

D-Link[®]

Version 1.0 | 10/23/2012



User Manual

HD Wireless Outdoor Cloud Camera

DCS-2332L

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
1.0	October 23, 2012	DCS-2332L Revision A1 with firmware version 1.00

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Product Overview

Package Contents



DCS-2332L HD Wireless Outdoor Cloud Camera



CAT5 Ethernet cable (Pre-Attached)



Power adapter (Pre-Attached)



CD-ROM with User Manual and software



Quick Installation Guide



Antenna



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-2332L HD Wireless Outdoor Cloud Camera. The DCS-2332L is a versatile and unique solution for your small office or home. Unlike a standard webcam, the DCS-2332L 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-2332L can be accessed remotely, and controlled from any PC/Notebook over your local network or through the Internet via a web browser. The simple installation and intuitive web-based interface offer easy integration with your Ethernet/Fast Ethernet or 802.11n/g wireless network. The DCS-2332L also comes with remote monitoring and motion detection features for a complete and cost-effective home security solution.

System Requirements

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

Features

Simple to Use

The DCS-2332L is a stand-alone system with a built-in CPU, requiring no special hardware or software. The DCS-2332L 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-2332L can also be integrated easily into other Internet/Intranet applications because of its standards-based features.

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-2332L 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-2332L 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.

802.11n Wireless or Ethernet/Fast Ethernet Support

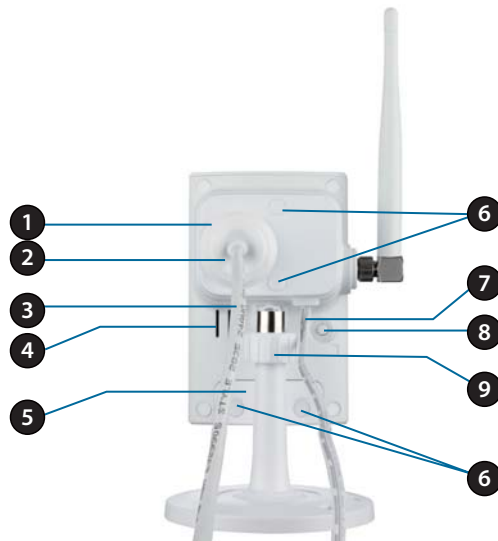
The DCS-2332L offers wireless 802.11n and Ethernet/Fast Ethernet connectivity, making the DCS-2332L easy to integrate into your existing network environment. The DCS-2332L works with a 10Mbps Ethernet based network or 100Mbps Fast Ethernet based network for traditional wired environments, and works with 802.11n routers or access points for added flexibility. The Site Survey feature also allows you to view and connect to any available wireless networks.

Hardware Overview Front



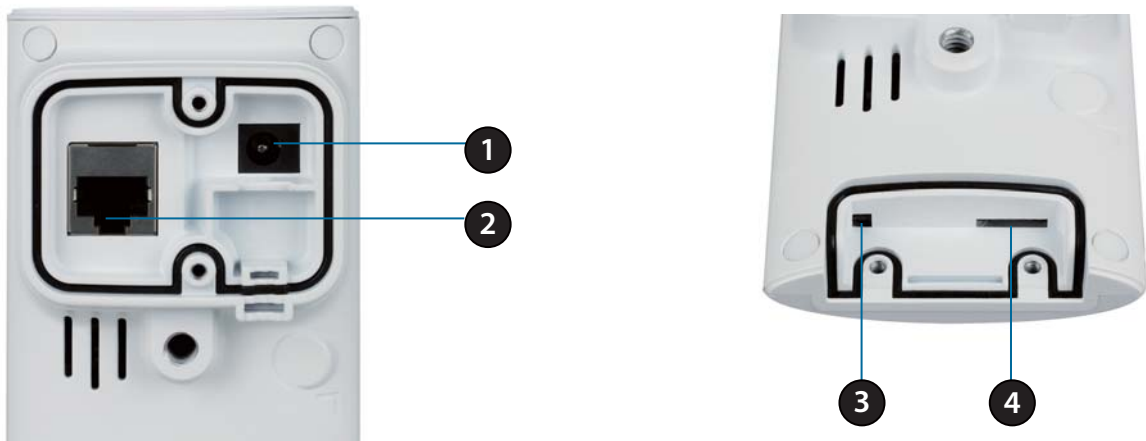
1	Camera Lens	Records video of the surrounding area
2	ICR Sensor	The IR-Cut Removable sensor measures the lighting conditions and switches between color and infrared accordingly
3	Microphone	Records audio from the surrounding area
4	PIR	Passive Infrared sensor for motion detection
5	IR LED	Infrared LED illuminates the camera's field of view at night
6	WPS Status LED	Indicates the WPS connection status of the camera
7	Power/Status LED	Indicates the camera's current status
8	Antenna	Outdoor wireless antenna

Rear: External



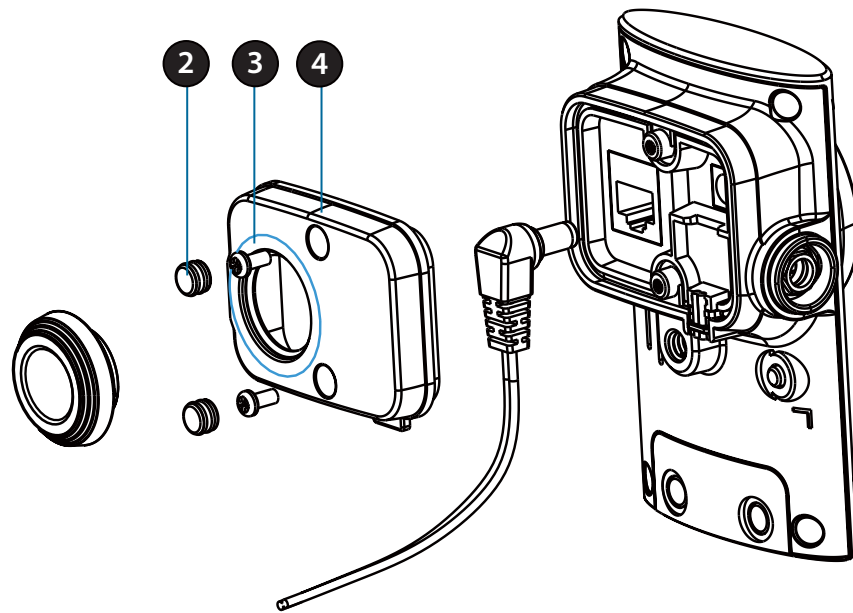
1	Weatherproof Cover	Weatherproof protective panel
2	Protective Cable Cover	Weatherproof cable connection cover
3	Ethernet Cable	RJ45 Ethernet cable to connect to your network
4	Speaker	Audio output
5	Weatherproof Cover	Weatherproof cover for the MicroSD Card slot and reset button
6	Weatherproof Screw Covering	Weatherproof protective covering for enclosure screws
7	Power Cable	Connected to the included DC 5 V power adapter
8	WPS Button	Press this button, then press the WPS button for 5 seconds on your router to set up a wireless connection automatically
9	Adjustment Ring	Tighten or loosen the adjustment ring to adjust the camera's position

Rear: Internal



1	DC Power Connector	Connected to the included DC 5 V power adapter
2	RJ45 Ethernet Port	RJ45 connector for Ethernet
3	Reset Button	Use a paperclip or similar tool to press and hold the recessed button for 10 seconds to reset the camera
4	SD Memory Card Slot	Insert a MicroSD card for for storing recorded images and video

Removing the Top Panel



Step 1:
Place the camera face down on a non-slip flat surface.

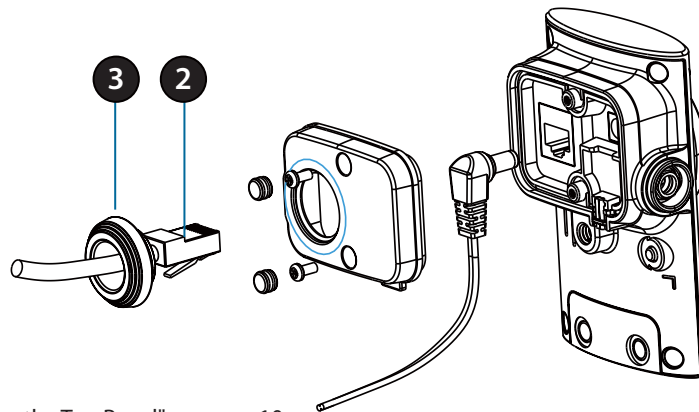
Step 2:
Carefully pry out the two protective rubber screw coverings using a thin flat blade.

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.

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.

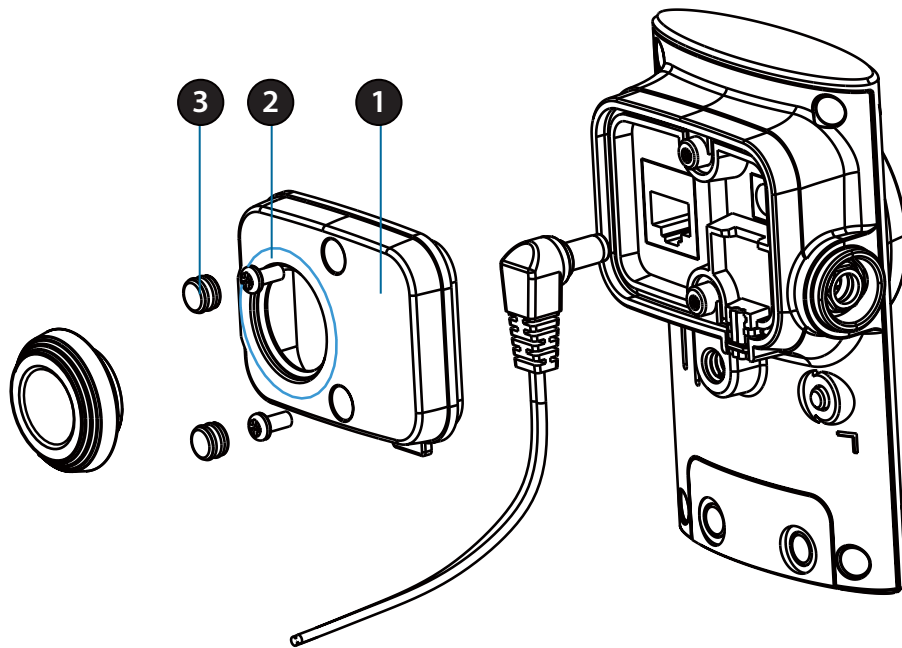
Step 4:
Attach the weatherproof cable connection cover to the new Ethernet cable.

Step 5:
Plug the new Ethernet cable into the RJ45 connector.

Step 6:
Follow the steps outlined in "Reattaching the Top Panel" on page 12.

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.

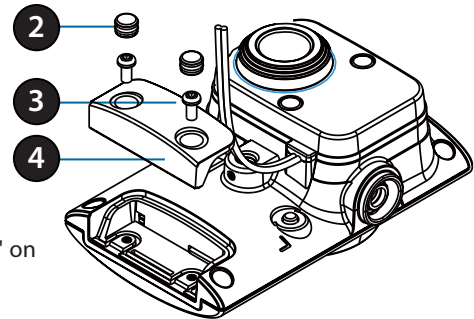
Step 3:

Undo the two screws using a Philips #00 Screwdriver.

Step 4:

Lift off the protective panel.

If you need to install an SD Memory Card please skip to "Installing an SD Memory Card" on page 14.



Using the Reset Button

If you need to use the Reset Button follow these steps.

Step 1:

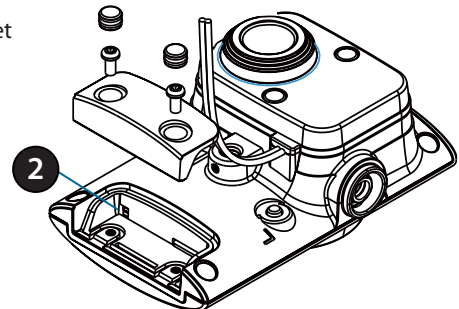
Follow the steps outlined in "Removing the Bottom Panel" on page 13.

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 14.



Installing an SD Memory Card

Step 1:

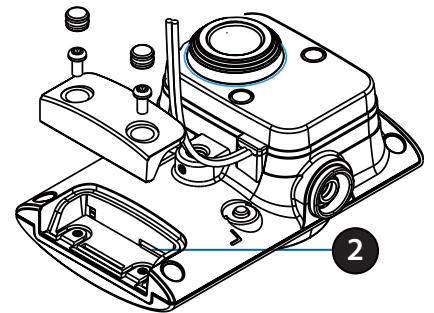
Follow the steps outlined in "Removing the Bottom Panel" on page 13.

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 14.



Reattaching the Bottom Panel

Step 1:

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

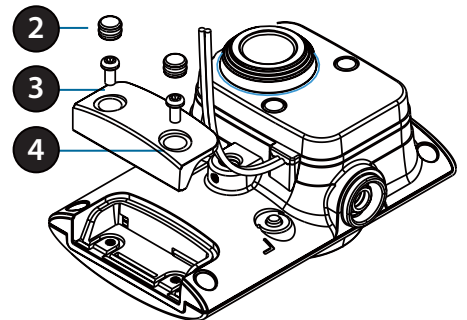
Step 2:

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.



Optional: WPS Wireless Connection

Alternatively, if your router supports WPS, you can use the WPS button on the camera to easily create a secure wireless connection to your network.

To create a WPS connection:

Step 1

Attach the Antenna

Locate the antenna included with your DCS-2332L, and attach it to the antenna connector located on the side of the DCS-2332L.

Step 2

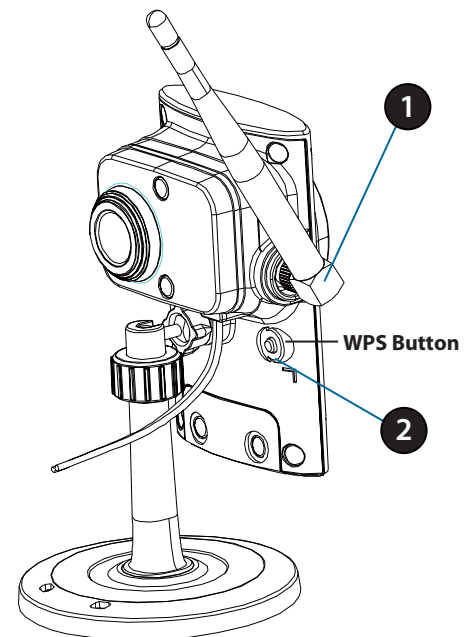
Press and hold the WPS button for approximately 5-6 seconds. The blue WPS status LED on the front panel will blink.

Step 3

Within 60 seconds press the WPS button on your router. On some routers, you may need to log in to the web interface and click on an on-screen button to activate the WPS feature. If you are not sure where the WPS button is on your router, please refer to your router's User Manual.

The DCS-2332L will automatically create a wireless connection to your router. While connecting, the status LED will flash. When the connection process is complete, the status LED will turn solid.

Note: If your router does not support WPS, you can still use the wired connection method on the previous page. After Zero Configuration setup is complete, your router's wireless settings will be automatically transferred to the camera.



Installation

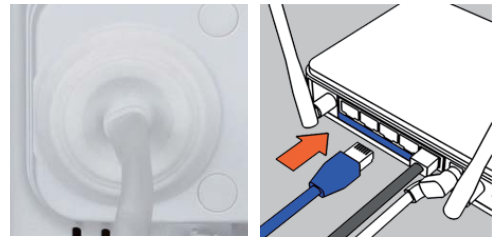
Zero Configuration Setup

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-2332L 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-2332L.

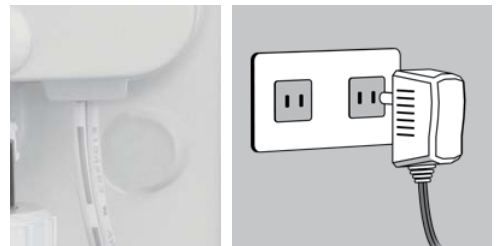
Connect the Ethernet Cable

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



Attach the External Power Supply

Attach the external power supply to your wall outlet or power strip.



Section 2: Installation

Check Your mydlink Account

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



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

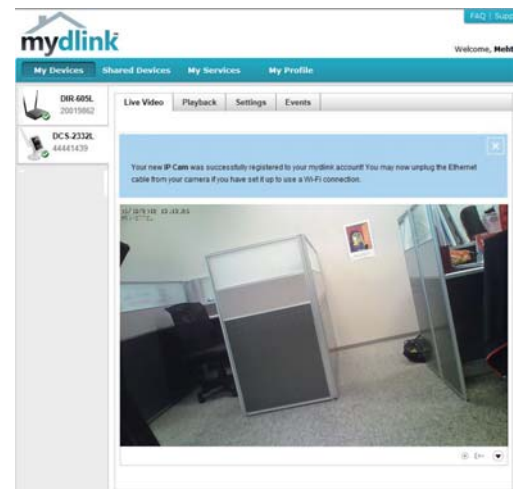


Section 2: Installation

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

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

Your camera is now set up, 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 setup.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://eu.mydlink.com/faq/mydlink>

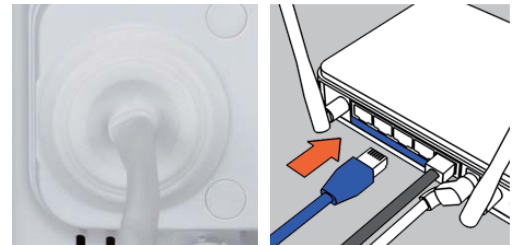
Manual Hardware Installation

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.

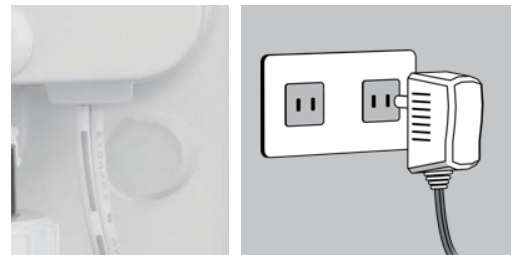
Connect the Ethernet Cable

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



Attach the External Power Supply

Attach the external power supply to your wall outlet or power strip.



SD Memory Card Installation

The SD memory card slot is housed behind the lower protective panel on the rear of the device.

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.

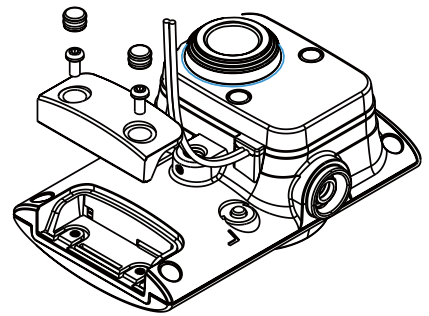
Step 7:

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-2332L 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:

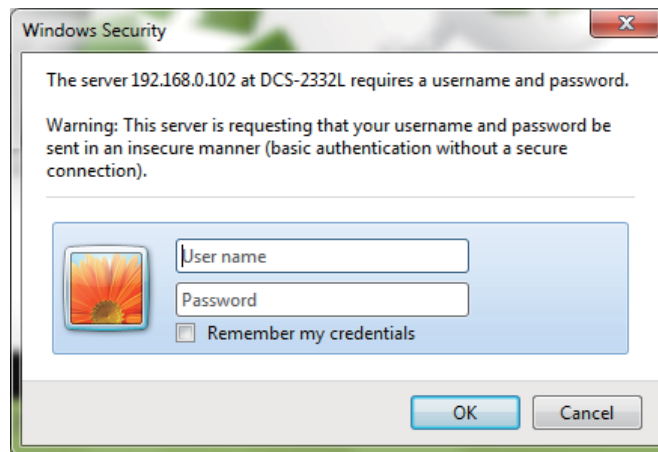


For more details on using your camera with mydlink, go to the **Support** section of the mydlink website and check the **User Manual** section for your product to find the latest instruction guide for your camera's mydlink features.

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-2332L. 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**.









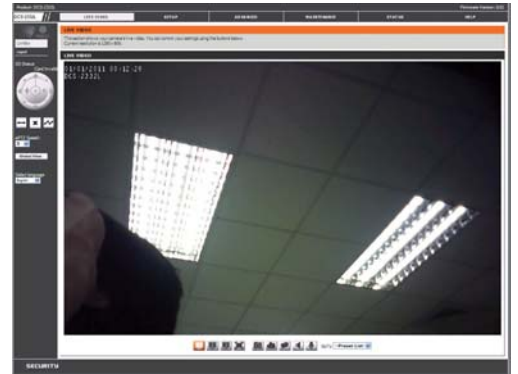
Live Video

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.

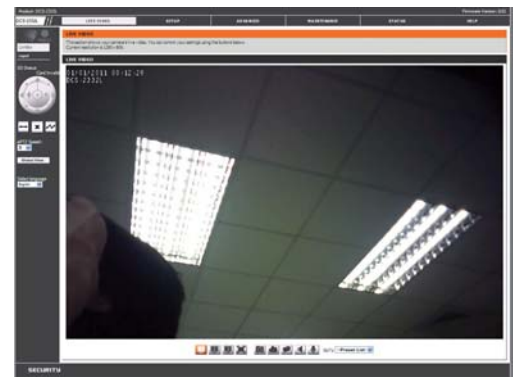
Section 3: Configuration

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 a Storage Folder |
|  Video Profile 3 |  Listen/Stop Audio In (from microphone) |
|  Full screen mode |  Start/Stop Audio Out (to speaker) |
|  Taking a Snapshot | |

Go To: If any presets have been defined, selecting a preset from this list will ([Preset List](#)) display it.



Setup Setup Wizard

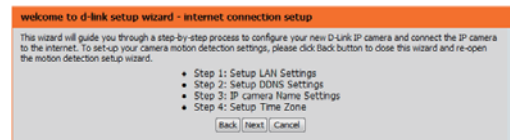
To configure your Network Camera, click **Internet Connection Setup Wizard**. Alternatively, you may click **Manual Internet Connection Setup** to manually configure your Network Camera and skip to "Network Setup" on page 33.

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 44.



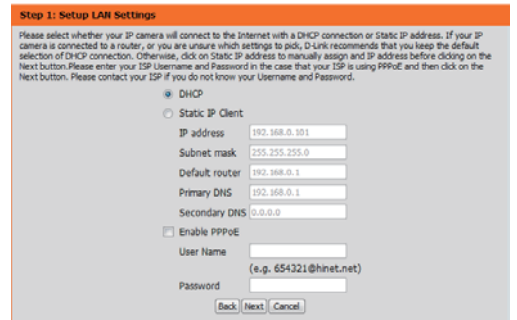
Internet Connection Setup Wizard

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.



Note: Select DHCP if you are unsure of which settings to choose.

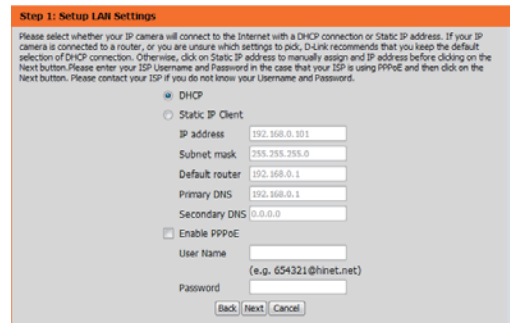
Click **Next** to continue.



Section 3: Configuration

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, otherwise click **Next** to continue.



Step 1: Setup LAN Settings

Please select whether your IP camera will connect to the Internet with a DHCP connection or Static IP address. If your IP camera is connected to a router, or you are unsure which settings to pick, D-Link recommends that you keep the default selection of DHCP connection. Otherwise, click on Static IP address to manually assign an IP address before clicking on the Next button. Please enter your ISP Username and Password in the case that your ISP is using PPPoE and then click on the Next button. Please contact your ISP if you do not know your Username and Password.

DHCP

Static IP Client

IP address: 192.168.0.101

Subnet mask: 255.255.255.0

Default router: 192.168.0.1

Primary DNS: 192.168.0.1

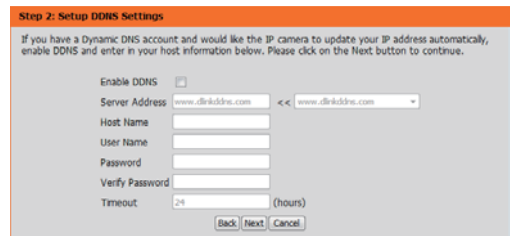
Secondary DNS: 0.0.0.0

Enable PPPoE

User Name: (e.g. 654321@inet.net)

Password:

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: www.dl-ddns.com << www.dl-ddns.com >>

Host Name:

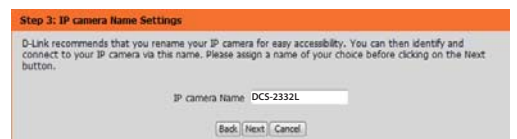
User Name:

Password:

Verify Password:

Timeout: 24 (hours)

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



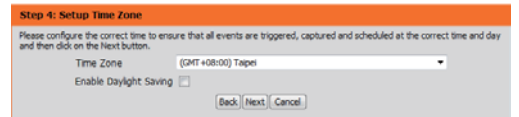
Step 3: IP camera Name Settings

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: DCS-2332L

Section 3: Configuration

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.

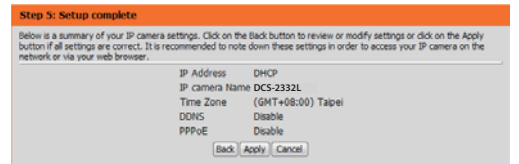
Time Zone (GMT+08:00) Taipei

Enable Daylight Saving

[Back](#) [Next](#) [Cancel](#)

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-2332L
Time Zone	(GMT+08:00) Taipei
DDNS	Disable
PPPoE	Disable

[Back](#) [Apply](#) [Cancel](#)

Section 3: Configuration

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

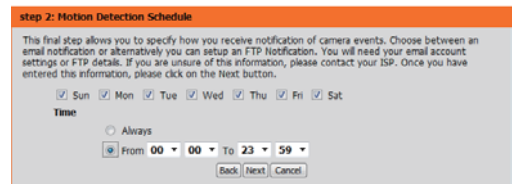
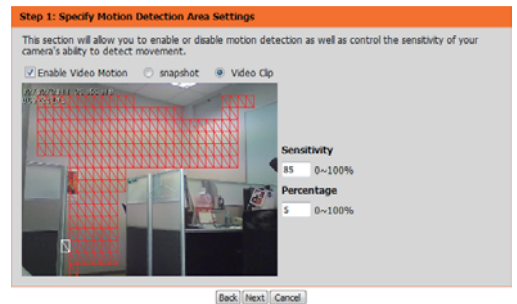
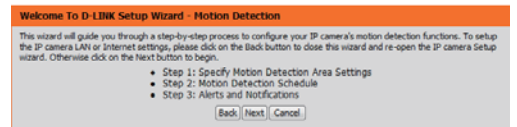
This step will allow you to enable or disable motion detection, specify the detection sensitivity, and adjust the camera's ability to detect movement.

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

Please see "**Motion Detection**" on page 44 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.



Section 3: Configuration

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:

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 : Disable

EVENT : Video Clip

Schedule Day : Sun ,Mon , Tue ,Wed ,Thu ,Fri ,Sat ,

Schedule Time : From:07:02:59

Alerts and Notification : Email

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 router: 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.



Section 3: Configuration

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

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.

HTTP Port: The default port number is 80.

Access Name for Stream 1~3: The default name is video#.mjpg, where # is the number of the stream.

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.

Authentication: Depending on your network security requirements, the Network Camera provides three types of security settings for streaming via RTSP protocol: disable and digest. If digest authentication is selected, user credentials are encrypted using MD5 algorithm, thus providing better protection against unauthorized access.

RTSP Port: 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.

Access name for stream 1 ~ 3: This Network Camera supports multiple streams simultaneously. The access name is used to differentiate the streaming source (video profile).

The screenshot displays the configuration interface for a Network Camera, organized into several sections:

- UPnP Settings:** Includes checkboxes for "Enable UPnP presentation" (checked) and "Enable UPnP port forwarding" (unchecked). The "Forwarding Port" is set to 1024, and the "Forwarding Status" is "UPnP forwarding is inactive".
- PPPOE SETTINGS:** Features radio buttons for "Enable" and "Disable" (selected). It includes input fields for "User Name", "Password", and "Confirm password". The "PPPoE Status" is "PPPoE is inactive".
- HTTP:** Shows the "HTTP port" set to 80 and three "Access name" fields for stream1 (video1.mjpg), stream2 (video2.mjpg), and stream3 (video3.mjpg).
- HTTPS:** Shows the "HTTPS port" set to 443.
- RTSP:** Includes a dropdown menu for "Authentication" set to "Disable", an "RTSP port" set to 554, and three "Access name" fields for stream1 (live1.sdp), stream2 (live2.sdp), and stream3 (live3.sdp).

Section 3: Configuration

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

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

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.

MULTICAST The DCS-2332L 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.

The screenshot displays the configuration interface for the D-Link DCS-2332L, organized into four main sections:

- COS SETTINGS:** Features a checkbox for "Enable CoS" (checked). Below it, "VLAN ID" is set to 1 (range [0-4095]). "Live video", "Live audio", "Event/Alarm", and "Management" are all set to 0.
- QOS SETTINGS:** Features a checkbox for "Enable QoS" (checked). "Live video", "Live audio", "Event/Alarm", and "Management" are all set to 0.
- IPV6:** Features a checkbox for "Enable IPv6" (checked). An "IPv6 Information" button is present. Below it, "Manually setup the IP address" is checked. Fields for "Optional IP address / Prefix length" (with a /64 suffix), "Optional default router", and "Optional primary DNS" are visible.
- MULTICAST:** Contains three sections for "Enable multicast for stream 1", "stream 2", and "stream 3". Each section includes fields for "Multicast group address", "Multicast video port", "Multicast RTPC video port", "Multicast audio port", "Multicast RTPC audio port", and "Multicast TTL [1~255]".

Wireless Setup

This section allows you to set up and configure the wireless settings on your camera. After making any changes, click the **Save Settings** button to save your changes.

Site Survey: Click the **Rescan** button to scan for available wireless networks. After scanning, you can use the drop-down box to select an available wireless network. The related information (SSID, Wireless Mode, Channel, Authentication, Encryption) will be automatically filled in for you.

SSID: Enter the SSID of the wireless access point you wish to use.

Wireless Mode: Use the drop-down box to select the mode of the wireless network you wish to connect to. Infrastructure is normally used to connect to an access point or router. Ad-Hoc is usually used to connect directly to another computer.

Channel: If you are using Ad Hoc mode, select the channel of the wireless network you wish to connect to, or select Auto.

Authentication: Select the authentication you use on your wireless network - Open, Shared, WPA-PSK, or WPA2-PSK.

Encryption: If you use WPA-PSK or WPA2-PSK authentication, you will need to specify whether your wireless network uses TKIP or AES encryption. If you use Open or Shared authentication, WEP encryption should be the setting.

Key: If you use WEP, WPA-PSK, or WPA2-PSK authentication, enter the Key (also known as password) used for your wireless network.



Dynamic DNS

DDNS (Dynamic Domain Name Server) will hold a DNS host name and synchronize the public IP address of the modem when it has been modified. A user name and password are required when using the DDNS service. After making any changes, click the **Save Settings** button to save your changes.

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.



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.

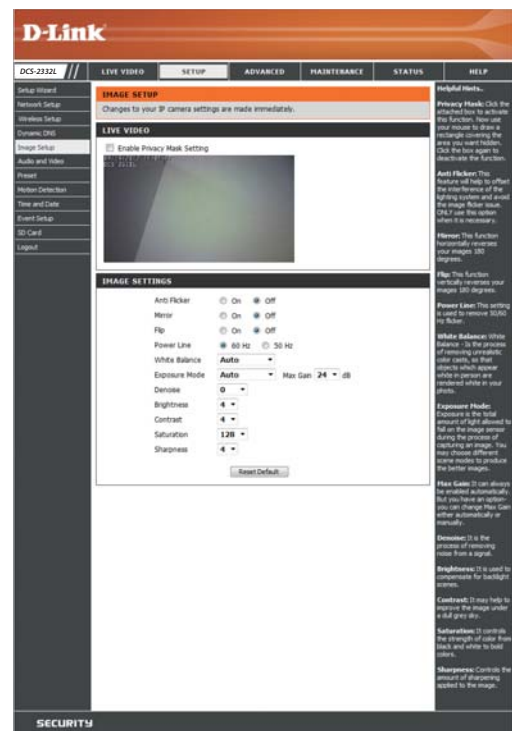
Anti Flicker: If the video flickers, try enabling this setting.

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.



Section 3: Configuration

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.

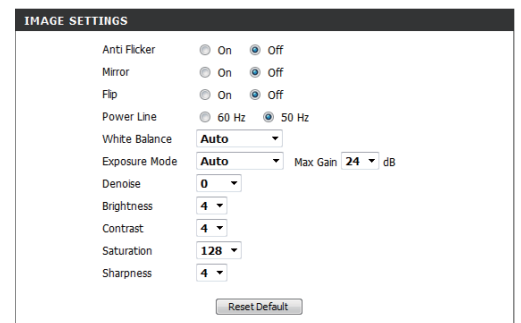
Brightness: Adjust this setting to compensate for backlit subjects.

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.



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.

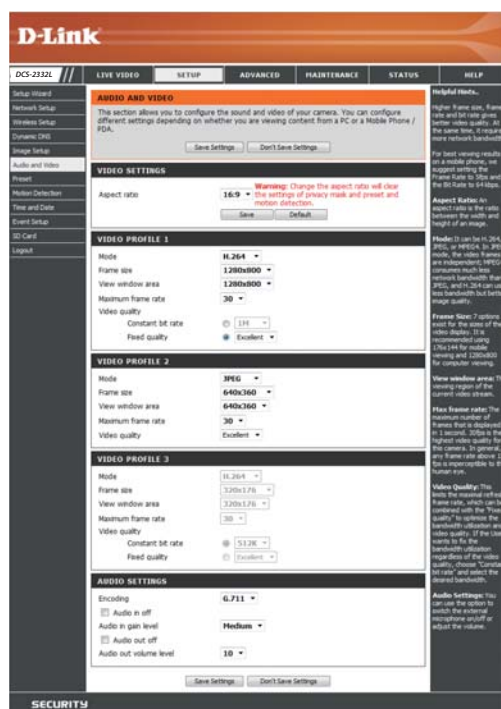
Mode: Set the video codec to be used to JPEG, MPEG-4, or H.264.

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 800, 1280 x 720, 800 x 450, 640 x 360, 480 x 270, 320 x 176, 176 x 144
4:3	1024 x 768, 800 x 600, 640 x 480, 480 x 360, 320 x 240, 176 x 144

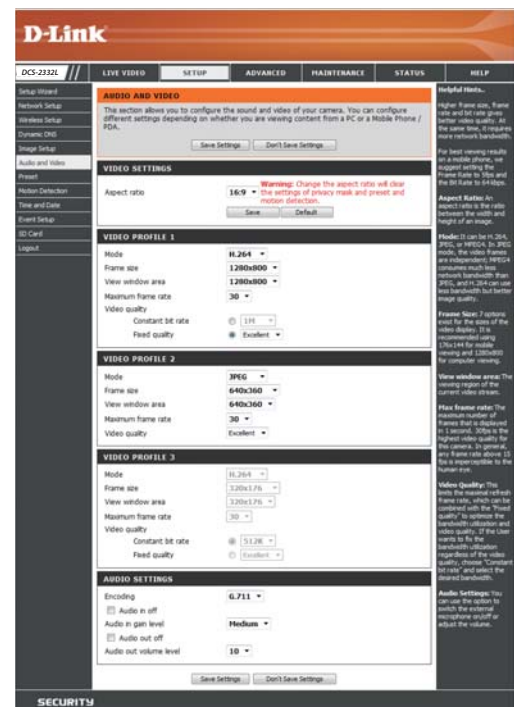
Note: If your View window area is the same as your Frame size, you will not be able to use the ePTZ function.

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.



Section 3: Configuration

- Video Quality:** This limits the maximum frame rate, 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 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.
- Audio out off:** Selecting this checkbox will mute outgoing audio.
- Audio out volume level:** This setting controls the amount of gain applied to outgoing audio to increase its volume.



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.



Section 3: Configuration

Preset List: 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 of the configuration interface:

- PRESET:** This section includes an input field for "Input Preset Name", an "Add" button, and a "Rename" button. Below this is a "Preset List" dropdown menu with "--Preset List--" selected, and "Go To" and "Remove" buttons. A red note indicates "Support(0-9,A-Z,a-z,-,/,_)" for the preset names.
- PRESET SEQUENCE:** This section features a table with the following content:

Preset Name	Dwell time
Entrance	10
Cubicle	10
Back_Door	10

Navigation controls include an up arrow, a trash can icon, and a down arrow. At the bottom of this section, there is a "Preset List" dropdown with "--Preset List--" selected, an "Add" button, a "Dwell time" input field with "10" entered, and an "Update" button. A red note indicates "Second(s)[3-30]" for the dwell time.

Motion Detection

Enabling Video Motion will allow your camera to use the motion detection feature. You may draw a finite motion area that will be used for monitoring. 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.

Sensitivity: Specifies the measurable difference between two sequential images that would indicate motion. Please enter a value between 0 and 100.

Percentage: Specifies the amount of motion in the window being monitored that is required to initiate an alert. If this is set to 100%, motion is detected within the whole window will trigger a snapshot.

Draw Motion Area: Draw the motion detection area by dragging your mouse in the window (indicated by the red square).

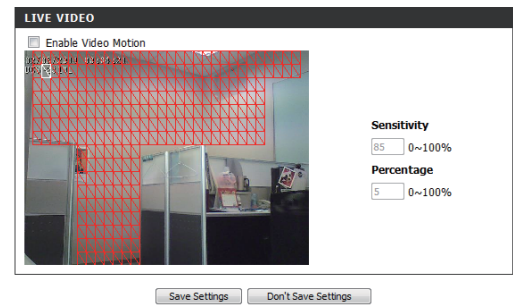
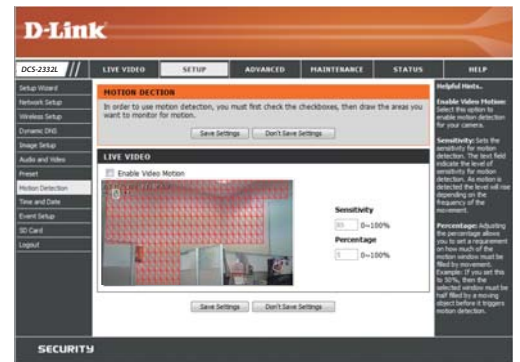
Erase Motion Area: To erase a motion detection area, simply click on the red square that you wish to remove.

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.



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 obtain time automatically from an NTP server.

NTP Server: Network Time Protocol (NTP) synchronizes the DCS-2332L with an Internet time server. Choose the one that is closest to your location.

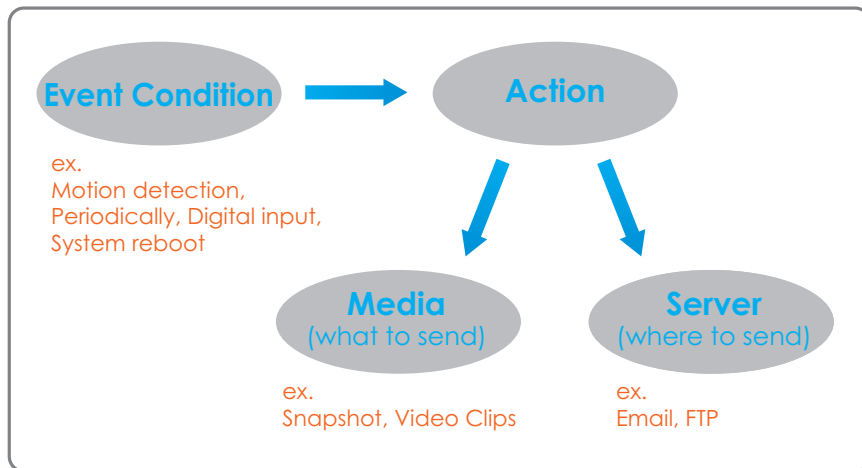
Set the Date and Time Manually: This option allows you to set the time and date manually.

Copy Your Computer's Time Settings: This will synchronize the time information from your PC.



Event Setup

In a typical application, when motion is detected, the DCS-2332L 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.

Section 3: Configuration

The Event Setup page includes 4 different sections.

- Event
- Server
- Media
- 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.

The screenshot shows the D-Link DCS-2332L Event Setup page. The page is divided into several sections: EVENT SETUP, SERVER, MEDIA, EVENT, and RECORDING. Each section has an 'Add' button and a 'Delete' button. The EVENT section shows a table with columns for Name, Status, and days of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat, Time, Trigger). The RECORDING section shows a table with columns for Name, Status, days of the week, Time, Source, and Destination. The page also includes a sidebar with navigation options like Setup Wizard, Network Setup, Wireless Setup, Dynamic DNS, Image Setup, Audio and Video, Motion, Motion Detection, Time and Date, Event Setup, ID Card, and Logout. A 'Helpful Hints...' section is visible on the right side of the main content area.

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.



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 page 40 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: The prefix name will be added on the file name.

Add date and time suffix to file name: Check it to add timing information as file name suffix.



Section 3: Configuration

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

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

Pre-event recording: 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 duration: Set the maximum length of video to record for your video clips.

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

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

System log: 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.



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.

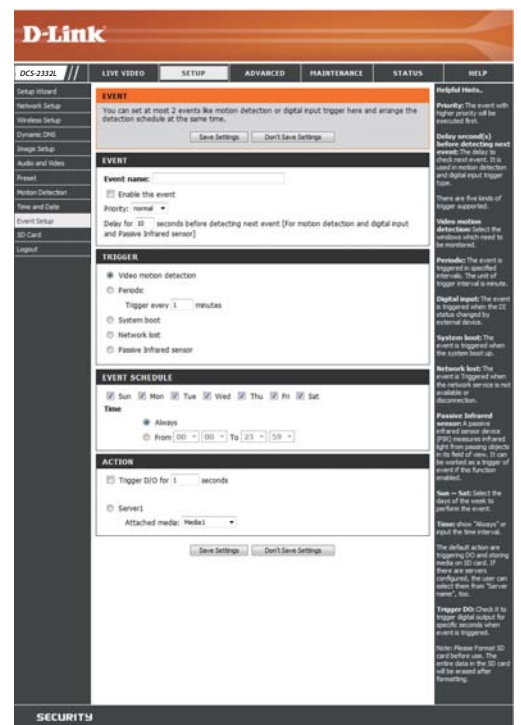
Video Motion Detection: Motion is detected during live video monitoring. Select the windows that need to be monitored.

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

System Boot: Triggers an event when the system boots up.

Network Lost: Triggers an event when the network connection is lost.

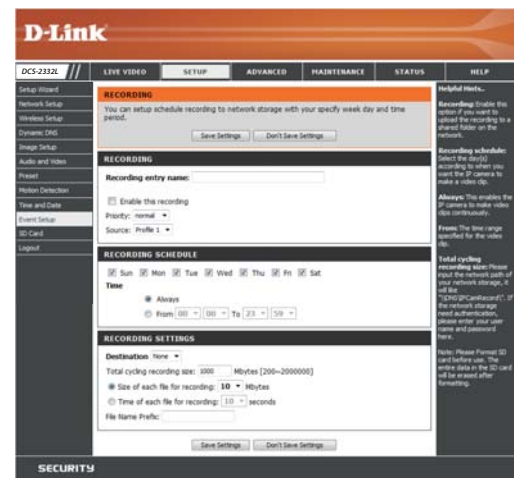
Passive Infrared Sensor: Triggers an event when the PIR sensor is activated by moving infrared objects even in dark environment.



Section 3: Configuration

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

Server: Specify the location where the event information should be saved to.



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 1MB and 2TB 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 6MB, and the total cyclical recording size is 600MB, 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.



Section 3: Configuration

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

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

File Name Prefix: The prefix name will be added on the file name of the recording file(s).



SD Card

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

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

View Recorded Picture: If the picture files are stored on the SD 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 SD 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 SD card.



Advanced ICR and IR

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

Automatic: The Day/Night mode is set automatically. Generally, the camera uses Day mode and switches to Night mode when needed.

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.

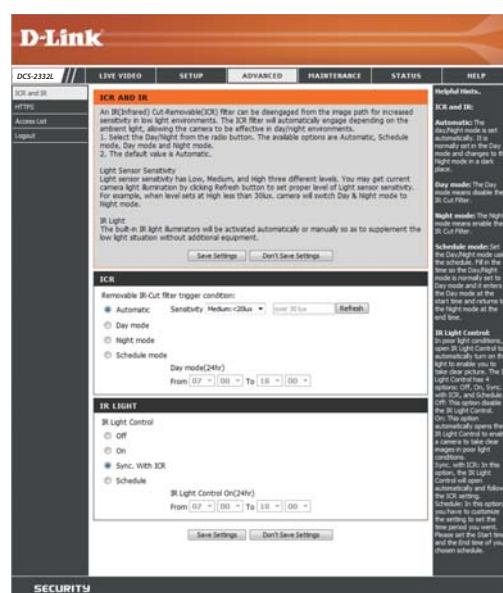
IR Light Control: The camera can enable or disable the IR (infrared) light according to your preferences. This setting provides additional controls depending on your specific application.

Off: The IR light will always be off.

On: The IR light will always be on.

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

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



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 the HTTPS is still enabled. To remove the certificate, you must first uncheck **Enable HTTPS secure connection**.



Access List

Here you can set access permissions for users to view your DCS-2332L.

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.

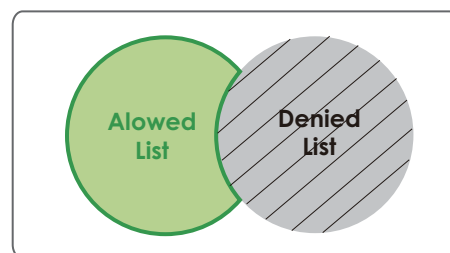
Delete allow list: Remove the customized setting from the Allow List.

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.



System

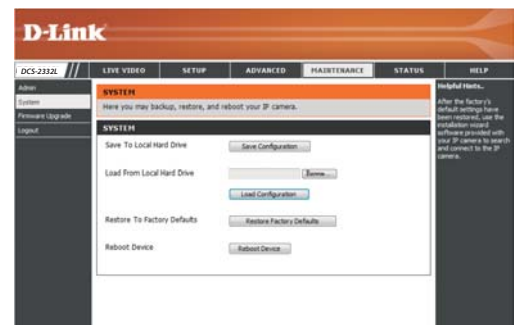
In this section, you may backup, restore and reset the camera configuration, or reboot the camera.

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.



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 new user account.

User Name: The user name for the new account.

Password: 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.

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 OSD when it is enabled.

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



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.

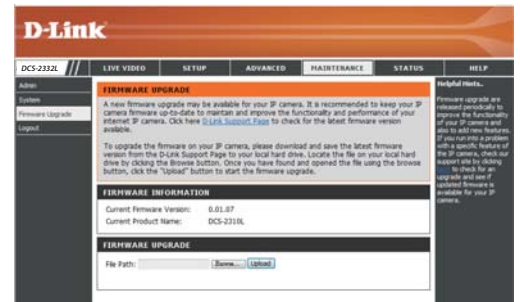
To upgrade the firmware on your DCS-2332L, please download and save the latest firmware version from the D-Link Support Page to your local hard drive. Locate the file on your local hard drive by clicking the **Browse** button. Select the file and click the **Upload** button to start upgrading the firmware.

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-2332L device. The top navigation bar includes links for LIVE VIDEO, SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains links for Device Info, 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 data:

INFORMATION	
IP camera Name	DCS-2332L
Time & Date	Thu Feb 3 00:09:11 2011
Firmware Version	0.01.07
MAC Address	F0:7D:68:0F:BB:2D
IP Address	192.168.0.101
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
status info mylink ver 2.0.15-b6	

On the right side of the interface, 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.

The screenshot shows the D-Link web interface for the DCS-2332L camera. The top navigation bar includes tabs for LIVE VIDEO, SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The main content area is divided into three sections:

- Device Info:** Contains links for Log and Logout.
- SYSTEM LOG:** A header section with a description: "The system log records IP camera events that have occurred."
- CURRENT LOG:** A list of 20 log entries, each with a timestamp and a description of the event. The entries include:
 - 2011-02-03 00:06:52 SD CARD WAS REMOVED
 - 2011-02-03 00:06:29 SD CARD INITIALIZES FAILED
 - 2011-02-03 00:06:15 SD CARD WAS REMOVED
 - 2011-02-03 00:05:53 SD CARD INITIALIZES FAILED
 - 2011-02-03 00:00:51 admin FROM 192.168.0.100 TURN ON MASK AREA 2
 - 2011-02-03 00:00:51 admin FROM 192.168.0.100 TURN ON MASK AREA 3
 - 2011-02-03 00:00:51 admin FROM 192.168.0.100 TURN ON MASK AREA 1
 - 2011-02-02 23:56:30 admin FROM 192.168.0.100 SET EVENT SERVER 1 ; Name : Server1, Type : Email
 - 2011-02-02 23:56:30 admin FROM 192.168.0.100 SET EVENT MEDIA 1 ; Name : Media1, Type : Video Clip
 - 2011-02-02 23:56:30 admin FROM 192.168.0.100 SET MOTION BLOCK TABLE
 - 2011-02-02 23:56:30 admin FROM 192.168.0.100 SET EVENT TYPE 1 ; Trigger : Motion Detection
 - 2011-02-02 23:47:59 admin FROM 192.168.0.100 SET VIDEO CODEC Need Reset
 - 2011-02-02 23:47:59 admin FROM 192.168.0.100 SET PROFILE 1 Viewer window area 800x600
 - 2011-02-02 23:47:58 admin FROM 192.168.0.100 SET PROFILE 1 Frame Size 800x600
 - 2011-02-02 23:46:34 admin FROM 192.168.0.100 SET VIDEO CODEC Need Reset
 - 2011-02-02 23:46:34 admin FROM 192.168.0.100 SET ASPECT RATIO 4:3
 - 2011-02-02 23:43:36 admin LOGIN OK FROM 192.168.0.100
 - 2011-02-02 23:40:53 IP CAMERA ACQUIRE DHCP IP 192.168.0.101
 - 2011-02-02 23:40:48 SYSTEM SET IR LIGHT OFF
 - 2011-02-02 23:40:48 SYSTEM BOOTING

At the bottom of the log list, there are navigation buttons: First Page, Previous 20, Next 20, Clear, and Download. A 'Helpful Hints...' section on the right provides instructions on how to save and clear the log.

Help

This page provides helpful information regarding camera operation.

The screenshot shows the D-Link DCS-2332L 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: LIVE VIDEO, SETUP, MAINTENANCE, ADVANCED, and STATUS. Each of these categories is expanded to show a list of sub-links. For example, under 'SETUP', there are links for Setup Wizard, Network Setup, Dynamic DNS, Image Setup, Audio and Video, Preset, Motion Detection, Time and Date, Event Setup, and SD Card. At the bottom of the page, there is a 'SECURITY' section.

DCS-2332L	LIVE VIDEO	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Help Logout	HELP <ul style="list-style-type: none">LIVE VIDEOSETUPMAINTENANCEADVANCEDSTATUS	LIVE VIDEO <ul style="list-style-type: none">Camera	SETUP <ul style="list-style-type: none">Setup WizardNetwork SetupDynamic DNSImage SetupAudio and VideoPresetMotion DetectionTime and DateEvent SetupSD Card	ADVANCED <ul style="list-style-type: none">DI and DOICR and IRHTTPSAccess List	MAINTENANCE <ul style="list-style-type: none">AdminSystemFirmware Upgrade	STATUS <ul style="list-style-type: none">Device InfoLog
SECURITY						

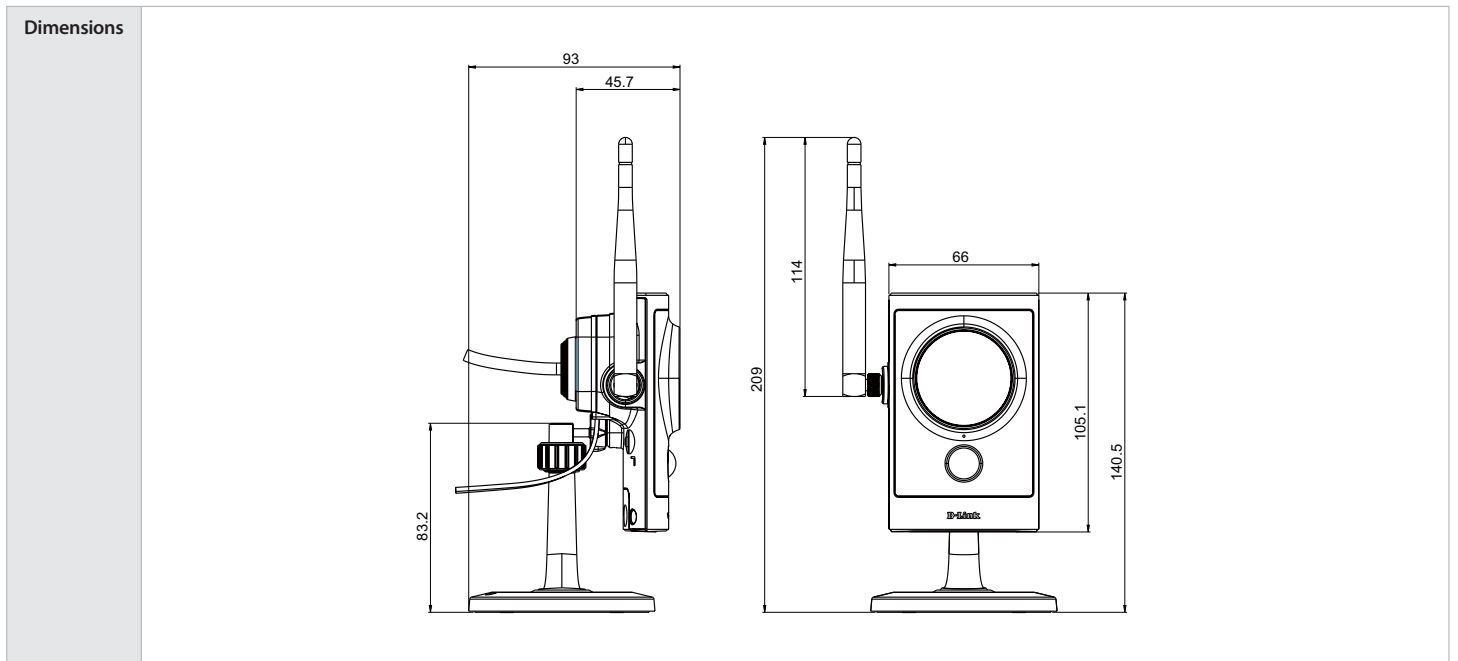
Technical Specifications

Camera	Camera Hardware Profile	<ul style="list-style-type: none"> ▪ 1/4" Megapixel progressive 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 and speaker 	<ul style="list-style-type: none"> ▪ 10x digital zoom ▪ Focal length: 3.45 mm ▪ Aperture: F2.0 ▪ Angle of view: <ul style="list-style-type: none"> ▪ (H) 57.8° ▪ (V) 37.8° ▪ (D) 66°
	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/MPEG-4/MJPEG format compression ▪ H.264/MPEG-4 multicast streaming 	<ul style="list-style-type: none"> ▪ JPEG for still images
	Video Resolution	16:9 - 1280 x 800, 1280 x 720, 800 x 450, 640 x 360, 480 x 270, 320 x 176, 176 x 144	4:3 - 1024 x 768, 800 x 600, 640 x 480, 480 x 360, 320 x 240, 176 x 144
	Audio Support	G.726, G.711	
	External Device Interface	<ul style="list-style-type: none"> ▪ 10/100 BASE-TX Fast Ethernet port ▪ IEEE 802.11n 2.4GHz single band wireless 	<ul style="list-style-type: none"> ▪ MicroSD/SDHC card slot
Network	Network Protocols	IEEE 802.11n 2.4GHz single band wireless IPv6 IPv4 TCP/IP UDP ICMP DHCP client NTP client (D-Link) DNS client DDNS client (D-Link) SMTP client FTP client	HTTP / HTTPS Samba Client PPPoE UPnP port forwarding RTP / RTSP / RTCP IP filtering QoS CoS Multicast IGMP ONVIF compliant
	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

Appendix A: Technical Specifications

System Management	System Requirements for Web Interface	<ul style="list-style-type: none"> Operating System: Microsoft Windows 7/Vista/XP/2000 	<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 or NAS via web browser 	<ul style="list-style-type: none"> Configuration interface accessible via web browser
	Mobile Support	Windows 7/Vista/XP system, Pocket PC, 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/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
General	Weight	255 g	
	External Power Adaptor	Input: 100 to 240 V AC, 50/60 Hz	Output: 5 V DC, 1.2 A
	Power Consumption	5.5 Watts	
	Temperature	Operating: -25 to 50 °C (-13 to 122 °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 IC

Appendix A: Technical Specifications



Transmitters shall display the following notice in a conspicuous location:

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This radio transmitter (identify the device by certification number, or model number if Category II) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

FCC Notices

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Change or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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

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

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance."

Canada Notices

Industry Canada regulatory information

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

The user is cautioned that this device should be used only as specified within this manual to meet RF exposure requirements. Use of this device in a manner inconsistent with this manual could lead to excessive RF exposure conditions.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance."

Cet équipement doit être installé et utilisé conformément aux instructions fournies et de l'antenne (s) utilisé pour cet émetteur doit être installé pour fournir une distance de séparation d'au moins 20 cm de toute personne et ne doit pas être co-localisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur. Les utilisateurs finaux et installateurs doivent être fournir des instructions d'installation de l'antenne et des conditions de fonctionnement du transmetteur de la conformité sur l'exposition aux RF