

optiview_{inc}

DVRJ4

4-ch Standalone Network DVR

User's Manual

Rel.061207

- 1. Product introduction**
 - 1.1. System specification**
- 2. Product operation**
 - 2.1. Various split screen**
 - 2.2. 1 channel audio recording & playback**
 - 2.3. USB backup**
 - 2.4. System upgrade through USB stick**
 - 2.5. Network client program with various functions**
 - 2.6. Front panel and buttons**
 - 2.7. Back panel connection**
 - 2.8. Remote controller**
- 3. Various display mode**
 - 3.1. QUAD mode**
 - 3.2. PIP mode**
 - 3.3. FULL screen mode**
 - 3.4. AUTO rotation mode**
 - 3.5. TRIPLEX mode**
- 4. DVR installation and operation**
 - 4.1. Recording**
 - 4.2. Playback**
 - 4.3. Searching**
 - 4.4. Zooming**
 - 4.5. Freezing**
 - 4.6. USB backup**
 - 4.7. System information**

- 5. Menu**
 - 5.1. Setup menu**
 - 5.2. System menu**
 - 5.3. Video menu**
 - 5.4. Recording menu**
 - 5.5. Network menu**
 - 5.6. Sensor / Motion menu**
 - 5.7. Backup menu**
 - 5.8. Schedule recording menu**
 - 6. Network client software**
 - 6.1. Program installation and operation**
 - 7. Router**
 - 7.1. Virtual server**
 - 7.2. Router IP check**
 - 7.3. Access**
- App. A. Troubleshooting**
- App. B. Product specification**

Before operating

This User's manual is explanation of DVRJ4 installation and operation. If you are not familiar with DVR, please contact professional technicians for installation and operation. Please read thoroughly before you operate the unit for your safety.

Be careful!

Do not install the unit where vibration and shock can be made. This can cause trouble.

Turn the unit off when you do cleaning and make sure to use dry towel.

Do not expose the unit to water or moisture.

Install the unit on even place and maintain the proper temperature.

Do not put heavy things on the unit.

1. Product Introduction

DVRJ4 supports full triplex (recording / playback / backup) and GUI for setup.

1.1. System Specification

Storage	Up to 500GB (supporting 24 Bit, 48 Bit) Two (2) hard drives
Compression	M-JPEG (Modified JPEG)
Video input	4 (NTSC/PAL) channel
Recording resolution	704 x 240(288), 352 x 240(288)
Recording speed	1fps ~ 120fps totally @ CIF
Recording mode	Manual recording Event recording - Motion, Alarm detected. Remote recording through network
Playback mode	FF : 2X ~ 32X, REW : 2X~16X,
Display	120fps
Display mode	- QUAD, MUX, PIP, Automated rotation
Multi Task	Triplex (recording, playback, backup at the same time)
Motion detection	5 levels, 16 x 12 grids area
Audio	Input 1 port Output 1 port

Backup	Backup through network AVI file backup Watermark USB memory stick, USB 2.0 Can be viewed by WINDOWS
Firmware update	via USB stick
Network viewer	Setup, Search, Backup

2. Product operation

2.1. Various split screen

Processes 4channel video input by real time, and provides various split screen (QUAD, FULL, PIP, AUTO, FREEZE).

2.2. 1 channel audio recording and playback

2.3. Backup to USB Thumb drive

Supports USB thumb drive backup and USB 2.0. You can play back the data via remote client program.

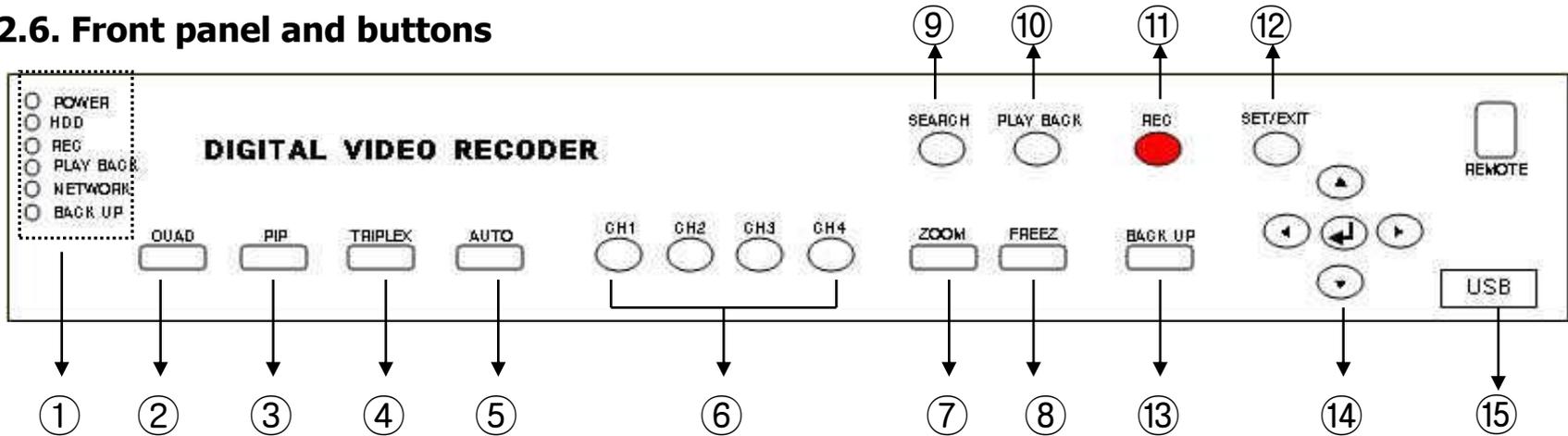
2.4. Firmware upgrade via USB stick

When you try to update the system through USB stick, save the firmware after you change the name to 'update.bin'. And put it in the DVR USB port, and get in 'USB SETUP MENU' of the DVR menu to select 'FIRMWARE UPDATE'. Then it automatically begins updating. It takes about 4 ~ 5 minutes. After that, it will reset itself.

2.5. Various function of network client software

- It supports various display (1channel/4 channel/PIP/AUTO rotation/Triplex).
- You can save the data that are being viewed on network viewer now on your PC.
- You can convert the data saved on your PC into AVI file.
- You can search the recorded data.

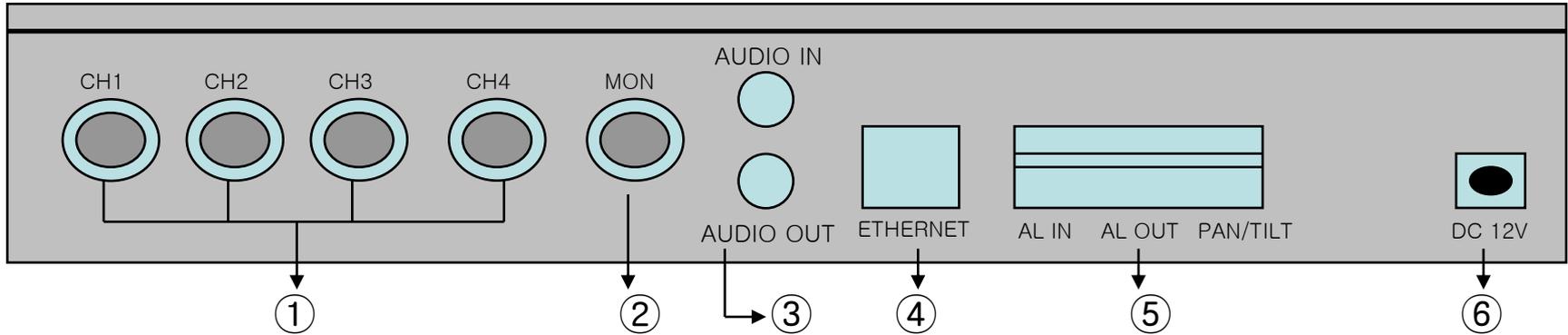
2.6. Front panel and buttons



NO	Items	Details
①	Status LED	<ul style="list-style-type: none"> - POWER : DVR is on, then LED is on. - HDD : It lights when HDD's are read or recorded. - REC : It gets on when images are recorded. - PLAY BACK : It lights when recorded data are played back. - NETWORK : DVR is accessed by client program, then it gets on. - BACKUP : If backup is being done, it gets on.
②	QUAD	- You can use this when you want to view 4 cameras at the same time.
③	PIP	- You can view a few smaller screen in a main screen.
④	TRIPLEX	- It shows live images, playback images on one screen.
⑤	AUTO	- It shows one channel by one channel from #1 channel through #4 channel. It rotates automatically.
⑥	CH1, CH2, CH3, CH4	- You can view one channel in a full screen.

NO	Items	Details
⑦	ZOOM	- You can zoom the current screen by 2x2.
⑧	FREEZE	- You can view the paused screen.
⑨	SEARCH	- RECORD START-STOP search You can start or stop the recorded data. - EVENT search You can search the Event data which is motion and/or sensor(alarm). - TIME search You can designate your target time.
⑩	PLAY-BACK	- You can view the recorded data from the hard drive of the DVR. If you press this button without any other action, the latest recorded data will be played back.
⑪	REC	- You can record images manually with this button. If you press it one more time, recording will stop.
⑫	SET/EXIT	- For Setting of DVR - To move upper menu or main menu
⑬	BACKUP	- This is for USB thumb drive backup.
⑭	ARROW KEYS	- For menu setting or moving to other setting.
⑮	USB PORT	- USB thumb drive

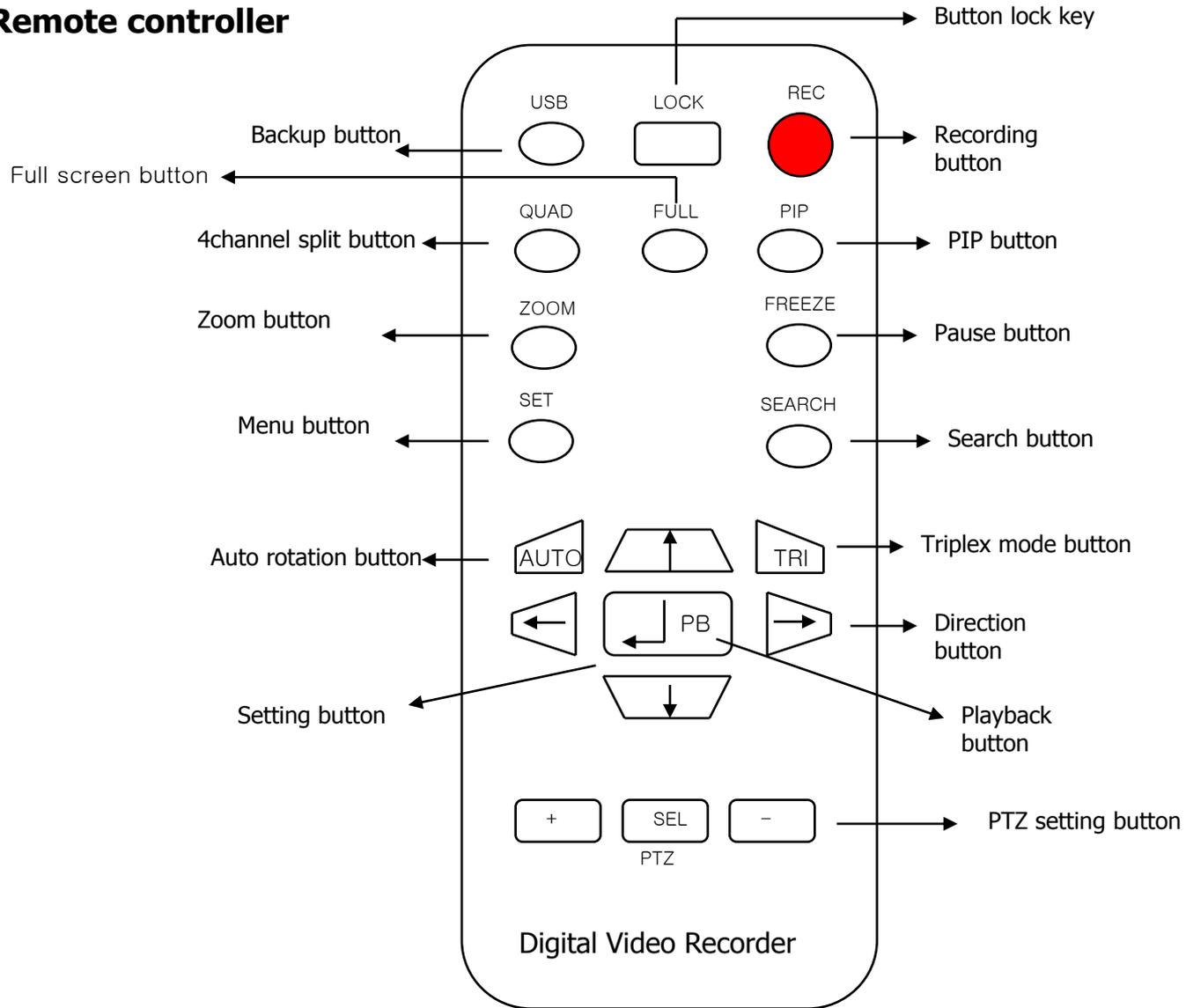
2.7. Back panel connection



NO	Items	Details
①	VIDEO INPUT (1~4 CHANNEL)	4 composite video inputs with BNC jack.
②	MONITOR	For monitor, CCTV monitor
③	AUDIO INPUT / OUTPUT	Supports line level audio in/out which uses RCA mono type connector. You need external amplifier to connect to mic.
④	ETHERNET	RJ-45, 10/100Mbps

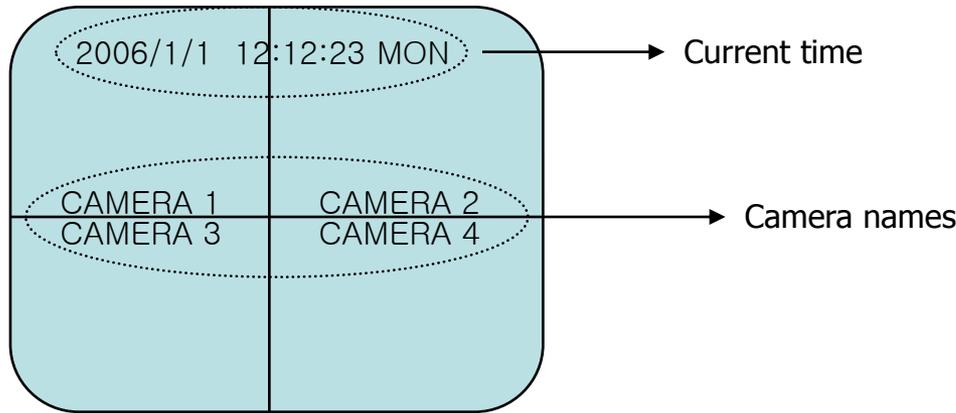
NO	Items	Details
⑤	ALARM/PTZ	<ul style="list-style-type: none">- Alarm input (AL IN) Supports 4 alarm inputs.- Alarm output (AL OUT) Supports 1 output and out internal buzzer. If alarm goes off, you can press 'ENTER' on the front panel to reset the alarm status. Maximum volt is +5V.
⑥	POWER	External DC power supply (12V/5A)

2.8. Remote controller

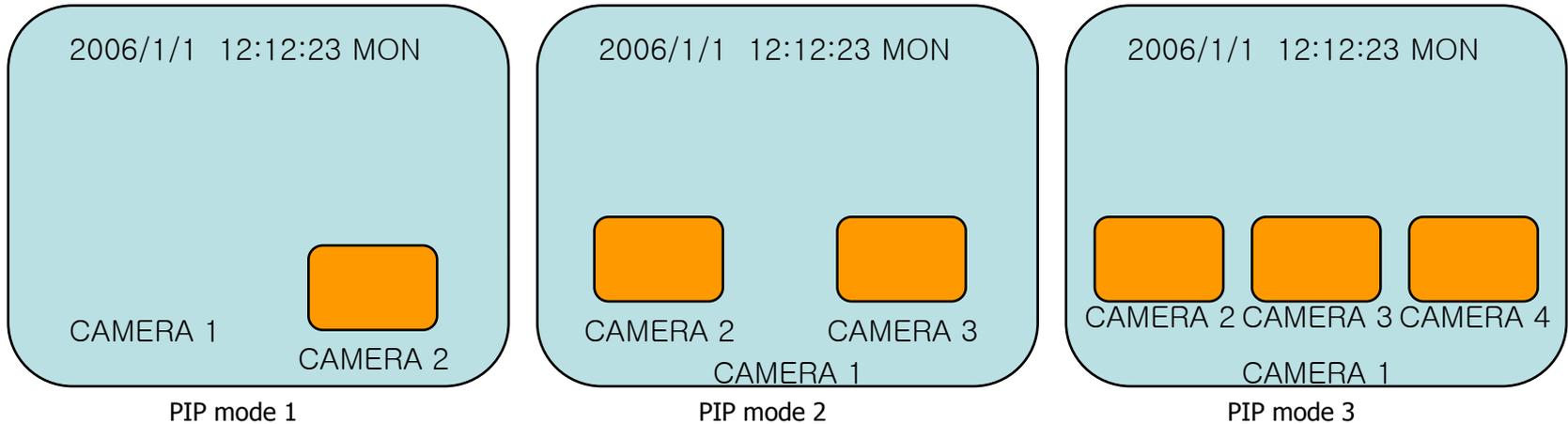


3. Various display mod

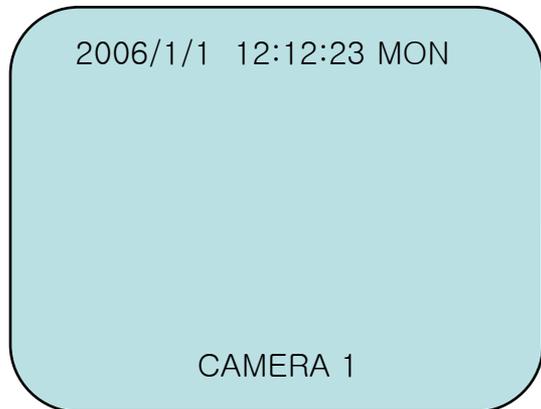
3.1. QUAD mode



3.2. PIP mode

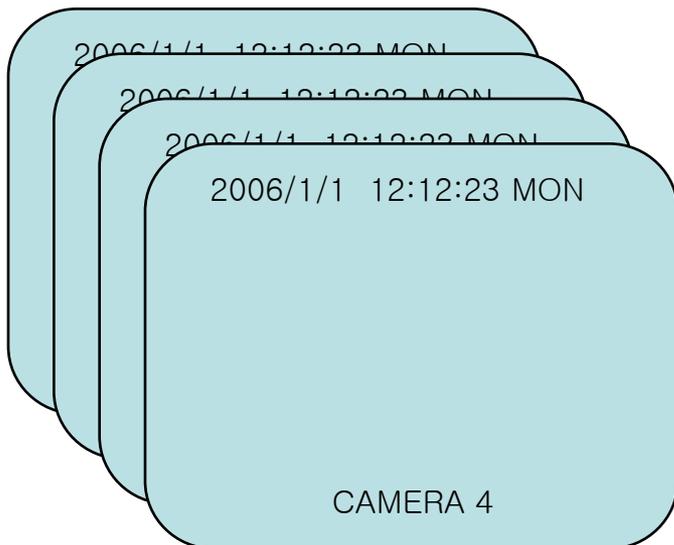


3.3. FULL mode



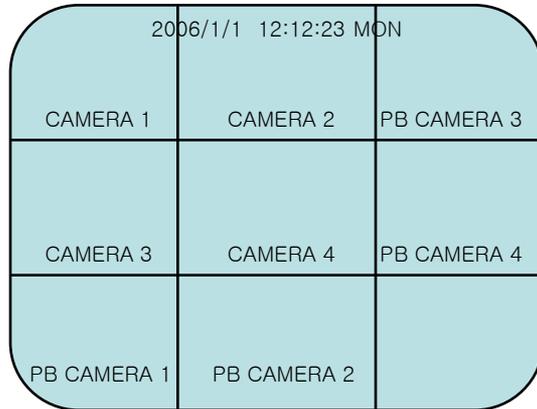
If you press FULL mode for the proper channel, you can view it on a full screen. It does not affect recording.

3.4. AUTO mode



If you press AUTO button, the channels rotate channel by channel as a full screen. It does not affect recording.

3.5. TRIPLEX mode



Live and playback images are displayed together on a screen.

4. DVR installation and operation

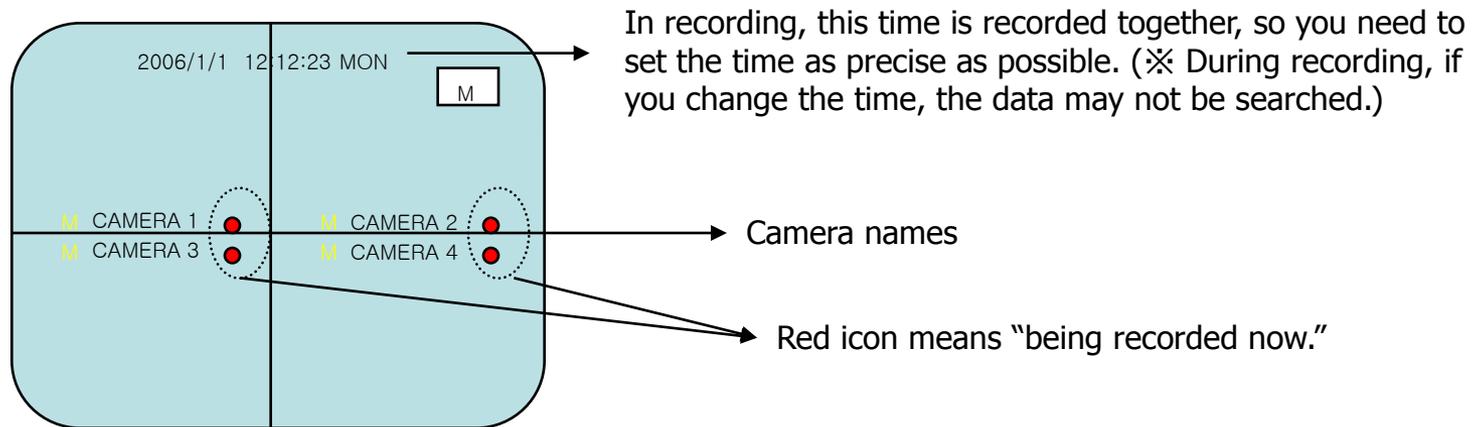
Installation process

1. Open the package and check the items and take the DVR out.
2. Connect the camera cables to the ports on the back panel.
3. Connect the monitor cable to the proper port on the back panel.
4. Connect other devices such as network, PTZ, audio etc.
5. Connect the supplied DC 12V power adapter (※ Make sure to use the supplied power adapter.)
6. Power is automatically provided, and DVR system gets defaulted and it turns into live mode in a couple of seconds.

System beginning

1. Images are being displayed and the system is being defaulted. During this process graph is being displayed.
2. During default process, DVR checks the system and the hard drive, and gets defaulted.
3. System default takes about 10 seconds.
4. You can change the setting if you want even during system operation or recording.

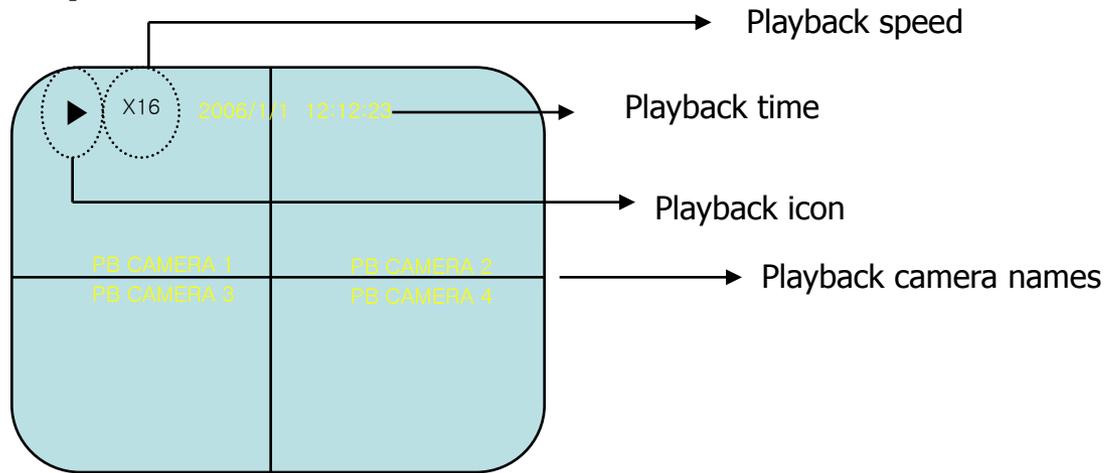
4.1. Recording



When is recording done?

1. When you press REC button, recording begins. When you press one more time, it stops.
2. When Motion recording is set 'ON' and there is motion detected.
3. When alarm is input.
4. When recording is triggered by Network client software.

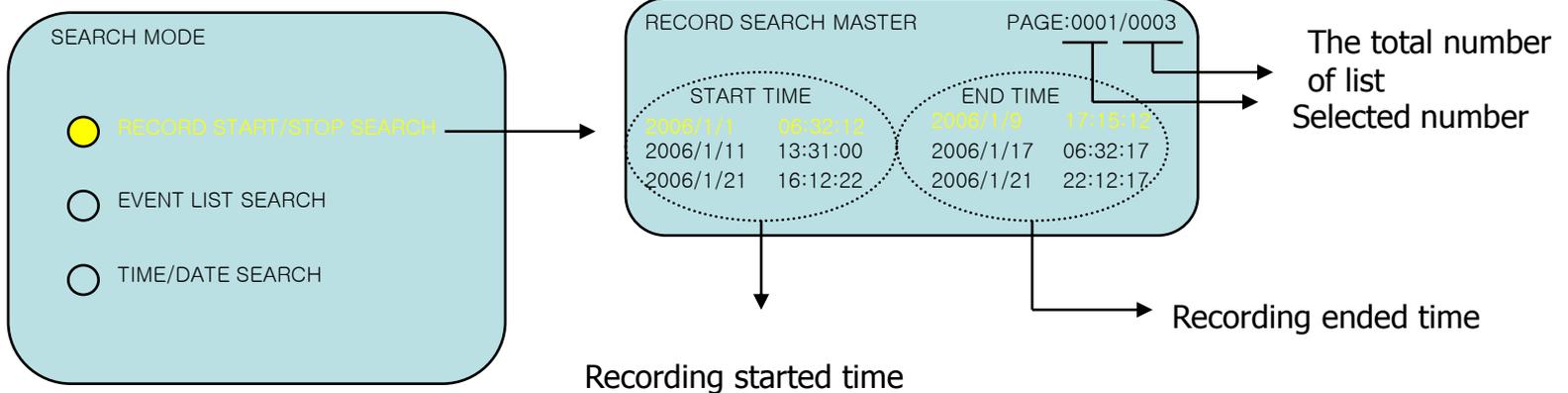
4.2. Playback



During playback, you can view various modes of FULL/QUAD/PIP etc.

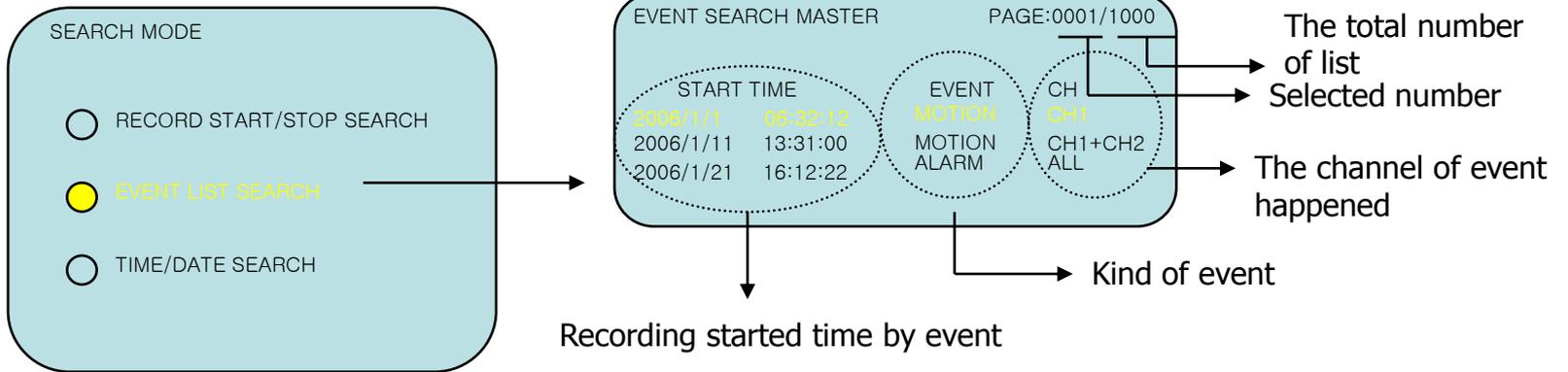
4.3. Searching

Manual recording searching



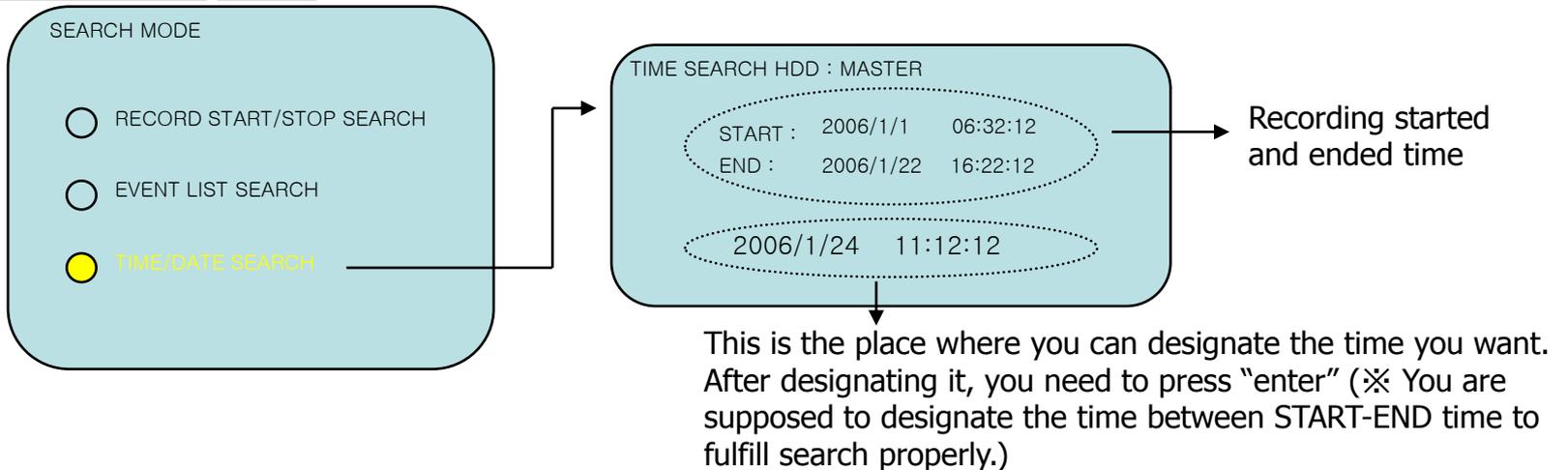
Event recording searching

Search by motion/alarm/network

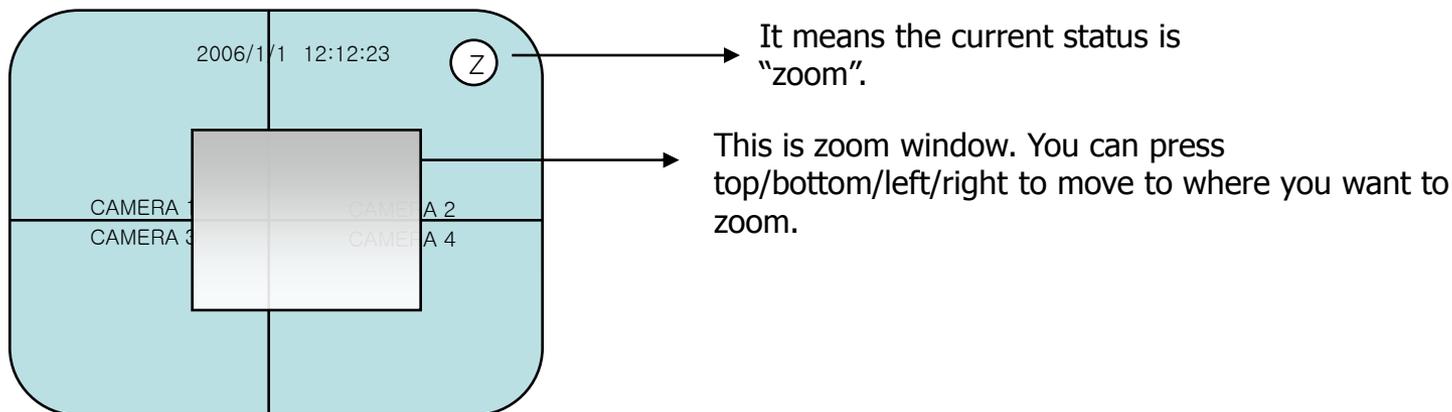


Time/date searching

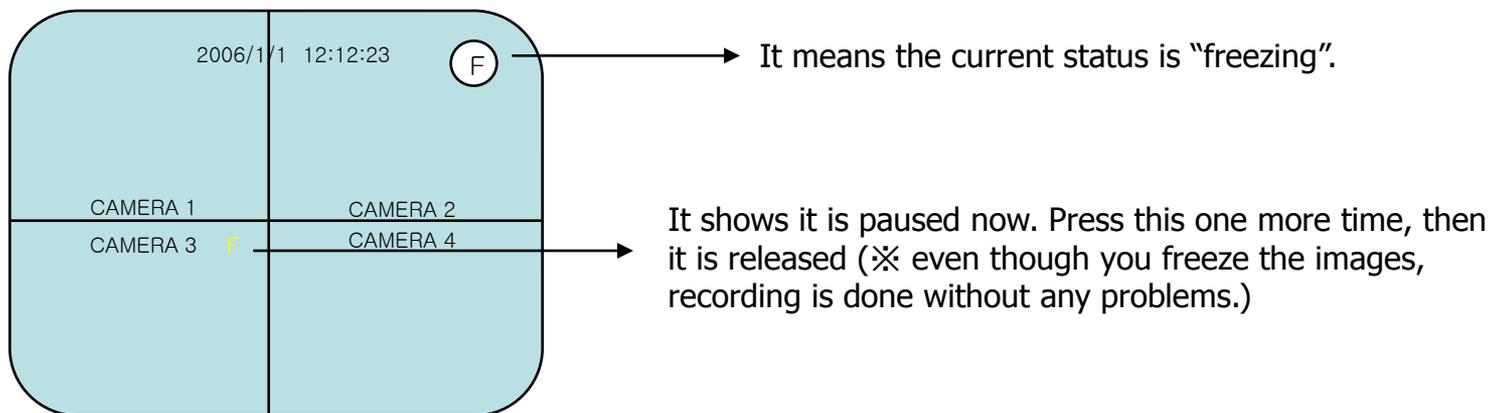
Search by time / date you want.



4.4. Zooming

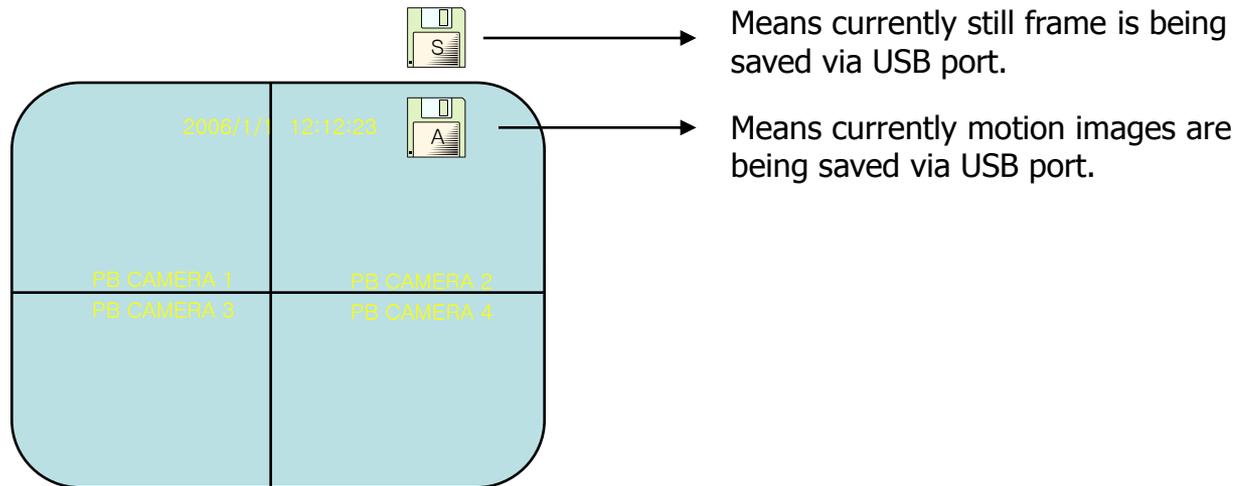


4.5. Freezing



4.6. USB backup

USB backup can be done only during playback. During playback, find the target images and press BACKUP button. Then DVR saves that data to USB devices. In addition, if you press the button very quickly, DVR will save that frame. If you press the button for 3 seconds, DVR will save the images. You can press the button one more time to quit. During this process, USB icon is shown on the screen.



※ During backup process, if you pull the thumb drive out, system error may be raised.

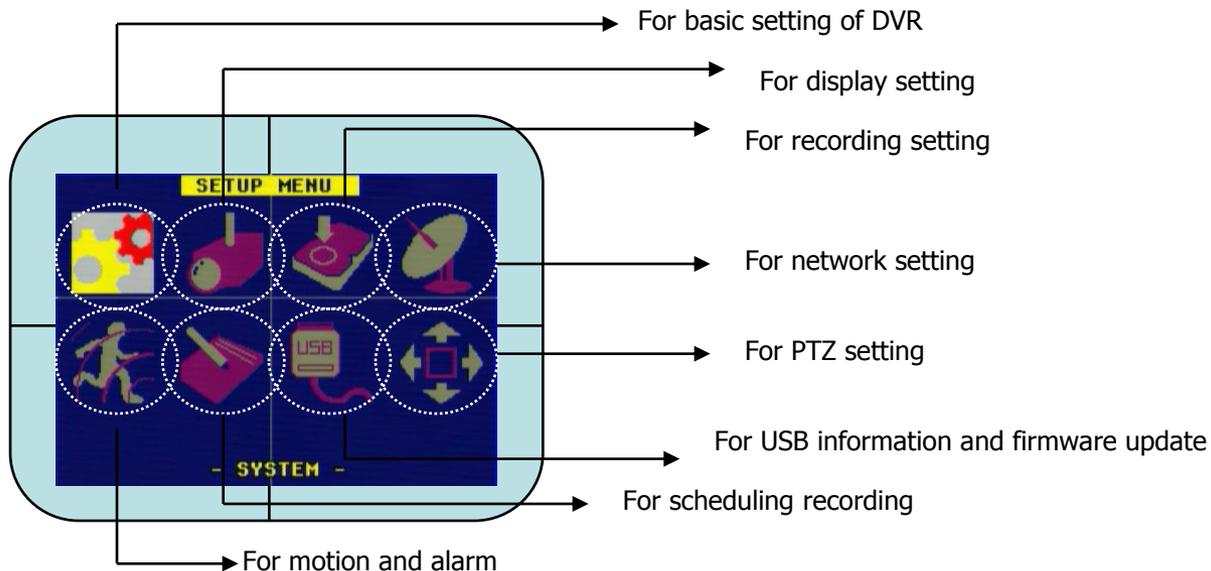
4.7. System information

Every information of DVR system is shown on screen to understand it at a glance. Hard drive size, model, recording and playback position, network setting, recording setting, software version etc.

5. Menu

5.1. Setup menu

On live monitoring mode, if you press MENU/EXIT button, you can see the main menu on the left.

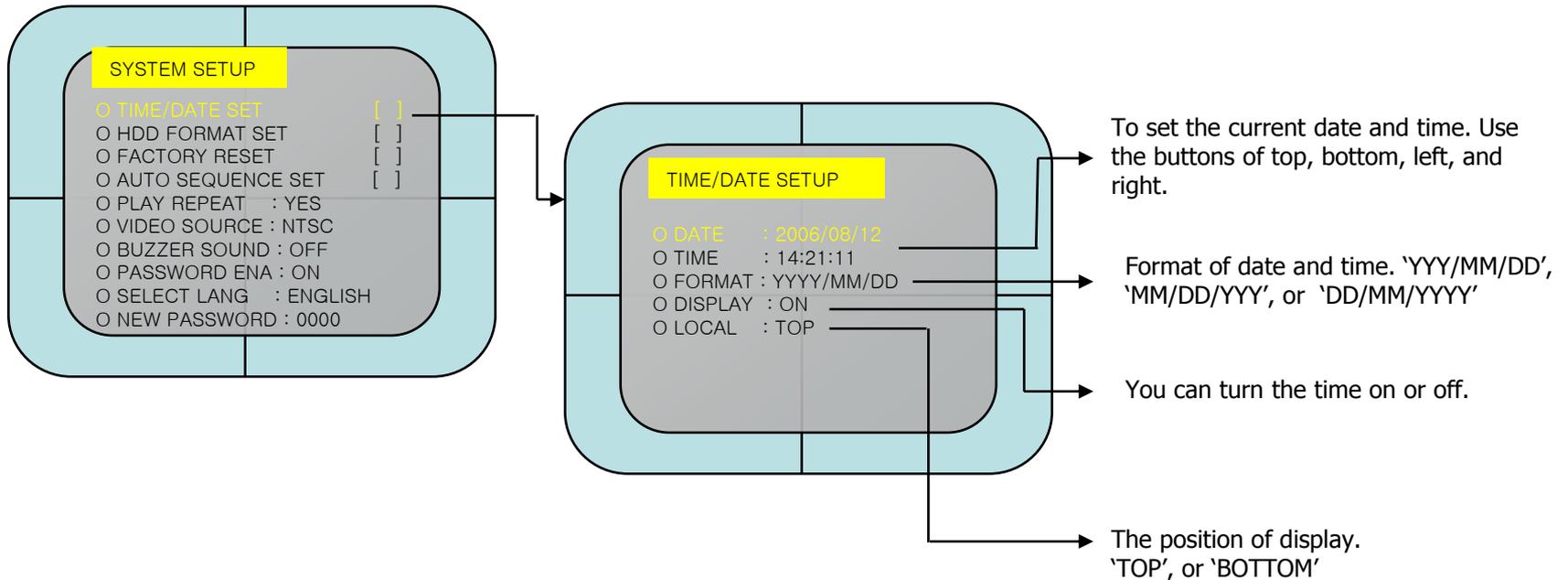


※ Under the main menu, if you press MENU/EXIT button, you can get out to SETUP menu.

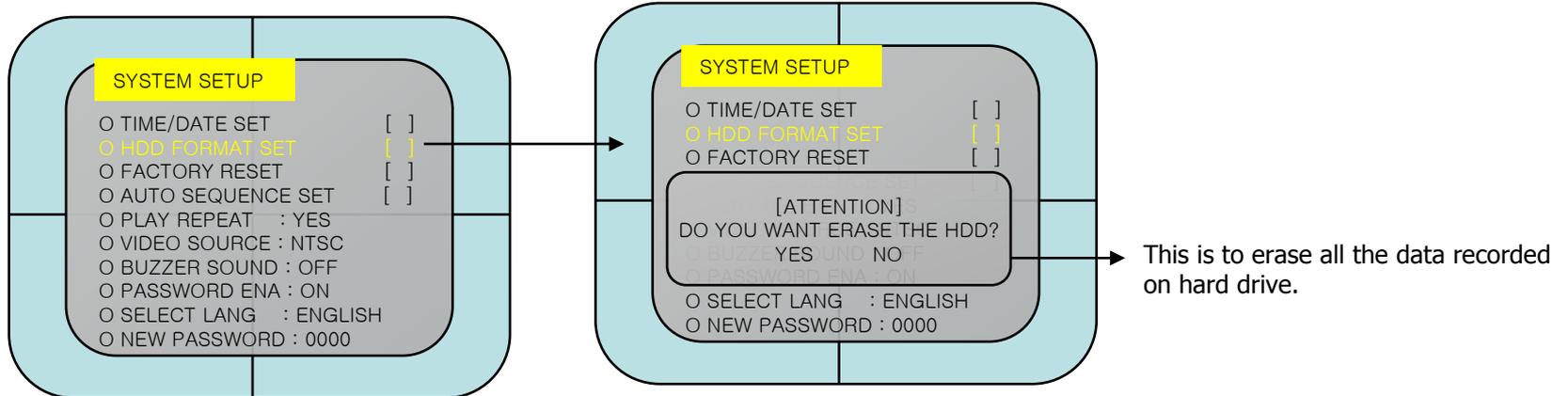
5.2. System menu

Time/date, hard drive formatting, auto rotation, system default, video signal selection, buzzer setting, password setting, language setting.

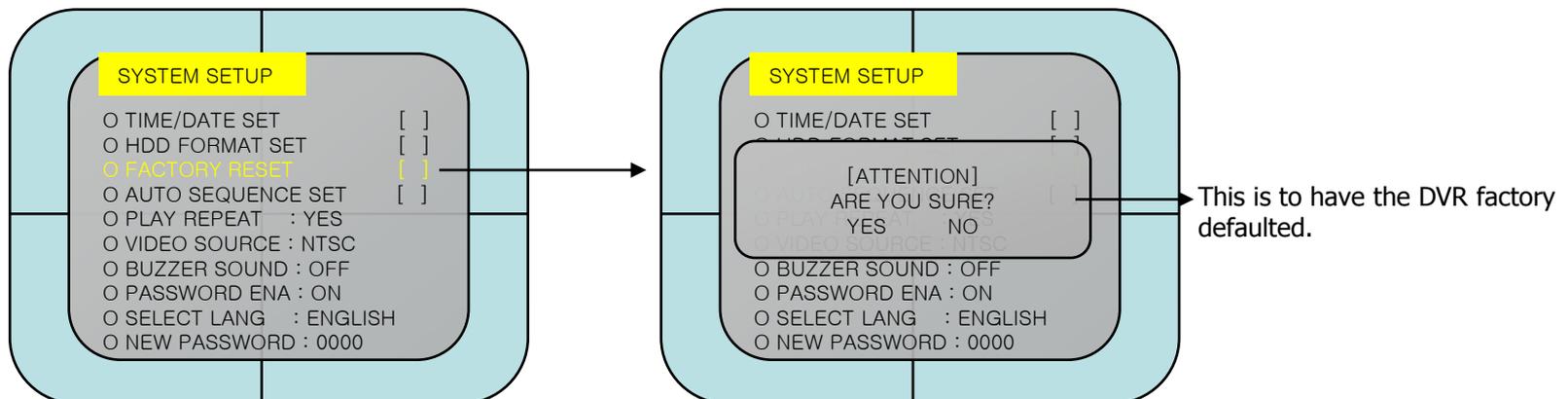
Time/date



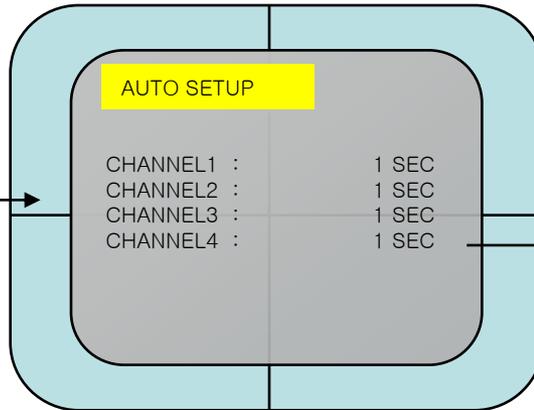
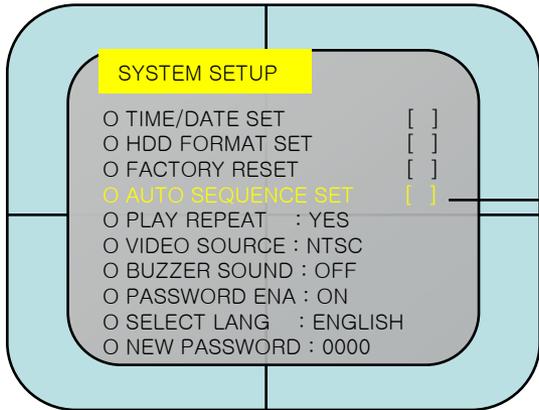
Hard drive format



Factory default

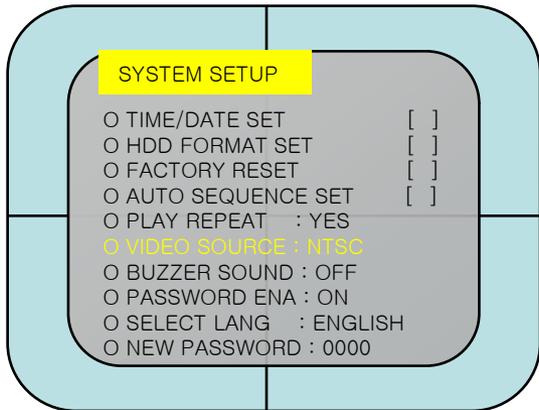


Auto rotation

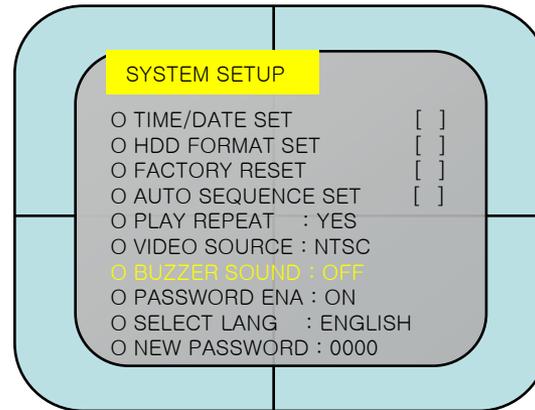


Assign the proper time each to the channel. Each channel will be shown on screen for that time.

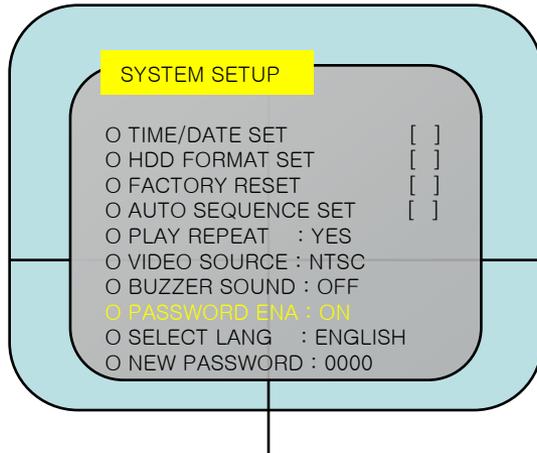
Video signal



Buzzer

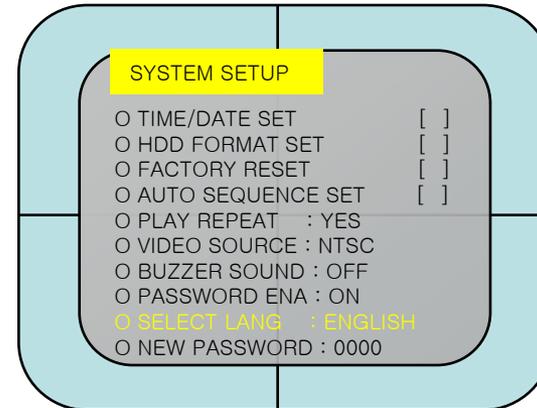


Password setting



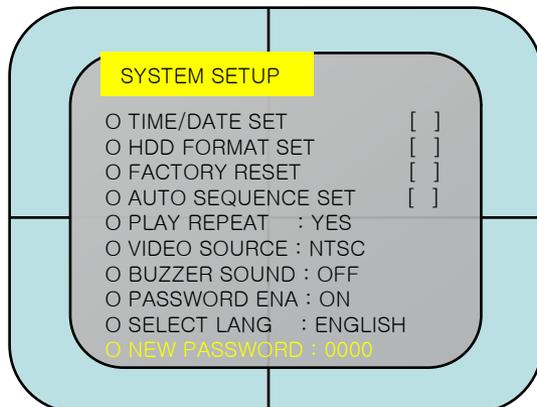
Language selection

ENGLISH/KOREAN

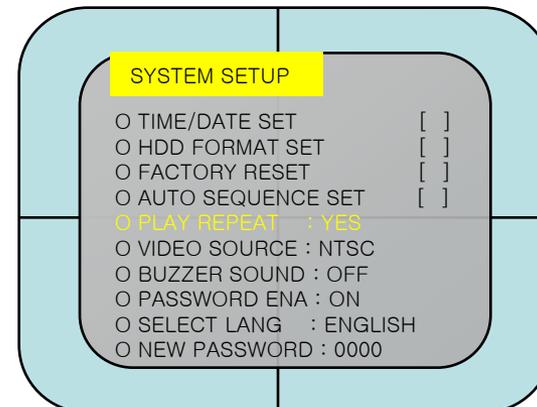


Password inserting

You can use top / bottom button to select the numbers.



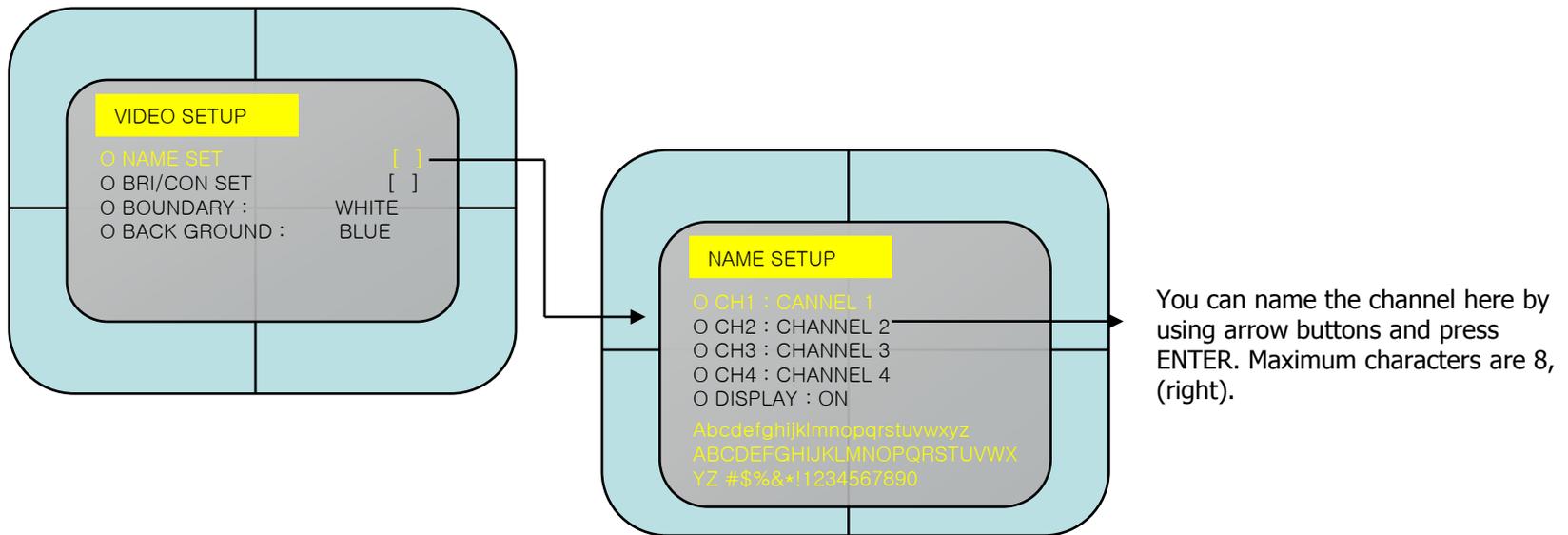
Playback repeat



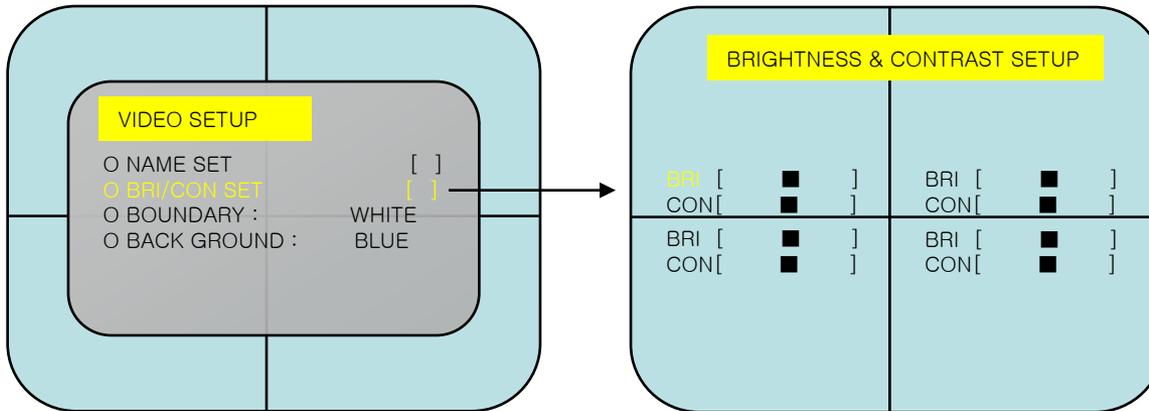
5.3. Video menu

This is to set the basic environmental of live monitoring mode such as channel names, brightness, contrast etc. In addition, boarder lines of channels, color of no video channel is set. If you select VIDEO SETUP, you can see the menu on the right side.

Channel names

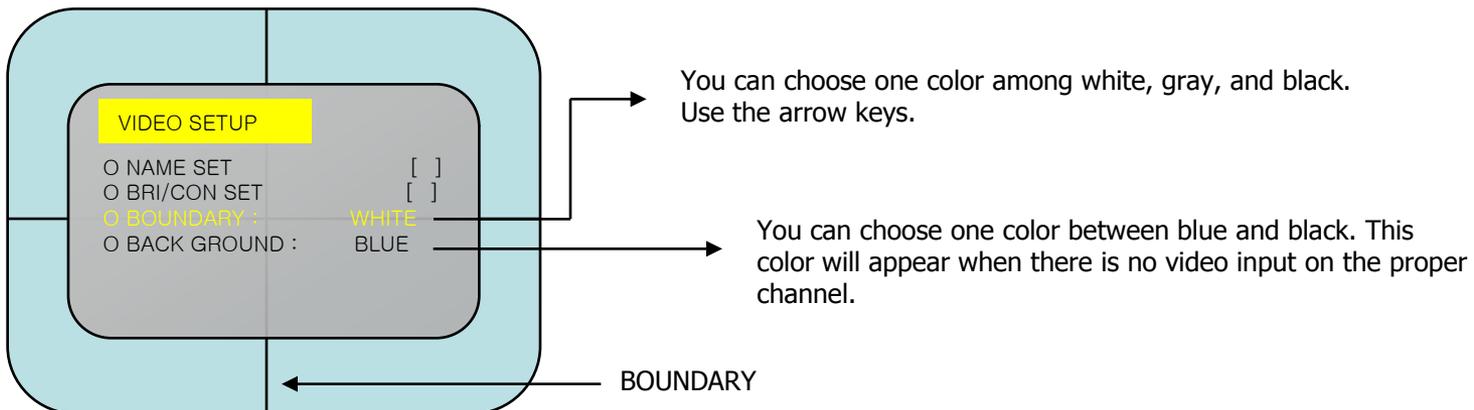


Brightness/Contrast



You can use arrow buttons to adjust brightness and contrast.

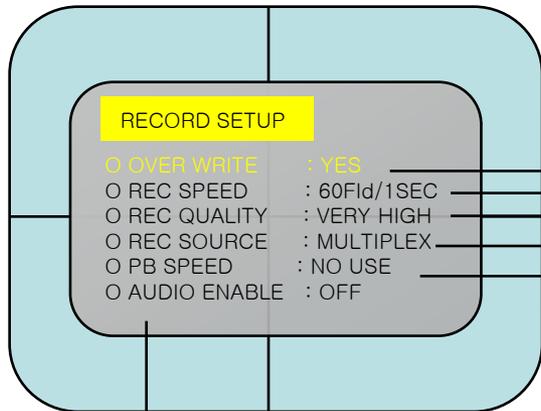
Color of boarder lines (boundary) and back ground



5.4. Recording menu

Recording setup

You can use arrow keys to adjust the setting.



This DVR records 1 channel audio input.

Resolution selection. It supports 'MULTIPLEX', 'CIF'. If you want 'REC SPEED' double time, then set as 'CIF,' if you want 'REC SPEED' as it is, then set as 'MULTIPLEX'. In other words, if you want to record 120ips, then set as 'CIF'.

To control playback speed regardless of the speed of recorded data.

If you press yes, DVR will over write the data on hard drive. The oldest data will be erased first.

Normally '15Fld/1SEC' lasts about one week with 80GB.

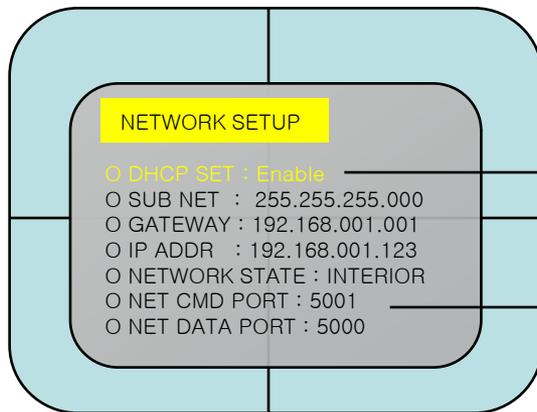
Recorded data quality selection such as 'VERY LOW', 'LOW', 'HIGH', and 'VERY HIGH'. 'VERY HIGH' is the best quality, but consumes the hard drive most. Normally people set as 'HIGH'. If you want more duration of recording, then set as 'LOW' or 'VERY LOW'.

5.5. Network menu

This is menu to set network environmental. You need to set the network environment. first if you need to control various function of the DVR and do remote monitoring and remote management.

Network setting

You can use arrow buttons to adjust.



This DVR supports DHCP and DDNS. When you use static IP, you need to set as 'Disable' and when you use dynamic IP, you need to set as 'Enable'. When you use DHCP/DDNS, every environment is set automatically. In addition, in case of DHCP set, when you access remotely, even though the IP is changed, you can always access to the DVR automatically through DDNS server.

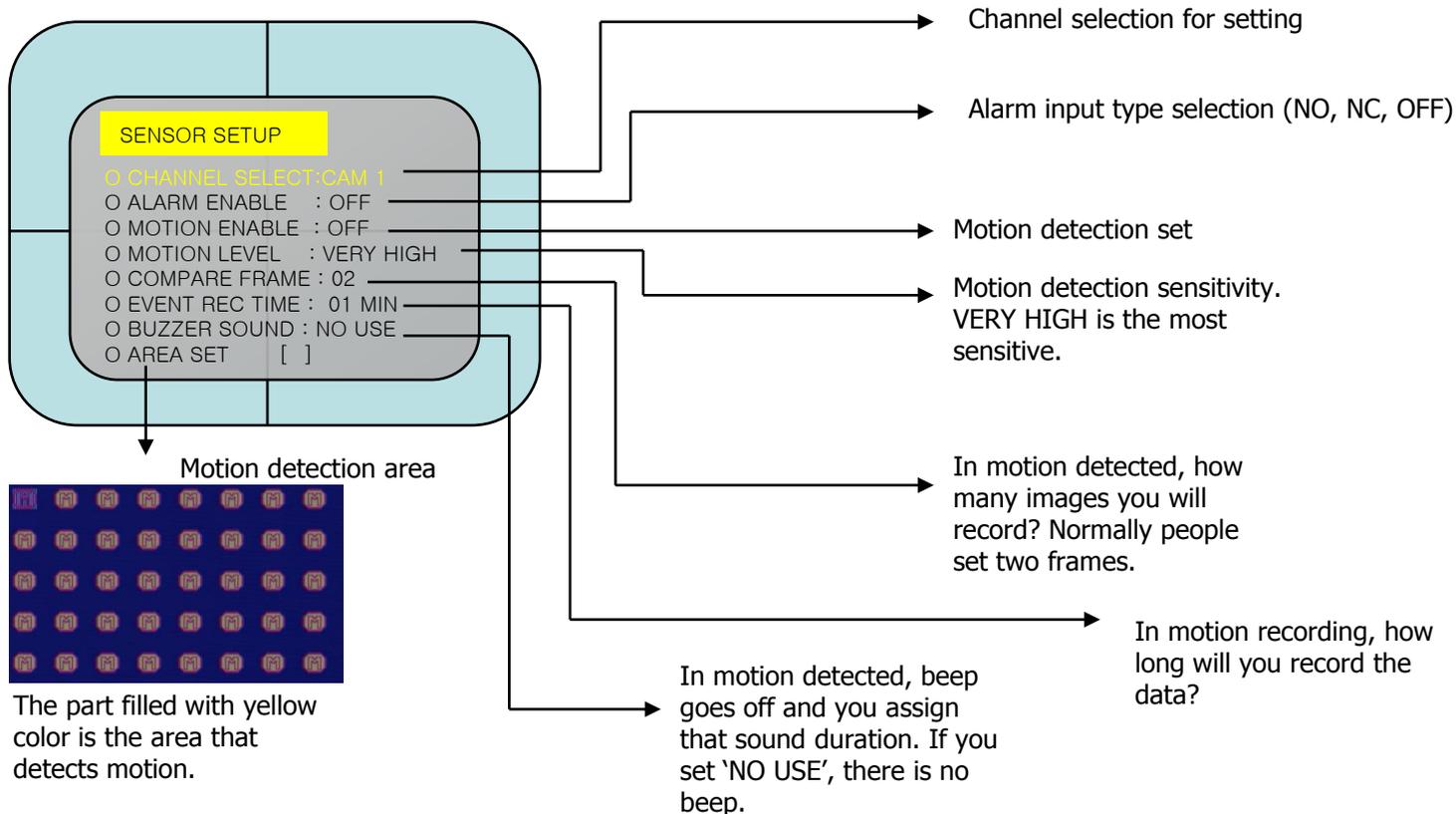
This DVR uses the port of 5000 and 5001.

5.6. Sensor / Motion menu

This is to set sensor input, alarm, and motion setting. This DVR supports 4channel sensor inputs, 1 channel alarm output (relay output). And it can set motion recording on each channel. You can record the images as it is set.

Sensor / motion setting

You can use arrow buttons to adjust.

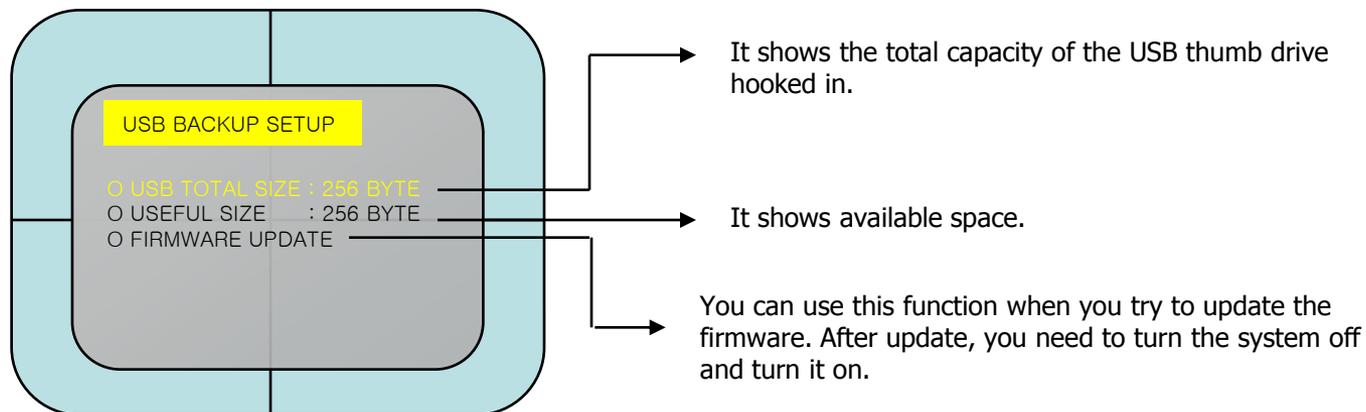


5.7. Backup menu

This is for USB backup. This DVR supports a variety of USB thumb drives. You can also use USB drive for firmware upgrade.

USB backup setting

You can use arrow buttons to adjust.

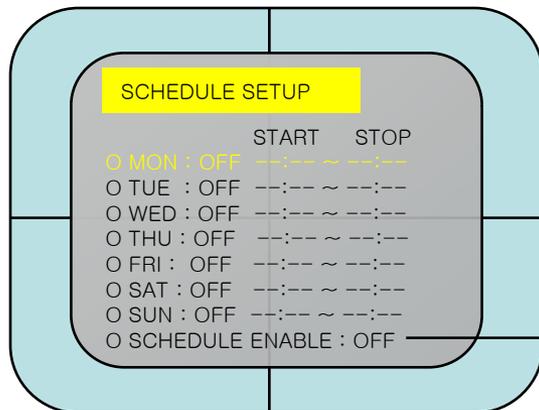


5.8. Schedule recording menu

You can schedule the recording for a week.

Schedule recording setting

You can use arrow buttons to select day / time and press 'ENTER' to finish. After that, you can do other days.



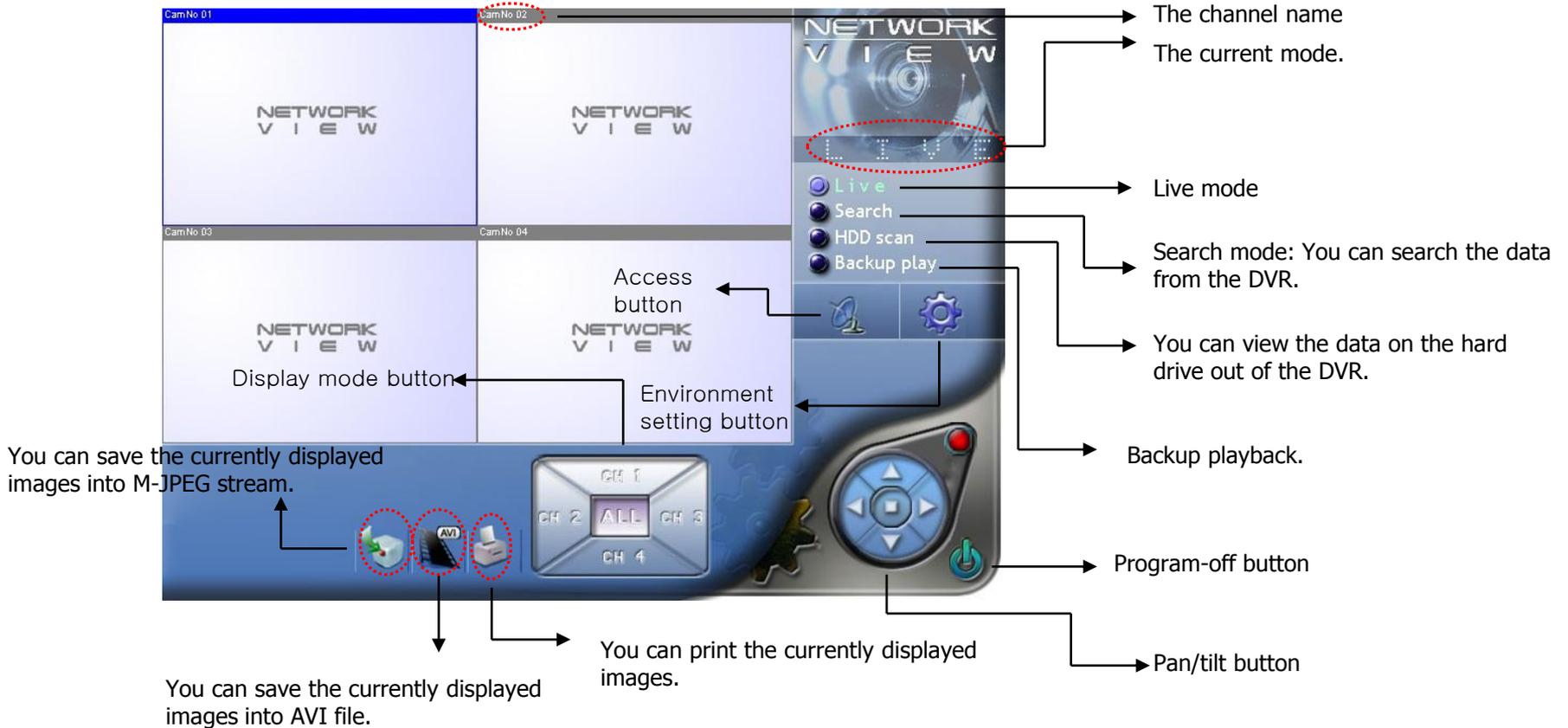
If you use this function, you have to turn it 'ON' for 'SCHEDULE ENABLE'.

6. Network client software

6.1. How to install and use

- 1> You can save the software provided on the enveloped CD on your computer or just execute it.

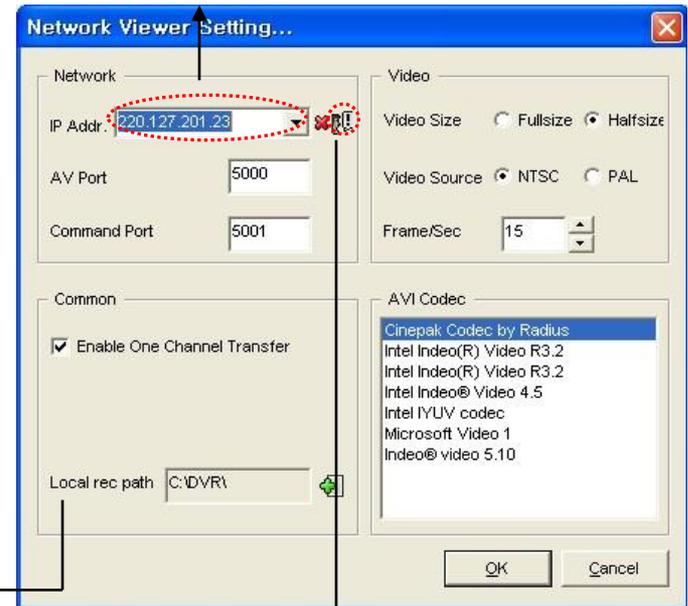
Live remote monitoring



System setting



- ① Press this button.
- ② Insert the IP when you use static IP.



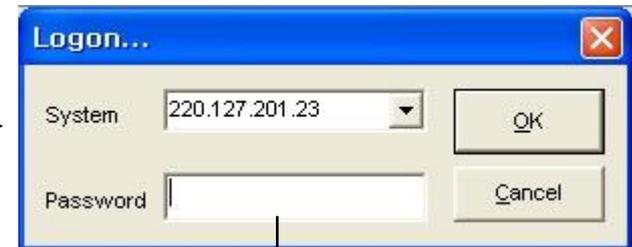
This is the route where you save M-JPEG stream or AVI file.

- ③ Click this when you use dynamic IP (ADSL, VDSL etc.)



- ④ DVR's unique MAC address. It's shown on the manual.

Access



Insert the password to try to access.
Default is 0000.

You can start recording of the DVR or stop
with using this button.

Remote search / playback

Remote search / playback is the function that search and playback the data recorded on the DVR remotely via client software.



Index	Start time	End time	LBA
0	06/08/21 18:32:25	06/08/21 18:32:28	0:748906...
1	06/08/21 18:36:21	06/08/21 18:36:29	0:001401...
2	06/08/21 20:19:13	1729222046 245:176:103	0:001401...
3	06/08/21 22:14:15	184250203 180:207:235	0:001401...
4	06/08/22 00:09:53	241230254 233:181:194	0:001401...
5	06/08/22 02:43:19	250243206 254:243:251	0:001401...
6	06/08/22 06:01:45	237227126 229:164:246	0:001401...
7	06/08/22 07:43:41	93249241 81:190:251	0:001401...
8	06/08/22 08:33:15	68235176 255:229:39	0:001401...
9	06/08/22 11:15:04	213918611 224:232:245	0:001401...
10	06/08/22 13:00:03	2079171228 174:100:235	0:001401...
11	06/08/22 14:32:35	25324444 167:121:255	0:001401...
12	06/08/22 16:15:52	247251249 36:185:91	0:001401...
13	06/08/22 18:05:33	224225239 254:233:239	0:001401...
14	06/08/22 19:55:51	221244103 17:108:231	0:001401...
15	06/08/22 21:50:08	188912189 183:254:251	0:001401...
16	06/08/22 23:27:58	191158165 116:245:217	0:001401...
17	06/08/23 01:22:20	25321921 244:207:245	0:001401...
18	06/08/23 01:59:28	06/08/23 05:50:48	0:001401...
19	06/08/23 05:50:48	06/08/23 07:52:21	0:001401...
20	06/08/23 07:52:21	06/08/23 10:00:25	0:001401...
21	06/08/23 10:00:25	06/08/23 11:52:35	0:001401...
22	06/08/23 11:52:35	06/08/23 13:56:57	0:001401...
23	06/08/23 13:56:57	06/08/23 15:04:44	0:001401...
24	06/08/23 16:00:59	225247188 14:236:200	0:001401...
25	06/08/23 18:13:48	161255232 124:201:232	0:001401...
26	06/08/23 20:17:30	252235183 239:94:239	0:001401...
27	06/08/23 22:28:07	126255272 308:238:238	0:001401...
28	06/08/24 10:11:45	06/08/24 11:21:52	0:6c967d...
29	06/08/24 11:21:52	06/08/24 13:18:15	0:001401...
30	06/08/24 13:18:15	06/08/24 14:28:12	0:001401...

If you select the list you want and double-click it, that recorded data will be played back.

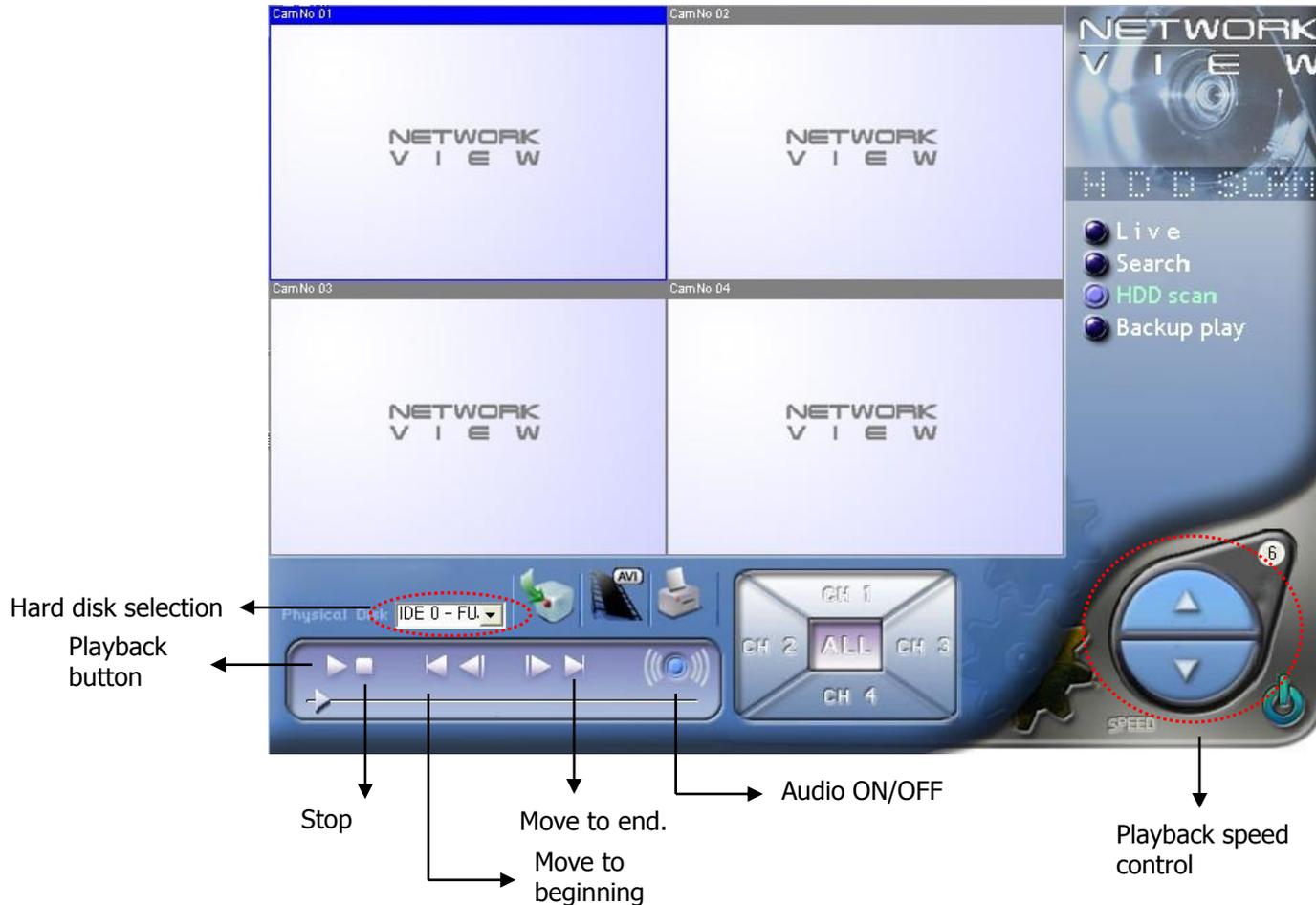
You can categorize the list between 'RECORD' and 'EVENT'.

You can select which hard drive you want to search. This DVR supports two hard drives, Master and Slave.

- ① Select the hard drive.
- ② Press 'REC' or 'EVENT' button to find the list you want and double-click it to play back.

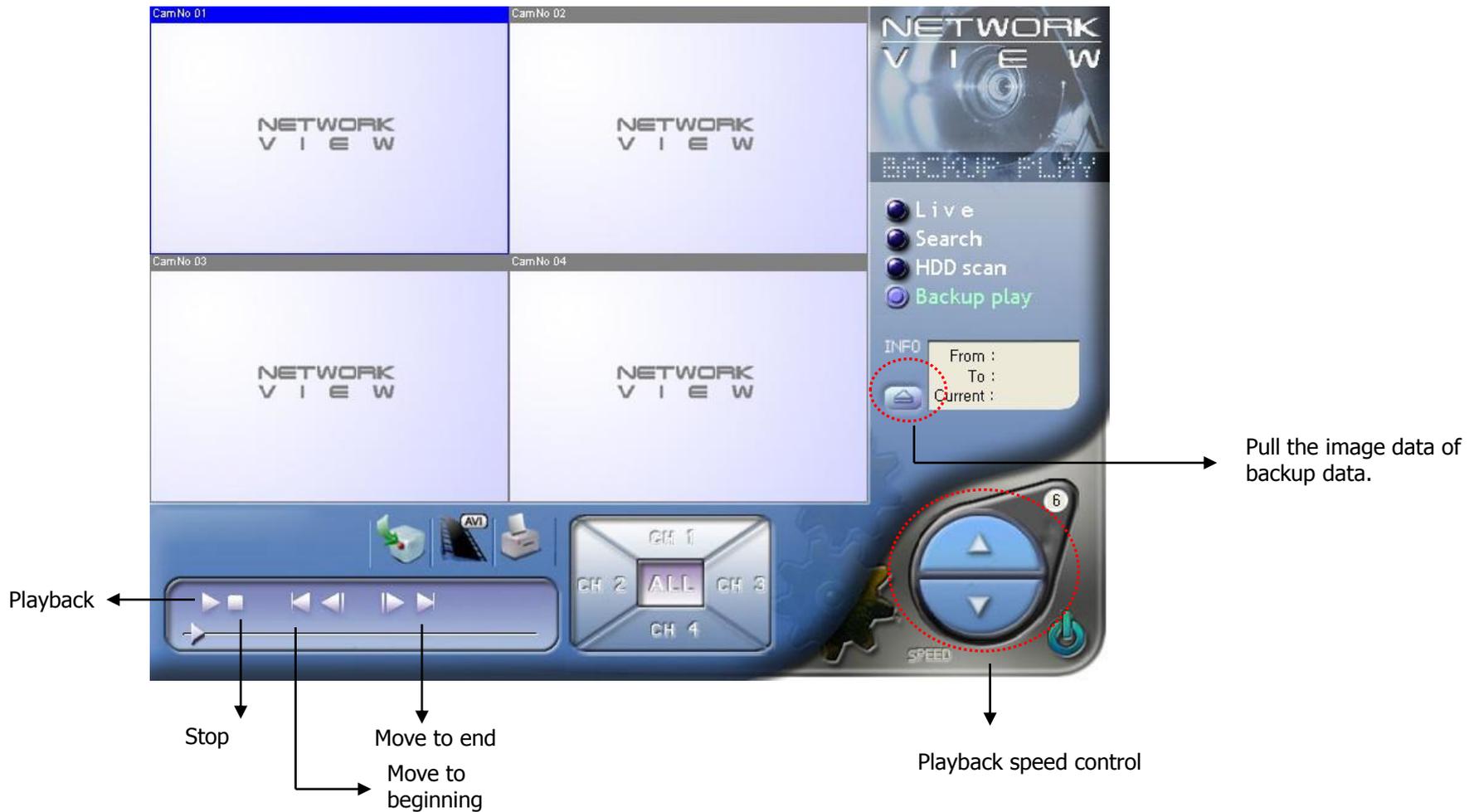
HDD scan playback

You can connect the hard drive out of the DVR system to your computer directly to play back the recorded data.



Backup playback

Backup playback is the function that plays back on your PC the backup data on USB device and other storage device. You can connect the backup device to the PC to play back.



7. Router

7.1. Virtual server

Router may be various from one to one by various manufacturers. On this manual, the target model is Linksys WRT54G.

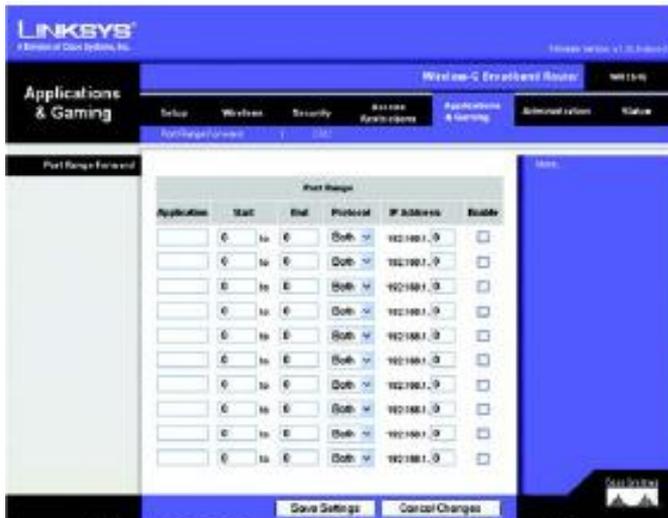


Figure 6-28: Applications and Gaming Tab - Port Range Forward

On router's virtual server item, assign TCP 5000 and TCP 5001 as DVR IP.
 (※ Some routers use the terms of 'Port Forwarding' instead of Virtual server.)

7.2. Router IP check

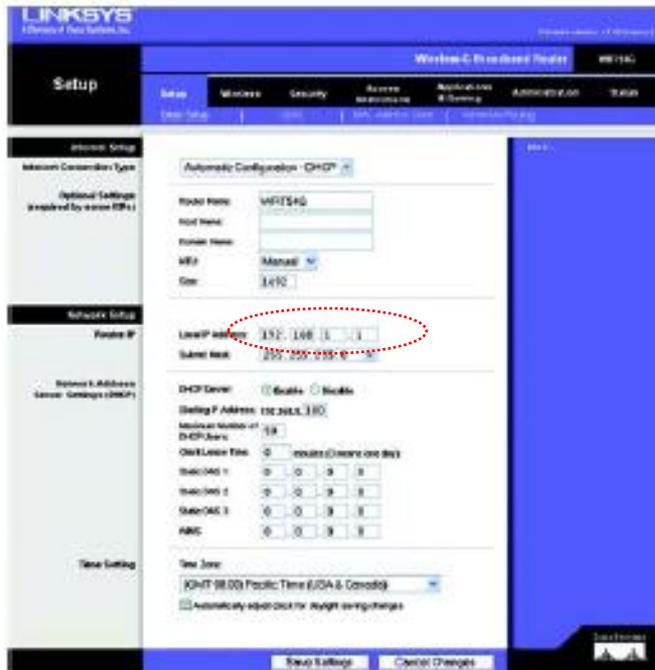
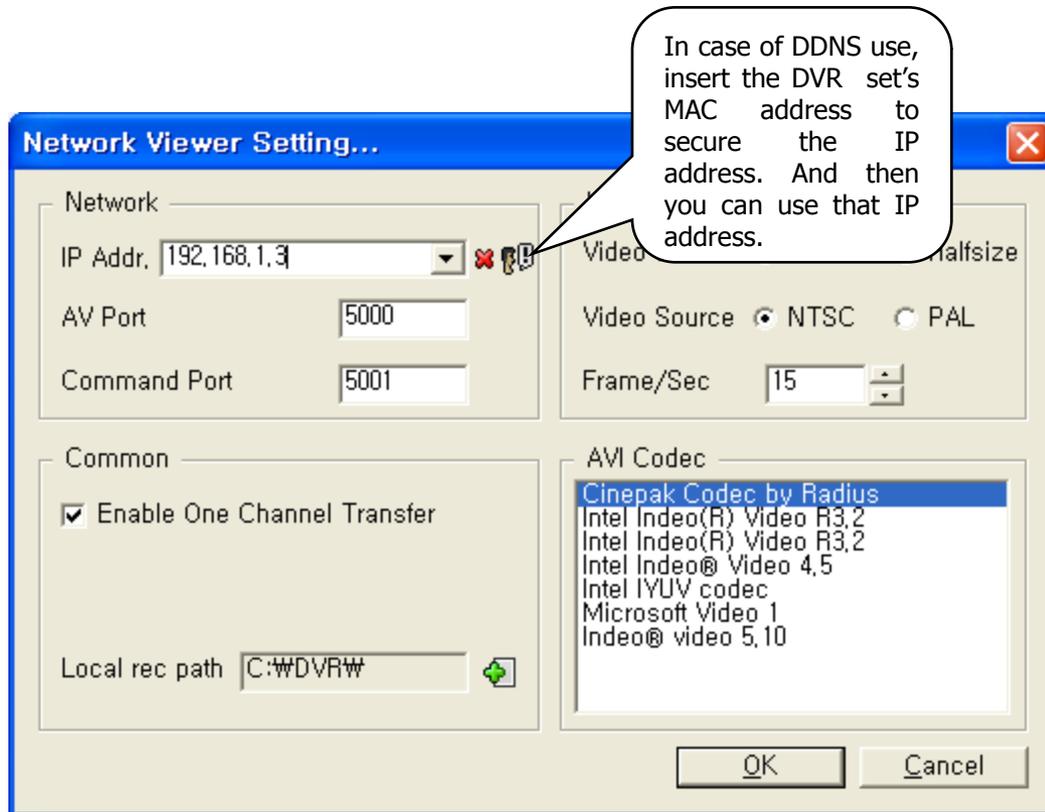


Figure 6-2: Setup Tab - Basic Setup

Router's IP address is the internet IP. The above example shows it 192.168.1.1

Note: The vendor of this DVR can only provide guidance on how to configure your router. Always call your ISP or the router's technical support for complete information how to setup your local network or Internet service.

7.3. Access



Insert the router's IP address and press OK.

App. A. Troubleshooting

Symptom	Checks
The system does not get on.	- Please check the external power adapter status.
Can not view the live images.	- Please check the connection of camera video cable. - Please check the connection of monitor video cable. - Please check the camera power.
Live images are too bright.	- Please check the input camera status. - Please check the camera's brightness.
DVR stops working during recording.	- If the hard drives are full, please set the recording as overwriting.

App. B. Product specification

Video	
Video signal	NTSC/PAL
Video input	Composite : 4 channels, 1 Vp-p, 75 Ohms
Video output	Composite : 1 channel, 1 Vp-p 75 Ohms
Resolution	704 x 240(NTSC), 704 x 288(PAL)
Playback / recording speed	120ips(NTSC)

Audio input / output	
Audio input	1 Line Input
Audio output	1 Line Output

Connector	
Video input	Composite : 4 BNC
Video output	Composite : 2 BNC
Audio input	1 RCA connector
Audio output	1 RCA connector

Storage	
Main storage	Hard drives x 2pcs(Master & slave)
Backup	Via USB port

Generals	
Unit dimension (W x D x H)	280mm x 250mm x 45mm
Unit weight	2.5Kg
Packing weight	3.0Kg
Packing dimension (W x D x H)	340mm x 260mm x 70mm
Operation temperature	5°C ~ 40°C
Operation humidity	0% ~ 90%
Power	DC 12V/5A Adaptor

The specification may be changed without any prior notice for better quality.

Product Warranty

Product	4 channel DVR
Model	DVRJ4
Purchase Invoice #/Date	
Warranty period	One year after purchase

Customer	Names		E-MAIL	
	Address			
	Contact			
Vendor	Name			
	Installer			
	Contact			

1. This product has been qualified by severe quality control and process.
2. Defective units with normal operation will be replaced with brand new unit or will be repaired for free at the discretion of the DVR vendor during the warranty period.
3. You need to get a RMA number from Optiview Technical Support Group for free warranty repair works.
4. Some charges will be applied for the cases below even though it's within warranty period.
 - defective due to users' fault
 - defective due to fire, natural forces like earthquake, flood, thunderbolt, etc.
 - if you don't have this paper work (Product warranty).
 - After warranty period.