Stand-alone Type

User's Manual

4/8/16CH Real-time Consumer DVR

DVR

CAUTION!

RISK OF ELECTRIC SHOCK, PLEASE DO NOT REMOVE COVER WHEN POWER CONNECTED. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING

TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

NOTE: This equipment has been tested and found to comply with the limits for a Class "A" digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

FCC Caution: To assure continued compliance, use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This Class A digital apparatus meets all the requirements of the FCC Regulations.

CE

LIMITATION OF LIABILITY

- This users' manual is supplied 'as is', with no warranties, be it expressed or implied, including, but not limited to, the implied warranties of merchantability, suitability for any exact purpose, or non-infringement of any third party's rights.

- This publication may include technical inaccuracies or typos. The manufacturer holds the right to introduce any changes to the information contained herein, for any purpose, including but not limited to, improvements of the publications and/or related to the product, at any time, without prior notice.

DISCLAIMER OF WARRANTY

The supplier shall not be liable to any party or any person, except for replacement or reasonable maintenance of this product, for the cases, included but not limited to the following:

- Any damage or loss, including but not limited to: direct/indirect, consequential, special, exemplary use arising out of or related to the product;

- Inappropriate use or negligence of the user in operation of the product, resulting in personal injury or any damage;

- Unauthorized disassembly, repair or modification of the product by the user;

- Any problems or consequential inconvenience, loss or damage, caused by connecting this product to devices of the third parties;

- Any claim or action for damages, brought by any photogenic subject, be it a person or organization, due to violation of privacy whereby the surveillance picture and/or saved data becomes public or is used for the purpose other than surveillance.

SAFETY INSTRUCTIONS

- Read these instructions and keep them in a safe place for future reference.
- Please refer all work related to the installation of this product to qualified service personnel or system installers.
- Do not operate the appliance beyond its specified temperature, humidity or power source ratings.
- Place the unit on a flat surface not prone to vibration or impact.
- Use the appliance at temperatures between $0^{o}C \sim +45^{o}C$ ($32^{o}F \sim 113^{o}F$) and humidity below 85%.
- The input power source for this appliance is between 100 ~ 240 VAC/50 ~ 60 Hz, 12V DC.
- Install the unit away from heat sources such as radiators, heat registers and stoves. Installation of the unit near consumer electronics devices, such as stereo receiver/amplifiers and televisions, is permitted as long as the air surrounding the terminal does not exceed the above mentioned temperature range.
- **Handle hard disk drives with care.**

  It is possible to damage hard drives if they are moved while their motors are still running. To allow the hard drive to spin down and park its heads, wait at least 10 seconds after disconnecting power before moving the unit.

  To avoid shock and vibration damage to the internal hard drive, do not move the unit while it is plugged in.

  Protect hard disk drives from static electricity.

  Do not stack hard disk drives or keep them upright.

  Do not use an electric or magnetic screwdriver to fix hard disk drives.
- Do not place the unit in an enclosed area where the cooling vents are blocked or impede the flow of air through the ventilation openings.
- Protect the power cord from being stepped on or pinched particularly at plugs and the points where they exit from the apparatus.
- Do not drop metallic parts through slots. This could permanently damage the appliance. Turn the power off immediately and contact qualified service personnel for service.
- Handle the appliance with care. Do not drop or shake, as this may damage the device.
- Do not expose the appliance to water or moisture, nor try to operate it in wet areas. Do not install the unit in an area where condensation occurs. Do not operate with wet hands. Take immediate action if the appliance becomes wet. Turn the power off and refer servicing to

qualified service personnel. Moisture may damage the appliance and also cause electric shock.

- Do not use strong or abrasive detergents when cleaning the appliance body. When the dirt is hard to remove, use a mild detergent and wipe gently.
- Do not overload outlets and extension cords as this may result in a risk of fire or electric shock.
- Please make a note of your settings and save them. This will help when you are required to change the system configuration, or when an unexpected failure or trouble occurs.
- Distributing, copying, disassembling, reverse compiling, reverse engineering, and also exporting in violation of export laws of the software provided with this product, is expressly prohibited.

CARING FOR THE ENVIRONMENT BY RECYCLING

When you see this symbol on a product, do not dispose of the product with residential or commercial waste.

Recycling your Electrical Equipment

Please do not dispose of this product with your residential or commercial waste. Some countries or regions, such as the European Union, have set up systems to collect and recycle electrical and electronic waste items. Contact your local authorities for information about practices established for your region

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Table of Contents

LIMITATION OF LIABILITY 2
DISCLAIMER OF WARRANTY 2
SAFETY INSTRUCTIONS 3
Table of Contents 5
1. YOUR DVR AT A GLANCE 9
2. Contents of the Box 10
2.1 Getting Started Check-List 10
3. Hardware 11
3.1 Front Panel (Please take actual machine model as quasi) 11
3.2 Back Panel (Please take actual machine model as quasi) 12
3.3 Remote Control 14
3.4 Hardware Installation 15
3.4.1 Basic Connections 15
3.4.2 Installing Hard Disk Drive 16
3.4.3 PTZ Control Connections 17
4. Getting Started and the Main Screen 17
4.1 The Main Screen 18
4.1.1 Displaying a Single Channel 18
4.1.2 Status Bar 19
4.1.3 Tool Bar 19
4.2 Tool Bar Menu Options 21
4.2.1 System Configuration 21
4.2.2 Manual Recording 21
4.2.3 Video Playback 22
4.2.4 Video Backup 25
4.2.5 Video Clip 26
4.2.6 PTZ Control 27
4.2.7 Screen View Modes 30
4.2.8 Screen Layout Adjustment 30
4.3 Channel Status Display 30
5. DVR Settings 31
5.1 Menu Tree 31
5.1.1 Menu Options 32
5.2 System Settings 32
5.2.1 Language 33
5.2.2 Video Standard 33
5.2.3 VGA Settings 33
5.2.4 Time Format 33
5.2.5 Time Setting 33
5.2.6 Password Setting 34
5.2.7 DST 34
5.2.8 HDD Overwrite 34
5.2.9 Other Settings 34
5.2.10 Add User 36
5.2.11 Delete User 36
5.2.12 Online User Manage 37
5.2.13 Authority Management 37
5.2.14 Preview Cruise 38

5.2.15 DVR ID Number 38
5.2.16 Lock Camera 38
5.2.17 Resource management--Optional 39
5.2.18 Spot Setting--Optional 39
5.3 Record Setting 39
5.3.1 Video Channel 40
5.3.2 Record Schedule 40
5.3.3 Record Quality 42
5.3.4 Record Frame Rate 42
5.3.5 Record Source 42
5.3.6 OSD Setting 42
5.3.7 Record Resolution 43
5.3.8 Sub Code (Advanced Setting) 43
5.4 Video Settings 43
5.4.1 Camera Channel 44
5.4.2 PTZ Protocol 44
5.4.3 PTZ Baud Rate 44
5.4.4 PTZ ID 44
5.4.5 Color Setting 45
5.4.6 Motion Detection 46
5.4.7 Privacy Mask 47
5.4.8 Motion Handling 48
5.4.9 Video Loss Handling 49
5.4.10 Channel Name Setting 50
5.4.11 Camera Offset 51
5.5 Net Settings 51
5.5.1 Network 52
5.5.2 IP Address 52
5.5.3 Subnet Mask 52
5.5.4 Gateway 52
5.5.5 HTTP Port 52
5.5.6 Command Port 52
5.5.7 Media Port 52
5.5.8 PPPOE Settings 53
5.5.9 PPPOE IP 54
5.5.10 DNS Address 54
5.5.11 DDNS 54
5.5.12 Auto Register 54
5.5.13 Email Settings 55
5.5.14 Mobile Port 57
5.5.15 UPnP 57
5.5.16 FTP Setting 57
5.5.17 IP Access 58
5.5.18 Time SYNC 58
5.6 Alarm 59
5.6.1 Alarm Input Channel 60
5.6.2 Alarm Input Type 60
5.6.3 Event Handling 60
5.6.4 Alarm Setting 61
5.6.5 Alarm Zoom Out 61

5.6.6 Device exception action 62
5.7 Maintenance 62
5.7.1 Log View 63
5.7.2 Upgrade 64
5.7.3 HDD Manage 64
5.7.4 USB Manage 65
5.7.5 Copy Setting to USB 65
5.7.6 Load Setting from USB 66
5.7.7 Auto Maintain 66
5.7.8 HDD Capacity 66
5.7.9 Hardware Version 66
5.7.10 Software Version 66
5.7.11 Software Release Date 66
5.7.12 DVR ID 66
5.8 Save Settings 67
5.8.1 Save & Exit 67
5.8.2 Exit 67
5.8.3 Restore defaults 67
5.8.4 Logout 67
6. Web Browser Operation 68
6.1 Enabling Download of an Unsigned ActiveX Control 68
6.2 Web Browser Login Screen 68
6.3 Web Browser Main Window 69
6.4 Tools Bar Items 71
6.4.1 Parameters 71
6.4.1.1 Server 72
6.4.1.2 Channel 73
6.4.1.3 Serial 78
6.4.1.4 Alarm 79
6.4.1.5 User 81
6.4.1.6 Device 82
6.4.1.7 State 84
6.4.2 Talk-back 84
6.4.3 Playback 84
6.4.4 Device Log 88
6.4.4.1 All Query Kinds 88
6.4.4.2 Query Kind by Time 89
6.4.4.3 Query Kind by Type 89
6.4.4.4 Query Kind by Time and Type 90
6.4.5 Local Storage 92
6.4.6 Screen View Buttons 92
6.5 PTZ Control Panel 92
7. iPad support 94
8. Mobile Phone Support 104
8.1 Windows Mobile 104
8.2 Symbian S60 3rd Phone 105
8.3 List of Symbian Supported Mobile Phones 108
8.4 Apple iPhone 110
I. For “KWeye+” 110
II. For “KWeye” 110

8.5 Blackberry Mobile 112
8.6 Android (Google Phone) 120
I. For “KWeye+” 120
II. For “KWeye” 124
8.7 FAQ 127
Troubleshooting 128
Appendix 1 Estimating HDD Capacity 130
Appendix 2 Compatibility Table for HDDs 131
Appendix 3 List of Compatible Portable USB DVD Recorders 131
Appendix 4 Compatibility Table for USB flash drives 131
Appendix 5 How to Use Auto ID-"Plug n play" Quick Guide 132
Appendix 6 How to Use RTSP 134

1. YOUR DVR AT A GLANCE

Product Overview

Model	4 Channel	8 Channel	16 Channel	16 Channel （only CIF）
Video Format	PAL/NSTC/SECAM			
Video Format	H.264 Baseline Compression			
Video In/output	BNC 4 Input / 1 Output	BNC 8 Input / 1 Output	BNC 16 input/ 1 output	BNC 16 input/ 1 output
Audio Format	G.726 8Kx16bit ADPCM Mono			
Audio In/output*	RCA 4 Input / 1 Output	RCA 8 Input / 1 Output	RCA 16 Input / 1 Output	RCA 8 Input / 1 Output
Alarm Type*	Motion detection, Sensor Input, Relay Output , Video Loss			
Sensor In/Out*	4CH Input / 1CH Output		16CH Input / 1CH Output	4CH Input / 1CH Output
Display Frame Rate	Each Channel PAL：25 FPS, NTSC：30 FPS			
Record Frame Rate (Max)	NTSC: 120FPS@ CIF, 120FPS@halfD1,120FPS@D1 PAL: 100FPS@ CIF, 100FPS@halfD1,100FPS@D1	NTSC:240FPS@CIF, 120FPS@halfD1,60FPS@D1 PAL: 200FPS@ CIF, 100FPS@halfD1,50FPS@D1	NTSC：480FPS@CIF, 240FPS@halfD1,120FPS@D1 PAL:400FPS@CIF,200FPS@halfD1,100FPS@D1	NTSC:480FPS@CIF PAL:400FPS@CIF
Record method	Scheduled Record(Manual Record, Motion Detection, Sensor Trigger)Support Privacy Mask			
HDD Interface	SATA Interface support 2TB		Up to 1 TB for each one, SATA interface HDD x2 or HDD x1+DVD+RW(1U),SATA interface HDD*4 or HDD*2+RW(2U)	Up to 1 TB for each one, SATA interface HDD x2
Network Protocol	TCP-IP/ DHCP/DDNS/PPPOE/E-Mail			
Network Function	IE Browser Live Monitor, Configuration, Download Video Mobile Phone Surveillance			
USB 2.0 Interface	Mouse / Portable Mobile HDD/ Flash Drive/ DVD Burner/ Firmware Upgrade			
Playback Method	Normal Play, Fast Forward, Rewind, Single Step			
Network Interface	RJ45 10M/ 100M Ethernet Auto Detect		RJ45 10M/ 100M /1000M Ethernet Auto Detect	RJ45 10M/ 100M Ethernet Auto Detect
PTZ Protocol*	PELCO-P ,PELCO-D, Samsung, Panasonic			
Video Backup	MP4, AVI or H.264 Raw			
Power Adapter	DC 12V Adapter			
Power Consumption	10~15W			
Operating Temperature	-10℃~+40℃			
Operating Humidity	10%~90% RH			
Dimensions*	315(W) * 224 (D) * 52 (H) mm	315(W) * 224 (D) * 52 (H) mm(some DVR is not as the same dimension as this ,it depends on your device)	435(w)*340(D)*55(H)mm(1U) 435(w)*340(D)*90(H)mm(2U)	

***Model dependent**

Congratulations on purchasing your state-of-the-art Digital Video Recorder (DVR) offering industry's best triplex functionality with video/audio recording, playback, and network capability. Your new device allows you to run all three functions simultaneously, streamlining the use of your CCTV system and boosting the security level of your home, business or social venue. You can access live or recorded feed from your standard or PTZ cameras immediately at the location of the DVR installation, or anywhere in the world using web-browsers or a mobile phone*. The video may be stored at a remote location for safety.

(*Some limitations apply to web- and phone-based features, please see the related sections for detailed description.)

Please get acquainted with the parts and accessories as well as the ways to use the appliance as described in this instruction manual. If you have any questions that this guide cannot answer, please contact your vendor or a certified specialist.

2. Contents of the Box

- DVR device
- This reference guide
- Installation CD
- Remote control
- Power cord
- Mouse (optional, depends on the model)
- Hard disk drive (optional, depends on the model) (if you would like to use your own Hard disk drive, please see **Appendix 2** for the list of compatible HDDs)

2.1 Getting Started Check-List

Before starting to work with your new DVR please make sure all relevant connections are done correctly.

- Are the power and video in/out cables plugged in? Please see **Section 3.4.1 Basic Connections** for more.
- Is the HDD installed and formatted? Please see **Sections 3.4.2 Installing HDD** and **5.7.3 HDD Manage** for more.
- Did the DVR start recording? Please see **Section 4.2.2 Manual Recording** for more.

3. Hardware

3.1Front Panel **(Please take actual machine model as quasi)**

1. **Number 0~16 Buttons--optional**

   Using these buttons, you can choose to output video on your monitor either as a full-screen view of each of the cameras individually (Channels 1 through 9), or you can combine button "0" with other buttons to select channels among Channel 10 and Channel 16. For example, when you want to display Channel 12 in full screen, you can press button "1", then press button "0", and then press button "2", then Channel 12 will be displayed full screen.

   NOTE: On live view press the switch button [ ] or button "ESC->CH1->ESC" when there is no tool bar, this will switch the main menu between CVBS video output and VGA video output, or switch the main menu between CVBS video output and HDMI output.

2. **CH1 ~ Ch4 --optional**

   Using these buttons you can choose to output video on your monitor either as a full-screen view of each of the cameras individually (Channels 1 through 4/*8 depending on the model), or from all Channels simultaneously (Quad).

3. **QUAD buttons** /

   Press this button switch display modes. **/** Can be used as FN icon too, Assistant function: In motion detection area and record mode, press it to enter or quit paste state. And in playback search, press it can be set the start time or end time to playback.

4. **, , , ,Enter**

   Use arrow buttons to move among the menu items. Press , to move to selection boxes, press , to select submenu parameters. Press **Enter** to confirm your choice, and on live view press this button to bring up tool bar.

5. **Power LED, HDD LED**

   Power LED light indicates your connection to the power supply.

   And the HDD LED indicates light HDD usage or record status (depend on your mode).

6. **Alarm LED, Net LED (Depending on your mode)**

   LED lights indicate alarm input and your connection to net status**.**

7. These buttons have the following functions:

   MENU: Displays the main menu.

   ESC: Use this button to exit any active windows

   REC: Start or Stop manual recording.

   Backup: Opens video search and backup menu

   Play/Pause (▶/Ⅱ): Opens video search and playback menu. When the playback mode is activated press this button to play/pause playback.

   : Fast forward (optional, depending on the model).

   : Fast rewind (optional, depending on the model).

   PTZ: (Pan-Tilt-Zoom) High Speed Dome camera functionality.

No Alarm: Alarm reset (for portion 8 Channel and 16 Channel only, depending on the model)

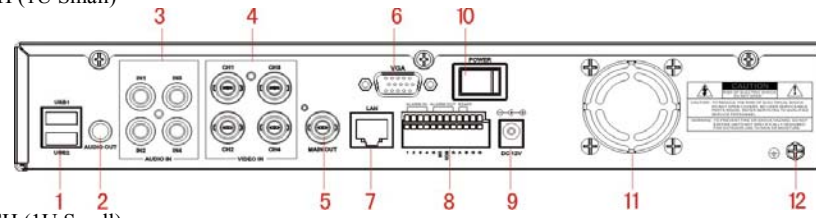
Power Off ( ): Power Off (optional, depending on the model).

Auto-Sequence ( ): Press it to enable auto sequencing (optional, depending on the model).

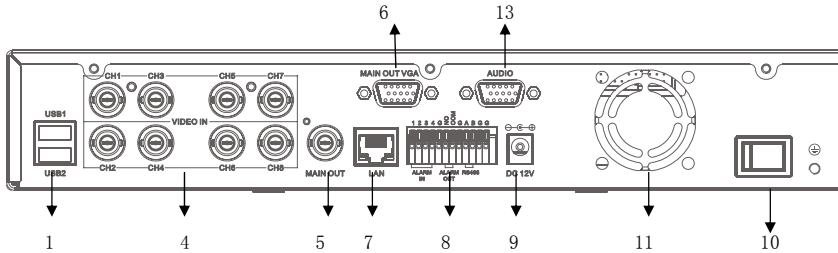
8. **IR Window** Infra-red sensor for remote control

3.2 Back Panel **(Please take actual machine model as quasi)**

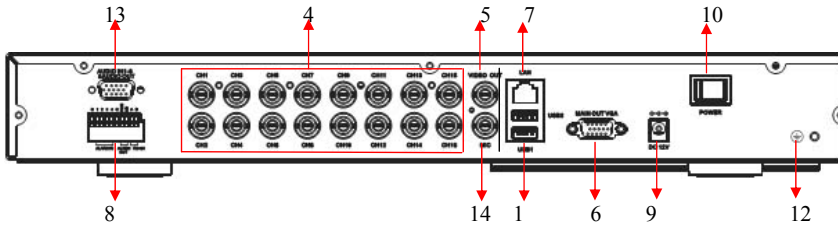
4CH (1U Small)



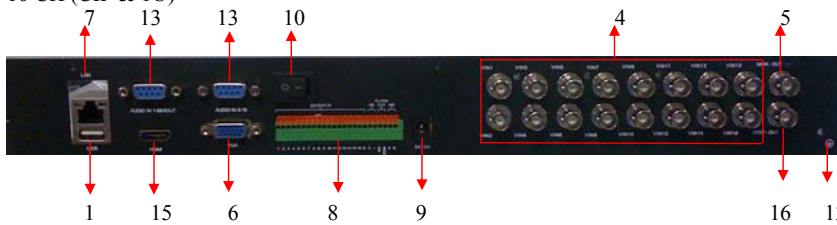
8 CH (1U Small)



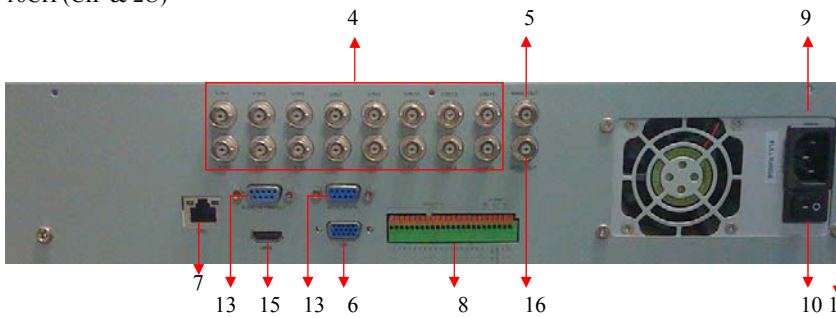
16 CH (Only CIF)



16 CH (CIF & 1U)



16CH (CIF & 2U)



1. USB connectors

Use these USB ports to connect the mouse and backup devices (flash drive, DVD recorder).

Note: On some models, the USB port is on the side panel or on the front panel.

2. Audio Output Connector

1 channel audio output, RCA (2Vp-p, 600Ω)

3. Audio Input Connectors (AUDIO IN 1-4)

4 channel audio input, 4CH-RCA (2Vp-p, 600Ω)

4. Video Input Connectors (1-4/1-8/1-16)

4-/8-/16- channel video input, BNC (1Vp-p, 75Ω)

5. Video Output Connector

Video output to display monitor, BNC (1Vp-p, 75Ω)

6. VGA Connector (optional)

For connecting VGA/LCD monitor

7. Ethernet Connector

RJ-45 10/100 Base-T Ethernet network

8. Alarm Input Connectors (ALARM IN 1-4/1-16, G)

For connecting to external sensor device

Alarm Output Connectors (ALARM OUT COM-NO)

For connecting to external alarm device

RS-485 Connector

For connecting PTZ camera control **(RS485: A, B)**

9. Power Input Socket

Please choose a correct power according to the introduction pressed on the device)

10. Power Switch

11. Cooling fan

The fan is used to cool HDD.

12. Ground

13. Audio Input / Output Connector (Only for 8-Channel and 16-Channel)

Connect with attached DB9 PIN to RCA cable adapter for audio input/output.

14. Microphone ---- (optional)

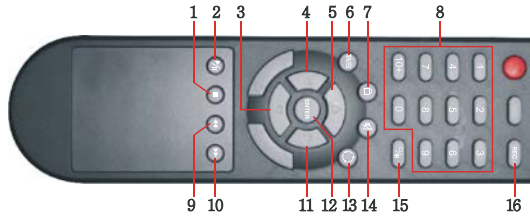
Connect microphone to talk back.

15. HDMI---- (optional)
High definition multimedia interface.

16. Spot Video Out---- (optional)
Auto Cruise each channel.

3.3 Remote Control

In device operation, the enter key on the remote control or the front panel has the same function as a mouse left click. The buttons on the remote control correspond 1-1 with the buttons on the front panel.



1 Stop (■): Stop playback

2 Play/Pause (▶/❚❚): Opens video search and playback menu. When the playback mode is activated, press this button to play/pause playback.

3, 4, 5, 11(▲◄▼►): Move selected item in menu.

6, Menu (MENU/ESC): Displays/exits the main menu.

7 Lock ( ): you will logout the system if you press this button.

8 Numerical Button: Using these buttons, you can choose to output video on your monitor either as a full-screen view of each of the cameras individually (Channels 1 through 9).

9 Rewind (◄◄): Rewind video during playback.

10 Fast Forward (►►): Fast forward video during playback

12 ENTER: This button is used as the "enter" key in most circumstances. And on live view press this button to bring up tool bar.

13 Spot View ( ): Press to enable auto sequencing.

14 Quad ( ): Press this button to switch display modes. There are 4-CH mode, 6-CH mode, 8-CH mode, 9-CH mode. You can use it according to your demand.
Can be used as FN icon too, Assistant function: In motion detection area and record mode, press it to enter or quit paste state. And in playback search, press it can be set the start time or end time to playback.

15 REC (●): Start or Stop manual recording.

3.4 Hardware Installation

It is recommended that the installations described below are carried out by qualified personnel.

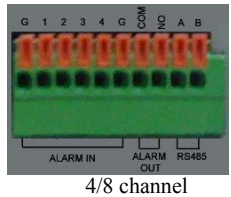
3.4.1 Basic Connections

- **Cameras**
  Connect each of the cameras' outputs to the video input socket in the rear panel of the DVR using appropriate cables. The video input interface is a standard BNC connector, 1Vp-p, 75 Ω. Please keep the video signal cable away from strong electromagnetic and electric interference.
- **Audio Connection**
  The audio input interface is a standard RCA socket, 2Vp-p, 600 Ω.
  Please keep the audio signal cable away from strong electromagnetic and electric interference.
- **Monitor**
  Connect the main output connector to a monitor or a TV screen. Use the BNC-to-RCA connector to work with the Audio/Video RCA cable.

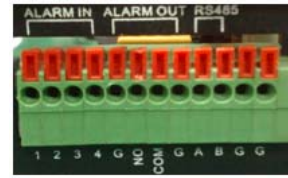
- **Power**
  Please use the 12V DC adapter supplied for connecting your DVR device with the power source.

Alarm Input / Output

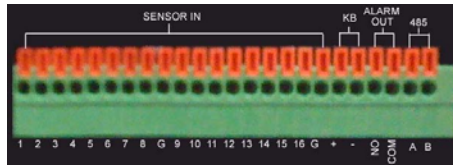
Connect Alarm In 1-4 / Alarm In 1-16 to N.O. (Normally Open) or N.C. (Normally Closed) alarm connectors and one Ground connection. Connect Alarm Out to the corresponding connections and Ground accordingly.



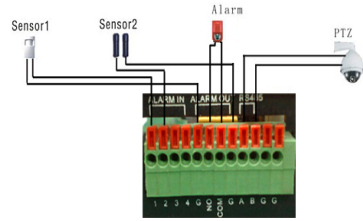
4/8 channel



16channel (Only CIF)



16 channel



4/8 channel

For detailed description please see **Section 5.6.2. Alarm Input Type**

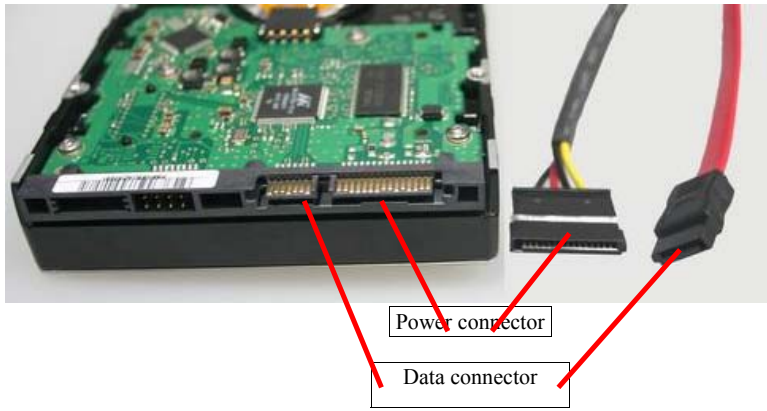
- **Ethernet**
  For remote access to the video images from your cameras via LAN or the Internet, please connect the standard RJ-45 twisted-pair Ethernet cable to the Ethernet connector.

- **USB**
  For connecting the mouse, USB flash drive, USB portable HDD, USB portable DVD Recorder (for the list of compatible HDDs see **Appendix 2**, for the list of compatible DVD Recorders see **Appendix 3**).

NOTE: The device only supports FAT32 file system on the USB devices.

3.4.2 Installing Hard Disk Drive

Before you can record onto your HDD it should be formatted by the DVR system, because standard PC formatting is not compatible. It can be done in the Maintenance Tab of the Tool bar Main Menu. Please refer to Section 5.7.3 HDD Manage for the detailed description of this process. Depending on the size of your HDD, the format process can take several

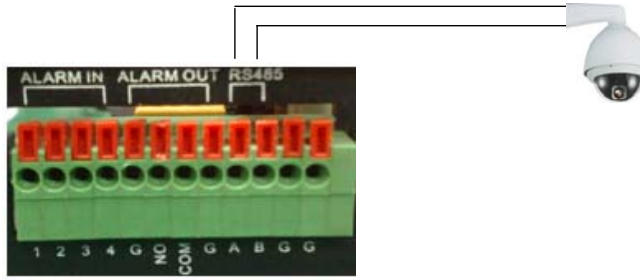


Your HDD should be installed inside the DVR. Please connect the HDD in the standard way. All necessary cables are delivered with the DVR. Use instructions that came together with the hard drive for exact wiring. Please connect the power cable to the appropriate socket, and the data cables to their corresponding connectors.

For the list of HDD drives tested for compatibility please see **Appendix 2**.

3.4.3 PTZ Control Connections

Connect the PTZ control jacks to the corresponding RS485 A and B interfaces on the rear panel.



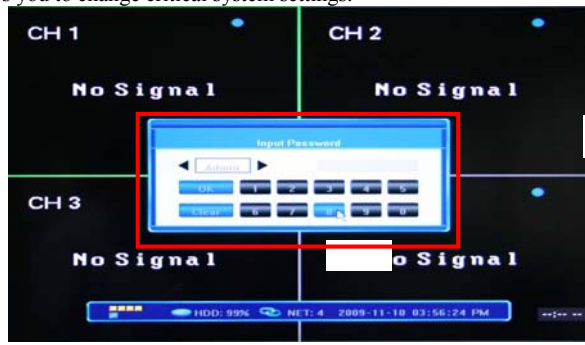
For detailed description of PTZ protocols, baud rates and IDs, please refer to the setup section in the PTZ manual.

4. Getting Started and the Main Screen

Switch on your DVR and wait for the system program to load. If you have not yet installed any hard disk drive into the device, a buzzer will sound and the "*No Hard Disk*" message will appear on the screen.

When you enter the system you will be asked to log in. Select your user account and enter the password in order to operate the device. You can choose user accounts by clicking arrow buttons on both sides of the account field (or using arrow keys on your remote control), and enter the password using the numerical keypad in the lower part of the "Input Password" screen. Press **OK** to confirm or **Cancel** to clear the field and enter another value.

By default the system has two users: **Admin** and **User** with preset passwords. The Admin account allows you to change critical system settings.

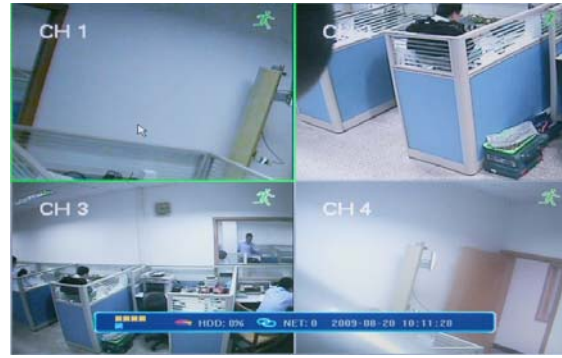


The default password for Admin is “888888”, for User: “666666”

You can always change your password in the System Settings of the System Configuration Menu (see Section **5.2.6 Password Setting**).

4.1 The Main Screen

The standard layout is four (four, nine or sixteen, depending on the device) windows evenly distributed over the screen. From the main screen you can access menu options and switch among channel views, displaying either all channel feeds simultaneously or bringing forth a full-screen view of a selected channel.



4.1.1 Displaying a Single Channel

In the multiple screen view, you can make a particular window active by left-clicking on it once with a mouse, or navigating to it using directional buttons. If an audio output device is connected to this channel, you can monitor both audio and video feeds.

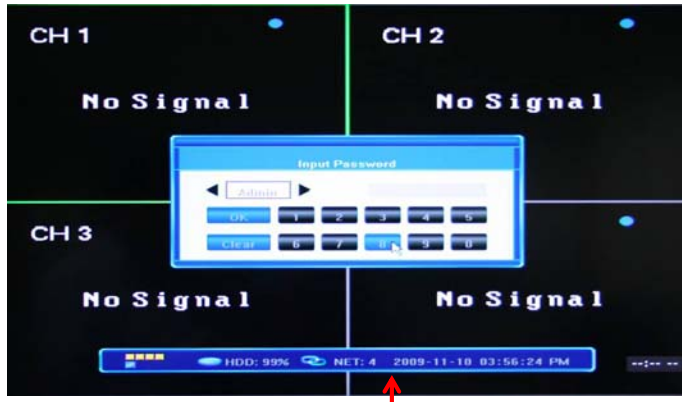
To enter a single channel view you can press the corresponding numerical buttons on the remote (channel number is displayed in the top left corner of each window, alternatively you can do so by left double-clicking on the desired window, or by choosing the button in the on-screen remote control..

In order to return to the multi-screen view you could either double-click on the screen again or press the single/multiple view button either on the remote control or the front panel.

You can choose to display the Status Bar, Tool Bar or neither of them by single right-clicking on the screen. These three options alternate in sequence.

4.1.2 Status Bar

Located at the bottom of the screen, the Status Bar may be called up by right-clicking anywhere in the screen.



The Status Bar offers the following information:

Peripheral alarm input / output status
On the far left of the bar you can see five colored squares, indicating the alarm status:

The four top icons indicate the alarm input status for each of the four windows. When the alarm is triggered, the color of the corresponding icon changes to red

The icon below indicates alarm output. When alarm output is activated, it changes its color to red.

The other three information sectors denote, in order: HDD usage (percentage), number of cameras which connect the system via the network/Internet (NET:X), and current date/time in the YYYY-MM-DD HH-MM-SS format.

4.1.3 Tool Bar

To display the Tool Bar you can toggle the “No Bar” → Status Bar → Tool Bar options by right-clicking the mouse anywhere in the screen, or by pressing the Enter button on the front panel or the remote control:

The functions of the buttons present in the Tool Bar are as follows:

Use this button to hide the Tool Bar and return to the Status Bar.

Next page

System configuration

Manual recording

Search, playback and backup of recorded files

PTZ operation

Cancel alarm notification. Clicking this button will bring up a message showing current alarm information.

Quick playback

Shut down

, , / * or / *, , / * Switching between screen display modes. "Single channel" → "four channels" → / * "six channels" or / * "eight channels" (for 8CH and 16CH), → "nine channels" (for 8CH and 16CH), → / *"16 channels" (only for 16CH).

Position: Screen layout adjustment.

TV/Monitor: Press the "ESC->CH1->ESC" button or click " " on the toolbar, and this will switch the main menu between CVBS video output and VGA video output, or switch the main menu between CVBS video output and HDMI output.

/ Click " " to mute on, and click " " to mute off.

/ Click " " to picture freeze, and click " "to picture unfreeze.

PIP 1*1: This feature displays the video from one channel in a small inset window, while another channel is displayed in full-screen view.

PIP 1*2: This feature displays two channels in small, inset windows, while another channel is displayed in full-screen view.

See the following subsections for a detailed description of each of these functionalities.

4.2 Tool Bar Menu Options

4.2.1 System Configuration

Pressing this button will bring up a screen for setting up all system configurations. You can adjust such settings as **System**, **Record**, **Video**, **Net**, **Alarm**, **Maintenance** and **Save**. Please refer to **Section 5. DVR Settings** for the detailed description of these settings.

4.2.2 Manual Recording

There are three ways of recording live video/audio feed from your cameras: **manual recording**, **scheduled recording**, **and alarm recording**.

Manual recording mode enjoys higher priority than the scheduled or alarm recording.

If the recording schedule is in conflict with manual recording, the manual recording will be processed first until stopped. Recording modes are displayed in the top right corner of the respective screen. Manual recording mode is indicated onscreen with the grey icon .

For color indication of other recoding modes see **Section 4.3 Channel Status Display**.

For detailed description of scheduled and alarm recording see **Section 5.3 Record Settings**. Description of the manual recording function follows.

In order to record a video/audio feed, please select the Manual Record button in the Tool Menu. Alternatively you can use the REC button on the remote or the front panel. Pressing this button again will stop the manual recording process.

The following dialog window will appear on the screen:

You can select the channels you wish to record individually or you can choose to have them all recorded simultaneously. Press **OK** to confirm, or press **Cancel** to undo your choice.

4.2.3 Video Playback

To play the recorded video, press the **Record Search** button in the Tool Bar in order to select the date/time and channel you wish to view.

Pressing this button will bring up a dialog window in which you can select the recording which you can playback or backup. Each of these options is described below. Up to 4 channels can be selected for playback with 4-ch DVR, 16-ch DVR (only CIF). And up to 8 channels can be selected for playback with 8-ch DVR (CIF). And up to 16 channels can be selected for playback with 16-ch DVR with CIF.

Selecting the time frame you wish to playback

In order to playback a certain video feed from a particular camera, you first need to indicate what time and which camera you wish to receive this information from.

Set up the year, month and day of the desired recording. If you are using the remote, you can navigate between fields using ◀ and ▶ buttons and modify the time with the help of the ▲ and ▼ buttons. Press **Enter** to confirm your selection. When using the mouse, simply position the mouse over the field and use directional buttons which will appear above and below the field to modify the values. After selecting the day, please click **Search** to search for the recordings from that day.

Select the Start and End time on the time line positioned against the available channels (you can choose which channel to view by selecting the checkbox next to each channel). Up to 4 channels can be selected for playback. The start and end times of the recording you wish to view are indicated by two vertical lines on the time line. When you are using the remote and try to go to the desired line using directional buttons. If you would like to fine-tune the required time, you can use the buttons to zoom in / zoom out of the time line. Alternatively, you can move along the time line using ◀ and ▶ buttons. Time values will be shown above the time line.

Using mouse: left-click once to setup the start time, the subsequent left-click will indicate the end time, and the right-click will cancel the marked time.

Using front panel: you can navigate between fields using ◀ and ▶ buttons and modify the time with the help of the ▲ and ▼ buttons. When moves to the channel, press **Enter** to confirm or cancel your channel selection. If you would like to fine-tune the required time, you can use the buttons to zoom in / zoom out of the time line. Using ◀ and ▶ buttons to switch pages when it zooms out too large.

After searching, press [ ] or [ ] or [Fn] button to choose start time line. Using ◀ and ▶ buttons to move the time line. Press [] or [] or [Fn] again to popup the second time line as the end time line. Also can use ◀ and ▶ buttons to move the time line. Then press [ ] or [ ] or [Fn] to confirm the time.

The available recordings will be represented by differently colored bars on the time line depending on the type of the recording (Blue: common recording, Green: motion detection triggered recording, Red: alarm triggered recording, Grey: manually made recording).

To play the selection, press the Play button (or navigate to it and press **Enter** on the remote control or the front panel): the selected channels will playback in the standard view windows in their respective positions on the monitor screen.

Playback Control

In the playback mode you can see the playback control panel as well as the date and time of the played file.

Options for the playback control panel are described below:

Fast rewind: The available speeds are 8x and 16x.

Pause

Stop

Fast / slow forward

The available speeds are 1x, 8x 16x, 1/2x and 1/4x

Frame-by-frame view

Toggle single camera view and 4/9* camera view (*depending on the model).

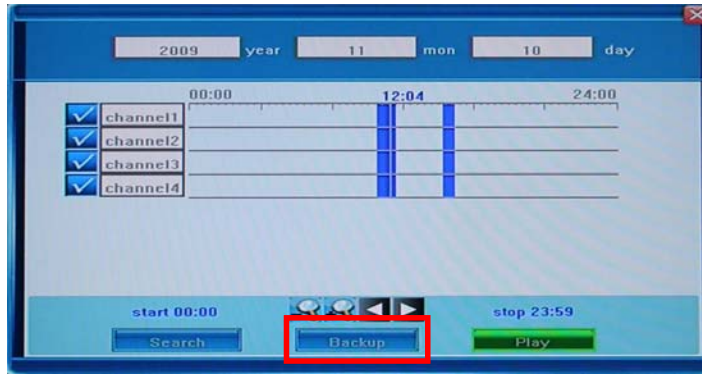
Video editing

Backup

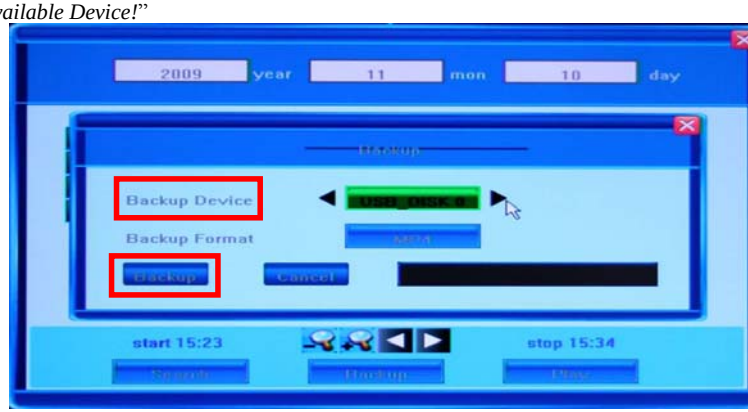
4.2.4 Video Backup

Back up can be initiated from the same dialog window as the playback function.

To back up the recorded footage, you first need to indicate which cameras and time interval you want to save to an external source. Please set the start and end time as described in the previous section.



After click the **Backup** button which brings up the "Backup" dialog window. If the system cannot recognize the connected devices or none are connected, you will see a warning message "*No Available Device!*"



The system will automatically detect all available backup devices and display them in the Backup Device field (positioning the mouse over this field or entering it with the help of the

arrow buttons will allow you to view the available choices. By pressing arrows on each side of the field, you can toggle between the options).

Currently you can connect such external media as USB flash drives, portable USB HDDs and USB DVD recorders. For the list of DVD burners tested for compatibility, see **Appendix 3**.

The system only supports the FAT32 file system for USB flash drives and HDDs

You may also choose between the types of recorded video formats to be backed up, selecting between the **H.264 Raw**, **MP4 and AVI** formats.

If you are saving your backup data in the MP4 format, the system will automatically record special decoder components onto the USB flash drives or DVD Discs along with the video file. After installing this component on your computer you can play saved video files with the Windows Media Player.

Playing backed up video on your PC

To install the decoder components on your computer, locate the compressed file **WMP_MP4Player.rar** inside the USB flash disk or CD/DVD where you saved the video file. Decompress **WMP_MP4Player.rar** and execute **Install Filter.bat** to install the decoder components.

After installing the necessary software, you can view the saved video using the Windows Media Player.

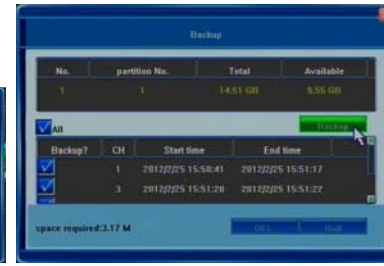
When backup in H.264 format, the stored video files can be played by H.264 player because it is a standard H.264 type file. For example, download H.264 player from http://www.videolan.org/vlc. Then, it can be played by **VLC Media Player.**

When backup in AVI format, the stored video files can be played by Windows Media Player.

4.2.5 Video Clip

Click [Tool Bar → Record Search] to enter [Playback] menu. Select the time frame and channel you wish to playback, click “Play” to start playback.

Click the button in the playback control panel when you want to begin to edit the video, then the button will change to , when you want to end the editing, click the button , and it will change to . Then insert the USB device and click the button enter into the following interface.



Choose the file, click “Backup” and choose the backup format, click “backup” and then the file will be saved into your USB device.

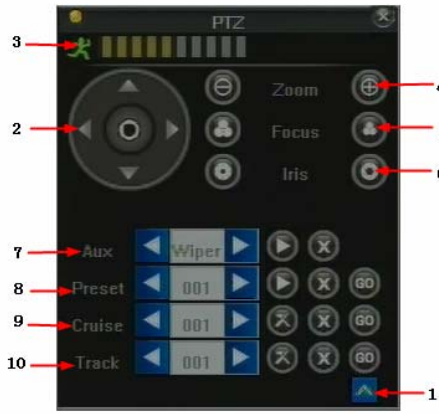
Choose the file, click “DEL” and the file will be removed from the list. In addition, if you exit the playback and the list will be cleaned automatically.

4.2.6 PTZ Control

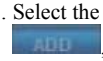
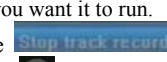
You can use this function if your DVR is connected to a PTZ camera (Pan-Tilt-Zoom). Pressing the PTZ control button will bring the corresponding video feed into the single-screen mode. In the top left corner of the screen you will see the special PTZ menu. Directional

buttons will determine the rotation of the camera, and the drop-down menu, called up by the button, will show the functional panel.

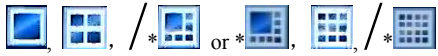
Functions of these menu options may vary depending on the make and model of the PTZ camera you are using. For detailed description of the available options please refer to the manual of your PTZ camera.



No.	Name	Description
1	**Toggle functional panel**	Use this button to toggle the panel view for the options available in your PTZ camera. These buttons are described below
2	**Directional buttons**	Control the direction of the PTZ cruise. Please refer to your PTZ manual for details of PTZ scanning mode.
3	**Speed**	Sets the turning speed of PTZ camera. Use the mouse to click on the scale for adjusting this setting.
4	**Zoom**	Click to zoom in / zoom out

5	**Focus**	Click to focus-in and focus-out (this function is disabled for cameras with automatic focus).
6	**Iris**	Click to make the image brighter or darker (this function is disabled for cameras with automatic iris adjustment).
7	**Auxiliary**	Open/close auxiliaries. Click to open and to close. Different functions respond to different protocols. The auxiliaries include light, wiper, power, etc. Please refer to your PTZ manual for details.
8	**Preset**	**Preset Point**: Preset camera position, focus, zoom, and iris settings for easy access. **Setting the pre-adjusted settings:** 1. Select the preset number. 2. Adjust the camera as desired, including direction, focus, iris and zoom values. 3. Click the Set button . **Calling the pre-adjusted settings:** 1. Select the preset number you want to call. 2. Click Start button . **Clear/reset preset:** Select the preset number you want to clear/reset. Click Clear button .
9	**Cruise**	**Cruise** is a running route of the camera that passes through multiple presets. **Set Cruise:** 1. Select preset number. 2. Click Set button . 3. Select the preset number、time and speed, click add button  , Repeat steps to add other presets till all desired presets are complete. 4. Click Run button . **Clear Cruise**: Click on button to clear sequence.
10	**Track**	**Track** is a continuous running route of a camera. Setting track: 1. Click on the button to start setting. 2. Click the button, move camera in the pattern you want it to run. 3. Click the  button again to finish setup. 4. Click the button to run track and click again to stop running. Click on button to clear sequence. **NOTE**: This feature depends on the type of your PTZ camera.

4.2.7 Screen View Modes



Allow you to switch between single/multiple screen views (4-screen, *6-screen, *8-screen, 9-screen, *16-screen, * depending on the model).

4.2.8 Screen Layout Adjustment

By pressing the button in the Tool Bar, you will bring up the **Position** screen.

You can use the available buttons to re-position the layout of the whole screen image on the monitor (all 4/*9/*16 (*depending on the model) windows as a unit or the single-view window).

	Shrinking/enlarging the screen image in the vertical direction (leaves black margins at the top and bottom of the display).
	Shrinking/enlarging the screen image in the horizontal direction (leaves black margins on the left and right of the display).
	Moving the screen image up, down, left, right against the monitor screen (leaves black margins on the side of the display from which you move the image away).
	Auto-stretching the screen image with an optimal position on the monitor, centering it with equal circumference margins.

OK confirm the adjusted position
Cancel cancel the introduced position changes

4.3 Channel Status Display

The top right corner of each channel image features the following status icons:

Icon indicates that the channel has detected motion in the motion detection mode.

Blue dot indicates that the channel is in the scheduled recording mode.

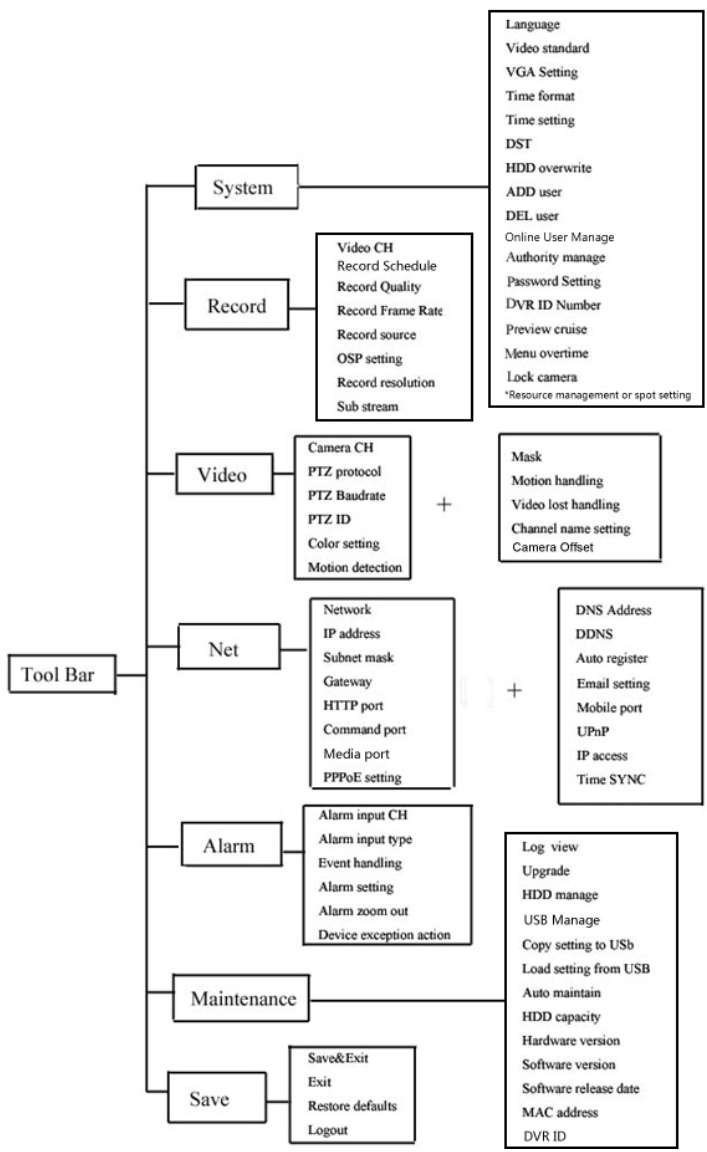
Green dot indicates that the channel is in the mode of motion detection triggered recording

Red dot indicates that the channel is in the mode of alarm triggered recording

Grey dot indicates that the channel is running in the manual recording mode.

5. DVR Settings

5.1 Menu Tree



5.1.1 Menu Options

In order to modify/adjust system configuration, you need to enter the System Menu by pressing the System Configuration button in the Tool Menu.

You will see the dialog window with settings for all systems and options available in your DVR. The settings are subdivided into 7 subsections, each with its own tab: **System, Record, Video, Net, Alarm, Maintenance** and **Save**. Below is the detailed description of these settings.

5.2 System Settings

This tab provides general system settings for operating your DVR. Titles of the menu list items are located on the left, and the corresponding changeable or non-changeable values are represented in the fields to the right. You can:
(a) Select the values from the list (toggling the preset data by pressing the arrows on each side of the field);
(b) Input the required data after entering a customized window by pressing the [>>] button in

some of the fields; or
(c) Familiarize yourself with the existing non-changeable settings.

When entering the fields using the remote control directional keys or the DVR front panel, as well as when positioning the mouse over them, a short description of the setting in question will appear at the bottom of the window.
Several tabs have options that are positioned on more than one window, and you can navigate between them by pressing either the "**Next Page**" or "**Advanced Settings**" buttons.

5.2.1 Language

Use this option to change the language of the DVR menu text and the On-Screen Display. This action takes effect immediately and does not require saving and exiting this menu.

5.2.2 Video Standard

Select the preferred video standard. Available options are NTSC, SECAM and PAL. Changes take effect after saving and exiting the menu window.

5.2.3 VGA Settings

Select the preferred VGA output resolution.

Depending on the model, you can make your choice among:
800x600@60Hz
1024x768@60Hz
1280x1024@60Hz
1440x900@60Hz
1920*1080@HDMI
Note: If the resolution you selected has gone beyond the resolution of your LCD, you can press the button "ESC->CH2->ESC" continuously to restore the VGA resolution of the DVR to 800*600.

5.2.4 Time Format

Select time format between the 12-Hour and 24-Hour representation. This option will take effect after saving and exiting.

5.2.5 Time Setting

Use this option to adjust the current date and time of the DVR. Pressing the [>>] button will open a dialog where you can change the year, month, date, as well as hours, minutes and seconds of the system time, confirming (**OK**) or rejecting (**Cancel**) the modifications. Changes will take effect instantly.

In order to avoid possible confusion with the time stamps of the recorded and currently recording files, it is advised that you stop all ongoing recording processes before altering the system time and restart recording with the new settings.

5.2.6 Password Setting

You are allowed to modify the passwords of both **Administrator** and **User** accounts. You have to be logged in as Administrator to be able to introduce such changes, and the User can only change the user account password. Make the selection of the relevant account and enter the new password using the numerical keyboard, after which you can either confirm (**OK**) or reject (**Clear**) the input data.

Default password for Admin is "888888", for User: "666666"

5.2.7 DST

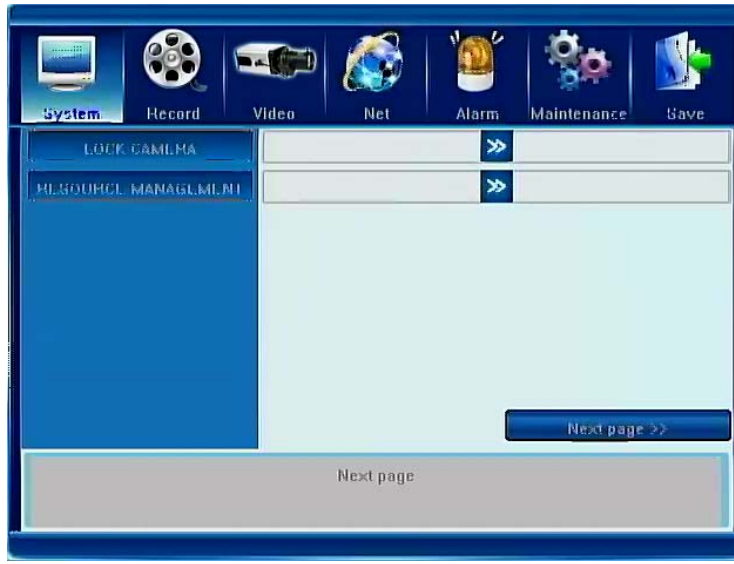
Daylight saving time setting. Users can set the starting time and ending time of DST. For example, in the following screenshot on the below, the starting time is 18:00:00 on Thursday of the first week in September, and the ending time is 05:00:00 on Friday of the first week in September.

5.2.8 HDD Overwrite

In this section you can choose the ON or OFF. If you select "ON"，the firsts data will be covered automatic when the hard disk storage capacity was full.

5.2.9 Other Settings

In the next two pages there are these items: **Add User, Delete User, Online User Manage, Authority Manage, password setting, DVR ID Number, Preview Cruise, Menu overtime, Lock Camera, *Resource management (resource management is only for 8CH), and *Spot setting (for 16CH with CIF).**



You can return to the original screen by pressing **Common Setting** button in the bottom right corner of the screen.

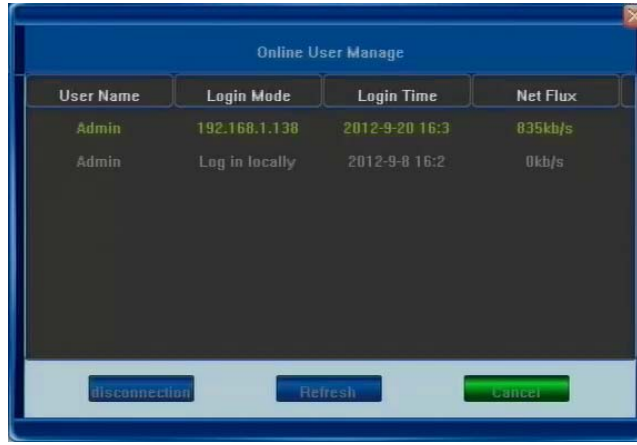
5.2.10 Add User

It allows add users. Administrator can write name and click button “OK” directly to add users. It can add 7 users at most.

5.2.11 Delete User

It shows all of user names, managers can choose one of the name and click “DLL” to delete this user, and then click “OK” to make it effective.

5.2.12 Online User Manage



It shows the information of online users，including user name, login mode of the user, login time and net flux. And the administrator can make the online user disconnection.

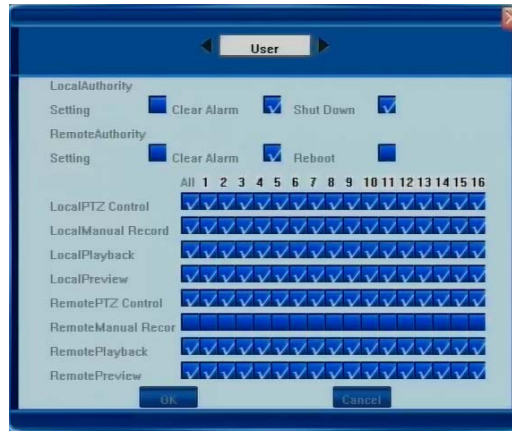
5.2.13 Authority Management

There are two groups of access features that could be allowed for the user: local authority and remote authority (i.e. working with the DVR at the location of the installation, or accessing it from the network or the Internet). By default the user account is not allowed to have access to modification of DVR settings.

The authority settings can only be set by the system administrator (who will be referred to throughout this manual as “the Administrator”; the username for the system administrator is “Admin”).

[Local Authority]: This allows the Administrator to give each user its permission to access a unique set of DVR functions. That is, the Administrator can give a user access to one, some, or all of the following functions: Setting, Clear Alarm, Shutdown, Local PTZ Control, Local Manual Record, Local Playback, Local Preview, and the set of functions that one user is allowed to access may include functions that are different from the set of functions that another user is allowed to access (see the below figure).

[Remote Authority]: This is a very important function for remote operation of the DVR. The Administrator can use this function to set each user’s remote access permissions, such as access to Setting, Clear Alarm, Shutdown, Remote PTZ Control, Remote Manual Record, Remote Playback, Remote Preview from a computer that is not on the local network (see the following figure).



After introducing new configurations you can confirm (**OK**) or reject (**Cancel**) the changes.

5.2.14 Preview Cruise

In this section you can choose the ON or OFF. If you select "OFF", preview cruise will be closed; if you selected “ON”, preview cruise will be opened and you can set cruise time, cruise way and preview channel in the following dialog.
[Cruise Time]: The options include 2Sec, 5Sec, 10Sec, 15Sec and 20Sec.
[Cruise Way]: The options include 1 channel, 4 channel (for 8CH and 16CH) and 9 channel (only for 16CH).
[Preview Ch]: In this field, user can set up the preview channel.

5.2.15 DVR ID Number

Use this option to set DVR ID Number to identify it according to users’ demand.

5.2.16 Lock Camera

In this section you can lock any channel according to your demand.

5.2.17 Resource management--Optional

This function is only for 8CH model.

5.2.18 Spot Setting--Optional

This function is for some models. Set sequential channel and sequential time for spot out from this field. The time Values can be set from 1s to 60s.

5.3 Record Setting

Menu items in this tab allow you to adjust settings related to recording the CCTV camera

images onto the HDD. Following is the description of the possible options.

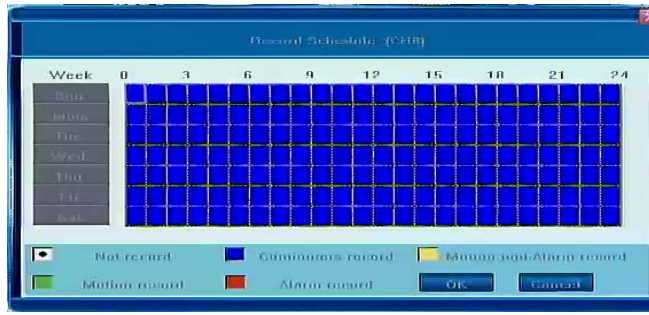
5.3.1 Video Channel

This option allows you to select the camera (channel) number whose settings you want to modify. If you want the changes to apply to all available channels, you need to select "**All**". Make the selection by pressing the arrow buttons; the options run in a loop: 1 → 2 → 3 → 4 → All → 1, etc.

5.3.2 Record Schedule

This setup function allows you to create a schedule for recording tasks throughout the week, so that only certain selected events are actually recorded on the HDD. For example, you may set up the system to record non-stop during normal business hours, record only alarm-triggered events during lunch time (meaning no recording will occur unless an alarm event happens), and record only motion-triggered events at night time.

Please note that manual recording overrides all record settings and will be carried on until stopped by the operator.



①. The current recording channel number undergoing modification.

In the example, the introduced changes will be applied to all available channels.

②. The recording schedule

This is a weekly recording schedule for various kinds of events Sunday through Saturday on a 24-hour basis. Week days are represented in the column on the left and the hour line runs horizontally from 0 to 24 hours. One cell stands for one hour.

③. Description of the recording type

The diagram above represents a number of color-coded values, where each color stands for a particular recording event. You can choose from the following events:

- **no record (white)**: No recording will be performed during this time
- **common record (blue)**: Recording full-time
- **move record (green)**: Motion-detection triggered recording
- **alarm record (red)**: Alarm-triggered recording
- **Move and alarm record (yellow)**: Recording triggered by either alarm or motion detection.

You can use either directional buttons for selecting the fields or the **Enter** button to indicate the desired color pattern, or, having chosen the required color code, click on the necessary hour in the graph and drag the area in any direction to highlight several cells.

Press **OK** to confirm the settings. The changes will take effect after saving and exiting the menu.

While you are using the remote control or front panel to option, □/⊞ button can be used to copy the present setting to the adjacent time area with the help of ▲ and ▼,◀ and ▶ buttons. After setting some area's recording type, press □/⊞ button to enter paste state, then paste its setting to other areas by using ▲, ▼,◀, ▶ buttons. Press □/⊞ to quite.

When you select the option of motion detection recording, in order for the actual recording to happen, it is necessary to set the motion detection sensitivity and area. Please refer to Section 5.4.6 Motion Detection Settings for details. When alarm recording is selected, please set the alarm triggering settings beforehand. See Section 5.6.3 Event Handling for details.

5.3.3 Record Quality

Select quality level for recording audio/video. There are pre-defined values of Best quality 768kbps → High 640kbps → mid 512kbps → Low 384kbps, or alternatively, you can define your own recording quality (Kbit/s). Pressing the [>>] button under the User Defined option will bring up another window in which you can enter the desired values using the numeric keypad, and confirm your input by pressing **OK** or reset the entered values by pressing **Clear**.

5.3.4 Record Frame Rate

In this section you can choose the recording frame rate (frames per second). The pre- defined choice is **Full** (30/25fps depending on whether it is NTSC/PAL) → **15 fps** → **7 fps** → **3 fps** → **1 fps** or **user defined**. The lower the value, the less life-like and more jerky the recorded movements will be. On the other hand though, a lower frame rate can save a lot of HDD space. Make your choice depending on the precision with which you want to follow the events unfolding before your cameras.

Pressing the [>>] button, which appears under the **User Defined** option, will bring up another window in which you can enter the desired frame rate values using the numeric keypad or clear the entered values by pressing button **Clear**.

Since the maximum value for the frame rate is either 30 or 25 fps depending on the encoding system, your choice may be within the limits of 1 to 30/25. Thus, even if you enter a higher value, the resulting frame rate will be kicked back to the maximum allowed value. To confirm your input, press **OK**.

5.3.5 Record Source

This option allows you to select whether the signal coming from the source will include audio. Thus, it offers two options for recording: "**Video**" and "**Video and Audio**".

5.3.6 OSD Setting

With the help of this option, you can define which information will be recorded onto the video as the OSD (On-Screen Display) string. There are 4 available options.

1) Camera's Name and Time Stamp
2) Camera Name

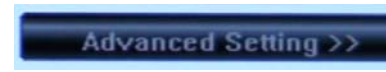
3) Time Stamp
4) None

Make your selection navigating through these choices by using arrow button on each end of the field.

5.3.7 Record Resolution

This option allows you to select Record resolution modes：CIF、Half D1、D1. And for some modes the option includes only CIF.

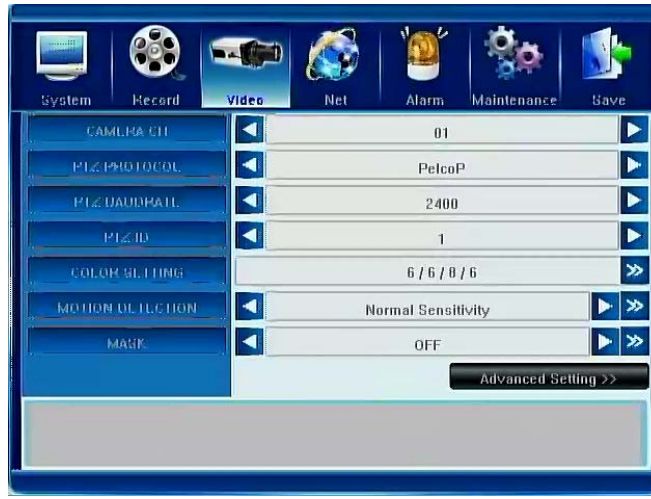
5.3.8 Sub Code (Advanced Setting)



Next window in the **Record** Tab is accessed by pressing the **Advanced Setting** button. There is only one more important item: Sub Code. Your DVR can stream information for viewing both with IE Browser and a mobile phone. You can enable/disable sub code (ON/OFF options) or create customized settings (by pressing the [>>] button at the right end of the field) in the SUB CODE pop-up window, adjusting the frame per second (FPS) and Bit-rate (Kbit/s) values. Position the mouse over the required field and use the arrows which will appear to increase/decrease the values. In case of a limited upload bandwidth, it would be a good idea to optimize your Sub Code values for the IE client viewer and mobile streaming.

5.4 Video Settings

The third tab in the Settings window is **Video**. You can easily customize settings for your PTZ/standard cameras, as well as setup ad hoc values for quality, motion detection and privacy areas. Please follow the description below.



5.4.1 Camera Channel

This option allows you to select the camera (channel) number whose settings you want to modify. If you want the changes to apply to all available channels, you need to select "**All**". Make the selection by pressing the arrow buttons; the options run in a loop: 1 → 2 → 3 → 4 → 5→6→7→8→All → 1, etc.

5.4.2 PTZ Protocol

Note: When making changes to PTZ camera functionality / settings, make sure that these changes are being made to actual PTZ cameras by selecting the correct number in the previous field (Camera Channel).

Select the PTZ device protocol. It must be consistent with the protocol of the actual PTZ cameras installed. You can make the choice among following available options: *Pelco-D, Pelco-P, Panasonic, Samsung, Philip, Yiboer...etc*. The changes will take effect after you save and exit.

5.4.3 PTZ Baud Rate

Select the PTZ device baud rate. It must be consistent with the baud rate of the actual PTZ cameras installed. You system supports four options: 1200, 2400, 4800, 9600. The changes will take effect after you save and exit.

5.4.4 PTZ ID

Select the PTZ device ID. It must be consistent with the ID of the actual PTZ cameras installed. Make your choice of any number from 1 to 255. Please note that this is not the same as the number of the channel to which you hook up the PTZ camera in your DVR system. The system allows for step-by-step selection of the values by pressing the arrow buttons at each end of the field. The changes will take effect after you save and exit.

5.4.5 Color Setting

You can adjust camera color attributes for the best image rendition. By default the values are set at **8** as the average value. Please make your adjustments depending on the actual conditions at the location where the camera is installed.

The values are listed in the **Color Setting** field of the **Camera** Tab in order (in the picture below it is 8 / 8 / 8/ 8, which stand respectively for brightness, contrast, hue and saturation).

When you decide to make changes to these values, please press the [>>] button at the right end of the field and it will take you to the full-screen image of the camera feed, with the four abovementioned color characteristics listed in a column, allowing you to change their values.

You can change these four basic color characteristics:

- Brightness: on a scale from 1 to 16
- Contrast: 1 ~ 16
- Hue: 1 ~ 16
- Saturation: 1 ~ 16

Position the mouse over the required field and use the floating arrows at each end of the field to increase/decrease the values. The live feed from the camera will let you see what these adjustments would look like in real life.

Right-click anywhere in the screen to leave the camera view, and go back to the previous Camera Setting window. The new values will be displayed in the Color Setting field as described above.

5.4.6 Motion Detection

This option allows you to set up motion detection sensitivity, motion detection area setting and also motion detection plan setting.

Sensitivity of motion detection

There are four options related to the degree of motion detection sensitivity:

Highest → Normal → Low → Disable

Motion detection area setting

Sometimes you need to have some regions in your camera view with the enabled motion detection feature, while other regions in the same view should be free of this functionality. This may be handy when, for example, the camera covers the road and an adjoining territory. While you would like to have the motion detection working on the area near the entrance to the building, you most likely would not like to see it triggered every time a car or truck passes on the nearby road.

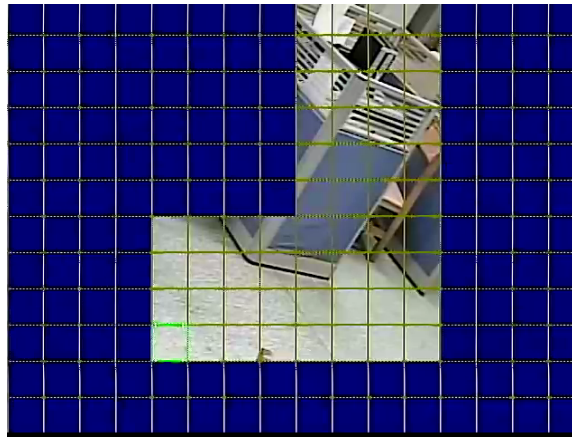
In order to select the region(s) in the camera view where the motion detection feature should be activated / disabled, press the [>>] button at the right end of the **Motion Detection** field to bring up the full-screen image of the camera feed, with a superimposed grid. You can select/unselect each cell by a single left-click of the mouse or select multiple-cell areas by clicking on one cell and dragging the selection in the desired direction. You can select as many isolated areas as you wish.

Blue highlighted squares indicate areas where motion will be detected. Clear squares will indicate areas where motion will NOT be detected.

Using front panel: After open the motion detection area setting interface, can set 192（16*12）zones. You can move the focal point among them by using◀, ▶ buttons. The detail area setting like below steps:

1. Using ▲, ▼,◀, ▶ buttons to move the focal point among areas, press OK button to confirm your choice.(the color will turn to highlighted from blue).
2. Press □/⊞ button, and now you can paste its setting to other areas by using ▲, ▼,◀, ▶ buttons. Press □/⊞ to quite when you finished the first motion detection area setting.
3. Repeat steps 1 and 2 to finish the second motion detection area setting.

To return back to previous menu, please right click or press **ESC** on front panel/remote control.



Motion detection plan setting

Select the date and time to plan motion the detection area or not.

5.4.7 Privacy Mask

Sometimes you need to have certain areas within the scope of a camera view to be unmonitored for privacy protection, for example when it shows windows of an apartment building together with the monitored area. Thus, you can choose to not record these select multiple regions.

You can turn this option ON or OFF in the **Video** menu and you can manually setup privacy areas. Press button [>>] at the right end of the **Mask** field to bring up the full-screen image of the camera feed. You can select any area to be grayed out on the live feed from the camera (and, consequently, from the video recording made on this channel). Left-clicking and drag to select the desired area. Right-clicking on the screen anywhere and the selected area to go back to the main menu window. To apply the changes you need to save and exit.

You can select as many isolated (and/or overlapping) areas as you wish.

Please have a look at the DVR screen showing one and the same camera view with and without privacy areas.

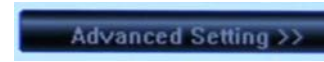
To unselect the privacy area or cancel this option, go back to the **Video** Tab of the **Main Menu** and turn this function OFF in the main window.

To activate the privacy zones you had set up before this feature was turned OFF, you can simply turn the **Mask** function ON in the **Video** menu. If nothing was changed in the layout of the selections, the same privacy areas will appear on the screen.

To undo a privacy area, go to the Privacy Mask setup ([>>] button at the right end of the Mosaic field) and right-click within the previously selected grayed-out area (which has a red border if it is active) – the red border will disappear. Right-clicking anywhere but the gray area to exit the screen and save the changes.

Video - Advanced Settings

Next page in the **Video** Tab can be accessed by pressing the **Advanced Settings** button in the bottom right corner of the menu screen. Three options are available here: **Motion Handling**, **Video Loss Handling** and **Channel Name Setting**. These functions let you define how the DVR will respond to the events of motion detection and video loss.



5.4.8 Motion Handling

The **Video → Advanced Setting → Motion Handling → [>>]** button will bring up the dialog window where you can define how the DVR will behave if the selected camera detects motion.

Channel number will be displayed at the top of the screen. There are four available options.

RECORD: When these options are checked, motion detection will trigger immediate recording from the selected cameras.

ALARM ZOOM OUT: When the option is selected and one or more record channel is selected，these record channel will touch off alarm zoom out.

ALARM OUT: Checking this option will enable the Alarm Output when motion is detected.

BUZZER: Checking this option will enable the internal buzzer when motion is detected.

UPLOAD: If you have established a remote connection between the DVR and a PC via the internet, and you check the **UPLOAD** checkbox, then on detecting a motion the DVR will send a relevant message to the IE applet (for example: "*Device Alarm, Motion Alarm Channel 1*"), which will be displayed in info line at the top right corner of the IE window.

E-MAIL: After you check this option, a motion detection event will initiate an e-mail being sent to the indicated addresses with a snapshot of that event as it was captured on the camera (see **Section 5.5.12 Email Settings** for information on how to set up the list of email addresses).

5.4.9 Video Loss Handling

The **Video → Advanced Setting → Video Loss Handling → [>>]** button will bring up the dialog window where you can define the behavior of the DVR if the signal from a camera is lost.

Channel number will be displayed at the top of the screen.

There are four available options.

ALARM OUT: Checking this option will enable the Alarm Output when video loss is detected.

BUZZER: Checking this option will enable the internal buzzer when video loss is detected.

UPLOAD: If you have established a remote connection between the DVR and a PC via the internet, and you check the **UPLOAD** checkbox, then on detecting video loss, the DVR will send a relevant message to the IE applet.

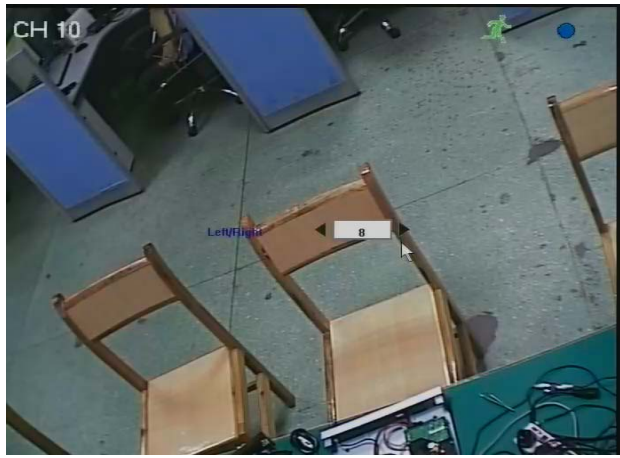
E-MAIL: After you check this option, a video loss event will initiate an e-mail being sent to the indicated addresses with a snapshot of that event as it was captured on the camera (see **Section 5.5.12 Email Settings** for information on how to set up the list of email addresses).

5.4.10 Channel Name Setting

The **Video → Advanced Setting → Channel Name Setting → [>>]** button will bring up the dialog window where you can set channel name.

5.4.11 Camera Offset

The **Video → Advanced Setting → Channel Name Setting → [>>]** button will bring up the dialog window where you can set camera offset. Values can be set up from 0 to 15. And it will take effect instantly.



5.5 Net Settings

Next tab will help you set up network preferences for such activities as working with e-mail or sharing files over a network.

Below you can find the detailed description of each option present in this menu.

5.5.1 Network

Your DVR supports several methods of being viewed online. No matter which method is used, your DVR must first acquire an IP address, which it does via 2 different methods.

- Automatic acquisition of the IP address by the DHCP client model.
- Manual indication of the IP address by the Static IP model.

Thus, this field offers two options: Static IP and DHCP. Toggling these will either make the three following fields changeable (in manual mode) or not (in auto mode); these fields are: IP Address, Subnet Mask and Gateway.

For exact data on your network and explanation of network settings, please contact your network administrator or Internet service provider.

PPPOE settings for ADSL dial-up connection are also supported, please go to the next window of the **Net** Tab by clicking **Next Page**.

5.5.2 IP Address

In this section, you can get IP address as well as set static IP address. The changes will take effect after you save and exit.

5.5.3 Subnet Mask

In this section, you can get information about subnet mask. Subnet mask is a system of interconnections within a communications system that allows the components to communicate directly with each other. The default subnet mask is 255.255.255.0.

5.5.4 Gateway

In this section, you can get information about gateway.

5.5.5 HTTP Port

It is used to connect to the DVR web server. By default the value of the port is 80. You can specify a different port number.

5.5.6 Command Port

It is used to control the DVR. By default the value of the command port is 5050. You can specify a different port number.

5.5.7 Media Port

This port is used for audio and video stream. By default the value of the media port is 6050.

You can specify a different port number.

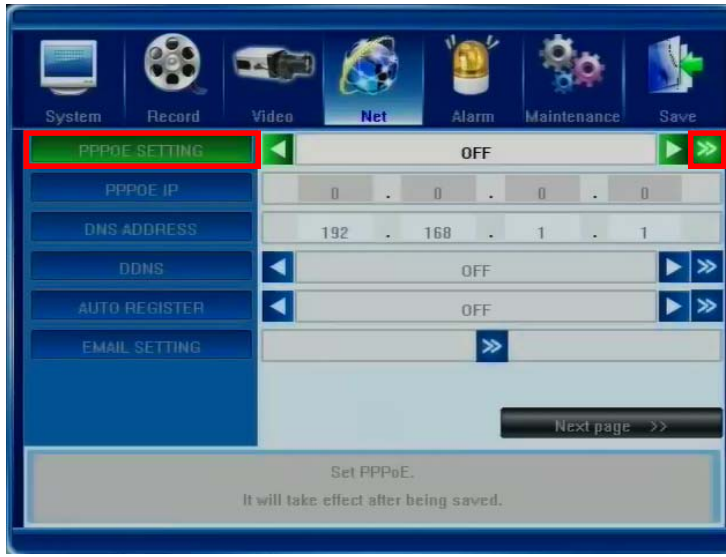
HTTP port: 80, Command port: 5050, Media port: 6050 and Mobile surveillance port: 7050 must be open/allowed to upload to WAN interface if the DVR is behind a Firewall server.

If the DVR is installed behind a Router to share a single public IP address, be sure to configure the "Port Forwarding" or "Virtual Server" for those three network ports and the Mobile surveillance Port: 7050.

Next page in the **Net** Tab can be accessed by pressing the **Next page** button Next page > in the bottom right corner of the menu screen. There are options: **PPPOE Setting**, **PPPOE IP**, **DNS address**, **DDNS**, **Auto Register**, **File Sharing** and **Email Setting**.

5.5.8 PPPOE Settings

You can activate or deactivate (ON/OFF options) PPPOE settings. The changes will take effect after you save them.



In a separate window, which you can bring up by pressing the [>>] button at the right end of the **PPPOE Setting** field, you can input the ADSL user account name and password. You can get this data from your Internet Service Provider. Use the keypad located in the lower half of the **PPPOE Setting** screen to input this data.

5.5.9 PPPOE IP

These values depend on your actual account; please contact your Internet Service Provider for details.

5.5.10 DNS Address

These values depend on your actual account; please contact your Internet Service Provider for details.

5.5.11 DDNS

In order to connect your DVR to the internet, you may choose to use the services of a Dynamic DNS service.

Besides choosing the ON and OFF options for activating/deactivating the Dynamic Domain Name System, you can bring up the DDNS dialog window by clicking the [>>] button.

Your DVR comes with several DDNS server names built-in. To be able to use these servers, you need to go to the associated website to register for an account. Once registered, you input the DDNS account, password and choose the name of the DDNS Server from the list by pressing the arrow buttons located at both ends of the corresponding field. Afterward, it should automatically connect.

5.5.12 Auto Register

You can choose either the ON or OFF option. The DVR will automatically search for client software in a Local Area Network and assign IP addresses to the DVR. You can bring up the

Auto Register dialog window by clicking the [>>] button, and view the Server IP, Server Port and Interval values.

5.5.13 Email Settings

To access **Email Settings**, please select **Main Menu → Net → *Next Page.***

Note: In order to activate the feature of sending alarm-triggered e-mail notifications to the addresses you indicate in this window, you also need to activate this function in the **Alarm** tab – **Alarm** (**Advanced Settings** – **Event Handling** – **E-mail**). Please see the following section for a detailed description.

Here you can indicate multiple e-mail addresses for persons who need to receive alarm notifications when an alarm is triggered.

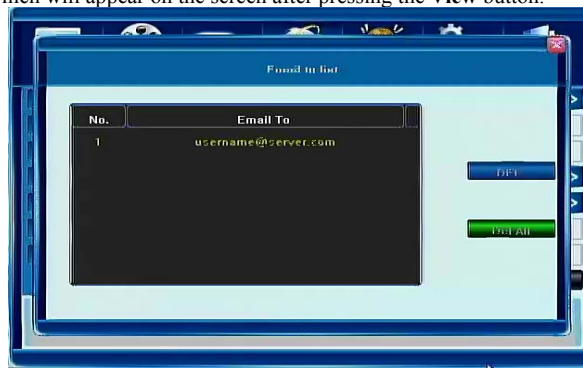
Clicking the [>>] button in the **E-mail Setting** field will bring up a dialog window, where you can adjust the necessary settings.

You need to enter the User name and Password of the email account from which such notification e-mails will be sent, the recipients of these emails, as well as Server and Port details. Please make sure the account you are indicating exists and is active.

*On some models, there will be a default email account, from which notification emails

will be sent. Please ensure this default email address is added to your Email Address Book so it is not treated as spam email.

The **Object Address** (TO) field indicates the recipients of alarm emails, and the **Revert Address** (FROM) field indicates the email account from which the message will be sent. In the **Object Address** field, you can indicate multiple addresses by adding them to the list of recipients. To do so, press the **Add** button. You can **View** the list of recipients in the **Email list** window which will appear on the screen after pressing the **View** button.



You will be able to see the list of recipients in the table on the right, and two buttons to manage this list on the left. The options for managing the list are: **Delete** and **Delete All**. To save the changes click **OK**, to exit the window without saving, click **Cancel**.

Click **Next Page** again to go to the page as below. Including “Mobile port”, “UPnP”, “FTP setting”, “IP access” and “Time SYNC”.

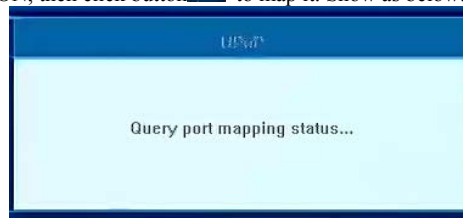
5.5.14 Mobile Port

This DVR allows remote access from a mobile phone. The port that the mobile phone uses is indicated here and is by default 7050. For details on using DVR functionalities from mobile phones please see Section 7.

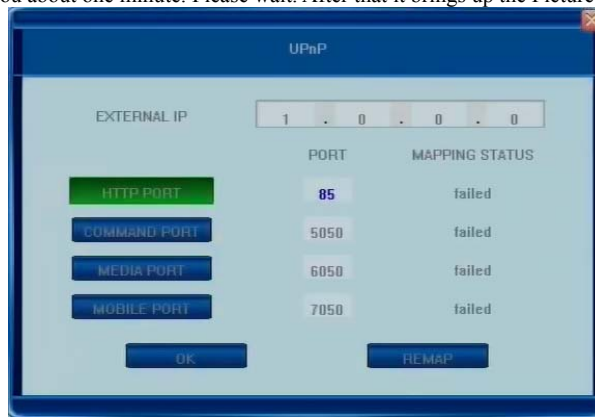
5.5.15 UPnP

Set external HTTP Port, Command Port, Media port, and Mobile Port which mapped in Internet.

Switch the UPnP to ON, then click button to map it. Show as below:



It may take you about one minute. Please wait. After that it brings up the Picture as below.



It shows you that the UPnP mapped failed or succeed. If failed, you need to map again. If succeed, you can go to connect the internet.

5.5.16 FTP Setting

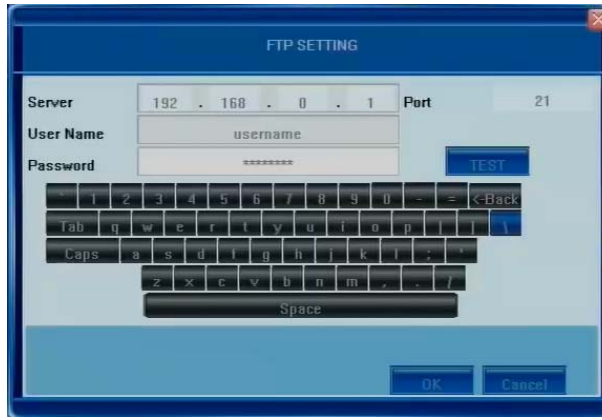
To access FTP Setting, Please select Main Menu → Net → *Next Page*→Next Page. Switch the FTP Setting to on, then click the button to enter into the window (shown as below).

Server: The IP address of the computer on which the server is installed.

[Port, User name, Password]: Install the FTP server first, then register, and remember the port, username, and password. Entered the port, username, and password used here will be the same

as the ones entered on the server.

Click the button “TEST” to validate the parameters that users setup right or not.



5.5.17 IP Access

Including allow access, forbidden and disable, switch to allow access then click button to enter it. Show as below:

5.5.18 Time SYNC

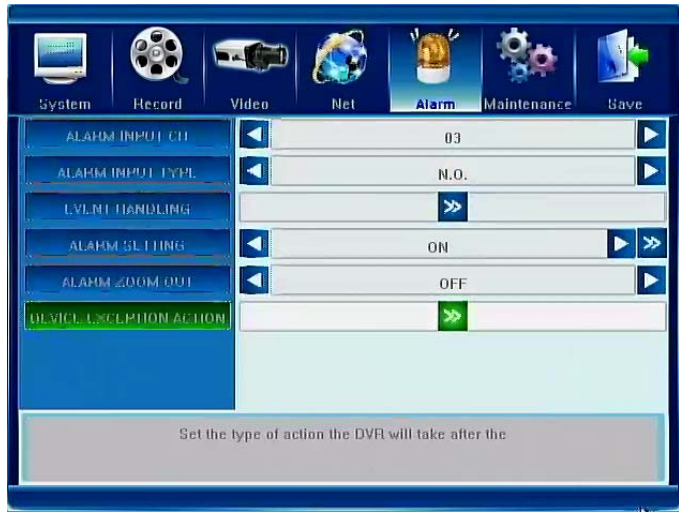
To access Time SYNC, Please select Main Menu → Net → *Next Page*→Next Page. Switch the Time SYNC to on, then click the button to enter into the window (shown as below).

User can set the time Server host, the time Sync interval and the time zone, then click “OK” to save the setting.

If user clicks “Update”, the system time will proofread the time with the network server that you setup at once.

5.6 Alarm

Next menu tab in the System Menu is **Alarm**. Under this tab the administrator can define how the DVR will respond to various alarms from the alarm inputs and adjust Alarm input / output settings.



5.6.1 Alarm Input Channel

Select alarm input channels to which the configurations adjusted below will apply. For each or all cameras, you can setup various kinds of behavior. You have a choice of channels 1 through 4 and **ALL** – to have the settings apply to all channels.

5.6.2 Alarm Input Type

This field allows you to choose between the N.O. (Normally Open) and N.C. (Normally Closed) options.

N.O.: Normally open type. It means that in the normal state, the sensor device is kept under constant low voltage. If output voltage changes from low to high, then the alarm is triggered.

N.C.: Normally closed type (also – "normally connected"). The normal state of the sensor device is under constant high voltage. If output voltage changes from high to low, then the alarm is triggered.

Please refer to the sensor operation manual to set it.

5.6.3 Event Handling

The Event Handling feature has eight options:

RECORD: Allows you to set the channel which will start recording once an alarm is activated. (Choice of 1 to 4/1 to 8/ 1 to 16, multiple channels can be selected)

PTZ PRESET: Setting PTZ behavior after an alarm is triggered. Only preset point 1 can be triggered (Choice of Channel 1 to 4/1 to 8/ 1 to 16, multiple channels can be selected).
ALARM ZOOM OUT: When the option is selected and one or more record channel is selected, these record channels will touch off alarm zoom out.

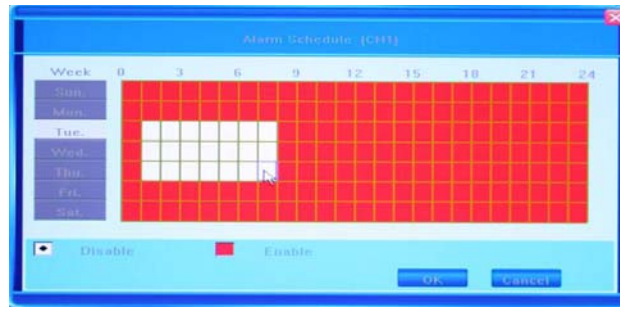
ALARM OUT: Setting the triggered alarm output (ON or OFF options).

BUZZER: Setting the internal buzzer behavior after an alarm is triggered (ON or OFF options).
UPLOAD: Setting the option for sending information about an alarm to the center.
EMAIL: Setting the E-mail switch (ON or OFF options).
UPLOAD VIA FTP: upload the alarm picture via FTP.

Note 1: before setting alarm triggered record, please set up the record schedule in **Record Schedule**.
Note 2: if you want to set alarm triggered PTZ, please ensure preset point is set and proper PTZ channel number is selected (only preset 1 can be selected).
Note 3: if you want to set E-mail, please make sure that E-mail has been set correctly.

5.6.4 Alarm Setting

Offers two options: ON and OFF, as well as a feature allowing for manual setup of an alarm schedule. Click on the [>>] button to bring up the **Alarm Schedule** window.
You will see the number of the channel for which this setting is being adjusted in the title line of the window.



This window allows the user to enable/disable alarm output on a daily basis. The table represents days of the week from Sunday to Saturday located vertically, and hours of the day from 0 to 24 on the horizontal line. Below the week grid you can see the legend for the color encoding: White stands for the time when alarm is disabled, and Red denotes enabled alarm.

To mark the time cells, you can left click on them individually or click and drag to highlight the required time span. If you choose your color code and click the day of the week, the complete 24 hour time span for that day will be highlighted in the selected color.

To save the changes click **OK**, to ignore the changes click **CANCEL**.

5.6.5 Alarm Zoom Out

In this section you can choose 1~10 or OFF. If you select some one activated，the channel video is touch off alarm zoom out.

5.6.6 Device exception action

Have three options: HDD full actions, offline and IP collision.

ALARM OUT: Checking this option will enable the Alarm Output when hard disk storage capacity is full.

BUZZER: Checking this option will enable the internal buzzer when hard disk storage capacity is full.

UPLOAD: If you have established a remote connection between the DVR and a PC via the internet, and you check the **UPLOAD** checkbox, then on detecting hard disk full, the DVR will send a relevant message to the IE applet.

E-MAIL: After you check this option, HDD full event will initiate an e-mail being sent to the indicated addresses with a snapshot of that event as it was captured on the camera (see **Section 5.5.14 Email Settings** for information on how to set up the list of email addresses).

5.7 Maintenance

Information contained under this tab lets you view system and event logs, versions of software and hardware and work with the HDD settings.

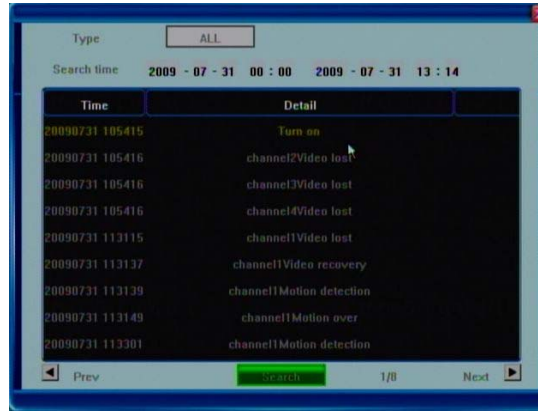
5.7.1 Log View

Clicking on the [>>] button will bring up the log window. In the **Type** field, you can choose the features of a log you wish to see. The choice can be made among four options: **All** / **Operation** / **Exception** / **Alarm**. After that please indicate the time frame within which you'd like to observe the log (**Search Time** field). The first value is start time; the second value is end time.

After that press the **Search** button and you will see the desired logs in the table below (it may take several minutes to populate the list depending on the size and number of logs). The first column will display the start time of an event in the YYYYMMDD HHMMSS format, and the second column will list the description of the events.

If you have more log entries that cannot fit in one screen, you can move between screens by using buttons **Previous** and **Next** located at the bottom of the window.

If you have already recorded the alarm events, you can double click it to play the file.



Note: The maximum number of entries currently supported is 3000. When the database becomes full, the overwrite function kicks in and the earliest entry will be replaced with the newest one.

5.7.2 Upgrade

To upgrade your software version, please use this function. The device supports software updates from a USB drive and IE Remote Software. Before upgrading please make sure the USB device is connected properly and the upgrade application has been copied into the USB drive root directory (ie. F:*XXXXX*.tar.gz). If no USB connection is found, a pop-up window will appear, informing you that there is no available device.

Please follow the prompts to upgrade your software version. After completing the upgrade process, you will need to restart the system. Pressing the **Confirm** button will restart the system.

5.7.3 HDD Manage

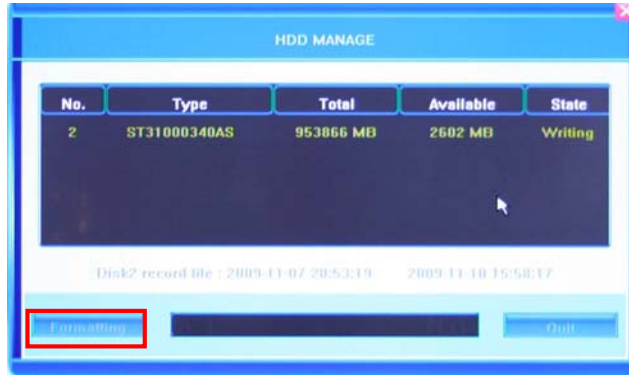
Prior to recording video and audio feeds your HDD must be formatted by the DVR device. You must be logged in as Administrator to format HDD.

This option on the **Maintenance** Tab will help you accomplish this task.

Please press the [>>] button in the **HDD Manage** field.
If your DVR device has successfully detected the HDD, its information will be displayed in the

pop-up window providing the following data for your consideration: *Number, Type, Total Memory, Available Memory* and *State*.

In order to format your HDD please press **Formatting** button. You will see the progress in the progress bar. To stop the formatting process, please press the **Quit** button. Depending on the size of the HDD, the Format process can take quite a long time.

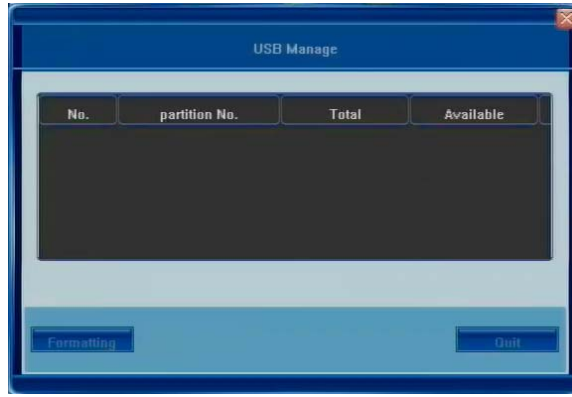


Upon completion of the formatting process you will be able to successfully use your HDD.

The four following fields provide only reference information and are not changeable.

5.7.4 USB Manage

Clicking on the [>>] button will bring up the USB manage window. Click “formatting” and this enables users to format the USB device connected to the DVR.



5.7.5 Copy Setting to USB

User can export important parameters to a USB drive to save. And import the same parameters to other DVRs.

5.7.6 Load Setting from USB

It is necessary to export parameter to a USB drive before importing any parameter from the USB drive; otherwise, it will not be possible to successfully import the parameter.

5.7.7 Auto Maintain

Clicking on the [>>] button will bring up the auto maintain window. The options of "maintain model" includes: Every Day, Every Week, Once and Disable. Users can set a specific time for the DVR to restart. The system will restart automatically according to the parameter(s) chosen.

5.7.8 HDD Capacity

It shows Total / Available HDD storage capacity. Some discrepancy may exist due to system usage of HDD.

5.7.9 Hardware Version

It shows current hardware version of your DVR device.

5.7.10 Software Version

It shows current software version of your DVR device.

5.7.11 Software Release Date

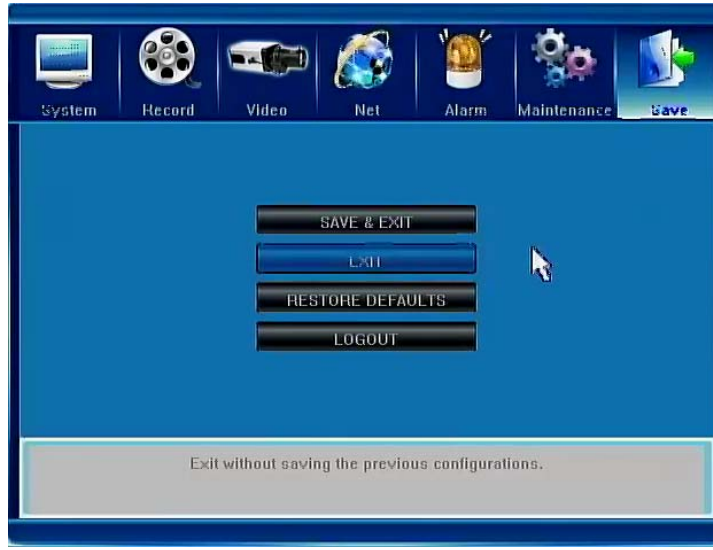
It shows the release date of your current software version.

5.7.12 DVR ID

It shows the device ID number of your DVR. The DVR ID is used for connecting the Internet Explorer interface. For detailed instructions please refer to 5.

5.8 Save Settings

This is the last Tab in the **Main Menu**. It provides only four options as described below:



5.8.1 Save & Exit

Save all settings and exit the menu.

5.8.2 Exit

Exit the menu without saving any changes.

5.8.3 Restore defaults

Resets all configurations to factory defaults.

The system language, time, camera PAL/NTSC system, and network settings (IP address, subnet mask, gateway, HTTP port) cannot be recovered after restoring to factory defaults.

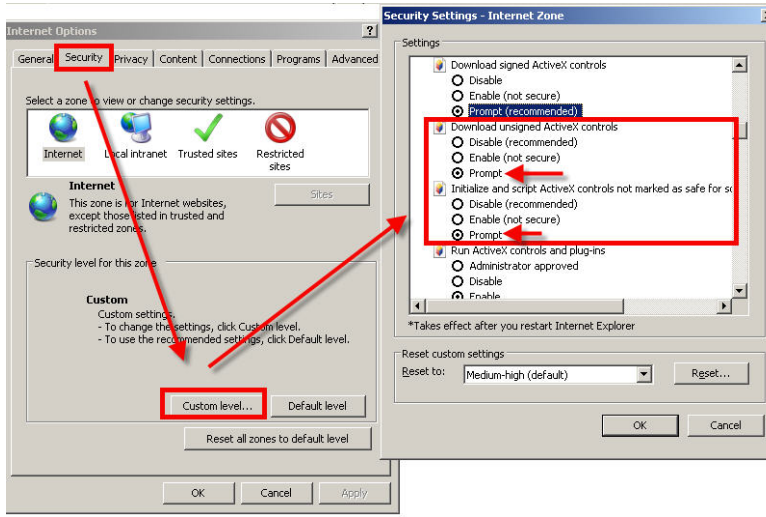
5.8.4 Logout

By using this option, you save all newly introduced changes and log out of the system. To be able to operate the device you need to log in again with the user name and password.

6. Web Browser Operation

6.1 Enabling Download of an Unsigned ActiveX Control

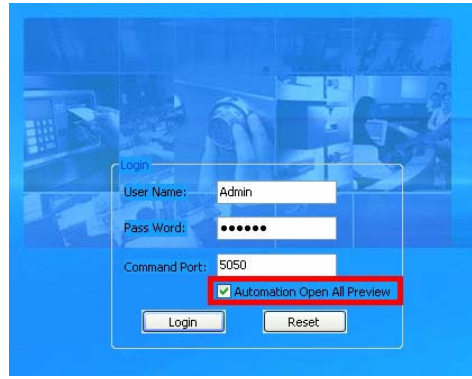
You can connect to your DVR via the Internet and be able to monitor and configure the DVR remotely. To access your DVR device via a web browser (currently **Internet Explorer** is what this DVR was primarily designed for), you need to install a special ActiveX component for web access. If your Internet Explorer settings prohibit downloading unsigned ActiveX components, please enable this function manually as shown below (the process may vary depending on the version of your Internet Explorer).



In Internet Explorer - **Tools** Menu - **Internet Options** settings under the **Security** tab, click on the **Custom Level** button and select **Enable** (or **Prompt**) in the "*Download unsigned ActiveX controls*" option and also **Enable** (or **Prompt**) in the "*Initialize and script ActiveX controls not marked as safe for scripting*".

6.2 Web Browser Login Screen

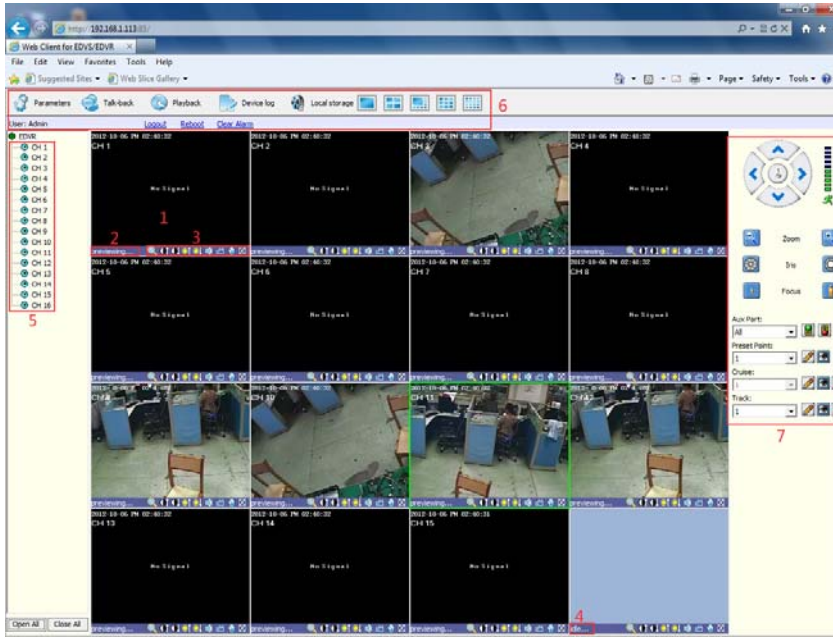
Open an IE browser, input the IP address of your DVR in the address field. If the IP is correct and remote access is enabled on your DVR, you will be taken to the Login window:



Enter User Name and Password, check the "**Automatically Open All Previews**" option to be able to view all cameras after the login. To reset entered values, press the **Reset** button and to enter the system, press the **Login** button. The browser window will display the main remote access screen.

The default user name and password of the administrator is "**Admin**" and "**888888**". And the default value of command port is "**5050**".

6.3 Web Browser Main Window



1 The main and central position on the screen is taken by the camera view window. If you selected "**Automatically Open All Previews**" in the previous window, all available camera feeds will be displayed on this screen. You can bring up 1 camera view / 4 cameras / *8 cameras (depending on the model) /*16 cameras (depending on the model). By default, the camera views will display the live feed (with an up to 2 seconds delay from actual "live" events depending on the connection), though you can also access recorded information from the **Playback** menu (see below).

2 In the bottom left corner of each individual camera view, you can see the indication of the current status (*previewing*, *idle*). In the picture above, the camera is in preview mode (see also item 4).

3 Right bottom corner of each individual channel is occupied by camera view tools:

: E-zoom. Click the button "" and then left-click and drag the cursor to select the area to be magnified. Click the button "" again to exit zoom mode.

: Increase/decrease image contrast.

: Increase/decrease brightness.

: Start/stop voice monitoring. The icon will turn green when the recording process is on.

: Start/stop recording. The icon will turn green when the recording process is on. Pressing this button will bring up a dialog window for local storage, which is the same functionality as the **Local Storage** button in the Tools Menu. Please see 6.4.5 Local Storage for more information.

: Takes a snapshot of the displayed image.

: Closes the window view. (You can open it again by clicking on the respective channel in the channel list on the left (see item 5).

4 Current status of camera views with no video feed is indicated as *idle* (see also item 2).

5 **Available Cameras** list. Clicking on a channel (if this video feed is not open yet) will display this camera view in the respective position on the screen. You can also **Open All** or **Close All** camera views by pressing the buttons at the bottom of the camera list area.

6 Tools Bar

The **Tools** Bar allows you to adjust most needed settings for remote access to the DVR. Detailed description of these options will follow below.

Tools Bar features the following components:

- **Parameters**: A comprehensive menu for adjusting most device parameters, similar to the **Main Menu** on the DVR. Please see 6.4.1 Parameters for more information.
- **Talkback:** Allows you to talk to the operator at the location of the DVR installation. Please see 6.4.2 Talkback for more information
- **Playback**: Use this feature to search and playback recorded files (from DVR as well as saved on the local machine). Please see 6.4.3 Playback for more information
- **Device log**: View and export logs. Please see 6.4.4 Log for more information
- **Local Storage**: Set parameters to store directly to local machine. Please see 6.4.5 Local Storage for more information.

The next three buttons work with the screen display mode. By using them, you can toggle the single split view mode, and 4/8*/9*/16* split view mode (*depends on the model of your DVR).

The data line below the **Tools** bar shows the name of the current user and gives a number of functions:

Logout: current user can exit the system
Reboot: for starting the connection anew and logging in again
Clear alarm: for clearing the triggered alarm

In case of an interrupted or abnormal network connection, a poetic message will appear in the top right corner of the main screen "*No heartbeat of device, please check the network*". After the network connection is recovered, the preview mode will be displayed automatically

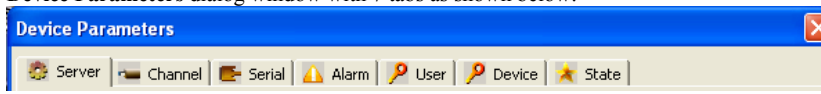
7 The right-most control panel is the PTZ Control.

Please read the detailed description of the Tools Bar items below.

6.4 Tools Bar Items

6.4.1 Parameters

The first Menu item in the Tools Bar is **Parameters**. By clicking this button you will open the **Device Parameters** dialog window with 7 tabs as shown below:

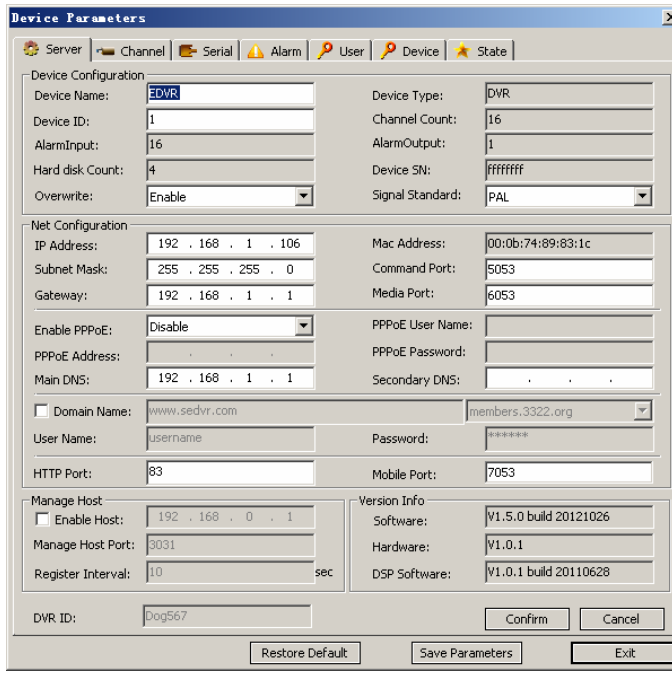


For the most part these settings are similar to those you can adjust on the DVR device, though the menu layout and logic was slightly altered to better suit the PC configuration philosophy. Please refer to **Section 5.2 System Settings** for configuration of the DVR parameters.

Detailed description of the functionalities offered by each of these tabs follows. If a field is grayed, it means it is not changeable and is for your reference only. If the field is bluish-green, it means that you can adjust the value of the field or choose it from a drop-down menu.

6.4.1.1 Server

The **Server** tab lets you adjust network settings. Most items here are self-explanatory and correlate to the settings available on the actual DVR.



There are four subsections in this dialog window:

Device Configuration: You can enter the device name and choose the **Signal Standard** (NTSC/PAL/SECAM)

Other values: **Channel Count**, **Alarm Input**, **Device Serial Number**, **Device Type**, **Hard Disk Count** and **Alarm Output** are not changeable and provide reference information related to the actual DVR.

Net Configuration: In this subsection most parameters are user-changeable (besides **Mac Address**), but should be already available depending on your installation and connection.

Option **Enable PPPOE** offers two choices – *Enable* and *Disable*. If you *Enable* this function, the related fields (**PPPOE Address, PPPOE User Name** and **PPPOE Password**) become active and alterable.

Likewise, checking the *Domain Name* (DDNS) option will make available the four related fields: the actual domain name, a drop-down window with a list of available DDNS services, User Name and Password. HTTP Port and Mobile Port next to it are changeable and their default values are respectively: 80 and 7050.

Manage Host: Checking this option activates the three fields: **Host IP, Manage Host Port** and **Register Interval** in seconds.

Version Info: Non-changeable information fields: **Software version, Hardware version, DSP Software version**.

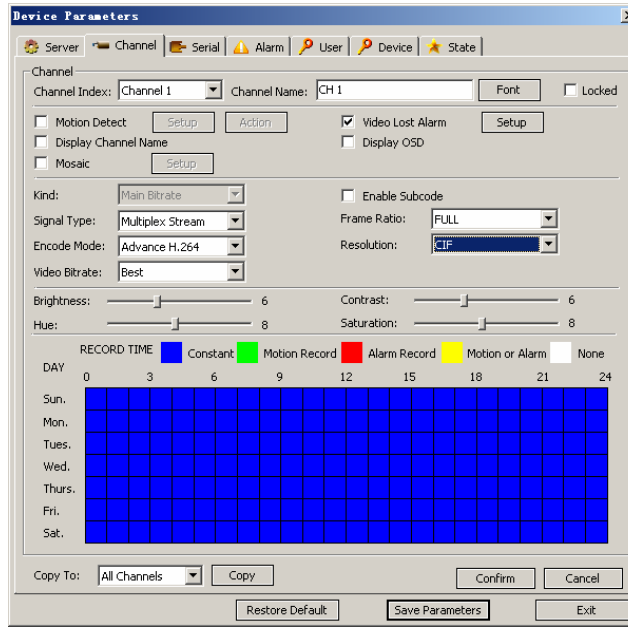
DVR ID: The DVR ID is used for connecting the Internet Explorer interface. For detailed instructions please refer to Appendix 5.

To save and exit press the **Confirm** button, to exit without saving changes press **Cancel**.

You can also **Restore Default** values by pressing the first button in the last row, **Save** the **Parameters** you just modified or **Exit** the window without saving.

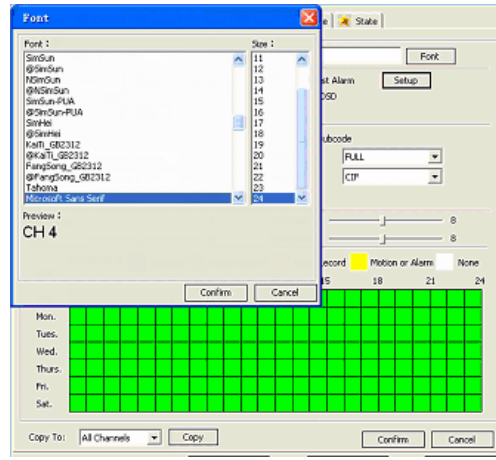
6.4.1.2 Channel

This tab lets you adjust settings for each individual channel.



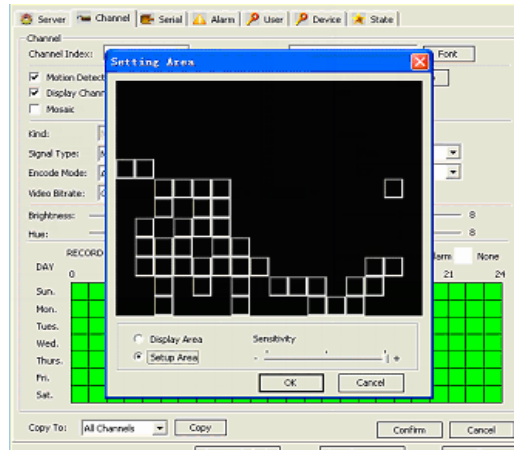
First of all you need to select the Channel whose settings you are going to review/change: select the channel from the drop-down menu of the **Channel Index** option (a choice of channels from 1 to 4 (9*) depending on the model).

Channel Name field lets you customize the name of the channel, ie “Front Door”, and pressing the **Font** button brings up a dialog window allowing modification of the font size:



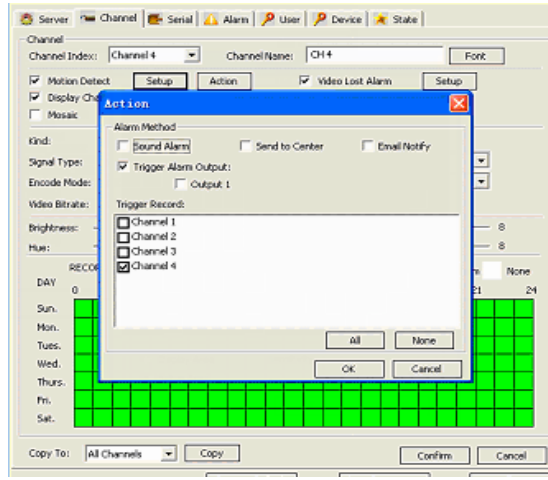
Activating the **Motion Detect** check box will initiate the motion detection feature of the DVR for the selected camera. With the related buttons **Setup** and **Action** you can respectively adjust the motion detection area and the alarm method.

Setup button:



Opens a live feed screen in which you can indicate cells for motion detection. Two checkboxes – **Display Area** and **Setup Area** are mutually exclusive, where Display Area gives you a clear view of the video feed, and Setup Area lets you indicate cells for motion detection. You can also adjust sensitivity level on a three position slide scale (- / mid / +).

Action button:



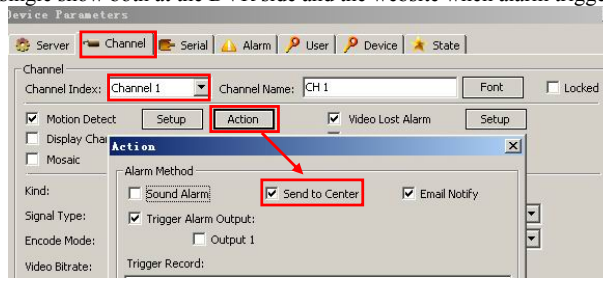
Opens a pop-up window offering alarm method options when motion is detected: **Sound Alarm, Send to Center, and Email Notify**.

If you check the **Trigger Alarm Output** option, another checkbox will become available: **Output 1**.

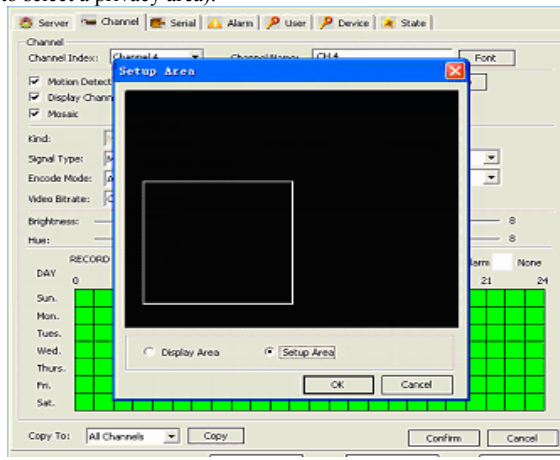
To choose which channel will start recording on alarm, check the appropriate boxes on the list under the **Trigger Record** option, offering all available channels.

When motion detection alarm is triggered, and the function of remote notification is activated (i.e. check **Send to Center** box), you will see a message at the top right corner of the screen containing such information as: "*Device Alarm: Motion Detection, Channel 1*".

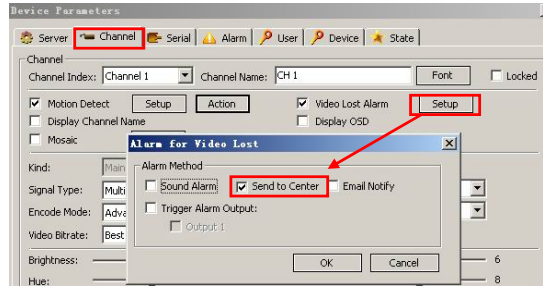
When you select both [alarm zoom out (tool bar—setting—video—motion handing—alarm zoom out)] at DVR side and [send to center] at website. The corresponding channel will popup, zoom out as a single show both at the DVR side and the website when alarm trigged.



If you check the **Mosaic** / Privacy Mask box, you can use the **Setup** button to access the Setup Area screen with a number of check items: **Display Area** and **Setup Area** (the latter allows you to select a privacy area).

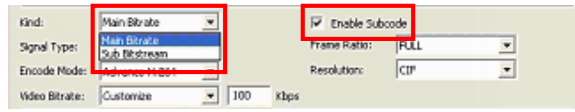


To handle alarm options on Video Loss, you need to check the **Video Loss Alarm** box. To modify relevant settings, press the **Setup** button. In the window below which will appear.



You can choose the **Alarm Method** for Video Loss: **Sound Alarm, Send to Center, Email Notify, and Trigger Alarm Output** (checking the latter will make available another check box: **Output 1**).

The **Kind** field works together with another option – **Enable Sub-code**, where if the latter is activated, the **Kind** dropdown menu offers two options: **Main Bit-rate** and **Sub bit-stream**. You can use this function to allow a lower network bit stream for slower network connections or computers.



In the **Signal Type** field, you can choose two options from the dropdown menu: **Video Stream** and **Multiplex Stream**

The dropdown menu for the **Encode Mode** field currently offers only one option: **Advance H.264**

Video Bit-rate lets you choose the quality of video signal; the choice in the dropdown menu is: **Best, Good, Better, Normal, and Customize**. If you choose **Customize**, in the activated field to the right, you can enter the desired value in Kbps.

To further define the quality of the video signal, you can adjust the **Frame Ratio** value, choosing among the dropdown options: **FULL**, and from 1 to 25)

Currently the system supports one kind of Resolution**: CIF**, as shown in the only option in the **Resolution** field.

Brightness, **Hue**, **Contrast** and **Saturation** values can be adjusted on respective sliding scales within the range from 1 to 16 (by default each of these values is set to 8).

Next part of the **Channel** Tab is a table for setting up the event-driven scheduled recording

(same function as the **Record Schedule** function on the **Record** Tab of the DVR device **Main Menu**; cf. **Section 5.3.2 Record Schedule**). This is a weekly recording schedule for various kinds of events Sunday through Saturday on a 24-hour basis. Week days are represented vertically and the hour line runs horizontally from 0 to 24 hours. One cell stands for one hour. Color-coded values denote the situations where the DVR will start recording:

→ **Constant recording (blue)**: Recording full-time

→ **Motion Record (green)**: Motion-detection triggered recording

→ **Alarm record (red)**: Alarm-triggered recording

→ **Motion or alarm (yellow)**: Recording triggered by both alarm and motion detection.

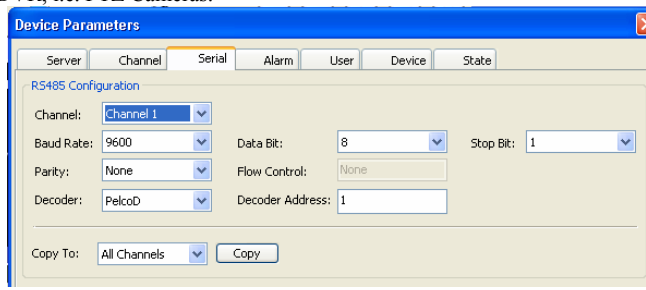
→ **No recording (white)**: No recording will be performed during this time

The dropdown menu **Copy To** offers options: *All Channels* and *Channels 1* through *4/8*/16*(model dependent)* individually. Pressing the **Copy** button will copy settings from the current channel to All or specified channel(s).

The functions of **Confirm** and **Cancel** buttons are self-explanatory and refer to the parameters of this tab. As with all other tabs in the Device Parameters window, you can also **Restore Default** values by pressing the first button in the last row, **Save** the **Parameters** you just modified or **Exit** the window without saving.

6.4.1.3 Serial

Next tab – **Serial** offers some important settings related to any serial devices connected to the DVR, i.e. PTZ Cameras.



Values offered in the **RS485 Configuration** subsection:

Channel: dropdown menu with options *All Channels*, and *Channels* 1 – 4 /*8/*16.

Baud Rate: dropdown menu with options *1200, 2400, 4800, 9600*

Parity: dropdown menu with options *None, Odd, Even*

Decoder: dropdown menu with options *SAMSUNG, Panasonic, PelcoD, PelcoP.*

Data Bit: dropdown menu with options ranging from *4* to *8*

Flow control: currently inactive field with the default value *None*

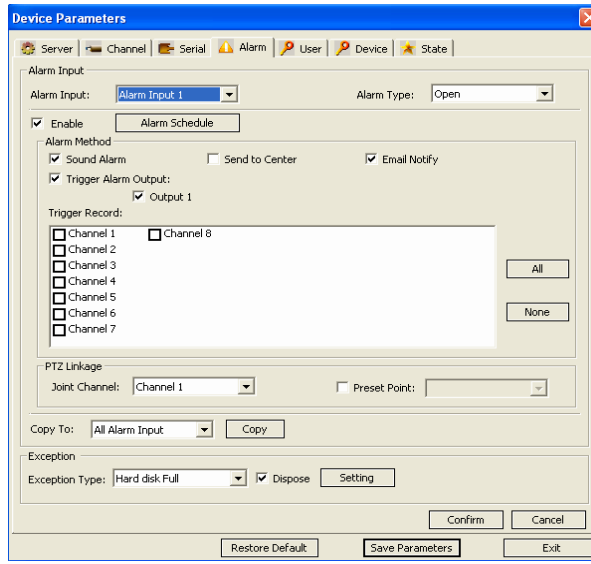
Decoder Address: changeable field in which you can enter the PTZ address (default value: 1)

Stop Bit: dropdown menu with options *1, 1.5, 2*

The dropdown menu **Copy To** offers options: *All Channels*, and *Channels 1* through *4* individually. Pressing the Copy button will copy settings from current channel to All or specified channels.

The functions of **Confirm** and **Cancel** buttons are self-explanatory and refer to the parameters of this tab. As with all other tabs in the Device Parameters window, you can also **Restore Default** values by pressing the first button in the last row, **Save** the **Parameters** you just modified or **Exit** the window without saving.

6.4.1.4 Alarm



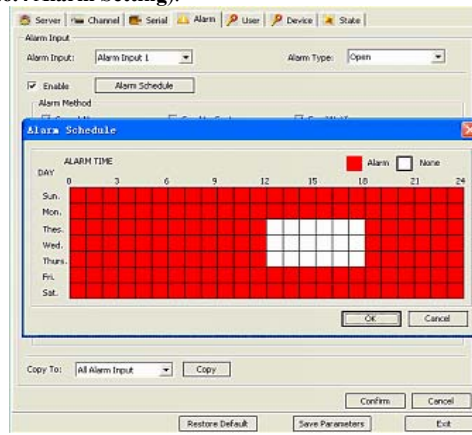
Alarm Input subsection offers basic Alarm input/output settings.

Alarm Input: dropdown menu with options *Alarm Input 1* through *4*

Alarm Type: dropdown menu with options *Open* and *Close*, referring to N.O. /N.C. Alarm

Exception: Exception type has three options: HDD full actions, offline, and IP collision. Click setting to set the dispose.

Checkbox: **Enable** with the **Alarm Schedule** button next to it. Pressing this button will bring up a schedule window similar to the one available in advanced Alarm settings of the DVR device (see **Section 5.6.4 Alarm Setting**).



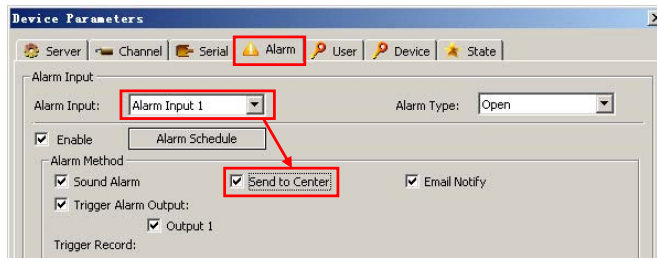
This window allows the user to enable/disable alarm output on a weekly basis. The table represents days of the week from Sunday to Saturday located vertically and hours of the day from 0 to 24 on the horizontal line. Color encoding has two options: White stands for the time when alarm is disabled, and Red denotes enabled alarm.

To mark the time cells you can click on them individually or click and drag to highlight the required time span.

To save the changes click **OK**, to ignore the changes click **CANCEL**.

Alarm Method subsection will help you setup system behavior in case of a triggered alarm. You can choose among the following options by checking the respective boxes: **Sound Alarm, Send to Center, Email Notify** and **Trigger Alarm Output** (checking the latter option will make available another checkbox **Output 1**)

If **Send to Center** is checked, when alarms are triggered on the DVR, in the right top corner of the main screen you will see an alarm notification with the alarm input number, such as "*Device alarm: IO alarm, IO input X*".



Trigger Record window lets you choose which channels will start recording after an alarm is initiated. You can choose Channels 1 though 4/8* (depending on the model) individually, or alternatively, use the **All** or **None** buttons located on the right.
PTZ Linkage subsection deals with PTZ control and offers two options:

Joint Channel: if a channel is connected to a PTZ camera, upon alarm, the PTZ camera will be active. The dropdown menu offers a choice of *All Channels* or *Channels 1* though *4* individually.

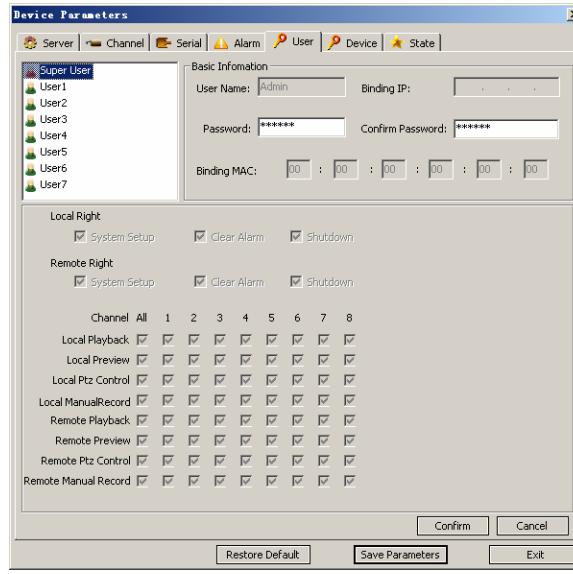
Checking the **Present Point** box will move associated PTZ camera to Preset Point, making available a dropdown menu with preset points.

The dropdown menu **Copy To** offers options: *All Alarm Input,* and *Alarm Input 1* through *4* individually. Pressing the Copy button will copy settings from current alarm to **All** or a specified alarm input.

The functions of **Confirm** and **Cancel** buttons are self-explanatory and refer to the parameters of this tab. As with all other tabs in the Device Parameters window, you can also **Restore Default** values by pressing the first button in the last row, **Save** the **Parameters** you just modified or **Exit** the window without saving.

6.4.1.5 User

This tab can help you adjust user account and authority settings.



In the leftmost field, you can see the list of available users.

Basic Information subsection provides such data as **User Name**, **Binding IP**, an option to change the password (fields **Password** and **Confirm Password**), and the **Binding MAC** field. By indicating Binding IP (static IP) or Binding MAC, you can restrict access to the DVR from remote locations, i.e. the user will be allowed to connect to the DVR only from a fixed IP address or a fixed PC, and not from any other IP or computer.

The major area of the rest of the screen is taken by the list of options which are accessible/non-accessible by the selected user. Some options are changeable (i.e. may be marked as accessible or given a restricted access), some are preset and cannot be changed (Admin may restrict access to certain features by the user).

The list of rights includes **Local** and **Remote** sub-sections, meaning that these functions are either on the local PC or on the remote DVR device. Both sub-sections contain identical items, thus one and the same feature may be allowed on the DVR but inaccessible on the local machine.

The list of features is as follows: **System Setup, Clear Alarm, Shutdown, Local Playback, Local Preview (Live Viewing), Local PTZ Control, Local Manual Record, Remote Playback, Remote Preview (Live Viewing), Remote PTZ Control, and Remote Manual Record.**

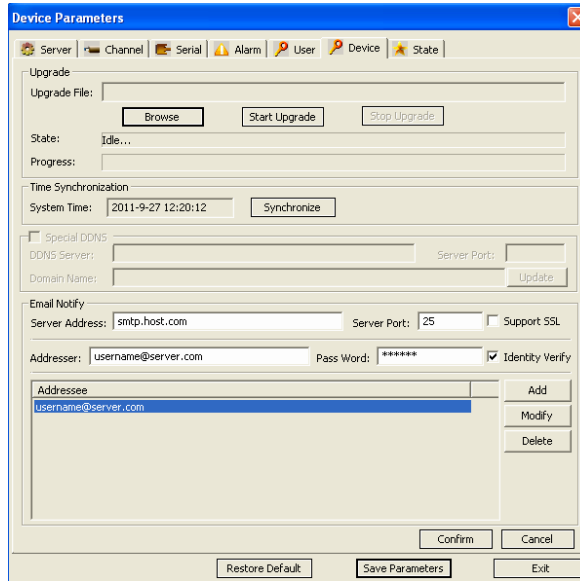
Each item on the list is marked with an icon "☑", showing which function is available for a certain user.

Accredit checkbox: if it is inactive, the user has no right to change the settings as adjusted by the Admin. The checkbox is active when the Admin is logged in, making it possible for him to allow a certain function for a user (checkbox checked, i.e. the item is marked "☑") or disable this function (checkbox unchecked, i.e. the item is marked "☐").

The functions of **Confirm** and **Cancel** buttons are self-explanatory and refer to the parameters of this tab. As with all other tabs in the **Device Parameters** window, you can also **Restore Default** values by pressing the first button in the last row, **Save** the **Parameters** you just modified or **Exit** the window without saving.

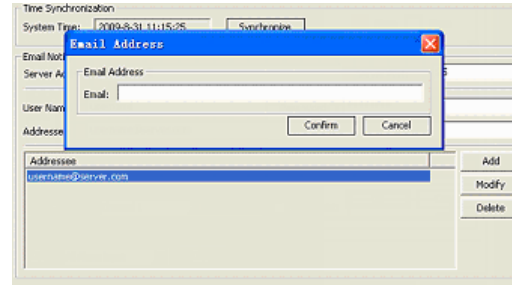
6.4.1.6 Device

Settings available under this tab offer options for firmware upgrade and time synchronization.



Upgrade subsection offers options for upgrading the system. To find the file to upload, you would need to search for it by pressing the **Browse** button, which will open a standard Microsoft "Open File" window. After selecting the file, press the **Start Upgrade** button (you can always stop this process by pressing **Stop Upgrade**).

The **State** field shows the current status of the upgrading function (*Idle* if no upgrading is happening) and the **Progress** Bar which shows the current upgrading process.



Time Synchronization subsection lets you adjust the system time in the YYYY-M(M)-D(D) HH:MM:SS format. Press the Synchronize button to sync the system time to local PC time.

Email Notify subsection is the same in functionality and similar in layout to that present in the **Net** Tab of the DVR settings (See **Section 5.5.12 Email Settings**). You can indicate multiple email addresses of the people who should be notified in case of a triggered alarm, and the sender's details.

Please indicate **Server Address** and **Server Port**, as well as **User Name**, **Password** and **Email Address** of the *Addresser* (Sender).

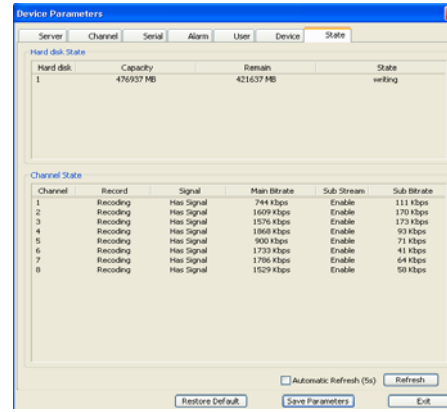
The list of *Addressees* (Recipients) can be populated and altered with the help of the **Add**,

Modify and **Delete** buttons located on the right.

The functions of **Confirm** and **Cancel** buttons are self- explanatory and refer to the parameters of this tab. As with all other tabs in the Device Parameters window, you can also **Restore Default** values by pressing the first button in the last row, **Save** the **Parameters** you just modified or **Exit** the window without saving.

6.4.1.7 State

This tab provides system information, all items are non-changeable and only for reference.



In the **Hard Disk State** subsection you can see information on the number of available HDDs, their capacity, available space and state (idle, writing, etc.).

The **Channel State** table provides detailed information for each active channel (1-4/8*/16* depending on the model). You can see whether the channel is in a recording state, whether it has signal, the values of its **Main Bit-rate** (Kbps), and if there is a **Sub Stream** for the channel, which **Sub Bit-rate** value it possesses.

In order to keep up to date with the changing values, you can check the **Automatic Refresh** options and the data will be refreshed every 5 seconds or, alternatively, you can press the **Refresh** button to view the latest information only when you need to see the data renewed.

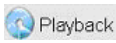
As with all other tabs in the Device Parameters window, you can also **Restore Default** values by pressing the first button in the last row, **Save** the **Parameters** you just modified or **Exit** the window without saving.

6.4.2 Talk-back

This function allows you to have a live audio conversation with the operator present at the location of the DVR installation. You can use the microphone and loudspeakers of the PC to communicate, and it brings up no dialog windows. “

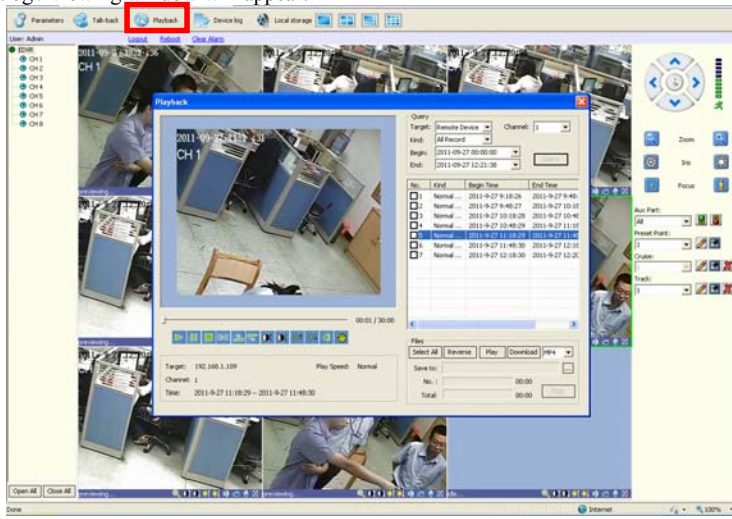
” indicates enable Talk-back.

6.4.3 Playback



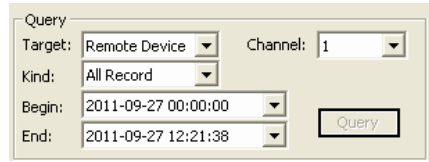
The second option on the **Tool Bar** menu is **Playback**, which allows you to view recorded files stored locally on the PC or remotely on the DVR’s HDD. When you press the **Playback** button,

a dialog / viewing window will appear:



The Playback window features two major parts – the left half is the screen with controls, and the right half offers options for working with recorded files.

Query subsection



First of all you need to choose the **Target** from which you will be searching the recorded files. Target field offers a dropdown menu: **Remote Device** (DVR) and **Local host** (PC).

Channel dropdown menu lets you choose among 4/*8/*16 (depending on the model) channels.

You can select recorded files depending on their specific **Kind** from a dropdown menu: **All Records**, **Normal Record**, **Triggered by Alarm** and **Motion Detection**.

You must also select the start time and end time of the recording you wish to see: use the two dropdown menus **Begin** and **End** to indicate the relevant details by direct input. Format: YYYY-MM-DD HH:MM:SS

After you enter all required details for the recorded files, please press the **Query** button. The table below will be populated by the relevant entries (it may take a while depending on the number of records and connection). The list features several columns:

No.: number of the files in order

Kind: description of the file (Normal Record, Alarm-Triggered, Motion Detection)

Begin Time: the time when the event started

End Time: the time when the event finished

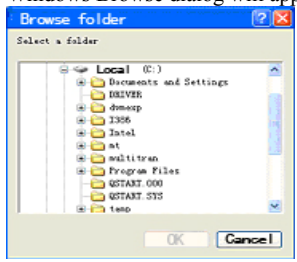
Size (KB): the size of the recorded file

In order to play a file, you need to select it by checking the box against it.

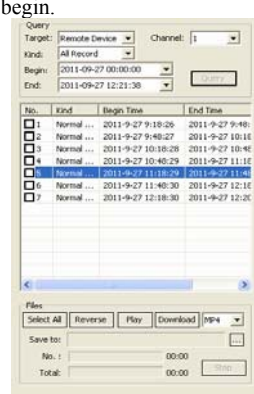
Alternatively you can select all files by pressing **Select All** button under the list of files, or reverse the selection by pressing **Reverse** button.

Now you are able to play the selected files on the video screen to the left. Press **Play** button under the list of files (description of the controls follows below).

To download the necessary files (if they are located on the remote device) select them on the list and choose the destination in the **Save To** field by pressing the ... button. A standard Windows Browse dialog will appear prompting you to choose the location.



Now you can press the **Download** button and the process of saving the selected files will begin.



There are two formats to download: MP4 and AVI.

In the **No. *X*** progress bar, you will see the download process for the file currently being saved (its number as it appears on the list will be shown to the left of the bar, and the time elapsed will be displayed on the right). The **Total** progress bar shows the overall download process if you are saving more than one file. To stop the download process, press the **Stop** button.

Note: For information on how to play downloaded video files by Windows Media Player please refer to subsection **Playback Video on PC** in **Section 4.2.4 Video Backup**

After you press the **Play** button as described above, the selected files will be played in order on the screen located in the left half of the window. Directly under the screen there is the time line showing the elapsed time and the total time of the file.

Under the time line, there is the menu bar for controlling the playback of the selected files.

Play

Pause

Stop

Frame by frame step (to resume press Play)

Fast Forward (options include: Normal → 2X → 4X → 8X → 16X in this order. You cannot directly go back to Normal from 16X, in order to gradually go down in speed you will have to use the **Fast Rewind** button

Fast Rewind (options include – if going back from Fast Forward: 16X → 8X → 4X → 2X → Normal → 1/2 → 1/4 → 1/8 → 1/16 (this option, as well as the previous one, cannot be looped, and to return to Normal speed step by step, you will have to use Fast Forward button

Note: the playback speed is displayed under the time line (see below)

Decrease/increase **contrast**

Decrease/increase **brightness**

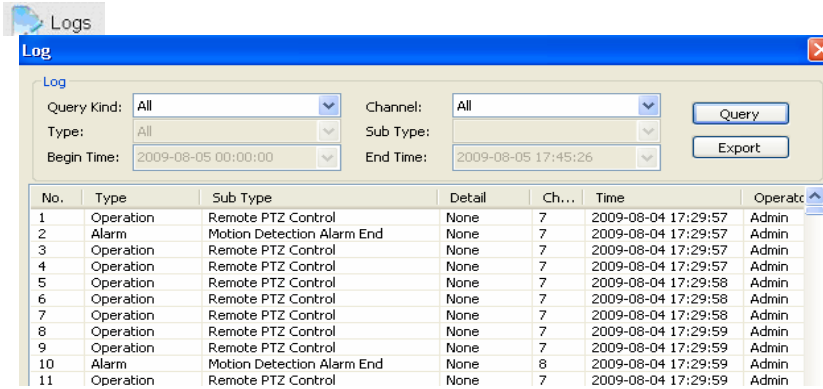
Mute sound

Hand button – Snapshot - calls up the local storage window

Under the control panel you can see the information on the currently played file:

Target: IP address of the source file
Channel: channel number from which this feed was recorded
Time: time frame for the currently played file (Start - End) in the YYYY-MM-DD HH:MM:SS format
Play speed: see the description of the **Fast Forward** / **Rewind** functions above

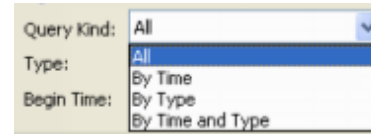
6.4.4 Device Log



This button on the **Tools** Menu will bring up the **Device Log** window. This function is similar to the one accessible from the DVR under the **Maintenance** Tab of the **Main Menu** (see **Section 5.7.1 Log View**).

You can select events (in various combinations) the logs of which you would like to view. Please read the description of the available options below.

Query Kind: dropdown menu offering the choice of the kinds of logs: ***All, By Time, By Type***, and ***By Time and Type***

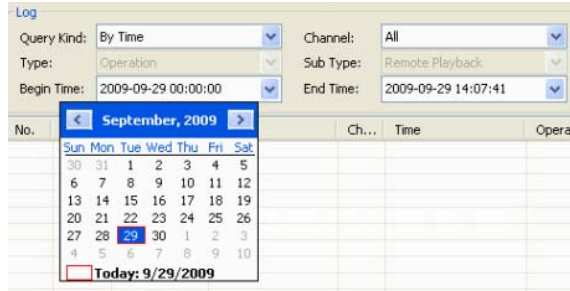


Channel: choose the channel for viewing a respective log (***All*** or individual channels 1-4/*8/*16 depending on the model of your DVR).

6.4.4.1 All Query Kinds

If you choose to view **All** logs from all channels or one channel, all other options (*Type, Sub-Type, Begin Time, End Time*) are not activated.

6.4.4.2 Query Kind by Time

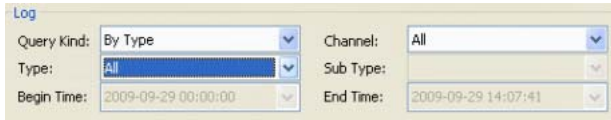


If you chose to view logs according to **Time**, the *Begin Time* and *End Time* fields will be activated, though *Type* and *Sub-Type* will be inactive.

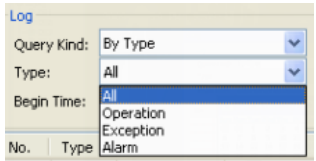
The time is expressed in the YYYY-MM-DD HH:MM:SS format. When selecting the time frame for the desired logs, you can set up the start and end time either by highlighting the necessary element and changing it from the keyboard, or by selecting the date and time from a drop-down calendar.

6.4.4.3 Query Kind by Type

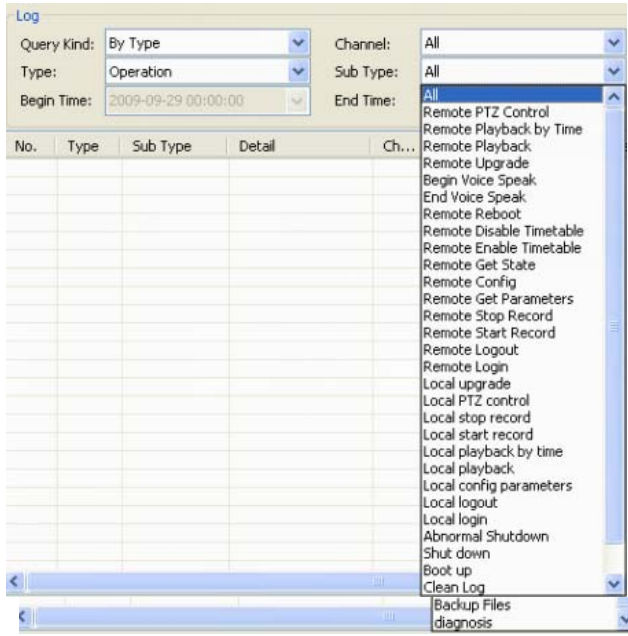
If you select Query **By Type**, then the **Type** field will become active and depending on the choices made in the **Type** field, you could also modify the **Sub Type** values.



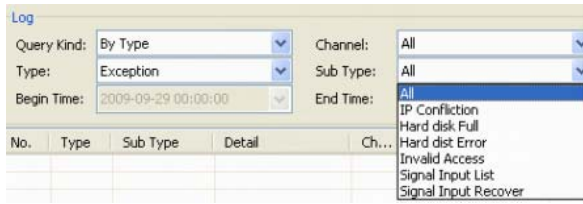
There are four types available: *All, Operation, Exception* and *Alarm*.



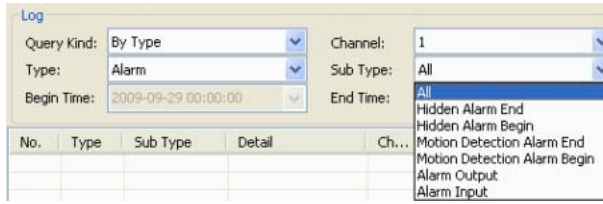
If you select **All** types in the **Type** field, the **Sub Type** field will not be active.
If you select the **Type** as **Operation**, you activate 32 options for the **Sub Type**:



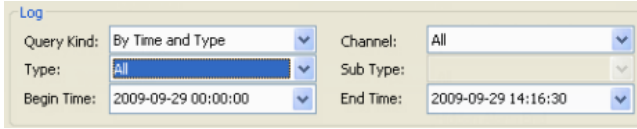
If you want to view your logs according to the type **Exceptions**, the **Sub Type field** will offer these options:



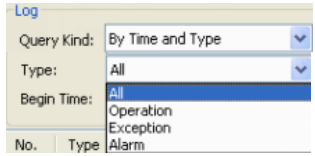
Finally, if you select your type of query as **Alarm**, the 7 following options will be available in the **Sub Type** field:



6.4.4.4 Query Kind by Time and Type



This query combines the two previous queries and along with the **Begin** and **End Time** options, offers the whole gamut of the **Type** options as described in **Section 6.4.4.3 Query Kind by Type**:



Each of the **Operation, Exception** and **Alarm** types also offer the same range of **Sub Type** options as described in the section **Query Kind by Type**.

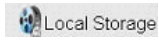
By pressing the **Query** button, you will submit your request specifications and will see the log (it may take several minutes to populate the list depending on the number of entries and connection).

The resulting log list will feature the following information:

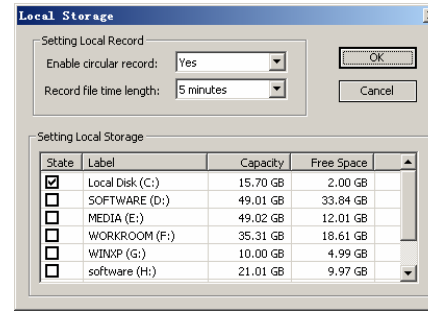
No.:	in order of appearance
Type:	Alarm / Operation
Sub Type:	Motion Detection Alarm Begin / Motion Detection Alarm End / Remote PTZ Control, etc.
Detail:	None / Local Time Set / Local Graph Color / Local Encode Set / Local PTZ Set / Local Common Set / Remote Net Set / etc.
Channel:	1-4/*8/*16 (depending on the model)
Time:	start time in the YYYY-MM-DD HH:MM:SS format
Operator:	User name of the person who was logged in when an event happened (Admin)
Host:	IP address

Click **Export** to export logs in the HTML format. A standard Windows browse dialog will appear prompting you to indicate the destination for saving the file.

6.4.5 Local Storage



Click it to bring up the dialog window to define local PC storage location for saving live feed video files and capture photos. This button has the same function as the **Local Storage** button on each individual screen.



Pressing this button brings up the side picture. On this menu, you can:

1) Indicate whether you wish to set local storage on the PC (Yes/No)
2) Indicate the recorded file time length (choice of 5 – 10 – 15 – 30 – 60 minutes)
3) Set local storage drive: offers information on State, Label (disc or hard drive), Capacity and Free Space

6.4.6 Screen View Buttons

Switching between screen display modes: “Single channel” → “four channels” → / * “eight channels” (for 8CH and 16CH), → “nine channels” (for 8CH and 16CH), → / *“16 channels” (only for 16CH).

Double-clicking left mouse key on windows in any kind of view will maximize the current channel view to the full-screen. And double-clicking left mouse key again will backing out.

Single-clicking right mouse key on the window in any kind of view will maximize all the current channels to the full-screen. And single-clicking right mouse key again will backing out.

6.5 PTZ Control Panel

As described above, the PTZ control panel is located on the right of the browser window. For the most part, functions are the same as on the DVR side, though may depend on the model of your PTZ system. Please refer to the user reference guide that came with your PTZ for detailed information.

See the table below for general description of the common features.

No.	Name	Description
1	**Directional buttons**	Control the direction of the PTZ movement. Please refer to your PTZ manual for details of PTZ scanning mode.
2	**Speed**	Sets the turning speed of PTZ camera.
3	**Zoom**	Click to zoom in / zoom out
4	**Iris**	Click to make the image brighter or darker (this function is disabled for cameras with automatic iris adjustment).
5	**Focus**	Click to focus-in and focus-out (this function is disabled for cameras with automatic focus).
6	**Auxiliary**	Open/close auxiliaries. Click to open and to close. Different functions respond to different protocols. The auxiliaries include light, wiper, power, etc. Please refer to PTZ manual for details.
7	**Preset Point**	Setting preset camera position, focus, zoom, and iris features, and then assigning numbers for easy access to the pre-adjusted settings. 1. Select the preset number. 2. Adjust the camera as desired, including direction, focus, and iris and zoom values. 3. Click the Set button . **Calling the pre-adjusted settings:** 1. Select the preset number you want to call. 2. Click the Start button .
8	**Cruise**	Cruise is a running route of camera that passes through multiple presets. **Set sequence:** 1. Select preset number.

		2. Click Set button. 3. Repeat steps 1 and 2 to add other presets till all desired presets are complete. 4. Click Run button. **Clear sequence**: Click the button to clear sequence.
9	**Track**	Track is a continuous running route of camera. Setting track: 5. Click the button to start setting. 6. Move camera in the pattern you want it to run. 7. Click the button again to finish setup. 8. Click the button to run track and click again to stop running. Click the button to clear sequence. **NOTE**: This feature depends on the type of your PTZ camera.

7. iPad support

This DVR device can transmit live feed from the CCTV cameras to your ipad(support iPad1 iPad 2 and iPad 3), so that you can have 'on the go' access to your surveillance system from virtually anywhere. The iPad application needs to be downloaded directly from the iPad App Store. Open the iPad App store and search for "KWeye+", it's a free application.

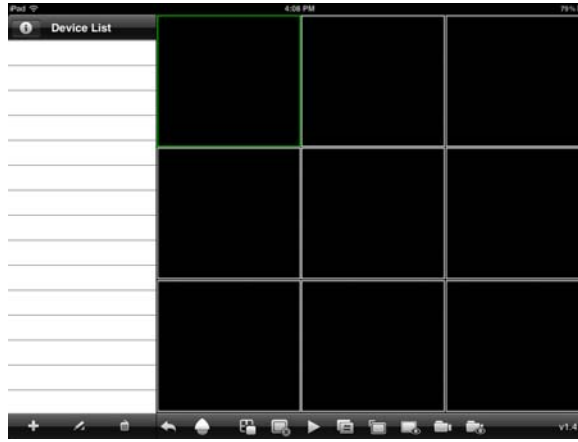
1) "KWeye+" installation

Open the iPad App store "", search for "KWeye+", it's a free application. Choose "iPad App" and then install the software "KWeye+".

After installing "KWeye+", it will appear an icon "" on the application software (shown as below).

2) How to use "KWeye+"

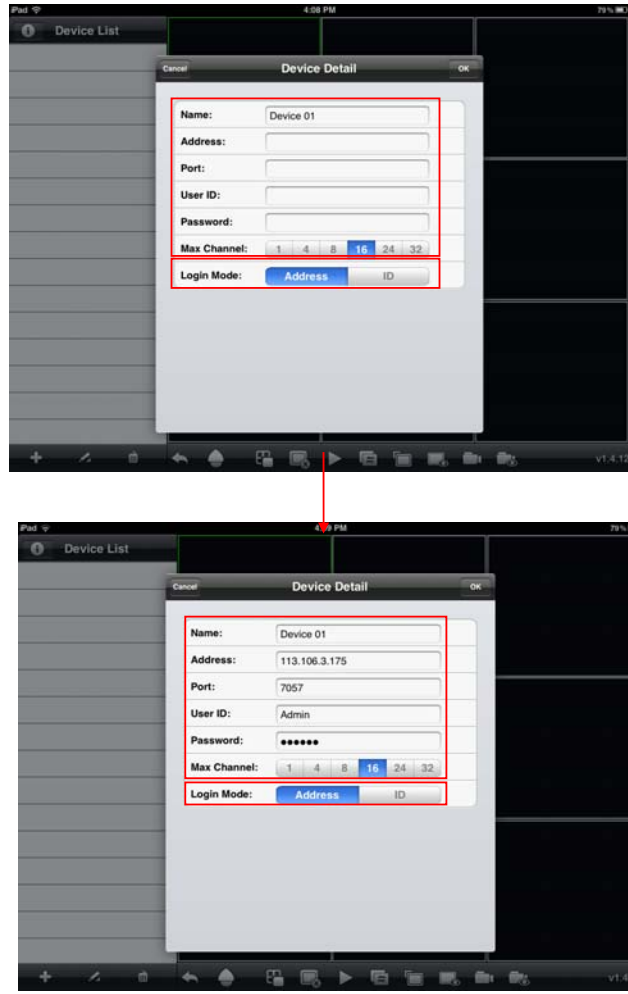
①. Click the "KWeye+" icon to open the program. Click the "+" button to add devices. On the window of "Device Detail" to set up the DVR with "Name", "Address", "Port", "User ID", "Password", "Max Channel" and "Login Mode". Click "OK" to save, and click "Cancel" to previous.



②. There are two ways to view the live feed from the DVR on the screen: by IP address (or DDNS) and by Auto ID.

a. By IP address (or DDNS)

After entering the Settings menu, the following fields will need to be completed:



First user needs to select the way to view the live feed from the DVR, by IP address or DDNS user needs to set “Login Mode” as “Address”.

Name: Set name for DVR, and saves settings for future usage.

Address: The public IP address or dynamic domain name of the DVR.

Port: The mobile port of the DVR for remote access viewing via mobile phone, the default is “7050”.

User ID: The user name set for entering the DVR system, the default is “Admin”.

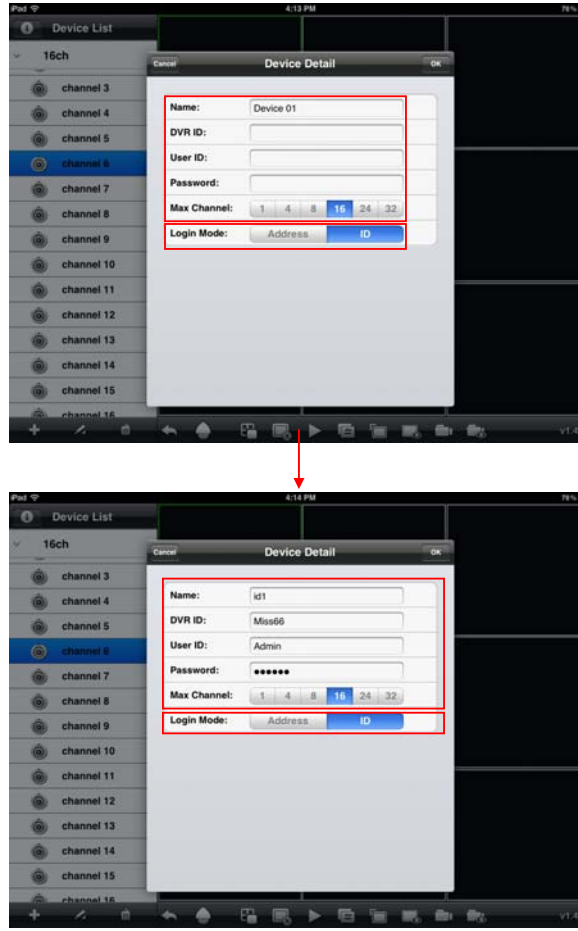
Password: The password set for entering the DVR system, the default of administrator is “888888”.

Max Channel: Select the max channels of the DVR will be connected.
Login Mode: To select the way to view the live feed from the DVR, including “Address” and “ID”.

Click “OK” to save.

b. By ID

After entering the Settings menu, the following fields will need to be completed:



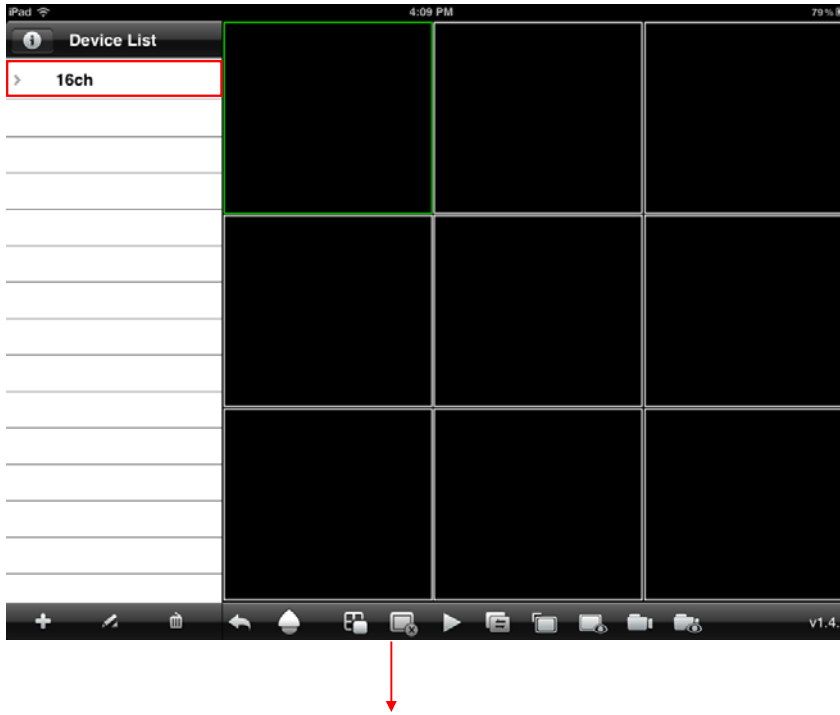
First user needs to select the way to view the live feed from the DVR, by ID user needs to set “Login Mode” as “ID”.

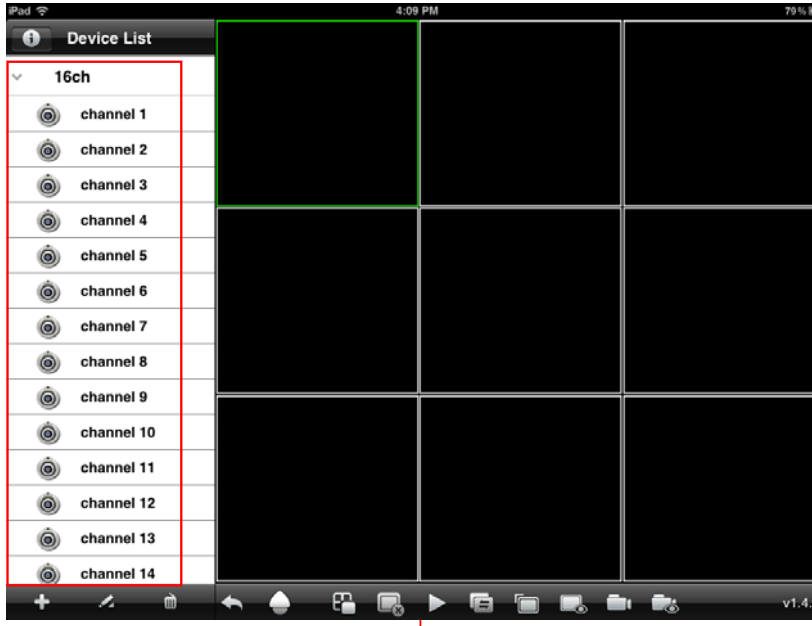
Name: Set name for DVR, and saves settings for future usage.

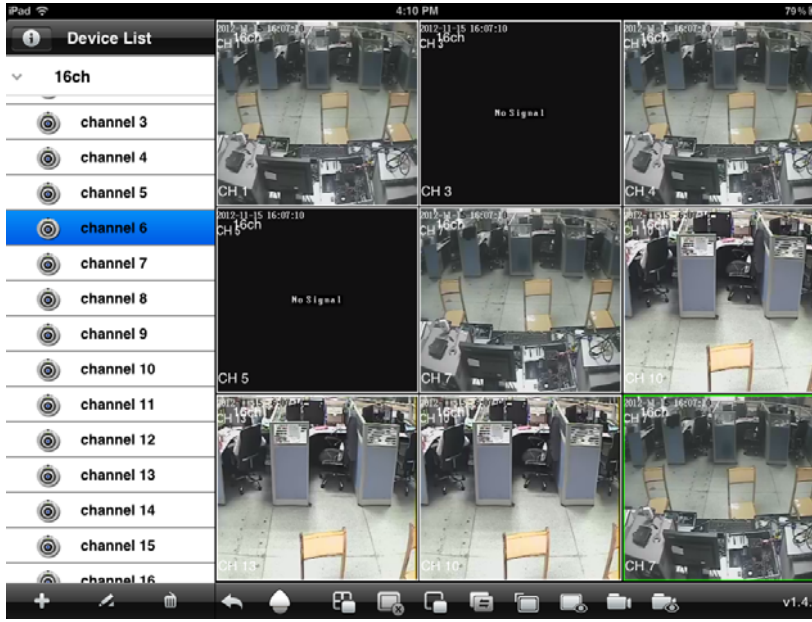
DVR ID: The device ID number of the DVR. User can enter the menu “Setting—Maintenance—Next Page”, and the interface includes “device ID”.

User ID: The user name set for entering the DVR system. Default is “Admin”.

Password: The password set for entering the DVR system. The default of administrator is "888888".
Max Channel: Select the max channels of the DVR will be connected.
Login Mode: To select the way to view the live feed from the DVR, including "Address" and "ID".
Click "Ok" to save.
③. Move the green frame cursor to one of the multi-screen, and click to select one of the channels in the Device list, it will connect immediately (see the following figures).




4:09 PM
79 %
Device List
16ch
channel 1
channel 2
channel 3
channel 4
channel 5
channel 6
channel 7
channel 8
channel 9
channel 10
channel 11
channel 12
channel 13
channel 14
v1.4.12


4:10 PM
79 %
Device List
16ch
channel 3
channel 4
channel 5
channel 6
channel 7
channel 8
channel 9
channel 10
channel 11
channel 12
channel 13
channel 14
channel 15
No Signal
CH 1
CH 3
CH 4
CH 5
CH 7
v1.4.12

That is you can select 9 channels from different Device List (DVR) at most.

④. Double-click the screen, it will enlarge the selected channel, and back to multi-view if double-click again.

While in multi-view mode, touch a channel on the screen and drag it to the channel position directly.

While in full screen mode, slice left or right to change channel.

⑤. On the interface of "Device List", user can edit the parameters of one device or delete one device. Click " " to enter edit mode, user can choose a device and click it to enter the interface to adjust the parameters; click " " to enter delete mode, user can choose one device and click it to remove from the list.

Other icons as below:

/ Hide the device list / display the device list.

PTZ Control

Click it to close all the channels view.

Click it to close the current channel view.

/ Play / Stop button.

Click these icons to switch the channel viewing mode among the quad-split ( ), six-split ( ) and nine-split ( ).

Capture: to capture a frame of the video stream as a still photo.

User can manage snapshot by clicking it.

Recording local video by clicking and then click again to end. And the top right corner of the recording channel has a normal recording video symbol "".

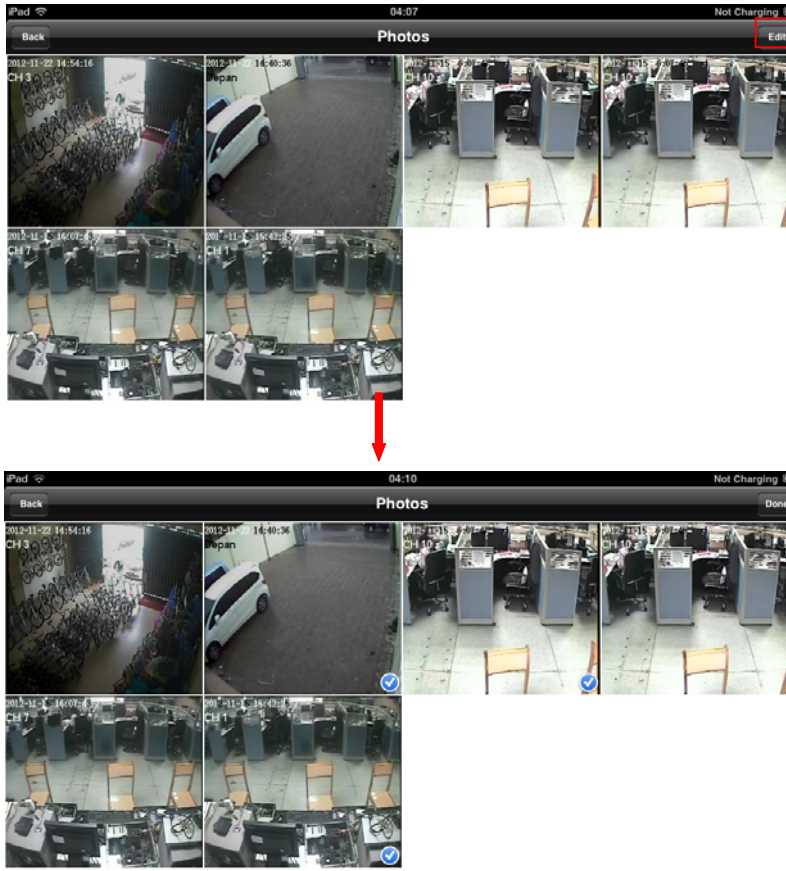
Click it to manage all the local videos.

Click it to enter the "help" interface of this software information.

⑥. Click " " to manage snapshot (See the following figure).

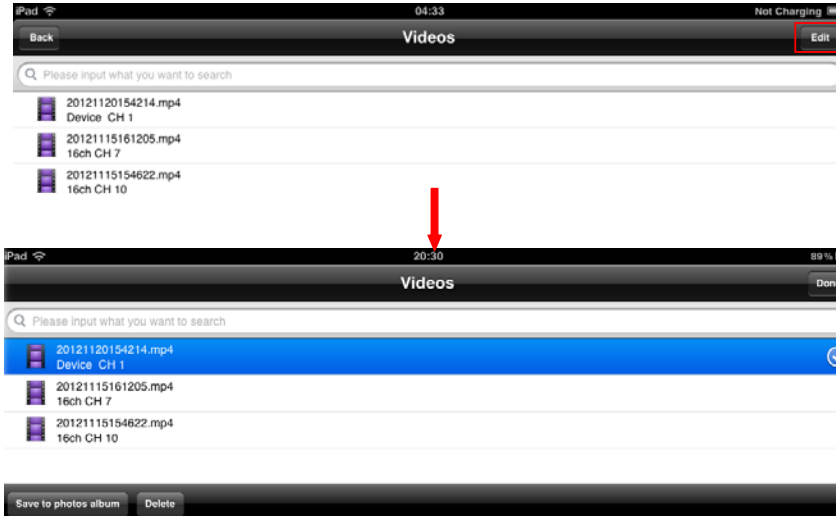
Click " " to edit all the snapshot. User can save the snapshot on the iPad's own file or delete the snapshot he wanted to. There will be a symbol " " on the right bottom of the

selected picture, and click “Save to photos album” to save the picture on the iPad’s own file, click “Delete” to delete the selected pictures.



Touch one to see the picture. Click “Save to photos album” to save the picture on the iPad’s own file. Click the button“⏮” to the previous picture and click “⏭” to the next picture. Click “🗑” to remove the picture user wanted to.

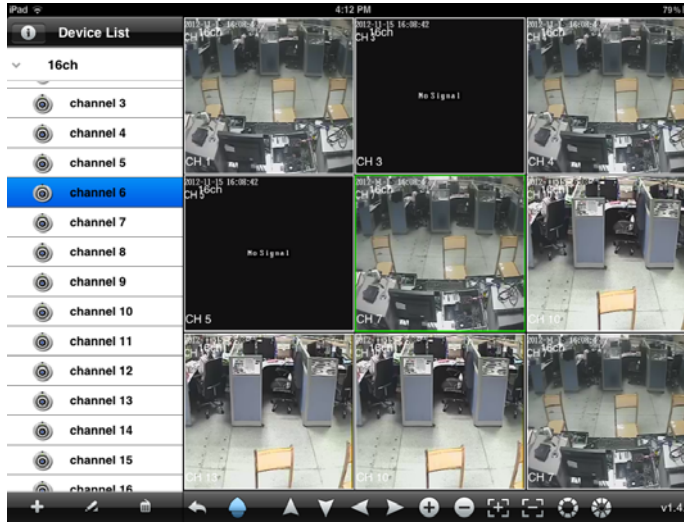
⑦. Click “ ” to manage all the local videos. User can playback any record on the list. Click “Edit” to enter into edit mode. If user wanted to save one record on the iPad’s own file, please click the button “Save to photos album”. User can click “Delete” to delete the records. There will be a symbol “ ” on the right of the selected video. To delete one video, just slice left in the name and the delete button will appear.



⑧. For PTZ operation, move the green frame cursor to one of the multi-screen which connected to the PTZ camera, click the icon " " to enter into PTZ mode, and using the following icons to control PTZ.

PTZ direction controls: up, down, left, right.

PTZ lens controls: zoom in/zoom out, focus+/ focus-, iris+/ iris-.



8. Mobile Phone Support

This DVR device can transmit live feed from the CCTV cameras to your mobile phone, so that you can have 'on the go' access to your surveillance system from virtually anywhere. To view, you must install a mobile operating system specific program into your mobile. The mobile programs are located on the included CD, or downloaded via iTunes for the iPhone. In iTunes, please search for "KWeye"(One View) or "KWeye+"(Quad view). Please see the instruction manual for your mobile to install the program. Currently, there are a limited number of phones that are supported: Windows CE Mobile, Nokia Symbian S60 3rd and 5th Edition OS, Google Android(OS 1.6 or above & CPU 400M or above), BlackBerry(OS 5.0, OS 6.0 or OS 7.0, such as 8900/ 9000/ 9100/ 9700/ 9800/ 9810/ 9900) and Apple iPhone(such as Iphone 3 / Iphone 3GS/ Iphone 4/ Iphone 4S/ Iphone 5).

Note:
1. Prior to using this feature, you should apply for an Internet connection service for your mobile phone, such as 3G or 2.5G. Please contact your mobile service provider for details.
2. You can only watch one live feed channel at a time with your mobile phone. Split mode and playback of recorded files is not available at the moment.
3. You can watch four live feed channels at a time with Google Android and Iphone Mobile.

8.1 Windows Mobile

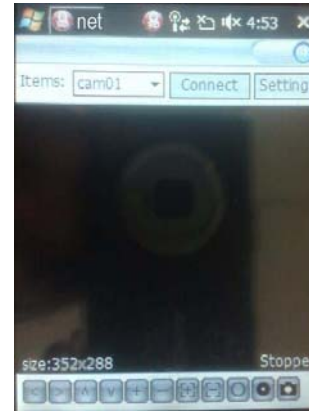
From the installation CD, install file "*KWeyesetup.cab*" onto your Windows Mobile phone. See your phone user manual for more details on application install.

Find and execute program KWeye and click the **Setting** button to setup the IP address for your DVR.

In the ensuing screen, input the user name (Admin), password, and IP address for your DVR (Server).

Input the value for the Port: default 7050 and choose the channel for streaming data from the dropdown menu.

Click OK to save the settings.



The main window of the Mobile Phone application offers the choice of channels, **Connect** and **Settings** buttons.

To connect to the system and start watching the live feed from your CCTV cameras, click on the **Connect** button.

To choose the camera, use the **Channel** dropdown menu.

To modify settings, press the **Setting** button.

On-screen data will provide information about current time (in the YYYY-MM-DD HH:MM:SS format), Channel number, bit rate (Kbps), frame rate (fps), resolution, and status of the camera.

The menu bar contains the following controls.

Directional buttons for controlling the direction of the PTZ camera view

Zoom in / out

Iris

Focus

Snapshot

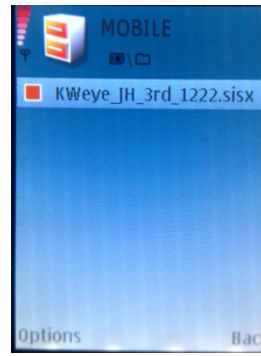
8.2 Symbian S60 3rd Phone

From the installation CD, install file *"xxx.sisx"* onto your Symbian S60 3rd Edition mobile phone (for the list of mobile phones tested for compatibility, please see **Section 7.3**). For instructions on installing software onto your mobile phone, please refer to the phone's user manual.

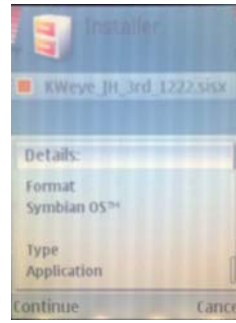
Please see a sample installation process shown below (The N95 will be taken as an example to introduce installation):

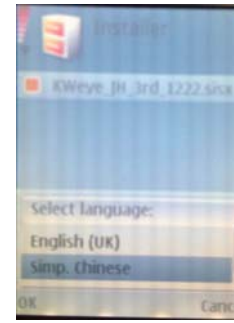
（1） Copy “KWeye_JH_3rd_1222.sisx” to your mobile from the installation CD;

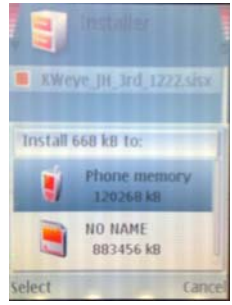
（2） Open file management on your mobile and find “KWeye_JH_3rd_1222.sisx” you have copied;

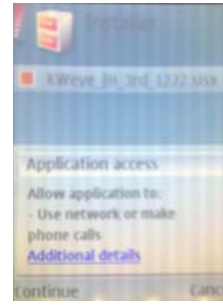


（3） Select “Options” and a dialog will displayed which indicates “Install Kweye?” You should choose “Yes” to continue the following steps; after you choose “Yes”, a dialog will appear as picture below, select “continue”



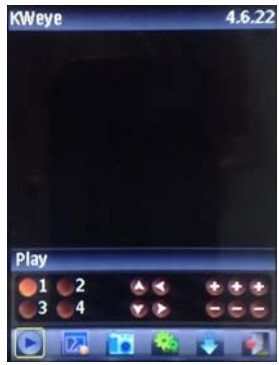


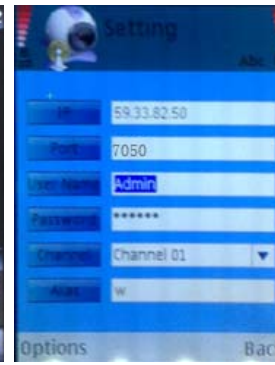




（4） After selecting “Continue” on last picture above, the software will start install. After installation, there will be a icon named “KWeye” in application interface.

（5） Select “KWeye” to execute KWeye and the program window will appear on the screen. Select icon and press button “ENTER” to enter setting interface.

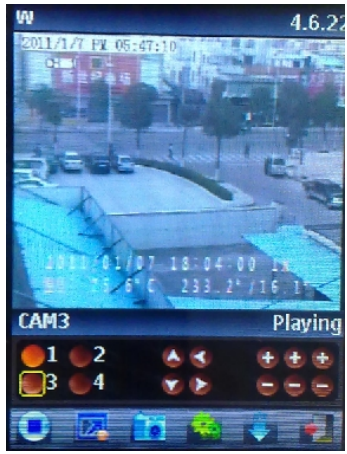




In the **Setting** screen, enter the following data:
IP: The public IP address or dynamic domain name of the DVR.

Port: Mobile port (7050 by defaulted)
User Name: Login User Name〖Admin〗
Password: Password [888888 by default]
Channel: Choose a channel you want to monitor
Alias: Set a name for device

(6) After configuration, select “Back” to return to live interface, select a channel and select to connect DVR.



Selection of channels. If your system supports 8-channels, to switch between channel buttons 1-4 and 5-8 please use functional button (see below)

PTZ camera direction controls

PTZ camera Zoom, Focus and Iris controls

/ : Connect or disconnect DVR.

: **Full Mode**. Displays the camera feed in the full-screen mode. All menus and buttons will be hidden.

Snap. Allows you to take a snapshot of the camera view.

Setting. Brings up the connectivity setup screen.

Next Group. Toggling between two available 4-channel views: 1-4 and 5-8

* Available only for programs supporting 8-camera views

Exit KWeye.

In order to start working with the CCTV feed on your Symbian mobile phone, you will have to configure the program by entering the preferred network access point, IP address of the DVR, mobile phone port, username, and password.

Click the icon to enter the setup window.

8.3 List of Symbian Supported Mobile Phones

Please review the list of Symbian mobile phones tested for compatibility with the remote access to DVR.

LG-KT610	S60 3rd_FP1
LG KS10	S60 3rd_FP1
LG-KT615	S60 3rd_FP1
Nokia 3250	S60 3rd_INIT
Nokia 5320 XpressMusic	S60 3rd_FP2
Nokia 5500 Sport	S60 3rd_INIT
Nokia 5630 XpressMusic	S60 3rd_FP2
Nokia 5700	S60 3rd_FP1
Nokia 5730 XpressMusic	S60 3rd_FP2
Nokia 6110 Navigator	S60 3rd_FP1
Nokia 6120	S60 3rd_FP1

Nokia 6121	S60 3rd_FP1
Nokia 6210 Navigator	S60 3rd_FP2
Nokia 6220	S60 3rd_FP2
Nokia 6290	S60 3rd_FP1
Nokia 6710 Navigator	S60 3rd_FP2
Nokia 6720 Classic	S60 3rd_FP2
Nokia E51	S60 3rd_FP1
Nokia E55	S60 3rd_FP2
Nokia E60	S60 3rd_INIT
Nokia E61	S60 3rd_INIT
Nokia E61i	S60 3rd_INIT
Nokia E62	S60 3rd_INIT
Nokia E63	S60 3rd_FP1
Nokia E65	S60 3rd_INIT
Nokia E66	S60 3rd_FP1
Nokia E70	S60 3rd_INIT
Nokia E71	S60 3rd_FP1
Nokia E75	S60 3rd_FP2
Nokia E90	S60 3rd_FP1
Nokia N71	S60 3rd_INIT
Nokia N73	S60 3rd_INIT
Nokia N75	S60 3rd_INIT
Nokia N76	S60 3rd_FP1
Nokia N77	S60 3rd_INIT
Nokia N78	S60 3rd_FP2
Nokia N79	S60 3rd_FP2
Nokia N80	S60 3rd_INIT
Nokia N81	S60 3rd_FP1
Nokia N81 8GB	S60 3rd_FP1
Nokia N82	S60 3rd_FP1
Nokia N85	S60 3rd_FP2
Nokia N86 8MP	S60 3rd_FP2
Nokia N91	S60 3rd_INIT
Nokia N92	S60 3rd_INIT
Nokia N93	S60 3rd_INIT
Nokia N93i	S60 3rd_INIT
Nokia N95	S60 3rd_FP1
Nokia N95 8GB	S60 3rd_FP1
Nokia N96	S60 3rd_FP2
Samsung I7110	S60 3rd_FP2
Samsung INNOV8	S60 3rd_FP2
Samsung SGH-G810	S60 3rd_FP1
Samsung SGH-i400	S60 3rd_FP1
Samsung SGH-i450	S60 3rd_FP1
Samsung SGH-i520	S60 3rd_FP1
Samsung SGH-i550	S60 3rd_FP1
Samsung SGH-i560	S60 3rd_FP1
Samsung SGH-L870	S60 3rd_FP2

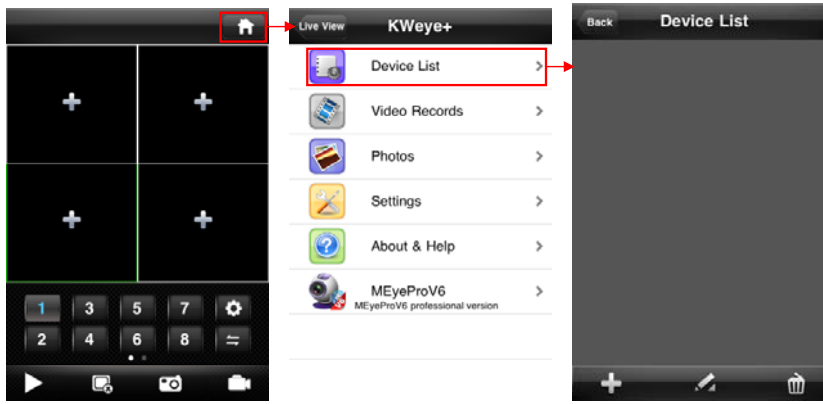
8.4 Apple iPhone

The Apple iPhone application, like all iPhone applications, needs to be downloaded directly from the iPhone App Store. Open iPhone APP store, search for “KWeye” (only one channel view) or “KWeye+” (quad view), they are free applications.

I. For “KWeye+”

Open the iPhone App store “”, touch “” and search for “KWeye+”. It will be a free application. Download and install onto iPhone as per iPhone installation procedures.

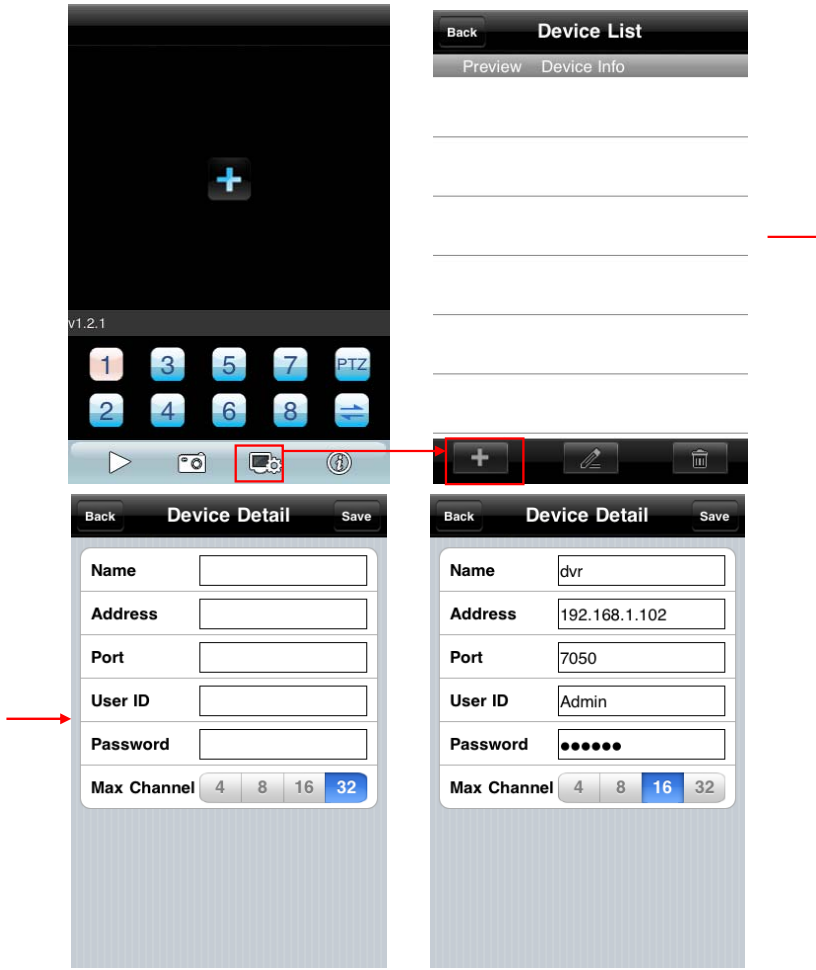
Please locate the icon KWeye+ and click on it to open the application. Set up the device (DVR) by “” as follows. Click the option “Device List” to enter the window of “Device List”. On the window of “Device List”, click “” to add devices; click “” to enter edit mode, user can choose a device and click it to enter the interface to adjust the parameters; click “” to enter delete mode, user can choose one device and click it to remove from the list. On the window of device detail to set up the DVR with “Name”, “Address”, “port”, “User ID” , “Password” and “Max Channel”. Click “Save” to save, and click “Back” to return to the interface of “Device List”.



For more details please refer to section 7. iPad support

II. For “KWeye”

1) Open Apple App Store.
2) Search for “KWeye”. It will be a free application.
3) Download and install onto iPhone as per iPhone installation procedures.
4) Please locate the icon KWeye and click on it to open the application. You will see following screen.
5) To set up the connection to the DVR, please first click icon to enter settings menu. Click “” to add devices, click “” to edit, and click “” to delete. For more details as following pictures.



Name: Set name for DVR, and saves settings for future usage.

Address: The public IP address or dynamic domain name of the DVR.

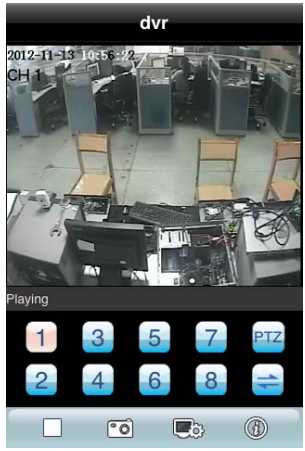
Port: The mobile port of the DVR for remote access viewing via mobile phone, the default is "7050".

User ID: The user name set for entering the DVR system. (**Admin** by default)
Password: The password set for entering the DVR system. (**888888** by default)

Max Channel: Select the max channels of the DVR will be connected.

Click "Save" to the window of "Device List", and click "Back" to the main window. On the main window, click play button "▷", a piece of message "Select channel in the playback

window" will appear, and click the button " " to enter the window of "Device List" to select the channel to view.



- Play button: press this to connect to DVR and view live feed.

- Switch between channels.

-PTZ，Press it will bring up Control PTZ camera direction and Zoom, Focus, Iris set. As right;

- Take Picture.

- Settings menu to connect to DVR

-Information about KWeye.

- This will switch over to the next eight set of channels.

8.5 Blackberry Mobile

1) Program installation

1. Copy the setup software "KWeye.cod" and "KWeye.alx" to your PC.
2. In order to be able to install applications and themes via BlackBerry Desktop Manager, firstly the PC should install Blackberry Desktop Manager. BlackBerry Desktop Manager will be known as "DM."; otherwise the phone cannot establish the connection with the PC.
3. Connect your BlackBerry mobile phone to your computer via the USB cable that came with it, or any USB cable that fits. Start the DM.
4. Before the installation, open the BlackBerry Desktop Manager. Shown as the red sign on the following pictures, Fig1 means the phone isn't connected to the PC, Fig2 means the phone has been connected to the PC.

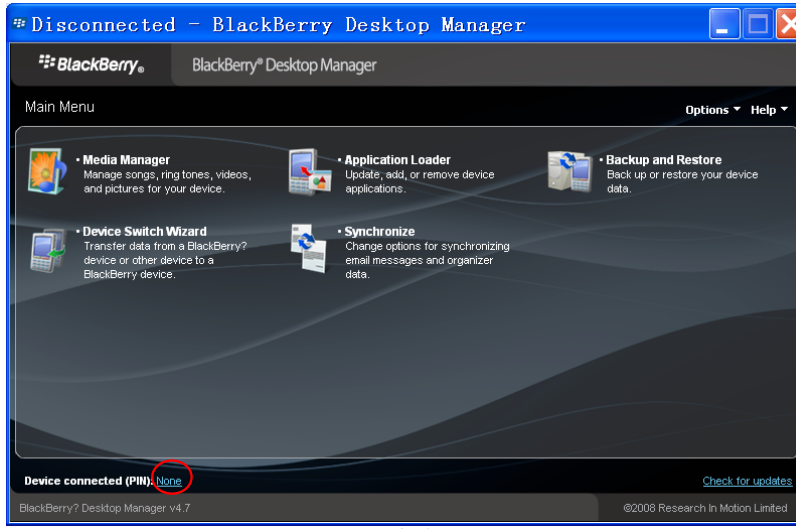


Fig 1

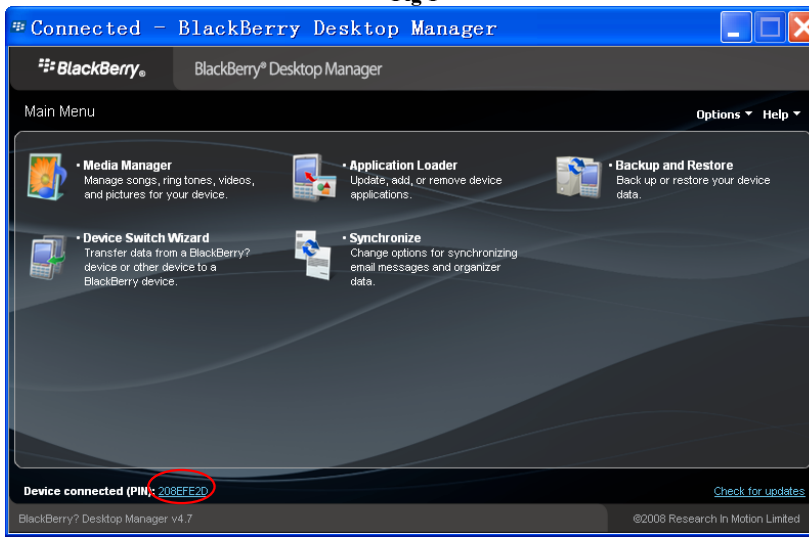
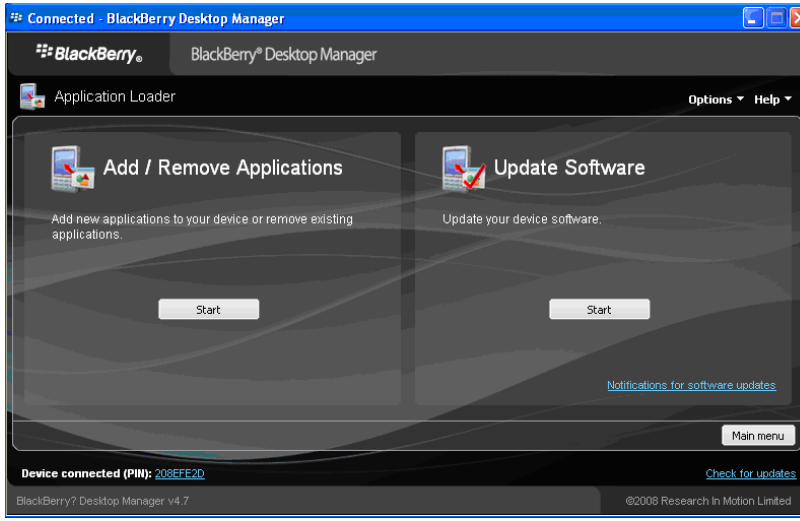
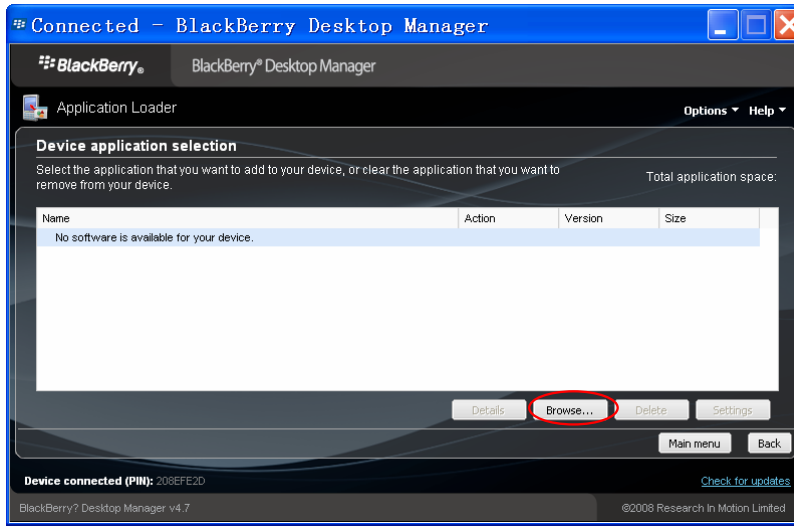


Fig 2

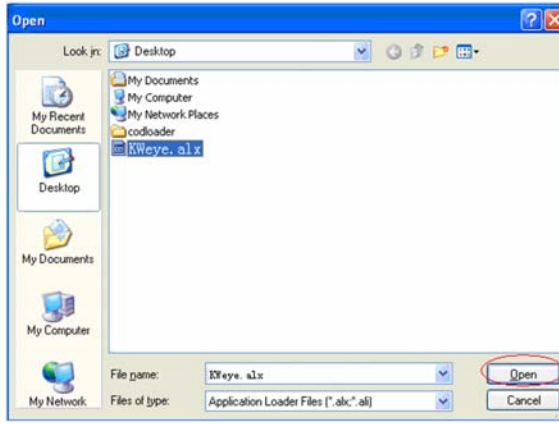
5. Click on “Application Loader” to enter into its interface. In this screen you have two options to select from. Select “Add/Remove Applications” (shown as follows).



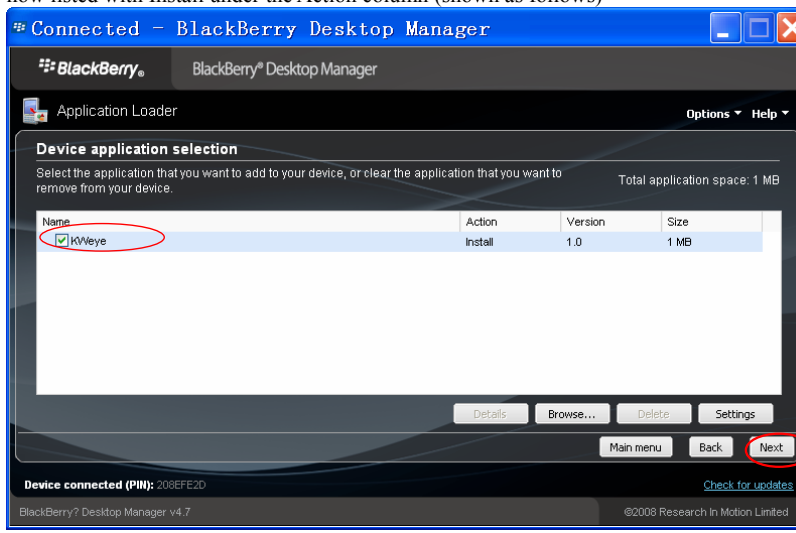
6. You should now see something like what you see below. From this screen, click “Browse” (shown as follows).



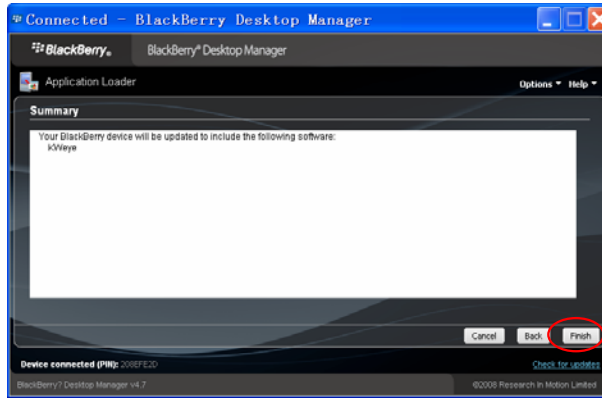
7. Once you click “Browse” you will see a file search screen like the one below. Go to and locate where you saved the application files. **Make sure you saved both the “.alx” file and “.cod” file in the same folder.** After finding the “KWeye.alx” file for the application, highlight it and click “open”.



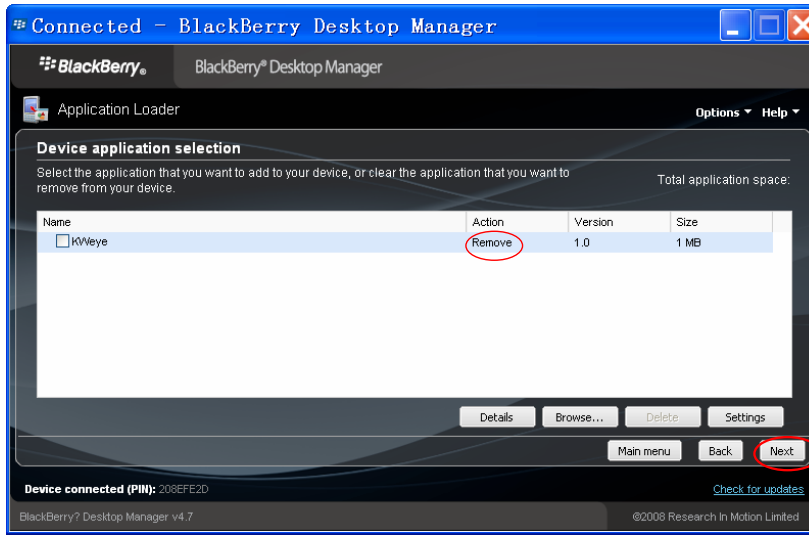
8. You will now return to the Application Loader screen. From here you should see “KWeye” now listed with Install under the Action column (shown as follows)



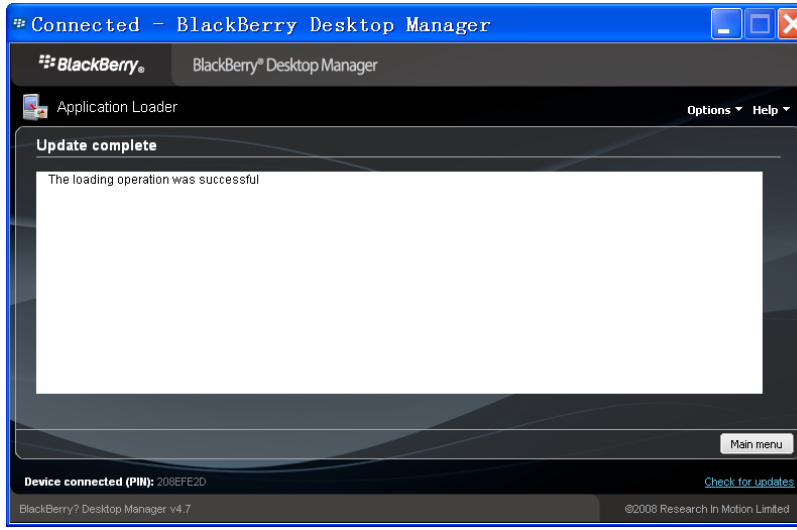
9. Click “NEXT” to install this software and click “Finish” to start installation.



10. You can remove the program “KWEye” as the following method. To enter into Application Loader screen, on “Device application selection” you can select the application that you want to clear from your device. When the option “Action” is “Remove”, it means the program will be clear from your device.



11. Click “Next” and the screen will show as follows. Click “Finish” to confirm and the application “KWeye” can be removed from your device.

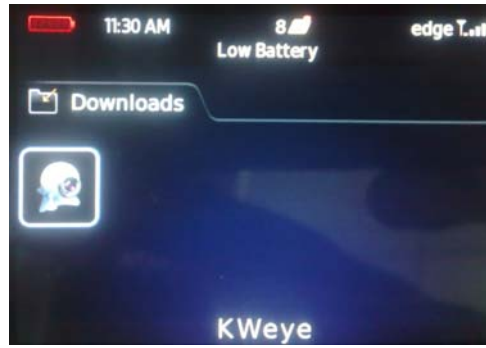


2) System explanations

KWeye phone port has the following capabilities and functions: live video surveillance, channel switch, full screen display, PTZ control, including zoon/focus/iris, image capture, save as favorite and exit function.

① System main interface

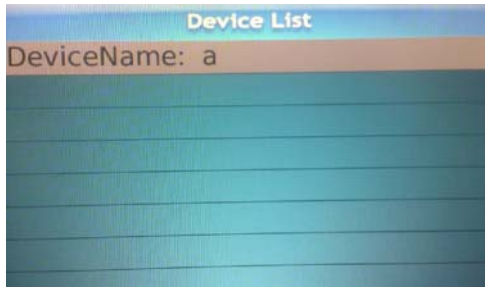
After the installation, press “KWeye” icon in the application, see the below picture.



② System configure interface

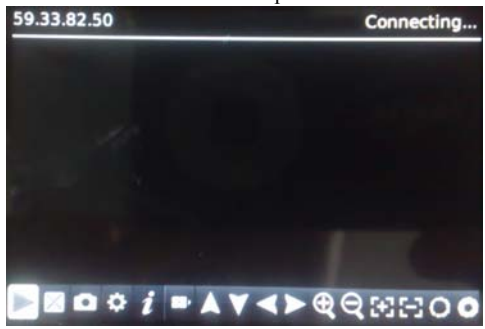
Open the main interface, see the configure interface as bellow. Modify your parameters as necessary.

Name: Set name for Device;
Address: DVR IP address
Port: Mobile Port [7050 by default]
User ID: Login User Name〖Admin〗
Password: Password [888888 by default]
Network Type: WIFI or 3G
Login: Click this button to login live interface.
Cancel: Click this button to exit system.
Device list: Click this button to show device list and choose the one you want to connect.



③ **System Live interface**

After changing your settings, press [Login] to login live interface and click [Cancel] button to exit. Please refer to the below picture:



④ **Connect to DVR**

To connect to the server, move the icon to “Connect” and it will be highlighted. Press the enter button on your mobile to connect to the server.

In the interface the user can switch the channel, PTZ control, image capture and full screen display, please see the below picture:

See below for more details:

Connect: Connect or disconnect to your DVR;

Full Screen: Display images in full screen mode;

Capture: Capture image;

Setting: Click this button to turn back configure interface;

About: Click to display information about KWeye

Channel Switch: Switch between channels

Control PTZ camera direction

-Zoom out zoom in;

-Set focus

- Set iris

⑤System Help interface

After the setting, move the cursor on the icon and press [Help] button to enter into the help interface.

⑥System Exit interface

To exit, go back to the setting interface and press [Cancel] button. You will be prompted “Do you want to exit?” Press “yes” to exit the program, or press “no” to return to the setting interface, please see the below picture:

3) Familiar questions and their answers

1：Why can't it connect to the server?

A: Check that the server, port, user name, password settings are correct.

B: Make sure the mobile phone is connected to the Internet.

2：Why can't I control the PTZ after entering into the main interface?

A: Check if the channel is a PTZ camera and properly set up.

B: The PTZ might take a few moments to load; please be patient.

8.6 Android (Google Phone)

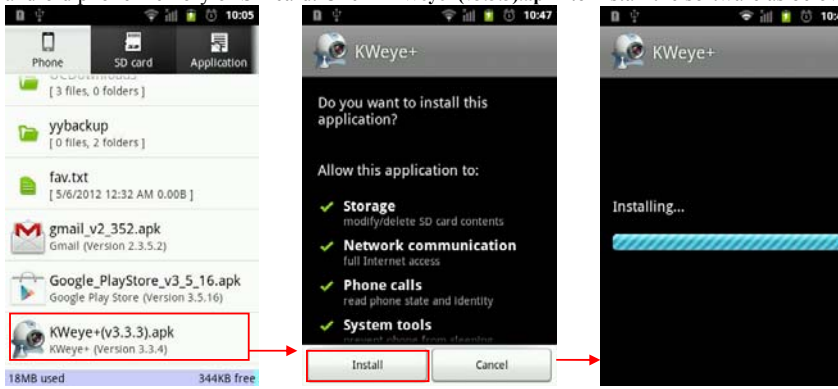
There are two types of software for the android mobile phone: KWeye (only one channel view) and KWeye+ (quad view).

I. For "KWeye+"

1). Install KWeye+

Please go to the android software market " " to search for "KWeye+" and install it. Or from the installation CD, copy the setup software "**KWeye+(v3.3.3).apk**" to user's Android phone or to SD card.

Open your "**File Manager**" in android phone and find the file "**KWeye+(v3.3.3).apk**" in your android phone memory or SD card. Click "**KWeye+(v3.3.3).apk**" to install the software as below.



When the application has finished installing, the phone will display the following screen.

2) How to use "KWeye+":

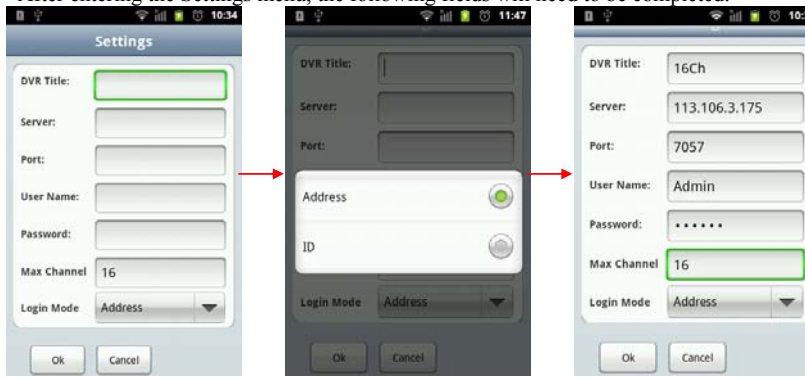
①. Click the "KWeye+" icon to open the program. Set up the device (DVR) by "" as follows. First, user needed to add devices.

On the window of Settings to set up the DVR with "DVR Title", "Server", "Port", "User Name", "Password", "Max Channel" and "Login Mode". Click "Ok" to save.

②. There are two ways to view the live feed from the DVR on the screen: by IP address (or DDNS) and by ID.

a. By IP address (or DDNS)

After entering the Settings menu, the following fields will need to be completed:



First user needs to select the way to view the live feed from the DVR, by IP address or DDNS user need to set “Login Mode” as “Address”.

DVR Title: Saves settings for future usage.

Server: The public IP address or dynamic domain name of the DVR.

Port: The server port of the DVR for remote access viewing via mobile phone, the default is “7050”.

User Name: The user name set for entering the DVR system. Default is “Admin”.

Password: The password set for entering the DVR system. Default is “888888”.

Max Channel: Select the max channels of the DVR will be connected.

Login Mode: To select the way to view the live feed from the DVR, including “Address” and “ID”.

Click “Ok” to save.

b. By ID

After entering the Settings menu, the following fields will need to be completed:

First user needs to select the way to view the live feed from the DVR, by ID user need to set “Login Mode” as “ID”.

DVR Title: Saves settings for future usage.

DVR ID: The device ID number of the DVR. User can enter the menu “Setting—Maintenance—Next Page”, and the interface includes “device ID”.

User Name: The user name set for entering the DVR system. Default is “Admin”.

Password: The password set for entering the DVR system. Default is “888888”.

Max Channel: Select the max channels of the DVR will be connected.

Login Mode: To select the way to view the live feed from the DVR, including “Address” and “ID”.

Click “ Ok ” to save.

③. Move the red frame cursor to one of the quad screen, and click to select one of the channels in the Device list, it will connect immediately.

That is you can select 4 channels from different Device List (DVR).

④. Double-click the screen, it will enlarge the selected channel, and back to quad view if double-click again.

⑤. On the interface of “Device List”, user can edit the parameters of one device, click “ ” to the interface of “Settings” to adjust the parameters. Click “ Ok ” to save. Click “ Delete ” to remove the information of the current device.

⑥. For PTZ operation, move the red frame cursor to one of the quad screen which connected to the PTZ camera, using figure touch on the screen or the following icons to control PTZ.

PTZ direction controls: up, down, left, right.

PTZ lens controls: zoom in/zoom out, focus+/ focus-, iris+/ iris-.

Other icons as below:

Use the numbers to select the live view channel to display.

This will switch over to the previous four set of channels.

This will switch over to the next four set of channels.

/ Play/Stop button.

Capture: to capture a frame of the video stream as a still photo.

Enlarge the selected channel, and back to quad view.

Device set up, you can set up Devices (DVR) unlimitedly.

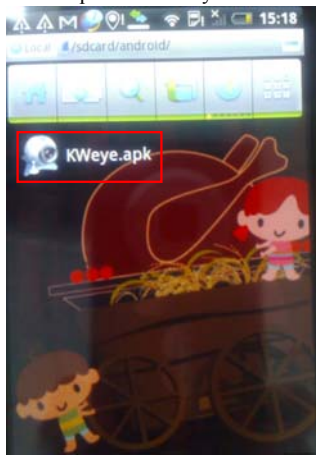
Click it to enter the “help” interface of this software information.

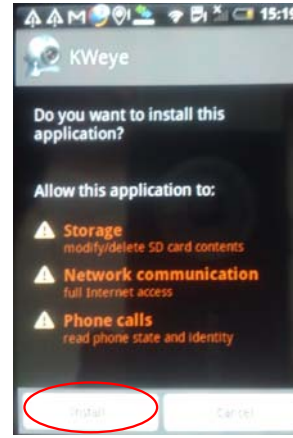
II. For “KWeye”

1) Install the program

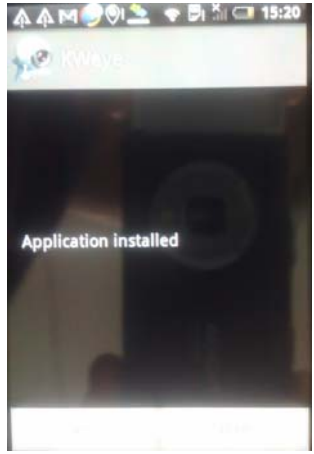
1.1 Please go to the android software market “ ” to search for “KWeye” and install it. Or from the installation CD, copy the software “KWeye” to your Android phone or copy to SD card.

1.2 Open your “ES File Explore” in android phone and find the [KWeye_ceshi] File in your android phone memory or SD card. Click [KWeye.apk] to install software.





Click “Install” and it will be installed.

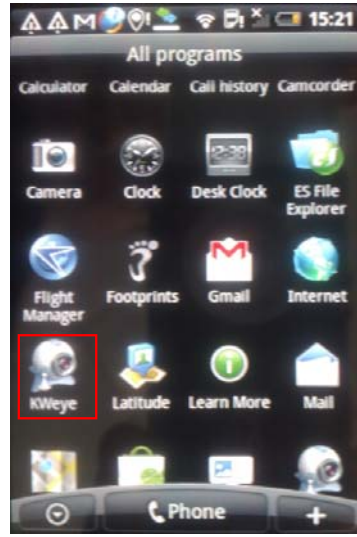


2). Start KWeye software

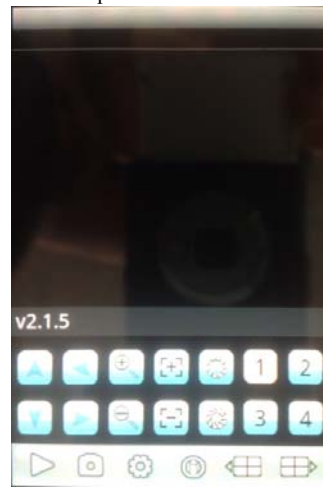
KWeye provide video surveillance, channel switch, full screen magnify, PTZ control, focus, capture image, save as favorite and exit function.

2.1 System main interface

After the installation, press “KWeye” icon in the application



Open the main interface, see the below picture:



2.2 System setting interface

Click the icon to enter into setting interface. For the first time using or need to modify the parameters, press [setting] button to access to the parameters setting.

Address: The public IP address or Domain name of DVR.
Port: The server port which is set on DVR [default: 7050].
Device Name: Set device name for DVR
User name: The user name which is set on DVR
Password: The user password which is set on DVR

After the setting press [Back] and back to the front interface. After the setting, press “connect” button on the main interface and then it will connect the server. In this interface it can also switch the channel, full screen magnify, PTZ control, focus, phone capture and full screen display.

The detail information is as below:
: Press this icon to connect the server
: Press this icon to open the setting interface

/ : Switch the channel

: It can control the PTZ move up, down, left and right.

: It can control the zoom, focus and iris.

: Capture the image function.

: Press it to get information about KWeye.

8.7 FAQ

1：Why it cannot connect the server?
a: Check the setting of server, port, user name, password again.
b: Check the internet; check if the mobile phone is connected with the internet.

2：After enter into the main interface, why the user cannot control the PTZ?

a: Check if the channel has the PTZ camera setting.

b: if network bandwidth is insufficient then video refresh slowly for PTZ control. Please wait a moment for video refresh.

Troubleshooting

This basic troubleshooting guide will help you identify general malfunctions and offer steps for quick resolution of such.

If the failure or malfunction can't be solved by following these steps, please contact a qualified technician.

Problem	Solution
The host device fails to start after being connected to the power supply	- Make sure the power switch on the device is turned on, and that there is sufficient power. - Check that the start-up procedure is working.
The device restarts repeatedly	- First check the power supply of the device to ensure it has sufficient power for all the hard disks - Please disconnect all connections, such as cameras and network connections, and see if the DVR will start. If this doesn't solve the problem, carefully remove the cover and take out the hard drive. A corrupted or damaged hard drive may cause repeated reboots.
The machine crashed during recording or watching the recorded information	- Check to see if there are any problems with the hard disk. If one of your hard disks has failed or malfunctioned, replace it and try again.
Updating operation fails	- Updating may fail if the DVR is not able to recognize the USB storage device. Test more than one USB storage device to ensure compatibility. - Updating may also fail if the USB port doesn't work well due to voltage fluctuation. Please contact qualified technician.
The mouse doesn’t work	The mouse of a different brand may not work with your DVR. Please use the one delivered with your device. If you use other brands, try various ones to make sure which one works. Currently, wireless mice cannot work with your DVR.
The recording function does not work properly	- Make sure HDD connections are performed properly - Make sure that the HDD has been formatted prior to using it - Review settings in the appropriate menus

The image on the monitor appears in black and white rather than color	Check to make sure the video input, DVR, and monitor systems are compatible, i.e. all NTSC or PAL. Alternatively, at night time, most video appears black/white. If you find some incompatibility or inconsistency, please set the monitor system option to the automatic identification state.
There is nothing displayed on the monitor	- Check whether the monitor power supply is on, and whether the monitor's brightness is at its lowest condition. - Check whether the video cable is properly connected, and whether there is anything wrong in the circuit.
The image isn't clear	- The image may appear unclear due to some kind of interference. - Check the video cable to make sure it isn't broken and that the connections are good. - Check also the condition of the camera, the monitor and the circuit for any signs of damage or deterioration.
The color quality is low in both real-time and recorded images	- Check proper adjustment of the output/input video parameters on the DVR menu. - Check the condition of the connecting lines to ensure good connectivity.
The image distorts, flickers and has color casts when viewed on the computer display	-Ensure that the VGA connecting line is properly grounded. -Be aware that a high working ambient temperature or radiation from the host computer may cause interference with the normal operation of the VGA display.
There is a mosaic on the PC monitor during playback	- If the recording parameters are set too low, the recording quality may decline, resulting in occasional mosaics. Adjust your settings. - Also note that damaged sections on the hard disks can also cause mosaics during playback.
The displayed date and time in the lower-left corner are not correct	Please login as Administrator and adjust Date and Time settings in the System Tab of the Main Menu.

Appendix 1 Estimating HDD Capacity

The system currently supports 1TB HDDs. That may seem like a lot of space, though with constant non-stop recording these gigabytes will be used up fairly quickly.

The task of estimating how many hours/minutes of recording time may be left on 500 MB of free space may be a little tricky as well. That could seem irrelevant when you have the whole disc space available, but as you realize you would like to view events from several weeks or months ago, it quickly becomes relevant. The following formulas can help you feel more confident when calculating the remaining disc space. Please also keep in mind that the utilized disk space may depend on the video signal format, the video quality, the number of frames per second, and the bit rate.

Calculating the capacity of the hard disk.

- **Timed Recording:**

  Step 1: Calculating maximum capacity of hard disk space for an hour of recording from a given channel.

  Assuming that $\mathbf{S_{ch}}$ is the disk space needed for recording of an hour of live feed at the bit rate of **B** (Kbit/s), the formula for calculating HDD space for an hour of recording would be:

  $$\mathbf{S_{ch} = (B*3600) / (8*1024) = B * 0.439453125\ MB}$$

  Step 2: Calculating the amount of HDD space ($\mathbf{S_t}$) needed for recording of **T** hours.
  From previous calculation $\mathbf{S_{ch}}$ is the disk space needed for 1 hour of recording. Then:

  $$\mathbf{S_t = T * S_{ch}}$$

  Step 3: To calculate how much of total disk space you'd need to record from as many channels as you need, you will have to add up all the channels you will be using:

  $$\mathbf{S_{total} = S_{ch1} + S_{ch2} + \ldots + S_n}$$

  For your convenience, you can use the approximate table below of HDD space needed for recording **an hour** of video feed from one camera depending on video format, resolution, frame rate and bit rate. For instance, on a 4 Channel DVR, at 768kbps bit rate, an hour recording for 4 channels is 1.29GB, or a 500GB HDD can probably record for about 15 days (assuming some space is needed for system storage on the HDD).

- **Alarm Recording**

  Less disk space will be used if you set up your device to record only selected events, such as only when an alarm is triggered. If the rate of triggered alarms is **α**%, then the hard disk space needed in alarm recording ($\mathbf{S_a}$) will be calculated according to the formula:

  $$\mathbf{S_a = S_{total} * \alpha\%}$$

Appendix 2 Compatibility Table for HDDs

Please find below the list of tested Hard Disk Drives, found to be compatible with the DVR. If you want to use a HDD not found in this list, please test it for compatibility before use.

Brand name	Model Number	Size (GB)	Drive
Seagate	ST3320410SV	320GB	SATA
Seagate	ST3500418AS S7200.12	500GB	SATA
Seagate	ST3500320SV SV35.3	500GB	SATA
Seagate	ST32000542AS	2TB	SATA
Seagate	ST1000VX000	1TB	SATA
Seagate	ST2000VX000	2TB	SATA
Seagate	ST2000DM001	2TB	SATA
Seagate	ST2000DL003	2TB	SATA
Seagate	ST3500312CS	500GB	SATA
WD	WD10EURX	1TB	SATA
WD	WD5000AAKX	500GB	SATA
WD	WD5000AAKS	500GB	SATA
WD	WD7500AAKS	750GB	SATA
WD	WD10EACS-00D6B0	1TB	SATA
WD	WD20EADS	2TB	SATA

Appendix 3 List of Compatible Portable USB DVD Recorders

Please find below the list of tested portable USB DVD recorders found to be compatible with the DVR. If for backing up your data from the DVR, you wish to use a DVD recorder not found on this list, please test it for compatibility.

- Pioneer

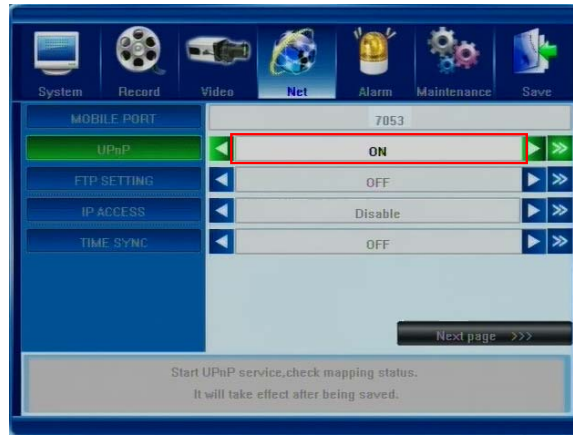
Appendix 4 Compatibility Table for USB flash drives

Brand name	Size	Brand name	Size (GB)
Aigo	**4GB**	**SanDisk ultra backup SDCZ40-008G**	**8GB**
SanDisk cruzer	**4GB**	**SanDisk ultra backup SDCZ40-016G**	**16GB**
Apacer AH321 Iron man	**16GB**	**kingston DT101 G2**	**16GB**
Aigo L8221	**2GB**	**Tsing Hua Unisplendour**	**1G**
SanDisk Blade	**8GB**	**Tsing Hua Unisplendour**	**512M**
Kingston Datatraveler G2	**2GB**	**SSK**	**2G**
Kingston DataTraveler G3	**8GB**	**U3 Smart**	**512M**
Modem Tissot	**2G**		

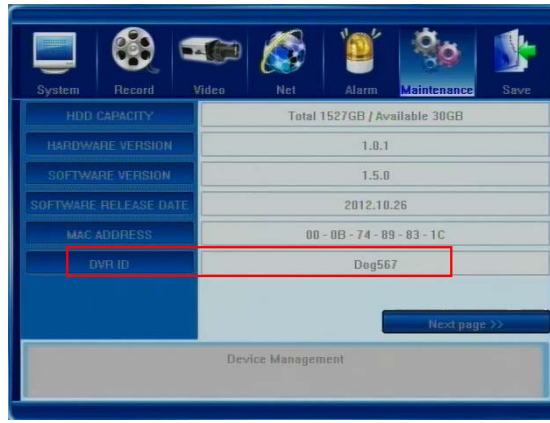
Appendix 5 How to Use Auto ID-"Plug n play" Quick Guide

The Auto ID is used for connecting the DVR to an Internet browser interface. For detailed instructions, refer to the following instructions.

1. Regarding use of the router to browse the Internet, first you should have the transmit codex of the router's port already mapped. From the toolbar, click "Setting->Net->Next Page->Next Page", then set up the option "UPnP" to "ON". And the router will automatically map the port.

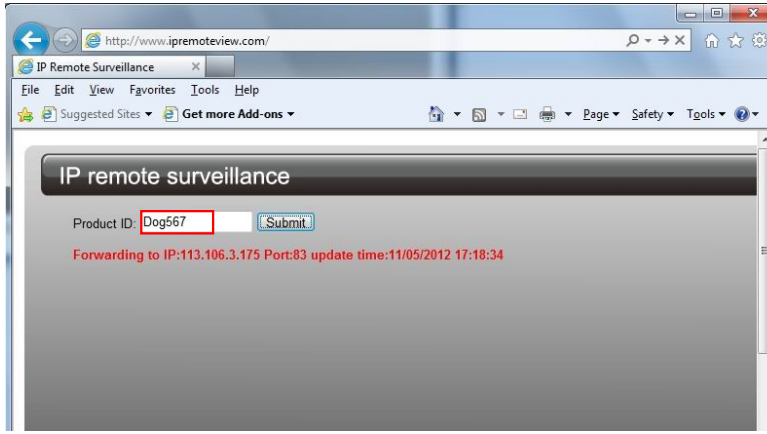


2. The ID number of each product is set in the factory. From the toolbar, click "Setup"—"Maintenance"—"Next page", and the DVR ID number will appear at the bottom of the screen (as in the following illustration):

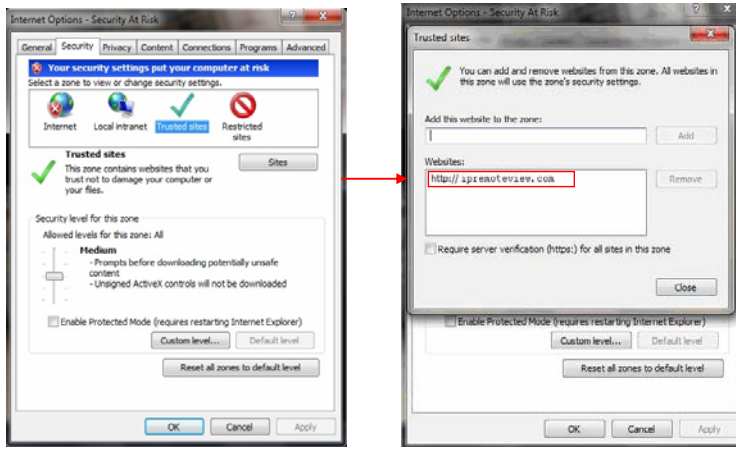


3. Once the network is connected, enter "http://www.ipremoteview.com" or

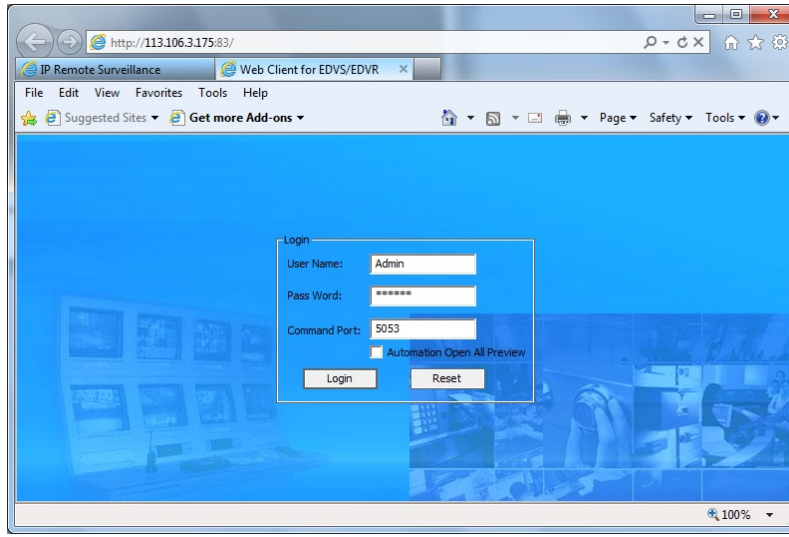
"http://www.ipremoteview.cn" in the address field of the Internet browser. Then enter the DVR ID number into the "Product ID" field, as shown in the following picture.

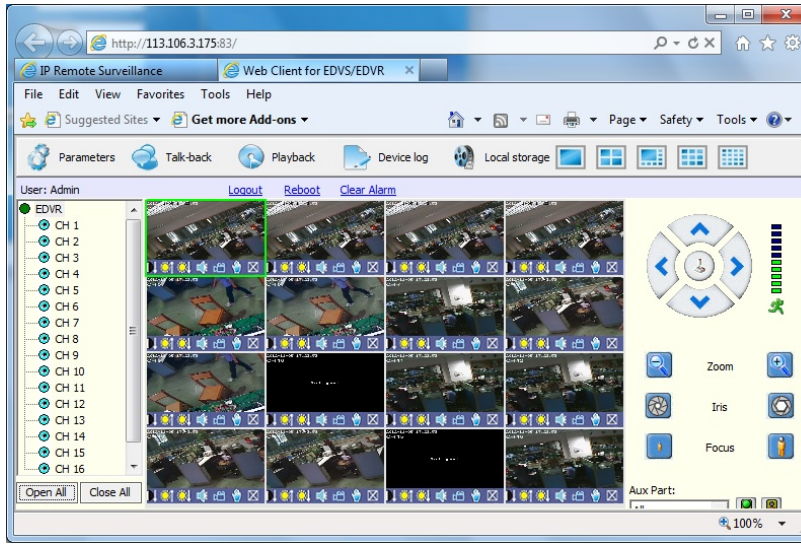


Note: If after following the preceding instructions the login page does not work or the Auto ID function fails, try the following steps to add the website to the zone:



4. After the connection has been established, the Web Application Management (see the following figure) will appear. Fill in the right user name (default "Admin"), password (default "888888") and command port(default "5050"); click [LOGIN] to login the system.





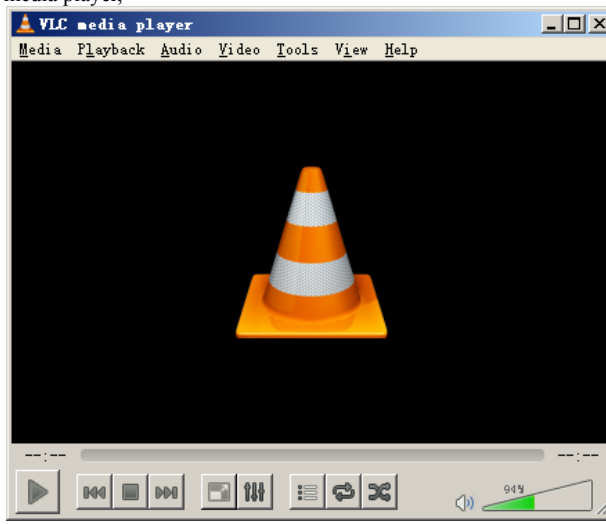
Appendix 6 How to Use RTSP

This DVR device support RTSP protocol, user can view one live feed channel with the remote access to DVR through “VLC Media Player”.

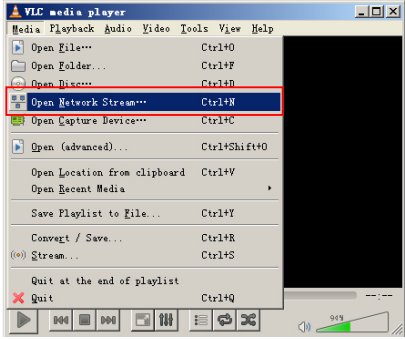
First please download “VLC Media Player” from “http://www.videoLan.org/VLC”, and then install the VLC media player on your PC.

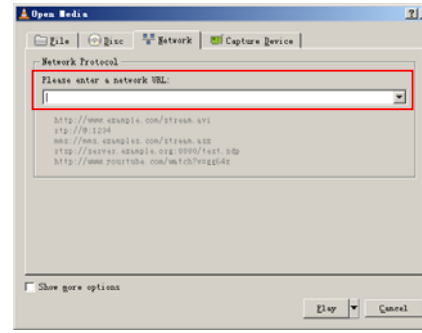
According to the following method to view live video of the DVR remotely.

1. Run VLC media player,



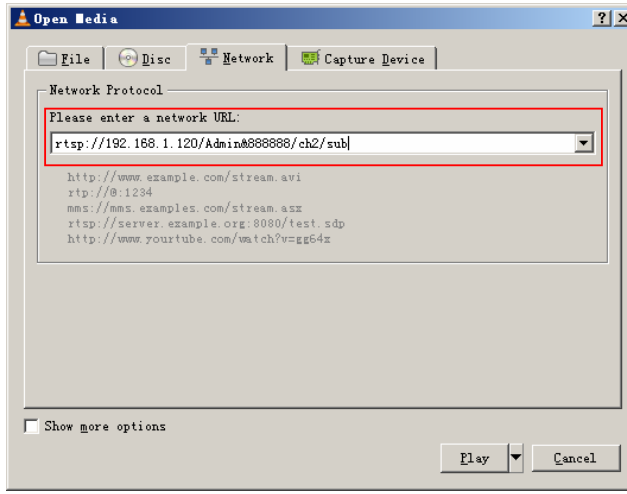
2. Open “Media->Open Network Stream…->Network” (see the following figures).



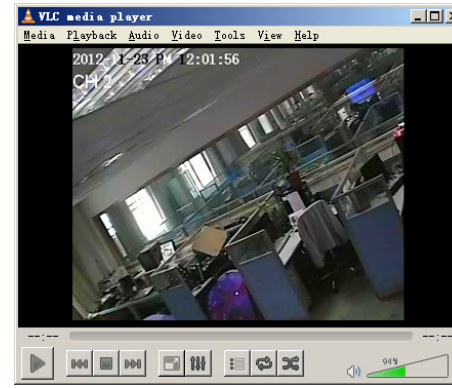


3. Input the right path such as “rtsp://ip address of the DVR/ user name& password / channel/ type” in the address field “Please enter a network URL”, then click the button “Play”. User name is the same as entering the DVR system, default is Admin. Password is the same as entering the DVR system, default is 888888 of administrator. Channel is the channel will be connected remotely. Type is code flow type, include main code and sub code.

   For example, the ip address of the DVR is “192.168.1.120”, the user name is “Admin”, the password is “888888”, and to view channel 2. When connecting with main code, input “rtsp://192.168.1.120/Admin&888888/ch2”. When connecting with sub code, input “rtsp://192.168.1.120/Admin&888888/ch2/sub”.



4. Click the button “Play” and a window of “RTSP authentication” will appear. Input correct “User name” and “Password”. Then click the button “Ok” to enter the live view.



Note: User only can watch one channel view through the VLC media player, and can’t playback through it.