# User Manual
# RD501 Series

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# RD501 Series

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

RD501A-81B-AB1

RD501A1-45T-E

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

www.lorex.com

**WARNING**

RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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

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

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

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

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# 1 Important Safeguards

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

**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 DVR on a stable surface. An unstable placement can cause the device to fall, leading to serious injury or death.
- The DVR 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 DVR in dusty or dirty environments. Ensure the DVR 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 DVR clean and dry. Use a soft cloth for cleaning and avoid using liquid or aerosol cleaners.
- Do not dispose of the battery in fire, expose it to high temperatures, or subject it to mechanical damage, as this may cause explosion or leakage of hazardous materials.
- Avoid exposing the battery to extremely high temperatures or low air pressure, as this may lead to explosion or leakage of flammable liquids or gases.
- Use this device in accordance with local laws, electrical safety standards, and fire prevention regulations.

# 2 Package Contents

Your DVR package includes the following accessories:

4K 8–Channel DVR

Network Cable

HDMI Cable

USB Mouse

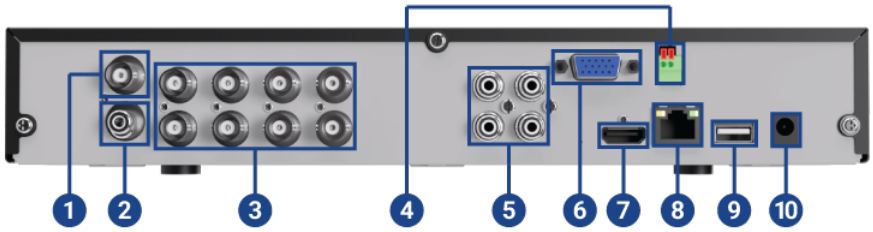
Power Adapter

# 3 Recorder Overview

## 3.1 Front Panel Overview

1. **HDD (Hard Disk Drive) & Power Status Indicators:** On indicates normal operation; off signals a hard drive error or that the power is off.
2. **USB Port:** Connect the included mouse or a USB hard disk drive for backup or manual firmware updates.

## 3.2 Back Panel Overview

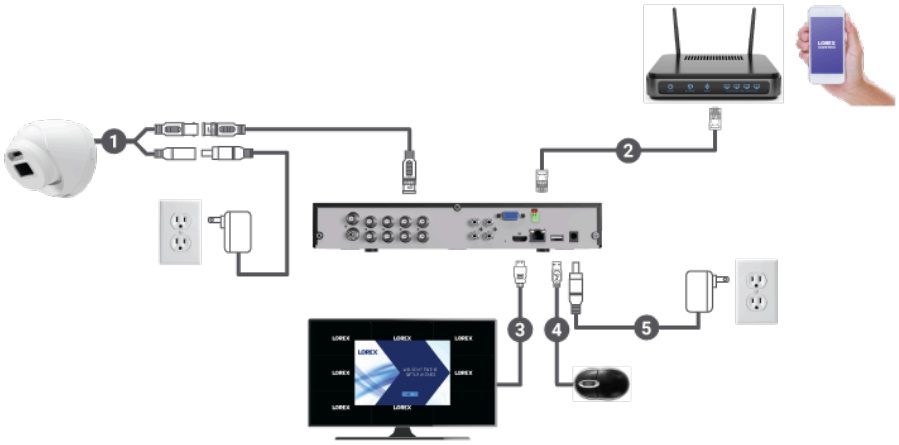



1. **Spot Monitor Output (CVBS):** Connect a secondary analog monitor using a BNC cable to display the live view of a selected camera independently from the main HDMI/VGA display.
2. **Audio Output:** Connect external speakers to hear system audio, such as live or recorded audio from connected microphones. For details on connecting external audio devices, see 7.2 *Option 2: Using External Audio Devices*, page 29 for details.
3. **Video Inputs (BNC):** Connect Lorex analog cameras to the DVR using BNC video cables. To view compatible camera models, visit lorex.com/pages/compatibility and search for your recorder model.
4. **RS485 Port:** Used to connect PTZ (Pan-Tilt-Zoom) cameras that support RS485 serial control. For full details connecting PTZ cameras, see 6 *Pan-Tilt-Zoom (PTZ) Camera Setup*, page 20.
5. **Audio Input:** Connect an external microphone for single-channel audio recording. For details on connecting external audio devices, see 7.2 *Option 2: Using External Audio Devices*, page 29 for details.
6. **VGA Output:** Connect to a TV or display monitor using a VGA cable (not included). VGA supports up to **1080p resolution** depending on your monitor's capabilities.
7. **HDMI Output:** Connect to a TV or display monitor using the included HDMI cable for video display.
8. **Network Port (LAN):** Connect to your router using the included network cable for remote viewing through the app.
9. **USB Port:** Connect the included mouse for system control, or a USB flash drive/external hard drive to back up recordings or update firmware.
10. **Power Input (12V DC):** Connect the included power adapter here to supply power to the DVR and turn it on.

# 4 DVR Setup

Learn how to connect your cameras, power up the DVR, and complete setup using a monitor and mouse. This guide walks you through the basic connections and the on-screen **Lorex Setup Wizard**. You can also link the system to the **app** for remote viewing and automatic firmware updates.

## 4.1 Connecting the DVR




1. **Connect the cameras:**
   - Connect each camera's BNC video cable to a Video Input port on the DVR.
   - Plug the power adapter into the camera and into a power outlet.
2. **Connect to your router:** Use the included network cable to connect the DVR's LAN port to your router.
3. **Connect a monitor:** Use the included HDMI cable to connect the DVR's HDMI port to your TV or display monitor.
4. **Connect the mouse:** Plug the included USB mouse into a USB port on the DVR.
5. **Power on the DVR:** Connect the included power adapter to the 12V DC port, then plug it into a power outlet. The DVR will power on automatically.
6. **Complete the setup:** Follow the on-screen **Lorex Setup Wizard** to finish system setup.

## 4.2 Using the Mouse

The mouse allows you to easily navigate and interact with your DVR 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 8.2 *Using the Camera Quick Toolbar*, page 31.
1.4. **Hover** over the bottom of the split-screen view in live view to display the Navigation Bar. For detailed instructions, refer to 8.3 *Using the Navigation Bar*, page 33.
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.

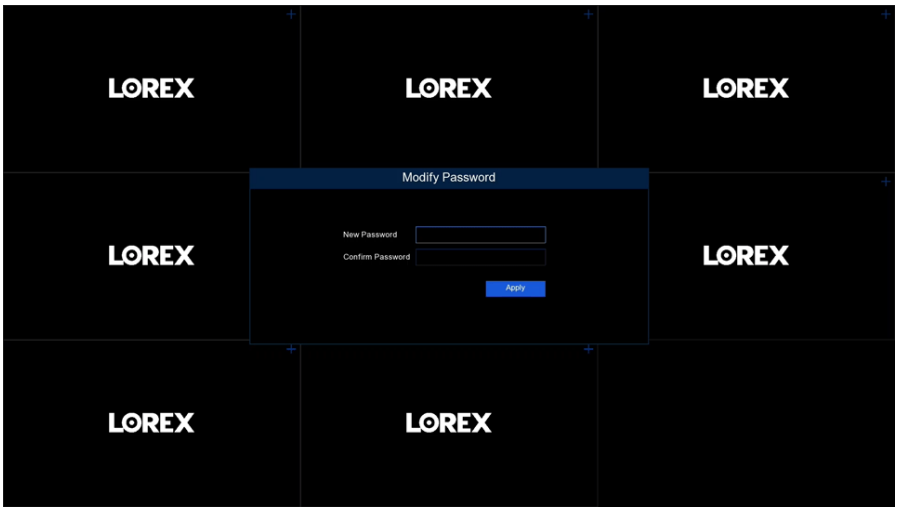
3. **Scroll Wheel**

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.

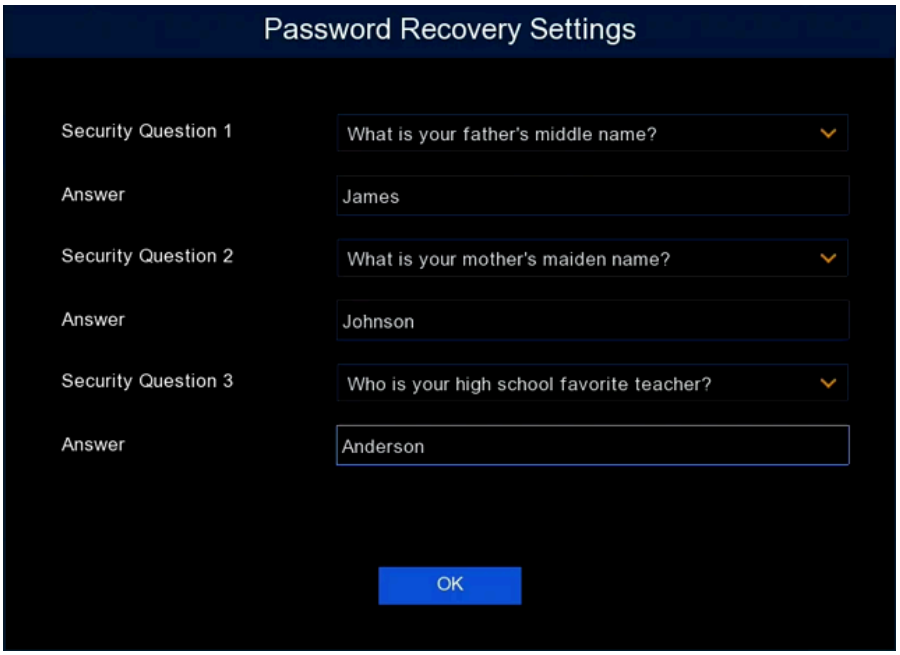
### 4.3 Running the Lorex Setup Wizard

Once your DVR 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 DVR system, then confirm it. Click **Apply** to save.




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

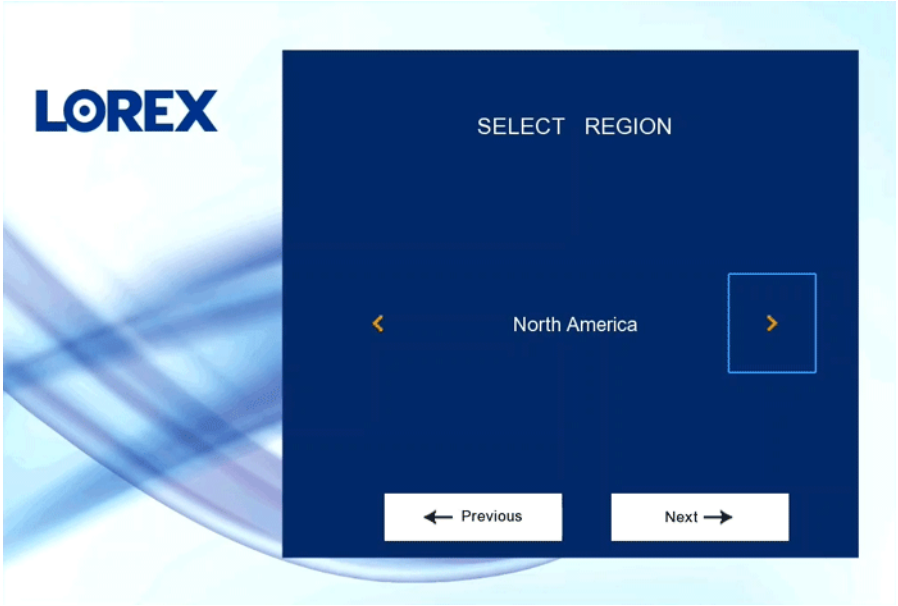


**Follow these steps to complete the Lorex Setup Wizard:**

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

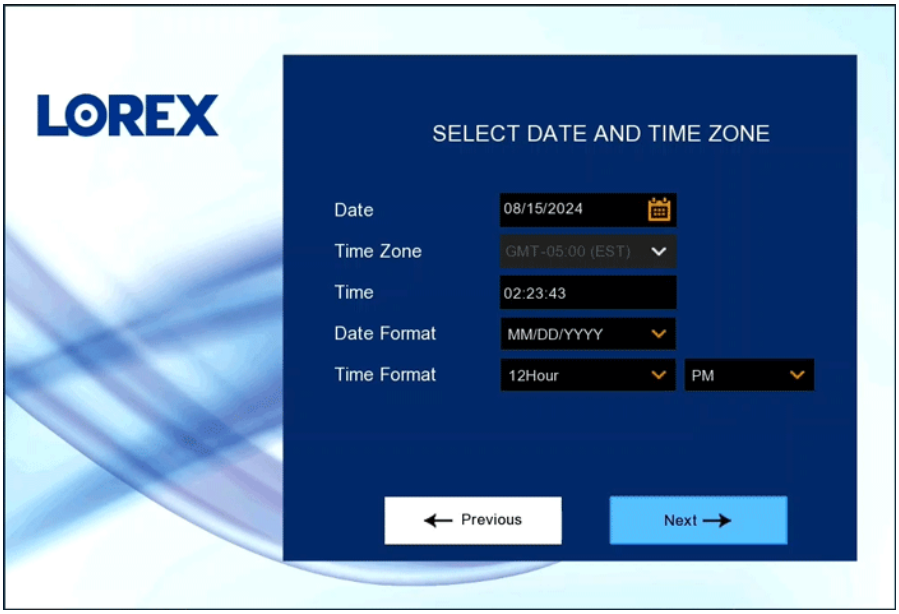
2. **Select a Language:** Use the arrows to choose your language (English, French, or Spanish). Click **Next**.

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

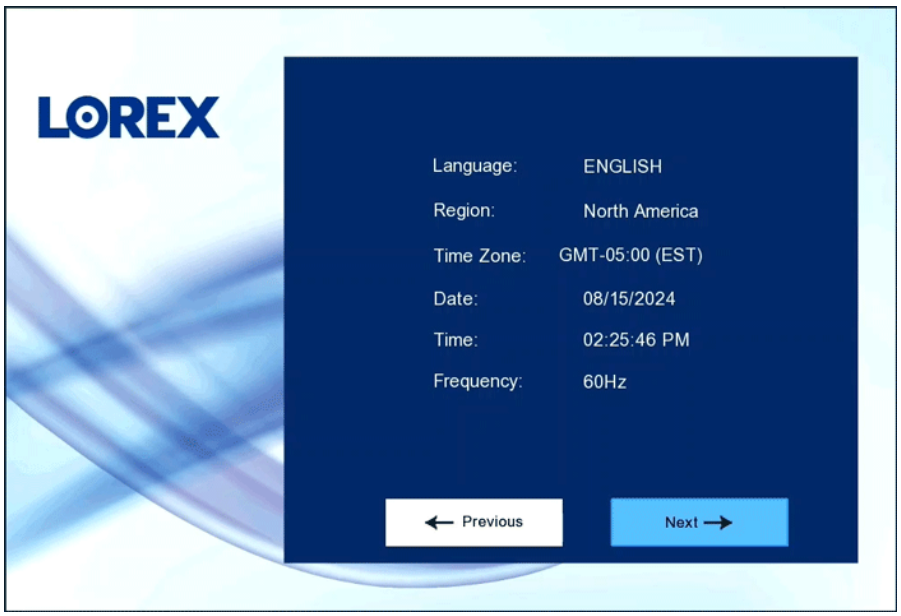



4. **Set the Date and Time Zone:** Choose the correct date and time for your region, then select the preferred date and time formats. Click **Next**.

> **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.

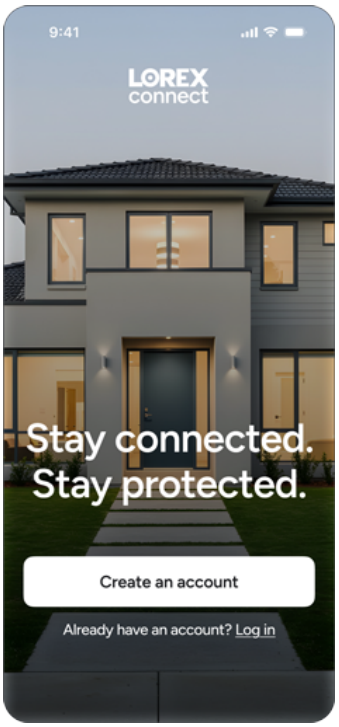
### 4.4 Connecting to the App for Remote Viewing

**NOTE**

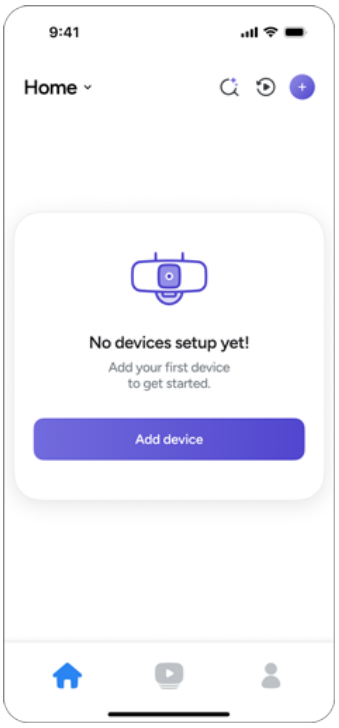
Ensure a high-speed Internet connection with at least 6 Mbps upload speed per 4K channel and 24 Mbps for the entire system.

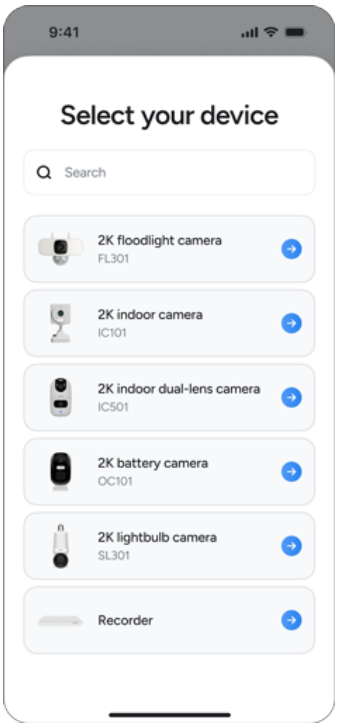
1. Download the **Lorex Connect** app from the App Store or Play Store.

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

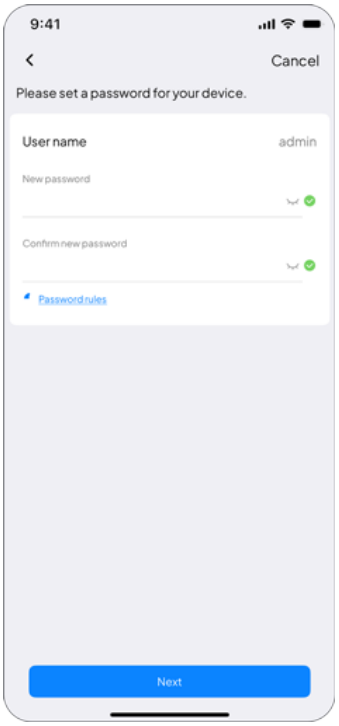


3. Tap + **Add device** and select **Recorder**. Your phone and DVR should be connected to the same network.

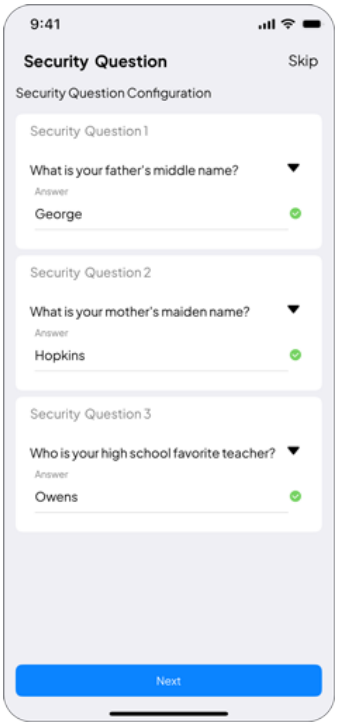


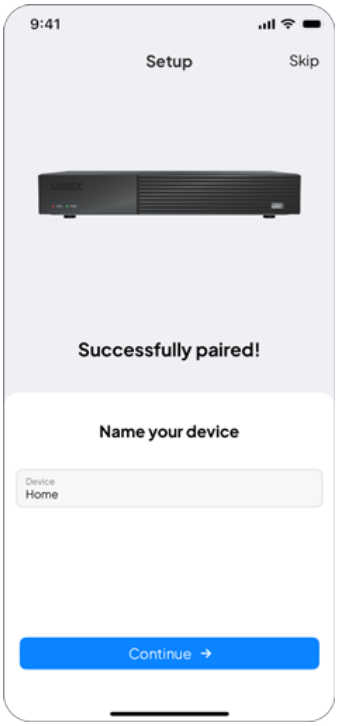
4. Set a password for your DVR.




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



6. Give your DVR a name.

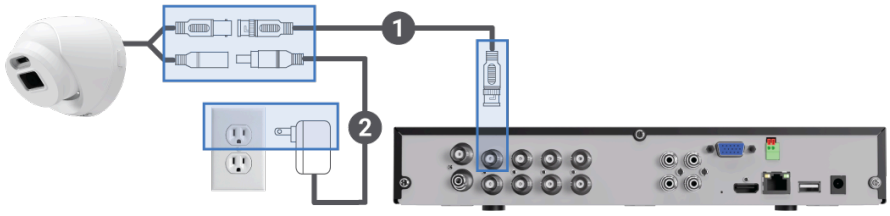



For up-to-date guides on using the Lorex Connect app, visit our Support site: www.lorex.com/pages/help.

# 5 Camera Setup

This chapter covers how to connect and configure your cameras with the DVR. Cameras connect directly to the DVR using BNC video cables and are powered using the adapters included with the camera or bundle. You'll also learn how to adjust live view settings and position your cameras for the best coverage and performance. Follow these steps to get the most out of your camera system.

## 5.1 Connecting Cameras to the DVR




1. **Connect the BNC video cable:**
   - Push and twist the male BNC connector on the cable into the female BNC connector on the camera.
   - Connect the other end to a Video Input port on the back of the DVR.

> **NOTE**
>
> The BNC video cable must be one continuous length between the camera and the DVR. Do not connect multiple extension cables together.

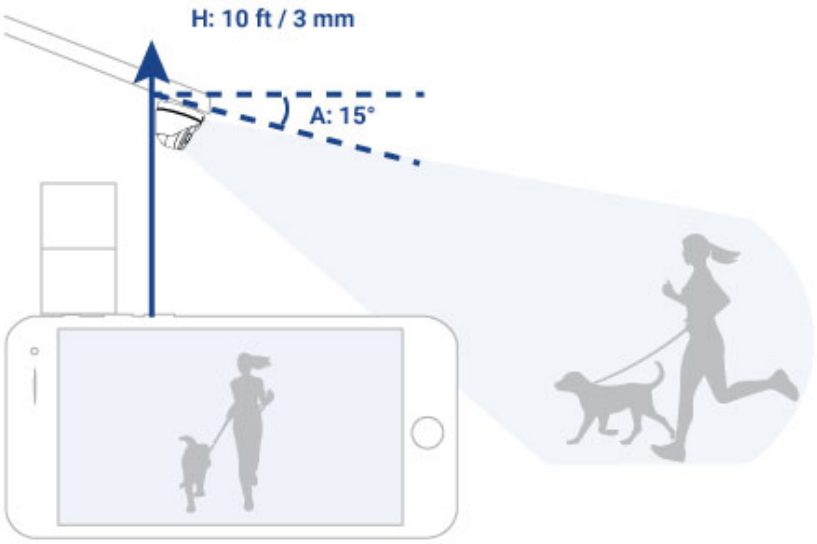
2. **Connect the power adapter:**
   - Plug the power adapter into the camera's power port.
   - Plug the adapter into a power outlet.
3. **Repeat for each camera.**

## 5.2 Camera Installation

This section provides general tips and instructions for connecting cameras to the DVR. For detailed installation steps, refer to your camera's Installation Guide or search your camera model at www.lorex.com/pages/help.

### *5.2.1 Camera Placement Tips*

To ensure optimal camera performance, follow these guidelines:




- **Test first**: Connect the camera to the DVR 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.

### *5.2.2 Installing the Cameras*

1. Mount the cameras to a sturdy surface using the provided hardware. Refer to the Installation Guide, search your camera model at www.lorex.com/pages/help.

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

| | |
|---|---|
| **Wall Mount** | **Ceiling Mount** |

### 5.3 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 in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Channel**.
4. In the left menu, click **Live View Settings**.

**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. **Hide Preview:** 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. **Show Time:** Enable or disable displaying the current time on the live view.
7. **Camera Type:** Select the video signal type for each camera. Options are:
   - **AUTO:** The DVR automatically detects the camera's signal type (TVI, AHD, or analog).
   - **TVI:** Transport Video Interface, a high-definition over-coax format.
   - **AHD:** Analog High Definition, another HD over-coax format.

   **NOTE**

   If using different camera types, **AUTO** is recommended to let the DVR detect and match the correct signal automatically.
8. **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.

**Live Setup Panel**

1. **Channel:** Select the camera channel to configure.
2. **Channel Name:** Edit the camera's name.
3. **Camera Type:** Select the video signal type for the camera (AUTO, TVI, or AHD). AUTO detects the signal type automatically.
4. **Hide Preview:** Enable to hide the camera's live view in the channel grid.
5. **Show Name:** Enable or disable displaying the camera name on the live view.
6. **Show Time:** Enable or disable displaying the current time on the live view.
7. **Apply Changes:** Click **Apply** to save your changes.

**Optional Actions**

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

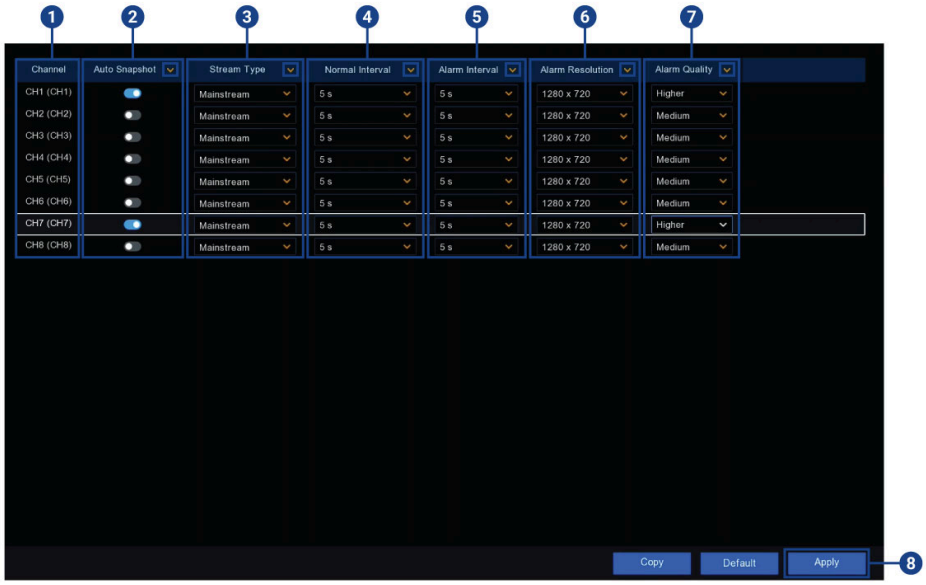
## 5.4 Taking Snapshots

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 in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Channel**.
4. In the left menu, click **Snapshot**.

### 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. **Stream Type:** Choose **Mainstream** or **Substream**. Mainstream uses higher resolution; Substream uses lower resolution and less bandwidth.
4. **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.
5. **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.
6. **Alarm Resolution:** Choose the resolution used for alarm-triggered snapshots. Higher resolution provides more detail.
7. **Alarm Quality:** Set the image quality from lowest to highest. Higher quality uses more storage but results in clearer snapshots.
8. **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.

## 5.5 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

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Channel**.
4. In the left menu, click **Privacy Masking**.

### 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 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.

#### 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.

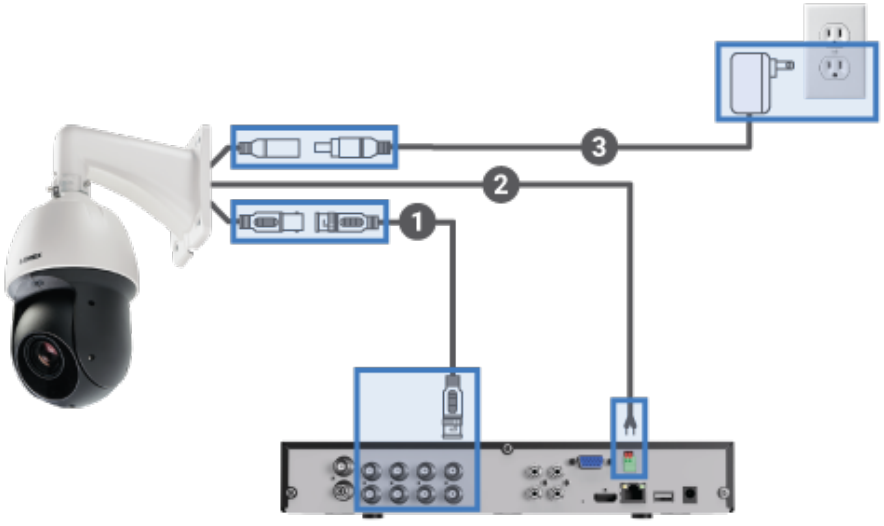
# 6 Pan-Tilt-Zoom (PTZ) Camera Setup

PTZ (Pan-Tilt-Zoom) cameras can move automatically or be manually controlled using the DVR. These cameras allow you to:

- **Pan:** Move the camera left and right.
- **Tilt:** Move the camera up and down.
- **Zoom:** Magnify the image with optical zoom.

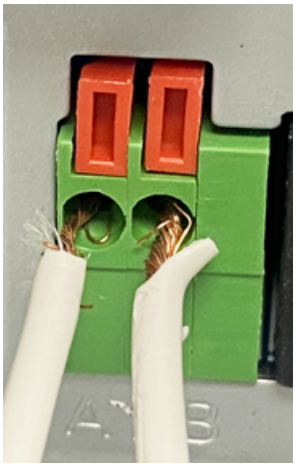
PTZ cameras can also use **presets** to save camera positions and automatically **cruise** through them for continuous monitoring.

## 6.1 How to Connect PTZ Cameras




1. **Connect the Video Cable:**
   - Plug the **BNC video cable** from the PTZ camera into one of the DVR's Video Input ports.

2. **Connect RS485 (Standard PTZ Only):**
   - Press the **orange A** button and insert the PTZ camera's **TX+ (positive)** wire into the hole. Release to lock.
   - Press the **orange B** button and insert the PTZ camera's **TX– (negative)** wire into the hole. Release to lock.




3. **Power the Camera:**
   - Connect the PTZ camera's power adapter to a power outlet.

| ⚠ CAUTION |
| --- |
| When powered on, the PTZ camera may move as it performs its initial diagnostic check. |

### 6.2 Configure PTZ Camera Settings

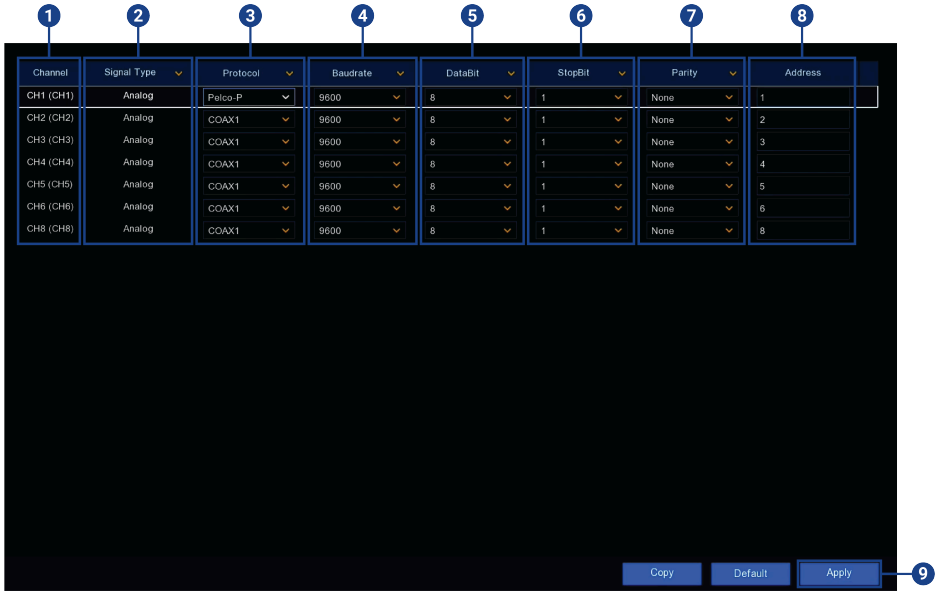
After connecting the PTZ camera to the DVR, follow these steps to configure its communication settings. This ensures the DVR can properly control the PTZ functions (pan, tilt, zoom).

**How to Access PTZ Settings**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Channel**.
4. In the left menu, click **PTZ**.

**To Configure PTZ Settings:**

| NOTE |
| --- |
| If the PTZ camera does not respond after configuration, try switching the protocol to **Pelco-D** or **Pelco-P**, and ensure the camera's own settings match what you selected. |



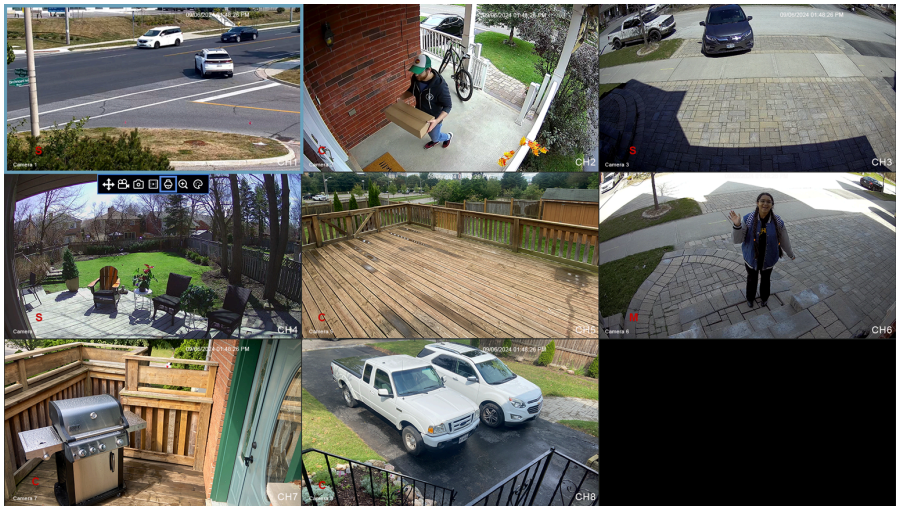

1. **Channel:** Select the PTZ camera channel.
2. **Signal Type:** Will display as **Analog** automatically.
3. **Protocol:** Select the appropriate protocol for your PTZ camera: **COAX1** (default), **Pelco-D**, **Pelco-P**, or **COAX2**.
4. **Baudrate:** Use the default **9600**, unless your camera requires 1200, 2400, or 4800.
5. **Databit:** Set to **8** unless otherwise specified by the camera.
6. **Stopbit:** Choose **1** (default) or **2**, based on your camera spec.
7. **Parity:** Select **None**, **Odd**, **Even**, **Mark**, or **Space** as required.
8. **Address:** Enter the PTZ camera's address. Each connected camera must have a **unique number**. (e.g., CH1 = 1, CH2 = 2, etc.)
9. **Apply Changes:** Click **Apply** to save your changes.

**Optional Actions**

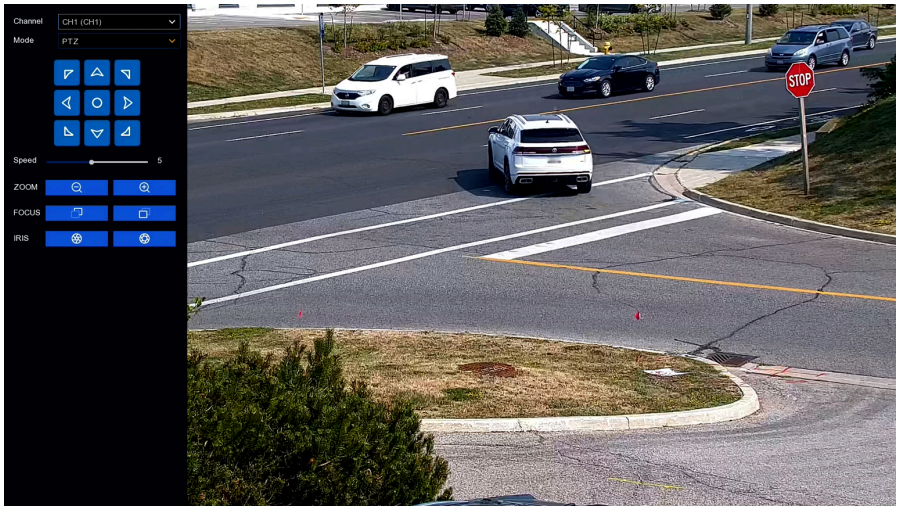
- **Copy:** Click **Copy** to duplicate settings to other channels, then **Apply** to save.
- **Default:** Click **Default** to restore original settings, then **Apply** to confirm.

## 6.3 Accessing PTZ Controls

1. From **Live View**, click on the PTZ channel to open the **Quick Camera Toolbar**.



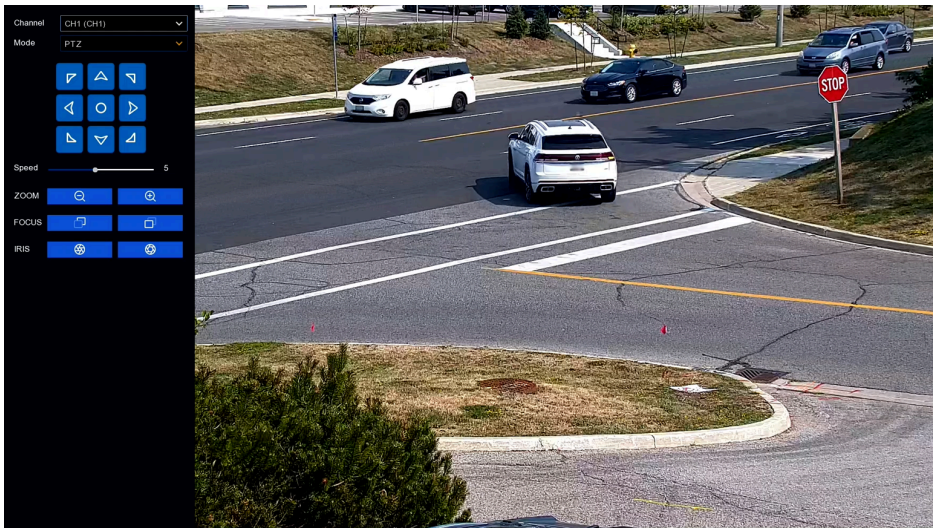
2. Click **Pan/Tilt/Zoom (PTZ)**.
3. The **PTZ Control Panel** will appear:




- **Left side:** PTZ control options.
- **Right side:** PTZ camera live view.

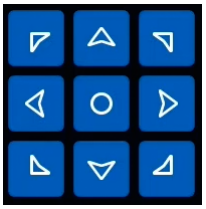
## 6.4 PTZ Mode (Standard Control)

Use PTZ Mode for direct camera movement and zoom control.




1. **Channel:** Select the PTZ camera channel.
2. **Mode:** Set to **PTZ**.

3. **Manual Direction:**



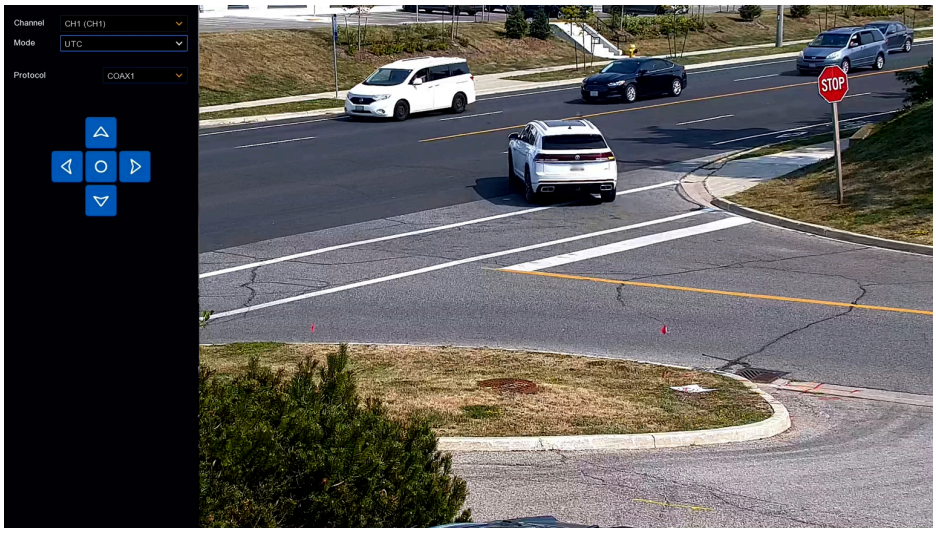
- Use the arrow buttons to pan/tilt.
- The center circle starts/stops automatic circular motion.

> **NOTE**
>
> If the camera does not respond, verify the PTZ **Protocol**. Refer to 6.2 *Configure PTZ Camera Settings*, page 21 for details.

4. **Speed:** Adjust how quickly the camera moves.
5. **Zoom:** Click + to zoom in or – to zoom out.
6. **Focus / Iris:** Use + or – to adjust image sharpness and brightness.

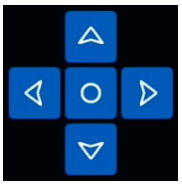
### 6.5 UTC Mode (For UTC Cameras)

Use UTC Mode to control cameras that require protocol selection over the video cable.




1. **Channel:** Select the UTC channel.
2. **Mode:** Set to **UTC**.
3. **Protocol:** Select **Coax 1** or **Coax 2**, depending on the camera.

4. **Manual Direction:**



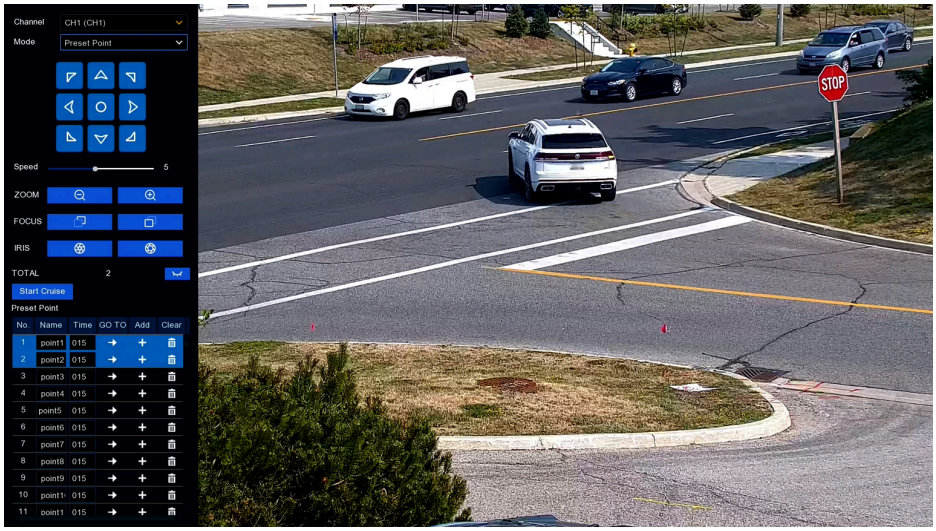
- Use the arrow buttons to pan/tilt.
- The center circle starts/stops automatic circular motion.

> **NOTE**
>
> If the camera does not respond, verify the PTZ **Protocol**. Refer to 6.2 *Configure PTZ Camera Settings*, page 21 for details.

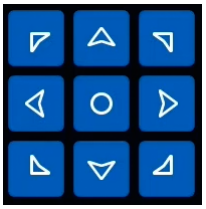
### 6.6 Preset Points and Start Cruise

Preset Points let the PTZ camera quickly return to saved positions. You can create a sequence of presets for **automatic cruising**.

**To Add a Preset Point:**




1. **Channel:** Select the PTZ camera channel.
2. **Mode:** Set to **Preset Point**.
3. **Manual Direction:**



- Use the arrow buttons to pan/tilt.
- The center circle starts/stops automatic circular motion.

> **NOTE**
>
> If the camera does not respond, verify the PTZ **Protocol**. Refer to 6.2 *Configure PTZ Camera Settings*, page 21 for details.

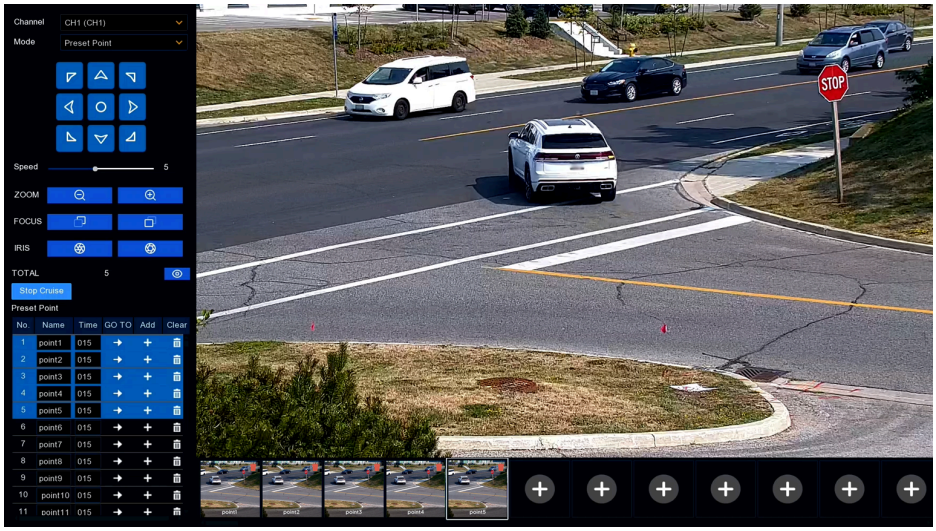
4. **Speed:** Adjust how quickly the camera moves.

5. **Zoom:** Click + to zoom in or – to zoom out.
6. **Focus / Iris:** Use + or – to adjust image sharpness and brightness.
7. **Add Preset:**
   - Select an empty row in the Preset table.
   - Click **Add**. The row turns blue and a thumbnail appears.
8. **Name / Time:** Click the cells to edit preset name and dwell time.

**Optional Actions**

- **Go To:** Click to move the camera to the selected preset.
- **Clear:** Deletes the selected preset.

**To Start Cruise:**




1. Add **two or more presets**.
2. Click **Start Cruise** to have the camera cycle through all saved presets.
3. Click again to **Stop Cruise**.

**Optional Actions**

- Next to total presets, click the **Hide Preview** icon to display the preset thumbnails. The icon will change to **Show Preview** .

# 7 Audio Device Setup

**CAUTION**

**Audio recording and/or use of listen-in audio without consent is illegal in certain jurisdictions. Lorex Corporation assumes no liability for use of its products that does not conform with local laws.**

Your DVR supports audio recording and playback through two methods:

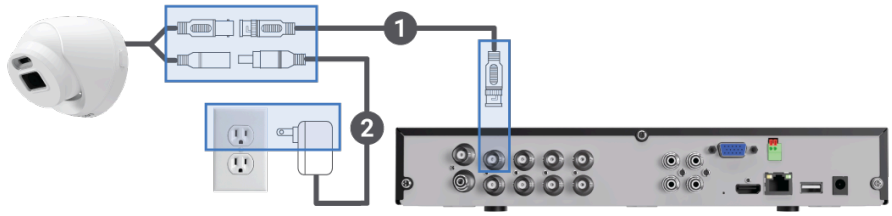
- **Analog audio cameras** that transmit audio over the coaxial video (BNC) cable.
- **External audio devices** (microphones and speakers) connected to the DVR's **AUDIO IN/OUT** ports.

This chapter will guide you through connecting audio devices, configuring audio settings in the DVR, and enabling audio per channel.

## 7.1 Option 1: Using an Analog Audio Camera

Analog audio cameras send both video and audio signals through a single coaxial (BNC) cable. This is the simplest way to capture audio if your camera supports it.

**Connect the Camera:**




1. **Connect the BNC video cable:**
   - Push and twist the male BNC connector on the cable into the female BNC connector on the camera.
   - Connect the other end to a Video Input port on the back of the DVR.

   **NOTE**

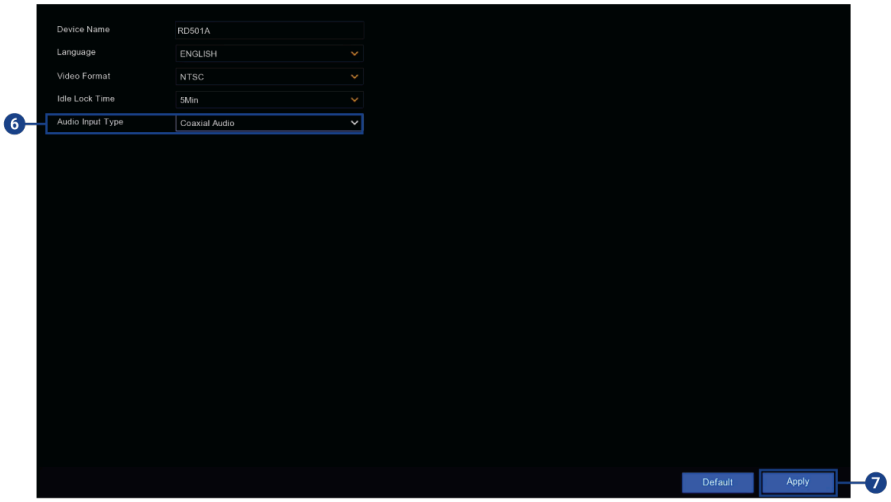
   The BNC video cable must be one continuous length between the camera and the DVR. Do not connect multiple extension cables together.

2. **Connect the power adapter:**
   - Plug the power adapter into the camera's power port.
   - Plug the adapter into a power outlet.

**Set the Audio Input Type:**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **System**.
4. In the left menu, click **General**.

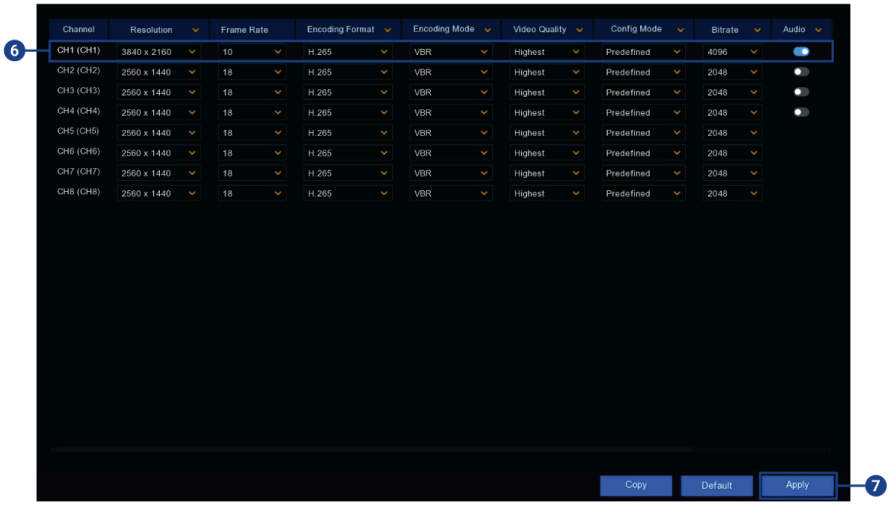
5. In the top menu, click **General**.




6. Under **Audio Input Type**, select **Coaxial Audio**.
7. **Apply Changes:** Click **Apply** to save changes.

**Enable Audio for the Camera Channel:**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Channel**.
4. In the left menu, click **Recording Settings**.
5. In the top menu, click **Mainstream** and **Substream**.




6. Enable **Audio** on the channel where your audio camera is connected.
7. **Apply Changes:** Click **Apply** to save changes.

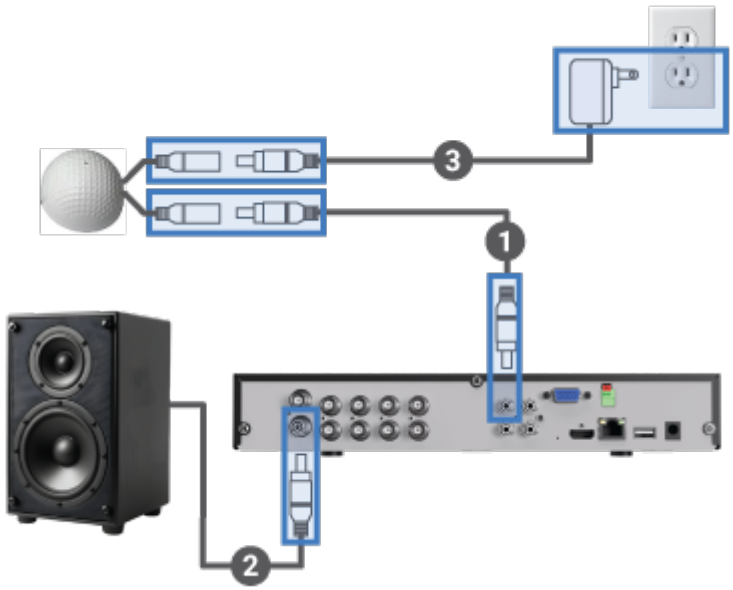
**Optional Actions**

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

### 7.2 Option 2: Using External Audio Devices

If you are using a standalone microphone and/or speaker, connect them to the **AUDIO IN** and **AUDIO OUT** ports on the back of the DVR.

**To Connect Devices:**

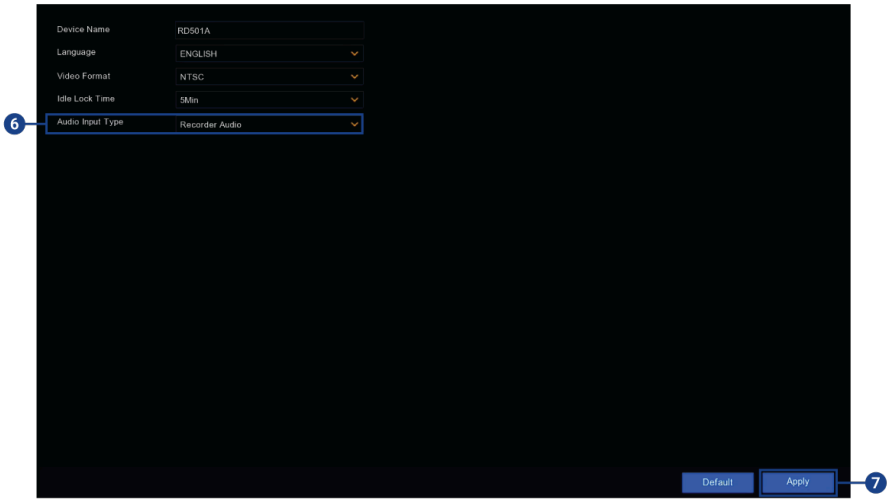



1. Plug a **microphone** into the **AUDIO IN** port.
2. Plug a **speaker** into the **AUDIO OUT** port.
3. Make sure both devices are powered on, if required.

**Set the Audio Input Type:**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **System**.
4. In the left menu, click **General**.

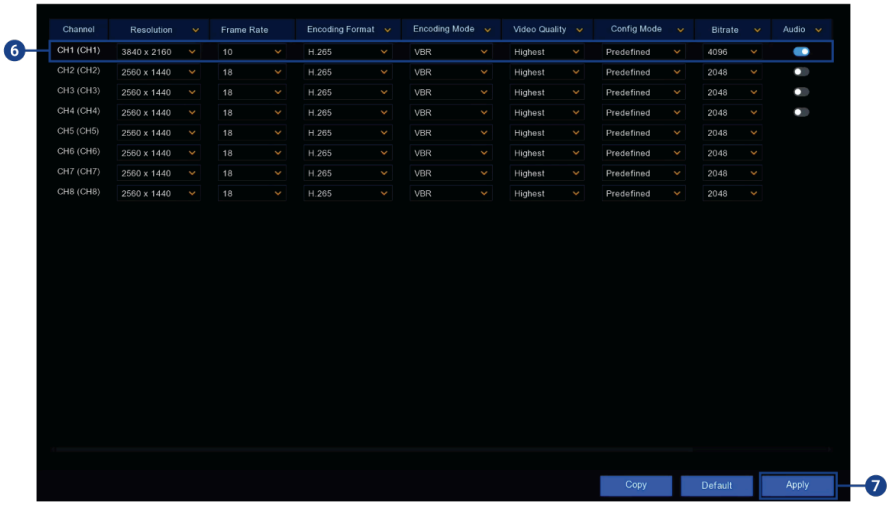
5. In the top menu, click **General**.




6. Under **Audio Input Type**, select **Recorder Audio**.
7. **Apply Changes:** Click **Apply** to save changes.

**Enable Audio for the Camera Channel:**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Channel**.
4. In the left menu, click **Recording Settings**.
5. In the top menu, click **Mainstream** and **Substream**.




6. Enable **Audio** on the channel where your external audio device is connected.
7. **Apply Changes:** Click **Apply** to save changes.

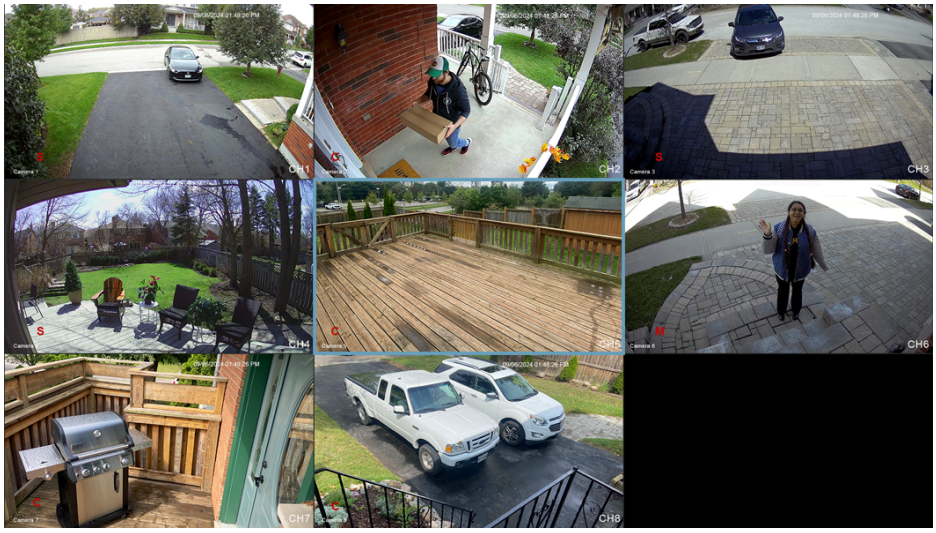
# 8 Live View

The **Live View** feature gives you real-time access to what's happening on all your connected cameras. You can watch multiple camera feeds at once, making it easy to keep an eye on everything. You can choose a specific camera to see it in full-screen, change camera settings, and use features like zoom, take snapshots, and start recording manually.

**How to Access Live View**

1. Right-click to open the **Main Menu**.
2. In the **Main Menu**, select **Live**.

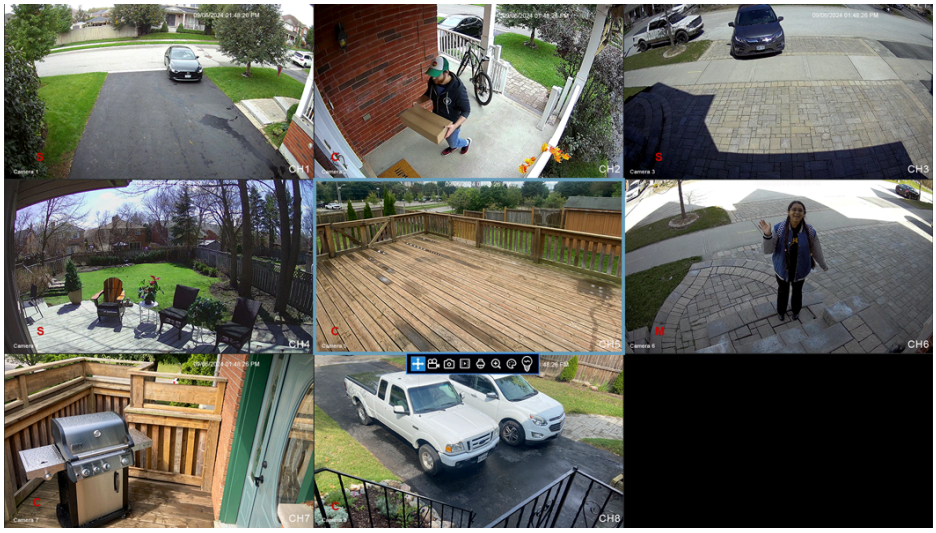
## 8.1 Camera Live View Overview



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 of each channel.
   - **Channel Number and Name:** 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.

## 8.2 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:

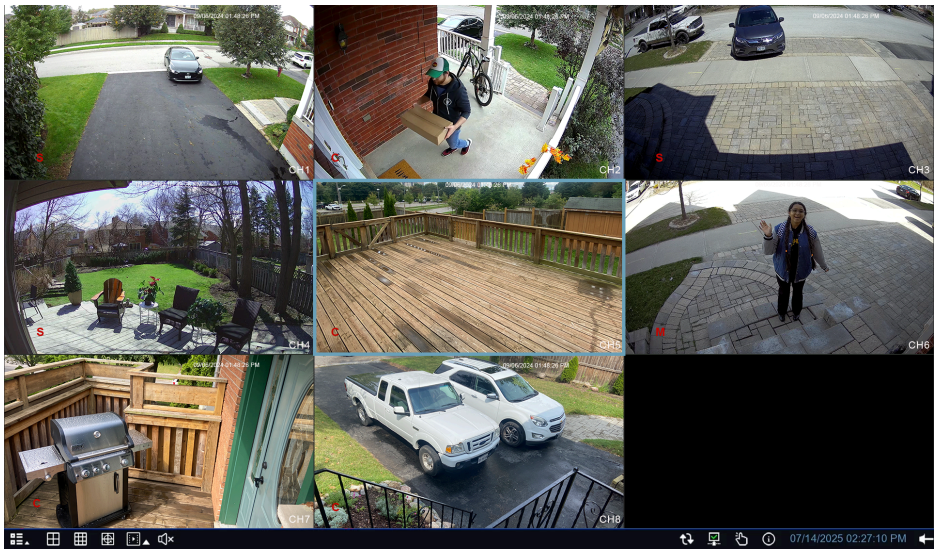


1. **Move Toolbar:** Drag the toolbar anywhere on the screen for convenient access.
2. **Start/Stop Recording:** Begin or stop manual recording for the selected channel.
3. **Take Snapshot:** Capture a snapshot of the current video.
4. **Instant Playback:** Review the most recent recording.
5. **PTZ:** Click to open PTZ controls for cameras that support pan, tilt, and zoom. Refer to 6.3 *Accessing PTZ Controls*, page 22 for details.
6. **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.
7. **Modify Color Settings:** Adjust the image's hue, brightness, contrast, saturation, and sharpness.

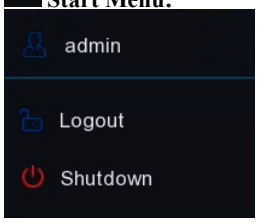
8. **Light:** Turns on the camera's deterrence light, which automatically shuts off after 1 minute. Available only on cameras with a deterrence light.

### 8.3 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:**



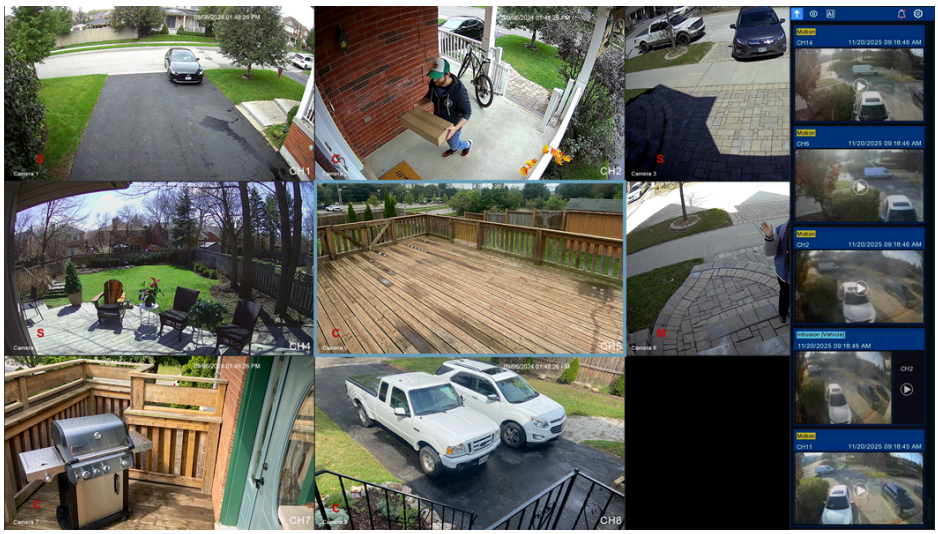

   1.1. **Admin:** Switch between user accounts.
   1.2. **Logout:** Log out of the current user account.
   1.3. **Shutdown:** Choose to shut down or reboot the system.

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. **Manual Record:** Start or stop manual recording for selected channels.
10. **System Information:** View device model, firmware version, network state, and the QR code for mobile app connection.
11. **Date and Time:** Displays the current date and time.

12. **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).

### 8.4 Using the Alarm Notification Panel

The **Alarm Notification Panel** appears on the right side of the Live View screen. It displays recent alarm events as image previews, allowing you to quickly review activity without leaving Live View.



- Each image represents an alarm event that has occurred.
- Events are **color-coded** based on the event type (for example, Motion, Person, Vehicle, etc.).
- Place the mouse cursor over the panel and use the **mouse scroll wheel** to scroll through events.
- Click the **Play** button on an image to play back the associated video.

**Alarm Notification Panel Controls**

At the top of the panel are several control icons:

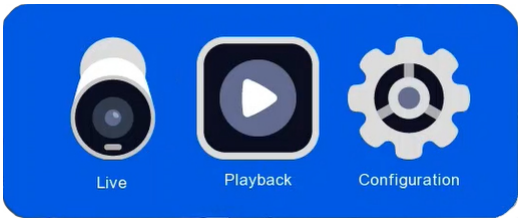
1. **Pin the Panel:** Click to keep the notification panel always visible (pin points down). Click again to unpin, returning it to hover mode (pin points sideways).
2. **Hide Panel:** Click to hide the notification panel from Live View.
3. **AI Statistics:** Click to display AI statistics information.
4. **Filter & Statistics:** Click to open filtering and statistics options.

**Using Filters and AI Statistics**

- Use the **Filter** function to choose which alarm types and which camera channels appear in the notification panel.
- You can also customize the **time range** and **channels** used for AI statistics.
- These options help you focus on the most relevant events and reduce unnecessary notifications.

### 8.5 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 8 *Live View*, page 31.
- **Playback:** View and manage recorded footage, refer to 12 *Playback*, page 65.
- **Configuration:** Configure camera and DVR system settings, refer to 17 *Configuration Menu*, page 102.

# 9 Recording Settings

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 on or off for each camera, helping you balance video quality and storage space based on your needs.

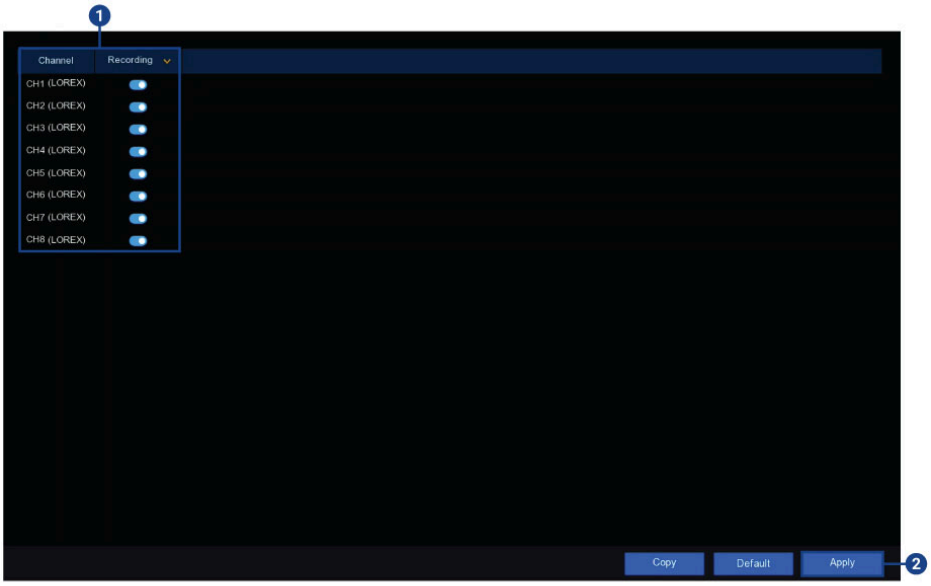
## 9.1 Configuring Recording Settings

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

**How to Access Recording Settings**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Channel**.
4. In the left menu, click **Recording Settings**.
5. In the top menu, click **Recording**.

**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 save.

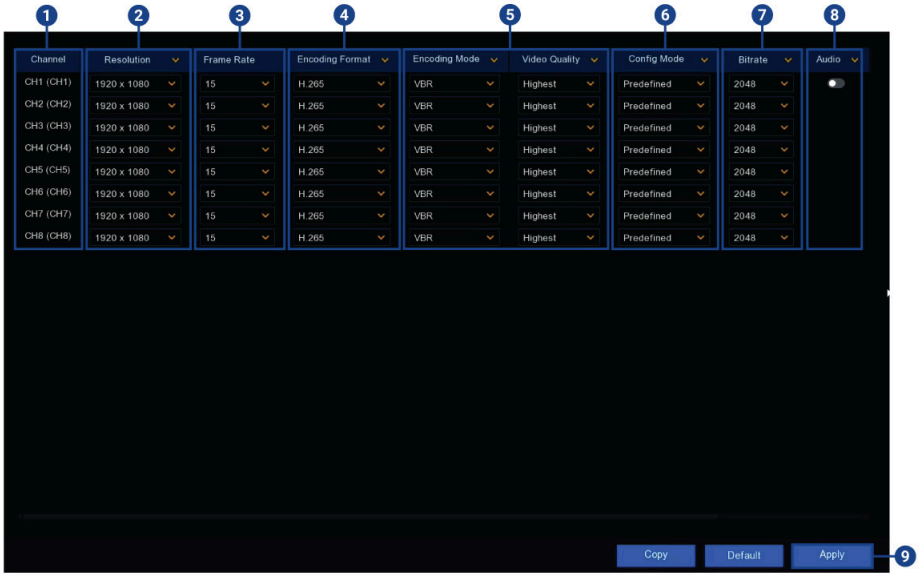
## 9.2 Configuring the Mainstream Settings

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 in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Channel**.
4. In the left menu, click **Recording Settings**.
5. In the top menu, click **Mainstream**.

### Configuring the Mainstream Settings




1. **Channel:** Lists all the connected camera channels.
2. **Resolution:** Select the video resolution. Higher resolutions provide clearer images.
3. **Frame Rate:** Choose the frame rate (number of frames per second). Higher frame rates 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):** Uses the same amount of data all the time. This means your recording length is easy to predict, but video quality may go up or down depending on what's happening in the scene.
   - 5.2. **VBR (Variable Bit Rate):** Adjusts the amount of data based on what's in the scene. Busy scenes use more data and quiet scenes use less. This usually gives more consistent video quality, but recording time can change depending on the activity in the footage.
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.

**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 save.

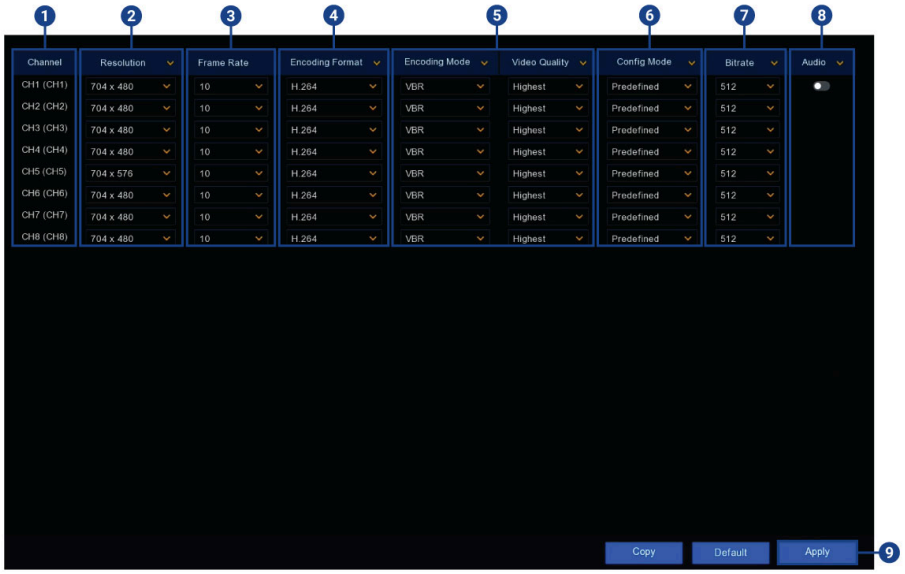
## 9.3 Configuring the Substream Settings

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 in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Channel**.
4. In the left menu, click **Recording Settings**.
5. In the top menu, click **Substream**.

**Configuring the Substream Settings**




1. **Channel:** Lists all the connected camera channels.
2. **Resolution:** Select the video resolution. Lower resolutions 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):** Uses the same amount of data all the time. This means your recording length is easy to predict, but video quality may go up or down depending on what's happening in the scene.

5.2. **VBR (Variable Bit Rate):** Adjusts the amount of data based on what's in the scene. Busy scenes use more data and quiet scenes use less. This usually gives more consistent video quality, but recording time can change depending on the activity in the footage.

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.

**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 save.

# 10 Motion & AI Detection

The **Event** settings allow you to configure how your DVR detects and responds to motion in each camera's field of view. This includes:

- **Motion Detection:** Detects any movement in the scene.
- **AI Detection:** Uses advanced analytics to detect:
  - **Face Detection:** Detects and captures faces for recognition, search, and statistics.
  - **Person & Vehicle:** Detects people, vehicles, and non-motorized vehicles.
  - **Intrusion:** Triggers when an object enters a defined area.
  - **Line Crossing:** Triggers when an object crosses a virtual line.

You can also set detection **schedules** and configure **actions** when motion or AI events occur.

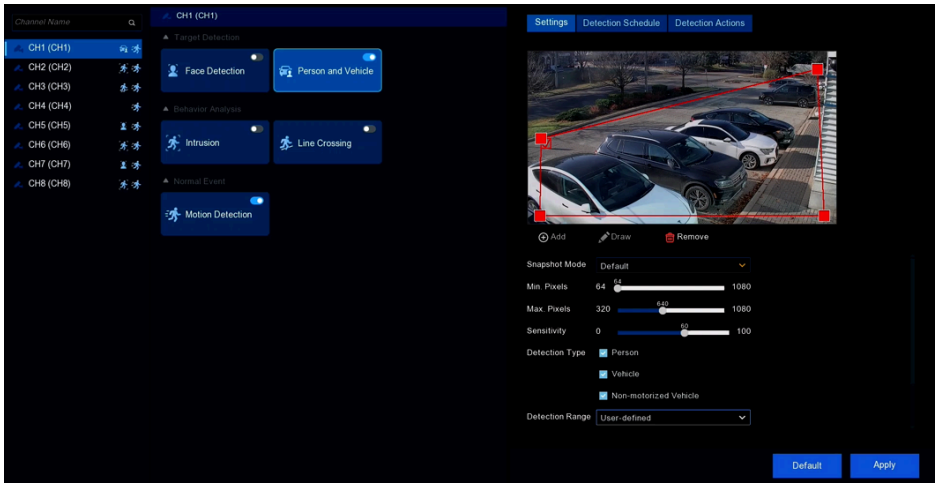
**NOTE**

- You can enable **only one AI detection type per channel** (Face Detection, Person & Vehicle, Intrusion, or Line Crossing). If you enable one, the others are **disabled on that channel**.
- The DVR supports AI detection on **up to 8 channels** at the same time.
- AI search and AI playback results appear only for channels where the selected **AI detection type is enabled and configured**. If detection is off, there will be **no AI events to search**.

## 10.1 How to Access Event Settings

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Event**, then **Event Settings**.

**Event Settings Overview:**




- **Left Panel:** Lists all camera channels.
- **Middle Panel:** Shows the available detection types for the selected channel:
  -

**Face Detection**
  -

**Person and Vehicle**
  -

**Intrusion**
  -

**Line Crossing**
  -

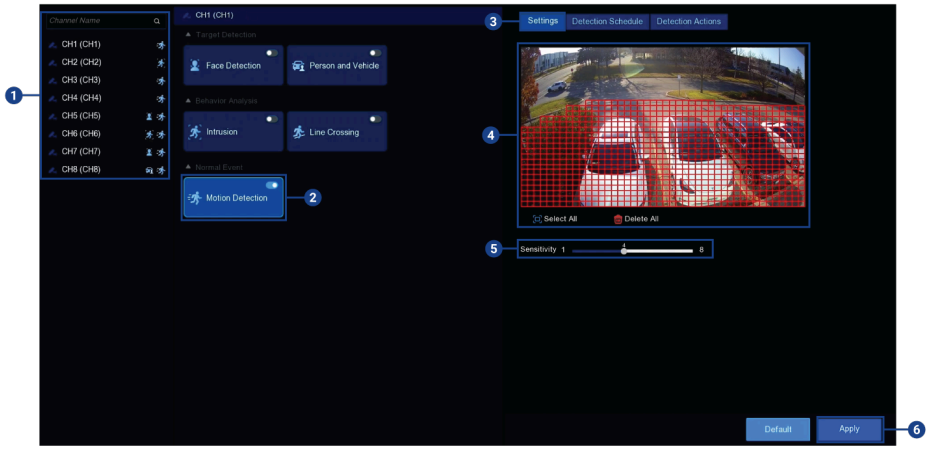
**Motion Detection**

- **Right Panel:** Displays the live view and settings with three tabs:
  - **Settings**
  - **Detection Schedule**
  - **Detection Actions**

## 10.2 Motion Detection Settings

**Motion Detection Settings** is used for general movement in a camera's field of view.

**Configuring Motion Detection**




1. **Channel:** Select the camera channel to configure.
2. **Enable Motion Detection:** Click to enable **Motion Detection**.
3. **Adjust Settings:** Click the **Settings** tab.
4. **Draw Motion Zone**:
   - The live view will display a **red grid overlay** showing the active detection zone.
   - **Click and drag** to deselect specific zones where motion should be ignored.
   - Use the toolbar below the live view:
     - **Select All:** Cover the full screen with the grid.
     - **Delete All**: Clear the grid to manually select smaller areas.
5. **Sensitivity:** Use the slider to adjust detection sensitivity.
   - Higher sensitivity detects smaller movement but may produce more false alerts.
6. **Apply Changes:** Click **Apply** to save your changes.

**Optional Actions**

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

## 10.3 AI Detection Modes

AI Detection provides **smarter monitoring** by detecting and classifying specific objects.

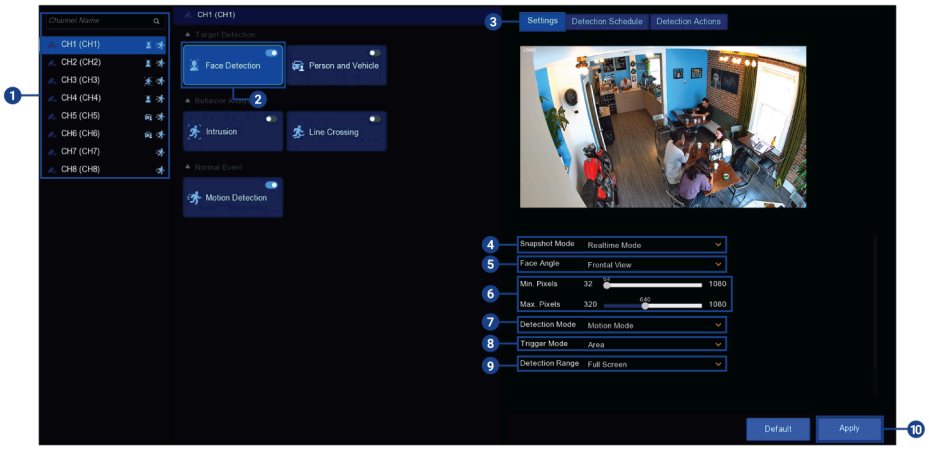
- **Face Detection:** Detects and captures faces for recognition, search, and statistics.
- **Person & Vehicle:** Detects people, vehicles, and non-motorized vehicles.
- **Intrusion:** Triggers when an object enters a defined area.
- **Line Crossing:** Triggers when an object crosses a virtual line.

### *10.3.1 Face Detection*

**Face Detection** captures faces that appear in the camera's field of view. When enabled, the DVR can trigger alarms, record snapshots, and support face recognition search and statistics.

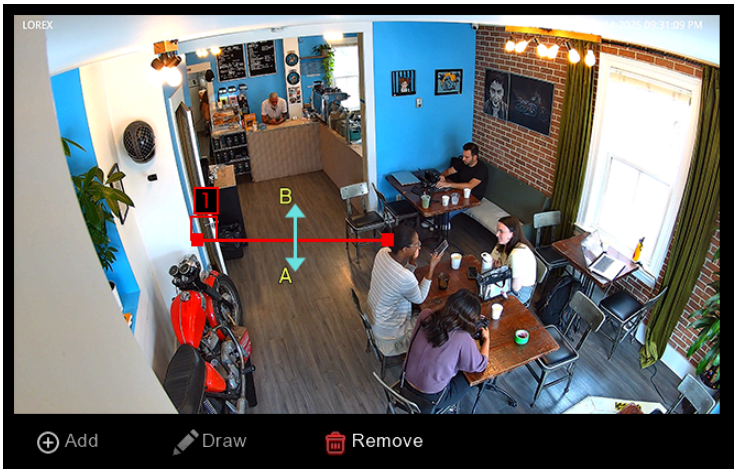
> **NOTE**
>
> Only **one AI detection type** can be enabled per channel, and AI detection is supported on a **maximum of 8 channels** at the same time.

**Configuring Face Detection**




1. **Channel:** Select the camera channel to configure.
2. **Enable Face Detection:** Click to enable **Face Detection**.
3. **Open Settings:** Click the **Settings** tab.
4. **Snapshot Mode:** Choose how snapshots of detected faces are captured.
   - **Realtime Mode**: Captures faces as they appear and leave the detection area.
     - Useful when you want continuous monitoring of a person's presence.
   - **Optimal Mode:** Captures a single best snapshot.
     - Reduces duplicate snapshots and notifications.
   - **Interval Mode:** Captures multiple snapshots at set intervals.
     - **Snapshot Qty:** Number of snapshots per event.
     - **Snapshot Interval (s/pic):** Time between snapshots.
5. **Face Angle:** Choose the angle range for detecting faces.
   - **Frontal View:** Best for straight-on detection.
   - **Multi-angle:** Detects faces from multiple angles.
   - **User-defined:** Customize detection angles:
     - **Roll Angle (0–180):** Range for face rotation (side tilting).
     - **Yaw Angle (0–180):** Range for horizontal turning (left/right).
     - **Pitch Angle (0–180):** Range for vertical tilt (up/down).
     - **Picture Quality (0–180):** Adjusts the quality of captured face images.
     - **Frontal View / Multi-angle buttons:** Click to quickly load recommended values for frontal or multi-angle detection.
6. **Min./Max. Pixels:** Set the minimum and maximum face size for detection. Increase **Min. Pixels** to reduce detection of distant faces; increase **Max. Pixels** if faces appear close to the camera.

7. **Detection Mode:**
   - **Hybrid Mode:** Uses both motion and face analysis (recommended).
   - **Motion Mode:** Detects only moving faces.
   - **Full Screen:** Analyzes the entire image.
8. **Trigger Mode:** Choose how detection is activated.
   - **Area:** Detect faces inside a selected area.
   - **Line:** Detect faces crossing a virtual line.
     If **Line** is selected:




     - **Rule Type:** Choose **A→B**, **B→A**, or both.
     - **Add:** Click **Add** to insert a default line.
     - **Draw:** Click **Draw** and then click two points on the live view to create a line. Drag either endpoint to adjust its position and angle. Drag the line itself to reposition it.
     - **Remove** Click **Remove** to delete the active line. Only one line can be drawn per channel in Face Detection mode
9. **Detection Range:** Choose where detection is active.
   - **Full Screen:** Face Detection applies to the entire image (default).
   - **User-defined:** Lets you define a custom region.
     - **Add:** Click **Add** to insert a default line.
     - **Draw:** Click **Draw** and click four points to create a region. Drag the anchor points or the region to adjust its shape and position.
     - **Remove** Click **Remove** to clear the region. Only one region can be defined at a time.
10. **Apply Changes:** Click **Apply** to save your settings.

**Optional Actions**

- **Default:** Click **Default** to restore factory settings, then **Apply** to save.

**NOTE**

- **Face Detection identifies faces only.** For instructions on adding face profiles and using the face database, see 11 *Face Recognition*, page 53.
- If faces are not detected consistently, adjust **Min./Max. Pixels** or try **Frontal View** vs **Multi-angle** for better accuracy.

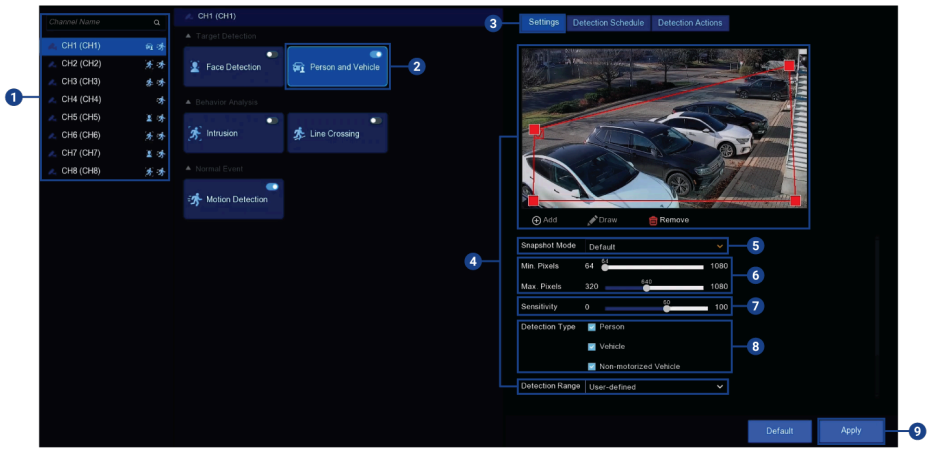
### *10.3.2 Person & Vehicle*

Use this mode to focus on people, vehicles, or non-motorized vehicles and reduce false alerts from irrelevant motion.

**NOTE**

Only **one AI detection type** can be enabled per channel, and AI detection is supported on a **maximum of 8 channels** at the same time.

**Configuring Person & Vehicle Settings**




1. **Channel:** Select the camera channel to configure.
2. **Enable Person & Vehicle:** Click to enable **Person and Vehicle**.
3. **Adjust Settings:** Click the **Settings** tab.
4. **Detection Range:** Choose where detection is active in the camera view.
   - **Full Screen:** Detection applies across the entire image (default).
   - **User-defined:** Create a custom motion zone using the tools below:
     - **Add:** Click **Add** to create a rectangular detection zone; drag anchors to resize or move it.
     - **Draw:** Click **Draw** to create a custom zone. Click four points on the live view to outline the area; the zone automatically closes at the fourth point. Drag any anchor to adjust its shape as needed.
     - **Remove** Click **Remove** to delete the motion zone.
5. **Snapshot Mode:** Determines how snapshots are captured when motion occurs:
   - **Default:** Standard snapshot timing.
   - **Real-time:** Rapid snapshots for detailed sequences.
   - **Interval:** Captures snapshots at set intervals to save storage.

6. **Min./Max. Pixels:** Defines the smallest and largest object size to detect.
   - Lower minimum detects smaller objects (more alerts); higher values reduce false alarms.
7. **Sensitivity:** Use the slider to adjust detection sensitivity.
   - Higher sensitivity detects smaller movements but may produce more false alerts.
8. **Detection Type:** Check one or more: **Person**, **Vehicle**, **Non-motorized Vehicle**.
9. **Apply Changes:** Click **Apply** to save your settings.

**Optional Actions**

- **Default:** Click **Default** to restore factory settings, then **Apply** to save.

### *10.3.3 Person & Vehicle Detection Statistics*

**Person & Vehicle Detection Statistics** lets you review how many people and/or vehicles were detected over a selected time period. Results are shown in a **bar chart**, making it easy to spot peak activity times.

**How to Access Person & Vehicle Detection Statistics**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Event**, then **Statistics Analysis**.
4. In the left menu, click **Person and Vehicle**.

**Using Person & Vehicle Statistics**

1. **Narrow Your Results:**
   - **AI:** Select which detection type(s) to include in the chart. (All types are selected by default.)
   - **Channels:** Select which camera channels to include. (All channels are selected by default.)
   - **Time Period:** Use the drop-down menu to choose **Day**, **Week**, **Month**, **Quarter**, or **Year**.
   - **Calendar:** Choose the start date for the selected time period. Use the **left/right arrows** to move to the previous or next period.

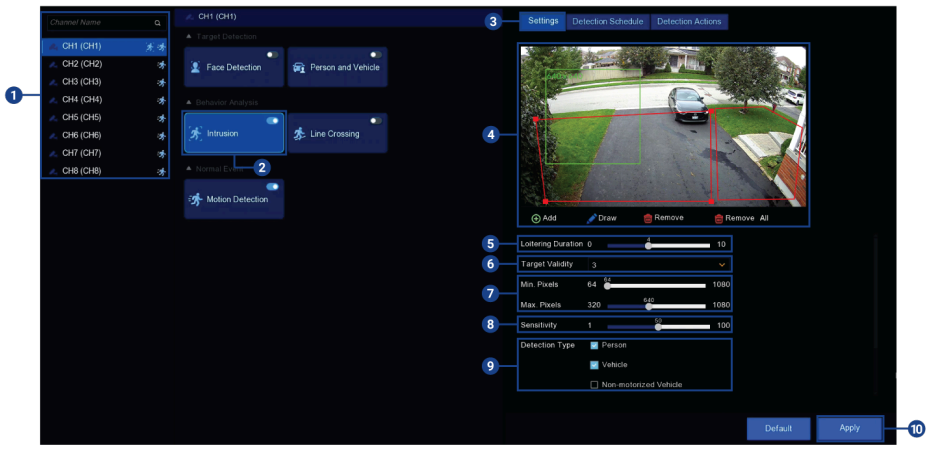
2. **Statistics Chart:** Shows the **number of detections** for the selected **AI type(s)** and **channel (s)** across the selected time period. (For example, in **Day** view, the bars represent detections by **hour**.)
3. **Export:** Export the statistics to a USB flash drive as a **.CSV** file. You can open the file in Excel (or similar software) for further analysis.
4. **Person and Vehicle Search:** Opens **Playback > AI > Person and Vehicle**, where you can view and back up the **event snapshots/videos** behind the statistics.

### *10.3.4 Intrusion*

Intrusion alerts when an object **enters or lingers in a defined area**.

> **NOTE**
>
> Only **one AI detection type** can be enabled per channel, and AI detection is supported on a **maximum of 8 channels** at the same time.

**Configuring Intrusion Settings**




1. **Channel:** Select the camera channel to configure.
2. **Enable Intrusion:** Click to enable **Intrusion** detection.
3. **Adjust Settings:** Click the **Settings** tab.
4. **Draw Intrusion Zones:** Define which parts of the image will trigger intrusion alerts. Up to **4 intrusion zones** can be added.
   - **Add:** Click **Add** to create a rectangular zone; drag anchors to resize or move it.
   - **Draw:** Click **Draw** to create a custom zone; the shape closes automatically at the last point.
   - **Remove** or **Remove All:** Click **Remove** to delete the selected zone or **Remove All** to clear all zones.
5. **Loitering Duration:** Time object must remain to trigger an alert.
6. **Target Validity:** Higher values require the object to be present longer for confirmation.
7. **Min./Max. Pixels:** Defines the detectable object size range.
8. **Sensitivity:** Use the slider to adjust detection sensitivity.
   - Higher sensitivity detects smaller movement but may produce more false alerts.
9. **Detection Type:** Check one or more: **Person**, **Vehicle**, **Non-motorized Vehicle**.

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

**Optional Actions**

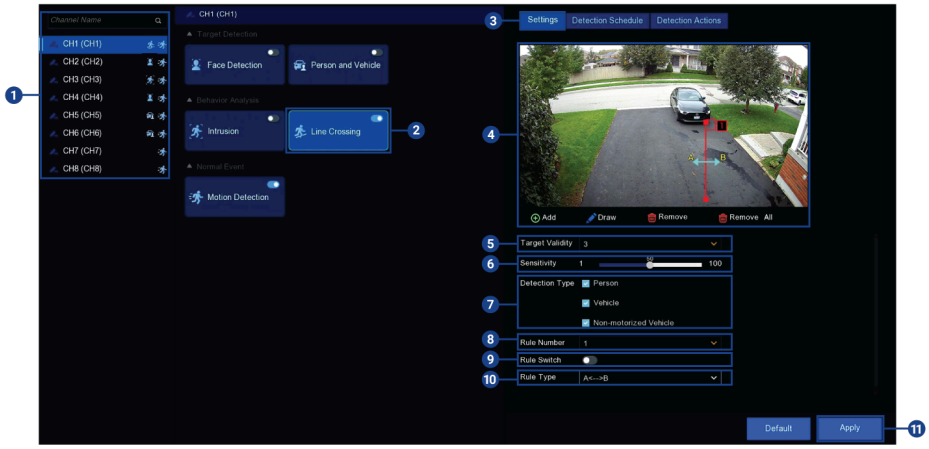
- **Default:** Click **Default** to restore original settings, then **Apply** to save.

### *10.3.5 Line Crossing*

Line Crossing triggers an alert when an object **crosses a virtual line**.

> **NOTE**
>
> Only **one AI detection type** can be enabled per channel, and AI detection is supported on a **maximum of 8 channels** at the same time.

**Configuring Line Crossing Settings**




1. **Channel:** Select the camera channel to configure.
2. **Enable Line Crossing:** Click to enable **Line Crossing**.
3. **Adjust Settings:** Click the **Settings** tab.
4. **Draw Lines:**
   - **Add:** Click **Add** to place a vertical line. Drag the anchor points to reposition or resize it.
   - **Draw:** Click **Draw**, then select a start and end point to create a custom line.
   - **Remove** or **Remove All**: Deletes the selected line or all lines.
   - Supports up to **4 lines**.
5. **Target Validity:** Higher values require the object to be present longer for confirmation.
6. **Sensitivity:** Use the slider to adjust detection sensitivity.
   - Higher sensitivity detects smaller movement but may produce more false alerts.
7. **Detection Type:** Check one or more: **Person**, **Vehicle**, **Non-motorized Vehicle**.
8. **Rule Number:** Selects which line to edit (1–4).
9. **Rule Switch:** Toggle to enable or disable the rule.

10. **Rule Type:**
    - **A to B:** Detects one-way crossing.
    - **B to A**: Detects crossing in the opposite direction.
    - **A and B:** Detects crossing in both directions.
11. **Apply Changes:** Click **Apply** to save your changes.

**Optional Actions**

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

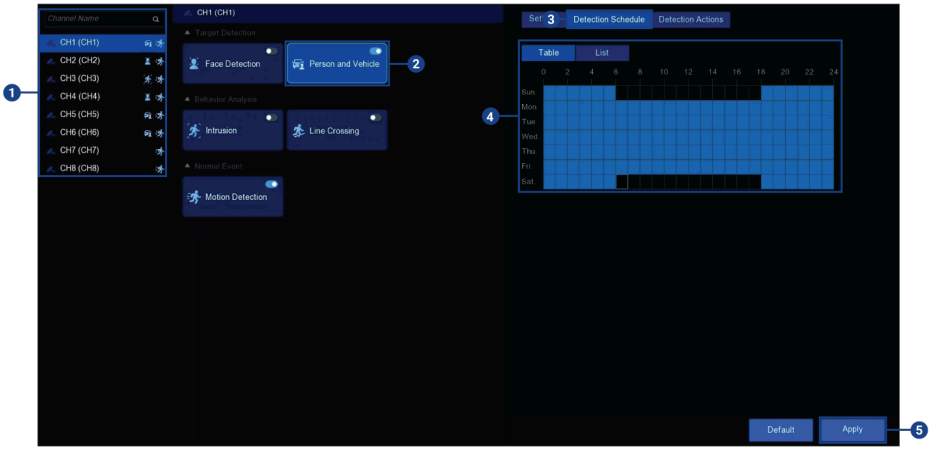
### 10.4 Detection Schedule

The **Detection Schedule** defines **when motion or AI detection is active**, preventing alerts outside relevant hours.

**How to Access Detection Schedule**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Event**, then **Event Settings**.
4. In the right menu, click **Detection Schedule**.

**Creating a Detection Schedule**




1. **Channel:** Select the camera channel to configure.
2. **Enable Motion/AI Detection:** Make sure the desired detection type (Motion, Face, Person & Vehicle, Intrusion, or Line Crossing) is enabled for this channel.
3. **Adjust Schedule:** Click the **Detection Schedule** tab.

4. Choose **Table View** or **List View**:
   - **Table View:** Days are listed on the left; hours are shown across the top. Click and drag to select time blocks (blue = active).
   - **List View:**

     - **Start Time/End Time:** Enter time period.
     - **Repeat:** Choose which days to repeat.
     - **Operation:** Use the operation buttons:
       - **Enable/Disable:** Turn the schedule on or off.
       - **Delete:** Remove the schedule.
     - **Add:** Create up to 8 schedules.
     - **Delete All:** Remove all schedules.
5. **Apply Changes:** Click **Apply** to save your changes.

**Optional Actions**

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

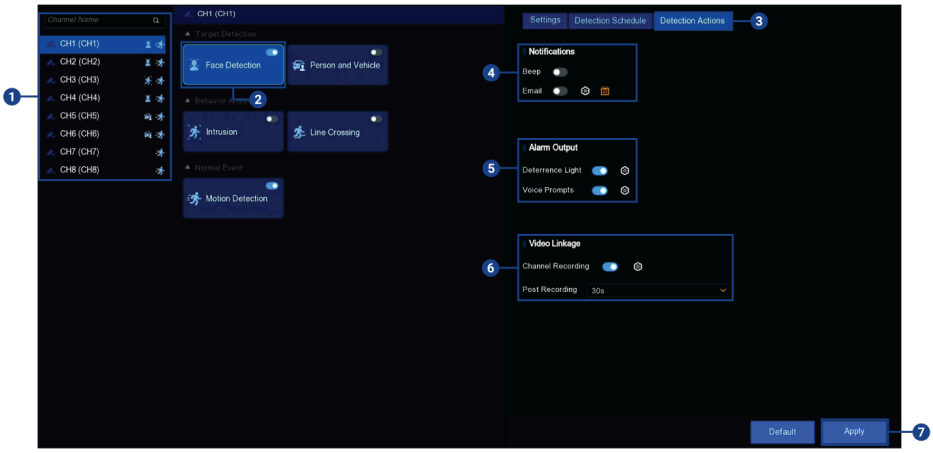
### 10.5 Detection Actions

**Detection Actions** define **how your DVR responds** to events with notifications, alarms, and recordings.

**How to Access Detection Actions**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Event**, then **Event Settings**.
4. In the right menu, click **Detection Actions**.

### Configuring the Detection Actions




1. **Channel:** Select the camera channel to configure.
2. **Enable Motion/AI Detection:** Make sure the desired detection type (Motion, Face, Person & Vehicle, Intrusion, or Line Crossing) is enabled for this channel.
3. **Adjust Actions:** Click the **Detection Actions** tab.

4. **Notifications:**
   - **Beep:** Enable/disable the DVR's buzzer.
   - **Email:** Enable/disable email notifications.
     - **Email Settings:** Click to configure email settings. 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 17.3.4 *Configuring Email Alerts*, page 115.
     - **Email Schedule**: Set an **Email Schedule** in **Table** or **List View**.
       - **Table View:** Days are listed on the left; hours are shown across the top. Click and drag to select time blocks (blue = active).
       - **List View:**

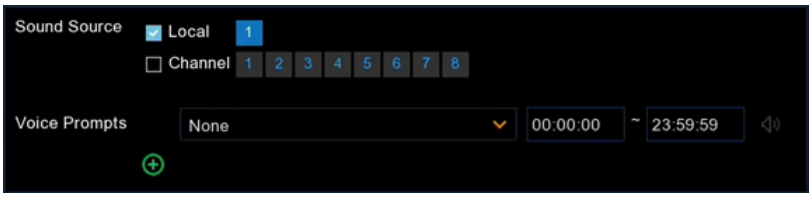
       - **Start Time/End Time:** Enter time period.
       - **Repeat:** Choose which days to repeat.
       - **Operation:** Use the operation buttons:
         - **Enable/Disable:** Turn the schedule on or off.
         - **Delete:** Remove the schedule.
       - **Add:** Create up to 8 schedules.
       - **Delete All:** Remove all schedules.

5. **Alarm Output:**
   - **Deterrence Light:** Enable/disable the deterrence light on when an event is detected (On compatible cameras only). Click the settings icon to open the **Deterrence light schedule**.

     **NOTE**

     This is the same deterrence schedule available under **Main Menu > Configuration > Alerts > Deterrence**.

   - **Voice Prompts**: Enable/disable the automatic voice prompt. For detailed settings configuration, click the voice prompts settings icon .

     - **Sound Source:** Select **Local** for the DVR'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.
     - Use **Add** or **Delete** to manage voice prompts.

6. **Video Linkage:**
   - **Channel Recording**: Enable recording when motion is detected. Click to select which cameras will record.

   - **Post Recording**: Set how long the channel keeps recording after an event.
7. **Apply Changes:** Click **Apply** to save your changes.

**Optional Actions**

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

# 11 Face Recognition

**Face Recognition** lets you create and manage a face database. People can be grouped into categories such as trusted visitors, blocked persons, or staff. When a detected face matches a profile in the database, the DVR can trigger alarms and record statistics.

By default, three groups are created:

1. **Allowed:** For trusted people such as family members, staff, or frequent customers.
2. **Forbidden:** For people who should be blocked or flagged when detected.
3. **Stranger:** All ungrouped faces are automatically treated as Stranger.

**NOTE**

- The default groups (Allowed, Forbidden, Stranger) cannot be deleted.
- You can add additional groups such as "Staff", "VIP", or "Contractors".

## 11.1 How to Access Face Recognition

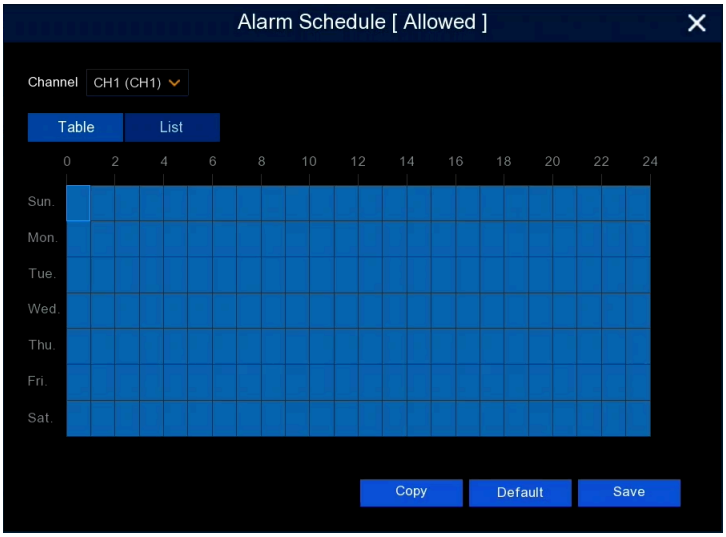
1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration**.
3. In the top menu, click **Event**, then **List Management**.
4. In the left menu, click **Face Recognition**.

## 11.2 Face Recognition Group List

For each face group, you can:

1. **Add:** **Add** additional face groups.
2. **Group Name:** Click the name to rename the group.
3. **Delete:** **Delete** a user-created group (default groups cannot be deleted).
4. **Edit:** **Edit** group details and manage face profiles (import, export, edit).
5. **Enable:** Turn the group on or off.
6. **Alarm:** Turn alarms on or off for the group.
7. **Policy:** Indicates whether the group is Allowed, Disallowed, or Stranger.
8. **Similarity:** Sets the minimum match percentage for recognition.

9. **Detection Actions:** Choose what happens when a face from this group is detected.
   - **Channel:** Select the camera channel.
   - **Beep:** Enable/disable the DVR buzzer.
   - **Email:** Enable/disable email notifications for this group.
   - **Voice Prompts:** Configure a voice prompt to play when a member of this group is detected.
   - Click **Apply**, **Default**, or **Copy** to apply actions to other groups.
10. **Alarm Schedule:** Opens the schedule window for this group:

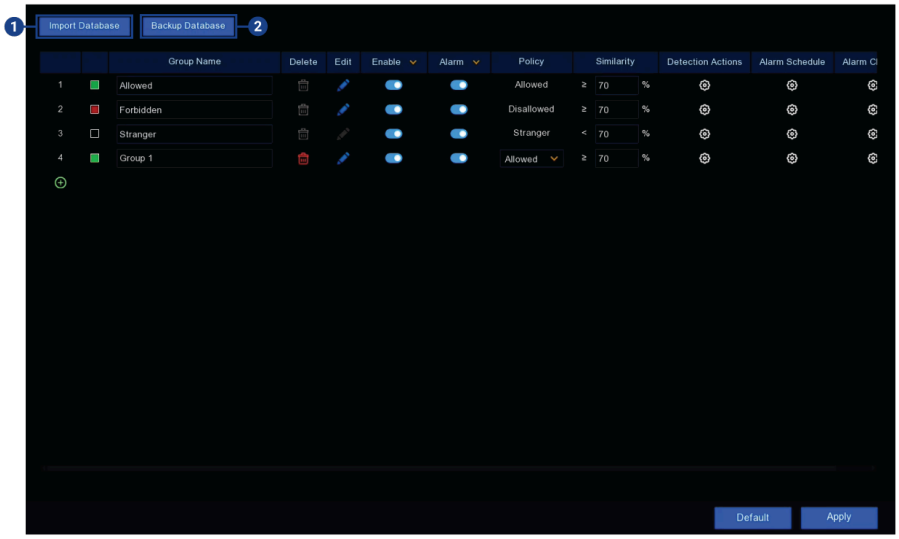



   - **Channel:** Select the camera channel.
   - **Table/List View:** Set the days and times when alarms for this group are active.
   - Click **Apply**, **Default**, or **Copy** to apply actions to other groups.
11. **Alarm Channels:** Select which channels generate alarms when members of this group are recognized.
12. **Apply Changes:** Click **Apply** to save your changes.

**Optional Actions**

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

## 11.3 Importing and Backing Up the Face Database




1. **Import Database:** Imports a previously backed-up database from a USB flash drive.

> **NOTE**
>
> Importing a database overwrites the existing face groups and profiles on the DVR.

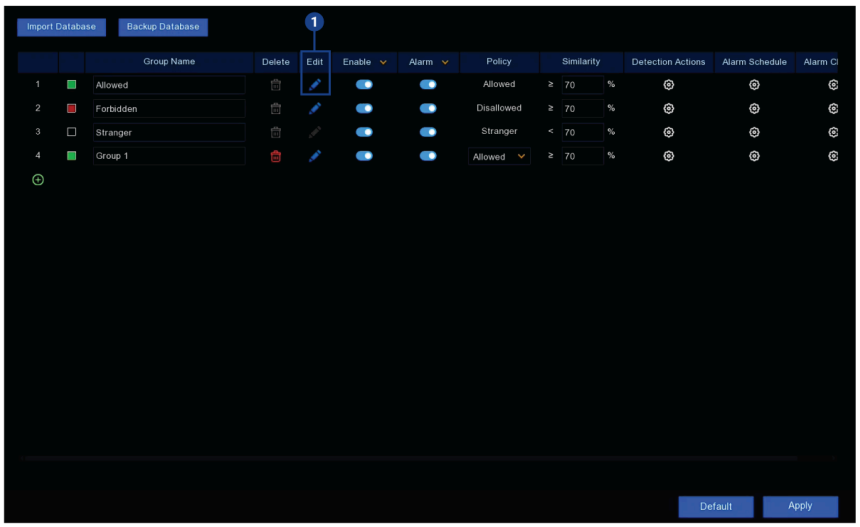
2. **Backup Database:** Exports the entire face database (groups and profiles) to a USB flash drive. Use this to back up your configuration.

## 11.4 Creating Face Profiles

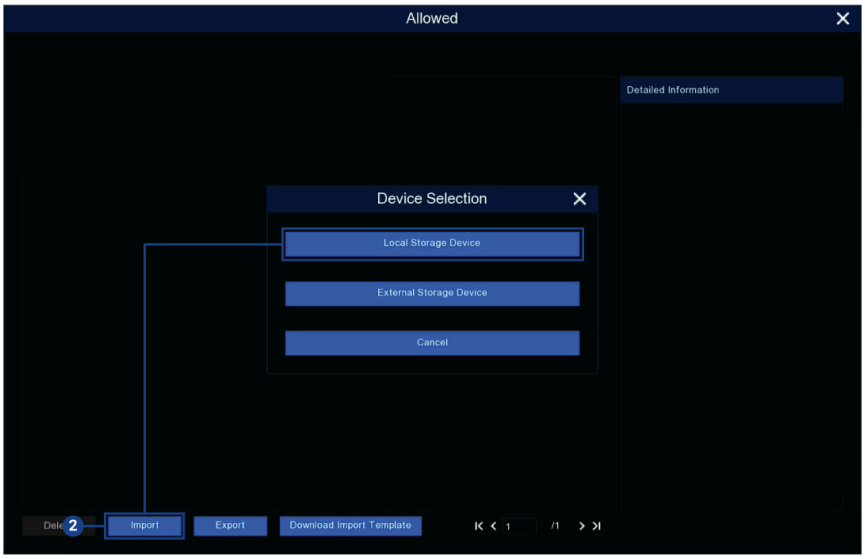
To get accurate recognition, you must create face profiles and assign them to groups. You can import faces from recorded snapshots (local storage) or from a USB device.

### *11.4.1 Creating Face Profiles from Local Storage Device*

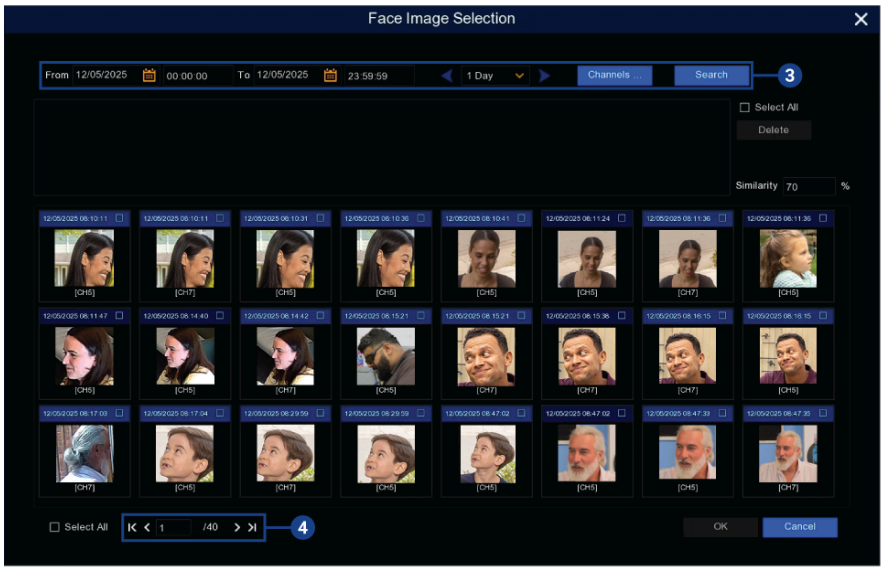
1. Click **Edit** for the group you want to add faces to.



2. Click **Import**, then select **Local Storage Device**.



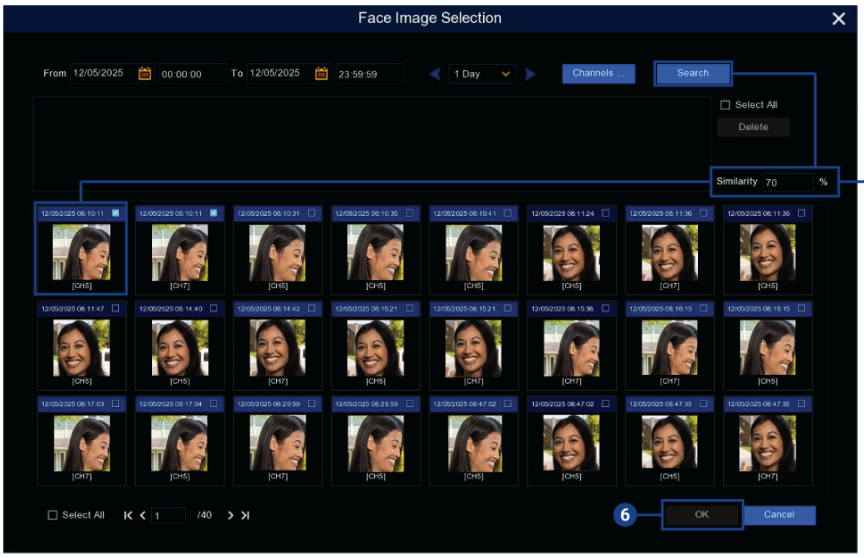

3. Narrow the search if needed:




- **From / To:** Use the calendar to select the date range.
- **1 Day:** Quickly filter by 1–7 days.
- **Channels:** Select specific cameras if desired.
- Click **Search** to update results.

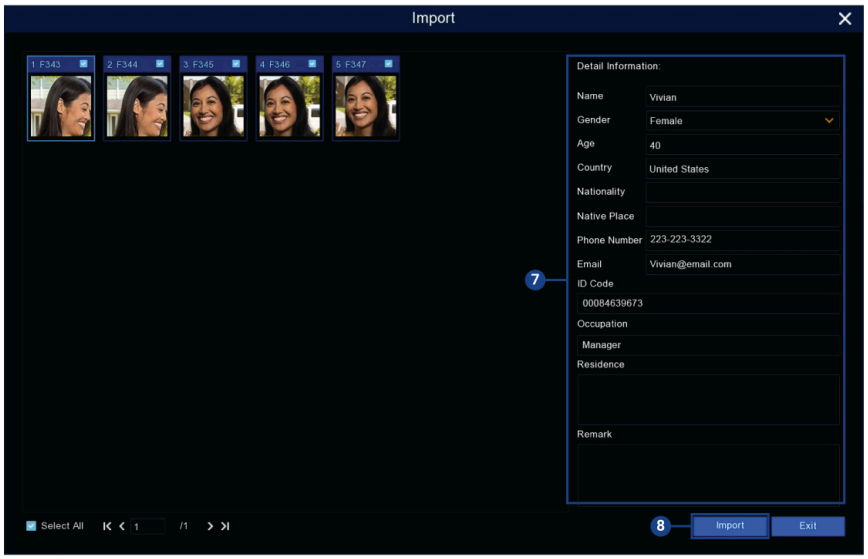
4. Use the page arrows to browse results.

5. To refine results by similarity:




- Select one or more faces.
- Enter a **Similarity** percentage (%).
- Click **Search** again. Only faces equal to or higher than this similarity will be displayed.

6. Select the faces you want to add and click **OK**.
7. Enter identification details such as Name or Age for each profile.

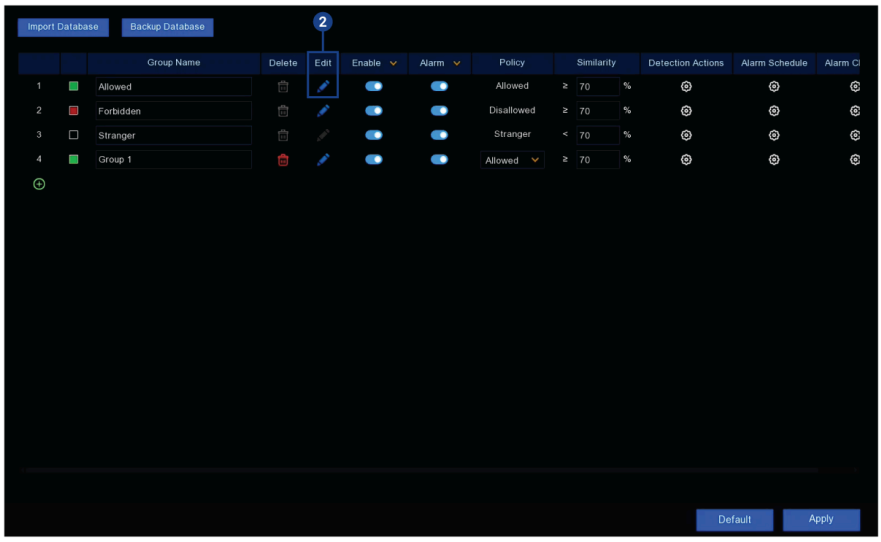



8. Click **Import** to save the profile to the group.

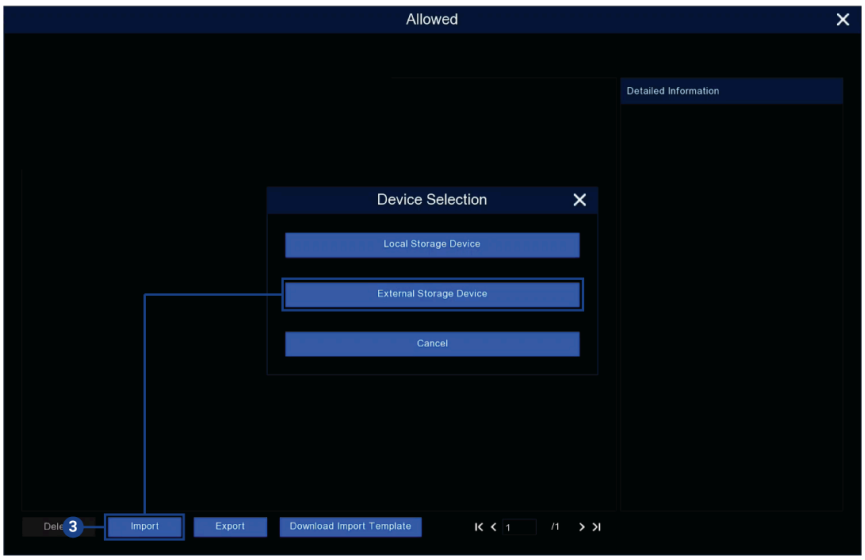
### *11.4.2 Creating Individual Face Profiles from External Storage Device*

1. Copy face images to a USB flash drive, then insert it into the DVR.

2. In **Face Recognition**, click **Edit** for the target group.

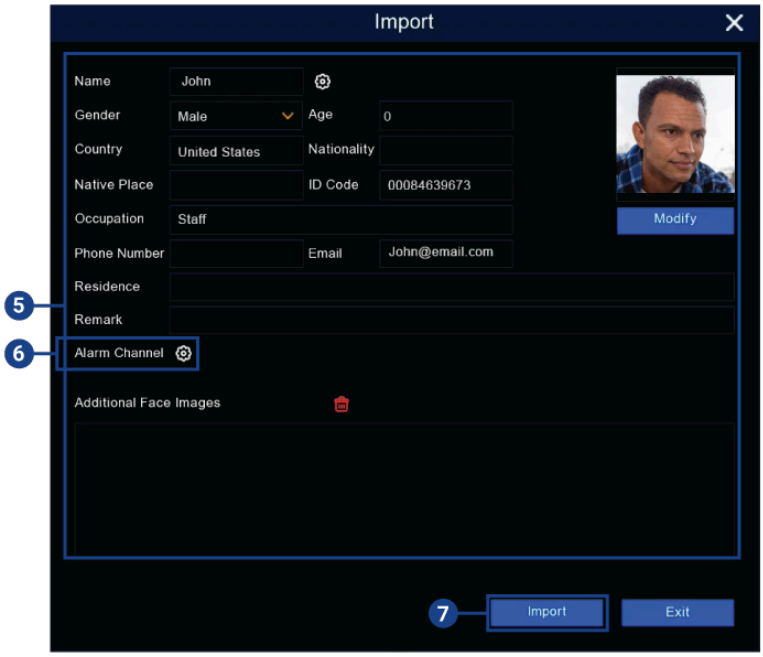



3. Click **Import**, then **External Storage Device**.

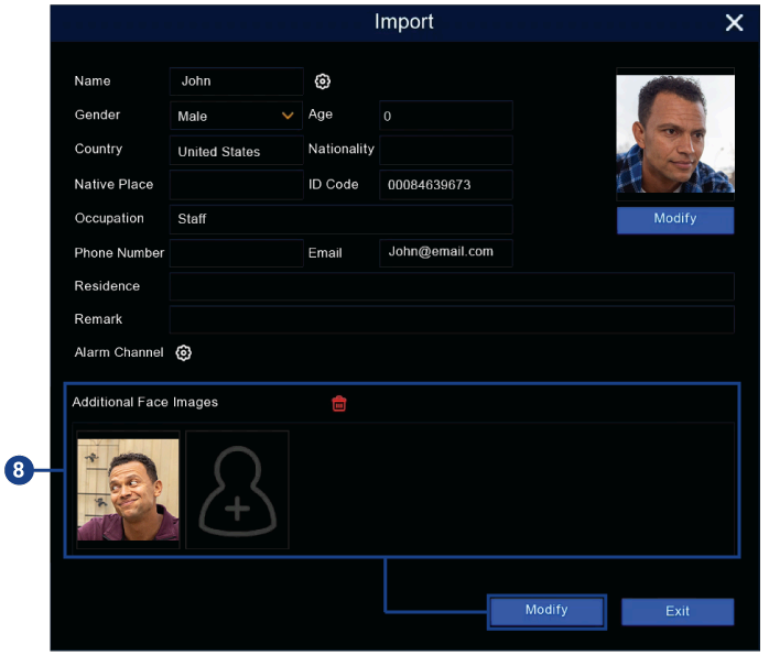


4. Select a face image and click **OK**.

5. Enter the person's details.
6. (Optional) Configure **Alarm Channel** settings for this profile.
7. Click **Import**.



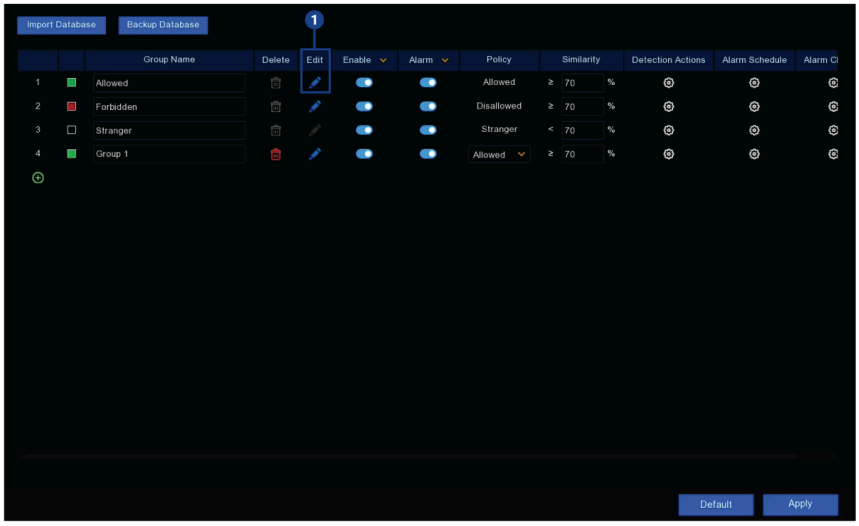
8. To improve recognition, add up to 10 additional images of the same person in the **Additional Face Image** section.



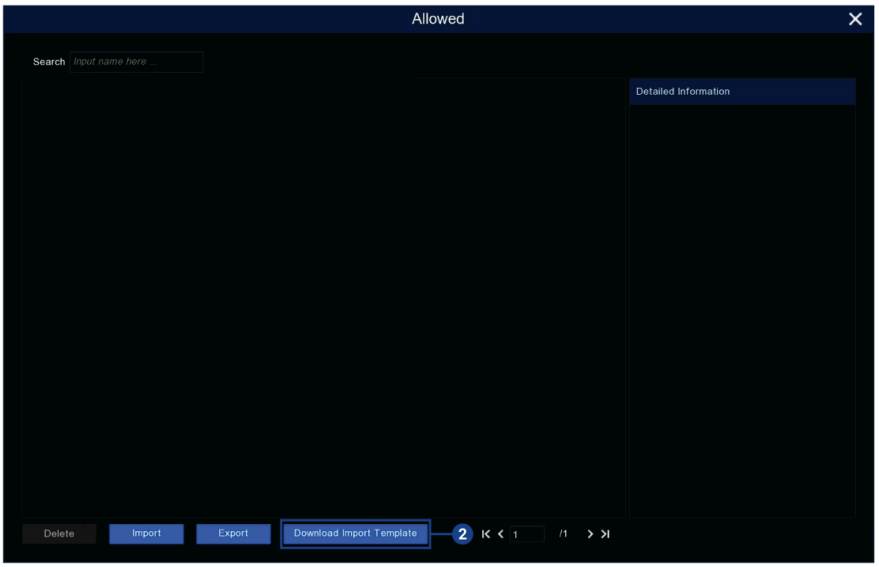

- Click + to select additional images from local or external storage.
- Click **Delete** to remove an image.
- Click **Modify** when finished, then **Exit** or right-click to close.

### *11.4.3 Creating Bulk Face Profiles from External Storage Device*

1. In **Face Recognition**, click **Edit** for the group.



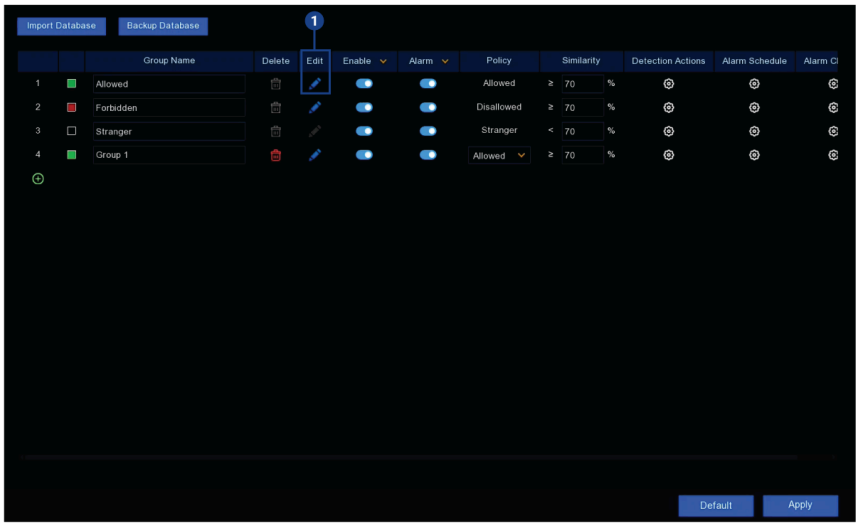
2. Click **Download Import Template**.



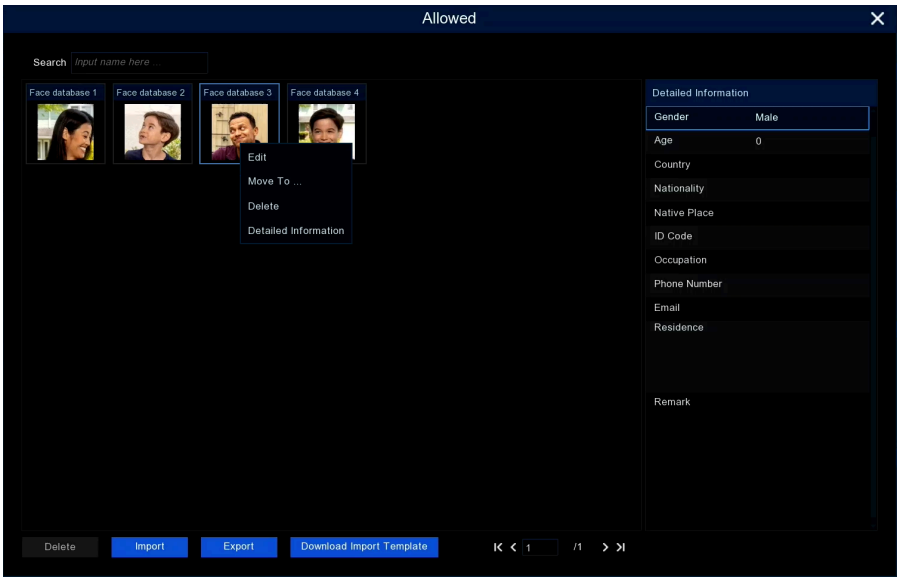

3. Save the template ZIP file to a USB flash drive.
4. On a computer, unzip the file and open **facetemplate.csv**.
5. Place the CSV and up to 10 images per person in the same folder.
6. Fill in the CSV fields (Name, Gender, Age, Image filename, etc.).
7. Save the file as **CSV (UTF-8)**.
8. Copy the folder to your USB flash drive and insert it into the DVR.
9. Click **Import > External Storage Device**, select **facetemplate.csv**, and click **OK**.
10. Review the list and click Import to add all profiles.

## 11.5 Editing Face Profiles

1. In **Face Recognition**, click **Edit** for the group you want to manage.



2. To edit an individual face:




- Select the face.
- Right-click to open the menu.
- Choose:
  - **Edit:** Modify the person's information or additional images.
  - **Move To:** Move the profile to another group. Select the destination group and click **OK**.
  - **Delete:** Remove the profile.
  - **Detail Information:** View full details of the face profile.

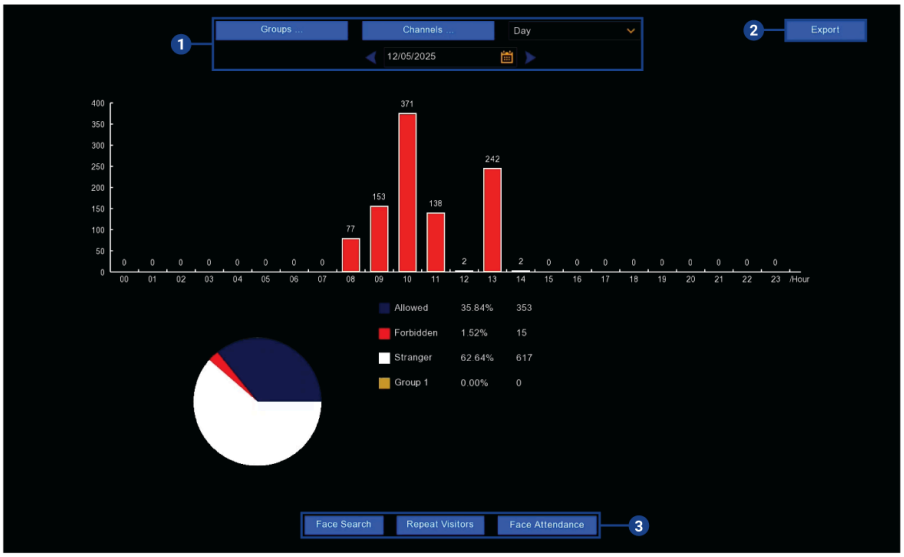
3. **Apply Changes:** Click **Apply** to save any changes.

### 11.6 Face Recognition Statistics

**Face Recognition Statistics** shows how often faces are detected and which groups they belong to. The DVR displays:

- A **bar chart** showing the number of faces detected over the selected period.
- A **pie chart** showing the percentage share of detections for each group (Allowed, Forbidden, Stranger, and any custom groups).

Use this screen to understand visitor patterns, such as peak hours or frequent visitors.




1. **Narrow Your Results:**
   - **Groups:** Select which face groups to include.
   - **Channels:** Select which channels to include.
   - **Time Period:** Choose **Day**, **Week**, **Month**, **Quarter**, or **Year**.
   - **Calendar:** Select the start date or move to the previous/next period.
2. **Export:** Save statistics to a USB flash drive as a CSV file.
3. **Quick Navigation:** Click **Face Search**, **Repeat Visitors**, or **Face Attendance** to jump directly to those AI Playback menus.

### 11.7 Model Configuration

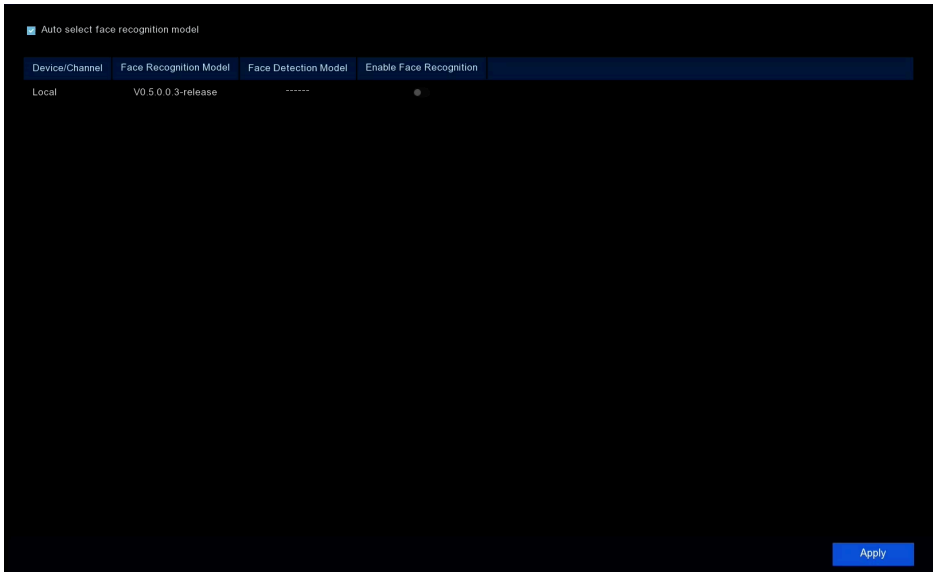
Model Configuration lets you choose which face recognition AI model the system uses. By default, the DVR selects a model automatically when you first use face features.

- **Detection:** Captures face images (typically handled by IP cameras).
- **Recognition:** Extracts and compares facial features (handled by the DVR).

**How to Access Model Configuration**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Event**, then **List Management**.
4. In the left menu, click **Model Configuration**.

### To Manually Select a Model




1. Clear the **Auto select recognition model** checkbox.
2. Choose the desired model.
3. Click **Apply** to save your changes.

# 12 Playback

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

## 12.1 Playback

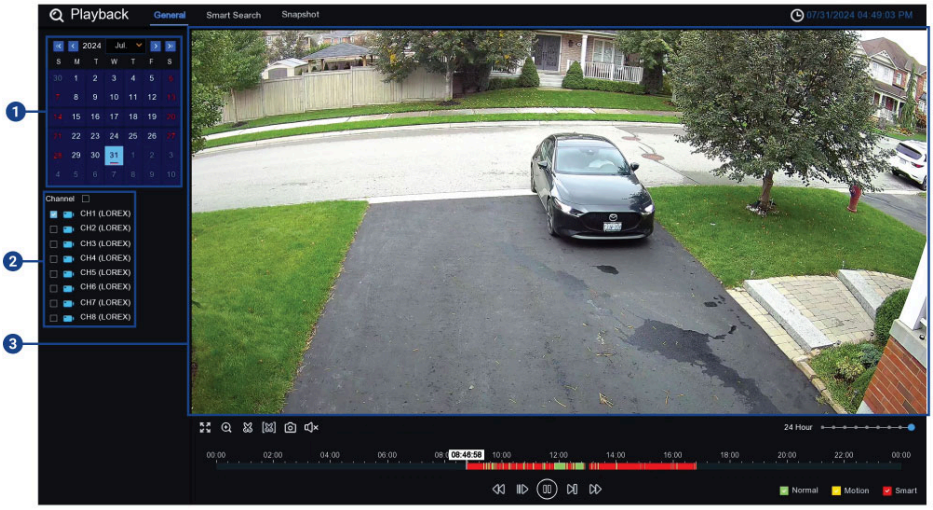
The **Playback** feature lets you easily access and review recorded footage.

**How to Access Playback**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, Select **Playback** .
3. In the top menu, click **General**.

**Viewing Playback**

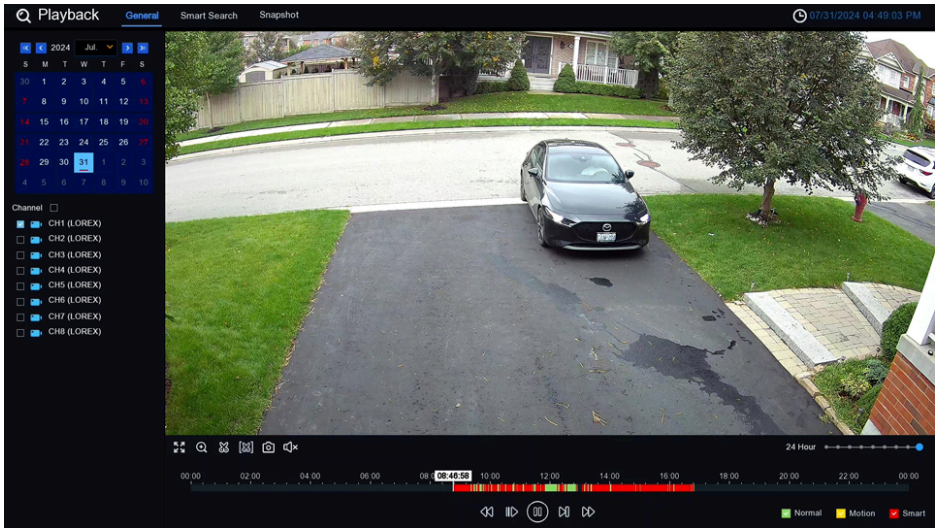
This section covers how to select and view recorded video footage:




1. **Calendar:** Select a date to view recordings from that day.
2. **Channel List:** Checkmark up to eight 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:



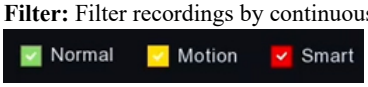

1. **Full-screen:** View playback in full-screen mode. Right-click to exit full-screen mode.
2. **Zoom:** Use the mouse scroll wheel to zoom in or out. Click and drag to move around the zoomed image. Right-click to exit zoom mode.
3. **Video Clip:** Select and save a portion of the recorded video.
   - 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 12.3 *Searching & Backing Up Snapshots*, page 68.
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.



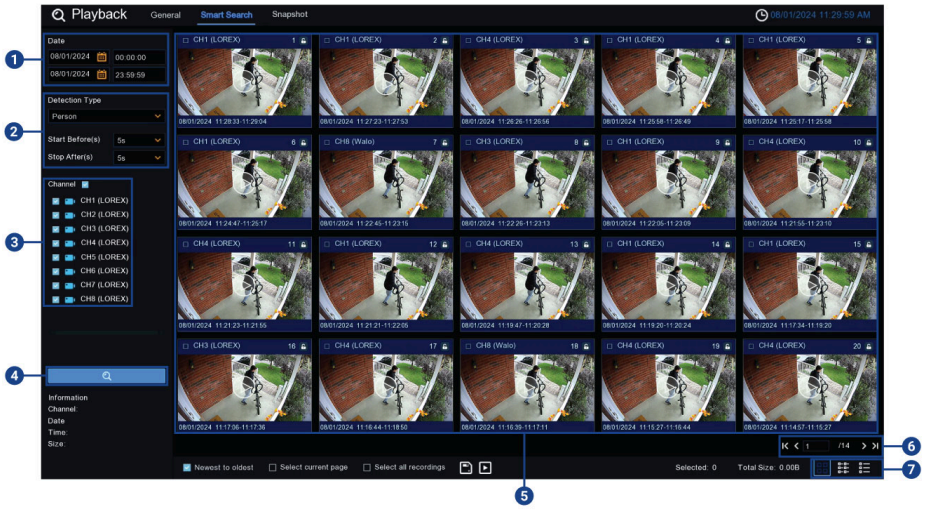

## 12.2 Searching & Backing Up Recordings

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 in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Playback** .
3. In the top menu, click **Smart Search**.

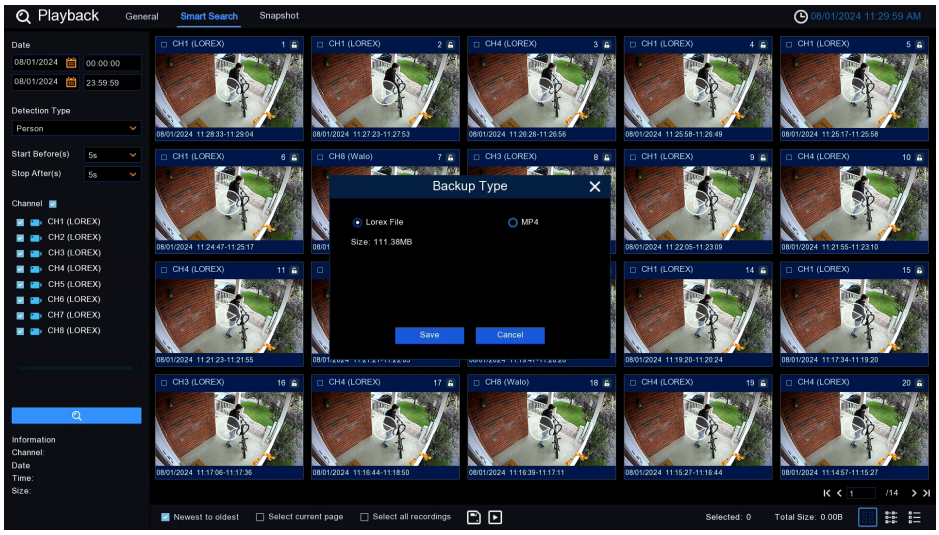
**Searching for Recordings**




1. **Date:** Enter start and end dates and times for the search.
2. **Detection Type:** Choose the type of event you want to search for.
3. **Channel:** Checkmark the camera channels 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 DVR.
   - 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.

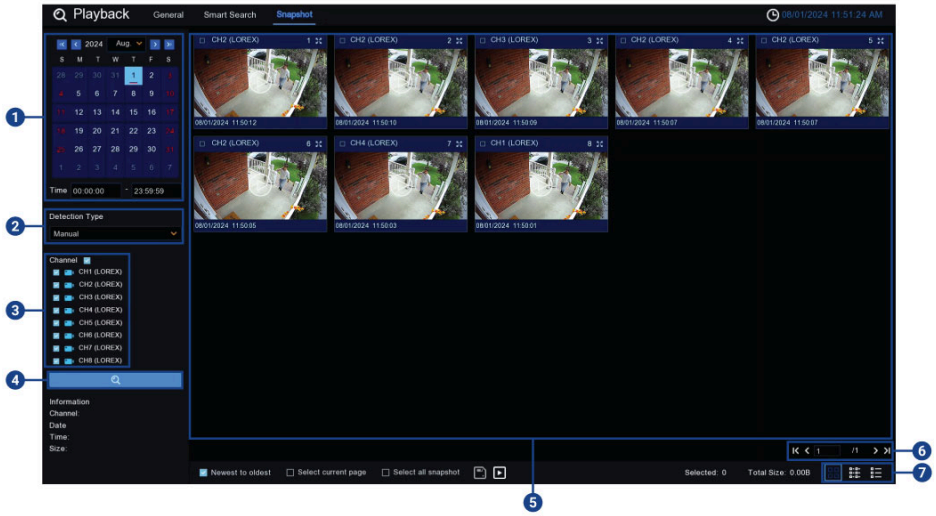
## 12.3 Searching & Backing Up Snapshots

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 in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Playback** .
3. In the top menu, click **Snapshot**.

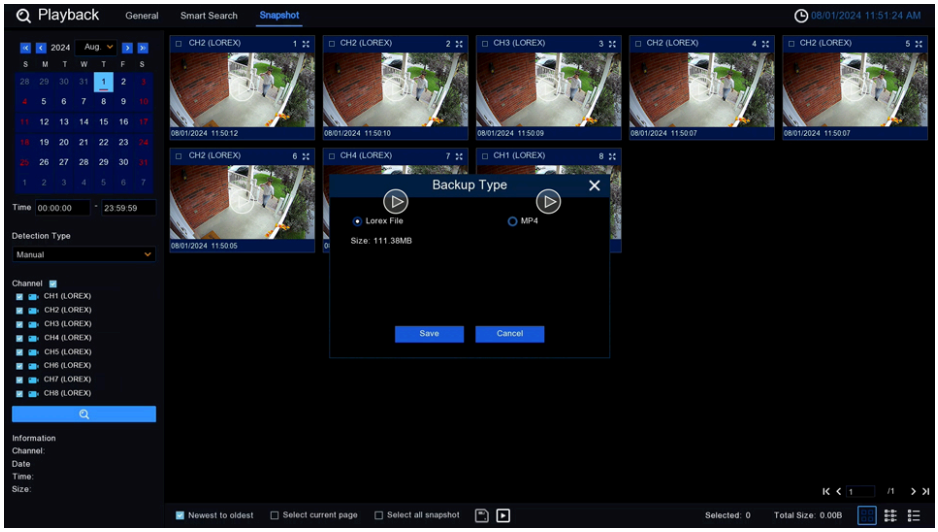
### Searching for Snapshots




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 camera channels 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 DVR.
   - Click **Backup** to save the selected snapshots.
   - Choose or create a folder on your USB hard disk drive to save the snapshots, then click **Save**.

## 12.4 AI Search

**AI** search lets you quickly review events detected by AI features such as face detection, person and vehicle, intrusion, line crossing, repeat visitors, and attendance.

> **NOTE**
>
> To search AI events in Playback, the related AI detection type (Face Detection, Person & Vehicle, Intrusion, Line Crossing) must be enabled and configured first. Refer to 10 *Motion & AI Detection*, page 40 for setup details.

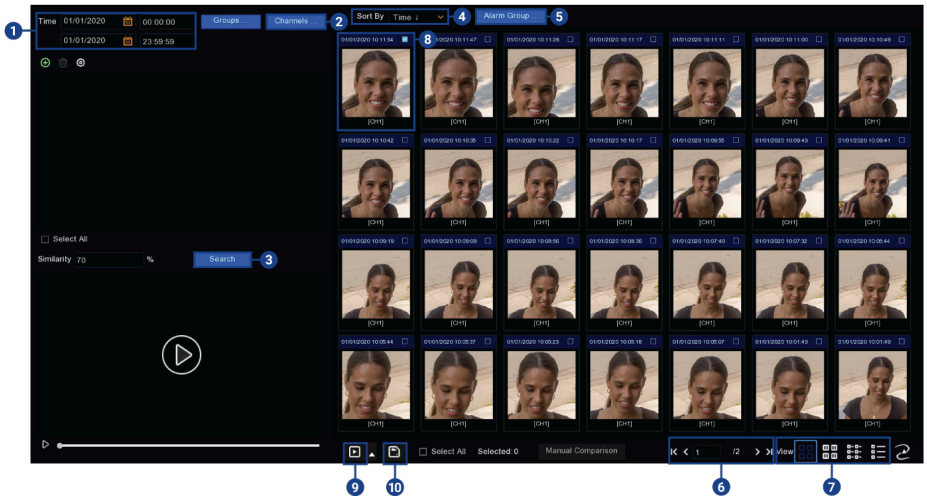
**How to Access AI Playback**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Playback** .
3. In the top menu, click **AI**, then click one of the AI detection types.

### *12.4.1 Face Detection*

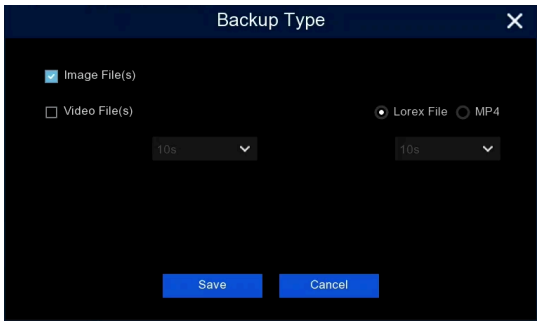
Use AI Face Detection to browse all face snapshots captured by the system within a selected period.

#### 12.4.1.1 Search Database

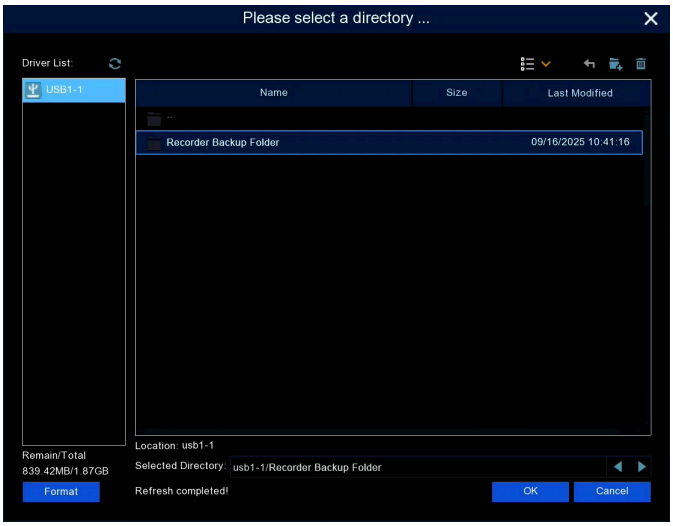



1. **Time:** Click the calendar to set the start and end dates. Enter start and end times for a precise search.
2. **Channels:** All channels are selected by default. Click **Channels** to select specific cameras if needed.
3. **Search:** Click **Search** to display matching face snapshots.
4. **Sort By:**
   - **Time (↑ / ↓)** – Oldest to newest or newest to oldest.
   - **Similarity (↑ / ↓)** – Lowest to highest or highest to lowest match score.
5. **Alarm Group:** Click **Alarm Group** to filter by face group: **Allowed**, **Forbidden**, **Stranger**, or any custom groups. Use **Select All** to include all groups.

6. **Previous/Next Page:** Use arrows or enter a page number to navigate through the search results.
7. **View Type:** Switch between **Thumbnail**, **List**, or **Detail** view.
8. **Selecting Results:** Check the box above each image to select it, or use **Select All** for the current page.
9. **Playback:** Double-click on a snapshot or click **Playback** to play the related video.
10. **Backup:**
    - Click **Backup** to save selected face images to a USB flash drive.
    - To also save video clips, check **Video Files**, choose **Lorex File** or **MP4**, and set the pre- and post-event time.

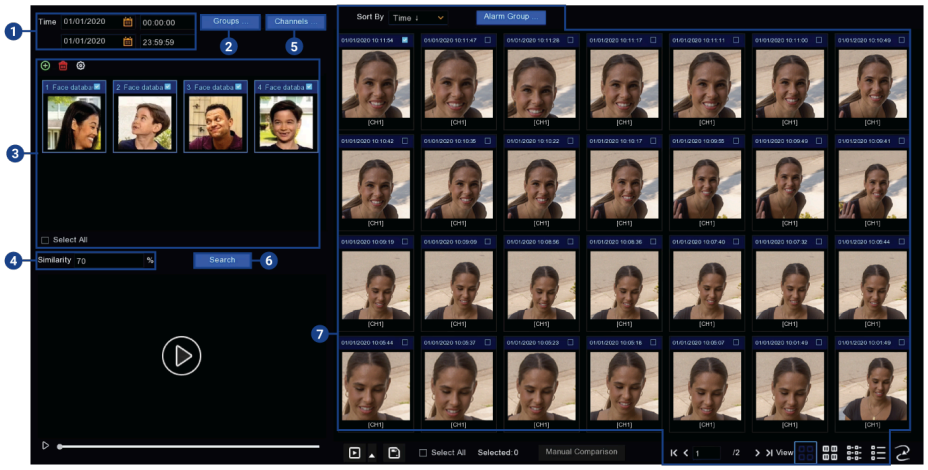



    - Click **Save**. In the USB window, choose the folder (or create a new one), then click **OK**.




### 12.4.1.2 Search & Compare Face Images (Recognition)

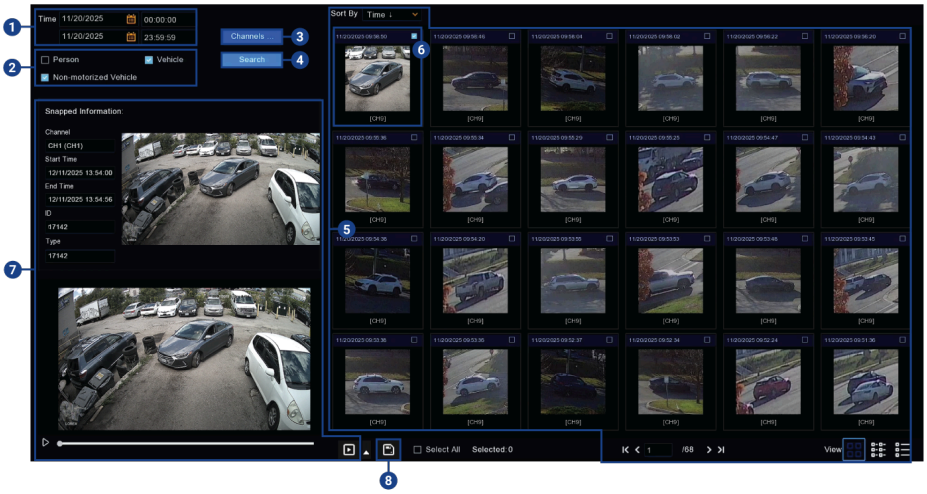
This function lets you search for specific people based on face profiles stored in the Face Recognition database.




1. **Time:** Click the calendar to set the start and end dates. Enter start and end times for a precise search.
2. **Groups:**
   - Click **Groups** to select one or more groups where your target profiles are stored.
   - All profiles in the selected groups are displayed.
3. **Selecting Target Faces:**
   - All profiles are selected by default (**Select All**).
   - Clear the checkboxes for any profiles you do not want to include.
   - To remove a profile from the search list, select it and click **Delete** .
   - Click **Add** to include additional faces from local or external storage if needed.
4. **Similarity:** Set the **Similarity** percentage that a detected face must reach to be considered a match.
   - The default is **70%**. Higher values reduce false matches but may miss borderline cases.
5. **Channels:** Click **Channels** to select specific cameras.
6. **Search:** Click **Search**.
7. **Results:**
   - Matching face images are displayed with their similarity score.
   - Use arrows or enter a page number to navigate through the search results.
   - Use **Alarm Group** filters to narrow results by Allowed, Forbidden, Stranger, or custom groups.
   - Use sorting options (Time / Similarity) and view type (Thumbnail / List / Detail) as needed.
   - Double-click a result to play the related video.

### *12.4.2 Person and Vehicle*

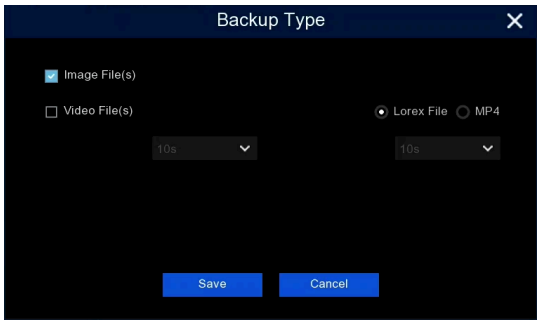
Use **Person and Vehicle** to search AI events where people, vehicles, or non-motorized vehicles were detected.



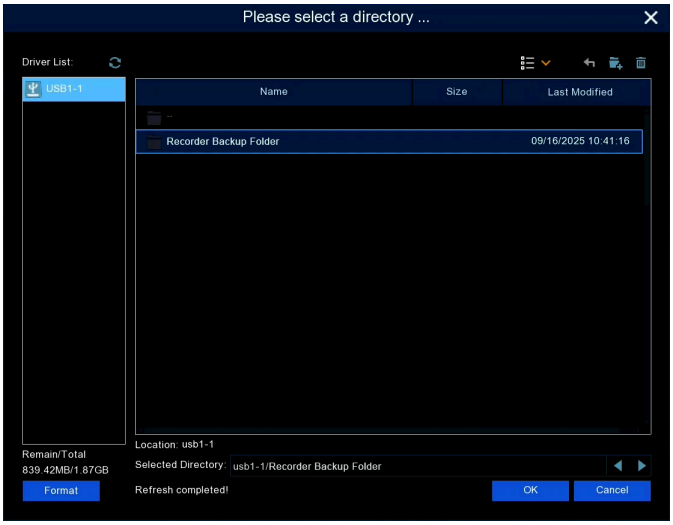

1. **Time:** Select the **Date** and **Time** range. Dates with a red underline contain detections.
2. **Target Type:** Choose one or more target types (Person, Vehicle, Non-motorized Vehicle).
3. **Channels:** Click **Channels** to choose specific cameras, or leave all selected.
4. **Search:** Click **Search** to display events.
5. **Results:**
   - Events are shown on the right side of the screen.
   - Use arrows or enter a page number to navigate through the search results.
   - Use **Sort By** (Time ↑/↓) and view type (Thumbnail/List/Detail).
6. **Selecting Events:** Check events or **Select All** to select them.
7. **Playback:** Double-click an event or click **Playback** to play the video.

8. **Backup:**

   - Click **Backup** to save videos to a USB flash drive.
   - To also save video clips, check **Video Files**, choose **Lorex File** or **MP4**, and set the pre- and post-event time.

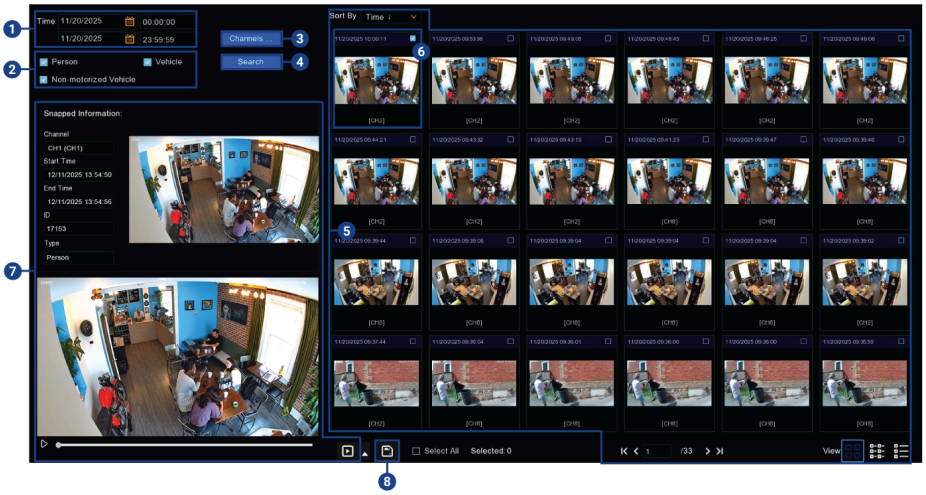



   - Click **Save**. In the USB window, choose the folder (or create a new one), then click **OK**.

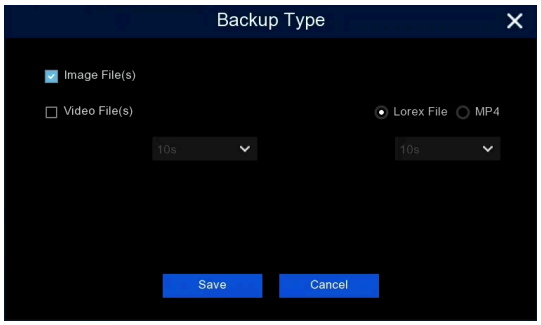



### *12.4.3 Line Crossing*

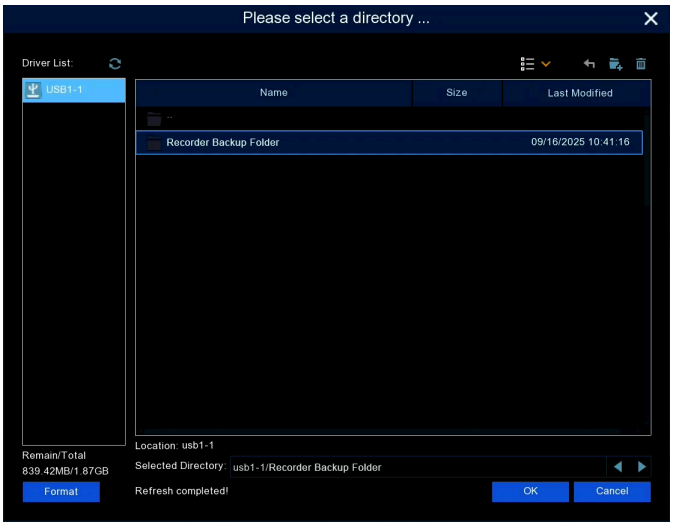
Use **Line Crossing** to search events where an object crossed a virtual line.



1. **Time:** Select the **Date** and **Time** range. Dates with a red underline contain detections.
2. **Target Type:** Select the **Target Type(s)** you want to search for (Person, Vehicle, Non-motorized Vehicle).
3. **Channels:** Click **Channels** to choose specific cameras, or leave all selected.
4. **Search:** Click **Search** to display events.
5. **Results:**
   - Events are shown on the right side of the screen.
   - Use arrows or enter a page number to navigate through the search results.
   - Use **Sort By** (Time ↑/↓) and view type (Thumbnail/List/Detail) to navigate.
6. **Selecting Events:** Check events or **Select All** to select them.
7. **Playback:** Double-click an event or click **Playback** to play the video.
8. **Backup:**
   - Click **Backup** to save videos to a USB flash drive.
   - To also save video clips, check **Video Files**, choose **Lorex File** or **MP4**, and set the pre- and post-event time.

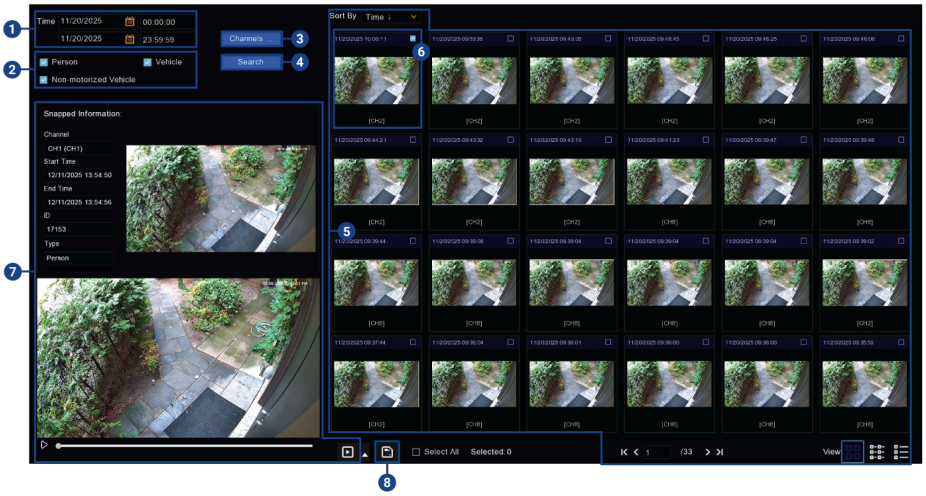



   - Click **Save**. In the USB window, choose the folder (or create a new one), then click **OK**.




### *12.4.4 Intrusion*

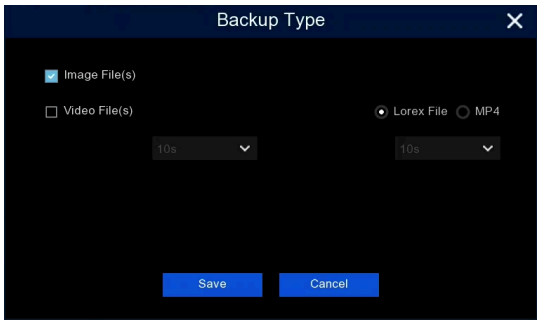
Use **Intrusion** to search events where an object entered or lingered in a defined area.



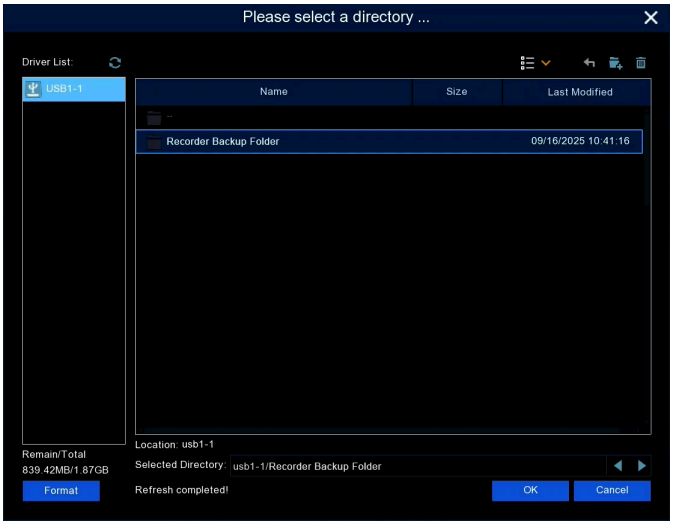

1. **Time:** Select the **Date** and **Time** range. Dates with a red underline contain detections.
2. **Target Type:** Select the **Target Type(s)** you want to search for (Person, Vehicle, Non-motorized Vehicle).
3. **Channels:** Click **Channels** to choose specific cameras, or leave all selected.
4. **Search:** Click **Search** to display events.
5. **Results:**
   - Events are shown on the right side of the screen.
   - Use arrows or enter a page number to navigate through the search results.
   - Use **Sort By**(Time ↑/↓) and view type (Thumbnail/List/Detail) to navigate.
6. **Selecting Events:** Check events or **Select All** to select them.
7. **Playback:** Double-click an event or click **Playback** to play the video.

8. **Backup:**

   - Click **Backup** to save videos to a USB flash drive.
   - To also save video clips, check **Video Files**, choose **Lorex File** or **MP4**, and set the pre- and post-event time.

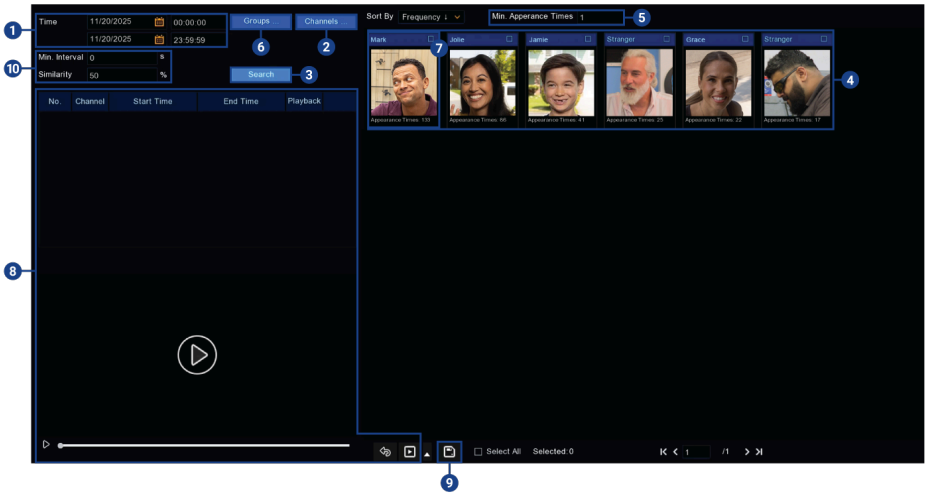



   - Click **Save**. In the USB window, choose the folder (or create a new one), then click **OK**.

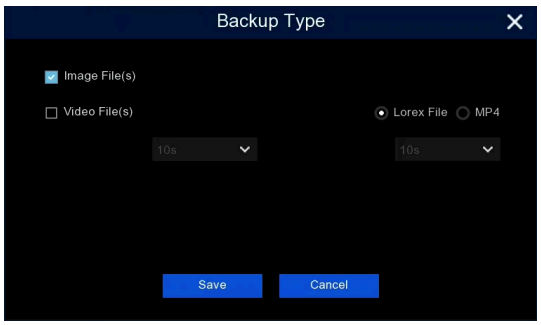



### *12.4.5 Repeat Visitors*

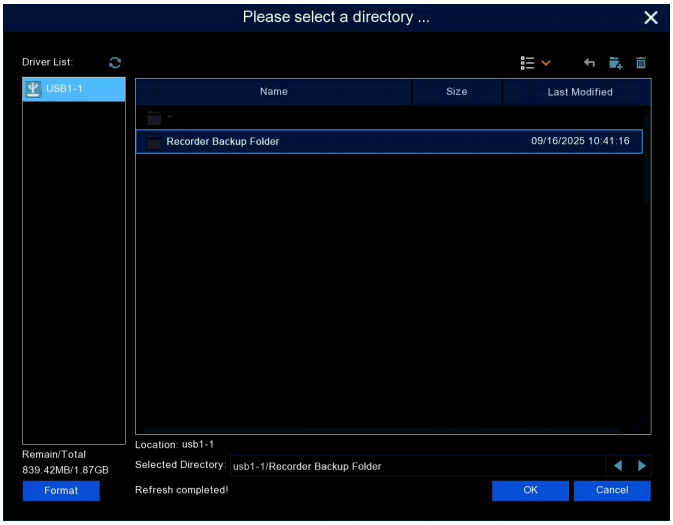
Repeat Visitors helps you quickly find people who appear frequently within a selected period.



1. **Time:** Select the **Date** and **Time** range. Dates with a red underline contain detections.
2. **Channels:** Click **Channels** to choose specific cameras, or leave all selected.
3. **Search:** Click **Search** to display events.
4. **Results:**
   - Each result shows a face and its **Appearance Times** (how many times this person was captured in the search period).
   - Use arrows or enter a page number to navigate through the search results.
   - Use **Sort By** ( Time/Frequency ↑/↓) and view type (Thumbnail/List/Detail) to navigate.
5. **Min. Appearance Times:** Enter a minimum number of appearances. Results with fewer appearances are hidden.
6. **Groups:** Filter by group(s) if desired.
7. **Selecting Events:** Check events or **Select All** to select them.
8. **Playback:** Double-click an event or click **Playback** to play the video.
9. **Backup:**
   - Click **Backup** to save videos to a USB flash drive.
   - To also save video clips, check **Video Files**, choose **Lorex File** or **MP4**, and set the pre- and post-event time.




   - Click **Save**. In the USB window, choose the folder (or create a new one), then click **OK**.




10. For more precise searching, adjust:
    - **Min. Interval:** Minimum time between snapshots of the same person. For example, if set to 20 seconds, only the first image within each 20-second window is shown.
    - **Similarity:** Sets how closely faces must match to be considered the same person. Higher values reduce false matches.

### *12.4.6 Face Attendance*

Face Attendance provides basic attendance analysis based on face recognition. It can help identify late arrivals, early departures, and absences.

**NOTE**

Face Attendance is a convenience feature only. Do **not** rely on it as the sole official attendance record.

1. **Channels:** Select the channel(s) used for attendance (for example, the entry door camera).
2. **Select Mode:**
   - **By Person:** Analyze attendance only for specific people.
   - **By Group:** Analyze attendance for everyone in the selected group(s).
   - Click the filter icon to select groups or persons. Selected people are listed in the middle of the window.
3. **Date Range:** Choose to search by a single day, week, month, today, or a custom date range.
4. **Working Days:** Set which days are considered workdays.
5. **Start Time of Work / End Time of Work:** Enter standard start and end times for the workday.
6. **Search:** Click **Search**. The results are displayed on the right side of the screen, showing attendance status for each person.
7. **Export / Email:**
   - Export attendance data to a USB flash drive.
   - Or send the report by email if email is configured.
8. Click **Detail** for a person to view:
   - Captured images and videos of their first and last appearance for the day.
   - Click **Play** to quickly review the related recordings.

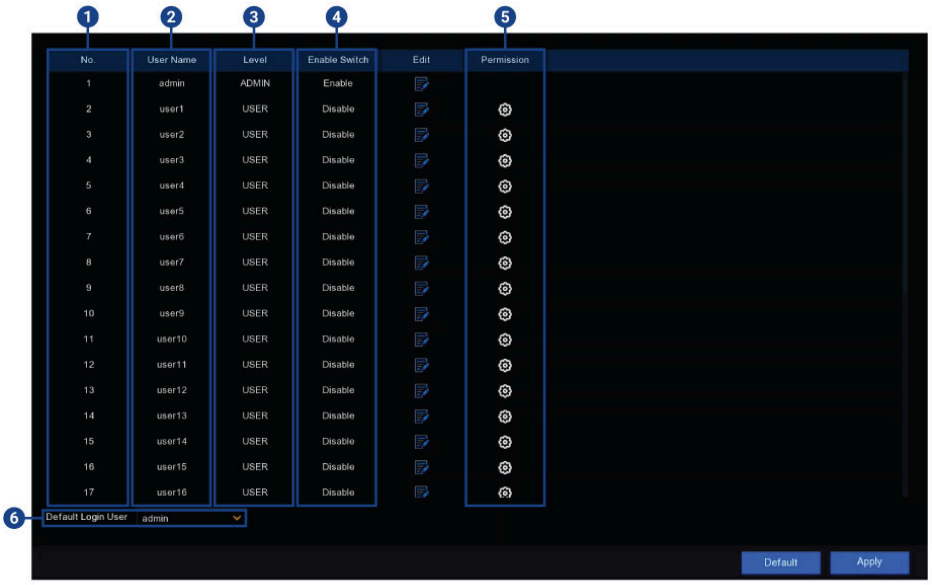
# 13 User Management

The **Multi-User** settings let you create and manage different user accounts on your DVR 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**

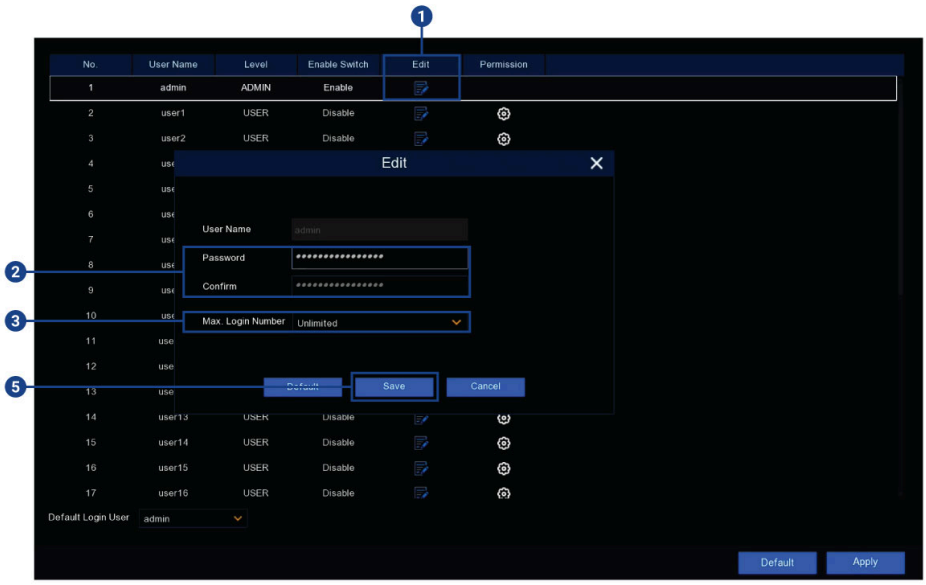
1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **System**.
4. In the left menu, click **Multi-User**.

**Viewing User Accounts**




1. **No.:** Displays the numbered list of user accounts.
2. **User Name:** Displays the name of each user, such as "admin" or "user1."
3. **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.

### Configuring Admin Account Settings

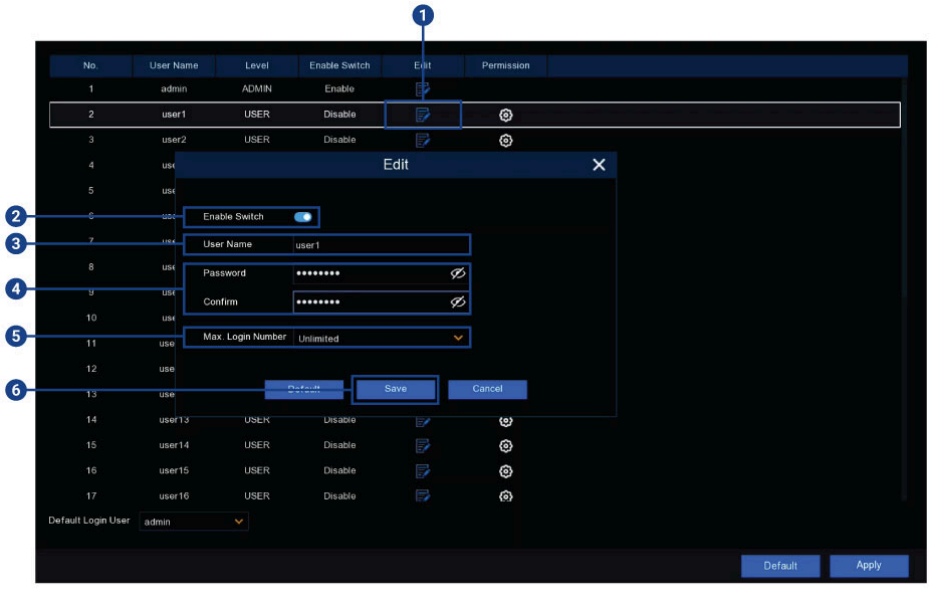



1. **Edit:** Click next to the admin to modify admin account settings.
2. **Password:** Enter and confirm a new admin password.
3. **Max. Login Number:** Set the maximum number of simultaneous logins for the admin account (from 1 to 20 or **Unlimited**).
4. **Apply Changes:** Click **Save**, then **Apply** to save your changes.

#### Optional Actions

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

### Configuring General User Account Settings



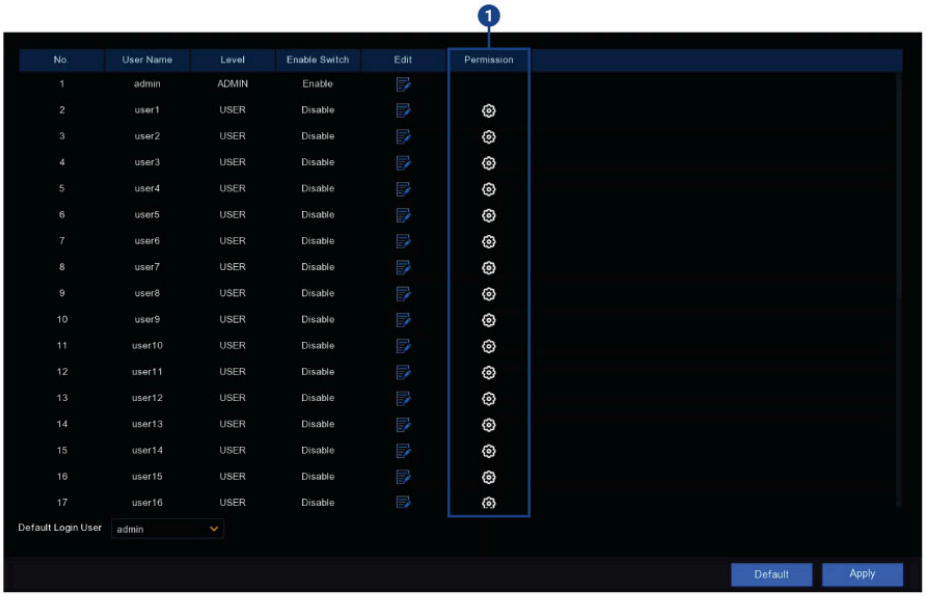

1. **Edit:** Click next to the user to modify their user account settings.

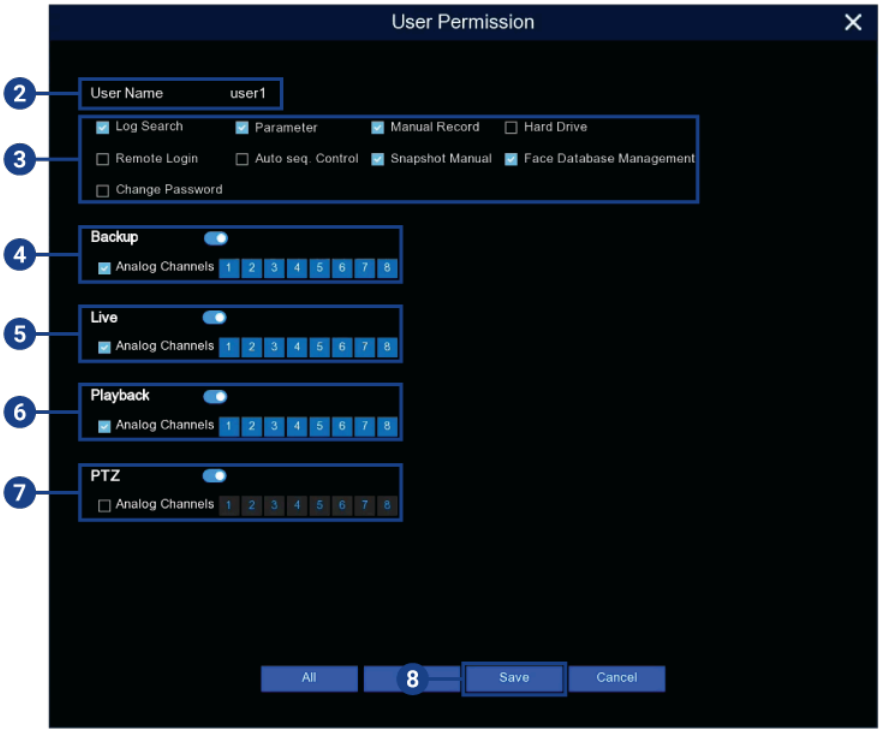
2. **Enable Switch:** Toggle the switch to enable or disable the user account.
    - Enabled users have access to the system based on their permission levels.
    - Disabled users will not be able to log into the system.
3. **User Name:** Click to change the username.
4. **Password:** Enter and confirm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

**Optional Actions**

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

### Setting User Permissions

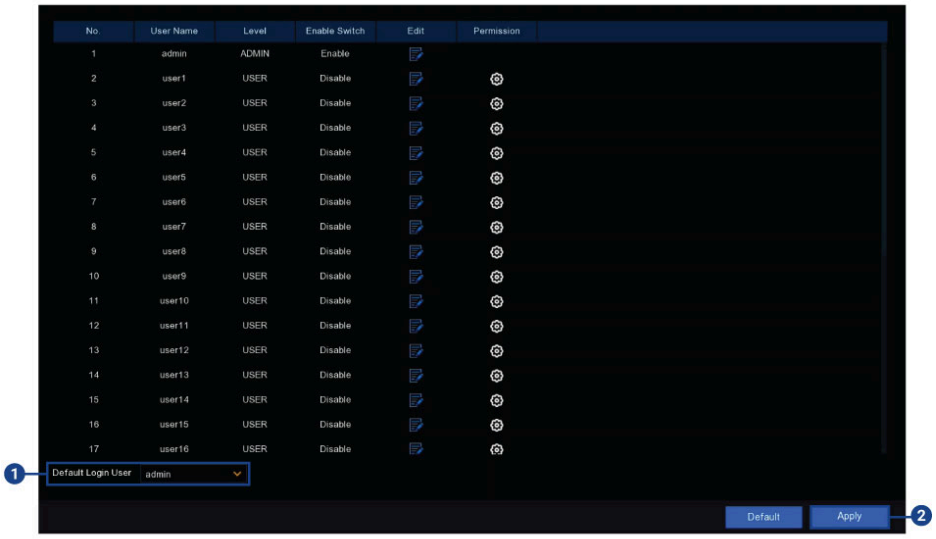



1. **Permission:** Click next to the user to edit their access permissions.
2. **User Name:** Displays the name of the user being edited.
3. **Select Permissions:** Check the boxes for the specific settings the user can access.
4. **Backup:** Enable this to grant the user backup privileges. Select the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

5. **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. **PTZ:** Enable this to grant the user access to PTZ controls. Select the PTZ camera channel the user can control.
8. **Apply Changes:** Click **Save**, then **Apply** to save the changes.
9. **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 **Apply** to save your changes.

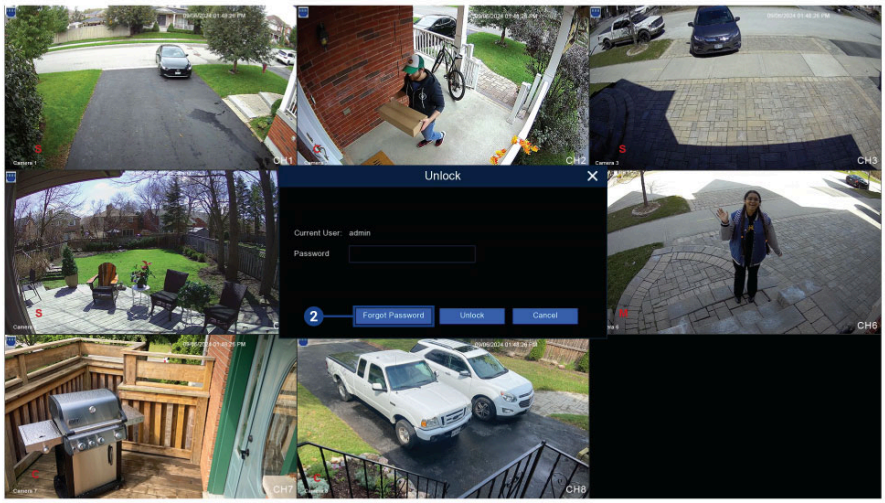
**Optional Actions**

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

# 14 Password Recovery

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

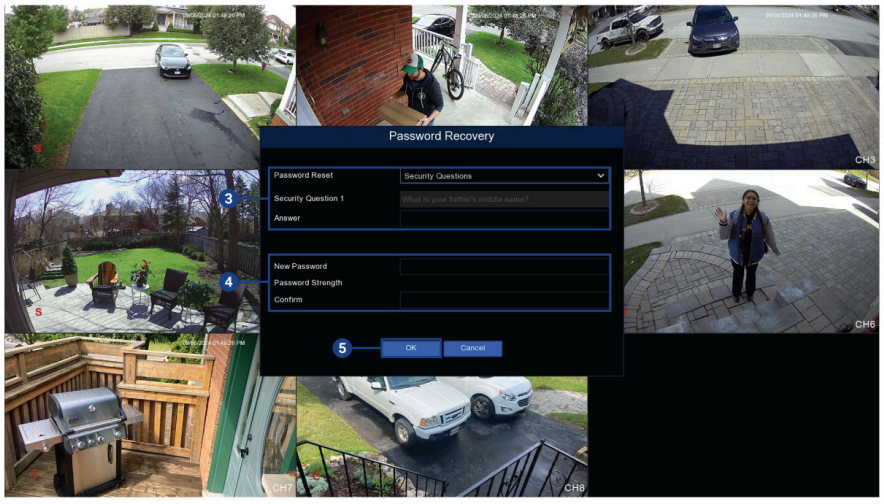
1. **Open the Unlock Prompt:** Click the screen to open the **Unlock Prompt**.
2. **Forgot Password:** Click **Forgot Password** at the bottom of the prompt to open the **Password Recovery** screen.




3. **Answer Security Questions:** The system will randomly select **one of your security questions** that you created during the initial setup. Enter the correct answer to proceed.

> **NOTE**
>
> **Incorrect Answers:** If the first question is wrong, the system will prompt the next security questions.
>
> - If you answer all questions incorrectly, the DVR will lock. At this point, it is best to contact Lorex Technical Support for further assistance.

4. **Enter New Password:** Enter and confirm your **New Password**.
5. **Apply Changes:** Click **OK**.



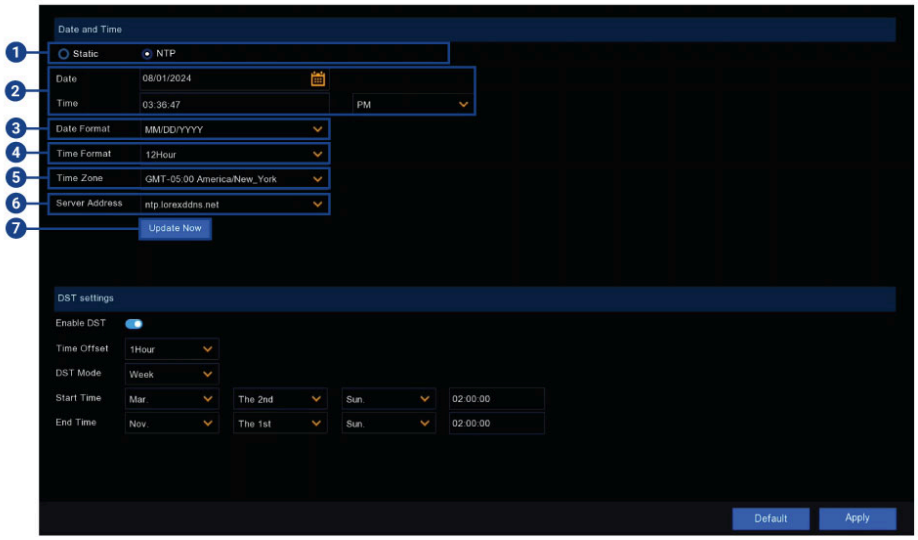
# 15 Date & Time Setup

Keeping your DVR'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 DVR.

**How to Access Date & Time**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **System**.
4. In the left menu, click **General**.
5. In the top menu, click **Date and Time**.

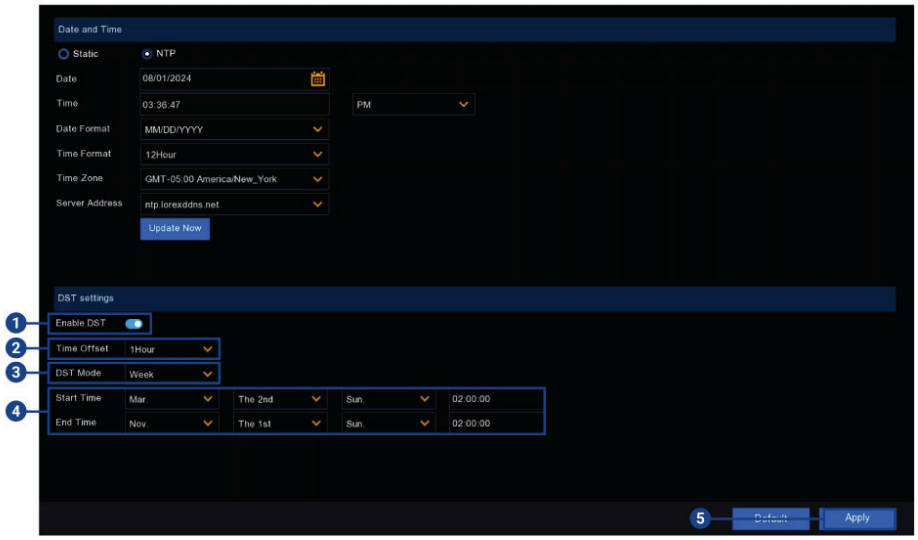
**Setting the Date & Time**




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.lorexddns.net’ or ‘time.nist.gov’ for automatic time updates.
7. **Update Now:** If using **NTP**, click **Update Now** to instantly sync the time.

### Configuring Daylight Savings Time (DST)

If your area observes Daylight Savings Time, you can set your DVR 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 save.

# 16 Storage Management

The **Storage** settings in your DVR 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.

## 16.1 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 in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Storage**.
4. In the left menu, click **Schedule**.
5. In the top menu, click **Recording Schedule**.

**Configuring the Recording Schedule**

1. **Channel:** Select the camera channel 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 the days of the week on the left and hours of the day across the top. Each square represents one hour in a 24-hour format.

   2.1. **Continuous Recording (Green):**

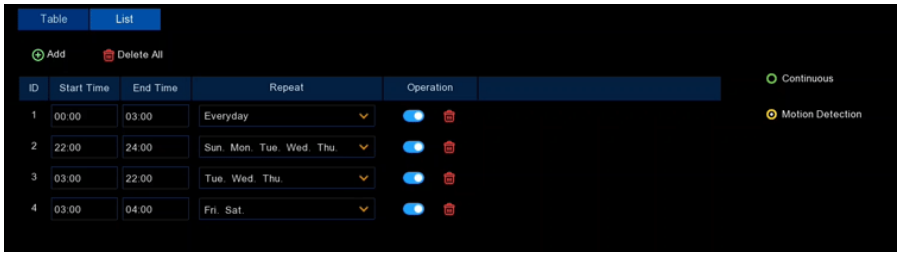
   - Click the green squares to enable or disable continuous recording for specific hours.
   - You can click individual squares or click-and-drag across multiple squares to set a time range.
   - Green squares indicate active continuous recording periods.

2.2. **Motion Detection (Yellow):**

- Select the **motion detection** option to switch modes.
- Then click the yellow squares to define when the system should record based on motion events.
- Use click or click-and-drag to apply settings across multiple hours.
- Yellow squares represent active motion detection periods.

*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 save.

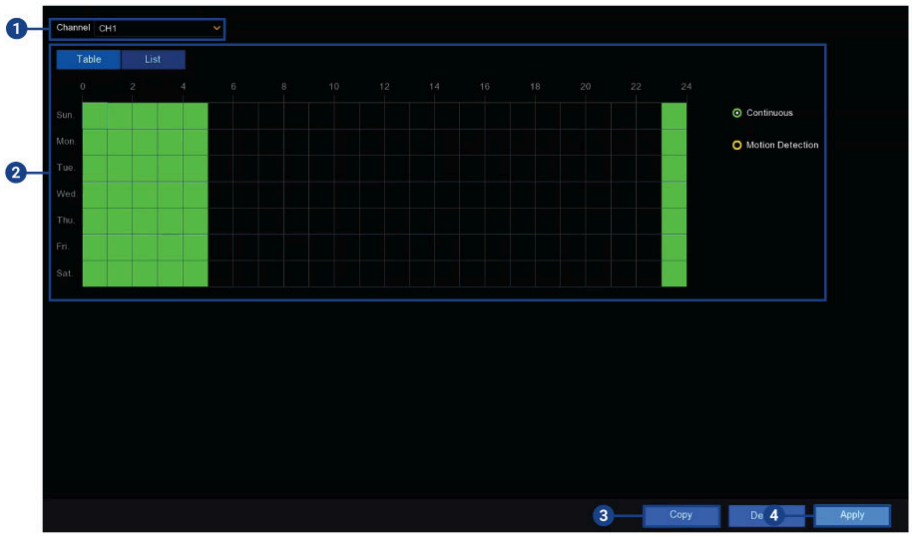
## 16.2 Configuring the Snapshot Schedule

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 in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Storage**.
4. In the left menu, click **Schedule**.
5. In the top menu, click **Snapshot**.

### Configuring the Snapshot Schedule




1. **Channel:** Select the camera channel 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):**

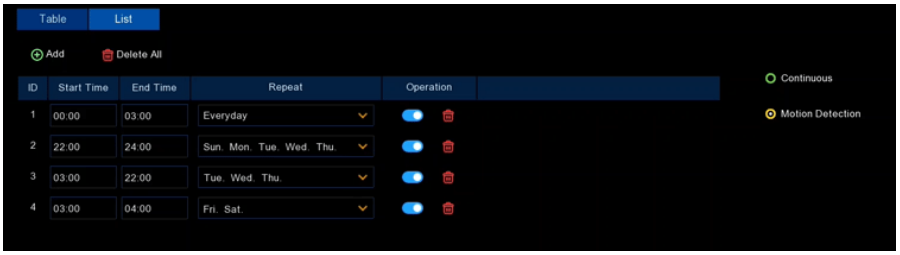
   - Click the green squares to enable or disable regular snapshots for specific hours.
   - You can click individual squares or click-and-drag across multiple squares to set a time range.
   - Green squares indicate active snapshot periods.

   2.2. **Motion Detection / Alarm Interval (Yellow):**

   - Select the **alarm interval** option to switch modes.
   - Then click the yellow squares to define when the system should take snapshots based on alarm events.
   - Use click or click-and-drag to apply settings across multiple hours.
   - Yellow squares represent active snapshot periods.

   *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 5.4 *Taking Snapshots*, page 17.

**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 save.

## 16.3 Installing the Hard Drive (HDD)

You can install a hard drive (up to 10 TB) at any time.

- If your DVR already has a hard drive installed, follow the full instructions below to remove and replace it.
- If your DVR does **not** include a hard drive, begin at the installation step.

Follow the steps carefully to ensure safe removal and installation.

### *16.3.1 Removing the Hard Drive*

| ⚠ CAUTION |
| --- |
| Ensure the DVR is turned off and the power adapter is disconnected from the power source before proceeding with any hardware adjustments. |

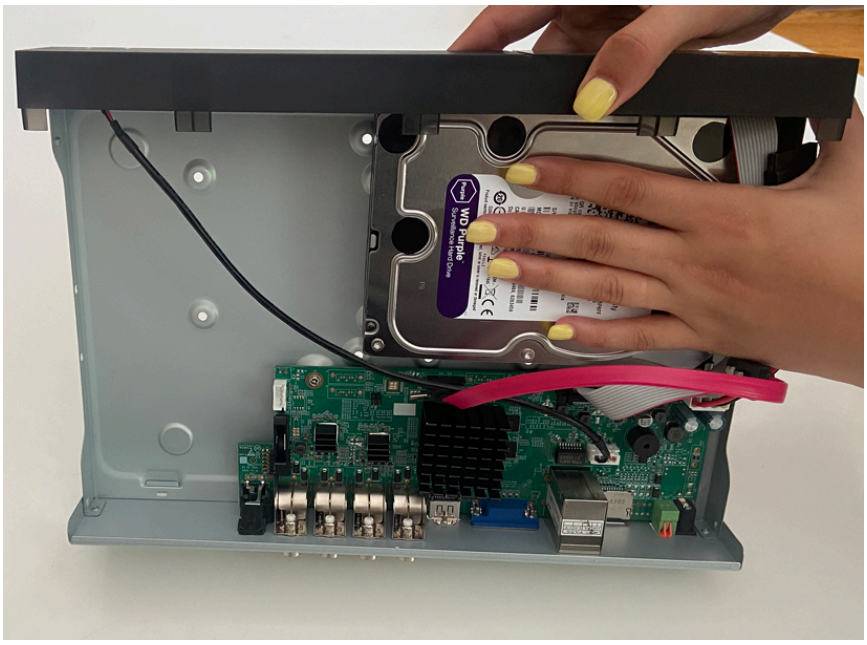
**Steps to Remove the Hard Drive:**

1. **Power off and disconnect the system:**
   - Unplug the power adapter and disconnect all other cables from the DVR.

2. **Open the DVR case:**
   - Use a Phillips screwdriver to remove the two side screws and three rear screws.

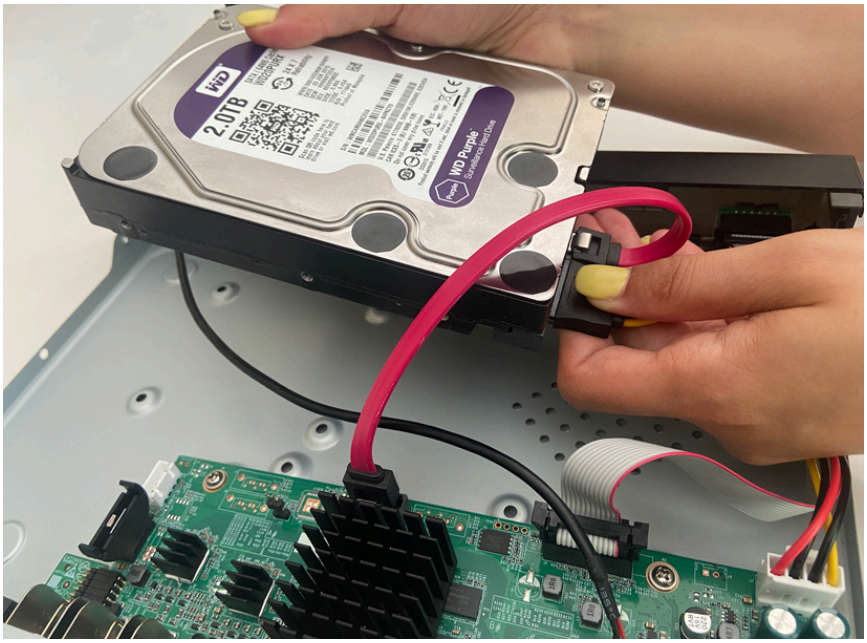
   - Slide the top cover away from the DVR and lift it off to expose the internal components.

3. **Flip the DVR and hold the drive:**
   - Hold the hard drive in place with one hand and carefully flip the DVR over to access the bottom panel.

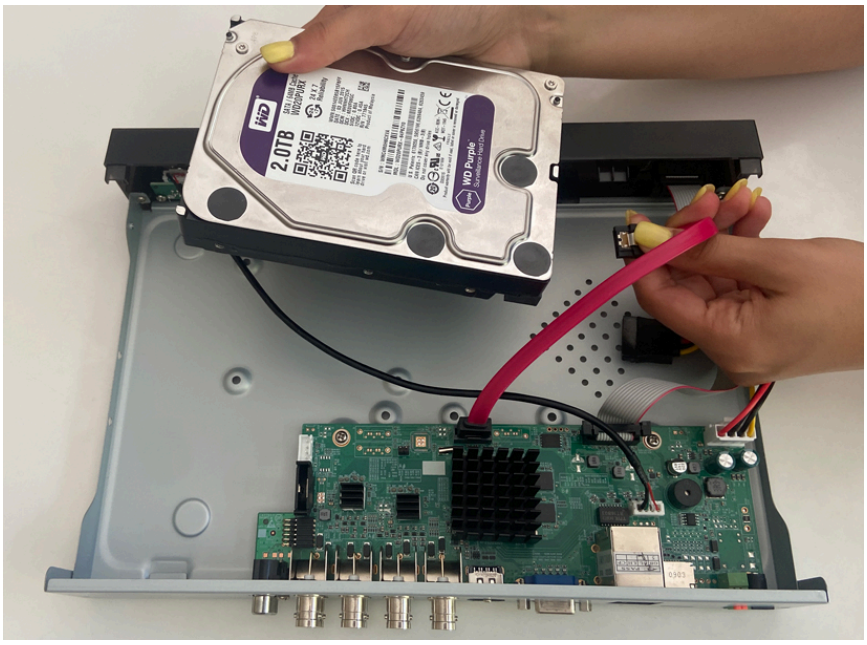



4. **Unscrew the hard drive:**
   - Use a Phillips screwdriver to remove the four screws securing the hard drive to the DVR chassis.

5. **Flip the DVR back and remove the drive:**
   - Hold the hard drive in place, flip the DVR upright, and carefully slide the drive partway out.



6. **Disconnect the cables:**
   - Gently unplug the SATA cable and the power cable from the hard drive by pulling the connectors straight out.




   - Fully remove the hard drive from the DVR.

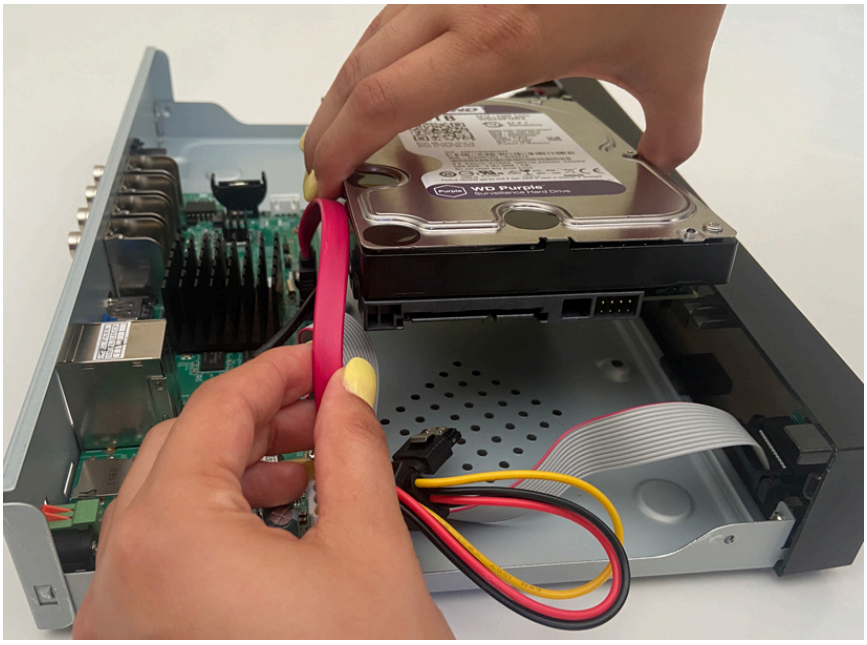
   - Proceed to the next section to install a new hard drive.

### *16.3.2 Installing a New Hard Drive*

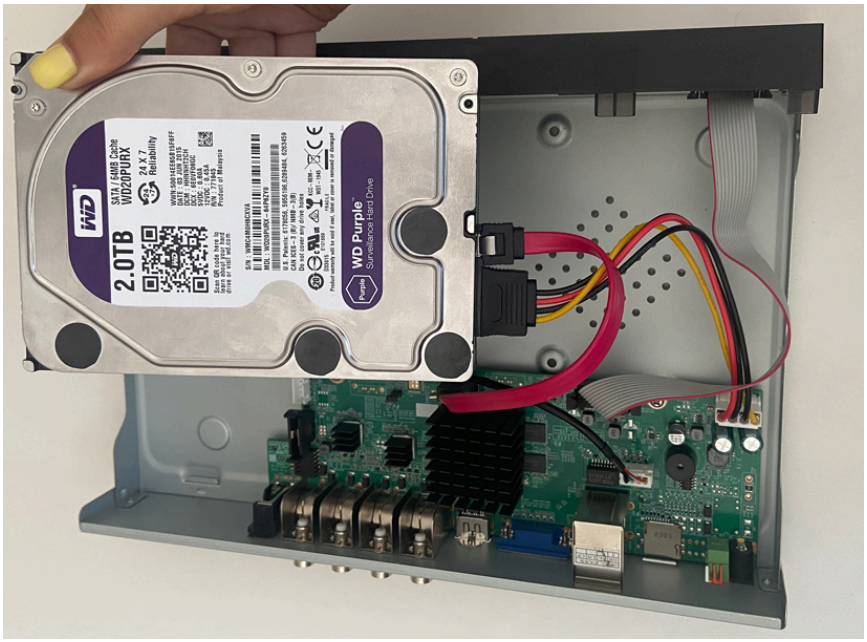
To install a new hard drive, follow these steps carefully:

1. **Prepare the new hard drive:**
   - Make sure the drive is a compatible 3.5" SATA hard drive, up to 10 TB maximum capacity.

2. **Insert the hard drive:**
   - Slide the hard drive into the DVR’s drive bay. Hold it in place with one hand.

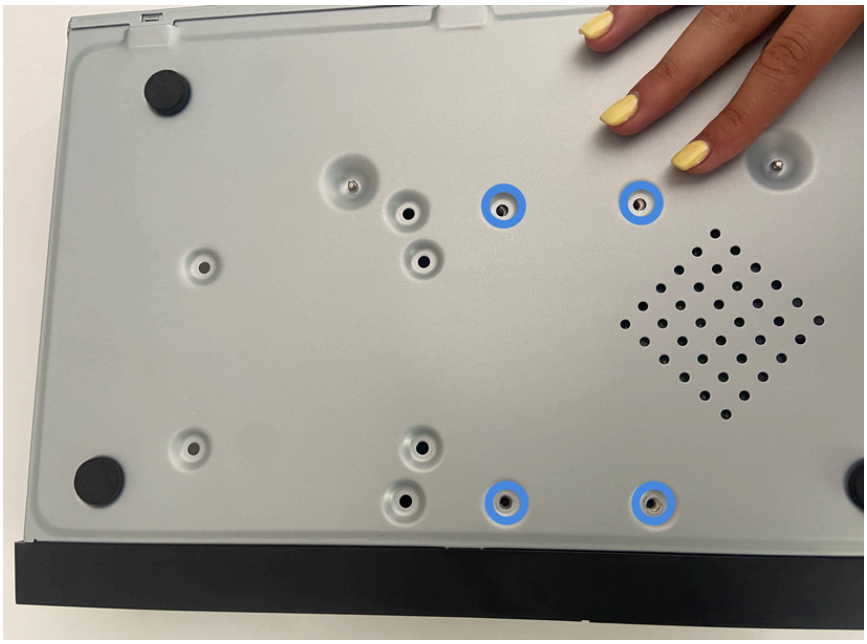


3. **Connect the cables:**
   - Plug the DVR’s SATA and power cables into the corresponding ports on the new hard drive.



4. **Flip the DVR and align the drive:**
   - Carefully flip the DVR over while holding the hard drive.

5. **Secure the hard drive:**
   - Align the screw holes on the bottom of the drive with the holes on the DVR’s bottom panel.



   - Use a Phillips screwdriver to fasten the four installation screws through the bottom panel to secure the hard drive.

6. **Flip the DVR back and close the case:**
   - Flip the DVR upright. Slide the top cover back into place.

   - Secure the cover using the two side screws and three rear screws with the Phillips screwdriver.

7. **Reconnect and power on:**
   - Reconnect the power adapter and all other cables to the DVR.
8. **Format the new hard drive:**
   - After installation, the drive needs to be formatted before use. Refer to the next section 16.4 *Overwriting and Formatting Your Hard Drive*, page 99 for detailed steps on how to format the new hard drive.

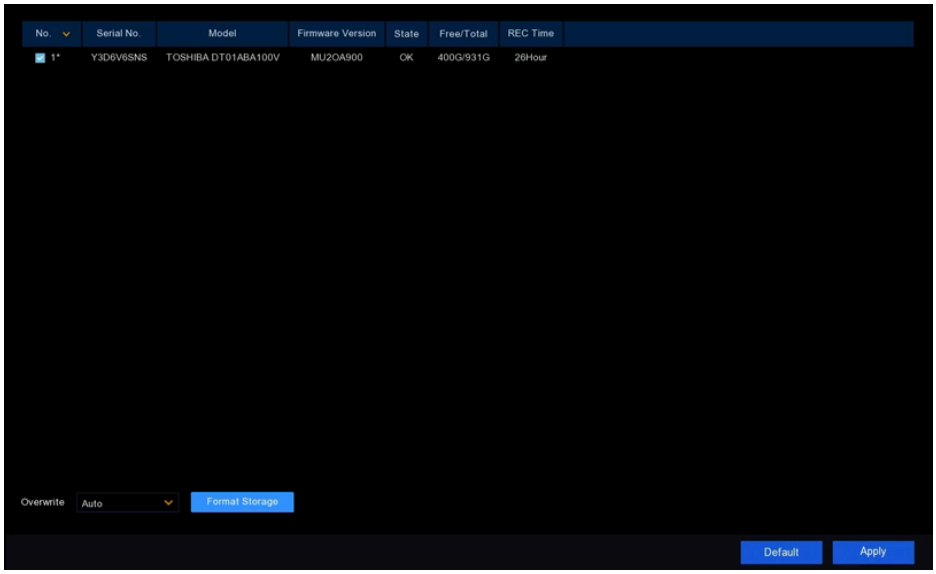
## 16.4 Overwriting and Formatting Your Hard Drive

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

**How to Access Hard Drive Settings**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Storage**.
4. In the left menu, click **Hard Drive**.

**Managing Your Hard Drive**



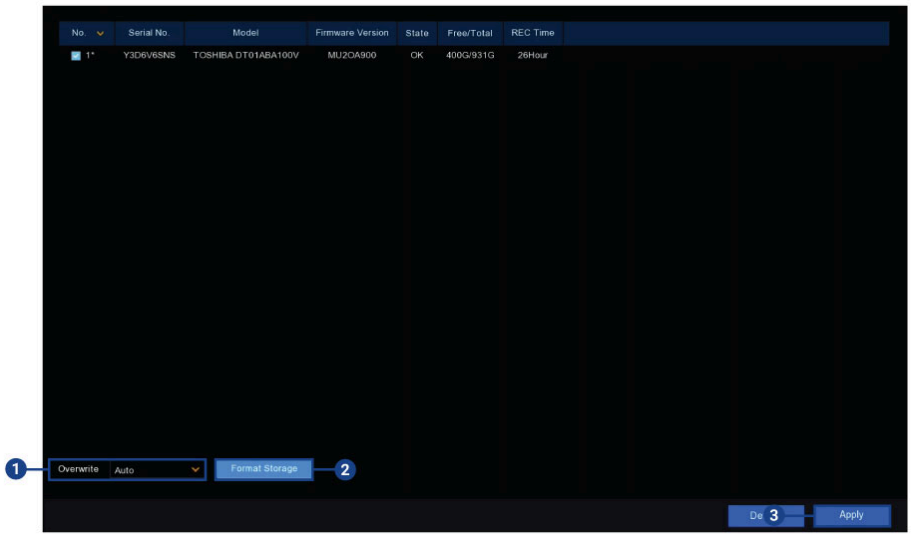

1. **No.:** Lists the number of hard disk drives connected.
2. **Serial No.:** Displays the unique serial number of the hard drive.
3. **Model:** Shows the model number of the hard drive.
4. **Firmware Version:** Displays the firmware version installed on the hard drive.
5. **State:** Indicates the status 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 12.2 *Searching & Backing Up Recordings*, page 67.




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. **Login** to complete this action.

### 16.5 Setting up System Warning Alerts

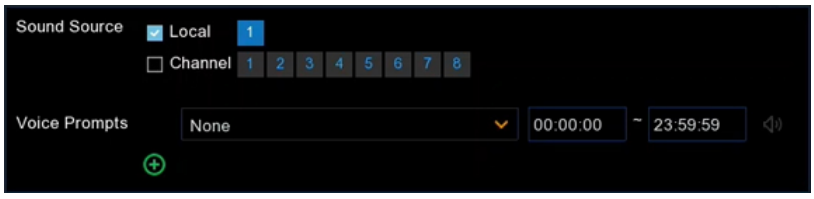
The **System Warning Alerts** feature lets you set up notifications for important HDD events, such as when the storage is full or when a hard drive error occurs. These alerts help you quickly respond to issues that could affect your system's performance.

**How to Access Warning Settings**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Alerts**.
4. In the left menu, click **Warning**.

### Configuring System Warning Alerts

1. **Event Type:** Choose between two event types:
   - **Hard drive Full:** Receive an alert when the storage is full.
   - **Hard 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** *(Voice prompt–compatible cameras only):* 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 save.

# 17 Configuration Menu

The **Configuration** menu is where you can control all the important settings for your DVR 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.

## 17.1 Alerts

### *17.1.1 Voice Prompt*

Create and manage custom voice alerts to respond to specific events.

**How to Access Voice Prompts Settings**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Alerts**.
4. In the left menu, click **Voice Prompts**.

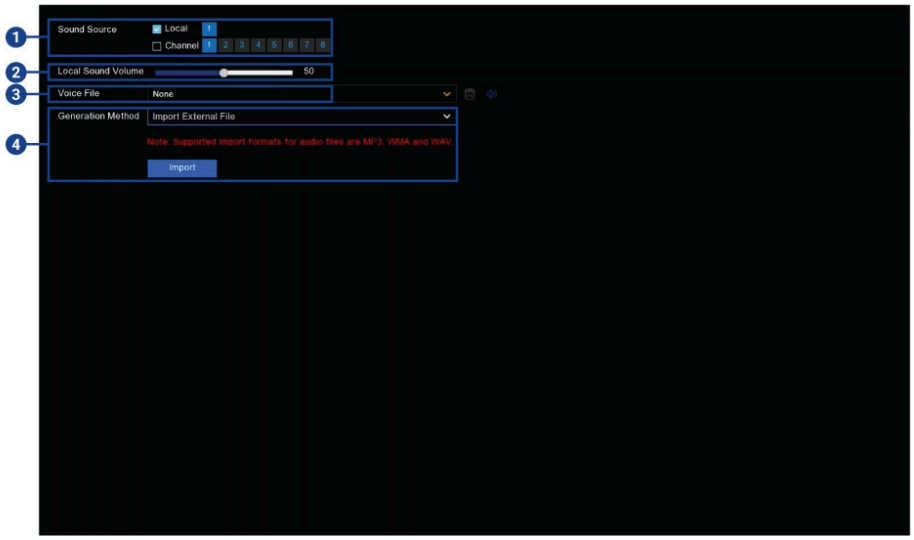
**Choosing a Pre-Recorded Alarm**

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

1. **Sound Source:** Select **Local** for the DVR'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 DVR'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:** Click to remove the file from the system.

### *17.1.2 Deterrence Light*

The **Deterrence Light** feature allows you to schedule when the deterrence light on a compatible camera will activate in response to motion. You can set how long the light stays on and configure a weekly schedule using either the **Table View** or **List View**.

**How to Access Deterrence Light Schedule**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Alerts**.
4. In the left menu, click **Deterrence**.
5. In the top menu, click **Deterrence Light**.

**Creating the Deterrence Light Schedule**

1. **Channel:** Select the compatible camera channel.
2. **Light Duration:** Enter how many seconds the deterrence light will remain on after motion is detected.
3. The schedule can be configured using either the **Table View** or **List View**.

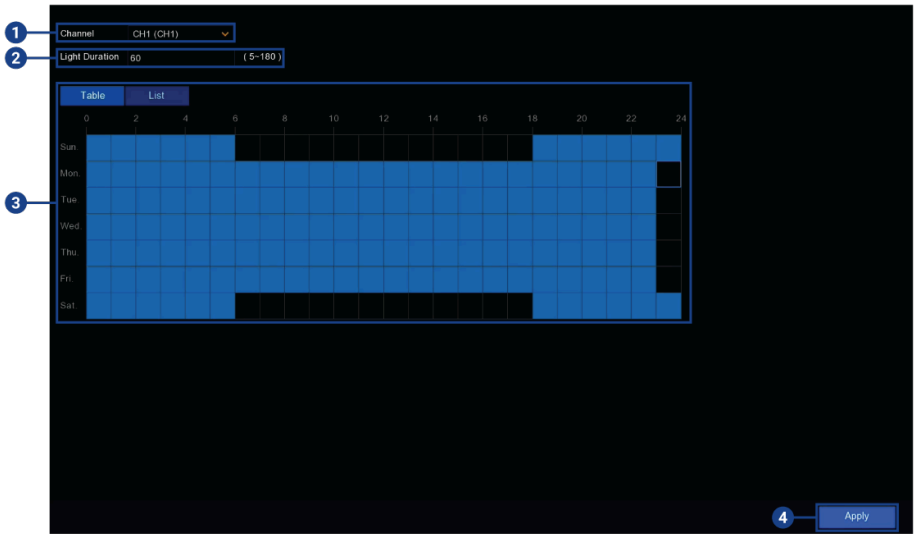
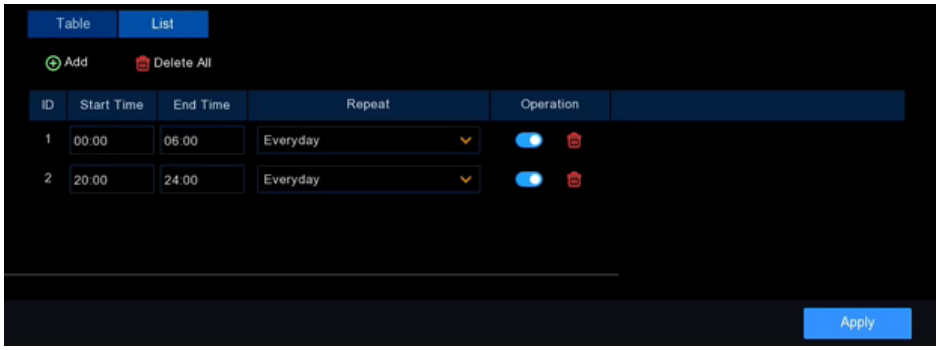



**Table View**

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 times the deterrence light is enabled.

1. **Set the Schedule:** Click on the blue boxes to select or deselect times for when the deterrence light will turn on in response to motion. Drag over multiple squares to set the desired period. Colored-in squares indicate active times.
2. **Apply Changes:** Click **Apply** to save your changes.

**List View**




1. **ID**: Numbered list of schedules.
2. **Start Time**: Enter the time when motion-activated deterrence light is allowed to begin.
3. **End Time**: Enter the time when the deterrence light schedule ends.
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.

## 17.2 Event Settings

## 17.3 Network Settings

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

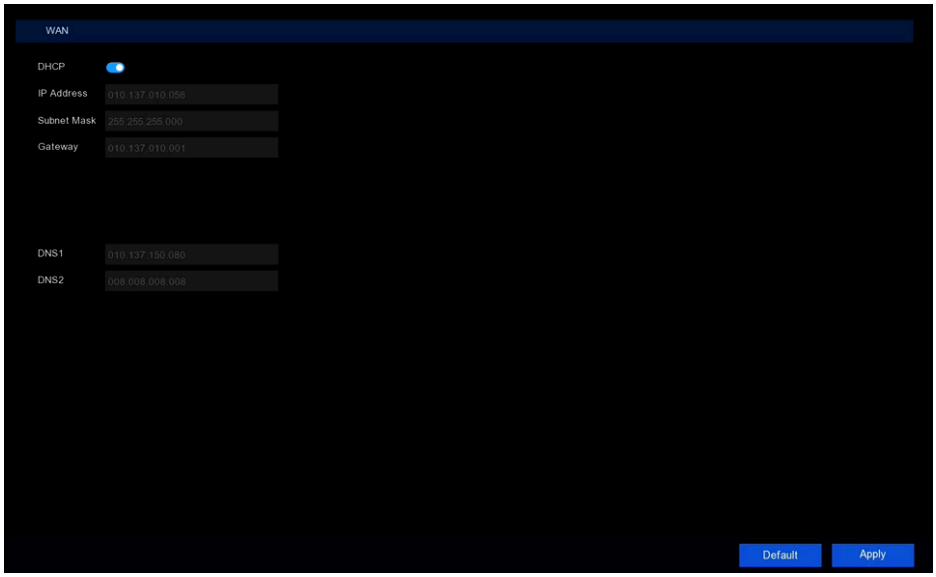
### *17.3.1 Configuring General Network Settings*

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

**How to Access General Network Settings**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Network**.
4. In the left menu, click **General**.
5. In the top menu, click **General**.

### 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 DVR'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 save.

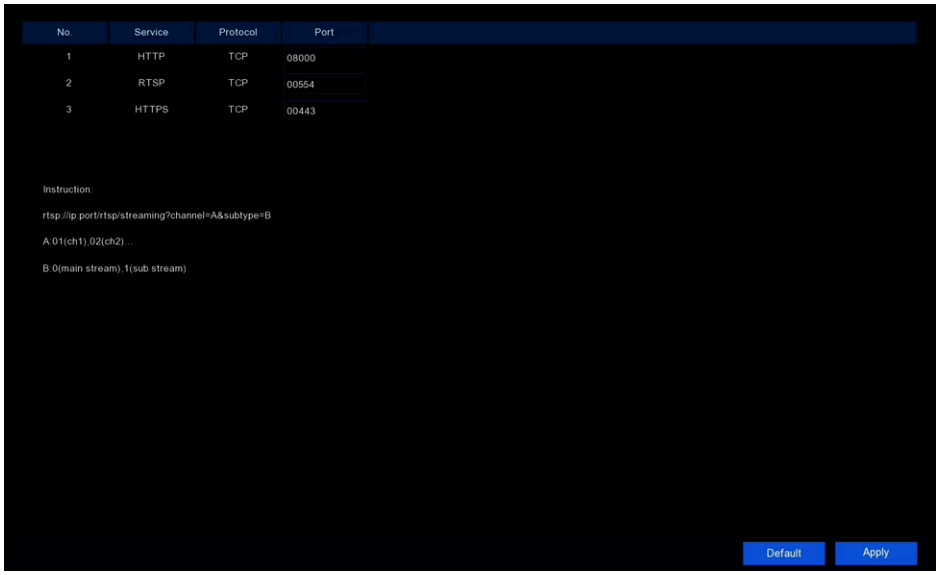
### *17.3.2 Setting Up Port Configuration*

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

**How to Access Port Configuration**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Network**.
4. In the left menu, click **General**.
5. In the top menu, click **Port Configuration**.

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

#### Optional Actions

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

### *17.3.3 DDNS Setup*

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

**NOTE**

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

#### 17.3.3.1 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 DVR's IP address.

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

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

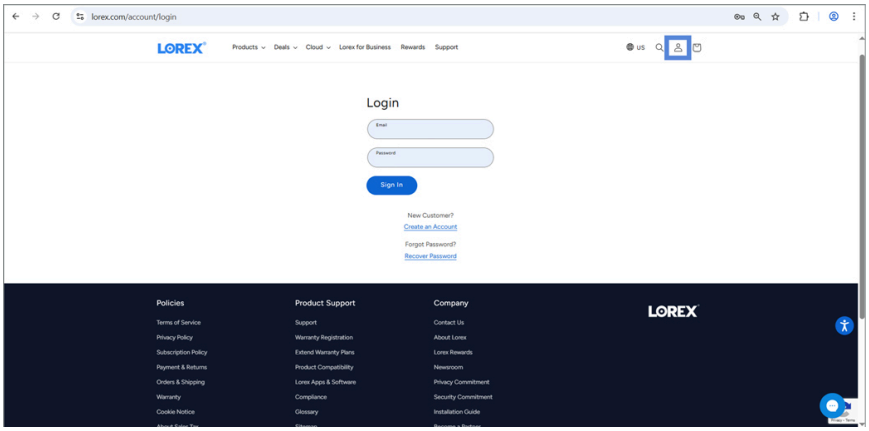
#### 17.3.3.2 Step 2: Create a Lorex Account

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

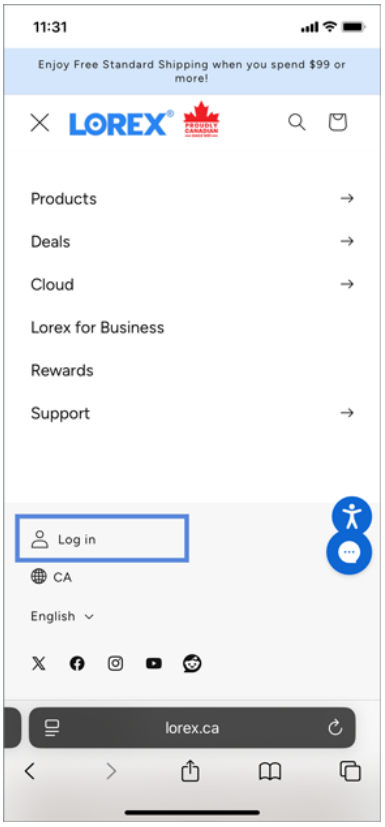
1. Go to lorex.com.

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**.

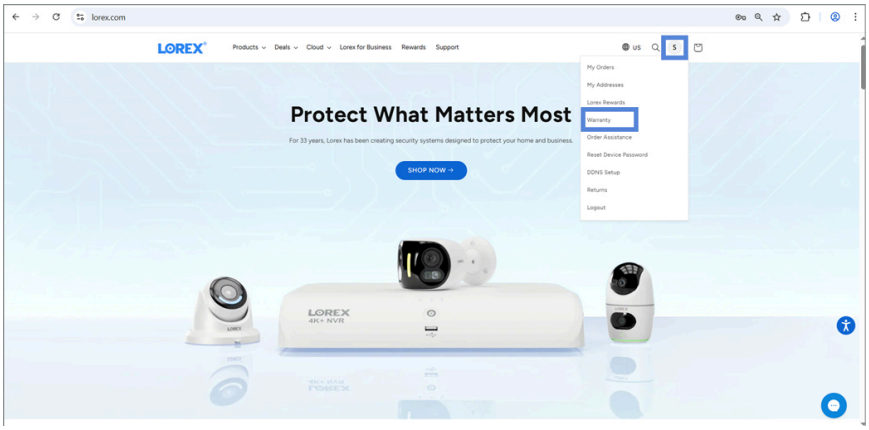



#### 17.3.3.3 Step 3: Activate Your Warranty

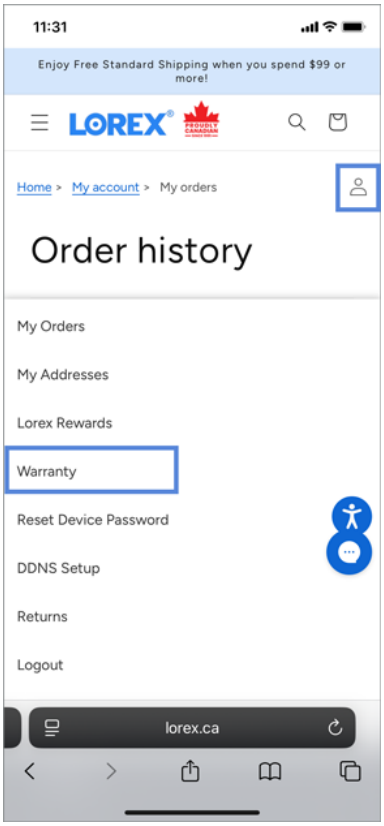
Before setting up DDNS, you must activate your DVR's warranty.

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

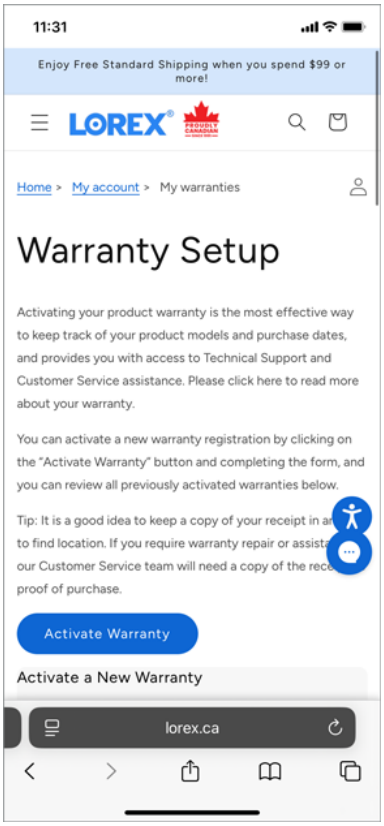
   - **On computer:** Click the **(My Account)** button, then choose **Warranty** from the menu.



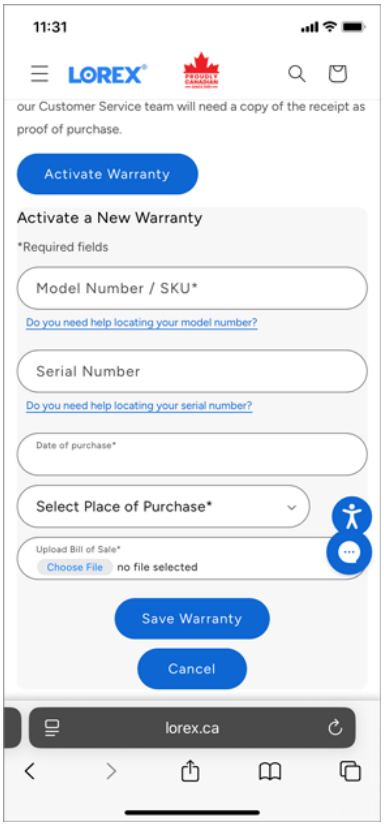

   - **On mobile:** Tap the **menu**, then **My Account**, then tap **Warranty**.



2. Click **Activate Warranty**.



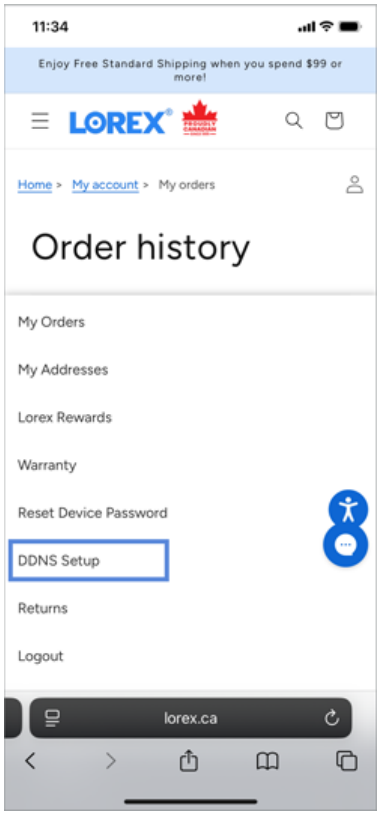
3. Fill in your DVR's product details and click **Save Warranty**.



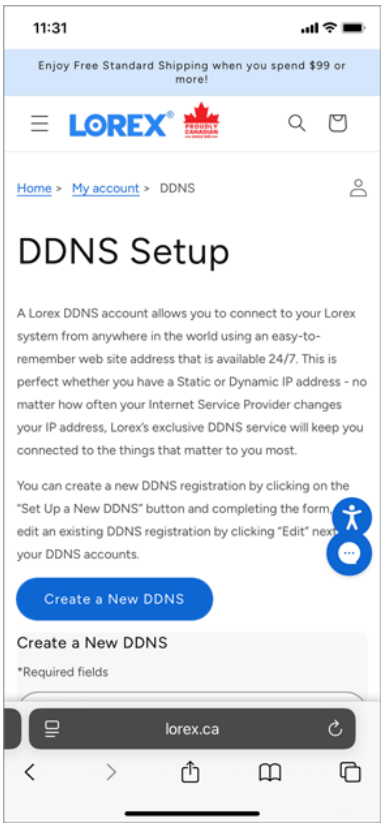

Your device will now be listed under **Existing Warranties**.

#### 17.3.3.4 Step 4: Create a DDNS Entry

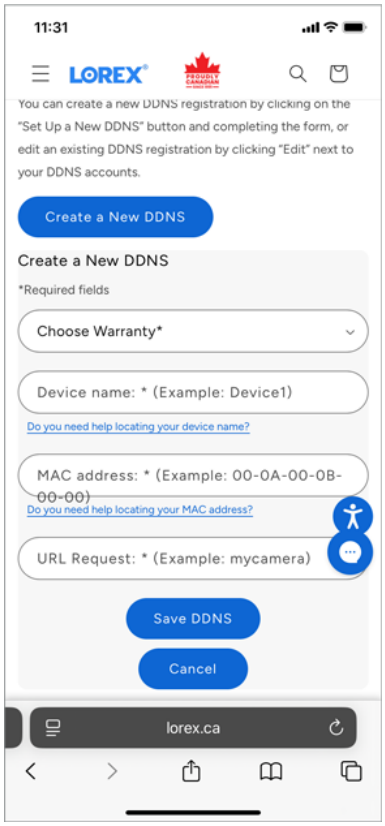
1. In your **My Account** dashboard, click **DDNS Setup**.



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



3. Fill in your product details:




- **Choose Warranty:** Select your DVR from the **Warranty** dropdown.
- **Device Name:** Enter a name for your system (For example, *HomeDVR*).
- **MAC Address:** Enter your DVR's **MAC Address**, found under **Navigation Bar > Device Info** on the DVR, refer to 8.3 *Using the Navigation Bar*, page 33.
- **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 DVR or app.

#### 17.3.3.5 Step 5: Enable DDNS on Your DVR

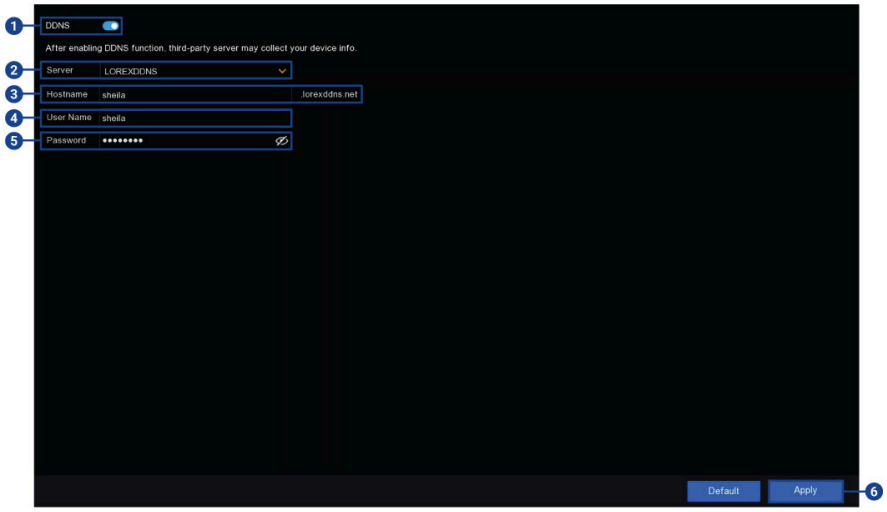
Now that your DDNS account is set up, you'll need to enter the details into your DVR's settings.

**How to Access DDNS Settings**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Network**.
4. In the left menu, click **DDNS**.

### Configuring DDNS in the DVR

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 DVR (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.

**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)

### *17.3.4 Configuring Email Alerts*

The **Email Settings** allows you to set up email alerts from your DVR 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.

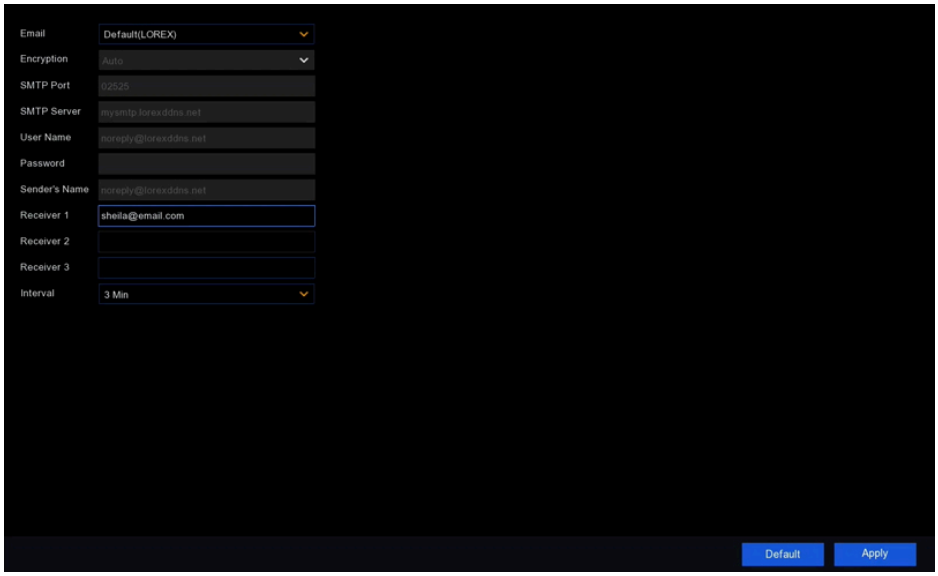
#### 17.3.4.1 Setting Up Email Alerts

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

**How to Access Email Settings**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Email**.
4. In the left menu, click **Email**.

### Configuring Email Alerts




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 save.

#### 17.3.4.2 Scheduling Email Alerts

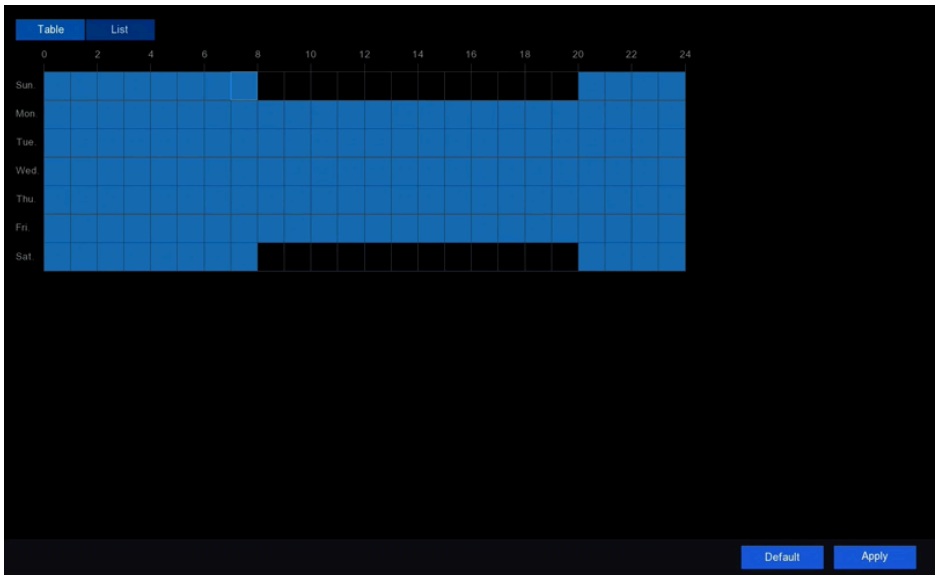
The **Email Schedule** allows you to set the schedule for when email alerts are sent.

**How to Access Email Schedule**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Network**.
4. In the left menu, click **Email**.
5. In the top menu, click **Schedule**.

### Creating the Email Schedule

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




#### Table View

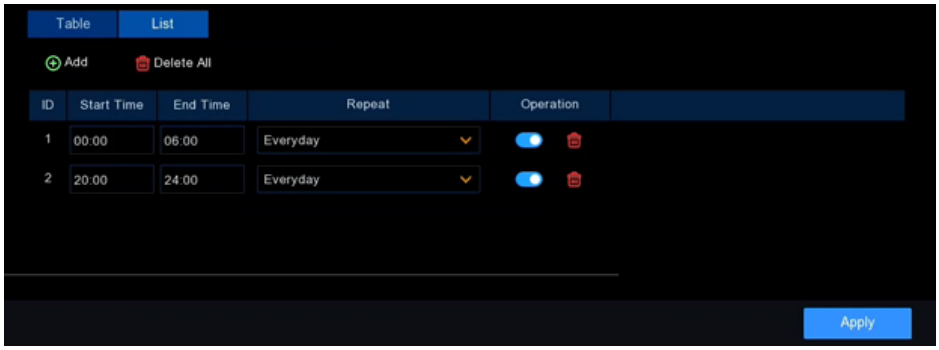
The table view displays days of the week on the left and hours of the day on top, with each box representing one hour. Blue boxes indicate active times for email notifications.

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 save.

#### 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.

**Optional Actions**

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

## 17.4 Network Settings

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

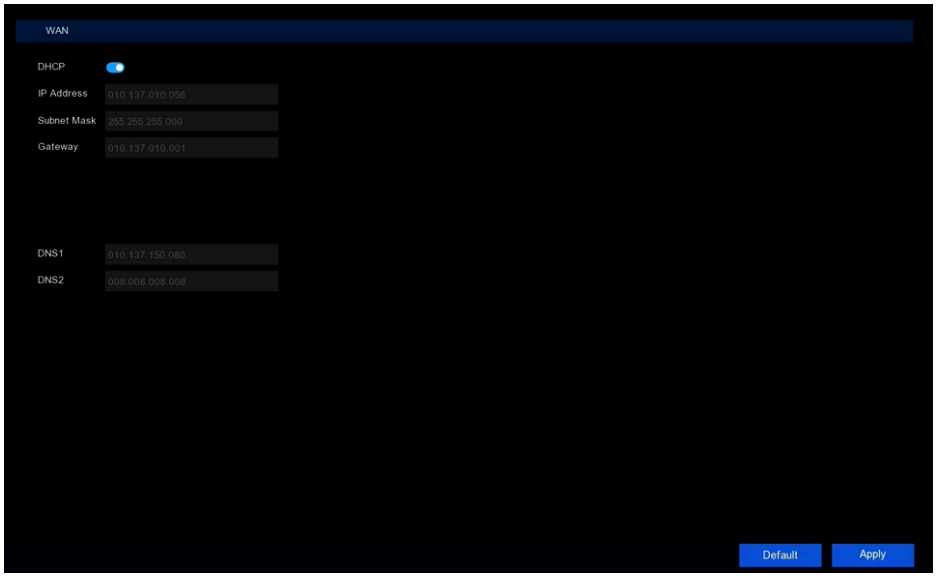
### *17.4.1 Configuring General Network Settings*

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

**How to Access General Network Settings**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Network**.
4. In the left menu, click **General**.
5. In the top menu, click **General**.

**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 DVR'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 save.

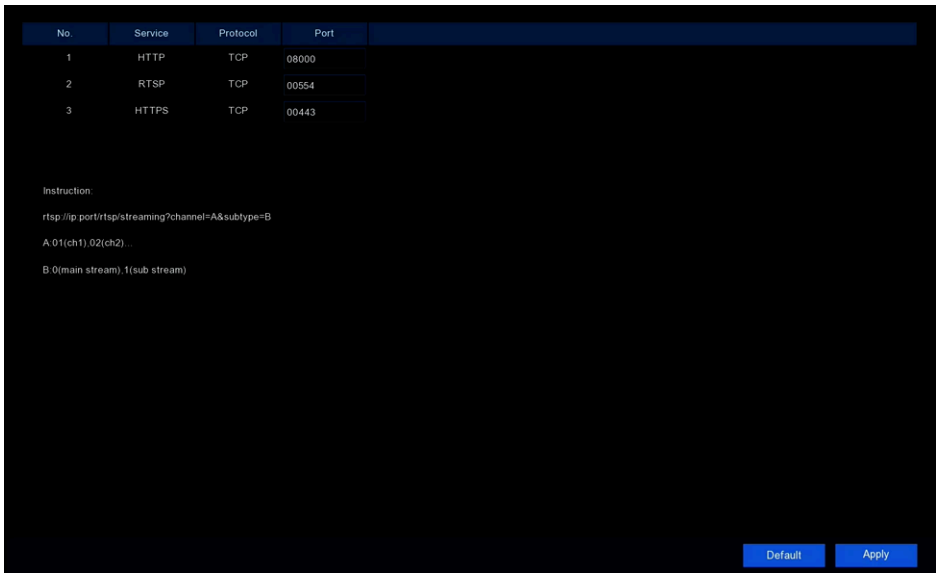
### *17.4.2 Setting Up Port Configuration*

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

**How to Access Port Configuration**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **Network**.
4. In the left menu, click **General**.
5. In the top menu, click **Port Configuration**.

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

**Optional Actions**

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

## 17.5 System Settings

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

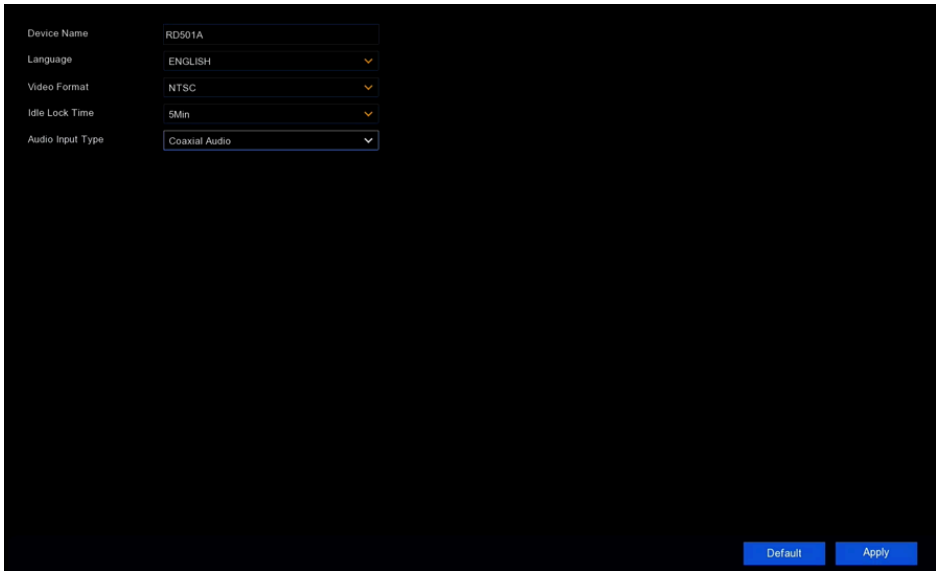
### *17.5.1 Managing General System Settings*

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

**How to Access General System Settings**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **System**.
4. In the left menu, click **General**.
5. In the top menu, click **General**.

**Configuring General System Settings**




1. **Device Name:** Edit the device name. This is how your DVR 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 DVR locks when idle, ranging from 30 seconds to 10 minutes, or select **OFF** to disable this feature.
5. **Audio Input Type:** Select the audio source for the analog channel.
   - **Recorder Audio:** Uses the DVR's **Audio In** port as the audio source.
   - **Coaxial Audio:** Uses the audio signal from the connected analog camera.

   **NOTE**

   Some models support Coaxial Audio only on specific analog channels, as defined in the custom configuration.

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

**Optional Actions**

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

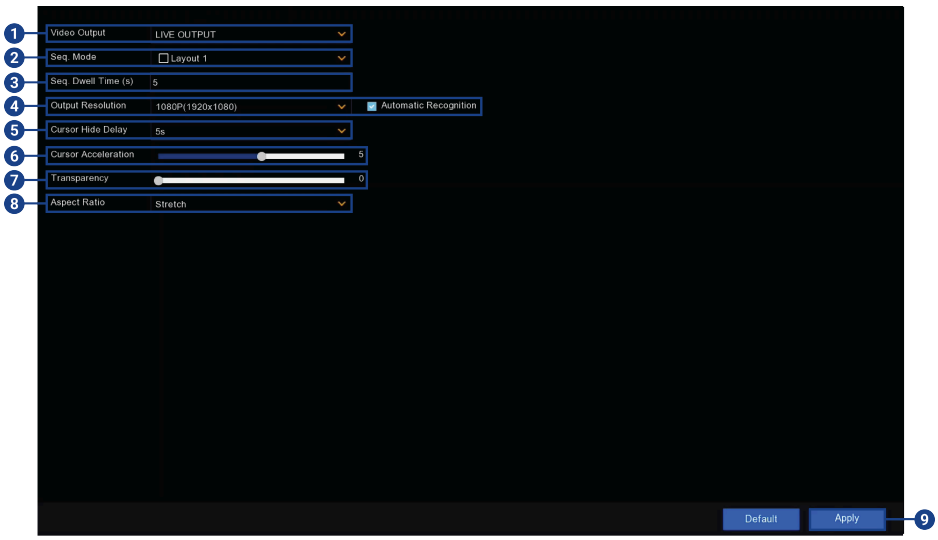
### *17.5.2 Configuring Display Settings*

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 in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **System**.
4. In the left menu, click **General**.
5. In the top menu, click **Output Configuration**.

**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 save.

### *17.5.3 Performing Recorder Maintenance*

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

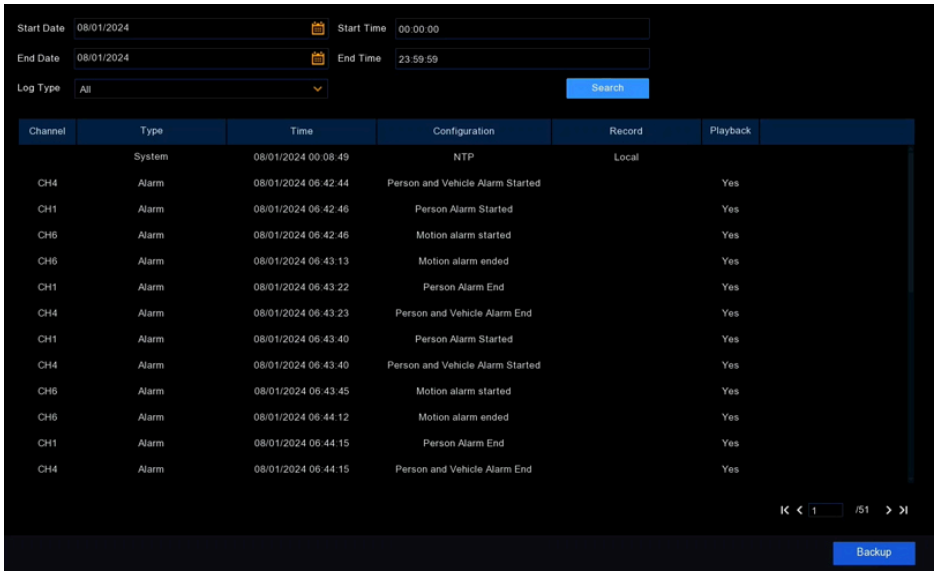
#### 17.5.3.1 Viewing System Logs

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

**How to Access System Logs**

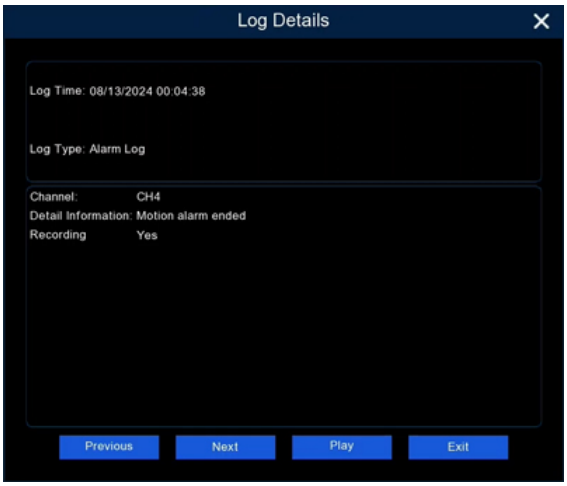
1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **System**.
4. In the left menu, click **Maintenance**.
5. In the top menu, click **Log**.

**Searching & Viewing System Logs**




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 DVR before attempting to back up the logs.

### 17.5.3.2 Restoring Default Settings

The **Load Default** settings feature allows you to reset your DVR 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 in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **System**.
4. In the left menu, click **Maintenance**.
5. In the top menu, click **Load Default**.

**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.

#### 17.5.3.3 Upgrading Firmware

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

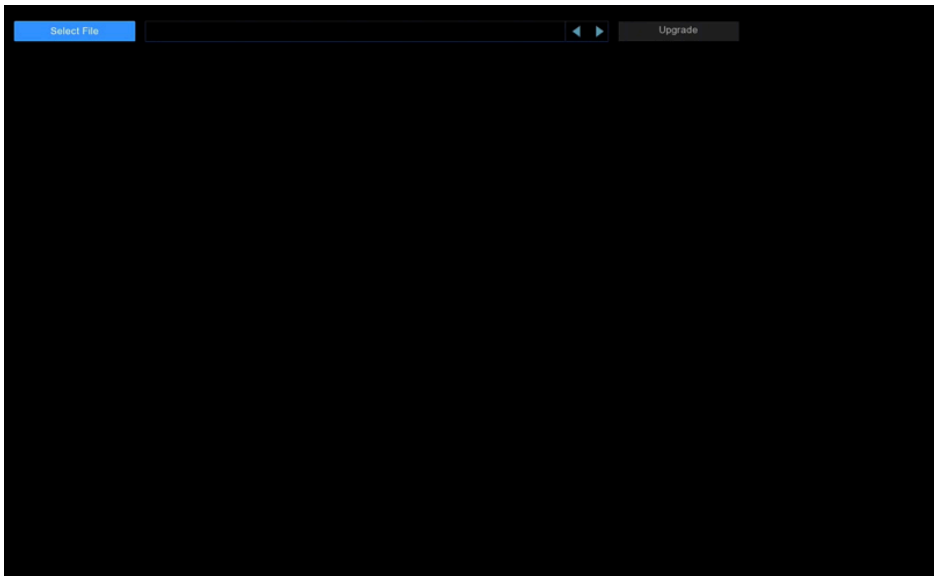
**How to Access Upgrade Settings**

1. Right-click in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **System**.
4. In the left menu, click **Maintenance**.
5. In the top menu, click **Upgrade**.

**Automatic Firmware Upgrades**

To enable automatic firmware upgrades, you can use the **Auto-Upgrade** feature in the Navigation Bar. Just make sure your DVR is connected to the internet. For help finding this option, refer to 8.3 *Using the Navigation Bar*, page 33.

**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 DVR.
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 DVR will begin installing the new firmware. Wait for the process to complete, and avoid disconnecting the DVR from power or the network during the upgrade.

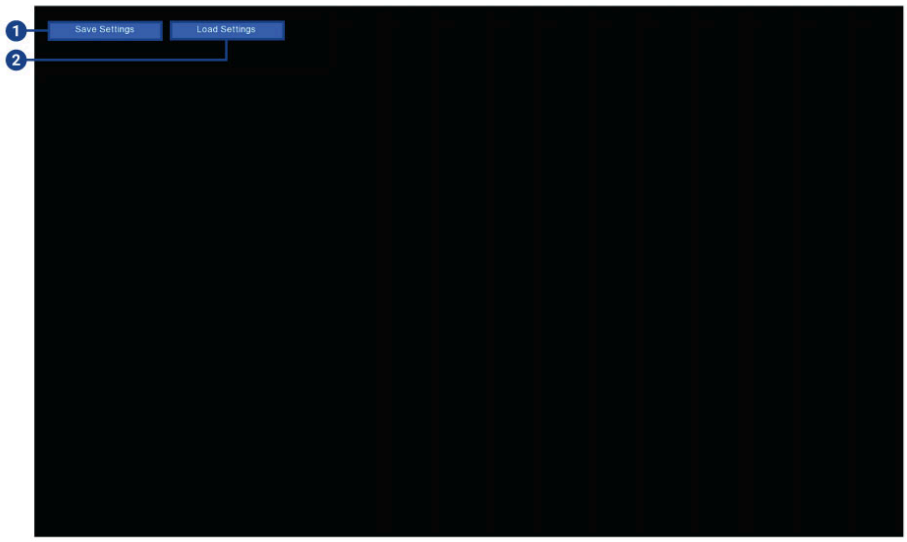
#### 17.5.3.4 Managing System Parameters

With the system **Parameter Management** settings, you can easily back up or restore your DVR'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 in the live view screen to open the **Main Menu**.
2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **System**.
4. In the left menu, click **Maintenance**.
5. In the top menu, click **Parameter Management**.

**Saving and Loading DVR Settings**




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

#### 17.5.3.5 Setting Up Auto Reboot

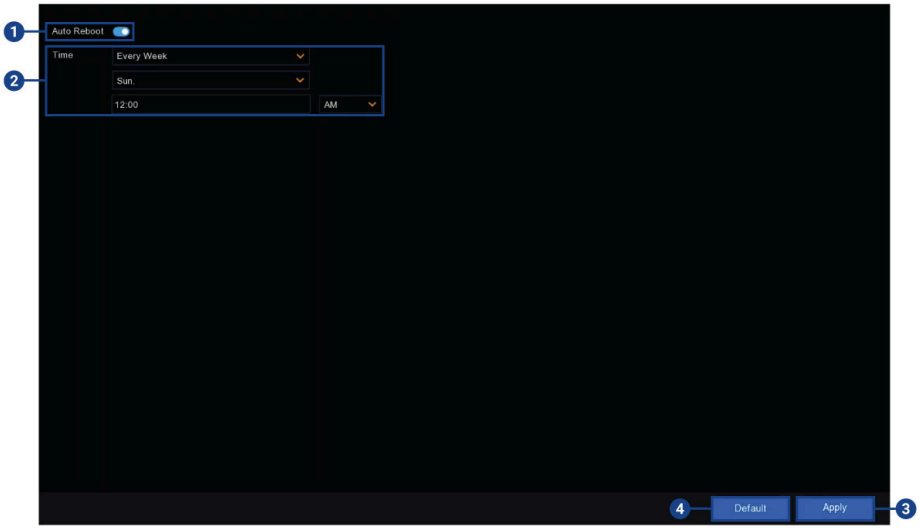
The **Auto Reboot** feature helps keep your DVR running smoothly by scheduling regular reboots, ensuring optimal performance.

**How to Access Auto Reboot Settings**

1. Right-click in the live view screen to open the **Main Menu**.

2. In the **Main Menu**, select **Configuration** .
3. In the top menu, click **System**.
4. In the left menu, click **Maintenance**.
5. In the top menu, click **Auto Reboot**.

**Configuring Auto Reboot Settings**




1. **Auto Reboot:** Enable or disable the auto reboot feature. Enabling this feature allows the DVR 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 save.

## 17.6 Viewing System Information

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

### *17.6.1 Device Information*

The **Device Info** provides key details about your DVR, 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. In the **Navigation Bar**, click **Info** .
   1.3. In the top menu, click **Device Info**.

2. **From the Main Menu:**
    2.1. Right-click in the live view screen to open the **Main Menu**.
    2.2. In the **Main Menu**, select **Configuration** .
    2.3. In the top menu, click **System**.
    2.4. In the left menu, click **Information**.
    2.5. n the top menu, click **Device Info**.

**Device Information**

1. **Device Model:** Displays the model number of your DVR.
2. **Device ID:** The recorder's QR code, located on the right side of the screen, used for easy identification or device setup through the mobile app.
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 DVR.
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. **Serial Number:** Displays the serial number of the recorder, which is useful for support and warranty purposes.

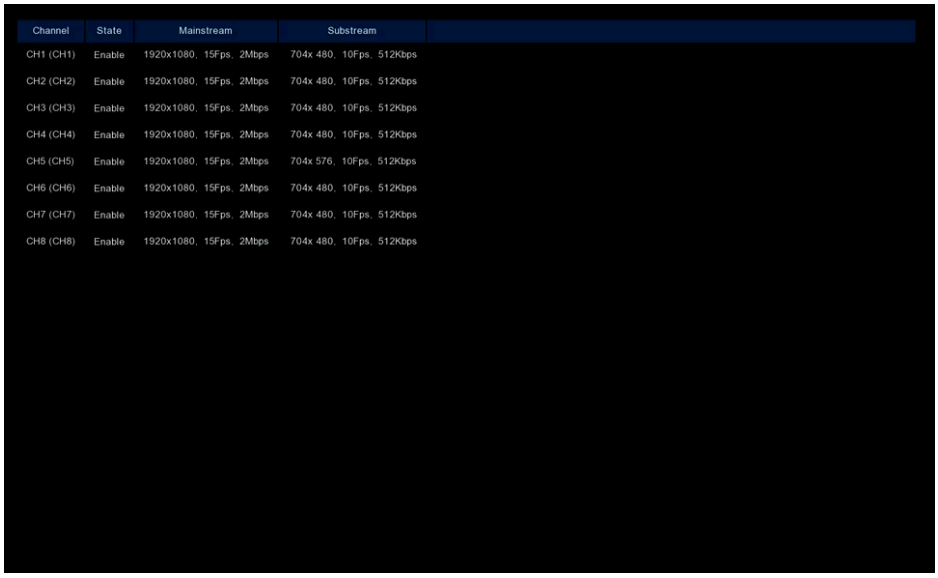
### *17.6.2 Channel Information*

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. In the **Navigation Bar**, click **Info** .
    1.3. In the top menu, click **Channel Information**.
2. **From the Main Menu:**
    2.1. Right-click in the live view screen to open the **Main Menu**.
    2.2. In the **Main Menu**, select **Configuration** .
    2.3. In the top menu, click **System**.
    2.4. In the left menu, click **Information**.
    2.5. In the top menu, click **Channel Information**.

**Channel Information**




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).

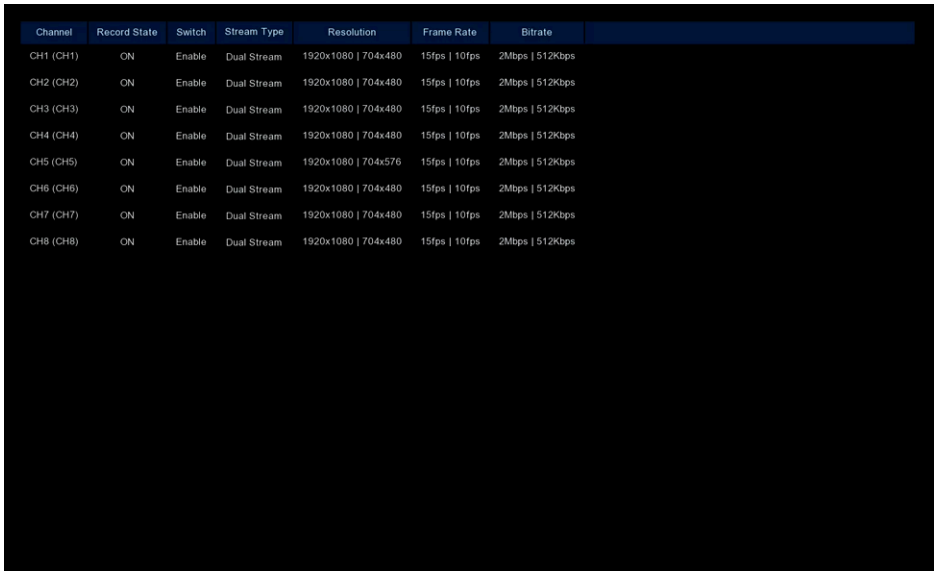
### *17.6.3 Recording Information*

The **Record Info** provides detailed information about the recording settings for each connected camera channel, helping you ensure that your DVR 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. In the **Navigation Bar**, click **Info** .
   1.3. In the top menu, click **Record Info**.
2. **From the Main Menu:**
   2.1. Right-click in the live view screen to open the **Main Menu**.
   2.2. In the **Main Menu**, select **Configuration** .
   2.3. In the top menu, click **System**.
   2.4. In the left menu, click **Information**.
   2.5. In the top menu, click **Record Info**.

**Recording Information**



| Channel | Record State | Switch | Stream Type | Resolution | Frame Rate | Bitrate |
|---|---|---|---|---|---|---|
| CH1 (CH1) | ON | Enable | Dual Stream | 1920x1080 \| 704x480 | 15fps \| 10fps | 2Mbps \| 512Kbps |
| CH2 (CH2) | ON | Enable | Dual Stream | 1920x1080 \| 704x480 | 15fps \| 10fps | 2Mbps \| 512Kbps |
| CH3 (CH3) | ON | Enable | Dual Stream | 1920x1080 \| 704x480 | 15fps \| 10fps | 2Mbps \| 512Kbps |
| CH4 (CH4) | ON | Enable | Dual Stream | 1920x1080 \| 704x480 | 15fps \| 10fps | 2Mbps \| 512Kbps |
| CH5 (CH5) | ON | Enable | Dual Stream | 1920x1080 \| 704x576 | 15fps \| 10fps | 2Mbps \| 512Kbps |
| CH6 (CH6) | ON | Enable | Dual Stream | 1920x1080 \| 704x480 | 15fps \| 10fps | 2Mbps \| 512Kbps |
| CH7 (CH7) | ON | Enable | Dual Stream | 1920x1080 \| 704x480 | 15fps \| 10fps | 2Mbps \| 512Kbps |
| CH8 (CH8) | ON | Enable | Dual Stream | 1920x1080 \| 704x480 | 15fps \| 10fps | 2Mbps \| 512Kbps |

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.

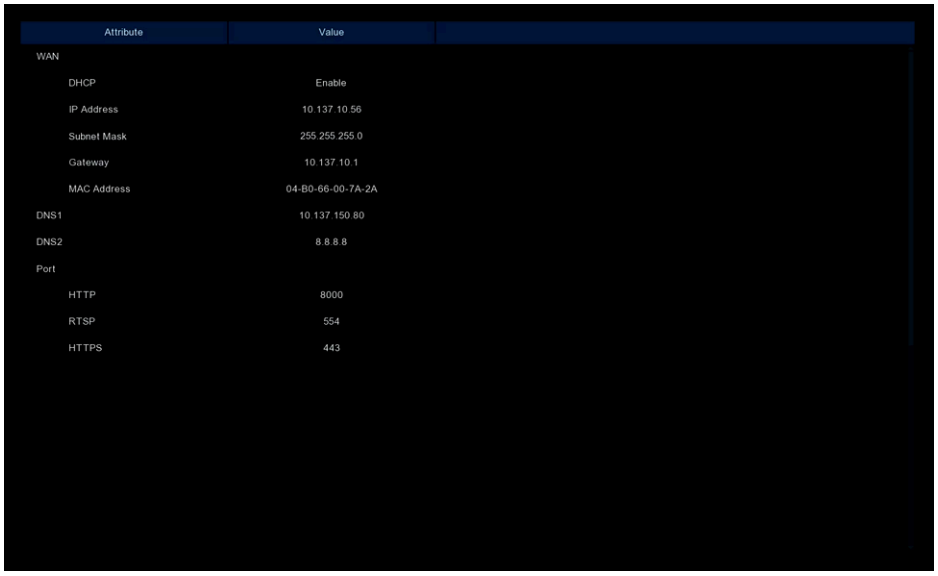
### *17.6.4 Network Status*

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

**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 in the live view screen to open the **Main Menu**.
   - 2.2. In the **Main Menu**, select **Configuration**.
   - 2.3. In the top menu, click **System**.
   - 2.4. In the left menu, click **Information**.
   - 2.5. In the top menu, click **Network State**.

### Network Status




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 DVR.
    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 DVR's network interface.
2. **DNS1:** Primary DNS server address.
3. **DNS2:** Secondary DNS server address.
4. **Port**
    4.1. **HTTP:** Displays the port number used for HTTP connections.
    4.2. **RTSP:** Displays the port number used for RTSP (Real-Time Streaming Protocol).
    4.3. **HTTPS:** Displays the port number used for HTTPS connections.

# 18 Troubleshooting

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

| | |
|---|---|
| **Forgotten Password** | If you forget the DVR password:<br>• Use the **Password Recovery** feature to reset the password. For detailed instructions, refer to 14 *Password Recovery*, page 85.<br>• If recovery is not possible, restore the DVR to **factory settings**. For full instructions, refer to 17.5.3.2 *Restoring Default Settings*, page 123.<br>• After resetting, create a secure but memorable password to avoid future issues. |
| **No Video Signal / Display Is Abnormal** | If no video appears on the monitor:<br>• Ensure the monitor is connected to the correct **HDMI or VGA** output.<br>• Confirm the correct input source is selected on the monitor.<br>• Try a different cable or monitor to rule out hardware issues.<br>• Verify the DVR is powered on and the power indicator is lit.<br>• Check that the video format (NTSC / PAL) is supported by the display. |
| **Camera Not Detected** | If a camera does not appear on the live view screen:<br>• Ensure the video cable is securely connected to the correct port on the DVR, refer to 5 *Camera Setup*, page 14.<br>• Try connecting the camera to another channel to test signal integrity.<br>• Ensure the camera is powered on (check power adapter). |
| **Hard Drive Not Detected** | If the hard drive is not detected:<br>• Ensure the hard drive is securely connected, refer to 16.3 *Installing the Hard Drive (HDD)*, page 91.<br>• Check that the hard drive ports on the main board are in good condition.<br>• Ensure the hard drive you are using is designed for video surveillance to ensure stable operation. |
| **Can't Back Up AI Images / Video Files** | • Insert a **USB drive** into the DVR before selecting **Backup**.<br>• **Image File(s)** is selected by default; Enable **Video File(s)** if you also want clips, then set format and pre/post times.<br>• When the directory window opens, select a folder and click **OK** to save. |
| **No Recorded Information During Playback** | If no recorded footage is found during playback:<br>• Verify that the hard drive's data cable is properly connected, refer to 16.3 *Installing the Hard Drive (HDD)*, page 91.<br>• Confirm that the system time has not been altered.<br>• Ensure the hard drive you are using is designed for video surveillance to ensure stable operation.<br>• If the issue persists, inspect the hard drive for possible damage. |
| **Cannot Log in to the Lorex Cloud Client** | If you cannot log in to the Lorex Cloud Client:<br>• Verify that the network configuration is correct.<br>• Ensure the Network Connection (RJ45) port is properly connected.<br>• If network login requires a password, confirm that the correct credentials are entered. |

| | |
|---|---|
| **Motion & AI Detection Not Working** | If motion & AI detection is not functioning:<br>• You can enable **only one AI detection type per channel** (Face Detection, Person & Vehicle, Intrusion, or Line Crossing).<br>• The DVR supports AI detection on **up to 8 channels at the same time**.<br>• If **Motion/AI Detection is disabled** for that channel, you won't get AI events, AI search results, or AI statistics. |
| **AI Search / AI Playback Shows No Results** | • Confirm **AI detection is enabled** on at least one channel and the **schedule** is active, see 10 *Motion & AI Detection*, page 40.<br>• Confirm you are searching the correct date/time range and channels.<br>• AI Search only shows events for detection types that are **currently enabled and configured** (Face Detection / Person & Vehicle / Intrusion / Line Crossing). |
| **Face Recognition Not Matching / Too Many Wrong Matches** | • Make sure **Face Detection** is enabled on the channel used for face capture, see 10 *Motion & AI Detection*, page 40.<br>• Check the group **Similarity** threshold (raise it to reduce false matches).<br>• Improve capture quality: adjust **Min./Max. Pixels**, face angle mode, and ensure good lighting / face size in frame.<br>• Confirm the person is actually in the **face database/group** (Allowed/Forbidden/custom). See 11 *Face Recognition*, page 53. |
| **AI Statistics Show No Data** | • Statistics only include data collected **after** AI detection was enabled.<br>• Confirm the correct detection type (Face, Person, Vehicle) is selected, see 10 *Motion & AI Detection*, page 40.<br>• Verify the correct channels and date range are selected.<br>• No events during the selected period will result in empty charts. |
| **Audio Not Working** | If you cannot hear audio on live view or playback:<br>• Ensure the audio device (microphone/speaker) is connected to the correct AUDIO IN or AUDIO OUT port, refer to 7.2 *Option 2: Using External Audio Devices*, page 29.<br>• Confirm the correct Audio Input Type is selected (Recorder or Coaxial).<br>• Check that audio is enabled on the selected channel (Recording Settings > Recording > Audio).<br>• Make sure the speaker volume is turned up and not muted. |
| **Deterrence Light Option Missing** | • The Deterrence Light action only appears if the selected channel has a **compatible camera with a built-in deterrence light**.<br>• If you don't see it, confirm you're using a deterrence-light capable camera on that channel and the camera is connected/online. |
| **DVR Buzzer Keeps Beeping** | If the buzzer continues to beep:<br>• Check the warning alerts settings (refer to 16.5 *Setting up System Warning Alerts*, page 100) and motion detection settings (refer to 10 *Motion & AI Detection*, page 40).<br>• 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:<br>• Stopping manual recording does not affect scheduled recordings. To stop scheduled recordings (refer to 16.1 *Configuring the Recording Schedule*, page 88), adjust the recording status or disable the channel (refer to 9 *Recording Settings*, page 36). |
| **Deleting Specific Video Records** | If you want to delete specific video records:<br>• For security reasons, individual video records cannot be deleted. To remove footage, you must format the entire hard drive, refer to 16.4 *Overwriting and Formatting Your Hard Drive*, page 99. |
| **Device Overheating** | If you are concerned about heat dissipation:<br>• Place the device in a well-ventilated area to prevent overheating and maintain optimal performance. |
| **Restore to Factory Settings** | If you need to reset all settings:<br>• Go to Configuration > System > Default Settings, refer to 17.5.3.2 *Restoring Default Settings*, page 123. |

# 19 Technical Specifications

The **Technical Specifications** outline your DVR system's key performance, hardware, and compatibility details.

## 19.1 General

| | |
|---|---|
| **Video Transmission Technology** | HD Analog |
| **Channels** | 8 Channels |

## 19.2 Inputs & Outputs

| | |
|---|---|
| **Video Inputs** | 8 × Analog (BNC) |
| **Video Outputs** | 1 × HDMI, 1 × VGA |
| **Audio Input** | 1 × RCA |
| **Audio Output** | 1 × RCA |

## 19.3 Display

| | |
|---|---|
| **Maximum Display Resolution** | Up to 4K Ultra HD (3840 ×2160) |
| **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, 8 view split |
| **System Navigation** | USB Mouse |

## 19.4 Recording

| | |
|---|---|
| **Recording Resolutions** | 4K (8MP), 5MP, 4MP, 1080p (2MP) |
| **Recording Frame Rate** | 4K (8MP) @ 10fps, 5MP @ 14fps, 4MP @ 18fps, 1080p (2MP) @ 30fps |
| **Video Compression** | H.264, H.265 |
| **Recording Modes** | Continuous, Motion Detection, AI Motion Detection (up to 2 channels) |

## 19.5 Playback

| | |
|---|---|
| **Simultaneous Playback** | Up to 8 Channels (Synchronized) |
| **Playback Speed Options** | Fast Forward/Rewind: 2×, 4×, 8×, 16×<br>Slow Motion: 1/2×, 1/4×, 1/8×, 1/16× |
| **Search Options** | By Date/Time Search, Motion Events, Smart Search, AI: Face Detection, Person & Vehicle, Perimeter Intrusion, Line Crossing, Face Detection, Repeat Visitors, Face Attendance |

## 19.6 Storage & Backup

| | |
|---|---|
| **HDD Bay** | 1 bay |
| **Maximum HDD Capacity** | Up to 10 TB (SATA) |
| **Backup Media** | USB Flash Drive or External USB HDD |

## 19.7 AI Detection & Features

| | |
|---|---|
| **Adjustable Motion Detection Sensitivity Levels** | 1 to 8 |
| **AI Motion Detection** | Supported: Person & Vehicle, Perimeter Intrusion, Line Crossing, Face Detection (1 AI detection type per channel, max 8 AI-enabled channels) |

| | |
|---|---|
| **Line Crossing Detection** | Supported |
| **Perimeter Intrusion Detection** | Supported |
| **Face Detection** | Supported |
| **Face Recognition** | Supported |

### 19.8 Connectivity

| | |
|---|---|
| **Mobile Viewing** | Lorex Connect App (iOS and Android) |
| **Event Notifications** | Video Loss, System Beep, Email, Push Notification |
| **Email Notifications** | Text and Snapshot Alerts |
| **Network Interface** | 10/100 Base-TX (RJ45) |
| **USB Ports** | 1 × USB 2.0 (front), 1 × USB 2.0 (back) |
| **Firmware Upgrade** | Network, USB |
| **Supported Languages** | English, French, Spanish |
| **DDNS** | Optional |

### 19.9 Security

| | |
|---|---|
| **Password Reset** | Supported |

### 19.10 Power

| | |
|---|---|
| **Power Supply** | DC 12 V / 2 A |
| **Power Consumption (Excluding HDD):** | 4.7 W |

### 19.11 Physical & Environmental

| | |
|---|---|
| **Product Weight** | 1.21 lbs (0.55 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. Requires a high-speed internet connection and a router (not included) for remote access. A minimum upload speed of 6Mbps is required for the best video performance. Up to 3 devices may connect to the system at the same time. For the latest list of supported apps and devices, please visit: www.lorex.com/pages/compatibility.
3. Compatible with select Lorex cameras only. For a list of compatible cameras, please visit www.lorex.com/pages/compatibility
4. Controlling certain features in your security system requires a compatible smart device. Availability and performance of certain features and services are smart device dependent and may not be available.
5. The accuracy of AI Detection, including Face Detection, Person, Vehicle, Perimeter Intrusion and Line Crossing may be affected by various factors, including the object's distance from the camera, object size, and the camera's height and angle. Detection accuracy may also be reduced in low-light conditions or when using night vision.
6. AI Detection (Face Detection, Person & Vehicle, Perimeter Intrusion, Line Crossing) is limited to 1 AI detection type per channel, with a maximum of 8 AI-enabled channels.
7. Both firmware and software must be updated to latest version to ensure remote connectivity in all areas or networks. For compatibility, features, instructions visit: www.lorex.com/collections/smart-home.
8. HDMI output supports 4K UHD for live or recorded video viewing. Image quality and resolution is dependent on the type of camera connected to the DVR, as well as TV/ monitor resolution.

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# 20 Notices

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

### 20.1 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.

### 20.2 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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