USER'S GUIDE
LNC216 / LNC226X Series

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

This manual refers to the following models:

LNC216

LNC226X

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

www.lorextechnology.com

WARNING

RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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

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

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

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

Table of contents

1 Important Safeguards

1.1 Safety Instructions

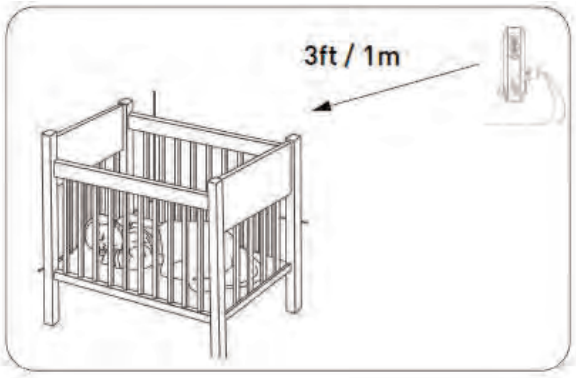
- Read this guide carefully and keep it for future reference.
- Camera is rated for indoor use only.
- Do not use in wet or humid areas.
- Use the camera within given temperature, humidity, and voltage levels noted in the Technical Specifications.
- Do not use the camera near a heat source, such as a radiator.
- Do not point the camera directly towards the sun or a source of intense light.
- Do not disassemble the camera.
- Periodic cleaning may be required. Use a damp cloth only. Do not use harsh cleaners or aerosol cleaners.
- Do not cover the camera with a towel or blanket.
- Keep all power and network cables out of reach of children.
- Use only the included power adapter or USB power adapters rated for 1A or higher.

1.2 If using this product as a baby monitor:

We advise you to take the following precautions to avoid possible injury to infants:

- **DO NOT** place the camera too close to cribs, bassinets, play yards, and other safe sleep environments for infants.
- **MAKE SURE** to run all power adapter cords and network cables where they are unlikely to be tripped over and are out of arms reach of your infant. Keep them at least **3ft / 1m** away.
- **MAKE SURE** the camera is on a stable footing so it cannot be easily knocked over.

Note
These precautions are important even if your infant is not yet standing or mobile.



LNC216 Features

- iOS, Android™, PC and Mac compatible
- Mega-pixel for up to 1280x800 resolution at 30fps
- Wi-Fi & wired internet connectivity
- Easy connection to Wi-Fi networks with WPS[1]
- Night vision up to 30ft with single high-power IR LED[2]
- microSD recording & playback supported[3]
- 5 second pre-recording on SD card
- Dual motion detection: PIR & video
- Sound activated alerts
- Infrared thermometer and temperature alarm control
- Push notification of events & email alerts with snap shot attachment
- Built-in speaker and microphone for 2-way audio
- H.264 video compression
- Supports up to 20 simultaneous users[4]
- Triple streaming for simultaneous SD card, PC and Mobile Recording
- Flexible indoor mounting (counter, wall, ceiling)
- Expandable up to 16 cameras[5]
- Watchdog function to prevent system failure

As our product is subject to continuous improvement, Lorex Technology & subsidiaries reserve the right to modify product design, specifications & prices without notice and without incurring any obligation.

Note

1. Compatible with WPS enabled routers (not included).
2. Infrared illumination range under ideal conditions. Actual range and clarity may vary depending on scene/object reflection and camera application.
3. microSD Card not included (supports up to 32GB).
4. Connection speed may vary depending Internet bandwidth.
5. Up to 16 simultaneous camera views available on PC, and 6 on Mac and iPad. Selectable single camera viewing on smartphones.

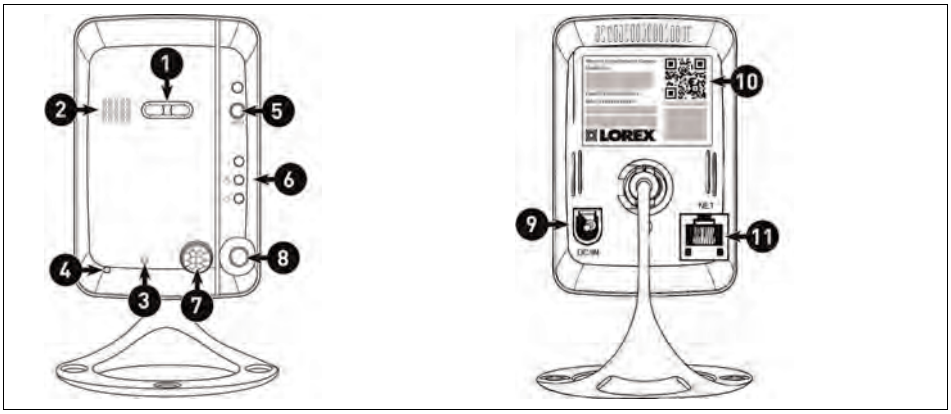
LNC226X Features

- View, record & playback in real-time HD
- Weatherproof indoor / outdoor camera (IP66 rated)[1]
- Simultaneous microSD card, PC, Mac, NAS and mobile recording[2]
- Wi-Fi & wired Internet connectivity. Easy connection to Wi-Fi networks with WPS[3]
- Night vision up to 50ft (15m) / 75 (23m)[4]
- microSD recording & playback[5]
- Extend connection to network and/or power up to 164ft (50m) using standard Ethernet cabling (6ft cable included)
- 5 second pre-recording of motion events
- Built-in microphone for listen-in audio. Sound activated alerts
- Push notification of events & email alerts with snapshot attachments
- H.264 video compression
- Supports up to 20 simultaneous users[6]
- Expandable up to 16 cameras[7]

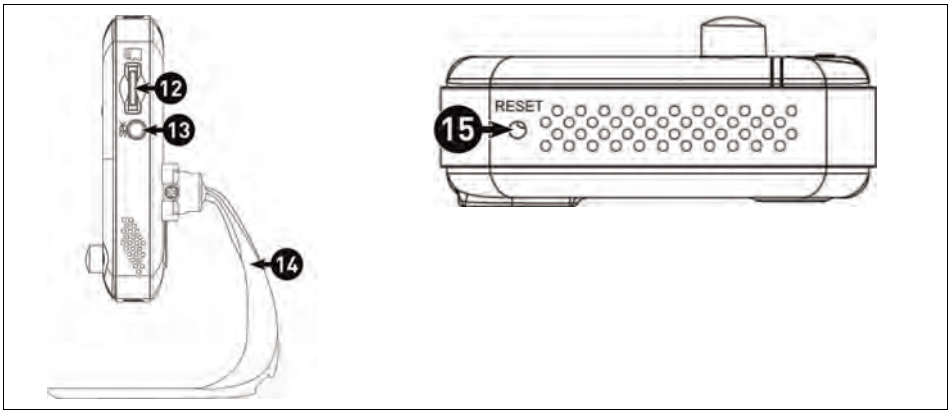
Note

1. Not intended for submersion in water. Installation in a sheltered location recommended.
2. Requires a high speed Internet connection and a wired connection to a router (not included). An upload speed of 1Mbps is recommended for optimal video performance. Up to 3 devices may connect to the system at the same time. For the latest compatibility list, check www.lorextechnology.com/support as new models become available in the market.
3. Compatible with WPS enabled routers (not included).
4. Stated IR illumination ranges are based on ideal conditions in total darkness and typical outdoor night time ambient lighting. Actual range and image clarity depends on installation location, viewing area and light reflection / absorption.
5. microSD card not included (supports up to 32GB).
6. Connection speed may vary depending Internet bandwidth.
7. Additional cameras sold separately.

LNC216 Camera Overview

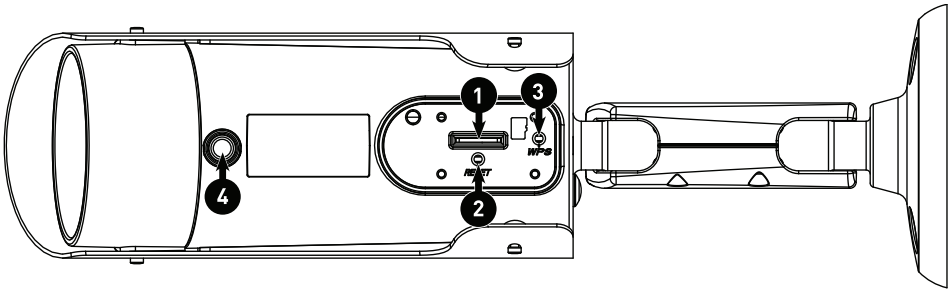


1. **Camera Lens:** The camera has separate lenses for day/night use.
2. **Speaker:** Enables 2-way audio and alarms.
3. **Temperature Sensor:** Detects the room's ambient temperature. The temperature is displayed on the camera's video display. You may enable temperature alerts using the Lorex Ping app.
4. **Microphone**
5. **WPS Button:** Used during Quick Scan WiFi setup or to connect the camera to a wireless router (not included) with a WPS button.
6. **Indicator Lights:**
   - **SD:** Glows when a microSD card (not included) is inserted. Flashes during recording.
   - **/ Network:** Glows when connected to an Ethernet or WiFi network. Flashes when sending or receiving data.
   - **/ Status:** Glows when camera is connected to the Internet. Flashes when there is a connection problem.
7. **PIR Motion Sensor:** Allows the camera to detect motion by tracking body heat.
8. **Infrared LED:** Allows the camera to see in the dark.
9. **DC/IN:** Connect the included power adapter.
10. **CamID Label:** Shows the camera's CamID number and a QR code for easy setup using mobile devices.
11. **NET:** Connect an Ethernet cable and connect the other end to your router (not included).

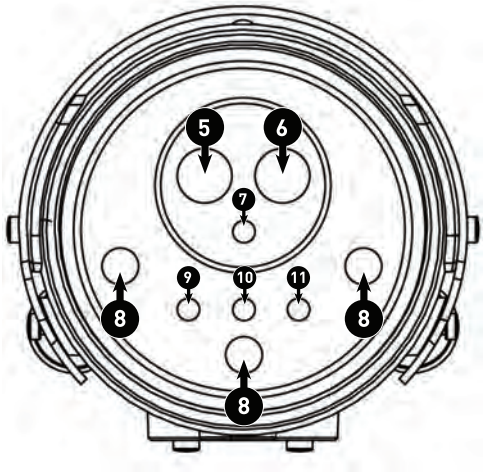


12. **microSD Card Slot:** Insert a microSD card (not included) to enable recording on the camera. Camera supports microSD or microSDHC cards up to a maximum size of 32GB.
13. **Audio Out:** Connect to an external speaker (not included) using a 3.5mm headphone jack.
14. **Mounting Stand:** For mounting instructions, see 8 *Wall or Ceiling Mounting (LNC216)*, page 14.
15. **Reset Button:** While the camera is powered on, press with a pin or small object for at least 4 seconds to reset the camera to factory defaults. This is useful if you have forgotten the password for the camera.

5 LNC226X Camera Overview



1. **microSD Card Slot:** Insert a microSD card (not included) to enable recording on the camera. Camera supports microSD or microSDHC cards up to a maximum size of 32GB.
2. **Reset Button:** While the camera is powered on, press with a pin or small object for at least 4 seconds to reset the camera to factory defaults. This is useful if you have forgotten the password for the camera.
3. **WPS Button:** Used during Quick Scan WiFi setup or to connect the camera to a wireless router (not included) with a WPS button.
4. **Microphone**



5. **Daytime Lens:** A specialized lens for producing images during the daytime.
6. **Nighttime Lens:** A specialized lens for producing images during the night.
7. **Light Detector**
8. **Infrared LEDs:** Allows the camera to see in the dark.
9. **Network Indicator LED:** Glows when connected to an Ethernet or WiFi network. Flashes when sending or receiving data.
10. **Status Indicator LED:** Glows when camera is connected to the Internet. Flashes when there is a connection problem.
11. **SD Indicator LED:** Glows when a microSD card (not included) is inserted. Flashes during recording.

6 Getting Started (LNC216)

Complete the following steps to setup the camera to use your wireless network.

6.1 WiFi Setup

Use this setup if the camera is within range of your wireless network. This setup does not require a wired connection to your router.

Note
Camera requires a wired connection to power.

1. Connect the power adapter to the camera and connect the other end to a power outlet. Do not connect the Ethernet cable.

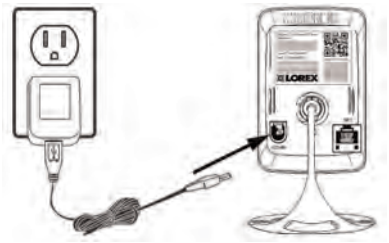
Choose the device you want to connect to the camera with from the list below to complete the rest of the WiFi connection process:

- To connect to the camera on iPhone, see 10 *Connecting to Your Camera on iPhone®*, page 18
- To connect to the camera on iPad, see 11 *Connecting to Your Camera on iPad®*, page 24
- To connect to the camera on Android, see 12 *Connecting to Your Camera on Android™*, page 30
- To connect to the camera on PC, see 13 *Connecting to Your Camera on PC*, page 36
- To connect to the camera on Mac, see 14 *Connecting to Your Camera on Mac*, page 41

6.2 Ethernet Setup

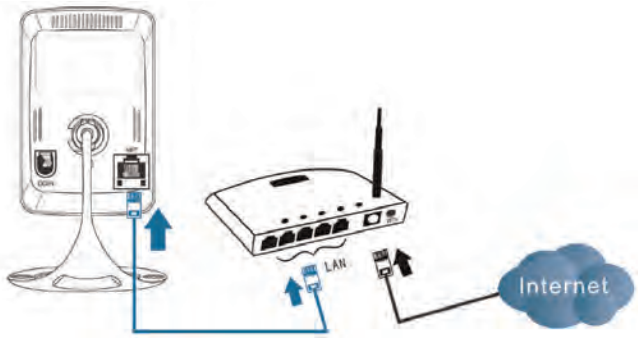
Complete the following steps to setup the camera with a wired connection to your router.

1. Connect the power adapter to the camera and connect the other end to a power outlet. Do not connect the Ethernet cable.



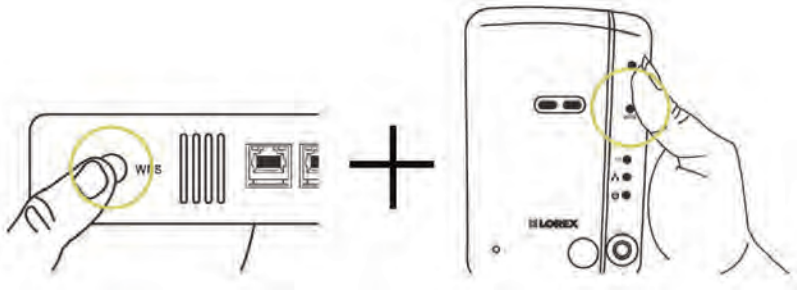
2. Connect the camera to your local network:

   2.1. Connect an Ethernet cable (included) to the **NET** port on the camera and connect the other end to an available LAN port (usually numbered 1~4) on your router (not included). The blue Network LED on the camera will glow blue when the camera is connected to your network.



OR:

   2.2. **OPTIONAL — PC and Mac only:** If your router supports WPS, press and hold the **WPS** button on your router until the WPS light turns on. Then, press the **WPS** button on the camera within 1 minute. The camera will automatically connect to your WiFi network and the Network LED on the camera will turn on.



Note

Not all routers support WPS, and the location of the WPS button on your router depends on your router model. Check your router's instruction manual for details.

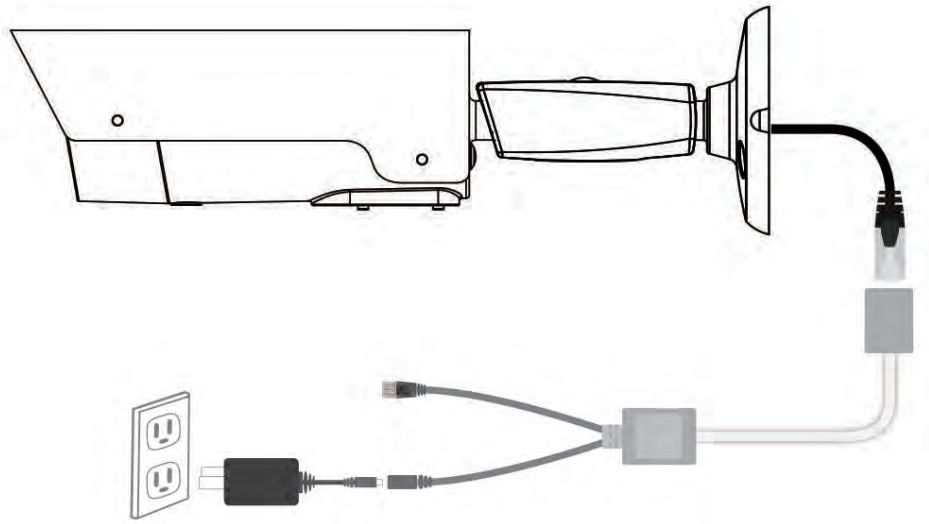
Choose the device you want to connect to the camera with from the list below to complete the rest of the wired (Ethernet) connection process:

- To connect to the camera on iPhone, see 10 *Connecting to Your Camera on iPhone*®, page 18
- To connect to the camera on iPad, see 11 *Connecting to Your Camera on iPad*®, page 24
- To connect to the camera on Android, see 12 *Connecting to Your Camera on Android™*, page 30
- To connect to the camera on PC, see 13 *Connecting to Your Camera on PC*, page 36
- To connect to the camera on Mac, see 14 *Connecting to Your Camera on Mac*, page 41

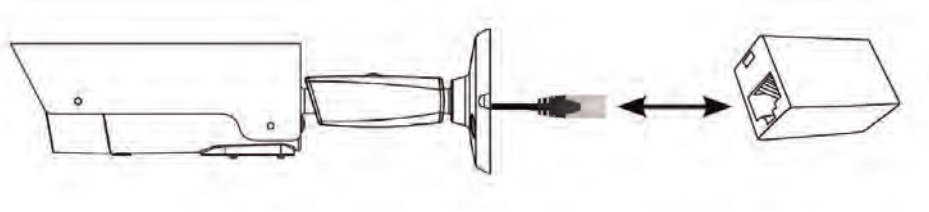
7 Getting Started (LNC226X)

Follow the steps below to get up and running on an iPhone®, using WiFi or Ethernet.

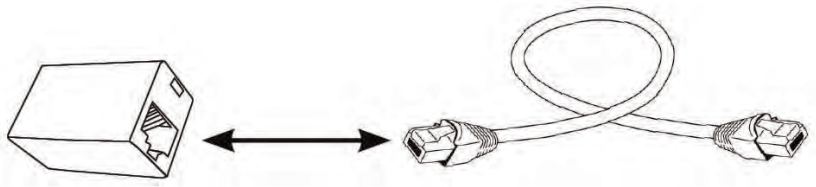
7.1 WiFi Setup



1. Connect the camera's Ethernet cable to the Ethernet splitter.

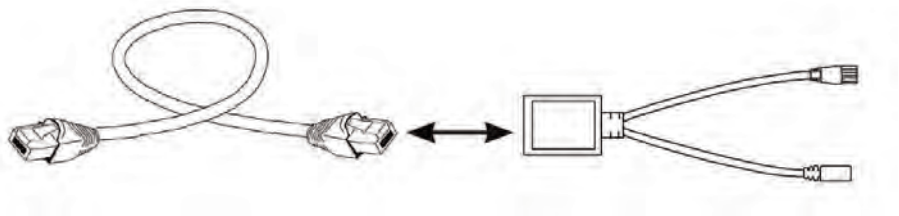


2. Connect the other end of the Ethernet splitter to the Ethernet extension cable.

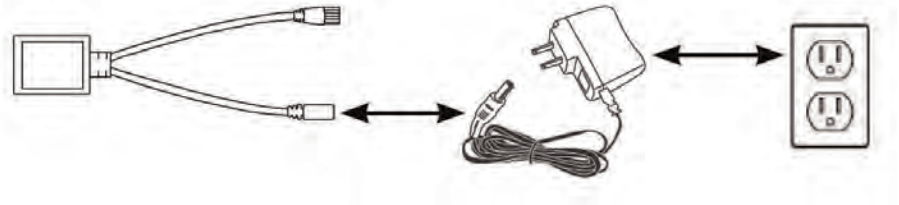


Note
You can use up to 164ft (50m) of Ethernet extension cable (not included).

3. Connect the other end of the Ethernet extension cable to the 2–in-1 adapter.



4. Connect one end of the included power adapter to the 2–in-1 adapter, and connect the other end to a power outlet.

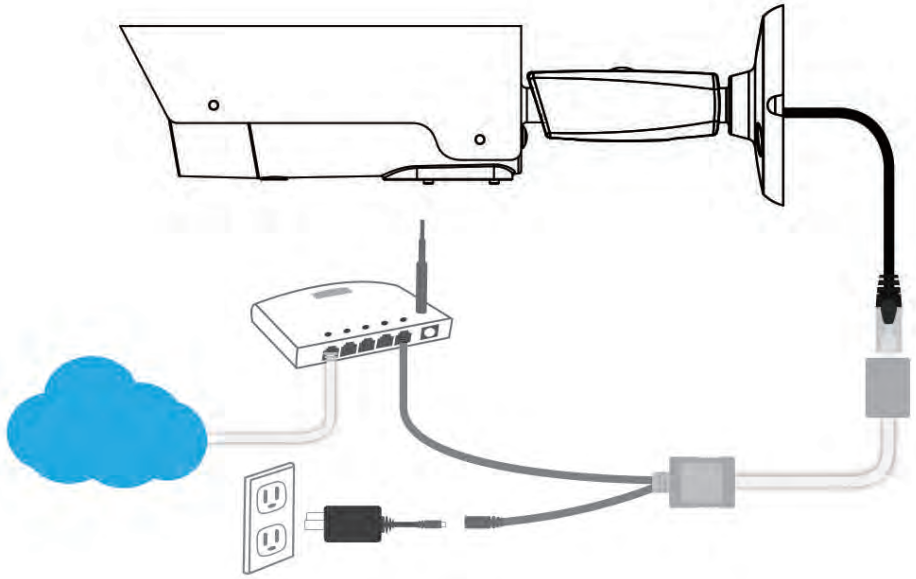


Note
Power outlet must be sheltered from the elements.

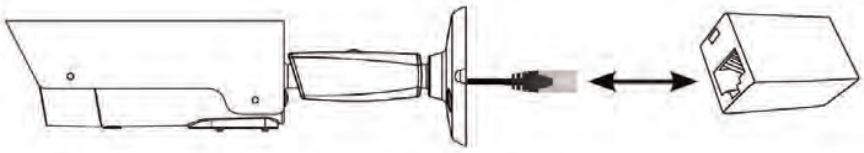
Choose the device you want to connect to the camera with from the list below to complete the rest of the WiFi connection process:

- To connect to the camera on iPhone, see 10 *Connecting to Your Camera on iPhone*®, page 18
- To connect to the camera on iPad, see 11 *Connecting to Your Camera on iPad*®, page 24
- To connect to the camera on Android, see 12 *Connecting to Your Camera on Android™*, page 30
- To connect to the camera on PC, see 13 *Connecting to Your Camera on PC*, page 36
- To connect to the camera on Mac, see 14 *Connecting to Your Camera on Mac*, page 41

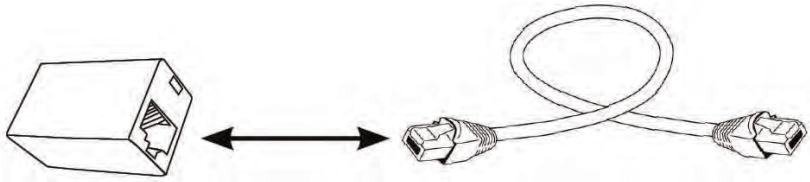
7.2 Ethernet Setup



1. Connect the camera's Ethernet cable to the Ethernet splitter.

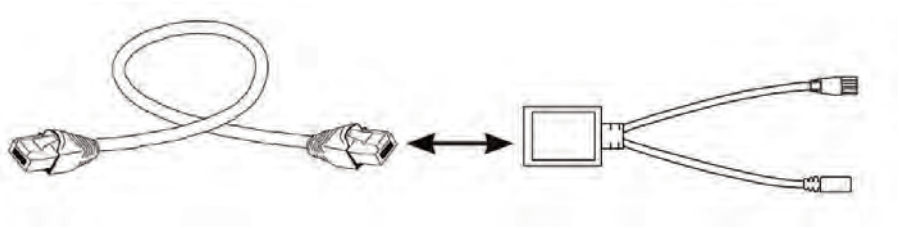


2. Connect the other end of the Ethernet splitter to the Ethernet extension cable.

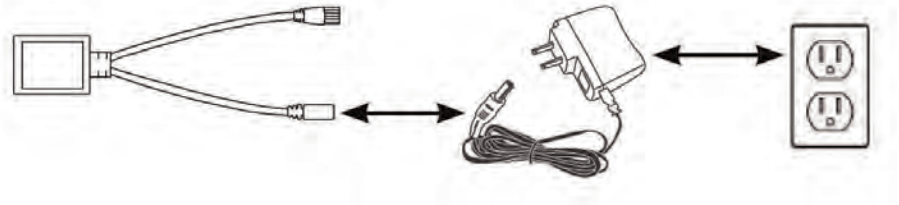


Note
You can use up to 164ft (50m) of Ethernet extension cable (not included).

3. Connect the other end of the Ethernet extension cable to the 2–in-1 adapter.



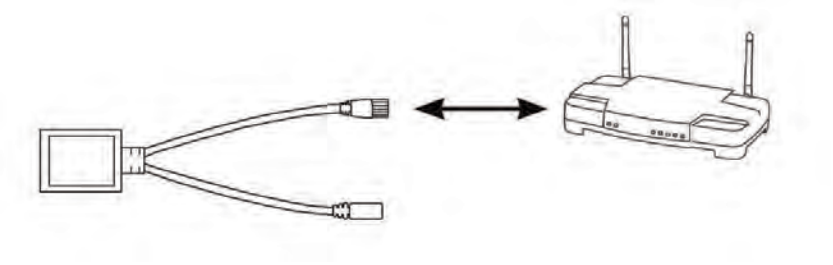
4. Connect one end of the included power adapter to the 2–in-1 adapter, and connect the other end to a power outlet.



Note
Power outlet must be sheltered from the elements.

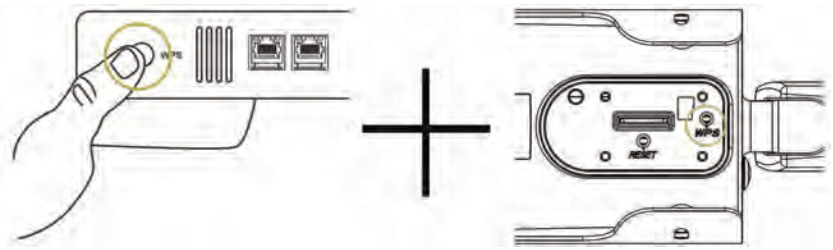
5. Connect the camera to your local network:

   5.1. Connect the Ethernet cable from the 2–in-1 adapter to a LAN port on your router (not included).



OR:

   5.2. **OPTIONAL — PC and Mac only:** If your router supports WPS, open the compartment on the bottom of the camera using a Phillips screwdriver to find the WPS button. First, press and hold the **WPS** button on your router until the WPS light turns on. Then, press the **WPS** button on the camera within 1 minute. The camera will automatically connect to your WiFi network and the Network LED on the camera will turn on. When finished, close the compartment on the bottom of the camera.



Note
Not all routers support WPS, and the location of the WPS button on your router depends on your router model. Check your router's instruction manual for details.

Choose the device you want to connect to the camera with from the list below to complete the rest of the wired (Ethernet) connection process:

- To connect to the camera on iPhone, see 10 *Connecting to Your Camera on iPhone*®, page 18
- To connect to the camera on iPad, see 11 *Connecting to Your Camera on iPad*®, page 24
- To connect to the camera on Android, see 12 *Connecting to Your Camera on Android™*, page 30
- To connect to the camera on PC, see 13 *Connecting to Your Camera on PC*, page 36
- To connect to the camera on Mac, see 14 *Connecting to Your Camera on Mac*, page 41

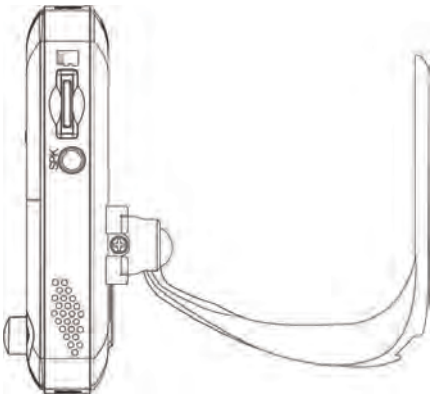
8 Wall or Ceiling Mounting (LNC216)

8.1 Installation Tips and Warnings

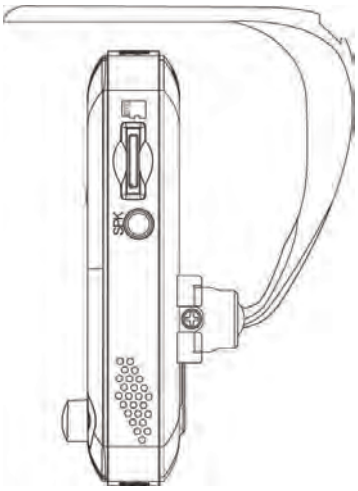
- **Camera is rated for indoor use only.** Do not install in wet or humid areas.
- **MAKE SURE** to run all power adapter and network cables at least 3ft / 1m away from cribs, bassinets, play yards, and other safe sleep environments for infants.
- Do not point the camera out of a window. The camera will not be able to see at night-time due to reflection from the Infrared LED.
- Temporarily connect the camera and test it before permanent installation.
- If using the camera with a wireless network, set up the camera's wireless connection before permanent installation.
- Make sure that power adapter cable and Ethernet cable (if connecting the camera using Ethernet) are long enough to reach the installation location.

8.2 Installation

1. Use the camera mounting stand to mark holes for the mounting screws. If you are installing the camera in the ceiling, the screw holes should face the same direction that you would like the camera to point.
2. Drill holes for the mounting screws. If installing in drywall, it is recommended to use the included drywall anchors.
3. Attach the camera to the wall or ceiling using the included mounting screws. Adjust the camera angle as necessary. See below for suggested stand configurations.

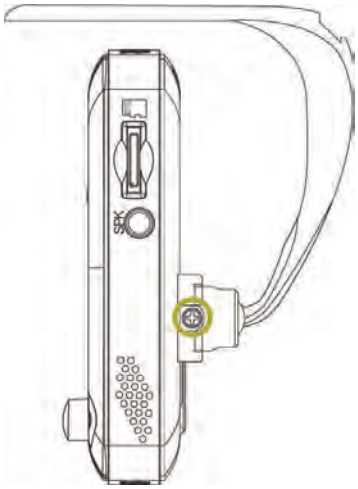


Wall Mount



Ceiling Mount

4. Secure the stand position by using a Phillips screwdriver to tighten the screw connecting the camera to the stand (see diagram below).



5. Connect the power adapter cable and Ethernet cable (if connecting the camera using Ethernet) to the camera.

9 Wall or Ceiling Mounting (LNC226X)

9.1 Installation Tips and Warnings

- **Camera is rated for indoor and outdoor applications.** For outdoor applications, installation under shelter is recommended.
- Before installing the camera, carefully plan where and how it will be positioned, and where you will route the cabling that connects the camera to the power adapter.
- If using the camera wirelessly, avoid installation in a location which requires the wireless signal to pass through cement, concrete and metal structures. This will reduce the transmission range.
- Wireless cameras require a power source to operate.
- If using the camera with a wireless network, set up the camera's wireless connection before permanent installation.
- Make sure that power adapter cable and Ethernet cable (if connecting the camera using Ethernet) are long enough to reach the installation location.
- Ensure power outlets are sheltered from the elements.

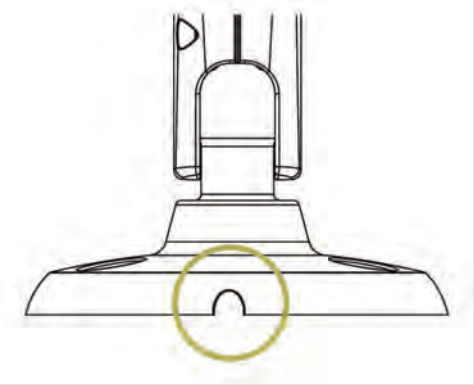
9.2 Installation

1. Use the included mounting screws to attach the camera to the mounting surface:

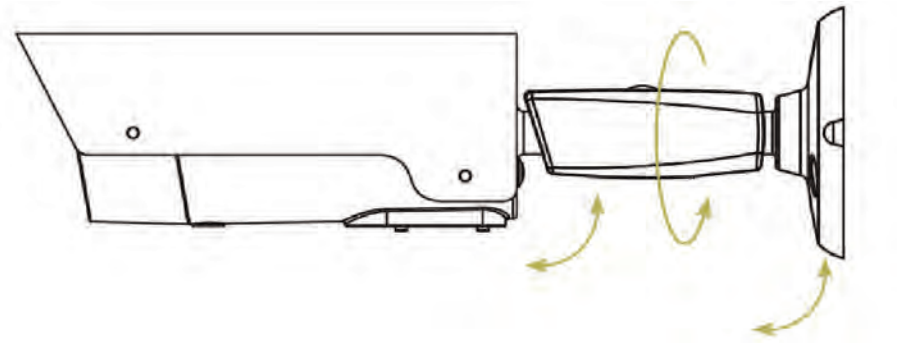
    1.1. Mark the positions of the screw holes on the mounting surface.
    1.2. Drill holes and insert the included drywall anchors as needed.
    1.3. Firmly attach camera to the surface using the included screws.

Note

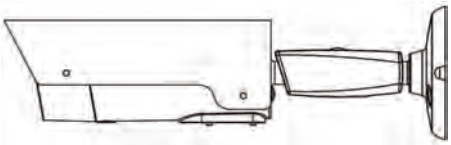
- If you run the cabling through the mounting surface, connect to power before attaching the camera to the wall.
- If you run the cabling along the mounting surface, run the camera's Ethernet cable through the cable notch on the mounting plate.



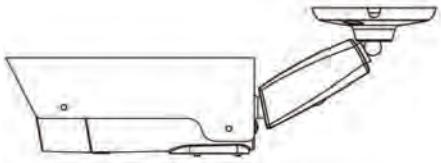
2. Adjust the camera so it captures the desired viewing area.



3. Remove the protective film from the front of the camera. If the film is not removed, it will affect picture quality.



Wall Mount



Ceiling Mount

10 Connecting to Your Camera on iPhone®

Follow the steps below to get up and running on an iPhone®, using WiFi or Ethernet. Ensure you have completed the appropriate physical setup detailed in 6 *Getting Started (LNC216)*, page 7 or 7 *Getting Started (LNC226X)*, page 9 before you start.

10.1 WiFi Setup

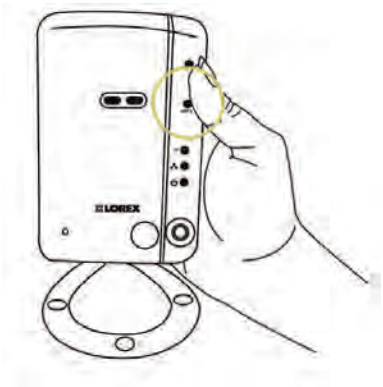
1. Connect your iPhone® to your WiFi network. See your iPhone's user guide for details on connecting to WiFi networks.
2. Download the free **Lorex Ping** app from the App Store.

> **Note**
> Lorex Ping is a free application, but it requires a valid iTunes account to download. See www.lorex-technology.com for the latest device compatibility list.

3. Tap the Lorex Ping icon ( ) from the home screen to open Lorex Ping.
4. Register your product using the Lorex Ping app by following the on-screen instructions.
5. Press **Wifi Setup** then tap **Next**.

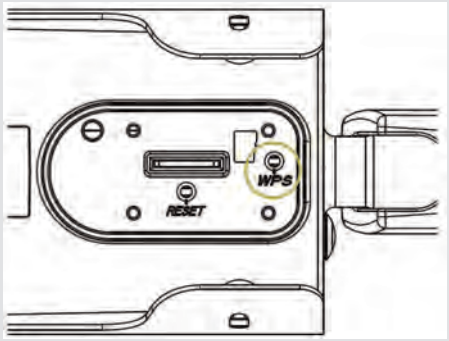
6. Enter the password for your WiFi network and press **OK**. A QR code appears on the screen with your WiFi network details.

7. Press the **WPS** button on the camera. The LEDs will start flashing.

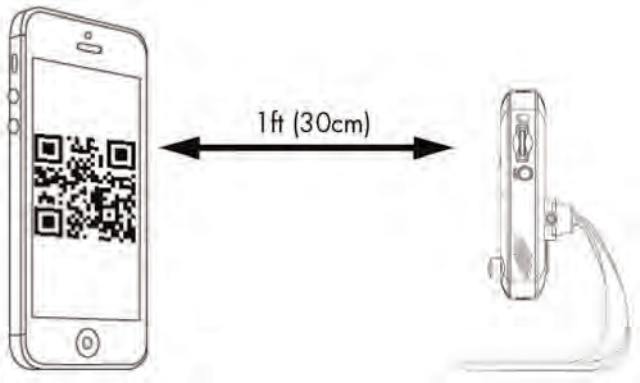


Note

For LNC226X, use a Phillips screwdriver to open the compartment on the bottom of the camera. Then, use a thin object such as a paper clip to press the WPS button.



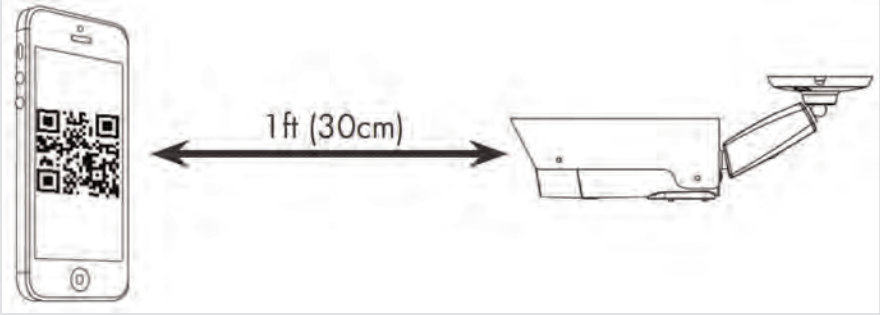
8. Place your device about 1ft (30cm) away from the camera.



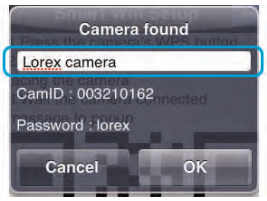
The camera scans the QR code on your iPhone® to connect to the WiFi network. When the connection is successful, the camera beeps, and the “Camera Found” message below appears on your device after a few seconds.

Note

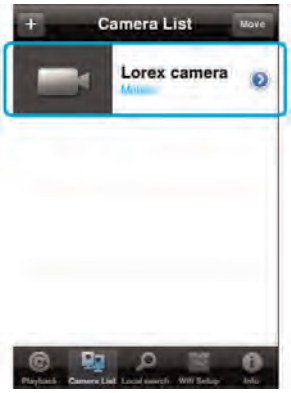
LNC226X does not have a speaker, and therefore, will not beep when the connection is successful. Check for the “Camera Found” message below on your device to confirm that connection was successful.



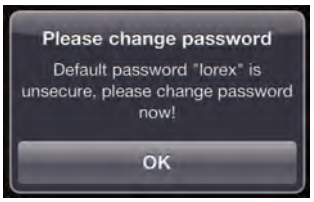
9. Enter a name for your camera and press **OK**.



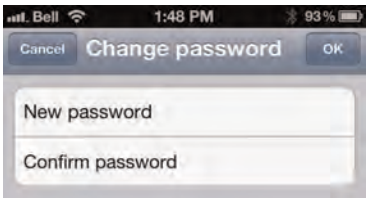
10. Tap the camera to connect.



11. If this is the first time connecting to the camera, you will be prompted to create your own password. Tap **OK**.



12. Under **New password**, enter a new password for the camera and repeat the password under **Confirm password**. Tap **OK**.



13. Tap the camera again to connect to the camera. Lorex Ping streams live video from your camera.
14. **LNC226X only:** Replace the cover on the bottom of the camera.

10.2 Ethernet Setup

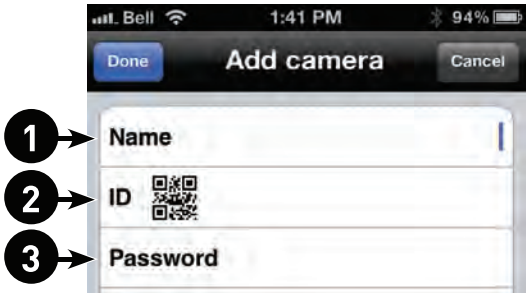
1. Download **Lorex Ping** from the App Store.

> **Note**
> Lorex Ping is a free application, but it requires a valid iTunes account to download.

2. Tap the Lorex Ping icon ( ) from the home screen to open Lorex Ping.
3. Register your product using the Lorex Ping app by following the on-screen instructions.

4. From the Camera List, tap **+** to add a camera.

5. Enter the following information:



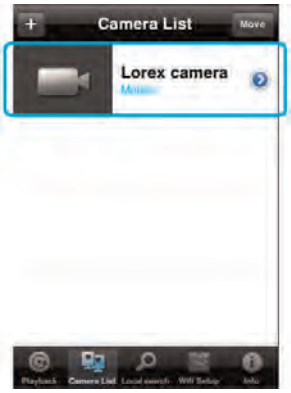
   5.1. Under **Name**, enter a name for your camera. This can be anything of your choice.

   5.2. Under **ID**, press the QR code button ( ) and line up the QR code printed on the back of the camera using the camera on the phone. The **CamID** will automatically be entered.

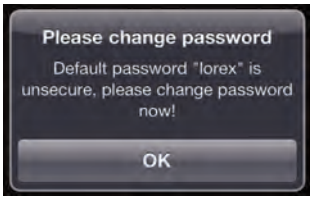
   - **OR:** Manually enter the **CamID** printed on the camera.

   5.3. Under **Password**, enter the camera password. If this is the first time connecting to the camera, enter **lorex**. Press **Done**.

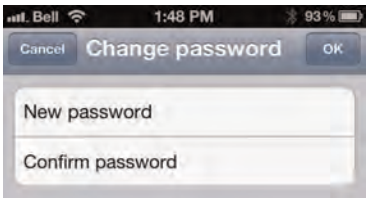
6. Tap the name of the camera in the Camera List to connect to the camera. Lorex Ping connects to the camera.



7. If this is the first time connecting to the camera, you will be prompted to create your own password. Tap **OK**.



8. Under **New password**, enter a new password for the camera and repeat the password under **Confirm password**. Tap **OK**.



9. Tap the camera again to connect to the camera. Lorex Ping streams live video from your camera.

11 Connecting to Your Camera on iPad®

Follow the steps below to get up and running on an iPhone®, using WiFi or Ethernet. Ensure you have completed the appropriate physical setup detailed in 6 *Getting Started (LNC216)*, page 7 or 7 *Getting Started (LNC226X)*, page 9 before you start.

11.1 WiFi Setup

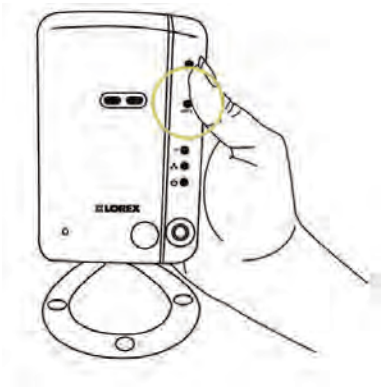
1. Connect your iPad® to your WiFi network. See your iPad's user guide for details on connecting to WiFi networks.
2. Download the free **Lorex Ping HD** app from the App Store.

> **Note**
> Lorex Ping HD is a free application, but it requires a valid iTunes account to download. See www.lorextechnology.com for the latest device compatibility list.

3. Tap the Lorex Ping HD icon ( ) from the home screen to open Lorex Ping.
4. Register your product using the Lorex Ping app by following the on-screen instructions.
5. Press **Wifi Setup** then tap **Next**.

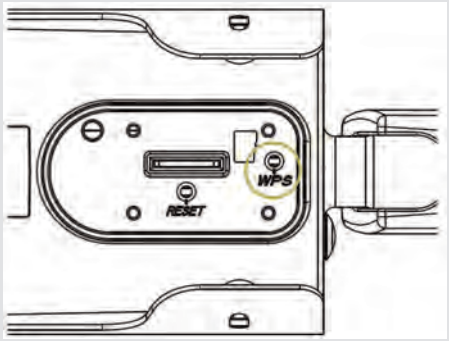
6. Enter the password for your WiFi network and press **OK**. A QR code appears on the screen with your WiFi network details.

7. Press the **WPS** button on the camera. The LEDs will start flashing.

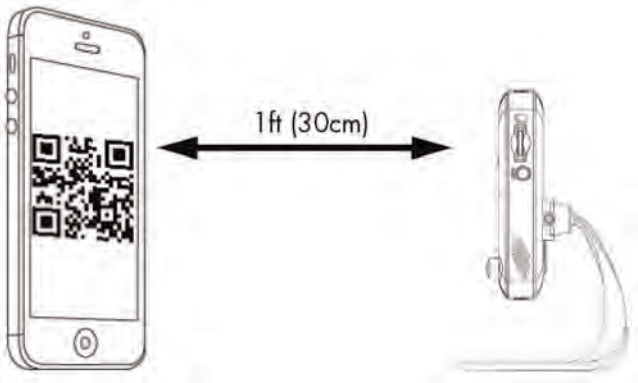


Note

For LNC226X, use a Phillips screwdriver to open the compartment on the bottom of the camera. Then, use a thin object such as a paper clip to press the WPS button.



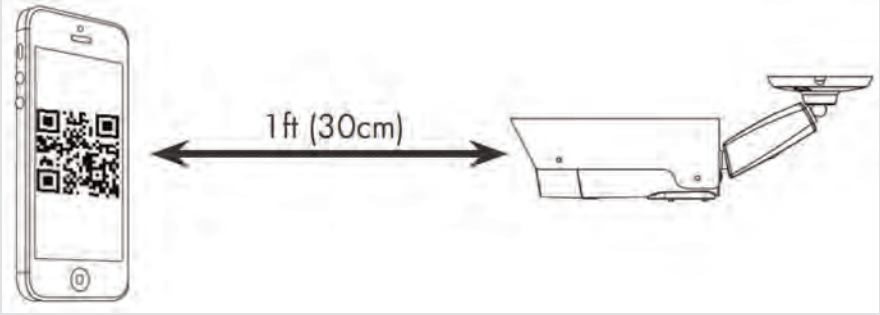
8. Place your device about 1ft (30cm) away from the camera.



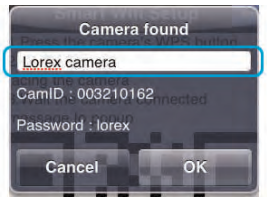
The camera scans the QR code on your iPad® to connect to the WiFi network. When the connection is successful, the camera beeps, and the “Camera Found” message below appears on your device after a few seconds.

Note

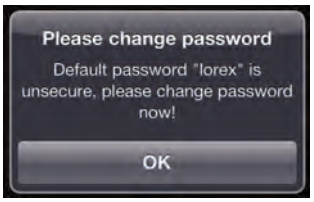
LNC226X does not have a speaker, and therefore, will not beep when the connection is successful. Check for the “Camera Found” message below on your device to confirm that connection was successful.



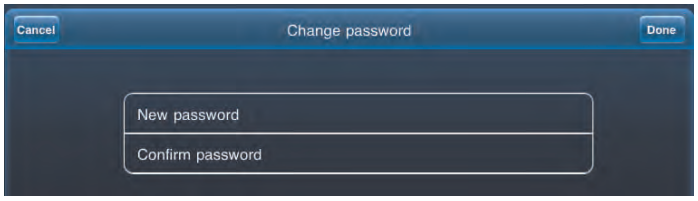
9. Enter a name for your camera and press **OK**.



10. Tap the camera to connect.
11. If this is the first time connecting to the camera, you will be prompted to create your own password. Tap **OK**.



12. Under **New password**, enter a new password for the camera and repeat the password under **Confirm password**. Tap **Done**.



13. Tap the name of the camera in **Camera List** again to connect to the camera. For details on using the iPad® app, see 19 *iPad® App*, page 109.
14. **LNC226X only:** Replace the cover on the bottom of the camera.

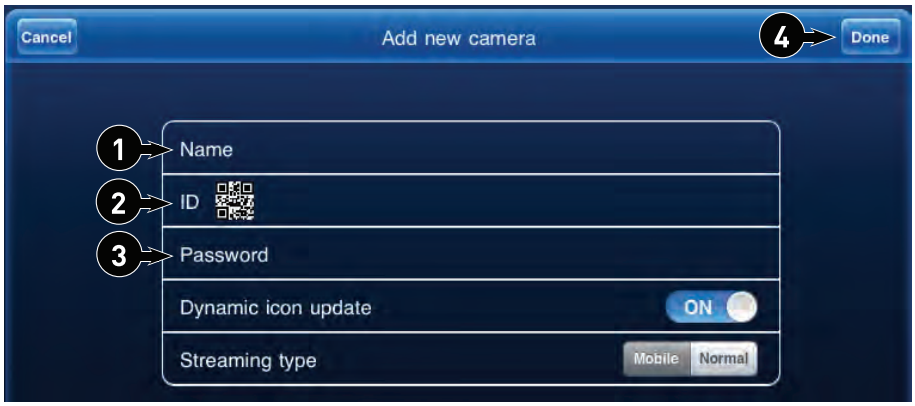
11.2 Ethernet Setup

1. Download the **Lorex Ping HD** app from the App Store.

> **Note**
> Lorex Ping HD is a free application, but it requires a valid iTunes account to download. See www.lorextechnology.com for the latest device compatibility list.

2. Tap the Lorex Ping icon ( ) from the home screen to open Lorex Ping.
3. Register your product using the Lorex Ping app by following the on-screen instructions.
4. From the Camera List, tap **+** to add a camera.

5. Enter the following information:



5.1. Under **Name**, enter a name for your camera. This can be anything of your choice.

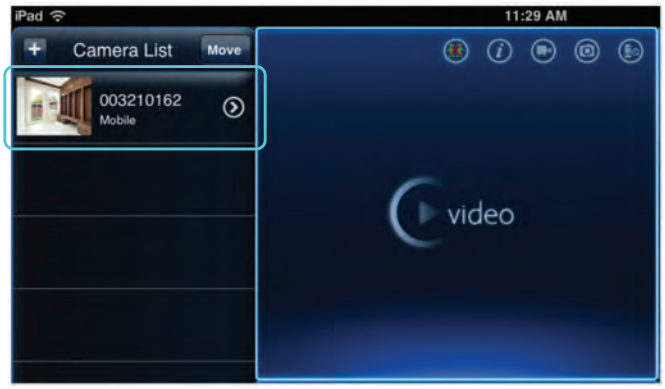
5.2. Under **ID**, press the QR code button ( ) and line up the QR code printed on the back of the camera using the camera on the iPad. The **CamID** will automatically be entered.

- OR: Manually enter the **CamID** printed on the camera.

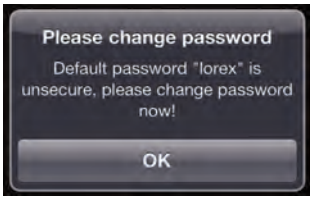
> **Note**
> QR code setup is not compatible with the 1st generation iPad®. If you have a 1st generation iPad®, manually enter the **CamID** printed on the camera into **ID**.

5.3. Under **Password**, enter the camera password. If this is the first time connecting to the camera, enter **lorex**. Press **Done**.

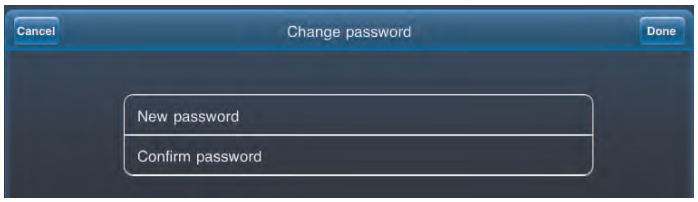
6. Tap the name of the camera in the **Camera List** to connect to the camera. Lorex Ping connects to the camera.



7. If this is the first time connecting to the camera, you will be prompted to create your own password. Tap **OK**.



8. Under **New password**, enter a new password for the camera and repeat the password under **Confirm password**. Tap **Done**.



9. Tap the name of the camera in Camera List again to connect to the camera. For details on using the iPad app, see 19 *iPad® App*, page 109.

12 Connecting to Your Camera on Android™

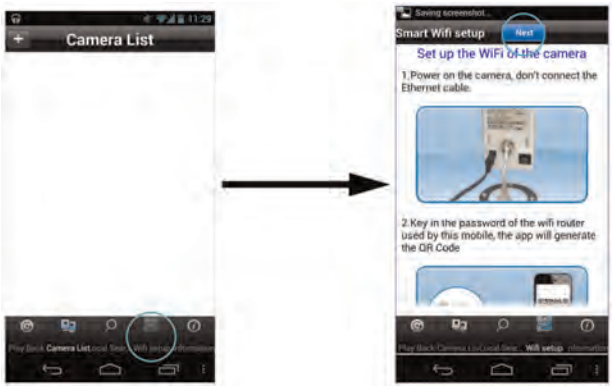
Follow the steps below to get up and running on an iPhone®, using WiFi or Ethernet. Ensure you have completed the appropriate physical setup detailed in 6 *Getting Started (LNC216)*, page 7 or 7 *Getting Started (LNC226X)*, page 9 before you start.

12.1 WiFi Setup

1. Download the free **Lorex Ping** app from the Google Play Store.

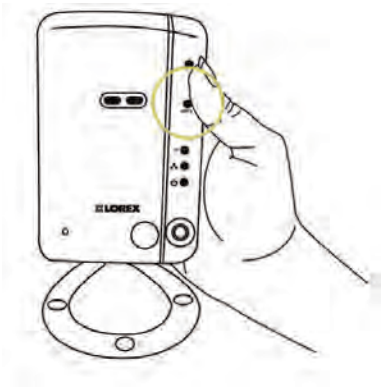
> **Note**
> Lorex Ping is a free application. See www.lorextechnology.com for the latest device compatibility list.

2. Tap the Lorex Ping icon ( ) to open Lorex Ping.
3. Register your product using the Lorex Ping app by following the on-screen instructions.
4. Press **Wifi Setup** then tap **Next**.



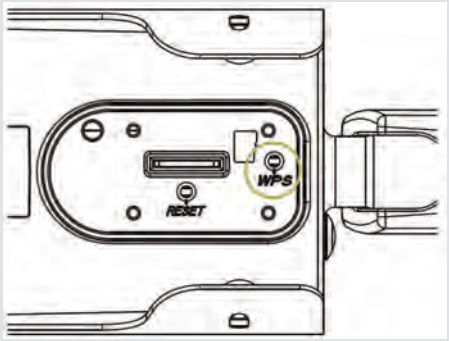
5. Enter the password for your WiFi network and press **OK**. A QR code appears on the screen with your WiFi network details.

6. Press the **WPS** button on the camera. The LEDs will start flashing.

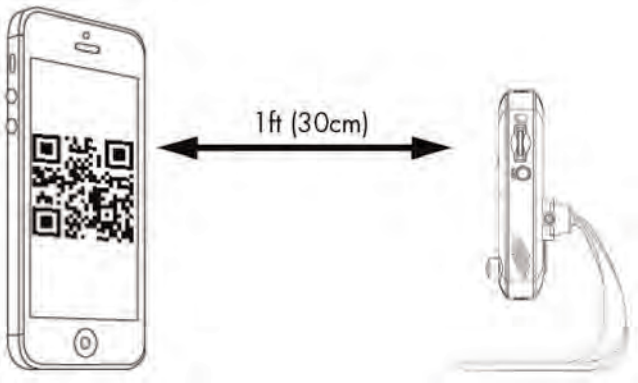


Note

For LNC226X, use a Phillips screwdriver to open the compartment on the bottom of the camera. Then, use a thin object such as a paper clip to press the WPS button.



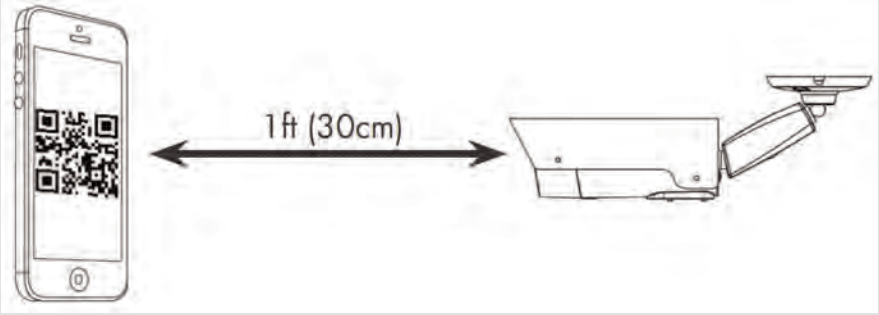
7. Place your device about 1ft (30cm) away from the camera.



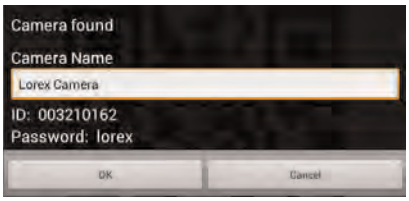
The camera scans the QR code on your Android™ to connect to the WiFi network. When the connection is successful, the camera beeps, and the “Camera Found” message below appears on your device after a few seconds.

Note

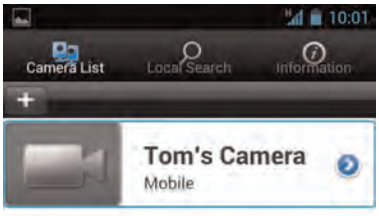
LNC226X does not have a speaker, and therefore, will not beep when the connection is successful. Check for the “Camera Found” message below on your device to confirm that connection was successful.



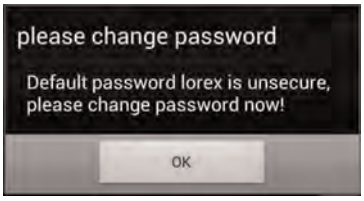
8. Enter a name for your camera and press **OK**.



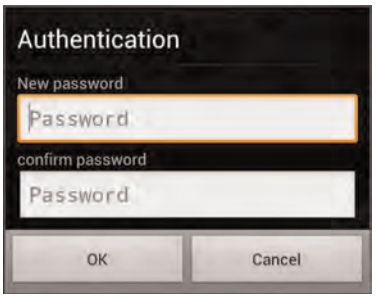
9. Tap the camera to connect.



10. If this is the first time connecting to the camera, you will be prompted to create your own password. Tap **OK**.



11. Under **New password**, enter a new password for the camera and repeat the password under **Confirm password**. Tap **OK**.

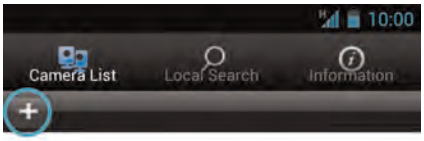


Tap the name of the camera in Camera List again to connect to the camera. Lorex Ping streams live video from your camera.

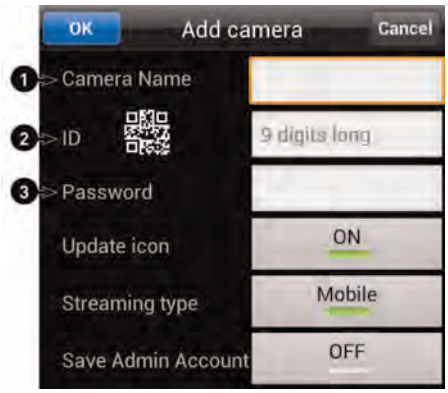
12. **LNC226X only:** Replace the cover on the bottom of the camera.

12.2 Ethernet Setup

1. Tap the Lorex Ping icon ( ) from the home screen or app list to open Lorex Ping.
2. Register your product using the Lorex Ping app by following the on-screen instructions.
3. From the Camera List, tap **+** to add a camera.



4. Enter the following information:



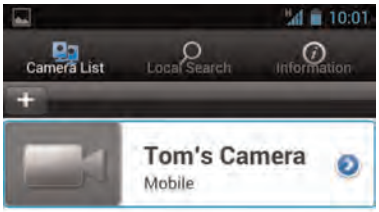
   4.1. Under **Camera Name**, enter a name for your camera. This can be anything of your choice.

   4.2. Under **ID**, press the QR code button ( ) and line up the QR code printed on the back of the camera using the camera on the Android™ phone or tablet. The CamID will automatically be entered.

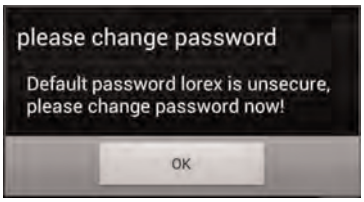
   - **OR:** Manually enter the CamID printed on the camera.

   4.3. Under **Password**, enter the camera password. If this is the first time connecting to the camera, enter **lorex**. Press **OK**.

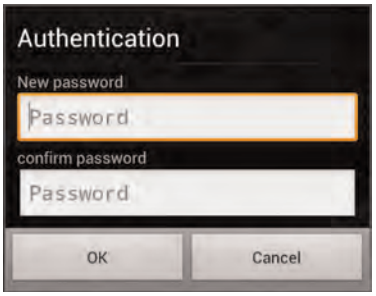
5. Tap the name of the camera in the Camera List to connect to the camera. Lorex Ping connects to the camera.



6. If this is the first time connecting to the camera, you will be prompted to create your own password. Tap **OK**.



7. Under **New password**, enter a new password for the camera and repeat the password under **Confirm password**. Tap **OK**.



8. Tap the name of the camera in Camera List again to connect to the camera. For details on using the Android™ app, see 20 *Android™ App*, page 130.

13 Connecting to Your Camera on PC

Follow the steps below to get up and running on a PC. Ensure you have completed the appropriate physical setup detailed in 6 *Getting Started (LNC216)*, page 7 or 7 *Getting Started (LNC226X)*, page 9 before you start.

- For instructions on setting your camera up for WiFi, see 13.2 *PC WiFi Setup*, page 38.

13.1 Connecting to Your Camera on PC

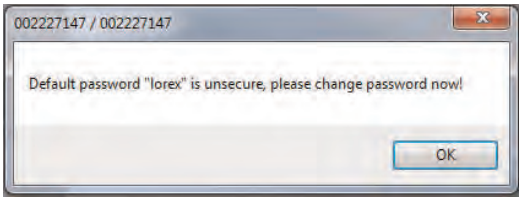
Note
For PC system requirements, see 15.1 *System Requirements*, page 47.

1. Install the L-View software from the CD or download it from www.lorextechnology.com.
2. Double-click the L-View icon to run L-View.

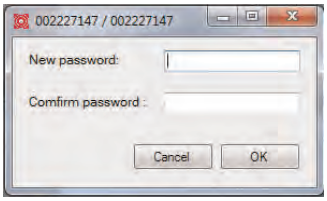
Connecting to your camera over the local area network (LAN):

1. When L-View opens, it scans the local network for connected cameras. Connected cameras are shown under Auto Search.
2. Double-click the camera under Auto Search **OR** click and drag the camera to a desired screen on the display grid to connect to the camera.

3. Enter the camera password. If this is the first time connecting to the camera, the password is **lorex**. Click **OK**.
4. If you have connected to this camera before, L-View connects to the camera. If this is the first time connecting to the camera, L-View will prompt you to create your own password for the camera. Click **OK**.



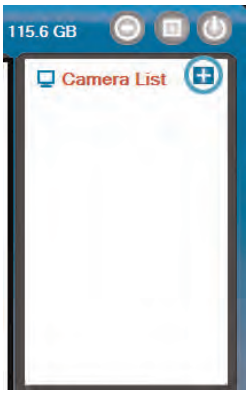
5. Under **New Password**, enter a password that will be used for the camera. Under **Confirm Password**, enter the password again. Click **OK**.



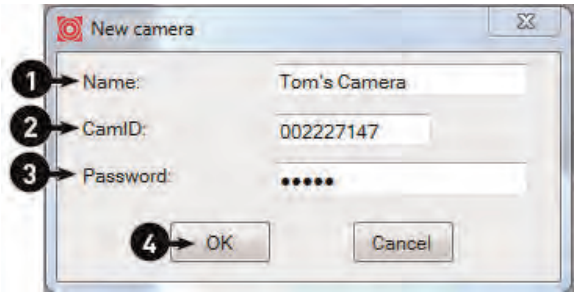
6. Double-click the camera again under Auto Search to connect. Enter the new password for the camera then click **OK** to connect. L-View connects to the camera. If you would like to save the camera password in L-View, see 15.3.2 *Saving Camera Passwords*, page 51.

Connecting to a Camera Over the Internet (PC)

1. Double-click the L-View icon to run L-View.
2. Click **+** next to Camera List.



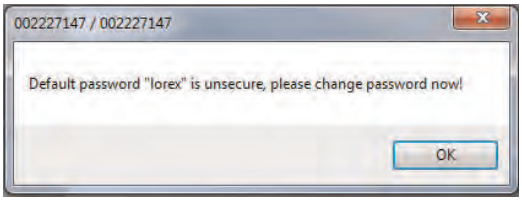
3. Enter the following information:



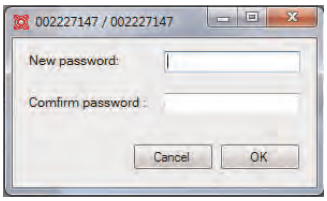
   3.1. Under **Name**, enter a camera name of your choice.
   3.2. Under **CamID**, enter the Cam ID number printed on the camera.
   3.3. Under **Password**, enter the camera password. If this is the first time connecting to the camera, the password is **lorex**.
   3.4. Click **OK**.

4. Double-click the camera or drag the camera to a display screen to connect to the camera.

5. If you have connected to this camera before, L-View connects to the camera. If this is the first time connecting to the camera, L-View will prompt you to create your own password for the camera. Click **OK**.



6. Under **New Password**, enter a password that will be used for the camera. Under **Confirm Password**, enter the password again. Click **OK**.

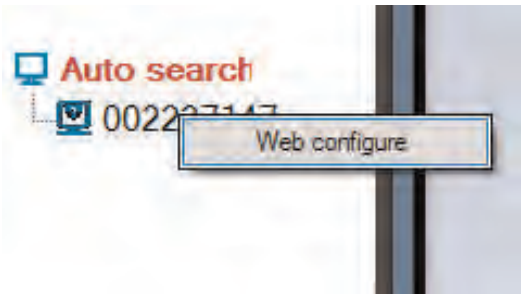


7. Double-click the camera again under Camera List to connect. For detailed instructions on using L-View, see 15 *L-View for PC*, page 47.

13.2 PC WiFi Setup

The camera must be connected to your router using an Ethernet cable before you can set it up to use WiFi.

1. Install L-View on a PC in your local network (must be connected to the same router as the camera) and connect to the camera.
2. Right-click on the camera ID in the Auto Search area and click **Web Configure**.

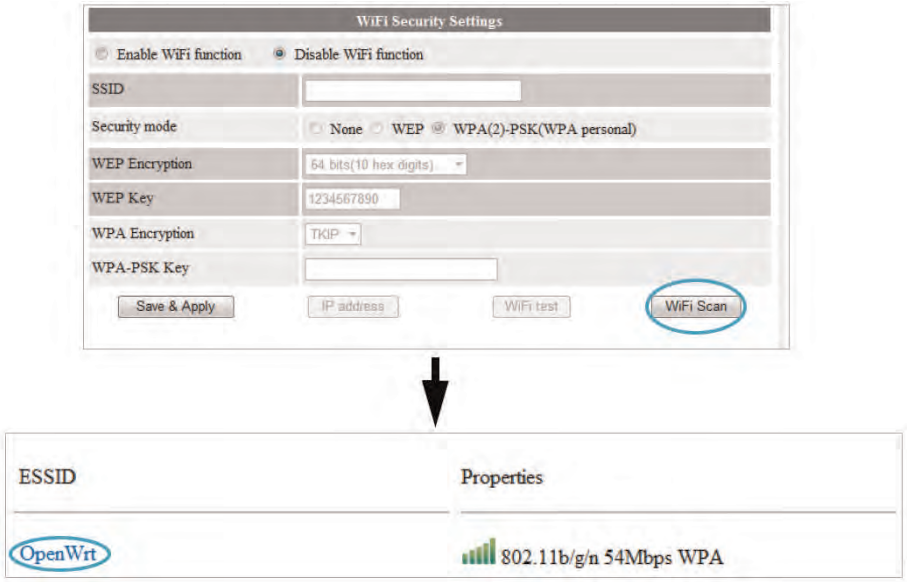


3. Enter the camera admin user name and password. By default, the admin user name is **admin** and the admin password field is **left blank**. Click **Log in**. The Web Configure interface opens in your default web browser.

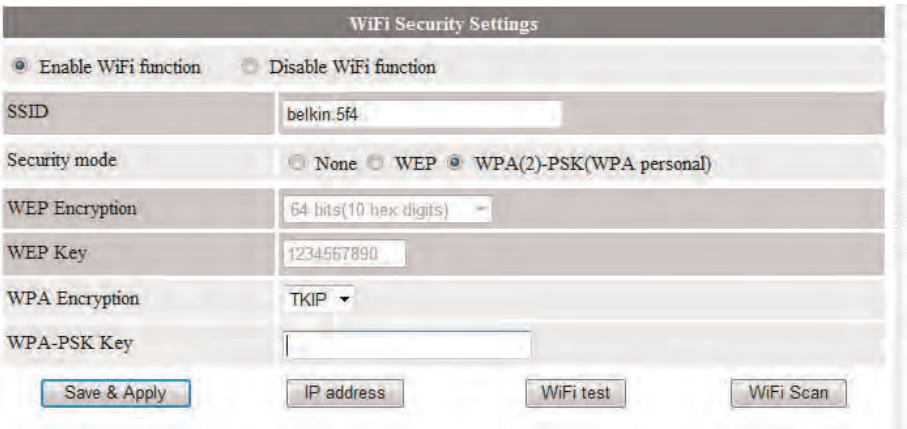
> **Note**
> Your camera admin user name and password differs from the password used to connect to your camera to view video.

4. Click on **Network** and then **WiFi Security**.

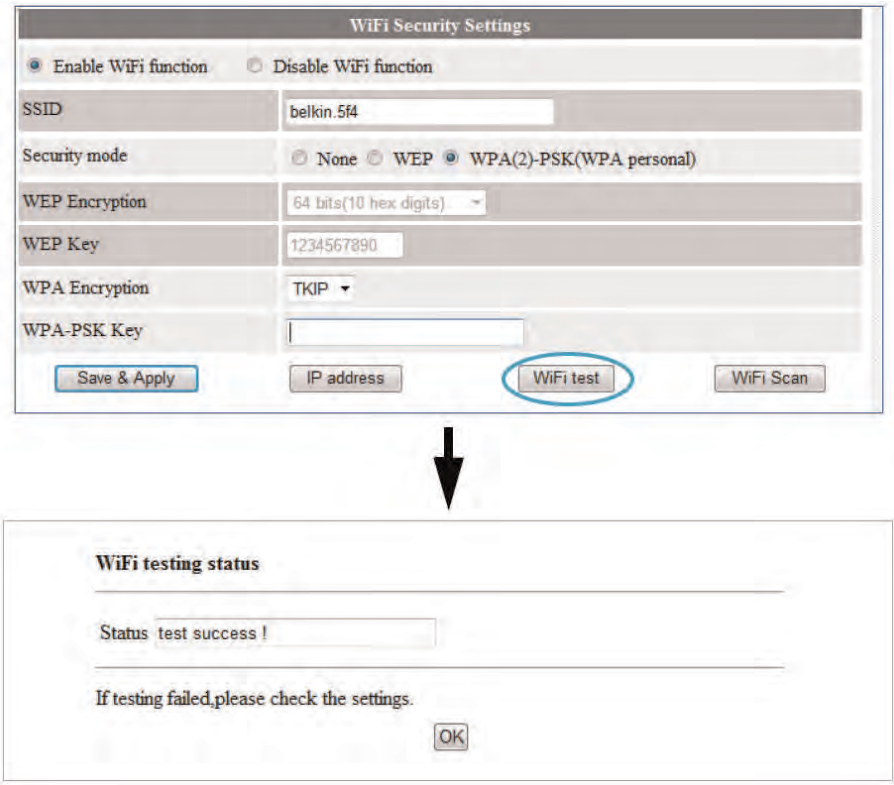
5. Click **WiFi Scan** and select your WiFi network from the list.



6. Under **WPA-PSK Key** or **WEP Key**, enter the WiFi password. Click **Save & Apply**.



7. Click **WiFi Security** again and click **WiFi Test** (this may take up to 60 seconds)



8. When successful, **Status** will say **Test Success**. If unsuccessful, double check your wireless password and make sure your camera is close enough to the wireless router to get a good signal.
9. Remove the Ethernet cable from the camera, wait 60 seconds, and then reconnect to your camera in L-View.

14 Connecting to Your Camera on Mac

Follow the steps below to get up and running on a Mac computer. Ensure you have completed the appropriate physical setup detailed in 6 *Getting Started (LNC216)*, page 7 or 7 *Getting Started (LNC226X)*, page 9 before you start.

- For instructions on setting your camera up for WiFi, see 14.2 *Mac WiFi Setup*, page 44.

14.1 Connecting to Your Camera on a Mac

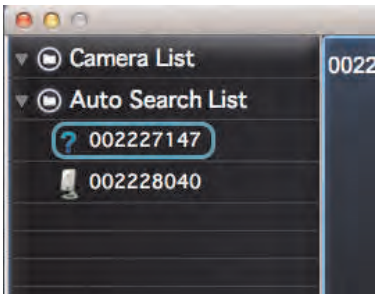
Note
For Mac system requirements, see 17.1 *System Requirements*, page 77.

1. Install the L-View software from the CD or download it from www.lorextechnology.com.
2. Extract the installer file and double-click it to run.
3. Click and drag the L-View icon to **Applications** to install.

Connecting to your Camera on the Local Network (Mac)

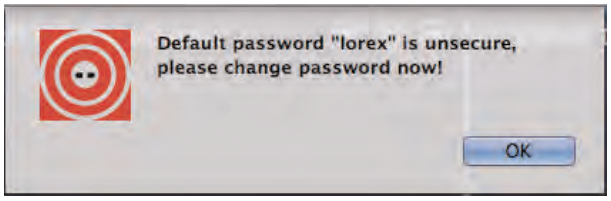
Note
Your computer must be on the same network as the camera to perform the steps below.

1. Open L-View ( ) from your Applications list. L-View scans for cameras on your local network.
2. Double-click the camera ID.



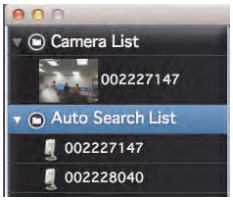
3. Enter the password (default: **lorex**) and then click **OK** to connect. L-View connects to your camera and streams live video.

4. If this is the first time connecting to the camera, you are prompted to change your password. Click **OK**.

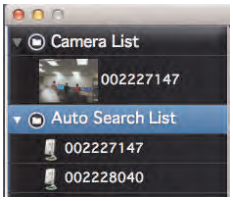


5. Enter a new password and click **OK**.
6. Double-click the camera ID under Auto Search again, enter the new password, and click **OK**. L-View connects to your camera and streams live video.

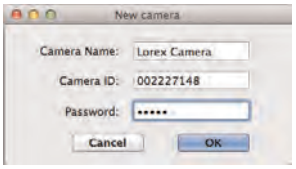
TIP: To save the camera password in L-View, click and drag the ID from the **Auto Search List** to the **Camera List**. Then, right-click the ID and click **ID/Password settings**. Enter the camera password. If you want, you can also enter a name of your choice for your camera under **Camera Name**. Click **OK**.



Click and drag camera ID from Auto Search List to Camera List



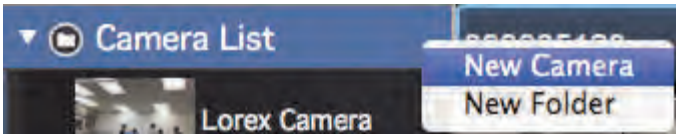
Right-click the camera ID in the Camera List and select **ID/Password settings**



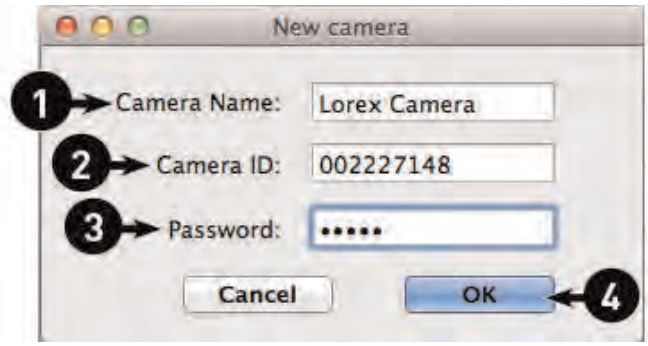
Enter a name of your choice. Enter the camera password and click **OK**

Connecting to your Camera over the Internet (Mac)

1. Right-click **Camera List** and then click **New camera**.

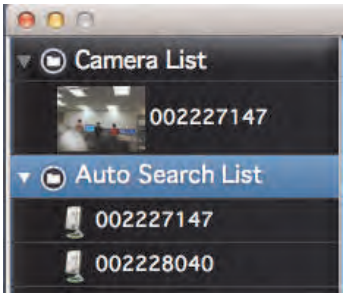


2. Enter the following information:

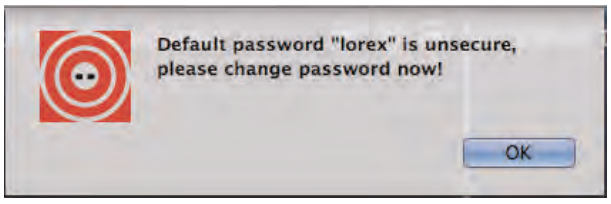


   2.1. Under **Camera Name**, enter a name for your camera of your choice.
   2.2. Under **Camera ID**, enter the CamID number printed on the label on the back of your camera.
   2.3. Under **Password**, enter the camera password (default: **lorex**).
   2.4. Click **OK**.

3. Double-click the camera to open it in L-View.



4. If this is the first time connecting to the camera, you are prompted to change your password. Click **OK**.



5. Enter a new password and click **OK**. L-View connects to your camera and streams live video. For more details on using L-View for Mac, see 17 *L-View for Mac*, page 77.

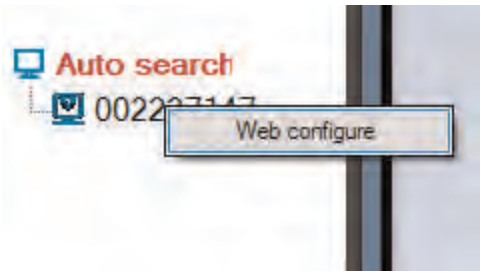
Note

To connect to multiple cameras, click to select a display area. The area becomes highlighted. Then, double-click the camera to open it in the selected area.

14.2 Mac WiFi Setup

The camera must be connected to your router using an Ethernet cable before you can set it up to use WiFi.

1. Install L-View on a Mac in your local network (must be connected to the same router as the camera) and connect to the camera.
2. Right-click on the camera ID in the Auto Search area and click **Web Configure**.

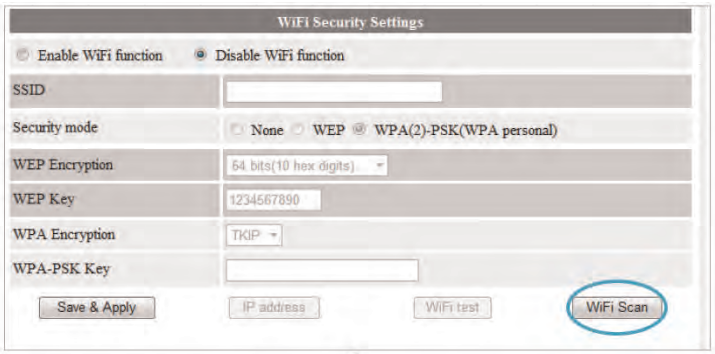


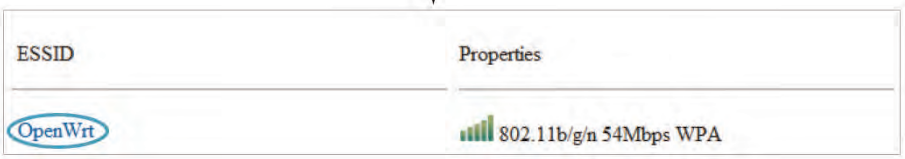
3. Enter the camera admin user name and password. By default, the admin user name is **admin** and the admin password field is **left blank**. Click **Log in**. The Web Configure interface opens in your default web browser.

Note

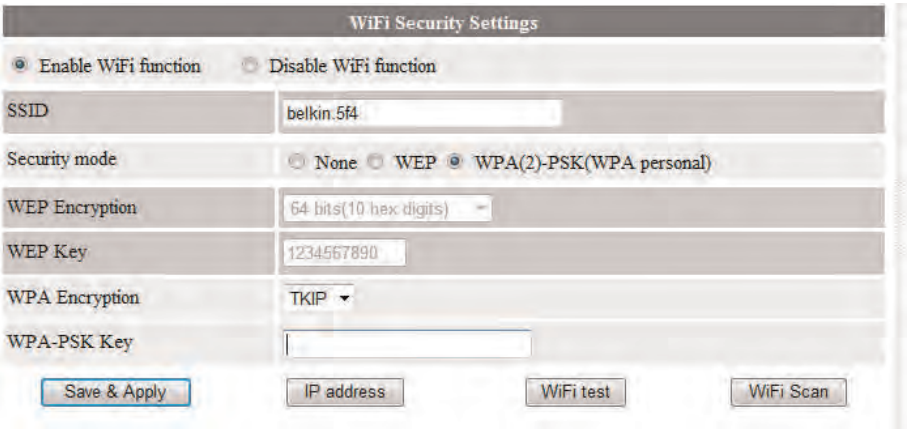
Your camera admin user name and password differs from the password used to connect to your camera to view video.

4. Click on **Network** and then **WiFi Security**.
5. Click **WiFi Scan** and select your WiFi network from the list

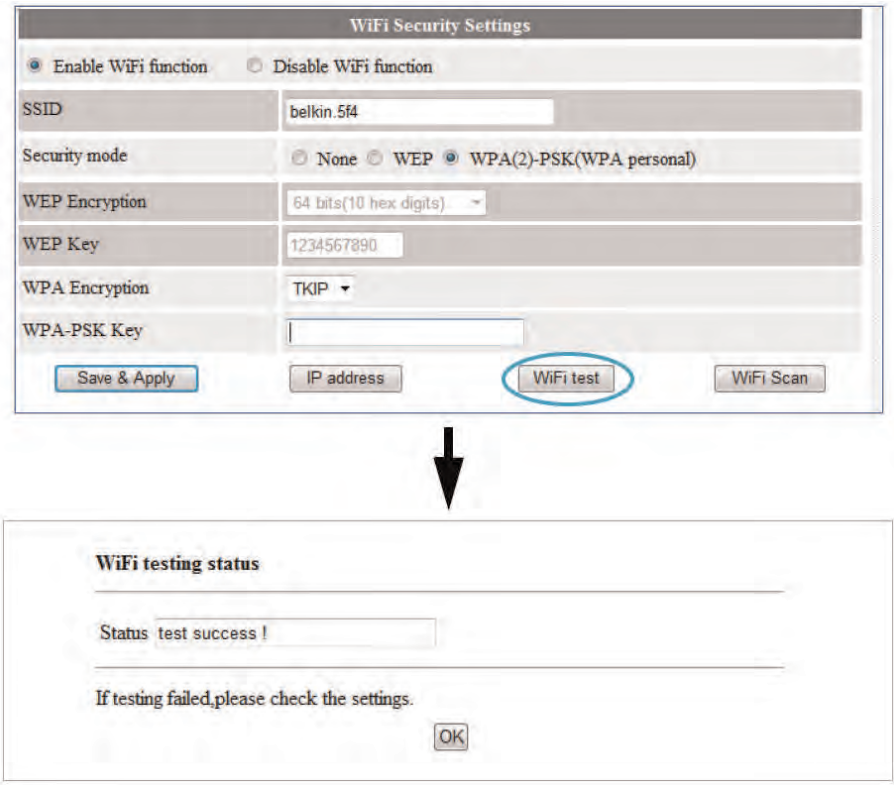




6. Under **WPA-PSK Key** or **WEP Key**, enter the WiFi password. Click **Save & Apply**.



7. Click **WiFi Security** again and click **WiFi Test** (this may take up to 60 seconds).



8. When successful, **Status** will say **Test Success**. If unsuccessful, double check your wireless password and make sure your camera is close enough to the wireless router to get a good signal.
9. Remove the Ethernet cable from the camera, wait 60 seconds, and then reconnect to your camera in L-View.

15 L-View for PC

L-View is a PC client software that supports up to 16 cameras. L-View is provided on the CD or available as a free download from www.lorextechnology.com.

For instructions on installing and connecting to your camera using L-View, see 13 *Connecting to Your Camera on PC*, page 36.

Note
For Mac software instructions, see 17 *L-View for Mac*, page 77.

15.1 System Requirements

Description	Minimum System Requirements
CPU	2.0 GHz (dual-core recommended)
Memory	2GB
Operating System	Windows XP SP 2 and higher Windows 7 Basic, Home Premium, Ultimate Windows 8
Hard Drive	Minimum 5~10 GB free for recordings and snapshots

15.2 L-View for PC Interface

1. **Display:** Shows live or recorded video from your camera(s).
   - Click to select a camera and scroll up/down to zoom in/out. When the camera is zoomed in, click and drag the camera image to pan the camera.
   - Double-click to open the display area in full-screen. Double-click again to exit full-screen.
   - Right-click to open the display sub-menu. See 15.2.1 *Display Sub-Menu*, page 49.
2. **Image/Recording Controls:**
   -  **Video Settings:** Click to edit the camera's video settings. See 15.7 *Configuring Camera Video Settings*, page 60.
   -  **microSD:** Click to open a list of recordings saved on the camera's microSD card (not included). See 15.6 *Playing Back Recordings on the microSD card with L-View*, page 59.
   -  **Snapshot:** Click to save a still image screenshot of the camera. To access Snapshots, see 15.9.1 *Directories (Opening or Changing the Snapshot/Recording Folder)*, page 64. Snapshots are saved in .png format.
   -  **Record:** Click to start/stop manual recording. For details, see 15.4 *Recording to Your PC's Hard Drive*, page 54.
3. **Time and Date:** Show the current time and date on the computer. Note that the camera time and date may differ. For instructions on setting the time and date on the camera, see 21.6.3 *Date/Time*, page 163.
4. **Hard Drive Indicator:** Shows the amount of available space on the computer hard drive for recording.
5. **Minimize/Restore**
6. **Maximize/Revert to Window**
7. **Exit**
8. **Camera List:** Shows list of saved cameras. Available cameras are in blue. Cameras in red are not available. If a camera appears in red, check the network connection. For more details, see 15.3 *Camera List (Managing Cameras)*, page 50.

   Note
   Cameras may appear in red before you have connected to them the first time.

9. **Auto Search:** Auto Search shows cameras located on your local network (LAN).
   - Double-click the camera name or click and drag the camera to the display area to view the camera.
   - Drag the camera to the Camera List to save the camera.
   - Right-click the camera ID and select Web Configure to configure the camera settings using a browser. See 21 *Configuring Camera Settings Using a Browser*, page 148.
10. **Pan/Tilt/Zoom Controls:** Controls for compatible PTZ cameras (not included).

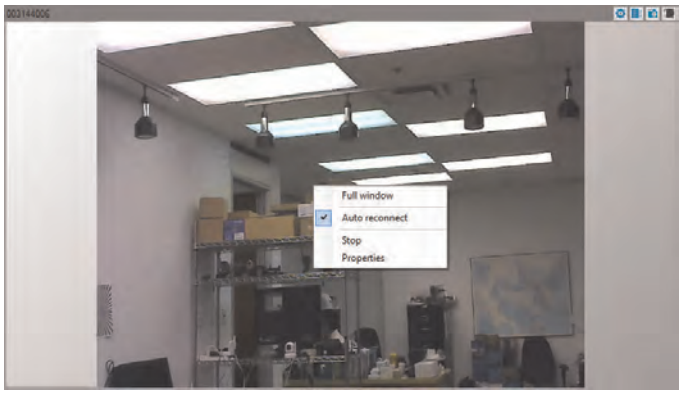
11. **Volume Controls:**
    - Click  to activate 2-way-audio (intercom) feature and click again to deactivate 2-way-audio. Note that turning on 2-way-audio will mute audio from the camera.

      Note
      The camera requires a speaker in order to use 2–way-audio. LNC226X does not have a speaker.

    - Click  to mute audio from the camera. Click again to unmute audio from the camera.
    - Use the top volume slider to control the volume for the camera speaker (not included) when the 2-way-audio is activated.
    - Use the bottom volume slider to control the volume of audio coming from the camera.
12. **L-View Controls:**
    -  **L-View Settings:** Click to open settings for L-View. See 15.9 *Configuring L-View*, page 64.
    -  **L-Play:** Click to open L-Play to view video files saved on your computer hard drive. See 15.6 *Playing Back Recordings on the microSD card with L-View*, page 59.
    -  **Scheduling:** Click to configure recording schedules for recording to PC.
    -  **Language Selector:** Click to select the language for L-View.
13.  **All Camera Action:** Click to perform an action on all cameras.
14.  **Split-Screen Selectors:** Click to select split-screen display configuration.
15.  **Full Screen:** Click to open the camera display area in full-screen. Press **ESC** to exit full-screen.

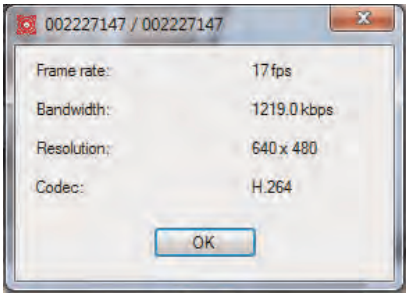
15.2.1 Display Sub-Menu

The Display sub-menu opens when you right-click on a camera's display area. It contains additional camera controls.



The Display sub-menu contains the following controls:

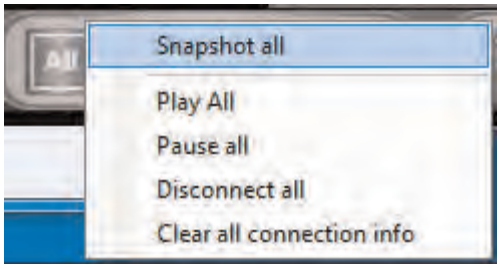
- **Full window:** Open the camera in single camera view.
- **Auto reconnect:** L-View will attempt to reconnect to the camera if it becomes disconnected.
- **Stop:** Disconnect from the camera.
- **Properties:** Click to view video properties.



Video Properties

15.2.2 All Camera Action

Press  to open the All Camera Action menu.



The All Camera Action Menu contains the following controls:

- **Snapshot all:** Take a snapshot from all connected cameras.
- **Play all:** Connect to all cameras selected in display grid.
- **Pause all:** Pause video for all connected cameras. Click Pause all again to resume video.
- **Disconnect all:** Disconnect from all connected cameras.
- **Clear all connection info:** Remove all cameras from the display grid.

15.3 Camera List (Managing Cameras)

The Camera List is used to save connection information for your cameras, so you don't have to re-enter the ID or password each time you connect. The Camera List also allows you to configure certain camera settings.

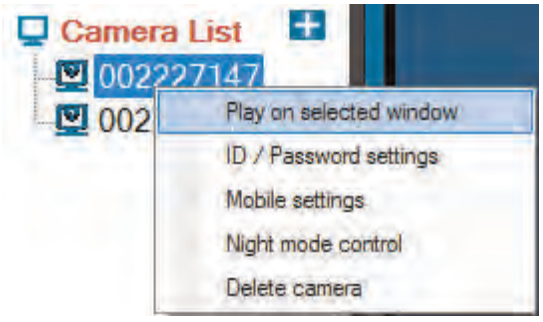
Cameras connected to the Internet or local network are shown in blue in the camera list. Cameras not connected are shown in red. If your camera is red, check the network connection.

Note
Cameras may appear in red before you have connected to them the first time.

15.3.1 Adding Cameras to Camera List

- If the camera is on the local network, click and drag a camera from the Auto Search list to Camera List to add it.

- If the camera is not on the local network (i.e. you are connecting to it over the Internet), see 13 *Connecting to Your Camera on PC*, page 36 to add the camera to the Camera List.
- Right-click on your camera to open the Camera List sub-menu. See below for instructions.



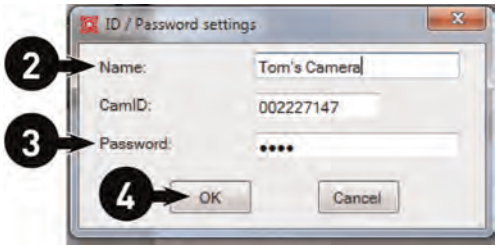
15.3.2 Saving Camera Passwords

You can use the Camera List sub-menu to save the camera's password in L-View, so you don't have to enter the password to connect to the camera.

Note
To change the camera's password, see 21.3.1 *Video Settings*, page 150.

To save the camera password:

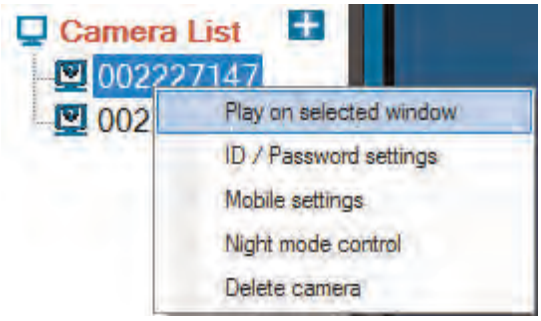
1. Right-click on the camera in Camera List and click **ID/Password settings**.



2. Under **Name**, enter a name for the camera that will appear in Camera List. This can be anything of your choice.
3. Under **Password**, enter the camera password to save the password in L-View.
4. Click **OK**.

15.3.3 Deleting Cameras

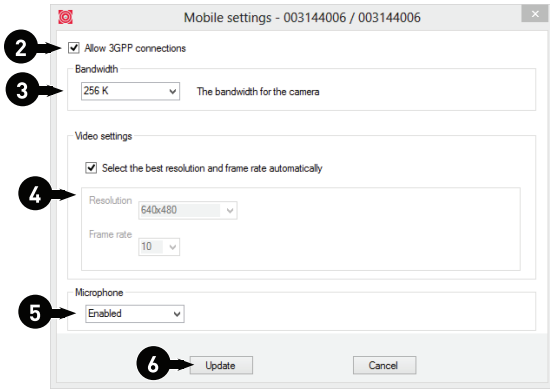
1. Right-click on the camera in Camera List and click **Delete Camera**.



2. Click **Delete** to confirm.

15.3.4 Configuring Mobile Streaming Settings

Configure streaming settings when connecting using a smartphone or tablet.



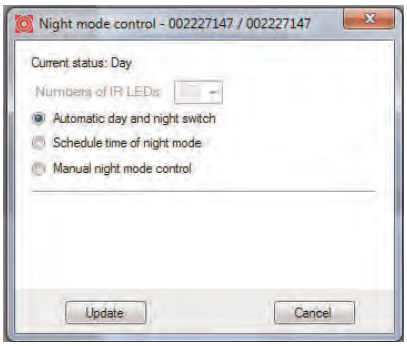
To configure mobile streaming settings:

1. Right-click on the camera you want to configure and click **Mobile settings**.

2. Ensure **Allow 3GPP connections** is checked. If this setting is unchecked you will not be able to connect to the camera with a smartphone or tablet.
3. Under **Bandwidth**, select your available mobile bandwidth. If you are primarily connecting using WiFi, you may set this setting higher.
4. Check **Select resolution and frame rate automatically** to have the camera automatically select the resolution and frame rate based on available bandwidth. If you leave this unchecked, configure the following:
   - Under **Resolution**, select the resolution that will be used when connecting to the camera using a smart phone or tablet: **320x240**, **480x360**, **640x400**, or **1024x768**.
   - Under **Frame rate**, select the frame rate that will be used when connecting to the camera using a smart phone or tablet between **30fps** (highest) and **1fps** (lowest).
5. Under **Microphone**, select **Enable** to enable audio streaming to smart phones and tablets or **Disable** to disable audio streaming to smartphones and tablets.
6. Click **Update** to apply changes to your camera. Enter the admin user name (default: **admin**) and password (default: **left blank**) for the camera and click **OK**.
7. The camera will disconnect when the setting is changed. Double-click the camera in Camera List to reconnect.

15.3.5 Configuring Night Mode Control

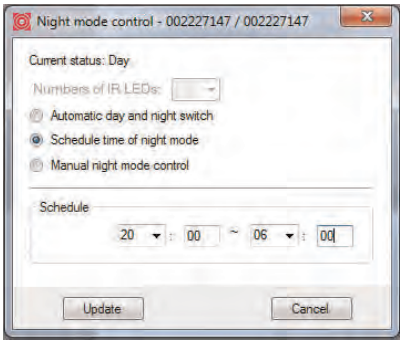
Configure when the camera uses day or night mode. When day mode is on, the camera sees in color. When night mode is on, the camera sees in black and white, and the Infrared LED turns on to enable night vision.



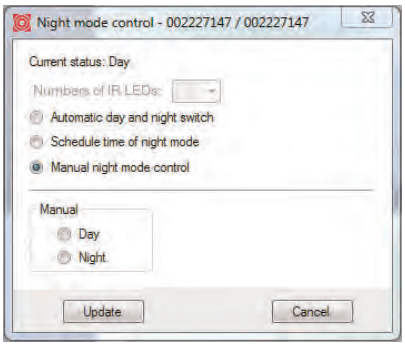
To configure night mode settings:

1. Right-click on the camera you want to configure and select **Night mode control**.

2. Select one of the following:
   - **Automatic day and night mode switch:** Camera will automatically switch between day mode or night mode, based on the amount of light in the room.
   - **Scheduled time of night mode:** Camera will switch between day mode and night mode at a scheduled times each day. If using this option, use the first set of drop-down menus to select (in 24-hour time) the time the camera will switch to night mode and the second set of drop-down menus to select when the camera will return to day mode.



   - **Manual night mode control:** Manually select day mode or night mode. If using this option, under **Mode**, select **Day** for day mode or **Night** for night mode.



3. Click **Update** to apply changes to your camera. Enter the admin user name (default: **admin**) and password (default: **left blank**) for the camera and click **OK**.
4. The camera will disconnect when the setting is changed. Double-click the camera in Camera List to reconnect.

15.4 Recording to Your PC's Hard Drive

You can manually record video to your computer hard drive.

To record to your computer's hard drive:

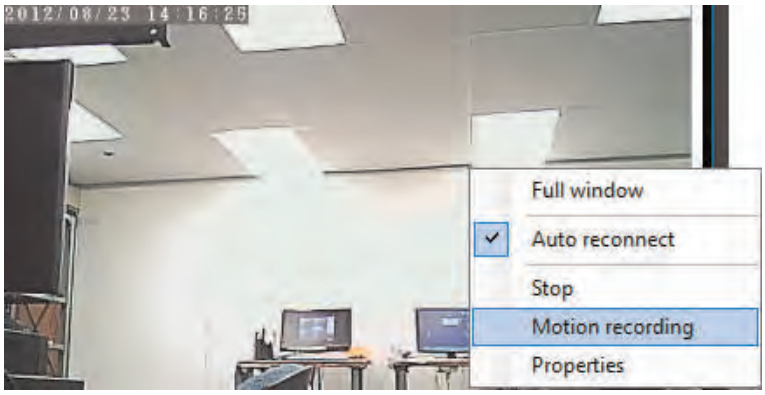
- Click  above the camera's video area to start recording. The recording icon will turn red ().
- Click  again to stop recording. To playback video, see 16 *L-Play: Playing Recorded Video on Your PC*, page 68.

15.4.1 Enabling Motion Triggered Recording

L-View can automatically record the camera to your computer hard drive when motion is detected. This is useful if you don't want to miss any events that occur, but want to avoid recording and using up hard drive space when nothing is happening.

To enable motion triggered recording:

1. Right-click on the camera display area and click **Motion Recording**.



   - The recording icon above the camera will turn green ( ) to show that motion recording is enabled. It will turn yellow ( ) when motion recording is active.

2. To disable motion triggered recording, right-click and click **Motion Recording** again.

Note

To view recordings, click to open L-Play. See 16 *L-Play: Playing Recorded Video on Your PC*, page 68.

15.5 Configuring a Video Playing / Recording Schedule

You can configure a schedule for automatically displaying a camera on a specific display screen or recording a camera to your computer hard drive.

You can configure the following schedule types:

- **Play only:** Display a camera on the selected display screen from a start date to an end date.
- **Continuous recording:** Display a camera on the selected display screen and record continuously from a start date to an end date.

- **Periodic recording:** Display a camera on the selected display screen and record on a repeating schedule.

Schedules are managed by screens. Each screen can support 1 schedule, which records or displays 1 camera. There are a maximum of 16 possible screens that can be configured for recordings. The screens are numbered between 1 and 16 in the order shown below.

Note
A camera can only be shown or recorded in one display screen at a time. It is recommended to configure only one schedule per camera.

15.5.1 Configuring a Continuous Recording or Play Only Schedule

Note
Your computer must be on, and L-View must be running to enable scheduled recording to your computer hard drive. If your computer is off or on Sleep or Hibernate mode, scheduled recording to your computer hard drive will not work.

1. Click  to open the Scheduling menu.

2. Under **Window #**, select the screen you would like the schedule to run on. The arrangement of screens in L-View is shown above.
3. Double-click a camera from the Camera List to select it for this schedule. The camera connection information automatically populates. Under **Password**, Enter the camera password if it is not saved in L-View.
4. Select **Enable** to enable the schedule or **Disable** to disable it.
5. Under **Mode**, select **Continuous recording** to continuously record the camera from a start date to an end date, or select **Play only** to display the camera on the selected screen from a start date to an end date.
6. Under **Play only/Continuous recording**, configure a **Start** and **End** date and time for your schedule.
7. Under **Recording/Playing Conflict**, select what you would like L-View to do if there is already a camera playing on the selected screen when the recording schedule begins. Select **Record/Play as scheduled** (recommended) to have the schedule automatically remove any cameras shown on the screen when it starts. Select **Give up that scheduled recording/playing** to cancel this schedule if there is already a camera on the selected screen.
8. Click **Save** to save the schedule.

Note

To view recordings, click  to open L-Play. See 16 *L-Play: Playing Recorded Video on Your PC*, page 68.

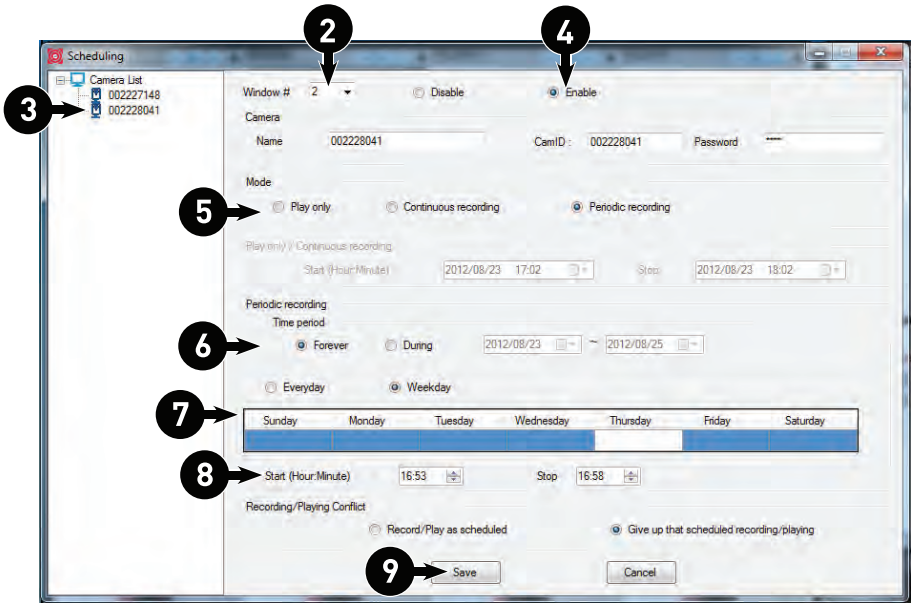
15.5.2 Configuring a Periodic (Repeating) Recording Schedule

A Periodic recording schedule displays a camera on the selected display screen and records on a repeating schedule.

To configure a Periodic recording schedule:

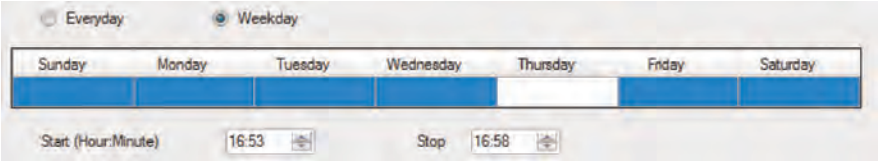
Note
Your computer must be on, and L-View must be running to enable scheduled recording to your computer hard drive. If your computer is off or on Sleep or Hibernate mode, scheduled recording to your computer hard drive will not work.

1. Click  to open the Scheduling menu.



2. Under **Window #**, select the screen you would like the schedule to run on. The arrangement of screens in L-View is shown above.
3. Double-click a camera from the Camera List to select it for this schedule. The camera connection information automatically populates. Under **Password**, enter the camera password if it is not saved in L-View.
4. Select **Enable** to enable the schedule or **Disable** to disable it.
5. Select **Periodic recording**.
6. Under **Time period**, select **Forever** to have the schedule repeat forever, or select **During** to have the schedule apply only from a specified start date to end date.
   - If you select **During**, configure the start date and end date.

7. Select **Everyday** to have the schedule apply to every day, or select **Weekday** to only have the schedule apply on certain days of the week.
   - If you select **Weekday**, click to select which days the schedule will apply to below. Selected days are shown in blue and un-selected days are shown in white.



8. Under **Start** and **End**, configure the start and end times for recording on days that the schedule applies.
9. Click **Save** to save your schedule.

Note

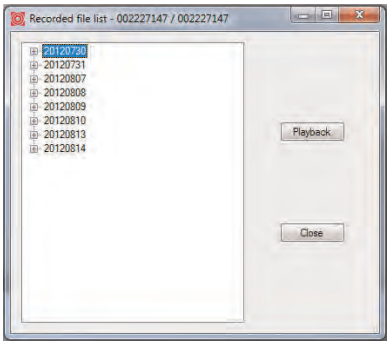
To view recordings, click  to open L-Play. See 16 *L-Play: Playing Recorded Video on Your PC*, page 68.

15.6 Playing Back Recordings on the microSD card with L-View

You can use L-View to playback recorded video on the camera's microSD card (required; not included). For instructions on setting up recording on the microSD card, see 21.4.3 *SD Card (Configuring microSD Recording)*, page 156.

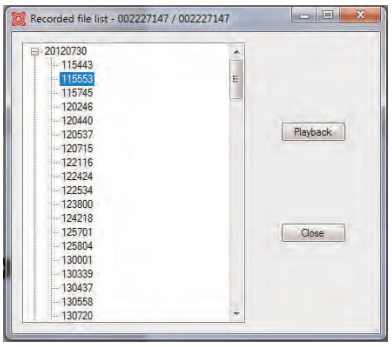
To playback recorded video on the microSD card:

1. Connect to the camera you would like to playback recordings from.
2. Click the **microSD button** () on top of the camera display area. Enter the camera password if required.
3. A list is created of all days with recordings available in the format *yyyymmdd* (for example, *20120730* is *July 30, 2012*.



4. Click the **+** next to a day to view recordings from that day. Recordings from that day are shown from earliest to latest. Recordings are named according to the time they were recorded with the format *hhmmss* (for example, *115553* is *11:55:53 AM*).

5. Click a recording from the list and then click **Playback** to view it.



6. The recording plays back in the camera display area.
   - To return to a live view of your camera, wait for the recording to finish, then right-click and select **Play**.
   - **OR**, while the recording is still playing, right-click in the display area and select Stop then right-click again and select **Play**.

15.7 Configuring Camera Video Settings

The Video Settings menu allows you to adjust the quality of the camera video.

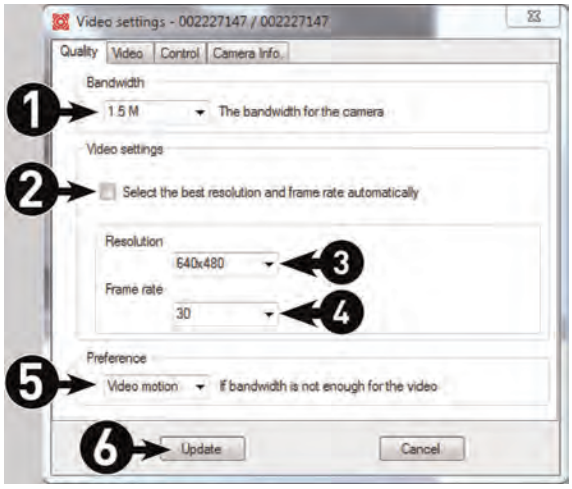
To open the Video Settings menu:

- Click  on the top of the display area for the camera you would like to configure.

Note
The camera will disconnect after making changes to video settings. Wait about 15 seconds after clicking **Update** and double-click the camera in Camera List or Auto Search to reconnect to the camera.

TIP: Change only one camera image quality setting at a time before clicking **Update** so you can judge the effects.

15.7.1 Quality Tab (Configuring Resolution, Frame Rate, and Bandwidth)



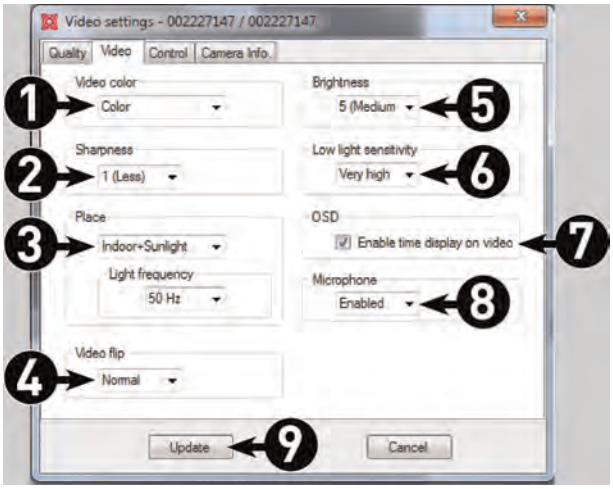
The Quality tab allows you to configure image quality settings such as the camera resolution, frame rate, and bandwidth settings.

To configure image quality settings:

1. Under **Bandwidth**, select the upload speed of your Internet connection. If your Internet connection is faster than 1.5Mbps, select 1.5Mbps.
2. Check **Select the best resolution and frame rate automatically** to have the camera automatically adjust the resolution and frame rate based on bandwidth. Or, un-check it to manually configure the resolution and frame rate. If you are manually configuring the resolution and frame rate, configure the following:
   - **Resolution:** Manually select either **320x240** (QVGA), **640x480** (VGA), **1024x768**, or **1280x800** resolution. Higher resolution will give you a better, more detailed picture, but requires more bandwidth. Lower resolution allows the camera to maintain a higher frame rate when available bandwidth is low.
   - **Frame rate:** Manually select the frame rate between **30fps** (highest) and **1fps** (lowest). 30fps is real time video, meaning that movement in the image will appear smooth, with no choppiness.
3. Under **Preference**, select your quality preference when bandwidth increases or decreases:
   - Select **Video Motion** to have the camera maintain the frame rate and reduce image quality when bandwidth is insufficient.
   - Select **Image Quality** to have the camera maintain image quality and reduce frame rate when bandwidth is insufficient.
   - Select **Better Quality** to have the camera maintain frame rate and increase quality when bandwidth is sufficient.
   - Select **Best Quality** to have the camera maintain the frame rate and increase quality to the maximum speed of the connection.
4. Click **Update** to save changes. Enter the camera admin user name (default: **admin**) and password (default: **left blank**) and click **OK**. The camera will disconnect. Wait about 15 seconds and then double-click the camera in Camera List or Auto Search to reconnect to the camera.

15.7.2 Video Tab (Configure General Video Settings)

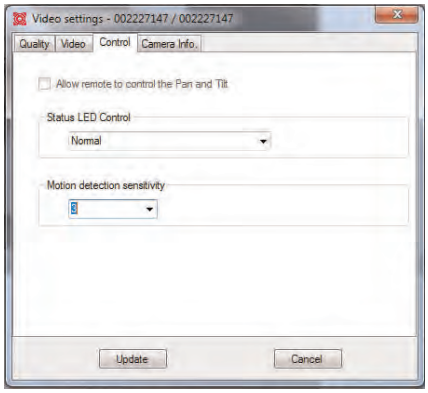
The Video tab allows you to configure general video settings, such as color and brightness settings.



To configure general video settings:

1. Under **Video Color**, select **Color** or **Black & White**.
2. Under **Sharpness**, select the sharpness of the image between **10** (highest) and **1** (lowest).
3. Under **Place**, select **Outdoor video** if the area with the camera is brightly lit. Select **Indoor Video** if you notice strip lines in the image or if the picture is too dark on the Outdoor video setting. Select **Indoor video + Sunlight** if the picture is too bright on the **Indoor Video** setting.
   - If you select **Indoor Video** or **Indoor Video + Sunlight**, select **60Hz** or **50Hz** to adjust the camera for the frequency of your indoor lighting.
4. Under **Video Flip**, select **Video Flip** to flip the camera image vertically and horizontally or select **Normal** for normal orientation.
5. Under **Brightness**, select the brightness of the image between **10** (highest) and **1** (lowest).
6. Under **Low Light Sensitivity**, set the camera's sensitivity in low light environments between **Very High** (highest), **High**, and **Normal** (lowest).
7. Check **Enable time display on video** to turn on video time stamps or un-check it to disable video time stamps.
8. Under **Microphone**, select **Enabled** to enable the built-in microphone on the camera or select **Disabled** to disable the built-in microphone on the camera.
9. Click **Update** to save changes. Enter the camera admin user name (default: **admin**) and password (default: **left blank**) and click **OK**. The camera will disconnect. Wait about 15 seconds and then double-click the camera in Camera List or Auto Search to reconnect to the camera.

15.7.3 Control Tab (Configure Status LED's and Motion Detection Sensitivity)



The Control tab allows you to configure the camera status LED's to make the camera harder to spot at night. It also allows you to configure the motion detection sensitivity when using video motion detection.

To configure the camera status LED's:

1. Under **Status LED Control**, select one of the following:
   - **Normal:** LED's will function as normal. For details on LED functions, see 4 *LNC216 Camera Overview*, page 4 or 5 *LNC226X Camera Overview*, page 6.
   - **Always turn off:** LED's are turned off at all times.
   - **Turn off after connected:** LED's turn on when the camera is powered on and turn off once a network connection is made.

2. Click **Update** to save changes. Enter the camera admin user name (default: **admin**) and password (default: **left blank**) and click **OK**. The camera will disconnect. Wait about 15 seconds and then double-click the camera in Camera List or Auto Search to reconnect to the camera.

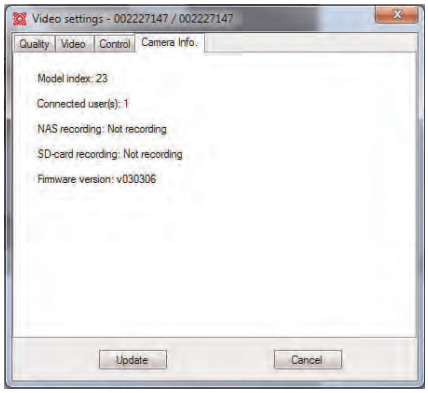
To configure motion detection sensitivity:

Note
The following method works when using video motion detection. It does not work when using PIR motion detection. For details on enabling motion detection and selecting video motion detection or PIR, see 21.4 *Schedule*, page 153.

1. Under **Motion Detection Sensitivity**, select the motion detection sensitivity between **1** (High) and **10** (Low). If **Motion Detection Sensitivity** is set to 1, motion detection will be triggered if a moving object is larger than 1% of the video area. If it is set to 10, a moving object must be larger than 10% of the video area to trigger motion detection.
2. Click **Update** to save changes. Enter the camera admin user name (default: **admin**) and pssword (default: **left blank**) and click **OK**. The camera will disconnect. Wait about 15 seconds and then double-click the camera in Camera List or Auto Search to reconnect to the camera.

15.7.4 Camera Info Tab

The camera info tab shows system information about the camera.

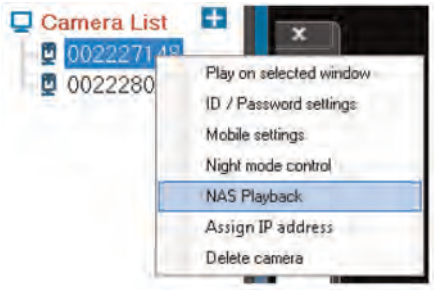


15.8 Playing Back Recordings from NAS in L-View

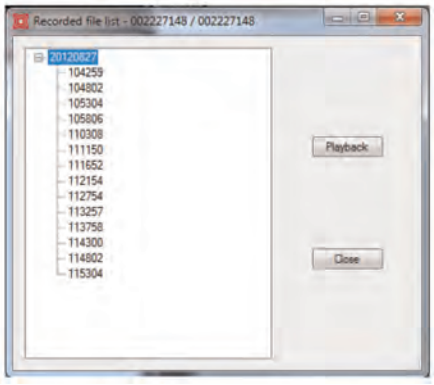
You can playback recordings from a NAS device (not included) in L-View. For instructions in setting up recording to a NAS device, see 21.4.4 *NAS Settings (Configuring NAS Recording)*, page 156.

To playback recordings from a NAS device in L-View:

1. In the Camera List, right-click the camera you would like to playback from, and then click **NAS Playback**.



2. Click **+** next to the day you would like to play back video from.
3. Click a video file in the list then click **Playback** to start playback.



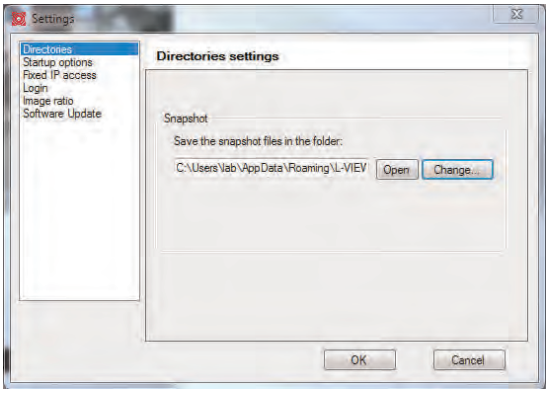
4. The recording plays back in the camera display area.
   - To return to a live view of your camera, wait for the recording to finish, then right-click and select **Play**.
   - **OR**, while the recording is still playing, right-click in the display area and select **Stop** then right-click again and select **Play**.

15.9 Configuring L-View

To configure settings for L-View, click the settings button ().

15.9.1 Directories (Opening or Changing the Snapshot/Recording Folder)

The Directories menu shows you the folder where snapshots and video files are saved. It allows you to open or change the Snapshot/Recording folder.



To open the Snapshot folder:

- Click **Open**.

To change the Snapshot folder:

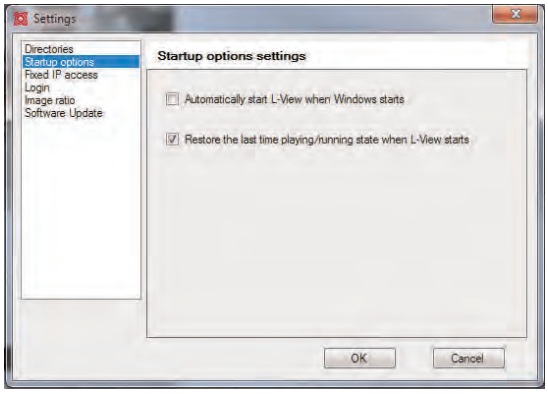
1. Click **Change**.
2. Select a new Snapshot folder and click **OK** to save changes.

15.9.2 Startup Options

The Startup options menu allows you to configure startup options for L-View.

To configure startup options:

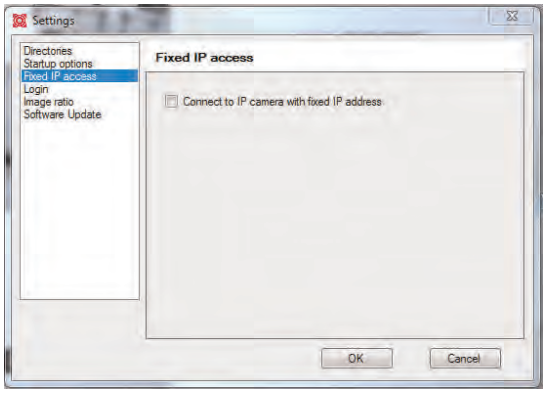
1. Check **Automatically start L-View when Windows starts** to have L-View open when your computer is turned on.



2. Check **Restore the last time playing/running state when L-View starts** to set L-View to restore the camera layout and connect to all the previously open cameras when L-View opens.
3. Click **OK** to save changes.

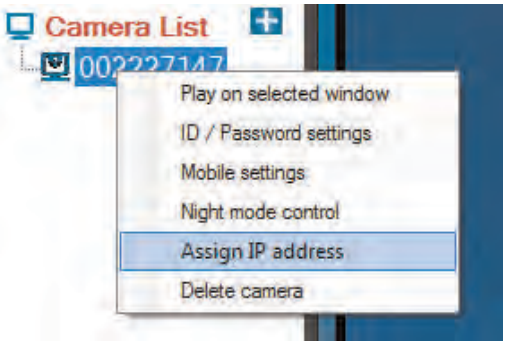
15.9.3 Fixed IP Access

The Fixed IP Access menu is for advanced users only. It must be used if you have assigned your camera a fixed IP address on your router.



To configure your camera to use a fixed IP address:

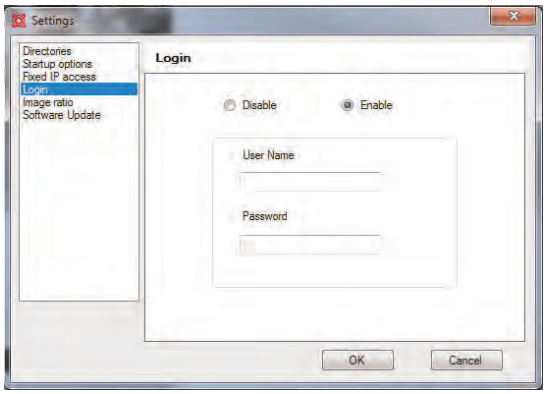
1. Check **Connect to the camera with a fixed IP address** to enable cameras to use fixed IP addresses.
2. Click **OK** to save changes.
3. In the camera list, right-click the camera you would like to configure and select **Assign IP Address**.



4. Enter the camera's internal IP address and click **OK**.

15.9.4 Login (Enabling a Password to Access L-View)

The Login menu allows you to enable a password to open L-View.



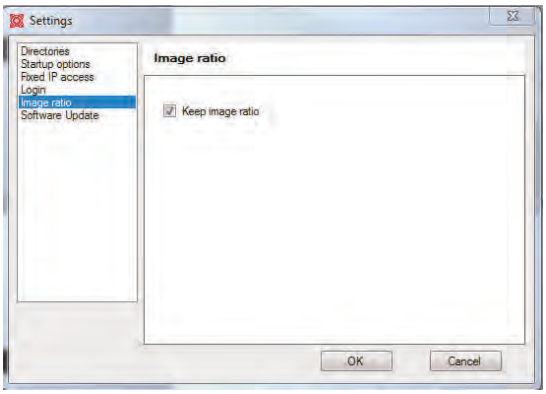
To enable a password for L-View:

1. Select **Enable**.

2. Under **User Name** and **Password**, enter the desired user name and password that must be used when you open L-View.
3. Click **OK** to save changes. The next time you exit L-View and re-open it, it will ask you for a password to log in.

15.9.5 Image Ratio

The Image Ratio menu allows you to configure L-View to preserve the original aspect ratio of the video, or to allow the video to stretch to fill the display area.

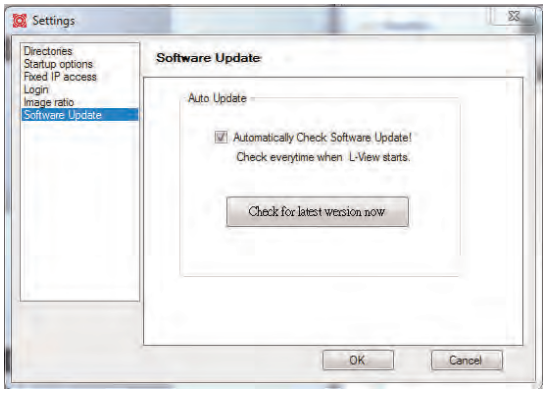


To configure Image Ratio:

1. Check **Keep Image Ratio** to not allow any stretching of the image (bars may appear on the sides of the image). Un-check **Keep Image Ratio** to stretch the image to the entire size of the display.
2. Click **OK** to save changes.

15.9.6 Software Update

The Software Update menu allows you to enable automatic updates of L-View or the camera firmware. It also allows you to manually check for updates.



To enable automatic upgrades:

1. Check **Automatically Check Software Update**.

2. Click **OK**. L-View will check online for an software updates when it opens. If an update is available, follow the on-screen instructions to install the update.
    - It will also check for camera updates when a new firmware is available. If a new camera firmware is available, click **OK** and enter the admin user name (default: **admin**) and password (default: **left blank**). Then, wait for the upgrade to complete. **Do not unplug the camera power cable or Ethernet cable during firmware updates.** The camera will reboot during the firmware upgrade process.

To manually check for an update:

1. Click **Check for latest version now**. If an update is available, follow the on-screen instructions to install the update.

16 L-Play: Playing Recorded Video on Your PC

L-Play is an advanced playback software that allows you to play back recorded video or snapshots from your computer hard drive or NAS.

16.1 Running L-Play

- Double-click the L-Play icon ( ) on your desktop.

OR

- Click in L-View.

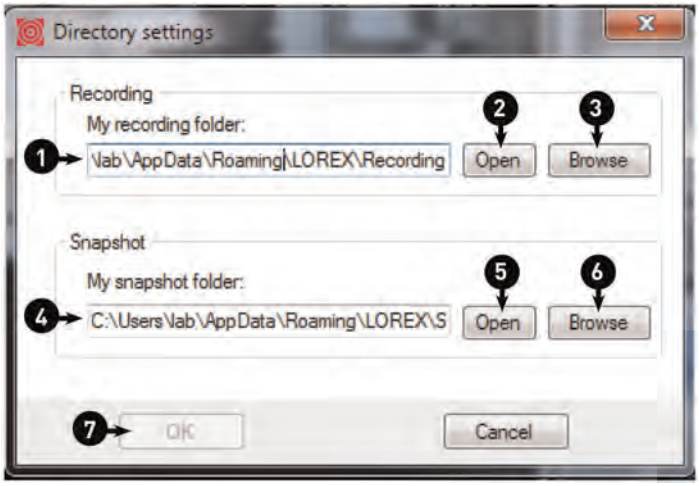
See 16.2 *L-Play Overview*, page 68 for a detailed description of L-Play functions.

16.2 L-Play Overview

1. **Display**
2. **Minimize/Restore**
3. **Maximize/Revert to Window**
4. **Exit**
5. **Open Record:** Open recordings from your computer hard drive. See 16.3 *Playing Back Video from Computer Hard Drive in L-Play*, page 70.
6. **Open NAS:** Open recordings from a NAS device (not included). See 16.4 *Playing Back Video from NAS in L-Play*, page 72.
7. **Open Snapshots:** Open Snapshots on your computer hard drive. See 16.5 *Viewing Snapshots in L-Play*, page 74.
8. **Convert to AVI:** Convert currently playing video to .avi file to play in Windows Media player or for sharing. See 16.6 *Converting Video Files to AVI*, page 75.

9. **Split-Screen Selectors:** Click  for different split-screen configurations. Click  for full-screen. Press **ESC** to exit full-screen.
10. **Video Status:** Shows the time the currently playing video was recorded at.
11. **Volume Controls:** Click to adjust the volume of video being played back. Click  to mute / un-mute audio.
12. **Snapshot :** Click to take a snapshot from the currently playing video. Snapshot function does not work if video is paused.
13. **Zoom In:** Click to zoom in on the selected video. Once zoomed, click and drag on the video to pan the camera.
14. **Zoom Out:** Click to zoom out of the selected video. Once zoomed, click and drag on the video to pan the camera.
15. **Playback Speed:** Shows the current playback speed. Click **+** to increase playback speed or **-** to decrease.
16. **Playback Controls:**
    - **:** Play the selected video.
    - **:** Pause the selected video.
    - **:** Close the selected video.
17. **Language Selector :** Click to select the language for L-Play.

18. **View Recording/Snapshot Folders :** Click to open or select folders for storing Recordings or Snapshots.



18.1. Current recording folder
18.2. Open recording folder
18.3. Change recording folder
18.4. Current snapshot folder
18.5. Open snapshot folder
18.6. Change snapshot folder
18.7. Click **OK** to confirm changes

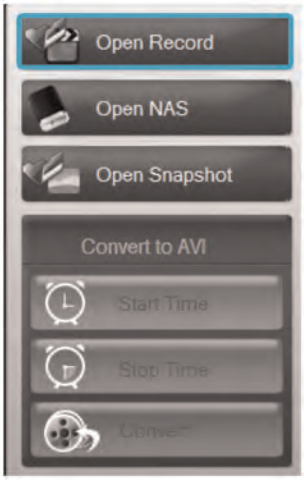
Note
If changing Recording/Snapshot folders, make sure the same Recording and Snapshot folders are selected in L-View and L-Play.

16.3 Playing Back Video from Computer Hard Drive in L-Play

You can playback recordings from your computer hard drive in L-Play. For instructions on recording to your computer hard drive, see 15.4 *Recording to Your PC's Hard Drive*.

To playback recordings from your computer hard drive:

1. Click **Open Record**.

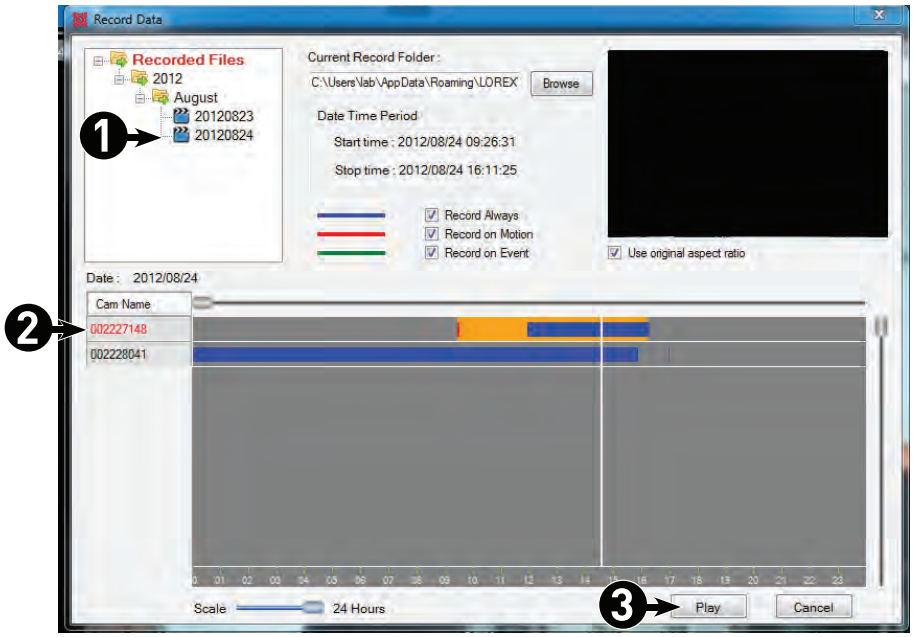


2. L-Play opens recordings from your recording folder.

> **Note**
> If no recordings appear, check to see if the recording folder selected is the same as the one selected in L-View. If the folder is different, click **Browse**, select the recording folder used in L-View, and then click **OK**.

3. Click **+** next to the year to expand recordings for the year. Click **+** next to month to expand recordings for that month.
4. Double-click a day to select it.

5. Click the camera or cameras you would like to playback from and then click **Play**.



   5.1. Double-click the day you wold like to play back video from.
   5.2. Click the camera you would like to play back video from.
   5.3. Click **Play** to begin playback.

6. Playback begins from the earliest video files recorded on that day. Use the slider to adjust the playback time.

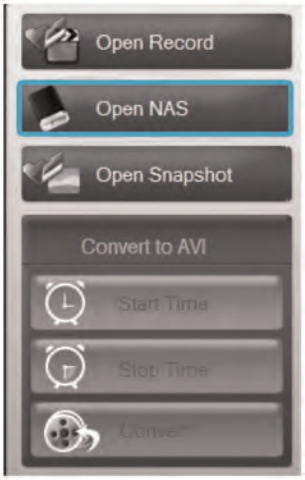
16.4 Playing Back Video from NAS in L-Play

You can playback recordings from a NAS device (not included) in L-Play. For instructions on setting up NAS recording, see 21.4.4 *NAS Settings (Configuring NAS Recording)*, page 156.

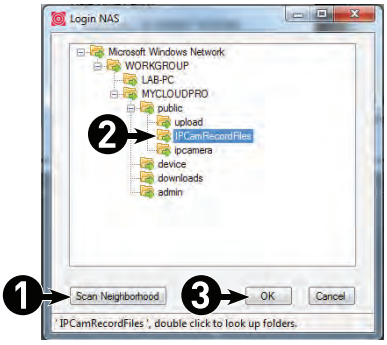
To playback NAS recordings in L-Play:

Note
To complete the steps below, your NAS device must be connected to the same network as your computer.

1. Click **Open NAS**.

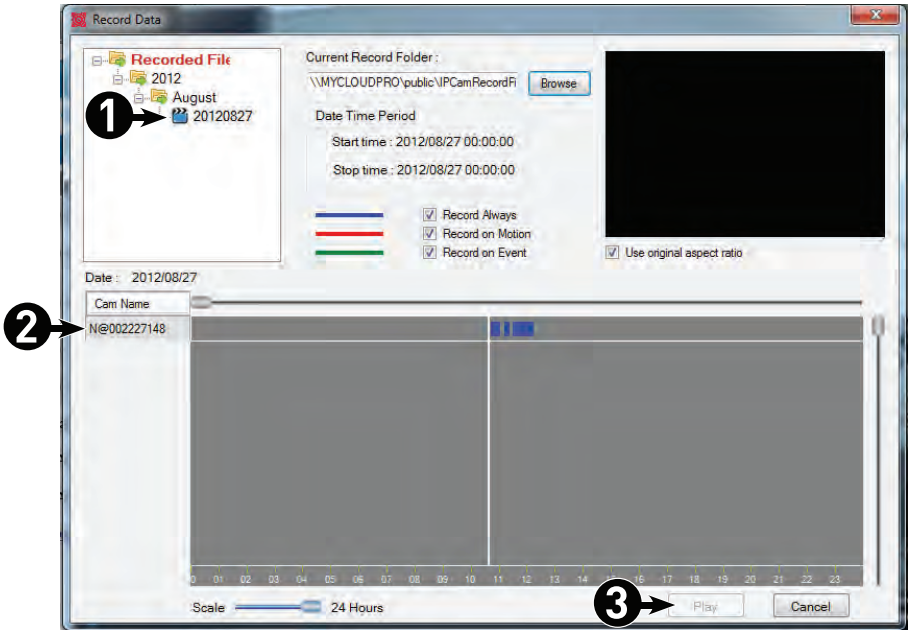


2. Click **Browse**.
3. Click **Scan Neighborhood** to scan your local network for connected NAS devices.
4. Browse to your NAS device, double-click the folder you selected as the Shared public folder when you set up NAS recording, and then select **IPCamRecordFiles**. Click **OK**.



5. Click **+** next to the year, and then click **+** next to the month you would like to play back video from.

6.



6.1. Double-click a day to select video recorded on that day. L-Play shows times that have video recorded for each camera.
6.2. Click the camera or cameras you would like to play back video from.
6.3. Click **Play**.

7. Playback begins from the earliest video files recorded on that day. Use the slider to adjust the playback time.

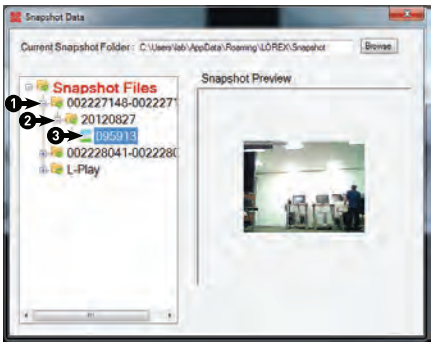
16.5 Viewing Snapshots in L-Play

You can use L-Play to open snapshots saved from either L-Play or L-View.

To view snapshots in L-Play:

1. Click **Open Snapshot**. L-Play opens the snapshot folder

2.



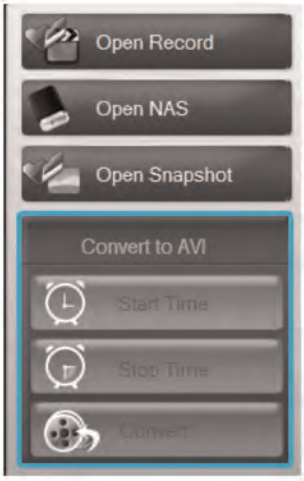
2.1. Click **+** next to the camera you would like to open snapshots from, or click **+** next to L-Play to open snapshots taken in L-Play.
2.2. Click **+** to open snapshots from the selected day.
2.3. Double-click to open a snapshot. Snapshots are opened in Windows Photo Viewer or your default image viewing program.

16.6 Converting Video Files to AVI

L-Play allows you to convert recorded video files to .avi format. You can play .avi files in Windows Media player, share them with family or friends, or post them online.

To convert video files to .avi format:

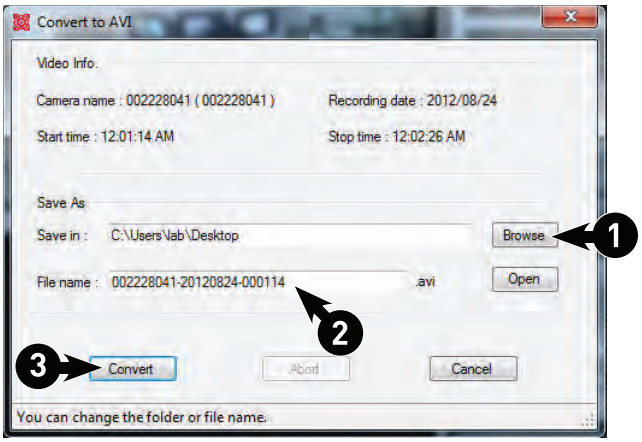
1. While a video file is playing, click **Start Time**. The converted .avi video file will start at this point in the video.



Note
If you have more than one video open, make sure to select the screen that is currently playing the video you would like to convert. Click a screen to selected. The CamID for the currently selected screen is shown in white.

2. When you would like the converted .avi video file to end, click **Stop Time**.
3. Click **Convert**.The Convert to AVI menu opens.

4.



4.1. **(Optional)** If you want to select a custom folder to save the .avi file, click **Browse**, or use the default folder.

4.2. **(Optional)** If you want to use a custom file name for the .avi file, enter it under **File name**.

4.3. Click **Convert** to convert the video file to .avi. Wait for the file to convert.

5. Click **Open** to open the folder where your converted file is saved.

17 L-View for Mac

L-View for Mac allows you to view your camera on a Mac computer. L-View for Mac is available as a free download from www.lorextechnology.com.

For instructions on connecting to your camera using Mac, see 14 *Connecting to Your Camera on Mac*, page 41.

17.1 System Requirements

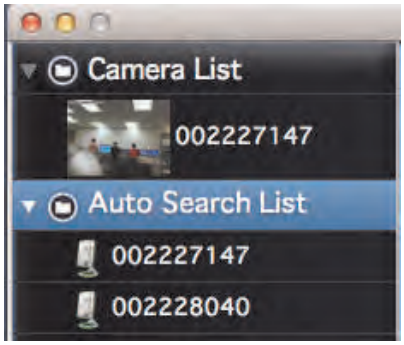
Description	Minimum System Requirements
CPU	2.0 GHz (dual-core recommended)
Memory	2GB
Operating System	OS X 10.6.8 Snow Leopard (Intel Processors only)
Hard Drive	Minimum 5~10 GB free for recordings

17.2 L-View for Mac Interface

1. **Window Controls:** Click to exit or minimize L-View.
2. **Camera List:** Shows cameras that have been saved in L-View. Double-click cameras to connect to them.

> **Note**
> To connect to multiple cameras, click to select a display area. The selected area is highlighted. Then, double-click the camera to open it in the selected area.

3. **Auto Search List:** Auto Search shows cameras located on your local network (LAN).
   - Double-click the camera ID to view the camera.
   - Drag the camera to the Camera List to save the camera.
   - Right-click the camera ID and select **Web configure** to configure the camera settings using a browser. See 21 *Configuring Camera Settings Using a Browser*, page 148.



4. **Playback:** Click to open Playback mode. For details, see 17.4.1 *Playing Back Video from Your Mac's Hard Drive*, page 80.
5. **All Camera Action:** Click to perform an action on all cameras.
6. **Recording Controls:**
   - **Record:** Click to start/stop manual recording. For details, see 17.4 *Recording Video to Your Mac's Hard Drive*, page 79.
   - **Snapshot:** Click to take a snapshot from the camera. To view snapshots, click and select Snapshot folder.
   - **Folder:** Click to open the recording folder or snapshot folder for this camera.

7. **Display Area:** Shows video from your camera.
   - Double-click to view the camera in full-screen; double-click again to exit full-screen.
   - Right-click and click **Stop** to close the selected camera.
   - Click a display area to select it. The top of the area turns orange. L-View plays audio from the camera in the currently selected area.

8. **Split-screen Controls:**

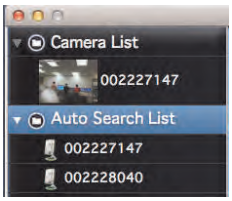
- : Click to open single camera view.
- : Click to open 4-camera view.
- : Click to open 6-camera view.
- : Click to open the current display in full-screen. Press **ESC** to exit full-screen.

17.3 Camera List (Managing Cameras)

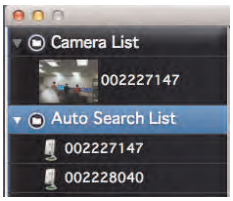
The Camera List is used to save connection information for your cameras, so you don't have to re-enter the ID or password each time you connect. It also allows you to configure certain camera settings (see 17.6 *Using Camera List to Modify Camera Settings*, page 82).

17.3.1 Adding Cameras to Camera List

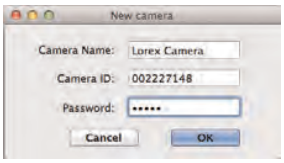
- If the camera is on the same network as the computer, click and drag the ID from the Auto Search List to the camera list. Then right-click the ID and click **ID/Password setting**. Enter the camera password. If you want, you can also enter a Camera Name of your choice for your camera. Click **OK**.



Click and drag camera ID from Auto Search List to Camera List



Right-click and select ID/Password settings

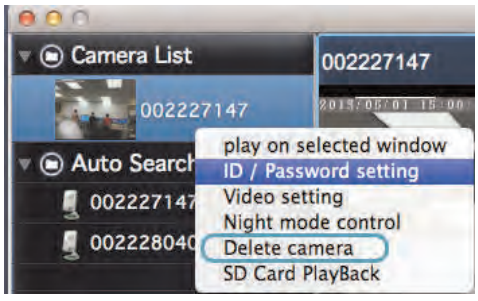


Enter a name of your choice. Enter the camera password and click OK

- If you are adding a camera over the Internet, see .

17.3.2 Deleting Cameras from Camera List

- Right-click the camera in Camera List and select **Delete Camera**. Click **OK** to confirm.



17.4 Recording Video to Your Mac's Hard Drive

You can manually record video to your computer's hard drive.

To record video to your Mac's hard drive:

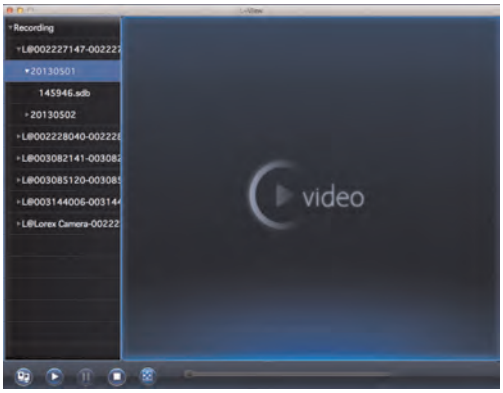
1. Press the recording button ( ) to start recording. The recording button will turn green during recording.
2. Press the recording button again ( ) to stop recording.

17.4.1 Playing Back Video from Your Mac's Hard Drive

You can playback video files you have saved to your Mac's hard drive in L-View.

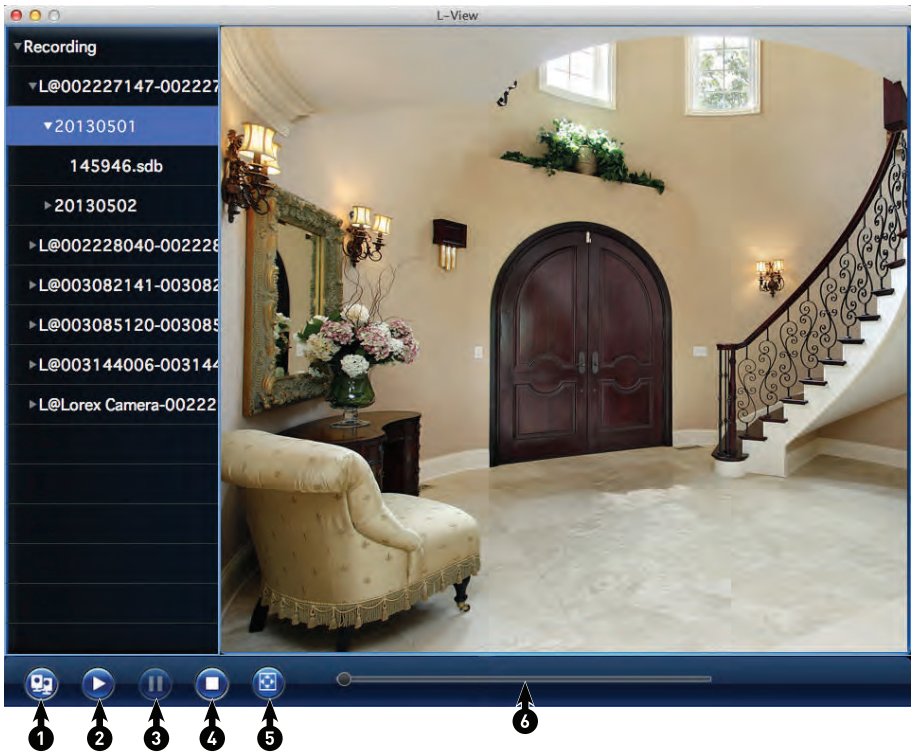
To play back video from your Mac's hard drive:

1. Use the instructions above to record some video if you have not done so already.
2. Click the Playback button ( ).
3. Select the video file you would like to playback.



Note
Dates are shown using *yyyymmdd* format (e.g. *20121016* is *October 16, 2012*). Video timestamps are shown using *hhmmss* format (e.g. *103045* is *10:30:45am*).

4. Use the on-screen playback controls.



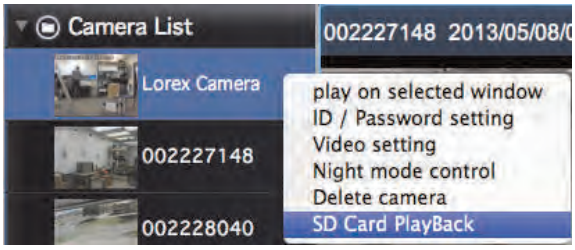
4.1. Return to live video
4.2. Play
4.3. Pause
4.4. Stop
4.5. Full-screen
4.6. Select playback time

17.5 Playing Back Recordings on the microSD card with L-View

You can use L-View to play back recordings on the camera's microSD card (not included). To set up microSD recording, you must use the camera's web configuration tool. For details, see 21.4.3 *SD Card (Configuring microSD Recording)*, page 156.

To play back recordings on the camera's microSD card:

1. Right-click on the camera in Camera List and select **SD Card Playback**.



2. Enter the password for the camera and click **OK**. L-View searches for recordings on the microSD card.

3. Click the arrow beside a date to view video recorded on that date. Double-click the file you would like to play back.

Note
Video timestamps are shown using *hhmmss* format (e.g. *103045* is *10:30:45am*).

4. To return to live video, close the microSD window and double-click the camera in Camera List.

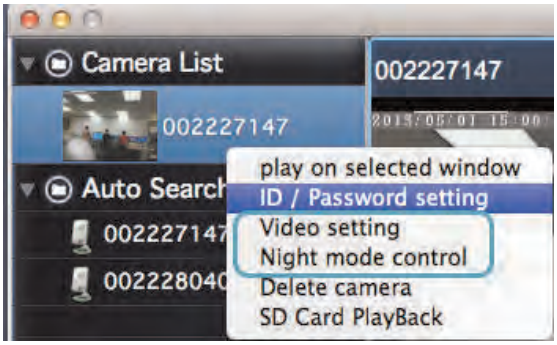
17.6 Using Camera List to Modify Camera Settings

You can use L-View to configure certain settings for the camera.

TIP: Change only one camera setting at a time before clicking Update so you can judge the effects.

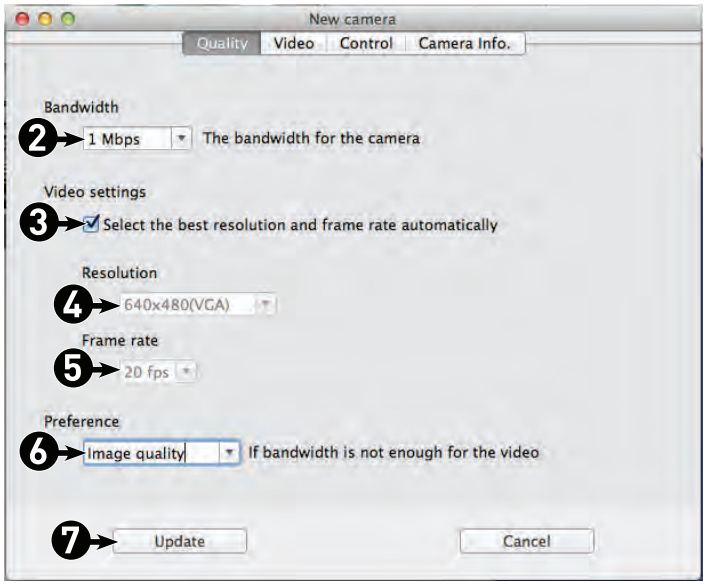
To configure camera settings using Camera List:

- Right-click on the camera in Camera List and select **Video settings** or **Night mode control**. See below for details.



17.6.1 Quality Tab (Configure Bandwidth, Resolution, and Frame Rate)

The Quality tab allows you to configure image quality settings such as the camera resolution, frame rate, and bandwidth settings.



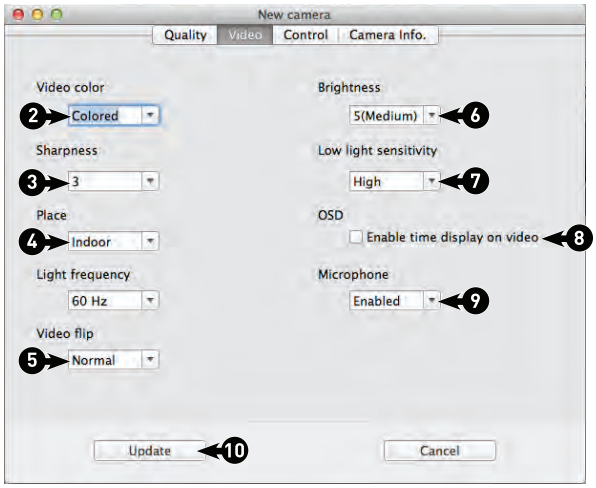
To configure image quality settings:

1. Right-click on the camera in Camera List and select **Video settings**. Select the **Quality** tab.
2. Under **Bandwidth**, select the speed of your Internet connection. If your Internet connection is faster than 3Mbps, select 3Mbps.
3. Check **Select the best resolution and frame rate automatically** to have the camera automatically adjust the resolution and frame rate based on bandwidth. If you set the resolution to adjust automatically, go straight to step 6. Or, un-check it to manually configure the resolution (step 4) and frame rate (step 5).
4. **Resolution:** Manually select either **(640x480) VGA**, **(320x240) QVGA**, **1024x768**, or **1280x800** resolution. Higher resolution settings will give you a better, more detailed picture, but requires more bandwidth. QVGA allows the camera to maintain a higher frame rate when available bandwidth is low.
5. **Frame rate:** Manually select the frame rate between **30fps** (highest) and **1fps** (lowest). 30fps is real time video, meaning that movement in the image will appear smooth, with no choppiness.
6. Under **Preference**, select your quality preference when bandwidth increases or decreases:
   - Select **Video motion** to have the camera maintain the frame rate and reduce image quality when bandwidth is insufficient.
   - Select **Image quality** to have the camera maintain image quality and reduce frame rate when bandwidth is insufficient.
   - Select **Better quality** to have the camera maintain frame rate and increase quality when bandwidth is sufficient.
   - Select **Best quality** to have the camera maintain the frame rate and increase quality to the maximum speed of the connection.
7. Click **Update** to save changes. Enter the camera admin user name (default: **admin**) and password (default: **left blank**) and click **OK**. Click **OK** to close the settings window.

Note
The camera may reboot after settings are changed. Wait about 30 seconds and then double-click the camera in Camera List or Auto Search to reconnect to the camera.

17.6.2 Video Tab (Configure General Video Settings)

The Video tab allows you to configure general video settings, such as color and brightness settings.



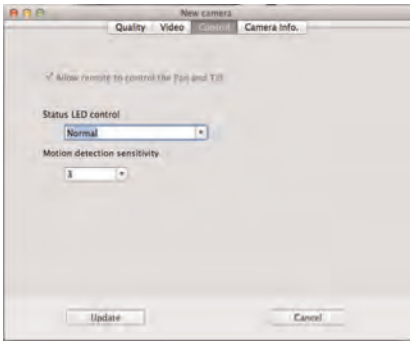
To configure general video settings:

1. Right-click the camera in Camera List and click **Video settings**. Then, select the **Video** tab.
2. Under **Video Color**, select **Colored** or **Black & White**.
3. Under **Sharpness**, select the sharpness of the image between **10** (highest) and **1** (lowest).
4. Under **Place**, select **Outdoor** if the area with the camera is brightly lit. Select **Indoor** if you notice strip lines in the image or if the picture is too dark on the **Outdoor** video setting. Select **Indoor + Sunlight** if the picture is too bright on the Indoor setting.
   - If you select **Indoor** or **Indoor + Sunlight**, select **60Hz** or **50Hz** under **Light Frequency** to adjust the camera for the frequency of your indoor lighting.
5. Under **Video Flip**, select **Flip** to flip the camera image vertically and horizontally or select **Normal** for normal orientation.
6. Under **Brightness**, select the brightness of the image between **10** (highest) and **1** (lowest).
7. Under **Low Light Sensitivity**, set the camera's sensitivity in low light environments between **Very High** (highest), **High**, and **Normal** (lowest).
8. Check **Enable time display on video** to turn on video time stamps or un-check it to disable video time stamps.
9. Under **Microphone**, select **Enabled** to enable the built-in microphone on the camera or select **Disabled** to disable the built-in microphone on the camera.
10. Click **Update** to save changes. Enter the camera admin user name (default: **admin**) and password (default: **left blank**) and click **OK**. Click **OK** to exit the settings window.

Note
The camera may reboot after settings are changed. Wait about 30 seconds and then double-click the camera in Camera List or Auto Search to reconnect to the camera.

17.6.3 Control Tab (Configure Status LED's and Motion Detection Sensitivity)

The Control tab allows you to configure the camera status LED's to make the camera harder to spot at night. It also allows you to configure the motion detection sensitivity when using video motion detection.



To configure the camera status LED's:

1. Right-click the camera in Camera List and click **Video settings**. Then, select the **Control** tab.
2. Under **Status LED Control**, select one of the following:
   - **Normal:** LED's will function as normal. For details on LED functions, see 4 *LNC216 Camera Overview*, page 4 or 5 *LNC226X Camera Overview*, page 6.
   - **Always turn off:** LED's are turned off at all times.
   - **Turn off after connected:** LED's turn on when the camera is powered on and turn off once a network connection is made.
3. Click **Update** to save changes. Enter the camera admin user name (default: **admin**) and password (default: **left blank**) and click **OK**. Click **OK** to exit the settings window.

> **Note**
> The camera may reboot after settings are changed. Wait about 30 seconds and then double-click the camera in Camera List or Auto Search to reconnect to the camera.

To configure motion detection sensitivity:

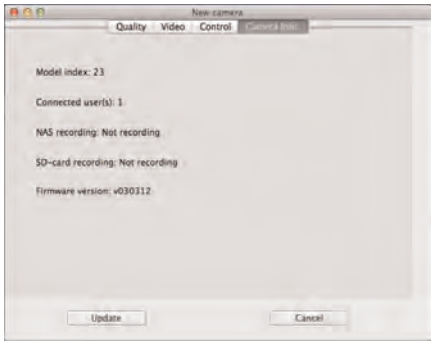
> **Note**
> The following method works when using video motion detection. It does not work when using PIR motion detection. For details on enabling motion detection and selecting video motion detection or PIR, see 21.4 *Schedule*, page 153.

1. Right-click the camera in Camera List and click **Video settings**. Then, select the **Control** tab.
2. Under **Motion Detection Sensitivity**, select the motion detection sensitivity between **1** (High) and **10** (Low). If Motion Detection Sensitivity is set to 1, motion detection will be triggered if a moving object is larger than 1% of the video area. If it is set to 10, a moving object must be larger than 10% of the video area to trigger motion detection.
3. Click **Update** to save changes. Enter the camera admin user name (default: **admin**) and password (default: **left blank**) and click **OK**. Click **OK** to exit the settings window.

> **Note**
> The camera may reboot after settings are changed. Wait about 30 seconds and then double-click the camera in Camera List or Auto Search to reconnect to the camera.

17.6.4 Camera Info Tab

The camera info tab shows system information about the camera.

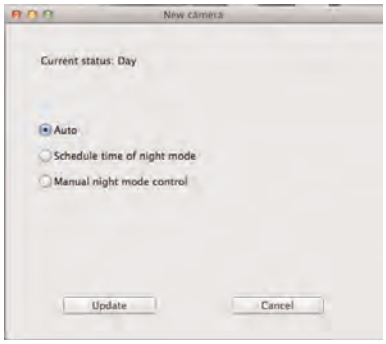


To access the camera info tab:

- Right-click on the camera in Camera List and select **Video Settings**. Then select the **Camera Info** tab.

17.6.5 Configuring Night Mode Settings

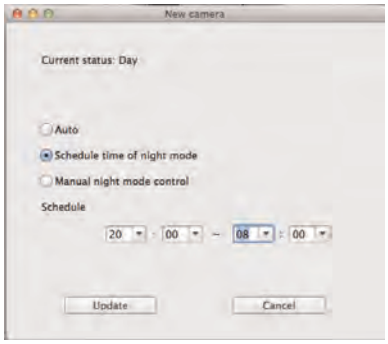
Configure when the camera uses day or night mode. When day mode is on, the camera sees in color. When night mode is on, the camera sees in black and white, and the Infrared LED turns on to enable night vision.



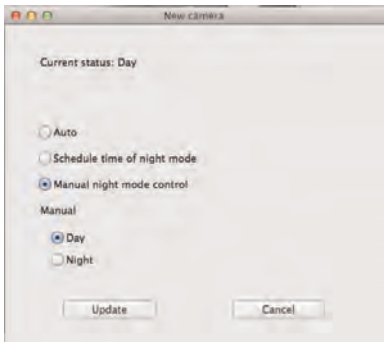
To configure night mode settings:

1. Right-click on the camera you want to configure in Camera List and select **Night mode control**.

2. Select one of the following:
   - **Auto:** Camera will automatically switch between day mode or night mode, based on the amount of light in the room.
   - **Scheduled time of night mode:** Camera will switch between day mode and night mode at a scheduled time each day. If using this option, use the first set of drop-down menus to select (in 24-hour time) the time the camera will switch to night mode and the second set of drop-down menus to select when the camera will return to day mode.



   - **Manual night mode control:** Manually select day mode or night mode. If using this option, under **Manual**, select **Day** for day mode or **Night** for night mode.



3. Click **Update** to apply changes to your camera. Enter the admin user name (default: **admin**) and password (default: **left blank**) for the camera and click **OK**. Click **OK** to exit the settings window.

Note
The camera may reboot after settings are changed. Wait about 30 seconds and then double-click the camera in Camera List or Auto Search to reconnect to the camera.

18 iPhone® App

The app for iPhone® is called **Lorex Ping**.

For instructions on connecting to your camera using an iPhone®, see 10 *Connecting to Your Camera on iPhone*®, page 18.

18.1 Live Viewing with Lorex Ping for iPhone®

You can use Lorex Ping in portrait or landscape mode. Tilt the phone to switch between portrait or landscape.

1. Disconnect button (only shown in portrait mode)
2. Video information
3. Record video to phone memory; press again to stop recording
4. Save snapshot of the camera to your phone
5. Play a siren on the camera (speaker required)
6. Activate 2–way-audio (Intercom) using the phone microphone (speaker required)

18.1.1 Using 2-Way-Audio (Intercom)

Note
The camera requires a speaker in order to use this feature. LNC226X does not have a speaker.

1. While viewing, touch  to activate 2-way-audio (intercom) using the phone microphone.
   - A volume slider appears that allows you to adjust the speaker volume.
   - Touch  again to turn off 2-way audio.

1.1. Turn off 2–way-audio
1.2. Adjust speaker volume

18.1.2 Taking Snapshots

- While viewing, tap  to take a snapshot from the camera. You can view snapshots using the Camera app or save photos to your computer by connecting your iPhone® to your computer using a USB cable.

18.1.3 Recording Video to iPhone®

You can manually record video from your camera directly to your iPhone's built in memory.

To record video to your iPhone's memory:

1. While viewing, tap  to start recording.
2. Tap  again to stop recording. To view the recorded video, see below.

18.2 Playing Back Video Recorded on iPhone®

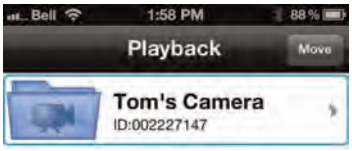
After using the record button to record video to your iPhone®, you can playback video on iPhone®.

18.2.1 Using Playback

1. From the Camera List, tap Playback ( ).

> **Note**
> If you are still connected to the camera, tap **Disconnect** to return to the Camera List. Disconnect only appears when holding the phone in portrait mode.

2. Tap the name of the camera you would like to select.



3. Tap the date of the video recording you would like to playback. Then tap the desired video file to start playback.
4. Use the on-screen video controls to control playback. Tap **Stop** to return to the file list.

18.3 Playing Back Video Recorded on microSD on iPhone®

You can playback video recorded on the camera microSD card (not included) on your iPhone®. For details on setting up microSD recording, see 18.4.13 *Configuring microSD Recording*, page 102.

To play back video recorded on the camera microSD card:

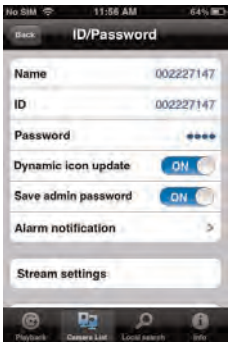
1. From the Camera List, tap to open the camera settings page.
2. Scroll down and tap **SD card playback**.
3. Select the camera you would like to playback from.

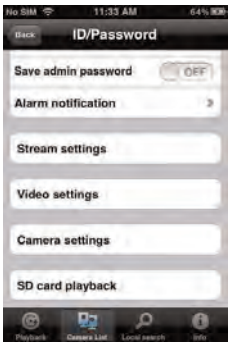
4. The camera scans for recorded video files and shows a list of days with recorded video. Tap a day to view recordings created on that day.

5. Tap a recording to play it.
6. Tap **Disconnect** to return to the recordings list.

18.4 Using Camera List to Edit Camera Settings

You can use the Camera List to adjust the connections settings or other settings for your camera.





To access Camera Settings:

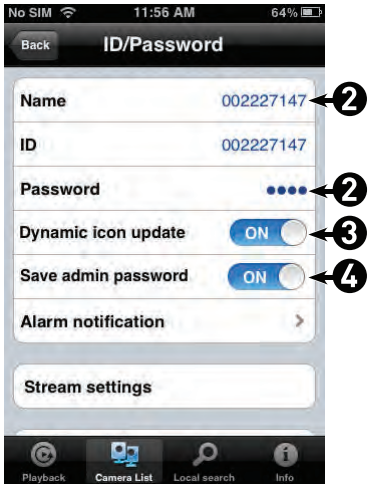
1. Tap Camera List  . Then tap  next to the camera you would like to edit.
2. For certain menus, you will need to enter the camera admin user name and password before you may change settings. By default, the admin user name is **admin** and the password is **left blank**.

18.4.1 Editing Camera Connection Settings

You can edit your camera connection information. This is useful if you change the password of the camera or if you want to save the admin user name and password, so you don't have to enter it to make settings changes.

To edit camera connection settings:

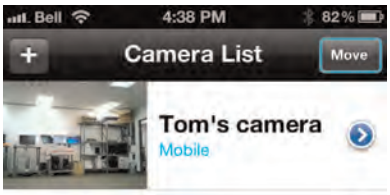
1. In Camera List, tap next to the camera you would like to edit.



2. Change the **Name** and **Password** as needed.
3. Under **Dynamic icon update**, select **ON** to have the camera icon automatically update every time you connect to the camera, or select **OFF** to keep the icon as is.
4. Under **Save admin password**, select **ON** to have Lorex Ping save the admin user name and password the next time you enter it, or **OFF** to require the admin user name and password whenever settings changes are made.
5. Tap **Back** to save changes and return to camera list.

18.4.2 Deleting Cameras from Camera List

1. In Camera List, tap **Move**.

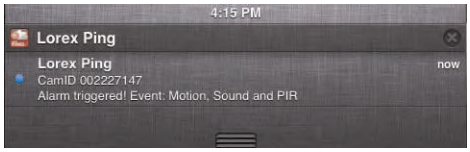


2. Tap next to the camera you would like to delete then tap **Delete** to confirm.

3. Tap **Done**.

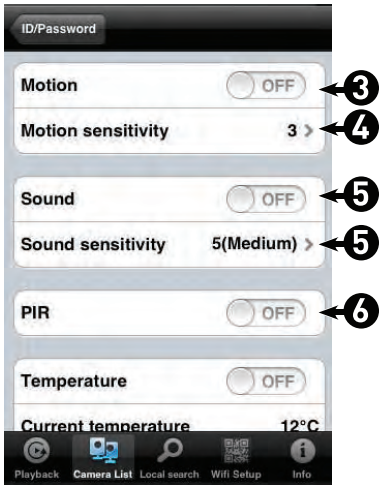
18.4.3 Editing Motion/Sound Notification Settings (Push Notifications)

Push Notifications can be set up to create a notification straight to your iPhone® when motion or sound is detected by the camera. Push Alarm Notifications go directly to the notifications area on your device.



To configure motion / sound push notifications:

1. In Camera List, tap  next to the camera.
2. Tap **Alarm notification**.



3. Under **Motion**, select **ON** to enable Push Alarm Notifications when motion is detected using video motion detection or **OFF** to disable.
4. Under **Motion Sensitivity**, select the sensitivity for video motion detection push notifications between **1** (lowest) and **10** (highest) and press **OK**.
5. Under **Sound**, select **ON** to enable Push Alarm Notifications when sound is detected by the camera or **OFF** to disable. Under **Sound Sensitivity**, select a sensitivity for Sound Push Alarm Notifications between **1** (lowest) and **10** (highest) and press **OK**.
6. Under **PIR**, select **ON** to enable Push Alarm Notifications when motion is detected using the PIR motion sensor or **OFF** to disable.

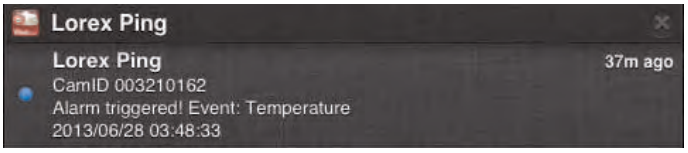
> **Note**
> The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

7. Tap **Update** to save your settings.

18.4.4 Configuring Temperature Push Notifications and Temperature Units (Fahrenheit or Celsius)

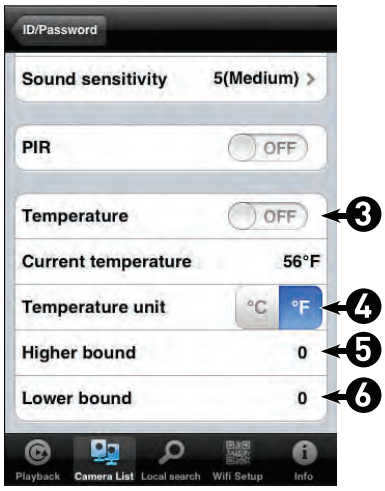
Temperature Push Notifications can be set up to send you alerts if the temperature near the camera goes higher or lower than the specified values. You can also select the temperature unit that will be used by the system.

Note
The camera requires a temperature sensor in order to use this feature. LNC226X does not have a temperature sensor.



To configure temperature push notifications:

1. In Camera List, tap next to the camera.
2. Tap **Alarm notification**.



3. Under **Temperature**, select **ON** to enable temperature notifications.
4. Under **Temperature unit**, select **F°** or **C°**.
5. Under **Higher bound**, select the high temperature value. You will receive a notification if the temperature near the camera goes above this value.
6. Under **Lower bound**, select the low temperature value. You will receive a notification if the temperature near the camera goes above this value.
7. Tap **Update** to save your settings.

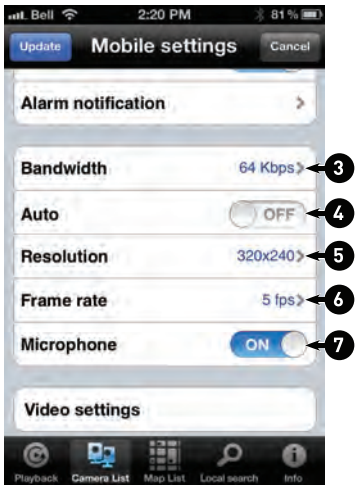
18.4.5 Editing Camera Mobile Streaming Settings

Configure the camera image quality settings for streaming to mobile devices (i.e. smartphones and tablets). Please note that less bandwidth is generally available over mobile networks than over WiFi or Ethernet.

To edit mobile streaming settings:

1. In Camera List, tap next to the camera.

2. Tap **Stream Settings**.

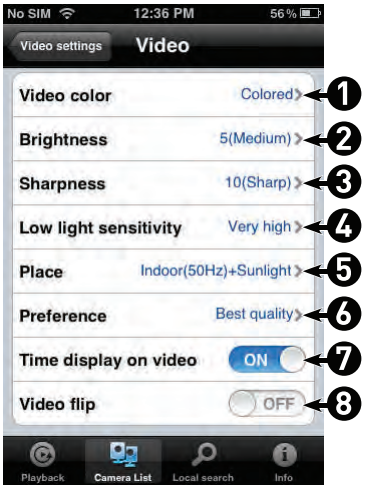


3. Under **Bandwidth**, select the bandwidth for your mobile connection. If you are mainly connecting using WiFi, you may set this setting higher.
4. Under **Auto**, select **ON** to have the camera automatically select the resolution and frame rate based on available bandwidth. If you set the resolution and frame rate to automatic, go straight to step 7. Or, select **OFF** to manually select the resolution (step 5) and frame rate (step 6).
5. Under **Resolution**, select the resolution that will be used when connecting to the camera using a smart phone or tablet: **320x240**, **480x360**, **640x400**, or **1024x768**.
6. Under **Frame rate**, select the frame rate that will be used when connecting to the camera using a smart phone or tablet between **30fps** (highest) and **1fps** (lowest).
7. Under **Microphone**, select **OFF** to turn off audio streaming to your mobile device or tap to select **ON** to turn on audio streaming to your mobile device.
8. Tap **Update** to save your settings.

18.4.6 Editing Camera Video Settings

1. In Camera List, tap  next to the camera.
2. Tap **Video Settings**.

3. Tap **Video**.



4. Configure the following:
   - 4.1. **Video color:** Select **Colored** to view the camera in color or select **Black & white**. Tap **Video** to return to Video settings.
   - 4.2. **Brightness:** Manually adjust the brightness of the image between **10** (highest) and **1** (lowest). Tap **Video** to return to Video settings.
   - 4.3. **Sharpness:** Manually adjust the sharpness of the image between **10** (highest) and **1** (lowest). Tap **Video** to return to Video settings.
   - 4.4. **Low Light Sensitivity:** Set the camera's sensitivity in low light environments between **Very High** (highest), **High** , and **Normal** (lowest). Tap **Video** to return to Video settings.
   - 4.5. **Place:** Select **Outdoor** for well lit environments. Select **Indoor** if you notice strip lines in the image or if the picture is too dark on the Outdoor video setting. Select **Indoor + Sunlight** if the picture is too bright on the Indoor Video setting. If you select an indoor setting, select **60Hz** or **50Hz** to adjust the camera for the frequency of your indoor lighting. Tap **Video** to return to Video settings.
   - 4.6. **Preference:** Select whether you would like the camera to reduce the image quality or the frame rate when bandwidth increases or decreases. Select **Video Motion** to have the camera maintain the frame rate and reduce image quality when bandwidth is insufficient. Select **Image Quality** to have the camera maintain image quality and reduce frame rate when bandwidth is insufficient. Select **Better Quality** to have the camera maintain frame rate and increase quality when bandwidth is sufficient. Select **Best Quality** to have the camera maintain the frame rate and increase quality to the maximum speed of the connection. Tap **Video** to return to Video settings.
   - 4.7. **Time Display on Video:** Select **ON** to enable time stamps on video or **OFF** to disable time stamps.
   - 4.8. **Video flip:** Select **ON** to flip the camera image vertically and horizontally or select **OFF** for the normal orientation. This is useful if the camera has been mounted to a wall or ceiling upside down.
5. Tap **Video Settings** when finished making changes, then tap **Update** to save your settings.

18.4.7 Configuring LED Control and Motion Detection Sensitivity

Configure the behavior of the camera status LED's. This is useful if you want the camera to be harder to spot at night. You can also configure the sensitivity for video motion detection.

To configure LED's and motion detection sensitivity:

1. In Camera List, tap next to the camera.
2. Tap **Video Settings**. Then tap **Control**.

3. Under **Status LED**, select one of the following:
   - **Normal:** LED's will function as normal. For details on LED functions, see 4 *LNC216 Camera Overview*, page 4 or 5 *LNC226X Camera Overview*, page 6.
   - **Always turn off:** LED's are turned off at all times.
   - **Turn off after network connected:** LED's turn on when the camera is powered on and turn off once a network connection is made.
4. Tap **Control** to return to the Control menu.
5. Under **Motion Sensitivity**, select the motion detection sensitivity between **1** (High) and **10** (Low). If Motion Detection Sensitivity is set to 1, motion detection will be triggered if a moving object is larger than 1% of the video area. If it is set to 10, a moving object must be larger than 10% of the video area to trigger motion detection. Tap **Control** to return to the Control menu.

   Note
   This setting does not affect the PIR motion detector.

6. Tap **Video Settings** when finished making changes, then tap **Update** to save your settings.

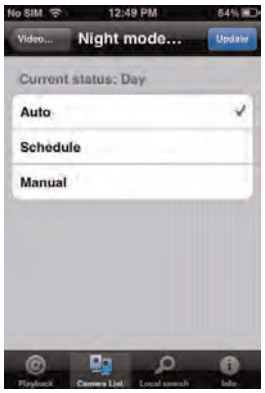
18.4.8 Configuring Night Mode Settings

Configure when the camera uses day or night mode. When day mode is on, the camera sees in color. When night mode is on, the camera sees in black and white, and the Infrared LED turns on to enable night vision.

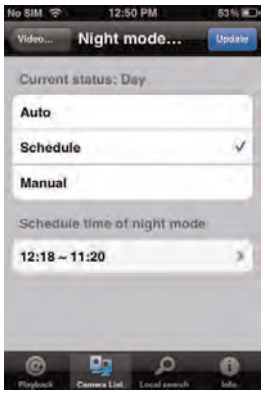
To configure Day/Night mode:

1. In Camera List, tap next to the camera you would like to edit.

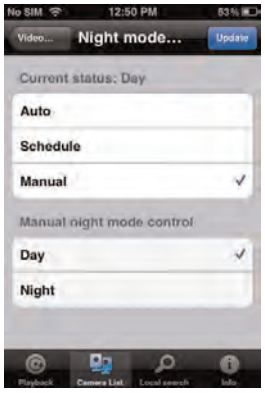
2. Tap **Video Settings**. Then tap **Night Mode Control**.



3. Select one of the following:
   - **Auto:** Camera will automatically switch between day mode or night mode, based on the amount of light in the room.
   - **Schedule:** Camera will switch between day mode and night mode at a scheduled times each day. If using this option, tap under **Schedule time of night mode**, use the sliders to set the **Start** time (when night mode begins each day) and **End** time (when night mode ends each day), then tap **OK**.



   - **Manual:** Manually select day mode or night mode. If using this option, select **Day** for day mode or **Night** for night mode.



4. Tap **Update** to save your changes.

18.4.9 Editing Camera Wired Network Settings

Configure the camera IP address when connected using Ethernet. Select DHCP or Fixed IP.

To edit camera wired network settings:

1. In Camera List, tap next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Network** then **Wired Network**.

4. Select **DHCP** (recommended) to allow the camera to automatically obtain an IP address from the router or **Static** to use fixed IP address settings. If you select Static, configure your **IP Address**, **Subnet mask**, **Default gateway**, **DNS1**, and **DNS2**.
5. Tap **Update** to save your settings.

18.4.10 Editing Camera WiFi Network Settings

Configure WiFi network settings for the camera.

To edit camera WiFi settings:

1. In Camera List, tap next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Network** then **WiFi Network**.
4. Slide WiFi to **ON** to enable WiFi on the camera and scan for available networks.

5. Tap a WiFi network and enter the password to connect.
   - To connect to a hidden WiFi network, tap **Other**. Enter the SSID and select the security type and tap **Add**. Tap the network name from the list and enter the password.

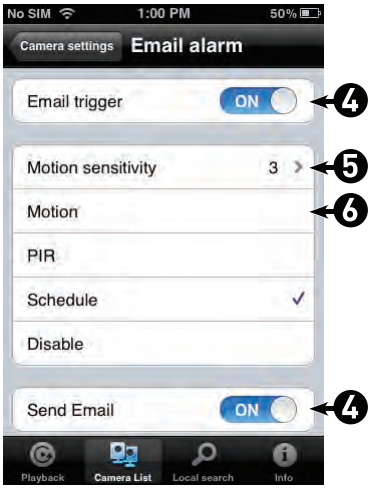
6. Wait for the update to complete.
7. Remove the Ethernet cable from the camera. It will connect to the WiFi network. When it is connected, the blue Network LED will be on or flashing.
8. Press **Camera Settings** then **Camera List** to exit the edit camera screen.
9. Tap the camera in the Camera List to connect. If you cannot connect, check to make sure you have entered the correct wireless password and that the camera is in signal range of your wireless router.

18.4.11 Enabling Email Notifications

Configure email alarms. The camera can be set up to send email alerts when motion is detected. Email alarms include a .jpg attachment.

To enable email notifications:

1. In Camera List, tap  next to the camera.
2. Tap **Camera Settings**.
3. Tap **Schedule** then **Email Alarm**.



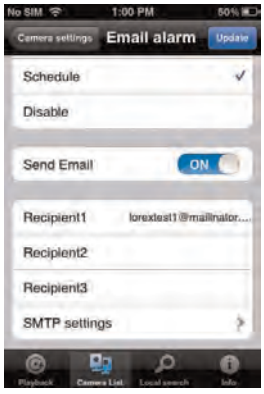
4. Under **Email trigger**, select **ON** to enable email notifications or **OFF** to disable. Then under **Send Email**, select **ON** to enable email notifications.
5. Under **Motion sensitivity**, select the motion detection sensitivity between **1** (High) and **10** (Low). If Motion Detection Sensitivity is set to 1, motion detection will be triggered if a moving object is larger than 1% of the video area. If it is set to 10, a moving object must be larger than 10% of the video area to trigger motion detection. Tap **Email alarm** to return to the Email Alarm menu.

   Note
   This setting does not affect the PIR motion detector.

6. Check the following trigger options for email alarms:
   - **Motion:** Use Video motion detection to trigger email alarms. Video motion detection looks for movement in the image to determine if there is motion. This means that there may be false alarms caused by changes in lighting, trees moving in the wind, etc.
   - **PIR:** Use the PIR motion detector to trigger email alarms. The PIR motion detector uses changes in temperatures (e.g. from a person moving around in front of the camera) to determine if there is motion. PIR motion detection is less effective at higher temperatures.

     Note
     - You may also select both PIR and Motion to receive alarms from both motion triggers.
     - The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

   - **Schedule:** Send email alarms based on the settings configured in the Scheduling menu.
   - **Disable:** Disable email alarms.
7. Enter up to 3 email addresses under **Recipient 1~3** that will receive email alarms.



8. Tap **Update** to save your changes.

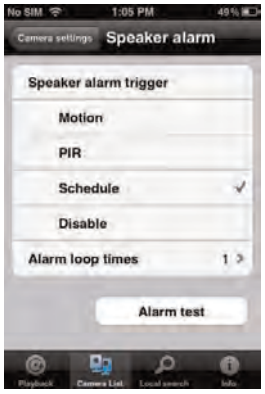
   Note
   If you want to use a custom SMTP server to send Email messages, click **SMTP Settings**, enter your SMTP server information, and tap **OK**.

18.4.12 Enabling Speaker Alarms

Configure the siren. The siren can be set up to go off when the camera detects motion. This is helpful if you want to scare off intruders.

To configure speaker alarms:

1. In Camera List, tap next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Schedule** then **Speaker Alarm**.



4. Under **Speaker Alarm Trigger**, check the triggers that will cause speaker alarms:
   - **Motion:** Use Video motion detection to trigger audio alarms. Video motion detection looks for movement in the image to determine if there is motion. This means that there may be false alarms caused by changes in lighting, trees moving in the wind, etc.
   - **PIR:** Use the PIR motion detector to trigger speaker alarms. The PIR motion detector uses changes in temperatures (e.g. from a person moving around in front of the camera) to determine if there is motion. PIR motion detection is less effective at higher temperatures.

   Note

   - You may also select both PIR and Motion to receive alarms from both motion triggers.
   - The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

   - **Schedule:** Create speaker alarms based on the settings set in the Scheduling menu.
   - **Disable:** Disable speaker alarms.
5. Under **Alarm Loop Times**, select the number of times you would like the speaker alarm to repeat when alarms occur.
6. Tap **Alarm Test** to sound a test alarm.
7. Tap **Update** to save your settings.

18.4.13 Configuring microSD Recording

Configure video recording to the microSD card (required; not included). To playback recordings saved on the microSD card, use L-View or the iPhone®, iPad®, or Android™ apps.

To configure microSD card recording:

1. Make sure a microSD card (not included) is inserted into the camera. It is recommended to format the microSD card before using it with the camera.
2. In Camera List, tap next to the camera you would like to edit.

3. Tap **Camera Settings**.
4. Tap **Schedule** then **SD-Card**.

5. Under **Record**, select **ON** to enable microSD recording or **OFF** to disable.
6. Check one of the following recording options:
   - **Always Recording:** Camera will record continuously at all times.
   - **Schedule Recording:** Camera will record according to settings set in the recording schedule.

> **Note**
> To enable Motion detection recording using iPhone®, you must use Schedule recording. Then, create a schedule in the Scheduling menu with Motion trigger, PIR trigger, or both Motion trigger and PIR trigger selected.

7. Under **When disk space full**, check **Overwrite** to set the camera to overwrite the oldest recordings when the microSD card is full or select **Stop recording** to set the camera to stop recording when the microSD card is full.
8. Tap **Update** to save your settings.

18.4.14 Configuring the Camera Recording and Alarm Schedule

Configure schedules for recording and alarms. Schedules can be configured separately for alarms and recording. You can configure up to 12 schedules.

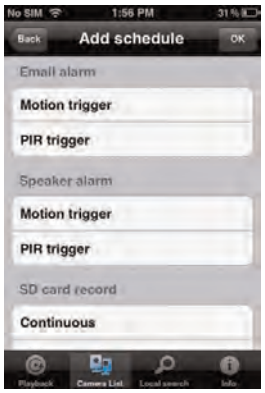
To create a schedule for alarms or recording:

1. First, you must enable alarms or recording to use the schedule.
2. In Camera List, tap  next to the camera you would like to edit.
3. Tap **Camera Settings**.
4. Tap **Schedule** then **Scheduling**.

5. Tap **Add Schedule**.

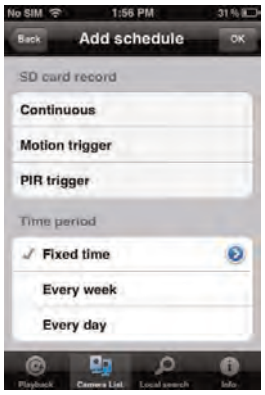
6. Under **Email Alarm**, check **Motion trigger** to send an email alarm based on video motion, select **PIR trigger** to use the PIR motion sensor, or select both **Motion trigger** and **PIR trigger**.

Note
The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.



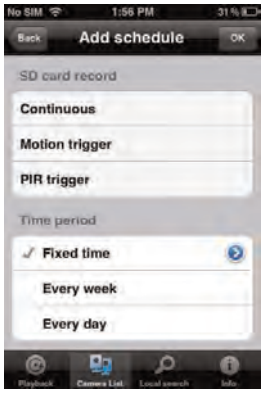
7. Under **Speaker Alarm**, check **Motion trigger** to create a speaker alarm based on video motion, check **PIR trigger** to use the PIR motion sensor, or select both **Motion trigger** and **PIR trigger**.

8. Under **SD card record**, check **Continuous** for the camera to record to microSD continuously during the scheduled time. Check **Motion trigger** to record when video motion is trigger during the scheduled time, select **PIR trigger** to record when the PIR motion sensor is triggered during the scheduled time, or select both.



9. Under **Time period**, select one of the following:

   - **Every week:** Create a weekly recording schedule. Tap and check the days you would like the schedule to apply to. Tap **Start** and **End** and use the sliders to configure the start and end time for the schedule. Tap **OK**.
   - **Every day:** Create a daily recording schedule. Tap then tap **Start** and **End** and use the sliders to configure the start and end time for the schedule. Tap **OK**.
   - **Fixed time:** Create a one time schedule (for example, if you are going on vacation, and would like to record all the time). Tap then tap **Start** and **End** and use the sliders to configure the exact date and time when you would like the schedule to start and end. Tap **OK**.



10. Tap **OK** to save the schedule. Tap **Update** to save your settings.

To delete a Schedule:

1. From the Scheduling menu, swipe the schedule you would like to delete from left to right.

2. Tap **Delete**.
3. Tap **Update** to save your changes.

18.4.15 Configuring the Camera Date and Time

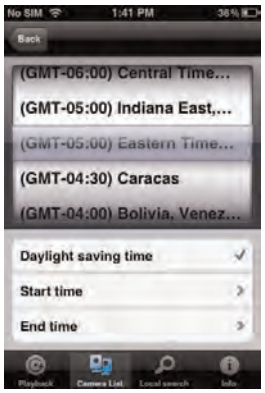
Configure the camera date and time. The camera syncs with an Internet NTP time server to automatically provide the correct time, once you have configured your time zone and daylight savings time settings.

To set the camera date and time:

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Admin** then **Date/Time**.

4. Tap **Time Zone**.

5. Use the slider to select your time zone.



   - If your region observes Daylight Savings Time, check **Daylight Savings Time**. Tap **Start Time** and **End Time**, use the sliders to configure the start and end time for Daylight Savings Time and then tap **OK**. Tap **Back** to return.

6. Tap **Update** to save your changes. Tap **OK**. The camera will reboot to apply the new time zone.

18.4.16 Rebooting the Camera

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Admin** then **Reboot**.
4. Tap **OK** to confirm.

18.5 Using Local Search to Add Cameras

You can use the Local Search Menu to automatically add the ID's for cameras on your local network.

To add cameras using local search:

1. Tap the Local Search button ().
2. Lorex Ping automatically scans for cameras on your local network. Tap **Search** to re-scan.

3. Tap a camera from the list. The Add camera screen comes on with the camera ID already entered.
4. Enter a **Name** of your choice and enter the camera **Password**. If you have not connected to your camera before, the password is **lorex**.
5. Tap **Done**. The camera is now added to camera list. Tap the camera name in Camera List to connect to the camera.

19 iPad® App

The app for iPad® is called **Lorex Ping HD**.

For instructions on connecting to your camera using iPad®, see 11 *Connecting to Your Camera on iPad®*, page 24.

19.1 Live Viewing with Lorex Ping HD

1. Disconnect from / connect to camera
2. Information
3. Record to iPad®
4. Snapshot
5. Activate 2–way-audio (speaker required)
6. Perform action to all cameras
7. View selected camera in single-channel view
8. 4–camera view
9. 6–camera view
10. Full-screen
11. Mute audio
12. Adjust volume

19.1.1 Using 2-Way Audio (Intercom)

Note
The camera requires a speaker in order to use this feature. LNC226X does not have a speaker.

1. While viewing, touch  to activate 2-way-audio (intercom) using the phone microphone.

2. Tap again to deactivate 2-way-audio.

19.1.2 Taking Snapshots

- While viewing, tap to take a snapshot from the camera. You can view snapshots using the Camera app or save photos to your computer by connecting your iPad® to your computer using a USB cable.

Note
There is no Camera app on 1st generation iPads. To view your snapshots, you must connect the iPad to your computer using a USB cable.

19.1.3 Recording Video to iPad

You can manually record video from your camera directly to your iPad's built in memory.

To record video to your iPad's memory:

1. While viewing, tap to start recording.
2. Tap again to stop recording. To view the recorded video, see below.

19.2 Playing Back Video Recorded to iPad®

After using the record button to record video to your iPad®, you can playback video on iPad®.

To playback video recorded to iPad®:

1. Tap the Playback button ( ) then tap **iPad**.

2. Select the camera you would like to playback video from. A list of days with recorded video appears.
3. Tap a day to see recordings from that day.

4. Tap a recording to start playback.
5. During playback, tap in the display area to bring up playback controls.

19.3 Playing Back Video Recorded to microSD on iPad®

You can playback video recorded on the camera microSD card (not included) on your iPad®. For details on setting up microSD recording, see 19.4.13 *Configuring microSD Recording*, page 123.

To play back video recorded on the camera microSD card:

1. Tap the Playback button () then tap **SD Card**.
2. Select the camera you would like to playback from.
3. The camera scans for recorded video files and shows a list of days with recorded video. Tap a day to view recordings created on that day.
4. Tap a recording to play it.

5. Tap the Camera List button () to exit playback.

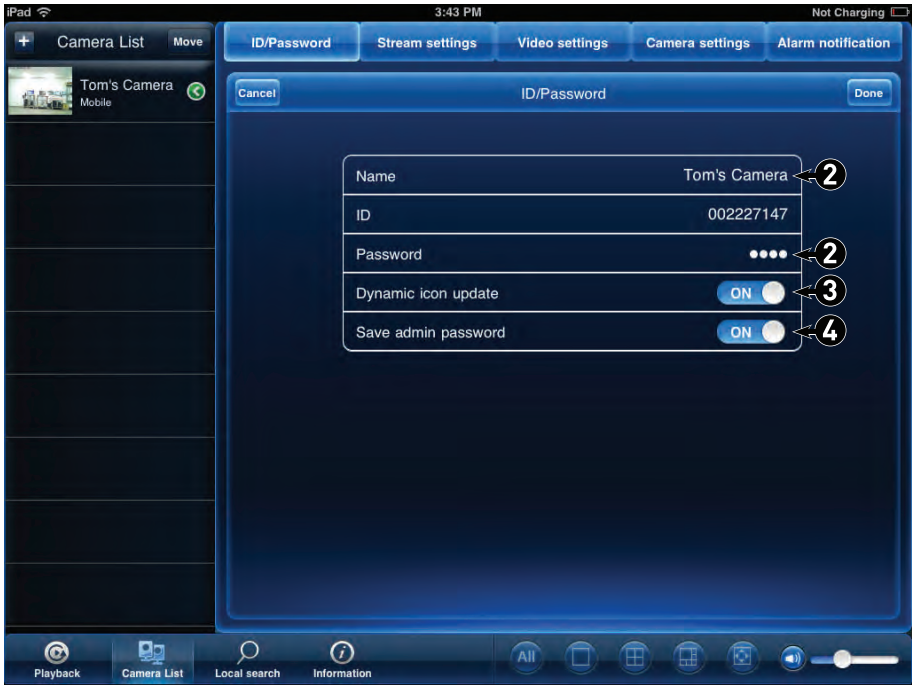
19.4 Using Camera List to Edit Camera Settings

You can use the Camera List to adjust the connections settings or other settings for your camera.

To access Camera Settings:

1. Tap Camera List  . Then tap  next to the camera you would like to edit.

2. For certain menus, you will need to enter the camera admin user name and password before you may change settings. By default, the admin user name is **admin** and the password is **left blank**.

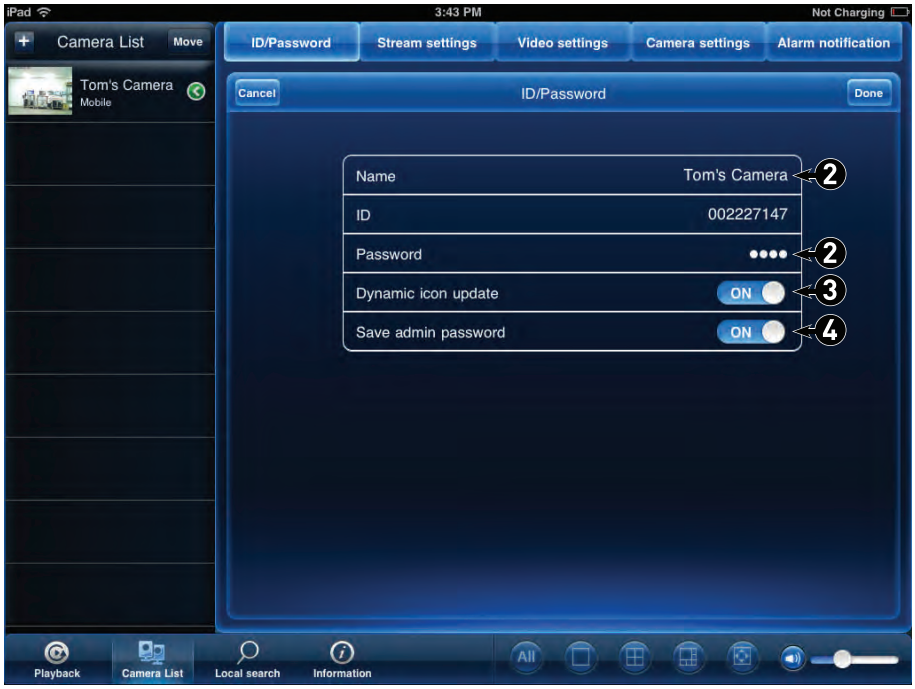


19.4.1 Editing Camera Connection Settings

You can edit your camera connection information. This is useful if you change the password of the camera or if you want to save the admin user name and password, so you don't have to enter it to make settings changes.

To edit camera connection settings:

1. In Camera List, tap  next to the camera you would like to edit.



2. Change the **Name** and **Password** as needed.
3. Under **Dynamic icon update**, select **ON** to have the camera icon automatically update every time you connect to the camera, or select **OFF** to keep the icon as is.
4. Under **Save admin password**, select **ON** to have Lorex Ping save the admin user name and password the next time you enter it, or **OFF** to require the admin user name and password whenever settings changes are made.
5. Tap **Done** to save changes.

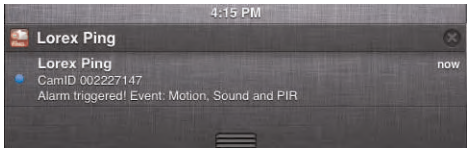
19.4.2 Deleting Cameras from Camera List

1. In Camera List, tap **Move**.

2. Tap  next to the camera you would like to delete then tap **Delete** to confirm.
3. Tap **Done**.

19.4.3 Editing Motion/ Sound Notification Settings (Push Notifications)

Push Alarm Notifications can be set up to create a notification straight to your iPad® when motion or sound is detected by the camera. Push Alarm Notifications go directly to the notifications area on your device.



To enable Push Alarm Notifications:

1. In Camera List, tap  next to the camera.

2. Tap **Alarm notification**.
3. Under **Motion**, select **ON** to enable Push Alarm Notifications when motion is detected using video motion detection or **OFF** to disable.
4. Under **Sound**, select **ON** to enable Push Alarm Notifications when sound is detected by the camera or **OFF** to disable. Under **Sound Sensitivity**, select a sensitivity for Sound Push Alarm Notifications between **1** (lowest) and **10** (highest).
5. Under **PIR**, select **ON** to enable Push Alarm Notifications when motion is detected using the PIR motion sensor or **OFF** to disable.

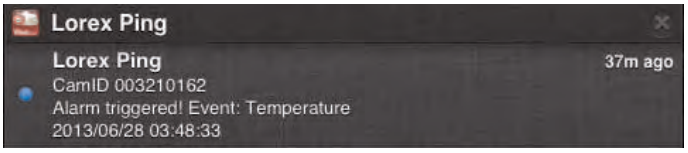
> **Note**
> The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

6. Tap **Update** to save your settings.

19.4.4 Configuring Temperature Push Notifications and temperature Units (Fahrenheit or Celsius)

Temperature Push Notifications can be set up to send you alerts if the temperature near the camera goes higher or lower than the specified values. You can also select the temperature unit that will be used by the system.

Note
The camera requires a temperature sensor in order to use this feature. LNC226X does not have a temperature sensor.



To configure temperature push notifications:

1. In Camera List, tap  next to the camera.

2. Tap **Alarm notification**.
3. Under **Temperature**, select **ON** to enable temperature notifications.
4. Under **Temperature unit**, select **F°** or **C°**.
5. Under **Higher bound**, select the high temperature value. You will receive a notification if the temperature near the camera goes above this value.
6. Under **Lower bound**, select the low temperature value. You will receive a notification if the temperature near the camera goes above this value.
7. Tap **Update** to save your settings.

19.4.5 Editing Camera Mobile Streaming Settings

Configure the camera image quality settings for streaming to mobile devices (i.e. smartphones and tablets). Please note that less bandwidth is generally available over mobile networks than over WiFi or Ethernet.

To edit mobile streaming settings:

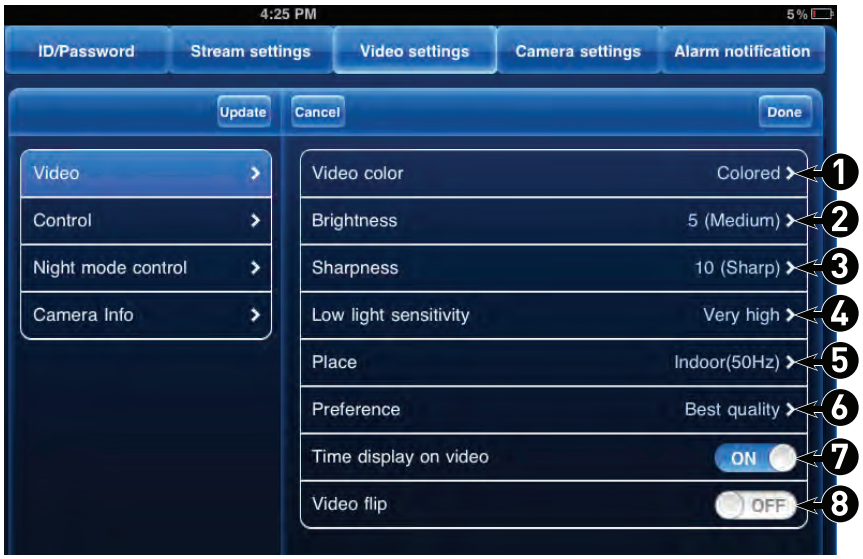
1. In Camera List, tap  next to the camera.
2. Tap **Stream Settings**.

3. Under **Bandwidth**, select the bandwidth for your mobile connection. If you are mainly connecting using WiFi, you may set this setting higher.
4. Under **Auto**, select **ON** to have the camera automatically select the resolution and frame rate based on available bandwidth. If you choose to select resolution and frame rate automatically, go straight to step 7. Or, select **OFF** to manually select the resolution (step 5) and frame rate (step 6).
5. Under **Resolution**, select the resolution that will be used when connecting to the camera using a smart phone or tablet: **320x240**, **480x360**, **640x400**, or **1024x768**. Tap **Done** to confirm.
6. Under **Frame rate**, select the frame rate that will be used when connecting to the camera using a smart phone or tablet between **30fps** (highest) and **1fps** (lowest). Tap **Done** to confirm.
7. Under **Microphone**, select **OFF** to turn off audio streaming to your mobile device or tap to select **ON** to turn on audio streaming to your mobile device.
8. Tap **Update** to save your settings.

19.4.6 Editing Camera Video Settings

1. In Camera List, tap  next to the camera.
2. Tap **Video Settings**.

3. Tap **Video**.



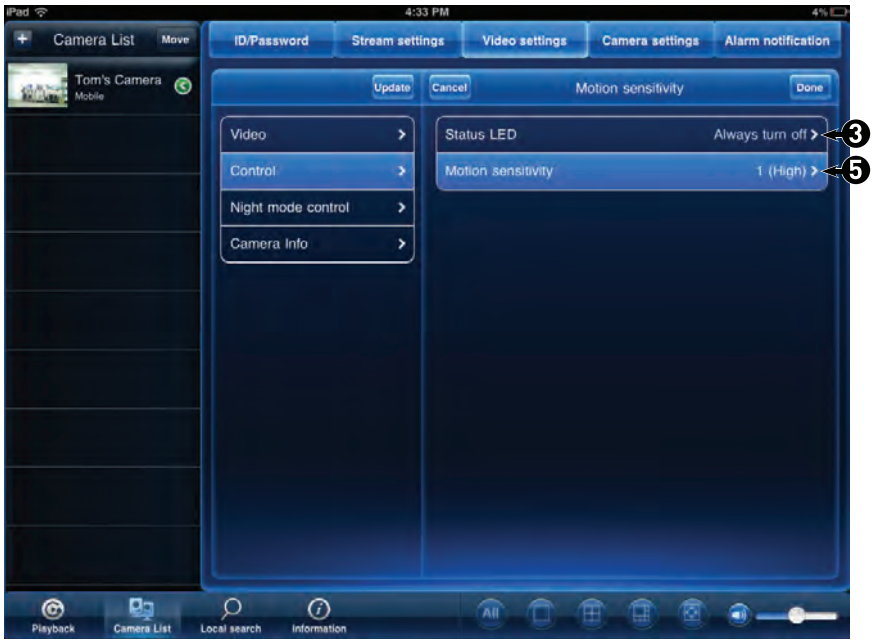
4. Configure the following:
   - 4.1. **Video color:** Select **Colored** to view the camera in color or select **Black & white**. Tap **Done** to return to Video settings.
   - 4.2. **Brightness:** Manually adjust the brightness of the image between **10** (highest) and **1** (lowest). Tap **Done** to return to Video settings.
   - 4.3. **Sharpness:** Manually adjust the sharpness of the image between **10** (highest) and **1** (lowest). Tap **Done** to return to Video settings.
   - 4.4. **Low Light Sensitivity:** Set the camera's sensitivity in low light environments between **Very High** (highest), **High**, and **Normal** (lowest). Tap **Done** to return to Video settings.
   - 4.5. **Place:** Select **Outdoor** for well lit environments. Select **Indoor** if you notice strip lines in the image or if the picture is too dark on the Outdoor video setting. Select **Indoor + Sunlight** if the picture is too bright on the Indoor setting. If you select an indoor setting, select **60Hz** or **50Hz** to adjust the camera for the frequency of your indoor lighting. Tap **Done** to return to Video settings.
   - 4.6. **Preference:** Select whether you would like the camera to reduce the image quality or the frame rate when bandwidth increases or decreases. Select **Video Motion** to have the camera maintain the frame rate and reduce image quality when bandwidth is insufficient. Select **Image Quality** to have the camera maintain image quality and reduce frame rate when bandwidth is insufficient. Select **Better Quality** to have the camera maintain frame rate and increase quality when bandwidth is sufficient. Select **Best Quality** to have the camera maintain the frame rate and increase quality to the maximum speed of the connection. Tap **Done** to return to Video settings.
   - 4.7. **Time Display on Video:** Select **ON** to enable time stamps on video or **OFF** to disable time stamps.
   - 4.8. **Video flip:** Select **ON** to flip the camera image vertically and horizontally or select **OFF** for the normal orientation. This is useful if the camera has been mounted to a wall or ceiling upside down.
5. Tap **Update** to save your settings.

19.4.7 Configuring LED Control and Motion Detection Sensitivity

Configure the behavior of the camera status LED's. This is useful if you want the camera to be harder to spot at night. You can also configure the sensitivity for video motion detection.

To configure LED's and motion detection sensitivity:

1. In Camera List, tap  next to the camera.
2. Tap **Video Settings**. Then tap **Control**.



3. Under **Status LED**, select one of the following:
   - **Normal:** LED's will function as normal. For details on LED functions, see 4 *LNC216 Camera Overview*, page 4 or 5 *LNC226X Camera Overview*, page 6.
   - **Always turn off:** LED's are turned off at all times.
   - **Turn off after network connected:** LED's turn on when the camera is powered on and turn off once a network connection is made.
4. Tap **Done** to return to the Control menu.
5. Under **Motion Sensitivity**, select the motion detection sensitivity between **1** (High) and **10** (Low). If Motion Detection Sensitivity is set to 1, motion detection will be triggered if a moving object is larger than 1% of the video area. If it is set to 10, a moving object must be larger than 10% of the video area to trigger motion detection. Tap **Control** to return to the Control menu.

   Note
   This setting does not affect the PIR motion detector.

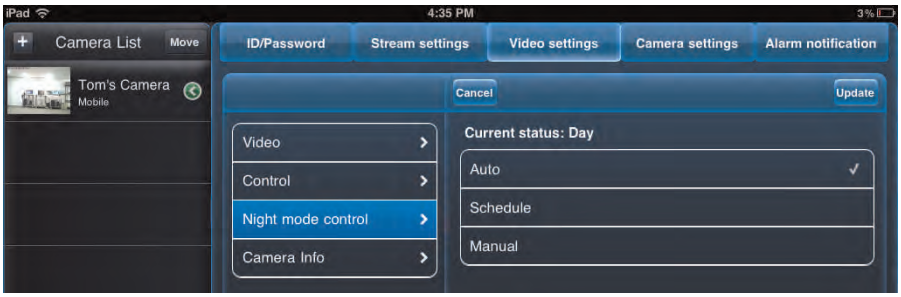
6. Tap **Update** to save your settings.

19.4.8 Configuring Night Mode Settings

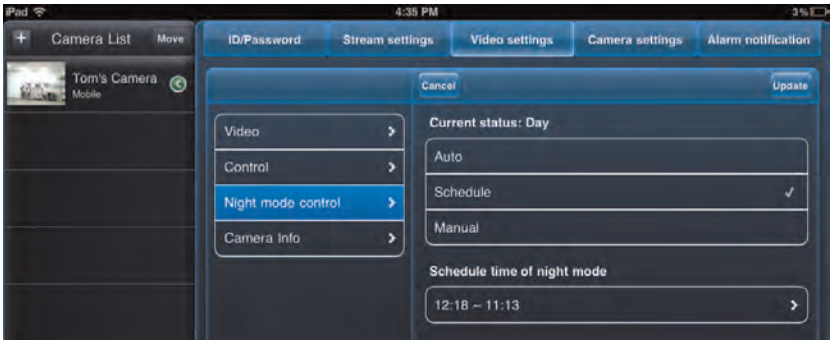
Configure when the camera uses day or night mode. When day mode is on, the camera sees in color. When night mode is on, the camera sees in black and white, and the Infrared LED turns on to enable night vision.

To configure Day/Night mode:

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Video Settings**. Then tap **Night Mode Control**.



3. Select one of the following:
   - **Auto:** Camera will automatically switch between day mode or night mode, based on the amount of light in the room.
   - **Schedule:** Camera will switch between day mode and night mode at scheduled times each day. If using this option, tap under **Schedule time of night mode**, use the sliders to set the **Start** time (when night mode begins each day) and **End** time (when night mode ends each day), then tap **Done**.



   - **Manual:** Manually select day mode or night mode. If using this option, select **Day** for day mode or **Night** for night mode.
4. Tap **Update** to save your changes.

19.4.9 Editing Camera Wired Network Settings

Configure the camera IP address when connected using Ethernet. Select DHCP or Fixed IP.

To edit camera wired network settings:

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Camera Settings**.

3. Tap **Network** then **Wired Network**.

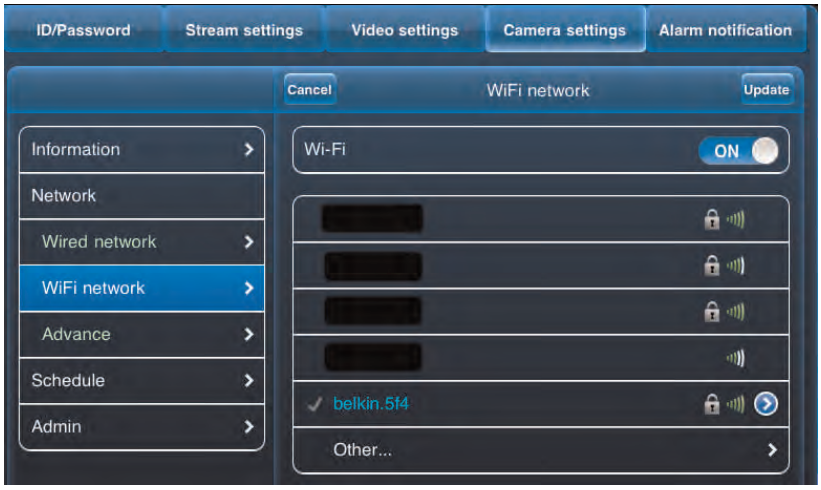
4. Select **DHCP** (recommended) to allow the camera to automatically obtain an IP address from the router or **Static** to use fixed IP address settings. If you select Static, configure your **IP Address**, **Subnet mask**, **Default gateway**, **DNS1**, and **DNS2**.
5. Tap **Update** to save your settings.

19.4.10 Editing Camera WiFi Network Settings

Configure WiFi network settings for the camera.

To edit camera WiFi settings:

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Network** then **WiFi Network**.



4. Slide **WiFi** to **ON** to enable WiFi on the camera and scan for available networks.

5. Tap a WiFi network and enter the password to connect.
   - To connect to a hidden WiFi network, tap **Other**. Enter the SSID and select the security type and tap **Done**. Tap the network name from the list and enter the password.
6. Wait for the update to complete.
7. Remove the Ethernet cable from the camera. It will connect to the WiFi network. When it is connected, the blue Network LED will be on or flashing.
8. Tap  next to the camera to exit the edit camera screen.
9. Tap the camera in the Camera List to connect. If you cannot connect, check to make sure you have entered the correct wireless password and that the camera is in signal range of your wireless router.

19.4.11 Enabling Email Notifications

Configure email alarms. The camera can be set up to send email alerts when motion is detected. Email alarms include a .jpg attachment.

To enable email notifications:

1. In Camera List, tap  next to the camera.
2. Tap **Camera Settings**.

3. Tap **Schedule** then **Email Alarm**.
4. Under **Email trigger**, select **ON** to enable email notifications or **OFF** to disable.

5. Under **Motion sensitivity**, select the motion detection sensitivity between **1** (High) and **10** (Low). If Motion Detection Sensitivity is set to 1, motion detection will be triggered if a moving object is larger than 1% of the video area. If it is set to 10, a moving object must be larger than 10% of the video area to trigger motion detection. Tap **Email alarm** to return to the Email Alarm menu.

   Note
   This setting does not affect the PIR motion detector.

6. Check the following trigger options for email alarms:
   - **Motion:** Use Video motion detection to trigger email alarms. Video motion detection looks for movement in the image to determine if there is motion. This means that there may be false alarms caused by changes in lighting, trees moving in the wind, etc.
   - **PIR:** Use the PIR motion detector to trigger email alarms. The PIR motion detector uses changes in temperatures (e.g. from a person moving around in front of the camera) to determine if there is motion. PIR motion detection is less effective at higher temperatures.

     Note
     - You may also select both PIR and Motion to receive alarms from both motion triggers.
     - The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

   - **Schedule:** Send email alarms based on the settings configured in the Scheduling menu.
7. Under **Send Email**, select **ON** to enable email notifications.
8. Enter up to 3 email addresses under **Recipient1~3** that will receive email alarms.
9. Tap **Update** to save your changes.

   Note
   If you want to use a custom SMTP server to send Email messages, click **SMTP Settings**, enter your SMTP server information, and tap **OK**.

19.4.12 Enabling Speaker Alarms

Configure the siren. The siren can be set up to go off when the camera detects motion. This is helpful if you want to scare off intruders.

Note
The camera requires a speaker in order to use this feature. LNC226X does not have a speaker.

To configure speaker alarms:

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Camera Settings**.

3. Tap **Schedule** then **Speaker Alarm**.

4. Under **Speaker Alarm Trigger**, check the triggers that will cause speaker alarms:
   - **Motion:** Use Video motion detection to trigger audio alarms. Video motion detection looks for movement in the image to determine if there is motion. This means that there may be false alarms caused by changes in lighting, trees moving in the wind, etc.
   - **PIR:** Use the PIR motion detector to trigger audio alarms. The PIR motion detector uses changes in temperatures (e.g. from a person moving around in front of the camera) to determine if there is motion. PIR motion detection is less effective at higher temperatures.

     Note

     - You may also select both PIR and Motion to receive alarms from both motion triggers.
     - The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

   - **Schedule:** Create audio alarms based on the settings set in the Scheduling menu.
   - **Disable:** Disable speaker alarms.
5. Under **Alarm Loop Times**, select the number of times you would like the speaker alarm to repeat when alarms occur. Tap **Done**.
6. Tap **Alarm Test** to sound a test alarm.
7. Tap **Update** to save your settings.

19.4.13 Configuring microSD Recording

Configure video recording to the microSD card (required; not included). To playback recordings saved on the microSD card, use L-View or the iPhone®, iPad®, or Android™ apps.

To configure microSD card recording:

1. Make sure a microSD card (not included) is inserted into the camera. It is recommended to format the microSD card before using it with the camera.
2. In Camera List, tap  next to the camera you would like to edit.
3. Tap **Camera Settings**.

4. Tap **Schedule** then **SD-Card**.

5. Under **Recording**, select **ON** to enable microSD recording or **OFF** to disable.
6. Check one of the following recording options:
   - **Always Recording:** Camera will record continuously at all times.
   - **Schedule Recording:** Camera will record according to settings set in the recording schedule.

   Note
   To enable Motion detection recording using iPad®, you must use Schedule recording. Then, create a schedule in the Scheduling menu with Motion trigger, PIR trigger, or both Motion trigger and PIR trigger selected.

7. Check **Circular recording** to set the camera to overwrite the oldest recordings when the microSD card is full or select **Stop recording** to set the camera to stop recording when the microSD card is full.
8. Tap **Update** to save your settings.

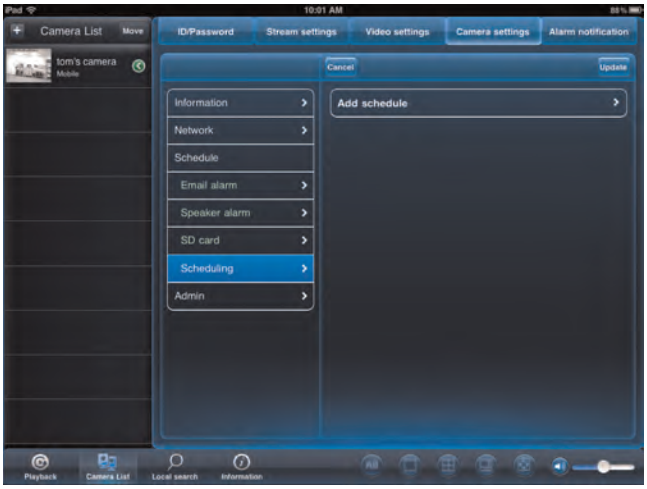
19.4.14 Configuring the Camera Recording and Alarm Schedule

Configure schedules for recording and alarms. Schedules can be configured separately for alarms and recording. You can configure up to 12 schedules.

To create a schedule for alarms or recording:

1. First, you must enable alarms or recording to use the schedule.
2. In Camera List, tap  next to the camera you would like to edit.
3. Tap **Camera Settings**.
4. Tap **Schedule** then **Scheduling**.

5. Tap **Add Schedule**.



6. Under **Email Alarm**, check **Motion trigger** to send an email alarm based on video motion, check **PIR trigger** to use the PIR motion sensor, or select both.

> **Note**
> The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

7. Under **Speaker Alarm**, check **Motion trigger** to activate the siren based on video motion, check PIR trigger to use the PIR motion sensor, or select both.

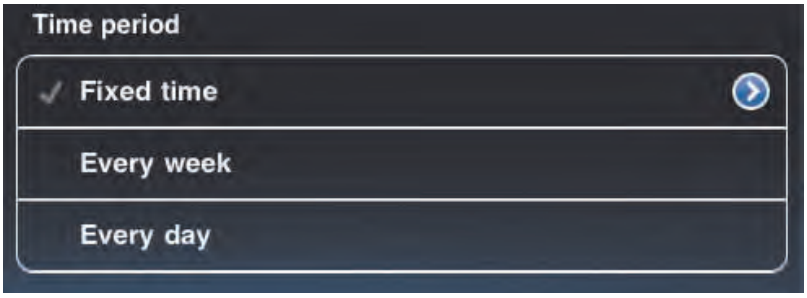
> **Note**
> The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

8. Under **SD card record**, check **Continuous** for the camera to record to microSD continuously during the scheduled time. Check **Motion trigger** to record when video motion is triggered during the scheduled time, select **PIR trigger** to record when the PIR motion sensor is triggered during the scheduled time, or select both.

   Note
   The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

9. Under **Time period**, select one of the following:

   - **Every week:** Create a weekly recording schedule. Tap  and check the days you would like the schedule to apply to. Tap **Start** and **End** and use the sliders to configure the start and end time for the schedule. Tap **Done**.
   - **Every day:** Create a daily recording schedule. Tap  then tap **Start** and **End** and use the sliders to configure the start and end time for the schedule. Tap **Done**.
   - **Fixed time:** Create a one time schedule (for example, if you are going on vacation, and would like to record all the time). Tap  then set the **Start** and **End** using the sliders to configure the exact date and time when you would like the schedule to start and end. Tap **Done**.



10. Tap **Done** to save the schedule. Tap Update to save your settings.

To delete a Schedule:

1. From the Scheduling menu, swipe the schedule you would like to delete from left to right.
2. Tap **Delete**.
3. Tap **Update** to save your changes.

19.4.15 Configuring the Camera Date and Time

Configure the camera date and time. The camera syncs with an Internet NTP time server to automatically provide the correct time, once you have configured your time zone and daylight savings time settings.

To set the camera date and time:

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Admin** then **Date/Time**.

4. Tap **Time Zone**.

5. Use the slider to select your time zone.
   - If your region observes Daylight Savings Time, check **Daylight Savings Time**. Tap **Start Time** and **End Time**, use the sliders to configure the start and end time for Daylight Savings Time and then tap **Done**.

6. Tap **Update** to save your changes. Tap **OK**. The camera will reboot to apply the new time zone.

19.4.16 Rebooting the Camera

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Admin** then **Reboot**.
4. Tap **OK** to confirm.

19.5 Using Local Search to Add Cameras

You can use the Local Search Menu to automatically add the ID's for cameras on your local network.

To add cameras using local search:

1. Tap the Local Search button ().

2. Lorex Ping automatically scans for cameras on your local network. Tap **Search** to re-scan.

3. Tap a camera from the list. The Add camera screen comes on with the camera ID already entered.
4. Enter a **Name** of your choice and enter the camera **Password**. If you have not connected to your camera before, the password is **lorex**.

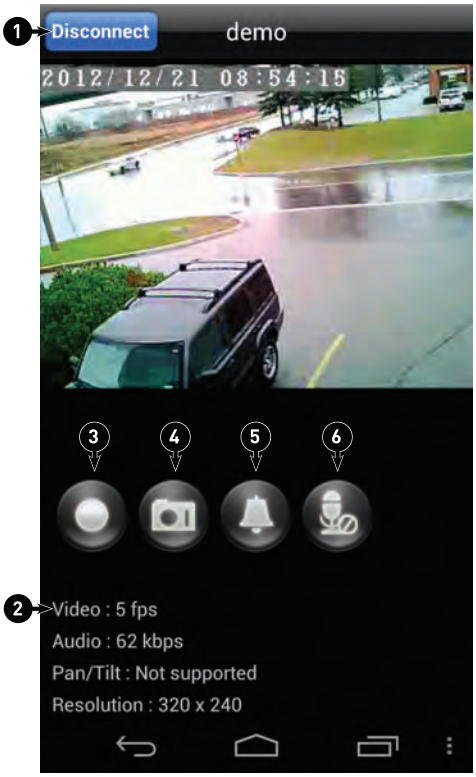
5. Tap **Done**. The camera is now added to camera list. Tap the Camera List button ( ), and then tap the camera name in Camera List to connect to the camera.

20 Android™ App

The app for Android™ is called **Lorex Ping**. For instructions on connecting to your camera using Android™, see 12 *Connecting to Your Camera on Android™*, page 30.

20.1 Live Viewing with Lorex Ping for Android™

You can use Lorex Ping in portrait or landscape mode. Tilt the phone to switch between portrait or landscape.



1. Disconnect button (only shown in portrait mode)
2. Video information
3. Start / stop manual recording
4. Save a snapshot of the camera on your phone
5. Play an audio alarm on the camera (requires speaker)
6. Activate 2–way-audio (Intercom) using the phone microphone (requires speaker)

20.1.1 Using 2-way Audio (Intercom)

Note
The camera must have a speaker in order to use this feature. LNC226X does not have a speaker.

1. Touch  to activate 2-way-audio (intercom) using the phone microphone.
2. Touch  again to turn off 2-way audio.

20.1.2 Saving Snapshots

- Touch  to take a snapshot from the camera. Snapshots are saved in .png format to the *DCIM/Lorex Ping* folder on your device. To view or copy Snapshots to your computer, connect your device to your computer using a USB cable. See your Android™ device's Instruction Manual for details.

20.1.3 Recording Video to Android™

You can manually record video to the built-in memory on your Android™ device.

To record video to your Android™ device:

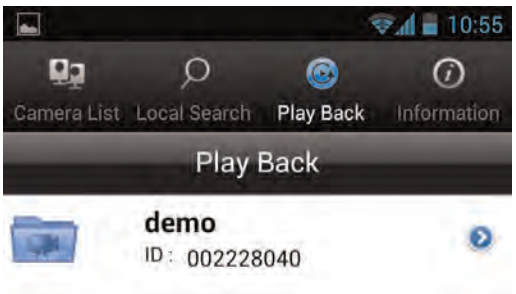
1. Press the record button () to begin recording.
2. Press the record button () again to stop recording. To view the recorded video, see below.

20.2 Playing Back Video Recorded to your Android™ Device

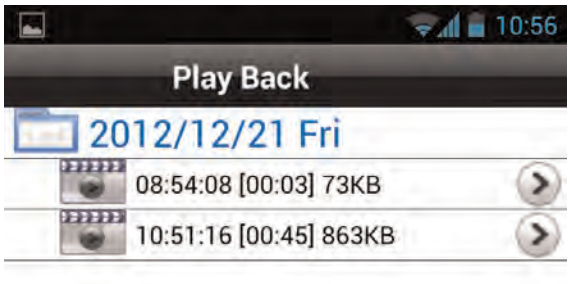
After using the record button to manually record video to your Android™ device, you can use Lorex Ping to play it back.

To playback video recorded to your Android™ device:

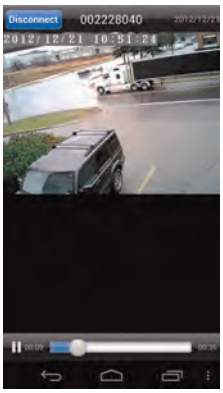
1. From the Camera List, tap **Play Back** ().
2. Tap the camera you would like playback.



3. Select the date that you would like to playback video from, and then tap a video file to open it.



4. Use the on-screen controls to control playback. Tap **Disconnect** to close the file.

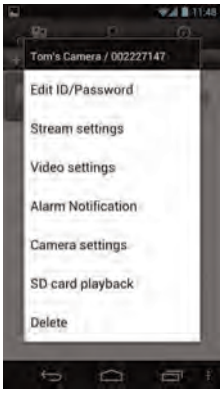


20.3 Playing Back Video Recorded on microSD on Android™

You can playback video recorded on the camera microSD card (not included) on your Android™ phone or tablet. For details on setting up microSD recording, see 20.4.13 *Enabling microSD Recording*, page 143.

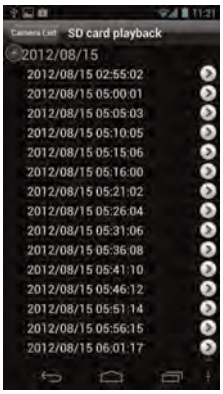
To play back video recorded on the camera microSD card:

1. From the Camera List, tap  .
2. Tap **SD card playback**.



3. The camera scans for available video files. Files are shown in a list according to the date they were recorded.

4. Tap a day to view recordings for that day. Tap a recording to view it.



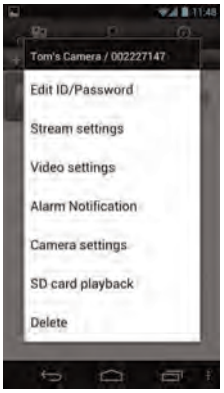
5. Tap **Disconnect** to return to the recording list.

20.4 Using Camera List to Edit Camera Settings

You can use the Camera List to adjust the connection or other settings for your camera.

To access Camera Settings:

- Tap Camera List  . Then tap  next to the camera you would like to edit. The Camera List Settings Menu appears.



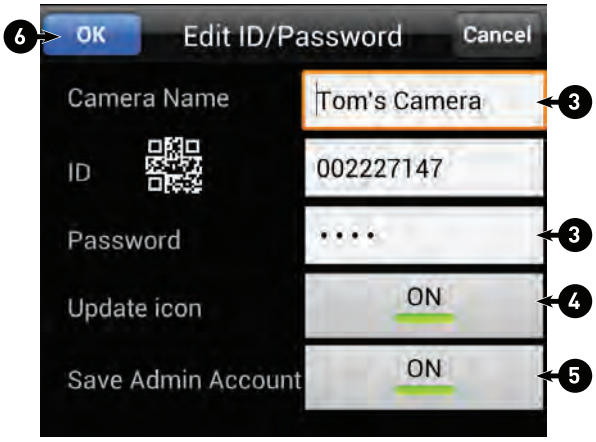
Note
For certain menus, you will need to enter the camera admin user name and password before you may change settings. By default, the admin user name is **admin** and the password is **left blank**.

20.4.1 Editing Camera Connection Settings

You can edit your camera connection information. This is useful if you change the password of the camera or if you want to save the admin user name and password, so you don't have to enter it to make settings changes.

To edit camera connection settings:

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Edit ID/Password**.



3. Edit the **Camera Name** and **Password** as needed.
4. Under **Update icon**, select **ON** for the camera to update the icon shown in Camera List every time you connect to it or **OFF** for the icon to remain as is.
5. Under **Save Admin Account**, select **ON** to save the admin user name and password, so you do not have to enter it when making setting changes. Or, select **OFF** to not save the admin user name and password. The admin user name and password will be saved the next time you enter it to make a setting change.
6. Tap **OK** to save changes.

20.4.2 Deleting Cameras from Camera List

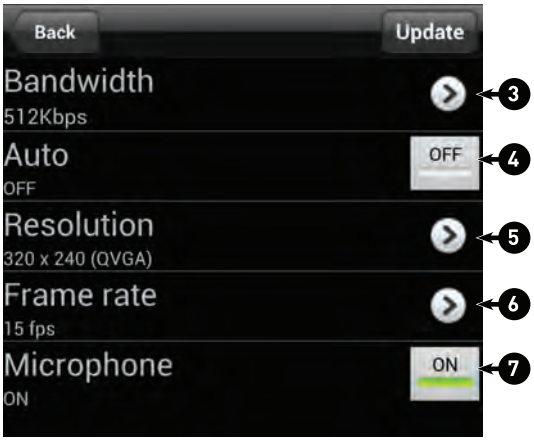
1. In Camera List, tap next to the camera you would like to delete.
2. Tap **Delete**.

20.4.3 Editing Camera Mobile Streaming Settings

Configure the camera image quality settings for streaming to mobile devices (i.e. smart phones and tablets). Please note that less bandwidth is generally available over mobile networks than over WiFi or Ethernet.

To edit mobile streaming settings:

1. In Camera List, tap next to the camera you would like to edit.
2. Tap **Stream Settings**.

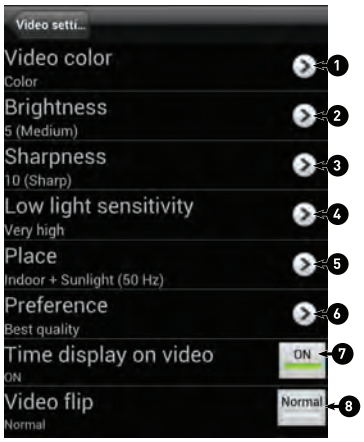


3. Under **Bandwidth**, select the bandwidth for your mobile connection. If you are mainly connecting using WiFi, you may set this setting higher.
4. Under **Auto**, tap to select **ON** to have the camera automatically select the resolution and frame rate based on available bandwidth. If you choose to set the resolution and frame rate automatically, go straight to step 7. Or, select **OFF** to manually select the resolution (step 5) and frame rate (step 6). If you select OFF, configure the following:
5. Under **Resolution**, select the resolution that will be used when connecting to the camera using a smart phone or tablet: **320x240**, **480x360**, **640x400**, or **1024x768**.
6. Under **Frame rate**, select the frame rate that will be used when connecting to the camera using a smart phone or tablet between **30fps** (highest) and **1fps** (lowest).
7. Under **Microphone**, tap to select **OFF** to turn off audio streaming to your mobile device or tap to select **ON** to turn on audio streaming to your mobile device.
8. Tap **Update** to save your settings.

20.4.4 Editing Camera Video Settings

1. In Camera List, tap next to the camera you would like to edit.

2. Tap **Video Settings**. Then tap **Video**.



3. Configure the following:

   3.1. **Video color:** Select Color to view the camera in color or select Black & white.
   3.2. **Brightness:** Manually adjust the brightness of the image between 10 (highest) and 1 (lowest).
   3.3. **Sharpness:** Manually adjust the sharpness of the image between 10 (highest) and 1 (lowest).
   3.4. **Low Light Sensitivity:** Set the camera's sensitivity in low light environments between Very High (highest), High, and Normal (lowest).
   3.5. **Place:** Select **Outdoor video** for well lit environments. Select **Indoor Video** if you notice strip lines in the image or if the picture is too dark on the Outdoor video setting. Select **Indoor video + sunlight** if the picture is too bright on the Indoor Video setting.
   If you select an indoor settings, select **60Hz light freq** or **50Hz light freq** to adjust the camera for the frequency of your indoor lighting.
   3.6. **Preference:** Select whether you would like the camera to reduce the image quality or the frame rate when bandwidth increases or decreases. Select **Video Motion** to have the camera maintain the frame rate and reduce image quality when bandwidth is insufficient. Select **Image Quality** to have the camera maintain image quality and reduce frame rate when bandwidth is insufficient. Select **Better Quality** to have the camera maintain frame rate and increase quality when bandwidth is sufficient. Select **Best Quality** to have the camera maintain the frame rate and increase quality to the maximum speed of the connection.
   3.7. **Time Display on Video:** Tap to select **ON** to enable time stamps on video or **OFF** to disable time stamps.
   3.8. **Video flip:** Tap to select Video Flip to flip the camera image vertically and horizontally or select **Normal** for the normal orientation. This is useful if the camera has been mounted to a wall or ceiling upside down.

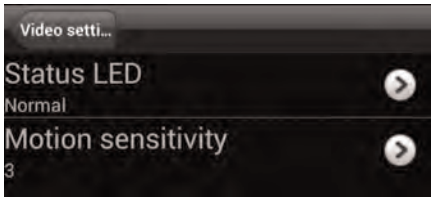
4. Tap **Video Settings** when finished making changes, then tap **Update** to save your settings.

20.4.5 Configuring LED Control and Motion Detection Sensitivity

Configure the behavior of the camera's status LED's. This is useful if you want the camera to be harder to spot at night. You can also configure the sensitivity for video motion detection.

To configure LED's and motion detection sensitivity:

1. In Camera List, tap next to the camera you would like to edit.
2. Tap **Video Settings**. Then tap **Control**.



3. Under **Status LED**, select one of the following:
   - **Normal:** LED's will function as normal. For details on LED functions, see 4 *LNC216 Camera Overview*, page 4 or 16.2 *L-Play Overview*, page 69.
   - **Always turn off:** LED's are turned off at all times.
   - **Turn off after network connected:** LED's turn on when the camera is powered on and turn off once a network connection is made.
4. Under **Motion Sensitivity**, select the motion detection sensitivity between **1** (High) and **10** (Low). If Motion Detection Sensitivity is set to 1, motion detection will be triggered if a moving object is larger than 1% of the video area. If it is set to 10, a moving object must be larger than 10% of the video area to trigger motion detection.

   Note
   This setting does not affect the PIR motion detector.

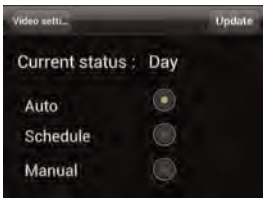
5. Tap **Video Settings** when finished making changes, then tap **Update** to save your settings.

20.4.6 Configuring Night Mode Settings

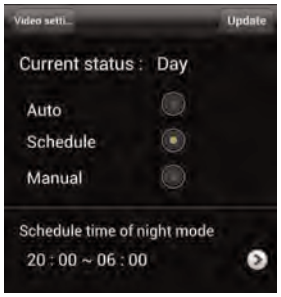
Configure when the camera uses day or night mode. When day mode is on, the camera sees in color. When night mode is on, the camera sees in black and white, and the Infrared LED turns on to enable night vision.

To configure Day/Night mode:

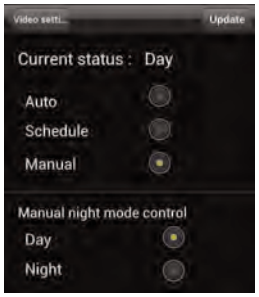
1. In Camera List, tap next to the camera you would like to edit.
2. Tap **Video Settings**. Then tap **Night Mode Control**.



3. Select one of the following:
   - **Auto:** Camera will automatically switch between day mode or night mode, based on the amount of light in the room.
   - **Schedule:** Camera will switch between day mode and night mode at scheduled times each day. If using this option, tap under **Schedule time of night mode**, use the sliders to set the **Start** time (when night mode begins each day) and **End** time (when night mode ends each day), then tap **OK**.



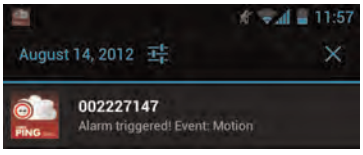
   - **Manual:** Manually select day mode or night mode. If using this option, select **Day** for day mode or **Night** for night mode.



4. Tap **Update** to save your changes.

20.4.7 Enabling Motion/Sound Push Alarm Notifications

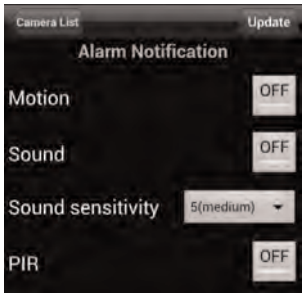
Push Alarm Notifications can be set up to create a notification straight to your Android™ device when motion or sound is detected by the camera. Push Alarm Notifications go directly to the notifications area on your device.



To enable Push Alarm Notifications:

1. In Camera List, tap  next to the camera you would like to edit.

2. Tap **Alarm Notification**.



3. Under **Motion**, tap to select **ON** to enable Push Alarm Notifications when motion is detected using video motion detection or **OFF** to disable.
4. Under **PIR**, tap to select **ON** to enable Push Alarm Notifications when motion is detected using the PIR motion sensor or **OFF** to disable.

> **Note**
> The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

5. Under **Sound**, tap to select **ON** to enable Push Alarm Notifications when sound is detected by the camera or **OFF** to disable. Under **Sound Sensitivity**, select a sensitivity for Sound Push Alarm Notifications between **1** (lowest) and **10** (highest).
6. Tap **Update** to save your settings.

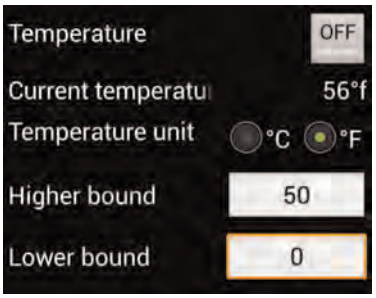
20.4.8 Configuring Temperature Push Notifications and Temperature Units (Fahrenheit or Celsius)

Temperature Push Notifications can be set up to send you alerts if the temperature near the camera goes higher or lower than the specified values. You can also select the temperature unit that will be used by the system.

> **Note**
> The camera must have a temperature sensor to use this feature. LNC226X does not have a temperature sensor.

To configure temperature push notifications:

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Alarm Notification**.



3. Under **Temperature**, select **ON** to enable temperature push notifications.
4. Under **Temperature unit**, select °**C** or °**F**.

5. Under **Higher bound**, select the high temperature value. You will receive a notification if the temperature near the camera goes above this value.
6. Under **Lower bound**, select the low temperature value. You will receive a notification if the temperature near the camera goes above this value.
7. Tap **Update** to save your settings.

20.4.9 Editing Camera Wired Network Settings

Configure the camera IP address when connected using Ethernet. Select DHCP or Fixed IP.

To edit camera wired network settings:

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Network** then **Wired Network**.

4. Select **DHCP** (recommended) to allow the camera to automatically obtain an IP address from the router or **Static** to use fixed IP address settings. If you select Static, configure your **IP Address**, **Subnet mask**, **Default gateway**, **DNS1**, and **DNS2**.
5. Tap **Update** to save your settings.

20.4.10 Editing Camera WiFi Network Settings

Configure WiFi network settings for the camera.

To edit camera WiFi settings:

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Network** then **WiFi Network**.

4. Check **WiFi** to enable WiFi on the camera and scan for available networks.

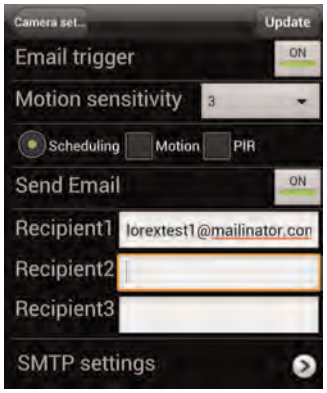
5. Tap a WiFi network and enter the password to connect.
   - To connect to a hidden WiFi network, tap **Other**. Enter the **SSID**, select the security type, and tap **Add**. Tap the network name from the list and enter the password.
6. Wait for the update to complete.
7. Remove the Ethernet cable from the camera. It will connect to the WiFi network. When it is connected, the blue Network LED will be on or flashing.
8. Tap **Camera Settings** then **Camera List** to exit the edit camera screen.
9. Tap the camera in the Camera List to connect. If you cannot connect, check to make sure you have entered the correct wireless password and that the camera is in signal range of your wireless router.

20.4.11 Enabling Email Notifications

Configure email alarms. The camera can be set up to send email alerts when motion is detected. Email alarms include a .jpg attachment.

To enable email notifications:

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Schedule** then **Email Alarm**.



4. Under **Email trigger**, tap to select **ON** to enable email notifications or **OFF** to disable. Then under **Send Email**, tap to select **ON** to enable email notifications.
5. Under **Motion sensitivity**, select the motion detection sensitivity between **1** (High) and **10** (Low). If Motion Detection Sensitivity is set to 1, motion detection will be triggered if a moving object is larger than 1% of the video area. If it is set to 10, a moving object must be larger than 10% of the video area to trigger motion detection.

> **Note**
> This setting does not affect the PIR motion detector.

6. Select from the following trigger options for email alarms:
   - **Motion:** Use Video motion detection to trigger email alarms. Video motion detection looks for movement in the image to determine if there is motion. This means that there may be false alarms caused by changes in lighting, trees moving in the wind, etc.
   - **PIR:** Use the PIR motion detector to trigger email alarms. The PIR motion detector uses changes in temperatures (e.g. from a person moving around in front of the camera) to determine if there is motion. PIR motion detection is less effective at higher temperatures.

     Note
     - You may also select both PIR and Motion to receive alarms from both motion triggers.
     - The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

   - **Scheduling:** Send email alarms based on the settings configured under Schedule.
7. Enter up to 3 email addresses under **Recipient1~3** that will receive email alarms.
8. Tap **Update** to save your changes.

Note
If you want to use a custom SMTP server to send Email messages, click **SMTP Settings**, enter your SMTP server information, and tap **OK**.

20.4.12 Enabling Speaker Alarms

Configure the siren. The siren can be set up to go off when the camera detects motion. This is helpful if you want to scare off intruders.

Note
The camera requires a speaker in order to use this feature. LNC226X does not have a speaker.

To configure speaker alarms:

1. In Camera List, tap  next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Schedule** then **Speaker Alarm**.

4. Under **Speaker Alarm Trigger**, tap to select **ON** to enable speaker alarms or **OFF** to disable.
5. Under **Alarm Loop Times**, select the number of times you would like the speaker alarm to repeat when alarms occur.

6. Select from the following speaker alarm triggers:
   - **Motion:** Use Video motion detection to trigger audio alarms. Video motion detection looks for movement in the image to determine if there is motion. This means that there may be false alarms caused by changes in lighting, trees moving in the wind, etc.
   - **PIR:** Use the PIR motion detector to trigger audio alarms. The PIR motion detector uses changes in temperatures (e.g. from a person moving around in front of the camera) to determine if there is motion. PIR motion detection is less effective at higher temperatures.

     Note

     - You may also select both PIR and Motion to receive alarms from both motion triggers.
     - The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

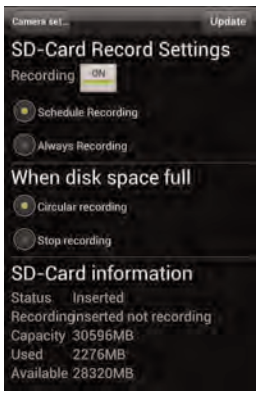
   - **Scheduling:** Create audio alarms based on the settings set in the Schedule.
7. Tap **Alarm Test** to sound a test alarm.
8. Tap **Update** to save your settings.

20.4.13 Enabling microSD Recording

Configure video recording to the microSD card (required; not included). To playback recordings saved on the microSD card, use L-View or the iPhone®, iPad®, or Android™ apps.

To configure microSD card recording:

1. Make sure a microSD card (not included) is inserted into the camera. It is recommended to format the microSD card before using it with the camera.
2. In Camera List, tap  next to the camera you would like to edit.
3. Tap **Camera Settings**.
4. Tap **Schedule** then **SD-Card**.



5. Under **Recording**, tap to select **ON** to enable microSD recording or **OFF** to disable.

6. Select one of the following recording options:
   - **Always Recording:** Camera will record continuously at all times.
   - **Schedule Recording:** Camera will record according to settings set in the recording schedule.

   Note
   To enable Motion detection recording using Android™, you must use Schedule recording. Then, create a schedule in the Scheduling menu with **Motion trigger**, **PIR trigger**, or both Motion trigger and PIR trigger selected.

7. Under **When disk space full**, select **Circular recording** to set the camera to overwrite the oldest recordings when the microSD card is full or select **Stop recording** to set the camera to stop recording when the microSD card is full.
8. Tap **Update** to save your settings.

20.4.14 Configuring the Recording and Alarm Schedule

Configure schedules for recording and alarms. Schedules can be configured separately for alarms and recording. You can configure up to 12 schedules.

To create a schedule for alarms or recording:

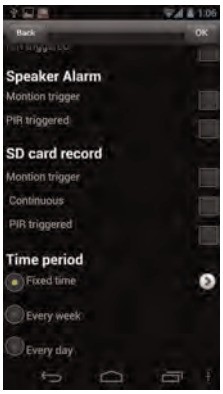
1. First, you must enable alarms or recording to use the schedule.
2. In Camera List, tap  next to the camera you would like to edit.
3. Tap **Camera Settings**.
4. Tap **Schedule** then **Scheduling**.
5. Tap **Add Schedule**.

6. Under **Email Alarm**, check **Motion trigger** to send an email alarm based on video motion, select **PIR trigger** to use the PIR motion sensor, or select both.

   Note
   The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

7. Under **Speaker Alarm**, check **Motion trigger** to create an speaker alarm based on video motion, check **PIR trigger** to use the PIR motion sensor, or select both.
8. Under **SD card record**, check **Continuous** for the camera to record to microSD continuously during the scheduled time. Check **Motion trigger** to record when video motion is triggered during the scheduled time, select **PIR trigger** to record when the PIR motion sensor is triggered during the scheduled time, or select both.

9. Under **Time period**, select one of the following:

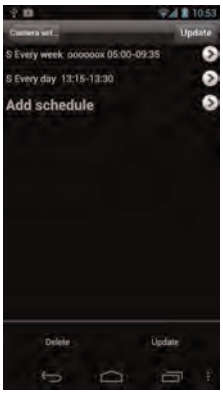


- **Every week:** Create a weekly recording schedule. Tap  and check the days you would like the schedule to apply to. Tap **Start** and **End** and use the sliders to configure the start and end time for the schedule. Tap **OK**.
- **Every day:** Create a daily recording schedule. Tap  then tap **Start** and **End** and use the sliders to configure the start and end time for the schedule. Tap **OK**.
- **Fixed time:** Create a one time schedule (for example, if you are going on vacation, and would like to record all the time). Tap **Start** and **End** and use the sliders to configure the exact date and time when you would like the schedule to start and end. Tap **OK**.

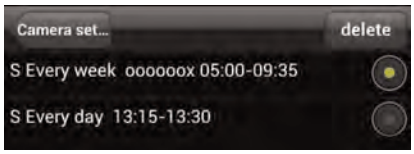
10. Tap **OK** to save the schedule. Tap **Update** to save your settings.

To delete a Schedule:

1. From the Scheduling menu, press the Android™ menu button and tap **Delete**.



2. Select the schedule you want to delete and tap **Delete**.



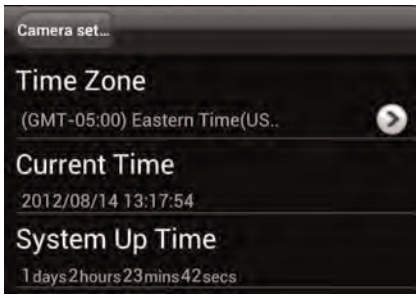
3. Tap **Update** to save your changes.

20.4.15 Configuring the Camera Date and Time

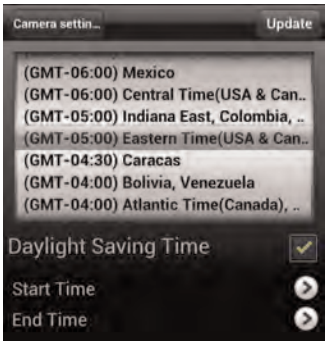
Configure the camera date and time. The camera syncs with an Internet NTP time server to automatically provide the correct time, once you have configured your time zone and daylight savings time settings.

To set the camera date and time:

1. In Camera List, tap next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Admin** then **Date/Time**.
4. Tap **Time Zone**.



5. Use the slider to select your time zone.
6. If your region observes Daylight Savings Time, check **Daylight Savings** Time. Tap **Start Time** and **End Time**, use the sliders to configure the start and end time for Daylight Savings Time and then tap **OK**.



7. Tap **Update** to save your changes.

20.4.16 Rebooting the Camera

1. In Camera List, tap next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Admin** then **Reboot**.
4. Tap **OK** to confirm.

20.5 Using Local Search to Add Cameras

You can use the Local Search Menu to automatically add the ID's for cameras on your local network.

To add cameras using local search:

1. Tap the Local Search button ().

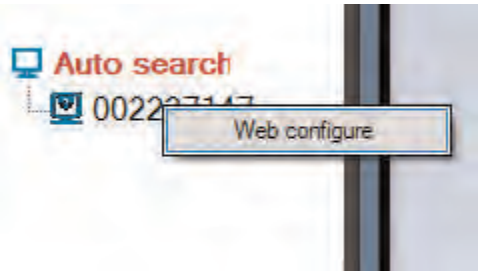
2. Lorex Ping automatically scans for cameras on your local network. Tap **Search** to re-scan.
3. Tap a camera from the list. The Add camera screen comes on with the camera ID already entered.
4. Enter a **Camera Name** of your choice and enter the camera **Password**. If you have not connected to your camera before, the password is **lorex**.
5. Tap **OK**. The camera is now added to camera list. Tap the camera name in camera list to connect to the camera.

21 Configuring Camera Settings Using a Browser

Web Configure lets you modify camera settings using a web browser.

To access Web Configure:

1. Open L-View, right-click on the camera ID under Auto Search, and click **Web configure**.

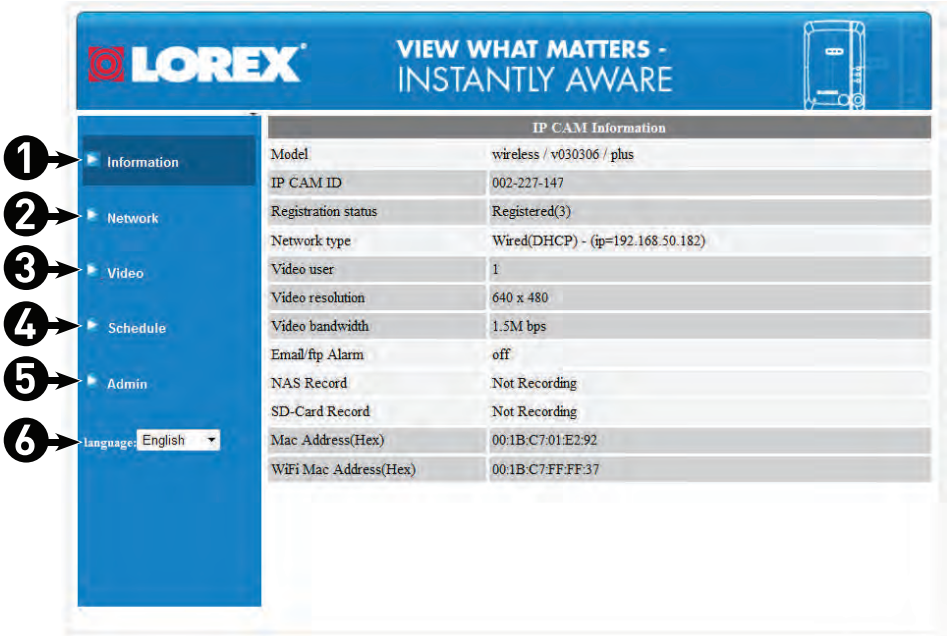


Note
Your computer must be on the same network as the camera to use Web Configure. You may change camera settings over the Internet using the iPhone®, iPad®, or Android™ apps.

2. Enter the camera admin user name and password. By default, the admin user name is **admin** and the admin password field is **left blank**. Click **Log in**. The Web Configure interface opens in your default web browser.

Note
Your camera admin user name and password differs from the password used to connect to your camera to view video.

21.1 Web Configure Overview



1. **Information:** View information about the camera and camera settings.

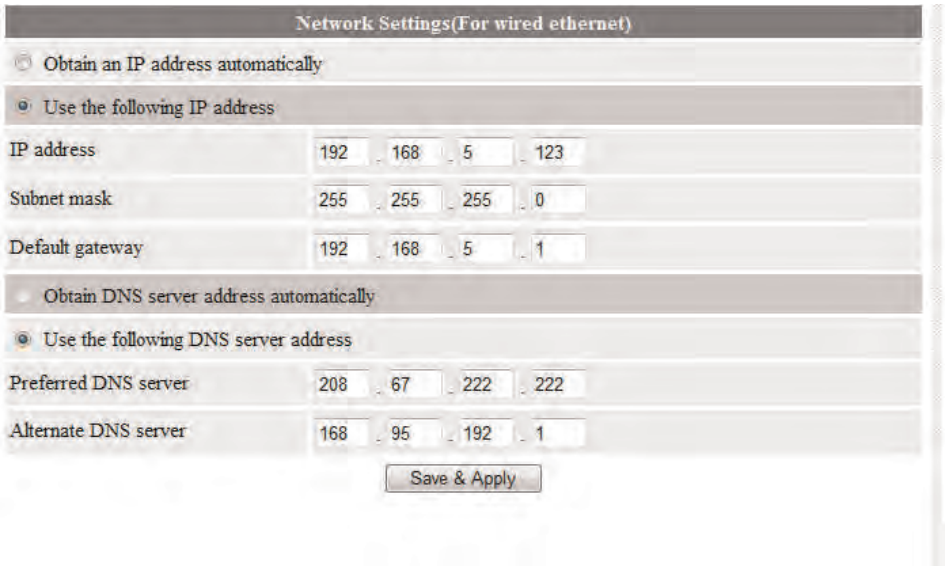
2. **Network:** Configure wired/wireless network settings. Connect to a wireless network.
3. **Video:** Configure camera video and streaming settings.
4. **Schedule:** Configure recording settings and schedules. Configure email and audio alarms.
5. **Admin:** Configure the camera date and time, passwords, and LED's. Restart the camera. Perform system upgrades.
6. **Language:** Select the language for the Web Configure interface.

21.2 Network

Configure networking settings for WiFi or Ethernet connection.

21.2.1 Wired Network (DHCP or Fixed IP)

Configure the camera IP address when connected using Ethernet. Select DHCP or Fixed IP.



To configure the camera to use DHCP or fixed IP:

1. Select one of the following:
   - **Obtain an IP address automatically (recommended):** Use DHCP and allow the camera to obtain an IP address from the router automatically.
   - **Use the following IP address:** Use a fixed IP address and manually enter the IP address information.
2. If you selected Use the following IP address, configure the following:
   - **IP address:** Enter the IP address the camera will use. Make sure it is available on your network.
   - **Subnet mask:** Enter the Subnet Mask.
   - **Default Gateway:** Enter the Default Gateway address.
   - **Obtain DNS server address automatically:** Select to have the camera automatically select a DNS server.
   - **Use the following DNS server address:** Select and then manually enter DNS server information.
3. Click **Save & Apply**.

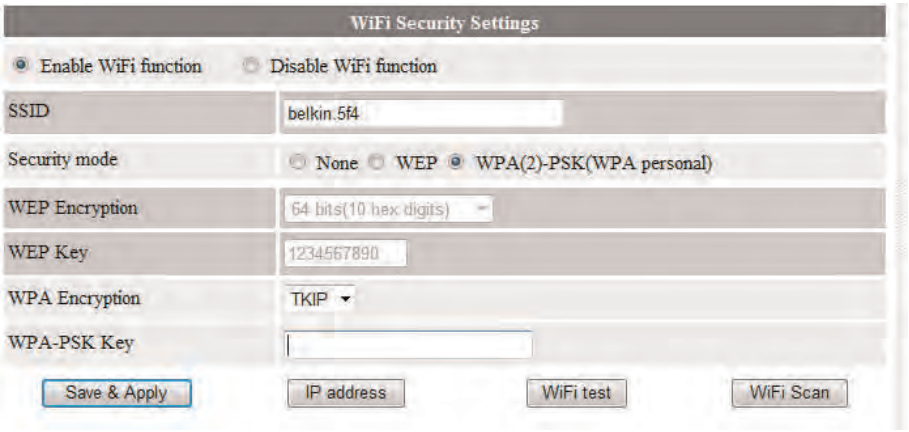
21.2.2 WiFi Security (Configuring WiFi settings)

Configure the camera to connect to a WiFi network and configure WiFi settings.

To configure WiFi Settings:

Note
For instructions on connecting your camera to a WiFi network, see 13.2 *PC WiFi Setup*, page 38 or 14.2 *Mac WiFi Setup*, page 44.

1. Perform one of the following:



- To Scan available WiFi networks, click **WiFi Scan**.
- To connect to a hidden WiFi network, select **Enable Wifi function**, and manually fill out the **SSID, Security mode** (i.e. encryption type), and the **WEP** or **WPA-PSK Key**. Click **Save & Apply**. Refresh the page and select **WiFi test**. When the test is successful, disconnect the camera from Ethernet.
- To configure a fixed IP address for the camera when connected over WiFi, click **IP address**, configure the settings as needed, and click **Save & Apply**.
- To test configured WiFi settings, click **WiFi test**.

21.3 Video

Configure camera video and streaming settings.

21.3.1 Video Settings

Adjust the video quality settings. Set the password to access camera video through L-View or apps.

To set the camera password for accessing video through L-View or apps:

1. Under **Password (play video)**, enter a password to access the camera video using L-View or smart phone and tablet apps.
2. Click **Save & Apply** to save the new password.

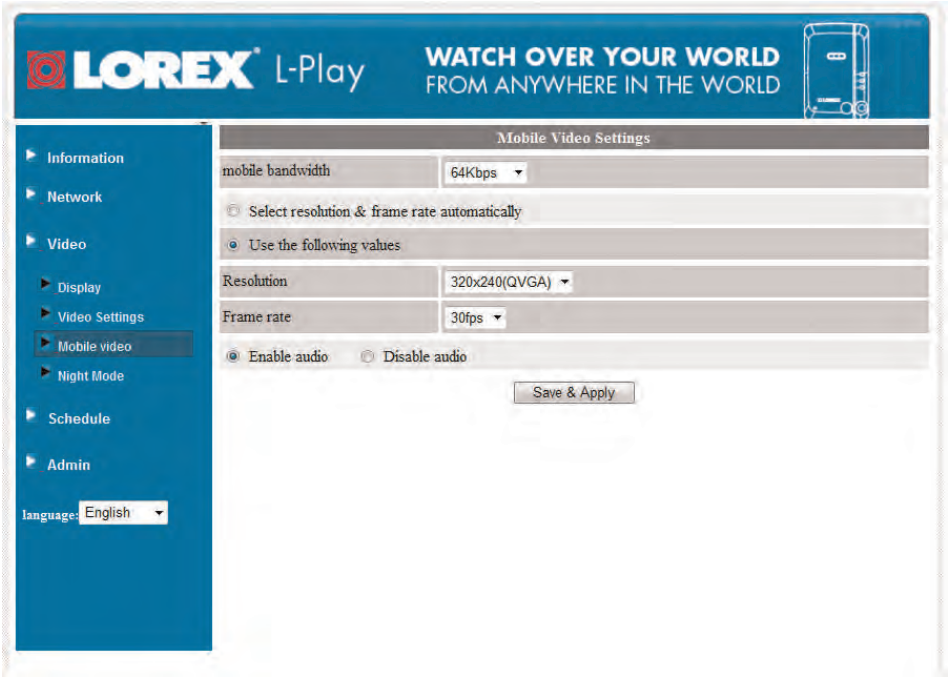
To configure camera video quality settings:

TIP: Change only one camera image quality setting at a time before clicking **Save & Apply** so you can judge the effects.

1. Configure the following, as needed:
   - **Internet speed:** Select the upload speed of your Internet connection. If your Internet connection is faster than 1.5Mbps, select 1.5Mbps.
   - **Adjust resolution and frame rate automatically:** Select to allow the camera to adjust the video resolution and frame rate based on available bandwidth.
   - **Use the following values:** Select to manually select the video resolution and frame rate for the camera. Note that the image quality may decrease if there is not enough bandwidth for your selected settings.
   - **Resolution:** Manually select either **320x240**, **640x480**, **1024x768**, or **1280x800** resolution. Higher resolution will give you a better, more detailed picture, but requires more bandwidth. Lower resolution allows the camera to maintain a higher frame rate when available bandwidth is low.
   - **Frame rate:** Manually select the frame rate between **30fps** (highest) and **1fps** (lowest). 30fps is real time video, meaning that movement in the image will appear smooth, with no choppiness.
   - **Favor/Preference:** Select whether you would like the camera to reduce the image quality or the frame rate when bandwidth increases or decreases. Select **Video Motion** to have the camera maintain the frame rate and reduce image quality when bandwidth is insufficient. Select **Image Quality** to have the camera maintain image quality and reduce frame rate when bandwidth is insufficient. Select **Better Quality** to have the camera maintain frame rate and increase quality when bandwidth is sufficient. Select **Best Quality** to have the camera maintain the frame rate and increase quality to the maximum speed of the connection.
   - **Brightness:** Manually adjust the brightness of the image between **10** (highest) and **1** (lowest).
   - **Sharpness:** Manually adjust the sharpness of the image between **10** (highest) and **1** (lowest).
   - **Low Light Sensitivity:** Set the camera's sensitivity in low light environments between **Very High** (highest), **High**, and **Normal** (lowest).
   - **Video color:** Select **Colored** to view the camera in color or select **Black & white**.
   - **Video flip:** Select **Video Flip** to flip the camera image vertically and horizontally or select **Normal** for the normal orientation. This is useful if the camera has been mounted to a wall or ceiling upside down.
   - **Outdoor video/Indoor video/Indoor video + sun light:** Select **Outdoor video** for well lit environments. Select **Indoor Video** if you notice strip lines in the image or if the picture is too dark on the Outdoor video setting. Select **Indoor video + sunlight** if the picture is too bright on the Indoor Video setting.
   - **60Hz light freq/50Hz light freq:** If necessary, select **60Hz light freq** or **50Hz light freq** to adjust the camera for the frequency of your indoor lighting. These settings are not available when the camera is set to Oudoor video.
   - **Enable audio microphone/Disable audio microphone:** Select **Disable audio microphone** to disable the built-in microphone in the camera or select **Enable audio microphone** to enable it.
   - **Enable time display/Disable time display:** Select **Disable time display** to turn off video time stamps or **Enable time display** to turn on video time stamps.
2. Click **Save & Apply** to apply the settings to the camera. You may need to reconnect to the camera after making settings changes.

21.3.2 Mobile Video

Set streaming settings for connecting using a smartphone or tablet. Note that less bandwidth is generally available when connecting to the camera over a mobile cellular network than when connecting using broadband Internet.

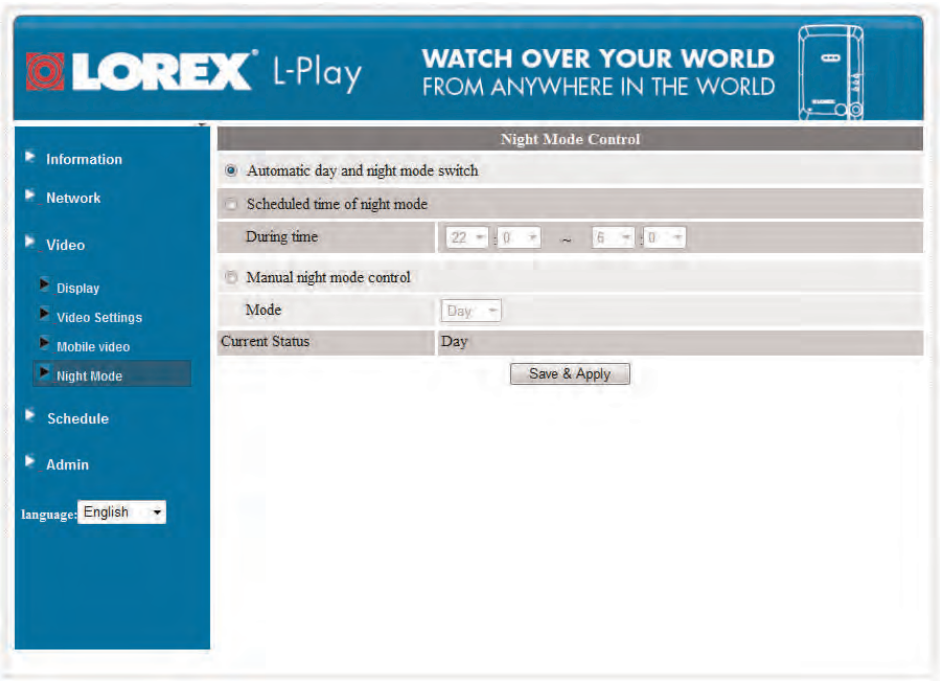


To configure mobile streaming settings:

1. Under **Mobile bandwidth**, select your available mobile bandwidth. If you are primarily connecting using WiFi, you may set this setting higher.
2. Select either **Select resolution & frame rate automatically** to have the camera automatically select the resolution and frame rate based on available bandwidth or select **Use the following values** to manually select the resolution and frame rate.
3. Under **Resolution**, select the resolution that will be used when connecting to the camera using a smartphone or tablet: **320x240**, **480x360**, **640x400**, or **1024x768**.
4. Under **Frame rate**, select the frame rate that will be used when connecting to the camera using a smart phone or tablet between **30fps** (highest) and **1fps** (lowest).
5. Select **Enable audio** to enable audio streaming to smart phones and tablets or **Disable audio** to disable audio streaming to smartphones and tablets.
6. Click **Save & Apply** to apply changes to your camera.

21.3.3 Night Mode

Configure when the camera uses day or night mode. When day mode is on, the camera sees in color. When night mode is on, the camera sees in black and white, and the Infrared LED turns on to enable night vision.



To configure Day/Night mode:

1. Select one of the following:
   - **Automatic day and night mode switch:** Camera will automatically switch between day mode or night mode, based on the amount of light in the room.
   - **Scheduled time of night mode:** Camera will switch between day mode and night mode at a scheduled times each day. If using this option, use the first set of drop-down menus to select (in 24-hour time) what time the camera will switch to night mode and the second set of drop-down menus to select when the camera will return to day mode.

   - **Manual night mode control:** Manually select day mode or night mode. If using this option, under **Mode**, select **Day** for day mode or **Night** for night mode.

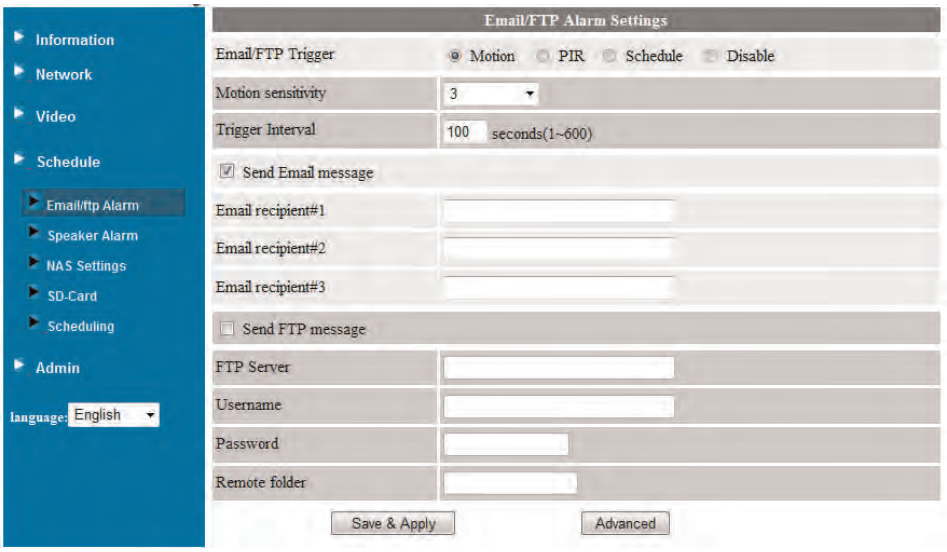
2. Click **Save & Apply** to apply your settings to the camera.

21.4 Schedule

Configure recording to microSD card, configure email or speaker alarms, and setup the recording/alarm schedule.

21.4.1 Email/FTP Alarm Settings (Configuring Email Alarms)

Configure email alarms. The camera can be set up to send email alerts when motion is detected. Email alarms include a .jpg attachment.



To configure Email Alarms:

1. Under **Email/FTP Trigger**, select one of the following alarm triggers:
   - **Motion:** Use Video motion detection to trigger email alarms. Video motion detection looks for movement in the image to determine if there is motion. This means that there may be false alarms caused by changes in lighting, trees moving in the wind, etc.
   - **PIR:** Use the PIR motion detector to trigger email alarms. The PIR motion detector uses changes in temperatures (e.g. from a person moving around in front of the camera) to determine if there is motion. PIR motion detection is less effective at higher temperatures.

     Note
     - You may also select both PIR and Motion to receive alarms from both motion triggers.
     - The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

   - **Schedule:** Send email alarms based on the settings configured under Schedule. see 21.4.5 *Scheduling (Configuring Recording and Alarm Schedules)*, page 159.
   - **Disable:** Disable email alarms.
2. If you have selected Motion, under **Motion Sensitivity**, select the motion detection sensitivity between **1** (High) and **10** (Low). If Motion Detection Sensitivity is set to 1, motion detection will be triggered if a moving object is larger than 1% of the video area. If it is set to 10, a moving object must be larger than 10% of the video area to trigger motion detection.

   Note
   This setting does not affect the PIR motion detector.

3. Under **Trigger Interval**, enter the minimum time (in seconds) the camera will wait in between email alarms. If this Interval is set too low, you may receive a lot of messages.
4. Under **Email Recipient**, enter up to 3 email addresses that will receive email alarms.

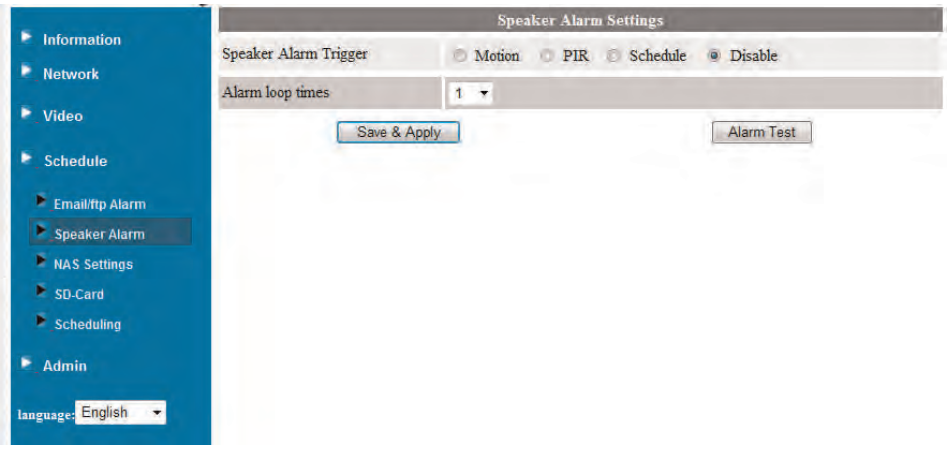
5. Click **Save & Apply** to save email alarm settings.

> **Note**
> If you want to use a custom SMTP server to send Email messages, click Advanced, enter your SMTP server information, and click **Save & Apply**.

21.4.2 Speaker Alarm (Configuring Audio Alarms)

A siren can be set up to go off when the camera detects motion. This is helpful if you want to scare off intruders.

> **Note**
> The camera requires a speaker in order to use this feature. LNC226X does not have a speaker.



To configure speaker alarms:

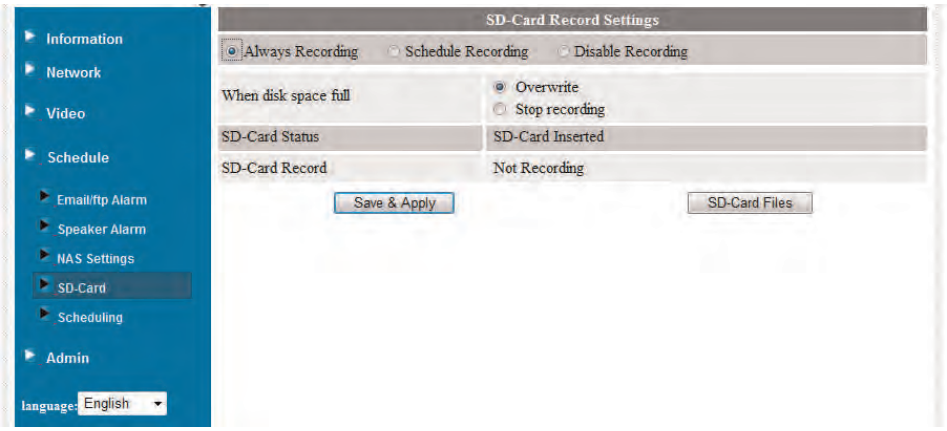
1. Under **Speaker Alarm Trigger**, select one of the following alarm triggers:
   - **Motion:** Use Video motion detection to trigger audio alarms. Video motion detection looks for movement in the image to determine if there is motion. This means that there may be false alarms caused by changes in lighting, trees moving in the wind, etc.
   - **PIR:** Use the PIR motion detector to trigger audio alarms. The PIR motion detector uses changes in temperatures (e.g. from a person moving around in front of the camera) to determine if there is motion. PIR motion detection is less effective at higher temperatures.

     > **Note**
     > - You may also select both PIR and Motion to receive alarms from both motion triggers.
     > - The camera requires a PIR sensor to use this feature. LNC226X does not have a PIR sensor.

   - **Schedule:** Create audio alarms based on the settings set in the Schedule. see 21.4.5 *Scheduling (Configuring Recording and Alarm Schedules)*, page 159.
   - **Disable:** Disable audio alarms.
2. Under **Alarm loop times**, select the number of times the alarm will repeat.
3. Click **Alarm Test** to sound a test alarm.
4. Click **Save & Apply**.

21.4.3 SD Card (Configuring microSD Recording)

Configure video recording to the microSD card (required; not included). To playback recordings saved on the microSD card, use L-View or the iPhone®, iPad®, or Android™ apps.



To configure microSD card recording:

1. Make sure a microSD card (not included) is inserted into the camera. It is recommended to format the microSD card before using it with the camera.
2. Select one of the following recording options:
   - **Always Recording:** Record continuously, all the time to microSD card.
   - **Schedule Recording:** Record according to the settings set in the Schedule.
   - **Disable Recording:** Do not record.
3. Under **When disk space full**, select **Overwrite** for the camera to record over the oldest recordings when the microSD card is full or select **Stop recording** for the camera to stop recording when the microSD card is full.
4. Click **Save & Apply**.

21.4.4 NAS Settings (Configuring NAS Recording)

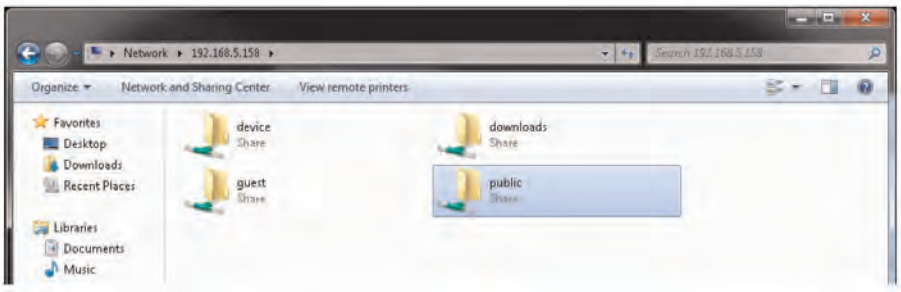
The camera can record directly to a NAS (Network Attached Storage) device (not included). This is useful because the camera can record to a NAS when your computer is not on.

To playback NAS recordings, see 15.8 *Playing Back Recordings from NAS in L-View*, page 63 or see 16.4 *Playing Back Video from NAS in L-Play*, page 73.

Before you can record to a NAS device, please make sure of the following:

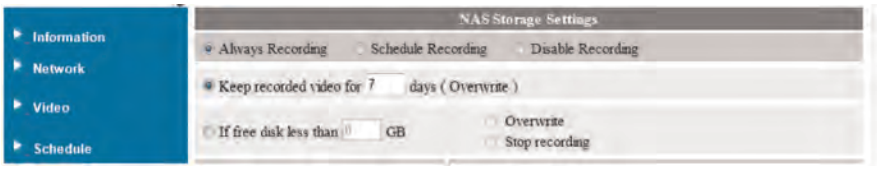
1. Your NAS device must be connected to the same network as the camera and it must be turned on.
2. You have the admin user name and password for your NAS device. Check the instruction manual for your NAS device for details.
3. You have the local IP address of your NAS device. Check the instruction manual for your NAS device for details.

4. Your NAS must have an available folder in the main (root) folder for recordings to be stored. This folder must be available before you begin NAS recording and it must allow read/write access. An example of an acceptable recording folder would be *public*.



To configure NAS recording settings:

1. Select one of the following:
   - **Always Recording:** Record to NAS continuously, all the time.
   - **Schedule Recording:** Record to NAS according to the settings set in the Scheduling page. See 21.4.5 *Scheduling (Configuring Recording and Alarm Schedules)*, page 159.
   - **Disable Recording:** Do not record to NAS.
2. Select one of the following:
   - **Keep recorded video for X days (Overwrite):** NAS device will keep recordings for up to the number of days specified, and then it will overwrite the oldest recordings.
   - **If free disk less than X GB:** NAS device will save recordings until it has less than the specified amount of disk space remaining. If you select this option, select **Overwrite** to allow the NAS device to overwrite the oldest recordings when the available space is full, or select **Stop recording** to have the NAS device stop recording video when the available space is full.



3. Under **Use NAS IP Address**, enter the local IP address of the NAS device. **OR**, click **NAS Scan** to scan your network for connected NAS devices. Then, click the name of your NAS device from the list to add the NAS name.

Note
NAS Scan only works with certain models of NAS devices. If your device does not appear, enter the NAS IP address under Use NAS IP address.

4. Under **Shared folder name**, enter the folder on the NAS where you would like to save recordings to. Enter the folder name in all lower case letters and no slashes. This folder must be located in the main (root) folder of the NAS device and must allow read/write access. For example, the folder public is an acceptable record folder, but the folder public/recording is not an acceptable record folder.
5. Under **NAS access account**, enter the admin user name of your NAS device. See your NAS device's instruction manual for details.
6. Under **NAS access password**, enter the admin password for your NAS device. See your NAS device's instruction manual for details.

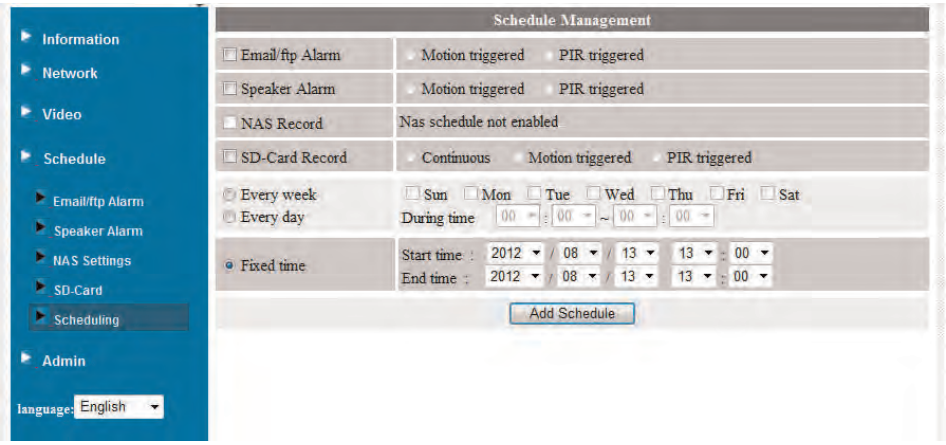
7. Click **Save & Apply** to save your settings.

8. To check to see if NAS recording options are correct, click **NAS Settings** again and then click **NAS Info**. This will allow you to see the recording and hard drive status of your NAS device.

Note
Recordings will not appear on your NAS device until at least 5 minutes after you configure NAS recording. This is because of the time it takes to package recordings and transfer them to the NAS device.

21.4.5 Scheduling (Configuring Recording and Alarm Schedules)

Configure schedules for recording and alarms. Schedules can be configured separately for alarms and recording. You can configure up to 12 schedules.



To create a schedule for alarms or recording:

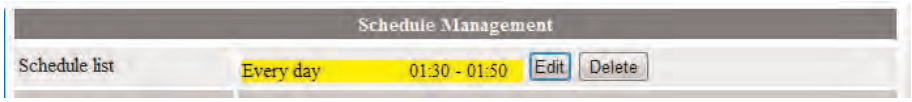
1. First, you must enable alarms or recording to use the schedule.
2. Check which alarm or recording types will use this schedule:
   - **Email/ftp Alarm:** Check to use this schedule for Email Alarms. Select **Motion triggered** to send an email alarm based on video motion, select **PIR triggered** to use the PIR motion sensor, or select both.
   - **Speaker Alarm:** Check to use this schedule for Email Alarms. Select **Motion triggered** to create an audio alarm based on video motion, select **PIR triggered** to use the PIR motion sensor, or select both.
   - **SD Card Recording:** Check to use this schedule for microSD recording. Select **Continuous** for the camera to record to microSD continuously during the scheduled time. Select **Motion triggered** to record when video motion is triggered during the scheduled time, select **PIR triggered** to record when the PIR motion sensor is triggered during the scheduled time, or select both.

Note
The camera requires a PIR sensor to use some of the features above. LNC226X does not have a PIR sensor.

3. Select one of the following to configure the times that will be used for this schedule:
   - **Every week:** Create a weekly recording schedule. Check the days you would like the schedule to apply to. Under **During time**, enter the start time for the schedule on the left and the end time for the schedule on the right.
   - **Every day:** Create a daily recording schedule. Under **During time**, enter the start time for the schedule on the left and the end time for the schedule on the right.
   - **Fixed time:** Create a one time schedule (for example, if you are going on vacation, and would like to record all the time). Under **Start time**, enter the exact date and time when you would like the schedule to start and enter the **End time**.
4. Click **Add Schedule**.

To delete a schedule:

1. Existing schedules are shown at the top of the page. Click **Delete** next to the schedule you want to delete.



To edit a schedule:

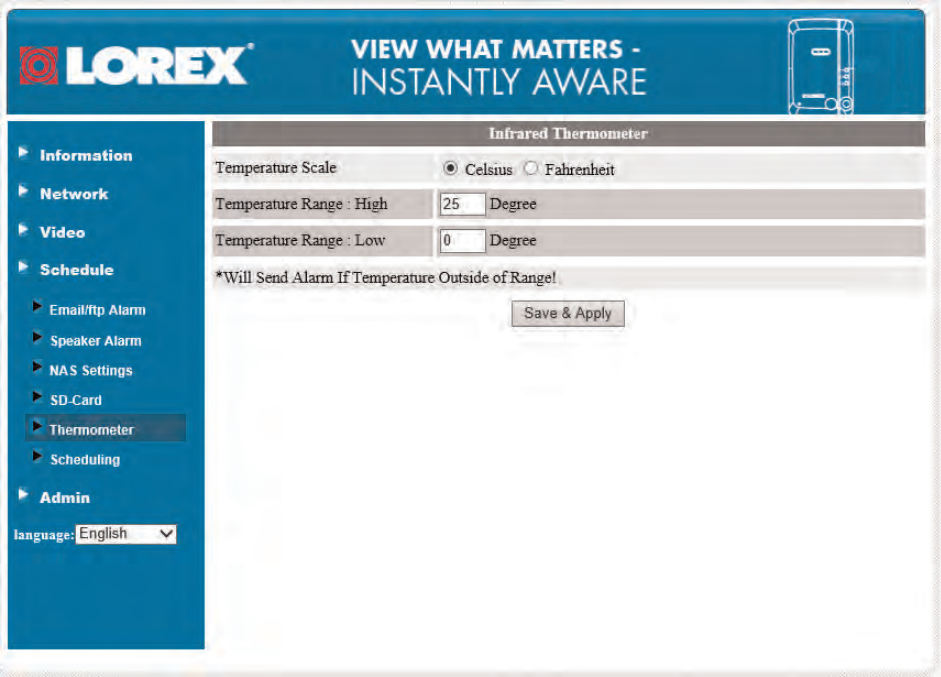
1. Click **Edit** next to the schedule you want to delete.
2. Edit the schedule settings as needed.
3. Click **Update Schedule**.

21.5 Thermometer

The Thermometer menu allows you to select the temperature units (Fahrenheit or Celsius) used in the camera display. It also allows you to configure the high and low temperatures that will trigger temperature push notifications.

Note
Temperature push notifications are only available on smartphones or tablets. You must enable temperature push notifications through the Alarm Notification menu in the Lorex Ping app to receive them on your device.

Note
The camera requires a temperature sensor in order to use this feature. LNC226X does not have a temperature sensor.



To configure thermometer settings:

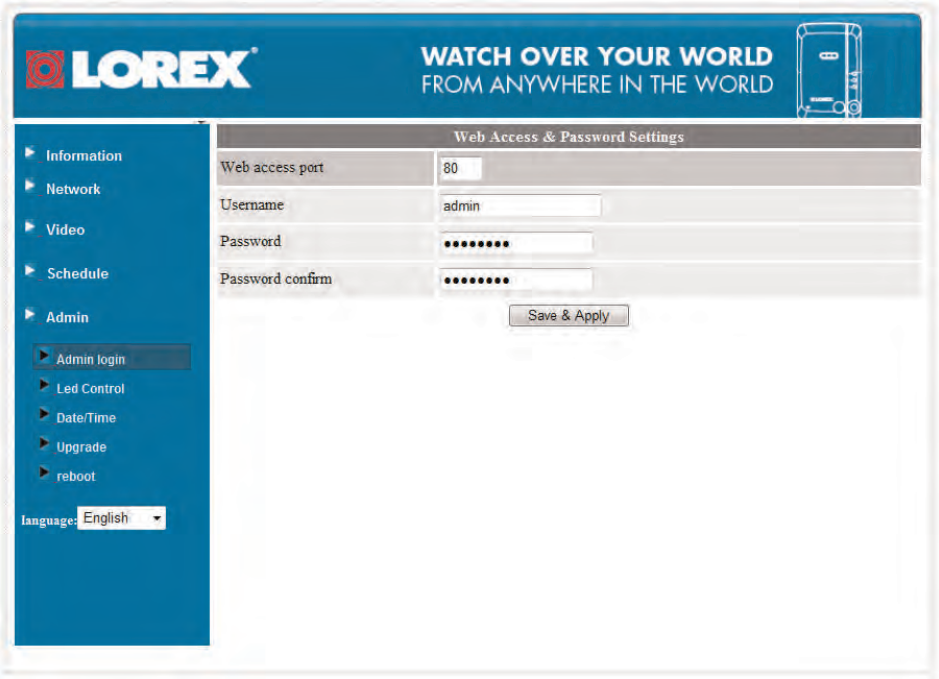
1. Under **Temperature Scale**, select **Celsius** or **Fahrenheit**.
2. Under **Temperature Range**: **High**, select the high temperature value that will trigger push notifications on phones and tablets.
3. Under **Temperature Range**: **Low**, select the low temperature value that will trigger push notifications on phones and tablets.
4. Click **Save & Apply**.

21.6 Admin

Configure the camera date and time, passwords, and LED's. Restart the camera. Perform system upgrades.

21.6.1 Admin Login

Configure the admin user name and password for the camera. The admin user name and password are used to login to Web Configure or change settings using apps. Configure the web access port.



To configure the admin user name and password used to login to Web Configure:

1. Under **Username**, enter the desired admin user name for the camera. The default is **admin**.
2. Under **Password**, enter the desired admin password for the camera. By default, the password field is **left blank** when logging in. Repeat the password under **Password confirm**.
3. Click **Save & Apply** to apply the settings to the camera. Restart the camera by disconnecting and reconnecting the power adapter or pressing the Reboot button (see 21.6.5 *Reboot*, page 166).

To configure the Web access port:

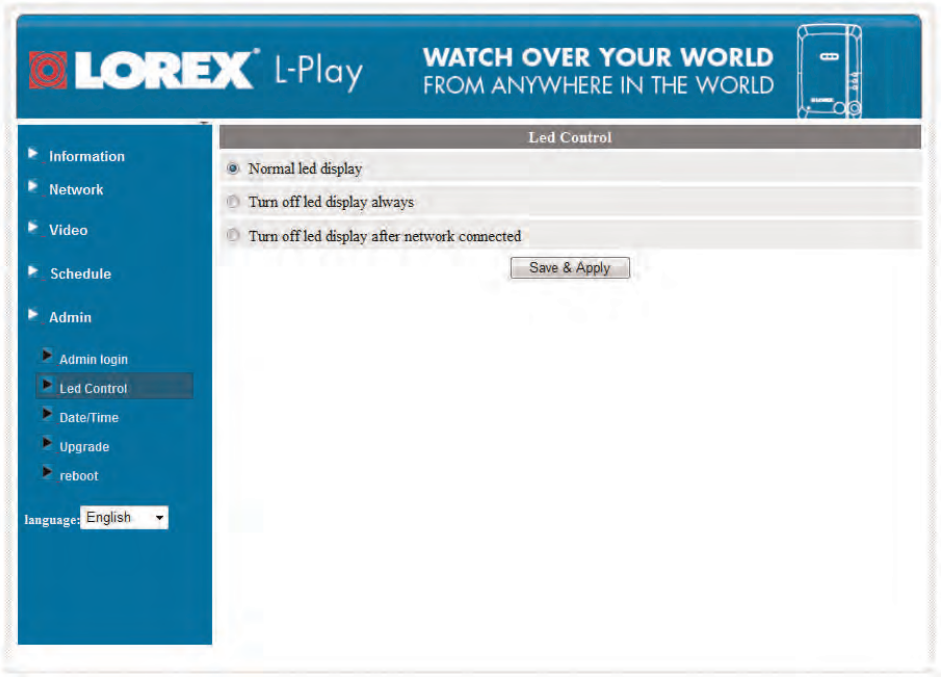
For added security, you may change the camera's web access port. Please note that if you change the web access port, you must enter the camera's **IP address**, a **colon (:)**, and the camera's web access port when connecting to the camera's IP address on the local network (e.g. *192.168.0.101:80*).

1. Under **Web access port**, enter the desired web access port. It must not be used by any other device on your network. Note that L-View will automatically update the web access port when connecting to Web Configure on the local network.
2. Click **Save & Apply**. Restart the camera by disconnecting and reconnecting the power adapter or pressing the Reboot button (see 21.6.5 *Reboot*, page 166).

Note
Your computer must be on the same network as the camera to use Web Configure. You may change camera settings over the Internet using the iPhone®, iPad®, or Android™ apps.

21.6.2 LED Control

Configure the behavior of the camera status LED's. This is useful if you want the camera to be harder to spot at night.

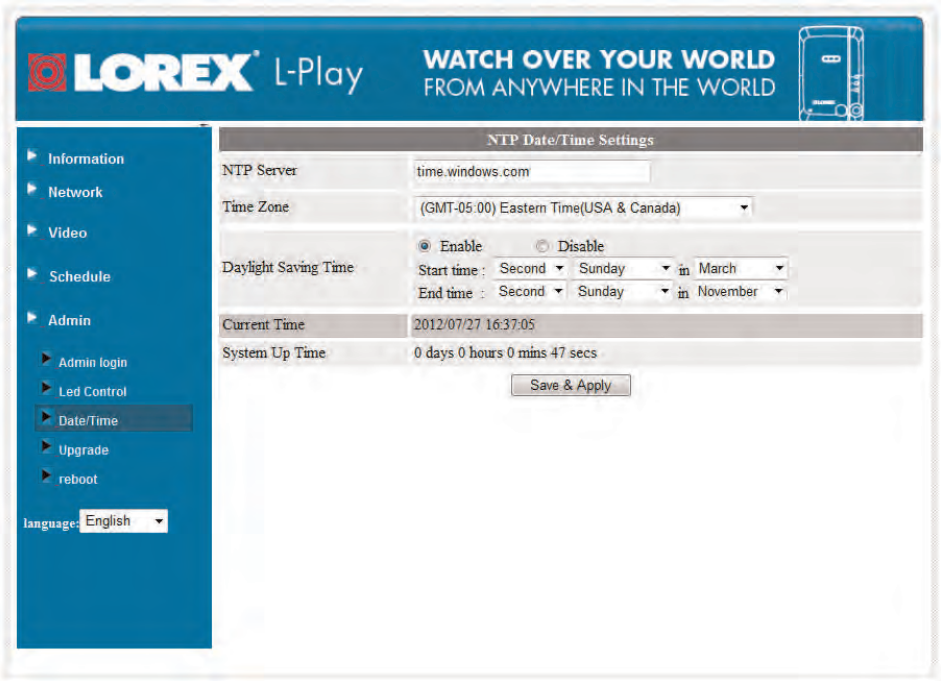


To configure the LED's:

1. Select one of the following:
   - **Normal LED display:** LED's will function as normal. For details on LED functions, see 4 *LNC216 Camera Overview*, page 4 or 5 *LNC226X Camera Overview*, page 6.
   - **Turn off LED display always:** LED's are turned off at all times.
   - **Turn off LED display after network connected:** LED's turn on when the camera is powered on and turn off once a network connection is made.
2. Click **Save & Apply** to apply settings to the camera.

21.6.3 Date/Time

Configure the camera date and time. The camera syncs with an Internet NTP time server to automatically provide the correct time, once you have configured your time zone and daylight savings time settings.



WARNING

It is highly recommended to set the date and time when first setting up your system.

Inaccurate time stamps may render your footage unusable for court evidence

To set the camera date and time:

1. Under **Time Zone**, select your time zone.
2. Select **Enable** under **Daylight Savings Time** if your region observes Daylight Savings Time. Configure the **Start Time** and **End Time** for Daylight Savings Time if needed.
3. Click **Save & Apply** to apply settings to the camera.

21.6.4 Upgrade

Upgrade the camera firmware. When firmware upgrades are released, they will be available as a free download from www.lorextechnology.com.

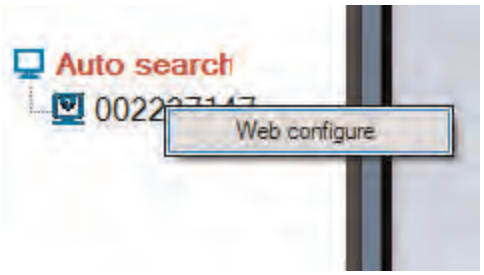
Note

Your computer must be on the same network as the camera to upgrade the firmware.

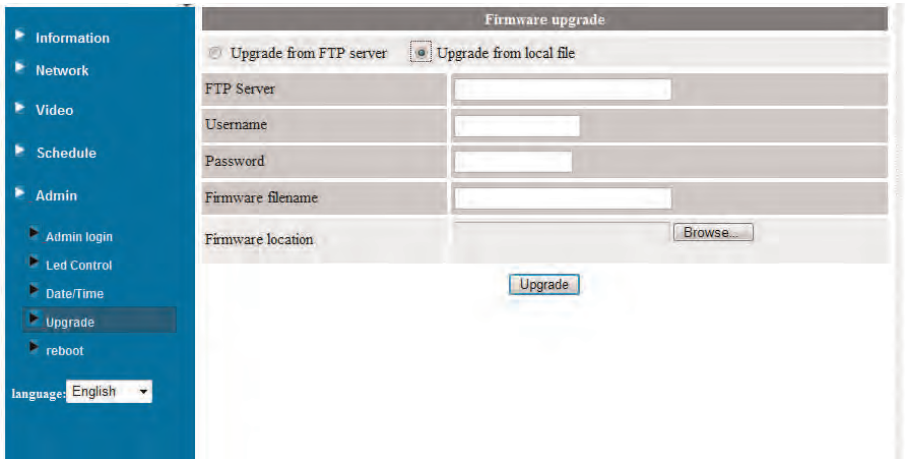
To upgrade the camera firmware:

1. Download the free firmware upgrade from www.lorextechnology.com. Unzip the contents of the firmware .zip file to a folder.

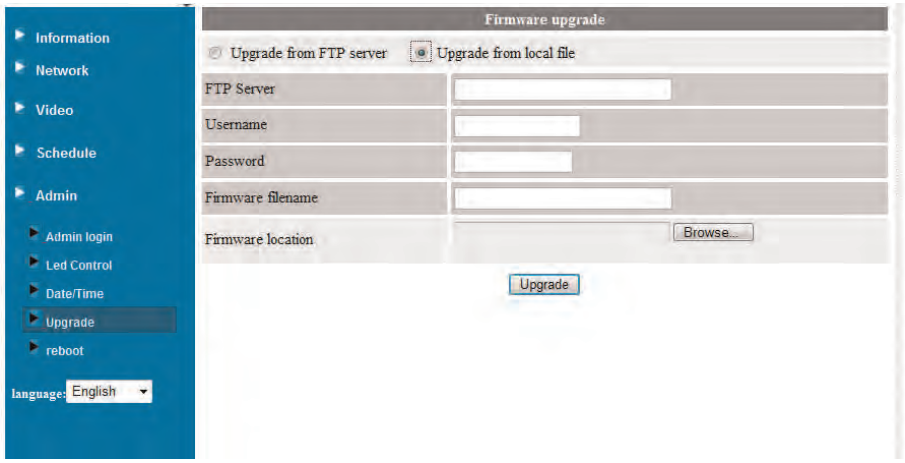
2. In L-View, right-click on the camera in Auto Search and click **Web Configure**.



3. Type the camera admin user name (default: **admin**) and password (default: **left blank**) and click **Ok** to log into the camera.
4. Click **Admin** then click **Upgrade**.



5. Select **Upgrade** from local file.
6. Click **Browse**, locate the firmware upgrade file, and then click **Open**.
7. Click **Upgrade**. Wait for the firmware upgrade to complete. Do not disconnect the power or network cable during the firmware upgrade. The camera will reboot once firmware upgrade is complete.

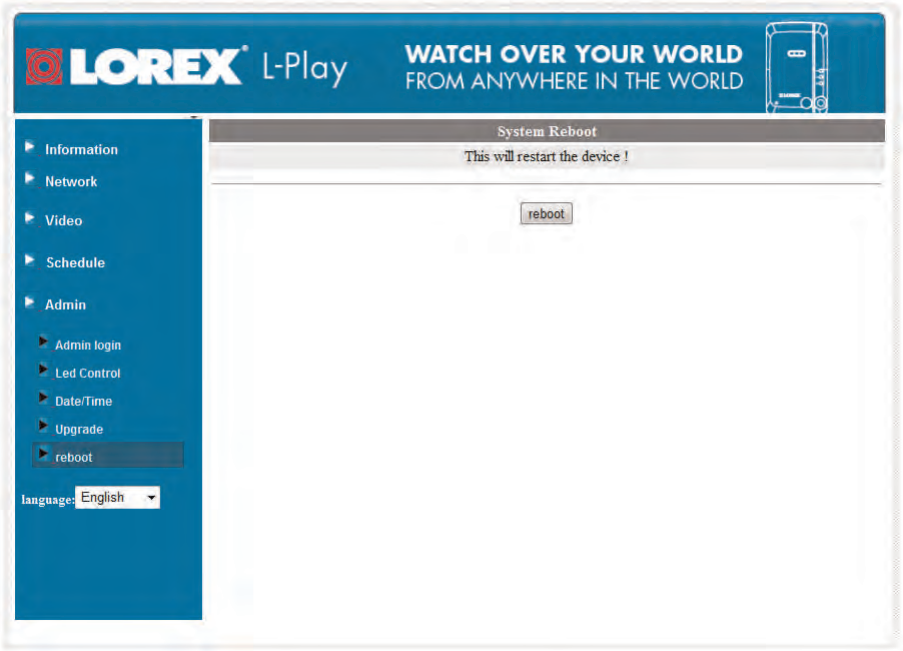


21.6.5 Reboot

Restart the camera from your Internet browser. This is useful if you need to restart the camera to apply settings changes or if the camera encounters an error.

To restart the camera:

1. Press the **reboot** button.



22 Technical Specifications (LNC216)

Specification	Value
Mode:	Day & Night
Power:	5V (USB) — 12V, 1A
Processors:	RISC CPU, hardware video processing and compression.
Network interface:	Ethernet 10BaseT/100BaseTX, Auto-MDIX, RJ-45
Wireless interface:	IEEE 802.11b/g/n
Image sensor:	HD up to 1280x800 resolution 1/4" Megapixel Color CMOS Separate sensors for day and night with automatic gain, white balance, exposure and brightness control
PIR sensor:	Effective distance — 7 meters
Light sensitivity:	0.2 Lux (IR LED off) 0 Lux (with 9 meters IR LED on) Automatically turn on the IR LED in low light environment
Infrared thermometer:	Infrared range: –40 ~ 115°C, accuracy: +-0.5°C
Lens:	4.2mm, F2.4, viewing angle: 66°, fixed iris. Day and night separate lens
Buttons:	One reset button, to factory default settings One WPS button for automatic WiFi setup
Indicators:	One LED for Internet connection status indication One LED for Ethernet connection indication One LED for SD card recording indication
Video compression:	H.264
Video streaming:	Separate frame rate / resolution / bandwidth settings for PC and mobile.
Resolution:	1280x800, 1024x768, VGA (640x480), QVGA (320x240)
Bandwidth:	64Kbps ~ 3Mbps
Frame rate:	1~30fps
Audio:	Built-in 0.5W speaker for alarm and half-duplex two-way audio. Speaker jack for external speaker.
Video management software:	L-View software for viewing and recording up to 16 cameras (PC / Mac) Lorex Ping app for viewing cameras on mobile (iOS / Android™)
Security:	Web management username / password protection Video display ID / password protection WiFi WEP and WPA / WPA2 security mode
Installation, management and maintenance:	Plug & play by ID / password Firmware upgrades by FTP L-View SW upgrade Push Notification
Users:	Up to 20 simultaneous users (depends on video settings and Internet bandwidth)

Specification	Value
Alarm and event management:	Events triggered by PIR and sound detection Email / FTP alarm message Temperature alarm for low / high room temperature Push notification on supported mobile devices
Dimensions (W x D x H):	68mm x 25mm x 95mm 2.8” x 1.0” x 3.7”
Weight:	0.28kg / 0.62lbs (including camera bracket)
Approvals:	EMC — CE, FCC Part 15 Subpart B Class B, IC Class B Wireless RF — CE, FCC Part 15 Subpart C, RSS210
Operating conditions:	0–50°C Humditiy 20–80% RH (non-condensing)

As our product is subject to continuous improvement, Lorex Corporation & subsidiaries reserve the right to modify product design, specifications & prices without notice and without incurring any obligation.

23 Technical Specifications (LNC226X)

Specification	Value
Mode:	Day & Night
Power:	20V, 0.6A
Processors:	RISC CPU, hardware video processing and compression.
Network interface:	Ethernet 10BaseT/100BaseTX, Auto-MDIX, RJ-45
Wireless interface:	IEEE 802.11b/g/n
Image sensor:	HD up to 1280x800 resolution 1/4" Megapixel Color CMOS Separate sensors for day and night with automatic gain, white balance, exposure and brightness control
Light sensitivity:	0.2 Lux (IR LED off) 0 Lux (with 9 meters IR LED on) Automatically turn on the IR LED in low light environment
Night vision range:	50ft (15m) / 75ft (23m)*
Lens:	4.2mm, F2.4, viewing angle: 67°, fixed iris. Day and night separate lens
Buttons:	One reset button, to factory default settings One WPS button for automatic WiFi setup
Indicators:	One LED for Internet connection status indication One LED for Ethernet connection indication One LED for SD card recording indication
Video compression:	H.264
Video streaming:	Separate frame rate / resolution / bandwidth settings for PC and mobile.
Resolution:	1280x800, 1024x768, VGA (640x480), QVGA (320x240)
Bandwidth:	64Kbps ~ 3Mbps
Frame rate:	1~30fps
Audio:	Built-in microphone for audio monitoring.
Video management software:	L-View software for viewing and archiving up to 16 cameras (PC / Mac) Lorex Ping app for viewing cameras on mobile (iOS / Android™)
Security:	Web management username / password protection Video display ID / password protection WiFi WEP and WPA / WPA2 security mode
Installation, management and maintenance:	Plug & play by ID / password Firmware upgrades by FTP L-View SW upgrade Push Notification
Users:	Up to 20 simultaneous users (depends on video settings and Internet bandwidth)
Alarm and event management:	Events triggered by motion and sound detection Email / FTP alarm message Push notification on supported mobile devices
Dimensions (W x D x H):	58mm x 230mm x 52mm 2.3" x 9.1" x 2.1"

Specification	Value
Weight:	0.37kg / 0.81lbs (including camera bracket)
Approvals:	EMC — CE, FCC Part 15 Subpart B Class B, IC Class B Wireless RF — CE, FCC Part 15 Subpart C
Indoor / Outdoor	Both (IP66 rated)**
Operating conditions:	0–50°C Humditiy 20–80% RH (non-condensing)

* Stated IR illumination ranges are based on ideal conditions in total darkness and typical outdoor night time ambient lighting. Actual range and image clarity depends on installation location, viewing area and light reflection / absorption.

** Not intended for submersion in water. Installation in a sheltered location recommended.

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24 Cleaning and Disposal

Clean camera with a slightly damp cloth or an anti-static cloth. Never use cleaning agents or abrasive solvents.

- Do not clean any part of the product with cleaners with thinners or other solvents and chemicals. This may cause permanent damage to the product which is not covered by the warranty. When necessary, clean it with a damp cloth.
- Keep your camera and monitor away from hot, humid, or wet areas or strong sunlight
- Every effort has been made to ensure high standards of reliability for your video monitor. However, if something does go wrong, please do not try to repair it yourself. Contact customer service for assistance.

24.1 Disposal of the Device

At the end of the product lifecycle, you should not dispose of this product with normal household waste, but take the product to a collection point for the recycling of electrical and electronic equipment. The symbol on the product, User's Guide, and/or box indicates this.

Some of the product materials can be re-used if you take them to a recycling point. By re-using some parts or raw materials from used products you make an important contribution to the protection of the environment.

Please contact your local authorities in case you need more information on the collection points in your area. Dispose of the battery pack in an environmentally-friendly manner according to your local regulations.

25 Notices

WARNING

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the device.

FCC Notice

This device complies with Part 15, subpart C, of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

However, it is imperative that the user follows the guidelines in this manual to avoid improper usage which may result in damage to the unit, electrical shock and fire hazard injury. In order to improve the features, functions, and quality of this product, the specifications are subject to change without notice from time to time.

CAUTION

To maintain compliance with the FCC's RF exposure guidelines, place the camera at least 20cm (7.87in) from nearby persons.

Industry Canada statement:

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

26 Troubleshooting

WPS Wireless Setup does not work or router does not support WPS:

- If using a smartphone or tablet, connect your device to your WiFi network and press the WiFi setup button in Lorex Ping. Follow the on-screen instructions to setup WiFi.
- If using a PC or Mac, connect the camera to the router using Ethernet and manually setup the camera to use WiFi. See 13.2 *PC WiFi Setup*, page 38 or 14.2 *Mac WiFi Setup*, page 44.

WiFi is not working:

- Camera has not been setup to use WiFi. If using a PC or Mac, WiFi setup must be completed while the camera is connected via Ethernet. See 13.2 *PC WiFi Setup*, page 38 or 14.2 *Mac WiFi Setup*, page 44.
- Incorrect password/network information entered. Re-complete WiFi setup and double-check your WiFi network settings.
- Camera is not in range of WiFi router. Move the camera closer to the WiFi router.
- Interference with other wireless devices is affecting signal strength. Move the camera and/or wireless router further away from any cordless telephones or other wireless devices.

Password required to change settings different than password created:

- Changing settings requires the admin user name and password for the camera. This is a different password than the one used to connect to the camera for video streaming. By default, the admin user name is **admin** and the password is **left blank**.

Forgot password for camera:

- Press and hold the Reset button under the camera for 4 or more seconds to reset the camera to factory default settings. The password will reset to the default password **lorex**.

Camera does not appear in Auto Search or Local Search:

- Camera may be on different network than computer. Press + next to camera list and enter the camera ID and password manually. If this does not work, check the network connection.

Cannot access Web Configure on PC or Mac:

- Camera may be on different network than computer. Connect the camera and computer to the same network (i.e. the same router), or use a mobile device to change settings over the Internet.

Bright spot in video when viewing camera at night:

- Night vision reflects when pointing a camera to a window. Move the camera to a different location.

Website

www.lorextechnology.com

Legal disclaimer

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