

# **USER GUIDE**

# Wireless-G Internet Home Monitoring Camera



Model: WVC54GCA

i

# **About This Guide**

# **Icon Descriptions**

While reading through the User Guide you may see various icons that call attention to specific items. Below is a description of these icons:



**NOTE:** This check mark indicates that there is a note of interest and is something that you should pay special attention to while using the product.



**WARNING:** This exclamation point indicates that there is a caution or warning and it is something that could damage your property or product.



**WEB:** This globe icon indicates a noteworthy website address or e-mail address.

## **Online Resources**

Website addresses in this document are listed without **http://** in front of the address because most current web browsers do not require it. If you use an older web browser, you may have to add **http://** in front of the web address.

Resource	Website
Linksys	www.linksys.com
Linksys International	www.linksys.com/international
Glossary	www.linksys.com/glossary
Network Security	www.linksys.com/security

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# **Chapter 1: Product Overview**

Thank you for choosing the Linksys Wireless-G Internet Home Monitoring Camera. The Camera sends live video through the Internet to a web browser anywhere in the world! This compact, self-contained unit lets you keep an eye on your home, your kids, your workplace—whatever's important to you.

## **Front Panel**



- Open (Blue) This LED lights up when the Camera is powered on. It flashes while the Camera is booting up and remains lit when the Camera is ready for use.
- **Microphone** The microphone is used to record the ambient sound.

## **Back Panel**





**Power** The Power port is where you will connect the power adapter.



**Ethernet** The Ethernet port is where you connect the Ethernet network cable.

## **Bottom Panel**



Reset This button is used to reset the Camera. Insert a paper clip into the opening. Then press the button and hold it in for five seconds.



**WARNING:** Resetting the Camera will erase all of your settings, such as encryption information, and replace them with the factory defaults. Do not reset the Camera if you want to retain your settings.



**NOTE:** The Camera's factory default settings are. user name: **admin** password: **admin** 

# Chapter 2: Setting Up and Mounting the Camera

# **Setup Wizard**

The Wireless-G Internet Home Monitoring Camera Setup Wizard will guide you through the installation and configuration procedure.

 Insert the Setup CD-ROM into your CD-ROM drive. The Setup Wizard should run automatically, and the Welcome screen should appear. If not, click Start, then select Run, and then in the field provided, enter D:\SetupWizard.exe (if "D" is the letter of your CD-ROM drive).



Setup Wizard - Welcome Screen

Click Next, then click Click Here to Start to continue.

- 2. The Setup Wizard displays the following options.
- Setup Camera Click this to begin the installation process.
- Install Camera Utility Click this to install the Camera Utility on your PC.
- User Guide Click this to open the PDF file of this User Guide.
- Exit Click this to exit the Setup Wizard.

To install the Camera, click Setup Camera.

 On the End User License Agreement screen, check the box next to I accept the agreement and click Next if you agree and want to continue the installation, or click Exit to end the installation.



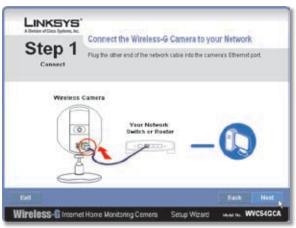
**End User License Agreement** 

Connect the included network cable to your network router or switch. Click **Next**.



Connect Network Cable to the Switch or Router

Connect the other end of the network cable to the Camera's Ethernet port. Click Next.



Connect Network Cable to the Camera

 Plug the included power adapter into the Camera's Power port. Plug the other end into an electrical outlet. Click Next.



Power On the Camera

7. Make sure the LED is lit on the Camera's front panel. If it is not lit, make sure the cables are properly connected to the Camera. Click **Next**.



Check the LED

8. The Wizard searches for the Wireless-G Internet Home Monitoring Camera on your network, then displays the Camera found along with status information.



Camera Found on Network

If the Camera you want is not displayed, click **Search Again** to run a new search for Cameras.

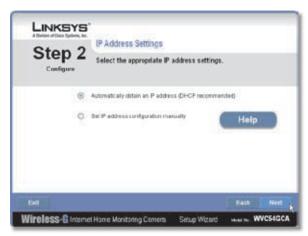
Otherwise, in the *Camera List* box, click the name of the Camera you are installing. Write down the Camera's IP address shown in the Status box, so you can use it to access the Web-based Utility later. Click **Next**.

 Enter a name for the Camera. Memorable names are helpful, especially if you are using multiple Cameras on the same network. It should have 15 characters or fewer. After you have entered the name, click Next.



Assign the Camera Name

10. Select how to assign an IP Address to the Camera, either automatically or manually. Then click **Next**.



**IP Address Settings** 

 Automatically obtain an IP Address Select this option if you want to automatically assign an IP address to the Camera using DHCP.

If you are not sure which option to choose, Linksys recommends this option.

 Set IP address configuration manually Select this option if you want to manually assign a static IP address to the Camera.

If you select this option, fill in the *IP Address*, *Subnet Mask*, and *Gateway* fields.



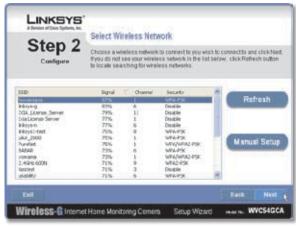
Enter the Static IP Address

11. If you want to keep the Camera's default password (admin), leave the fields unchanged and click Next. If you want to change the password, enter the new password, re-enter to confirm, then click Next.



Enter the Camera Password

12. The Wizard will search for wireless networks, then list the wireless networks found. If the wireless network you want to connect to is not listed, click **Refresh** to update the list. Select the wireless network that you want to connect the Camera to, then click **Next**.



Select Wireless Network

- 13. The Wizard displays the wireless security method that your network is using: WPA/WPA2-Personal, WEP (128-Bit), or WEP (64-Bit). Follow the appropriate instructions below. If you are not using wireless security, select Disabled and go to step 14.
- WPA/WPA2-Personal Enter a passphrase in the Passphrase field and click Next. The passphrase is casesensitive and must be from 8 to 63 characters in length.



Security Settings - WPA/WPA2-Personal

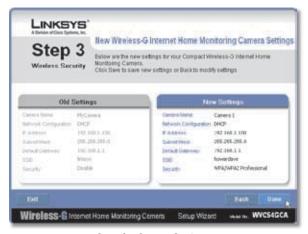
• WEP (64-Bit) or WEP (128-Bit) To generate the WEP key automatically, enter a passphrase in the Passphrase field and click Next. The passphrase is case-sensitive and should not be longer than 16 characters. It must match the passphrase of your other wireless network devices and is compatible with Linksys wireless products only. (If you have any non-Linksys wireless products, enter the WEP key manually on those products.)

To manually enter a WEP key, leave the *Passphrase* field blank, click **Next**, and enter the WEP key on the next screen. This WEP key must match the WEP key of your wireless network. For 64-bit WEP encryption, enter exactly 10 hexadecimal characters. For 128-bit WEP encryption, enter exactly 26 hexadecimal characters. Valid hexadecimal characters are "0" to "9" and "A" to "F". After you have entered the WEP key, click **Next**.



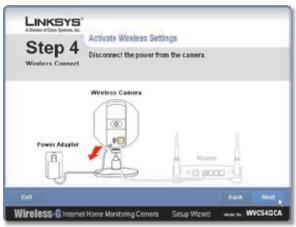
Security Settings - WEP (64-Bit) or WEP (128-Bit)

14. Review the Camera's settings. To make changes to the settings, click **Back** to go back to the previous screen. If the settings are correct, click **Save** to continue.



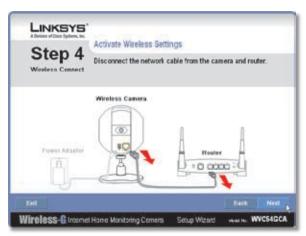
Save the Camera Settings

- 15. When the Wizard informs you that the new Camera settings have been saved, click **Continue**.
- 16. Disconnect the power from the camera. Click **Next**.



Disconnect the Power

17. Disconnect the network cable from the Camera and from your switch or router. Click **Next**.



Disconnect the Network Cable

18. Reconnect the power to the Camera. Click **Next**.

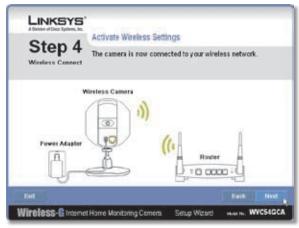


Reconnect the Power

19. The Setup Wizard displays Camera successfully connected to network. Click Continue, then click Next on the following screen.



Camera Successfully Connected to Network



Camera Connected to Wireless Network

- 20. The Congratulations screen appears.
- Install Camera Utility Click this to install the Camera's Utility.
- Online Registration Click this to register your Camera online.
- Exit Click this to exit the Setup Wizard and install the Camera's utility later.

Go to the "Placement Options" section.

# **Placement Options**

The Camera can stand on a surface or be mounted on a wall. Depending on the positioning you want, you attach the Camera head to its stand at two different points.

## **Stand Option**

Follow these steps to stand the Camera on a surface.

- 1. Insert the screw end of the stand into the hole on the bottom panel.
- 2. Tighten the screw and then the thumbscrew.
- 3. Place the Camera, and adjust the tilt of its head accordingly, as described below in section "Camera Head Tilting".



Camera in Standing Position

## **Wall Mount Option**

You use the Camera's stand to mount the Camera on a wall. The stand has two wall-mount slots that are spaced 58 mm (2.28 inches) apart.

- 1. Insert the screw end of the stand into the hole on the back panel.
- 2. Tighten the screw end and then the thumbscrew.
- 3. Determine where you want to mount the Camera. Attach two screws to the wall, so that the Camera's wall-mount slots line up with the two screws.
- 4. Maneuver the Camera so the screws are inserted into the two slots.

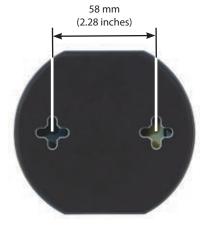
5. Adjust the tilt of its head accordingly, as described below in section "Camera Head Tilting".



Wall Mount Option



Camera in Wall-Mounting Position (side view)



Wall-Mount Slots

## **Camera Head Tilting**

After the Camera is assembled, you can tilt the Camera head on its ball joint using the lock nut on the camera stand. Loosen the lock nut, tilt the camera head as desired, then tighten the lock nut to secure the position.



Camera Tilting Feature with Stand Option

The installation of the Wireless-G Internet Home Monitoring Camera is complete. Go to "Chapter 3: Installing and Using the Camera Utility."

For information about advanced configuration using the Camera's Web-based Utility, go to "Chapter 4: Advanced Configuration with the Web-Based Utility."

# Chapter 3: Installing and Using the Camera Utility

## **Overview**

This chapter will instruct you on how to install and use the Camera Utility on your PC. The Utility allows you to easily view and record the Camera's video.

If another Wireless-B or Wireless-G Internet Camera Utility is already installed on your PC, Linksys recommends that you uninstall it before installing this Camera Utility.



**NOTE:** To view video using a web browser, you must use Internet Explorer version 5.5 or higher. The View Video feature will not work with other web browsers. If you do not use Internet Explorer v5.5, use the Camera Utility instead.

# **Installing the Camera Utility**

1. On the *Welcome* or *Congratulations* screen of the Setup Wizard, click **Install Camera Utility**.



Install Camera Utility Screen

- 2. The Setup Wizard begins to install the Camera Utility. The progress of the installation is displayed.
- When the Setup Wizard informs you that the installation is complete, click Continue. The Utility will automatically start up and display the Setup screen.



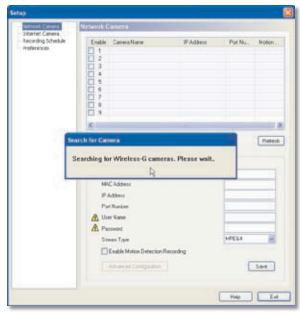
Camera Utility Installation Completed

Go to the "Using the Camera Utility for the First Time" section.

# **Using the Camera Utility for the First Time**

The Camera Utility starts up automatically after the Utility is successfully installed. This section describes the steps to follow to set up the Camera.

1. The Camera Utility displays the *Setup* screen and searches for your Wireless-G Camera.



Setup Screen - Searching for Camera

- When the Authorization screen appears, enter your User Name and Password:
  - User Name Enter admin in this field.
  - Password If you did NOT change the password in Step 11 of section "Setup Wizard" in "Chapter 2: Setting Up and Mounting the Camera," enter admin in this field. Otherwise, enter the new password.



**Authorization Screen** 

3. Click **Save**, then **Yes** to save the Camera's settings.

To learn how to use the Camera Utility, go to "Using the Camera Utility."

Advanced users: If you want to use the Camera's Webbased Utility, go to "Chapter 4: Advanced Configuration with the Web-Based Utility."

# **Using the Camera Utility**

After the Camera Utility is installed, its icon is displayed on the Desktop and in the System Tray of the Taskbar. To open the Camera Utility, use either icon as follows:

- Double-click the icon on your desktop
- Right-click the icon in the system tray, then click
   Wireless-G Internet Home Monitoring Camera.





Desktop Icon

System Tray Icon

When you are finished using the Camera Utility, exit the Utility as follows:

- Close each open Utility window by clicking **Exit** or by clicking the **X** button in the upper-right corner.
- Right-click the Utility's system tray icon and select Exit.

### **Monitor Window**

After you open the Utility, the *Monitor* window is displayed. The *Monitor* window contains the following sections: *Camera Status, Motion Detection Events, Hard Disk Quota,* the viewing area containing video displays for Channels 1-9, video layout controls, and video control buttons.



**Monitor Window** 

To display the *Setup* window, click **Setup**. To display the *Playback* window, click **Playback**. To get help information, click **Help**.

#### Camera Status

This section of the *Monitor* window provides the following status information for all the Cameras the Utility has detected: Camera is being viewed, Camera is being recorded, motion detection is enabled on the Camera:



Camera Status

A blue channel number (1-9) means a Camera has been detected on that channel. Each Camera's status is given by colored indicators as described in the following table.

lcon	Status Indications
900	Viewing Status: Clear - Camera's video is not being viewed. Green - Camera's video is being viewed.
0	Recording Status: Clear - Camera's video is not being recorded. Red - Camera's video is being recorded.
0	Motion Detection Status: Clear - Camera's motion detection is disabled. Yellow - Camera's motion detection is enabled.

#### Motion Detection Events

If motion detection is enabled, this section of the *Monitor* window lists the most recent motion detection events.



Motion Detection Events

## **Hard Disk Quota**

This section of the *Monitor* window lists information related to the amount of hard disk that is allocated for recorded video.



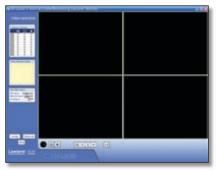
Hard Disk Quota

## **Viewing Area**

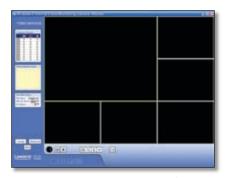
The Viewing Area takes up most of the *Monitor* window. The Viewing Area can have four different layouts, with video windows for one, four, six, or nine Cameras. The layout is selected using the video layout controls described in "Video Layout Controls".



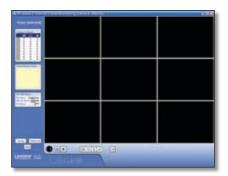
Viewing Area - Single-Camera Display



Viewing Area - Four-Camera Display



Viewing Area - Six-Camera Display



Viewing Area - Nine-Camera Display

#### **Multiple-Camera Layouts**

In a multiple-Camera layout, one of the video windows is always outlined in green. This indicates the currently selected Camera. The Video Control buttons can be used to perform various functions on the video from this Camera. For information on the video control buttons, refer to "Video Control Buttons" below.



Channel Number of Selected Camera

The channel number of the selected Camera is indicated below the lower left corner of the Viewing Area. To specify a different Camera as the selected Camera, click on that Camera's video window.

Each Camera can be displayed using any of the video windows in the layout. To move a Camera from one video window to another, click and drag the Camera's video window to another video window. The two Cameras originally assigned to each of the two windows will then swap places. This is especially useful for the six-Camera layout, which has one large video window and five smaller ones. A Camera assigned to one of the smaller windows can be quickly enlarged by dragging it to the large window.

To quickly view any Camera's video at full scale, doubleclick that Camera's video window. The layout will change to a single-camera display of the selected Camera's video.

## **Video Layout Controls**

This section of the *Monitor* window lets you change the layout of the viewing area. To select a particular layout, click the layout's icon.



Video Layout Icons

lcon	Function
	Click this icon to display video from one Camera only.
	Click this icon to display video from up to four Cameras. The video windows are all of equal size.
	Click this icon to display video from up to six Cameras, with one large video window and five small video windows.
	Click this icon to display video from up to nine Cameras. The video windows are all of equal size.

#### **Video Control Buttons**

The video control buttons are located along the lower left edge of the viewing area. These buttons act upon the selected Camera as explained below.

Button	Function	
<b>③</b>	<b>View</b> Click this button to view the current video.	
	<b>Record</b> Click this button to record* the current video.	
Ò	<b>Snapshot</b> Click this button to take a snapshot of the current video image.	
0	<b>Zoom</b> Click this button to zoom into current video display. The zoom factor cycles through 1x, 2x, and 4x.	
\$	Flip Click this button to flip the current video display top-to-bottom.	
•	Mirror Click this button to reverse the current video display left-to-right.	
∢1])	<b>Sound</b> Click this button to toggle the sound on or off.	
	<b>Volume</b> Slide this bar upward to increase the volume. Slide the bar downward to decrease the volume.	

<sup>\*</sup> During recording, the Utility's System Tray icon turns into an animated icon (arrow moves up and down). When recording ends, the icon reverts to its original state.



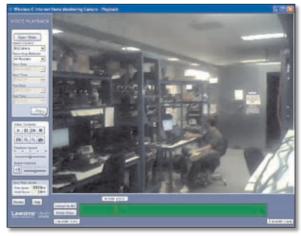




No Recording In Progress

# **Playback Window**

The *Playback* window is used to play back videos that you have recorded and saved.



Playback Screen

#### Video Selection

This section of the *Playback* window lets you select the video(s) for playback.



Playback Selection

**Open Video** Click this button if you want to select the folder containing the videos on your computer. Otherwise, use the remaining fields to select the video from the default recording folder (indicated by the *Recording Path* field of the *Setup > Preferences* screen).

**Select Camera** Select the Camera that recorded the video.

**Recording Methods** Specify the criteria to be used to select the video for the selected Camera:

- All Records Displays all recorded videos for the selected Camera.
- **Select Period** Limits the video selections to the range defined by Start Date/Time and End Date/Time.
- Motion Detection Limits the selections to videos that were recorded as a result of motion detection.

If the *Recording Methods* field is set to **Select Period**, define the date and time period by filling in the following fields.

- Start Date Specify the starting date in mm-dd-yyyy format.
- **Start Time** Specify the starting time in hh:mm:ss format.
- **End Date** Specify the ending date in mm-dd-yyyy format.
- **End Time** Specify the ending time in hh:mm:ss format.

**Play** Click this button to begin playing the selected videos.

#### **Basic Video Controls**

This section of the *Playback* window lets you perform basic functions on the video(s) you have selected for playback. The controls and their functions are described below.



**Basic Video Controls** 

Control	Function	
<b>•</b>	<b>Play</b> Click this button to play the video.	
11.	Pause Click this button to pause the video.	
IÞ	<b>Frame by Frame</b> Click this button to play exactly one video frame. Each successive click advances playback exactly one frame.	
	<b>Stop</b> Click this button to stop video playback.	
	<b>Snapshot</b> Click this button to capture a still image of the current video display.	
0	<b>Zoom In</b> Click this button to zoom in on the video display.	
Q	<b>Zoom Out</b> Click this button to zoom out of the video display.	
8	<b>Print</b> Click this button to print the current video image.	
<u> Tanian janian</u>	<b>Playback Speed</b> Slide this bar to adjust the playback speed. Slide it to the left for slower playback or to the right for faster playback.	
< 1))	<b>Sound</b> Click this button to turn the sound on or off.	
	<b>Volume</b> Slide this bar to adjust the sound volume. Slide it to the left to lower the volume or to the right to raise the volume.	

#### **Hard Disk Quota**

This section of the *Playback* window indicates how much hard disk is allocated for recorded video.



Hard Disk Quota

#### **Advanced Video Controls**

Advanced video functions are performed using the advanced video controls. These controls are located below the viewing area and consist of two buttons and three markers. Each marker displays the date and time of a specific point in the video. If you reposition a marker, the displayed date and time will change accordingly.



Video Controls

**Convert to AVI** To convert the currently playing video to AVI format, click this button, select a destination folder for the AVI file, and then click **OK**.

**Delete Video** Click this button to delete the video from your computer.

<mm/dd/yyyy hh:mm:ss> This marker displays the date and time of the current point in the video. As playback proceeds, this marker moves to the right. To immediately move to another point in the video, slide this marker to the desired point.

**S**<mm/dd/yyyy hh:mm:ss> This marker is used to select the starting point for playback. By default this marker is always set to the start of the video. If you want to start playback at a later point in the video, move this marker to the right.

**E**<mm/dd/yyyy hh:mm:ss> This marker is used to select the ending point for playback. By default this marker is always set to the end of the video. If you want to stop playback at an earlier point in the video, move this marker to the left.

#### Other Buttons

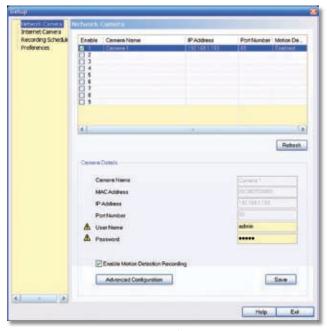
Click **Monitor** to open the *Monitor* window. Click **Help** to display help information.

# **Setup Screen**

The Setup screen is accessed by clicking the **Setup** button on the Monitor window of the Camera Utility. There are four tabs along the left side of the Setup screen: **Network Camera**, **Internet Camera**, **Recording Schedule**, and **Preferences**. By default, the Network Camera tab is selected when the Setup screen is opened. These tabs display screens whose functions are described below.

### **Setup** > **Network Camera**

Click the **Network Camera** tab to set up a network Camera.



Setup > Network Camera

The upper section of the Setup > Network Camera screen contains a list of all Wireless-G Cameras that have been detected (up to 9). The Camera Details section of the screen provides information about the selected Camera.

#### Camera List

**Enable** Check this box to enable the Camera. Uncheck the box to disable the Camera.

**Camera Name** Displays the name of the Camera.

IP Address Displays the Camera's IP address.

**Port Number** Displays the Camera's port number.

**Motion Detection Recording** Indicates if motion detection recording is enabled or disabled.

Camera Details

**Camera Name** Displays the name of the Camera that you specified while running the Setup Wizard.

MAC Address Displays the Camera's MAC address.

IP Address Displays the Camera's IP address.

**Port Number** Displays the Camera's port number.

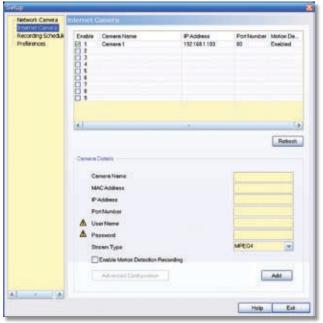
**User Name and Password** Displays the user name. The password is displayed as "•••••" for security reasons.

**Enable Motion Detection** To enable motion detection recording, check this checkbox. The default is disabled.

Click **Advanced Configuration** to open the Web-based Utility. Click **Save** to save your changes, or click **Exit** to exit without saving changes. Click **Help** to display help information.

#### **Setup** > **Internet Camera**

To set up a Camera located on the Internet, click the **Internet Camera** tab, then fill in the fields and click **Add**.



Setup > Internet Camera

**Camera Name** Enter the name assigned to the Camera.

MAC Address Enter the Camera's MAC address.

IP Address Enter the Camera's IP address.

Port Number Enter the Camera's port number.

**User Name and Password** Enter the Camera's user name and password.

**Stream Type** Select either **MJPEG** or **MPEG4** (default).

**Enable Motion Detection Recording** Check the box to enable motion detection recording. The default is disabled.

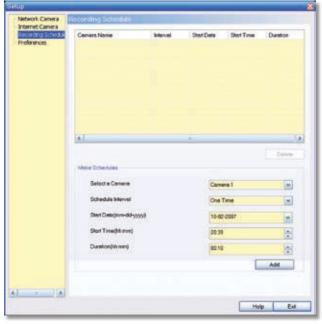
**Add** After you have entered all of the information for the Camera, click this button to add the Camera to the list.

**Advanced Configuration** Click this button to open the Web-based Utility in your web browser.

Click **Advanced Configuration** to open the Web-based Utility. Click **Exit** to exit without saving your changes. Click **Help** to display help information.

## **Setup** > **Recording Schedule**

To set up a recording schedule for a Camera, then click the **Recording Schedule** tab.



Setup > Recording Schedule

To schedule a recording for a Camera, follow these steps.

- 1. Fill in the following fields.
  - Select a Camera Select the Camera that will be recorded from the drop-down menu.
  - Schedule Interval Select the days on which you want the Camera to record. The choices are One Time, Every Day, Mon-Fri, Sat-Sun, Sun, Mon, Tue, Wed, Thu, Fri, and Sat. (All settings except One Time cause recording to occur on a recurring basis.)
  - **Start Date (mm-dd-yyyy)** Enter the date to start the recording, in mm-dd-yyyy format.
  - **Start Time (hh:mm)** Enter the time to start the recording, in hh:mm format.
  - **Duration (hh:mm)** Enter the duration of the recording in hh:mm format.
- Click **Add** to save the new scheduled recording information.
- 3. The scheduled recording will appear in the list of scheduled recordings at the top of the screen.

To delete a scheduled recording, select the recording from the list, and click **Delete**.

Click **Help** to display help information. Click **Exit** to exit without saving your changes.

### **Memory Requirements for Video Recordings**

You may find it helpful to know how much memory is required to hold a video recording. For information on estimated bit rates for a typical video recording at each available resolution and video, refer to the "Setup > Image" section of "Chapter 4: Advanced Configuration with the Web-Based Utility."



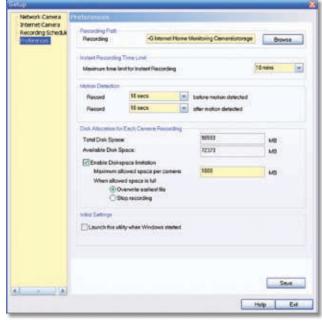
**NOTE:** In order for the scheduled recordings to occur, the Camera Utility must be running on a networked PC.



**NOTE:** The maximum length of a recording file is one hour. If a recording is more than one hour long, then multiple files will be saved.

#### Setup > Preferences

To configure the Camera's preference settings, click the **Preferences** tab.



Setup > Preferences

The Setup > Preferences screen allows you to configure the following settings.

#### **Recording Path**

**Recording** This is the drive and folder where recorded video files will be saved on your computer. The default is **C:\Program Files\Wireless-G Internet Home Monitoring Camera\storage**.

#### **Instant Recording Time Limit**

**Maximum Time Limit for Instant Recording** This is the maximum length of a recording that is started by clicking the Record button on the *Monitor* window. The default is **10 min**.

#### **Motion Detection**

The following two settings apply only if the Motion Detection Recording feature is enabled.

- Record before motion detected This is the length of time prior to the detection of motion that will be saved with the recording. Having this additional footage can help to show the motion more clearly when it occurs.
- Record after motion detected This is the length of time that the Camera will continue to record after motion is detected.

#### Disk Allocation for Each Camera Recording

**Total Disk Space** This is the total amount of storage space on your PC's hard drive.

**Available Disk Space** This is the total amount of remaining storage space on your PC's hard drive.

**Enable Diskspace Limitation** If you want to limit the amount of disk space used by each Camera, check this box, then fill in the fields below.

- Maximum allowed space per camera Enter the maximum allowed space per camera in MB. The default is 1000 MB.
- When allowed space is full Select the action to take when the space limit is reached, either Overwrite earliest file (default), or Stop recording.

#### **Initial Settings**

**Launch this Utility when Windows started** Check this box if you want to have this utility started automatically whenever Windows is started.

Click **Save** to save any settings you have changed on the screen, or click **Exit** to exit without saving your changes. Click **Help** to display help information.

If you want to use the Camera's Web-based Utility, go to "Chapter 4: Advanced Configuration with the Web-Based Utility."

# Chapter 4: Advanced Configuration with the Web-based Utility

## **Overview**

Use the Camera's Web-based Utility to access and alter its settings. This chapter will describe each web page in the Utility and its features. The Utility can be accessed via the web browser of a computer connected to the Camera.

# **How to Access the Web-based Utility**

You can access the Utility using either of these methods.

 Launch Internet Explorer, and enter the Camera's IP address in the Address field. Then, press Enter.



Enter the Camera's IP Address

 From the Monitor window of the Camera Utility, select the Camera, then click the Setup button. (For instructions on how to launch the Camera Utility, refer to "Using the Camera Utility" in "Chapter 3: Installing and Using the Camera Utility."

The Welcome screen of the Web-based Utility will appear.



Web-Based Utility Welcome Screen

There are six tabs across the top of the *Welcome* screen: **Home**, **View Video**, **Setup**, **Linksys Web**, **Help**, and **Exit**.

- Home Select this tab to return to the Welcome screen.
- View Video Select this tab to view the Camera's video.
   Go to the "View Video" section for more information.
- **Setup** Select this tab to alter the Camera's settings. Go to the "Setup" sections for more information.
- Linksys Web Select this tab to go to the Linksys website, www.linksys.com.

- **Help** Select this tab to display the *Help* screen. Go to the "Help" section for more information.
- Exit Select this tab to close the Utility.

## View Video

Follow these instructions to view the Camera's video.

1. Click the **View Video** tab on the *Welcome* screen.



**NOTE:** To view video using a web browser, you must use Internet Explorer version 5.5 or higher. The View Video feature will not work with Netscape. Netscape users should use the Camera Utility instead.

The View Video screen appears, showing the live video from the Camera.



View Video Screen (640x480 Resolution)

The top of the *View Video* screen contains a number of controls that are used to adjust the video display. These controls and their functions are described in the sections below.

There are four selectable tabs across the top of the *View Video* screen: **Home**, **Linksys Web**, **Help**, and **Exit**.

- Home Select this tab to return to the Welcome screen, or to edit the Camera's settings with the Web-based Utility (select Setup or Advanced Configuration on the Welcome screen).
- **Linksys Web** Select this tab to go to the Linksys website, **www.linksys.com**.
- **Help** Select this tab to display the *Help* screen. Go to the "Help" section for more information.
- Exit Select this tab to close the Utility.

#### Resolution

Use the *Resolution* drop-down menu to select the display resolution. Possible values are **Auto** (default), **640x480**, **320x240**, or **160x120**. The display changes to the new resolution immediately after it is selected.



View Video Screen (320x240 Resolution)



View Video Screen (160x120 Resolution)

## **Zoom Factor**

You use the Zoom button to zoom in and out of the displayed video.



**Zoom Button** 

When you click the button, the cursor changes to a magnifying glass labeled with the current zoom factor (cycles through 1x, 2x, and 4x). Position the cursor over the part of the image you want to magnify and click once.

## Snapshot

You use the Snapshot button to capture a still image of the video display.



**Snapshot Button** 

When you click this button, the Snap Shot window appears. Click **Save** to save the image, or click **Cancel** to exit without saving the image.



**Snap Shot Window** 

## **Audio**

Use the Audio button to toggle the sound on or off from the Camera's built-in microphone. The button's appearance indicates whether the sound is on or off. When the sound is on, you can adjust the volume by sliding the volume control to the left to lower the volume, or to the right to increase the volume.



Audio Button: Sound ON



Audio Button: Sound OFF



Volume Adjustment

#### Video Format

To select the video format, click the Video Format button, and the Video Format window appears. Select either **MPEG-4** or **MJPEG**, then click **Save**. To exit without saving, click the X in the upper-right corner of the window.



Video Format Button



Video Format Window

# Setup > Basic

The Setup > Basic screen appears when you click the **Setup** tab or **Advanced Configuration** on the Welcome screen. The Setup > Basic screen allows you to alter the Camera's Device settings, Network settings, Wireless settings, and Security settings.



Setup > Basic Screen

Edit the settings on this screen as needed. Then, to save your changes, click **Apply**. To cancel any unsaved changes, click **Cancel**. To get additional information about the screen's features, click **Help**.

## **Device Settings**

- Camera Name You may assign the Camera any name up to 15 characters long. Unique, memorable names are helpful, especially if you use multiple Cameras on the same wireless network.
- **Description** Enter information about the Camera in this field. You can enter up to 32 characters.
- LED Operation This feature allows you to enable or disable the Camera's LED.
- Current Date/Time This displays the Camera's current date and time. If it is incorrect, click Sync with PC to use your computer's date and time.
- Time Zone Select the time zone for the Camera's location.
- Adjust for Daylight Saving Time Select this to adjust the Camera's current time for Daylight Saving Time.



**NOTE:** You must unselect this option when Daylight Saving Time finishes.

## **Network Settings**

- Configuration Type If you want to automatically assign the Camera an IP address from a DHCP server, then select Obtain Address Automatically (DHCP) (default). If you want to assign the Camera a static IP address, then select Fixed IP Address, and complete the IP Address, Subnet Mask, Gateway, Primary DNS and Secondary DNS fields.
- IP Address, Subnet Mask, Gateway, Primary DNS, Secondary DNS Complete these fields if you want to assign the Camera a static IP address. You need to enter at least one DNS address.

## **Wireless Settings**

- SSID Enter the network's SSID or network name here.
- Network Type Select the network's mode, Ad-hoc or Infrastructure.
- Channel No If the Camera is set to Ad-hoc mode, select its channel setting from the drop-down menu.
- Security Click Edit Security Settings to display the Wireless Security screen.

### Setup > Basic > Wireless Security

The Wireless Security screen is used to configure the Camera's wireless security settings to match your wireless network settings. The settings are as follows.

**Security Mode** Select the wireless security mode used by your wireless network:

- **Disable** (no wireless security)
- WEP
- WPA/WPA2 Personal

The method selected determines which other fields are displayed on the screen. The different security modes and the fields that accompany them are described in detail below.

#### Disable

This option implements no security on your wireless network. Data is not encrypted before transmission.



Wireless Security - Disable Security Mode

#### WEP

WEP is a basic encryption method, which is not as secure as later methods such as WPA-Personal or WPA2 Personal. However, it is supported by all clients.



Wireless Security - WEP Security Mode

- TX Key Select the number of the key used on the wireless network.
- **WEP Encryption** Select the appropriate option for key length based on your network settings.
- Passphrase Type in the passphrase used to generate WEP keys on your network and click Generate.
- Key 1 Key 4 Key values can be entered manually or generated from a passphrase.
- Authentication Select the appropriate authentication type used on the wireless network.

#### WPA/WPA2 Personal

This method offers TKIP encryption with dynamic encryption keys.



Wireless Security - WPA/WPA2 Personal Security Mode

 Shared Key Enter the shared key of 8 to 63 characters that will be used to access the wireless network.

When you are finished editing the Camera's wireless security settings, click **Apply** to save your changes and return to the *Setup > Basic* screen. Click **Cancel** at any time to cancel any unsaved changes and return to the *Setup > Basic* screen. To get additional information about the screen's features, click **Help**.

# Setup > Image

The Setup > Image screen allows you to alter the Camera's video settings.



Setup > Image Screen

## **MPEG4 Settings**

**Resolution** Set the resolution for viewing and recording the Camera's video: **640x480** (high resolution) **320x240** (medium resolution), or **160x120** (low resolution).

**Video Quality Control** Select either **Constant Bit Rate** or **Fixed Quality** for the video stream.

- Constant Bit Rate Select the bit rate you want for viewing or recording the Camera's video. The range varies from 64 Kbps to 1.2 Mbps.
- Fixed Quality Select the level of quality you want for viewing or recording the Camera's video. The range varies from Very Low to Very High.

**Max Frame Rate** Select the maximum frame rate for the camera. Reducing this lowers the amount of bandwidth required by the camera. The range is from 1 to 30.

# MJPEG Settings

**Resolution** Set the resolution for viewing and recording the Camera's video: **640x480** (high resolution) **320x240** (medium resolution), or **160x120** (low resolution).

**Fixed Quality** Select the level of quality you want for viewing or recording the Camera's video. The range varies from **Very Low** to **Very High**.

**Max Frame Rate** Select the maximum frame rate for the camera. Reducing this lowers the amount of bandwidth required by the camera. The range is from 1 to 30.



**NOTE:** Video quality and/or performance may be affected by the number of users connected to the Camera.

It may be helpful to know the bit rates for video viewing or recording at different resolutions and image quality levels. The following table lists these estimated bit rates.

#### **Estimated Bit Rates for Video Viewing or Recording**

Resolution	Quality Level	Bit Rate in kbps
640 x 480	Very High	4000
640 x 480	High	3200
640 x 480	Normal	1200
640 x 480	Low	480
640 x 480	Very Low	160
320 x 240	Very High	1000
320 x 240	High	800
320 x 240	Normal	300
320 x 240	Low	120
320 x 240	Very Low	40
160 x 128	Very High	800
160 x 128	High	400
160 x 128	Normal	200
160 x 128	Low	100
160 x 128	Very Low	40

## **Mobile Settings**

**Enable Mobile Streaming** Select this option to enable video streaming to a mobile device.

# Video Adjustments

**Power Line Frequency** Select the power line frequency (**50Hz** or **60Hz**) used in your region, to improve the picture quality under fluorescent lighting.

**White Balance** Select the desired option to match the current environment and lighting.

**Brightness** If necessary, you can adjust the brightness to obtain a better image. For example, if the camera is facing a bright light, the image may be too dark. In this case, you can increase the brightness. You can select a Brightness value between -3 and 3.

**Sharpness** Select the desired option for the sharpness. You can select a Sharpness value between **-3** and **3**.

# **Options**

**Enable Microphone** Select this to enable audio. Using Audio increases the bandwidth requirements slightly.

**Enable Time Stamp** Select this to display a time stamp on the video.

**Enable Text Display** To display text on the video, select this, then enter up to 20 characters in the field.

To save your changes, click **Apply**. To cancel any unsaved changes, click **Cancel**. To get additional information about the screen's features, click **Help**.

# **Setup > Administration**

The Setup > Administration screen allows you to change the Camera's login name and password, reset the factory defaults, upgrade the firmware, and set the language.



Setup > Administration Screen

## Login

These fields are used to change the login name and password used to access the Camera. For security purposes, you should change these from the default values (both set to **admin**).

**Login Name** Enter the login name for the Camera.

**Password** Enter the password for the Camera.

**Verify Password** Re-enter the password to verify.

# **Restore Factory Defaults**

**Restore Defaults** To restore the Camera to its factory default settings, click **Restore Defaults**.



**NOTE:** This will overwrite the Camera's settings with the factory defaults. Any changes you made to the Camera's settings will be lost; you will not be able to recover them.

# Firmware Upgrade

**Upgrade Firmware** New firmware versions are posted at **www.linksys.com** and can be downloaded for free. If the Camera is functioning satisfactorily, there is no need to download a newer firmware version, unless that version has a new feature that you want to use. Loading new firmware onto the Camera does not always enhance its performance.

Linksys recommends that you upgrade the Camera's firmware within your network; in other words, use a computer within the Camera's local network. If you attempt to upgrade the Camera's firmware from a remote location—using a computer outside of the Camera's local network—the upgrade will fail.

To upgrade the firmware:

- 1. Go to the Linksys website, **www.linksys.com**, and download the firmware upgrade file for the Camera. Then extract the file.
- From the Setup > Administration screen, click Upgrade Firmware.
- 3. You will see the *Upgrade Firmware* screen. Click **Browse** to find the extracted file, and then double-click it.
- 4. Click **Start Upgrade**, and follow the on-screen instructions. To cancel the upgrade, click **Cancel**.

# Setup > Users

The Setup > Users screen lets you designate access rights for the Camera's users.



Setup > Users Screen

# **Users Settings**

Use this to assign access rights to the Camera's users.

**All users** or **Only users in database**. If you select **Only users in database**, edit the user database as needed, as described below.

**Users** This lists the user database (the users who have access to the Camera).

#### **Editing the Database**

To add a user to the database:

- 1. Enter the user's name in the User Name field.
- 2. Enter the password in the *Password* and *Confirm Password* fields.
- 3. Click **Add User** to save the user in the database.

To edit a user's record in the database:

- 1. Select the user from the *Users* list, then click **Edit**.
- 2. Edit the User Name and/or Password as needed.
- 3. Click **Add User** to save the updated information.

#### Other operations:

- Clear While editing a user's information, click Clear to clear the User Name, Password, and Confirm Password fields and start over.
- Delete To delete a user's record from the database, select the user from the list, then click Delete.
- **Delete All** To clear the database, click **Delete All**, then click **OK** to confirm.

To save your changes, click **Apply**. To cancel any unsaved changes, click **Cancel**. To get additional information about the screen's features, click **Help**.

# Setup > Options

The Setup > Options screen allows you to set up and configure DDNS Service, UPnP configuration, and Alternate Port settings. DDNS (Dynamic Domain Name System) lets you assign a fixed host and domain name to a dynamic Internet IP address.



Setup > Options Screen

#### **DDNS**

**Enable DDNS** Select this option to enable DDNS service with the Camera.

**Service Provider** This is the DDNS service provider, which is preset to TZO.

**Domain Name** Enter the domain name assigned to you by your DDNS service provider.

**E-Mail Address** Enter the E-mail address used to register the DDNS service.

**TZO Key** Enter the TZO key provided by your DDNS service provider.

**Update Period** Use this to set the schedule for checking whether the Internet IP address has been changed. Specify how often to check, from **Every 10 mins** to **Every 24 hrs**, as well as the time to start checking, in hh:mm format.



**NOTE:** If you use the Camera's DDNS feature, then you must also configure the port forwarding feature on your network router. Go to **www.linksys.com/portfwd** for instructions on how to configure a Linksys router. For other routers, refer to your router's documentation.

To save your changes, click **Apply**. To cancel any unsaved changes, click **Cancel**. To get additional information about the screen's features, click **Help**.

#### **UPnP**

**Enable/Disable** When enabled, the Camera's Universal Plug and Play (UPnP) feature allows a UPnP-enabled computer to easily detect the Camera. The Camera's UPnP feature is disabled by default. If your computer is UPnP-enabled, select this option.

## **Alternate Access Web Port**

**Enable/Disable** If you want the Camera to be able to use an alternate port for communications, select this option. Then, enter the desired port number in the range from **1024** to **65534** in the *Port Number* field. The default port number is **1024**.

If you already have a Web Server on your LAN, then you should enable the Alternate Port and use this port number instead of port 80.

## RTP/RTSP

You can view a Camera's live video stream using various multimedia player applications such as QuickTime, RealPlayer, or Windows Media Player, or using a mobile phone that supports RTSP. To do this, first configure the RTP/RTSP settings in this section as needed, then open the multimedia player, then point the player to the appropriate URL listed below (where *Camera IP Address*) is the IP address of the Camera you want to view).

- QuickTime or RealPlayer: rtsp://< Camera IP Address>/img/video.sav
- Windows Media Player: http://<Camera IP Address>/img/video.asf
- Mobile phone with RTSP support: http://<Camera IP Address>/img/video.asf

**RTSP Port** To change the RTSP Port number, enter the desired number in the range of **1024** to **65535**. The default is **554**.

**RTP Data Port** To change the RTP Data Port, enter the desired number in the range of **1024** to **65535**.

**Max RTP Data Packet** To change the maximum length of RTP data packets, enter the desired maximum length in the range of **400** to **1400**.

## **Multicast RTP/RTSP**

**Enable/Disable** Select **Enable** to enable the Multicast RTP/RTSP feature, **or Disable** to disable the feature.

**Video Address** To change the Video Address, enter the new address in the field provided. The default Video Address, **224.2.0.1**, can be used for multicasting and does not normally need to be reconfigured. If this address needs to be changed, contact your network administrator.

**Video Port** To change the Video Port, enter the new port number (even values only, from 1024 to 65534) in the field provided. The default Video Port, **2240**, can be used for multicasting and does not normally need to be reconfigured. If this port number needs to be changed, contact your network administrator.

**Audio Address** To change the Audio Address, enter the new address in the field provided. The default Audio Address **224.2.0.1**, can be used for multicasting and does not normally need to be reconfigured. If this address needs to be changed, contact your network administrator.

**Audio Port** To change the Audio Port, enter the new port number (even values only, from 1024 to 65534) in the field provided. The default Audio Port, **2242**, can be used for multicasting and does not normally need to be reconfigured. If this port number needs to be changed, contact your network administrator.

**Time to Live** Enter the maximum length of time (usually measured as the number of network routers that can be passed before the data arrives at its destination or is dropped) within which the data must reach its destination. The value must be from 1 to 255. The default value is **16**.

To save your changes, click **Apply**. To cancel any unsaved changes, click **Cancel**. To get additional information about the screen's features, click **Help**.

# Setup > Motion Detection

The Setup > Motion Detection screen allows you to configure the Camera's motion detection settings.



Setup > Motion Detection Screen

## **Trigger Motion Detection**

**Enable Motion Detection** Check this box to enable Motion Detection.

**Attachment Type** Select the type of attachment to be sent, either **JPEG** or **Video**. If JPEG is selected, a series of images will be attached to the e-mail as individual files. If Video is selected, a single video file will be attached.

**Frame Rate** If the *Attachment Type* field is set to **JPEG**, select the frame rate (number of frames to be captured per second), from 1 to 5. The default value is **1**.

**Video Format** If the Attachment Type is set to **Video**, select the video format, either ASF, MPEG-4, or 3GP.

**Pre-Capture Length** This refers to video footage up to the moment when motion is detected. Select how many seconds' worth of this video will be saved. This value must be between 0 and 4 seconds.

**Post-Capture Length** Select how many seconds' worth of video will be saved starting from the moment motion is detected. This value must be between 1 and 5 seconds.

**Interval** Enter the time in minutes that must pass between motion detection events. Valid values are 0-5, 10, or 15. The default is **2**. A value of 0 indicates no delay between events.

**Action(s)** Select the action(s) to be performed upon motion detection. Select **E-Mail** to send an e-mail with a video attachment to a selected recipient., or select **FTP** to send the video to a selected FTP server.

#### E-Mail Alert

If the Action(s) field is set to E-Mail, fill in the following fields:

**Send To** Enter the e-mail address where e-mail will be sent upon motion detection. You can optionally specify up to three addresses.

**Show "From" as** Enter the e-mail address to be used as the *From* field in the e-mail to be sent.

**Subject** Enter the *Subject* field for the e-mail, consisting of 48 alphanumeric characters or less.

**SMTP Port Number** Enter the SMTP port number from 1 to 65535. The default is **25**.

**SMTP Mail Server** If you want to use an SMTP mail server, check the box next to **Specify a SMTP Mail Server**. Then enter the mail server's name in the field provided.

My Mail Server Requires Authentication If you are using an SMTP mail server that requires authentication (you must log in with a username and password), check this box, then fill in the Account Name and Password fields.

**Test E-Mail** Click this button to send a test e-mail to the address indicated by the *Send To* field.

#### **FTP**

If the Action(s) field is set to FTP, fill in the following fields:

FTP Server Enter the FTP server name.

Port Enter the FTP server's port number.

**Login Name and Password** Enter the login name and password for the account on the FTP server.

**Passive Mode** Select **Enable** (default) to enable passive mode, or **Disable** to disable it.

**File Path Name** Enter the path to the location where the file will be saved on the FTP server.

## **Set Sensitivity Area**

**Set Sensitivity Area** If you want to specify the sensitivity area settings for motion detection, click this button to display the *Set Sensitivity Area* window. The *Set Sensitivity Area* window lets you specify the area of the video screen that is used to detect motion. This is either the full screen, or up to three user-defined custom areas within the full screen.



Set Sensitivity Area Window

The following fields appear on the left side of the *Set Sensitivity Area* window for each sensitivity area. Specify the settings as needed, then click **Apply**.

- Full Screen or Window 2-4 This is the name of the sensitivity area, either Full screen by default, or if Setting Custom Area is selected, Window 2, Window 3, or Window 4 (custom areas). To change a custom area name to a more appropriate name, such as Front Door, enter the new name in this field.
- Setting Custom Area To specify custom area(s) within the full screen, check this box, then configure up to three custom sensitivity areas. By default only one area, Window 2, is selected. To create an additional area, check the box next to its name. You can move or resize each area as needed. Custom areas may also overlap.
- **Threshold** Slide this to the left to reduce the area's sensitivity, or to the right to increase sensitivity.

## **New Motion Trigger Schedule**

This section allows you to create a schedule that determines when motion detection will be active. To do this, you define one or more "trigger" events, or periods during which motion detection will be in effect. For each trigger event, fill in the following fields.

**Trigger Motion Detection** Specify how often this trigger event occurs: **Every day**, **Weekdays (Mon - Fri)**, or on specific days of the week (**Sunday** to **Saturday**).

**Start Time and End Time** Select the starting and ending times for the event.

Add Click Add to add the new event to the schedule.

**Clear** Click **Clear** to clear the schedule of all events.

**Delete** To delete an event from the *Schedule List*, select the event, then click **Delete**.

**Schedule List** This displays all of the scheduled trigger events that you have defined and saved. It is empty by default.

To save your changes, click **Apply**. To cancel any unsaved changes, click **Cancel**. To get additional information about the screen's features, click **Help**.

# Setup > Status

The Setup > Status screen allows you to view the Camera's status information and log.



Setup > Status Screen

# System Status

**Firmware Version** The version of the current firmware installed.

**MAC Address** The MAC Address of the Camera is displayed here.

**Camera Name** The name you gave to the Camera is displayed here.

**Description** Information about the Camera, such as location, is displayed here.

**Date/Time** The current date and time are shown here.

#### Network

**Network Type** The wireless network's mode is shown here.

IP Address The Camera's IP Address is displayed here.

**Subnet Mask** The Camera's Subnet Mask is shown here.

**Gateway** The Camera's Gateway address is displayed here.

#### Wireless

**SSID** The wireless network's SSID or name is shown here.

**Channel No** The wireless network's channel setting is displayed here.

**Security** The wireless network's encryption level is shown here.

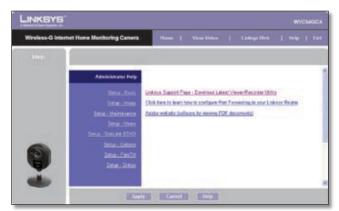
## Log

**System Log** This shows the Camera's activities. To empty the log, click **Clear Log**.

To get the Camera's most up-to-date information, click **Refresh**. To get additional information about the screen's features, click **Help**.

# Help

Through the *Help* screen, you'll find links to additional resources for the Camera and its Utility. If you select the **Help** tab directly from the *Welcome* screen, then you will see the *User Help* screen and will only be able to access these resources. If you first log in to access the Camera's Setup and then select the **Help** tab, you will see the *Administrator Help* screen and will be able to restore factory defaults and upgrade the Camera's firmware.



Setup > Help Screen

 Setup Click any of the topics in the bar on the left to get help information.

- Linksys Support Page Download Latest Viewer/ Recorder Utility Click this link to download the most recent version of the Camera Utility from the Linksys website, www.linksys.com.
- Click here to learn how to configure Port Forwarding in your Linksys Router If you are going to use the DDNS Service, you need to set up port forwarding on your router. For instructions on how to configure a Linksys router, click this link. If you have a different router, refer to your router's documentation.
- Adobe website (software for viewing PDF documents) If you do not have Adobe Acrobat Reader, click this link to download it.

# Appendix A: Troubleshooting

This appendix consists of two parts: "Common Problems and Solutions" and "Frequently Asked Questions." This appendix provides solutions to problems that may occur during the installation and operation of the Wireless-G Internet Home Monitoring Camera. Read the description below to solve your problems. If you can't find an answer here, check the Linksys website at www.linksys.com.

# **Common Problems and Solutions**

#### I can't view the Camera's video using Internet Explorer.

Make sure the OCX plug-in was correctly installed. If you're not sure, re-install the plug-in by following these instructions

- On the Welcome screen of the Camera's Webbased Utility, click View Video.
- A screen mentioning a security warning about an OCX plug-in will appear. Click **Yes** to allow the plug-in to be installed.
- You should then be able to view the Camera's streaming video.

If you still cannot view the video, make sure you have the rights to install the plug-in in your PC's Internet Explorer. If not, log into your computer as an administrator and install the plug-in.

Then you can check if the OCX plug-in has been installed. Follow these instructions:

- From Internet Explorer, go to Tools and Internet Options.
- On the General screen, click **Settings** under *Temporary Internet files*.
- Click **View Objects**. You should see a file named NetCamPlayerWeb Control installed.

# The OCX plug-in is installed in Internet Explorer, but I cannot view any video.

Make sure Microsoft Internet Explorer 5.5 or higher is installed. Then delete the OCX plug-in by following these instructions:

- From Internet Explorer, go to Tools and Internet Options.
- On the General screen, click **Settings** under *Temporary Internet files*.
- Click View Objects.
- You should see a file named NetCamPlayerWeb Control installed. Delete this file from the list.

 The next time you click **View Video** from the web browser, you will be prompted to re-install the OCX plug-in.

# When powering on the Camera, I can't immediately access the Camera from my computer.

Make sure the Camera's LED is continuously lit. When it is flashing, the Camera is initializing.

#### I'm not able to play my recording video files.

Make sure you have Microsoft Windows Media Player 7 or higher. If you don't, you can download the latest version from www.microsoft.com.

## I have two Cameras and see two WVC54GCAs listed in my Camera Utility. When I click to view both Cameras, I see the video of only one Camera.

Make sure that the Cameras have different camera or device names. You can change this by using the Webbased Utility or running the Setup Wizard. If you use the Web-based Utility, log in and click the Setup tab. Then on the Basic screen, change the Camera Name.

# When I view video remotely via the Internet, the video is very slow.

Video performance is greatly affected by your Internet connection speed. You can lower the Camera's image quality to speed up the video. Through the Camera's Web-based Utility, click the **Setup** and **Image** tabs, and then lower the image quality on the Image screen.

# I cannot access the Setup tab of the Camera's Web-based Utility.

Make sure you have administrator rights. Only an administrator can change the Camera's settings.

# I want to access the Camera when I'm away from home, but somehow I can't connect.

If your network uses a dynamic IP address supplied by your ISP, then the IP address you use to reach the Camera will change as well. You need to use the TZO DDNS Service, so you can access the Camera using its domain name while the service keeps track of the IP address changes. To set up a Dynamic Domain Name Service (DDNS) account, click the Setup tab of the Camera's Web-based Utility, then click the **Options** tab. Then configure the settings in the DDNS section of the screen.

Important: To allow remote access to the Camera, you will also have to use the port forwarding feature on your network router.

# **Frequently Asked Questions**

# Can I view video using a Macintosh or Netscape Navigator?

The Camera is designed for computers running a Windows operating system and Internet Explorer 5.5 or higher. You cannot view video on a Macintosh. If you only have Netscape, you can view video using the Camera Utility. See "Chapter 3: Installing and Using the Camera Utility."

# Can I directly connect the Camera to wired and wireless networks at the same time?

No. Before powering on the Camera, you should decide if you want to connect the Camera to a wireless network via an access point or to a wired network. If your wireless and wired networks are bridged, then you can access the Camera from any networked computer, but the Camera must be directly connected to only one of the networks.

To connect the Camera to a wireless network, power on the Camera with no network cable attached. The Camera will be ready for use when the LED is lit continuously.

To connect the Camera to a wired network, connect the network cable to the Camera, and then power it on. The Camera will be ready for use when the LED is lit continuously.

#### Can I install the Camera outdoors?

No, the Camera was not designed for outdoors usage.

# I've recorded video for a few hours. Why do I see multiple files saved on my computer?

The recording function saves video in chunks; each chunk is a maximum of one hour in duration. For example, if you have recorded five continuous hours, then you will see five files saved on your computer. This keeps files from getting too large.

# Do I need to install the Linksys Multi-Camera Viewer and Recorder Utility?

Installation is optional. You can view video using Microsoft Internet Explorer 5.5 or higher. If you don't want to use the recording function, then you don't need to install the Multi-Camera Viewer and Recorder Utility.

### Can I specify who gets to view the Camera's video?

Yes. Access the Camera's Web-based Utility, and click the Setup tab. After you log in, click the Users tab. You will be able to restrict access to users you have entered in the database. See "Chapter 4: Advanced Configuration with the Web-based Utility."

#### Can I add a time stamp to the video?

Yes. Access the Camera's Web-based Utility, and click the Setup tab. After you log in, click the Image tab. You will be able to add a time stamp as well as descriptive text to the video. See "Chapter 4: Advanced Configuration with the Web-based Utility."

# How many users can view the Camera's video at the same time?

Users at four different PCs can simultaneously view the Camera's video.

#### What is the IEEE 802.11b standard?

It is one of the IEEE standards for wireless networks. The 802.11b standard allows wireless networking hardware from different manufacturers to communicate, provided that the hardware complies with the 802.11b standard. The 802.11b standard states a maximum data transfer rate of 11Mbps and an operating frequency of 2.4GHz.

#### What is the IEEE 802.11g standard?

It is one of the IEEE standards for wireless networks. The 802.11g standard allows wireless networking hardware from different manufacturers to communicate, provided that the hardware complies with the 802.11g standard. The 802.11g standard states a maximum data transfer rate of 54Mbps and an operating frequency of 2.4GHz.

#### What IEEE 802.11b features are supported?

The product supports the following IEEE 802.11b functions:

- CSMA/CA plus Acknowledge protocol
- Multi-Channel Roaming
- Automatic Rate Selection
- RTS/CTS feature •Fragmentation
- Power Management

#### What IEEE 802.11g features are supported?

The product supports the following IEEE 802.11g functions:

- CSMA/CA plus Acknowledge protocol
- OFDM protocol
- Multi-Channel Roaming
- Automatic Rate Selection
- RTS/CTS feature

- Fragmentation
- Power Management

#### What is ad-hoc mode?

When a wireless network is set to ad-hoc mode, the wireless-equipped computers are configured to communicate directly with each other. The ad-hoc wireless network will not communicate with any wired network.

#### What is infrastructure mode?`

When a wireless network is set to infrastructure mode, the wireless network is configured to communicate with a wired network through a wireless access point or router.



**WEB:** If your questions are not addressed here, refer to the Linksys website, **www.linksys.com** 

# Appendix B: Wireless Security Checklist

Wireless networks are convenient and easy to install, so homes with high-speed Internet access are adopting them at a rapid pace. Because wireless networking operates by sending information over radio waves, it can be more vulnerable to intruders than a traditional wired network. Like signals from your cellular or cordless phones, signals from your wireless network can also be intercepted. Since you cannot physically prevent someone from connecting to your wireless network, you need to take some additional steps to keep your network secure.



# 1. Change the default wireless network name or SSID

Wireless devices have a default wireless network name or Service Set Identifier (SSID) set by the factory. This is the name of your wireless network, and can be up to 32 characters in length. Linksys wireless products use **linksys** as the default wireless network name. You should change the wireless network name to something unique to distinguish your wireless network from other wireless networks that may exist around you, but do not use personal information (such as your Social Security number) because this information may be available for anyone to see when browsing for wireless networks.



# 2. Change the default password

For wireless products such as access points, routers, and gateways, you will be asked for a password when you want to change their settings. These devices have a default password set by the factory. The Linksys default password is **admin**. Hackers know these defaults and may try to use them to access your wireless device and change your network settings. To thwart any unauthorized changes, customize the device's password so it will be hard to guess.



# 3. Enable MAC address filtering

Linksys routers and gateways give you the ability to enable Media Access Control (MAC) address filtering. The MAC address is a unique series of numbers and letters assigned to every networking device. With MAC address filtering enabled, wireless network access is provided solely for wireless devices with specific MAC addresses. For example, you can specify the MAC address of each computer in your home so that only those computers can access your wireless network.



# 4. Enable encryption

Encryption protects data transmitted over a wireless network. Wi-Fi Protected Access (WPA/WPA2) and Wired Equivalency Privacy (WEP) offer different levels of security for wireless communication.

A network encrypted with WPA/WPA2 is more secure than a network encrypted with WEP, because WPA/WPA2 uses dynamic key encryption. To protect the information as it passes over the airwaves, you should enable the highest level of encryption supported by your network equipment.

WEP is an older encryption standard and may be the only option available on some older devices that do not support WPA.

# **General Network Security Guidelines**

Wireless network security is useless if the underlying network is not secure.

- Password protect all computers on the network and individually password protect sensitive files.
- Change passwords on a regular basis.
- Install anti-virus software and personal firewall software.
- Disable file sharing (peer-to-peer). Some applications may open file sharing without your consent and/or knowledge.

# **Additional Security Tips**

- Keep wireless routers, access points, or gateways away from exterior walls and windows.
- Turn wireless routers, access points, or gateways off when they are not being used (at night, during vacations).
- Use strong passphrases that are at least eight characters in length. Combine letters and numbers to avoid using standard words that can be found in the dictionary.



**WEB:** For more information on wireless security, visit **www.linksys.com/security** 

# Appendix C: Specifications

Model WVC54GCA

Standards IEEE 802.11g, IEEE 802.3,

IEEE 802.3u

Ports Ethernet, Power

Buttons Reset

LEDs Power

Cabling Type Cat5

Number of Antennas 1 Internal

Connector Type N/A

Detachable Antenna No

UPnP able/cert UPnP Advertise

.Net Support N/A

Security Features WEP-64, WEP-128, WPA,

WPA2

Image Sensor CMOS

Lens Fixed Focus

Resolution 640 x 480, 320 x 240,

160 x 128

Relative Illumination 5.1 Lux Effective Focus 3 mm

Sensitivity 3.0V/Lux-sec
Field of View 61.48 degrees
Compression Algorithm MPEG-4 and MJPEG

Record File Format ASF

Brightness Auto/Manual Adjustment

**Environmental** 

Dimensions 3.54" x 4.72" x 1.46"

(90 x 120 x 37mm)

Weight 4.59 oz (0.13 kg)

Power 5V 1A

Certification FCC, CE, CB, UL, C-Tick,

PSB/SPRING, IDA

Operating Temp. 32 to 104°F (0 to 40°C)

Storage Temp. -4 to 158°F (−20 to 70°C)

Operating Humidity 10 to 80% Noncondensing

Storage Humidity 0 to 90% Noncondensing

### **Minimum System Requirements**

1 Camera PC with 2 GHz or faster

processor

512 MB RAM

Microsoft Windows 2000,

XP or Vista

500MB of available hard

drive space

Graphics card with a minimum of 128 MB Internet Explorer 6.0 (or above), Mozilla Firefox, Netscape 7.0 (or above) DirectX 9.0 (or above)

**CD-ROM Drive** 

Windows Media Player 9 or

higher

Up to 9 Cameras PC with 3 GHz dual-core

processor

1 GB RAM

Microsoft Windows 2000,

XP or Vista

4 GB of available hard

drive space

Graphics card with a minimum of 256 MB Internet Explorer 6.0 (or above), Mozilla Firefox,

above), Mozilla Firefox, Netscape 7.0 (or above) DirectX 9.0 (or above)

**CD-ROM Drive** 

Windows Media Player 9 or

higher

# **Appendix D: Warranty Information**

# **Limited Warranty**

Linksys warrants to You that, for a period of one year (the "Warranty Period"), your Linksys Product will be substantially free of defects in materials and workmanship under normal use. Your exclusive remedy and Linksys' entire liability under this warranty will be for Linksys at its option to repair or replace the Product or refund Your purchase price less any rebates. This limited warranty extends only to the original purchaser.

If the Product proves defective during the Warranty Period call Linksys Technical Support in order to obtain a Return Authorization Number, if applicable. BE SURE TO HAVE YOUR PROOF OF PURCHASE ON HAND WHEN CALLING. If You are requested to return the Product, mark the Return Authorization Number clearly on the outside of the package and include a copy of your original proof of purchase. RETURN REQUESTS CANNOT BE PROCESSED WITHOUT PROOF OF PURCHASE. You are responsible for shipping defective Products to Linksys. Linksys pays for UPS Ground shipping from Linksys back to You only. Customers located outside of the United States of America and Canada are responsible for all shipping and handling charges.

ALL IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THE WARRANTY PERIOD. ALL OTHER EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF NON-INFRINGEMENT, ARE DISCLAIMED. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to You. This warranty gives You specific legal rights, and You may also have other rights which vary by jurisdiction.

This warranty does not apply if the Product (a) has been altered, except by Linksys, (b) has not been installed, operated, repaired, or maintained in accordance with instructions supplied by Linksys, or (c) has been subjected to abnormal physical or electrical stress, misuse, negligence, or accident. In addition, due to the continual development of new techniques for intruding upon and attacking networks, Linksys does not warrant that the Product will be free of vulnerability to intrusion or attack.

TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL LINKSYS BE LIABLE FOR ANY LOST DATA, REVENUE OR PROFIT, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, REGARDLESS OF THE THEORY OF LIABILITY (INCLUDING NEGLIGENCE), ARISING OUT OF OR RELATED TO THE USE OF OR INABILITY TO USE THE PRODUCT (INCLUDING ANY SOFTWARE), EVEN IF LINKSYS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL LINKSYS' LIABILITY EXCEED THE AMOUNT PAID BY YOU FOR THE PRODUCT. The foregoing limitations will apply even if any warranty or remedy provided under this Agreement fails of its essential purpose. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to You.

Please direct all inquiries to: Linksys, P.O. Box 18558, Irvine, CA 92623.

# **Appendix E: Regulatory Information**

## **FCC Statement**

This device complies with Part 15 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.

This product has been tested and complies with the specifications for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used according to the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which is found by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment or devices
- Connect the equipment to an outlet other than the receiver's
- Consult a dealer or an experienced radio/TV technician for assistance

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

# **FCC Radiation Exposure Statement**

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. IEEE 802.11b or 802.11g operation of this product in the USA is firmware-limited to channels 1 through 11.

# **Safety Notices**

- Caution: To reduce the risk of fire, use only No.26 AWG or larger telecommunication line cord.
- Do not use this product near water, for example, in a wet basement or near a swimming pool.
- Avoid using this product during an electrical storm.
   There may be a remote risk of electric shock from lightning.



**WARNING:** This product contains lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.

# **Industry Canada Statement**

This Class B digital apparatus complies with Canadian ICES-003 and RSS210.

Operation is subject to the following two conditions:

- 1. This device may not cause interference and
- 2. This device must accept any interference, including interference that may cause undesired operation of the device. This device has been designed to operate with an antenna having a maximum gain of 2dBi. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the EIRP is not more than required for successful communication.

# **Industry Canada 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.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

# Avis d'Industrie Canada

Cet appareil numérique de la classe B est conforme aux normes NMB-003 et RSS210 du Canada.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes :

- 1. il ne doit pas produire de brouillage et
- 2. il doit accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif. Le dispositif a été conçu pour fonctionner avec une antenne ayant un gain maximum de 2 dBi. Les règlements d'Industrie Canada interdisent strictement l'utilisation d'antennes dont le gain est supérieur à cette limite. L'impédance requise de l'antenne est de 50 ohms.

Afin de réduire le risque d'interférence aux autres utilisateurs, le type d'antenne et son gain doivent être choisis de façon à ce que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne soit pas supérieure au niveau requis pour obtenir une communication satisfaisante.

# Avis d'Industrie Canada concernant l'exposition aux radiofréquences :

Ce matériel est conforme aux limites établies par IC en matière d'exposition aux radiofréquences dans un environnement non contrôlé. Ce matériel doit être installé et utilisé à une distance d'au moins 20 cm entre l'antenne et le corps de l'utilisateur.

L'émetteur ne doit pas être placé près d'une autre antenne ou d'un autre émetteur, ou fonctionner avec une autre antenne ou un autre émetteur.

## Wireless Disclaimer

The maximum performance for wireless is derived from IEEE Standard 802.11 specifications. Actual performance can vary, including lower wireless network capacity, data throughput rate, range and coverage. Performance depends on many factors, conditions and variables, including distance from the access point, volume of network traffic, building materials and construction, operating system used, mix of wireless products used, interference and other adverse conditions.

# Avis de non-responsabilité concernant les appareils sans fil

Les performances maximales pour les réseaux sans fil sont tirées des spécifications de la norme IEEE 802.11. Les performances réelles peuvent varier, notamment en fonction de la capacité du réseau sans fil, du débit de la transmission de données, de la portée et de la couverture. Les performances dépendent de facteurs, conditions et variables multiples, en particulier de la distance par rapport au point d'accès, du volume du trafic réseau, des matériaux utilisés dans le bâtiment et du type de construction, du système d'exploitation et de la combinaison de produits sans fil utilisés, des interférences et de toute autre condition défavorable.

# User Information for Consumer Products Covered by EU Directive 2002/96/EC on Waste Electric and Electronic Equipment (WEEE)

This document contains important information for users with regards to the proper disposal and recycling of Linksys products. Consumers are required to comply with this notice for all electronic products bearing the following symbol:



# English - Environmental Information for Customers in the European Union

European Directive 2002/96/EC requires that the equipment bearing this symbol 

on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

## Български (Bulgarian) - Информация относно опазването на околната среда за потребители в Европейския съюз

Европейска директива 2002/96/ЕС изисква уредите, носещи този символ № върху изделието и/или опаковката му, да не се изхвърля т с несортирани битови отпадъци. Символът обозначава, че изделието трябва да се изхвърля отделно от сметосъбирането на обикновените битови отпадъци. Ваша е отговорността този и другите електрически и електронни уреди да се изхвърлят в предварително определени от държавните или общински органи специализирани пунктове за събиране. Правилното изхвърляне и рециклиране ще спомогнат да се предотвратят евентуални вредни за околната среда и здравето на населението последствия. За по-подробна информация относно изхвърлянето на вашите стари уреди се обърнете към местните власти, службите за сметосъбиране или магазина, от който сте закупили уреда.

# Ceština (Czech) - Informace o ochraně životního prostředí pro zákazníky v zemích Evropské unie

Evropská směrnice 2002/96/ES zakazuje, aby zařízení označené tímto symbolem ¾ na produktu anebo na obalu bylo likvidováno s netříděným komunálním odpadem. Tento symbol udává, že daný produkt musí být likvidován odděleně od běžného komunálního odpadu. Odpovídáte za likvidaci tohoto produktu a dalších elektrických a elektronických zařízení prostřednictvím určených sběrných míst stanovených vládou nebo místními úřady. Správná likvidace a recyklace pomáhá předcházet potenciálním negativním dopadům na životní prostředí a lidské zdraví. Podrobnější informace o likvidaci starého vybavení si laskavě vyžádejte od místních úřadů, podniku zabývajícího se likvidací komunálních odpadů nebo obchodu, kde jste produkt zakoupili.

#### Dansk (Danish) - Miljøinformation for kunder i EU

EU-direktiv 2002/96/EF kræver, at udstyr der bærer dette symbol på produktet og/eller emballagen ikke må bortskaffes som usorteret kommunalt affald. Symbolet betyder, at dette produkt skal bortskaffes adskilt fra det almindelige husholdningsaffald. Det er dit ansvar at bortskaffe dette og andet elektrisk og elektronisk udstyr via bestemte indsamlingssteder udpeget af staten eller de lokale myndigheder. Korrekt bortskaffelse og genvinding vil hjælpe med til at undgå mulige skader for miljøet og menneskers sundhed. Kontakt venligst de lokale myndigheder, renovationstjenesten eller den butik, hvor du har købt produktet, angående mere detaljeret information om bortskaffelse af dit gamle udstyr.

# Deutsch (German) - Umweltinformation für Kunden innerhalb der Europäischen Union

Die Europäische Richtlinie 2002/96/EC verlangt, dass technische Ausrüstung, die direkt am Gerät und/oder an der Verpackung mit diesem Symbol versehen ist X, nicht zusammen mit unsortiertem Gemeindeabfall entsorgt werden darf. Das Symbol weist darauf hin, dass das Produkt von regulärem Haushaltmüll getrennt entsorgt werden sollte. Es liegt in Ihrer Verantwortung, dieses Gerät und andere elektrische und elektronische Geräte über die dafür zuständigen und von der Regierung oder örtlichen Behörden dazu bestimmten Sammelstellen zu entsorgen. Ordnungsgemäßes Entsorgen und Recyceln trägt dazu bei, potentielle negative Folgen für Umwelt und die menschliche Gesundheit zu vermeiden. Wenn Sie weitere Informationen zur Entsorgung Ihrer Altgeräte benötigen, wenden Sie sich bitte an die örtlichen Behörden oder städtischen Entsorgungsdienste oder an den Händler, bei dem Sie das Produkt erworben haben.

# Eesti (Estonian) - Keskkonnaalane informatsioon Euroopa Liidus asuvatele klientidele

Euroopa Liidu direktiivi 2002/96/EÜ nõuete kohaselt on seadmeid, millel on tootel või pakendil käesolev sümbol 🕱, keelatud kõrvaldada koos sorteerimata olmejäätmetega. See sümbol näitab, et toode tuleks kõrvaldada eraldi tavalistest olmejäätmevoogudest. Olete kohustatud kõrvaldama käesoleva ja ka muud elektri- ja elektroonikaseadmed riigi või kohalike ametiasutuste poolt ette nähtud kogumispunktide kaudu. Seadmete korrektne kõrvaldamine ja ringlussevõtt aitab vältida võimalikke negatiivseid tagajärgi keskkonnale ning inimeste tervisele. Vanade seadmete kõrvaldamise kohta täpsema informatsiooni saamiseks võtke palun ühendust kohalike ametiasutustega, jäätmekäitlusfirmaga või kauplusega, kust te toote ostsite.

# Español (Spanish) - Información medioambiental para clientes de la Unión Europea

La Directiva 2002/96/CE de la UE exige que los equipos que lleven este símbolo ♣ en el propio aparato y/o en su embalaje no deben eliminarse junto con otros residuos urbanos no seleccionados. El símbolo indica que el producto en cuestión debe separarse de los residuos domésticos convencionales con vistas a su eliminación. Es responsabilidad suya desechar este y cualesquiera otros aparatos eléctricos y electrónicos a través de los puntos de recogida que ponen a su disposición el gobierno y las autoridades locales. Al desechar y reciclar correctamente estos aparatos estará contribuyendo a evitar posibles consecuencias negativas para el medio ambiente y la salud de las personas. Si desea obtener información más detallada sobre la eliminación segura de su aparato usado, consulte a las autoridades locales, al servicio de recogida y eliminación de residuos de su zona o pregunte en la tienda donde adquirió el producto.

## ξλληνικά (Greek) - Στοιχεία περιβαλλοντικής προστασίας για πελάτες εντός της Ευρωπαϊκής Ένωσης

Η Κοινοτική Οδηγία 2002/96/ΕC απαιτεί ότι ο εξοπλισμός ο οποίος φέρει αυτό το σύμβολο Σ στο προϊόν και/ή στη συσκευασία του δεν πρέπει να απορρίπτεται μαζί με τα μικτά κοινοτικά απορρίμματα. Το σύμβολο υποδεικνύει ότι αυτό το προϊόν θα πρέπει να απορρίπτεται ξεχωριστά από τα συνήθη οικιακά απορρίμματα. Είστε υπεύθυνος για την απόρριψη του παρόντος και άλλου ηλεκτρικού και ηλεκτρονικού εξοπλισμού μέσω των καθορισμένων εγκαταστάσεων συγκέντρωσης απορριμμάτων οι οποίες παρέχονται από το κράτος ή τις αρμόδιες τοπικές αρχές. Η σωστή απόρριψη και ανακύκλωση συμβάλλει στην πρόληψη πιθανών αρνητικών συνεπειών για το περιβάλλον και την υγεία. Για περισσότερες πληροφορίες σχετικά με την απόρριψη του παλιού σας εξοπλισμού, παρακαλώ επικοινωνήστε με τις τοπικές αρχές, τις υπηρεσίες απόρριψης ή το κατάστημα από το οποίο αγοράσατε το προϊόν.

# Français (French) - Informations environnementales pour les clients de l'Union européenne

La directive européenne 2002/96/CE exige que l'équipement sur lequel est apposé ce symbole sur le produit et/ou son emballage ne soit pas jeté avec les autres ordures ménagères. Ce symbole indique que le produit doit être éliminé dans un circuit distinct de celui pour les déchets des ménages. Il est de votre responsabilité de jeter ce matériel ainsi que tout autre matériel électrique ou électronique par les moyens de collecte indiqués par le gouvernement et les pouvoirs publics des collectivités territoriales. L'élimination et le recyclage en bonne et due forme ont pour but de lutter contre l'impact néfaste potentiel de ce type de produits sur l'environnement et la santé publique. Pour plus d'informations sur le mode d'élimination de votre ancien équipement, veuillez prendre contact avec les pouvoirs publics locaux, le service de traitement des déchets, ou l'endroit où vous avez acheté le produit.

# Italiano (Italian) - Informazioni relative all'ambiente per i clienti residenti nell'Unione Europea

La direttiva europea 2002/96/EC richiede che le apparecchiature contrassegnate con questo simbolo ≝ sul prodotto e/o sull'imballaggio non siano smaltite insieme ai rifiuti urbani non differenziati. Il simbolo indica che questo prodotto non deve essere smaltito insieme ai normali rifiuti domestici. È responsabilità del proprietario smaltire sia questi prodotti sia le altre apparecchiature elettriche ed elettroniche mediante le specifiche strutture di raccolta indicate dal governo o dagli enti pubblici locali. Il corretto smaltimento ed il riciclaggio aiuteranno a prevenire conseguenze potenzialmente negative per l'ambiente e per la salute dell'essere umano. Per ricevere informazioni più dettagliate circa lo smaltimento delle vecchie apparecchiature in Vostro possesso, Vi invitiamo a contattare gli enti pubblici di competenza, il servizio di smaltimento rifiuti o il negozio nel quale avete acquistato il prodotto.

# Latviešu valoda (Latvian) - Ekoloģiska informācija klientiem Eiropas Savienības jurisdikcijā

Direktīvā 2002/96/EK ir prasība, ka aprīkojumu, kam pievienota zīme ½ uz paša izstrādājuma vai uz tā iesaiņojuma, nedrīkst izmest nešķirotā veidā kopā ar komunālajiem atkritumiem (tiem, ko rada vietēji iedzīvotāji un uzņēmumi). Šī zīme nozīmē to, ka šī ierīce ir jāizmet atkritumos tā, lai tā nenonāktu kopā ar parastiem mājsaimniecības atkritumiem. Jūsu pienākums ir šo un citas elektriskas un elektroniskas ierīces izmest atkritumos, izmantojot īpašus atkritumu savākšanas veidus un līdzekļus, ko nodrošina valsts un pašvaldību iestādes. Ja izmešana atkritumos un pārstrāde tiek veikta pareizi, tad mazinās iespējamais kaitējums dabai un cilvēku veselībai. Sīkākas ziņas par novecojuša aprīkojuma izmešanu atkritumos jūs varat saņemt vietējā pašvaldībā, atkritumu savākšanas dienestā, kā arī veikalā, kur iegādājāties šo izstrādājumu.

# Lietuvškai (Lithuanian) - Aplinkosaugos informacija, skirta Europos Sąjungos vartotojams

Europos direktyva 2002/96/EC numato, kad įrangos, kuri ir kurios pakuotė yra pažymėta šiuo simboliu (įveskite simbolį), negalima šalinti kartu su nerūšiuotomis komunalinėmis atliekomis. Šis simbolis rodo, kad gaminį reikia šalinti atskirai nuo bendro buitinių atliekų srauto. Jūs privalote užtikrinti, kad ši ir kita elektros ar elektroninė įranga būtų šalinama per tam tikras nacionalinės ar vietinės valdžios nustatytas atliekų rinkimo sistemas. Tinkamai šalinant ir perdirbant atliekas, bus išvengta galimos žalos aplinkai ir žmonių sveikatai. Daugiau informacijos apie jūsų senos įrangos šalinimą gali pateikti vietinės valdžios institucijos, atliekų šalinimo tarnybos arba parduotuvės, kuriose įsigijote tą gaminį.

# Malti (Maltese) - Informazzjoni Ambjentali għal Klijenti fl-Unjoni Ewropea

Id-Direttiva Ewropea 2002/96/KE titlob li t-tagħmir li jkun fih issimbolu ≝ fuq il-prodott u/jew fuq l-ippakkjar ma jistax jintrema ma' skart muniċipali li ma ġiex isseparat. Is-simbolu jindika li dan il-prodott għandu jintrema separatament minn ma' l-iskart domestiku regolari. Hija responsabbiltà tiegħek li tarmi dan it-tagħmir u kull tagħmir ieħor ta' l-elettriku u elettroniku permezz ta' faċilitajiet ta' ġbir appuntati apposta mill-gvern jew mill-awtoritajiet lokali. Ir-rimi b'mod korrett u r-riċiklaġġ jgħin jipprevjeni konsegwenzi negattivi potenzjali għall-ambjent u għas-saħħa tal-bniedem. Għal aktar informazzjoni dettaljata dwar ir-rimi tat-tagħmir antik tiegħek, jekk jogħġbok ikkuntattja lill-awtoritajiet lokali tiegħek, is-servizzi għar-rimi ta' l-iskart, jew il-ħanut minn fejn xtrajt il-prodott.

# Magyar (Hungarian) - Környezetvédelmi információ az európai uniós vásárlók számára

A 2002/96/EC számú európai uniós irányelv megkívánja, hogy azokat a termékeket, amelyeken, és/vagy amelyek csomagolásán az alábbi címke megjelenik, tilos a többi szelektálatlan lakossági hulladékkal együtt kidobni. A címke azt jelöli, hogy az adott termék kidobásakor a szokványos háztartási hulladékelszállítási rendszerektől elkülönített eljárást kell alkalmazni. Az Ön felelőssége, hogy ezt, és más elektromos és elektronikus berendezéseit a kormányzati vagy a helyi hatóságok által kijelölt gyűjtőredszereken keresztül számolja fel. A megfelelő hulladékfeldolgozás segít a környezetre és az emberi egészségre potenciálisan ártalmas negatív hatások megelőzésében. Ha elavult berendezéseinek felszámolásához további részletes információra van szüksége, kérjük, lépjen kapcsolatba a helyi hatóságokkal, a hulladékfeldolgozási szolgálattal, vagy azzal üzlettel, ahol a terméket vásárolta.

# Nederlands (Dutch) - Milieu-informatie voor klanten in de Europese Unie

De Europese Richtlijn 2002/96/EC schrijft voor dat apparatuur die is voorzien van dit symbool 🛎 op het product of de verpakking, niet mag worden ingezameld met niet-gescheiden huishoudelijk afval. Dit symbool geeft aan dat het product apart moet worden ingezameld. U bent zelf verantwoordelijk voor de vernietiging van deze en andere elektrische en elektronische apparatuur via de daarvoor door de landelijke of plaatselijke overheid aangewezen inzamelingskanalen. De juiste vernietiging en recycling van deze apparatuur voorkomt mogelijke negatieve gevolgen voor het milieu en de gezondheid. Voor meer informatie over het vernietigen van uw oude apparatuur neemt u contact op met de plaatselijke autoriteiten of afvalverwerkingsdienst, of met de winkel waar u het product hebt aangeschaft.

#### Norsk (Norwegian) - Miljøinformasjon for kunder i EU

EU-direktiv 2002/96/EF krever at utstyr med følgende symbol 

avbildet på produktet og/eller pakningen, ikke må kastes sammen med usortert avfall. Symbolet indikerer at dette produktet skal håndteres atskilt fra ordinær avfallsinnsamling for husholdningsavfall. Det er ditt ansvar å kvitte deg med dette produktet og annet elektrisk og elektronisk avfall via egne innsamlingsordninger slik myndighetene eller kommunene bestemmer. Korrekt avfallshåndtering og gjenvinning vil være med på å forhindre mulige negative konsekvenser for miljø og helse. For nærmere informasjon om håndtering av det kasserte utstyret ditt, kan du ta kontakt med kommunen, en innsamlingsstasjon for avfall eller butikken der du kjøpte produktet.

### Polski (Polish) - Informacja dla klientów w Unii Europejskiej o przepisach dotyczących ochrony środowiska

Dyrektywa Europejska 2002/96/EC wymaga, aby sprzęt oznaczony symbolem ½ znajdującym się na produkcie i/lub jego opakowaniu nie był wyrzucany razem z innymi niesortowanymi odpadami komunalnymi. Symbol ten wskazuje, że produkt nie powinien być usuwany razem ze zwykłymi odpadami z gospodarstw domowych. Na Państwu spoczywa obowiązek wyrzucania tego i innych urządzeń elektrycznych oraz elektronicznych w punktach odbioru wyznaczonych przez władze krajowe lub lokalne. Pozbywanie się sprzętu we właściwy sposób i jego recykling pomogą zapobiec potencjalnie negatywnym konsekwencjom dla środowiska i zdrowia ludzkiego. W celu uzyskania szczegółowych informacji o usuwaniu starego sprzętu, prosimy zwrócić się do lokalnych władz, służb oczyszczania miasta lub sklepu, w którym produkt został nabyty.

# Português (Portuguese) - Informação ambiental para clientes da União Europeia

A Directiva Europeia 2002/96/CE exige que o equipamento que exibe este símbolo ĭ no produto e/ou na sua embalagem não seja eliminado junto com os resíduos municipais não separados. O símbolo indica que este produto deve ser eliminado separadamente dos resíduos domésticos regulares. É da sua responsabilidade eliminar este e qualquer outro equipamento eléctrico e electrónico através das instalações de recolha designadas pelas autoridades governamentais ou locais. A eliminação e reciclagem correctas ajudarão a prevenir as consequências negativas para o ambiente e para a saúde humana. Para obter informações mais detalhadas sobre a forma de eliminar o seu equipamento antigo, contacte as autoridades locais, os serviços de eliminação de resíduos ou o estabelecimento comercial onde adquiriu o produto.

# Română (Romanian) - Informații de mediu pentru clienții din Uniunea Europeană

Directiva europeană 2002/96/CE impune ca echipamentele care prezintă acest simbol ¾ pe produs şi/sau pe ambalajul acestuia să nu fie casate împreună cu gunoiul menajer municipal. Simbolul indică faptul că acest produs trebuie să fie casat separat de gunoiul menajer obișnuit. Este responsabilitatea dvs. să casați acest produs și alte echipamente electrice și electronice prin intermediul unităților de colectare special desemnate de guvern sau de autoritățile locale. Casarea și reciclarea corecte vor ajuta la prevenirea potențialelor consecințe negative asupra sănătății mediului și a oamenilor. Pentru mai multe informații detaliate cu privire la casarea acestui echipament vechi, contactați autoritățile locale, serviciul de salubrizare sau magazinul de la care ați achiziționat produsul.

# Slovenčina (Slovak) - Informácie o ochrane životného prostredia pre zákazníkov v Európskej únii

Podľa európskej smernice 2002/96/ES zariadenie s týmto symbolom \*\* na produkte a/alebo jeho balení nesmie byť likvidované spolu s netriedeným komunálnym odpadom. Symbol znamená, že produkt by sa mal likvidovať oddelene od bežného odpadu z domácností. Je vašou povinnosťou likvidovať toto i ostatné elektrické a elektronické zariadenia prostredníctvom špecializovaných zberných zariadení určených vládou alebo miestnymi orgánmi. Správna likvidácia a recyklácia pomôže zabrániť prípadným negatívnym dopadom na životné prostredie a zdravie ľudí. Ak máte záujem o podrobnejšie informácie o likvidácii starého zariadenia, obráťte sa, prosím, na miestne orgány, organizácie zaoberajúce sa likvidáciou odpadov alebo obchod, v ktorom ste si produkt zakúpili.

# Slovenčina (Slovene) - Okoljske informacije za stranke v Evropski uniji

Evropska direktiva 2002/96/EC prepoveduje odlaganje opreme, označene s tem simbolom ≝ – na izdelku in/ali na embalaži – med običajne, nerazvrščene odpadke. Ta simbol opozarja, da je treba izdelek odvreči ločeno od preostalih gospodinjskih odpadkov. Vaša odgovornost je, da to in preostalo električno in elektronsko opremo odnesete na posebna zbirališča, ki jih določijo državne ustanove ali lokalna uprava. S pravilnim odlaganjem in recikliranjem boste preprečili morebitne škodljive vplive na okolje in zdravje ljudi. Če želite izvedeti več o odlaganju stare opreme, se obrnite na lokalno upravo, odpad ali trgovino, kjer ste izdelek kupili.

#### Suomi (Finnish) - Ympäristöä koskevia tietoja EUalueen asiakkaille

EU-direktiivi 2002/96/EY edellyttää, että jos laitteistossa on tämä symboli ≝ itse tuotteessa ja/tai sen pakkauksessa, laitteistoa ei saa hävittää lajittelemattoman yhdyskuntajätteen mukana. Symboli merkitsee sitä, että tämä tuote on hävitettävä erillään tavallisesta kotitalousjätteestä. Sinun vastuullasi on hävittää tämä elektroniikkatuote ja muut vastaavat elektroniikkatuotteet viemällä tuote tai tuotteet viranomaisten määräämään keräyspisteeseen. Laitteiston oikea hävittäminen estää mahdolliset kielteiset vaikutukset ympäristöön ja ihmisten terveyteen. Lisätietoja vanhan laitteiston oikeasta hävitystavasta saa paikallisilta viranomaisilta, jätteenhävityspalvelusta tai siitä myymälästä, josta ostit tuotteen.

## Svenska (Swedish) - Miljöinformation för kunder i Europeiska unionen

Det europeiska direktivet 2002/96/EC kräver att utrustning med denna symbol 🖺 på produkten och/eller förpackningen inte får kastas med osorterat kommunalt avfall. Symbolen visar att denna produkt bör kastas efter att den avskiljts från vanligt hushållsavfall. Det faller på ditt ansvar att kasta denna och annan elektrisk och elektronisk utrustning på fastställda insamlingsplatser utsedda av regeringen eller lokala myndigheter. Korrekt kassering och återvinning skyddar mot eventuella negativa konsekvenser för miljön och personhälsa. För mer detaljerad information om kassering av din gamla utrustning kontaktar du dina lokala myndigheter, avfallshanteringen eller butiken där du köpte produkten.



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