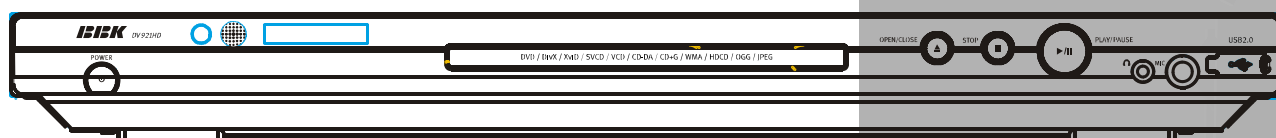




DV921HD(RU)

Service Manual



Model version:SI2.00 SI2.10

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Caution :

This Service Manual is applicable to DV921HD(RU)SI2.00,SI2.10.

Chapter One About Maintenance

1.1 Safety precautions

1.1.1 Power supply

When maintenance personnel are repairing DVD players, he should pay special attention to the power board with 220V AC and 330V DC which will cause hurt and damage to persons!

1.1.2 Precautions for antistatic

Movement and friction will both bring static electricity which causes serious damages to integrated IC. Though static charge is little, when a limited quantity of electric charge is added to large-scale integrated IC, as the capacitance is very small in the meantime, now the integrated IC is very much easy to be struck through by static electricity or the performance will decrease. Thus static electricity prevention is of extraordinary importance. The following are several measures to prevent static electricity:

1. Use a piece of electric conduction metal with the length of about 2 metres to insert into the earth, and Fetch the lead wire from the top of the surplus metal and connect to the required static electricity device. The length and depth of the metal embedded under the earth should be determined according to the wettability of the local soil. For humid places, it may be shorter, and longer and deeper for dry places. If possible, it can be distributed and layed in terms of “#” shape.
2. On operating table-board, the antistatic table cushion should be covered and grounded.
3. All devices and equipments should be placed on the antistatic table cushion and grounded.
4. Maintenance personnel should wear antistatic wrist ring which should be grounded.
5. Places around the operating position should also be covered with electric conduction cushion or Painted with antistatic paint.

1.1.3 Precautions for laser head

1. Do not stare at laser head directly, for laser emission will occur when laser head is working, which will Hurt your eyes!
2. Do not use wiping water or alcohol to clean laser head, and you may use cotton swab.

1.1.4 About placement position

1. Never place DVD player in positions with high temperature and humidity.
2. Avoid placing near high magnetic fields, such as loudspeaker or magnet.
3. Positions for placement should be stable and secure.

1.2 Maintenance method

1.2.1 Visualized method

Directly view whether abnormalities of collision, lack of element, joint welding, shedding welding, rosin joint, copper foil turning up, lead wire disconnection and elements burning up among pins of elements appear. Check power supply of the machine and then use hands to touch the casing of part of elements and check whether they are hot to judge the trouble spot. You should pay more attention when using this method to check in high voltage parts.

1.2.2 Electric resistance method

Set the multimeter in resistance position and test whether the numerical value of resistance of each point in the circuit has difference from the normal value to judge the trouble spot. But in the circuit the tested numerical value of resistance is not accurate, and the tested numerical value of integrated IC's pins can only be used for reference, so the elements should be broken down for test.

1.2.3 Voltage method

Voltage method is relatively convenient, quick and accurate. Set the multimeter in voltage position and test power supply voltage of the player and voltage of a certain point to judge the trouble spot according to the tested voltage variation.

1.2.4 Current method

Set the multimeter in current position and test current of the player of a certain point to judge the trouble spot. But when testing in current method, the multimeter should be series connected in the circuit, which makes this method too trivial and troublesome, so it is less frequently used in reality.

1.2.5 Cutting method

Cutting method should be combined with electric resistance method and voltage method to use. This method is mainly used in phenomena of short circuit and current leakage of the circuit. When cutting the input terminal voltage of a certain level, if voltage of the player rises again, it means that the trouble lies in this level.

1.2.6 Element substitution method

When some elements cannot be judged good or bad, substitution method may be adopted directly.

1.2.7 Comparison method

A same good PC board is usually used to test the correct voltage and waveform. Compared these data with those tested through fault PC board, the cause of troubles may be found.

Through the above maintenance method, theoretical knowledge and maintenance experience, all difficulties and troubles will be readily solved.

1.3 Required device for maintenance

- ◆ Digital oscillograph ($\geq 100\text{MHz}$)
- ◆ TV set
- ◆ SMD rework station
- ◆ Multimeter
- ◆ Soldering iron
- ◆ Pointed-nose pincers
- ◆ Cutting nippers
- ◆ Forceps
- ◆ Electric screw driver
- ◆ Terminal connecting cord
- ◆ Headphone
- ◆ Microphone

Chapter Two

Functions and Operation Instructions

2.1 Features

Compatible Disc Types:

- #Digital video playback: DVD-Video, Super VCD, VCD compatibility
- #MPEG-4 standard support: compatibility with DivX3.11, DivX4, DivX5, DivXPro, XviD compressed video files
- #Digital audio playback: DVD-Audio, Super Audio CD, CD-DA and HDCD compatibility
- #Fully compatible with compressed audio files such as Mp3, WMA and OGG Vorbis formats
- #Playback of DVD, VCD, CD+G karaoke discs
- #Digital graphic albums playback: Kodak Picture CD, JPEG compatibility

Audio:

- #192 KHz/24 bit Audio Digital/Analog converter
- #Coaxial and optical outputs for Dolby Digital/DTS/LPCM digital audio
- #Mixed audio output for amplifier or TV connection
- #Digital multi-channel decoders, providing Dolby Digital/DTS audio stream playing
- #Built-in Dolby Pro Logic II decoder makes available to convert stereo signal into multi-channel
- #MIC input for karaoke function
- #Headphones output

Video:

- #108 MHz/12 bit Video Digital/Analog converter
- #HDMI interface provides high-definition image(720p/1080) and digital audio
- #Progressive Scan Output(Y Pb Pr) producing flicker-free and stable images
- #Composite, component(Y Cb Cr), S-Video and RGB/SCART outputs for various types of connections
- #Capable of playing NTSC/PAL discs
- #Multiple dubbings, angles, subtitles support
- #Sharpness, gamma, brightness, contrast, hue, saturation adjustment

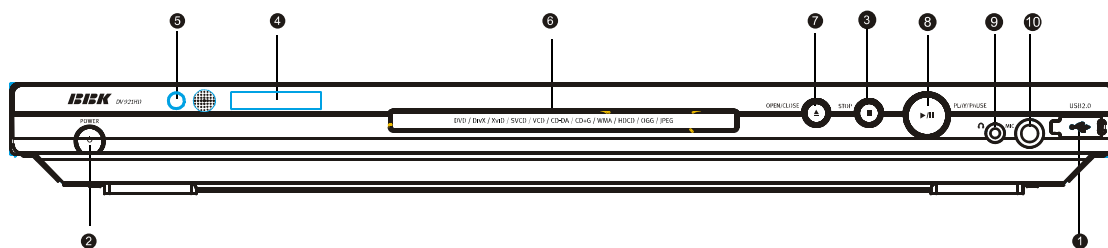
Others:

- #Compatible disc types: CD-R/CD-RW, DVD-R/DVD-RW, DVD+R/DVD+RW
- #USB interface to connect Mp3 player, flash card or digital camera
- #KARAOKE+ system, expanding karaoke function
- #Russia, CIS and Baltic States adaptation interface and filenames, ID3-tags and CD-Text support simplifies device operation
- #"Memory" function enables to save the last point after stop playback
- #"Q-Play" function provides direct playback and allows to skip commercial that is not possible to rewind
- #"Virtual Keyboard" function provides more convenient DVD playback control
- #"Browser" function provides easy access to playback control
- #Automatic Screensaver function
- #Parental control function to protect children from watching inappropriate discs
- #Super wide range of operating power supplies (~110-250V, 50/60Hz), automatic short circuit protection

2.2 Controls and functions

2.2.1 Front and side panels control

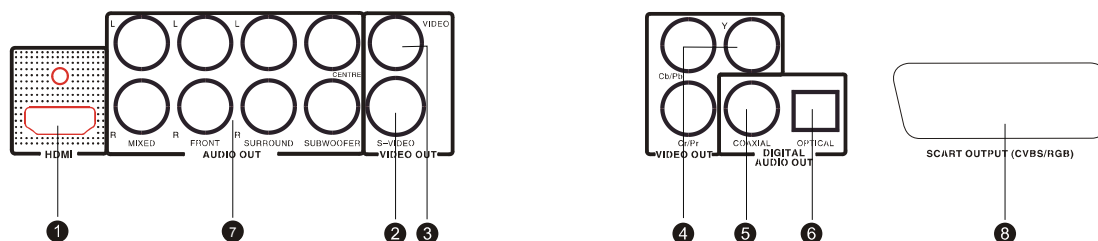
DV921HD



- | | | | |
|---|--------------------------|----|-------------------|
| 1 | USB indicator | 6 | Disc tray |
| 2 | POWER button | 7 | OPEN/CLOSE button |
| 3 | STOP button | 8 | PLAY/PAUSE button |
| 4 | LED display | 9 | Headphones input |
| 5 | Sensor of infrared beams | 10 | Microphone input |

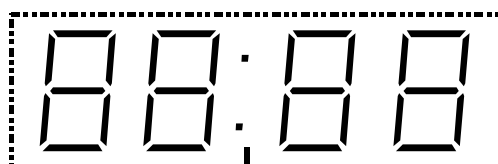
2.2.2 Rear panel general view

DV921HD



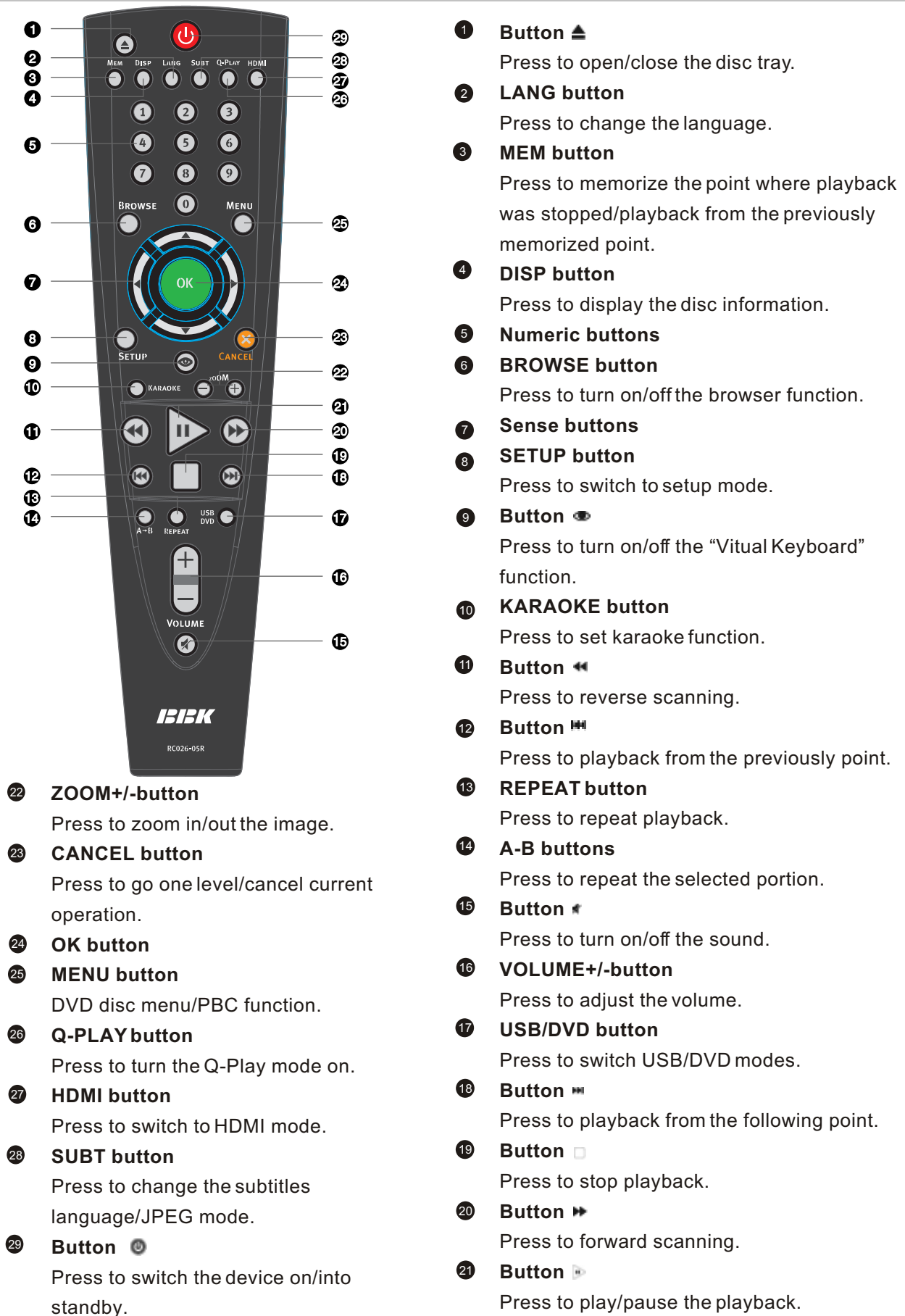
- | | | | |
|---|-----------------------------------|---|--------------------------------|
| 1 | HDMI Out jack | 5 | Digital Audio Coaxial Out jack |
| 2 | S-VIDEO Out jack | 6 | Digital Audio Optical Out jack |
| 3 | VIDEO Out jack | 7 | 5.1CH Audio Out jack |
| 4 | Video Component/Y Pb Pr out jacks | 8 | SCART Out jack |

2.2.3 LED display general view



Playback mode

2.2.4 Remote control general view



2.3 Set list

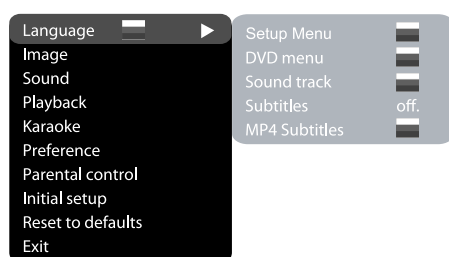
DVD player	1PCS
Audio cord 2xRCA-2xRCA	1PCS
Video cord RCA-RCA	1PCS
Video cord HDMI-HDMI	1PCS
Remote control	1PCS
Battery AAA	2PCS
Warranty card	1PCS
User's manual	1PCS
Karaoke disc	1PCS

2.4 FUNCTION SETTINGS

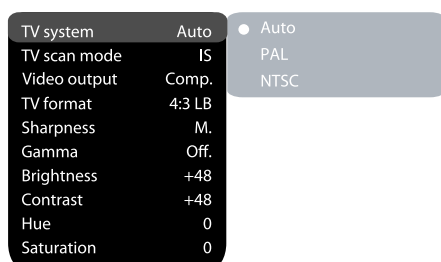
2.4.1 Function selection and change

Press the Setup key to show the setup menu. You will see the following image on the screen, as shown on the figure:

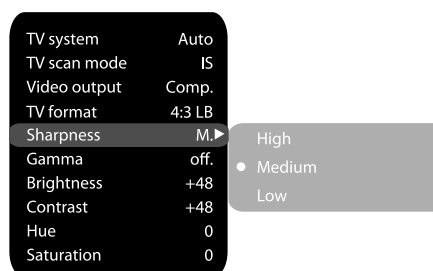
Select the desired menu item using the UP and DOWN buttons; press OK for confirmation.



1. For example, if you wish to change the image settings, you have to select the Image item and press the OK.



- Using the UP and Down buttons, select the desired item and press OK
For example, select the Sharpness item. Settings will appear on the screen. Then select the desired sharpness level and press OK for confirmation.
- Press LEFT key of the UP and DOWN buttons for exit to previous menu level.
- Press SETUP to exit setup menu.

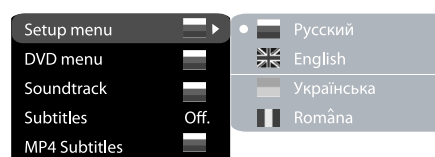


2.4.2 Language settings

1. Menu: interface language setup

#Options: Russian, English, Ukrainian, Romanian.

#Default option: Russian.



2. DVD menu :selection of disc menu language

3. Soundtrack: selection of translation language
#Options: Russian, English, Estonian, Latvian, Kazakh, Romanian, Belarusian, Ukrainian, Chinese.

#Default: English.

#Selection of other languages: select the OTHERS item using the UP and DOWN buttons and press OK. Enter the language code using the numeric buttons and press OK.

#If the language you selected is not recorded on the DVD disc, another available language will be used.

4.5. DVD/MP4 Subtitles: selection of subtitles language

#Options: Off, Russian, English, Estonian, Latvian, Kazakh, Romanian, Belarusian, Ukrainian and Chinese.

#Default option: Off.

#Selection of other languages: select the OTHERS item using the Up and DOWN buttons and press OK. Enter the language code using numeric buttons and press OK.

#If the language you selected is not recorded on the DVD/MP4 disc, another available language will be displayed.

2.4.3 Image settings menu

1. TV system: TV system selection

#Options: Auto, PAL, NTSC.

#Default option: PAL

2. TV scan mode: scan mode selection

#Options: progressive, interlaced.

#Default option: interlaced.

#Progressive scan is transferred only via a component video output.

#Before switching to progressive scan, make sure that your TV set supports this operation mode.

3.Video output: selection of video signal

#Options: S-Video,Comp, SCART.

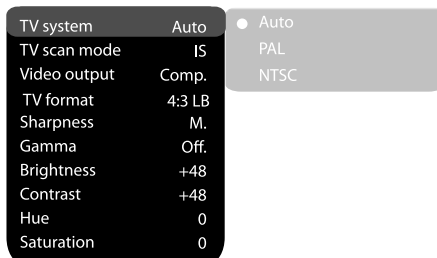
#Default option: Comp.

4. TV Format: image ratio settings

#Options: 4:3 pan&scan, 4:3 letterbox, 16:9 TV, Wide/SQZ.

#Default option: 16:9

#Some discs are recorded with support of only one ratio. The selected ratio must comply with the TV screen.



5.Sharpness: image sharpness adjustment

#Options: High, Medium, Low.

#Default option: Medium.

6.Gamma: adjustment of image color temperature

#Options: High, Medium, Low, Off.

#Default option: Off.

7.Brightness: adjustment of image brightness.

8.Contrast: adjustment of image contrast

9. Hues: adjustment of image hues.

10.Saturation: adjustment of image saturation

Adjustment of image brightness, contrast, hues and saturation:

#Select the desired item of the image adjustment section using the Up and Down buttons. Press OK or RIGHT key to start adjusting the relevant option.

#Change the option value using the Up and Down buttons.

#Upon completion press the LEFT key of the UP and DOWN buttons to return to image setup menu.

2.4.4 Sound settings menu

1. Mixer

A) Configuration: setting of the mode for conversion of the 5-channel signal to stereo signal

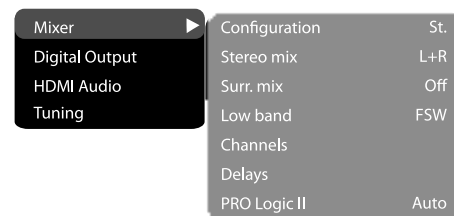
#Options: Stereo, 5.1;7.1(Only for DV925HD)

#Default option: Stereo.

#5.1 mode must be supported by the disc

Number of music accompaniment channels depends on the specific disc.

#Adjustment of the central speaker and surround speakers is available only if the Configuration option is set to 5.1 position.



B). Stereo mix: playback set-up while playing the disc with two independent audio channels.

#Options: L+R, L, R.

#Default option: L+R.

C) Surr. Mix: set-up of surround options while playing the stereo disc.

#Options: Off, sum, Virt. Surr.

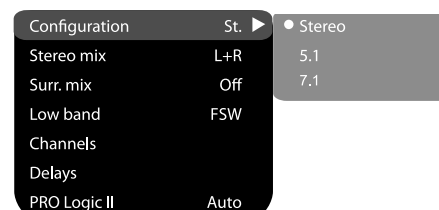
#Default options: Off.

D). Low band: distribution of low frequencies through channels.

#Options: Front F, Center C, Surround Sr, Subwoofer SW.

#Default options: Front F, Subwoofer SW,

#If you want the low-frequency component of the sound signal enter only the subwoofer channel, select and confirm the parameter Subwoofer SW.



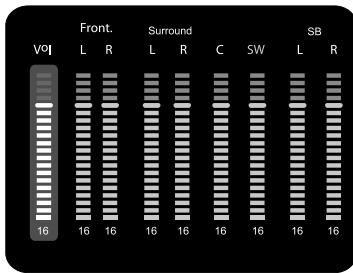
E). Channel settings: separate adjusting of volume by channels.

#Select the channel you want.

#Adjust the sound volume of each channel using the UP and DOWN buttons.

#Press the OK or Cancel to return to sound settings menu.

#No SB L/R selection for DV921HD and DV923HD in right menu.



F) Delay of the channel: set-up of signal delay in speaker channels(central, rear and subwoofer).

#Using the Up and Down buttons, select the channel, for which you want to set up the delay, and press OK for confirmation.

#Using the Up and Down buttons set up the desired distance from the listener to each speaker(detailed description of this operation see on page30)

#Press LEFT key of the cursor to return to speaker configuration menu.

#No LSA/RSB selection for DV921HD and DV923HD in right menu.

G). PRO Logic II: function of stereo sound conversion to 5-channels sound.

#Options: On, Off, Auto.

#Default option:Off.

#In Auto position, the DVD player determines itself, when to use the PRO Logic II decoder. Some discs do not support this function.

2.Digital audio output

A) SPDIF format: set-up of digital audio output options.

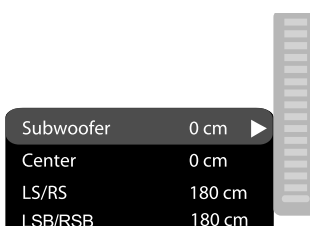
#Options: RAW, PCM.

#Default option: RAW.

#When you select the RAW option, the not decoded signal is transferred to the DVD player's digital outputs, the decoded signal is transferred to analog outputs. Decoding is performed by the built-in decoder of the DVD player.

This feature is meant to ensure that signal decoding at digital outputs is performed by an external device (e.g.an amplifier).

#If you select the PCM option, a PCM coded signal will be transferred to the DVD player's digital outputs.



B)LPCM: set-up of digital audio output options to comply with different amplifiers and receivers.

#Options: 48 kHz 16 bit,96 kHz 24 bit, 192 kHz 24 bit.

#Default option: 48 kHz 16 bit.

3.HDMI audio: transfer digital sound by HDMI interface.

#Options: Spdif, Multi-channel, Off

#Default option: Multi-channel

4.Sound correction

A)Max volume: max volume limiting

#Using the Up and Down buttons, adjust the max volume level.

#Press the LEFT key of the Up and Down buttons to return to sound correction setup menu.

B)Equalizer: equalizer modes

#Options: Rock, Pop, Live, Dance, Techno, Classic, Soft.

#Default option: Off.

C)Echo:echo effects

#Options: Off, Concert, Living room, Hall, Bathroom, Cave, Arena, Church.

#Default option: Off.

D)Tone balance: adjustment of tone balance level.

#Adjust the tone balance level using the Up and Down buttons.

#Press the LEFT key of the Up and Down buttons to return to sound correction setup menu.

2.4.5 Playback settings

1.DVD

Advertisement skip: skip the unskippable block while playing a DVD disc

#Options: Yes, No

DeFAULT option: No



2. VCD/SVCD

PBS menu: PBC menu on/off

#Options: On, Off.

#Default option: On.

#If on option is set, while reproducing discs, a menu will appear, in which you can select the order of playing the disc content. If the off option is set, the reproducing of content is performed in the order, in which it is recorded on the disc.

3. Files: selection of reproduced files on the disc.
 #Options: Audio, Pictures, Video.
 #Default option: A.P.V
- 4.Repeat: file repeat mode
 #Options: Off, Single, All.
 #Default option: Off.
- 5.Shuffle: shuffle files from the playlist
 #Options: Off, On.
 #Default option: Off.
- 6.Laad effect: Loading mode for JPEG or Paeture col.(Only for DV923HD, DV925HD)
 #Options: Off, from top, from bottom.
 #Default option: Off.

2.4.6 Karaoke settings menu

1.Microphone: microphone on/off

#Options: Off, On.

#Default option: Off.

2.Kar. Help :karaoke disc playback mode

#Options:L Channel, R Channel, No ast, No voc.

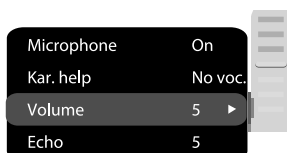
#Default option: No vocal mode.



3. Volume:

Microphone: microphone sound volume level
 #Using the UP/DOWN buttons adjust the microphone volume level.

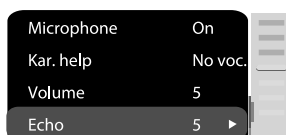
#Press LEFT key of the UP/DOWN buttons to return to karaoke settings menu.



4. Echo: echo level while playing the karaoke-disc

#Adjust the echo level Using the UP/DOWN buttons.

#Press LEFT key of the UP/DOWN buttons to return to karaoke settings menu.



2.4.7 Preference settings

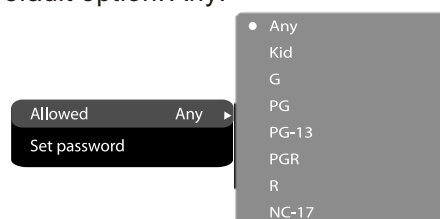
1. Backlight: set color of led on the front panel.
 (Only for DV923HD,DV925HD)
 #Options: On, Off. #Default option: On.

2. Gr.Equalizer: spectrum analyzer
 #Options: On, Off.
 #Default option: Off.
- 3.Screensaver: screen saver on/off
 #Options: On, Off.
 #Default option: On.

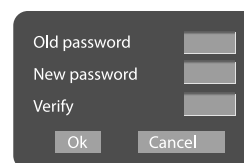


2.4.8 Parental Control

- 1.Allowed: setup of age restrictions to prevent children from seeing undesirable discs.
 #Options: Any, Kid, G, PG, PG-13, PGR, R, NC-17.
 #Default option: Any.



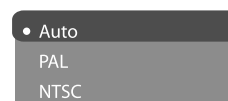
2. Set password: setup of a four-digit password to change the level of age restrictions.
 #Default option: 7890.



2.4.9 Initial setup menu

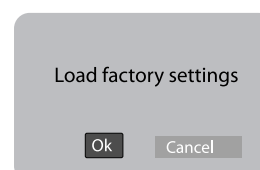
#Press the RIGHT key of the UP/DOWN buttons to enter the initial setup menu, then select the desired item using the buttons Up and Down and press OK key for confirmation.

#While being in this menu section, you cannot return to the previous level by pressing the LEFT key of the UP/DOWN buttons.



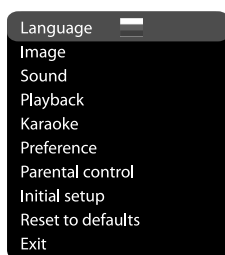
2.4.10 Reset to defaults

#Resetting all settings and restoring default options, except age restrictions level and password.



2.4.11 Exit settings menu

#Select the exit item using the Up and Down buttons and press the OK to exit the menu.



2.4.12 Channel delay set-up

Set-up of time delay in the surround channel

Usually, time delay in the Dolby Digital decoding system is preset to ensure best effect while installing the Home Theater. However, in case you wish to adjust your system more precisely, please consult instructions given in this manual. Set up of time delay for this device is possible in both Dolby Digital and Dolby Pro Logic modes.

To set the desired delay you have to know the distance from the place where you are, to the front speakers and Surround speakers as shown in Fig.1. Consult Fig.2(Dolby Pro Logic mode) and 3 (Dolby Digital mode) in order to determine the distance to Surround speakers(axis Y in the figure) and the distance to the front speakers(axis X in the figure). Crossing point of those two lines on the chart will give the recommended delay value.

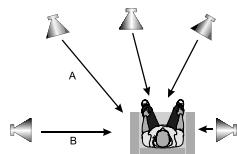


Fig.1. Take into account the A-B distance; use both figures for setting the desired time delay.

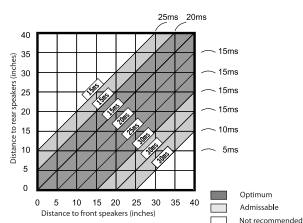


Fig.2. Determine delay value as to Dolby Pro Logic mode.

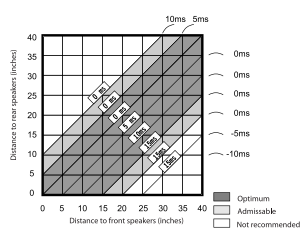


Fig.3. Determine delay value as to Dolby Digital mode.

Set-up of time delay in the central channel
Sometimes several people are listening to the music, and the space is limited. In this case, you can install three speakers(two front ones and a central one) as shown in Fig.1.

With the distance to the listener being approximately the same. The central channel delay is to be set at "0".

Should the central speaker be in close proximity to left and right front speakers as shown in Fig.2, or the central speaker be nearer to listeners when compared with front speaker's location, or the central speaker be nearer to the listener by 1 foot, in all these cases you may set the delay value for the central channel at 1 ms.

For instance, as shown in Fig.2, if the line C is by 1 foot shorter than the lines R and L, the Delay value is to be set at 1 ms, If your sofa is broad enough, and there are several listeners sitting on it, it makes sense to locate the speakers in one line, as shown in Fig.3 with the delay value of the central channel to be set at "0".

Finally, if it will be necessary to install the central speaker behind the left and right front speakers, the delay value shall be set at "0".

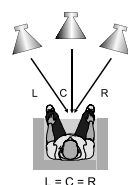


Fig.1. Delay of central channel=0
 $L=R=C$

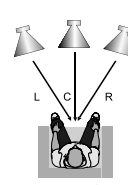


Fig.2. Small area
Delay of central channel
 $=L=(or)R-C$

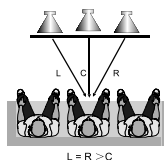
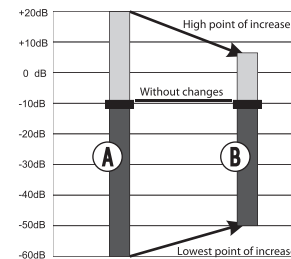


Fig.3. Small area
Delay of central channel=0
 $L=R>C$

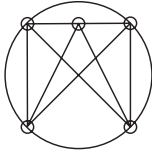
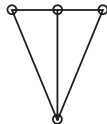
"Night" mode

The Dolby Digital system provides an extremely broad dynamic range of playback sound-from gentle to roaring. It creates the presence effect, especially while seeing motion pictures. However, at night a powerful sound with a broad dynamic range may give pleasure to you, but disturb and annoy your family and neighbors, if you just decrease the volume, you will immediately notice that you ceased to hear, e.g, dialogues as clear as you do at normal volume, and such sound effects as rustle, whisper etc. Have merely disappeared. To avoid this, you just have to decrease the volume of "loud" sounds by simultaneously increasing the volume of "soft" sounds with the volume of "average" sounds left unchanged, i.e. Just decrease the dynamic range of sound accompaniment.

Only Dolby Digital system provides for such a method of sound control. It uses the principle of compressing the acoustic signal's dynamic range while recording; therefore, while playing and inverse transformation (volume expansion) takes place. This is called "night" mode. The regulation limits are restricted, however, to avoid distortions of resultant signal. This is called "night" mode. The regulation limits are restricted, however, to avoid distortions of resultant signal.



Principle of compressing the acoustic signal's dynamic range.

	Dolby Digital	Dolby Pro Logic surround
Rear channel	Stereo 20 Hz-20 kHz	Mono channel with limited frequency range(100Hz-7 kHz)
Low-frequency channel(subwoofer)	Available,20-120 Hz	N/a
Sound field distribution	Multivariate 	From left to right, from right to left, from front to rear, from rear to front 
Channels	6 independent channels, each reproducing its own signal at a time Creates an optimum sound field with illusion of an equal distance from listener to each speaker. Allows adjusting the decompression degree of sound information("night" mode).	4 segmented channels. Only one channel is decoded at a time. The most cost-efficient way to ensure high-quality surround effect. Surround sound may be received from any signal source.
Miscellaneous	Possibility of programmable control of the decoder to transfer basses into low-frequency channel in systems equipped with broad-band speakers and a subwoofer.	Compatible with existing and future two-channel(stereo) formats.
	Undoubted progress in sound recording technology, especially important for program directors, film directors, sound engineers and actors.	Big progress in comparison with conventional stereo, the world's most popular surround format.

2.5 MISCELLANEOUS

2.5.1 Useful notes

- #To extend the service life of your DVD player make pauses of not less than 30 seconds between switching off and repeatedly switching on the DVD player.
- #Disconnect the DVD player from the wall outlet after shutdown.
- #Some DVD player's functions may not be applied to some discs.
- #Use supply sources of rated voltage, otherwise the DVD player may not function or be damaged.
- #In case of the DVD player's occasional stops, please switch the power supply off and then on again.

2.5.2 Trouble shooting

Please check probable causes of malfunction before addressing the service center.

Sign of trouble	Cause of trouble	Actions to eliminate the trouble
No sound	1. Poor audio cable connection 2. Disc dirty or damaged. 3. Sound disabled by the MUTE button.	1. Make proper connection. 2. Clean the disc. 3. Press the MUTE button.
No image	1. Poor video cable connection. 2. Incorrect settings of your TV set. 3. The DVD player's is in the progressive scan mode while your TV set does not support this mode.	1. Make proper connection. 2. Correct the settings of your TV set. 3. Place the DVD players in the interlaced scan mode through the DVD-receiver's menu.
Black and white image	1. Incorrect TV color system selected. 2. Color level on the TV set adjusted incorrectly.	1. Set the appropriate color system via the menu: SETUP > Image > TV scan. 2. Readjust the color system of your TV set.
Discs cannot be read	1. Disc not inserted. 2. Disc inserted incorrectly. 3. Condensate on the DVD players's laser head.	1. Insert the disc. 2. Install the disc with the label side facing up. 3. Switch the DVD players on without disc for an hour.
Microphone does not operate	1. Microphone is unplugged. 2. Low level of the microphone's sound volume.	1. Connect the microphone. 2. Adjust the level of the microphone's sound volume.
Remote control does not operate	1. Remote control is incorrectly directed at the DVD players's screen. 2. Distance to the DVD players is in excess of 8 meters. 3. Run out batteries.	1. Use the remote control according to the manual. 2. Decrease the distance to the DVD players. 3. Replace both batteries.
Some functions do not work	1. Disc is recorded incorrectly. 2. Incorrect key sequence. 3. Static voltage on the DVD players's housing.	1. Wait 5-10 seconds and the DVD players will automatically return to normal state. 2. Repeat the operation one more time. 3. Switch the DVD players off for 1-2 minutes and then switch it on again.
Unstable image	1. Incorrect TV set settings.	1. Correct the TV set settings.
Headphones do not operate	1. Headphones are not connected. 2. Low level of sound volume.	1. Connect the headphones. 2. Adjust the level of sound volume.
Not signal or incorrect signal from HDMI socket	1. Poor HDMI cable connection. 2. Display device don't support HDMI output mode. 3. Conditions of protection from copy not observed.	1. Make proper connection. 2. Select another HDMI output mode supported by display device . 3. Satisfy some details about conditions of signal receipt to HDMI input in user manual.
Flutter echo during connection by HDMI socket	1. Result of incorrect frequency transformation posteriority frame from 50 Hz to 60 Hz.	1. Examine propriety of settings of DVD player and display device.

2.5.3 Specifications

Supported formats	DVD-Video,Super VCD,VCD,MPEG-4,DVD-Audio, CD-DA, CD+G,HDCD,MP3,WMA,Kodak Picture CD,JPEG	
Data medium	CD-R, CD-RW, DVD-R, DVD+R, DVD-RW, DVD+RW	
Inputs	Microphone input USB port	
Outputs	Audio Outputs	Analog outputs: Stereophonic output, 5.1CH output. Digital outputs: Coaxial audio output, Optical output.
	Video Outputs	S-Video output, composite output, component Y CbCr output, progressive scanning Y PbPr output, RGB/SCART output.
	HDMI interface, microphone output	
Video characteristics	Signal swing of composite video output: Signal swing fo S-Video output: Signal swing of component video output:	1.0Vp-p(75 Ω) 1.0Vp-p(75 Ω) C:0.286Vp-p(75 Ω) 1.0Vp-p(75 Ω) Cb/Cr:0.7Vp-p(75 Ω)
Audio characteristics	Frequency : Signal-to-noise ratio Common distortion harmonic:	20-20000Hz(± 1 dB) >100(dB) <0.01%
Voltage range	~110-250V,50/60Hz	
Temperature requirement	5-35 $^{\circ}$ C	
Moisture requirement	15-75%(not condensate)	

Model	Dimensions(mm)	Weight(kg)
DV925HD	420X 246.5 X43.5	2.0
DV923HD	420X 236 X39	2.3
DV921HD	420X 212.5 X41	1.7

Model	Power consumption(watt)
DV921HD DV923HD DV925HD	14

#We improve quality of our production permanently, that's why specification can change without notification.

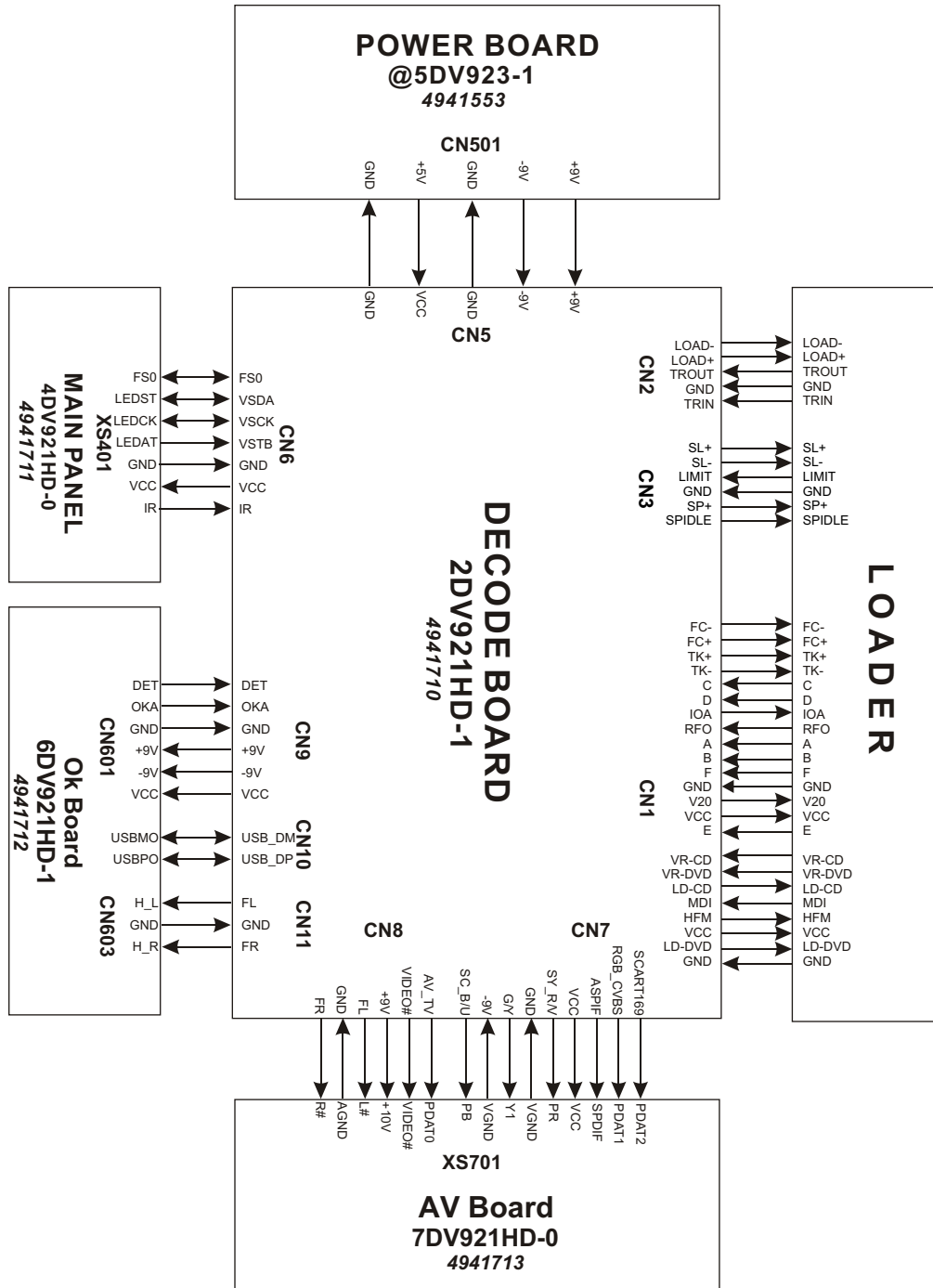
#Some disks,was recording in different formats on different data mediums, can't playback or can playback incorrect over peculiarity of their record.

Chapter Three Block Diagram

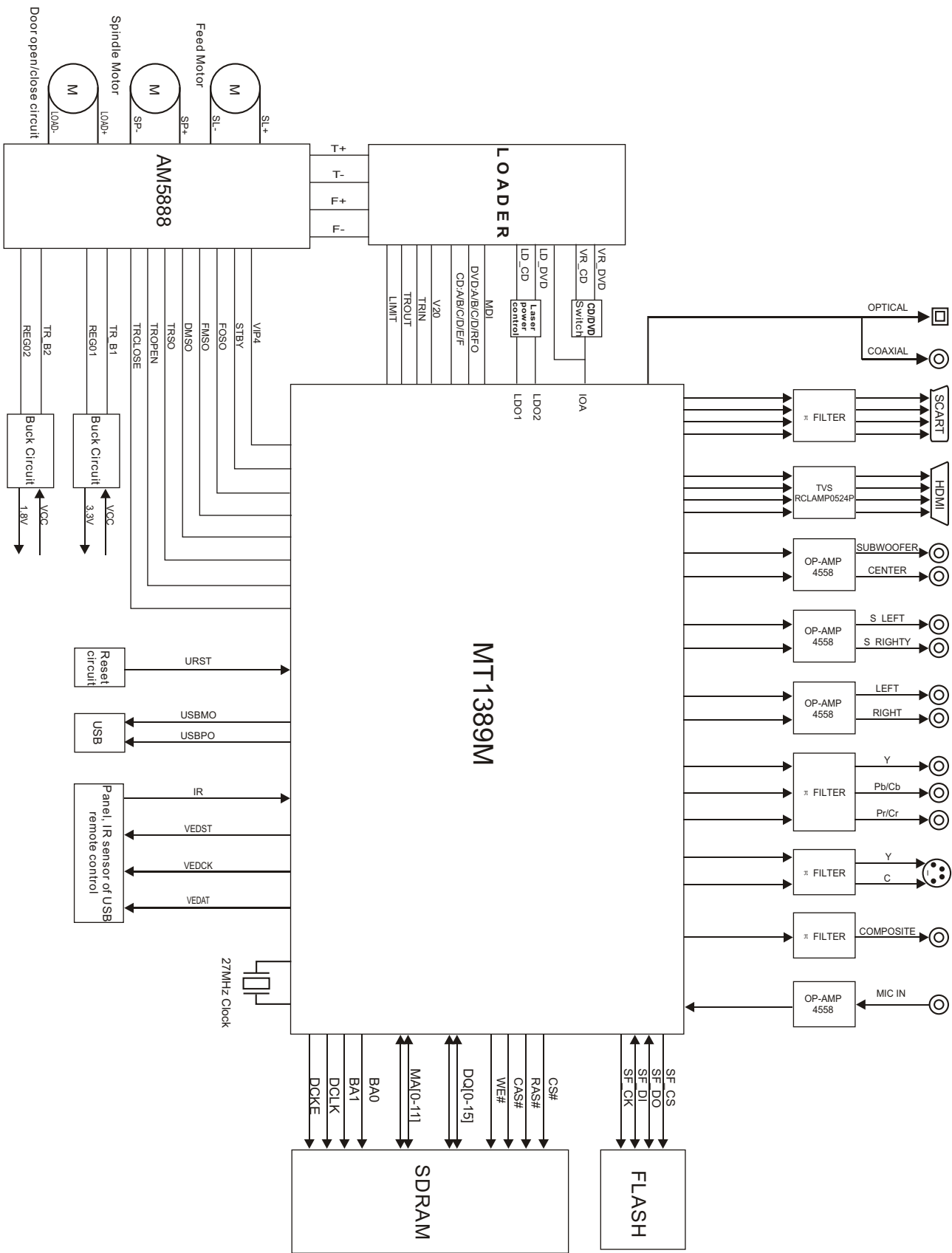
Section One PCB

diagram and block diagram of player

3.1.1 Overall wiring diagram for player.



3.1.2 BLOCK DIAGRAM FOR PLAYER.



Section Two Unit circuit principle

3.2.1 Servo Circuit.

Servo system of this machine adopts SONY loader and MTK decoding program. And servo circuit is mainly composed by front-end signal process, digital servo process, digital signal process chip MT1389M and driving circuit chip AM5888. MT1389M is also a main composing part of decoding circuit. Block diagram of servo circuit is shown in figure 3.2.1.1:

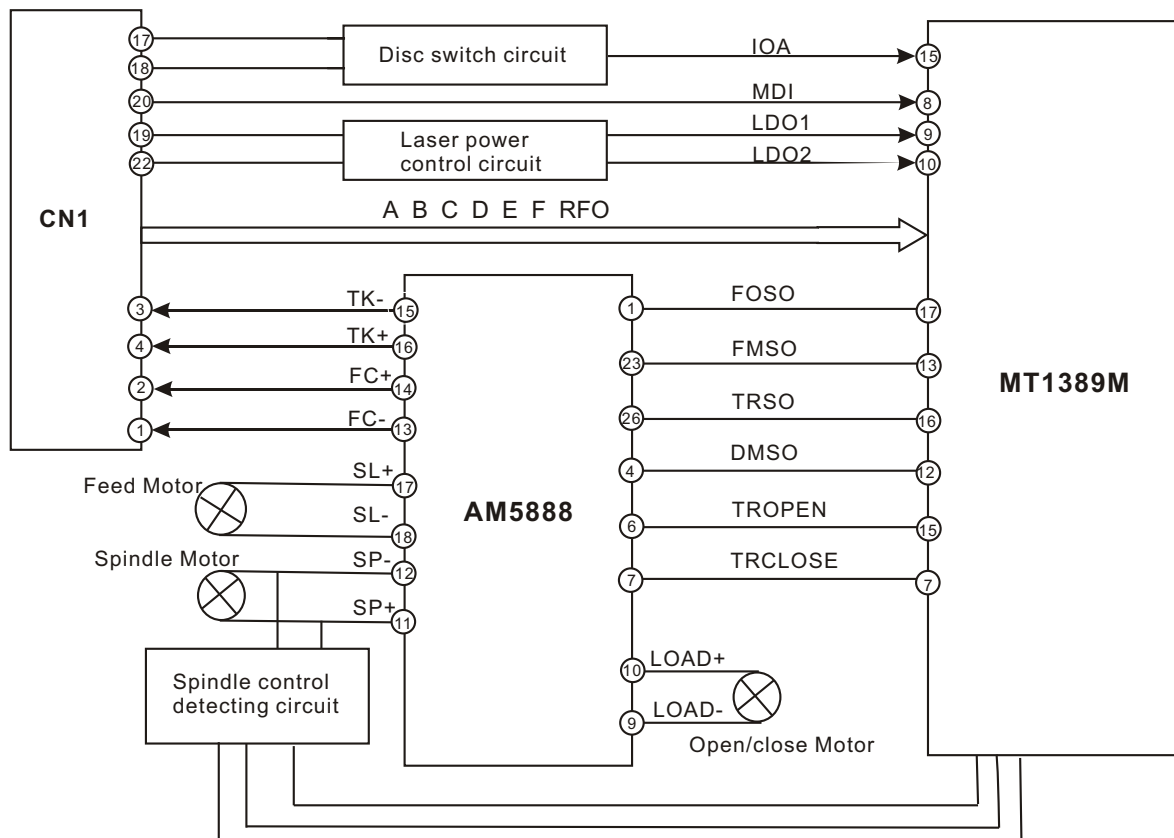


Figure 3.2.1.1 Block diagram of servo circuit

3.2.2 Decoding circuit.

Decoding circuit is mainly composed by MT1389L, SDRAM and FLASH, block diagram of circuit is shown in figure 3.2.2.1:

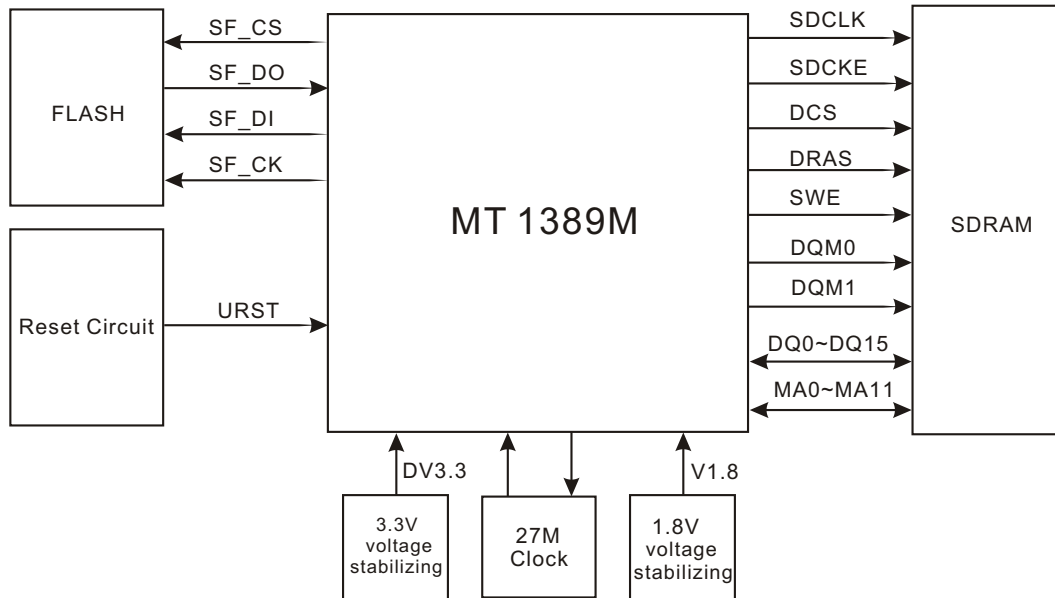


Figure 3.2.2.1 Block diagram of decoding circuit

3.2.3 Audio Circuit.

Block diagram for audio circuit is shown in figure 3.2.3.1

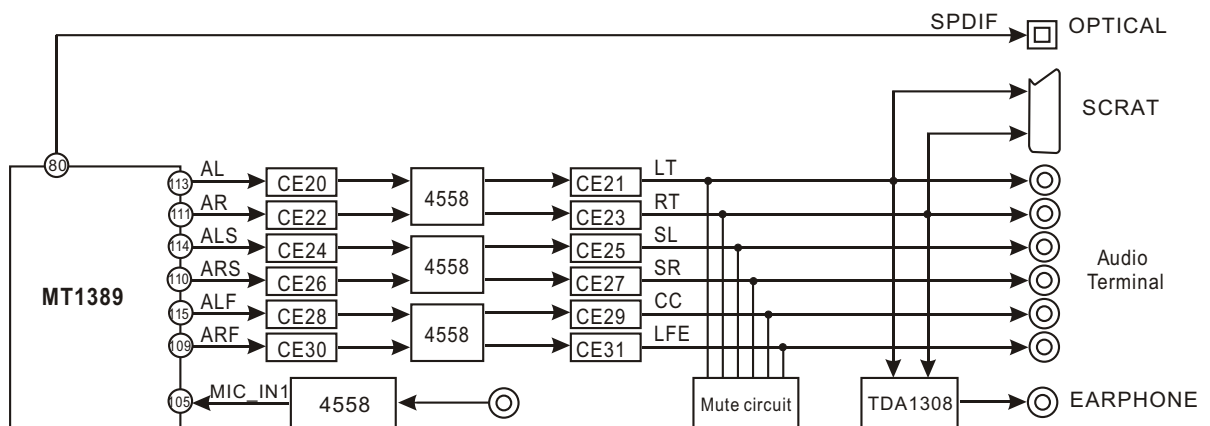


Figure 3.2.3.1 Block diagram of audio circuit

3.2.4 Video Circuit.

MT1389 has video D/A converter circuit and video output has R/B/G, Y/Pb/Pr, Y/Cb/Cr, CVBS and Y/C output modes, in which R/B/G, Y/Pb/Pr, Y/Cb/Cr and Y/C can not output at the same time and need to be switched via software. CVBS is a separate output mode; four channel video signal is outputted to AV board by MT1389 after video filtering and clamping. Block diagram of video signal process is shown In figure3.2.4.1:

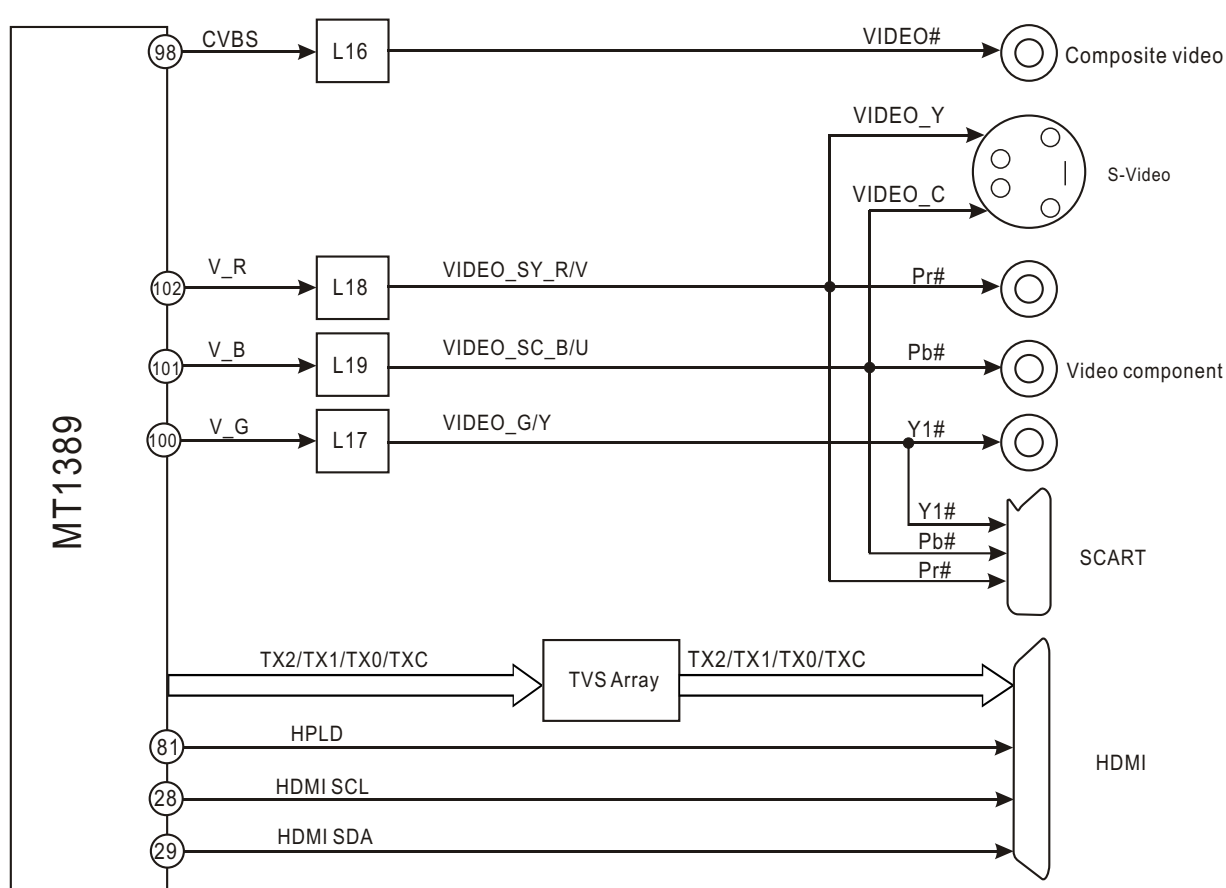


Figure 3.2.4.1 Block diagram of video signal route

3.2.5 Power Circuit.

Block diagram of power circuit is shown in figure 3.2.5.1:

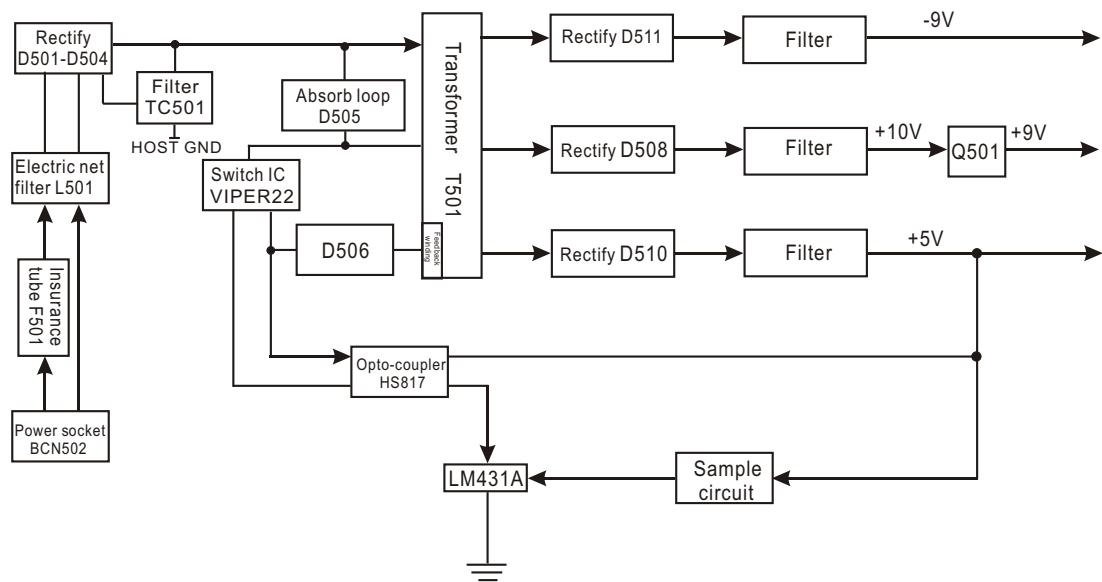
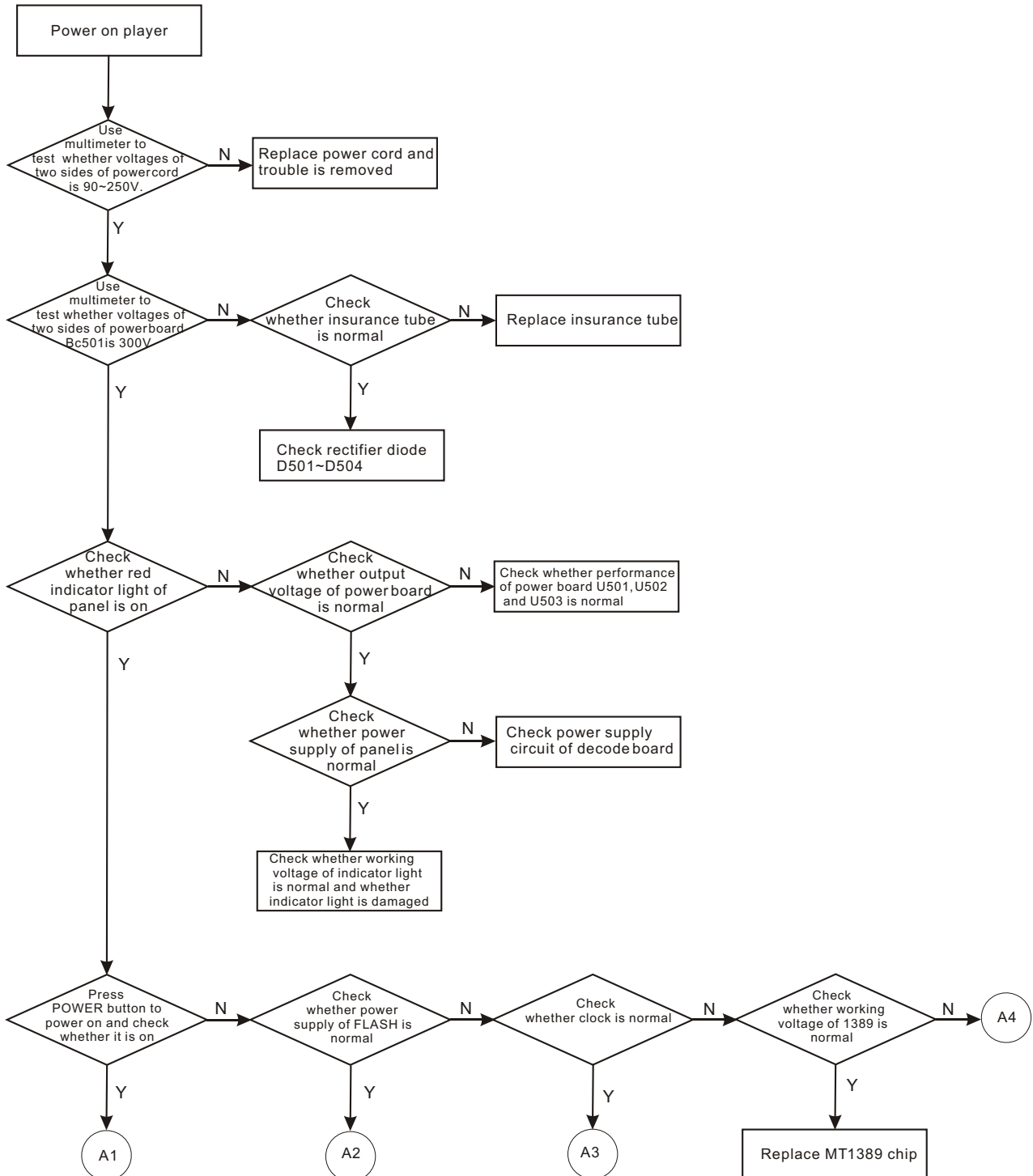
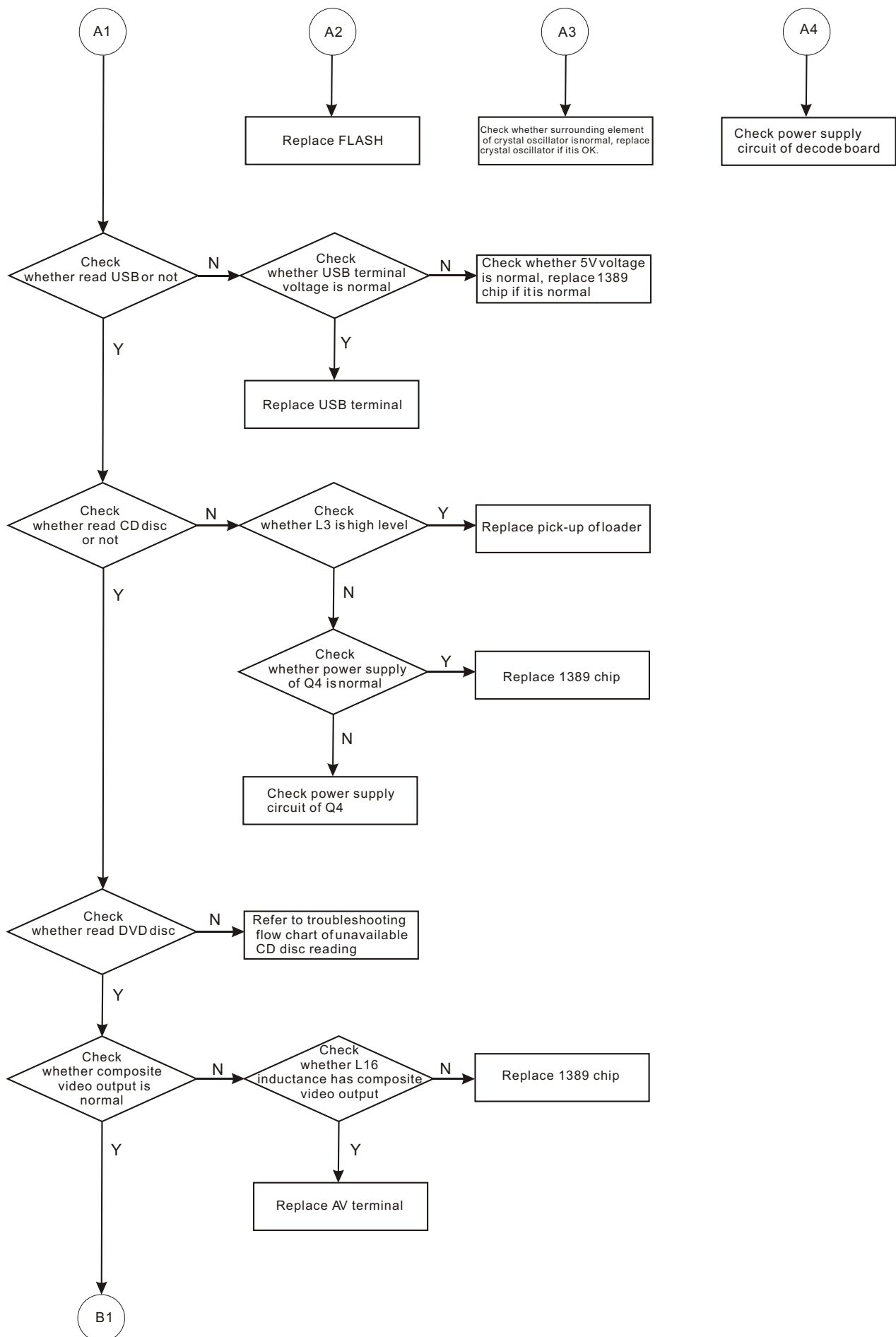
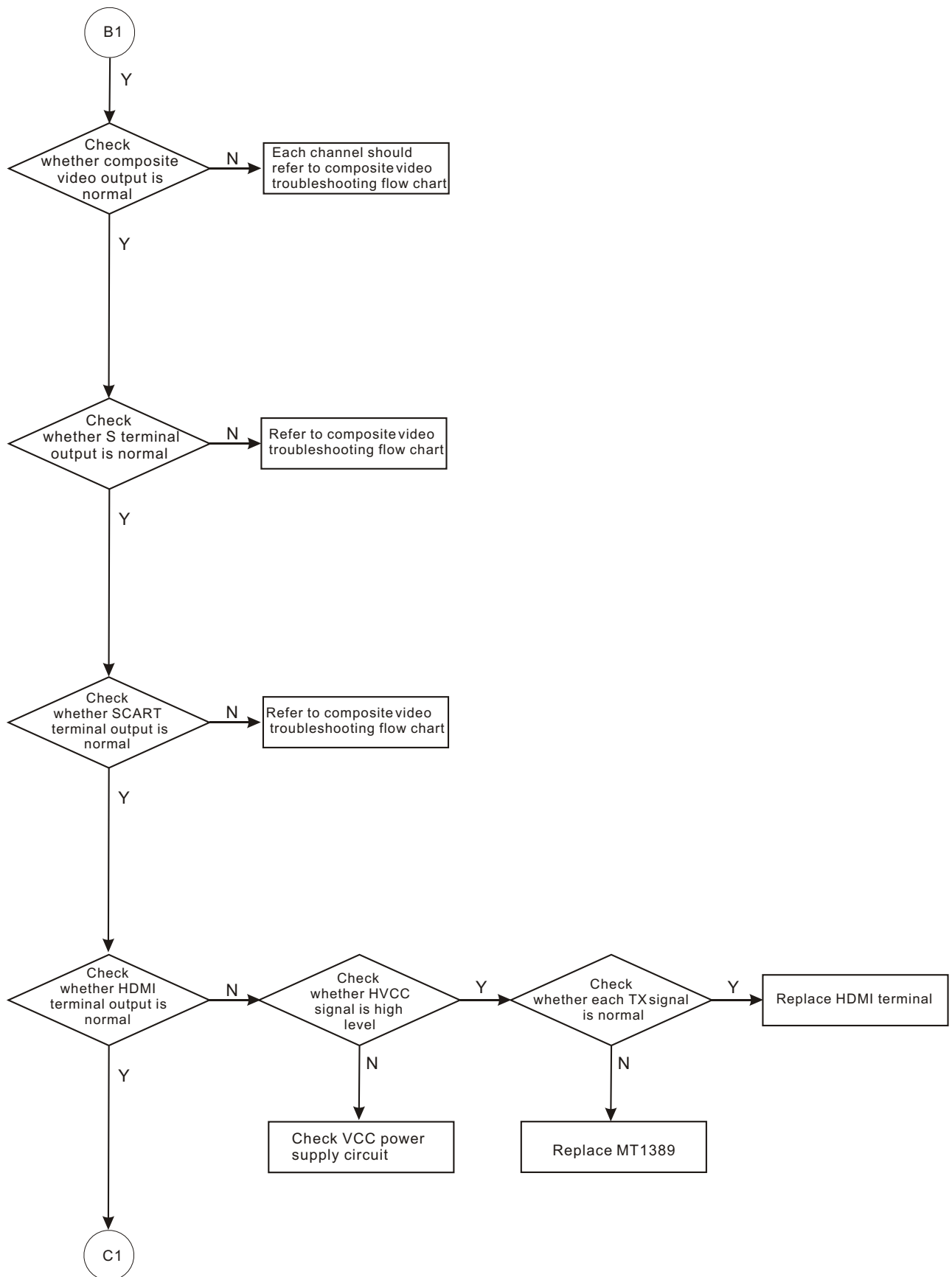


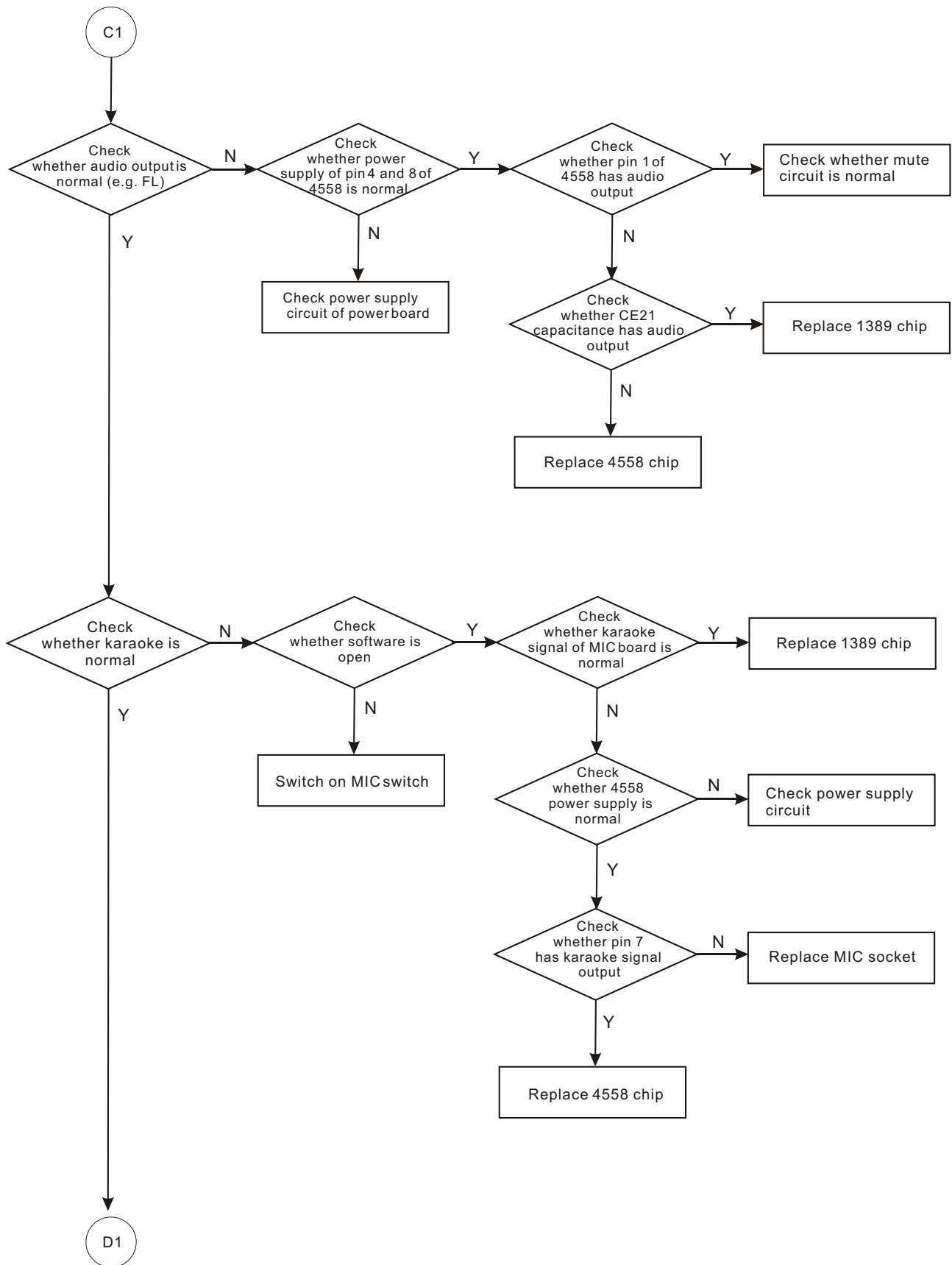
Figure 3.2.5.1 Block diagram of power circuit

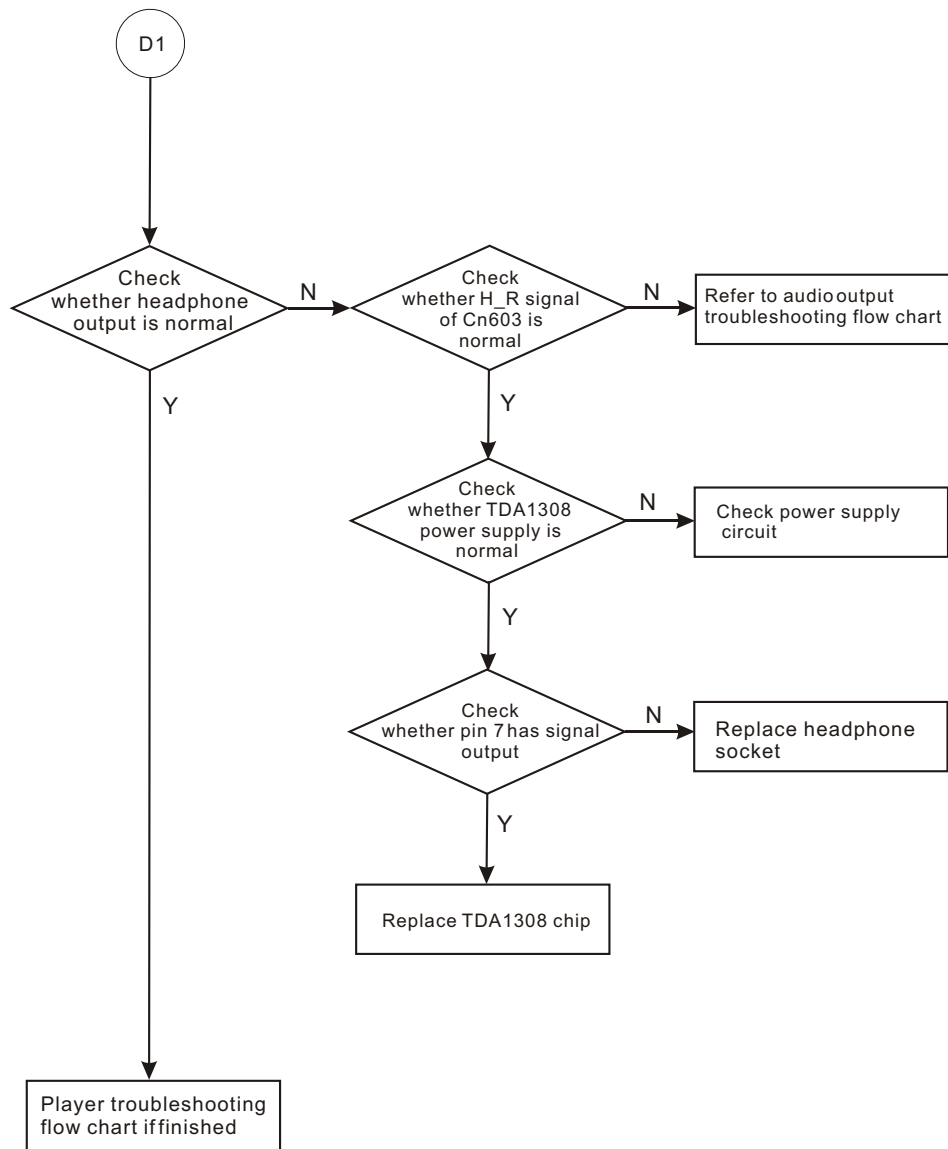
Section Three Troubleshooting flow chart







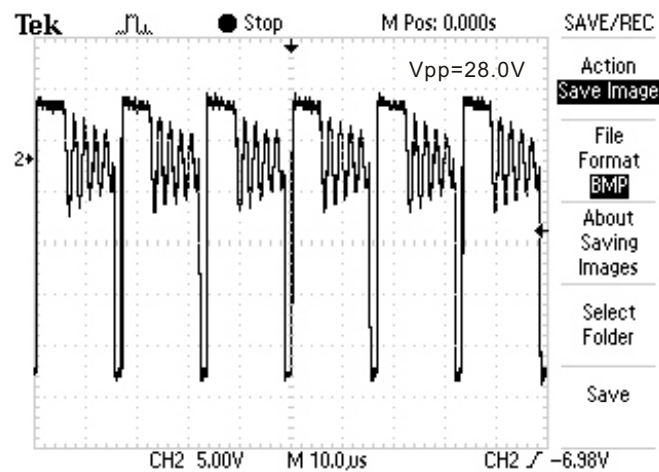




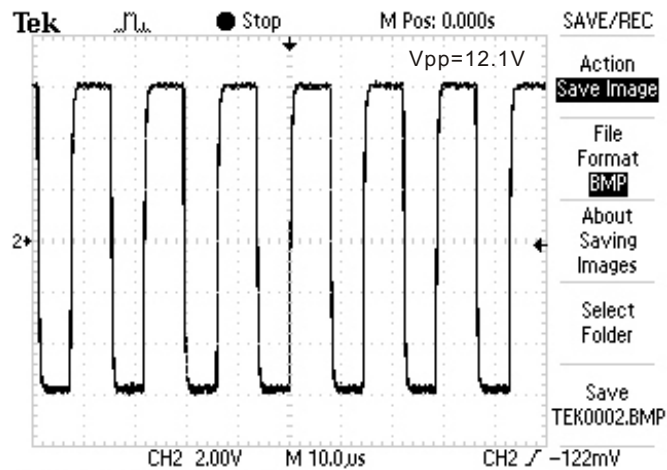
Section Four Waveform Diagram

This section collects signal waveform diagram of audio, video and each unit circuit with the purpose to help servicing personnel to judge where trouble lies in accurately and quickly to improve servicing skills. For the difference of oscillograph's type, model and tuner, a certain difference may exist, so the servicing personnel are expected to pay more attention to check in daily operation.

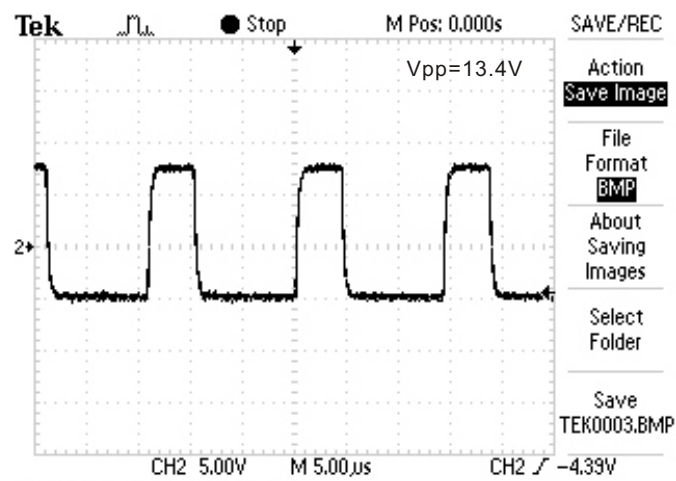
1. Waveform diagram for pulse DC of power board D513 anode



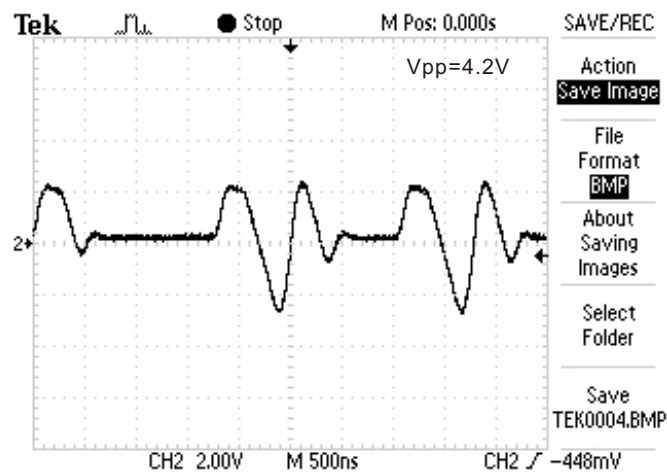
2. Waveform diagram for spindle signal DMO(when spindle has motion).



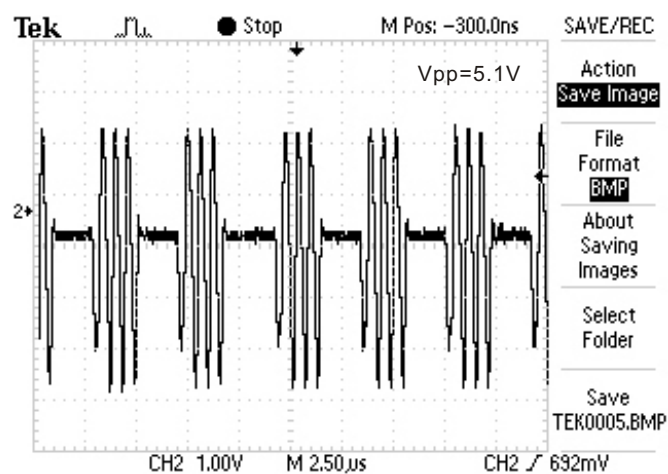
3. Waveform diagram for feed signal FMO(when pick up has feed motion).



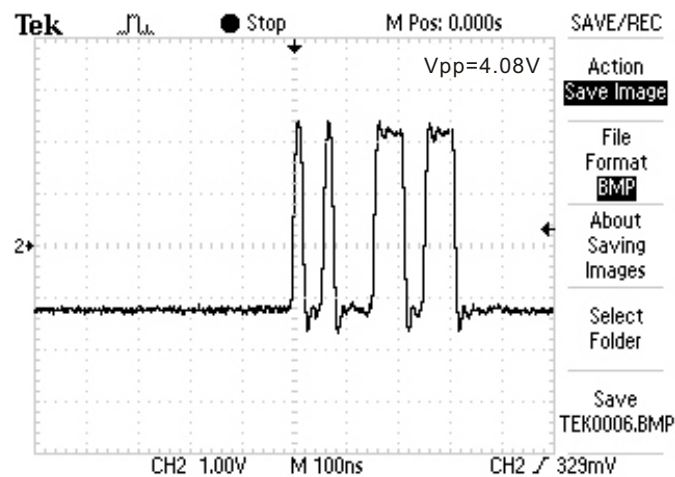
4. Waveform diagram for traction signal TRO(when pick up has traction motion).



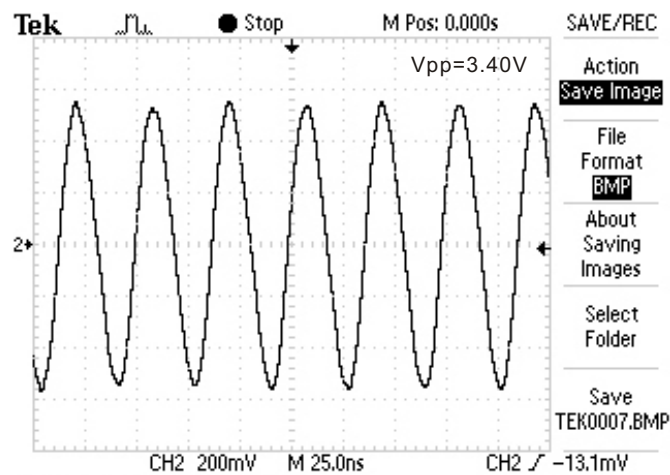
5. Waveform diagram for focus signal FOO(when pick up has focus motion).



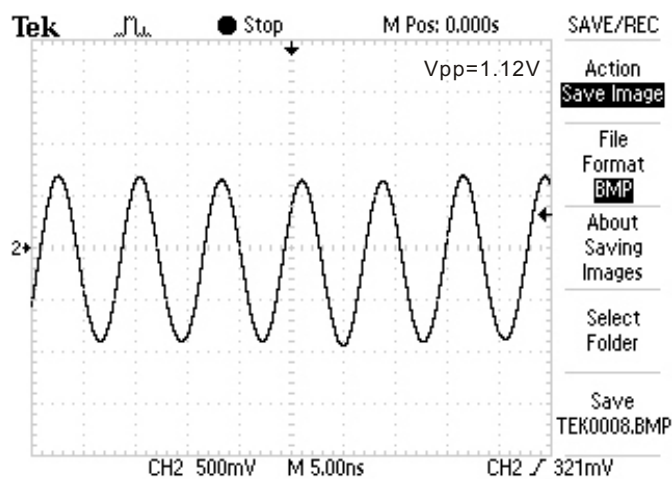
6. Waveform diagram of pin 24 of U3.



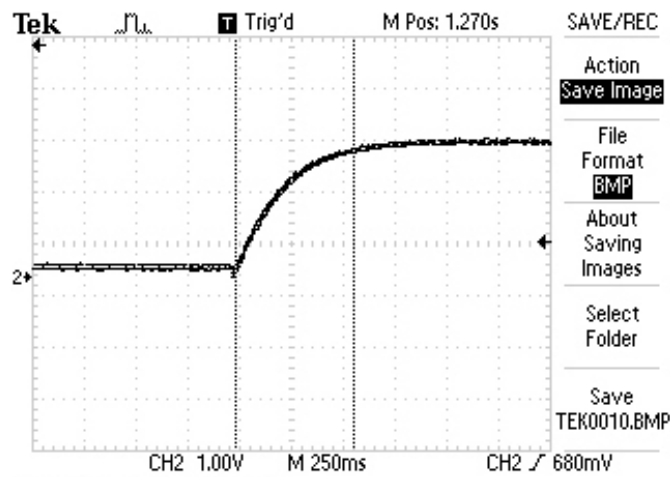
7. Waveform diagram of pin 25 of U3.



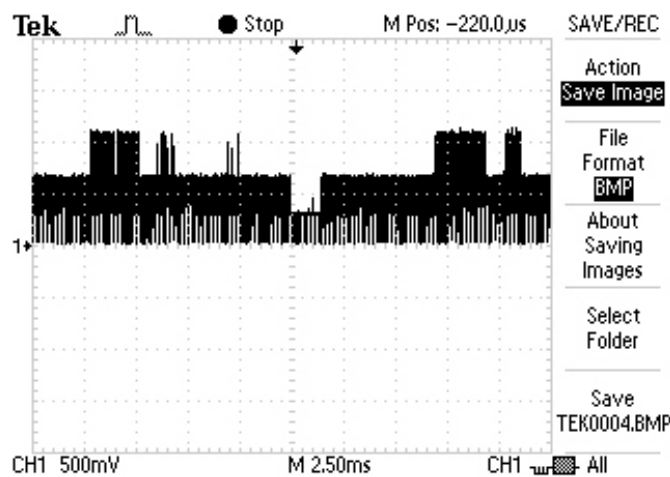
8. 1KHZ audio signal output waveform diagram(it is suggested to use test disc,if not,waveform tested will change at any time,which will affect your judgment).



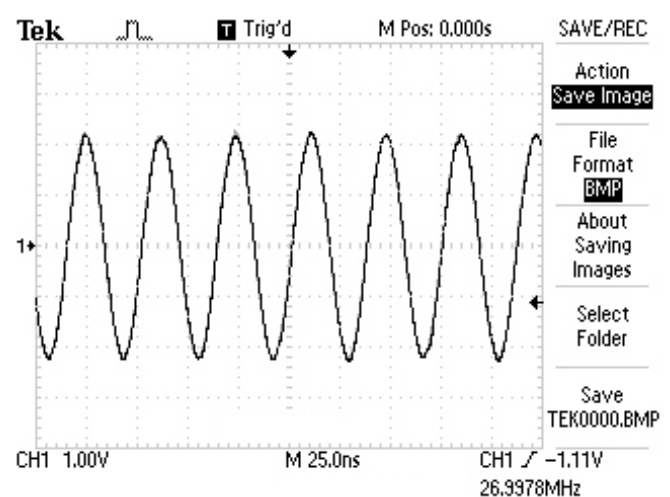
9. Reset signal URST waveform diagram.



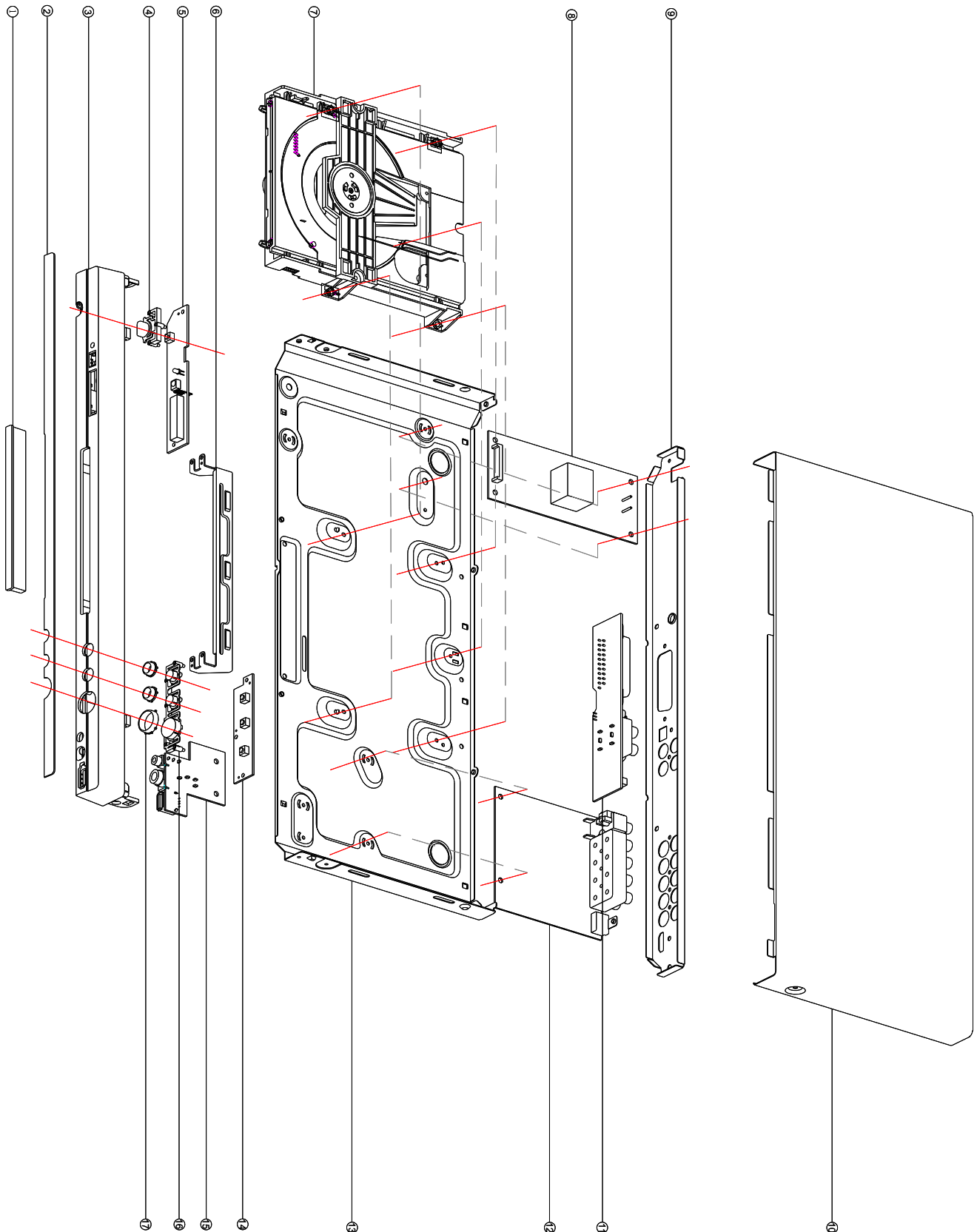
10. Video signal waveform diagram



8. Waveform diagram for 27MHz clock (X1).



Chapter Four Explosion Chart



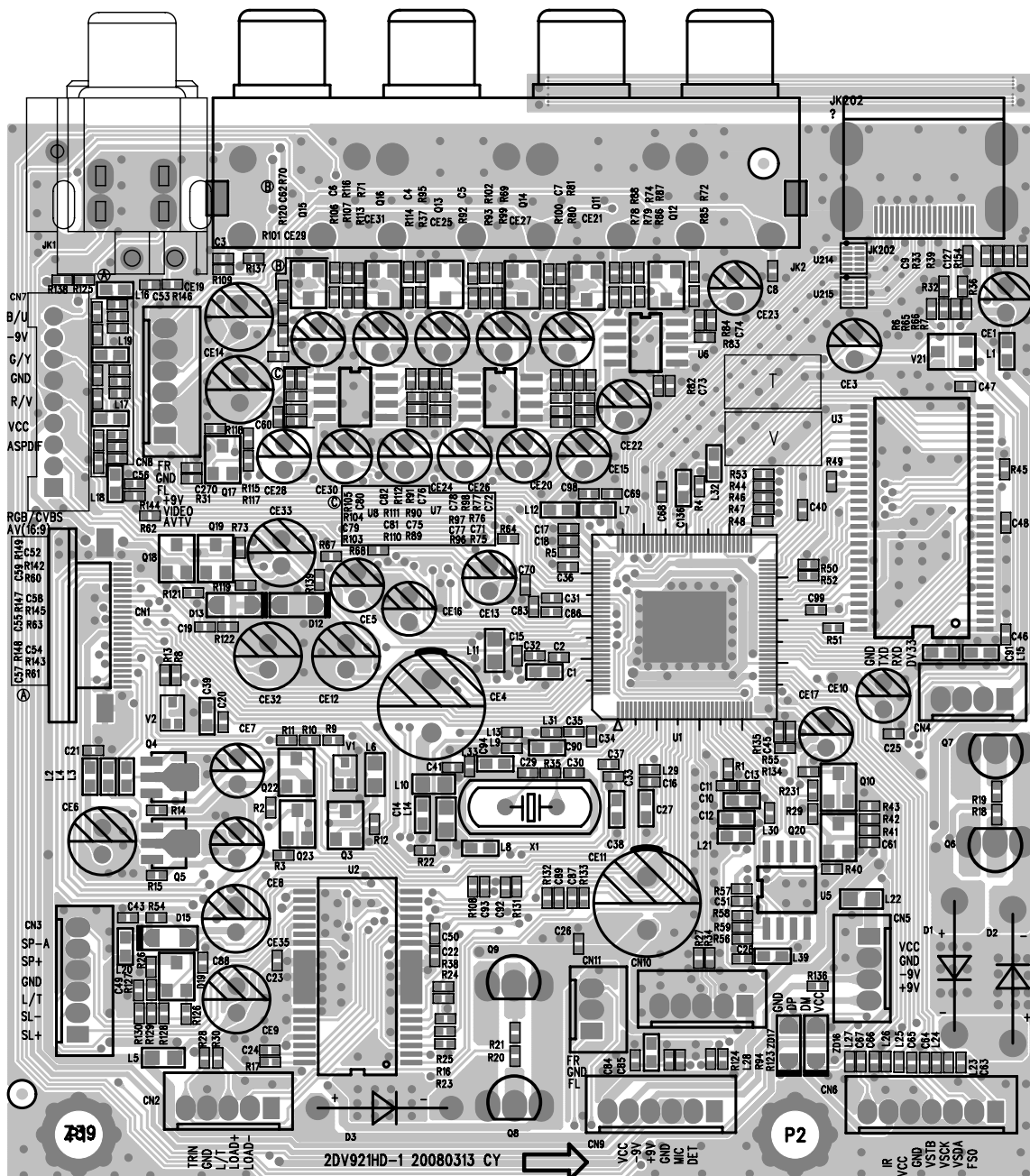
SERIAL NUMBER	MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	QUANTITY
16	3076249	3-DIRECTION BUTTON	921HD(RU) BLACK	1
15	4941712	PCB SEMI-FINISHED PRODUCT	6 921HD-1 921HD(RU)	1
14	4941714	PCB SEMI-FINISHED PRODUCT	9 921HD-0 921HD(RU)	1
13	3103051	UPPER COVER	921HD(RU) GREY	1
12	4941710	PCB SEMI-FINISHED PRODUCT	2 921HD-1 921HD(RU)	1
11	4941713	PCB SEMI-FINISHED PRODUCT	7 921HD-0 921HD(RU)	1
10	3103054	UPPER COVER	921HD(RU) BLACK, WITH PVC PIECE	1
9	3103078	REAR COVER	921HD(RU) SILVER	1
8	4941553	PCB SEMI-FINISHED PRODUCT	5 923-1 923HD(RU)	1
7	3060679	DVD LOADER FRAME	ASA 8829B	1
6	3872004	IRON BRACKET OF LOADER	511SI(RU)	1
5	4941711	PCB SEMI-FINISHED PRODUCT	4 921HD-0 921HD(RU)	1
4	3076248	POWER BUTTON	921HD(RU) BLACK	1
3	3005795	PANEL	921HD(RU) BLACK	1
2	3076422	LENSES	921HD(RU) BLACK 2#	1
1	3076246	DOOR	921HD(RU) BLACK	1

Chapter Cinque

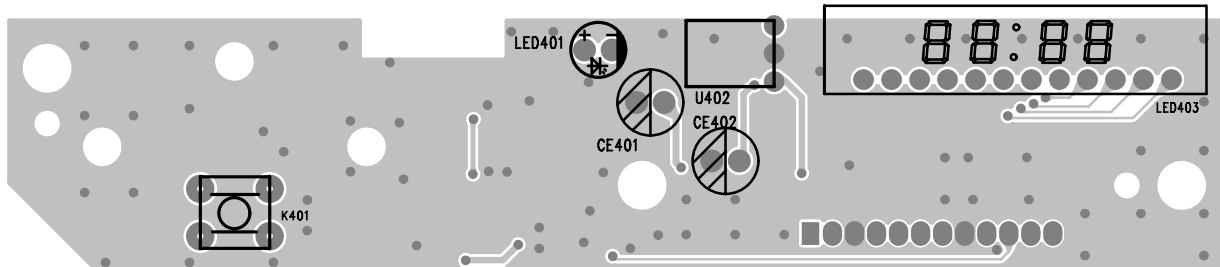
PCB Board&Circuit Diagram

Section One PCB Board

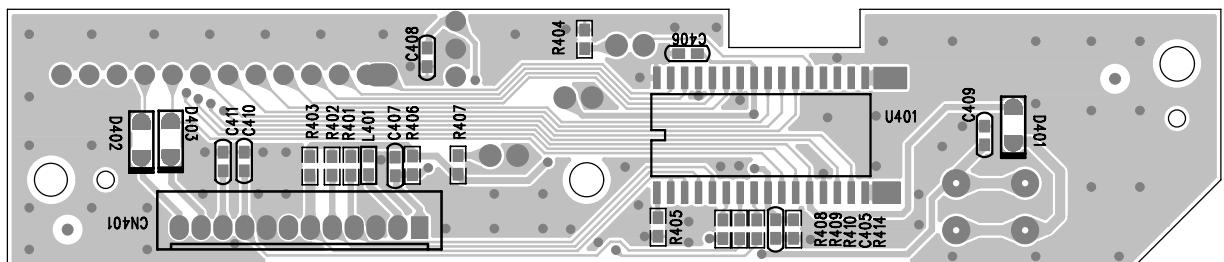
5.1.1 Surface layer of Decode Board(2DV921HD-1)4941710.



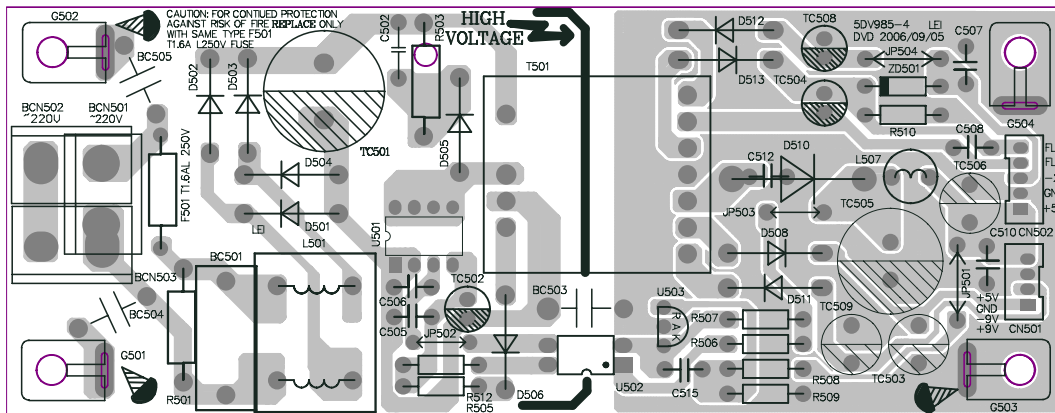
5.1.2 Surface layer of Main Panel (4DV921HD-0)4941711.



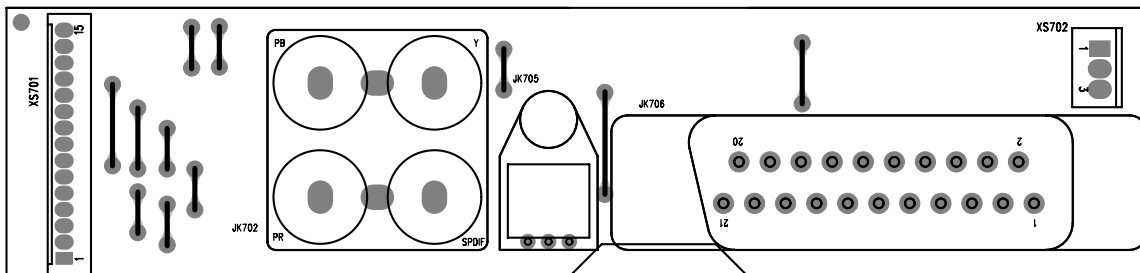
5.1.3 Bottom layer of Main Panel (4DV921HD-0)4941711.



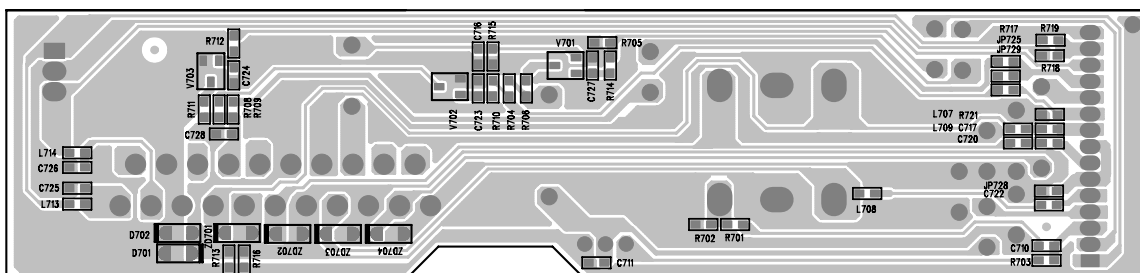
5.1.4 Power Board (@5DV923-1)4941553 .



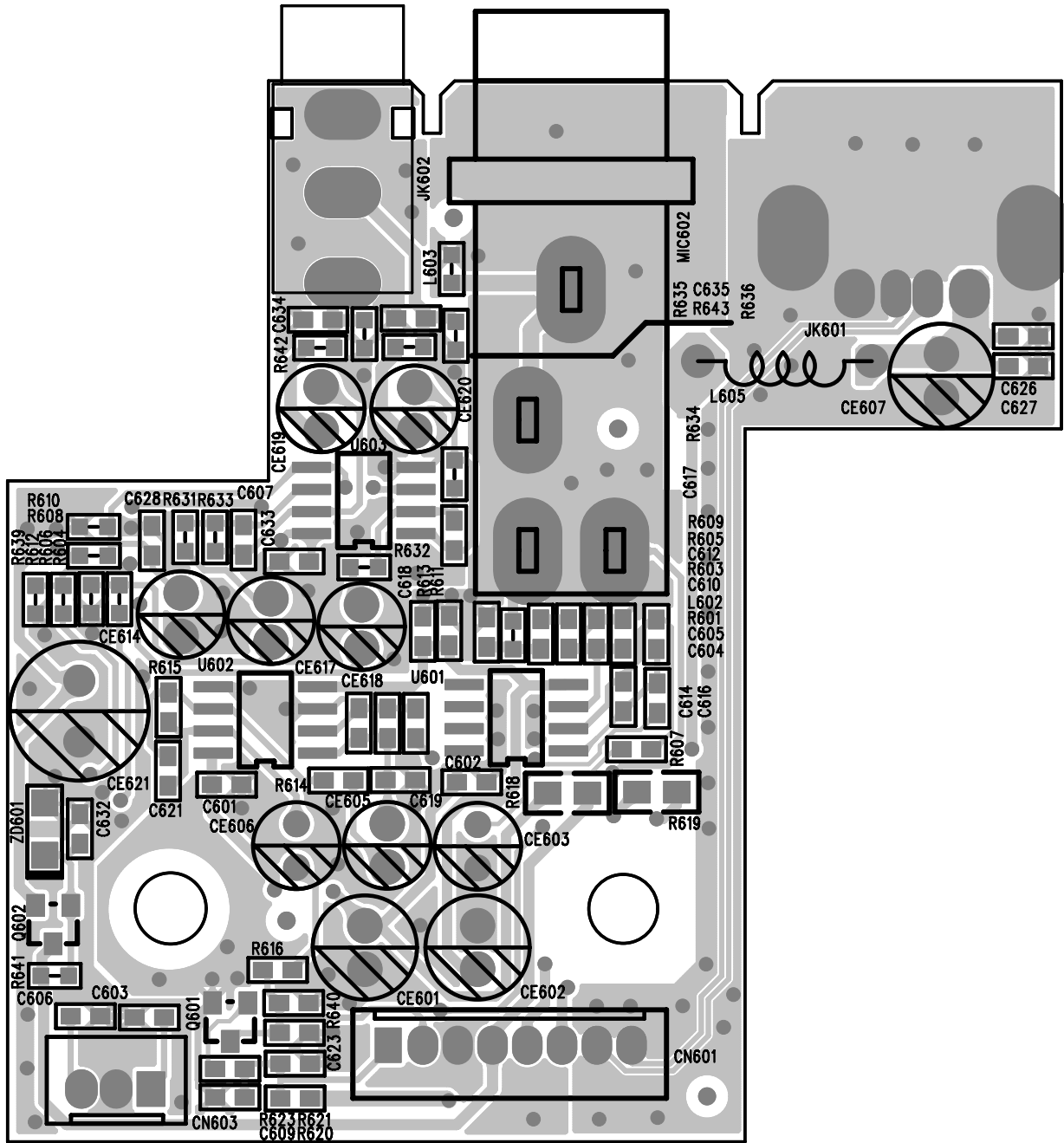
5.1.6 Surface layer of Output Board(7DV921HD-0)4941713.

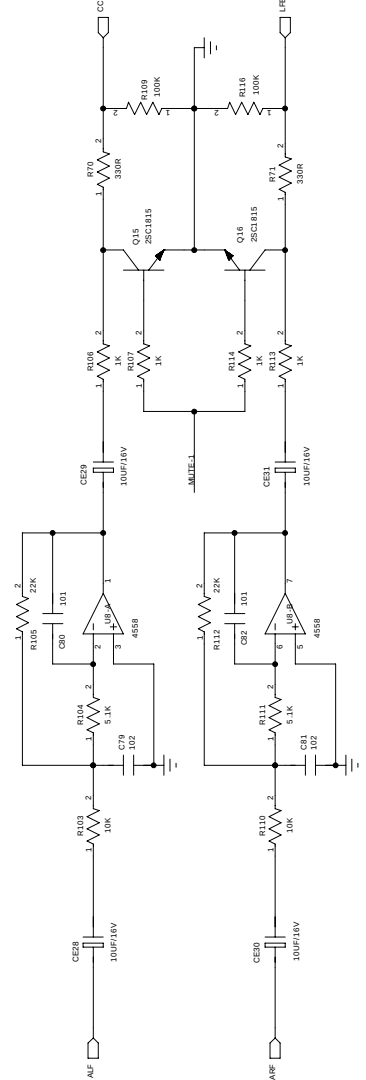
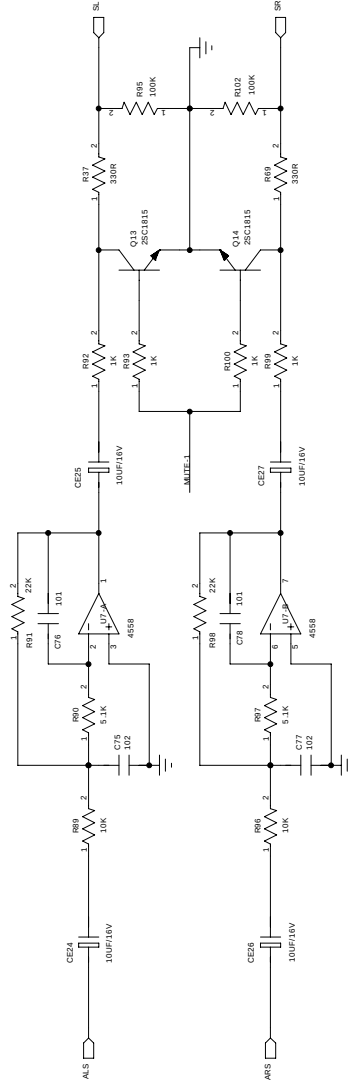
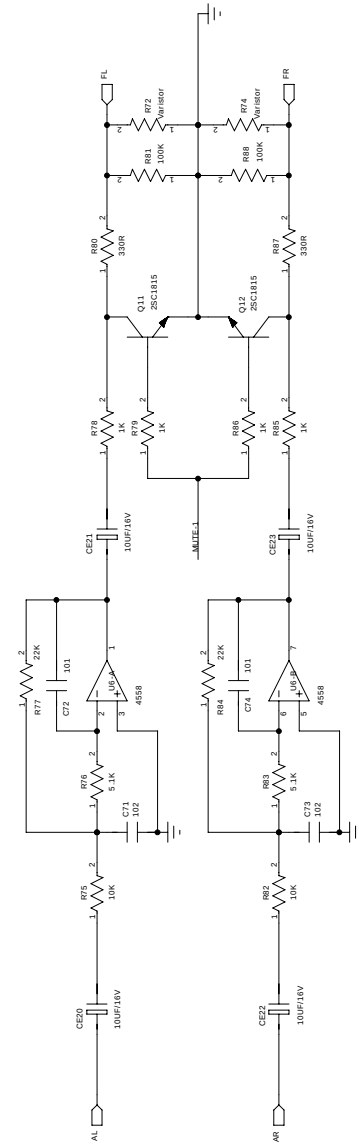
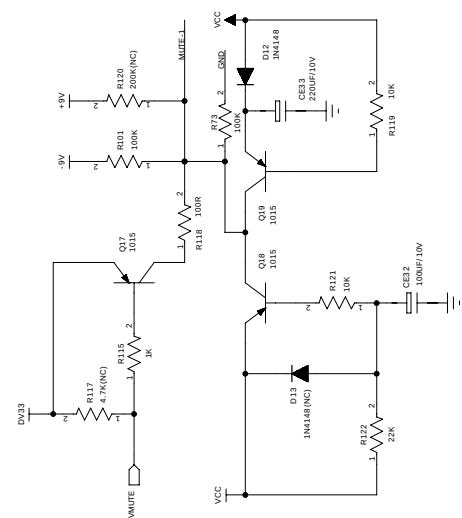
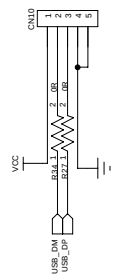
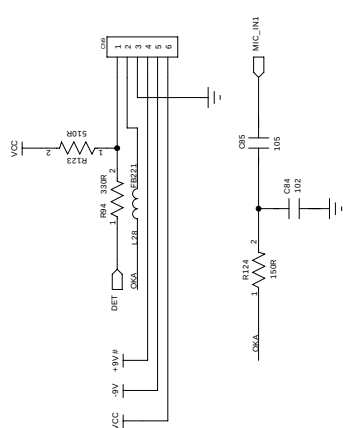


5.1.7 Bottom layer of Output Board (7DV921HD-0)4941713.

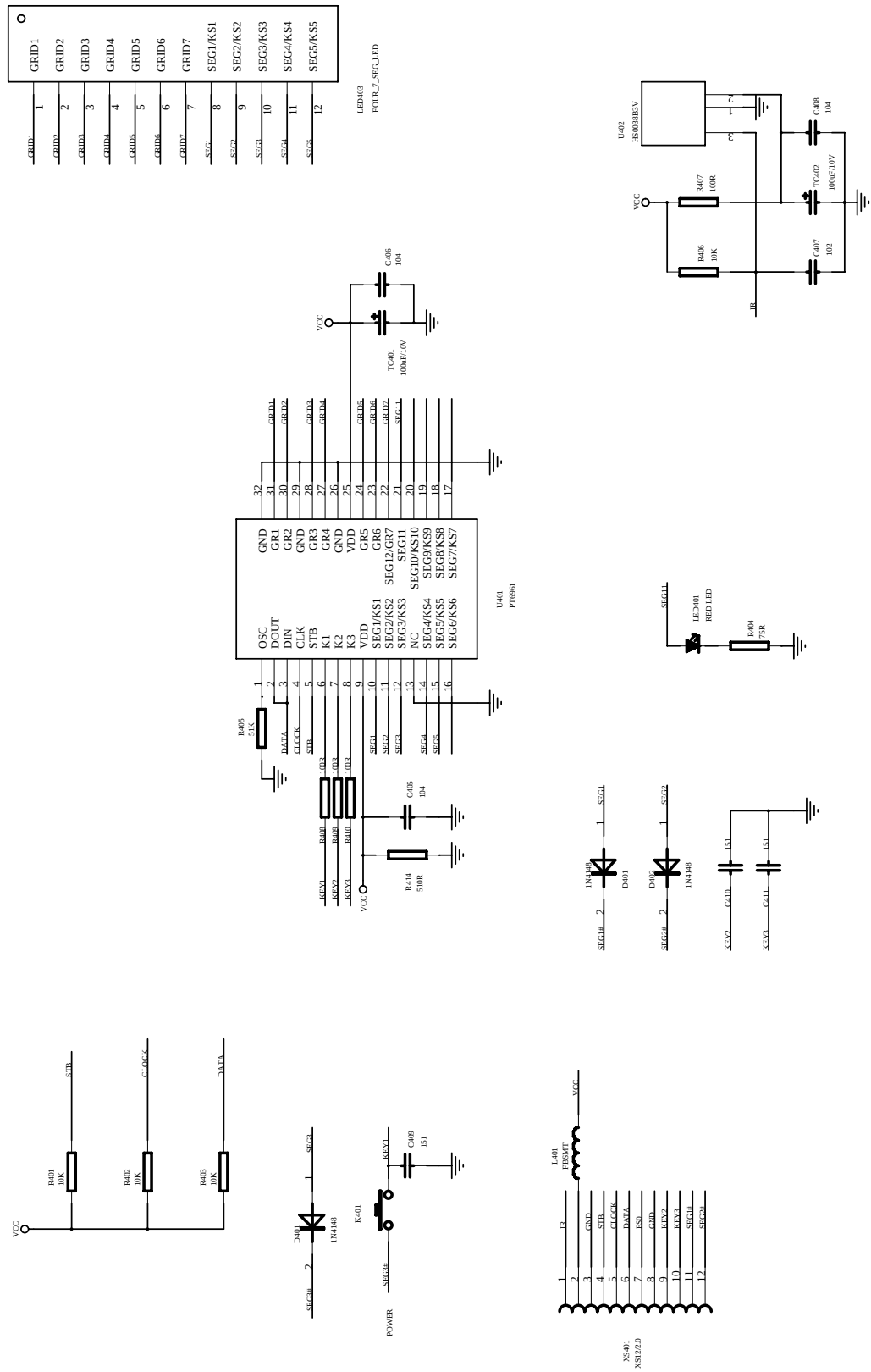


5.1.7 Surface layer of OK Board (6DV921HD-1) 4941712.

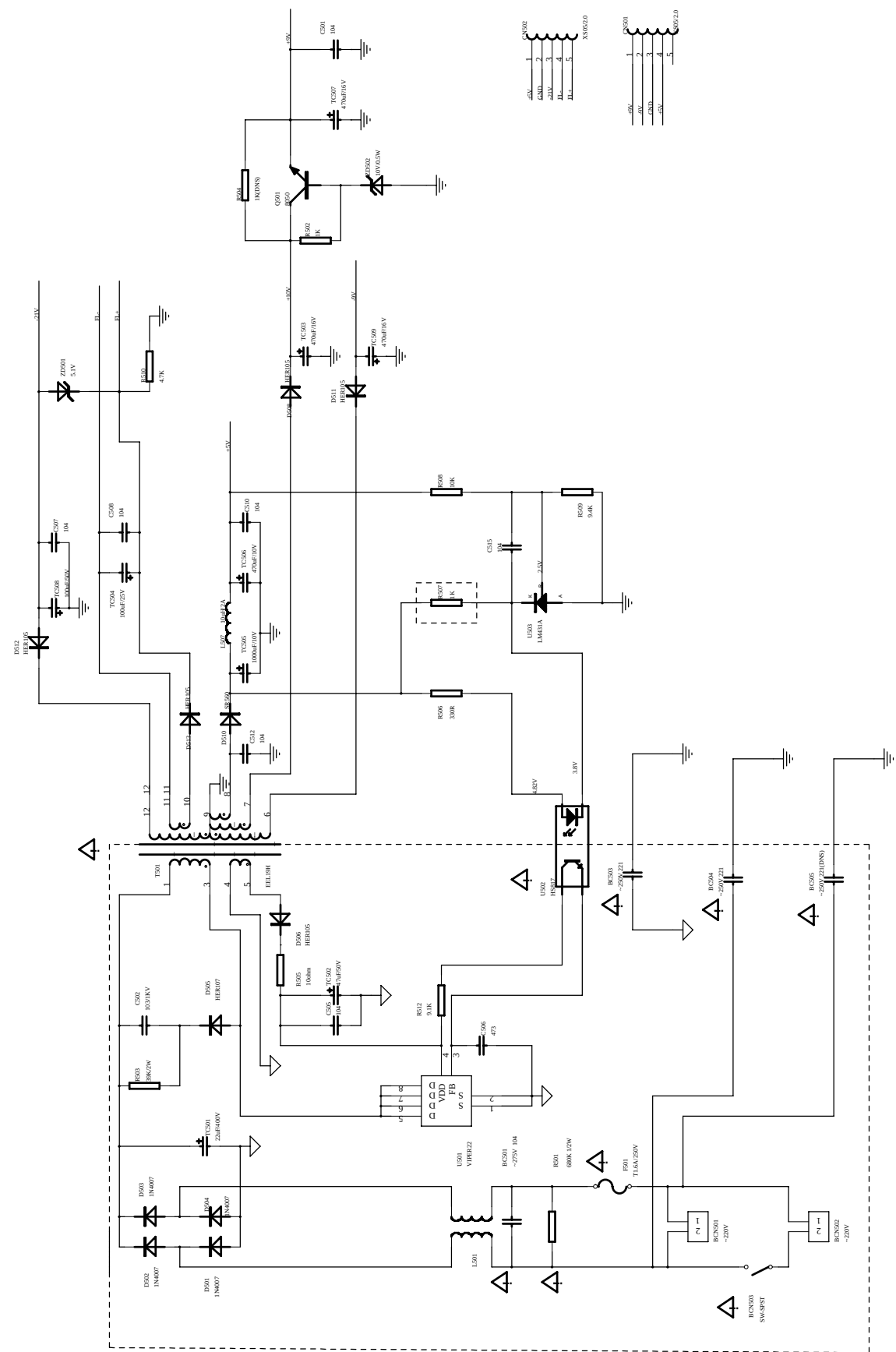




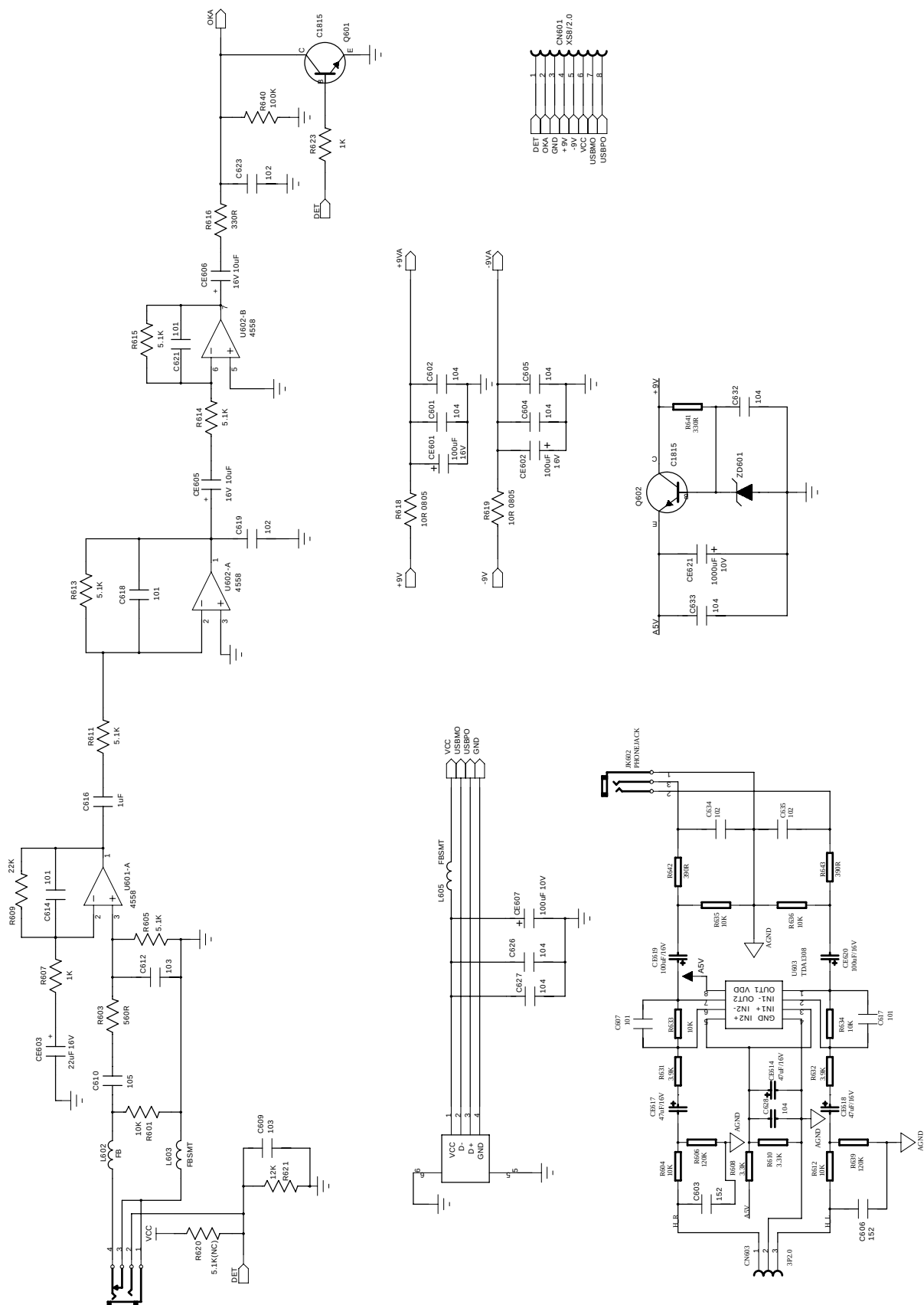
5.2.2 Main Panel.



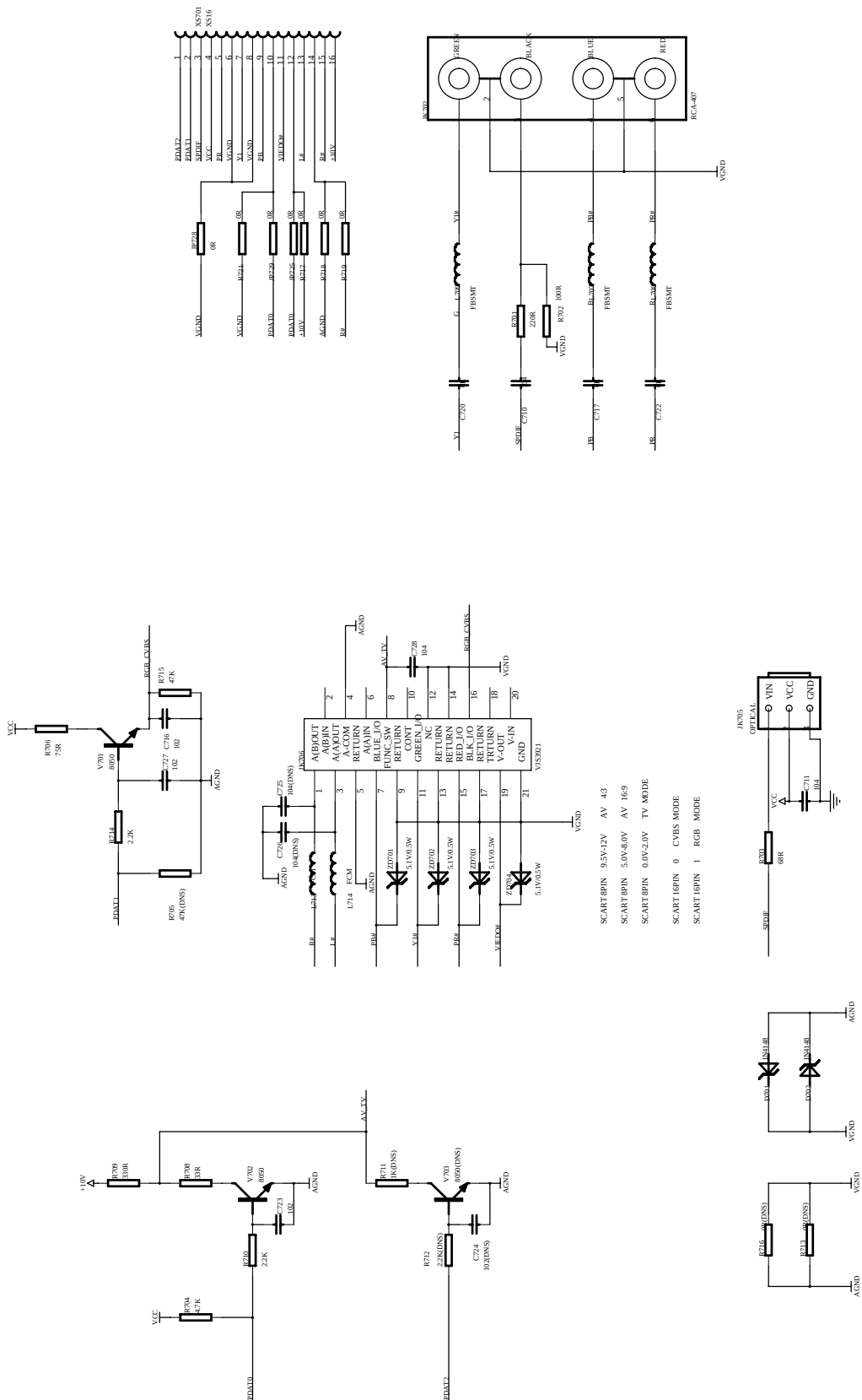
5.2.3 Power Board.



5.2.4 OK Board.



5.2.5 Output Board.



Chapter Six BOM List

DV921HD(RU)BLACK(1389M)

REMOTE CONTROL 5471742

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0970003	CERAMIC RESONATOR	455E	X801
0880220	IC	P2222 SOP	U801
0700001	SMD DIODE	LS4148	D801~D803
0310048	SMD CAPACITOR	50V 151±5% NPO 0603	C802,C803
0090272	SMD RESISTOR	1/16W 1Ω±5% 0603	R801
0630010	EMISSION PIPE	LTE-4206	LED801 ①
0630009	EMISSION PIPE	TSAL4400	LED801 ①
0780130	SMD TRIODE	STC3265	Q801
5070070	PLASTIC BAG	85×250	
4000038	SELF-TAPPING SCREW	PB 2.3×6 COLOR ZINC	FOR CONNECTING UPPER AND LOWER COVER
3850126	ANODE/CATHODE SPRING	RC026	
3051273	GLASS OF REMOTE CONTROLLER	026 MING PURPLE	
3850124	ANODE SPRING	RC026	
3850125	CATHODE SPRING	RC026	
3041399	BOTTOM CASING OF REMOTE CONTROL	026 BLACK 2#	
3051319	BATTERY CASE DOOR OF REMOTE CONTROL	026 BLACK 2#	
4631052	CONDUCT GLUE OF REMOTE CONTROL	RC026-01R 4#	
3031856	REMOTE CONTROLLERSURFACE CASING	RC026-05R BLACK	
1564324	PCB	8516SI-3	

DV921HD(RU)BLACK(1389M)

POWER BOARD @5DV923-1 4941553

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
2100003	CONNETION CORDS	Φ0.6 SHAPED 7.5mm	JP502,JP503
2100004	CONNETION CORDS	Φ0.6 SHAPED 10mm	JP501
1940045	SOCKET	2P 8.0mm 2#	BCN501

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0260341	CD	ZT 400V22 μ ±20% ϕ 16×20 7.5	TC501
0410011	CHOKE COIL	VERTICAL 10UH 2A 5mm	L507
1940022	SOCKET	4P 2.0mm	CN501
0010159	METAL OXIDE FILM RESISTOR	239K±5%SHAPED FLAT 15×7	R503 ②
0010135	METAL OXIDE FILM RESISTOR	2W 39K±5% SHAPED FLAT 15×9	R503 ②
0680046	SCHOTTKY DIODE	SR560 DO-27 SHAPED R 17.5×8	D510
0881933	IC	VIPER22A DIP8	U501
3870115	GROUND CHIP OF POWER BOARD	903	G501,G504
0882462	IC	AZ431AZ-A TO-92	U503 ③
08824629	IC	AZ431AZ-A TO-92 BELT	U503 ③
0260559	CD	CD11T 50V47 μ ±20%6×12 2.5	TC502
5141825	VERSION LABEL	3.00 SQUARE WHITE	
1080032	PHOTOELECTRIC COUPLER	@HS817 VDE	U502
0200359	CERAMIC CAPACITOR	@250V 221±10% 10mm VDE	BC503,BC504
0210207	TERYLENE CAPACITOR	@275V 104±20% 15mm VDE	BC501
00002159	CARBON FILM RESISTOR	1/49.1K±5% BELT	R512
05700139	DIODE	HER105 BELT	D506,D508,D511
05700149	DIODE	HER107 BELT	D505
00001859	CARBON FILM RESISTOR	1/4330 Ω ±5% BELT	R506
00001959	CARBON FILM RESISTOR	1/41K±5% BELT	R507
02001389	PORCELAIN CAPACITOR	50V 104±20% 5mm BELT	C505,C510,C515
02607269	CD	CD288H 10V1000 μ ±20%8×16 C5 BELT	TC506
02001369	PORCELAIN CAPACITOR	50V 473±20% 5mm BELT	C506
00001729	CARBON FILM RESISTOR	1/475 Ω ±5% BELT	R505
05700059	DIODE	1N4007 BELT	D501~D504
02002249	PORCELAIN CAPACITOR	1000V 103 +80%-20% 7.5MM BELT	C502
2300049	FUSE	@1.6AL 250V 3.6×10 VDE	F501
1000062	POWER GRID FILTER	@JLB1153 33MH +∞-0% SJ	L501

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0460623	SWITCH POWER TRANSFORMER	@BC19-0348 SJ	T501 ④
0460585	SWITCH POWER TRANSFORMER	@BC19-0348 CQC	T501 ④
00700169	HIGH PRESSURE RESISTOR	@1/2680K±5% VDE BELT	R501
02607989	CD	C11T 16V470U±20%8×12 C5 BELT	TC509,TC503
0260821	CD	CD288H 16V1500U±20%10×20 5	TC505
00100979	METAL FILM RESISTOR	1/4W9.4KΩ±1%BELT	R508
00103799	METAL FILM RESISTOR	1/4W8.2KΩ±1%BELT	R509
1565030	PCB	@5 923-1 VO D1.6 SX @UL	

DV921HD(RU)BLACK(1389M)

SUBSIDIARY PANEL 9DV921HD-0 4941714

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
1340003	LIGHT TOUCH RESTORE SWITCH	HORIZONTAL 6×6×1	K902,K903,K906
1940175	SOCKET	12P 2.0mm STRAIGHT INSERT	CN901
2121996	FLAT CABLE	7P130 2.0 2 PIN,WITH NEEDLE,TOGETHER DIRECTION	CN902
1634960	PCB	9 921HD-0 FR4 D1.6 PX	

DV921HD(RU)BLACK(1389M)

MAIN PANEL 4DV921HD-0 4941711

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0620002	LIGHT-EMITTING DIODE	Φ3 RED	LED401
0700001	SMD DIODE	LS4148	D401,D402,D403
1340003	LIGHT TOUCH RESTORE SWITCH	HORIZONTAL 6×6×1	K401
0260254	CD	CD11C 10V100U±20%6×5 2.5	CE401,CE402
0090192	SMD RESISTOR	1/16W 51K±5% 0603	R405
0090023	SMD RESISTOR	1/16W 10K±5% 0603	R401,R402,R403,R406,
0390095	SMD MAGNETIC BEADS	FC160822105	L401
0090181	SMD RESISTOR	1/16W 100Ω±5% 0603	R404,R407,R408,R409,R410
0310207	SMD CAPACITOR	50V 104 ±20% 7R 0603	C405,C406,C408 ⑤
0310543	SMD CAPACITOR	50V 104±10% 7R 0603	C405,C406,C408 ⑤

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
1940175	SOCKET	12P 2.0mm STRAIGHT INSERT	CN401
0881426	IC	6961 SOP	U401
2360021	IR SENSOR	138BV3	U402
0310598	SMD CAPACITOR	50V 102±20% 7R 0603	C407
5141756	VERSION LABEL	2.01 SQUARE WHITE	
3076211	LED BRACKET	H=5mm Φ=4mm	
1200946	LED DISPLAY SCREEN	HMMOB34086B16	LED403
1634959	PCB	4 921HD-0 FR4 D1.6 PX	
5237738	SOFT SPONGE SPACER	38×6×2 DOUBLE-FACED,HARD	FOR SCREEN DISPLAY
5237635	SOFT SPONGE SPACER	8×7×5.5 DOUBLE-FACED,HARD	FOR REMOTE CONTROL

DV921HD(RU)BLACK(1389M)

OUTPUT BOARD 7DV921HD-1 4941713

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
2100010	CONNENTION CORDS	Φ0.6 SHAPED 5mm	JP1,JP8,JP10,JP11,JP2,JP3,JP4,JP5,JP6,JP7
2100004	CONNENTION CORDS	Φ0.6 SHAPED 10mm	JP9,JP12,JP13,JP14,JP15,JP16
0780085	SMD TRIODE	8050D	V701,V702,V703
0090020	SMD RESISTOR	1/16W5.1K±5% 0603	R76,R83
0090023	SMD RESISTOR	1/16W10K±5% 0603	R75,R77,R82,R84
0090221	SMD RESISTOR	1/16W 120Ω±5% 0603	R701
0700001	SMD DIODE	LS4148	D701,D702
0090024	SMD RESISTOR	1/16W 15K±5% 0603	R704
0700004	SMD VOLTAGE REGULATOR DIODE	5.1V±5% 1/2W	ZD701,ZD702,ZD703,ZD704
0090104	SMD RESISTOR	1/16W2.7K±5% 0603	R711
0310047	SMD CAPACITOR	50V 101 ±5% NPO 0603	C72,C74
0310066	SMD CAPACITOR	50V 102 ±10% 7R 0603	C71,C73
0310598	SMD CAPACITOR	50V 102 ±20% 7R 0603	C716,C723,C727
0310701	SMD CAPACITOR	10V 106 ±20% Y5V 0805	C75,C76,C77,C78
0390095	SMD MAGNETIC BEADS	FCM1608K-221T05	L707,L708,L709

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0880768	IC	C4558 SOP	U701
0090009	SMD RESISTOR	1/16W 330Ω±5% 0603	R709
0090017	SMD RESISTOR	1/16W 2.2K±5% 0603	R710,R712,R714
0090029	SMD RESISTOR	1/16W 47K±5% 0603	R715
0090006	SMD RESISTOR	1/16W 75Ω±5% 0603	R706
0090238	SMD RESISTOR	1/16W 68Ω±5% 0603	R703
0390095	SMD MAGNETIC BEADS	FC160822105	L713,L714
0090181	SMD RESISTOR	1/16W 100Ω±5% 0603	R702
0310207	SMD CAPACITOR	50V 104 ±20% 7R 0603	C710,C728 ⑥
0310543	SMD CAPACITOR	50V 104±10% 7R 0603	C710,C728 ⑥
0090005	SMD RESISTOR	1/16W 33Ω±5% 0603	R708
0090001	SMD RESISTOR	1/16W 0Ω±5% 0603	C717,C720,C722,R717,R713,R716,R718,JP728,JP729
0310234	SMD CAPACITOR	16V 105 +80%-20% Y5V 0603	C711
0310598	SMD CAPACITOR	50V 102±20% 7R 0603	C724
5141756	VERSION LABEL	2.01 SQUARE WHITE	
1910296	AV SOCKET	RCA-407B BG/RBK STRAIGHT PLUG	JK702
1860200	SCART SOCKET	114	JK706
1090108	ELECTRO-OPTIC TRANSFORMER	DQT-004A FLEX INSERT	JK705
1565276	PCB	7 921HD-1 HB D1.6 SX	
2122899	SOFT FLAT CABLE	15-6/9P55×2 2.0 T3 WITH L NEEDLE, REVERSE	XS701

DV921HD(RU)BLACK(1389M)

DECODE BOARD 2DV921HD-1 4941710

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0960020	CRYSTAL OSCILLATOR	27.00MHz 49-S	X1
0700001	SMD DIODE	LS4148	D12,D15
1940044	SOCKET	9P 2.0mm	CN7
1940023	SOCKET	7P 2.0mm	CN6
1940026	SOCKET	3P 2.0mm	CN11

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0310392	SMD CAPACITOR	50V 102±10% 7R 0402	C3,C4,C5,C6,C7,C8,C71,C73,C75,C77,C79,C81,C84,C127,L33
0090036	SMD RESISTOR	1/10W 0Ω±5% 0805	L10
1940022	SOCKET	4P 2.0mm	CN5
1940005	SOCKET	6P 2.0mm	CN3,CN8,CN9
1940024	SOCKET	5P 2.0mm	CN2,CN10
0780129	SMD TRIODE	8550D	Q22,Q23
0390095	SMD MAGNETIC BEADS	FC160822105	L1,L2,L7,L8,L12,L15,L21,L39
0780040	SMD TRIODE	3904(100-300) SO23	Q3
0880768	IC	C4558 SOP	U6,U7,U8
0780115	SMD TRIODE	2SB1132	Q4,Q5
0310493	SMD CAPACITOR	50V 121±5% NPO 0402	C19
0090339	SMD RESISTOR	1/16W 100Ω±5% 0402	R8,R9,R60,R61,R62,R63,R118,R18,R19,R20,R21,R33
0090330	SMD RESISTOR	1/16W 33Ω±5% 0402	R65,R66,R50,R136,R137
0090336	SMD RESISTOR	1/1675Ω±5% 0402	R64
0090324	SMD RESISTOR	1/16W 0Ω±5% 0402	R27,R138,R31,R34,R44,R46,R47,R48,R51,R52,R53,R130,R55
0090367	SMD RESISTOR	1/16W1.8K±5% 0402	R40
0090368	SMD RESISTOR	1/16W 2K±5% 0402	R6,R7
0090355	SMD RESISTOR	1/16W 510Ω±5% 0402	R123
0090356	SMD RESISTOR	1/16560Ω±5% 0402	R5
0090362	SMD RESISTOR	1/16W 1K±5% 0402	R78,R139,R79,R85,R86,R92,R93,R99,R100,R106,R107,R113,R114,R115
0090342	SMD RESISTOR	1/16W150Ω±5% 0402	R124
0090350	SMD RESISTOR	1/16330Ω±5% 0402	R37,R69,R70,R71,R80,R87,R94,R68
0090394	SMD RESISTOR	1/16W 27K±5% 0402	R132,R133
0090396	SMD RESISTOR	1/16W 33K±5% 0402	R54
0090385	SMD RESISTOR	1/16W 10K±5% 0402	R2,R3,R11,R12,R16,R17,R23,R28,R30,R41,R42,R43,R45,R49,R56,R57,R58,R75,R82,R89,R96,R103,R108,R110,R119,R121,R126,R127
0090387	SMD RESISTOR	1/1612K±5% 0402	R24
0090389	SMD RESISTOR	1/1615K±5% 0402	R131

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0090391	SMD RESISTOR	1/16W 20K±5% 0402	R25,R135
0090392	SMD RESISTOR	1/16W 22K±5% 0402	R122
0090393	SMD RESISTOR	1/16W 24K±5% 0402	R77,R84,R91,R98,R105,R112
0090377	SMD RESISTOR	1/16W 4.7K±5% 0402	R67
0090378	SMD RESISTOR	1/16W 5.1K±5% 0402	R22,R76,R83,R90,R97,R104,R111
0090400	SMD RESISTOR	1/16W 47K±5% 0402	R154,R29
0090408	SMD RESISTOR	1/16W 100K±5% 0402	R10,R73,R13,R35,R81,R88,R95,R101,R102,R109,R116
0090445	SMD RESISTOR	1/16W 1Ω±5% 0402	R128
0310446	SMD CAPACITOR	50V 152±10% 7R 0402	C86
0090447	SMD RESISTOR	1/16W 22Ω±5% 0402	R134,R142,R143,R144,R145
0310234	SMD CAPACITOR	16V 105 +80%-20% Y5V 0603	C1,C10,C12,C14,C27,C85,C90,C91
0780198	SMD TRIODE	2S1015	Q17,Q18,Q19
1910079	TERMINAL SOCKET	8-8.4-6G-3	JK2
0780197	SMD TRIODE	C1815	Q10,Q11,Q12,Q13,Q14,Q15,Q16,Q20
0780193	SMD TRIODE	2S3018	V1,V2
0700057	SMD DUAL DIODE	MMBD4148CC SO23	D19
1940094	CABLE SOCKET	24P 0.5mm SMD SUBMIT MEET WITH CLASP	CN1
0310566	SMD CAPACITOR	10V 225 +80%-20% Y5V 0603	C38,C39,C136
1910129	TERMINAL SOCKET	S001-012 BLACK IRON PIECE,SCREESHIELDED	JK1
0310726	SMD CAPACITOR	16V 104±10% 5R 0402	C9,C11,C13,C15,C16,C17,C18,C20,C21,C22,C23,C24,C25,C26,C28,C32,C33,C34,C35,C36,C37,C40,C41,C43,C45,C46,C47,C48,C49,C50,C51,C60,C61,C62,C68,C69,C70,C83,C88,C92,C98,C99
0390355	SMD INDUCTOR	4.7UH±10% 1608	L3,L4,L32,L20,C94
0310454	SMD CAPACITOR	16V 153±10% 7R 0402	C93
0390385	SMD INDUCTOR	22uH±10% 2012	L6,L11
0310420	SMD CAPACITOR	50V 33P ±5% NPO 0402	C29,C30
0310416	SMD CAPACITOR	50V 22P±5% NPO 0402	C52,C53,C54,C55,C56,C57,C58,C59
0310424	SMD CAPACITOR	50V 47P±5% NPO 0402	C64,C65,C66

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0310432	SMD CAPACITOR	50V 101±5% NPO 0402	C67,C72,C74,C76,C78,C80,C82
0310435	SMD CAPACITOR	50V 221±5% NPO 0402	C2
5141757	VERSION LABEL	2.02SQUARE WHITE	
1860102	HDMI SOCKET	51U019S-333A	JK202
07803199	TRIODE	SS8550 TO-92 BELT	Q6~Q9
05700039	DIODE	1N4001 BELT	D1,D2,D3
08828028	IC	A5888S L/ HSOP\$	U2
0260687	CD	CD11T 10V1000U±20%8×16 C5	CE11
0390444	SMD MAGNETIC BEADS	PZ2012U121	L5,L14,L22
0310794	SMD CAPACITOR	16V 331±5% NPO 0402	C87,C89
02607819	CD	C11C 10V100U±20%5×11 C2.5 BELT	CE1,CE3,CE6,CE12,CE32,CE35,CE10,C E16
02607869	CD	C11C 16V22U±20%4×7 C2.5 BELT	CE17
02607879	CD	C11C 16V47U±20%5×7 C2.5 BELT	CE7,CE8,CE9,CE15
0390453	SMD MAGNETIC BEADS	GZ1005D221T 0402	L9,L24,L25,L26,L27,L28,L29,L13,L30,L31
02607989	CD	C11T 16V470U±20%8×12 C5 BELT	CE4
02600289	CD	C11 16V220U±20%6×12 2.5 BELT	CE14,CE19,CE33
02608249	CD	C11 16V10U±20%5×11 C2.5 BELT	CE5,CE13,CE20~CE31
0090834	PRECISION SMD RESISTOR	1/16W 5.1K±1% 0402	R1
0310853	SMD CAPACITOR	16V 682 ±10% 7R 0402	C31
0090845	PRECISION SMD RESISTOR	1/16W2.49K±1% 0402	R4
0780353	SMD TRIODE	CES2302 SOT-23	V21
0883532	IC	HY57V641620FTP-7 SOP	U3
0390568	SMD INDUCTOR	0.22UH ±10% 50mA 1608	L16,L17,L18,L19
0090869	SMD RESISTOR	1/16W6.8Ω±5% 0402	R14,R15
1030048	SMD PRESS SENSITIVITY RESISTOR	SDV1005E5R5C500NPT 0402	R72,R74,R146,R147,R148,R149
0884051	IC	MT1389FE/M(M EDITION) LQFP	U1
0912110	PROGRAM FLASH	ROM921HDRU-0A(16M)	
1635003	PCB	2 921HD-1 FR4 D1.2 PX	

DV921HD(RU)BLACK(1389M)

PROGRAM FLASH 0912110

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0883713	IC	AT26DF161-SU SOIC	U5

DV921HD(RU)BLACK(1389M)

OK BOARD 6DV921HD-2 4941712

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0780085	SMD TRIODE	8050D	Q601,Q602
0090034	SMD RESISTOR	1/16W 100K±5% 0603	R640
0090020	SMD RESISTOR	1/16W 5.1K±5% 0603	R605,R611,R613,R614,R615
0090018	SMD RESISTOR	1/16W 3.3K±5% 0603	R608,R610
0090014	SMD RESISTOR	1/16W 1K±5% 0603	R607,R623
0090009	SMD RESISTOR	1/16W 330Ω±5% 0603	R641,R616
0310047	SMD CAPACITOR	50V 101±5% NPO 0603	C607,C617,C614,C618,C621
0090030	SMD RESISTOR	1/16W 56K±5% 0603	R606,R639
0090029	SMD RESISTOR	1/16W 47K±5% 0603	R609
0310594	SMD CAPACITOR	25V 104±10% 0603	C601,C602,C604,C605,C626,C628,C632,C633 ⑦
0310543	SMD CAPACITOR	50V 104±10% 7R 0603	C601,C602,C604,C605,C626,C628,C632,C633 ⑦
0260269	CD	CD11C 10V470U±20%8×9 3.5	CE621
0090123	SMD RESISTOR	1/10W 33Ω±5% 0805	R618,R619
0310066	SMD CAPACITOR	50V 102±10% 7R 0603	C619,C623,C634,C635
0310072	SMD CAPACITOR	50V 103±10% 7R 0603	C609,C612
0090023	SMD RESISTOR	1/16W 10K±5% 0603	R601,R633,R634,R604,R612,R635,R636
0090012	SMD RESISTOR	1/16W 560Ω±5% 0603	R603
0310067	SMD CAPACITOR	50V 152±10% 7R 0603	C603,C606
0390095	SMD MAGNETIC BEADS	FC160822105	L602,L603
0700008	SMD VOLTAGE REGULATOR DIODE	5.6V±5% 1/2W	ZD601
0090187	SMD RESISTOR	1/16W 12K±5% 0603	R621
0090181	SMD RESISTOR	1/16W100Ω±5% 0603	R642,R643

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0880768	IC	C4558 SOP	U601,U602
0090224	SMD RESISTOR	1/16W 3.9K±5% 0603	R631,R632
0310234	SMD CAPACITOR	16V 105 +80%-20% Y5V 0603	C610,C616
1980018	MICROPHONE SOCKET	C3-6.35-24	MIC602
0881537	IC	1308 SOP	U603
1980046	EARPHONE SOCKET	S301-030-100	JK602
1860047	USB SOCKET	CAB85-4Pin	JK601
5141758	VERSION LABEL	2.03 SQUARE WHITE	
03900579	MAGNETIC BEADS INDUCTOR	RH354708 BELT	L605
02607799	CD	C11C 16V10U±20%4×7 C2.5 BELT	CE605,CE606
0260780	CD	CD11C 10V47U±20%4×7 C2.5	CE614,CE617,CE618
02607819	CD	C11C 10V100U±20%5×11 C2.5 BELT	CE601,CE602,CE619,CE620
02607869	CD	C11C 16V22U±20%4×7 C2.5 BELT	CE603
02602229	CD	C11C 10V220U±20%6×7 2.5 BELT	CE607
2122900	FLAT CABLE	3P80 2.0 T2 WITH NEEDLE, REVERSE	CN603
2150369	FLAT CABLE	8-5/6P90×2 2.0 T3 2PB WITH NEEDLE 8CORD	CN601
1635079	PCB	6 921HD-2 FR4 D1.6 PX	