WIRELESS NETWORK CAMERA

Instruction Manual

English Version 2.0

RETAIL   INDUSTRY   BUSINESS   HOME   OUTDOOR

VANTAGE
LNC216 SERIES

Welcome!

- Thank you for purchasing this Lorex wireless network camera. This user's guide refers to the following models:

- LNC216

Contents

Before you start, make sure you have the contents listed below.

- 1 x Camera

- 1 x Camera power adapter and USB power cable

- 1 x Ethernet cable

- 1 x Mounting kit

- 1 x Quick Start Guide

- 1 x Software/documentation CD

LOREX
VIEW YOUR WORLD® | LIVE VANTAGE

NEED HELP?
CONTACT US FIRST

DO NOT RETURN THIS PRODUCT TO THE STORE

Please make sure to register your product at www.lorextechnology.com to receive product updates and technical support.

2 Easy Ways to Contact Us

Online:

Product Support is available 24/7 including product information, user manuals, quick start up guides and FAQ's at

www.lorextechnology.com/support

For all other matters, visit **www.lorextechnology.com**

By Phone:

North America:
Customer Service (for warranty matters): **1-888-425-6739** (1-888-42-LOREX)
Tech Support (for technical/installation issues): **1-877-755-6739** (1-877-75-LOREX)

Mexico: **001-800-681-9263, 001-800-514-6739**

International: **+800-425-6739-0** (Example: From the UK, dial 00 instead of +)

¿NECESITA AYUDA?

COMUNÍQUESE PRIMERO CON NOSOTROS

NO DEVUELVA ESTE PRODUCTO A LA TIENDA

Por favor, registre su producto en www.lorextechnology.com para recibir actualizaciones del producto y asistencia técnica.

Hay 2 maneras fáciles de comunicarse con nosotros:

En línea:

Apoyo al cliente está disponible 24/7, incluyendo información del producto, manuales para el usuario, guías de inicio rápido y preguntas más frecuentes en:
www.lorextechnology.com/support

Para todo lo demás, visite
www.lorextechnology.com

Por teléfono:

Norte América:
Atención al cliente (para asuntos de la garantía - garantía válida sólo en E.U.A., vea la garantía ofrecida por el importador):
1-888-425-6739 (1-888-42-LOREX)
Asistencia técnica (para asuntos técnicos o de instalación):
1-877-755-6739 (1-877-75-LOREX)

Teléfono y Servicios Válidos Sólo en E.U.A.:
001-800-681-9263, 001-800-514-6739

Internacional: **+800-425-6739-0**

BESOIN D'ASSISTANCE?

COMMUNIQUEZ D'ABORD AVEC NOUS

NE RETOURNEZ PAS CE PRODUIT AU MAGASIN

Veuillez enregistrer votre produit sur le site www.lorextechnology.com afin de recevoir des mises à jour et le soutien technique pour votre produit.

2 façons simples de communiquer avec nous :

En ligne :

À votre disposition 24/7, le soutien pour les produits comprend les renseignements sur les produits, guides d'utilisation, guides de départ rapide et FAQ :
www.lorextechnology.com/support

Pour toutes les autres questions,
visitez **www.lorextechnology.com**

Par téléphone :

En Amérique du Nord :
Service à la clientèle (pour tout ce qui concerne la garantie) :
1-888-425-6739 (1-888-42-LOREX)
Soutien technique (pour les questions d'ordre technique ou relatives à l'installation) : **1-877-755-6739** (1-877-75-LOREX)

Mexique : **001-800-681-9263, 001-800-514-6739**

International : **+800-425-6739-0**
(par exemple : à partir du Royaume-Uni, composez le 00 au lieu de +)
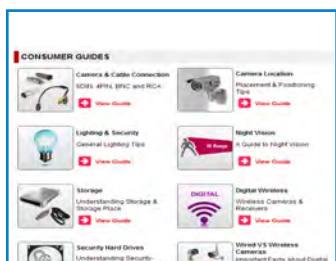
BEFORE YOU START

THIS PRODUCT MAY REQUIRE PROFESSIONAL INSTALLATION

LOREX IS COMMITTED TO FULFILLING YOUR SECURITY NEEDS

- We have developed user friendly products and documentation. Please read the Quick Start Guide and User Manual before you install this product.

- Consumer Guides and Video Tutorials are available on our web site at **www.lorextechnology.com/support**

- If you require further installation assistance, please visit **www.lorextechnology.com/installation** or contact a professional installer.

- Please note that once the components of this product have been unsealed, you cannot return this product directly to the store without the original packaging.

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VIEW YOUR WORLD®

AVANT DE COMMENCER

ANTES DE EMPEZAR

Veuillez enregistrer votre produit sur le site www.lorextechnology.com afin de recevoir des mises à jour et le soutien technique pour votre produit.

Cerciórese de por favor colocar su producto en www.lorextechnology.com para recibir actualizaciones y la información del producto y soporte técnico.

CE PRODUIT PEUT NÉCESSITER UNE INSTALLATION PROFESSIONNELLE

ESTE PRODUCTO PUEDE EXIGIR UNA INSTALACIÓN PROFESIONAL

LOREX S'ENGAGE À RÉPONDRE À VOS BESOINS EN MATIÈRE DE SÉCURITÉ

LOREX SE COMPROMETE A SATISFACER SUS NECESIDADES EN SEGURIDAD

- Nous avons conçu et développé une documentation et des produits extrêmement conviviaux. Veuillez lire le Guide de départ rapide et le Guide d'utilisation avant d'installer ce produit.

- Des guides pour consommateurs et des tutoriels vidéo vous sont offerts sur notre site Web : www.lorextechnology.com/support

- Si vous avez besoin de plus d'assistance pour l'installation de ce produit, veuillez visiter le site www.lorextechnology/installation ou communiquez avec un installateur professionnel.

- Veuillez prendre note que lorsque vous avez déballé les pièces et composantes de ce produit, vous ne pouvez pas retourner celui-ci directement au magasin sans son emballage original.

- Favor de leer la guía de instalación rápida y la guía del usuario antes de instalar este producto.

- Puede conseguir las guías del consumidor y los cursos en enseñanza video sobre el Internet visitando www.lorextechnology.com/support

- Si necesita ayuda para la instalación, visite www.lorextechnology.com/installation o contacte un especialista en instalaciones.

- Favor de notar que una vez que los componentes de este producto han sido removidos del embalaje, no podrá devolver este producto directamente a la tienda.

www.lorextechnology.com

LOREX® | **VANTAGE**

VIEW YOUR WORLD™
VOIR VOTRE MONDE™
VEA SU MUNDO™

FEB 12 2013 - R9

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.

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
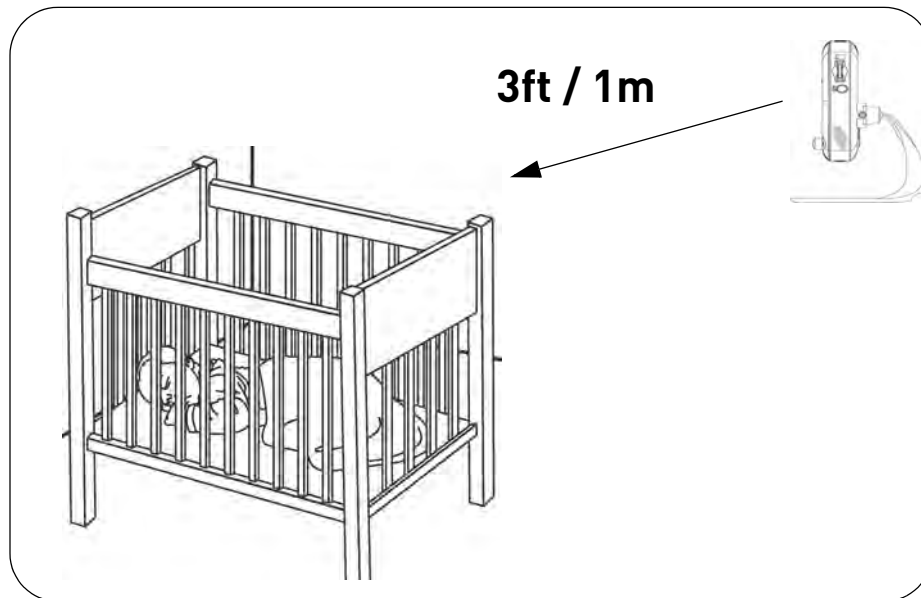
Features

- 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.

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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.

TABLE OF CONTENTS

1. 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).
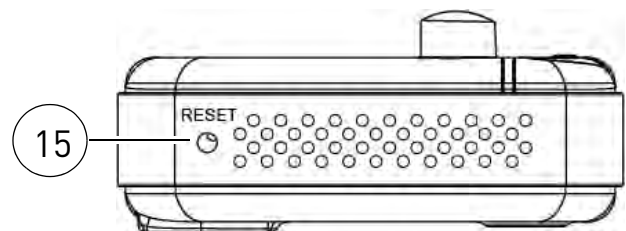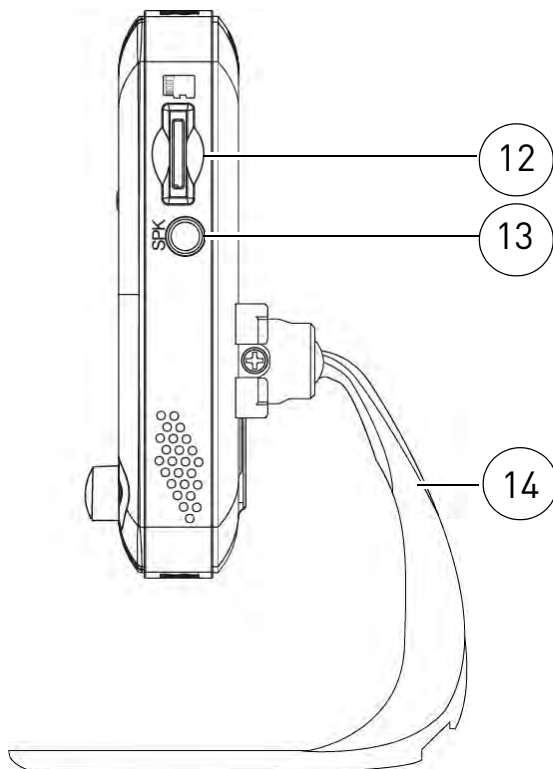
Bottom of camera

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 "Wall or Ceiling Mounting" on page 193.
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.

2. GETTING STARTED

2.1 CONNECTING TO YOUR CAMERA ON IPHONE®

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

2.1.1 WIFI SETUP

1. Connect the power adapter to the camera and connect the other end to a power outlet. Do not connect the Ethernet cable.
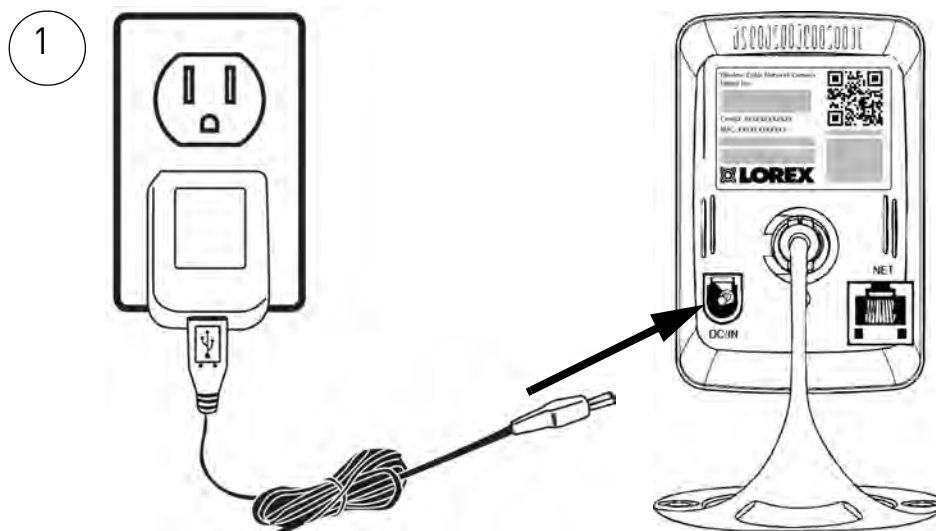
2. Connect your iPhone® to your WiFi network. See your iPhone's user guide for details on connecting to WiFi networks.
3. Download the free **Lorex Ping** app from the App Store.

NOTE: Lorex Ping is a free application, but it requires a valid iTunes account to download. Lorex Ping requires iOS v4.0 and higher.

4. Tap the Lorex Ping icon () from the home screen to open Lorex Ping.

5. Press **Wifi Setup** then tap **Next**.

Tap Next

Wifi Setup

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

Enter the WiFi password

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

Press the WPS button on the camera

4

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

1ft (30cm)
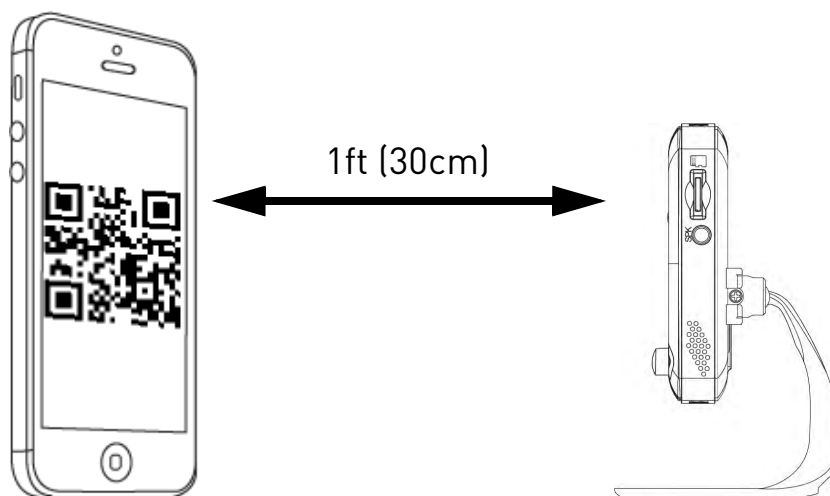
The camera scans the QR code on your iPhone® to connect to the WiFi network. The camera scans the QR code on your iPhone to connect to the WiFi network. When the connection is successful, the camera beeps, and the message below appears on your device after a few seconds.

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

Camera found

Lorex camera

CamID : 003210162

Password : lorex

Cancel   OK

Enter a name for your camera

10. Tap the camera to connect.

Camera List   Move

Lorex camera

Tap the camera

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

Please change password

Default password "lorex" is unsecure, please change password now!

OK — Tap OK

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

ııll. Bell 📶   1:48 PM   * 93 % ▭

Cancel **Change password**   OK

New password   Enter a new password, confirm
                      your password, and then tap OK
Confirm password

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

2.1.2 ETHERNET SETUP

1. Connect the power adapter to the camera and connect the other end to a power outlet.
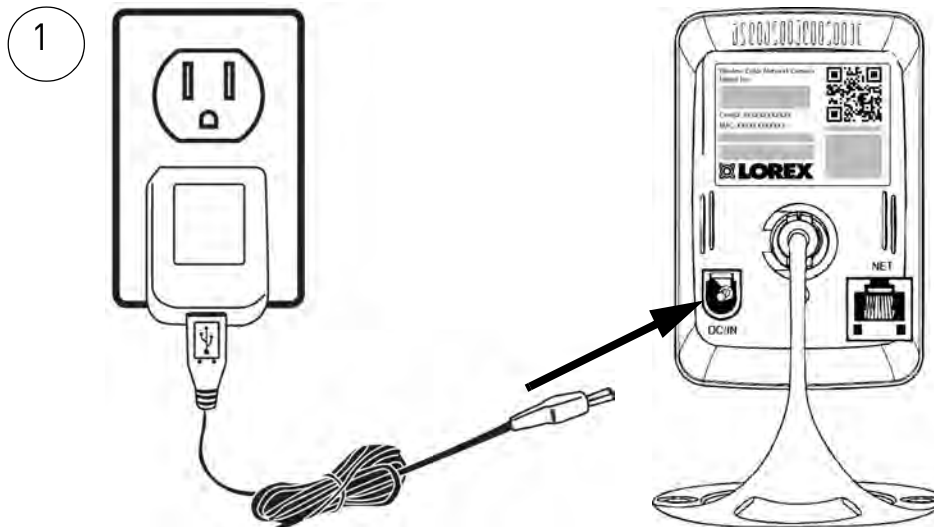
2. Connect an Ethernet cable (included) to the **NET** port on the camera and connect the other end to your router (not included).

Ethernet Cable
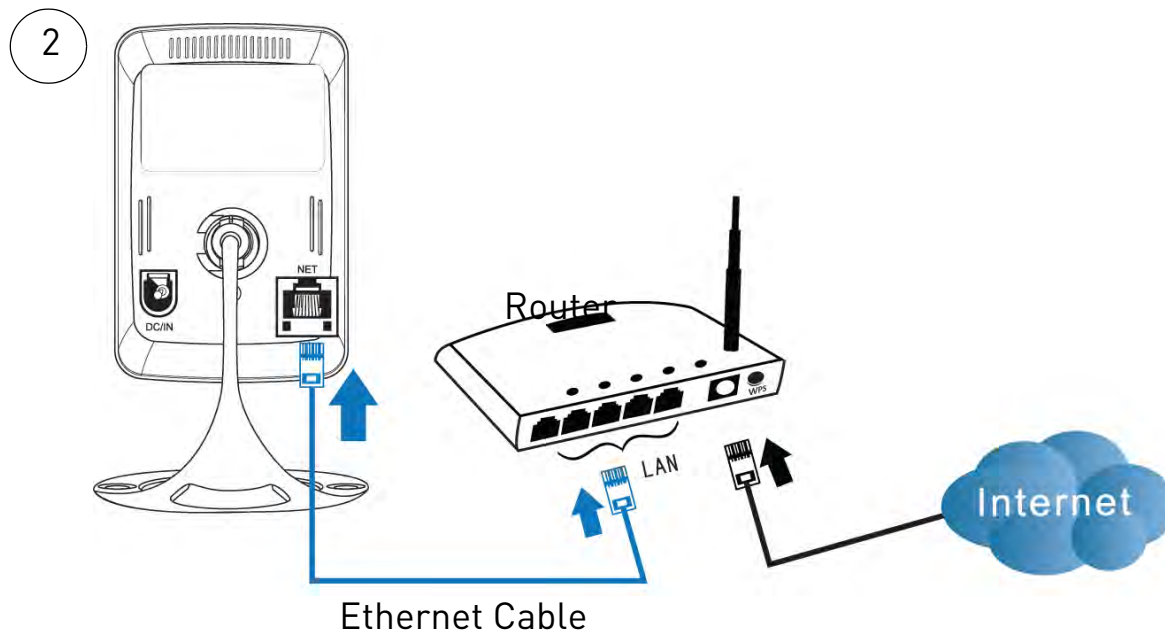
3. Download **Lorex Ping** from the App Store.

NOTE: Lorex Ping is a free application, but it requires a valid iTunes account to download. Lorex Ping requires iOS v4.0 and higher.

4. Tap the Lorex Ping icon ( ) from the home screen to open Lorex Ping. Lorex Ping opens to the Camera List.
5. Tap **+** to add a camera.

Tap +

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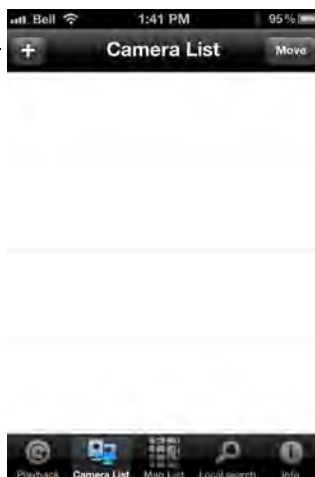
6. Under **Name**, enter a name for your camera. This can be anything of your choice.

Enter a name for your camera of your choice

7. 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.

Press to scan the QR code printed on the back of the camera, OR manually enter the CamID printed on the camera

Line up the QR code to the middle using the phone camera

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

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

Enter the camera password. The default password is lorex.

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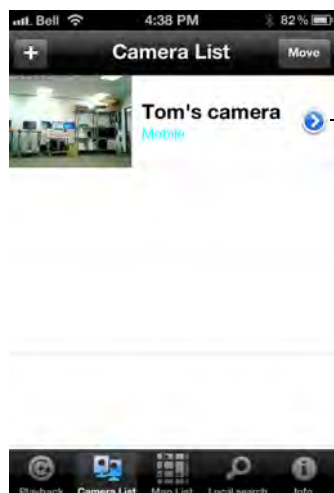
Tap the name of the camera to connect

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

Tap OK

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

Enter a new password, confirm your password, and then tap OK

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

2.2 CONNECTING TO YOUR CAMERA ON IPAD®

Follow the steps below to connect to your camera on an iPad® using WiFi or Ethernet.

2.2.1 WIFI SETUP

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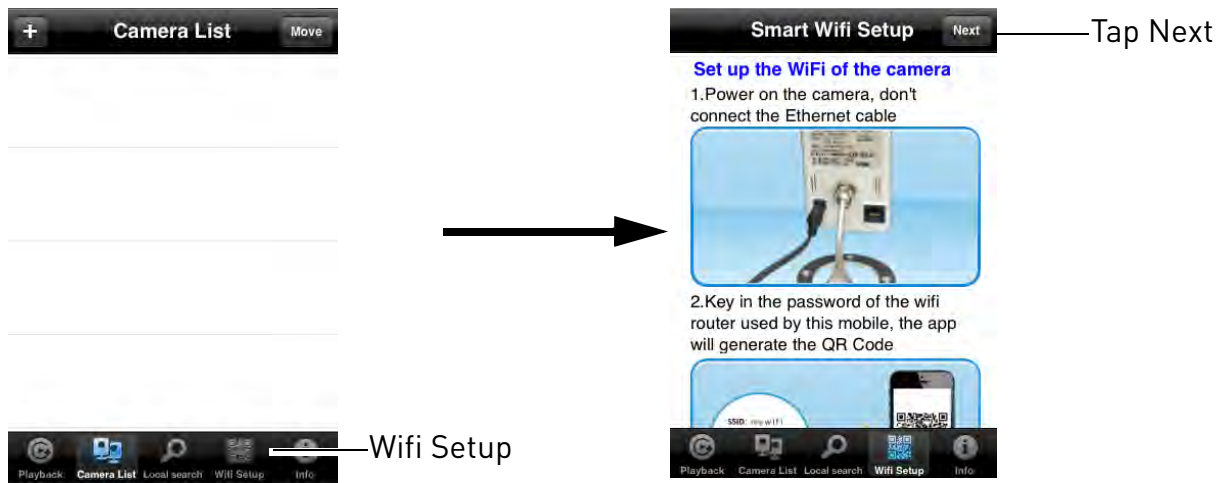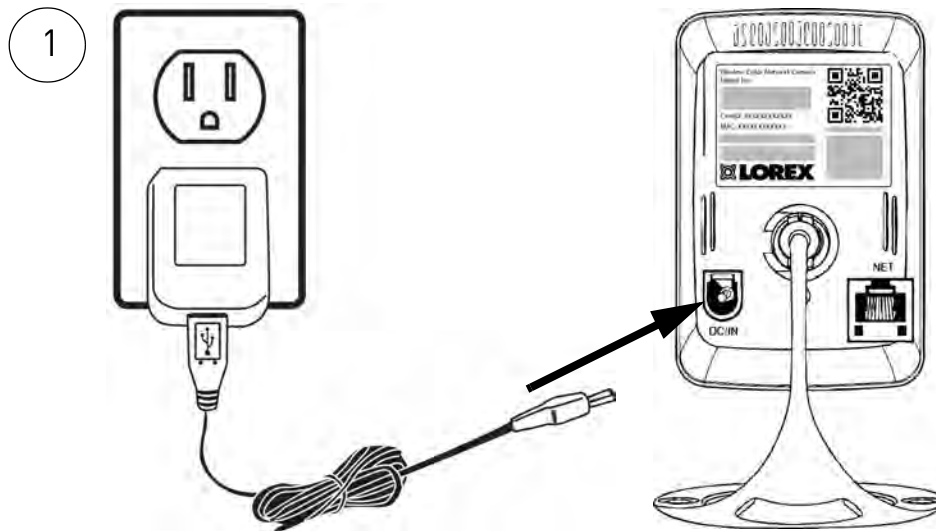

2. Connect your iPad® to your WiFi network. See your iPad's user guide for details on connecting to WiFi networks.
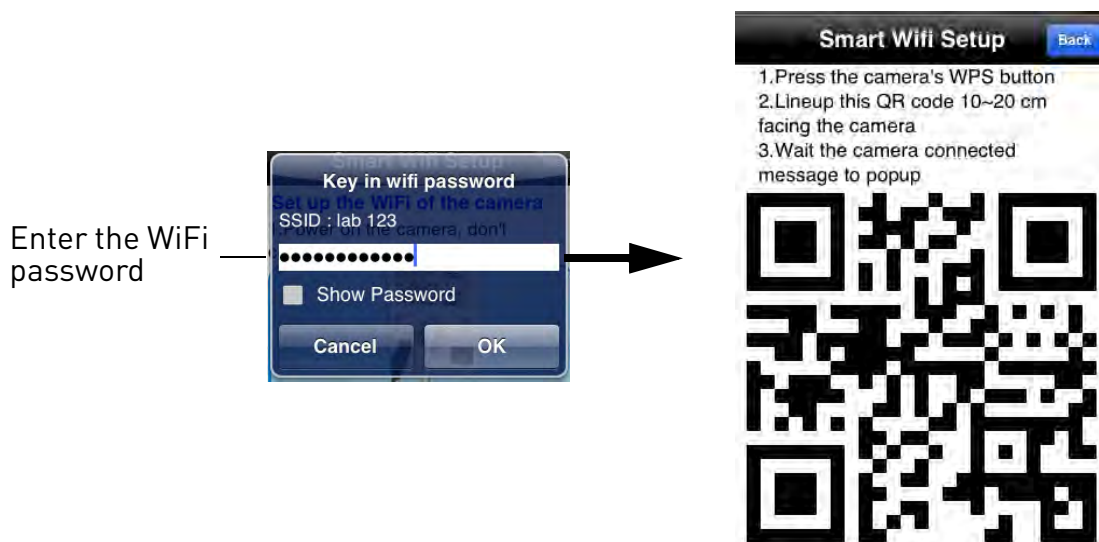3. Download the free **Lorex Ping HD** app from the App Store.

NOTE: Lorex Ping HD is a free application, but it requires a valid iTunes account to download. Lorex Ping requires iOS v4.0 and higher.

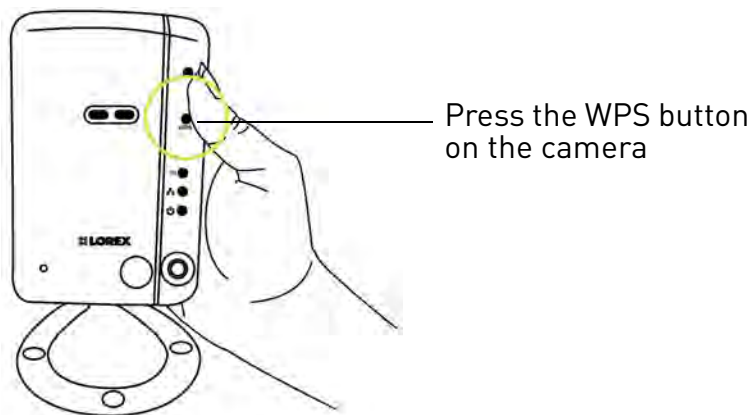4. Tap the Lorex Ping HD icon () from the home screen to open Lorex Ping.
5. Press **Wifi Setup** then tap **Next**.

Wifi Setup

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.

Enter the WiFi password

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

Press the WPS button on the camera

English

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

1ft (30cm)

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

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

Camera found

Lorex camera

CamID : 003210162

Password : lorex

Cancel   OK

Enter a name for your camera

10. Tap the camera to connect.

iPad 🗑   11:29 AM

+   Camera List   Move

003210162
Mobile

video

Tap the camera

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

Tap OK

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

Enter a new password, confirm your password, and then tap Done

Tap the name of the camera in Camera List again to connect to the camera. For details on using the iPad® app, see "iPad® App" on page 120.

2.2.2 ETHERNET SETUP

1. Connect the power adapter to the camera and connect the other end to a power outlet.

English
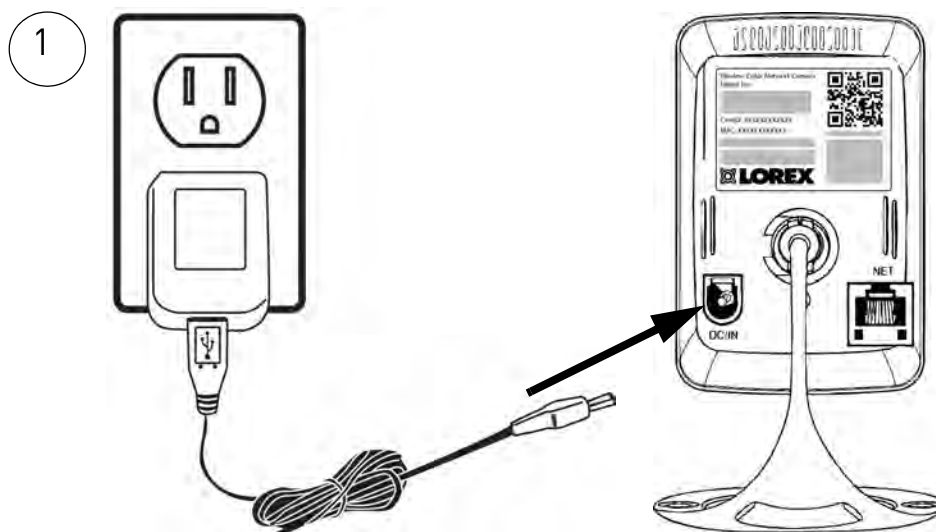
2. Connect an Ethernet cable (included) to the **NET** port on the camera and connect the other end to your router (not included).


Ethernet Cable
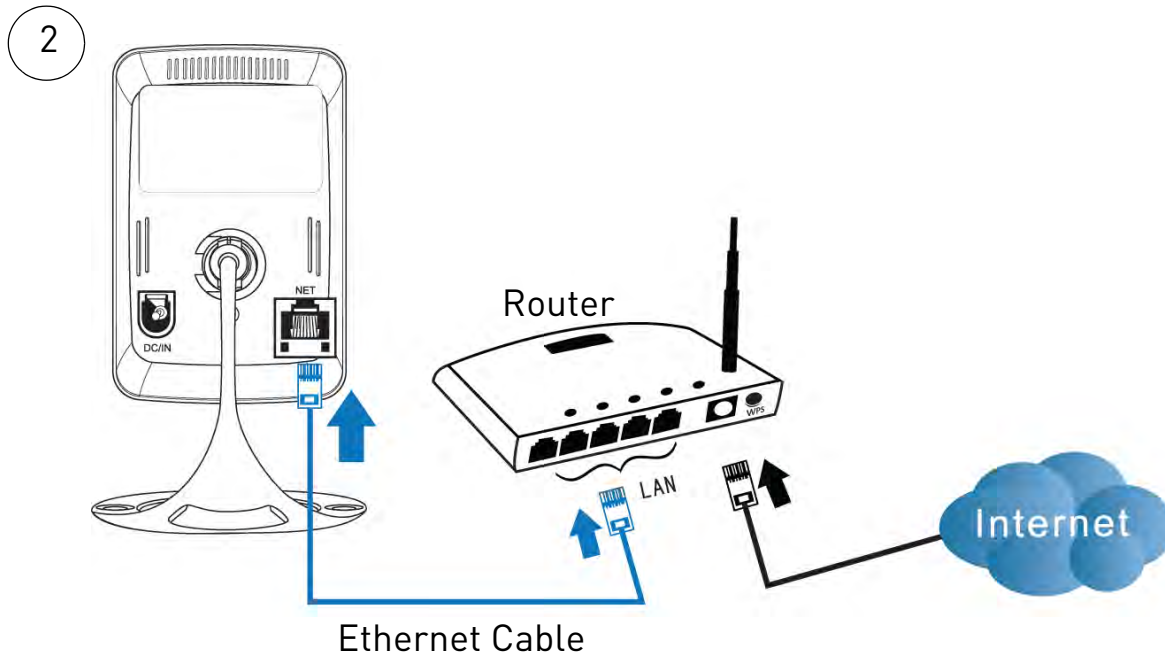
3. Download the **Lorex Ping HD** app from the App Store.

NOTE: Lorex Ping HD is a free application, but it requires a valid iTunes account to download. Lorex Ping requires iOS v4.0 and higher.

4. Tap the Lorex Ping icon ( ) from the home screen to open Lorex Ping. Lorex Ping opens to the Camera List.

5. Tap **+** to add a camera.

Tap +

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

Enter a name for your camera of your choice

English

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7. 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.
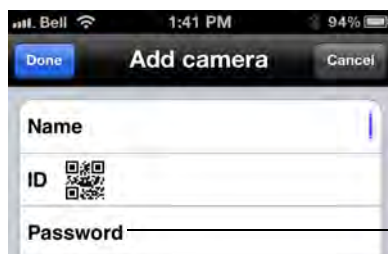

Press to scan the QR code printed on the back of the camera, OR manually enter the CamID printed on the camera

Line up the QR code to the middle using the iPad® camera

- **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.

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

Enter the camera password. The default password is lorex.

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

Tap the name of 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**.

Tap OK

English

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

Enter a new password, confirm your password, and then tap Done

Tap the name of the camera in Camera List again to connect to the camera. For details on using the iPad app, see "iPad® App" on page 120.

2.3 CONNECTING TO YOUR CAMERA ON ANDROID™

Follow the steps below to connect to your camera on an Android™ device using Ethernet or WiFi.

2.3.1 WIFI SETUP

1. Connect the power adapter to the camera and connect the other end to a power outlet. Do not connect the Ethernet cable.
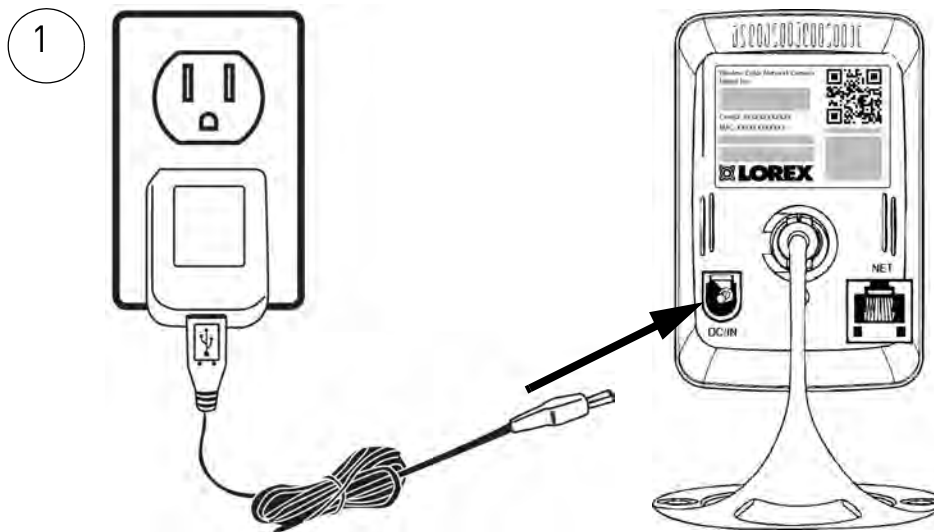
2. Connect your Android™ device your WiFi network. See your device's user guide for details on connecting to WiFi networks.

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

NOTE: Lorex Ping is a free application. Lorex Ping requires Android™ v2.3 and higher.

4. Tap the Lorex Ping icon ( ) to open Lorex Ping.
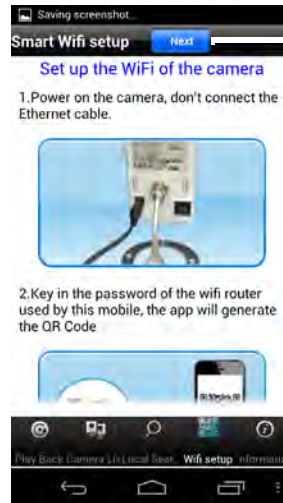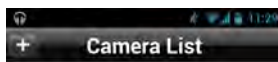
5. Press **Wifi Setup** then tap **Next**.

Tap Next

Wifi Setup

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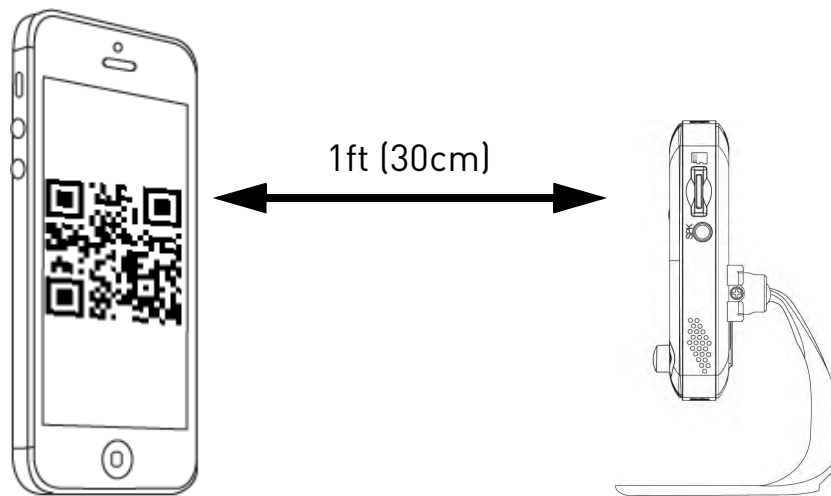

Enter the WiFi password

English

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

Press the WPS button
on the camera

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

1ft (30cm)

The camera scans the QR code on your device to connect to the WiFi network. When the connection is successful, the camera beeps, and the message below appears on your device after a few seconds.
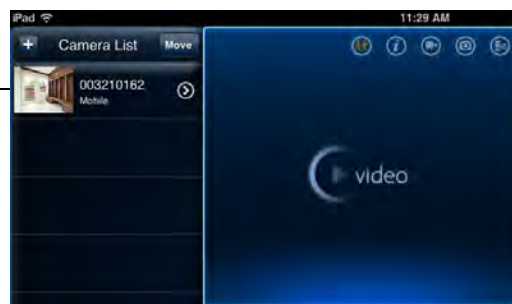
9. Enter a name for your camera and press **OK**.

Camera found

Camera Name

Lorex Camera

ID: 003210162
Password: lorex

OK   Cancel

Enter a name for
your camera

10.Tap the camera to connect.

Tom's Camera
Mobile
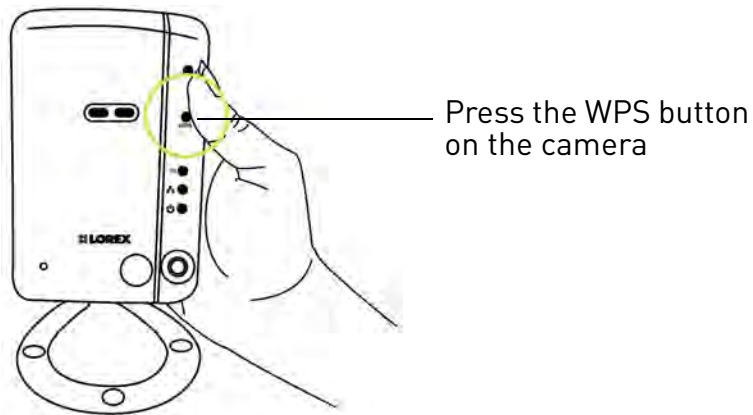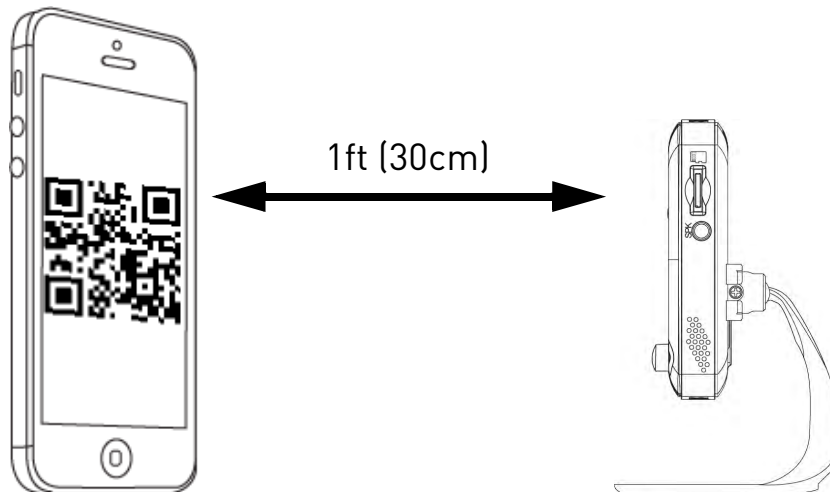
Tap the name of the
camera to connect
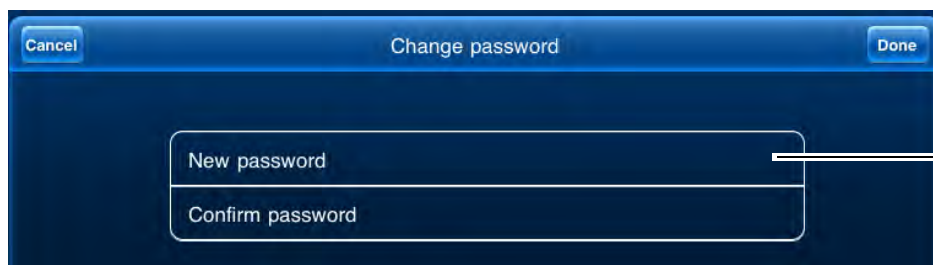
11.If this is the first time connecting to the camera, you will be prompted to create your own password. Tap **OK**.

please change password

Default password lorex is unsecure, please change password now!

OK ——————— Tap OK

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

Authentication

New password

Password ——————— Enter a new password, confirm your password, and then tap OK

confirm password

Password

OK   Cancel

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

English

Getting Started

2.3.2 ETHERNET SETUP

1. Connect the power adapter to the camera and connect the other end to a power outlet.

2. Connect an Ethernet cable (included) to the **NET** port on the camera and connect the other end to your router (not included).

Router

Ethernet Cable

3. Download the **Lorex Ping** app from the Google Play store.
NOTE: Lorex Ping requires Android™ v.2.3 or higher.

4. Tap the Lorex Ping icon () from the home screen or app list to open Lorex Ping. Lorex Ping opens to the Camera List.
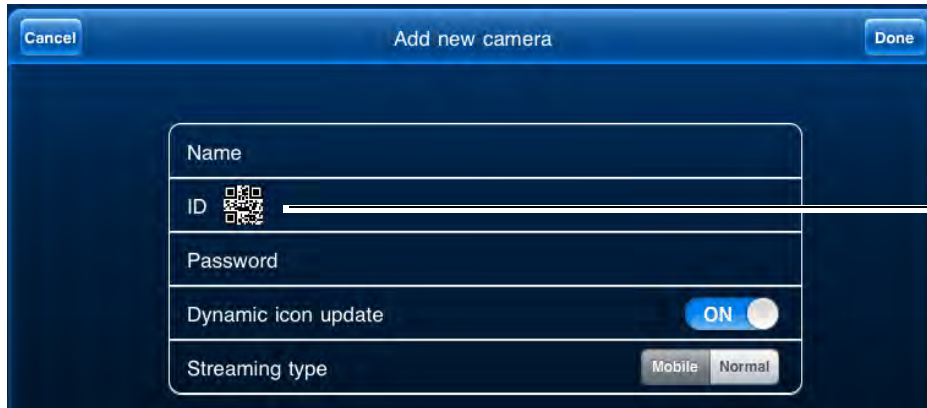
5. Tap **+** to add a camera.

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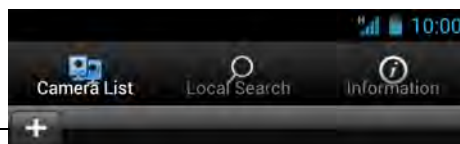
6. Under **Camera Name**, enter a name for your camera. This can be anything of your choice.

Enter a name for your camera of your choice

English

7. 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.
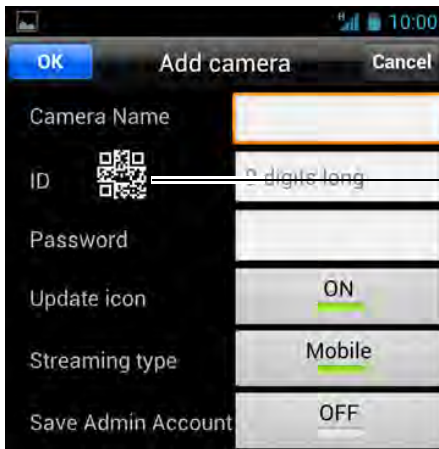
Press to scan the QR code printed on the back of the camera, OR manually enter the CamID printed on the camera
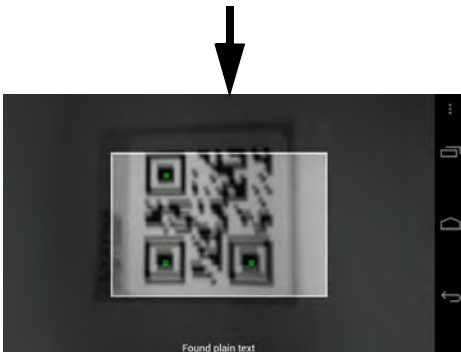
Line up the QR code to the middle using the camera on the phone or tablet

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

8. Under **Password**, enter the camera password. If this is the first time connecting to the camera, enter **lorex**. Press **OK**.
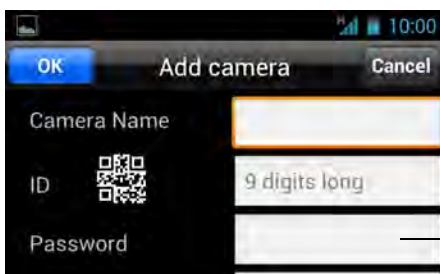
Enter the camera password. The default password is lorex.

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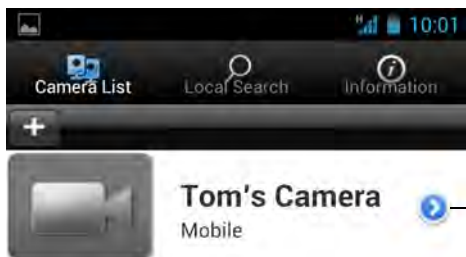
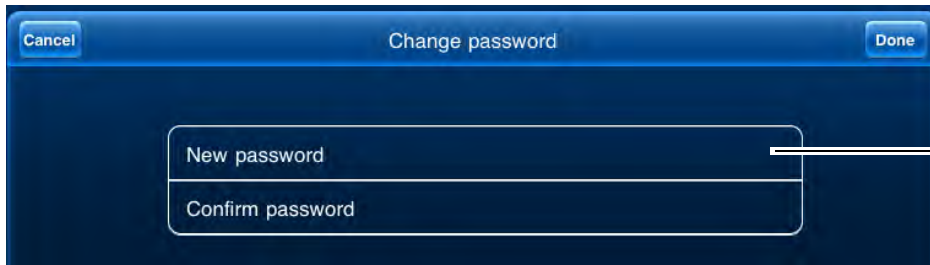

Tap the name of the camera to connect

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

Tap OK

11. Under **New password**, enter a new password for the camera and repeat the password under **Confirm password**. Tap **OK**.
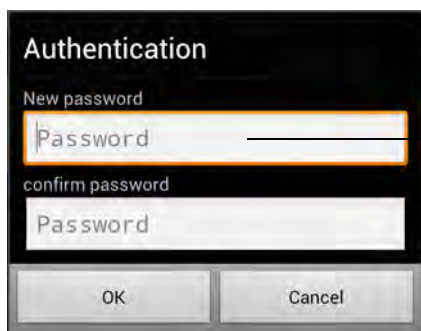
Enter a new password, confirm your password, and then tap OK

Tap the name of the camera in Camera List again to connect to the camera. For details on using the Android™ app, see "Android™ App" on page 143.

English

2.4 CONNECTING TO YOUR CAMERA ON PC

Follow the steps below to get up and running with a PC.

2.4.1 BASIC SETUP

1. Connect the power adapter cable to the power adapter using the USB connector.

Power Adapter

Power Adapter Cable

2. Connect the power adapter to a surge protector or power outlet. Connect the power adapter cable to the **DC/IN** port on the camera. The camera LED's will begin flashing.
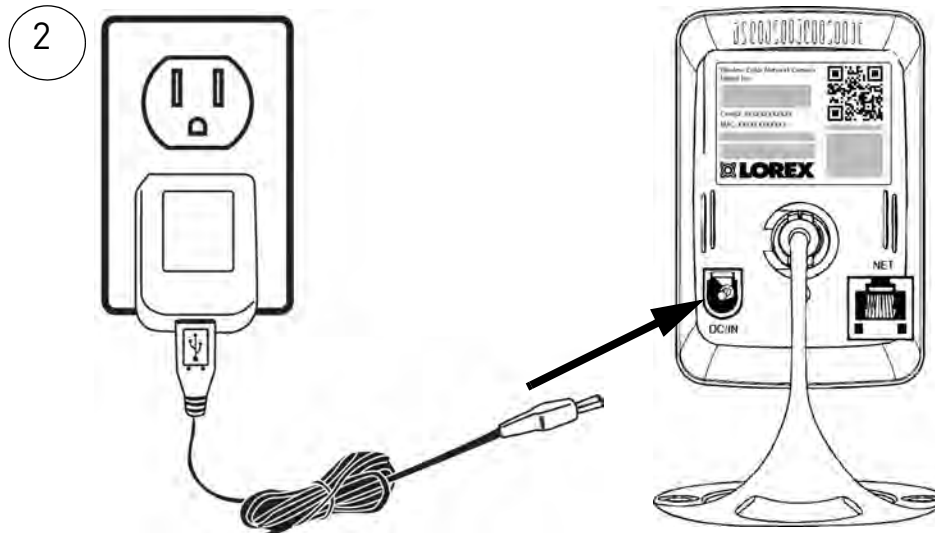
3. **A:** Connect an Ethernet cable (included) to the **NET** port on the camera and connect the other end to an available LAN port (usually numbered 1~4) on your router (not

included). The blue Network LED on the camera will glow blue when the camera is connected to your network.

Ethernet Cable
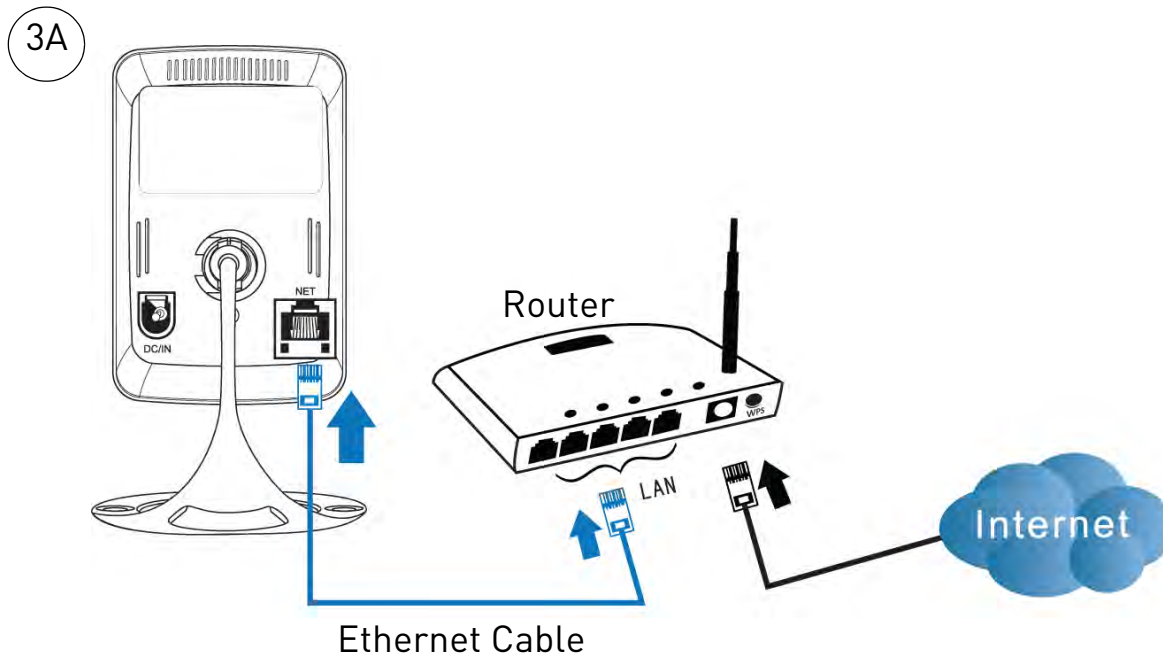
- For instructions on setting your camera up for WiFi, see "PC WiFi Setup" on page 31.
  OR:

B: OPTIONAL: 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 blue Network LED on the camera will turn on.

Press and hold the WPS button on the router

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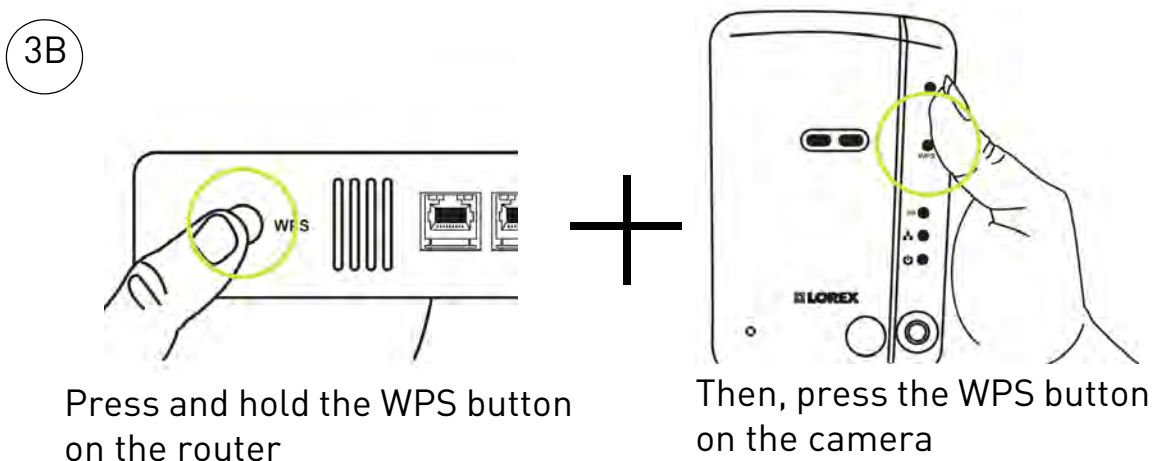
NOTE: Not all routers support WPS, and the location of the WPS button on your router depends on your router model. Check your router's instruction manual for details.

2.4.2 CONNECTING TO YOUR CAMERA ON PC

NOTE: For PC system requirements, see "System Requirements" on page 42.

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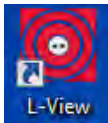
2. Double-click the L-View icon to run L-View.

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.
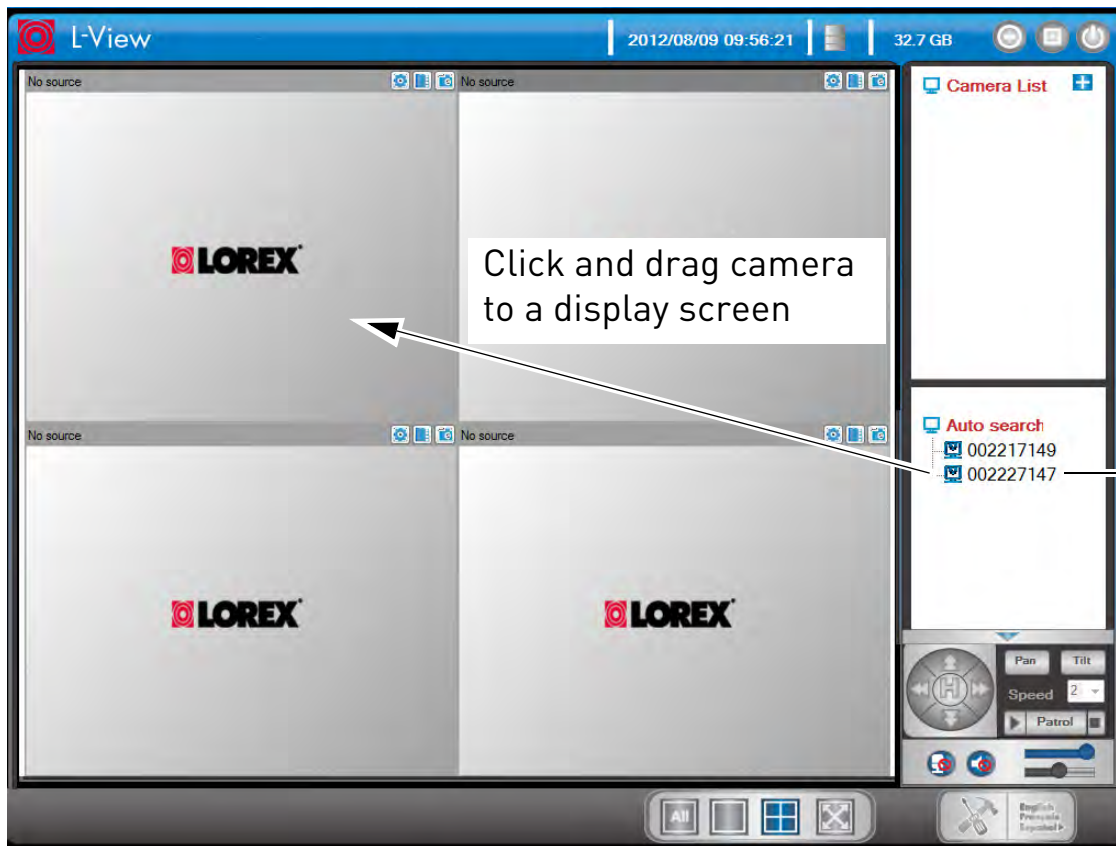
3. Enter the camera password. If this is the first time connecting to the camera, the password is **lorex**. Click **OK**.

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**.
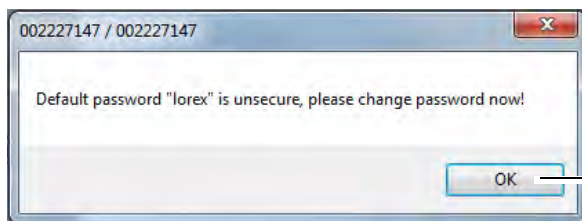
 ——— Click OK

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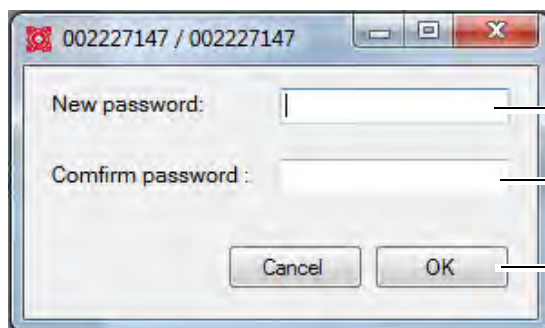
——— Enter a new password

——— Confirm new password

——— 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 "Saving Camera Passwords" on page 48.

Connecting to a Camera Over the Internet (PC)
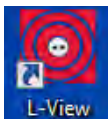
1. Double-click the L-View icon to run L-View.

English

2. Click **+** next to Camera List.
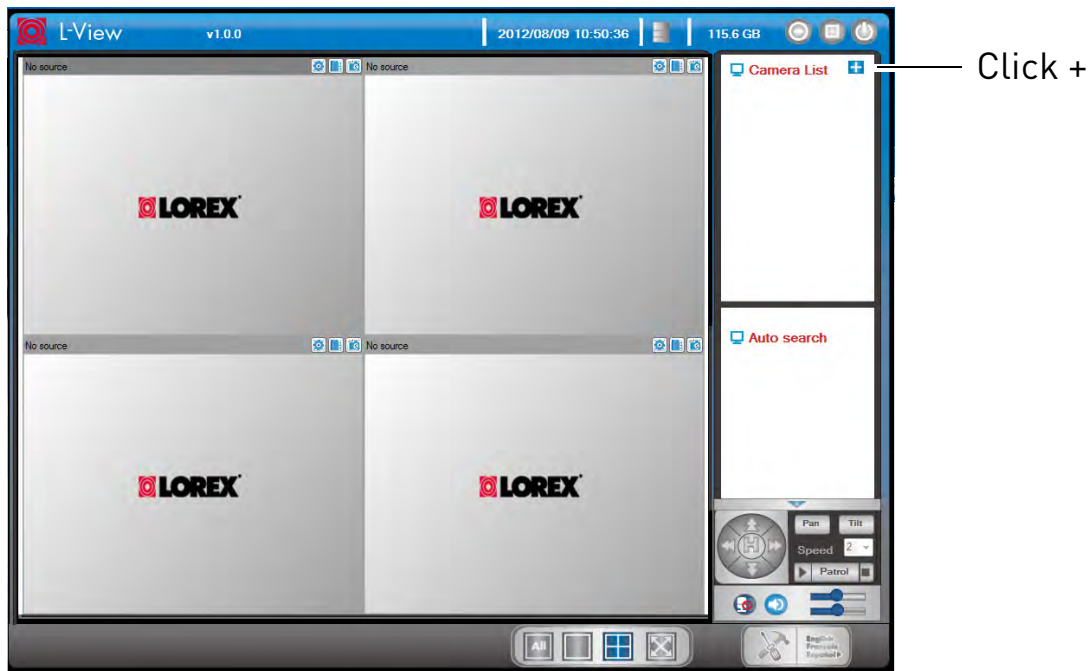
Click +

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

Enter a camera name

Enter the camera ID

Enter the camera Password (default: lorex)
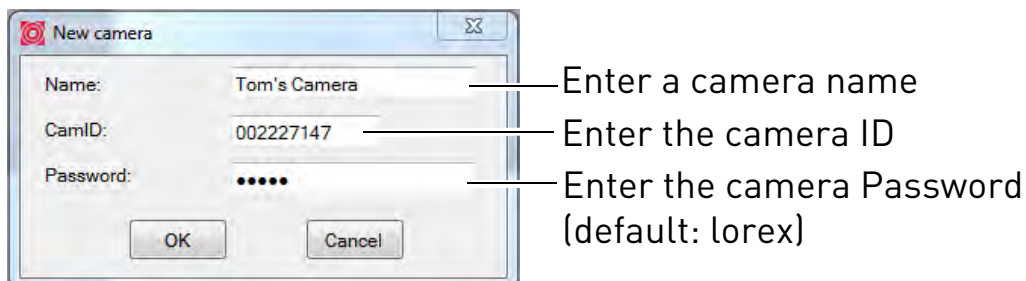
6. Double-click the camera or drag the camera to a display screen to connect to the camera.
7. If you have connected to this camera before, L-View connects to the camera. If this is the first time connecting to the camera, L-View will prompt you to create your own password for the camera. Click **OK**.

Click OK

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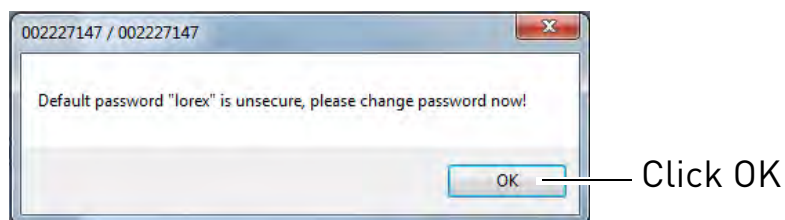
Enter a new password

Confirm new password

Click OK
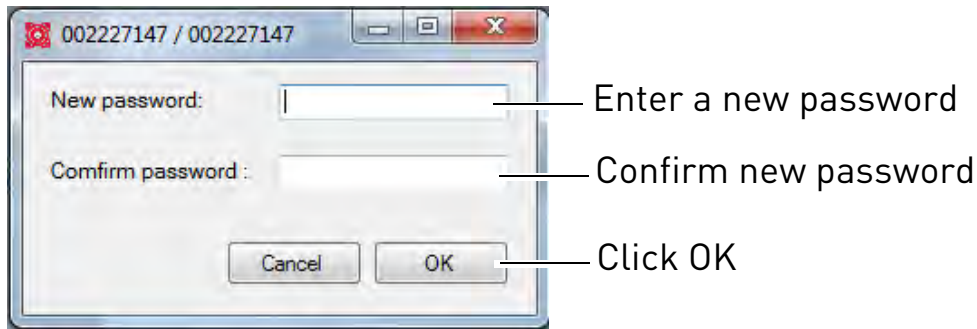
9. Double-click the camera again under Camera List to connect. For detailed instructions on using L-View, see "L-View 116 for PC" on page 42.

2.4.3 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**.

Right-click the camera under Auto Search 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**.

English

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

WiFi Scan

Click your WiFi
network from the list

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

Enter WiFi
Password

Save & Apply

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

WiFi Security Settings		
⦿ Enable WiFi function	◯ Disable WiFi function	
SSID	belkin.5f4	
Security mode	◯ None ◯ WEP ⦿ WPA(2)-PSK(WPA personal)	
WEP Encryption	64 bits(10 hex digits) ▾	
WEP Key	1234567890	
WPA Encryption	TKIP ▾	
WPA-PSK Key		
Save & Apply	IP address	WiFi test	WiFi Scan

WiFi test

WiFi testing status

Status test success !

If testing failed,please check the settings.

OK

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.

English

2.5 CONNECTING TO YOUR CAMERA ON MAC

Follow the steps below to get up and running on a Mac computer.

2.5.1 BASIC SETUP

1. Connect the power adapter cable to the power adapter using the USB connector.

Power Adapter

Power Adapter Cable

2. Connect the power adapter to a surge protector or power outlet. Connect the power adapter cable to the **DC/IN** port on the camera. The camera LED's will begin flashing.
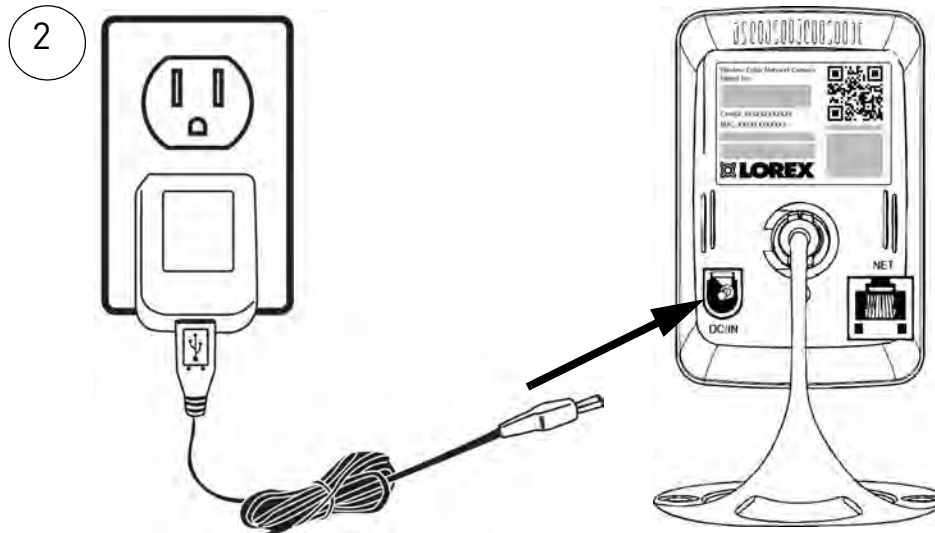
3. **A:** Connect an Ethernet cable (included) to the **NET** port on the camera and connect the other end to an available LAN port (usually numbered 1~4) on your router (not

included). The blue Network LED on the camera will glow blue when the camera is connected to your network.

Ethernet Cable
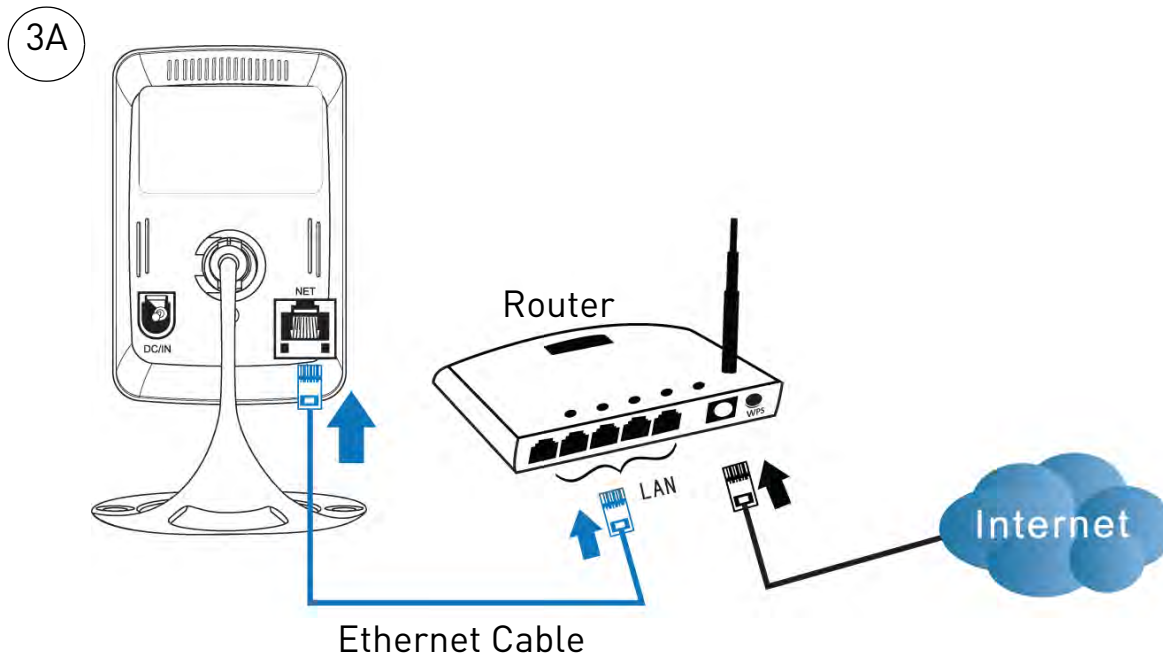
• For instructions on setting your camera up for WiFi, see "Mac WiFi Setup" on page 39.
  OR:

B: OPTIONAL: 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 blue Network LED on the camera will turn on.

Press and hold the WPS button on the router

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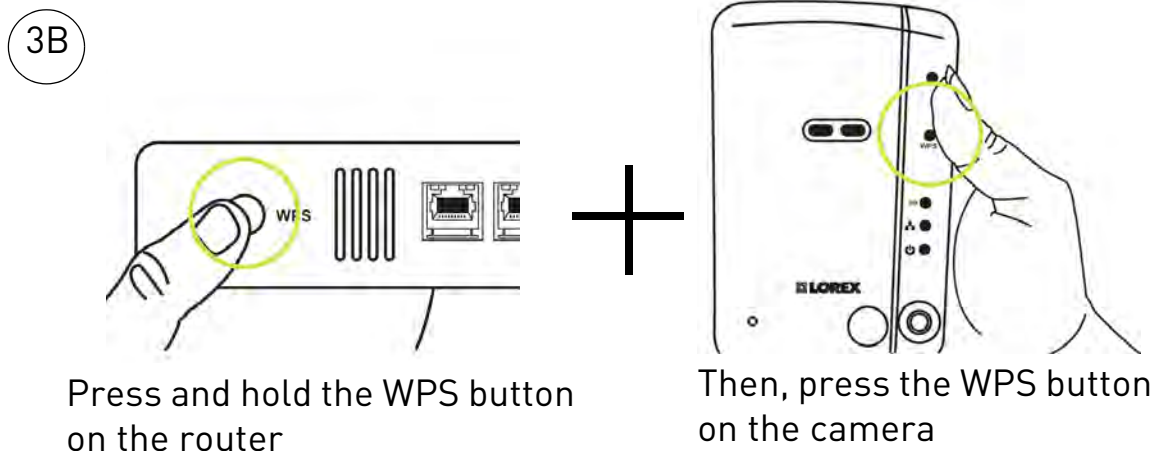
NOTE: Not all routers support WPS, and the location of the WPS button on your router depends on your router model. Check your router's instruction manual for details.

2.5.2 CONNECTING TO YOUR CAMERA ON A MAC

NOTE: For Mac system requirements, see "System Requirements" on page 42.

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.

Click and drag L-View to Applications
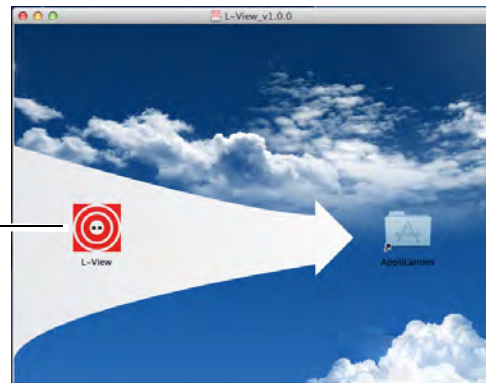
Connecting to your Camera on the Local Network (Mac)

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.

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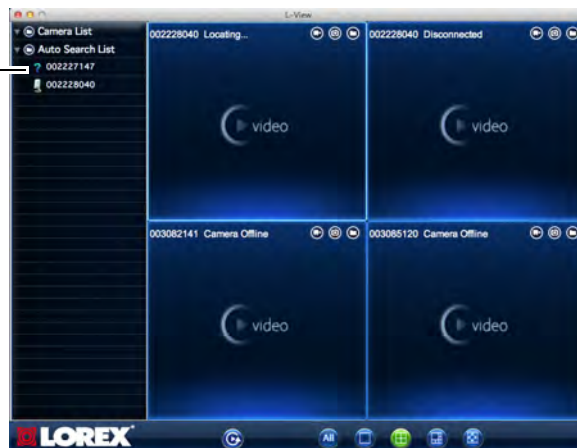
3. Enter the password (default: **lorex**) and then click **OK** to connect. L-View connects to your camera and streams live video.

Enter the password (default: **lorex**) and then click OK

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 Camera Name of your choice for your camera. Click **OK**.
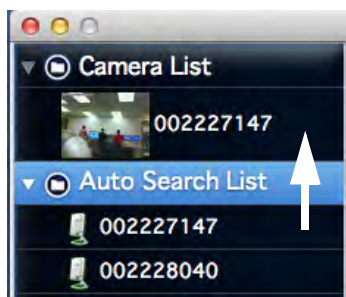
Click and drag camera ID from Auto Search List to Camera List
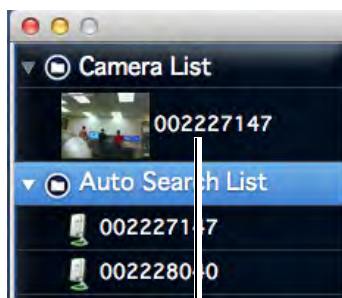
Right-click and select ID/Password settings

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

English

Connecting to your Camera over the Internet (Mac)

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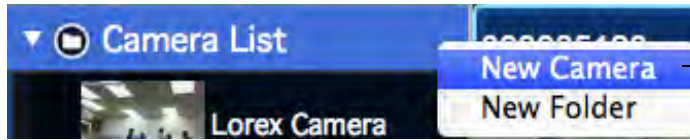
Right-click Camera List
and click New Camera

2. Under **Camera Name**, enter a name for your camera of your choice.
3. Under **Camera ID**, enter the CamID number printed on the label on the back of your camera.
4. Under **Password**, enter the camera password (default: **lorex**) and then click **OK**.

Enter a name of your choice

Enter the camID on the camera label

Enter the camera password
(default: lorex) and click OK

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

Double-click the camera

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

7. 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 "L-View for Mac" on page 82.

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.

Then, double-click a camera to open it
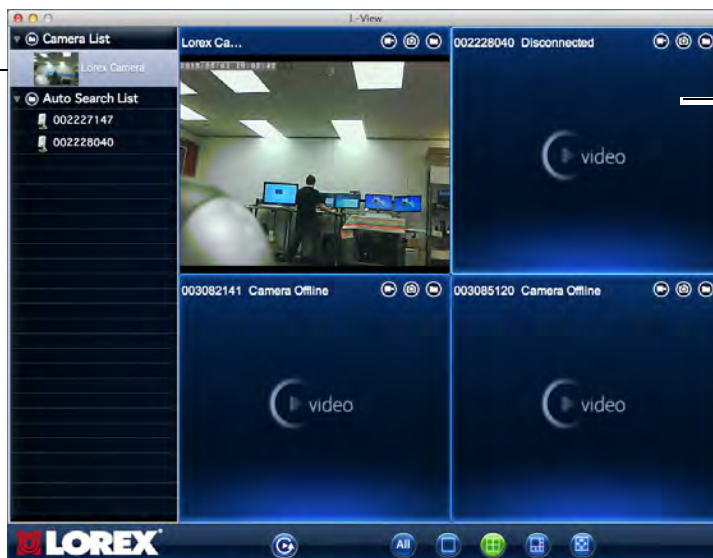
Click to select a display area

2.5.3 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**.

Right-click the camera under Auto Search 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**.

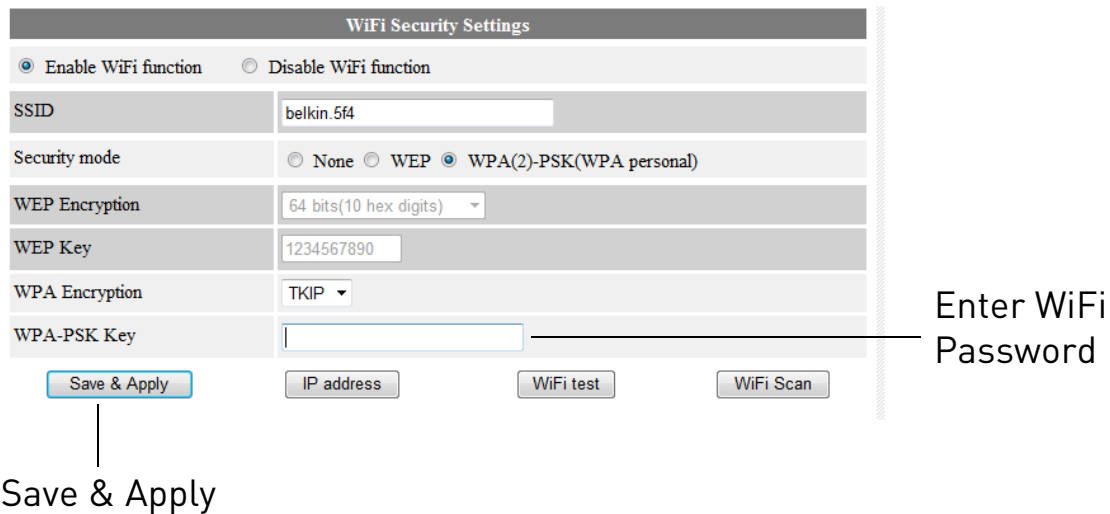5. Click **WiFi Scan** and select your WiFi network from the list.

WiFi Scan

Click your WiFi
network from the list

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

Enter WiFi
Password

Save & Apply

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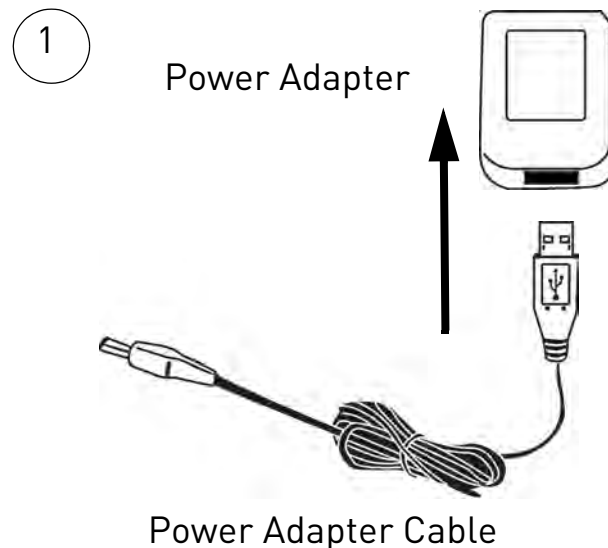

WiFi test

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.

3. L-VIEW 116 FOR PC

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

For instructions on installing and connecting to your camera using L-View, see "Connecting to your Camera on PC" on page 28.

NOTE: For Mac software instructions, see "L-View for Mac" on page 82.

3.1 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

3.2 L-VIEW 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 "Display Sub-Menu" on page 46.
2. **Image/Recording Controls:**

    • **Video Settings:** Click to edit the camera's video settings. See "Configuring Camera Video Settings" on page 61.

- **microSD:** Click to open a list of recordings saved on the camera's microSD card (not included). See "Playing Back Recordings on the microSD card with L-View" on page 59.

- **Snapshot:** Click to save a still image screenshot of the camera. To access Snapshots, see "Directories (Opening or Changing the Snapshot/Recording Folder)" on page 66. Snapshots are saved in .png format.

- **Record:** Record video directly to your computer hard drive. For details, see "Recording to your PC's Hard Drive" on page 52.

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 "Date/Time" on page 187.

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 "Camera List (Managing Cameras)" on page 47.

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 and select Web Configure to configure the camera settings using a browser. See "Configuring Camera Settings using a Web Browser" on page 166.

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. Camera speaker required (not included). Note that turning on 2-way-audio will mute audio from the camera.

- Click to mute audio from the camera. Click again to un-mute 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 "Configuring L-View" on page 66.

- **L-Play:** Click to open L-Play for advanced playback options. See "L-Play: Playing Recorded Video on your PC" on page 71.

- **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.

3.2.1 DISPLAY SUB-MENU

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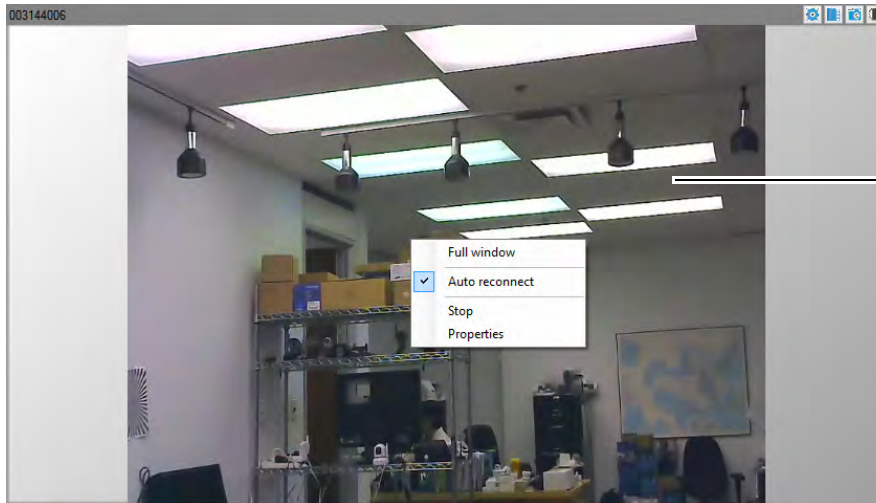
Right-click on a camera in the display area to open the Display sub-menu

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.
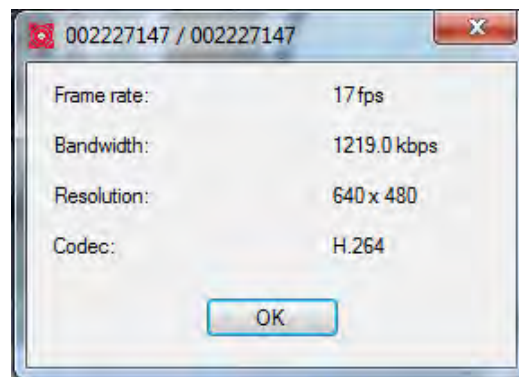
Video Properties

3.2.2 ALL CAMERA ACTION

Press [All] to open the All Camera Action menu.
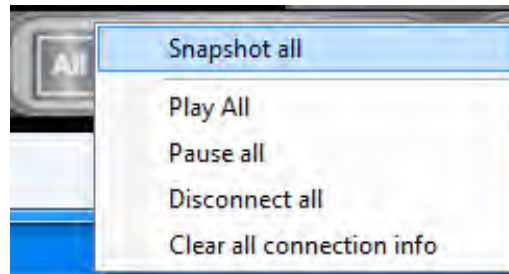
The All Camera Action Menu contains the following controls:

- **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.

3.3 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.

3.3.1 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.

Click and drag camera from Auto Search to Camera List
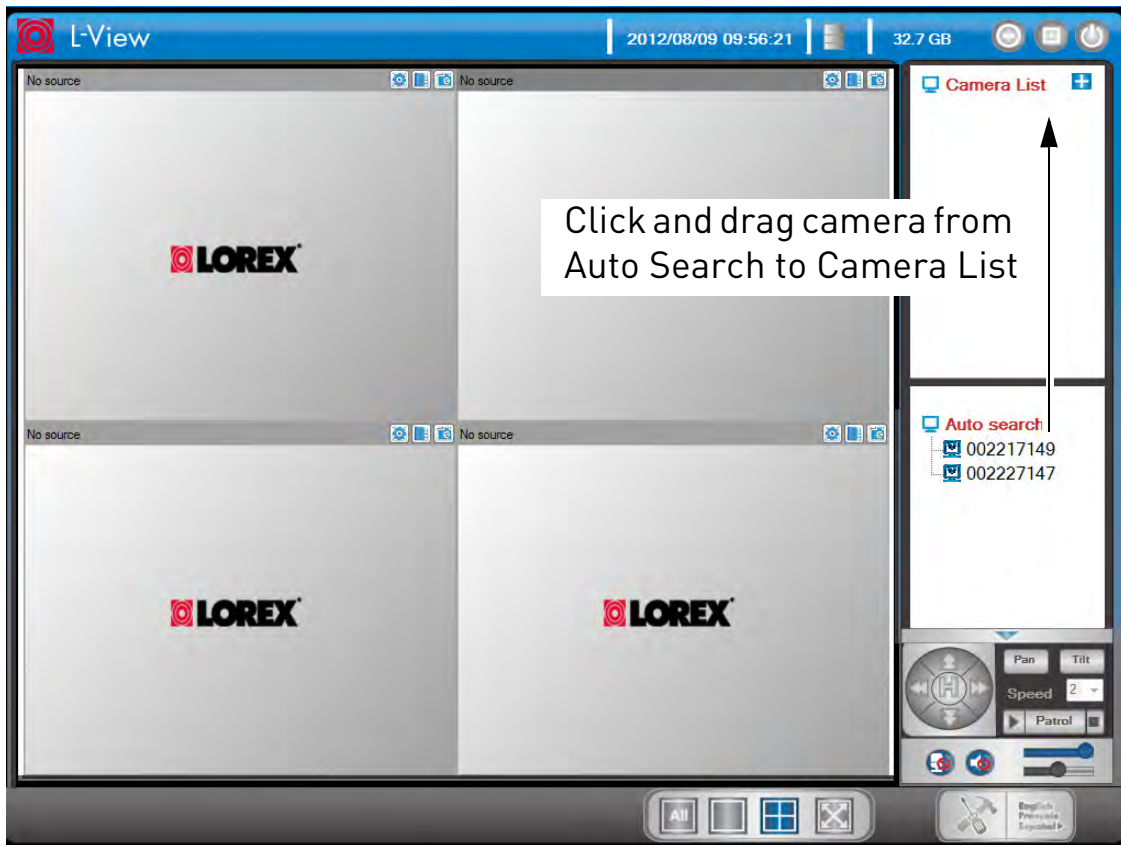
- If the camera is not on the local network (i.e. you are connecting to it over the Internet), see "Connecting to a Camera Over the Internet (PC)" on page 29 to add the camera to the Camera List.

- Right-click on your camera to open the Camera List sub-menu. See below for instructions.
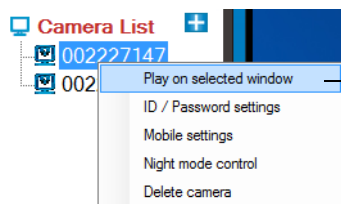
Right-click to open the Camera List sub-menu

3.3.2 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 "Video Settings" on page 170.

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.
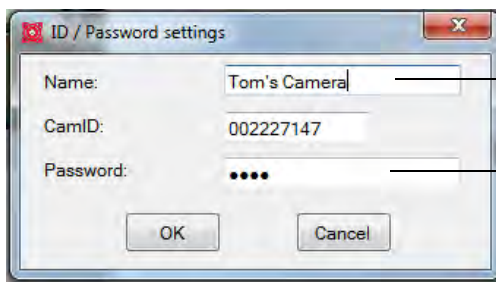
Enter a name
for your camera

Enter the password
to save it in L-View

4. Click **OK**.

3.3.3 DELETING CAMERAS

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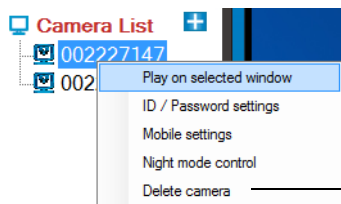
Right-click on the camera
and click Delete Camera

2. Click **Delete** to confirm.

English

3.3.4 CONFIGURING MOBILE STREAMING SETTINGS

Configure streaming settings when connecting using a smartphone or tablet.
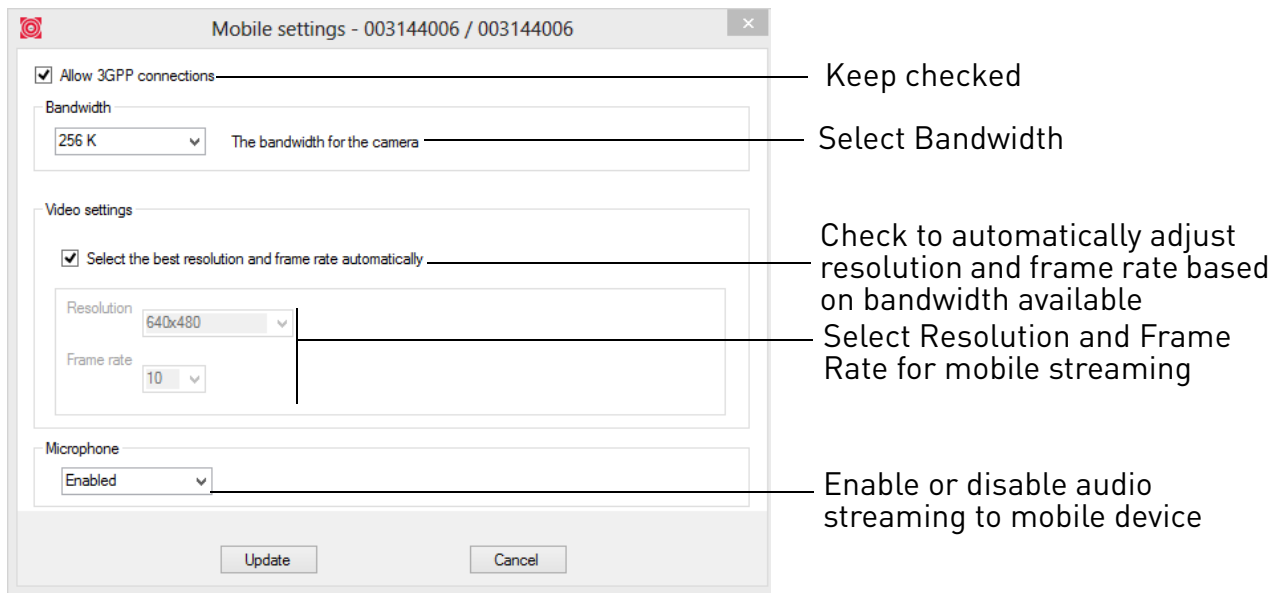
To configure mobile streaming settings:
1. Right-click on the camera you want to configure and click **Mobile settings**.
2. Ensure **Allow 3GPP connections** is checked. If this setting is unchecked you will not be able to connect to the camera with a smart phone or tablet.
3. Under **Bandwidth,** select 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 smart phones 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.

3.3.5 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.
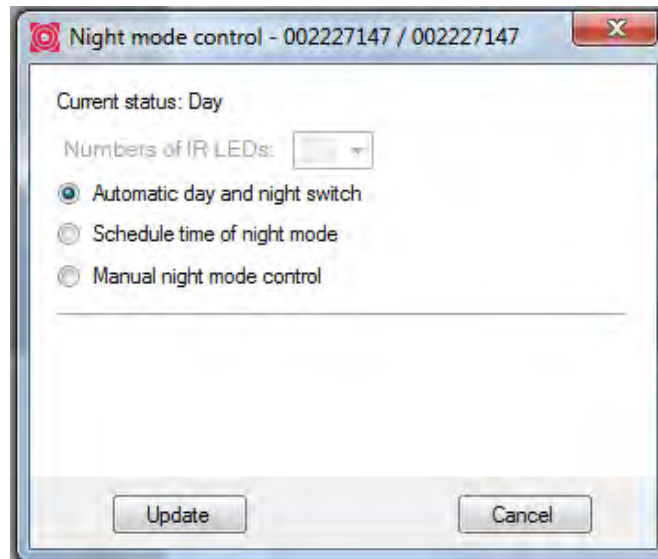
To configure night mode settings:

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.

EXAMPLE

Start of night mode
(8:00 PM)

Return to day mode
(6:00 AM)

English

- **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.

Select day or 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.

3.4 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 "L-Play: Playing Recorded Video on your PC" on page 71.
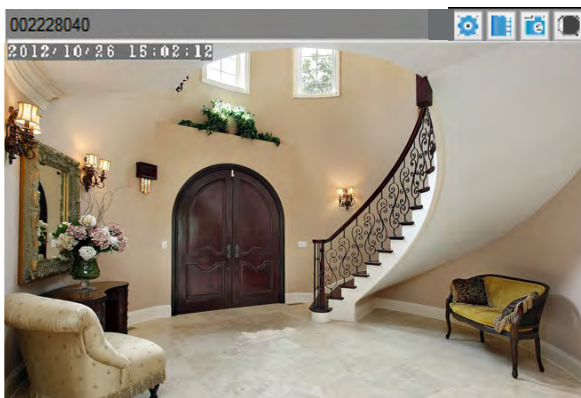
Start/stop recording

3.4.1 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**.
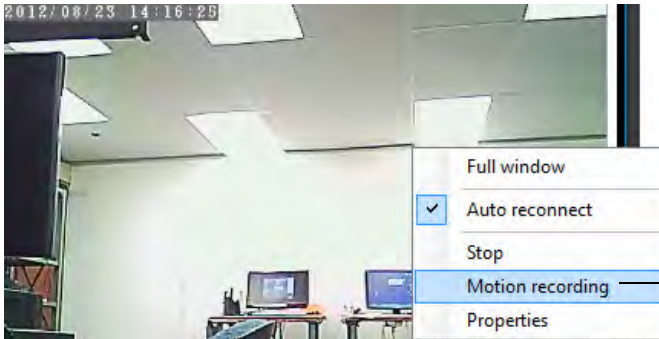
Right-click and then click Motion Recording to enable/disable motion recording

- 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 "L-Play: Playing Recorded Video on your PC" on page 71.

3.5 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.

Arrangement of screens for schedule configuration

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.

3.5.1 CONFIGURING A CONTINUOUS RECORDING OR PLAY ONLY SCHEDULE

ATTENTION: 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.

Select screen schedule will run on   Select Enable to enable schedule

Double-click the camera

Select Continuous recording or Play only

Configure the Start and End date and time

Select what to do if screen is occupied when schedule starts

Click Save

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 "L-Play: Playing Recorded Video on your PC" on page 71.

3.5.2 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:

ATTENTION: 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.

Select screen schedule will run on   Select Enable to enable schedule

Double-click the camera

Select Periodic recording

Select Forever or during

Configure recording times

Select what to do if screen is occupied when schedule starts

Click Save

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.

Start date   End date
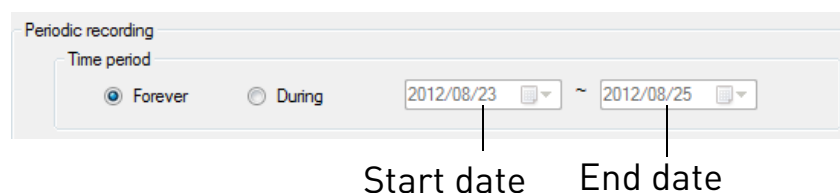
7. Select **Everyday** to have the schedule apply to every day, or select **Weekday** to only have the schedule apply on certain days of the week.

   • 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.

Select Everyday or Weekday

If Weekday, click to select days the schedule will apply to. Selected days are in blue

Configure start time   Configure end time

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 "L-Play: Playing Recorded Video on your PC" on page 71.

3.6 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 "SD Card (Configuring microSD Recording)" on page 178.

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*.

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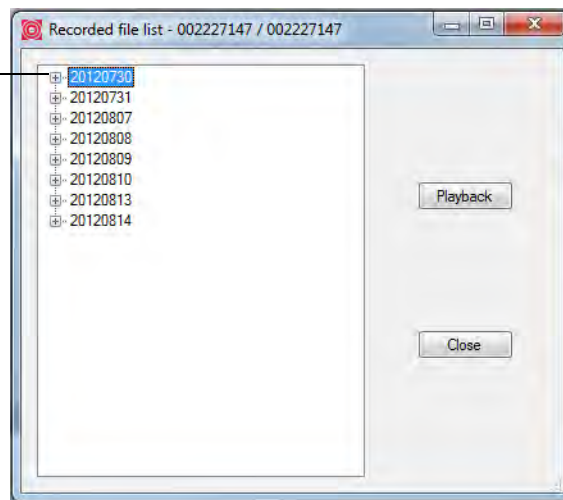
4. Click the **+** next to a day to view recordings from that day. Recordings from that day are shown from earliest to latest. Recordings are named according to the time they were recorded with the format *hhmmss* (for example, *115553* is *11:55:53 AM*).

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

Click a recording from the list

Click Playback to play
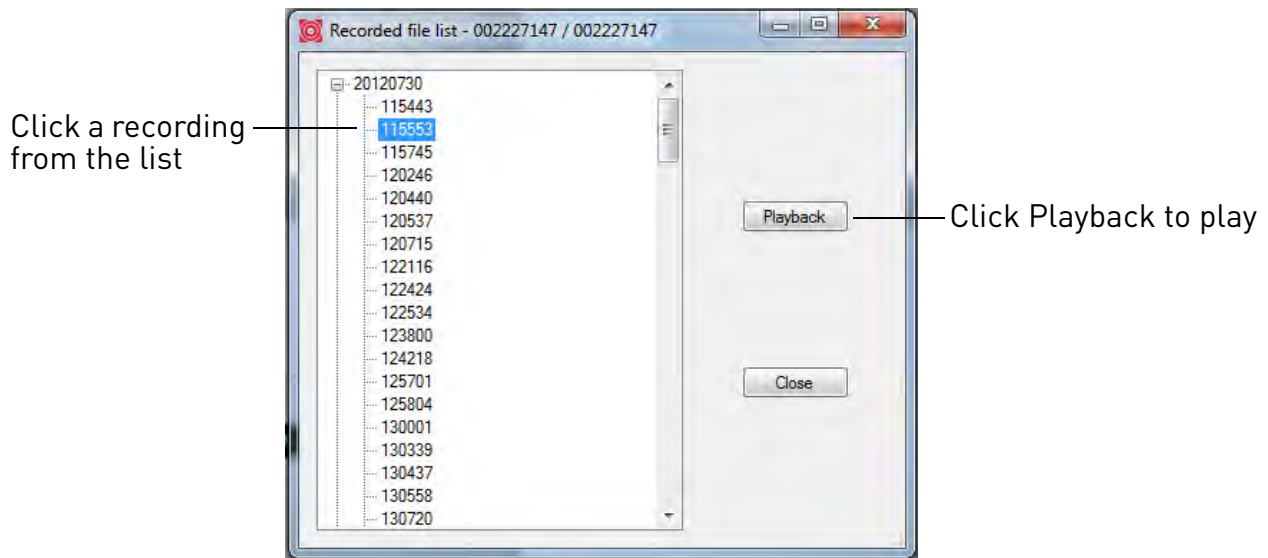
6. The recording plays back in the camera display area.

- 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**.

3.7 PLAYING BACK RECORDINGS FROM NAS IN L-VIEW

You can playback recordings from a NAS device (not included) in L-View. For instructions on setting up recording to a NAS device, see "NAS Settings (Configuring NAS Recording)" on page 178.

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**.

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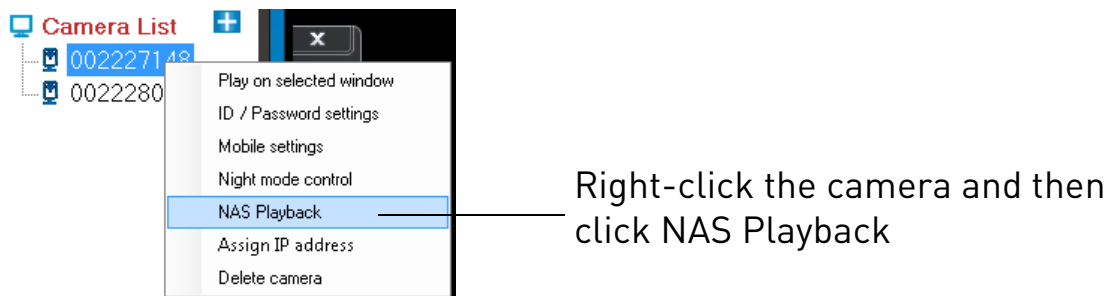
2. Click **+** next to the day you would like to play back video from.
3. Click a video file in the list then click **Playback** to start playback.

Click + next to the day you would
like to playback video from

Click a video file to select it
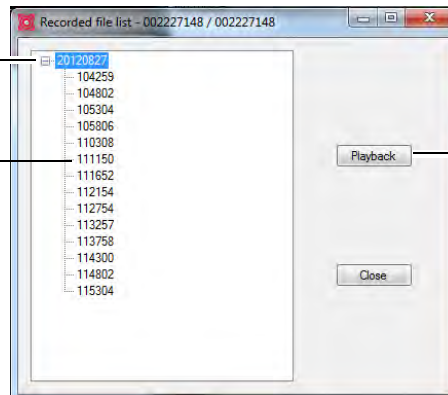
Click Playback

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**.

3.8 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 [icon] 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.

3.8.1 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.

3.8.2 VIDEO TAB (CONFIGURE GENERAL VIDEO SETTINGS)

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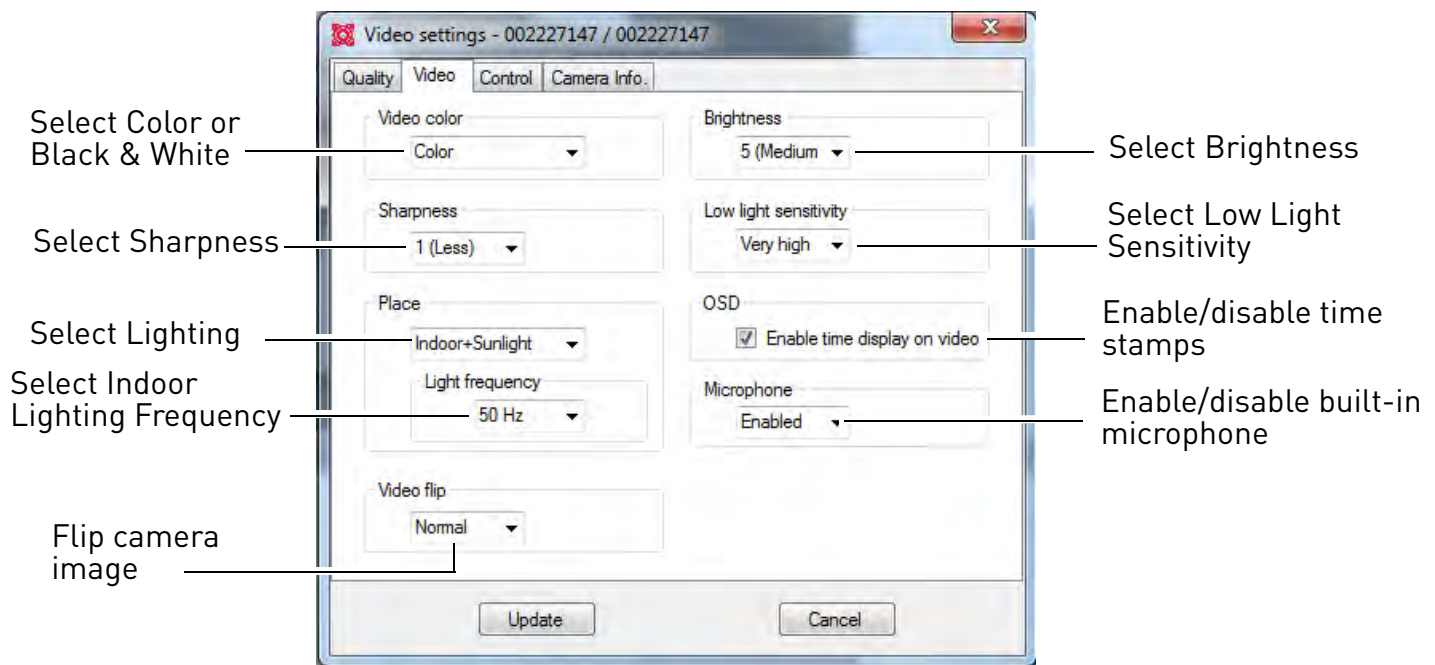
To configure general video settings:

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.

3.8.3 CONTROL TAB (CONFIGURE STATUS LED'S AND MOTION DETECTION SENSITIVITY)
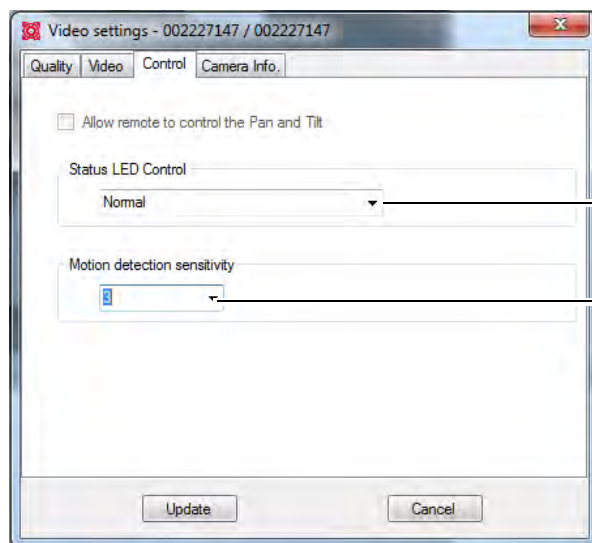
Configure status LED's

Configure motion detection sensitivity from 1 (High) to 10 (Low)

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 "Camera Overview" on page 1.
    *   **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 "Schedule" on page 175.

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 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.

English

3.8.4 CAMERA INFO TAB

The camera info tab shows system information about the camera.
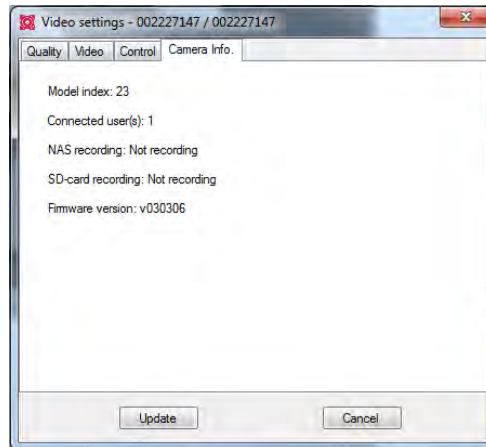
3.9 CONFIGURING L-VIEW

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

3.9.1 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.

Open folder

Change folder

Snapshot/Recording folder location
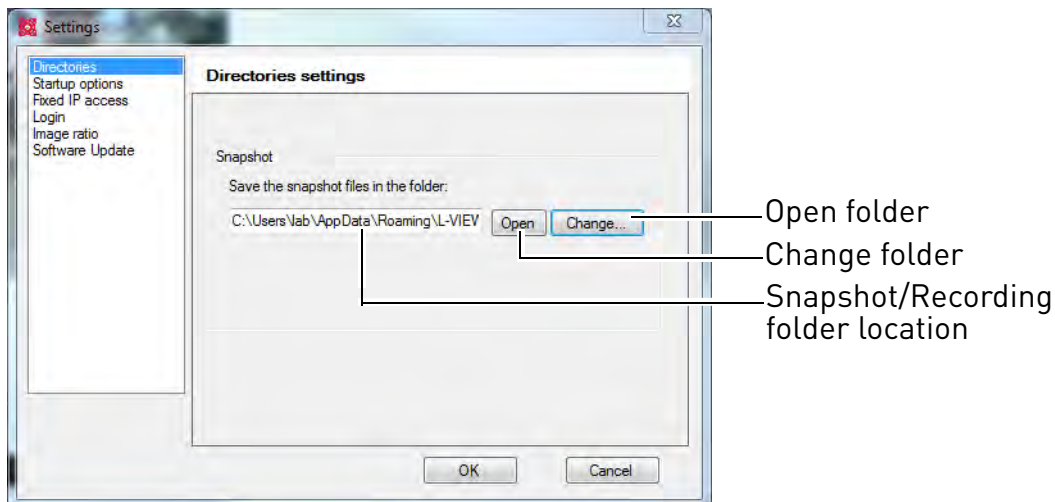
To open the Snapshot folder:

• Click **Open**.

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

3.9.2 STARTUP OPTIONS

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

To configure startup options:
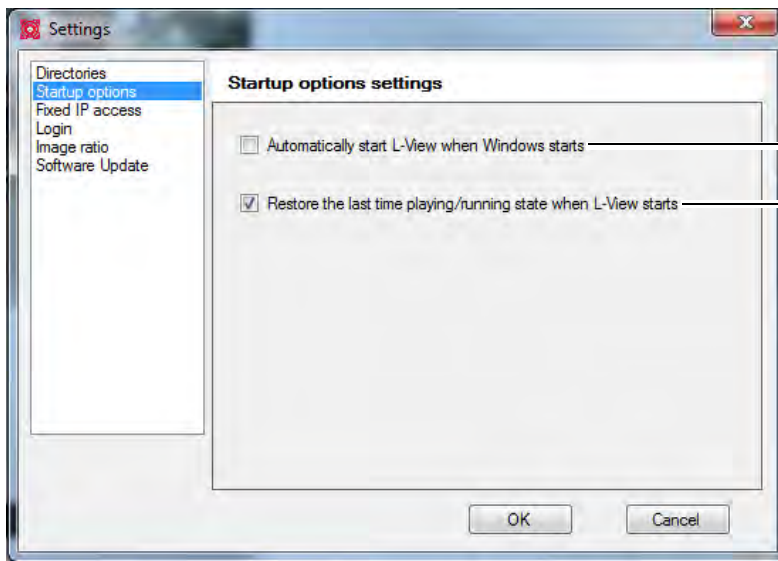
Check for L-View to open automatically when your computer turns on

Check to restore camera layout and connect to previously open cameras when L-View opens

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.

3.9.3 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.

Check to enable Fixed IP addresses for cameras
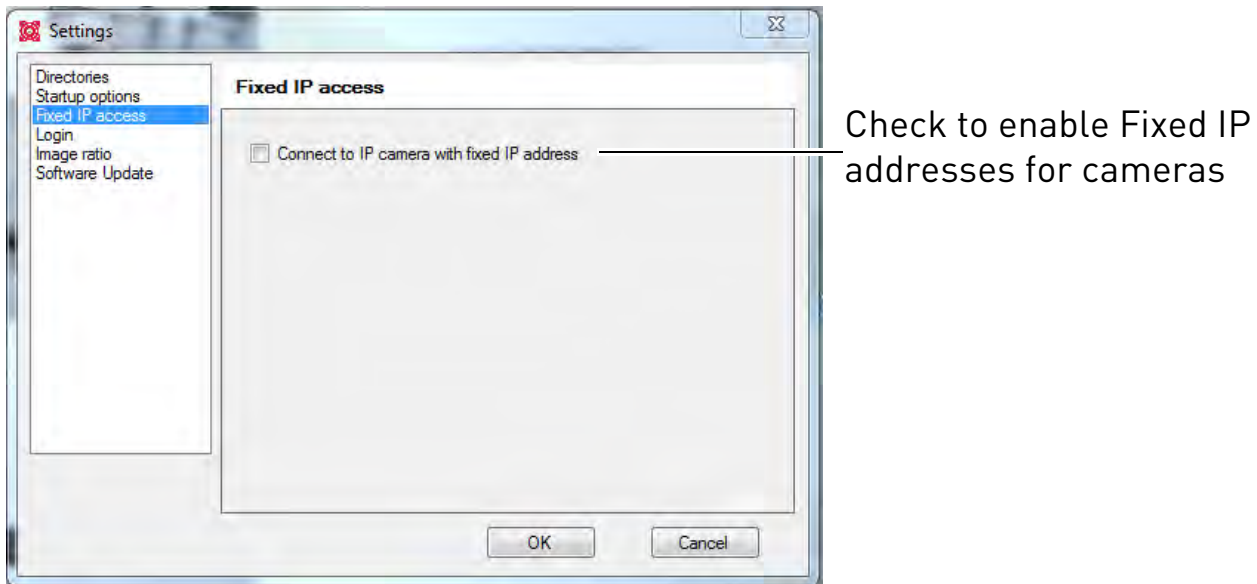
To configure your camera to use a fixed IP address:

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**.

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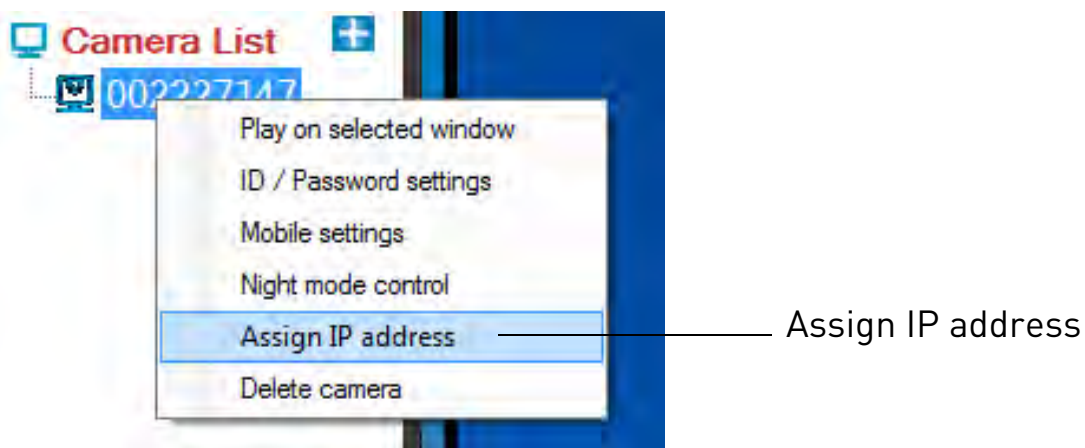
4. Enter the camera's internal IP address and click **OK**.

3.9.4 LOGIN (ENABLING A PASSWORD TO ACCESS L-VIEW)

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

Select Enable

Enter a User Name
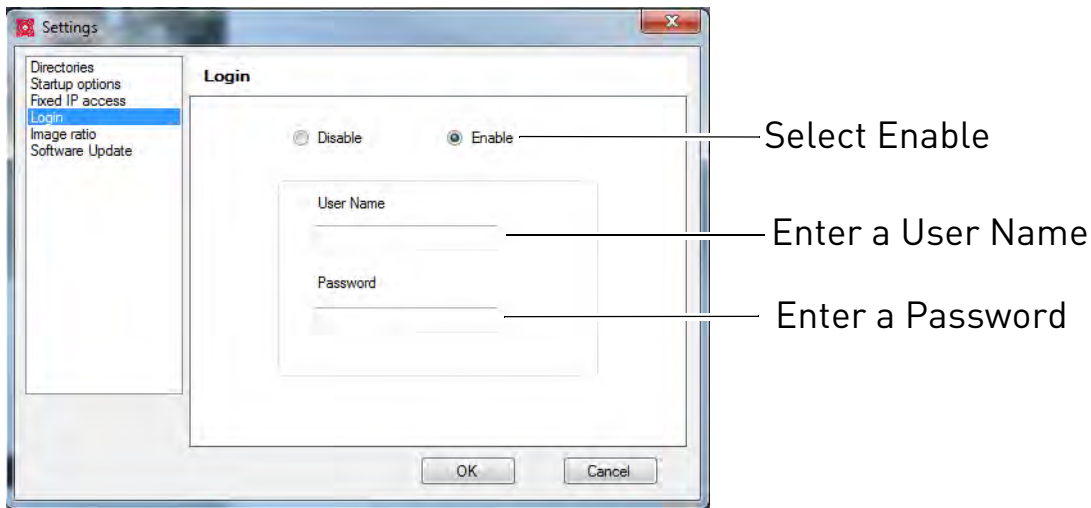
Enter a Password

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.

3.9.5 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.

Check to prevent video stretching or un-check to enable image stretching
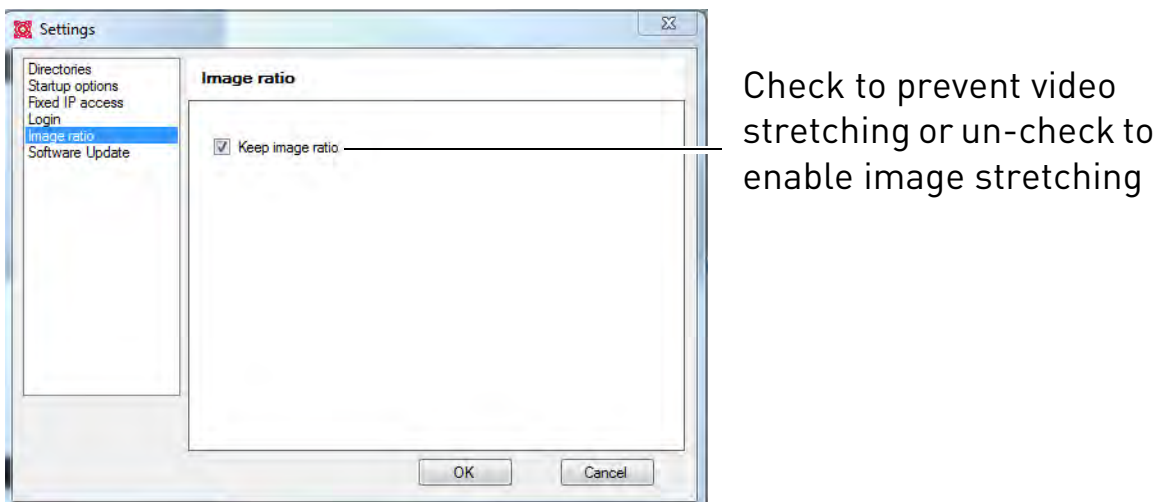
To configure Image Ratio:

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.

3.9.6 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.
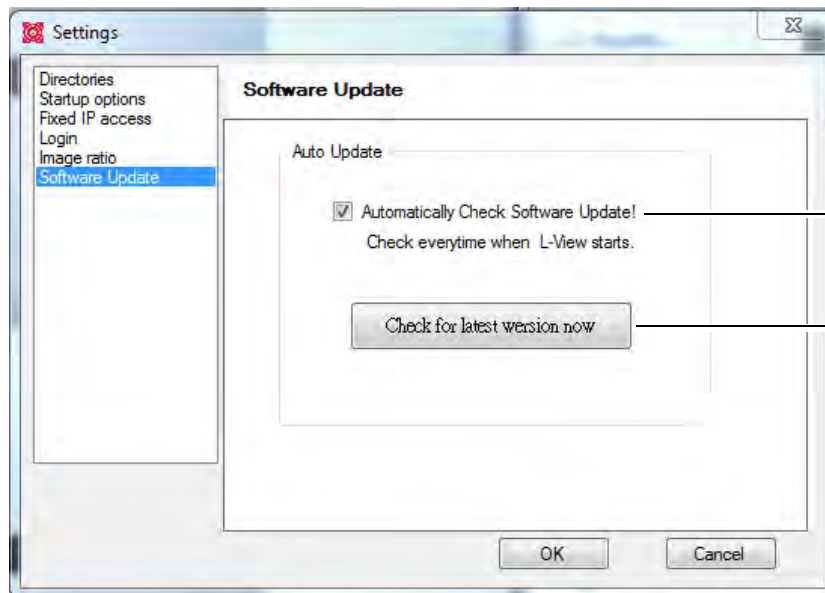
Check to have L-View look online for updates when it opens

Click 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.

4. 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.

4.1 RUNNING L-PLAY

L-Play is automatically installed when you install L-View.

To open L-Play:

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

OR

- Click in L-View

See see "L-Play Overview" on page 72 for a detailed description of L-Play functions.

4.2 L-PLAY OVERVIEW
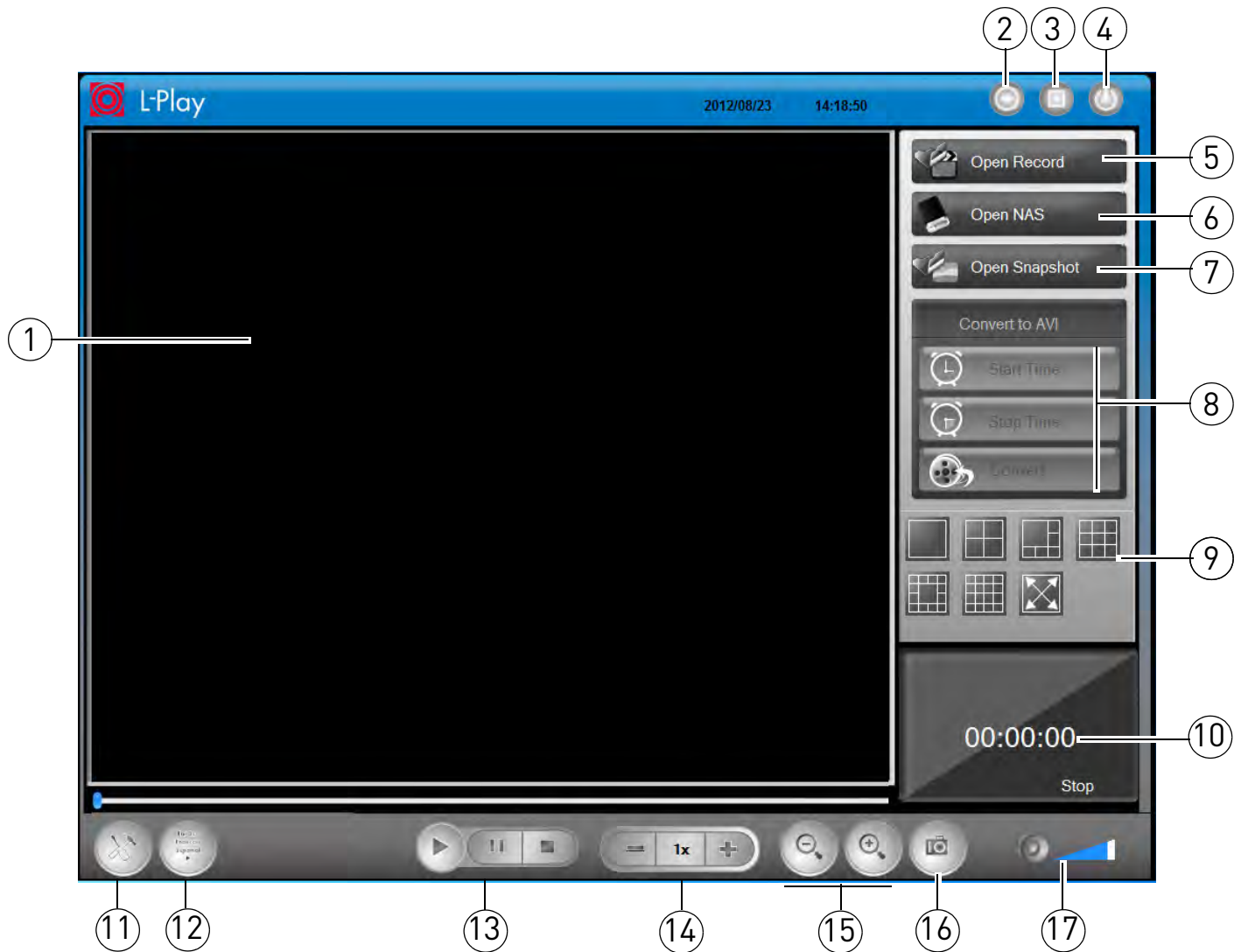
2. **Display**
3. **Minimize/Restore**
4. **Maximize/Revert to Window**
5. **Exit**
6. **Open Record:** Open recordings from your computer hard drive. See "Playing Back Video from Computer Hard Drive in L-Play" on page 74.
7. **Open NAS:** Open recordings from a NAS device (not included). See "Playing Back Video from NAS in L-Play" on page 75.
8. **Open Snapshots:** Open Snapshots on your computer hard drive. See "Viewing Snapshots in L-Play" on page 78.

9. **Convert to AVI:** Convert currently playing video to .avi file to play in Windows Media player or for sharing. See "Converting Video Files to AVI" on page 80.

10. **Split-Screen Selectors:** Click for different split-screen

configurations. Click for full-screen. Press **ESC** to exit full-screen.

11. **Video Status:** Shows the time the currently playing video was recorded at.

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

Current recording folder

Open recording folder

Change recording folder

Current snapshot folder

Open snapshot folder

Change snapshot folder

Click OK to confirm changes
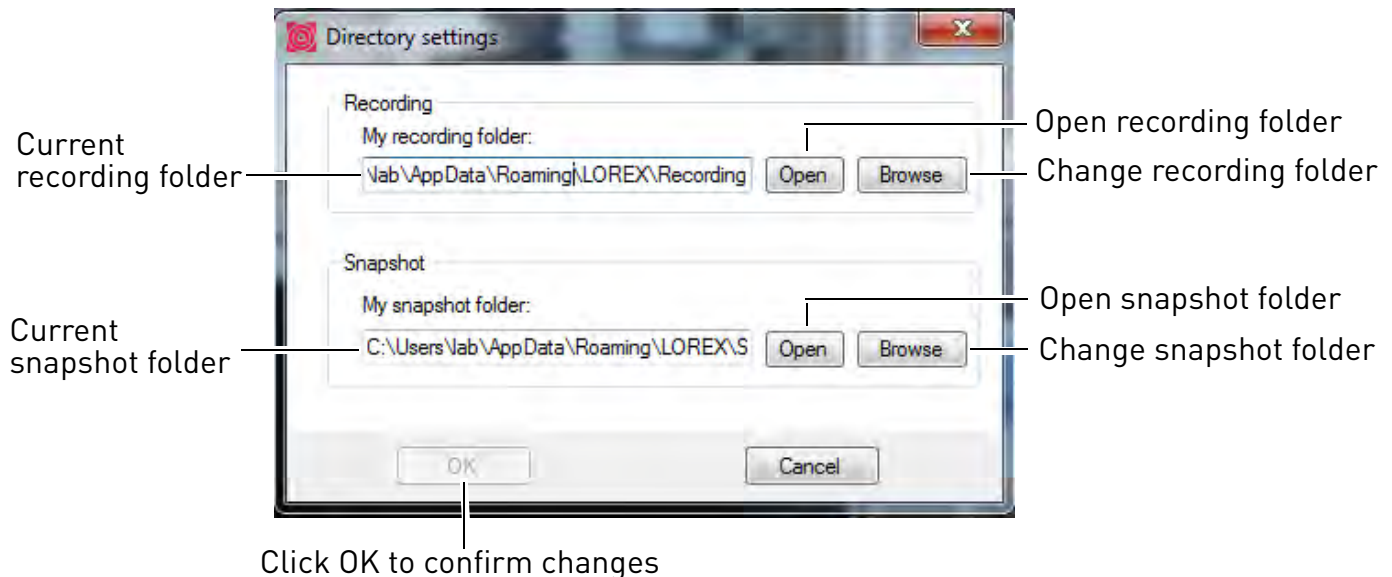
NOTE: If changing Recording/Snapshot folders, make sure the same Recording and Snapshot folders are selected in L-View and L-Play.

13. **Language Selector** **:** Click to select the language for L-Play.

14. **Playback Controls:**

- ▶ **:** Play the selected video.

- ❙❙ **:** Pause the selected video.

- ■ **:** Close the selected video.

15. **Playback Speed:** Shows the current playback speed. Click **+** to increase playback speed or **-** to decrease.

16. **Zoom:** Click ⊕ to zoom in on the selected video or click ⊖ to zoom out of selected video. Once zoomed, click and drag on the video to pan the camera.

17. **Snapshot** 📷 : Click to take a snapshot from the currently playing video. Snapshot function does not work if video is paused.

18. **Volume Controls:** Click ◢ to adjust the volume of video being played back. Click ◉ to mute/un-mute audio.

4.3 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 "Recording to your PC's Hard Drive" on page 52.

To playback recordings from your computer hard drive:

1. Click **Open Record**.
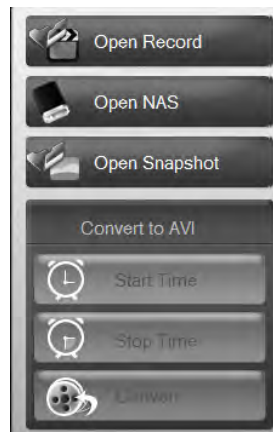
 — Click Open Record

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**.

Double-click the day you would like to play back video from

Click the camera you would like to play back video from
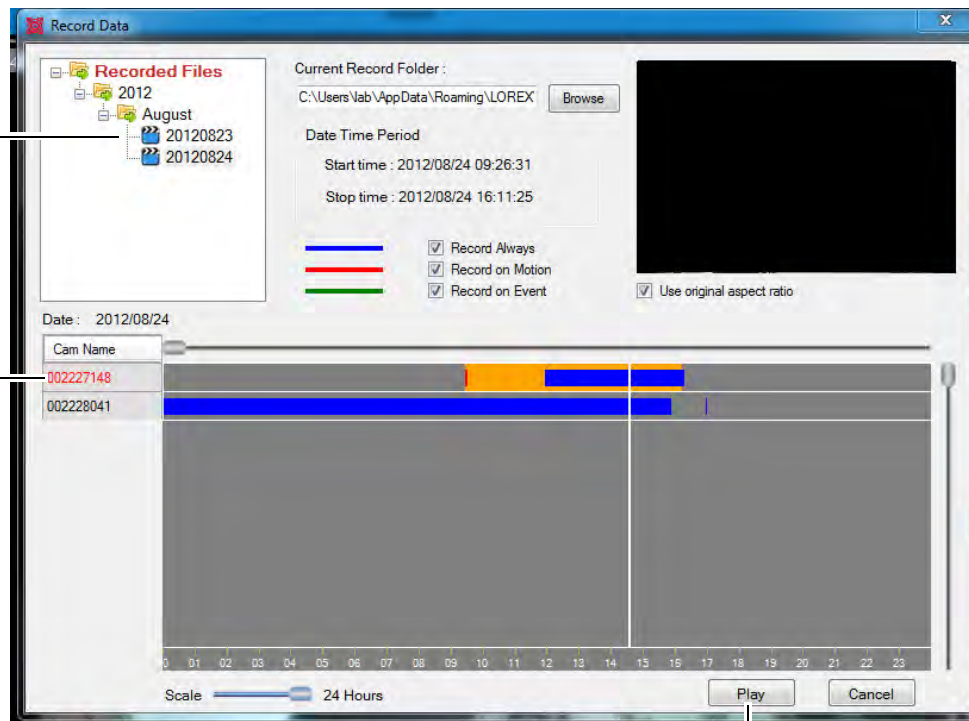
Click Play to begin playback

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

Use the slider to adjust the playback time

4.4 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 "NAS Settings (Configuring NAS Recording)" on page 178.

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**.

Click Open NAS
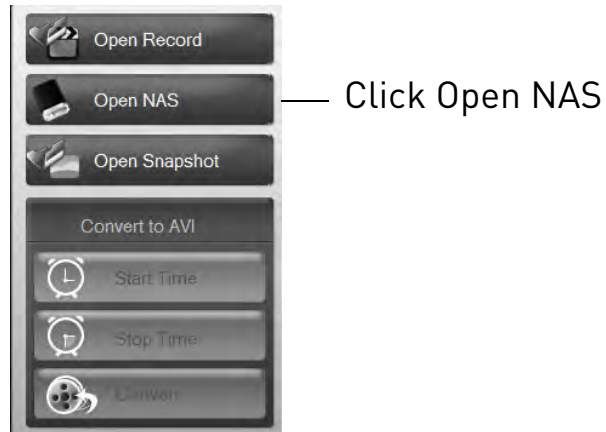
2. Click **Browse**.
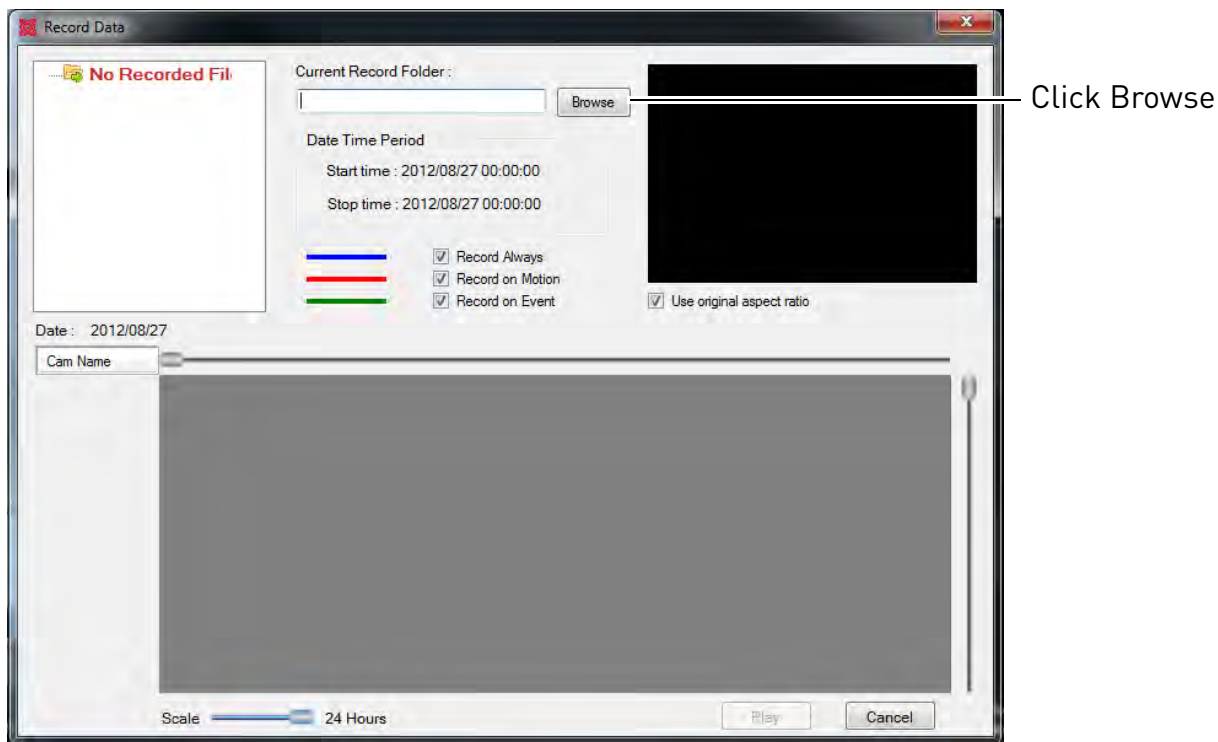
Click Browse

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**.

Browse to IPCamRecordFiles

Click Scan Neighborhood

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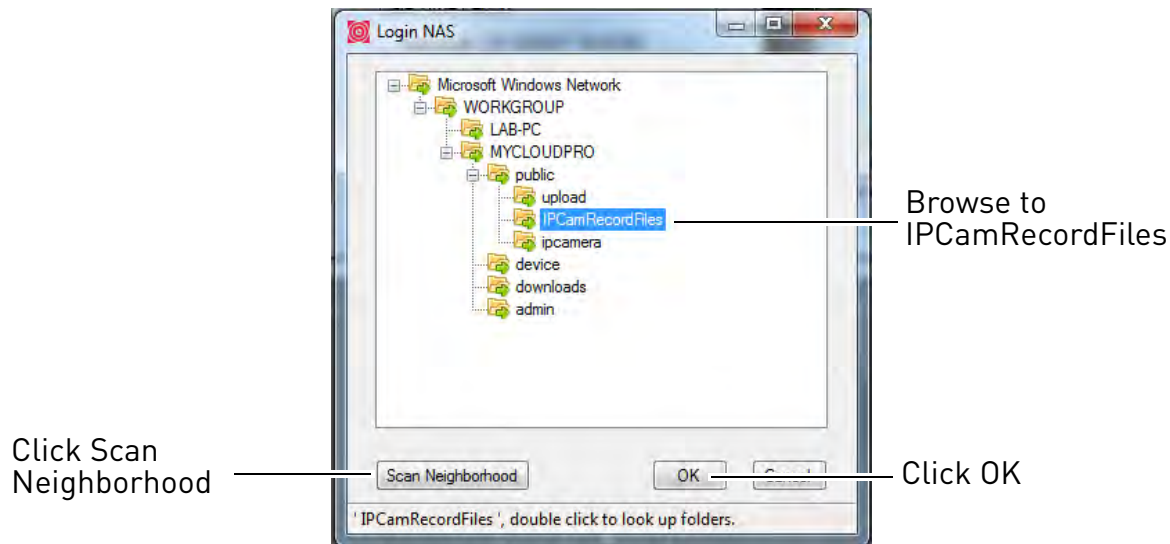
5. Click **+** next to the year, and then click **+** next to the month you would like to play back video from.

6. Double-click a day to select video recorded on that day. L-Play shows times that have video recorded for each camera.

Double-click to select video recorded on a day

Click the camera

Click Play to begin Playback
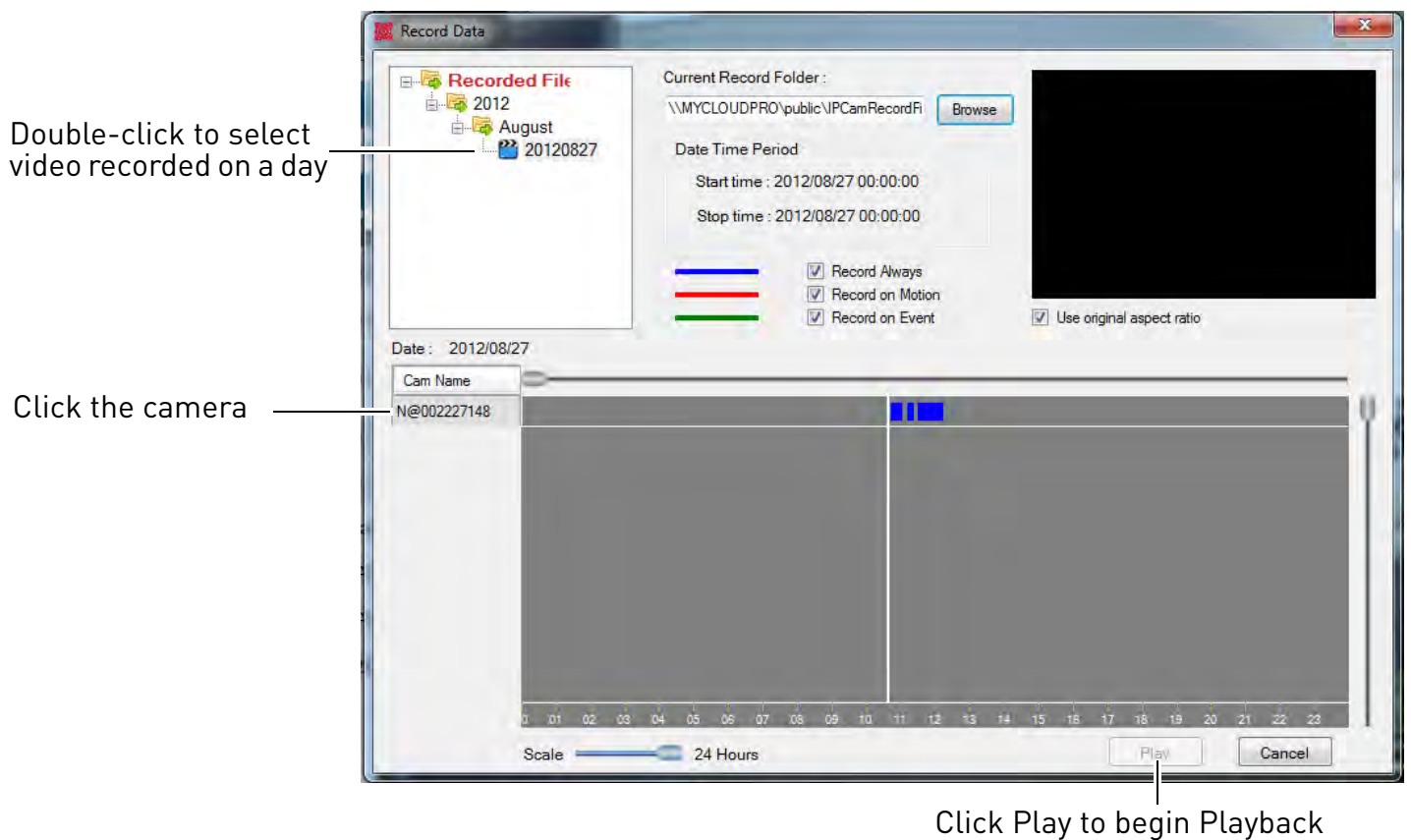
7. Click the camera or cameras you would like to play back video from and click **Play**.
8. Playback begins from the earliest video files recorded on that day. Use the slider to adjust the playback time.

Use the slider to adjust the playback time

4.5 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.
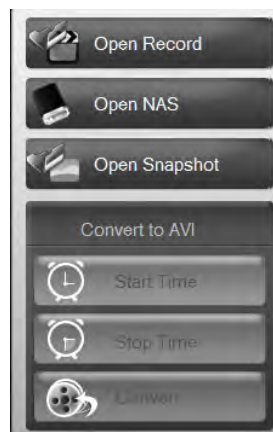
Click Open Snapshot

2. 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.

3. Click **+** next to the day the snapshot was taken.

Click + to open snapshots from a camera

Click + to open snapshots from the selected day

Double click to open a snapshot
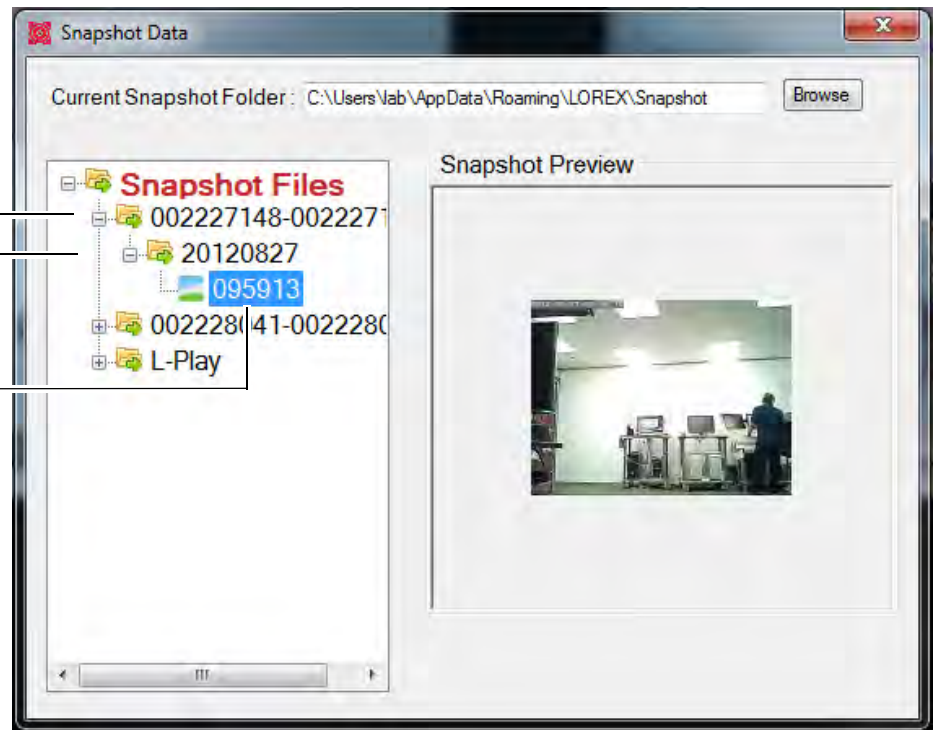
4. Double click the snapshot file to open the snapshot. Snapshots are opened in Windows Photo Viewer or your default image viewing program.

4.6 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.

CamID of selected screen shown in white

Click Start Time

Click Stop Time
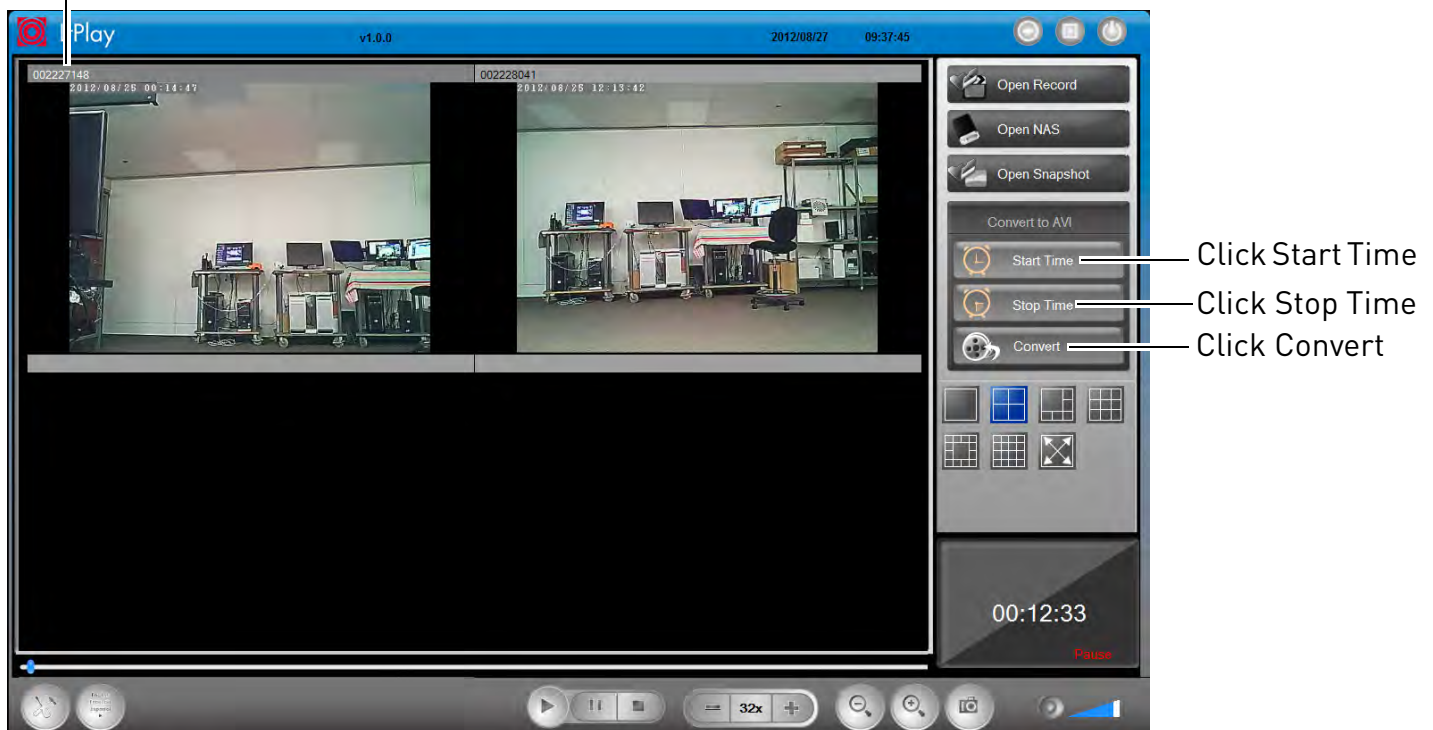
Click Convert

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.
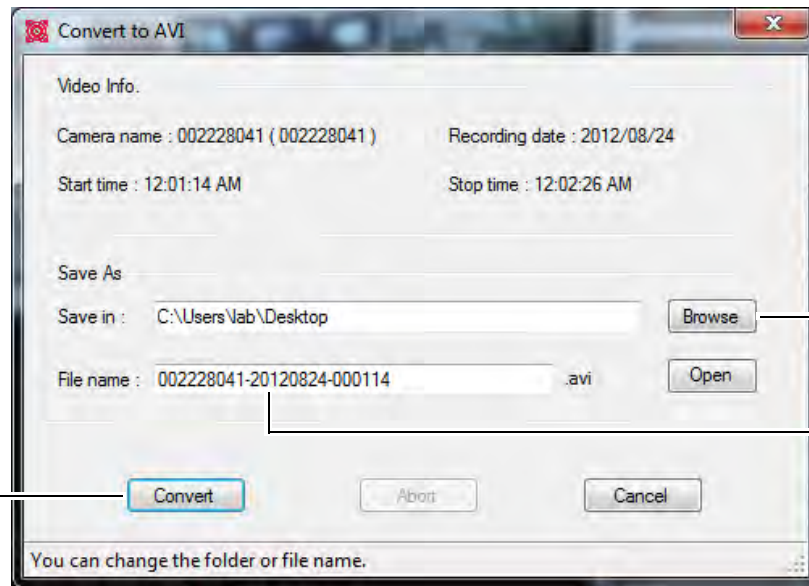
Select a save folder

Enter a custom file name

Convert file to .avi

4. (Optional) If you want to select a custom folder to save the .avi file, click **Browse**, or use the default folder.
5. (Optional) If you want to use a custom file name for the .avi file, enter it under **File name**.
6. Click **Convert** to convert the video file to .avi. Wait for the file to convert.
7. Click **Open** to open the folder where your converted file is saved.

English

5. 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 "Connecting to your Camera on Mac" on page 34.

5.1 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

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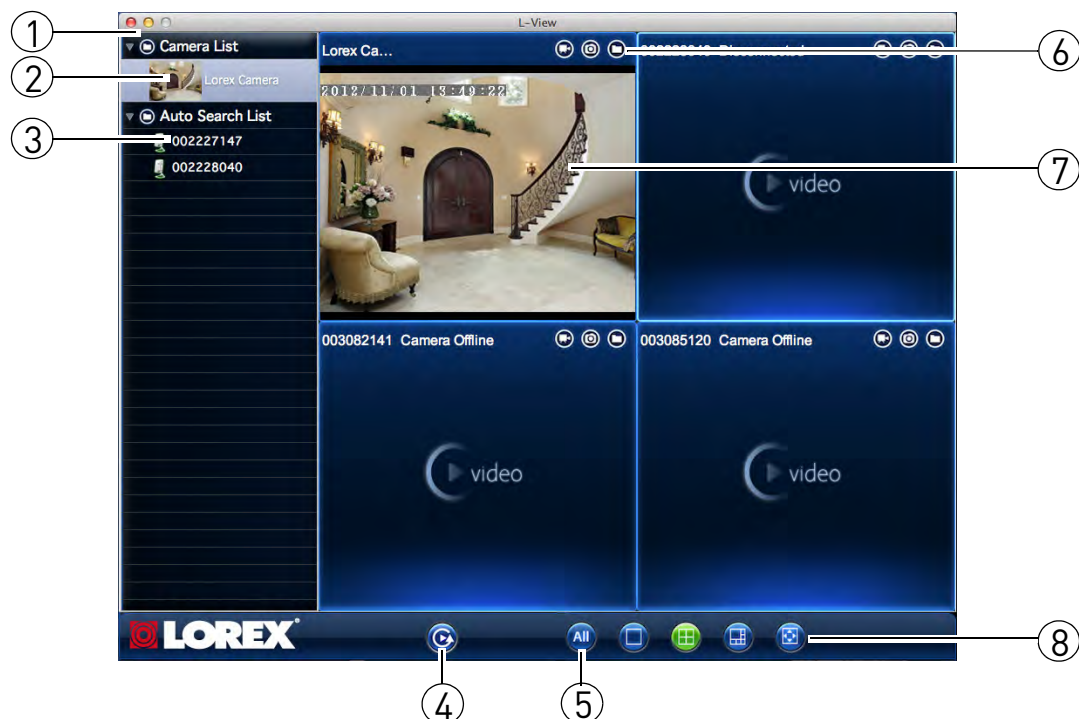
1. **Window Controls:** Click to exit or minimize L-View.
2. **Camera List:** Shows cameras that have been saved in L-View. Double-click cameras to connect to them.

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.

Then, double-click a camera to open it

Click to select a display area
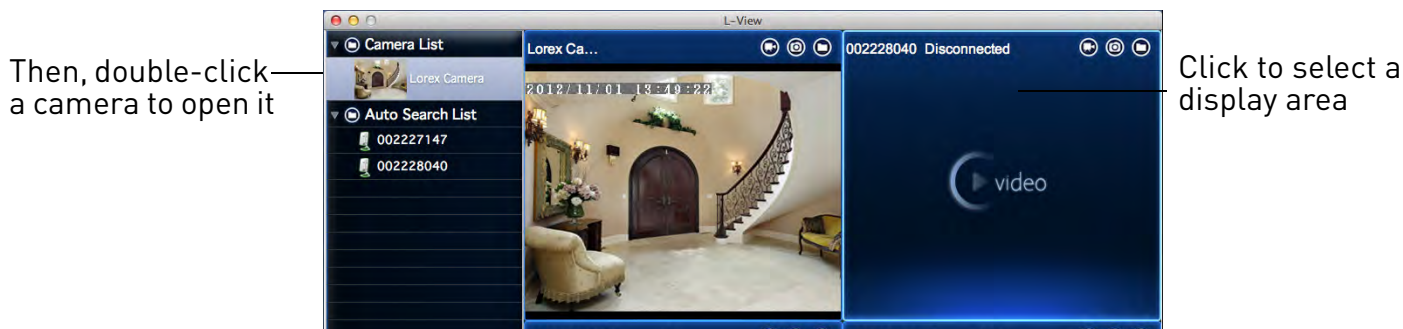
3. **Auto Search List:** Auto Search shows cameras located on your local network (LAN).

   • 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 "Configuring Camera Settings using a Web Browser" on page 166.

Right-click the camera ID and select Web configure to open the Web Configuration tool
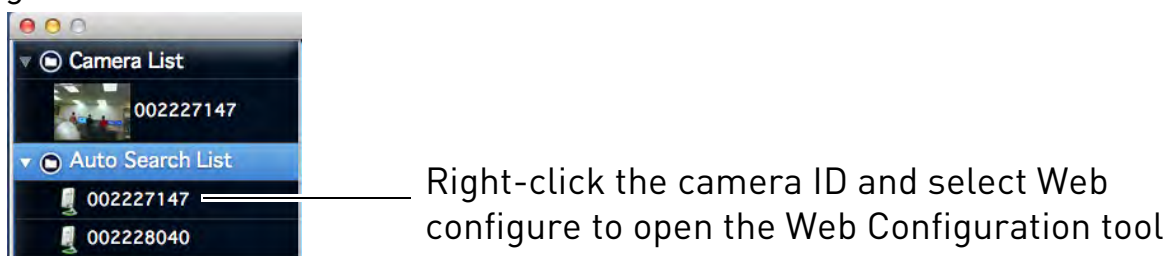
4. **Playback:** Click to open Playback mode. For details, see "Playing Back Video from your Mac's Hard Drive" on page 86.

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 "Recording Video to your Mac's Hard Drive" on page 85.

   • **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.
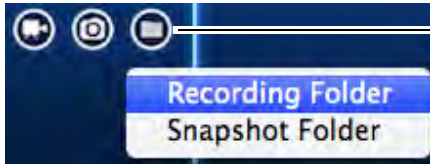
 Click to open recording or snapshot folder

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.

5.3 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 "Using Camera List to Modify Camera Settings" on page 89).

5.3.1 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 setting

Enter a name of your choice. Enter the camera password and click OK
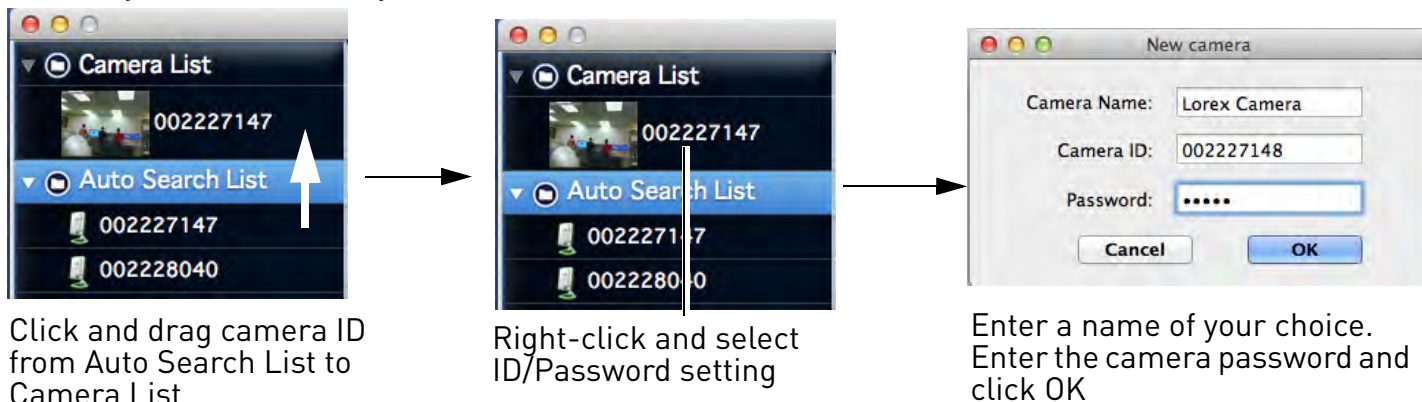
- If you are adding a camera over the Internet, see "Connecting to your Camera over the Internet (Mac)" on page 38.

5.3.2 DELETING CAMERAS FROM CAMERA LIST

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

Right-click the camera and select Delete Camera
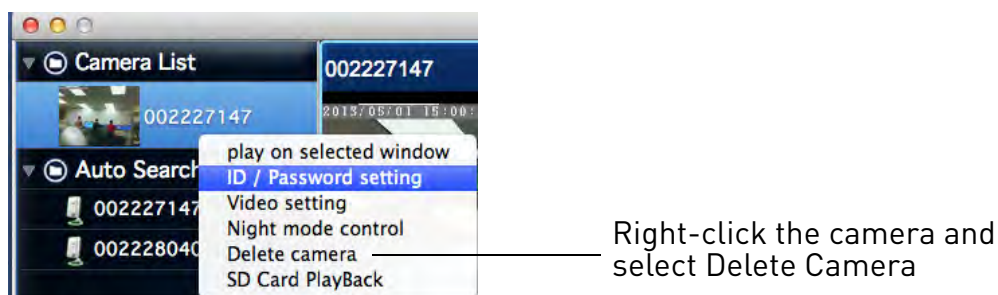
5.4 RECORDING VIDEO TO YOUR MAC'S HARD DRIVE

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.
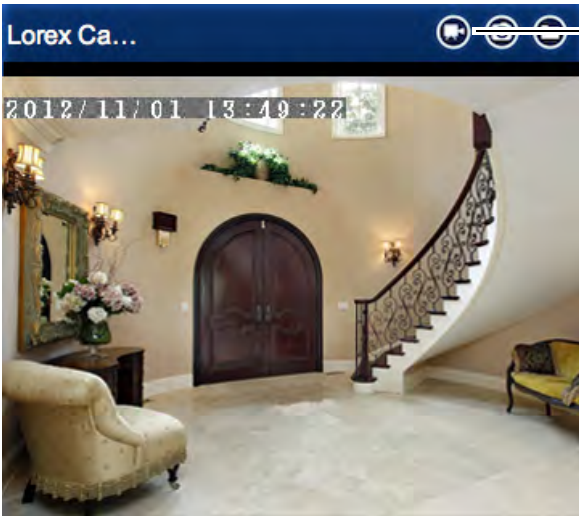
Click to Start/Stop recording

5.4.1 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 (   ).
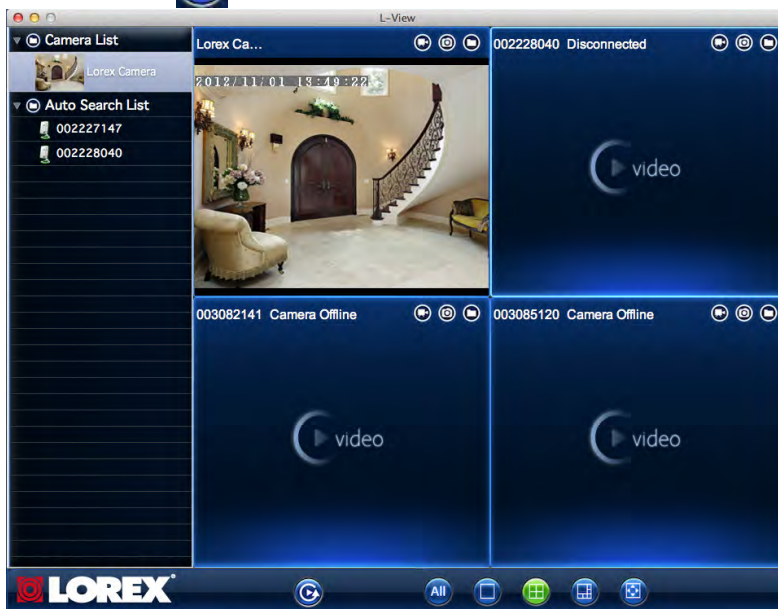
Click to open Playback mode

3. Select the video file you would like to playback.

Click the arrow next to Recording to expand the recording list

Click the arrows next to the camera you would like to playback from

Click the arrows next to the date you would like to playback video from

Double-click to open video files
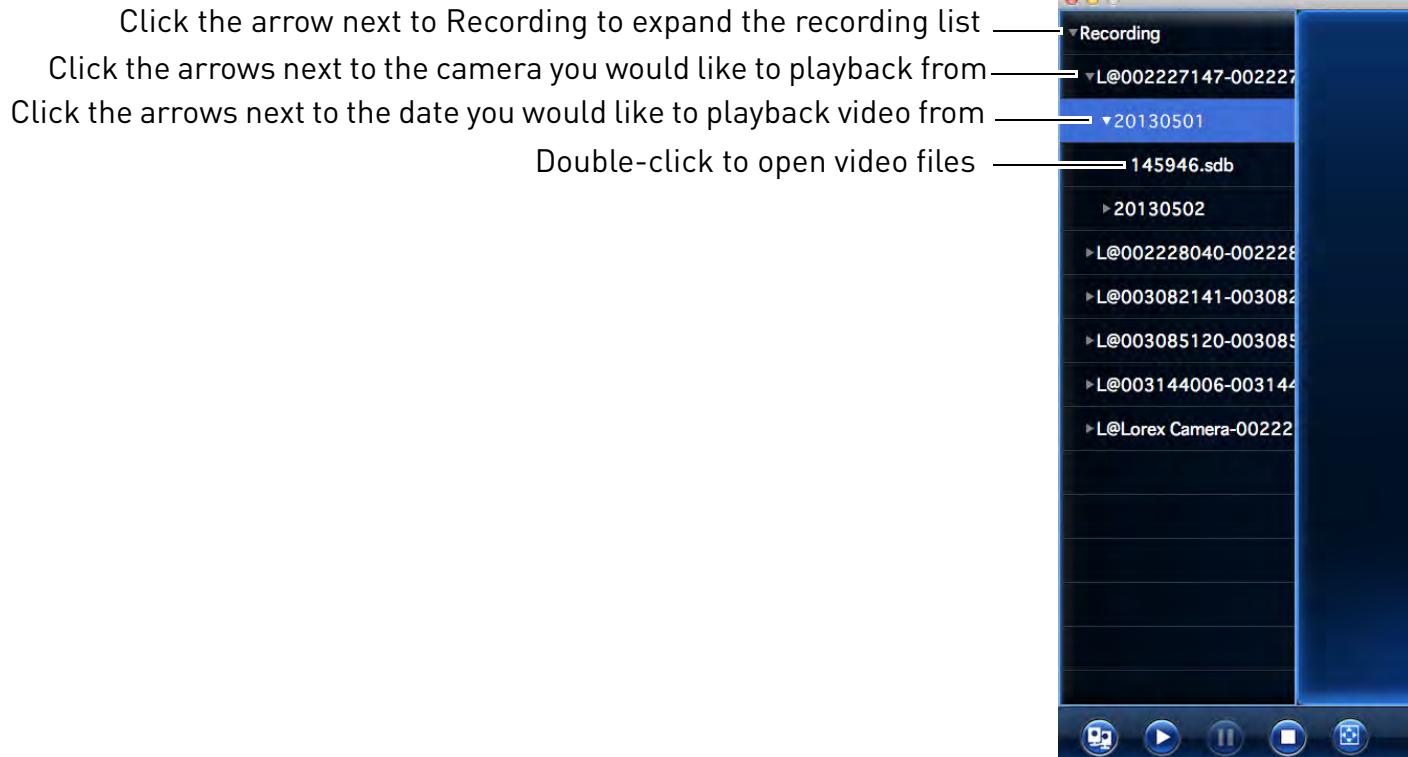
NOTE: Dates are shown using *yyyymmdd* format (e.g. *20121016* is *October 16, 2012*). Video timestamps are shown using *hhmmss* format (e.g. *103045* is *10:30:45am*).

4. Use the on-screen playback controls.

Return to live video

Pause Full-screen

Play Stop Select playback time
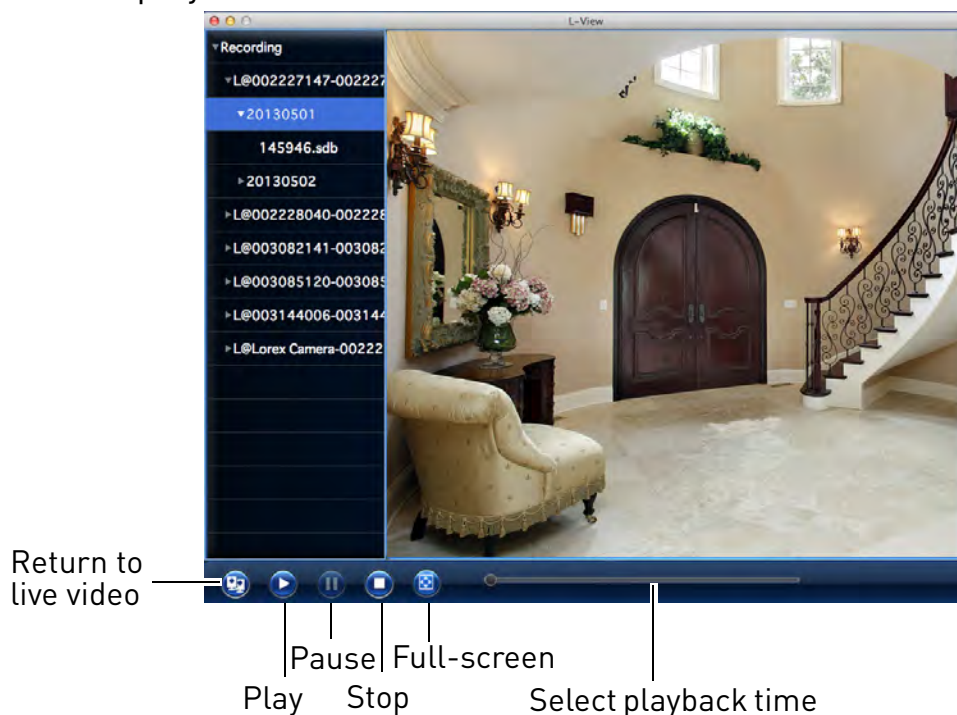
5.5 PLAYING BACK RECORDINGS ON THE MICROSD CARD WITH L-VIEW

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 "SD Card (Configuring microSD Recording)" on page 178.

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

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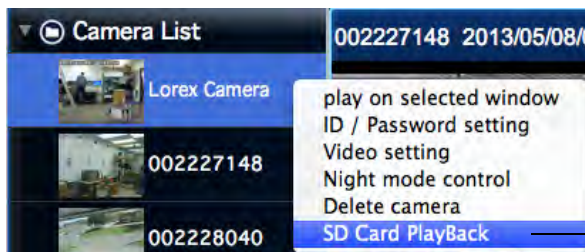
Right-click the camera and select SD Card Playback

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

3. Select the file you would like to play back.

Click the arrow to view video recorded on that date

Double-click to open video files
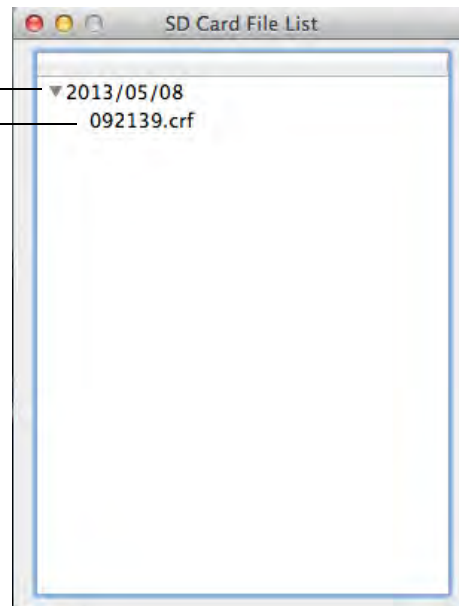
NOTE: Video timestamps are shown using *hhmmss* format (e.g. *103045* is *10:30:45am*).

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

5.6 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.
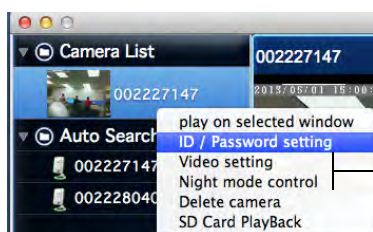
Right-click on the camera and select Video settings or Night mode control

5.6.1 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.
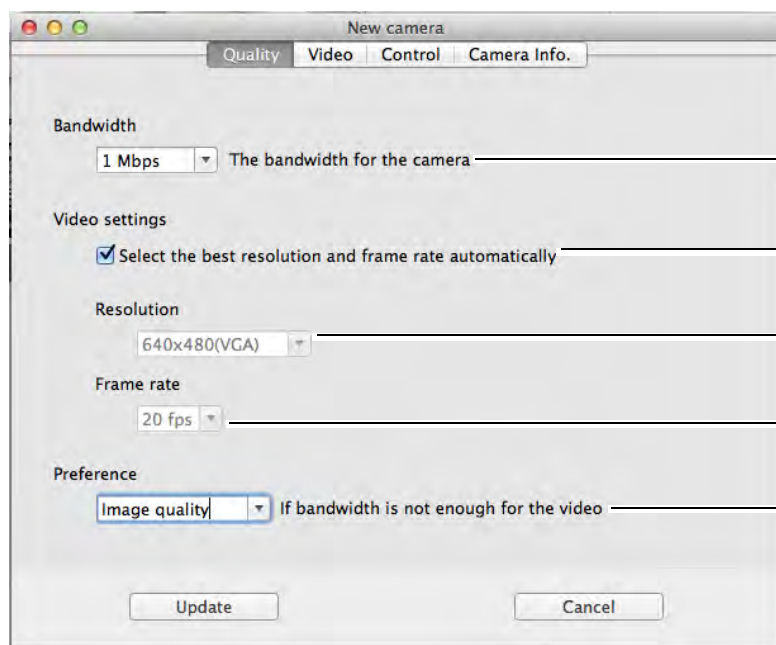
Select Internet connection speed

Check to automatically adjust resolution and frame rate based on bandwidth available

Select Resolution

Select Frame Rate

Select how image quality will be affected when bandwidth is low

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. 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 **(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.

    • **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.

4. 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.

5. 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.

5.6.2 VIDEO TAB (CONFIGURE GENERAL VIDEO SETTINGS)

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

Select Colored or Black & White

Select Sharpness

Select Lighting

Select Indoor Lighting Frequency

Flip camera image

Select Brightness

Select Low Light Sensitivity

Enable/disable time stamps

Enable/disable built-in microphone
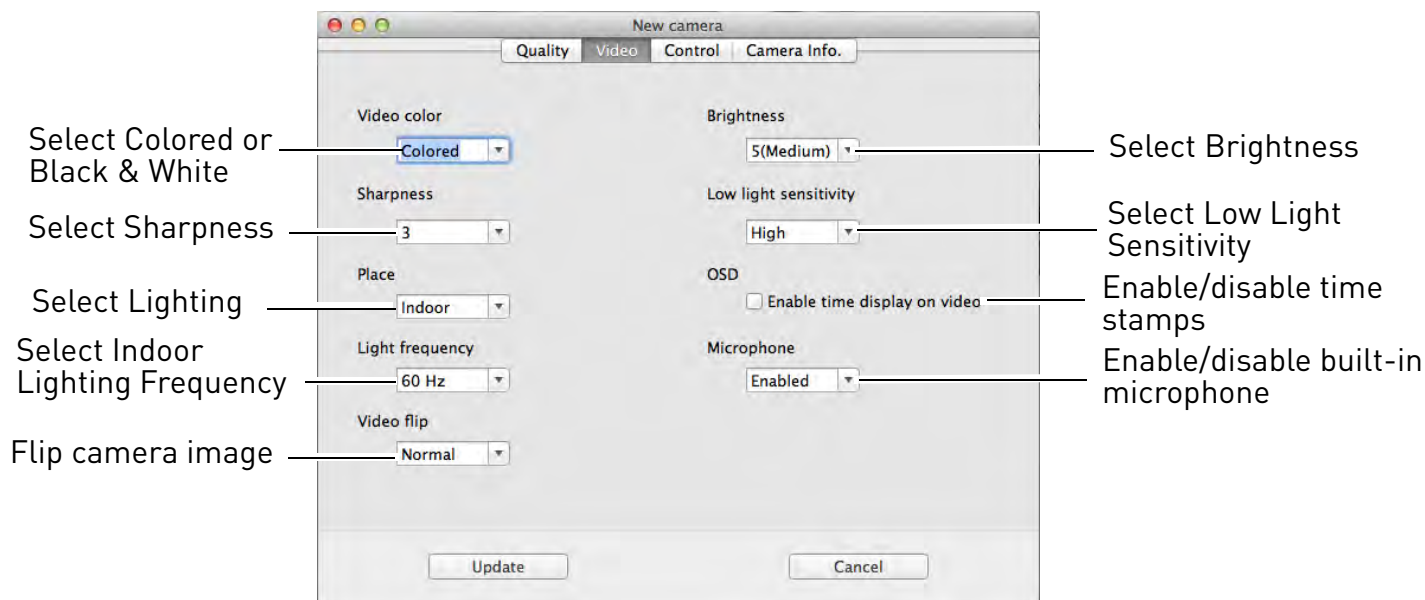
To configure general video settings:

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.

5.6.3 CONTROL TAB (CONFIGURE STATUS LED'S AND MOTION DETECTION SENSITIVITY)
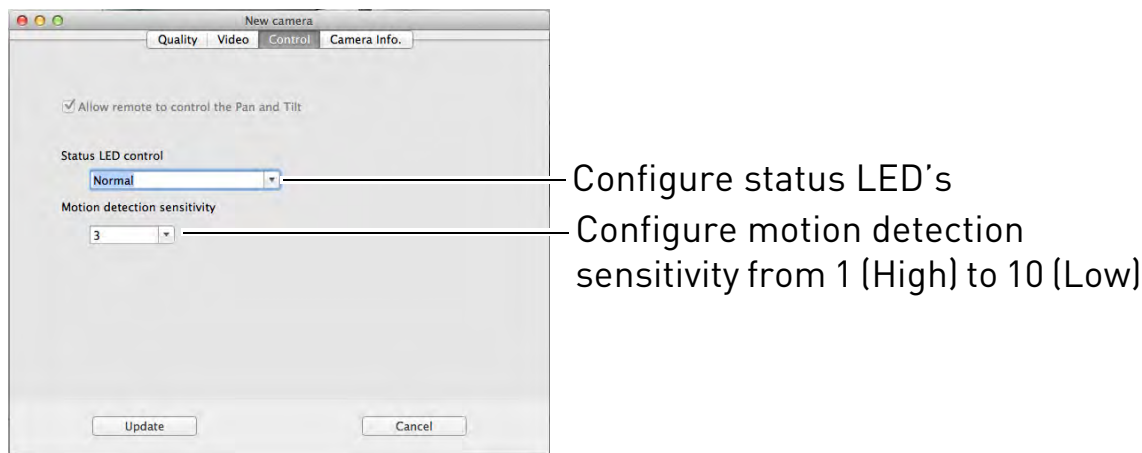
Configure status LED's

Configure motion detection sensitivity from 1 (High) to 10 (Low)

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 "Camera Overview" on page 1.

   • **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 "Schedule" on page 175.

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.

5.6.4 CAMERA INFO TAB

The camera info tab shows system information about the camera.
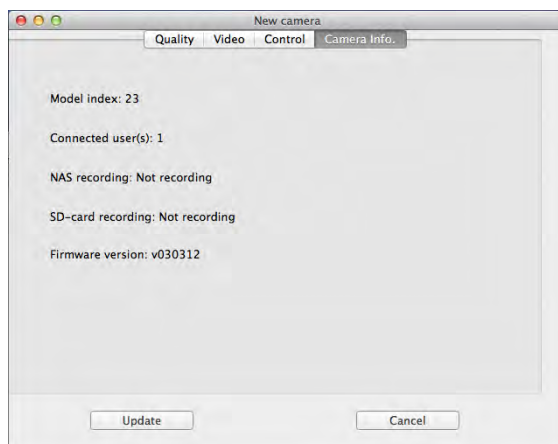
To access the camera info tab:

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

5.6.5 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.
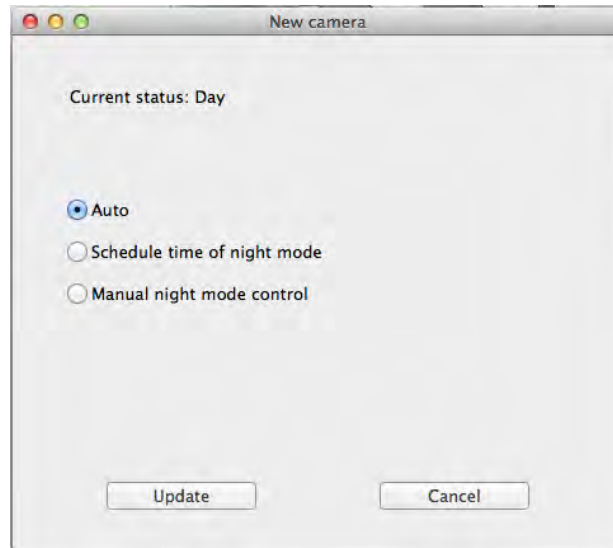
To configure night mode settings:
1. Right-click on the camera you want to configure in Camera List and select **Night mode control**.
2. Select one of the following:
   - **Auto:** Camera will automatically switch between day mode or night mode, based on the amount of light in the room.
   - **Scheduled 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.
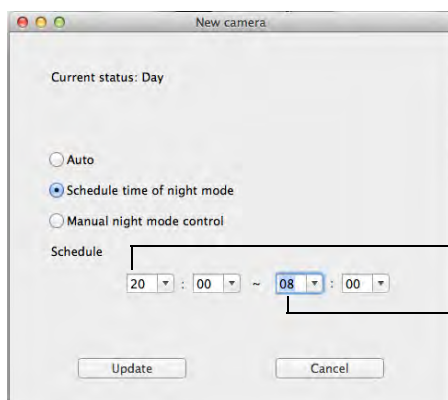
EXAMPLE

Start of night mode
(8:00 PM)

Return to day mode
(8:00 AM)

- **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.
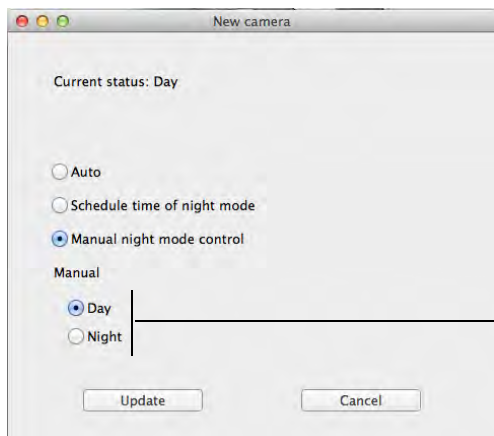
Select day or night mode

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.

6. IPHONE® APP

The app for iPhone® is called **Lorex Ping**.
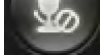
For instructions on connecting to your camera using an iPhone®, see "Connecting to your camera on iPhone®" on page 3.

6.1 LIVE VIEWING WITH LOREX PING FOR IPHONE®
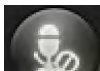
You can use Lorex Ping in portrait or landscape mode. Tilt the phone to switch between portrait or landscape.

Disconnect button (only shown in portrait mode)

Save a snapshot of the camera on your phone

Play a siren on the camera

Record video to phone memory; press again to stop recording

Video information

Activate 2-way-audio (intercom) using the phone microphone (speaker required; not included)
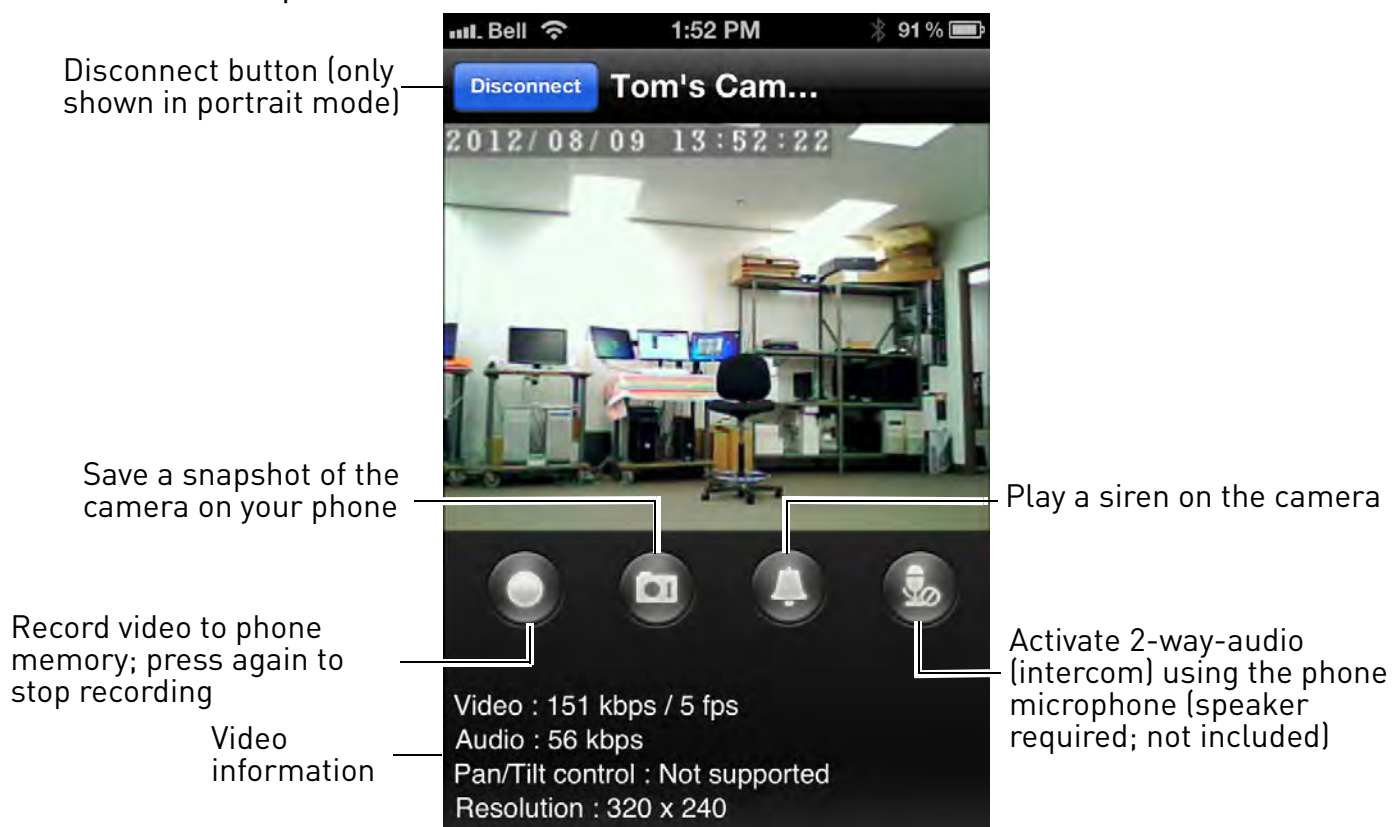
6.1.1 USING 2-WAY-AUDIO (INTERCOM)

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.

Turn off 2-way-audio
Adjust speaker volume

6.1.2 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.

6.1.3 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.

6.2 PLAYING BACK VIDEO RECORDED ON IPHONE®

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

6.2.1 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.

 Tap the camera you would like to playback video from

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.

6.3 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 "Configuring microSD Recording" on page 114.

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.

Select camera for microSD playback

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.
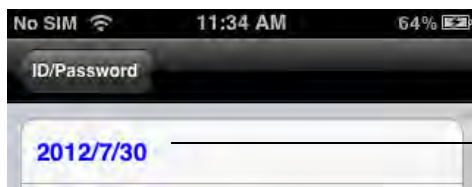
Tap a day to view recorded videos from that day.

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

6.4 USING CAMERA LIST TO EDIT CAMERA SETTINGS

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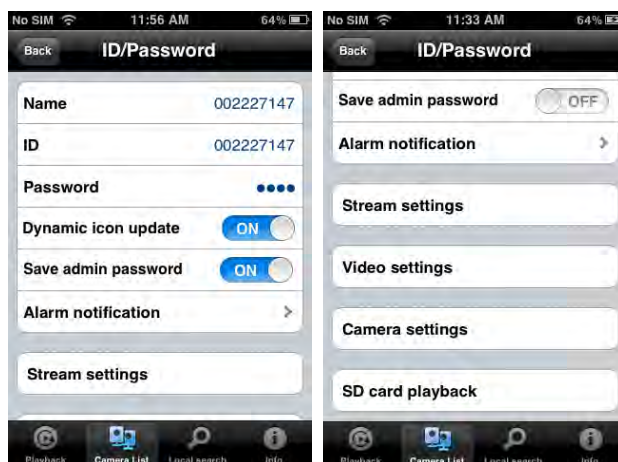
To access Camera Settings:

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

English

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**.

6.4.1 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.
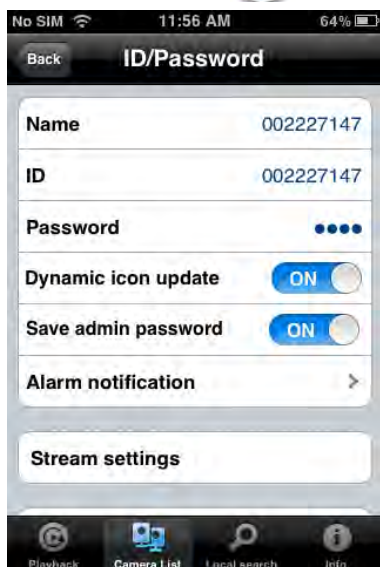
Edit Camera Name

Edit Password

Enable/disable automatic icon updates

Enable/disable saving admin user name and password next time entered

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.

iPhone® App

6.4.2 DELETING CAMERAS FROM CAMERA LIST
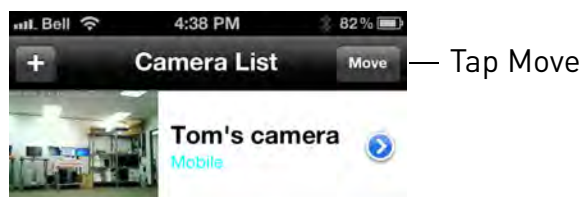
1. In Camera List, tap **Move**.

Tap Move

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

Tap here   Then tap Delete
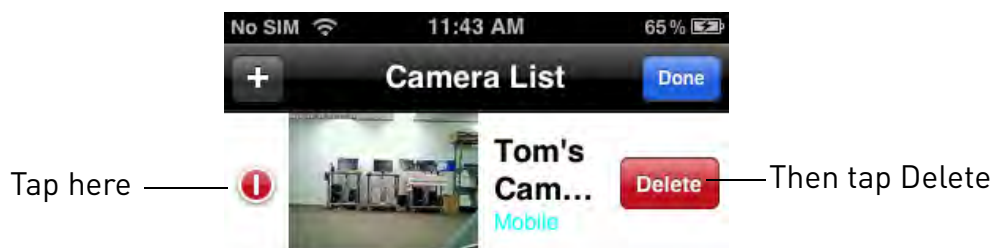
3. Tap **Done**.

6.4.3 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.
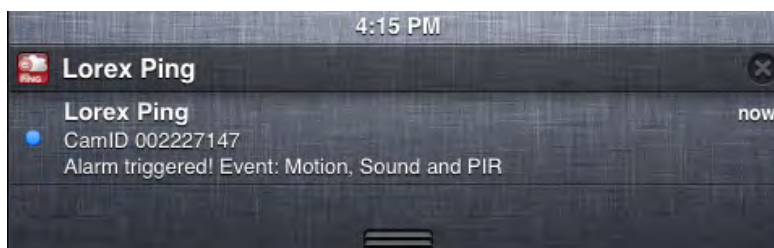
Example of Push Notification

To configure motion/sound push notifications:

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

English

2. Tap **Alarm notification**.

Enable/disable push notifications for video motion detection

Select sensitivity for video motion push notifications

Enable/disable push notifications for sound

Select sensitivity for sound push notifications

Enable/disable push notifications for PIR motion detection

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 **PIR**, select **ON** to enable Push Alarm Notifications when motion is detected using the PIR motion sensor or **OFF** to disable.
6. 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**.
7. Tap **Update** to save your settings.

6.4.4 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.

Example of temperature push notification

To configure temperature push notifications:

1. In Camera List, tap [icon] next to the camera.

2. Tap **Alarm notification**.

Select ON to enable temperature notifications

Select temperature units

Select the high temperature value that will trigger notifications

Select the low temperature value that will trigger notifications

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.

6.4.5 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.

2. Tap **Stream Settings**.

— Select Mobile Bandwidth

— Enable/disable auto resolution and frame rate adjustement

— Select Resolution

— Select Frame rate

— Enable/disable audio streaming

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. Or, select **OFF** to manually select the resolution and frame rate. If you select OFF, 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 **OFF** to turn off audio streaming to your mobile device or tap to select **ON** to turn on audio streaming to your mobile device.
6. Tap **Update** to save your settings.

6.4.6 EDITING CAMERA VIDEO SETTINGS

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

3. Tap **Video**.

— Select Color or Black & White

— Select Brightness

— Select Sharpness

— Select Low light sensitivity

— Select environment settings

— Select quality preference

— Enable/disable time stamps

— Enable/disable video flip

4. Configure the following:
   - **Video color:** Select **Colored** to view the camera in color or select **Black & white**. Tap **Video** to return to Video settings.
   - **Brightness:** Manually adjust the brightness of the image between **10** (highest) and **1** (lowest). Tap **Video** to return to Video settings.
   - **Sharpness:** Manually adjust the sharpness of the image between **10** (highest) and **1** (lowest). Tap **Video** to return to Video settings.
   - **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.
   - **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.
   - **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.

- **Time Display on Video:** Select **ON** to enable time stamps on video or **OFF** to disable time stamps.

- **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.

6.4.7 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**.
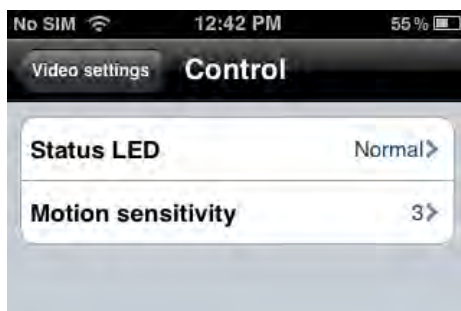
— Select LED behavior

— Select video motion detection sensitivity

3. Under **Status LED**, select one of the following:

- **Normal:** LED's will function as normal. For details on LED functions, see "Camera Overview" on page 1.

- **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.

6.4.8 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**.

Select Night Mode control type

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**.

Select Schedule to schedule day/night mode switch

Tap to configure day/ night mode schedule

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

Select Manual

Select Day or Night mode

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

6.4.9 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 ![icon] next to the camera you would like to edit.

2. Tap **Camera Settings**.
3. Tap **Network** then **Wired Network**.

 ───── Select DHCP or Static

 ───── If Static, configure IP
 address information

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.

6.4.10 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.

Slide Wi-Fi to ON

Tap your WiFi network

Tap Other to add a hidden WiFi network

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.

6.4.11 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**.
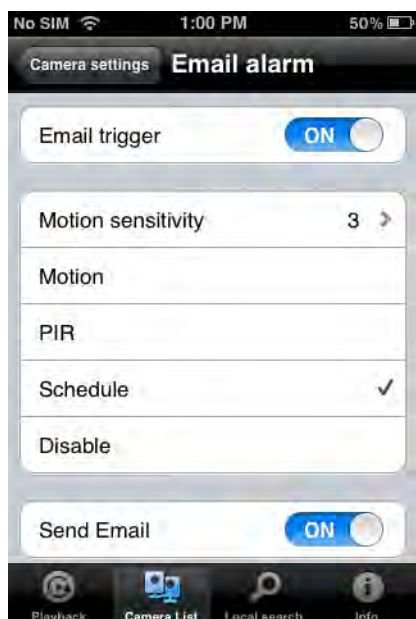
— Enable/disable email notifications

— Select motion sensitivity for video motion

— Select email triggers

— Enable/disable email notifications

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.

- **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 **Recipient1~3** that will receive email alarms.

Enter recipient email addresses

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**.

6.4.12 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**.

Select speaker alarm triggers

Select number of times speaker alarm will repeat
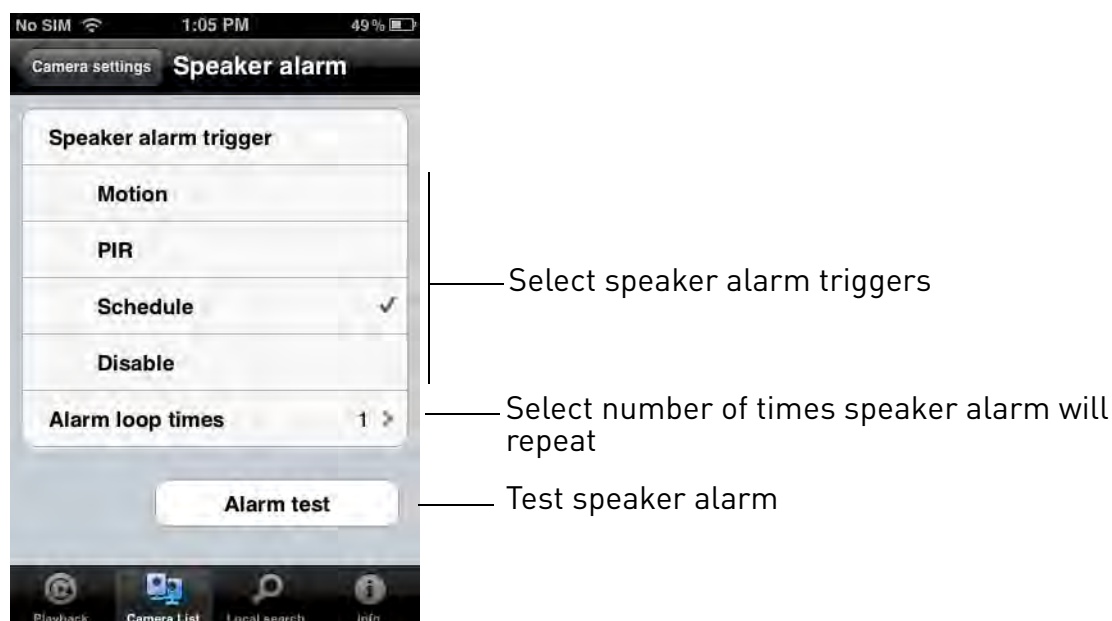
Test speaker alarm

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.

- **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.

6.4.13 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**.

— Enable microSD recording

— Select Always recording or Schedule recording

— Select if you want the camera to overwrite or stop recording when the microSD card is full

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 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.

6.4.14 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**.

 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.

Configure triggers for email alarms in this schedule

Configure triggers for speaker alarms in this schedule

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.

Configure triggers for microSD recording in this schedule

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**.
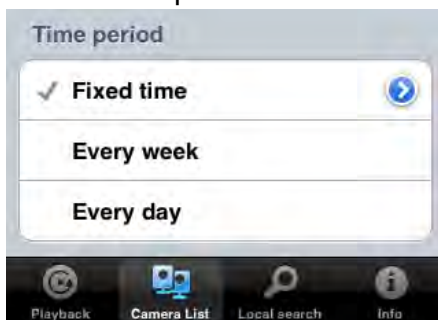
Configure schedule times

9. 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.
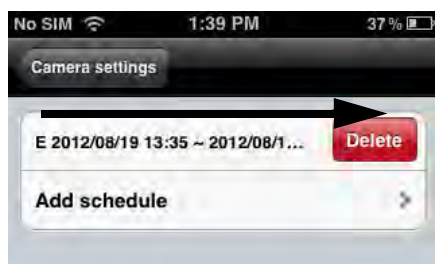
Swipe from left to right and then tap delete to delete a schedule

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

6.4.15 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**.

Tap Time zone

4. Tap **Time Zone**.

5. Use the slider to select your time zone.

Select your time zone

Enable Daylight Savings and configure start and end times for daylight savings

- 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.

6.4.16 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.

6.5 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.
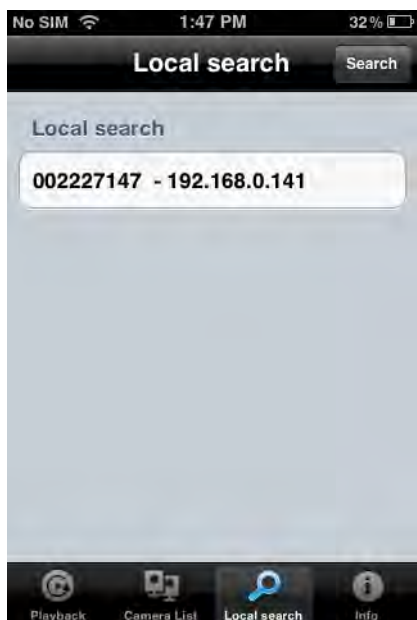
— Tap Search to re-scan

— Tap a camera to add to camera list

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.

7. IPAD® APP

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

For instructions on connecting to your camera using iPad®, see "Connecting to your Camera on iPad®" on page 9.

7.1 LIVE VIEWING WITH LOREX PING HD

Activate 2-way-audio

Snapshot

Record to iPad®

Information

Disconnect/connect to camera

Adjust volume

Perform action to all cameras

Mute Audio

Full-screen

View selected camera in single-channel view

6-camera view

4-camera view
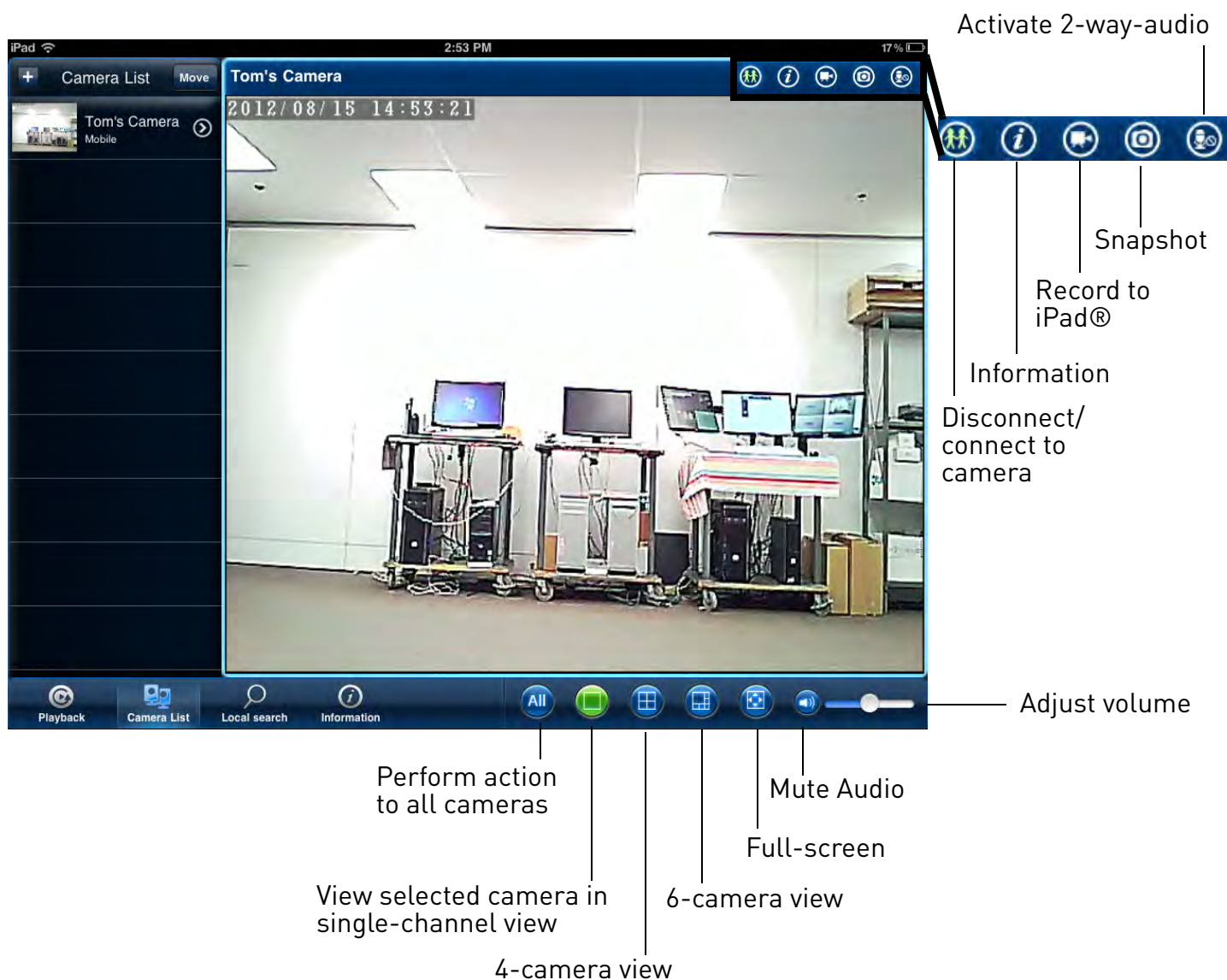
7.1.1 USING 2-WAY AUDIO (INTERCOM)

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

2. Tap ![icon] again to deactivate 2-way-audio.

7.1.2 TAKING SNAPSHOTS

- While viewing, tap ![icon] 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.

7.1.3 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 ![icon] to start recording.

2. Tap ![icon] again to stop recording. To view the recorded video, see below.

7.2 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 (![Playback icon]) 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. Tap a recording to start playback.

4. During playback, tap in the display area to bring up playback controls.

Tap to Select Camera

Tap to Select Day

Tap to play file

Tap in the display area during playback for playback controls
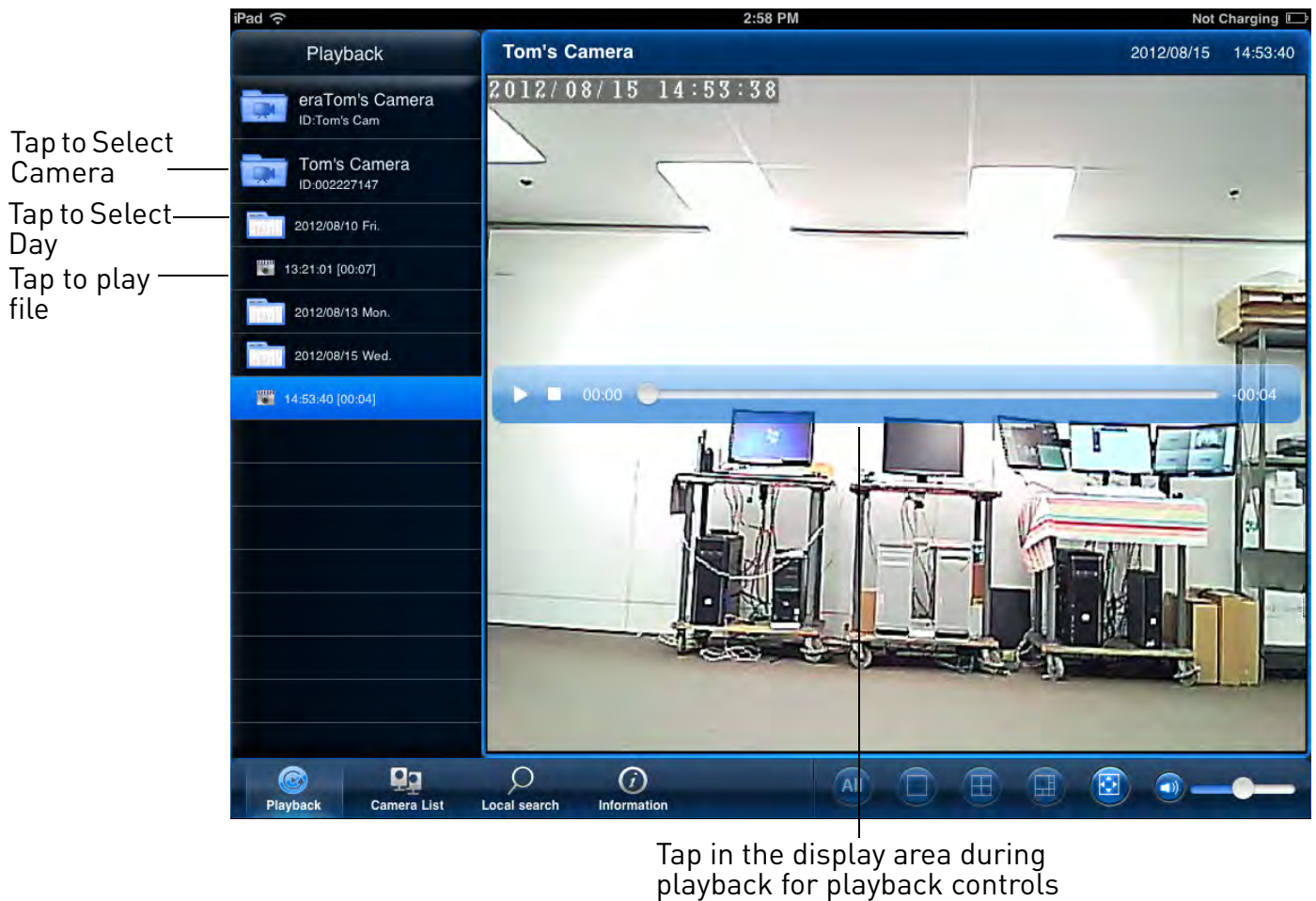
7.3 PLAYING BACK VIDEO RECORDED TO MICROSD ON IPAD®

You can playback video recorded on the camera microSD card (not included) on your iPad®. For details on setting up microSD recording, see "Configuring MicroSD Recording" on page 137.

To play back video recorded on the camera microSD card:

1. Tap the Playback button (Playback) 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 (Camera List) to exit playback.

7.4 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 [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**.

7.4.1 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.

Edit Camera Name
Edit Password
Enable/disable automatic icon updates
Enable/disable saving admin user name and password next time entered

5. Tap **Done** to save changes.

7.4.2 DELETING CAMERAS FROM CAMERA LIST

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

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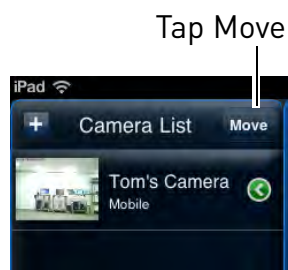
2. Tap 🔴 next to the camera you would like to delete then tap **Delete** to confirm.

3. Tap **Done**.

7.4.3 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.
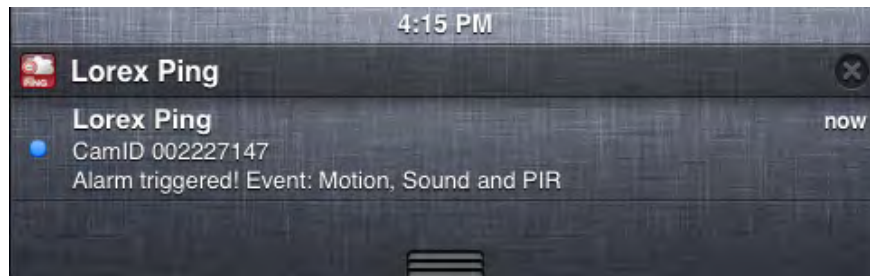
Example of Push Notification

To enable Push Alarm Notifications:

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

2. Tap **Alarm notification**.

Alarm Notification

Enable/disable push notifications for video motion detection

Enable/disable push notifications for sound

Select sensitivity for sound push notifications

Enable/disable push notifications for PIR motion detection

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

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

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).

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

7.4.4 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.

Example of temperature push notification

To configure temperature push notifications:

1. In Camera List, tap [icon] next to the camera.

2. Tap **Alarm notification**.

Select ON to enable temperature notifications

Select temperature units

Select the high temperature value that will trigger notifications

Select the low temperature value that will trigger notifications

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.

7.4.5 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 [icon] next to the camera.

2. Tap **Stream Settings**.

Select Mobile Bandwidth

Enable/disable auto resolution and frame rate adjustment

Select Resolution

Select Frame rate

Enable/disable audio streaming to iPad®

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. Or, select **OFF** to manually select the resolution and frame rate. If you select OFF, 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**. Tap **Done** to confirm.

- 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.

5. 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.

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

7.4.6 EDITING CAMERA VIDEO SETTINGS

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

Select Colored or Black & White
Select Brightness
Select Sharpness
Select low light sensitivity
Select environment settings
Select quality preference
Enable/disable time stamps
Enable/disable video flip
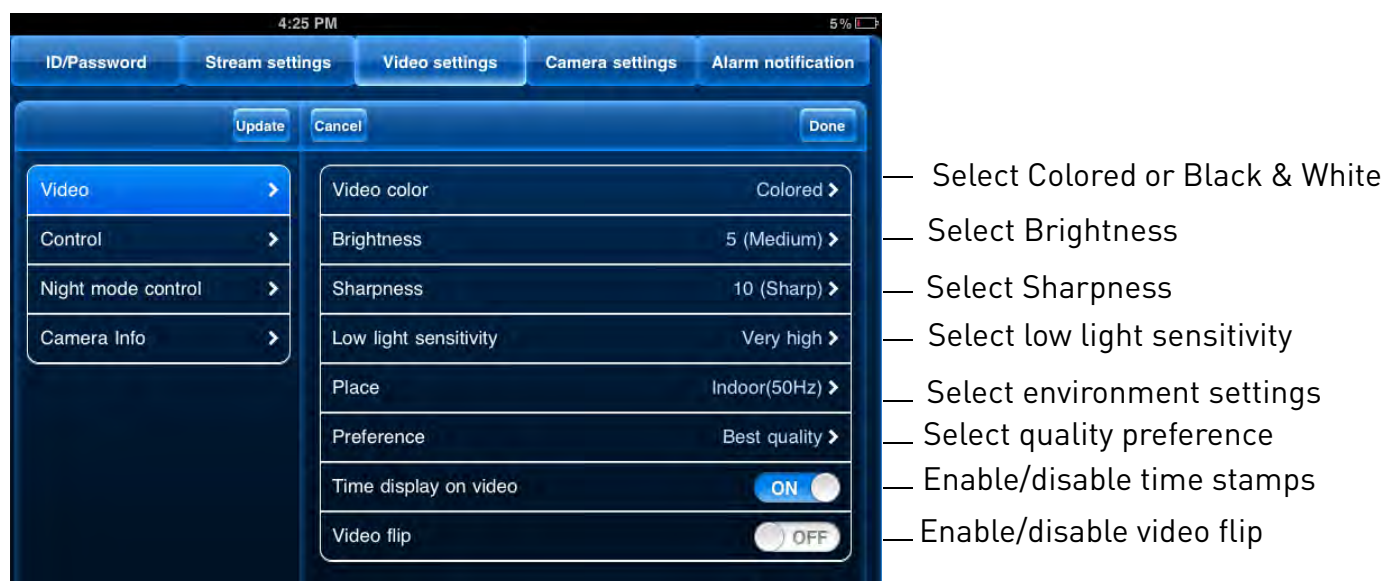
4. Configure the following:

- **Video color:** Select **Colored** to view the camera in color or select **Black & white**. Tap **Done** to return to Video settings.

- **Brightness:** Manually adjust the brightness of the image between **10** (highest) and **1** (lowest). Tap **Done** to return to Video settings.

- **Sharpness:** Manually adjust the sharpness of the image between **10** (highest) and **1** (lowest). Tap **Done** to return to Video settings.

- **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.
- **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.
- **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.
- **Time Display on Video:** Select **ON** to enable time stamps on video or **OFF** to disable time stamps.
- **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.

7.4.7 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**.
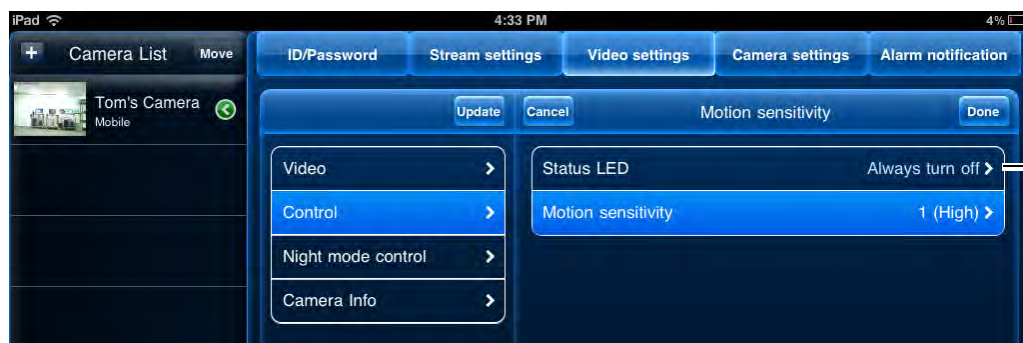
Set control settings for status LED's

3. Under **Status LED**, select one of the following:

   • **Normal:** LED's will function as normal. For details on LED functions, see "Camera Overview" on page 1.

   • **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.
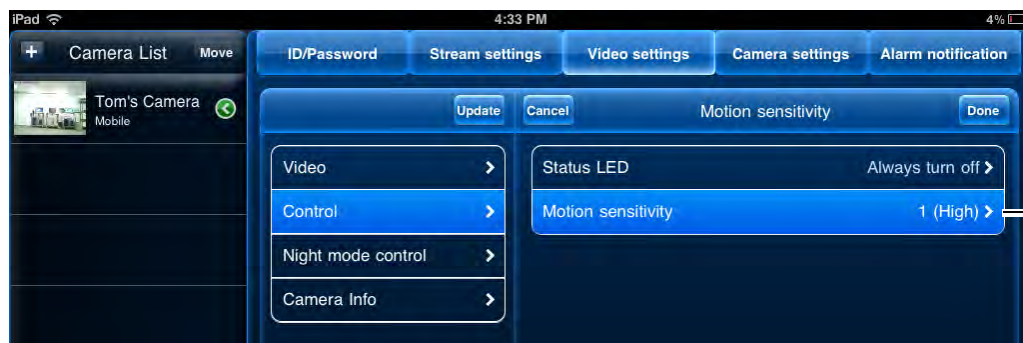
Set video motion detection sensitivity

NOTE: This setting does not affect the PIR motion detector.

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

7.4.8 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**.

Select Day/Night mode control type

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**.

Select Scheduled Day/Night control

Create schedule for Day/Night mode

   - **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.

7.4.9 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 [icon] next to the camera you would like to edit.
2. Tap **Camera Settings**.
3. Tap **Network** then **Wired Network**.
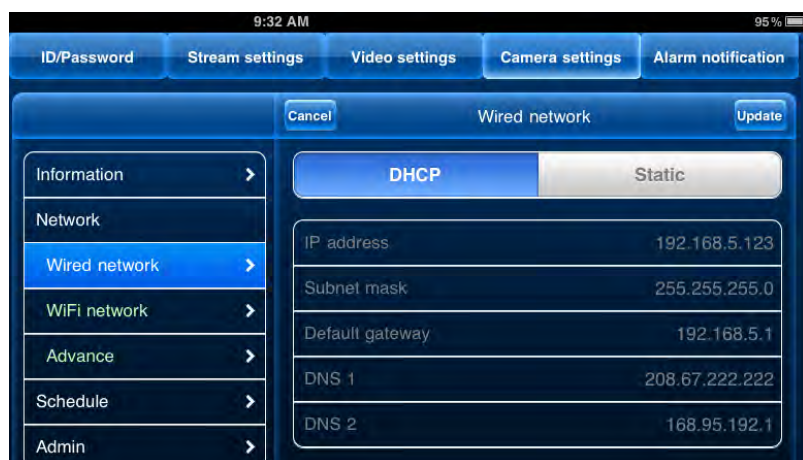
— Select DHCP or Static

— If Static, configure IP address information

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.

7.4.10 EDITING CAMERA WIFI NETWORK SETTINGS

Configure WiFi network settings for the camera.

To edit camera WiFi settings:

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

3. Tap **Network** then **WiFi Network**.

Slide Wi-Fi to ON

Tap your WiFi network
Tap Other to connect to a hidden 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 ![icon] 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.

7.4.11 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 ![icon] next to the camera.

2. Tap **Camera Settings**.

Enable/disable email notifications

Select motion sensitivity for video motion

Select email triggers

Enable/disable email notifications

Add up to 3 email recipients

English

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.

- **Schedule:** Send email alarms based on the settings configured in the Scheduling menu.

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**.

7.4.12 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 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.

- **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.

7.4.13 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**.

English

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

Enable microSD recording

Select Always recording or Schedule recording

Select if you want the camera to overwrite (Circular recording) or stop recording when the microSD card is full

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.

7.4.14 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**.

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.
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.
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.

Select triggers for email alarms

Select triggers for speaker alarms

Select triggers for microSD recording

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**.
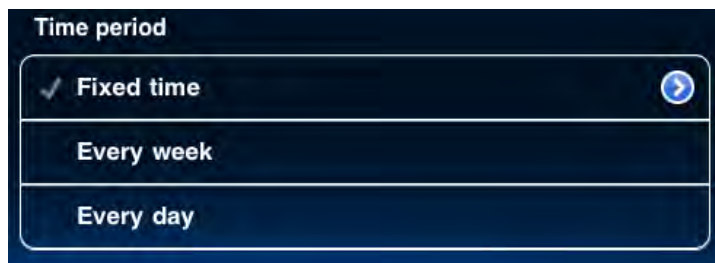
 ——— Configure schedule times

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.

7.4.15 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**.
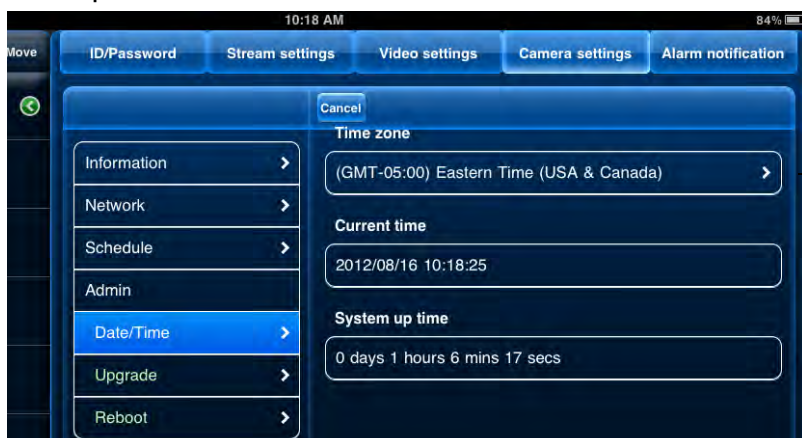
Tap Time Zone

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**.
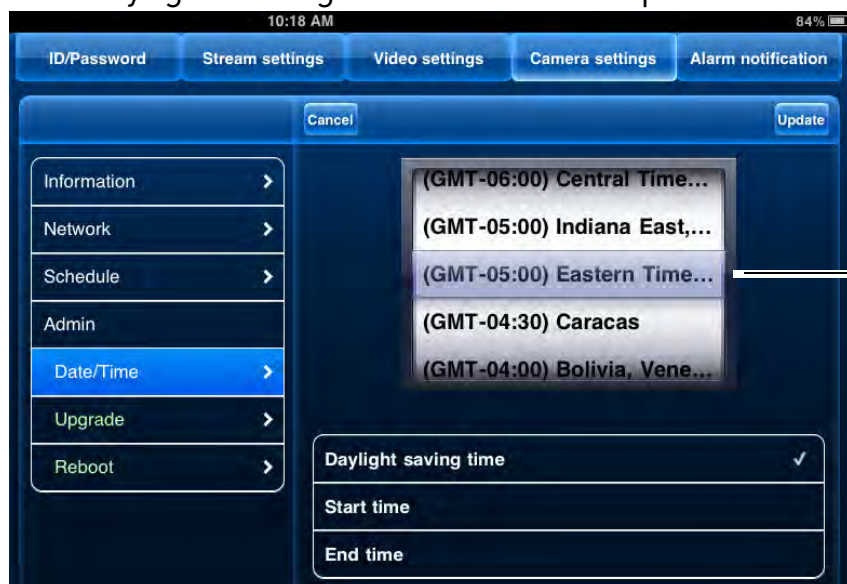
Select your Time Zone

Enable Daylight Savings and configure start and end times for daylight savings

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

7.4.16 REBOOTING THE CAMERA

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

English

7.5 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.

Tap search to re-scan your local network

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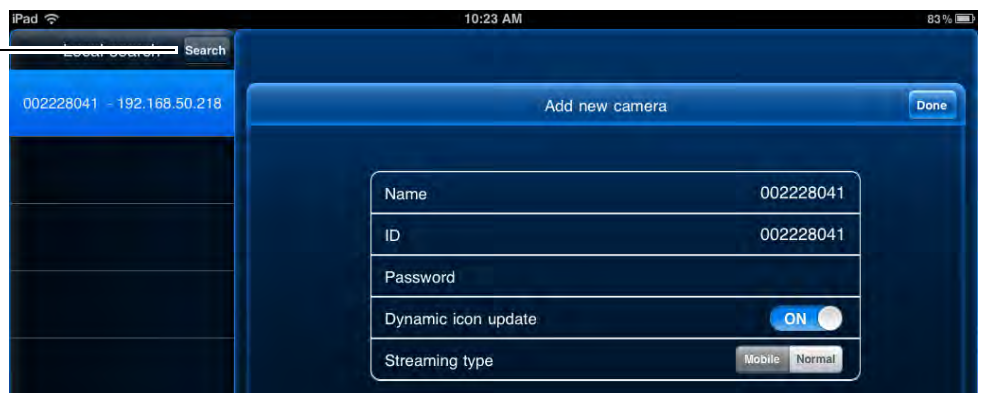
3. Tap a camera from the list. The Add camera screen comes on with the camera ID already entered.
4. Enter a **Name** of your choice and enter the camera **Password**. If you have not connected to your camera before, the password is **lorex**.
5. Tap **Done**. The camera is now added to camera list.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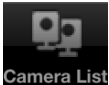
8. ANDROID™ APP

The app for Android™ is called **Lorex Ping**. For instructions on connecting to your camera using Android™, "Connecting to your Camera on Android™" on page 18.

8.1 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.

Disconnect button (only shown in portrait mode)
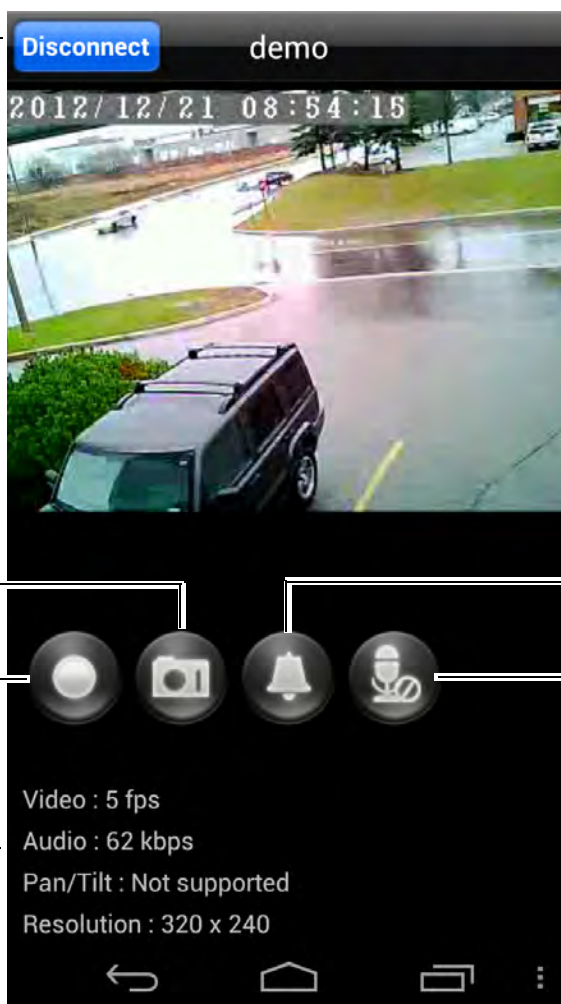
Save a snapshot of the camera on your phone

Start/stop manual recording

Video information

Play an audio alarm on the camera

Activate 2-way-audio (intercom) using the phone microphone

8.1.1 USING 2-WAY AUDIO (INTERCOM)

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

2. Touch again to turn off 2-way audio.

8.1.2 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.

8.1.3 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.

8.2 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.
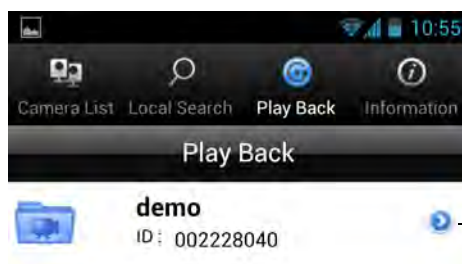
Tap the camera

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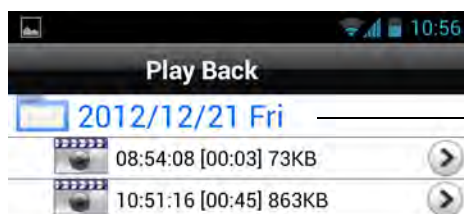
Tap the date to playback
Tap to open a video file

4. Use the on-screen controls to control playback.

Close file

Seek

Pause/Play

8.3 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 "Enabling microSD Recording" on page 160.

To play back video recorded on the camera microSD card:

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

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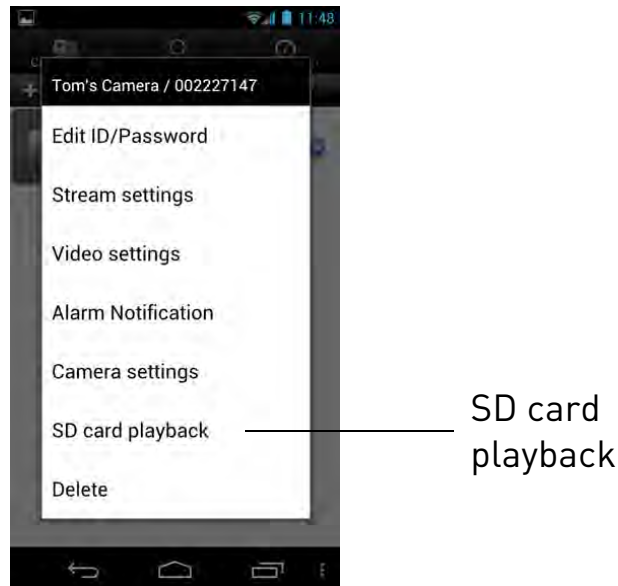
3. The camera scans for available video files. Files are shown in a list according to the date they were recorded.

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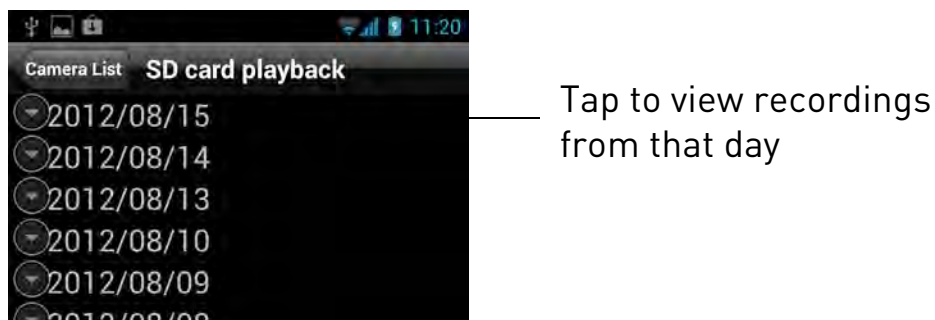
4. Tap a day to view recordings for that day. Tap a recording to view it.
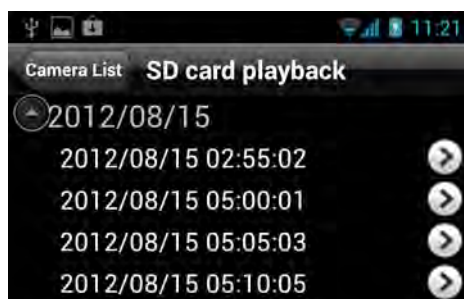
Tap to view
a recording

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

8.4 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 [icon]. Then tap [icon] 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**.
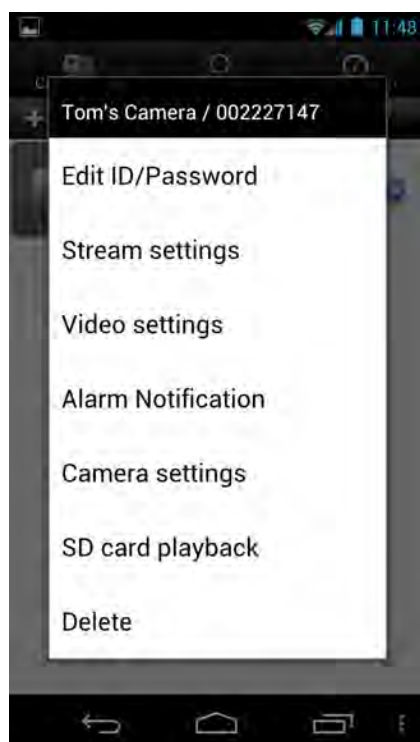
Camera List Settings Screen

8.4.1 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**.
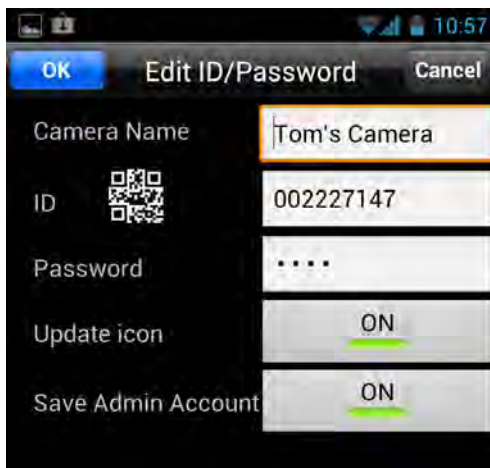
— Edit Camera Name

— Edit Password

— Enable/disable icon automatic icon updates

— Enable/disable saving admin user name and password next time entered

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.

8.4.2 DELETING CAMERAS FROM CAMERA LIST

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

8.4.3 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**.

— Select Mobile Bandwidth

— Enable/disable auto resolution and frame rate adjustement

— Select Resolution

— Select Frame rate

— Enable/disable audio streaming to Android™ device

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. Or, select **OFF** to manually select the resolution and frame rate. If you select **OFF**, 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**, 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.

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

8.4.4 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**.

 — Select Color or Black & White

— Select Brightness

— Select Sharpness

— Select low light sensitivity

— Select environment settings

— Select quality preference

— Enable/disable time stamps

— Enable/disable video flip
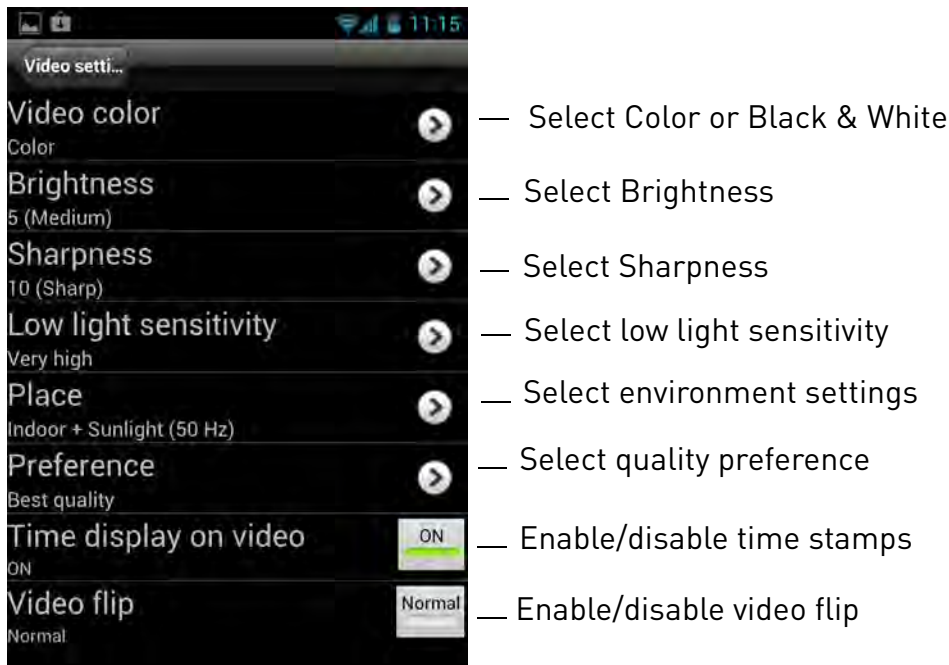
3. Configure the following:
    *   **Video color:** Select **Color** to view the camera in color or select **Black & white**.
    *   **Brightness:** Manually adjust the brightness of the image between **10** (highest) and **1** (lowest).
    *   **Sharpness:** Manually adjust the sharpness of the image 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).
    *   **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.
    *   **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.

- **Time Display on Video:** Tap to select **ON** to enable time stamps on video or **OFF** to disable time stamps.
- **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.

8.4.5 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 ![icon] next to the camera you would like to edit.

2. Tap **Video Settings**. Then tap **Control**.
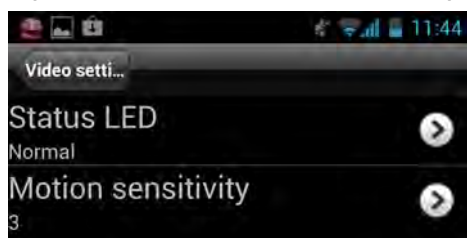
 — Select status LED behavior

— Select Video motion detection sensitivity

3. Under **Status LED**, select one of the following:
   - **Normal:** LED's will function as normal. For details on LED functions, see "Camera Overview" on page 1.
   - **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.

8.4.6 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**.
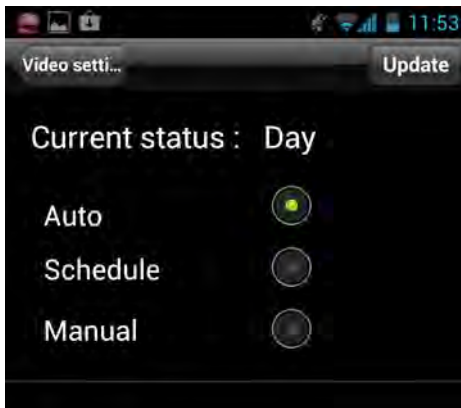
Select Night Mode control option

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**.

Select Schedule to schedule day/night mode switch

Tap to configure day/night mode schedule.

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

Select Manual for manual day/night mode selection

Select Day mode or Night mode
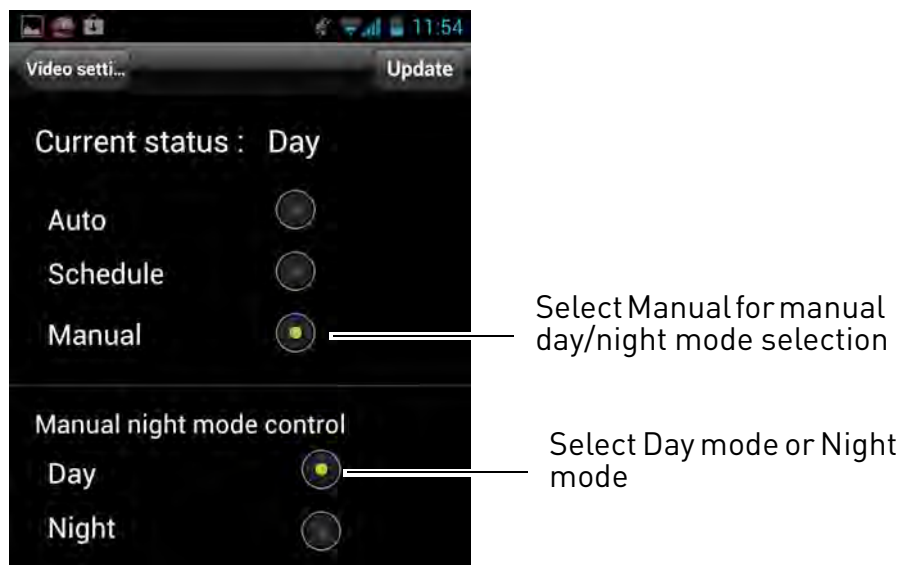
4. Tap **Update** to save your changes.

8.4.7 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.

Push notification sent to device notifications list
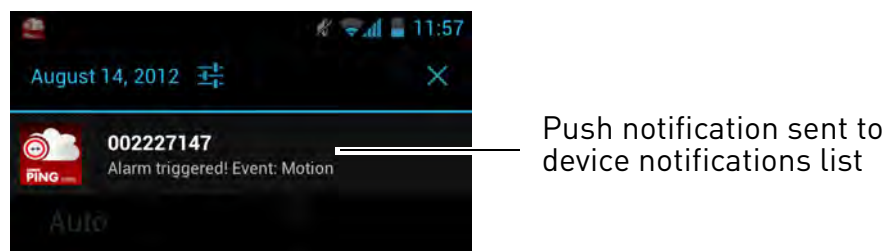
To enable Push Alarm Notifications:

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

2. Tap **Alarm Notification**.
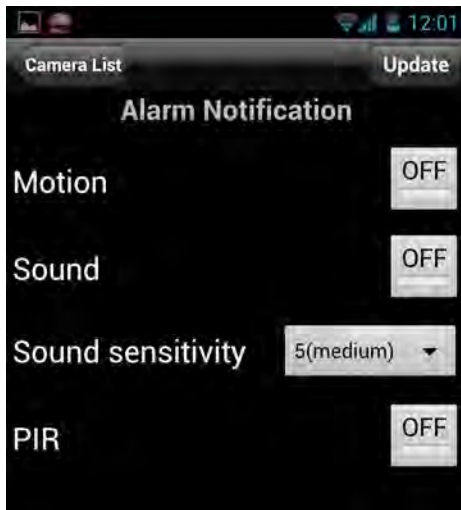
Enable/disable push notifications for video motion detection

Enable/disable push notifications for sound

Select sensitivity for sound push notifications

Enable/disable push notifications for PIR motion detection

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.
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.

8.4.8 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.

To configure temperature push notifications:

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

2. Tap **Alarm Notification**.

Temperature — OFF ————— Enable temperature notifications

Current temperatu — 56°f

Temperature unit — ○°C ◉°F ————— Select Celsius or Fahrenheit

Higher bound — 50 ————— Select high temperature for notifications

Lower bound — 0 ————— Select low temperature for notifications
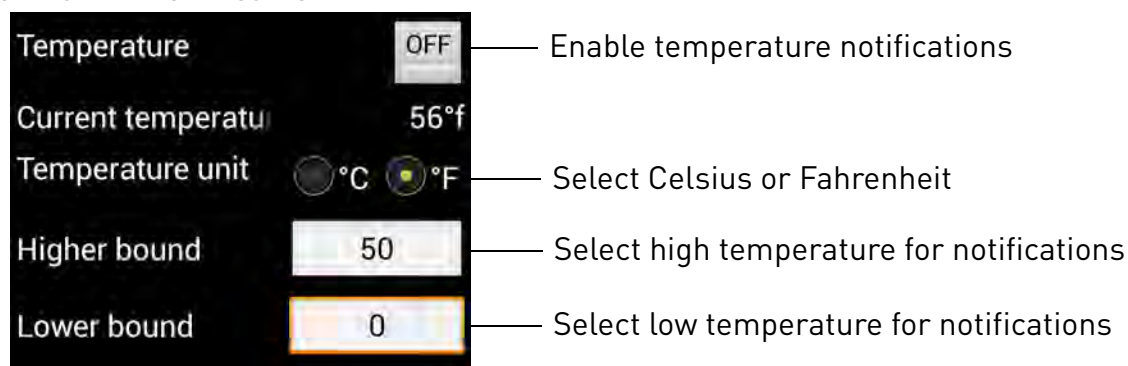
3. Under **Temperature**, select **ON** to enable temperature push notifications.
4. Under **Temperature unit**, select **°C** or **°F**.
5. Under **Higher bound**, select the high temperature value. You will receive a notification if the temperature near the camera goes above this value.
6. Under **Lower 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.

8.4.9 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**.

English

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

Select DHCP (recommended) or Static for a fixed IP address

If Static, configure IP address information as needed

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.

8.4.10 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**.

Check to enable WiFi

Tap the network you would like to connect to and enter the password

Tap Other to add a hidden 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. 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.

8.4.11 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**.

English

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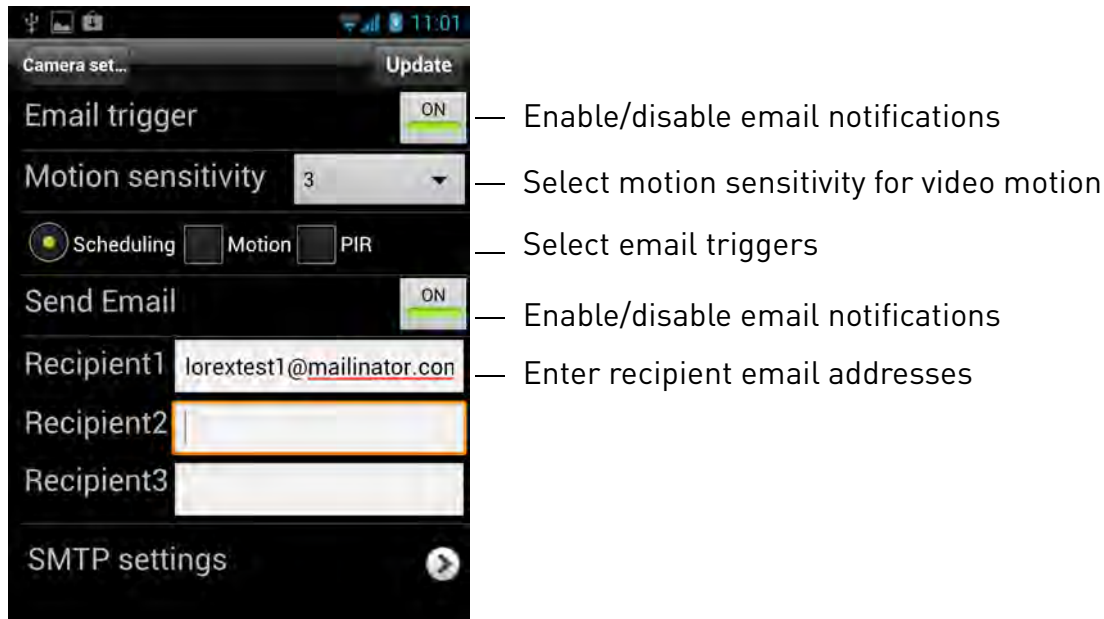
4. Under **Email trigger**, tap to select **ON** to enable email notifications or **OFF** to disable. Then under **Send Email**, tap to select **ON** to enable email notifications.

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.

   • **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**.

8.4.12 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**.

 Enable/disable speaker alarms

Select number of times speaker alarm will repeat

Select speaker alarm triggers

Test 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.

- **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.

8.4.13 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**.

Enable/disable microSD recording

Select always recording or schedule recording

Select Circular recording to overwrite oldest recordings when microSD card is full or Stop recording to stop recording when microSD card is full

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.

8.4.14 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**.
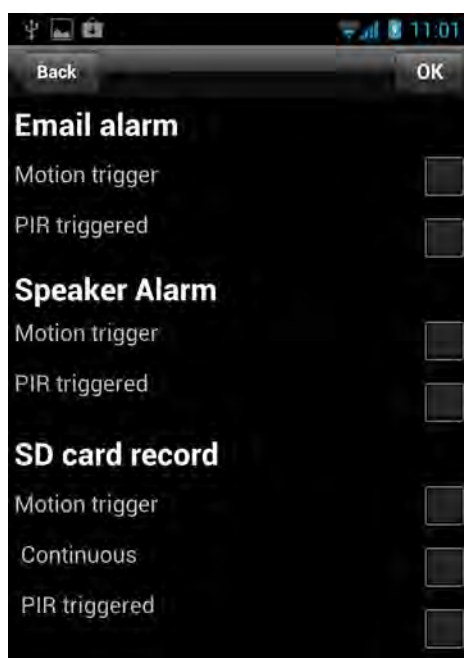
Select alarm and recording types for the schedule

English

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.
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:

Create a one time schedule

Create a weekly schedule

Create a daily schedule

- **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**.

Tap Delete ———

Press the Android
menu button
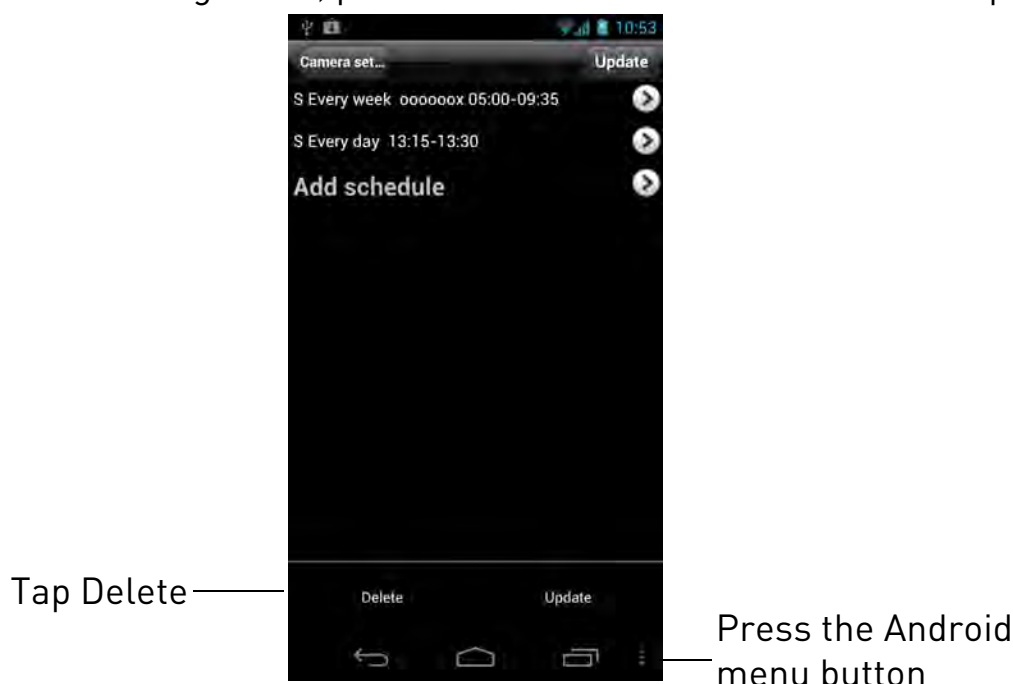
2. Select the schedule you want to delete and tap **Delete**.

—— Then tap Delete

—— Select the schedule you
want to delete
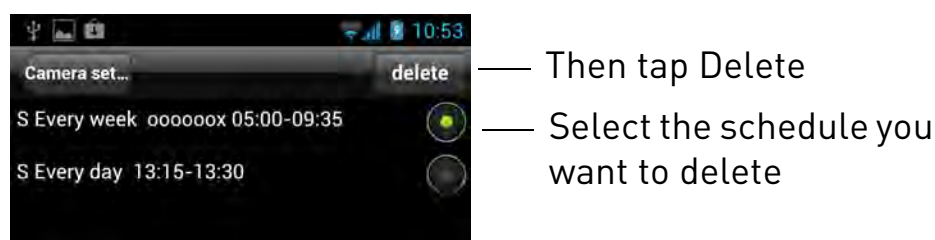
3. Tap **Update** to save your changes.

8.4.15 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**.

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**.

Select Time Zone

Check to enable Daylight Savings Time adjustments

Configure Start Time and End Time for Daylight Savings Time

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

8.4.16 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.

8.5 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 ( ).
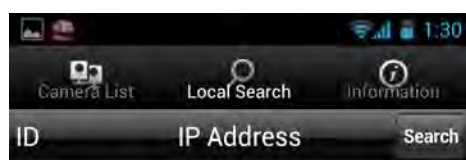
Tap Search to re-scan your network

Tap a camera to add the ID to your camera list

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.

English

9. CONFIGURING CAMERA SETTINGS USING A WEB 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**.
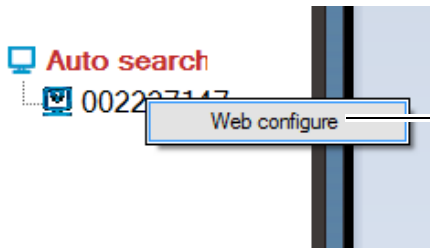
Right-click the camera under Auto Search and click Web Configure

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.

9.1 WEB CONFIGURE OVERVIEW
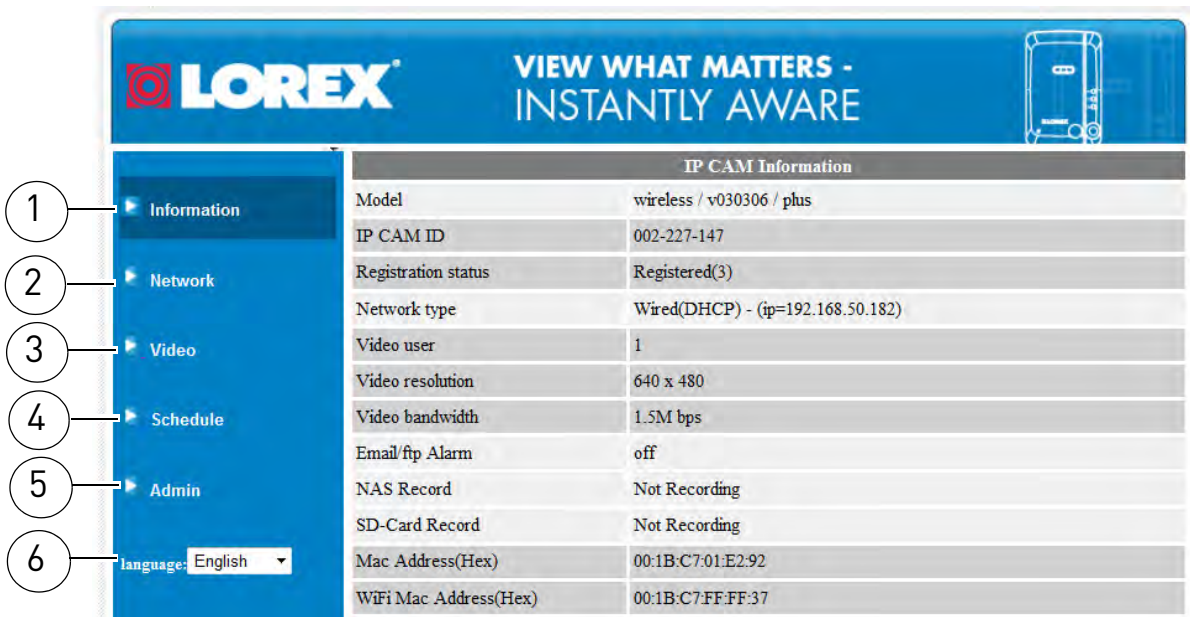
1. **Information:** View information about the camera and camera settings.
2. **Network:** Configure wired/wireless network settings. Connect to a wireless network.
3. **Video:** Configure camera video and streaming settings.
4. **Schedule:** Configure recording settings and schedules. Configure email 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.

9.2 NETWORK

Configure networking settings for WiFi or Ethernet connection.

9.2.1 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**.

9.2.2 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 "PC WiFi Setup" on page 31 or see "Mac WiFi Setup" on page 39.

1. Perform one of the following:

Configure WiFi IP address   Test WiFi configuration   Scan WiFi networks

- 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**.

9.3 VIDEO

Configure camera video and streaming settings.

9.3.1 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.
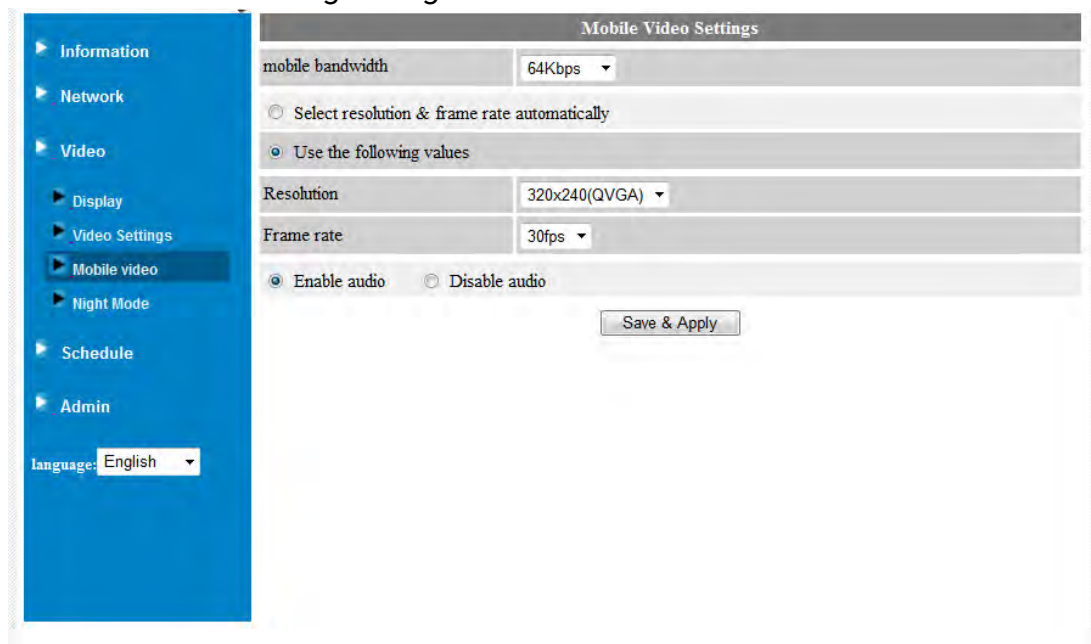
1. Configure the following, as needed:
   • **Internet speed:** Select the upload speed of your Internet connection. If your Internet connection is faster than 1.5Mbps, select 1.5Mbps.

- **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.

English

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- **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.

9.3.2 MOBILE VIDEO

Set streaming settings for connecting using a smart phone 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 smart phone 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 smart phones and tablets.

6. Click **Save & Apply** to apply changes to your camera.

9.3.3 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.
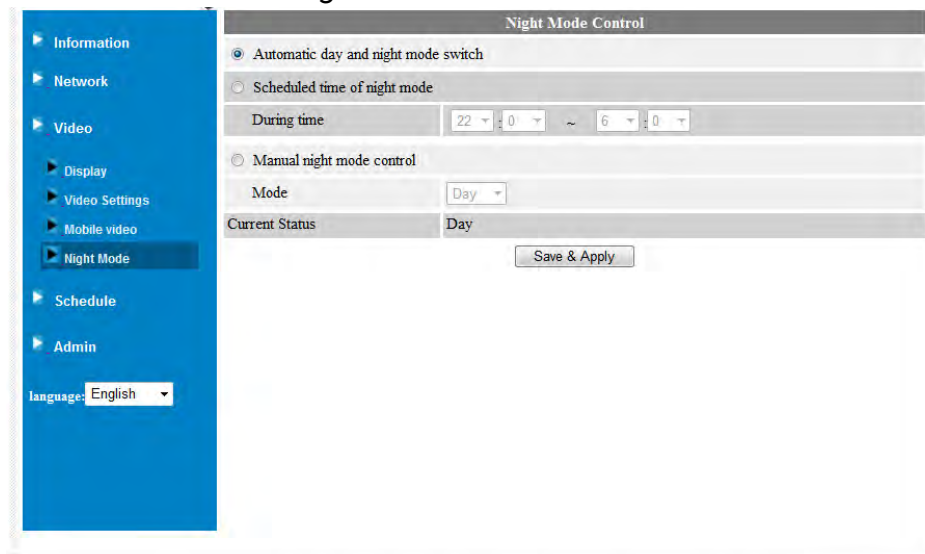
To configure Day/Night mode:

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.

⊙ Scheduled time of night mode							
During time	20 ▾	: 0 ▾	~	6 ▾	: 0 ▾		

Start of night mode (8:00 PM)

Return to day mode (6:00 AM)

- **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.

⊙ Manual night mode control	
Mode	Night ▾

Select day or night mode

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

9.4 SCHEDULE

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

9.4.1 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.

Click Save & Apply

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.

- **Schedule:** Send email alarms based on the settings configured under Schedule. see "Scheduling (Configuring Recording and Alarm Schedules)" on page 182.
- **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.

9.4.2 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.

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.

   • **Schedule:** Create audio alarms based on the settings set in the Schedule. see "Scheduling (Configuring Recording and Alarm Schedules)" on page 182.

   • **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**.

9.4.3 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.

Select Recording option

Select overwrite or stop recording when the microSD card is full
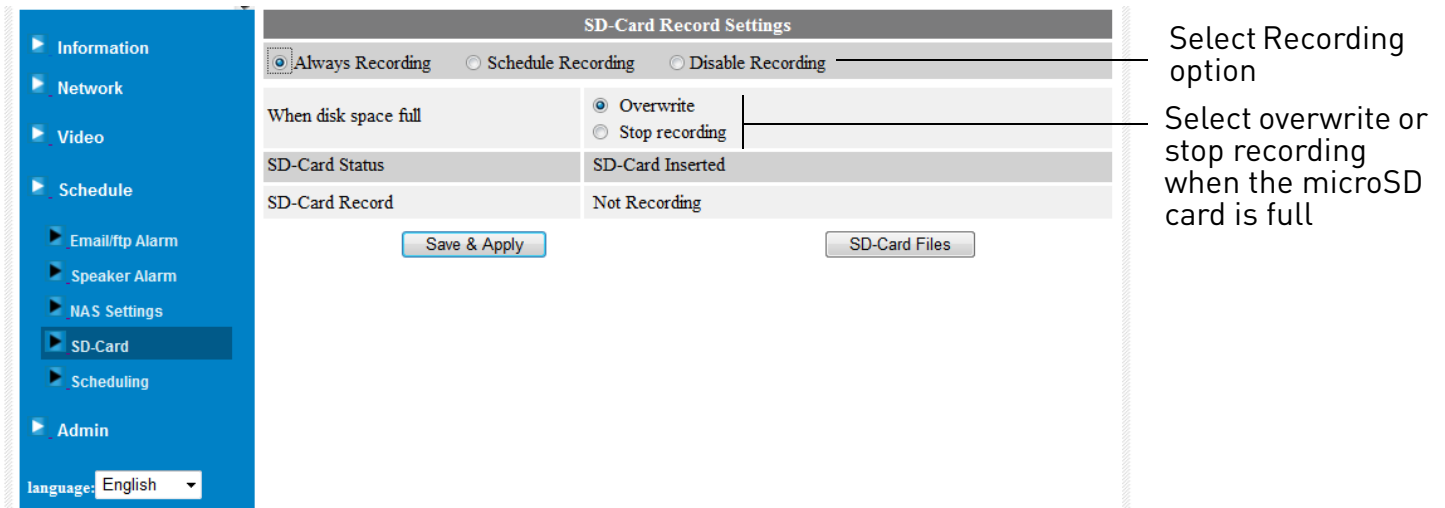
To configure microSD card recording:

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**.

9.4.4 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 "Playing Back Recordings from NAS in L-View" on page 60 or see "Playing Back Video from NAS in L-Play" on page 75.

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.*
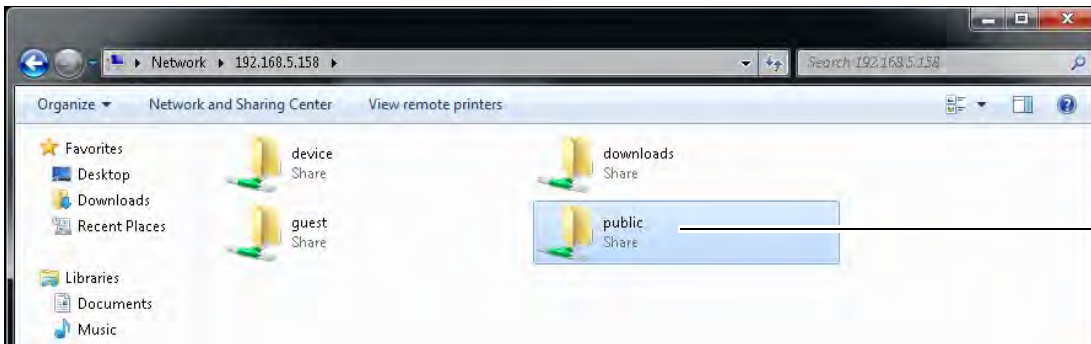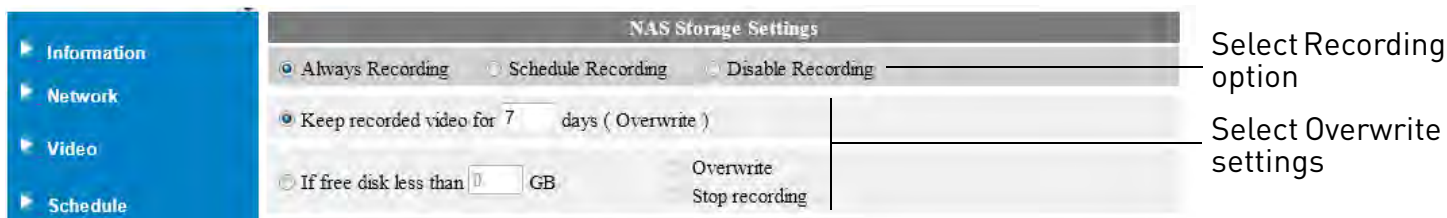
Example of an acceptable NAS recording

To configure NAS recording settings:
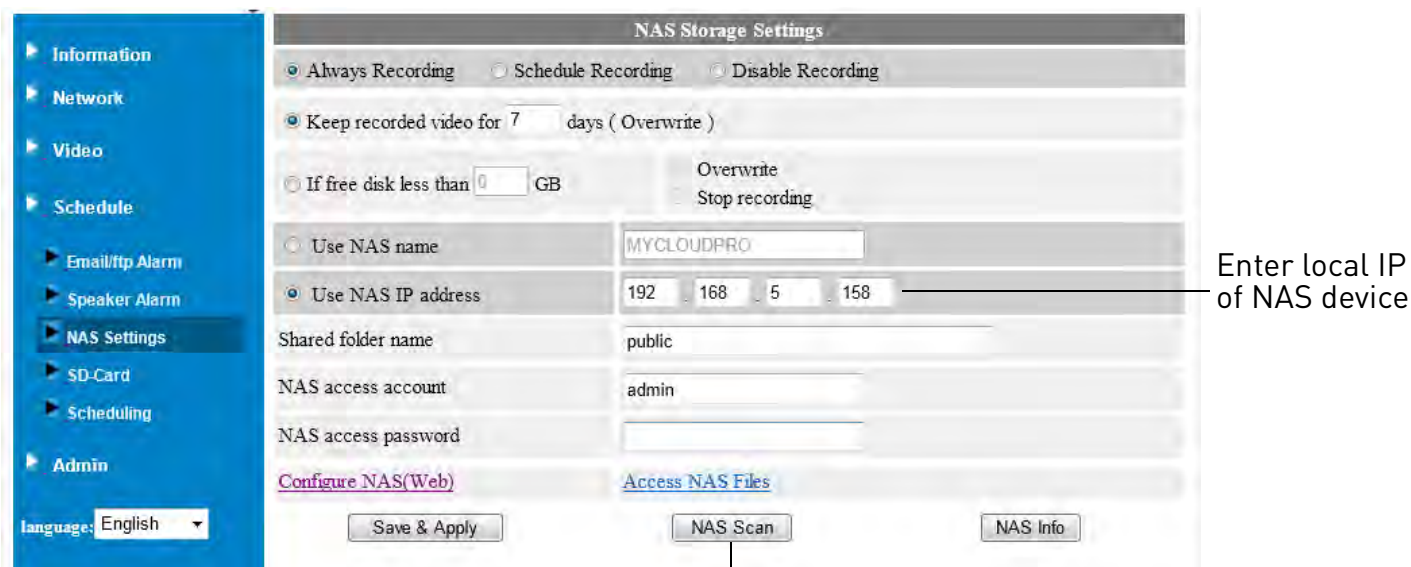
1. Select one of the following:

   • **Always Recording:** Record to NAS continuously, all the time.

   • **Schedule Recording:** Record to NAS according to the settings set in the Scheduling page. See "Scheduling (Configuring Recording and Alarm Schedules)" on page 182.

   • **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.

Select Recording option

Select Overwrite settings

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.

Enter local IP of NAS device

Scan for NAS device (only works with certain NAS models)

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.

English

Enter recording folder
Enter NAS device's admin user name and password

Click Save & Apply   Click to check NAS status

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.

9.4.5 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.

Select recording or alarm types for the schedule

Configure schedule times

Click Add Schedule

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.

   • **NAS Record:** Check to use this schedule for NAS recording. Select **Continuous** for the camera to record 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.

   • **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.

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.

Click Delete to delete a schedule

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**.

9.5 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.

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**.

9.6 ADMIN

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

9.6.1 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 "Reboot" on page 189).

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 "Reboot" on page 189).

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.

English

9.6.2 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.
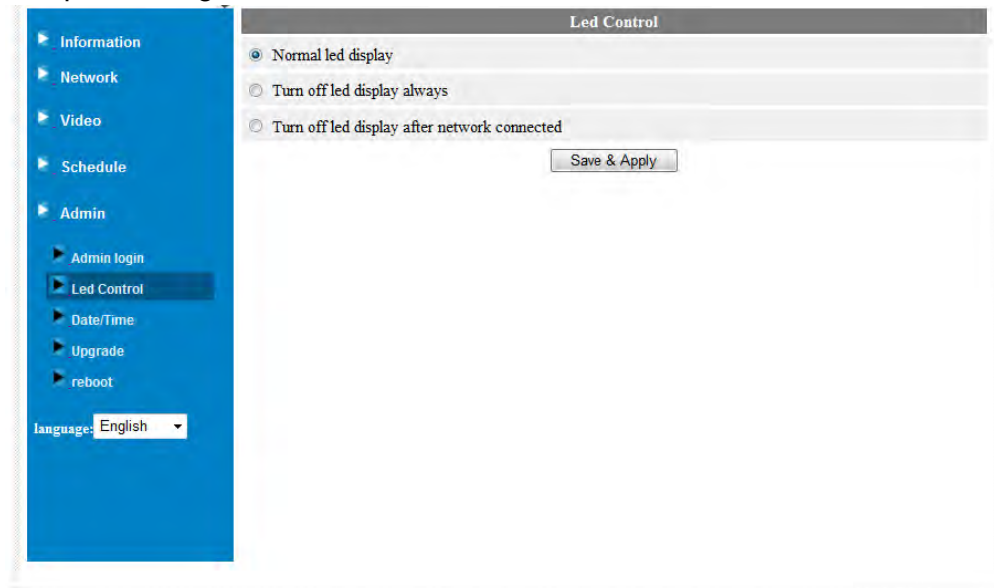
To configure the LED's:

1. Select one of the following:

   • **Normal LED display:** LED's will function as normal. For details on LED functions, see "Camera Overview" on page 1.

   • **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.

9.6.3 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.

Select Time Zone
Select Enable

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.

9.6.4 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**.
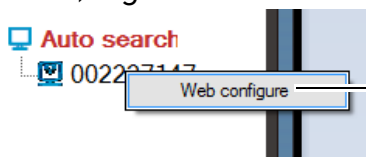
Right-click the camera under Auto Search and click Web Configure

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**.

Admin
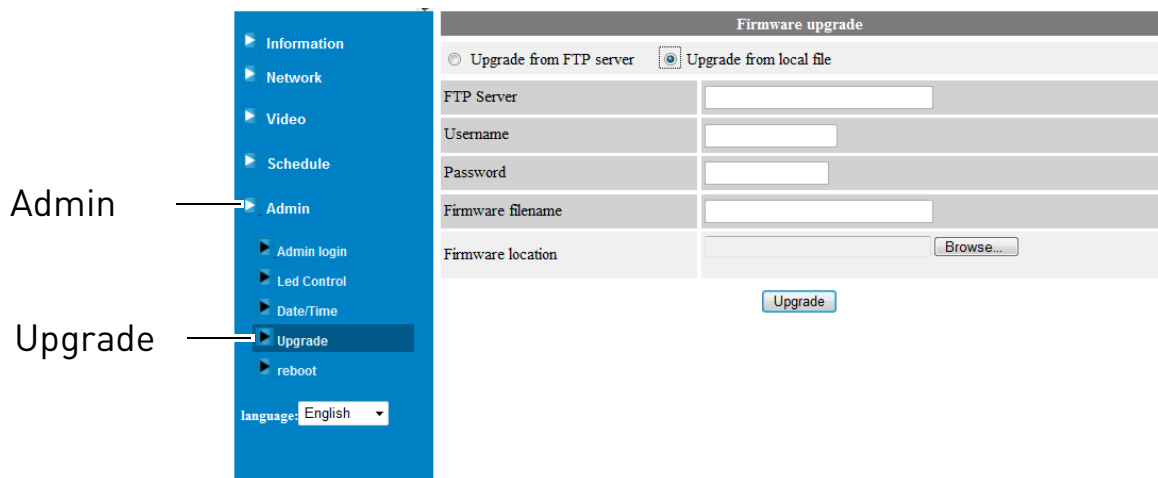
Upgrade

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.

Select Upgrade from local file

Click Browse and select firmware file

Click Upgrade
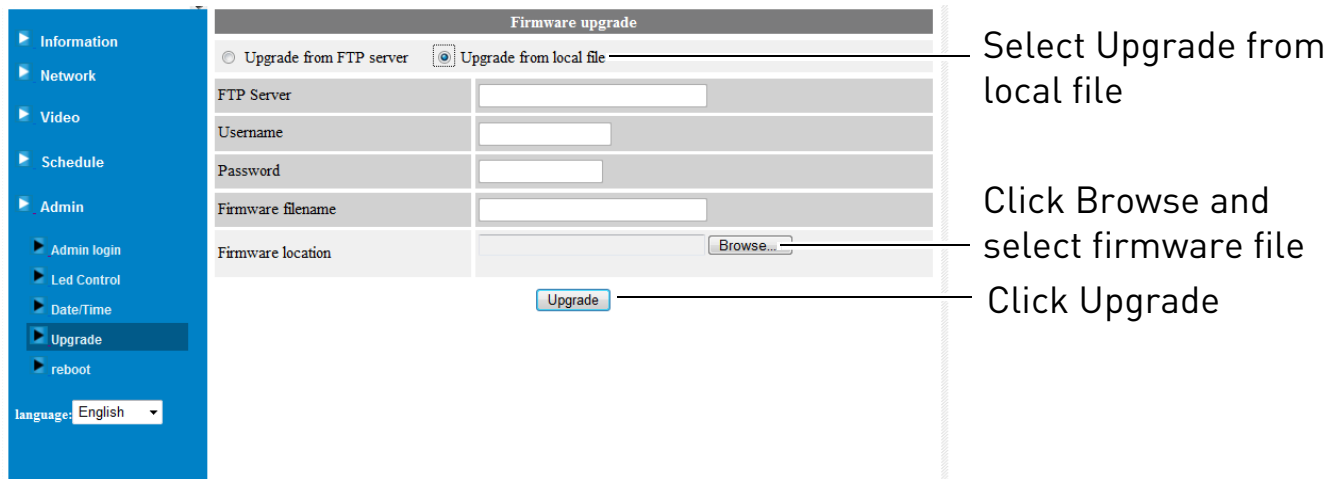
9.6.5 REBOOT

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.

10. TECHNICAL SPECIFICATIONS

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 on low light environment.
Infrared thermometer:	Infrared Range: -40 ~ 115 °C, accuracy:+-0.5°C
Lens:	4.2 mm, 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, baseline profile level 3.1
Video streaming:	Separate frame rate/resolution/bandwidth settings for PC and mobile.
Resolution:	1280x800, 1024x768, VGA(640x480), QVGA(320x240)
Bandwidth:	64Kbps ~ 3Mbps
Frame rate:	1~30 fps
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 via 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 PIR and sound detection Email/ftp alarm message Temperature alarm for low/high room temperature Push notification on supported mobile devices.
Dimensions:	68 x 25 x 95mm/2.8 x 1.0 x 3.7" (W x D x H)
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 Power supply: CE, FCC, UL, EN 60950
Operating conditions:	0-50 °C Humidity 20 – 80% RH (non-condensing)

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.

11. 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.

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 reusing 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.

English
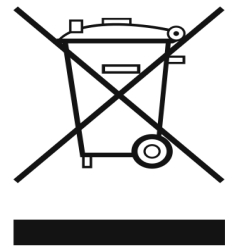
12. NOTICES

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.

13. WALL OR CEILING MOUNTING

13.1 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 nighttime 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.

13.2 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.
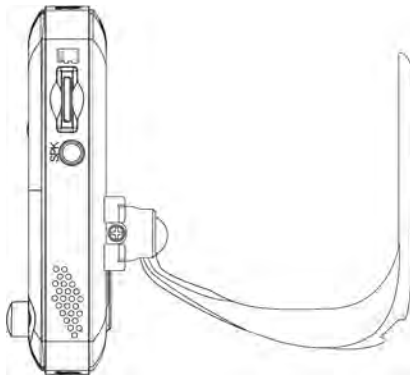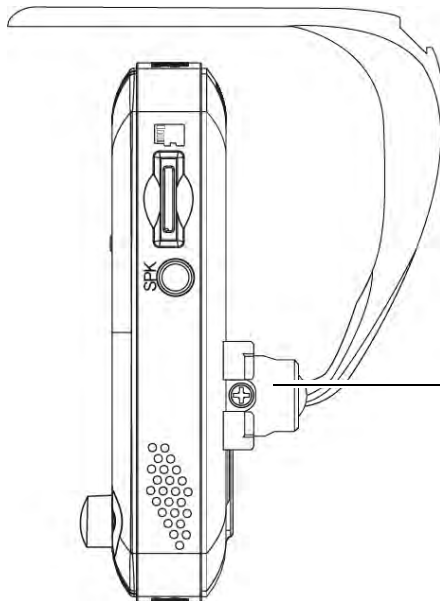
Wall Mount
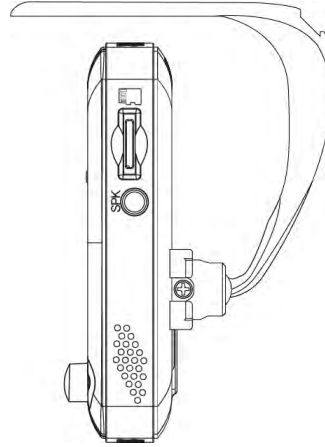
Ceiling Mount

4. Secure the stand position by using a Philipshead screwdriver to tighten the screw connecting the camera to the stand.

Camera stand screw

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

14. 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 "PC WiFi Setup" on page 31 or "Mac WiFi Setup" on page 39.

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 "PC WiFi Setup" on page 31 or "Mac WiFi Setup" on page 39.
- 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.

English

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.

VANTAGE
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Version 2.0

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