

VL-04/08/16DVR Hybrid Recorder



Please read this manual thoroughly before use and keep it handy for future reference.

Before You Begin

Read these instructions before installing or operating this product.

Note: This installation should be made by a qualified service person and should conform to local codes.

This manual provides installation and operational information. To install this device, we recommend the below knowledge and understanding:

- A basic knowledge of CCTV systems and components
- A basic knowledge of electrical wiring and low-voltage electrical connections

Intended use

Only use this product for its designated purpose; refer to the product specification and user documentation.

Customer Support

For assistance in installing, operating, maintaining and troubleshooting this product refer to this document and any other documentation provided. If you still have questions, please contact Norbain Technical Support and Sales:

**Norbain SD, Inspired, Easthampstead Road, Bracknell , Berkshire RG12 1YQ.
UK +44 (0) 118 912 5000**

Note: You should be at the equipment and ready with details before calling Technical Support.

Conventions Used in this Manual

Boldface or button icons highlight command entries. The following **WARNING**, **CAUTION** and **Note** “CAUTION” to match the below statements identify potential hazards that can occur if the equipment is not handled properly:



*** WARNING:**

Improper use of this equipment can cause severe bodily injury or equipment damage.



**** CAUTION:**

Improper use of this equipment can cause equipment damage.

Note: Notes contain important information about a product or procedure.



Where applicable a Declaration of Conformity in accordance with the following EU directive has been made. The manufacturer declares that the product supplied with this document is compliant with the provisions of the EMC Directive 2014/30/EU, the CE Marking Directive 93/68 EEC and all associated amendments.

Our CE EU-Authorised Representative: Comply Express Unipessoal LDA, StartUp Madeira - EV141, Campus da Penteadá, 9020-105 Funchal, Madeira, Portugal”

**RoHS
COMPLIANT**

All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive: 2011/65/EU, which means our manufacture processes and products are strictly “lead-free” and without the hazardous substances cited in the directive.



The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste.

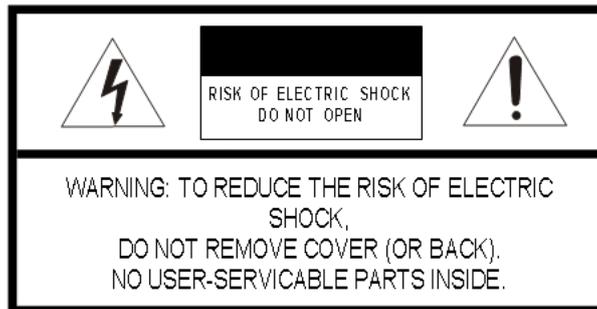
**UK
CA**

“A UK Declaration of Conformity in accordance with GB UKCA standards has been made. The manufacturer declares that the product supplied with this document is compliant with the provisions of the Electromagnetic Compatibility Regulations 2016, and where applicable, the Electrical Equipment (Safety) Regulations 2016 Directives.”

NORBAIN SD reserves the right to make changes to the product and specification of the product from time to time without prior notice.

WARNINGS AND CAUTIONS:

To reduce the risk of fire or electric shock, do not insert any metallic objects through the ventilation grills or other openings on the equipment.



IMPORTANT SAFEGUARDS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that product heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. CAUTION - THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.
15. IEC60950-1/UL60950-1 or Certified/Listed Class 2 power source only.

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1 Product Features

1.1 Main Features

- Real-time surveillance
- High resolution VGA, HDMI and BNC output
- 2-way audio
- Mobile surveillance (iPhone/ iPad/ Android apps)
- H.264 /H.265 video compression, high video quality and higher compression rate.
- HDD Storage Support (FAT32 file system):
4/8-channel: 1 SATA; 16-channel: 2 SATA
- Customisable record resolution, frame rate and quality
- Multi-record mode: manual, schedule, alarm input sensor and motion record.
- Motion detection
- Pre and Post event record
- Multi-PTZ protocol support including Control over coaxial (COC)
- Programmable 128 preset points and 8 cruises
- Related trigger preset point control
- Authority account setup
- Playback search mode: by time or event
- Event log and search
- Supports DDNS / NAT (P2P network penetration function)
- Supports event trigger to send E-mail
- Auto bandwidth adjustment by network status
- Remote record / Remote playback / Remote PTZ control
- Remote configuration / Remote IE surveillance
- Remote CMS control / Remote EMAP control

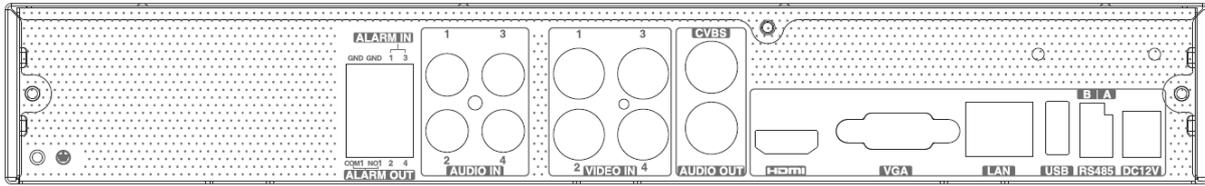
Note: as of the below firmware versions, recorders are IOT compliant requiring you to set your own strong admin password on first power-up! Until then, cameras and recording cannot be started.

	Recorder Firmware Version
VL-04DVR	v1.3.8.68459B240411.D0C.U1 (4A41N) 20240411
VL-08/16DVR	v1.3.8.68459B240411.D0D.U1 (4A41N) 20240411

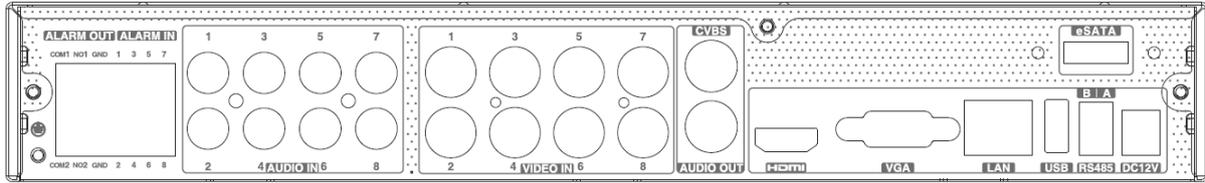
Prior to these versions of firmware, recorders used the below login defaults;

User Name: admin
Password: 123456

1.2 Rear Panel Description

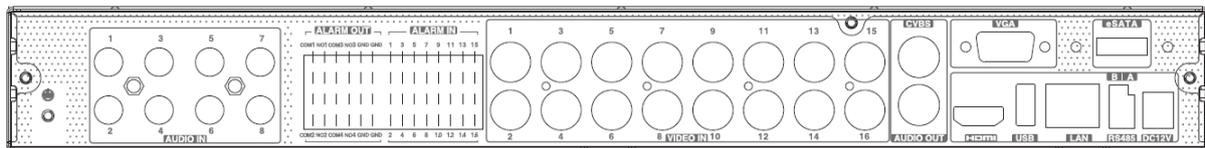


Rear Panel for 4 CH



Rear Panel for 8 CH

Name	Descriptions (4-chan/8-chan)
DC12V	DC12V Power Input.
USB 2.0	To connect external USB devices like USB mouse or USB storage device.
LAN	Network Port.
HDMI	HDMI Port. Connect to high-definition display device.
VGA	VGA Port. Connect to monitor.
VIDEO IN	4/8 CH Video Inputs.
AUDIO OUT	1 CH Audio output, connect to the sound box.
AUDIO IN	4/8 CH Audio Input.
ALARM OUT	1/2-ch relay output. Connect to external alarm.
ALARM IN	Support 4/8ch external sensor.
CVBS	CVBS video signal output.
RS485	Connect to keyboard or speed dome; A is TX/RX +; B is TX/RX -



Rear Panel for 16 CH

Name	Descriptions
GND	Grounding
RS485	Connect to keyboard or speed dome; A is TX/RX +; B is TX/RX -
ALARM OUT	4-ch relay output. Connect to external alarm.
ALARM IN	Support 16ch external sensor.
HDMI	Connect to high-definition display device.
VGA	VGA output, connect to monitor.
LAN	Network port.
USB 2.0	USB 2.0 port for backup or update firmware; or connect to USB mouse.
POWER INPUT	DC12V.
AUDIO OUT	1 CH Audio output, connect to the sound box.
AUDIO IN	8 CH Audio Input.
CVBS	CVBS video signal output.
VIDEO IN	16 CH Video Inputs.

1.3 Mouse Control

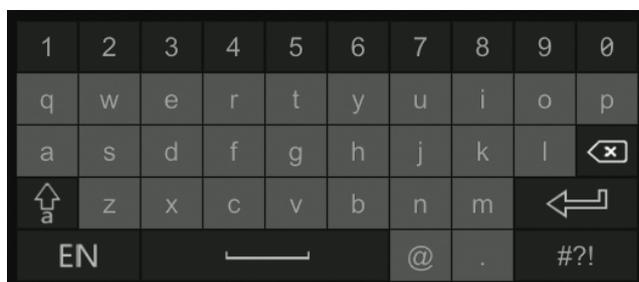
① Live Preview & Playback interface

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

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

②Text-input

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



2. Basic Operation

Please make sure all the connections are made properly before you power on the unit. Correct startup and shutdown are crucial to extending the life of your device.

2.1 Start-up

Step1: Connect the output display device to the VGA/HDMI interface of the DVR.

Step2: Connect the mouse and power. The device will boot and the power LED turns blue.

Step3: A WIZARD window will pop up (select display language etc. the first time you use the DVR).

2.2 Shutdown

You can power off the device by using the mouse.

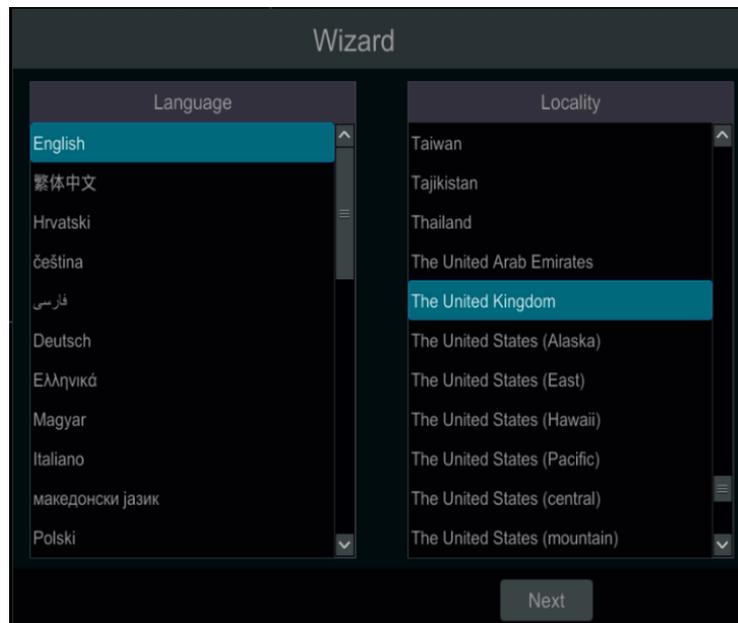
By mouse:

Step1: Click Start Shutdown to pop up the Shutdown window. Select "Shutdown". The unit will power off after a while by clicking "OK" button.

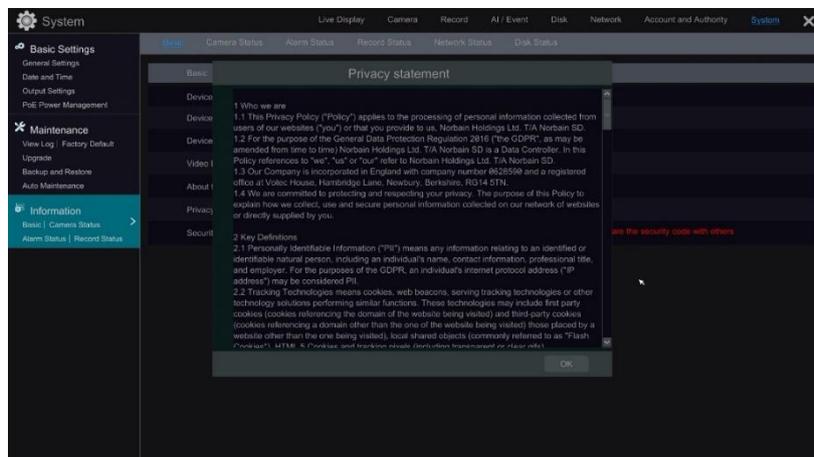
Step2: Disconnect the power.

2.3 Wizard setup

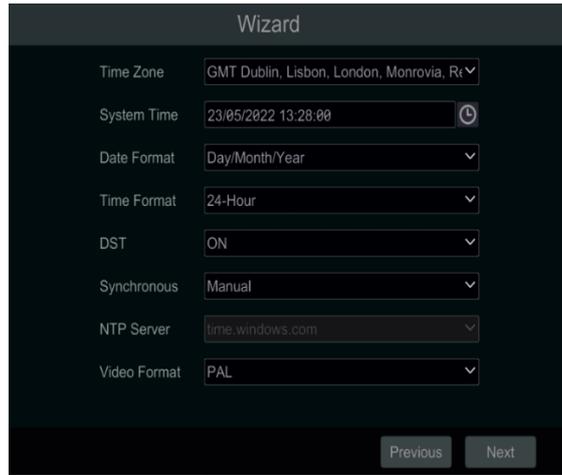
1. Choose language and locality as needed. Click “Next” to continue.



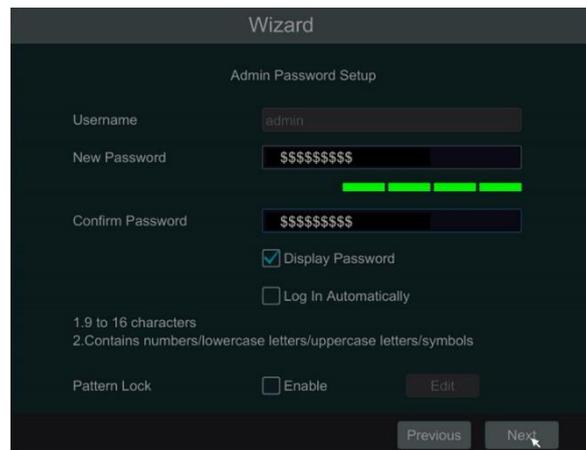
2. Privacy Statement: Read the Vista\Norbain statement and click, “I have read and agree” if you agree. Click “OK” to continue.



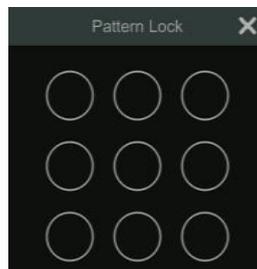
3. Date and Time Configuration: The date and time of the system needs to be set up if you use the wizard for the first time. Refer to the below example and set time zone, system time, date format and time format as required. DST will be enabled by default if the time zone selected includes DST. Click “Next” to continue.



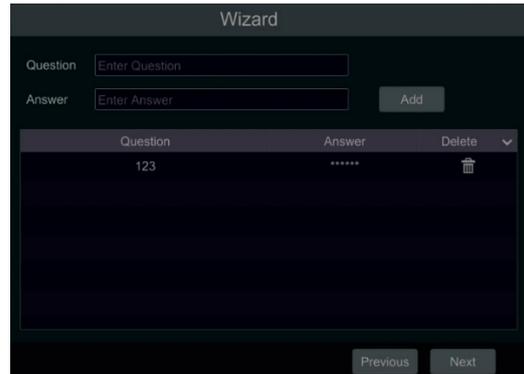
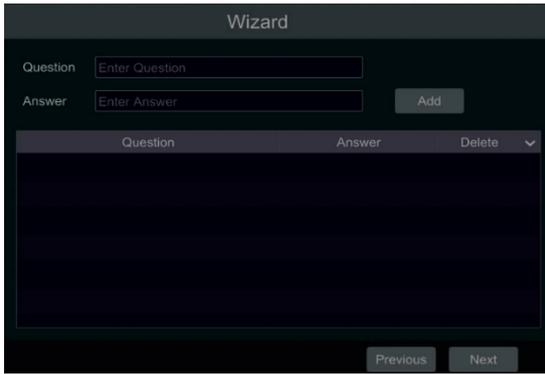
4. System Login: For IOT versions of firmware (refer to page 5.) you must set your own STRONG admin password before being allowed to continue to setup the recorder. Refer to the screen below for details of the minimum password strength. We suggest you set your own strong password for all recorder versions - default (admin/123456).



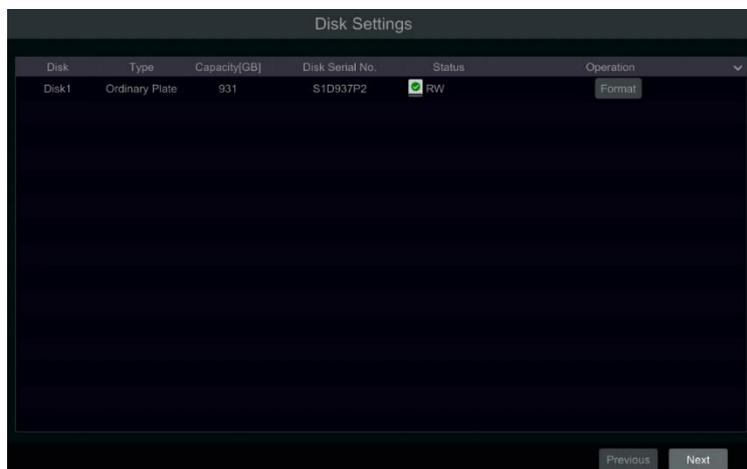
If required, click Enable pattern lock and click "Edit" to set a pattern lock.



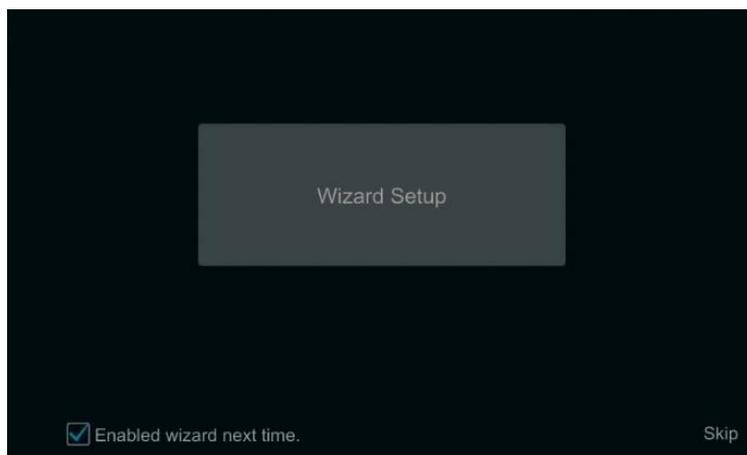
Click "Edit Security Question" to set questions and answers for password security of the admin ID. Click "Next" to continue or click "Cancel" to exit the wizard.



5. Disk Settings : You can view the number of disks, disk capacity, serial number and R&W status. Click “Formatting” to format the disk. NOTE: previous recorded data will be lost in doing so! Click “Next” to continue.

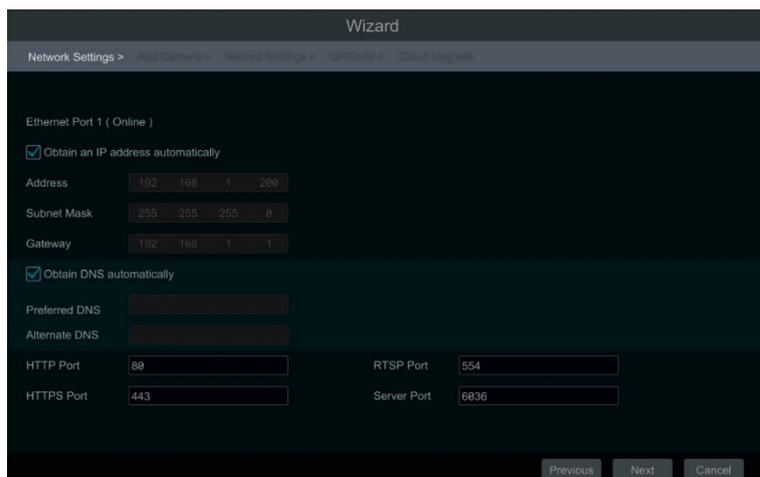


6. VL-DVR will now automatically reboot with the settings that have been made. Once initialized, click Wizard Setup (below), and login using any new password you set, to quickly continue to configure the remaining options.



7. Network Settings:

Use the below only as an example to help set your required IP addressing; either via DHCP if your network has a DHCP server, or by determining the correct static IP settings for your network. Input the HTTP port, RTSP port and Server port as required. Click “Next” to continue.

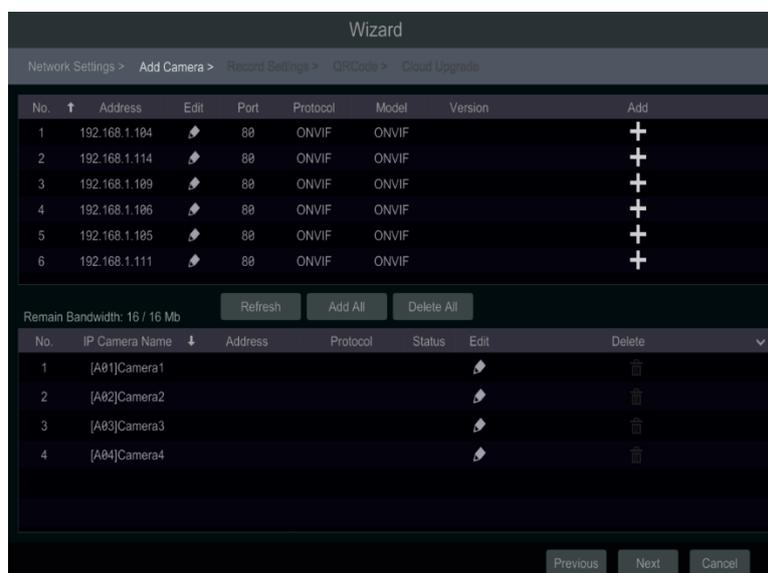


8. Add IP Cameras:

Follow the below only if making use of the DVRs hybrid abilities in also supporting IP cameras and note the maximum number supported below;

- VL-04DVRxxTB = 2 IP cameras
- VL-08DVRxxTB = 4 IP cameras
- VL-16DVRxxTB = 8 IP cameras

Click “Refresh” to refresh the list of online IP cameras which have been found on the same local network as the DVR and click  to add any individual camera. Click “Add All” to add all the cameras in the list. Click  to delete any currently added camera. Click “Delete All” to delete all the currently added cameras.



Note: Vista VIP cameras with factory default settings will be automatically given the same admin password as the recorder when being added – even if a strong IOT password was used.

To modify the IP\login details for any “found” camera before “adding”:

Click  to edit the found IP camera to show the below. If required, input the new IP address, subnet mask, gateway, “Username” and “Password” of the camera. Click “OK” to save the settings.

To modify the IP, login and name details for any “added” camera:

Click  against any “added” camera appearing in the lower part of the previous camera menu to edit the added camera, the below is shown.

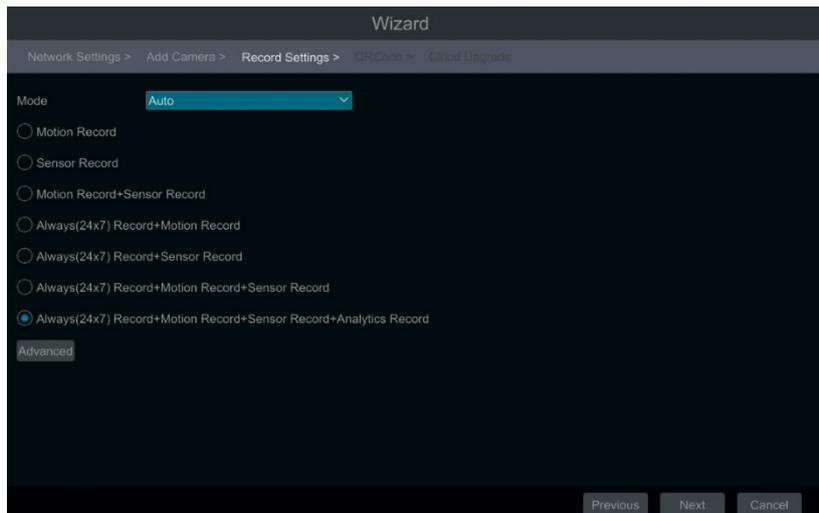
Input details as required: camera name, IP address, port, “Username” and “Password” of the camera. You can click “Test” to test the effectiveness of the input information before clicking “OK” to save the settings.

9. Record Settings:

Two record modes are available: auto and manual.

Auto: Select a required auto mode for all cameras as per the below examples, then click “OK” button to save the settings.

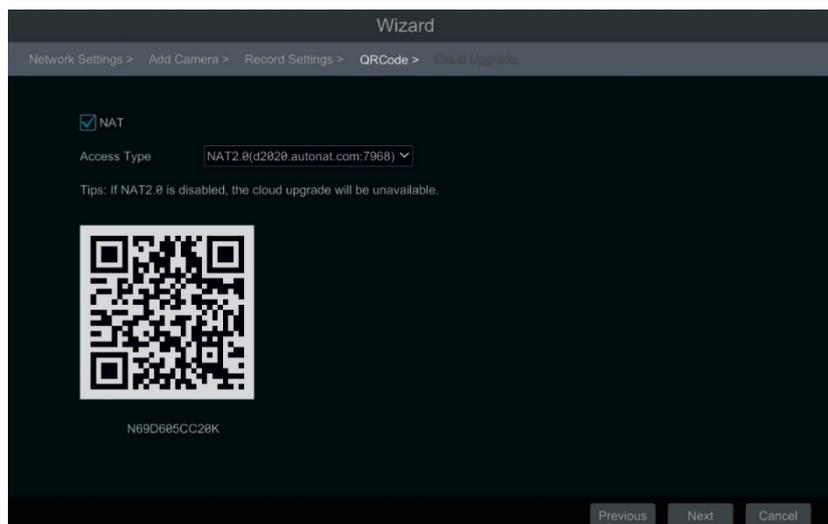
Manual: Alternatively, set the “Sensor Record”, “Motion Record” and “Schedule Record” of each camera instead. Click “OK” to save the settings.



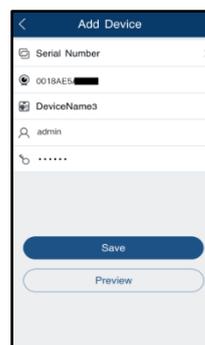
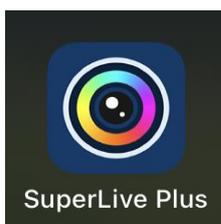
10. QR Code and Easy Mobile App Remote Access:

You can scan the QR Code via the DVRs mobile client app installed on a mobile device to log in remotely and instantly.

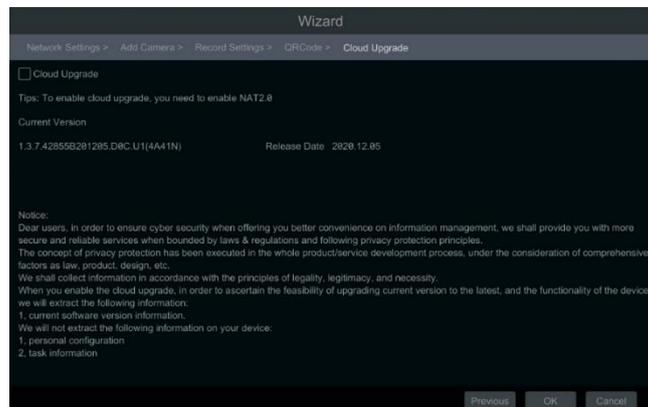
Set the DVR Wizard QR Code screen as below, then click “Next”



You will need to access Google PlayStore or AppleStore to search for, and install, the “Superlive Plus” mobile app by Peng Antai (below);

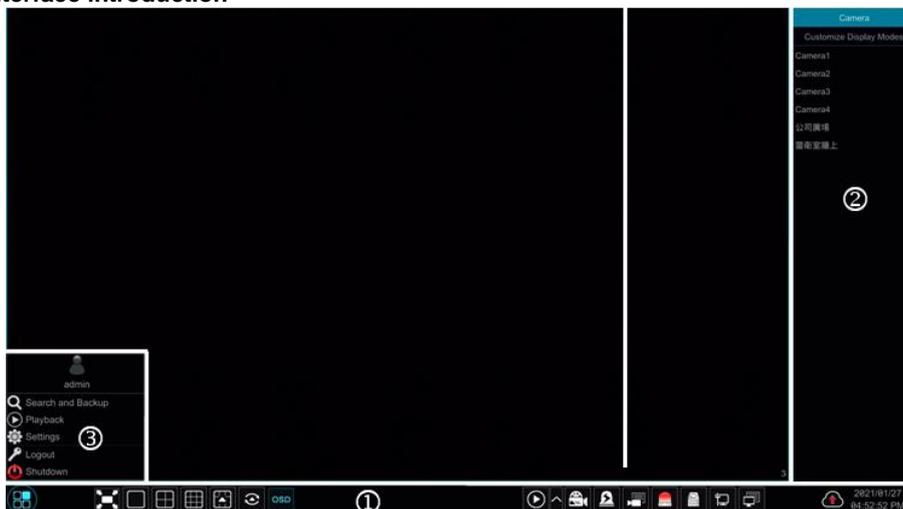


11. Cloud Upgrade : This service needs a backstage server to be online and the service is not yet available. (Default : No enable). Firmware updates can be completed via the main settings menu. Click “OK” to save the settings.



2.4 Main interface Introduction

2.4.1 Main interface introduction



The buttons in the lower area ① (shown above) are introduced in the table below.

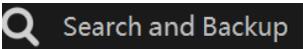
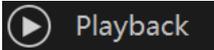
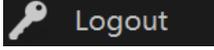
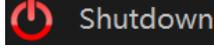
Button	Meaning
	Start button. Click it to pop-up menu area ③.
	Full screen button. Click it to show full screen; click again to exit full screen.
	Screen mode button (according to individual models)
	Dwell button
	Click to enable OSD; click again to disable OSD.
	Click to set the default playback time before starting instant playback or going to the playback interface; click to go to the playback interface. For instance, if choosing “5 minutes ago” as default playback time, you playback recording from the past five minutes.
	Manual record button. Click to enable/disable record.

Button	Meaning
	Manual alarm button. Click to trigger or clear the alarm-out manually in the popup window.
	Record status button. Click to view the record status.
	Alarm status button. Click to view the alarm status.
	Disk status button. Click to view the disk and RAID status.
	Network status button. Click to view the network status.
	Information button. Click to view system information.

Introduction of area ②:

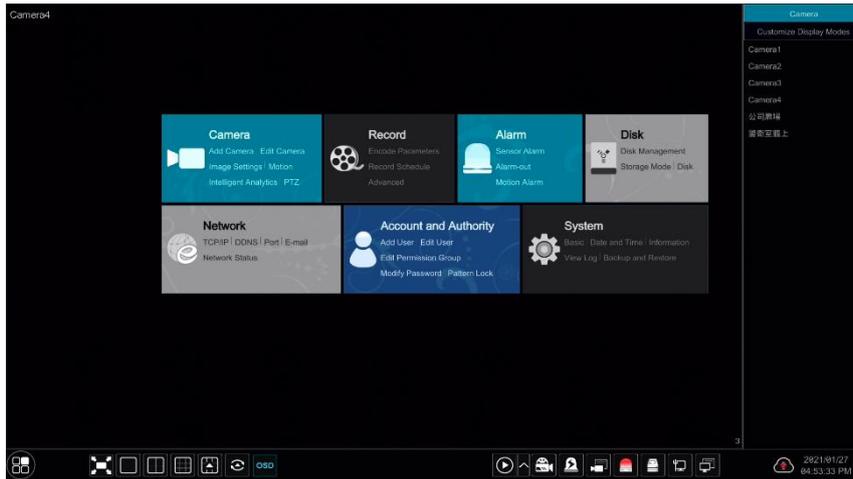
Area ② is hidden by default. Move the cursor to the right to reveal this area. Click “Camera” to view all the added cameras in the camera list. Select one camera window on the left side of the interface and then double click one camera in the list to preview the camera image in the selected window. Click “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 the display mode for previewing.

Introduction of area ③:

Icon / Button	Meaning
	Shows the current login user.
	Click to go to record search interface.
	Click to go to playback interface (click  on the tool bar at the bottom of the live preview interface to set the default playback time).
	Click to pop up the setup panel.
	Click to log out the system.
	Click and then select “Logout”, “Reboot” or “Shutdown” in the popup window.

2.4.2 Setup panel

Click Start → Settings to pop up the setup panel as shown below.



The setup panel includes seven modules. Each module provides a sub-set of functions with links for other convenient settings operations.

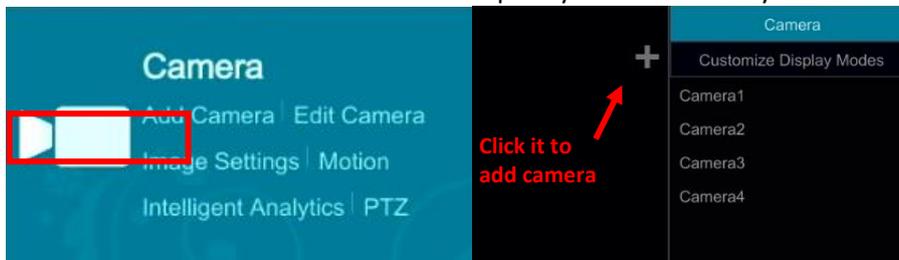
3. Camera Management

3.1 Add IP Camera

Follow the below only if making use of the DVRs hybrid abilities in also supporting IP cameras. The network of the DVR should be set before adding any IP camera. Refer to the examples below.

First, click the start button  (bottom left) to show main setup panel.

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 manually add an IP camera.



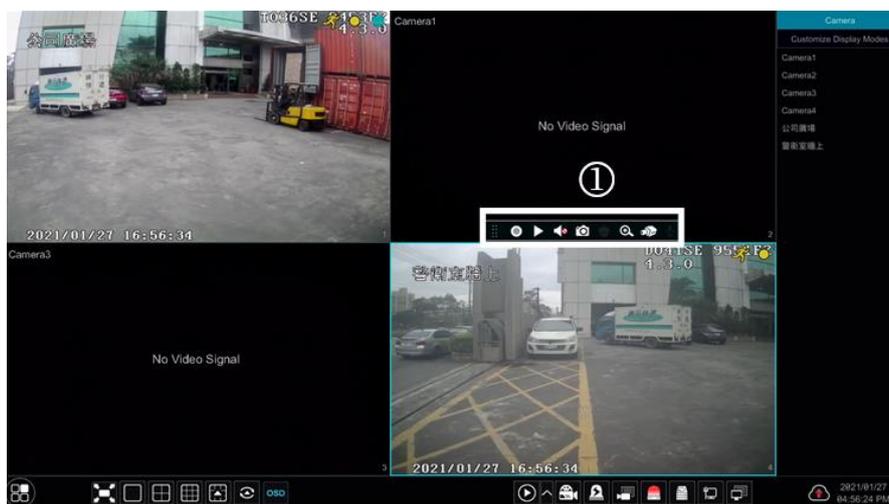
3.1.1 Quickly Add

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.

4. Live Display

4.1 Preview interface

Refer to the screen example below, and drag the required camera in the preview window into any other window for viewing.



Click the preview window to show the tool bar as shown in area ①; right click the preview window to show the menu list (manually record on, instant playback, enable audio, snap, zoom in, PTZ control and camera info).

The tool bar is introduced in the table below.

Button	Menu List	Meaning
	--	Move tool. Click to move the tool bar anywhere.
	Manually Record	Click to start recording.
	Instant Playback	Click to playback the recording; click “Instant Playback” to select or set the instant playback time.
	Enable Audio	Click to enable audio and listen to any camera audio.
	Snap	Click to pop up the snap window. Click “Save” or “Export”.
	PTZ Control	Click to go to PTZ control interface.
	Zoom In	Click to go to single channel amplification interface.
	Image adjust	Click to go to image adjustment interface.
	Start/Close Talk	Click to enable audio transmission to the camera – if supported.

The single channel zoom interface is shown below. Click 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 zooming. Click “Back” to return to live preview interface.

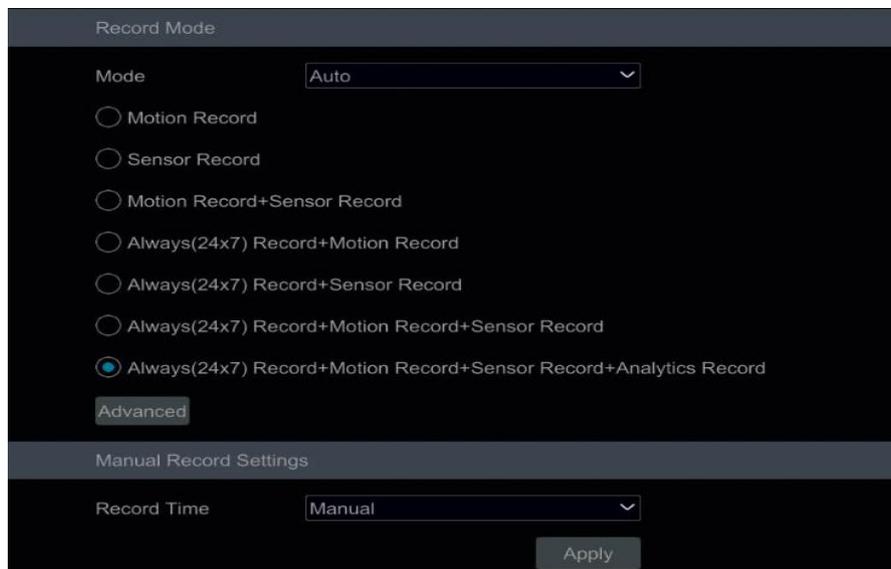


5. Record & Disk Management

5.1 Record

Please format the HDDs on initial install of the DVR and before recording.

Click the start button  (bottom left) then select **Settings** → **Record** → **Mode Settings** to go to the mode settings interface. Set the record time under the “Manual Record Settings” and then click “Apply”. There are two record modes: auto mode and manual mode.



5.1.1 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(24 X 7) Record+Sensor Record: Normal record is enabled all the time; sensor alarm record

will be started when sensor alarm happens.

Always(24 X7) Record+Motion Record+Sensor Record : Normal record is enabled all the time; motion/sensor alarm record will be enabled when motion/sensor alarm happens.

Always(24 X7) Record+Motion Record+Sensor Record+Analytics Record : Normal record is enabled all the time; motion/sensor/analytics alarm record will be enabled when motion/sensor/analytics alarm happens.

Select an auto mode to pop-up the corresponding settings window (example below). Set the video encode, resolution, FPS, bitrate and audio of each camera and then click “OK” to save the settings.

Always(24x7) Record+Motion Record+Sensor Record											
Camera Name	Stream Type	Encode	Resolution	FPS	Bitrate Type	Quality	Max Bitrate	Bitrate Limit	Recommended Range	Audio	GOP
Camera1	Main Stream	H.265	704x480	7	VBR	Higher	512Kbps		146~244Kbps	ON	14
Camera2	Main Stream	H.265	704x480	7	VBR	Higher	512Kbps		146~244Kbps	ON	14
Camera3	Main Stream	H.265	704x480	7	VBR	Higher	512Kbps		146~244Kbps	ON	14
Camera4	Main Stream	H.265	704x480	7	VBR	Higher	512Kbps		146~244Kbps	ON	14
公司廣場	Main Stream	H.265	2592x1944	30	VBR	Higher	4096Kbps		5632~11792Kbps	ON	60
警衛室牆上	Main Stream	H.265	2592x1944	30	VBR	Higher	4096Kbps		5632~11792Kbps	ON	60

- **Video Encode:** options include H.265 and/or H.264 – depending on connected IP cameras support for each.
- **Resolution:** the higher the resolution, the clearer and more detailed the image.
- **FPS:** higher the frame rate, the more fluid the video is. However, more storage is required.
- **Bitrate Type:** CBR and VBR are optional.
 - **CBR:** means no matter how much camera scene change occurs, the bit rate\disk usage that is set will not be exceeded – image increases compression to achieve this.
 - **VBR:** means the bit rate will be allowed to vary constantly according to scene changes. Network and disk usage may vary greatly and be increased.
- **Quality:** When VBR is selected, you need to choose image quality. The higher the image quality you choose, the more bitrate will be required.
- **Max Bitrate:** 32Kbps ~10240Kbps are optional.
- **GOP:** group of pictures. Set according to your camera if required

5.1.2 Manual mode

If manual mode is selected, you will need to set the encode parameters and record schedules of each camera yourself.

5.2 Disk management

Click the Start button  (bottom left) then Settings→Disk→Disk Management, the below screen will appear. Visible are the DVR's disk quantity, status etc. Click "Formatting" to format the HDD.



Note:

1. Any **new** HDD should be formatted for normal use.
2. For any HDD which has been used in an identical DVR and model, you have the option to import the configuration file on it to the new DVR. Simply format if this is not required.

6. Playback & Backup

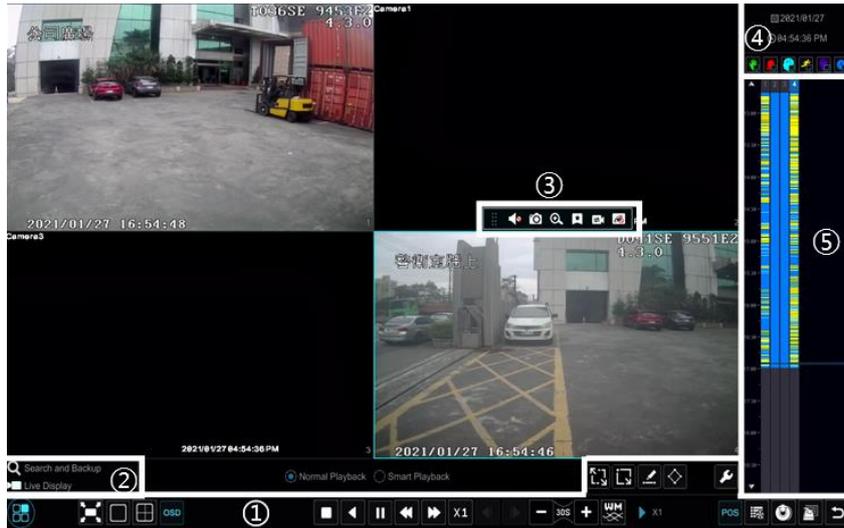
6.1 Instant playback

Click  on the tool bar at the bottom of the currently previewed camera window to play back recordings (click  on the tool bar at the bottom of the live preview interface to set the default playback time). Refer to the example 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.



6.2 Playback interface

Click  on the tool bar at the bottom of the live preview interface or click  **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 automatically. You can also add additional playback cameras 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 them. The system supports a maximum of 16 synchronous playback cameras.

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

Button	Meaning
	Start button. Click to pop up area ②.
	Full screen button. Click to show full screen; click again to exit full screen.
	Screen mode button (according to individual models).
	Click to enable OSD; click again to disable.
	Stop button.
	Rewind button. Click to play video backward.
	Play button. Click to play video forward.
	Pause button.
	Deceleration button. Click to decrease the playing speed.
	Acceleration button. Click to increase the playing speed.
	Previous frame button – only available while playback is paused in single screen mode.
	Next frame button – only available while playback is paused in single screen mode.
	Click - to step backward 30s and click + to step forward 30s.
	Open/close POS information
	Event list/tag button. Click to view 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 to view the backup status.

Button	Meaning
	Back button. Click to return.
	Full screen motion button.
	Draw rectangle. Select an area to search and playback recorded motion.
	Draw line. Search the recordings for any crossing of the line drawn.
	Draw quadrilateral. Select an area to search and playback recorded motion.
	Smart playback settings. Click to set smart playback.

Introduction of area ②:

Button	Meaning
	Click to go to record search and backup interface
	Click to go to live preview interface

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 to move the tool bar anywhere.
	Enable Audio	Click to enable audio. You can listen to the camera audio by enabling
	Snap	Click to take an image snapshot.
	Zoom In	Click to go to the zoom in interface. Click  to pause playback; click  to play. When paused, you can click  to view the previous frame and click  to view the next frame.
	Add Tag	Click to add tag. You can then easily find in future by searching the added tag. Click then input the tag name. Click "Add" to save tag.
	Switch Camera	Click to switch the playback camera. Click and check the camera in the popup window. Click "OK" to change the camera.
	Close Camera	Click to close the playback camera.

Introduction of area ④:

Click  to set the date; click  to set the time and then the playback camera will play recordings from the time you set.

Check the record type as required for record playback; first 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
- : intelligence record
- : POS record

Finally click  on the playback window to add any cameras to the playback timeline and show occurrences of recorded data matching the record type above.

Introduction to the record time scale (area ⑤):

- A tool bar appears after moving the mouse to the record time. Click  /  to zoom the timeline; click  to return the timeline to 24 hours'.
- Drag the timeline or scroll wheel of the mouse on the time scale to show the hidden time on the top or bottom of the timeline. 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 colors. The green block stands for manual record, red block stands for sensor based record, yellow block stands for motion based record and blue block stands for schedule record.
- Click the record block to set the time and then the playback camera will play the record from the time you set.
- Drag the color block on the time scale to select the backup area and then right click the area or click  to pop up a backup information window. Click "Backup" button in the window to pop up the backup window.
- Select the device, backup path and backup format and then click "Backup" button to start the backup.

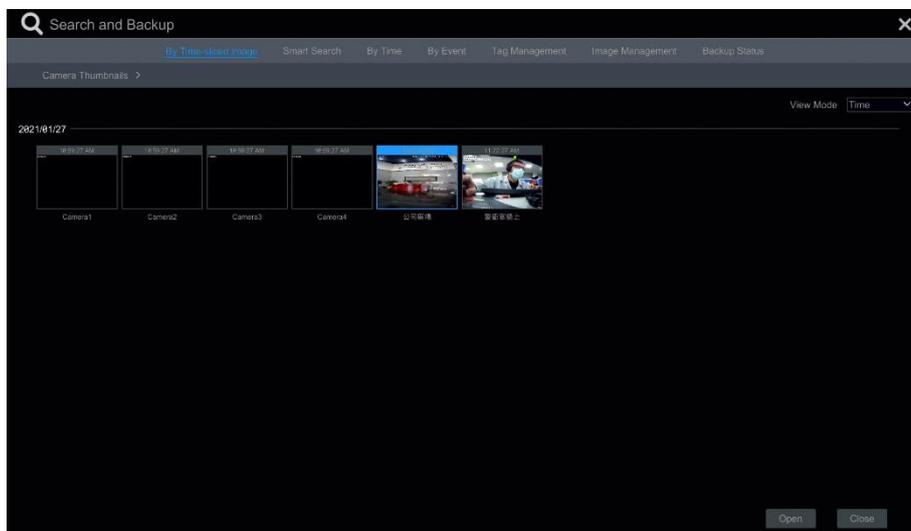
6.3 Recording Search, Playback and Export

6.3.1 Search & playback by time sliced image

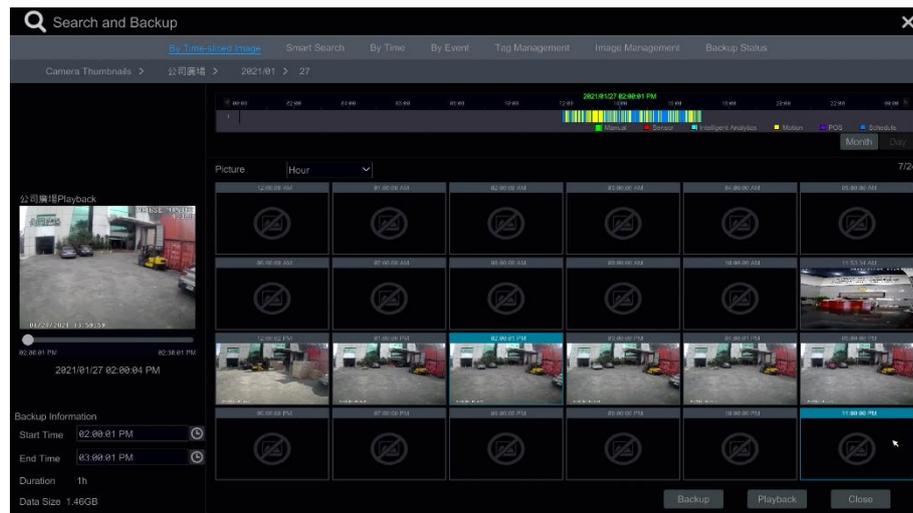
① Click  → Search and Backup → By Time-sliced Image to go to "By Time-sliced Image" tab.

There are two view modes: by time and by camera.

- **Time view mode:** a maximum of 64 camera thumbnails can be shown. If the camera thumbnail number is more than 64, the cameras will be listed directly by their camera name, not the thumbnail. A maximum of 196 camera names can be listed. If the camera name number is more than 196, the time view mode will be disabled and the camera view mode will be available only.



- ② Select a camera in the interface and then click “Open” button.
- ③ Click the image box to play the recording in the small playback box on the left side of the interface (the box which has the image inside indicates that record data exists).
- ④ Refer to the picture below. Drag the color 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.

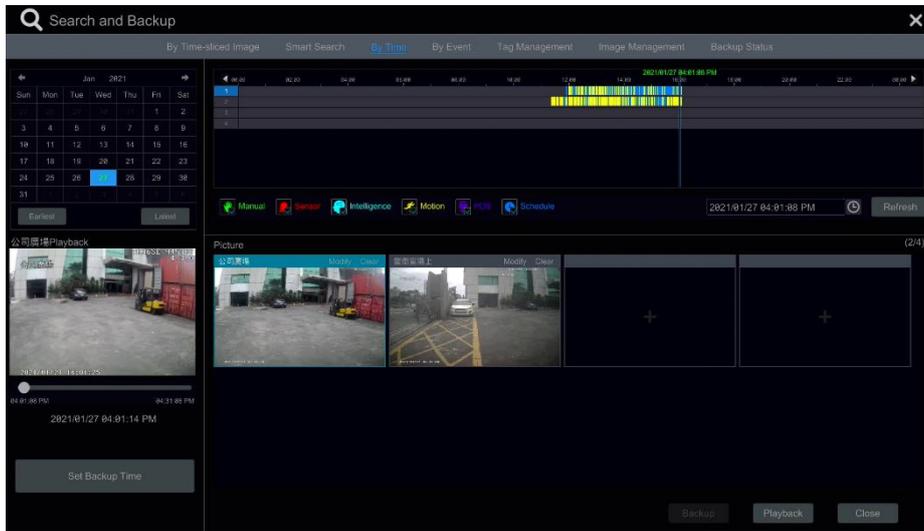
Method Two: Click ▶ beside “Camera Thumbnail” on the left top corner of the interface to select the time slice mode.

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

6.3.2 Search & playback by time

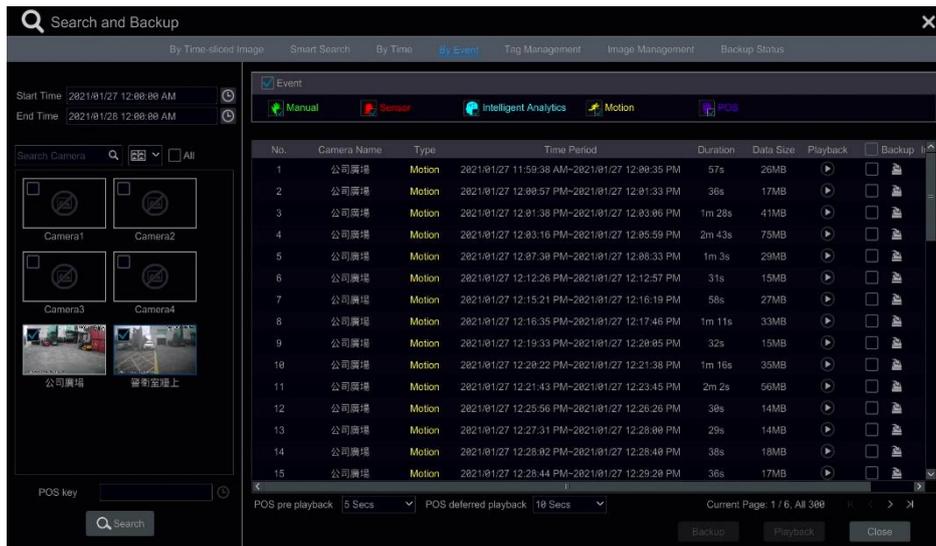
- ① Click  → Search and Backup → By Time to go to “By Time” tab as shown below.
- ② Click  on the bottom of the interface to add playback cameras. A maximum of 16 cameras can be added for playback. Click “Modify” on the top right corner of the camera window to change the camera and click “Clear” to remove the camera.
- ③ Click the camera window to play the recording in the small playback box on the left side of the interface. You can set the date on the top left of the interface, check the event type as required and click  on 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 color 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.



6.3.3 Search & playback by event

- ① Click  → Search and Backup → 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.

6.3.4 Search & playback by tag management

Only if you have previously added tags can you play back any record via tag search. Click  → **Playback** to go to the playback interface and then click  on the bottom of the camera window to add tag when you want to mark the playback time point of the selected camera.

Click  → **Search and Backup** → **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.



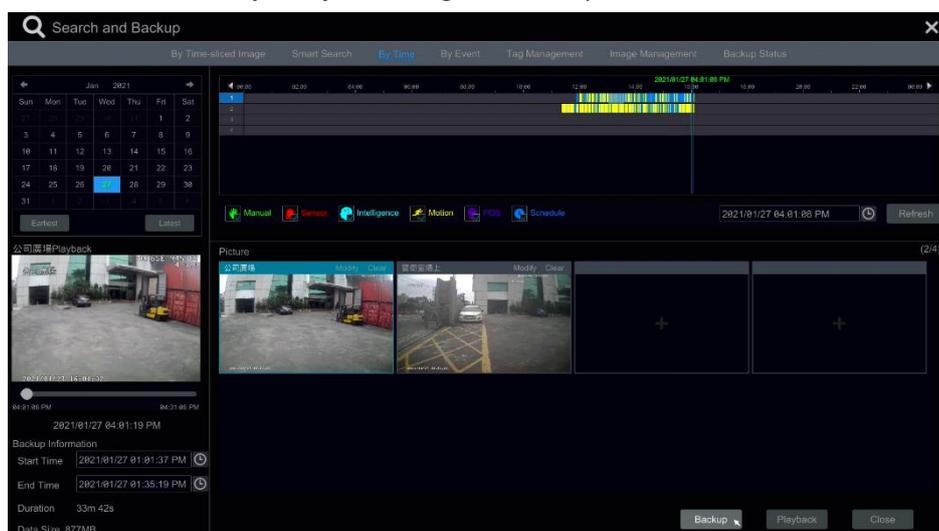
No.	Name	Camera Name	Time	Playback	Edit	Delete
1	公司廣場_20210127141256	公司廣場	2021/01/27 02:12:56 PM			
2	公司廣場_20210127154605	公司廣場	2021/01/27 03:46:05 PM			
3	警衛室牆上_20210127141304	警衛室牆上	2021/01/27 02:13:04 PM			
4	警衛室牆上_20210127154559	警衛室牆上	2021/01/27 03:45:59 PM			

6.4 Backup and Export Recorded Footage

The record data and any snapshot images can be backed up through network or USB. The file system of the backup devices should be **FAT32** format.

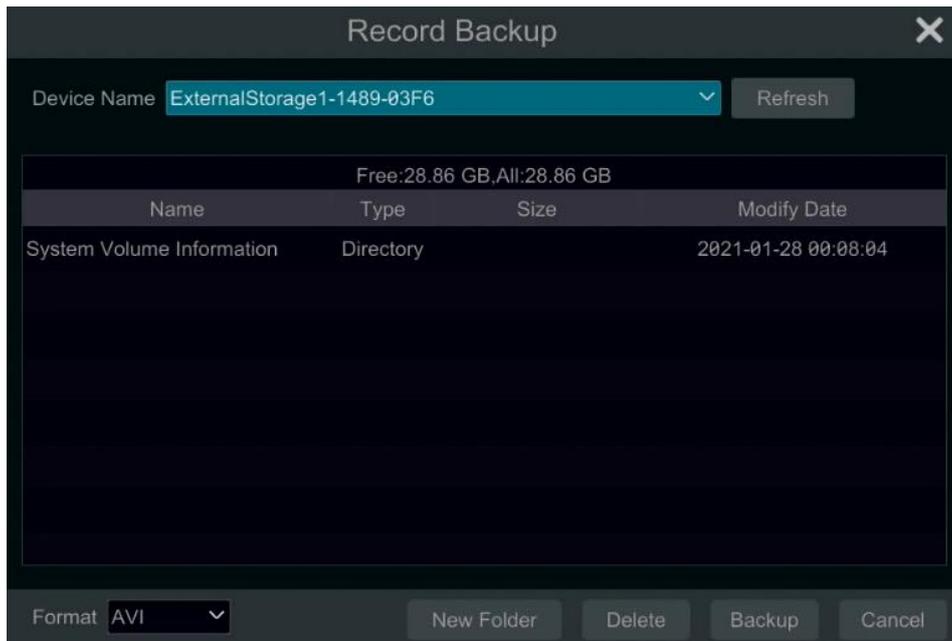
6.4.1 Backup by time

① Click  → **Search and 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.

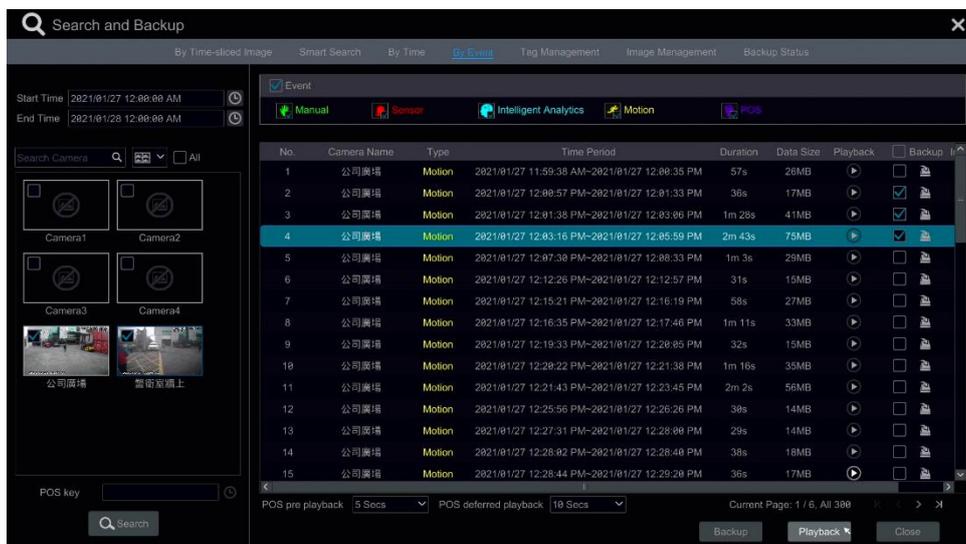
6.4.1 Backup by event

① Click → Search and 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.



APPENDIX A - Compatible HDD & Devices

1. Compatible USB memory sticks after testing

Brand	Capacity
A-DATA	512MB, 1G, 2GB
Transcend	4GB
Kingston	2GB
Toshiba	2GB
SanDisk	4GB

2. Compatible external USB CD/DVD writers after testing

Brand	Model
LG	GH24NS90

3. Compatible HDD

Brand	Model number	Capacity
Western Digital	WD10PURX FW:64D85Y0	1TB
	WD20PURX FW:64P6ZY0	2TB
	WD30PURX FW:64P6ZY0	3TB
	WD40PURX FW:64GVNY0	4TB
	WD40EURX FW:64WRWY0	4TB
	*WD60PURX FW:64LZMY0	6TB
SEAGATE	ST1000VX005 FW:CV12	1TB
	ST2000VX007(SkyHawk Lite) FW:CV11	2TB
	ST2000VX008 FW:CV12	2TB
	ST3000VX002 FW:CV12	3TB
	ST4000VX000 FW:CV11	4TB
	ST6000VX0003 FW:SC60	6TB
	ST8000VX0002 FW:AV01	8TB
	ST10000VX0004 FW:AV01	10 TB
TOSHIBA	HCS5C1050DLE630 FW:620DT01ABA050V	500GB
	DT01ABA100	1TB
	DT01ACA100	1TB
	MD06ACA600V FW:0603	6TB
	MD06ACA800V FW:0603	8TB
	MD06ACA10TV FW:0603	10 TB

***Power adapter should be requested more than 12V, 3A to support 6TB HDD.**

APPENDIX B - Specification

Model		4CH	8CH	16CH
Compression format		H.264 / H.265 Main Profile		
Video output		VGA × 1, HDMI × 1, CVBS × 1		
Video Input		BNC × 4	BNC × 8	BNC × 16
HDMI Resolution		1920 × 1080 / 1280 × 1024 / 1024 × 768		
VGA Resolution				
Record Resolution		5MP Lite / 4MP Lite / 1080P / 1080P Lite / 720P / WD1 / D1		
Total Record Frame Rate AHD+TVI+960H	5MP Lite	40FPS	80FPS	160FPS
	4MP Lite	48 FPS(PAL)/ 60 FPS(NTSC)	96 FPS(PAL)/ 120 FPS(NTSC)	192 FPS(PAL)/ 240 FPS(NTSC)
	1080P	48 FPS(PAL)/ 60 FPS(NTSC)	96 FPS(PAL)/ 120 FPS(NTSC)	192 FPS(PAL)/ 240 FPS(NTSC)
	720P/1080P Lite/ WD1	100 FPS(PAL)/ 120 FPS(NTSC)	200 FPS(PAL)/ 240 FPS(NTSC)	400 FPS(PAL)/ 480 FPS(NTSC)
Record Frame Rate IP	IP 5M/4M/1080P/ 1080PLite/720P / WD1/ D1	25 FPS(PAL) / 30 FPS(NTSC)		
Support IP camera		2 CH	4 CH	8 CH
Audio Input		RCA × 4	RCA × 8	
Audio output		RCA × 1		
Alarm Input		4	8	16
Alarm output		1	2	4
Record Mode		Manual / Schedule / Motion / Alarm / Smart event		
Network Interface		RJ45		
PTZ control		YES		
Communication interface		RS485, USB2.0 × 2 (one for backup, another for USB mouse)		
E-SATA		N/A	1	
Disk info		SATA × 1 (10TB)		SATA × 2 (10TB)
Power Supply		DC12V		
Temperature		0°C-50°C		
Humidity		10%-90%		