VITEK
INDUSTRIAL VIDEO PRODUCTS, INC.

VT-TTAR Series
Transcendent Series 4, 8, 16, and 32 Channel HD-TVI / AHD / 960H / IP Digital Video Recorders

FEATURES:

- 4, 8, 16, or 32 Channel HD-TVI/AHD/960H BNC Inputs + IP Camera Support
- 1-Channel IP Camera Support (VT-TTAR410 / VT-TTAR810) / 4-Channel IP Camera Support (VT-TTAR1620 & VT-TTAR3280)
- Simple plug and play, point-to-point connection from camera to DVR
- H.264 Compression
- HDMI, VGA, and BNC (Spot) Video Outputs
- 2-Way Audio
- PTZ Control over RS-485
- 4 Alarm inputs / 1 Alarm Output
- Pentaplex: Live Display / Record / Playback / Backup / Remote Access
- 1 Internal SATA2/SATA3 HDD Slot supporting up to 6TB (VT-TTAR410 / VT-TTAR810) / 2 Internal SATA2/SATA3 HDD Slots supporting up to 12TB (VT-TTAR1620) / 8 Internal SATA2/SATA3 HDD Slots supporting up to 48TB (VT-TTAR3280) /
- Applications for iOS & Android
- Remote Viewing over the Internet via Web Browser or LAN
- Mac OS® Client & CMS Central Management Software Included
- Supports both Dynamic and Static IP Addresses
- Control locally via USB Mouse or IR Remote control

TRANSCENDENT
VITEK

Notes

- Please read this user manual carefully to ensure that you can use the device correctly and safely.
- There may be several technically incorrect places or printing errors in this manual. The updates will be added into the new version of this manual. The contents of this manual are subject to change without notice.
- This device should be operated only from the type of power source indicated on the marking label. The voltage of the power must be verified before using the same. Kindly remove the cables from the power source if the device is not to be used for a long period of time.
- Do not install this device near any heat sources such as radiators, heat registers, stoves or other devices that produce heat.
- Do not install this device near water. Clean only with a dry cloth.
- Do not block any ventilation openings and ensure proper ventilation around the machine.
- Do not power off the device at normal recording condition.
- This machine is for indoor use only. Do not expose the machine in rain or moist environment. In case any solid or liquid get inside the machine's case, please turn off the device immediately and get it checked by a qualified technician.
- Do not try to repair the device by yourself without technical aid or approval.
- When this product is in use, the relevant contents of Microsoft, Apple and Google will be involved in. The pictures and screenshots in this manual are only used to explain the usage of our product. The ownerships of trademarks, logos and other intellectual properties related to Microsoft, Apple and Google shall belong to the above-mentioned companies.
- This manual is suitable for many models. All examples and pictures used in the manual are from one of the models for reference purpose.

Contents

1 Introduction

1.1 Summary

Based on the most advanced SOC technology and embedded system in the field, this series of the DVR adopt the new designed human interface and support the smart management of analog cameras and IP cameras and the record search of slice. This series of the DVR which are powerful and easy to use are provided with excellent image quality and stable system. They are centralized monitoring management products with high performance and high quality specially designed for video monitoring field.

This series of the DVR can be widely used to security system of banks at home and abroad, schools, intelligent mansions, traffic, environmental protection, supermarkets, petrol service stations, residential quarters and factories and so on.

1.2 Features

+ **Basic Functions**

● Support local device and network device access including IP camera/dome and the third party IP cameras

● Support standard ONVIF protocol

● Support dual stream recording of each camera (max 3MP resolution)

● Support IP cameras to be added quickly or manually

● Support batch or single configuration of the cameras' OSD, video parameters, mask, motion and so on

● Support a maximum of 8 user permission groups including Administrator, Advanced and Ordinary which are the default permission groups of the system

● Support a maximum of 16 users to be created, multiple web clients login by using one username at the same time and the user's permission control to be enabled or disabled

● Support a maximum of 10 web clients login at the same time

+ **Live Preview**

● Support 1920×1080/1280×1024 HDMI and VGA high definition synchronous display

● Support multi-screen modes

● Support auto adjustment of the camera's image display proportion

● Support audio monitoring of the camera to be enabled or disabled

● Support manual snap of the preview camera

● Support the sequence of the preview cameras to be adjusted

● Support display mode to be added and saved and the saved modes can be called directly

● Support quick tool bar operation of the preview window

● Support scheme view in sequence, quick sequence view and dwell time setting

● Support motion detection and video mask

● Support multiple popular P.T.Z. control protocol and setup of the preset and cruise

● Support direct mouse control of the dome including rotating, zoom, focusing and so on

● Support single camera image to be zoomed by sliding the scroll wheel of the mouse

● Support any area of the image to be zoomed in to a maximum of 16 times of the current size

● Support image and lens adjustment (only available for some cameras)

● Support quick camera adding in the camera window of the live preview interface

✚ **Disk Management**

● The DVRs with the 2U case can add a maximum of 8 SATA HDDs; a maximum of 4 SATA HDDs with the 1.5U case, a maximum of 2 SATA HDDs with the 1U case and a maximum of 1 SATA HDD with the small 1U case

● Each SATA interface of the DVR supports the HDDs with max 6TB storage capacity

● Support disk group configuration and management and each camera can be added into different disk groups with different storage capacity

● Support disk information and disk working status viewing

● Support batch formatting of the disks

✚ **Record Configuration**

● Support main stream and sub stream recording at the same time and batch or single configuration of the record stream

● Support manual and auto record modes

● Support schedule recording, sensor alarm recording and motion detection recording

● Support schedule recording and event recording setting with different record streams

● Support record schedule setting and recycle recording

● Support pre recording and delay recording configuration of the event recording

✚ **Record Playback**

● Support time scale operation in quick playback and the playback date and time can be set randomly by scrolling the mouse; the time interval of the time scale can be zoomed

● Support record searching by time slice/time/event/tag

● Support time view and camera view in searching by time slice mode

● Support time slice searching by month, by day, by hour and by minute and time slice to be displayed with camera thumbnail

● Support event searching by manual/motion/sensor events

● Support tag searching by the manual added tags

● Support instant playback of the selected camera in the live preview interface

● Support acceleration(maximum 32 times of the normal speed), deceleration (minimum 1/32 times of the normal speed) and 30s' addition or reduction to current playing time

✚ **Record Backup**

● Support record to be backed up through USB (U disk, mobile HDD) interface

● Support record to be backed up by time/event/image searching

● Support record cutting for backing up when playing back

● Support a maximum of 10 backup tasks in background and backup status viewing

✚ **Alarm Management**

● Support alarm schedule setting

● Support enabling or disabling of the motion detection, external sensor alarm input and exception alarms including IP address conflict alarm, disk IO error alarm, disk full alarm, no

disk alarm, illegal access alarm, network disconnection alarm, IPC offline alarm and so on, alarm trigger configuration supportable

- Support IPC offline alarm trigger configuration of PTZ, snap, pop-up video, etc.
- Support event notification modes of alarm-out, pop-up video, pop-up message box, buzzer, e-mail and so on
- The snapped images can be attached into the e-mail when alarm linkage is triggered
- Support alarm status view of alarm-in, alarm-out, motion detection and exception alarm
- Support alarm to be triggered and cleared manually
- Support system auto reboot when exception happens

Network Functions

- Support TCP/IP and PPPoE, DHCP, DNS, DDNS, UPnP, NTP, SMTP protocol and so on
- Support allow and block list function and the allow and block IP address/IP segment/MAC address can be set
- Support multiple browsers including IE8/9/10/11, Firefox, Opera, Chrome (available only for the versions lower than 45) and Safari in MAC system
- Support remote achievement, configuration, import and export of the DVR parameters and other system maintenance operations including remote upgrading and system restart
- Support remote camera configuration of the DVR including video parameters, image quality and so on
- Support remote searching, playback and backup of the DVR
- Support manual alarm to be triggered and cleared remotely
- Support NVMS or other platform management software to access the DVR and manage it
- Support NAT function and QRCode scanning by mobile phone and PAD
- Support mobile surveillance by phones or PADs with iOS or Android OS
- Support DVR to be accessed remotely through telnet and the telnet function can be enabled or disabled

Other Functions

- The DVR can be controlled and operated by the buttons on the front panel, the remote controller and the mouse
- Setting interfaces can be switched to one another conveniently by clicking the main menus on the top of the setting interfaces
- Support DVR information viewing including basic, camera status, alarm status, record status, network status, disk and backup status
- Support factory restoring, import and export of the system configuration, log view and export and local upgrading by USB mobile device
- Support auto recognition of the displayer's resolution

1.3   Front Panel Descriptions

The following descriptions are for reference only.
Type I:

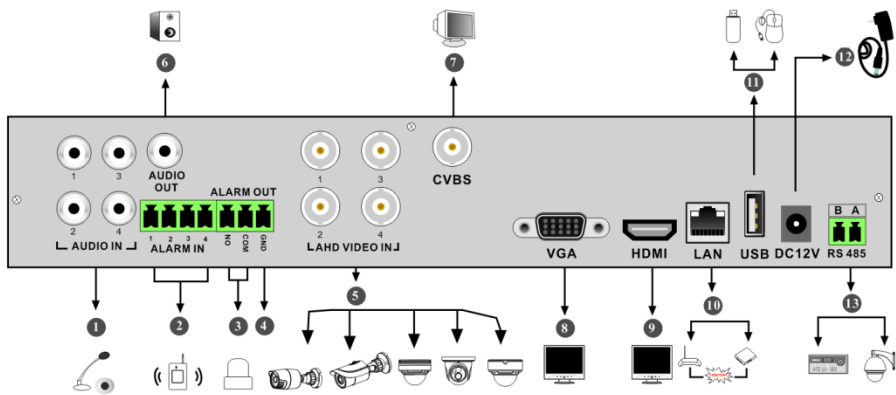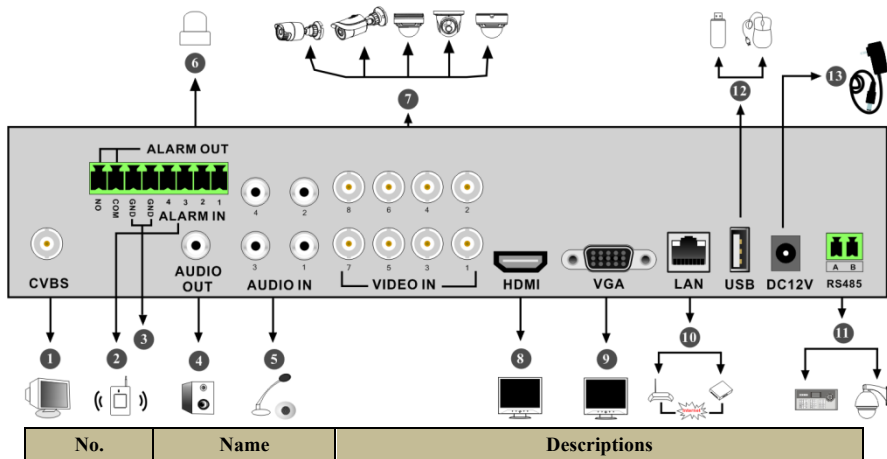| Name	Descriptions
REC	When recording, the light is blue
Net	Network activity , the light is blue
Power	Power indicator, when connected , the light is blue

Type II:

Name	Descriptions
Power	Power Indicator, when connected, the light is blue
HDD	Blue when reading/writing HDD
Net	The light turns blue when it is able to access the network
Backup	Blue when backing up files and data
Play	The light turns blue when playing video
REC	When recording, the light is blue
AUDIO /+	1. Adjust audio 2. Increase the value in setup
P.T.Z / -	1. Enter PTZ mode 2. Decrease the value in setup
MENU	Enter Menu in live
INFO	Check the information of the device
BACKUP	Enter backup mode in live
SEARCH	Enter search mode in live
Exit	Exit the current interface
●	Manually record
►I	Play/Pause
◄◄	Speed down
►►	Speed up
1-9	Input digital number and select camera
0/--	Input number 0, the number above 10
Direction Key	Change direction
Multi-Screen Switch	Change the screen mode
Enter	Confirm selection
USB	To connect external USB device like USB mouse or USB flash

1.4 Rear Panel Descriptions

Below images are for example purposes only. Actual product may very.

No.	Name	Descriptions
1	AUDIO IN	Audio input
2	ALARM IN	Alarm inputs for connecting sensors
3	ALARM OUT	Relay output; connect to external alarm
4	GND	Grounding
5	VIDEO IN	4 CH video inputs
6	AUDIO OUT	Audio output
7	CVBS	CVBS video output; connect to monitor
8	VGA	Connect to monitor
9	HDMI	Connect to high definition display device
10	LAN	Network port
11	USB	Connect USB storage device or USB mouse
12	DC12V	DC12V power input
13	RS485	Connect to keyboard or speed dome. A is TX+; B is TX-

No.	Name	Descriptions

No.	Name	Descriptions
1	CVBS	CVBS video output; connect to monitor
2	ALARM IN	Alarm inputs for connecting sensors
3	GND	Grounding
4	AUDIO OUT	Audio output
5	AUDIO IN	Audio input
6	ALARM OUT	Relay output; connect to external alarm
7	VIDEO IN	8 CH video inputs
8	HDMI	Connect to high definition display device
9	VGA	Connect to monitor
10	LAN	Network port
11	RS485	Connect to keyboard or speed dome. A is TX+; B is TX-
12	USB	Connect USB storage device or USB mouse
13	DC12V	DC12V power input
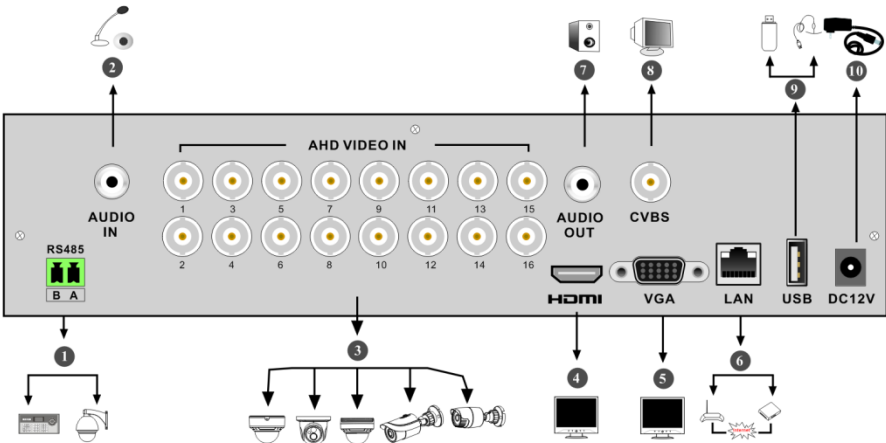
No.	Name	Descriptions
1	RS485	Connect to keyboard or speed dome. A is TX+; B is TX-
2	AUDIO IN	Audio input
3	VIDEO IN	16 CH video inputs
4	HDMI	Connect to high definition display device
5	VGA	Connect to monitor
6	LAN	Network port
7	AUDIO OUT	Audio output
8	CVBS	CVBS video output; connect to monitor
9	USB	Connect USB storage device or USB mouse
10	DC12V	DC12V power input

1.5   Connections

● **Video Connections**

Video Output: Supports VGA/HDMI video output. You can connect to monitor through these video output interfaces simultaneously or independently.

● **Audio Connections**

Audio Input: line level.
Audio Output: Connect to headphones, amplifier etc.

● **Alarm Connections**

Some models may support this function. Take 16 CH alarm inputs and 1 CH alarm output for example.
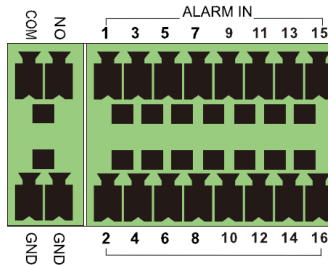
Alarm Input:
Alarm IN 1~16 are 16 CH alarm input interfaces. There are no type requirements for sensors. NO type and NC type are both available.
The way to connect sensor and the device is as shown below:

The alarm input is an open/closed relay. If the input is not an open/closed relay, please refer to the following connection diagram:
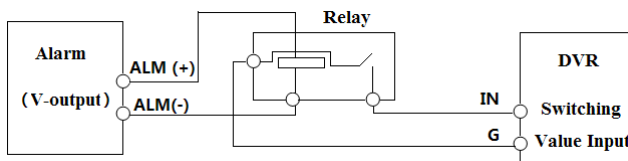
Alarm Output:

The way to connect alarm output device:

Pull out the green terminal blocks and loosen the screws in the alarm-out port. Then insert the signal wires of the alarm output devices into the port of NO and COM separately. Finally, tighten the screws. Provided that the external alarm output devices need power supply, you can connect the power supply as per the following figure.
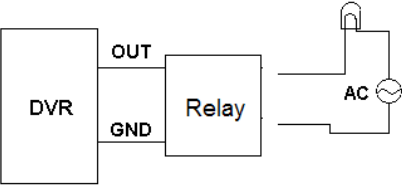
- **RS485 Connection**

There are two types of RS485 interfaces:
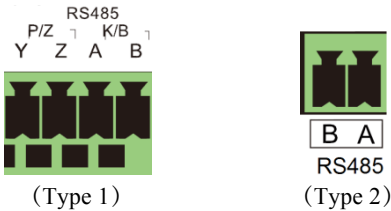
（Type 1）　　　　　（Type 2）

Type 1: The P/Z interfaces is used to connect speed domes. K/B interfaces is used to connect a keyboard.

Type 2: The RS485 interfaces are used to connect speed domes but also to connect a keyboard.

The way to connect a speed dome to the DVR:

Type 1: Disconnect connecting block from the RS485 terminal block and then loosen the screws on the connecting block, insert signal cables into Y and Z port separately (Y is TX+; Z is TX-) and tighten the screws. Next, connect connecting block back into terminal block. Finally, connect the video cable of the speed dome to the video input interface of the DVR.

Type 2: Disconnect connecting block from the RS485 terminal block and then loosen the screws on the connecting block, insert signal cables into A and B port separately (A is TX+; B is TX-) and tighten the screws. Next, connect connecting block back into terminal block. Finally, connect the video cable of the speed dome to the video input interface of the DVR.

> *Note:*
> *The connecting block of some models may not be connected into the terminal block , the connecting block will be with the accessories*

2.1

Please make sure all the connections are properly done before you power on the unit. Proper

startup and shutdown are crucial to expending the life of your device.

2.1.1 Startup

Connect the display device to the VGA/HDMI interface of the DVR.

Connect the mouse and power. The device will boot and the power LED will turn blue.

A WIZARD window will pop up (you should select the display language the first time you use the DVR). Refer to 3.1 Startup Wizard for details.

2.1.2 Shutdown

Power off the device by using remote controller or mouse.

By remote controller:

Press Power button. This will take you to a shutdown window. The unit will power off after clicking "OK" button.

Disconnect the power.

By mouse:

Click Start→Shutdown to pop up the Shutdown window. Select "Shutdown" in the window. The unit will power off by clicking "OK" button.

Disconnect the power.

2.2 Remote Control

Uses two AAA size batteries.

Open the battery cover of the remote control.

Insert batteries. Please observe the polarity (+ and -).

Replace the battery cover.

Key points to check in case the remote doesn't work.

1. Check batteries polarity.

2. Check the remaining charge in the batteries.

3. Check IR control sensor for any masking.

If it still doesn't work, please try a new remote control, or contact your dealer.

There are two kinds of remote controls. The interface of remote control is shown as below.

Button	Function
⏻ Power Button	Turns unit on and off
Record Button	To start recording

-/-- /0-9	Input number or choose camera
Fn1 Button	Not used
Multi Button	To choose multi screen display mode
Next Button	To switch the live image
SEQ	To go to sequence view mode
Audio	To enable audio output in live mode
Spot	Not used
Direction button	To move cursor in setup or pan/tilt PTZ
Enter Button	To confirm the choice or setup
Menu Button	To go to menu
Exit Button	To exit the current interface
Focus/IRIS/Zoom/PTZ	To control PTZ camera
Preset Button	To enter into preset setting in PTZ mode
Cruise Button	To go to cruise setting in PTZ mode
Track Button	Not used
Wiper Button	Not used
Light Button	Not used
Clear Button	Not used
Fn2 Button	Not used
Info Button	Get information about the device
▶❙❙ ■ ❙◀◀ ▶▶❙ ◀◀ ▶▶	To control playback. Play(Pause)/Stop/Previous Frame/Next Frame/Speed Down/Speed Up
Snap Button	To take snapshots manually
Search Button	To go to search mode
Cut Button	Not used
Backup Button	To go to backup mode
Zoom Button	To zoom in the images
PIP Button	Not used

Note:

Press P.T.Z button to enter PTZ setting mode, choose a channel and press P.T.Z button again to hide the P.T.Z control panel.

Button	Function
REC	Record manually
Search	To enter search mode
MEUN	To enter menu
Exit	To exit the current interface
ENTER	To confirm the choice or setup
Direction button	To move cursor in setup
ZOOM	To zoom in
PIP	Not used
	To control playback. Play(Pause)/Next Frame/Speed Up/Stop/Previous Frame/Speed Down
Multi	To choose multi screen display mode
Next	To switch the live image
SEQ	To go to sequence view mode
INFO	Get information about the device

2.3   Mouse Control

➢   **Mouse control in Live Preview & Playback interface**

In the live preview & playback interface, double click on any camera window to show the window in single screen mode; double click the window again to restore it to the previous size.

In the live preview & playback interface, if the interfaces display in full screen, move the mouse to the bottom of the interface to pop up a tool bar. The tool bar will disappear automatically after you move the mouse away from it; move the mouse to the right side of the interface to pop up a panel and the panel will disappear automatically after you move the mouse away from it.

➢   **Mouse control in text-input**

Move the mouse to the text-input box and then click the box. The input keyboard will pop up automatically.

Note: Mouse is the default tool for all operations unless an exception is indicated.

2.4   Text-input Instruction
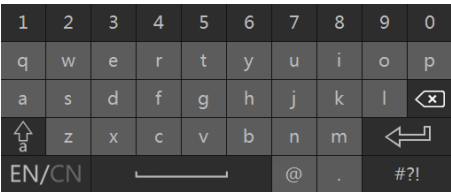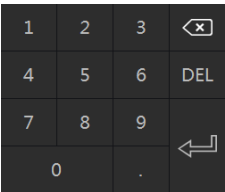
The system includes two input boxes. Refer to the above pictures. The left box is the number input box and the right box is the input box which provides inputs of numbers, letters and punctuation characters. The introductions of keys on the input boxes are shown below.

Button	Meaning	Button	Meaning
⌫	Backspace key	#?!	Switch key of punctuation character
DEL	Delete Key	↵	Enter key
⇧	Switch key between upper and lower letter	⎵	Space key
EN/CN	Switch key of language		

2.5 Common Button Operation

Button	Meaning
∨	Show the menu list.
↓ ↑	Change the sequence of the list.
🖼 ▦ ▦ ▦	Change the camera displaying mode.
✖	Close the current interface.
Earliest	Click it to go to the earliest date of camera recording.
Latest	Click it to go to the latest date of camera recording.

3 Wizard & Main Interface

3.1 Startup Wizard

The disk icons will be shown on the top of the startup interface. You can view the number and status of each disk quickly and conveniently through these icons (: no disk; : unavailable disk; : RW available disk).

You can quickly configure the DVR by using the wizard setup. You must use the wizard setup when you start the DVR for the first time (click "Skip" to cancel the wizard next time).
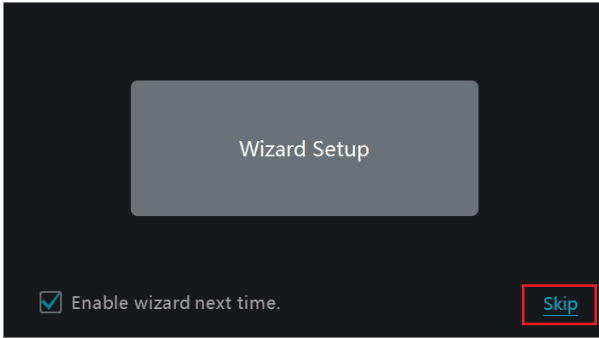
Click "Wizard Setup" to start wizard. The setting steps are as follows.

    System Login. Set your own password or use the default when you use the wizard for the first time (the default username of the system is ***admin*** and the default password of admin is ***123456***); select the login username and enter the corresponding password next time.

Click "Edit Security Question" to set questions and answers for password security of admin. If you forget the password, please refer to Q4 in <u>Appendix A FAQ</u> for details.
Click "Next" to continue or click "Cancel" to exit the wizard.

    Date and Time Configuration. The date and time of the system need to be set up if you use the wizard for the first time. Refer to the following figure. Set the time zone, system time, date format and time format. The DST will be enabled by default if the time zone selected includes DST. Click "Next" to continue.

Network Settings. Check "Obtain an IP address automatically" and "Obtain DNS automatically" to get the IP address and DNS automatically (the DHCP function of the router in the same LAN should also be enabled), or manually input them. Input the HTTP port, RTSP port and Server port (please see 11.1.2 Port Configuration for details). Click "Next" to continue.

QRCode. You can scan the QRCode using the mobile client which is installed on the mobile phone or PAD to log in the mobile client instantly. Please refer to 12.1 Mobile Client Surveillance for details.

Add Camera. Click "Refresh" to refresh the list of online IP cameras which are on the

same local network with DVR and then click [+] to add the found camera. Click "Add All" to add all the cameras in the list. Click [🗑] to delete the added camera. Click "Delete All" to delete all the added cameras.
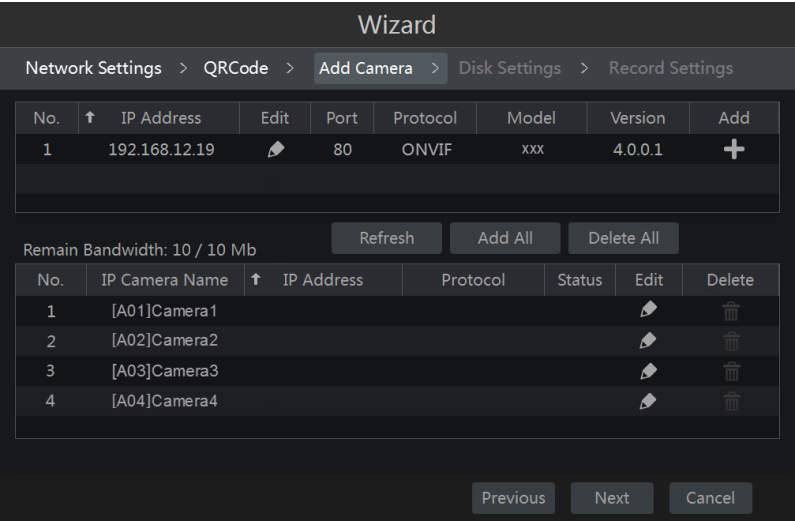
Click [✏] to edit the found IP camera as shown on the below left. Input the new IP address, subnet mask, gateway and the password of the camera. Click "OK" to save the settings.
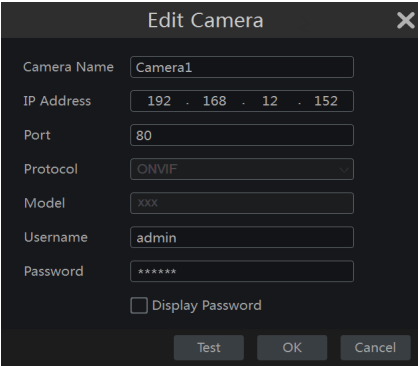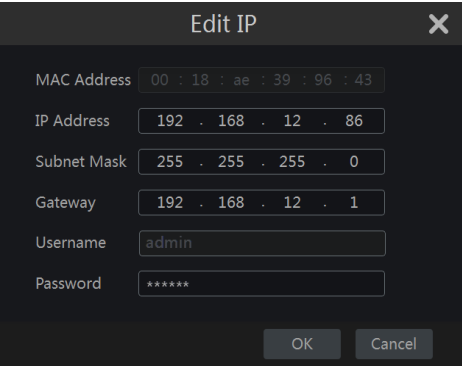
Click [✏] to edit the added camera as shown on the above right. Input the new camera name, IP address, port, username and the password of the camera. You can click "Test" to test the effectiveness of the inputted information. Click "OK" to save the settings. You can change the camera name only if it's an analog camera or the added IPC is online. Click "Next" to continue.

Disk Settings. You can view the disk number, disk capacity of the DVR and serial number, R&W status of the disk. Click "Formatting" to format the disk. Click "Next" to continue.

   Record Settings. Two record modes are available: auto and manual.

 Auto: Select one auto mode in the interface as shown below and then click "OK" button to save the settings. See 7.1.1 Mode Configuration for details.

 Manual: Set the "Sensor Record", "Motion Record" and "Schedule Record" of each camera. Click "OK" to save the settings. See 7.1.1 Mode Configuration for details.
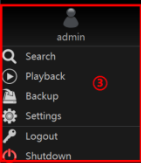
3.2 Main Interface

3.2.1 Main Interface Introduction
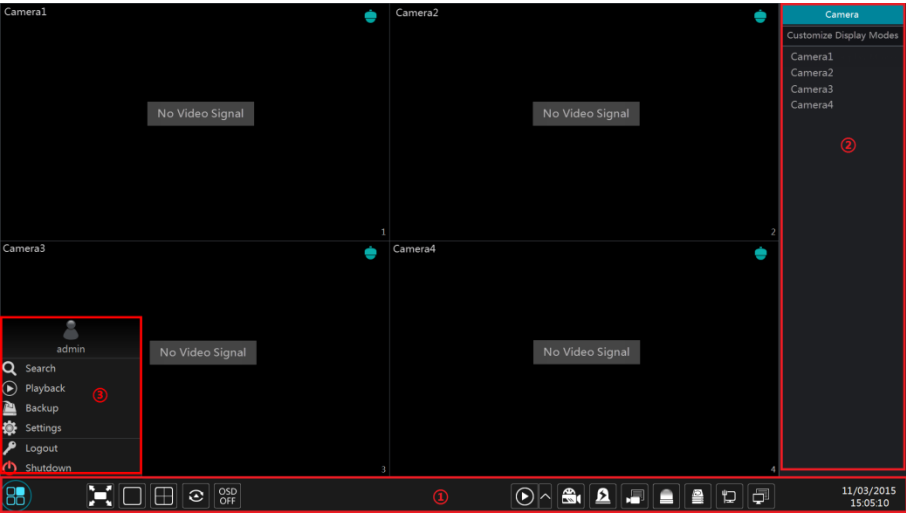
The buttons in area   are introduced in the table below.
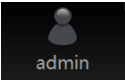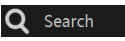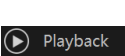
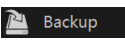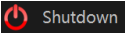| Button	Meaning
	Start button. Click it to pop up area ③.
	Full screen button. Click it to show full screen; click it again to exit the full screen.
	Screen mode button.
	Dwell button (see 5.2.2 Quick Sequence View and 5.2.3 Scheme View In Sequence for details).
OSD ON	Click it to enable OSD; click to disable OSD.
	Click to set the default playback time before starting instant playback (8.1 Instant Playback) or going to the playback interface for playback operations (8.2 Playback Interface Introduction); click to go to the playback interface. For instance, if you choose "5 minutes ago" as the default playback time, you can playback the recording from the past five minutes.
	Manual record button. Click it to enable/disable record.
	Manual alarm button. Click it to trigger or clear the alarm-out manually in the popup window.
	Record status button. Click it to view the recording status.
	Alarm status button. Click it to view the alarm status.
	Disk status button. Click it to view the disk status and RAID status.
	Network status button. Click it to view the network status.
	Information button. Click it to view system information.

Introduction of area ：

Click "Camera" to view all the added cameras in the camera list. Select one camera window on the left side of the interface and then double click one IP camera in the list to preview the camera image in the selected window.

Click "Customize Display Modes" to view all the display modes in the display mode list (refer to 5.2.1 Preview By Display Mode for detail configuration of the display mode). Double click one display mode in the list to switch to the display mode for previewing.

Introduction of area ③:

| Icon / Button	Meaning
admin	Shows the current login user.
Search	Click to go to record search interface, see 8.3 Record Search & Playback for details.
Playback	Click to go to playback interface (click ⌂ on the tool bar at the bottom of the live preview interface to set the default playback time), see 8.2 Playback Interface Introduction for details.
Backup	Click to go to the backup interface, see 8.4 Backup for details.
Settings	Click to pop up the setup panel, see 3.2.2 Setup Panel for details.
Logout	Click to log out of the system.
Shutdown	Click and then select "Logout", "Reboot" or "Shutdown" in the popup window.

3.2.2 Setup Panel

Click Start→Settings to pop up the setup panel as shown below.
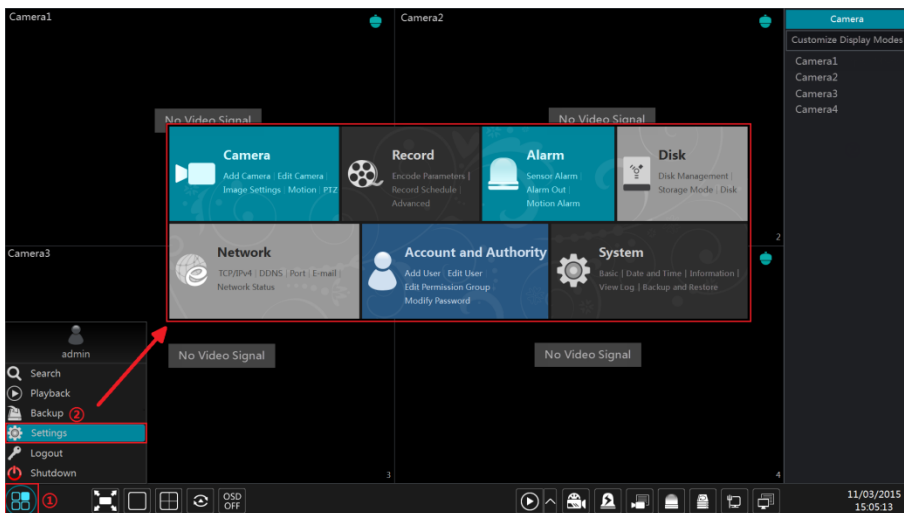
The setup panel includes seven modules. Each module provides some function entries with links for convenient operation.

Here we take *Camera* module as an example. The *Camera* module provides convenient links such as "Add Camera", "Edit Camera", "Image Settings", "Motion" and "PTZ". Click *Camera* to go to the camera management interface as shown below.
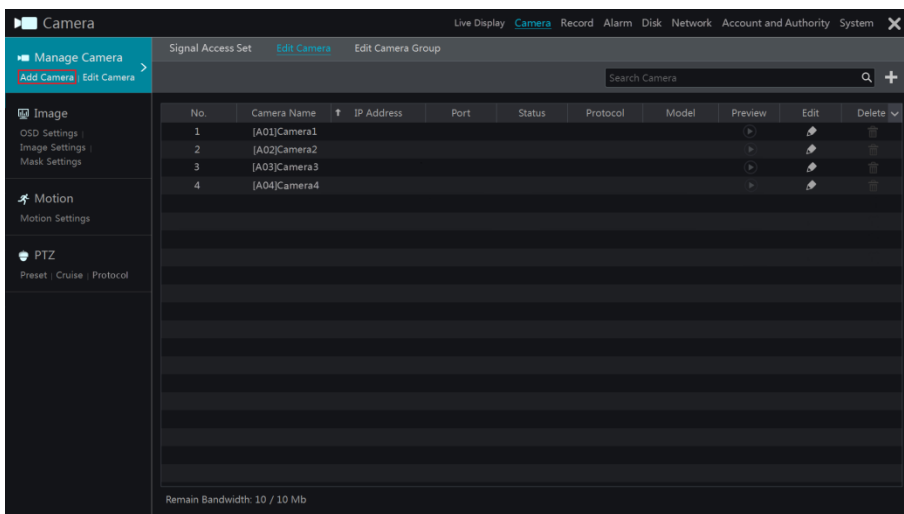
There are some function items on the left side of the camera management interface. Click each item to go to corresponding interface or window. For instance, click "Add Camera" to pop up the window as shown below (to add IP Camera)
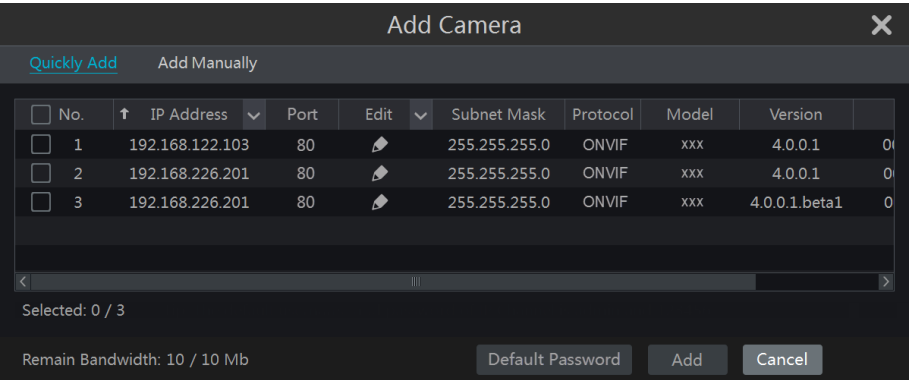
Click the main menus on the top of the camera management interface to go to corresponding interfaces. Refer to the picture below. For instance, you can go to system setup interface by clicking "System" tag.
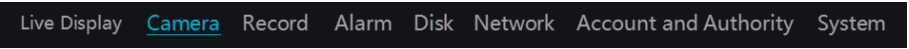
3.2.3 Main Functions

➢ **Camera**

The module covers the functions of *Camera Management* (see Chapter 4 Camera Management for details), *Image Settings* (see 5.3 Preview Image Configuration for details), *Motion* (see 9.2.1 Motion Configuration for details) and *PTZ* (see Chapter 6 PTZ for details) and so on.

➢ **Record**

The module covers the functions of *Encode Parameters* and *Record Schedule* and so on. Please see Chapter 7 Record & Disk Management for details.

➢ **Disk**

The module covers the functions of *Disk Management*, *Storage Mode* and *Disk Information* and so on. Please see Chapter 7 Record & Disk Management for details.

➢ **Alarm**

The module covers the functions of *Sensor and Motion Alarm Handling* and *Alarm Out Settings*. Please see Chapter 9 Alarm Management for details.

➢ **Network**

The module covers the functions of *TCP/IPv4*, *DDNS*, *Port*, *E-mail* and *Network Status* and so on. Please see 11.1 Network Configuration for details.

➢ **Account and Authority**

The module covers the functions of *Account Management* (see 10.1 Account Management for details) and *Permission Management* (see 10.3 Permission Management for details) and so on.

➢ **System**

The module covers the functions of ***Basic Configuration*** (see 11.2 Basic Configuration for details), ***Device Information*** (see 11.7 View System Information for details), ***Log Information*** (see 11.6 View Log for details) and ***Configuration File Import&Export*** (see 11.5 Backup and Restore for details) and so on.

4 Camera Management

4.1 Signal Access Set

Click **Start➔Settings➔Camera➔Manage Camera➔Signal Access Set** to go to the interface as shown below.

There are two types of analog signals: TVI and AHD. If the access signal is TVI, you should check TVI in the following interface to show the camera image; if you check AHD, then there will be no image or the image has no color. The default selection of the signal is Auto. If you check Auto, then the image of the camera will be shown regardless of the access signal type.

LITE: if you check LITE the resolution will change from 1920 x 1080 to 960 x 1080
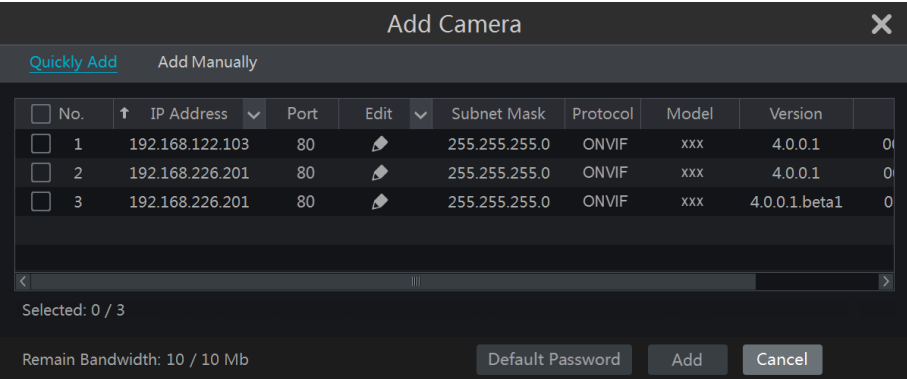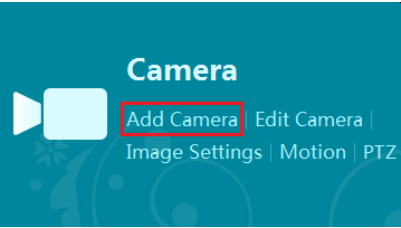
This will allow you to record at 30fps

Signal Access Set	Edit Camera		Edit Camera Group				
Camera	☐	TVI	☐	AHD	☑	Auto	☐ Lite
[A01]	☐		☐		☑		☐
[A02]	☐		☐		☑		☐
[A03]	☐		☐		☑		☐
[A04]	☐		☐		☑		☐
[A05]	☐		☐		☑		☐
[A06]	☐		☐		☑		☐
[A07]	☐		☐		☑		☐
[A08]	☐		☐		☑		☐

4.2 Add/Edit Camera

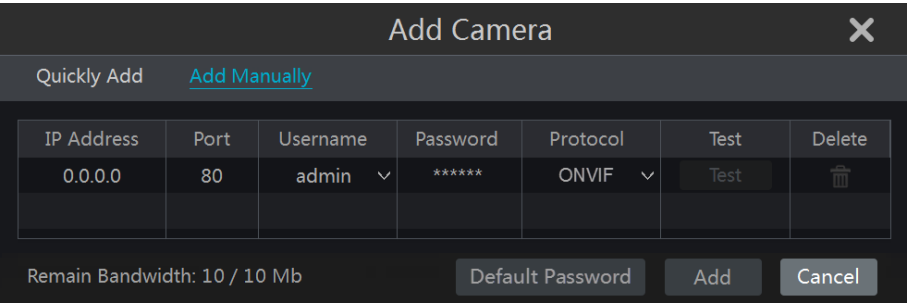### 4.2.1 Add Camera

The network settings of the DVR should be set before adding IP camera (see 11.1.1 TCP/IPv4 Configuration for details).

Refer to the pictures below. Click ***Add Camera*** in the setup panel or 🞥 in the top right corner of the preview window to pop up the "Add Camera" window as shown below. You can quickly add or add the IP camera manually.

No Video Signal

Camera

Add Camera | Edit Camera |
Image Settings | Motion | PTZ

Click it to add camera

	No.	↑	IP Address	∨	Port	Edit	∨	Subnet Mask	Protocol	Model	Version	
☐	1		192.168.122.103		80	✎		255.255.255.0	ONVIF	xxx	4.0.0.1	0(
☐	2		192.168.226.201		80	✎		255.255.255.0	ONVIF	xxx	4.0.0.1	0
☐	3		192.168.226.201		80	✎		255.255.255.0	ONVIF	xxx	4.0.0.1.beta1	0

Add Camera

Quickly Add   Add Manually

Selected: 0 / 3

Remain Bandwidth: 10 / 10 Mb   Default Password   Add   Cancel

➢ **Quickly Add**

Check the cameras and then click "Add" to add cameras. Click [✎] to edit the camera's IP address, username and password and so on. Click "Default Password" to set the default username and password of each camera.

Add Camera

Quickly Add   Add Manually

IP Address	Port	Username	Password	Protocol	Test	Delete
0.0.0.0	80	admin ∨	******	ONVIF ∨	Test	🗑

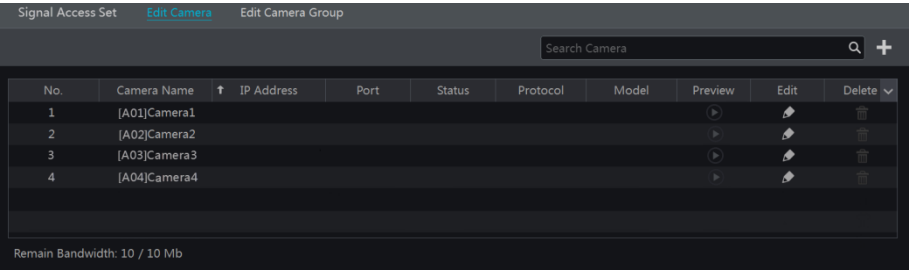Remain Bandwidth: 10 / 10 Mb   Default Password   Add   Cancel

➢ **Add Manually**

Input the IP address, port, username and password of the camera and then select the protocol. Click "Test" to test the effectiveness of the inputted information and then click "Add" button

(you can input one camera's information or above such as IP address, username and password before clicking "Add" button). Click [trash icon] to delete the camera. Click "Default Password" to set the default username and password of each camera.
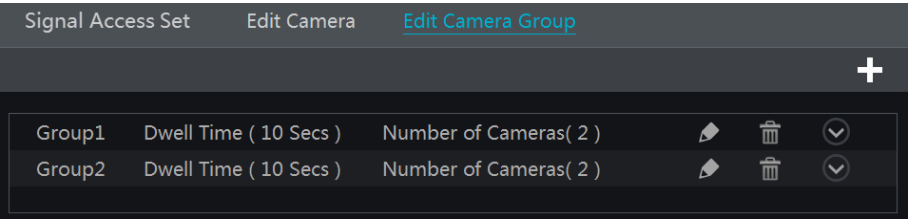
4.2.2　Edit Camera

Click "Edit Camera" in the setup panel to go to the interface as shown below. Click [play icon] to view the live image of the camera in the popup window. Click [edit icon] to edit the camera (see ***Add camera*** in 3.1Startup Wizard for details). Click [trash icon] to delete the IP camera.

No.	Camera Name ↑	IP Address	Port	Status	Protocol	Model	Preview	Edit	Delete ∨
1	[A01]Camera1						▶	✎	🗑
2	[A02]Camera2						▶	✎	🗑
3	[A03]Camera3						▶	✎	🗑
4	[A04]Camera4						▶	✎	🗑

Signal Access Set　　Edit Camera　　Edit Camera Group

Search Camera

Remain Bandwidth: 10 / 10 Mb

4.3　Add/Edit Camera Group

4.3.1　Add Camera Group

Click "Edit Camera Group" in the above interface to go to the interface as shown below.

Signal Access Set　　Edit Camera　　**Edit Camera Group**

| Group1 | Dwell Time (10 Secs) | Number of Cameras(2) | ✎ | 🗑 | ∨ |
| Group2 | Dwell Time (10 Secs) | Number of Cameras(2) | ✎ | 🗑 | ∨ |

Click [+ icon] to pop up the window as shown below. Set the group name and dwell time in the window. Check the cameras and then click "Add" to add group. Click [∨ icon] to view the cameras in the group after adding group.
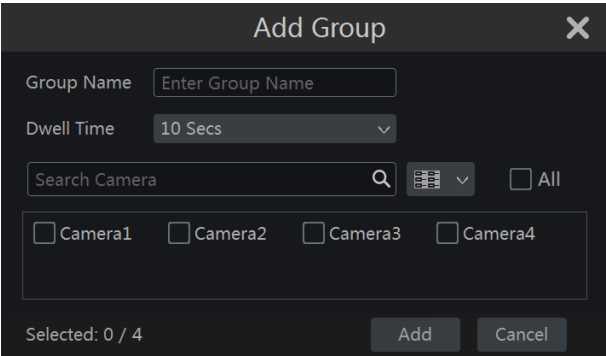
4.3.2 Edit Camera Group
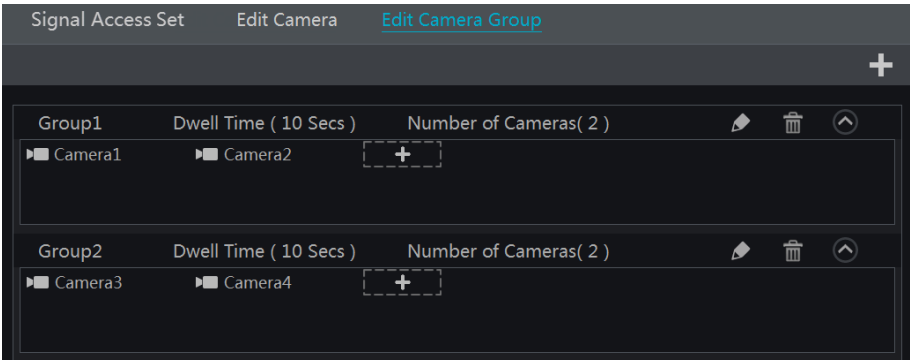
Click to modify the group information such as group name and dwell time. Click to delete the group.

5 Live Preview Introduction

5.1 Preview Interface Introduction

The connected analog camera will be added automatically in the live preview interface for previewing. You need to add IP camera manually for previewing (see 4.2.1 Add Camera for details). Refer to the interface as shown below, drag one camera in the preview window to another window for camera window exchanging.
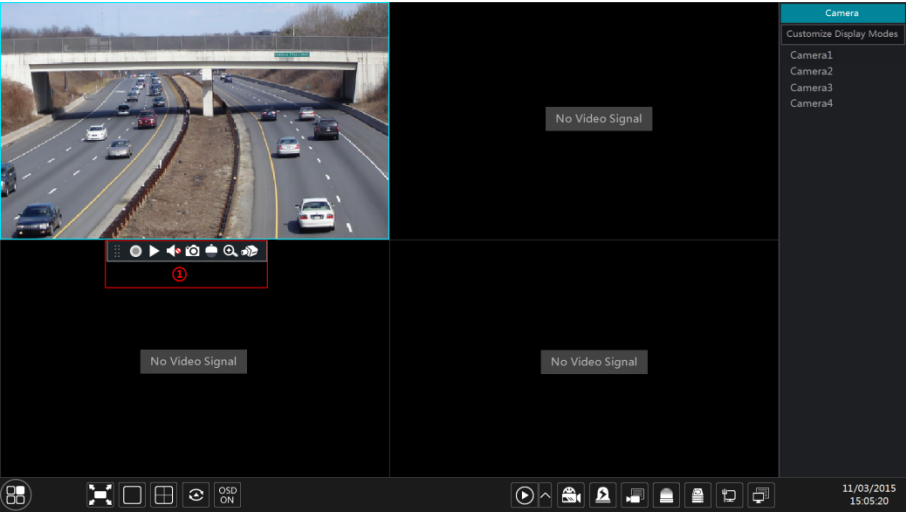
Click the preview window to show the tool bar as shown in area ; right click the preview window to show the menu list. The tool bar and menu list are introduced in the table below.

| Button	Menu List	Meaning
	--	Move tool. Click and hold to move the tool bar anywhere.
	Manually Record On	Click to start recording.
	Instant Playback	Click ▶ to playback recording; click "Instant Playback" to select or self-define the instant playback time. See 8.1 Instant Playback for details.
	Enable Audio	Click to enable audio. You can listen to the camera audio by enabling audio.
	Snap	Click to pop up the snapshot window. Click "Save" in the window to save the image. Click "Export" to export the image.
	PTZ Control	Click to go to PTZ control interface. See Chapter 6 PTZ for details.
	Zoom In	Click to go to single channel zoom interface.
	--	Click it to go to image adjustment interface. Refer to 5.3.4 Image Adjustment for details.
--	**Camera Info**	Click it to view the IP camera information.

The single channel zoom interface is as shown below. Click and drag the blue box to select the zoomed in area. Click / to zoom the image. Click the camera selection box to select other cameras for zooming. Click "Back" to return to the live preview interface.

5.2   Preview Mode

5.2.1   Preview By Display Mode

Set different screen modes and cameras' display sequences as required and then save the display modes classified by surveillance areas, priorities and so on. Refer to the picture below. Double click one display mode in the display mode list to view the live images in this mode.
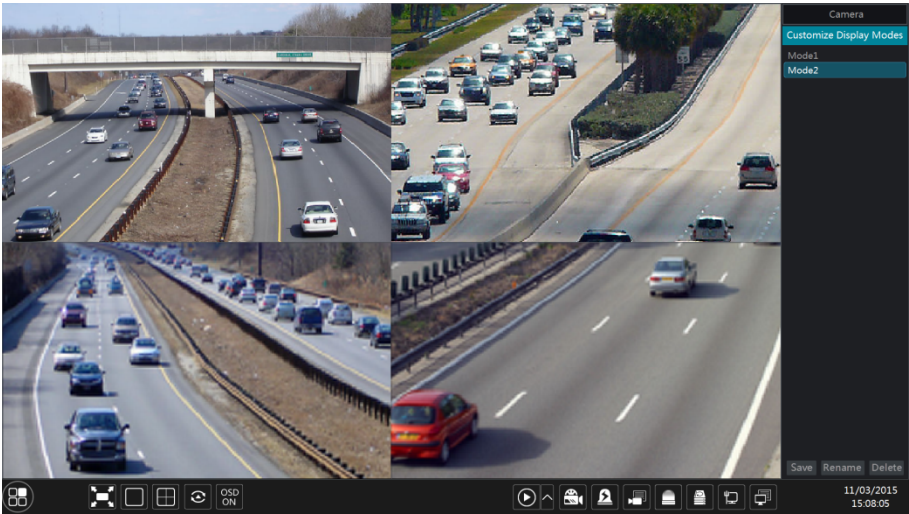
➢   **Add Display Mode**

Method One:

Click "Customize Display Modes" in the above interface and then set the screen mode. Add the cameras and adjust the cameras' display sequence as required.

Click "Save" button under the display mode list and then enter the display mode name in the popup window, click "OK" button to save the current display mode.

Method Two:

Click **Start→Settings→System→Basic→Output Settings→Main Output** to go to the interface and then set the screen mode.

Double click the camera or camera group-in the list to add them to the selected window.

Click ⭐ to save the current display mode (refer to <u>5.2.3 Scheme View In Sequence</u> for detail configurations). The display mode will be saved and displayed in the display mode list in the live preview interface.

➢ **Edit Display Mode**

Click "Customize Display Modes" tab in the live preview interface and then select one display mode in the list. Click "Rename" to edit the display mode name; click "Delete" to delete the display mode.

5.2.2   Quick Sequence View

You can start quick sequence view if the scheme has not been created. If the scheme has been created, please refer to <u>5.2.3 Scheme View in Sequence</u> for details.
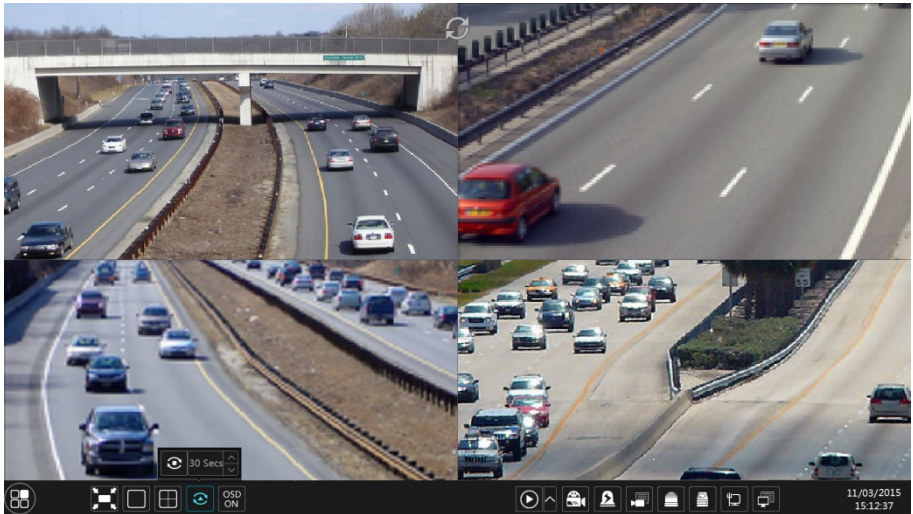

Go to the live preview interface and then click 👁 to pop up a little window. Set the dwell time in the window and then click 👁 to view the live group by group according to the camera number of the current screen mode. Double click the sequence view interface to pause the view; double click again to restore the view. Click 👁 to stop the view.

5.2.3   Scheme View In Sequence

Click **Start→Settings→System→Basic→Output Settings→Main Output** to go to the

interface as shown below.

Area   displays all the dwell schemes; area   shows the detailed information of the scheme; area   displays all the cameras and groups; area   is the tool bar (🔳: clear button; ⭐: favorite button, click to pop up a window, enter the display mode name in the window and then click "OK" to save the current display mode; other buttons are screen mode buttons).
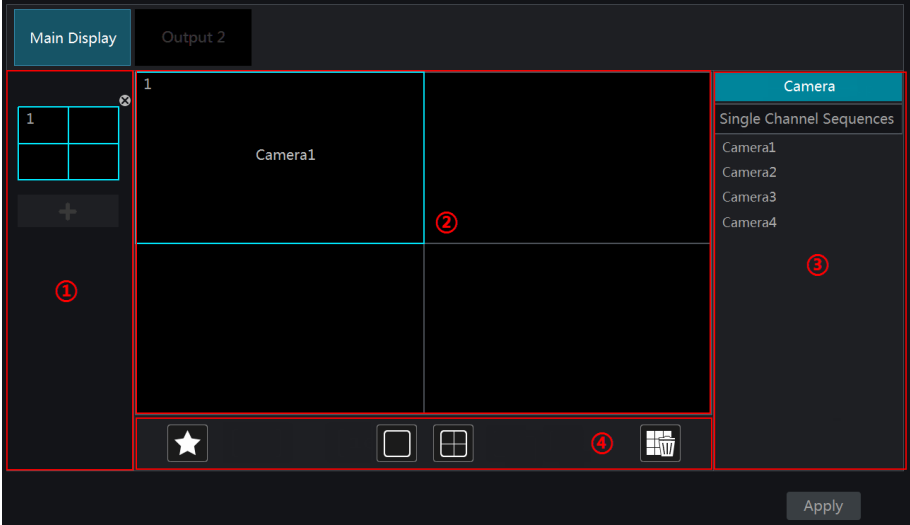
➤ **Add Scheme**

Click 🛨 in area   to create a new scheme. Click ⊗ on the top right corner of the scheme to delete it.

➤ **Configure Scheme**

a)   Select a scheme in area   and then click the screen mode button on the tool bar to set the screen mode of the scheme.

b)   Select a camera window in area   and then double click the camera or group in area   . The camera or group will be added into the selected window. One camera in the same scheme cannot repeat. You can right-click and select "Clear" in area   to remove a single camera or click 🔳 to remove all the cameras.

c)   Click "Apply" to save the settings.

➤ **Start Sequence View**

Go to live preview interface and then click 🔄 to pop up a window. Set the dwell time in the window and then click 🔄 to start scheme view in sequence. Double click the sequence view interface to pause the view; double click again to restore the view. Click 🔄 to stop the view.

5.2.4   Spot View

Click **Start→Settings→System→Basic→Output Settings→Output 2** to go to the interface as shown below.

Click on the left to create a new scheme. Each scheme can only add one analog camera. Select a scheme on the left and then double click or drag a camera on the right to the scheme window in the middle of the interface. After finishing the settings of all the schemes, select the dwell time and click "Apply" to start playing the schemes in sequence in output 2.
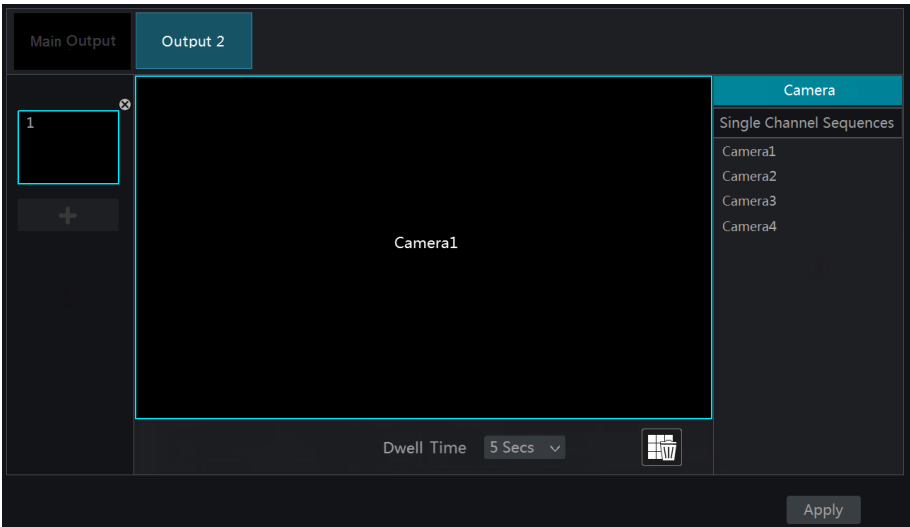
5.3   Preview Image Configuration

5.3.1   OSD Settings

Click **Start→Settings→Camera→Image→OSD Settings** to go to the interface as shown below. Select the camera, input the camera name (or double click the camera name in the camera list to change the camera name), enable or disable the name and time OSDs (if enabled, drag the red name and time OSDs directly in the image view area to change the OSDs' display position) and select the date and time formats. Click "Apply" to save the settings.
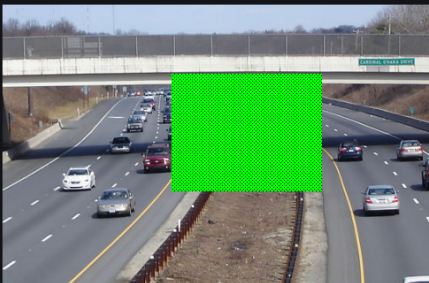
5.3.2   Image Settings

Click **Start→Settings→Camera→Image→Image Settings** to go to the following interface. Select the camera and then set the brightness, contrast, saturation and hue of the camera. You can click "Default" button to restore the image settings to the factory default settings.

5.3.3   Mask Settings

Some areas of the image can be masked for privacy. Up to four mask areas can be set for each camera. Click **Start→Settings→Camera→Image→Mask Settings** to go to the interface as shown below. Select the camera and enable the mask. Click "Draw" button and then drag the mouse on the image area to set the mask area; click "Delete" button to delete the mask areas; click "Apply" to save the settings.

Camera Name	Mask	∨	Color
Camera1	ON	∨	Black
Camera2	OFF	∨	Black
Camera3	OFF	∨	Black
Camera4	OFF	∨	Black

Draw   Delete

Camera   Camera1

Mask   ON

Apply

5.3.4   Image Adjustment

Go to live preview interface and then click [icon] button on the tool bar under the camera window to go to the image adjustment interface.

Camera   Camera1

Image Adjust   Lens Control

Brightness   60
Contrast   50
Saturation   50
Hue   50
☐ Sharpen   50
☐ Wide Dynamic   128
☐ Denoise   30
White Balance   Auto
Image Mirror   ○ ON   ● OFF
Image Flip   ○ ON   ● OFF

Default   Back

➢   **Image Adjustment**

Select the camera and then click "Image Adjustment" to go to image adjustment tab. Refer to the above picture. Drag the slider to set the camera's brightness, contrast, saturation and hue value. Check sharpen, wide dynamic and denoise and then drag the slider to set the value. Click "Default" button to set these parameters to default values.

The introductions of these parameters are as follows:

Parameter	Meaning
Brightness	The brightness level of the camera's image.
Contrast	The color difference between the brightest and darkest parts.
Saturation	The intensity of color.
Hue	It relates to the total color degree of the image.
Sharpen	The sharpness level of the image edge.
Wide Dynamic	Wide Dynamic Range (WDR) function helps the camera provide clear images even under bright backlight circumstances. When there are both very bright and very dark areas simultaneously in the field of view, WDR balances the brightness level of the whole image and provide clearer images with details.
Denoise	Adopt the noise reduction technology to decrease the noise and make the image more thorough. Increasing the value will make the noise reduction effect better but it will reduce the image resolution.
White Balance	White balance is the white rendition function of the camera to adjust the color temperature according to the environment automatically.
Image Mirror	Reverse the current video image right and left.
Image Flip	Turn the current video image upside down.

➢ **Lens Control (camera dependent)**

Select the camera and then click "Lens Control" to go to lens control tab. Click ➖ or ➕ to adjust the zoom and focus parameters of the camera's lens. Click "Save" to save the settings.
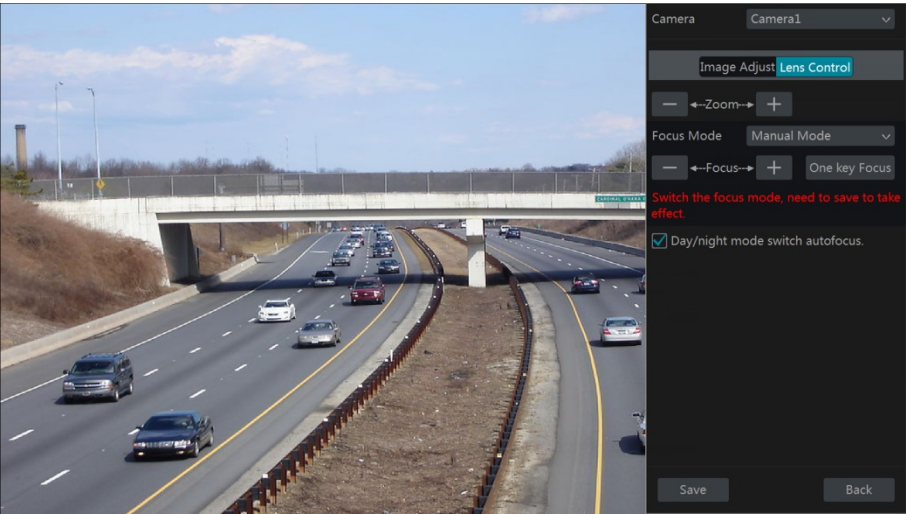
The introductions of these parameters and buttons are as follows:

Button/Parameter	Meaning
— ←--Zoom--→ +	Click + / — to zoom in/out the image.
Focus Mode	If manual mode is selected, focus button & "One Key Focus" & "Day/night mode switch autofocus" will be available; if auto mode is selected, the time interval setup will be available.
— ←--Focus--→ +	Click + / — to increase/decrease the focal length.
One key Focus	Click to focus instantly.
Day/night mode switch autofocus	If checked, the lens will focus automatically when the camera is switching day/night mode.
Time Interval	It is the time interval when camera lens is auto-focusing. The interval can be set in the drop-down list.

Note: This function is only available for the models with auto varifocal lens, or the settings here are ineffective.
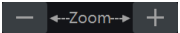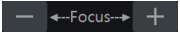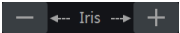
6.1 PTZ Control Interface

You can control the dome or PTZ.

Click ⬜ on the tool bar at the bottom of the live preview window to go to the PTZ control interface as shown below. You can select another dome or PTZ on the top right of the interface for PTZ control.
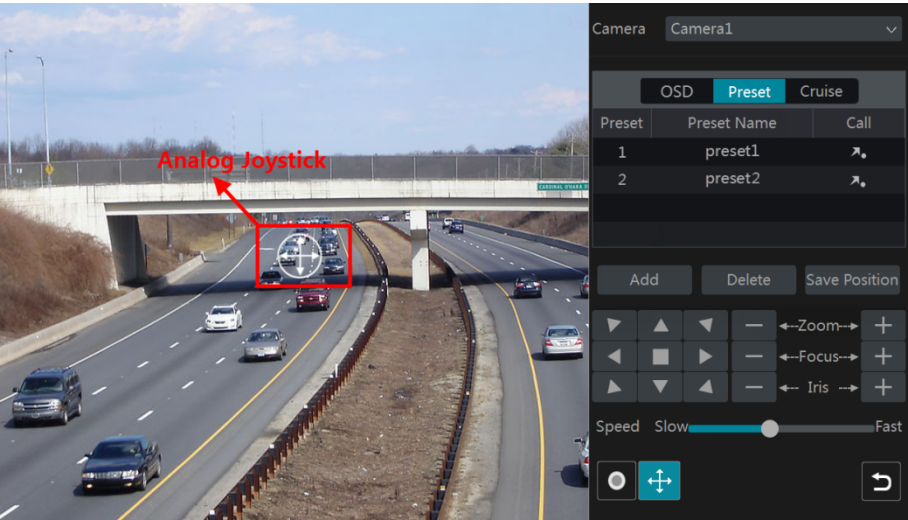
Introductions of the buttons on the bottom right of the interface:

Button	Meaning
▶ ▲ ◀ ◀ ■ ▶ ▲ ▼ ◀	Click ▲ / ▶ / ◀ / ▼ / ◀ / ▶ / ◀ / ▶ to rotate the dome. Click ■ to stop rotating the dome.
— ←Zoom→ +	Click + / — to zoom in / out the camera image.
— ←Focus→ +	Click + / — to increase / decrease the focal length.
— ← Iris → +	Click + / — to increase / decrease the iris of the dome.
Slow ▬▬●▬▬ Fast	Drag the slider to adjust the rotating speed of the dome.
◎ / ●	Click ◎ / ● to start / stop recording.
⊕ / ⊕	Click ⊕ / ⊕ to hide / show the analog joystick.
↩	Click it to return to the live preview interface.

➢ **Analog Joystick Control**

The analog joystick on the left side of the interface provides quick PTZ control. The dome or PTZ will rotate when you drag the analog joystick. The farther you drag the analog joystick from the middle of the image, the faster the dome or PTZ rotates. The dome or PTZ will stop rotating when you stop dragging the analog joystick.

➢ **3D Control**

Click the camera image on any area and then the image will be centered on the clicked point.

Refer to the picture as shown below. Drag the mouse from A to B to get a green rectangle and the rectangle area will be zoomed in.
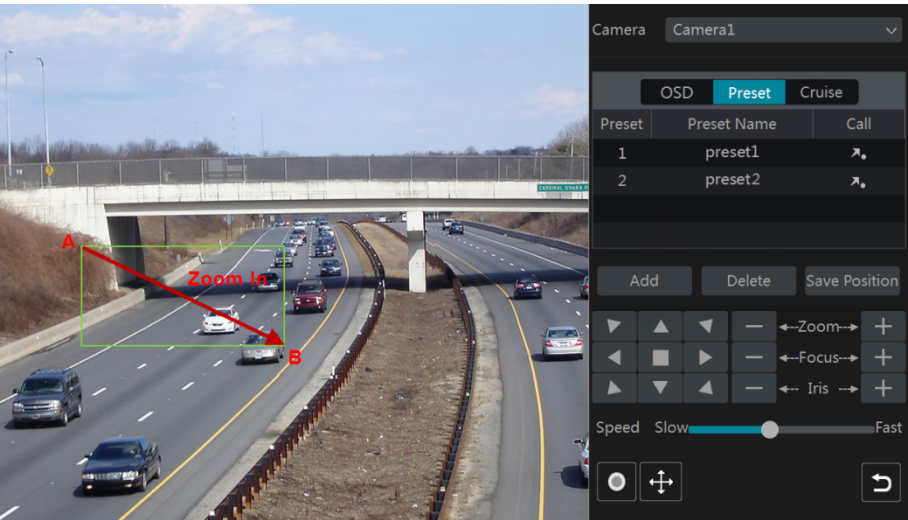
Refer to the picture as shown below. Drag the mouse from C to D to get a green rectangle and the rectangle area will be zoomed out.

➢ **Advanced 3D Control**

Double click the left button of the mouse on any area of the camera image and then the image size will be doubled and centered on the clicked point.

Press and hold the left button of the mouse on any area of the camera image to zoom in the image; press and hold the right button to zoom out the image.

Move the cursor of the mouse to the camera image and then slide the scroll wheel of the mouse forward to zoom in the image, slide the scroll wheel of the mouse backward to zoom out the image.

➢ **OSD Setting**

Go to PTZ protocol setting interface and then set the protocol to COC before you call the OSD. Click "OSD" to go to camera OSD setting interface. Click ■ to start OSD setting. The meanings of the buttons are shown in the table below.
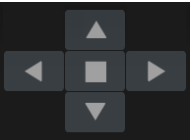
Button	Meaning
■	The OK button; click it to start OSD.
◀	Click to change the menu mode or decrease the menu value.
▶	Click to change the menu mode or increase the menu value.

Button	Meaning
▲	Click to go to the previous menu.
▼	Click to go to the next menu.

➢ **Preset Setting**

Click "Preset" to go to preset operation tab and then click "Add" button to pop up a window as shown below. Select the preset and then input the preset name in the window; finally click "OK" button to save the settings. You can add up to 255 presets for each dome.
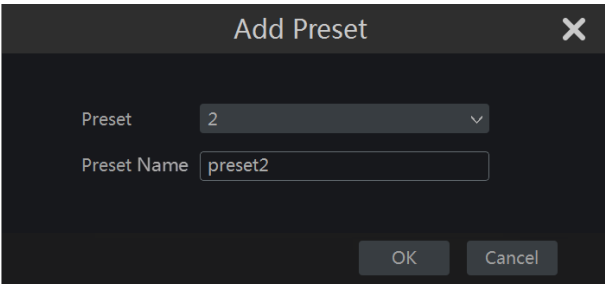
Adjust the dome's direction and then click "Save Position" to save the current preset position (you can also click another preset in the preset list and then save the preset position after adjusting the dome's direction); click in the preset list to call the preset; click "Delete" button to delete the selected preset.

You can also go to preset setting interface for preset setting, see 6.2 Preset Setting for details.

➢ **Cruise Setting**

Click "Cruise" to go to cruise operation tab and then click "Add" button to pop up a window as shown below left. You can add 8 cruises for each dome at most.
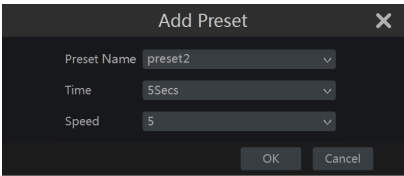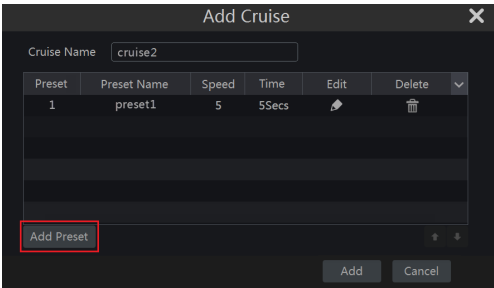
Input the cruise name in the "Add Cruise" window and then click "Add preset" to pop up the "Add Preset" window (Before adding preset to the cruise, please add preset of the dome first).

In the "Add Preset" window, select the preset name, preset time and preset speed and then click "OK" button.

In the "Add Cruise" window, you can click to reselect the preset, then change the preset time and speed. Click to delete the preset. Click "Add" button to save the cruise.

Click to start the cruise and click to stop the cruise in the cruise list of the cruise operation tab; click "Delete" button to delete the selected cruise.

You can also go to cruise setting interface for cruise setting, see 6.3 Cruise Setting for details.

6.2 Preset Setting

Click **Start→Settings→Camera→PTZ→Preset** to go to the interface as shown below.
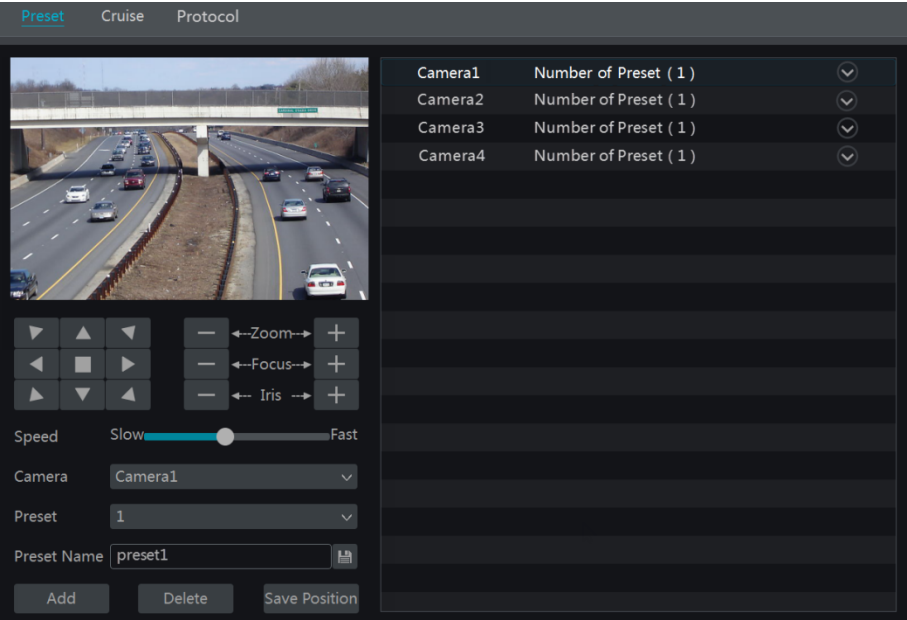
> ➢ **Add preset**

Select camera and then click "Add" button to add preset; or click in the camera list on the right side of the interface to display the preset information of the dome and then click to add preset. The operations of the "Add Preset" window are similar to that of the PTZ control interface; please see 6.1 PTZ Control Interface Introduction for details.

> ➢ **Edit preset**

Select camera and preset. You can input a new name of the preset and then click to save the new preset name. Adjust the rotating speed, position, zoom, focus and iris of the preset and then click "Save Position" to save the preset.

> ➢ **Delete Preset**

Select camera and preset and then click "Delete" to delete the preset.

6.3   Cruise Setting

Click **Start→ Settings→ Camera→ PTZ→ Cruise** to go to the interface as shown below.
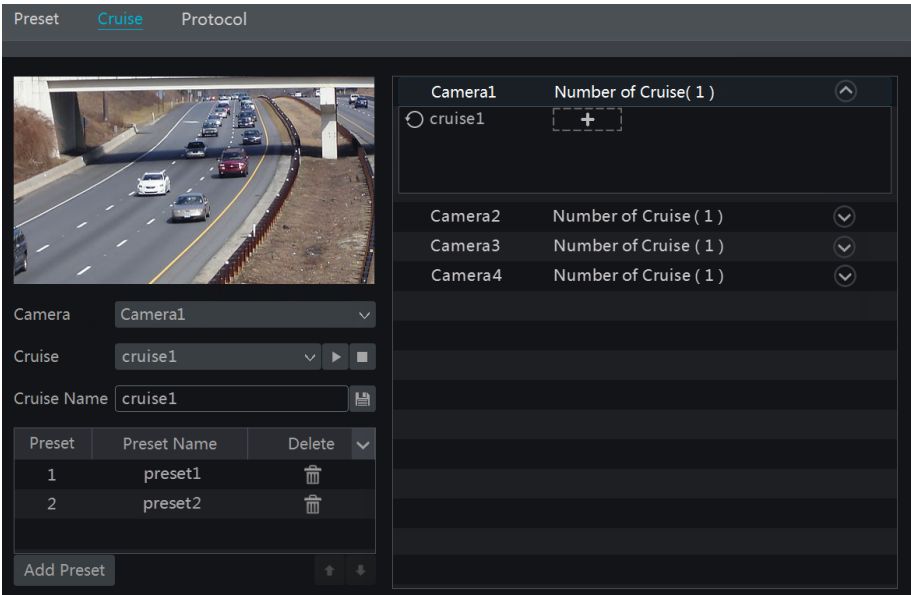
> ➢   **Add Cruise**

Click ⊙ in the camera list on the right side of the interface to display the cruise information of the dome and then click ➕ to add cruise. The operations of the "Add Cruise" window are similar to that of the PTZ control interface; please see <u>6.1 PTZ Control Interface Introduction</u> for details.

> ➢   **Edit Cruise**

Select the camera and cruise in the "Cruise" interface. Input the a cruise name and then click 💾 to save the cruise name. Click "Add Preset" to add preset to the cruise. Click 🗑 to delete the preset from the cruise. Click one preset in the preset list and then click ⬇ to move down the preset and click ⬆ to move up the preset. Click ▶ to start the cruise and click ⏹ to stop it.

> ➢   **Delete Cruise**

Click ⊙ in the camera list on the right side of the interface to display the cruise information of the dome and then click ❌ on the top right corner of the cruise to delete the cruise.

6.4   PTZ Protocol Setting

Click Start→ Settings→ Camera→ PTZ→ Protocol to go to the interface as shown below. You can set the protocol, baud rate and address of the analog dome in the interface. Please

make sure the analog speed dome camera is connected to the DVR before you control it.

Select the camera and then set the protocol, baud rate and address of the dome according to the settings of the dome.

Protocol: The default communication protocol of the DVR is COC. Range from: PELCOP, PELCOD, LILIN, MINKING, NEON, STAR, VIDO, DSCP, VISCA, COC, etc.

Address: The address of the PTZ device.

Baud Rate: Baud rate of the PTZ device. Range from: 110, 300, 600, 1200, 2400, 4800, 9600, 19200, 34800, 57600, 115200, 230400, 460800, 921600.

7   Record & Disk Management

7.1   Record Configuration

7.1.1   Mode Configuration

Please format the HDDs before recording (refer to 7.5 Disk Management for details). Click **Start→ Settings→ Record→ Mode Settings** to go to the mode settings interface. You can set the record time under the "Manual Record Settings" and then click "Apply" button to save the settings. There are two record modes: auto mode and manual mode.

> ➢ **Auto Mode**

Motion Record: Will record on Motion activity only.
Sensor Record: Will record on Alarm Sensor only.
Motion Record+Sensor Record: Will record on either Motion or Alarm Sensor or both
Always(24 x 7) Record+Motion Record: Normal recording is enabled all the time; motion recording will be started when motion happens.
Always(24 x 7) Record+Sensor Record: Normal recording is enabled all the time; sensor alarm record will be started when sensor alarm happens.
Always(24 x 7) Record+Motion Record+Sensor Record: Normal record is enabled all the time; motion/sensor alarm record will be enabled when motion/sensor alarm happens.

Select one auto mode to pop up the corresponding window. Set the video encode, resolution, FPS, bitrate and audio of each camera and then click "OK" to save the settings.

Video Encode: the video encode format of the camera.
Resolution: the higher the resolution is, the clearer the image is.
FPS: the higher the frame rate is, the more fluency the video is. However, more storage room

will be taken up.

Bitrate: the higher the image quality you choose, the more bit rate will be required.

➢ **Manual Mode**

If the manual mode is selected, you need to set the encode parameters and record schedules of each camera. See 7.2 Encode Parameters Setting and 7.3 Schedule Setting for details.

7.1.2 Advanced Configuration

Click **Start➔Settings➔Record➔Advanced** to go to the following interface. Enable or disable cycle record (cycle record: the earliest record data will be replaced by the latest when the disks are full). Set the pre-alarm record time, post-alarm record time and expiration time of each camera and then click "Apply" to save the settings.

Advanced Record Settings			
☑ Cycle Record			
Camera's Record Parameters			
Camera Name	Pre-alarm Record Time ⌄	Post-alarm Record Time ⌄	Expiration Time ⌄
Camera1	5 Secs ⌄	10 Secs ⌄	Never Expire
Camera2	5 Secs ⌄	10 Secs ⌄	Never Expire
Camera3	5 Secs ⌄	10 Secs ⌄	Never Expire
Camera4	5 Secs ⌄	10 Secs ⌄	Never Expire
			Apply

Pre-alarm Record Time: set the time to record before the actual recording begins.

Post-alarm Record Time: set the time to record after the actual recording is finished.

Expiration Time: set the expiration time for recorded video. If the set date is overdue, the recorded data will be deleted automatically.

7.2 Encode Parameters Setting

Click **Start➔Settings➔Record➔Encode Parameters** to go to the interface as shown below. Set the video encode, resolution, FPS, bitrate and audio of main stream for each camera in "Event Record Stream" and "Timing Record Stream" interfaces. Click "Apply" to save the settings. You can set the record stream of each camera one by one or batch set them for all cameras.
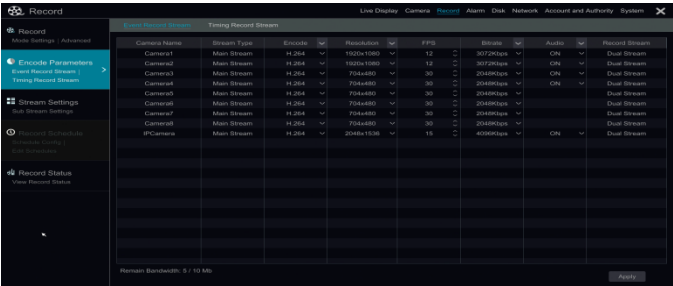
Click **Start→Settings→Record→Stream Settings** to go to "Sub Stream" interface. Set the video encode resolution, FPS and bitrate of sub-stream for each camera in the interface and then click "Apply" to save the settings.

Sub Stream						
Camera Name	Stream Type	Encode	Resolution	FPS	Bitrate	
Camera1	Sub Stream	H.264	352x240	25	512Kbps	
Camera2	Sub Stream	H.264	352x240	25	512Kbps	
Camera3	Sub Stream	H.264	352x240	25	512Kbps	
Camera4	Sub Stream	H.264	352x240	25	512Kbps	

Apply
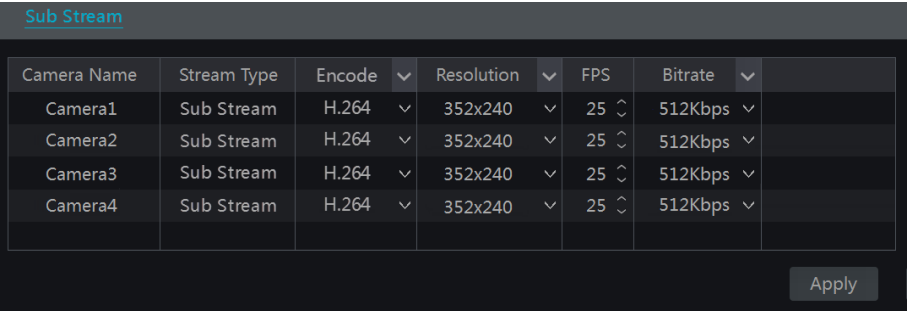
7.3   Schedule Setting

7.3.1   Add Schedule

Click **Start→Settings→Record→Record Schedule→Edit Schedules** to go to the interface as shown below. "24 x 7", "24 x 5" and "24 x 2" are the default schedules; you cannot edit or delete "24 x 7" while "24 x 5" and "24 x 2" can be edited and deleted. Click the schedule name to display the detailed schedule information on the left side of the interface. The seven rows stand for the seven days in a week and each row stands for 24 hours in a day. Blue stands for the selected time and gray stands for unselected time.

Click to add a new schedule. Refer to the picture below.

Set the schedule name and schedule time and then click "Add" to save the schedule. You can

set day schedule or week schedule. [icon]: add button; [icon]: delete button.

➢ **Set Day Schedule**
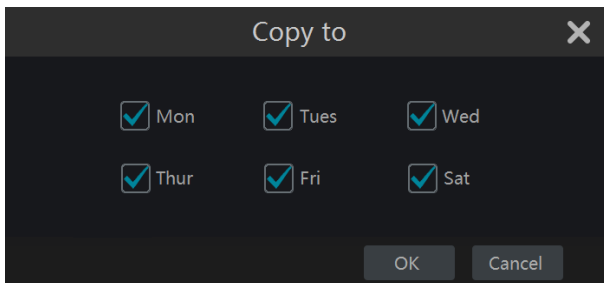
Click [icon] and then drag the cursor on the time scale to set record time; click [icon] and then drag the cursor on the time scale to delete the selected area.

You can manually set the record start time and end time. Click [icon] or [icon] and then click "Manual" on each day to pop up a window as shown below. Set the start and end time in the window and then click "OK" to save the settings.

Click "All" to set all day recording; click "Reverse" to swap the selected and unselected time in a day; click "Clear All" to clear all the selected area in a day.

Click "Copy To" to copy the schedule of the day to other days. Refer to the picture below. Check the days in the window and then click "OK" to save the settings.

➢ **Set Week Schedule**

Click [icon] or [icon] and then click "Manual" beside [icon] to set the week schedule. Refer to the picture below. Set the start and end time, check the days in the window and then click "OK" to save the settings.

Added time manually

Start Time	16:37
End Time	17:37

☑ Sun ☑ Mon ☑ Tues ☑ Wed
☑ Thur ☑ Fri ☑ Sat

OK   Cancel
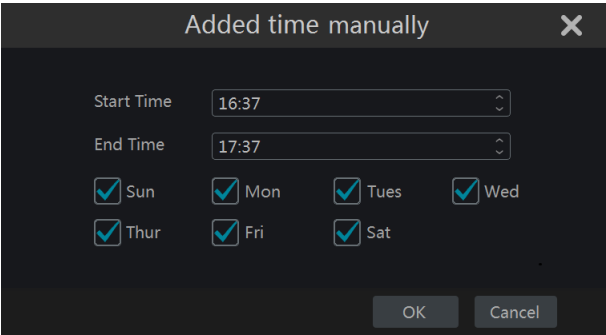
Click "All" to set all week recording; click "Reverse" to swap the selected and unselected time in a week; click "Clear All" to clear all the selected area in a week.

7.3.2　Record Schedule Configuration

Click **Start➔Settings➔Record➔Record Schedule➔Schedule Configuration** to go to the interface as shown below. Set the schedule of sensor record, motion record and timed record. Click "None" in the drop-down menu to clear the schedule. Click "Apply" to save the settings.

Schedule Config	Edit Schedules					
Camera Name	Sensor Record Schedule	∨	Motion Record Schedule	∨	Timed Record Schedule	∨
Camera1	24×7	∨	24×7	∨	24×7	∨
Camera2	24×7	∨	24×7	∨	24×7	∨
Camera3	24×5	∨	24×5	∨	24×5	∨
Camera4	24×5	∨	24×5	∨	24×5	∨
						Apply

Go to "Edit Schedules" interface and then click 🖊 to edit the schedule. The settings of "Edit Schedule" are similar to that of the "Add Schedule". Click 🗑 to delete the schedule.

7.4　Record Mode

7.4.1　Manual Recording

Method One: Click 📷 on the tool bar at the bottom of the live preview interface to enable recording of the camera.

Method Two: Go to live preview interface and then right-click then select "Manually Record On" in the camera window or click ⏺ on the tool bar under the camera window to start recording.

> *Note: Click Start➔Settings➔Record➔Mode Settings and then set the manual record time in the interface. Click "Apply" to save the settings.*

7.4.2 Timing Recording

Timing Recording: the system will record automatically according to the schedule.
Set the timing record schedule of each camera. See 7.3 Schedule Setting for details.

7.4.3 Motion Based Recording

Motion Based Recording: the system will start motion based recording when motion appears in the setup schedule. The setup steps are as follows:

Set the motion based recording schedule of each camera. See 7.3 Schedule Setting for details.

Enable motion and set the motion area of each camera. See 9.2.1 Motion Configuration for details.

The camera will start motion based recording once you finish the above settings.

7.4.4 Sensor Based Recording

Set the sensor based recording schedule of each camera. See 7.3 Schedule Setting for details.

Set the NO/NC type of sensor, enable the sensor alarm and then check and configure the "Record". See 9.1 Sensor Alarm for details.

7.5 Disk Management

Click **Start→Settings→Disk→Disk** Management to go to disk management interface. You can view the DVR's disk number and disk status and so on in the interface. Click "Formatting" button to format the HDD.

Disk	Capacity[GB]	Disk Serial No.	Disk Model	Status	Operation ∨
Disk1	931	XXX	XXX	✅ RW	Formatting

Note: 1. A new HDD needs to be formatted for normal use.

2. For normal use of a HDD which has been used in another DVR, if the DVR is of the same model as the new DVR, please import the configuration file of the old DVR to the new DVR or format the HDD; if the models of the two DVRs are different, please format the HDD.

7.5.1 Storage Mode Configuration

Click **Start→Settings→Disk→Storage Mode** to go to the interface as shown below.
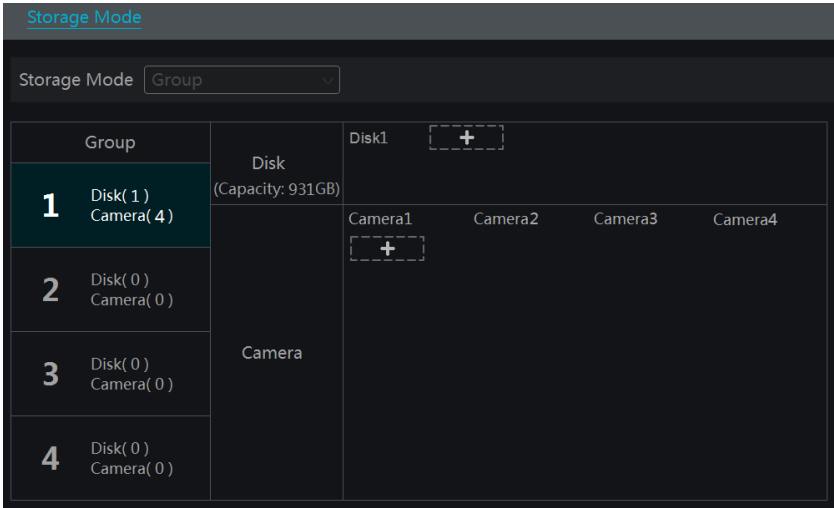
There are all four disk groups. By using disk group, you can correspond the camera to disk (the record data of the camera in the group will be stored into the disks in the same group).

The added disks and cameras will be added into group one automatically. The disks and cameras in the groups can be deleted except group one (select a disk group and then click [X] on the top right corner of the added disk or camera to delete it from the group). The deleted disks and cameras will be moved into group one automatically.

Each group can add the disks and cameras from other groups. Each disk and camera can only be added into one group. Select a disk group and then click [+] in the disk or camera row to pop up a window. Check the disks or cameras in the window and then click "Add".

7.5.2   View Disk and S.M.A.R.T. Information

Click **Start→Settings→Disk→View Disk Information** to view the HDD information; click "S.M.A.R.T. Information" to view the working status of the HDD. Refer to the picture below.

8 Playback & Backup

8.1   Instant Playback

Click [▶] on the tool bar at the bottom of the preview camera window to play back recording (click [∧] on the tool bar at the bottom of the live preview interface to set the default playback time). Refer to the picture below. Drag the playback progress bar to change the playback time. You can also use the right-click menu "Instant Playback" in the camera window and then set the

instant playback time to play back the recording.
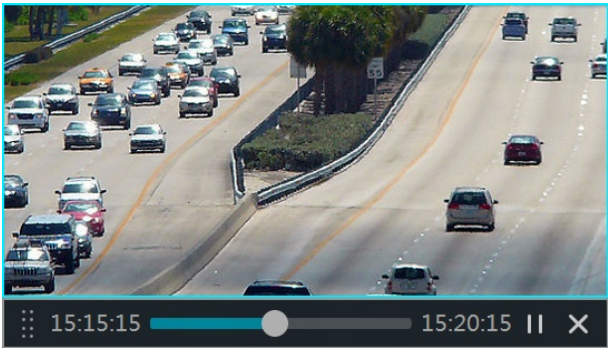
8.2 Playback Interface

Click ▣ on the tool bar at the bottom of the live preview interface or click **Start→Playback** to go to the playback interface as shown below (click ▲ on the tool bar at the bottom of the live preview interface to set the default playback time).
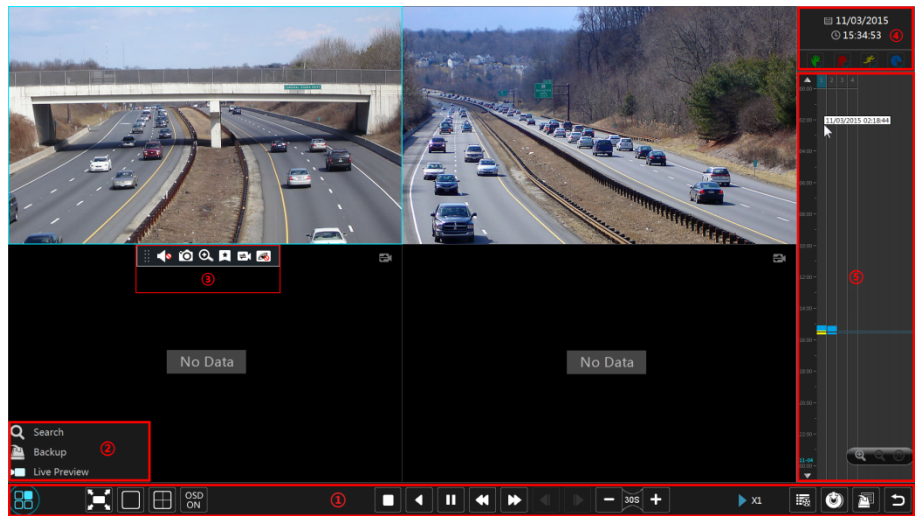
The cameras will playback their recordings in the playback interface automatically. You can also add the playback camera manually.

The buttons on the tool bar (area ①) at the bottom of the playback interface are introduced in the table below.

Button	Meaning
▦	Start button. Click to pop up area ②.

Button	Meaning
	Full screen button. Click to show full screen; click again to exit full screen.
	Screen mode button.
OSD ON	OSD ON button. Click to enable OSD; click OSD OFF to disable OSD.
	Stop button.
	Rewind button. Click to play video backwards.
	Play button. Click to play video forward.
	Pause button.
	Slow button. Click to decrease the playing speed.
	Fast button. Click to increase the playing speed.
	Previous frame button. Works only when forward playing is paused in single screen mode.
	Next frame button. Works only when forward playing is paused in single screen mode.
− 30S +	Click − to go backwards 30s and click + to go forward 30s.
	Event list/tag button. Click to view the event recordings of manual/schedule/sensor/ motion and the tag information.
	Backup button. Drag the mouse on the time scale to select the time periods and cameras, and then click the button to back up the record.
	Backup status button. Click to view backup status.
	Back button. Click to return to live view.

Introduction of area   :

Button	Meaning
Search	Click to go to record search interface; see 8.3 Record Search & Playback for details.
Backup	Click to go to backup interface; see 8.4 Backup for details.
Live Preview	Click it to go to live preview interface; see Chapter 5 Live Preview Introduction for details.

Click on the playback window to show the tool bar as shown in area ③; right click on the window to show the menu list. The tool bar and menu list are introduced in the table below.

Button	Menu List	Meaning
	--	Move tool. Click and hold to move the tool bar anywhere.
	Enable Audio	Click to enable audio. You can listen to the camera audio by enabling audio.(camera dependent)
	Snap	Click to take a snapshot.

⊕	**Zoom In**	Click to go to the zoom in interface. The zoom in interface is similar to that of the camera window in the live preview interface.
★	**Add Tag**	Click to add tag. You can playback the recording by searching the added tag. Click it and then input the tag name in the popup window. Click "Add" to add tag.
⊟	**Switch Camera**	Click to switch the playback camera. Click it and then check the camera in the popup window. Click "OK" to change the camera.
⊘	**Close Camera**	Click to close the playback camera.

Introduction of area ④:

Click to set the date; click to set the time and then the cameras will play the recording from the time you set. You can check the recording type as required for record playback; first you should click on the tool bar at the bottom of the interface to clear all the playback cameras, then check the recording type (: manual record; : sensor based record; : motion based record; : schedule record) and finally click in the playback window to add camera for playback (the recording time scale will show the recorded data of the checked recording type only after the above operations).

Introduction of the record time scale (area ⑤):

A tool bar will appear after moving the mouse to the recording time scale. Click / to zoom in / zoom out of the timeline; click to recover the timeline to 24 hours' ratio. Drag the timeline or slide the scroll wheel of the mouse on the time scale to show the hidden time on the top or bottom of the timeline. You can also click to show the hidden time on the top of the timeline or click to show the hidden time on the bottom of the timeline. Drag the slider bar at the bottom of the time scale to show the hidden cameras.

The recording time scale shows different record types with different colors. The green block stands for manual record, red block stands for sensor based record, yellow block stands for motion based record and blue block stands for schedule record. Click the record block to set the time and then the camera will play the recording from the time you set.

Drag the color block on the time scale to select the backup area and then right click the area or click to pop up a backup information window. Click "Backup" button in the window to pop up the backup window. Select the device, backup path and backup format and then click "Backup" button to start the backup.

8.3 Record Search & Playback

8.3.1 Search & Playback by Time-sliced Image

Click **Start→Search→By Time-sliced Image** to go to "By Time-sliced Image" tab. There are two view modes: by time and by camera. In the time view mode, a maximum of 64 camera thumbnails can be shown. If the camera thumbnail number is more than 64, the cameras will be listed directly by their camera name, not the thumbnail. A maximum of 196 camera names can be listed. If the camera name number is more than 196, the time view mode will be disabled and the camera view mode will be available only.
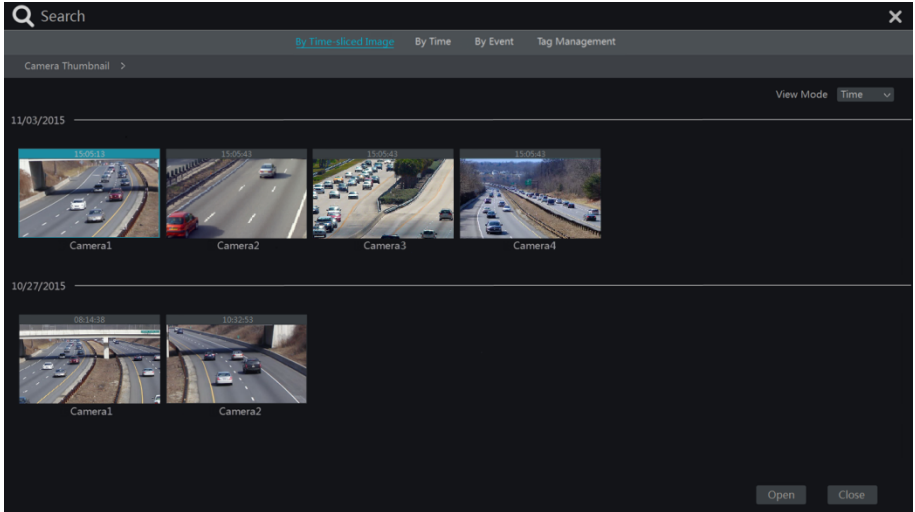
Select one camera in the interface and then click "Open" button.

Click the image box to play the recording in the small playback box on the left side of the interface (the box which has image inside indicates that recorded data exist).

Refer to the picture below. Drag the color blocks on the time scale to select the recorded data and then click "Backup" button to pop up a window; select the device, backup path and backup format in the window and then click "Backup" button to start the backup.

Click "Playback" button to play the recording in the playback interface (refer to 8.2 Playback Interface Introduction for details). Click "Close" to close the interface.
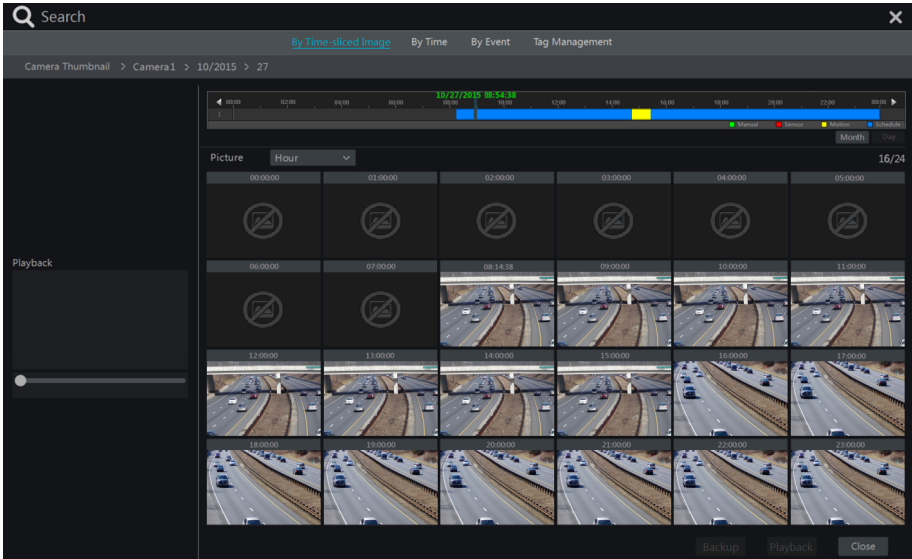
Time Slice Mode Selecting:

Method One: Click "Year", "Month" or "Day" button under the record time scale to select the time slice mode. In "Day" mode, click ◀ / ▶ on the left/right side of the time scale to view the recording of the last/next day; click "Minute" in the "Picture" option under the time scale to select "Minute" mode (in "Minute" mode, click the time scale to change the time of the 60 display windows) and click "Hour" to select "Hour" mode.

Method Two: Click ▶ beside "Camera Thumbnail" on the left top corner of the interface to select the time slice mode.

Method Three: Right-click the mouse on any area of the time-sliced interface to go back to the upper interface.

8.3.2 Search & Playback by Time

Click **Start→Search→By Time** to go to "By Time" tab as shown below.

Click ➕ on the bottom of the interface to add playback camera. Click "Modify" on the top right corner of the camera window to change the camera and click "Clear" to remove the camera.

Click the camera window to play the recording in the small playback box on the left side of the interface. You can set the date on the top left of the interface, check the event type as required and click the time scale or click 🕐 under the time scale to set the time. The camera window will play the recording according to the time and event type selected.

Drag the color blocks on the time scale to select the recorded data and then click "Backup" button for recording backup. Click "Playback" button to play the recording in the playback interface.
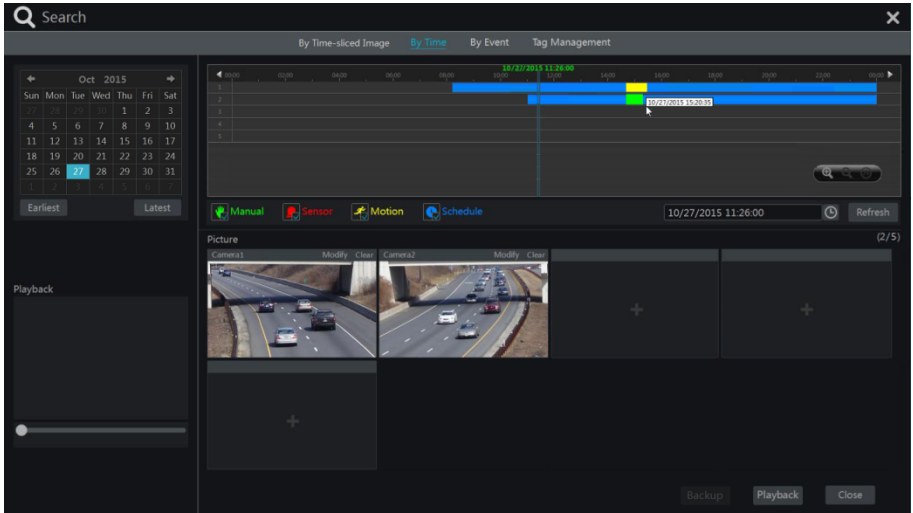
8.3.3 Search & Playback by Event

Click **Start→Search→By Event** to go to "By Event" tab as shown below.
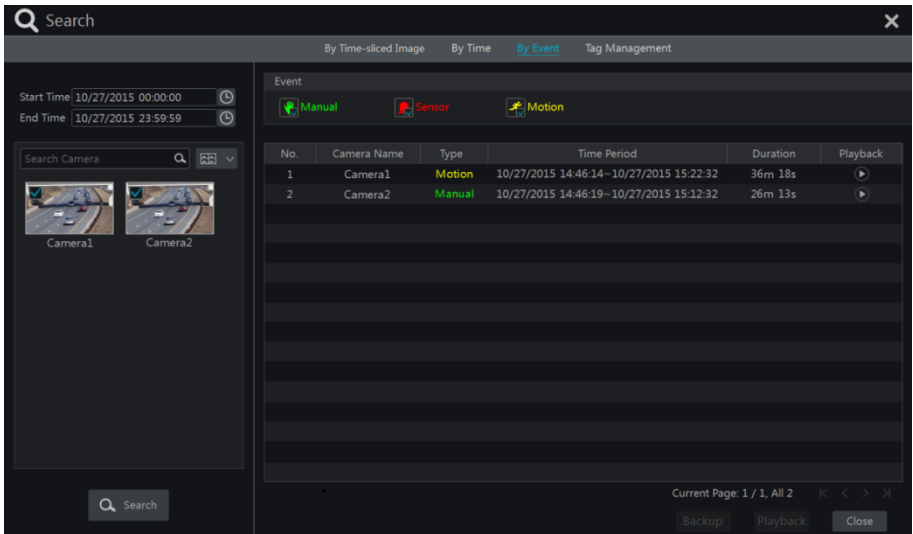
Check the event type in the interface as required.

Click 🕐 to set the start time and end time on the top left of the interface.

Check cameras on the left side of the interface and then click <kbd>Q Search</kbd> to search the recording. The found recordings will be displayed in the list.

Click ▶ in the list to play back the recording in the popup window. Select one

recording in the list and then click "Backup" button for recording backup.

Select one recording in the list and then click "Playback" button to play the recording in the playback interface.

8.3.4   Search & Playback by Tag

Only if you added the tags can you play the recording by tag search. Click **Start➔ Playback** to go to the playback interface and then click on the bottom of the camera window to add tag when you want to mark the playback time point of the selected camera.

Click **Start➔Search➔Tag Management** to go to "Tag Management" tab.

No.	Name	Camera Name	Time	Playback	Edit	Delete
1	A	Camera1	10/27/2015 14:46:12	▶	✎	🗑
2	B	Camera2	10/27/2015 15:37:46	▶	✎	🗑

Current Page: 1 / 1, All 2
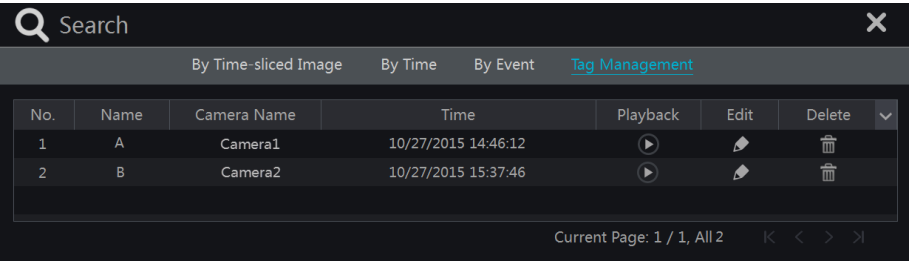
Click in the interface to play the recording. Click to edit the tag name. Click to delete the tag.

8.4   Backup

The recorded data and the snapped pictures can be backed up through network or USB (U disk or USB mobile HDD). The file system of the backup devices should be FAT32 format.

8.4.1   Backup by Time

Click **Start➔Backup➔By Time** to go to the "By Time" tab.

Click in the picture section to pop up the add camera window. Check the cameras in the window and then click "Add" button. Click "Modify" on the top right corner of the camera window to change the camera and click "Clear" to remove the camera.

Set the date on the top left of the interface. Drag the time scale to set the backup time period or click under the time scale to set the backup start time and end time.
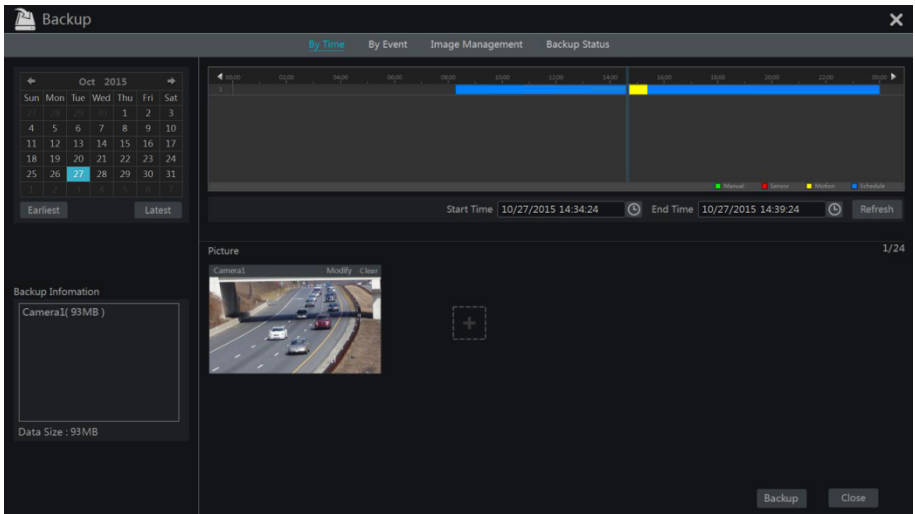
Click "Backup" button to pop up the "Record Backup" window as shown below. Select the device name, backup format and path and then click "Backup" button to start the backup.
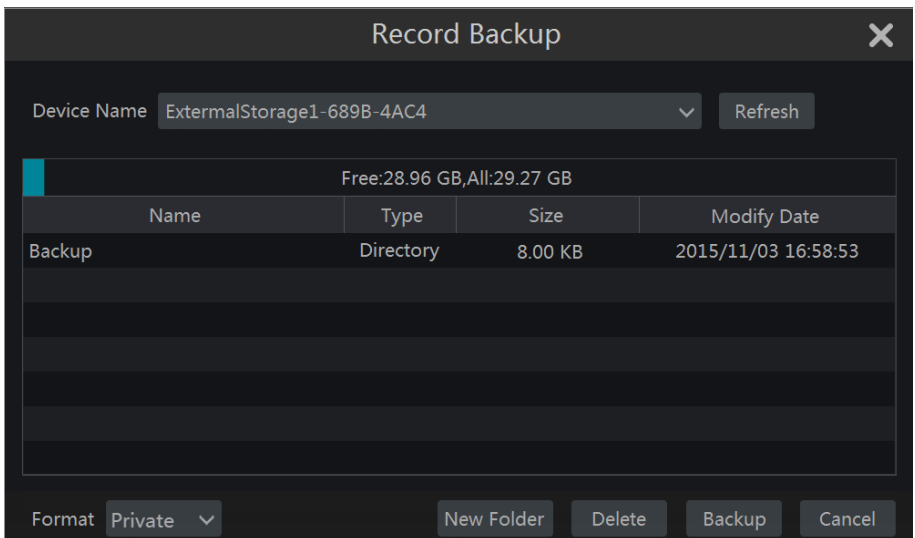
Note: If you back up the recording in private format, the system will back up a RPAS player to USB device automatically. The private format recording can be played by RPAS player only.

8.4.2   Backup by Event

Click **Start→Backup→ By Event** to go to "By Event" tab.
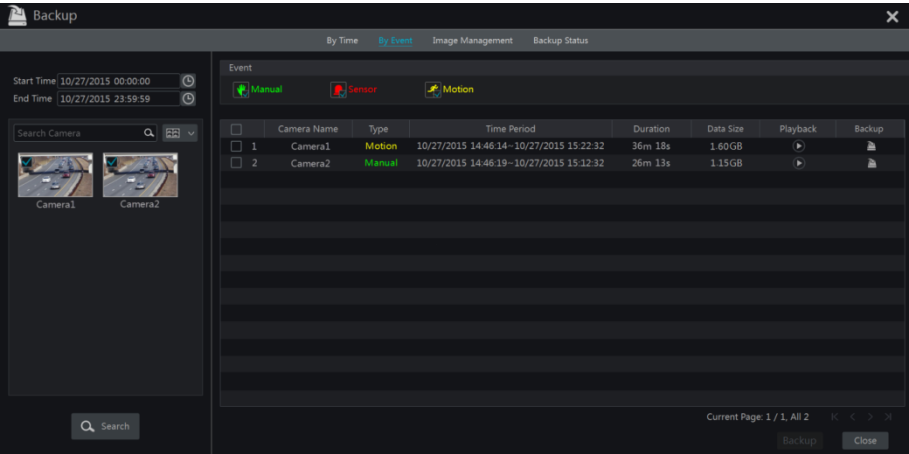
Click [icon] to set the start time and end time on the left top of the interface.

Check the event types and cameras.

Click [Search icon] to search the recording. The found recorded data will be displayed in the list. Click [icon] in the list to play the recording in the small popup playback window. Click [icon] to backup the recording. Check one recorded data above in the list and then click "Backup" button to back up the record data.

8.4.3 Image Management

Click **Start→Backup→Image Management** to go to "Image Management" tab. The system will display all the snapped images automatically in the list.
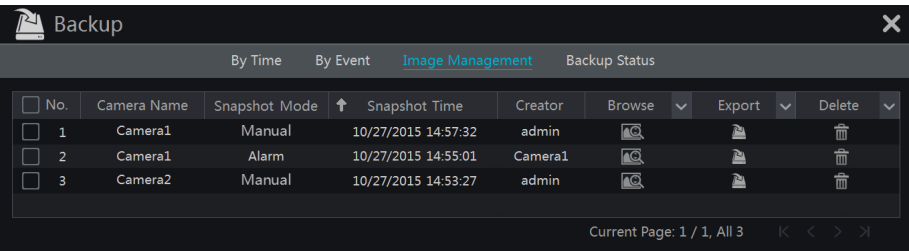
Click [icon] to delete the image. Click [icon] to pop up the "Export" window. Select the device name and save path in the window and then click "Save" button.

Click [icon] to pop up the "View Image" window. Click [icon] to export the image. Click [icon] to view the previous image; click [icon] to view the next image; click [icon] to delete the image; click [icon] to play all the images.
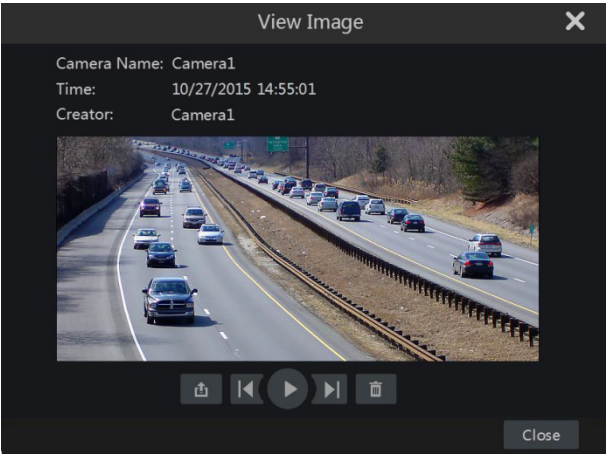
8.4.4 View Backup Status

Click **Start→Backup→Backup Status** or click on the tool bar at the bottom of the playback interface to view the backup status.

9 Alarm Management

9.1 Sensor Alarm

To complete the entire sensor alarm settings, you should enable the sensor alarm of each camera and then set up the alarm handling of each camera.

Click **Start→Settings→Alarm→Sensor Alarm** to go to the following interface.

Select the alarm type (NO or NC) according to trigger type of the sensor.

Enable the sensor alarm of each camera.

Check the "Record", "Snap", "Alarm-out" and "Preset" and enable or disable the "Buzzer", "Pop-up Video", "Pop-up Message Box" and "E-mail" as required.

Click "Apply" to save the settings.

The configuration steps of the above mentioned alarm linkages are as follows.

Record: check it and then the "Trigger Record" window will pop up automatically (you can

also click "Configure" button to pop up the window). Select camera on the left side and then click [>>] to set the camera as the trigger camera. Select trigger camera on the right side and then click [<<] to cancel the trigger camera. Click "OK" button to save the settings. The trigger cameras will record automatically when the sensor alarm is triggered.

Snap: check it and then the "Trigger Snapshot" window will pop up automatically. Configure the trigger camera in the window. The trigger cameras will snap automatically when the sensor alarm is triggered.

Alarm-out: check it and then the "Trigger Alarm-out" window will pop up automatically. Configure the trigger alarm-out in the window. The system will trigger the alarm-out automatically when the sensor alarm is triggered. You need to set the delay time and the schedule of the alarm outputs. See 9.4.1 Alarm-out for details.

Preset: check it and then the "Trigger Preset" window will pop up automatically. Configure the trigger preset of each camera. To add presets, please see 6.2 Preset Setting for details.

Buzzer: if enabled, the system will begin to buzz when the sensor alarm is triggered. To set the delay time of the buzzer, please see 9.4.4 Buzzer for details.

Pop-up Video: After camera setting, the system will pop up the corresponding video automatically when the sensor alarm is triggered. To set the duration time of the video, please see 9.4.3 Display for details.

Pop-up Message Box: if enabled, the system will pop up the corresponding alarm message box automatically when the sensor alarm is triggered. To set the duration time of the message box, please see 9.4.3 Display for details.

E-mail*: if enabled, the system will send an e-mail when the sensor alarm is triggered. Before you enable the email, please configure the recipient's e-mail address first (see 11.1.4 E-mail Configuration for details).

9.2   Motion Alarm

Motion Alarm: when the motion object appears in the specified area, it will trigger the alarm. You should enable the motion of each camera first and then set the alarm handling of the camera to complete the whole configuration of the motion alarm.

9.2.1   Motion Configuration

Click **Start→Settings→Camera→Motion** to go to the following interface.
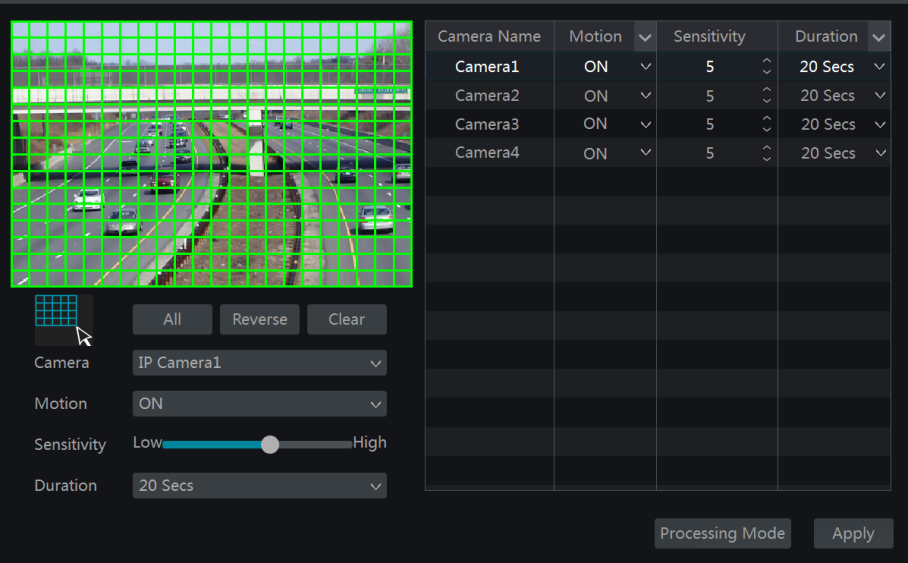
Select the camera, enable the motion and set the sensitivity and duration of the camera.

Sensitivity: the higher the value is, the more sensitive it is to motion. You should adjust the value according to the practical conditions since the sensitivity is influenced by color and time (day or night).

Duration: it refers to the interval time between the adjacent motion detections. For instance, if the duration time is set to 10 seconds, once the system detects motion, it will go into alarm and would not detect any other motion (specific to camera) for 10 seconds. If there is another motion detected during this period, it will be considered as continuous movement; otherwise it will be considered as a single motion.

Drag the camera image to set the motion area. You can set more than one motion area. Click "All" to set the whole camera image as the motion area. Click "Reverse" to swap the motion area and the non-motion area. Click "Clear" to clear all the motion areas.

Click "Apply" to save the settings. Click "Processing Mode" to go to the alarm handling configuration interface of the motion alarm.

9.2.2 Motion Alarm Handling Configuration

Click **Start**➔**Settings**➔**Alarm**➔**Motion Alarm** to go to the following interface.

Alarm Handling Setting						
				((•)) Buzzer	▣ Pop-up Video	✉ E-mail
Camera Name	Snap ⌄	Alarm-out ⌄	Preset	((•)) ⌄	▣ ⌄	✉ ⌄
Camera1	ON ⌄	☐ Configure	☐ Configure	OFF ⌄	OFF ⌄	OFF ⌄
Camera2	ON ⌄	☐ Configure	☐ Configure	OFF ⌄	OFF ⌄	OFF ⌄
Camera3	ON ⌄	☐ Configure	☐ Configure	OFF ⌄	OFF ⌄	OFF ⌄
Camera4	ON ⌄	☐ Configure	☐ Configure	OFF ⌄	OFF ⌄	OFF ⌄
					Motion Settings	Apply

Enable or disable "Snap", "Alarm-out", "Preset", "Buzzer", "Pop-up Video" and "E-mail". The alarm handling setting of motion alarm is similar to that of the sensor alarm (see 9.1 Sensor Alarm for details).

Click "Apply" to save the settings. You can click "Motion Settings" to go to the motion configuration interface.

9.3   Exception Alarm

9.3.1   IPC Offline Settings

Click **Start➔Settings➔Alarm➔Exception➔IPC Offline Settings** to go to the interface as shown below.

IPC Offline Settings	Video Loss Settings	Exception Handling Settings					
		((•)) Buzzer	▣ Pop-up Video	🄰 Pop-up Message Box	✉ E-mail		
Camera Name	Snap ⌄	Alarm-out ⌄	Preset	((•)) ⌄	▣ ⌄	🄰 ⌄	✉ ⌄
IP Camera1	☐ Configure	☐ Configure	☐ Configure	OFF ⌄	OFF ⌄	ON ⌄	OFF ⌄
							Apply

Enable or disable "Snap", "Alarm-out", "Preset", "Buzzer", "Pop-up Video", "Pop-up Message Box" and "E-mail". The IPC Offline Settings are similar to that of the sensor alarm (see 9.1 Sensor Alarm for details).

Click "Apply" to save the settings.

9.3.2   Video Loss Settings

Click **Start➔Settings➔Alarm➔Exception➔Video Loss Settings** to go to the interface as shown below.

Camera Name	Snap		Alarm-out		Preset	((•))	⊡	Ⓐ	✉
		∨		∨		∨	∨	∨	∨
Camera1	☐ Configure		☐ Configure		☐ Configure	OFF ∨	OFF ∨	ON ∨	OFF ∨
Camera2	☐ Configure		☐ Configure		☐ Configure	OFF ∨	OFF ∨	ON ∨	OFF ∨
Camera3	☐ Configure		☐ Configure		☐ Configure	OFF ∨	OFF ∨	ON ∨	OFF ∨
Camera4	☐ Configure		☐ Configure		☐ Configure	OFF ∨	OFF ∨	ON ∨	OFF ∨

IPC Offline Settings　Video Loss Settings　Exception Handling Settings

((•)) Buzzer　⊡ Pop-up Video　Ⓐ Pop-up Message Box　✉ E-mail

Apply

Enable or disable "Snap", "Alarm-out", "Preset", "Buzzer", "Pop-up Video", "Pop-up Message Box" and "E-mail". The Video Loss Settings are similar to that of the sensor alarm (see 9.1 Sensor Alarm for details).

Click "Apply" to save the settings.

9.3.3 Exception Handling Settings

Click **Start→Settings→Alarm→Exception→Exception Handling Settings** to go to the interface as shown below.

Enable or disable "Alarm-out", "Buzzer", "Pop-up Message Box" and "E-mail". The exception handling settings are similar to that of the sensor alarm (see 9.1 Sensor Alarm for details).

Click "Apply" to save the settings.

IPC Offline Settings　Video Loss Settings　Exception Handling Settings

((•)) Buzzer　Ⓐ Pop-up Message Box　✉ E-mail

Event Type	Alarm-out		((•))		Ⓐ		✉	
		∨		∨		∨		∨
IP Address Conflict	☐ Configure		ON	∨	ON	∨	OFF	
Disk IO Error	☐ Configure		ON	∨	ON	∨	OFF	∨
Disk Full	☐ Configure		ON	∨	ON	∨	OFF	∨
No Disk	☐ Configure		ON	∨	ON	∨	OFF	∨
Illegal Access	☐ Configure		ON	∨	ON	∨	OFF	∨
Network Disconnection	☐ Configure		ON	∨	ON	∨	OFF	

Apply

9.4　Alarm Event Notification

9.4.1　Alarm-out

Click **Start→Settings→Alarm→Event Notification** to go to the following interface.

Set the delay time and the schedule of each alarm-out. You can click "Edit Schedules" to edit the schedules (see 7.3.1 Add Schedule for details).

Click "Apply" to save the settings. You can click "Test" to test the alarm output.

9.4.2 E-mail

Click **Start→Settings→Alarm→Event Notification→E-mail** to go to the e-mail configuration interface. Set the e-mail address of the recipients. See 11.1.4 E-mail Configuration for details.

9.4.3 Display

Click **Start→Settings→Alarm→Event Notification→Display** to go to the display configuration interface. Set the duration time of the pop-up video and the pop-up message box. Click "Apply" to save the settings.

9.4.4 Buzzer

Click **Start→Settings→Alarm→Event Notification→Buzzer** to go to the buzzer configuration interface. Set the delay time of the buzzer and then click "Apply" to save the setting. You can click "Test" to test the buzzer.
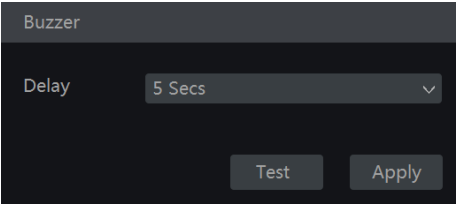
9.5 Manual Alarm

Click ![icon] on the tool bar at the bottom of the live preview interface to pop up a window. Click "Trigger" to start alarm. Click "Clear" to stop alarm.

Alarm-out Name	Status	Trigger	Clear	˅
AlarmOut1	Normal	Trigger	Clear	

Close
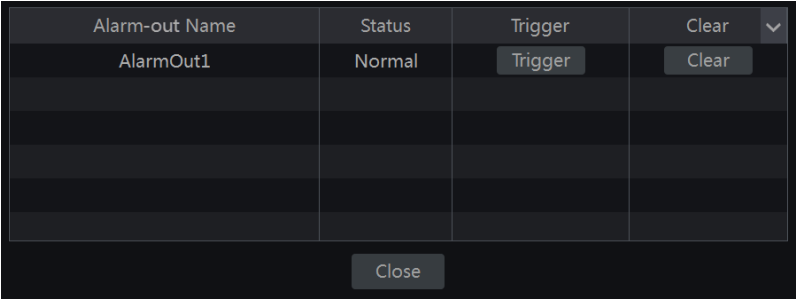
9.6 View Alarm Status

Click **Start→Settings→Alarm→Alarm Status** or click ![icon] on the tool bar at the bottom of the live preview interface to view the alarm status.

Buzzer		Clear
Alarm-in	⬤ Normal	˅
Alarm-out	⬤ Normal	˅
Motion	🔴1 Exception	˅
Exception	🔴5 Exception	˅

Close

Click "Clear" button to stop the buzzer when the buzzer alarm happens. Click ![icon] to view the detail information as shown below.
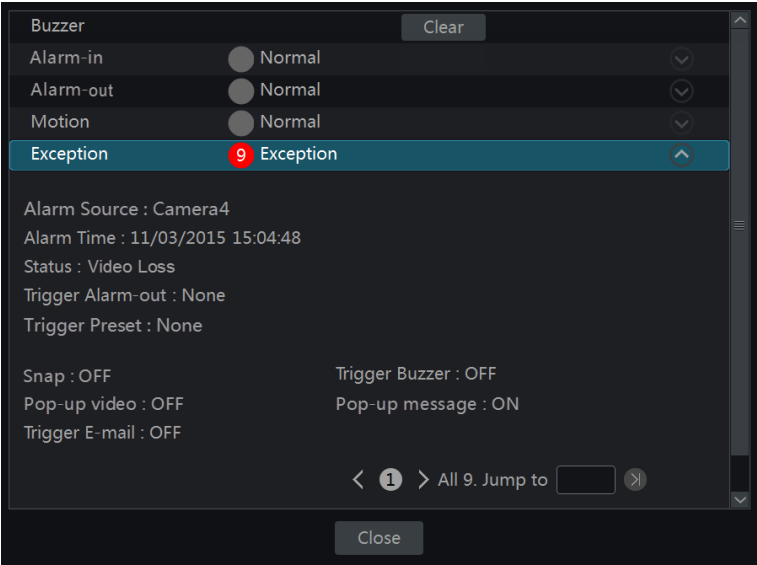
If the exception information is more than one page, you can input the number in the box and then click [icon] to jump to the specified page. Click [icon] / [icon] to view the exception alarm information in the previous/next page. Click [icon] to play the alarm record.

10 Account & Permission Management

10.1 Account Management

Click **Start→ Settings→ Account and Authority→ Account→ Edit User** to go to the interface as shown below.
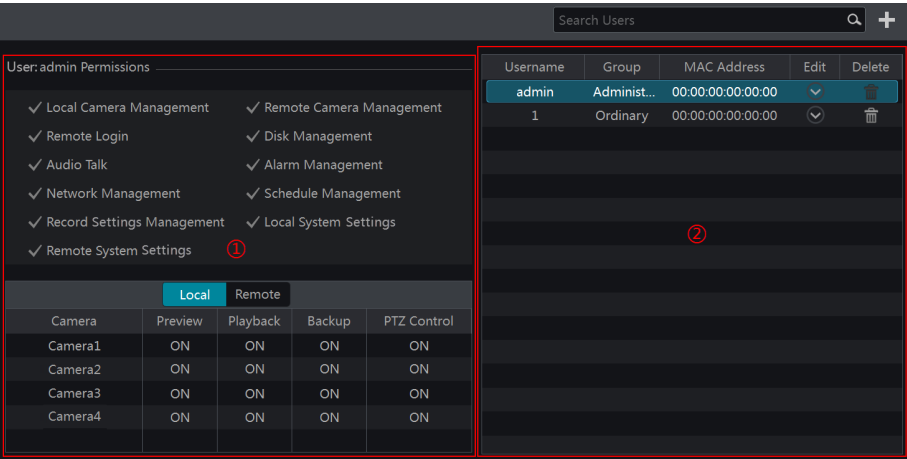
Area ① displays the user permissions. Area ② displays the user list. Click the user in the list to display its user permissions in area ①.

There are three default permission groups ("Administrator", "Advanced" and "Ordinary") available when adding accounts. You can manually add new permission group (see 10.3.1 Add Permission Group for details).

The user *admin* owns all the permissions and it can manage the system's accounts. Group "Administrator" owns all the permissions displayed in area ① and its permissions cannot be changed while the permissions of "Advanced" and "Ordinary" can be changed.

10.1.1 Add User

Click **Start→Settings→Account and Authority→Account→Add User** or click [+] beside the search box to pop up the window as shown below.

Set the username, password and group. The e-mail address, MAC address and the remark are optional (input the MAC address after you check it). Click "Add" to add the user.

10.1.2　Edit User

Click **Start→Settings→Account and Authority→Account→Edit User** and then click in the user list or double click the user to edit the user information. Click to delete the user (the user *admin* cannot be deleted).

➢ **Edit Security Question**

You can set password security only for *admin*. Click "Edit Security Question" and then set questions and answers in the popup window. If you forget the password, please refer to Q4 in Appendix A FAQ for details.

➢ **Modify Password**

Only the password of *admin* can be modified. Click "Modify Password" to pop up a window. Input the current password and then set new password. Click "OK" to save the settings.

➢ **Recover Password**

Click "Recover Password" to reset the password to *123456*.

➢ **Edit User**

Click "Edit User" to pop up the window as shown below. The *admin* is enabled, its permission control is closed and permission group cannot be changed by default. You can enable or disable other users (if disabled, the user will be invalid), open or close their permission control (if closed, the user will get all the permissions which the administrator permission group has) and set their permission groups. Click "OK" to save the settings.

10.2   User Login & Logout

Login: Click **Start→Login** or directly click the preview interface and then select username and enter the password in the popup window. Click "Login" button to log in the system.

Logout: Click **Start→Logout** or click Start→Shutdown to pop up the "Shutdown" window. Select "Logout" in the window and then click "OK" button to log out the system.

10.3   Permission Management

10.3.1   Add Permission Group

Click **Start→Settings→Account and Authority→Account→Edit Permission Group** to go to the interface as shown below.

Click to add permission group. Set the group name, check the permissions as required and then set the "Local" and "Remote" permissions. Click "Add" to save the settings.

10.3.2   Edit Permission Group

Go to "Edit Permission Group" interface and then click [✐] in the group list to edit the permission group (the operations of the "Edit Permission Group" are similar to that of the "Add Permission Group", please see 10.3.1 Add Permission Group for details). Click [💾] to save the group as another group. Click [🗑] to delete the permission group. The three default permission groups ("Administrator", "Advanced" and "Ordinary") cannot be deleted.

10.4   Black and White List

Click **Start→Settings→Account and Authority→Security** to go to the following interface.
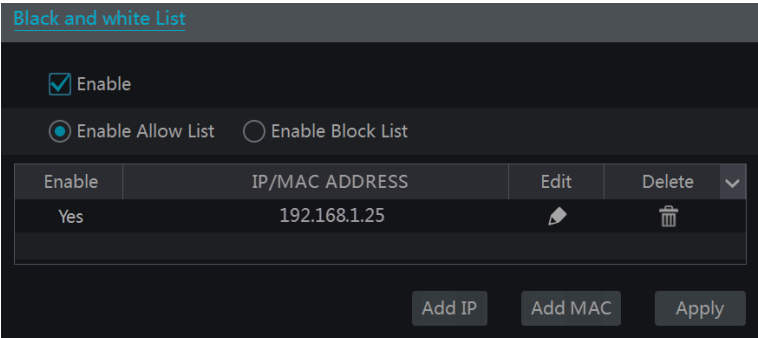
Check "Enable" and then choose "Enable Allow List" or "Enable Block List" (the PC client of which the IP address is in the allow list can access DVR remotely while the PC client in the block list cannot).

Add IP segment/MAC. Click "Add IP" or "Add MAC" button and then check "Enable" in the popup window (only if you check it can the IP segment/MAC you add be effective). Enter the IP segment/MAC and then click "OK" button. In the above interface, click [✐] to edit IP segment/MAC, click [🗑] to delete it. Click "Apply" to save the settings.

11   Device Management

11.1   Network Configuration

11.1.1   TCP/IPv4 Configuration

➢   **IP Address Settings**

Click **Start→Settings→Network→TCP/IPv4** to go to the following interface. Check "Obtain an IP address automatically" and "Obtain DNS automatically" to get the IP address and DNS automatically, or manually input IP address, subnet mask, gateway, preferred DNS and alternate DNS. Click "Apply" to save the settings.

> ➢ **PPPoE Settings**

In the above interface, check "Enable" in "PPPoE Settings" and then input the username and password obtained from the dealer. Click "Apply" to save the settings.

11.1.2 Port Configuration

Click **Start➔Settings➔Network➔Port** to go to the interface as shown below. Input the HTTP port, server port and RTSP port of the DVR and then click "Apply" to save the ports.

HTTP Port: the default HTTP port of the DVR is 80. The port number can be changed to others like 81. The port is used for internet remote access. If you want to access the DVR

through the internet, you need to input IP address plus HTTP port in the browser address bar i.e. http://192.168.11.61:81.

Server Port: the default server port of the DVR is 6036. The server port number can be changed as required. The port is mainly used in network video management system.

RTSP Port: RTSP real-time stream protocol can be used to control the sending of real-time data. By media player which supports the RTSP real-time stream protocol,. The default RTSP port is 554 and it can be changed as required.

> *Note: The HTTP port and server port of the DVR should be mapped to the router before you access the DVR via WAN.*

11.1.3   DDNS Configuration

The DDNS is used to control the dynamic IP address through domain name. You can access the DVR easily if the DDNS is enabled and configured.

Click **Start**→**Settings**→**Network**→**DDNS** to go to the interface as shown below.

Check "Enable" and then select the DDNS type. Input the server address, domain name, username and password according to the selected DDNS type. Click "Test" to test the effectiveness of the inputted information. Click "Apply" to save the settings.

You will have to input the server address and domain name if some DDNS types are selected. Go to the relative DNS website to register domain name and then input the registered domain information here). Take ***www.vitekivpddns.com*** for example.

Input ***www.vitekivpddns.com*** in the IE address bar to visit its DNS website.

Click ***Registration*** button to go to the interface as shown below. Set the DDNS account information (username, password and so on) and then click ***Submit*** button to save the account.

Create domain name and then click ***Request Domain***.

After you successfully request your domain name, you will see your domain name information in the list.
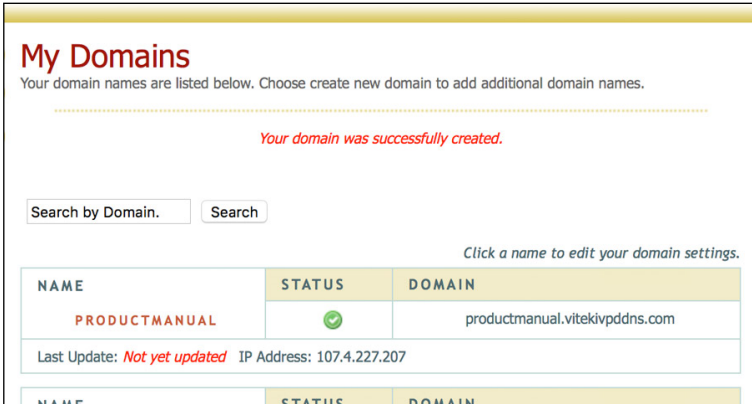
Click **Start→Settings→Network→DDNS** to go to DDNS setting interface. Enable DDNS and then select the ***www.vitekivpddns.com*** DDNS type. Input the registered username, password and domain name and then click "Apply".

Map the IP address and HTTP port in the router (you can skip this step if UPnP function is enabled).

Input the registered domain name plus HTTP port like ***http://xxx.vitekivpddns.com:81*** in the IE address bar and then press Enter key to go to the IE client.

11.1.4 E-mail Configuration

Click **Start→Settings→Network→E-mail** to go to the following interface. Input the sender's e-mail address, name, password, SMTP server and SMTP port (you can click "Default" to reset the SMTP port to the default value) and then enable or disable the SSL and attaching image. Click "Test" to pop up a window. Input the e-mail address of the recipient in the window and then click "OK" button. The e-mail address of the sender will send an e-mail to the recipient. If the e-mail is sent successfully, it indicates that the e-mail address of the sender is configured correctly. Click "Apply" to save the settings.

Click "Edit Recipient" to go to the following interface.

Click "Add" and then input the recipient's e-mail address in the popup window. Click "Add" in the window to add the recipient. Click to delete the recipient in the list. Click "Apply" to save the settings. Click "Edit Sender" to go to the e-mail configuration interface of the sender.

11.1.5 UPnP Configuration

By UPnP you can access the DVR through IE client which is in WAN via router without port mapping.

Click **Start→ Settings→ Network→ UPnP** to go to the following interface.

Make sure the router supports UPnP function and the UPnP is enabled in the router.

Set the DVR's IP address, subnet mask and gateway and so on corresponding to the router. Check "Enable" in the interface as shown below and then click "Apply" button.

Click "Refresh" button to refresh the UPnP status. If the UPnP status is still "Invalid UPnP" after refreshing it many times, the port number will be wrong. Please change the mapping type to "Manual" and then click to modify the port until the UPnP status turns to "Valid UPnP". Refer to the following picture. You can view the external IP address of the DVR. Input the external IP address plus port in the IE address bar to access the DVR such as http://183.17.254.19:81.

Port Type	External Port	External IP Address	Port	UPnP Status	Edit
HTTP Port	81	183.17.254.19	81	Valid UPnP	
Server Port	6036	183.17.254.19	6036	Valid UPnP	
RTSP Port	554	183.17.254.19	554	Valid UPnP	

11.1.6 NAT Configuration

Click **Start➔ Settings➔ Network➔ NAT** to go to the interface for NAT configuration. Check "Enable" and then select the NAT server address (*nat.autonat.com* by default). Click "Apply" to save the settings.

11.1.7 View Network Status

Click **Start➔ Settings➔ Network➔ Network** Status to view the network status or click on the tool bar at the bottom of the live preview interface to view network status.

11.2 Basic Configuration

11.2.1 Common Configuration

Click **Start➔ Settings➔ System➔ Basic➔ General Settings** to go to the following interface. Set the device name, device No., language, video format and main output resolution. Enable or disable wizard, "Login Automatically" and "Log Out Automatically" (if checked, you can set the wait time). Click "Apply" to save the settings.

Device Name: The name of the device. It may display on the client end or CMS that help user to recognize the device remotely.

Video Format: Two modes: PAL and NTSC. Select the video format according to the camera.

Spot: If the DVR supports spot output, you should enable spot output. Connect the spot output monitor to the DVR and then set the spot output (see 5.2.4 Spot View for details).

11.2.2   Date and Time Configuration

Click **Start→Settings→System→Basic→Date and Time** to go to the interface as shown below.

Set the system time, date format, time format and time zone of the DVR. The default time zone is GMT-08 If the selected time zone includes DST, the DST of the time zone will be checked by default. Click "Apply" to save the settings.

You can manually set the system time or synchronize system time with network through NTP.

Manual: select "Manual" in the "Synchronous" option and then click 🕒 after the "System Time" option to set the system time.

NTP: select "NTP" in the "Synchronous" option and then input the NTP server.
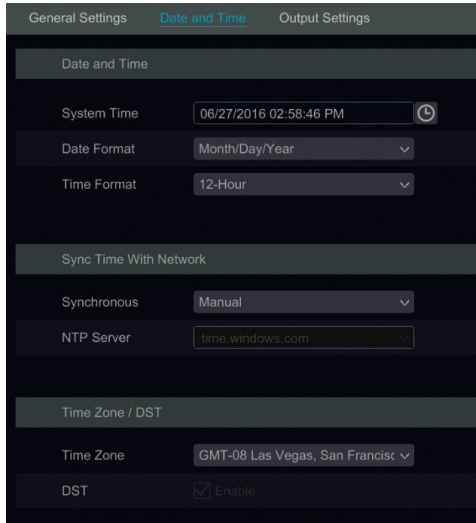
11.3   Factory Default

Click **Start→Settings→System→Maintenance→Factory Default** and then click "Reset to factory default" button in the interface to reset to the factory settings.

11.4   Device Software Upgrade

You can click **Start→Settings→System→Information→Basic** to view MCU, kernel version and firmware version and so on. Before upgrade, please get the upgrade file from your dealer. The upgrade steps are as follows:

Copy the upgrade software into the USB storage device.

Insert the USB storage device into the USB interface of the DVR.

Click **Start→Settings→System→Maintenance→Upgrade** to go to "Upgrade" interface. Select the USB device in "Device Name" option and go to the path where the upgrade software exists. Select the upgrade software and then click "Upgrade". The system may automatically restart during upgrading. Please wait for and do not power off the DVR during upgrading.

Note: The file system of the USB mobile device which is used for upgrading, backing up and restoring should be FAT32 format.

11.5   Backup and Restore

You can back up the configuration file of the DVR by exporting the file to another storage device; you can recover the configuration to other DVRs which are of the same model with the DVR by importing the configuration file to the other DVR's for saving time.

Insert the USB storage device into the USB interface of the DVR and then click **Start→Settings→System→Maintenance→Backup and Restore** to go to the interface.

● **Backup**

Select the USB device in "Device Name" option; go to the path where you want to store the configuration backup file and then click "Backup" button; then click "OK" button in the popup window.

● **Recover**

Select the USB device in "Device Name" option; find the configuration backup file and then click "Recover" button; then click "OK" button in the popup window.

11.6 View Log

Click **Start→Settings→System→Maintenance→View Log** to go to the log view interface. Select the log main type, click to set start time and end time and then click "Search" button. The found log files will be displayed in the list.

| No.	Main Type	Log Time	Content		Details	Play
			Main Type: All Alarm Operation Settings Exception			
			Start Time: 11/03/2015 15:00:00 End Time: 11/03/2015 16:00:00	Search	Export	
1	Alarm	11/03/2015 15:58:53	Motion Alarm		▤	⊙
2	Settings	11/03/2015 15:43:01	Local Basic		▤	—
3	Operation	11/03/2015 15:34:53	Local Search/Playback/Backup		▤	—
4	Alarm	11/03/2015 15:25:43	Motion Alarm		▤	⊙
5	Settings	11/03/2015 15:25:38	Local Camera Parameters		▤	—
6	Operation	11/03/2015 15:20:15	Local Search/Playback/Backup		▤	—
7	Settings	11/03/2015 15:05:38	Local Camera Parameters		▤	—
8	Settings	11/03/2015 15:05:06	Local Record Parameters		▤	—
9	Exception	11/03/2015 15:04:48	IPC Offline		▤	—
10	Settings	11/03/2015 15:04:46	Local Camera Parameters		▤	—
11	Operation	11/03/2015 15:03:49	Local Login / Logout		▤	—
12	Operation	11/03/2015 15:03:12	Local Maintenance		▤	—

Current Page: 1 / 1, All 12

Choose the log file in the list and then click "Export" button to export the log file. Click on the "Content" title bar to pop up a menu list. Check contents in the menu list and then the log list will show the checked log contents only. Click to play the video log.

11.7 View System Information

Click **Start→Settings→System→Information** and then click the corresponding menu to view the "Basic", "Camera Status", "Alarm Status", "Record Status", "Network Status" and "Disk" information of the system.

12 Remote Surveillance

12.1 Web LAN Access

Click **Start→Settings→Network→TCP/IPv4** to go to the "TCP/IPv4" interface. Set the IP address, subnet mask, gateway, preferred DNS and alternate DNS of the DVR.

Open IE browser on a computer, input the IP address of the DVR in the IE address bar and then press enter to go to the login interface as shown below. You can change the display language on the top right corner of the login interface. Input the username and password of the DVR in the interface and then click "Login" to go to the live preview interface.

> *Notes: 1. Please make sure that the IP address of the DVR and the computer are both in the same local network segment. For example, supposing that the IP address of the computer is 192.168.1.41, the IP address of the DVR shall be set to 192.168.1.XXX.*
> *2. If the HTTP port of the DVR is not 80, but another number instead, you need to input the IP address plus port number in the IE address bar when accessing the DVR over network. For example, the HTTP port is 81. You should enter http://192.168.1.42:81 in the IE address*

12.2 Web WAN Access

➢ **NAT Access**

Set the network of the DVR. Please refer to <u>11.1.1 TCP/IPv4 Configuration</u> for details.

Enable NAT and then set the NAT server address. Please refer to <u>11.1.6 NAT Configuration</u> for details.

Open IE browser on a computer, input the NAT server address ***www.autonat.com*** in the IE address bar and then press enter to go to the interface as shown below (download and install the relative plugin according to the popup tip if you access the DVR through NAT for the first time).

Input the serial number (click 🖥 on the tool bar at the bottom of the live preview interface to see the serial number of the DVR), user name (the user name of the DVR, *admin* by default) and password (the password of the DVR, *123456* by default) of the DVR, select the display language on the top right corner of the interface and then click "Login" button to go to the web client interface.

➢ **PPPoE Access**

Click **Start→Settings→Network→TCP/IPv4** to go to the "TCP/IPv4" interface. Check "Enable" in the "PPPoE settings" and then input the username and password you get from your ISP. Click "Apply" to save the settings.

Click **Start→Settings→Network→Network Status** to view the IP address of the DVR.

Open IE browser on a computer, input the IP address of the DVR i.e. http://210.21.229.138 in the IE address bar and then press enter to go to the login interface. Input the username and password of the DVR in the interface and then click "Login" to go to the live preview interface.
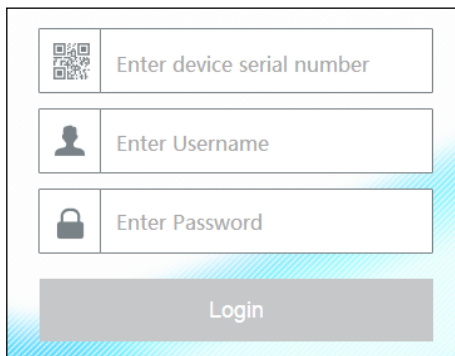
➢ **Router Access**

Click **Start→Settings→Network→TCP/IPv4** to go to the "TCP/IPv4" interface. Set the IP address, subnet mask, gateway, preferred DNS and alternate DNS of the DVR.

Set the HTTP port (it is suggested to modify the HTTP port because the default HTTP port 80 might be taken) and enable UPnP function in both the DVR and the router. If the UPnP function is not available in the router, you need to forward the LAN IP address, HTTP port and server port of the DVR to the router. Port mapping settings may be different in different routers, so please refer to the user manual of the router for details.

Get the WAN IP address of the DVR from the router. Open IE browser on a computer, input the WAN IP address plus HTTP port i.e. http://116.30.18.215:100 in the IE address bar and then press enter to go to the login interface. Input the username and password of the DVR in the interface and then click "Login" to go to the live preview interface.

Note: If the WAN IP address is a dynamic IP address, it is necessary for you to use the domain name to access the DVR. Click Start→Settings→Network→DDNS to set DDNS (see 11.1.3 DDNS Configuration for details). By using DDNS function you can use the domain name plus HTTP port like http://sunshine.dvrdydns.com:100 to access the DVR via internet.

12.3 Web Remote Control

The supported browsers of the remote surveillance are IE8/9/10/11, Firefox, Opera and Chrome (available only for the versions lower than 45) in Windows system and Safari in MAC system. When you access the DVR through IE for the first time, you need to download and install the relative components for normal preview and playback. Please refer to the tips in the remote interfaces for details. The buttons and icons on the top right corner of the remote interface are introduced as follows.

admin: the current login username.
*Logout*: click to log out and return to the login interface.
Modify Password: click to change the password of the current login user. Input current password and then set a new password in the popup window. Click "OK" button to save the new password.
Local Settings: click it to change the local settings. Set the snapshot number and click "Browse" to set the snapshot path and record path as shown below. Click "Apply" button to save the settings.

Snapshots number	5 ▾	
Save snapshots to	C:\Users\Administrator\Pictures	Browse
Save record files to	C:\Users\Administrator\Videos	Browse
		Apply

12.3.1 Remote Preview

Click "Live Display" in the remote interface to go to the preview interface. The preview interface consists of the four areas marked in the following picture.
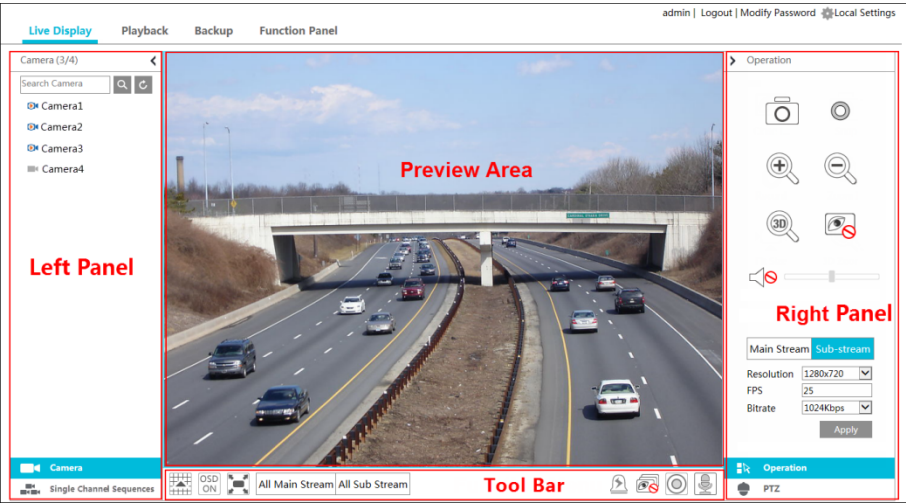
> ➢ **Start Preview**

Select a window in the preview area and then click one online camera on the left panel to preview the camera in the window. You can click 🖼 in the tool bar to preview all the cameras.

> ➢ **Left Panel Introduction**

Click ❮ on the left panel to hide the panel and click ❯ to show the panel. You can view all the added cameras and groups on the left panel.

● **View Camera**

Click 🎥 Camera to view the cameras. You can view the number of all the added cameras and the online cameras. For instance, the left number 3 in Camera (3/4) on the left panel stands for the number of online cameras; the right number 4 stands for the number of all the added cameras. Input the camera name in the search box and then click 🔍 to search the camera. Click 🔄 to refresh the camera list.

● **View Group**

Click ⊞ Single Channel Sequences to view the groups. The top side of the left panel displays all the groups and the bottom side displays all the cameras in the group.

> ➢ **Tool Bar Introduction**

Button	Meaning
⊞	Screen mode button.
OSD OFF	Click to disable OSD. Click OSD ON to enable OSD.

Button	Meaning
⛶	Click it to show full screen. Right click on the full screen to exit full screen.
All Main Stream All Sub Stream	Click "All Main Stream" or "All Sub Stream" to set the stream of all the cameras.
🔔	Manual alarm button. Click to pop up a window and then trigger and clear the alarm-out in the window manually.
🗗	Click to preview all the cameras.
🗗🚫	Click to close all the preview cameras.
◎	Click to start recording. Click 🔴 to stop recording.
🎙	Click to enable talk with the DVR.

➢ **Right Panel Introduction**

Click ‹ on the right panel to show the panel and click › to hide the panel. Click ⬢ PTZ at the bottom of the panel to go to "PTZ" panel. Click ▤ Operation to go to "Operation" panel.
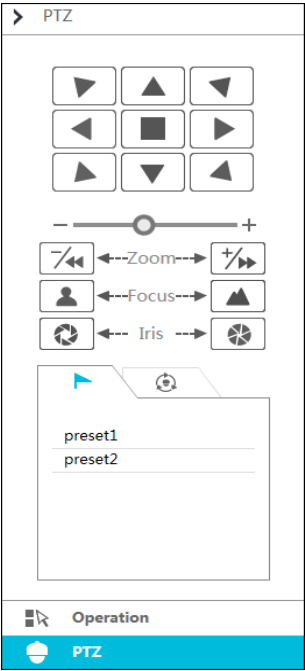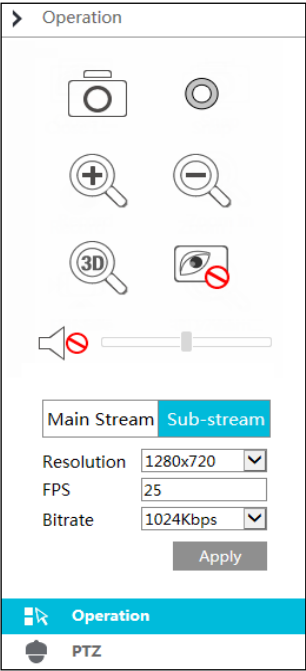
Click one camera window in the preview area and then click Main Stream to set the camera's live preview stream and record stream to main stream in manual record mode; click Sub-stream to set the camera's live preview stream and record stream to sub stream. In sub stream tab, set the resolution, FPS and bitrate and then click "Apply" to save the settings.
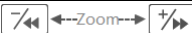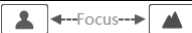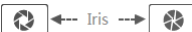
Operation panel introduction:

Button	Meaning
⌾	Click to take snapshot.
◎	Click to start recording; click it again to stop recording.
⊕	Click to zoom in the image of the camera and then drag the mouse on the camera image to view the hidden area.
⊖	Click to zoom out of the image of the camera.
⑳	The 3D zoom in function is designed for P.T.Z. Click the button and then drag the image to zoom in or zoom out the image; click the image on different areas to view the image of the dome omni-directionally.
🚫	Click to close the preview camera.
🔇 ▬▬▮▬▬	Click to enable audio and then drag the slider bar to adjust the volume. You can listen to the camera audio by enabling audio.

PTZ panel introduction:

Button	Meaning
▼ ▲ ◀ / ◀ ■ ▶ / ▲ ▼ ◀	Click ▲ / ▶ / ◀ / ▼ / ◀ / ▲ / ◀ / ▶ to rotate the dome; click ■ to stop rotating the dome.
− ▬▬◯▬▬ +	Drag the slider to adjust the rotating speed of dome.
⁷⁄₄₄ ◀---Zoom---▶ ⁺⁄₊₊	Click ⁺⁄₊₊ / ⁷⁄₄₄ to zoom in/out camera image.
👤 ◀---Focus---▶ ⛰	Click ⛰ / 👤 to increase/ decrease the focal length.
🔄 ◀--- Iris ---▶ ✴	Click ✴ / 🔄 to increase/decrease the iris of the dome.
⚑	Click to view the preset list and then click the button in the list to call the preset.
⟳	Click to view the cruise list and then click the corresponding buttons in the list to start or stop the cruise.

12.3.2 Remote Playback

Click "Playback" in the remote interface to go to the playback interface.

Check the record event types and cameras on the left panel. Set the record date on the calendar beside the time scale.

Click [🔍 Search] to search the record data and then click [⊙ Play] or directly click the time scale to play the record.

The operation of the playback time scale is similar to that of the time scale in the main program of the DVR. Please refer to 8.2 Playback Interface Introduction for details.

Introduction of playback control buttons:

Button	Meaning
■	Stop button.
◀	Rewind button. Click to play video backward.
▶	Play button. Click to play video forward.
❙❙	Pause button.
◀◀	Slow playback button. Click to decrease the playing speed.
▶▶	Fast playback button. Click to increase the playing speed.
◀❙	Previous frame button. It works only when forward playing is paused in single screen mode.
❙▶	Next frame button. It works only when forward playing is paused in single screen mode.
⊖30S⊕	Click ⊖ to rewind 30s and click ⊕ to fast forward 30s.
⊁	Backup start time button. Click the time scale and then click to set the backup start time.
⊰	Backup end time button. Click the time scale and then click to set the backup end time.
⬇	Backup button.
⬤	Backup tasks button. Click to view the backup status.
☰	Event list button. Click to view the event record of manual/schedule/sensor/motion.

12.3.3   Remote Backup

Click "Backup" in the remote interface to go to the backup interface. You can back up the recording by event or by time.

➢ **By Event**

Check the recording type on the left side of the interface and then click ▦ to set the start time and end time; check the cameras and then click 🖹 on the right side to search the recording (the found record data will be displayed in the list); check the recorded data in the list and then click "Backup" button to backup the record.

➢ **By Time**

Click ▦ to set the start time and end time on the left side of the interface; check the cameras and then click 🖺 on the right side to backup the recording.

View Backup Status: Click "Backup Status" to view the backup status. Click "Pause" to pause the backup; click "Resume" to continue the backup; click "Delete" to delete the task.

12.3.4   Remote Configuration

Click "Function Panel" in the remote interface and then configure the camera, record, alarm, disk, network, account and authority and system of the DVR remotely. All of these settings are similar to that of the DVR. See the configurations of the DVR for details.

Detailed Specifications	VT-TTAR410
Video Inputs	4 Channels HD-TVI/AHD/Analog BNC Inputs Supporting up to 1080P
IP Camera Support	1 IP Camera (1080p @ 30fps Max)
Compression	H.264 High profile
Recording (720P)	120fps: 30fps per channel (1280 x 720)
Recording (1080P Lite)	120fps: 30fps per channel (960 x 1080)
Recording (1080P)	50fps: 12fps per channel (1920 x 1080)
Local Playback	4 CH
OS	Embedded Linux
Video Output	1 x HDMI (1080p) / 1 x VGA (1080p) / 1 x BNC Spot (Analog)
Multi Operation	Pentaplex: Live Display / Record / Playback / Backup / Remote Access
Audio	Input: RCA x 4 / Output: RCA x 1
Two-Way Audio	Yes
Bit Rate	768Kbps ~ 8Mbps
Encode	VBR / CBR
Quality Levels	6 level
Recording Modes	Manual, Timer, Motion, Sensor
File Management	Lock, Unlock, Reserve time, Redundancy
Search	Time, Motion, Sensor, Single, or Multi-channel
Function	Play, Pause, FF ,FB, Shutter Control, Jog, Digital zoom
Alarm In/Out	4 Alarm inputs / 1 Alarm Output
Alarm Modes	Sensor, Motion, Video loss
Alarm Triggering	Record, PTZ move, Relay out, E-mail, etc
Network Interface	RJ45 x 1
Remote Viewing	CMS / Web Browser / Mobile Platforms
Remote Playback	4CH
Dual-stream	Individual Network Video Stream and local recording stream, set separately
Remote Users	10 users online, dual stream
Remote Viewing	CMS / Web Browser / Mobile (iOS/Android)
RS485	RS485 x1 (for PTZ)
PTZ Protocol	Pelco D / Pelco P
Network Protocols	TCP/IP, UDP, DHCP, DNS, PPPOE, DDNS, SMTP, RTSP, HTTP
SATA HDD	Up to 6TB (1 x 6TB)
USB	2 x USB 2.0 for mouse and USB backup devices
Accessories	Remote controller, SATA cable, USB mouse
Power Consumption	≤ 8W (Without HDD)
Power Supply	DC: 12V
Working Environment	14ºF~122ºF (-10º~50ºC) / 10~90% RH
Dimensions (WxHxD)	10.04" x 1.65" x 8.27" (255mm × 42mm × 210mm)

Detailed Specifications	VT-TTAR810
Video Inputs	8 Channels HD-TVI/AHD/Analog BNC Inputs Supporting up to 1080P
IP Camera Support	1 IP Camera (3 MegaPixel @ 15fps Max)
Compression	H.264 High profile
Recording (720P)	240fps: 30fps per channel (1280 x 720)
Recording (1080P Lite)	240fps: 30fps per channel (960 x 1080)
Recording (1080P)	100fps: 12fps per channel (1920 x 1080)
Local Playback	8 CH
OS	Embedded Linux
Video Output	1 x HDMI (1080p) / 1 x VGA (1080p) / 1 x BNC Spot (Analog)
Multi Operation	Pentaplex: Live Display / Record / Playback / Backup / Remote Access
Audio	Input: RCA x 4 / Output: RCA x 1
Two-Way Audio	Yes
Bit Rate	768Kbps ~ 8Mbps
Encode	VBR / CBR
Quality Levels	6 level
Recording Modes	Manual, Timer, Motion, Sensor
File Management	Lock, Unlock, Reserve time, Redundancy
Search	Time, Motion, Sensor, Single, or Multi-channel
Function	Play, Pause, FF ,FB, Shutter Control, Jog, Digital zoom
Alarm In/Out	4 Alarm inputs / 1 Alarm Output
Alarm Modes	Sensor, Motion, Video loss
Alarm Triggering	Record, PTZ move, Relay out, E-mail, etc
Network Interface	RJ45 x 1
Remote Viewing	CMS / Web Browser / Mobile Platforms
Remote Playback	4CH
Dual-stream	Individual Network Video Stream and local recording stream, set separately
Remote Users	10 users online, dual stream
Remote Viewing	CMS / Web Browser / Mobile (iOS/Android)
RS485	RS485 x1 (for PTZ)
PTZ Protocol	Pelco D / Pelco P
Network Protocols	TCP/IP, UDP, DHCP, DNS, PPPOE, DDNS, SMTP, RTSP, HTTP
SATA HDD	Up to 12TB (2 x 6TB)
USB	2 x USB 2.0 for mouse and USB backup devices
Accessories	Remote controller, SATA cable, USB mouse
Power Consumption	≤ 8W (Without HDD)
Power Supply	DC: 12V
Working Environment	14ºF~122ºF (-10º~50ºC) / 10~90% RH
Dimensions (WxHxD)	10.04" x 1.65" x 8.27" (255mm × 42mm × 210mm)

Detailed Specifications	VT-TTAR1620
Video Inputs	16 Channels HD-TVI/AHD/Analog BNC Inputs Supporting up to 1080P
IP Camera Support	4 IP Camera (3 MegaPixel @ 15fps Max per Camera)
Compression	H.264 High profile
Recording (720P)	480fps: 30fps per channel (1280 x 720)
Recording (1080P Lite)	480fps: 30fps per channel (960 x 1080)
Recording (1080P)	200fps: 12fps per channel (1920 x 1080)
Local Playback	16 CH
OS	Embedded Linux
Video Output	1 x HDMI (1080p) / 1 x VGA (1080p) / 1 x BNC Spot (Analog)
Multi Operation	Pentaplex: Live Display / Record / Playback / Backup / Remote Access
Audio	Input: RCA x 4 / Output: RCA x 1
Two-Way Audio	Yes
Bit Rate	768Kbps ~ 8Mbps
Encode	VBR / CBR
Quality Levels	6 level
Recording Modes	Manual, Timer, Motion, Sensor
File Management	Lock, Unlock, Reserve time, Redundancy
Search	Time, Motion, Sensor, Single, or Multi-channel
Function	Play, Pause, FF ,FB, Shutter Control, Jog, Digital zoom
Alarm In/Out	4 Alarm inputs / 1 Alarm Output
Alarm Modes	Sensor, Motion, Video loss
Alarm Triggering	Record, PTZ move, Relay out, E-mail, etc
Network Interface	RJ45 x 1
Remote Viewing	CMS / Web Browser / Mobile Platforms
Remote Playback	4CH
Dual-stream	Individual Network Video Stream and local recording stream, set separately
Remote Users	10 users online, dual stream
Remote Viewing	CMS / Web Browser / Mobile (iOS/Android)
RS485	RS485 x1 (for PTZ)
PTZ Protocol	Pelco D / Pelco P
Network Protocols	TCP/IP, UDP, DHCP, DNS, PPPOE, DDNS, SMTP, RTSP, HTTP
SATA HDD	Up to 12TB (2 x 6TB)
USB	2 x USB 2.0 for mouse and USB backup devices
Accessories	Remote controller, SATA cable, USB mouse
Power Consumption	≤ 15W (Without HDD)
Power Supply	DC: 12V
Working Environment	14ºF~122ºF (-10º~50ºC) / 10~90% RH
Dimensions (WxHxD)	16.93" x 3.54" x 17.72" (430 x 90 x 450mm)

Detailed Specifications	VT-TTAR3280
Video Inputs	32 Channels HD-TVI/AHD/Analog BNC Inputs Supporting up to 1080P
IP Camera Support	4 IP Cameras (3MP @ 30fps / 4MP @ 20fps / 5MP @15fps / 8MP @ 7fps Max)
Compression	H.264 High profile
Recording (720P)	960fps: 30fps per channel (1280 x 720)
Recording (1080P Lite)	960fps: 30fps per channel (960 x 1080)
Recording (1080P)	480fps: 15fps per channel (1920 x 1080)
Local Playback	16 CH
OS	Embedded Linux
Video Output	1 x HDMI (1080p) / 1 x VGA (1080p) / 1 x BNC Spot (Analog)
Multi Operation	Pentaplex: Live Display / Record / Playback / Backup / Remote Access
Audio	Input: RCA x 16 / Output: RCA x 1
Two-Way Audio	Yes
Bit Rate	768Kbps ~ 8Mbps
Encode	VBR / CBR
Quality Levels	6 level
Recording Modes	Manual, Timer, Motion, Sensor
File Management	Lock, Unlock, Reserve time, Redundancy
Search	Time, Motion, Sensor, Single, or Multi-channel
Function	Play, Pause, FF ,FB, Shutter Control, Jog, Digital zoom
Alarm In/Out	16 Alarm inputs / 4 Alarm Output
Alarm Modes	Sensor, Motion, Video loss
Alarm Triggering	Record, PTZ move, Relay out, E-mail, etc
Network Interface	RJ45 x 1
Remote Viewing	CMS / Web Browser / Mobile Platforms
Remote Playback	4CH
Dual-stream	Individual Network Video Stream and local recording stream, set separately
Remote Users	10 users online, dual stream
Remote Viewing	CMS / Web Browser / Mobile (iOS/Android)
RS485	RS485 x2 (for PTZ)
PTZ Protocol	Pelco D / Pelco P
Network Protocols	TCP/IP, UDP, DHCP, DNS, PPPOE, DDNS, SMTP, RTSP, HTTP
SATA HDD	Up to 48TB (8 x 6TB)
USB	USB 2.0 x 1 + USB 3.0 x 1 (for mouse and USB backup device)
Accessories	Remote controller, SATA cable, USB mouse
Power Consumption	≤ 40W (Without HDD)
Power Supply	ATX 250W
Working Environment	14ºF~122ºF (-10º~50ºC) / 10~90% RH
Dimensions (WxHxD)	16.93" x 3.54" x 17.72" (430 x 90 x 450mm)

VITEK LIMITED PRODUCT WARRANTY

VITEK products carry a three (3) year limited warranty. Digital recording and storage products are also warranted for 3 years. * Per a special agreement with Western Digital, as of August 2016, VITEK also warrants factory installed Hard Drives for the full 3 year span of the recorder warranty provided that the recorder was purchased through an authorized VITEK distributor.

VITEK warrants to the purchaser that products manufactured by VITEK are free of any rightful claim of infringement or the like, and when used in the manner intended, will be free of defects in materials and workmanship for a period of three (3) years, or as otherwise stated above, from the date of purchase by the end user. This warranty is non-transferable and extends only to the original buyer or end user customer of a Vitek Authorized Reseller.

This warranty shall not apply to repairs or replacements necessitated by any cause beyond the control of VITEK, including but not limited to, acts of nature, improper installation, excess moisture, misuse, lack of proper maintenance, accident, voltage fluctuations, or any unauthorized tampering, repairs or modifications. This warranty becomes VOID in the event of alteration, defacement, or removal of serial numbers.

Within the first 6 months of purchase, VITEK will replace or credit any defective product returned at the request of the customer (subject to availability) with a new product that equals or exceeds the performance of the original product purchased.

Within the first 6 months of purchase, at its sole discretion, VITEK may issue an advance replacement for a defective product; however, all related costs including, but not limited to shipping and/or delivery charges will be the responsibility of the customer. If upon return inspection a product is determined to be in good working order or shows evidence of misuse, the customer will be responsible for full payment of the original product purchased as well as the replacement product.

Beyond the first 6 month period for the remainder of the warranty, VITEK'S responsibility shall be limited to repairing the defective product, including all necessary parts and related labor costs. At its sole discretion, VITEK may choose to either exchange a defective product or issue a merchandise credit towards future product purchases. Any replacement parts furnished in connection with this warranty shall be warranted for a period not to exceed the remaining balance of the original equipment warranty.

A Return Authorization number or "RA" number must be obtained prior to the return of any item for repair, replacement, or credit. VITEK requires that this "RA" number be clearly printed on the outside of the shipping carton to avoid refusal of said shipment. The Return Authorization number expires after 30 days. Products returned after the 30 day period will be subject to refusal. Shipping charges, if any, must be prepaid. A copy of the bill of sale (or invoice of purchase), together with a complete written explanation of the problem must accompany all returns.

Vitek makes no warranty or guarantee whatsoever with respect to products sold or purchased through unauthorized sales channels. Warranty support is available only if product is purchased through a Vitek Authorized Reseller.

*Limited Warranty means that VITEK reserves the right to repair or replace any product found defective within the warranty time period, prorated to the date of original purchase. If VITEK cannot repair the product, VITEK reserves the right to replace it with an equal or better product and grade at VITEK's discretion.

VITEK ®
INDUSTRIAL VIDEO PRODUCTS, INC.
28492 CONSTELLATION ROAD VALENCIA, CA 91355
WWW.VITEKCCTV.COM

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