



# User Manual

## Cloud Camera 1050

**DCS-931L**

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# Manual Overview

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## Manual Revision

Revision	Date	Description
1.0	February 11, 2013	• Initial release

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## Package Contents

- DCS-931L Cloud Camera 1050
- CAT5 Ethernet Cable
- Power Adapter
- Manual and Software on CD
- Quick Install Guide

**Note:** *Using a power supply with a different voltage than the one included with your product will cause damage and void the warranty for this product.*

If any of the above items are missing, please contact your reseller.



## System Requirements

- Computer with Microsoft Windows® 8, 7, Vista®, XP, or Mac (OS X 10.6 or higher)
- PC with 1.3GHz or above and at least 128MB RAM
- Internet Explorer 7, Firefox 12, Safari 4, or Chrome 20 or higher version with Java installed and enabled
- Existing 10/100 Ethernet-based network or 802.11g/n wireless network

# Introduction

Congratulations on your purchase of the DCS-931L Cloud Camera 1050. The DCS-931L is a versatile and unique solution for your small office or home. Unlike a standard webcam, the DCS-931L is a complete system with a built-in CPU and web server that transmits high quality video images for security and surveillance.

The DCS-931L can be accessed remotely, and controlled from any PC/Notebook over your local network or through the Internet via a web browser. The simple installation and intuitive web-based interface offer easy integration with your Ethernet/Fast Ethernet or 802.11 b/g/n wireless network, and its Extender Mode even allows you to increase your wireless network's coverage. The DCS-931L also comes with remote monitoring and motion detection features for a complete and cost-effective home security solution.

Your DCS-931L is mydlink-enabled, which means that you can view and manage your camera from anywhere over the Internet through the mydlink website or through the mydlink mobile app for iOS and Android. You can view your live video feed, take snapshots, set a recording schedule, and more!

# Features

## **Easy to Use and mydlink-Enabled for Easy Access and Management**

The DCS-931L is a standalone surveillance camera that requires no special hardware or software, and can run independently even without a PC. This camera is also mydlink-enabled, which means you can view and manage your camera through the mydlink website, or through the mydlink mobile app for iOS and Android.

## **H.264 Codec for Smooth, Space-Efficient Video**

This camera supports use of the H.264 video codec, which gives you high-quality video with reduced bandwidth requirements. This means that you can enjoy smoother, more reliable video streaming over the Internet, and less disk space is required to save recordings.

## **Motion and Sound Triggered Notifications and Recordings**

The DCS-931L can send e-mail notifications with snapshots or video clips whenever motion or sound is detected. You can customize areas of the video to monitor for motion to keep watch over entry ways, and you can set volume limits to detect when a loud sound is picked up by the camera.

## **Supports a Variety of Platforms**

Supports TCP/IP networking, HTTP, and other Internet related protocols. The DCS-931L can also be integrated easily into other Internet/Intranet applications because of its standards-based features.

## **802.11b/g/n Wireless or Ethernet/Fast Ethernet Support**

The DCS-931L offers wireless 802.11b/g/n and Ethernet/Fast Ethernet connectivity, making the DCS-931L easy to integrate into your existing network environment. The DCS-931L works with a 10Mbps Ethernet based network or 100Mbps Fast Ethernet based network for traditional wired environments, and works with 802.11b/g/n routers or access points for added flexibility. The Site Survey feature also allows you to view and connect to any available wireless networks.

## **Extender Mode Increases the Range of Your Wireless Network**

You can use the DCS-931L's Extender Mode to extend the range of your wireless network, giving your home or office better wireless coverage.

## **Remote Monitoring Utility**

This camera also includes the D-ViewCam software, which adds enhanced features and functionality that helps you create a full surveillance system for up to 32 cameras. With D-ViewCam, you can view multiple cameras at the same time, record video, and set up scheduled and triggered recordings.

# Hardware Overview

## Front View



## Rear View





# Installation

There are three ways to set up your camera:

**Zero Configuration Setup:** If you have a mydlink-enabled router, this is the easiest way to set up your camera. Refer to page 10.

**Camera Setup Wizard:** If you do not have a mydlink-enabled router, use the Camera Setup Wizard to guide you through setup and initial configuration of your camera. Refer to page 13.

**Manual Hardware Installation:** This section shows you how to manually set up your camera, though in order to use the mydlink features of your camera, you will still need to run the Camera Setup Wizard. Refer to page 15.

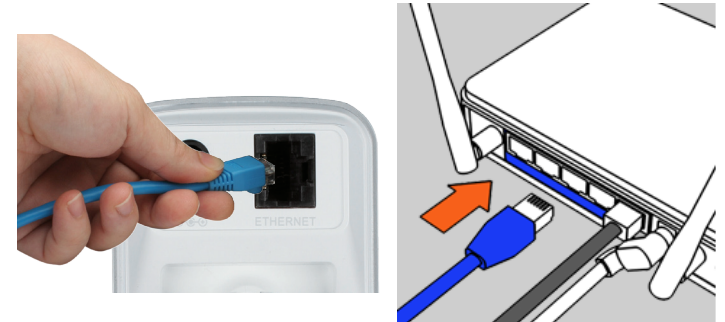
# Zero Configuration Setup

If you have a mydlink-enabled Cloud Router, you can take advantage of Zero Configuration. Zero Configuration automatically configures your camera's settings for you, and adds it to your mydlink account automatically. This type of setup allows you to set up your camera by simply plugging it in and connecting it to your router.

Connect your camera to your mydlink-enabled Cloud Router and Zero Configuration will automatically configure your DCS-931L and automatically add the camera to your mydlink account. With this quick and easy setup you can remotely access your camera from the **www.mydlink.com** website to manage and monitor your DCS-931L.

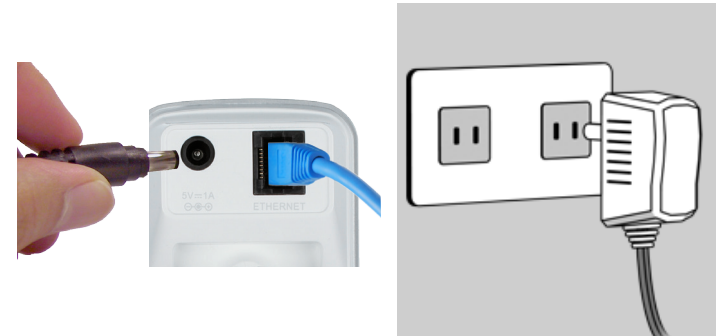
## Connect the Ethernet Cable

Use the included Ethernet cable and plug it into the camera. Plug the other end into an available port on your router. If you wish to use your camera wirelessly, you will be able to remove the cable after Zero Configuration Setup is complete.



## Attach the External Power Adapter

Connect the power adapter to the power connector on your camera, then plug the power adapter into a wall outlet.

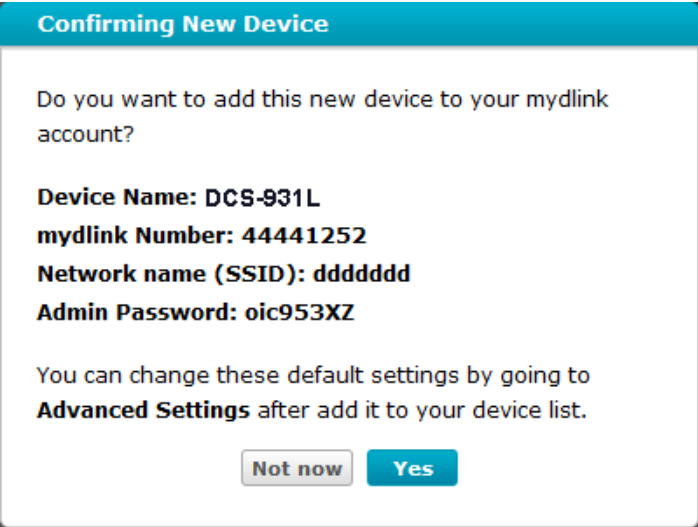


# Check Your mydlink Account

Open a web browser and login to your mydlink account. The mydlink page will check for new devices and display a **New device Found!** pop-up notification in the bottom-left corner. Click the notification to continue.



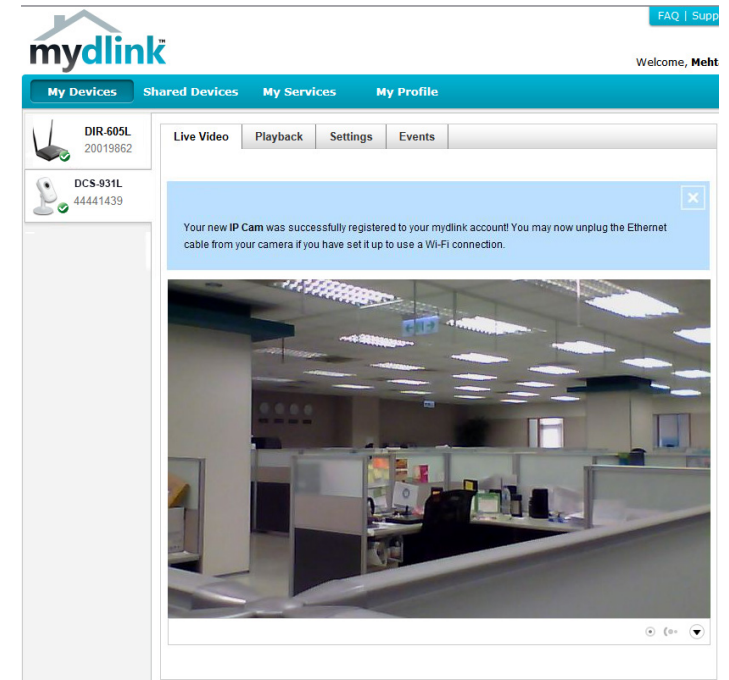
A summary and confirmation notification will appear with the automatically configured details. Make a note of the details and click **Yes** to add the camera to your account.



Zero Configuration will navigate to the mydlink Live View tab for your camera where you will see a screen similar to the following.

If you wish to connect your camera to your router wirelessly, you can simply disconnect the Ethernet cable and move the camera to its intended location; your router's wireless settings have been automatically transferred to the camera, and no further configuration is required.

Your camera is now set up. You can skip to the **“mydlink”** section on page 18 to learn more about the mydlink features of this camera. For **“Configuration”** information go to page 19 for advanced configuration of your camera.



# Camera Setup Wizard

## Windows Users

Go to **www.mydlink.com/support** to select your camera and choose the Windows Setup Wizard. Once your computer downloads the file, unzip the file and then double click on the **autorun.exe** located in the **Advanced** folder to run the wizard.

Then, click **Set up your Cloud Camera** to go through the Setup Wizard, which will guide you through the step-by-step installation process.

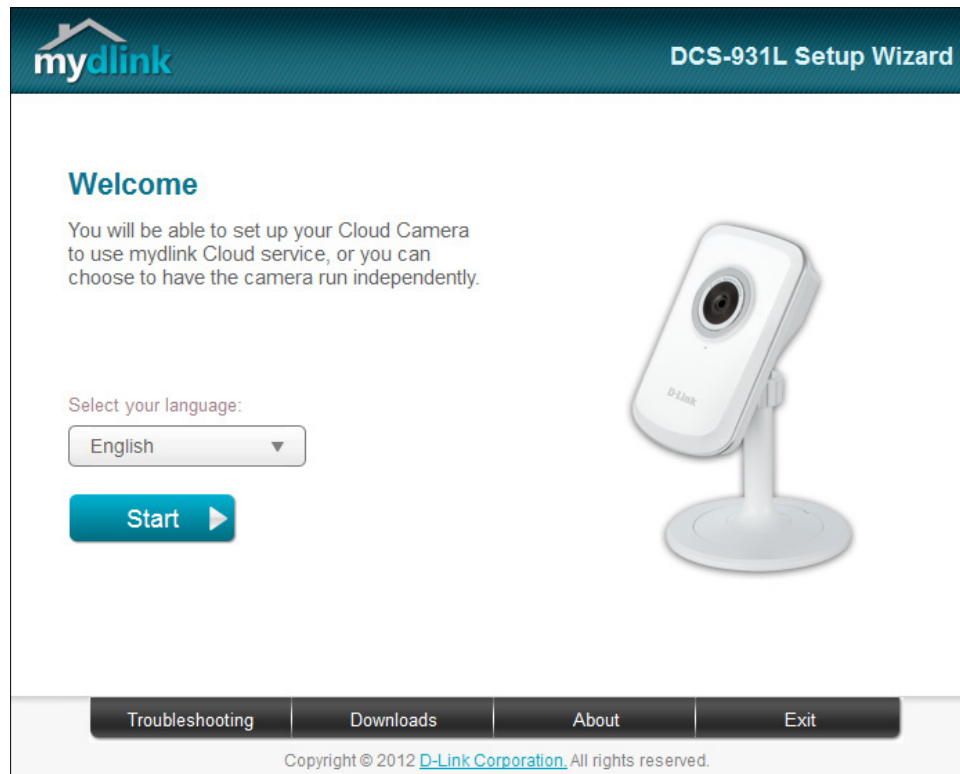


## Mac Users

Go to **[www.mydlink.com/support](http://www.mydlink.com/support)** to select your camera and choose the **Mac OS Setup Wizard**. Once downloaded, open the Setup Wizard file and launch the application.



After about 20-30 seconds, the Setup Wizard will open, which will guide you step-by-step through the installation process from connecting your hardware to configuring your camera and registering it with your mydlink account.



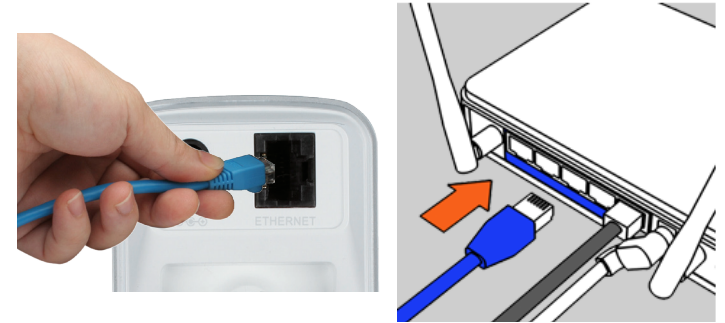
# Manual Hardware Installation

If you wish to set up your camera without using the Camera Setup Wizard, please follow these steps.

**Note:** In order to use the mydlink features of this product, you will need to go through the Camera Setup Wizard or Zero Configuration Setup.

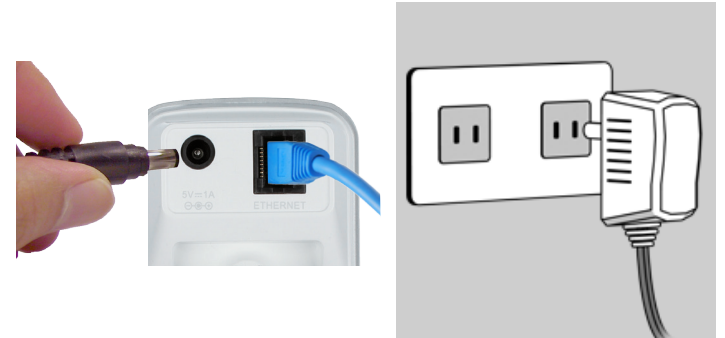
## Connect the Ethernet Cable

Use the included Ethernet cable and plug it into the camera. Plug the other end into an available port on your router.



## Attach the External Power Adapter

Connect the power adapter to the power connector on your camera, then plug the power adapter into a wall outlet.



## Configure Your Camera

Refer to “**Configuration**” on page 19 for information on how to configure your camera.

## Optional: Use WPS to Connect Wirelessly

You can use WPS to connect your camera to your network wirelessly. For more information, refer to “**WPS - Push Button Setup**” on page 17. If your router does not support WPS, you will still be able to set up your camera’s wireless settings in the camera’s web interface.

# Wireless Installation Considerations

The D-Link Wireless Network Camera lets you access your network using a wireless connection from anywhere within the operating range of your wireless network. However, the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

1. Minimize the number of walls and ceilings between your adapter and other network devices (such as your Network Camera) - each wall or ceiling can reduce your adapter's range from 3-90 feet (1-30 meters).
2. Be aware of the direct line between network devices. A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle, it looks over 42 feet (14 meters) thick. Position your devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.
3. Building Materials make a difference. A solid metal door or aluminum studs may weaken the wireless signal. Try to position your access points, wireless routers, and other networking devices where the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete will degrade your wireless signal.
4. Keep your product at least 3-6 feet or 1-2 meters away from electrical devices or appliances that generate RF noise.
5. If you are using 2.4GHz cordless phones or other radio frequency sources (such as microwave ovens), your wireless connection may degrade dramatically or drop completely. Make sure your 2.4GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone is not in use.



## WPS - Push Button Setup

Alternatively, you may create a secure wireless connection using the WPS Button on the back of the camera.

### To create a WPS connection:

#### Step 1

Make sure the camera is powered on, then press and hold the WPS button for three seconds. The blue WPS status LED will start blinking.

#### Step 2

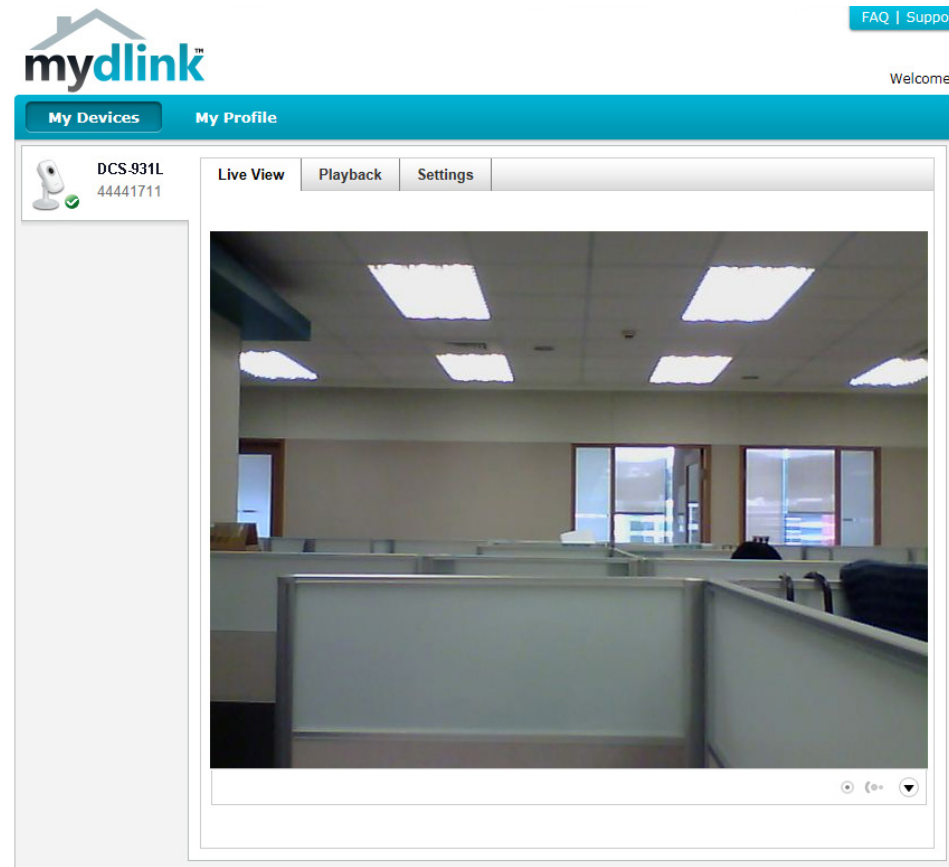
Press the WPS button on your router within 60 seconds. The WPS button is usually located on the front or side of your router. On some routers, you may need to log in to the web interface and click on an on-screen button to activate the WPS feature. If you are not sure where the WPS button is on your router, please refer to your router's User Manual.

The DCS-931L will automatically create a secure wireless connection to your router. While connecting, the green LED will flash and your camera will reboot.



# mydlink

After registering your DCS-931L camera with a mydlink account in the Camera Setup Wizard, you will be able to remotely access your camera from the **www.mydlink.com** website. After signing on to your mydlink account, you will see a screen similar to the following:



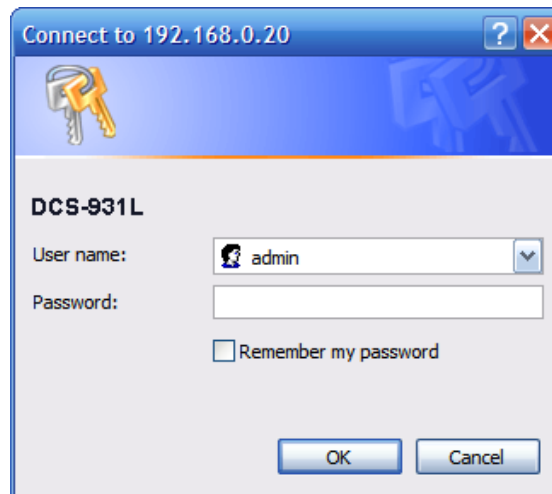
For more details on using your camera with mydlink, go to the **Support** section of the mydlink website and check the **User Manual** section for your product to find the latest instruction guide for your camera's mydlink features.

# Configuration

## Using the Web Configuration Interface

After completing the Camera Setup Wizard, you are ready to use your camera. The camera's built-in Web configuration interface is designed to allow you to easily access and configure your DCS-931L. At the end of the wizard, enter the IP address of your camera into a web browser, such as Internet Explorer®. To log in, use the User name **admin** and the password you created in the Setup Wizard. If you did not create a password, the default password is blank. After entering your password, click **OK**.

**Note:** If you are directly connecting your PC to the camera, or if you are using the camera on a closed network, the default IP is **192.168.0.20**.



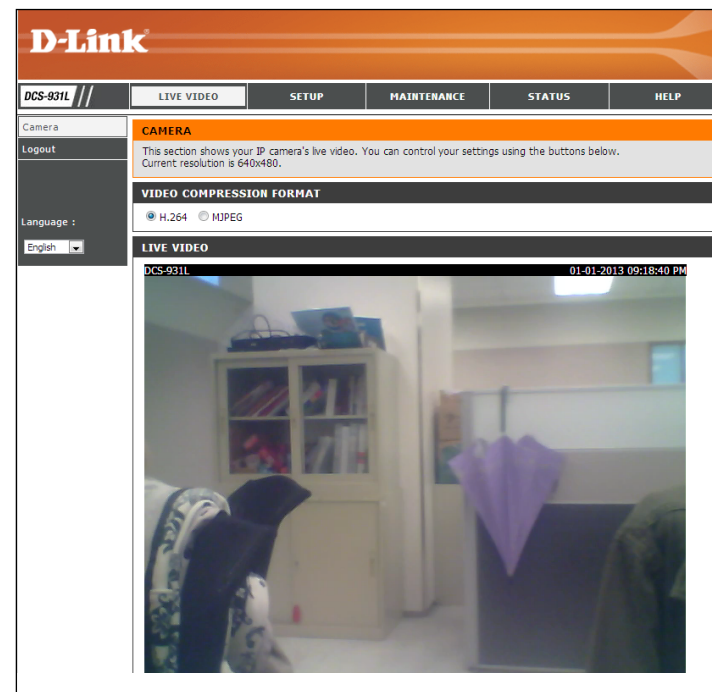
# Live Video

The Live Video screen shows you the live video feed from your camera. For information on how to configure your Live Video streams, refer to “Video” on page 29.

**Video Compression Format:** Click the **H.264** or **MJPEG** radio button to choose which compression format used when viewing your camera.

**Zoom:** Click on these buttons to zoom in and out of the video.

**Audio:** Click on the ON/OFF button to turn audio playback on and off.



# Setup Wizard

You may choose to configure your network by using the **Internet Connection Setup Wizard** that includes step-by-step instructions. Otherwise, you may manually configure your connection using the **Manual Internet Connection Setup**.

**Note:** To register your camera with mydlink and enable its mydlink-related features, you will need to use the Camera Setup Wizard. Please refer to “**Camera Setup Wizard**” on page 13 for more details.



# Internet Connection Setup Wizard

This wizard will guide you through a step-by-step process to configure your new D-Link Camera and connect the camera to the Internet.

Click **Next** to continue.

WELCOME TO D-LINK SETUP WIZARD - INTERNET CONNECTION SETUP

This wizard will guide you through a step-by-step process to configure your new D-Link Camera and connect the camera to the internet.

- **Step 1:** Setup LAN Settings
- **Step 2:** Setup DDNS Settings
- **Step 3:** Server Name Settings
- **Step 4:** Setup Time Zone

Back Next Cancel

Select what kind of Internet connection your camera should use:

- **DHCP Connection (Default):** If you are connected to a router, or are not sure which connection to use, select DHCP Connection.
- **Static IP Address:** This will allow you to manually enter your network settings for the camera. If you are not sure what settings to enter, check with your Internet Service Provider or network administrator.
- **PPPoE Connection:** If your camera is directly connected to a DSL modem, you may need to use PPPoE. Enter the username and password provided to you by your Internet Service Provider.

Click **Next** to continue.

STEP 1: SETUP LAN SETTINGS

Please select whether your camera will connect to the Internet with a DHCP connection, Static IP address or PPPoE. If your camera is connected to a router, or you are unsure which settings to pick, D-Link recommends that you keep the default selection of DHCP connection. Otherwise, click on Static IP address to manually assign an IP address before clicking on the **Next** button.

☒ DHCP Connection

☐ Static IP Address

IP Address

Subnet Mask

Default Gateway

☐ PPPoE

User ID

Password

Primary DNS

Secondary DNS

Back Next Cancel

Section 3 - Configuration

If you have a Dynamic DNS account and would like the camera to update your IP address automatically, select **Enable** and enter your host information. Otherwise, simply select **Disable**.

Click **Next** to continue.

Enter a name for your camera. Click **Next** to continue.

Configure the correct time to ensure that all events are triggered, captured, and scheduled at the right time. Click **Next** to continue.

This page displays your configured settings. Click **Apply** to save and activate your changes, or click **Back** to change your settings.

STEP 2: SETUP DDNS SETTINGS

If you have a Dynamic DNS account and would like your camera to update the IP address automatically, enable DDNS and enter your host information below. Click on the **Next** button to continue.

☐ Enable

☒ Disable

Server Address

<< Select Dynamic DNS Server

Host Name

User Name

Password

Timeout

576

hours

Back

Next

Cancel

STEP 3: SERVER NAME SETTINGS

D-Link recommends that you rename your camera for easy accessibility. Please assign a name of your choice before clicking on the **Next** button.

Camera Name

DCS-931L

Back

Next

Cancel

STEP 4: SETUP TIME ZONE

Please select the camera's timezone and then click on the **Next** button.

Current Time

01 Jan 2012 12:37:14 A.M.

Time Zone

(GMT-12:00) International Date Line West

Back

Next

Cancel

STEP 5: SETUP COMPLETE

Here is a summary of your camera settings. Click **Back** to modify the settings, or click **Apply** if all settings are correct. It is recommended you write down this information for future access or reference.

IP Address	DHCP Connection
IP Camera Name	DCS-931L
Time Zone	(GMT-12:00) International Date Line West
DDNS	Disable

Back

Apply

Cancel

## Network Setup

This section allows you to configure your network settings.

**DHCP:** Select this connection if you have a DHCP server running on your network and would like a dynamic IP address to be updated to your camera automatically.

**Static IP Client:** You may obtain a static or fixed IP address and other network information from your network administrator for your camera. A static IP address will ease you for accessing your camera in the future.

**IP Address:** The fixed IP address

**Subnet Mask:** The default value is "255.255.255.0." Used to determine if the destination is the same subnet.

**Default Gateway:** The gateway used to forward frames to destinations in a different subnet. Invalid gateway settings may cause the failure of transmissions to a different subnet.

**Primary DNS:** Primary domain name server that translates names to IP addresses.

**Secondary DNS:** Secondary domain name server to backup the Primary DNS.

**PPPoE Settings:** If you are using a PPPoE connection, enable it and enter the User Name and Password for your PPPoE account. You can get this information from your Internet service provider (ISP).

**Port Settings:** You may configure a Second HTTP port that will allow you to connect to the camera via a standard web browser. The port can be set to a number other than the default TCP ports 80. A corresponding port must be opened on the router. For example, if the port is changed to 1010, users must type **http://192.168.0.100:1010** instead of only "http://192.168.0.100".

**UPnP Settings:** Enable this setting to configure your camera as a UPnP device in the network.

Product: DCS-931L Firmware version: 1.00

**D-Link**

DCS-931L // LIVE VIDEO **SETUP** MAINTENANCE STATUS HELP

Wizard  
 Network Setup  
 Wireless Setup  
 Extender Setup  
 Dynamic DNS  
 Image Setup  
 Video  
 Audio  
 Motion Detection  
 Sound Detection  
 Mail  
 FTP  
 Time and Date  
 Logout

**NETWORK SETUP**  
 You can configure your LAN and Internet settings here.  
 [Save Settings] [Don't Save Settings]

**LAN SETTINGS**  
☒ DHCP Connection ☐ Static IP Address ☐ PPPoE  
 IP Address: 192.168.0.20 User ID:   
 Subnet Mask: 255.255.255.0 Password:   
 Default Gateway:   
 Primary DNS:   
 Secondary DNS:

**PORT SETTINGS**  
 HTTP Port: 80

**UPnP SETTINGS**  
 UPnP: ☒ Enable ☐ Disable  
 UPnP Port Forwarding: ☐ Enable ☒ Disable

**BONJOUR SETTINGS**  
 Bonjour: ☒ Enable ☐ Disable  
 Bonjour Name: DCS-931L  
 (Characters you may use in a Bonjour Name: "upper or lower case letters", "numbers" and "hyphens".)

**Helpful Hints.**  
 Select "DHCP Connection" if you are running a DHCP server on your network and would like an IP address assigned to your camera automatically. You may choose to manually enter a static IP Address and all the relevant network information or select PPPoE if you connect your DCS-931L directly to the Internet that uses a PPPoE service. If you choose PPPoE you must enter the user ID and password that was given by your Internet service provider.  
 DNS (Domain Name System) server is an Internet service that translates domain names (i.e. www.dlink.com) into IP addresses (i.e. 192.168.0.20). The IP addresses can be obtained from your ISP.  
 - Primary DNS: Primary domain name server that translates names to IP addresses.  
 - Secondary DNS: Secondary domain name server to backup the primary one.  
 Port Settings - Most ISPs do not open port 80 (a DCS-931L default video transfer port) for their residential customers, the DCS-931L has the ability to use a different port by enabling the second http



# Wireless Setup

This section allows you to set up and configure the wireless settings on your camera.

**Enable Wireless:** Check this box to allow your camera to connect to your network wirelessly.

**SSID:** Enter the network name(SSID) of the wireless network you want to connect to. You can also click the **Site Survey** button below to choose an available network and fill in settings automatically.

**Channel:** If you are using **Ad-Hoc** as your connection mode, select the same channel that is being used by your wireless network.

**Connection Mode:** Select the connection mode used by your wireless network. In most cases, you should select **Infrastructure**. **Ad-Hoc** is only used if your camera is directly connecting to another PC or device.

**Site Survey:** Click this button to select an available wireless network to connect to.

**Wireless Security Mode:** Select the wireless security mode used by your wireless network. If you select **WEP** or **WPA-PSK/WPA2-PSK**, enter the password for your wireless network in the text box that appears.

The screenshot shows the D-Link DCS-931L Web Setup Wizard. The top navigation bar includes tabs for LIVE VIDEO, SETUP (selected), MAINTENANCE, STATUS, and HELP. The left sidebar lists various setup options: Wizard, Network Setup, Wireless Setup (selected), Extender Setup, Dynamic DNS, Image Setup, Video, Audio, Motion Detection, Sound Detection, Mail, FTP, Time and Date, and Logout. The main content area is titled 'WIRELESS SETUP' and contains the following sections:

- WIRELESS SETTINGS:**
  - Enable Wireless: ☐
  - SSID:
  - Channel:
  - Connection Mode: ☒ Infrastructure ☐ Ad-Hoc
  - Site survey:
- WIRELESS SECURITY MODE:**
  - Security Mode: ☒ None ☐ WEP ☐ WPA-PSK / WPA2-PSK
  - Save Settings:

On the right side, there is a 'Helpful Hints...' section with text explaining the SSID and channel selection process, and a note about connection modes (Infrastructure vs. Ad-Hoc).

# Extender Setup

This section allows you to setup and configure the wireless network extending feature of your camera. Extender Mode allows your camera to extend the range of your existing wireless network. You can choose to use the same network name and settings as your existing wireless network, or you can create a new one.

**Enable Extender Mode:** Check this box to enable Extender Mode.

**Host Wireless Network Name:** This shows the name of the Host wireless network that the camera is connected to and will extend.

**Extended Wireless Network Name (SSID):** Select an option:

- **Same as Host Wireless Network Name:** Your extended network will use the same name and settings as your Host network. Your devices can use the same wireless information to connect to both the Host and Extended networks.
- **Create a New Wireless Network Name:** This allows you to manually set the name and security used for the extended network. You will need to add this information for each wireless device that connects to this Extended network.

**Maximum Clients Allowed to Connect:** Set the maximum number of clients that are allowed to connect to the extended network.

**Security Mode:** If you choose to **Create a New Wireless Network Name**, you can set your wireless security options here.

# Dynamic DNS

This section allows you to configure the DDNS setting for your camera. DDNS will allow all users to access your camera using a domain name instead of an IP address.

**Enable:** Click to enable the DDNS function.

**Server Address:** Select your DDNS Server from the drop-down menu.

**Host Name:** Enter the host name of the DDNS server.

**User Name:** Enter your username or e-mail used to connect to the DDNS.

**Password:** Enter your password used to connect to the DDNS server.

The screenshot displays the D-Link DCS-931L web interface. At the top, it shows 'Product: DCS-931L' and 'Firmware version: 1.00'. The D-Link logo is prominently displayed. Below the logo is a navigation bar with tabs: 'DCS-931L', 'LIVE VIDEO', 'SETUP', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'SETUP' tab is selected. On the left side, there is a vertical menu with options: 'Wizard', 'Network Setup', 'Wireless Setup', 'Extender Setup', 'Dynamic DNS', 'Image Setup', 'Video', 'Audio', 'Motion Detection', 'Sound Detection', 'Mail', 'FTP', 'Time and Date', and 'Logout'. The 'Dynamic DNS' option is highlighted. The main content area is titled 'DYNAMIC DNS' and contains a description: 'The Dynamic DNS feature allows you to host a server (Web, FTP, Camera, etc...) using a domain name that you have purchased (www.whateveryouname.com) from your broadband Internet Service Provider (ISP). Using a DDNS service, your friends can enter your host name to connect to your IP Camera regardless of your IP address.' Below this description are 'Save Settings' and 'Don't Save Settings' buttons. Underneath is the 'DYNAMIC DNS SETTINGS' section, which includes radio buttons for 'Enable' (selected) and 'Disable'. It also features input fields for 'Server Address' (with a dropdown arrow), 'Host Name', 'User Name', 'Password', and a 'Timeout' field set to '576' hours. 'Save Settings' and 'Don't Save Settings' buttons are at the bottom of this section. On the right side, there is a 'Helpful Hints...' section with text explaining the utility of Dynamic DNS. At the bottom of the interface, a 'SURVEILLANCE' banner is visible, followed by a copyright notice: 'Copyright 2012 - 2013, D-Link Corporation / D-Link Systems, Inc. All rights reserved.'

# Image Setup

This section allows you to configure the image settings for your camera.

**Enable Anti-flicker:** If you have lights flickering in your camera video, try enabling anti-flicker. Otherwise, you should leave this disabled.

**Flip Image:** Select this box to vertically flip the video.

**Mirror:** Horizontally flip the video.

**Note:** If the camera is installed upside down, **Flip Image** and **Mirror** should both be checked.

**Brightness Control:** Allows you to adjust the brightness level.

**Contrast Control:** Allows you to adjust the contrast level.

**Saturation Control:** Allows you to adjust the saturation level.

The screenshot displays the D-Link DCS-931L web interface. At the top, it shows 'Product: DCS-931L' and 'Firmware version: 1.00'. The main header features the D-Link logo and a navigation bar with tabs: LIVE VIDEO, SETUP (selected), MAINTENANCE, STATUS, and HELP. A left sidebar contains a menu with options: Wizard, Network Setup, Wireless Setup, Extender Setup, Dynamic DNS, Image Setup (selected), Video, Audio, Motion Detection, Sound Detection, Mail, FTP, Time and Date, and Logout. The main content area is titled 'IMAGE SETUP' and includes a sub-header 'In this section, you can configure the image settings for your camera.' with 'Save Settings' and 'Don't Save Settings' buttons. Below this is the 'IMAGE SETTINGS' section with the following options:

- Enable Anti Flicker: ☐
- Flip Image: ☐
- Mirror: ☐
- Brightness Control: +0 (dropdown)
- Contrast Control: +0 (dropdown)
- Saturation Control: +0 (dropdown)

At the bottom of the settings section are 'Save Settings' and 'Don't Save Settings' buttons. On the right side, there is a 'Helpful Hints...' section with the following text:

**Anti Flicker** - This feature will help to offset the interference of the lighting system and avoid the image flicker issue. ONLY use this option when it is necessary.

**Flip Image** - Flip the image vertically.

**Mirror** - Flip the image horizontally.

**Brightness, Contrast, or Saturation Control** - There are 11 settings (-5 to 5).

**Note:** Please wait a few seconds for the camera to adjust the image after the setting has been selected.

The footer of the interface shows 'SURVEILLANCE' and 'Copyright 2012 - 2013, D-Link Corporation / D-Link Systems, Inc. All rights reserved.'

# Video

This section allows you to configure the video settings for your camera.

**Video Profile:** This section allows you to change the **Resolution**, **FPS**, and **Quality**.

**Encode Type:** Your camera has separate settings for the H.264 and MJPEG video streams.

**Resolution:** Select the desired video resolution from three formats: 640x480, 320x240, and 160x112. Higher settings offer better quality, but will require more bandwidth to stream.

**Bit Rate:** The bps will affect the bit rate of the video recorded by the camera. Choose the bit rate of the video recorded by the camera. Higher bit rates result in higher video quality but a larger file size.

**Frame Rate:** Select the frame rate(FPS) to use for the video stream. Higher settings offer better quality, but will require more bandwidth to stream.

**JPEG Quality:** Select one of five levels of image quality: Highest, High, Medium, Low, and Lowest.

**View Mode:** Select the default encoding to use when viewing your video on the **Live Video** page.

**Light Frequency:** Select the frequency used by your lighting and power to help reduce image flicker.

Product: DCS-931L Firmware version: 1.00

---

**D-Link**

---

DCS-931L // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

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Sound Detection  
Mail  
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Time and Date  
Logout

**VIDEO**

In this section, you can configure the camera video quality, resolution, and frame rate.

Save Settings Don't Save Settings

**VIDEO PROFILE**

Encode Type	Resolution	Bit Rate	Frame Rate
H.264	640 x 480	2 Mbps	30
Encode Type	Resolution	Jpeg Quality	Frame Rate
MJPEG	640 x 480	Medium	Auto

Default View Mode : H.264

**LIGHT FREQUENCY**

50 Hz 60 Hz

Save Settings Don't Save Settings

**SURVEILLANCE**

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**Helpful Hints.**

**Resolution** - 3 settings are available.  
1.QVGA @ 160x112 - Usually used for display on handheld devices.  
2.QVGA @ 320x240 - Standard resolution for mobile phones, and PDAs  
3.VGA @ 640x480 - Standard resolution for computer display.

**Bit Rate** (bits per second) - Select a fixed bandwidth for your camera operation. Higher value means a higher quality image but consumes more network bandwidth.

**Frame Rate** (frames per second) - The higher the frame rate, the smoother the video will appear. Note that a higher frame rate setting also uses more bandwidth.

**Jpeg Quality** - Default value is Medium.

**Light Frequency** - 2 options, 50 or 60 Hz. Default value is 60 Hz.

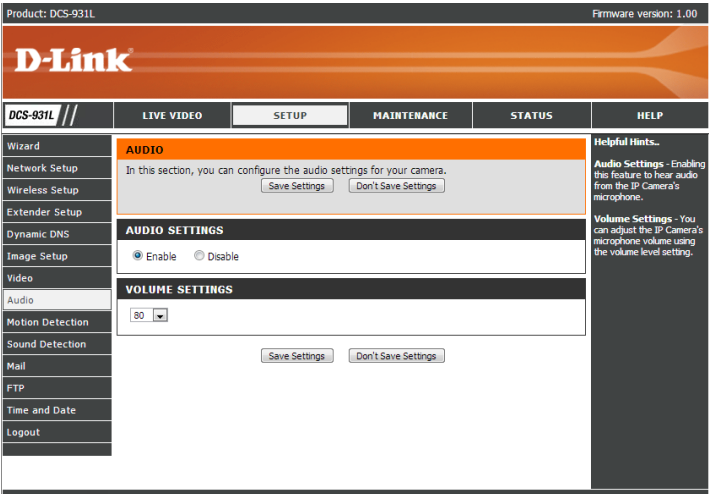
# Audio

This section allows you to adjust the audio settings for your camera.

**Note:** Please wait a few seconds for the camera to adjust the audio after making changes.

**Audio Settings:** You may **Enable** or **Disable** the camera audio feed.

**Volume Settings:** Select the desired volume percentage level.



# Motion Detection

Motion detection allows you to mark areas of your camera's video to monitor for motion, which can be used to trigger snapshots or recordings. Refer to "Mail" on page 33 and "FTP" on page 35 for more details.

**Motion Detection:** Select whether you want to enable or disable the motion detection feature of your camera.

**Time:** Specify whether you want to **Always** have motion detection enabled, or according to a **Schedule** that you define.

**Sensitivity:** Specify the amount of difference between two sequential images that would indicate motion.

**Detection Areas:** Use your mouse to click on the areas of the video that you would like to monitor for motion.

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**D-Link**

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**MOTION DETECTION**

In this section, you can configure the motion detection settings for your camera.  
Please note that your computer needs to have Java installed in order to view the motion detection configuration window. If you do not see the live video below, please visit <http://www.java.com> to download and install Java.

Save Settings Don't Save Settings

**MOTION DETECTION SETTINGS**

Motion Detection ☐ Enable ☒ Disable

Time ☒ Always  
☐ Schedule  
Day ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun  
Time Period Start: 00:00:00 (Example : 06:30:00)  
Stop: 00:00:00 (Example : 22:30:00)

Sensitivity 90 % (0~100%, high sensitivity makes the motions easier to be detected.)

Detection Areas  
Use mouse to click the blocks where you want to monitor for motion.

Save Settings Don't Save Settings

**SURVEILLANCE**

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# Sound Detection

Sound detection allows your camera to detect when there is a loud sound in the area, which can be used to trigger snapshots or recordings. Refer to “Mail” on page 33 and “FTP” on page 35 for more details.

**Sound Detection:** Select whether you want to enable or disable the sound detection feature of your camera.

**Time:** Specify whether you want to **Always** have sound detection enabled, or according to a **Schedule** that you define.

**Detection Level:** Specify the volume level that a sound must exceed in order to be “detected”.

**D-Link**

DCS-931L // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

**SOUND DETECTION**

In this section, you can configure the sound detection settings for your camera.

Please note that your computer needs to have Java installed in order to view the sound dB/Time window. If you do not see the sound dB/Time window below, please visit <http://www.java.com> to download and install Java.

[Save Settings](#) [Don't Save Settings](#)

**SOUND DETECTION SETTINGS**

Sound Detection ☐ Enable ☒ Disable

Time ☒ Always ☐ Schedule

Day ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun

Time Period Start : 00:00:00 (Example : 06:30:00) Stop : 00:00:00 (Example : 22:30:00)

Detection Level 90 dB

dB

Time

[Save Settings](#) [Don't Save Settings](#)



# Mail

This section allows you to configure your camera to send snapshots and video clips to an e-mail address. If you are not sure what settings to use, check with your e-mail service provider.

**SMTP Server Address:** This is the domain name or IP address of your external e-mail server.

**Sender e-mail Address:** This is the e-mail address listed as the sender for your notification e-mails.

**Receiver e-mail Address:** This is the e-mail address that your notification e-mails will be sent to.

**User Name:** If the SMTP server uses authentication, enter your user name.

**Password:** If the SMTP server uses authentication, enter your password.

For example, if you want to use Gmail with SSL-TLS for e-mail notifications, you can follow the setup procedure as below:

**Step 1** - Enter **smtp.gmail.com** in SMTP Server Address.

**Step 2** - Change the SMTP server port number from 25 to **465**.

**Step 3** - Enter your gmail e-mail address in Sender E-mail Address.

**Step 4** - Enter the destination e-mail address in Receiver E-mail Address.

**Step 5** - Enter the user name required to access the SMTP server.

**Step 6** - Enter the password required to access the SMTP server.

**Step 7** - Select **SSL-TLS** and then click **Save Settings**.

**Step 8** - Click the **Test** button to send a test e-mail will be sent to the e-mail account listed above.

**Note:** You can also use **STARTTLS**, which will use SMTP server port number 587.

**Note:** If you want to use a Yahoo SMTP server, the SMTP server address will be different between each registered region, and only SMTP port 465 is supported for SSL-TLS.

**Enable the e-mailing of images to an e-mail account:** Enabling this will allow snapshots to be e-mailed to you in different ways:

- Choosing **Always** will e-mail snapshots continuously based on the **E-mail Interval** specified.
- Choosing **Schedule** will allow you to schedule when to start and stop the e-mailing of snapshots.
- Select **Motion/Sound Detection** if you would like the camera to e-mail images only when motion or sound is detected. You can choose whether to e-mail a snapshot immediately, or e-mail 6 snapshots together, with 3 frames before and after motion/sound was detected. You can also set the **Frame interval time** to specify how far apart the snapshots should be.

**E-mail Interval:** This sets the limit for how frequently e-mail notifications will be sent. This can be set from 1 to 65535 seconds.

**Enable the e-mailing of video clips to an e-mail account:** Enabling this will allow video clips to be e-mailed to you in different ways. This is the same as e-mailing images, as specified above, but will take video clips according to the **Video Limit** settings you specify.

**Test E-mail Account:** This will send a test e-mail according to the e-mail settings you have specified above.

Use SSL-TLS/STARTTLS
☒ No
☐ SSL-TLS
☐ STARTTLS

### TIME SCHEDULE

☐ Enable the emailing of images to an email account

☒ Always

☐ Schedule
Day
☐ Mon
☐ Tue
☐ Wed
☐ Thu
☐ Fri
☐ Sat
☐ Sun
Time Period
Start : 00:00:00 (Example : 06:30:00)
Stop : 00:00:00 (Example : 22:30:00)

☐ Motion/Sound Detection

☐ E-mail frame immediately
☒ E-mail attached with 6 frames (3 frames before and 3 frames after detection)
Frame interval time : 1 second

E-mail Interval 300 Seconds

☐ Enable the emailing of video clip to an email account

☒ Always

☐ Schedule
Day
☐ Mon
☐ Tue
☐ Wed
☐ Thu
☐ Fri
☐ Sat
☐ Sun
Time Period
Start : 00:00:00 (Example : 06:30:00)
Stop : 00:00:00 (Example : 22:30:00)

☐ Motion/Sound Detection

E-mail Interval 300 Seconds
Video Limit :
Size 2048 KBytes (max is 4096 KBytes)
Time 10 Seconds (max is 15 Seconds)

### TEST E-MAIL ACCOUNT

A test e-mail will be sent to the e-mail account listed above.

# FTP

This section allows you to configure your camera to send snapshots and video clips to an FTP server.

**Host Name:** Enter the IP address of the FTP server that you will be connecting to.

**Port:** Enter the port of the FTP server that you will be connecting to. The default is 21.

**User Name:** Enter the user name of your FTP server account.

**Password:** Enter the password of your FTP server account.

**Path:** Enter the destination path/folder to save files to on the FTP server.

**Passive Mode:** Enabling passive mode may help you reach your FTP server if your camera is behind a router protected by a firewall.

## Enable the uploading of images to an FTP server:

Enabling this will allow snapshots to be uploaded in different ways:

- Choosing **Always** will upload snapshots continuously based on the **Image Frequency** specified.
- Choosing **Schedule** will allow you to schedule when to start and stop the uploading of snapshots.
- Select **Motion/Sound Detection** if you would like the camera to upload images only when motion or sound is detected.

**Image Frequency:** Set how frequently you want images to be taken and uploaded. You can choose to upload by frames per second, or by seconds per frame.

**Base File Name:** Set what you want the base file name to be for your snapshots.

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**D-Link**

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**FTP**

In this section, you can configure the camera to send images to an FTP server.

Save Settings Don't Save Settings

**FTP SERVER**

Host Name:   
Port: 21 (Default is 21)  
User Name:   
Password:   
Path: /  
Passive Mode: ☒ Yes ☐ No

**TIME SCHEDULE**

☐ Enable uploading of images to an FTP server

☒ Always  
☒ Schedule  
Day: ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun  
Time Period: Start: 00:00:00 (Example: 06:30:00) Stop: 00:00:00 (Example: 22:30:00)  
☒ Motion/Sound Detection

Image Frequency: ☒ 1 Frames/Second  
☐ 1 Seconds/Frame

Base File Name: DCS-931L  
File: ☒ Overwrite  
☒ Date/Time Suffix  
☐ Create subfolder by 0.5 hour  
☐ Sequence Number Suffix Up to 1024

☐ Enable uploading of video clip to an FTP server

☒ Always  
☒ Schedule  
Day: ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun  
Time Period: Start: 00:00:00 (Example: 06:30:00) Stop: 00:00:00 (Example: 22:30:00)  
☒ Motion/Sound Detection

File Name Prefix: DCS-931L  
Video Limit: Size: 2048 Kbytes (max is 4096 Kbytes) Time: 10 Seconds (max is 15 Seconds)

**TEST FTP SERVER**

A JPEG file will be sent to the above FTP server for testing.  
(File name: test\_date\_time.jpg)

Test

Save Settings Don't Save Settings

**Helpful Hints.**

**Host Name:** This is the IP address of the FTP server that you will be connecting to.

**Port:** The default port is 21.

**User Name:** The user name required for accessing the external FTP server.

**Password:** The password of the external FTP server.

**Passive mode:** Enabling passive mode will allow access to an external FTP server if your camera is behind a router protected by a firewall.

**Enable uploading of images to an FTP server:** Checking this box will enable the camera to upload images to FTP server shown above. Select **Always** to enable the camera to always upload images to the FTP server. Select **Schedule** if you would like to specify the time and day when the camera starts and stops uploading images to the FTP server. Select **Motion/Sound Detection** if you would like the camera to upload images to the FTP server only when motion/sound is detected.

**Image Frequency:** User can choose and define the numbers for both **Frames/Second** and **Seconds/Frame**.

**Base File Name:** The name that contains the time stamp information. For example DCS-931L\_2012072116425101.jpg. This means that the camera took a snapshot in the year 2012, July 21 at 16:42:51 (hour:minute) and 01 represents the 1st picture.

**File:** Select **Overwrite** and only one image filename is constantly refreshed. Select **Date/Time Suffix** and the pictures will be named with a date and time (refer to **Base File Name**). Enable the **Create subfolder** function to have the camera auto create the subfolder by 0.5 hour, 1 hour or 1 day. An example of this can be seen under the **Base file name category**. Select **Sequence Number Suffix up to 1024** and all the image files will be numbered from 1-1024. The total amount of images can be configured up to 1024.

**Test FTP server:** An image file will be sent to the FTP server after you click **Test**.

**SURVEILLANCE**

**File:** Select how you want uploading of snapshots to be handled:

- **Overwrite** will replace the old snapshot with the new one. This means you will only have one snapshot that is updated every time a new one is taken.
- **Date/Time Suffix** will add the date and time to the end of the snapshot file name. You can also choose to make subfolders based on a period of time you specify to help you organize your snapshots.
- **Sequence Number Suffix** will add a number to the end of the snapshot file name up to the number you specify, after which the oldest files will be overwritten.

**Enable uploading of video clip to an FTP server:** This feature will allow video clips to be uploaded in different ways. This is same as uploading images as specified above, but will take video clips according to video limit settings you specified.

**Test FTP Server:** Clicking on the **Test** button will send a test JPEG snapshot to the FTP server specified above to make sure that your settings are correct.

This will send a test e-mail according to the e-mail settings you have specified above.

Passive Mode
☐ Yes
☒ No

### TIME SCHEDULE

☐ Enable uploading of images to an FTP server

☒ Always
☐ Schedule

Day
☐ Mon
☐ Tue
☐ Wed
☐ Thu
☐ Fri
☐ Sat
☐ Sun
Time Period
Start : 00:00:00 (Example : 06:30:00)
Stop : 00:00:00 (Example : 22:30:00)

☐ Motion/Sound Detection

Image Frequency
☒ 1 Frames/Second
☐ 1 Seconds/Frame

Base File Name
DCS-931L

File
☐ Overwrite
☒ Date/Time Suffix
☐ Create subfolder by 0.5 hour
☐ Sequence Number Suffix Up to 1024

☐ Enable uploading of video clip to an FTP server

☒ Always
☐ Schedule

Day
☐ Mon
☐ Tue
☐ Wed
☐ Thu
☐ Fri
☐ Sat
☐ Sun
Time Period
Start : 00:00:00 (Example : 06:30:00)
Stop : 00:00:00 (Example : 22:30:00)

☐ Motion/Sound Detection

File Name Prefix
DCS-931L

Video Limit :
Size 2048 KBytes (max is 4096 KBytes)
Time 10 Seconds (max is 15 Seconds)

### TEST FTP SERVER

A JPEG file will be sent to the above FTP server for testing.  
(File name: test\_date\_time.jpg)

# Time and Date

This section allows you to configure the settings of the internal system clocks for your camera.

**Time Zone:** Select the time zone for your region from the drop-down menu.

**Synchronize NTP Server:** Enabling this will allow the camera to update its clock automatically from an NTP server. Select the NTP server closest to you, and select whether you want to apply daylight saving corrections.

**Set the Date and Time Manually:** If Synchronize NTP Server is disabled, you can set the date and time manually. You can also click on the **Copy Your Computer's Time Settings** to automatically set the date and time based on your computer's settings.

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**D-Link**

DCS-931L // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

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Logout

**TIME AND DATE**

The Time Configuration option allows you to configure, update, and maintain the internal system clock. In this section you can set the time zone the camera is in, and set the NTP (Network Time Protocol) Server.

Save Settings Don't Save Settings

**TIME CONFIGURATION**

Current Time 01 Jan 2013 10:42:06 P.M.  
Time Zone (GMT) Casablanca, Monrovia, Reykjavik

**AUTOMATIC TIME CONFIGURATION**

Synchronize NTP Server ☐  
NTP Server Used << Select NTP Server >>  
Daylight Saving ☐ Enable ☒ Disable  
Offset: +1:00  
Month Week Day of Week Time  
Start Jan 1st Sun 12 am  
End Jan 1st Sun 12 am

**SET THE DATE AND TIME MANUALLY**

Year 2013 Month 1 Day 1  
Hour 22 Minute 42 Second 1  
Copy Your Computer's Time Settings  
Save Settings Don't Save Settings

**Helpful Hints.**

**Time Zone** - The geographical zone for the local time setting.

**Automatic Time Configuration** - With this option selected, the camera will synchronize its date and time settings with an NTP server over the Internet upon camera start up. If the timeserver cannot be reached, no time settings will be applied.

**NTP server** - The IP address or domain name of the Time Server.

**Daylight Saving** - Enable daylight saving that will adjust the time depending on the daylight saving time offset and date.

You may also **Set the Date and Time Manually** or **Copy your Computer's Time Settings**.

**SURVEILLANCE**

# Maintenance Admin

This section allows you to change the administrator's password and configure the server settings for your camera. You can also manage the user account(s) that are allowed to access to your camera.

**Admin Password:** To change the admin password used to log into the web interface, enter the old password, then enter the new password and retype it in the next text box, then click **Apply**.

**Camera Name:** Specify a name for your camera

**LED Control:** Select **Normal** to enable the LED on the front of the device, or select **Off** to disable the LED. Turning this off may be useful if you do not want the camera to be noticeable.

**User Access Control:** Select **Enable** to enable user access control or **Disable** to allow only the administrator account to access the camera.

**Snapshot URL Authentication:** Select **Enable** to allow access to the current camera snapshot via the web address indicated.

**OSD Time:** Select **Enable** to allow the current time to be added to the camera video, and select a color to use for the text.

**Add User Account:** You can create new users to provide viewing access for your camera's video. User accounts will only be able to access the **Live Video** section of the web configuration interface, but cannot access any other parts or change any settings.

To create a new user, enter a user name, password, and retype the password, then click **Add**. A maximum of 8 user accounts can be created.

**User List:** Displays the account names of authorized users. You can modify or delete an account by clicking on its modify or delete icon.

**D-Link**

DCS-931L // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

Admin System Firmware Upgrade Logout

**ADMIN**

Here you can change the administrator's password and configure the server setting for your camera. You can also add, modify and/or delete the user account(s).

**ADMIN PASSWORD SETTING**

Old Password   
 New Password   
 Retype Password

**SERVER SETTING**

Camera Name   
 LED Control ☒ Normal ☐ Off  
 User Access Control ☒ Enable ☐ Disable  
 Snapshot URL Authentication ☒ Enable ☐ Disable (http://192.168.50.135/image/jpeg.cgi)  
 OSD Time ☐ Enable ☒ Disable  
 Color

**ADD USER ACCOUNT**

User Name   
 Password   
 Retype Password

**USER LIST**

no.	name	modify	delete
1	admin		

**Helpful Hints...**

For security reasons, it is recommended that you change the Password for the Administrator accounts. Be sure to write down the new Login Names and Passwords to avoid having to reset the camera in the event that they are forgotten.

**SURVEILLANCE**

# System

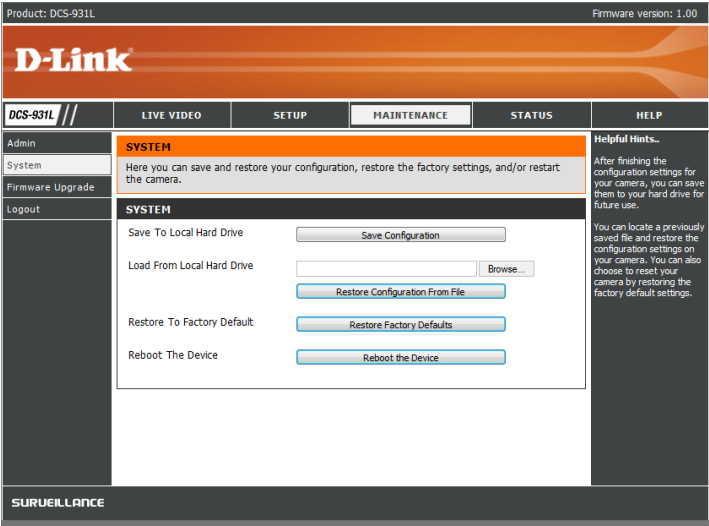
This section allows you to save and restore your configuration, restore the factory settings, and/or restart the camera.

**Save To Local Hard Drive:** Click the **Save Configuration** button to save the current camera configuration to your local PC.

**Load From Local Hard Drive:** To load a previously saved configuration, click the **Browse...** button, select your saved configuration file, then click the **Restore Configuration From File** button.

**Restore To Factory Default:** Click the **Restore Factory Defaults** button to reset all settings back to the factory defaults. Please note that this will erase any changes you have made to the settings of the camera.

**Reboot The Device:** Click the **Reboot the Device** button to reboot the camera.

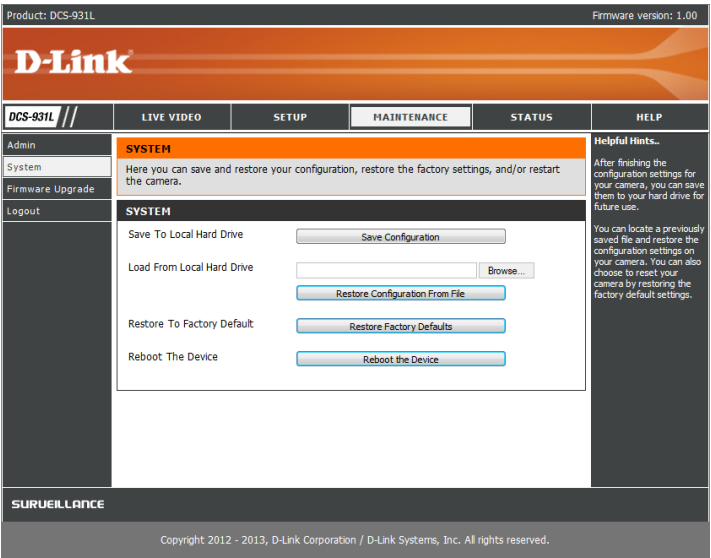


# Firmware Upgrade

Your current firmware version and date will be displayed on your screen. You may go to the D-Link Support Page to check for the latest firmware versions available.

To upgrade the firmware on your DCS-931L, download the latest firmware from the D-Link Support Page to your local hard drive. Click the **Browse...** button and select the firmware file, then click the **Upload** button to start the firmware upgrade.

**Warning:** The firmware upgrade process must not be interrupted or the camera may be damaged. When upgrading firmware, do not unplug the camera or your PC or close your web browser until the process is complete. It is also highly recommended that you use a wired connection for your camera and PC when upgrading firmware.





# Status

## Device Info

This section displays all the detailed information about your device and network settings.

The screenshot shows the D-Link DCS-931L web interface. The top navigation bar includes links for LIVE VIDEO, SETUP, MAINTENANCE, STATUS (selected), and HELP. The left sidebar contains links for Device Info, Active User, and Logout. The main content area is titled 'DEVICE INFO' and contains two sections: 'BASIC INFORMATION' and 'WIRELESS STATUS'.

BASIC INFORMATION	
Camera Name	DCS-931L
Time & Date	01 Jan 2013 10:53:58 P.M.
Firmware Version	1.00 (2012-12-05)
Agent Version	2.0.16-b33
MAC Address	28 10 7B 07 A9 BE
IP Address	192.168.50.135
Subnet Mask	255.255.255.0
Default Gateway	192.168.50.1
Primary DNS	192.168.50.1
Secondary DNS	4.2.2.2
DDNS	Disable
UPnP Port Forwarding	Disable
FTP Server Test	No test conducted.
E-mail Test	No test conducted.

WIRELESS STATUS	
Connection Mode	Infrastructure
Link	No
SSID	dlink (MAC : 00 00 00 00 00 00)
Channel	6
Encryption	No
Wireless Client List	<a href="#">Wireless Client List</a>

[Refresh](#)

**SURVEILLANCE**

# Active User

This page lists all the active users' information including the User Name, IP address, and the time that camera access began.

DCS-931L

Device Info

Active User

Logout

ACTIVE USER

This page lists active user information, including user name, IP address and the initial access time.

USER LIST

no.	user name	IP address	time
-----	-----------	------------	------

Refresh

Helpful Hints..

All of the active users are listed on this page. The time information indicates the time that each user started accessing the camera.

SURVEILLANCE

# Troubleshooting

## 1. What is Remote Access? How do I enable it?

Remote Access allows you to access your camera from any PC connected to the Internet through a web browser. This lets you view your camera feed and manage your camera's settings when you're away from home.

To enable Remote Access, simply go through the Camera Setup Wizard included on the Installation CD that came in your package. You can also download the wizard from the following websites:

DCS-931L: <http://DCS-931L.mydlink.com>

After going through the wizard, you should see Remote Status: Enabled on the summary page.

If you see Remote Status: Disabled, make sure that:

- ...the front LED on your camera is lit solid green

- ...your Internet connection is working

- ...your router's LAN & WAN connections are working properly

- ...your router has UPnP enabled (if your router does not support UPnP, please refer to Appendix A)

- ...your router can get a public IP

- ...your router is upgraded to the latest firmware

- ...you have tried rebooting your router by unplugging it, then plugging it back in

After checking the above items, you can click the Retry button to refresh the summary screen to see if Remote Access has been enabled.

## 2. What can I do if I forget my password?

If you forget your password, you will need to perform a hard reset of your camera. This process will change all your settings back to the factory defaults.

To reset your camera, please use an unfolded paperclip to press and hold the RESET button for at least 3 seconds while your camera is plugged in.

### **3. Why does the LED not light up?**

The power supply might be faulty. Confirm that you are using the provided DC 5V power supply for this network camera. Verify that the power supply is correctly connected. If the camera is functioning normally, the LED may have been disabled. See “Admin” on page 38 for information about how to enable the LED.

### **4. Why is the camera’s network connection unreliable?**

There might be a problem with the network cable. To confirm that the cables are working, PING the address of a known device on the network. If the cabling is OK and your network is reachable, you should receive a reply similar to the following (...bytes = 32 time = 2 ms).

Another possible problem may be that the network device such as a hub or switch utilized by the Network Camera is not functioning properly. Please confirm the power for the devices are well connected and functioning properly.

### **5. Why does the Network Camera work locally but not remotely?**

This might be caused by the firewall protection. Check the Internet firewall with your system administrator. The firewall may need to have some settings changed in order for the Network Camera to be accessible outside your local LAN. For more information, please refer to the section about installing your camera behind a router.

Make sure that the Network Camera isn’t conflicting with any Web server you may have running on your network.

The default router setting might be a possible reason. Check that the configuration of the router settings allow the Network Camera to be accessed outside your local LAN.

### **6. Why does a series of broad vertical white lines appear through out the image?**

It could be that the image sensor has become overloaded when it has been exposed to bright light such as direct exposure to sunlight or halogen lights. Reposition the camera into a more shaded area immediately, as prolonged exposure to bright lights will damage the sensor.

### **7. The camera is producing noisy images. How can I solve the problem?**

The video images might be noisy if the camera is used in a very low light environment.

### **8. The images are poor quality, how can I improve the image quality?**

Make sure that your computer's display properties are set to at least 6-bit color. Using 16 or 256 colors on your computer will produce dithering artifacts in the image, making the image look as if it is of poor quality.

You may also need to check your image settings to make sure the brightness, contrast, and other settings are set properly. For more, refer to "Image Setup" on page 28.

### **9. Why are no images available through the Web browser?**

ActiveX might be disabled. If you are viewing the images from Internet Explorer make sure ActiveX has been enabled in the Internet Options menu. You may also need to change the security settings on your browser to allow the ActiveX plug-in to be installed.

If you are using Internet Explorer with a version number lower than 6, then you will need to upgrade your Web browser software in order to view the streaming video transmitted by the Network Camera.

# Technical Specifications

## SYSTEM REQUIREMENTS

- Microsoft Windows® 8, 7, Vista®, XP or Mac with OS® X 10.6 or higher
- PC with 1.3 GHz or above and at least 128 MB RAM
- Internet Explorer 7, Firefox 12, Safari 4, or Chrome 20 or higher version with Java installed and enabled

## NETWORKING PROTOCOL

- IPV4, ARP, TCP, UDP, ICMP
- DHCP Client
- NTP Client (D-Link)
- DNS Client
- DDNS Client (Dyndns and D-Link)
- SMTP Client
- FTP Client
- HTTP Server
- PPPoE
- UPnP Port Forwarding

## BUILT-IN PROTOCOL

- 10/100BASE-TX Fast Ethernet
- 802.11b/g/n WLAN

## WIRELESS CONNECTIVITY

- 802.11b/g/n Wireless with WEP/WPA/WPA2 security
- WPS

## WIRELESS TRANSMIT OUTPUT POWER

- 16 dbm for 11b, 12 dbm for 11g, 12 dbm for 11n (typical)

## SDRAM

- 64 MB

## FLASH MEMORY

- 8 MB

## RESET BUTTON

- Reset to factory default

## VIDEO CODECS

- H.264
- MJPEG
- JPEG for still images

## VIDEO FEATURES

- Adjustable image size and quality
- Time stamp and text overlay
- Flip and Mirror

## RESOLUTION

- 640 x 480 at up to 30 fps
- 320 x 240 at up to 30 fps
- 160 x 112 at up to 30 fps

## LENS

- Focal length: 3.15 mm, F2.8

## SENSOR

- VGA 1/5 inch CMOS sensor

## MINIMUM ILLUMINATION

- 1 lux @ F2.8

### **VIEWING ANGLE**

- Horizontal: 45.3°
- Vertical: 34.5°
- Diagonal: 54.9°

### **DIGITAL ZOOM**

- Up to 4x

### **3A CONTROL**

- AGC (Auto Gain Control)
- AWB (Auto White Balance)
- AES (Auto Electronic Shutter)

### **POWER**

- Input: 100-240 V AC, 50/60 Hz
- Output: 5 V DC, 1 A
- External AC-to-DC switching power adapter

### **DIMENSIONS (W X D X H)**

- Including the bracket and stand:  
65.8 x 65 x 126 mm
- Camera only:  
27.2 x 60 x 96 mm

### **WEIGHT**

- 83 g (without bracket and stand)

### **MAX POWER CONSUMPTION**

- 3.5 W

### **OPERATION TEMPERATURE**

- 32 °F to 104 °F (0 °C to 40 °C)

### **STORAGE TEMPERATURE**

- -4 °F to 158 °F (-20 °C to 70 °C)

### **HUMIDITY**

- 20-80% RH non-condensing

### **EMISSION (EMI), SAFETY & OTHER CERTIFICATIONS**

- FCC Class B
- IC
- C-Tick
- CE

# Contacting Technical Support

U.S. and Canadian customers can contact D-Link technical support through our web site or by phone.

Before you contact technical support, please have the following ready:

- Model number of the product (e.g. DCS-931L)
- Hardware Revision (located on the label on the bottom of the Network Camera (e.g. rev A1))
- Serial Number (s/n number located on the label on the bottom of the Network Camera).

You can find software updates and user documentation on the D-Link website as well as frequently asked questions and answers to technical issues.

## For customers within the United States:

### Phone Support:

(877) 453-5465

### Internet Support:

<http://support.dlink.com>

## For customers within Canada:

### Phone Support:

(800) 361-5265

### Internet Support:

<http://support.dlink.ca>



# Warranty

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited Warranty:

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor, and
- Only for products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, or addresses with an APO or FPO.

## Limited Warranty:

D-Link warrants that the hardware portion of the D-Link product described below ("Hardware") will be free from material defects in workmanship and materials under normal use from the date of original retail purchase of the product, for the period set forth below ("Warranty Period"), except as otherwise stated herein.

- Hardware (excluding power supplies and fans): One (1) year
- Power supplies and fans: One (1) year
- Spare parts and spare kits: Ninety (90) days

The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement hardware need not be new or have an identical make, model or part. D-Link may, at its option, replace the defective Hardware or any part thereof with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement hardware will be warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware, the actual price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware or part thereof that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

### **Limited Software Warranty:**

D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Software Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Software Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund the portion of the actual purchase price paid that is attributable to the Software. Except as otherwise agreed by DLink in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

### **Non-Applicability of Warranty:**

The Limited Warranty provided hereunder for Hardware and Software portions of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

### **Submitting A Claim (USA):**

The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow DLink to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-877-354-6555, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form and entering the assigned Case ID Number at <https://rma.dlink.com/>.

- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. DLink will only replace the defective portion of the product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to D-Link Systems, Inc., 17595 Mt. Herrmann, Fountain Valley, CA 92708. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in the United States, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

### **Submitting A Claim (Canada):**

The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- Customers need to provide their receipt (proof of purchase) even if the product is registered. Without a receipt, no warranty service will be done. The registration is not considered a proof of purchase.
- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-800-361-5265, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form and entering the assigned Case ID Number at <https://rma.dlink.ca/>.
- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the product and will not ship back any accessories.

- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery (“COD”) is allowed. Products sent COD will be rejected by D-Link. Products shall be fully insured by the customer and shipped to D-Link Networks, Inc., 2525 Meadowvale Boulevard Mississauga, Ontario, L5N 5S2 Canada. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via Purolator Canada or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in Canada, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link’s reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.
- RMA phone number: 1-800-361-5265 Hours of Operation: Monday-Friday, 9:00AM – 9:00PM EST

### **What Is Not Covered:**

The Limited Warranty provided herein by D-Link does not cover:

Products that, in D-Link’s judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; and Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product.

While necessary maintenance or repairs on your Product can be performed by any company, we recommend that you use only an Authorized D-Link Service Office. Improper or incorrectly performed maintenance or repair voids this Limited Warranty.

### **Disclaimer of Other Warranties:**

EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED “AS-IS” WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT.

IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO THE DURATION OF THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

### **Limitation of Liability:**

TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NONCONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY.

### **Governing Law:**

This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This Limited Warranty provides specific legal rights and you may also have other rights which vary from state to state.

### **Trademarks:**

D-Link is a registered trademark of D-Link Corporation/D-Link Systems, Inc. Other trademarks or registered trademarks are the property of their respective owners.

### **Copyright Statement:**

No part of this publication or documentation accompanying this product may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from D-Link Corporation/D-Link Systems, Inc., as stipulated by the United States Copyright Act of 1976 and any amendments thereto. Contents are subject to change without prior notice.

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### **CE Mark Warning:**

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

### **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 communication. 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 or more 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.

### **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.

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.

If this device is going to be operated in 5.15 ~ 5.25GHz frequency range, then it is restricted in indoor environment only.

### **IMPORTANT NOTICE:**

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

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.

### **Industry Canada Statement:**

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

### **IMPORTANT NOTE:**

#### Radiation Exposure Statement:

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

This device has been designed to operate with an antenna having a maximum gain of 2 dB. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.



# Registration

Register your product online at [registration.dlink.com](http://registration.dlink.com)



Product registration is entirely voluntary and failure to complete or return this form will not diminish your warranty rights.

Version 1.0  
February 12, 2013