

# LINKSYS®

A Division of Cisco Systems, Inc.



2.4GHz **Wireless-G**  
802.11g



PTZ Internet Camera  
with Audio

## User Guide

Model No. **WVC210**



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## How to Use this Guide

This User Guide has been designed to make understanding networking with the Camera easier than ever. Look for the following items when reading this guide:



This checkmark means there is a Note of interest and is something you should pay special attention to while using the Camera.



This exclamation point means there is a Caution or warning and is something that could damage your property or the Camera.



This question mark provides you with a reminder about something you might need to do while using the Camera.

In addition to these symbols, there are definitions for technical terms that are presented like this:

***word:** definition.*

Also, each figure (diagram, screenshot, or other image) is provided with a figure number and description, like this:

### **Figure 0-1: Sample Figure Description**

Figure numbers and descriptions can also be found in the “List of Figures” section in the “Table of Contents”.

# Table of Contents

|   |    |
|---|----|
| Chapter 1: Planning Your Wireless Network .....                                     | 4  |
| Introduction .....  | 4  |
| Ad-Hoc and Infrastructure Modes .....   | 4  |
| Network Layout .....  | 5  |
| Chapter 2: Getting to Know the PTZ Internet Camera .....                            | 6  |
| Camera LCD Screen and Built-in Microphone .....                                     | 6  |
| Camera LEDs .....   | 6  |
| Camera Ports and Button .....   | 7  |
| Chapter 3: Connecting the PTZ Internet Camera .....                                 | 8  |
| Overview .....  | 8  |
| Connection to a Wired Network for Setup .....                                       | 8  |
| Connection to a Wireless Ad-Hoc Network for Setup .....                             | 9  |
| Moving the Camera to a Different Network .....                                      | 9  |
| Chapter 4: Setting up and Mounting the Wireless-G Internet Camera .....             | 11 |
| Setup Wizard .....  | 11 |
| Placement Options .....   | 18 |
| Audio Option .....  | 18 |
| Chapter 5: Installing and Using the Internet Camera Viewer & Recorder Utility ..... | 19 |
| Overview .....  | 19 |
| Installing the Viewer & Recorder Utility .....                                      | 19 |
| Using the Viewer & Recorder Utility .....   | 21 |
| Setting Up the Camera .....   | 25 |
| Using File Finder .....   | 29 |
| Chapter 6: Setting up the Linksys SoloLink™ DDNS Service .....                      | 30 |
| Overview .....  | 30 |
| Introduction .....  | 30 |
| Setup Wizard for the SoloLink DDNS Service .....                                    | 30 |
| SoloLink Registration of Additional Cameras .....                                   | 39 |

|  |    |
|--|----|
| <b>Chapter 7: Using the Wireless-G Internet Camera's Web-based Utility</b> . . . . . | 41 |
| Overview . . . . .   | 41 |
| How to Access the Web-based Utility . . . . .  | 41 |
| View Video . . . . .   | 42 |
| Setup . . . . .  | 43 |
| Help . . . . .   | 56 |
| <b>Appendix A: Troubleshooting</b> . . . . .   | 57 |
| <b>Appendix B: Wireless Security</b> . . . . .                                       | 59 |
| Security Precautions . . . . .   | 59 |
| Security Threats Facing Wireless Networks . . . . .                                  | 59 |
| <b>Appendix C: Upgrading Firmware</b> . . . . .                                      | 61 |
| <b>Appendix D: vWindows Help</b> . . . . .   | 62 |
| <b>Appendix E: Glossary</b> . . . . .  | 63 |
| <b>Appendix F: Specifications</b> . . . . .  | 68 |
| <b>Appendix G: Warranty Information</b> . . . . .                                    | 71 |
| <b>Appendix H: Regulatory Information</b> . . . . .                                  | 72 |
| <b>Appendix I: Contact Information</b> . . . . .                                     | 79 |

# List of Figures

|   |    |
|---|----|
| Figure 2-1: Camera LEDS, LCD Screen and Built-in Microphone . . . . .   | 6  |
| Figure 2-2: Camera Ports . . . . .                                      | 7  |
| Figure 3-1: Connect the Ethernet Network Cable . . . . .                | 8  |
| Figure 3-2: Connect the Power Adapter . . . . .                         | 8  |
| Figure 4-1: Setup Wizard - Welcome Screen . . . . .                     | 11 |
| Figure 4-2: The End User License Agreement. . . . .                     | 11 |
| Figure 4-3: Connect Network Cable to Network . . . . .                  | 12 |
| Figure 4-4: Connect Network Cable to Camera. . . . .                    | 12 |
| Figure 4-5: Connect Power to Camera . . . . .                           | 12 |
| Figure 4-6: Check LEDs screen . . . . .                                 | 13 |
| Figure 4-7: Network Cameras Found Screen . . . . .                      | 13 |
| Figure 4-8: Wizard Login Screen. . . . .                                | 13 |
| Figure 4-9: Basic Settings Screen. . . . .                              | 14 |
| Figure 4-10: Network Settings Screen . . . . .                          | 14 |
| Figure 4-11: IP Settings Screen. . . . .                                | 15 |
| Figure 4-12: Mode Settings Screen. . . . .                              | 15 |
| Figure 4-13: Wireless Settings Screen . . . . .                         | 16 |
| Figure 4-14: Security Settings Screen . . . . .                         | 16 |
| Figure 4-15: Review New Settings Screen . . . . .                       | 17 |
| Figure 4-16: Confirmation Screen. . . . .                               | 17 |
| Figure 4-17: Congratulations Screen. . . . .                            | 17 |
| Figure 4-18: Stand Option . . . . .                                     | 18 |
| Figure 4-19: Camera Desktop Stand . . . . .                             | 18 |
| Figure 5-1: Install Viewer & Recorder Utility Screen . . . . .          | 19 |
| Figure 5-2: Install Viewer & Recorder Utility - Welcome Screen. . . . . | 19 |
| Figure 5-3: Choose Destination Location Screen . . . . .                | 20 |
| Figure 5-4: Select Program Folder Screen . . . . .                      | 20 |
| Figure 5-5: Setup Complete Screen . . . . .                             | 20 |

|  |    |
|--|----|
| Figure 5-6: Viewer & Recorder Utility Icon . . . . .             | 21 |
| Figure 5-7: Main Screen . . . . .                                | 21 |
| Figure 5-8: Selecting Camera . . . . .                           | 22 |
| Figure 5-9: Camera Selected. . . . .                             | 22 |
| Figure 5-10: Set Preset Position Screen . . . . .                | 24 |
| Figure 5-11: Camera Setup Screen. . . . .                        | 25 |
| Figure 5-12: Recording Schedule Screen . . . . .                 | 26 |
| Figure 5-13: Preferences Screen . . . . .                        | 27 |
| Figure 5-14: The File Finder Desktop Icon . . . . .              | 29 |
| Figure 5-15: File Finder Screen. . . . .                         | 29 |
| Figure 6-1: SoloLink Welcome Screen . . . . .                    | 30 |
| Figure 6-2: SoloLink for Dynamic IP Address Screen . . . . .     | 31 |
| Figure 6-3: SoloLink for Convenience Screen. . . . .             | 31 |
| Figure 6-4: Check Connections Screen. . . . .                    | 32 |
| Figure 6-5: Cameras Found Screen. . . . .                        | 32 |
| Figure 6-6: Login Screen. . . . .                                | 33 |
| Figure 6-7: SoloLink DDNS Screen . . . . .                       | 33 |
| Figure 6-8: Confirm Active Internet Connection Screen . . . . .  | 33 |
| Figure 6-9: Welcome to the SoloLink DDNS Service Screen. . . . . | 34 |
| Figure 6-10: Sign Up Screen . . . . .                            | 34 |
| Figure 6-11: Confirmation of New Settings Screen. . . . .        | 35 |
| Figure 6-12: Select a Location ID Screen . . . . .               | 35 |
| Figure 6-13: Confirm Your Location ID Screen . . . . .           | 36 |
| Figure 6-14: Payment Screen . . . . .                            | 36 |
| Figure 6-15: Verification Screen . . . . .                       | 36 |
| Figure 6-16: Create Links Screen . . . . .                       | 37 |
| Figure 6-17: Successful Registration Screen . . . . .            | 37 |
| Figure 6-18: Account Confirmation of Camera Screen . . . . .     | 38 |
| Figure 6-19: Successful Setup Screen . . . . .                   | 38 |
| Figure 6-20: Port Forwarding Information. . . . .                | 39 |

|   |    |
|---|----|
| Figure 6-21: Web Utility Login Screen . . . . .   | 39 |
| Figure 6-22: Web-based Utility Welcome . . . . .  | 39 |
| Figure 6-23: Find Available Port Screen . . . . . | 40 |
| Figure 7-1: Camera's Default IP Address . . . . . | 41 |
| Figure 7-2: Web-based Utility Welcome . . . . .   | 41 |
| Figure 7-3: View Video Screen . . . . .           | 42 |
| Figure 7-4: Security Warning Screen . . . . .     | 42 |
| Figure 7-5: Basic Screen . . . . .                | 43 |
| Figure 7-6: Confirmation Screen . . . . .         | 44 |
| Figure 7-7: WEP Key Settings Screen . . . . .     | 45 |
| Figure 7-8: Image Screen . . . . .                | 46 |
| Figure 7-9: Maintenance Screen . . . . .          | 48 |
| Figure 7-10: Users Screen . . . . .               | 49 |
| Figure 7-11: DDNS Screen . . . . .                | 50 |
| Figure 7-12: FTP Upload Screen . . . . .          | 51 |
| Figure 7-13: Options Screen . . . . .             | 52 |
| Figure 7-14: Pan/Tilt Screen . . . . .            | 54 |
| Figure 7-15: Status Screen . . . . .              | 55 |
| Figure 7-16: Help Screen . . . . .                | 56 |
| Figure C-1: Upgrade Firmware Screen . . . . .     | 61 |

# Chapter 1: Planning Your Wireless Network

## Introduction

A wireless local area network (WLAN) is exactly like a regular local area network (LAN), except that each computer in the WLAN uses a wireless device to connect to the network. Computers and other devices, such as peripherals, in a WLAN share the same frequency channel and SSID, which is an identification name for wireless devices.

## Ad-Hoc and Infrastructure Modes

Unlike wired networks, wireless networks have two different modes in which they may be set up: infrastructure and ad-hoc. An infrastructure configuration is a WLAN and wired LAN communicating to each other through an access point. An ad-hoc configuration is wireless-equipped computers communicating directly with each other. Choosing between these two modes depends on whether or not the wireless network needs to share data or peripherals with a wired network or not.

If the computers on the wireless network need to be accessed by a wired network or need to share a peripheral, such as a printer, with the wired network computers, the wireless network should be set up in infrastructure mode. The basis of infrastructure mode centers around an access point, which serves as the main point of communications in a wireless network. (A wireless router can also be used because a wireless router incorporates the capabilities of an access point.) Access points transmit data to PCs equipped with wireless network cards, which can roam within a certain radial range of the access point. Multiple access points can be arranged to work in succession to extend the roaming range, and can be set up to communicate with your Ethernet (wired) hardware as well.

If the wireless network is relatively small and needs to share resources only with the other computers on the wireless network, then the ad-hoc mode can be used. Ad-hoc mode allows computers equipped with wireless transmitters and receivers to communicate directly with each other, eliminating the need for an access point. The drawback of this mode is that, in Ad-Hoc mode, wireless-equipped computers are not able to communicate with computers on a wired network. And, of course, communication between the wireless-equipped computers is limited by the distance and interference directly between them.

## Wire and Wireless can not work in parallel.

LAN (Local Area Network): *the computers and networking products that make up the network in your home or office.*

WLAN (Wireless Local Area Network): *A group of computers and associated devices that communicate with each other wirelessly.*

Infrastructure: *configuration in which a wireless network is bridged to a wired network via an access point.*

Ad-hoc: *a group of wireless devices communicating directly to each other (peer-to-peer) without the use of an access point.*



## Network Layout

The PTZ Internet Camera is compatible with all 802.11b and 802.11g routers, such as model numbers BEFW11S4 and WRT54G, as well as access points, including model numbers WAP11 and WAP54G. The Camera will also communicate with network adapters, such as the Wireless-B and Wireless-G Notebook Adapters (model numbers WPC11 and WPC54G) for your laptop computers, Wireless-B and Wireless-G PCI Adapters (model numbers WMP11 and WMP54G) for your desktop PCs, and Wireless-B and Wireless-G USB Adapters (model numbers WUSB11 and WUSB54G) for your computers when you want to enjoy USB connectivity.

With these, and many other Linksys products, your networking options are limitless. Go to the Linksys website at [www.linksys.com](http://www.linksys.com) for more information about products that work with the PTZ Internet Camera.

# Chapter 2: Getting to Know the PTZ Internet Camera

## Camera LCD Screen and Built-in Microphone

The Camera has a LCD screen that indicates the Camera's current IP address and whether it is a fixed or dynamic address. If the Camera uses a fixed IP address, then the screen will display the word "FIXED." If the Camera uses a dynamic IP address, then the screen will display the word "DHCP."

The built-in microphone is located approximately one inch below the LCD screen, in the middle of the Camera's front panel. It has a range of approximately 9 feet (3 meters), depending on environmental conditions.

## Camera LEDs

The Camera has four LEDs to let you know how the Camera is functioning.

- |                 |  |
|-----------------|--|
| <b>POWER</b>    | Amber. The <b>POWER</b> LED lights up when the Camera is powered on. It flashes for about 10-15 seconds while the Camera is initializing.                            |
| <b>ACTIVITY</b> | Green. The <b>ACTIVITY</b> LED flashes when there is activity.   |
| <b>LAN</b>      | Green. The <b>LAN</b> LED lights up when there is a connection to a wired network. It flashes when data is transmitted to or received from the wired network.        |
| <b>WLAN</b>     | Green. The <b>WLAN</b> LED lights up when there is a connection to a wireless network. It flashes when data is transmitted to or received from the wireless network. |

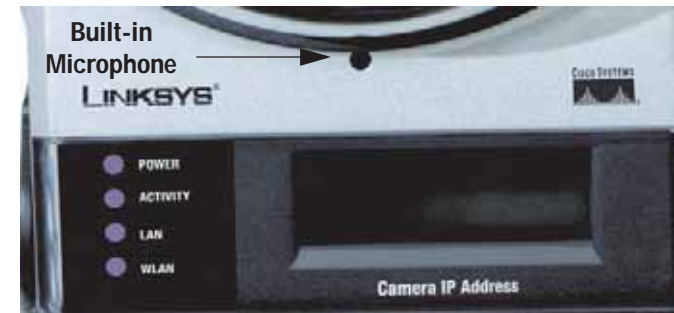


Figure 2-1: Camera LEDs, LCD Screen and Built-in Microphone

## Camera Ports and Button

The Camera features three ports and a Reset button on the bottom panel.

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

**MIC IN** The **MIC IN** port is where you will connect the 2.5 mm input jack of your external microphone (optional).

**RESET** The **RESET** button is what you will press if you need to reset the Camera. Insert a paper clip into the opening next to the Ethernet port. Then press the button and hold it in for five seconds.



**IMPORTANT:** 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 these settings.

# Chapter 3: Connecting the PTZ Internet Camera

## Overview

Before you set up the Camera, connect it to a wired or wireless network. Proceed to the appropriate section for your setup.

If you need to move the Camera from a wired network to a wireless network, or vice versa, go to this section, "Moving the Camera to a Different Network."

## Connection to a Wired Network for Setup

1. Attach the antenna.
2. Connect the Ethernet network cable to your network switch or router.
3. Connect the other end of the cable to the Ethernet port on the Camera.
4. Connect the power adapter to the Power port on the Camera.
5. Plug the power adapter into an electrical outlet.

The Camera's Ready LED flashes while the Camera is initializing. The Camera is ready for use when the Ready and Ethernet LEDs are solidly lit.



**NOTE:** You MUST connect the Camera to a PC, router, or switch using the Ethernet network cable BEFORE powering on the Camera. Otherwise, the Camera will not function.

Proceed to "Chapter 5: Setting up and Mounting the Wireless-G Internet Camera."

## Connection to a Wireless Ad-Hoc Network for Setup

1. Make sure your computer has the following wireless settings:
  - SSID - linksys
  - Network Mode - Ad-Hoc
  - Channel - 6
  - WEP - Disabled
2. Attach the antenna.
3. Connect the power adapter to the Power port on the Camera.
4. Plug the power adapter into an electrical outlet.

The Camera's Ready LED flashes while the Camera is initializing. The Camera is ready for use when the Ready and Wireless LEDs are solidly lit.

Proceed to "Chapter 5: Setting up and Mounting the Wireless-G Internet Camera."

## Moving the Camera to a Different Network

When you move the Camera from a wired network to a wireless network, or vice versa, you must power off the Camera before connecting to the new network. Proceed to the appropriate instructions.

To move the Camera from a wired network to a wireless network, follow these instructions:

1. Unplug the power adapter from the Camera.
2. Unplug the Ethernet network cable from the Camera.
3. Re-connect the power adapter to the Power port on the Camera.

The Camera's Ready LED flashes while the Camera is initializing. The Camera is ready for use when the Ready and Wireless LEDs are solidly lit.

### Wireless-G PTZ Internet Camera with Audio

To move the Camera from a wireless network to a wired network, follow these instructions:

1. Unplug the power adapter from the Camera.
2. Connect the Ethernet network cable to your PC, router, or switch.
3. Connect the other end of the cable to the Ethernet port on the Camera.
4. Re-connect the power adapter to the Power port on the Camera.

The Camera's Ready LED flashes while the Camera is initializing. The Camera is ready for use when the Ready and LAN LEDs are solidly lit.

# Chapter 4: Setting up and Mounting the Wireless-G Internet Camera

## Setup Wizard

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

1. Insert the Setup CD-ROM into your CD-ROM drive. The Setup Wizard should run automatically, and the Welcome screen should appear. If it does not, click the **Start** button and choose **Run**. In the field provided, enter **D:\wvc210.exe** (if "D" is the letter of your CD-ROM drive).
  - **Setup.** Click the **Click Here to Start** button to begin the installation process.
  - **Install Viewer & Recorder Utility.** Click this button to install the Camera's Viewer & Recorder Utility on your PC.
  - **Setup SoloLink DDNS Service.** Click the **Setup SoloLink DDNS Service** button to configure and use Linksys's Dynamic Domain Name System (DDNS) service.
  - **User Guide.** Click this button to open the PDF file of this User Guide.
  - **Exit.** Click the **Exit** button to exit the Setup Wizard.
2. The next screen shows the End User License Agreement. Read through this and, if you accept the terms of the Agreement, click **Next** to continue.



Figure 4-1: Setup Wizard - Welcome Screen



Figure 4-2: The End User License Agreement

3. The next three screens show how to connect the Camera to your network, starting with connecting a network cable to your network's router or switch. Once you have done this, click **Next**.



Figure 4-3: Connect Network Cable to Network

4. Next, connect that network cable to the Camera's RJ-45 port, as shown. Once you have done this, click **Next**.

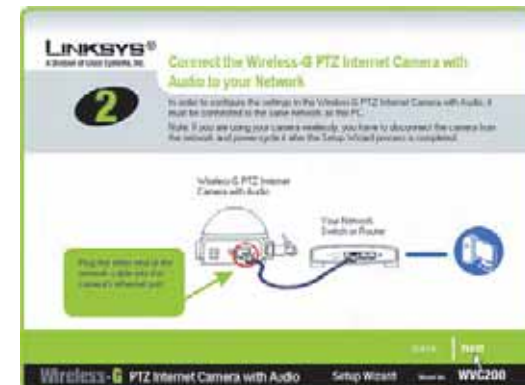


Figure 4-4: Connect Network Cable to Camera

5. Once that is done, connect the Camera's power cable to the Camera's power port, as shown. Once you have done this, click **Next**.

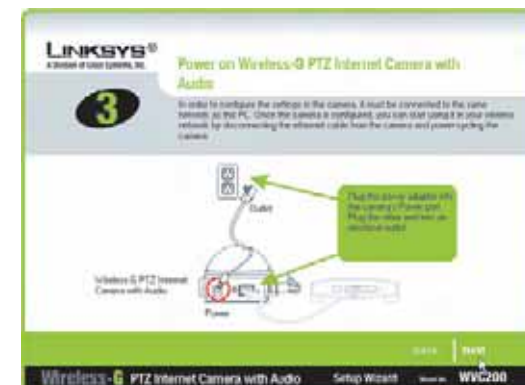


Figure 4-5: Connect Power to Camera



6. Now, check the Camera's LEDs to verify that they're functioning properly. Then, click **Next**.

7. The Wizard will now display a list of Internet Cameras on your network, along with the status information for the Camera whose name is highlighted. In the Selection box, click the name of the Camera you are currently installing. Write down the IP address of the Camera, so you can use it to access the Web-based Utility later. Click the **Next** button.

8. For increased network security, enter a name and password for administrator access to the Camera. In lowercase letters, enter **admin** in the Administrator Name and Administrator Password fields. (You can change these settings through the Camera's Web-based Utility later.) Then, click the **OK** button.



Figure 4-6: Check LEDs screen



Figure 4-7: Network Cameras Found Screen



Figure 4-8: Wizard Login Screen

9. On the Basic Settings screen, you can alter the following settings:

- **Camera Name.** You can give the Camera a unique name. Memorable names are helpful, especially if you are using multiple Cameras on the same network. It should have 15 characters or fewer.
- **Description.** You may enter additional information, such as location, in this field. It has a maximum length of 32 characters.
- **Time Zone.** Select the time zone for the Camera's location.
- **Date.** Enter today's date in the fields provided.
- **Time.** Enter the current time in the fields provided.

When you have finished making your changes, click **Next**.



Figure 4-9: Basic Settings Screen

10. If you need to assign a static IP address to the Camera, select **Static IP address**. If your network has a DHCP server, keep the default setting, **Automatic Configuration-DHCP**.

Then, click **Next**.

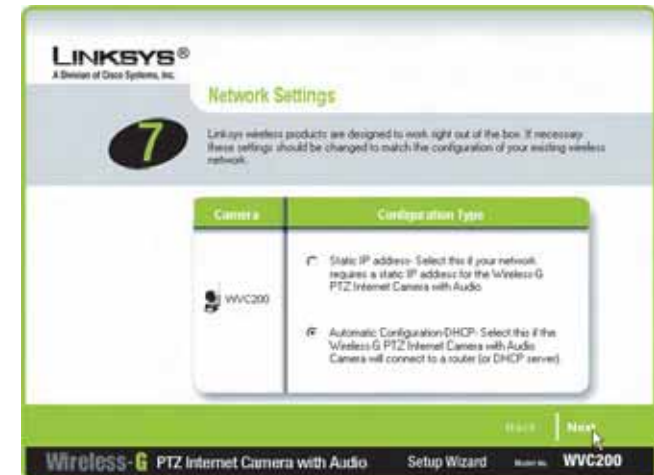


Figure 4-10: Network Settings Screen

11. If you selected Automatic Configuration-DHCP, proceed to the next step.

If you selected Static IP Address, the IP Settings screen will appear. Enter an IP Address, Subnet Mask, and Default Gateway appropriate for your network. You must specify an IP Address and Subnet Mask on this screen. If you are unsure about the Default Gateway, it is better to leave this field blank. Then complete the Primary DNS and/or Secondary DNS fields. You must enter at least one DNS address, which can be obtained from your ISP. Click **Next** to continue.



Figure 4-11: IP Settings Screen

12. The Mode Setting screen will appear next. Click the **Infrastructure** radio button if you want the Camera to communicate using an access point or wireless router. Click the **Ad-Hoc** radio button if you want the Camera to communicate without using an access point or wireless router. After making your selection, click **Next**.



Figure 4-12: Mode Settings Screen

13. The Wireless Settings screen will appear, so you can change the wireless settings. Enter your wireless network's SSID or network name. If you chose Ad-Hoc mode, select the channel at which the network broadcasts its wireless signal.

- **SSID.** The SSID must be identical for all devices in a wireless network. It is case-sensitive and should have 32 alphanumeric characters or fewer. (You can use any keyboard character, but do not use any spaces.)
- **Channel.** If you set the Camera to Ad-Hoc mode, select the appropriate channel from the drop-down menu. All devices in your wireless ad-hoc network must use the same channel in order to function correctly.

Then, click the **Next** button.

The Security Settings screen will appear. If your network has WEP encryption enabled, then select the level of WEP encryption and enter a Passphrase. If you want to manually enter a WEP key, leave the Passphrase field blank, and enter the WEP key in the Key 1 field. If your network has WPA-Personal encryption enabled, enter a WPA Shared Key. If your network has WEP and WPA-Personal encryption disabled, keep the default setting, **Disabled**.

- **WEP.** To enable WEP encryption, select **64-Bit Keys** or **128-Bit Keys** from the drop-down menu. Then enter a Passphrase. If you want to manually enter a WEP key, leave the Passphrase field blank.
- **Passphrase.** If you enabled WEP encryption, you can enter a Passphrase, so a WEP key will be automatically generated. If you want to manually enter a WEP key, leave the Passphrase field blank. The Passphrase is case-sensitive and should have 16 alphanumeric characters or fewer. It must match the passphrase of your wireless network and is compatible with Linksys wireless products only. (You will have to enter the WEP key(s) manually on any non-Linksys wireless products.)
- **Key 1.** If you want to manually enter a WEP key, complete this field. If you are using 64-bit WEP encryption, then the key must consist of exactly 10 hexadecimal characters. If you are using 128-bit WEP encryption, then the key must consist of 26 hexadecimal characters. Valid hexadecimal characters are "0" through "9" and "A" through "F".
- **WPA-Personal.** To enable WPA-Personal encryption, enter a WPA Shared Key from 8 to 63 characters.
- **WPA Shared Key.** If you enabled WPA-Personal encryption, enter the WPA Shared Key that you're using on your wireless network.

Click the **Next** button.



Figure 4-13: Wireless Settings Screen

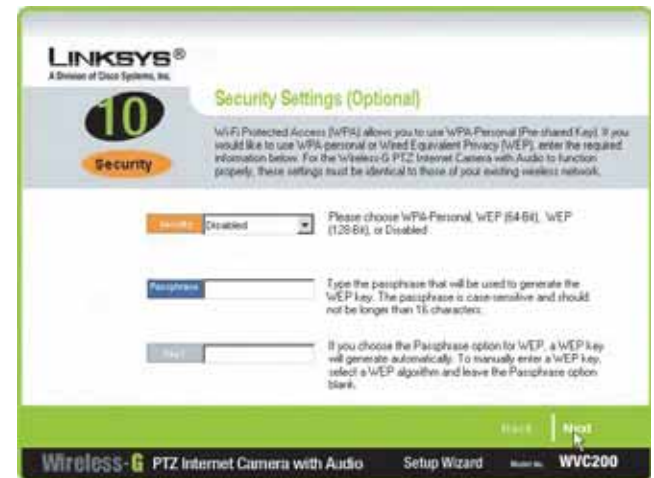


Figure 4-14: Security Settings Screen

Review your settings before the Setup Wizard starts to copy your files. Click the **Next** button to continue.



Figure 4-15: Review New Settings Screen

14. If you want to save the new settings, click the **OK** button. If you want to cancel your changes, click the **Cancel** button.



Figure 4-16: Confirmation Screen

15. After the files have been successfully copied, the Congratulations screen will appear.

- **Install Viewer & Recorder Utility.** Click this button to install the Camera's Utility on your PC.
- **Setup SoloLink DDNS Service.** Click the **Setup SoloLink DDNS Service** button to set up and configure the Linksys Dynamic Domain Name System (DDNS) service.
- **Exit.** Click the **Exit** button if you want to install the Camera's Utility later.

**Continue to the "Placement Options" section.**



Figure 4-17: Congratulations Screen

## Placement Options

There are two ways to place the Camera. The first way is to place the Camera horizontally on a surface using the included stand. The second way is to mount the camera on a wall using an optional wall mount stand.

### Stand Option

1. The Camera includes a Camera Desktop Stand. Insert the bottom end of the camera into the Stand.
2. Place the Camera, and adjust its aim accordingly.

### Wall Mount Option

The Camera has a standard camera mount that allows you to attach it to an optional wall mount stand.

1. Determine where you want to mount the Camera. Attach the wall mount stand to the wall.
2. Attach the camera to the wall mount.
3. Adjust the Camera's aim and focus accordingly.

**Proceed to the next section, "Audio Option."**

## Audio Option

If you want to use your own microphone instead of the Camera's built-in microphone, then follow these instructions:

1. Connect the 2.5 mm input jack of your microphone to the Camera's MIC IN port on its bottom panel. The built-in microphone will automatically be disabled.
2. Place the external microphone in an appropriate location.

**The installation of the Wireless-G Internet Camera is complete. Go to "Chapter 6: Installing the Wireless-G Internet Camera Viewer & Recorder Utility."**

**If advanced users wish to access the Camera through its Web-based Utility, then proceed to "Chapter 8: Using the Wireless-G Internet Camera Web-based Utility."**



**Figure 4-18: Stand Option**



**Figure 4-19: Camera Desktop Stand**

# Chapter 5: Installing and Using the Internet Camera Viewer & Recorder Utility

## Overview

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

If another Internet Camera Viewer & Recorder Utility has already been installed on your PC, you should uninstall it before installing this Internet Camera Viewer & Recorder 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 Viewer & Recorder Utility instead.

## Installing the Viewer & Recorder Utility

1. On the Welcome or Congratulations screen of the Setup Wizard, click the **Install Viewer & Recorder Utility** button.
2. The Welcome screen will appear. Click the **Next** button to proceed.



Figure 5-1: Install Viewer & Recorder Utility Screen

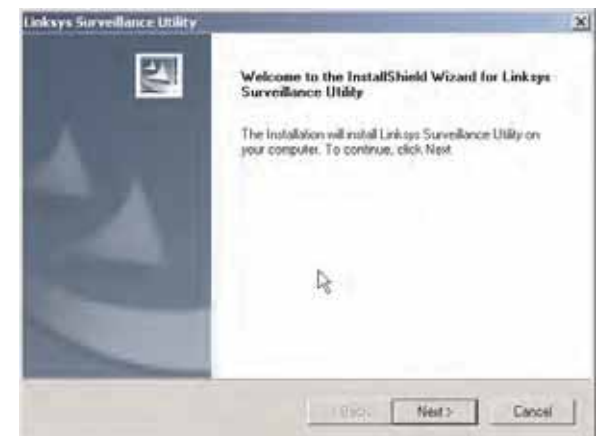


Figure 5-2: Install Viewer & Recorder Utility - Welcome Screen

3. The Choose Destination Location screen will appear. To install the Viewer & Recorder Utility files in the default folder, click the **Next** button. To select a different folder, click the **Browse** button and follow the on-screen directions.

4. The Select Program Folder screen will appear. To add program icons to the default folder, click the **Next** button. If you wish, you can rename the default folder. To add program icons to an existing folder, select one from the Existing Folders listed, and then click the **Next** button.

5. When the setup is complete, click the **OK** button.

**To learn how to use the Viewer & Recorder Utility, proceed to the next section, Using the Viewer & Recorder Utility.**

**To set up the Linksys SoloLink Service, go to Chapter 6: Setting up the Linksys SoloLink DDNS Service.**

**Advanced users: If you want to use the Camera's Web-based Utility, go to Chapter 7: Using the Wireless-G Internet Camera Web-based Utility.**



Figure 5-3: Choose Destination Location Screen

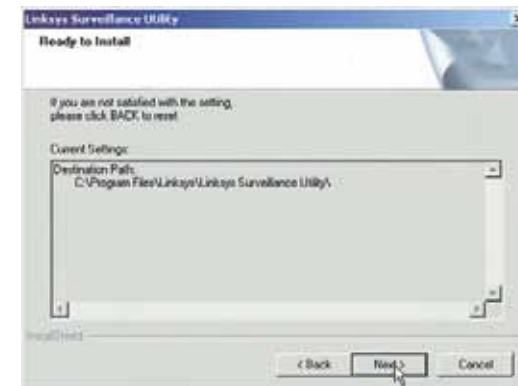


Figure 5-4: Select Program Folder Screen

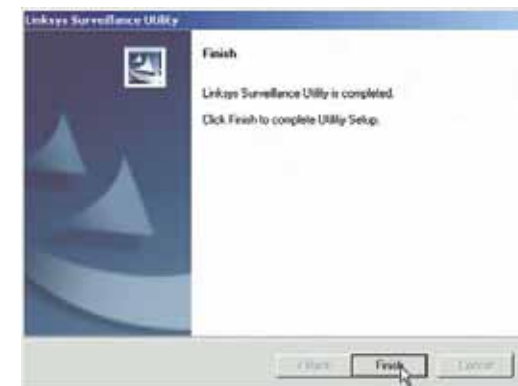


Figure 5-5: Setup Complete Screen



## Using the Viewer & Recorder Utility

After the Viewer & Recorder Utility has been installed, the Viewer & Recorder Utility icon will be displayed in two locations, one on your desktop and one in the system tray of your desktop's taskbar.

There are two ways to open the Viewer & Recorder Utility:

- Double-click the icon on your desktop (the icon acts as a shortcut)
- Right-click the icon in the system tray, and then click **Monitor**.

You will see the Utility's main screen. From this screen, you can control Cameras, view video, and schedule recordings.

To minimize any of the Utility's screens, click the **X** button in the upper right-hand corner. To request help information, click the **?** button in the upper right-hand corner. To close the Utility, right-click the Viewer & Recorder Utility icon in your desktop's system tray. Then click **Exit**.



Figure 5-6: Viewer & Recorder Utility Icon



Figure 5-7: Main Screen

## Selecting A Camera

When you first access the Utility's main screen, you will want to select a camera to view and manage the camera's video. To select a camera, click one of the numbered buttons, 1-9, on the bottom of the screen. Selecting that number, will bring up the camera assigned to it, which is described later.

Once you've selected the camera, more buttons will appear along with the video feed.

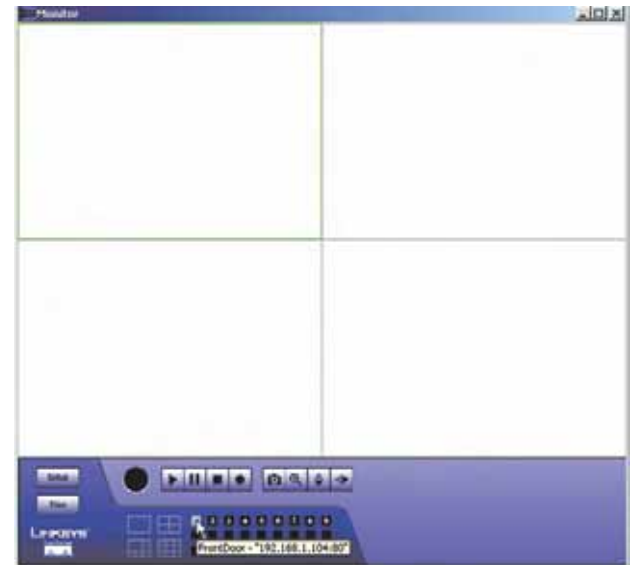


Figure 5-8: Selecting Camera

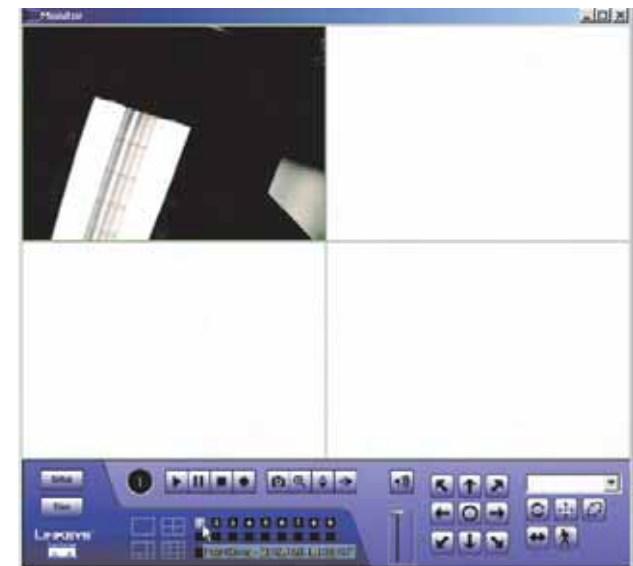
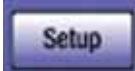

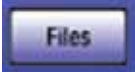





















Figure 5-9: Camera Selected

## Using the Main Screen

Navigation through the main screen is performed through the icons at the bottom. Here is a list of the icons and a short explanation of each

|   |   |   |   |
|---|---|---|---|
|    | <b>Setup</b> - Clicking this button opens the Setup Window.   |   | <b>Camera Selection</b> - Clicking the camera number you wish to view on the main screen.   |
|    | <b>Files</b> - Clicking this button opens File Finder, which allows you to browse through previously saved recordings.  |    | <b>Mute</b> - When audio is available, clicking this will silence the audio.  |
|    | <b>Camera Setting</b> - This indicates the Channel (or Camera) setting used by the Camera within the Utility.   |    | <b>Speaker Volume</b> - When audio is available, raising or lowering this bar will change the volume.   |
|    | <b>Play</b> - Use this to re-start viewing, after using the Stop or Pause button.   |   |   |
|    | <b>Pause</b> - Clicking this pauses the video playback.   |   |   |
|    | <b>Stop</b> - This will terminate the connection to the camera, halting both the viewing and the recording (if in progress).  |    | <b>Position</b> - Clicking these arrows will position the camera, with the center icon returning the camera to a neutral position.  |
|    | <b>Record</b> - Clicking this begins recording a video stream. While recording, this button will be blue. To stop recording, click the <b>Stop</b> button.  |   | <b>Preset Position</b> - Select the desired preset position from the drop-down list. Set these positions from the Set Preset Position button, below.  |
|    | <b>Snapshot</b> - Clicking this takes a image of the current video.   |    | <b>Refresh</b> - Clicking this button updates the Preset Position list, in the event it was changed by an Administrator.  |
|  | <b>Zoom</b> - Clicking this magnifies a section of the window. Click the icon and then click the portion of the screen you want to magnify. Click the icon again to return magnification to normal. |   | <b>Set Preset Position</b> - Clicking this button sets a preset camera position, which is explained further in Setting Presets.   |
|  | <b>Flip</b> - Click this to have the image swapped top-to-bottom.   |  | <b>Patrol</b> - Move through the Preset positions in the sequence defined by the Camera Administrator.  |
|  | <b>Mirror</b> - Click this to have the image swapped left-to-right.   |  | <b>Auto Pan</b> - Clicking this button moves the camera from left to right from its current position then returns the camera to the same position it was in before you clicked the Auto Pan button. |
|  | <b>Screen Layout</b> - Select the number of Channels (Cameras) to be displayed on screen  |  | <b>Motion Detection</b> - Clicking this button enables Motion Detection and moves the camera to your preset motion detection camera position.   |

## Setting Presets

Preset camera positions can have various uses, in addition to being a part of the Patrol function. To preset camera positions, do the following:

1. Click the **Set Preset Position** button on the View Video page to set the position.
2. Position the camera with the **Positioning** buttons.
3. You see the Set Preset Position screen, select the **Preset Number**, enter a **Preset Name**, then click the **Add** button.
4. Click the **Apply** button when finished or the **Cancel** button if you decide not to set the Preset Position.



Figure 5-10: Set Preset Position Screen

## Setting Up the Camera

The Camera's setup functions are performed by clicking the **Setup** button on the Main screen. This will open the Setup screen.

Several setup options appear on the left-hand side of the screen. They are Camera Setup, Recording Schedule, and Preferences. Each of these options is described below.

### Camera Setup

#### Adding a Camera

You can add one of the nine cameras displayed from the Main screen by doing the following:

1. Select the **LAN** or **Internet** radio buttons, depending on if this camera is situated on your local network or accessed over the Internet
2. Enter the camera's data into the Camera Data fields:
  - Local ID.** Enter a name for the camera (this name will be included in the name of recorded video files).
  - IP Address.** Enter the camera's IP Address here.
  - Port Number.** Enter the port number assigned to this camera.
  - User (Name).** Enter the user name set to this camera when it was setup.
  - Password.** Enter the password set to this camera when it was setup.
3. Select **Enable Motion Detection** if you wish this to be enabled.
4. Click the line you wish to assign to the camera in the box at the top of the screen. After the camera has been added, you can view it by clicking its assigned number on the Main screen.
5. Click the **Add** button to add the camera.

#### Deleting a Camera

You can delete any of the nine cameras displayed from the Setup screen by doing the following:

1. Select the camera you want to delete from the list in the box at the top of the screen.
2. Click the **Delete** button.

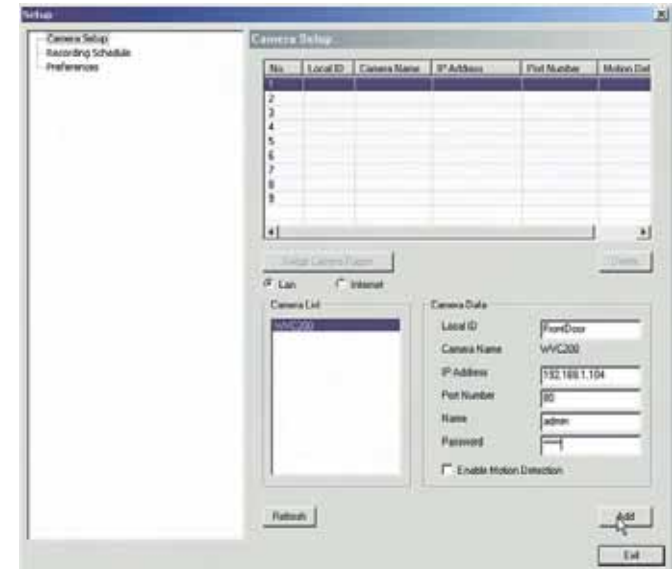


Figure 5-11: Camera Setup Screen

## Recording Schedule

### Scheduling a Recording

You can record video while watching, or schedule recordings to occur when you are absent. Recordings are stored in a standard Microsoft ASF file format, and can be played using Microsoft's Windows Media Player, or in a standard AVI (MJPEG) file format.

To set the Recording Preferences:

1. Enter the recording schedule's data into the drop-down fields on this screen:

**Local ID.**

**Interval.** Select when or how often you want this recording to occur.

**Start Date.** From the calendar that appears when you click the drop-down menu, select the date when this schedule will begin.

**Start Time.** Enter the time when this schedule will begin.

**Duration.** Enter the amount of time before this schedule expires.

2. Click the line you wish to assign to the schedule in the box at the top of the screen.
3. Click the **Add** button to schedule the recording.

### Deleting a Schedule

You can delete any of the nine schedules displayed on this screen by doing the following:

1. Select the camera you want to delete from the list in the box at the top of the screen.
2. Click the **Delete** button.

Click the **Exit** button to close the Setup screen.

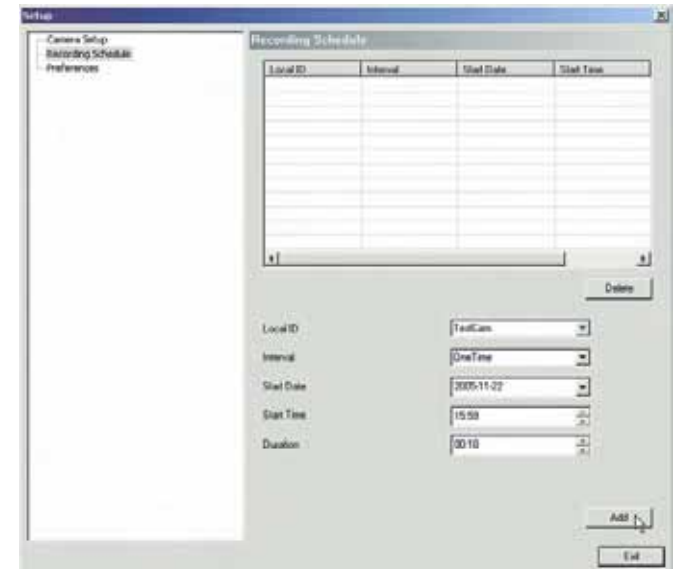


Figure 5-12: Recording Schedule Screen

## Preferences

### Setting Preferences

Refer to the following tables when changing preferences.

| Recording Path |   |
|----------------|---|
| Recording      | This is the Drive and Folder on your PC where recorded files will be saved. The default location is C:\Program Files\Linksys\Linksys Surveillance Utility\Local ID\File Type. You can also click the <b>Browse</b> button to select the desired drive and folder. |

| Instant Recording Time Limit             |  |
|--|--|
| Maximum time limit for Instant Recording | This sets the maximum size of a recording. (Recordings are started by clicking the <b>Record</b> button on the Main screen.) |

| Motion Detection              |  |
|-------------------------------|--|
| Record before Motion Detected | Set the time so the Utility will start recording a certain time before the Utility detects motion in a Camera's field of view. |
| Record after Motion Detected  | Set the time so the Utility will stop recording a certain time after the Utility detects motion in a Camera's field of view.   |

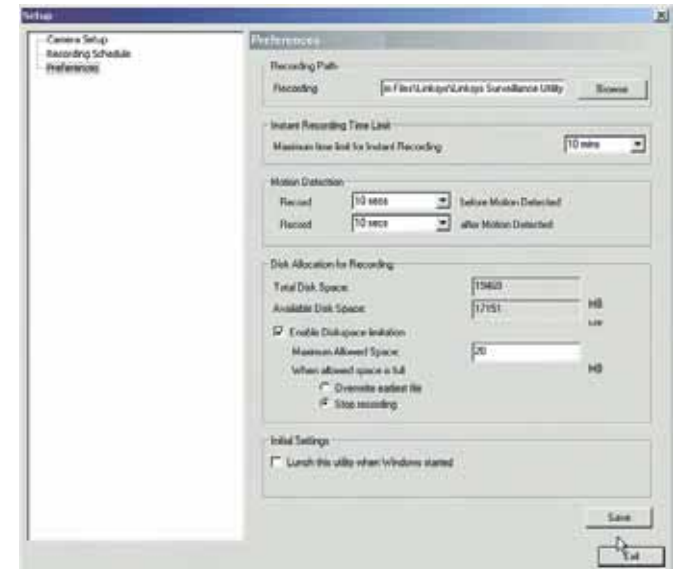


Figure 5-13: Preferences Screen

| Disk Allocation for Recording |   |
|-------------------------------|---|
| Total Disk Space              | This shows the total amount of storage space on your hard drive.  |
| Available Disk Space          | This shows the amount of storage space available on your hard drive.  |
| Enable Disk Space Limitation  | This feature allows you to limit the amount of space your recordings occupy on your hard drive. Click the box for this feature and then enter the <b>Maximum Allowed Space</b> in the next box. The Maximum Allowed Space is the amount of space on your hard drive you'll allow your recordings to take up, which should be smaller than the available room you have left on your drive along with space for your operating system and other programs. Plan for when that space gets full by clicking either <b>Overwrite Earliest File</b> , which will delete old recordings as new ones fill the space, or <b>Stop Recording</b> , which will end your recording once you fill the space. Allow a minimum of 300 MB storage space per camera. If you will be using the same drive that Windows is installed on to store your recordings, make sure you leave at least ten percent of available disk space free. |

| Initial Settings                         |  |
|--|--|
| Launch this Utility when Windows Started | Check this to have this utility start when Windows starts. |

Once you set the preferences on this screen, click the **Save** button to save your changes. Clicking the **Help** button will bring up helpful information about this page. Click the **Exit** button to close the Setup screen.



## Using File Finder

To view the recordings saved for each camera you've assigned to the Utility, click the number of the camera and then click the **Files** button. This will open the File Finder.

You can also open File Finder by clicking the icon placed on your desktop when you installed the Utility.



Figure 5-14: The File Finder Desktop Icon

**Recorded File Category.** From this drop-down menu, select the type of recorded file you wish to view.

**Searching Recorded Video Files.** You can narrow your search by the time range in which the file was recorded.

Click the **Search** button to search for the files. To display all of your recorded files, click the **Show All Files** button.

The files will be shown by name (**File Name**), when the file was recorded (**Recorded Time**), and length of file (**Duration**).

To play the recorded file, click the **Playback** button. To delete the file, click the **Delete** button. If you cannot find the file, you can browse for it by clicking the **Explore** button. Click the **Exit** button to close the File Finder.

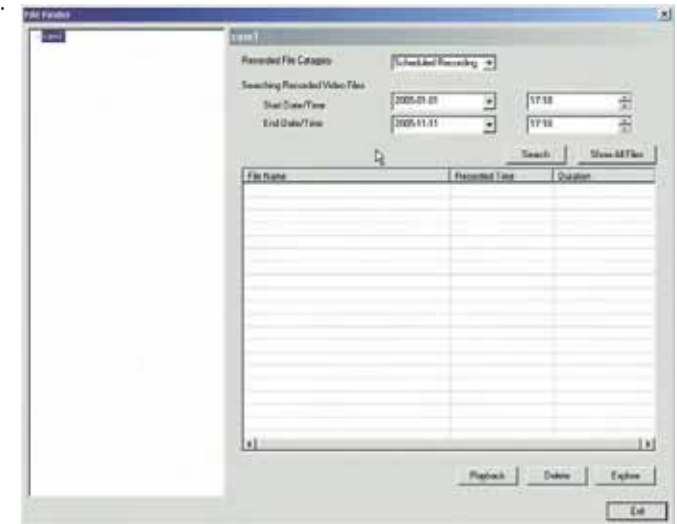


Figure 5-15: File Finder Screen

**To set up the Linksys SoloLink Service, go to** Chapter 6: Setting up the Linksys SoloLink DDNS Service.

**If you want to use the Camera's Web-based Utility, go to** Chapter 7: Using the Wireless-G Internet Camera Web-based Utility.

# Chapter 6: Setting up the Linksys SoloLink™ DDNS Service

## Overview

This chapter will briefly discuss the Linksys SoloLink DDNS Service, explain how to set up your SoloLink account, and describe how to register additional Cameras on your SoloLink account. You need only one SoloLink account. Once you have set up your account, you can register additional Cameras, one at a time, through each Camera's Web-based Utility. This way each Camera can take advantage of the SoloLink DDNS Service.

## Introduction

The SoloLink DDNS (Dynamic Domain Name System) Service lets you assign a fixed host and domain name to a dynamic Internet IP address. The instructions in this chapter will guide you through the setup needed for use of the SoloLink DDNS Service. For the most current information about the SoloLink DDNS Service, visit [www.linksys.com/sololink](http://www.linksys.com/sololink). For a free, 90-day trial period of your SoloLink account, use the Access ID Card included with the Camera.

You may want to use the Linksys SoloLink DDNS Service if one of the following applies to you:

**Dynamic IP Address** - Your Internet service assigns you a dynamic IP address. Many Internet service providers (ISPs) assign a new IP address to your connection from time to time (for security purposes), or whenever you disconnect and reconnect. The SoloLink service keeps track of your network's address, even when it changes, so you can "find" the Camera.

**Convenience** - There are a couple of ways the SoloLink service can be convenient. If you have a static IP address, you can use the SoloLink service to enter a "name" and port number for remote access of the Camera via the Internet. There's no need to type an entire IP address. For example, you can give a Camera a "name" such as `cam1.myhouse.ourlinksys.com`.

Also, some DDNS services require your PC to continuously run software that lets them keep track of your IP address. If your PC isn't powered on when your IP address changes, you won't be able to find the Camera on the Internet. The SoloLink service keeps track of where the Camera is.

## Setup Wizard for the SoloLink DDNS Service

1. On the Welcome or Congratulations screen of the Setup Wizard, click the **Setup SoloLink DDNS Service** button.



Figure 6-1: SoloLink Welcome Screen

2. The next screen explains why you would want to use the SoloLink DDNS Service if your network is using a dynamic IP address. Click the **Next** button.



Figure 6-2: SoloLink for Dynamic IP Address Screen

3. The next screen explains why you would find the SoloLink DDNS Service convenient if you would prefer to access the Camera using a name rather than a series of numbers (its IP address). Click the **Next** button to continue.



Figure 6-3: SoloLink for Convenience Screen

4. Make sure your network has an active Internet connection. Verify that your PC and Camera are connected to the network and the Camera is configured properly. Click **Next**.



Figure 6-4: Check Connections Screen

5. A list of Wireless-G Internet Cameras on your network and their status information is displayed next. In the Selection box, click the name of the Camera you are currently setting up. Then, click the **Next** button.



Figure 6-5: Cameras Found Screen

- To ensure security, you will be asked to enter a user name and password before you can access the Camera. If you have not changed the Camera's user name and password, then enter **admin** in the User name and Password fields (**admin** is the default). Then, click the **OK** button.



Figure 6-6: Login Screen

- Your web browser will automatically start up, and the SoloLink DDNS screen of the Camera's Web-based Utility will appear. Click the **Enable DDNS** checkbox, then click **New User ? - Click here to Register**.



Figure 6-7: SoloLink DDNS Screen

- Verify that your network has an active Internet connection and click **Continue**.



Figure 6-8: Confirm Active Internet Connection Screen

9. On the Welcome to the SoloLink DDNS Service screen, click **Set up a NEW Account**.



Figure 6-9: Welcome to the SoloLink DDNS Service Screen

10. On the Sign Up screen, enter the Access ID for your free trial offer. It is provided on the Promotion Card included with the Camera. (If you don't have an Access ID, then leave the Access ID field blank.)

Then enter your account and user information. Enter a Username and Password for your account. Enter the Password again in the Confirm Password field.

Complete the following required fields: First Name, Last Name, Phone, and Email. You can also enter your postal address and choose to receive updates by e-mail. Then, click **Continue**.



Figure 6-10: Sign Up Screen

11. Review your information on the Confirmation screen. If the new settings are correct, click **Continue**.



Figure 6-11: Confirmation of New Settings Screen

12. On the Select a Location ID screen, enter a Location ID, which can be a name describing your network's location. It will be combined with the Camera's Device Name and ourlinksys.com to create a convenient URL you can use to access the Camera. Click **Continue**.



Figure 6-12: Select a Location ID Screen

13. On the Confirm your Location ID screen, verify that the Location ID is correct. Then, click **Continue**.



Figure 6-13: Confirm Your Location ID Screen

14. On the Payment screen, choose one of two payment plans, **Bill me now** or **Bill me later**. (If you did not enter an Access ID, then you have one choice, **Bill me now**.)

If you click Bill me later, go to step 15.

If you click Bill me now, you will see a screen asking for billing information. Follow the on-screen instructions and then go to step 15.



Figure 6-14: Payment Screen

15. Read the Terms of Service agreement on the Verification screen. Click **Create Account** to accept the terms of service.



Figure 6-15: Verification Screen



16. On the Create Links screen, click **Continue**. The SoloLink DDNS Service will send your account information to the Camera.



Figure 6-16: Create Links Screen

17. A pop-up screen will inform you that you have successfully registered your account. Click **OK**.

At the bottom of the SoloLink DDNS screen, click the **Apply** button to register the Camera with your account.

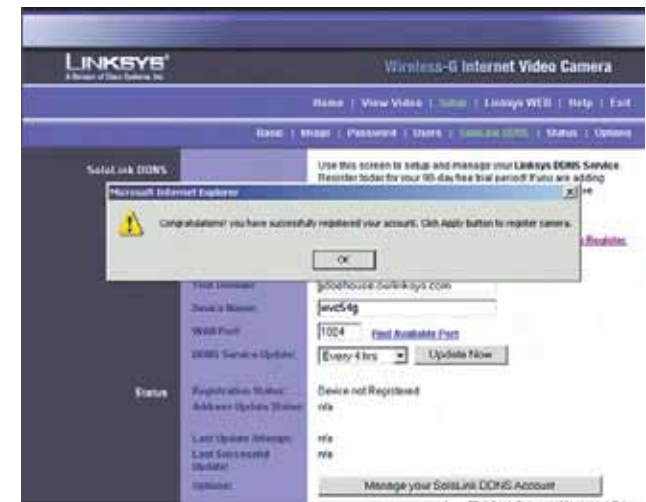


Figure 6-17: Successful Registration Screen

18. A confirmation page will display the link or address you will use to access the Camera and the port number the SoloLink DDNS Service will use to find the Camera. Click **Continue**.



Figure 6-18: Account Confirmation of Camera Screen

19. A pop-up screen will inform you that you have successfully set up the SoloLink DDNS Service for the Camera. Click **OK**.



Figure 6-19: Successful Setup Screen

20. Set up port forwarding on your network router, so the SoloLink DDNS Service will be able to track the Wireless-G Internet Camera. Go to [www.linksys.com/portfwd](http://www.linksys.com/portfwd) for instructions on how to configure a Linksys router.

For other routers, refer to your router's documentation.

The SoloLink DDNS setup is complete. If you want to register more Cameras with your SoloLink account, proceed to the "SoloLink Registration of Additional Cameras" section.

For more information about the Camera's Web-based Utility, proceed to "Chapter 8: Using the Wireless-G Internet Camera Web-based Utility."

## SoloLink Registration of Additional Cameras

After you have set up your SoloLink account, you can add more Cameras to your SoloLink account using each Camera's Web-based Utility. Follow these instructions for each Camera you add:

1. To access a Camera's Web-based Utility, launch **Internet Explorer**, enter the Camera's IP address in the Address field, then press **Enter**.
2. A login screen will appear. (Windows XP users will see a similar screen.) Enter **admin** (the default user name and password) in the User Name and Password fields. Then click the **OK** button.
3. The Welcome screen will appear. Click the **Setup** tab.



**NOTE:** Make sure you set up the port forwarding feature on your network router, so the SoloLink DDNS Service will be able to access the Camera.

4. Click the **SoloLink DDNS** tab.



Figure 6-20: Port Forwarding Information



Figure 6-21: Web Utility Login Screen



Figure 6-22: Web-based Utility Welcome

5. In the Username, Password, and Your Domain fields, enter your SoloLink account information.
6. In the Device Name field, give the Camera a unique name. The DDNS service will not work if multiple Cameras have the same Device Name.
7. In the WAN Port field, enter a unique port number. This is the number of the port you will use to access the Camera remotely. If you need to find an available port, click **Find Available Port** and follow the on-screen instructions. The DDNS service will not work if multiple Cameras use the same WAN port.
8. Depending on how often you want the DDNS service to update the dynamic IP address, select the appropriate time interval from the DDNS Service Update drop-down menu. To update the dynamic IP address immediately, click the **Update Now** button.
9. Click the **Apply** button on the SoloLink DDNS screen. The Camera will automatically register itself with your SoloLink account.
10. Set up port forwarding on your network router, so the SoloLink DDNS Service will be able to track the Wireless-G Internet Camera. Go to [www.linksys.com/portfwd](http://www.linksys.com/portfwd) for instructions on how to configure a Linksys router.

For other routers, refer to your router's documentation.

**The Camera has been added to your SoloLink account.**

**For more information about the Camera's Web-based Utility, proceed to "Chapter 7: Using the Wireless-G Internet Camera Web-based Utility."**



**Figure 6-23: Find Available Port Screen**

# Chapter 7: Using the Wireless-G Internet Camera's Web-based Utility

## Overview

Use the Camera's Web-based Utility to access and alter its settings. This chapter will describe each webpage 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

To access the Utility, launch Internet Explorer, and enter the Camera's IP address in the Address field. (If there are no DHCP servers available, the camera automatically default to **192.168.1.115**.) Then press **Enter**.

To ensure security, you will be asked to enter a user name and password before you can access the Camera. If you have not changed the Camera's user name and password, then enter **admin** in the User name and Password fields (**admin** is the default). Then, click the **OK** button.

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

You have six tabs available:

- **Home.** To return to the Welcome screen, click the **Home** tab.
- **View Video.** To view the Camera's video, click the **View Video** tab. Go to the "View Video" section for more information.
- **Setup.** To alter the Camera's settings, click the **Setup** tab. Go to the "Setup" section for more information.
- **Linksys WEB.** To go to the Linksys website, [www.linksys.com](http://www.linksys.com), click the Linksys WEB tab.
- **Help.** The Help screen allows you to get information about the various Setup screens, download the latest Viewer & Recording Utility, download this User Guide, download Acrobat Reader, restore factory defaults, and upgrade the Camera's firmware. Go to the "Help" section for more information.
- **Exit.** To close the Utility, click the **Exit** tab.



Figure 7-1: Camera's Default IP Address



Figure 7-2: Web-based Utility Welcome

## 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 Viewer & Recorder Utility instead.

2. A Security Warning screen about an OCX plug-in may appear. To enable your computer to see the Camera's video, click the **Yes** button.
3. A screen will appear showing you the video from the Camera.



**NOTE:** For added security, you should always change the Login Name and Password through the Utility's Users screen.



Figure 7-3: View Video Screen



Figure 7-4: Security Warning Screen

## Setup

The Basic screen will appear. You have six tabs available:

- **Basic.** To configure the Camera's basic, LAN, and wireless settings, use the Basic screen.
- **Image.** Customize the video settings on the Image screen.
- **Maintenance.** Reset the Camera's factory defaults and upgrade the Camera's firmware from this tab.
- **Users.** Designate user's level of access and manage passwords for the Camera on this screen.
- **DDNS.** DDNS (Dynamic Domain Name System) lets you assign a fixed host and domain name to a dynamic Internet IP address.
- **FTP Upload.** Manage the uploading of images to an FTP site from this tab.
- **Options.** The e-mail alert options, Universal Plug and Play (UPnP) setting, and Alternate Port settings are configured on the Options screen.
- **Pan/Tilt.** Set and calibrate the Camera's pan and tilt options from this screen.
- **Status.** Status information and a log are displayed on this screen.

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

### Basic

The Basic screen allows you to alter the Camera's settings, including the network and wireless configuration.

#### Device Settings

**Device ID.** Displayed here is the Camera's identification name, which is used by the Camera and the Utility to exchange data.

**Camera Name.** You may assign any name to the Camera. Unique, memorable names are helpful, especially if you are using multiple Cameras on the same wireless network. You can enter up to 15 characters.

**Description.** Enter information about the Camera in this field. You can enter up to 32 characters.

**LED Operation.** This feature allows you enable or disable the Camera's LEDs.



Figure 7-5: Basic Screen

**Date.** Enter the current date.

**Time.** Enter the current time.

**Time Zone.** Select the time zone for the Camera's location.

**Network Time Protocol.** If you want to update the Camera's time through an NTP (Network Time Protocol) server on the Internet, click the first checkbox. When the NTP feature is enabled, the daylight savings option will be available. If you want to adjust the Camera's current time for daylight savings, click the second checkbox.

### LAN Settings

**Configuration Type.** If the Bridge will obtain an IP address automatically from a DHCP server, then select **Automatic Configuration - DHCP**. If you will assign the Camera a static IP address, then select **Static IP Address**, and complete the IP Address, Subnet Mask, Gateway, and DNS fields.

**IP Address, Subnet Mask, Gateway, Primary DNS, Secondary DNS.** Complete these fields if the Camera will use 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, **Infrastructure** or **Ad-hoc**.

**Channel No.** If the Camera is set to ad-hoc mode, select its channel setting from the drop-down menu.

**Security.** To use WEP encryption, click the **Enable** radio button. You will be asked to confirm that you want to enable wireless security for the Camera. Click the **OK** button. Then click the **Edit Security Settings** button. For more information, go to the "Security Settings" section. To disable WEP encryption, click the **Disable** radio button.

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

### Security Settings

Configure the Camera's WEP encryption settings on this screen. Make sure all devices on your wireless network use the same settings.

**Default Transmit Key.** Select which WEP key (1-4) will be used when your network's access point or wireless router sends and receives data.

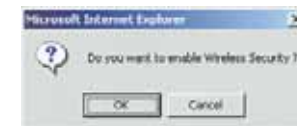


Figure 7-6: Confirmation Screen



**WEP Encryption.** Select the level of WEP encryption you wish to use, **64 Bit Keys (10 Hex chars)** or **128 Bit Keys (26 Hex chars)**.

**Passphrase.** Instead of manually entering WEP keys, you can use a Passphrase to generate them. It is case-sensitive and should not be longer than 16 alphanumeric characters. (This Passphrase is compatible with Linksys wireless products only. If you are also using non-Linksys wireless products, you will need to enter your WEP keys manually on those products.) After entering the Passphrase, click the **Generate** button to create WEP key(s).

**Key 1-4.** If you are used a Passphrase, the WEP keys will be displayed after you have generated them. If you are not using a Passphrase, manually enter a set of values in each field. (For 128-bit WEP, only one WEP key is permitted.) If you are using 64-bit WEP encryption, then each key must consist of exactly 10 hexadecimal characters. If you are using 128-bit WEP encryption, then the key must consist of exactly 26 hexadecimal characters. Valid hexadecimal characters are "0" through "9" and "A" through "F".

**WPA-Personal.** To enable WPA-Personal encryption, enter a WPA Shared Key from 8 to 63 characters.

**WPA Shared Key.** If you enabled WPA-Personal encryption, enter the WPA Shared Key that you're using on your wireless network.

**Authentication.** The default is set to **Open System**, for which the sender and the recipient do NOT use a WEP key for authentication. You can also choose **Shared Key**, when the sender and recipient use a WEP key for authentication. This setting should match the one on your network's access point or wireless router.

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

## Image

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

## Video Settings

**Image Type.** Select the desired type:

- MPEG-4 gives smooth motion and high quality images, but the video image quality will deteriorate if sufficient bandwidth is not available.
- MJPEG requires more bandwidth than MPEG-4, but if the bandwidth is insufficient, the frame rate will drop, and the image quality will remain at the same level.

**Resolution.** Select the resolution you want for viewing or recording the Camera's video. Select **640 \* 480** for the highest resolution, **320\*240** for medium resolution, and select **160\*120** for the lowest resolution.



Figure 7-7: WEP Key Settings Screen

**Fix 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**.

**Fix Bit Rate.** Select the level of quality you want for viewing or recording the Camera's video. The range varies from **64 kbps** to **2 Mbps**.

You may find it helpful to know what the bit rates are 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 |
|------------|---------------|----------|
| 640 x 480  | Very High     | 4000kbps |
| 640 x 480  | High          | 3200kbps |
| 640 x 480  | Normal        | 1200kbps |
| 640 x 480  | Low           | 480kbps  |
| 640 x 480  | Very Low      | 160kbps  |
| 320 x 240  | Very High     | 1000kbps |
| 320 x 240  | High          | 800kbps  |
| 320 x 240  | Normal        | 300kbps  |
| 320 x 240  | Low           | 120kbps  |
| 320 x 240  | Very Low      | 40kbps   |
| 160 x 120  | Very High     | 800kbps  |
| 160 x 120  | High          | 400kbps  |
| 160 x 120  | Normal        | 200kbps  |
| 160 x 120  | Low           | 100kbps  |
| 160 x 120  | Very Low      | 40kbps   |



Figure 7-8: Image Screen



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

**Video Quality Control.** Select the desired Maximum bandwidth for the video stream. Note that you can specify EITHER the Bandwidth OR the Frame Rate, not both. If Bandwidth is defined, the frame rate will be adjusted as necessary to achieve the best possible frame rate at that bandwidth that the network can carry.

The default values for the bandwidth is Unlimited, which allows you to specify the desired frame rate.

**Max Frame Rate.** Select the maximum frame rate for the camera. Reducing this will lower the amount of bandwidth required by the camera.

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

### Adjustments

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

**Exposure.** If necessary, you can adjust the exposure to obtain a better image. For example, if the camera is facing minimal light, the image may be too dark. In this case, you can increase the exposure.

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

### Options

**Flip Image/Mirror Image.** The Flip setting will rotate the image 180° vertically; the Mirror setting will rotate the image 180° horizontally. If the camera is mounted upside-down on the ceiling, check both the Flip and Mirror settings to have the image rotated to the correct position.

**Enable Microphone.** Enable audio by checking this checkbox. Using Audio will increase the bandwidth requirements slightly.

**Time Stamp.** If you want a time stamp shown on the video, click the checkbox next to Enable.

**Text Display.** If you want text shown on the video, click the checkbox next to Enable. Then complete the Text field with up to 20 characters.

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

## Maintenance

The Maintenance screen allows you to reset the Camera's factory defaults and upgrade the firmware.



**NOTE:** When you restore the Camera's factory defaults, you will lose the settings you have saved previously.

**Restore Factory Defaults.** To restore the Camera's factory default settings, click the **Restore Defaults** button.

**Firmware.** New firmware versions are posted at [www.linksys.com](http://www.linksys.com) and can be downloaded for free. If the Camera is functioning well, 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](http://www.linksys.com), and download the firmware upgrade file for the Camera. Then extract the file.
2. From the Help screen, click the **Firmware Upgrade** button.
3. You will see the Upgrade Firmware screen. Click the **Browse** button to find the extracted file, and then double-click it.
4. Click the **Start Upgrade** button, and follow the on-screen instructions. To cancel the upgrade, click the **Cancel** button. For further help, click the **Help** button.



**NOTE:** When you upgrade the Camera's firmware, you may lose the settings you have saved previously.



Figure 7-9: Maintenance Screen

## Users

The Users screen allows you to designate access rights for Camera users.

**User Name.** Complete this field with a name of your choice.

**Password and Verify Password.** Enter your new password in both fields. The password should have eight characters or fewer.

**Pan/Tilt.** This box sets a user's access to the Pan/Tilt options. Click this box to set access.

**Setup.** Allows users to configure the camera without having to give them administrator rights.

Click the **Add** button to set the user's information.

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



Figure 7-10: Users Screen

## DDNS

The DDNS screen allows you to set up and configure your DDNS Service. DDNS (Dynamic Domain Name System) lets you assign a fixed host and domain name to a dynamic Internet IP address. If you have already set up your SoloLink account, then you can use this screen to register additional Cameras.

**Enable DDNS.** Click this box to enable a DDNS service with the Camera.

**Service Provider.** Select your DDNS service provider from this drop-down menu.

**Username.** Enter the username you have set up on your SoloLink account. If you are a new user, click **New User? - Click here to Register**. The New User Registration screen will appear. Click the **Continue** button, or click the **Back** screen to return to the previous screen. Your web browser will automatically start up, and you will visit a website to set up your SoloLink account. Follow the on-screen instructions. For more information, refer to “Chapter 7: Setting up the Linksys SoloLink DDNS Service,” which will guide you through setup of your SoloLink account.

**Password.** Enter the password you have set up on your SoloLink account. If you have forgotten your password, click **Forgot your Password?**

The Password Request screen will appear. Complete the Domain name field. Click the **Request Password** button to request your username and password, which will be e-mailed to the e-mail address registered with your SoloLink DDNS account. Click the **Cancel** button to cancel your change. Click the **Back** button to return to the previous screen.

**Your Domain.** Enter the host and domain name you have set up on your SoloLink account. It should be in this format: <Location ID>.ourlinksys.com. For example, if myhouse is the Location ID, then the host and domain name would be myhouse.ourlinksys.com.

**Device Name.** Enter the name you have given the Camera.

**WAN Port.** Enter the number of the port you will use to remotely access the Camera. If you need to find an available port, click **Find Available Port** and follow the on-screen instructions.



**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](http://www.linksys.com/portfwd) for instructions on how to configure a Linksys router. For other routers, refer to your router's documentation.

**DDNS Service Update.** Depending on how often you want the DDNS service to update the dynamic IP address, select the appropriate time interval from the drop-down menu. To update the dynamic IP address immediately, click the **Update Now** button.



Figure 7-11: DDNS Screen

## FTP Upload

The FTP Upload screen allows you to manage images uploaded to an FTP server.

**Enable FTP Upload.** Check this box to enable the FTP Upload feature. If enabled, you must enter details of the FTP Server.

**Primary FTP Server.** Enter the name or IP address of the Primary FTP Server.

**Secondary FTP Server.** Enter the name or IP address of the Secondary FTP Server. If the Camera is unable to connect to the Primary FTP Server, it will try to connect to the Secondary FTP Server. The Camera can connect to only one server at a time and will only connect to the Secondary FTP Server when it is unable to connect to the Primary FTP Server.

**Login Name.** Enter the Login name required to gain access to the FTP server.

**Password.** Enter the password required to gain access to the FTP server.

**Photo.** Enter the desired photo shot here. Up to four snapshots can be uploaded per interval.

**Enable Passive Mode.** Use the checkbox to enable the Passive Mode feature as required.

**File Pathname.** Enter the desired pathname here.

**Upload Interval.** Select the desired option for the upload interval.

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



Figure 7-12: FTP Upload Screen

## Options

The Options screen allows you to alter the Camera's e-mail alert features, UPnP configuration, and Alternate Port settings.

### E-mail Alert

You can choose to be notified when the Camera detects motion in its field of view. You will be sent a text-only e-mail or an e-mail with video attached.

**E-mail Alert.** If you want to be notified by e-mail when the Camera detects motion, then select **Enable** from the drop-down menu. Otherwise, select **Disable**.

**Send to.** In each field, enter an e-mail address that will receive e-mail alerts. (You can enter up to three e-mail addresses.)

**Show "From" as.** Enter the text that you want displayed in the From field of any e-mail alert message.

**Subject.** Enter the subject heading that you want to be used.

**SMTP Mail Server.** Enter the IP address of the outgoing mail SMTP server. If it requires authentication, click the checkbox, and enter the account name and password in the Account Name and Password fields.

**Pan/Tilt.** This option is only available if your camera is fitted with a Pan/Tilt control. If available, select the desired option to resolve conflict between the Pan/Tilt and Motion Detection features.

**Delay between E-mails.** Specify the minimum time interval between e-mail alerts. The default is 2 minutes.

**E-Mail Video.** If you want e-mail sent with a video attachment, select **Enable** from the drop-down menu. Then select the length of video you want, up to a maximum of 5 seconds. The default is 2 seconds. If you want text-only e-mail sent to you, select **Disable** from the drop-down menu.

**Area/Sensitivity.** Click this button to enter the motion detection sub-screen. You can set the area or areas of the video image to be examined, and adjust the sensitivity of detection for each area.



Figure 7-13: Options Screen



**NOTE:** Motion detection can be triggered by rapid changes in lighting condition, as well as by moving objects. For this reason, it should only be used indoors.



## Other

**UPnP.** 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, then click the checkbox next to UPnP.

**Alternate Port.** If you want the Camera to be able to use an alternate port for communications, click the checkbox. Then enter the port number you want in the Port Number field (from 1024 to 65534, the default 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.

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

## Pan/Tilt

The Pan/Tilt screen allows you to manage the Camera's preset positions as well as the pan and tile.

**Set Positions.** Set the desired position through adjusting the control panel.

**Calibration.** Click this button to reset the calibration of Pan/Tilt area.

**Set Home.** Set the desired position and then click this button to set Home position.

**Current Position.** Name the current desired position and then click the **Add** button to add into the preset list.

**Preset Positions.** Select the preset position you don't need and then click the **Delete** button to remove.

**Pan/Tilt Movement.** Enable this if you want to use the Pan/Tilt Movement feature.

**Reset.** Click this button to reset Default Home Position.

**Preset Rotation Sequence.** This feature determines how the camera will move when it is set to **Rotate**. You can set a number of Preset Positions; the camera will go to the first position, then move through the list of present positions until it is finished. The camera will stop at the last position in the list.

To create the Preset Sequence, select the desired Preset Position in the left column, select the desired time to remain at this position, and click the **Add >>** button. Repeat until the desired sequence is complete.

To delete a position from the Sequence, select the desired position and click the **Delete** button.

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



Figure 7-14: Pan/Tilt Screen

## Status

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

## System

**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.

## Image

**Image Type.** This displays the compression type of the video stream.

**Resolution.** This displays the image size of the video stream.

**Image Quality.** This displays the image quality of the video stream.

## 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.** The wireless network's channel setting is displayed here.

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



Figure 7-15: Status Screen

## Log

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

**System Log Server.** This allows the Camera to upload System Log files to a System Log Server.

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

## Help

Through the Help screen, you'll find links to additional resources for the Camera and its Utility. If you click 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 click 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.** 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 Viewer & Recorder Utility from the Linksys website, [www.linksys.com](http://www.linksys.com).

**Click here to learn how to configure Port Forwarding in your Linksys Router.** If you are going to use the SoloLink 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.

**Online User Guide in PDF Format and Adobe website (software for viewing PDF documents).** Click the **Online User Guide in PDF Format** link to view the latest version of the Camera's user guide. It will be in Adobe Acrobat Portable Document File (.pdf) format, so you will need Acrobat Reader to view this pdf. If you do not have the Acrobat Reader, click the **Adobe website** link to download it.

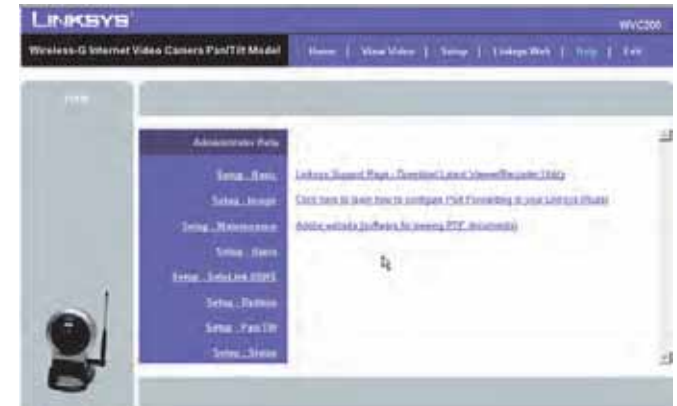


Figure 7-16: Help Screen

# Appendix A: Troubleshooting

This appendix provides solutions to problems that may occur during the installation and operation of the Wireless-G Internet 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](http://www.linksys.com).

1. I can't connect to the Wireless Network Camera with my Web Browser to configure it.  
It is possible that your PC's IP address is not compatible with the IP address of the Wireless Network Camera. Use the Windows utility to configure the Wireless Network Camera with a valid IP address.
2. The Windows utility doesn't list any Wireless Network Cameras.  
Check the following:
  - The Wireless Network Camera is installed, LAN connections are OK, it is powered ON and startup is complete.
  - Ensure that your PC and the Wireless Network Camera are on the same network segment. (If you don't have a router, this could be the case.)
  - Ensure that your PC has the TCP/IP network protocol loaded. In Windows, this is done by using Control Panel-Network.

If an entry for TCP/IP -> Network card is not listed, use Add - Protocol - Microsoft - TCP/IP to add it. You then need to select the new entry (TCP/IP -> Network card), click Properties, and configure the IP Address tab. If your LAN has a DHCP Server, you can select "Obtain an IP Address automatically". Otherwise, you must select "Specify an IP Address", and enter values for IP Address, Subnet Mask, and Gateway. All devices on your LAN must use compatible values. Remember that each device needs a unique IP Address, and the same Subnet Mask.

3. When I try to connect to the Wireless Network Camera, I get prompted for a user name and password.  
You SHOULD be prompted for a user name and password when you first connect to the camera. Enter the Administrator ID and Password set on the User screen. The Username/Password prompt indicates that the Administrator has restricted access to specified users. Ask the Administrator for your Username and Password.

4. I can't connect to the Wireless Network Camera using a Wireless connection.  
If a LAN cable is connected to the LAN port, the Wireless interface is disabled. Only one interface can be active.  
Check that your PC and the Wireless Network Camera have compatible Wireless settings.
  - Mode (Infrastructure or Ad-hoc) must be correct.
  - ESSID must match.
  - WEP settings must match.
  - In Ad-hoc mode, the Channel should match, although this is often not required.
  
5. Video quality may suddenly deteriorate.  
This can happen when an additional viewer connects to the Wireless Network Camera, overloading the camera or the available bandwidth. The image size and quality can be adjusted to cater for the required number of viewers and the available bandwidth.
  
6. The motion detection feature doesn't send me any E-mails.  
It may be that the SMTP (Simple Mail Transport Protocol) server used by the camera to send the E-mail will not accept mail. (This is to prevent Spam being sent from the server.). Try using a different SMTP server, or contact your ISP to see if SMTP access is being blocked.
  
7. Using the motion detection feature, I receive E-mails which don't show any moving objects.  
The motion detection feature doesn't actually detect motion. It compares frames to see if they are different. Major differences between frames are assumed to be caused by moving objects.  
But the motion detector can also be triggered by sudden changes in the level of available light or movement of the camera itself.  
Try to avoid these situations. The motion detection feature works best in locations where there is good steady illumination, and the camera is mounted securely. This feature can NOT be used if the camera is outdoors.
  
8. The image is blurry.  
Try cleaning the dome, or adjusting the Image Quality setting on the Image screen. Video created with the lower settings will contain less detail; this is the trade-off for using less bandwidth.

# Appendix B: Wireless Security

Linksys wants to make wireless networking as safe and easy for you as possible. The current generation of Linksys products provide several network security features, but they require specific action on your part for implementation. So, keep the following in mind whenever you are setting up or using your wireless network.

## Security Precautions

The following is a complete list of security precautions to take (at least steps 1 through 5 should be followed):

1. Change the default SSID.
2. Disable SSID Broadcast.
3. Change the default password for the Administrator account.
4. Change the SSID periodically.
5. Use the highest encryption algorithm possible. Use WPA if it is available. Please note that this may reduce your network performance.
6. Change the WEP encryption keys periodically.



**Note:** Some of these security features are available only through the network router or access point. Refer to the router or access point's documentation for more information.

## Security Threats Facing Wireless Networks

Wireless networks are easy to find. Hackers know that in order to join a wireless network, wireless networking products first listen for "beacon messages". These messages can be easily decrypted and contain much of the network's information, such as the network's SSID (Service Set Identifier). Here are the steps you can take:

**Change the administrator's password regularly.** With every wireless networking device you use, keep in mind that network settings (SSID, WEP keys, etc.) are stored in its firmware. Your network administrator is the only person who can change network settings. If a hacker gets a hold of the administrator's password, he, too, can change those settings. So, make it harder for a hacker to get that information. Change the administrator's password regularly.

**SSID.** There are several things to keep in mind about the SSID:

1. Disable Broadcast
2. Make it unique
3. Change it often

Most wireless networking devices will give you the option of broadcasting the SSID. While this option may be more convenient, it allows anyone to log into your wireless network. This includes hackers. So, don't broadcast the SSID.

Wireless networking products come with a default SSID set by the factory. (The Linksys default SSID is "linksys".) Hackers know these defaults and can check these against your network. Change your SSID to something unique and not something related to your company or the networking products you use.

Change your SSID regularly so that any hackers who have gained access to your wireless network will have to start from the beginning in trying to break in.

**MAC Addresses.** Enable MAC Address filtering. MAC Address filtering will allow you to provide access to only those wireless nodes with certain MAC Addresses. This makes it harder for a hacker to access your network with a random MAC Address.

**WEP Encryption.** Wired Equivalent Privacy (WEP) is often looked upon as a cure-all for wireless security concerns. This is overstating WEP's ability. Again, this can only provide enough security to make a hacker's job more difficult.

There are several ways that WEP can be maximized:

1. Use the highest level of encryption possible
2. Use "Shared Key" authentication
3. Change your WEP key regularly

Implementing encryption may have a negative impact on your network's performance, but if you are transmitting sensitive data over your network, encryption should be used.

These security recommendations should help keep your mind at ease while you are enjoying the most flexible and convenient technology Linksys has to offer.



**Important:** Always remember that each device in your wireless network **MUST** use the same encryption method and encryption key or your wireless network will not function properly.



# Appendix C: Upgrading Firmware



**Note:** 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.

The Camera's firmware is upgraded through the Web-based Utility's **Maintenance** tab. Follow these instructions:

1. Download the firmware from Linksys's website at [www.linksys.com](http://www.linksys.com). Then extract the file.
2. Access the Camera's Web-based Utility, and click the **Maintenance** tab.
3. On the Maintenance screen, click the **Firmware Upgrade** button.
4. Click the **Browse** button to find the extracted file, and then double-click the filename.
5. Click the **Start Upgrade** button, and follow the on-screen instructions. Click the **Cancel** button to cancel the firmware upgrade. For more information, click the **Help** button.



Figure C-1: Upgrade Firmware Screen

# Appendix D: vWindows Help

Almost all wireless products require Microsoft Windows. Windows is the most used operating system in the world and comes with many features that help make networking easier. These features can be accessed through Windows Help and are described in this appendix.

## TCP/IP

Before a computer can communicate with an access point or router, TCP/IP must be enabled. TCP/IP is a set of instructions, or protocol, all PCs follow to communicate over a network. This is true for wireless networks as well. Your PCs will not be able to utilize wireless networking without having TCP/IP enabled. Windows Help provides complete instructions on enabling TCP/IP.

## Shared Resources

If you wish to share printers, folders, or files over your network, Windows Help provides complete instructions on using shared resources.

## Network Neighborhood/My Network Places

Other PCs on your network will appear under Network Neighborhood or My Network Places (depending upon the version of Windows you're running). Windows Help provides complete instructions on adding PCs to your network.

# Appendix E: Glossary

This glossary contains some basic networking terms you may come across when using this product. For more advanced terms, see the complete Linksys glossary at <http://www.linksys.com/glossary>.

**Access Point** - A device that allows wireless-equipped computers and other devices to communicate with a wired network. Also used to expand the range of a wireless network.

**Ad-hoc** - A group of wireless devices communicating directly with each other (peer-to-peer) without the use of an access point.

**AES (Advanced Encryption Standard)** - A security method that uses symmetric 128-bit block data encryption.

**Bandwidth** - The transmission capacity of a given device or network.

**Bit** - A binary digit.

**Boot** - To start a device and cause it to start executing instructions.

**Broadband** - An always-on, fast Internet connection.

**Browser** - An application program that provides a way to look at and interact with all the information on the World Wide Web.

**Byte** - A unit of data that is eight bits long

**Cable Modem** - A device that connects a computer to the cable television network, which in turn connects to the Internet.

**Daisy Chain** - A method used to connect devices in a series, one after the other.

**DDNS (Dynamic Domain Name System)** - Allows the hosting of a website, FTP server, or e-mail server with a fixed domain name (e.g., [www.xyz.com](http://www.xyz.com)) and a dynamic IP address.

**Default Gateway** - A device that forwards Internet traffic from your local area network.

**DHCP (Dynamic Host Configuration Protocol)** - A networking protocol that allows administrators to assign temporary IP addresses to network computers by "leasing" an IP address to a user for a limited amount of time, instead of assigning permanent IP addresses.

**DMZ (Demilitarized Zone)** - Removes the Router's firewall protection from one PC, allowing it to be "seen" from the Internet.

**DNS (Domain Name Server)** - The IP address of your ISP's server, which translates the names of websites into IP addresses.

**Domain** - A specific name for a network of computers.

**Download** - To receive a file transmitted over a network.

**DSL (Digital Subscriber Line)** - An always-on broadband connection over traditional phone lines.

**Dynamic IP Address** - A temporary IP address assigned by a DHCP server.

**EAP (Extensible Authentication Protocol)** - A general authentication protocol used to control network access. Many specific authentication methods work within this framework.

**Encryption** - Encoding data transmitted in a network.

**Ethernet** - IEEE standard network protocol that specifies how data is placed on and retrieved from a common transmission medium.

**Firewall** - A set of related programs located at a network gateway server that protects the resources of a network from users from other networks.

**Firmware** - The programming code that runs a networking device.

**FTP (File Transfer Protocol)** - A protocol used to transfer files over a TCP/IP network.

**Full Duplex** - The ability of a networking device to receive and transmit data simultaneously.

**Gateway** - A device that interconnects networks with different, incompatible communications protocols.

**Half Duplex** - Data transmission that can occur in two directions over a single line, but only one direction at a time.

**HTTP (HyperText Transport Protocol)** - The communications protocol used to connect to servers on the World Wide Web.

**Infrastructure** - A wireless network that is bridged to a wired network via an access point.

**IP (Internet Protocol)** - A protocol used to send data over a network.

**IP Address** - The address used to identify a computer or device on a network.

**IPCONFIG** - A Windows 2000 and XP utility that displays the IP address for a particular networking device.

**IPSec (Internet Protocol Security)** - A VPN protocol used to implement secure exchange of packets at the IP layer.

**ISP (Internet Service Provider)** - A company that provides access to the Internet.

**LAN** - The computers and networking products that make up your local network.

**MAC (Media Access Control) Address** - The unique address that a manufacturer assigns to each networking device.

**Mbps (MegaBits Per Second)** - One million bits per second; a unit of measurement for data transmission.

**NAT (Network Address Translation)** - NAT technology translates IP addresses of a local area network to a different IP address for the Internet.

**Network** - A series of computers or devices connected for the purpose of data sharing, storage, and/or transmission between users.

**Packet** - A unit of data sent over a network.

**Passphrase** - Used much like a password, a passphrase simplifies the WEP encryption process by automatically generating the WEP encryption keys for Linksys products.

**Ping (Packet INternet Groper)** - An Internet utility used to determine whether a particular IP address is online.

**POP3 (Post Office Protocol 3)** - A standard mail server commonly used on the Internet.

**Port** - The connection point on a computer or networking device used for plugging in cables or adapters.

**Power over Ethernet (PoE)** - A technology enabling an Ethernet network cable to deliver both data and power.

**PPPoE (Point to Point Protocol over Ethernet)** - A type of broadband connection that provides authentication (username and password) in addition to data transport.

**PPTP (Point-to-Point Tunneling Protocol)** - A VPN protocol that allows the Point to Point Protocol (PPP) to be tunneled through an IP network. This protocol is also used as a type of broadband connection in Europe.

**RADIUS (Remote Authentication Dial-In User Service)** - A protocol that uses an authentication server to control network access.

**RJ-45 (Registered Jack-45)** - An Ethernet connector that holds up to eight wires.

**Roaming** - The ability to take a wireless device from one access point's range to another without losing the connection.

**Router** - A networking device that connects multiple networks together.

**Server** - Any computer whose function in a network is to provide user access to files, printing, communications, and other services.

**SMTP (Simple Mail Transfer Protocol)** - The standard e-mail protocol on the Internet.

**SNMP (Simple Network Management Protocol)** - A widely used network monitoring and control protocol.

**SPI (Stateful Packet Inspection) Firewall** - A technology that inspects incoming packets of information before allowing them to enter the network.

**SSID (Service Set Identifier)** - Your wireless network's name.

**Static IP Address** - A fixed address assigned to a computer or device that is connected to a network.

**Static Routing** - Forwarding data in a network via a fixed path.

**Subnet Mask** - An address code that determines the size of the network.

**Switch** - 1. A data switch that connects computing devices to host computers, allowing a large number of devices to share a limited number of ports. 2. A device for making, breaking, or changing the connections in an electrical circuit.

**TCP (Transmission Control Protocol)** - A network protocol for transmitting data that requires acknowledgement from the recipient of data sent.

**TCP/IP (Transmission Control Protocol/Internet Protocol)** - A set of instructions PCs use to communicate over a network.

**Telnet** - A user command and TCP/IP protocol used for accessing remote PCs.

**TFTP (Trivial File Transfer Protocol)** - A version of the TCP/IP FTP protocol that has no directory or password capability.

**Throughput** - The amount of data moved successfully from one node to another in a given time period.

## Wireless-G PTZ Internet Camera with Audio

**TKIP (Temporal Key Integrity Protocol)** - a wireless encryption protocol that provides dynamic encryption keys for each packet transmitted.

**Topology** - The physical layout of a network.

**TX Rate** - Transmission Rate.

**Upgrade** - To replace existing software or firmware with a newer version.

**Upload** - To transmit a file over a network.

**URL (Uniform Resource Locator)** - The address of a file located on the Internet.

**VPN (Virtual Private Network)** - A security measure to protect data as it leaves one network and goes to another over the Internet.

**WAN (Wide Area Network)**- The Internet.

**WEP (Wired Equivalent Privacy)** - A method of encrypting network data transmitted on a wireless network for greater security.

**WLAN (Wireless Local Area Network)** - A group of computers and associated devices that communicate with each other wirelessly.

**WPA (Wi-Fi Protected Access)** - a wireless security protocol using TKIP (Temporal Key Integrity Protocol) encryption, which can be used in conjunction with a RADIUS server.

# Appendix F: Specifications

|               |   |
|---------------|---|
| Standards     | IEEE802.11g, IEEE802.11b, IEEE802.3, IEEE802.3u, 802.11e (Wireless QoS) |
| Ports         | Ethernet, Antenna, Microphone, Power                                    |
| Protocols     | TCP/IP, HTTP, DHCP, SMTP, FTP, NTP, DNS, UPnP and DDNS                  |
| Button        | One Reset Button  |
| Cabling Type  | UTP CAT 5   |
| LEDs          | Power, Ethernet, Wireless-G   |
| Sensor        | 1/5" CMOS   |
| Focal Length  | 500mm~Infinity  |
| Frame Rate    | Up to 30 fps  |
| Resolution    | 640x480, 320x240, 160x120   |
| Illumination  | 2LUX@F2.0   |
| Field of View | 60 degrees  |
| Auto Patrol   | 9 Definable Preset Points by User                                       |
| Pan           | ± 67 degrees  |
| Tilt          | -34 degrees (down) to +30 degrees (up)                                  |
| WebUI         | Built in Web UI for Easy Browser-Based Configuration (HTTP)             |



|                                |  |
|--------------------------------|--|
| Web Browser                    | Internet Explorer 5.x, or Above  |
| Event Logging                  | Event Logging  |
| Web F/W Upgrade                | Firmware Upgradable Through Web-Browser  |
| Dual Codec                     | MPEG-4 Simple Profile, MJPEG   |
| Snapshot                       | JPEG   |
| Modulation                     | NTSC and PAL   |
| Image Position                 | Flip and Mirror  |
| Image Settings                 | Brightness and Contrast  |
| Night Vision                   | IR Filter cut for low light  |
| Motion Detection               | Send Video Clip to an email address on motion detection  |
| Compression                    | G.726  |
| Sampling Rate                  | 8 KHz  |
| Dual Bit Rate                  | 16Kbps   |
| Brightness                     | Auto/Manual Adjustment   |
| Monitor and Recording Software | Included software for multiple camera monitoring and recording to your hard drive with advanced search by time and date. Recording can be set up to record by motion trigger, manual or schedule recording and playback on Windows Media Player without the need for a proprietary player. |
| WEP/WPA                        | WEP 64bit/128bit, WPA-TKIP, WPA-PSK  |

|                           |  |
|---------------------------|--|
| User List                 | User Rights List to View Video and/or to Camera Control Functions  |
| Username/Password         | Logon authentication 20 characters username and 8 characters password  |
| NTP                       | Network Time Protocol  |
| SMTP                      | Simple Mail Transfer Protocol Client allows video clips to be emailed  |
| FTP Client                | FTP Client facilitates scheduling transfer of images to an FTP server  |
| DDNS                      | Dynamic DNS facilitates reaching the camera by a name irrespective of what the IP address is. Sololink, DynDNs, and TZO is supported |
| UPnP                      | Allows autodiscovery of the camera by other UPnP devices   |
| Dimensions<br>(W x H x D) | 1.26" x 7.83" x 6.89"<br>(32 mm x 199 mm x 175 mm)   |
| Unit Weight               | 1.01 lbs. (0.46 kg)  |
| Power                     | 5DVC 2.5A Switching Power Supply   |
| Certifications            | FCC, CE and UL   |
| Operating Temp.           | 0 °C to 40 °C (-32 °F to 104 °F)   |
| Storage Temp.             | -20 °C to 70 °C (-4 °F to 140 °F)  |
| Operating Humidity        | 10% to 80%, Non-Condensing   |
| Storage Humidity          | 0% to 90%, Non-Condensing  |

# Appendix G: Warranty Information

## LIMITED WARRANTY

Linksys warrants to You that, for a period of three years (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 H: Regulatory Information

## FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. 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 in accordance with 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 can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.

## 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 & your body. To maintain compliance with FCC RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting.

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

We declare that the product is limited in CH1~CH11 by specified firmware controlled in the USA.

### Safety Notices



**Caution:** Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

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.

Industry Canada (Canada)

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 3.3 dBi. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

This device complies with Canadian ICES-003 and RSS210 rules.

Cet appareil est conforme aux normes NMB-003 et RSS210 d'Industry Canada.

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.

**Ceština/Czech**

**Informace o ochraně životního prostředí pro zákazníky v zemích Evropské unie**

Evropská směrnice 2002/96/ES zakazuje, aby zařízení označené tímto symbolem 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 nicht zusammen mit unsortiertem Gemeindeabfall entsorgt werden darf. Das Symbol weist darauf hin, dass das Produkt von regulärem Haushaltsmüll 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.

## Ελληνικά/Greek

### Στοιχεία περιβαλλοντικής προστασίας για πελάτες εντός της Ευρωπαϊκής Ένωσης

Η Κοινοτική Οδηγία 2002/96/EC απαιτεί ότι ο εξοπλισμός ο οποίος φέρει αυτό το σύμβολο στο προϊόν και/ή στη συσκευασία του δεν πρέπει να απορρίπτεται μαζί με τα μικτά κοινωτικά 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 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 elektriskās un elektroniskās 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 (arba) kurios pakuotė yra pažymėta šiuo simboliu, 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 perdurbant 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 Kliġenti fl-Unjoni Ewropea

Id-Direttiva Ewropea 2002/96/KE titlob li t-tagħmir li jkun fih is-simbolu fuq il-prodott u/jew fuq l-ippakkjar ma jistax jintrema ma' skart municiġpali li ma għiex 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' facilitajiet ta' għbir appuntati apposta mill-gvern jew mill-awtoritajiet lokali. Ir-rimi b'mod korrett u r-riciklaġġ għin 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-hanut 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, amelyek, 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 gyűjtőrendszereken 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 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 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.

## 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 gospodinjstvih 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 pravičnim 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 EU-alueen 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.

For more information, visit [www.linksys.com](http://www.linksys.com).

# Appendix I: Contact Information

Need to contact Linksys?

Visit us online for information on the latest products and updates to your existing products at:

<http://www.linksys.com> or  
[ftp.linksys.com](ftp://ftp.linksys.com)

Can't find information about a product you want to buy on the web? Do you want to know more about networking with Linksys products? Give our advice line a call at:  
Or fax your request in to:

800-546-5797 (LINKSYS)  
949-823-3002

If you experience problems with any Linksys product, you can call us at:  
Don't wish to call? You can e-mail us at:

800-326-7114  
[support@linksys.com](mailto:support@linksys.com)

If any Linksys product proves defective during its warranty period, you can call the Linksys Return Merchandise Authorization department for obtaining a Return Authorization Number at:  
(Details on Warranty and RMA issues can be found in the Warranty Information section in this Guide.)

949-823-3000