



User Manual

HD PoE Outdoor Cloud Camera

DCS-2310L

Preface

D-Link reserves the right to revise this publication and to make changes in the content hereof without obligation to notify any person or organization of such revisions or changes. Information in this document may become obsolete as our services and websites develop and change. Please refer to the www.mydlink.com website for the most current information.

Manual Revisions

Revision	Date	Description
2.00	November 26, 2014	DCS-2310L Revision B1 with FW V2.00

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Product Overview

Package Contents



DCS-2310L HD PoE Outdoor Cloud Camera



CAT5 Ethernet cable (Pre-Attached)



CD-ROM with User Manual and software



Quick Installation Guide

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

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.



Introduction

Congratulations on your purchase of the DCS-2310L HD PoE Outdoor Cloud Camera. The DCS-2310L is a versatile and unique solution for your small office or home. Unlike a standard webcam, the DCS-2310L is a complete system with a built-in CPU and web server that transmits high quality video images for security and outdoor surveillance. The DCS-2310L 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 network. This camera's weatherproof housing and Power over Ethernet make it an ideal solution for a complete and cost-effective surveillance solution with easy clutter-free installation. The remote monitoring, infrared, motion detection and event notifications features enable you be truly responsive to your surveillance deployment.

System Requirements

- Computer with Microsoft Windows® 7/8/Vista/XP, or Mac with OS X 10.6 or higher
- PC with 1.3 GHz or above; at least 128 MB RAM
- Internet Explorer 7, Firefox 12, Safari 6, or Chrome 20 or higher version with Java installed and enabled
- Existing 10/100 Ethernet-based network
- A microSD memory card (optional) is required for recording to onboard storage. SDHC Class 6 or above is recommended.
- Broadband Internet connection

Features

Simple to Use

The DCS-2310L is a stand-alone system with a built-in CPU, requiring no special hardware or software. The DCS-2310L supports both ActiveX mode for Internet Explorer and Java mode for other browsers such as Firefox® and Safari®.

Supports a Variety of Platforms

Supporting TCP/IP networking, HTTP, and other Internet related protocols. The DCS-2310L can also be integrated easily into other Internet/Intranet applications because of its standards-based features. The DCS-2310L offers Ethernet/Fast Ethernet connectivity, making the DCS-2310L easy to integrate into your existing network environment. The DCS-2310L works with a 10Mbps Ethernet based network or 100Mbps Fast Ethernet based network for traditional wired environments.

Web Configuration

Using a standard Web browser, administrators can configure and manage the Network Camera directly from its own Web page via Intranet or Internet. This means you can access your DCS-2310L anytime, anywhere in the world.

Broad Range of Applications

With today's high-speed Internet services, the Network Camera can provide the ideal solution for delivering live video images over the Intranet and Internet for remote monitoring. The Network Camera allows remote access using a Web browser for live image viewing, and allows the administrator to manage and control the Network Camera anytime, anywhere in the world. Many applications exist, including industrial and public monitoring of homes, offices, banks, hospitals, child-care centers, and amusement parks.

Remote Monitoring Utility

The D-ViewCam application adds enhanced features and functionality for the Network Camera and allows administrators to configure and access the Network Camera from a remote site via Intranet or Internet. Other features include image monitoring, recording images to a hard drive, viewing up to 32 cameras on one screen, and taking snapshots.

IR LED for Day and Night Functionality

The built-in infrared LEDs enables night time viewing of up to 16 feet (5 meters).

IP65 Weatherproof Housing

The DCS-2310L uses an IP65 weatherproof housing, allowing you to rest assured that in the toughest of conditions, it will continue to provide round-the-clock surveillance.

PoE (Power over Ethernet) for Flexible Installation

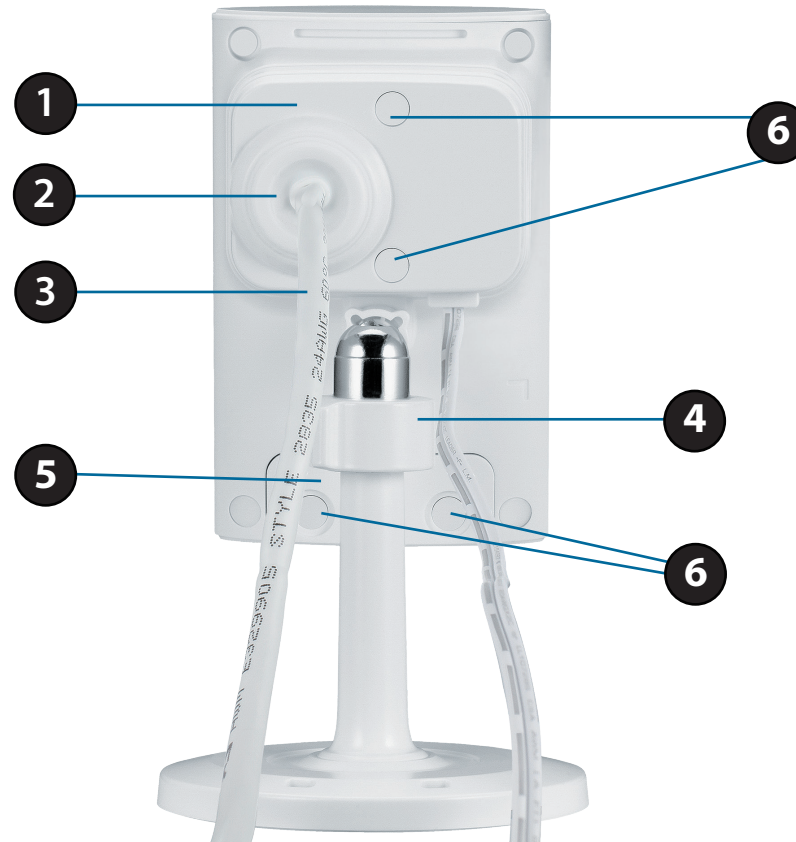
The DCS-2310L can draw all the power it needs from a powered Ethernet port meaning installation is simple and clutter free.

Hardware Overview Front



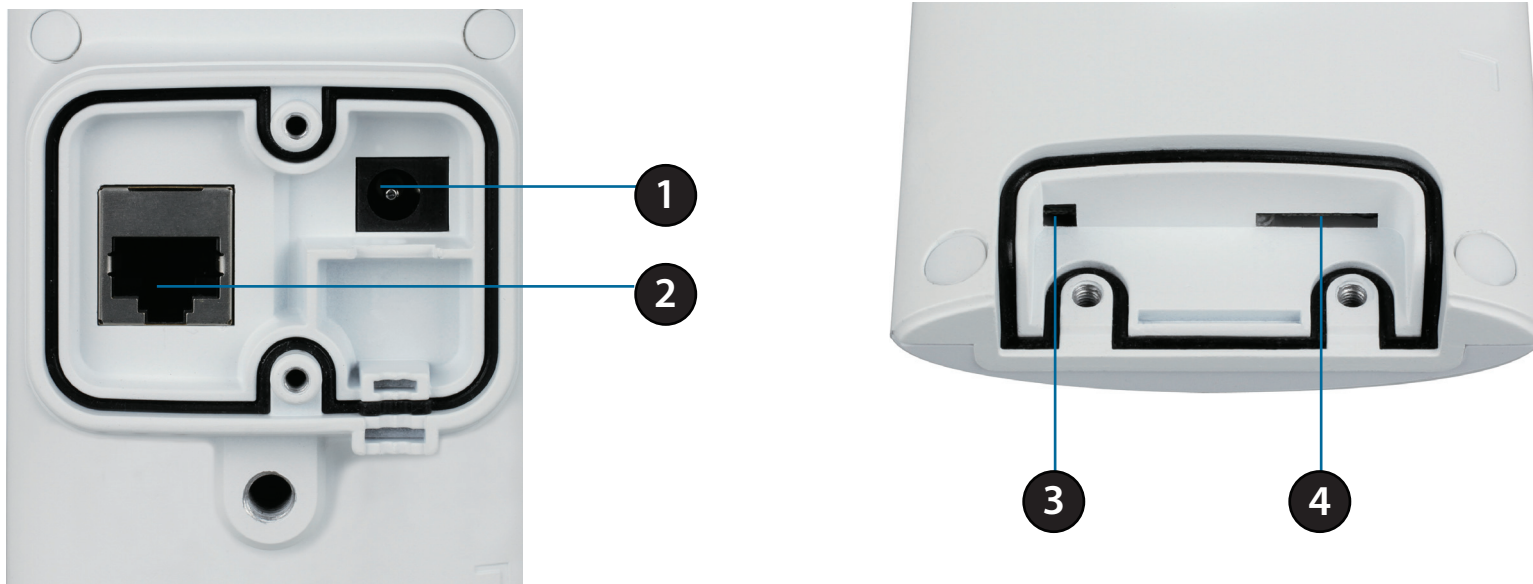
1	Camera Lens	Records video of the surrounding area
2	Light Sensor	The light sensor monitors lighting conditions and switches between day and night vision modes accordingly
3	IR LED	Infrared LED illuminates the camera's field of view at night
4	Microphone	Records audio from the surrounding area
5	PIR	Passive Infrared sensor for motion detection
6	Power/Status LED	Indicates the camera's current status

Rear: External



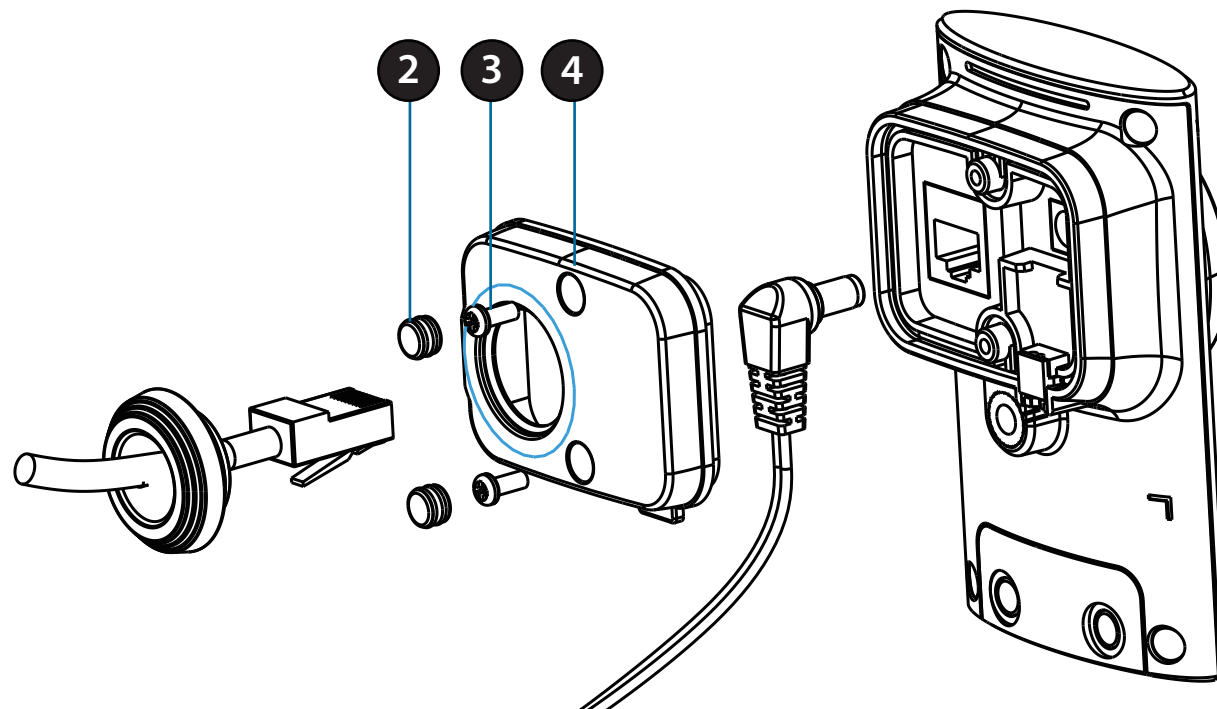
1	Weatherproof Cover	Weatherproof protective panel
2	Protective Cable Cover	Weatherproof cable connection cover
3	Ethernet Cable	RJ45 Ethernet cable to connect to your network
4	Adjustment Ring	Tighten or loosen the adjustment ring to adjust the camera's position
5	Weatherproof Cover	Weatherproof cover for the microSD Card slot and reset button
6	Weatherproof Screw Covering	Weatherproof protective covering for enclosure screws

Rear: Internal



1	DC Power Connector	Connected to DC 5 V power adapter (not included in package)
2	PoE Ethernet Port	Connects to your Ethernet network, can receive power from a PoE switch or injector
3	Reset Button	Use a paperclip or similar tool to press and hold the recessed button for 10 seconds to reset the camera
4	microSD Card Slot	Insert a microSD card for storing recorded images and video locally

Removing the Top Panel



Step 1:

Place the camera face down on a non-slip flat surface.

Step 2:

Carefully pry out the two protective rubber screw coverings using a thin flat blade.

Step 3:

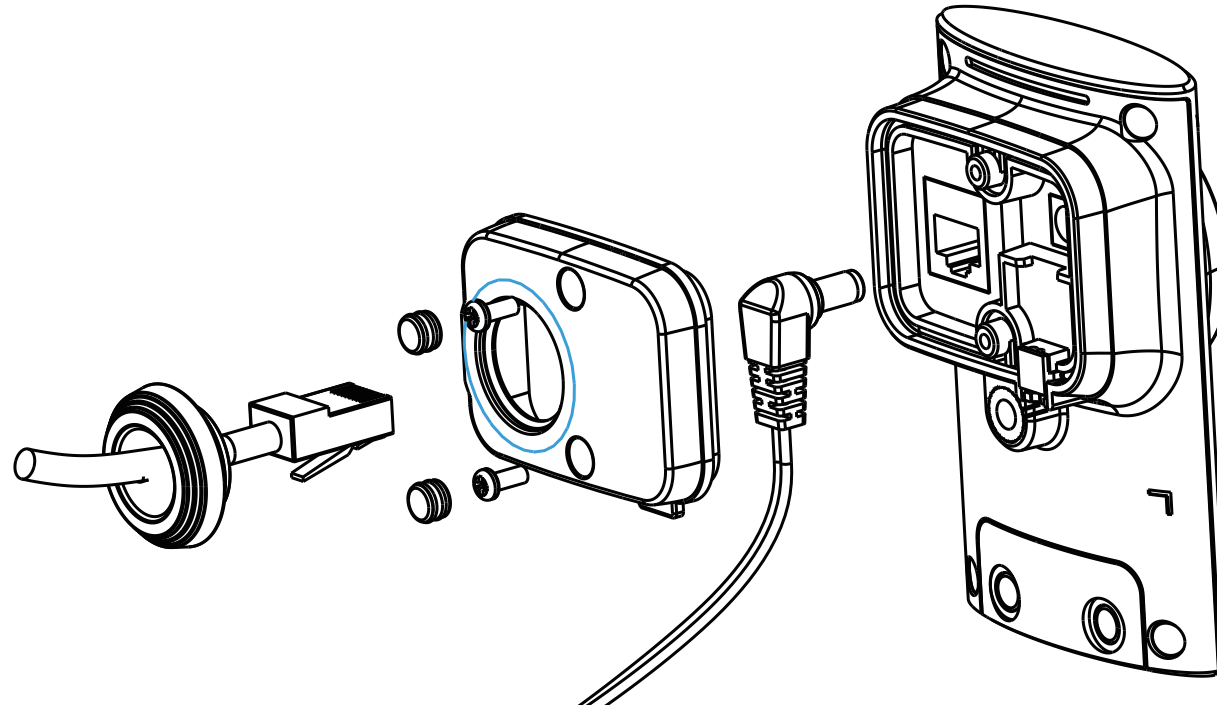
Undo the two screws using a Philips #00 Screwdriver.

Step 4:

Lift off the protective panel.

Note: To ensure that the camera stays weatherproof, users are advised to ensure that all the rubber seals are secured firmly in place.

Removing the Power Cable



Step 1:

Follow the steps outlined in "Removing the Top Panel" on page 10.

Step 2:

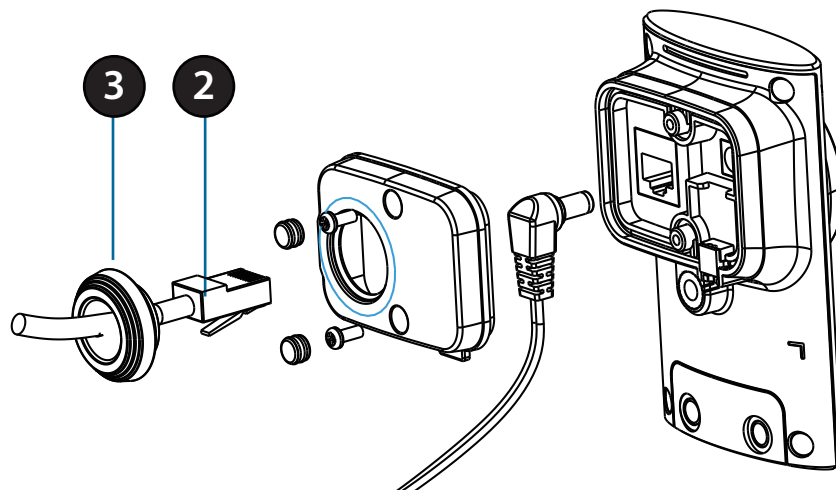
Insert the rubber weatherproof plug ensuring it aligns with the space left by the power cable.

Step 3:

Follow the steps outlined in "Reattaching the Top Panel" on page 13.

Note: To avoid damage to the weatherproof aspects of the camera, users are advised to ensure the weatherproof plug is seated correctly.

Replacing the Ethernet Cable



Step 1:

Follow the steps outlined in "Removing the Top Panel" on page 10.

Step 2:

Unplug the Ethernet cable from the RJ45 connector.

Step 3:

Carefully remove the weatherproof cable connection cover.

Step 4:

Attach the weatherproof cable connection cover to the new Ethernet cable.

Step 5:

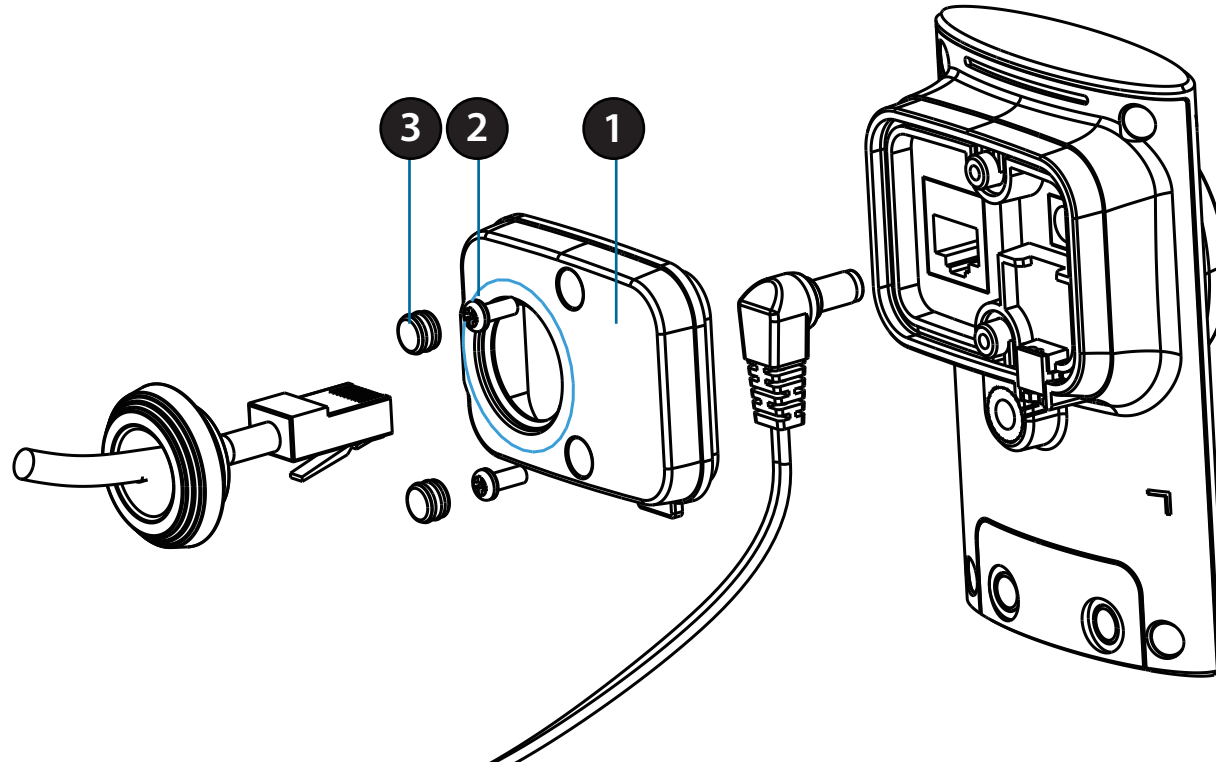
Plug the new Ethernet cable into the RJ45 connector.

Step 6:

Follow the steps outlined in "Reattaching the Top Panel" on page 13.

Note: To avoid damage to the weatherproof aspects of the camera, users are advised not to remove the rear cable connection covering. To use a longer Ethernet cable install a coupling adaptor.

Reattaching the Top Panel



Step 1:
Seat the protective panel, ensuring a tight fit with the inlaid rubber seal.

Step 2:
Replace the two screws. Ensure that the screws are tightened firmly.

Step 3:
Firmly replace the protective rubber screw coverings.

Note: To ensure that the camera stays weatherproof, users are advised to ensure that all the rubber seals are secured firmly in place.

Removing the Bottom Panel

Step 1:

Place the camera face down on a non-slip flat surface.

Step 2:

Carefully pry out the two protective rubber screw coverings using a thin flat blade.

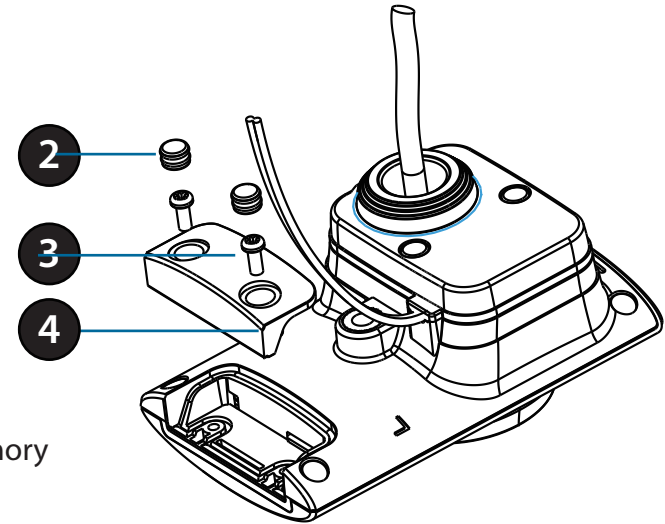
Step 3:

Undo the two screws using a Philips #00 Screwdriver.

Step 4:

Lift off the protective panel.

If you need to install a microSD Memory Card please skip to "Installing a microSD Memory Card" on page 15. If you need to use the Reset Button follow the steps below.



Using the Reset Button

Step 1:

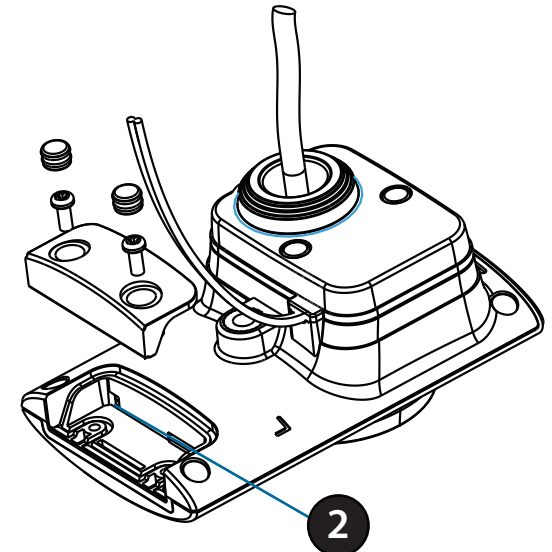
Follow the steps outlined in "Removing the Bottom Panel" on page 14

Step 2:

Using a paperclip or similar tool, press and hold the Reset Button for 10 seconds. This will reset the device to its factory settings.

Step 3:

Follow the steps outlined in "Reattaching the Bottom Panel" on page 15.



Installing a microSD Memory Card

Step 1:

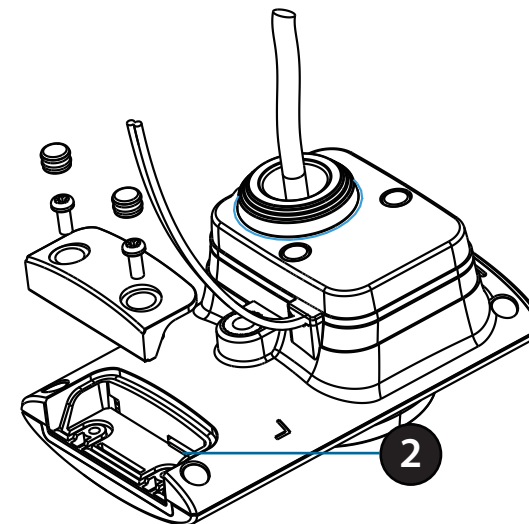
Follow the steps outlined in "Removing the Bottom Panel" on page 14.

Step 2:

Insert a microSD Memory card into the slot, with the notch facing right.

Step 3:

Follow the steps outlined in "Reattaching the Bottom Panel" on page 15.



Reattaching the Bottom Panel

Step 1:

Seat the protective panel, ensuring a tight fit with the inlaid rubber seal.

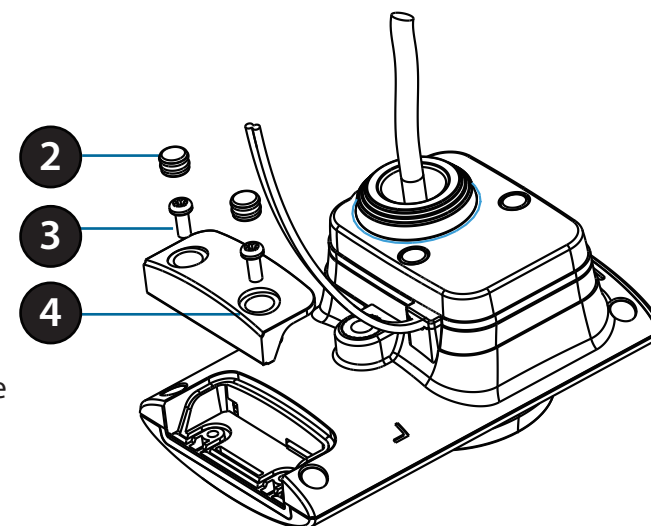
Step 2:

Replace the two screws. Ensure that the screws are tightened firmly.

Step 3:

Firmly replace the protective rubber screw coverings.

Note: To ensure that the camera stays weatherproof, users are advised to ensure that all the rubber seals are secured firmly in place.



Installation

Zero Configuration Setup

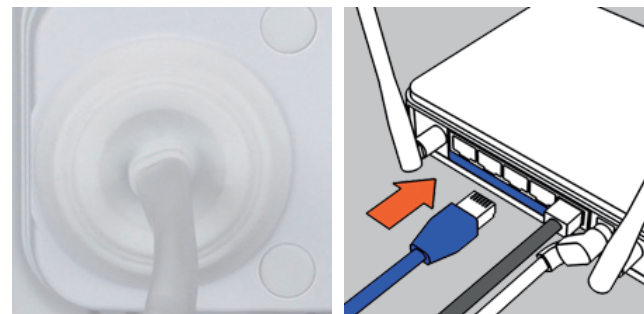
If you have a mydlink-enabled Cloud Router, you can take advantage of Zero Configuration. Zero Configuration automatically configures your camera's settings for you, and adds it to your mydlink account automatically. This type of setup allows you to set up your camera by simply plugging it in and connecting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

Connect your camera to your mydlink-enabled Cloud Router and Zero Configuration will automatically configure your DCS-2310L and automatically add the camera to your mydlink account. After the short time it takes to do this you can remotely access your camera from the www.mydlink.com website to manage and monitor your DCS-2310L.

Connect the Ethernet Cable

Using the pre-attached Ethernet cable connect the free end to your network.

Note: To avoid damage to the weatherproof aspects of the camera, users are advised not to remove the rear cable connection covering. To use a longer ethernet cable or power cord install a coupling adaptor, or power extension strip.



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.

The screenshot shows the mydlink web interface. At the top right, there are links for 'FAQ | Support' and 'Welcome, Mehta P'. The main navigation bar includes 'My Devices', 'Shared Devices', 'My Services', and 'My Profile'. The 'My Devices' section is active, showing a router icon and the model 'DIR-605L' with ID '20019862'. Below this, there are status indicators for '0000.3 kB' and '0008.4 kB'. The 'Router Status' tab is selected, displaying various settings: Model Name (DIR-605L), Network Name (SSID) (Taconet), Internet IP (192.168.1.103), LAN IP (192.168.0.1), and Connected Devices (5 device(s)). A 'Reboot' button is visible. Below the settings is a 'Connection List' table with columns for Device, Device Name, IP Address, MAC Address, and Block. The table lists five devices, including 'CardboardBox', 'HeiGuy', and others. At the bottom left, a notification box titled 'New Device!' is visible, showing the device name 'DCS-2310L'.

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

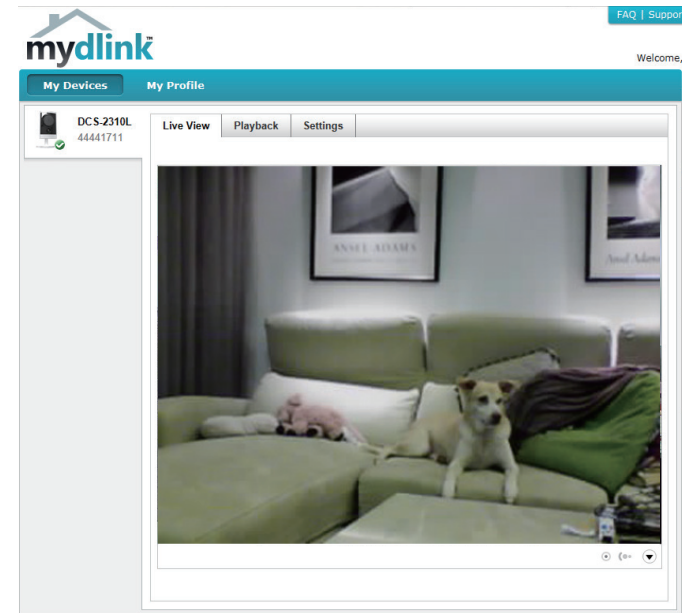
The screenshot shows a dialog box titled 'Confirming New Device'. The text inside asks: 'Do you want to add this new device to your mydlink account?'. Below this, the following details are listed:

- Device Name:** DCS-2310L
- mydlink Number:** 44441252
- Network name (SSID):** dddddd
- Admin Password:** oic953XZ

 At the bottom, there is a message: 'You can change these default settings by going to **Advanced Settings** after add it to your device list.' Below the message are two buttons: 'Not now' and 'Yes'.

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

Your camera is now set up, and you can skip to "mydlink" on page 23 to learn more about the mydlink features of this camera, or to "Configuration" on page 24 for advanced configuration of your camera.



Camera Installation Wizard

Windows Users

Insert the Installation CD-ROM into your computer's optical drive to start the autorun program.

Simply click **Set up your Cloud Camera** to go through the Setup Wizard, 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.



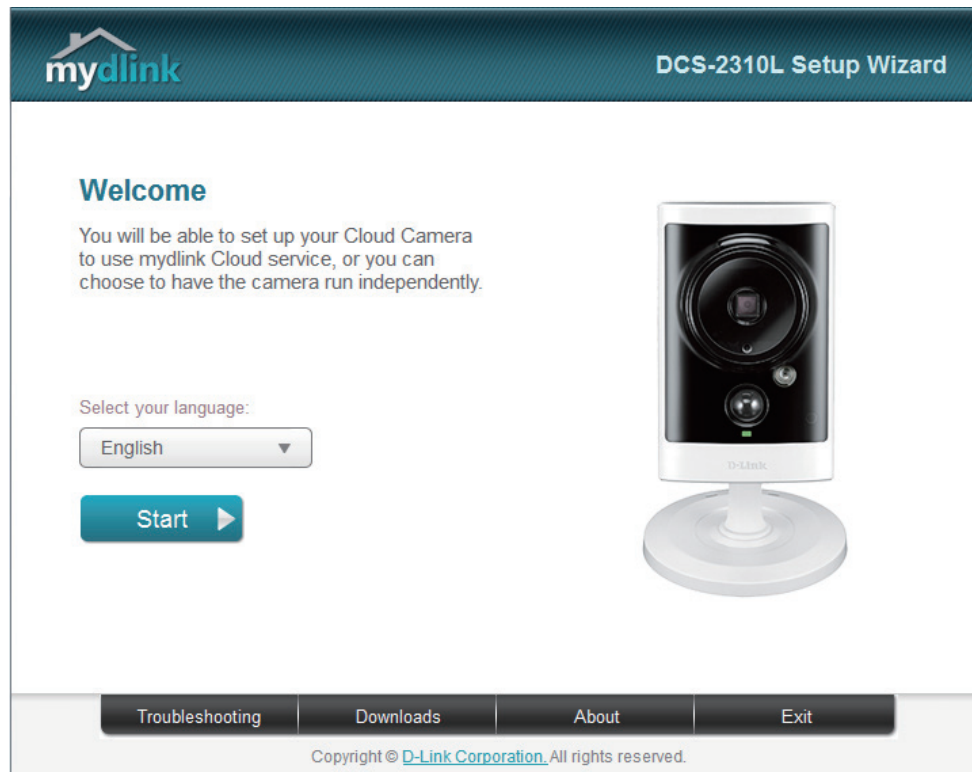
Note: If the autorun program does not open, go to My Computer, browse to your CD drive, and double-click on the autorun.exe file.

Mac Users

Insert the Installation CD-ROM into your computer's CD drive. On the desktop, open your CD drive and double-click on the **SetupWizard** file.



Within 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.



Note: mydlink portal requires Java™ to function correctly.

For more guidelines, please refer to mydlink FAQ pages at <https://www.mydlink.com/faq/mydlink>

Manual Hardware Installation

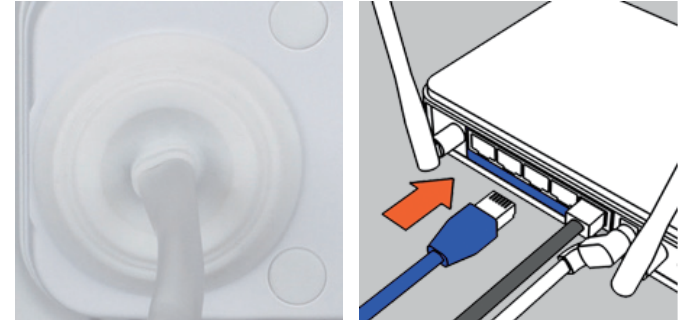
If you wish to set up your camera without using the Camera Setup Wizard, please follow these steps.

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

Connect the Ethernet Cable

Using the pre-attached Ethernet cable connect the free end to your network.

Note: To avoid damage to the weatherproof aspects of the camera, users are advised not to remove the rear cable connection covering. To use a longer Ethernet cable or power cord install a coupling adaptor, or power extension strip.



microSD Memory Card Installation

The SD memory card slot is housed behind the lower protective panel on the rear of the device. **See. "Rear: Internal" on page 9**

Step 1:

Place the camera face down on a non-slip flat surface

Step 2:

Carefully pry out the two lower protective rubber grommets using a thin flat blade.

Step 3:

Undo the two screws using a Philips #00 Screwdriver.

Step 4:

Lift off the protective panel.

Step 5:

Insert a microSD Memory Card.

Step 6:

Replace the protective panel.

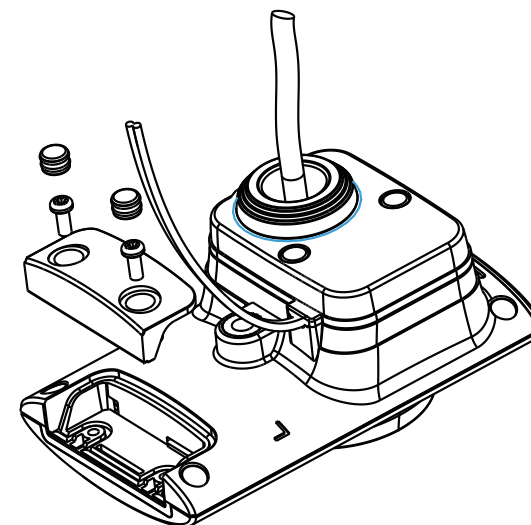
Step 7:

Replace the two screws. Ensure that the screws are tightened firmly.

Step 8:

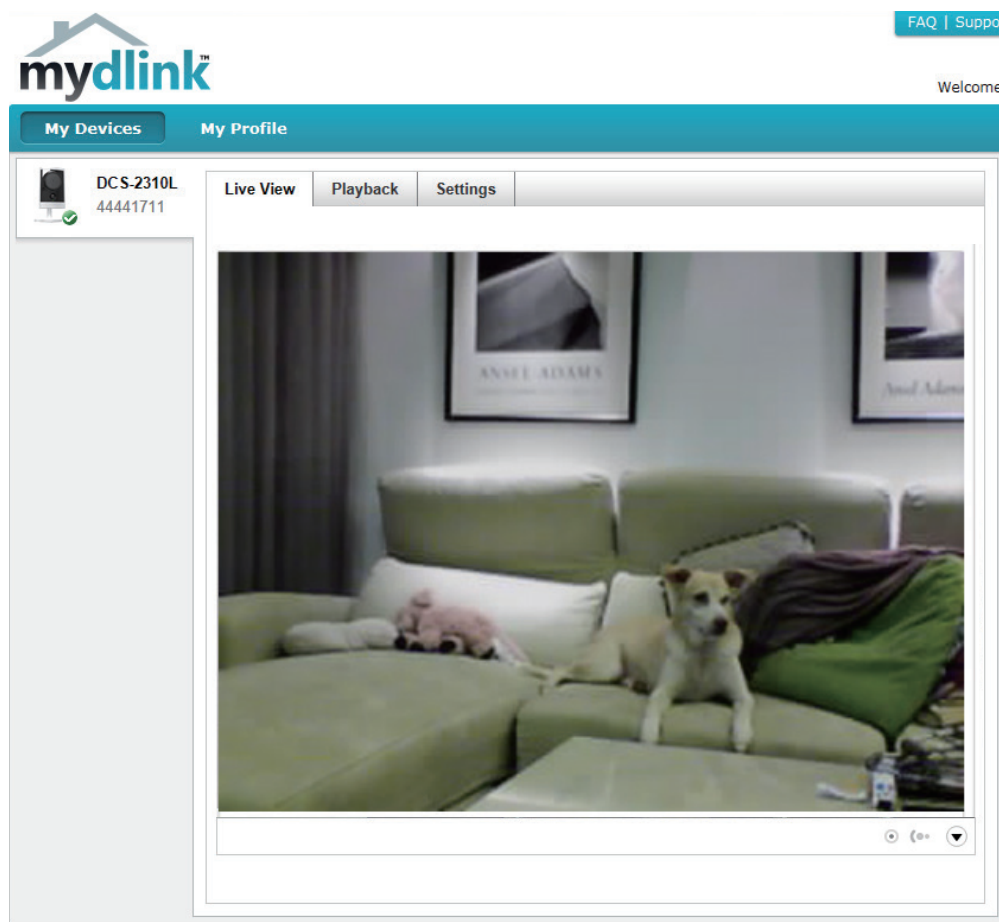
Firmly replace the protective rubber grommets.

Note: To ensure that the camera stays weatherproof, users are advised to ensure that all the rubber seals are secured firmly in place.



mydlink

After registering your DCS-2310L camera with a mydlink account in the Camera Installation Wizard. You will be able to remotely access your camera from the www.mydlink.com website. After signing in 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 Configuration Interface

After completing the Camera Installation Wizard, you are ready to use your camera. The camera's built-in Web configuration utility is designed to allow you to easily access and configure your DCS-2310L. At the end of the wizard, enter the IP address of your camera into a web browser, such as Mozilla Firefox. To log in, use the User name **admin** and the password you created in the Installation Wizard. If you did not create a password, the default password is blank. After entering your password, click **OK**.









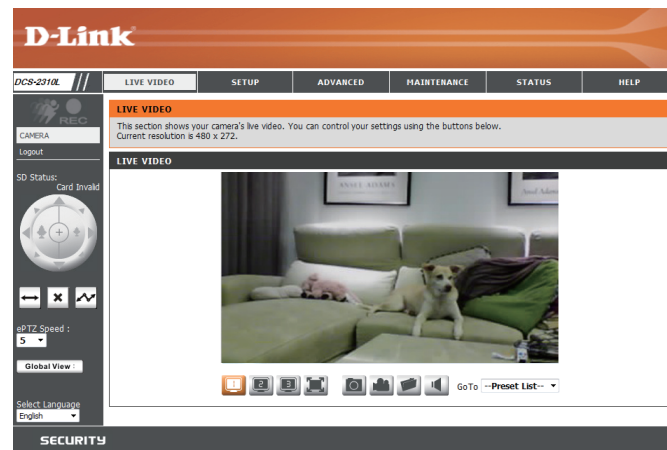
Live Video

This section shows your camera's live video. You may select any of the available icons listed below to operate the camera. You may also select your language using the drop-down menu on the left side of the screen.

You can zoom in and out on the live video image using your mouse. Right-click to zoom out or left-click to zoom in on the image.

SD Status: This option displays the status of the SD card. If no SD card has been inserted, this screen will display the message "Card Invalid."









	Motion Trigger Indicator	This indicator will change color when a trigger event occurs. Note: The video motion feature for your camera must be enabled.
	Recording Indicator	When a recording is in progress, this indicator will change color.
	Control Pad	This control pad can be used to electronically pan, tilt, and zoom (ePTZ) within the camera's predefined view area, if one has been defined.
	Auto Pan	Starts the automatic panning function. The ROI will pan from back and forth within the FOV
	Stop	Stops the camera ePTZ motion
	Preset Path	Starts the camera's motion along the predefined path



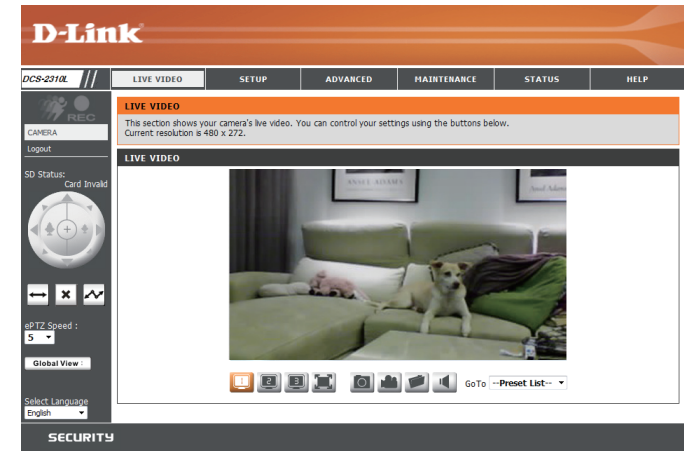
ePTZ Speed: You may select a value between 0 and 64. 0 is the slowest and 64 is the fastest.

Global View: This window indicates the total field of view (FOV) of the camera. The red box indicates the visible region of interest (ROI).

Language: You may select the interface language using this menu.

- | | |
|--|--|
|  Video Profile 1 |  Record a Video Clip |
|  Video Profile 2 |  Set the Storage Folder |
|  Video Profile 3 |  Listen/Stop Audio In (from microphone) |
|  Full screen mode | |
|  Take a Snapshot | |

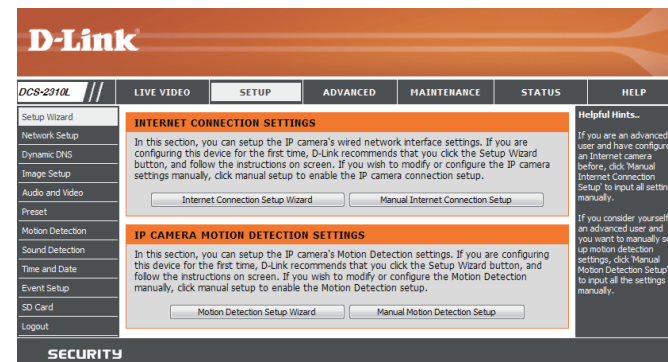
Go To (Preset List): If any presets have been defined, you can select them here to move the camera to the selected preset.



Setup Setup Wizard

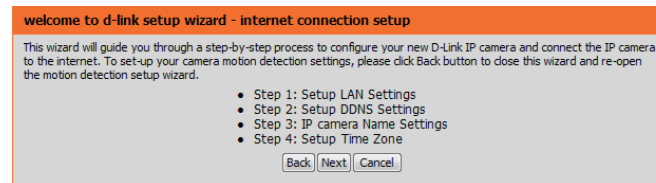
To configure your Network Camera, click **Internet Connection Setup Wizard**. Alternatively, you may click **Manual Internet Connection Setup** to manually configure your Network Camera and skip to "Network Setup" on page 32.

To quickly configure your Network Camera's motion detection settings, click **Motion Detection Setup Wizard**. If you want to enter your settings without running the wizard, click **Manual Motion Detection Setup** and skip to "Motion Detection" on page 43.



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.



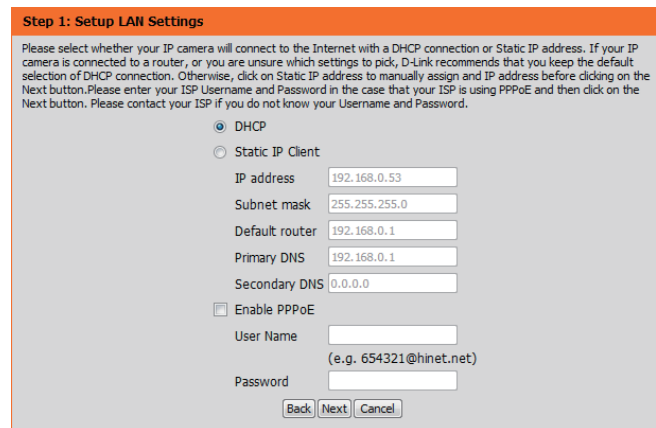
Select how the camera will connect to the Internet.

If your router is connected to a router, or you are unsure how your camera will connect to the Internet, select DHCP Connection.

Select **Static IP** if your Internet Service Provider has provided you with connection settings, or if you wish to set a static address within your home network. Enter the correct configuration information and click **Next** to continue.

If you are using PPPoE, select **Enable PPPoE** and enter your user name and password.

Click **Next** to continue.



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

Step 2: Setup DDNS Settings

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

Enable DDNS

Server Address <<

Host Name

User Name

Password

Verify Password

Timeout (hours)

Enter a name for your camera and click **Next** to continue.

Step 3: IP camera Name Settings

D-Link recommends that you rename your IP camera for easy accessibility. You can then identify and connect to your IP camera via this name. Please assign a name of your choice before clicking on the Next button.

IP camera Name

Configure the correct time to ensure that all events will be triggered as scheduled. Click **Next** to continue.

Step 4: Setup Time Zone

Please configure the correct time to ensure that all events are triggered, captured and scheduled at the correct time and day and then click on the Next button.

Time Zone

Enable Daylight Saving

If you have selected DHCP, you will see a summary of your settings, including the camera's IP address. Please write down all of this information as you will need it in order to access your camera.

Click **Apply** to save your settings.

Step 5: Setup complete

Below is a summary of your IP camera settings. Click on the Back button to review or modify settings or click on the Apply button if all settings are correct. It is recommended to note down these settings in order to access your IP camera on the network or via your web browser.

IP Address	DHCP
IP camera Name	DCS-2310L
Time Zone	(GMT+08:00) Taipei
DDNS	Disable
PPPoE	Disable

Motion Detection Setup Wizard

This wizard will guide you through a step-by-step process to configure your camera's motion detection functions.

Click **Next** to continue.

Step 1

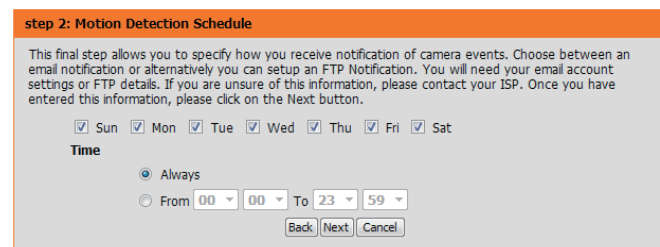
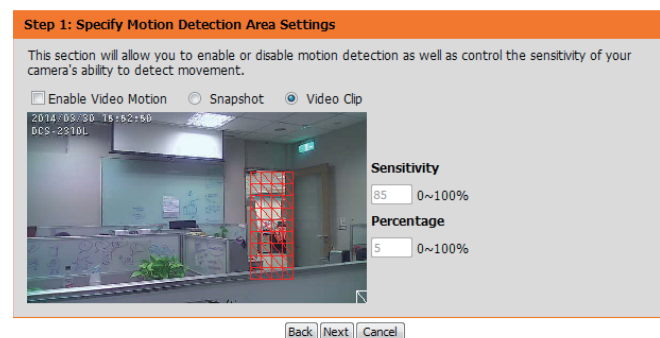
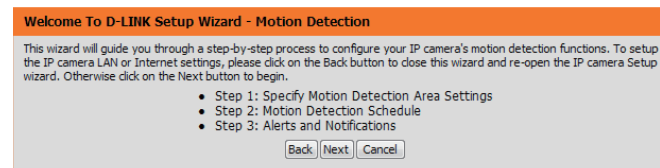
This step will allow you to enable or disable motion detection, specify the detection sensitivity, and adjust the camera's ability to detect movement.

You may specify whether the camera should capture a snapshot or a video clip when motion is detected.

Please see the **Motion Detection** section on "Motion Detection" on page 43 for information about how to configure motion detection.

Step 2

This step allows you to enable motion detection based on a customized schedule. Specify the day and hours. You may also choose to always record motion.



Step 3

This step allows you to specify how you will receive event notifications from your camera. You may choose not to receive notifications, or to receive notifications via e-mail or FTP.

Please enter the relevant information for your e-mail or FTP account.

Click **Next** to continue.

Step 3: Alerts and Notification

This final step allows you to specify how you receive notification of camera events. Choose between an email notification or alternatively you can setup an FTP Notification. You will need your email account settings or FTP details. If you are unsure of this information, please contact your ISP. Once you have entered this information, please click on the Next button.

Do not notify me

Email

Sender email address

Recipient email address

Server address

User name

Password

Port

This server requires a secure connection (StartTLS)

FTP

Server address

Port

User name

Password

Remote folder name

Step 4

You have completed the Motion Detection Wizard.

Please verify your settings and click **Apply** to save them.

Step 4: Setup Complete

You have completed your IP camera setup. Please click the Back button if you want to review or modify your settings or click on the Apply button to save and apply your settings.

Motion Detection :	Enable
EVENT :	Video Clip
Schedule Day :	Sun ,Mon ,Tue ,Wed ,Thu ,Fri ,Sat ,
Schedule Time :	Always
Alerts and Notification :	Do not notify me

Please wait a few moments while the camera saves your settings and restarts.

Step 4: Setup Complete

You have completed your IP camera setup. Please click the Back button if you want to review or modify your settings or click on the Apply button to save and apply your settings.

Changes saved.IP camera's network is restarting, please wait for 6 seconds ...

Network Setup

Use this section to configure the network connections for your camera. All relevant information must be entered accurately. After making any changes, click the **Save Settings** button to save your changes.

LAN Settings: This section lets you configure settings for your local area network.

DHCP: Select this connection if you have a DHCP server running on your network and would like your camera to obtain an IP address automatically.

If you choose DHCP, you do not need to fill out the IP address settings.

Static IP Address: You may obtain a static or fixed IP address and other network information from your network administrator for your camera. A static IP address may simplify access to your camera in the future.

IP Address: Enter the fixed IP address in this field.

Subnet Mask: This number is used to determine if the destination is in the same subnet. The default value is 255.255.255.0.

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: The primary domain name server translates names to IP addresses.

Secondary DNS: The secondary DNS acts as a backup to the primary DNS.

Enable UPnP Presentation: Enabling this setting allows your camera to be configured as a UPnP device on your network.

D-Link

DCS-2310L // LIVE VIDEO SETUP ADVANCED MAINTENANCE STATUS HELP

Setup Wizard
Network Setup
Dynamic DNS
Image Setup
Audio and Video
Preset
Motion Detection
Sound Detection
Time and Date
Event Setup
SD Card
Logout

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

LAN SETTINGS

DHCP
 Static IP Client

IP address: 192.168.0.125
Subnet mask: 255.255.255.0
Default router: 192.168.0.1
Primary DNS: 192.168.0.1
Secondary DNS: 0.0.0.0

Enable UPnP presentation
 Enable UPnP port forwarding
Forwarding Port: 1024 [Test]
Forwarding Status: UPnP forwarding is inactive

PPPOE SETTINGS

Enable Disable

User Name: _____
Password: _____
Confirm password: _____
PPPOE Status: PPPOE is inactive.

HTTP

HTTP port: 80
Access name for stream1: video1.mjpg
Access name for stream2: video2.mjpg
Access name for stream3: video3.mjpg

HTTPS

HTTPS port: 443

RTSP

Authentication: Digest
RTSP port: 554
Access name for stream1: live1.sdp
Access name for stream2: live2.sdp
Access name for stream3: live3.sdp

CoS SETTINGS

Enable CoS

VLAN ID: 1 [0-4095]
Live video: 0
Live audio: 0
Event/Alarm: 0
Management: 0

QoS SETTINGS

Enable Qos

Live video: 0
Live audio: 0
Event/Alarm: 0
Management: 0

Helpful Hints.

Select DHCP Connection if you are running a DHCP server on your network and would like an IP address assigned to your IP camera automatically.

UPnP: Enabling UPnP settings will allow you to configure your IP camera as an UPnP device in the network.

PPPOE Settings: If you use the IP camera to connect directly to the Internet, you will need to enter the username and password which were given to you when you set up your account with your Internet Service Provider. If the camera is behind a router or a gateway, you do not need to configure this setting.

HTTP: HTTP Port is the port you allocate in order to connect to the IP camera via a standard web browser.

HTTPS: HTTPS Port in a IP camera connects it with a PC via a secure web browser.

RTSP: RTSP Port is the port you allocate in order to connect to a IP camera by using streaming mobile device(s), such as a mobile phone or PDA.

CoS (Class of Service): Coarsely-grained traffic control based on the L2 protocol. Class of Service technologies do not guarantee a level of service in terms of bandwidth and delivery time, they offer a "best-effort".

Qos (Quality of Service): Finely-grained traffic control, a resource reservation control mechanism. Quality of service guarantees are important if the network capacity is insufficient, especially for real-time streaming multimedia applications.

Enable IPv6: Select the option and click Save to enable IPv6 setting. Please note that this only works if your network environment and hardware equipment support IPv6. The browser should be Microsoft® Internet Explorer 6.5, Mozilla Firefox 3.0 or above. When IPv6 is enabled, by default, the Network Camera will listen to router advertisements and be assigned a link-local IPv6 address accordingly.

IPv6 Information: Click this button to obtain the IPv6 information. If your IPv6 setting are successful, the IPv6 address list will be listed in the page window.

Enable UPnP Port Forwarding: Enabling this setting allows the camera to add port forwarding entries into the router automatically on a UPnP capable network.

Enable PPPoE: Enable this setting if your network uses PPPoE.

User Name / Password: Enter the username and password for your PPPoE account. Re-enter your password in the Confirm Password field. You may obtain this information from your ISP.

The default port number is 80.

HTTP Port:

The default name is video#.mjpg, where # is the number of the stream.

Access Name for Stream 1~3:

HTTPS Port: You may use a PC with a secure browser to connect to the HTTPS port of the camera. The default port number is 443.

The port number that you use for RTSP streaming to mobile devices, such as mobile phones or PDAs. The default port number is 554. You may specify the address of a particular stream. For instance, live1.sdp can be accessed at rtsp://x.x.x.x/video1.sdp where the x.x.x.x represents the ip address of your camera.

RTSP Port:

Enabling the Class of Service setting implements a best-effort policy without making any bandwidth reservations.

Enable CoS:

Enabling QoS allows you to specify a traffic priority policy to ensure a consistent Quality of Service during busy periods.

Enable QoS:

If the Network Camera is connected to a router that itself implements QoS, the router's settings will override the QoS settings of the camera.

The screenshot displays the configuration interface for the camera, organized into several sections:

- LAN SETTINGS:**
 - Radio buttons for **DHCP** (selected) and **Static IP Client**.
 - Fields for IP address (192.168.0.125), Subnet mask (255.255.255.0), Default router (192.168.0.1), Primary DNS (192.168.0.1), and Secondary DNS (0.0.0.0).
 - Checkboxes for **Enable UPnP presentation** (checked) and **Enable UPnP port forwarding** (unchecked).
 - Fields for Forwarding Port (1024) and Forwarding Status (UPnP forwarding is inactive).
- PPPOE SETTINGS:**
 - Radio buttons for **Enable** and **Disable** (selected).
 - Fields for User Name, Password, and Confirm password.
 - PPPoE Status: PPPoE is inactive.
- HTTP:**
 - Field for HTTP port (80).
 - Fields for Access name for stream1 (video1.mjpg), stream2 (video2.mjpg), and stream3 (video3.mjpg).
- HTTPS:**
 - Field for HTTPS port (443).
- RTSP:**
 - Dropdown for Authentication (Digest).
 - Field for RTSP port (554).
 - Fields for Access name for stream1 (live1.sdp), stream2 (live2.sdp), and stream3 (live3.sdp).

Enable IPv6: Enable the IPV6 setting to use the IPV6 protocol. Enabling the option allows you to manually set up the address, specify an optional IP address, specify an optional router and an optional primary DNS.

Enable Multicast for stream The DCS-2310L allows you to multicast each of the available streams via group address and specify the TTL value for each stream. Enter the port and TTL settings you wish to use if you do not want to use the defaults.

COS SETTINGS

Enable CoS

VLAN ID [0~4095]

Live video ▾

Live audio ▾

Event/Alarm ▾

Management ▾

QOS SETTINGS

Enable QoS

Live video ▾

Live audio ▾

Event/Alarm ▾

Management ▾

IPV6

Enable IPv6

Manually setup the IP address

Optional IP address / Prefix length /

Optional default router

Optional primary DNS

MULTICAST

Enable multicast for stream 1

Multicast group address

Multicast video port

Multicast RTCP video port

Multicast audio port

Multicast RTCP audio port

Multicast TTL [1~255]

Enable multicast for stream 2

Multicast group address

Multicast video port

Multicast RTCP video port

Multicast audio port

Multicast RTCP audio port

Multicast TTL [1~255]

Enable multicast for stream 3

Multicast group address

Multicast video port

Multicast RTCP video port

Multicast audio port

Multicast RTCP audio port

Multicast TTL [1~255]

Enable Bonjour: Enable this to allow other network devices to connect to this camera using Bonjour.

Bonjour Name: Enter the name to identify this camera on Bonjour.

BONJOUR SETTINGS
 Enable Bonjour
Bonjour Name 32 characters maximum
(Characters you may use in a Bonjour Name: "upper or lower case letters", "numbers" and "hyphens".)

Dynamic DNS

DDNS allows you to access your camera using a domain name instead of an IP address. To do this, you will need to have an account with one of the DDNS services listed in the drop-down box on this page.

Enable DDNS: Select this checkbox to enable the DDNS function.

Server Address: Select your Dynamic DNS provider from the pull down menu or enter the server address manually.

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

User Name: Enter the user name or e-mail used to connect to your DDNS account.

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

Timeout: Enter the DNS timeout values you wish to use.

Status: Indicates the connection status, which is automatically determined by the system.

The screenshot shows the D-Link web interface for the DCS-2310L camera. The top navigation bar includes 'LIVE VIDEO', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists various setup options: Setup Wizard, Network Setup, Dynamic DNS, Image Setup, Audio and Video, Preset, Motion Detection, Sound Detection, Time and Date, Event Setup, SD Card, and Logout. The main content area is titled 'DYNAMIC DNS' and contains the following text:

DYNAMIC DNS

The Dynamic DNS feature allows you to use a domain name that you have purchased (www.yourdomain.com) to access your IP camera with a dynamically assigned IP address. Most broadband Internet service providers assign dynamic (changing) IP addresses. By using a DDNS service, you can enter your domain name to connect to your IP camera no matter what your IP address is.

[Sign up for D-Link's Free DDNS service at www.DLinkDDNS.com.](#)

Buttons: Save Settings, Don't Save Settings

DYNAMIC DNS SETTING

Enable DDNS

Server Address <<

Host Name

User Name

Password

Verify Password

Timeout (hours)

Status

Buttons: Save Settings, Don't Save Settings

At the bottom of the page, the word 'SECURITY' is visible.

Image Setup

In this section, you may configure the video image settings for your camera. A preview of the image will be shown in Live Video.

Enable Privacy Mask: The Privacy Mask setting allows you to specify up to 3 rectangular areas on the camera's image to be blocked/excluded from recordings and snapshots.

You may click and drag the mouse cursor over the camera image to draw a mask area. Right clicking on the camera image brings up the following menu options:

- **Disable All:** Disables all mask areas
- **Enable All:** Enables all mask areas
- **Reset All:** Clears all mask areas.

Anti Flicker: If the video flickers, try enabling this setting.

Mirror: This will mirror the image horizontally.

Flip: This will flip the image vertically. When turning Flip on, you may want to consider turning Mirror on as well.

Power Line: Select the frequency used by your power lines to avoid interference or distortion.

White Balance: Use the drop-down box to change white balance settings to help balance colors for different environments. You can choose from Auto, Outdoor, Indoor, Fluorescent, and Push Hold. Push Hold will save and lock the currently detected white balance settings when you click Save.

D-Link

DCS-2310L // LIVE VIDEO SETUP ADVANCED MAINTENANCE STATUS HELP

IMAGE SETUP

Changes to your IP camera settings are made immediately.

PRIVACY MASK AREA OF VIDEO SETTING

Enable Privacy Mask Setting

- Privacy mask: mask 3 privacy area(s) on video.
- Click the right mouse button on the video control to show the popmenu.
- Press the left mouse button, drag and drop to set the privacy area.
- Privacy area can be enabled or disabled.
- After you finish all privacy mask settings, click the Save button.

IMAGE SETTINGS

Anti Flicker On Off

Mirror On Off

Flip On Off

Power Line 60 Hz 50 Hz

White Balance **Auto**

Exposure Mode **Auto** Max Gain **24** dB

Denoise **0**

Brightness **4**

Contrast **4**

Saturation **128**

Sharpness **4**

Reset Default

Helpful Hints...

Privacy Mask: Click the attached box to activate this function. Now use your mouse to draw a rectangle covering the area you want hidden. Click the box again to deactivate the function.

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.

Mirror: This function horizontally reverses your images 180 degrees.

Flip: This function vertically reverses your images 180 degrees.

Power Line: This setting is used to remove 50/60 Hz flicker.

White Balance: White balance is the process of removing unrealistic color casts, so that objects which appear white in person are rendered white in your photo.

Exposure Mode: Exposure is the total amount of light allowed to fall on the image sensor during the process of capturing an image. You may choose different scene modes to produce the better images.

Max Gain: It can always be enabled automatically. But you have an option you can change Max Gain either automatically or

Exposure Mode: Changes the exposure mode. Use the drop-down box to set the camera for Indoor, Outdoor, or Night environments, or to Moving to capture moving objects. The Low Noise option will focus on creating a high-quality picture without noise. You can also create 3 different custom exposure modes. The Max Gain setting will allow you to control the maximum amount of gain to apply to brighten the picture.

Denoise: This setting controls the amount of noise reduction that will be applied to the picture.

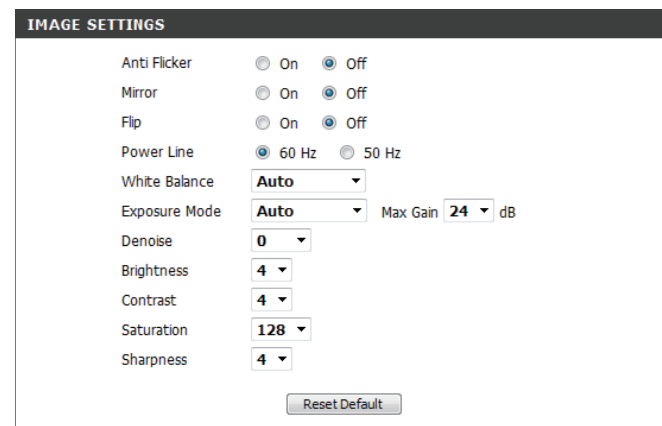
Brightness: Adjust this setting to compensate for backlit subjects.

Contrast: Adjust this setting to alter the color intensity/strength.

Saturation: This setting controls the amount of coloration, from grayscale to fully saturated.

Sharpness: Specify a value from 0 to 8 to specify how much sharpening to apply to the image.

Reset Default: Click this button to reset the image to factory default settings.



The screenshot displays the 'IMAGE SETTINGS' menu with the following options and values:

- Anti Flicker: On Off
- Mirror: On Off
- Flip: On Off
- Power Line: 60 Hz 50 Hz
- White Balance: Auto (dropdown)
- Exposure Mode: Auto (dropdown) Max Gain: 24 dB
- Denoise: 0 (dropdown)
- Brightness: 4 (dropdown)
- Contrast: 4 (dropdown)
- Saturation: 128 (dropdown)
- Sharpness: 4 (dropdown)

A 'Reset Default' button is located at the bottom right of the settings panel.

Audio and Video

You may configure up to 3 video profiles with different settings for your camera. Hence, you may set up different profiles for your computer and mobile display. In addition, you may also configure the two-way audio settings for your camera. After making any changes, click the **Save Settings** button to save your changes.

Aspect ratio: Set the aspect ratio of the video to 4:3 standard or 16:9 widescreen.

Mode: Set the video codec to be used to JPEG or H.264.

Frame size / View window area: Frame size determines the total capture resolution, and View window area determines the Live Video viewing window size. If the Frame size is larger than the Live Video size, you can use the ePTZ controls to look around.

16:9	1280 x 720, 800 x 448, 640 x 360, 480 x 272, 320 x 176
4:3	960 x 720, 800 x 592, 640 x 480, 480 x 352, 320 x 240

Note: If your View window area is the same as your Frame size, you will not be able to use the ePTZ function.

Maximum frame rate: A higher frame rate provides smoother motion for videos, and requires more bandwidth. Lower frame rates will result in stuttering motion, and requires less bandwidth.

Video Quality: This limits the maximum bandwidth, which can be combined with the "Fixed quality" option to optimize the bandwidth utilization and video quality. If fixed bandwidth utilization is desired regardless of the video quality, choose "Constant bit rate" and select the desired bandwidth.

Constant bit rate: The bps will affect the bit rate of the video recorded by the camera. Higher bit rates result in higher video

The screenshot displays the D-Link DCS-2310L web interface for configuring audio and video settings. The main content area is titled "AUDIO AND VIDEO" and includes a "Save Settings" button. Below this is the "VIDEO SETTINGS" section, which includes a warning about changing the aspect ratio and a "Save" button. The "VIDEO PROFILE 1" section is expanded, showing settings for Mode (H.264), Frame size (320x176), View window area (320x176), Maximum frame rate (15), and Video quality (Excellent). The "VIDEO PROFILE 2" and "VIDEO PROFILE 3" sections are also visible, showing similar settings for Mode, Frame size, View window area, Maximum frame rate, and Video quality. The "AUDIO SETTINGS" section at the bottom shows "Audio in off" and "Audio in gain level" set to 20dB. The interface includes a sidebar with navigation options like "Setup Wizard", "Network Setup", "Dynamic DNS", "Image Setup", "Audio and Video", "Preset", "Motion Detection", "Sound Detection", "Time and Date", "Event Setup", "SD Card", and "Logout". A right-hand panel contains "Helpful Hints" regarding video quality and bandwidth.

quality.

Fixed quality: Select the image quality level for the camera to try to maintain. High quality levels will result in increased bit rates.

Audio in off: Selecting this checkbox will mute incoming audio.

Audio in gain level: This setting controls the amount of gain applied to incoming audio to increase its volume.

VIDEO PROFILE 1	
Mode	H.264
Frame size	320x176
View window area	320x176
Maximum frame rate	15
Video quality	
Constant bit rate	<input type="radio"/> 1M
Fixed quality	<input checked="" type="radio"/> Excellent

VIDEO PROFILE 2	
Mode	JPEG
Frame size	640x360
View window area	640x360
Maximum frame rate	30
Video quality	Excellent

VIDEO PROFILE 3	
Mode	H.264
Frame size	320x176
View window area	320x176
Maximum frame rate	30
Video quality	
Constant bit rate	<input checked="" type="radio"/> 512K
Fixed quality	<input type="radio"/> Excellent

AUDIO SETTINGS	
<input type="checkbox"/> Audio in off	
Audio in gain level	20dB

Preset

This screen allows you to set preset points for the ePTZ function of the camera, which allows you to look around the camera's viewable area by using a zoomed view. Presets allow you to quickly go to and view a specific part of the area your camera is covering, and you can create preset sequences, which will automatically change the camera's view between the different presets according to a defined order and timing you can set.

Note: If your View window area is the same as your Frame size, you will not be able to use the ePTZ function.

Video Profile: This selects which video profile to use.

ePTZ Speed: You may select a value between 0 and 64. 0 is the slowest and 64 is the fastest.

Arrow Buttons and Home Button: Use these buttons to move to a specific part of the viewing area, which you can then set as a preset. Click the Home button to return to the center of the viewing area.

Input Preset Name: Enter the name of the preset you want to create, then click the **Add** button to make a new preset. If an existing preset has been selected from the Preset List, you can change its name by typing in a new name, then clicking the **Rename** button.

Preset List: Click this drop-down box to see a list of all the presets that have been created. You can select one, then click the **GoTo** button to change the displayed camera view to the preset. Clicking the **Remove** button will delete the currently selected preset.

Preset Sequence: This section allows you to create a preset sequence, which automatically moves the camera's view between a set of preset views.

Preset List:

The screenshot shows the D-Link DCS-2310L web interface. The top navigation bar includes 'LIVE VIDEO', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists various setup options like 'Setup Wizard', 'Network Setup', 'Dynamic DNS', 'Image Setup', 'Audio and Video', 'Preset', 'Motion Detection', 'Sound Detection', 'Time and Date', 'Event Setup', 'SD Card', and 'Logout'. The main content area is titled 'PRESET CONTROL' and contains a camera view of a book titled 'Computer Networks'. Below the camera view are controls for 'VIDEO PROFILE' (set to 1) and 'ePTZ Speed' (set to 5), along with directional arrow buttons and a home button. The 'PRESET' section includes an 'Input Preset Name' field with 'Add' and 'Rename' buttons, and a 'Preset List' dropdown with 'GoTo' and 'Remove' buttons. The 'PRESET SEQUENCE' section has a 'Preset Name' field, 'Dwell time' input (set to 10), and 'Add' and 'Update' buttons. A right sidebar contains 'Helpful Hints' and instructions on how to use the camera controls and create preset sequences.

To add a preset to the sequence, select it from the drop-down box at the bottom of this window, set the **Dwell time** to determine how long the camera view will stay at that preset, then click the **Add** button. The preset name will appear in the list, followed by the dwell time to view that preset for.

You can rearrange your presets in the sequence by selecting a preset in the sequence, then clicking the arrow buttons to move it higher or lower in the current sequence.

Clicking the trash can button will remove the currently selected preset from the sequence.

If you want to change the dwell time for a preset, select it from the list, enter a new dwell time, then click the **Update** button.

The screenshot displays two main sections: **PRESET** and **PRESET SEQUENCE**.

PRESET Section:

- Input Preset Name : **Add** **Rename**
- Support(0-9,A-Z,a-z,*,/,_) (in red text)
- Preset List : --Preset List-- **GoTo** **Remove**

PRESET SEQUENCE Section:

- Preset Name : Dwell time
- List of presets: Entrance:10, Cubide:10, Back_Door:10
- Navigation buttons: Up arrow, Trash can, Down arrow
- Preset List : --Preset List-- **Add**
- Dwell time : **Update** Second(s)[3-30]

Motion Detection

Motion detection enables the camera to monitor the video feed for movement. Here, you can adjust the sensitivity and percentage settings, which work together to determine whether motion is detected by the camera or not. After making any changes, click the **Save Settings** button to save your changes.

Enable Video Motion: Select this box to enable the motion detection feature of your camera.

Enable PIR: When this option is selected, use PIR (passive infrared) to detect motion. Use the dropdown box to set its sensitivity.

Sensitivity: Specifies how sensitive motion detection will be from 0% to 100%. A low sensitivity setting means that there must be large changes between two images in order to detect motion, and a high sensitivity setting means that even small changes will cause motion to be detected.

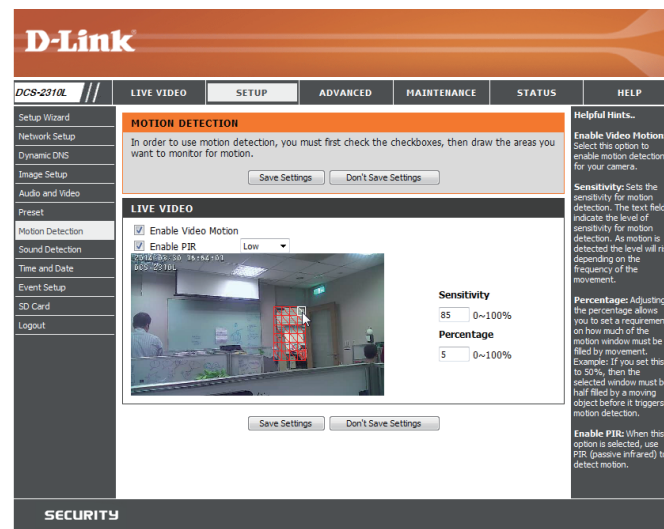
Low sensitivities may be useful when monitoring an area that has flickering lights or a window to the outside in view. High sensitivities may be useful when monitoring an area that rarely changes, such as a storeroom or warehouse.

Percentage:

Specifies how much of the area being monitored for motion must change for motion to be detected. A low percentage means that only part of the area being monitored needs to change to detect motion, and a high percentage means that most of the area needs to change to detect motion.

Low percentages can be useful when monitoring a large area such as an entire room, and high percentages can be useful when you are only monitoring a specific part of the camera's view, such as a doorway.

Draw Motion Area:

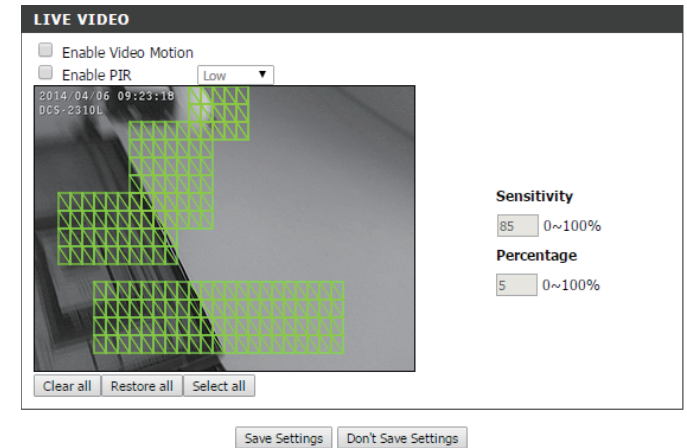


Erase Motion Area: Use your mouse to click and drag on the area that you would like to monitor for motion.

To erase a motion detection area, simply click on the red square that you wish to remove.

Right clicking on the camera image brings up the following menu options:

- **Select All:** Draws a motion detection area over the entire screen.
- **Clear All:** Clears any motion detection areas that have been drawn.
- **Restore:** Restores the previously specified motion detection areas.



Sound Detection

Sound detection enables the camera to monitor the environment for loud sounds. You may set the volume threshold used to determine whether sound was detected or not.

Sound Detection: Select this box to enable the sound detection feature of your camera.

Detection Level: Set the volume level that must be exceeded for the camera to determine whether a loud sound was detected or not. Please note that the volume numbers are approximate; use the live monitor graph below to help you set an appropriate level.

The screenshot displays the D-Link web interface for the DCS-2310L camera. The main content area is titled "SOUND DETECTION" and contains the following elements:

- A "Sound Detection" checkbox that is checked.
- A "Detection Level" dropdown menu currently set to "80".
- A bar graph showing sound levels over time. The y-axis is labeled "dB" and ranges from 40 to 100. The x-axis is labeled "Time". A horizontal red line is drawn at the 80 dB level. One bar is highlighted in red, indicating a detected sound event that exceeded the threshold.
- "Save Settings" and "Don't Save Settings" buttons.

On the right side of the interface, there is a "Helpful Hints" section with the following text:

Sound Detection detects sound events using the microphone on the camera.

Detection Level: Set the Detection Level of sound detection algorithm to trigger sound events. Lower Detection Level makes small sound easier to be detected.

Time and Date

This section allows you to automatically or manually configure, update, and maintain the internal system clock for your camera. After making any changes, click the **Save Settings** button to save your changes.

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

Enable Daylight Saving: Select this to enable Daylight Saving Time.

Auto Daylight Saving: Select this option to allow your camera to configure the Daylight Saving settings automatically.

Set Date and Time Manually: Selecting this option allows you to configure the Daylight Saving date and time manually.

Offset: Sets the amount of time to be added or removed when Daylight Saving is enabled.

Synchronize with NTP Server: Enable this feature to set the time automatically by using an NTP server.

NTP Server:

Network Time Protocol (NTP) synchronizes the DCS-2310L with an Internet time server. Choose the one that is closest to your location.

Set the Date and Time Manually:

Copy Your Computer's Time Settings: This option allows you to set the time and date manually.

This will synchronize the time information from your PC.

The screenshot shows the D-Link DCS-2310L web interface. The main navigation bar includes LIVE VIDEO, SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists various setup options like Setup Wizard, Network Setup, Dynamic DNS, Image Setup, Audio and Video, Preset, Motion Detection, Sound Detection, Time and Date, Event Setup, SD Card, and Logout. The main content area is titled 'TIME AND DATE' and contains the following sections:

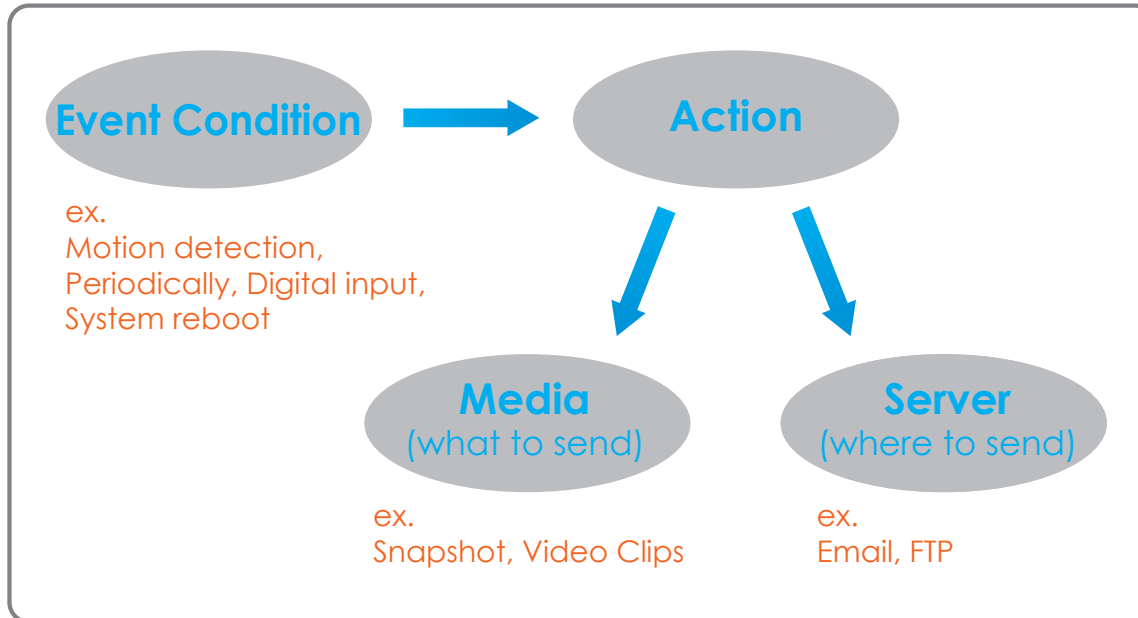
- TIME AND DATE:** You can set the current time for the IP camera. Includes 'Save Settings' and 'Don't Save Settings' buttons.
- TIME CONFIGURATION:**
 - Time Zone: (UTC+08:00) Taipei
 - Enable Daylight Saving
 - Auto Daylight Saving
 - Set date and time manually
 - Offset: +2:00
 - Start time: 5:00 (Sunday)
 - End time: 10:00 (Sunday)
- AUTOMATIC TIME CONFIGURATION:**
 - Synchronize with NTP Server
 - NTP Server: ntp.dlink.com.tw
- SET DATE AND TIME MANUALLY:**
 - Set date and time manually
 - Year: 2014, Month: 3, Day: 22
 - Hour: 16, Minute: 44, Second: 17
 - Copy Your Computer's Time Settings button

Helpful Hints on the right side provide additional information:

- Time Zone:** Select your time zone from the drop-down menu.
- Enable Daylight Saving:** Select this to enable the daylight saving time.
- Auto Daylight Saving:** When you select it, the clock is automatically adjusted according to the daylight saving time of the selected time zone.
- Offset:** Select the time offset, if your location observes daylight saving time.
- Synchronize with NTP Server:** With the option selected, the camera will synchronize the time settings with the NTP server over the Internet whenever the camera starts up. If the timeserver cannot be reached, no time settings will be applied.
- NTP Server:** Network Time Protocol (NTP) synchronizes the IP camera with an Internet time server. Choose the one that is closest to your location.
- Copy Your Computer's Time Settings:** This option allows you to set the time and date manually.

Event Setup

In a typical application, when motion is detected, the DCS-2310L sends images to a FTP server or via e-mail as notifications. As shown in the illustration below, an event can be triggered by many sources, such as motion detection or external digital input devices. When an event is triggered, a specified action will be performed. You can configure the Network Camera to send snapshots or videos to your e-mail address or FTP site.



To start plotting an event, it is suggested to configure server and media columns first so that the Network Camera will know what action shall be performed when a trigger is activated.

The Event Setup page includes 4 different sections.

- Server
- Media
- Event
- Recording

1. To add a new item - "event, server or media," click **Add**. A screen will appear and allow you to update the fields accordingly.
2. To delete the selected item from the pull-down menu of event, server or media, click **Delete**.
3. Click on the item name to pop up a window for modifying.

D-Link

DCS-2310L // LIVE VIDEO SETUP ADVANCED MAINTENANCE STATUS HELP

EVENT SETUP

There are four sections in Event Setup page. They are event, server, media and recording. Click Add to pop a window to add a new item of event, server, media or recording. Click Delete to delete the selected item from event, server, media or recording. Click on the item name to pop a window to edit it. There can be at most 2 events and 1 recording. There can be at most 5 server and 5 media configurations.

SERVER

Name	Type	Address/Location
Add <input type="button" value="Delete"/>		

MEDIA

Name	Type	Source
Add <input type="button" value="Delete"/>		

EVENT

Name	Status	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Time	Trigger
Add <input type="button" value="Delete"/>										

RECORDING

Name	Status	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Time	Source	Destination
Add <input type="button" value="Delete"/>											

Helpful Hints...

Suggest setting server and media first before setting event. The servers and media which selected in event list are not be able to modify or delete. Please remove them first from the event if you want to delete or modify them. Recommend using different media in different event to make use all media be produced and received correctly. If using the same media in different events; and the events trigger almost simultaneously, the triggered event will not receive any media; there would be only notifications.

SECURITY

Add Server

You can configure up to 5 servers to save snapshots and/or video to. After making any changes, click the **Save Settings** button to save your changes.

Server Name: Enter the unique name of your server.

E-mail: Enter the configuration for the target e-mail server account.

FTP: Enter the configuration for the target FTP server account.

Network Storage: Specify a network storage device. Only one network storage device is supported.

SD Card: Use the camera's onboard SD card storage.

The screenshot shows a configuration window titled "SERVER TYPE". It contains several sections for server configuration:

- Server Name:** A text input field.
- Email:** Selected with a radio button. Fields include: Sender email address, Recipient email address, Server address, User name, Password, and Port (set to 25). A checkbox "This server requires a secure connection (Start:TLS)" is present and unchecked.
- FTP:** Unselected with a radio button. Fields include: Server address, Port (set to 21), User name, Password, and Remote folder name. A checkbox "Passive mode" is checked.
- Network storage:** Unselected with a radio button. Fields include: Network storage location (with a note "(for example: \\my_nas\disk\folder)"), Workgroup, User name, Password, and Primary WINS server.
- SD Card:** Unselected with a radio button.

At the bottom of the window are three buttons: "Test", "Save Settings", and "Don't Save Settings".

Add Media

There are three types of media, **Snapshot**, **Video Clip**, and **System Log**. After making any changes, click the **Save Settings** button to save your changes.

Media Name: Enter a unique name for media type you want to create.

Snapshot: Select this option to set the media type to snapshots.

Source: Set the video profile to use as the media source. Refer to **Audio and Video** on "Audio and Video" on page 39 for more information on video profiles.

Send pre-event image(s) [0~4]: Set the number of pre-event images to take. Pre-event images are images taken before the main event snapshot is taken.

Send post-event image(s) [0~7]: Set the number of post-event images to take. Post-event images are images taken after the main event snapshot is taken. You can set up to 7 post-event images to be taken.

File name prefix:

Add date and time suffix to file name: The prefix name will be added on the file name.

Check it to add timing information as file name suffix.

Video clip:

MEDIA TYPE

Media name:

Snapshot

Source: Profile1

Send pre-event image(s) [0~3]

Send post-event image(s) [0~7]

File Name Prefix:

Add date and time suffix to file name

Video Clip

Source: Profile1

Pre-event recording: Second(s) [0~3]

Maximum duration: Second(s) [1~100]

Maximum file size: Kbytes [100~50000]

File Name Prefix:

System log

Source: Select this option to set the media type to video clips.

Pre-event recording: Set the video profile to use as the media source. Refer to "Audio and Video" on page 46 for more information on video profiles.

Maximum duration: This sets how many seconds to record before the main event video clip starts. You can record up to 4 seconds of pre-event video.

Maximum file size: Set the maximum length of video to record for your video clips.

File name prefix: Set the maximum file size to record for your video clips.

System log: This is the prefix that will be added to the filename of saved video clips.

Select this option to set the media type to system logs. This will save the event to the camera system log, but will not record any snapshots or video.

The screenshot shows a configuration panel titled "MEDIA TYPE". It contains several sections:

- Media name:** A text input field.
- Snapshot:** A radio button that is selected. Below it are:
 - Source: A dropdown menu showing "Profile1".
 - Send: Two input fields, both containing "1". The first is labeled "pre-event image(s) [0~3]" and the second is labeled "post-event image(s) [0~7]".
 - File Name Prefix: A text input field.
 - Add date and time suffix to file name: A checkbox that is unchecked.
- Video Clip:** A radio button that is unselected. Below it are:
 - Source: A dropdown menu showing "Profile1".
 - Pre-event recording: An input field containing "0" followed by "Second(s) [0~3]".
 - Maximum duration: An input field containing "1" followed by "Second(s) [1~100]".
 - Maximum file size: An input field containing "100" followed by "Kbytes [100~50000]".
 - File Name Prefix: A text input field.
- System log:** A radio button that is unselected.

Add Event

Create and schedule up to 2 events with their own settings here. After making any changes, click the **Save Settings** button to save your changes.

Event name: Enter a name for the event.

Enable this event: Select this box to activate this event.

Priority: Set the priority for this event. The event with higher priority will be executed first.

Delay: Select the delay time before checking the next event. It is being used for both events of motion detection and digital input trigger.

Trigger: Specify the input type that triggers the event.

Video Motion Detection:

Motion is detected during live video monitoring. Select the windows that need to be monitored.

Periodic:

The event is triggered in specified intervals. The trigger interval unit is in minutes.

System Boot:

Network Lost: Triggers an event when the system boots up.

Passive Infrared Sensor: Triggers an event when the network connection is lost.

Sound Detection: Triggers an event when the PIR sensor detects movement.

Time: Triggers an event when sound is detected.

Action: Select **Always** or enter the time interval.

EVENT

Event name:

Enable this event

Priority: normal

Delay for 10 seconds before detecting next event [For motion detection]

TRIGGER

Video motion detection

Periodic
Trigger every 1 minutes

System boot

Network lost

Passive Infrared sensor

Sound Detection

EVENT SCHEDULE

Sun Mon Tue Wed Thu Fri Sat

Time

Always

From 00 00 To 23 59

ACTION

Save to SD Card
Attached media: Snapshot

Save to my network drive
Attached media: Snapshot

If you have created Server and Media entries, you will see them appear here. Select which Server you want to send to and which Media you want the camera to send.

ACTION
 Save to SD Card
Attached media: Snapshot ▾
 Save to my network drive
Attached media: Snapshot ▾

Add Recording

Here you can configure and schedule the recording settings. After making any changes, click the **Save Settings** button to save your changes.

Recording entry name: The unique name of the entry.

Enable this recording: Select this to enable the recording function.

Priority: Set the priority for this entry. The entry with a higher priority value will be executed first.

Source: The source of the stream.

Recording schedule: Scheduling the recording entry.

Recording settings: Configuring the setting for the recording.

Destination: Select the folder where the recording file will be stored.

Total cycling recording size: Please input a HDD volume between 200 MB and 2 TB for recording space. The recording data will replace the oldest record when the total recording size exceeds this value. For example, if each recording file is 6 MB, and the total cyclical recording size is 600 MB, then the camera will record 100 files in the specified location (folder) and then will delete the oldest file and create new file for cyclical recording.

Please note that if the free HDD space is not enough, the recording will stop. Before you set up this option please make sure your HDD has enough space, and it is better to not save other files in the same folder as recording files.

Size of each file for recording:

Time of each file for recording: If this is selected, files will be separated based on the file size you specify.

File Name Prefix: If this is selected, files will be separated based on the maximum length you specify.

The prefix name will be added on the file name of the recording file(s).

RECORDING SETTINGS
Destination None ▾
Total cycling recording size: 1000 Mbytes [200~2000000]
 Size of each file for recording: 10 Mbytes
 Time of each file for recording: 10 seconds
File Name Prefix:

SD Card

Here you may browse and manage the recorded files which are stored on the microSD card.

Format SD Card: Click this icon to automatically format the microSD card and create "picture" & "video" folders.

View Recorded Picture: If the picture files are stored on the microSD card, click on the picture folder and choose the picture file you would like to view.

Playback Recorded Video: If video files are stored on the microSD card, click on the video folder and choose the video file you would like to view.

Refresh: Reloads the file and folder information from the microSD card.

The screenshot shows the D-Link DCS-2310L web interface. The main content area is titled "SD CARD" and contains the following information:

SD Card: / SD Status: Ready
 Files per Page: 10 Refresh 1 of 1

Delete	File	Num of files	Size
<input type="checkbox"/>	Video	0	
<input type="checkbox"/>	Picture	0	

Format SD Card Total:15549952KB, Used:96KB, Free:15549856KB

Helpful Hints:

Format SD Card: Click this icon, system will automatically format SD card and create "picture" & "video" folders.

View recorded pictures: If SD stored recorded picture files, enter picture link and choose which picture file you desire to view. You will view picture via image viewer SW. (e. Windows Image Viewer)

Playback recorded videos: If SD stored recorded video files, enter video link and choose which video file you desire to playback. Windows will guide you to open/download video file (AVI format) so that you can playback file via video decoder SW (e. Windows Media Player)

Advanced ICR and IR

Here you can configure the ICR and IR settings. The IR(Infrared) Cut-Removable(ICR) filter can be disengaged for increased sensitivity in low light environments.

Automatic: The Day/Night mode is set automatically. You can use the Sensitivity dropdown box to set when the camera will switch to Night mode. The text box to the right shows what lighting conditions are currently being detected by the camera for reference. You can refresh this status by clicking the **Refresh** button.

Day Mode: Day mode enables the IR Cut Filter.

Night Mode: Night mode disables the IR Cut Filter.

Schedule Mode: Set up the Day/Night mode using a schedule. The camera will enter Day mode at the starting time and return to Night mode at the ending time.

IR Light Control: The camera can enable or disable the IR (infrared) light according to your preferences. This setting provides additional controls depending on your specific application.

Off:

On: The IR light will always be off.

Sync: The IR light will always be on.

Schedule: The IR light will turn on when the ICR sensor is on.

The IR light will turn on or off according to the schedule that you specify below.

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DCS-2310L // LIVE VIDEO SETUP ADVANCED MAINTENANCE STATUS HELP

ICR and IR

ICR AND IR

An IR(Infrared) Cut-Removable(ICR) filter can be disengaged from the image path for increased sensitivity in low light environments. The ICR filter will automatically engage depending on the ambient light, allowing the camera to be effective in day/night environments.

- Select the Day/Night from the radio button. The available options are Automatic, Schedule mode, Day mode and Night mode.
- The default value is Automatic.

Light Sensor Sensitivity
Light sensor sensitivity has Low, Medium, and High three different levels. You may get current camera light illumination by clicking Refresh button to set proper level of Light sensor sensitivity. For example, when level sets at High less than 30lux, camera will switch Day & Night mode to Night mode.

IR Light
The built-in IR light illuminators will be activated automatically or manually so as to supplement the low light situation without additional equipment.

Save Settings Don't Save Settings

ICR

Removable IR-Cut filter trigger condition:

Automatic Sensitivity: Medium: < 20lux over 30 lux Refresh

Day mode

Night mode

Schedule mode

Day mode(24hr)
From 07:00 To 18:00

IR LIGHT

IR Light Control: Medium

Off

On

Sync. With ICR

Schedule

IR Light Control On(24hr)
From 07:00 To 18:00

Save Settings Don't Save Settings

Helpful Hints...

Automatic: The day/night mode is set automatically. It is normally set in the Day mode and changes to the Night mode in a dark place.

Day mode: The Day mode means enable the IR Cut Filter.

Night mode: The Night mode means disable the IR Cut Filter.

Schedule mode: Set the Day/Night mode using the schedule. Fill in the time so the Day/Night mode is normally set to Day mode and it enters the Day mode at the start time and returns to the Night mode at the end time.

IR Light Control: In poor light conditions, open IR Light Control to automatically turn on the light to enable you to take clear picture. The IR Light Control has 4 options: Off, On, Sync. with ICR, and Schedule. Off: This option disable the IR Light Control. On: This option automatically opens the IR Light Control to enable a camera to take clear images in poor light conditions. Sync. with ICR: In this option, the IR Light Control will open automatically and follow the ICR setting. Schedule: In this option, you have to customize the setting to set the time period you want. Please set the Start time and the End time of your chosen schedule.

SECURITY

HTTPS

This page allows you to install and activate an HTTPS certificate for secure access to your camera. After making any changes, click the **Save Settings** button to save your changes.

Enable HTTPS Secure Connection: Enable the HTTPS service.

Create Certificate Method: Choose the way the certificate should be created. Three options are available:

- Create a self-signed certificate automatically
- Create a self-signed certificate manually
- Create a certificate request and install

Status: Displays the status of the certificate.

Note: The certificate cannot be removed while HTTPS is still enabled. To remove the certificate, you must first uncheck **Enable HTTPS secure connection**.

The screenshot shows the D-Link web interface for the DCS-2310L camera. The main content area is titled "HTTPS" and contains the following sections:

- Enable HTTPS:** A message states "To enable HTTPS, you have to create and install certificate first." Below this are two buttons: "Save Settings" and "Don't Save Settings".
- Enable HTTPS secure connection:** A checkbox labeled "Enable HTTPS secure connection" is checked.
- Create certificate method:** Three radio button options are listed:
 - Create self-signed certificate automatically
 - Create self-signed certificate manually
 - Create certificate request and install
- Create certificate:** A button labeled "Create" is visible, followed by the text "Private key existed".
- CERTIFICATE INFORMATION:** A table displays the following details:

Status	Active
Country	TW
State or province	Taiwan
Locality	Taipei
Organization	D-Link
Organization Unit	DHPD Dept.
Common Name	www.dlink.com

 Below the table are buttons for "CSR Property", "Certificate Property", and "Remove".

At the bottom of the page, there are two buttons: "Save Settings" and "Don't Save Settings".

Access List

Here you can set access permissions for users to view your DCS-2310L.

Allow list: The list of IP addresses that have the access right to the camera.

Start IP address: The starting IP Address of the devices (such as a computer) that have permission to access the video of the camera. Click **Add** to save the changes made.

Note: A total of seven lists can be configured for both columns.

End IP address: The ending IP Address of the devices (such as a computer) that have permission to access the video of the camera.

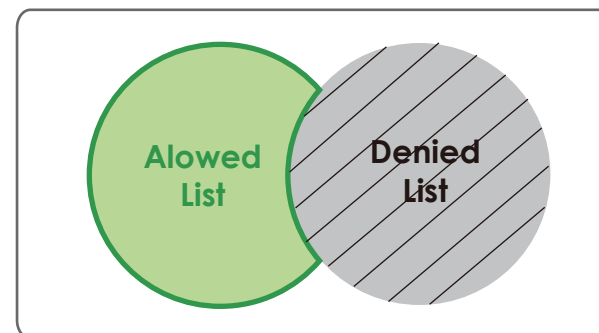
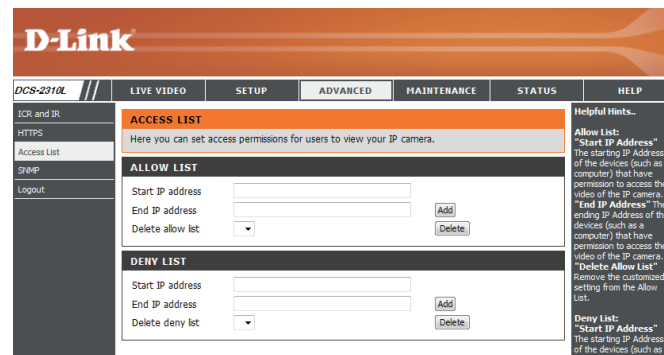
Delete allow list: Remove the customized setting from the Allow List.

Deny list: The list of IP addresses that have no access rights to the camera.

Delete deny list: Remove the customized setting from the Delete List.

For example:

When the range of the Allowed List is set from 1.1.1.0 to 192.255.255.255 and the range of the Denied List is set from 1.1.1.0 to 170.255.255.255. Only users with IPs located between 171.0.0.0 and 192.255.255.255 can access the Network Camera.



SNMP

Here you can set the SNMP settings for the camera, which allow for SNMP management of the camera.

Enable SMNPv1, SNMPv2c: Enable this option to allow for SNMPv1 and SNMPv2c management of the camera.

Read/Write Community: Enter a name for the read/write community of your SNMP server.

Read Only Community: Enter a name for the read-only community of your SNMP server.

Enable SNMPv3: Enable this option to allow SNMPv3 management of the camera.

Read/Write Security Name: Enter a name for the read/write community of your read/write SNMP server.

Authentication Type: Enter the type of authentication used by your read/write SNMP server.

Authentication Password: Enter the authentication password used for your read/write SNMP server.

Encryption Password: Enter the encryption password used for your read/write SNMP server.

Read Only Security Name: Enter the encryption password used for your read/write SNMP server.

D-Link

DCS-2310L // LIVE VIDEO SETUP ADVANCED MAINTENANCE STATUS HELP

ICR and IR
HTTPS
Access List
SNMP
Logout

SNMP

The Simple Network Management Protocol is an application layer protocol that facilitates the exchange of management information between network devices. It helps network administrators to remotely manage network devices and find, solve network problems with ease.

Save Settings Don't Save Settings

SNMP CONFIGURATION

Enable SMNPv1, SMNPv2c

Read/Write community

Read only community

Enable SMNPv3

Read/Write Security name

Authentication type

Authentication password

Encryption password

Read only security name

Authentication type

Authentication password

Encryption password

Save Settings Don't Save Settings

Helpful Hint...

Enable SMNPv1, SMNPv2c: Select this option and enter the names of Read/Write community and Read Only community according to your NMS setting.

Enable SMNPv3: This option contains cryptographic security, a higher security level which allows you to set the Authentication password and the Encryption password. According to your NMS setting, choose Read/Write or Read Only and enter the community name.

Authentication type: Select MD5 or SHA as the authentication method.

Authentication password: Enter the password for authentication (at least 8 characters).

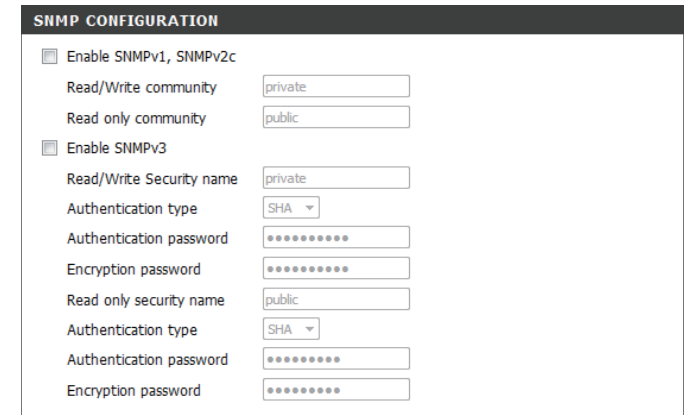
Encryption password: Enter a password for encryption (at least 8 characters).

Authentication Type: Enter a name for the read-only community of your read-only SNMP server.

Authentication Password: Enter the type of authentication used by your read-only SNMP server.

Encryption Password: Enter the authentication password used for your read-only SNMP server.

Enter the encryption password used for your read-only SNMP server.



The image shows a screenshot of the 'SNMP CONFIGURATION' web interface. It features two main sections: 'Enable SNMPv1, SNMPv2c' and 'Enable SNMPv3'. Each section contains fields for 'Read/Write community' or 'Read/Write Security name', 'Authentication type' (a dropdown menu), 'Authentication password', and 'Encryption password'. The 'Authentication type' dropdown is set to 'SHA'. The 'Read/Write community' and 'Read only security name' fields are filled with 'private' and 'public' respectively. The password fields are masked with dots.

SNMP CONFIGURATION	
<input type="checkbox"/> Enable SNMPv1, SNMPv2c	
Read/Write community	private
Read only community	public
<input type="checkbox"/> Enable SNMPv3	
Read/Write Security name	private
Authentication type	SHA
Authentication password
Encryption password
Read only security name	public
Authentication type	SHA
Authentication password
Encryption password

Maintenance

Device Management

You may modify the name and administrator's password of your camera, as well as add and manage the user accounts for accessing the camera. You may also use this section to create a unique name and configure the OSD settings for your camera.

Admin Password Setting: Set a new password for the administrator's account.

Add User Account: Add a new user account.

User Name: Enter the user name for the new account.

Password: Enter the password for the new account.

User List: All the existing user accounts will be displayed here. You may delete accounts included in the list, but you may want to reserve at least one as a guest account.

IP Camera Name: Create a unique name for your camera that will be added to the file name prefix when creating a snapshot or a video clip.

Enable OSD: Select this option to enable the On-Screen Display feature for your camera.

Label: Enter a label for the camera, which will be shown on the

Show Time: OSD when it is enabled.

LED: Select this option to enable the time-stamp display on the video screen.

You may specify whether or not to illuminate the status LED on the camera.

The screenshot shows the D-Link web interface for the DCS-2310L camera. The top navigation bar includes 'LIVE VIDEO', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'MAINTENANCE' section is active, displaying the 'ADMIN' configuration page. The page is divided into several sections: 'ADMIN' (introduction to password and user management), 'ADMIN PASSWORD SETTING' (fields for new and retype passwords), 'ADD USER ACCOUNT' (fields for user name, new password, and retype password), 'USER LIST' (a table with a 'User Name' dropdown and a 'Delete' button), 'DEVICE SETTING' (fields for IP camera name, label, and show time, with checkboxes for 'Enable OSD' and 'Show Time'), and 'LED' (radio buttons for 'On' and 'Off'). A 'Helpful Hints...' section on the right provides additional information about enabling OSD and the LED status.

System

In this section, you may back up, restore and reset the camera configuration, or reboot the camera.

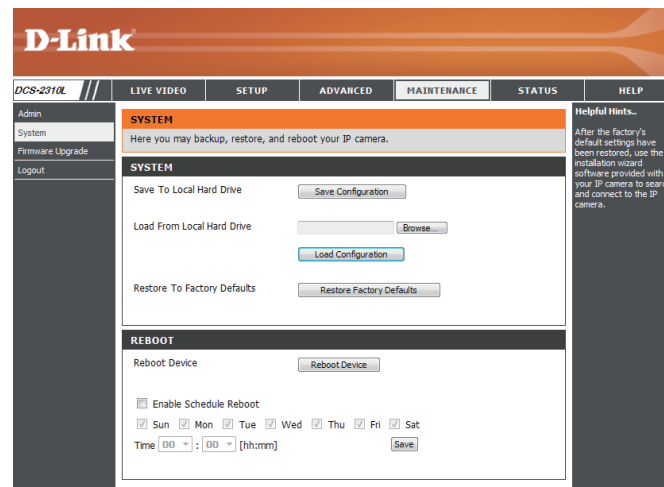
Save To Local Hard Drive: You may save your current camera configuration as a file on your computer.

Local From Local Hard Drive: Locate a pre-saved configuration by clicking **Browse** and then restore the pre-defined settings to your camera by clicking **Load Configuration**.

Restore to Factory Default: You may reset your camera and restore the factory settings by clicking **Restore Factory Defaults**.

Reboot Device: This will restart your camera.

Enable Schedule Reboot: You can schedule the camera to reboot according to a schedule. Select the days and time you want the camera to automatically reboot.



Firmware Upgrade

The camera's current firmware version will be displayed on this screen. You may visit the D-Link Support Website to check for the latest available firmware version.

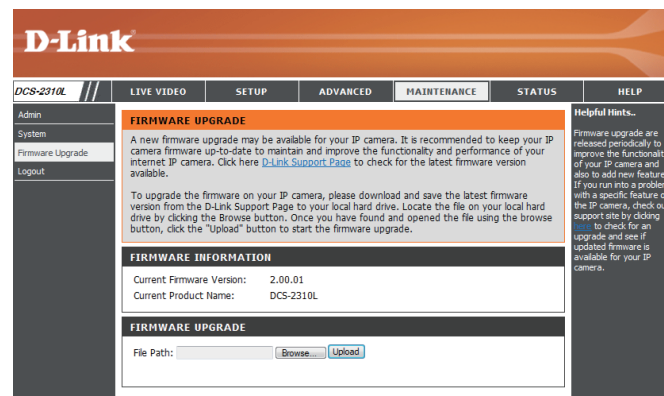
To upgrade the firmware on your DCS-2310L, please download and save the latest firmware version from the D-Link Support Page to your local hard drive. Locate the file on your local hard drive by clicking the **Browse** button. Select the file and click the **Upload** button to start upgrading the firmware.

Current Firmware Version: Displays the detected firmware version.

Current Product Name: Displays the camera model name.

File Path: Locate the file (upgraded firmware) on your hard drive by clicking **Browse**.

Upload: Uploads the new firmware to your camera.



Status

Device Info

This page displays detailed information about your device and network connection.

The screenshot shows the D-Link web interface for the DCS-2310L camera. The top navigation bar includes the D-Link logo and menu items: DCS-2310L, LIVE VIDEO, SETUP, ADVANCED, MAINTENANCE, STATUS (selected), and HELP. The left sidebar contains links for Device Info (selected), Log, and Logout. The main content area is titled 'DEVICE INFO' and contains a message: 'All of your network connection details are displayed on this page. The firmware version is also displayed here.' Below this is an 'INFORMATION' table with the following details:

INFORMATION	
IP Camera Name	DCS-2310L
Time & Date	Sat Mar 22 16:47:02 2014
Firmware Version	2.00.01
Hardware Version	B
MAC Address	B0:C5:54:05:3B:79
IP Address	192.168.0.125
IP Subnet Mask	255.255.255.0
Default Gateway	192.168.0.1
Primary DNS	192.168.0.1
Secondary DNS	0.0.0.0
PPPoE	Disable
DDNS	Disable
Agent Version	2.0.18-b09

On the right side, there is a 'Helpful Hints..' section with the text: 'This page displays all the information about the IP camera and network settings.'

Logs

This page displays the log information of your camera. You may download the information by clicking **Download**. You may also click **Clear** to delete the saved log information.

D-Link

DCS-2310L // LIVE VIDEO SETUP ADVANCED MAINTENANCE STATUS HELP

Device Info
Log
Logout

SYSTEM LOG
The system log records IP camera events that have occurred.

CURRENT LOG

1. 2014-03-22 16:46:20 SYSTEM SET IR LIGHT OFF
2. 2014-03-22 16:46:12 SYSTEM SET IR LIGHT ON
3. 2014-03-22 16:32:55 admin FROM 192.168.0.174 SET VIDEO CODEC Need Reset
4. 2014-03-22 16:32:51 admin FROM 192.168.0.174 SET PROFILE 1 Viewer window area 320x176
5. 2014-03-22 16:32:51 admin FROM 192.168.0.174 SET PROFILE 1 Frame Size 320x176
6. 2014-03-22 16:32:02 admin LOGIN OK FROM 192.168.0.174
7. 2014-03-22 16:21:55 DCS-2310L ACQUIRE DHCP IP 192.168.0.125
8. 2014-03-22 16:21:53 NETWORK RECONNECT
9. 2014-03-22 16:21:18 SYSTEM SET HEARTER state OFF
10. 2014-03-22 16:21:17 SYSTEM SET HEARTER state ON
11. 2014-03-22 16:21:13 NETWORK LOSS
12. 2014-03-22 16:21:13 SYSTEM SET IR LIGHT OFF
13. 2014-03-22 16:21:13 SYSTEM BOOTING
14. 2014-03-17 16:53:49 NETWORK LOSS
15. 2014-03-17 16:53:19 SYSTEM SET IR LIGHT ON
16. 2014-03-17 07:24:49 SYSTEM SET IR LIGHT OFF
17. 2014-03-16 20:20:19 SYSTEM SET IR LIGHT ON
18. 2014-03-16 07:27:18 SYSTEM SET IR LIGHT OFF
19. 2014-03-15 20:24:31 SYSTEM SET IR LIGHT ON
20. 2014-03-15 07:50:40 SYSTEM SET IR LIGHT OFF

First Page Previous 20 Next 20
Clear Download

Helpful Hints..
You can save the log to your local hard IP camera by clicking the Download button, and you can clear the log by clicking on the Clear button.

Help

This page provides helpful information regarding camera operation.

The screenshot shows the D-Link DCS-2310L web interface. At the top is the D-Link logo. Below it is a navigation bar with tabs for LIVE VIDEO, SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The HELP tab is selected. On the left side, there is a sidebar with 'Help' and 'Logout' links. The main content area is titled 'HELP' and contains a list of links for each menu item: LIVE VIDEO (Camera), SETUP (Setup Wizard, Network Setup, Dynamic DNS, Image Setup, Audio and Video, Preset, PTZ Setup, Motion Detection, Sound Detection, Time and Date, Event Setup, SD Card), ADVANCED (ICR and IR, HTTPS, Access List, SNMP), MAINTENANCE (Admin, System, Firmware Upgrade), and STATUS (Device Info, Log). At the bottom of the page, there is a 'SECURITY' section.

D-Link

DCS-2310L // LIVE VIDEO SETUP ADVANCED MAINTENANCE STATUS HELP

Help
Logout

HELP

- LIVE VIDEO
- SETUP
- MAINTENANCE
- ADVANCED
- STATUS

LIVE VIDEO

- [Camera](#)

SETUP

- [Setup Wizard](#)
- [Network Setup](#)
- [Dynamic DNS](#)
- [Image Setup](#)
- [Audio and Video](#)
- [Preset](#)
- [PTZ Setup](#)
- [Motion Detection](#)
- [Sound Detection](#)
- [Time and Date](#)
- [Event Setup](#)
- [SD Card](#)

ADVANCED

- [ICR and IR](#)
- [HTTPS](#)
- [Access List](#)
- [SNMP](#)

MAINTENANCE

- [Admin](#)
- [System](#)
- [Firmware Upgrade](#)

STATUS

- [Device Info](#)
- [Log](#)

SECURITY

Technical Specifications

Camera	Camera Hardware Profile	<ul style="list-style-type: none"> ▪ 1/4" 1 megapixel progressive scan CMOS sensor ▪ 5 meter IR illumination distance ▪ Minimum illumination: 0 lux with IR LED on ▪ Built-in Infrared-Cut Removable (ICR) Filter module ▪ Built-in PIR sensor (5 meter) ▪ Built-in microphone ▪ 10x digital zoom ▪ Focal length: 3.45 mm 	<ul style="list-style-type: none"> ▪ Aperture: F2.0 ▪ Exposure time: 1/7.5 to 1/10,000 sec. ▪ Minimum object distance: 500 mm ▪ Angle of view: <ul style="list-style-type: none"> ▪ (H) 60° ▪ (V) 36° ▪ (D) 70°
	Camera Housing	<ul style="list-style-type: none"> ▪ IP65 compliant weatherproof housing 	
	Image Features	<ul style="list-style-type: none"> ▪ Configurable image size, quality, frame rate, and bit rate ▪ Time stamp and text overlays ▪ Configurable motion detection windows 	<ul style="list-style-type: none"> ▪ Configurable privacy mask zones ▪ Configurable shutter speed, brightness, saturation, contrast, and sharpness
	Video Compression	<ul style="list-style-type: none"> ▪ Simultaneous H.264/MJPEG format compression ▪ H.264 multicast streaming 	<ul style="list-style-type: none"> ▪ JPEG for still images
	Video Resolution	16:9 - 1280 x 720, 800 x 448, 640 x 360, 480 x 272, 320 x 176 up to 30 fps	4:3 - 960x720, 800x592, 640x480, 480x352, 320x240 up to 30 fps
	Audio Support	G.711, AAC	
	External Device Interface	<ul style="list-style-type: none"> ▪ 10/100 BASE-TX Fast Ethernet port Supports 802.3af PoE Class 2 	<ul style="list-style-type: none"> ▪ MicroSD card slot

Appendix B: Technical Specifications

Network	Network Protocols	<ul style="list-style-type: none"> ▪ IPv4 ▪ IPv6 ▪ ARP ▪ TCP/IP ▪ UDP ▪ ICMP ▪ DHCP client ▪ NTP client (D-Link) ▪ DNS client ▪ DDNS client (D-Link) ▪ SMTP client ▪ FTP client ▪ HTTP / HTTPS ▪ Samba Client 	<ul style="list-style-type: none"> ▪ PPPoE ▪ UPnP ▪ UPnP port forwarding ▪ RTP / RTSP/ RTCP ▪ IP filtering ▪ QoS ▪ CoS ▪ DSCP ▪ Multicast ▪ IGMP ▪ ONVIF compliant ▪ Bonjour ▪ SNMP v1, v2c, v3
	Security	<ul style="list-style-type: none"> ▪ Administrator and user group protection ▪ Password authentication 	<ul style="list-style-type: none"> ▪ HTTP and RTSP digest encryption
System Management	System Requirements for Web Interface	<ul style="list-style-type: none"> ▪ Operating System: Microsoft Windows 7/8/Vista/XP, Mac with OS X 10.6 or higher 	<ul style="list-style-type: none"> ▪ Browser: Internet Explorer, Firefox, Chrome, Safari
	Event Management	<ul style="list-style-type: none"> ▪ Motion detection ▪ Event notification and uploading of snapshots/video clips via e-mail or FTP 	<ul style="list-style-type: none"> ▪ Supports multiple SMTP and FTP servers ▪ Multiple event notifications ▪ Multiple recording methods for easy backup
	Remote Management	<ul style="list-style-type: none"> ▪ Take snapshots/video clips and save to local hard drive via web browser 	<ul style="list-style-type: none"> ▪ Configuration interface accessible via web browser
	Mobile Support	Windows 7/8/Vista/XP, Pocket PC, tablet, or mobile phone	mydlink mobile app for iOS and Android mobile devices
	D-ViewCam™ System Requirements	<ul style="list-style-type: none"> ▪ Operating System: Microsoft Windows 7/8/Vista/XP ▪ Web Browser: Internet Explorer 7 or higher 	<ul style="list-style-type: none"> ▪ Protocol: Standard TCP/IP
	D-ViewCam™ Software Functions	<ul style="list-style-type: none"> ▪ Remote management/control of up to 32 cameras ▪ Viewing of up to 32 cameras on one screen 	<ul style="list-style-type: none"> ▪ Supports all management functions provided in web interface ▪ Scheduled motion triggered, or manual recording options

Appendix B: Technical Specifications

General	Weight	132 g \pm 5% (0.29 lbs)	
	External Power Adaptor (not included in package)	Output: 5 V DC, 1.2 A	
	Power Consumption	5.5 Watts maximum \pm 5%	
	Temperature	Operating: -25 to 45 °C (-13 to 113 °F)	Storage: -20 to 70 °C (-4 to 158 °F)
	Humidity	Operating: 20% to 80% non-condensing	Storage: 5% to 95% non-condensing
	Certifications	CE CE LVD	FCC C-Tick IP65

Dimensions	