

USER MANUAL

DVR-J104

China Patent NO. 200830253597. 6



DVR-J104T

China Patent NO. 200730174963. 4



DVR-J104A

China Patent NO. 200830253596. 1



Design and specification will be occurred subject to change without notice!

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1 DVR Instruction

Remote power supply for 4 channel cameras

4 channel BNC input

1 channel monitor/video output

NTSC/PAL selectable

Video lost clue

Motion detection

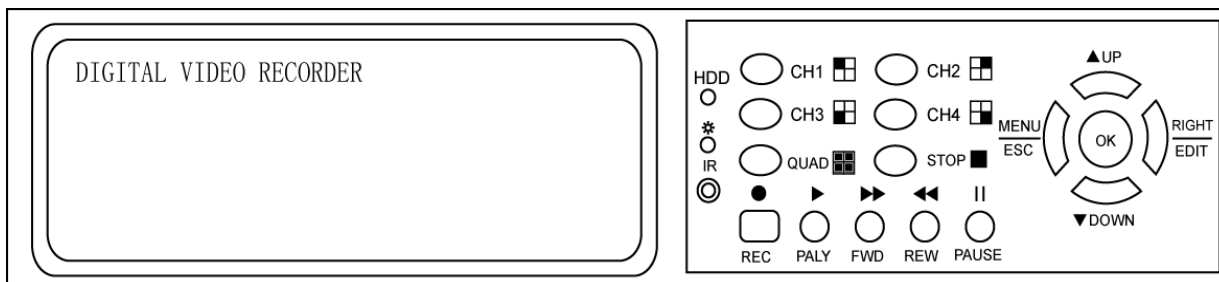
ATA-100 HDD port, HDD >500G

Schedule recording/motion detection recording

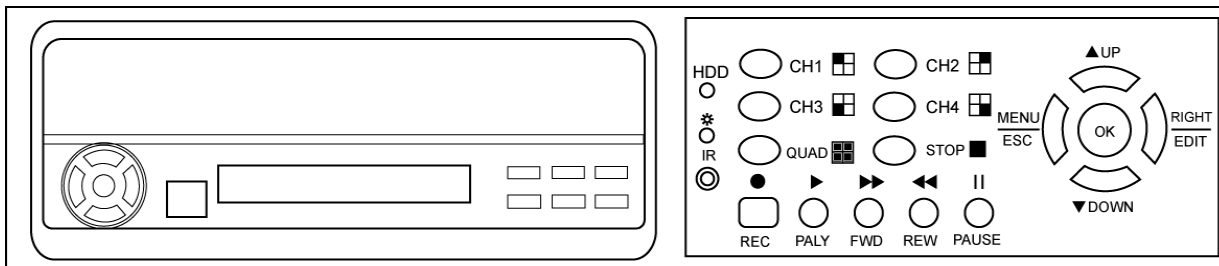
USB2.0 selectable

2 Appearance introductions

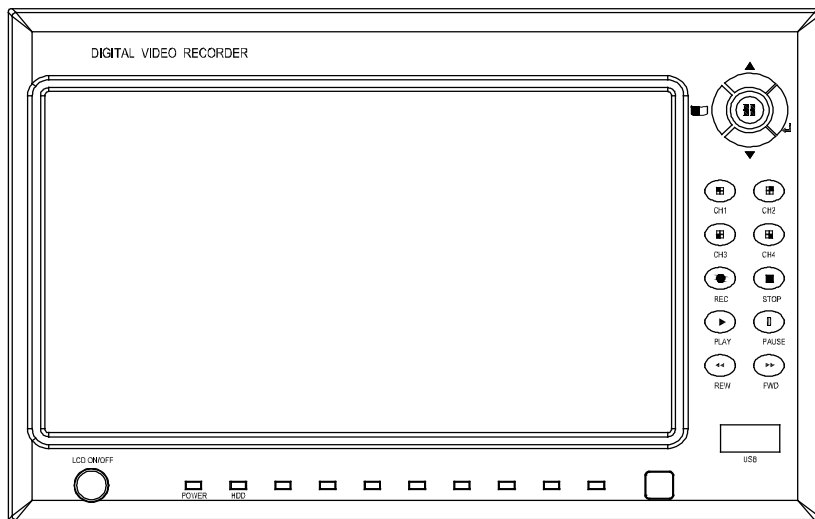
2.1 Front panel



DVR-104

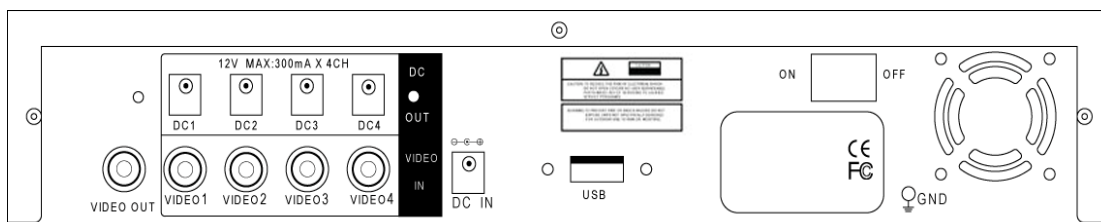


DVR-J104T

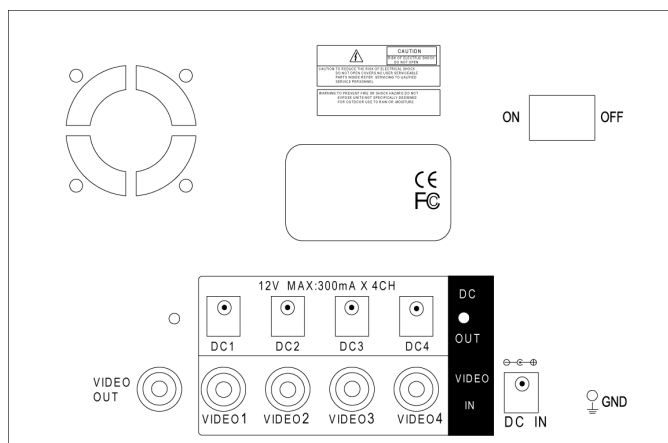


DVR-J104A

2.2 Back panel



DVR-J104 / DVR-J104T



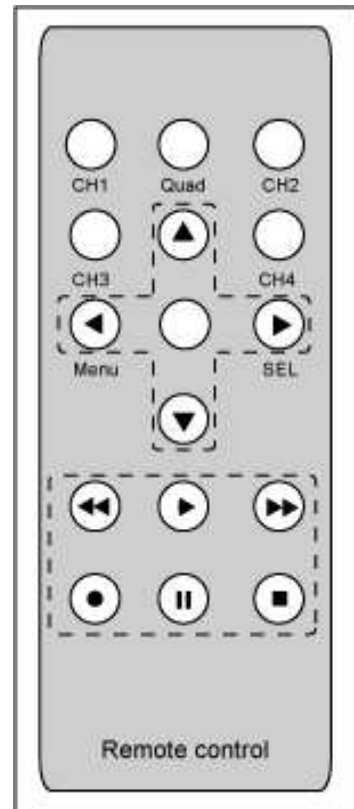
DVR-J104A

! Notice

This equipment offers power DC 12V 300mA X 4Ch output. It's available for cameras and other products with the required power voltage. If it's not with the required, equipment will also not work properly.

2.3 Remote Controller

1.CH1	select/enlarge CH1
2.CH2	select/enlarge CH2
3.CH3	select/enlarge CH3
4.CH4	select/enlarge CH4
5.QUAD	Quad
6.REW	Reward
7.PLAY	Play the video
8.FWD	Forward
9.RECORD	Record the video
10.PAUSE	Pause
11.STOP	Stop/play
12.MENU	OK/Exit setting menu
13.SEL/EDIT	Edit the program
14.UP	Move cursor up
15.DOWN	Move cursor down



3 Install DVR System

3.1 Install HDD

Install HDD (Suggest to use “Seagate” HDD)

Take off DVR HDD box when power is off. After good connection of the power supply cable and HDD cable, put it into DVR with HDD fixed in. After lock the HDD box well, you can connect electricity to use.

※ **Notice: Please set the HDD as main HDD.**

※ **Notice: Do not install the HDD with electricity.**

3.2 Install camera and monitor

Users could connect cameras and one channel monitor through the BNC at back panel

3.3 Install power supply

Please use the power supply attached in the DVR.

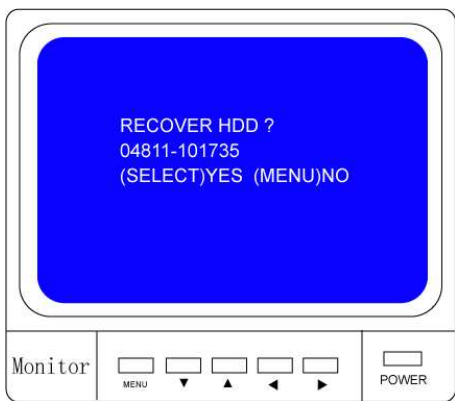
4 DVR system process introduction

4.1 HDD test process



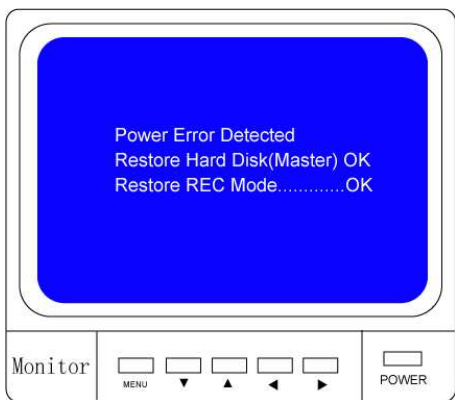
DVR will immediately enter lead process and test HDD basic information after power is on.

4.2 Cover lost data's process



Power accident would lead HDD data lose. System will automatically check error and recover to main screen after the test of data lost.

4.3 Video recover process



When DVR has power accident in the video process, system will automatically recover the video process after the power is on again.

4.4 Enter main screen

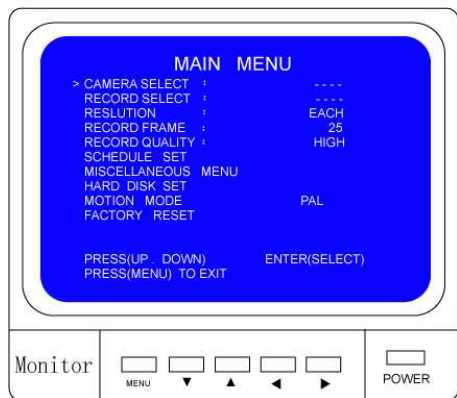
When the DVR first start, all cameras will default blue screen as “OFF” state. Please refer to instruction 5.2 for setting.

Surveillance channel’s name will show on the right bottom of the small screen. The right bottom of main screen will mark real time date and time. If you need to enter menu setting, please press “MENU” to enter main menu.



5 DVR menu introduction

5.1 Menu introduction

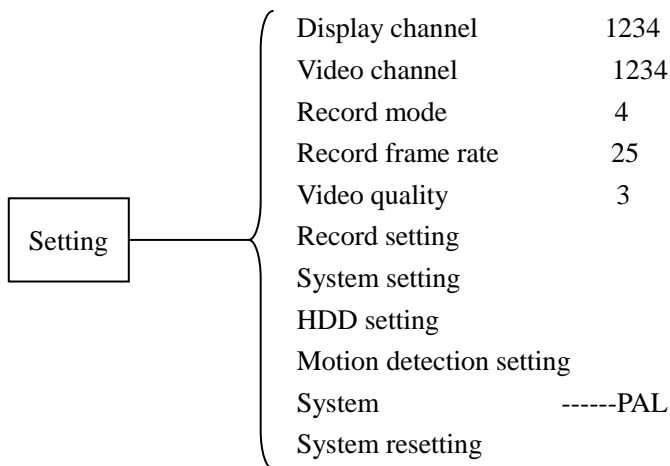


Press “MENU” to enter menu setting;

Press “▲ UP” and “▼DOWN” to move the cursor;

Press “← EDIT” to enter setting.

Press “MENU” confirm it and enter.



5.2 Set display channel

System can play four channel cameras at the same time. (Quad). Users could set any cameras’ display/off in “Display” of the menu. Press “← EDIT” could change former setting, and press “CH1”, “CH2”, “CH3”, “CH4” to select single channel full screen display. If the camera is closed, system will show “OFF” in the camera’s screen.

5.3 Set video

In “Video setting” menu, press “← EDIT” to revise original setting. Users could use “CH1”, “CH2”, “CH3”, “CH4” to set any channel’s video record.

5.4 Set record mode

In record mode menu, system offers “part”, “whole” record mode.

“Part”: In this mode, no matter you record single channel’s signal or record multi channels’ signal, each channel would record in the way of independent compression. When display, you can select any channel for full screen display by choosing “CH1”, “CH2”, “CH3”, “CH4”. Only in this mode “real time surveillance mode”, you press”QUAD” for 3 seconds could make each channel enlarge to full screen. At the same time, each channel will display in circle turns until the user presses any button to change the state.

“Whole”: In this mode, four channel screen will display as a whole to be compressed. Users would not be able to choose single channel as full screen display mode.

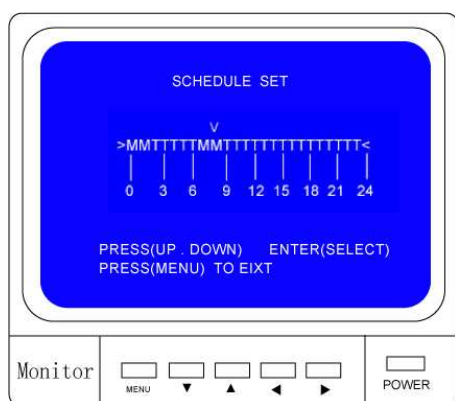
5.5 Record frame rate setting

Record frame rate would affect the image display effect. In “Record frame rate” menu, if you set the frame rate higher, video display will be more fluent. But it will take more HDD space. System default is 25fps, means the system will compress 25 frames per seconds. System offers 25fps, 12fps, 8fps, 6fps, 4fps, 3fps, 2fps, 1fps for users’ selection.

5.6 Video quality

In the menu of “Video quality”, system offers high, middle and low three options for users’ selection. The higher image quality, the more HDD space it will take. Record frame rate, record time and HDD capacity would affect DVR record time length.

5.7 Record setting



In “Record setting” menu, users could set two kinds of different recording mode. They are time segment recording mode and motion detection recording mode.

“-” close record of the time segment;

“T” time segment record mode (Default);

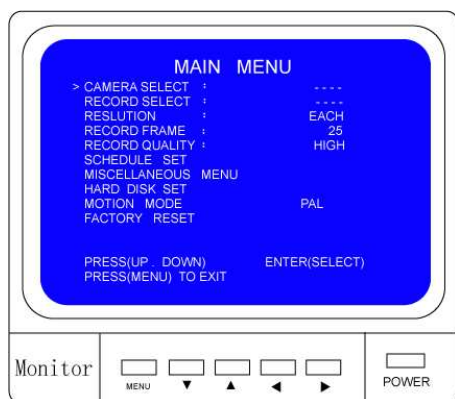
“M” motion detection record mode;

Button function

[▲UP][▼DOWN]: Move cursor

[←] EDIT]: Select record mode

5.8 System setting



(1) Auto record

In “Auto record” menu, users could Press [←] EDIT] to set “ON” or “OFF”. When user sets it as “ON”, DVR will auto record if no operation within 5 minutes; if user sets it as “OFF”, DVR will not record until user press record button.

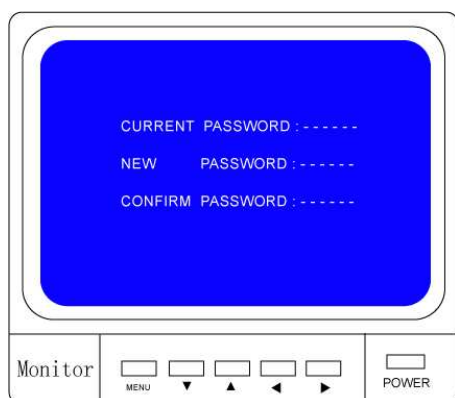
(2) Password switch

In the “Password switch” menu, user could press [←] EDIT] to set “ON” or “OFF”. When set it as “ON”, it will need password checking when enter main menu and stop record. User could change the password. When set it as “OFF”, all password of the system will be canceled. No password will need when enter main menu and stop record.

(3) Password setting

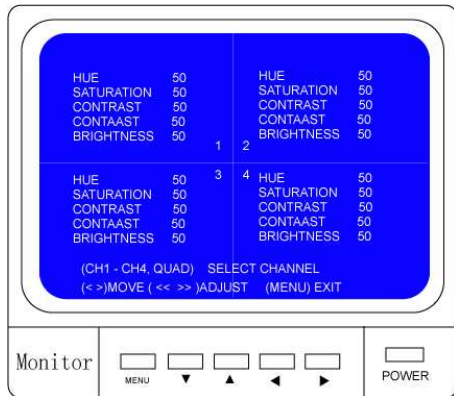
Default password: press six times CH1 key in sequence.

In “Password setting” menu, all buttons could be used as password except “MENU”. When changing the password, system will require users input old password first, then input new password. At last input new password for confirmation. After finishing the input, you can press “MENU” to confirm and go



back.

If the user forget password, please refer to 5.11 DVR reset.



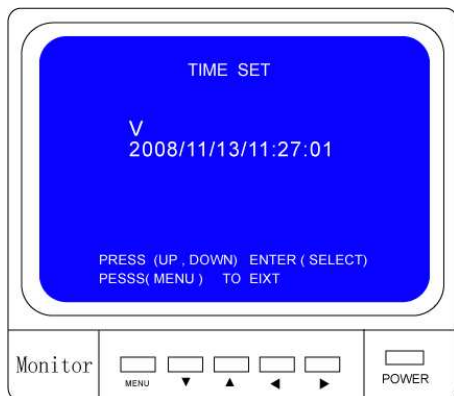
(4) Color setting

User could press “CH1”, “CH2”, “CH3”, “CH4” to choose the screen going to adjust. Press [▲UP] [▼DOWN] to move the cursor, and then press [←] EDIT] to revise. After revision, press [MENU] to finish the setting and go back.

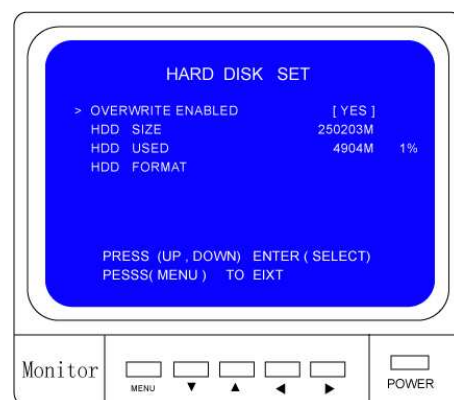
Adjust range is 0-99.

(5) Time setting

In “Time setting” menu, user set time through [▲UP] [▼DOWN] to move cursor, and then press [←] EDIT] to revise. After revision, press [MENU] to finish the setting and go back.



5.9 HDD setting



HDD rewrite:

After you set rewrite, when HDD space is full, system will rewrite the HDD. Former record data will be covered. If you didn't set the function, when the space is full, system will stop record process.

HDD capacity:

It shows HDD original capacity.

HDD space:

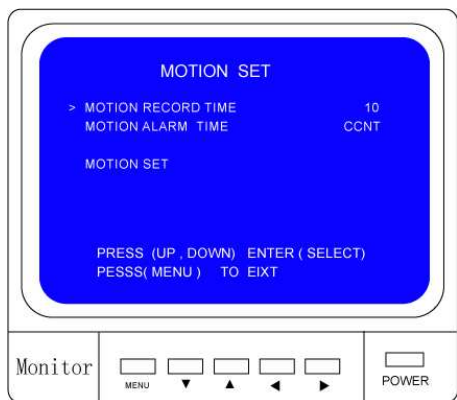
It shows HDD used space and the application

rate of HDD.

HDD format::

If select this, HDD will release all its space, the record data will be erased.

5.10 Motion detection setting



Motion detection time setting:

It can set motion detection time continuing. 5, 10, 15, 20, 25, 30 selectable.

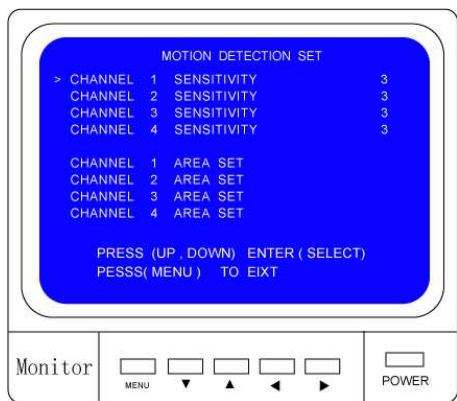
Motion detection alarm time:

It can set motion detection alarm time. Options are: off, 5、10、15、20、25、30 and always on. To set OFF could close alarm output. To set “Always on” could make alarm continue alarming. It will not stop until press any button.

Motion detection setting:

Channel sensor degree setting

User could press “← EDIT” to adjust motion detection sensor’s degree. (1-9) for high to low channels’ area setting:



User could Press [▲UP]、[▼DOWN]、[◀◀REW] and [▶▶FWD] to select and set surveillance range according to users’ need. Press “← EDIT” could confirm the setting. After finished the channels’ zone setting, user could press [MENU] to exit the menu, and then press [●REC] to start motion detection record.

To start motion detection audio record, you should select record way as “M” in “Video setting” menu. Please refer to 5.7.

5.11 System reset

If user press “EDIT” to select “System setting”, DVR will reboot and go back to default.

When user forgets the password, continuously press PAUSE for ten times in the main screen state, and then the DVR will reset and it will be back to default. If DVR is recording, please turn off the power first, take out the HDD, and then reboot. Press “PAUSE” for ten times will go back to default setting.

6 Other setting

6.1 Start recording



Press “●REC” to start record, system will show following related info.

Only in “Part” mode, DVR could support enlarging single screen’s play.

1. Record mark;
2. Channel name;
3. Record mode (“whole” or “part”)
4. Working state info (REC, PLAY, FWD, REW, PAUSE)
5. HDD info
6. Record process: (T) Time segment record, (M) Motion detection record, (—) No record process
7. Video’s real time date;

6.2 Stop record

On the condition of starting the password, if you want to stop record, just press “■STOP”, and then input correct password will make it stop.

6.3 Record time

In “Part” mode, record time for 120G HDD takes hours as the unit.

	Image quality	Speed rate	30	15	7	1
NTSC	High	20	58	117	251	1748
	Middle	15	78	155	333	2330
	Low	12	97	194	416	2913

User could figure and estimate the record time of 120G HDD @ 7fps@common quality.

	Image quality	Speed rate	25	12	6	1
PAL	High	20	70	146	291	1748
	Middle	15	93	194	388	2330
	Low	12	117	243	485	2913

You can calculate and estimate record hours by below formula:

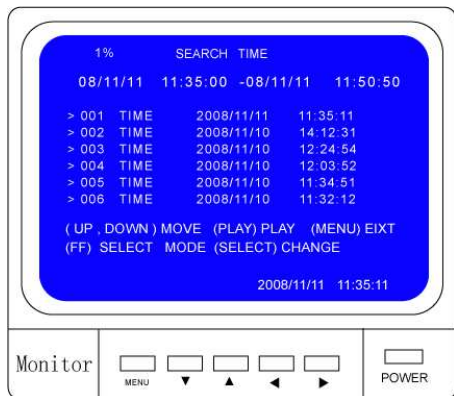
$$\frac{120(\text{G Byte}) \times 1024(\text{M Byte}) \times 1024(\text{K Byte})}{15(\text{K byte / frame}) \times 7(\text{frame / sec.}) \times 60(\text{sec.}) \times 60(\text{min.})}$$

Estimated time would be 332 Hours.

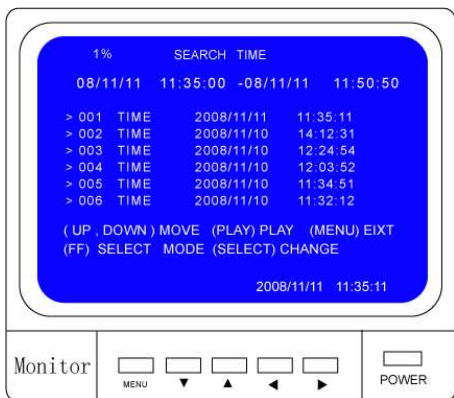
7 Playback setting

In main screen, press “PLAY” button, DVR will auto play latest video material. Then, you can press “MENU”, system will display record list according to time sequence. User could use “▲UP” and “▼DOWN” to move the cursor and select. Press “PLAY” to play the video.

1. Record date
2. Time record: time segment record;
3. Motion detection record;



System would offer directly method to check time segment record. First enter “Record time” menu, then press “FWD”, “▲UP” and “▼DOWN” to move the cursor. Press “EDIT” to input time, after confirmation, press “PLAY” to play.



8 USB driver software instruction

8.1 Installation

1. Put attached USB driver disk into computer's CD driver.
2. Start SETUP file in the disk.
3. Select the right program installation path.
4. After the installation of the program, use the path as Start>Program>PCVIEWER.EXE



8.2 Software operation instruction

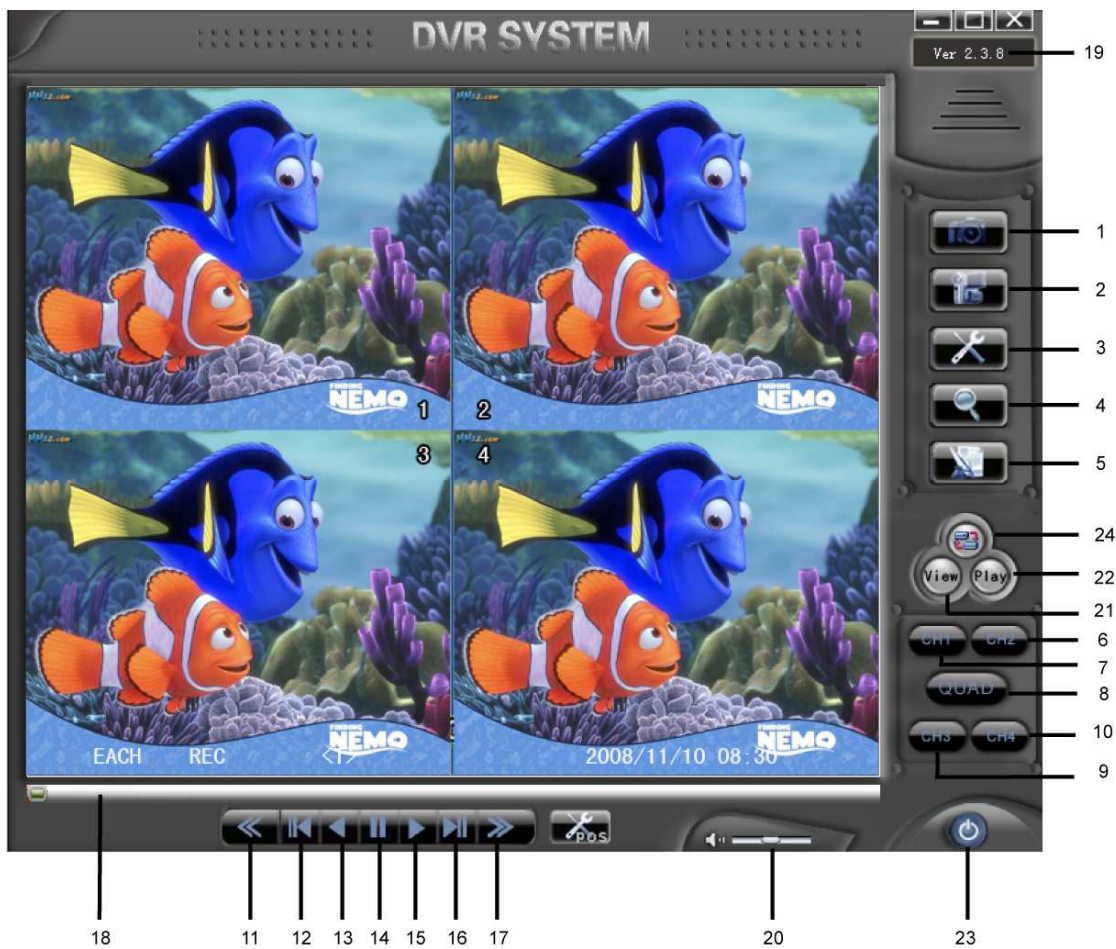
First start installed program.

Use USB to connect DVR and PC. Program will auto detect the HDD.

*Notice: If the program could not detect the HDD due to error operation, please follow following steps.

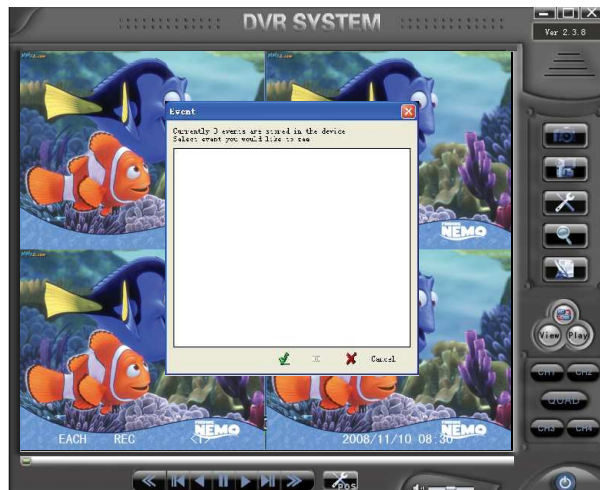
- (1) On the USB program window, safely uninstall the hardware, and then take off the USB cable.
- (2) Press [▶ PLAY] on the following panel, connect USB cable to computer, and then try it again will be fine.

Button function



- | | |
|----------------------|-----------------------------|
| 1 Save frame picture | 13 Backward |
| 2 Save video | 14 Pause |
| 3 Configuration | 15 Plays |
| 4 Open stored file | 16 Next frame |
| 5 Event list | 17 Fast forward |
| 6 Channel 2 | 18 Scroll bar |
| 7 Channel 1 | 19 Software version |
| 8 Quad mode | 20 Audio control switches |
| 9 Channel 3 | 21 Play DVR video file |
| 10 Channel 4 | 22 Play computer video file |
| 11 Fast backward | 23 Exit |
| 12 Next frame | |

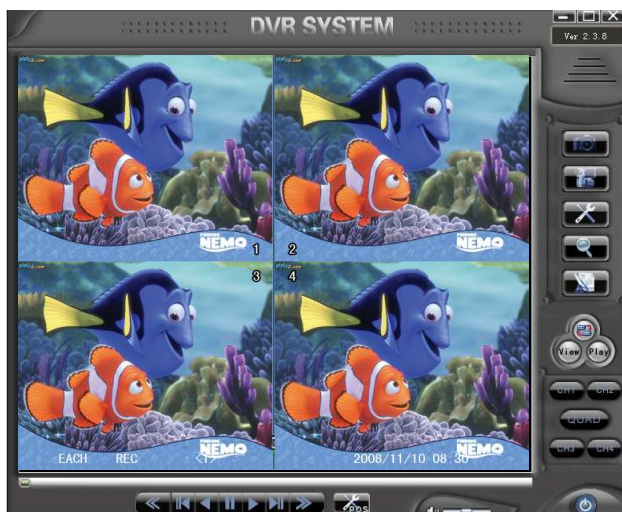
Open event record list.



Configure DVR play/record system.



Play record video file.

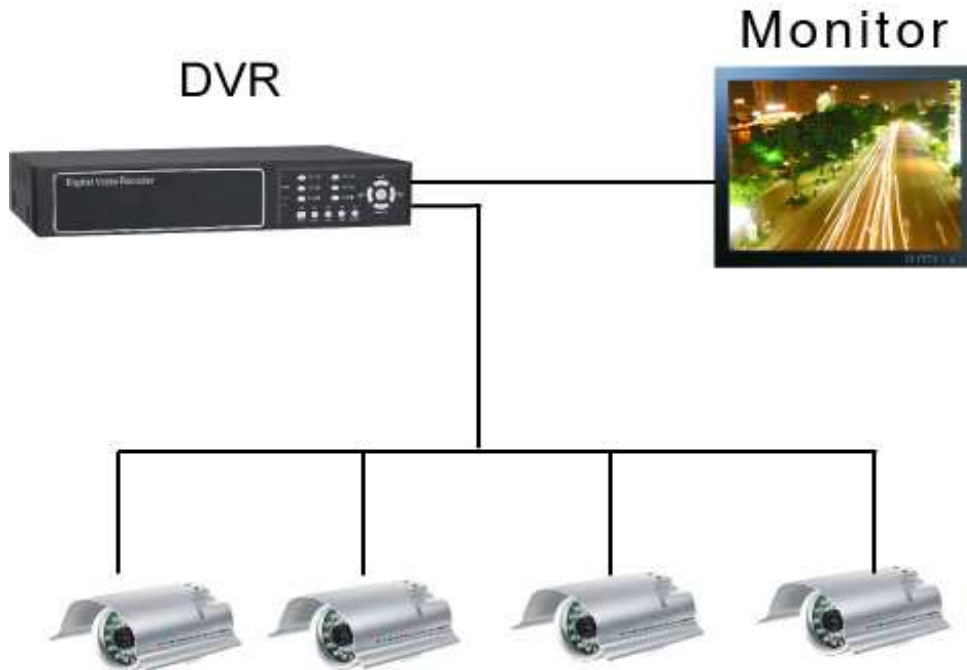


9 System specification

Parameters		System specification	Remark
Output selection		NTSC/PAL	
Operation system		No	Independent running
Camera input port		4channel BNC input	
Video output port		1channel BNC output	
Display frame rate	NTSC	120fps	4×30fps
	PAL	100fps	4×25fps
Video frame rate(Quad)	NTSC	Max 30fps	
	PAL	Max 25fps	
Record frame rate (Each)	NTSC	Each channel=30fps÷signal source number	Max 30fps
	PAL	Each channel=25fps÷signal source number	Max 25fps
Record mode		Time segment record, motion detection record.	
Resolution	Play	NTSC: 720×480 PAL: 720×576	
	Record	NTSC: 320×112, 640×224 PAL: 320×136, 640×272	1: 640×224 (total) 4: 640×224
Video compression format (Single channel)		Modified Motion-----JPEG	Low: 12K Byte Middle: 15K Byte High: 20K Byte
HDD		More than 500G Seagate	SATA
Record time		120GHDD@7fps@common quality (120X1024X1024k Byte) ÷ (7X15X60X60) =332 Hours	
Record search	Way	Time, Date, Event	
	Full screen	YES	

10 Appendix I

10.1 System connection instruction



10.2 Attached things (According to your product, attached will include following things.)

 <p>Power Cord</p>	 <p>Power Adaptor</p>	 <p>Manual</p>	 <p>CD-ROM</p>
 <p>USB Cable</p>	 <p>Remote Controller</p>	 <p>Cross Screwdriver</p>	 <p>Battery</p>

11 Appendix II Common questions and answers

※ Question: Why the host didn't start after connecting the power?

Answer: Check if the power switch in the back channel is ON.

※ Question: Why it is slow when starting the DVR?

Answer: ①There is too much data in the HDD. Host would check data when it starts. This will lead system start slow.

②HDD error would lead DVR host test the hard disk again and again. This will make it starts slow.

※ Question: Why it repeat rebooting after the host's self test?

Answer: ①Check the HDD. If the HDD is not FAT32 format subarea, or the HDD has problem, this would cause the host reboot.

②Check "Video Parameter setting", if the host is in PAL state, but the video input is NTSC, the host would repeat rebooting.

※ Question: Why it will turn off when play video or check video information during DVR's normal application?

Answer: Check if the HDD connection exist problem. Change the HDD that has problem in time.

※ Question: Why the video is black and white on the VGA and TV?

Answer: Check if the video input, DVR host, monitor or TV format matched. If they don't match, please set monitor or TV format to auto recognize state.

※ Question: Why real time video and record data have color anamorphose and light distortion problem?

Answer: ①DVR reboot, recover EX work setting. ②Adjust video setting in DVR's setting.

※ Question: Why there is no display on the monitor or computer VGA?

Answer: ①Check if the power adaptor is well and if the output port connects well; ②After confirmation of above condition, please check if the monitor is turned on and the video cable is correctly linked; ③Connect the power well, then turn of the DVR, but no video display on the monitor. It is blue back ground and an "OFF" display on the screen. At this time, turn on corresponding channel would display the video.

※ Question: Why the video has water wave and anamorphous?

Answer: ①Video cable might have break or short circuits, or dry solder and connection not well.

②Video cable is disturbed by strong power, it could not put close to strong power cable. Please choose good quality coverage cable.

③In the whole system, only simple line connect to the ground is permitted. Please connect the host to the ground through the ground screw at the back panel.

④Check if the camera or monitor or the cable have aging problem.