

Network Video Recorders

Quick Guide

Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.

Trademark Acknowledgement

The trademarks, company names and product names contained in this manual are the property of their respective owners.

Disclaimer



CAUTION!

The default password is used for your first login. To ensure account security, please change the password after your first login. You are recommended to set a strong password (no less than eight characters).

- To the maximum extent permitted by applicable law, the product described, with its hardware, software, firmware and documents, is provided on an "as is" basis.
- Best effort has been made to verify the integrity and correctness of the contents in this manual, but no statement, information, or recommendation in this manual shall constitute formal guarantee of any kind, expressed or implied. We shall not be held responsible for any technical or typographical errors in this manual. The contents of this manual are subject to change without prior notice. Update will be added to the new version of this manual.
- Use of this manual and the product and the subsequent result shall be entirely on the user's own responsibility. In no event shall we be reliable to you for any special, consequential, incidental, or indirect damages, including, among others, damages for loss of business profits, business interruption, or loss of data or documentation, or product malfunction or information leakage caused by cyber attack, hacking or virus in connection with the use of this product.

- Video and audio surveillance can be regulated by laws that vary from country to country. Check the law in your local region before using this product for surveillance purposes. We shall not be held responsible for any consequences resulting from illegal operations of the device.
- The illustrations in this manual are for reference only and may vary depending on the version or model. The screenshots in this manual may have been customized to meet specific requirements and user preferences. As a result, some of the examples and functions featured may differ from those displayed on your monitor.
- This manual is a guide for multiple product models and so it is not intended for any specific product.
- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides in our company.



Environmental Protection


This product has been designed to comply with the requirements on environmental protection. For the proper storage, use and disposal of this product, national laws and regulations must be observed.

Safety and Compliance Information




Safety Symbols

The symbols in the following table may be found on installation-related equipment. Be aware of the situations indicated and take necessary safety precautions during equipment installation and maintenance.

Symbol	Description
	Generic alarm symbol: To suggest a general safety concern.
	ESD protection symbol: To suggest

Symbol	Description
	electrostatic-sensitive equipment.
	Electric shock symbol: To suggest a danger of high voltage.

The symbols in the following table may be found in this manual. Carefully follow the instructions indicated by the symbols to avoid hazardous situations and use the product properly.

Symbol	Description
 WARNING!	Indicates a hazardous situation which, if not avoided, could result in bodily injury or death.
 CAUTION!	Indicates a situation which, if not avoided, could result in damage, data loss or malfunction to product.
 NOTE!	Indicates useful or supplemental information about the use of product.

Safety Information

Installation and removal of the unit and its accessories must be carried out by qualified personnel. Please read all of the safety instructions below before installation and operation.

- This device is a class A product and may cause radio interference. Take measures if necessary.
- While shipping, the device should be packed in its original packing.
- Verify that installation is correct. Incorrect cable connection may cause personal injury or device damage.
- The installation must be made by qualified personnel and should conform to all the local codes.
- If the product does not work properly, please contact your dealer. Never attempt to disassemble the device yourself. We shall not

assume any responsibility for problems caused by unauthorized repair or maintenance.

- Ensure a proper operating environment, including temperature, humidity, ventilation and power supply. Make sure the device is properly grounded and the lightning protection meets requirements. Keep the device from moisture, dust, strong electromagnetic radiation and vibration.
- Power down the device before connecting and disconnecting accessories and peripherals.
- Protect the power cable from being stepped on or pressed, particularly at the plug, receptacle, and the part leading out of the device.
- Strictly follow the procedure to shut down the device. Sudden power failures can cause disk damage and functional abnormalities. In an environment where power supply is frequently interrupted, use an Uninterrupted Power Supply (UPS).
- Improper use or replacement of the battery may result in hazard of explosion. Use the manufacturer recommended battery.
- Take necessary measures to ensure data security and protect the device from network attack and hacking (when connected to Internet). Possible risks and consequences are at user's sole discretion.



WARNING!



- Never look at the transmit laser while the power is on. Never look directly at the fiber ports and the fiber cable ends when they are powered on.
 - Use of controls or adjustments to the performance or procedures other than those specified herein may result in hazardous laser emissions.
-

Regulatory Compliance

FCC Part 15

This equipment has been tested and found to comply with the limits for digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

LVD/EMC Directive



This product complies with the European Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC.

WEEE Directive–2002/96/EC



The product this manual refers to is covered by the Waste Electrical & Electronic Equipment (WEEE) Directive and must be disposed of in a responsible manner.

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1 Appearance

The figures in this manual are for illustration purpose only and may be different from your NVR.

Front Panel

The front panels vary with NVR model.

Figure 1-1 Front Panel 1

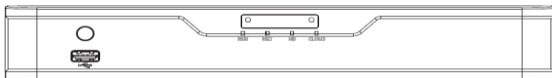


Figure 1-2 Front Panel 2

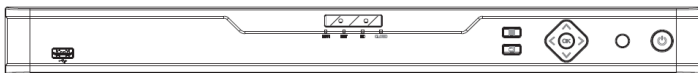


Figure 1-3 Front Panel 3

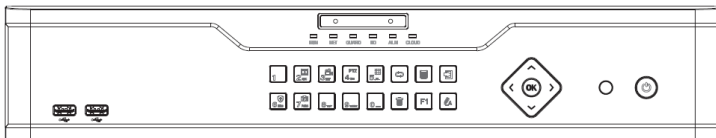




















Table 1-1 LED Indicators

LED	Description
RUN (Operation)	<ul style="list-style-type: none">Steady on: The NVR is operating properly.Blinks: The NVR is starting up.Off: The NVR is shut down.
NET (Network)	<ul style="list-style-type: none">Steady on: The NVR has a network connection.Off: The NVR has no network connection.
GUARD (Arming)	<ul style="list-style-type: none">Steady on: Arming is enabled.Off: Arming is disabled; or the NVR is shut down.

LED	Description
HD (Hard disk)	<ul style="list-style-type: none"> Steady on: No disk; or at least one disk is in abnormal status. Blinks: Data is being read or written. Off: The disks are in normal status and no data is being read or written; or the NVR is shut down.
ALM (Alarm)	<ul style="list-style-type: none"> Steady on: A device alarm or an alert has occurred. For example, conflicting IP address. Off: The NVR is operating properly and no alarm or alert has occurred.
CLOUD (Cloud)	<ul style="list-style-type: none"> Steady on: The NVR is connected to the cloud server. Off: The NVR is disconnected from the cloud server.

Table 1-2 Front Panel Buttons

Button	Description	Button	Description
	Enter 1		Enter 2, A, B, or C; or start instant playback
	Enter 3, D, E, or F; or start manual recording		Enter 4, G, H, or I; or enter the PTZ control interface
	Enter 5, J, K, or L; or switch views		Enter 6, M, N, or O
	Enter 7, P, Q, R or S; or take a snapshot		Enter 8, T, U, or V
	Enter 9, W, X, Y, or Z		Enter 0 or space
	Switch tabs		Display the main menu
	Exit		Delete
	Auxiliary function button		Switch input methods
	<ul style="list-style-type: none"> Direction buttons: Control rotation directions of the PTZ camera when the PTZ toolbar is closed; in preview mode, press  to switch views, including the number of 		





Button	Description	Button	Description
	<p>windows on the screen and the layout, press  for playback, or press  or  to view the previous or next screen.</p> <ul style="list-style-type: none">  : Confirm an operation; or start/pause playback. 		

Figure 1-4 Front Panel 4 (No Buttons)

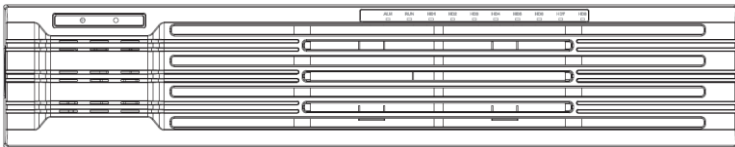


Table 1-3 LED Indicators

LED	Description
HD (Hard disk)	<ul style="list-style-type: none"> Steady green: The hard disk is operating properly without reading or writing data. Blinks green: The hard disk is operating properly and it is reading or writing data. Steady red: The hard disk is in abnormal status. Blinks red: The array is being rebuilt.
ALM (Alarm)	<ul style="list-style-type: none"> Steady on: A device alarm has occurred.
RUN (Operation)	<ul style="list-style-type: none"> Steady on: The NVR is operating properly. Blinks: The NVR is starting up.

Rear Panel

The interfaces on the rear panel may vary with NVR model.

Figure 1-5 Rear Panel 1

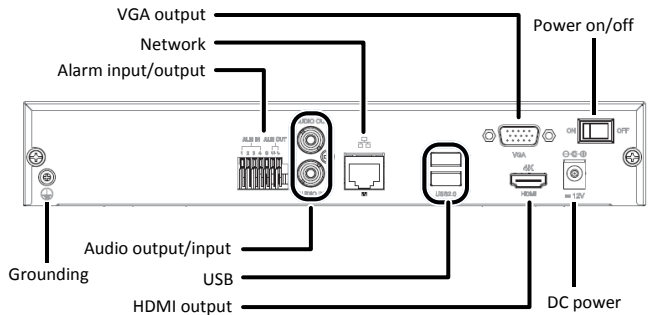


Figure 1-6 Rear Panel 2

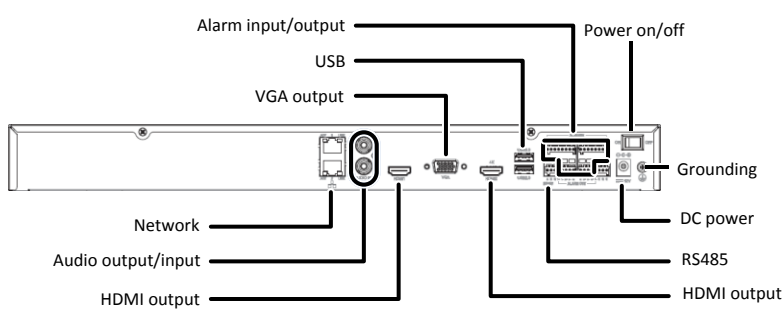


Figure 1-7 Rear Panel 3

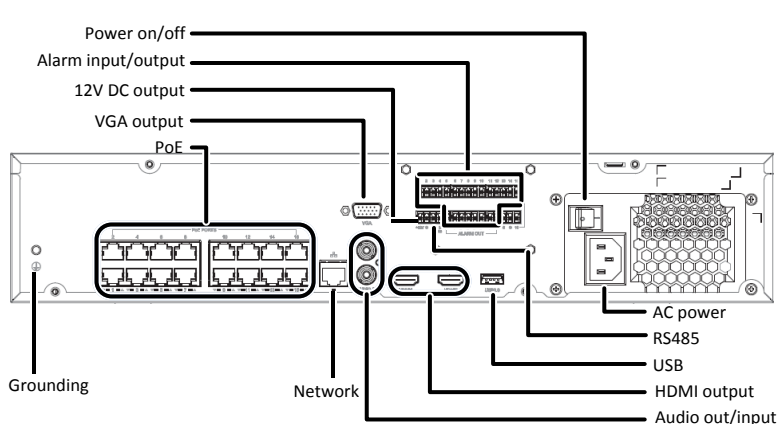


Figure 1-8 Rear Panel 4

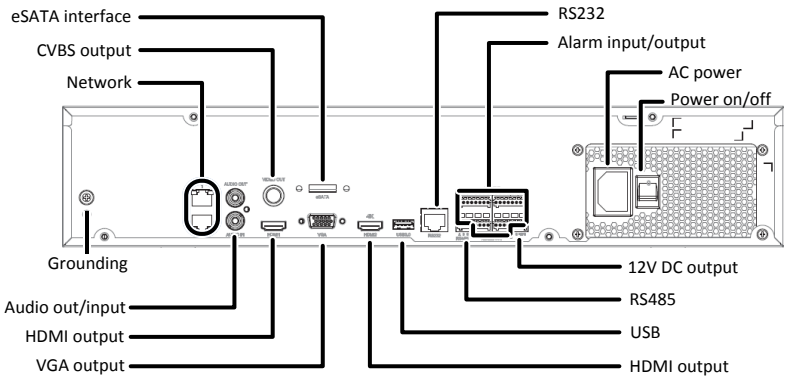
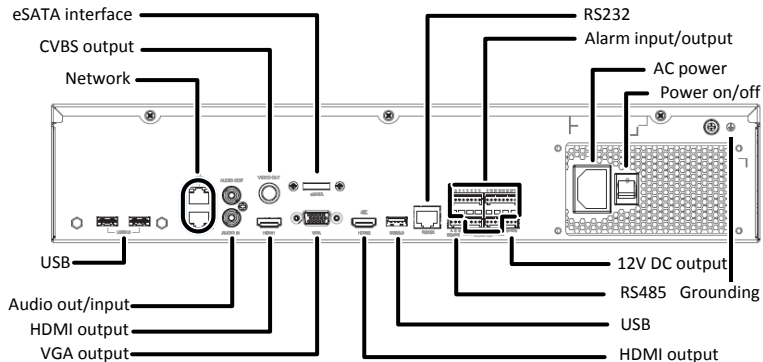


Figure 1-9 Rear Panel 5



NOTE!

Use the RS232 interface for debugging and maintenance purposes. Use the network interface for network connection.

2 Installation and Connection



NOTE!

In this manual, the terms "NVR" and "IP device" are used as follows:

- NVR: refers to the network video recorder.
- IP device: a network product that has its own IP address. An IP device can be a network camera (also known as IP camera) or a video encoder.

Example: Make sure the IP device to add is connected to the NVR via network.

Prepare a #1 or #2 Phillips screwdriver before installation.

Installing Hard Disks



CAUTION!

- Disconnect power before starting installation.
 - Wear a pair of antistatic gloves or an antistatic wrist strap during installation.
-

For models that require you to open the chassis to install hard disks, refer to [Installation by Opening the Chassis](#) for detailed steps. For other models, refer to [Installation without Opening the Chassis](#).

The figures in the following procedures are only for illustration purpose.

Installation by Opening the Chassis

The following procedure takes an NVR with eight disks as an example.

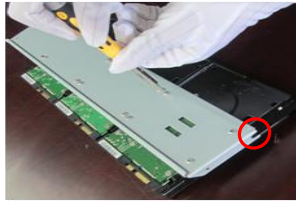
- 1) Use the screwdriver to loosen all screws on the rear panel and both sides.
- 2) Remove the cover and take out both mounting plates.



- 3) Secure hard disks to mounting plates (four screws for each disk). The opening of the notch is in opposite direction with interfaces on the disks.



- 4) Place the mounting plates back into the NVR.



- 5) Connect the data cables.



- 6) Connect the power cables.



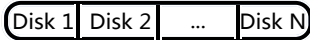
- 7) Fasten the mounting plates by fixing screws on both sides.



- 8) Organize cables and make sure they do not contact the hard disks and the heat sink. Replace the cover and fix two screws on the rear panel.

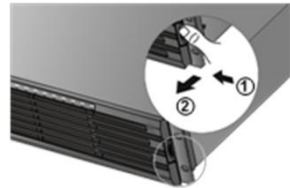


After removing the cover with the rear panel facing toward you, you see the disk data cable connectors (disks) arranged in the following order:

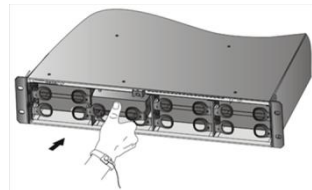
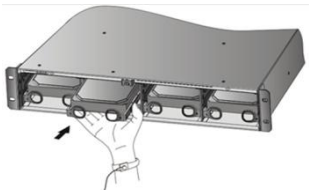


Installation without Opening the Chassis

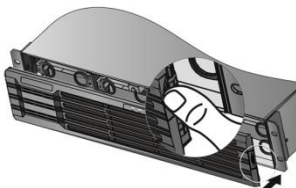
- 1) Secure the hard disk to a pair of mounting brackets with screws. Each mounting bracket has a letter L or R on it, indicating left or right.
- 2) Press the latches on both sides and detach the front panel (as indicated by arrow 2).



- 3) Align the disk at the slot and then insert the disk gently.
- 4) Push the disk slowly until it clicks. Repeat the previous steps to install all disks.



- 5) Press the latches on both sides and then push the front panel in place (see the arrow).



Mounting the NVR

Allow at least 30 cm at the front and back sides and at least 10 cm at the left and right sides of the NVR for heat dissipation. If the NVR is mounted in a cabinet, allow at least one rack unit (RU) of space (1.75 inches or 4.45 cm) on top and bottom.

Workbench mount

Place the NVR on a clean and solid workbench.



CAUTION!

- Do not stack other devices on your NVR or place anything heavy on it. Otherwise heat dissipation will be affected.
- Keep your NVR away from vibration sources such as an electric generator. Do not expose your NVR to direct strong airflow as from an air conditioner or electric fan.

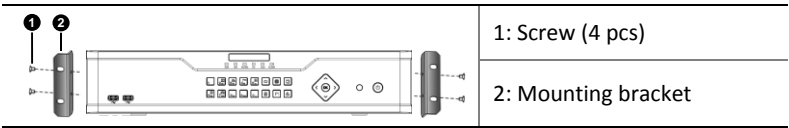
Cabinet mount



CAUTION!

Make sure the cabinet has slide rails or a tray installed to hold the NVR. Do not use only mounting brackets to hold the NVR.

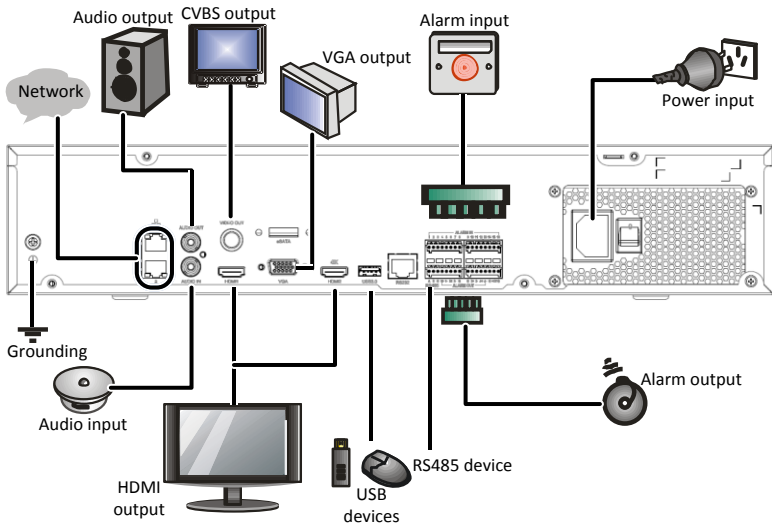
1. Attach a mounting bracket to the NVR and secure it with two M4×6 screws.
2. Repeat the step to install the other mounting bracket.



3. Place the NVR on the slide rails and then push it into place. Secure the mounting brackets to the cabinet with nuts and screws.

Connection

The following example illustrates interface connections on an NVR.



3 Startup and Shutdown

Before Startup

To avoid the risks of personal injury and device damage, make sure the following requirements are met before connecting your NVR to power.

- The NVR is properly mounted.
- Nothing is placed on the NVR.
- All cables are correctly connected.
- The power conforms to specifications.

Startup

Connect the NVR to power and then turn on the power switch.

Shutdown



CAUTION!

Do not disconnect the power supply or press the power on/off button when the NVR is operating or shutting down. This may damage the device.

Click **Menu > Shutdown > Shutdown**. A message appears. Click **Yes**.

4 Setup

After the NVR starts up, follow the wizard to complete the basic setup.



CAUTION!

The default password **123456** is intended only for your first login and should be changed immediately after login.

Adding an IP Device



Make sure the IP device to add is connected to your NVR via network.

1. Click **Menu > Camera > Camera**. The discovered IP devices are listed.
2. Click **+** for the desired IP device to add it.

Camera	Add/Del	Status	IP Addr.	Cam ID	Edit	Name
<input type="checkbox"/> D1	✖	▶	204.2.1.42	1	✎	IP Camera 01
	+	—	203.3.1.60		—	
	+	—	204.0.0.10		—	
Idle Receive Bandwidth: 195Mbps						
Refresh Search Delete One-click Add Custom Add Back						



NOTE!











- To search a specified network segment, click **Search**.
- Normally, all the IP devices discovered can be added. If an IP device is online and its live video is available,  appears in the **Status** column. Otherwise, check network connection and verify the username and password for the IP device. To modify the username or password, click  for the IP device in the **Edit** column.





Preview

Preview Window Toolbar

A toolbar appears when you click in a preview window.








Button	Name	Description
	PTZ Control	Click to control the PTZ camera. This button is effective only for PTZ cameras.
	Manual Recording	Click to start video recording to the hard disk on the NVR. To stop, click  .
	Instant Playback	Click to start playing the video recorded within the last five minutes.
	Zoom	Click to zoom in on a certain area of the image.
	Image Config	Click to modify image settings.
	Preview Snapshot	Click to take a snapshot. To view and back up snapshots, click Menu > Backup > Image .
	Channel info	Move the mouse cursor over the button to view channel information.
	Start Talk	Click to establish two-way audio with the camera. To stop, click  .

Button	Name	Description
	Turn on audio	Click to turn on audio. To turn off audio, click  .
	Switch Camera	Click to change the camera in live view.
	Exit	Click to exit the toolbar.

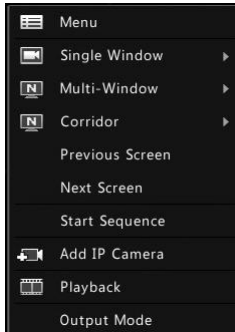
Status Icons in Preview Window

The following icons indicate alarm, recording and audio status.

Icon	Description
	Tampering alarm
	Motion detection alarm
	Recording
	Two-way audio
	Audio is on

Shortcut Menu

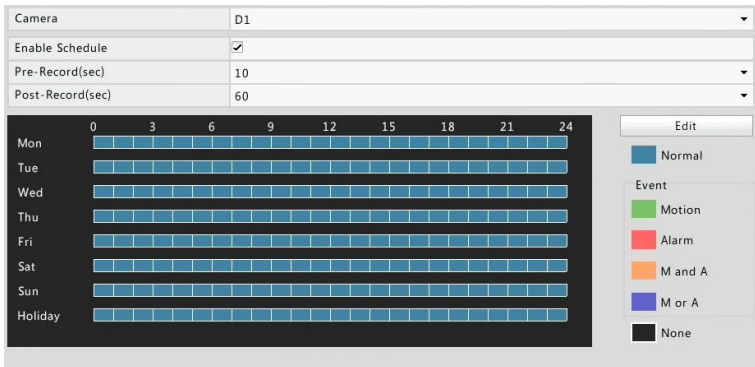
A shortcut menu appears when you right-click a preview window.

Menu	Description	Screenshot
Menu	Display the main menu.	
Single Window	Choose a camera for live video in full screen.	
Multi-Window	Choose the desired view.	
Corridor	Choose the desired view in corridor mode.	
Previous Screen Next Screen	Switch to the previous or next screen.	
Start Sequence	Display live video in preview	

Menu	Description	Screenshot
Stop Sequence	windows screen by screen.	
Add IP Camera	Open the camera window to add a camera.	
Playback	Play the current day's recording for the camera linked to the current preview window.	
Output Mode	Choose a desired output mode for live view.	

Scheduled Recording

1. Click **Menu > Storage > Recording**.
2. Select the desired camera, select **Enable Schedule**, and then click **Edit**.

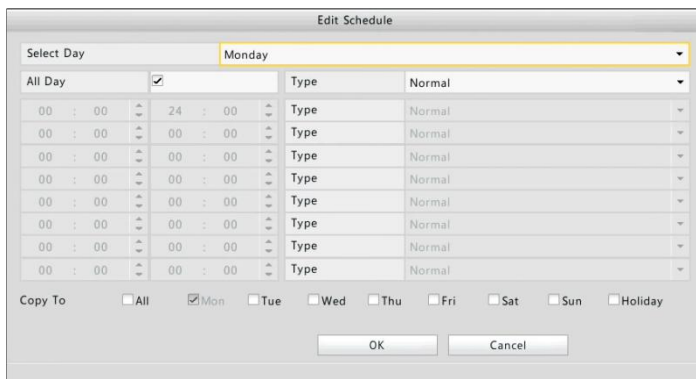


3. Configure the recording time and type as needed. Review the settings and then click **OK**.



NOTE!

Before selecting a recording type other than **Normal**, you need to enable the corresponding alarm type and configure alarm-triggered recording first. For more details, please refer to the *Network Video Recorders User Manual*.



4. Click **Apply** to complete the configuration.

Playback

Right-click the desired preview window and then choose **Playback** from the menu. The current day's recording plays automatically.



Login to the Web Interface

Check that your PC is connected to your NVR through network.

1. Open the Web browser on your PC and visit the IP address of your NVR (192.168.0.30 by default). Install the plugin as prompted if it

is the first time you log in. Close all Web browsers when the installation starts.

2. Enter the correct username and password and then click **Login**.
The default username is **admin** and password is **123456**.



CAUTION!

The default password is intended only for your first login and should be changed immediately after login.

5 FAQs

Problem	Possible Cause and Solution
The plugin cannot be loaded.	<ul style="list-style-type: none">• Close all your web browsers when the installation starts.• Disable the firewall and close the anti-virus program on your computer.• Enable your Internet Explorer(IE) to check for newer versions of the stored pages every time you visit the webpage (Tools > Internet Options > General > Settings).• Add your NVR's IP address to the trusted sites in your IE (Tools > Internet Options > Security).
The camera is offline.	<p>Click Menu > Maintain > System Info > Camera. The cause is displayed in the Status column. Common causes include disconnected network, incorrect username or password, insufficient bandwidth, and failed stream request.</p> <ul style="list-style-type: none">• Check network connection and network configurations.• If it indicates incorrect username or password, check that the camera password set in the NVR is the one used to access the camera's Web interface.• If it indicates insufficient bandwidth, delete other online cameras in the NVR.

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