User Manual

Reolink PoE NVR

contents

Note:

1.This user manual is for the Reolink PoE NVR and NVR security system that work with the monitor.

2.This user manual takes an NVR model that supports most features as an example. Your own NVR model may not support certain features mentioned here. Please refer to the specifications of your NVR model.
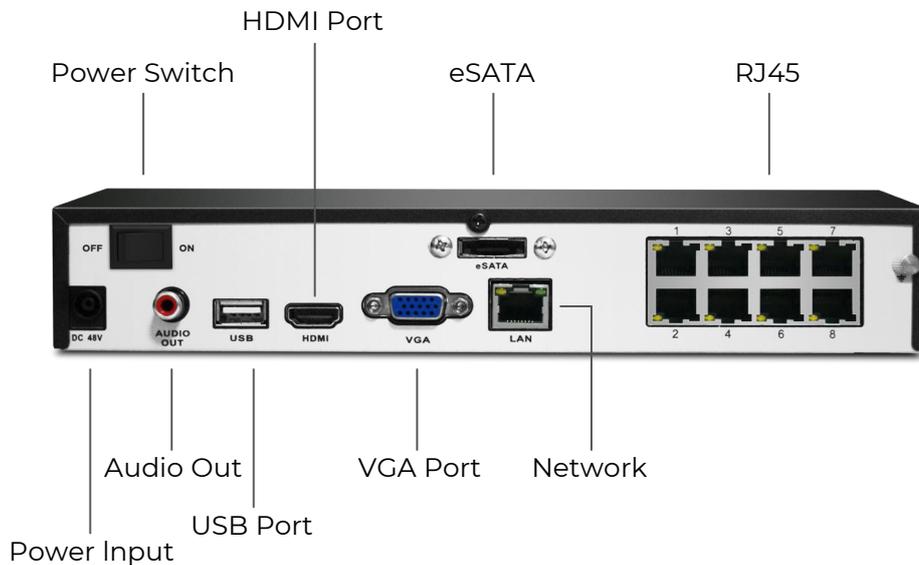
1. NVR Introduction

Device Overview

RLN8-410/RLN16-410

Reolink has 16-channe PoE NVR RLN16-410 and 8-channel PoE NVR RLN8-410. Add cameras to the PoE NVR, you are able to customize your own security systems. Reolink PoE IP security camera systems feature plug and play, 12MP,4K Ultra HD, or 5MP/4MP, which are easy to set up and simple to use, for DIY enthusiasts and beginners. Features of our NVR video system also include excellent night vision, 24/7 continuous recording, local & remote access, and more.

RLN8-410

RLN8-410-E (8MP)

Power Switch   HDMI Port   eSATA   RJ45

Audio Out   VGA Port   Network
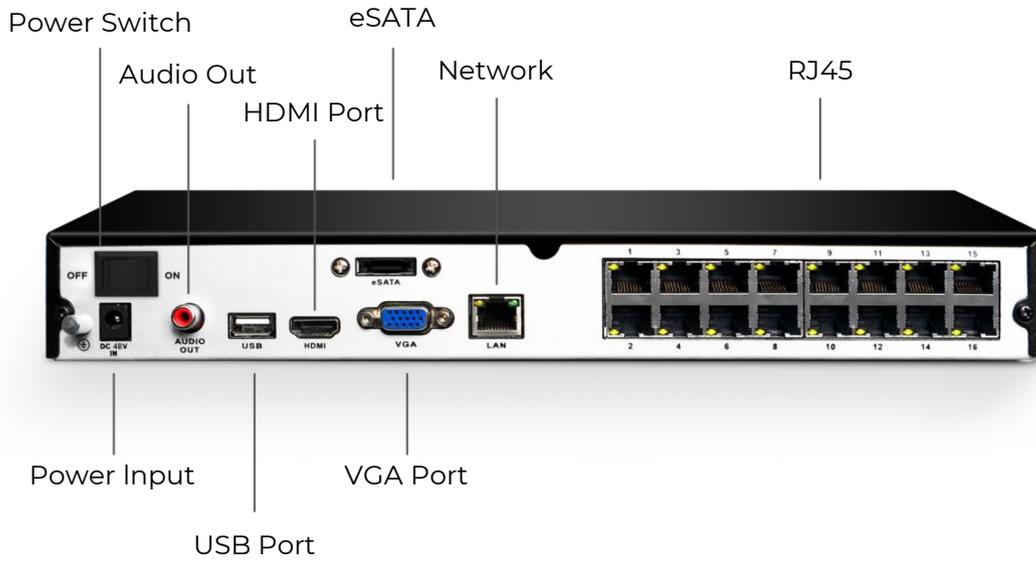
USB Port

Power Input

RLN16-410

Power Switch   eSATA

Audio Out   Network   RJ45

HDMI Port

Power Input   VGA Port

USB Port

USB Port   Power LED/HDD LED   Control Panel
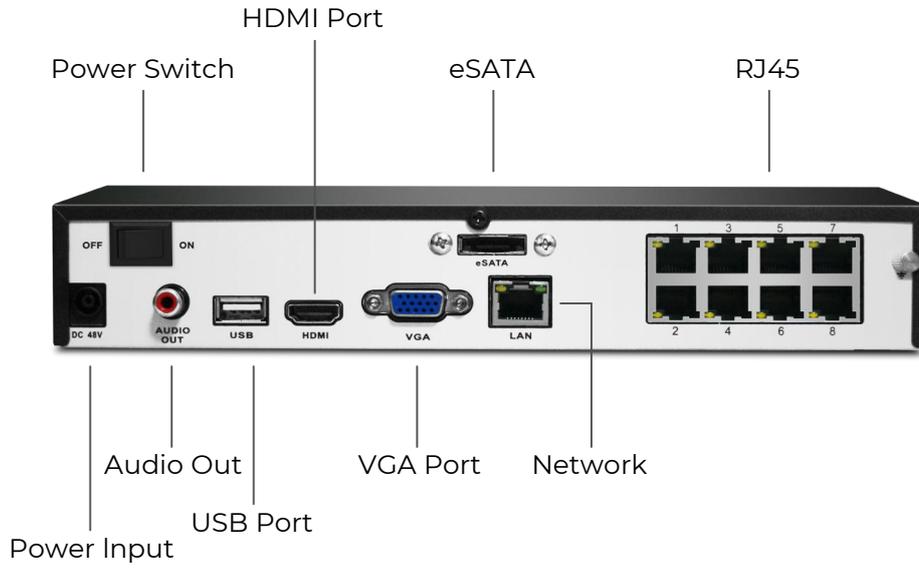
Light Status

LED Status	NVR Status
Power LED Solid Green	NVR is powered on.
Power LED off	NVR is powered off.
HDD LED off	No HDD is detected.
HDD LED Solid Red	HDD is detected but not recording.
HDD LED Blinking Red	NVR is recording to HDD.

NVR Kit

The PoE NVR Kit or PoE security camera system, is a set of cameras with an 8-channel or 16-channel NVR which saves the trouble to choose each camera separately. And the NVR kit is plug and play, making it super easy to set up. The NVR kit model, for example, RLK8-800B4 means it comes with one RLN8-410 and four B800 cameras. For the details, please refer to the package contents while purchasing the product.

NVR Supportability and Hardware Versions

| NVR Model	Hardware Version	Supported Camera Resolution	Person/Vehicle Detection	Max Single HDD Capacity	Interface
RLN16-410	H3MB18	4mp/5mp/8mp/12mp	Y	6TB	New UI
	H3MB02	4mp/5mp	N	4TB	old
	H3MB06	4mp/5mp	N	4TB	old
RLN8-410	N3MB01	4mp/5mp/8mp/12mp	Y	6TB	New UI
	H3MB18	4mp/5mp/8mp/12mp	Y (with latest firmware)	6TB	New UI
	N2MB02	4mp/5mp/8mp/12mp	Y	6TB	New UI
	H3MB02	4mp/5mp	N	4TB	old
RLN8-410-E	H3MB16	4mp/5mp/8mp	N	4TB	old

2. Setup and Installation

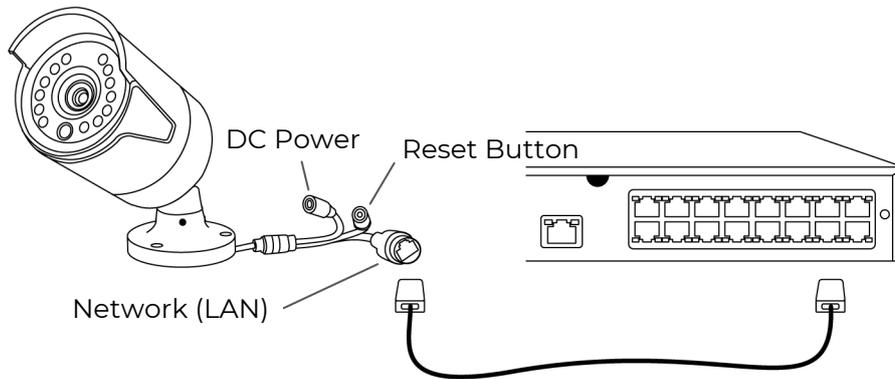## Set up the NVR

Connect and Power the NVR

1. Connect the NVR's LAN port to router by Ethernet cable, and connect the mouse to the USB port of the NVR.
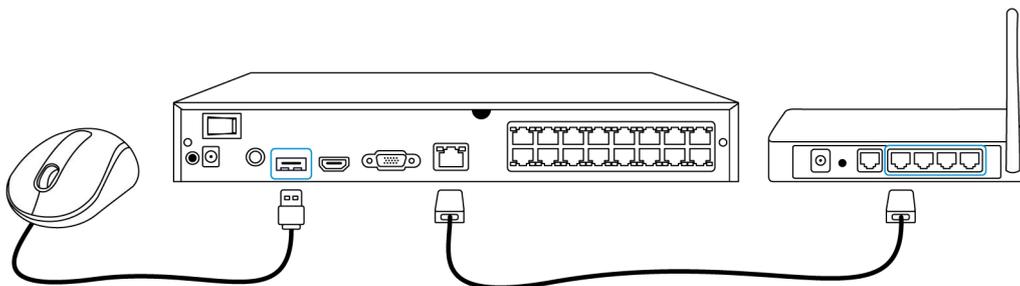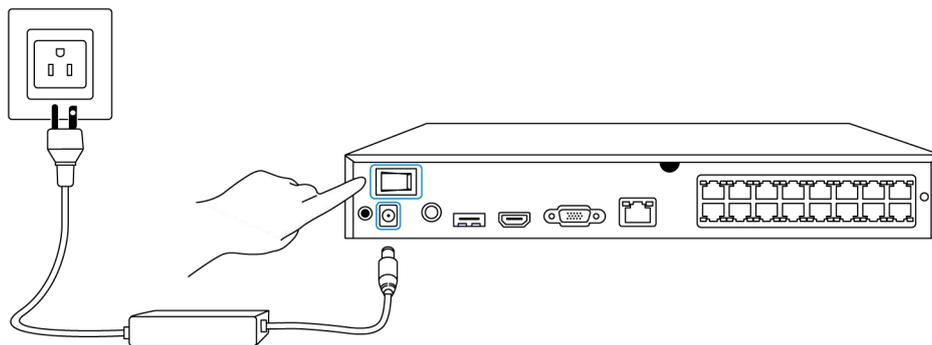
2. Connect the NVR to a monitor with HDMI or VGA cable.
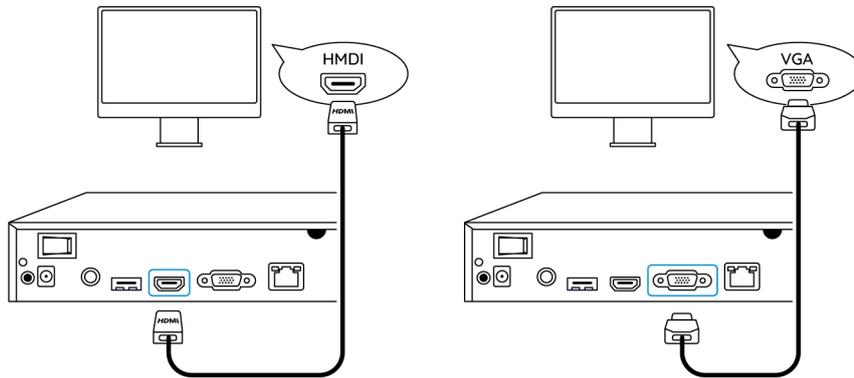
3. Connect the PoE camera to PoE port of the NVR. Or if you want to use a WiFi camera, please connect the camera to the WiFi of the same router as NVR.


4. Connect the power adapter to the NVR, and switch on the NVR.

Set up the NVR on the Monitor

Please power on the NVR and connect it to a monitor by VGA or HDMI cable. After the NVR is powered on, wait a few seconds it'll show a setup wizard on the monitor. Follow the setup wizard to set up the NVR system.

1. **General**: Set up the NVR **Language**, **Screen Resolution**, **Date Format** and **Time Format**. Click **Next**.
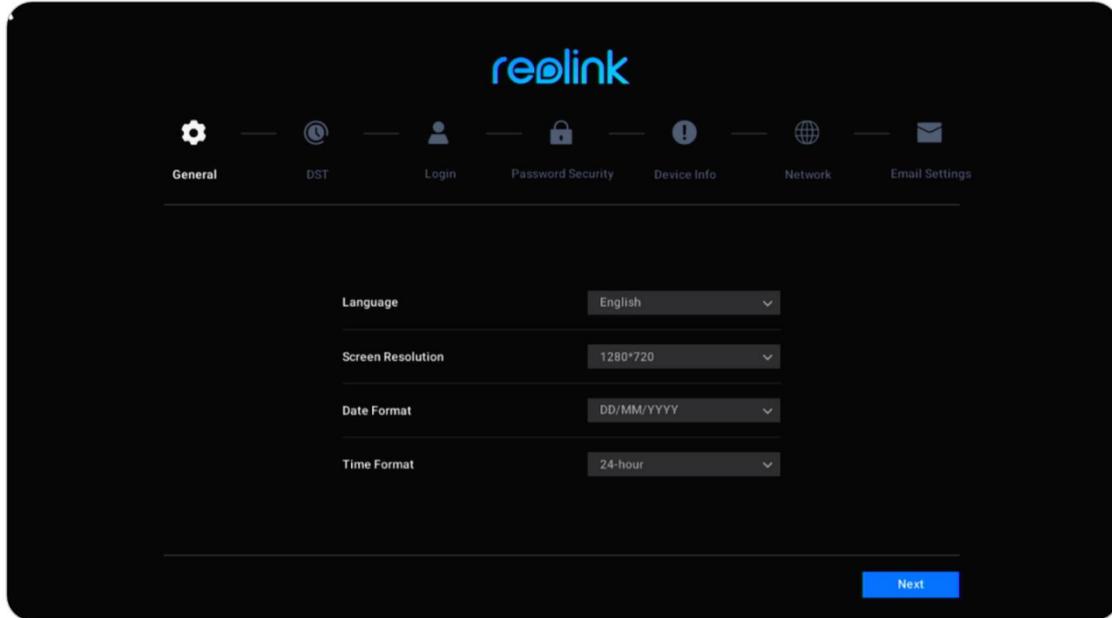
2. **DST**: Set up the **System Time**, **Time Zone** and choose if to enable **DST** (Daylight Saving Time). Click **Next**.
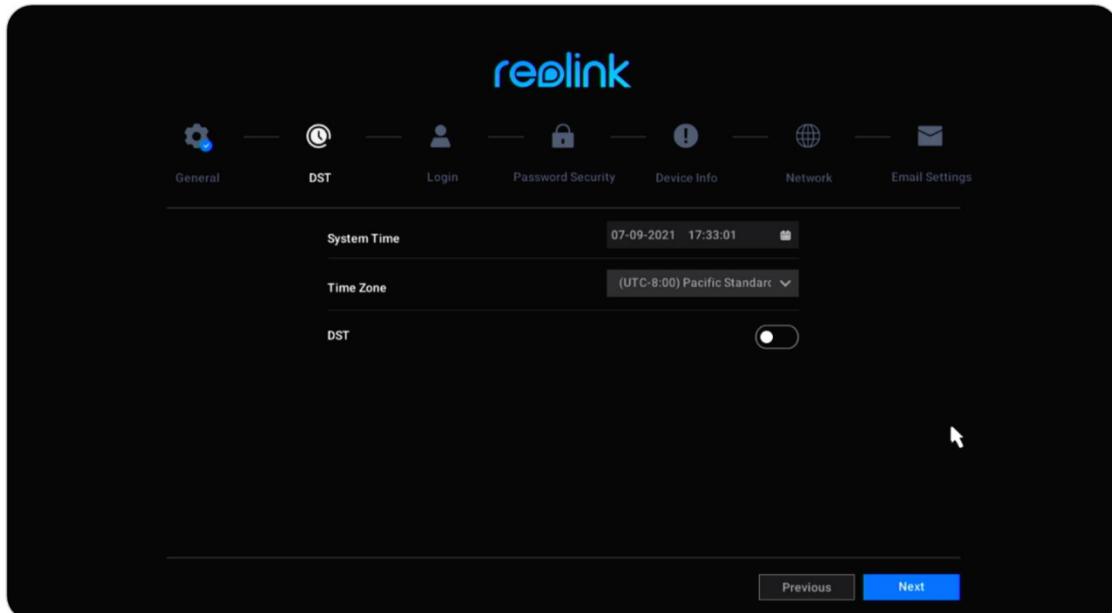
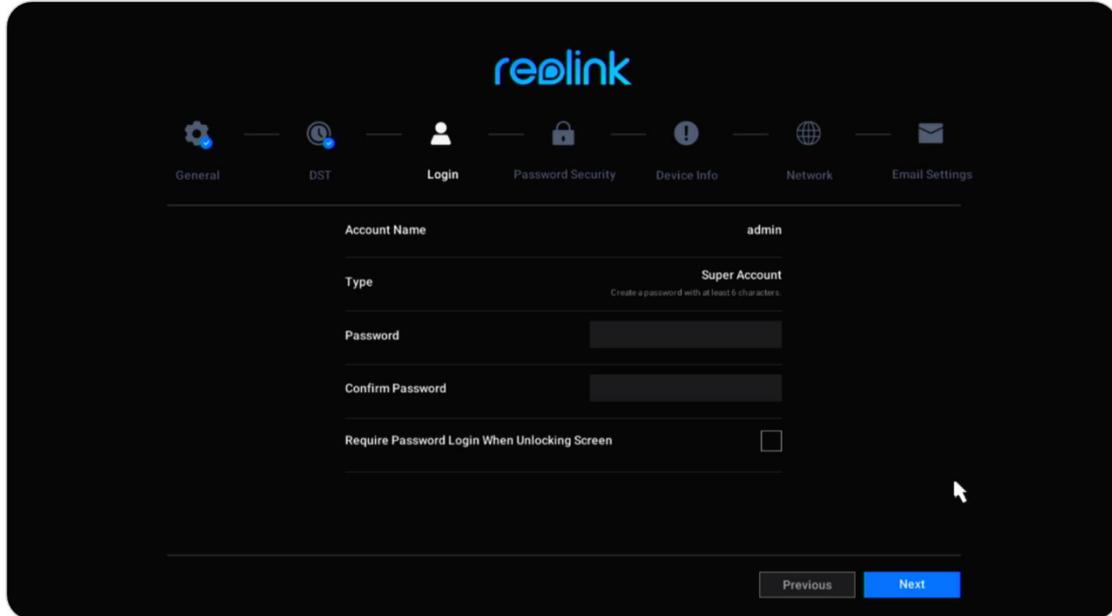3. **Login**: Set up the NVR account password. If you check "**Require Password Login When Unlocking Screen**", the NVR will automatically lock the screen and ask for the password when you want to operate the system.

4. **Password Security**: Set a password security question and answer. In the case the NVR password is forgotten, you can retrieve the password via this password security question.
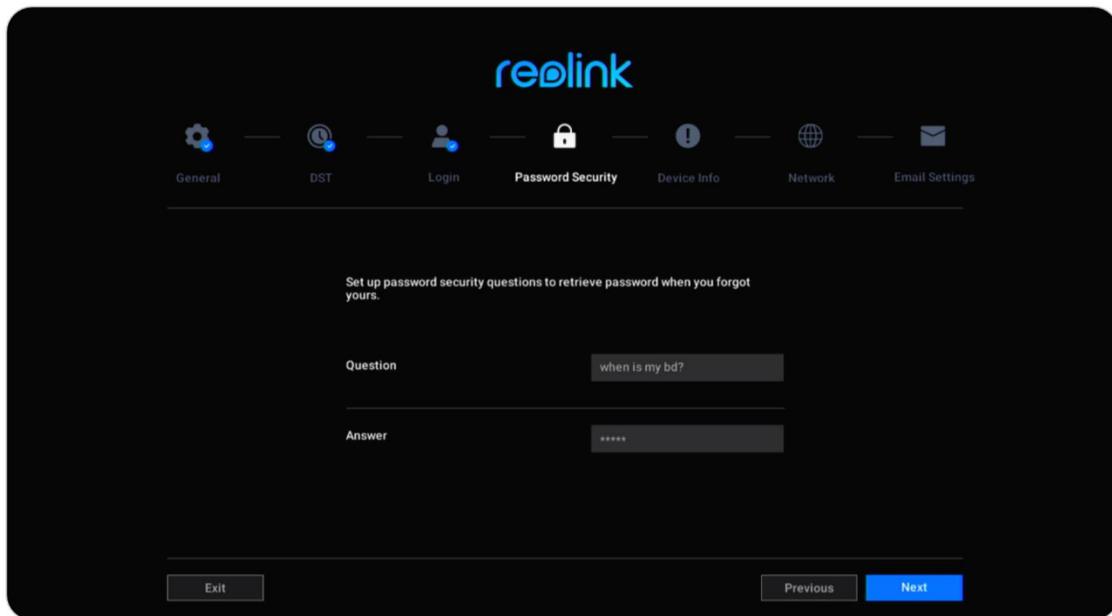
5. **Device Info**: Set a name for the NVR, and click **Format** to format the HDD.
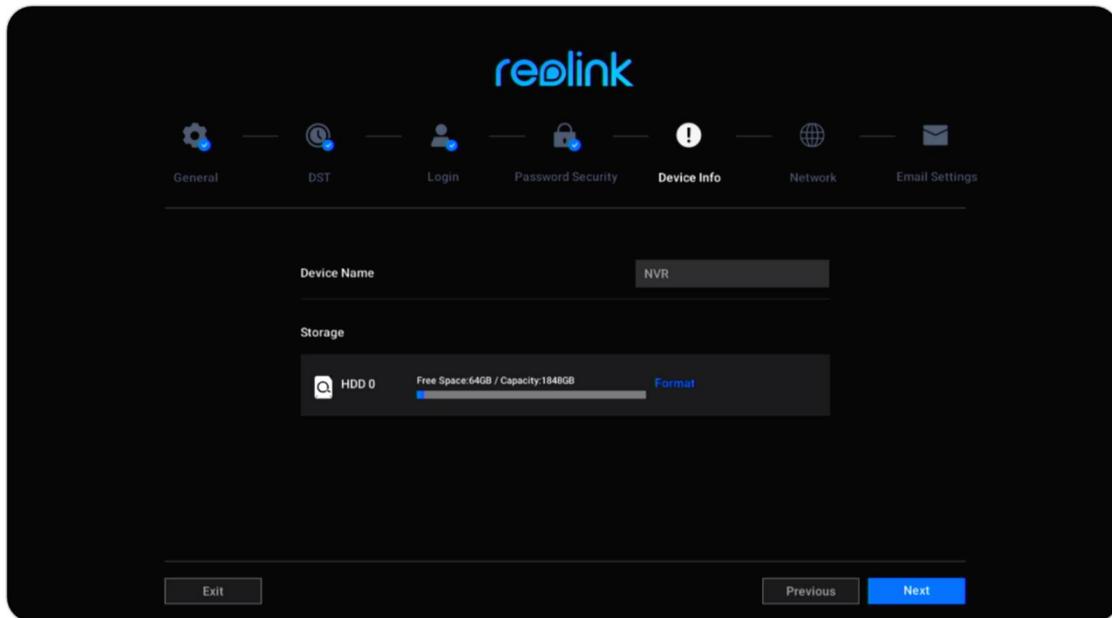
6. **Network**: Suggest to keep **Network access** as DHCP and **DNS** as Auto. It'll obtain the network connection from a router automatically, when the NVR is connected to the router with an Ethernet cable.
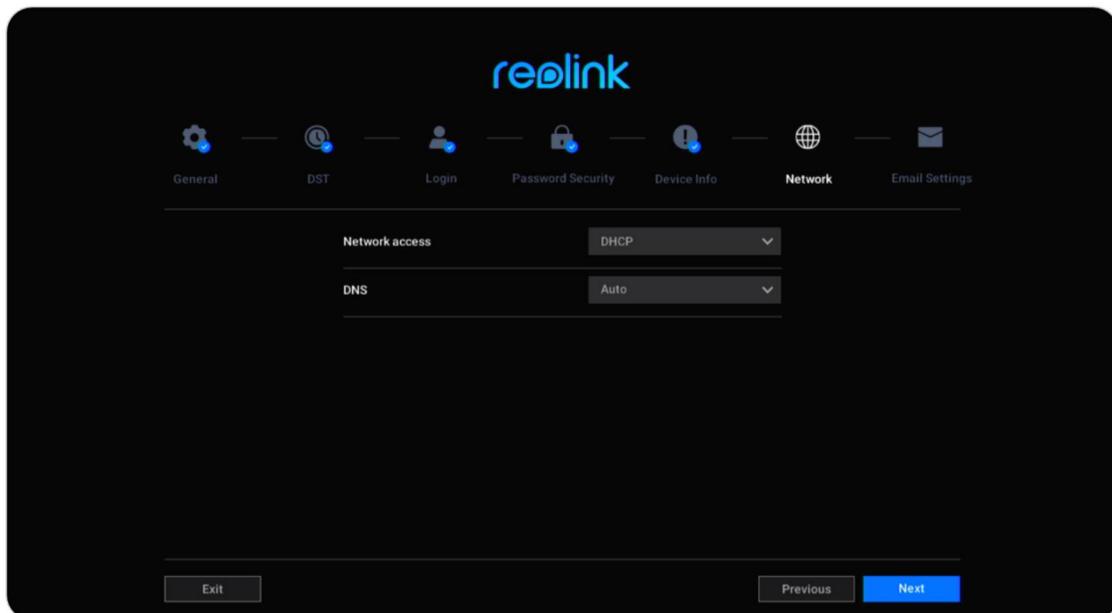
7. **Email Settings**: Configure the email settings for sending alarm emails. You can skip this step and set it up later when you need to use this feature.
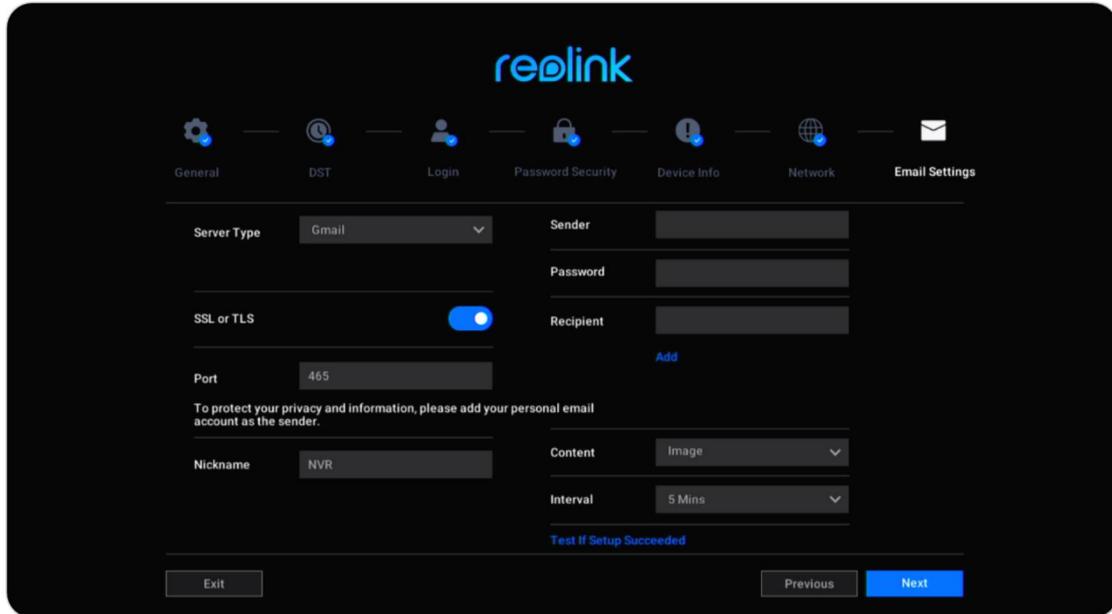
Install the NVR and Camera

NVR is suggested to directly placed on a table, while for the camera you are able to find installation guides and tips on the camera's user manual.

3. Use Your System

Live View

Introduce Icons on the Live View Page

Icon	Meaning
🕐	Playback: Replay the recording of the camera
🎥	Record: Click to manually start/stop recording
🔍	Clip: Crop to partially enlarge parts of the live image
✥	PTZ: Control the camera's pan, tilt and zoom
🔇	Audio: Turn on the audio for live viewing
🖼	Image Settings: Click to change the camera's image settings
◎	Live View: Click to turn on/off live view of the camera
🔦	Spotlight: Click to turn on/off spotlight of the camera
🔔	Siren: Click to manually trigger siren of the camera
⚙	Settings: Click to enter the camera's settings menu

Icons at the Bottom of the Live View Page

Right-click on the live image screen to display a list of icons at the bottom of the screen.
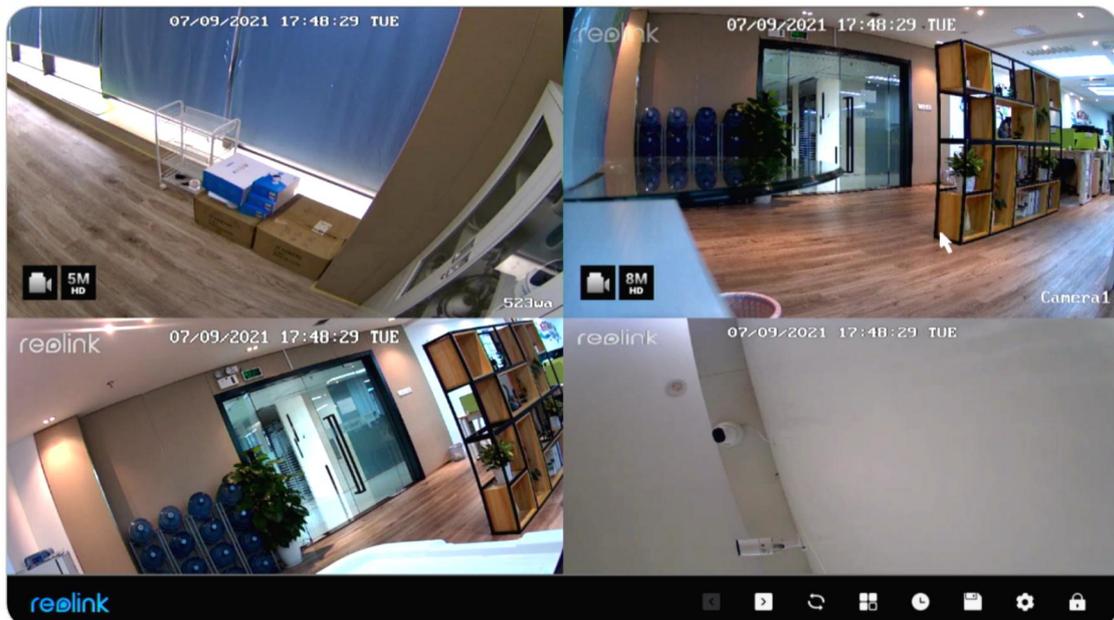
Icon	Meaning
◁	Last: Click to show the previous screen of camera's live image
▷	Next: Click to show the next screen of camera's live image
⟳	Scrollview: Click to start scrolling the live image screen automatically
⊞	Display Mode: Choose to view one camera or multiple cameras
◴	Playback: Click to enter the playback page
💾	Back up: Click to enter the backup page
⚙	Settings: Click to enter the NVR settings menu
🔒	Lock Screen: Click to lock screen, which can set up to require the password to unlock

Change the Place of the Camera Live View

Manually drag the camera to a blank channel to change the position of the camera's live image on the monitor screen.

Use Multiple View
Click ⊞ to choose options from 1, 4, 8, 9, 16 split-screen views. Note for 8-channel NVR there's only options for 1, 4 or 8 split-screen views.

Use PTZ
Click ⊕ to bring up the PTZ control panel of the camera. Click the arrow in different direction to pan or tilt the camera.
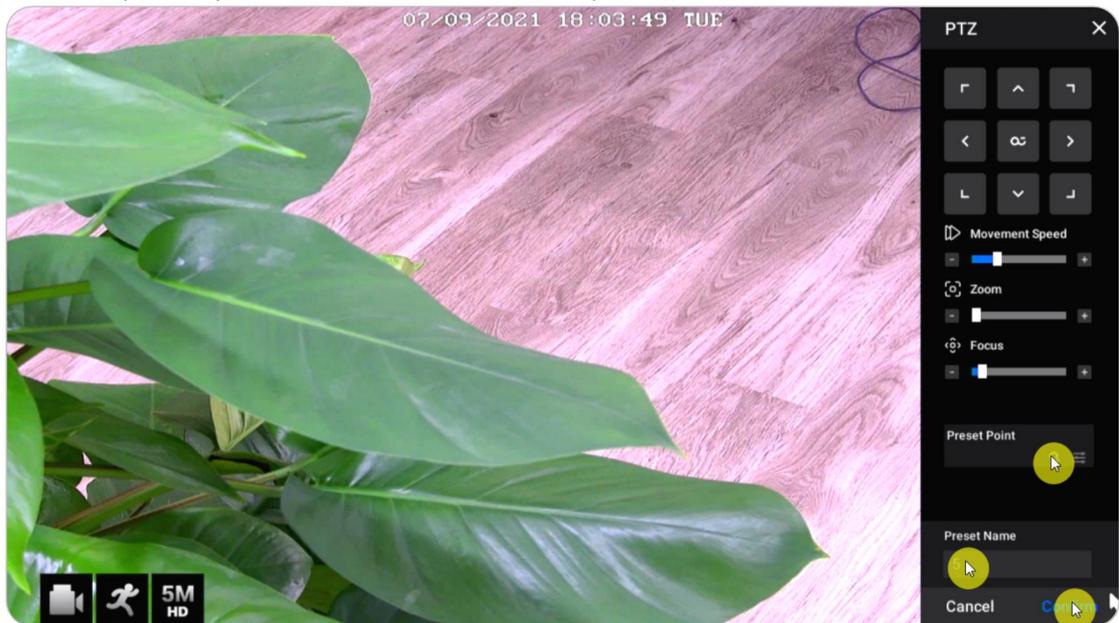Click +- on **Zoom** to zoom in or zoom out the image, and click +- on **Focus** to manually adjust the focus of the camera.
Click +- on **Movement Speed** to set up how fast you want the camera to pan and tilt.
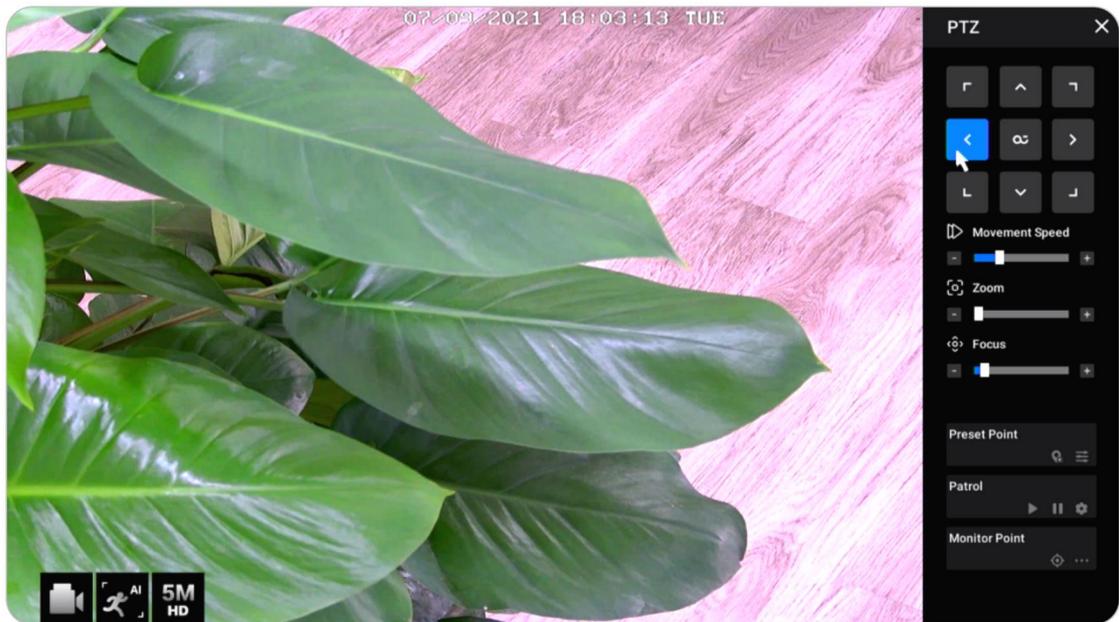
Preset Point

At **Preset Point**, please pan and tilt the camera to wanted position then click ![icon]
to add a preset position. Set a name for the preset, then click **Confirm** to save.

To delete a preset position, please click ▤ to edit all current saved preset positions. Click ⚙ to change name of the preset position, and click 🗑 to delete the selected position.
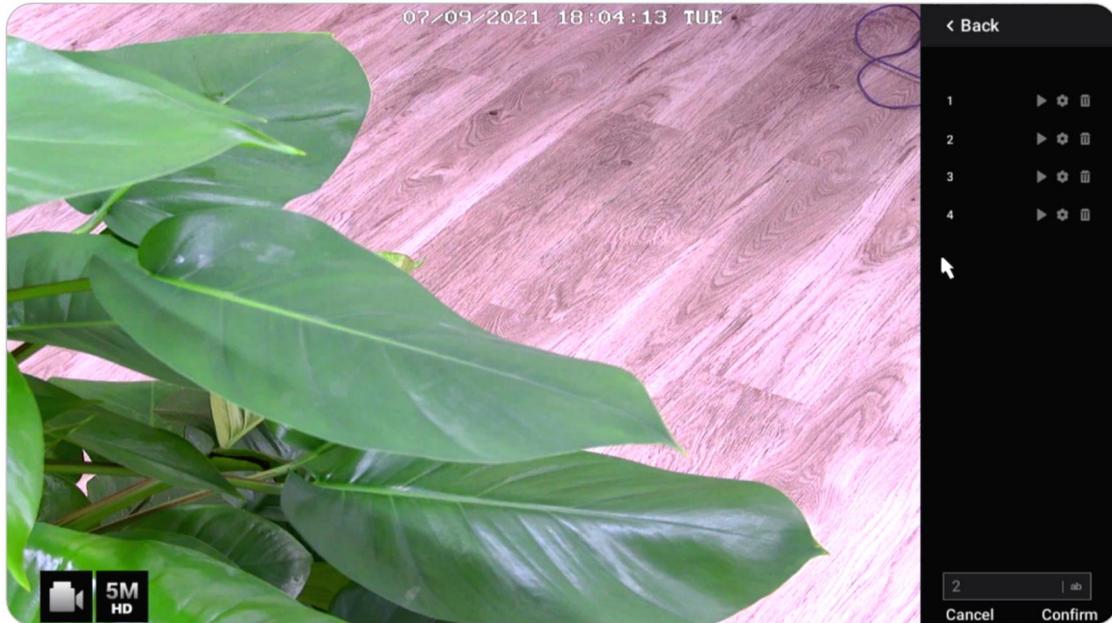
Monitor Point

Set the monitor point (or guard position). You can set the camera to always return back to this position if the camera is rotated away from it.

At **Monitor Point**, click ⚲ to set the current position as a monitor point.
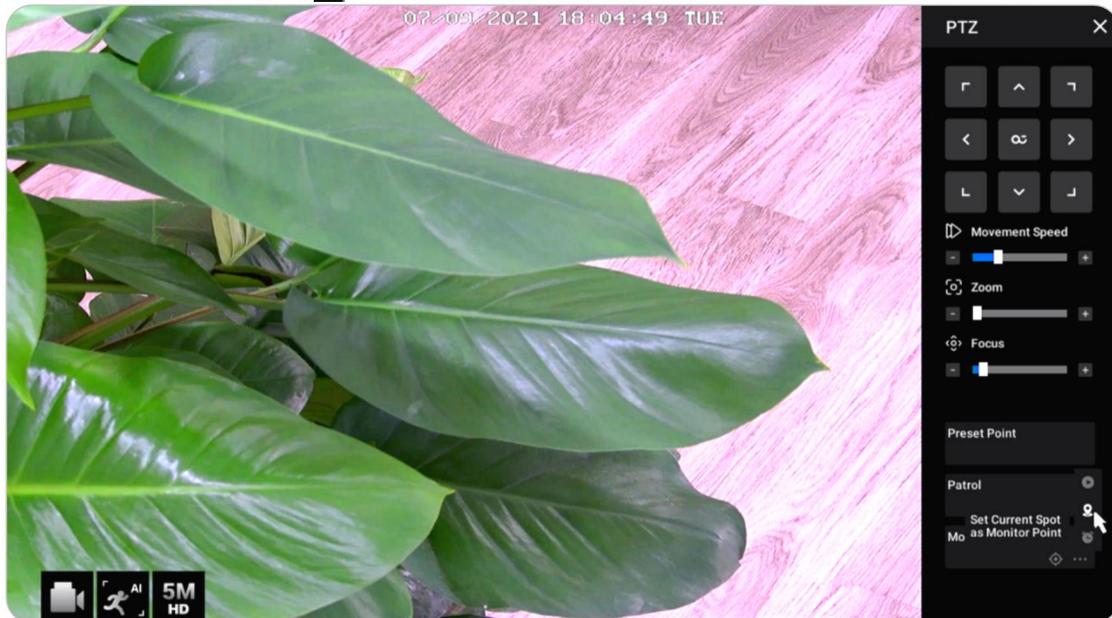
Set the **Interval for Auto Return** from 10-300 seconds, and then click **OK**.

Click to return the camera to it's monitor point immediately.
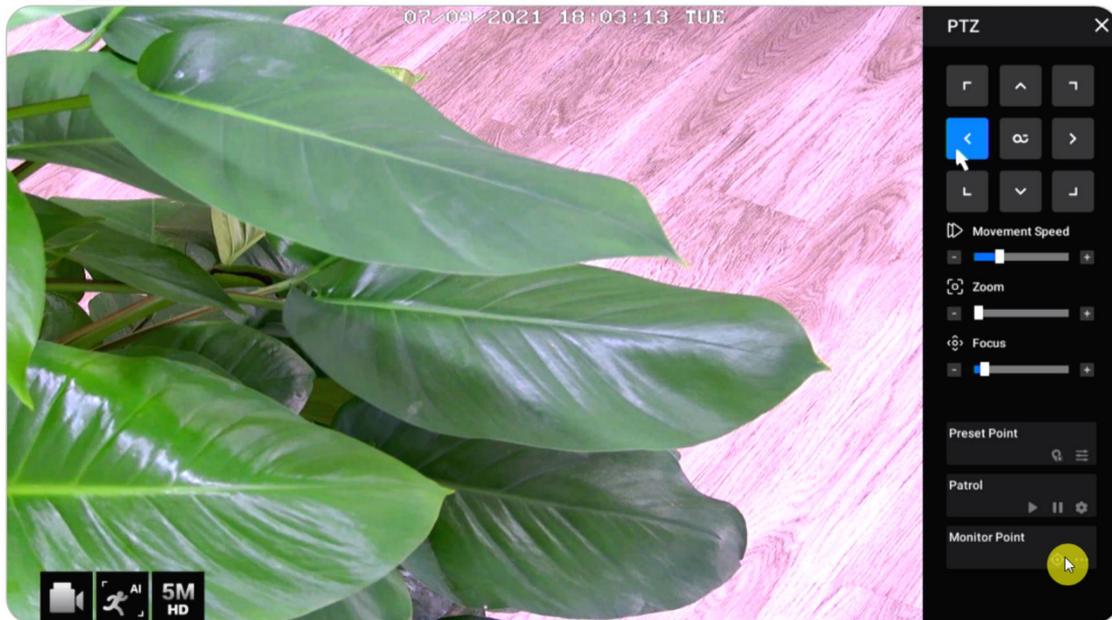
Patrol

Click ⚙ to start or stop cruise horizontally. At **Patrol**, you can also customize the patrol routine with at least two preset points.

At **Patrol**, click ⚙ .

Click + to add at least two preset points to create a patrol. Click ⚙ to set the preset point duration and speed, click **Confirm** to Save it. Click 🗑 to delete the selected preset point from patrol.

Change the Live View Resolution

Click ⚙ to enter the settings menu of the camera. Click **Stream**, here you can change the **Resolution** for the **Main Stream**. Then the live view resolution will be changed accordingly.
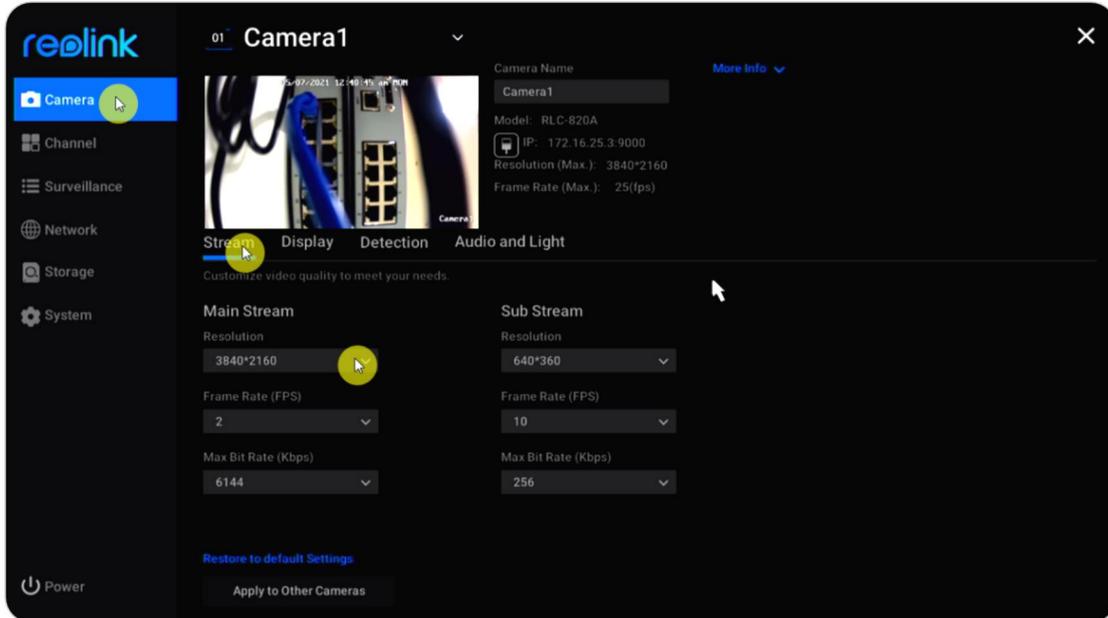
Set up Lock Screen

Right click on live image screen to display the icons on the bottom. Click 🔒 to manually lock the screen.

You can set to require a password when unlock the screen to protect the NVR system. Or you can set the NVR to automatically lock the screen and then requires a password to unlock. It can be set up at NVR **Settings** > **System** > **General** page.
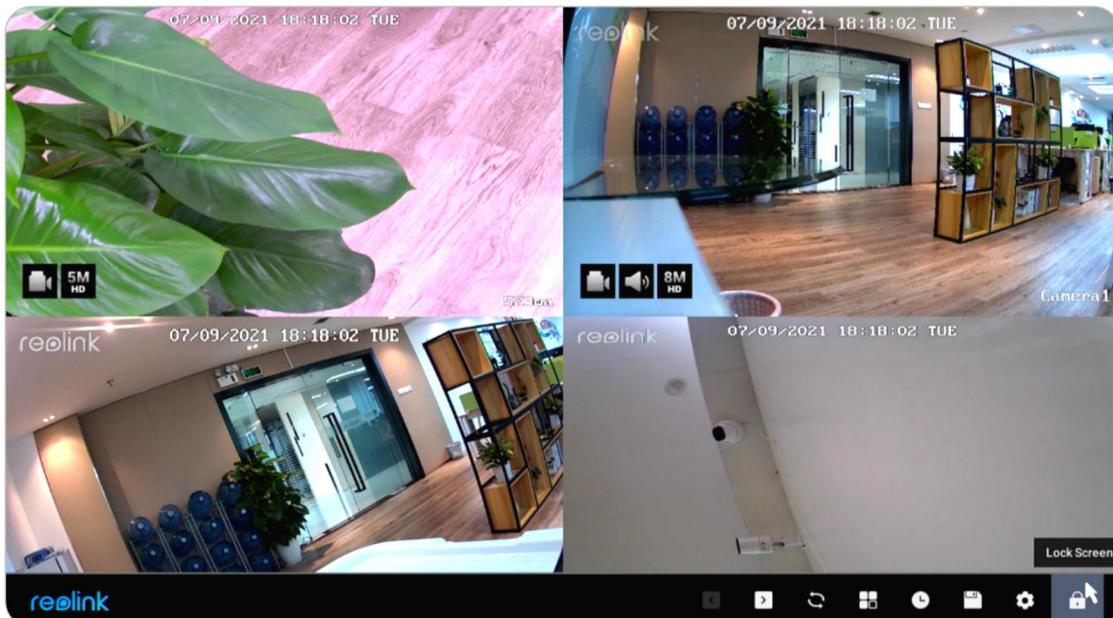
Camera Settings

Stream

Go to **Settings** > **Camera** > **Stream**, here you can change the resolution, frame rate and bit rate of the camera. Set up a higher resolution provides a better image quality, but also requires a much higher network bandwidth and uses up more storage space while recording.

Display

Go to **Settings** > **Camera** > **Display**, here you can set up the **Camera Name**, **Time Stamp**, **Watermark**, Flip and Mirror etc.
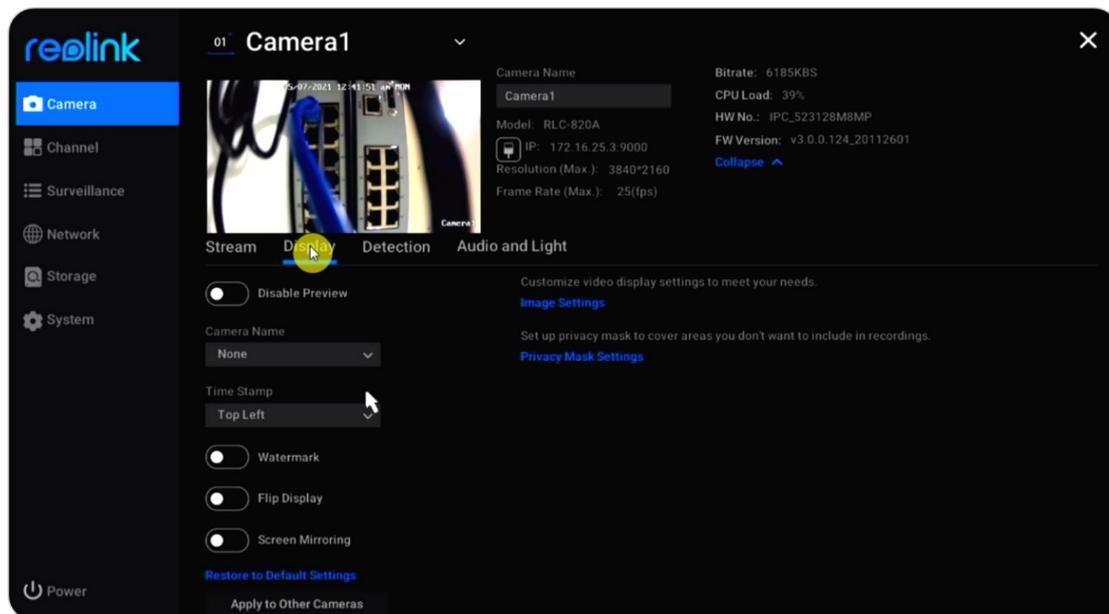
Disable Preview: Turn on or off live view of the camera.
**Camera Name**: Set a name for the camera.
Time Stamp: Set the position of the **Time Stamp**, you can choose from **Top Left**, **Top Right**, **Bottom Left**, and **Bottom Right**.
Watermark: Turn on or off the Reolink Logo on the live view.
Flip Display: Turn the camera's image upside down when enable this option.

Screen Mirroring: Mirror the camera's image when enable this option.

Image Settings: Click Image Settings, here you can adjust the **Brightness**, **Contrast**, **Saturation** and **Sharpness** of the camera's image.
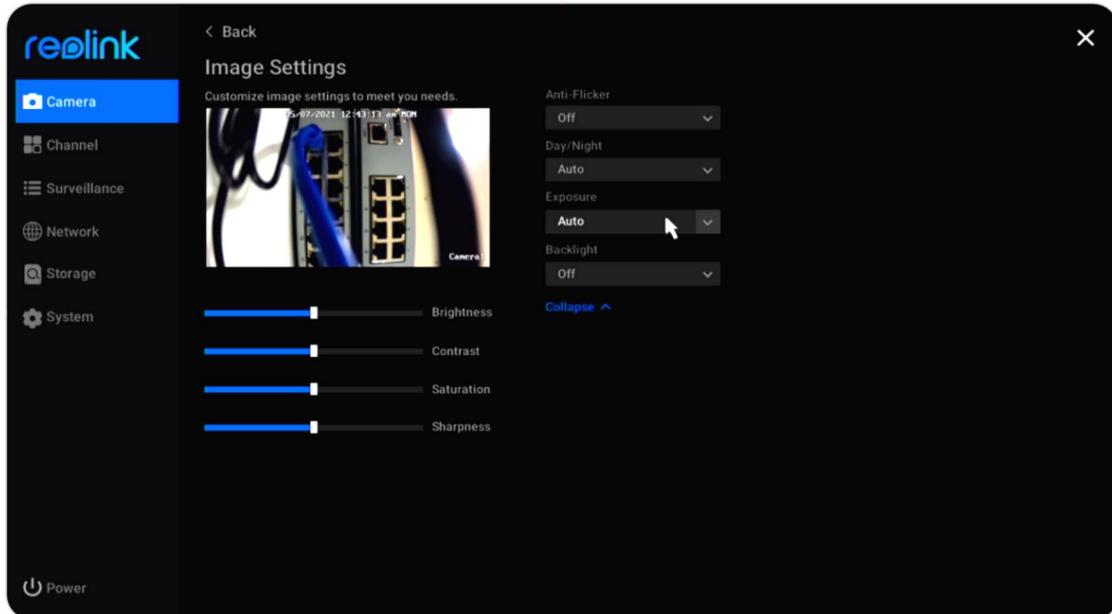
Click **Advanced**, you can set up image settings below.

Anti-Flicker: Choose from **Off**, **50Hz**, **60Hz**, or **Other**.

Day/Night: Set the Day/Night mode of the camera from **Auto**, **Color**, **Black & White**, or **Off**.

Exposure: Set from **Auto**, **Low Noise**, **Frame Rate** or **Manual**.

Backlight: Set from **Off**, **Backlight Control** or **Dynamic Range Control**.

Usually, it's suggested to keep these image settings at default.

Privacy Mask Settings

You can set the privacy zone to block parts of the live image to protect your privacy. After setup, the privacy zone will be blocked in both live view and recordings.
Click **Privacy Mask Settings**, use your mouse to drag up to 4 zones. Then click **Apply** to save the change.
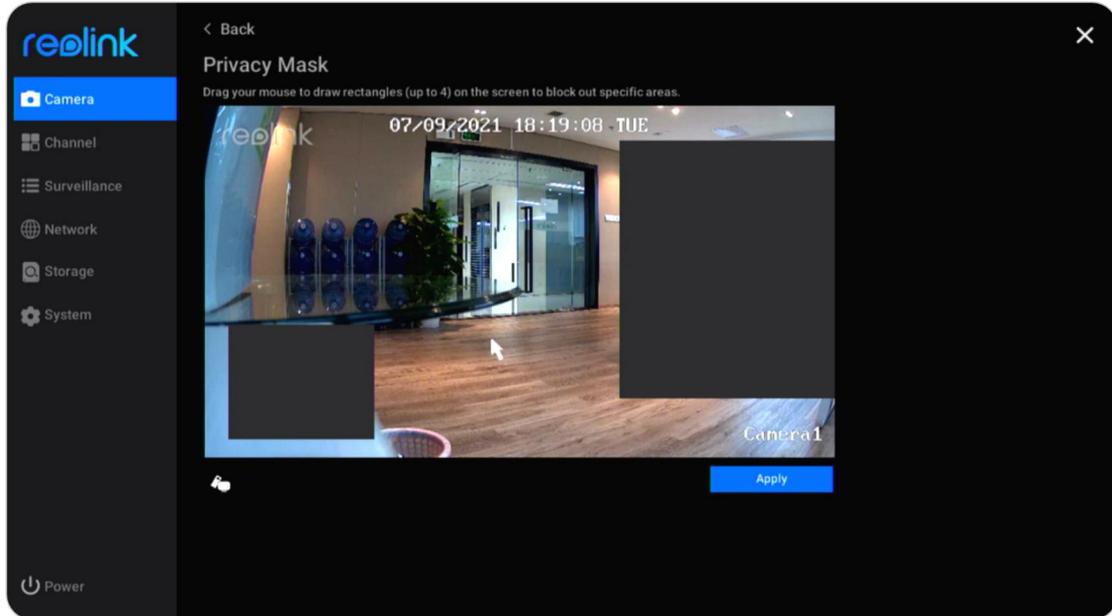
Audio and Light

Go to **Camera** > **Audio and Light**, here you can set up camera's audio, status LED, infrared light and spotlight.

Record Audio: For cameras with built-in microphone, click to enable this option. Then it will save recordings with audio and also allow to preview with audio.
Status LED: For cameras with status LED, click to disable this option, then the camera's status LED will be off.
Infrared Lights: Choose from **Auto** or **Off**. Usually suggest you to keep it as Auto.
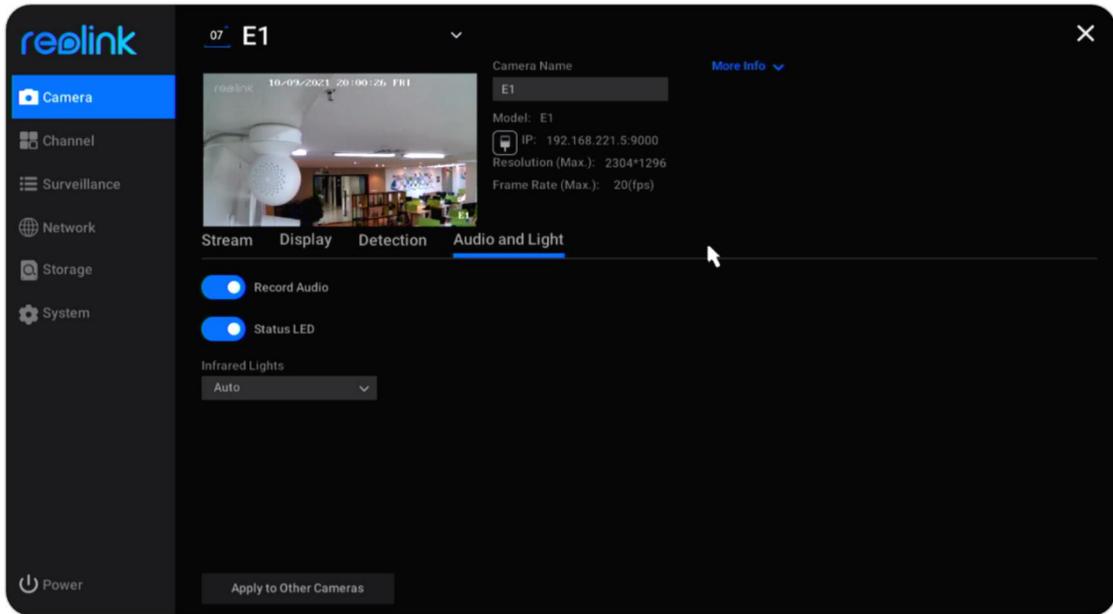
Volume: For cameras that support adjusting volume, you can also drag the volume bard to adjust the volume of the camera's speaker.

Spotlight: For cameras with built-in spotlight, you can drag on **Brightness** bard to adjust the brightness of the spotlight. Click to enable **Night Mode**, you can choose **Auto** mode or **On as scheduled**. With auto mode, the spotlight will turn on when alarm event is detected. With on as scheduled mode, you can set the time when the spotlight will turn on and off.
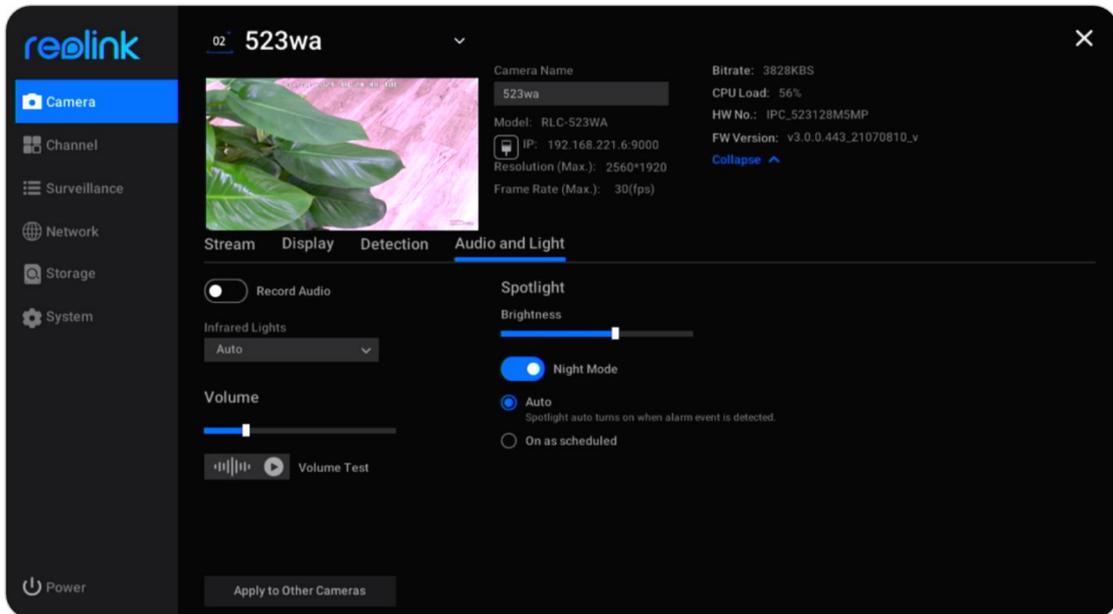
More Info

Go to **Camera** and click **More Info**.
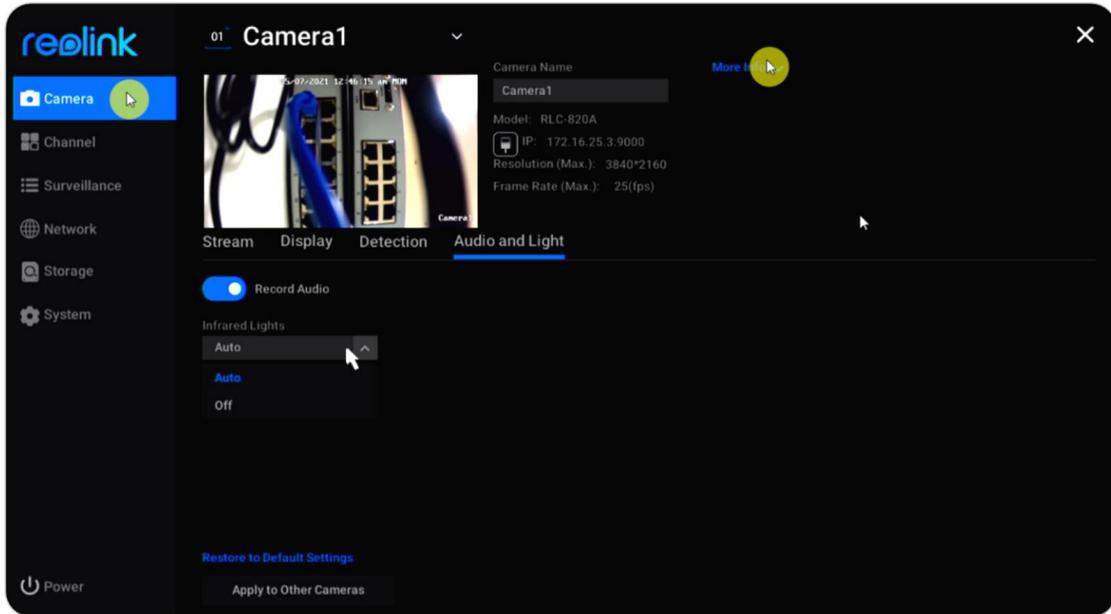
Here you can check the **Hw No** (Hardware number) of the camera and **FW Version** (firmware version).
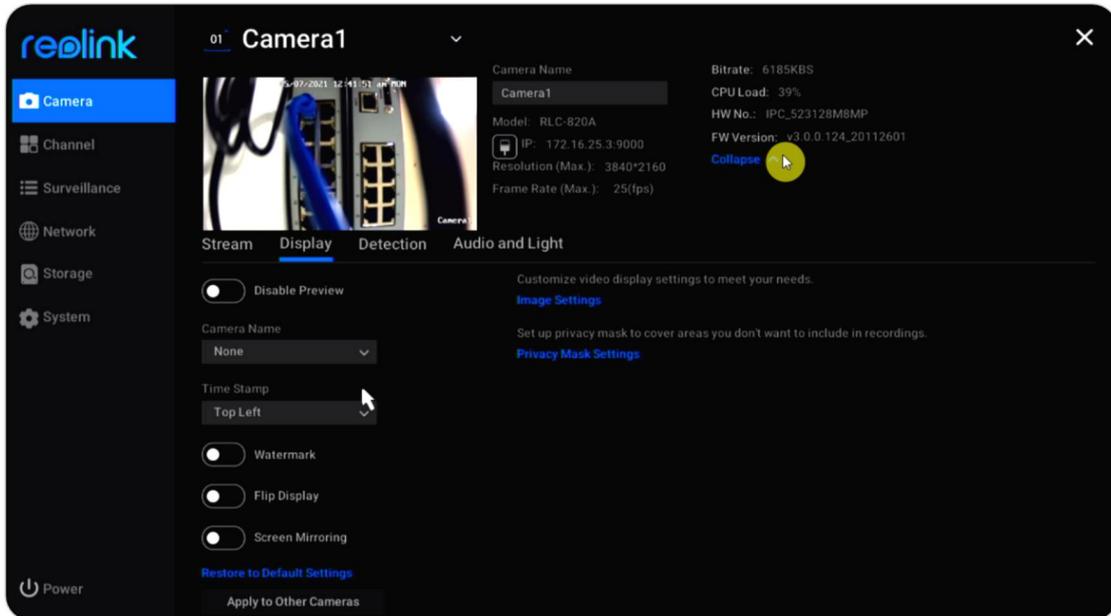
4.Surveillance

Set up Motion Detection

Go to **Camera** > **Detection**, here you can set up the motion detection (MD) sensitivity and detection area.

Click **Add Time Period** to set a time period with a sensitivity, you can set a maximum of 4 different sensitivity time periods.
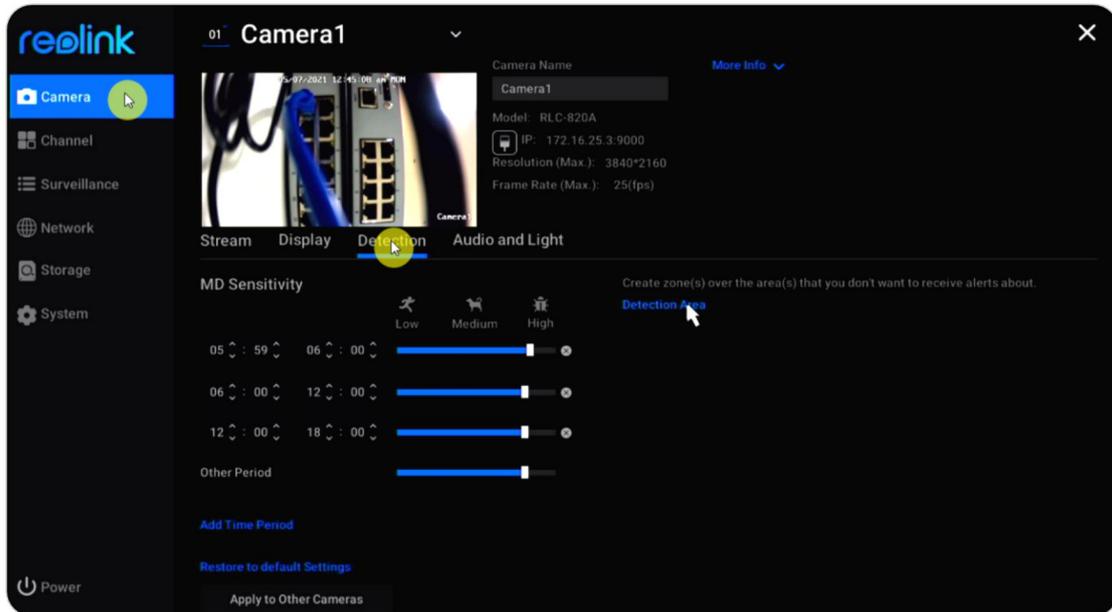
Click **Detection Area**, you can draw the areas where you don't want to detect the motion. Click Apply to save your detection area settings.
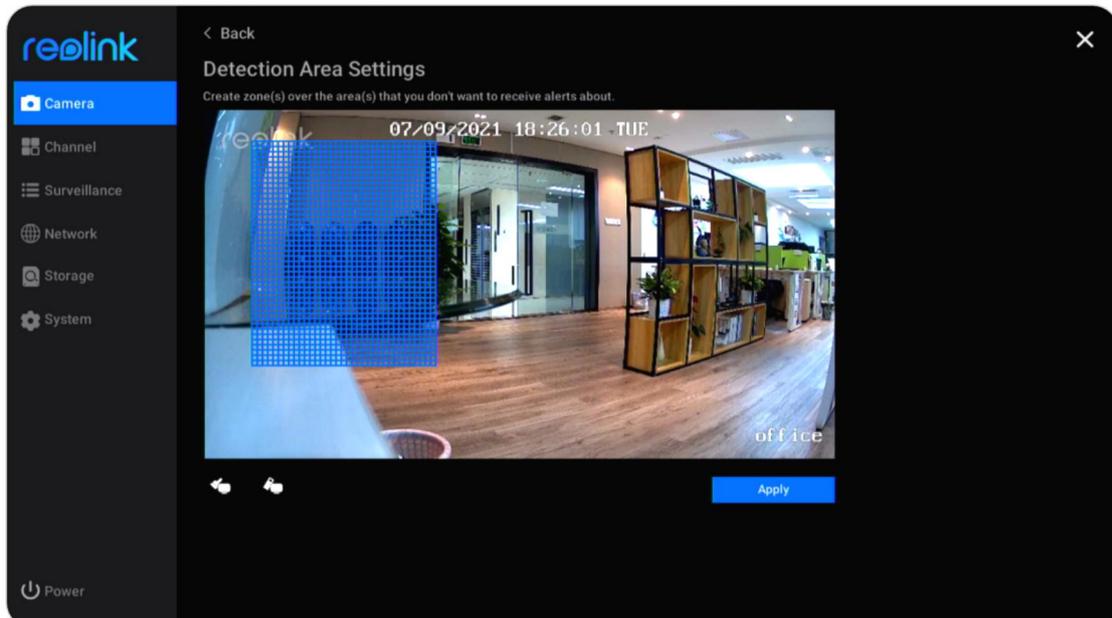
For cameras with human/vehicle detection, you can also set up the sensitivity for smart detection and object size.
Click **Settings** under **Sensitivity for Smart Detection**.
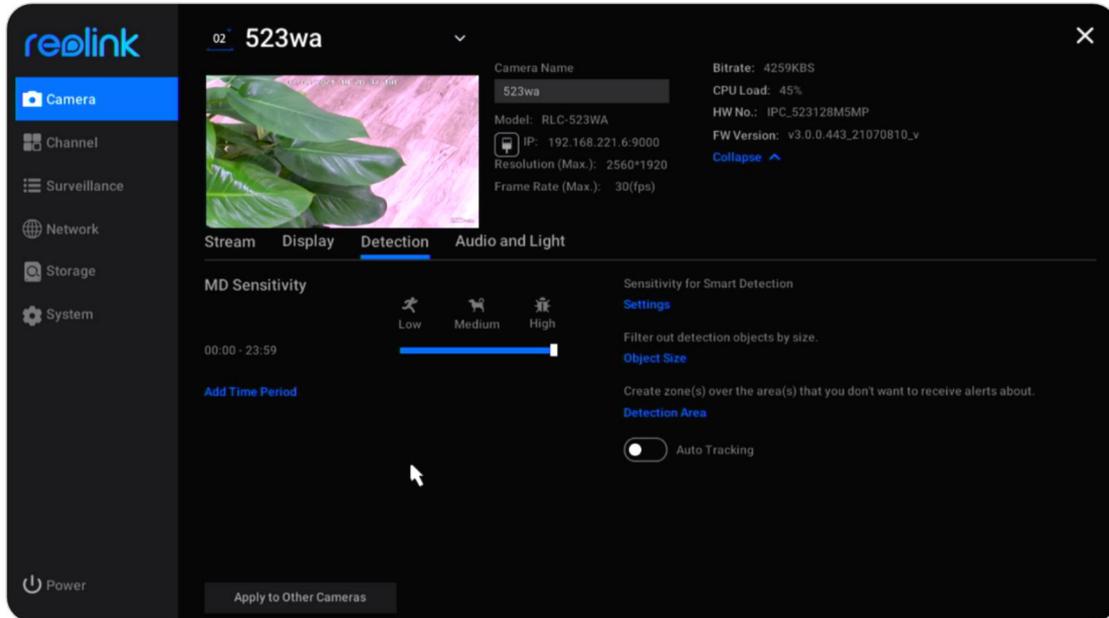
Here you can set the sensitivity level for **Person** and **Vehicle** detection independently.
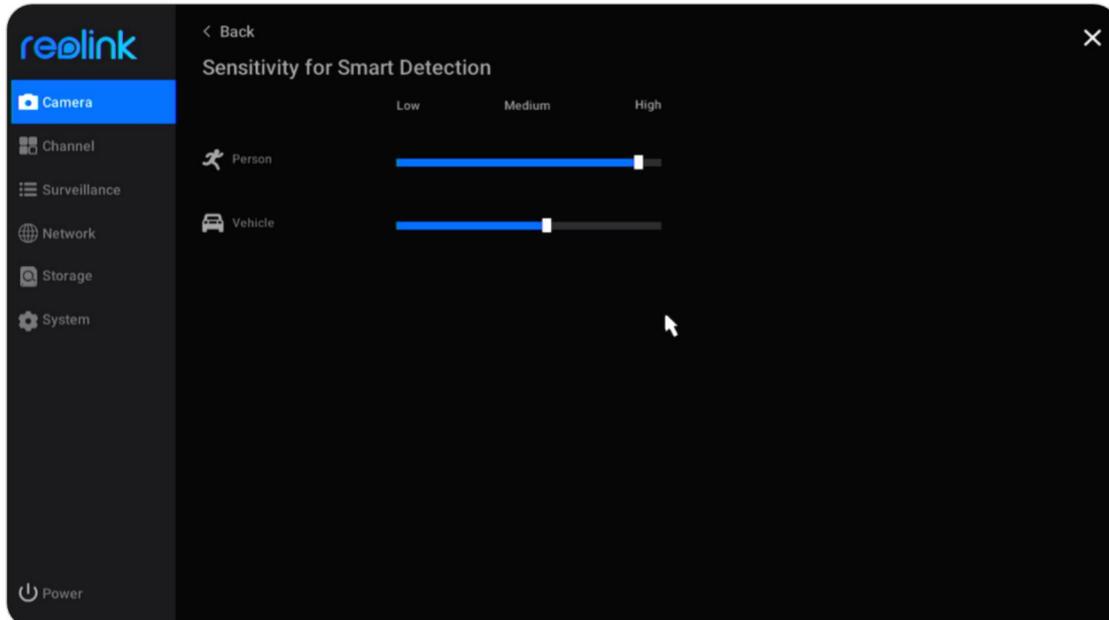
Click Object Size, here click [icon] to set a minimum object size, and click [icon] to set a maximum object size. Click **Apply** to save the settings. This way, only objects between the set minimum and maximum size will trigger the alarm.
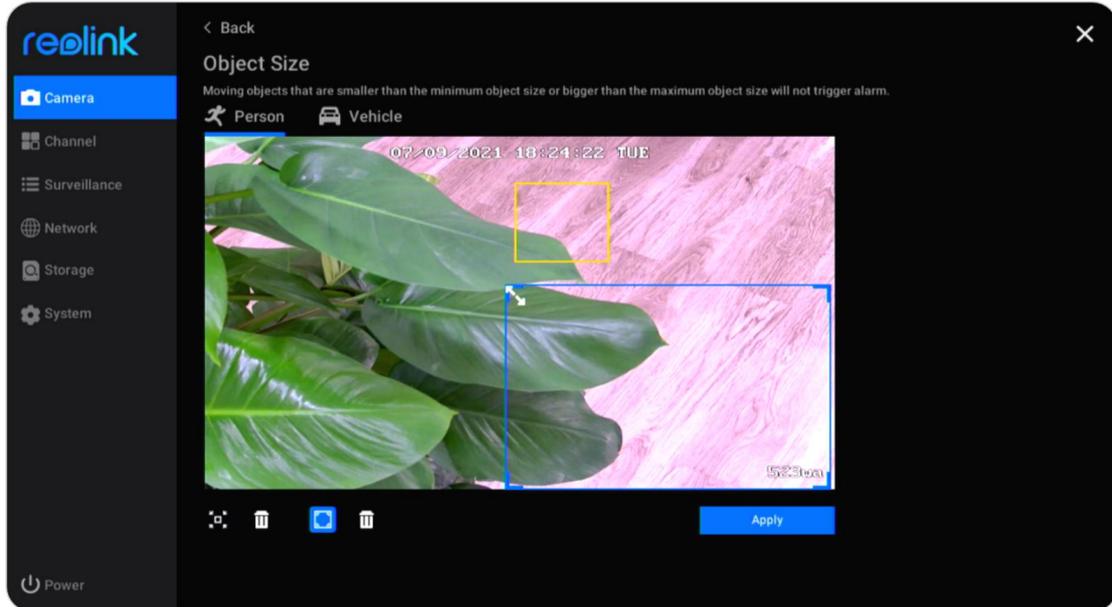
For cameras that support auto tracking, you can also enable **Auto Tracking** in this page. And choose **Person** or **Vehicle** as the **Tracking Type**.
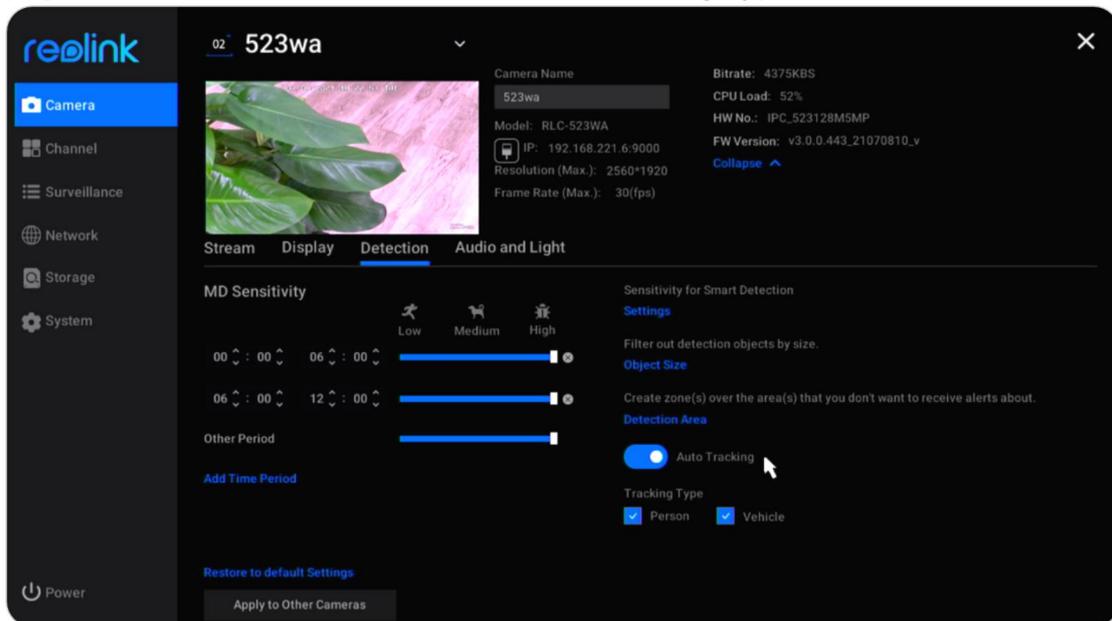
Set up Motion Recording

Please set up the motion detection first, then go to **Surveillance** > **Record** to enable the motion recording.
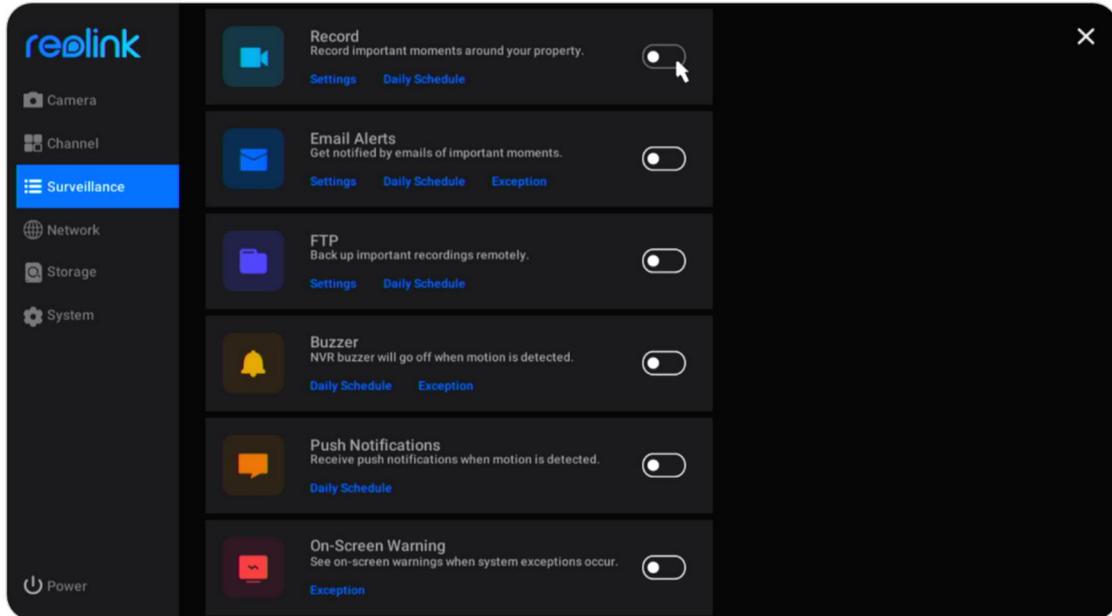
Click **Settings** under **Record** option.
Enable **Overwrite**, it'll automatically overwrite the previous recordings when the HDD is full. Choose if to enable **Start to record before a motion event is detected** according to your need.

Set the **Extended recording time after a motion event ends** from 1 min, 2 min, 5 min, or 10 min.
Set the **Pack Duration** from 30 min, 45 min, or 60 min. The package duration is the maximum lengthen of a recording file.
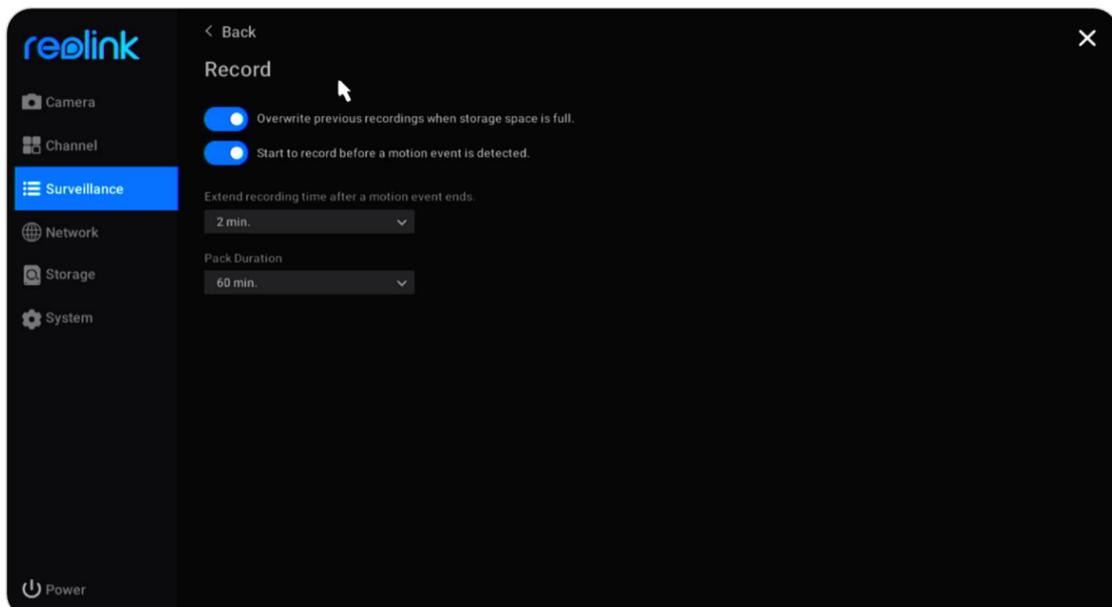
Click **Daily Schedule**, choose the camera you want to set up. Click **Alarm**, here you can set up a schedule when you'd like the camera to record on motion. If you need to set different schedules for each camera, please choose the cameras to set them up one by one. Or if you want to set up the same schedule for all cameras, you can click **Applies to Other Cameras** to directly copy current camera's settings to others.
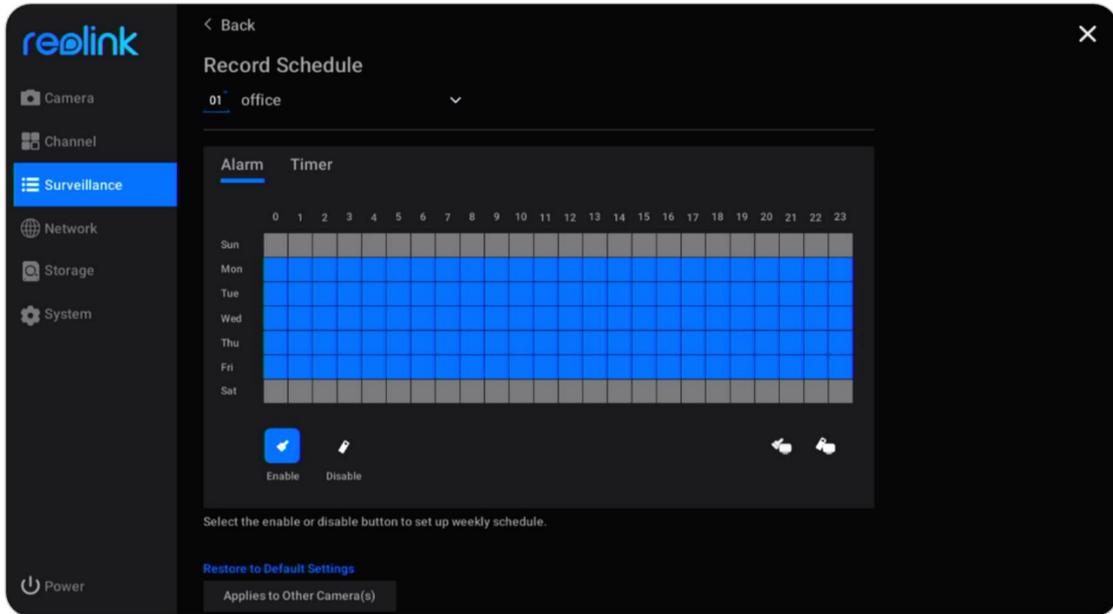
For cameras with person/vehicle detection, you can also choose the **Alarm** type from **Any Motion**, **Person** or **Vehicle**.
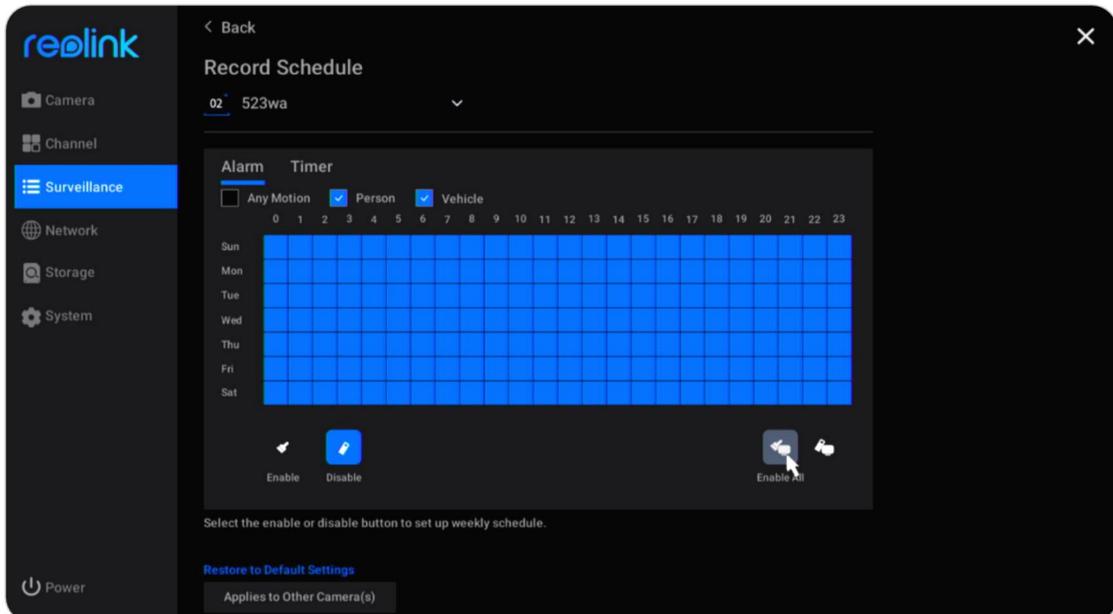
Set up Continuous Recording

Please set up the recording settings first, then go to Surveillance > Record > Daily **Schedule**, choose the camera you want to set up. Click **Timer**, here you can set up a schedule for when you'd like the continuous recording to work.
If you keep all schedule disabled, then it'll not save any continuous recordings.
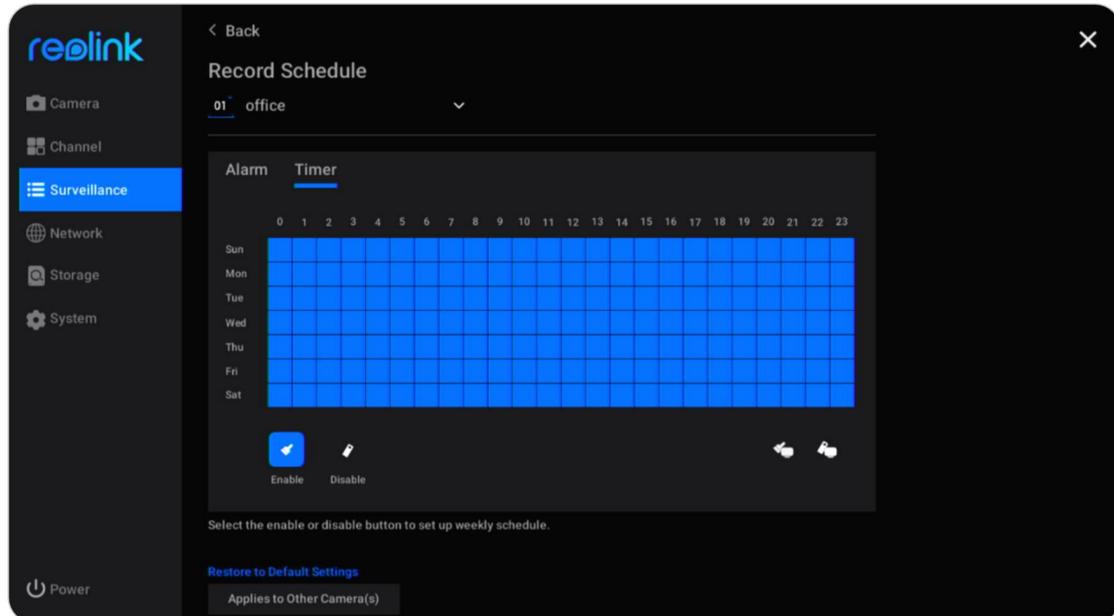
Note:
You can save both motion-triggered recordings and continuous recordings simultaneously by setting up their own **Alarm** or **Timer** schedule.

Set up Motion Alerts

Alarm Email

Alarm email allows the camera to send an email with plain text, camera's live image or video when the camera detects a motion.

Set up Alarm Email
Go to **Surveillance** > **Email Alerts**, click to enable email alert.
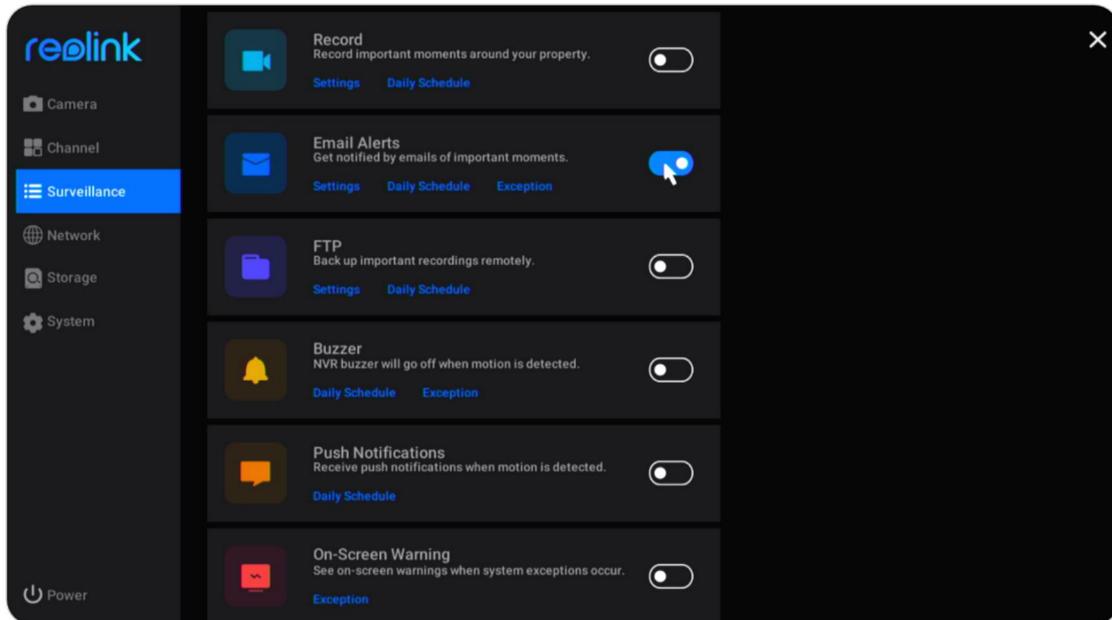
Click **Settings** under **Email Alerts**, here you can set up the email parameters as below.

Server Type: Choose from **Gmail**, **Yahoo**, **Outlook**, or choose **Other** and manually the SMTP server.

Port: The SMTP port of your email.

Nickname: Set a sender name for your NVR.

Sender: Your email address for sending the alarm emails.

Password: The password of your email, for Gmail and Yahoo it's suggested to use the generated App password instead.

Recipient: Set the receiver email address. You can add up to 3 recipients.

Content: Set up what content you want the alarm emails to send. Choose from **Image**, **Image Only**, **Video** or **Text**.

Interval: Set the interval you want the alarm email to be sent. Choose from **30 Secs**, **1 Min**, **5 Mins**, **10 Mins** or **30 Mins**. For example, set the interval at 1 minute. The camera detects two motions within 1 minute, it'll still only send one alarm email.
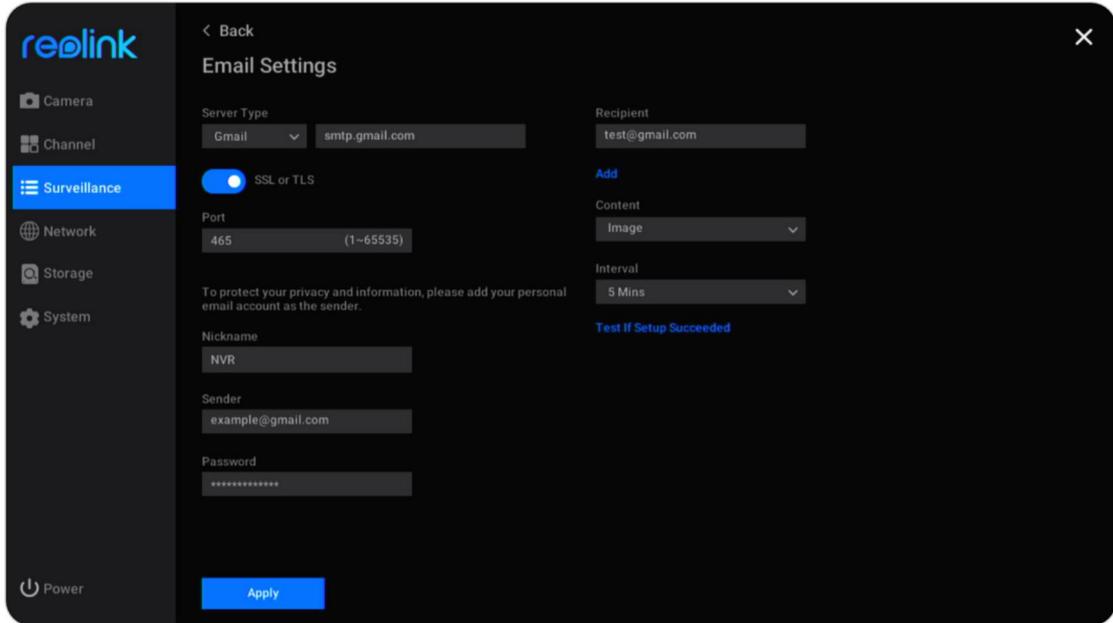
After finishing the settings, please click **Apply** to save the settings. Then click **Test If Setup Succeeded** to see if the email test is successful.

Set up Email Schedule
Click **Daily Schedule** under **Email Alerts**. Select a camera, and then set a schedule when you want the email alerts to work. For cameras with person/vehicle detection you can also choose the **Alarm** type from **Any Motion**, **Person** or **Vehicle**.
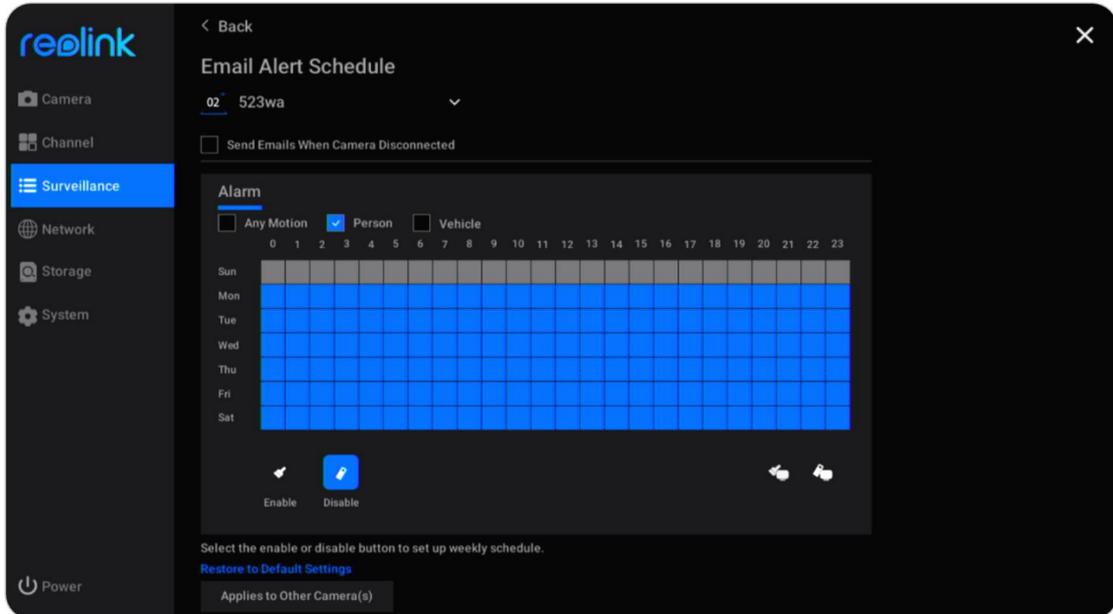
Set up Exception Alert Emails

Click **Exception** under **Email Alerts**, you can set to send an alert email when the HDD is full or there's an HDD error.
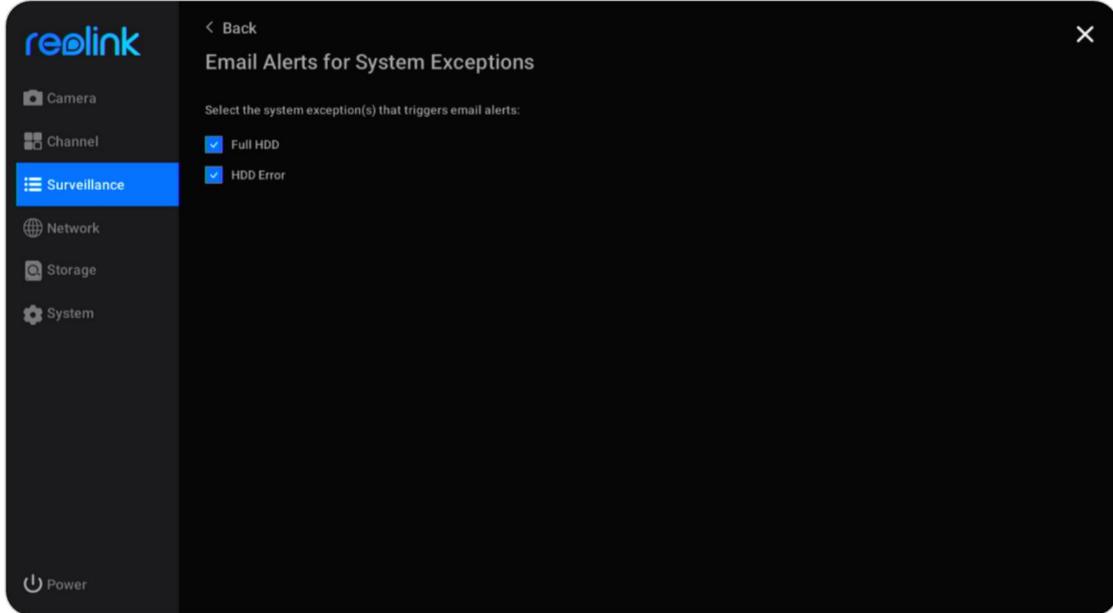
Buzzer

You can set up the NVR to make an alert beep sound when a motion is detected. Go to **Surveillance** > **Buzzer**, click to enable buzzer.
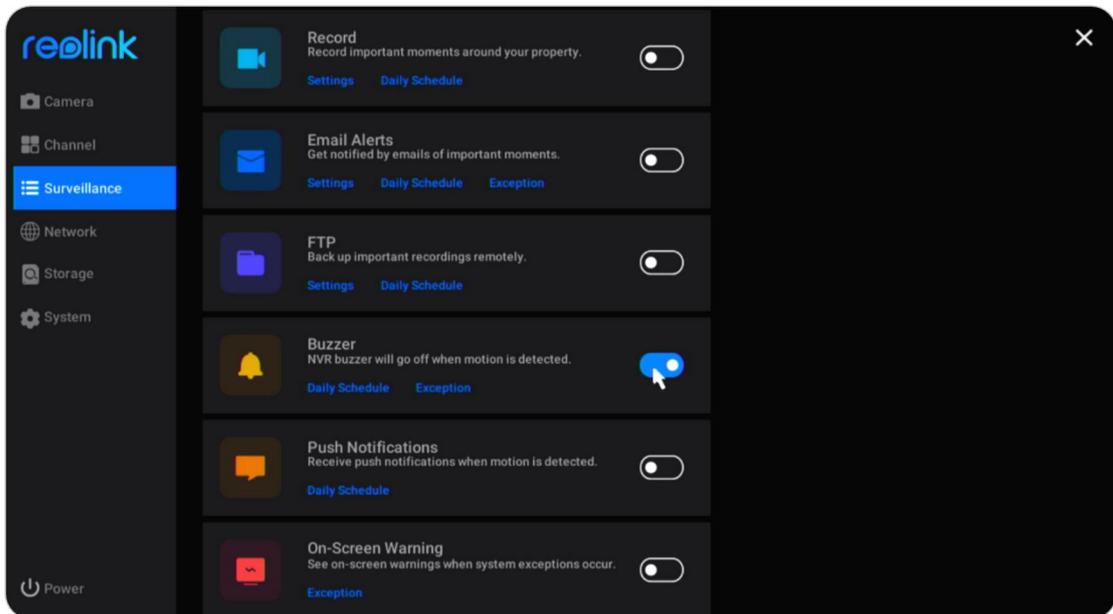
Click **Daily Schedule** under **Buzzer**. Select a camera, and then set a schedule when you want the buzzer to work. For cameras with person/vehicle detection you can also choose the **Alarm** type from **Any Motion**, **Person** or **Vehicle**.

Check the option **NVR buzzer will go off when camera disconnect from network**, it'll also make a beep sound when the camera is disconnected.
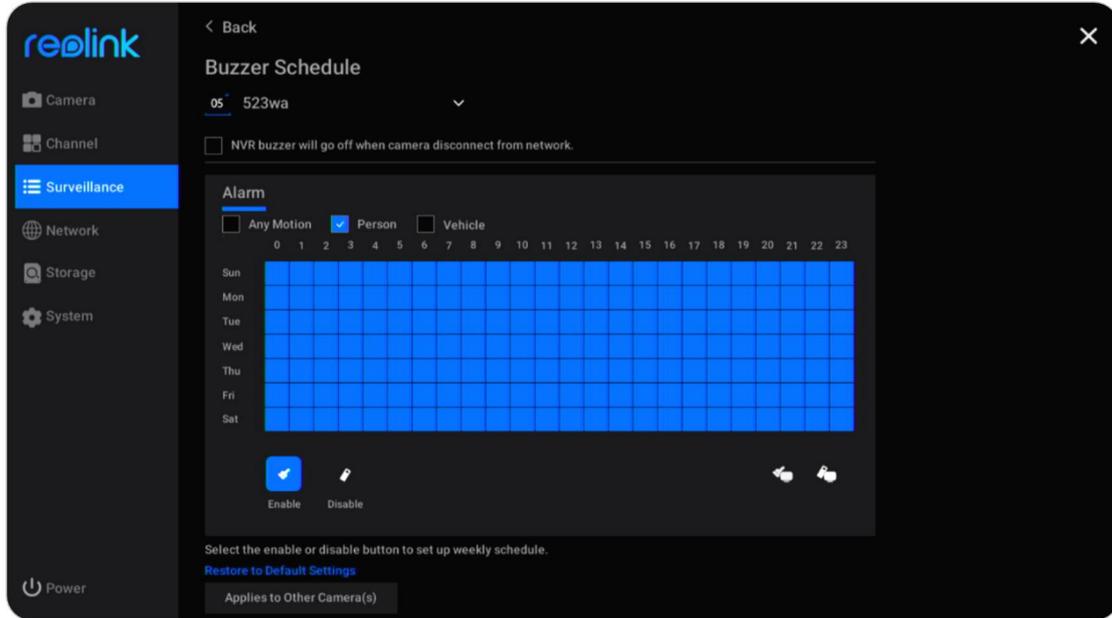
Click **Exception** under **Buzzer**, here you can choose which exception the NVR will buzzer. Choose from options **Full HDD**, **HDD Error**, **Disconnected Network** or **IP Conflict**.
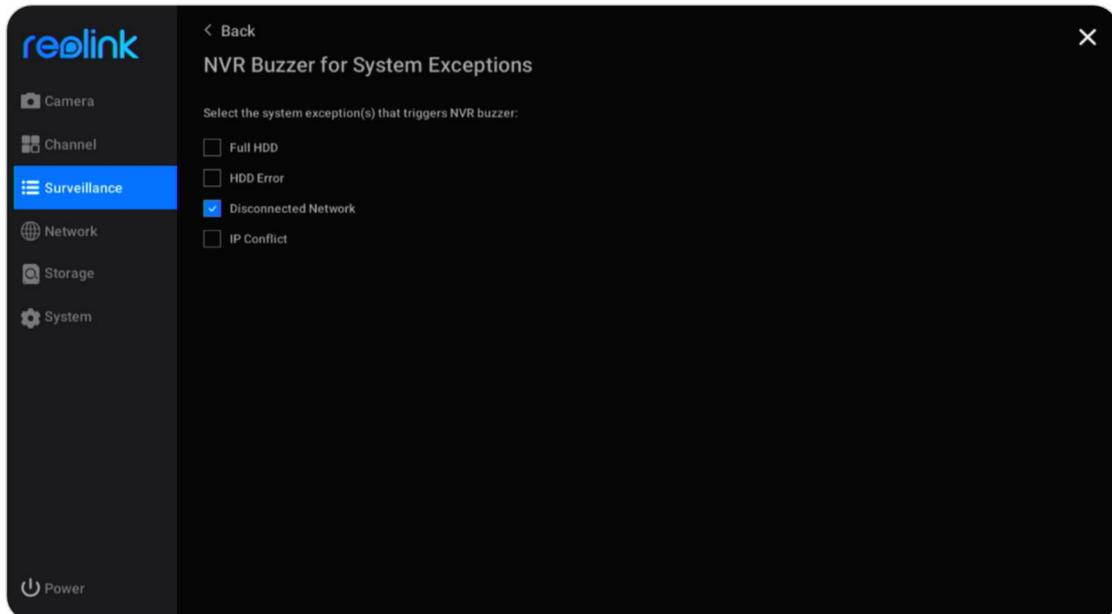
Push Notification

Push notification is a text message that pops up from the Reolink App on your mobile phone when the camera detects a motion.
Go to **Surveillance** > **Push**, here you can set up the **Push Notification Schedule**. Select the camera, and then set a schedule when you want the push notification to work. For cameras with person/vehicle detection you can also choose the **Alarm** type from **Any Motion**, **Person** or **Vehicle**.
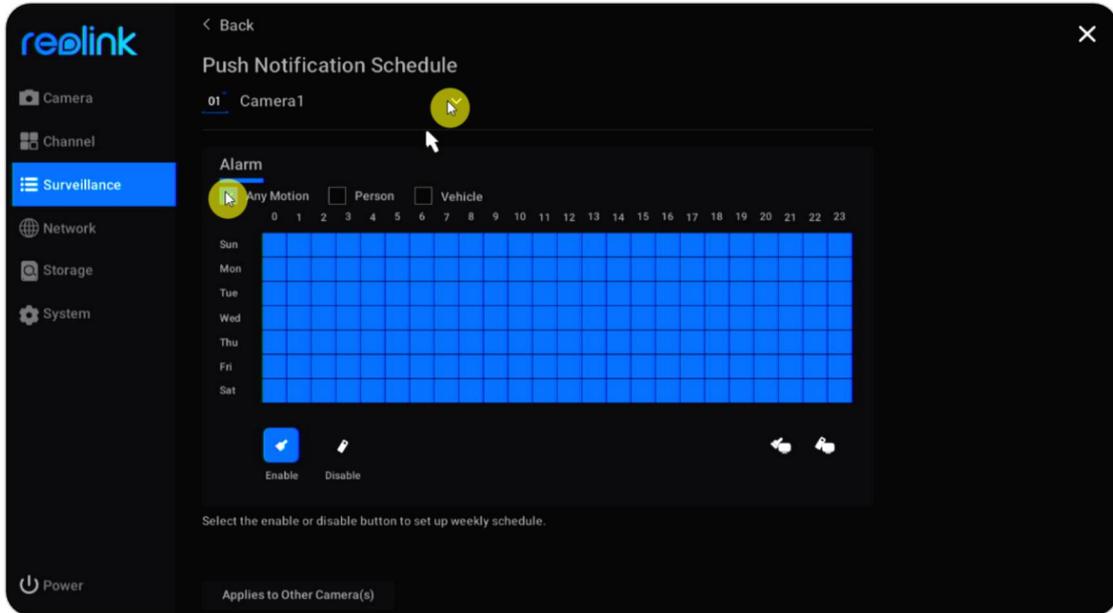
Click **Applies to Other Cameras** to quickly copy the settings to other cameras.

On-Screen Warning

Go to **Surveillance** > **On-Screen Warning** to enable this option.
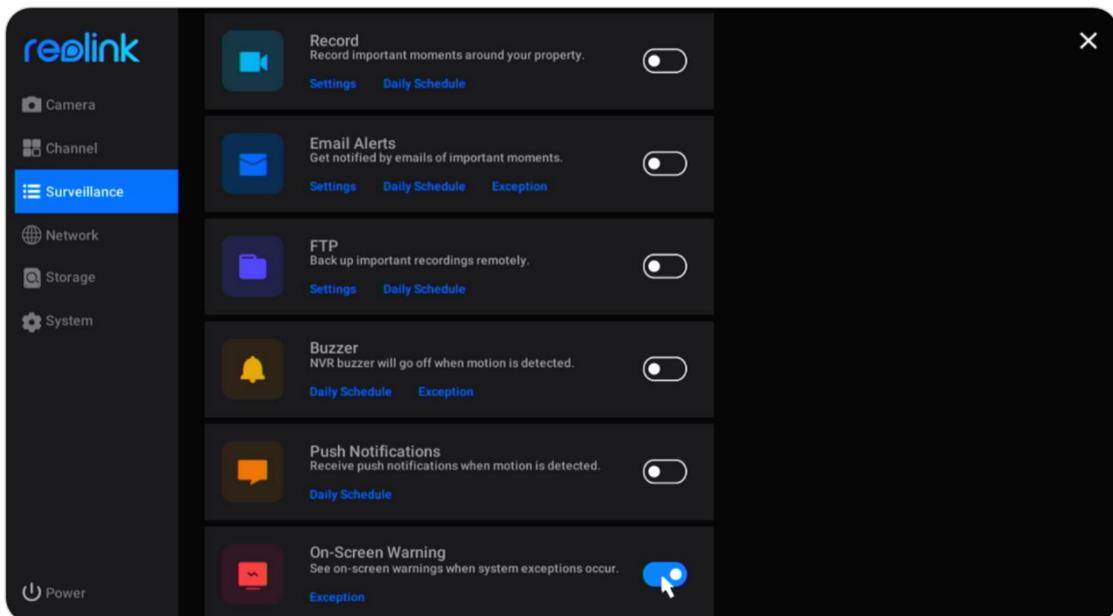
Then click **Exception** under **On-Screen Warning**. Choose which exception to trigger the on-screen warnings from options **Full HDD**, **HDD Error**, **Disconnected Network** or **IP Conflict**.
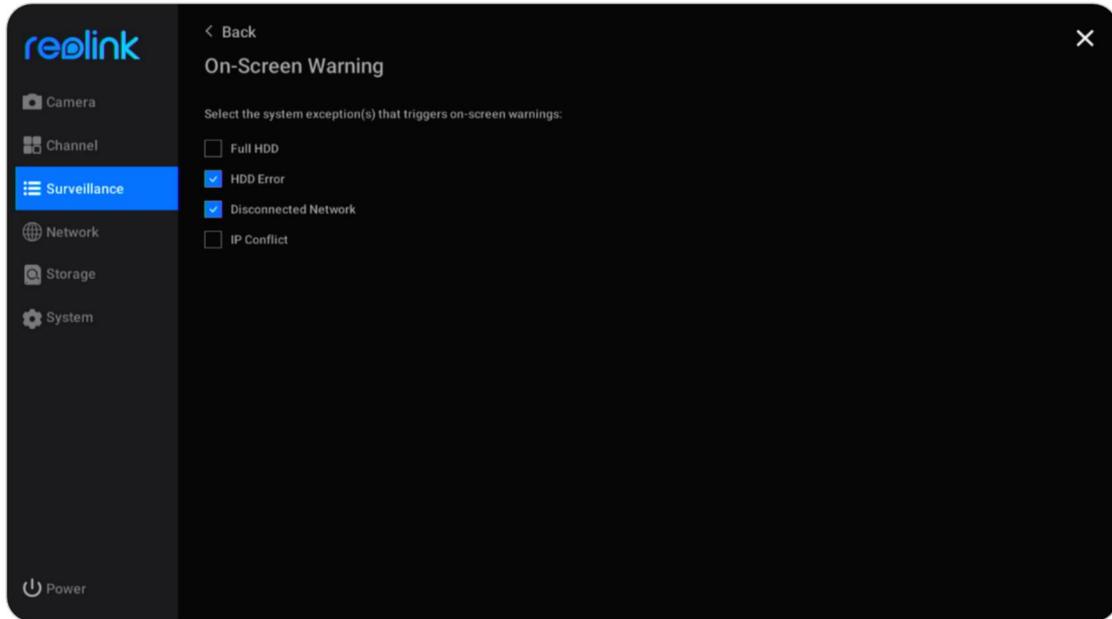
Set up FTP

With FTP settings, you can set up the NVR to upload images or videos to the FTP server as scheduled or when motion is detected.

Go to **Surveillance** > **FTP**, click to enable this option.
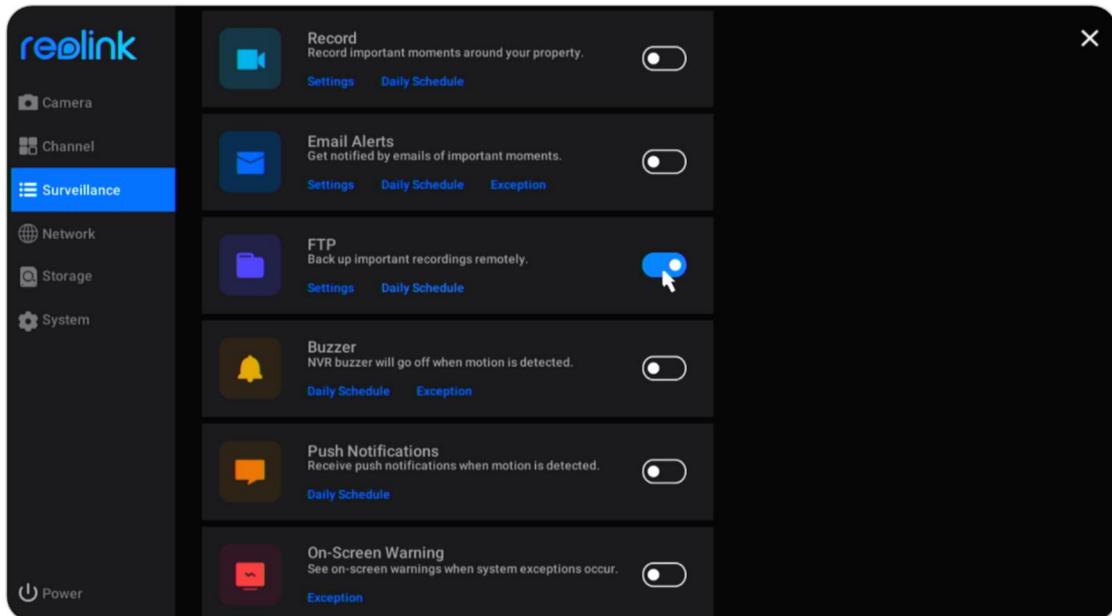
Click **Settings** under **FTP**, here you can set up the below parameters of FTP.

Server Address: Enter the domain name or IP address of your FTP server.

Port: Enter the port of your FTP server. The default port is 21.

Username: Enter the username of the FTP server, please make sure to use a user account with read & write access to the FTP server.

Password: Enter the password of your FTP server user account.

Remote Path: Enter the path on the FTP server where you want the NVR to upload videos or images. Please use a path that already exist.

File Size: Set the maximum size of the file from 10~1024MB.

Subfolder by Date: Enable this option, it'll upload the video and images to different folders according to the date.

Content: Choose from **Clear**, **Fluent**, **Standard** or **Image Only**. Clear, fluent and standard modes refer to the quality of the video.

Transmission Mode: Choose from **Auto**, **PORT** or **PASV**. It's suggested to keep it as **Auto**.

Postpone: Set the length of the recordings uploaded to the FTP server. Choose from **15 Secs**, **30 Secs**, **1 Min**, **5 Mins**, **10 Mins** and **30 Mins**.
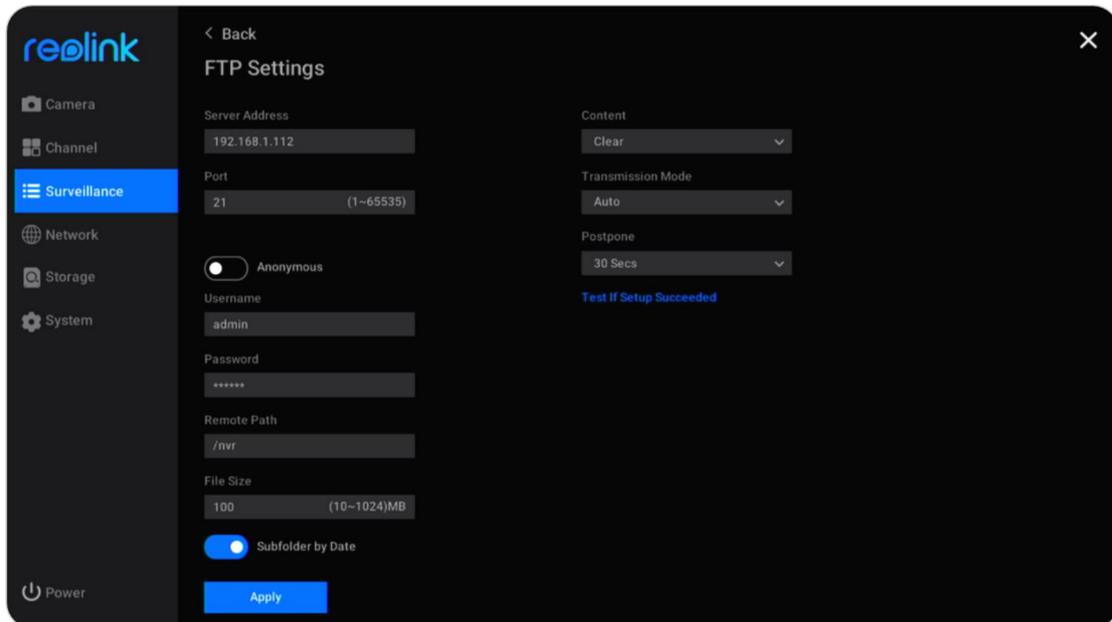
After finishing the settings, please click **Apply** to save the settings. Click **Test If Setup Succeeded** to test if the FTP settings are successful.

5. Replay and Download Recordings

Replay Recordings

Click 🕐 icon on the live image screen to enter the playback page.
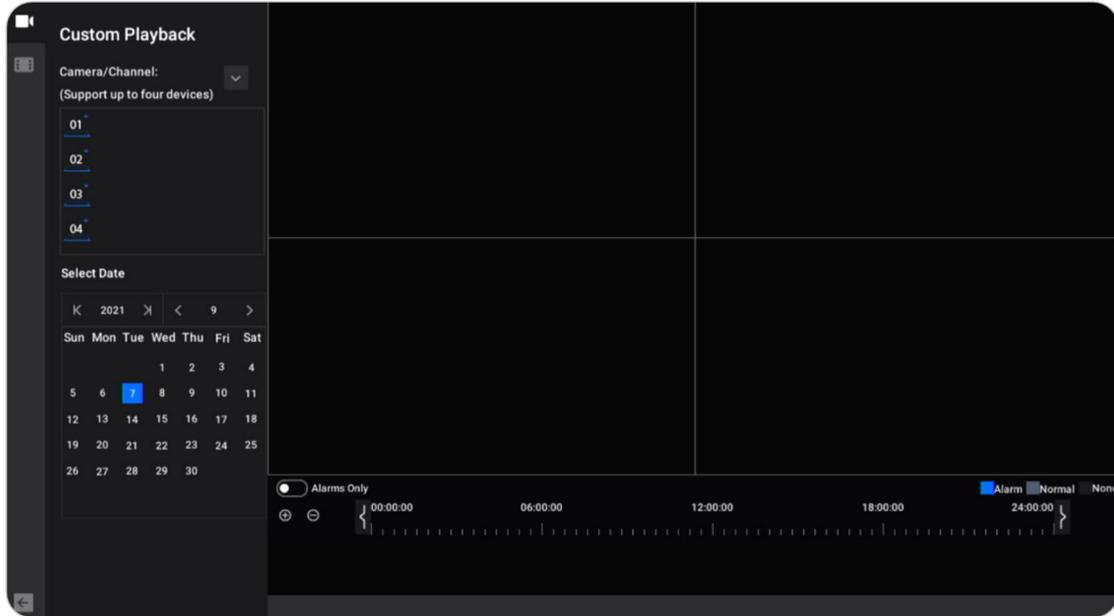
Click ⌄ to select max 4 cameras, then click **Apply**.
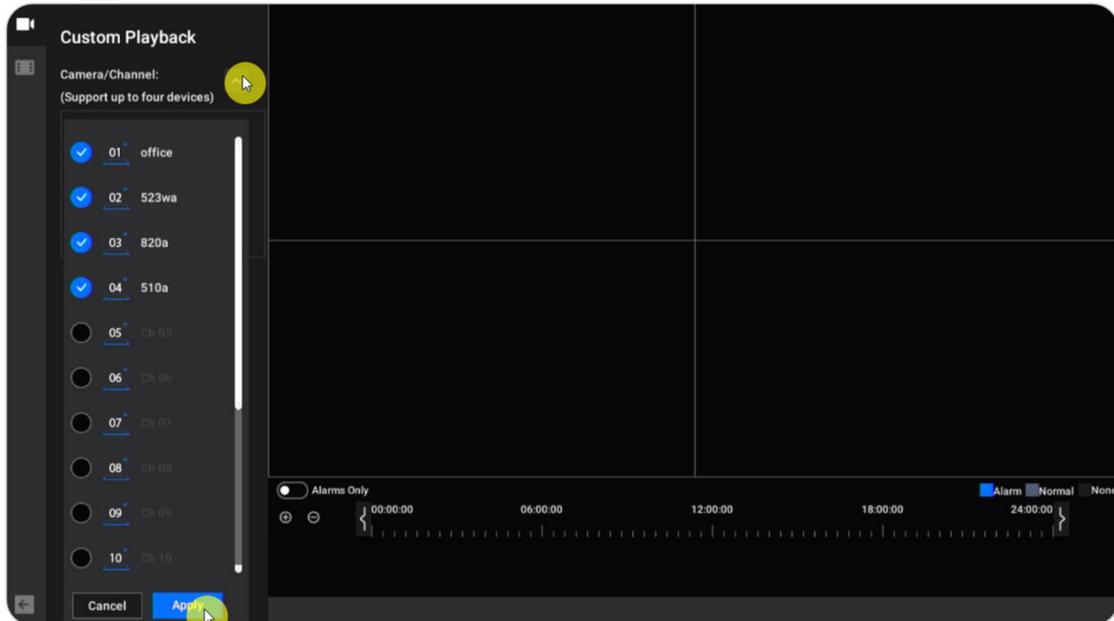
Note:

If you choose a camera that is 8MP or above, it can only support one channel playback. For cameras that are less than 8MP, it can support up to 4 channel playbacks.

At **Select Date**, click on the date it'll search the recordings automatically to play.

Check option **Alarm Only**, it'll only show the alarm recordings for playback. For cameras with person/vehicle detection you can also choose the **Alarm** type from **Any Motion**, **Person** or **Vehicle**.
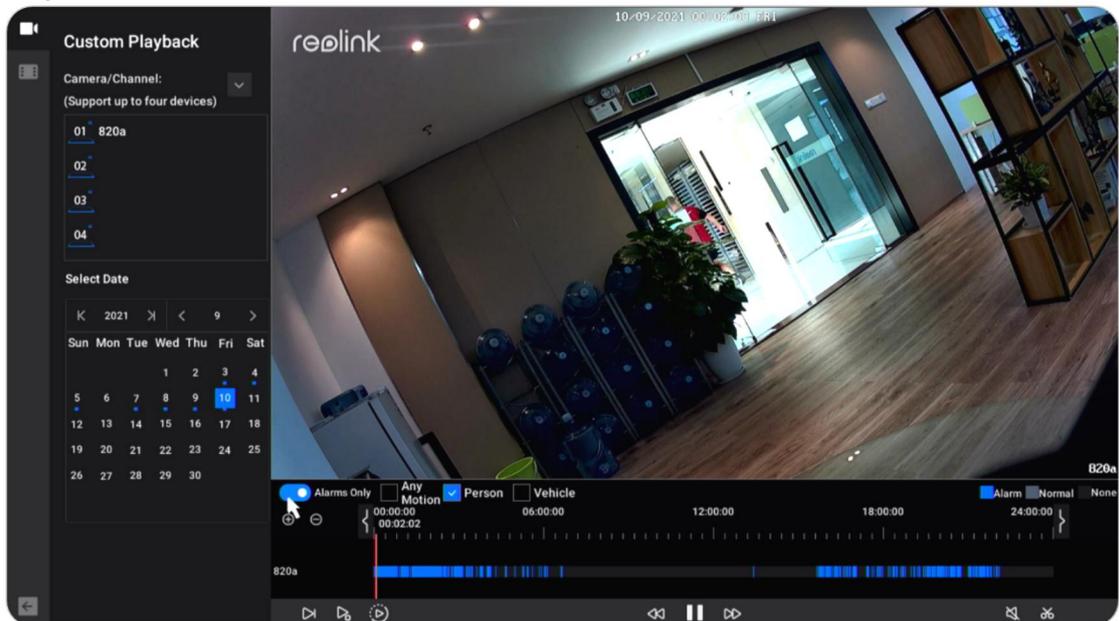
Buttons on the Playback Window

Icon	Meaning
▷	Speed Down: Play the recording at a slow speed to view more details.
▷	Frame-by-Frame: Play the recording frame by frame, not to miss any details.
◉	Smart Playback: Replay the recording at a normal speed when there's motion and replay at 4x speed when there's no motion.
◁◁	Backward: Click to rewind at 2x/4x/8x/16x speed.
▷▷	Forward: Click to fast forward at 2x/4x/8x/16x speed.
❚❚	Pause: Click to pause playback.
▶	Play: Click to play the recording.
🔇	Sound: Click to turn on sound for playback.
✂	Cut: Cut a short clip for downloading.

Download Recordings

Cut and Download

Connect a USB drive to the USB port of the NVR for downloading the recordings. Click ⏰ icon on the live image screen to enter the playback page. Select the camera and date to search the recordings to play back.
At the bottom of playback page, click ✂ to cut a clip of recording. Drag on the timeline to set the start time and end time for the cut. Then click **Save**.
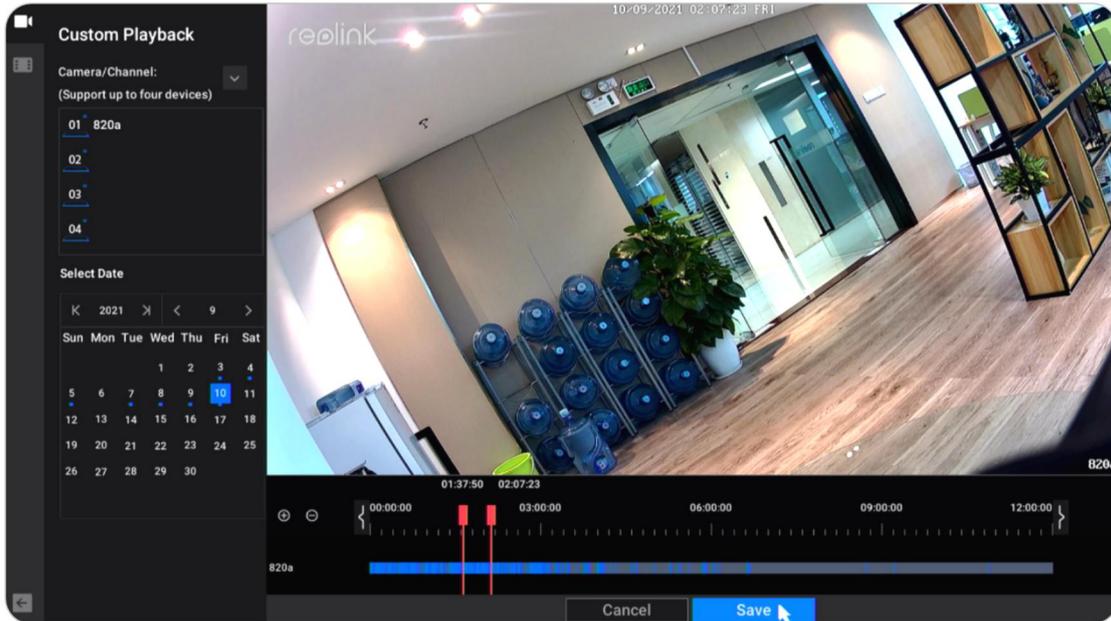
Choose the storage disk to save the cut recording clip. Check the option **Back Up MP4 File**, it'll convert the recording into mp4 for saving. And then Click **Start**.
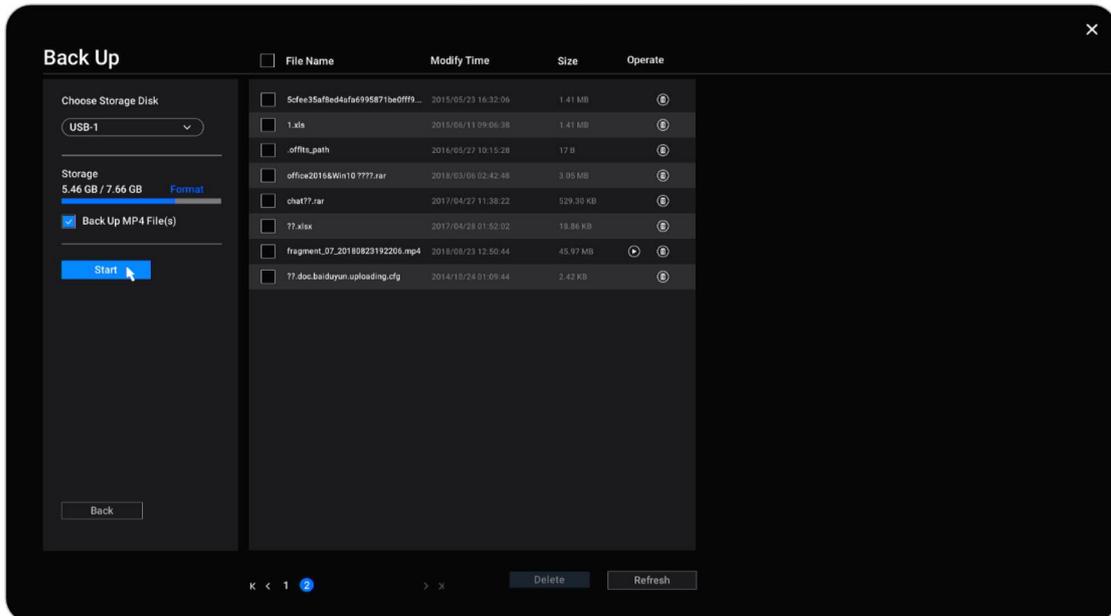
Back up Recordings

Right click on the live image screen, then click 🖫 to enter the backup page.
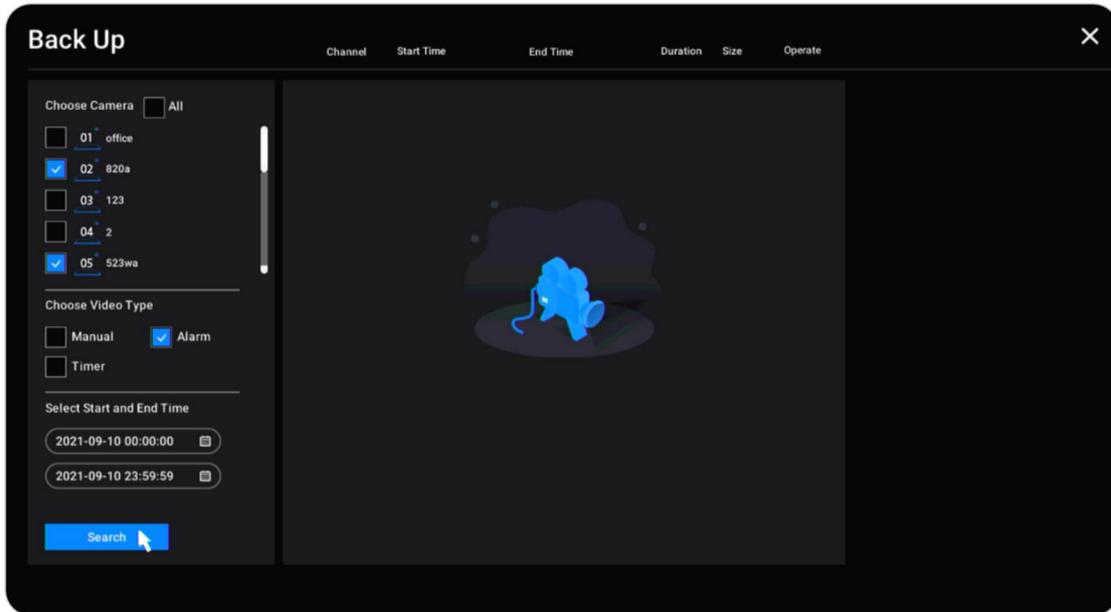
Choose the cameras you want to search recordings for. **Choose Video Type** from **Manual**, **Alarm** or **Timer**. Then select the start and end time, click **Search**.
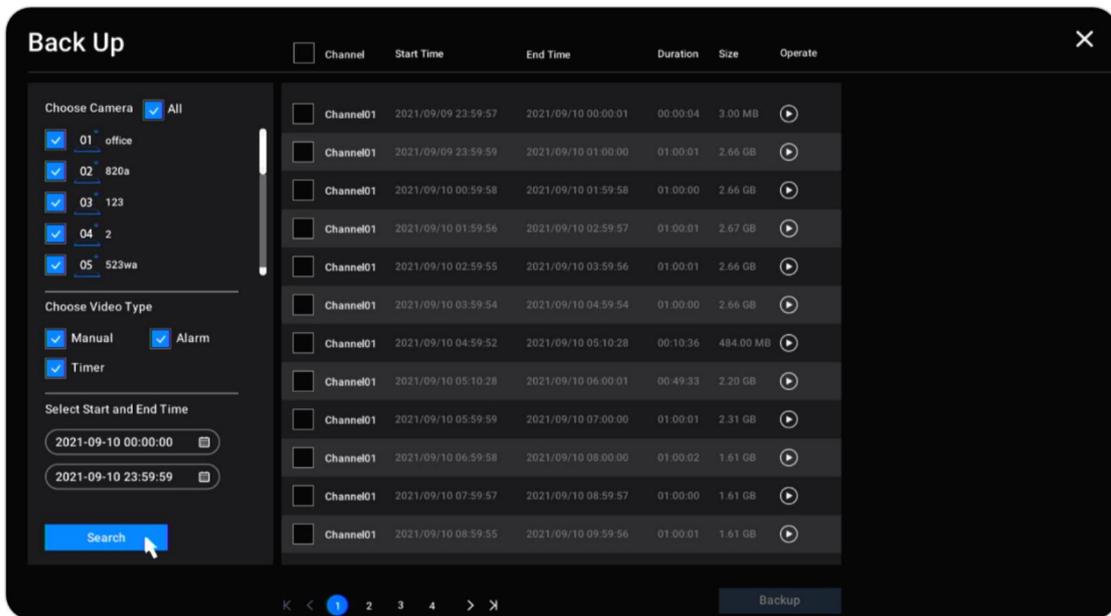
Select the recordings from the searched recording list, then click **Backup**.
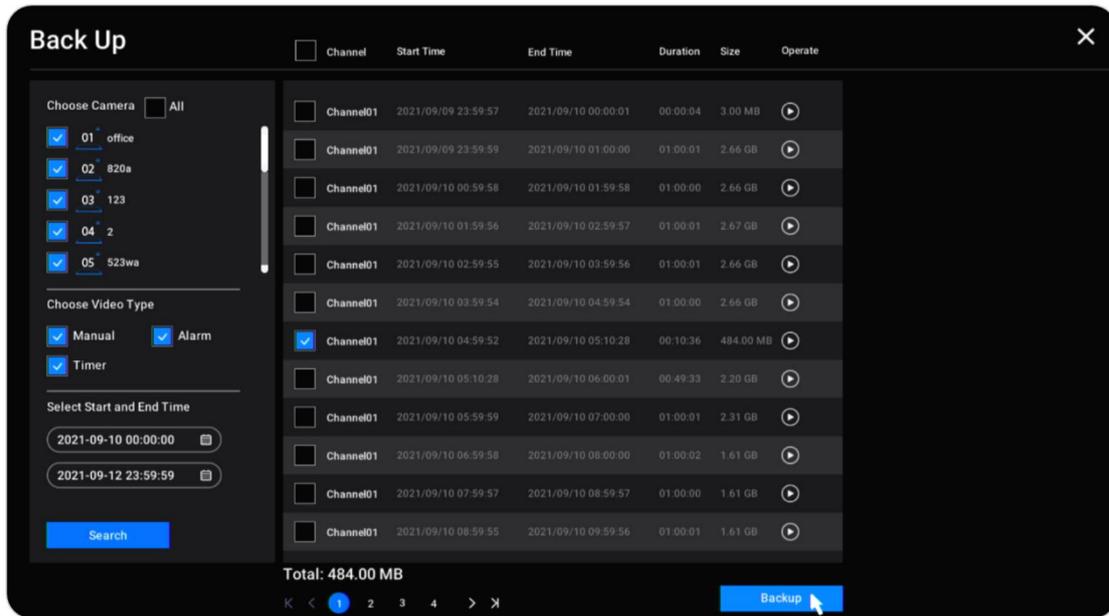
Choose the storage disk to save the cut recording clip. Check the option **Back Up MP4 File**, it'll convert the recording into mp4 for saving. And then Click **Start**.
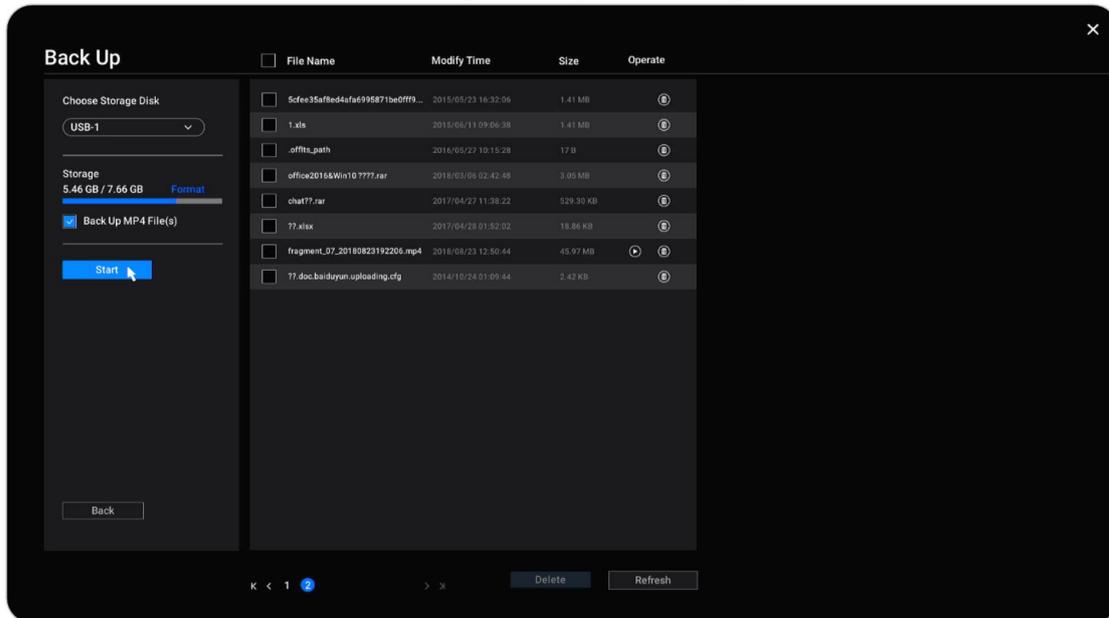
Delete Recordings

The NVR system doesn't support deleting selected recordings. The NVR will automatically delete and overwrite the older recordings when the HDD is full. Or you can manually format the HDD to delete all recordings.

6. Storage

Go to **Storage** page, here you can see the status of the HDD. Click **Format**, it'll delete all the recordings on the HDD to for formatting.
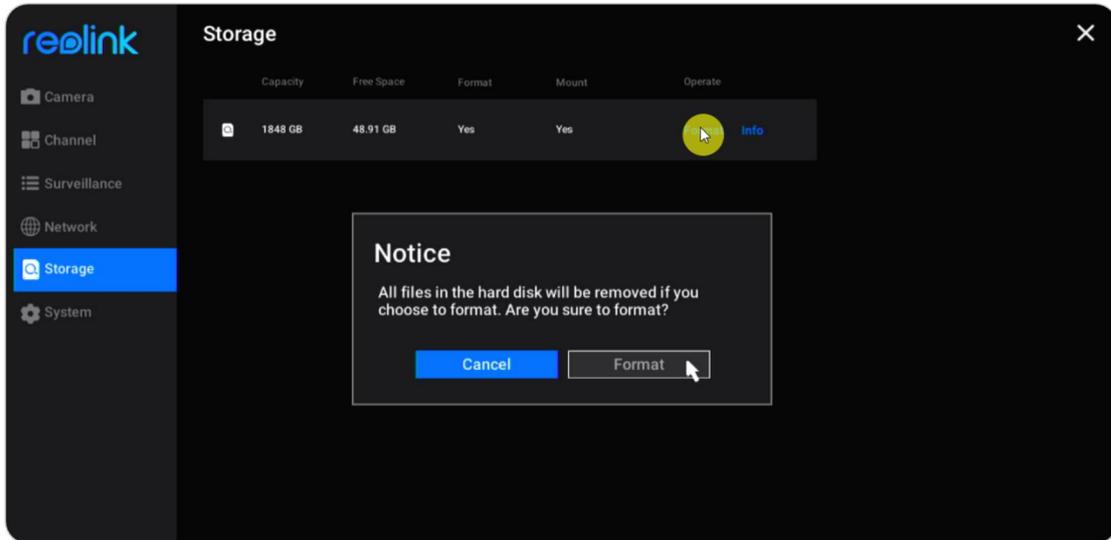
7. Network and Connection

View NVR Network Status

Click **Network** > **Network Status**, here you can view the **IP address**, **Default Gateway** and DNS of the NVR.
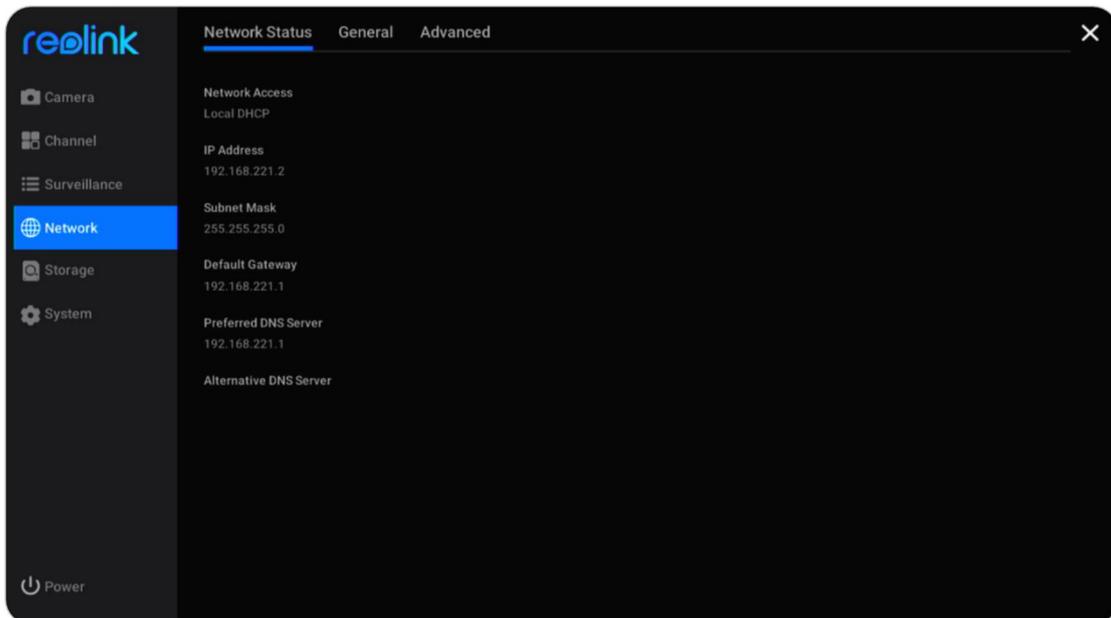
Set Static IP for the NVR

Click **Network** > **General**, here change **Network Access** from DHCP to **Static**. Then enter the **IP address**, **Subnet Mask**, **Default Gateway**, **DNS Server** manually, and click **Apply** to save the settings.
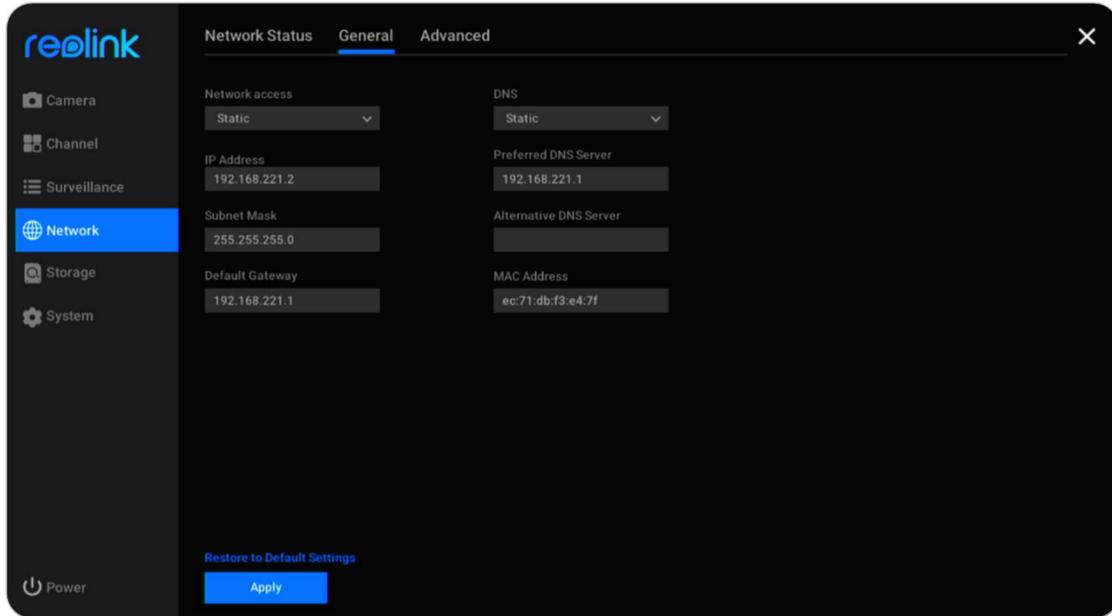
Set up DDNS

Click **Network** > **Advanced**, then click **DDNS Settings**.
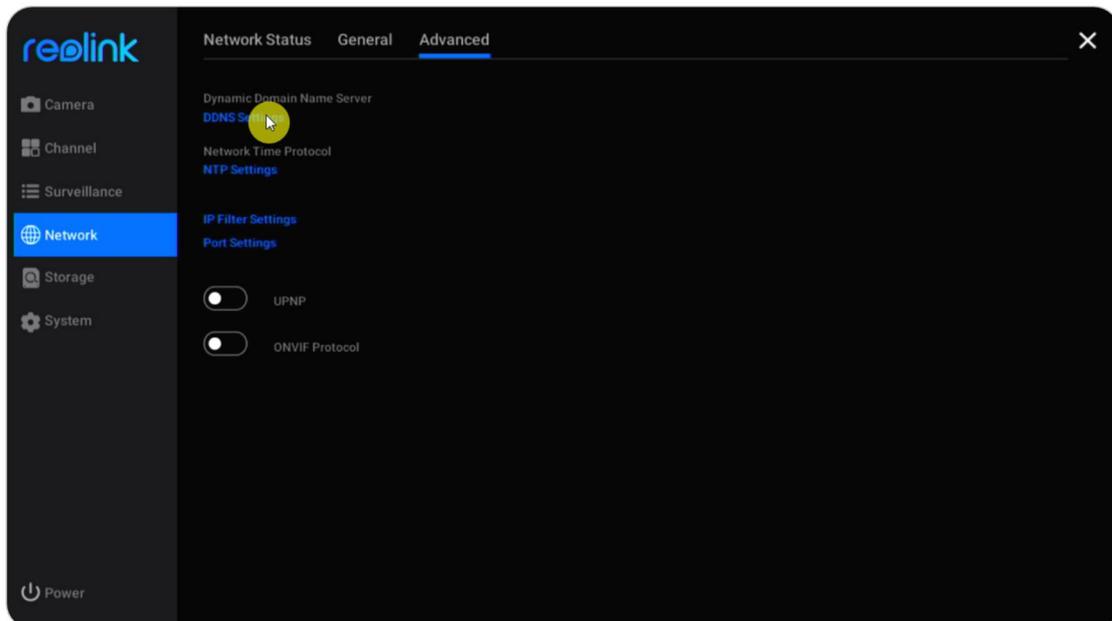
Register an No-IP or DynDNS DDNS first, then enable DDNS to enter the parameters. Click **Apply** to save the settings.
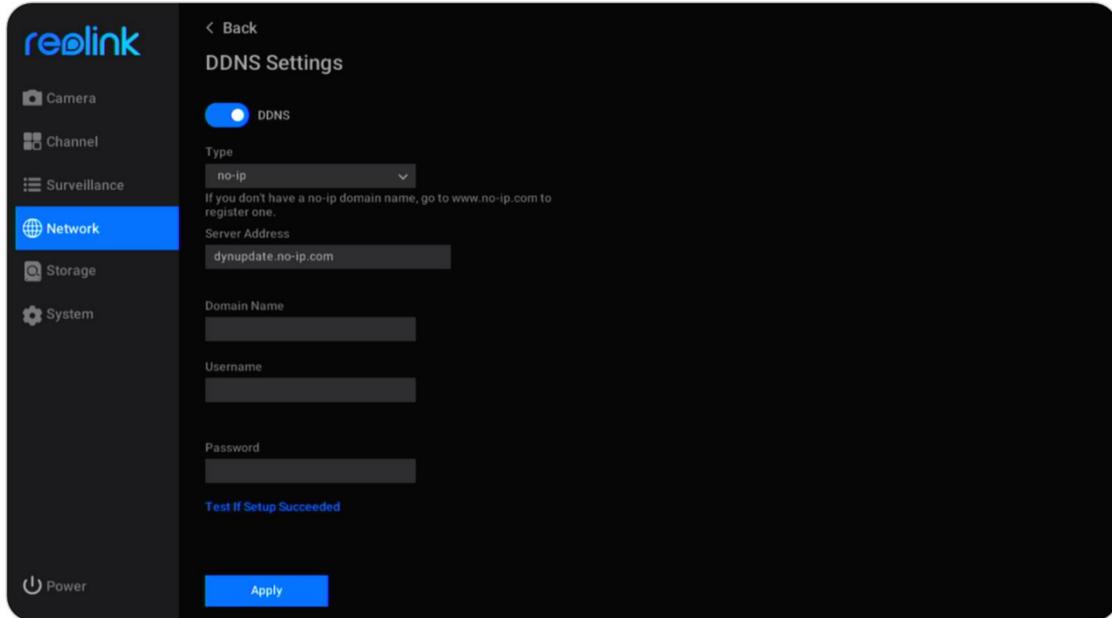
Set up NTP Settings

Click **Network** > **Advanced**, then click **NTP Settings**.
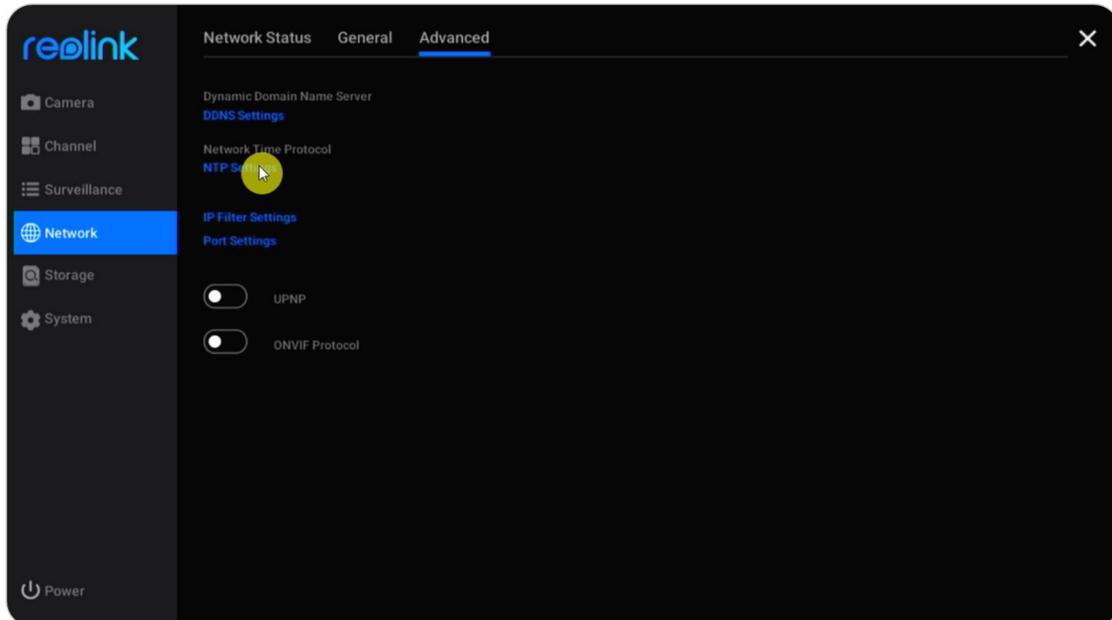
Choose a **Server Type** to change the NTP settings. Click **Synchronize** to sync the NVR data and time to the NTP server immediately. Click **Apply** to save the settings.
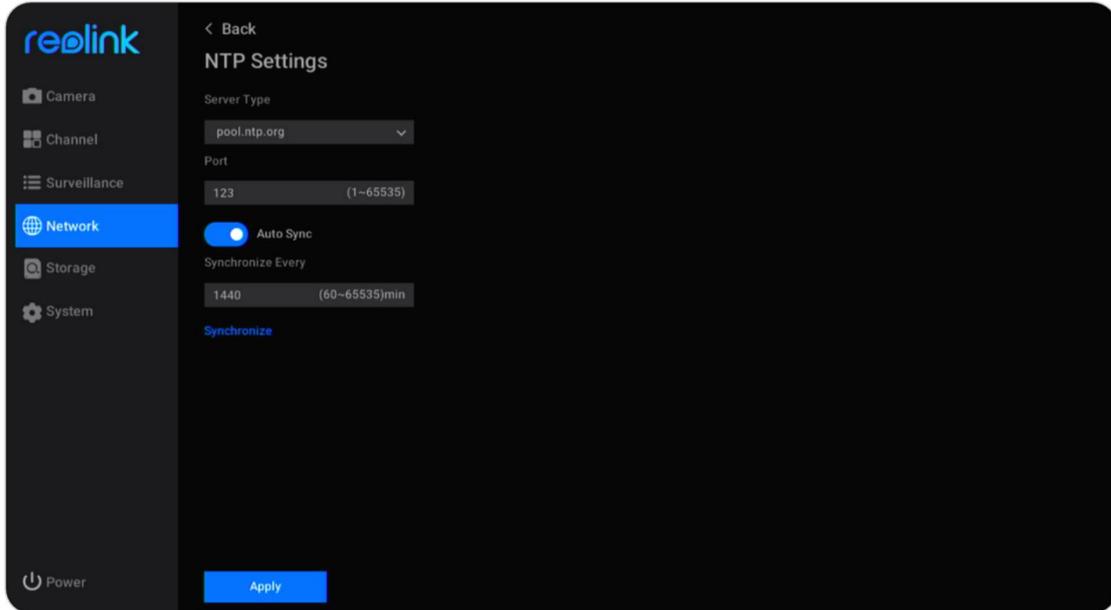
To customize the NTP server, under **Server Type** please choose **Other**. Then you can manually enter the parameters of your own server.
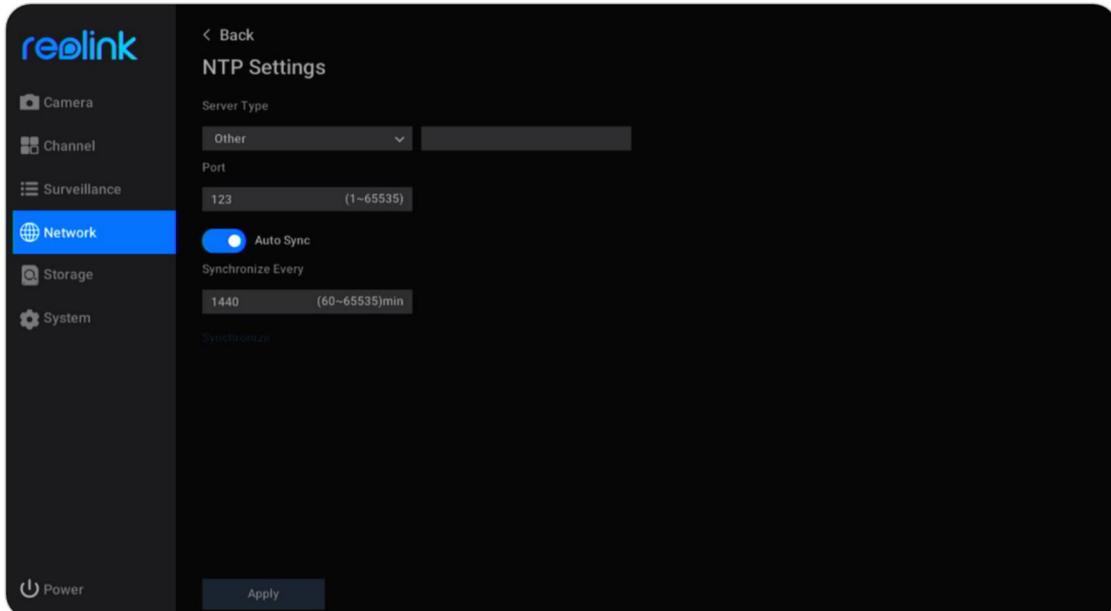
Set up IP Filter Settings

Click **Network** > **Advanced**, then click **IP Filter Settings**.
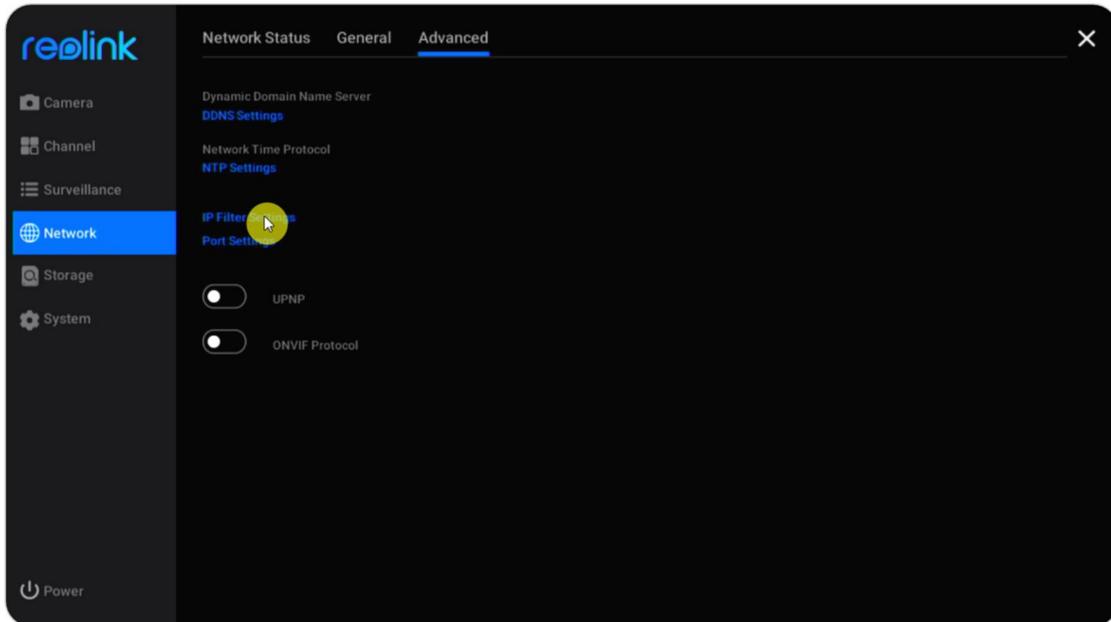
Choose **Enable White List** or **Enable Black List**, then click on **Add IP**. Manually enter the IP address you want to allow or block access, then click **OK** to save the change.
Choose option **Disable** to turn off the IP filter settings.
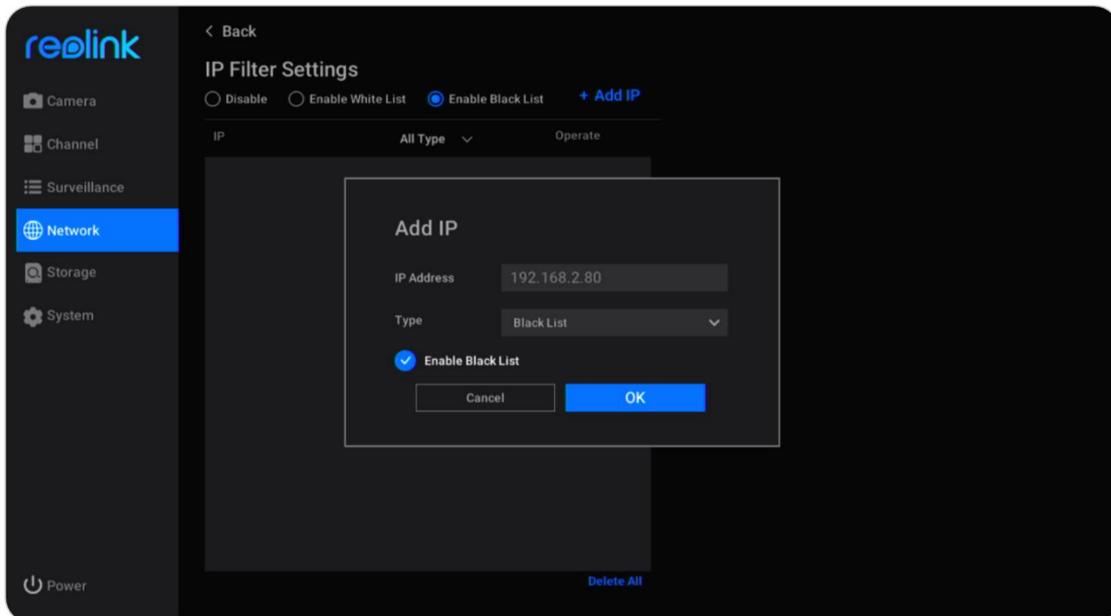
Change the Port Settings of NVR

Click **Network** > **Advanced**, then click **Port Settings**.
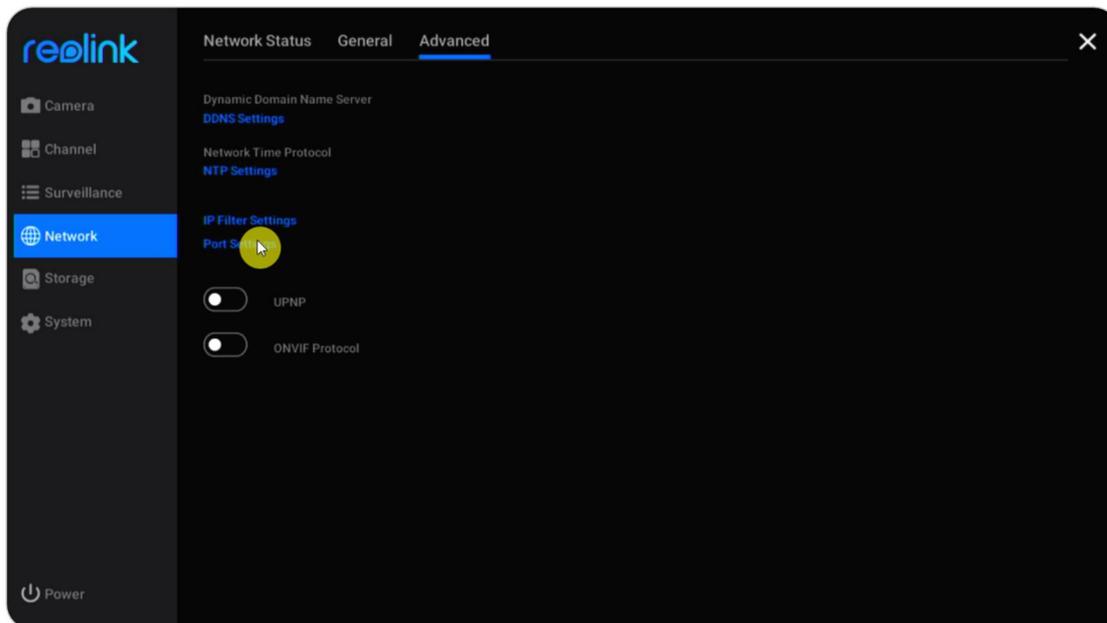
Here you can view the current ports of the NVR and change the port numbers.
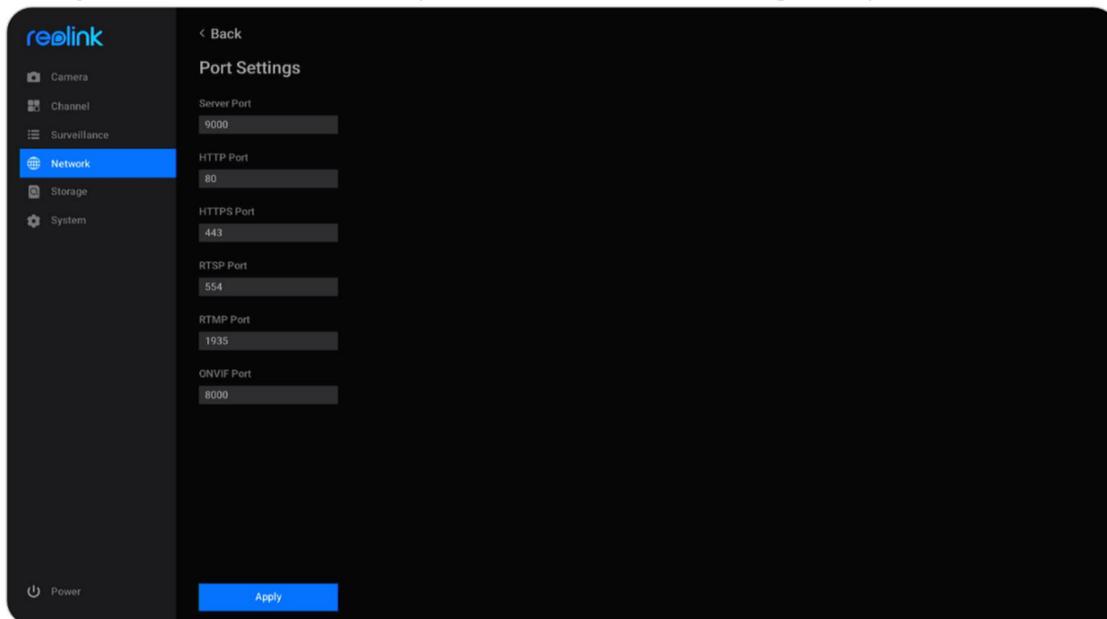
Enable UPNP

Go to **Network** > **Advanced**, click to enable **UPNP** option.
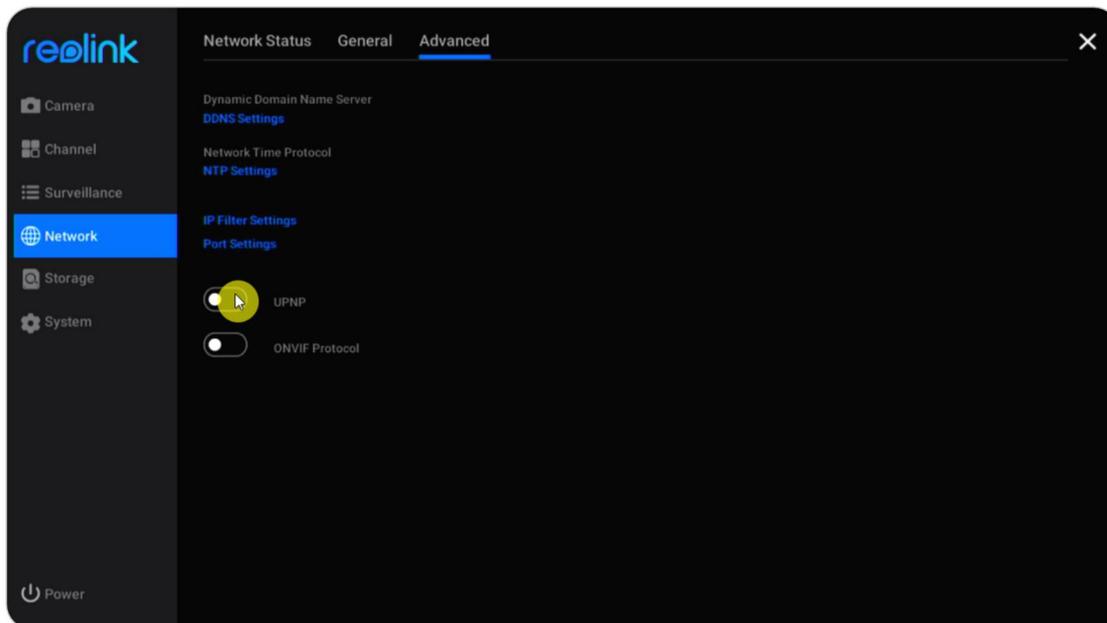
Enable ONVIF

Go to **Network** > **Advanced**, click to enable **ONVIF Protocol**.
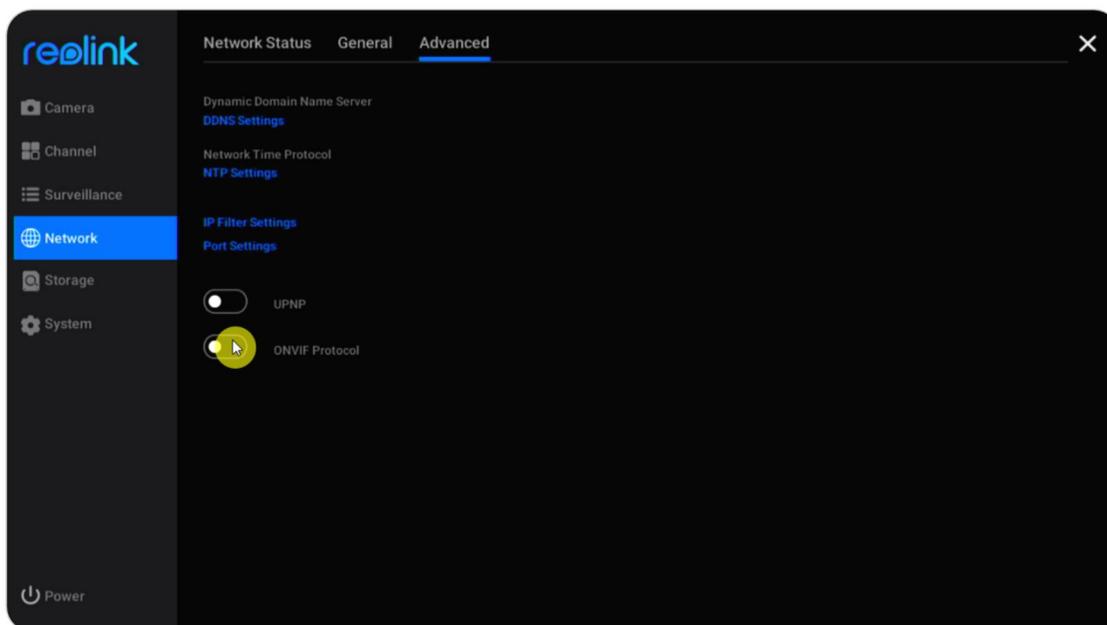
8. System Management

General

At **System** > **General** page, you can set up the settings below.
Device Name: Set a name for the NVR.
Screen Resolution: Set a display resolution on the NVR monitor.
Scrollview Time: Set a time for the scrollview. For example, set it as 5 sec, then it'll automatically switch to the next screen of the camera's live image after every 5 seconds.
Auto Lock Time: Set the time for locking the screen automatically, choose the option from **1 min**, **5 min**, **10 min** or **None**. Choose **None**, the NVR will not automatically lock the screen. Check the option "**Require account and password verification to unlock screen**", then it'll ask for the NVR password at the set time to unlock the screen.
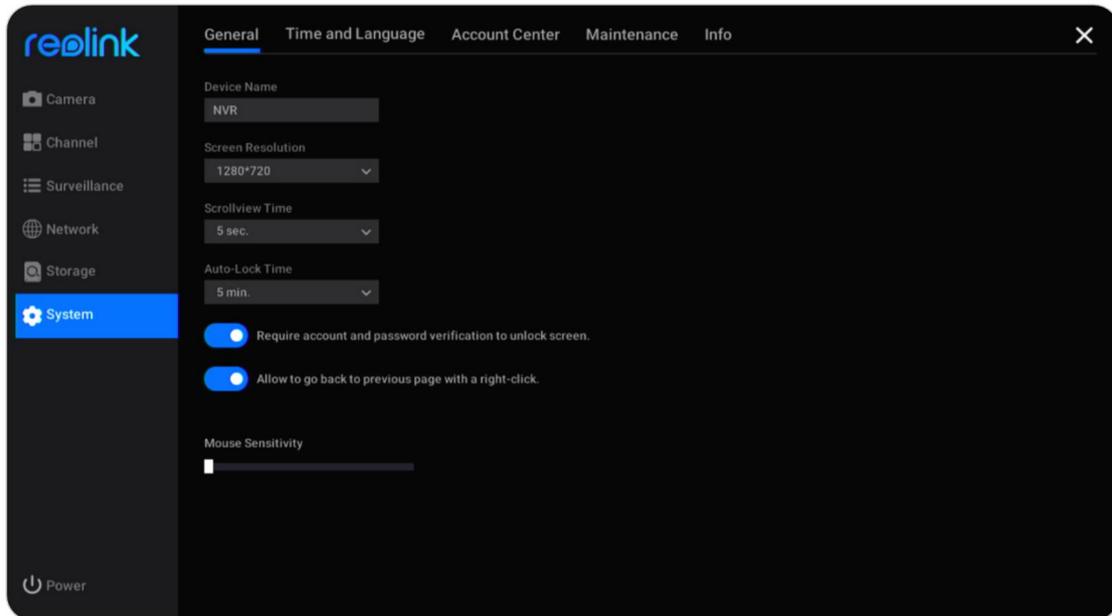
Time and Language

Go to **System** > **Time and Language** page, enable DST you can set the daylight saving time according to your need.
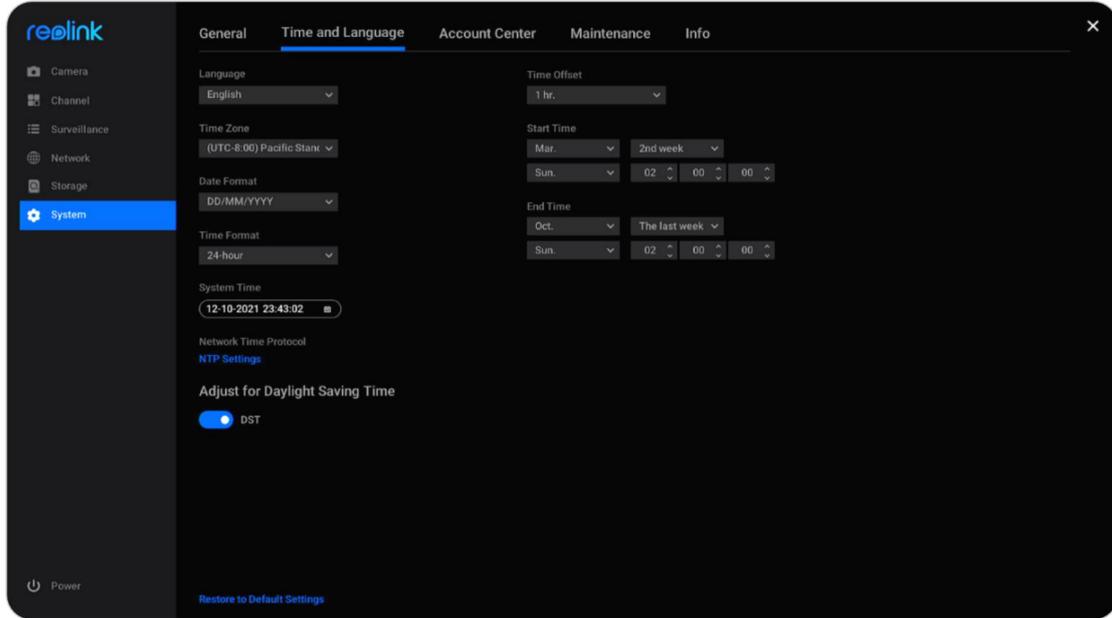
And click **Language** to choose the display language for the NVR.
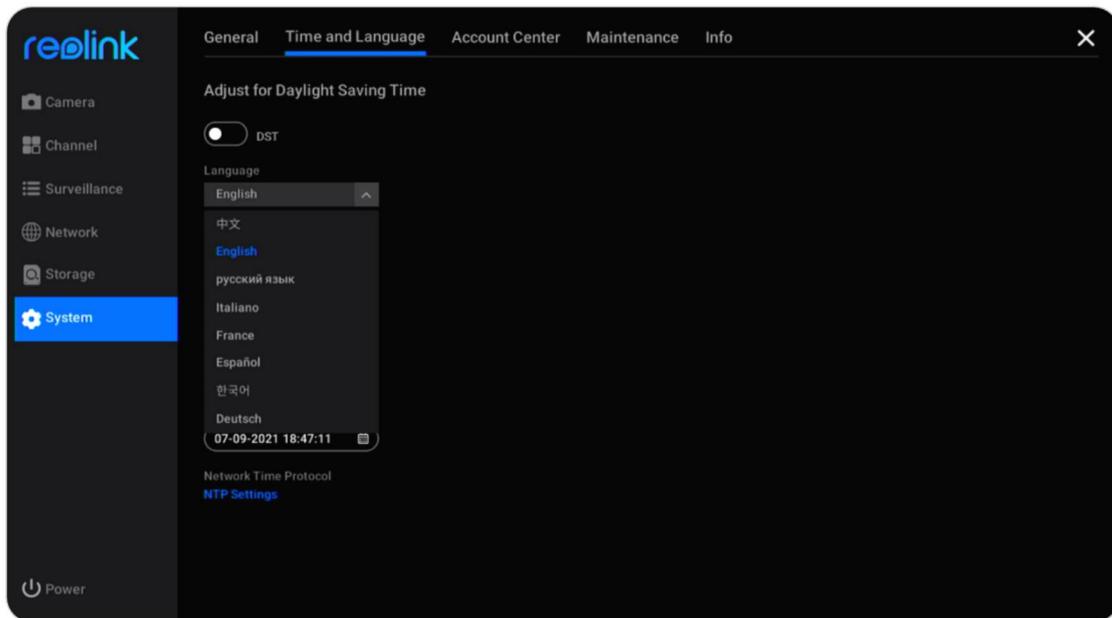
Account Center

Go to **System** > **Account Center** page, here you can change the password of the NVR and add other user accounts.
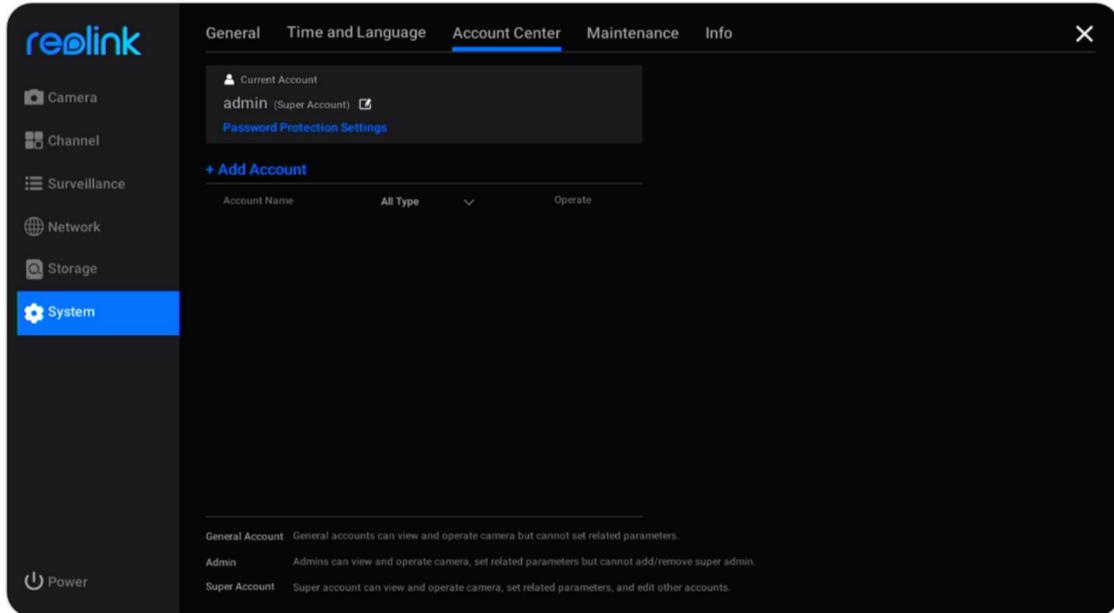
Click ▣ to change the password of the current account. Firstly, enter the old password, then enter the new password and confirm the new password, click **OK** to save the change.
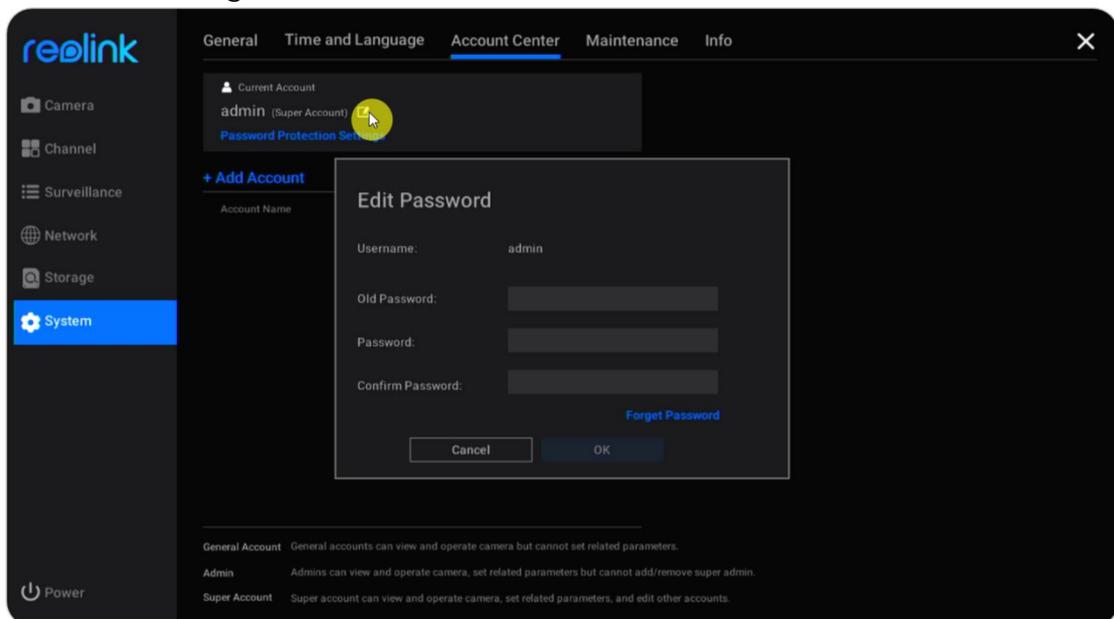
Click **Password Protection Settings**, you can set a security question with answer to protect your password. In the case you lost the login password, you can retrieve the password via the security question.
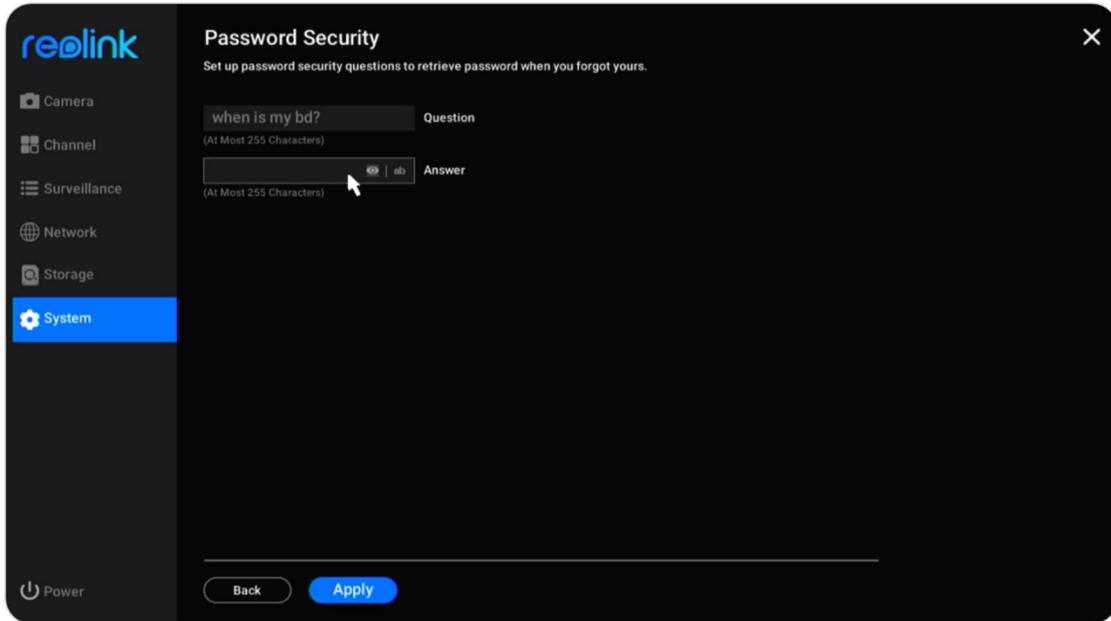
Click **Add Account**, enter the **Username** and **Password**. Choose account **Type** from **General Account** or **Admin**, then click **OK** to add the account.
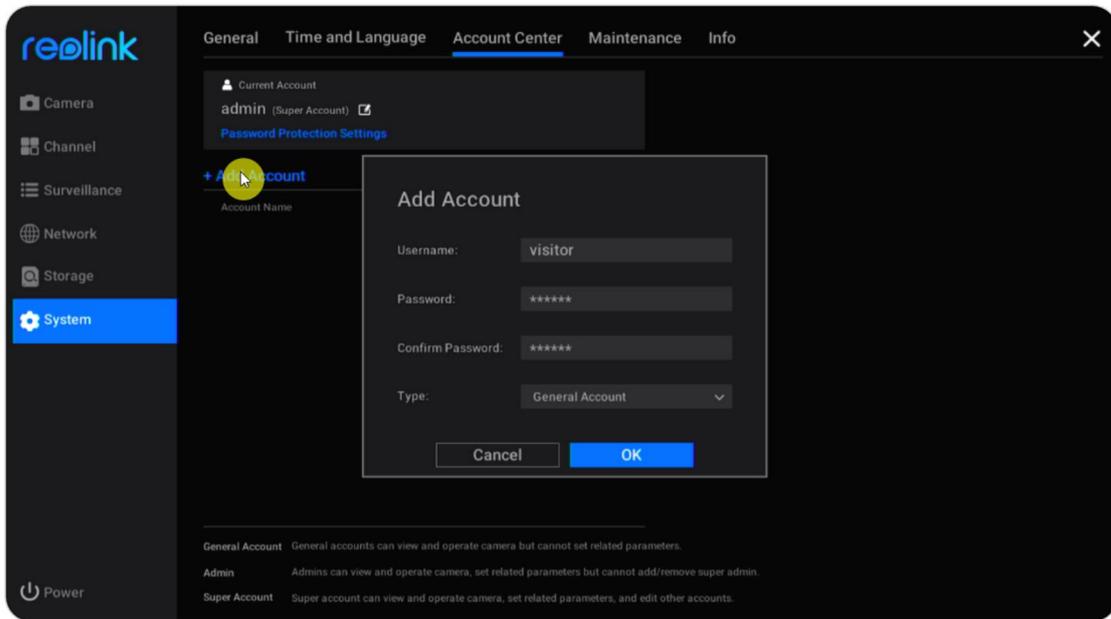
The difference of different user accounts as below:

- General Account: can view and operate camera but cannot set related parameters.
- Admin Account: can view and operate camera, set related parameters but cannot add/remove super admin account.
- Super Account: can view and operate camera, set related parameters, and edit other accounts.

Click ⬤ to delete an account, and click ⬤ to change the password of the selected account.
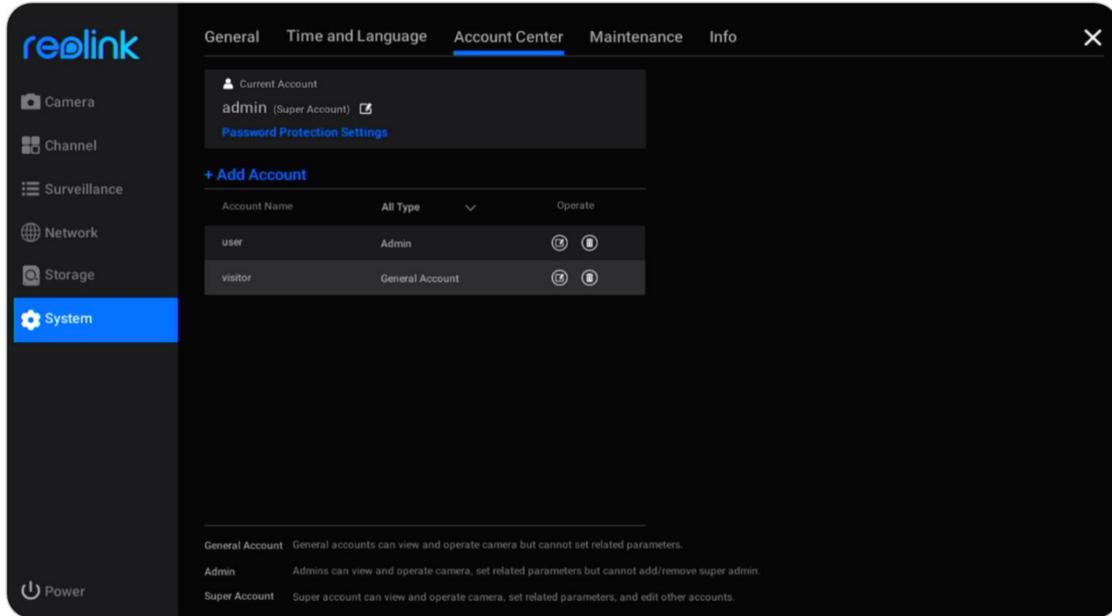
Maintenance

Go to **System** > **Maintenance** page, here you can set up auto reboot, upgrade the device or restore the system to default.

Click to enable **Auto Reboot**, you can set the NVR to automatically reboot at a weekly or daily base.
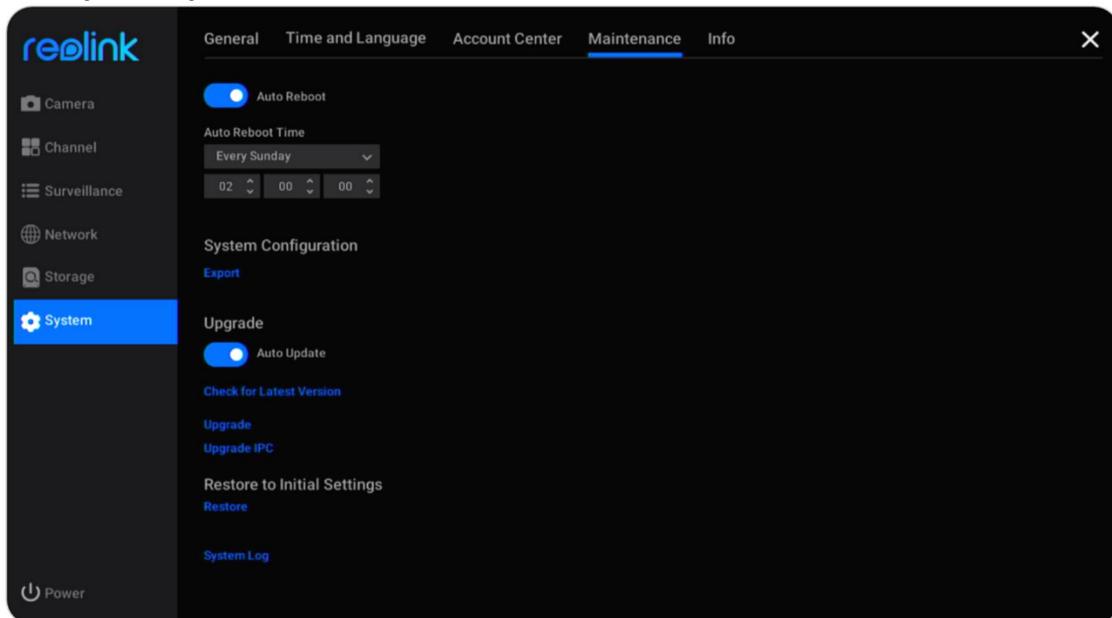
Upgrade the Firmware

Before upgrade, please download the firmware file from [Download Center](). Unzip it and copy the file to a USB drive, then plug the USB drive to the USB port of the NVR.

To upgrade the firmware for NVR, please click **Upgrade**. Choose the firmware file to upgrade.

To upgrade the firmware for Camera, please click **Upgrade IPC**. Click **Local Upgrade** and choose the firmware file to upgrade.

Attention for firmware upgrade:
- If you don't want to restore your camera settings to factory status, please uncheck the "**Update Configuration Files**" option during the upgrade.
- During the upgrading procedure, please do not power off the camera.
- Make sure your camera or NVR has the same model and hardware version that matches the new firmware you're able to upload.

Info

Go to **System** > **Info** page, here you can see the model of the NVR, its hardware version and firmware version, the UID numbers.
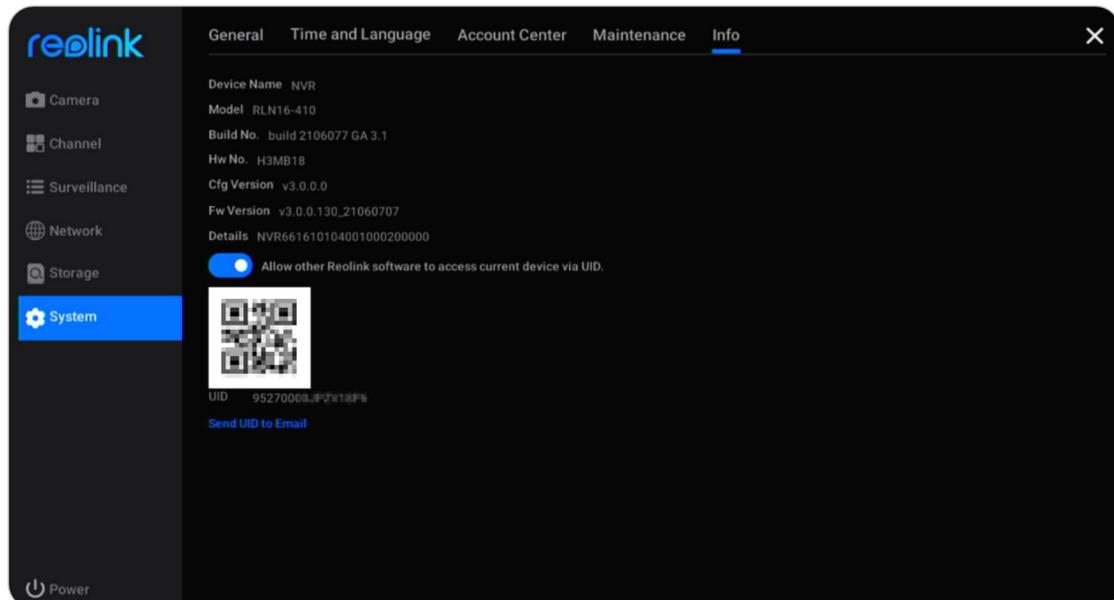
9. FAQs and Troubleshooting

FAQs

1. How many cameras can I connect to this NVR?
A: For RLN8-410, you can connect up to 8 cameras. For RLN16-410, you can connect up to 16 cameras.

2. What to do if I lost login password of the NVR?
A: Login password of NVR can be restored by pressing a hard reset button or restored via Reolink software. If the camera isn't accessible by software, you can also use security password on the monitor to retrieve the password.

3. Can I connect the NVR to two monitors at the same time?
A: The NVR can plug into up to two monitors via the HDMI and VGA ports. It will display all the cameras connected to the NVR on each monitor simultaneously.

4. How to connect the NVR to a router?
A: The NVR can be connected to a router only via the Ethernet cable.

5. What's the max Ethernet cable length between the camera and NVR?
A: The Ethernet cables for all PoE ports of the NVR is up to 270 feet for Cat5. If you use Cat6 or upper, the Ethernet cables can be up to 330 feet. Note, NVR can use CAT5, CAT6 or CAT7 with 8 PIN Ethernet cable.

6. Which camera models are supported to work with the NVR?
A: Except Reolink battery-powered cameras, all other cameras can work with the Reolink PoE NVR. Note to use the cameras with same or lower resolution as the NVR itself.

7. Can this NVR work with Smart Home?
A: The NVR system or camera connected to the NVR directly doesn't support working with Smart Home.

8. Can I use the camera without directly connecting to the NVR?
A: Yes, Reolink cameras can be connected to a router or PoE switch that is as the same local network as the NVR, and you can still add the cameras to NVR to use.

9. Can I connect a Wi-Fi camera to the PoE NVR?
A: Yes, connect the Wi-Fi camera to the same router as the PoE NVR, then the camera can be added to the NVR.

10. Can I use the NVR system without internet access?

A: Yes, the NVR can be used locally with the monitor. Only that the functions that require internet network access won't work anymore.

Troubleshooting

1. Camera shows video loss/connection failed on the NVR monitor.
The camera is connected to the NVR, but on the monitor screen the camera doesn't display the live video but shows as video loss or connection failed. Please check troubleshooting steps below to fix the issue.

Cause 1. Incorrect camera password.
Solution:
Log into the NVR and go to Menu -> IP Channel or Channel Management to check the Status of the channel with Video Loss. For older UI, If it shows Invalid PWD, please drag the bar in the bottom to the right to enter the correct password of your camera, then click Apply to save the change. For new UI, please click Modify to directly enter the correct password of the camera.
In the case you forgot the camera's password, please directly press the reset button on the camera to hard reset it.

Cause 2. The camera is not properly connected to the NVR.
Solution:
(1) Please check whether the network cable is plugged into the RJ45 port tightly.
(2) If the connection is tightened, please observe the port LED lights.
When the connection is normal, there must be flashing yellow light and solid green light.
If the port LED lights don't turn on, please change another working network cable and another working PoE port to connect the camera to the NVR, then check whether the port LED lights will turn on.

If the green light turns on but the yellow light doesn't flash, please scan the IP channel again to check whether there is a camera scanned but failed to connect to NVR. If there is no scanned camera, please check whether the camera can work again.

Cause 3. The camera is not powered by the NVR.
Solution:
Please check the solution for "Camera cannot be powered properly by the NVR".

Cause 4. The camera is not assigned the Channel.
Solution:
This is mainly for PoE NVR with older UI. Please select a unique channel number for the camera, and then click Apply. If all channels are taken, please change the

offline camera's channel to None then assign that channel to the camera.

Cause 5. The NVR itself isn't working properly.
Solution:
If the camera is powered on and has connected to NVR properly but still cannot show live video, please restore the NVR to default to check again.

2. Camera cannot be powered properly by the NVR.
For PoE cameras that are connected directly to the PoE NVR but cannot be powered on or the camera is dead, please check the troubleshooting steps below.

(1) Cover the camera lens to check if the IR lights of the camera turn red in dark.
(2) When connecting the camera to NVR, please check if the LEDs on the PoE port are on.
(3) Please change another Ethernet cable and PoE port on NVR.
(4) If the camera still won't power on, please reset the camera by pressing the reset button on the camera.
(5) Use a 12V DC power adapter to power the camera instead.

3. Cannot access the NVR remotely.
Please check the troubleshooting steps below for the issue that NVR cannot be accessed remotely.

Firstly, please ensure the NVR is accessible from the same network. Then check the listed steps below.
(1) Please ensure the NVR's UID is enabled. You can check it on the NVR monitor, go to System > Info page, here enable the option "Allow other Reolink software to access current device via UID".
(2) Please add the NVR to Reolink App or Reolink Client software by its UID.
(3) Check Sync NTP to see if it's successful. On the NVR monitor, go to Network > Advanced, then click NTP Settings. Click Synchronize to sync the NVR data and time to the NTP server immediately. If it's unsuccessful, that means the NVR isn't connected to the internet.
(4) Check the router firewall settings. Ensure it has allowed the NVR to connect internet, and please make sure that the UDP port is enabled on your router.
(5) Ensure the phone or computer itself has internet access, and has allowed the Reolink App or Reolink Client software to access internet.
(6) Please check there's no firewall, proxy or VPN on the phone and computer that might block the NVR to connect.
(7) Ensure the network connection has enough bandwidth to stream the video, you can switch to fluent mode to help connect the live video.

Note, if the UID of your NVR starts with XCPTP, please contact Reolink Support to get help.

4. NVR has no display on the monitor screen.

When the NVR is connected to a monitor, but it has no display, please check the troubleshooting tips below.

Cause 1. The video output resolution of the NVR is not supported by the monitor.
Solution:

- Ensure the lowest resolution of the TV/monitor is no less than 720p, or it won't be able to display any video from the NVR.
- Power on the NVR to see whether the Reolink logo will be displayed on the screen.
- Try to log into the NVR locally on Reolink Client and change the output resolution of the NVR and try again.

Cause 2. The system program is frozen when booting up.
Solution:
If the NVR was once working properly, power on the NVR to see if the Reolink logo will be displayed on the screen but then turn to black.
Contact the support team with your device model for a repair tool to fix the issue.

Cause 3. HDMI/VGA cable or the TV/monitor is defective.
Solution:

- Check whether the cable is defective by using it to connect other devices to see if it works.
- If it doesn't work, please use another HDMI/VGA cable that is shorter than 15 m and try again.
- Try with another monitor.

Cause 4. HDMI/VGA port on the NVR is defective.
Solution:

- Ensure the cables and TV/monitor you used are working properly.
- Try to log in to the NVR via Reolink App or Reolink Client on the same network to see if it will work.

Cause 5. NVR cannot be powered on.
Solution:

- Ensure the power outlet is working. If not, please plug the NVR power adapter into another outlet.
- Check whether the LED on the DC power adapter is on.
- Check the LEDs status on the front panel of the NVR.

If the problem still cannot be solved, please contact the support team with the test results.

5. **Forget the password to login the NVR.**

If you still have a phone or computer that can access the NVR, please directly restore the NVR via the software. After restoration, you can create a new password.

● For Reolink App, go to NVR Settings > Advanced page, click Restore.
● For Reolink Client, go to NVR Settings > System > Maintenance, click Restore.

If currently no device has access to the NVR, you can reset it via the monitor with Super Password (for old UI) or security question (for new UI). Or directly press the reset button within the NVR.

● For using super password, please refer to: Use Super Password to Reset the Admin Password on Reolink NVR.
● For using security question, please click Forget Password on the monitor screen, enter the answer for your security question to reset the NVR password.
● For resetting the NVR, please open the box of the NVR. Keep the monitor screen on the live video page, then press and hold the reset button for 5-10 seconds.
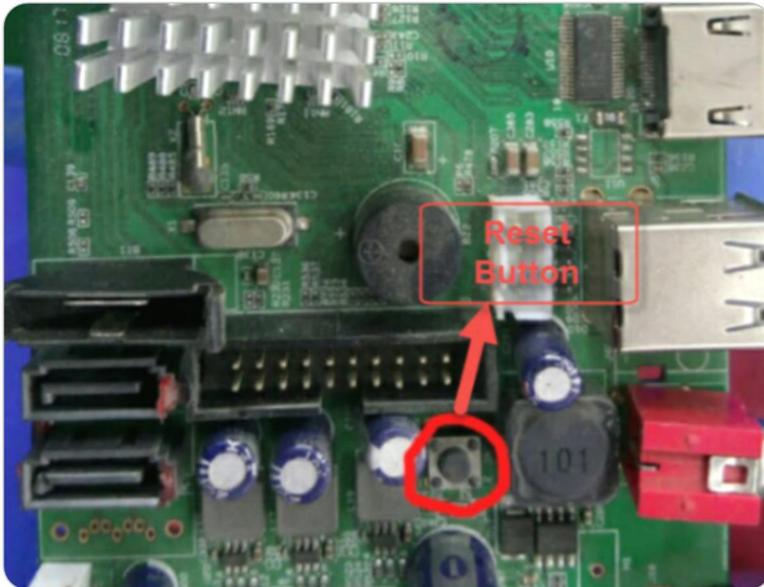
6. **NVR cannot detect the HDD.**

For the issue of NVR cannot properly detect or recognize the HDD, please check the troubleshooting steps below.

Cause 1. The compatibility issue between HDD and NVR.

Solution:

If you added an HDD yourself, please check the size and type of the HDD referring to the HDD compatibility list. For the supported HDD size, please check it via the hardware version of the NVR.

Please note, the HDD designed for PC can't work with the NVR.

Cause 2. The firmware version of the NVR is outdated.

Solution:

Please check firmware version of the NVR on the Info page, and download the

latest firmware from [Download Center](#) to upgrade it.

Cause 3. The connection of the HDD is lost.

Solution:

Unplug the HDD then re-plug it.

Cause 4. The format of the HDD is wrong.

Solution:

Please format/init the HDD on the NVR monitor to try again.

Cause 5. NVR software issue.

Solution:

Please restore the NVR to default.

Cause 6. Defective HDD.

Solution:

Change another HDD to test whether it's the problem of a bad HDD.

7. NVR reboots itself automatically.

NVR reboots itself automatically may behave with any of the phenomena below:

①NVR reboots constantly.

②NVR reboots randomly (for example 2-3 times per day).

③Random gaps in the playback timeline. (All channels lost the recordings at the same time, and the gap is greater than 30s.)

④A lot of "startup" on the NVR's log page.

Cause 1. UPS issue.

Solution:

If you use the UPS to power the NVR on, please plug the NVR directly to a wall socket and have it run one or two day(s) then check if the NVR reboots. If the NVR doesn't reboot, the issue should be on the UPS. Please make sure the UPS's wattage is higher than the NVR adapter's wattage. If the NVR still reboots, please refer to the following troubleshooting tips.

Cause 2. The HDD issue.

Solution:

Please unplug the HDD and have the NVR run one or two day(s), then check if the NVR reboots.

Cause 3. The NVR and the cameras are both being grounded.

Solution:

Please unplug all the cameras from the NVR and have the NVR run on its own for one or two day(s) and check if it still reboots. Please disable auto-reboot before you run the test.

If the NVR doesn't reboot, the issue may be caused by both the NVR and the cameras being grounded. Then please unground either the NVR or the cameras to fix the issue.

Note: The NVR carries out the lightning protection and grounding treatment on its own and if users also ground the cameras, it will cause a certain potential difference. And when the potential difference is higher than 64V, it will trigger the NVR'S protection mechanism and the NVR will power off itself.

A: Unground the cameras to fix the issue

In this case, please do not ground the cameras additionally. Check if you connect the cameras to the ground wire of your house. If yes, please disconnect the cameras from the ground wire. And please do not install the cameras on the metal wall or ceiling etc. If you have to install the camera on a metal wall or ceiling in your situation, you may add an insulator between the camera and the wall/ceiling to have it ungrounded. Please refer to the picture below and install the insulator.

Long screws fix the wood on the metal wall.

Short screws fix IPC and wood. Please do not touch the metal plate.
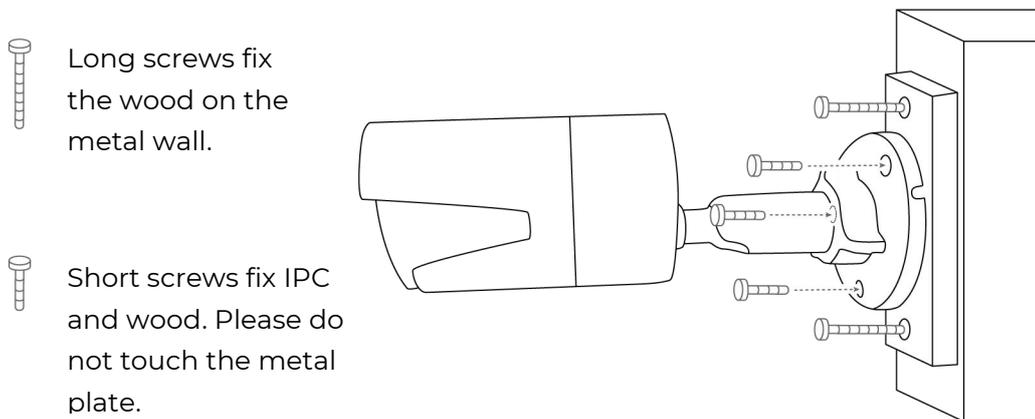
B: Unground the NVR to fix the issue

Please unground the NVR and the monitor connected to the NVR.

Note: In this case, please don't put either the NVR or the monitor on the metal plate/shelf.

(1) You may cut off the grounded pin on the plug on both the NVR and the monitor to have it ungrounded.

(2) You may use a 3 pin-to-2 pin converter on both the NVR and the monitor to have it ungrounded. And you may use the converters below to have the NVR not grounded. Please pay attention to the version of the converter and make sure to order the correct version. For example, If the NVR is installed in the US, please order the US version of the converter.

converter 1

converter 2

converter 3

If you use converter 2, please do not have the third pin grounded.

Cause 4. Insufficient power supply.

If the NVR doesn't reboot when fewer cameras are plugged, the issue may be caused by the two reasons below.

Reason 1: If you unplug one or two certain camera(s) and the NVR won't reboot anymore, the issue is probably caused by the NVR and the cameras both being grounded. Please refer to Cause 3.

Reason 2: If you unplug one or two camera(s), the NVR won't reboot anymore. In this way, the issue is probably caused by the insufficient power supply. Please refer to how many cameras can I add to the NVR.

Note: A power adapter is included in each package of the NVR, but you can also purchase a third-party adapter. Be aware that the ratings of the power adapter of 16-channel Reolink PoE NVRs should be DC 48V 2.5A and 8-channel Reolink PoE NVRs should be DC 48V 2A.

8. NVR cannot be accessed by Reolink software locally.

For computer or phone that's on the same network cannot access the NVR, please check the troubleshooting steps below.

Cause 1. The NVR isn't connected to a router.
Solution:
Please power on the NVR, and connect it to a router by the Ethernet cable.

Cause 2. The NVR failed to obtain IP address information from a router.
Solution:
Please make sure the DHCP server on the router is enabled, so it can assign an IP to the NVR.
Go to NVR monitor, check Network > Network Status, here you can view the IP address, Default Gateway and DNS of the NVR. Ensure they all have numbers.

Cause 3. The LAN port of the NVR is defective.
Solution:
Please check if there's a status LED on the LAN port of the NVR.
Use another Ethernet cable to connect the NVR and router.

Cause 4. The NVR and computer/phone are not on the same network.
Solution:
Please ensure you don't have several subnet masks in the network, and connect the NVR and computer/phone to the same router directly.

9. NVR cannot be powered on anymore.

If the NVR itself cannot be powered on, please check the troubleshooting steps below.

Cause 1. The power adapter issues.

Solution:

Check the status LED on the power adapter of the NVR. If the LED isn't on, please plug the power adapter into another socket as well as change another working power adapter (48V) for a try. If the LED is on, please check the HDD issue below.

Cause 2. The HDD issues.

Solution:

Please unplug the HDD and check if the NVR will power on without HDD.

Cause 3. The voltage is not sufficient.

Solution:

Unplug all cameras. If the NVR power LED is on, please re-plug the camera in sequence to see how many cameras the NVR can provide power normally before the issue started.

10. **Camera randomly disconnects from the NVR.**

If you found that the cameras disconnect and show video loss/connection failed randomly on your NVR monitor, or the camera loses recordings randomly, here are some possible causes and solutions for your reference.

Cause 1. Poor connection between camera and NVR.

Solution:

(1) If you connect your camera to the NVR via the Ethernet cable directly, please make sure that the length between them is less than 260 feet.

(2) Please change with another short cable and plug it into another PoE port. If possible, please connect only one camera to the NVR to test whether the issue still exists.

(3) Please lower the bitrate of the camera and check if the issue can be fixed.

If you connect the camera to the router by PoE switch/ injector and add your camera to the NVR, the issue may cause by the poor network of the router.

(1) Please reboot the router and camera to try again.

(2) If you have connected several devices to the router, please only connect the camera to the router to test the issue.

(3) Please also lower the bitrate of the camera and check if the issue can be fixed.

(4) Please connect the camera directly to the PoE port of the NVR to check whether the issue still exists.

Cause 2. Software issue.

Solution:

Please check the firmware version of the camera and NVR, keep both of them updated.

Cause 3. Incorrect power supply for the NVR.

Solution:

(1) It might be the problem of the NVR's power adapter. Please try again with a different power outlet and power adapter.

Note: For the 8 channel PoE NVR the power adapter is 48V 1.87A. And for the 16 channel PoE NVR, it's 48V 2.5A.

(2) If you have a 12V DC adapter on hand, you may use the adapter to power the camera and connect the camera directly to the router. Please check again whether the camera displays video loss on your NVR.