.XX.XX.XX (Main version)
SUB-VER	XX.XX.XX.XX (software version of application software)
8032	XX.XX.XX.XX
Servo	XX.XX.XX.XX (software version of Servo)
RISC	XX.XX.XX.XX
DSP	XX.XX.XX.XX
Region Code	X

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

Spindle motor does not move

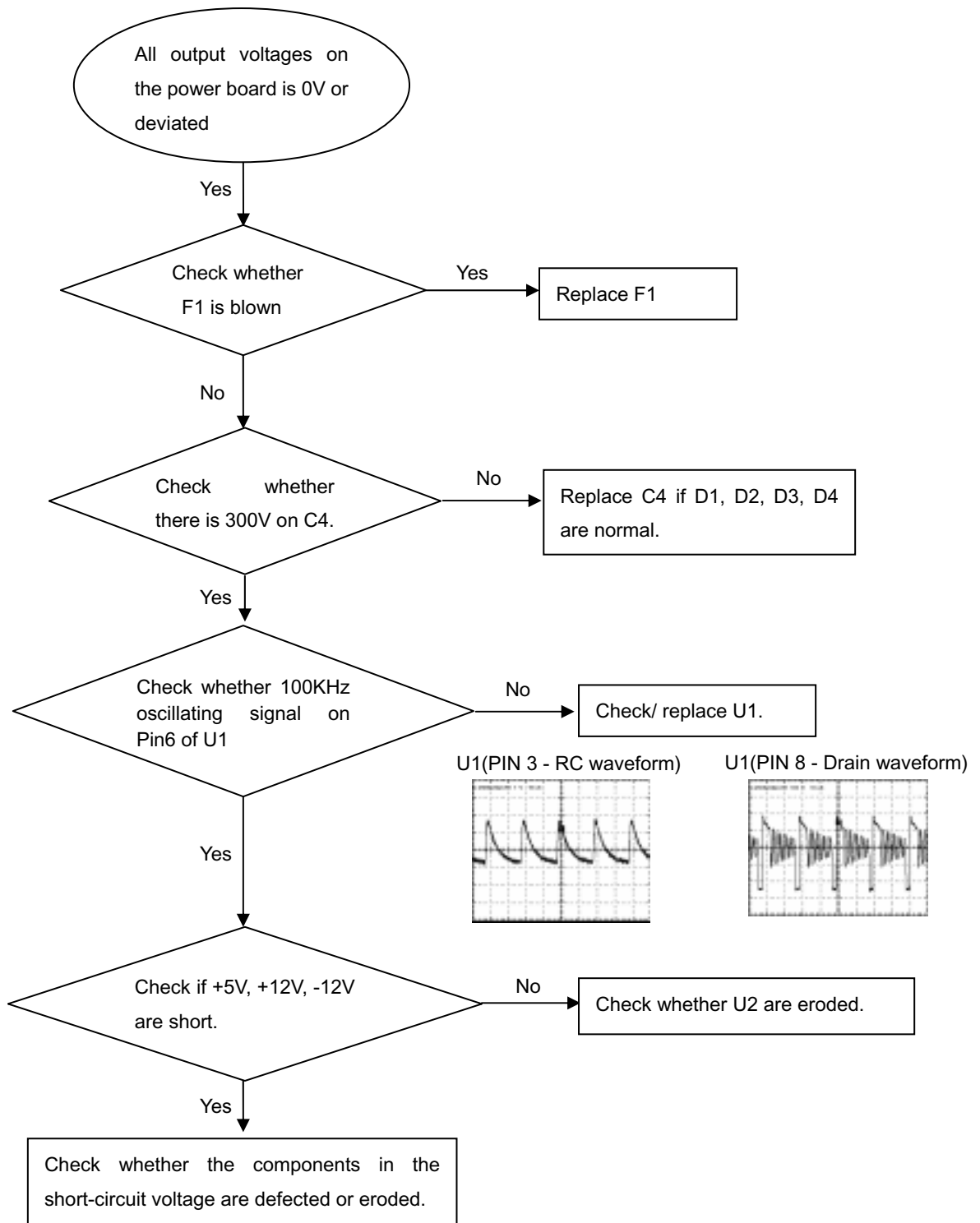
Remark: Trouble shooting chart for
DVP3120/51/55/94/75, DVP3120K/55/93/98



The power can not be on or offRemark: Trouble shooting chart for
DVP3120/51/55/94/75, DVP3120K/55/93/98

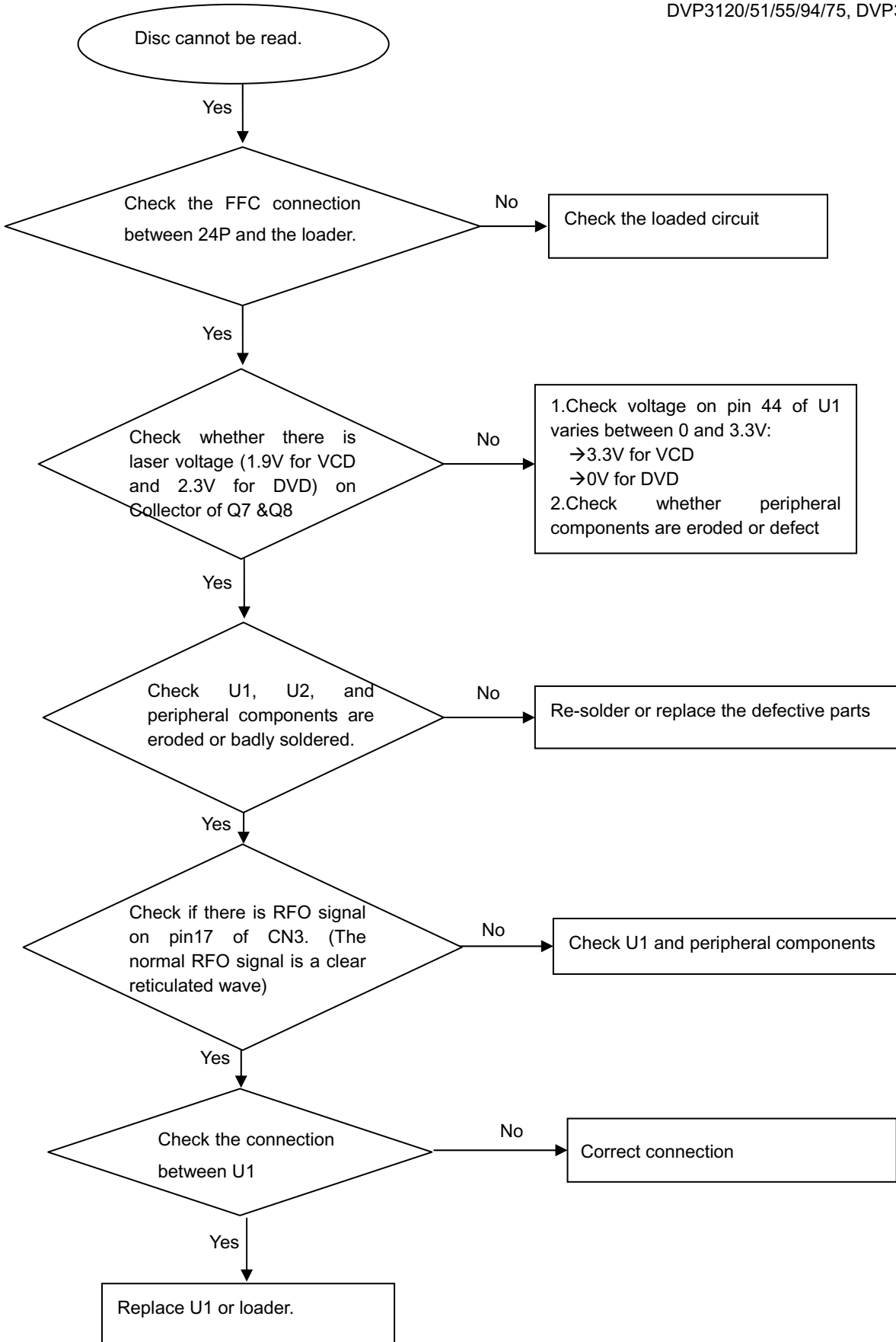
All output voltages on the power board is 0V or deviated.

Remark: Trouble shooting chart for DVP3120/51/55/94/75, DVP3120K/55/93/98



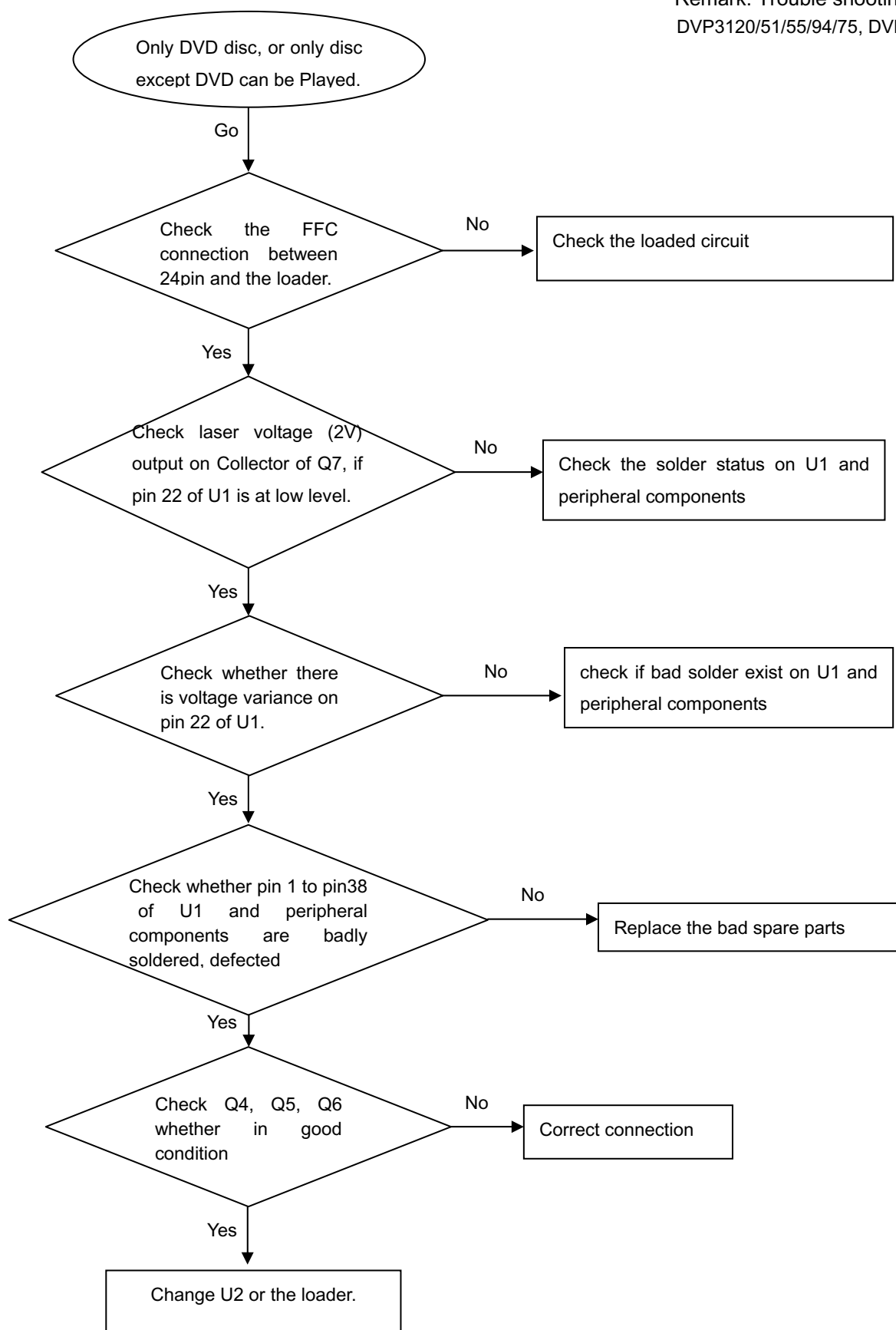
Disc cannot be read.

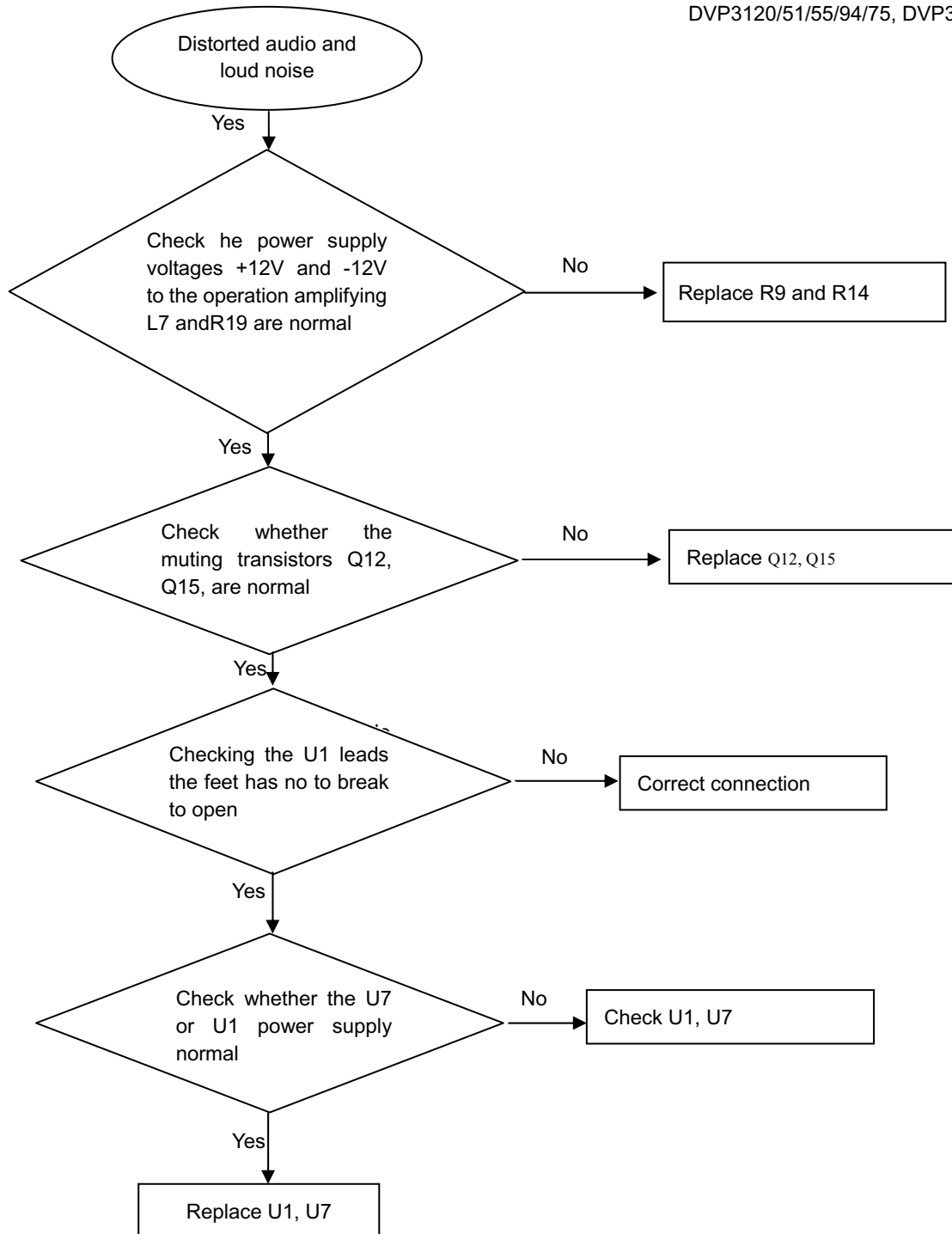
Remark: Trouble shooting chart for
DVP3120/51/55/94/75, DVP3120K/55/93/98



Only DVD disc or only disc except DVD can be played

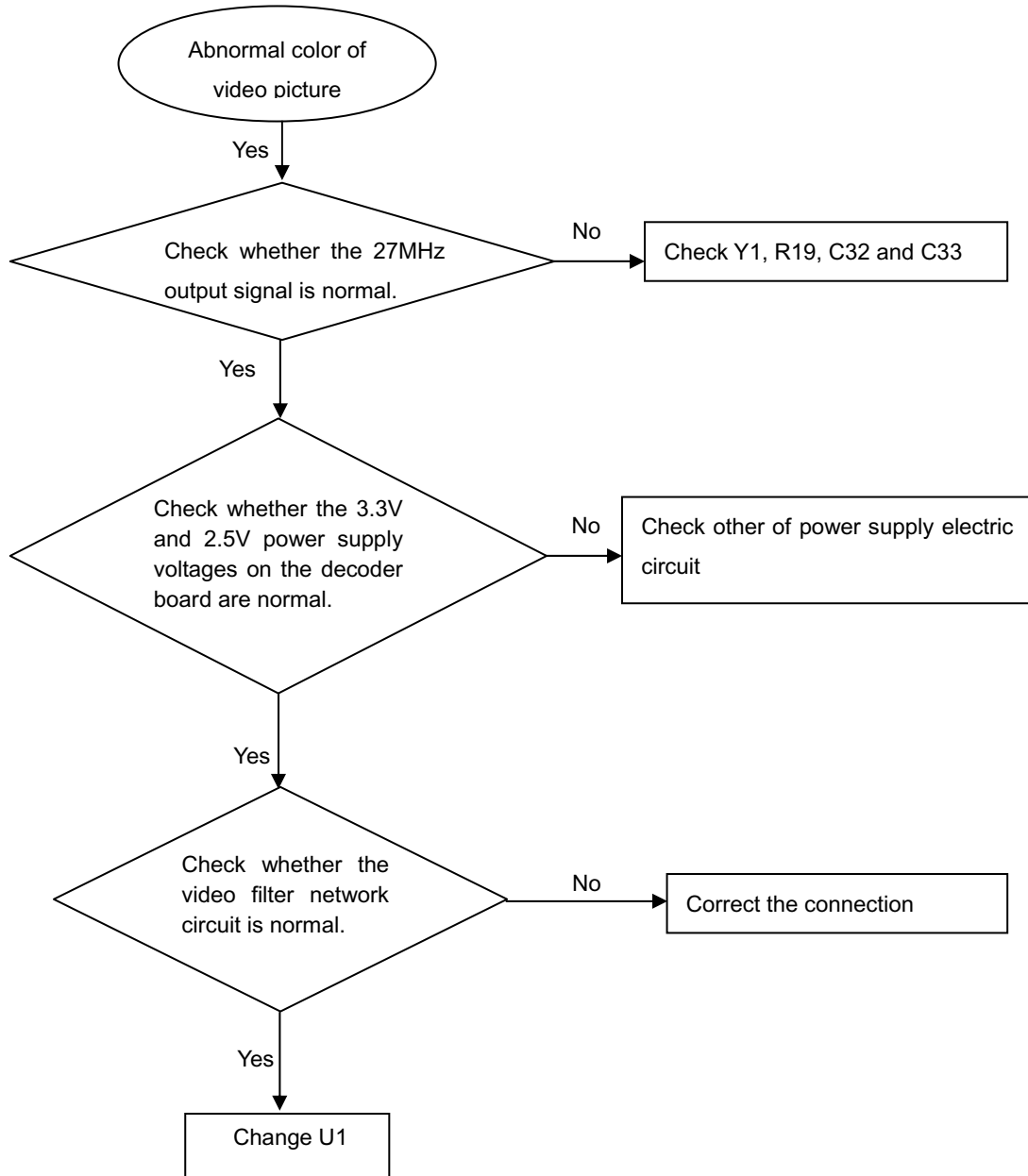
Remark: Trouble shooting chart for
DVP3120/51/55/94/75, DVP3120K/55/93/98



Distorted audio and loud noiseRemark: Trouble shooting chart for
DVP3120/51/55/94/75, DVP3120K/55/93/98

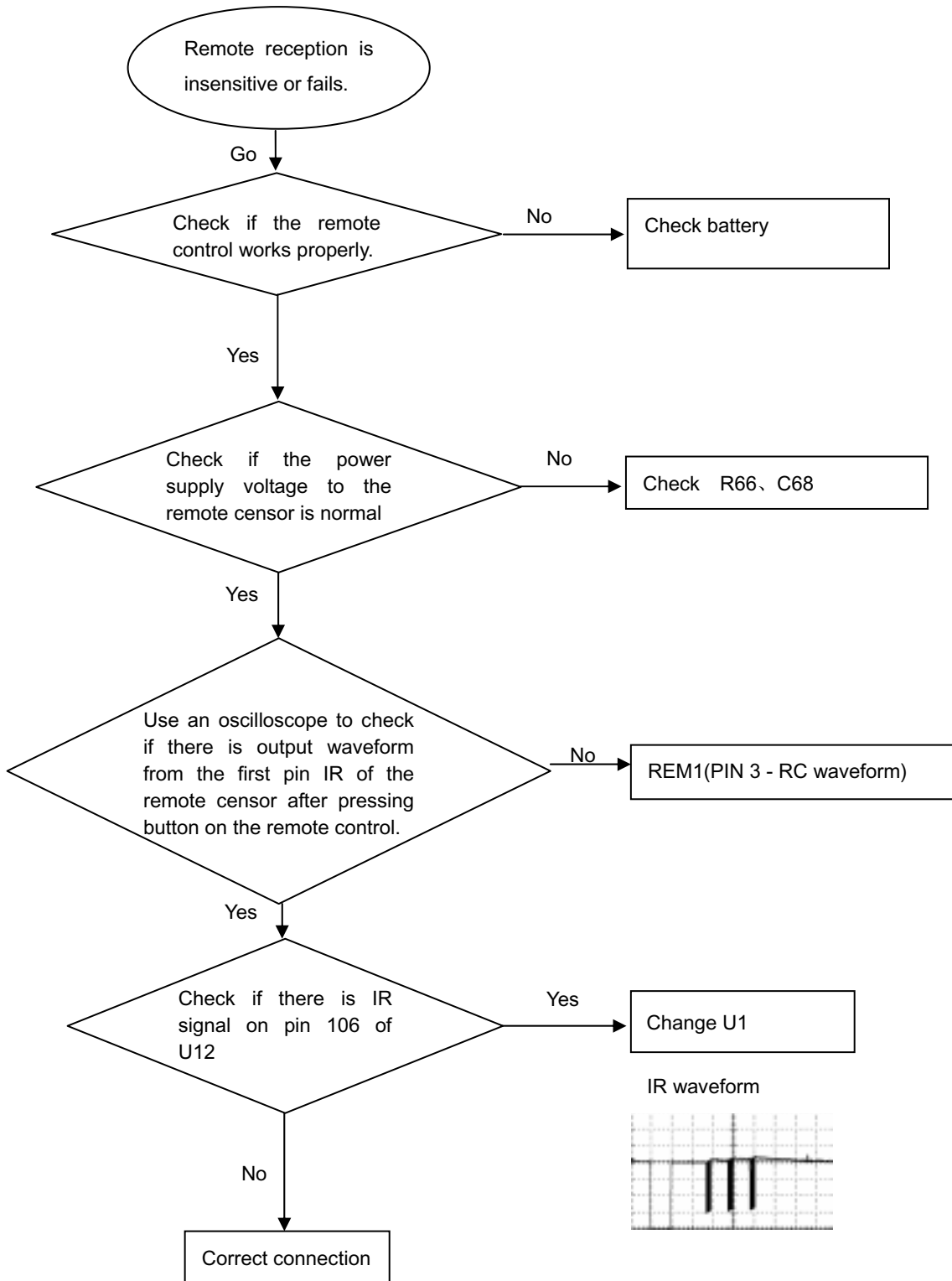
Abnormal color of video picture

Remark: Trouble shooting chart for
DVP3120/51/55/94/75, DVP3120K/55/93/98



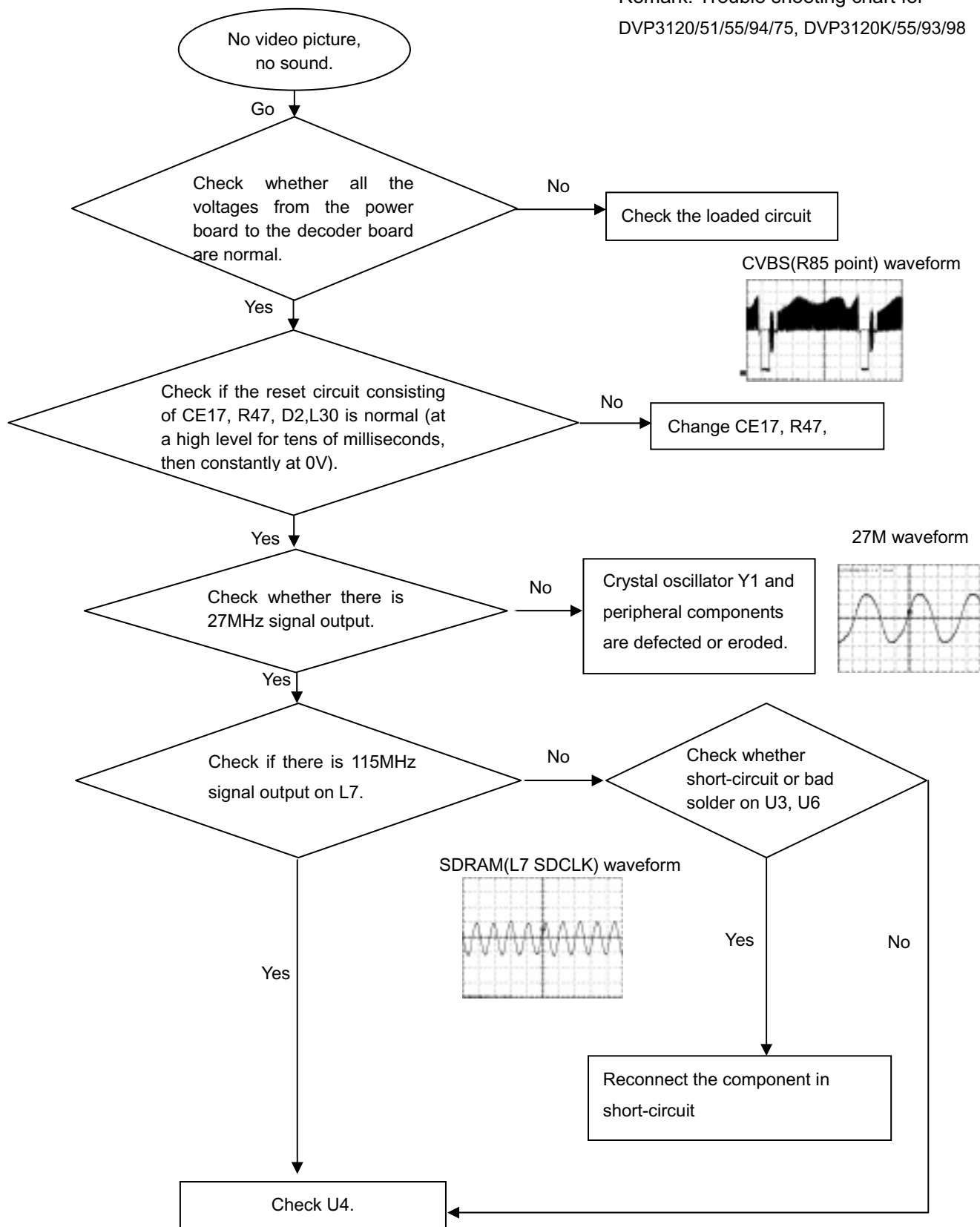
Remote reception is insensitive or fails.

Remark: Trouble shooting chart for DVP3120/51/55/94/75, DVP3120K/55/93/98



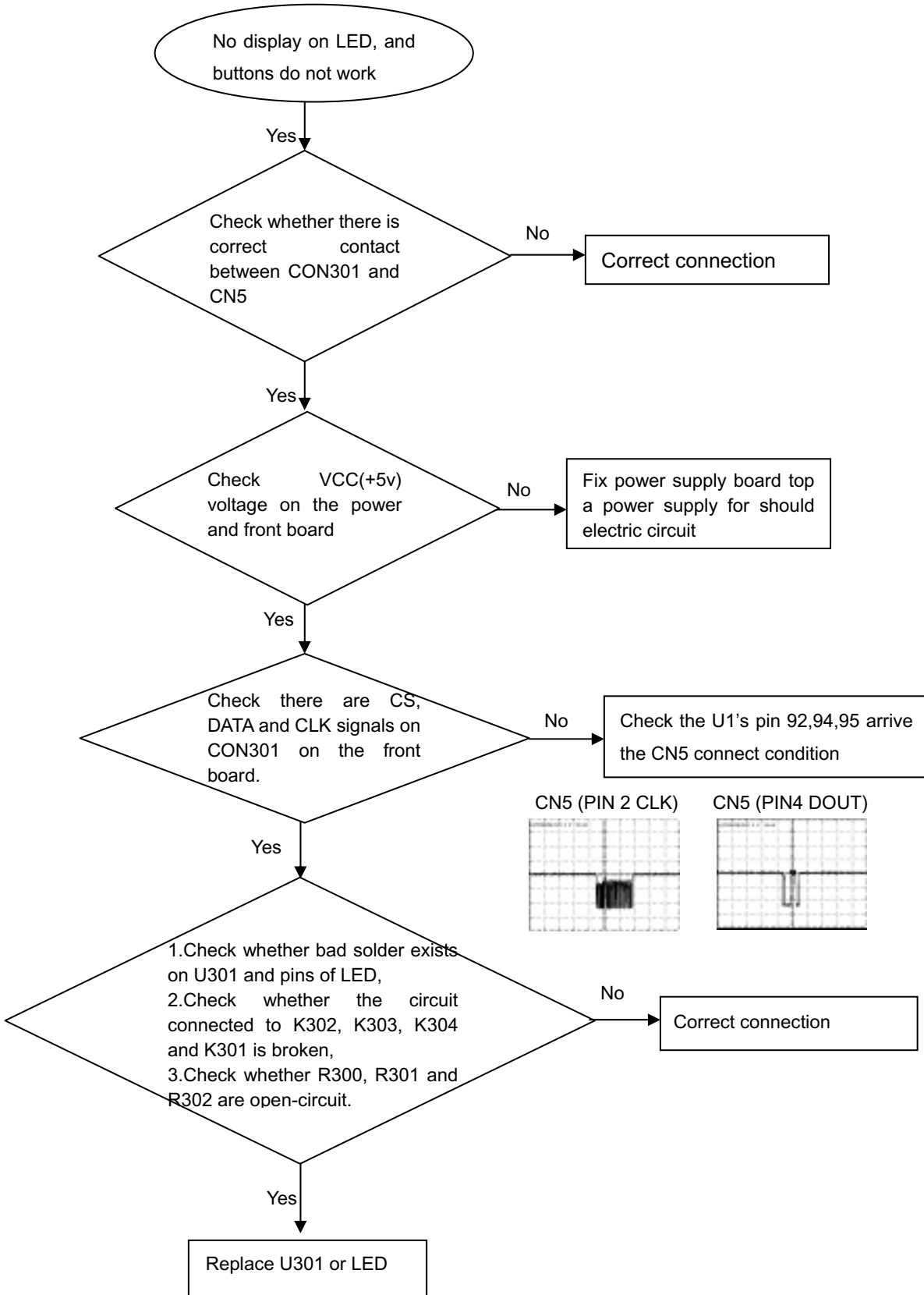
No video picture, no sound.

Remark: Trouble shooting chart for DVP3120/51/55/94/75, DVP3120K/55/93/98



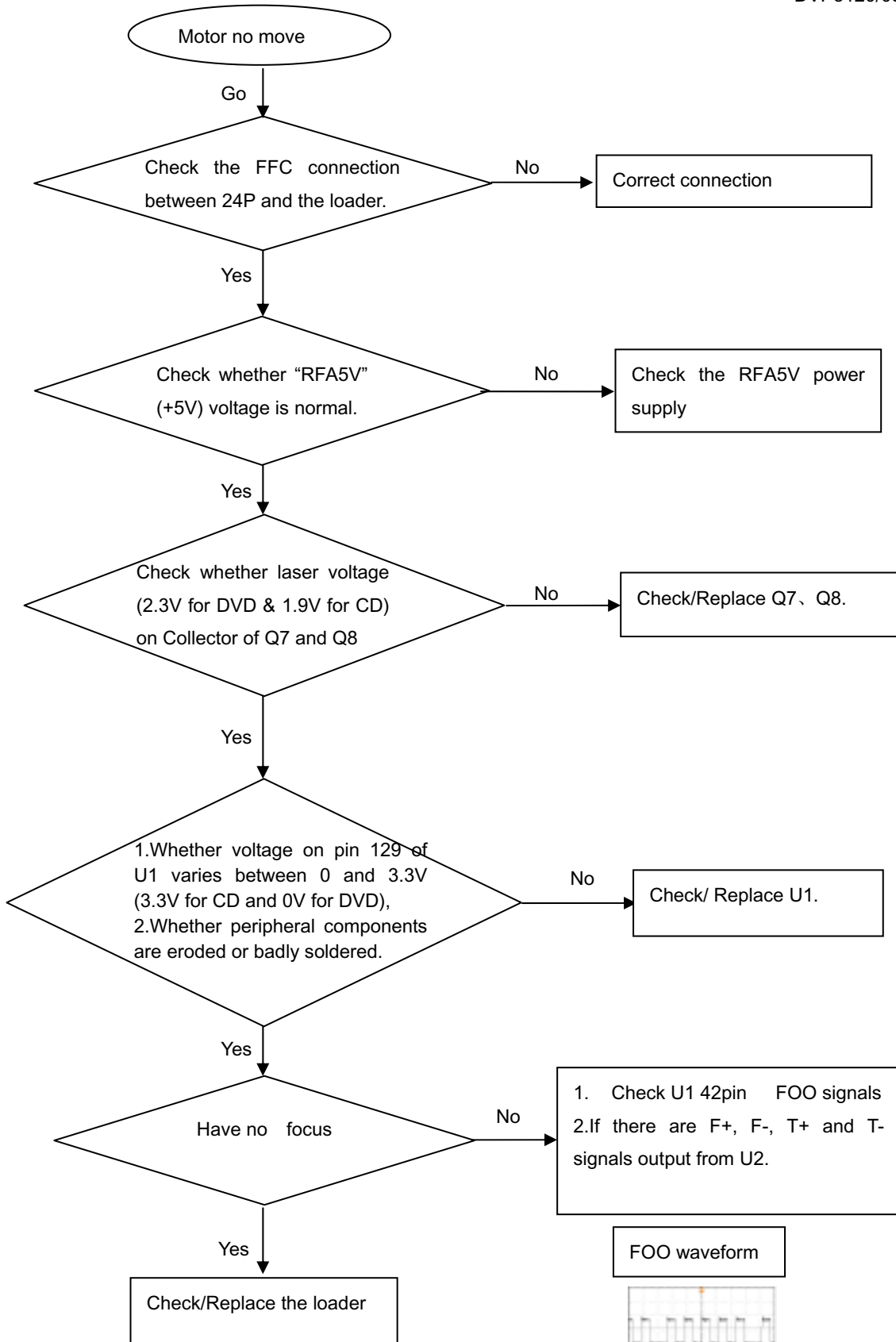
No display on LED, and buttons do not work

Remark: Trouble shooting chart for DVP3120/51/55/94/75, DVP3120K/55/93/98

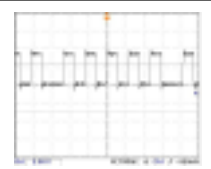


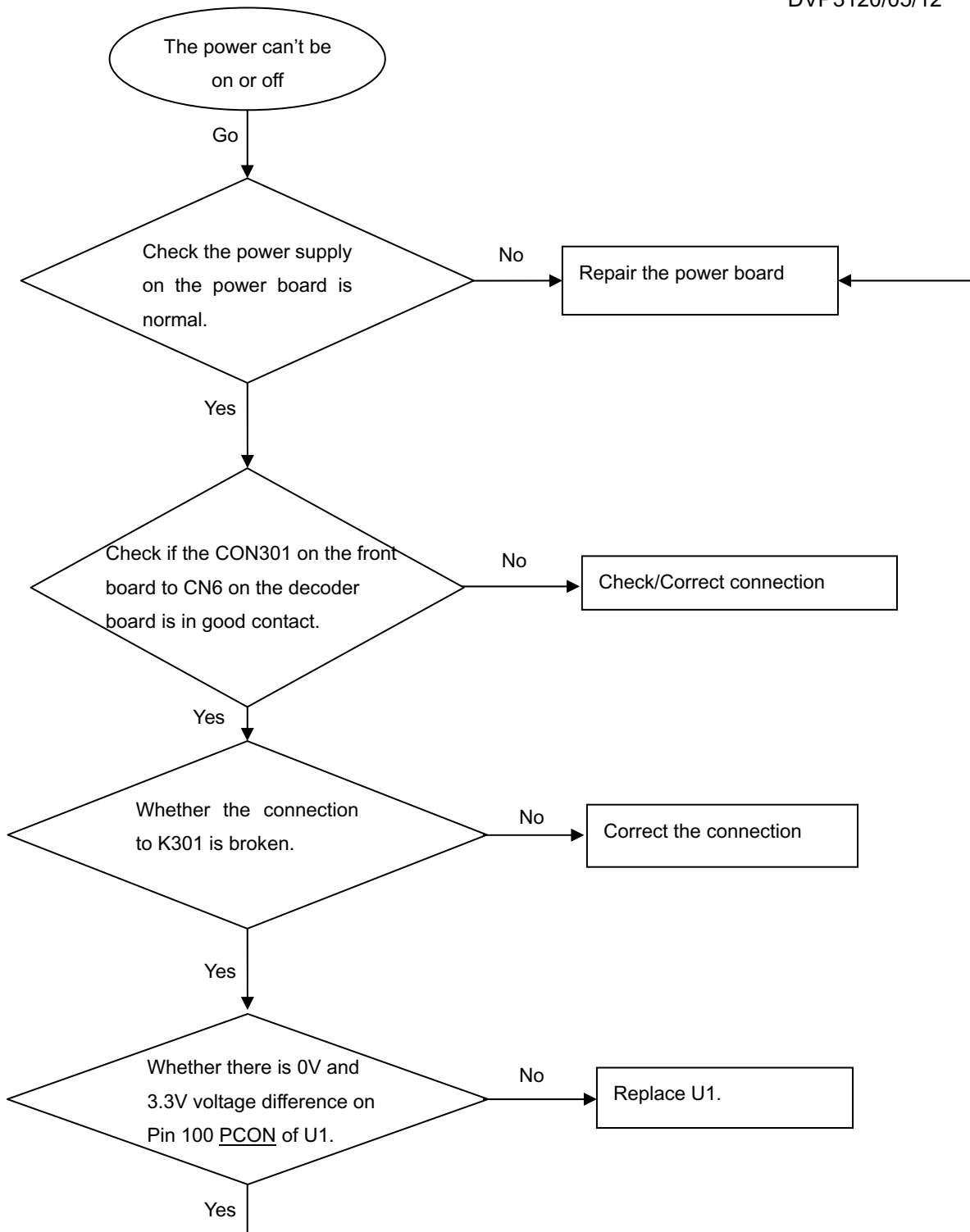
Spindle motor does not move

Remark: Trouble shooting chart for DVP3120/05/12



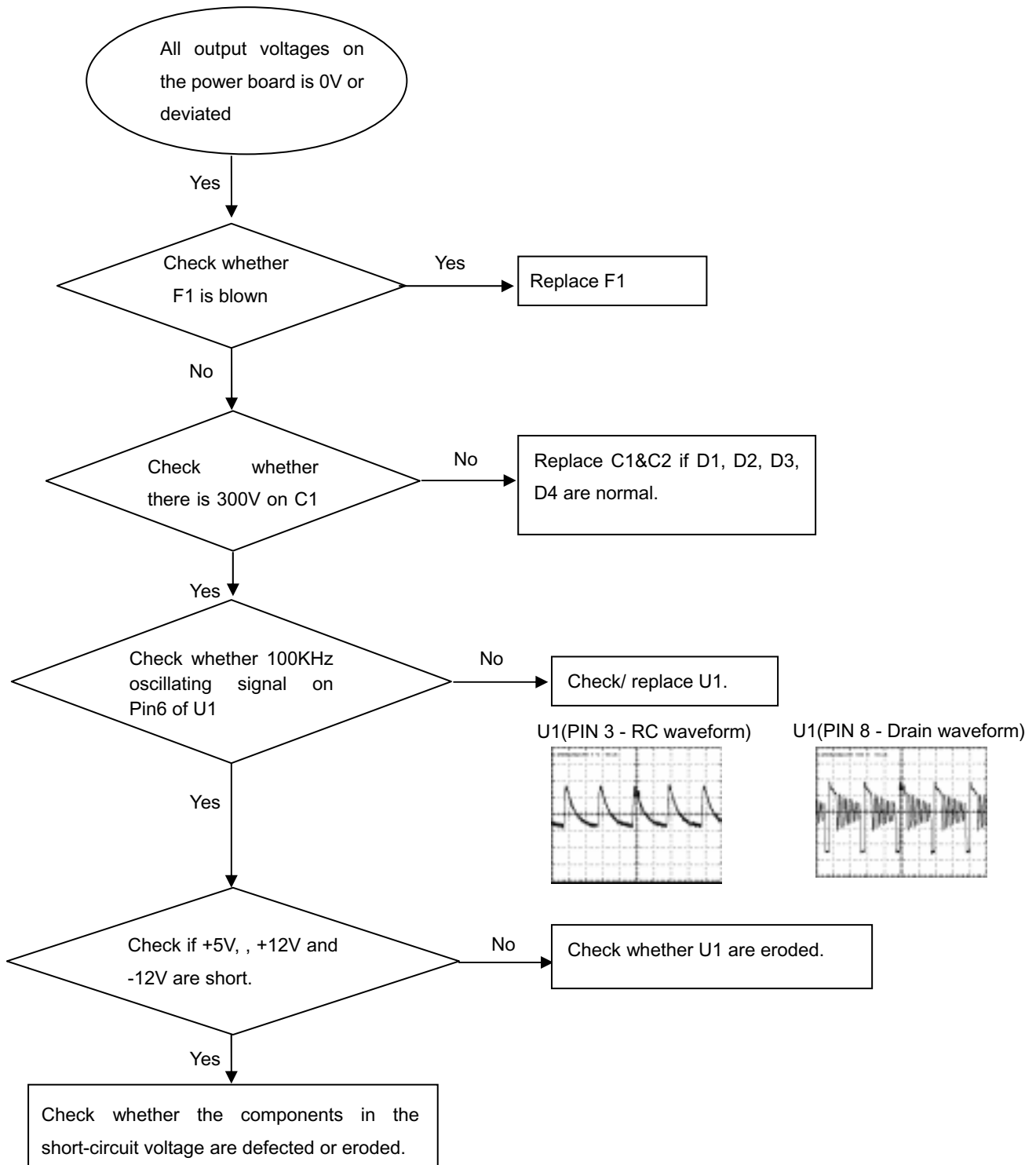
FOO waveform

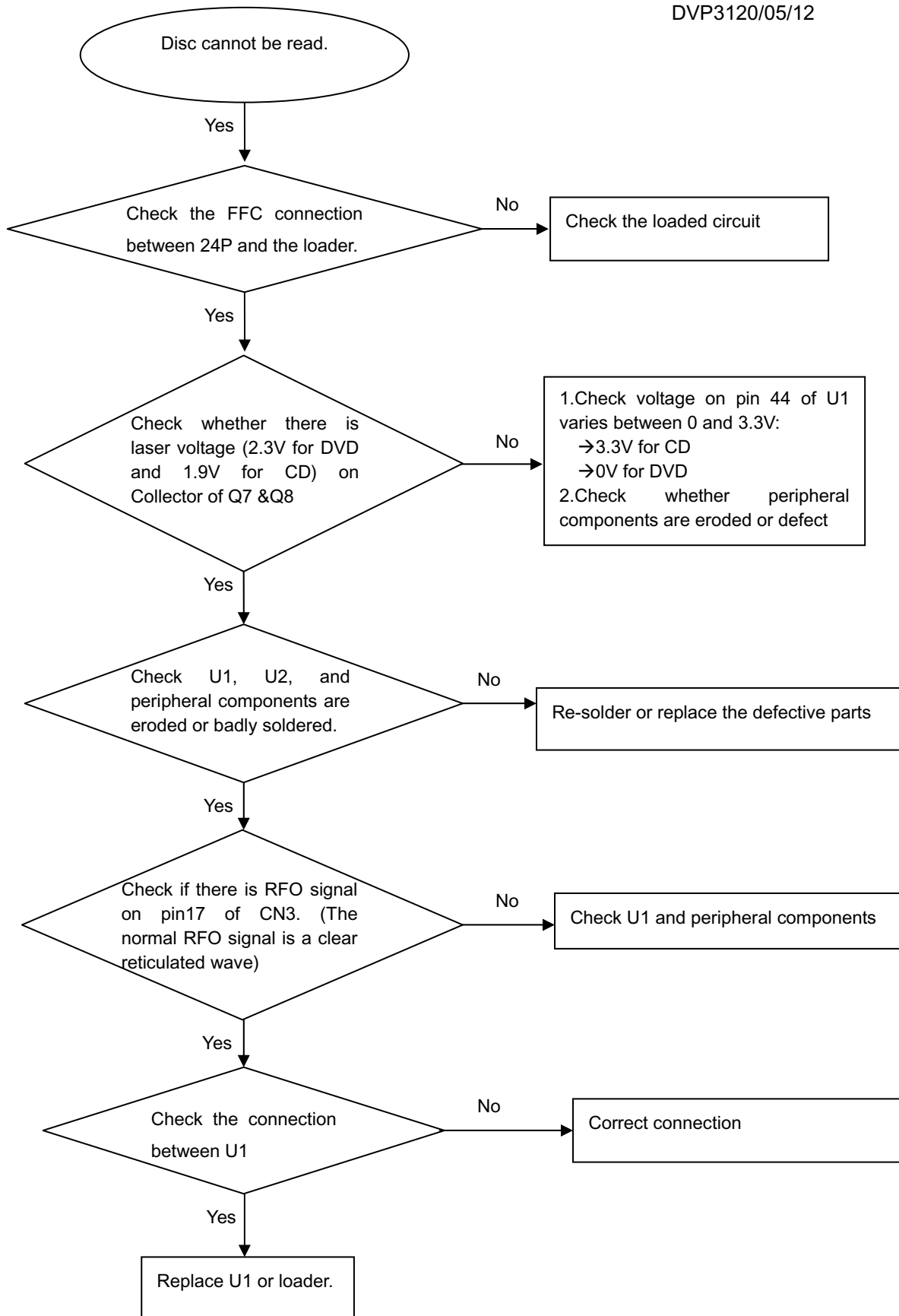


The power can not be on or offRemark: Trouble shooting chart for
DVP3120/05/12

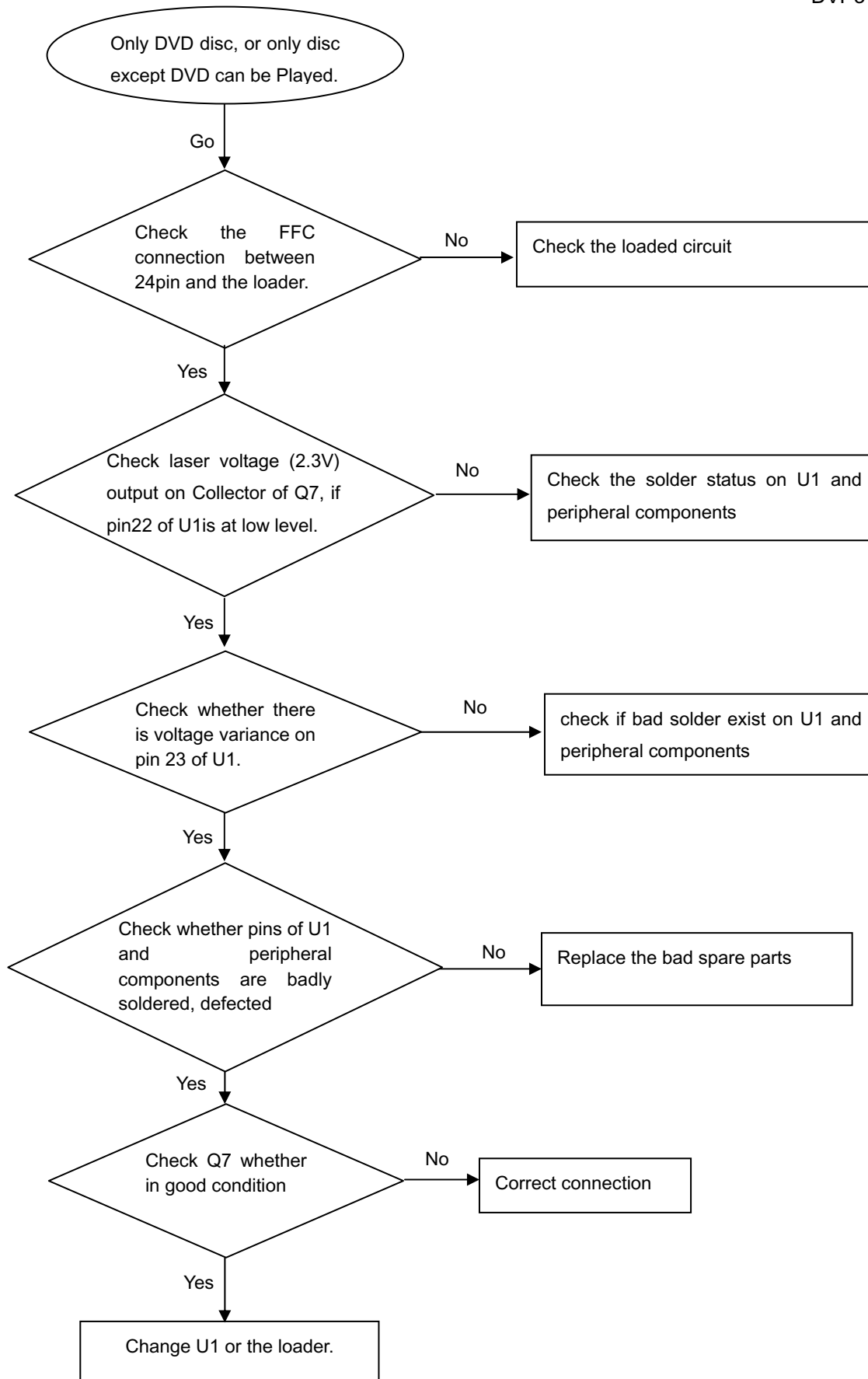
All output voltages on the power board is 0V or deviated.

Remark: Trouble shooting chart for DVP3120/05/12



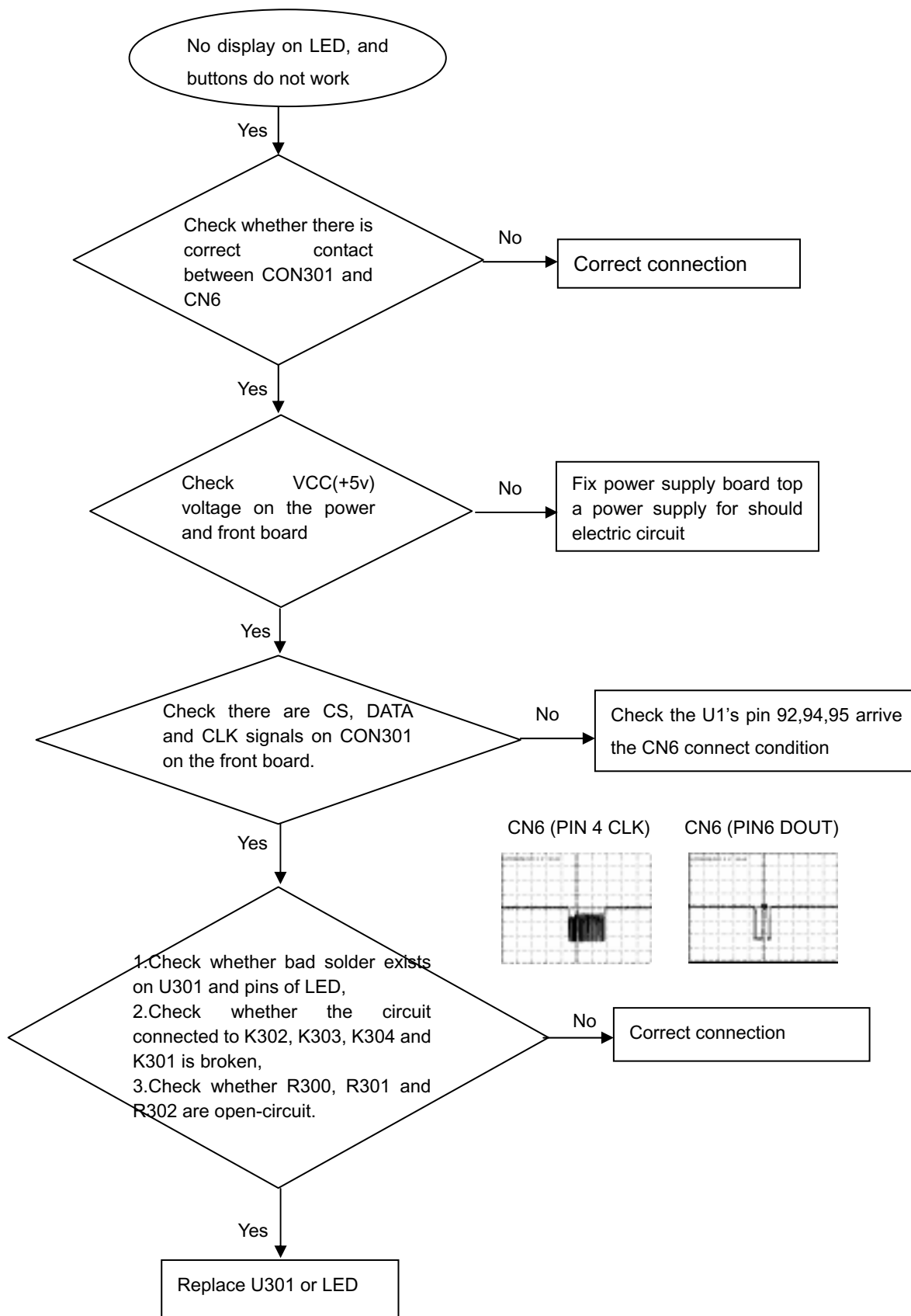
Disc cannot be read.Remark: Trouble shooting chart for
DVP3120/05/12

Only DVD disc or only disc except DVD can be played

 Remark: Trouble shooting chart for
DVP3120/05/12


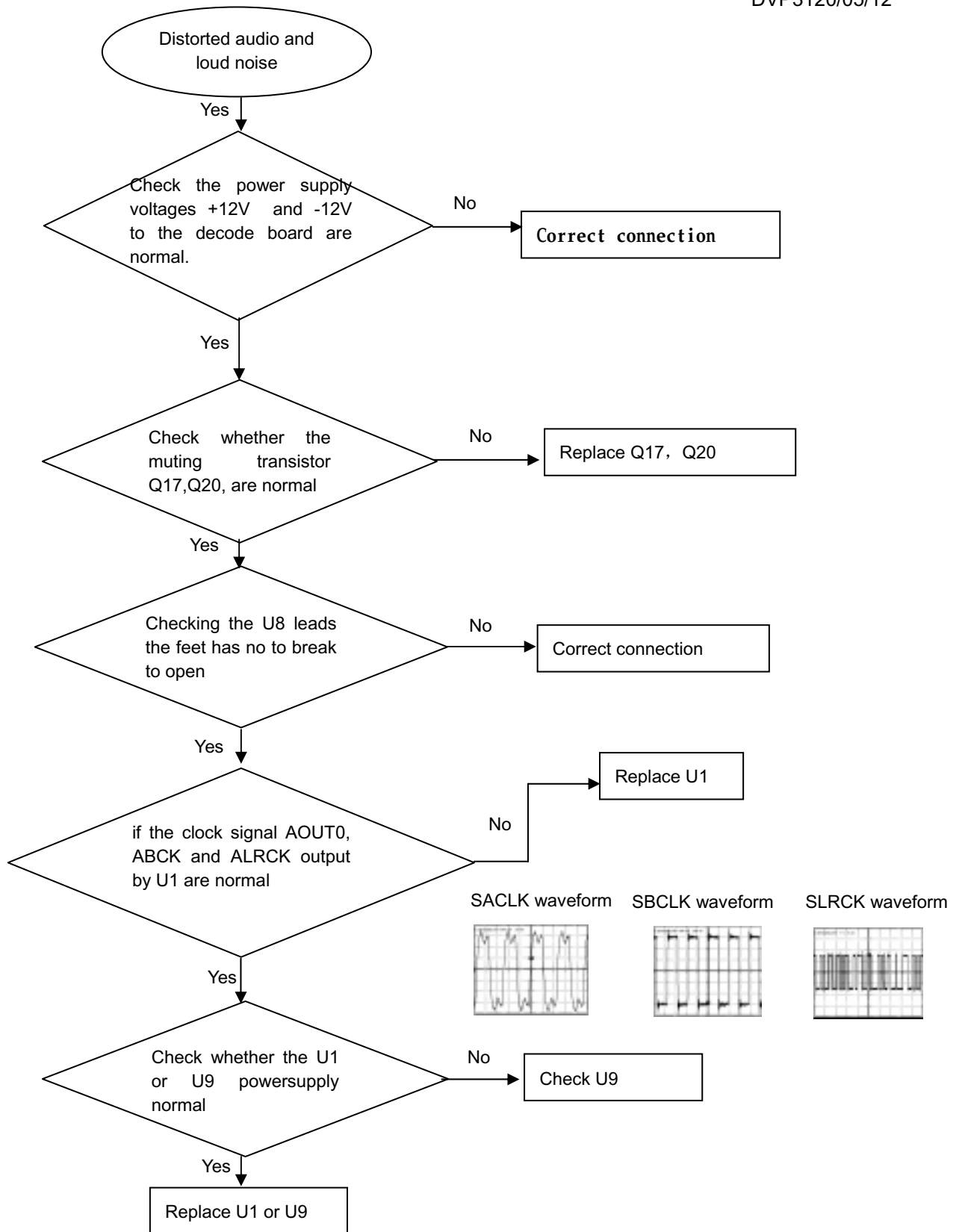
No display on LED, and buttons do not work

Remark: Trouble shooting chart for DVP3120/05/12



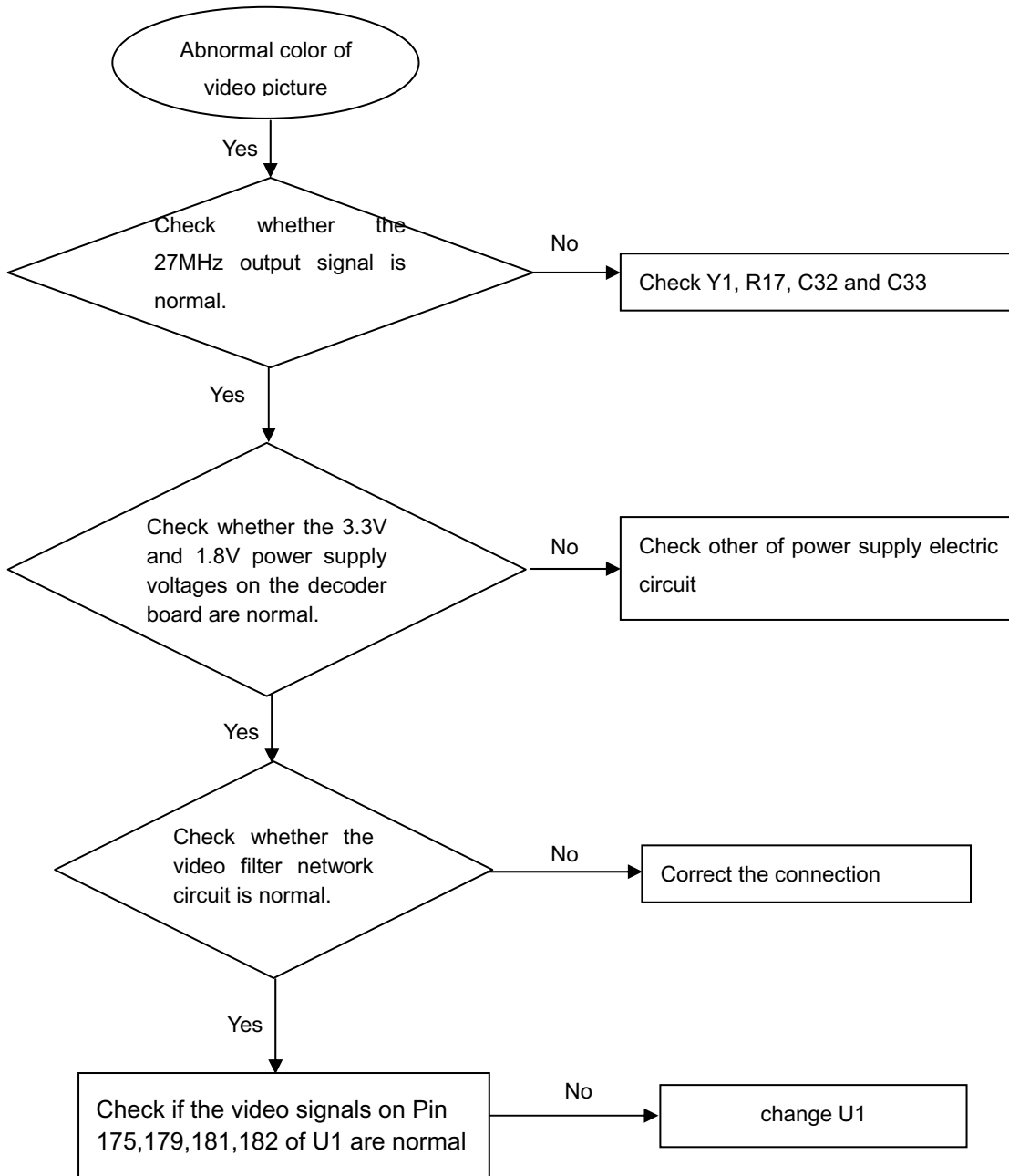
istorted audio and loud noise

Remark: Trouble shooting chart for DVP3120/05/12



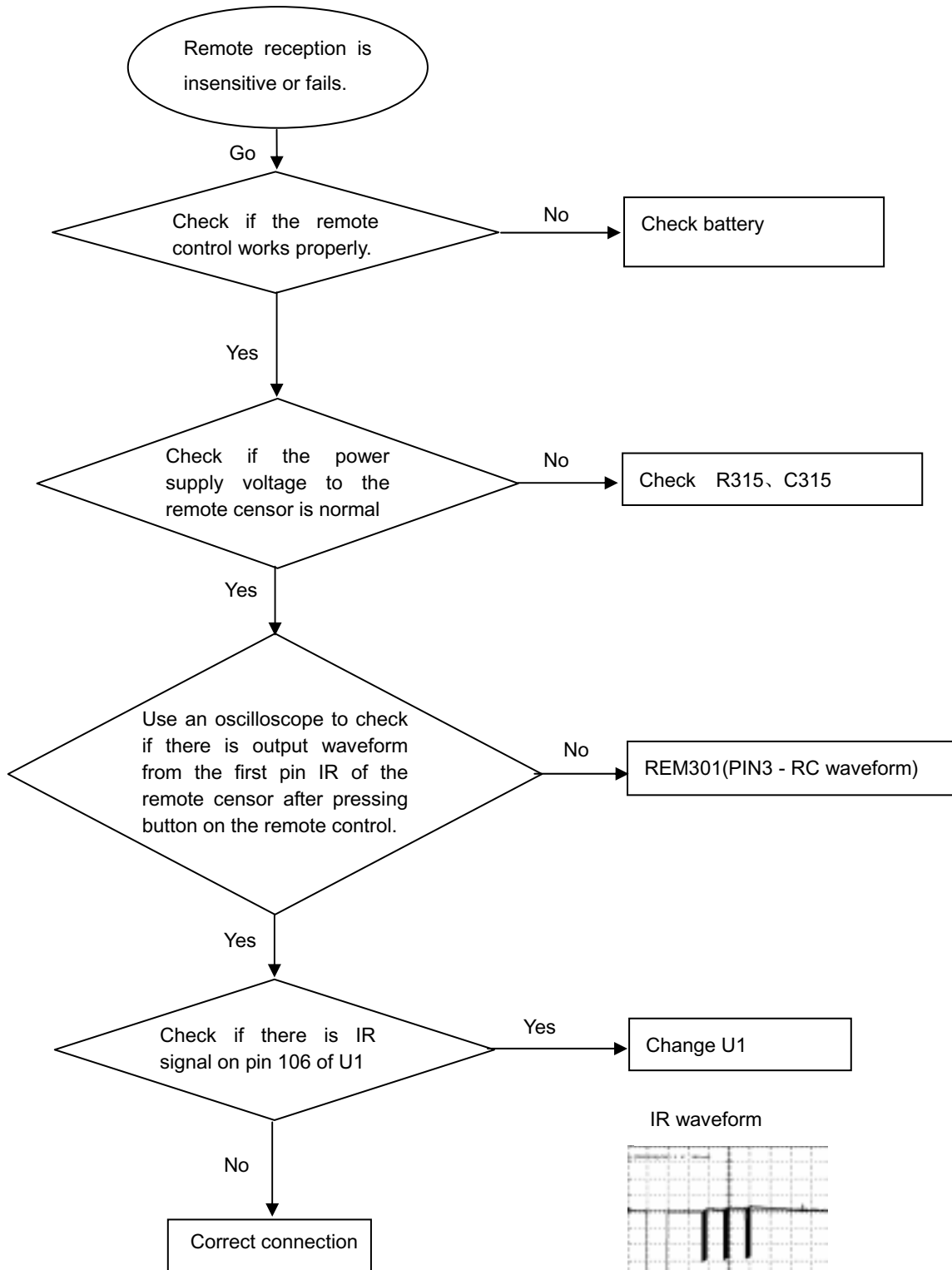
Abnormal color of video picture

Remark: Trouble shooting chart for DVP3120/05/12



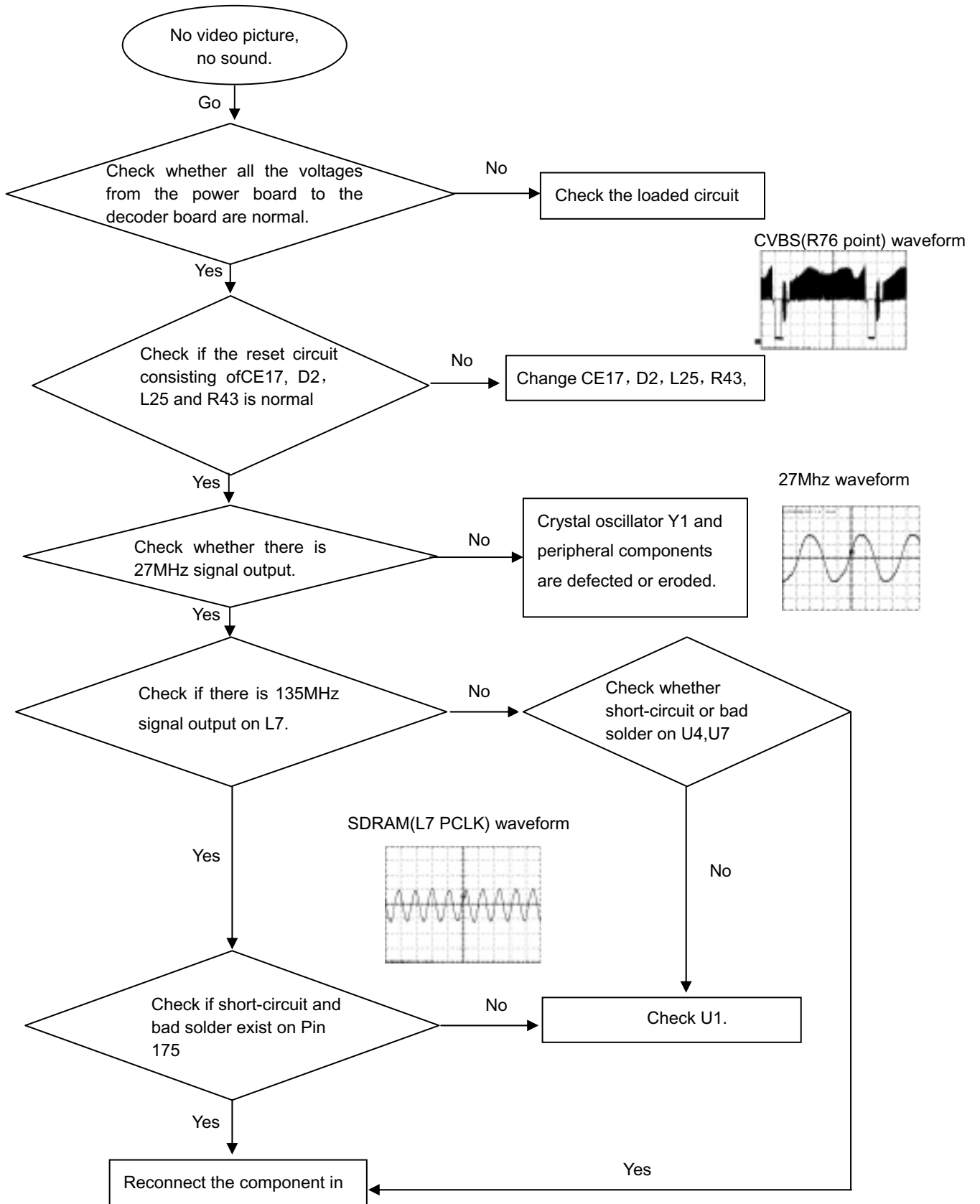
Remote reception is insensitive or fails.

Remark: Trouble shooting chart for DVP3120/05/12

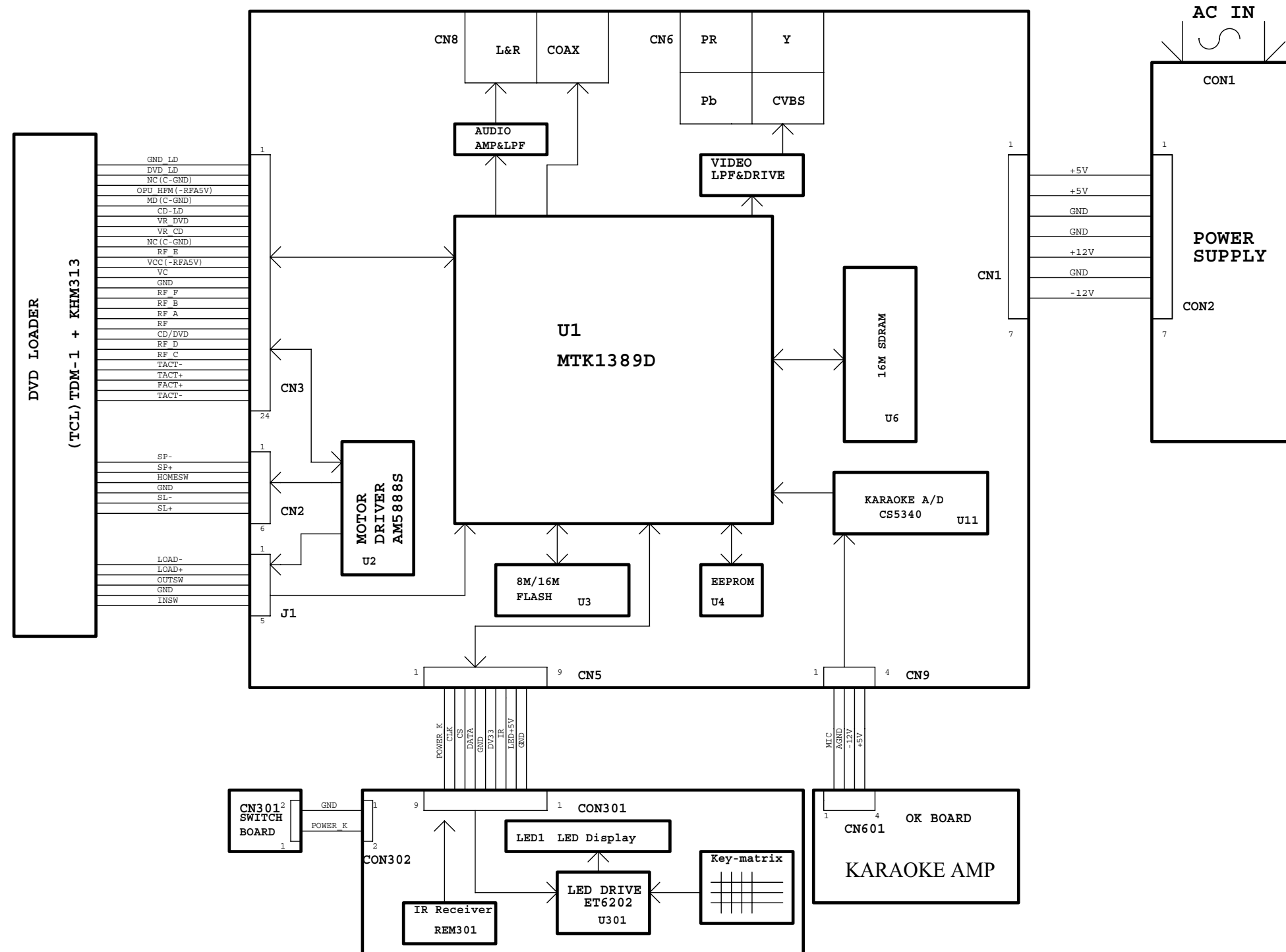


No video picture, no sound.

Remark: Trouble shooting chart for DVP3120/05/12



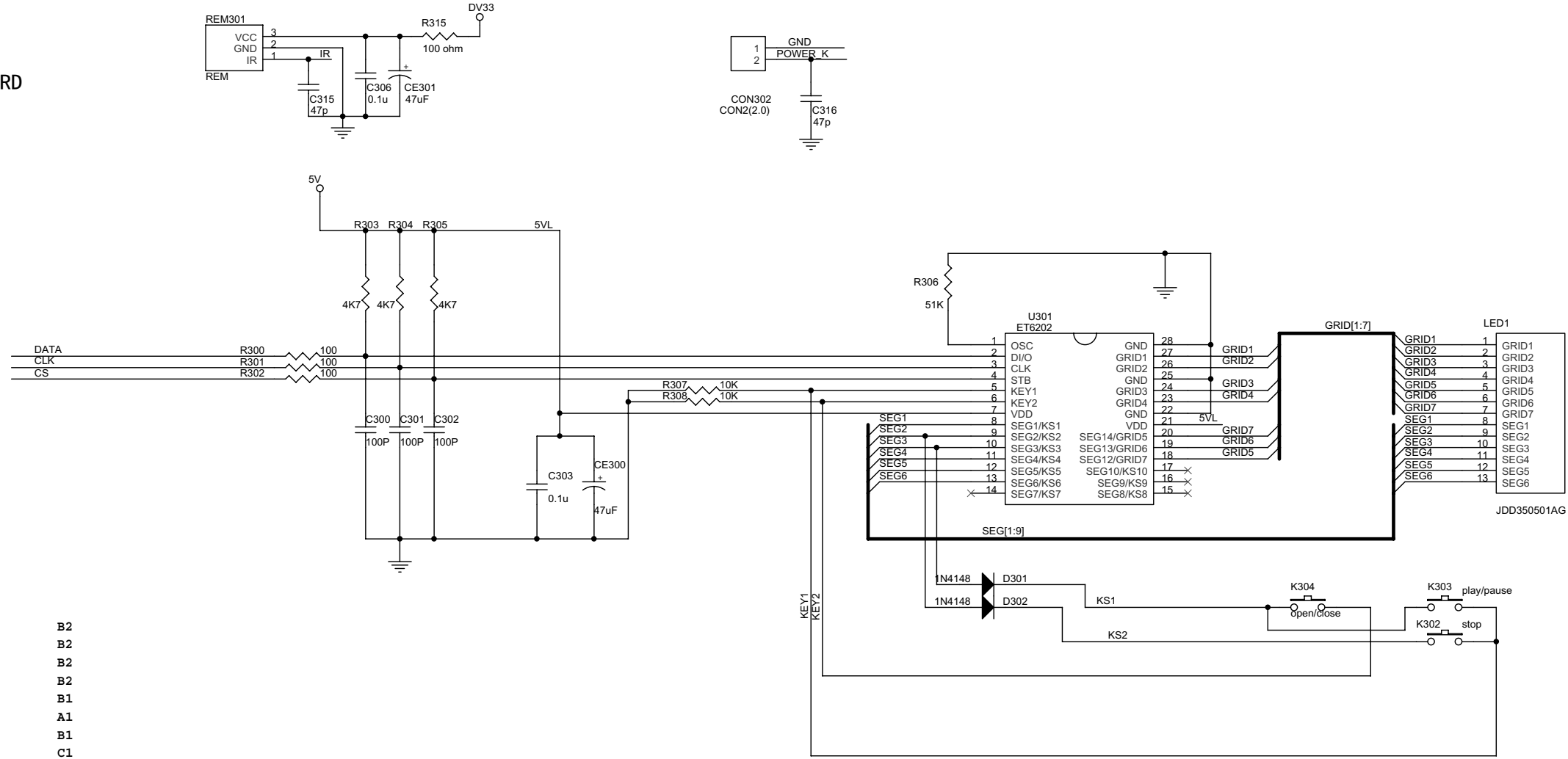
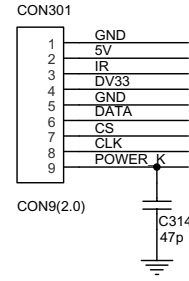
DVP3120 (K) /XX WIRING DIAGRAM



Remark:DVP3120 have no Karaoke.

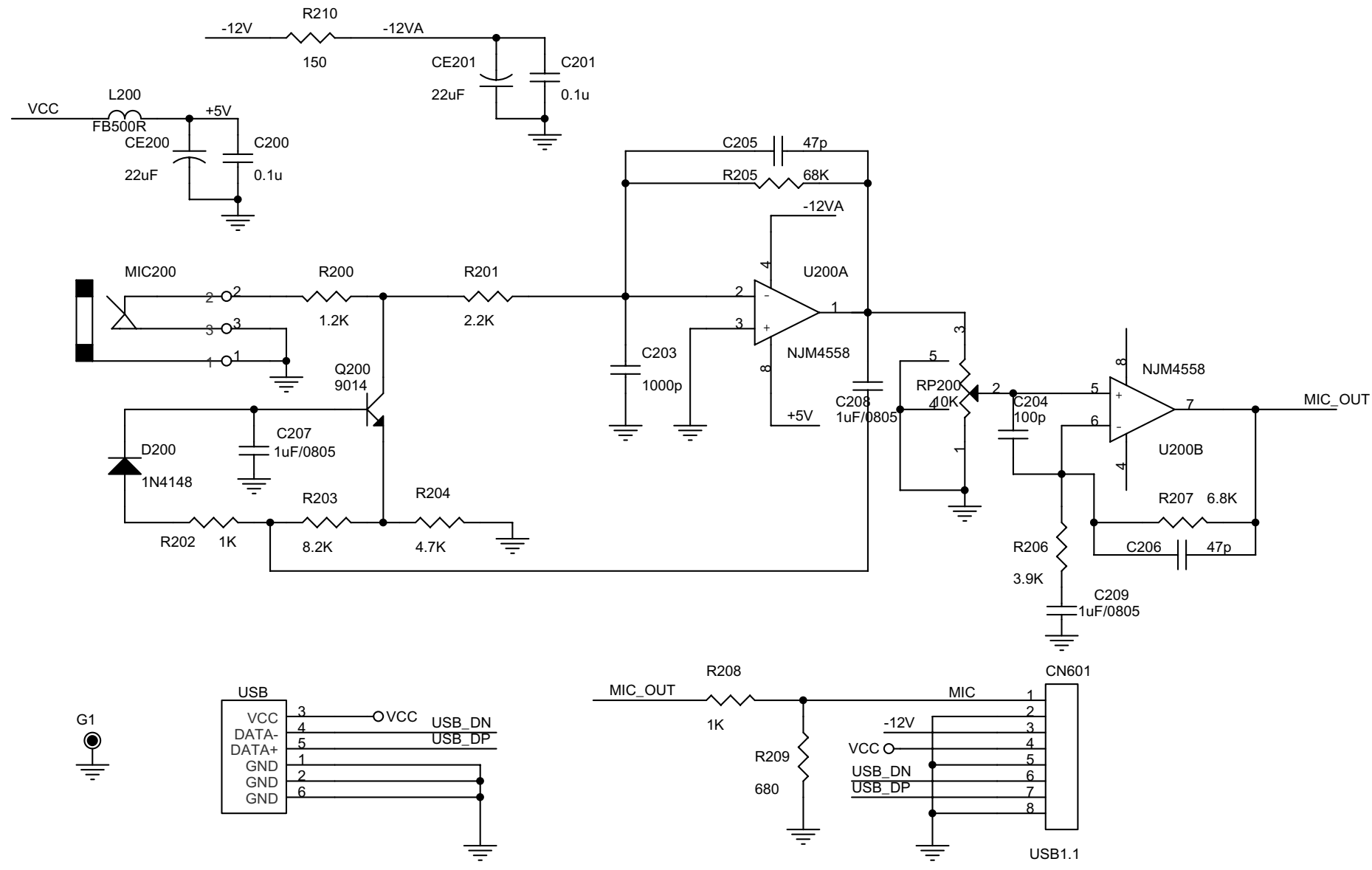
Front Board Electric Diagram for DVP3120(K)/XX

FROM MAIN BOARD



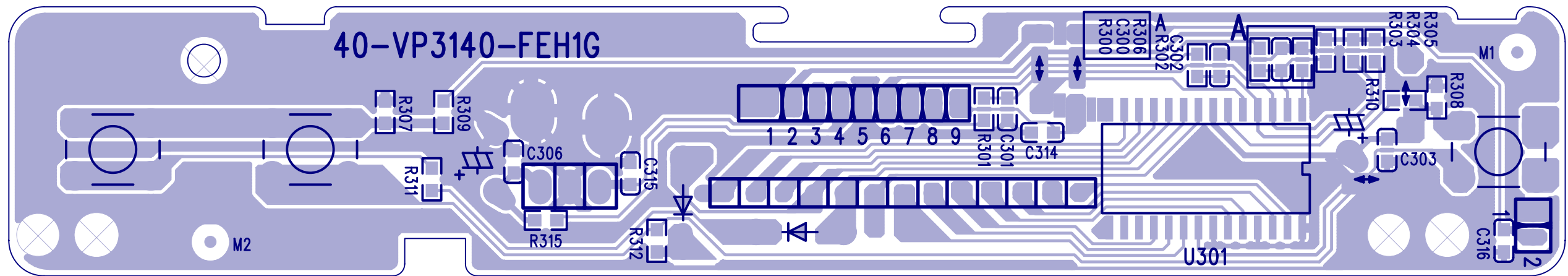
C300	B2
C301	B2
C302	B2
C303	B2
C306	B1
C314	A1
C315	B1
C316	C1
CE300	C2
CE301	B1
CON301	A1
CON302	C1
D301	D2
D302	D2
K302	E3
K303	E2
K304	D2
LED1	E2
R300	B2
R301	B2
R302	B2
R303	B2
R304	B2
R305	B2
R306	C1
R307	C2
R308	C2
R315	B1
REM301	B1
U301	D2

OK+USB Board Electric Diagram for DVP3120K/XX

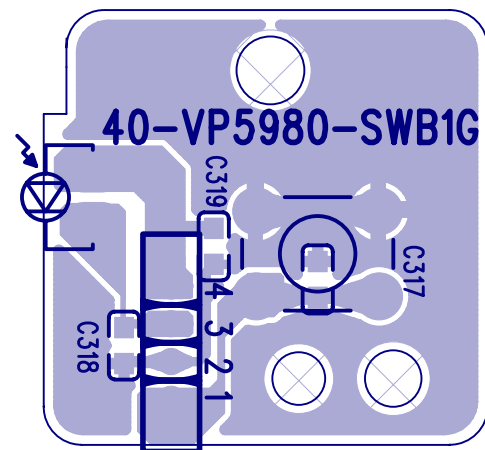


C200	A1
C201	B1
C203	B2
C204	C2
C205	C1
C206	D2
C207	A2
C208	C2
C209	D2
CE200	A1
CE201	B1
CN601	D3
D200	A2
G1	A3
L200	A1
MIC200	A1
Q200	B2
R200	B1
R201	B1
R202	A2
R203	B2
R204	B2
R205	C1
R206	D2
R207	D2
R208	C3
R209	C3
R210	B1
RP200	C2
U200A	C1
U200B	D2
USB	A3

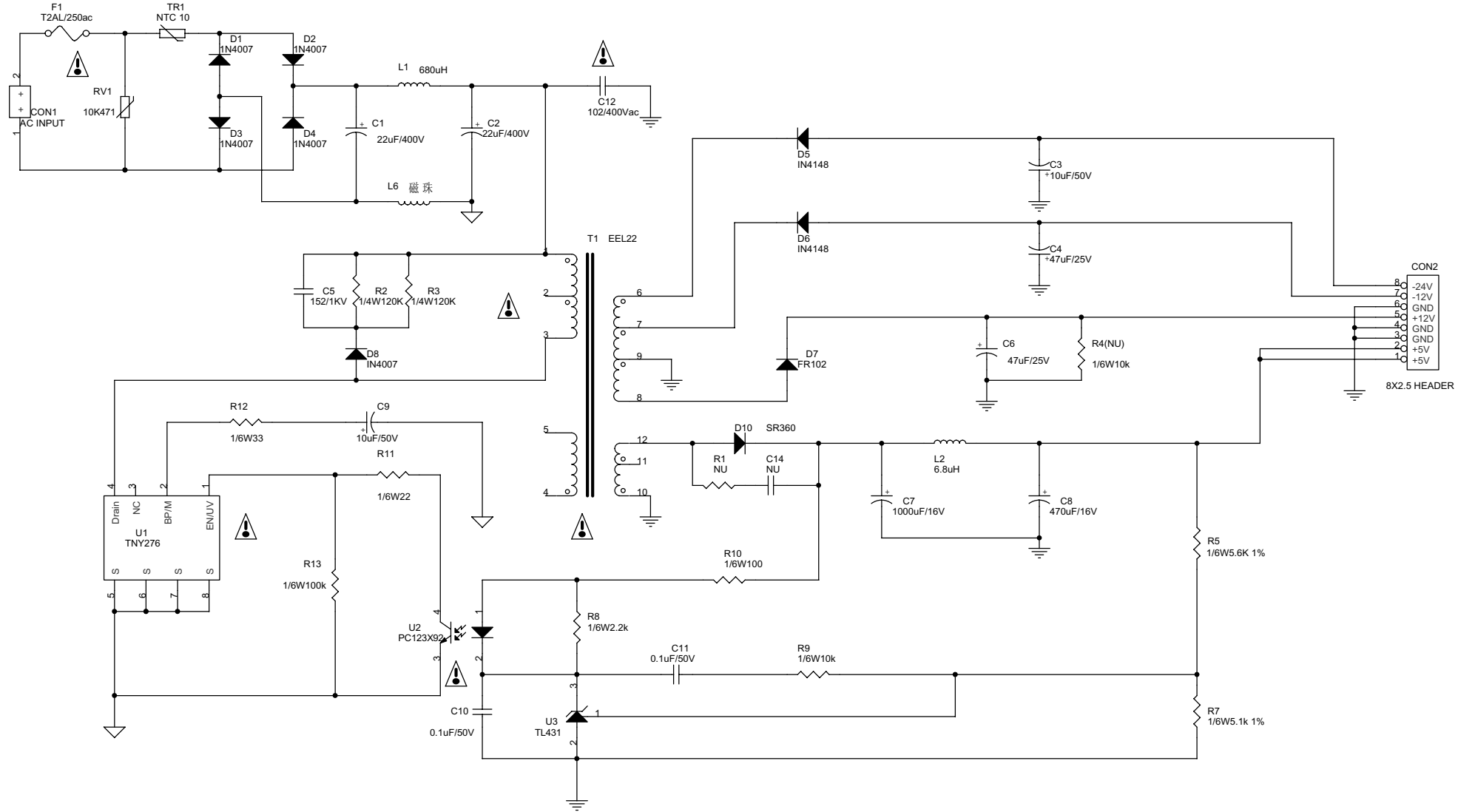
Front Board Print-Layout (Bottom Side) for DVP3120(K)/XX




Switch Board Print-Layout (Bottom Side) for DVP3120(K)/XX



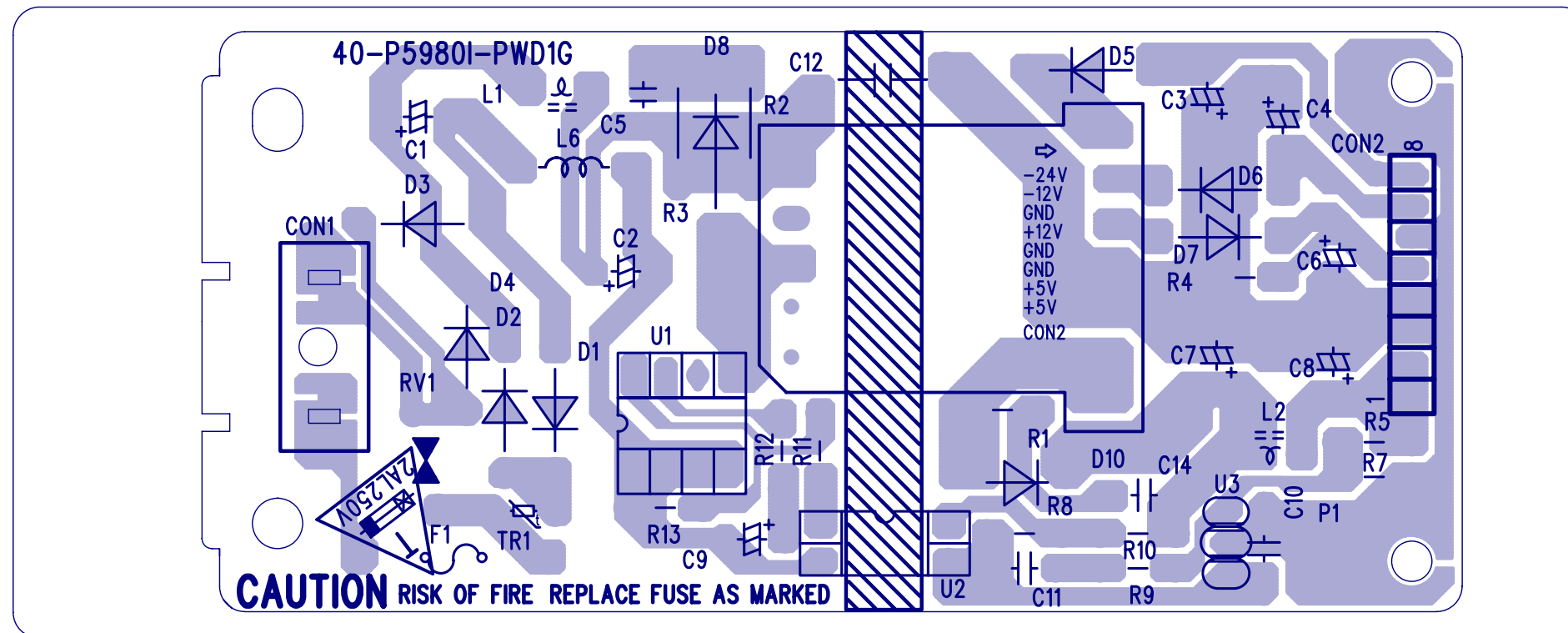
Power Board Electric Diagram for DVP3120/51/55/94/75



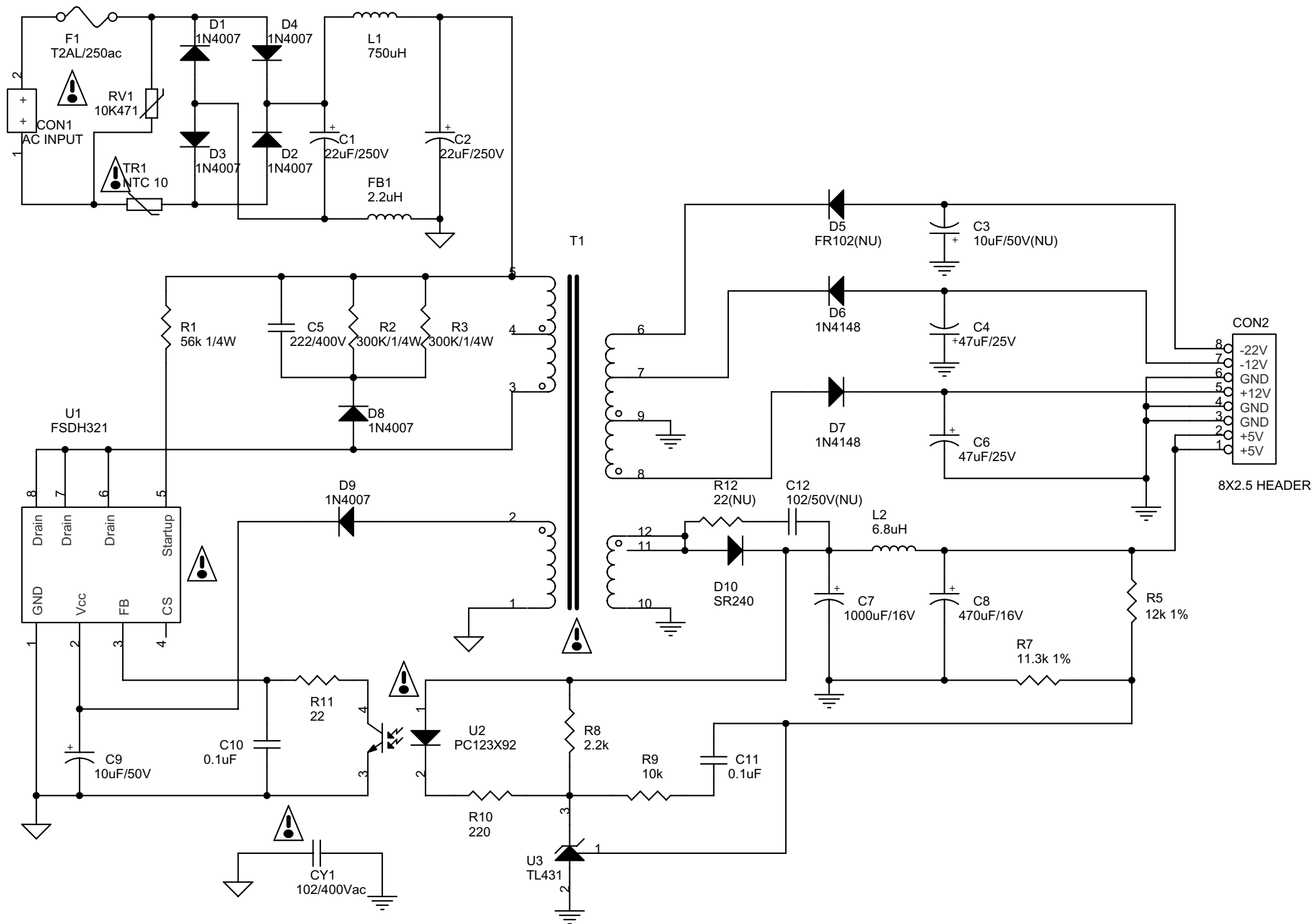
C1	B1
C10	B3
C11	B3
C12	B1
C14	C2
C2	B1
C3	C1
C4	C2
C5	B2
C6	C2
C7	C2
C8	C2
C9	B2
CON1	A1
CON2	D2
D1	A1
D10	C2
D2	B1
D3	A1
D4	B1
D5	C1
D6	C1
D7	C2
D8	B2
F1	A1
L1	B1
L2	C2
L6	B1
R1	C2
R10	C3
R11	B2
R12	A2
R13	B3
R2	B2
R3	B2
R4 (NU)	C2
R5	D2
R7	D3
R8	B3
R9	C3
RV1	A1
T1	B2
TR1	A1
U1	A2
U2	B3
U3	B3

*** 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 DVP3120/51/55/94/75



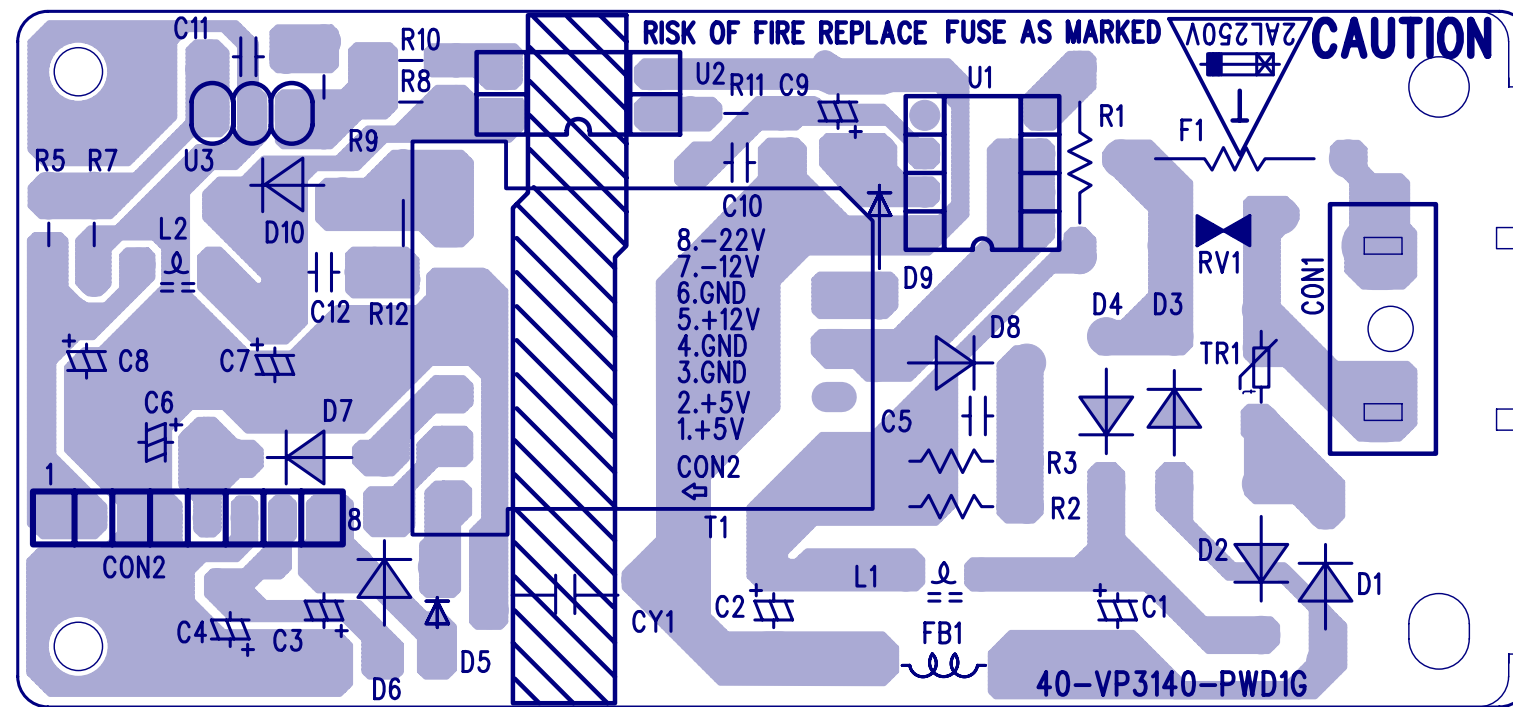
Power Board Electric Diagram for DVP3120/05/12,DVP3120K/55/93/98



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.

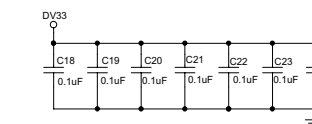
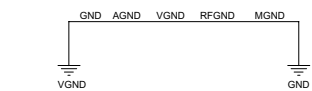
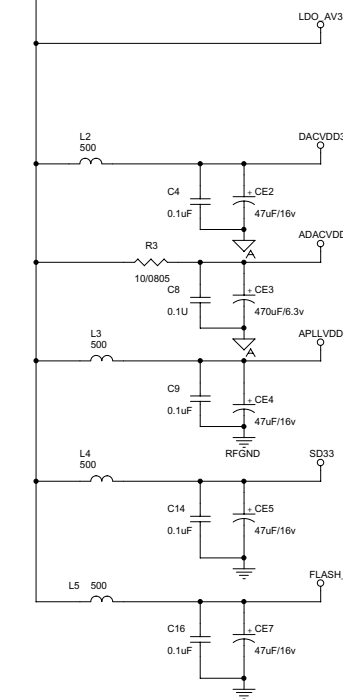
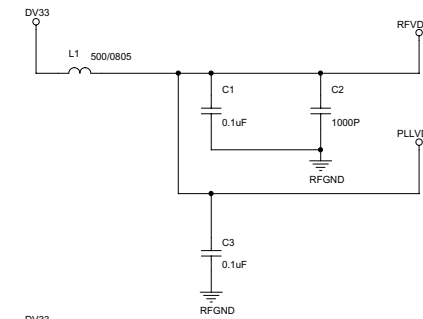
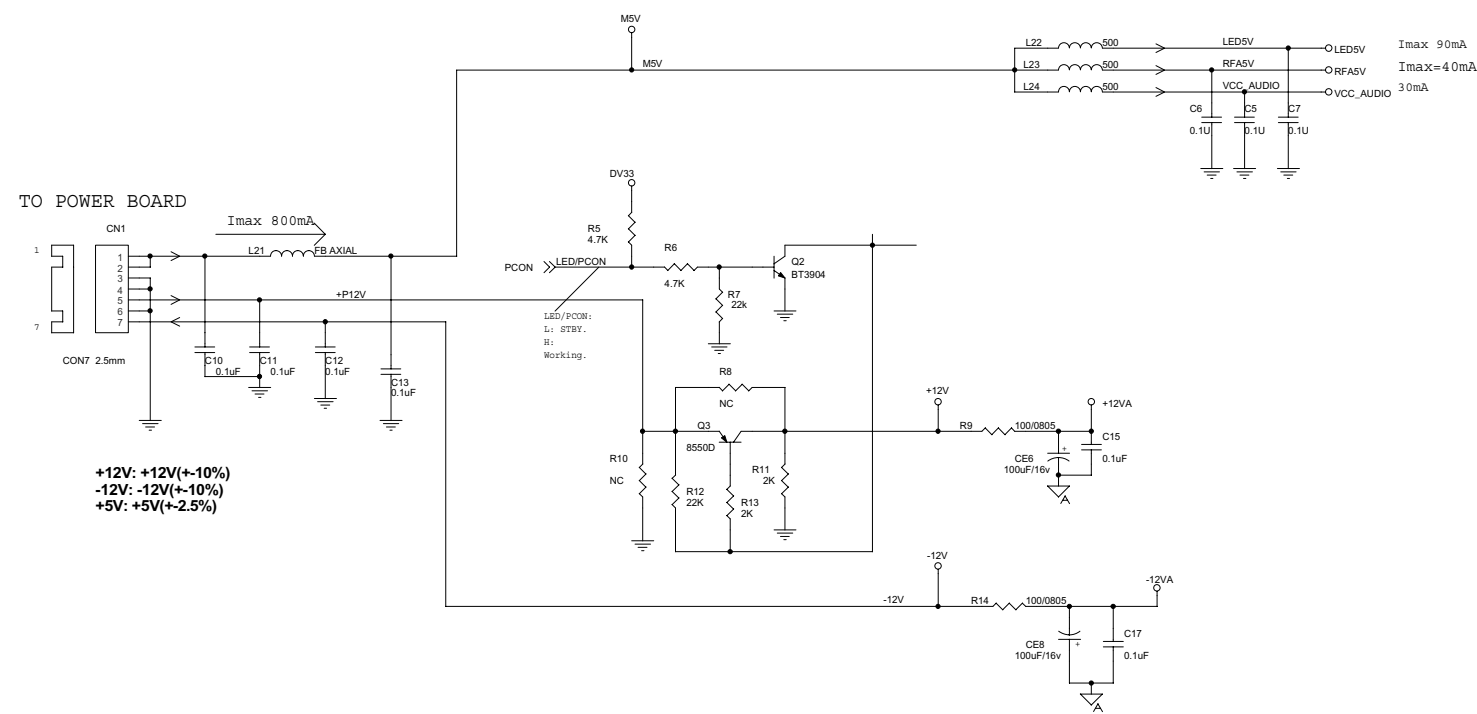
Power Board Print-Layout (Bottom Side) for DVP3120/05/12,DVP3120K/55/93/98



Main Board Electric Diagram for DVP3120/51/55/94/75, DVP3120K/55/93/98: INDEX

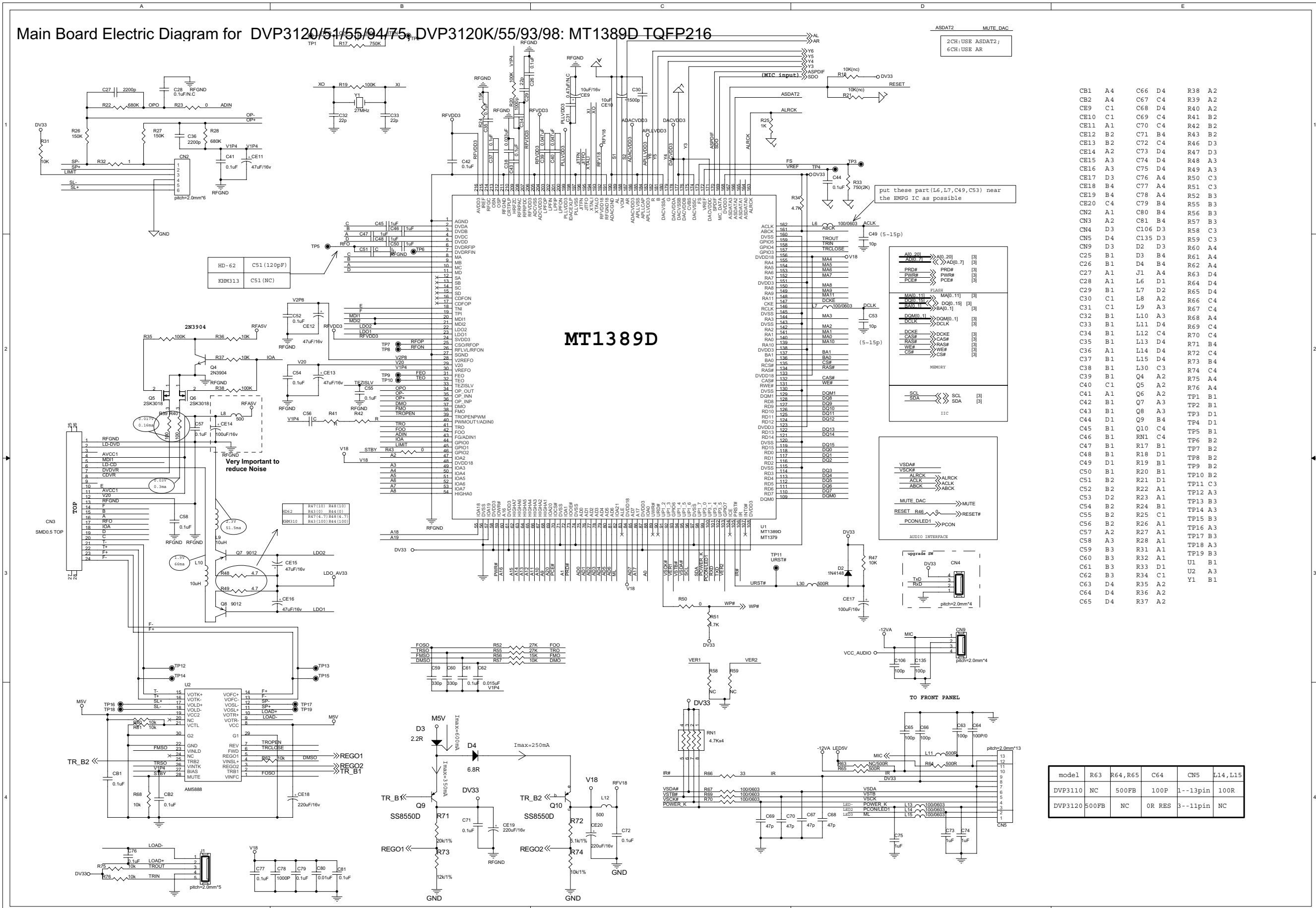
- 1 INDEX & POWER
- 2 RF, SERVO & MPEG - MT1389D
- 3 MEMORY /VIDEO OUT
- 4 AUDIO OUT

NAME	TYPE	DEVICE
VCC	Digital 5V	SUPPLY
DV33	Digital 3.3V	MT1389D
RFV33	Servo 3.3V	MT1389D
LDO_AV33	Laser Diode 3.3V	
AVCC	RF 5V	PICKUP HEADER
V18	Digital 1.8V	MT1389D
SD33	Digital 3.3V	SDRAM
+12V	Audio +12V	OP AMP.
-12V	Audio -12V	OP AMP.
AVDD	Audio 5V	VCC_AUDIO
DVDD	Audio 3V3	VCC3_AUDIO



- CE2 D 2
- CE3 D 2
- CE4 D 2
- CE5 D 3
- CE6 C 3
- CE7 D 3
- CE8 C 4
- CN1 A 3
- C1 D 1
- C2 D 1
- C3 D 1
- C4 D 2
- C5 C 3
- C6 C 3
- C7 C 3
- C8 D 2
- C9 D 2
- C10 A 3
- C11 A 3
- C12 A 3
- C13 A 3
- C14 D 3
- C15 C 3
- C16 D 3
- C17 C 4
- C18 D 4
- C19 D 4
- C20 D 4
- C21 D 4
- C22 D 4
- C23 D 4
- C24 D 4
- L1 D 1
- L2 D 2
- L3 D 2
- L4 D 3
- L5 D 3
- L21 A 3
- L22 C 3
- L23 C 3
- L24 C 3
- Q2 B 3
- Q3 B 3
- R3 D 2
- R5 B 3
- R6 B 3
- R7 B 3
- R8 B 3
- R9 B 3
- R10 B 4
- R11 B 4
- R12 B 4
- R13 B 4
- R14 B 4

Main Board Electric Diagram for DVP3120/51/55/94/75, DVP3120K/55/93/98: MT1389D TQFP216

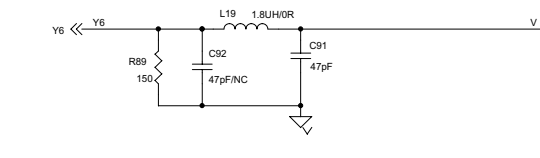
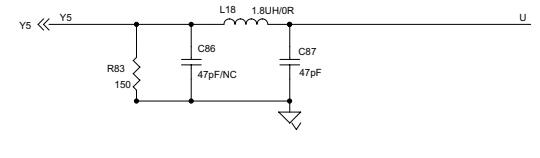
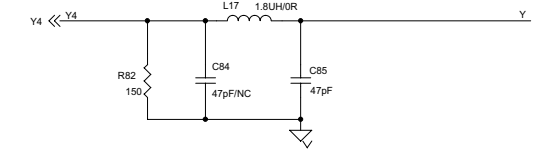
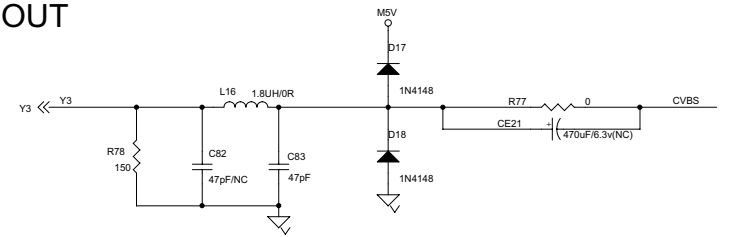
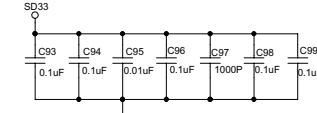
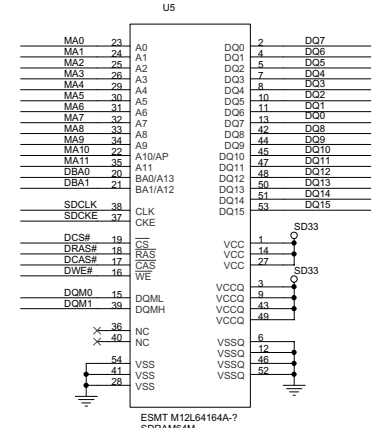
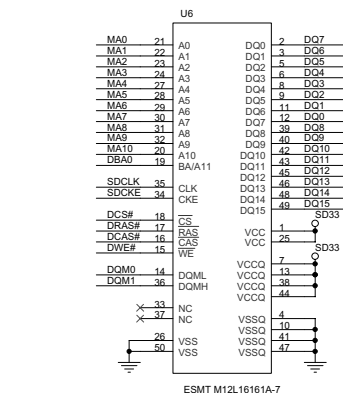
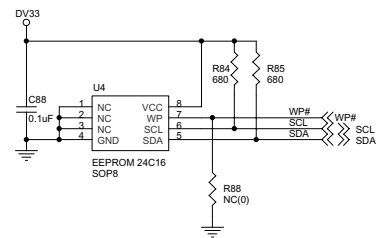
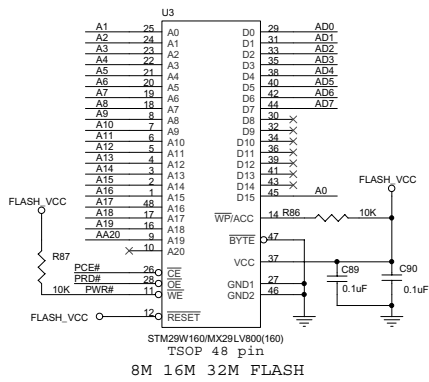
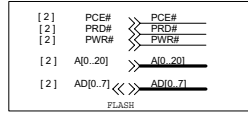
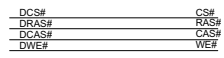
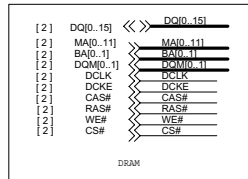


MT1389D

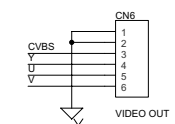
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CB2	A4	C67	C4	R39	A2
CB9	C1	C68	D4	R40	A2
CE10	C1	C69	C4	R41	B2
CE11	A1	C70	C4	R42	B2
CE12	B2	C71	B4	R43	B2
CE13	B2	C72	C4	R46	D3
CE14	A2	C73	D4	R47	D3
CE15	A3	C74	D4	R48	A3
CE16	A3	C75	D4	R49	A3
CE17	D3	C76	A4	R50	C3
CE18	B4	C77	A4	R51	C3
CE19	B4	C78	A4	R52	B3
CE20	C4	C79	B4	R55	B3
CN2	A1	C80	B4	R56	B3
CN3	A2	C81	B4	R57	B3
CN4	D3	C106	D3	R58	C3
CN5	D4	C135	D3	R59	C3
CN9	D3	D2	D3	R60	A4
C25	B1	D3	B4	R61	A4
C26	B1	D4	B4	R62	A4
C27	A1	J1	A4	R63	D4
C28	A1	L6	D1	R64	D4
C29	B1	L7	D2	R65	D4
C30	C1	L8	A2	R66	C4
C31	C1	L9	A3	R67	C4
C32	B1	L10	A3	R68	A4
C33	B1	L11	D4	R69	C4
C34	B1	L12	C4	R70	C4
C35	B1	L13	D4	R71	B4
C36	A1	L14	D4	R72	C4
C37	B1	L15	D4	R73	B4
C38	B1	L30	C3	R74	C4
C39	B1	Q4	A2	R75	A4
C40	C1	Q5	A2	R76	A4
C41	A1	Q6	A2	TP1	B1
C42	B1	Q7	A3	TP2	B1
C43	B1	Q8	A3	TP3	D1
C44	D1	Q9	B4	TP4	D1
C45	B1	Q10	C4	TP5	B1
C46	B1	RN1	C4	TP6	B2
C47	B1	R17	B1	TP7	B2
C48	B1	R18	D1	TP8	B2
C49	D1	R19	B1	TP9	B2
C50	B1	R20	B1	TP10	B2
C51	B2	R21	D1	TP11	C3
C52	B2	R22	A1	TP12	A3
C53	D2	R23	A1	TP13	B3
C54	B2	R24	B1	TP14	A3
C55	B2	R25	C1	TP15	B3
C56	B2	R26	A1	TP16	A3
C57	A2	R27	A1	TP17	B3
C58	A3	R28	A1	TP18	A3
C59	B3	R31	A1	TP19	B3
C60	B3	R32	A1	U1	B1
C61	B3	R33	D1	U2	A3
C62	B3	R34	C1	Y1	B1
C63	D4	R35	A2		
C64	D4	R36	A2		
C65	D4	R37	A2		

model	R63	R64, R65	C64	CN5	L14, L15
DVP3110	NC	500FB	100P	1--13pin	100R
DVP3120	500FB	NC	0R RES	3--11pin	NC

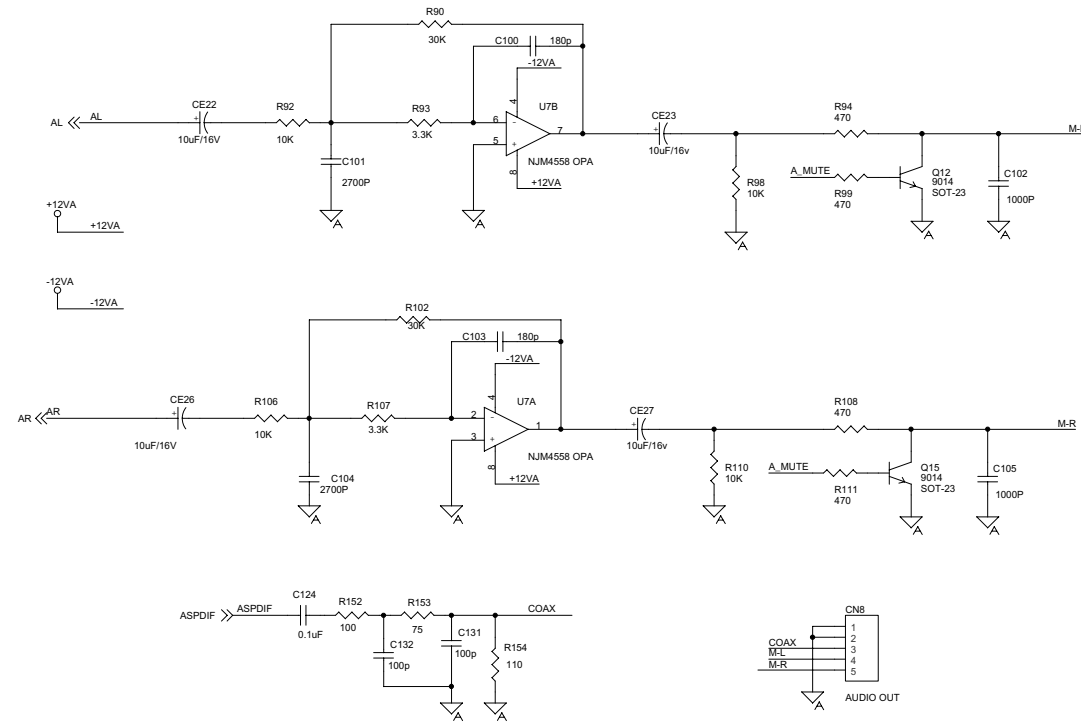
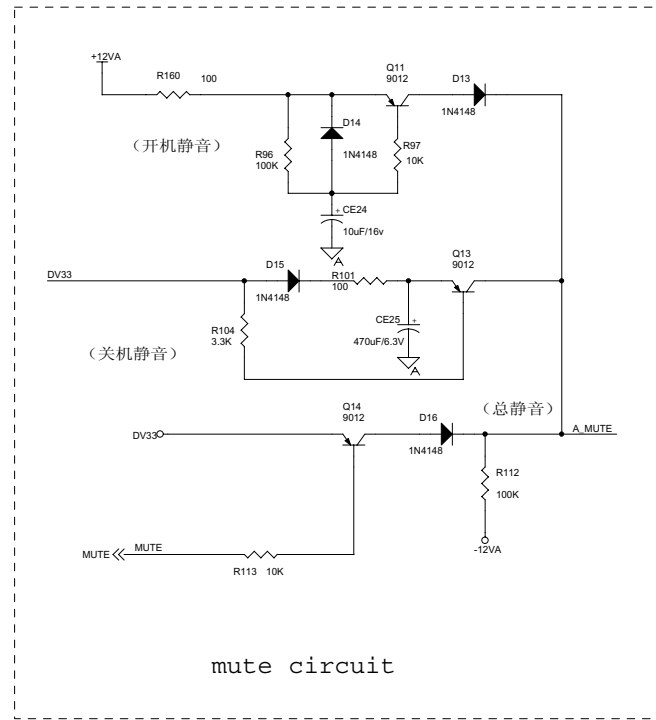
Main Board Electric Diagram for DVP3120/51/55/94/75, DVP3120K/55/93/98: SDRAM & FLASH&VIDEO OUT



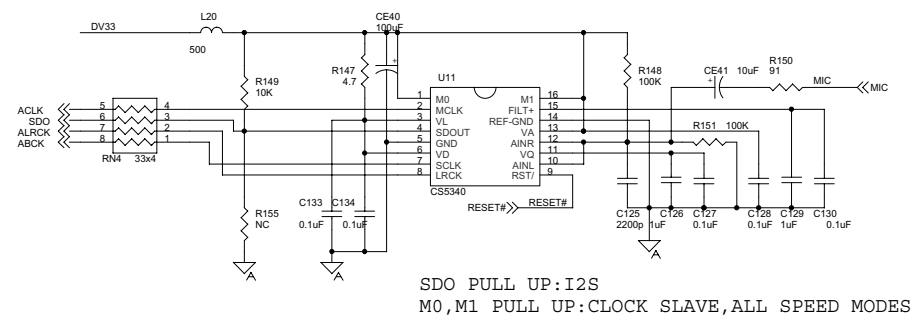
- CE21 D1
- CN6 D3
- C82 D1
- C83 D1
- C84 D2
- C85 D2
- C86 D2
- C87 D2
- C88 B2
- C89 A2
- C90 A2
- C91 D3
- C92 D3
- C93 A4
- C94 A4
- C95 A4
- C96 A4
- C97 A4
- C98 A4
- C99 A4
- D17 D1
- D18 D1
- L16 D1
- L17 D1
- L18 D2
- L19 D3
- R77 D1
- R78 D1
- R79 B1
- R80 B1
- R81 B1
- R82 D2
- R83 D2
- R84 C2
- R85 C2
- R86 A2
- R87 A2
- R88 C2
- R89 D3
- U3 A2
- U4 B2
- U5 B3
- U6 A3



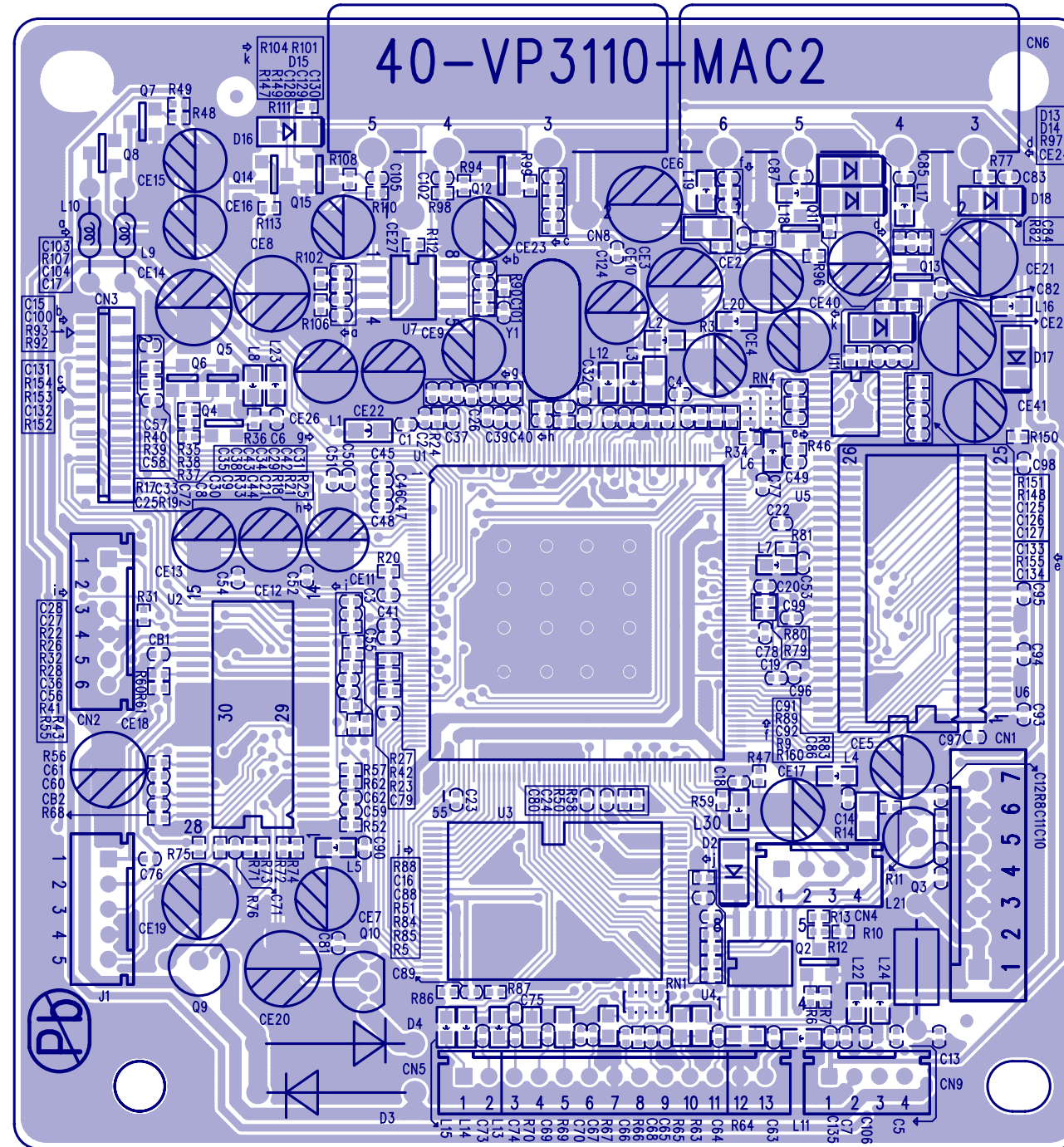
Main Board Electric Diagram for DVP3120/51/55/94/75, DVP3120K/55/93/98: Audio out



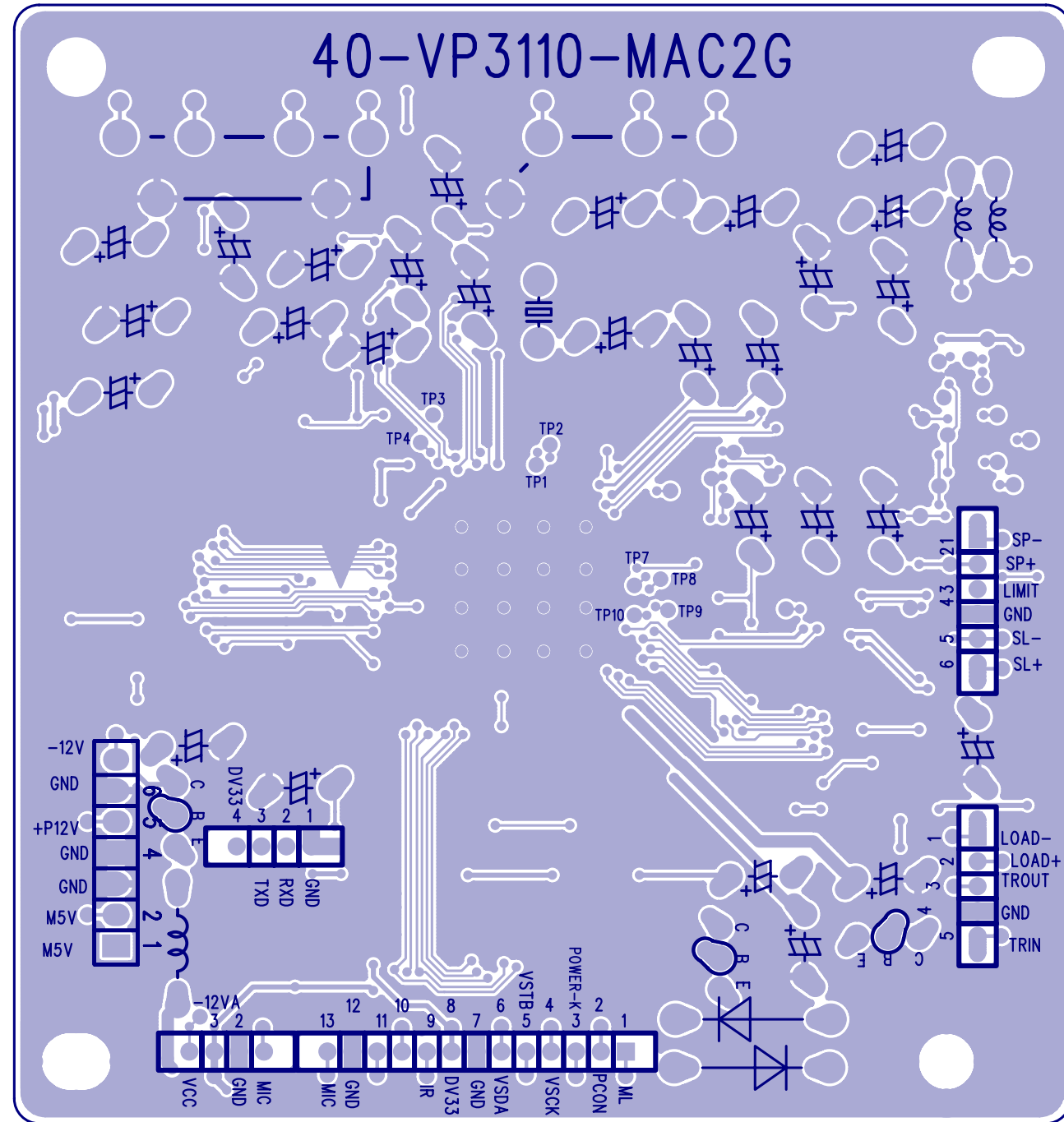
- CE22 C1
- CE23 D1
- CE24 A1
- CE25 A1
- CE26 C1
- CE27 D1
- CE40 A3
- CE41 B3
- CN8 D2
- C100 C1
- C101 C1
- C102 D1
- C103 C1
- C104 C2
- C105 D2
- C124 C2
- C125 B3
- C126 B3
- C127 B3
- C128 B3
- C129 B3
- C130 B3
- C131 C2
- C132 C2
- C133 A3
- C134 A3
- D13 B1
- D14 A1
- D15 A1
- D16 B2
- L20 A3
- Q11 A1
- Q12 D1
- Q13 B1
- Q14 A2
- Q15 D2
- RN4 A3
- R90 C1
- R92 C1
- R93 C1
- R94 D1
- R96 A1
- R97 A1
- R98 D1
- R99 D1
- R101 A1
- R102 C1
- R104 A1
- R106 C1
- R107 C1
- R108 D1
- R110 D2
- R111 D2
- R112 B2
- R113 A2
- R147 A3
- R148 B3
- R149 A3
- R150 B3
- R151 B3
- R152 C2
- R153 C2
- R154 C2
- R155 A3
- R160 A1
- U7A C1
- U7B C1
- U11 B3



Main Board Print-Layout (Top Side) for DVP3120/51/55/94/75, DVP3120K/55/93/98



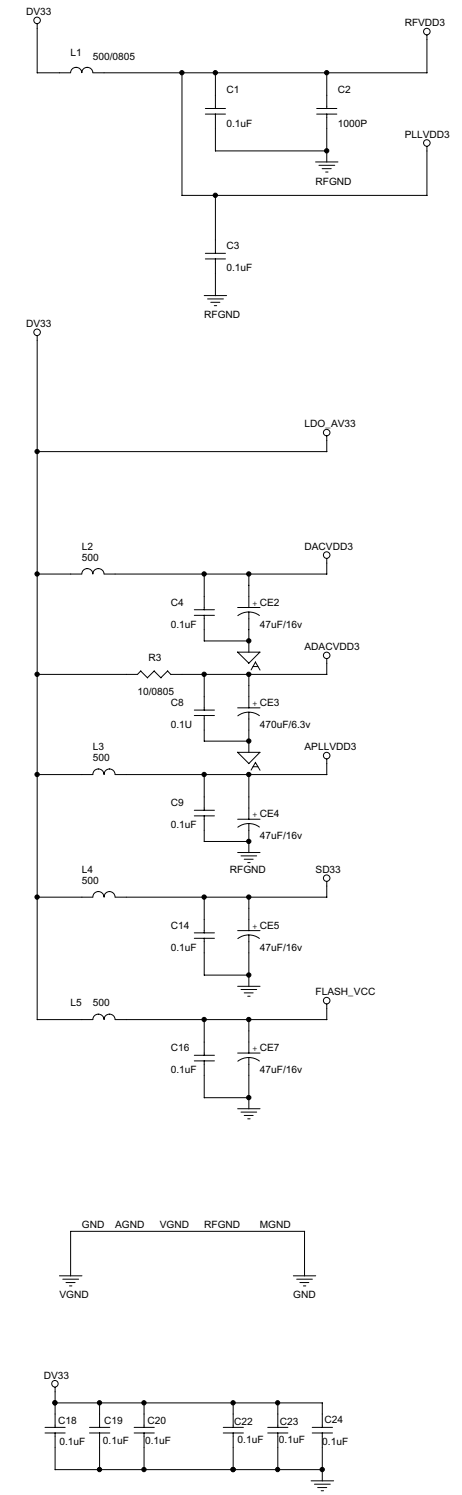
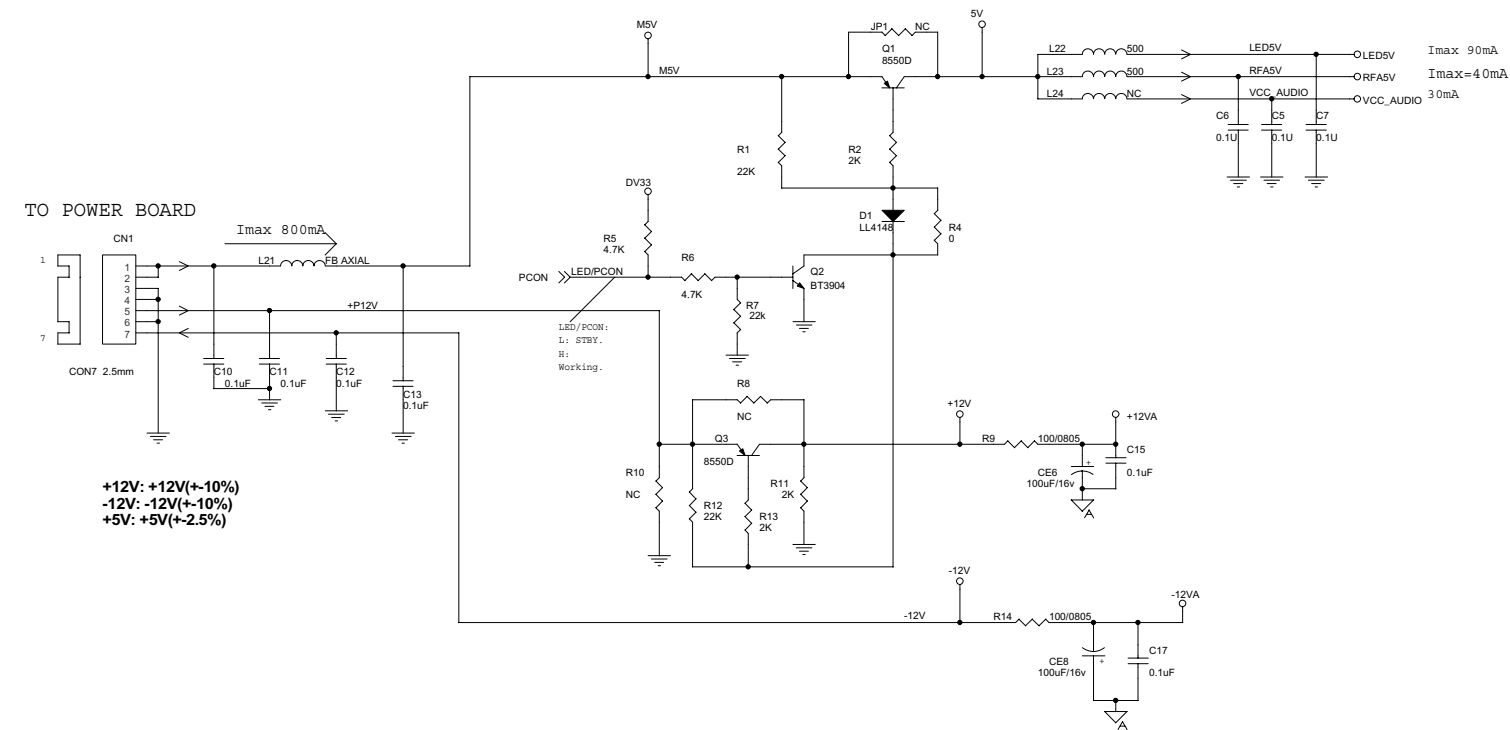
Main Board Print-Layout (Bottom Side) for DVP3120/51/55/94/75, DVP3120K/55/93/98



Main Board Electric Diagram for DVP3120/05/12, DVP3120K/55/93/98: INDEX

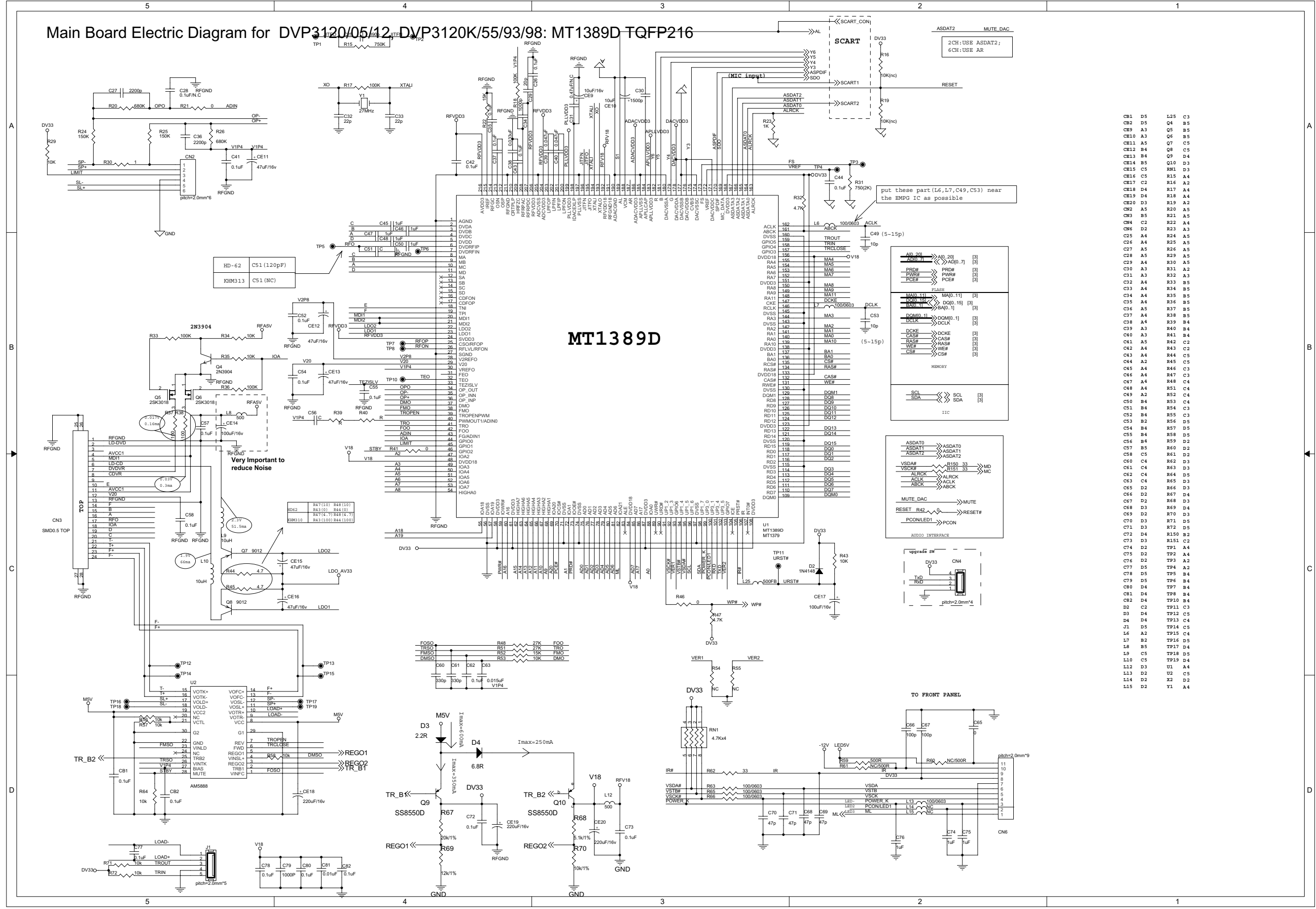
1	INDEX & POWER
2	RF, SERVO & MPEG - MT1389D
3	MEMORY /VIDEO OUT
4	AUDIO OUT

NAME	TYPE	DEVICE
VCC	Digital 5V	SUPPLY
DV33	Digital 3.3V	MT1389D
RFV33	Servo 3.3V	MT1389D
LDO_AV33	Laser Diode 3.3V	
AVCC	RF 5V	PICKUP HEADER
V18	Digital 1.8V	MT1389D
SD33	Digital 3.3V	SDRAM
+12V	Audio +12V	OP AMP.
-12V	Audio -12V	OP AMP.
AVDD	Audio 5V	VCC_AUDIO
DVDD	Audio 3V3	VCC3_AUDIO



CB2	B2
CB3	B2
CB4	B2
CB5	C2
CB6	C3
CB7	C2
CB8	D3
CN1	C5
C1	A2
C2	A2
C3	A2
C4	B2
C5	C3
C6	C3
C7	C3
C8	B2
C9	B2
C10	C5
C11	C5
C12	C5
C13	C5
C14	C2
C15	C3
C16	C2
C17	D3
C18	D2
C19	D2
C20	D2
C22	D2
C23	D2
C24	D2
D1	C4
JP1	C4
L1	A2
L2	B2
L3	B2
L4	C2
L5	C2
L21	C5
L22	C3
L23	C3
L24	C3
Q1	C4
Q2	C4
Q3	C4
R1	C4
R2	C4
R3	B2
R4	C4
R5	C4
R6	C4
R7	C4
R8	C4
R9	C4
R10	D4
R11	D4
R12	D4
R13	D4
R14	D4
X1	D2

Main Board Electric Diagram for DVP3120/05/12, DVP3120K/55/93/98: MT1389D-TQFP216



MT1389D

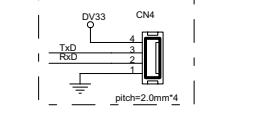
Very Important to reduce Noise

put these part (L6, L7, C49, C53) near the BMP IC as possible

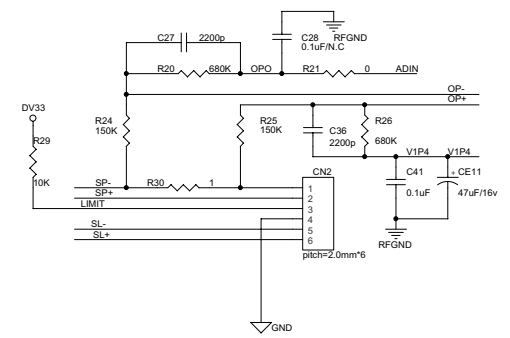
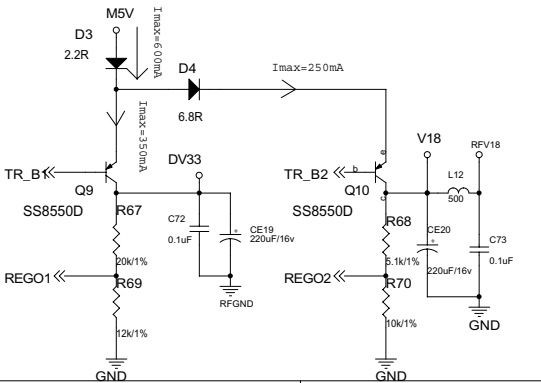
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CB2	D5	Q4	B5
CB9	A3	Q5	B5
CE10	A3	Q6	B5
CE11	A5	Q7	C5
CE12	B4	Q8	C5
CE13	B4	Q9	D4
CE14	B5	Q10	D3
CE15	C5	RM1	D3
CE16	C5	R15	A4
CE17	C2	R16	A2
CE18	D4	R17	A4
CE19	D4	R18	A4
CE20	D3	R19	A2
CE2	A5	R20	A5
CE3	B5	R21	A5
CE4	C2	R22	A4
CE6	D2	R23	A3
CE5	A4	R24	A5
CE6	A4	R25	A5
CE7	A5	R26	A5
CE8	A5	R29	A5
CE9	A3	R31	A2
CE1	A3	R32	A3
CE2	A4	R33	B5
CE3	A4	R34	B5
CE4	A4	R35	B5
CE5	A4	R36	B5
CE6	A5	R37	B5
CE7	A4	R38	B5
CE8	A4	R39	B4
CE9	A3	R40	B4
CE4	A3	R41	B4
CE1	A5	R42	B4
CE2	A4	R43	C2
CE3	A4	R44	C5
CE4	A2	R45	C5
CE4	A4	R46	C3
CE7	A4	R48	C4
CE8	A4	R51	C4
CE9	A2	R52	C4
CE0	B4	R53	C4
CE1	B4	R54	C3
CE2	B4	R55	C3
CE3	B2	R56	D5
CE4	B4	R57	D5
CE5	B4	R58	D5
CE6	B4	R59	D2
CE7	B5	R60	D2
CE8	C5	R61	D2
CE9	C4	R62	D3
CE1	C4	R63	D3
CE2	C4	R64	D3
CE3	C4	R65	D3
CE6	D2	R66	D3
CE6	D2	R67	D4
CE7	D2	R68	D3
CE8	D3	R69	D4
CE9	D2	R70	D3
CE0	D3	R71	D5
CE1	D3	R72	D5
CE2	D4	R73	D5
CE3	D4	R74	A2
CE4	D5	R75	B4
CE5	D4	R76	B4
CE6	D4	R77	B4
CE7	D4	R78	B4
CE8	D4	R79	B4
CE9	D4	R80	B4
CE0	C2	TP11	C3
CE1	D2	TP1	A4
CE2	D2	TP2	A4
CE3	D2	TP3	A2
CE4	D2	TP4	A2
CE5	D5	TP5	B4
CE6	D5	TP6	B4
CE7	D4	TP7	B4
CE8	D4	TP8	B4
CE9	D4	TP9	B4
CE0	D4	TP10	B4
CE1	D5	TP11	C5
CE2	D4	TP12	C5
CE3	D4	TP13	C4
CE4	D5	TP14	D5
CE5	D5	TP15	D4
CE6	D2	TP16	D5
CE7	D2	TP17	D4
CE8	D2	TP18	D5
CE9	D2	TP19	D4
CE0	D2	TP20	D4
CE1	D2	TP21	A4
CE2	D2	TP22	C5
CE3	D2	TP23	C5
CE4	D2	TP24	C5
CE5	D2	TP25	D4
CE6	D2	TP26	D4
CE7	D2	TP27	D4
CE8	D2	TP28	D4
CE9	D2	TP29	D4
CE0	D2	TP30	D4

AD0_201	AD0_201	[3]
AD0_71	AD0_71	[3]
PRD#	PRD#	[3]
PWR#	PWR#	[3]
PCE#	PCE#	[3]
MA0_11	MA0_11	[3]
MA0_15	MA0_15	[3]
MA0_1	MA0_1	[3]
DOM0_11	DOM0_11	[3]
DCLK	DCLK	[3]
DCKE	DCKE	[3]
CAS#	CAS#	[3]
RAS#	RAS#	[3]
WE#	WE#	[3]
CS#	CS#	[3]
MEMORY		
SCL	SCL	[3]
SDA	SDA	[3]
IIC		

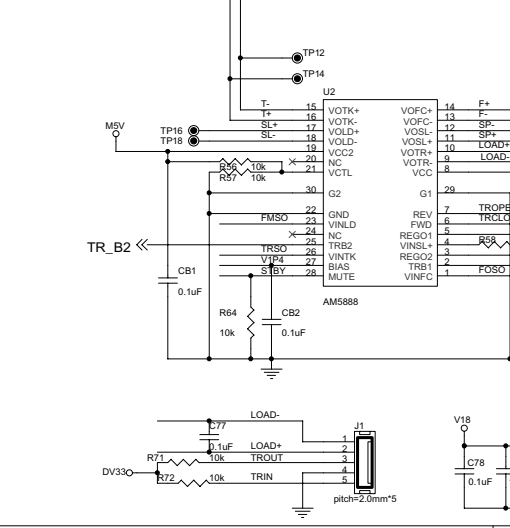
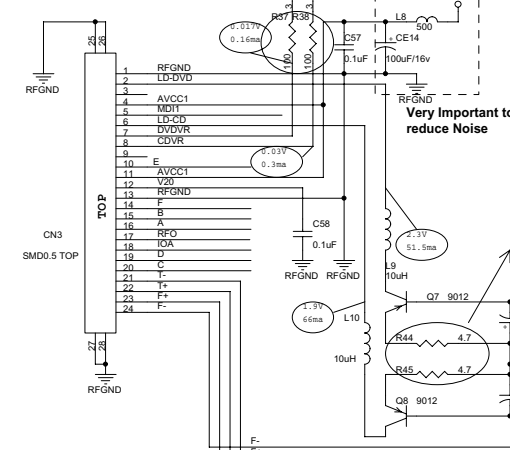
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ASDAT1	ASDAT1	[3]
ASDAT2	ASDAT2	[3]
VSDA#	VSDA#	[3]
VSB#	VSB#	[3]
ALRCK	ALRCK	[3]
ACLK	ACLK	[3]
ABCK	ABCK	[3]
MUTE_DAC	MUTE	[3]
RESET	RESET#	[3]
PCONLED1	PCON	[3]
AUDIO INTERFACE		



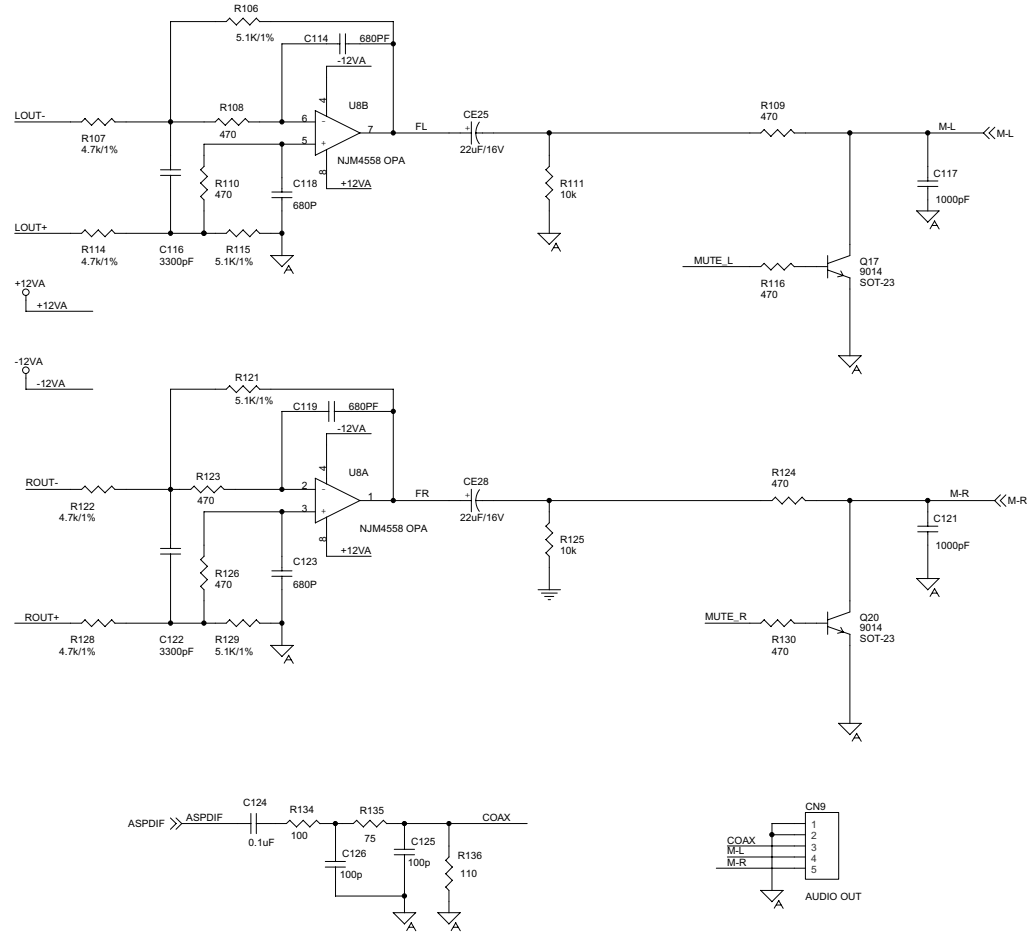
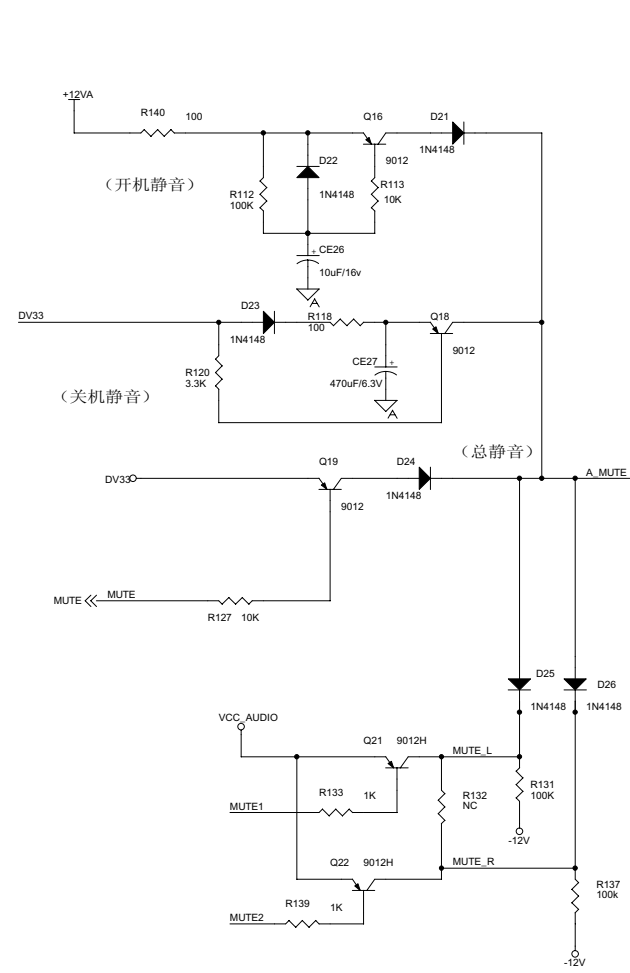
TO FRONT PANEL



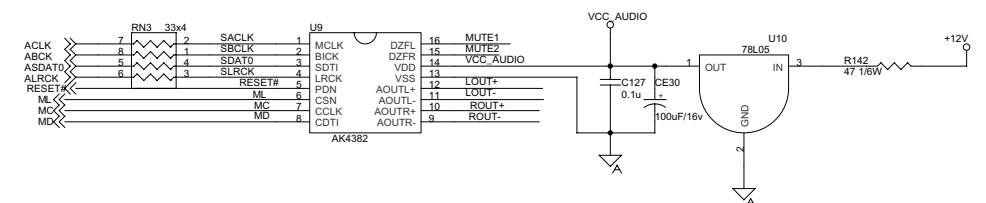
HD-62	C51 (120pF)
KHM13	C51 (NC)



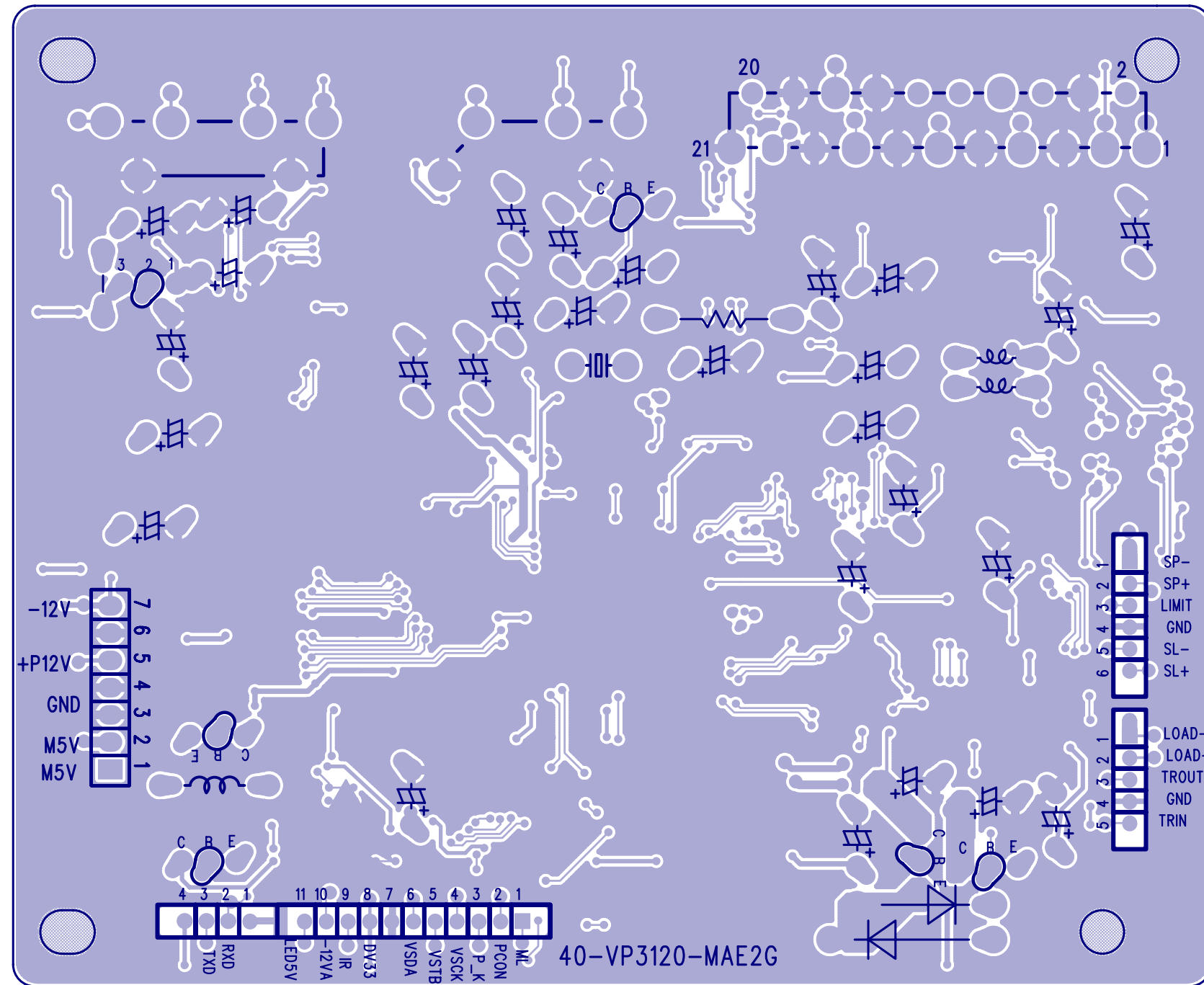
Main Board Electric Diagram for DVP3120/05/12, DVP3120K/55/93/98: AUDIO OUT



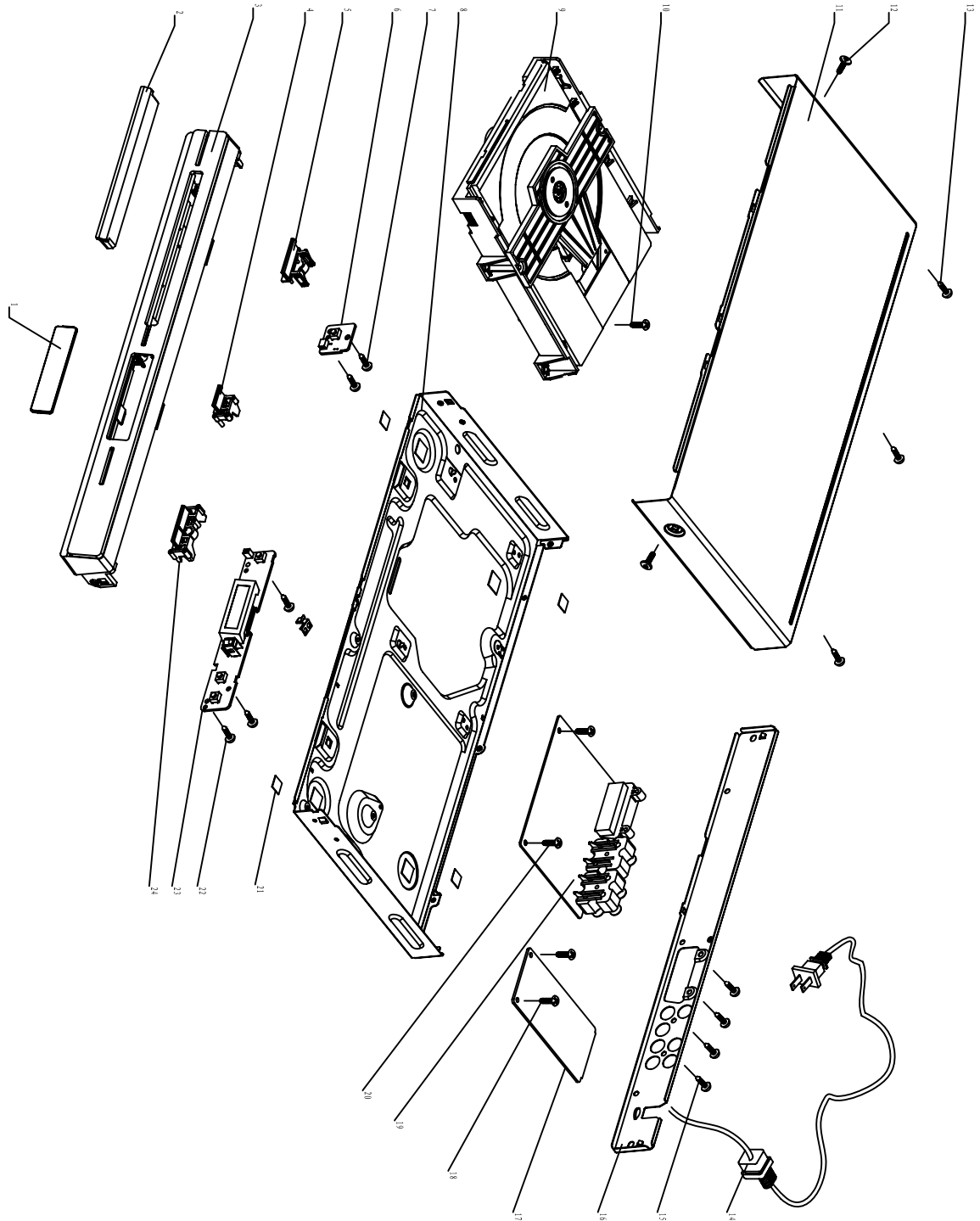
- CE25 A 3
- CE26 A 5
- CE27 A 5
- CE28 B 3
- CE30 D 4
- CN9 B 2
- C114 A 3
- C116 A 3
- C117 A 2
- C118 A 3
- C119 A 3
- C121 B 2
- C122 B 3
- C123 B 3
- C124 B 3
- C125 B 3
- C126 B 3
- C127 D 4
- D21 A 4
- D22 A 5
- D23 A 5
- D24 B 4
- D25 B 4
- D26 B 4
- Q16 A 5
- Q17 A 2
- Q18 A 4
- Q19 B 5
- Q20 B 2
- Q21 B 5
- Q22 B 5
- RN3 C 5
- R106 A 3
- R107 A 4
- R108 A 3
- R109 A 2
- R110 A 3
- R111 A 3
- R112 A 5
- R113 A 5
- R114 A 4
- R115 A 3
- R116 A 2
- R118 A 5
- R120 A 5
- R121 A 3
- R122 B 4
- R123 B 2
- R124 B 2
- R125 B 3
- R126 B 3
- R127 B 5
- R128 B 4
- R129 B 3
- R130 B 2
- R131 B 4
- R132 B 4
- R133 B 5
- R134 B 3
- R135 B 3
- R136 B 3
- R137 B 4
- R139 B 5
- R140 A 5
- R142 D 4
- U8A B 3
- U8B A 3
- U9 C 5
- U10 D 4
- X4 D 2



Main Board Print-Layout (Bottom Side) for DVP3120/05/12



DVP3120/XX Mechanical Exploded View



Remark: It's a general Mechanical Exploded View for DVP3120/XX, Detailed information please refer to Model set.

Ass'y1 is the assembled component for location 1,3,4,5,24

Part list for DVP3120/05/12/55/51/94/77 and DVP3124X/94

ENCASING & ACCESSORIES PARTS LIST

No	12NC No.	Part Name	Q'ty
Assy1	996510001808	Front Panel Ass'y for DVP3120/05/12/51/55	1
	996510001823	Front Panel Ass'y for DVP3120/94	
2	996510001807	Front Door Ass'y DVP3120x/94	
6	996510001163	Ass'y-Switch Board	
	310630878371	ASSY SWITCH BD DVP3120 /77	
	996510005538	Front panel /77	
	996510005534	POWER KNOB /77	
	996510005535	PUSH BOTTOM /77	
	996510005536	FUNCTION BUTTON /77	
	996510001807	FRONT DOOR /77	
8	996510001229	BOTTOM CABINET for DVP3120x/94	
8	-	Bottom Cabinet for DVP3120/05/12	
	996510001229	Bottom Cabinet for DVP3120/51/55/94	
	310630190741	CHASSIS METAL DVP3120 0.6MM/77	
9	996510001805	Loader for DVP3120/05/12/51/55	
	996510001821	Loader for DVP3120/94	
11	996510001682	Top cover for DVP3120/05/12/51/55/94,DVP3120x/94	1
14	-	Power Cord for DVP3120/05	
	996510001179	Power Cord for DVP3120/12/51/94	
	996510001175	Power Cord for DVP3120/55	
	310110797752	Power Cord for DVP3120/77	
16	-	Rear Cabinet for DVP3120/05/12	
	-	Rear Cabinet for DVP3120/51/94	
	-	Rear Cabinet for DVP3120/55	
	996510006864	BACK PANEL DVP3120/77	
	996510001811	BACK PANEL DVP3120x/94	
17	996510001165	Ass'y-Power Board for DVP3120/05/12	1
	996510001200	Ass'y-Power Board for DVP3120/51	
	996510001190	Ass'y-Power Board for DVP3120/55 78/94	
	996510001820	Ass'y-Power Board for DVP3120/94,DVP3120x/94	
19	-	Ass'y-Main Board for DVP3120/05/12	
	-	Ass'y-Main Board for DVP3120/51	
	996510001819	Ass'y-Main Board for DVP3120/94	
	996510001804	Ass'y-Main Board for DVP3120/55	
	310630878361	ASSY MAIN BD DVP3120 /77	
21	996510001680	Pad	1
23	996510001164	Ass'y-Front Board for DVP3120/05/12/51/55/94	1
	310630878351	ASSY FRONT BD DVP3120 /77	
24	996510001164	ASS'Y-FB BD DVP3120x/94	1

SCREW LIST

No	12NC No.	Part Name
7	-	S/T Screw B2.6X8 BF
10	-	Machine Screw
12	-	Triangle M/C Screw 3*6
13	-	Triangle M/C Screw B3*6
15	-	S/T Screw B 3 X 8 BF
18	-	Triangle M/C Screw B3*6
20	-	Triangle M/C Screw B3*6
22	-	S/T Screw B2.6X8 BF

Accessory

PAC9	996510001822	REMOTE CONTROL
RC	996510001822	REMOTE CONTROL for DVP3120/94,DVP3120x/94
RC	996510001806	REMOTE CONTROL for /55/12/51
	242254900908	REMOTE CONTR DVP3020 B /77

Cable

AV Cable	996510001106	VIDEO CABLE 1500mm for /51/55/
CON301	996510001172	HS 9PIN
CON302	996510001171	2P HS
CN3	996510001108	46-39912C-24XGA
CN1	996510001169	TJC3-7Y/SCN-7P L=80MM
J1	996510001192	PH-5Y/PH-5Y L=130MM
	996510001167	HS 5P 20080#26 110mm PH-5Y*2
	996510001108	24PIN FLAT WIRE

Part List for DVP3120/78

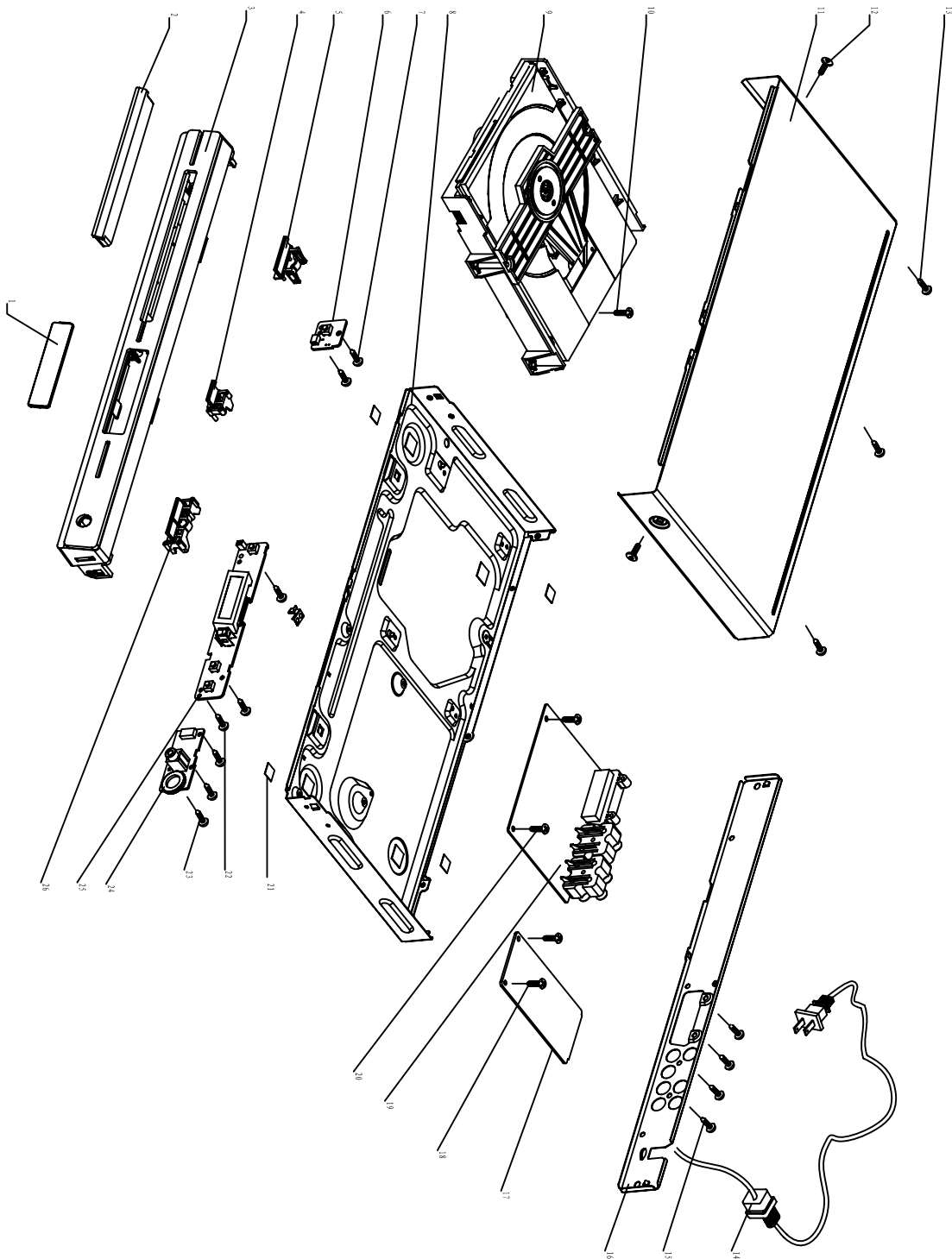
Electrical PARTS LIST

No	12NC No.	Part Name	Q'ty
⚠ 17	996510010209	ASSY POWER BD	1
L1	996510009942	COIL WIDTH	1
L2	996500032509	COIL SL0811-6R8K2R4	1
T1	996510009662	TRANSFORMER CONV	1
U1	996510009660	FSDH321	1
U2	996500024838	PC123X9YFZ	1
U3	996510009661	adjustable shunt regulator	1
19	996510010208	ASSY MAIN BD	1
L10	996500014082	COIL CHOKE 10UH +/-10%	1
L9	996500014082	COIL CHOKE 10UH +/-10%	1
Q10	996510009671	TRANSISTOR	1
Q11	996510009670	TRANSISTOR SMT 3CG9012M	1
Q12	996510009669	SMD.TRANSISTOR MMBT3904LT1 NP	1
Q13	996510009670	TRANSISTOR SMT 3CG9012M	1
Q14	996510009670	TRANSISTOR SMT 3CG9012M	1
Q15	996510009669	SMD.TRANSISTOR MMBT3904LT1 NP	1
Q2	996510009669	SMD.TRANSISTOR MMBT3904LT1 NP	1
Q3	996510009671	TRANSISTOR	1
Q4	996510009669	SMD.TRANSISTOR MMBT3904LT1 NP	1
Q5	996510009769	N Channel MOSFET 2SK3108	1
Q6	996510009769	N Channel MOSFET 2SK3108	1
Q7	996510009670	TRANSISTOR SMT 3CG9012M	1
Q8	996510009670	TRANSISTOR SMT 3CG9012M	1
Q9	996510009671	TRANSISTOR	1
U1	996510009862	IC MT1389QE/D	1
U2	996510009674	IC AM5888IC	1
U3	996510010211	IC EN29LV800AT-70TC	1
U4	996500024284	IC EEPROM 8K M24C08	1
U6	996510009676	SDRAM M12L16161A-7T	1
U7	996500032494	IC AS4558M	1
Y1	996510009675	27MCL20PF	1
25	996510010207	ASSY FRONT BD	1
U301	996510009665	IC ET6202 SOP-2	1
6	996510010210	ASSY SWITCH BD	1
9	996510002887	ASS'Y-LOADER	1
OPU	996510006029	SONY OPU	1

MECHANICAL & ACCESSORIES PARTS LIST

No	12NC No.	Part Name	Q'ty
1	996510005537	DISPLAY LENS	1
⚠ 14	310630764572	MAIN CORD 02/1500/02 VHR-4M	1
2	996510001807	FRONT DOOR	1
21	996510006463	PAD	1
26	996510005536	FUNCTION BUTTON	1
3	996510005538	Front panel	1
4	996510005535	PUSH BOTTOM	1
5	996510005534	POWER KNOB	1
AVCAB	996510001106	VIDEO CABLE 1500mm	1
CN3	996510001108	24PIN FLAT WIRE	1
J1	996510004063	CABLE PH-5Y/PH-5Y L=130MM	1
RC	310630876201	RC YKF172-002 DVP3020 ASSY	1

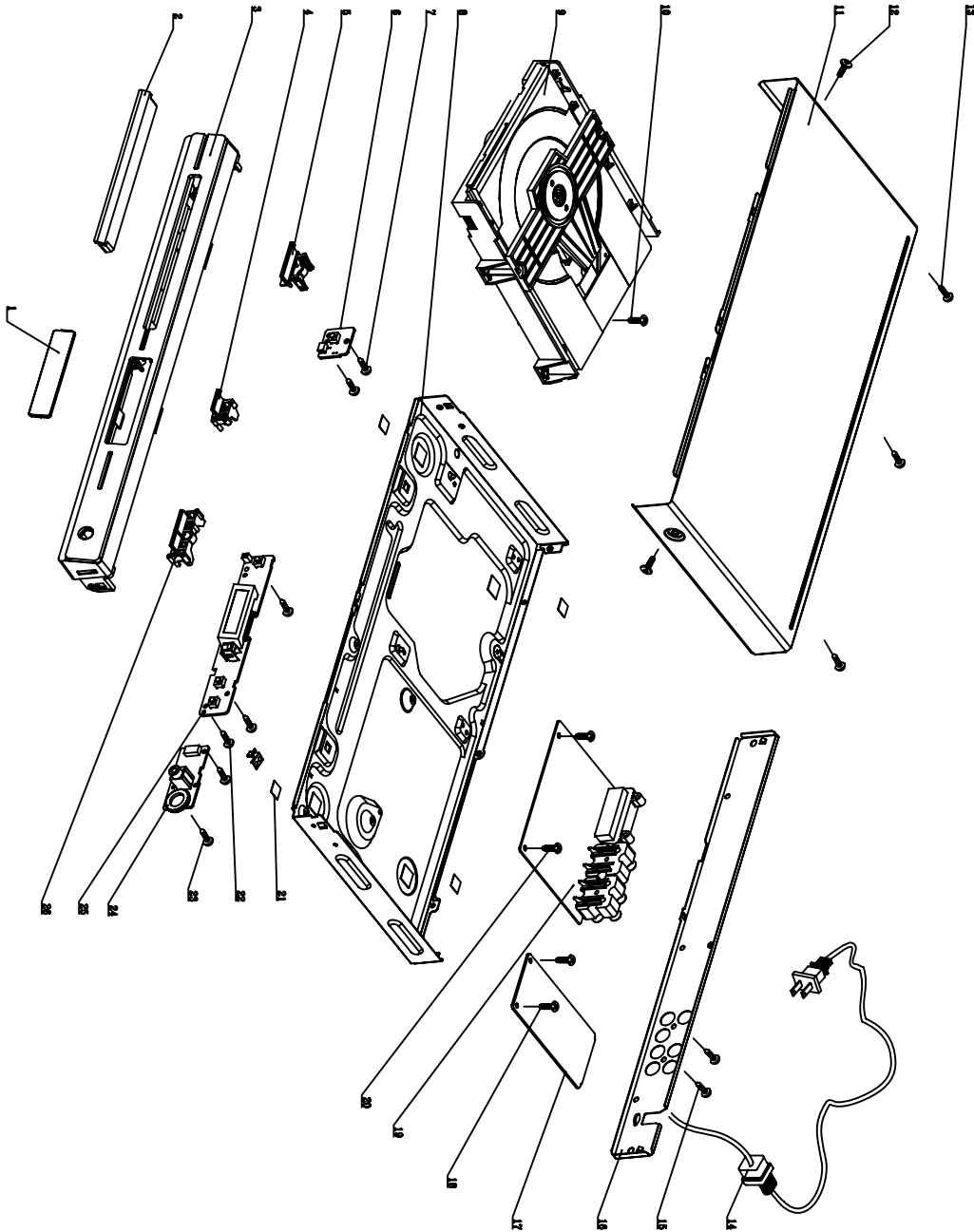
DVP3120K/55/93 Mechanical Exploded View



Remark: It's a general Mechanical Exploded View for DVP3120K/55/93, Detailed information please refer to Model set.

Ass'y1 is the assembled component for location 1,3,4,5,26

DVP3120K/98 Mechanical Exploded View



Remark: It's a general Mechanical Exploded View for DVP3120K/98, Detailed information please refer to Model set.

Ass'y1 is the assembled component for location 1,3,4,5,26

ENCASING & ACCESSORIES PARTS LIST**SCREW LIST**

No	12NC	Part Name	Q'ty	No	12NC	Part Name	Q'ty
Ass'y1	996510005805	Front Panel Ass'y for DVP3120K/93	1				
	-	Front Panel Ass'y for DVP3120K/98/55	1	7	-	S/T Screw B2.6X8 BF	2
2	-	Front Door Ass'y for DVP3120K/55/93/98	1	10	-	Machine Screw	1
	-	Front Panel Ass'y for DVP3120K/98/55	1	12	-	Triangle M/C Screw 3*6	2
	-	Front Door Ass'y for DVP3120K/55/93/98	1	13	-	Triangle M/C Screw B3*6	3
6	996510001163	Ass'y-Switch Board for DVP3120K/55/93/98	1	15	-	S/T Screw B 3 X 8 BF	4
8	996510001229	Bottom Cabinet for DVP3120K/55/93/98	1	18	-	Triangle M/C Screw B3*6	2
9	996510002887	Loader for DVP3120K/55/93/98	1	20	-	Triangle M/C Screw B3*6	2
11	996510001682	Top cover for DVP3120K/55/93/98	1	22	-	S/T Screw B2.6X8 BF	3
14	996510001175	Power Cord for DVP3120K/55	1	23	-	S/T Screw B2.6X8 BF	3
	996510001206	Power Cord for DVP3120K/93	1				
	-	Power Cord for DVP3120K/98	1				
16	996510001809	Rear Cabine for DVP3120K/55	1				
	996510005806	Rear Cabinet for DVP3120K/93	1				
	-	Rear Cabinet for DVP3120K/98	1				
17	-	Ass'y-Power Board for DVP3120K/55	1				
	996510001878	Ass'y-Power Board for DVP3120K/93	1				
	-	Ass'y-Power Board for DVP3120K/98	1				
19	996510005803	Ass'y-Main Board for DVP3120K/55/93/98	1				
24	-	Ass'y-OK Board DVP3120K/93	1				
	-	Ass'y-OK Board DVP3120K/98/55	1				
25	996510001164	Ass'y-Front Board DVP3120K/55/93/98	1				

Connector parts ,CABLE

AV-CAB	996510001106	AUDIO/VIDEO CABLE	1
LDR- MAIN CN2	996510001108	CABLE 24PIN FLAT WIRE	1
CON301	996510001172	9PIN PH-9Y JC20-9Y L=120MM	1
CON302	996510004064	2PIN PH-2Y,SAN-2P L=160MM	1
LDR-MAIN CN3	996510004063	5PIN PH-5Y/PH-5Y L=130MM	1
CN601	996510001184	4p SAN4P-PH-4Y L=180MM	1

Accessories parts

IFU	-	OPERATION MANUALfor DVP3120K/93	1
IFU	-	OPERATION MANUALfor DVP3120K/98	1
IFU	-	OPERATION MANUALfor DVP3120K/55	1
POLY BAG	-	POLY	1
D-BOX	996510005804	B0X for DVP3120K/93	
D-BOX	-	B0X for DVP3120K/98	
D-BOX	-	B0X for DVP3120K/55	
L-Buffer	996510001202	CARD	1
R-Buffer	996510001783	CARD	1
RC	996510002675	Remote Control for DVP3120K/93	1
RC	-	Remote Control for DVP3120K/98/55	1

REVISION LIST

Version 1.0

*Initial release

Version 1.1

* Include /77, /78 for DVP3120 models

Version 1.2

* Include DVP3120X/94 models