CCTV42

Hybrid HD 1080p User Manual

Digital Video Recorder

Please read this manual carefully for correct use of the product and preserve it for reference purposes

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.

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Introduction

Summary

Based on the most advanced SOC technology, this series of the DVR adopt the new designed user interface and supports the smart management of analogue cameras and IP cameras, it also offers excellent image quality and stability. The DVR can be widely used for the security of banks at home and abroad, schools, intelligent homes, traffic, environmental protection, supermarkets, petrol service stations, residential and commercial properties.

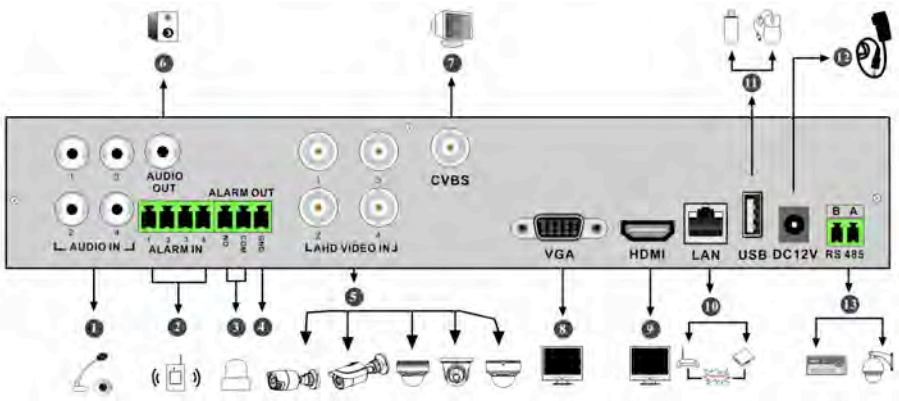
Front Panel Layout

The following description is for reference only.

Name	Descriptions
REC	When recording, the light is blue
Net	When access to network, the light is blue
Power	Power indicator, when connection, the light is blue
Fn	No function temporarily

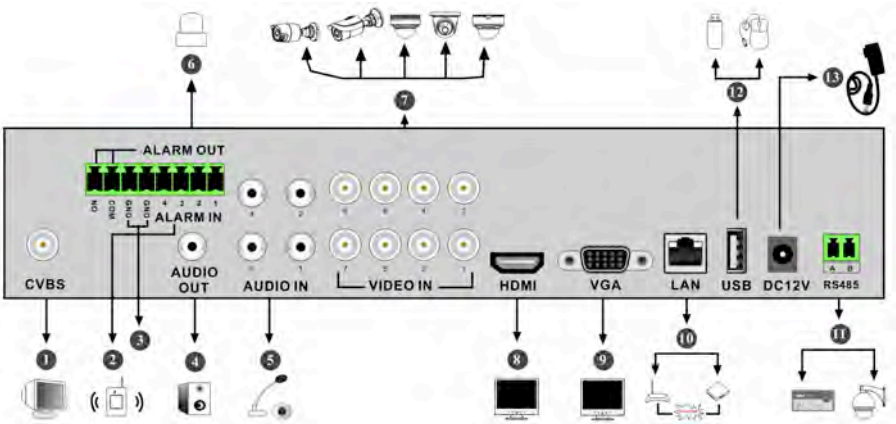
Rear Panel Layouts

Here we look at the rear panels to introduce their connections and are for reference purposes.

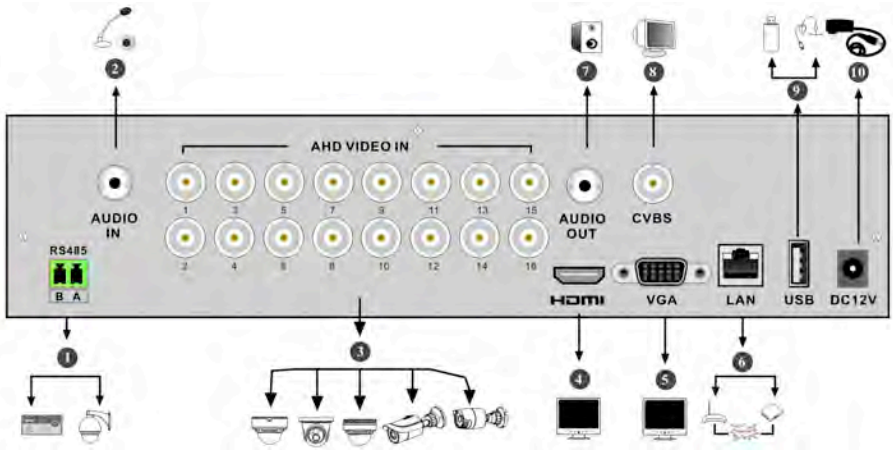


No.	Name	Descriptions
1	AUDIO IN	Audio input; connect to audio input device, like microphone, pickup, etc
2	ALARM IN	Alarm inputs for connecting sensors
3	ALARM OUT	Relay output; connect to external alarm
4	GND	Grounding
5	VIDEO IN	4 CH video inputs

No.	Name	Descriptions
6	AUDIO OUT	Audio output; connect to speakers
7	CVBS	CVBS video output; connect to monitor
8	VGA	Connect to monitor
9	HDMI	Connect to high definition display
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
1	CVBS	CVBS video output; connect to monitor
2	ALARM IN	Alarm inputs for connecting sensors
3	GND	Grounding
4	AUDIO OUT	Audio output; connect to speakers
5	AUDIO IN	Audio input; connect to audio input device, like microphone, pickup, etc
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; connect to audio input device, like microphone, pickup, etc
3	AHD 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; connect to speakers
8	CVBS	CVBS video output; connect to monitor
9	USB	Connect USB storage device or USB mouse
10	DC12V	DC12V power input

Connections

- **Video Connections**

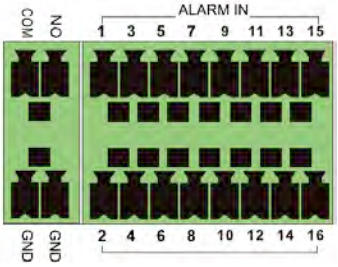
  Video Output: Supports VGA/HDMI video output. You can connect to monitor through these video output interfaces simultaneously or independently.

- **Audio Connections**

  Audio Input: Connect to microphone, pickup, etc.
  Audio Output: Connect to headphone, speakers or other audio output devices.

- **Alarm Connections**

  Some models may support this function. Take the 16CH alarm inputs and 1CH alarm output for example below.

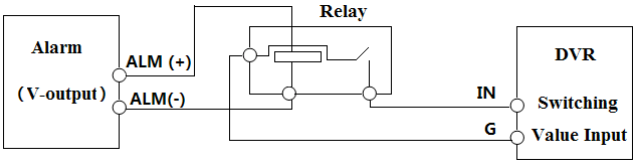


Alarm Input:

Alarm IN 1~16 are 16 CH alarm inputs. They can be used with any sensors. NO type and NC type are both available.

The way to connect the sensor to the DVR is shown below:

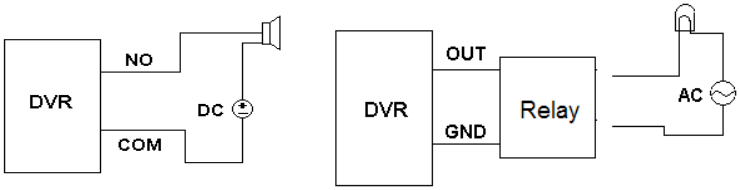
The alarm input is an open/closed relay. If the input is not an open/closed relay, please refer to the following connection diagram:



Alarm Output:

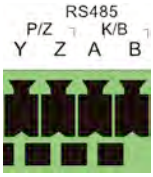
The way to connect alarm output device:

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. If the external alarm needs a power supply, you can connect the power supply as per the figures below.



- **RS485 Connection**

There are two types of RS485 interfaces:



Type 1

Type 2

Type 1: The P/Z interfaces are used to connect speed dome. K/B interfaces are used to connect keyboard.

Type 2: The RS485 interfaces are not only used to connect speed dome but also to connect keyboard.

The way to connect speed dome to the DVR:

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

Note:
The pluggable blocks are not connected into the terminal block and you can find them in accessories pack of the DVR.

Basic Operation Guide

Startup & Shutdown

Please make sure all the connections are done properly before you power on the unit. Proper startup and shutdown are crucial to expending the life of your device.

Startup

① Connect your monitor/TV to the VGA/HDMI port of the DVR.
② Connect the mouse and power. The device will boot and the power LED would turn blue.
③ A WIZARD window will pop up (you should select the display language the first time you use the DVR).

Shutdown

By mouse:

① Click Start→Shutdown to pop up the Shutdown window. Select "Shutdown" and the unit will power off after a while by clicking the "OK" button.
② Disconnect the power.

Remote Controller

① It uses two AAA size batteries.
② Open the battery cover of the remote controller.
③ Place batteries. Please take note of the polarity (+ and -).
④ 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 controller sensor for any obstructions.

If it still doesn't work contact CCTV42. To operate the controller, make sure the IR sensor on the remote is pointing towards the IR receiver of the DVR.
The layout of remote controller is shown as below.

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	No function temporarily
	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

Mouse Control

The preferred method of controlling the DVR

Mouse control in the Live Preview & Playback areas

In the live preview & playback interface, double click on any camera window to show the window in single screen mode; double click or choose a camera layout to restore to normal, 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 for short time; 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.

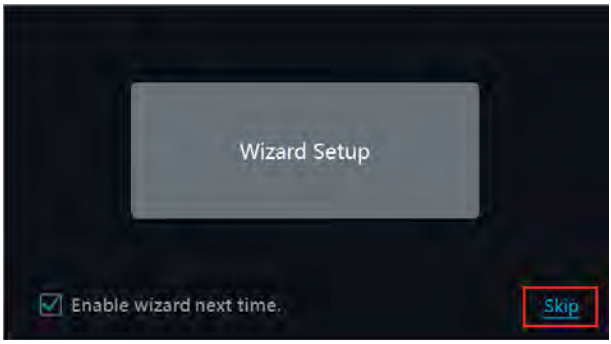
Text-input Instruction

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 soft keyboard.

Wizard & Main Interface

Startup Wizard

You can quickly configure the DVR by going through the wizard setup (We setup the DVR with basic settings for plug n play operation on the user end). If the DVR is reset, it can be re-configured by using the wizard and our default settings below, you can click “Skip” to cancel the wizard until next time.



Click “Wizard Setup” to start wizard. The setting steps are as follows.

① ***System Login***. Set your own password or use the default by clicking “Next” when you use the wizard for the first time (the default username is ***admin*** and the default password is ***123456***).

Click “Edit Security Question” to set questions and answers for password reset security of admin. If you forget the password, and forget your answers to the security questions you have set please contact CCTV42 password reset procedure.

Click “Next” to continue or click “Cancel” to exit the wizard.

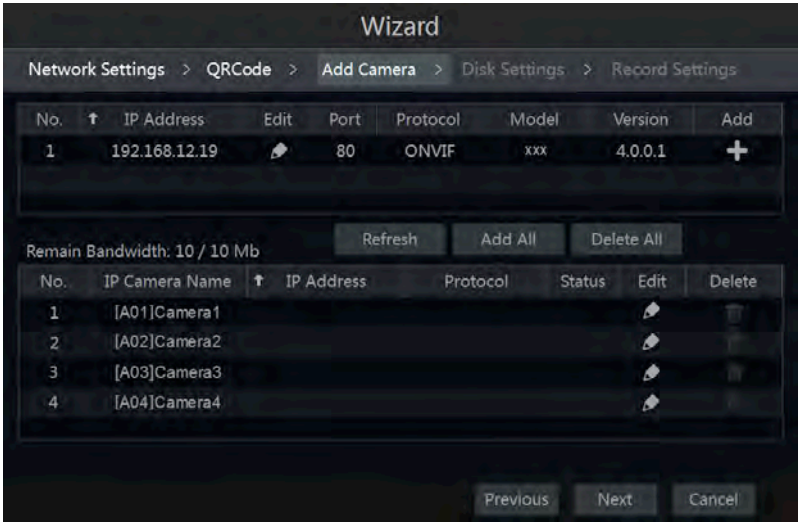
It is advised to change the password and to set up a security question for password recovery

② ***Date and Time Configuration***. The date and time of the system needs to be set up if you use the wizard after a reset. 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.

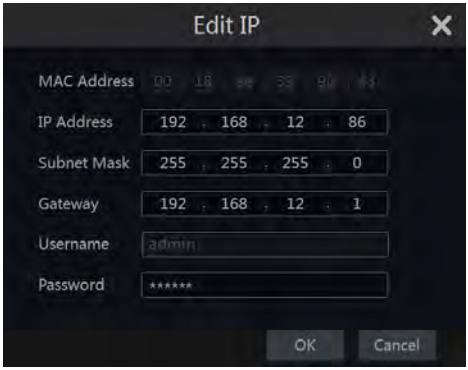
③ ***Network Settings***. Check "Obtain an IP address automatically" and "Obtain DNS automatically" to allow the router to set the IP address and DNS or manually input them. Input the HTTP port, RTSP port and Server port the defaults are 80, 554 and 6036 respectively. Click "Next" to continue.

④ ***QRCode.*** You can scan the QRCode through the mobile client, which can be installed on Android/Iphone/Ipad to log in to the mobile app instantly.

⑤ ***Add Camera***. (for IP cameras) Click "Refresh" to refresh the list of online IP cameras, which are on the same local network with the DVR and then click to add the searched 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 searched 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 input information. Click "OK" to save the settings. You can change the camera name only if it's an analogue camera or the added IPC is online. Click "Next" to continue.

⑥ ***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.

⑦ ***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.

Manual: Set the "Sensor Record", "Motion Record" and "Schedule Record" of each camera. Click "OK" to save the settings.

Main Interface

Main Interface Overview

The buttons in area 1 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
	Click it to enable OSD; click to disable OSD.
	Click to set the default playback time before starting instant playback or going to the playback interface for playback operations, click to go to the playback interface. For instance, if you choose “5 minutes ago” as the default playback time, you can playback the record 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 record status.
	Alarm status button. Click it to view the alarm status.

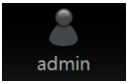
Button	Meaning
	Disk status button. Click it to view the disk status and RAID status.
	Network status button. Click it to view the network status.
	Information button. Click it to view system information.

Overview of area 2:

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.

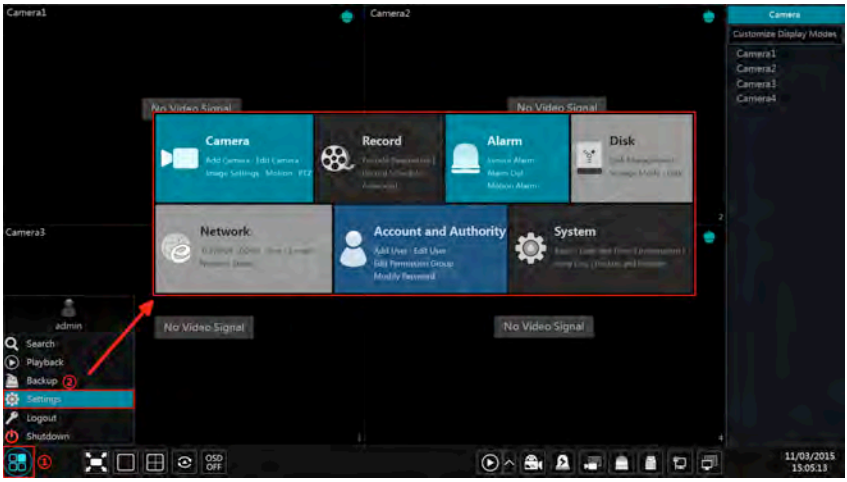
Click “Customize Display Modes” to view all the display modes in the display mode list. Double click one display mode in the list to switch to that display mode for previewing.

Overview of area 3:

Icon / Button	Meaning
	It shows the current login user.
	Click it to go to record search page.
	Click it to go to playback page (click on the tool bar at the bottom of the live preview interface to set the default playback time).
	Click it to go to backup interface.
	Click it to pop up the setup panel.
	Click it to log out the system.
	Click it and then select “Logout”, “Reboot” or “Shutdown” in the Options for restarting, shutting down or logging out.

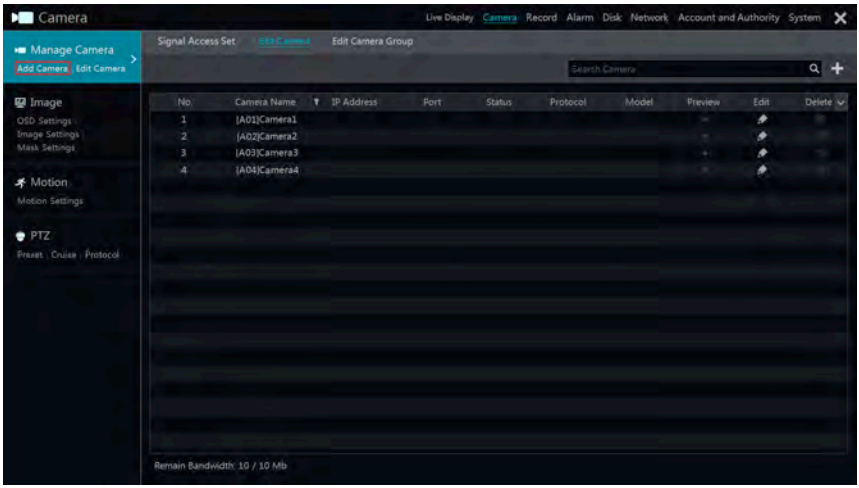
Setup Panel

Click Start (1)→ Settings (2) to pop up the setup panel as shown below.



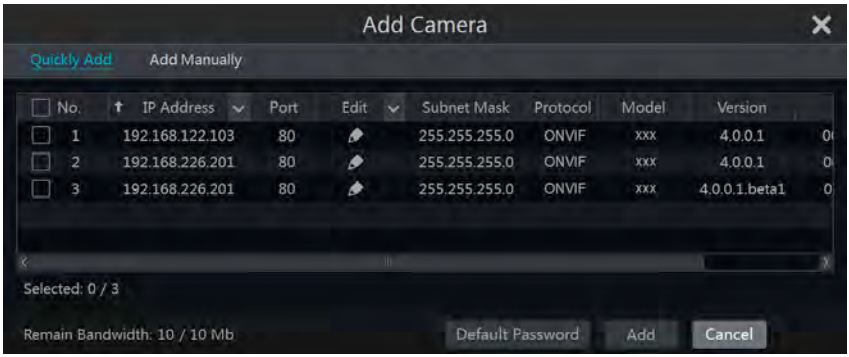
The setup panel includes seven modules. Each module displays the settings options with links to sub topics.

For 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 screen as shown below.



You will find the modules sub topics on the left side of the camera management interface. Click

each item to go to the corresponding window. For instance, click "Add Camera" to pop up the window as shown below.



Click the tags at the very top of the camera management screen to go to the corresponding pages. Refer to the picture below. For instance, you can go to the system setup page by clicking the "System" tag.

Main Functions

- **Camera**

The module covers the functions such as ***Camera Management***, ***Image Settings***, ***Motion*** and ***PTZ***.

- **Record**

The module covers the functions such as ***Encode Parameters*** and ***Record Schedule***.

- **Disk**

The module covers the functions such as ***Disk Management***, ***Storage Mode*** and ***Disk Information***.

- **Alarm**

The module covers the functions such as ***Sensor and Motion Alarm Handling*** and ***Alarm Out Settings***.

- **Network**

The module covers the functions such as ***TCP/IPv4***, ***DDNS***, ***Port***, ***E-mail*** and ***Network Status***.

- **Account and Authority**

The module covers the functions such as ***Account Management*** and ***Permission Management***.

- **System**

The module covers the functions such as ***Basic Configuration***, ***Device Information***, ***Log Information*** and ***Configuration File Import&Export***.

Camera Management

Signal Access Set

Click Start→Settings→Camera→Manage Camera→Camera Signal to go to the page as shown below.

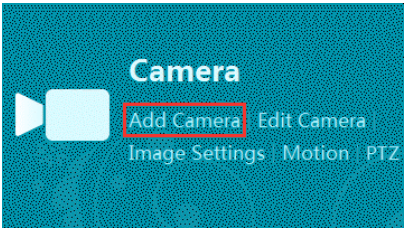
There are two types of analogue signals: TVI and AHD. If the camera signal is TVI, you should check TVI in the following interface to show the camera image normally; if you check AHD, then there will be no image or the image has no colour. The default selection of the signal is Auto. If you check Auto, then the image of the camera will be shown normally regardless of the access signal type. Occasionally a third party camera may require the choice to be made manually.

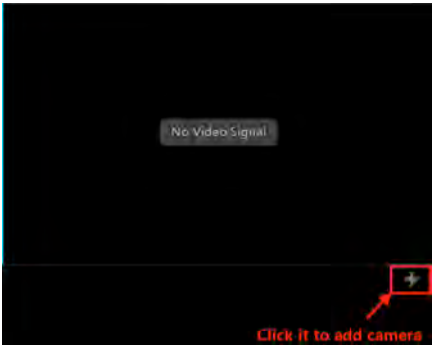
Add/Edit Camera

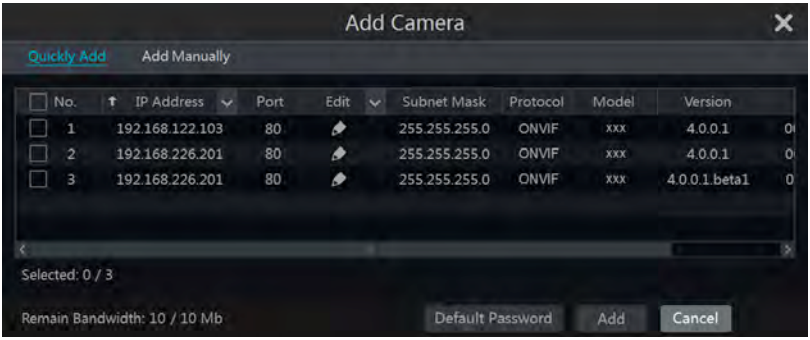
Add Camera

The network of the DVR should be set up before adding IP cameras.

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.

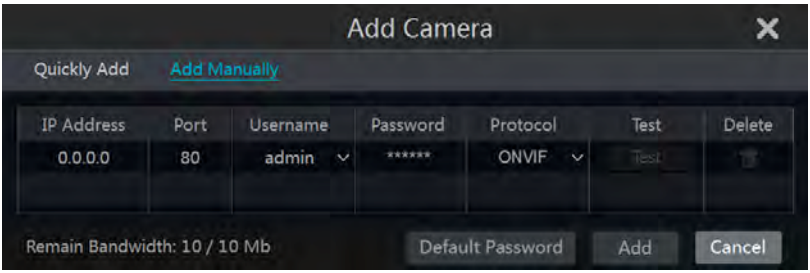






➢ **Quickly Add**

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.

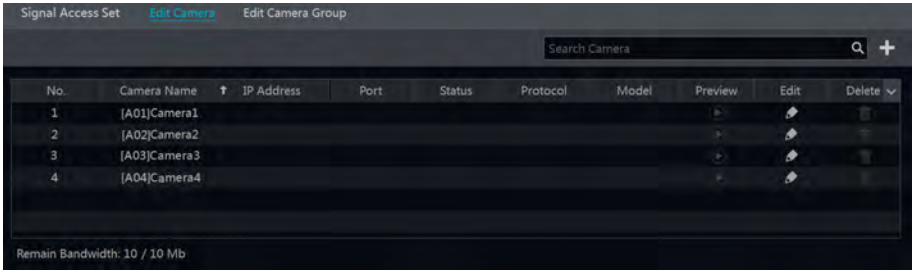


➢ **Add Manually**

Input the IP address, port, username and password of the camera and then select the protocol (ONVIF Compatible cameras are best used). Click "Test" to test the effectiveness of the information and then click "Add" button. Click to delete the camera. Click "Default Password" to set the default username and password of each camera.

Edit Camera

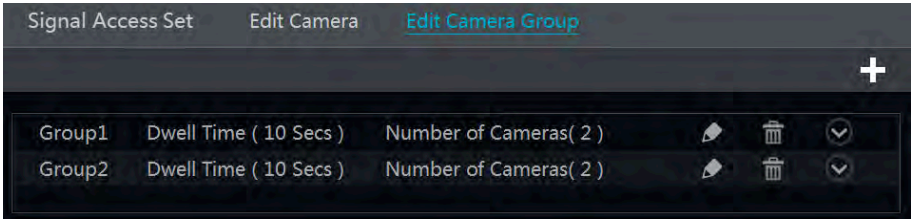
Click "Edit Camera" in the setup panel to go to the interface as shown below. Click to view the live image of the camera in the popup window. Click to edit the camera. Click to delete the IP camera.



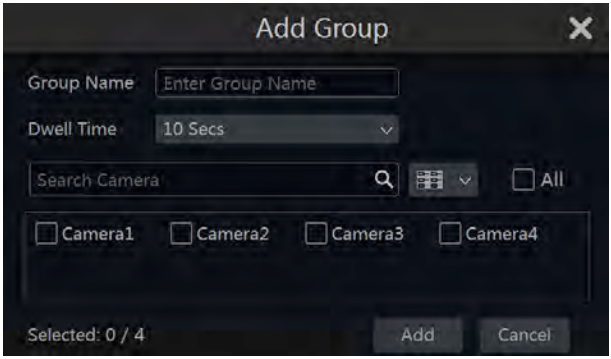
Add/Edit Camera Group

Add Camera Group

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



Click 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 to view the cameras in the group after adding group.



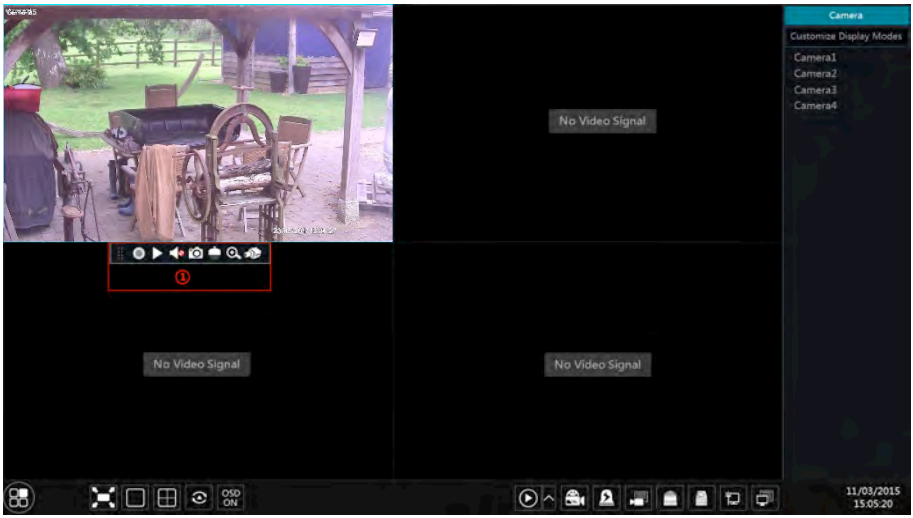
Edit Camera Group

Click to modify the group information such as group name and dwell time. Click to delete the group.

Live Preview Introduction

Preview Interface Introduction

The connected analogue camera will be added automatically in the live preview interface for previewing. You should add IP camera manually for previewing. 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 1. Right click the preview window to show the menu list. The tool bar and menu list are introduced in the table below.

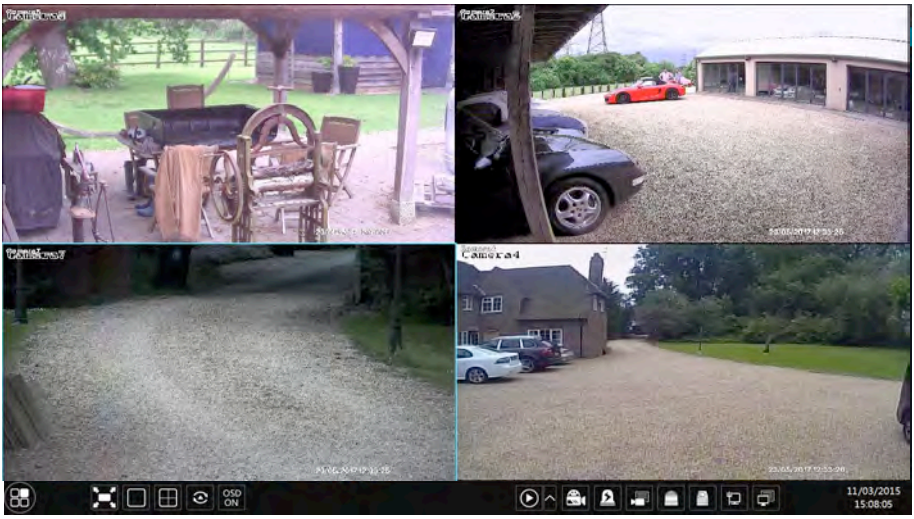
Button	Menu List	Meaning
	--	Move tool. Click it to move the tool bar anywhere.
	Manually Record On	Click it to start recording.
	Instant Playback	Click to playback the record; click "Instant Playback" to select or self-define the instant playback time.
	Enable Audio	Click it to enable audio. You can listen to the camera audio by enabling audio.
	Snap	Click it to pop up the snap window. Click "Save" in the window to save the image. Click "Export" to export the image.
	PTZ Control	Click it to go to PTZ control interface.
	Zoom In	Click it to go to single channel amplification interface.
	--	Click it to go to image adjustment interface.
--	**Camera Info**	Click it to view the IP camera information.

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

Preview Mode

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:

① Click "Customize Display Modes" by moving the mouse to the right hand side of the live display and then set the screen mode.

② Add the cameras and adjust the cameras' display sequence as required.

③ 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:

① Click Start→Settings→System→Basic→Output Settings→Main Output to go to the interface and then set the screen mode.

② Double click the camera or camera group-in the list to add them to the selected window.

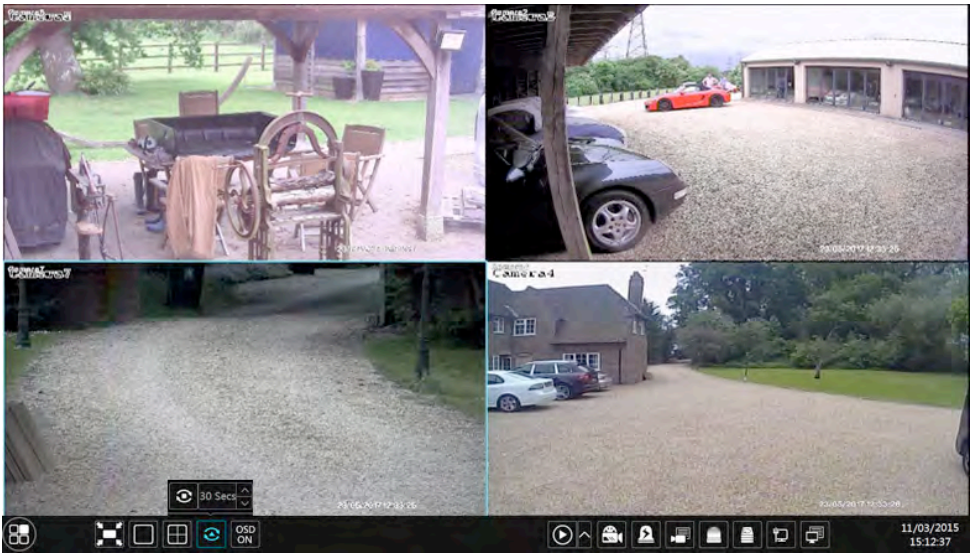
③ Click to save the current display mode. The display mode will be saved and displayed in the display mode list in the live preview interface.

➢ **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.

Quick Sequence View

You can start quick sequence view if the scheme has not been created.



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.

View In Sequence

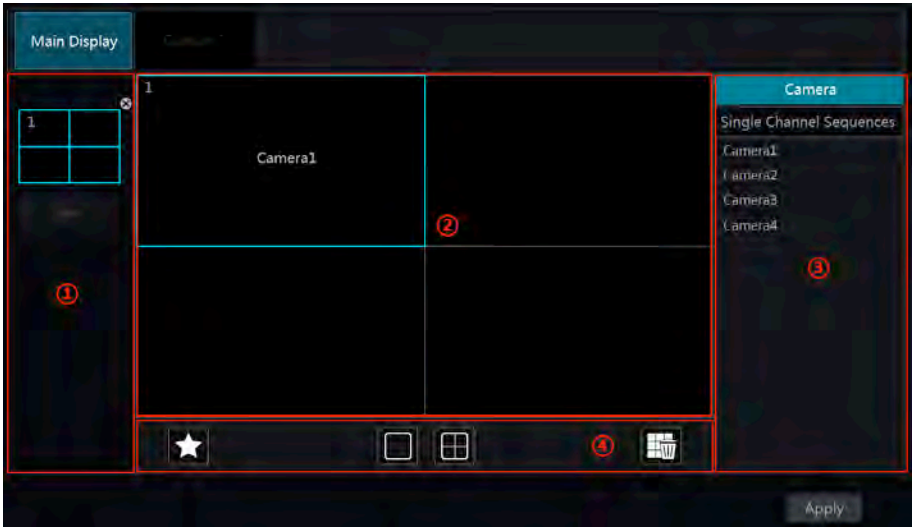
Click Start→Settings→System→Basic→Output Settings→Main Output to go to the interface as shown below.

Area 1 displays all the dwell schemes

Area 2 shows the camera feeds for the scheme

Area 3 displays all the cameras and groups

Area 4 is the tool bar (: clear button; : favourite button, click it 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 1 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 2 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 2 and then double click the camera or group in area 3. The camera or group will be added into the selected window. The cameras cannot be repeated/duplicated. You can click the right-click menu "Clear" in area 4 to remove a single camera or click to remove all the cameras.

c) Click "Apply" to save the settings.

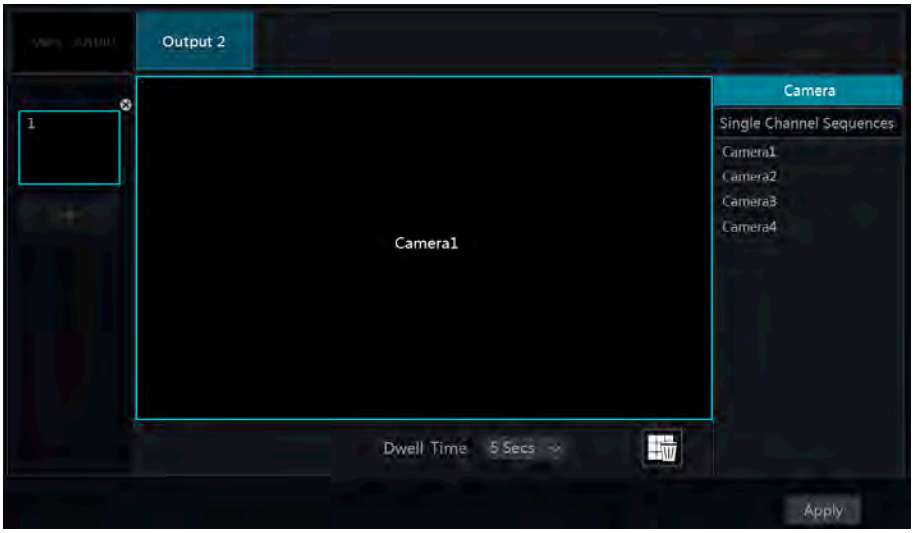
➢ **Start Sequence View**

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.

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 analogue 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.



Preview Image Configuration

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.

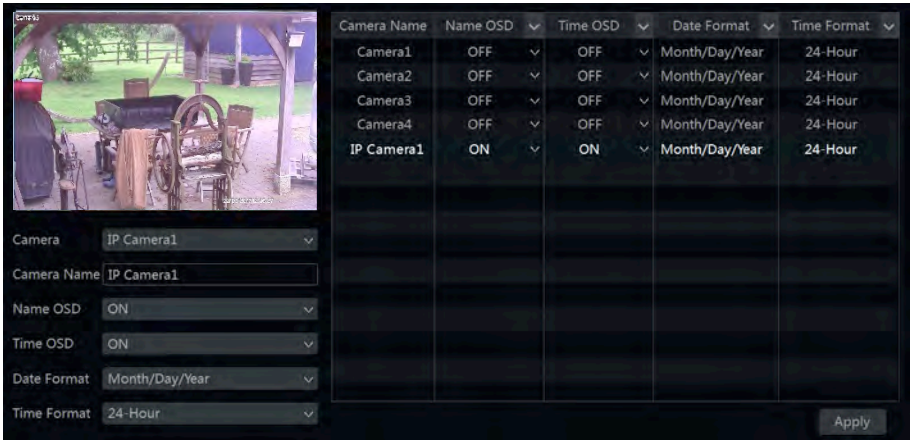


Image Settings

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 default factory settings.

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.

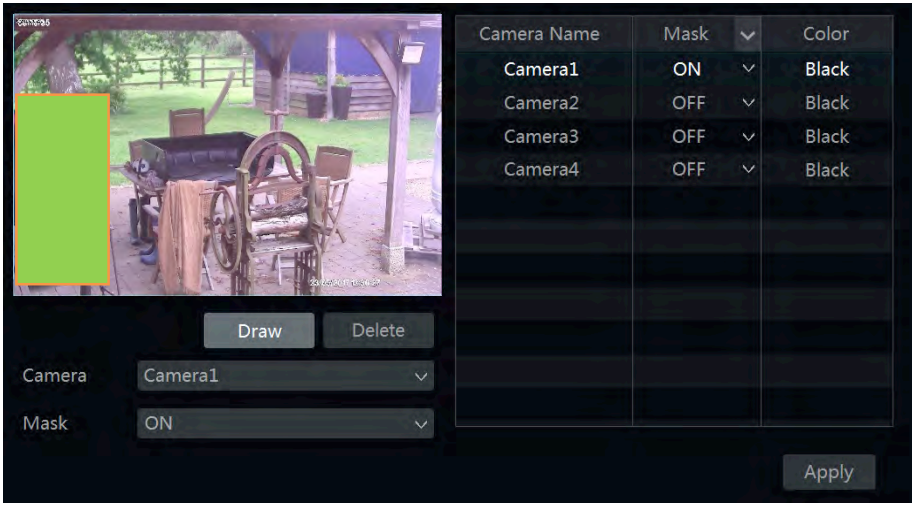
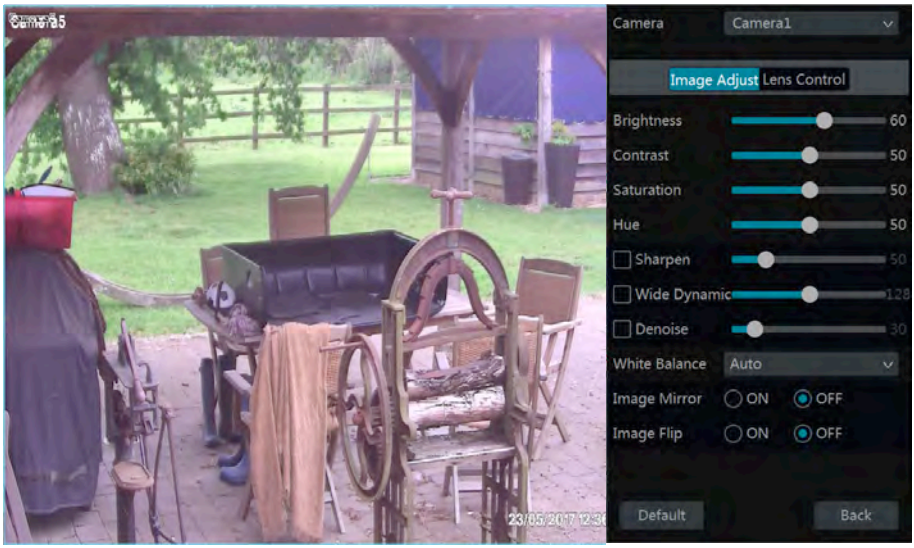


Image Adjustment

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



➢ **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 de-noise 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	It is the brightness level of the camera's image.
Contrast	It is the colour difference between the brightest and darkest parts.
Saturation	It is the degree of colour purity. The colour is purer and the image is brighter.
Hue	It relates to the total colour degree of the image.
Sharpen	It relates to the resolution level of the image plane and the sharpness level of the image edge.
Wide Dynamic	The wide dynamic range (WDR) function helps the camera provide clear images even under back light 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 clear 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 colour 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.

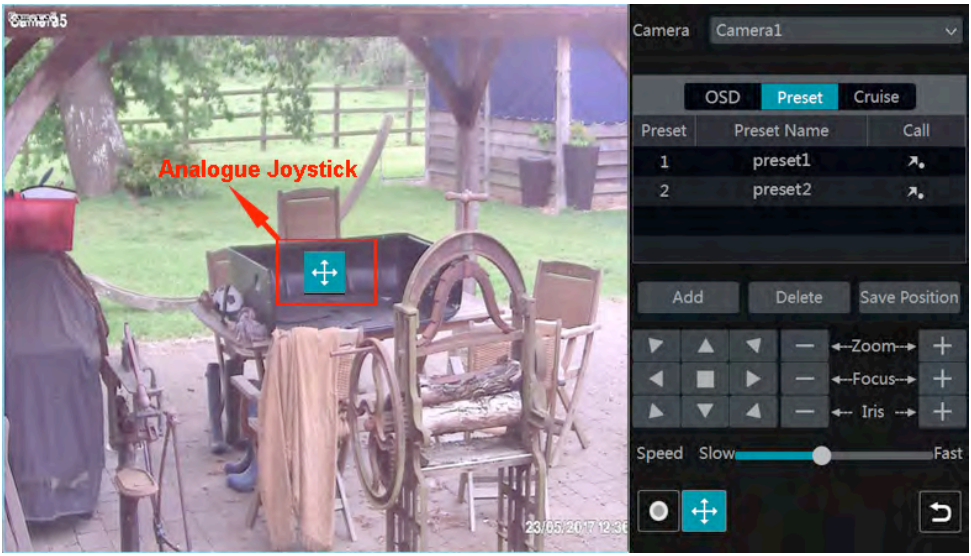
- **Water Mark Settings**

Select the camera, then choose whether the watermark will be On/Off and in the information area type any text you would like displayed as the watermark then click apply to save. This will then be displayed on the recorded footage not the live streams.

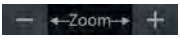
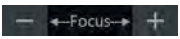
PTZ

PTZ Control Interface Introduction

Right click on the live camera feed window and choose 'PTZ Control' to go to the PTZ control screen as shown below. If you have multiple PTZ cameras you can select another in the top right of the screen for PTZ control.



Introductions of the buttons on the bottom right of the interface:

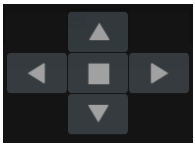
Button	Meaning
	Click ▲ / ▼ / ◀ / ▼ / ◀ / ▶ / ◀ / ▶ to rotate the dome. Click ■ to stop rotating the dome.
	Click + / − to zoom in / out the camera image.
	Click + / − to increase / decrease the focal length.
	Click + / − to increase / decrease the iris of the dome.
	Drag the slider to adjust the rotating speed of the dome.
	Click ● / ● to start / stop recording.
	Click ✣ / ✣ to hide / show the analogue joystick.
	Click it to return to the live preview interface.

➢ **Software Joystick Control**

The cross icon in the middle of the camera feed provides quick PTZ control. Left click and hold then drag the cross to Pan and Tilt the camera, the further from the centre the quicker the camera will move. The dome or PTZ will rotate when you drag the analogue joystick. The farther you drag the analogue joystick from the middle of the image, the faster the dome or PTZ rotates. The PTZ will stop rotating when you stop dragging the analogue joystick.

➢ **OSD Setting**

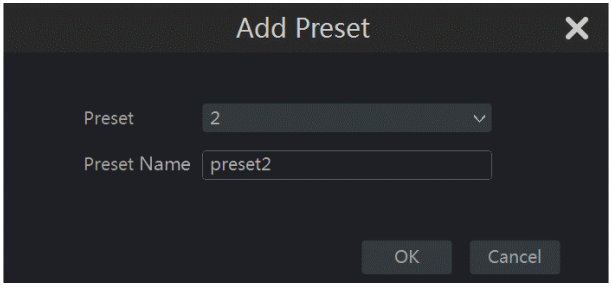
Go to PTZ protocol setting interface and then set the protocol to COC before you call the OSD. Click "OSD" to go to camera OSD setting interface. Click to start OSD setting. The meanings of the buttons are shown in the table below.



Button	Meaning
	The OK button; you can click it to start OSD.
	Click it to change the menu mode or decrease the menu value.
	Click it to change the menu mode or increase the menu value.
	Click it to go to the previous menu.
	Click it 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 255 presets for each dome at most.

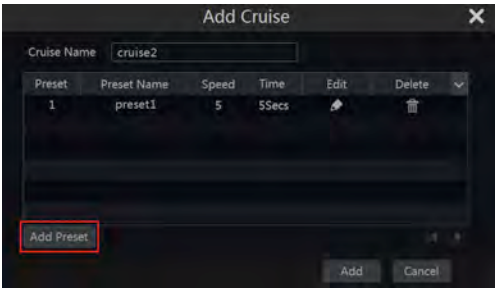


Adjust the dome's direction and then click "Save Position" to save the current preset position (you can also click another preset in the preset list and then save the preset position after

adjusting the dome's direction); click in the preset list to call the preset; click "Delete" button to delete the selected preset.

➢ **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.



① 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).

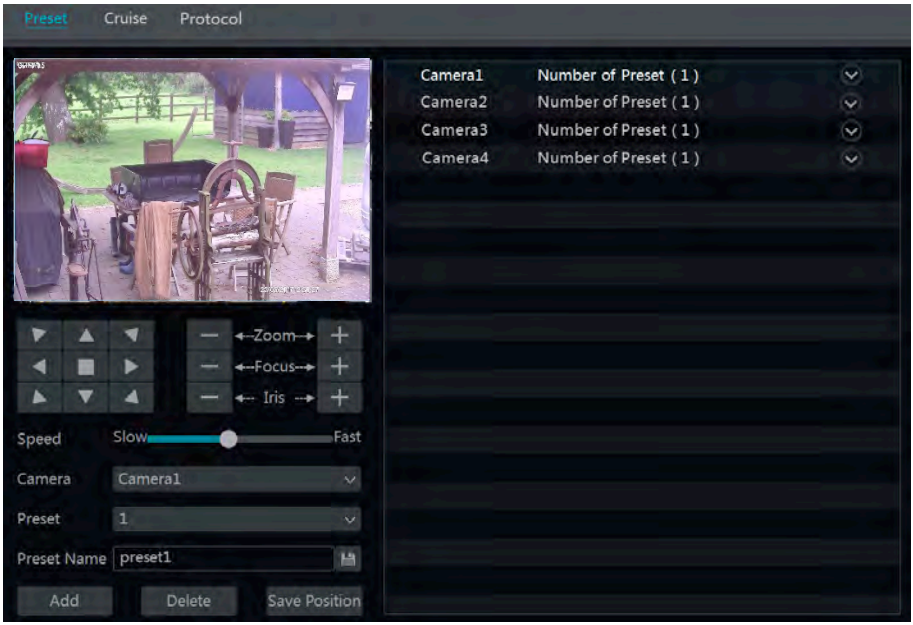
② In the "Add Preset" window, select the preset name, preset time and preset speed and then click "OK" button.

③ 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.

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.

➢ **Edit preset**

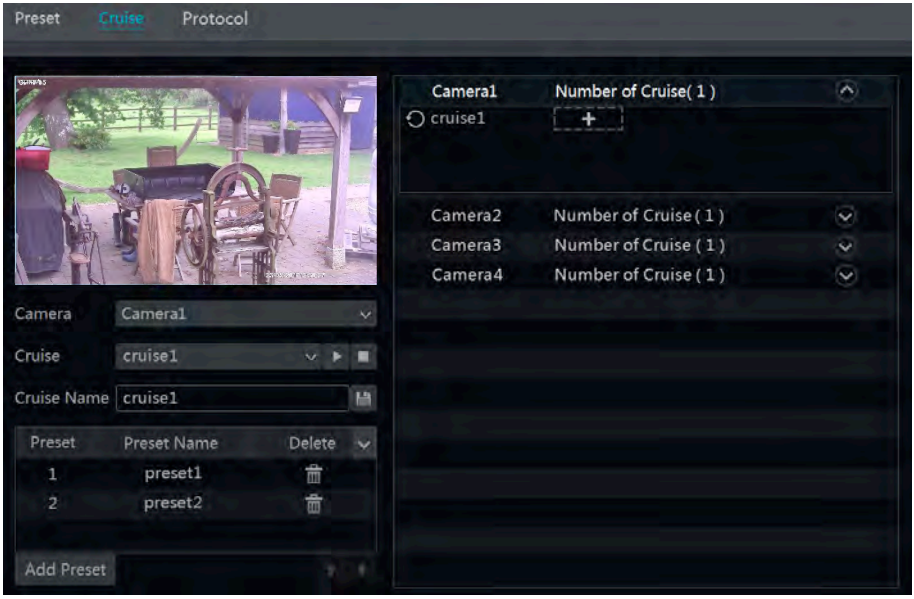
Select camera and preset. You can input the new name of the preset and then click to save the new preset name. Adjust the rotating speed, position, zoom, focus and iris of the preset and then click "Save Position" to save the preset.

➢ **Delete Preset**

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

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.

➢ **Edit Cruise**

Select the camera and cruise in the "Cruise" interface. Input the new 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.

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 analogue dome in the interface. Please make sure the analogue speed dome camera is well 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.

Record & Disk Management

Record Configuration

Mode Configuration

Please format the HDDs before recording. 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: Motion alarm record will be enabled when motion alarm happens.
Sensor Record: Sensor alarm record will be enabled when sensor alarm happens.
Motion Record + Sensor Record: Motion/sensor alarm record will be enabled when motion/sensor alarm happens.
Always(24x7) Record + Motion Record: Normal record is enabled all the time; motion alarm record will be started when motion alarm happens.
Always(24x7) Record + Sensor Record: Normal record is enabled all the time; sensor alarm record will be started when sensor alarm happens.
Always(24x7) 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.

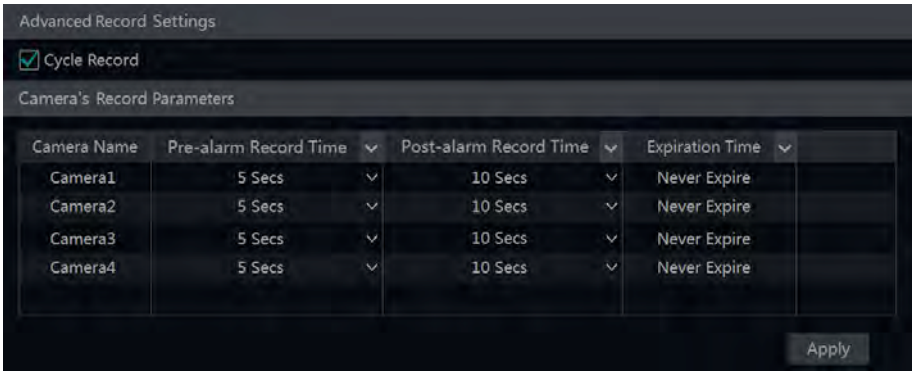
Video Encode: the video encode format of the camera.
Resolution: the higher the resolution is, the clearer the image is.
FPS: the higher the frame rate is, the more fluency the video is. However, more storage room will be taken up.
Bitrate: the higher the image quality you choose, the more bit rate will be required.

- **Manual Mode**

If the manual mode is selected, you need to set the encode parameters and record schedules (which is now available in the left hand menu) for each camera.

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.



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.

Encode Parameters Setting

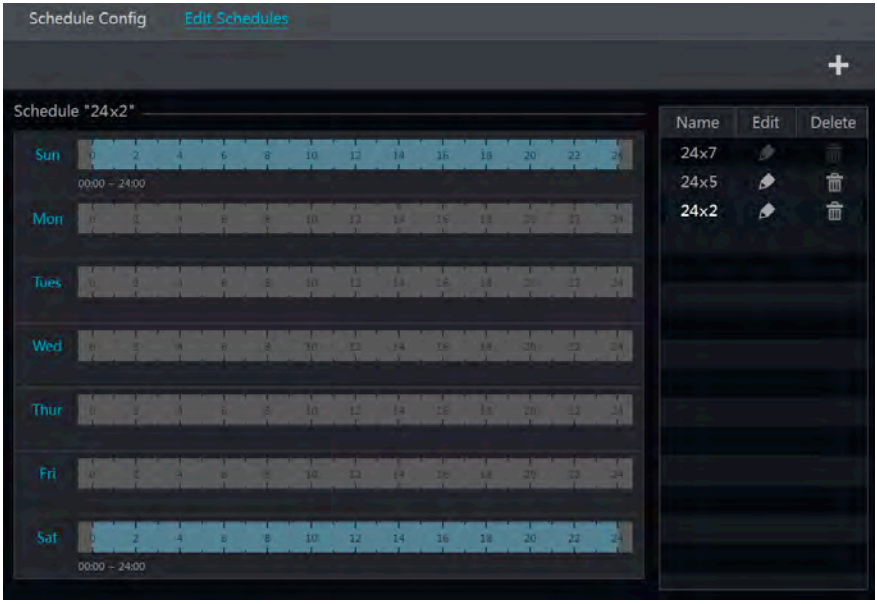
Click Start→Settings→Record→Encode Parameters to go to the interface as shown below. Set the video encode, resolution, FPS, bitrate and audio of main stream for each camera in "Event Record Stream" and "Timing Record Stream" interfaces. Click "Apply" to save the settings. You can set the record stream 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.

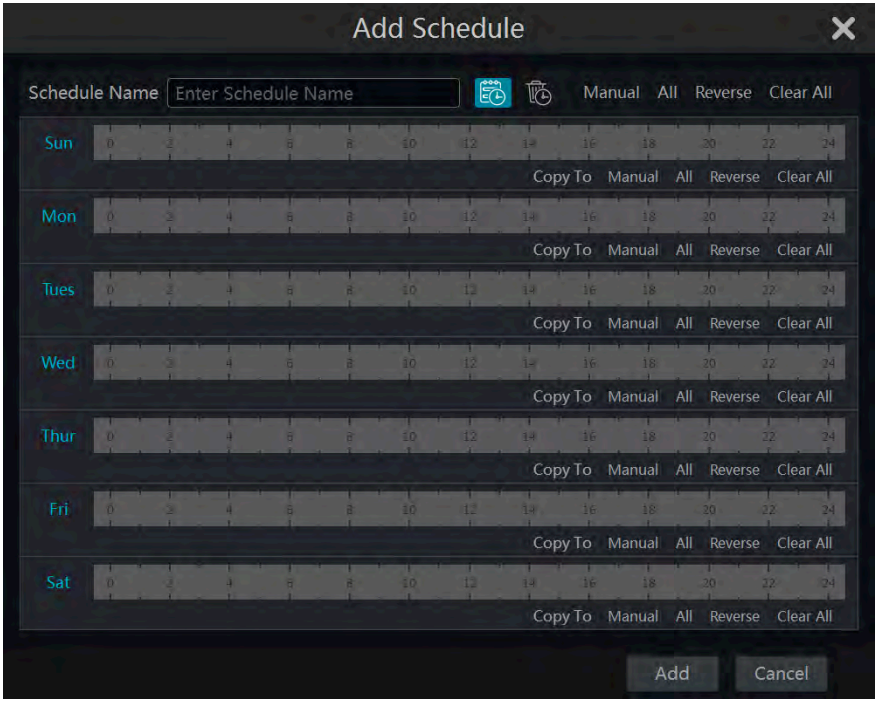
Schedule Setting

Add Schedule

Click Start→Settings→Record→Record Schedule→Edit Schedules to go to the interface as shown below. "24x7", "24x5" and "24x2" are the default schedules; you cannot edit or delete "24x7" while "24x5" and "24x2" 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.

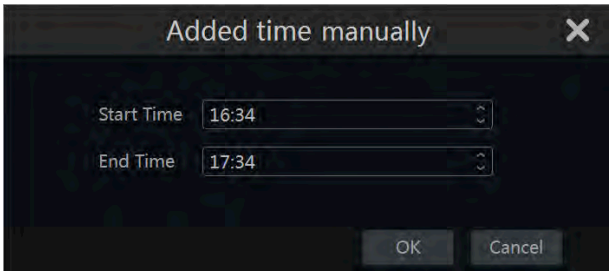


Set the schedule name and schedule time and then click “Add” to save the schedule. You can set day schedule or week schedule. : add button; : delete button.

➢ **Set Day Schedule**

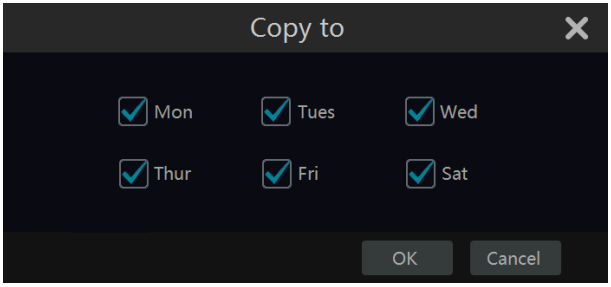
Click and then drag the cursor on the time scale to set record time; click and then drag the cursor on the time scale to delete the selected area.

You can manually set the record start time and end time. Click or 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.



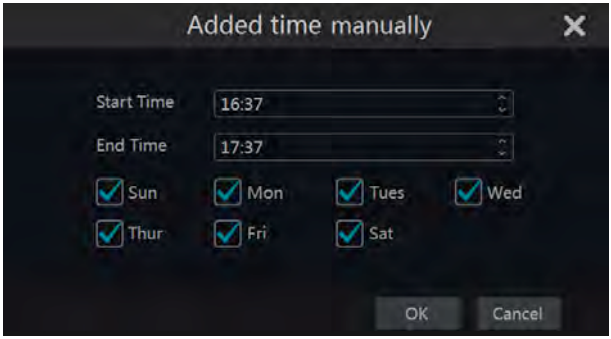
Click “All” to set all day recording; click “Reverse” to swap the selected and unselected time in a day; click “Clear All” to clear all the selected area in a day.

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 or and then click “Manual” beside 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.



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.

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.

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.

Record Mode

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 click the right-click menu "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.

Timing Recording

Timing Recording: the system will record automatically according to the schedule.
Set the timing record schedule of each camera.

Motion Based Recording

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

① Set the motion based recording schedule of each camera.
② Enable the motion and set the motion area of each camera.
③ The camera will start motion-based recording once you finish the above settings.

Sensor Based Recording

① Set the sensor based recording schedule of each camera.
② Set the NO/NC type of the sensor, enable the sensor alarm and then check and configure the “Record”.

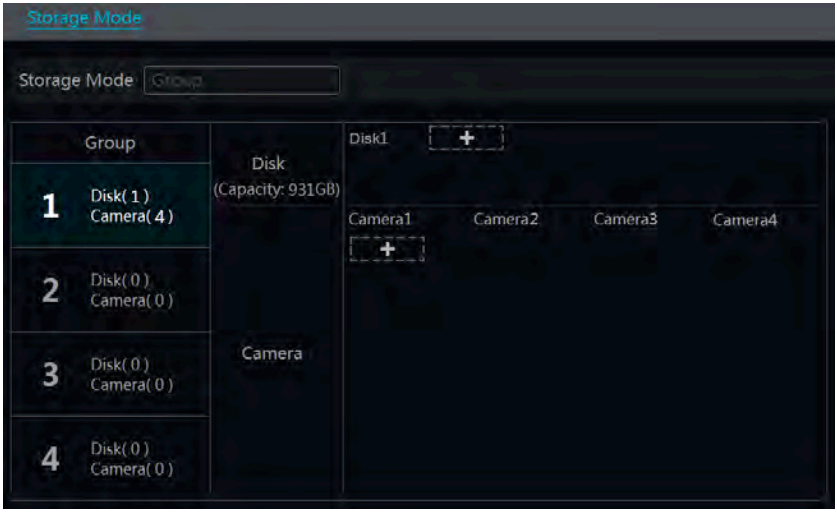
Disk Management

Click Start→Settings→Disk→Disk Management to go to disk management interface. You can view the DVRs disk number and disk status and so on in the interface. Click “Formatting” button to format the HDD.

Note: 1. The new HDD should be formatted before use.
2. For a HDD that has been used in another DVR, if the DVR is of the same model with the new DVR, you can 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.

Storage Mode Configuration

Click Start→Settings→Disk→Storage Mode to go to the interface as shown below.



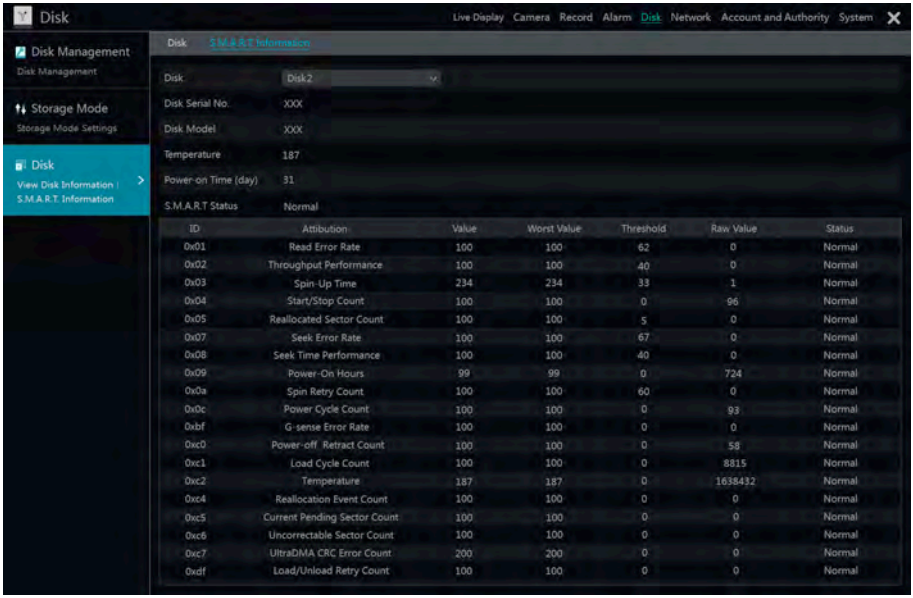
There are four disk groups. By using a disk group, you can assign a camera to a disk (the record data of the camera in the group will be stored into the disks in the same group).

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 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 disk and camera cannot be duplicated and can only be assigned to 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”.

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.



Playback & Backup

Instant Playback

Left click a camera feed and select on the tool bar at the bottom of the preview camera window to play back the record (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 click the right-click menu "Instant Playback" in the camera window and then set the instant playback time to play back the record.

Playback Interface Introduction

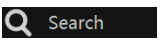
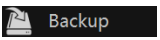
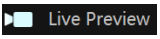
Click on the tool bar at the bottom of the live preview interface or click Start→Playback to go to the playback interface as shown below (click on the tool bar at the bottom of the live preview interface to set the default playback time).

The added cameras will playback their records in the playback interface automatically. You can also add the playback camera manually. Click in the playback window to pop up the "Add Camera" window. Check the cameras in the window and then click "Add" to add playback camera.

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 it to pop up area ②.
	Full screen button. Click it to show full screen; click it again to exit the full screen.
	Screen mode button.
	OSD ON button. Click it to enable OSD; click to disable OSD.
	Stop button.
	Rewind button. Click it to play video backward.
	Play button. Click it to play video forward.
	Pause button.
	Deceleration button. Click it to decrease the playing speed.
	Acceleration button. Click it to increase the playing speed.
	Previous frame button. It works only when the forward playing is paused in single screen mode.
	Next frame button. It works only when the forward playing is paused in single screen mode.
	Click to step backward 30s and click to step forward 30s.
	Event list/tag button. Click it to view the event record 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 it to view the backup status.
	Back button. Click it to return.

Introduction of area ②:

Button	Meaning
	Click it to go to record search interface; see 8.3 Record Search & Playback for details.
	Click it to go to backup interface; see 8.4 Backup for details.
	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 it to move the tool bar anywhere.
	Enable Audio	Click it to enable audio. You can listen to the camera audio by enabling audio.
	Snap	Click it to snap.
	Zoom In	Click it to go to the zoom in interface. The zoom in interface is similar to that of the camera window in the live preview interface. Click to pause the record playing; click to play the record. When the record is paused in forward playing mode, you can click to view the previous frame and click to view the next frame.
	Add Tag	Click it to add tag. You can play back the record 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 it 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 it to close the playback camera.

Introduction of area ④:

Click to set the date; click to set the time and then the playback camera will play the record from the time you set. You can check the record 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 camera, then check the record type (: manual record; : sensor based record; : motion based record; : schedule record) and finally click in the playback window to add camera for playback (the record time scale will show the record data of the checked record 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 record time scale. Click / to zoom 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 at the bottom of the time scale to show the hidden playback cameras.

The record time scale shows different record types with different colours. 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 playback camera will play the record from the time you set.

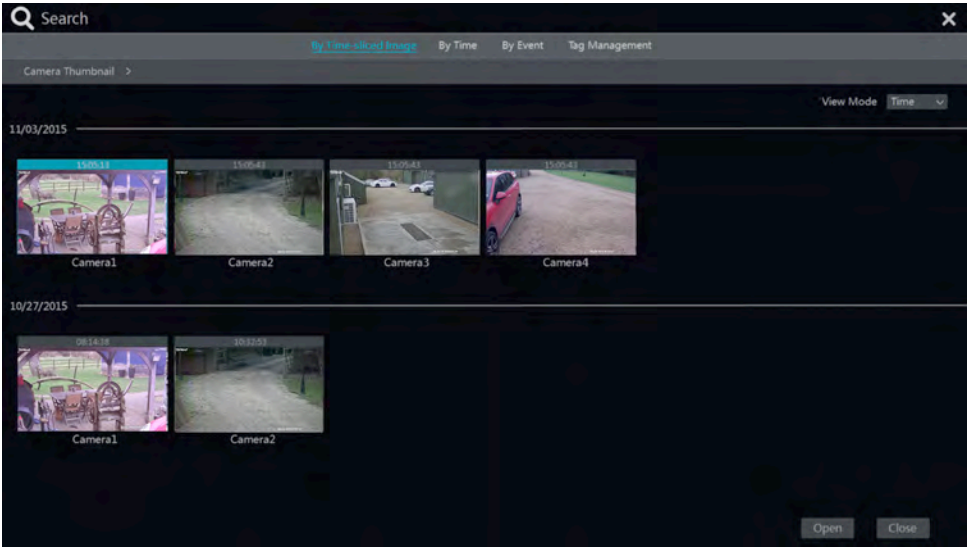
Drag the colour block on the time scale to select the backup area and then right click the area or click to pop up a backup information window. Click “Backup” button in the window to pop

up the backup window. Select the device, backup path and backup format and then click "Backup" button to start the backup.

Record Search & Playback

Search & Playback by Time-sliced Image

① 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 showed. 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.



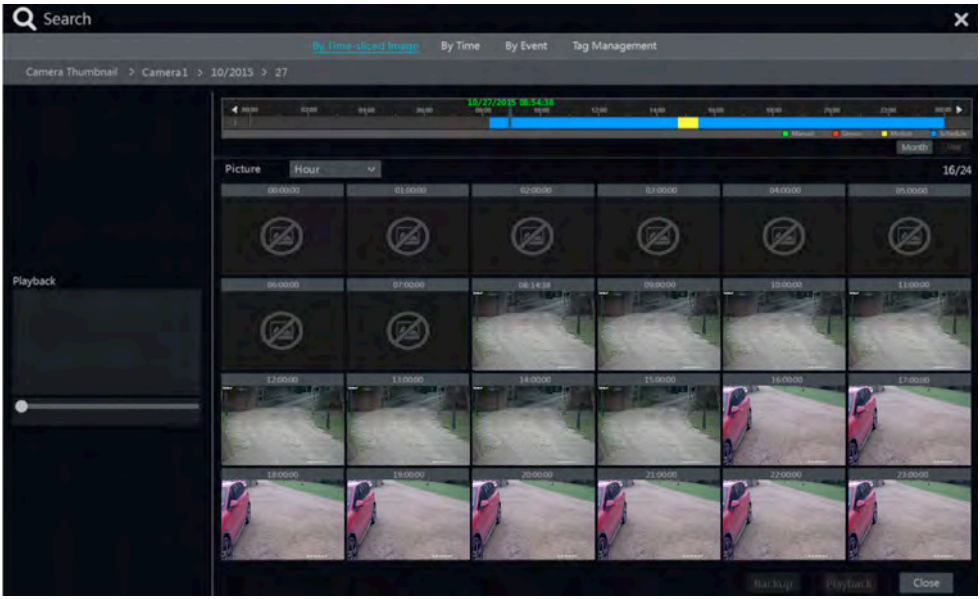
② Select one camera in the interface and then click "Open" button.

③ Click the image box to play the record in the small playback box on the left side of the interface (the box which has image inside indicates that the record data exist).

④ Refer to the picture below. Drag the colour blocks on the time scale to select the record 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.

⑤ Click "Playback" button to play the record in the playback interface. 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 record 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.

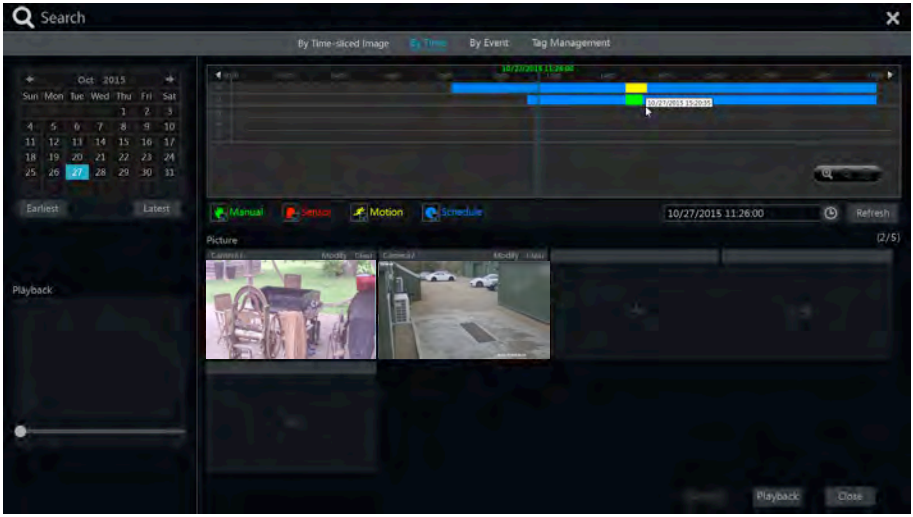
Search & Playback by Time

① Click Start→Search→By Time to go to "By Time" tab as shown below.

② 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.

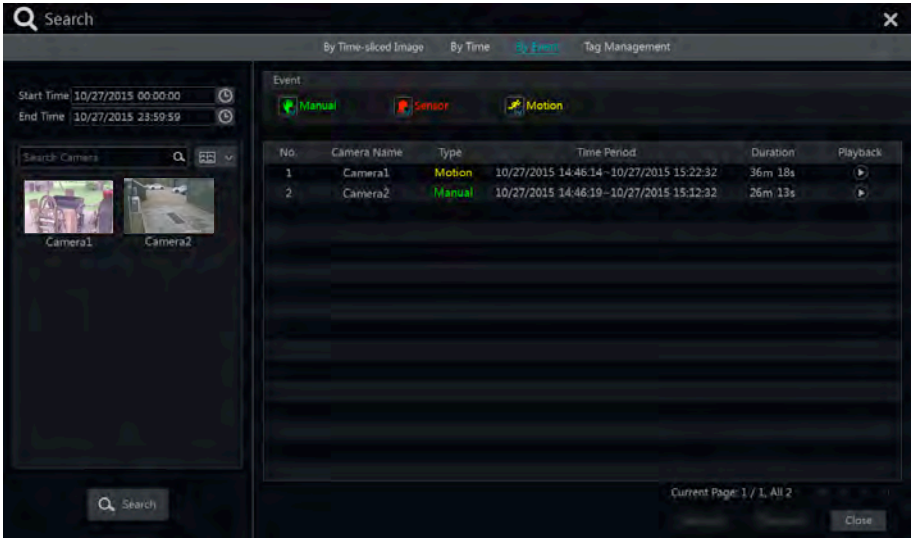
③ Click the camera window to play the record in the small playback box on the left side of the interface. You can set the date on the top left of the interface, check the event type as required and click the time scale or click under the time scale to set the time. The camera window will play the record according to the time and event type you set.

④ Drag the colour blocks on the time scale to select the record data and then click "Backup" button for record backup. Click "Playback" button to play the record in the playback interface.



Search & Playback by Event

① Click Start→Search→By Event to go to "By Event" tab as shown below.



② Check the event type in the interface as required.

③ Click to set the start time and end time on the top left of the interface.

④ Check cameras on the left side of the interface and then click to search the record. The searched record will be displayed in the list.

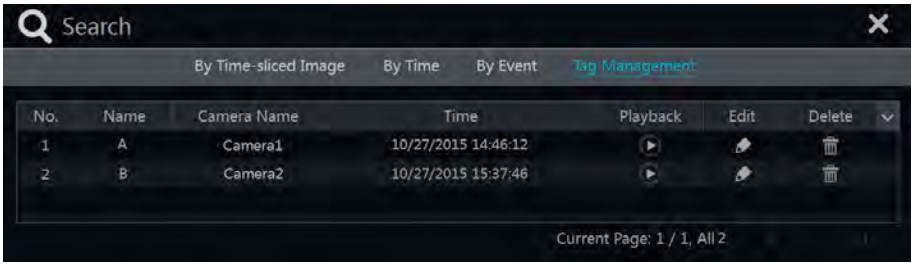
⑤ Click in the list to play back the record in the popup window. Select one record data in the list and then click “Backup” button for record backup.

⑥ Select one record data in the list and then click “Playback” button to play the record in the playback interface.

Search & Playback by Tag

Adding a tag to a camera will add it to a ‘bookmark’ list. Click Start→Playback to go to the playback interface and then click camera and 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.



Click in the interface to play the record. Click to edit the tag name. Click to delete the tag.

Backup

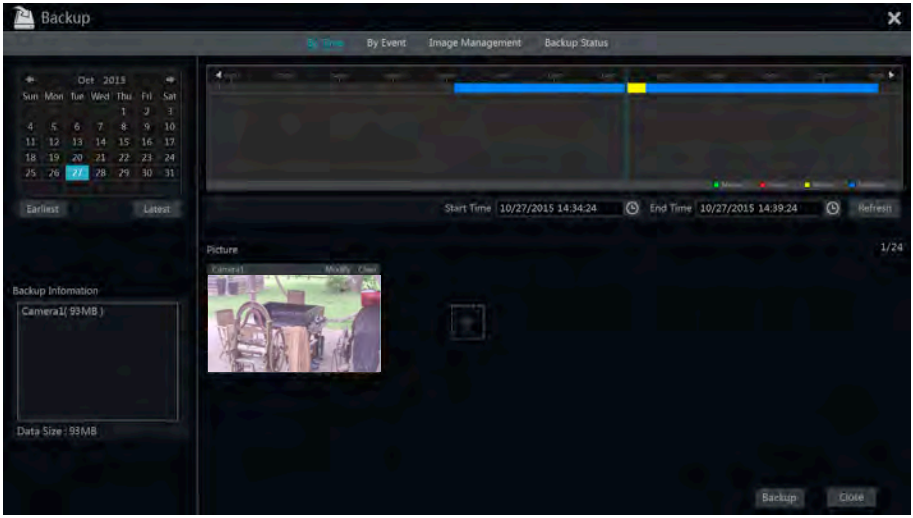
The record data and the snapped pictures can be backed up through network or USB (U disk or USB mobile HDD). The file system of the backup devices should be FAT32 format.

Backup by Time

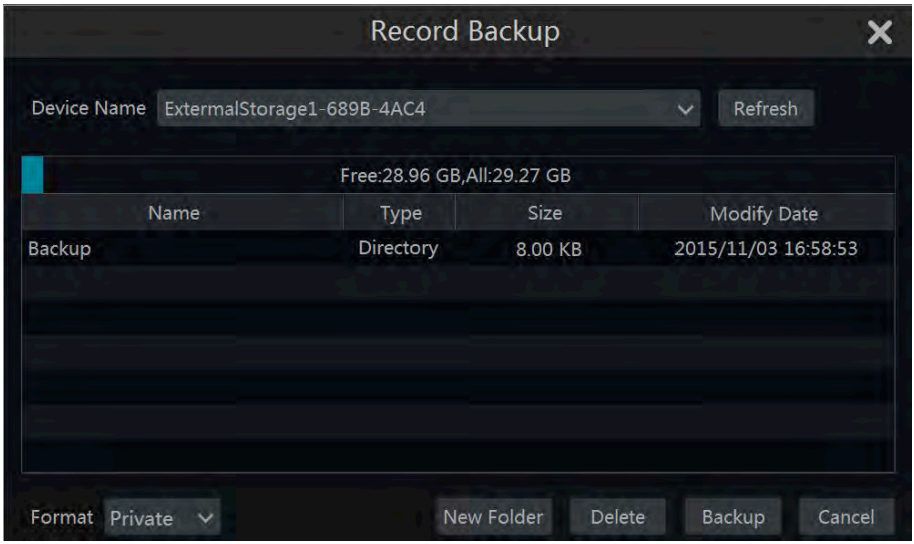
① Click Start→Backup→By Time to go to the “By Time” tab.

② Click in the tab 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.

③ 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.



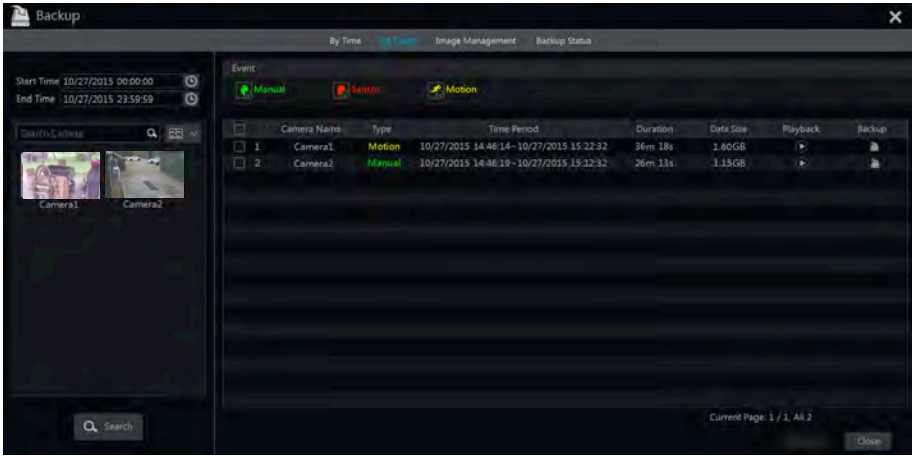
④ Click “Backup” button to pop up the “Record Backup” window as shown below. Select the device name, backup format and path and then click “Backup” button to start the backup.



Note: If you back up the record in private format, the system will back up a RPAS player to USB device automatically. The private format record can be played by RPAS player only.

Backup by Event

① Click Start→Backup→By Event to go to “By Event” tab.



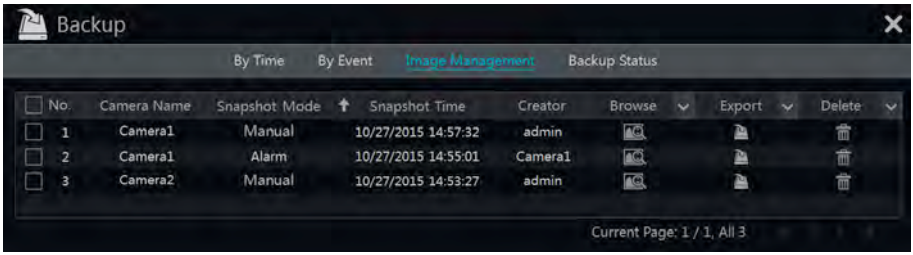
② Click to set the start time and end time on the left top of the interface.

③ Check the event types and cameras.

④ Click to search the record. The searched record data will be displayed in the list. Click in the list to play the record in the small popup playback window. Click to back up the record. Check one record data or above in the list and then click “Backup” button to back up the record data.

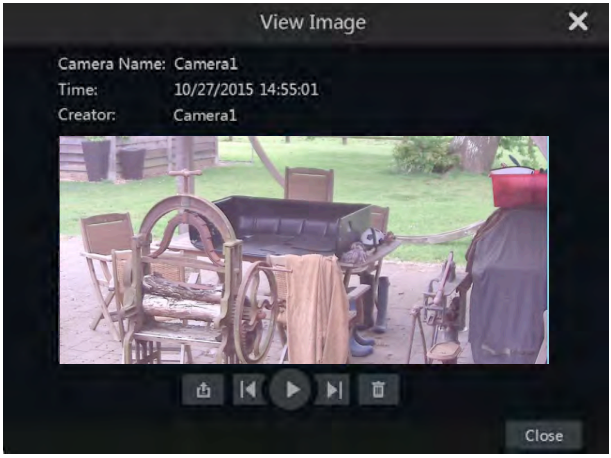
Image Management

Click Start→Backup→Image Management to go to “Image Management” tab. The system will display all the snapped images automatically in the list.



Click to delete the image. Click to pop up the “Export” window. Select the device name and save path in the window and then click “Save” button.

Click to pop up the “View Image” window. Click to export the image. Click to view the previous image; click to view the next image; click to delete the image; click to play all the images.



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.

Alarm Management

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.

① Click Start→Settings→Alarm→Sensor Alarm to go to the following interface.

② Select the alarm type (NO or NC) according to trigger type of the sensor.

③ Enable the sensor alarm of each camera.

④ 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.

⑤ 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.

Preset: check it and then the "Trigger Preset" window will pop up automatically. Configure the trigger preset of each camera.

Buzzer: if enabled, the system will begin to buzz when the sensor alarm is triggered.

Pop-up Video: After camera setting, the system will pop up the corresponding video automatically when the sensor alarm is triggered.

Pop-up Message Box: if enabled, the system will pop up the corresponding alarm message box automatically when the sensor alarm is triggered.

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.

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.

Motion Configuration

① Click Start→Settings→Camera→Motion to go to the following interface.

② 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 colour 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 a motion, it will go to alarm and would not detect any other motion (specific to camera) in 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.

③ 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.

④ Click "Apply" to save the settings. Click "Processing Mode" to go to the alarm handling configuration interface of the motion alarm.

Motion Alarm Handling Configuration

① Click Start→Settings→Alarm→Motion Alarm to go to the following interface.

② 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.

③ Click “Apply” to save the settings. You can click “Motion Settings” to go to the motion configuration interface.

Exception Alarm

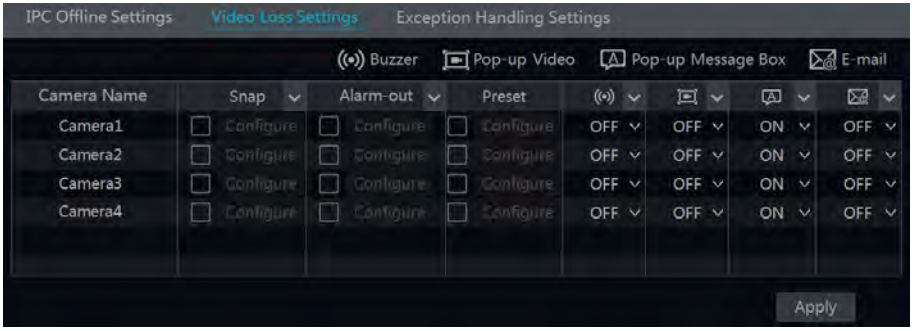
IPC Offline Settings

① Click Start→Settings→Alarm→Exception→IPC Offline Settings to go to the interface as shown below.

② 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. Click “Apply” to save the settings.

Video Loss Settings

① Click Start→Settings→Alarm→Exception→Video Loss Settings to go to the interface as shown below.



② 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.

③ Click “Apply” to save the settings.

Exception Handling Settings

① Click Start→Settings→Alarm→Exception→Exception Handling Settings to go to the interface as shown below.

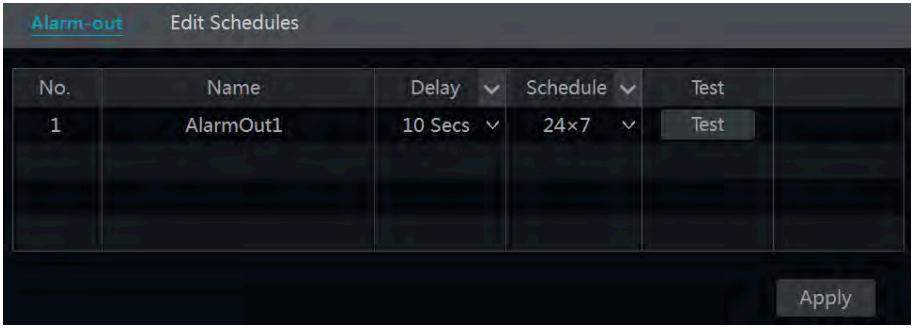
② Enable or disable “Alarm-out”, “Buzzer”, “Pop-up Message Box” and “E-mail”. The exception handling settings are similar to that of the sensor alarm.

③ Click “Apply” to save the settings.

Alarm Event Notification

Alarm-out

① Click Start→Settings→Alarm→Event Notification to go to the following interface.



② Set the delay time and the schedule of each alarm-out. You can click "Edit Schedules" to edit the schedules.

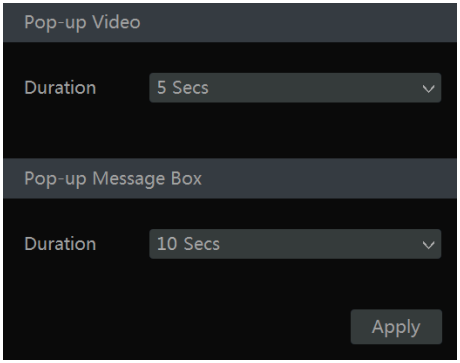
③ Click "Apply" to save the settings. You can click "Test" to test the alarm output.

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.

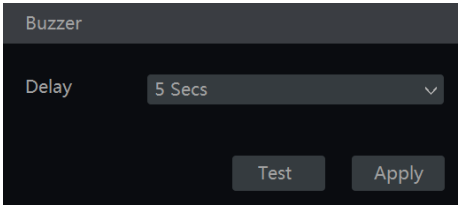
Display

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.



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.



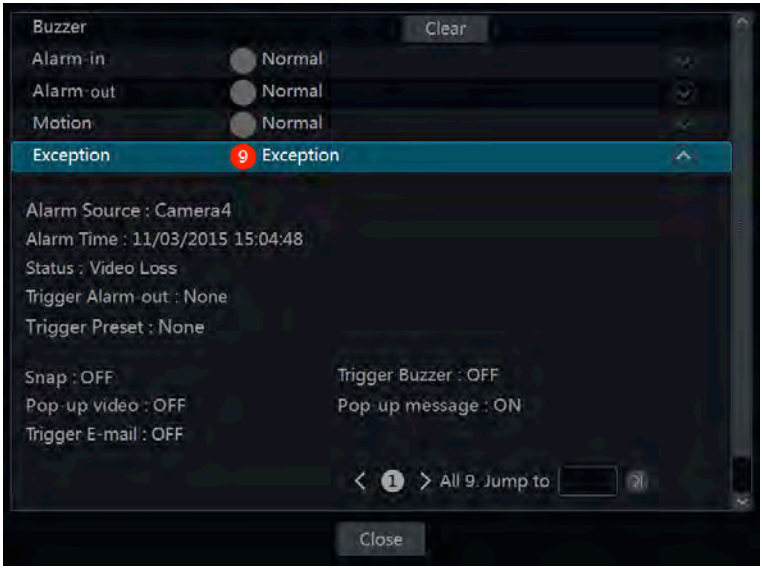
Manual Alarm

Click 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.

View Alarm Status

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

Click "Clear" button to stop the buzzer when the buzzer alarm happens. Click to view the detail information as shown below.

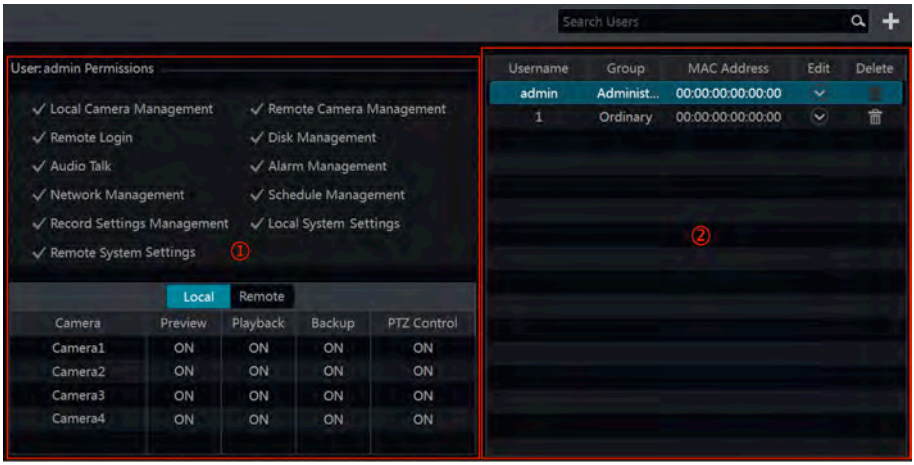


If the exception information is more than one page, you can input the number in the box and then click to jump to the specified page. Click / to view the exception alarm information in the previous/next page. Click to play the alarm record.

Account & Permission Management

Account Management

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



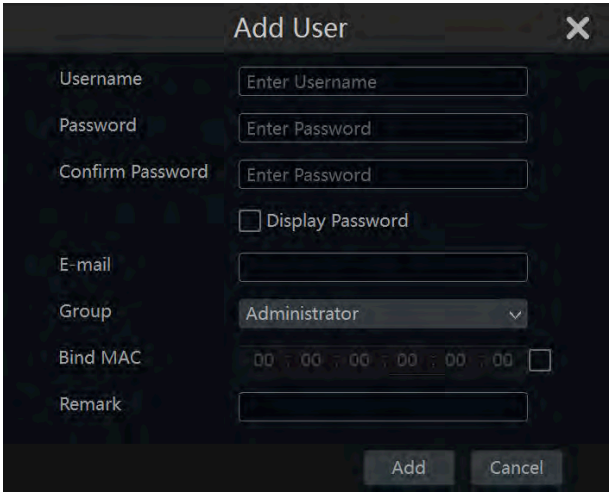
Area ① displays the user permissions. Area ② displays the user list. Click the user in the list to display its user permissions in area ①.

There are three default permission groups ("Administrator", "Advanced" and "Ordinary") available when adding accounts. You can manually add new permission group.

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.

Add User

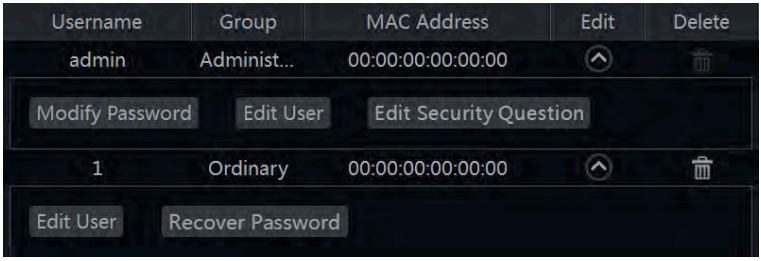
① Click Start→Settings→Account and Authority→Account→Add User or click + beside the search box to pop up the window as shown below.



② 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.

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. This can be used to reset the password incase it is misplaced.

➢ **Modify Password**

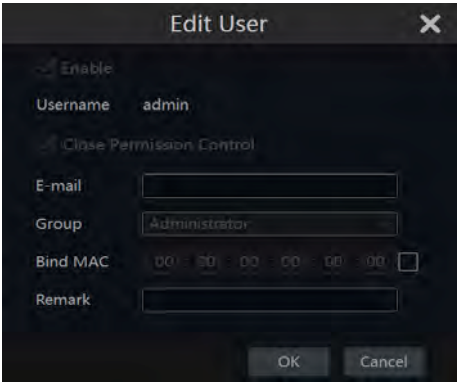
Only the password of ***admin*** can be modified. Click "Modify Password" to pop up a window. Input the current password and then set new password. Click "OK" to save the settings.

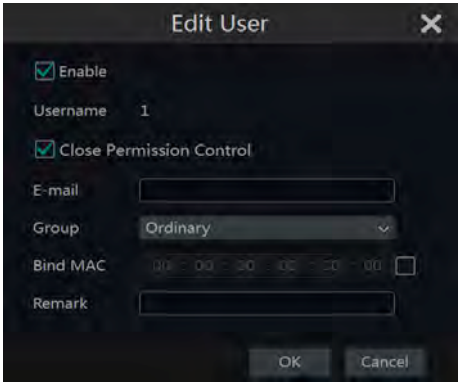
➢ **Recover Password**

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.





User Login & Logout

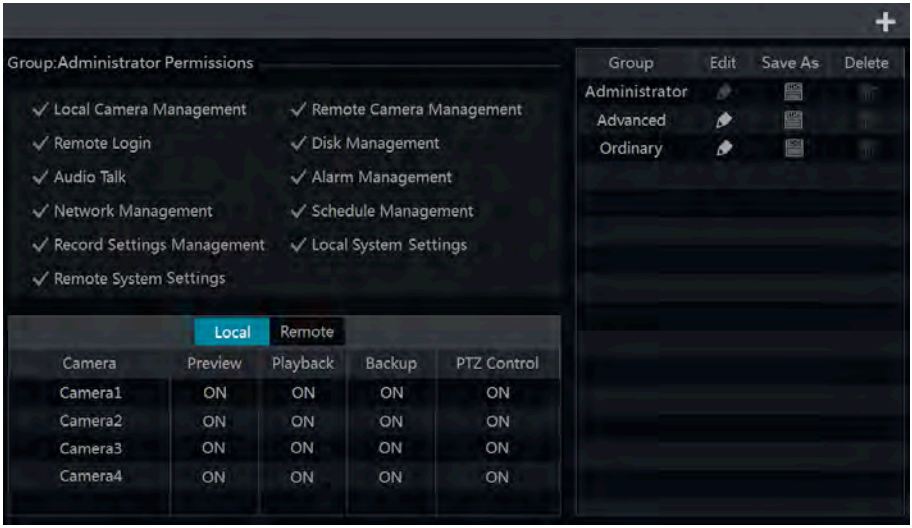
Login: Click Start→Login or directly click the preview interface and then select username and enter the password in the popup window. Click "Login" button to log in the system.

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.

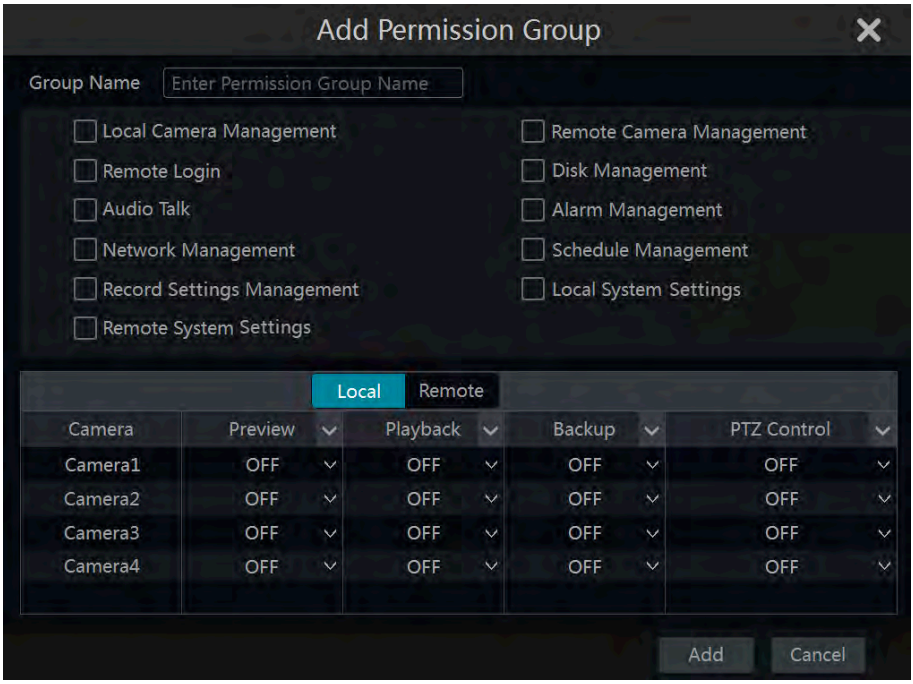
Permission Management

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.

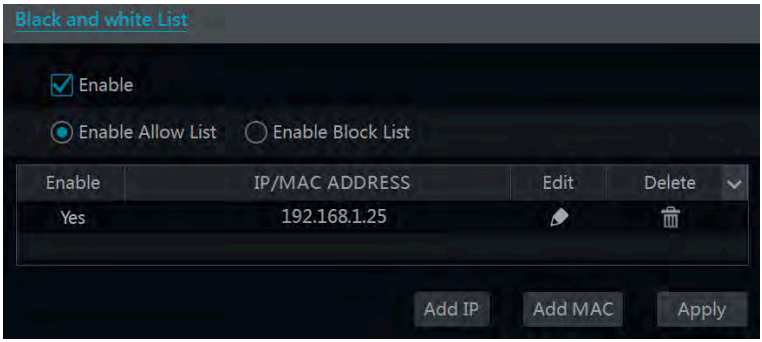


Edit Permission Group

Go to "Edit Permission Group" interface and then click in the group list to edit the permission group. 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.

Black and White List

① Click Start→ Settings→ Account and Authority→ Security to go to the following interface.



② 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).

③ Add IP/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/IP segment/MAC you add be effective). Enter the IP/IP segment/MAC and then click "OK" button. In the above interface, click to edit IP/IP segment/MAC, click to delete it. Click "Apply" to save the settings.

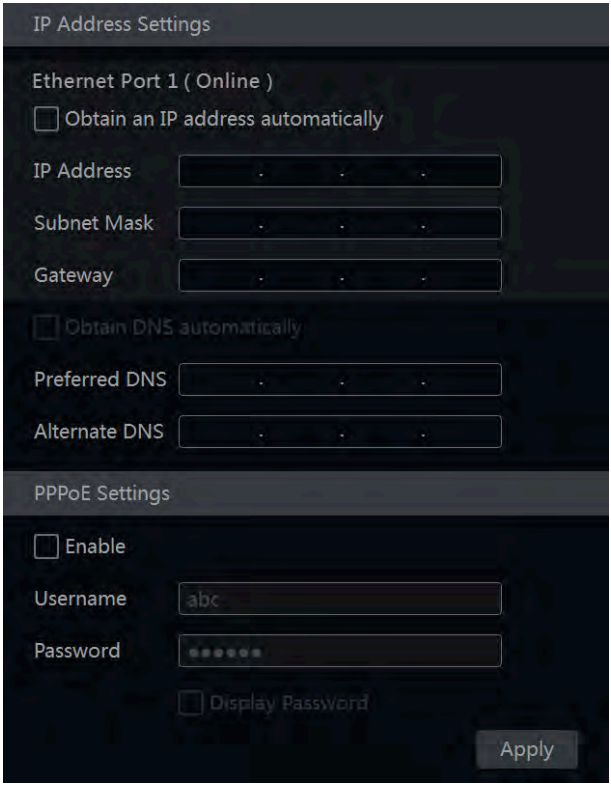
Device Management

Network Configuration

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.

Port Configuration

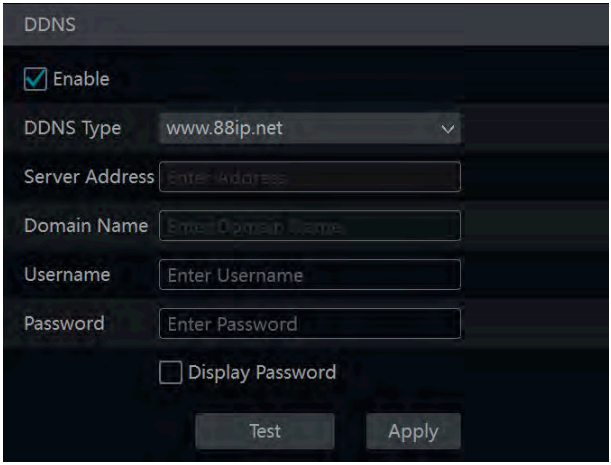
Click Start→Settings→Network→Port to go to the interface as shown below. Input the HTTP port, server port and RTSP port of the DVR and then click "Apply" to save the ports.

HTTP Port: the default HTTP port of the DVR is 80 but the port number can be changed to something else, like 8080 for example. If changing the port from 80 the new port number will need to be included in the connecting IP address, for example, http://192.168.11.61:8080.
Server Port: the default server port of the DVR is 6036. The server port number can be changed as required. This port is mainly used in network video management system (NVMS) software.
RTSP Port: RTSP real-time stream protocol can be used to control the sending of real-time data. With a media player, which supports the RTSP real-time stream protocol, you can view the live images synchronously. The default RTSP port is 554 and it too 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 (remotely).

DDNS Configuration

The DDNS is used to control the dynamic IP address by the use of a host name.
Click Start→ Settings→ Network→ DDNS to go to the interface as shown below.



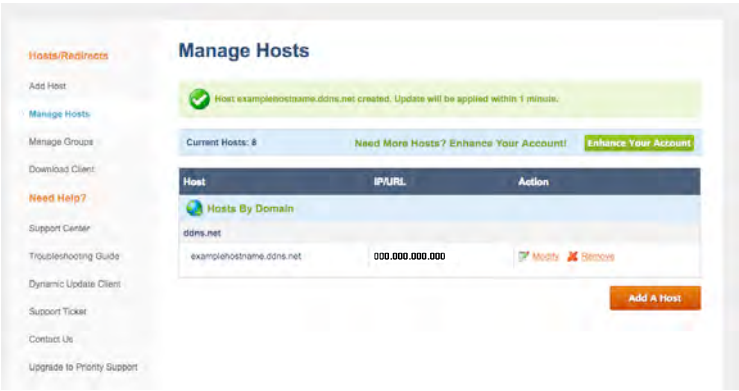
Check “Enable” and then select the DDNS type, we tend to use noip.com and they offer free accounts. Input the domain name, username and password according to the selected DDNS type.

Click “Test” to test the effectiveness of the input information. Click “Apply” to save the settings.

① Input ***www.noip.com*** into your web browser.

② Click ***Sign Up*** button follow the instructions to create a DDNS account (username, password and so on) and then click ***Sign Up***.

③ After you successfully sign up, you will see your domain name information in the list.



④ On the DVR click Start→ Settings→ Network→ DDNS to go to DDNS setting interface. Enable DDNS and then select the ***www.noip.com*** from the drop down menu. Input the registered username, password and host name and then click “Apply”.

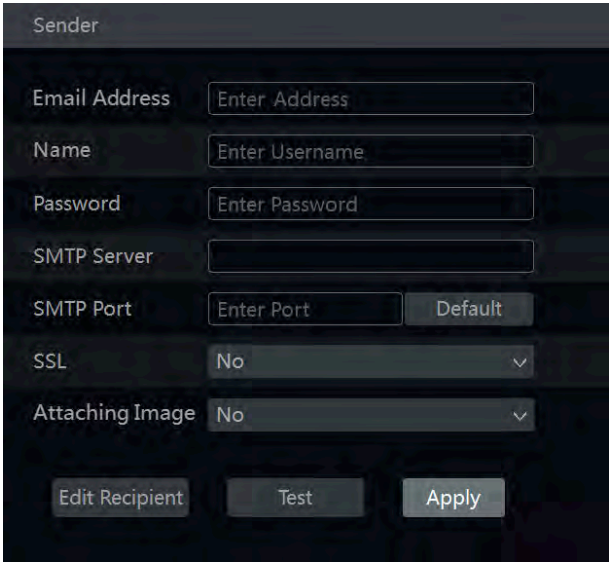
⑤ Port forward the HTTP and server ports to the local IP address of the (you can skip this step if UPnP function is enabled).

⑥ Input the registered domain name plus HTTP port like ***http://www.examplehostname.ddns.net:8080*** in the browser address bar and then press Enter.

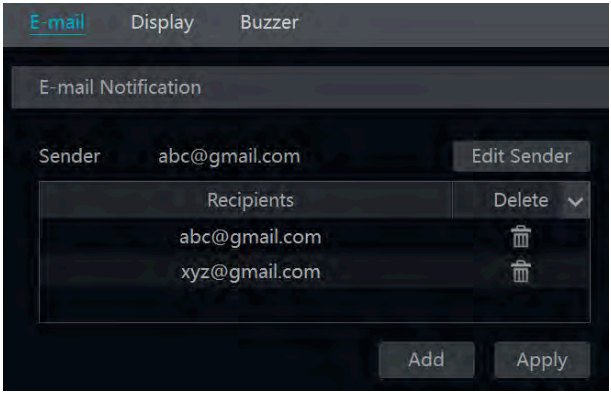
E-mail Configuration

Note: It is recommended to create yourself a free email account, such as gmail, as there can potentially be many emails generated depending on your DVR set up.

First find the details for your email accounts SMTP settings, 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. 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.



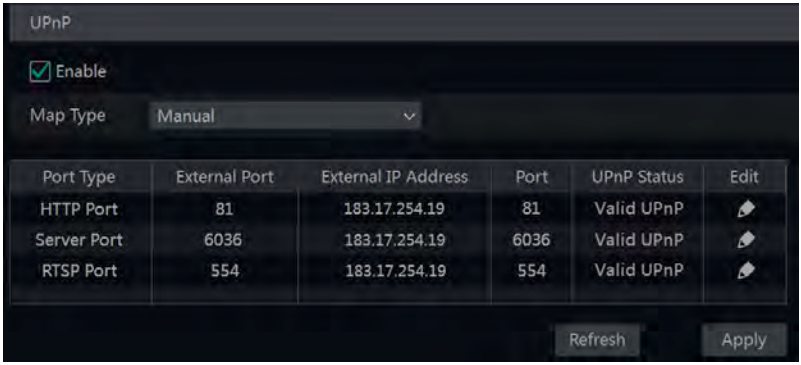
Click “Add” and then input the recipient’s e-mail address in the popup window. Click “Add” in the window to add the recipient. Click to delete the recipient in the list. Click “Apply” to save the settings. Click “Edit Sender” to go to the e-mail configuration interface of the sender.

UPnP Configuration

By using UPnP you can access the DVR through a web browser without using port mapping. This, to my mind, is less secure than using port forwarding but whichever way you connect to the DVR it is advised you change the password for the DVR from its default.

① Click Start→ Settings→ Network→ UPnP to go to the following interface.
② Make sure the router supports UPnP function and the UPnP is enabled in the router.
③ Set the DVR’s IP address, subnet mask and gateway and so on corresponding to the router.
④ 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 were still “Invalid UPnP” after refreshing it for many times, the port number would 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.



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.

View Network Status

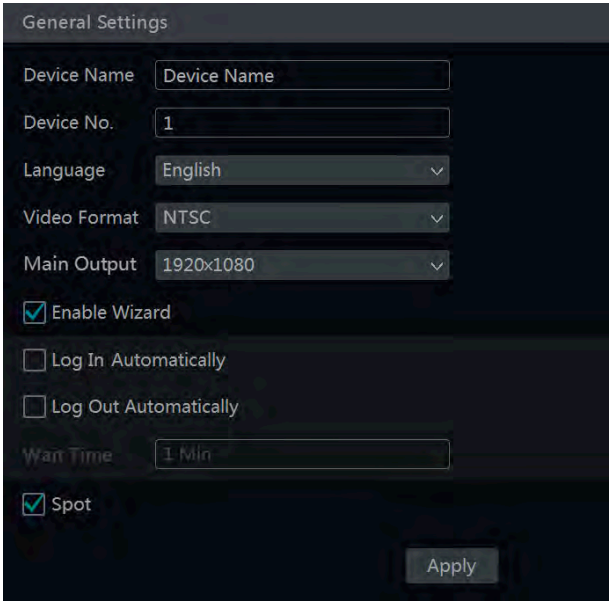
Click Start→Settings→Network→Network Status to view the network status or click on the tool bar at the bottom of the live preview screen to view a pop up with the network status information.

Basic Configuration

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 (changing this can help with "out of range" errors on older monitors being used). Enable or disable wizard, "Log In Automatically" and "Log Out Automatically" (if checked, you can set the wait time). Click "Apply" to save the settings.

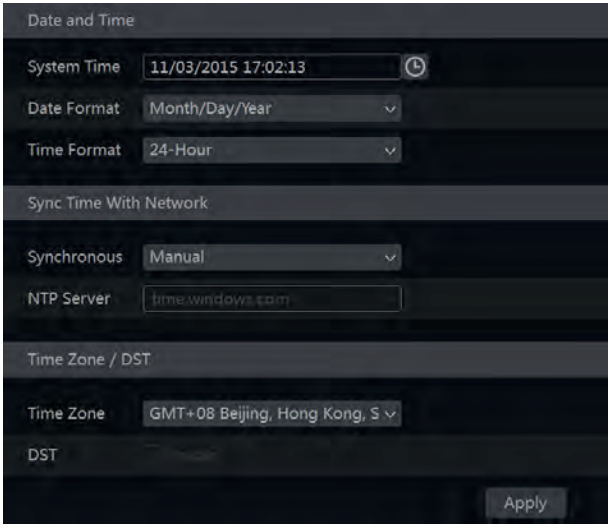
Main Output Changing this can help with "out of range" errors when using older monitors



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 (CVBS): The DVR supports spot output and on the rear of the DVR it is marked CVBS. Connect the spot output device to the DVR and then set the spot output.

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 Beijing, Hong Kong, Shanghai, Taipei. 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.



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 default settings.

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:

① Copy the upgrade software into the USB storage device.

② Insert the USB storage device into the USB interface of the DVR.

③ 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 a while 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.

Backup and Restore

You can back up the configuration file of the DVR by exporting the file to other storage devices; you can recover the configuration to other DVRs that are of the same model with the DVR by importing the configuration file to other DVRs for time saving.

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**

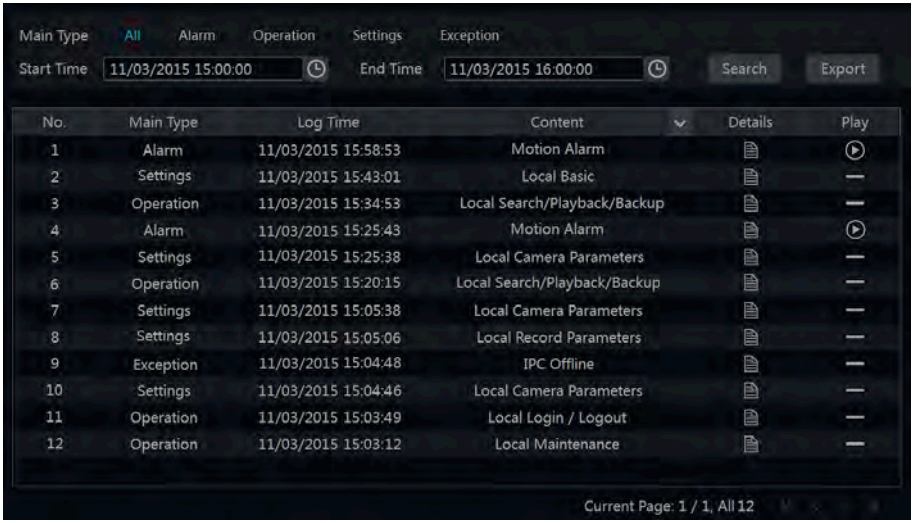
Select the USB device in "Device Name" option; go to the path where you want to store the configuration backup file and then click "Backup" button; finally click "OK" button in the popup window.

- **Recover**

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

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 searched log files will be displayed in the list.



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.

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.

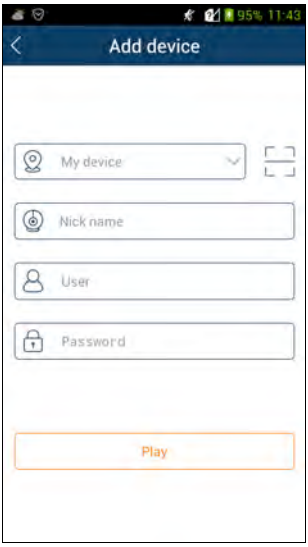
Remote Surveillance

Mobile Client Surveillance

① Download and install the mobile client "SuperLive Plus" onto your smart phone or tablet that's using Android or iOS.

② Run the App, go to the "Add Device" interface and then click to scan the QRCode of the DVR (Go to Start→ Settings→ System→ Information→ Basic to view the QRCode of the DVR).

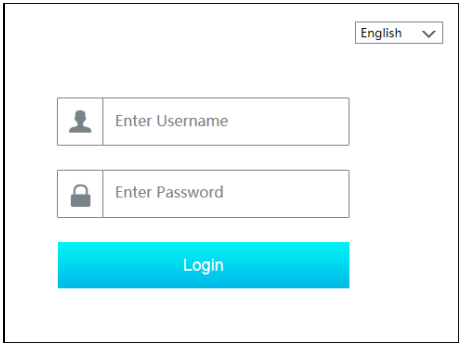
③ After scanning the QRCode successfully, input the login password to log in mobile client.



Web LAN Access

① 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.

② 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 other 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 bar.

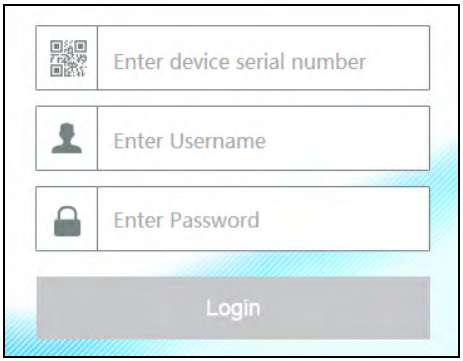
Web WAN Access

➢ **NAT Access**

① Set the network of the DVR.

② Enable NAT and then set the NAT server address.

③ 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**

① 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.

② Click Start→ Settings→ Network→ Network Status to view the IP address of the DVR.

③ Open IE browser on a computer, input the IP address of the DVR, for example 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**

① 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.

② Set the HTTP port (it is suggested to modify the HTTP port because the default HTTP port 80 might be taken up) 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.

③ 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 like 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. 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.

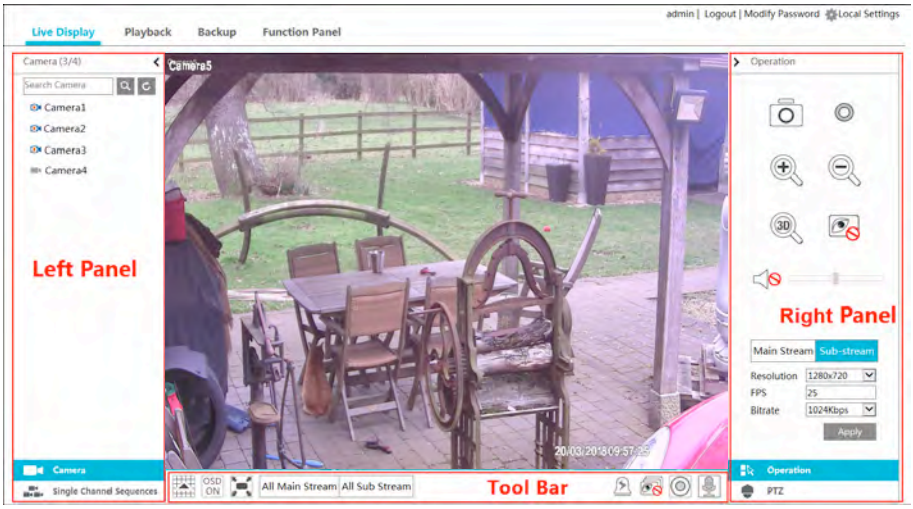
Web Remote Control

The supported browsers of the remote surveillance are IE8/9/10/11, Firefox: ESR on Windows and Safari on a MAC.

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.

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 Camera (3/4) in 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**

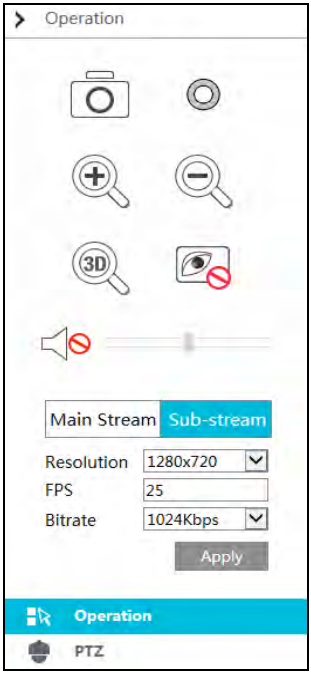
Click Single Channel Sequences to view the groups. The up side of the left panel displays all the groups and the down side displays all the cameras in the group.

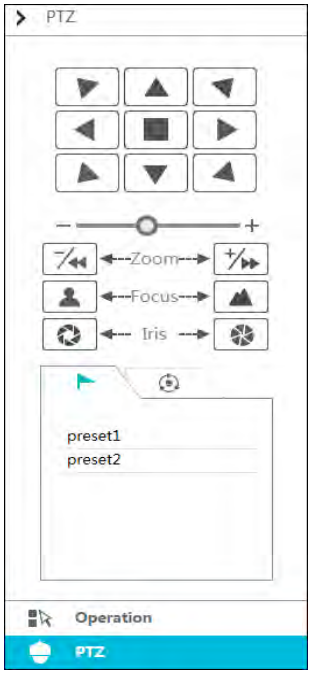
➢ **Tool Bar Introduction**

Button	Meaning
	Screen mode button.
OSD OFF	Click it to disable OSD. Click OSD ON to enable OSD.
	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 it to pop up a window and then trigger and clear the alarm-out in the window manually.
	Click it to preview all the cameras.
	Click it to close all the preview cameras.
	Click it to start recording. Click to stop recording.
	Click it 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.



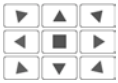
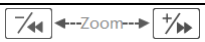
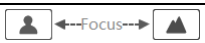


Click one camera window in the preview area and then click Main Stream to set the camera's live preview stream and record stream to main stream in manual record mode; click Sub-stream to set the camera's live preview stream and record stream to sub stream. In sub stream tab, set the resolution, FPS and bitrate and then click "Apply" to save the settings.

Operation panel introduction:

Button	Meaning
	Click it to snap.
	Click it to start recording; click it again to stop recording.
	Click it to zoom in the image of the camera and then drag the mouse on the camera image to view the hidden area.
	Click it to zoom out the image of the camera.
	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 it to close the preview camera.
	Click it 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.
	Click / to zoom in/out camera image.
	Click / to increase/ decrease the focal length.
	Click / to increase/decrease the iris of the dome.
	Click it to view the preset list and then click the button in the list to call the preset.
	Click it to view the cruise list and then click the corresponding buttons in the list to start or stop the cruise.

Remote Playback

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

① Check the record event types and cameras on the left panel. Set the record date on the calendar beside the time scale.

② 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 it to play video backward.
	Play button. Click it to play video forward.
	Pause button.
	Deceleration button. Click it to decrease the playing speed.
	Acceleration button. Click it to increase the playing speed.
	Previous frame button. It works only when the forward playing is paused in single screen mode.
	Next frame button. It works only when the forward playing is paused in single screen mode.
	Click to step backward 30s and click to step forward 30s.
	Backup start time button. Click the time scale and then click it to set the backup start time.
	Backup end time button. Click the time scale and then click it to set the backup end time.
	Backup button.
	Backup tasks button. Click it to view the backup status.
	Event list button. Click it to view the event record of manual/schedule/sensor/motion.

Remote Backup

Click “Backup” in the remote interface to go to the backup interface. You can back up the record by event or by time.

- **By Event**

  Check the record 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 record (the searched record data will be displayed in the list); check the record 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 record.

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.

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.