



User Manual

RN101 Series - 4K Wired Network Video Recorder



User Manual

RN101 Series - 4K Wired

Network Video Recorder

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

RN101P1-61T-S

RN101A-81B-AB1

RN101T1-41T-F

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.

Table of contents

1	Important Safeguards	1
2	What's Included	2
3	Recorder Overview	3
3.1	Front Panel Overview	3
3.2	Back Panel Overview	3
4	NVR Setup	4
4.1	Connecting the NVR Using a Monitor	4
4.1.1	Using the Mouse	4
4.1.2	Running the Lorex Setup Wizard	5
4.2	Connecting the NVR Using the App (Without Monitor)	10
4.3	Download the Lorex Connect App for Remote Viewing	10
5	Camera Setup	15
5.1	Connecting Cameras to the NVR	15
5.1.1	Direct Connection using Ethernet Cables (Recommended)	15
5.1.2	Network Connection Using LAN or PoE Switch (Advanced)	15
5.2	Adding Cameras to the NVR	17
5.3	Camera Installation	18
5.3.1	Camera Placement Tips	18
5.3.2	Installing the Cameras	19
5.4	Configuring Live View Settings	20
5.5	Configuring Image Settings	21
5.6	Taking Snapshots	24
5.7	Setting Privacy Masking	24
6	Live View	26
6.1	Camera Live View Overview	26
6.2	Using the Camera Quick Toolbar	26
6.3	Using the Navigation Bar	27
6.4	Navigating the Main Menu	29
7	Motion Detection Setup	30
7.1	Configuring Motion Detection	30
7.2	Creating a Motion Detection Schedule	31
7.3	Setting Motion Detection Actions	32
8	Active Deterrence Setup	37
8.1	Configuring the White Light (Deterrence Light)	37
8.2	Configuring the Siren	38
8.3	Configuring Voice Prompts	40
9	Recording Settings	42
9.1	Configuring Recording Settings	42
9.2	Configuring the Mainstream Settings	42
9.3	Configuring the Substream Settings	44
9.4	Configuring Audio Settings	45
10	Playback	46
10.1	Playback	46
10.2	Searching & Backing Up Recordings	48
10.3	Searching & Backing Up Snapshots	49
11	User Management	52
12	Password Recovery	57
12.1	NVR Security Question Method	57
12.2	Account Verification Using Lorex Connect App	58

Table of contents

13	Date & Time Setup.....	63
14	Storage Management	65
14.1	Configuring the Recording Schedule.....	65
14.2	Configuring the Snapshot Schedule	66
14.3	Formatting Camera Storage.....	68
14.4	Replacing the Hard Drive (HDD).....	69
14.4.1	Removing the Hard Drive	69
14.4.2	Installing a New Hard Drive	72
14.5	Overwriting and Formatting Your Hard Drive	77
15	Configuration	79
15.1	Channel Settings.....	79
15.1.1	Camera PoE Power Statuses	79
15.2	Alerts Settings	79
15.2.1	Setting Up System Warning Alerts.....	79
15.3	Network Settings	81
15.3.1	Configuring General Network Settings.....	81
15.3.2	Setting Up Port Configuration	82
15.3.3	DDNS Setup.....	82
15.3.4	Configuring Email Alerts.....	91
15.4	System Settings.....	94
15.4.1	Managing General System Settings.....	94
15.4.2	Configuring Display Settings	95
15.4.3	Performing Recorder Maintenance.....	96
15.4.4	Managing IP Camera Settings	100
15.5	Viewing System Information	104
15.5.1	Device Information.....	104
15.5.2	Channel Information	105
15.5.3	Recording Information.....	105
15.5.4	Network Status.....	106
16	Troubleshooting.....	108
17	Technical Specifications	109
17.1	General	109
17.2	Inputs & Outputs	109
17.3	Display.....	109
17.4	Recording	109
17.5	Playback.....	109
17.6	Storage & Backup.....	109
17.7	AI Detection & Smart Features	109
17.8	Connectivity	110
17.9	Security.....	110
17.10	Power	110
17.11	Physical & Environmental	110
18	Notices	111
18.1	FCC/ICES.....	111
18.2	ICES-003 (Canada)	111

Important Safeguards

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



DANGER

This product contains a coin/button cell battery. If ingested, it can cause severe internal burns within 2 hours and may lead to death. Keep batteries out of reach of children. If swallowed, seek medical attention immediately.



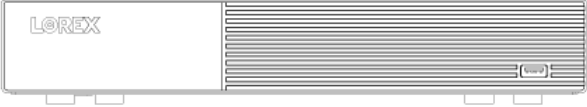
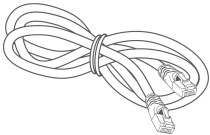
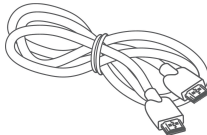
WARNING

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.

What's Included

Your NVR package includes the following accessories:

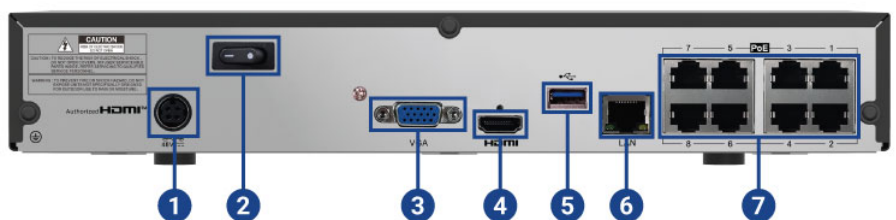
 4K Wired NVR			
 Ethernet Cable	 USB Mouse	 HDMI Cable	 Power Adapter

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 a USB hard disk drive for backup or manual firmware updates.

3.2 Back Panel Overview



1. **Power Input:** Connect the included power adapter to supply power to the NVR.
2. **On/Off Switch:** Use this switch to turn the NVR on or off.
3. **VGA Monitor:** Connect a monitor using a VGA cable for display output.
4. **HDMI Monitor:** Connect a monitor using the included HDMI cable for high-definition display output.
5. **USB Port:** Connect the included mouse to control the NVR on a monitor.
6. **Network Port (LAN):** Connect to your router using the included Ethernet cable for network access.
7. **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 RN101 recorder.

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 4.2 *Connecting the NVR Using the App (Without Monitor)*, page 10).

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 15.
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 the **Lorex Setup Wizard**, see 4.1.2 *Running the Lorex Setup Wizard*, 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** a channel during live view to open the Camera Quick Toolbar. For detailed instructions, refer to 6.2 *Using the Camera Quick Toolbar*, page 26.
- 1.4. **Hover** over the bottom of the split-screen view in live view to display the Navigation Bar. For detailed instructions, refer to 6.3 *Using the Navigation Bar*, page 27.
- 1.5. **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.

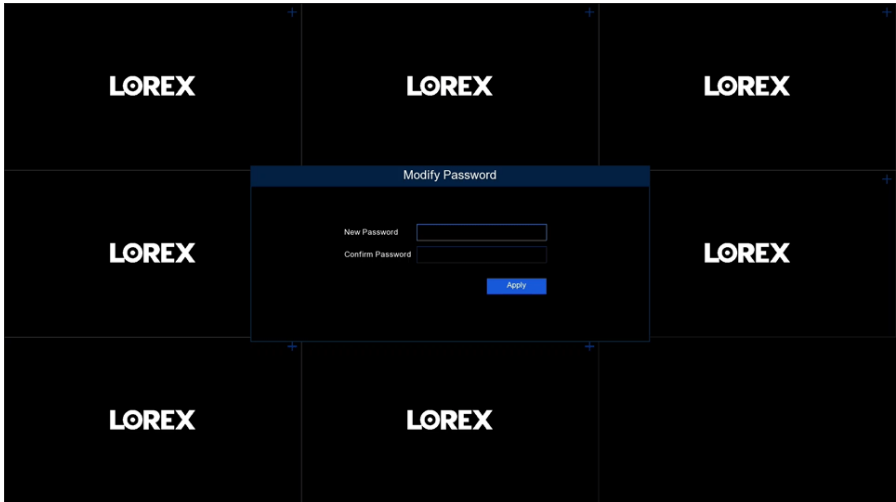
4.1.2 Running the Lorex Setup Wizard

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

1. **Modify Password:** Enter a new password for the NVR system, then confirm it. Click **Apply** to save.

 **NOTE**

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



2. **Password Recovery Settings:** Set up security questions to recover your password if needed. For each of the three security questions, click the dropdown, select a question, and enter your answer. Click **OK** to save.

Password Recovery Settings

☒ Security Questions

Security Question 1

What is your father's middle name? 

Answer

James

Security Question 2

What is your mother's maiden name? 

Answer

Johnson

Security Question 3

Who is your high school favorite teacher? 

Answer

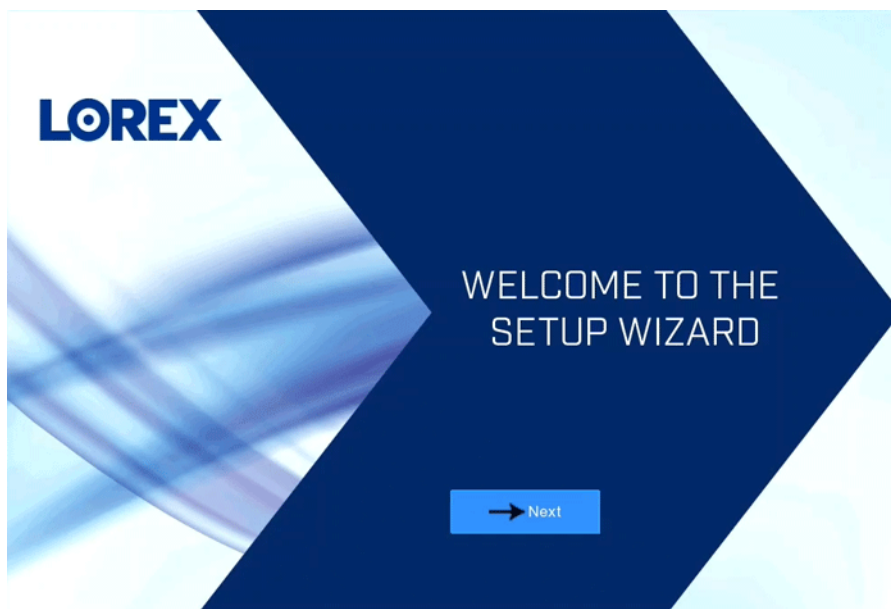
Mr. Anderson

OK

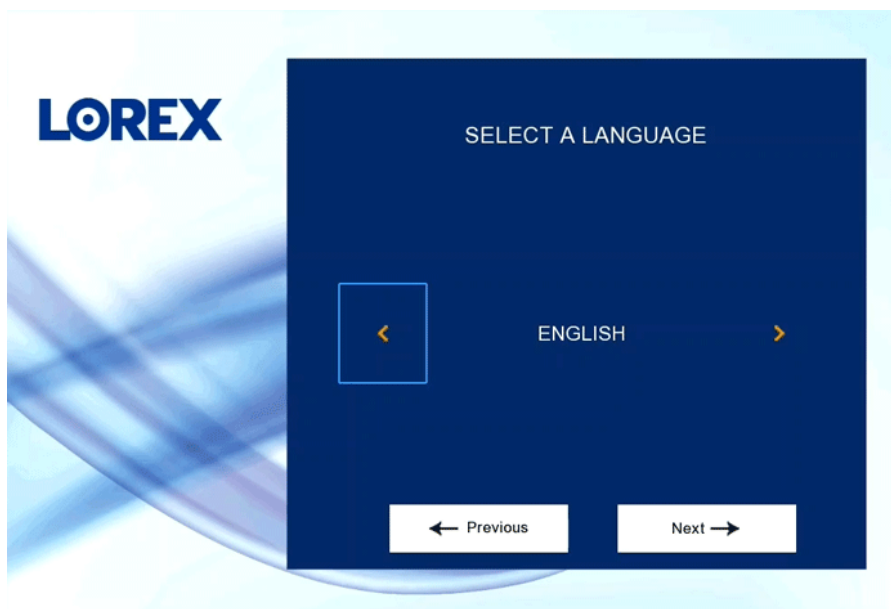
Cancel

Follow these steps to complete the Lorex Setup Wizard:

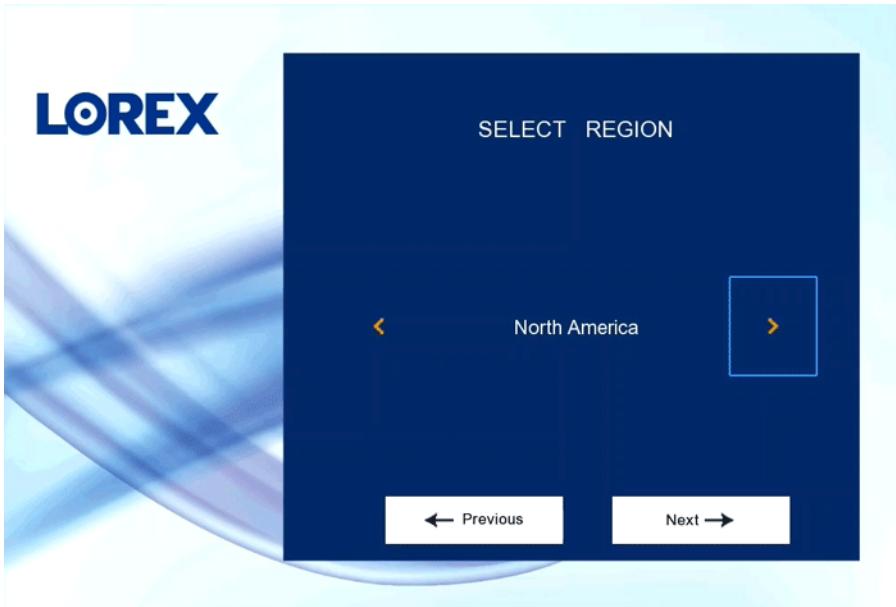
1. **Welcome to the Lorex Setup Wizard:** Click **Next** to start.



2. **Select a Language:** Use the arrows to choose your language (English, French, or Spanish). Click **Next**.



3. **Select a Region:** Click the arrows to select your region, then click **Next**.

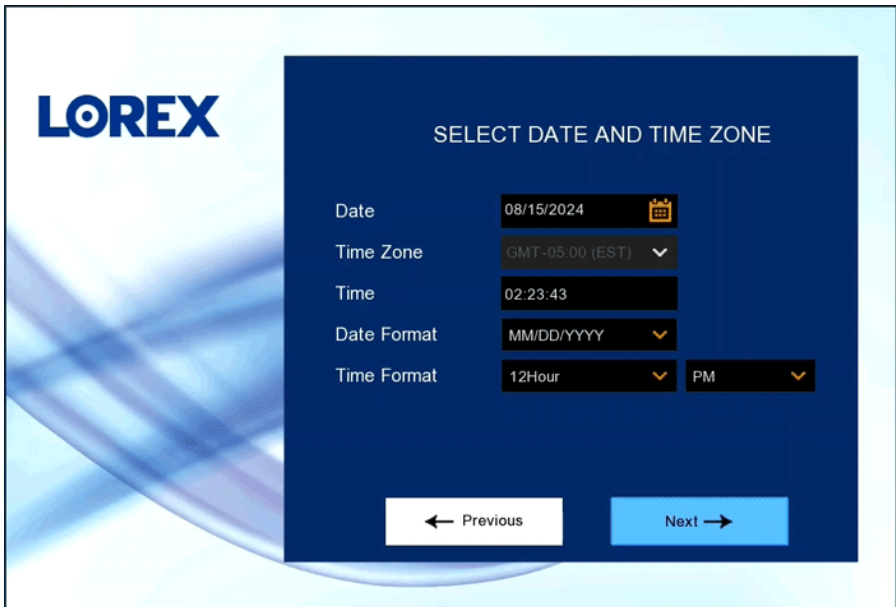


4. **Set the Date and Time Zone:** Choose the correct date and time for your region, then select the preferred date and time formats. Click **Next**.

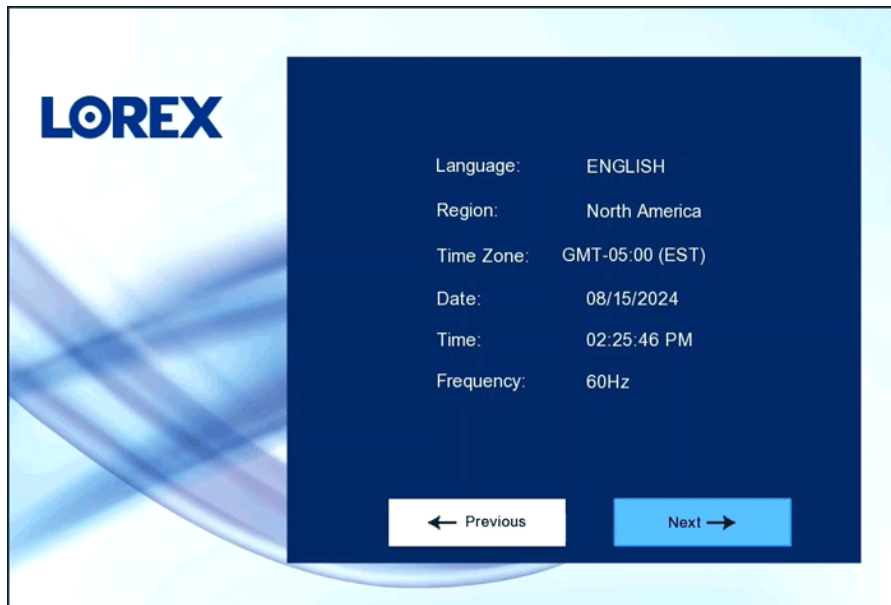


NOTE

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



5. **Review Your Information:** Review all the details that you have entered. If anything needs to be changed, click **Previous** to go back and make edits. If everything is correct, click **Next**.



6. **App Setup:** Download the **Lorex Connect** app from the [App Store](#) or [Google Play](#) and tap + **Add device** > **Recorder**. Click **Next** in the recorder to complete setup.



4.2 Connecting the NVR Using the App (Without Monitor)



NOTE

A network connection is required 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 15.
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 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.
4. **Turn On the NVR:** Flip the power switch on the back of the NVR to the ON position (I).
5. **Complete Setup from the App:** Download the **Lorex Connect** App on your mobile device and add your device to finish setting up the NVR, see 4.3 *Download the Lorex Connect App for Remote Viewing*, page 10 for full details.

4.3 Download the Lorex Connect App for Remote Viewing



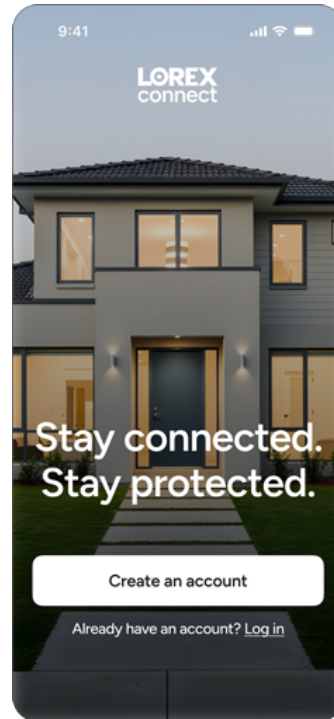
NOTE

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

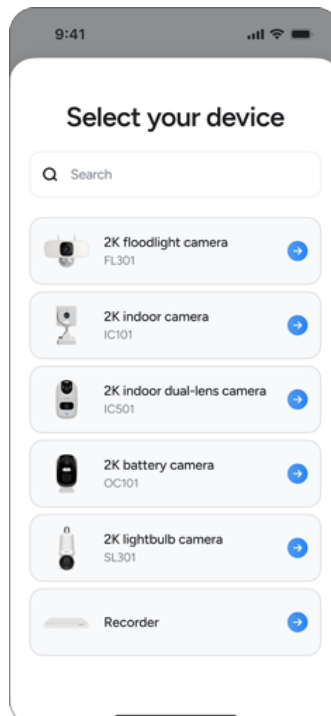
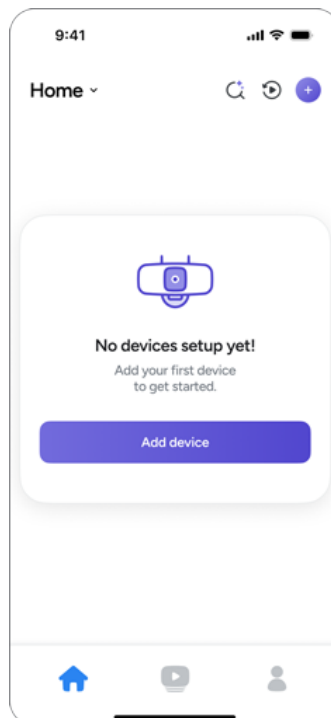
1. Download the **Lorex Connect** app from the [App Store](#) or [Play Store](#).



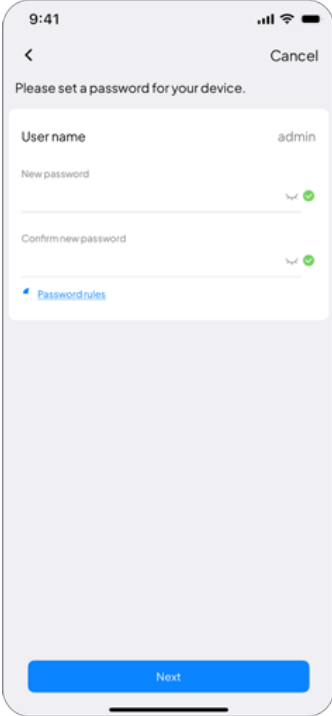
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2. Open the app, then **Create an account** or **Log in**.



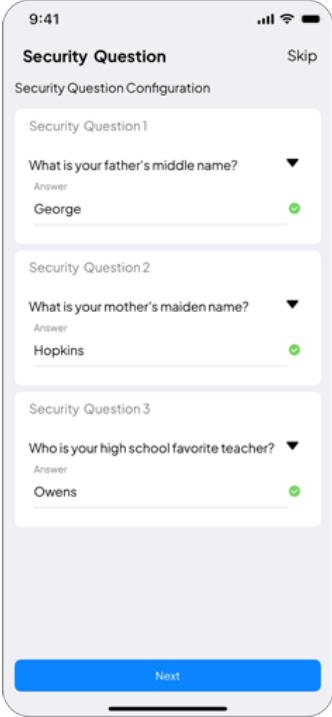
3. Tap + **Add device** and select **Recorder**. Your phone and NVR should be connected to the same network.



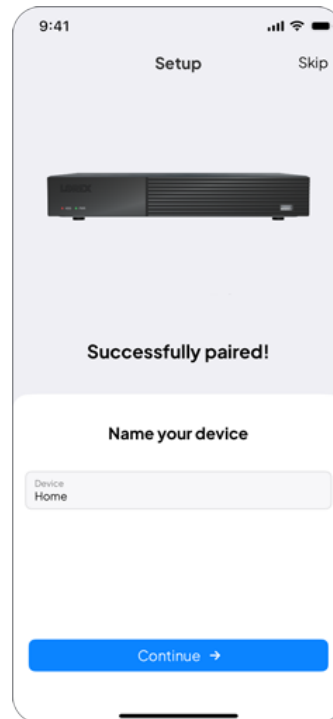
4. Set a password for your NVR.



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.

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)

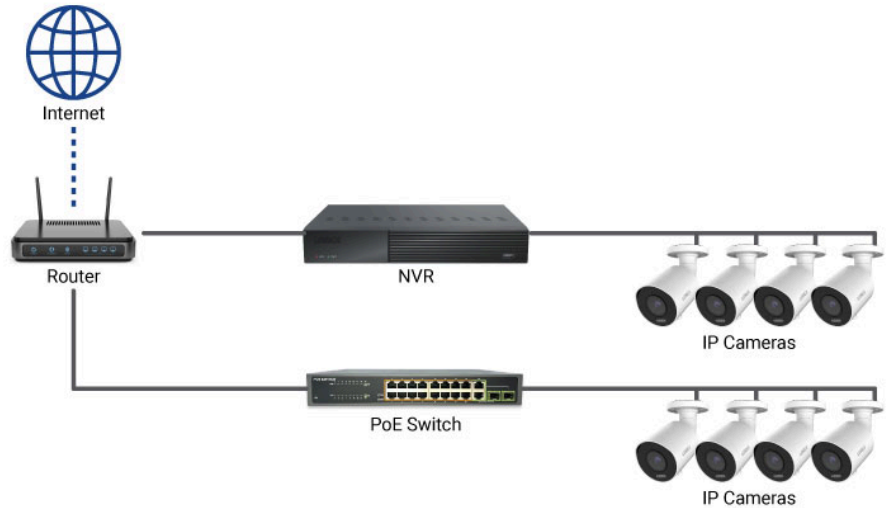
For added flexibility, connect IP cameras to the same Local Area Network (LAN) as the NVR by using a PoE switch or connecting them directly to the router. This method allows you to add cameras without directly plugging them into the NVR.



NOTE

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

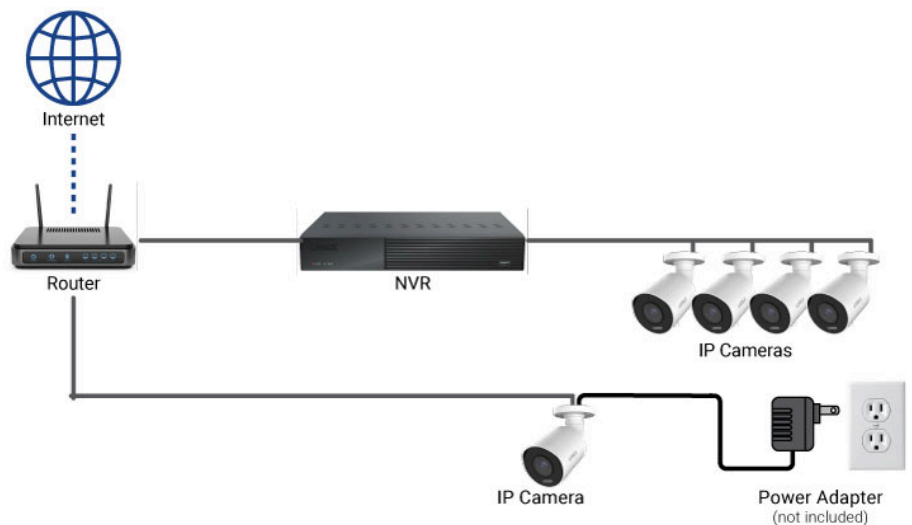
Option 1: Connecting Cameras Using a PoE Switch



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 5.2 *Adding Cameras to the NVR*, page 17.
5. To configure the internal PoE Switch settings, refer to 15.3.1 *Configuring General Network Settings*, page 81.

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 5.2 *Adding Cameras to the NVR*, page 17.

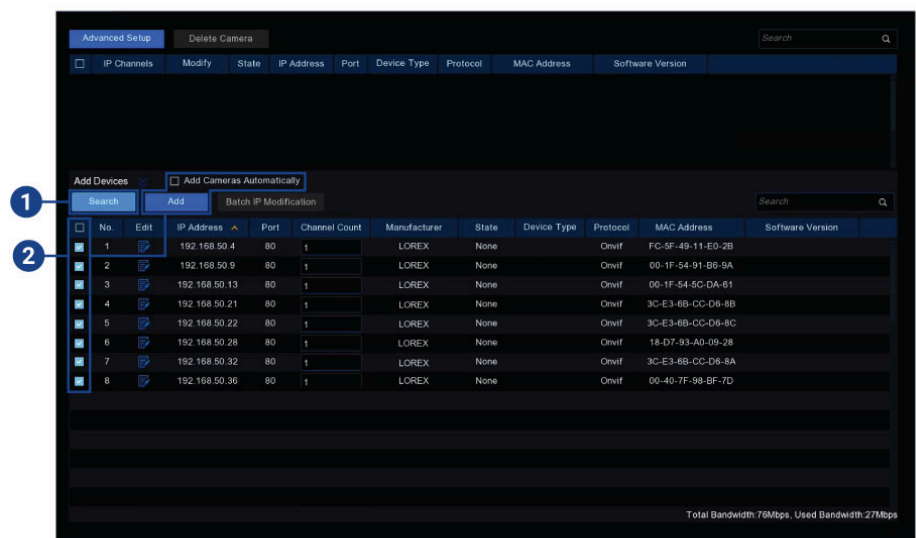
5.2 Adding Cameras to the NVR

The **IP Channels** 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.

How to Access IP Channels Settings

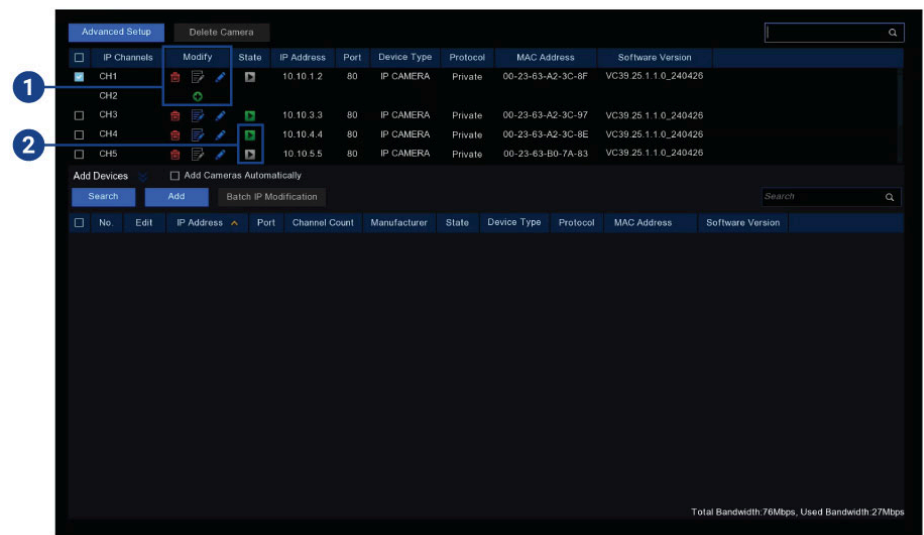
- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **Channel** tab at the top.
- 4. Choose **IP Channels** from the left-hand menu.

Adding Cameras



- 1. **Search:** Search all devices on the same network.
- 2. **Add:** Manually or automatically add cameras.

Modifying Cameras



1. Modify Camera Settings:

- 1.1. **Add:** Add the camera to the NVR channel.
- 1.2. **Delete:** Remove the camera from the NVR channel.
- 1.3. **Edit:** Edit connection details such as IP Address, Subnet Mask, Port, Protocol, Username, Password, and Mode (Auto or PoE).

2. State Indicators:

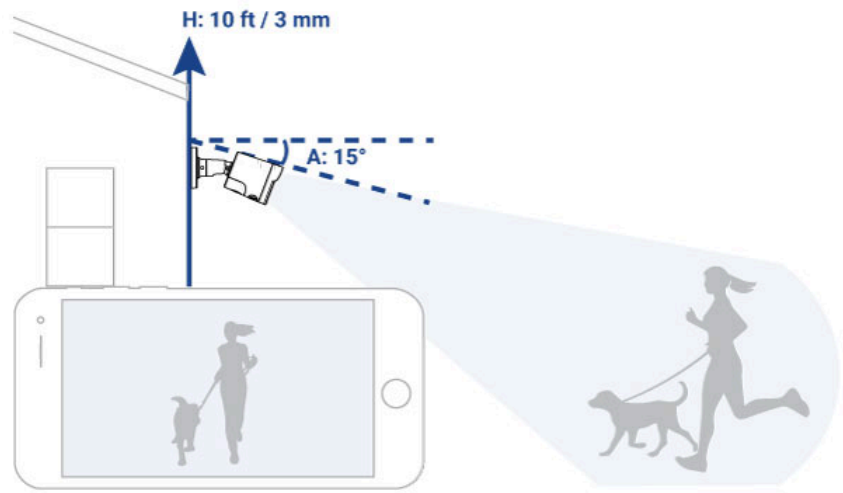
- 2.1. **Play Live Video:** Camera is operating correctly; click to view live.
- 2.2. **Cannot Play Live Video:** Connection issue; click to view the error message.

5.3 Camera Installation

This section provides general tips and instructions for connecting cameras to the NVR. For detailed installation steps, refer to your camera’s Quick Start Guide or search your camera model at help.lorex.com.

5.3.1 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.

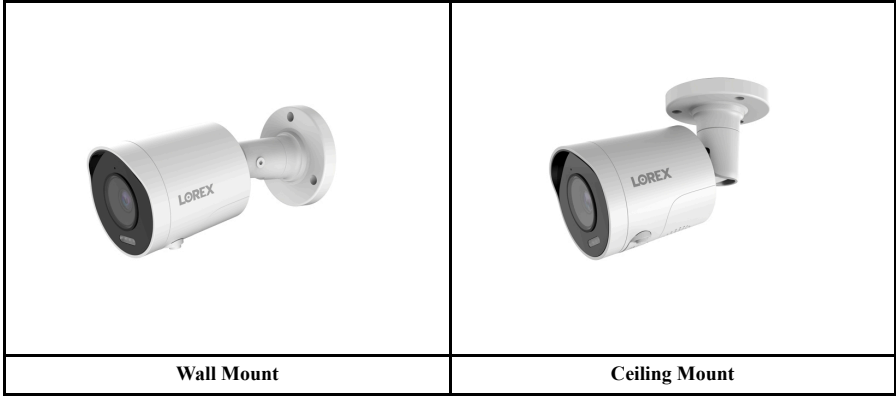
5.3.2 Installing the Cameras

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

For the most up-to-date documentation:

- Visit help.lorex.com/support/home.
- Search for your camera model number.
- Go to the camera's support page.
- Navigate to **Downloads** and open the **Quick Start 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.



5.4 Configuring Live View Settings

The **Live View Settings** allows you to customize how each camera's live feed is displayed, including privacy settings, channel names, and on-screen information.

How to Access Live View Settings

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **Channel** tab at the top.
- 4. Choose **Live View Settings** from the left-hand menu.

Configuring Live View Settings

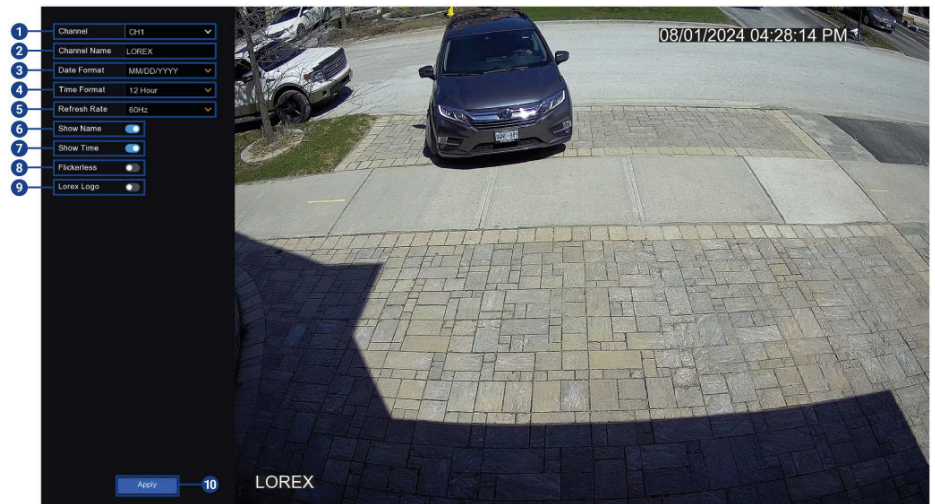


- 1. **Channel:** Lists all connected camera channels.
- 2. **Setup:** Click the setup icon next to each channel to open the Live Setup Panel — refer to instructions below.
- 3. **Privacy Mode:** Enable or disable privacy mode. When enabled, the camera stops recording and displays a black screen.
- 4. **Channel Name:** Edit the camera's name.
- 5. **Show Name:** Enable or disable displaying the camera name on the live view.

6. **Date Format:** Select the date format (e.g., MM/DD/YYYY).
7. **Time Format:** Choose between 12-hour or 24-hour format.
8. **Show Time:** Enable or disable displaying the current time on the live view.
9. **Flickerless:** Enable to reduce image flickering caused by sudden light changes, such as passing cars or fluctuating lighting. If flickering persists, adjust the camera angle to minimize direct light exposure.
10. **Apply Changes:** Click **Apply** to save your changes.

Live Setup Panel

Click the setup icon next to each channel to open the Live Setup Panel. Adjust settings while viewing the live feed on the right, allowing you to confirm changes in real-time. This method lets you see the immediate effects of your adjustments.



1. **Channel:** Select the camera channel you want to configure.
2. **Channel Name:** Edit the camera's name.
3. **Date Format:** Select the format for the date display (e.g., MM/DD/YYYY).
4. **Time Format:** Choose between 12-hour or 24-hour format.
5. **Refresh Rate:** Select the screen refresh rate to match your display's specifications.
6. **Show Name:** Enable or disable displaying the camera name on the live view.
7. **Show Time:** Enable or disable displaying the current time on the live view.
8. **Flickerless:** Enable to reduce image flickering caused by sudden light changes, such as passing cars or fluctuating lighting. If flickering persists, adjust the camera angle to minimize direct light exposure.
9. **Lorex Logo:** Enable or disable displaying the Lorex logo on the live view.
10. **Apply Changes:** Click **Apply** to save your changes.

5.5 Configuring Image Settings

The **Image Settings** allows 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 access the Main Menu.
2. Select **Configuration**.
3. Go to the **Channel** tab at the top.
4. Choose **Image Settings** from the left-hand menu.

Configuring Image Settings

To make changes, click the setup icon  to open the **Live Setup Panel**.

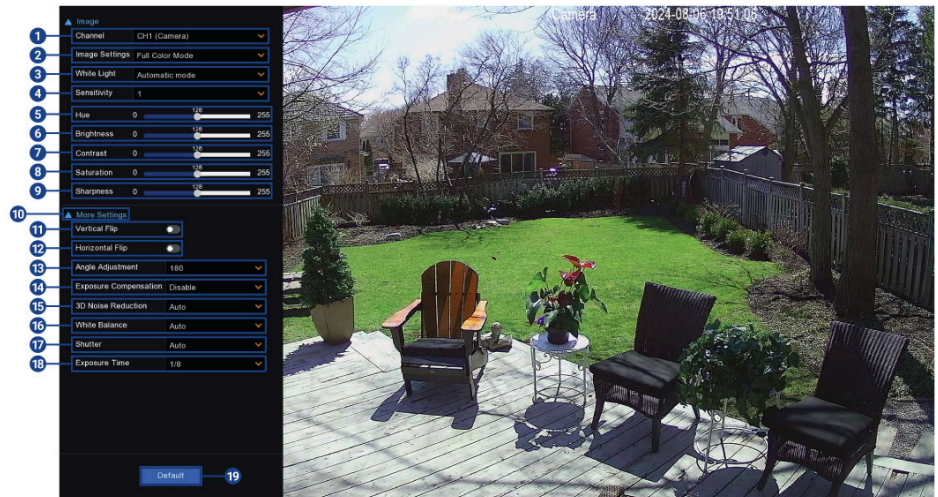
2

Channel	Setup	Image Settings	IR-CUT Mode	Vertical Flip	Horizontal Flip	Angle Adjustment	BLC Level	3D Noise Reduction	WDR	White Balance	Exposure
CH1		Full Color Mode		OFF	OFF	0	OFF	Auto	OFF	Auto	Aut
CH2		Day/Night Mode	Image	OFF	OFF	0	OFF	Auto	OFF	Auto	Aut
CH3		Day/Night Mode	Image	OFF	OFF	180	OFF	Auto	OFF	Auto	Aut
CH4		Day/Night Mode	Image	OFF	OFF	180	OFF	Auto	OFF	Auto	Aut
CH5		Day/Night Mode	Image	OFF	OFF	180	OFF	Auto	OFF	Auto	Aut
CH6		Day/Night Mode	Image	OFF	OFF	180	OFF	Auto	OFF	Auto	Aut
CH7		Day/Night Mode	Image	OFF	OFF	180	OFF	Auto	OFF	Auto	Aut
CH8		Day/Night Mode	Image	OFF	OFF	180	OFF	Auto	OFF	Auto	Aut

- 1. **Channel:** Lists all connected camera channels.
- 2. **Setup:** Click the setup icon  next to each channel to open the Live Setup Panel — refer to instructions below.
- 3. **Image Settings:** Shows the selected display mode (Full Color, Day/Night, Smart Illumination).
- 4. **IR-CUT Mode:** Displays whether IR-CUT mode (which switches to black and white in low light) is ON or OFF.
- 5. **Vertical Flip:** Displays whether the image is flipped vertically (ON or OFF).
- 6. **Horizontal Flip:** Displays whether the image is flipped horizontally (ON or OFF).
- 7. **Angle Adjustment:** Displays the degree of the angle adjustment.
- 8. **BLC Level:** Indicates if Backlight Compensation (to balance lighting) is ON or OFF.
- 9. **3D Noise Reduction:** Displays the selected level of noise reduction in low light conditions.
- 10. **WDR:** Displays whether Wide Dynamic Range (to enhance detail in bright and dark areas) is ON or OFF.
- 11. **White Light:** Displays the selected white light mode (Automatic, Manual, Scheduled, OFF).

Live Setup Panel

Click the setup icon  next to each channel to open the Live Setup Panel. Adjust settings while viewing the live feed on the right, allowing you to confirm changes in real-time. This method lets you see the immediate effects of your adjustments.



1. **Channel:** Select the camera channel you want to configure.
2. **Image Settings:** Choose how the camera adjusts to different lighting conditions:
 - **Full Color Mode:** The camera stays in full color, even in low-light environments where color might typically be lost.
 - **Day/Night Mode:** The camera automatically switches to infrared, displaying a black-and-white image when there is not enough light for clear color video.
 - **Smart Illumination:** The spotlight automatically activates when motion, a person, or a vehicle is detected, providing full-color video even in low light.
3. **White Light:** Control the camera's spotlight by selecting one of the following modes:
 - **Automatic:** The spotlight turns on automatically when motion, a person, or a vehicle is detected, providing clear visibility in low light.
 - **Manual:** You can manually control when the spotlight is turned on or off, giving you full control over the lighting.
 - **Scheduled:** Set specific times for the spotlight to turn on and off, based on your preferred schedule.
 - **OFF:** The spotlight remains off at all times, regardless of motion or detection.
4. **Sensitivity:** Adjust the sensitivity level (0-3).
5. **Hue:** Adjust the color mix of the image.
6. **Brightness:** Change how light or dark the image appears.
7. **Contrast:** Adjust the difference between light and dark areas.
8. **Saturation:** Control the intensity of colors.
9. **Sharpness:** Enhance the clarity of image details.
10. **More Settings:** Click to reveal advanced image settings.
11. **Vertical Flip:** Flip the image vertically.
12. **Horizontal Flip:** Flip the image horizontally.
13. **Angle Adjustment:** Change the viewing angle.
14. **Exposure Compensation:** Adjust brightness in challenging lighting conditions.
15. **3D Noise Reduction:** Reduce visual noise in low light.
16. **White Balance:** Adjust color balance for accurate colors.
17. **Shutter:** Control the exposure time for each frame.
18. **Exposure Time:** Adjust the duration the sensor is exposed to light.

19. **Revert to Default:** Click **Default** to restore the original settings.

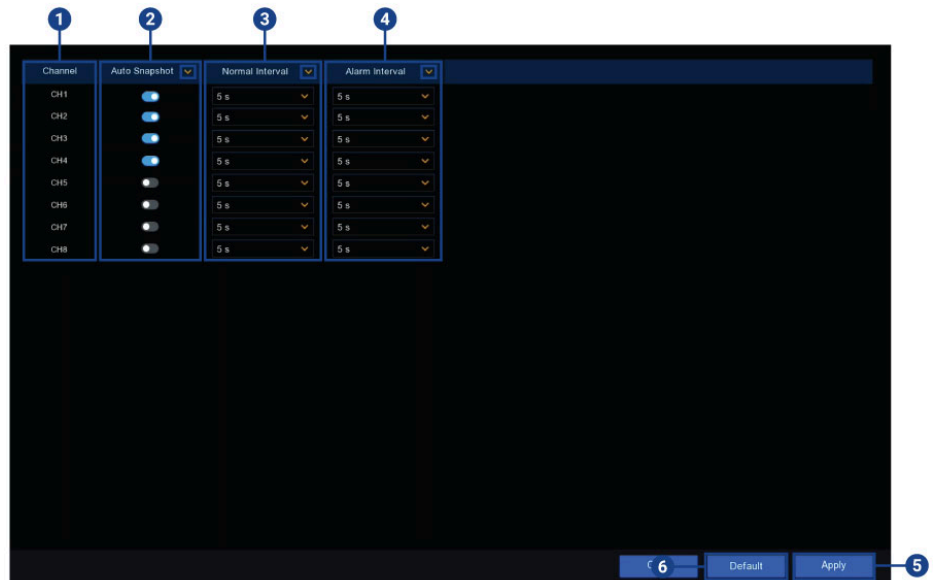
5.6 Taking Snapshots

The **Snapshot** feature allows you to take high-resolution images at specific intervals or in response to triggers like motion detection or alarms. These settings help you configure snapshots for each camera channel.

How to Access Snapshot Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **Channel** tab at the top.
4. Choose **Snapshot** from the left-hand menu.

Configuring the Snapshot Settings



1. **Channel:** Lists all the connected camera channels.
2. **Auto Snapshot:** Enable or disable automatic snapshots for each camera channel.
3. **Normal Interval:** Choose how often regular snapshots are taken. Options range from 5 seconds to 1 hour. Click the header to apply the same interval to all cameras.
4. **Alarm Interval:** Choose how often snapshots are taken when an alarm is triggered. Options range from 5 seconds to 1 hour. Click the header to apply the same interval to all cameras.
5. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Copy:** Click **Copy** to duplicate settings to other channels, then **Apply** to save.
- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

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.

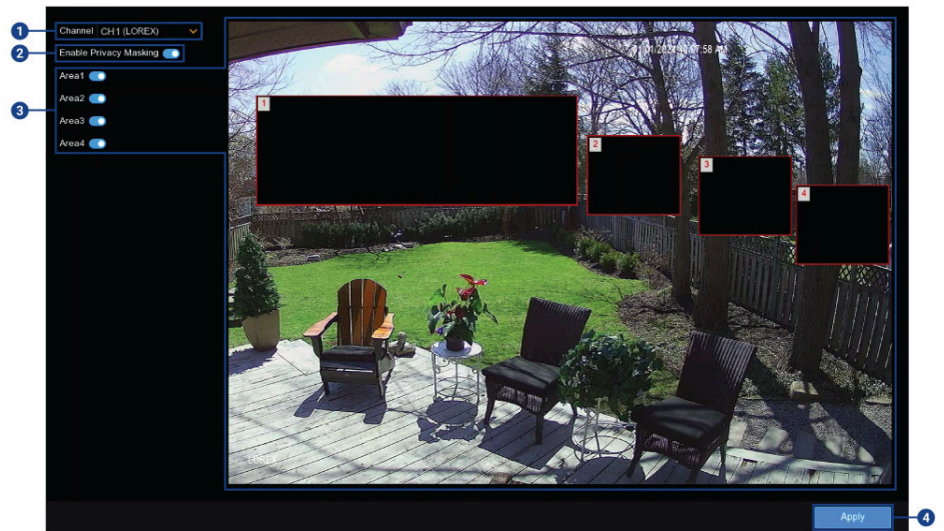
How to Access Privacy Masking Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **Channel** tab at the top.

4. Choose **Privacy Masking** from the left-hand menu.

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.



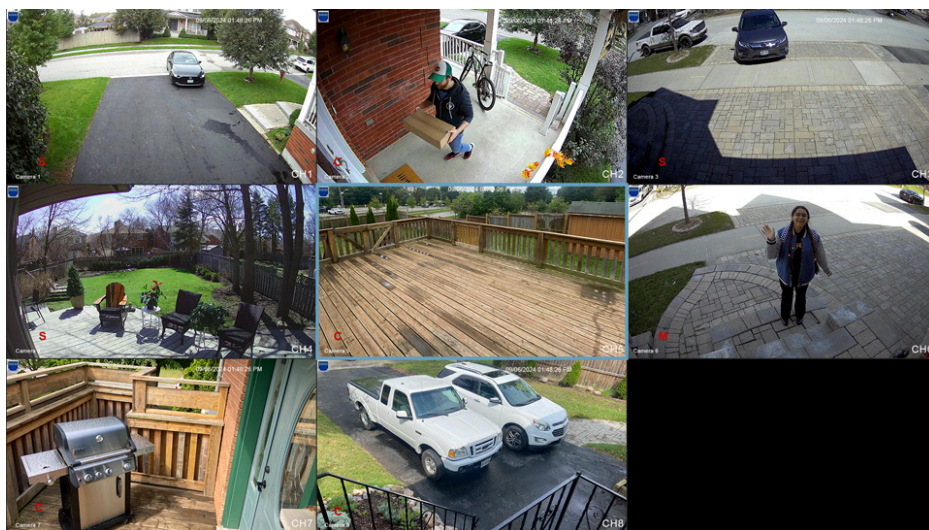
1. **Channel:** Select the camera channel you want to configure.
2. **Enable Privacy Masking:** Enable or disable privacy masking for the selected channel.
3. **Area 1 to 4:** Enable or disable up to four masking areas. Each area adds a movable and resizable box to the live view, allowing you to hide 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. **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.

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 like zoom, take snapshots, start recording manually, and even turn on a warning light or siren if needed.

How to Access Live View

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Live**.

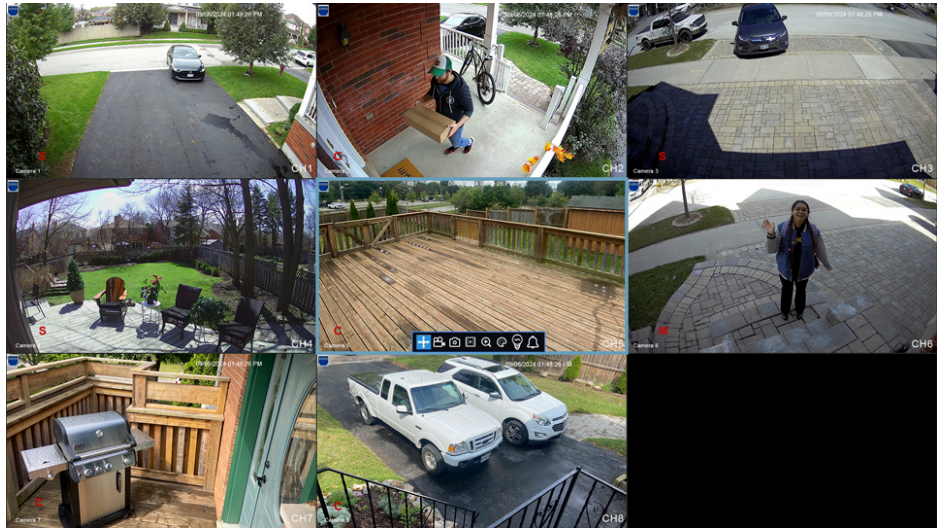
6.1 Camera Live View Overview



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; double-click again to exit full-screen mode.
3. **On-Screen Information:**
 - **Date and Time:** Displayed at the top right of each channel.
 -  **Wired Connection:** Indicates a wired connection for the camera.
 - **Channel Number:** Shown at the bottom right of each channel.
 - **Camera Name:** Displayed at the bottom left of each channel.
 - **Recording Status:** Displayed above the camera name:
 - **C** for continuous recording.
 - **M** for motion recording.
 - **S** for smart motion recording.

6.2 Using the Camera Quick Toolbar

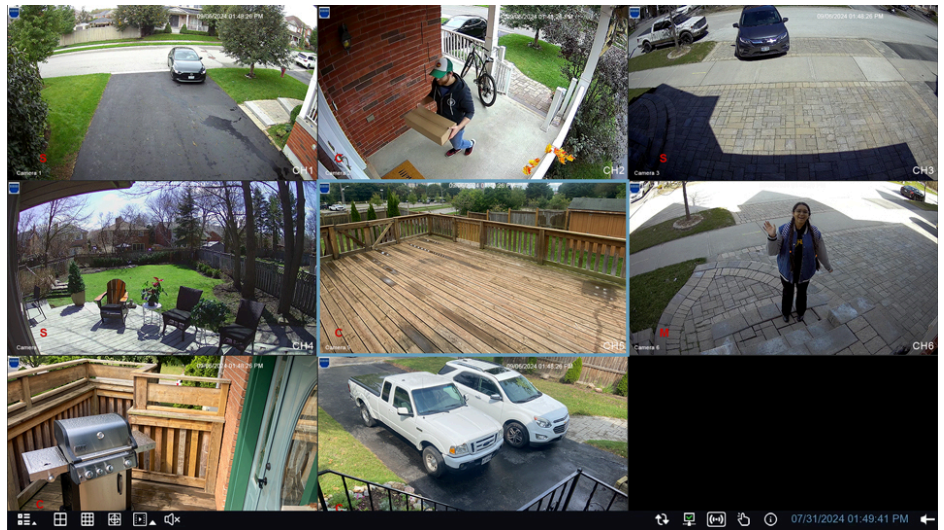
The **Camera Quick Toolbar** offers instant access to essential camera functions. When you click on a live view channel, the following options become available:



1.  **Move Toolbar:** Drag the toolbar anywhere on the screen for convenient access.
2.  **Start/Stop Recording:** Begin or stop manual recording for the selected channel.
3.  **Take Snapshot:** Capture a snapshot of the current video.
4.  **Instant Playback:** Review the most recent recording.
5.  **Zoom:** Use the mouse scroll wheel to zoom in or out. Click-and-drag to move around the zoomed image. Right-click to exit zoom mode.
6.  **Modify Color Settings:** Adjust the image's hue, brightness, contrast, saturation, and sharpness.
7.  **Enable White Light (Deterrence Light):** Turn the camera's warning light on or off.
8.  **Enable Siren:** Enable or disable the camera's siren.

6.3 Using the Navigation Bar

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



1.  **Start Menu:**

 admin

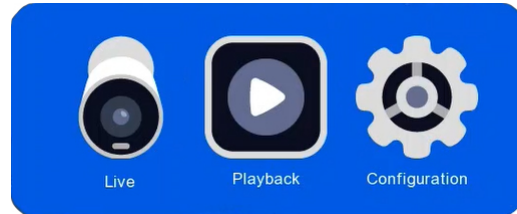
 Logout

 Shutdown

 - 1.1. **Admin:** Switch between user accounts.
 - 1.2. **Logout:** Log out of the current user account.
 - 1.3. **Shutdown:** Choose to shut down or reboot the system.
2.  **Layout 4:** View four cameras simultaneously.
3.  **Layout 9:** View nine cameras simultaneously.
4.  **Sequence:** Automatically rotate between camera views every 5 seconds.
5.  **Playback:** Access playback for the selected channel.
6.  **Audio:** Mute, unmute, and adjust the volume.
7.  **Auto Upgrade:** Check for firmware updates.
8.  **System Status:** Indicates the system status with color codes: Green (online), Red (offline), Yellow (connected but offline).
9.  **Light & Siren:** Enable or disable lights and sirens on all cameras with one click.
10.  **Manual Record:** Start or stop manual recording for selected channels.
11.  **System Information:** View device model, firmware version, network state, and the QR code for mobile app connection.
12. **Date and Time:** Displays the current date and time.
13.  **Pin the Navigation Bar:** Click to keep the Navigation Bar always visible (pin points down). Click again to unpin, returning it to hover mode (pin points sideways).

6.4 Navigating the Main Menu

The **Main Menu** is your central hub for accessing all system features and settings. Right-click anywhere on the screen to open the Main Menu, where you can navigate to:



-  **Live:** Access the camera live view, refer to 6 *Live View*, page 26.
-  **Playback:** View and manage recorded footage, refer to 10 *Playback*, page 46.
-  **Configuration:** Configure camera and NVR system settings, refer to 15 *Configuration*, page 79.

The **Event** Settings allow you to customize how your NVR system detects and responds to motion in the camera's view. You can configure motion detection zones, sensitivity levels, and how the system should react when motion is detected, such as sounding alarms, sending notifications, or activating lights.

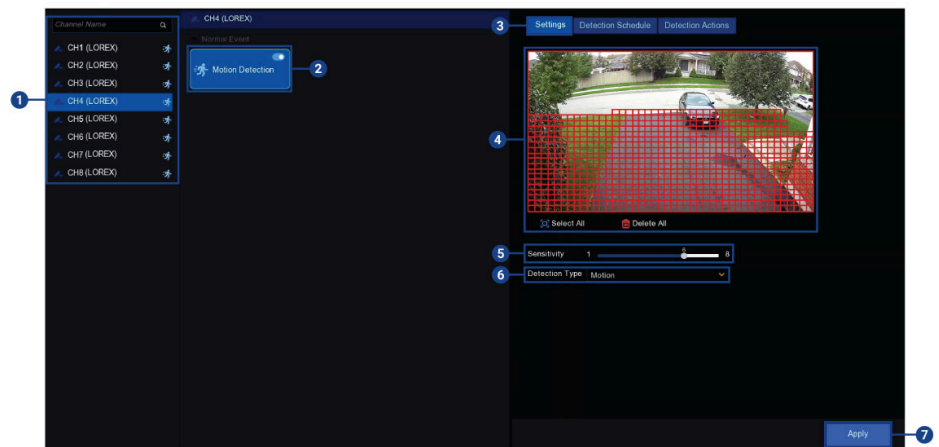
7.1 Configuring Motion Detection

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 **Configuration**.
3. Go to the **Event** tab at the top.
4. Choose **Settings** from the right-hand menu.

Configuring Motion Detection Settings



1. **Select Channel:** Select the camera channel to configure.
2. **Enable Motion Detection:** Enable (or disable) motion detection for the selected channel.
3. **Adjust Motion Detection Settings:** Click on the **Settings** tab.
4. **Select/Deselect Motion Zones:** The selected camera channel's live view is displayed with a red grid overlay, indicating the active motion detection area (Motion Zone). By default, the entire image is covered with the grid. Click and drag on the grid to deselect specific areas where you do not want motion detection. Use the icons below the live view:
 - 4.1.  **Select All:** Covers the entire live view with the grid. Click inside the grid to deselect specific areas.
 - 4.2.  **Delete All:** Removes the entire grid, allowing you to click and add specific areas for motion detection.
5. **Sensitivity:** Adjust the sensitivity level using the slider (1 being the lowest and 8 being the highest). Higher sensitivity levels can result in more motion detection notifications.
6. **Detection Type:** Choose the type of motion detection:
 - 6.1. **Motion:** Detects any type of motion.
 - 6.2. **Person:** Detects human movement.
 - 6.3. **Vehicle:** Detects vehicle movement.
 - 6.4. **Person and Vehicle:** Detects both human and vehicle movement.
7. **Apply Changes:** Click **Apply** to save your changes.

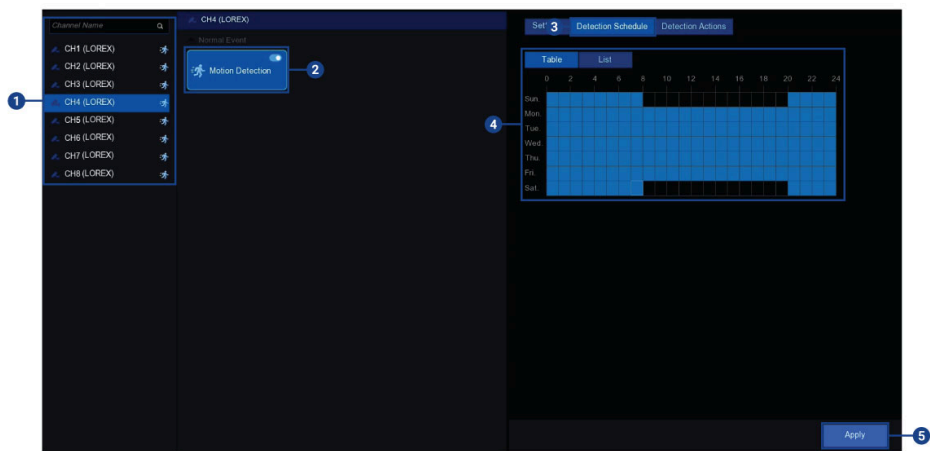
7.2 Creating a Motion Detection Schedule

The **Detection Schedule** allows you to specify when motion detection should be active, ensuring that the system only monitors for movement during relevant times.

How to Access Motion Detection Schedule

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **Event** tab at the top.
- 4. Choose **Detection Schedule** from the right-hand menu.

Creating a Motion Detection Schedule



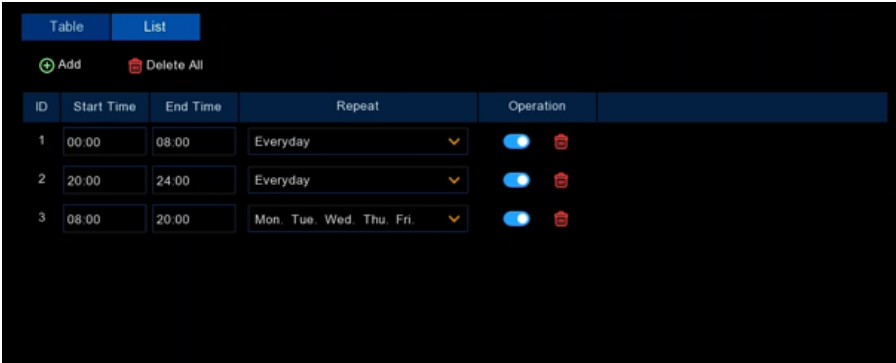
- 1. **Select Channel:** Select the camera channel to configure.
- 2. **Enable Motion Detection:** Enable (or disable) motion detection for the selected channel.
- 3. **Adjust Motion Detection Settings:** Select the **Detection Schedule** tab.
- 4. Choose between **Table View** and **List View** to set the siren schedule:

Table View

The table view displays days of the week on the left and hours of the day on top, with each box representing one hour. Use the grid to set when motion detection is active.

- 4.1. **Set the Schedule:** Click on the blue boxes to select or deselect times for motion detection. Click and drag over multiple squares to set the desired period. Colored-in squares indicate active times.
- 4.2. **Apply Changes:** Click **Apply** to save your changes.

List View



- 4.1. **ID:** Numbered list of schedules.
- 4.2. **Start Time:** Enter the start time for motion detection.
- 4.3. **End Time:** Enter the end time for motion detection.
- 4.4. **Repeat:** Select the days for the schedule to repeat by clicking the dropdown and checking the weekday boxes.
- 4.5. **Operation:**
 - Enable/Disable:** Click to enable or disable the schedule.
 - Delete:** Click the **Delete** icon to remove it.
- 4.6. **Add:** Click the **Add** icon to create additional schedules (up to 8).
- 4.7. **Delete All:** Click the **Delete All** icon to remove all schedules from the list.
- 4.8. **Apply Changes:** Click **Apply** to save your changes.

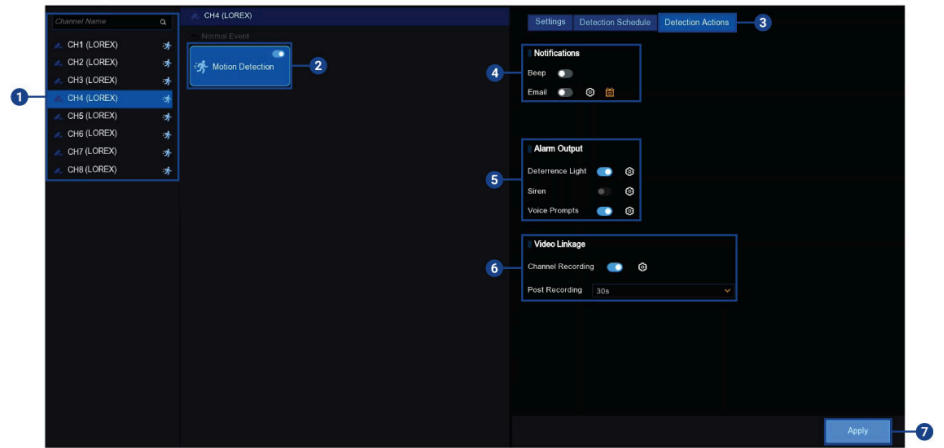
7.3 Setting Motion Detection Actions

Detection Actions allow you to define how the system responds to motion detection events, including notifications, alarm outputs, and video linkage.

How to Access Motion Detection Actions

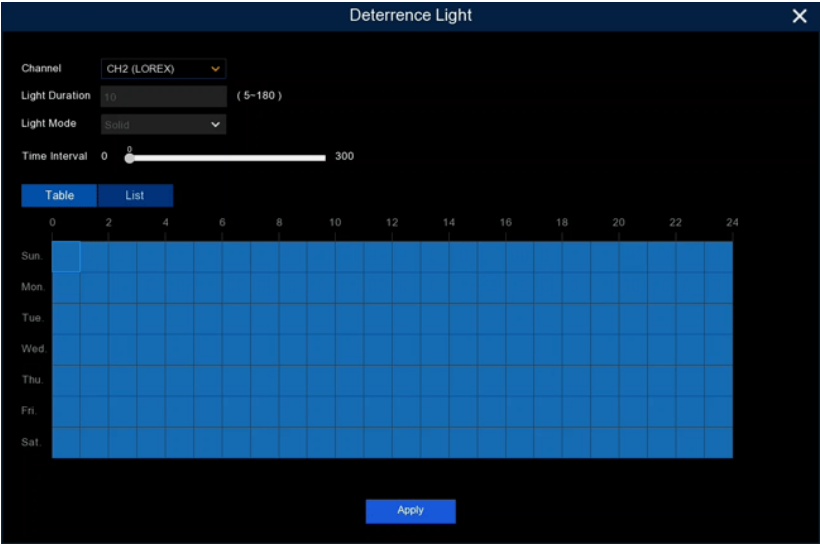
- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **Event** tab at the top.
- 4. Choose **Detection Actions** from the right-hand menu.

Configuring the Motion Detection Actions



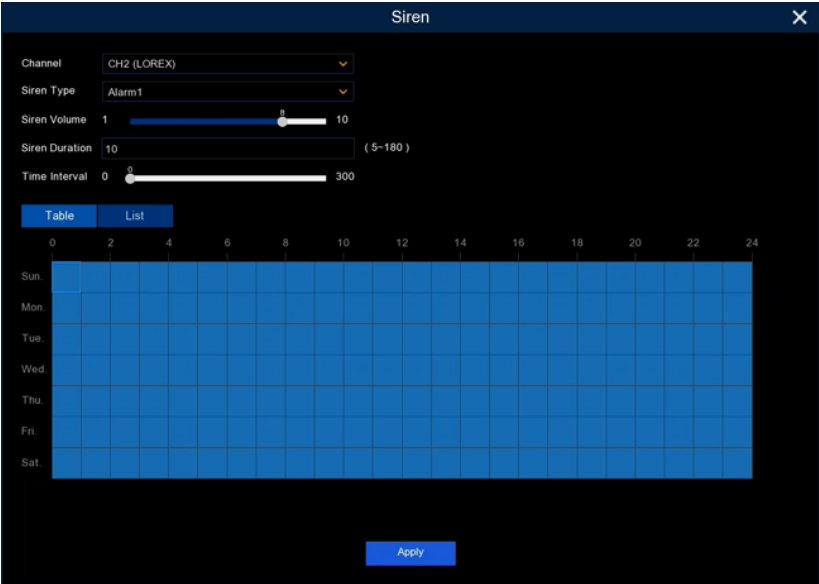
1. **Select Channel:** Select the camera channel to configure.
2. **Enable Motion Detection:** Enable (or disable) motion detection for the selected channel.
3. **Adjust Motion Detection Actions:** Click on the **Detection Actions** tab.
4. **Configure Notifications:**
 - 4.1. **Beep:** Enable or disable the NVR's buzzer to sound when motion is detected.
 - 4.2. **Email:** Enable or disable email notifications for motion detection events.
 - **Email Settings:** Click the email settings icon to configure . Enter your email in the **Receiver** line, select the time interval from the dropdown, and click **Apply**. For detailed instructions on configuring your email, refer to 15.3.4 *Configuring Email Alerts*, page 91.
 - **Email Schedule:** Configure the schedule using either **Table View** or **List View**. For help on how to schedule, check the 7.2 *Creating a Motion Detection Schedule*, page 31.
5. **Configure Alarm Output Settings:**

- 5.1. **Deterrence Light:** Enable or disable the automatic activation of the white light (deterrence light) when motion is detected. For detailed settings configuration, click the white light (deterrence light) settings icon .

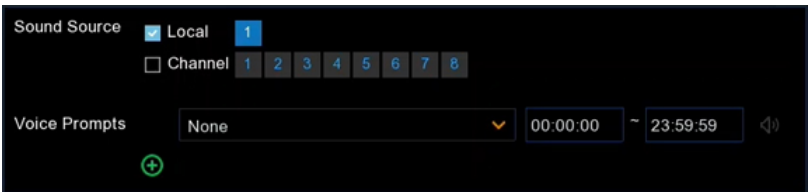


- **Channel:** Select the camera channel to configure.
- **White Light (Deterrence Light) Duration:** Set how long the light will stay on.
- **White Light (Deterrence Light) Mode:** Choose between **Solid** and **Flashing** light. For **Flashing**, select the speed (slow, medium, fast).
- **Time Interval:** Set the frequency for light activation.
- **Deterrence Light Schedule:** Configure the schedule using either **Table View** or **List View**. For help on how to schedule, check the *7.2 Creating a Motion Detection Schedule*, page 31.

- 5.2. **Siren:** Enable or disable the automatic siren sound when motion is detected. For detailed settings configuration, click the siren settings icon .



- **Channel:** Select the camera channel to configure.
 - **Siren Type:** Choose the siren type.
 - **Siren Volume:** Adjust the volume level using the slider (0-10).
 - **Siren Duration:** Set how long the siren should sound.
 - **Time Interval:** Set the frequency for siren activation.
 - **Siren Schedule:** Configure the schedule using either **Table View** or **List View**. For help on how to schedule, check the *7.2 Creating a Motion Detection Schedule*, page 31.
- 5.3. **Voice Prompts:** Enable or disable the automatic voice prompt when motion is detected. For detailed settings configuration, click the voice prompts settings icon .



- **Sound Source:** Select **Local** for the NVR's audio output or **Channel** for the camera's audio output.
- **Voice Prompts:** Choose a pre-recorded voice prompt and set its active time by entering the start and end times. Click the audio icon to preview the alarm sound.
-  **Add:** Add more voice prompts for different channels by clicking the **Add** icon.
-  **Delete:** Delete voice prompts for different channels by clicking the **Delete** icon.

6. Configure Video Linkage:

- 6.1. **Channel Recording:** Enable or disable channel recording when motion is detected.

Click the channel settings icon  to select which cameras will record.



- 6.2. **Post Recording:** Set how long the camera will continue recording after motion is detected.

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

The **Deterrence** settings allow you to configure how your system responds to alarm events using lights, sirens, and voice prompts. These deterrent actions help to ward off intruders and enhance your security system's ability to respond quickly and effectively to potential threats.

This feature is available on select Lorex cameras. For a list of compatible products, please visit lorex.com/compatibility.

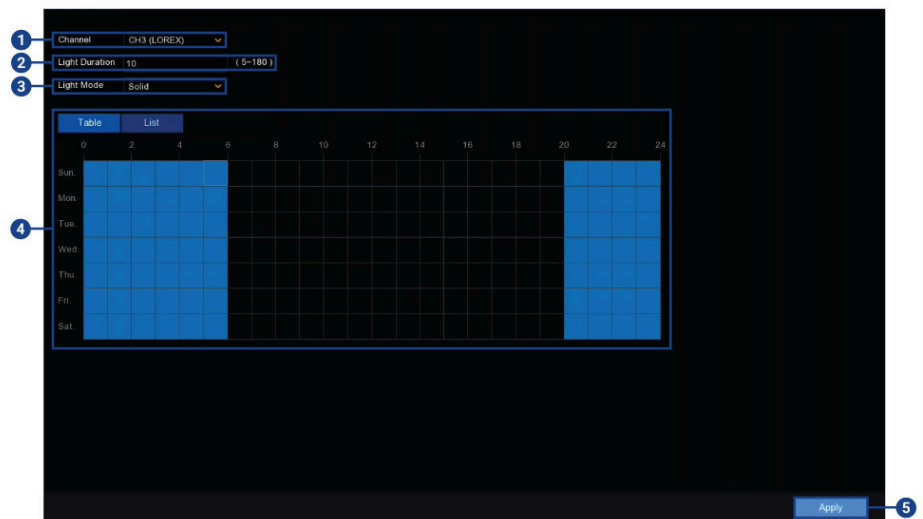
8.1 Configuring the White Light (Deterrence Light)

Configure your camera's built-in white light (deterrence light) to activate automatically when motion is detected. You can also set a schedule to determine when this feature is enabled.

How to Access White Light (Deterrence Light) Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **Alerts** tab at the top.
4. Choose **Deterrence** from the left-hand menu.
5. Go to the **Deterrence Light** tab at the top.

Configuring the White Light (Deterrence Light) Settings



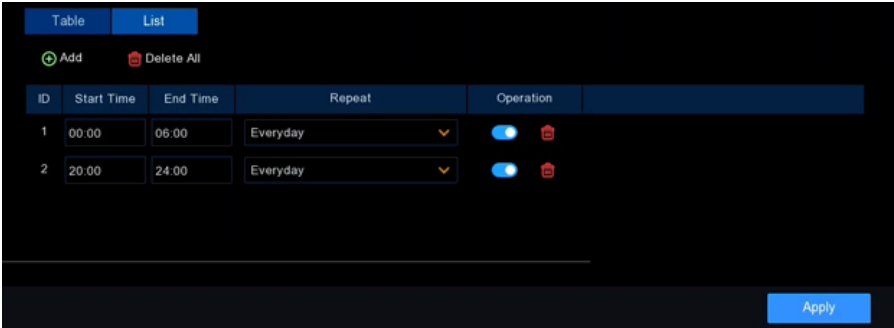
1. **Channel:** Select the camera channel to configure.
2. **White Light (Deterrence Light) Duration:** Specify how long the light should stay on after an alarm is triggered.
3. **White Light (Deterrence Light) Mode:** Choose between a **Solid** or **Flashing** light. If **Flashing** is selected, you can set the speed to **Slow**, **Medium**, or **Fast**.
4. **White Light (Deterrence Light) Schedule:** Choose between **Table View** and **List View** to set the white light (deterrence light) schedule.

Table View

The table view displays days of the week on the left and hours of the day on top, with each box representing one hour. Blue boxes indicate active deterrence times.

- 4.1. **Set the Schedule:** Click on the blue boxes to select or deselect times for white light (deterrence light) activation. Drag over multiple squares to set the desired period. Colored-in squares indicate active times.

List View



- 4.1. **ID:** Numbered list of schedules.
- 4.2. **Start Time:** Enter the start time for the white light (deterrence light).
- 4.3. **End Time:** Enter the end time for the white light (deterrence light).
- 4.4. **Repeat:** Select the days for the schedule to repeat by clicking the dropdown and checking the weekday boxes.
- 4.5. **Operation:**
 - Enable/Disable:** Click to enable or disable the schedule.
 - Delete:** Click the **Delete** icon to remove it.
- 4.6. **Add:** Click the **Add** icon to create additional schedules (up to 8).
- 4.7. **Delete All:** Click the **Delete All** icon to remove all schedules from the list.
- 5. **Apply Changes:** Click **Apply** to save your changes.

8.2 Configuring the Siren

Set up the siren to sound automatically during alarm events, creating a loud, audible warning to help deter intruders.

How to Access Siren Settings

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **Alerts** tab at the top.
- 4. Choose **Deterrence** from the left-hand menu.
- 5. Go to the **Siren** tab at the top.

Configuring the Siren



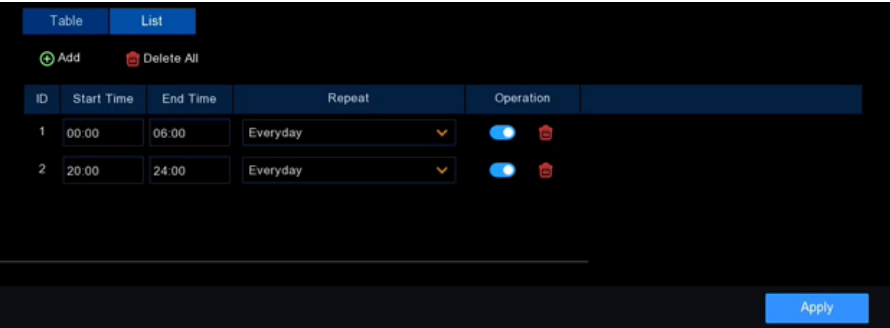
- 1. **Channel:** Select the camera channel to configure.
- 2. **Siren Type:** Choose the type of siren sound.
- 3. **Siren Volume:** Adjust the volume level using the slider (0-10).
- 4. **Siren Duration:** Enter how long the siren should sound after being triggered.
- 5. **Time Interval:** Set the interval for the siren activation.
- 6. **Siren Schedule:** Choose between **Table View** and **List View** to set the siren schedule.

Table View

The table view displays days of the week on the left and hours of the day on top, with each box representing one hour. Blue boxes indicate active siren times.

- 6.1. **Set the Schedule:** Click on the blue boxes to select or deselect times for siren activation. Drag over multiple squares to set the desired period. Colored-in squares indicate active times.

List View



- 6.1. **ID:** Numbered list of schedules.
- 6.2. **Start Time:** Enter the start time for the siren.
- 6.3. **End Time:** Enter the end time for the siren.
- 6.4. **Repeat:** Select the days for the schedule to repeat by clicking the dropdown and checking the weekday boxes.

6.5. Operation:

-  **Enable/Disable:** Click to enable or disable the schedule.
-  **Delete:** Click the **Delete** icon to remove it.

6.6. **Add:** Click the **Add** icon to create additional schedules (up to 8).

6.7. **Delete All:** Click the **Delete All** icon to remove all schedules from the list.

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

8.3 Configuring Voice Prompts

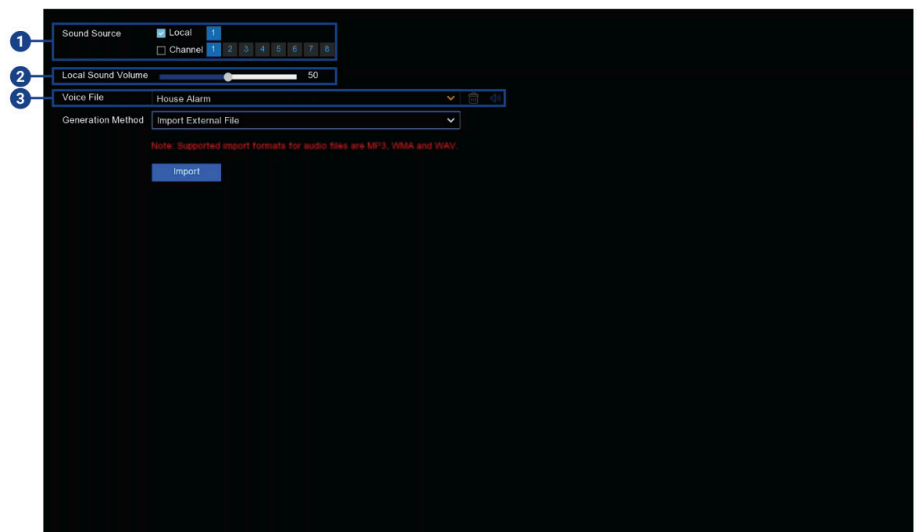
Create and manage custom voice alerts to respond to specific events, enhancing the security system's responsiveness.

How to Access Voice Prompts Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **Alerts** tab at the top.
4. Choose **Voice Prompts** from the left-hand menu.

Choosing a Pre-Recorded Alarm

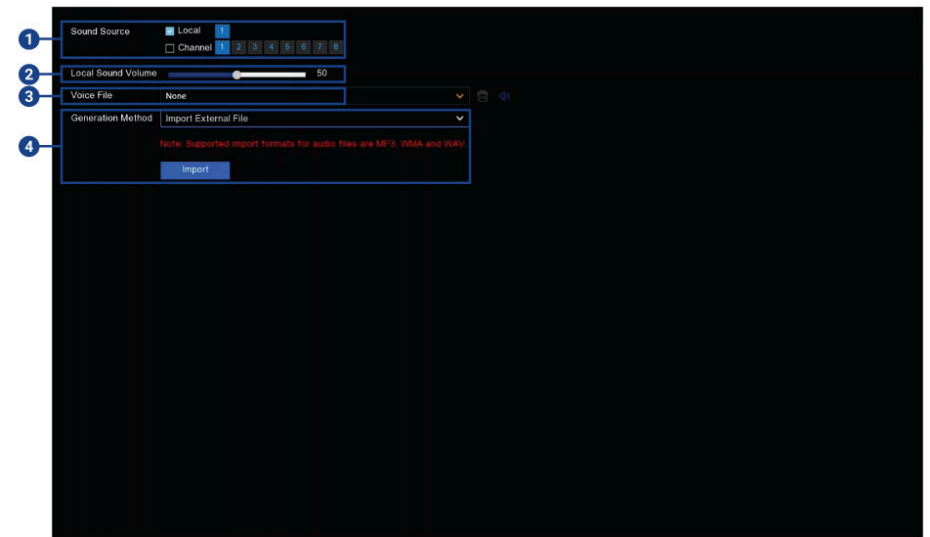
Use pre-existing alarms to notify you of events in the system.



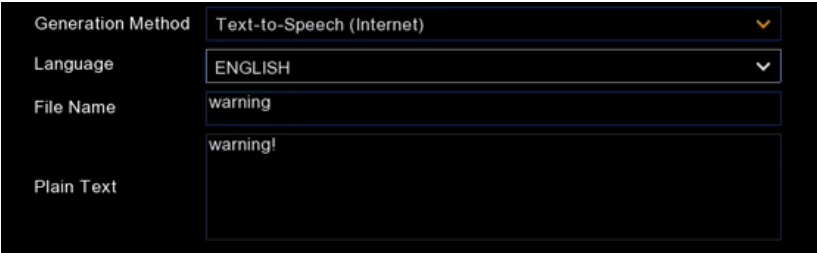
1. **Sound Source:** Select **Local** for the NVR's audio output or **Channel** for the camera's audio output.
2. **Local Sound Volume:** Adjust the volume level using the slider (0-100).
3. **Voice File:** Choose an existing alarm sound.

Importing Custom Voice Prompts

You can import personalized voice alarms or messages using external files or text-to-speech functionality.



1. **Sound Source:** Select **Local** for the NVR's audio output or **Channel** for the camera's audio output.
2. **Local Sound Volume:** Adjust the volume level using the slider (0-100).
3. **Voice File:** Select **None** to upload a custom voice prompt.
4. **Generation Method:** Create custom voice alerts using one of two methods:
 - 4.1. **Import External File:** Upload MP3, WMA, or WAV files from a USB drive. Click **Import** and select the file from your USB drive.
 - 4.2. **Text-to-Speech (Internet):** Convert text to speech using an internet server. Select the language, input the file name and text, then click **Import** to generate and save the voice file.



Preview Custom Voice Prompt

1. **Sound Source:** Choose the device that will play the voice file.
2. **Voice File:** Select the voice file to test.
3.  **Audio Icon:** Click to preview the voice file.

Delete Voice Prompt Files

1. **Voice File:** Select the file to delete.
2.  **Delete Icon:** Click to remove the file from the system.

The **Recording Settings** allow you to control how video and sound are recorded for each camera. You can adjust things like video quality, the amount of storage used, and whether or not sound is recorded. There are two types of recordings: **Mainstream** (for high-quality footage) and **Substream** (for lower-quality footage that saves storage). You can also choose to turn recording and sound on or off for each camera, helping you balance video quality and storage space based on your needs.

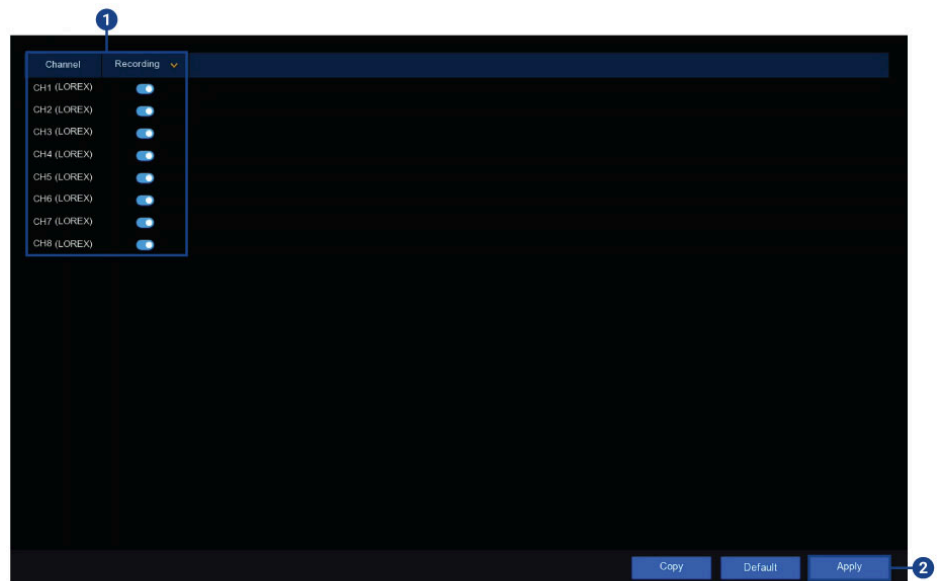
9.1 Configuring Recording Settings

The **Recording Settings** allows you to configure various recording parameters for each camera channel, ensuring that your NVR system captures video with the desired quality and performance.

How to Access Recording Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **Channel** tab at the top.
4. Choose **Recording Settings** from the left-hand menu.
5. Go to the **Recording** tab at the top.

Enabling/Disabling Recording



1. **Enable or Disable Recording:** Enable or disable recording for each camera channel individually. You can also click the header to apply the same settings to all cameras.
2. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Copy:** Click **Copy** to duplicate settings to other channels, then **Apply** to save.
- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

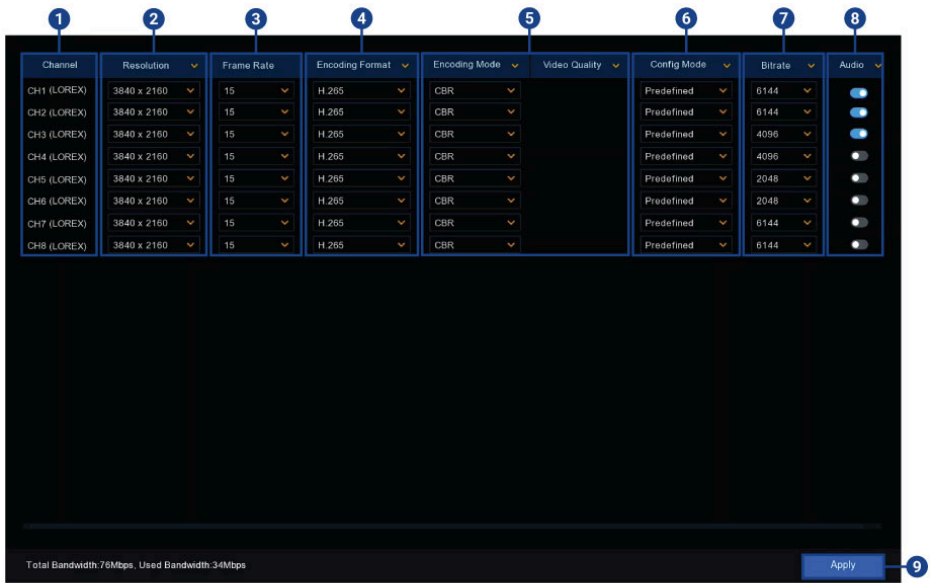
9.2 Configuring the Mainstream Settings

The **Mainstream** settings configure the primary recording stream, offering higher resolution and quality settings for detailed video capture.

How to Access Mainstream Settings

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **Channel** tab at the top.
- 4. Choose **Recording Settings** from the left-hand menu.
- 5. Go to the **Mainstream** tab at the top.

Configuring the Mainstream Settings



- 1. **Channel:** Lists all the connected camera channels.
- 2. **Resolution:** Select the video resolution. Higher resolutions (up to 3840 x 2160 pixels) provide clearer images.
- 3. **Frame Rate:** Choose the frame rate (number of frames per second). Higher frame rates (1 to 15 fps) result in smoother video.
- 4. **Encoding Format:** Select the compression format. Options include **H.264** and **H.265**, with **H.265** offering better compression efficiency.
- 5. **Encoding Mode:** Choose the encoding mode:
 - 5.1. **CBR (Constant Bit Rate):** Provides consistent video quality.
 - 5.2. **VBR (Variable Bit Rate):** Adjusts quality based on the scene. If selected, adjust the **Video Quality** from lowest to highest.
- 6. **Config Mode:** Select the configuration mode:
 - 6.1. **Predefined:** Use standard settings.
 - 6.2. **User-Defined:** Enter a custom bitrate number.
- 7. **Bitrate:** Choose the data rate for the video stream when in predefined mode, or enter a custom bitrate number when in user-defined mode. Higher bitrates improve video quality but use more storage.
- 8. **Audio:** Enable or disable audio recording.



CAUTION

Audio recording without consent may be illegal in certain jurisdictions. Lorex Corporation assumes no liability for misuse.

- 9. **Apply Changes:** Click **Apply** to save your changes.

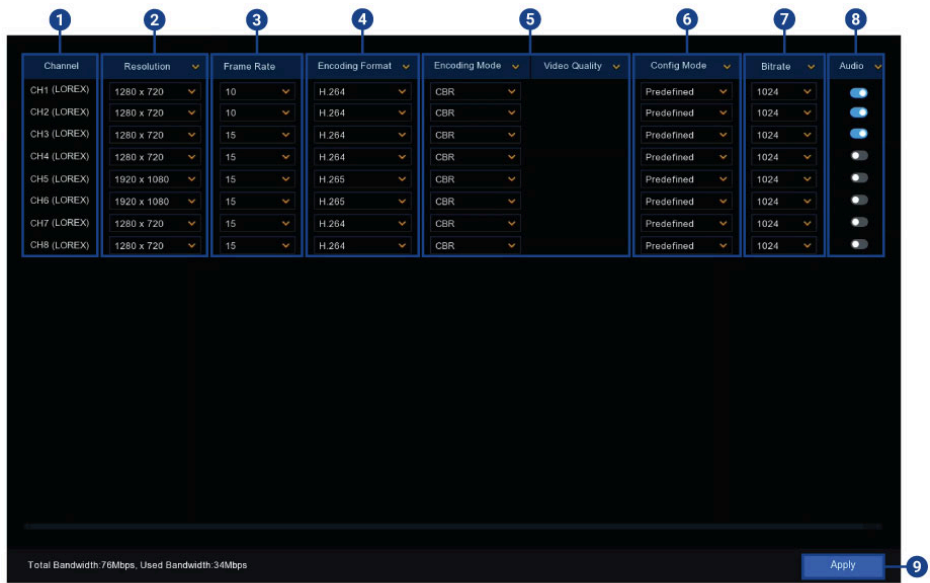
9.3 Configuring the Substream Settings

The **Substream** settings configure a secondary, lower-quality recording stream, useful for remote viewing or situations with limited bandwidth.

How to Access Substream Settings

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **Channel** tab at the top.
- 4. Choose **Recording Settings** from the left-hand menu.
- 5. Go to the **Substream** tab at the top.

Configuring the Substream Settings



- 1. **Channel:** Lists all the connected camera channels.
- 2. **Resolution:** Select the video resolution. Lower resolutions (1920 x 1080 pixels or 1280 x 720 pixels) use less bandwidth and storage.
- 3. **Frame Rate:** Choose the frame rate (number of frames per second).
- 4. **Encoding Format:** Select the compression format. Options include **H.264** and **H.265**.
- 5. **Encoding Mode:** Choose the encoding mode:
 - 5.1. **CBR (Constant Bit Rate):** Provides consistent video quality.
 - 5.2. **VBR (Variable Bit Rate):** Adjusts quality based on the scene. If selected, adjust the **Video Quality** from lowest to highest.
- 6. **Config Mode:** Select the configuration mode:
 - 6.1. **Predefined:** Use standard settings.
 - 6.2. **User-Defined:** Enter a custom bitrate number.
- 7. **Bitrate:** Choose the data rate for the video stream when in predefined mode, or enter a custom bitrate number when in user-defined mode. Lower bitrates use less storage and bandwidth.
- 8. **Audio:** Enable or disable audio recording.



CAUTION

Audio recording without consent may be illegal in certain jurisdictions. Lorex Corporation assumes no liability for misuse.

- 9. **Apply Changes:** Click **Apply** to save your changes.

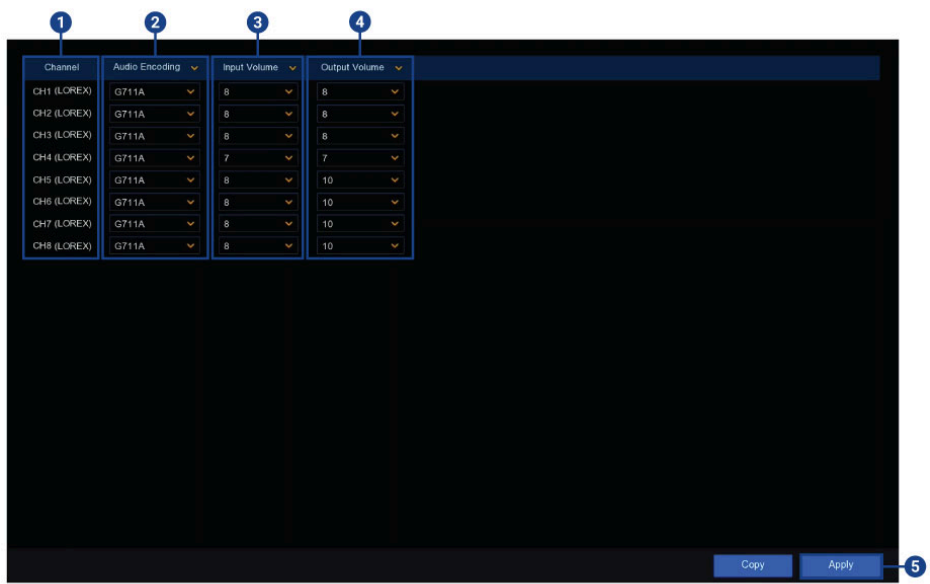
9.4 Configuring Audio Settings

The **Audio Settings** allow you to configure audio parameters for each camera channel, ensuring that sound is recorded and played back at optimal levels.

How to Access Audio Settings

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **Channel** tab at the top.
- 4. Choose **Recording Settings** from the left-hand menu.
- 5. Go to the **Audio Settings** tab at the top.

Configuring the Audio Settings



- 1. **Channel:** Lists all the connected camera channels.
- 2. **Audio Encoding:** Select the audio compression format.
- 3. **Input Volume:** Adjust the level of audio recorded by the camera's microphone, ranging from 0 (mute) to 10 (maximum volume).
- 4. **Output Volume:** Adjust the level of audio output during playback, ranging from 0 (mute) to 10 (maximum volume).
- 5. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Copy:** Click **Copy** to duplicate settings to other channels, then **Apply** to save.

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.

10.1 Playback

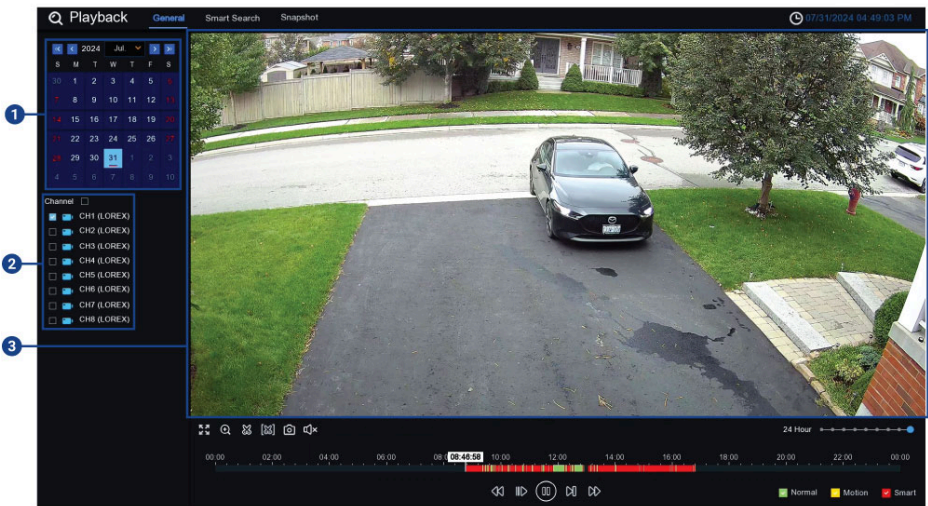
The **Playback** feature lets you easily access and review recorded footage.

How to Access Playback

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Playback**.
- 3. Go to the **General Playback** tab at the top.

Viewing Playback

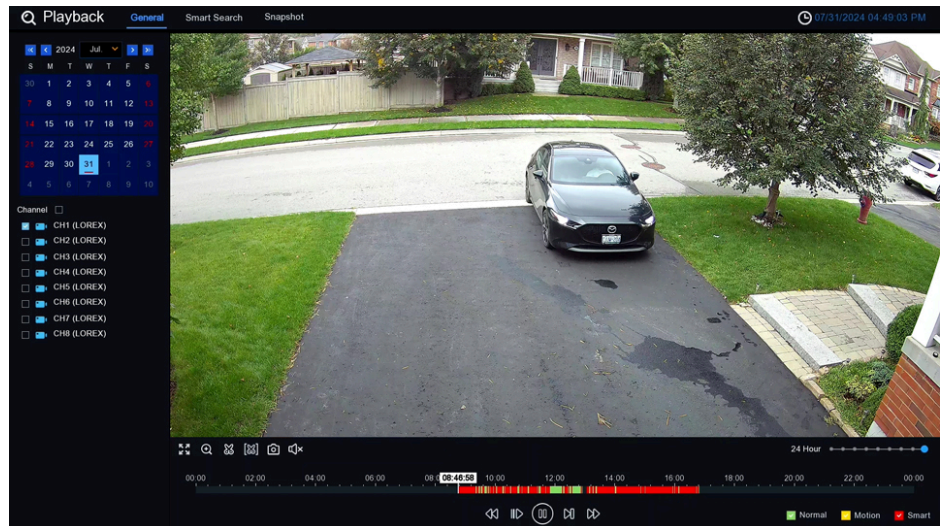
This section covers how to select and view recorded video footage:



- 1. **Calendar:** Select a date to view recordings from that day.
- 2. **Channel List:** Checkmark up to four channels for simultaneous playback.
- 3. **Playback Screen:** Watch recorded videos, with options for split-screen viewing of multiple channels.

Controlling Playback

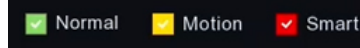
This section explains the controls available to adjust video playback and capture moments:



1.  **Full-screen:** View playback in full-screen mode. Right-click to exit full-screen mode.
2.  **Zoom:** Use the mouse scroll wheel to zoom in or out. Click and drag to move around the zoomed image. Right-click to exit zoom mode.
3.  **Video Clip:** Select and save a portion of the recorded video.
 - Insert a USB hard disk drive into the NVR.
 - Use the play head to navigate and choose specific frames.
 - Click **Save Video Clip** and choose between **Lorex File** or **MP4** formats. If selecting **Lorex File**, use Lorex Player 11 on your USB to view the clip.
4.  **Save Video Clip:** Enter start and end times to save clips.
 - Insert a USB hard disk drive into the NVR.
 - Use the play head to navigate and choose specific frames.
 - Click **Save Video Clip** and choose between **Lorex File** or **MP4** formats. If selecting **Lorex File**, use Lorex Player 11 on your USB to view the clip.
5.  **Snapshot:** Capture snapshots from playback. To save the snapshot onto a USB, refer to 10.3 *Searching & Backing Up Snapshots*, page 49.
6.  **Audio:** Mute or unmute and adjust the volume of the audio playback.
7. **Timeline Zoom:** Adjust the time intervals for more precise viewing.
 
8. **Timeline:** Navigate through the video timeline with these options:
 - 8.1.  **Rewind:** Quickly move backward through the timeline.
 - 8.2.  **Slow Motion:** Watch in slow motion for detailed analysis.
 - 8.3.  **Play/Pause:** Start or pause the playback.
 - 8.4.  **Frame-by-Frame:** Move through the video frame-by-frame.

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

9. **Filter:** Filter recordings by continuous, motion, or smart motion detection.



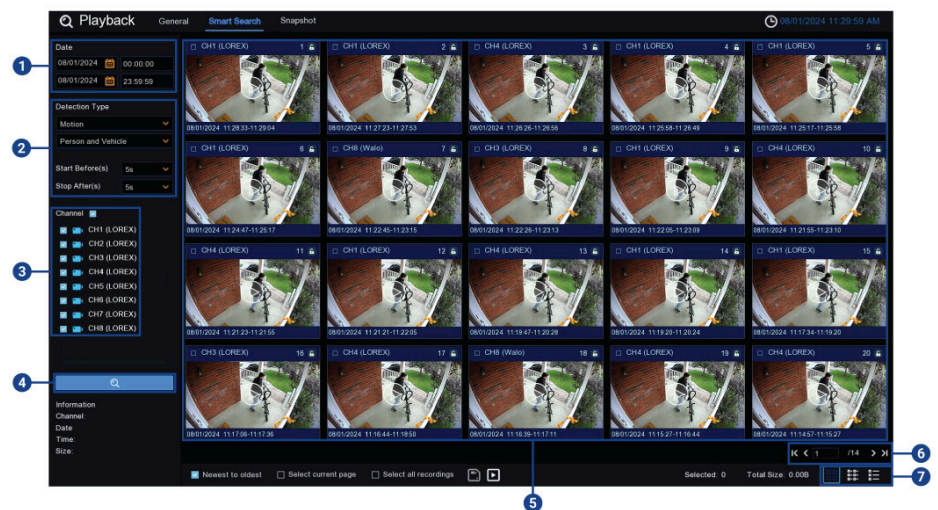
10.2 Searching & Backing Up Recordings

The **Smart Search** is a powerful tool for quickly locating specific events in recorded video footage by applying filters such as date, time, detection type (e.g., motion, person, vehicle), and camera channel.

How to Access Smart Search for Recordings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Playback**.
3. Go to the **Smart Search** tab at the top.

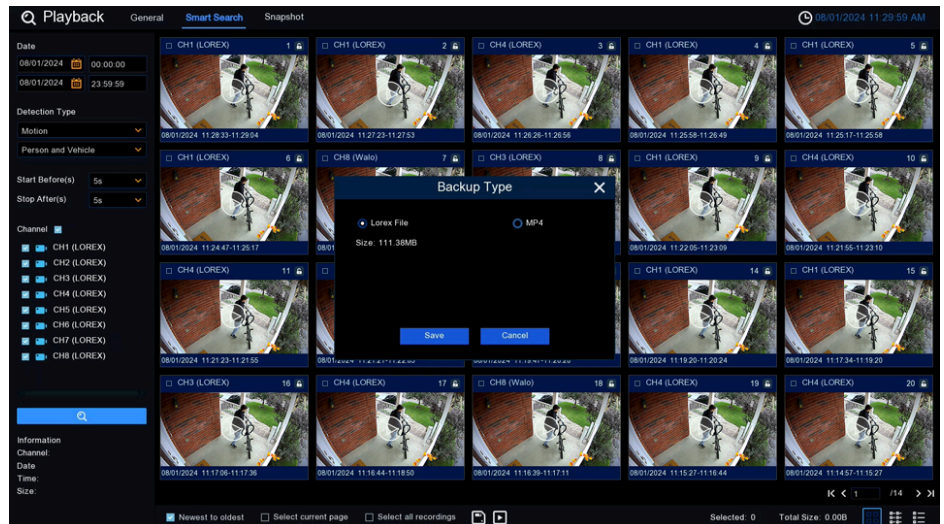
Searching for Recordings



1. **Date:** Enter start and end dates and times for the search.
2. **Detection Type:** Select from continuous, manual, or motion detection.
3. **Channel:** Checkmark the channels you want to include in the search.
4. **Search:** Click to initiate the smart search.
5. **Results:** Click **Play** to view the video, see detailed information, and navigate through pages of results.
6. **Previous/Next Page:** Use arrows or enter a page number to navigate through the search results.
7. **Display Format:** Choose to display search results in thumbnail, list, or detailed view.

Backing Up Recordings

Once you've located the desired footage, use the backup feature to save the recordings for future use.



1. Select Videos to Back Up:

- Checkmark specific videos to select them for backup.
- You can also use **Select Current Page** to choose all results on the current page or **Select All Recordings** to select all results across all pages.

2. Backing Up:

- Insert a USB hard disk drive into the NVR.
- Click the **Backup** icon  to save the selected videos.
- Choose between **Lorex File** or **MP4** formats. If selecting **Lorex File**, use Lorex Player 11 on your USB to view the clip.

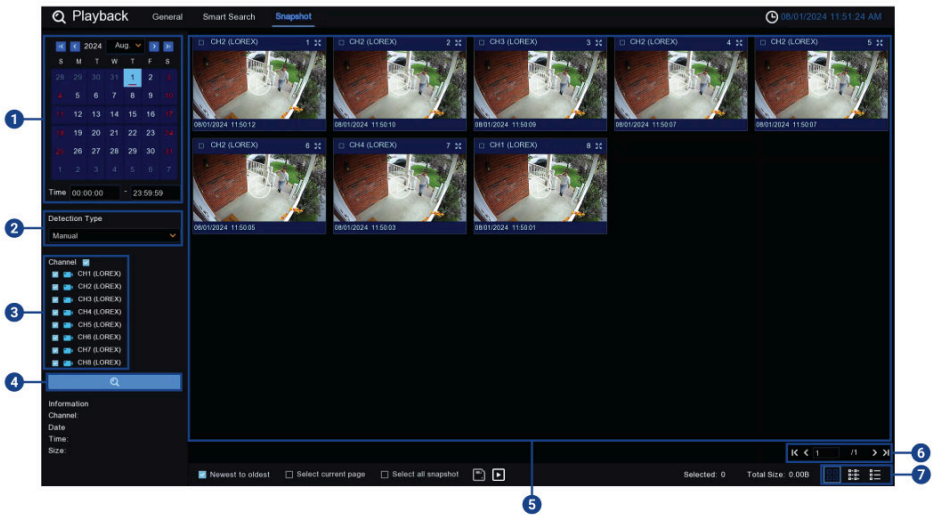
10.3 Searching & Backing Up Snapshots

The Smart Search for **Snapshots** feature allows you to quickly locate still images captured from your recorded video footage by applying filters like date, detection type, and camera channels.

How to Access Smart Search for Snapshots

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Playback**.
3. Go to the **Snapshot** tab at the top.

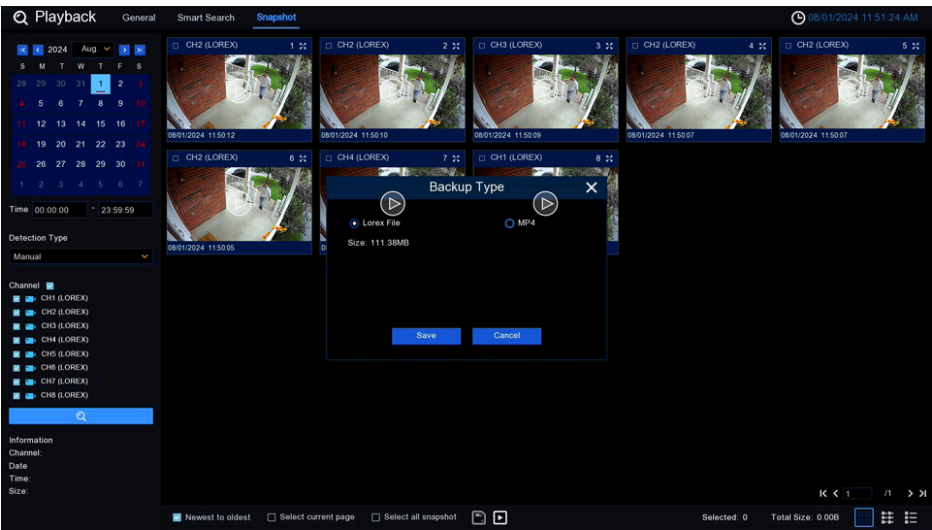
Searching for Snapshots



- 1. **Date & Time:** Enter start and end dates and times for the search.
- 2. **Detection Type:** Select from continuous, manual, or motion detection.
- 3. **Channel:** Checkmark the channels you want to include in the search.
- 4. **Search:** Click to initiate the smart search.
- 5. **Results:** Click **Play** to view the video, see detailed information, and navigate through pages of results.
- 6. **Previous/Next Page:** Use arrows or enter a page number to navigate through the search results.
- 7. **Display Format:** Choose to display search results in thumbnail, list, or detailed view.

Backing Up Snapshots

Once you’ve found the snapshots you need, you can back them up for safekeeping.



- 1. **Selecting Snapshots to Back Up:**
 - Checkmark the specific snapshots you want to back up.
 - You can also use **Select Current Page** to choose all results on the current page or **Select All Snapshot** to select all results across all pages.

2. Backing Up:

- Insert a USB hard disk drive into the NVR.
- Click the **Backup** icon  to save the selected snapshots.
- Choose or create a folder on your USB hard disk drive to save the snapshots, then click **Save**.

The **Multi-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.

How to Access Multi-User Settings

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **System** tab at the top.
- 4. Choose **Multi-User** from the left-hand menu.

Viewing User Accounts

The screenshot shows a web interface for managing user accounts. It features a table with columns for user details and a 'Permission' column with gear icons. Below the table is a 'Default Login User' dropdown and 'Default'/'Apply' buttons. Numbered callouts 1-6 point to specific elements: 1. Table header 'No.', 2. 'User Name' column, 3. 'Level' column, 4. 'Enable Switch' column, 5. 'Permission' column gear icon, 6. 'Default Login User' dropdown.

No.	User Name	Level	Enable Switch	Edit	Permission
1	admin	ADMIN	Enable		
2	user1	USER	Disable		
3	user2	USER	Disable		
4	user3	USER	Disable		
5	user4	USER	Disable		
6	user5	USER	Disable		
7	user6	USER	Disable		
8	user7	USER	Disable		
9	user8	USER	Disable		
10	user9	USER	Disable		
11	user10	USER	Disable		
12	user11	USER	Disable		
13	user12	USER	Disable		
14	user13	USER	Disable		
15	user14	USER	Disable		
16	user15	USER	Disable		
17	user16	USER	Disable		

Default Login User: admin

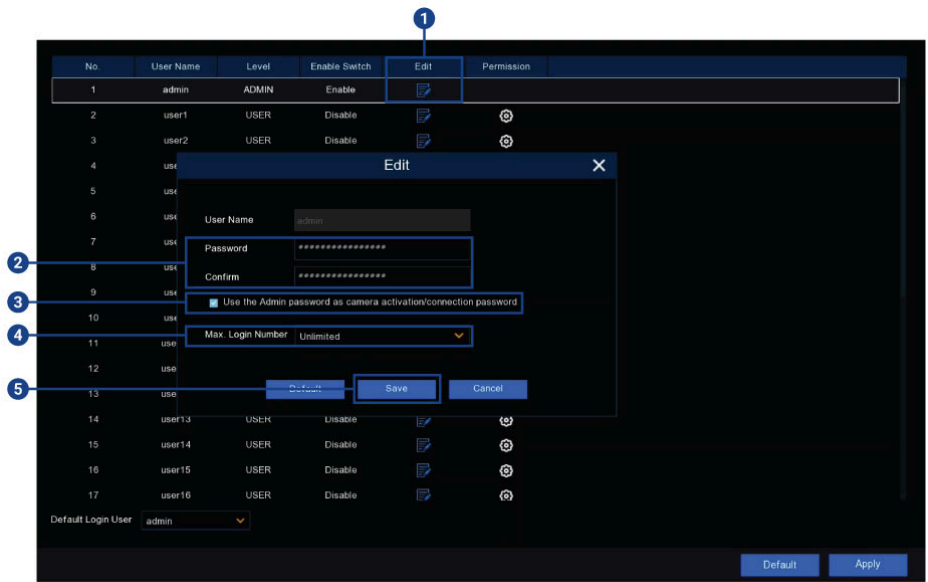
Default Apply

- 1. **No.:** Displays the numbered list of user accounts.
- 2. **User Name:** Displays the name of each user, such as "admin" or "user1."
- 3. **Level:** Indicates the level of permission assigned to the user, either **Admin** or **User**.
- 4. **Enable Switch:** Displays whether the user account is enabled or disabled.
- 5. **Permission:** Click next to the user to view their access permissions.
- 6. **Default Login User:** Displays which user account automatically logs in as the default account when the system starts.
- 7. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

Configuring Admin Account Settings

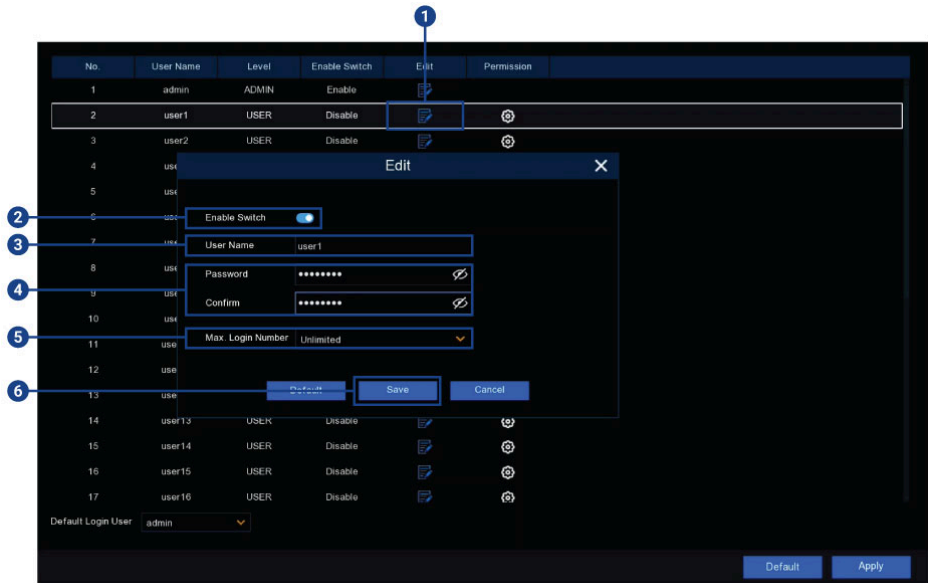


1. **Edit:** Click next to the admin to modify admin account settings.
2. **Password:** Enter and confirm a new admin password.
3. **Camera Password:** Check the box to use the admin password for all connected cameras.
4. **Max. Login Number:** Set the maximum number of simultaneous logins for the admin account (from 1 to 20 or **Unlimited**).
5. **Apply Changes:** Click **Save**, then **Apply** to save your changes.
6. **Revert to Default:** Click **Default** to restore the original settings.
7. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

Configuring General User Account Settings

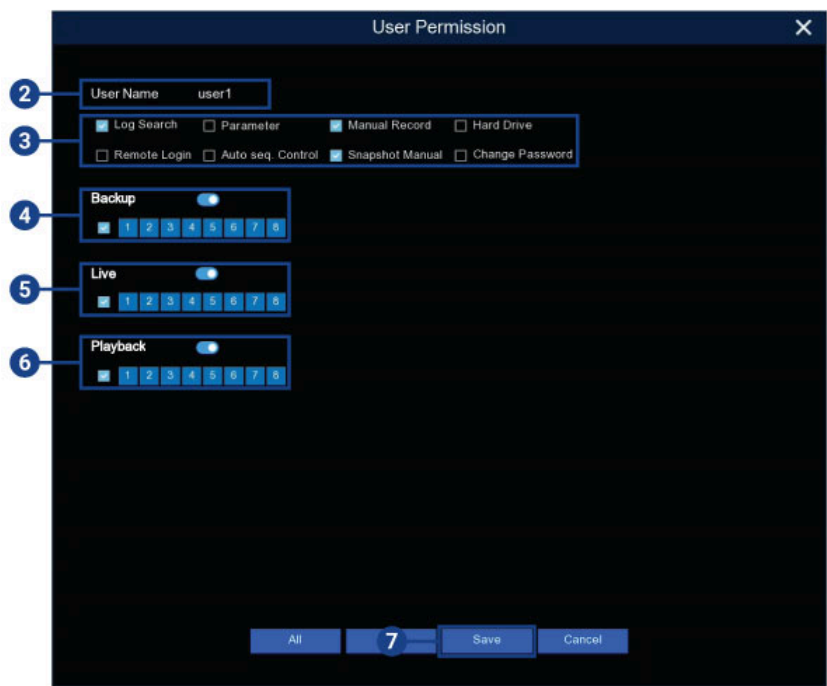
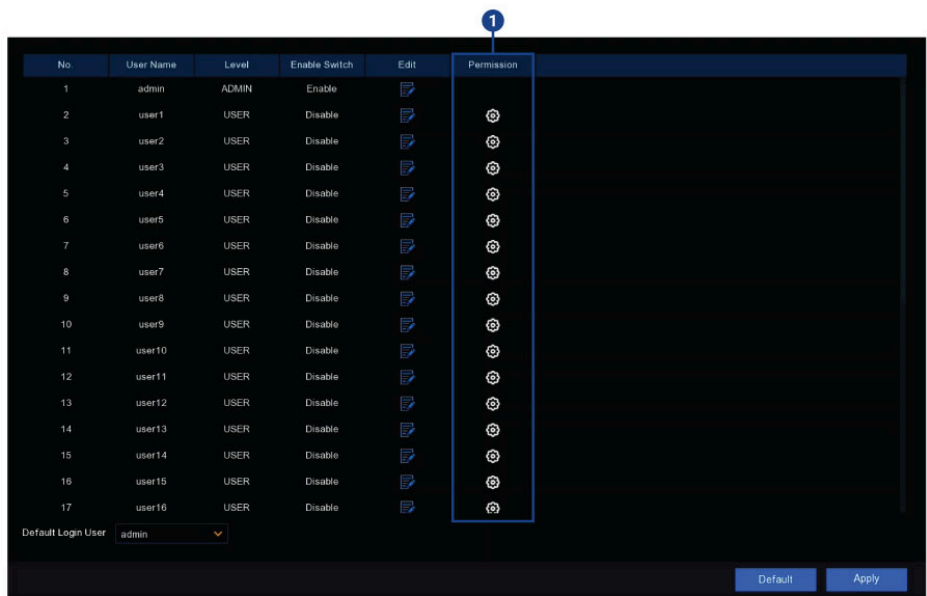


1.  **Edit:** Click next to the user to modify their user account settings.
2. **Enable Switch:** Toggle the switch to enable or disable the user account.
 - Enabled users have access to the system based on their permission levels.
 - Disabled users will not be able to log into the system.
3. **User Name:** Click to change the username.
4. **Password:** Enter and confirm a new user password.
5. **Max. Login Number:** Set the maximum number of 5 simultaneous logins or choose **Unlimited**.
6. **Apply Changes:** Click **Save**, then **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

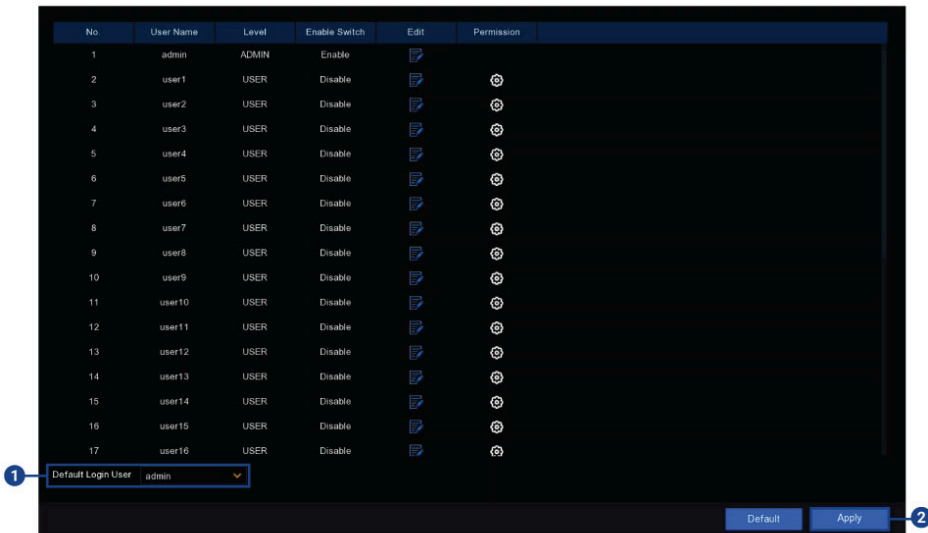
Setting User Permissions



- Permission:** Click next to the user to edit their access permissions.
- User Name:** Displays the name of the user being edited.
- Select Permissions:** Check the boxes for the specific settings the user can access.
- Backup:** Enable this to grant the user backup privileges. Select the camera channels the user can backup.
- Live:** Enable this to grant the user access to live view. Select the camera channels the user can view live.

- 6. **Playback:** Enable this to grant the user playback access. Select the camera channels the user can play back.
- 7. **Apply Changes:** Click **Save**, then **Apply** to save the changes.
- 8. **All/Clear:** Click **All** to select all permissions or **Clear** to deselect all permissions.

Setting Default Login User



- 1. **Default User:** Select which user account should automatically log in as the default account when the system starts.
- 2. **Apply Changes:** Click **Save**, then **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

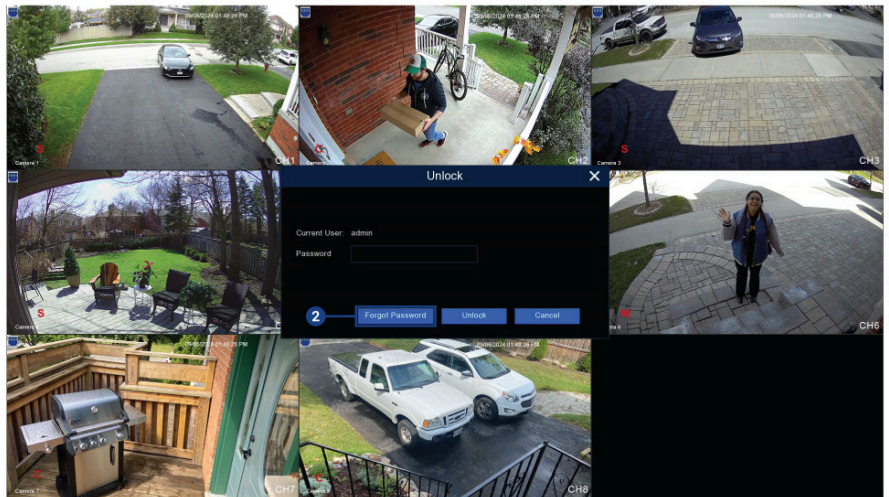
If you have forgotten your NVR password, this chapter will help you recover it. There are two ways to reset your password: by answering security questions you set up during the initial setup (refer to 4.1.2 *Running the Lorex Setup Wizard*, page 5) or by using the Lorex Connect App on your phone.

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.

12.1 NVR Security Question Method

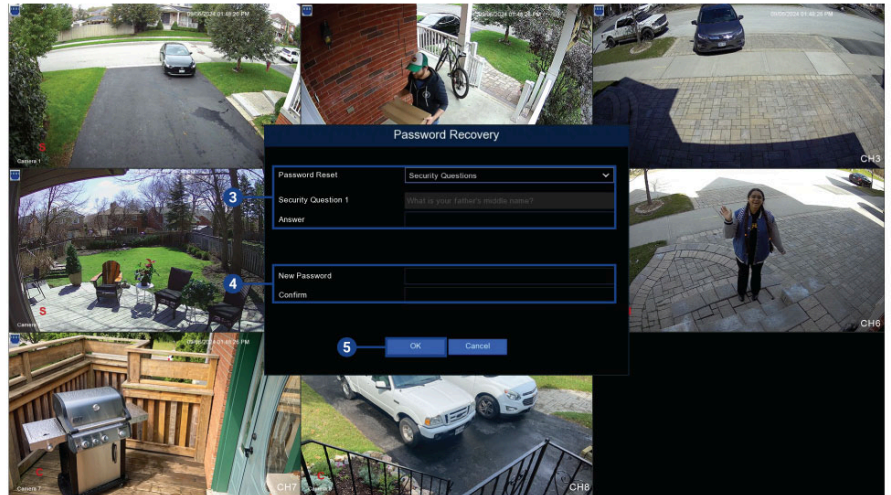
If you've forgotten your NVR password, you can reset it using the security questions set up during the Lorex Setup Wizard.

1. **Open the Unlock Prompt:** Click the screen to open the **Unlock Prompt**.
2. **Forgot Password:** Click **Forgot Password** at the bottom of the prompt to open the **Password Recovery** screen.



3. **Answer Security Questions:** Answer the first security question 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.

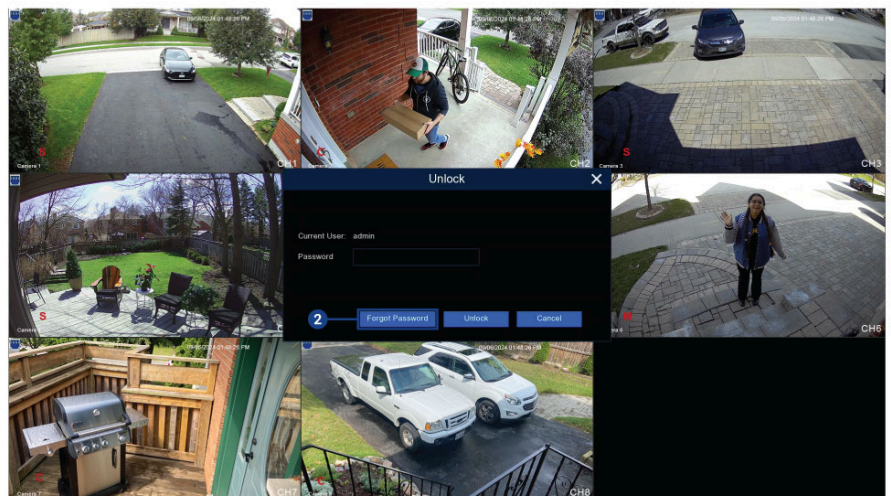


6. **Incorrect Answers:** If the first question is wrong, the system will prompt the next security questions.
- If you fail all questions and the NVR is connected to the Lorex Connect App, follow the steps in the next section 12.2 *Account Verification Using Lorex Connect App*, page 58.
 - If not connected to the app or network, contact [Lorex Technical Support](#).

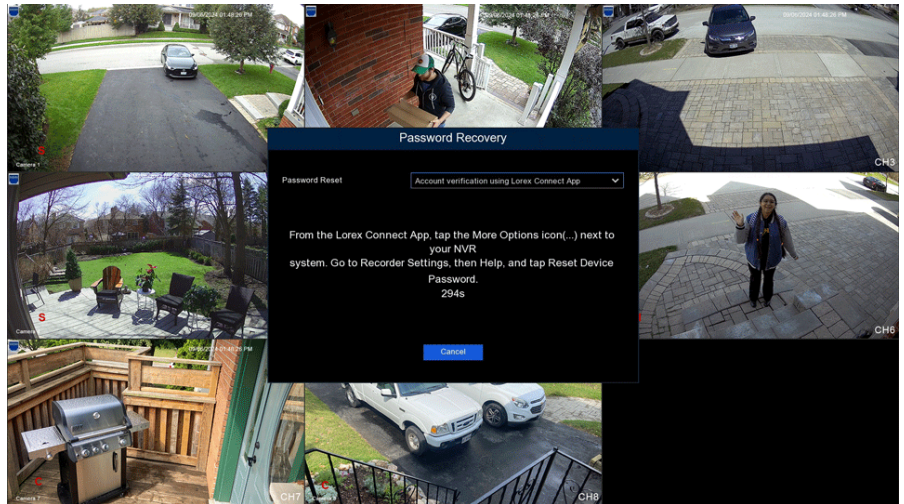
12.2 Account Verification Using Lorex Connect App

If the security questions fail or your NVR is connected to the app, reset the password through the Lorex Connect App.

1. **Open the Unlock Prompt:** Click the screen to open the **Unlock Prompt**.
2. **Forgot Password:** Click **Forgot Password** to open the **Password Recovery** screen.



3. **Select App Verification:** Change the password reset option to **Account Verification Using Lorex Connect App**.

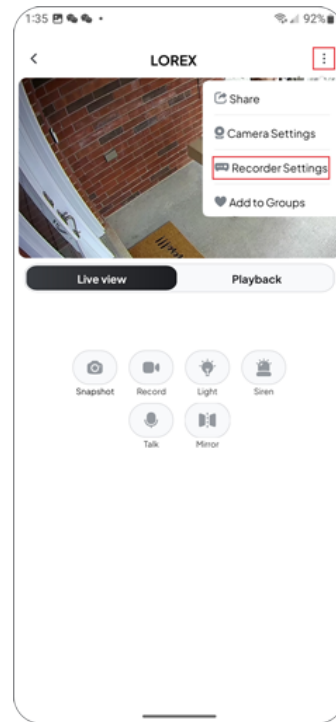


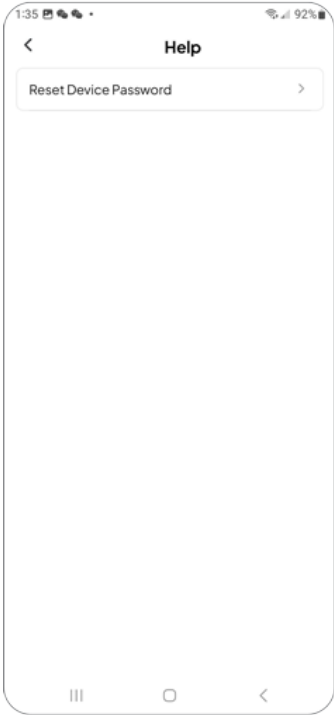
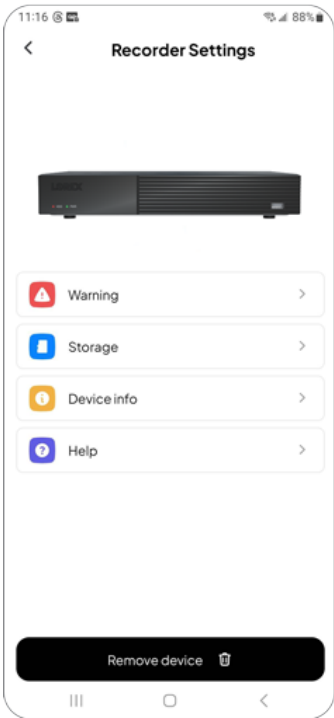
4. **Use the Lorex Connect app:**

- 4.1. Open the **Lorex Connect** app on your phone.

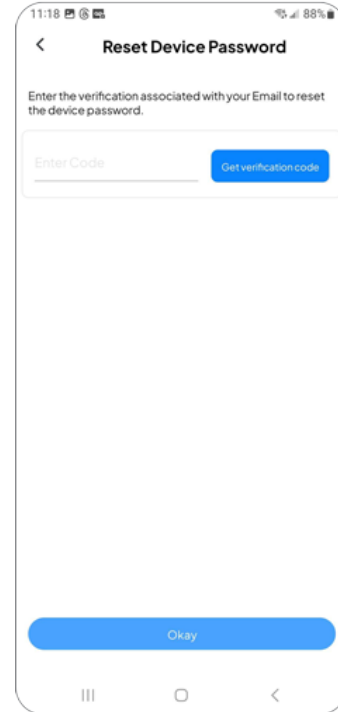


-
- 4.2. Tap **⋮ Settings** on your NVR system. Go to **Recorder Settings > Help > Reset Device Password**.

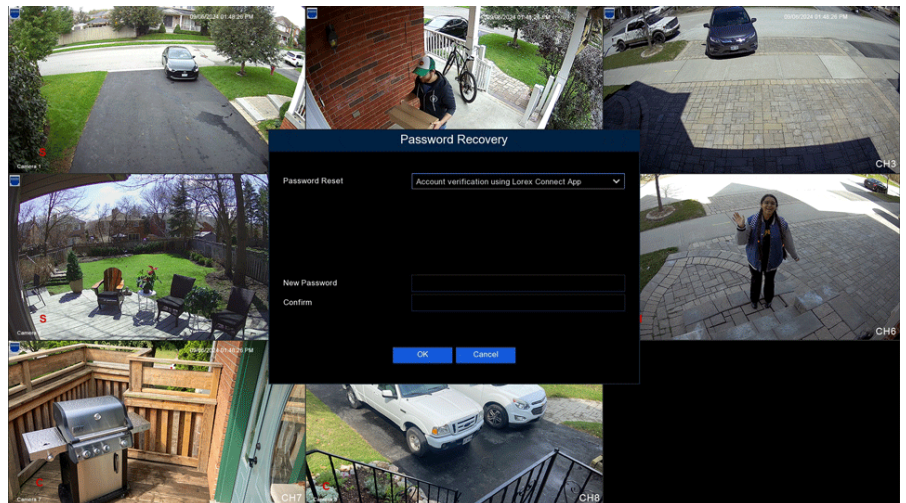




- 4.3. Tap **Get verification code**, then enter the code from your email and tap **Okay**.



5. **Enter New Password:** On the NVR, enter and confirm your **New Password**.



6. **Apply Changes:** Click **Apply** to save the new password. This password will apply to the system and all connected cameras.

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

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 Main Menu.
2. Select **Configuration**.
3. Go to the **Network** tab at the top.
4. Choose **General** from the left-hand menu.
5. Go to the **Date and Time** tab at the top.

Setting the Date & Time

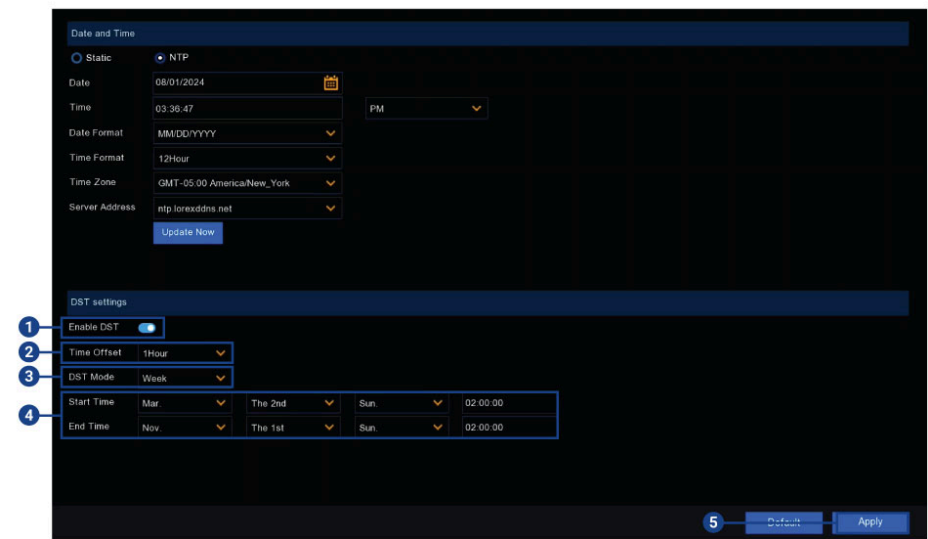
1. **Manual Time Setting (Static) or Sync with NTP Server:** Choose between setting the time manually or syncing it automatically with a server (NTP).
2. **Set the Date and Time:** Click the calendar icon to set the correct date, and enter the current time using the dropdown to select **AM** or **PM**.
3. **Date Format:** Choose the format in which the date will be displayed on the recordings.
4. **Time Format:** Select either a 12-hour or 24-hour clock format.
5. **Time Zone:** Choose your local time zone.
6. **NTP Server (if syncing with a server):** Choose a server like 'ntp.lorexdds.net' or 'time.nist.gov' for automatic time updates.
7. **Update Now:** If using NTP, click **Update Now** to instantly sync the time.
8. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

Configuring Daylight Savings Time (DST)

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



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

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

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.

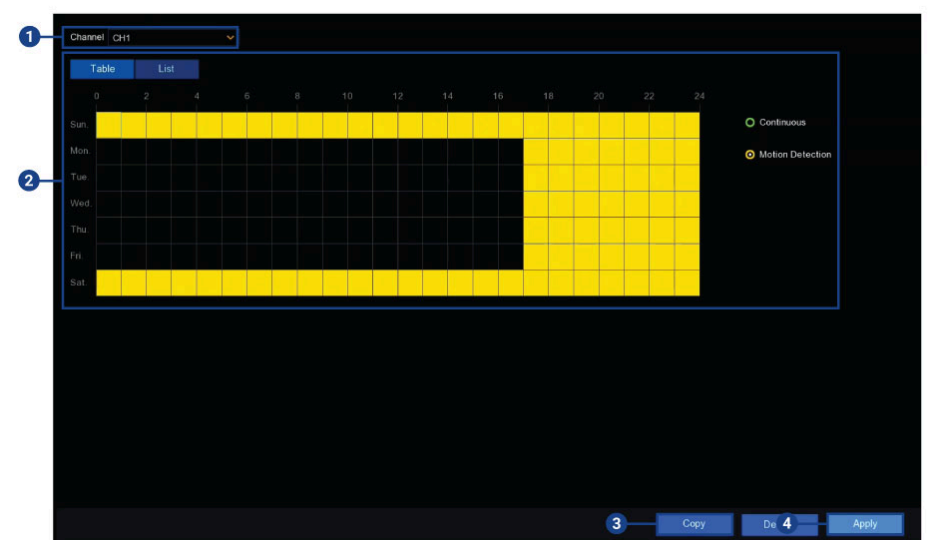
14.1 Configuring the Recording Schedule

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 Schedule

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **Storage** tab at the top.
- 4. Choose **Schedule** from the left-hand menu.
- 5. Go to the **Recording Schedule** tab at the top.

Configuring the Recording Schedule



- 1. **Channel:** Select the camera channel for which you want to create a recording schedule.
- 2. **View Selection:** Choose between **Table View** and **List View** to set the recording schedule.

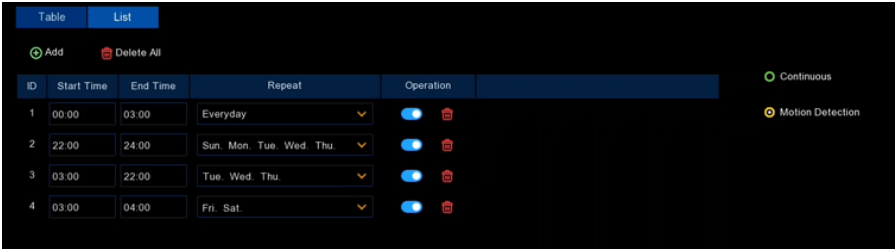
Table View

The grid format displays days of the week on the left and hours of the day on top, with each box representing one hour.

- 2.1. **Continuous Recording (Green):** Click on the green boxes to select or deselect times for continuous recording. Each square represents one hour. Click on individual squares or click and drag over multiple squares to set the desired period. Colored-in squares are active times.
- 2.2. **Motion Detection (Yellow):** Select the motion detection option to edit the schedule. Click on the yellow boxes in the grid to add or remove motion detection recording times. Each square represents one hour. Click on individual squares or click and drag over multiple squares to set the desired period.

Example: To set continuous recording from 8 AM to 6 PM, click on the corresponding green boxes from 8 to 18 for each day needed. Repeat the process for motion detection by switching to yellow and selecting the desired times.

List View



- 2.1. **Recording Type:** Select either **Continuous** or **Motion Detection**.
- 2.2. **ID:** Numbered list of schedules.
- 2.3. **Start Time:** Enter the start time.
- 2.4. **End Time:** Enter the end time.
- 2.5. **Repeat:** Click the dropdown, then checkmark the days or select all.
- 2.6. **Operation:**
 - **Enable/Disable:** Click to enable or disable the schedule.
 - **Delete:** Click the **Delete** icon to remove it.
- 2.7. **Add:** Click the **Add** icon to add more schedules (up to 8).
- 2.8. **Delete All:** Click the **Delete All** icon to remove all schedules in the list.

Example: To set a motion detection schedule from 9 AM to 5 PM on weekdays, enter the start time as 09:00, end time as 17:00, and select Monday to Friday.

- 3. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Copy:** Click **Copy** to duplicate settings to other channels, then **Apply** to save.
- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

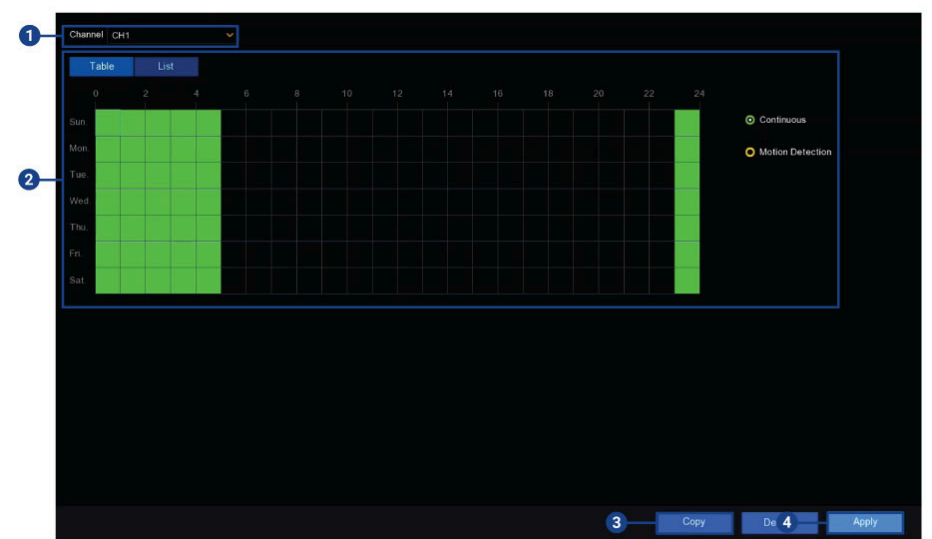
14.2 Configuring the Snapshot Schedule

The **Snapshot Schedule** allows you to set when your cameras capture still images, either at regular intervals or when motion is detected.

How to Access Snapshot Schedule

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **Storage** tab at the top.
- 4. Choose **Schedule** from the left-hand menu.
- 5. Go to the **Snapshot** tab at the top.

Configuring the Snapshot Schedule



- 1. **Channel:** Select the camera channel for which you want to create a snapshot schedule.
- 2. **View Selection:** Choose between **Table View** and **List View** to set the snapshot schedule.

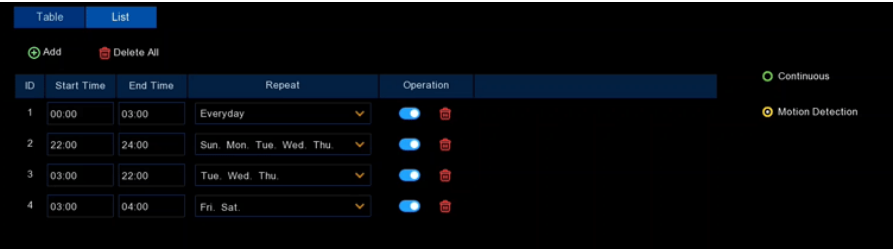
Table View

The grid format displays days of the week on the left and hours of the day on top, with each box representing one hour. Use the grid to set regular snapshot intervals. Green and yellow boxes indicate normal and alarm-triggered snapshots.

- 2.1. **Continuous / Normal Interval (Green):** Click on the green boxes to select or deselect times for regular snapshots. Each square represents one hour. Click on individual squares or click and drag over multiple squares to set the desired period. Colored-in squares are active times.
- 2.2. **Motion Detection / Alarm Interval (Yellow):** Select the alarm interval option to edit the schedule. Click on the yellow boxes in the grid to add or remove snapshot times. Each square represents one hour. Click on individual squares or click and drag over multiple squares to set the desired period.

Example: To set snapshots every 30 minutes during business hours, select the corresponding boxes from 9 AM to 5 PM. To set the normal and alarm interval times, refer to 5.6 *Taking Snapshots*, page 24.

List View



- 2.1. **Snapshot Type:** Select either **Continuous / Normal Interval** or **Motion Detection / Alarm Interval**.
- 2.2. **ID:** Numbered list of schedules.
- 2.3. **Start Time:** Enter the start time.

- 2.4. **End Time:** Enter the end time.
- 2.5. **Repeat:** Click the dropdown, then checkmark the days or select **All**.
- 2.6. **Operation:**
 -  **Enable/Disable:** Click to enable or disable the schedule.
 -  **Delete:** Click the **Delete** icon to remove it.
- 2.7.  **Add:** Click the **Add** icon to add more schedules (up to 8).
- 2.8.  **Delete All:** Click the **Delete All** icon to delete all schedules in the list.
3. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Copy:** Click **Copy** to duplicate settings to other channels, then **Apply** to save.
- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

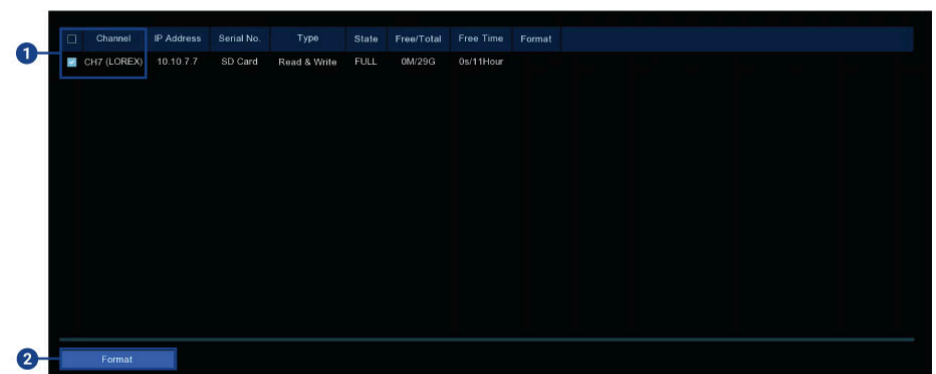
14.3 Formatting Camera Storage

The **Format Camera's Storage** option lets you clear the SD card storage in your connected cameras, which is useful when the storage is full.

How to Access Formatting Camera Storage Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **System** tab at the top.
4. Choose **IP Camera Settings** from the left-hand menu.
5. Go to the **Format Camera's Storage** tab at the top.

Formatting the Camera's Storage



1. **Select Channels:** Check the box next to the cameras with storage you want to format.
2. **Format:** Click **Format** to start the process. You will be prompted to log in to confirm. Once confirmed, the SD card will be formatted, and all data will be erased permanently.

Storage Information

1. **Channel:** Displays the camera channels with SD cards requiring formatting.
2. **IP Address:** Shows the IP addresses of each connected camera.
3. **Serial No.:** Displays the serial number of the SD card, indicating the storage type.
4. **Type:** Typically displays **Read & Write**.
5. **State:** Shows **FULL** when the SD card storage is full.
6. **Free/Total:** Displays available space (0MB when full) and total storage capacity.

7. **Free Time:** Displays how much recording time remains (0 seconds when full).
8. **Format:** Shows the formatting status after the process begins.

14.4 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.

14.4.1 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 Philips head screwdriver to remove the two side screws and three back panel screws.



- Slide the upper cover away from the NVR and lift it off completely, 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 Philips head screwdriver to remove the four 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.
- 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.

14.4.2 Installing a New Hard Drive

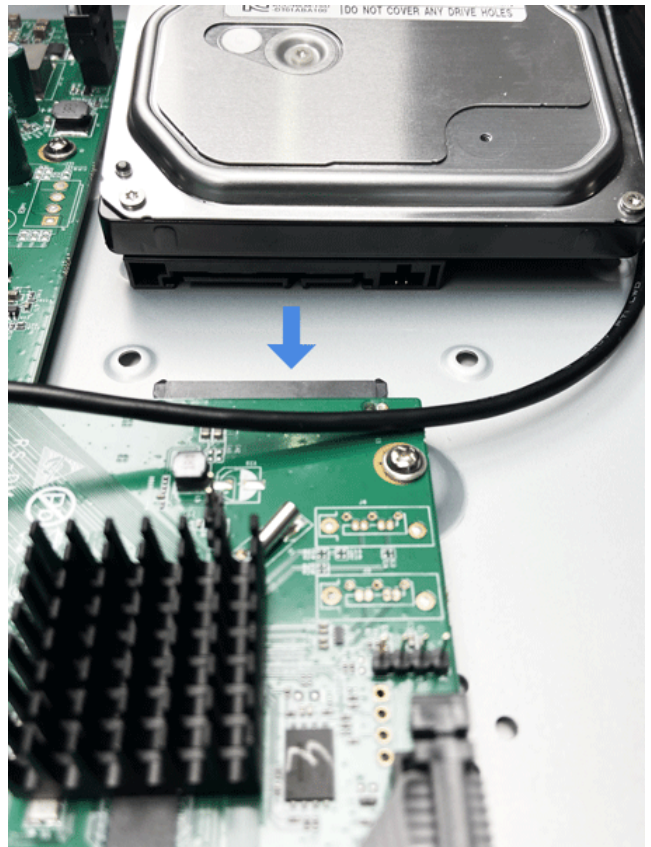
To install a new hard drive, follow these steps carefully:

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, making sure the ports align properly.



3. Secure the new disk drive:

- While holding the drive in place, carefully flip the NVR over.



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



4. Close the NVR case:

- Flip the NVR back to its original position and reattach the upper cover.
- Use a Philips head screwdriver to secure the two side screws and three back panel screws.



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 14.5 *Overwriting and Formatting Your Hard Drive*, page 77 for detailed steps on how to format the new hard drive.

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

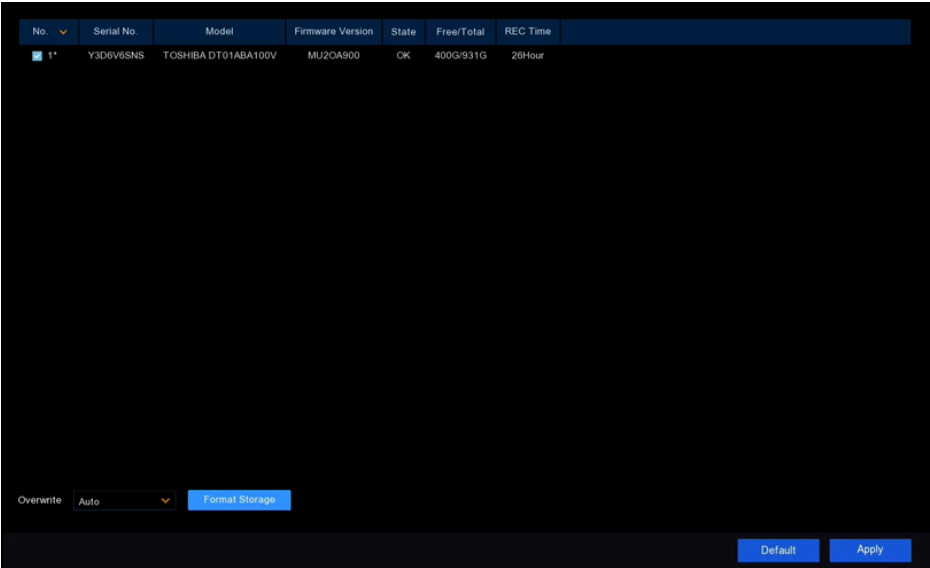
14.5 **Overwriting and Formatting Your Hard Drive**

In the **Hard Drive** 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 **Configuration**.
3. Go to the **Storage** tab at the top.
4. Choose **Hard Drive** from the left-hand menu.

Managing Your Hard Drive



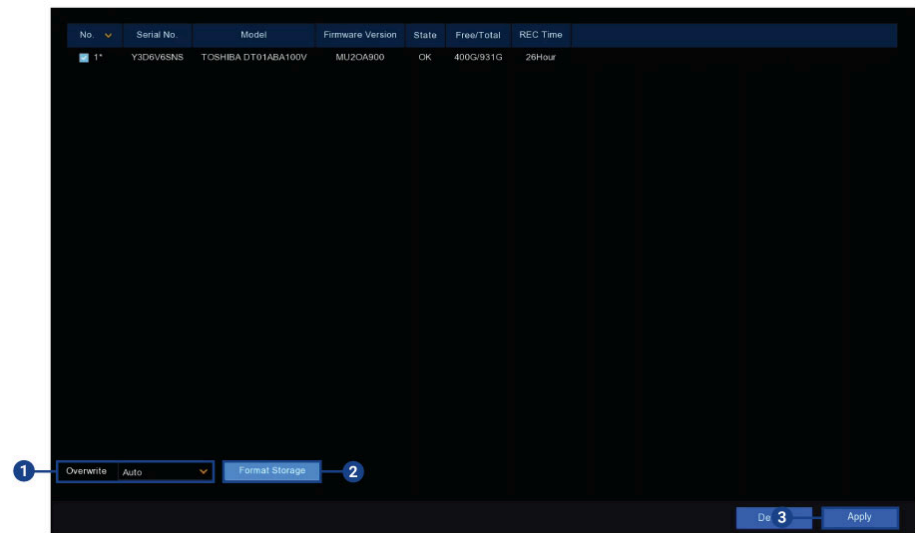
1. **No.:** Lists the number of hard drives connected.
2. **Serial No.:** Displays the unique serial number of the hard drive.
3. **Model:** Shows the model number of the hard drive.
4. **Firmware Version:** Displays the firmware version installed on the hard drive.
5. **State:** Indicates the status of the hard drive (e.g., **FULL**, **OK**).
6. **Free/Total:** Shows the available free space compared to the total capacity of the hard drive.
7. **REC Time:** Displays the estimated recording time available based on current settings and storage usage.

Overwriting and Formatting 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 everything, so make sure to back up any important footage first. For instructions on backing up your recordings, refer to 10.2 *Searching & Backing Up Recordings*, page 48.



- 1. **Overwrite:** Choose from **Auto**, **1 Day**, up to **90 Days** for how frequently the data is overwritten.
- 2. **Format Storage:** Click **Format Storage** to format the hard drive, erasing all data. Select the overwrite duration first.
- 3. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

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.

15.1 Channel Settings

The **Channel** settings allow you to manage and customize settings for each camera connected to your NVR system. This includes configuring the IP channels, monitoring PoE (Power over Ethernet) power usage, adjusting live view settings, and fine-tuning image quality to ensure your cameras perform optimally.

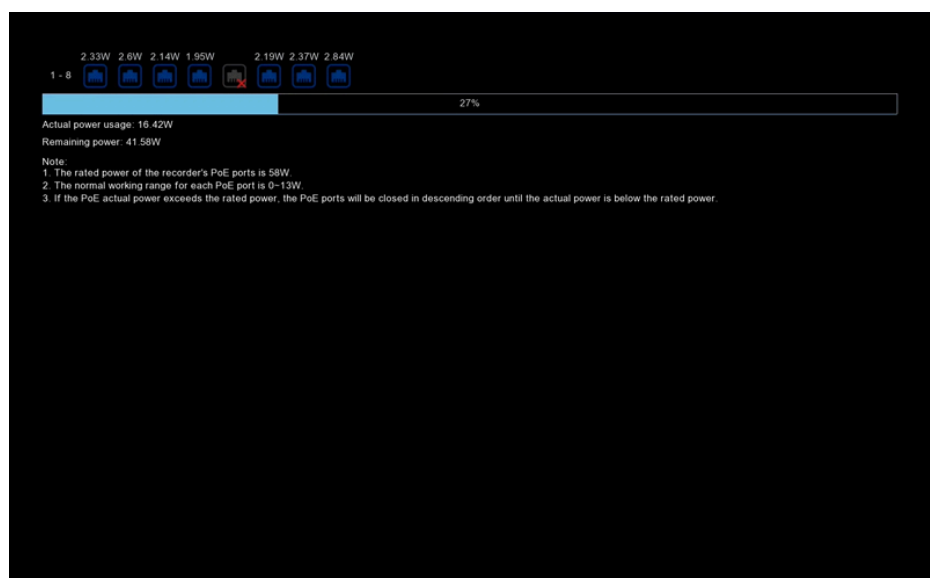
15.1.1 Camera PoE Power Statuses

You can easily view how much power each camera is using and how much power is still available for other devices connected by Ethernet cables.

How to Access Camera PoE Power Statuses

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **Channel** tab at the top.
4. Choose **PoE Power** from the left-hand menu.

Viewing PoE Power Usage



PoE Power Usage: Displays how much power each camera is using and how much power is left for additional devices.

15.2 Alerts Settings

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

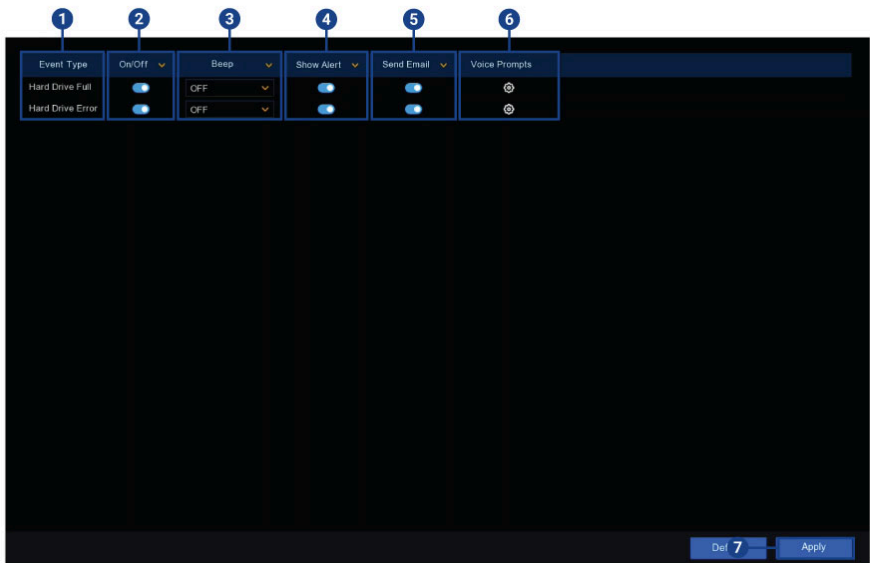
15.2.1 Setting Up System Warning Alerts

The **Warning** feature lets you set up notifications for important system events, such as when the storage is full or when a hard disk drive error occurs. These alerts help you quickly respond to issues that could affect your system's performance.

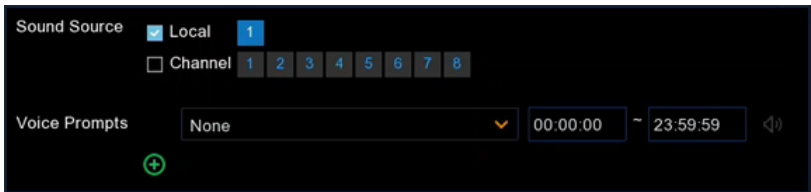
How to Access Warning Settings

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **Alerts** tab at the top.
- 4. Choose **Warning** from the left-hand menu.

Configuring System Warning Alerts



- 1. **Event Type:** Choose between two event types:
 - **hard disk drive Full:** Receive an alert when the storage is full.
 - **hard disk drive Error:** Get notified if a hard disk drive error occurs.
- 2. **On/Off:** Enable or disable alerts for the selected event.
- 3. **Beep:** Turn on the NVR's buzzer to sound an alert when an event happens. You can choose how long the alert will last using the dropdown options.
- 4. **Show Alert:** Enable or disable a pop-up message on your screen when the event occurs.
- 5. **Send Email:** Enable or disable email notifications to be informed of the event wherever you are.
- 6. **Voice Prompts:** Set up an audible alert for the event.



- 6.1. **Sound Source:** Select **Local** for the NVR's audio output or **Channel** for the camera's audio output.
- 6.2. **Voice Prompts:** Choose a pre-recorded voice prompt and set its active time by entering the start and end times. Click the audio icon to preview the alarm sound.
- 6.3. **Add or Delete Prompts:** Add more voice prompts for other channels or delete existing ones as needed.

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

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

15.3 Network Settings

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

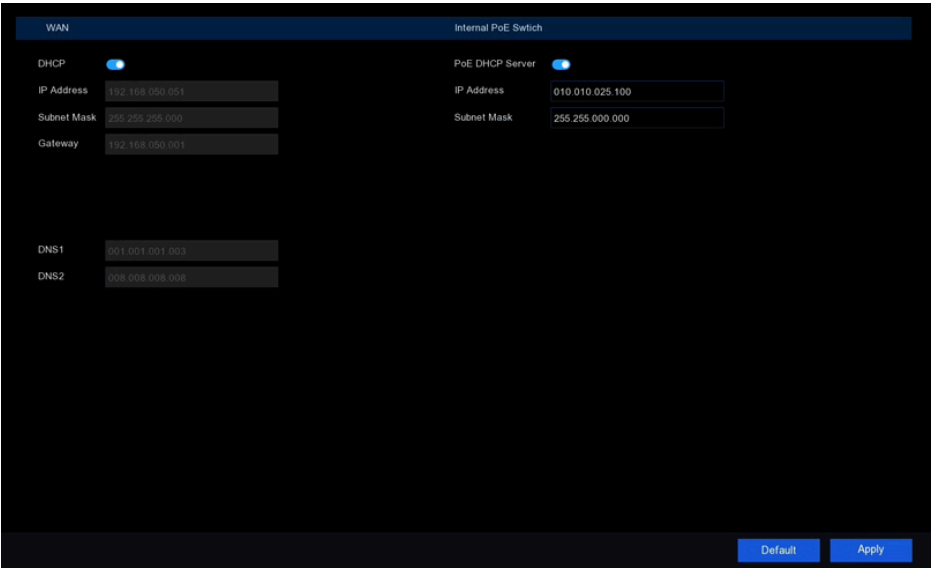
15.3.1 Configuring General Network Settings

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 **Configuration**.
3. Go to the **Network** tab at the top.
4. Choose **General** from the left-hand menu.
5. Go to the **General** tab at the top.

Configuring WAN (Wide Area Network) Settings



1. **DHCP:** Enable or disable DHCP (Dynamic Host Configuration Protocol). To manually edit the IP settings below, DHCP must be disabled.
2. **IP Address:** Click to manually set the NVR’s IP address.
3. **Subnet Mask:** Click to edit the Subnet Mask.
4. **Gateway:** Click to edit the gateway information.
5. **DNS1:** Click to edit the primary DNS (Domain Name System) server.
6. **DNS2:** Click to edit the secondary DNS server.
7. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

Configuring Internal PoE Switch Settings

- If your NVR has an internal PoE switch, you can set its IP address and DHCP server here:
- 1. **PoE DHCP Server:** Enable or disable the PoE DHCP server. If enabled, the NVR will automatically assign IP addresses to cameras connected via PoE.
 - 2. **IP Address:** Click to edit the IP Address for the internal PoE switch.
 - 3. **Subnet Mask:** Click to edit the Subnet Mask for the internal PoE switch.
 - 4. **Apply Changes:** Click **Apply** to save your changes.

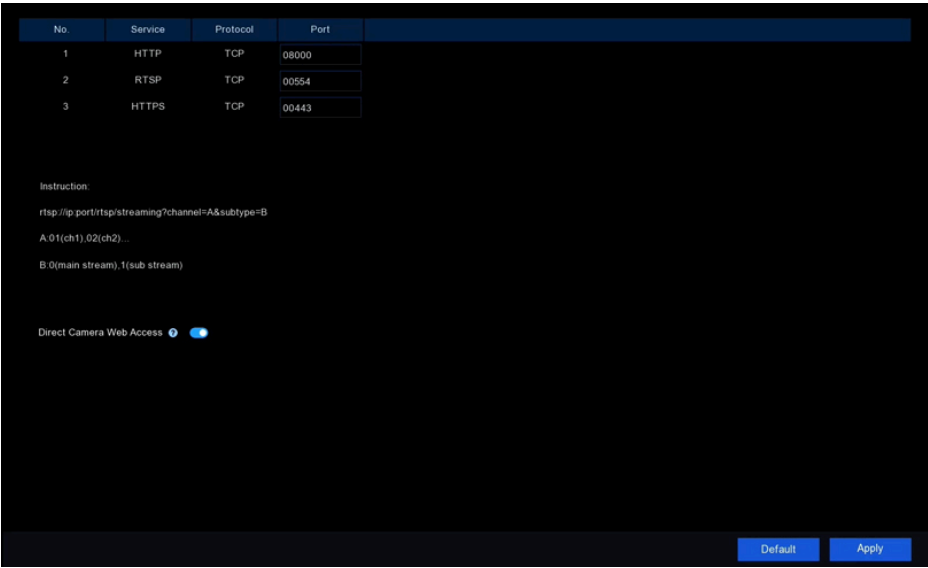
15.3.2 Setting Up Port Configuration

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 **Configuration**.
- 3. Go to the **Network** tab at the top.
- 4. Choose **General** from the left-hand menu.
- 5. Go to the **Port Configuration** tab at the top.

Configuring Ports



- 1. **No.:** Displays the entry number for reference.
- 2. **Service:** Displays the service type (e.g., HTTP, RTSP, or HTTPS). This indicates the type of service that uses the port.
- 3. **Protocol:** Displays the protocol used by the service (e.g., TCP).
- 4. **Port:** Click to enter the port number used by the service.
- 5. **Direct Camera Web Access:** Enable or disable direct access to the camera’s web client through the recorder’s web client.
- 6. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

15.3.3 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.

15.3.3.1 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.

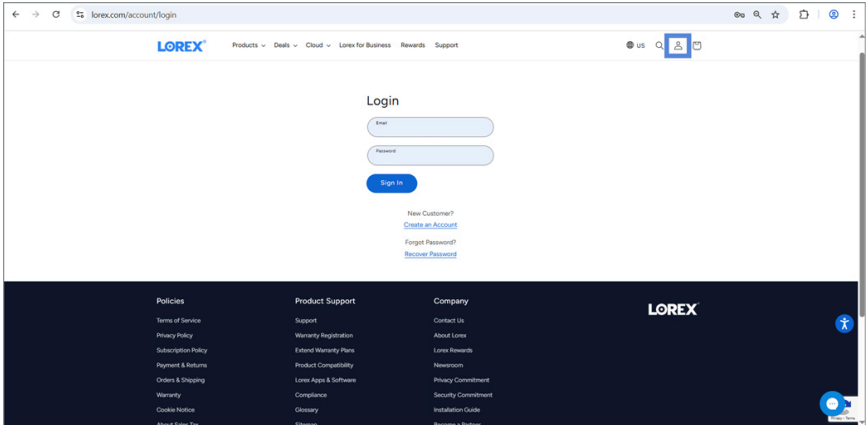
15.3.3.2 Step 2: Create a Lorex Account

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

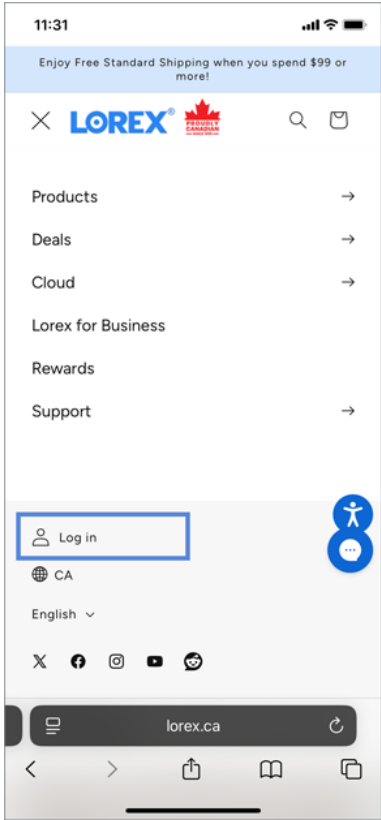
1. Go to lorex.com.

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**.

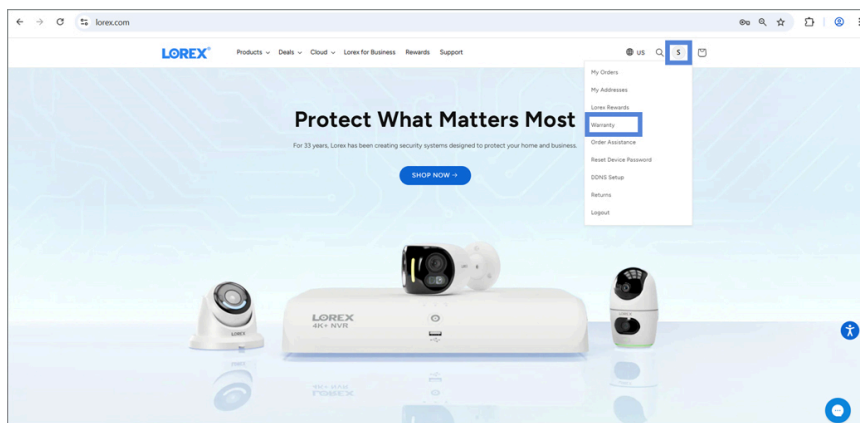


15.3.3.3 Step 3: Activate Your Warranty

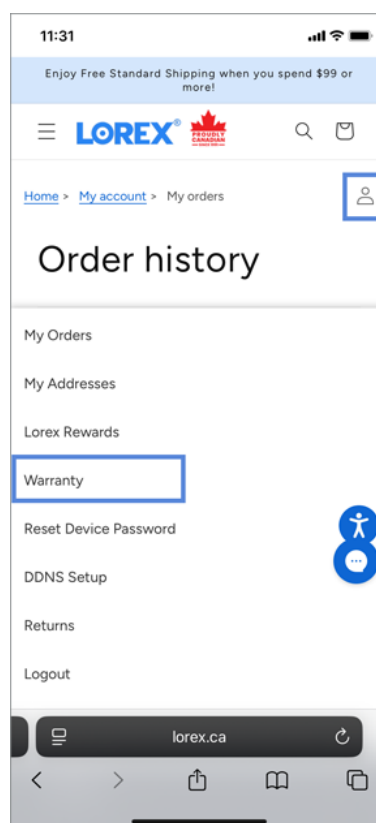
Before setting up DDNS, you must activate your NVR's warranty.

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

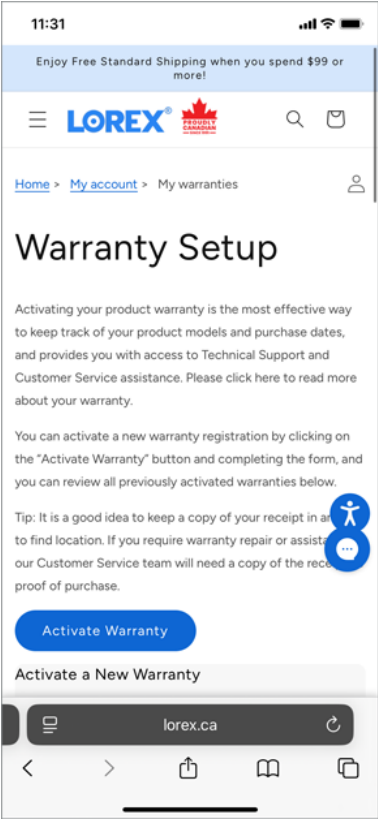
- **On computer:** Click the  (**My Account**) button, then choose **Warranty** from the menu.



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



2. Click **Activate Warranty**.



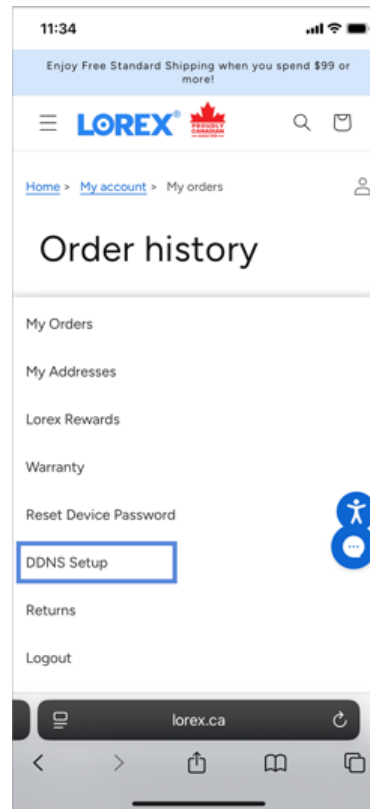
3. Fill in your NVR’s product details and click **Save Warranty**.

The screenshot shows a mobile app interface for activating a warranty. At the top, the status bar shows the time 11:31 and signal strength. The app header includes the Lorex logo, a Canadian flag with 'PROUDLY DESIGNED & MANUFACTURED IN CANADA', and search and cart icons. A message states: 'our Customer Service team will need a copy of the receipt as proof of purchase.' Below this is a blue 'Activate Warranty' button. The main section is titled 'Activate a New Warranty' and lists '*Required fields'. The form contains the following fields: 'Model Number / SKU*' with a help link 'Do you need help locating your model number?'; 'Serial Number' with a help link 'Do you need help locating your serial number?'; 'Date of purchase*'; 'Select Place of Purchase*' with a dropdown arrow; and 'Upload Bill of Sale*' with a 'Choose File' button and the text 'no file selected'. To the right of the last two fields are icons for a person and a speech bubble. At the bottom of the form are 'Save Warranty' and 'Cancel' buttons. The mobile browser's address bar shows 'lorex.ca'.

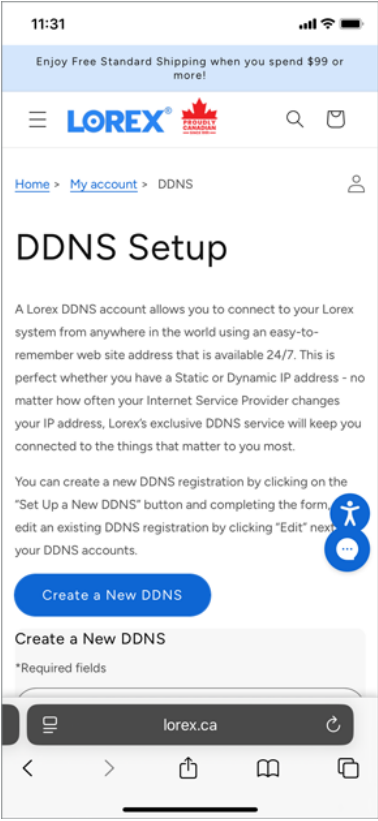
Your device will now be listed under **Existing Warranties**.

15.3.3.4 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 6.3 *Using the Navigation Bar*, page 27.
- **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.

15.3.3.5 Step 5: Enable DDNS on Your DVR

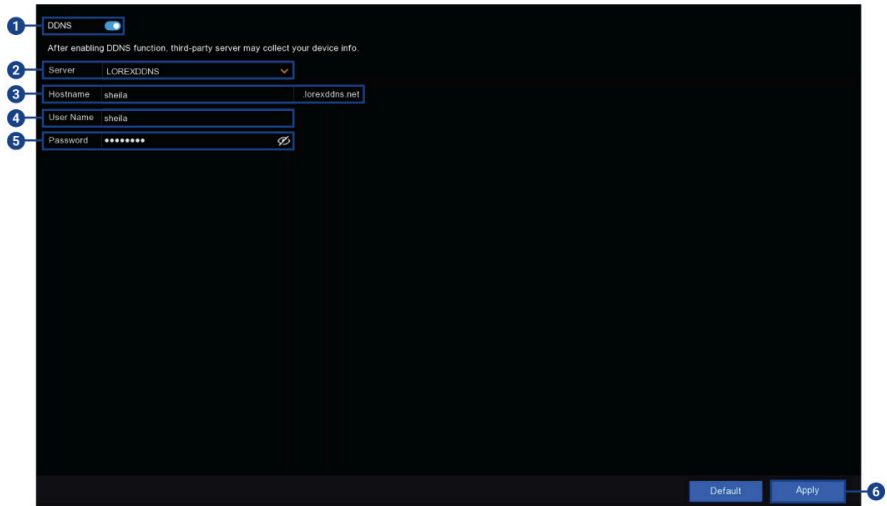
Now that your DDNS account is set up, you'll need to enter the details into your NVR's settings.

How to Access DDNS Settings

1. **Right-click** on the live view screen to access the **Main Menu**.
2. Select **Configuration**. 
3. Go to the **Network** tab at the top.
4. Choose **DDNS** from the left-hand menu.

Configuring DDNS in the NVR

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



- 2. **Server:** Choose your DDNS service provider.
 - 2.1. **LOREXDDNS:** Lorex’s proprietary DDNS service.
 - 2.2. **DYNDNS:** A third-party DDNS service.
- 3. **Hostname:** Enter the hostname for your NVR (e.g., yourhostname.lorexddns.net).
- 4. **User Name:** Enter your DDNS account username.
- 5. **Password:** Enter your DDNS account password.
- 6. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

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>)

15.3.4 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.

15.3.4.1 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 **Configuration**.

- 3. Go to the **Network** tab at the top.
- 4. Choose **Email** from the left-hand menu.
- 5. Go to the **Email** tab at the top.

Configuring Email Alerts

The screenshot displays a configuration window for email alerts. The interface includes several dropdown menus and text input fields. The 'Email' dropdown is set to 'Default(LOREX)'. The 'Encryption' dropdown is set to 'Auto'. The 'SMTP Port' is set to '2525'. The 'SMTP Server' is 'mysmtp.lorexddns.net'. The 'User Name' is 'joreply@lorexddns.net'. The 'Password' field is empty. The 'Sender's Name' is 'joreply@lorexddns.net'. The 'Receiver 1' field contains 'sheila@gmail.com'. The 'Receiver 2' and 'Receiver 3' fields are empty. The 'Interval' dropdown is set to '3 Min'. At the bottom right, there are two buttons: 'Default' and 'Apply'.

- 1. **Email:** By default, the system uses the LOREX email service to send alerts. If this default is selected, most options are pre-configured and not editable, except for **Receiver 1-3** and **Interval**. You can select from the following options:
 - 1.1. **Default (LOREX):** Uses the pre-configured LOREX email settings.
 - 1.2. **OFF:** Disables email alerts.
 - 1.3. **ON:** Allows you to manually configure all email settings.
- 2. **Encryption:** Select the type of encryption (e.g., Disable, SSL, TLS, or Auto) to secure the email communication.
- 3. **SMTP Port:** Enter the port number for the SMTP server.
- 4. **SMTP Server:** Enter the address of the SMTP server used to send the emails (e.g., 'mysmtp.lorexddns.net').
- 5. **User Name:** Enter the username for the email account that will send the alerts.
- 6. **Password:** Enter the password for the email account.
- 7. **Sender's Name:** Enter the name that will appear as the sender of the email alerts.
- 8. **Receiver 1-3:** Enter up to three email addresses that will receive the alerts.
- 9. **Interval:** Set the time interval between email alerts to prevent spam.
- 10. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

15.3.4.2 Scheduling Email Alerts

The **Email Schedule** allows you to set the schedule for when email alerts are sent.

How to Access Email Schedule

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **Network** tab at the top.
- 4. Choose **Email** from the left-hand menu.
- 5. Go to the **Schedule** tab at the top.

Creating the Email Schedule

The schedule can be configured using either the **Table View** or **List View**.

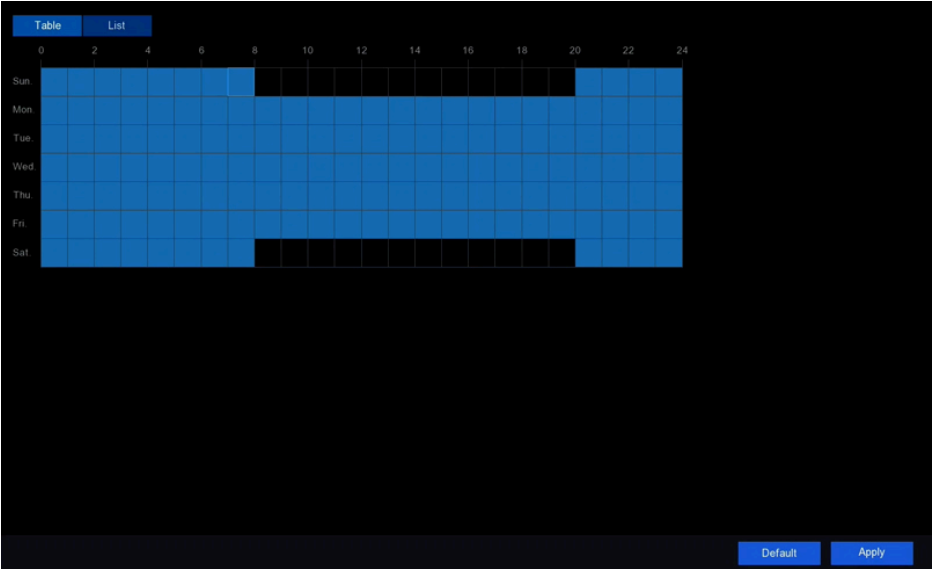


Table View

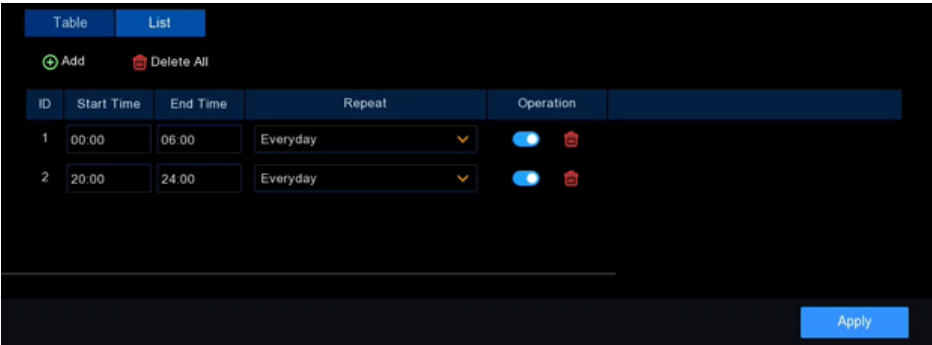
The table view displays days of the week on the left and hours of the day on top, with each box representing one hour. Blue boxes indicate active times for email notifications.

- 1. **Set the Schedule:** Click on the blue boxes to select or deselect times for email notifications. Drag over multiple squares to set the desired period. Colored-in squares indicate active times.
- 2. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

List View



- 1. **ID:** Numbered list of schedules.
- 2. **Start Time:** Enter the start time for email notifications.
- 3. **End Time:** Enter the end time for email notifications.
- 4. **Repeat:** Select the days for the schedule to repeat by clicking the dropdown and checking the weekday boxes.

5. Operation:

-  **Enable/Disable:** Click to enable or disable the schedule.
-  **Delete:** Click the **Delete** icon to remove it.
- 6.  **Add:** Click the **Add** icon to create additional schedules (up to 8).
- 7.  **Delete All:** Click the **Delete All** icon to remove all schedules from the list.
- 8. **Apply Changes:** Click **Apply** to save your changes.

15.4 System 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.

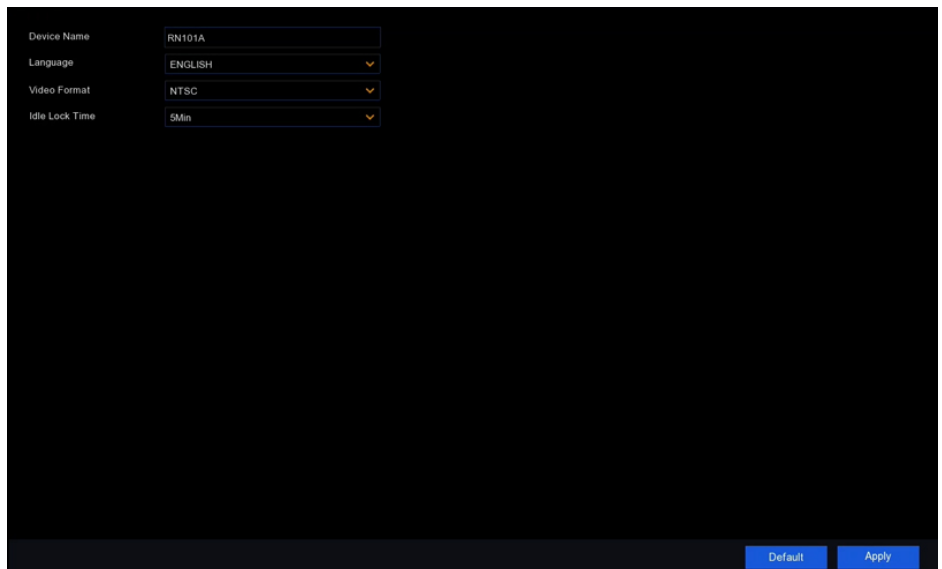
15.4.1 Managing General System Settings

The **General System** settings control key features that affect how your NVR runs, such as the system's name, language, video format, and security options.

How to Access General System Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **System** tab at the top.
4. Choose **General** from the left-hand menu.
5. Go to the **General** tab at the top.

Configuring General System Settings



1. **Device Name:** Edit the device name. This is how your NVR will be identified on the network.
2. **Language:** Select the language for the recorder's settings from **English**, **French**, or **Spanish**.
3. **Video Format:** Choose between **PAL** and **NTSC**, depending on your region's standard for video playback.
4. **Idle Lock Time:** Set the time interval before the NVR locks when idle, ranging from 30 seconds to 10 minutes, or select **OFF** to disable this feature.

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

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

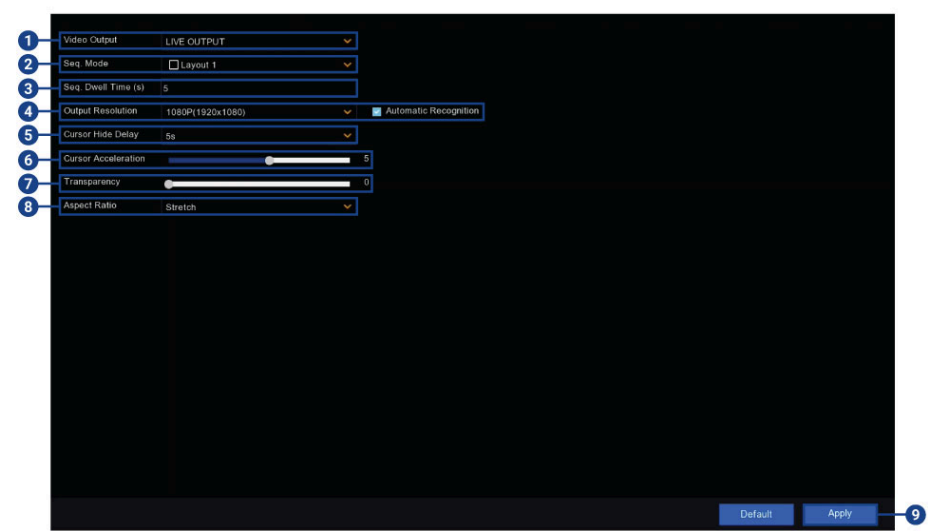
15.4.2 Configuring Display Settings

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

How to Access Output Configuration Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **System** tab at the top.
4. Choose **General** from the left-hand menu.
5. Go to the **Output Configuration** tab at the top.

Configuring Display Settings



1. **Video Output:** The only available option is **Live Output**, which displays the live feed from your cameras.
2. **Sequence Mode:** Choose how camera feeds are displayed in sequence:
 - **Layout 1:** Displays one camera channel at a time.
 - **Layout 4:** Displays four camera channels simultaneously.
 - **Layout 6:** Displays six camera channels simultaneously.
3. **Sequence Dwell Time:** Enter the duration (in seconds) that each sequence layout is displayed before switching to the next.
4. **Output Resolution:** Select the output resolution for your monitor from the dropdown menu. By default, **Automatic Recognition** is enabled, allowing the recorder to automatically detect and set the appropriate resolution for your monitor.
5. **Cursor Hide Delay:** Set the amount of time the cursor remains visible before it hides automatically. Options range from 1 second to 2 minutes, or you can select **OFF** to disable this feature.
6. **Cursor Acceleration:** Adjust the speed of the cursor by moving the slider. A setting of 0 is the slowest, and 9 is the fastest.
7. **Menu Transparency:** Adjust the transparency of the on-screen menu. A lower number means less transparency, while a higher number makes the menu more see-through, allowing you to see the live camera feed behind it.

8. **Aspect Ratio:** Choose how the video is displayed on your screen:
- **Stretch:** Stretches the video to fill the screen.

• **Original:** Maintains the original aspect ratio of the video.
9. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

15.4.3 Performing Recorder Maintenance

The **Maintenance** menu allows you to manage and maintain your NVR system, ensuring it operates smoothly.

15.4.3.1 Viewing System Logs

The **System Log** settings allow you to search and review system logs, which record various events and actions taken by the NVR.

How to Access System Logs

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **System** tab at the top.
4. Choose **Maintenance** from the left-hand menu.
5. Go to the **Log** tab at the top.

Searching & Viewing System Logs

Start Date08/01/2024

Start Time00:00:00

End Date08/01/2024

End Time23:59:59

Log TypeAll

Search

Channel	Type	Time	Configuration	Record	Playback
	System	08/01/2024 00:08:49	NTP	Local	
CH4	Alarm	08/01/2024 06:42:44	Person and Vehicle Alarm Started		Yes
CH1	Alarm	08/01/2024 06:42:46	Person Alarm Started		Yes
CH6	Alarm	08/01/2024 06:42:46	Motion alarm started		Yes
CH6	Alarm	08/01/2024 06:43:13	Motion alarm ended		Yes
CH1	Alarm	08/01/2024 06:43:22	Person Alarm End		Yes
CH4	Alarm	08/01/2024 06:43:23	Person and Vehicle Alarm End		Yes
CH1	Alarm	08/01/2024 06:43:40	Person Alarm Started		Yes
CH4	Alarm	08/01/2024 06:43:40	Person and Vehicle Alarm Started		Yes
CH6	Alarm	08/01/2024 06:43:45	Motion alarm started		Yes
CH6	Alarm	08/01/2024 06:44:12	Motion alarm ended		Yes
CH1	Alarm	08/01/2024 06:44:15	Person Alarm End		Yes
CH4	Alarm	08/01/2024 06:44:15	Person and Vehicle Alarm End		Yes

1

/51

Backup

1. **Start Date / End Date:** Enter the date range for your log search.
2. **Start Time / End Time:** Enter the time range within the selected dates for your log search.
3. **Log Type:** Select specific log types or select **All** to search across all log types.
4. **Search Logs:** Click **Search** to generate the log results based on your criteria. The results will be displayed in the table below with the following details:
- 4.1. **Channel:** Displays the channel related to the log event.

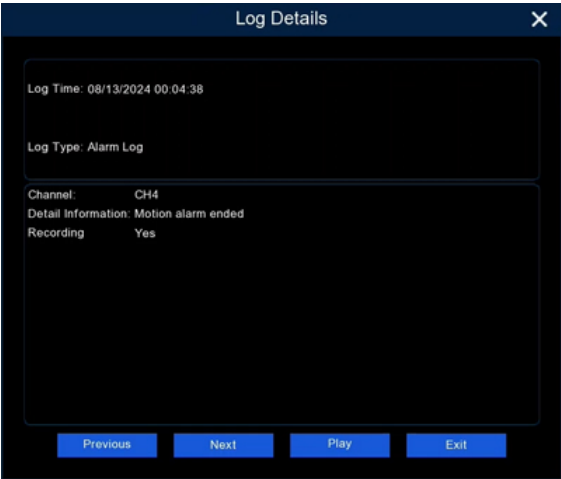
4.2. **Type:** Lists the type of log (e.g., System, Alarm).

4.3. **Time:** Shows the exact time the log was recorded.

4.4. **Configuration:** Describes the event or action, such as "Motion alarm started" or "Motion alarm ended."

4.5. **Record:** Indicates whether the event was recorded locally.

- 4.6. **Playback:** If this column displays **Yes**, you can double-click the log entry. This will open a **Log Details** window, where you can click **Play** to watch the recorded event from that camera.



5. **Backup Logs:** Click **Backup** to save the log information to an external USB drive. Ensure a USB drive is inserted into the NVR before attempting to back up the logs.

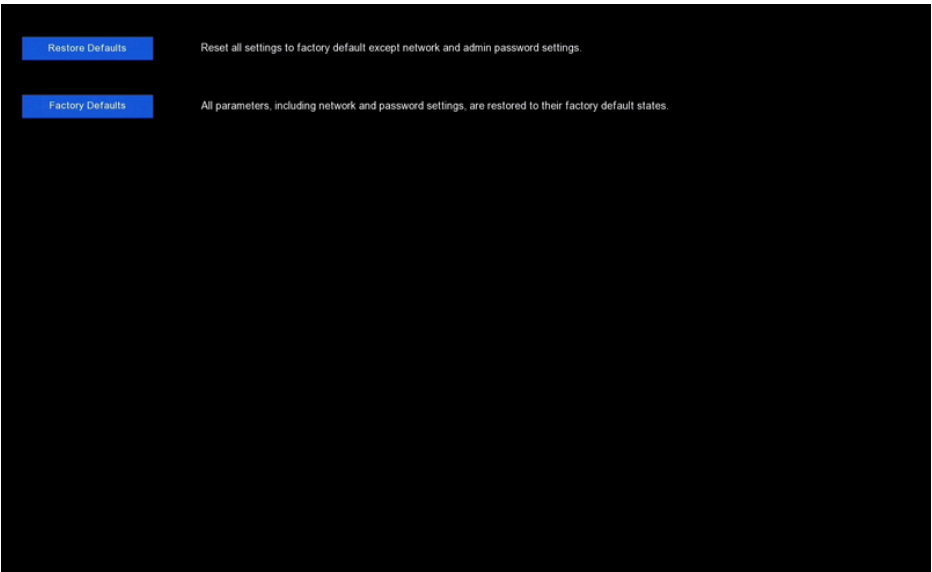
15.4.3.2 Restoring Default Settings

The **Load Default** settings feature 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 Access System Default Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **System** tab at the top.
4. Choose **Maintenance** from the left-hand menu.
5. Go to the **Load Default** tab at the top.

Restoring Default Options



1. **Restore Defaults:**

- Resets all settings to their factory defaults except for the network settings and the admin password.
- After selecting this option, you will be asked to enter your password to confirm the reset.

2. **Factory Defaults:**

- Resets all settings, including the network settings and admin password, to their original factory defaults.
- After selecting this option, you will also need to enter your password to confirm the reset.

15.4.3.3 Upgrading Firmware

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

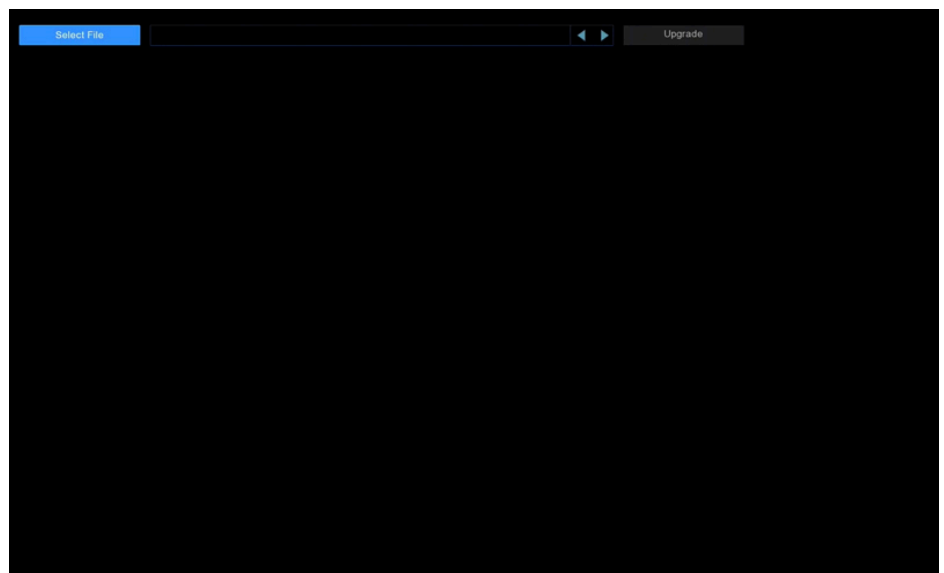
How to Access Upgrade Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **System** tab at the top.
4. Choose **Maintenance** from the left-hand menu.
5. Go to the **Upgrade** tab at the top.

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. For help finding this option, refer to 6.3 *Using the Navigation Bar*, page 27.

Manual Upgrade Options



1. **Download Firmware:** Download the latest firmware version from [Lorex Technical Support](#) and use a USB drive to install it on your NVR.
2. **Select File:**
 - Click **Select File** to browse and select the new firmware version from your connected USB drive.
 - Once the file is selected, click **OK** to confirm your selection.
3. **Upgrade:** Click **Upgrade** to start the system upgrade.
 - Your NVR will begin installing the new firmware. Wait for the process to complete, and avoid disconnecting the NVR from power or the network during the upgrade.

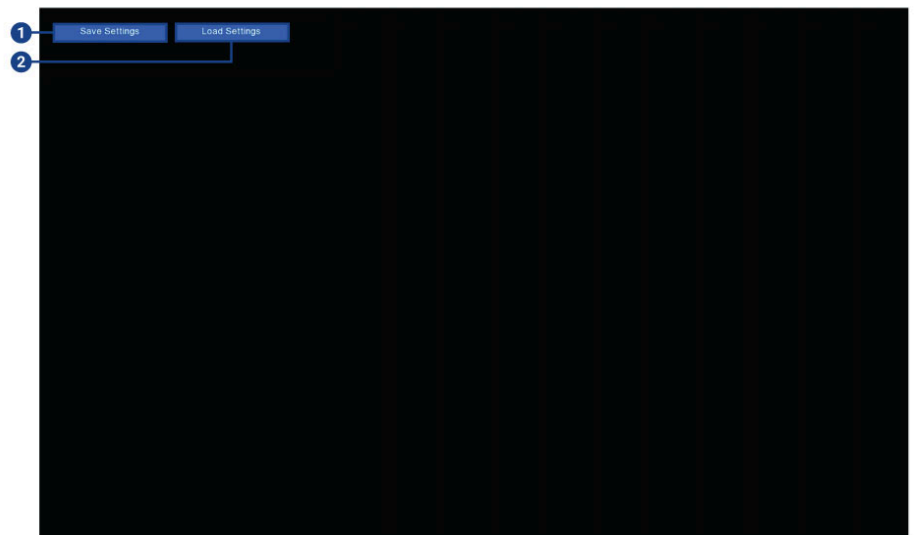
15.4.3.4 Managing System Parameters

With the system **Parameter Management** settings, you can easily back up or restore your NVR's custom settings. This lets you save configurations for future use or quickly apply previous settings.

How to Access System Parameter Management Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **System** tab at the top.
4. Choose **Maintenance** from the left-hand menu.
5. Go to the **Parameter Management** tab at the top.

Saving and Loading NVR Settings



1. **Save Settings:**
 - Insert a USB flash drive into the NVR.
 - Click **Save Settings** to export a file containing all your customized NVR settings.
2. **Load Settings:**
 - Insert a USB flash drive into the NVR.
 - Click **Load Settings** to import a previously saved configuration file from a USB flash drive. It is a quick way to restore your NVR to an earlier setup.

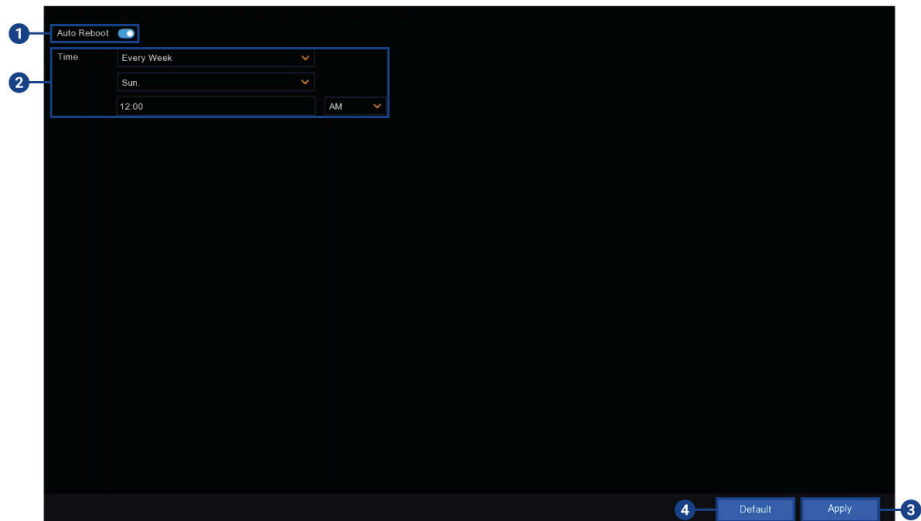
15.4.3.5 Setting Up Auto Reboot

The **Auto Reboot** feature helps keep your NVR running smoothly by scheduling regular reboots, ensuring optimal performance.

How to Access Auto Reboot Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **System** tab at the top.
4. Choose **Maintenance** from the left-hand menu.
5. Go to the **Auto Reboot** tab at the top.

Configuring Auto Reboot Settings



1. **Auto Reboot:** Enable or disable the auto reboot feature. Enabling this feature allows the NVR to reboot automatically based on a schedule you set.
2. **Time:**
 - Use the dropdown menu to select the frequency of the reboot: **Everyday**, **Every Week**, or **Every Month**.
 - If you choose **Every Week** or **Every Month**, select the specific weekday (Monday through Sunday) for the reboot.
 - Enter the specific time for the reboot and choose whether it will occur in the **AM** or **PM**.
3. **Apply Changes:** Click **Apply** to save your changes.

Optional Actions

- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

15.4.4 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.

15.4.4.1 Upgrading Camera Firmware

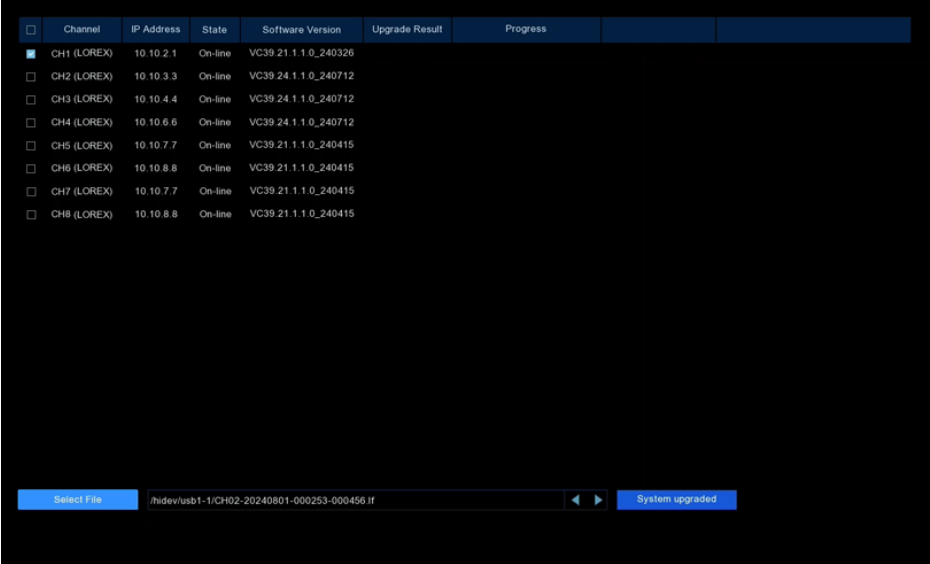
The **Upgrade** settings allow you to update the firmware for your connected cameras, ensuring they operate with the latest features and security improvements.

- 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 Main Menu.
2. Select **Configuration**.
3. Go to the **System** tab at the top.
4. Choose **IP Camera Settings** from the left-hand menu.
5. Go to the **Upgrade** tab at the top.

Camera Firmware Upgrade Options



- 1. **Choose Channels:** Check the boxes next to the cameras you want to upgrade.
- 2. **Select Firmware File:** Click **Select File** to browse your USB flash drive and find the new firmware file. Once selected, click **OK**.
- 3. **Start Upgrade:** After selecting the firmware, click **System Upgrade** to begin updating the selected cameras.

Camera Details and Upgrade Progress

- 1. **Channel:** Lists the connected camera channels.
- 2. **IP Address:** Displays the IP addresses of the cameras.
- 3. **State:** Indicates if the camera is online or offline.
- 4. **Current Firmware Version:** Displays the firmware version installed on each camera.
- 5. **Upgrade Result:** Shows if the firmware update was successful or not.
- 6. **Progress:** Displays the progress bar for each camera being upgraded.

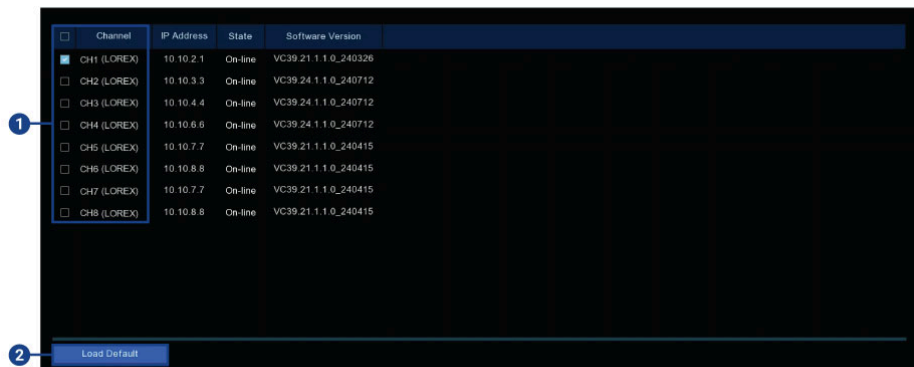
15.4.4.2 Restoring Camera to Factory Defaults

The **Load Default** option allows you to reset your connected cameras to their factory default settings. This is useful if you need to troubleshoot or start with a clean setup.

How to Access Camera Factory Default Settings

- 1. **Right-click** on the live view screen to access the Main Menu.
- 2. Select **Configuration**.
- 3. Go to the **System** tab at the top.
- 4. Choose **IP Camera Settings** from the left-hand menu.
- 5. Go to the **Load Default** tab at the top.

Resetting the Camera to Factory Default Settings



1. **Select Channels:** Check the box next to the camera channels you want to restore to their default settings.
2. **Load Default:** Click **Load Default** to reset the selected cameras. You will need to log in and enter your password to confirm this action.

Load Default Information

1. **Channel:** Displays the list of connected camera channels.
2. **IP Address:** Displays the IP address of each connected camera.
3. **State:** Indicates if the camera is online or offline.
4. **Software Version:** Displays the current firmware version installed on each camera.

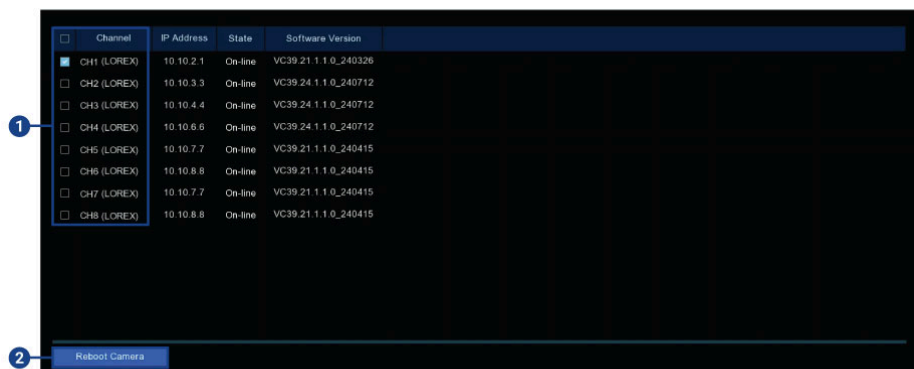
15.4.4.3 Rebooting the Camera

The **Reboot Camera** option allows you to restart your connected cameras directly from the NVR. This is helpful for fixing connectivity issues or applying recent configuration changes.

How to Access Reboot Camera Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **System** tab at the top.
4. Choose **IP Camera Settings** from the left-hand menu.
5. Go to the **Reboot Camera** tab at the top.

Rebooting Cameras



1. **Select Channels:** Check the box next to the camera channels you want to reboot.

2. **Reboot Camera:** Click **Reboot Camera** to restart the selected cameras. You will need to log in and enter your password to confirm the reboot.

Reboot Camera Information

1. **Channel:** Displays the list of connected camera channels.
2. **IP Address:** Displays the IP addresses of each connected camera.
3. **State:** Indicates if the camera is online or offline.
4. **Software Version:** Displays the current firmware version installed on each camera.

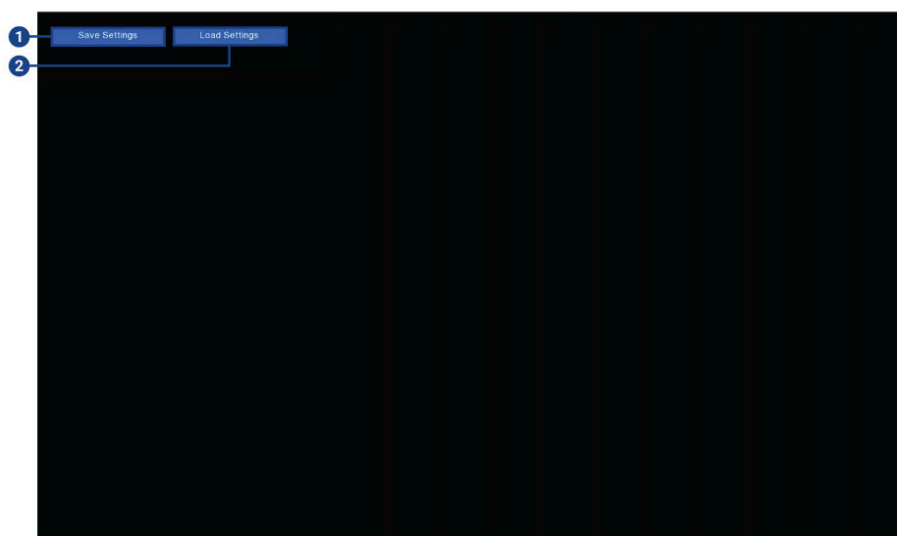
15.4.4.4 Managing Camera Parameters

The **Parameter Management** feature allows you to save and load custom camera settings, making it easy to back up and restore configurations when needed.

How to Access Camera Parameter Management Settings

1. **Right-click** on the live view screen to access the Main Menu.
2. Select **Configuration**.
3. Go to the **System** tab at the top.
4. Choose **IP Camera Settings** from the left-hand menu.
5. Go to the **Parameter Management** tab at the top.

Saving and Loading Camera Settings



1. **Saving Camera Settings:**
 - Insert a USB flash drive into the NVR.
 - Click **Save Settings** to export a file containing all your customized camera settings.
2. **Restoring Camera Settings:**
 - Insert a USB flash drive into the NVR.
 - Click **Load Settings** to import a previously saved configuration file from a USB flash drive. It is a quick way to restore your cameras to an earlier setup.

Parameter Management Information

1. **Channel:** Displays the list of connected camera channels.
2. **IP Address:** Displays the IP addresses of each connected camera.
3. **State:** Indicates if the camera is online or offline.
4. **Software Version:** Displays the current firmware version installed on each camera.

15.5 Viewing System Information

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

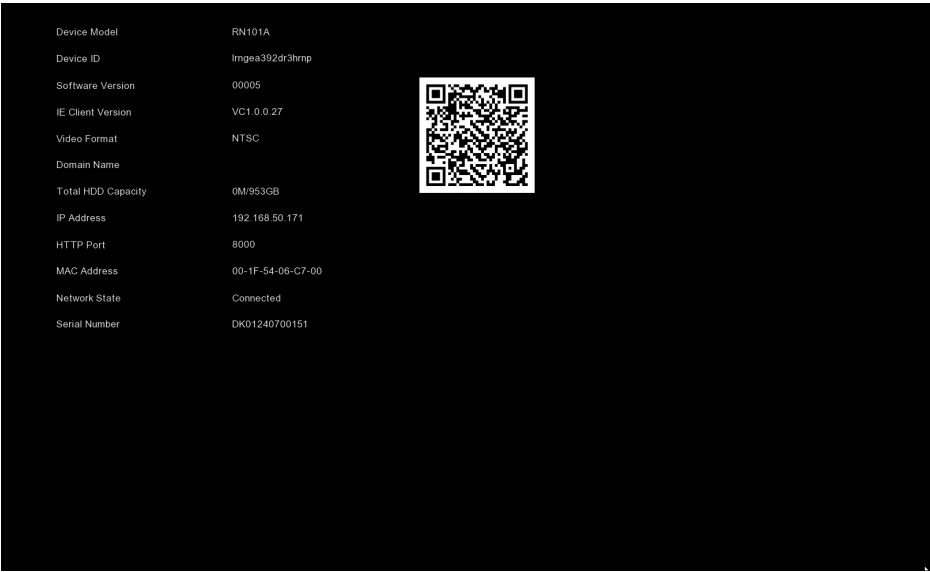
15.5.1 Device Information

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

How to Access Device Information

- 1. **From Live View:**
 - 1.1. Hover over the bottom of the **Live View** screen to reveal the Navigation Bar.
 - 1.2. Click on the **Info** icon from the Navigation Bar.
 - 1.3. Click on the **Device Info** tab.
- 2. **From the Main Menu:**
 - 2.1. **Right-click** on the live view screen to access the Main Menu.
 - 2.2. Select **Configuration**.
 - 2.3. Go to the **System** tab at the top.
 - 2.4. Choose **Information** from the left-hand menu.
 - 2.5. Go to the **Device Info** tab at the top.

Device Information



- 1. **Device ID QR Code:** The recorder’s QR code, located on the right side of the screen, used for easy identification or device setup via mobile apps.
- 2. **Device Model:** Displays the model number of your NVR.
- 3. **Software Version:** Shows the current software version installed on the recorder.
- 4. **IE Client Version:** Indicates the version of the Internet Explorer client used for accessing the NVR.
- 5. **Video Format:** Displays whether the video format is set to NTSC or PAL.
- 6. **Domain Name:** Shows the domain name associated with the recorder.
- 7. **Total HDD Capacity:** Indicates the total hard disk drive capacity.
- 8. **IP Address:** Displays the IP address assigned to the recorder.
- 9. **HTTP Port:** Shows the HTTP port number used by the recorder, typically 8000.
- 10. **MAC Address:** Displays the recorder's MAC address, a unique identifier for network communications.
- 11. **Network State:** Indicates whether the recorder is currently connected to the network.
- 12. **Cloud ID:** Shows the unique Cloud ID used for remote access via cloud services.

13. **Serial Number:** Displays the serial number of the recorder, which is useful for support and warranty purposes.

15.5.2 Channel Information

The **Channel Information** provides detailed status and stream information for each connected camera channel.

How to Access Channel Information

1. From Live View:

- 1.1. Hover over the bottom of the **Live View** screen to reveal the Navigation Bar.
- 1.2. Click on the **Info** icon from the Navigation Bar.
- 1.3. Click on the **Channel Information** tab.

2. From the Main Menu:

- 2.1. **Right-click** on the live view screen to access the Main Menu.
- 2.2. Select **Configuration**.
- 2.3. Go to the **System** tab at the top.
- 2.4. Choose **Information** from the left-hand menu.
- 2.5. Go to the **Channel Information** tab at the top.

Channel Information

Channel	State	Mainstream	Substream
CH1 (LOREX)	On-line	3840x2160, 15Fps, 6Mbps	1280x 720, 15Fps, 1024Kbps
CH2 (LOREX)	On-line	3840x2160, 15Fps, 6Mbps	1280x 720, 15Fps, 1024Kbps
CH3 (LOREX)	On-line	3840x2160, 15Fps, 6Mbps	1280x 720, 15Fps, 1024Kbps
CH4 (LOREX)	On-line	3840x2160, 15Fps, 4Mbps	1280x 720, 15Fps, 1024Kbps
CH5 (LOREX)	On-line	3840x2160, 15Fps, 4Mbps	1280x 720, 15Fps, 1024Kbps
CH6 (LOREX)	On-line	3840x2160, 15Fps, 6Mbps	1280x 720, 15Fps, 1024Kbps
CH7 (LOREX)	On-line	3840x2160, 15Fps, 6Mbps	1280x 720, 15Fps, 1024Kbps
CH8 (LOREX)	On-line	3840x2160, 15Fps, 6Mbps	1280x 720, 15Fps, 1024Kbps

1. **Channel:** Lists all connected camera channels.
2. **State:** Indicates whether each channel is online or offline.
3. **Mainstream:** Displays the mainstream settings, including resolution (in pixels), frame rate (in FPS), and bitrate (in Mbps).
4. **Substream:** Shows the substream settings, including resolution (in pixels), frame rate (in FPS), and bitrate (in Kbps).

15.5.3 Recording Information

The **Record Info** provides detailed information about the recording settings for each connected camera channel, helping you ensure that your NVR is capturing video at the desired quality and performance levels.

How to Access Recording Information

1. From Live View:

- 1.1. Hover over the bottom of the **Live View** screen to reveal the Navigation Bar.
- 1.2. Click on the **Info** icon from the Navigation Bar.

- 1.3. Click on the **Record Info** tab.
2. **From the Main Menu:**

2.1. **Right-click** on the live view screen to access the Main Menu.

2.2. Select **Configuration**.

2.3. Go to the **System** tab at the top.

2.4. Choose **Information** from the left-hand menu.

2.5. Go to the **Record Info** tab at the top.

Recording Information

Channel	Record State	Switch	Stream Type	Resolution	Frame Rate	Bitrate	
CH1 (LOREX)	ON	Enable	Dual Stream	3840x2160 1280x720	15fps 10fps	6Mbps 1024Kbps	
CH2 (LOREX)	ON	Enable	Dual Stream	3840x2160 1280x720	15fps 15fps	4Mbps 1024Kbps	
CH3 (LOREX)	ON	Enable	Dual Stream	3840x2160 1280x720	15fps 15fps	4Mbps 1024Kbps	
CH4 (LOREX)	ON	Enable	Dual Stream	3840x2160 1920x1080	15fps 15fps	2Mbps 1024Kbps	
CH5 (LOREX)	ON	Enable	Dual Stream	3840x2160 1280x720	15fps 15fps	6Mbps 1024Kbps	
CH6 (LOREX)	ON	Enable	Dual Stream	3840x2160 1280x720	15fps 15fps	6Mbps 1024Kbps	
CH7 (LOREX)	ON	Enable	Dual Stream	3840x2160 1280x720	15fps 15fps	4Mbps 1024Kbps	
CH8 (LOREX)	ON	Enable	Dual Stream	3840x2160 1280x720	15fps 15fps	4Mbps 1024Kbps	

1. **Channel:** Lists all connected camera channels.
2. **Record State:** Indicates whether recording is ON or OFF for each channel.
3. **Switch:** Shows whether the recording switch is enabled or disabled.
4. **Stream Type:** Displays the stream type, typically shown as **Dual Stream** (indicating the use of both mainstream and substream).
5. **Resolution:** Displays the resolution settings for both mainstream and substream.
6. **Frame Rate:** Displays the frame rate for both mainstream and substream.
7. **Bitrate:** Displays the bitrate for both mainstream and substream.

15.5.4 Network Status

The **Network Status** provides comprehensive details about the network configuration and status of your NVR, including WAN settings, DNS servers, and bandwidth usage.

How to Access Network Status

1. **From Live View:**

1.1. Hover over the bottom of the **Live View** screen to reveal the Navigation Bar.

1.2. Click on the **Info** icon from the Navigation Bar.

1.3. Click on the **Network State** tab.
2. **From the Main Menu:**

2.1. **Right-click** on the live view screen to access the Main Menu.

2.2. Select **Configuration**.

2.3. Go to the **System** tab at the top.

2.4. Choose **Information** from the left-hand menu.

2.5. Go to the **Network State** tab at the top.

Network Status

Attribute	Value
WAN	
DHCP	Enable
IP Address	192.168.50.51
Subnet Mask	255.255.255.0
Gateway	192.168.50.1
MAC Address	00-23-63-AE-13-5B
DNS1	1.1.1.3
DNS2	8.8.8.8
Internal PoE Switch	
IP Address	10.10.25.100
Subnet Mask	255.255.0.0
Port	
HTTP	8000
RTSP	554
HTTPS	443
Total Bandwidth:	76Mbps
Used Bandwidth:	34Mbps

- 1. **WAN (Wide Area Network)**
 - 1.1. **DHCP:** Indicates whether DHCP is enabled or disabled.
 - 1.2. **IP Address:** Displays the WAN IP address assigned to the NVR.
 - 1.3. **Subnet Mask:** Shows the subnet mask used for network segmentation.
 - 1.4. **Gateway:** Displays the default gateway address for network routing.
 - 1.5. **MAC Address:** Shows the MAC address of the NVR’s network interface.
- 2. **DNS1:** Primary DNS server address.
- 3. **DNS2:** Secondary DNS server address.
- 4. **Internal PoE Switch**
 - 4.1. **IP Address:** Displays the IP address assigned to the internal PoE switch.
 - 4.2. **Subnet Mask:** Shows the subnet mask for the internal PoE switch.
- 5. **Port**
 - 5.1. **HTTP:** Displays the port number used for HTTP connections.
 - 5.2. **RTSP:** Displays the port number used for RTSP (Real-Time Streaming Protocol).
 - 5.3. **HTTPS:** Displays the port number used for HTTPS connections.
- 6. **Total Bandwidth:** Shows the total network bandwidth available to the NVR.
- 7. **Used Bandwidth:** Displays the amount of bandwidth currently being used by the NVR.

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 Recovery feature to reset the password. For detailed instructions, refer to 12 <i>Password Recovery</i>, page 57. • Restore the device to factory settings. For full instructions, refer to 15.4.3.2 <i>Restoring Default Settings</i>, page 97. • To avoid future issues, choose a password that is both easy to remember and secure.
Setup Wizard's App Setup QR Code Not Working	The QR code does not scan — refer to 4.3 <i>Download the Lorex Connect App for Remote Viewing</i>, page 10 for details.
Hard Drive Not Detected	If the hard drive is not detected: • Ensure the hard drive is securely connected, refer to 14.4 <i>Replacing the Hard Drive (HDD)</i>, page 69. • 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 14.4 <i>Replacing the Hard Drive (HDD)</i>, page 69. • 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 7 <i>Motion Detection Setup</i>, page 30.
NVR Buzzer Keeps Beeping	If the buzzer continues to beep: • Check the warning alerts settings (refer to 7 <i>Motion Detection Setup</i>, page 30) and motion detection settings (refer to 7 <i>Motion Detection Setup</i>, page 30). • Ensure there are no constantly moving objects in the detection area.
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 14.1 <i>Configuring the Recording Schedule</i>, page 65), adjust the recording status or disable the channel (refer to 9 <i>Recording Settings</i>, page 42).
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 14.5 <i>Overwriting and Formatting Your Hard Drive</i>, page 77.

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

17.1 General

Video Transmission Technology	IP
Channels	8 Channels

17.2 Inputs & Outputs

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

17.3 Display

Maximum Display Resolution	Up to 4K Ultra HD (3840 × 2160 pixels)
HDMI Output Resolutions	3840 × 2160, 2560 × 1440, 1920 × 1080, 1440 × 900, 1280 × 1024, 1280 × 720, 1024 × 768
VGA Output Resolutions	1920 × 1080, 1440 × 900, 1280 × 1024, 1280 × 720, 1024 × 768
Live Display Modes	1, 4, 9 view split
On-Screen Display (OSD)	On/Off
System Navigation	USB Mouse

17.4 Recording

Supported Recording Resolutions	8 MP (3840 × 2160), 5 MP (2592 × 1944), 3 MP (2048 × 1536 pixels), 2 MP (1920 × 1080 pixels), 1.3 MP (1280 × 960), 1 MP (1280 × 720)
Video Compression	H.265, H.265+, H.264, H.264+
Recording Modes	Continuous, Motion Detection, and AI Motion Detection (per channel)

17.5 Playback

Simultaneous Playback	Up to 4 Channels (Synchronized)
Playback Speed Options	- Fast Forward/Rewind: 2×, 4×, 8×, 16× - Slow Motion: 1/2×, 1/4×, 1/8×, 1/16×
Search Options	By Time/Date, All Motion Events, or AI Motion Detection (Person and Vehicle)

17.6 Storage & Backup

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

17.7 AI Detection & Smart Features

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

17.8 Connectivity

Mobile Viewing	Lorex Connect App (iOS and Android)
Event Notifications	Video Loss, Beep, Email, Push Notifications
Email Notifications	Text and Snapshot Alerts
Network Interface	10/100 Base-TX (RJ45)
Network Bit Rate	56 Mbps total (512 kbps – 6,144 kbps per stream)
USB Ports	• Front: 1 × USB 2.0 • Back: 1 × USB 2.0
Firmware Upgrade	Network or USB
Supported Languages	English, French, and Spanish
DDNS	Optional

17.9 Security

Password Reset	Supported
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17.10 Power

Power Supply	DC 48 V / 1.5 A
PoE Power Output	Maximum 25.5 W per port, 72 W total
Power Consumption (Excluding HDD)	6 W

17.11 Physical & Environmental

QuietTek (Fanless Design)	Supported
Product Weight	3.170 lbs (1.43 kg)
Product Dimensions (W × D × H)	11.81 × 8.20 × 2.07 in (299.97 × 208.28 × 52.58 mm)
Operating Temperature	14°F to 122°F (-10°C to 50°C)
Humidity	<90% RH (Non-condensing)

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.

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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.

18.1 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.

18.2 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.



Website

www.lorextechnology.com

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