User Manual
RN201A UA Series

User Manual
RN201A UA Series

Thank you for purchasing this product. Lorex Technology Inc. is committed to providing our customers with a high quality, reliable security solution.

This manual refers to the following models:

For the latest online manual, downloads and product updates, and to learn about our complete line of accessory products, please visit our website at:

www.lorex.com

WARNING

RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF THE PLUG TO THE WIDE SLOT AND FULLY INSERT.

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1 Important Safeguards

Please read the following safety instructions carefully to avoid injury and prevent damage to the device and connected equipment.

> ⚠ **WARNING**
>
> If you notice smoke, unusual odors, or strange noises, turn off the device, unplug it, and contact your retailer immediately.

- Only use the power supply provided or specified by the manufacturer. Do not use an unspecified power source.
- Ensure the plug is securely connected to the power outlet. Do not overload power adapters by connecting multiple devices.
- Disconnect power before attaching or detaching accessories and peripherals.
- Place the NVR on a stable surface. An unstable placement can cause the device to fall, leading to serious injury or death.
- The NVR contains a hard disk drive (HDD) that generates heat during operation. Ensure vents on all sides are unobstructed to allow for proper cooling.
- Avoid placing the NVR in dusty or dirty environments. Ensure the NVR is stored in a well-ventilated area, away from direct sunlight, moisture, or extreme weather conditions. If the device comes into contact with water, disconnect the power immediately.
- Keep the NVR clean and dry. Use a soft cloth for cleaning and avoid using liquid or aerosol cleaners.
- Do not dispose of the battery in fire, expose it to high temperatures, or subject it to mechanical damage, as this may cause explosion or leakage of hazardous materials.
- Avoid exposing the battery to extremely high temperatures or low air pressure, as this may lead to explosion or leakage of flammable liquids or gases.
- Use this device in accordance with local laws, electrical safety standards, and fire prevention regulations.

2 What’s Included

Your NVR package includes the following accessories:

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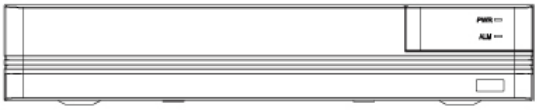
<tr><td colspan="2"> 
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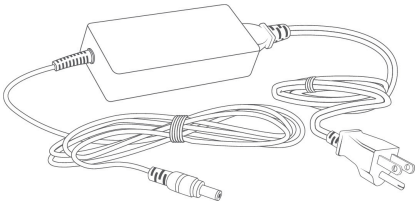
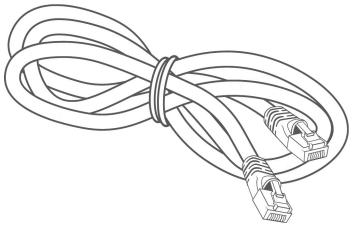
<tr><td> 
Power Adapter</td><td> 
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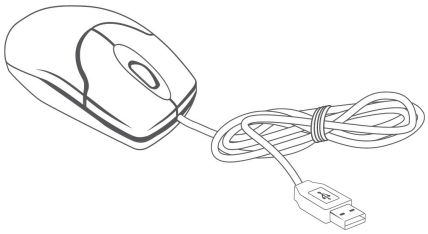
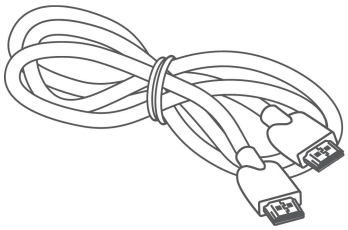
<tr><td> 
USB Mouse</td><td> 
HDMI Cable</td></tr>
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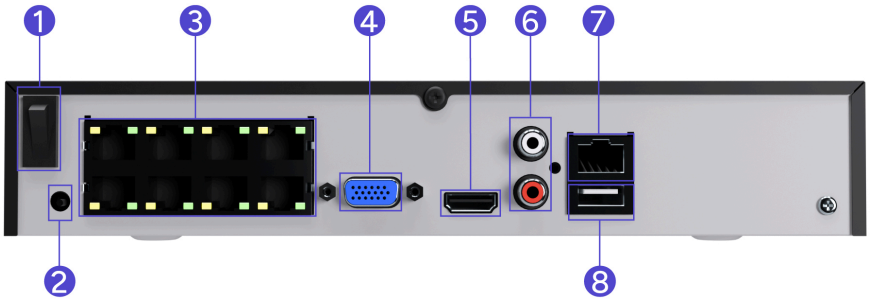
3 Recorder Overview

3.1 Front Panel Overview

1. **HDD (Hard Disk Drive) & Power Status Indicators:** On indicates normal operation; Off signals a hard disk drive error or that the power is off.
2. **USB Port:** Connect the included mouse to control the NVR on a monitor.

3.2 Back Panel Overview



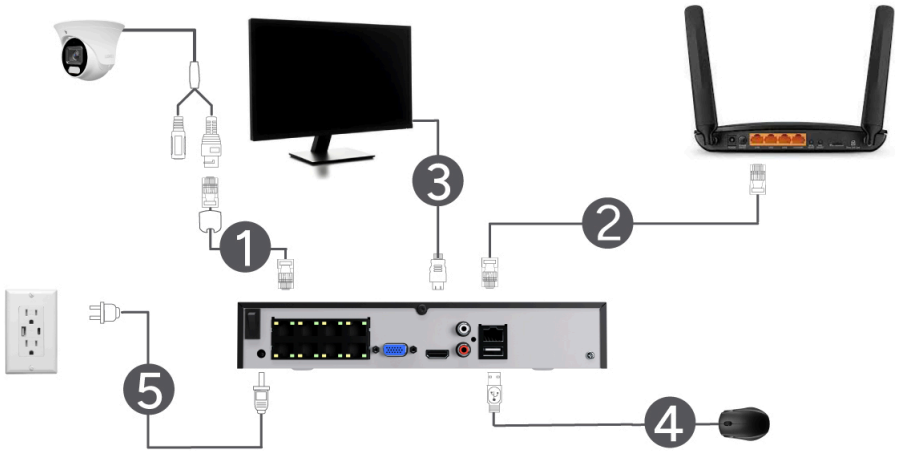
1. **On/Off Switch:** Use this switch to turn the NVR on or off.
2. **Power Input:** Connect the included power adapter to supply power to the NVR.
3. **PoE Camera Input:** Connect Lorex IP cameras directly to the NVR using an Ethernet extension cable. To view a list of compatible cameras, go to lorex.com/compatibility and search for the RN201 recorder.
4. **VGA Monitor:** Connect a monitor using a VGA cable for display output.
5. **HDMI Monitor:** Connect a monitor using the included HDMI cable for high-definition display output.
6. **Network Port (LAN):** Connect to your router using the included Ethernet cable for network access.
7. **Mic In/Out Port:** Connect to audio devices. MIC IN to a microphone or audio recording device, and MIC OUT to speakers or headphones.
8. **USB Port:** Connect the included mouse to control the NVR on a monitor.

4 NVR Setup

Learn how to connect your cameras, power up the NVR, and bring your system online, whether you are using a monitor or the Lorex Connect app. This guide will walk you through both methods, show you how to navigate using the mouse, and help you complete the initial setup with the Lorex Setup Wizard. By the end, you will be able to access and control your NVR remotely through the app for full monitoring.

Set up your NVR system using one of the two methods: **Using a Monitor** (refer to 4.1 *Connecting the NVR Using a Monitor*, page 4) or **Using the App (Without Monitor)** (refer to 4.3 *Download the Lorex Connect App for Remote Viewing*, page 9).

4.1 Connecting the NVR Using a Monitor



NOTE

Connecting to your network and the app are optional for this method.

1. **Connect the Cameras:** Using Ethernet extension cables, connect each camera to the PoE Camera Inputs on the back of the NVR. For detailed instructions, refer to 5.1 *Connecting Cameras to the NVR*, page 13.
2. **Connect to the Router:** Plug one end of the included Ethernet cable into the Network Port (LAN) on the NVR, then connect the other end to your router.
3. **Connect to the Monitor:** Plug one end of the included HDMI cable into the HDMI Monitor Port on the NVR, and the other end into your monitor.
4. **Plug in the Mouse:** Insert the included mouse into one of the USB ports on the NVR.
5. **Connect the Power Adapter:** Attach the power adapter to the Power Input on the back of the NVR, and then plug it into a power outlet.
6. **Turn On the NVR:** Flip the power switch on the back of the NVR to the ON position (**I**).
7. **Complete Setup**: Follow the on-screen steps to complete **Lorex Setup** , see 4.2 *Running Lorex Startup*, page 5 for full details.

4.1.1 Using the Mouse

The mouse allows you to easily navigate and interact with your NVR system. Here is how to use each function:

1. **Left Button**

1.1. **Click** to select options from any menu.
1.2. **Double-click** a channel in split-screen view to switch to full-screen. Double-click again to return to split-screen.
1.3. **Click** and hold to adjust sliders and scales in the menus.

2. **Right Button**

2.1. **Click** to go back or close any open menus.

3. **Scroll Wheel**

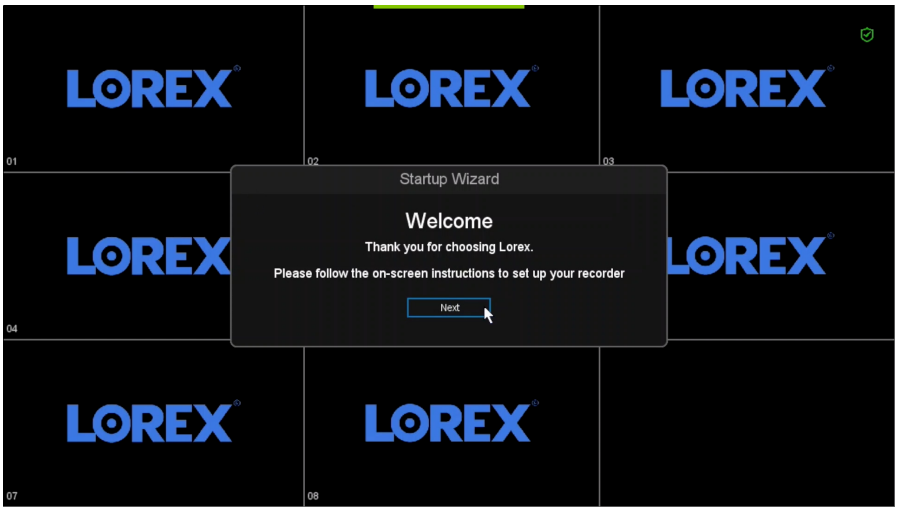
3.1. **Scroll** to navigate up or down through menu options.
3.2. **Scroll** over the volume control to increase or decrease system volume.
3.3. **Scroll** while in zoom mode to zoom in or out.

4.2 Running Lorex Startup

Once your NVR is powered on, follow these preliminary steps to set up your new password and reset questions:

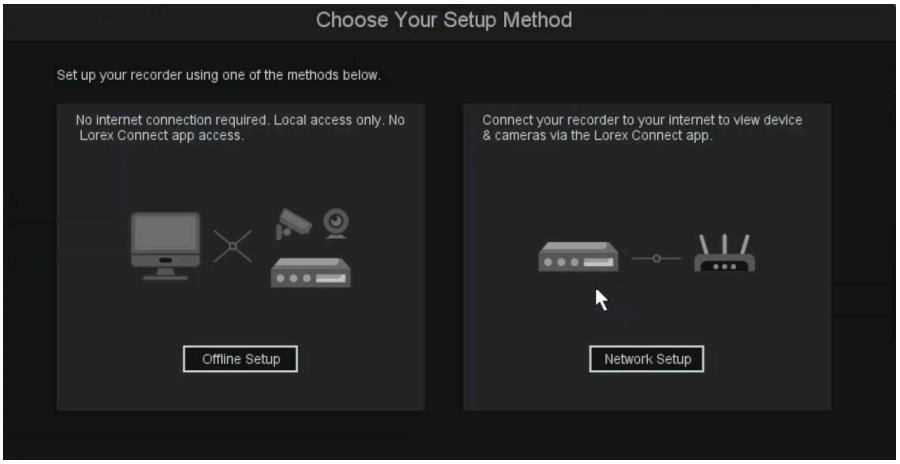
Follow these steps to complete Lorex Setup:

1. **Welcome to Lorex Startup:** Click **Next** to start.



2. **Choose Your Startup Method:**

   2.1. **Offline Startup**: Select this to choose a network-free setup with wired cameras only.
   2.2. **Network Startup**: Select this to connect your NVR to Wi-Fi via Ethernet cable.



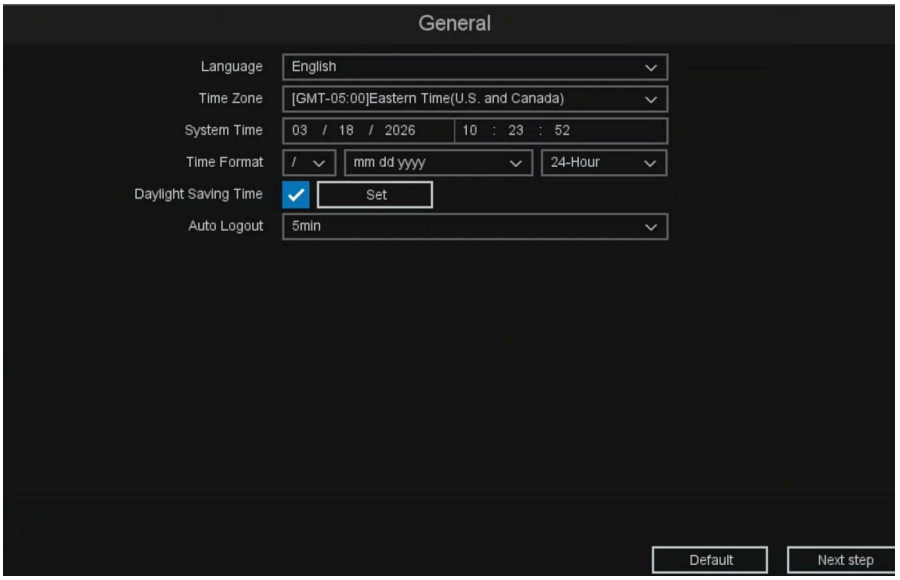
3. **Set Your Recorder Password:** Enter a new password for the NVR system, then confirm it. Click **OK** to save.

> **NOTE**
>
> The password you set for the NVR will be automatically applied to all connected cameras.

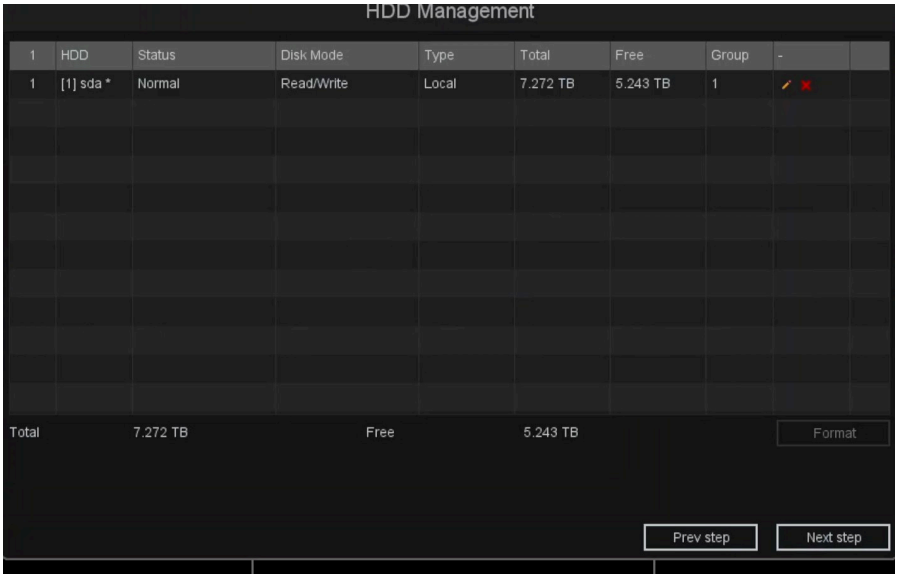
4. **Password Reset Settings:** Set up security questions to recover your password. For each of the three security questions, click the drop-down, select a question, and enter your answer. Click **Next Step** to save.

5. **Set Date and Time:** If necessary, format your HDD by selecting it and clicking **Format**. This will delete all previous files. Click **Next Step**.

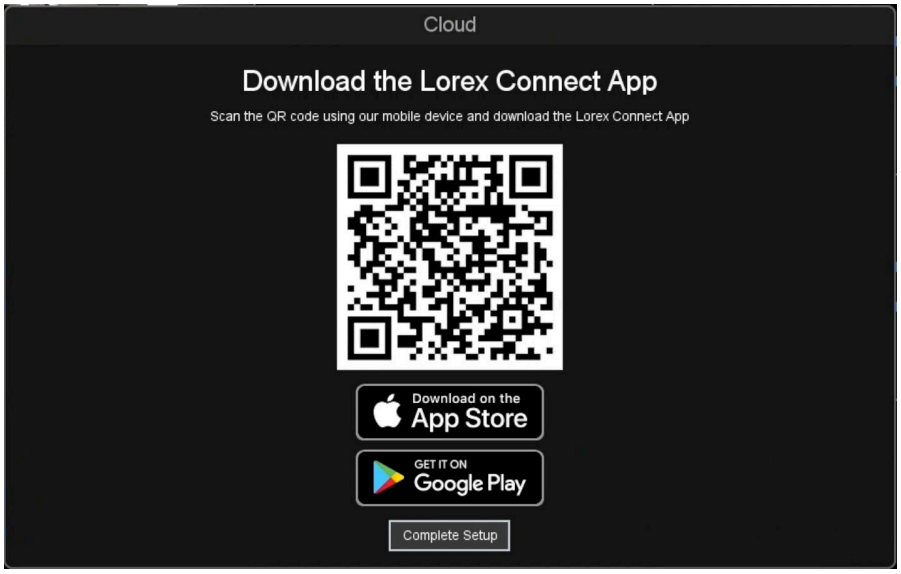
> **NOTE**
>
> Accurate date and time settings are critical for ensuring correct recording timestamps, especially if the footage is needed for legal purposes.



6. **Setup your Hard Drive Disk (HDD):** Choose the correct date and time for your region, then select the preferred date and time formats. Click **Next**.



7. **Download the Lorex Connect App:** Download the **Lorex Connect** app from the App Store or Google Play and tap **+ Add device > Recorder**. Click **Complete Setup** in the recorder.



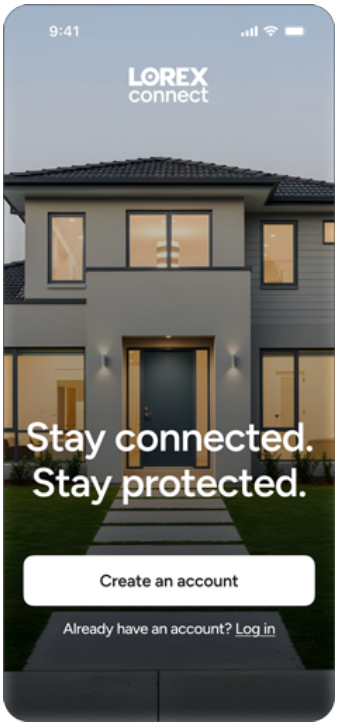
4.3 Download the Lorex Connect App for Remote Viewing

NOTE

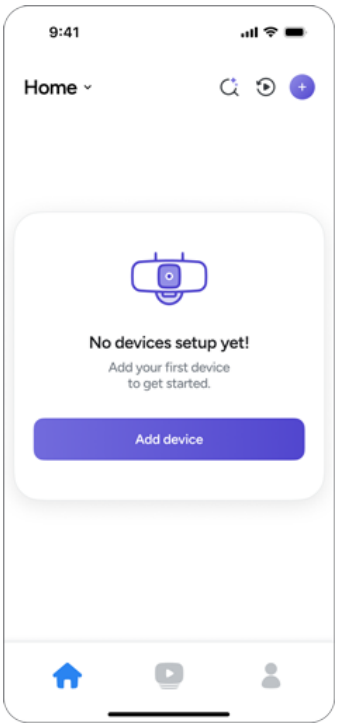
Ensure a high-speed Internet connection with at least 6 Mbps upload speed per 4K channel and 24 Mbps for the entire system.

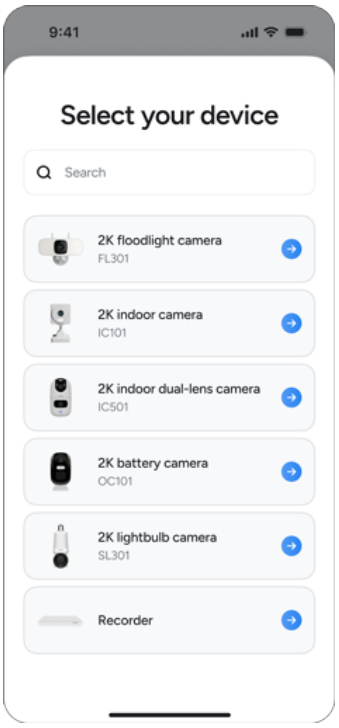
1. Download the **Lorex Connect** app from the App Store or Play Store.

2. Open the app, then **Create an account** or **Log in**.

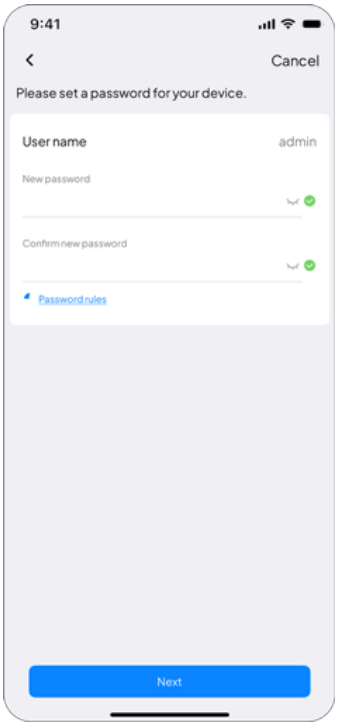


3. Tap + **Add device** and select **Recorder**. Your phone and NVR should be connected to the same network.

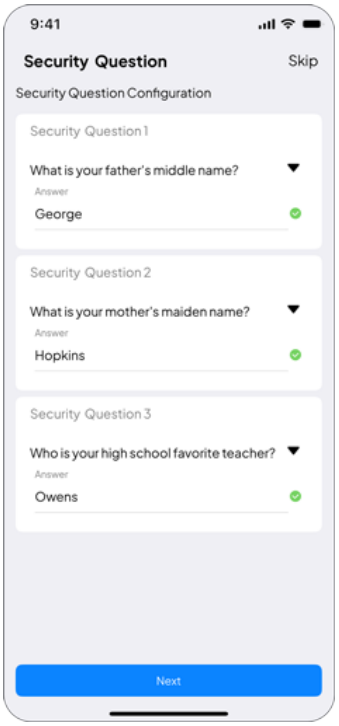




4. Set a password for your NVR.



5. Set up security questions for your device—recommended to help recover your password if forgotten.



6. Give your NVR a name.

For up-to-date guides on using the Lorex Connect app, visit our Support site: www.lorex.com/pages/help.

5 Camera Setup

This chapter covers everything you need to know about connecting and configuring your cameras with the NVR. Whether you are using a direct connection through the NVR's PoE ports or setting up advanced network configurations, these steps will guide you through the process. You will learn how to manually add or modify cameras, optimize camera placement for the best performance, and configure live view and image settings for clear and reliable monitoring. Follow these instructions to ensure your cameras are set up correctly and performing at their best.

5.1 Connecting Cameras to the NVR

This section covers connecting your cameras directly to the NVR or through a network setup.

NOTE
Cameras are automatically added to the system when connected directly to the NVR's PoE ports.

5.1.1 Direct Connection using Ethernet Cables (Recommended)

For a simpler setup, connect your cameras directly to the NVR's PoE (Power over Ethernet) ports, which supply both power and data transmission to the cameras.

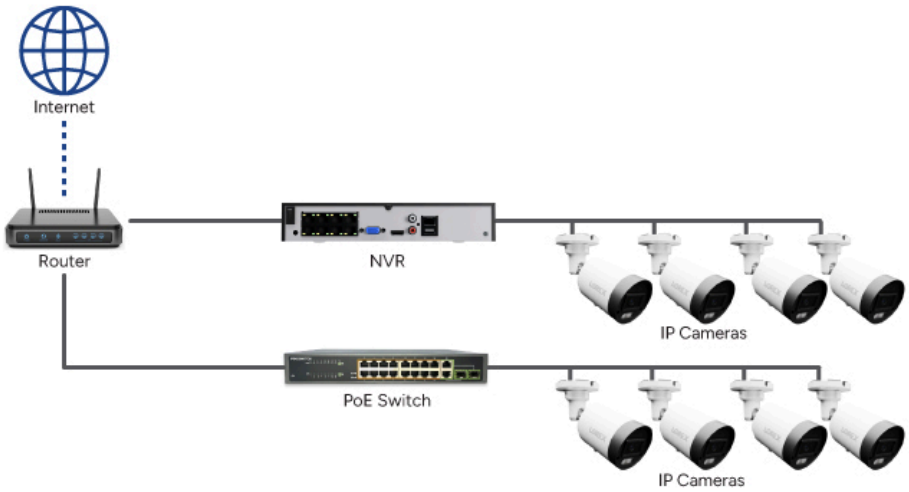
1. Connect one end of the Ethernet cable to the camera.
2. Connect the other end to one of the NVR's PoE Camera Inputs on the back panel.
    - The NVR will automatically detect and add the camera to the system.

5.1.2 Network Connection Using LAN or PoE Switch (Advanced)

For added flexibility, connect IP cameras to the same Local Area Network (LAN) as the NVR by using a PoE switch or connecting them directly to the router. This method allows you to add cameras without directly plugging them into the NVR.

NOTE
This method requires manually adding the cameras to the system after they are connected.

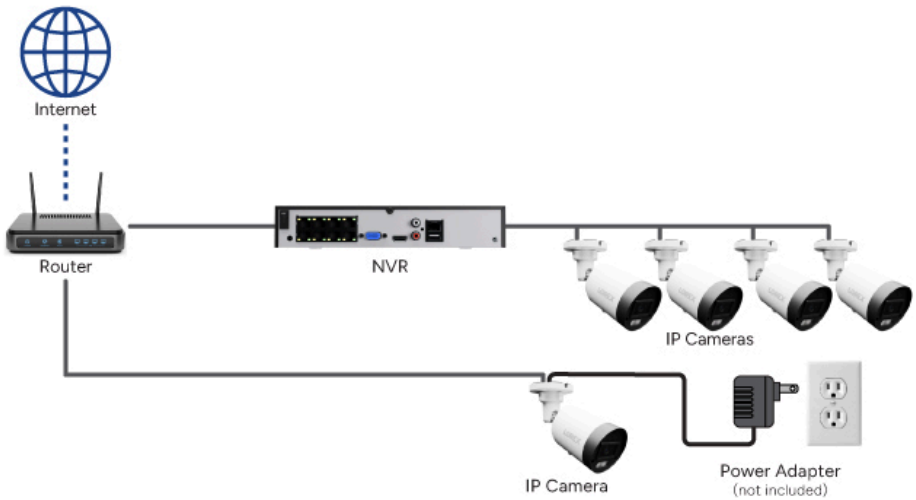
Option 1: Connecting Cameras Using a PoE Switch



1. Connect the PoE switch to your router using a CAT5e or higher Ethernet cable.
2. Plug the PoE switch into a power source.
3. Connect your cameras to the PoE switch with Ethernet cables.
   - The PoE switch will transmit both power and video, similar to the NVR's PoE ports.
4. Add the cameras to the NVR, refer to 5.3 *Adding Cameras to the NVR*, page 15.
5. To configure the internal PoE Switch settings, refer to *Running a Network Test*, page 76.

Option 2: Connecting Cameras Using Power Adapters

If your switch does not support PoE, or if you are connecting cameras to a router, a separate power adapter is required for each camera.



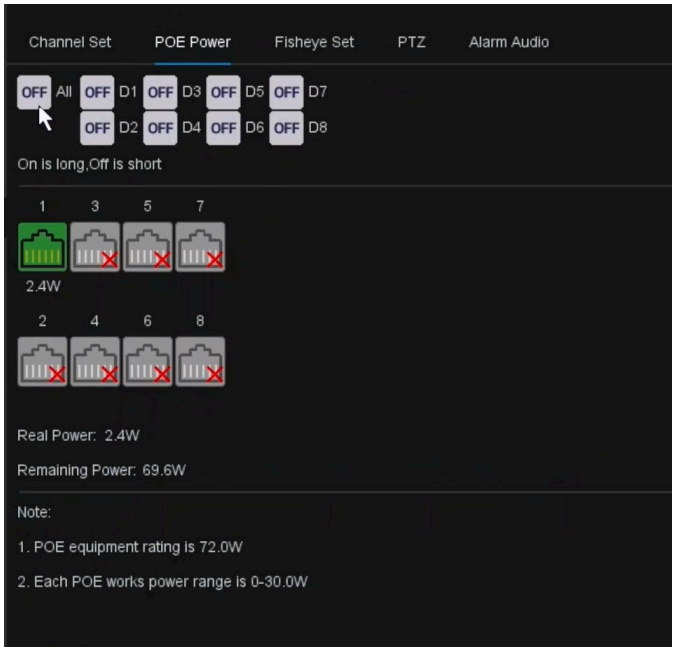
1. Connect each camera to a compatible power adapter (You can purchase these adapters at lorex.com by searching for model numbers ACCPWR12V2A, ACCPWR12V2AH4B, or ACCPWR12V1).
2. Use an Ethernet cable to connect each camera to your router.
3. Add the cameras to the NVR, refer to 5.3 *Adding Cameras to the NVR*, page 15.

5.2 Enabling Camera PoE Power

How to Access PoE Power Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Select **Camera** from the left-hand menu.
5. Select **POE Power** from the top menu.

Enabling PoE Power



1. **Enable/Disable PoE Power**: Toggle each channel ON/OFF. ON is long, OFF is short.
2. View Real Power and Remaining Power here.

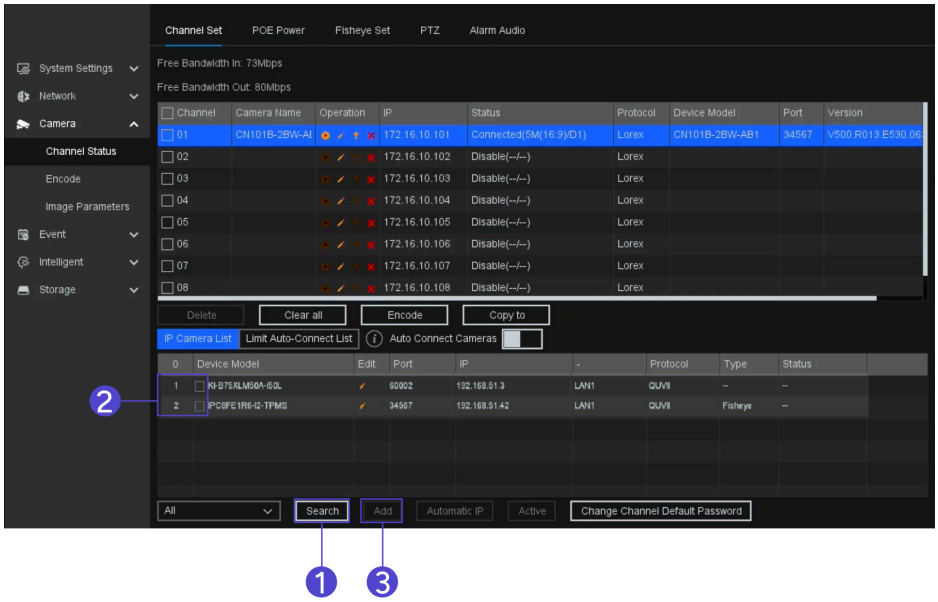
5.3 Adding Cameras to the NVR

The **IP Channel** settings let you manage the connection and configuration of your network cameras. This includes adding, editing, or deleting cameras, as well as troubleshooting connection issues. There are no Fusion cameras for this device, so you only need to plug your camera in to add it. But if your camera is not appearing in the live view screen, refer here.

How to Access IP Channels Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Click on the **Add Camera** tab.

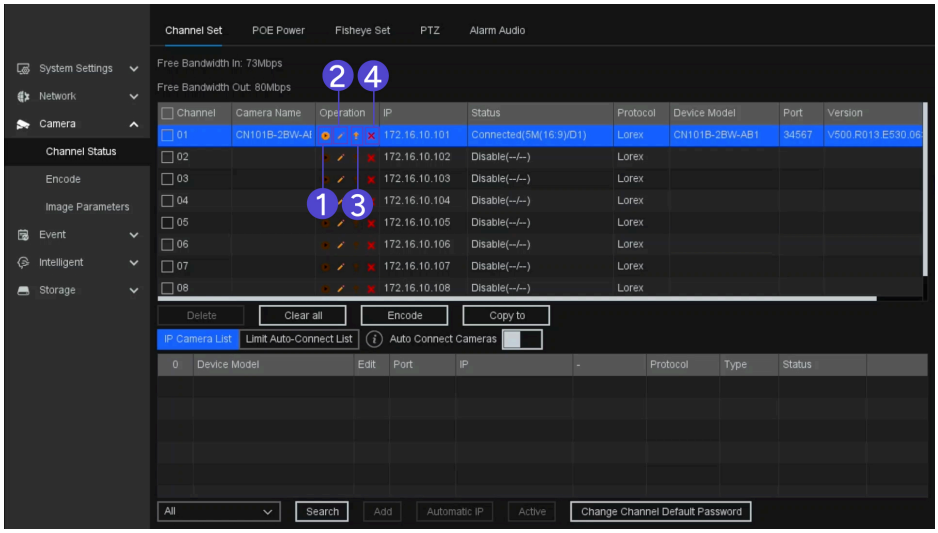
Adding Cameras



1. **Search Camera:** Search all devices on the same network.
2. **Select Camera:** Select the camera which you would like to add from the drop-down menu.
3. **Add** cameras manually or automatically.

NOTE
Optionally, Auto Connect Cameras can be turned on to immediately add cameras that are connected by Ethernet to the NVR.

Modifying Cameras



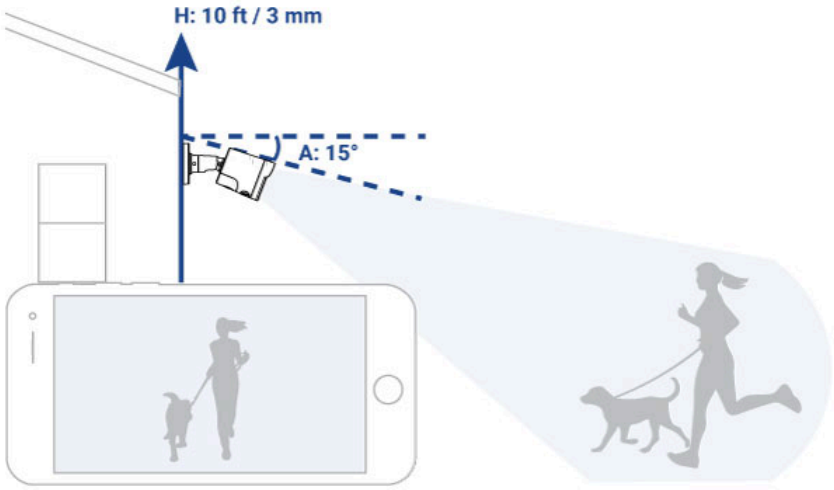
1. **Preview:** View the live view screen.
2. **Edit:** Edit connection details such as IP Address, Subnet Mask, Port, Protocol, Username, Password, and Mode (Auto or PoE).
3. **Upgrade:** Upgrade your camera locally or from the cloud.
4. **Delete:** Remove the camera from the NVR channel.

5.4 Camera Installation

This section provides general tips and instructions for connecting cameras to the NVR. For detailed installation steps, refer to your camera's Installation Guide by searching your camera model at help.lorex.com.

5.4.1 Camera Placement Tips

To ensure optimal camera performance, follow these guidelines:



- **Test first**: Connect the camera to the NVR before permanent installation.
- **Avoid obstacles**: Place the camera away from obstacles like walls or trees. If installed too close, infrared (IR) light used for night vision can reflect off these surfaces, reducing visibility at night.
- **Install in a sheltered location**: For outdoor cameras, install them in a sheltered area to avoid rain or debris blocking the lens. The ideal position is about 10 ft/3 m above ground, angled 15° downward.
- **Avoid direct sunlight**: Install the camera in a location that avoids direct sunlight to prevent glare and lens damage.
- **Secure cabling**: Hide or secure cables to prevent tampering and avoid interference with power lines.
- **Install out of reach**: Keep cameras high enough to prevent tampering but visible as a deterrent.
- **Do not aim through glass**: Avoid pointing cameras through windows, as IR light can reflect off the glass and distort the night vision.
- **Use multiple cameras in key areas**: In high-risk zones, consider installing more than one camera to ensure coverage if one is tampered with.

5.4.2 Installing the Cameras

1. Mount the cameras to a sturdy surface using the provided hardware. Refer to the Installation Guide for specific instructions.

   For the most up-to-date documentation:

   - Visit help.lorex.com/support/home.
   - Search for your camera model number.
   - Click on your NVR's Installation Guide.

2. Adjust the camera's angle to cover the desired area. Depending on the mounting surface (wall or ceiling), adjust accordingly for the best view.

Wall Mount	**Ceiling Mount**

5.5 Configuring Image Settings

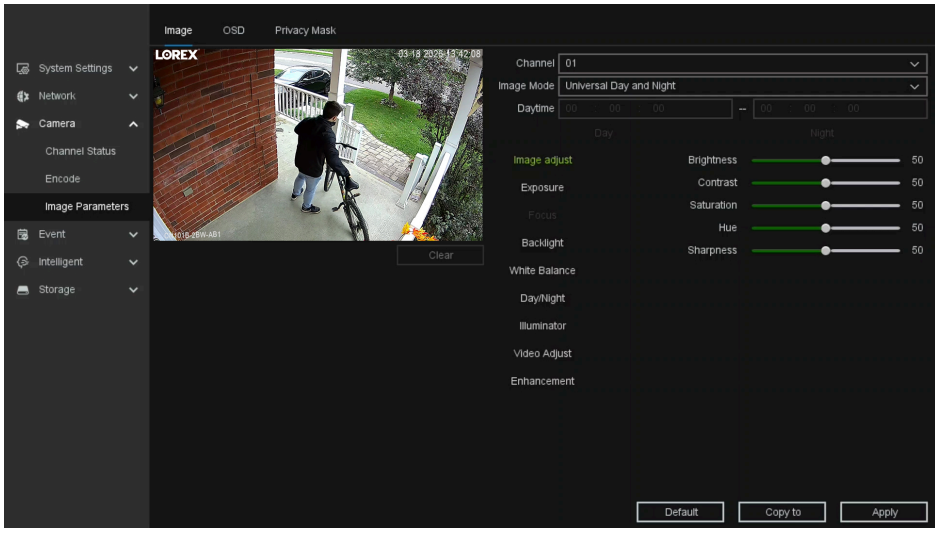
The **Image Settings** allow you to adjust the visual display of each camera feed, including brightness, contrast, and advanced settings like noise reduction and white balance.

How to Access Image Settings

1. **Right-Click** on the Live View screen to open menu.
2. Select **Image Settings**.

Configuring Image Settings

You can immediately make changes on the **Image** page.



- **Channel:** Lists all connected camera channels.
- **Image Mode:** Choose Auto Switch, Scheduled Switch, Universal Day and Night.
- **Daytime:** Change what time Daytime starts and ends for your camera (for Scheduled Switch only).
- **Image Adjust**

    1. **Brightness:** Change how light or dark the image appears.
    2. **Contrast:** Adjust the difference between light and dark areas.
    3. **Saturation:** Control the intensity of colors.

4. **Hue:** Shift the base color of how the image appears.
5. **Sharpness:** Enhance the clarity of image details.

- **Exposure:** Reduce visual noise in low light by enabling or disabling 3D noise reduction.

1. **Anti-Flicker:** to reduce flicker, choose between 50HZ, 60HZ, and Outdoor.
2. **Exposure Mode**: Choose between Auto, or Manual levels of exposure.
3. **Exposure Time:** Choose a number between 1/3 and 1/100000 of a second.
4. **Gain:** Gain is the electronic amplification of a camera sensor's signal to artificially brighten an image. Toggle this with the slider.
5. **Compensation:** Compensation is a camera setting used to manually adjust the brightness of an image, overriding the camera's automatic light meter to make a photo brighter (+) or darker (-) than the default. Toggle the slider to make footage brighter or darker.

- **Backlight:** Choose if Backlight should be close, Backlight Compensation (BLC) (to balance lighting), Highlight Compensation (HLC), or Wide Dynamic Range (WDR).

1. **Wide Dynamic Range (WDR):** Select Close or WDR.
2. **Limit:** Choose the backlight limit by toggling the slider.
3. **Back Light Compensation (BLC):** (Only available for Close selection of WDR) Select Off, BLC, or Highlight Compensation (HLC).

- **White Balance:** Adjust color balance for accurate colors. Choose White Balance Mode (Auto, Daylight, Cloudy, Tungsten, Night, Manual) and choose Illuminator by tapping Setting. Choose Fill Light (Infrared Mode or White Mode), and Mode (Auto, Manual, or Off), then Tap OK to confirm.

1. **White Balance:** Choose Auto or Manual.
2. **Red Gain** (Only available for Manual) toggle with a slider. Red gain is a white balance setting that specifically amplifies or reduces the intensity of the red color channel in a camera's image, often used to correct color casts or achieve accurate color balance.
3. **Blue Gain** (Only available for Manual) toggle with a slider. Blue gain is a camera setting that controls the amplification of the blue color channel relative to the green channel, primarily used in white balance adjustment.

- **Day/Night:** Choose if Day/Night should turn on automatically (Auto), if the image should always be in color (Color), or if the image should always be in black and white (Black&White).

1. **Day and Night Mode:** Select Auto, color, or Black and White.
2. **Filter Time:** (Only available for Auto) toggle with a slider.

- **Illuminator:** Configure Infrared Camera (IR) settings.

1. **Light Type:** Select IR Mode, Warm Light Mode, or Smart Illumination.
2. **IR Setting: Light Mode:** Select Close, Manual, or Auto. This dictates Smart IR.
3. **Warm Light Setting: Light Mode:** select Close, Manual, or Auto.
4. **Brightness:** Toggle with the slider.
5. **Brightness Upper Limit:** Toggle with the slider.
6. **Light Delay:** Input between 10 and 300 seconds.

- **Video Adjust:** Configure footage orientation.

1. **Mirror:** Flip footage by choosing Close, Up down, Left right, or Centre.
2. **Rotate:** Rotate the footage by choosing Off, 90 deg, 180 deg, or 270 deg.

- **Enhancement:** Enhance your footage by reducing noise and defoging the image.

1. **Noise Reduction Level:** Choose between level 1 to 6.
2. **Defog:** Choose between Close, Auto, and manual. For Manual toggle **Defog** with slider. Electronic Image Stabilization (EIS) stays at close.

- **Apply:** Click to save all changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.
- **Copy To:** Click to be able to set the same settings to another channel.

5.6 Taking Snapshots

The **Snapshot** feature allows you to take high-resolution images of your camera footage. These settings help you configure snapshots for each camera channel.

How to Take a Snapshot in Real Time

1. **Click** on the Live View screen to access the Top Menu Bar.
2. Select **Manual Snap** to take a picture.
3. To save that picture, click **OK**.

How to Take a Snapshot in Playback

1. **Right-Click** the Live View screen to access the Menu Bar.
2. Select **Playback** to access the Playback screen.
3. Click Play and select when you would like to snapshot.
4. Click the icon to take a snapshot.
5. Click **Save** then **OK** to save the picture of the recording.

5.7 Setting Privacy Masking

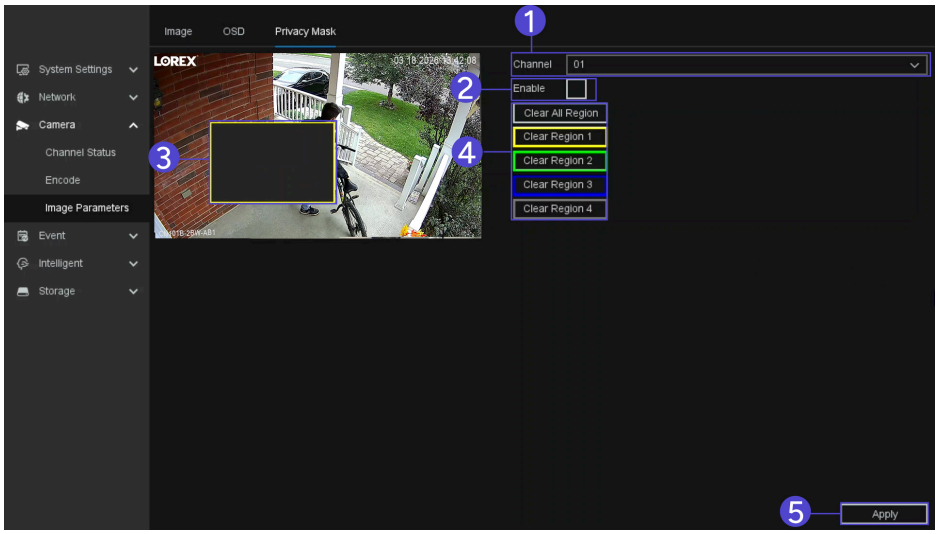
Privacy Masking, also known as the “good neighbor” feature, allows you to hide specific areas of the camera's image for privacy reasons by adding black blocks to the video feed.

How to Access Privacy Masking Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Go to the **Camera > Image Parameters** from the left-hand menu.
4. Choose **Privacy Mask** from the top.

Configuring Privacy Masking

The Privacy Masking setup panel is displayed on the left, with the camera live view on the right. Adjust settings in real-time to immediately see the effects of your changes.



1. **Choose Channel:** Select which camera to configure.
2. **Enable Privacy Masking:** Enable or disable privacy masking for the selected channel.
3. **Area 1 to 4:** Drag rectangles to create up to 4 private areas,. Each area adds a movable and resizable box to the live view, allowing you to hide the desired private areas. Drag the box to the location you want to mask, and resize it by clicking and dragging the box's outline.
4. **Clear Region 1 to 4:** Clear each region by selecting its associated button. If you create three regions and delete the second, the one you make after will be second, not fourth

5. **Apply Changes:** Click **Apply** to save your changes.
    - The privacy-masked areas will now be blacked out on both the live view feed and the recorded video.

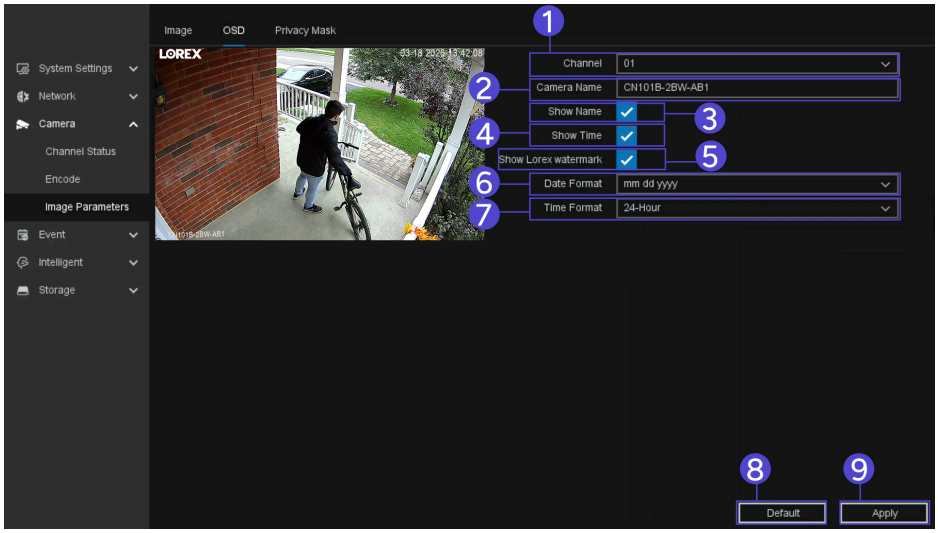
5.8 Setting Overlay Masking

Overlay allows you to decide what will be seen overtop of your live view footage.

How to Access On-Screen Display (OSD) Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Go to the **Camera > Image Parameters** from the left-hand menu.
4. Choose **OSD** from the top.

Configuring OSD



1. **Channel:** Select which camera to configure.
2. **Camera Name:** Input a new camera name if you would like to change it.
3. **Show Name:** Enable or disable if your camera name will overlay the live view footage.
4. **Show Time:** Enable or disable if the time will overlay the live view footage.
5. **Show Lorex Watermark:** Enable or disable if the Lorex Logo will overlay the live view footage.
6. **Date Format:** Select the way Date will be overlaid.
7. **Time Format:** Select the way Time will be overlaid.
8. **Default (Optional):** Click to enable Overlay and set the camera name to its model number.
9. **Apply Changes:** Click **Apply** to save your changes.

5.9 Setting Camera Name

Camera Name allows you to decide what your camera will be called on the live view screen.

How to Access Camera Name Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Go to the **Camera > Image Parameters** from the left-hand menu.
4. Choose **OSD** from the top.

Configuring Camera Name

1. **Channel:** Select which camera to configure.
2. **Camera Name:** Input a new camera name if you would like to change it.
3. **Apply Changes:** Click **Apply** to save your changes.

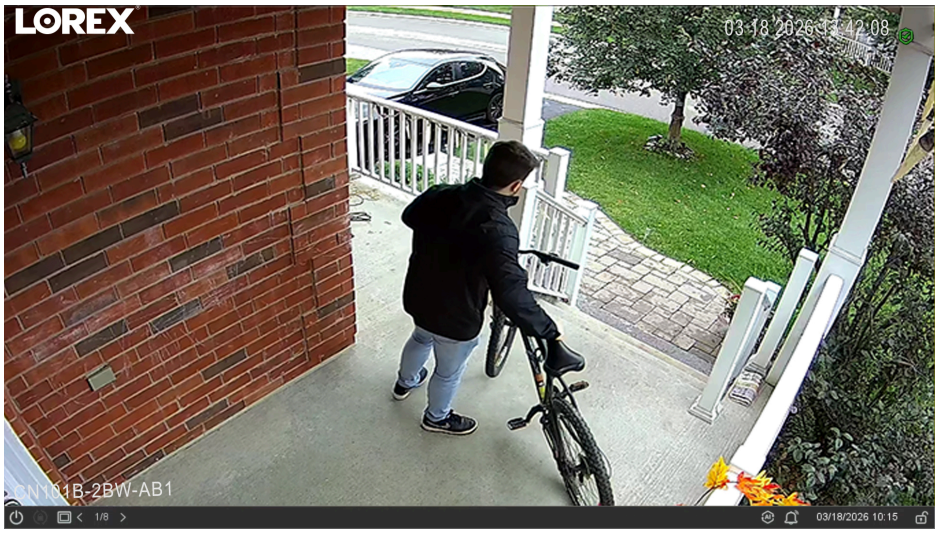
6 Live View

The **Live View** feature gives you real-time access to what's happening on all your connected cameras. You can watch multiple camera feeds at once, making it easy to keep an eye on everything. You can choose a specific camera to see it in full-screen, change camera settings, and use features such as taking snapshots, start recording manually, and even turn on a warning light or siren if needed.

How to Access Live View

1. Hover over the top of the screen to access the Main Menu.
2. Select **Live view** to return to the Live view screen.

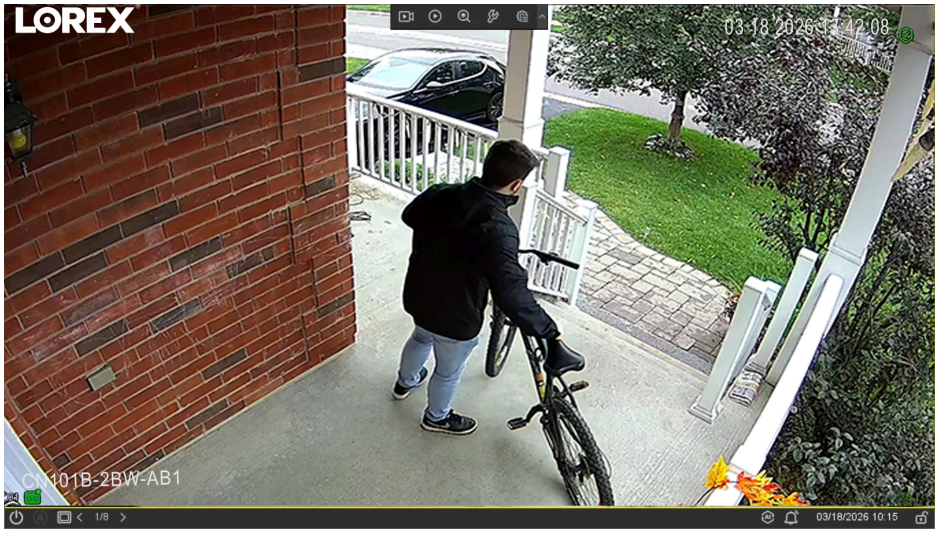
6.1 Camera Live View Overview



1. **Channels:** View up to 8 channels with 8 cameras connected.
2. **Select Channel:**
   - Click a channel to select it.
   - Double-click to view the channel in full-screen as shown above; double-click again to exit full-screen mode.
3. **On-Screen Information:**
   - **Date and Time:** Displayed at the top right of each channel.
   - **Model Number:** Shown at the bottom Left of each channel.
   - **Channel Number:** Shown at the bottom Left of each channel.

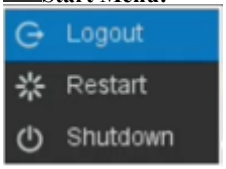
6.2 Using the Navigation Bar

The Navigation Bar, accessible at the edges of the Live View screen, provides quick access to various system functions:



Bottom Menu

1. **Start Menu:**



   1.1. **Logout:** Log out of the current user account.
   1.2. **Restart:** Choose to shut down and reboot the system.
   1.3. **Shutdown:** Choose to shut down the system.

2. **Split Mode:** View footage screens in a 1x1, 2x2, 1+5, 1+7, 3x3, 1x3, 1x4, 2+3, or 1+6 format.
3. 1/8 **Change Screen:** Flip between screens to see footage that is not currently displayed.
4. **Smart:** Select which Smart AI to use: Face, Person, Vehicle, Bicycle.
5. **Alarm:** To set an alarm select **Alert**, **Basic Event**, or **Smart Event**. Click **Set**, choose for which events you would like to set as an alarm. Click **OK** to save.
6. **Time:** This opens Date and Time settings. Set Language, Time Zone, System Time, Daylight Savings Time, and Auto Logout, here.
7. **Lock:** lock the floating bar at the bottom of the screen. Click again to unlock.

Top Menu

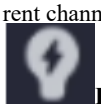
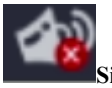
Hover over the top of the screen to make the top menu appear.

1. **Live Menu:** Click to return to the default Live view screen.
2. **Playback:** Click to view playback settings.
3. **Backup and Analysis:** Click to open settings regarding what will be backed up and how backup will occur. Your USB device can be formatted here, this will delete all USB files.
4. **Maintain:** Click to open Maintenance settings, this is where you will find factory reset settings.

5. **Settings Menu:** Click to open general settings

Camera Settings

Click the camera footage to make that camera's settings appear at top

1. **Alarm:** Manually turn on or off the alarm output for this channel
2. **Instant Replay:** Choose how long to view in the last (0-60) minutes.
3. **Manual Record:** Quick switch video mode for this channel (only in manual and stop mode switching).
4. **Manual Snap:** Click Manual Snap to take a picture, and **Save** to keep that picture. Click **OK**.
5. **Audio Preview:** To listen Open channel monitor.
6. **Voice Intercom:** Click to open intercom functions. This button can be used to speak to someone at the location of your camera.
7. **IP Channel:** Quickly switch between the main stream and sub stream of the current channel.
8. **Stream Switch:** Quickly switch between the main stream and sub stream of the current channel.
9.  **Red and Blue Lights:** Manually turn on or off the red and blue light alarm.
10.  **Siren:** Manually turn the siren on or off.

Right-Click Menu

Right-click the Live view screen to make the main menu appear.

1. **Setting Menu:** Click to open General Settings.
2. **Playback:** Click to view playback settings.
3. **Backup and Analysis:** Click to open settings regarding what will be backed up and how backup will occur. your USB can be formatted here, this will delete all USB files.
4. **Maintain:** Click to open Maintenance settings, this is where you will find factory reset settings.
5. **Settings Menu:** Click to open general settings
6. **Single Channel:** Choose a channel to open the live view of that camera.
7. **Multi Channel:** Choose a number of channels (3–9) and orientation, then choose which cameras. This opens that number of channels with the selected cameras.
8. **Add Camera:** There is no fusion for this NVR, so in most cases you need only plug in your camera. but if your camera is not showing, open here to add your camera and follow THESE INSTRUCTIONS.
9. **Image Setting:** Click to open Image Parameters.

Other Options

1. **Arming:** Turn on and off Arming on Live view for each channel in the top right corner.

7 Playback

The **Playback** feature lets you easily watch and manage video footage that's already been recorded. It shows a visual timeline so you can quickly find and review specific moments by selecting the date and time. You can use simple controls like play, pause, fast forward, rewind, and even slow motion to closely examine what happened. You can also save video clips, take snapshots, and adjust the sound. This feature is important for checking security footage, looking into events, and saving important moments.

7.1 Playback

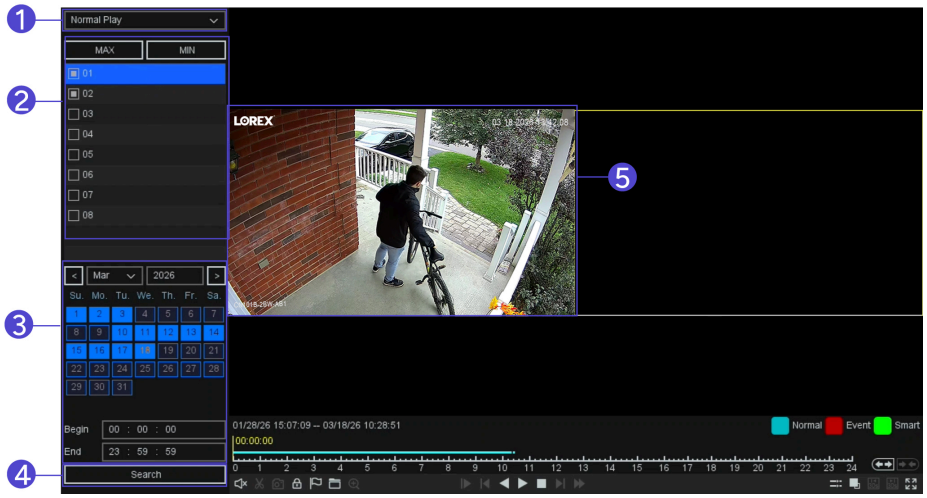
The **Playback** feature lets you easily access and review recorded footage.

How to Access Playback

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Playback**.

Viewing Playback

This section covers how to select and view recorded video footage:



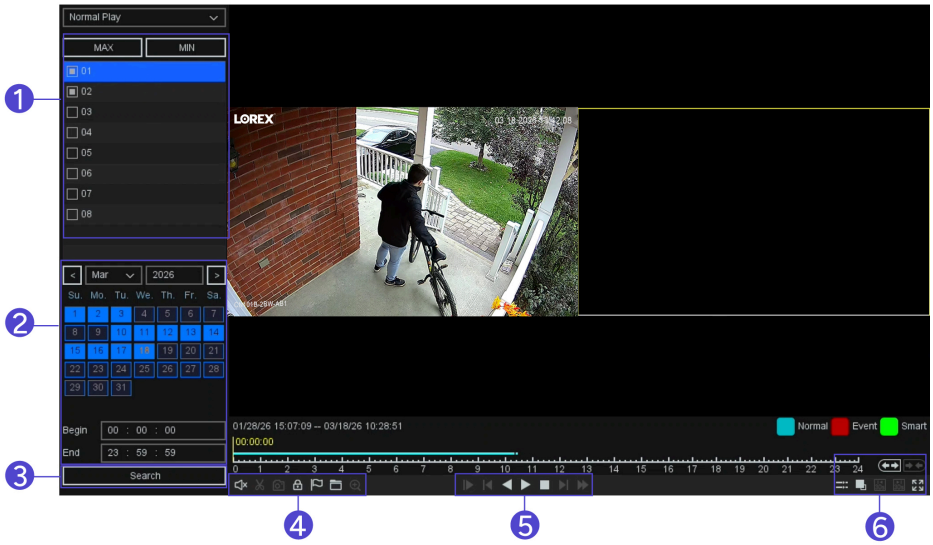
1. **Play Type:**
    1.1. **Normal Play:** Shows regular playback of recent recordings by channel, date, and time.
    1.2. **Event Play:** When you select the event playback mode, the system will analyze and mark videos that contain the motion detection, line crossing detection, or intrusion detection information, etc.
    1.3. **Label Play;** When you select the label playback mode, the system will analyze and mark videos that contain a label.
    1.4. **Smart Play:** Smart Play allows you to search by channel, date, time, within certain areas, and using face search, person search, and vehicle search.
    1.5. **Time Division Play:** Here, you can play the recordings by time period, and distribute the 24-hour recordings evenly according to the number of windows you choose, from 1-16 windows.
    1.6. **Picture Play:** Shows playback through snapshots taken by channel, date, and time.
2. **Channel List:** Checkmark up to eight channels for simultaneous playback.
3. **Calendar:** Select a date and time to view recordings from that day.
4. **Search:** Use to search recordings by the above parameters.
5. **Playback Screen:** Watch recorded videos, with options for split-screen viewing of multiple channels.

7.2 Managing Playback

This section explains how to use the different playback types.

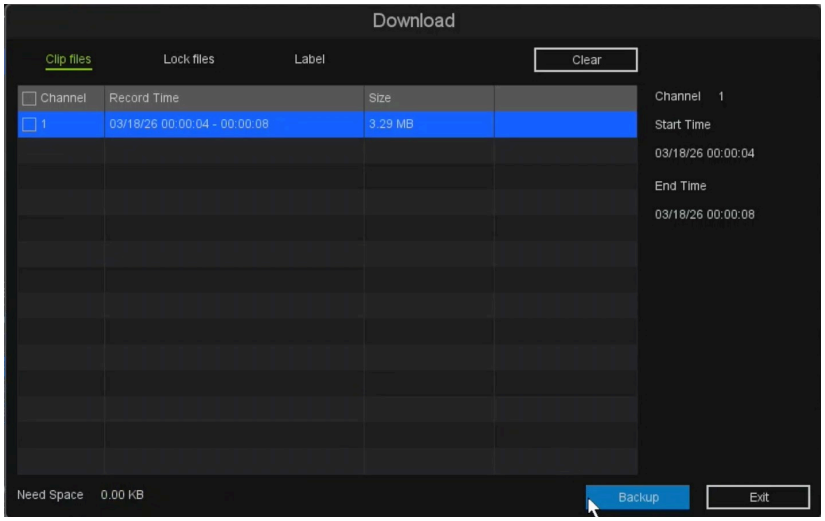
Normal Playback

Select Normal Play in the top drop-down menu.



1. **Select Channel:** Select the channel you would like to look at recordings for.
2. **Select Time:** Input the start and end time you would like to search for.
3. **Search:** Search for recordings.
4. **Tool Menu:** Navigate through the video timeline with these options:
   - 4.1. **Mute:** Switch off playback channel audio.
   - 4.2. **Cut:** Cut the selected video in the channel currently playing.
   - 4.3. **Snap:** Capture a snapshot of the selected channel.
   - 4.4. **Lock Record:** Lock the file so it cannot be overwritten in HDD.
   - 4.5. **Default Label:** Default label, label the file.

4.6. **File Management:** Click to be able to download files:



4.6.1. Select **Clip Files**, **Lock Files**, or **Label** to choose which type of file to download.
4.6.2. **Backup:** Select the desired file and click **Backup** to download it.
4.6.3. **Device:** Choose a device under **Selected Device** or click **Detect** to search for other USB devices.
4.6.4. **File Format:** Select a file format (AVI or DAV).
4.6.5. **Start:** Click **Start** to download the file to the USB Device.
4.6.6. Click **OK** and right-click twice to return to Playback settings.

5. **Timeline:** Navigate through the video timeline with these options:

5.1. **Slow Down:** Quickly move backward through the timeline.
5.2. **Skip Backward:** move backward through video manually frame-by-frame.
5.3. **Rewind:** Plays the footage backwards, click again to stop.
5.4. **Play/Pause:** Start or pause the playback.
5.5. **Stop:** Stop the video.
5.6. **Skip Forward:** move forward through video manually frame-by-frame.
5.7. **Fast Forward:** Quickly move forward through the timeline.

6. **Manage Footage:** Configure the footage with the following controls:

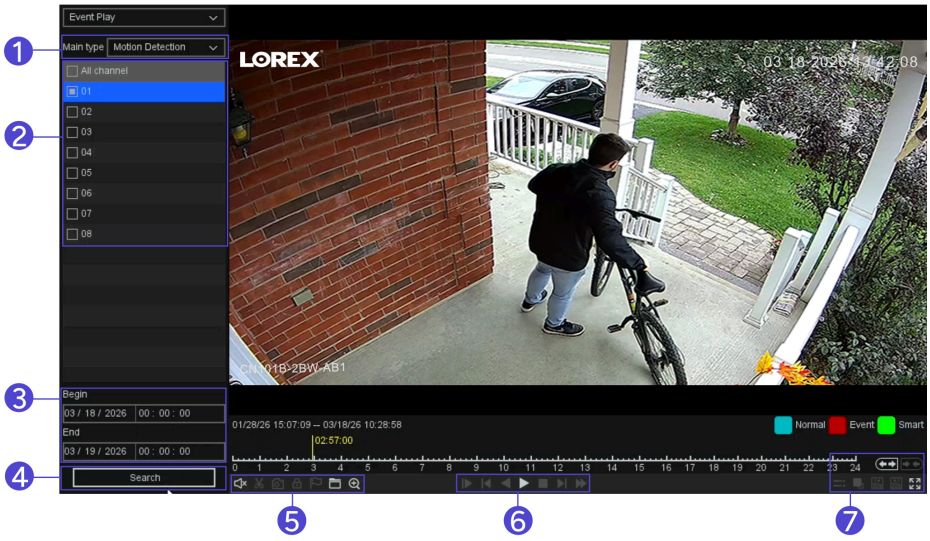
6.1. **Async / Sync:** Synchronous playback or asynchronous playback switching.
6.2. **Main Stream / Sub Stream:** Switch from Main stream (Higher quality footage) to Sub stream (lower quality footage). Click again to switch back.
6.3. **Back ward /** **Forward 30 s:** Skip back/forward 30 seconds.
6.4. **Timeline Stretch:** This makes it so you can pick a more specific time.

6.5. **Timeline Shorten:** This makes it so you can view more time at once.

6.6. **Fullscreen:** View footage in fullscreen.

Event Playback

Select Event Play in the top drop-down menu.



1. **Select Detection Type:** Select Alarm Input, Motion Detection, Intelligent Detection, ANR, Smart Motion Detection, or Perimeter Protection.
2. **Select Channel:** Select the channel you would like to look at recordings for.
3. **Select Time:** Input the start and end time you would like to search for.
4. **Search:** Search for recordings.
5. **Tool Menu:** Navigate through the video timeline with these options:
   - 5.1. **Mute:** Switch off playback channel audio.
   - 5.2. **Cut:** Cut the interest video of playing channel.
   - 5.3. **Snap:** Snap a picture of playing channel .
   - 5.4. **Lock Record:** Lock the file so it cannot be overwritten in HDD.
   - 5.5. **Default Label:** Default label, label the file.
   - 5.6. **File Management:** file manager, manage the cut files/ locked files/ labeled files.
6. **Timeline:** Navigate through the video timeline with these options:
   - 6.1. **Slow Down:** Quickly move backward through the timeline.
   - 6.2. **Skip Backward:** move backward through video manually frame-by-frame.
   - 6.3. **Rewind:** Plays the footage backwards, click again to stop.
   - 6.4. **Play/Pause:** Start or pause the playback.

6.5. **Stop:** Stop the video.

6.6. **Skip Forward:** move forward through video manually frame-by-frame.

6.7. **Fast Forward:** Quickly move forward through the timeline.

7. **Manage Footage:** Configure the footage with the following controls:

7.1. **Async / Sync:** Synchronous playback or asynchronous playback switching.

7.2. **Main Stream / Sub Stream:** Switch from Main stream (Higher quality footage) to Sub stream (lower quality footage). Click again to switch back.

7.3. **Back ward / Forward 30 s:** Skip back/forward 30 seconds.

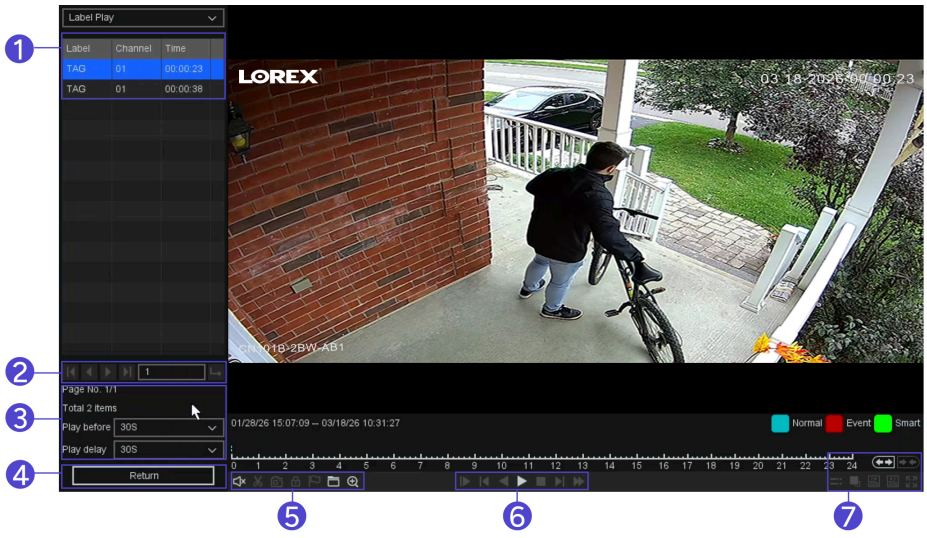
7.4. **Timeline Stretch:** This makes it so you can pick a more specific time.

7.5. **Timeline Shorten:** This makes it so you can view more time at once.

7.6. **Fullscreen:** View footage in fullscreen.

Label Playback

Select Label Play in the top drop-down menu.



1. **Select Label:** Select one of the pre-existing labels.
2. **Sift through labels:**

2.1. **First Page:** Quickly switch to the first page of label search results.
2.2. **Previous Page** Switch to the previous page of label search results.
2.3. **Next Page:** Switch to the next page of label search results.
2.4. **Last Page:** Switch to the last page of label search results.
2.5. **End of Results:** Switch to the last page of label search results

3. **Select Play Time:** Input how much footage to play before and after the label time..
4. **Search:** Search for recordings.
5. **Tool Menu:** Navigate through the video timeline with these options:

5.1. **Mute:** Switch off playback channel audio.

5.2. **Cut:** Cut the interest video of playing channel.

5.3. **Snap:** Snap a picture of playing channel .

5.4. **Lock Record:** Lock the file so it cannot be overwritten in HDD.

5.5. **Default Label:** Default label, label the file.

5.6. **File Management:** file manager, manage the cut files/ locked files/ labeled files.

6. **Timeline:** Navigate through the video timeline with these options:

6.1. **Slow Down:** Quickly move backward through the timeline.

6.2. **Skip Backward:** move backward through video manually frame-by-frame.

6.3. **Rewind:** Plays the footage backwards, click again to stop.

6.4. **Play/Pause:** Start or pause the playback.

6.5. **Stop:** Stop the video.

6.6. **Skip Forward:** move forward through video manually frame-by-frame.

6.7. **Fast Forward:** Quickly move forward through the timeline.

7. **Manage Footage:** Configure the footage with the following controls:

7.1. **Async / Sync:** Synchronous playback or asynchronous playback switching.

7.2. **Main Stream / Sub Stream:** Switch from Main stream (Higher quality footage) to Sub stream (lower quality footage). Click again to switch back.

7.3. **Back ward /** **Forward 30 s:** Skip back/forward 30 seconds.

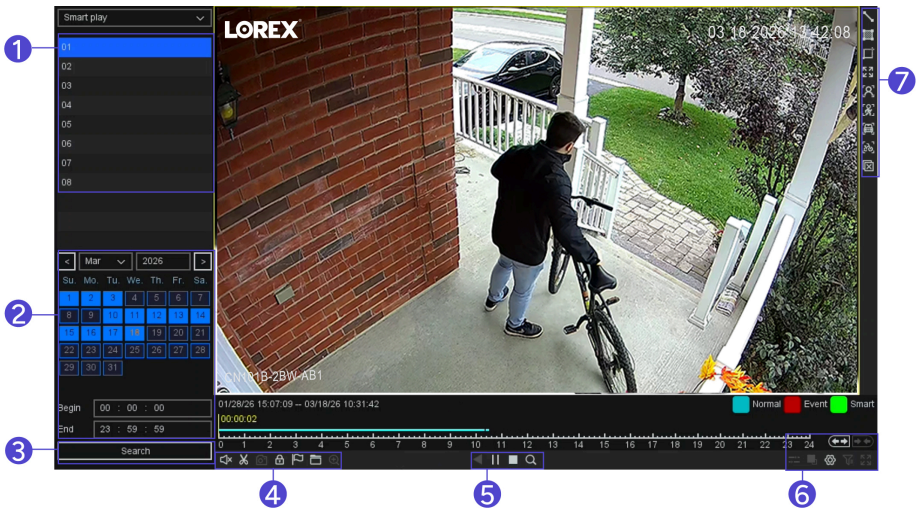
7.4. **Timeline Stretch:** This makes it so you can pick a more specific time.

7.5. **Timeline Shorten:** This makes it so you can view more time at once.

7.6. **Fullscreen:** View footage in fullscreen.

Smart Playback

Select Smart Play in the top drop-down menu.

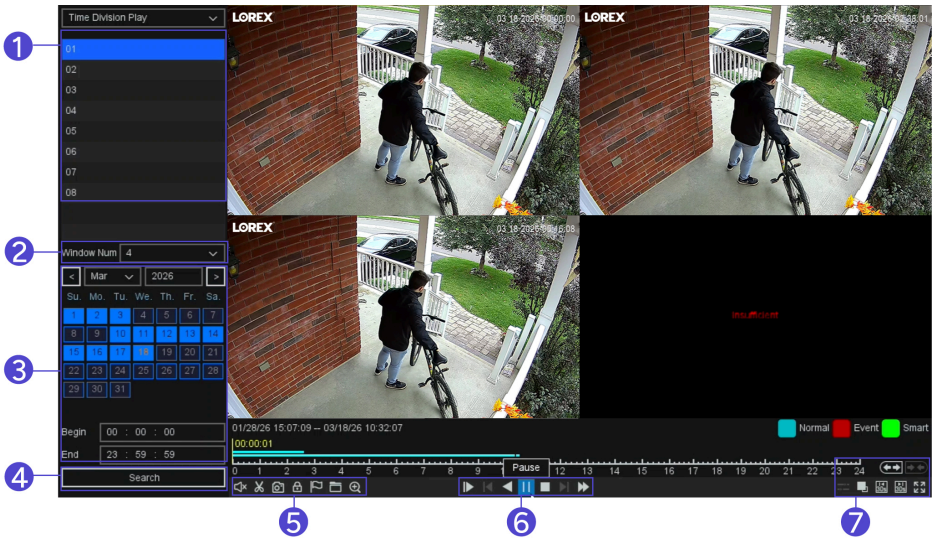


1. **Select Channel:** Select the channel you would like to look at recordings for.
2. **Select Time:** Input the start and end time you would like to search for. Then click the Play button.
3. **Search:** Search for recordings. Motion will be marked with the color green.
4. **Tool Menu:** Navigate through the video timeline with these options:
   - 4.1. **Mute:** Switch off playback channel audio.
   - 4.2. **Cut:** Cut the interest video of playing channel.
   - 4.3. **Snap:** Snap a picture of playing channel .
   - 4.4. **Lock Record:** Lock the file so it cannot be overwritten in HDD.
   - 4.5. **Default Label:** Default label, label the file.
   - 4.6. **File Management:** file manager, manage the cut files/ locked files/ labeled files.
5. **Timeline:** Navigate through the video timeline with these options:
   - 5.1. **Rewind:** Plays the footage backwards, click again to stop.
   - 5.2. **Play/Pause:** Start or pause the playback.
   - 5.3. **Stop:** Stop the video.
   - 5.4. **Search:** Searches for events.
6. **Manage Footage:** Configure the footage with the following controls:
   - 6.1. **Async / Sync:** Synchronous playback or asynchronous playback switching.
   - 6.2. **Main Stream / Sub Stream:** Switch from Main stream (Higher quality footage) to Sub stream (lower quality footage). Click again to switch back.
   - 6.3. **Settings:** Click **Settings** to configure the parameters as you desire.

6.4. **Fullscreen:** View footage in fullscreen.

Time Division Playback

Time Division Play in the top drop-down menu.



1. **Select Channel:** Select the channel you would like to look at recordings for.
2. **Select Windows:** Select the number of footage windows you would like to view at once.
3. **Select Time:** Input the start and end time you would like to search for. Then click the Play button.
4. **Search:** Search for recordings. Motion will be marked with the color green.
5. **Tool Menu:** Navigate through the video timeline with these options:
   - 5.1. **Mute:** Switch off playback channel audio.
   - 5.2. **Cut:** Cut the interest video of playing channel.
   - 5.3. **Snap:** Snap a picture of playing channel .
   - 5.4. **Lock Record:** Lock the file so it cannot be overwritten in HDD.
   - 5.5. **Default Label:** Default label, label the file.
   - 5.6. **File Management:** file manager, manage the cut files/ locked files/ labeled files.
6. **Timeline:** Navigate through the video timeline with these options:
   - 6.1. **Slow Down:** Quickly move backward through the timeline.
   - 6.2. **Skip Backward:** move backward through video manually frame-by-frame.
   - 6.3. **Rewind:** Plays the footage backwards, click again to stop.
   - 6.4. **Play/Pause:** Start or pause the playback.

6.5. **Stop:** Stop the video.

6.6. **Skip Forward:** move forward through video manually frame-by-frame.

6.7. **Fast Forward:** Quickly move forward through the timeline.

7. **Manage Footage:** Configure the footage with the following controls:

7.1. **Async / Sync:** Synchronous playback or asynchronous playback switching.

7.2. **Main Stream / Sub Stream:** Switch from Main stream (Higher quality footage) to Sub stream (lower quality footage). Click again to switch back.

7.3. **Back ward / Forward 30 s:** Skip back/forward 30 seconds.

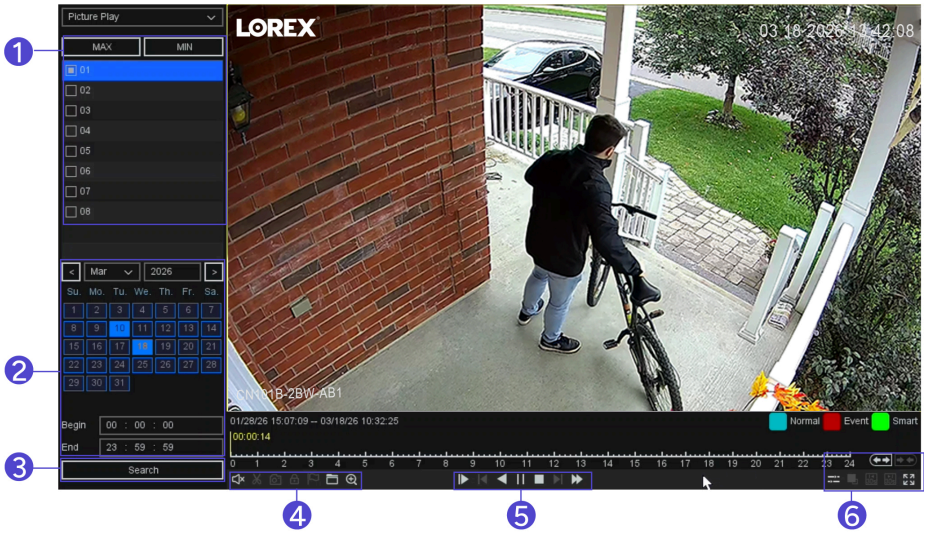
7.4. **Timeline Stretch:** This makes it so you can pick a more specific time.

7.5. **Timeline Shorten:** This makes it so you can view more time at once.

7.6. **Fullscreen:** View footage in fullscreen.

Picture Playback

Picture Play in the top drop-down menu.



1. **Select Channel:** Select the channel you would like to look at recordings for.
2. **Select Time:** Input the start and end time you would like to search for. Then click the Play button.
3. **Search:** Search for recordings. Motion will be marked with the color green.
4. **Tool Menu:** Navigate through the video timeline with these options:

4.1. **Mute:** Switch off playback channel audio.

4.2. **Cut:** Cut the interest video of playing channel.

4.3. **Snap:** Snap a picture of playing channel .

4.4. **Lock Record:** Lock the file so it cannot be overwritten in HDD.

4.5. **Default Label:** Default label, label the file.

4.6. **File Management:** file manager, manage the cut files/ locked files/ labeled files.

5. **Timeline:** Navigate through the video timeline with these options:

5.1. **Slow Down:** Quickly move backward through the timeline.

5.2. **Skip Backward:** move backward through video manually frame-by-frame.

5.3. **Rewind:** Plays the footage backwards, click again to stop.

5.4. **Play/Pause:** Start or pause the playback.

5.5. **Stop:** Stop the video.

5.6. **Skip Forward:** move forward through video manually frame-by-frame.

5.7. **Fast Forward:** Quickly move forward through the timeline.

6. **Manage Footage:** Configure the footage with the following controls:

6.1. **Async / Sync:** Synchronous playback or asynchronous playback switching.

6.2. **Main Stream / Sub Stream:** Switch from Main stream (Higher quality footage) to Sub stream (lower quality footage). Click again to switch back.

6.3. **Back ward /** **Forward 30 s:** Skip back/forward 30 seconds.

6.4. **Timeline Stretch:** This makes it so you can pick a more specific time.

6.5. **Timeline Shorten:** This makes it so you can view more time at once.

6.6. **Fullscreen:** View footage in fullscreen.

8 User and Group Management

The **User** settings let you create and manage different user accounts on your NVR system. You can control who has access and what each user is allowed to do, ensuring everyone only has the permissions they need.

8.1 User Management

How to Access User Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **Account** from the left-hand menu.

Viewing User Accounts

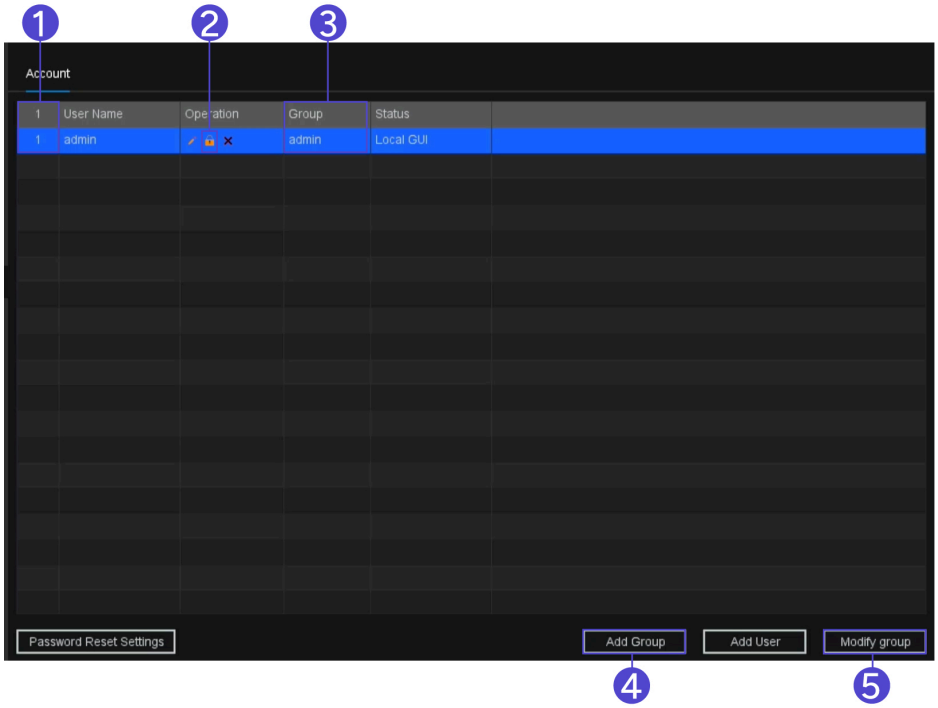
1. **No.:** Displays the numbered list of user accounts.
2. **User Name:** Displays the name of each user, such as "admin" or "user1."
3. **Modify:** Click to change a user's settings. Change username, make a remark about the user, change the group, and reassign authority here. Click **Delete** to delete the user, or **OK** to save changes.
4. **Modify Password:** Click the lock and input Username, the Old Password, the New Password, confirm the new password, and click **OK** to confirm changes.
5. **Delete:** Click to delete the selected user. Click **OK** to confirm.
6. **Group:** Displays the name of the user's associated group. This may indicate the level of permission assigned to the user, such as **Admin** or **User**.
7. **Status:** Displays if GUI status is Local or Global.
8. **Add User:** Create a new user: Input username, make a remark about the user, change the group, and reassign authority here. Click **Delete** to delete the user, or **OK** to save changes

8.2 Group Management

How to Access Group Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **Account** from the left-hand menu.

Viewing Groups



1. **No.:** Displays the numbered list of groups.
2. **Modify:** Click to change a user's settings. Change username, make a remark about the user, change the group, and reassign authority here. Click **Delete** to delete the user, or **OK** to save changes
3. **Group Name:** Displays the name of the group. This may indicate the level of permission assigned to the user, such as **Admin** or **User**.
4. **Notes:** This is where notes are displayed if they have been added by a user.
5. **Add Group:** Create a new group:

    5.1. **Name**: Input a Group name.
    5.2. **Remark**: Input notes if desired.
    5.3. Select Authority.
    5.4. Tap **OK** to save the new group.

1. **Modify Group:** Make changes to an existing group:

    1.1. **Select a Group**: Choose which group to modify.
    1.2. **Name**: Input a Group name or keep the old one.
    1.3. **Remark**: Input or modify notes if desired.
    1.4. Select or change Authority.
    1.5. Tap **OK** to save the new group, or **Delete** to remove it.

9 Password Reset

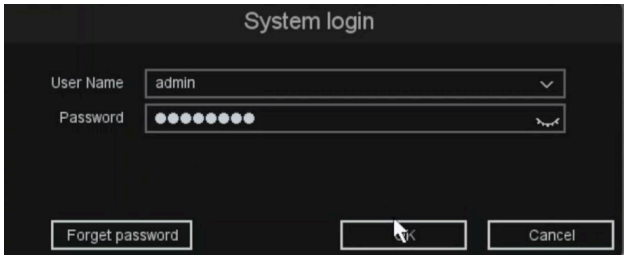
If you have forgotten your NVR password, this chapter will help you reset it. You must answer security questions you set up during the initial setup (refer to , page).

If you set up security questions, you can answer them directly on the NVR to create a new password. If you did not set them up, or if you are having trouble answering them, you can reset the password using the Lorex Connect App.

9.1 NVR Security Question Method

If you've forgotten your NVR password, you can reset it using the security questions set up during Lorex Setup.

1. **Open the Unlock Prompt:** Right-click the screen and click **Settings menu** to open the **Unlock Prompt**.
2. **Forgot Password:** Click **Forgot Password** at the bottom of the prompt to open the **Password Reset** screen.



3. **Answer Security Questions:** Answer the security questions you initially set up.
4. **Enter New Password:** Enter and confirm your **New Password**.
5. **Apply Changes:** Click **OK**. This password will apply to the system and all connected cameras.
6. **Incorrect Answers:** If the answers are wrong, the system will allow six attempts.
   - If you fail all attempts, contact Lorex Technical Support.

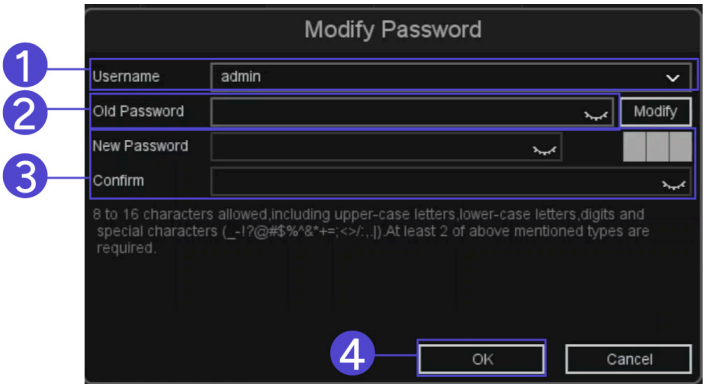
9.2 Changing NVR Password

To change your password when you have access to the current password, proceed with the following instructions:

How to Change NVR Password

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **Account** from the left-hand menu.
5. Select **Modify Password**

Change Password



1. Input your username if it has not been added by default.
2. Input the current password.
3. Input the new desired password and type it again to confirm.
4. Click **OK** to save changes.

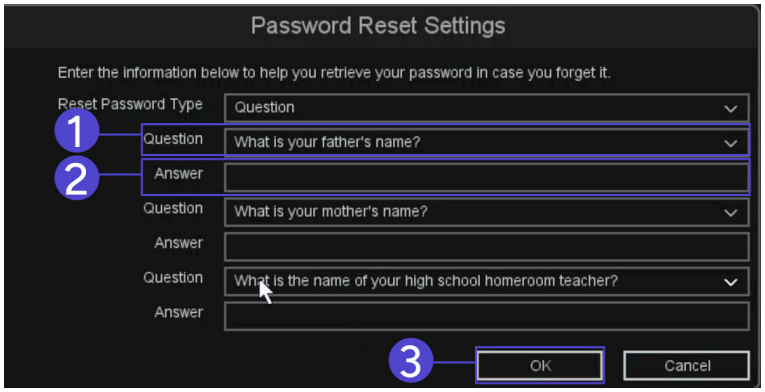
9.3 Change the Reset Questions

If you remember your password but you have forgotten or need to change your reset questions, you can reset it here.

How to Change Password Reset Questions

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **Account** from the left-hand menu.
5. Select **Password Reset Settings.**

Change Password Reset Questions



1. Select a question from the drop-down section.
2. Input the answer.
3. Click **OK** to save changes.

10 Date & Time Setup

Keeping your NVR's **Date and Time** accurate is essential for ensuring your recordings have the correct timestamps, which can be important if the footage is needed for legal purposes. This section will guide you through how to set and adjust the date and time on your NVR.

How to Access Date & Time Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **General Configuration** from the left-hand menu.
5. Select **Basic Setting** from the top menu.

Setting the Date & Time

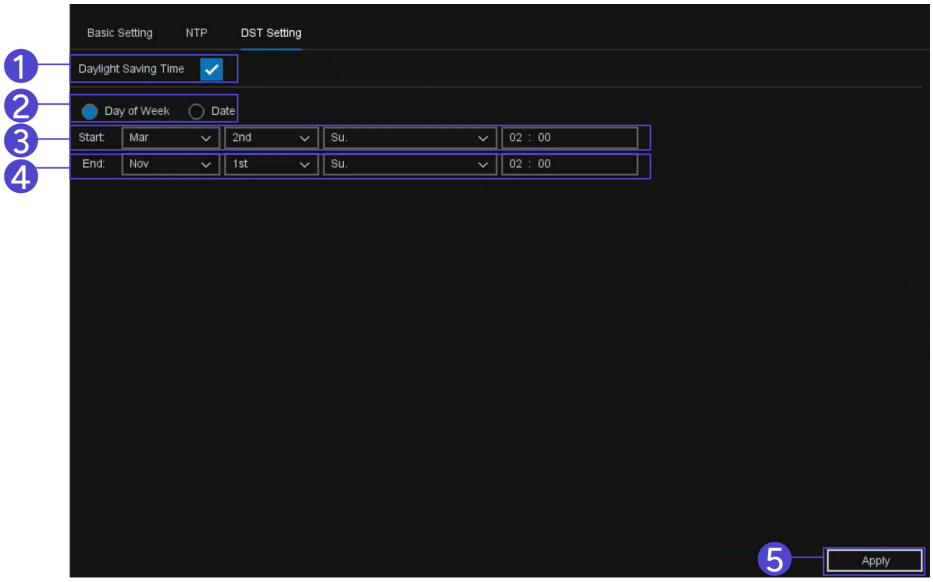
1. **Time Zone:** Choose your local time zone.
2. **System Time:** Choose or view system date and time.
3. **Time Format:** Select the date separator, the date format, and either a 12-hour or 24-hour clock format.
4. **Daylight Saving Time:** Enable and set Daylight Savings time if needed.
5. **Default:** Return all settings to their original values.
6. **Apply Changes:** Click **Apply** to save your changes.

How to Access Daylight Savings Time Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **General Configuration** from the left-hand menu.
5. Select **DST Setting** from the top menu.

Configuring Daylight Savings Time

If your area observes Daylight Savings Time, you can set your NVR to automatically adjust the time during the change.



1. **Enable Daylight Savings Time:** Click to enable or disable Daylight Savings Time configuration.
2. **Choose DST Mode:** Choose between adjusting by **Day of Week** (e.g., the first Sunday of November) or by **Date**.
3. **Start Time:** Set the date and time for when Daylight Savings Time begins.
4. **End Time:** Set the date and time for when Daylight Savings Time ends.
5. **Apply Changes:** Click **Apply** to save your changes.

11 Motion Detection Setup

The **Motion Detection** tab allows you to customize how your NVR system detects and responds to motion in the camera's view. You can configure motion detection zones, and how the system should react when motion is detected, such as sounding alarms, or sending notifications.

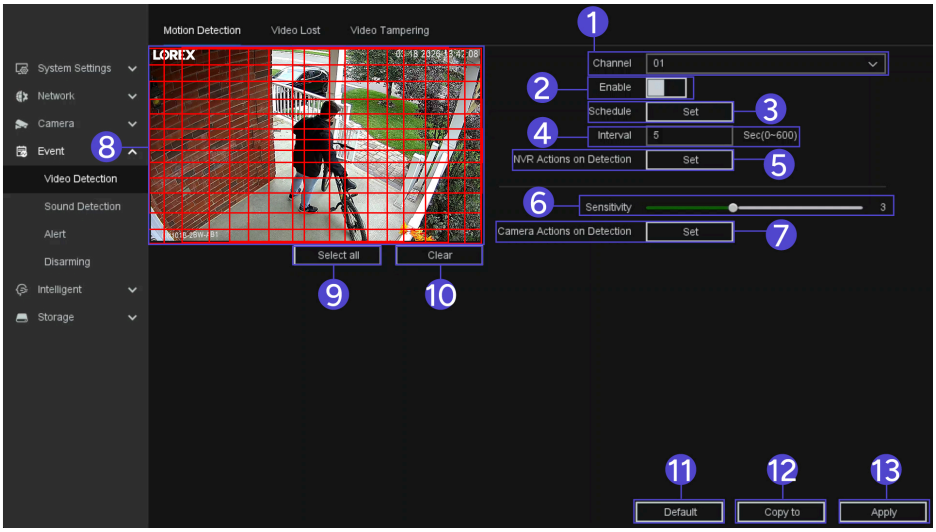
11.1 Configuring Motion Detection

Configure motion detection zones and sensitivity for each camera to ensure the system accurately captures and records movement, while minimizing false alarms.

How to Access Motion Detection Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Event** category from the left-hand menu.
4. Choose **Video Detection** from the drop-down menu.
5. Choose **Motion Detection** from the top menu.

Configuring Motion Detection Settings



1. **Select Channel:** Select the camera channel to configure.
2. **Enable:** Enable/Disable motion detection for the selected channel using the slider.
3. **Schedule:** Select times, periods, and days for which you would like to schedule motion detection. Click **OK** to continue.
4. **Interval:** Select the duration of recordings when motion detection occurs between 0 and 600 seconds.
5. **NVR Actions on Detection:** Click **Set**:
   - 5.1. **Buzzer:** Enable/Disable Buzzer and set Buzz Time in seconds.
   - 5.2. **Send Email:** Enable/Disable with slider.
   - 5.3. **Record Channel:** Enable/Disable with slider, and choose which channels.
   - 5.4. **Record Delay:** Set delay time in seconds.
   - 5.5. **Tour**: Enable/Disable Tour and select which channel.
   - 5.6. **Snapshot:** Enable/Disable using the slider and select which channels.
   - 5.7. **Interval:** Select the duration of recordings when motion detection occurs between 0 and 600 seconds.
   - 5.8. Select **OK** to save changes.
6. **Sensitivity:** Toggle motion detection sensitivity with the slider.
7. **Camera Action on Detection:** Click **Set**:
   - 7.1. **Red and Blue Lights:** Enable/Disable with slider.
   - 7.2. **Schedule:** Select times, periods, and days for which you would like to schedule motion detection. Click **OK** to continue.

7.3. **Flash Rate:** Select Low, Medium, or High.
7.4. **Record Delay:** Set delay time in seconds.
7.5. **Stay Time:** Select how long to show snapshot.

8. **Draw Rule:** Drag to create sections of the detection area, drag inside the undetected area to create a detection area.
9. **Select All:** Enable motion detection for all of camera recording area.
10. **Clear:** Disable motion detection for all of camera recording area.
11. **Default**: Revert the settings to default.
12. **Copy To:** Copy settings to be able to paste to other channels.
13. **Apply Changes:** Click **Apply** to save your changes.

11.2 Configuring Detection Types

Configure detection types to customize their abilities to your needs.

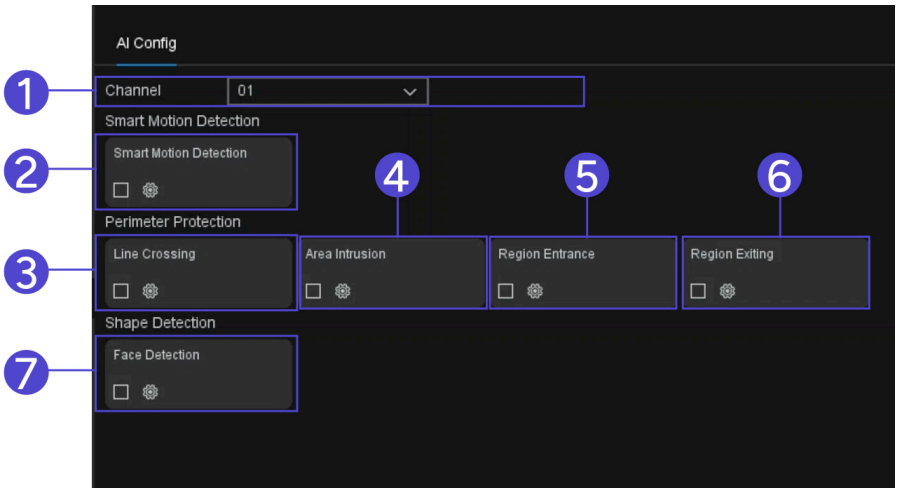
NOTE

All AI detections cannot be used simultaneously. If Face Detection is chosen, all other AI or motion detection settings must be off. The NVR will turn other detection types off automatically. You may choose to have all Smart Motion, Line Crossing, Area Intrusion, Region Entrance, and Region Exiting working together or Face Detection only.

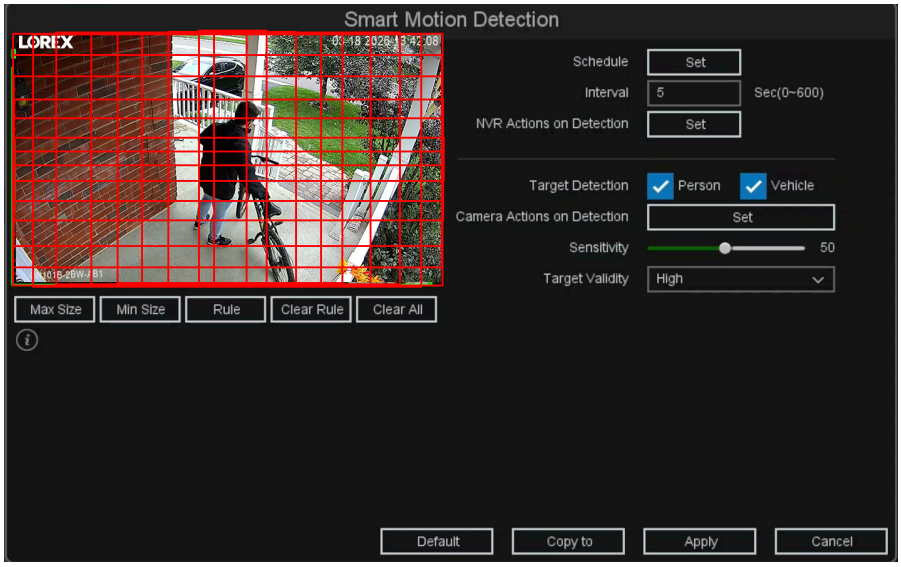
How to Access AI Configuration Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Intelligent** category from the left-hand menu.
4. Choose **AI Config** from the drop-down menu.

Configuring AI Detection Settings



1. **Select Channel:** Select the camera channel to configure.
2. **Smart Motion Detection:** Click the box to enable/disable Smart Motion Detection. Click to open settings (Smart Motion Detection must be enabled).



2.1. **Schedule:** Click **Set** and set a schedule for when Smart Motion Detection is enabled.
2.2. **Interval:** Select an interval between 0 and 600 seconds.
2.3. **NVR Actions on Detection:** Click **Set**:

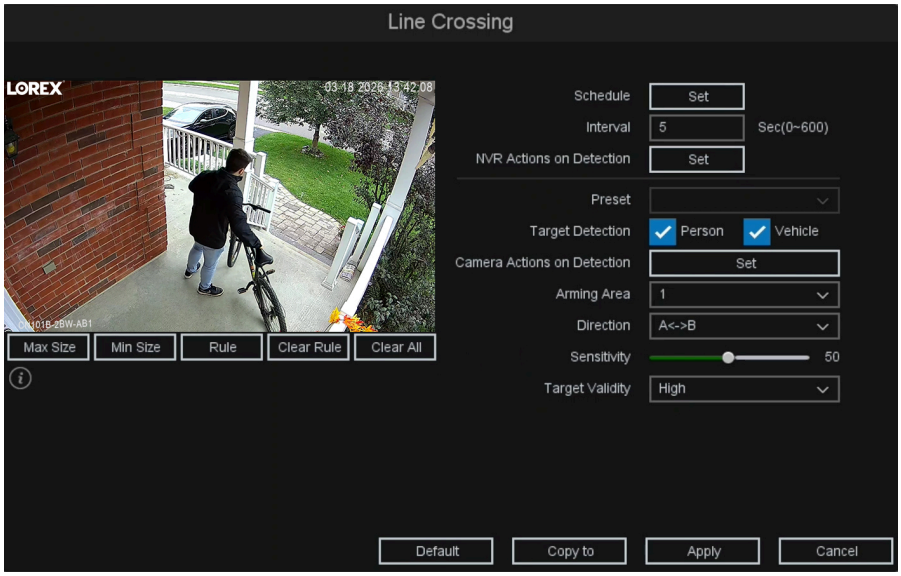
- 2.3.1. **Buzzer:** Enable/Disable Buzzer and set Buzz Time in seconds.
- 2.3.2. **Send Email:** Enable/Disable with slider.
- 2.3.3. **Record Channel:** Enable/Disable with slider, and choose which channels.
- 2.3.4. **Record Delay:** Set delay time in seconds.
- 2.3.5. **Tour**: Enable/Disable Tour and select which channel.
- 2.3.6. **Snapshot:** Enable/Disable using the slider and select which channels.
- 2.3.7. **Interval:** Select the duration of recordings when motion detection occurs between 0 and 600 seconds.
- 2.3.8. Select **OK** to save changes.

2.4. **Target Detection:** Enable or disable Person and Vehicle detection.
2.5. **Camera Action on Detection:** Click **Set**:

- 2.5.1. **Red and Blue Lights:** Enable/Disable with slider.
- 2.5.2. **Schedule:** Select times, periods, and days for which you would like to schedule motion detection. Click **OK** to continue.
- 2.5.3. **Flash Rate:** Select Low, Medium, or High.
- 2.5.4. **Record Delay:** Set delay time in seconds.
- 2.5.5. **Stay Time:** Select how long to show snapshot.

2.6. **Sensitivity:** Toggle Sensitivity with the slider.
2.7. **Target Validity:** Select Basic, High, Higher, or Highest.
2.8. **Max Size**: Select and draw the max size of the detection target when using smart motion detection.
2.9. **Min Size**: Select and draw the min size of the detection target when using smart motion detection.
2.10. **Rule**: Select then drag to draw a new rule section.
2.11. **Clear Rule**: Clears the most recent rule.
2.12. **Clear All**: Clears all rules.
2.13. **Default**: Revert the settings to default.
2.14. **Copy To:** Copy settings to be able to paste to other channels.
2.15. **Apply Changes:** Click **Apply** to save your changes.

3. **Line Crossing:** Click the box to enable/disable Line Crossing. Click to open settings.



3.1. **Schedule:** Click **Set** and set a schedule for when Line Crossing is enabled.
3.2. **Interval:** Select an interval between 0 and 600 seconds.
3.3. **NVR Actions on Detection:** Click **Set**:

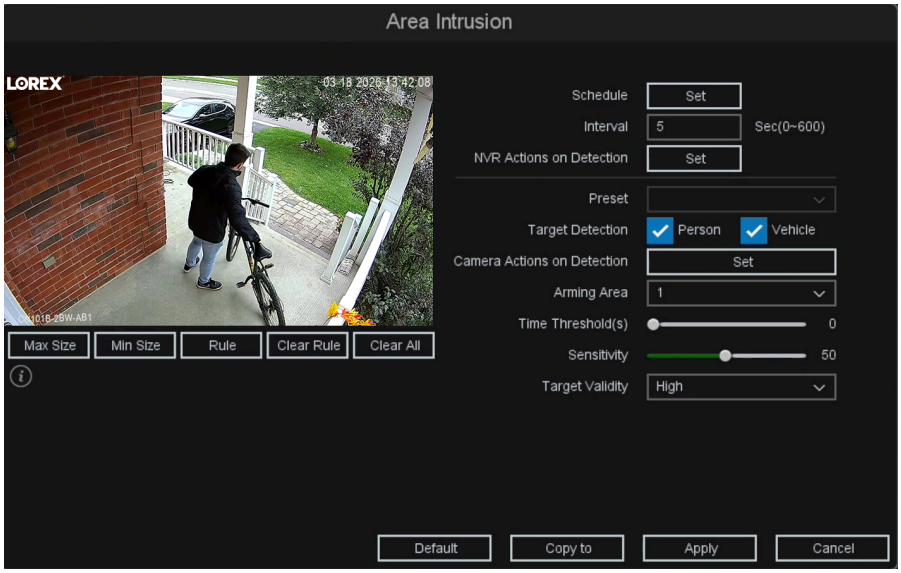
- 3.3.1. **Buzzer:** Enable/Disable Buzzer and set Buzz Time in seconds.
- 3.3.2. **Send Email:** Enable/Disable with slider.
- 3.3.3. **Record Channel:** Enable/Disable with slider, and choose which channels.
- 3.3.4. **Tour**: Enable/Disable Tour and select which channel.
- 3.3.5. **Record Delay:** Set delay time in seconds.
- 3.3.6. **Snapshot:** Enable/Disable using the slider and select which channels.
- 3.3.7. **Interval:** Select the duration of recordings when motion detection occurs between 0 and 600 seconds.
- 3.3.8. Select **OK** to save changes.

3.4. **Target Detection:** Enable or disable Person and Vehicle detection.
3.5. **Camera Action on Detection:** Click **Set**:

- 3.5.1. **Red and Blue Lights:** Enable/Disable with slider.
- 3.5.2. **Schedule:** Select times, periods, and days for which you would like to schedule motion detection. Click **OK** to continue.
- 3.5.3. **Flash Rate:** Select Low, Medium, or High.
- 3.5.4. **Record Delay:** Set delay time in seconds.
- 3.5.5. **Stay Time:** Select how long to show snapshot.

3.6. **Arming Areas:** Select up to four arming areas.
3.7. **Direction:** Select direction from the drop-down menu.
3.8. **Sensitivity:** Toggle Sensitivity with the slider.
3.9. **Target Validity:** Select Basic, High, Higher, or Highest.
3.10. **Max Size**: Select and draw the max size of the detection target when using smart motion detection.
3.11. **Min Size**: Select and draw the min size of the detection target when using smart motion detection.
3.12. **Rule**: Select then drag to draw a new rule section.
3.13. **Clear Rule**: Clears the most recent rule.
3.14. **Clear All**: Clears all rules.
3.15. **Default**: Revert the settings to default.
3.16. **Copy To:** Copy settings to be able to paste to other channels.
3.17. **Apply Changes:** Click **Apply** to save your changes.

4. **Line Area Intrusion:** Click the box to enable/disable Area Intrusion. Click to open settings.



4.1. **Schedule:** Click **Set** and set a schedule for when Area Intrusion is enabled.
4.2. **Interval:** Select an interval between 0 and 600 seconds.
4.3. **NVR Actions on Detection:** Click **Set**:

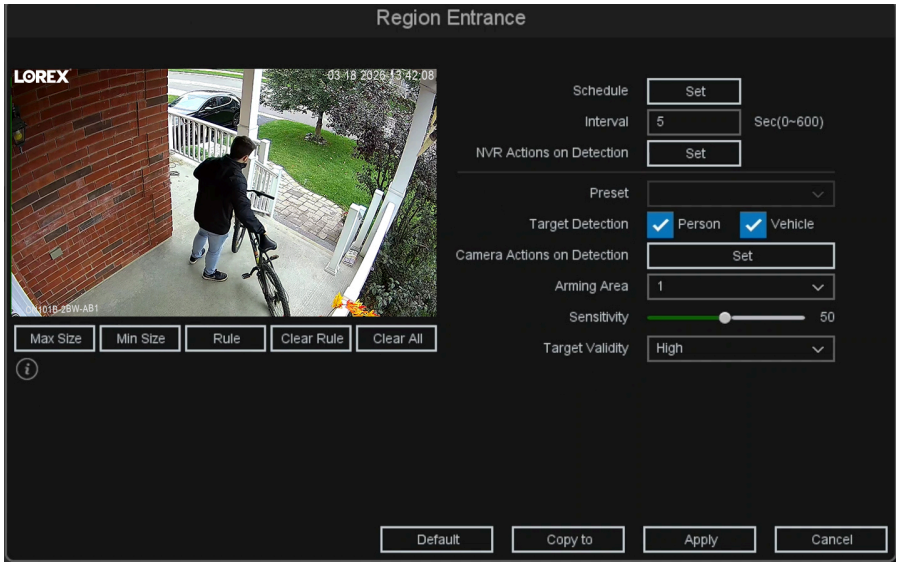
- 4.3.1. **Buzzer:** Enable/Disable Buzzer and set Buzz Time in seconds.
- 4.3.2. **Send Email:** Enable/Disable with slider.
- 4.3.3. **Record Channel:** Enable/Disable with slider, and choose which channels.
- 4.3.4. **Record Delay:** Set delay time in seconds.
- 4.3.5. **Tour**: Enable/Disable Tour and select which channel.
- 4.3.6. **Snapshot:** Enable/Disable using the slider and select which channels.
- 4.3.7. **Interval:** Select the duration of recordings when motion detection occurs between 0 and 600 seconds.
- 4.3.8. Select **OK** to save changes.

4.4. **Target Detection:** Enable or disable Person and Vehicle detection.
4.5. **Camera Action on Detection:** Click **Set**:

- 4.5.1. **Red and Blue Lights:** Enable/Disable with slider.
- 4.5.2. **Schedule:** Select times, periods, and days for which you would like to schedule motion detection. Click **OK** to continue.
- 4.5.3. **Flash Rate:** Select Low, Medium, or High.
- 4.5.4. **Record Delay:** Set delay time in seconds.
- 4.5.5. **Stay Time:** Select how long to show snapshot.

4.6. **Arming Areas:** Select up to four arming areas.
4.7. **Time Threshold(s)**: Toggle time threshold(s) with the slider.
4.8. **Sensitivity:** Toggle Sensitivity with the slider.
4.9. **Target Validity:** Select Basic, High, Higher, or Highest.
4.10. **Max Size**: Select and draw the max size of the detection target when using smart motion detection.
4.11. **Min Size**: Select and draw the min size of the detection target when using smart motion detection.
4.12. **Rule**: Select then drag to draw a new rule section.
4.13. **Clear Rule**: Clears the most recent rule.
4.14. **Clear All**: Clears all rules.
4.15. **Default**: Revert the settings to default.
4.16. **Copy To:** Copy settings to be able to paste to other channels.
4.17. **Apply Changes:** Click **Apply** to save your changes.

5. **Region Entrance Detection:** Click the box to enable/disable Region Entrance. Click to open settings.



5.1. **Schedule:** Click **Set** and set a schedule for when Region Entrance is enabled.
5.2. **Interval:** Select an interval between 0 and 600 seconds.
5.3. **NVR Actions on Detection:** Click **Set**:

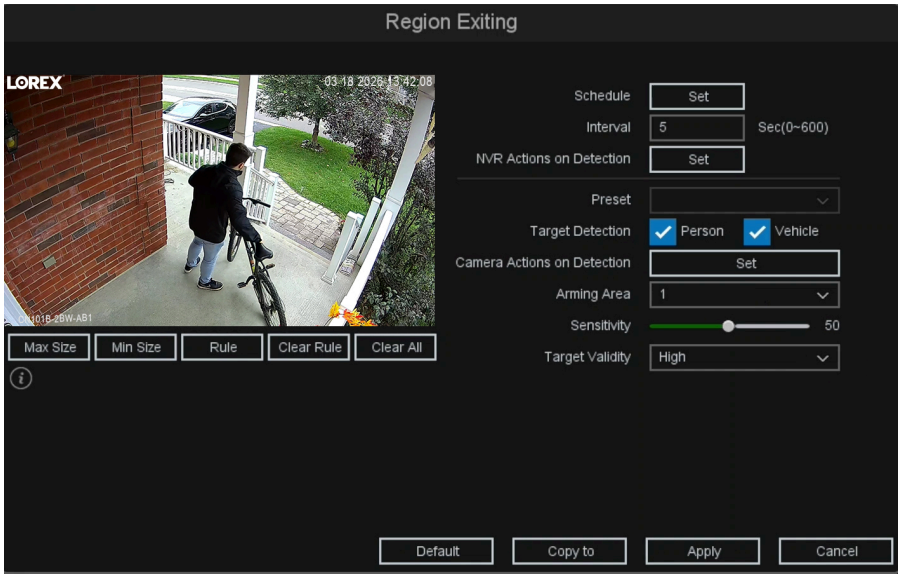
- 5.3.1. **Buzzer:** Enable/Disable Buzzer and set Buzz Time in seconds.
- 5.3.2. **Send Email:** Enable/Disable with slider.
- 5.3.3. **Record Channel:** Enable/Disable with slider, and choose which channels.
- 5.3.4. **Record Delay:** Set delay time in seconds.
- 5.3.5. **Tour**: Enable/Disable Tour and select which channel.
- 5.3.6. **Snapshot:** Enable/Disable using the slider and select which channels.
- 5.3.7. **Interval:** Select the duration of recordings when motion detection occurs between 0 and 600 seconds.
- 5.3.8. Select **OK** to save changes.

5.4. **Target Detection:** Enable or disable Person and Vehicle detection.
5.5. **Camera Action on Detection:** Click **Set**:

- 5.5.1. **Red and Blue Lights:** Enable/Disable with slider.
- 5.5.2. **Schedule:** Select times, periods, and days for which you would like to schedule motion detection. Click **OK** to continue.
- 5.5.3. **Flash Rate:** Select Low, Medium, or High.
- 5.5.4. **Record Delay:** Set delay time in seconds.
- 5.5.5. **Stay Time:** Select how long to show snapshot.

5.6. **Arming Areas:** Select up to four arming areas.
5.7. **Sensitivity:** Toggle Sensitivity with the slider.
5.8. **Target Validity:** Select Basic, High, Higher, or Highest.
5.9. **Max Size**: Select and draw the max size of the detection target when using smart motion detection.
5.10. **Min Size**: Select and draw the min size of the detection target when using smart motion detection.
5.11. **Rule**: Select then drag to draw a new rule section.
5.12. **Clear Rule**: Clears the most recent rule.
5.13. **Clear All**: Clears all rules.
5.14. **Default**: Revert the settings to default.
5.15. **Copy To:** Copy settings to be able to paste to other channels.
5.16. **Apply Changes:** Click **Apply** to save your changes.

6. **Region Exiting:** Click the box to enable/disable Region Exiting. Click to open settings.



6.1. **Schedule:** Click **Set** and set a schedule for when Region Exiting is enabled.
6.2. **Interval:** Select an interval between 0 and 600 seconds.
6.3. **NVR Actions on Detection:** Click **Set**:

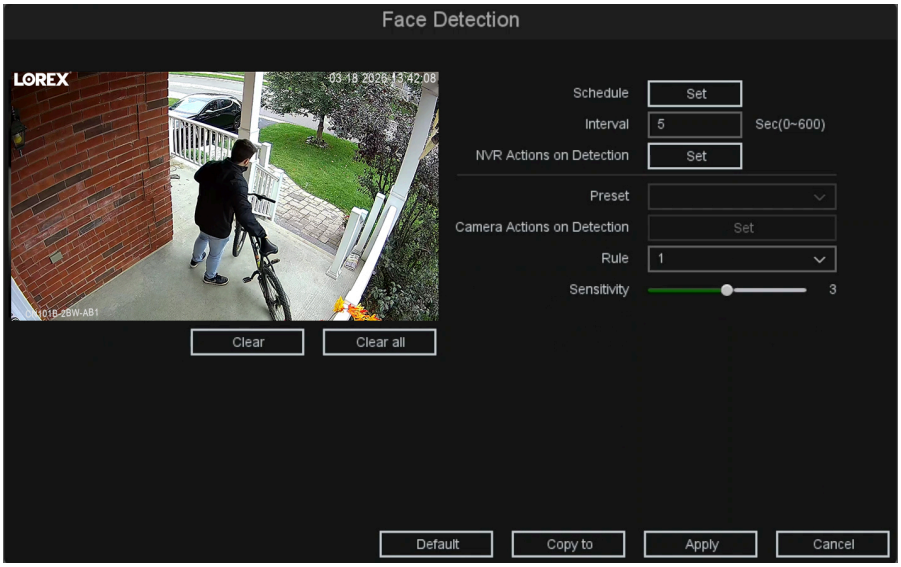
- 6.3.1. **Buzzer:** Enable/Disable Buzzer and set Buzz Time in seconds.
- 6.3.2. **Send Email:** Enable/Disable with slider.
- 6.3.3. **Record Channel:** Enable/Disable with slider, and choose which channels.
- 6.3.4. **Record Delay:** Set delay time in seconds.
- 6.3.5. **Tour**: Enable/Disable Tour and select which channel.
- 6.3.6. **Snapshot:** Enable/Disable using the slider and select which channels.
- 6.3.7. **Interval:** Select the duration of recordings when motion detection occurs between 0 and 600 seconds.
- 6.3.8. Select **OK** to save changes.

6.4. **Target Detection:** Enable or disable Person and Vehicle detection.
6.5. **Camera Action on Detection:** Click **Set**:

- 6.5.1. **Red and Blue Lights:** Enable/Disable with slider.
- 6.5.2. **Schedule:** Select times, periods, and days for which you would like to schedule motion detection. Click **OK** to continue.
- 6.5.3. **Flash Rate:** Select Low, Medium, or High.
- 6.5.4. **Record Delay:** Set delay time in seconds.
- 6.5.5. **Stay Time:** Select how long to show snapshot.

6.6. **Arming Areas:** Select up to four arming areas.
6.7. **Sensitivity:** Toggle Sensitivity with the slider.
6.8. **Target Validity:** Select Basic, High, Higher, or Highest.
6.9. **Max Size**: Select and draw the max size of the detection target when using smart motion detection.
6.10. **Min Size**: Select and draw the min size of the detection target when using smart motion detection.
6.11. **Rule**: Select then drag to draw a new rule section.
6.12. **Clear Rule**: Clears the most recent rule.
6.13. **Clear All**: Clears all rules.
6.14. **Default**: Revert the settings to default.
6.15. **Copy To:** Copy settings to be able to paste to other channels.
6.16. **Apply Changes:** Click **Apply** to save your changes.

7. **Face Detection:** Click the box to enable/disable Face Detection. Click to open settings.



7.1. **Schedule:** Click **Set** and set a schedule for when Face Detection is enabled.
7.2. **Interval:** Select an interval between 0 and 600 seconds.
7.3. **NVR Actions on Detection:** Click **Set**:

- 7.3.1. **Buzzer:** Enable/Disable Buzzer and set Buzz Time in seconds.
- 7.3.2. **Send Email:** Enable/Disable with slider.
- 7.3.3. **Record Channel:** Enable/Disable with slider, and choose which channels.
- 7.3.4. **Record Delay:** Set delay time in seconds.
- 7.3.5. **Tour**: Enable/Disable Tour and select which channel.
- 7.3.6. **Snapshot:** Enable/Disable using the slider and select which channels.
- 7.3.7. **Interval:** Select the duration of recordings when motion detection occurs between 0 and 600 seconds.
- 7.3.8. Select **OK** to save changes.

7.4. **Rule:** Select then drag to draw a new rule section. Set up to one rule.
7.5. **Sensitivity:** Toggle Sensitivity with the slider.
7.6. **Clear Rule**: Clears the most recent rule.
7.7. **Clear All**: Clears all rules.
7.8. **Default**: Revert the settings to default.
7.9. **Copy To:** Copy settings to be able to paste to other channels.
7.10. **Apply Changes:** Click **Apply** to save your changes.

12 Storage Management

The **Storage** settings in your NVR allow you to control how your system saves video recordings and snapshots. You can create custom schedules for when your cameras should record or take snapshots, and you can also manage how your system uses its hard disk drive space to ensure you never run out of storage.

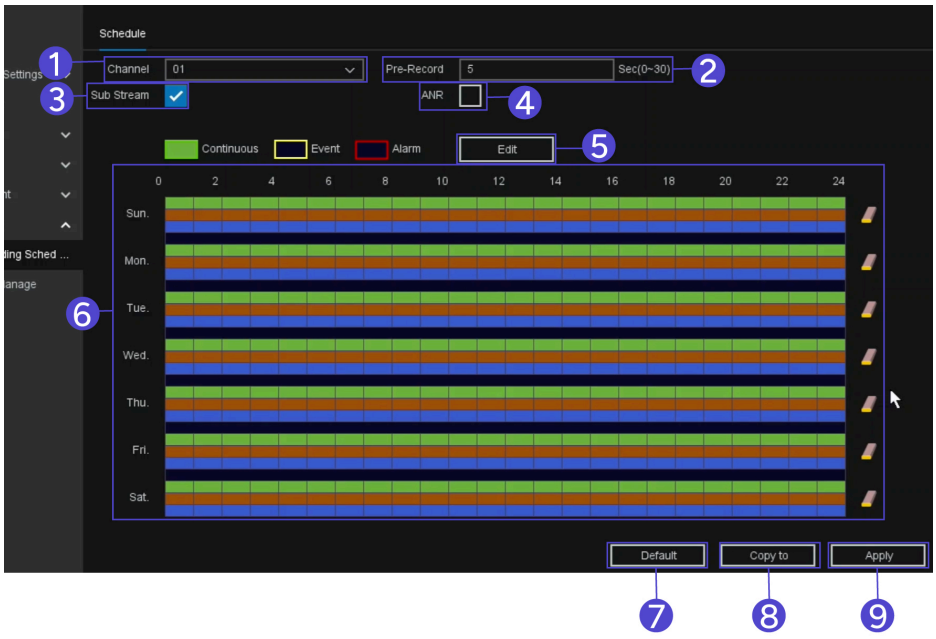
12.1 Configuring the Recording Schedule

The **Recording Schedule** allows you to decide when each camera will record. You can set it up for continuous recording or only when motion is detected, depending on your needs.

How to Access Recording Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Storage** from the left-hand menu at the top.
4. Choose **Record schedule** from the left-hand drop-down menu.

Schedule



1. **Channel:** Select which camera to set a schedule for from the drop-down menu.
2. **Pre-Record:** Decide how long should be included in a recording before an event occurs (0 to 30 seconds).
3. **Sub Stream:** Select if recording should be done in mainstream (unchecked) or sub stream (checked).
4. **Automatic Network Replenishment (ANR):** If checked, when IPC is disconnected with the NVR and IPC has its own record in its TF-card, NVR will supplement the record from IPC's TF card when IPC re-connects with NVR
5. **Edit:** Click **Edit** to Configure schedule by inputting day, start time, and end time. Enable/ Disable Continuous recording, Event, and Alarm. **Apply** to as many days as desired. Click **OK** to save.
6. **Schedule:** Drag to set the schedule for each day, Click the eraser to clear all for the section you are editing.
7. **Default:** Select to reset the schedule to always record,
8. **Copy to:** Select to copy settings so they can be applied to another channel.
9. **Apply:** Select **Apply** to save changes.

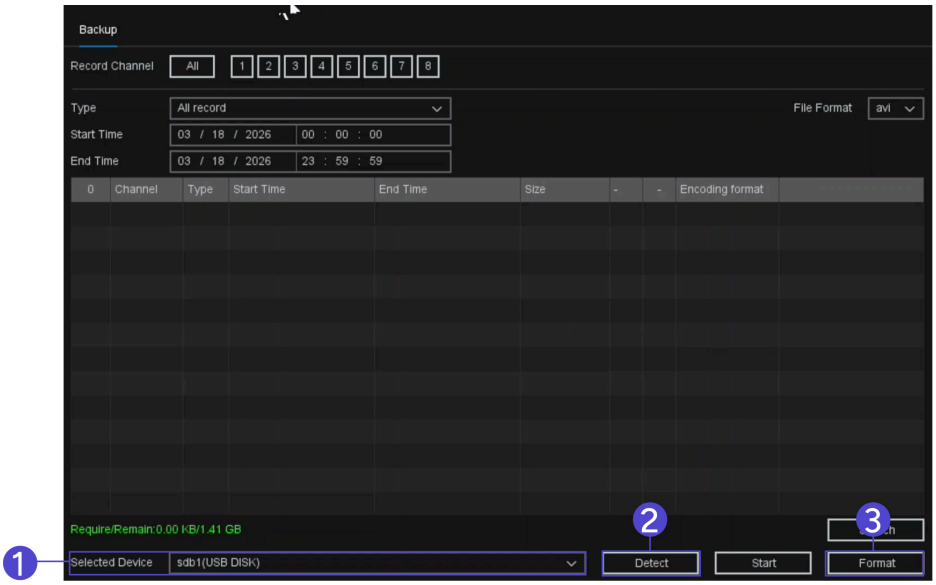
12.2 Formatting USB Drive Storage

The **Format USB Drives's Storage** option lets you clear the USB drive storage in your connected drive, which is useful when the storage is full.

How to Access Formatting USB Drive Storage Settings

1. Hover on the top of the live view screen to access the Top Menu.
2. Select **Backup and Analysis**.

Formatting the USB Drive's Storage



1. **Select Device:** Choose the USB drive from the drop-down menu or move on to step 2.
2. **Detect:** If no USB device is available, ensure one is inserted in your NVR then click **Detect** to search for it.
3. **Format:** Click **Format** to start the process. You will be prompted to confirm. Once confirmed, the USB Drive will be formatted, and all data will be erased permanently.

12.3 Configuring, Overwriting, and Formatting Your Hard Drive

In the **Storage** settings, you can check the status of your NVR's hard drive, see how much space is available, and manage storage options like overwriting old recordings.

How to Access Hard Drive Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Storage** from the left-hand menu at the top.
4. Choose **HDD Manage** from the left-hand drop-down menu.

Configuring and Formatting Your Hard Drive

When your hard drive fills up, formatting clears the Hard Drive to make more space. This is a required step when you install a new hard drive.

NOTE

Formatting will erase everything, so make sure to back up any important footage first. For instructions on backing up your recordings, refer to 12.6 *Configuring Backup*, page 65.

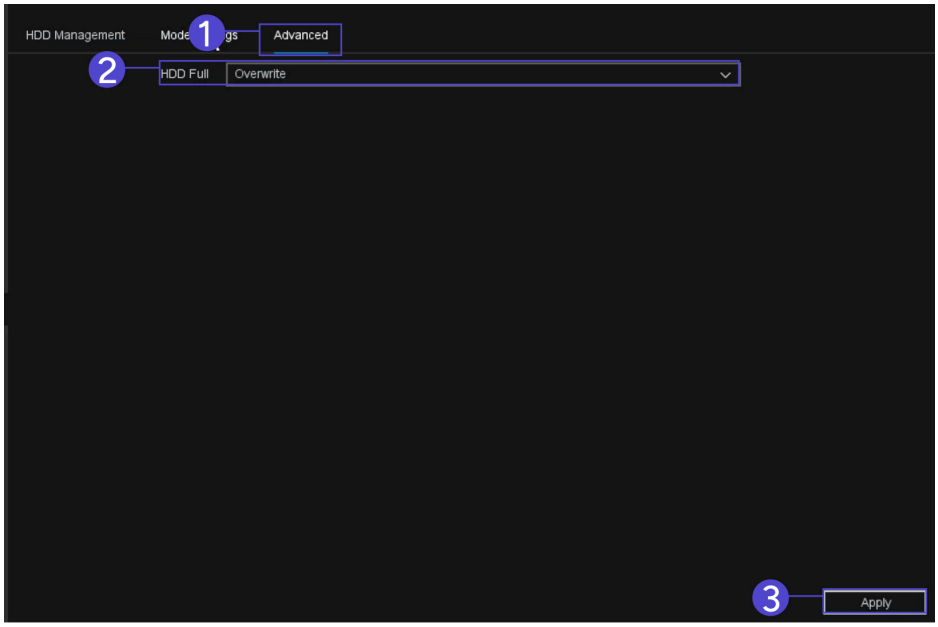
1. Choose **HDD Management** from the top menu.
2. **Select Hard Drive:** Select which Hard drive to configure.
3. **Edit:** Select to configure HDD.
   3.1. **HDD;** Select which HDD to edit.
   3.2. **Disk Mode:** Choose from **Read**, **Write**, and **Read/Write** for how your device will handle data.
   3.3. **Group:** Select which group the HDD is a part of.
   3.4. **OK:** Select **OK** to save and close.
4. **Delete HDD:** Click to remove HDD connection from the NVR. Click **OK** to confirm.
5. **Calculate Storage:** View the remaining storage in your selected hard drive.
6. **Format:** Click **Format** to format the hard drive, erasing all data. Select the overwrite duration first.

Overwriting Your Hard Drive

When your hard drive fills up, overwriting allows the system to automatically replace older recordings with new footage, so you never miss an important event.

NOTE

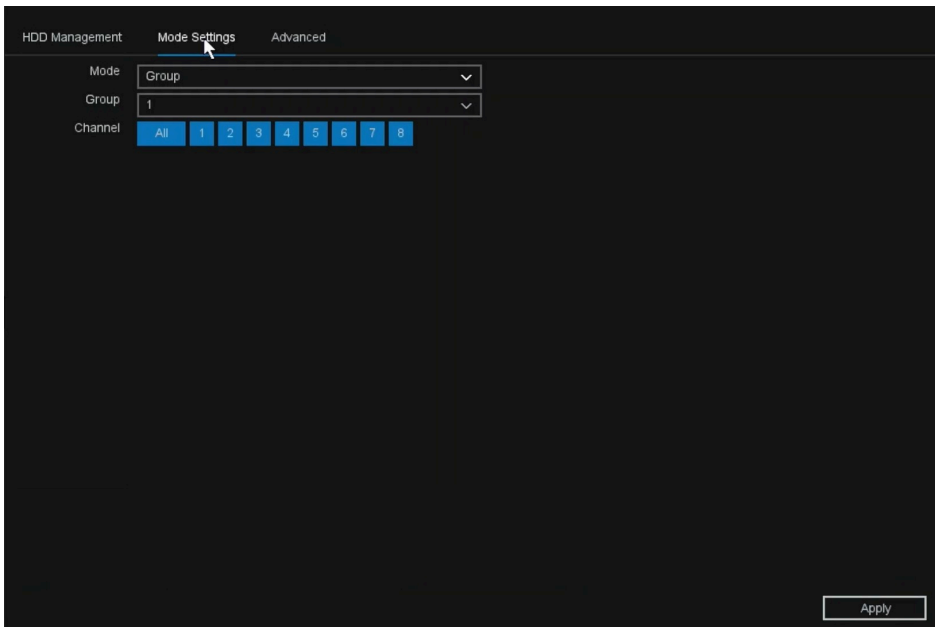
Overwriting will erase the footage that is overwritten, so make sure to back up any important footage first. For instructions on backing up your recordings, refer to 12.6 *Configuring Backup*, page 65.



1. Choose **Advanced** from the top menu.
2. **HDD Full:** Select **Overwrite** or **Stop Record.**
3. **Apply:** Click **Apply** to save changes.

Configuring Hard Drive Modes

Multiple HDDs can be managed in groups. Video from specified channels can be recorded into a particular HDD group through HDD settings. You can also switch the hard disk's storage mode, including the ‘group’, ‘quotas (Capacity)’, and ‘Quota (Time)’.



1. Choose **Mode Settings** from the top menu.
2. Select **Group** from the **Modes** or go to proceed to step 2 or 3.
   2.1. **Group:** Select a group number.
   2.2. **Channel:** Select IP channels to record on the HDD group.
3. Select **Quota (Capacity)** from the **Modes** or go to proceed to step 3.

3.1. **Channel:** Select a camera to set quota in **Channel**.
3.2. **Quota:** Enter the Record capacity in **Record quota (GB)** and **Picture quota (GB)**.

4. Select **Quota (Time)** from the **Modes**.
   4.1. **Channel:** Select a camera to set quota in **Channel**.
   4.2. **Quota:** Enter the Record Day in **Record Quota (Day)**.
5. **Apply:** Click **Apply** to save changes. If **Quota (Capacity or Time)** was chosen, click **OK** to the video recorder to activate the new settings.

NOTE
The following steps are **Required** if you chose **Group** mode:

1. Restart the video recorder to activate the new storage mode settings.
2. After restart, go to **Setting Menu→ Storage → HDD Manage → HDD Management**.
3. Click of desired HDD to set the group.
4. Select a group number for the current HDD.
5. Click **OK** to save changes.

12.4 Replacing the Hard Drive (HDD)

Your NVR comes with a pre-installed 3.5" SATA hard disk drive (HDD). If necessary, you can replace the current HDD with a new one, supporting up to a maximum of 10 TB. Follow the instructions below carefully to ensure safe removal and installation of the hard drive.

12.4.1 Removing the Hard Drive

CAUTION
Ensure the NVR is turned off and the power adapter is disconnected from the power source before proceeding with any hardware adjustments.

Steps to Remove the Hard Drive:

1. **Power off and disconnect the system:**
   - Flip the power switch to "Off" to turn off the NVR.
   - Unplug the power adapter and disconnect all other connected cables.

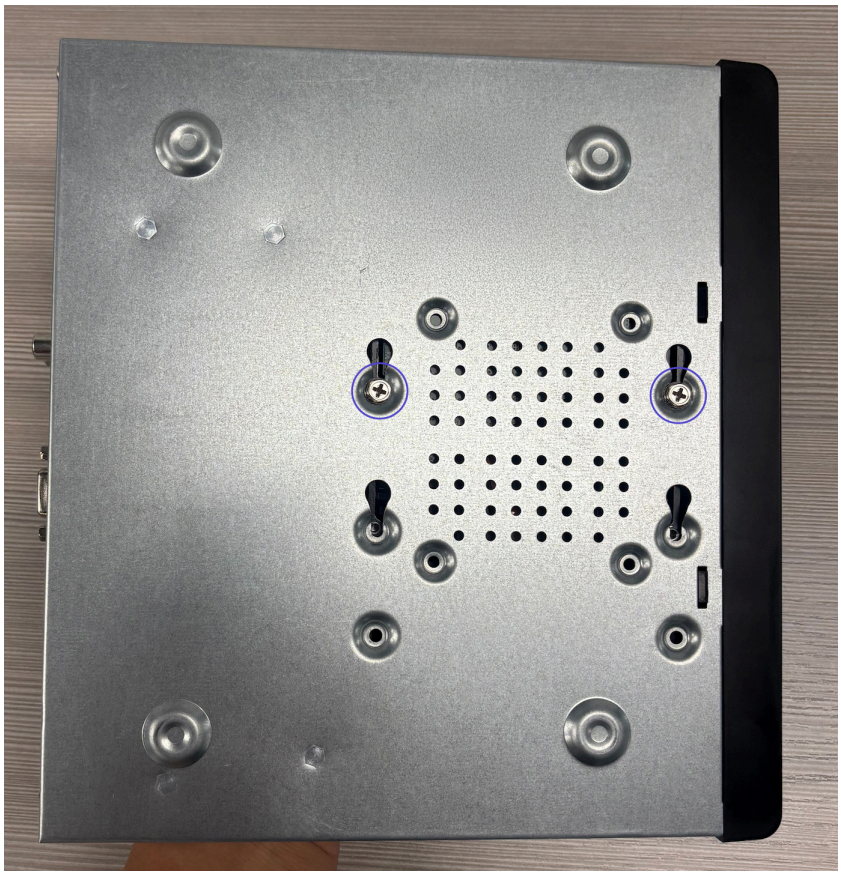
2. **Open the NVR case:**
   - Use a Phillips head screwdriver to remove the four side and one back panel screws.

- Slide the upper cover away and up from the NVR inside, exposing the internal components.

3. **Access the hard drive:**

   - Hold the hard drive in place with one hand.
   - Carefully flip the NVR over to expose the bottom panel while keeping a firm hold on the HDD.

4. **Unscrew the hard drive:**
   - While holding the HDD steady, use a Phillips head screwdriver to remove the two screws securing the drive to the NVR chassis.



5. **Remove the hard drive:**
   - Once the screws are removed, gently flip the NVR back onto its original position while still holding the hard drive with the other hand.
   - Remove the attached cables.

- Carefully slide the hard drive out from its position.

After following these steps, the hard drive will be safely removed from the NVR. Proceed to the next section to install a new hard drive.

12.4.2 Installing a New Hard Drive

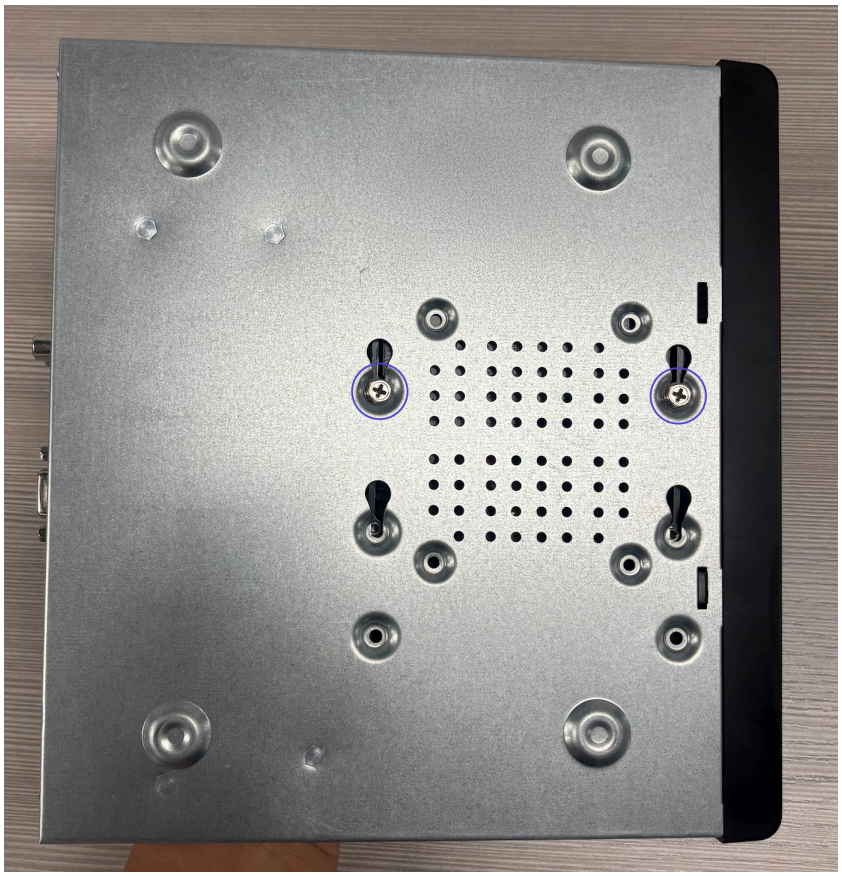
To install a new hard drive, follow these steps carefully:

1. **Prepare the new hard drive:**
   - Ensure the replacement drive is a compatible 3.5" SATA drive with up to 10 TB capacity.

2. **Position the new hard drive:**
   - Gently slide the new hard drive into the designated slot in the NVR, and attach cables.

3. **Secure the new disk drive:**
   - While holding the drive in place, carefully flip the NVR over.

- Secure the hard drive by inserting the two screws into the bottom panel using a Philips head screwdriver.



4. **Close the NVR case:**
   - Flip the NVR back to its original position and slide it into the upper cover.

   - Use a Philips head screwdriver to secure the four side screws and one back panel screw.

5. **Reconnect and power on:**
   - Plug the power adapter and all other cables back into the NVR.
   - Power on the system to complete the installation.
6. **Format the new hard drive:**
   - After installation, the drive needs to be formatted before use. Refer to the next section, *Configuring and Formatting Your Hard Drive*, page 50for detailed steps on how to format the new hard drive.

Your new hard drive is now installed and ready for use once formatted.

12.5 Configuring File Transfer Protocol

File Transfer Protocol (FTP) is a standard network protocol for moving files between computers (client-server) over a network, enabling uploads, downloads, and file management (rename, delete) using separate control and data connections.

Navigating to File Transfer Protocol (FTP)

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Storage** from the left-hand menu at the top.
4. Select **FTP** from the left-hand drop-down menu.

File Transfer Protocol (FTP)

1. **Enable:** Click the slider to enable/disable FTP.
2. **Type:** Select **Record FTP** or **Image FTP** to configure settings for each option.
3. **Server Address and Port:** Input your server address, port will be filled by default.
4. **Anonymous:** Select whether or not you would like to stay anonymous.
5. **Username:** Input your username.
6. **Password:** Input your password and click the slider to keep your password hidden from view.
7. **Directory:** Input where you would like to store data.
8. **File Length:** Select file length in MB.
9. **Schedule:** Select a channel and create up to two schedules per day.
10. **Test:** Select this option to test that all of the fields you have inputted will work correctly.
11. **Copy to:** Copy settings to paste for another channel.
12. **Apply:** Click to save all changes.

12.6 Configuring Backup

Storage Backup: Allows you to save recordings, pictures, and events to an external USB.

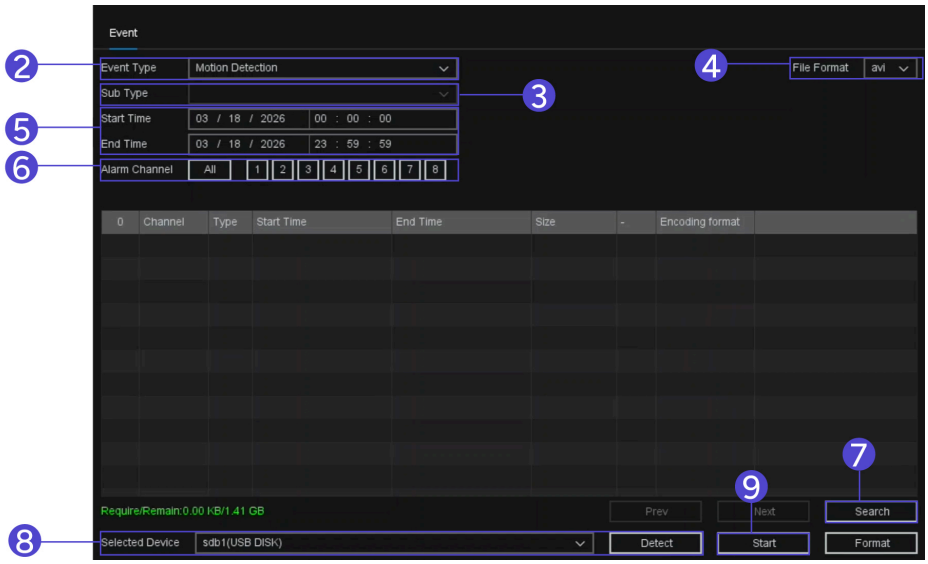
Navigating to Backup

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Backup and Analysis.**
3. Select **Backup** from the left-hand menu.

Backup

1. Select **Backup** from the left-hand menu.
2. **Record Channel:** Select a channel or **All** channels.
3. **Type:** Select All record, Event record, Timing record, Manual record.
4. **File Format:** Select **dav** or **avi**.
5. **Date / Time:** Select **Start Date**, **End Date**, **Start Time**, and **End Time**.
6. **Search:** Click to search with the aforementioned parameters.
7. **Selected Device:** Select your USB or search for it by clicking **Detect**. If your USB is full you can format here by selecting **Format**.
8. **Select:** Select a record or records, then choose **Start** to save.
9. Click **OK**.

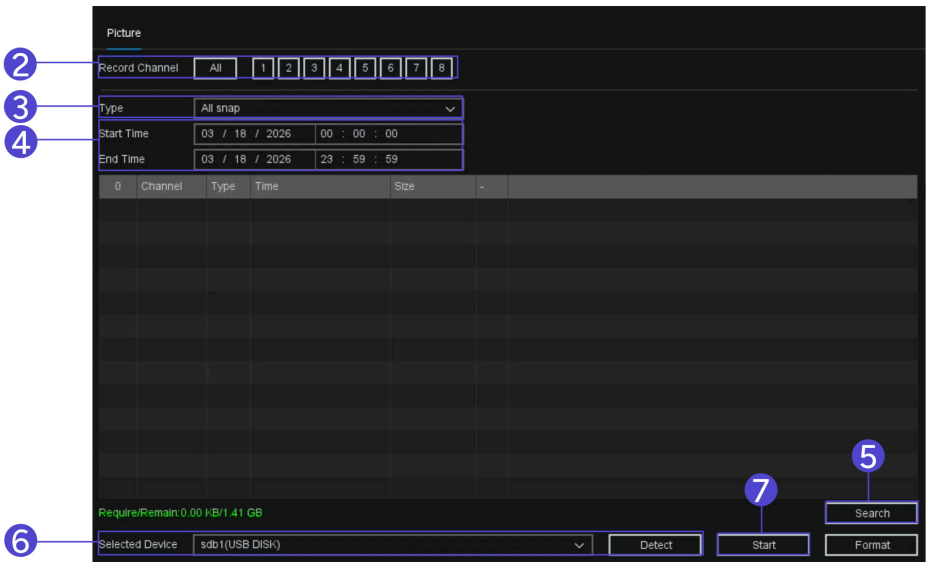
Event



1. Select **Event** from the left-hand menu.
2. **Event Type:** Select Alarm Input, Motion Detection, Intelligent Detection, Sound Detection, ANR, Smart Motion Detection, or Perimeter Protection.
3. **Sub Type:** Select sub type if available, based on event type.
4. **File Format:** Select **dav** or **avi**.
5. **Date / Time:** Select **Start Date**, **End Date**, **Start Time**, and **End Time**.

6. **Alarm Channel:** Select one of choose **All**.
7. **Search:** Click to search with the aforementioned parameters.
8. **Selected Device:** Select your USB or search for it by clicking **Detect**. If your USB is full you can format here by selecting **Format**.
9. **Select:** Select an event or events, then choose **Start** to save.
10. Click **OK**.

Picture



1. Select **Picture** from the left-hand menu
2. **Record Channel:** Select one or **All** channels.
3. **Type:** Select All snap, Event snap, or Manual snap.
4. **Date / Time:** Select **Start Date**, **End Date**, **Start Time**, and **End Time**.
5. **Search:** Click to search with the aforementioned parameters.
6. **Selected Device:** Select your USB or search for it by clicking **Detect**. If your USB is full you can format here by selecting **Format**.
7. **Select:** Select an event or events, then choose **Start** to save.
8. Click **OK**.

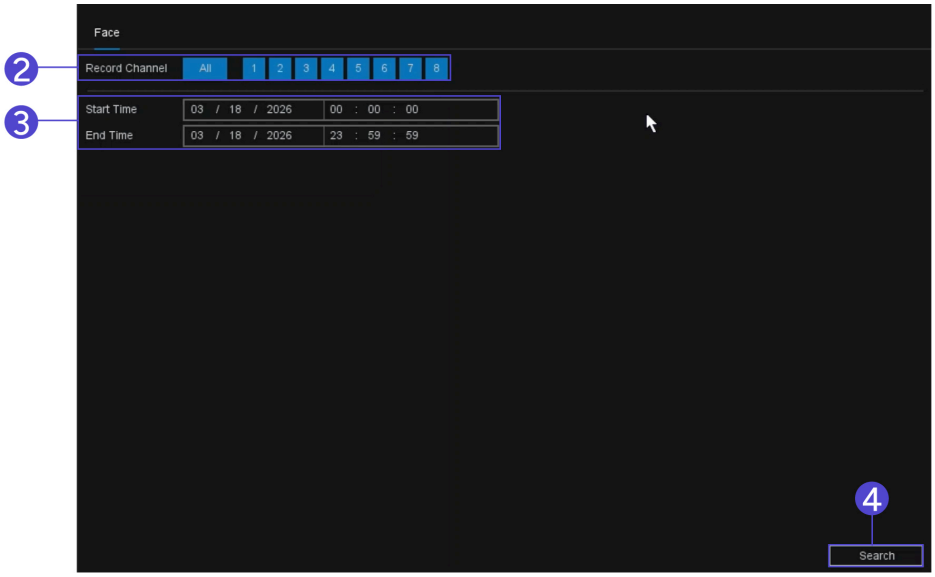
12.7 Retrieving FIles

Retrieval: Allows you to search for records that have been saved by your NVR.

Navigating to Retrieval

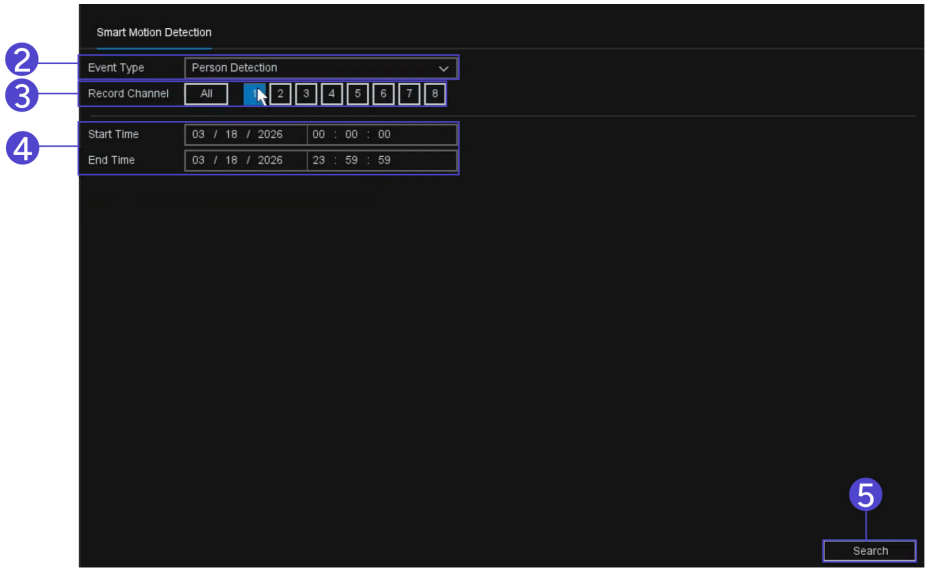
1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Backup and Analysis.**
3. Select **Retrieval** from the left-hand menu.

Face



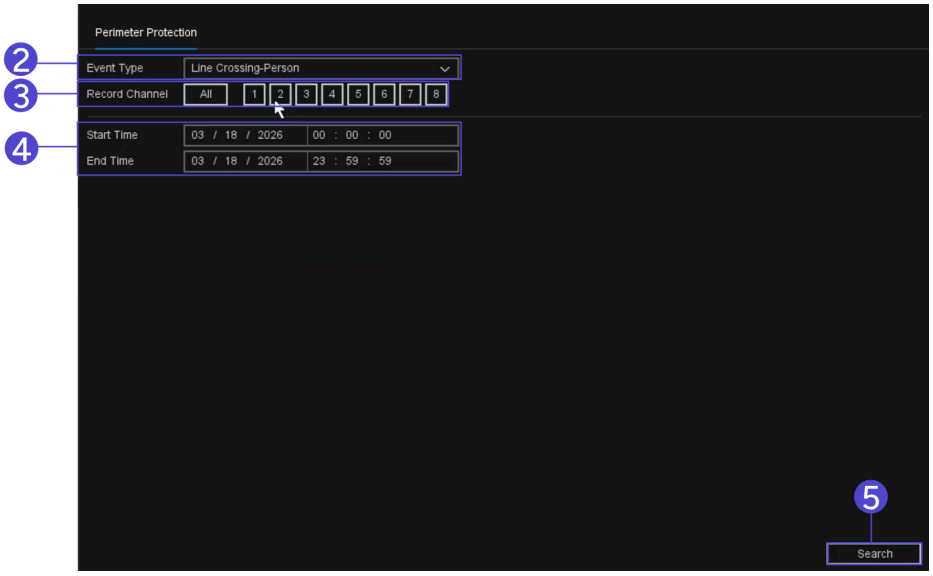
1. Select **Face** from the left-hand menu.
2. **Record Channel:** Select a channel or **All** channels.
3. **Date / Time:** Select **Start Date**, **End Date**, **Start Time**, and **End Time**.
4. **Search:** Click to search with the aforementioned parameters.

Smart Motion Detection



1. Select **Smart Motion Detection** from the left-hand menu.
2. **Event Type:** Select Person, Vehicle, or Motorcycle.
3. **Record Channel:** Select a channel or **All** channels.
4. **Date / Time:** Select **Start Date**, **End Date**, **Start Time**, and **End Time**.
5. **Search:** Click to search with the aforementioned parameters.

Perimeter Protection



1. Select **Perimeter Protection** from the left-hand menu
2. **Event Type:** Select Line Crossing-Person, Line Crossing-Vehicle, Line Crossing-Motorcycle, Area Intrusion-Person, Area Intrusion-Vehicle, Area Intrusion-Motorcycle, Region Entrance-Person, Region Entrance-Vehicle, Region Entrance-Motorcycle, Region Exiting-Person, Region Exiting-Vehicle, or Region Exiting-Motorcycle.
3. **Record Channel:** Select one or **All** channels.
4. **Date / Time:** Select **Start Date**, **End Date**, **Start Time**, and **End Time**.
5. **Search:** Click to search with the aforementioned parameters.

13 Configuration

The **Configuration** menu is where you can control all the important settings for your NVR system. From this menu, you can adjust camera settings, manage storage, set up alerts, customize motion detection, and configure your network. It is designed to help you fine-tune your system so it works exactly how you need it to, keeping everything running smoothly and securely.

13.1 Event Settings

The **Event** settings allow you to set up notifications and deterrent actions for your NVR system upon motion detection. This ensures that you receive timely updates for critical events, improving security and system performance.

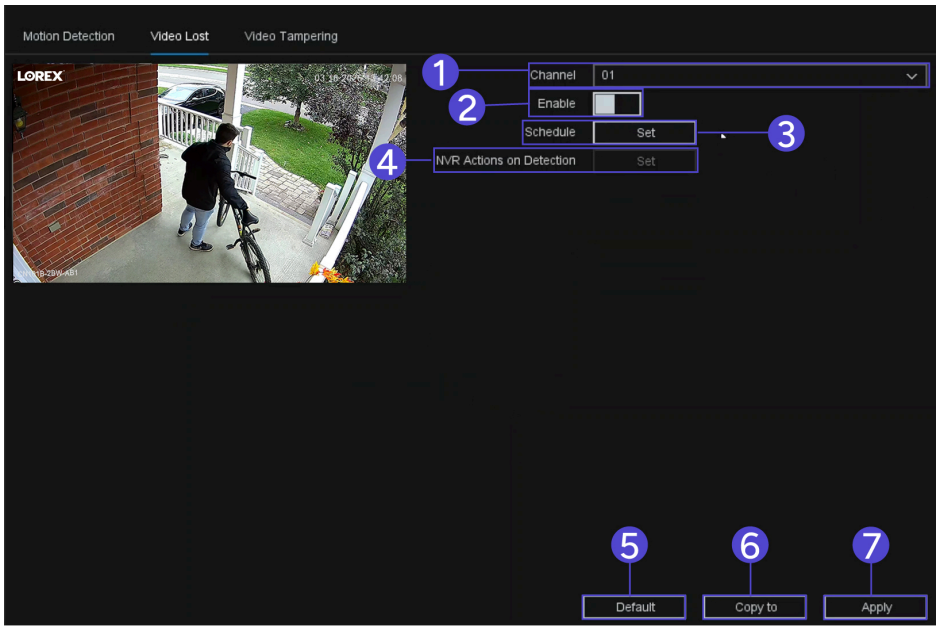
13.1.1 Configuring Video Lost Settings

Configure what will occur upon losing video.

How to Access Video Lost Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Event** category from the left-hand menu.
4. Choose **Video Detection** from the drop-down menu.
5. Choose **Video Lost** from the top menu.

Configuring Video Lost Settings



1. **Select Channel:** Select the camera channel to configure.
2. **Enable:** Enable/Disable Video Lost for the selected channel using the slider.
3. **Schedule:** Select times, periods, and days for which you would like to schedule motion detection. Click **OK** to continue.
4. **NVR Actions on Detection:** Click **Set**:
    - 4.1. **Buzzer:** Enable/Disable Buzzer and set Buzz Time in seconds.
    - 4.2. **Send Email:** Enable/Disable with slider.
    - 4.3. **Record Channel:** Enable/Disable with slider, and choose which channels.
    - 4.4. **Record Delay:** Set delay time in seconds.
    - 4.5. **Tour**: Enable/Disable Tour and select which channel.
    - 4.6. **Snapshot:** Enable/Disable using the slider and select which channels.
    - 4.7. **Interval:** Select the duration of recordings when motion detection occurs between 0 and 600 seconds.

4.8. Select **OK** to save changes.

5. **Default**: Revert the settings to default.
6. **Copy To:** Copy settings to be able to paste to other channels.
7. **Apply Changes:** Click **Apply** to save your changes.

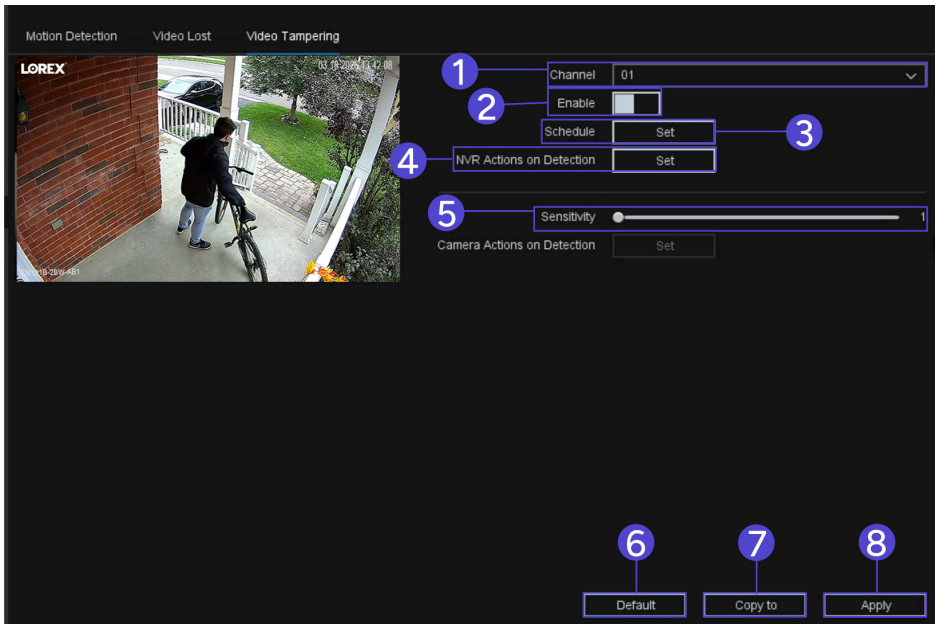
13.1.2 Configuring Video Tampering Settings

Configure what will occur if a video becomes tampered with. This is a security feature that detects when a camera's view is deliberately blocked, covered, painted, or blinded, preventing normal surveillance

How to Access Video Tampering Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Event** category from the left-hand menu.
4. Choose **Video Detection** from the drop-down menu.
5. Choose **Video Tampering** from the top menu.

Configuring Video Tampering Settings



1. **Select Channel:** Select the camera channel to configure.
2. **Enable:** Enable/Disable Video Tampering detection for the selected channel using the slider.
3. **Schedule:** Select times, periods, and days for which you would like to schedule motion detection. Click **OK** to continue.
4. **NVR Actions on Detection:** Click **Set**:

   4.1. **Buzzer:** Enable/Disable Buzzer and set Buzz Time in seconds.
   4.2. **Send Email:** Enable/Disable with slider.
   4.3. **Record Channel:** Enable/Disable with slider, and choose which channels.
   4.4. **Record Delay:** Set delay time in seconds.
   4.5. **Tour**: Enable/Disable Tour and select which channel.
   4.6. **Snapshot:** Enable/Disable using the slider and select which channels.
   4.7. **Interval:** Select the duration of recordings when motion detection occurs between 0 and 600 seconds.
   4.8. Select **OK** to save changes.

5. **Sensitivity:** Toggle tampering detection sensitivity with the slider.
6. **Default**: Revert the settings to default.
7. **Copy To:** Copy settings to be able to paste to other channels.

8. **Apply Changes:** Click **Apply** to save your changes.

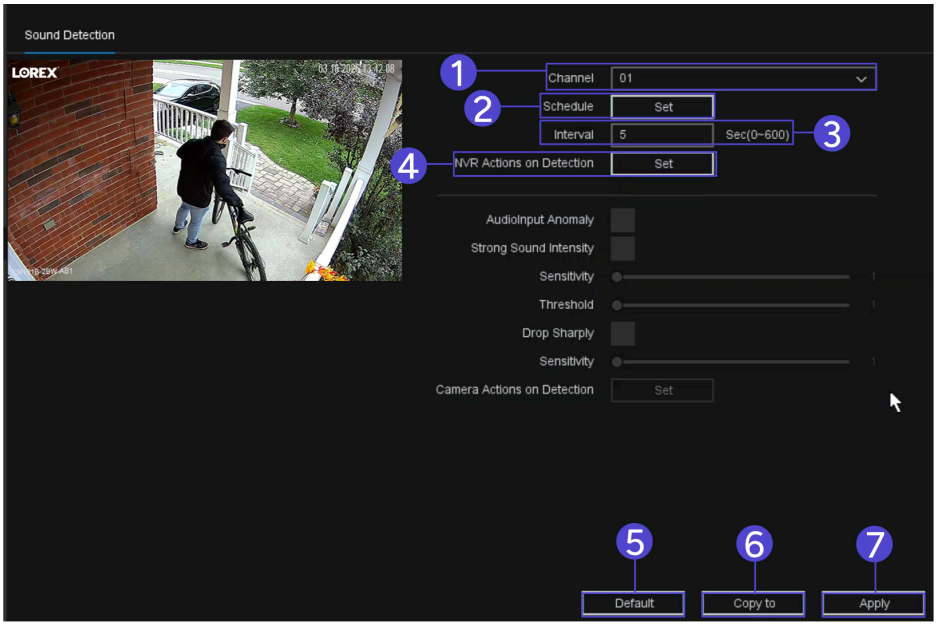
13.1.3 Configuring Sound Detection Settings

Configure what will occur if sounds are detected by your cameras.

How to Access Sound Detection Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Event** category from the left-hand menu.
4. Choose **Sound Detection** from the drop-down menu.

Configuring Sound Detection Settings



1. **Select Channel:** Select the camera channel to configure.
2. **Schedule:** Select times, periods, and days for which you would like to schedule motion detection. Click **OK** to continue.
3. **Interval:** Select the duration of recordings when motion detection occurs between 0 and 600 seconds.
4. **NVR Actions on Detection:** Click **Set**:
   - 4.1. **Buzzer:** Enable/Disable Buzzer and set Buzz Time in seconds.
   - 4.2. **Send Email:** Enable/Disable with slider.
   - 4.3. **Record Channel:** Enable/Disable with slider, and choose which channels.
   - 4.4. **Record Delay:** Set delay time in seconds.
   - 4.5. **Tour**: Enable/Disable Tour and select which channel.
   - 4.6. **Snapshot:** Enable/Disable using the slider and select which channels.
   - 4.7. **Interval:** Select the duration of recordings when motion detection occurs between 0 and 600 seconds.
   - 4.8. Select **OK** to save changes.
5. **Default**: Revert the settings to default.
6. **Copy To:** Copy settings to be able to paste to other channels.
7. **Apply Changes:** Click **Apply** to save your changes.

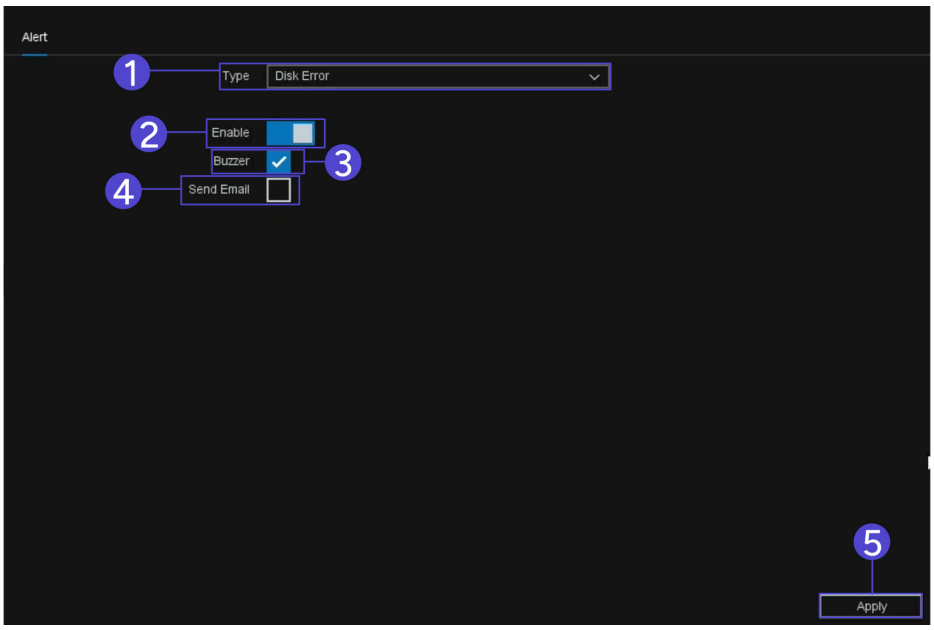
13.1.4 Configuring Alert Settings

Configure what will occur if sounds are detected by your cameras.

How to Access Alert Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Event** category from the left-hand menu.
4. Choose **Alert** from the drop-down menu.

Configuring Alert Settings



1. **Select Type:** Select No Writeable Disk, Disk Error, Disk Full, Network Disconnect, IP Conflict, or S.M.A.R.T. For Disk Full, set the percentage at which the Disk Full alert will be sent.
2. **Enable:** Enable/Disable the alert selected, for the selected channel using the slider.
3. **Buzzer:** Enable/Disable Buzzer and set Buzz Time in seconds.
4. **Send Email:** Enable/Disable with slider.
5. **Apply Changes:** Click **Apply** to save your changes.

13.1.5 Configuring Disarming Settings

Disarming an NVR (Network Video Recorder) stops active alarms, such as sirens, flashing lights, and notifications, while still recording video.

How to Access Disarming Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Event** category from the left-hand menu.
4. Choose **Disarming** from the drop-down menu.

Configuring Disarming Settings

1. **Select Mode:** Select **Arming** and then skip to the Step 5, select **Disarming**, or **Custom Disarming**.
2. **Disarming:** If Disarming is selected:
   - 2.1. **Disarm Linkage Action:** Enable/Disable **All**, **Buzzer, Tour**, and/or **Send Email**.
   - 2.2. **Sync Disarming Mode & Schedule to Camera:** Enable for all cameras or select specific cameras.
3. **Custom Disarming:** If Custom Disarming is selected:
   - 3.1. **Disarm:** Select if upon disarming must be performed once or if it occurs automatically by schedule..

3.2. **Disarming Time:** Set a start/end date/time for disarming.
3.3. **Disarm Linkage Action:** Enable/Disable **All**, **Buzzer, Tour**, and/or **Send Email**.
3.4. **Sync Disarming Mode & Schedule to Camera:** Enable for all cameras or select specific cameras.

4. **Default**: Revert the settings to default.
5. **Apply Changes:** Click **Apply** to save your changes.

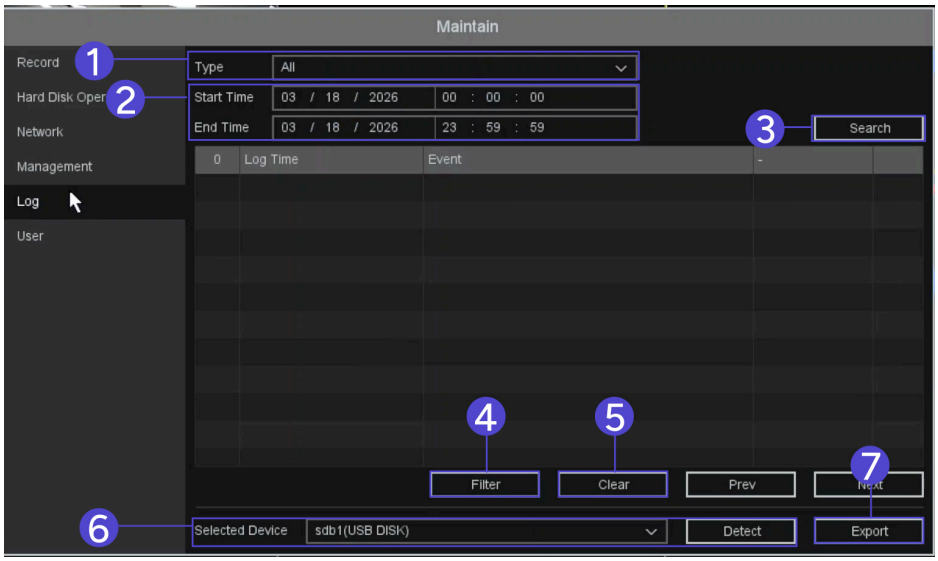
13.1.6 Viewing Event Log

This feature allows you to review past events.

How to Access Event Log

1. Hover over the top of the Live View screen to access the top menu.
2. Select **Maintain.**
3. Choose **Log** from the left-hand menu.

Configuring Event Log



1. **Event Type:** Choose between events**: All**, **System**, **Config**, **Storage**, **Alarm**, **Record**, **Account**, **Clear**, **Playback**.
2. **Time Period:** Select date, start time, and end time.
3. **Search:** Filter all events using the above parameters.
4. **Filter:** Sift through the logs to search for a smaller number of logs. Filters include **Log full coverage**, **Storage**, **Account**, **System**, **Alarm**, **Clear**, **Config**, **Record**. **Playback**.
5. **Clear:** Clear Logs.
6. **Select Device:** Select an event and select your USB device or search for it by selecting **Detect**.
7. **Export:** Save selected Logs to the USB device.

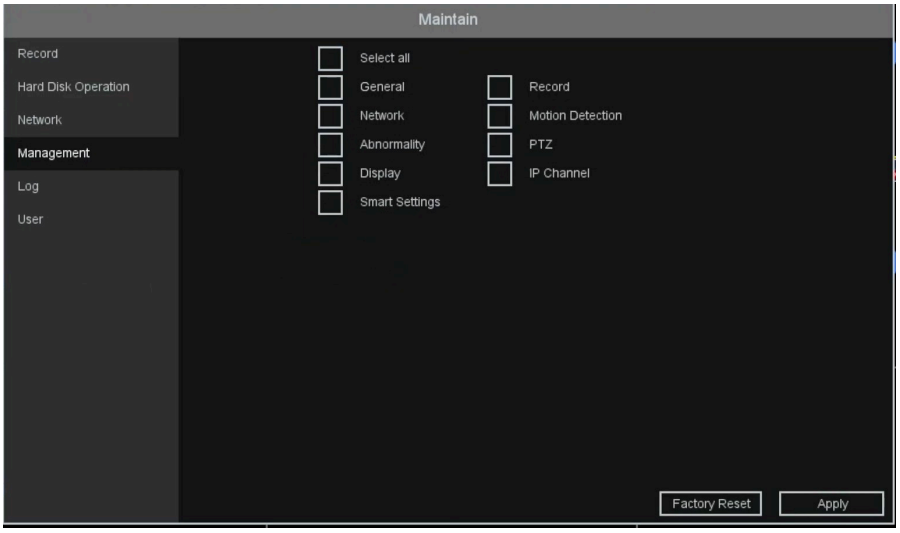
13.2 Restoring Default Settings

Resetting the NVR allows you to reset your NVR back to its original factory settings. You can choose to reset either all settings or almost all, depending on what you need.

How to Reset the NVR

1. Hover over the top of the Live View screen to access the top menu.
2. Select **Maintain**.

3. Select **Management** from the left-hand menu.



4. Select which sections of the NVR to reset or Select all
5. Select **Factory Reset** to reset all selected sections to factory settings.
6. Select **Apply** to reset all selected sections to their default settings.

13.3 Upgrading Firmware

The NVR's **Upgrade** settings allow you to manually update your NVR system's firmware to the latest version, ensuring optimal performance and access to the latest features.

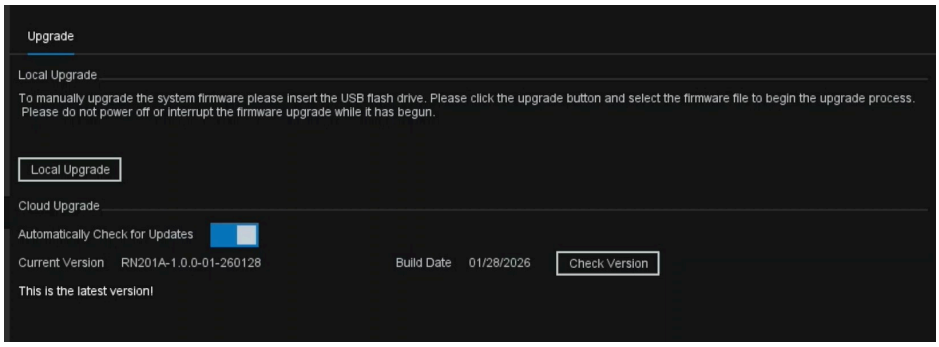
How to Upgrade Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **Upgrade** from the left-hand menu.

Automatic Firmware Upgrades

To enable automatic firmware upgrades, you can use the **Auto-Upgrade** feature in the Navigation Bar. Just make sure your NVR is connected to the internet.

Manual Upgrade Options



1. **Download Firmware:** Download the latest firmware version from Lorex Technical Support if available, and use a USB drive to install it on your NVR.
2. **Local Upgrade:** Click **Local Upgrade**, select a file, and click **Upgrade**.
   During the upgrade process, please do not power off or disconnect from the network.
3. **Automatically Check for Updates**: Toggle the slider to have the NVR automatically check if there are cloud updates available.

4. **Check Version**: Click to check if there are cloud updates available.
5. **Cloud Upgrade**: if an upgrade is available, click to begin installation.
   During the upgrade process, please do not power off or disconnect from the network.

13.4 Viewing Recording Statuses

This feature allows you to record the status of each channel.

How to Access Recording Statuses

1. Hover over the top of the Live View screen to access the top menu.
2. Select **Maintain.**
3. Choose **Record** from the left-hand menu. Here you can view **Channel**, **Status**, **Stream Type**, **Frames Per Second**, **Bit Rate (Kbps)**, and **Resolution**.

13.5 Network Settings

The **Network** settings help you set up and manage your NVR's network connection, ensuring your system stays connected and operates smoothly.

13.5.1 Network Test and Viewing Settings

The **Hard Disk Operation** page allows you to test how the network is running.

How to Access Network Settings

1. Hover over the top of the Live View screen to access the top menu.
2. Select **Maintain.**

Running a Network Test

1. Choose **Hard Disk Operation** from the left-hand menu.
2. Choose **Test Type** (**Short** or **Long**) from the drop-down menu.
3. **Start Selftest**: Start the test, this will take a few minutes. Status will appear in the chart above.
4. **Stop Selftest**: Select to stop the test early.

Viewing Network Settings

1. Choose **Network** from the left-hand menu.
2. View **Lan**, **IPV4 Addr**, **IPV4 Subnet Mask**, **IPV4 Default gateway**, **MAC**, **Primary DNS**, and **Secondary DNS** here.
3. Enable/Disable **DHCP** here.

13.5.2 Configuring General Network Settings

The **General Network** settings allow you to set up important network details like your NVR's IP address, gateway, and DNS servers. This ensures that your NVR can communicate effectively with your local network and the internet.

How to Access General Network Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Network** category from the left-hand menu.

Configuring IP (Internet Protocol) Settings

1. Choose **IP Address** from the left-hand drop-down menu.
2. **DHCP**: Enable or disable DHCP (Dynamic Host Configuration Protocol). When disabled, the following are available:

   2.1. **IP Address**: Click to edit the IP Address for the internal PoE switch.
   2.2. **Subnet Mask**: Click to edit the Subnet Mask for the internal PoE switch.
   2.3. **Gateway**: Click to edit the Gateway for the internal PoE Switch.
   2.4. **MAC**: Click to edit the MAC Address for the internal PoE Switch.

3. **Auto DNS:** Enable or disable Auto DNS (Domain Name System).When disabled, the following are available:
   3.1. **Primary DNS**: Click to edit the primary DNS (Domain Name System) server.
   3.2. **AlternateDNS**: Click to edit the secondary DNS server.
4. **Internal IP:** Click to edit Internal IP for the internal PoE Switch.
5. **POE Working Mode:** Select **VLAN** (Virtual Local Area Network), **SWITCH**, **HUB**, or **COMMON**.
6. **Link Speed/Duplex Mode**: Select Auto Negotiation or between 10 and 100 MBPS half or full Duplex. Link speed is the data transfer rate (e.g., 100 Mbps, 1 Gbps) between network devices, while duplex mode determines if data flows one-way (half) or two-ways simultaneously (full).
7. **Max Users**: Input the maximum amount of Users. The default amount is 128.
8. **HS Download:** Click to enable/disable HS Download for the internal PoE Switch.
9. **Transfer Mode**: Click to enable/disable Transfer Mode for the internal PoE Switch. When enabled, choose between Quality Preferred, Fluency Preferred, or Adaptive.
10. **Default**: Revert the settings to default.
11. **Apply Changes:** Click **Apply** to save your changes.

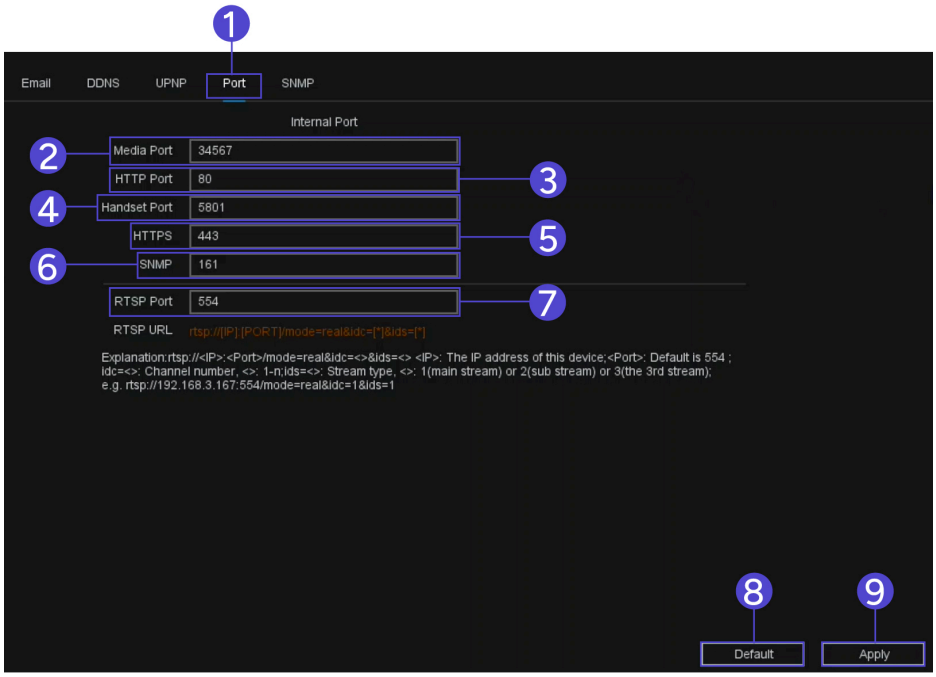
13.5.3 Setting Up Port Configuration

The **Port Configuration** allows you to manage the ports your NVR uses for different services and protocols, ensuring smooth communication between devices and services.

How to Access Port Configuration

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Network** category from the left-hand menu.
4. Go to the **Advanced** from the left-hand drop-down menu.

Configuring Port Settings



1. Select **Port** from the top menu.
2. **Media Port**: A **Media Port** is a network port, commonly 9000, 37777, or 8000, used to transmit video data from the NVR to remote apps and software.

3. **HTTP Port**: An **HTTP port** is the “door number” on a device that web traffic uses to get to a specific service. The number (e.g. 80, 8080, 8888) is the port number. Input HTTP Port between 1 and 65535.
4. **Handset Port**: Input a handset port number.
5. **HTTPS:** Input a port between 1 and 65535. HTTPS is the secure version of HTTP.
6. **SNMP**: SNMP (Simple Network Management Protocol) is a standard Application Layer protocol used to monitor and manage network devices by facilitating the exchange of management information between them.
7. **RTSP Port**: RTSP (Real-Time Streaming Protocol) (commonly 554) is the network channel used to establish and control multimedia streaming.
8. **Default**: Revert the settings to default.
9. **Apply Changes:** Click **Apply** to save your changes.

13.5.4 Configuring SNMP

The **SNMP** (Simple Network Management Protocol). It is an internet-standard protocol used to monitor, manage, and configure network devices by exchanging data between a central management station and the devices.

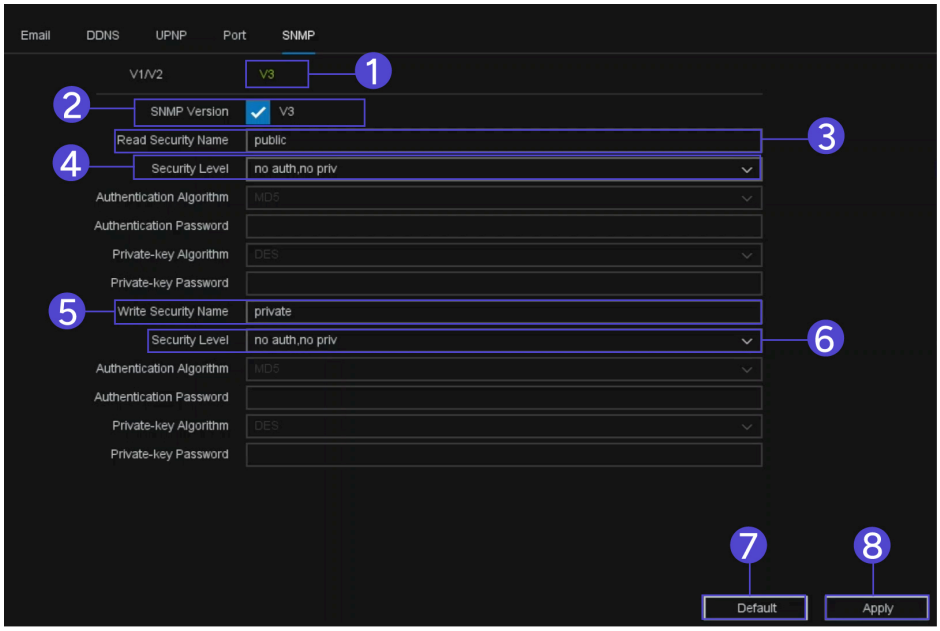
How to Access Port Configuration

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Network** category from the left-hand menu.
4. Go to the **Advanced** from the left-hand drop-down menu.
5. Select **SNMP** from the top menu.

Configuring SNMP V1/V2 Settings

1. Select **V1/V2** from the top menu.
2. Enable or Disable **V1** and/or **V2**.
3. **Read Community**: Input **Public** or **Private.**
4. **Write Community**: Input **Public** or **Private.**
5. **Trap Port:** The default port for SNMP traps is UDP 162. SNMP agents use this port to send asynchronous, unsolicited alert notifications (traps) to an SNMP manager. Input a port.
6. **Community Port**: Input **Public** or **Private.**
7. **Default**: Revert the settings to default.
8. **Apply Changes:** Click **Apply** to save your changes.

Configuring SNMP V3 Settings



1. Select **V3** from the top menu.
2. Enable or Disable **V3**.
3. **Read Security Name**: Input **Public** or **Private.**
4. **Security Level:** Select no auth, no priv, auth no priv, or auth priv.
5. **Write Security Name**: Input **Public** or **Private.**
6. **Security Level:** Select no auth, no priv, auth no priv, or auth priv.
7. **Default**: Revert the settings to default.
8. **Apply Changes:** Click **Apply** to save your changes.

13.5.5 DDNS Setup

By setting up DDNS, you can view your NVR remotely from any computer or compatible mobile device with internet access.

NOTE

The easiest way to access your NVR is through the Lorex Connect App, which provides remote access without needing port forwarding or DDNS.

13.5.5.1 Step 1: Port Forwarding

If you are using DDNS, you will need to port forward the **HTTP** and **Client** ports on your router to your NVR's IP address.

- Default HTTP Port: **80**
- Default Client Port: **35000**

Follow your router manufacturer's instructions to manually port forward these ports.

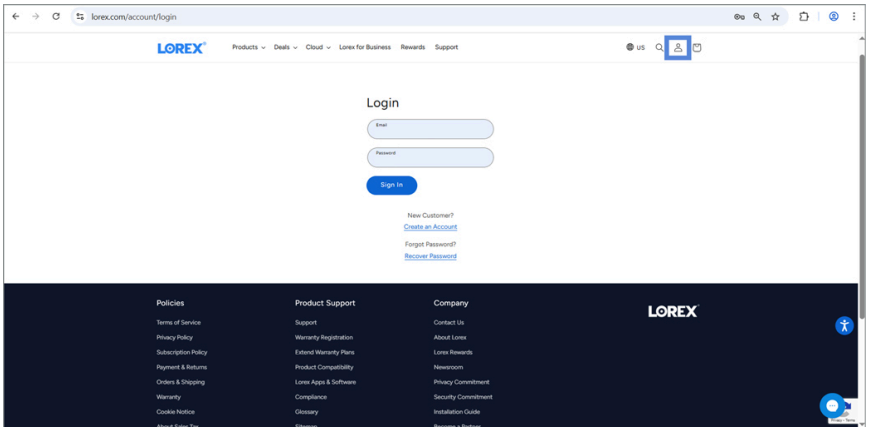
13.5.5.2 Step 2: Create a Lorex Account

You can create an account from either a computer or mobile browser.

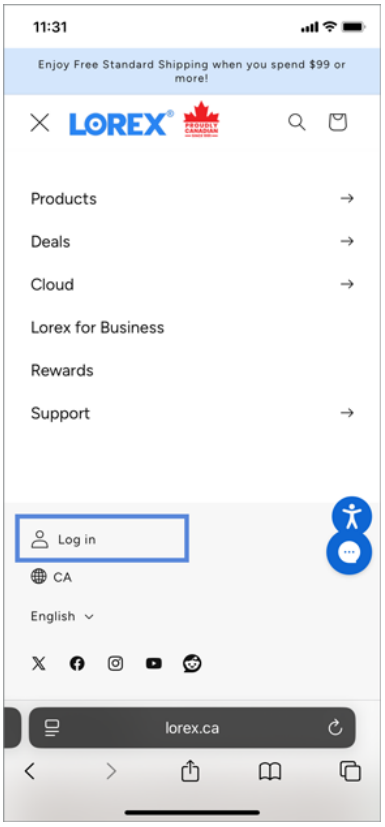
1. Go to lorex.com.

2. **Log in** or tap **Create An Account** to register.

   - On computer: Click the **(My Account)** button in the top-right corner.



   - On mobile: Tap the **(Menu)**, then tap **Login**.

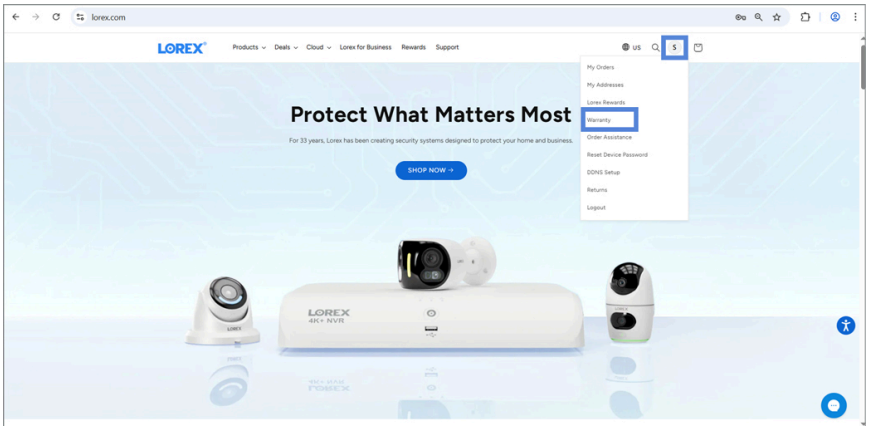


13.5.5.3 Step 3: Activate Your Warranty

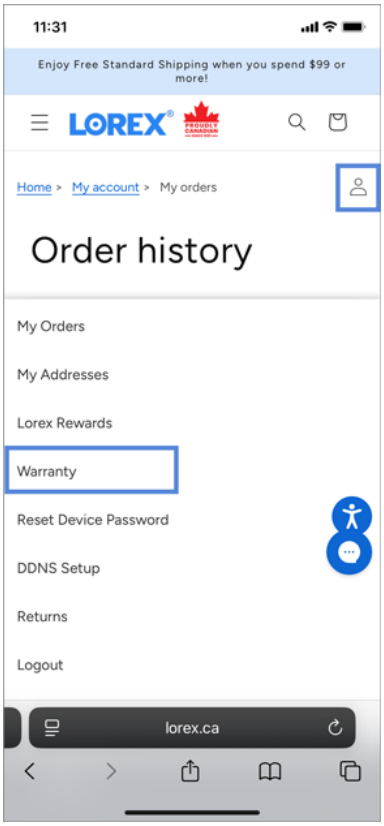
Before setting up DDNS, you must activate your NVR's warranty.

1. After logging in, access **My Account**.

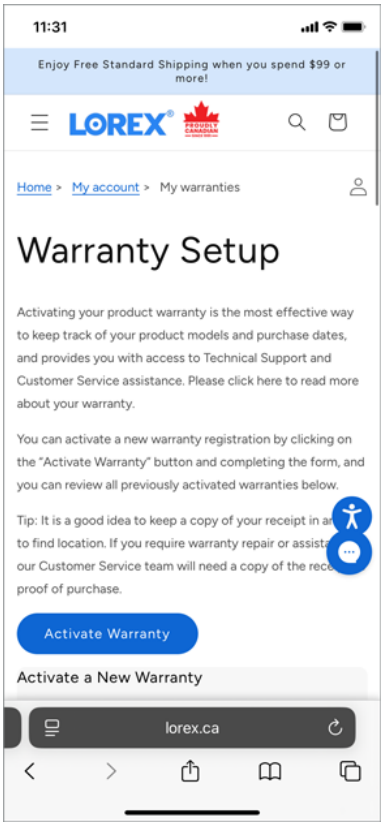
   - **On computer:** Click the **(My Account)** button, then choose **Warranty** from the menu.



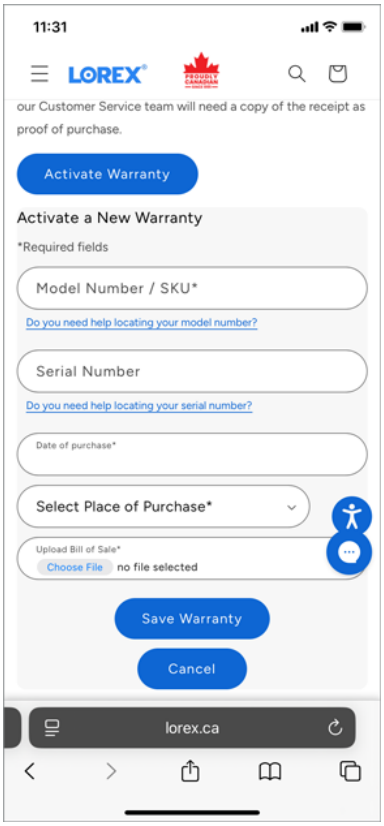
   - **On mobile:** Tap the **menu**, then **My Account**, then tap **Warranty**.



2. Click **Activate Warranty**.



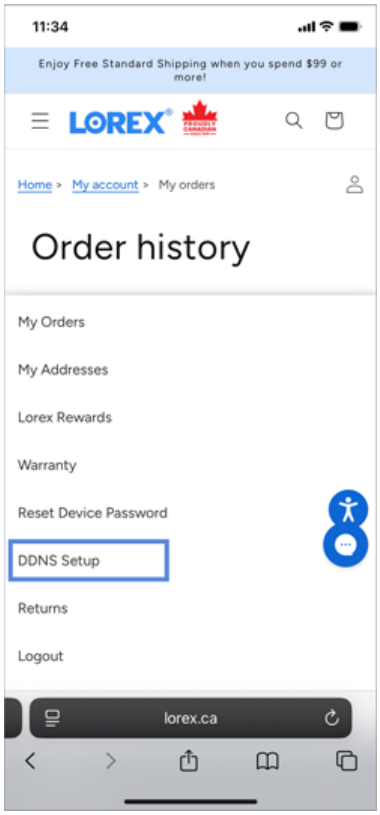
3. Fill in your NVR's product details and click **Save Warranty**.



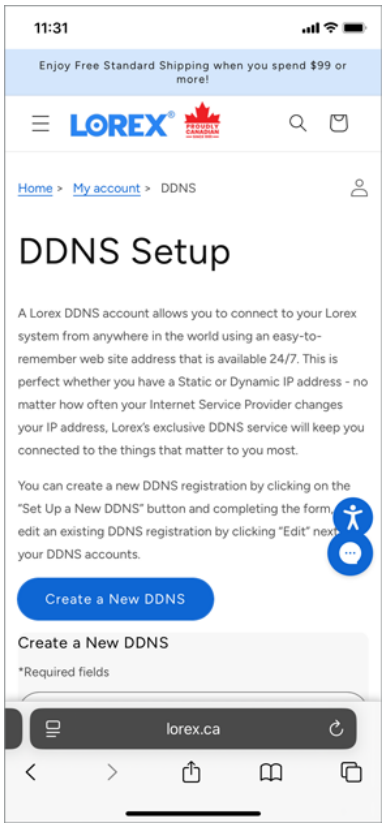
Your device will now be listed under **Existing Warranties**.

13.5.5.4 Step 4: Create a DDNS Entry

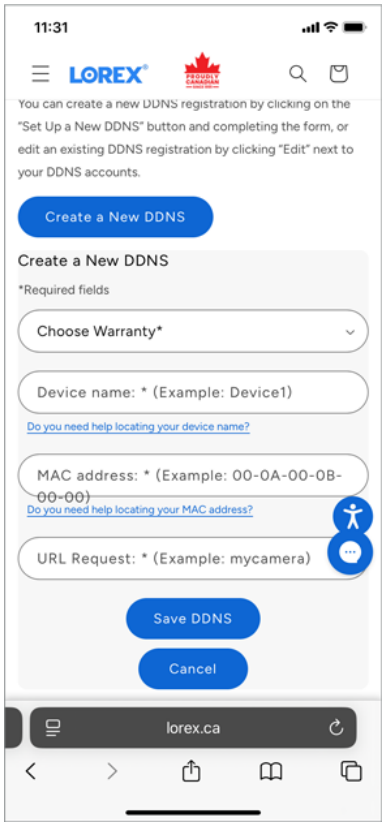
1. In your **My Account** dashboard, click **DDNS Setup**.



2. Click **Create a New DDNS**.



3. Fill in your product details:



- **Choose Warranty:** Select your NVR from the **Warranty** dropdown.
- **Device Name:** Enter a name for your system (For example, *HomeNVR*).
- **MAC Address:** Enter your NVR's **MAC Address**, found under **Navigation Bar > Device Info** on the NVR, refer to 13.7.1 *Device Information*, page 96.
- **URL Request:** Choose a unique name for your DDNS address (for example, *myhome*). Your full Host URL will be automatically generated as: myhome.lorexddns.net.

4. Click **Save DDNS**.
   Once saved, your new DDNS settings will appear under **My DDNS Devices**. Make note of your **Host URL**, **username**, and **password** — you'll need them when configuring remote access on your NVR or app.

13.5.5.5 Step 5: Enable DDNS on Your DVR

Now that your DDNS account is set up, you'll need to enter the details into your NVR's settings.

How to Access DDNS Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Network** category from the left-hand menu.
4. Go to the **Advanced** from the left-hand drop-down menu.
5. Select **DDNS** from the top menu.

Configuring DDNS in the NVR

1. **Enable DDNS:** Toggle to enable or disable DDNS.

2. **DDNS Type:** Choose **Oray DDNS**, **CN99 DDNS**, **DynDNS DDNS**, or **NO-IP DDNS**.
3. **Domain Name:** Enter the domain name for your NVR (e.g., yourhostname.lorexddns.net).
4. **User ID:** Enter your DDNS account username.
5. **Password:** Enter your DDNS account password.
6. **Apply Changes:** Click **Apply** to save your changes.

You will now be able to access your system remotely using DDNS. Enter the full domain name into a web browser (e.g., http://www.tomsmithsecurity.lorexddns.net) and login using the provided credentials.

NOTE

If your system uses an HTTP port other than 80, you will need to add a colon to the end of your DDNS domain name and enter the port number (e.g., http://www.tomsmithsecurity.lorexddns.net:81)

13.5.5.6 Step 5: Enable UPNP on Your DVR

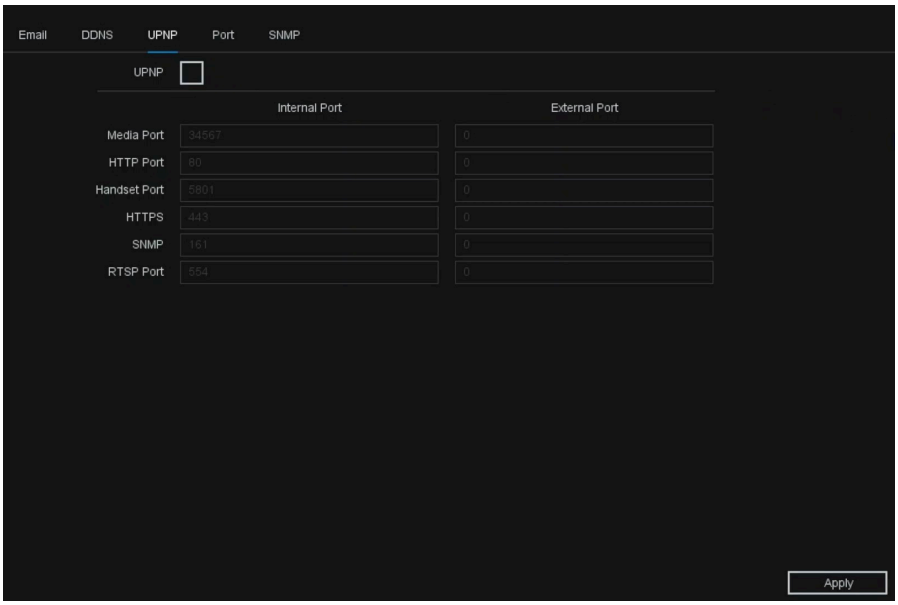
Universal Plug and Play (UPNP) is a set of networking protocols allowing devices on a local network to automatically discover and connect to each other

How to Access UPNP Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Network** category from the left-hand menu.
4. Go to the **Advanced** from the left-hand drop-down menu.
5. Select **UPNP** from the top menu.

Configuring UPNP in the NVR

1. **Enable UPNP:** Toggle to enable or disable UPNP.



2. **Port Information:** View Media Port, HTTP Port, Handset Port, SNMP, and RTSP Port for the Internal and External Ports.
3. **Apply Changes:** Click **Apply** to save your changes.

13.5.6 Configuring Email Alerts

The **Email Settings** allows you to set up email alerts from your NVR system. You can choose the default LOREX email service or configure custom email settings, including encryption type, SMTP server details, and recipient addresses. This section also includes the **Email Schedule**, which lets you define specific times for when alerts are sent.

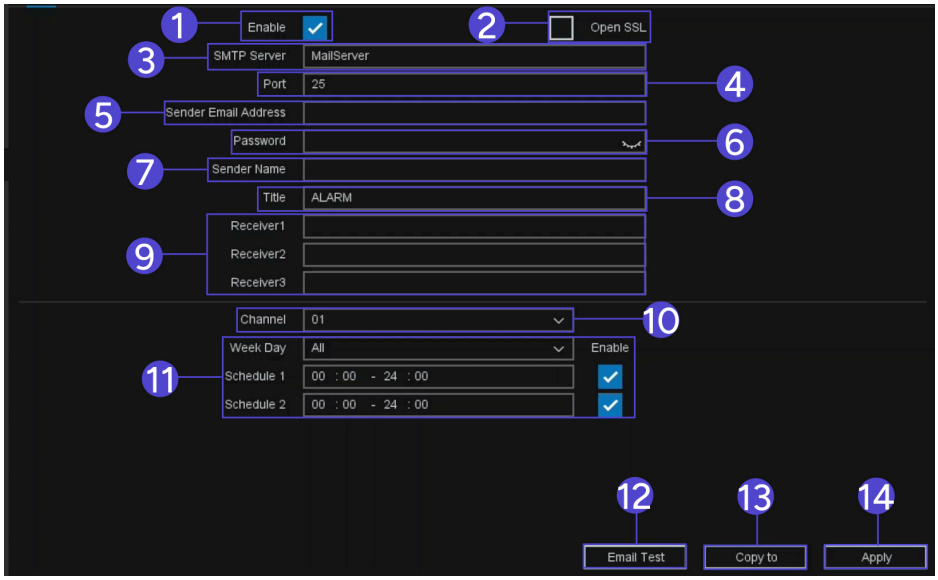
13.5.6.1 Setting Up Email Alerts

The **Email Settings** allows you to configure email settings for receiving alerts from the NVR system.

How to Access Email Settings

1. **Right-Click** on the Live View screen to access the Main Menu.
2. Select **Setting Menu**.
3. Go to the **Network** category from the left-hand menu.
4. Go to the **Advanced** from the left-hand drop-down menu.
5. Select **Email** from the top menu.

Configuring Email Alerts



1. **Enable:** Click to enable/disable using email.
2. **Open SSL**: SSL (Secure Sockets Layer) is a technology used to encrypt the connection between your email application and the mail server, and can be enabled/disabled here.
3. **SMTP Server:** Enter the address of the SMTP server used to send the emails (e.g., '**mysmtp.lorexddns.net**').
4. **Port:** Enter the port number for the server.
5. **Sender Email Address:** Enter the email that will appear as the sender of the email alerts.
6. **Password:** Enter the password for the email account.
7. **Sender Name:** Enter the Name that will appear as the sender of the email alerts.
8. **Title**: Input the email subject line.
9. **Receiver 1-3:** Enter up to three email addresses that will receive the alerts.
10. **Channel**: Select the channel you would like to create an email schedule for.
11. **Schedule**: Select a weekday and create up to two schedules for when emails may be sent regarding the selected channel.
12. **Email Test:** Send a test email to prove that the above settings work correctly.
13. **Copy To:** Copy the above settings to paste to other channels.
14. **Apply Changes:** Click **Apply** to save your changes.

13.6 System Manager Settings

The **System** settings allows you to manage the general settings of your NVR, such as user management, maintenance tasks, IP camera settings, and system information. These settings help you control how your NVR operates.

13.6.1 Managing Basic System Settings

The **General System** settings control key features that affect how your NVR runs, such as the language, and logout time.

How to Access Basic Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **General Configuration** from the left-hand menu.
5. Select **Basic Setting** from the top menu.

Configuring Basic Settings

1. **Language:** Choose your language (English, French, or Spanish).
2. **Time Zone:** Choose your local time zone.
3. **System Time:** Choose or view system date and time.
4. **Time Format:** Select the date separator, the date format, and either a 12-hour or 24-hour clock format.
5. **Daylight Saving Time:** Enable and set Daylight Savings time if needed.
6. **Auto Logout:** Select how long it will take for the NVR to log off when not in use.
7. **Default:** Return all settings to their original values.
8. **Apply Changes:** Click **Apply** to save your changes.

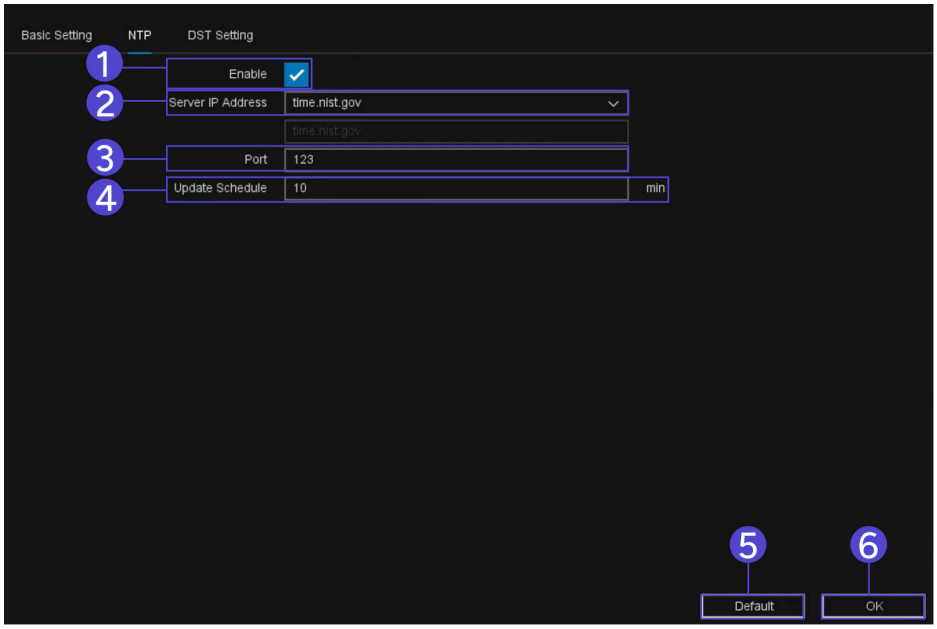
13.6.2 Managing NTP Settings

The **NTP (NEtwork Time Protocol)** settings on an NVR ensure accurate, synchronized time-stamps for video recordings by connecting to an external time server.

How to Access NTP Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **General Configuration** from the left-hand menu.
5. Select **NTP** from the top menu.

Configuring NTP Settings



1. Click to enable/disable NTP.
2. **Server IP Address:** Select a Server IP Address from the drop-down menu.
3. **Port:** Input the port number.
4. **Update Schedule:** Input how often the schedule should be updated in minutes.
5. **Default:** Return all settings to their original values.
6. **Apply Changes:** Click **OK** to save your changes.

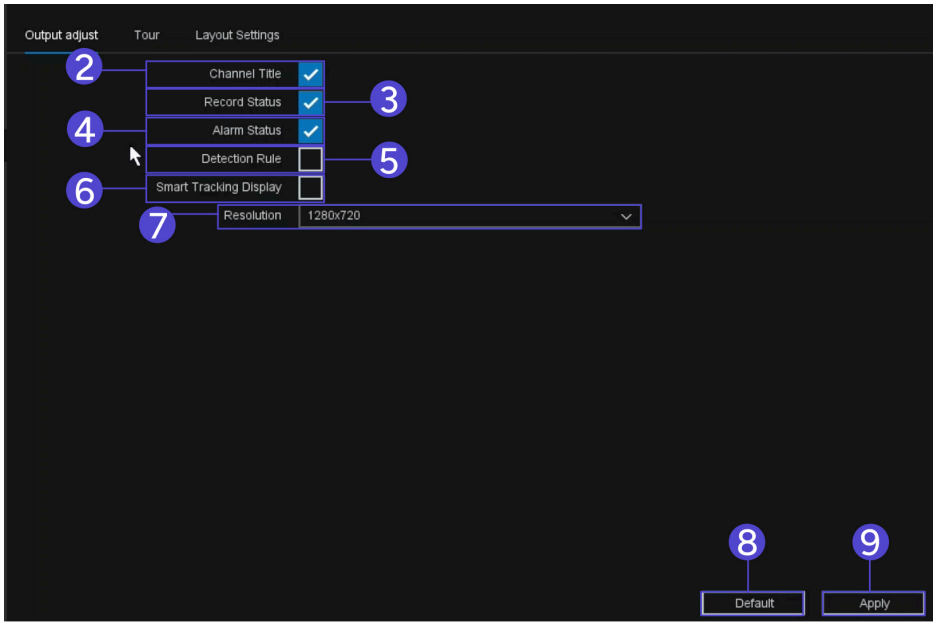
13.6.3 Configuring Layout Settings

The **Layout** settings allows you to customize how video is displayed on your connected monitor, ensuring an optimal viewing experience.

How to Access Layout Settings

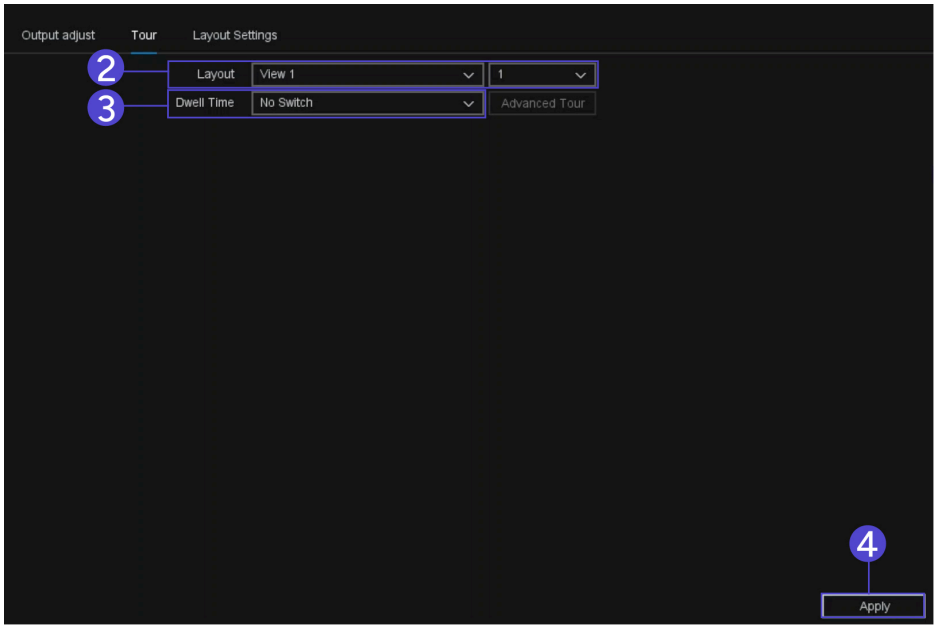
1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **Layout Settings** from the left-hand menu.

Configuring Display Settings



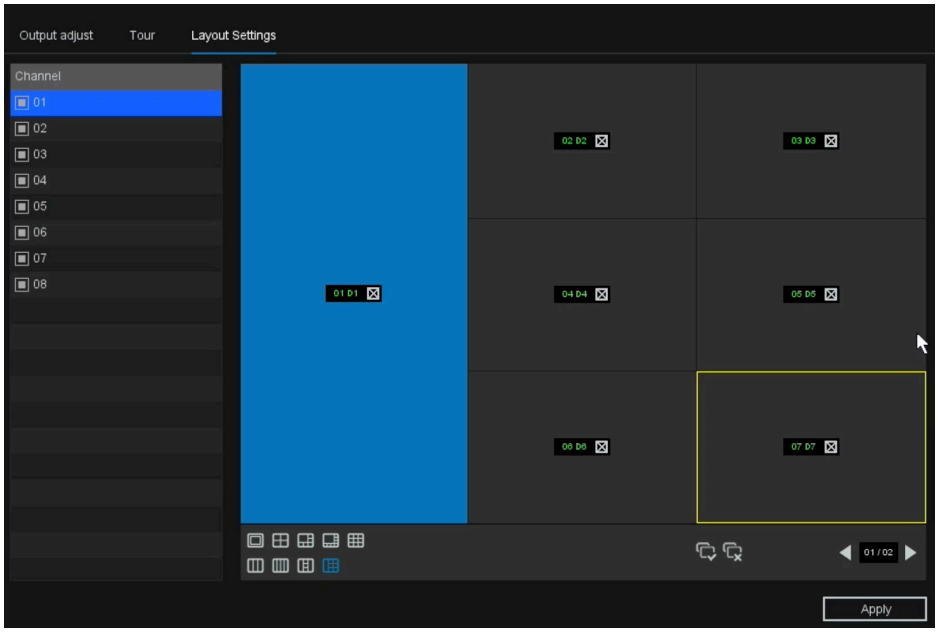
1. Select **Output Adjust** from the top menu.
2. **Channel Title:** Enable or disable showing the Channel Title on the live view feed.
3. **Record Status** Enable or disable showing whether or not the channel is recording, on the live view feed.
4. **Alarm Status:** Enable or disable showing the alarm status of the channel on the live view feed.
5. **Detection Rule:** Enable or disable showing the smart alarm line or area.
6. **Smart Tracking Display:** Enable or disable tracking the moving objects from the specified intelligent alarm type.
7. **Resolution:** Select the output resolution for your monitor from the drop-down menu.
8. **Default (Optional):** Click **Default** to restore original settings, then **Apply** to confirm.
9. **Apply Changes:** Click **Apply** to save your changes.

Configuring Tour Settings



1. Select **Tour** from the top menu.
2. **Layout**: Select which channel layout to display in Live View, and decide what slide of channels to view (are the first few cameras or the last view cameras being displayed).
3. **Dell Time**: Select long it takes to switch the displayed channels if at all.
4. **Apply Changes:** Click **Apply** to save your changes.

Configuring Layout Settings



1. Select **Layout Settings** from the top menu.
2. Click a window to select it, and then double-click a camera name in the channel list you would like to display. .
3. Click to display the configured channels corresponding to each screen and click to cancel the display of configured channels on the screen. Click or to go to the previous or next page.
4. **Apply Changes:** Click **Apply** to save your changes.

13.6.4 Managing IP Camera Settings

The **IP Camera Settings** allows you to easily manage the cameras connected to your NVR, ensuring your security system is running efficiently and performing at its best.

13.6.4.1 Upgrading Camera Firmware

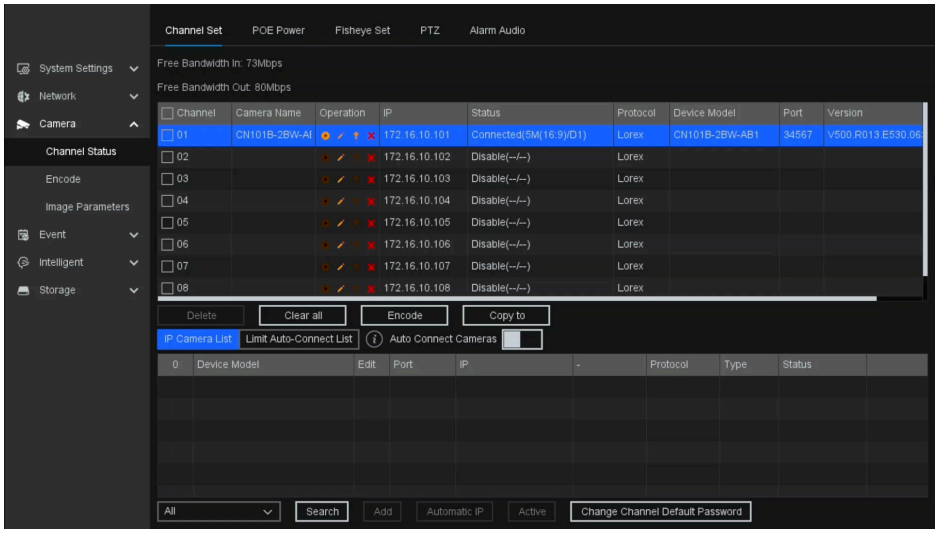
The **Upgrade** settings allow you to update the firmware for your connected cameras, ensuring they operate with the latest features and security improvements.

- If you need to update the camera's firmware, contact Lorex Technical Support to download the latest version.

How to Access Camera Firmware Upgrade Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **Camera** from the left-hand menu.
5. Choose **Channel Status** from the left-hand menu.

Channel, Camera name, IP Address, Status, Protocol, Device Model, Port, and Version, can be found here.



Camera Firmware Upgrade Options

1. **Choose Camera:** Check the box next to the cameras you want to upgrade.
2. **Upgrade**: Select the Upgrade icon.
3. **Download Firmware:** Download the latest firmware version from Lorex Technical Support if available, and use a USB drive to install it on your Camera.
   3.1. Name a folder as “ipc” in the USB device.
   3.2. Copy all firmware files to this folder.
4. Select **Local Upgrade** or **IPC Cloud Upgrade** and click **OK**.
5. **Local Upgrade:** This opens the USB. Choose a file and click **Upgrade**, then click **OK**.
6. **IPC Cloud Upgrade**: The NVR will search and when an upgrade appears, click **Upgrade**.

Camera Details and Upgrade Progress

1. **Channel:** Lists the connected camera channels.
2. **Play:** Click the icon to preview live footage. Right-click to exit.
3. **Edit:** Edit connection details such as UPNP, Username, Password, Time Sync, Protocol, IP Address, Port, and Transfer Protocol (Auto, TCP, or UDP).
4. **Upgrade:** Upgrade your camera locally or from the cloud.
5. **Delete:** Remove the camera from the NVR channel.
6. **Clear all**: Click to delete all channels. Click **OK** to confirm.
7. **Encode**: Select to configure camera settings:
   7.1. **Channel:** Select which channel to encode.
   7.2. **Compression**: Select H.264 or H.265.
   7.3. **Complexity Profile**: Select **BaseLine**, **MainProfile**, or **HighProfile**.
   7.4. **Resolution**: Select resolution for mainstream and substream.
   7.5. **FPS**: Choose FPS (Frames Per Second) for mainstream and substream.
   7.6. **Bit Rate Type**: Select **CBR** or **VBR**.
   7.7. **Bit Rate Mode**: Select **General Mode** or **Custom Mode**.
   7.8. **Bit Rate**: Input bit rate in Kbps.
   7.9. **Iframe**: Iframe is an HTML element that embeds an external webpage or document within the current webpage, acting as a "window" to another source.
   7.10. **Video/Audio**: Click to enable/disable video/audio.
   7.11. **Nano Codec**: Slect to enable/disable Nano Codec.

7.12. **Audio**: Click **Set** to configure Audio:

7.12.1. **Audio Codec**: Select Audio Codec from the drop-down menu.
7.12.2. **Audio Input**: Select Audio Input from the drop-down menu.
7.12.3. **Volume:** Use the sliders to toggle **Microphone Volume**, **Alarm Audio Volume**, and **Voice Volume.**
7.12.4. **Noise Reduction**: Click to enable/disable noise reduction.
7.12.5. **Copy To**: Click to copy settings to be able to paste them to other channels.
7.12.6. **Apply**: Click to save changes.

8. **Copy To**: Click to copy settings to be able to paste them to other channels.
9. List cameras using **IP Camera List** or **Limit Auto-Connect List**.
10. **Auto Connect Cameras**: Toggle the slider to enable/disable Auto Connect Cameras.
11. **Search**: Click to detect other cameras. Click on the desired camera to select it.
12. **Add**: Click to add a camera to your NVR.
13. **Automatic IP**: Click **Automatic IP** > **OK** to automatically set the network camera address. Input your password and click **OK**.
14. Select an unactivated device and click **Active**, to activate.
15. **Change Camera Password**: With a channel selected, click **Change Channel Default Password** > input a new password > click **OK**, to change the channel's password.

13.6.4.2 Managing Camera Parameters

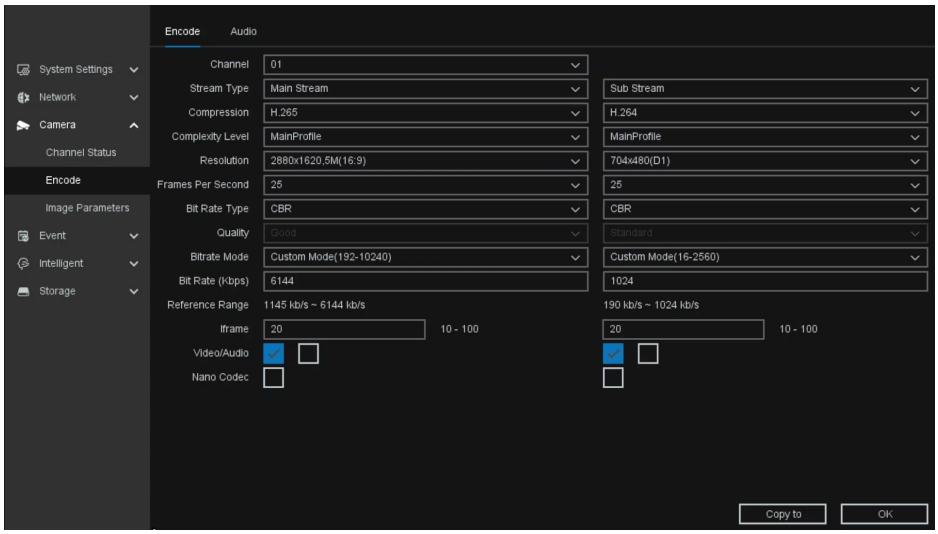
The **Encode** feature allows you to adjust camera settings.

How to Access Camera Encoding Settings

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **Camera** from the left-hand menu.
5. Choose **Encode** from the left-hand menu.

Encoding Cameras

Select **Encode** in the top menu.

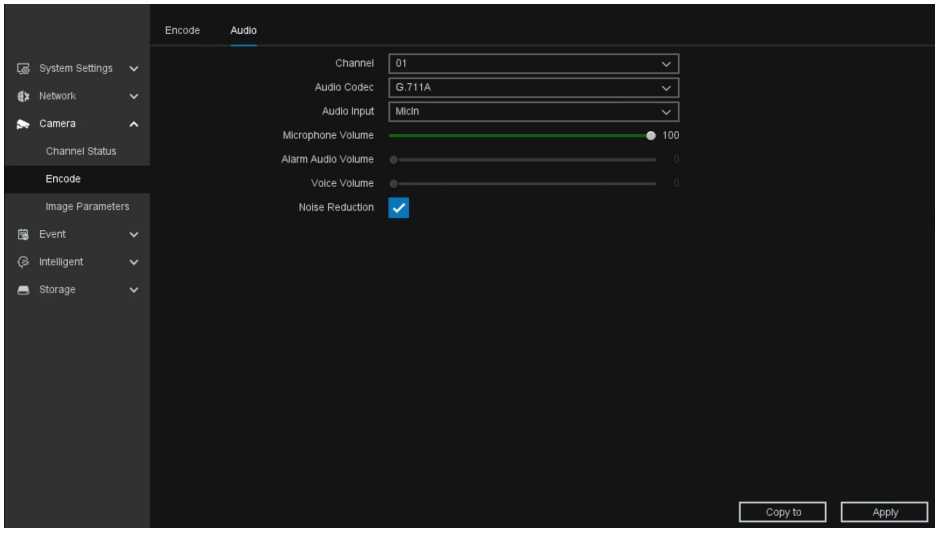


1. **Channel:** Select which channel to encode.
2. **Compression**: Select H.264 or H.265.
3. **Complexity Profile**: Select **BaseLine**, **MainProfile**, or **HighProfile**.
4. **Resolution**: Select resolution for mainstream and substream.
5. **FPS**: Choose FPS (Frames Per Second) for mainstream and substream.
6. **Bit Rate Type**: Select **CBR** or **VBR**.

7. **Bit Rate Mode**: Select **General Mode** or **Custom Mode**.
8. **Bit Rate**: Input bit rate in Kbps.
9. **Iframe**: Iframe is an HTML element that embeds an external webpage or document within the current webpage, acting as a "window" to another source.
10. **Video/Audio**: Click to enable/disable video/audio.
11. **Nano Codec**: Slect to enable/disable Nano Codec.
12. **Copy To**: Click to copy settings to be able to paste them to other channels.
13. **OK**: Click **OK** to save changes.

Encoding Camera Audio

Select **Audio** in the top menu.



1. **Channel**: Select the desired channel.
2. **Audio Codec**: Select Audio Codec from the drop-down menu.
3. **Audio Input**: Select Audio Input from the drop-down menu.
4. **Volume:** Use the sliders to toggle **Microphone Volume**, **Alarm Audio Volume**, and **Voice Volume.**
5. **Noise Reduction**: Click to enable/disable noise reduction.
6. **Copy To**: Click to copy settings to be able to paste them to other channels.
7. **Apply**: Click to save changes.

13.7 Viewing System Information

The **Information** menu provides detailed technical information about your NVR, including device specifics, channel information, recording details, and network status.

13.7.1 Device Information

The **Device Info** provides key details about your NVR, including its model, software version, and network settings.

How to Access Device Information

1. **Right-Click** on the Live View screen to access the menu.
2. Select **Settings Menu** to open Settings.
3. Select **System Settings** from the left-hand menu.
4. Choose **Version** from the left-hand menu.

Device Information

1. **Device ID:** Displays your NVR’s device identification.
2. **Device Model:** Displays the model number of your NVR.
3. **Version:** Shows the current firmware version installed on the NVR.
4. **Release Date:** Displays when your NVR was released.
5. **Serial Number:** Displays the serial number of the recorder, which is useful for support and warranty purposes.
6. **IP Address:** Displays the IP address assigned to the recorder.
7. **MAC:** Displays the recorder's MAC address, a unique identifier for network communications.
8. **Device Storage:** Displays the storage used and the total hard disk drive capacity.
9. **HTTP Port:** Shows the HTTP port number used by the recorder, typically 8000.
10. **P2P Status:** Indicates if your device can connect to the manufacturer's cloud server for easy remote viewing on apps.

14 Troubleshooting

The **Troubleshooting Guide** provides quick solutions to common issues related to your NVR system.

Forgotten Password	If you forget the password after changing it: • Use the **Password Reset** feature to reset the password. For detailed instructions, refer to 9 *Password Reset*, page 37. • Restore the device to factory settings. For full instructions, refer to , page . • To avoid future issues, choose a password that is both easy to remember and secure.
Hard Drive Not Detected	If the hard drive is not detected: • Ensure the hard drive is securely connected, refer to 12.4.2 *Installing a New Hard Drive*, page 59. • Check that the hard drive ports on the main board are in good condition. • Ensure the hard drive you are using is designed for video surveillance to ensure stable operation.
No Recorded Information During Playback	If no recorded footage is found during playback: • Verify that the hard disk drive's data cable is properly connected, refer to 12.4.2 *Installing a New Hard Drive*, page 59. • Confirm that the system time has not been altered. • Ensure the hard drive you are using is designed for video surveillance to ensure stable operation. • If the issue persists, inspect the hard drive for possible damage.
No Video Signal / Output is Abnormal	If there is no video signal or the output is abnormal: • Check that the network cable is securely connected. • Ensure that the NTSC/PAL system settings are consistent on both ends.
Motion Detection Not Working	If motion detection is not functioning: • Verify that the motion detection time, area, and sensitivity settings are correctly configured, refer to 11.1 *Configuring Motion Detection*, page 41.
Device Still Recording After Selecting Stop Recording	If the device continues to record after selecting Stop Recording: • Stopping manual recording does not affect scheduled recordings. To stop scheduled recordings (refer to 12.1 *Configuring the Recording Schedule*, page 49), adjust the recording status or disable the channel (refer to 5.3 *Adding Cameras to the NVR*, page 15).
Deleting Specific Video Records	If you want to delete specific video records: • For security reasons, individual video records cannot be deleted. To remove footage, you must format the entire hard drive, refer to 12.3 *Configuring, Overwriting, and Formatting Your Hard Drive*, page 50.

15 Technical Specifications

The **Technical Specifications** outline your NVR system's key performance and hardware details.

15.1 Technical Specifications

The **Technical Specifications** outlines your NVR system's key performance and hardware details.

15.2 Inputs & Outputs

Video Inputs	8 × PoE (Power over Ethernet)
Video Outputs	• 1 × HDMI • 1 × VGA
Audio Input Format	G.711A, G.711U

15.3 Display

Maximum Display Resolution	Up to 4K Ultra HD (3840 × 2160 pixels)
HDMI Output Resolutions	3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720
VGA Output Resolutions	1920 × 1080, 1280 × 1024, 1280 × 720
Live Display Modes	1, 3, 4, 5, 6, 7, 8, 9
On-Screen Display (OSD)	On/Off
System Navigation	USB Mouse

15.4 Recording

Supported Recording Resolutions	8 MP / 5 MP / 4 MP / 3 MP / 1080 P / 720 p / D1 / CIF / QCIF
Video Compression	H.265, H.264
Recording Modes	Continuous, Motion Detection, Smart Motion Detection (per camera)

15.5 Playback

Simultaneous Playback	Up to 8 Channels (Synchronized)
Playback Speed Options	• Fast Forward/Rewind: 2×, 4×, 8×, 16, 32× • Slow Motion: 1/2×, 1/3×, 1/4×
Search Options	By Time/Date, Motion Events, or Smart Motion Events (single or multiple cameras)

15.6 Storage & Backup

HDD Bay	1 Bay
Maximum HDD Capacity	Up to 10 TB
Backup Media	USB Flash Drive

15.7 AI Detection & Smart Features

Adjustable Motion Detection Sensitivity Levels	1 to 8
AI Motion Detection	Supported, for Face Detection, Vehicle Detection, Person Detection
Active Deterrence Support	Yes
Smart Search	Yes

15.8 Connectivity

Mobile Viewing	Lorex Connect App (iOS and Android)
Event Notifications	Yes
Network Interface	10/100 Base-TX (RJ45)
Network Bit Rate	64Kbps - 10Mbps
USB Ports	• Front: 1 × USB 2.0 • Back: 1 × USB 2.0
Firmware Upgrade	USB, Network
Supported Languages	English, French, and Spanish
DDNS	Supported

15.9 Security

Password Reset	Yes

15.10 Power

Power Supply	DC 48 V / 1.8 A
PoE Power Output	Maximum 25 W per port, 72 W total
Power Consumption (Excluding HDD)	15 W

15.11 Physical & Environmental

QuietTek (Fanless Design)	Yes
Product Weight	1.814 lbs (0.823 kg)
Product Dimensions (W × D × H)	9.84 × 9.06 × 1.77 in (249.94 × 230.12 × 44.96 mm)
Operating Temperature	14°F to 122°F (-10°C to 50°C)
Humidity	<90% RH (Non-condensing)ci

Disclaimers:

1. 4K (8MP) IP cameras are required to take advantage of 4K recording.
2. Recording time may vary based on recording resolution and quality, lighting conditions and movement in the scene.
3. Accessing your security system remotely requires a high-speed Internet connection. Ensure your NVR has a wired connection to a router (not included).
4. HDMI output supports 4K HD for high definition multi-channel live or recorded video viewing. Image quality and resolution is dependent on the type of camera connected to the NVR, as well as TV/monitor resolution.

Lorex products are designed for consumer and business use only and not for US federal governments, federally-funded projects or contractors subject to NDAA.

All trademarks belong to their respective owners. No claim is made to the exclusive right to use the trademarks listed, other than the trademarks owned by Lorex Corporation. We reserve the right to change models, configurations or specifications without notice or liability. Product may not be exactly as shown.

16 Notices

This product has been certified and found to comply with the limits regulated by FCC.

16.1 FCC

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

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

17 Notices

This product has been certified and found to comply with the limits regulated by FCC and ICES-003. It is designated to provide reasonable protection against interference and will not cause interference with other appliance usage. However, it is imperative that the user follows the guidelines in this manual to avoid improper usage, which may result in damage to the product, electrical shock, or fire hazard injury.

17.1 FCC/ICES

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules and Canadian standard ICES-003. These limits are designed to provide reasonable protection against harmful interference in a residential or commercial installation.

This equipment does not contain any wireless transmitters. All data communication is performed via wired connections (e.g., Ethernet).

This device generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. If this equipment does cause harmful interference, the user is encouraged to try to correct it by:

- Reorienting or relocating the receiving antenna.
- Increasing the distance between the equipment and the receiver.
- Connecting the equipment to an outlet on a different circuit.
- Consulting the dealer or an experienced radio/TV technician.

17.2 ICES-003 (Canada)

This device meets CAN ICES-3 (B) / NMB-3 (B) requirements for Class B digital apparatus.

Note: Cet appareil est conforme à la norme canadienne NMB-3 (B). Cet équipement ne comprend pas de modules sans fil. Toutes les communications s’effectuent par connexions câblées.

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www.lorextechnology.com

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