

User Manual

L4248 Series



User Manual L4248 Series

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

This manual refers to the following models:

L4248

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

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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Important Safeguards

In addition to the careful attention devoted to quality standards in the manufacturing process of your product, safety is a major factor in the design of every instrument. However, safety is your responsibility too. This sheet lists important information that will help to ensure your enjoyment and proper use of the product and accessory equipment. Please read them carefully before operating and using your product.

1.1 General Precautions

1. All warnings and instructions in this manual should be followed.
2. Remove the plug from the outlet before cleaning. Do not use liquid aerosol detergents. Use a water-dampened cloth for cleaning.
3. Do not use this product in humid or wet places.
4. Keep enough space around the product for ventilation. Slots and openings in the storage cabinet should not be blocked.
5. It is highly recommended to connect the product to a surge protector to protect from damage caused by electrical surges. It is also recommended to connect the product to an uninterruptible power supply (UPS), which has an internal battery that will keep the product running in the event of a power outage.

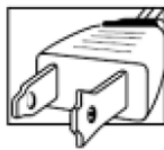


CAUTION

Maintain electrical safety. Power line operated equipment or accessories connected to this product should bear the UL listing mark or CSA certification mark on the accessory itself and should not be modified so as to defeat the safety features. This will help avoid any potential hazard from electrical shock or fire. If in doubt, contact qualified service personnel.

1.2 Installation

1. **Read and Follow Instructions:** All the safety and operating instructions should be read before the product is operated. Follow all operating instructions.
2. **Retain Instructions:** The safety and operating instructions should be retained for future reference.
3. **Heed Warnings:** Comply with all warnings on the product and in the operating instructions.
4. **Polarization:** Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other.



A grounding type plug has two blades and a third grounding prong.



The wide blade or the third prong are provided for your safety.

If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

5. **Power Sources:** This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your location, consult your video dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

6. **Overloading:** Do not overload wall outlets or extension cords as this can result in the risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard. Periodically examine the cord, and if its appearance indicates damage or deteriorated insulation, have it replaced by your service technician.
7. **Power-Cord Protection:** Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
8. **Surge Protectors:** It is highly recommended that the product be connected to a surge protector. Doing so will protect the product from damage caused by power surges. Surge protectors should bear the UL listing mark or CSA certification mark.
9. **Uninterruptible Power Supplies (UPS):** Because this product is designed for continuous, 24/7 operation, it is recommended that you connect the product to an uninterruptible power supply. An uninterruptible power supply has an internal battery that will keep the product running in the event of a power outage. Uninterruptible power supplies should bear the UL listing mark or CSA certification mark.
10. **Ventilation:** Slots and openings in the case are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the product manufacturer's instructions have been followed.
11. **Attachments:** Do not use attachments unless recommended by the product manufacturer as they may cause a hazard.
12. **Water and Moisture:** Do not use this product near water — for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, near a swimming pool and the like.
13. **Heat:** The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.
14. **Accessories:** Do not place this product on an unstable cart, stand, tripod, or table. The product may fall, causing serious damage to the product. Use this product only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product. Any mounting of the product should follow the manufacturer's instructions and use a mounting accessory recommended by the manufacturer.



15. **Camera Extension Cables:** Check the rating of your extension cable(s) to verify compliance with your local authority regulations prior to installation.
16. **Mounting:** The cameras provided with this system should be mounted only as instructed in this guide or the instructions that came with your cameras, using the provided mounting brackets.
17. **Camera Installation:** Cameras are not intended for submersion in water. Not all cameras can be installed outdoors. Check your camera environmental rating to confirm if they can be installed outdoors. When installing cameras outdoors, installation in a sheltered area is required.

1.3 Service

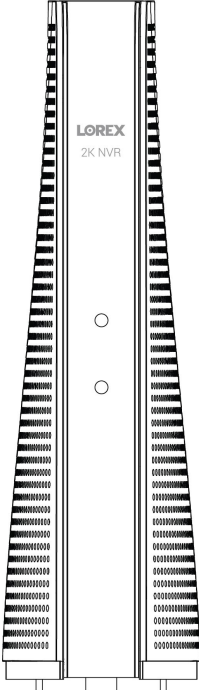
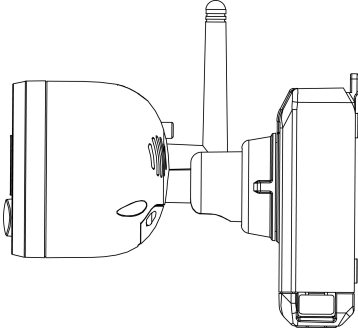
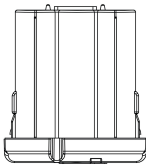




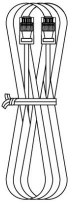
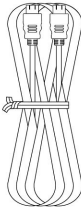
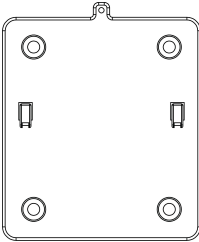
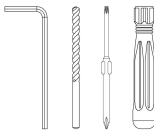

1. **Servicing:** Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

2. **Conditions Requiring Service:** Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - When the power supply cord or plug is damaged.
 - If liquid has been spilled or objects have fallen into the product.
 - If the product has been exposed to rain or water.
 - If the product has been dropped or the cabinet has been damaged
 - If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
 - When the product exhibits a distinct change in performance. This indicates a need for service.
3. **Replacement Parts:** When replacement parts are required, have the service technician verify that the replacements used have the same safety characteristics as the original parts. Use of replacements specified by the product manufacturer can prevent fire, electric shock, or other hazards.
4. **Safety Check:** Upon completion of any service or repairs to this product, ask the service technician to perform safety checks recommended by the manufacturer to determine that the product is in safe operating condition.

1.4 Use

1. **Cleaning:** Unplug the product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
2. **Product and Cart Combination:** When product is installed on a cart, product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
3. **Object and Liquid Entry:** Never push objects of any kind into this product through openings as they may touch dangerous voltage points or “short-out” parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
4. **Lightning:** For added protection of this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power line surges.

Package Contents

 <p>L4248 – 2K Network Video Recorder (NVR) (x1)</p>	 <p>U424AA – 2K Wire-Free Security Camera (x1)*</p>	
	 <p>Re-chargeable Battery Pack (x1)*</p>	 <p>Camera Antenna (x1)*</p>
	 <p>Charging Adapter & Cable (x1)*</p>	 <p>NVR Power Adapter (x1)</p>
 <p>USB Mouse (x1)</p>	 <p>Ethernet Cable (x1)</p>	 <p>HDMI Cable (x1)</p>
 <p>Mounting Bracket (x1)*</p>	 <p>Allen Key (x1) Drill Bit (x1) Screwdriver (x1)</p>	 <p>Anchors (x4)* Screws (x4)* Security Screws (x2)*</p>

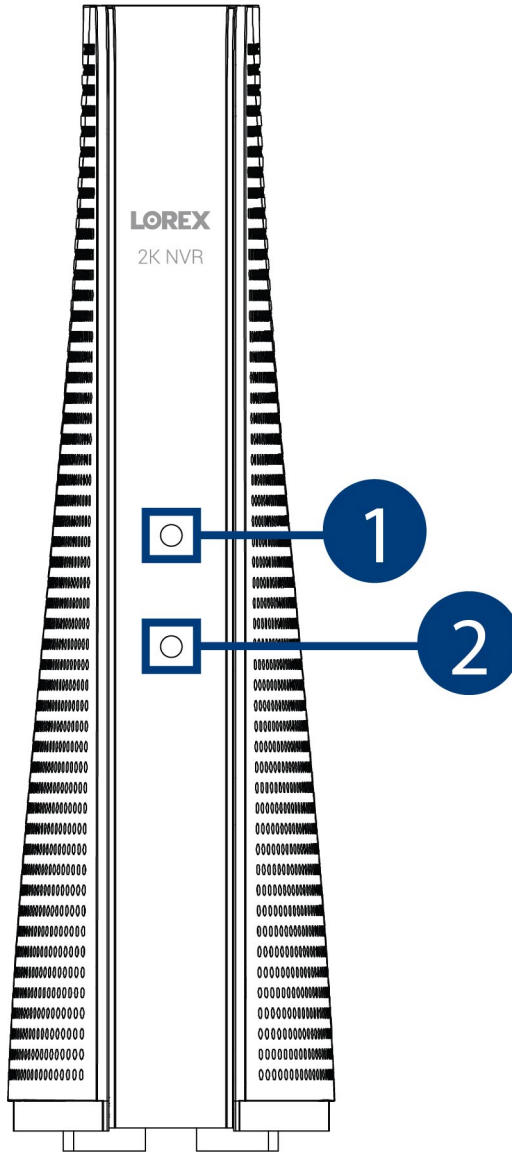
*Dependent on the number of cameras included.

**NOTE**

Hard drive size, number of channels, and camera configuration may vary by model. Check your package to confirm that you have received the complete system, including all components shown above.

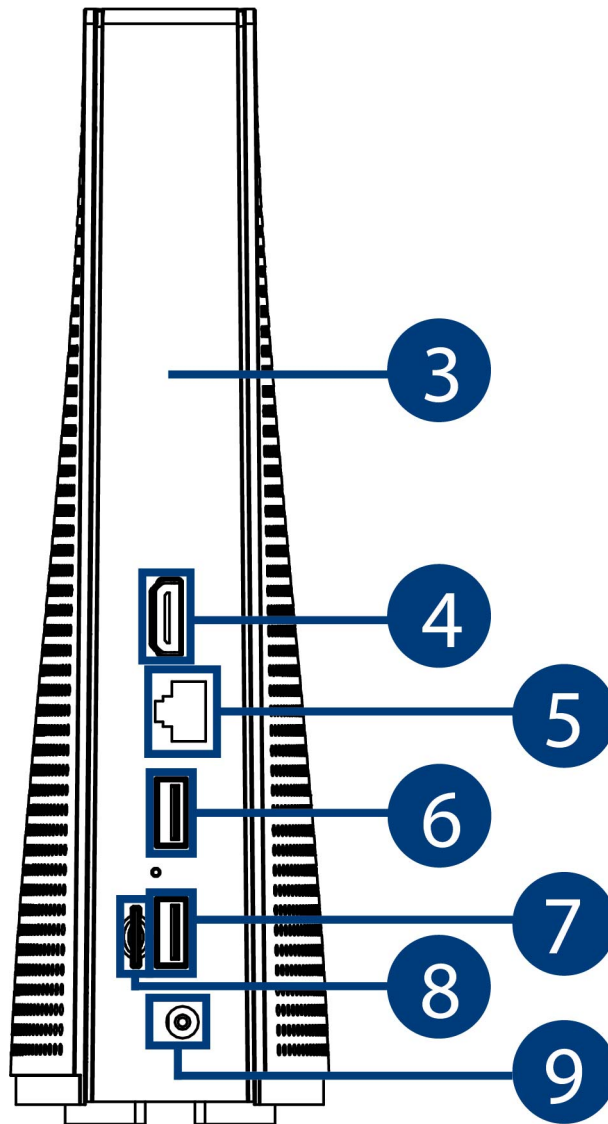
3.1 Front Panel

- 1.
- 2.



1. Power status indicator (blue)	Operating correctly.
2. HDD status indicator (red)	Hard disk drive installed.

3.2 Back Panel



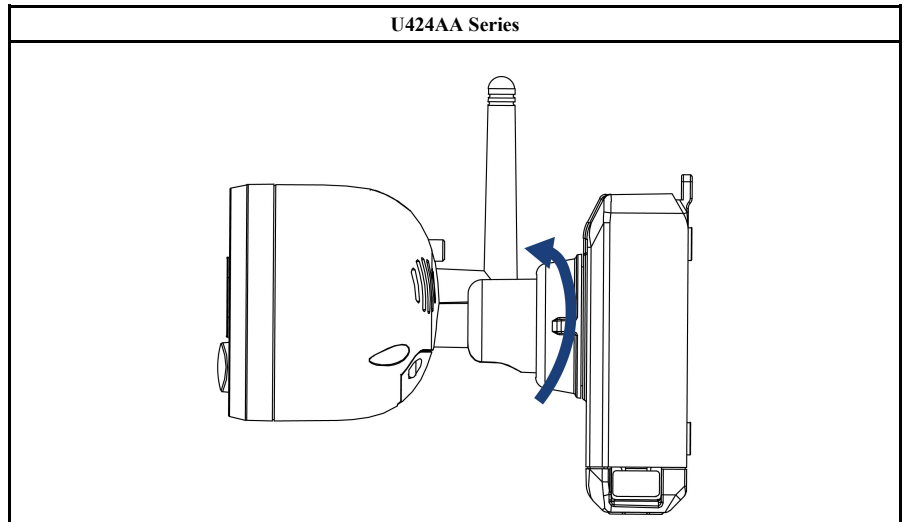
3. QR code	QR code to setup the NVR on the Lorex Home app.
4. HDMI port	Port for the HDMI cable to view the system interface on an HDMI monitor or TV.
5. Ethernet port	Port for the Ethernet cable that connects to your network for local and remote connectivity.
6. USB (Mouse / Backup) port	Port for the mouse or a USB flash drive (not included) for the purposes of backing up recorded video.
7. Storage USB	Port for a USB storage drive (not included) for video storage purposes. For more details on storage options, see 12 <i>Storage</i> , page 38.
8. MicroSD slot	Slot for a MicroSD card (included for specific models).
9. Power port (12V)	Port for the the included 12V DC power adapter.

4.1 STEP 1: Initial Setup

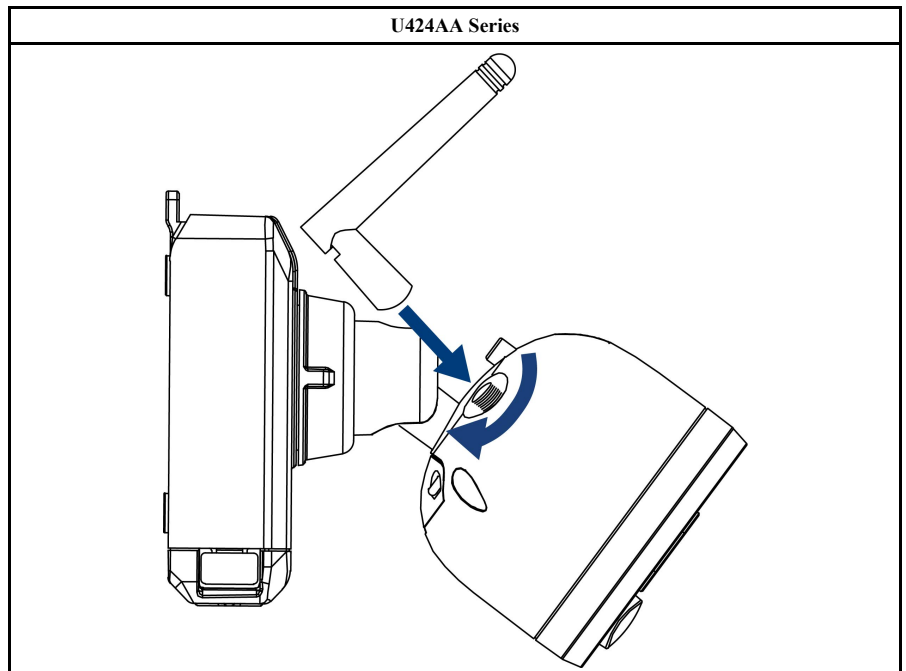
Before you begin, you will need to prepare the wire-free cameras and battery packs. The camera battery comes partially charged (due to safety regulations). Please, fully charge the battery before use and setup. You can charge the battery pack inside or outside of the camera.

To prepare the cameras:

1. Turn the adjustment ring counter-clockwise to loosen and angle the camera.



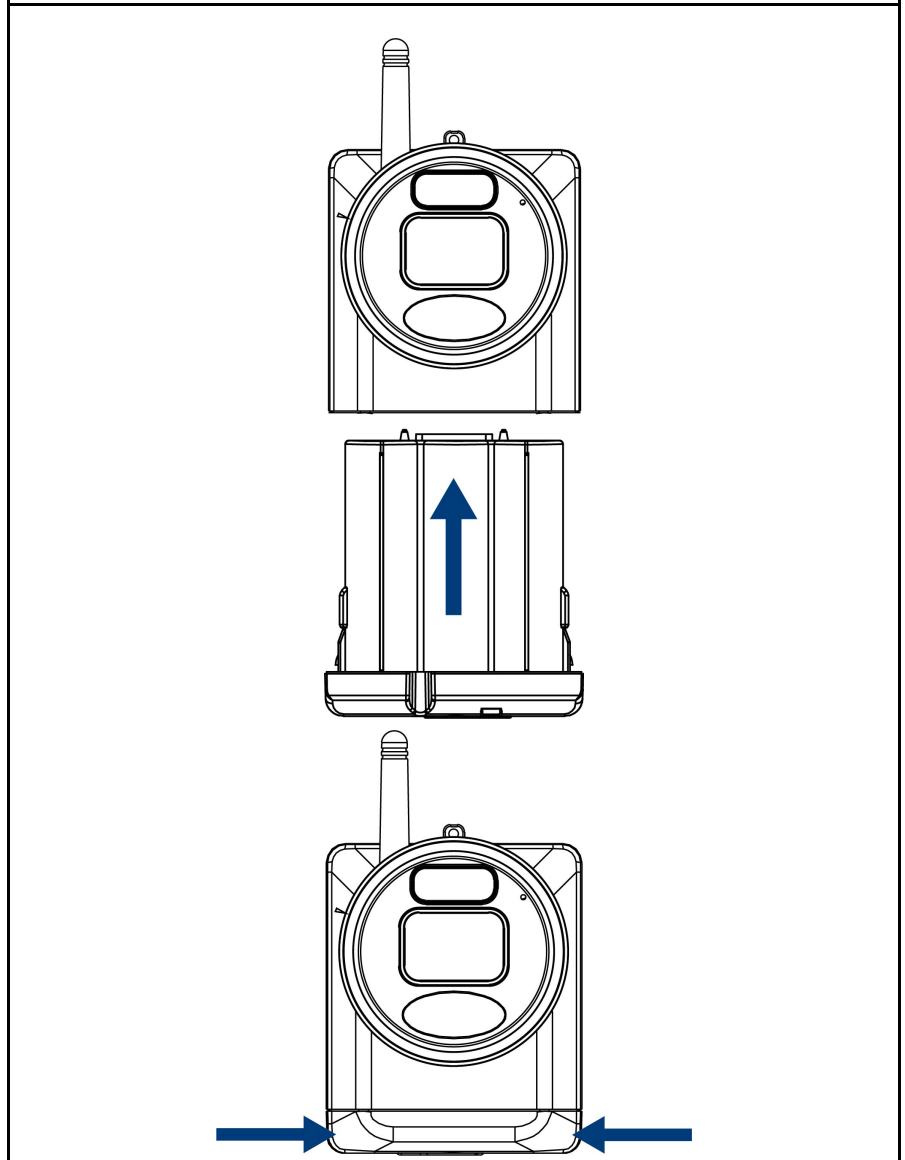
2. Screw in the antenna.



3. Insert the battery pack into the bottom of the camera.

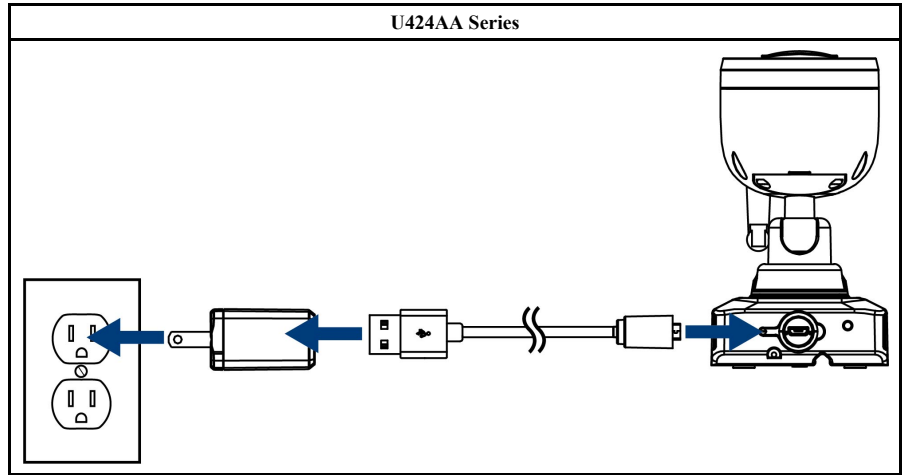
**NOTE**

You will hear a “beep” when the power pack is properly inserted. If you do not hear this alert, remove the power pack by pushing in on the battery release tabs then re-insert.

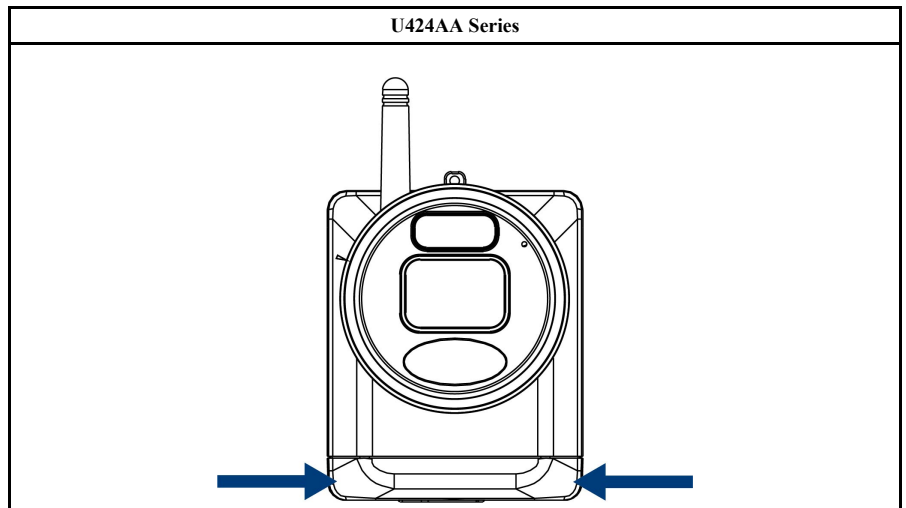
U424AA Series**To charge the camera battery pack:**

1. Remove the protective film on the battery contacts and camera lens.

- Using the provided battery charging adapter and cable, connect the camera to a nearby outlet.



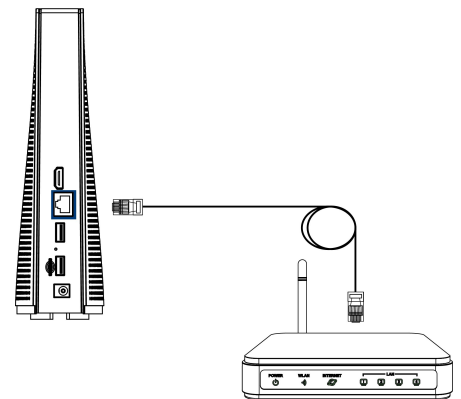
- (OPTIONAL)** Push in on the battery release tabs to remove the battery pack from the camera and then connect the battery to a nearby outlet.



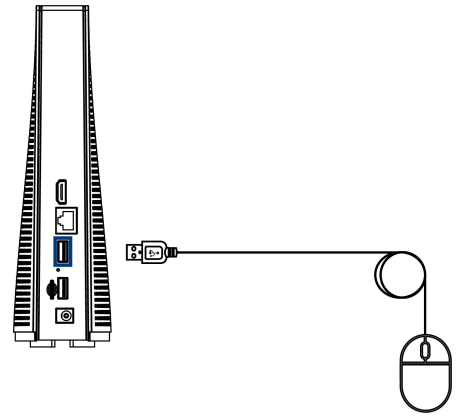
4.2 STEP 2: Setting Up the Recorder

To set up the recorder:

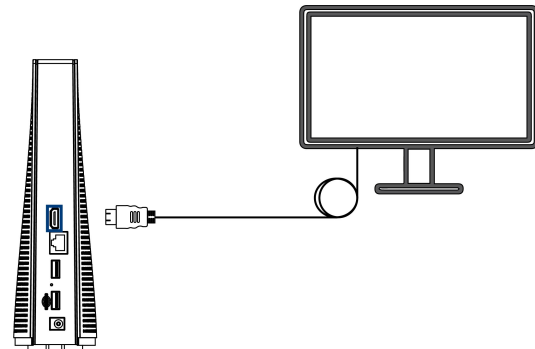
- Connect the recorder to your router using the included Ethernet cable.



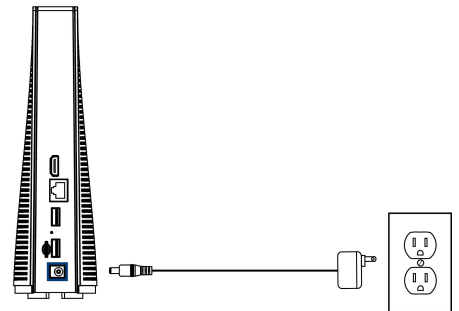
2. Connect the included mouse to the **Mouse / Backup** USB port on the recorder.



3. Connect a monitor (not included) to the HDMI port of the recorder using the included HDMI cable.



4. Connect the included power adapter to the recorder. Wait a few minutes for the system to start.




4.3 STEP 3: App Setup

Connect to your system using the free Lorex Cirrus app for smartphones and tablets (iOS and Android).

To connect to the Lorex Cirrus app:

1. Download the **Lorex Cirrus** app by scanning the QR code.



2. Open the Lorex Cirrus app.
3. Tap  to open the menu, then tap **Devices**.
4. Tap the + icon, then follow the in-app instructions.

5. Enter the following:

The screenshot shows the 'Edit Information' screen with the following fields:

- IP Address/ID: LWFPJ933AY2U
- Media Port: 35000 (labeled with callout A)
- User Name: admin
- Password: 00000000 (labeled with callout B)
- Save button

6. Tap **Save**.
7. Add the cameras to the recorder through the Lorex Cirrus app or the recorder interface. See 11.1 *Pairing Cameras with Lorex Cirrus* or 11.2 *Pairing Cameras using the Recorder Interface*, page 36, for full details.
8. Your cameras will appear on the Home screen of the app. Tap the play button (▶) to stream live video on channels that are in sleep mode.



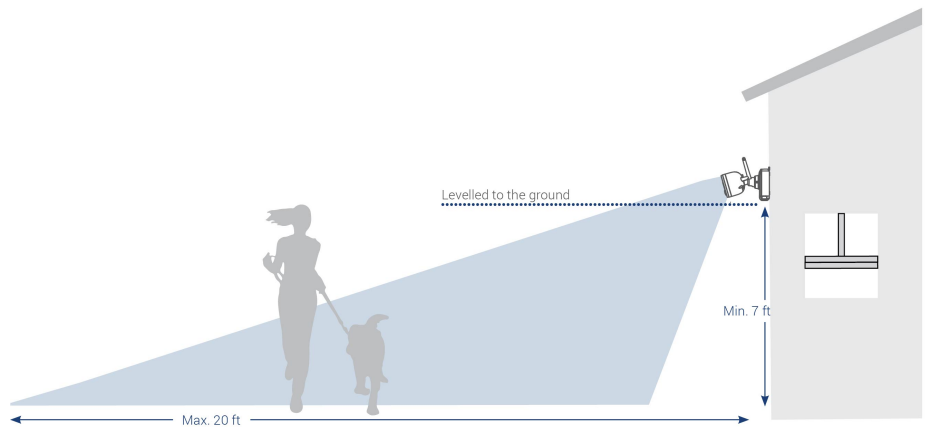
NOTE

If you do not see video from one or more cameras, ensure you have removed the protective film on the battery contacts and camera lens. If the issue persists, see 19 *Troubleshooting*, page 71.

4.4 STEP 4: Installing the Cameras

4.4.1 Installation Guidelines

Install the camera on a wall per the guidelines below to optimize motion detection and battery life.



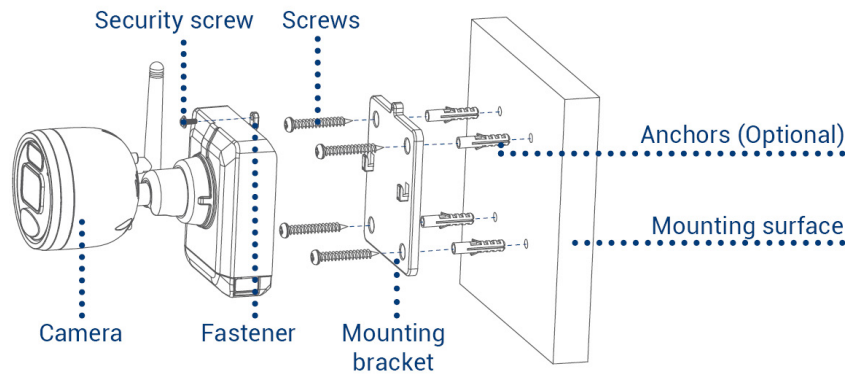
- It is recommended to place your camera at least 7ft (2.1m) above the ground and angle it slightly downward toward the monitoring area, excluding any busy areas (e.g., sidewalks or roadways).

- Position the camera no more than 20ft (6.1m) away from the area you wish to monitor.
- Install the camera within range of the wireless receiver (noted in the camera's specifications).
- For best performance, position the camera so that objects of interest will move from side-to-side across the camera image, rather than moving towards or away from the camera.
- Ensure the camera image is free of obstructions (i.e., tree branches).
- This camera is weather resistant for outdoor use (IP66 rated). Installation in a sheltered location is recommended.
- It is recommended that you customize motion settings for each camera on your system. See 4.4.3 *Optimizing Motion Detection*, page 15 for full details.
- **Battery life will vary based on temperature, settings and number of events.**

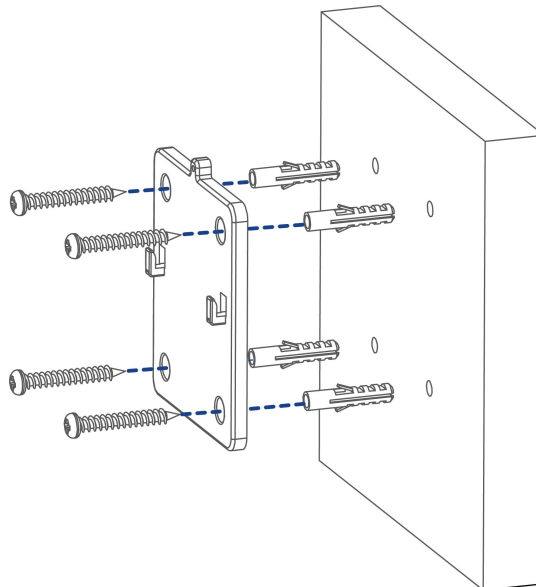
4.4.2 Mounting the Cameras

Follow the instructions below to mount the cameras.

To mount your cameras:



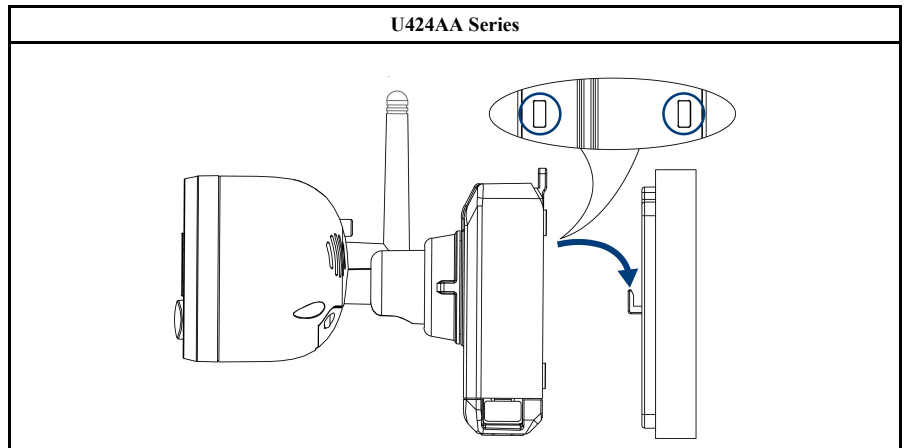
1. Set the mounting bracket to the desired mounting position.
2. Mark holes through the mounting bracket
3. Using the included drill bit, drill holes where marked.
4. Using the included screwdriver, secure the bracket with the provided mounting screws.



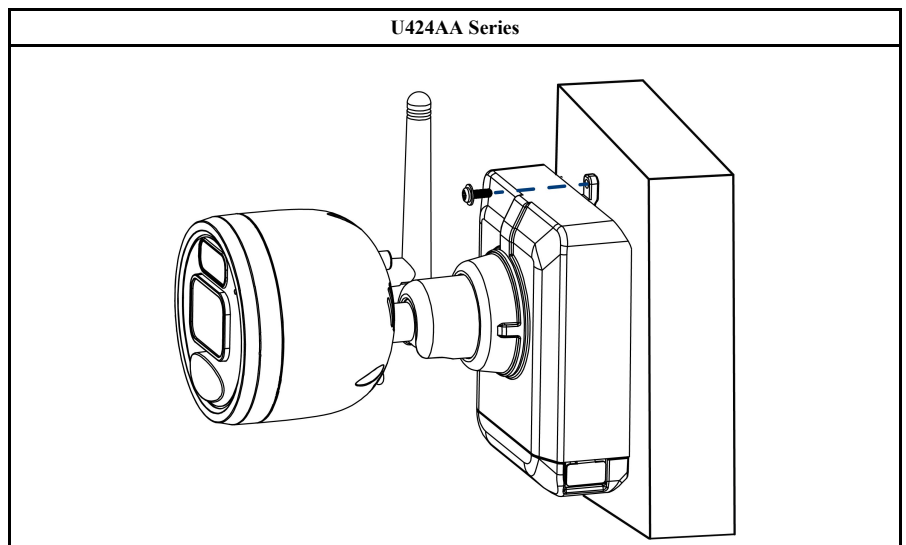
NOTE

- If you are mounting the camera into drywall, insert the included drywall anchors.

- Orient the camera fastener upwards, then align the camera's mounting plate slots to the tabs in the mounting bracket. Push in and slide down to secure in place.



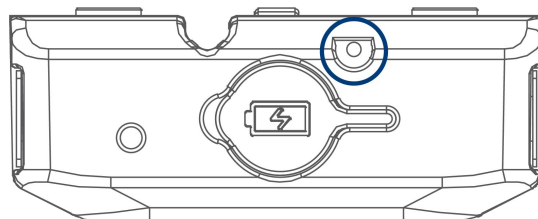
- Insert the security screw through the fastener on the top of the camera base and mounting bracket, then tighten with the screwdriver.



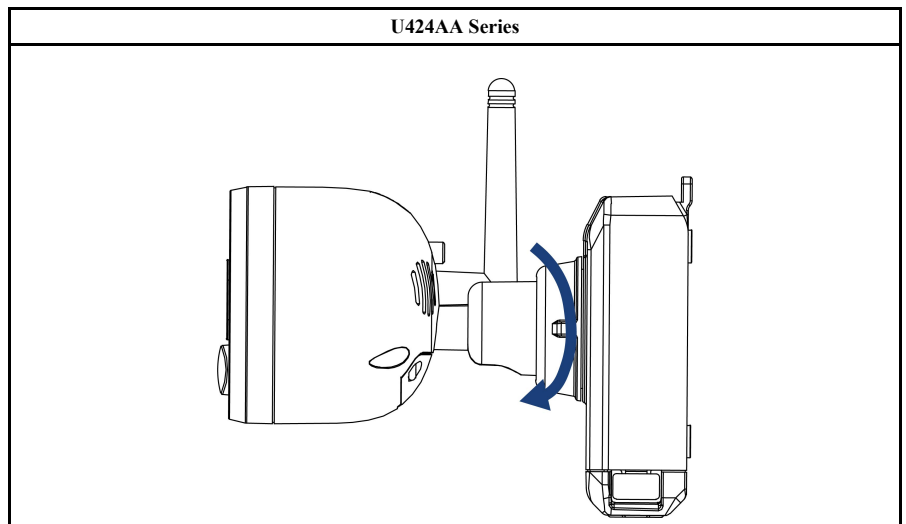
- Tighten the pre-installed locking screw using the screwdriver.

**NOTE**

To remove the battery pack in the future, loosen the locking screw.




8. Adjust the angle of the camera to the desired position. Tighten the adjustment ring clockwise when finished.

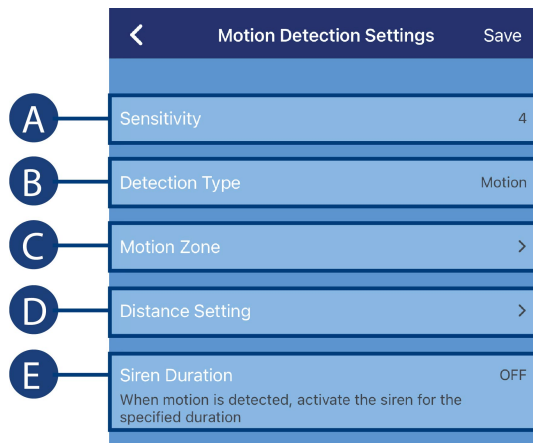


4.4.3 Optimizing Motion Detection

Customize motion detection settings to ensure motion events are being recorded and reduce false alarms.

To optimize motion detection:

1. Open the **Loxex Cirrus** app.
2. Select your recorder from the list of devices.
3. From the Live View, tap to select a channel.
4. Tap , then tap **Motion Detection Settings**.
5. Configure the following as needed:



- a. **Sensitivity:** The amount of motion needed to trigger recording (e.g., higher sensitivity number requires less motion to trigger recording).
- b. **Detection Type:** Enable/disable motion detection or person detection per channel.

-
- c. **Motion Zone:** Tap to configure the motion zone. Motion will only be detected in areas highlighted in blue.
- Tap to configure which areas of the camera image will be enabled for motion detection. A blue grid will appear over the camera's live view, letting you know that motion detection is active for the entire image.
 - Tap-and-drag over areas of the image to remove the blue grid overlay, which removes that part of the image from the active area.
- d. **Distance Setting:** Configure distance setting for motion detection. Change the distance setting if motion detection is being triggered by unwanted events.


**NOTE**

Distance will be affected by temperature.

- e. **Siren Duration:** Set the recorder to sound an alarm for a specified duration when motion is detected.
6. Tap **Save** when finished. Repeat for other cameras on the system.

4.5 Quick Access to System Information

To quickly open a window with system information:

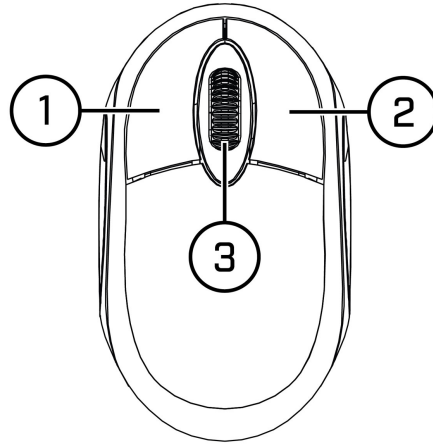
- Right-click to open the Taskbar at the bottom of the screen, then click  on the recorder's Taskbar.

**NOTE**

The QR code shown in the System Info screen can be scanned during app setup to enter the system's Device ID.

The recorder is designed for mouse navigation. Connect the included mouse to one of the **USB** ports on the recorder.

To use the USB mouse:



1. Left Button:

- During live viewing in split-screen view, double-click on a channel to view it in full-screen. Double-click the channel again to return to split-screen viewing.

2. Right Button:

- During live viewing in split-screen view, click to open the Taskbar (see 6.1 *Using the Taskbar*, page 18).
- In menus, click to go back / close menus.

3. Scroll Wheel:

- In menus, scroll to move up / down through the menu content.
- While inside the Audio volume control, scroll to turn system volume up / down.



NOTE

In Live View, hover the mouse cursor over the bottom of the screen to display the Taskbar. Move the mouse cursor away from the bottom of the screen to close the Taskbar.

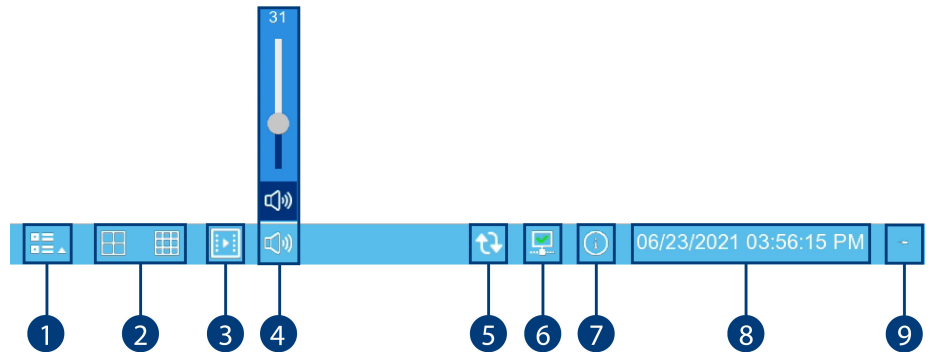
Using the Recorder's On-Screen Display




Use the system's on-screen display to navigate menus and configure options and settings.

6.1 Using the Taskbar

The **Taskbar** along the bottom of the recorder's main display allows you to access the Main Menu and control basic functions of the recorder.

To use the Taskbar hover over the bottom of the screen in the Live View Screen.



1. **Main Menu:** Opens the Main Menu for browsing. For details on Main Menu functions, see 13 *Using the Main Menu*, page 40.
2. **Viewing Options:** Select how many channels are shown on screen during live viewing.
3. **Playback:** Opens the Playback Menu. This allows you to search for video recordings saved on the recorder's storage. For details on using the Playback menu, see 8 *Playback*, page 24.
4. **Audio Controls:** Click to open the Audio volume controls. Use the scroll bar to change the system volume. Click  to mute / unmute the system.
5. **Auto Upgrade:** Checks for an available firmware update.
6. **Network Status:** Displays the recorder's network connection status.
7. **System Information:** Displays system information.
8. **System Date & Time:** Shows the date and time of the system.
9. **Pin / Unpin Taskbar:** Choose to always show the Taskbar on screen () or hide it unless the mouse pointer is near the bottom of the screen ()

6.2 Using the Mini Menu

The **Mini Menu** lets you perform quick functions for a specific channel on the recorder.

To use the Mini Menu:

Hover the mouse near the top of a channel with a connected camera.

The Mini Menu opens at the top of the camera's live display:



1. **Move Mini Menu:** Click-and-drag to move the Mini Menu to a different part of the screen.

2. **Pair:** Click to pair a wire-free camera to the selected channel. For more information on pairing, see 11 *Pairing Cameras*, page 35.

**NOTE**

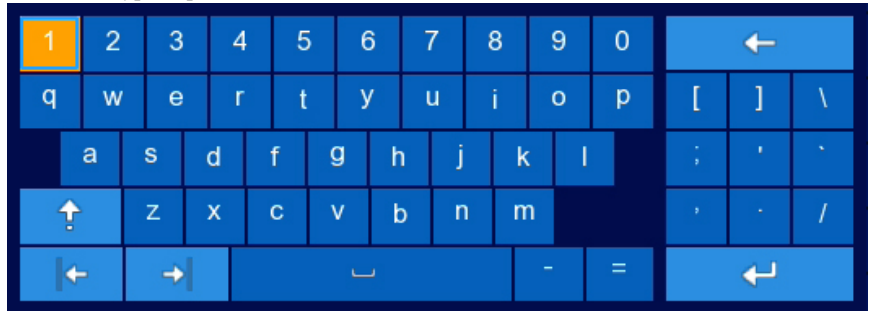
If a camera is already paired to the selected channel, the new pairing process will override it.


6.3 Using the On-Screen Keypads

The **Full Keypad** is used to input alphanumeric characters, such as in user name or password fields. The **Number Keypad** is used to input numeric characters only, such as in the time or date fields.

To use the Full Keypad:





1. Using the mouse, click on a field where alphanumeric characters are entered, such as the user name and password fields.
 - The Full Keypad opens:



- Click  to switch between uppercase and lowercase characters.

**NOTE**

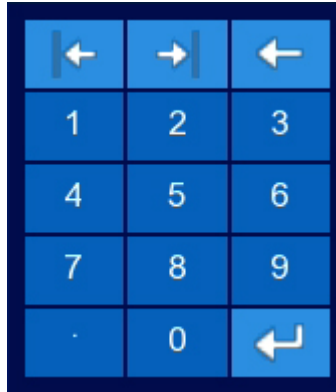
Uppercase entry mode also reveals more special characters on the far-right side of the keyboard.





- Click  /  to move the cursor.
- Click  to backspace / delete characters.
- Click  to confirm what you have entered.
- Right-click to close the Full Keypad.

To use the Number Keypad:

1. Using the mouse, click on a field where numeric characters are entered, such as the date or time fields.

- The Number Keypad opens:

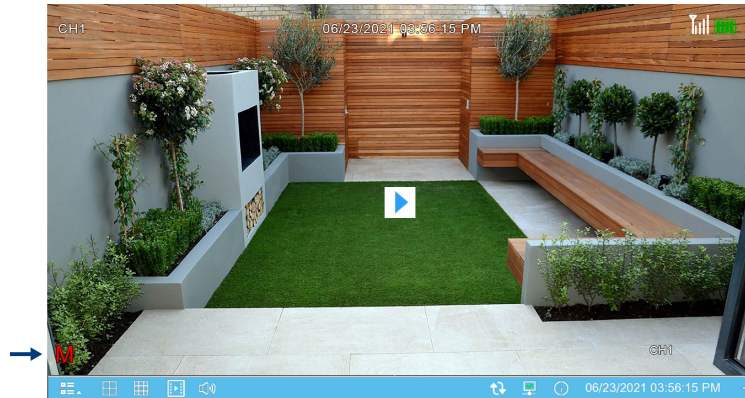


- Click  /  to move the cursor between letters.
- Click  to backspace / delete numbers.
- Click  to confirm what you have entered.
- Right-click to close the Number Keypad.

Recording

By default, the system is set to record motion events from all connected cameras. It is recommended that you use the Lorex Cirrus app to optimize camera motion detection regions so that only objects of interest will trigger recording (see 4.4.3 *Optimizing Motion Detection*, page 15 for details).

When a camera is recording video, the type of recording is shown with an icon in the bottom-left corner of the camera image.



You may see one of the following icons:

- **M** **Motion Recording:** The system has detected motion and is recording the event.
- **C** **Continuous / Manual Recording:** One of 2 actions may be occurring:
 1. Manual recording has been enabled and the system is currently recording video.
 2. Certain wire-free systems have an option for continuous recording. In order to take advantage of continuous recording:
 - Your recorder must have a hard drive installed – recorders that use microSD card storage do not support continuous recording.
 - Connect any cameras you want to record continuously to a power outlet using a USB power adapter.
 - Change the camera's recording time to **Continuous** (see 7.1 *Recording Time for Motion Detection*, page 21) and set a continuous recording schedule (see 7.3 *Setting a Recording Schedule*, page 22).

7.1 Recording Time for Motion Detection


When the camera detects motion, the camera will stream live video and record for a set period of time before returning to standby mode. You can choose how long each camera records for when motion is detected.

To configure recording time:

1. From the Live View screen, click  > **Setup** > **Camera** > **Camera Setup**.

Channel	Channel Name	Setup	Pair State	Camera Recording Time	Camera Firmware	Battery	Pair	Camera	Audio
CH1	CH1		Paired	10 s	V32_210712_50A	Off-line		ON	OFF
CH2	CH2		Paired	10 s	V33 21 5.2_210712_50A	Off-line		ON	OFF
CH3	CH3		Paired	10 s	V33 21 5.2_210712_50A	Off-line		ON	OFF
CH4	CH4		Paired	10 s	V33 21 5.2_210712_50A	77%		ON	OFF
CH5	CH5		Paired	10 s	V33 21 5.2_210712_50A	Off-line		ON	OFF
CH6	CH6		Paired	10 s	V33 21 5.2_210712_50A	Off-line		ON	OFF
CH7	CH7		Paired	10 s	V33 21 5.2_210610_210628	Off-line		ON	ON
CH8	CH8		Paired	10 s	V33 21 5.2_210712_50A	Off-line		ON	OFF

2. From the list of channels, find the camera you want to configure.
3. Click the drop-down arrow, then select a period of time the camera will record video for when motion is detected.
4. **(OPTIONAL)** Click the drop-down arrow beside **Camera Recording Time** to select a period of time for all connected cameras.
5. Click **Save**.

 **NOTE**

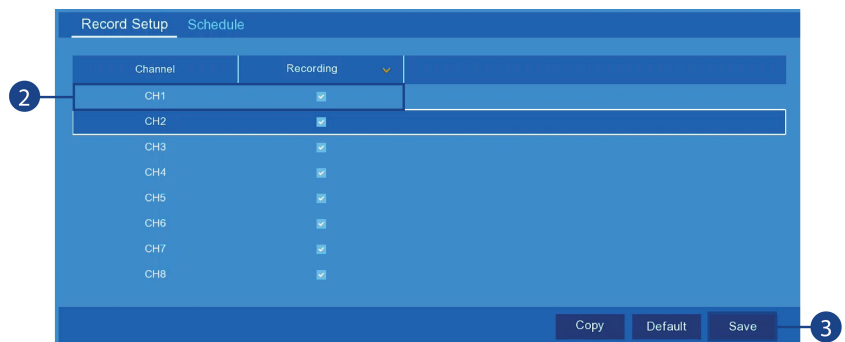
- You should configure motion detection settings to ensure objects of interest are being recorded. For full instructions, see 13.2.11 *Configuring Motion Detection Settings*, page 48.
- Depending on your system, you may have the option to record continuously by setting **Camera Recording Time** to **Continuous**. This option is only available on systems that use a hard drive for storage rather than a microSD card, and only on cameras which have a wired connection to power.

7.2 Configuring Manual Recording

The system will automatically record video when motion is detected by a camera. You can also use **manual recording** to record a video file with a custom start and stop time. By default, manual recording is enabled on all channels.

To enable / disable manual recording:

1. From the Live View screen, click  > **Setup** > **Recording** > **Record Setup**.



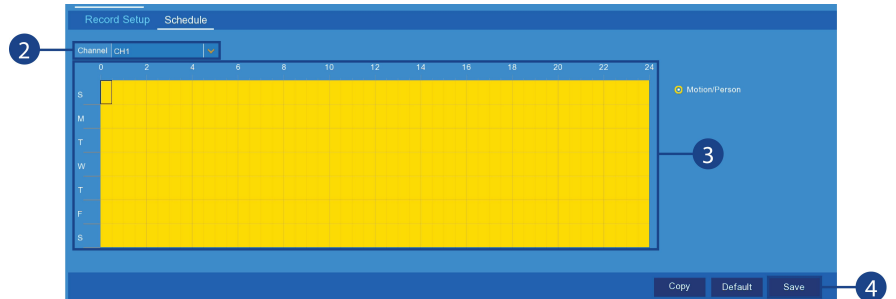
2. From the list of channels, find the camera you want to configure, then click the check box to enable / disable manual recording.
3. Click **Save**.
4. **(OPTIONAL)**
 - Click the drop-down arrow beside **Recording**, then select **ON** or **OFF** to enable / disable manual recording for all connected cameras.
 - Use the **Copy** function to copy your settings to another or all connected cameras. See 13.1.1 *Copying Channel Settings to Another Channel*, page 40 for details on using the copy function.

7.3 Setting a Recording Schedule

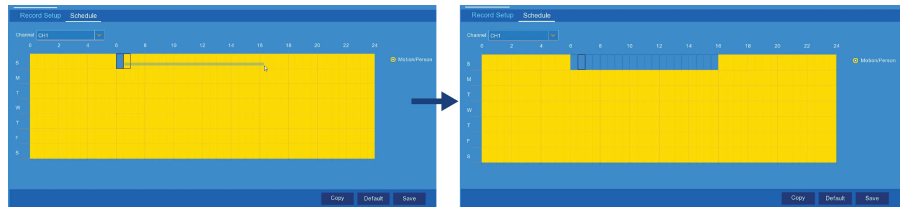
By default, the system is set to record whenever a camera detects motion. You have the option to set a recording schedule so that a particular camera only records at certain times. The recording schedule repeats weekly and can be configured differently per camera.

To set a recording schedule:

1. From the Live View screen, click  > **Setup** > **Recording** > **Schedule**.



2. Click the drop down next to **Channel** to select a channel.
3. Click or click-and-hold over existing bars to remove sections from the recording schedule. For blank areas of the schedule, click or click-and-drag to add sections to the recording schedule.



NOTE

If your system and the selected channel support continuous recording, you will have the option to choose between **Motion** and **Continuous** schedules for each day of the week. Continuous recording will only occur if you set a recording schedule.

4. Click **Save**.
5. **(OPTIONAL)** Use the **Copy** function to copy your settings to another or all connected cameras. See 13.1.1 *Copying Channel Settings to Another Channel*, page 40 for details on using the copy function.

You can view and back up recorded video on the recorder.


To access playback:

8.1 Using Playback


Play back video recordings from a specific date and time.

To search for and play back videos:

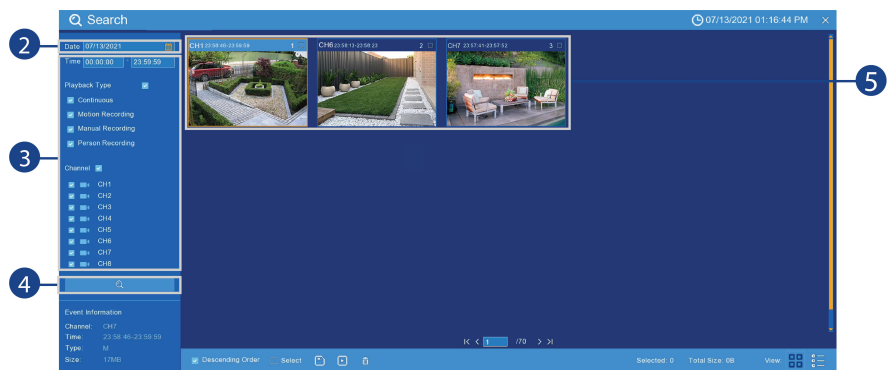
1. Open the Playback menu:



- Right-click in the Live View screen to open the Taskbar, then click .

OR

- Right-click in the Live View screen to open the Taskbar, click ,



then click .



2. Click  on the right side of the **Date** to select the date to search for video recordings from.
3. Check off the channels you would like to search for recordings from on the left-side of the screen.
4. Click  to search for recordings.
5. Recordings that fit your search criteria appear. Double-click an event to begin playback.



NOTE



Recordings appear as thumbnails by default. Use the viewing buttons in the bottom-right corner to toggle between thumbnail () and list view ()

8.2 Playback Controls

Once you have started playing a video clip, the playback controls appear as shown below.




1. **Event List:** Shows all video clips that fit your original search criteria. Double-click any event to begin playback, or check multiple events to perform a backup.
2. **Backup and Playback Buttons:**

- Click  to play the currently selected video clip.
- Click  to backup one or more clips to a USB flash drive (not included).

NOTE

To backup multiple files at once, you must click the check boxes to select multiple video clips in the event list. For more details on performing a backup, see 9 *Search & Backup*, page 26.

3. **Return:** Return to previous screen to perform a new search.
4. **Full Screen**
5. **Fast-Backward:** Click to fast-backward playback by double-speed. Click repeatedly to re-wind as fast as 8x the normal speed.
6. **Slow Play:** Click to slow playback by half-speed. Click repeatedly to play as slow as 1/16 of normal speed.
7. **Play / Pause:** Click to pause or play.
8. **Step:** Click to playback frame by frame.
9. **Stop**
10. **Fast-Forward:** Click to fast-forward playback by double-speed. Click repeatedly to play as fast as 8x the normal speed.
11. **Digital Zoom:** Click , then click-and-hold on a camera image during playback to zoom in on the selected area. Right-click to return to regular playback.
12. **Video Clip:** Quickly save a section of video to a USB flash drive (not included). For full instructions on using the Video Clip, see 9.1.2 *Video Clip Backup*, page 27.
13. **Audio:** Click to open the volume control setting. Click the (audio icon) to mute / unmute.
14. **Manual Capture:** Click to take a snapshot.
15. **Timeframe:** Use the timeframe options to view a smaller or larger time period.
16. **Timeline:** Continuous recordings are shown with colored bars to represent different types of recording (legend shown in the bottom-left corner of the display).
17. **Video Playback Area:** Double-click any channel to view in full screen.
18. **Exit Playback:** Return to the previous screen.

You can back up video recordings and snapshots to a USB flash drive (not included) connected to the recorder.

You can back up video directly from Playback mode, which is helpful if you do not know the time frame you want to back up.

- For instructions on backing up video using Playback mode, see 9.1 *Backing Up Videos using Playback Mode*, page 26.

9.1 Backing Up Videos using Playback Mode

You can search for and back up single or multiple video recordings from Playback mode.




- To use back up, you must connect a USB flash drive (not included) to one of the recorder's USB ports labelled **Mouse / Backup**.

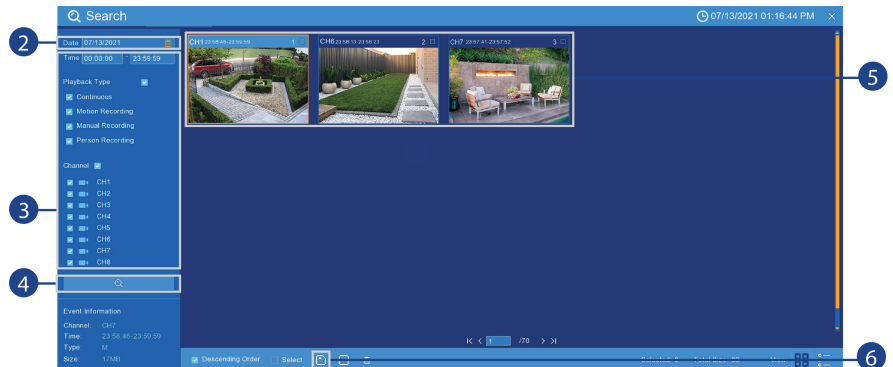
9.1.1 Back Up Entire Recordings



Choose from recordings that appear in your search to back up to the USB flash drive.

To search for and back up videos:



1. Open the Playback menu:


- Right-click in the Live View screen to open the Taskbar, then click .
- OR
- Right-click in the Live View screen to open the Taskbar, click , then click .



2. Click  on the right-side of the **Date** to select and search a date for video recordings.
3. Check off the channels you would like to search for recordings from on the left-side of the screen.
4. Click  to search for recordings.
5. Recordings that fit your search criteria appear. Check off any recordings you would like to back up.

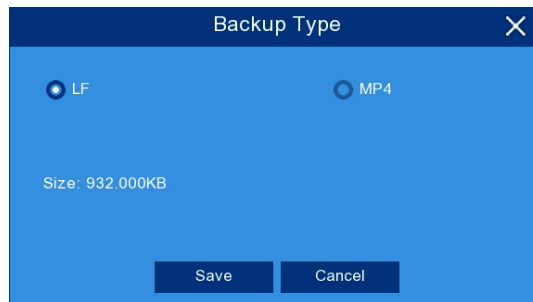
NOTE

Recordings appear as thumbnails by default. Use the viewing buttons in the bottom-right corner to toggle between thumbnail () and list view ()

6. Click  to confirm your backup selection.

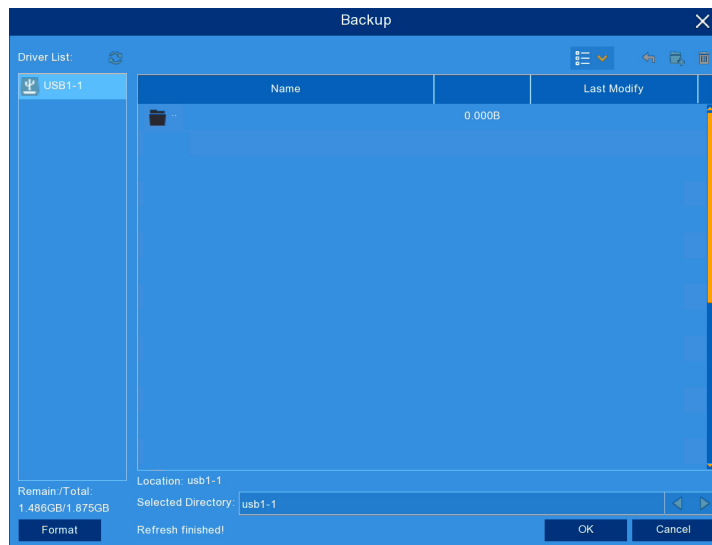
7. Select a file type for your backup files.

- **LF (Lorex Format):** This format creates a Lorex specific backup that can only be accessed by Lorex.
- **MP4:** This format creates a universal file type that can be accessed by general media players.



8. Click **Save**.

9. The backup drive menu appears (see 9.2 *Drive Menu Controls*, page 29 for an overview of drive menu controls).



- Navigate to the folder you want the backup files to be saved in.
- Click **OK** to begin.
- The progress bar at the bottom of the window shows you the progress of the backup.



NOTE

- For details on viewing your backup files on a PC or Mac computer, see 16 *Viewing Backed Up Video on PC/Mac*, page 64.

9.1.2 Video Clip Backup




Choose the exact section of video recording you want to back up from Playback mode.

Prerequisites:

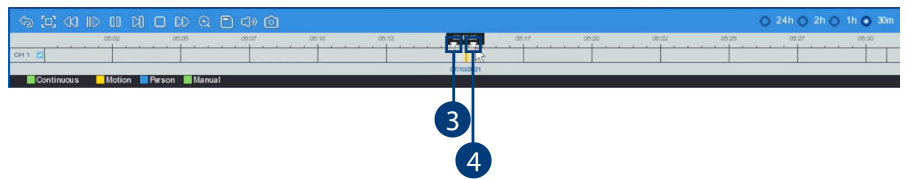
- To use back up, you must connect a USB flash drive to one of the recorder's USB ports labelled **Mouse / Backup**.


To use video clip back up:

1. Open the Playback menu:



- Right-click in the Live View screen to open the Taskbar, then click .
- OR**
- Right-click in the Live View screen to open the Taskbar, click , then click .

2. Select a channel you would like to backup a video clip from, and begin playback at the desired start time for the backup file.



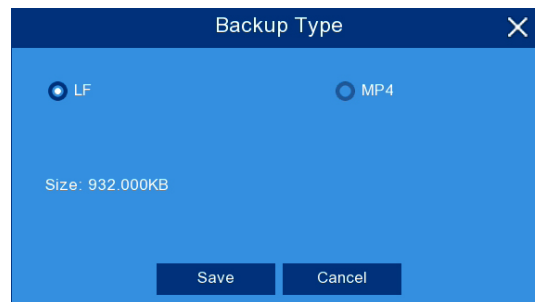
3. Click  to begin the video clip at the current playback time. An arrow on the timeline indicates your start time.

4. Select an ending time for the backup file:

- Let the video play until the desired end time, then click .
- OR**
- Click the desired end time on the video timeline, then click .

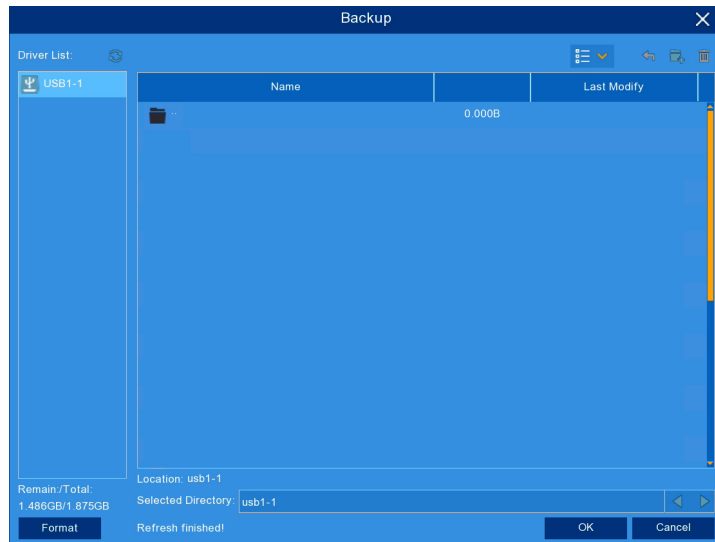
A second arrow appears on the timeline to show you the full duration of your backup file.

5. Select a file type for your backup files.



6. Click **Save**.

7. The backup drive menu appears (see 9.2 *Drive Menu Controls*, page 29 for an overview of drive menu controls).



- Navigate to the folder you want the backup files to be saved in.
- Click **OK** to begin.
- The progress bar at the bottom of the window shows you the progress of the backup.

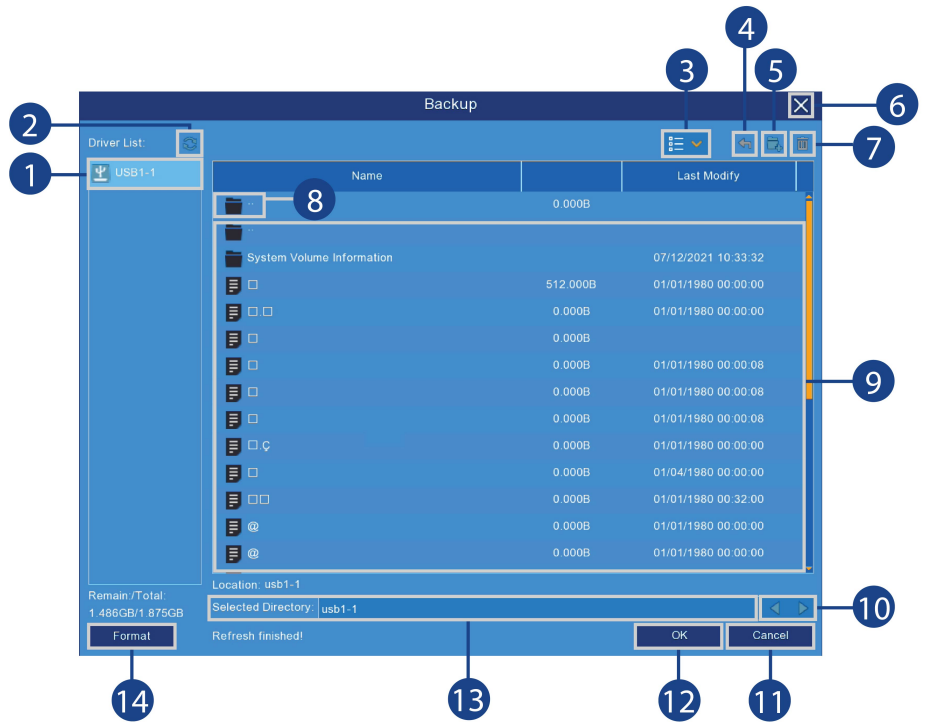




NOTE

- For details on viewing your backup files on a PC or Mac computer, see 16 *Viewing Backed Up Video on PC/Mac*, page 64.

9.2 Drive Menu Controls

When you perform a backup, the folder structure of the connected USB flash drive (not included) is shown on screen. Use the on-screen controls to browse through and edit the contents of the drive.



1. **Connected Drives:** USB flash drives (not included) connected to the system are shown here. Click to open.
2. **Refresh Contents**
3. **Viewing Buttons:** Files appear in a list view by default. Use the viewing buttons to toggle between list view () and thumbnail () .
4. **Up One Level:** Click to navigate to the containing folder for your current location. Clicking in the root folder has no effect.
5. **New Directory:** Click to create a new folder at your current location. Enter the name for the new folder under **Directory Name**, then click **OK**.

Directory Name:

OK
Cancel

6. **Exit:** Return the previous screen.
7. **Delete:** Delete the selected file or folder.
8. **Up One Level:** Click to navigate to the containing folder for your current location. Clicking in the root folder has no effect.
9. **Browsing Area:** Shows files and folders contained in the selected USB flash drive (not included).
10. **Move Cursor:** Click the arrow keys to move the cursor in the **Selected Directory** field.
11. **Cancel:** Cancel the backup.
12. **OK:** Save backup files to the folder path shown in the **Selected Directory** field.
13. **Selected Directory:** Shows the folder path for the location currently shown in the Browsing Area.

14. **Format:** Click to format the currently selected USB drive. When first connecting a USB flash drive (not included) to the system, it is recommended to format the drive so it is ready for use with the recorder.

**CAUTION**

Formatting will erase all data saved to the drive. **This cannot be undone.**


Managing Users, Passwords and Permissions

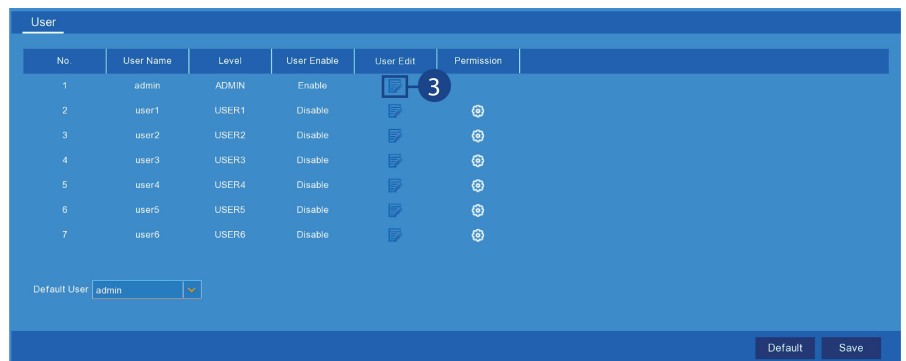
The system supports the following account types:


- **ADMIN — System Administrator:** The administrator has full control of the system, and can change both administrator and user passwords and enable/disable password protection.
- **USER — Normal User:** Users only have access to live viewing, search, playback, and other functions. You may set up multiple user accounts with varying levels of access to the system.

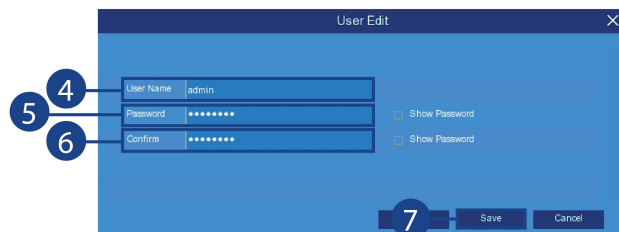
10.1 Changing Passwords

To change the password for the administrator or user accounts:

1. From the Live View screen, click  > **Setup** > **User**.




2. From the list of accounts, find the row for the account you want to update.
3. Click .

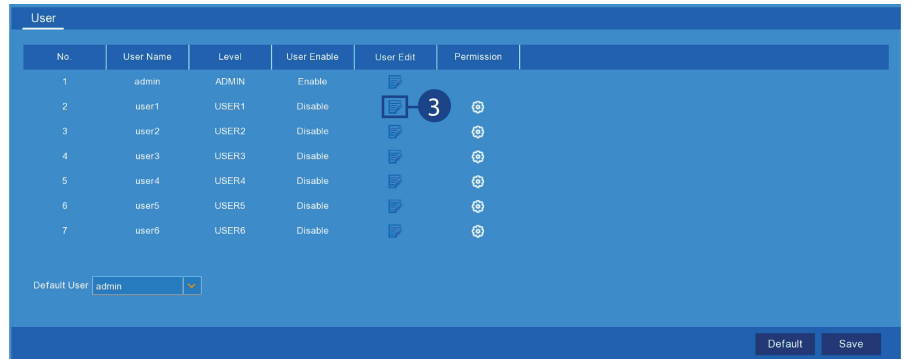
















4. Click the field next to **User Name** to change the user name for the selected account.
5. Click the field next to **Password** to enter a new password.
6. Click the field next to **Confirm** to reenter the password.
7. Click **Save**.

10.2 Adding a New User

To add a new user, you must enable a new user account. **To enable a new user account:**

1. From the Live View screen, click  > **Setup** > **User**.



No.	User Name	Level	User Enable	User Edit	Permission
1	admin	ADMIN	Enable		
2	user1	USER1	Disable	 3	
3	user2	USER2	Disable		
4	user3	USER3	Disable		
5	user4	USER4	Disable		
6	user5	USER5	Disable		
7	user6	USER6	Disable		

Default User:

2. Click one of the user accounts that is currently disabled.

3. Click .



User Edit

4. User Enable: ON

5. User Name: user1

6. Password:

7. Confirm:

Show Password

Show Password


8.

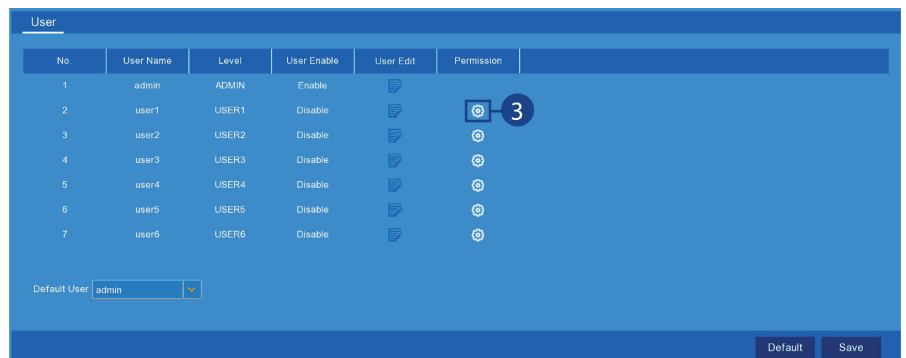
4. Select **ON** from the drop-down next to **User Enable**.
5. Click the field next to **User Name** to change the user name for the account.
6. Click the field next to **Password** to enter the desired password.
7. Click the field next to **Confirm** to reenter the password.
8. Click **Save**.















10.3 Setting User Permissions

The **ADMIN** is the only account that has full control of all system functions. You can enable or disable access to certain menus and functions of each user account.

To edit user permissions:

1. From the Live View screen, click  > **Setup** > **User**.

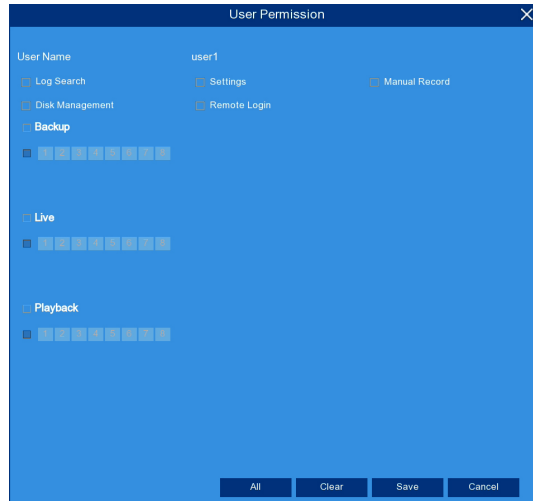


No.	User Name	Level	User Enable	User Edit	Permission
1	admin	ADMIN	Enable		
2	user1	USER1	Disable		 3
3	user2	USER2	Disable		
4	user3	USER3	Disable		
5	user4	USER4	Disable		
6	user5	USER5	Disable		
7	user6	USER6	Disable		

Default User:

2. From the list of accounts, find the row for the account you want to edit.

3. Click .



4. Edit the user permissions to your preference:

- Check the boxes next to any system menus or capabilities you would like the user to access.
- Click **All** to check all boxes.
- Click **Clear** to check none of the boxes.

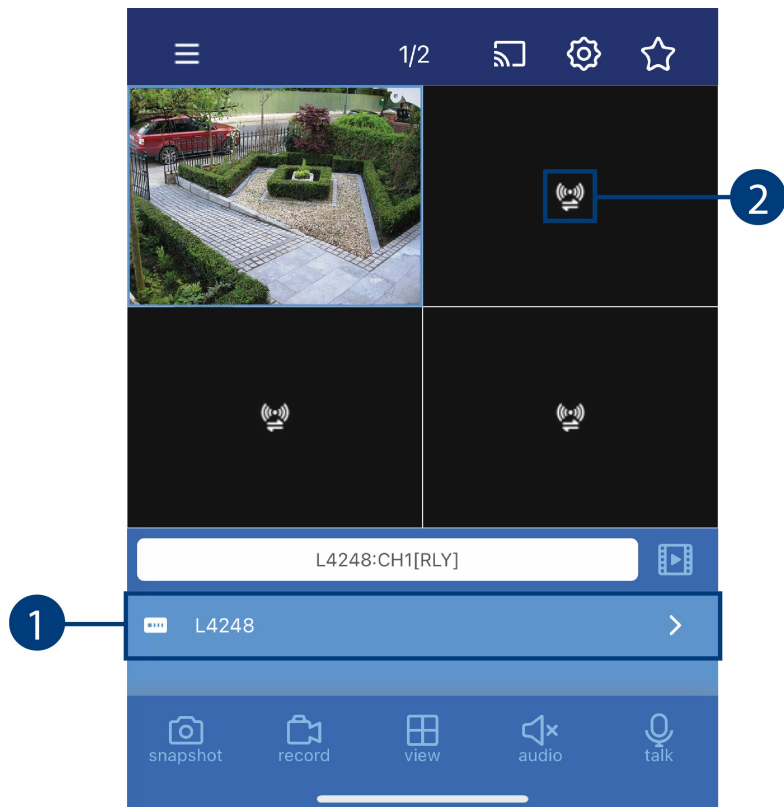
5. Click **Save**.


Your cameras should be paired to the recorder and ready to use out of the package. If a camera becomes unpaired, or if you have purchased a wire-free add-on camera (max. 8 cameras per system), follow the instructions below.

- To pair cameras to your system using the Lorex Cirrus, see 11.1 *Pairing Cameras with Lorex Cirrus*, page 35.
- To pair cameras to your system using the recorder interface, see 11.2 *Pairing Cameras using the Recorder Interface*, page 36.

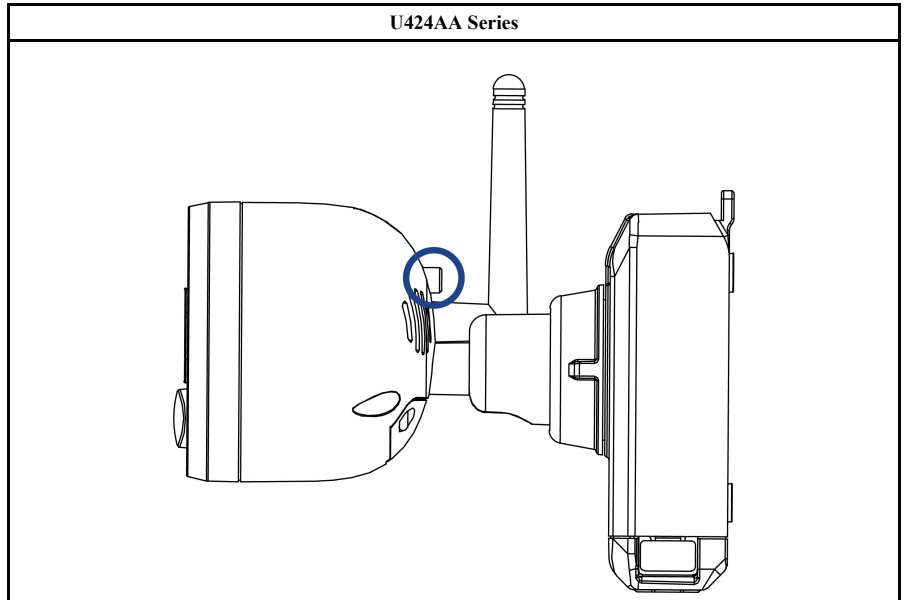
11.1 Pairing Cameras with Lorex Cirrus

1. From the Home screen, select your recorder from the list of devices.



2. Tap any free channel marked with a  icon.
3. Tap **Pair**. A timer for 30 seconds appears.

- Press and hold the pairing button on the back of the camera until the red LED lights at the front of the camera stop flashing, then release the pairing button.






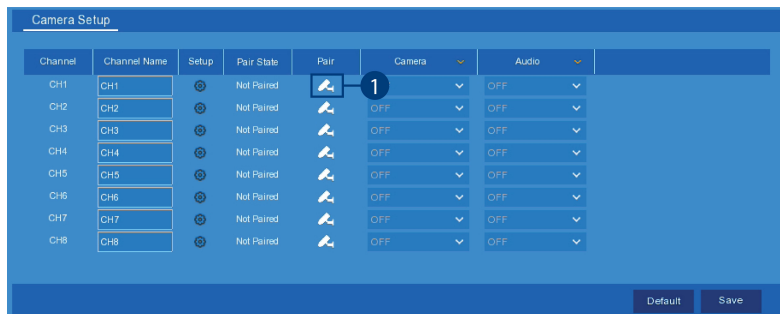
NOTE

A “Pairing success!” message will appear on screen. If you do not see this message, repeat the steps above.

11.2 Pairing Cameras using the Recorder Interface

- From the Live View screen:

- Click  in an empty channel screen.
- OR
- Click  > **Setup** > **Camera** > **Camera Setup**, then click  in an empty channel.



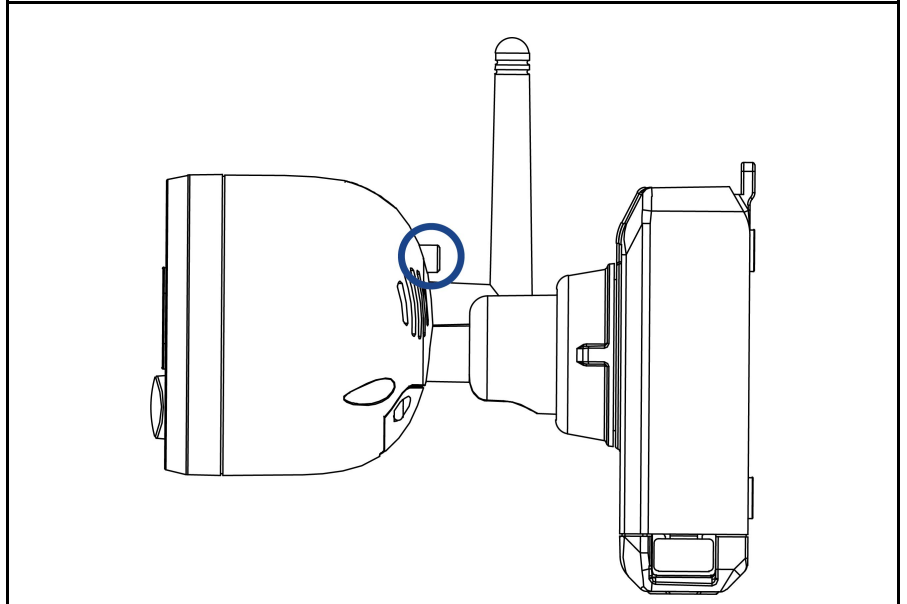
NOTE

You will have 30 seconds to pair the camera.

2. Press and hold the pairing button on the back of the camera until the red LED lights stop flashing, then release the pairing button.

**NOTE**

A “**Pairing success!**” message will appear on screen. If you do not see this message, repeat the steps above.

U424AA Series

Your recorder has multiple storage options for video files. Depending on your system configuration, your recorder may have come with a pre-installed hard drive or a pre-inserted MicroSD card.

You may also connect a USB storage device to the USB port labelled **Storage** on your recorder for redundant storage. This means the system will automatically create a backup of the most recent recordings on the USB drive as well as recording to the primary storage.



NOTE

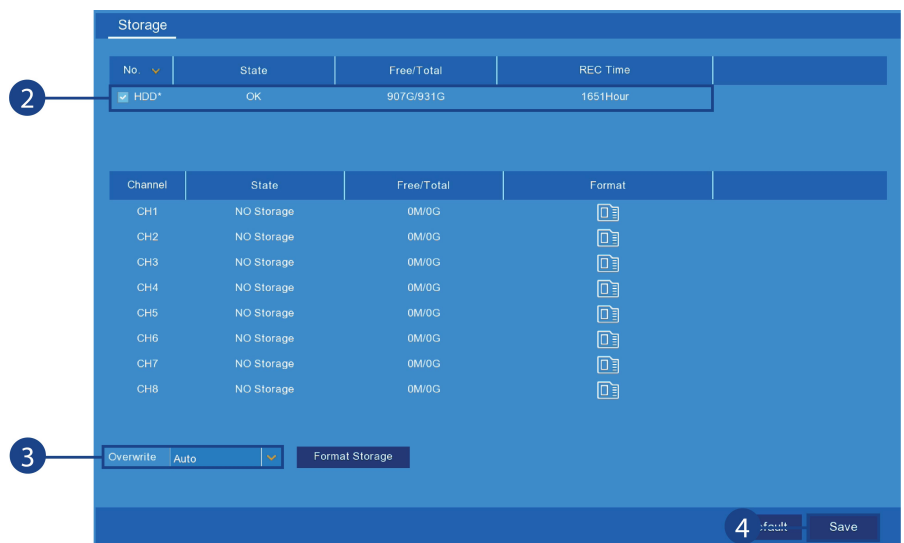
Units with a pre-inserted MicroSD card can be upgraded with a new card up to 128GB. Units with a pre-installed 1TB hard-drive are not user upgradable.

12.1 Configuring Storage Overwrite

By default, your storage device is set to overwrite automatically, meaning that the system deletes the oldest footage when storage is full to make way for new recordings. You can also select a number of days or hours the system should retain data for. For example, if you select 30 days, only recordings more than 30 days old will be overwritten.

To configure overwrite:

- From the Live View screen, click  > **Setup** > **Device** > **Storage**.



- Click to select the storage device you want to configure overwrite settings for.
- Select an overwrite mode from the drop-down next to **Overwrite**:
 - Auto**: Deletes the oldest saved footage when the hard drive is full (recommended).
 - 1-90 Days**: Keeps footage for as long as specified before overwriting. Ensure your hard drive is large enough to retain recordings for as long as you have specified.
 - OFF**: No footage will be overwritten.



CAUTION

If you turn off overwrite and your hard drive fills up with footage, the system will stop recording.

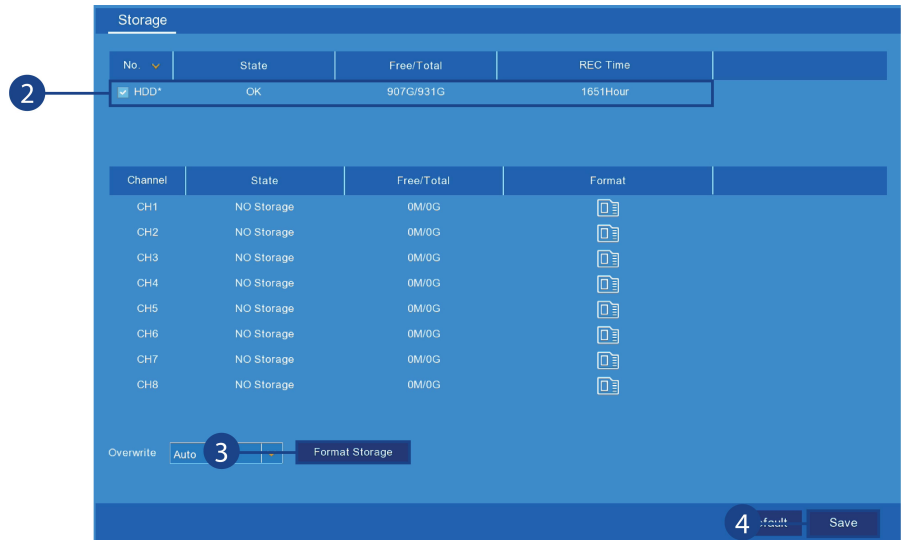
- Click **Save**.

12.2 Formatting Storage Devices

Formatting deletes all saved files from the selected storage device. It is recommended to format any newly-installed storage device before recording.

To format storage:

1. From the Live View screen, click  > **Setup** > **Device** > **Storage**.



2. Click to select the storage device you want to format.
3. Click **Format Storage**.
4. Enter your recorder's user name (default: **admin**) and secure password to begin formatting the drive.




CAUTION

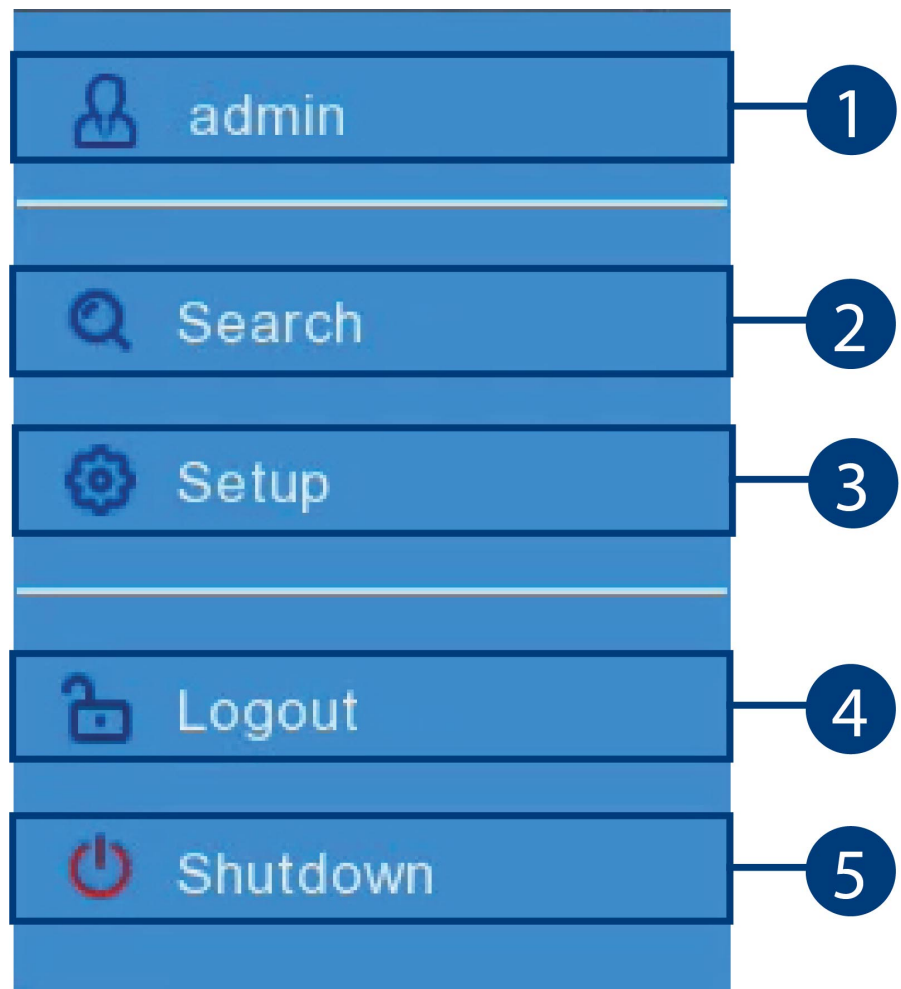
Formatting a storage device deletes all saved files. **This step cannot be undone.**

Use the Main Menu to access the full feature set of the recorder.

To open the Main Menu:

1. Click on the Main Menu button () on the Taskbar from the Live View screen.
2. Click to make a selection. If prompted, enter the user name (default: **admin**) and your secure password.

13.1 Main Menu Overview



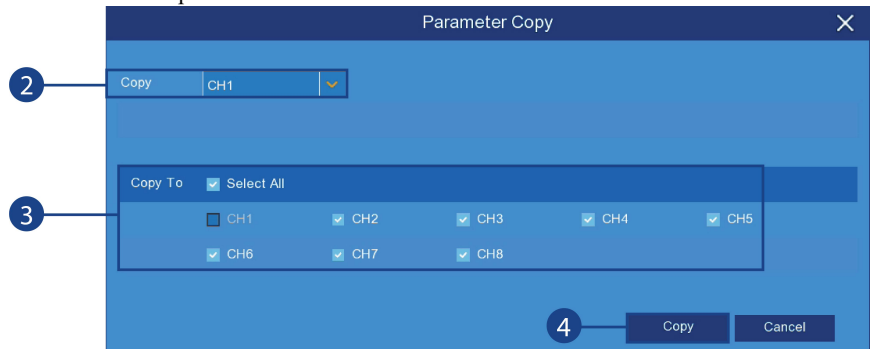
1. **Username:** Displays the name of the user account that you are currently logged into the system with.
2. **Search:** Search for and view video recordings and snapshots. See 8 *Playback*, page 24 for full instructions on using the Playback menu.
3. **Setup:** Configure options for display, recording parameters, network settings and more. See 13.2 *Settings Menu*, page 41 for full instructions on using the Settings menu.
4. **Log out:** Log in or log out of the unit. This is useful for switching between users.
5. **Shutdown:** Shuts down the recorder. You must enter the user name (default: **admin**) and your secure password before the unit shuts down.

13.1.1 Copying Channel Settings to Another Channel

Many parts of the recorder menu allow you to customize settings for only one channel at a time. In these cases, you can use the **Copy** function to copy your settings for one channel to others or all channels of the recorder.

To copy channel settings to another channel:

1. Set your preferences for one channel and click **Save**.
2. Use the drop-down next to **Copy** to select the channel you wish to copy settings from.
3. Do one of the following:
 - Click **Select All** next to **Copy To** to copy to all connected channels.
 - OR**
 - Select / deselect specific channels.



4. Click **Copy**.
5. Click **Save** to save your settings.

13.2 Settings Menu

Configure options for display, recording parameters, network settings, and preferences for snapshots and motion detection.

13.2.1 Changing a Camera's On-Screen Display (OSD)

By default, the channel name, date and time are shown overtop of your video recordings.

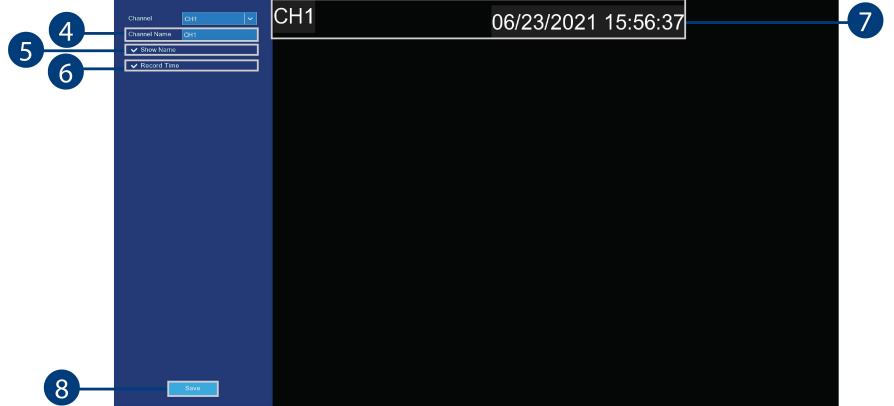
To change a camera's OSD:

1. From the Live View screen, click  > **Setup** > **Camera** > **Camera Setup**.



2. Find the channel row for the camera you want to modify.


- Click the  icon under **Setup**.



- Enter a channel name of your choice (e.g., *Back Yard Camera*). This name will appear on the camera image in live viewing and in recordings.
- Select the check box next to **Show Name** to display the channel name
- Select the check box next to **Record Time** to display the recording time.
- click-and-hold the recording time or channel name to reposition it.
- Click **Save**.
- (OPTIONAL)**: Click the drop-down next to **Channel** to quickly switch to another channel.

13.2.2 Enabling / Disabling Cameras

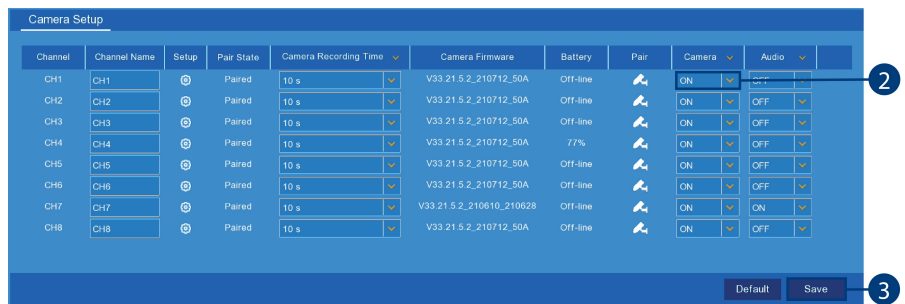
Enable or disable wire-free cameras.

 **NOTE**

Disabled cameras will not show video during live viewing or record video to the hard drive.

To enable / disable cameras:

- From the Live View screen, click  > **Setup** > **Camera** > **Camera Setup**.



- Find the channel row, then click the drop-down under **Camera** and select **ON** or **OFF** to enable / disable a specific camera.
(OPTIONAL) From the drop-down beside **Camera**, select **ON** or **OFF** to enable / disable all connected cameras.
- Click **Save**.

13.2.3 Camera Firmware

In order to troubleshoot certain issues, technical support may ask you for the firmware version of your wire-free cameras. Use the procedure below to determine the current version.

To check camera firmware:

- From the Live View screen, click  > **Setup** > **Camera** > **Camera Setup**.

Channel	Channel Name	Setup	Pair State	Camera Recording Time	Camera Firmware	Battery	Pair	Camera	Audio
CH1	CH1		Paired	10 s	V33 21.5.2_210712_50A	Off-line		ON	OFF
CH2	CH2		Paired	10 s	V33 21.5.2_210712_50A	Off-line		ON	OFF
CH3	CH3		Paired	10 s	V33 21.5.2_210712_50A	Off-line		ON	OFF
CH4	CH4		Paired	10 s	V33 21.5.2_210712_50A	77%		ON	OFF
CH5	CH5		Paired	10 s	V33 21.5.2_210712_50A	Off-line		ON	OFF
CH6	CH6		Paired	10 s	V33 21.5.2_210712_50A	Off-line		ON	OFF
CH7	CH7		Paired	10 s	V33 21.5.2_210610_210628	Off-line		ON	ON
CH8	CH8		Paired	10 s	V33 21.5.2_210712_50A	Off-line		ON	OFF

- From the channel row, look at the **Camera Firmware** description to see the current firmware version for the specific channel.

13.2.4 Enabling Audio

The included cameras support audio recording, but must be enabled through the recorder interface. This is due to the fact that audio recording is unlawful in certain jurisdictions. Please ensure your installation complies with local laws before enabling audio recording.

To enable audio:

- From the Live View screen, click  > **Setup** > **Camera** > **Camera Setup**.

Channel	Channel Name	Setup	Pair State	Camera Recording Time	Camera Firmware	Battery	Pair	Camera	Audio
CH1	CH1		Paired	10 s	V33 21.5.2_210712_50A	Off-line		ON	OFF
CH2	CH2		Paired	10 s	V33 21.5.2_210712_50A	Off-line		ON	OFF
CH3	CH3		Paired	10 s	V33 21.5.2_210712_50A	Off-line		ON	OFF
CH4	CH4		Paired	10 s	V33 21.5.2_210712_50A	77%		ON	OFF
CH5	CH5		Paired	10 s	V33 21.5.2_210712_50A	Off-line		ON	OFF
CH6	CH6		Paired	10 s	V33 21.5.2_210712_50A	Off-line		ON	OFF
CH7	CH7		Paired	10 s	V33 21.5.2_210610_210628	Off-line		ON	ON
CH8	CH8		Paired	10 s	V33 21.5.2_210712_50A	Off-line		ON	OFF

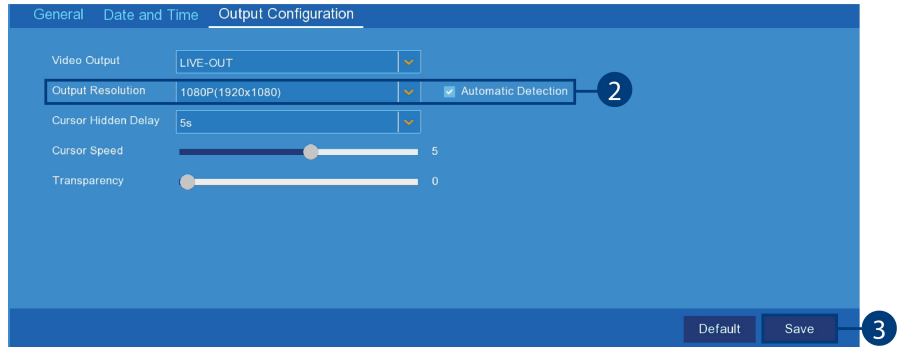
- Find the channel row, then click the drop-down under **Audio** and select **ON** or **OFF** to enable / disable audio for a specific camera.
(OPTIONAL) From the drop-down beside **Audio**, select **ON** or **OFF** to enable / disable audio for all connected cameras.
- Click **Save**.

13.2.5 Changing the Display Resolution

To optimize display, you can change the output resolution of your recorder to match the maximum supported resolution of your monitor.

To change the recorder's output resolution:

1. From the Live View screen, click  > **Setup** > **System** > **General** > **Output Configuration**.



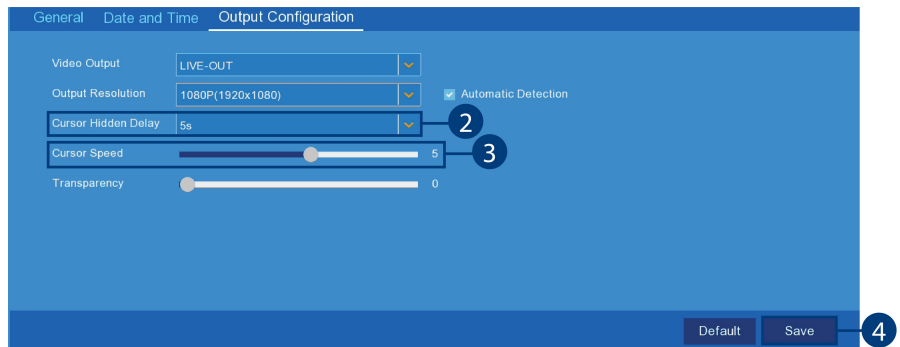
2. Use the drop-down next to **Output Resolution** to select the resolution of your monitor or TV. **(OPTIONAL)** If you are experiencing cropping of the recorder's display, it is recommended that you check the **Automatic Detection** box to optimize your display. This is typically only an issue for those using older Cathode Ray Tube (CRT) monitors.
3. Click **Save**.

13.2.6 Changing the Cursor Hidden Delay and Speed

To personalize cursor settings, you can change the amount of idle time it takes to hide the cursor and the cursor's movement speed.

To change the cursor's hidden delay and speed:

1. From the Live View screen, click  > **Setup** > **System** > **General** > **Output Configuration**.



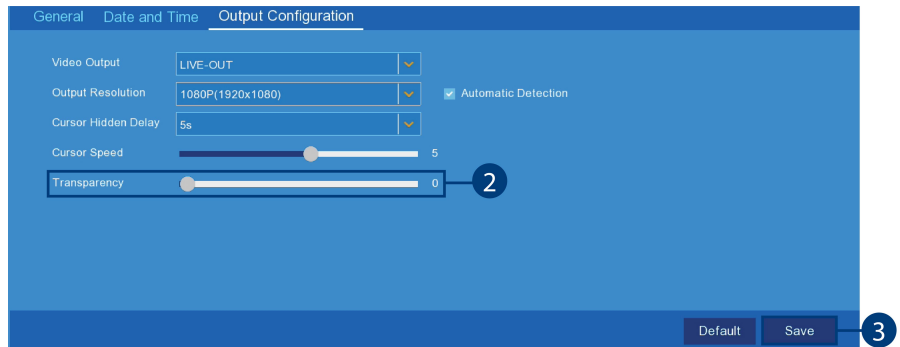
2. Use the drop-down next to **Cursor Hidden Delay** to select the amount of idle time it takes to hide the cursor.
3. Click-and-drag the slider next to **Cursor Speed** to adjust the cursor movement speed.
4. Click **Save**.

13.2.7 Menu Transparency

You can set a custom transparency level for the on-screen menus and the Taskbar.

To adjust menu transparency:

1. From the Live View screen, click  > **Setup** > **System** > **General** > **Output Configuration**.



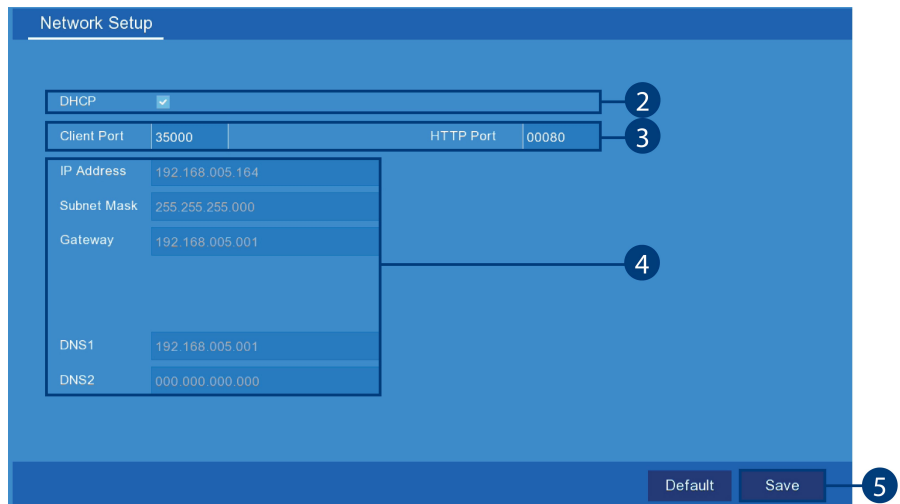
2. Click-and-drag the slider next to **Transparency** to adjust the transparency of the Taskbar and menu screens.
3. Click **Save**.

13.2.8 Configuring Basic Network Settings

The basic network menu allows you to change port numbers if needed and configure the network protocol type (**DHCP** or **static**).

To configure basic network settings:

1. From the Live View screen, click  > **Setup** > **Network** > **Network Setup**.



2. **DHCP** is enabled by default (recommended).



NOTE

Disabling **DHCP** requires you to edit the IP Address, Subnet Mask, Gateway and DNS settings. This option is for advanced users only.

3. Click the fields next to **Client Port** and **HTTP Port** to change port numbers if required.
4. **When DHCP is disabled:** Click the fields next to **IP Address**, **Subnet Mask**, **Gateway** and **DNS** to edit as required.
5. Click **Save**.

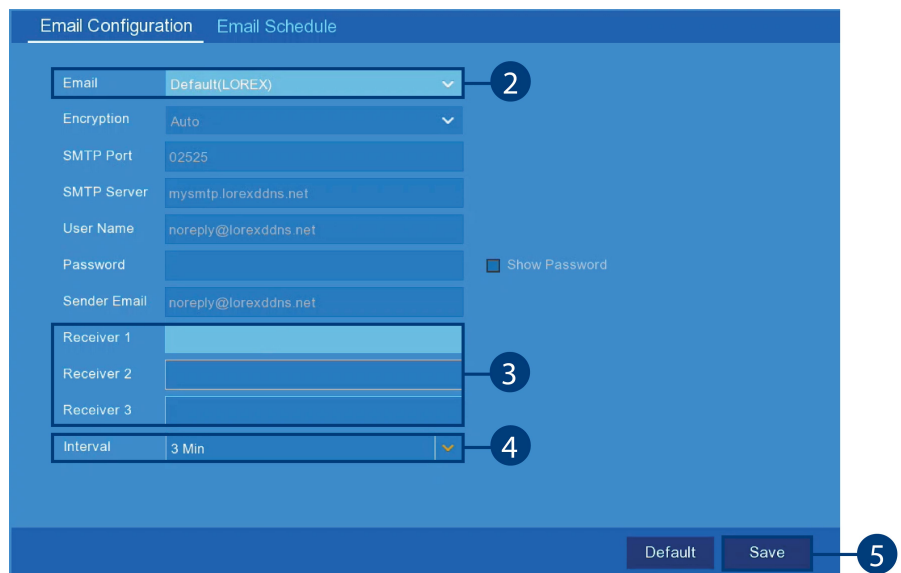
13.2.9 Setting up Email Notifications

You can configure the system to send email notifications about important activity from your security system. To have the option of using Lorex's free email server (recommended) or using a different one.

- For instructions on enabling email notifications using the Lorex server, see 13.2.9.1 *Email Notifications — Using the Lorex server (recommended)*, page 46.
- For instructions on enabling email notifications using a different mailing server, see 13.2.9.2 *Email Notifications — Using your own server information*, page 47.

13.2.9.1 Email Notifications — Using the Lorex server (recommended)

1. From the Live View screen, click  > **Setup** > **Network** > **Email** > **Email Configuration**.

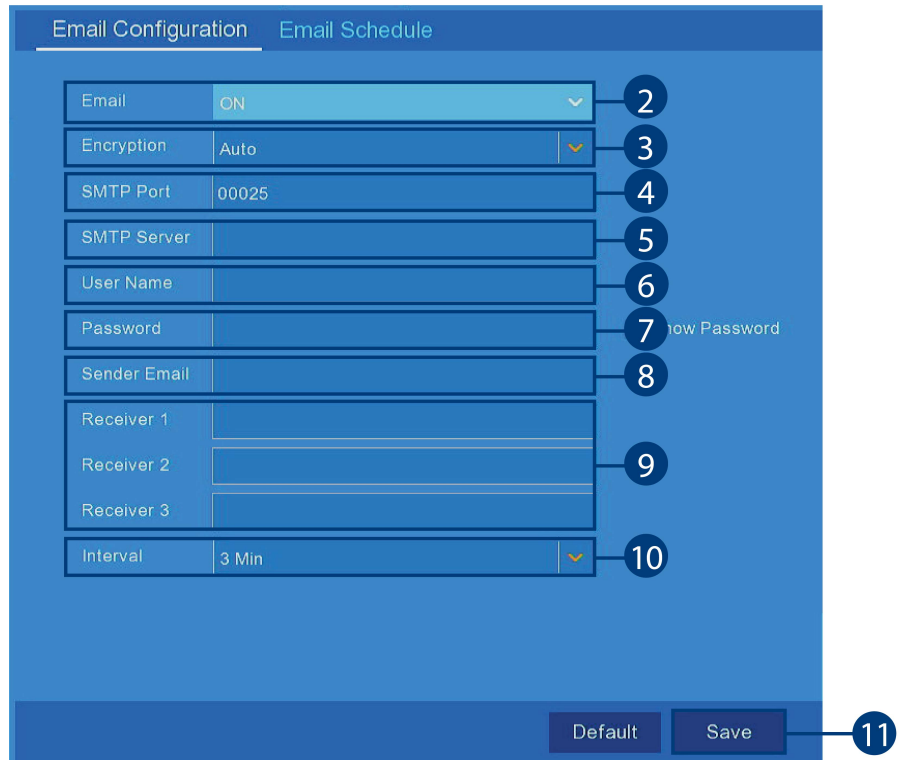


2. Select **Default** from the drop-down next to **Email** to enable the default Lorex mail server.
3. Click to enter up to 3 e-mail addresses that will receive e-mail notifications from the system.
4. Use the drop-down next to **Interval** to set the minimum amount of time between e-mail notifications. This can be used to limit the number of notifications you receive throughout the day.
5. Click **Save**.

E-mail notifications are now enabled. The default schedule is set to send e-mail notification whenever motion is detected or a system warning occurs. To configure the schedule for e-mail notifications, see 13.2.10 *Setting an E-mail Schedule*, page 47.

13.2.9.2 Email Notifications — Using your own server information

1. From the Live View screen, click  > **Setup** > **Network** > **Email**.



2. Select **ON** from the drop-down next to **Email** to enable e-mail notifications using a custom mail server.
3. Use the drop-down next to **Encryption** to select an encryption type.
4. Click the field next to **SMTP Port** to enter the SMTP port.
5. Click the field next to **SMTP Server** to enter the URL used by your mail server.
6. Click the field next to **User Name** to enter your user name for the mail server.
7. Click the field next to **Password** to enter your password for the mail server.
8. Click the field next to **Sender Email** to enter the sending email address. This can be any email of your choice.
9. Click to enter up to 3 e-mail addresses that will receive email notifications from the system.
10. Use the drop-down next to **Interval** to set the minimum amount of time between email notifications. This can be used to limit the number of notifications you receive throughout the day.
11. Click **Save**.

Email notifications are now enabled. The default schedule is set to send email notification whenever motion is detected or a system warning occurs. To configure the schedule for email notifications, see 13.2.10 *Setting an E-mail Schedule*, page 47.

13.2.10 Setting an E-mail Schedule

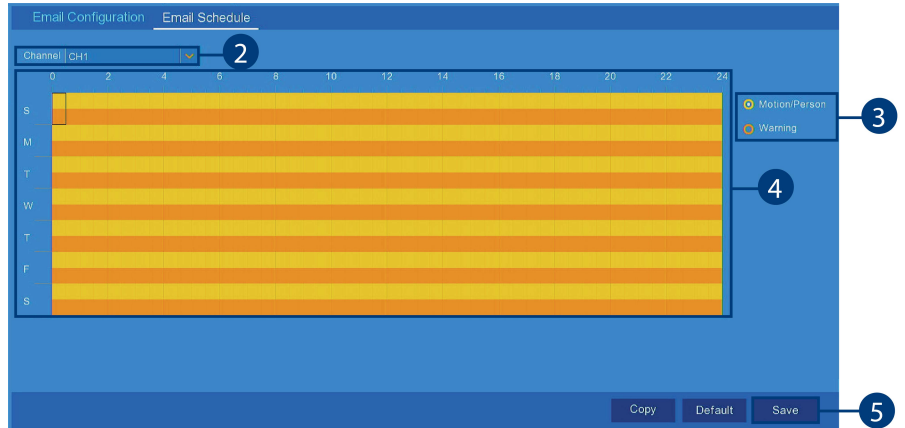
The e-mail schedule determines the time periods that the system will send out e-mail notifications. You can set separate schedules for motion events and system warnings per channel.

Prerequisites:

- You must enable e-mail notifications for the e-mail schedule to take effect.
- To enable e-mail notifications using the default Lorex e-mail server, see 13.2.9.1 *Email Notifications — Using the Lorex server (recommended)*, page 46.
- To enable e-mail notifications using custom mail server information, see 13.2.9.2 *Email Notifications — Using your own server information*, page 47.

To set an e-mail schedule:

1. From the Live View screen, click  > **Setup > Network > Email**.



2. Use the drop-down next to **Channel** to select a channel to set the e-mail schedule for.
3. Select **Motion** to edit the motion notification schedule (represented by **yellow** bars), or **Warning** to edit the system warning notification schedule (**orange** bars).
4. Click or click-and-drag over existing bars to remove sections from the recording schedule. For blank areas of the schedule, click or click-and-drag to add sections to the recording schedule.



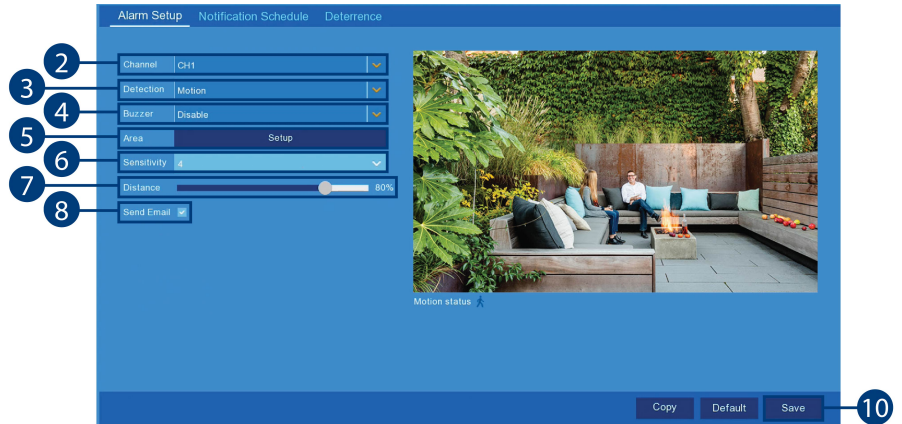
5. Click **Save**.
6. **(OPTIONAL)** Use the **Copy** function to copy your settings to another or all connected cameras. See 13.1.1 *Copying Channel Settings to Another Channel*, page 40 for details on using the copy function.

13.2.11 Configuring Motion Detection Settings

Configure settings for motion detection, such as sensitivity and detection distance. You also have the option of having an alarm sound, or receiving notification via e-mail.



To configure motion detection:

- From the Live View screen, click  > **Setup** > **Alarm** > **Alarm Setup**.



- Use the drop-down next to **Channel** to select the channel you want to configure motion detection options for.
- Use the drop-down next to **Detection** to choose between **Motion** or **Person** detection, or to turn **OFF** detection.
- Use the drop-down next to **Buzzer** to choose whether the recorder should sound an alarm when motion is detected by the selected channel.
- Click **Setup** next to **Area** to configure the active area for motion detection. The live view appears with a red grid overlay covering the whole image, meaning the whole image is active. Click or click-and-drag to enable / disable parts of the image. In the example image below, only motion occurring in the yard will trigger recording, but motion in the flower beds will not.



- Use the drop-down next to **Sensitivity** to choose a sensitivity level for motion detection events. The higher the number the greater the motion sensitivity.
- Set the **Distance** to configure the PIR sensor. This will help to make motion detection more accurate. Recreate a motion event in front of the camera, and set the distance so that wanted events turn the icon below the camera image from  to .
- Check the box next to **Send Email** to receive an e-mail when motion is detected by the selected channel.

**NOTE**

E-mail notifications require additional configuration. Please see 13.2.9 *Setting up Email Notifications*, page 46 for full setup details.

- Click **Save**.

13.2.12 Setting a Notification Schedule

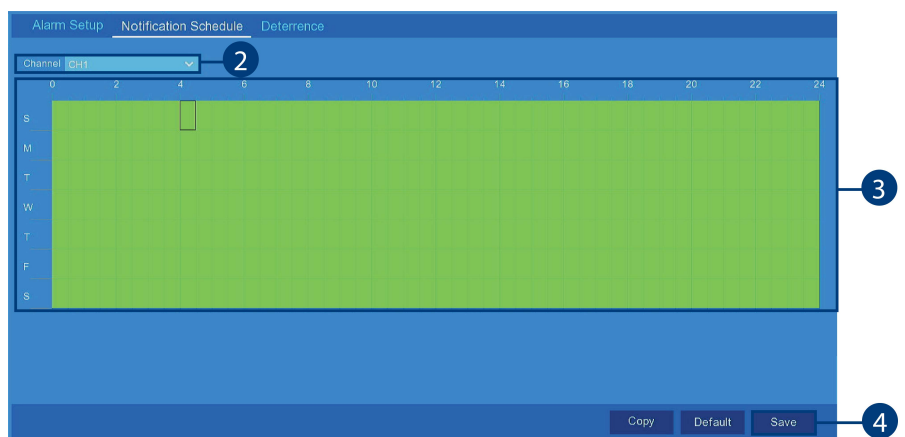
Configure preference for push notifications to appear on your phone when your cameras detects motion, video loss, or low battery (wire-free cameras only).

Prerequisites:

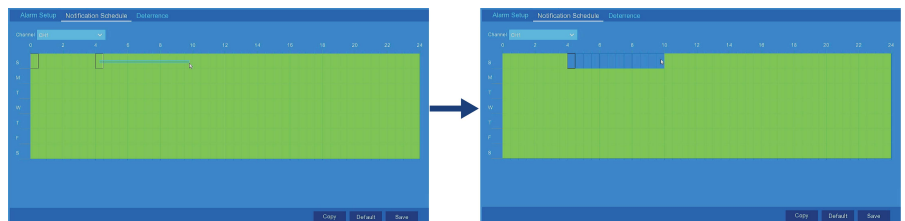
- Your devices must have push notifications enabled and motion detection configured to receive motion detection notifications, see 13.2.11 *Configuring Motion Detection Settings*, page 48 to configure motion detection settings and [Lorex Cirrus App — Push Notifications](#) to enable push notifications.

To set a notification schedule:

- From the Live View screen, click  > **Setup** > **Alarm** > **Notification Schedule**.



- Use the drop-down next to **Channel** to select a channel to set the deterrence schedule for.
- Click or click-and-drag over existing bars to remove sections from the notification schedule. For blank areas of the schedule, click or click-and-drag to add sections to the notification schedule.




- Click **Save**.
- (OPTIONAL) Use the **Copy** function to copy your settings to another or all connected cameras. See 13.1.1 *Copying Channel Settings to Another Channel*, page 40 for details on using the copy function.

13.2.13 Setting a Deterrence Schedule

Configure preference for the automatic alarm triggering on compatible deterrence cameras.

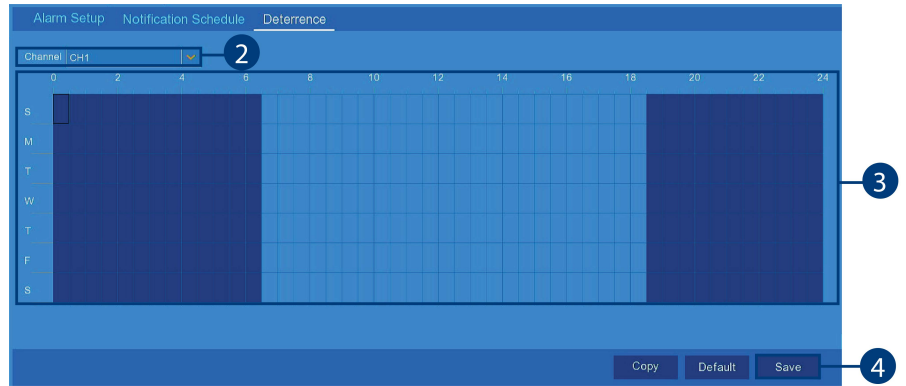
Prerequisites:

- You must enable motion detection for the schedule to take effect, see 13.2.11 *Configuring Motion Detection Settings*, page 48.

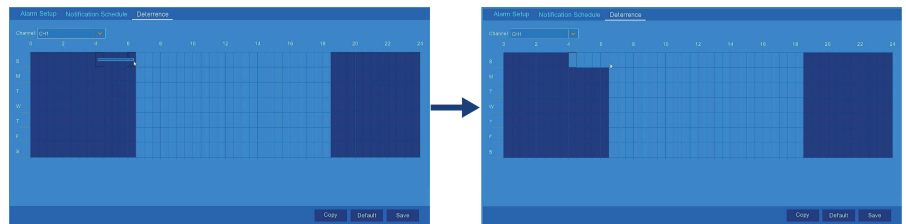
	NOTE
<ul style="list-style-type: none"> The default schedule is active during the night, between 6:30 am and 6:30 pm. 	

To set a deterrence schedule:

- From the Live View screen, click  > **Setup** > **Alarm** > **Deterrence**.



- Use the drop-down next to **Channel** to select a channel to set the deterrence schedule for.
- Click or click-and-drag over existing bars to remove sections from the deterrence schedule. For blank areas of the schedule, click or click-and-drag to add sections to the notification schedule.



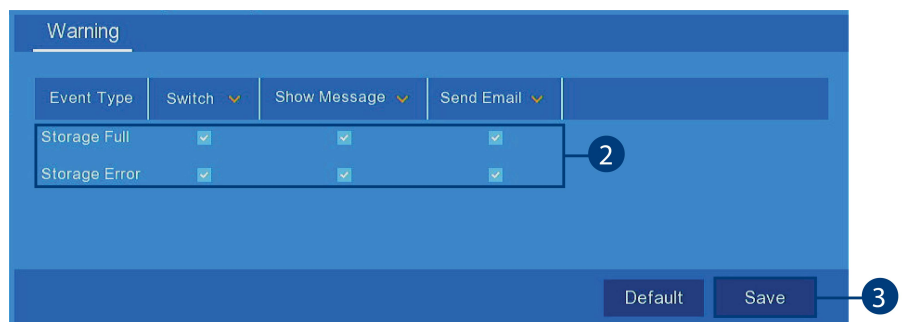
- Click **Save**.
- (OPTIONAL) Use the **Copy** function to copy your settings to another or all connected cameras. See 13.1.1 *Copying Channel Settings to Another Channel*, page 40 for details on using the copy function.

13.2.14 Configuring System Warning Settings


Set preferences for system warnings including video loss, hard drive errors, and warnings when the hard drive is full.

To configure system warning settings:

- From the Live View screen, click  > **Setup** > **Alarm** > **Warning**.



- Check boxes next to features you would like to activate when the selected event occurs.

 **NOTE**

Enabling **Send Email** requires you to set up e-mail notifications. See 13.2.9 *Setting up Email Notifications*, page 46 for full instructions.

3. Click **Save**.
4. **(OPTIONAL)** Use the drop-down beside the features then select **ON** or **OFF** to select or de-select all check boxes.

13.3 System Menu

Change general system information such as date, time and region, edit passwords and permissions, and more.

13.3.1 Changing the Date and Time

If you need to change the date and time after completing the setup wizard, follow the steps below.

To change the recorder's date and time:

1. From the Live View screen, click  > **Setup > General > Date and Time**.

2. Select the correct date from the calendar.
3. Enter the correct time. Use the drop-down to select **AM** or **PM** if using 12-hour time format.
4. Select a date format for date stamps on recordings.
5. Select a time format for time stamps on recordings.
6. If needed, use the drop-down next to **Time Zone** to set the correct region.



NOTE


In most cases, the region should already be correct as it was configured during the recorder setup wizard. In addition to determining the time zone, the selected region is also used by the system to intelligently determine the correct video format (NTSC or PAL) for that region, which may change automatically when changing the region. For example, changing the region from New York to London will also switch the video format of the system from NTSC to PAL.

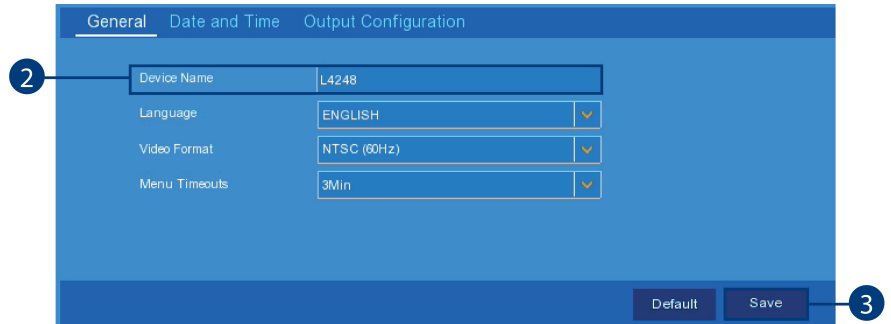
7. Click **Save**.

13.3.2 Changing Device Name

Change the device name for the recorder.

To change the device name:

1. From the Live View screen, click  > **Setup** > **General**.




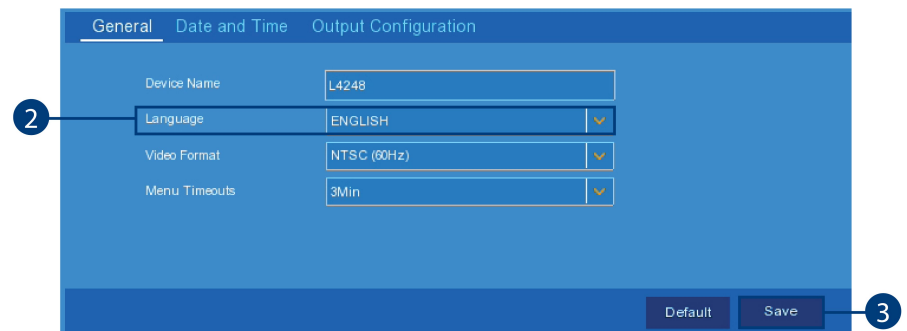
2. Click the field next to **Device Name** and then use the on-screen keyboard to change the recorder's device name.
3. Click **Save**.

13.3.3 Changing On-Screen Language

Change the language of on-screen text for the recorder.

To change language:


1. From the Live View screen, click  > **Setup** > **General**.




2. Use the drop-down next to **Language** to set the desired language for the recorder's on-screen display.
3. Click **Save**. The system language will update only once you exit the main menu.

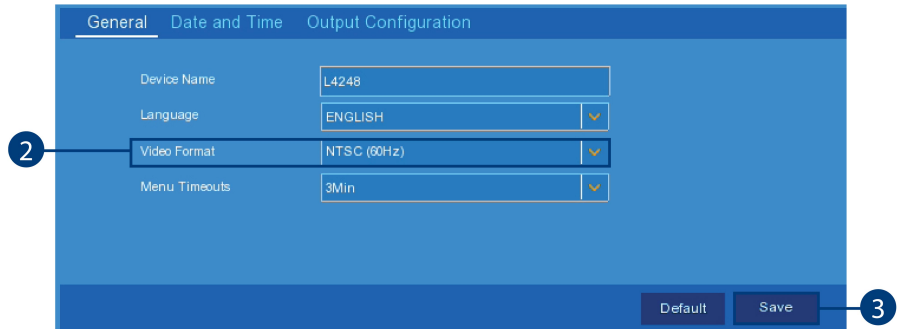
13.3.4 Changing Video Output — NTSC and PAL

Manually switch between NTSC and PAL video output.

	NOTE
<p>The video output is determined intelligently based on the region you set during the setup wizard. Ensure your region has been set correctly before manually changing the video output (see 13.3.7 <i>Configuring NTP</i>, page 55 for more details on changing the region).</p>	

To change the video output:

1. From the Live View screen, click  > **Setup** > **General**.




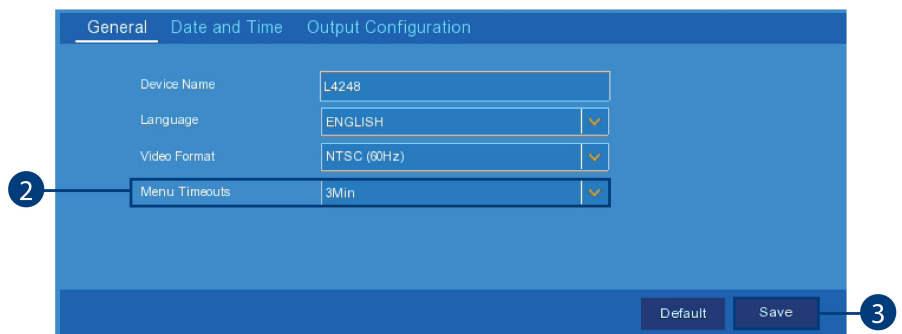
2. Use the drop-down next to **Video Format** to select either **NTSC** (North America) or **PAL** (Europe).
3. Click **Save**. The system will reboot to properly set the new video output mode.

13.3.5 Configuring Menu Time-out Option

By default, system menus are set to time-out after a set time period, taking you back to the main menu if there is no activity.

To configure or disable menu time-out:

1. From the Live View screen, click  > **Setup** > **General**.



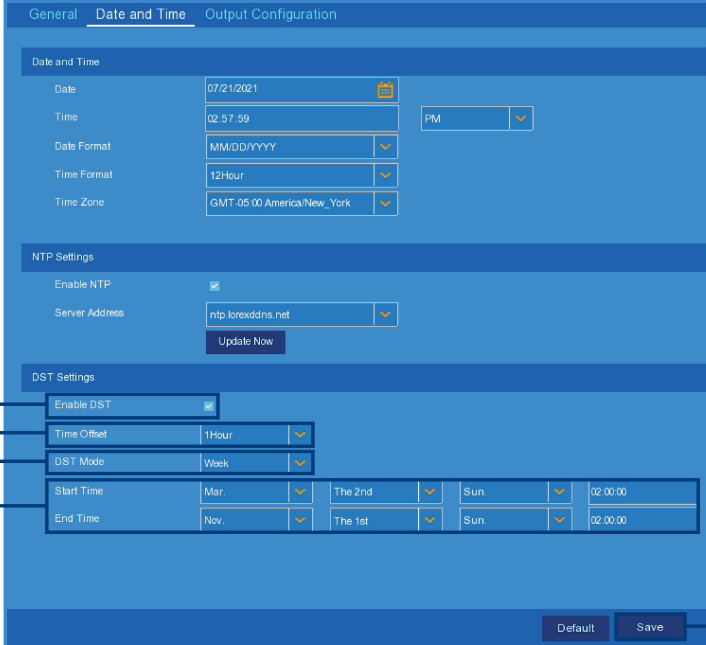
2. Select a time period from the drop-down next to **Menu Timeouts**.
 - **30s–10min**: Menus will disappear after the set time period if there is no activity on the system.
 - **OFF**: Menus will never time-out due to inactivity.
3. Click **Save**.

13.3.6 Configuring Daylight Savings Time (DST)

Customize settings for Daylight Savings Time (DST) based on your region or preference.

To configure Daylight Savings Time:

- From the Live View screen, click  > **Setup > General > Date and Time.**



The screenshot shows the 'Date and Time' configuration page. It includes the following fields and settings:

- Date and Time:**
 - Date: 07/21/2021
 - Time: 02:57:59
 - Date Format: MM/DD/YYYY
 - Time Format: 12Hour
 - Time Zone: GMT-05:00 America/New_York
- NTP Settings:**
 - Enable NTP:
 - Server Address: ntp.lorenzdns.net
 - Update Now button
- DST Settings:**
 - Enable DST:
 - Time Offset: 1Hour
 - DST Mode: Week
 - Start Time: Mar., The 2nd, Sun, 02:00:00
 - End Time: Nov., The 1st, Sun, 02:00:00

Numbered callouts (2-6) point to the 'Enable DST' checkbox, 'Time Offset' dropdown, 'DST Mode' dropdown, 'Start Time' and 'End Time' rows, and the 'Save' button respectively.

- Click the check box beside **Enable DST** to enable or disable DST.
- Select the time difference to use for DST from the drop-down next to **Time Offset**.
- Use the drop-down next to **DST Mode** to select a mode of entry for effective dates:
 - Select **Week** to choose DST time changes that are relative to the day of the week (for example, on the second Sunday of March).
 - Select **Date** to choose a specific date and time for each DST time change (for example, on March 13th at 2:00AM).
- Enter the desired **Start Time** and **End Time** for Daylight Savings Time. System time will move forward an hour at the start time, and back an hour at the end time.
- Click **Save**.

13.3.7 Configuring NTP

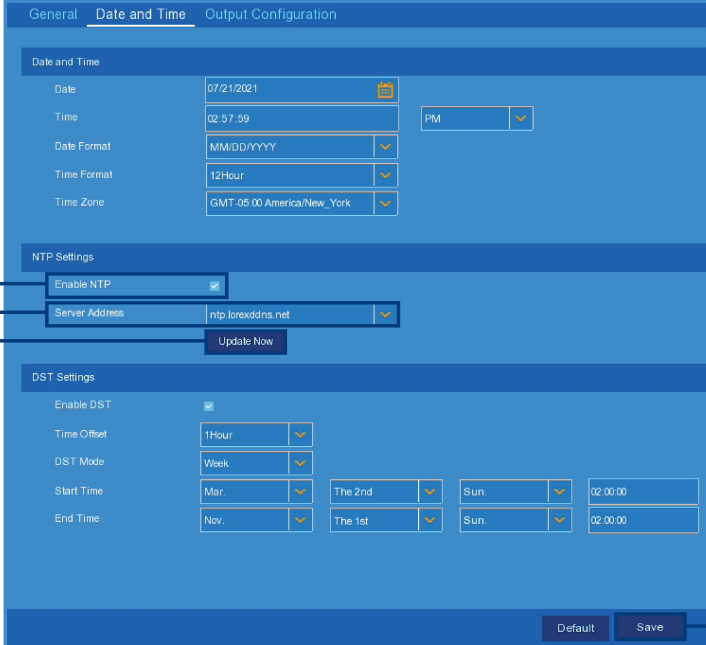
Network Time Protocol (NTP) allows the recorder to sync with an NTP time server to ensure that system time is always accurate.

Prerequisites:

- The recorder must be connected to a router or switch on your network using the included Ethernet cable. A constant connection to the Internet is required to use NTP.

To configure NTP:

- From the Live View screen, click  > **Setup > General > Date and Time.**



- Click the check box beside **Enable NTP** to enable or disable NTP.
- Select the desired NTP server from the drop-down next to **Server Address** (we recommend using the default ntp.lorexddns.net).
- Click **Update Now** to sync with the NTP.



NOTE

If the video format changes between NTSC and PAL based on your new choice of region, the recorder will reboot automatically.

- Click **Save**.

13.3.8 View System Information

View system information such as device ID, IP address, MAC address, model number, firmware version and more.

Info	
Device Type	L4248
Device ID	LWFZJMSB9AEF
Firmware Version	00040
RCVR FW Ver	1.2.3.5
IE Version	V1.1.0.1
Video Format	NTSC (60Hz)
Domain Name	
Storage Capacity	25GB/29GB
IP Address	192.168.2.55
HTTP Port	80
Client Port	35000
MAC Address	00-23-63-8F-43-DD
Network Status	Connected online
SN	



To view system information:

- From the Live View screen, click  > **Setup** > **System** > **Information**.
- OR**

From the Live View, click  on the Taskbar along the bottom of the screen.

13.3.9 Logs — Searching and Backing Up

The system log shows you important system events, such as motion alarms and system warnings. You can easily create a backup file of the system log for a set time period to a USB flash drive (not included).








Prerequisites:

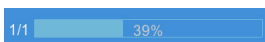
- To back up system log events, you must connect a USB flash drive to one of the recorder's USB ports.

To search and back up the system log:

1. From the Live View screen, click  > **Setup** > **System** > **Maintenance** > **Log**.



2. Click  next to **Start Date** field to choose the starting date for your search from the on-screen calendar.
3. Click  next to **End Date** field to choose the end date for your search from the on-screen calendar.
4. Select the type of events you would like to search for from the drop-down next to **Log Type**, or select **All** to see the entire system log for the selected time period.
5. Click the field next to **Start Time** to enter the starting time for your search (24-hour format). The search will begin at this time on the start date.
6. Click the field next to **End Time** to enter the starting time for your search (24-hour format). The search will end at this time on the end date.
7. Click **Search**.
8. Browse system log events from your search period:
 - Video events can be played back instantly by clicking  in the **Playback** column. Right-click to return to your search results.
 - Use the  /  buttons in the bottom-right corner of the menu to move between pages of system log events.
 - Use the  /  buttons in the bottom-right corner of the menu to go to the first or last page of system log events.
9. Click **Backup** to create a backup of the system log for your search period.
10. The backup drive menu appears. Navigate to the folder you want the backup file to be saved in, then click **OK** to begin. The progress bar at the bottom of the window shows you the progress of the backup.



NOTE

For more details on using the backup drive menu, including a full overview of buttons and their functions, see 9.2 *Drive Menu Controls*, page 29.

13.4 Maintenance Menu

Perform firmware upgrades, manage system events and warnings, load default settings, and save/load current system settings.

13.4.1 Manual Firmware Upgrade

The system supports automatic firmware upgrades over the network to ensure your unit is always up-to-date. It is recommended to always use automatic upgrade unless directed to perform a manual upgrade by technical support.

Prerequisites:

- Save the **.bin** firmware upgrade file in the root folder of a USB flash drive (not included), and connect the drive to one of the USB ports on your recorder.

To manually upgrade the recorder's firmware:

1. From the Live View screen, click  > **Setup** > **System** > **Maintenance** > **Upgrade**.



2. Click **Select File**.
3. The drive menu appears. Navigate to and select the **.bin** firmware file, then click **OK**.
4. A confirmation window appears. Click **Upgrade** to confirm.
5. Allow 5-10 minutes for the system to upgrade and reboot.



CAUTION

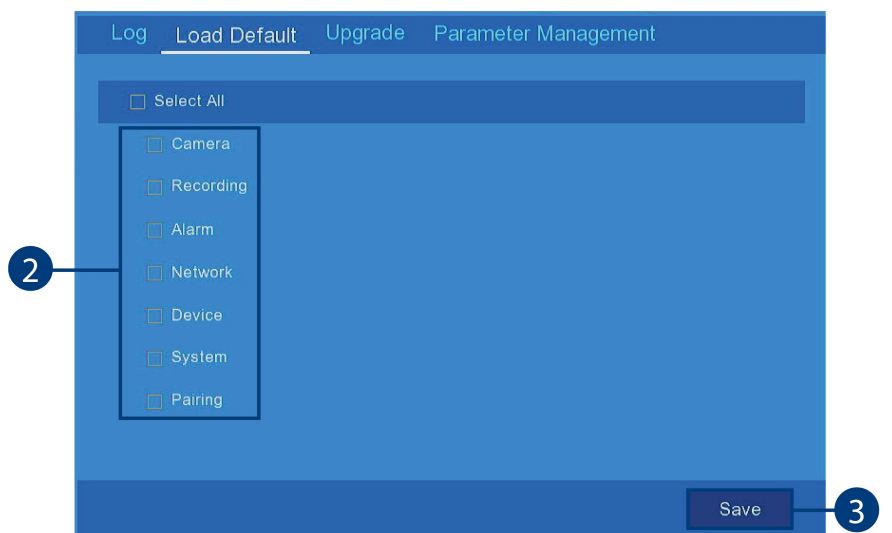
Do not power off the recorder during firmware upgrade.

13.4.2 Restoring Default Settings

Reset the recorder settings to their out-of-box state. You can choose to reset all settings at once, or just settings on specific menus. Restoring default settings will not delete recordings and snapshots saved to the hard drive.

To restore default settings:

1. From the Live View screen, click  > **Setup** > **System** > **Maintenance** > **Load Default**.



2. Click the check boxes to select the menus you would like to restore to default settings. **(OPTIONAL)** Click **Select All** to select all menus.
3. Click **Save** to confirm. The recorder will reboot automatically.

13.4.3 Exporting System Settings

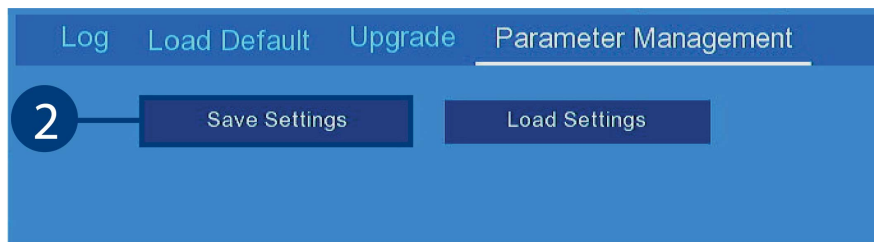
You can export the main menu settings you have configured to a USB flash drive (not included). Exporting system settings lets you to quickly apply your settings to another recorder.

Prerequisites:

- You must connect a USB flash drive to one of the recorder's USB ports.

To export system settings:

- From the Live View screen, click  > **Setup** > **System** > **Maintenance** > **Parameter Management**.



- Click **Save Settings**.
- The drive menu appears and displays the contents of the USB flash drive. Navigate to the folder you want the system settings file to be saved in, then click **OK** to begin. The progress bar at the bottom of the window shows you the progress of the backup.



NOTE

- For more details on using the drive menu, including a full overview of buttons and their functions, see [9.2 Drive Menu Controls](#), page 29.
- See [13.4.4 Importing System Settings](#), page 60 for instructions on importing saved system settings.

13.4.4 Importing System Settings

Once you have created a system settings export (see [13.4.3 Exporting System Settings](#), page 60 for details), you can import the settings on another recorder.

Prerequisites:

- You must connect a USB flash drive to one of the recorder's USB ports.
- The connected USB flash drive must have a system settings file saved on it. See [13.4.3 Exporting System Settings](#), page 60 for full instructions on saving settings to a USB flash drive.

To import system settings:

- From the Live View screen, click  > **Setup** > **System** > **Maintenance** > **Parameter Management**.



- Click **Load Settings**.

3. The drive menu appears and displays the contents of the USB flash drive.
 - Navigate to the system settings file you want to import, then click **OK** to begin.
 - A warning message appears to inform you the system will reboot in order to properly import your saved settings. Click **OK** to proceed.

**NOTE**

For more details on using the drive menu, including a full overview of buttons and their functions, see 9.2 *Drive Menu Controls*, page 29.

13.4.5 IPC Upgrade

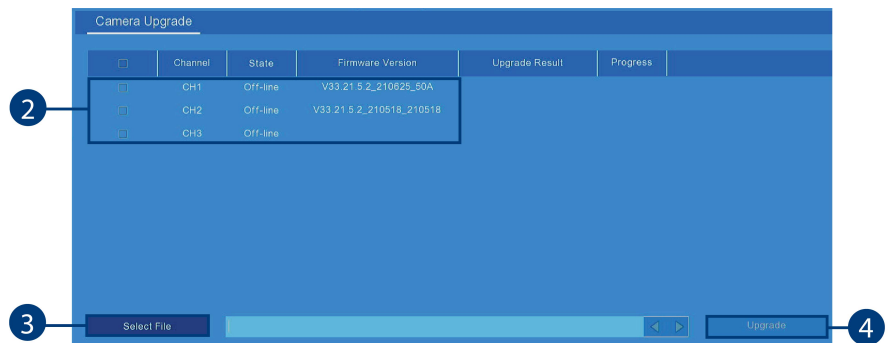
Manually upgrade IP camera firmware. Typically, this will not be required unless directed to do so by technical support.

Prerequisites:

- The camera should be close to the NVR and the battery should be 40% or up.

To manually upgrade the camera's firmware:

1. From the Live View screen, click  > **Setup** > **System** > **Camera Upgrade**.



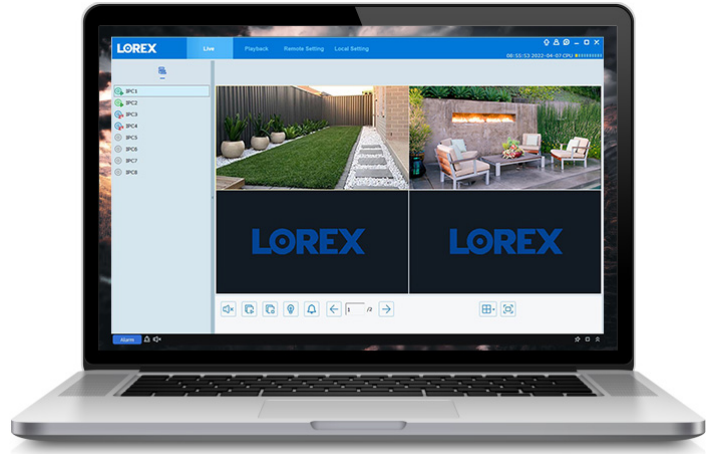
2. Click the check boxes to select the cameras you would like to upgrade.
3. Click **Select File**.
The drive menu appears. Navigate to and select the **.bin** firmware file, then click **OK**.
4. A confirmation window appears. Click **Upgrade** to confirm.
5. Allow 5-10 minutes for the system to upgrade and reboot.

**CAUTION**

Do not power off the recorder or disconnect cameras during firmware upgrade.

Connecting to Your System Using PC or MAC

You can connect to your security system over the Internet using **VMS Client** for PC and Mac computers. Securely connect to your system from anywhere with no recurring fees for live viewing.



The VMS Client software allows you to:

- View live video from cameras over the Internet
- Play back recorded video from the hard drive
- Manually record video clips or save snapshots to your computer's hard drive
- Access your recorder's complete set of menu options for remote configuration

To connect to your security system using VMS Client:

1. Enter the recorder's Device ID or IP address.



NOTE

- To access the recorder remotely enter the **Device ID**.
- To access the recorder from the same network you **must** enter the **IP address**.
- To view the system information such as Device ID, IP address, and HTTP Port, see 13.3.8 *View System Information*.

2. Enter the HTTP Port.
3. Enter the User Name for the account you wish to log in as (default: **admin**).
4. Enter the password for the account you wish to log in as (default: **00000000**).

For **PC** users, [click here](#) to download the VMS Client.

For **Mac** users, [click here](#) to download the VMS Client.

Connecting to Your System Using Smartphone or Tablet Apps

You can connect to your security system over the Internet using our free Lorex Cirrus app for iPhone®, iPad®, and Android™ smartphones / tablets. Securely connect to your system from anywhere with no recurring fees for live viewing.



The Lorex Cirrus app allows you to:

- View live video from cameras
- Play back recorded video from the hard drive
- Manually record video clips or take a snapshot of live video
- Set preferences for push notifications informing you of motion and sound detection* events

For more information about the Lorex Cirrus app, [click here](#).

* On supporting devices.

When you perform a video backup, the system allows you to select the file type of the backup file. For Mac users who wish to view backed up video on their computer, it is recommended to select **MP4** file type, which can be played by most video player software.

PC Users have the option of using the Lorex Player 11 software, which is automatically saved to your backup USB flash drive when you perform a video backup. Lorex Player 11 is capable of playing **LF** files.

Minimum System Requirements

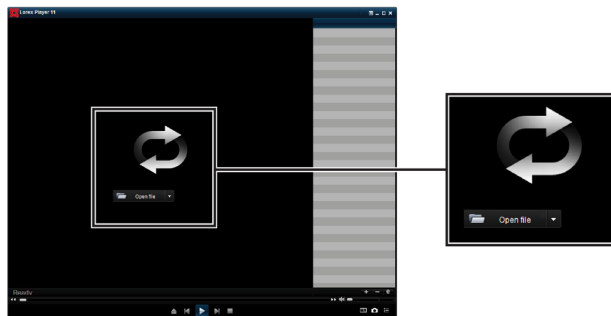
- Intel Pentium 4 or above
- Microsoft Windows XP / Vista / 7 / 8 / 10
- 256MB RAM
- 16MB video memory

Prerequisites

- Connect the USB flash drive (not included) used for recorder backup to your computer. Ensure at least one backed up video file is on the USB drive.
- Back up video files from the recorder to your local hard drive.

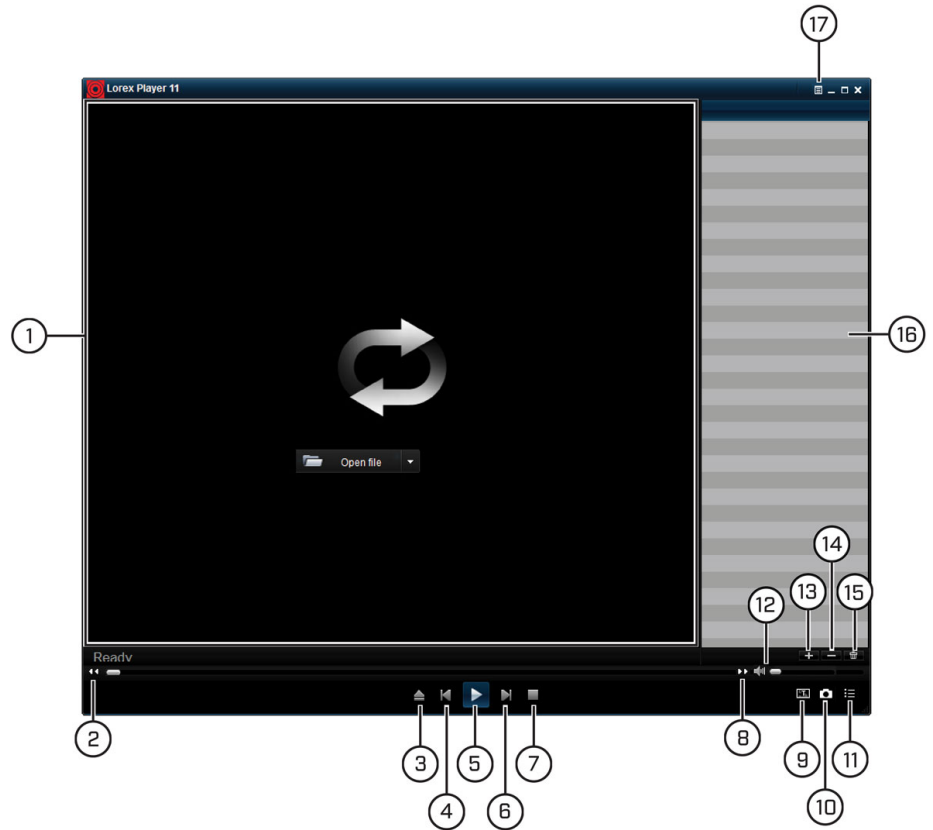
16.1 Running Lorex Player 11

1. Open your USB flash drive in Windows Explorer to view its contents.
2. Double-click the **RecordFile** folder to open it, then double-click **Lorex Player 11**.
3. Double-click **LorexPlayer11.exe** to run the player.
4. Click the **Open File** to load a single video file.



5. Select the file and click **Open**.
6. Double-click the file in the list on the right to begin playback.

16.2 Lorex Player 11 Interface Overview



1. **Video Window**
2. **Rewind**
3. **Open File**
4. **Previous File**
5. **Play**
6. **Next File**
7. **Stop**
8. **Fast Forward**
9. **Enable/Disable Watermark***
10. **Take Snapshot**
11. **Hide/Show Playlist**
12. **Mute/Unmute and Volume Bar**
13. **Add File**
14. **Remove File**
15. **Delete File**
16. **Playlist**
17. **Advanced Menu**




NOTE

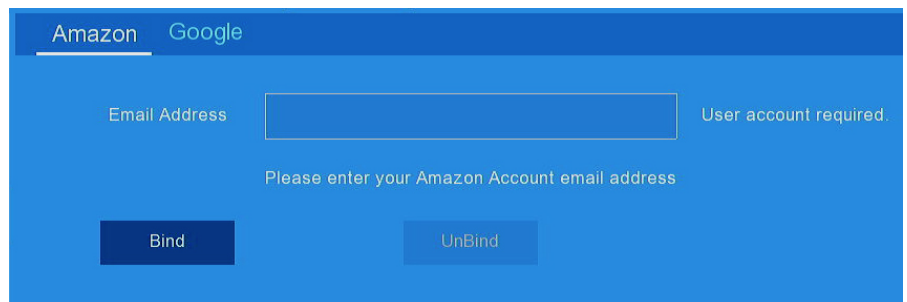
*Watermark is only available for specific Lorex Player 11 versions.

This recorder is compatible with third-party smart home solutions such as Google Assistant® and Amazon Alexa®. You can use these services to take your security experience to the next level, with smart home options that make accessing your system even easier.

For compatibility information, as well as full instructions on setup and use, visit lorex.com/SmartHome.

To enable Smart Home services on the recorder:

1. From the Live View, click  > **Setup** > **Network** > **Voice Assistance**, then select **Google** or **Amazon**.
2. Enter the e-mail address you use to log into your Google Home/Amazon account, then click **Bind**.



The screenshot shows a blue interface for enabling voice assistance. At the top, there are two tabs: "Amazon" (selected) and "Google". Below the tabs, there is a label "Email Address" followed by an empty text input field. To the right of the input field, it says "User account required." Below the input field, there is a message: "Please enter your Amazon Account email address". At the bottom, there are two buttons: "Bind" and "UnBind".

Setting up DDNS connectivity allows you to view your recorder from any computer or compatible mobile device with Internet access.

**NOTE**

The primary connectivity option for the recorder uses VMS Client to connect to your system over the Internet without the need for port forwarding or DDNS registration.

- For instructions on using the app for smartphones and tablets, see 15 *Connecting to Your System Using Smartphone or Tablet Apps*, page 63.
- For instructions on using the *VMS Client* software for PC and Mac computers, see 14 *Connecting to Your System Using PC or MAC*, page 62

18.1 STEP 1: Port Forwarding

You **must** port forward the HTTP and Client ports (default: **80** and **9000**) on your router to your recorder's IP address before you can remotely connect to your system using DDNS. There are several methods to port forward your router:

- Use the **Easy Connect Auto Port Forwarding Wizard** (PC only) to port forward the required ports (see www.lorex.com for details). For instructions on how to use the Easy Connect Wizard, see the Easy Connect manual on www.lorex.com.
- Manually port forward the required ports on your router to your recorder's IP address by following your router manufacturer's instructions. For more information on port forwarding, see the reference guides on www.lorex.com.

18.2 STEP 2: Create a LOREX Account

1. Visit lorex.com and click **Login** at the top of the page.
2. Select **Create an Account**.

**NOTE**

If you have already set up an account, select **I Have a LOREX Account** and log in. Proceed directly to 18.3 *STEP 3: Add Your Address*, page 67.

3. Enter basic information for account setup.
4. Click **Create an Account**.

18.3 STEP 3: Add Your Address

Once you have a LOREX account, you must add your address to the account.

Adding an address is required for warranty activation, which is needed before you can sign up for a DDNS account.

To add your address to your LOREX account:

1. From your LOREX account, click the **ADDRESSES** tab.
2. Click **Add an Address**.
3. Enter your address information.
4. Click **Submit**.

Once submitted, your address information will be summarized under **My Saved Addresses**.

My Saved Addresses

Operation is successfully done

<p>Tam Smith 240 D St Redwood City, CA 94063 United States (804) 300-1655</p>	<p>Default: Shipping edit Delete</p>
---	--

18.4 STEP 4: Activate Your Warranty

Activate the manufacturer's warranty on your recorder.

To activate your product warranty:

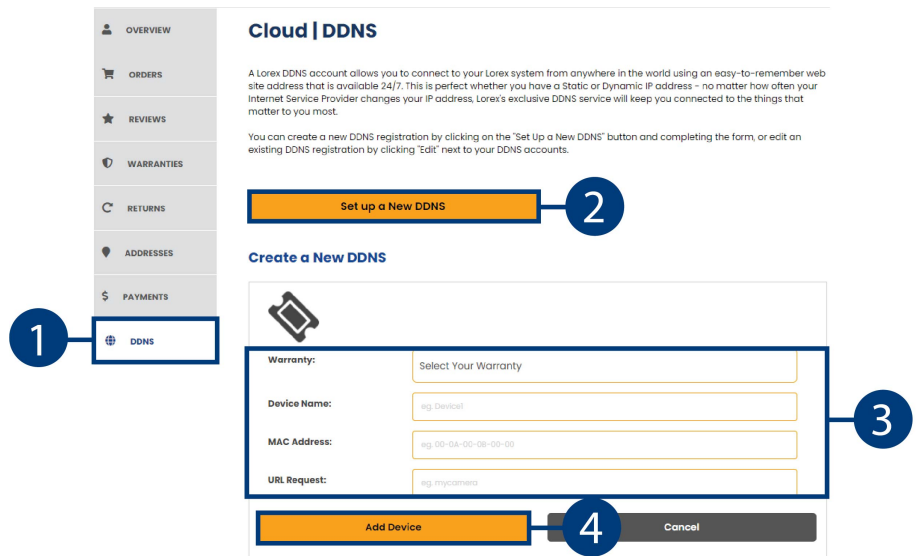
1. From your LOREX account, click the **WARRANTIES** tab.
 2. Click **Activate Warranty**.
 3. Select your address from the dropdown under **Your Address**. Enter the rest of your product information (attaching bill of sale optional).
 4. Click **Save Warranty**.
- Once submitted, your warranty information will be summarized under **My Warranties**.

My Warranties


18.5 STEP 5: Sign Up for a DDNS Account


Activate the manufacturer's warranty on your recorder.

To sign up for a DDNS account:




1. From your LOREX account, click the **DDNS** tab.
2. Click **Set up a New DDNS**.
3. Click **Select Your Warranty** to select your recorder warranty from the drop-down. Enter the rest of your product information.

 **NOTE**

- The **Device Name** can be any name of your choice (for example, “Store Security System”).
- You can find your recorder’s **MAC Address** in the system information window on the recorder. Click  on the Taskbar to open the system information window.

4. Click **Add Device**.
Once submitted, your DDNS account information will be summarized under **My DDNS Devices**. Make a note of your **DDNS URL**, **Username** and **Password**, as they will be needed to complete DDNS setup.

My DDNS Devices

 Device Name LHA4108 <small>Dec 12 2016, 14:54:39</small>	MAC Address: <small>00-0A-07-0B-00-00</small> Model No:	URL: tomsmithcamera.lorexddns.net IP Address: 0.0.0.0 Username: tomsmith Password: ULCDHUZH
---	---	--

Edit

18.6 STEP 6: Enable DDNS on the recorder

The primary connectivity option for this recorder uses *VMS Client* to connect to your system over the Internet without requiring port forwarding or DDNS registration.

Lorex DDNS is available as an **optional** connectivity option.

- For details on connecting to your system over the Internet using a smartphone or tablet (**no DDNS setup required**), see 15 *Connecting to Your System Using Smartphone or Tablet Apps*, page 63.

Prerequisites:

- You must create a free Lorex DDNS account. See 18.5 *STEP 5: Sign Up for a DDNS Account*, page 68 for full setup instructions.

To configure DDNS settings:

- From the Live View, click  > **Setup** > **Network** > **DDNS**.



The screenshot shows the DDNS configuration interface. It features a title bar 'DDNS' and a list of settings: 'DDNS' with a checkbox, 'Server' with a dropdown menu showing 'LOREXDDNS', 'Domain' with a text field containing '.lorexddns.net', 'User' with a text field, and 'Password' with a text field and a 'Show Password' checkbox. At the bottom, there are 'Default' and 'Save' buttons. Numbered callouts (2-7) point to these elements: 2 to the DDNS checkbox, 3 to the Server dropdown, 4 to the Domain field, 5 to the User field, 6 to the Password field, and 7 to the Save button.

- Click the check box next to **DDNS**.
- Select **LOREXDDNS** from the drop-down next to **Server**.
- Click the field next to **Domain Name** to enter the **URL** shown under **My DDNS Devices** in your Lorex account (for example, www.tomsmith.lorexddns.net).
- Click the field next to **User Name** to enter the **Username** shown under **My DDNS Devices** in your Lorex account
- Click the field next to **Password** to enter the **Password** shown under **My DDNS Devices** in your Lorex account
- Click **Save**.

When a malfunction occurs, it may not be serious or difficult to correct. The following chart contains solutions to most common problems. Please refer to the topics below before calling Lorex Technical Support.

Error	Solutions
No picture from cameras showing on the recorder.	<ul style="list-style-type: none"> • Ensure the Power Pack is properly inserted into the camera base. • Ensure you have removed the PLEASE REMOVE label from the Power Pack. • Connect the power adapter to your Power Pack to ensure it is charged. The LED indicator on the Power Pack glows green for full charge, red for less than full. • Remove obstructions between the receiver and camera. Materials such as brick, concrete and wood can significantly impact the wireless signal strength. • Try repositioning the camera, receiver, or both to improve the reception.
Battery life of cameras is too short.	<ul style="list-style-type: none"> • Ensure the camera is not pointing at a high-traffic area. Position the camera so it only captures areas of interest with no high-traffic areas (e.g., a busy sidewalk or roadway) visible in the image. • Live video is being viewed too frequently. Viewing live video often will impact battery performance. • Ensure you have configured the distance setting for motion detection to reduce false alarms. For details, see 4.4.3 <i>Optimizing Motion Detection</i>, page 15. • Battery life will vary based on temperature, settings and number of events.
Picture from cameras is dropping.	<ul style="list-style-type: none"> • Move the camera closer to the receiver. • Try repositioning the camera, receiver, or both to improve the reception.
Picture is or has become choppy.	<ul style="list-style-type: none"> • Ensure the camera resolution is set to 720p. See 13.2.5 <i>Changing the Display Resolution</i>, page 43 for details. • Move the camera closer to the receiver. • Remove obstructions between the receiver and camera. Materials such as brick, concrete and wood can significantly impact the wireless signal strength.
Camera is not detecting motion.	<ul style="list-style-type: none"> • Your camera may be too far away from the area of interest. Try to keep the camera within 20ft (6.1m) of the area you want to monitor. • Review the wire-free installation tips section to ensure your camera is installed in an optimal location and motion detection is properly configured. See 4.4.1 <i>Installation Guidelines</i>, page 12 and 4.4.3 <i>Optimizing Motion Detection</i>, page 15 for details.
Picture is too bright.	<ul style="list-style-type: none"> • Ensure your camera isn't pointed directly at a source of light (e.g., sun or spot light). • Move your camera to a different location.
Night vision is not working.	<ul style="list-style-type: none"> • The night vision activates when light levels drop. The area may have too much light.
Picture is not clear.	<ul style="list-style-type: none"> • Check the camera lens for dirt, dust, spiderwebs. Clean the lens with a soft, clean cloth. • Too much environmental interference will affect picture clarity. Move your camera to a different location.
Bright spot in video when viewing at night.	<ul style="list-style-type: none"> • Night vision reflects when pointing a camera through a window. Move the camera to a different location.
System is not receiving power, or is not powering up.	<ul style="list-style-type: none"> • Confirm that all cables are firmly connected to the recorder. • Confirm that the power adapter is securely connected to the back of the unit. • Confirm that the system is powered on (LED indicators on the front should be ON). • If the unit is connected through a power bar or surge protector, try bypassing the bar and connecting the power directly to the wall outlet. • Confirm that there is power at the outlet: <ul style="list-style-type: none"> ◦ Connect the power cable to another outlet. ◦ Test the outlet with another device (such as a lamp or phone charger).

Error	Solutions
There is no picture on monitor/TV after connecting it to the recorder.	<ul style="list-style-type: none"> • Power off the monitor/TV and the recorder. Power on the monitor/TV, and then power on the recorder. • Ensure that the monitor/TV is set to the input channel that the recorder is connected to. • Check the video cable connection to the recorder and the monitor/TV.
Mouse not detected by system.	<ul style="list-style-type: none"> • Remove then firmly reconnect the mouse cable to the USB port marked Mouse / Backup. • Power off the system (disconnect power cable). Firmly connect a USB mouse to the correct USB port. Reconnect the power cable to the 12V DC port on the rear panel.
The edges of the recorder's on-screen display are cut off.	<ul style="list-style-type: none"> • If you are using an older Cathode Ray Tube (CRT) monitor, you may need to enable overscan. See 13.2.5 <i>Changing the Display Resolution</i>, page 43 for full instructions on enabling overscan support.
The image on one or more of my cameras is distorted or discolored.	<ul style="list-style-type: none"> • The system uses the region entered in the setup wizard to intelligently determine the video format for your region. • To change the region, enter the main menu. Under System, click General, then click the NTP tab. Use the dropdown next to Time Zone to select the correct region, then click Save. The system takes some time to refresh and reboot.
The system beeps during motion detection.	<ul style="list-style-type: none"> • Enter the main menu. Under Settings, click Motion to open the Motion Settings tab. Use the dropdown next to Buzzer to select Disable for any channels you want to disable the buzzer for, then click Save. For more details on motion detection configuration, see 13.2.11 <i>Configuring Motion Detection Settings</i>, page 48.
I am not receiving email notifications.	<ul style="list-style-type: none"> • Ensure you have configured email notification. For full instructions, see 13.2.9 <i>Setting up Email Notifications</i>, page 46. • If you want to use your own SMTP server, you must enter your SMTP server address, SMTP port, username, and password in the appropriate fields. For full instructions, see 13.2.9.2 <i>Email Notifications — Using your own server information</i>, page 47.

20.1 Wire-Free Recorder (L4248 Series)

20.1.1 System

Operating System	Embedded Linux
Number of Channels	8 Channels

20.1.2 Inputs/Outputs

VGA OUT	No
HDMI	Yes
Video Output Resolution	3840×2160, 2560×1440, 1920×1080, 1280×720, 1280×1024
Ethernet	8P8C 10/100 Base-T
USB	USB 2.0

20.1.3 Playback & Display

Display Split	1/4/9/SEQ
Frame Rate	Max 20 fps (Single Camera) @2MP/Channel Max 100 fps Total @2MP/Channel
OSD	Yes
Control	Mouse
Firmware Upgrade	Network, USB
Playback Functions	Play, Pause, Stop, Fast Forward/Backward (2x, 4x, 8x); Slow Forward (½×, ¼×, ⅛×); Step Forward/Backward

20.1.4 Recording

Video Compression	H.265+, H.265, H.264
Recording Resolution	2560 × 1440 (4MP)
Event Type	Motion Detection, Person Detection
Modes	Motion Only (default setting) / Continuous (requires HDD & continuous power from outlet to cameras)
Post-event	0 min / ½ min / 1 min / 2 min / 5 min

20.1.5 Storage & Archive

External Storage	MicroSD card (up to 128GB MicroSD Class 10 supported)
Internal Storage	2.5" SATA HDD (Up to 1 TB) non-upgradable
Backup Media	USB, HDD, Network
Backup File Format	MP4 / LF

20.1.6 Connectivity

Remote App Clients	Web, iOS®, Android™, iPadOS®
Voice Assistance	Google Assistant, Amazon Alexa
Protocol Support	TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTSP, NTP, HTTP, DHCP, SMTP, DNS, DDNS

20.1.7 General

Housing Material	Plastic
Input Voltage	12 VDC
Input Current	2 A
Power Consumption	3.2W (when HDD is not connected)
Operating Temperature	32° — 104° F / 0° — 40° C
Operating Humidity	20% — 85% RH
Weather Rating	Indoor use only

Disclaimers:

1. HDMI output (1920 x 1080) HD for high definition multi-channel live viewing only. 1080p recording resolution is limited to a maximum of 1920 x 1080 per channel. Image quality and frame rate are dependent on the distance and types/locations of objects between the camera and the recorder.
2. Compatible with certain Lorex wire-free cameras only. For a list of compatible cameras please visit www.lorex.com/compatibility Recording time may vary based on recording resolution and quality, lighting conditions and movement in the scene.
3. The recorder comes pre-installed with either a non-upgradable 2.5" SATA Hard Disk Drive or a MicroSD card which can be upgraded to a maximum of 128GB. Recording time may vary based on recording resolution and quality, lighting conditions and movement in the scene.
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 in all areas or networks. For compatibility, features, instructions visit: lorex.com/SmartHome
5. Accessing your security system remotely requires a high-speed Internet connection. Ensure your recorder has a wired connection to a router (not included). An upload speed of 3.5Mbps is recommended for optimal 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 lorex.com/compatibility

**Website**

www.lorextechnology.com

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Legal disclaimer

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Publ. No.: LX400115
Release: 6.0
Commit: 59713
Head: 59713
Language: en-US
Modified: 2022-09-02
Formatted: 2022-09-02