D-Link®
Building Networks for People

DCS-7510
Version 1.40

# Day & Night Outdoor PoE Network Camera

# User Manual



Business Class Networking

# Table of Contents

# Product Overview

The DCS-7510 is a day & night outdoor PoE network camera with built-in infrared LEDs. Equipped with a high-resolution CCD image sensor, this camera provides you with excellent image quality and level of detail. The DCS-7510 is equipped with a varifocal 9~22mm lens that lets you manually change the focus length on desired objects. The focus and zoom controls are located outside on the camera case for easy adjustments. A built-in Infrared Cut Removable (ICR) filter in the DCS-7510 allows the camera to capture images in both good light and low light conditions by adding or removing the infrared cut filter. This camera also has an auto-iris that automatically adjusts the exposure according to the light conditions for optimum picture quality. The DCS-7510 can detect moving objects in total darkness, for distances of up to 50 meters. Embedded with a powerful SoC (System-on-Chip), the camera provides high-quality, real-time video compression in MPEG-4 and motion JPEG formats. These elements make the DCS-7510 an ideal solution for 24-hour surveillance.

The DCS-7510 is housed in an IP66 certified weatherproof casing, which protects the camera against rain and dust. The wire-in bracket design tightly assembles and protects the cables not only from outdoor wear and tear, but also from criminal acts such as cable cuts. You can also connect the camera to I/O sensors such as IR sensors, switches and alarm relays, and set up the system to send automated e-mail notifications for unusual events.

A live feed from the camera can be accessed on a 3G mobile network by using a compatible mobile phone or PDA with a 3G video player. The bundled D-ViewCam software is included to manage up to 32 cameras simultaneously, send automated e-mail alerts, and record video to your hard drive when motion is detected or according to a set schedule. The software allows you to manage and record videos to a Network Attached Storage (NAS) or a Network Video Recorder (NVR) device.

**Note:** Use of audio or video equipment for recording the image or voice of a person without their knowledge and consent is prohibited in certain states or jurisdictions. Nothing herein represents a warranty or representation that the D-Link product provided herein is suitable for the end-user's intended use under the applicable laws of his or her state. D-Link disclaims any liability whatsoever for any end-user use of the D-Link product, which fails to comply with applicable state, local, or federal laws.

# Features

- **Supports a variety of Protocols:** Supports TCP/IP networking, SMTP e-mail, HTTP, and other Internet related protocols. The DCS-7510 can easily be integrated into Internet/Intranet applications because of its standards-based features.
- **Auto-Iris Lens & IR LEDs:** Auto-iris lens automatically adjusts the lens exposure according to the varied lighting conditions for optimum picture quality and the infrared LEDs for night surveillance.
- **Built-in Infrared Cut Removable (ICR) Filter:** The filter allows you to capture high-quality images during day and night, by switching the infrared cut filter. The camera provides real-time video compression in MPEG-4 and motion JPEG formats.
- **Varifocal 9~22mm Lens:** Equipped with a varifocal 9~22mm lens, the camera allows you to manually change the focal length on desired objects.
- **Remote Snapshots:** Save snapshots directly from the Web browser to a local hard drive without installing any software. This Snapshot feature allows you to conveniently capture images from a remote location.
- **Outdoor Deployment:** Solid metal casing and wire-in bracket protect cables against damage. A built-in 802.3af compliant Power over Ethernet (PoE) port simplifies installation giving users the freedom to place the camera anywhere.
- **Web Configuration:** Using a web browser, an administrator can configure and manage the DCS-7510 directly and can also create and control up to 10 accounts with different settings.
- **3G Mobile Surveillance:** Access the camera's live feed by using a compatible mobile phone or PDA with a 3G video player, anywhere within a 3GPP service area.
- **Bundled D-ViewCam Software:** Manage up to 32 cameras simultaneously, send automated e-mail alerts, and record videos to a NAS or NVR device.
- **Applications:** The DCS-7510 makes an ideal solution for detailed remote monitoring for places such as homes, offices, banks, hospitals, child-care centers, amusement parks and other industrial and public monitoring areas. Connect the camera to I/O sensors, and set up the system to receive automated e-mail notification of all unusual events. The camera can also be used for intruder detection (motion-detection mode), capture of still images and video for archiving, and can be used for many more applications.

# Package Contents

- D-Link DCS-7510 Day & Night Outdoor PoE Network Camera
- CAT5 Ethernet Cable
- Power Adapter 12V, 1.25A
- Wire-in Bracket
- Screwdriver (for external focus and zoom adjustments)
- Quick Installation Guide
- User Manual and Software on CD
- Screw and wall mount kit

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

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

# System Requirements

- Windows® XP or Vista
- At least 256MB of memory (512MB recommended)
- An available Ethernet connection
- Internet Explorer 6 or higher
- VGA card resolution: 800 x 600 or higher
- CPU: 1.7GHz or higher (at least a 2.8GHz processor, 512MB memory, and a 32MB video card is required for viewing multiple cameras and recording with the D-ViewCam software)

# Hardware Overview

## Front

**Infrared Cut Removable (ICR) filter (inside)**
Allows the camera to capture images in both good light and low light conditions by switching the infrared cut filter.

**IR LEDs with Condenser**
IR LEDs enables the camera to detect moving objects in total darkness for distances of up to 50 meters.

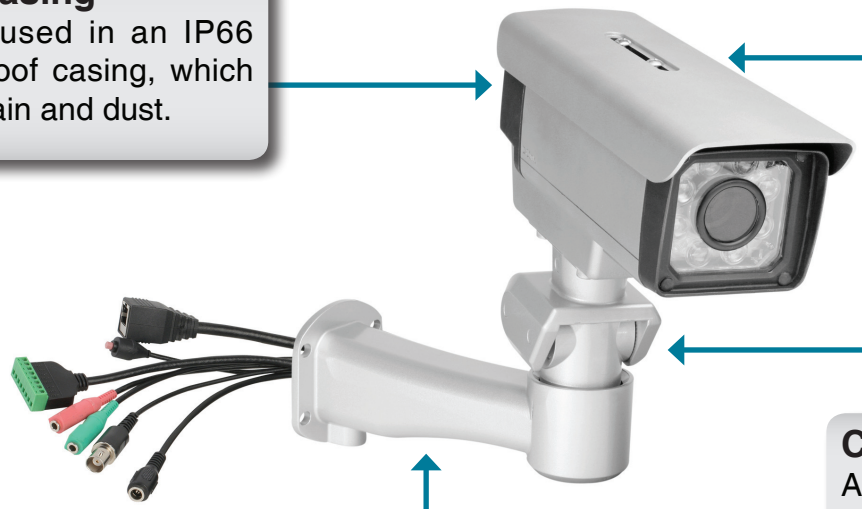
**Auto-iris (inside)**
Automatically adjusts the exposure according to the light conditions for optimum picture quality.

**Varifocal Lens (inside)**
The camera is equipped with a varifocal 9~22mm lens that allows for easy focal length adjustment.

# Hardware Overview
## Back

**Weatherproof Casing**
The camera is housed in an IP66 certified weatherproof casing, which protects it against rain and dust.

**Adjustable Top Shield**
Shields the camera sensor from direct sunlight while providing air ventilation for the camera.

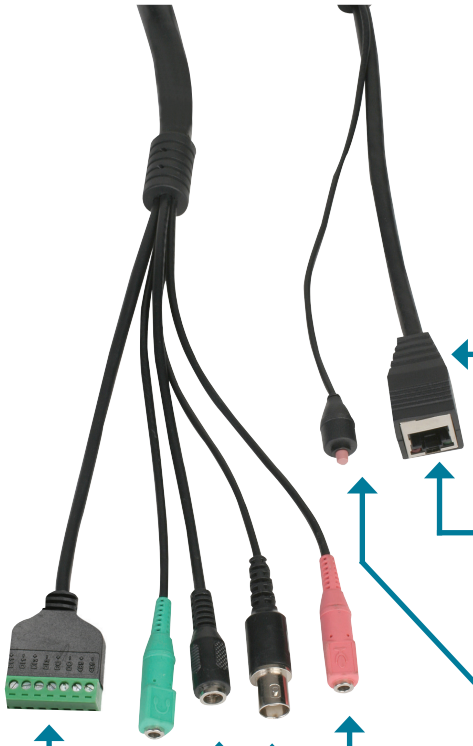


**Camera Bracket**
Attaches to the camera and connects to the Wire-in Bracket.

**Wire-in Bracket**
Tightly assembles and protects the cables from outdoor wear and tear.

# Hardware Overview

## Connectors



### I/O Connector
The DCS-7510 offers a 8 pin-contact terminal block. Two pairs are for input, one pair for output and RS485 terminals. The connector provides a physical interface to send and receive digital signals to and from a variety of external devices.

### Audio Out Connector
Speakers (not included) may be connected to the camera for a 2-way audio communication.

### DC Power Connector
Attach the Power Adapter to the DC connector and connect the power adapter to a power outlet.

### BNC
The BNC connector is used for professional video connections. It benefits users who integrate digital IP cameras into a traditional system (CCTV) for both analog and digital video streaming purposes.

### Ethernet Cable Connector (PoE)
Plug the Ethernet cable into the RJ-45 PoE connector. When connected to a PoE switch, the built-in 802.3af compliant Power over Ethernet (PoE) eliminates the need for a nearby power outlet, giving you the freedom to place the camera anywhere.

### Link/Power LEDs
Lights up and changes color to indicate the Link and Power status of your camera.

Green LED indicates Link up/Link down/ Traffic
Red LED indicates Power on/Power off

### Reset Button
Resets the camera to factory defaults when pressed for 10 seconds.

### Microphone Connector
Connect an external microphone to the microphone connector to hear what is happening near your camera.

# Hardware Installation

**Mounting and Connecting the Camera**

**Step1.** Straighten the two sets of cables from the camera side by side. (Diagram1)

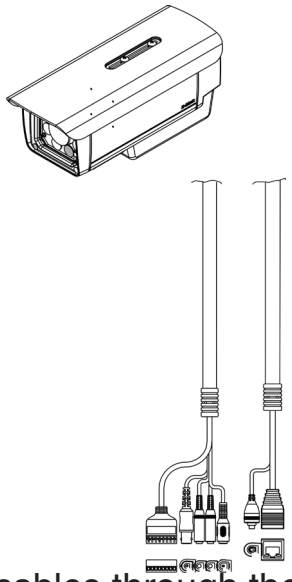


**Diagram 1**

**Step2.** Start by passing the two sets of cables through the camera bracket. (Diagram 2)

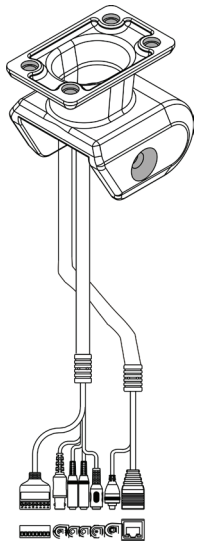


**Diagram 2**

**Step3.** Next, continue passing the cables through the wire-in bracket, pulling them through the other end. (Diagram 3)

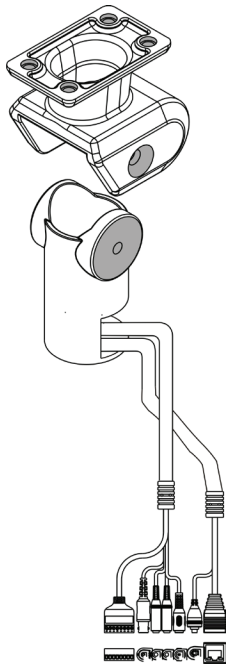


**Diagram 3**

**Step4.** Attach the camera bracket to the wire-in bracket using screws. (Diagram 4)

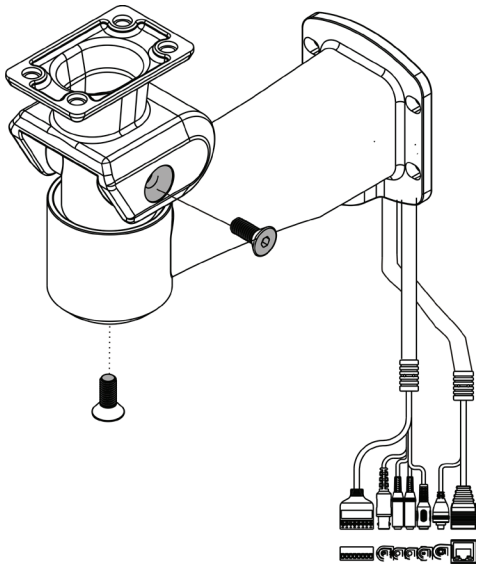


**Diagram 4**

**Step5.** Finally, attach the camera on the top of the camera bracket using screws. (Diagram 5)

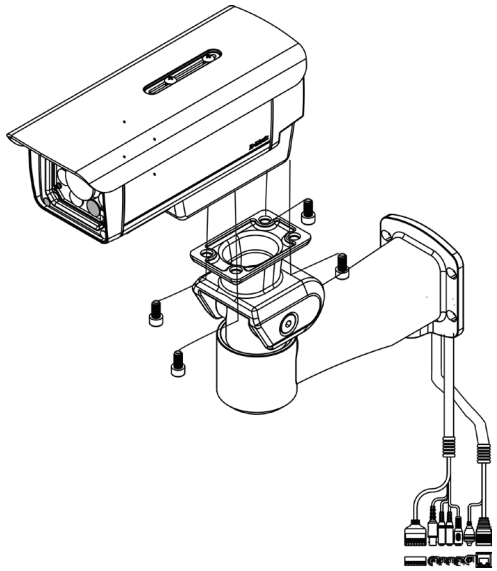


**Diagram 5**

**Step6.** Connect the cables as required. (Diagram 6)
Refer to the **Hardware Overview, Connectors** section for details on the different connectors.

**Diagram 6**

### Focus and Zoom Adjustment

The focus and zoom controls are located on the outside of the camera case for easy adjustments. Use the screwdriver provided to adjust the focus and zoom of your camera.

**Note:** With a shorter focal length you will get a wider field of view, whereas a longer focal length narrows the field of view and allows you to zoom in more on an area.

# Software Installation

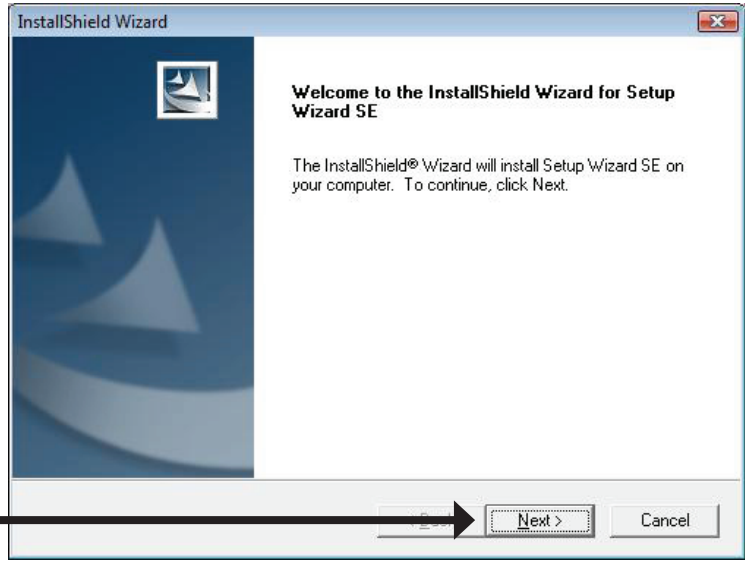
Insert the Installation DCS-7510 driver CD into your computer's CD-ROM drive to start the autorun program. The **Setup Wizard** will guide you through the entire installation process from connecting your hardware to configuring your camera.

Click **Setup Wizard**


If the autorun program does not automatically start on your computer, go to **Windows**, click **Start > Run**. In the **Run** command box type **D:\DCS7510.exe**, where D: represents your CD-ROM drive.

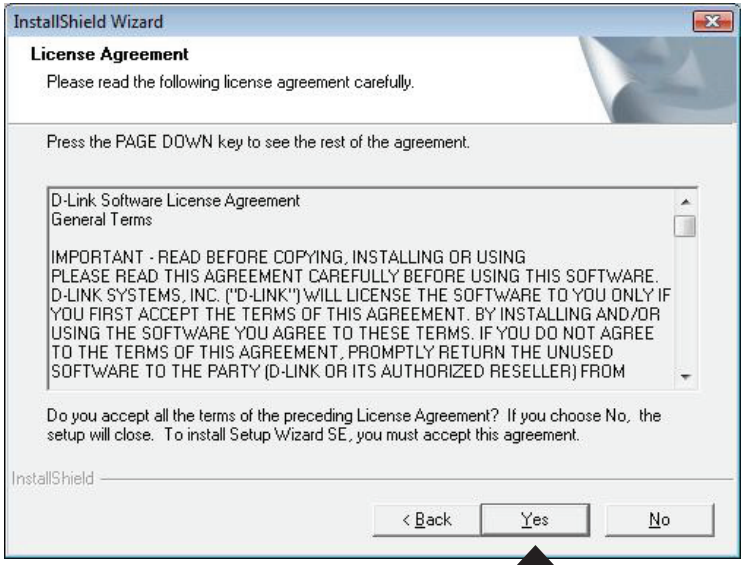
After clicking **Setup Wizard**, the following window will open.

Click **Next** to continue.




Click **Next**

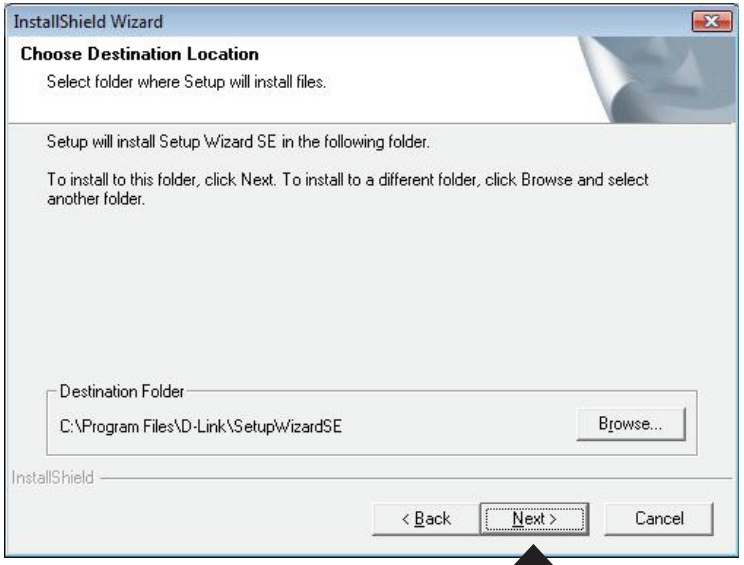
Click **Yes** to accept the License Agreement.



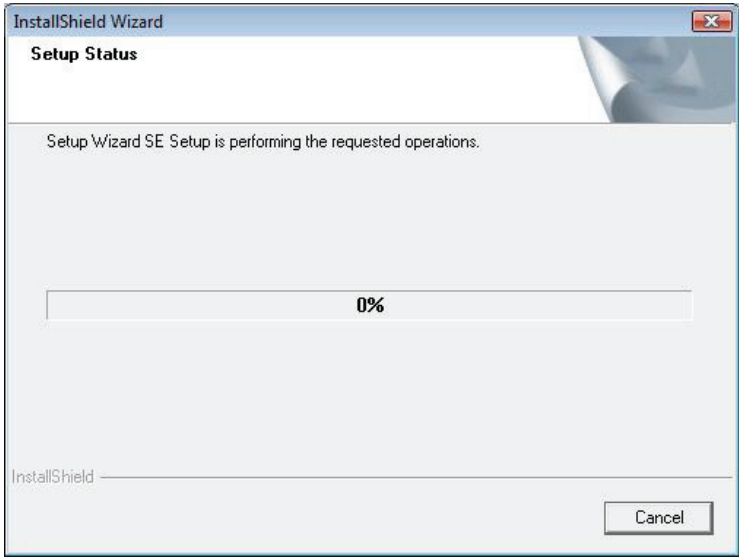

Click **Yes**

To start the installation process click **Next**.

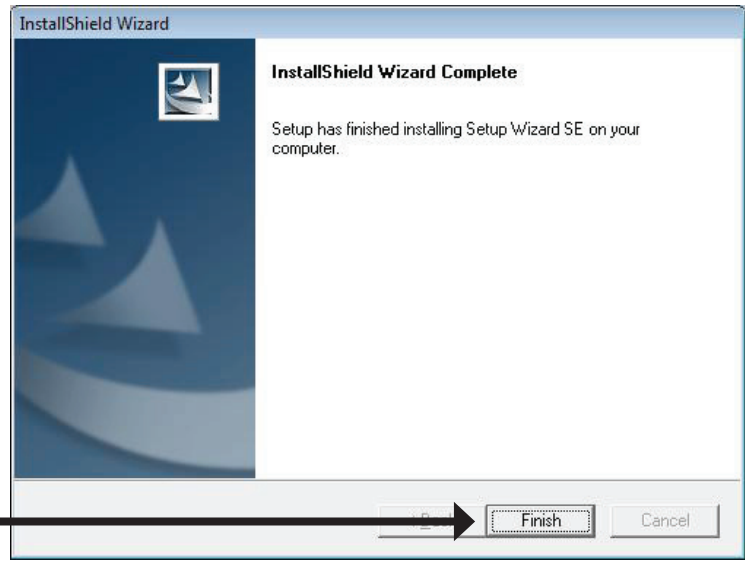
**Note:** The installation may take several minutes to finish.




Click **Next**



Click **Finish** to complete the installation.

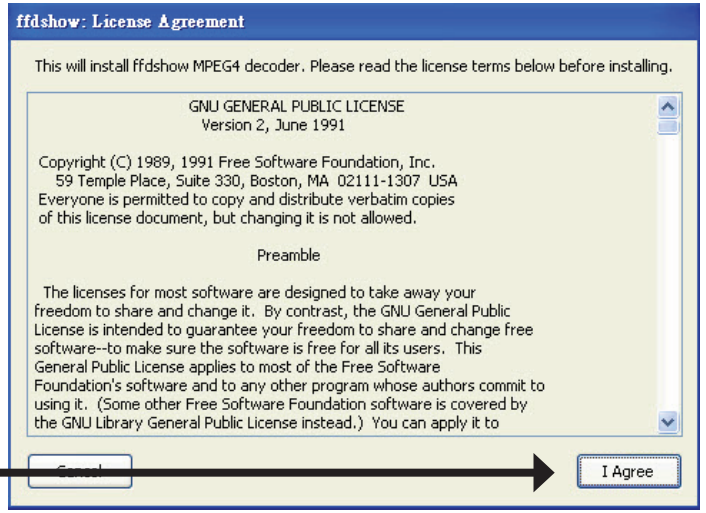



Click **Finish**

Click **ffdshow** from the autorun screen to install the proper codecs that will allow you to playback videos taken by the DCS-7510.

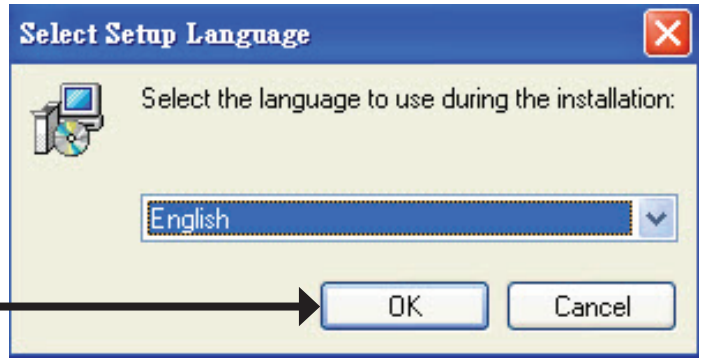
Click **ffdshow**


Click **I Agree**



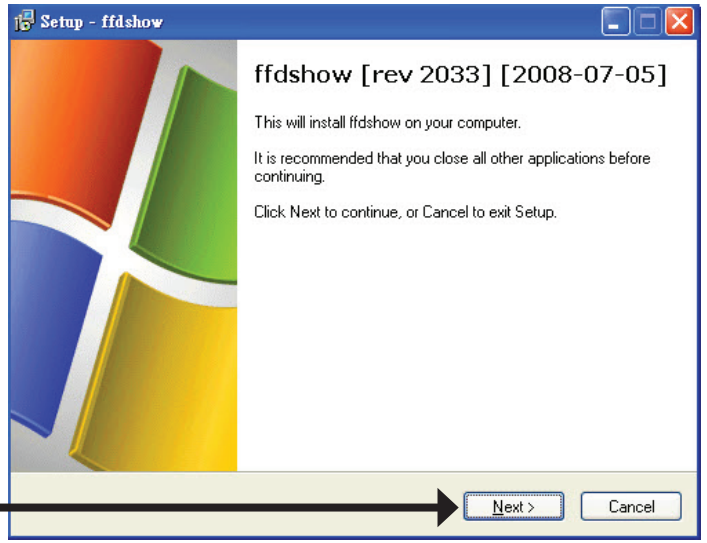
Select Language, and then click **OK**

Click **OK**




Select Language, and then click **OK**

Click **Next**



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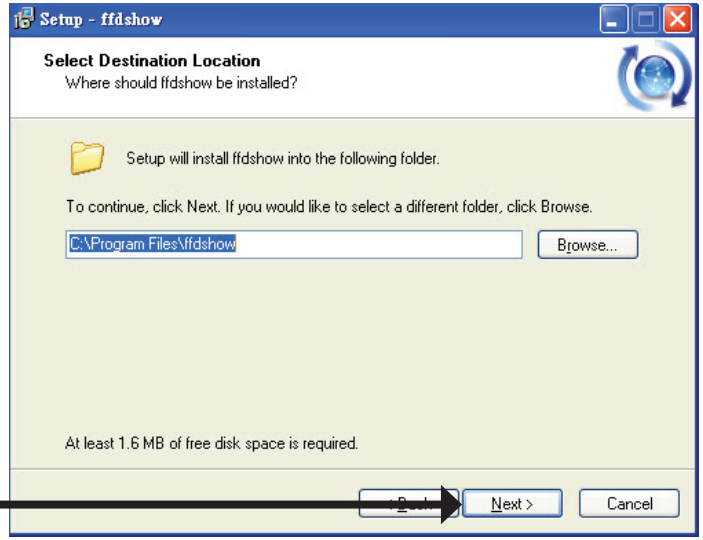


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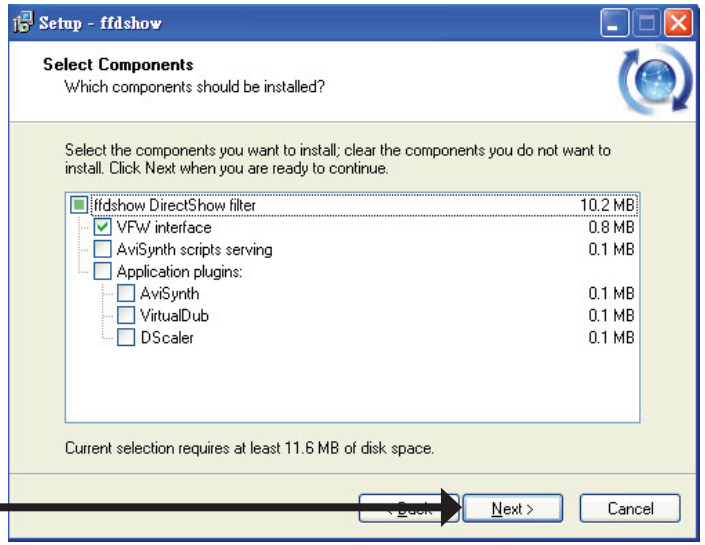

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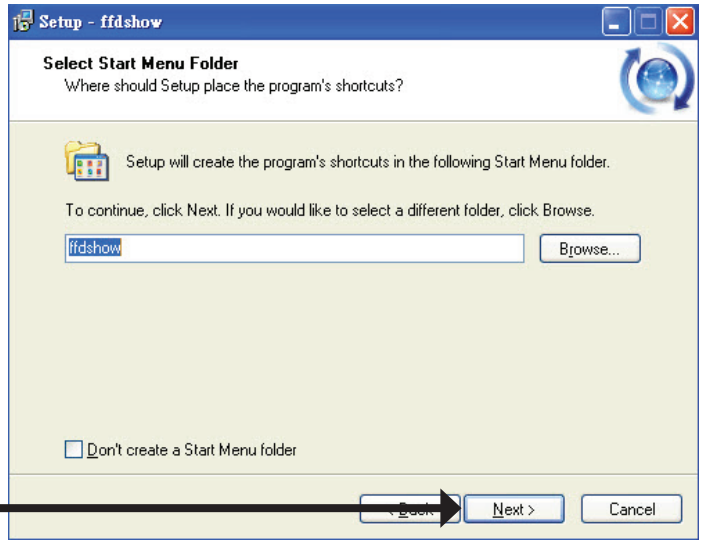


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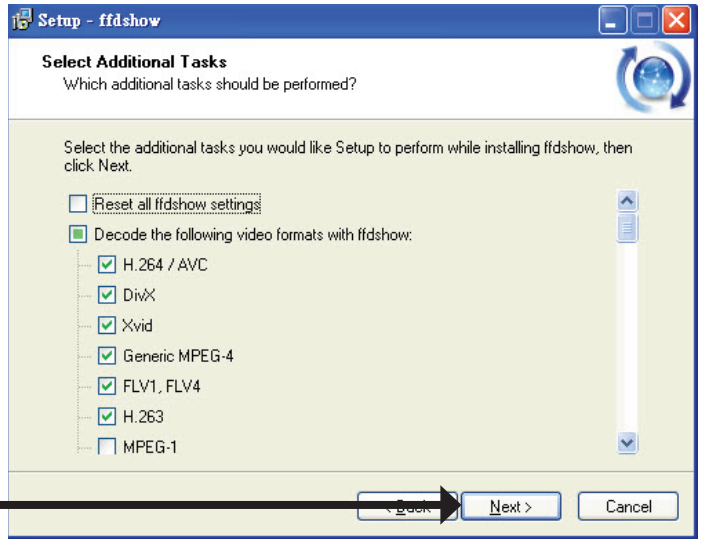

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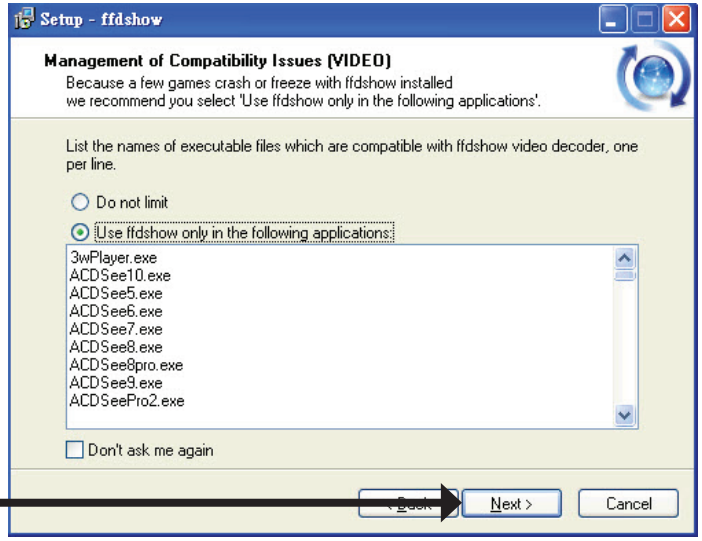
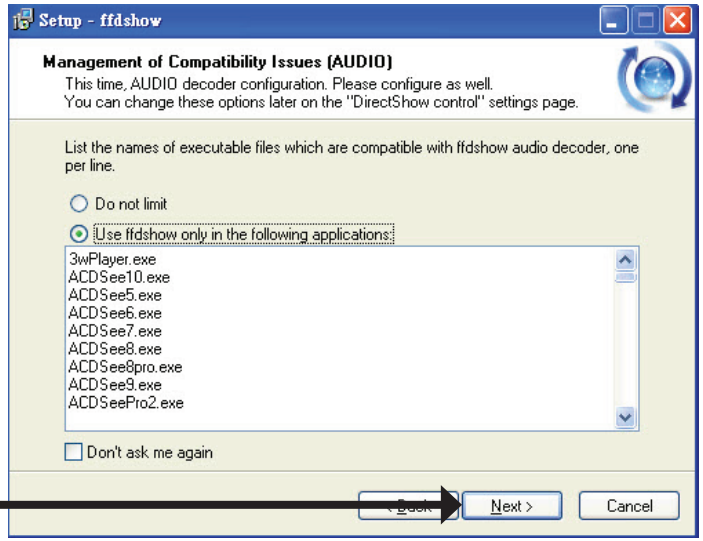
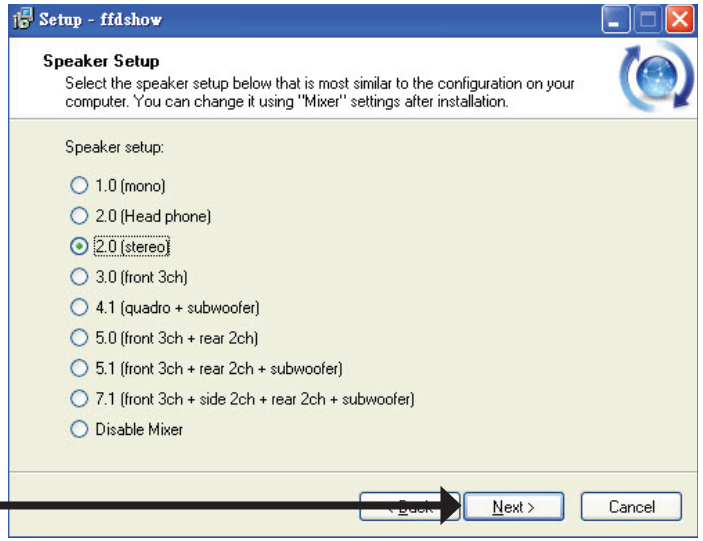


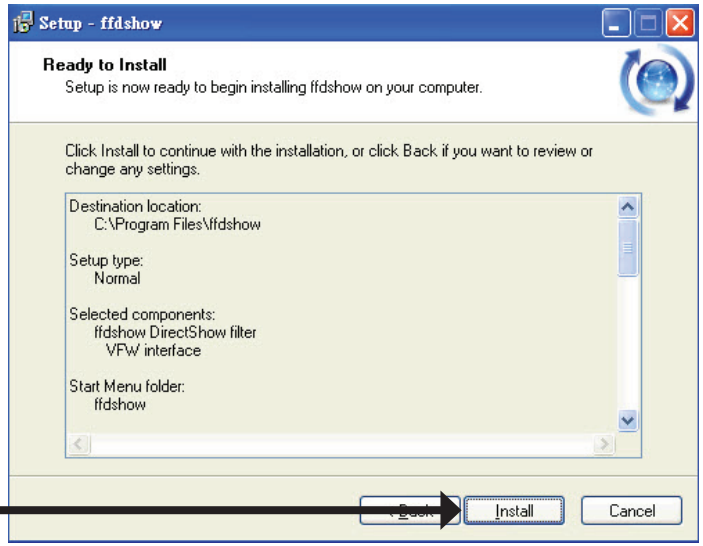

Click **Next**



Select the speaker from your PC, and then clink **Next**

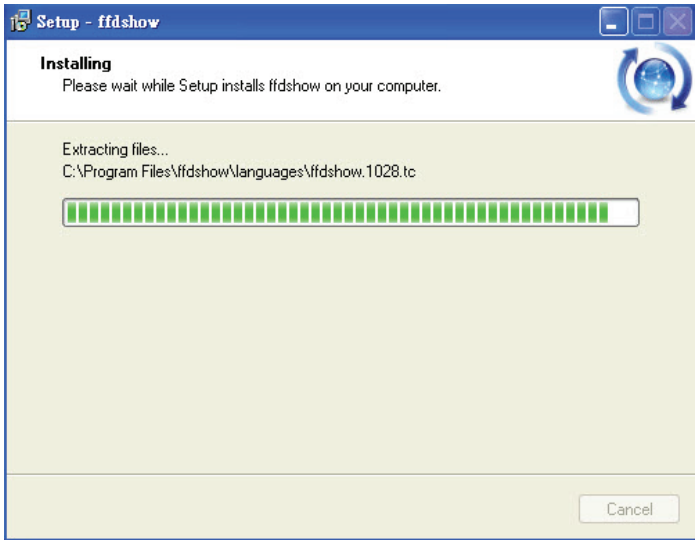


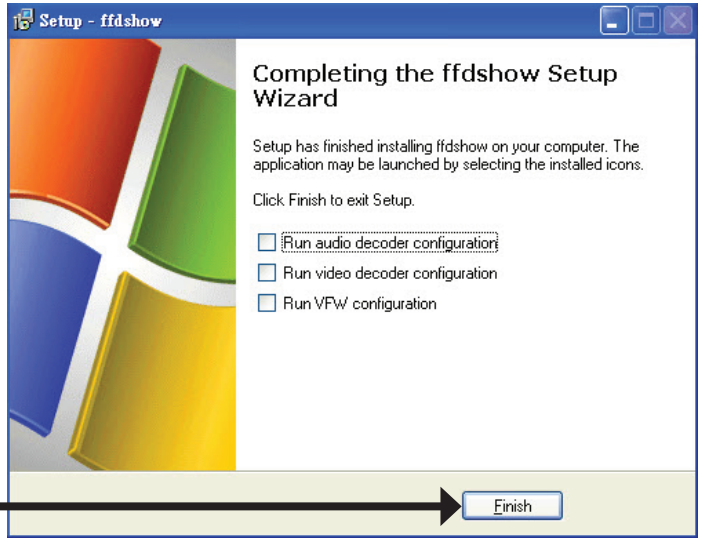

Click **Next**




Click **Install**

## Installing




Click **Finish**

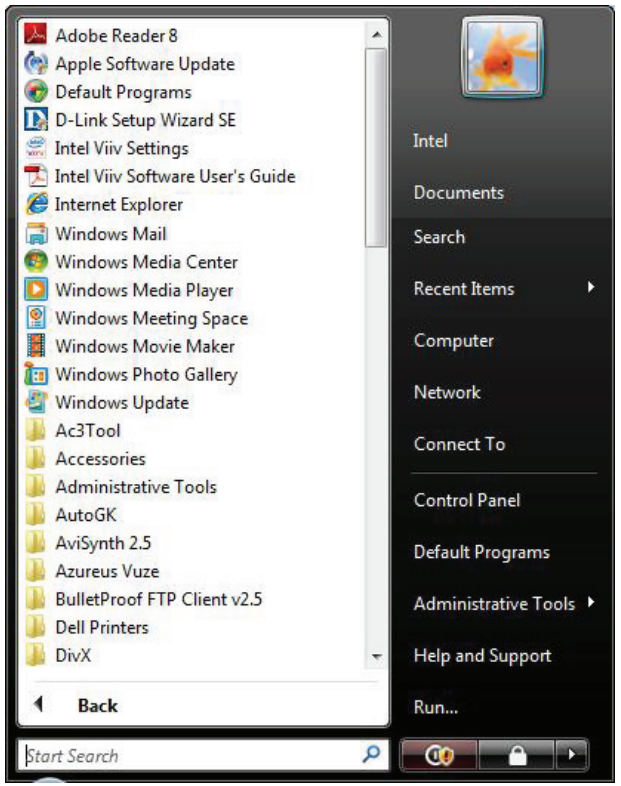
# Configuration

This section will help you configure your new D-Link Network Camera using the **Setup Wizard**.

# Using the Setup Wizard

Click the **D-Link Setup Wizard SE** icon that was created in your **Windows Start** menu.

Click **D-Link Setup Wizard SE**



The **Setup Wizard** will display the MAC address of the DCS-7510 and an IP Address (which may or may not be correct depending on your DCS-7510 connection). If you have a DHCP server on your network, there will be a valid IP Address displayed here. Click the **Wizard** button to continue.

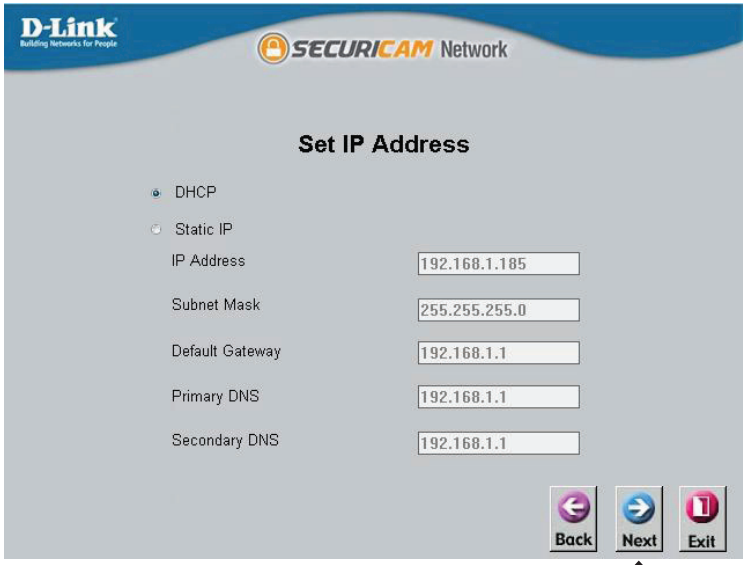

Enter the admin ID and password.

**Note:** The default Admin ID is **admin** with the password left blank.


Click **Next**

Select **DHCP** if you want to get an IP address automatically from your router or Internet service.

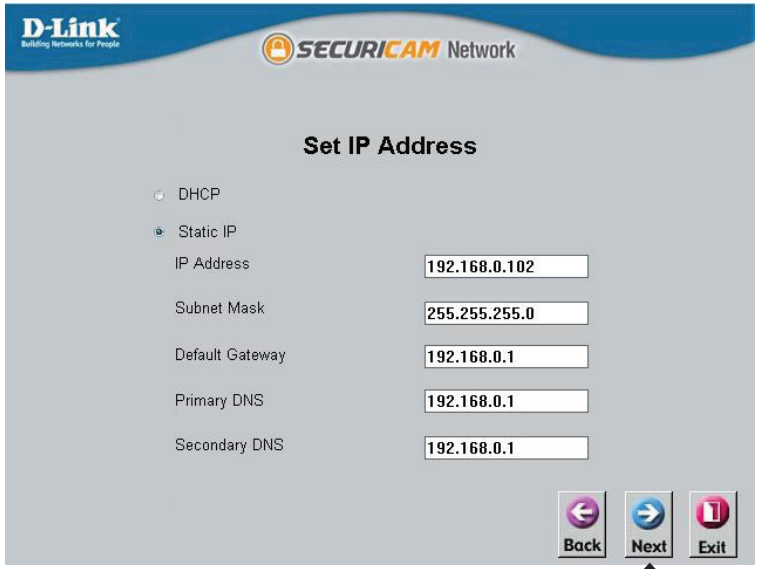
Click **Next** to continue.




Click **Next**

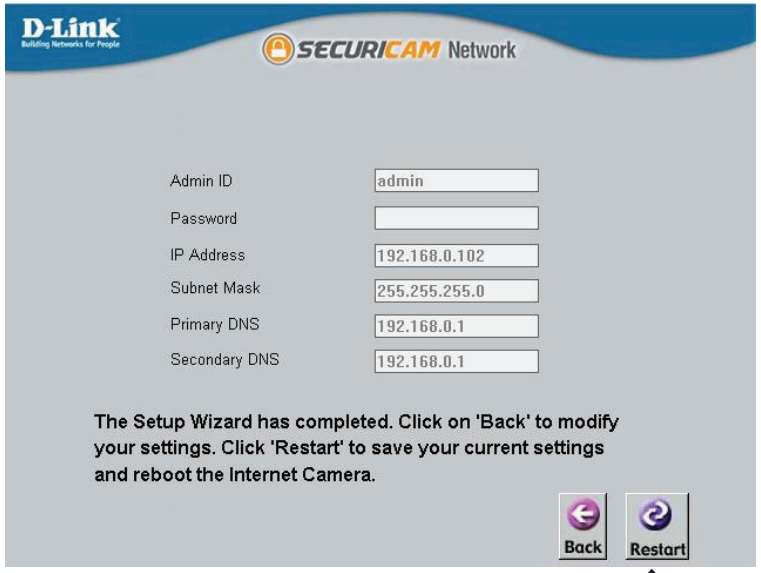
Alternatively, you can select **Static IP** to use the same IP address on camera start up.

Click **Next** to continue.




Click **Next**

Click **Restart** to save your settings and reboot your Network Camera.

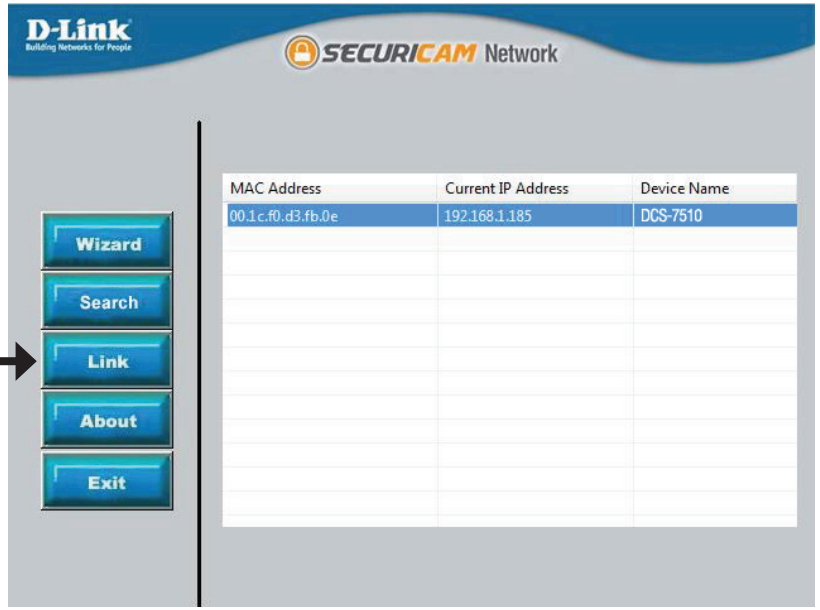



Click **Restart**

Click **Link** to access the web configuration page. The **Setup Wizard** will automatically open your web browser and enter the IP address of your camera into a web browser.

In this example, the IP address is **http://192.168.1.185**. Your DCS-7510 may have a different IP address.

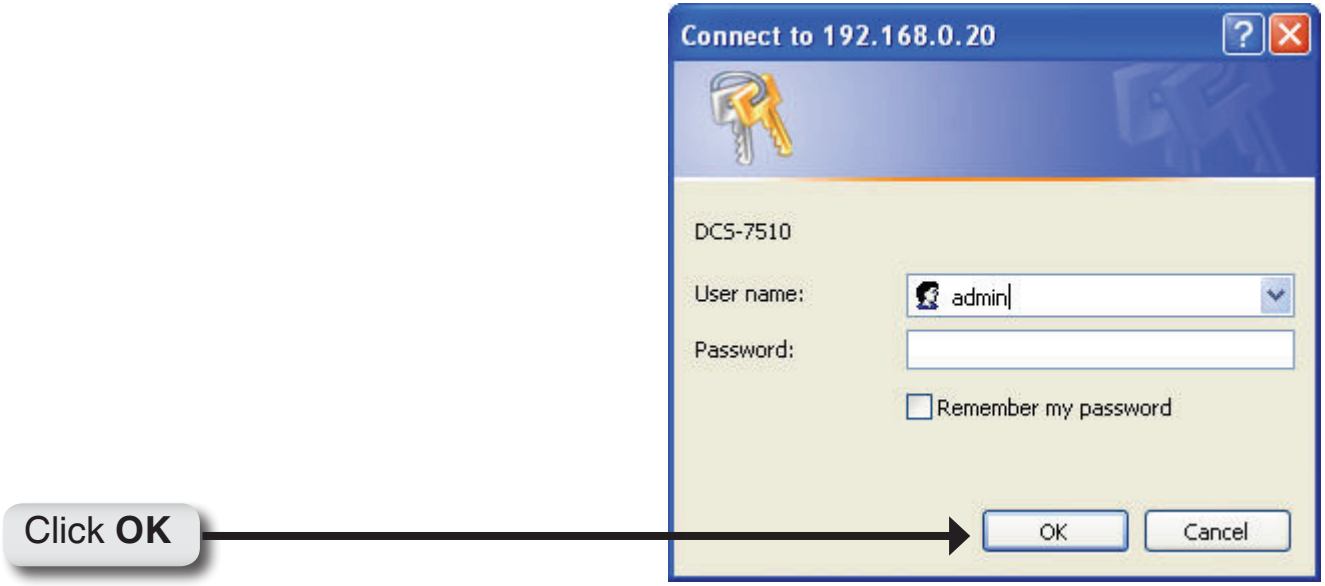
Click **Link**



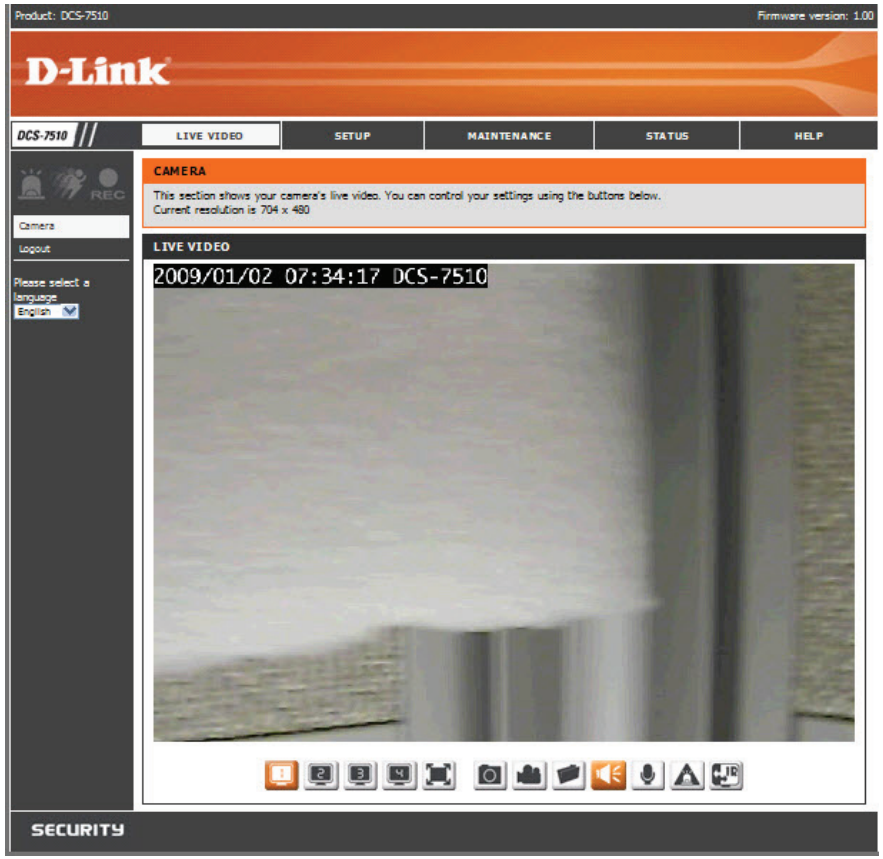
# Using the Configuration Menu

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-7510. At the end of the Setup Wizard, click **Go To Camera**, or enter the IP address of your camera into a web browser, such as Internet Explorer. To log in, use the User name **admin** and the password you created in the Installation Wizard. If you did not create a password, leave the password text box blank. After entering your password, click **OK**.

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



# Web-based Configuration Utility




Use the following sections to set up and configure your network camera:

- LIVE VIDEO
- SETUP
- MAINTENANCE
- STATUS
- HELP

# Live Video

## LIVE VIDEO > Camera

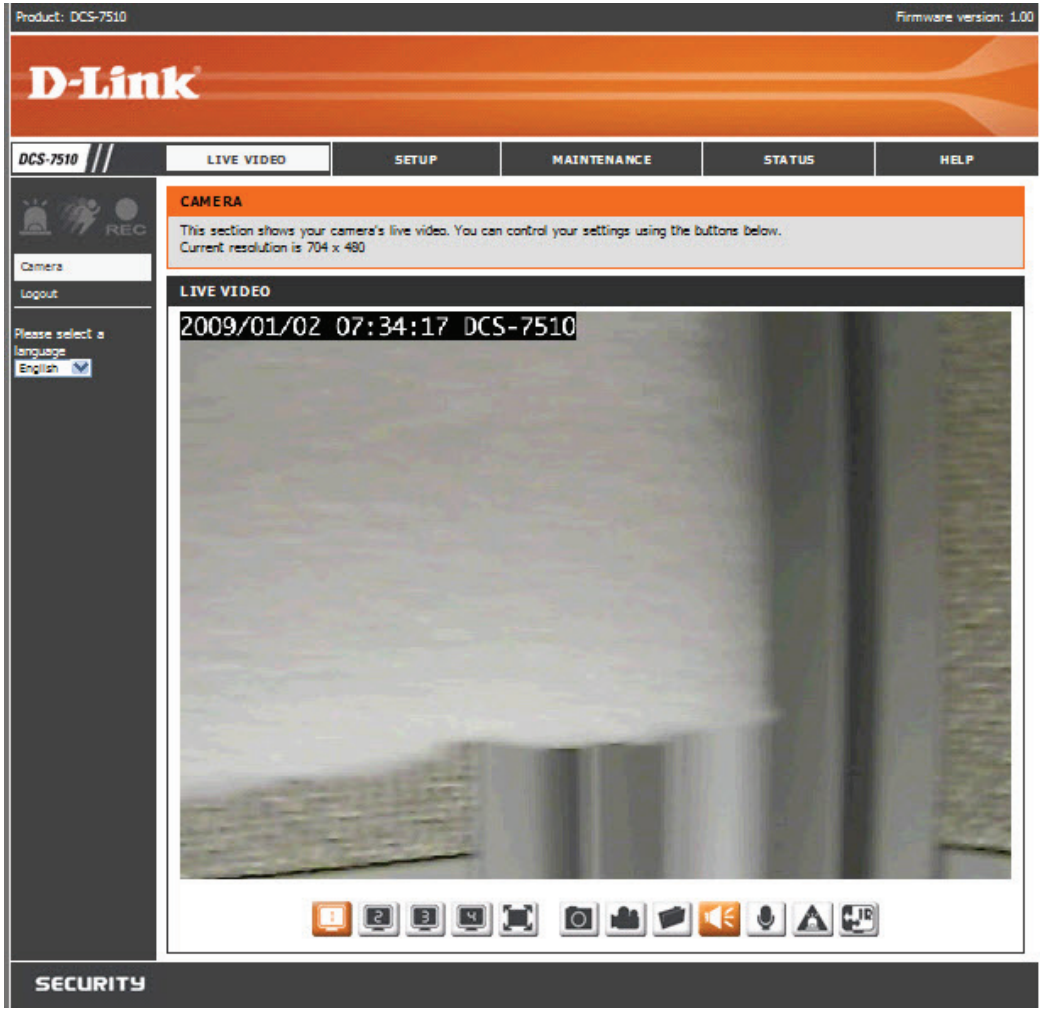
This section shows your camera's live video and event indicators. You can zoom in and out of the live video image using your mouse. Left-click to zoom in and right-click to zoom out on the image.

You may also select your language setting using the drop-down menu.

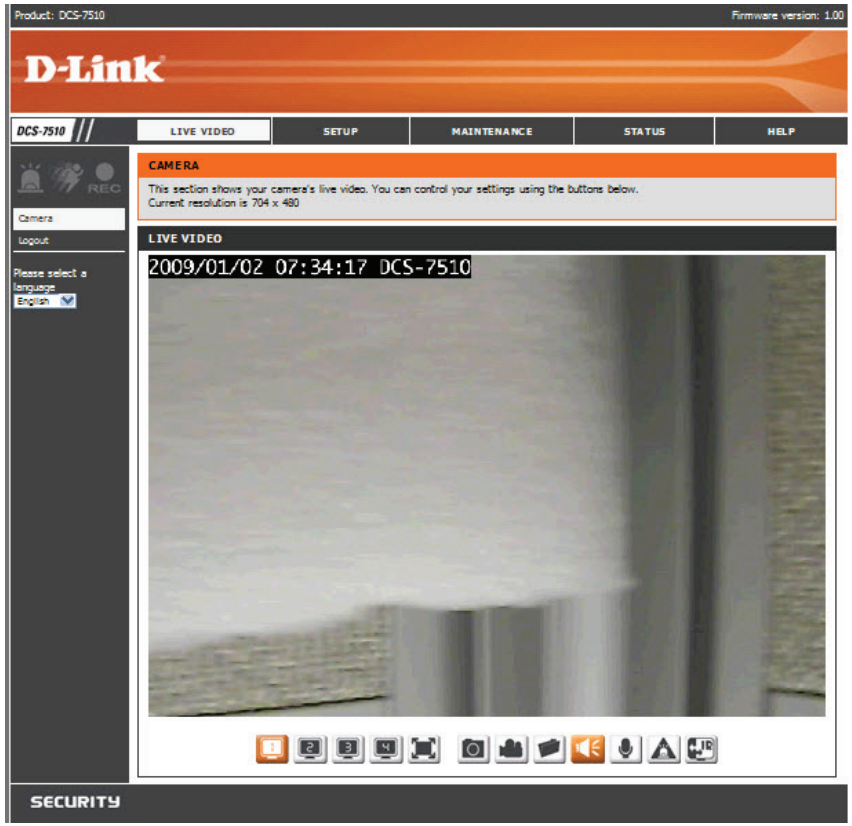
**Digital Input** This indicator will light up, when there is an available digital input signal.

**Motion Trigger** This indicator will light up, when an event is triggered.
**Note:** Ensure that the video motion feature of your camera is enabled.


**Recording** This indicator will light up, when a recording is in progress.



You can access various functions by clicking on the buttons at the bottom of the window:




**Video Profile:** There are four different viewing profiles, which you can configure in **Setup > Audio and Video**.

**Full Screen:** This allows you to view the video in full screen mode. To exit full screen mode, press the **ESC** key on your keyboard.

**Snapshot:** Click to capture a snapshot image. The image will pop up in a new window. You may save this image to a local hard drive.

**Record Video:** Clicking this button will start or stop recording video to the file path specified with the **Set Storage Folder** button.

**Set Storage Folder:** You can change the folder where the video recordings will be saved.

**Start/Stop Audio:** This button toggles the microphone on and off, allowing you to hear audio from the area surrounding your camera.

**Start/Stop Talking:** This button toggles the speaker on and off, allowing you to talk with others near your camera.

**Start/Stop Digital Output:** This will toggle the GP DO output on and off.

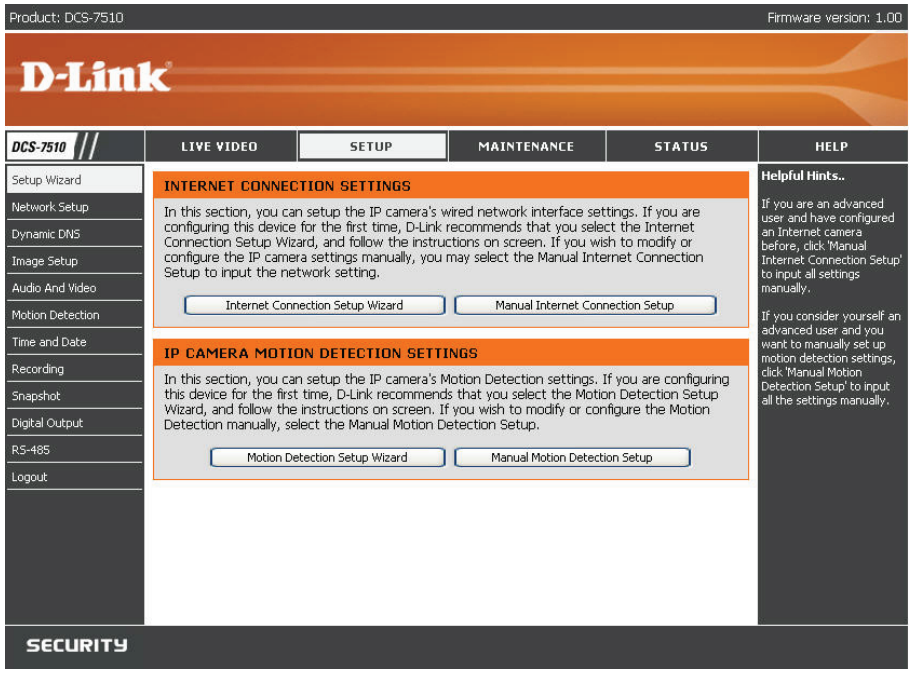
**IR LED ON/Off:** This button can enable/disable the IR LEDs under the low illumination environment. Note that the live video will turn to black and white mode when IR LEDs turned on.

# Setup

## SETUP > Setup Wizard

The setup wizard guides you through the initial setup of your IP camera. You can use the **Internet Connection Setup Wizard** for initial network setup, and you can use the **Motion Detection Setup Wizard** to set up motion detection and snapshots. Simply follow the instructions given in each step of the wizard to quickly set up your camera.

Alternatively, you can manually set up your Internet connection by clicking **Manual Internet Connection Setup**, and you can manually set up motion detection options by clicking on **Manual Motion Detection Setup**. You can also see these settings by clicking on the menu on the left panel (**Network Setup** / **Motion Detection** / **Snapshot**).



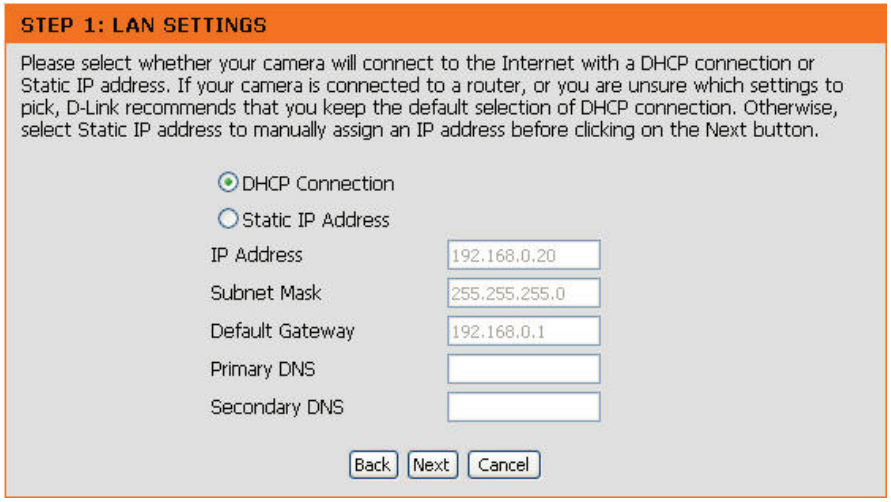

## Internet Connection Setup Wizard

This wizard will guide you through a step-by-step process to configure your LAN and Internet configuration.

Click **Next** to continue.

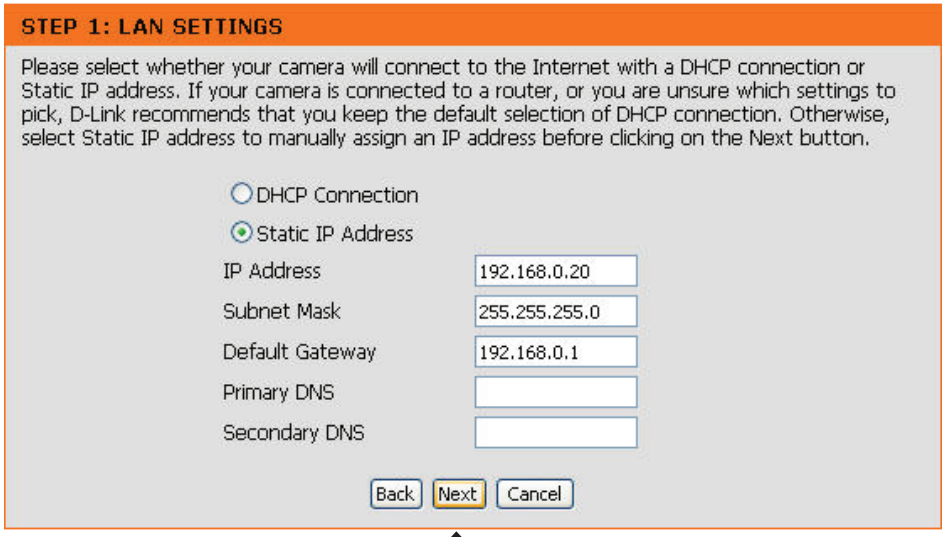

Click **Next**

Select **DHCP** if you are not sure which LAN settings to use. This allows your camera to get an IP address automatically from your router or Internet service.



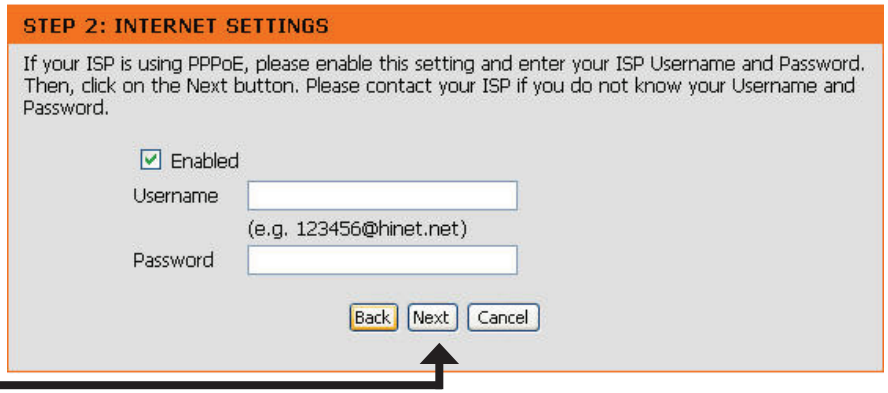

Click **Next**

Select **Static IP** to manually set the IP address information of your camera.



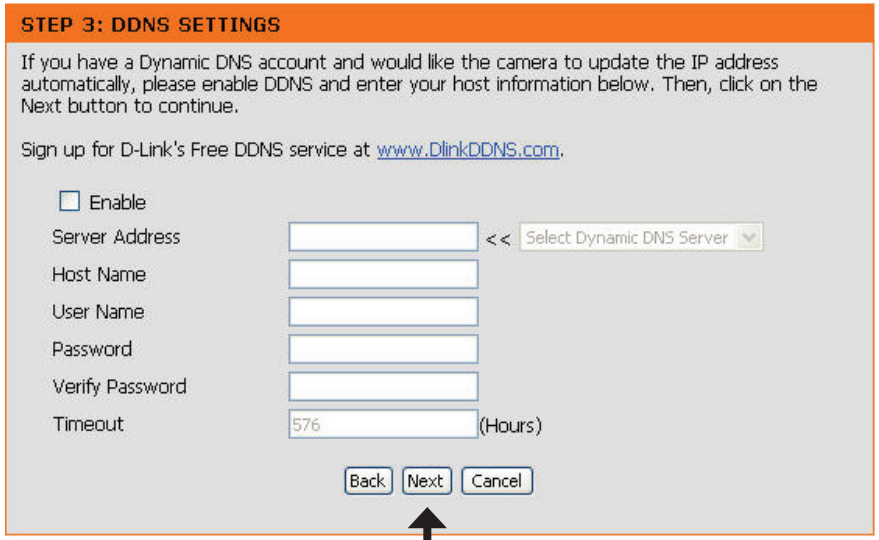

Click **Next**

If you are using a PPPoE connection, check **Enabled** and enter the **Username** and **Password** for your PPPoE account. You can get this information from your Internet service provider (ISP).




Click **Next**

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

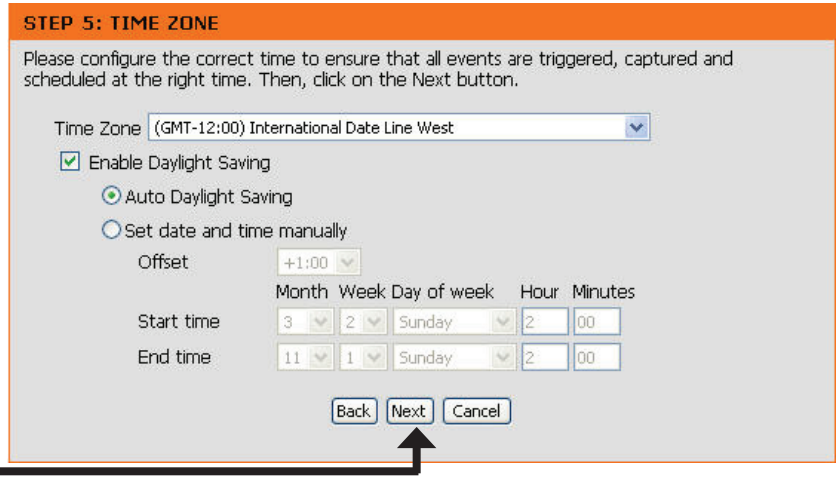



Click **Next**

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

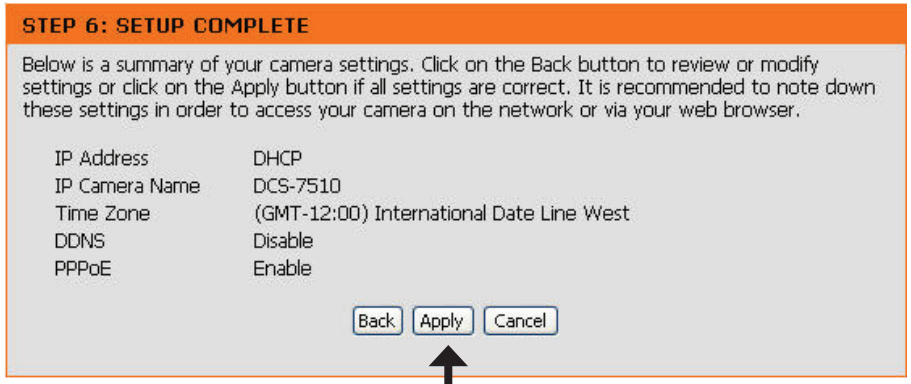

Click **Next**

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



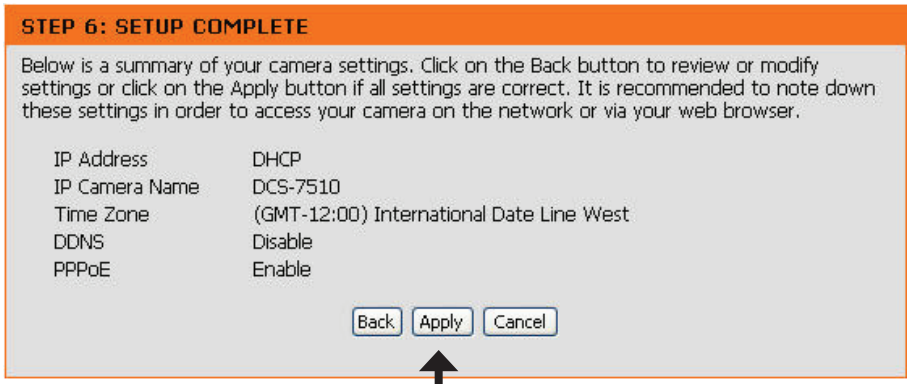

Click **Next**

If you selected **DHCP** mode, you will see the following screen appear. Please note down this information in order to access your camera on the network. Click **Apply** to save your settings.




Click **Apply**

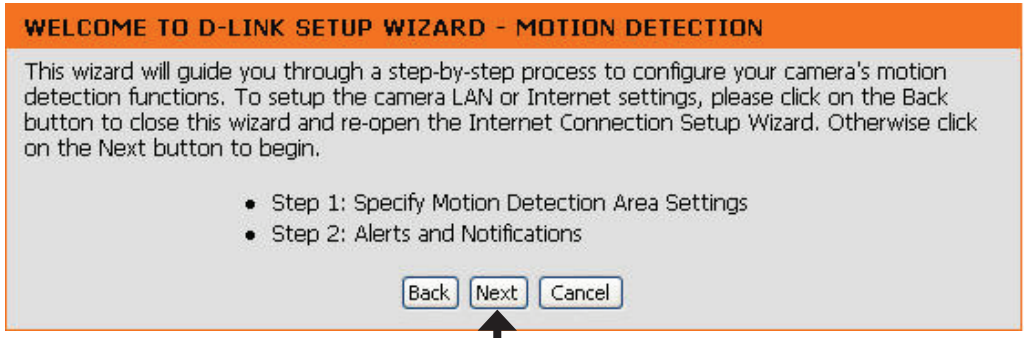
If you selected **Static IP** mode, you will see the following screen appear. Please note down this information in order to access your camera on the network. Click **Apply** to save your settings.




Click **Apply**

# Motion Detection Setup Wizard

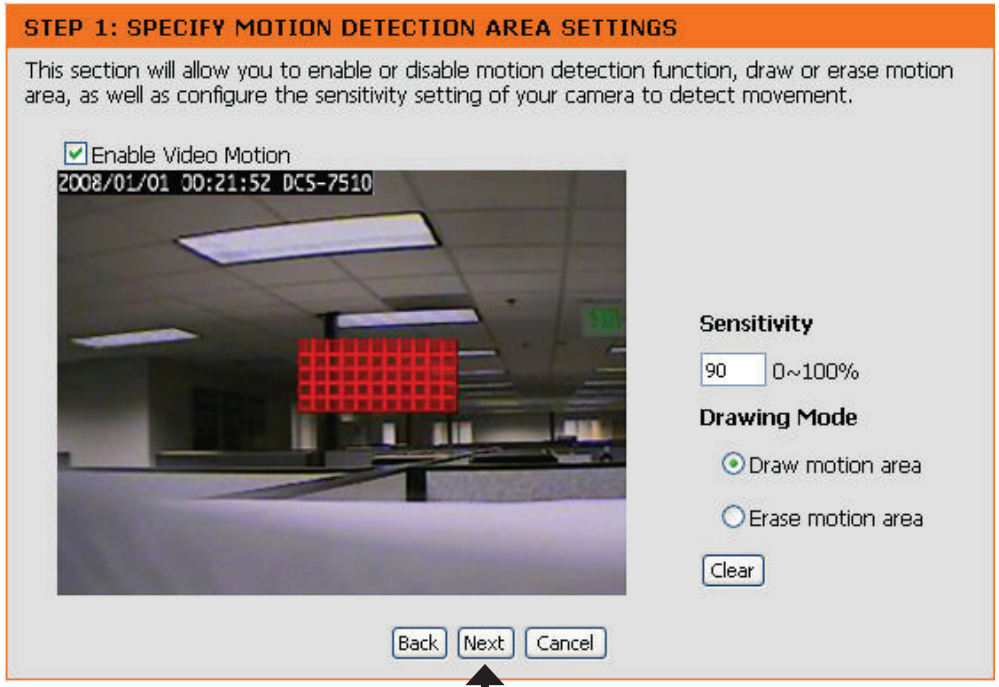
This wizard will guide you through a step-by-step process to set up **Motion Detection** on your IP camera. Click **Next** to continue.




Click **Next**

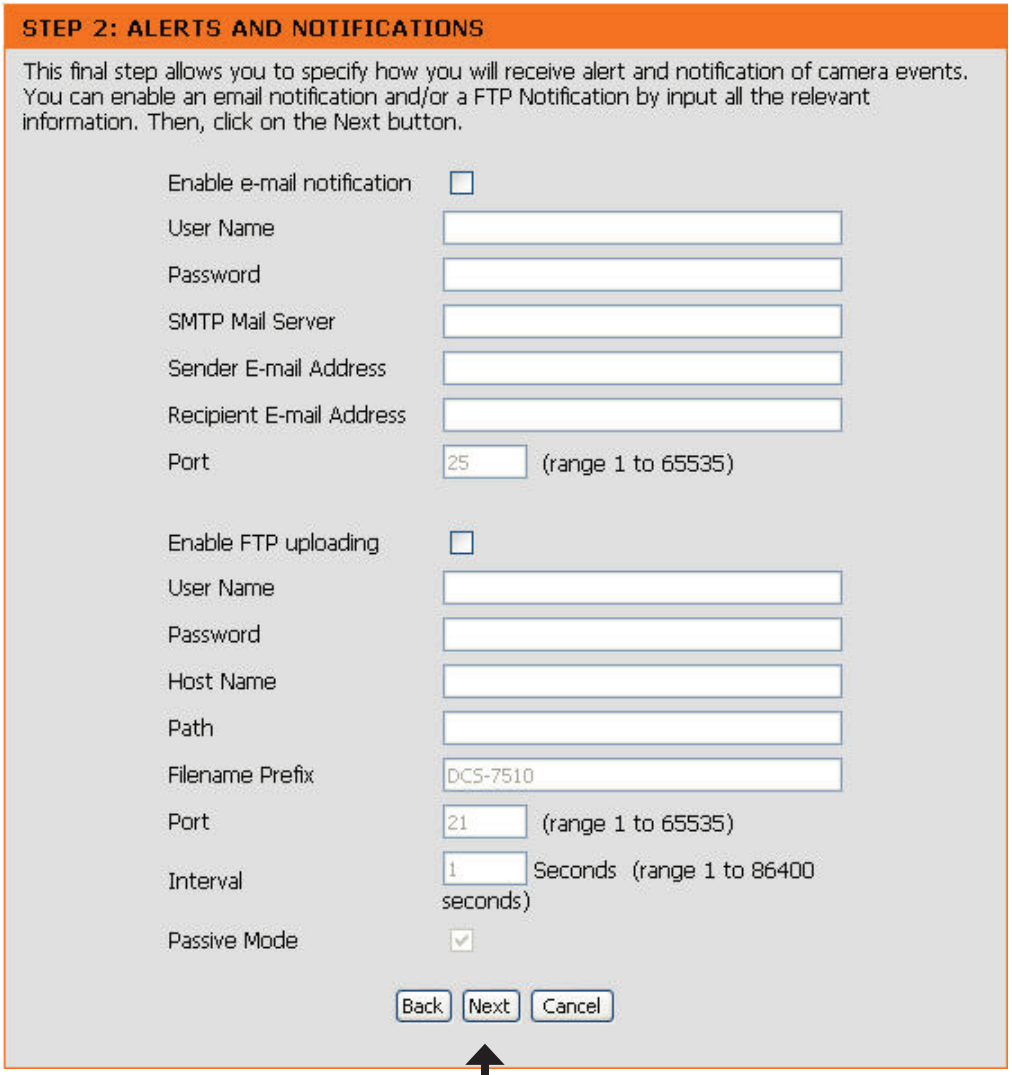
This step allows you to enable or disable video motion and control the sensitivity of your camera.

To draw a motion detection zone, select **Draw motion area**, then click and drag your mouse over the areas of the image you want to monitor for motion detection. You can select **Erase motion area** to remove areas, and you can also enter a **Sensitivity** for motion detection, where 0% is the least sensitive setting and 100% is the most sensitive setting. Click **Next** to continue.



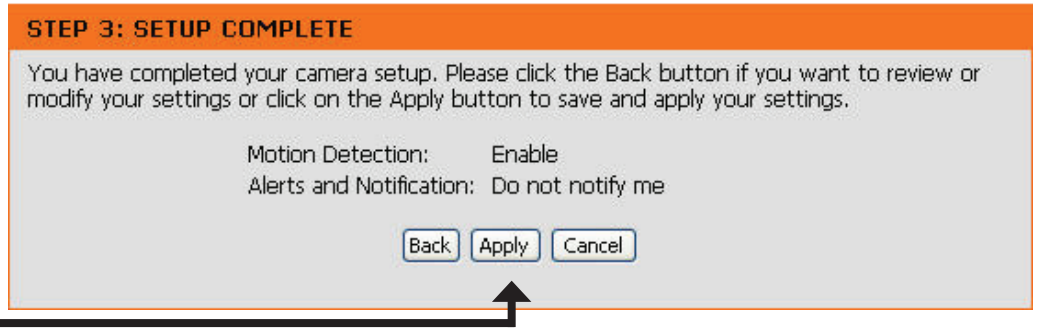

Click **Next**

This step allows you to specify how event notifications are sent from your camera, either through e-mail or FTP. Make sure you enter all the relevant information for your e-mail account or FTP server. Click **Next** to continue.




Click **Next**

You have completed the **Motion Detection Wizard**. Click **Apply** to activate your settings.




Click **Apply**

# SETUP > Network Setup

**Network Setup** allows you to configure your LAN and Internet settings.

**DHCP:** Select this to allow your camera to get an IP address automatically from your router or Internet service. If you are not sure which LAN settings to use, try using DHCP mode first.

**Connection:** Select this to manually set the IP address information for your camera.

**Static IP Address:** Enter the IP address the camera should use.

**IP Address:** The fixed IP address.

**Subnet Mask:** Enter the subnet mask that the camera should use. The default value is “255.255.255.0. This option is used to determine if the destination is in the same subnet.

**Default Gateway:** Enter the default gateway that the camera should use. The gateway is used to forward frames to destinations in a different subnet. Invalid gateway settings may cause transmission failure.

**Primary DNS:** Enter the IP address of the primary DNS server that the camera should use. The primary DNS translates domain names to IP addresses.

**Secondary DNS:** Enter the IP address of the secondary DNS server that the camera should use. The secondary DNS is used as a backup for the primary server.


**Note:** If you need to use a static IP address and you do not know the network information, contact your Internet Service Provider (ISP) for assistance.

**Enable UPnP:** Universal Plug & Play (UPnP) allows Windows PCs to find this camera under “Network Neighborhood” without configuration.

**Enable UPnP port forwarding:** Enables your camera to add port forwarding entries into the router automatically.

**Enable PPPoE:** Select this option if you are using a PPPoE service and enter the **User Name** and **Password** for your PPPoE account. You can get this information from your Internet service provider (ISP).

**HTTP port:** This is the port that allows the user to connect to the camera’s
user interface. By default the port is set to 80. You may change the port number if using multiple cameras.

**RTSP port:** This is the port that you use for RTSP streaming to mobile devices or PDAs. By default the port is set to 554. You may change the port number if using multiple cameras.


Click **Save Settings** to save your changes, or click **Don’t Save Settings** to discard your changes.

**Note:** Make sure you set up your router/gateway for Port Forwarding/Mapping; this will enable remote viewing of your camera via the Internet. Please refer to your router’s instruction manual on how to forward ports.

# SETUP > Dynamic DNS

If you have a DSL or Cable service provider that changes your modem IP address periodically, Dynamic DNS (Domain Name System - a method of keeping a domain name linked to a dynamic IP address) is useful. With the DCS-7510, you can set up your DDNS service and the camera will automatically update your DDNS server every time it receives a different IP address. Depending on the service, this update may take up to a few hours.

**Enable DDNS:** Select to enable the DDNS function of the camera.

**Server Address:** Select a DDNS service provider from the drop-down box or manually enter your server address.

**Host Name:** Enter the Host Name of the DDNS service.

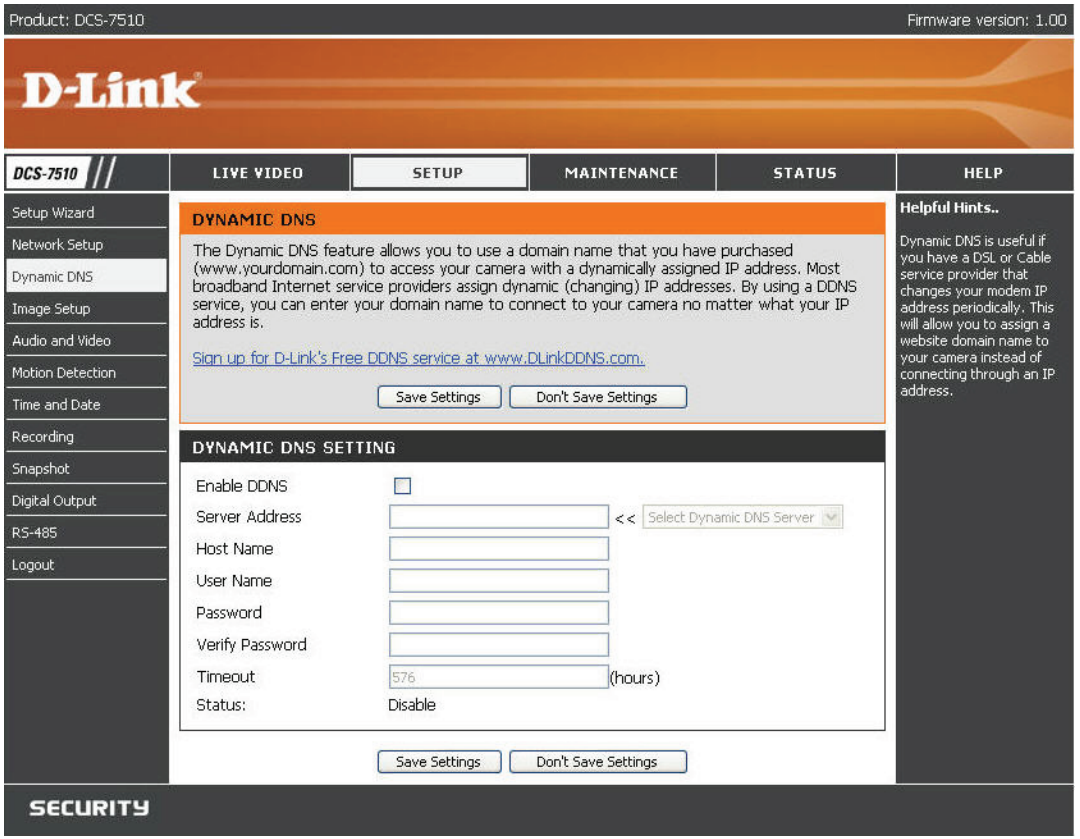
**User name:** Enter your User Name for the DDNS service.

**Password:** Enter the password for the DDNS service.

**Verify Password:** Re type the password for the DDNS service.

**Timeout:** This sets the number of hours between DDNS updates.

**Status:** Indicates the current connection status of your camera to your DDNS service.




Click **Save Settings** to save your changes, or click **Don't Save Settings** to discard your changes.

# SETUP > Image Setup

**Image Setup** allows you to adjust the settings for your video image. A preview of this image will be shown in the live video window in the middle of the screen.

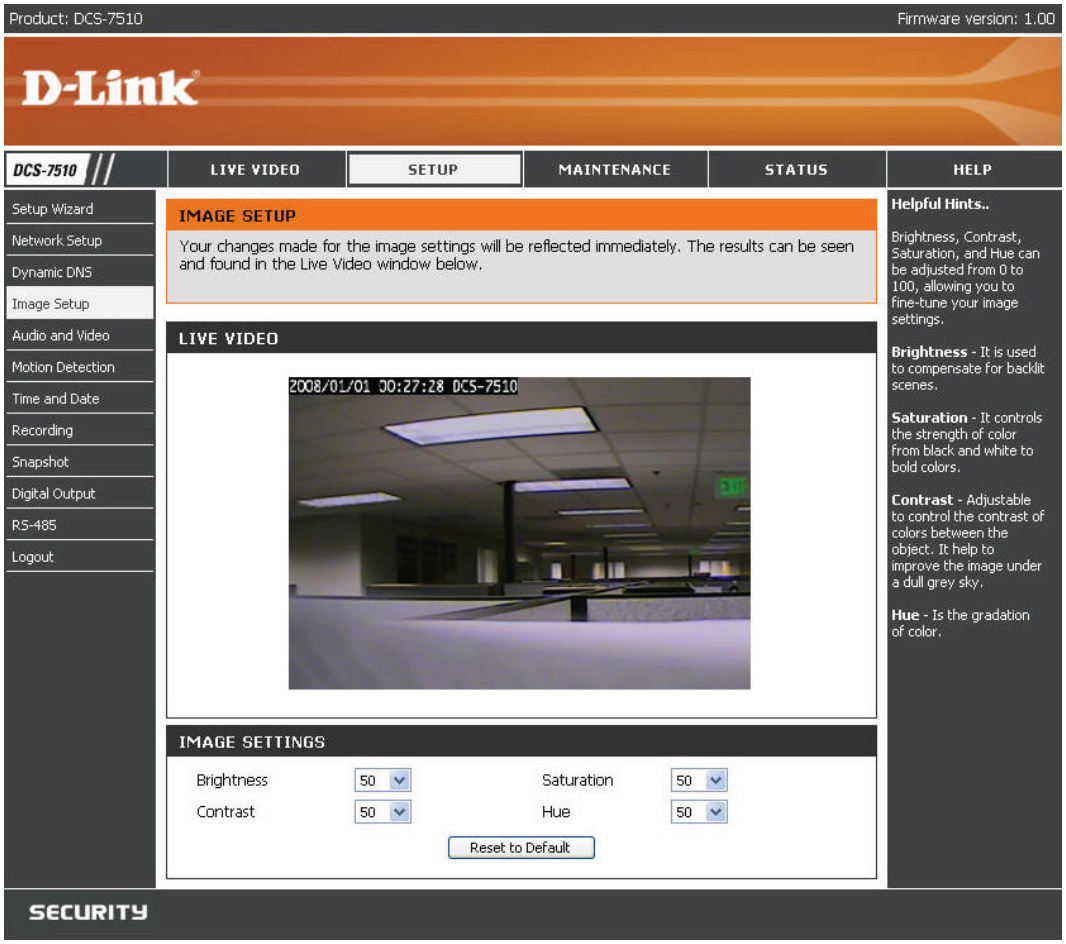
**Brightness:** This adjusts the brightness of the camera image.

**Saturation:** This adjusts the color saturation of the camera image.

**Contrast:** This adjusts the contrast of the camera image.

**Hue:** This adjusts the color tone of the camera image.

Click **Reset to Default** to reset your settings.



# SETUP > Audio and Video

**Audio and Video** allows you to configure four video profiles with different settings for your camera. You may also set up different profiles for your computer and mobile display. In addition, you may configure the audio (speakers and microphone) settings for your camera.

**Encode Type:** This sets the video codec used for the video stream. You can choose MPEG-4 or MJPEG (JPEG). Internet Explorer browsers can view both MPEG-4 and MJPEG video streams, and non-IE browsers can only view MJPEG video streams.

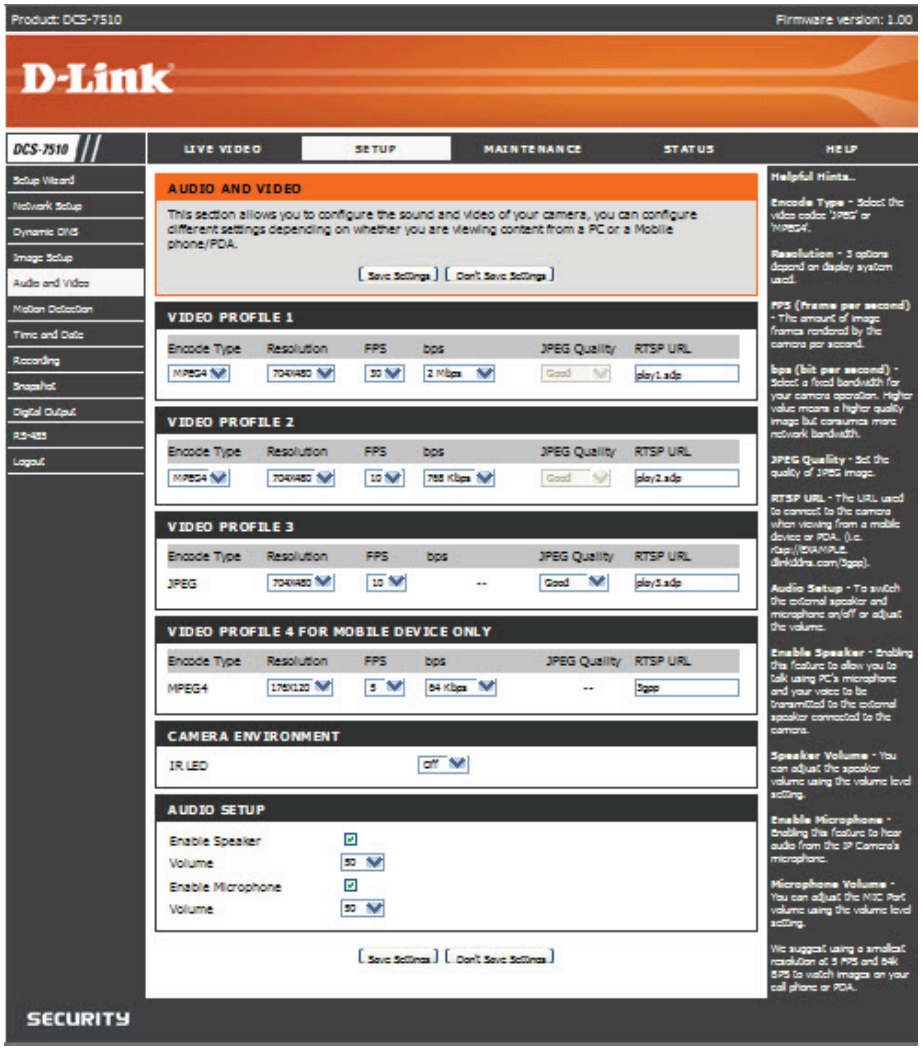
**Resolution:** This sets the display resolution of the video stream. The following options are:

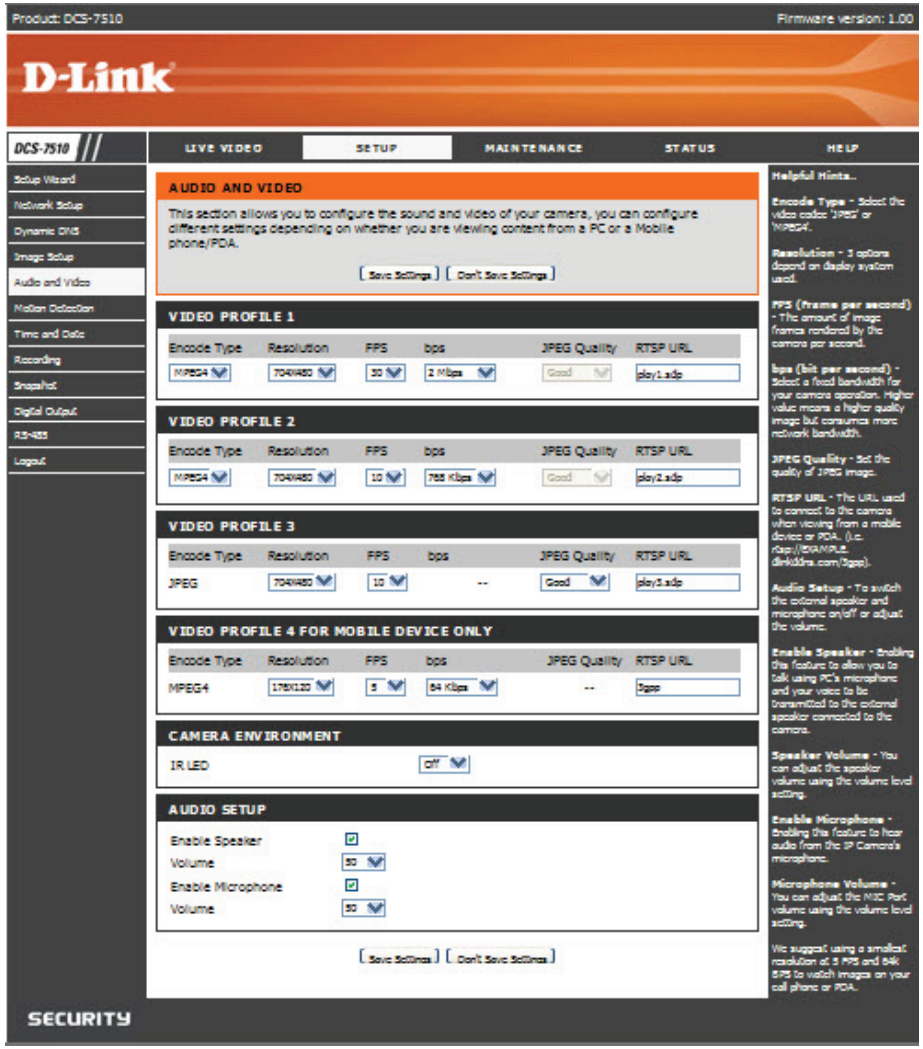
- QQVGA@176x120 - Usually set for handheld devices.
- QVGA 352x240 - Standard setting for viewing from mobile phones and PDAs.
- VGA@704x480 - Standard setting for viewing from a PC.

**FPS:** This sets the target number of Frames Per Second (FPS) for the video stream. Higher frame rates will provide smoother video.

**BPS:** This sets the target bitrate of the video stream. Higher bitrates will provide better quality video.

**JPEG Quality:** This sets the JPEG quality of any manual snapshots you take when this video profile is selected.






**RTSP URL:** This setting allows you to set a suffix for your camera's RTSP URL so you can view your camera's video with this video profile's settings. For example, if you enter "mpeg4" as your RTSP URL setting and your camera's IP is 192.160.0.20, you can view your camera's video with these settings through 192.160.0.20/mpeg4.

**IR LED:** You can setup the IR LED to auto or manual.

- Auto – Camera sensor will auto turn on/off when the sensor detect the environment is in low illumination.
- On/Off – User can turn On/Off the built-in IR LEDs. This function is very useful under low illumination environment. Note that the live view will turn to black and white mode when IR LEDs turned on.

**Enable Speaker:** Checking this box will enable you to send audio to an external speaker (not included) attached to the external speaker jack of your camera. This will allow you to speak with another person through your camera.

**Volume:** This sets the volume level of the external speaker.

**Enable Microphone:** Checking this box will enable you to listen to audio picked up by the microphone. This will allow you to hear what is happening near your camera.

**Volume:** This sets the volume level of the incoming audio.

**Note:** Higher frame size, frame rate and bit rates will give you better video quality, but they will also require more network bandwidth. For best viewing results on a mobile phone, we suggest setting the Frame Rate to 5 fps and bps to 20 Kbps.

Click the **Save Settings** to save your changes, or click **Don't Save Settings** to discard your changes.

# SETUP > Motion Detection

This option allows you to set up **Motion Detection** on your IP camera. In order to use motion detection, you must first check the **Enable Video Motion** checkbox. You can then click on the video window and draw motion detection zones by clicking and dragging your mouse. Red areas indicate areas that will be monitored for motion.

**Enable Video Motion:** Select to turn on the motion detection feature of your camera.

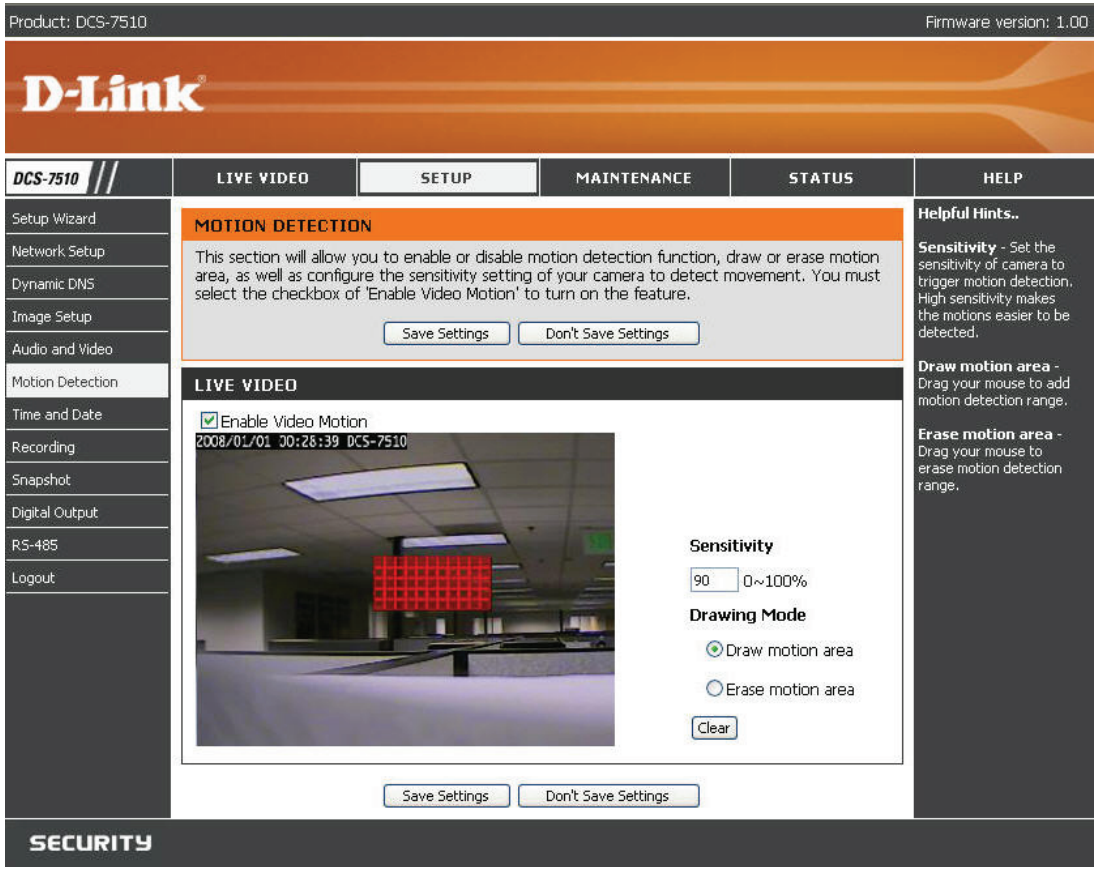
**Sensitivity:** This setting adjusts how sensitive the camera will be to motion, where 100% will be the most sensitive setting and 0% will be the least sensitive setting.

**Draw motion area:** Select to draw motion detection area by dragging your mouse in the window ( as indicated by the red box).

**Erase motion area:** Select to erase your motion detection area by dragging your mouse in the window.

**Clear:** Click this button to clear all motion detection areas.

Click **Save Settings** to save your changes, or click **Don't Save Settings** to discard your changes.



# SETUP > Time and Date

**Time and Date** allows you to configure, update and maintain the internal system clock for your camera. You can manually set your time zone from the drop-down box or automatically synchronize your time using **Network Time Protocol** (NTP) server.

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

**Enable Daylight Saving:** Select to enable daylight saving time.

**Auto Daylight Saving:** This option allows your camera to automatically configure the **Daylight Saving** setting.

**Set date and time manually:** Select to manually configure the **Daylight Saving** date and time.

**Offset:** Select to adjust the **Daylight Saving** offset time that will be used.

**Synchronize with NTP Server:** Select to allow the camera to automatically synchronize its clock with an NTP server.

**NTP Server:** Network Time Protocol (NTP) synchronizes the DCS-7510 with an Internet time server. Choose the one that is closest to your location.

**Set date and time manually:** Select to manually set the time and date. You can then use the drop-down boxes to select the current **Year**, **Month**, **Day**, **Hour**, **Minute**, and **Second**.

You can also click **Copy Your Computer's Time Settings** to automatically fill in the drop-down boxes with the current time and date from your computer.

# SETUP > Recording

**Recording** allows you to configure recording settings and scheduling.

**Enable Recording:** Select to enable the recording feature.

**Samba Auth:** Select **Anonymous** if no user name or password is required to access your Samba drive. If you require a user name and password to log in to your Samba drive, select Account and fill in the following information:

**User name:** Enter the user name required to access your Samba drive.

**Password:** Enter the password required to access your Samba drive.

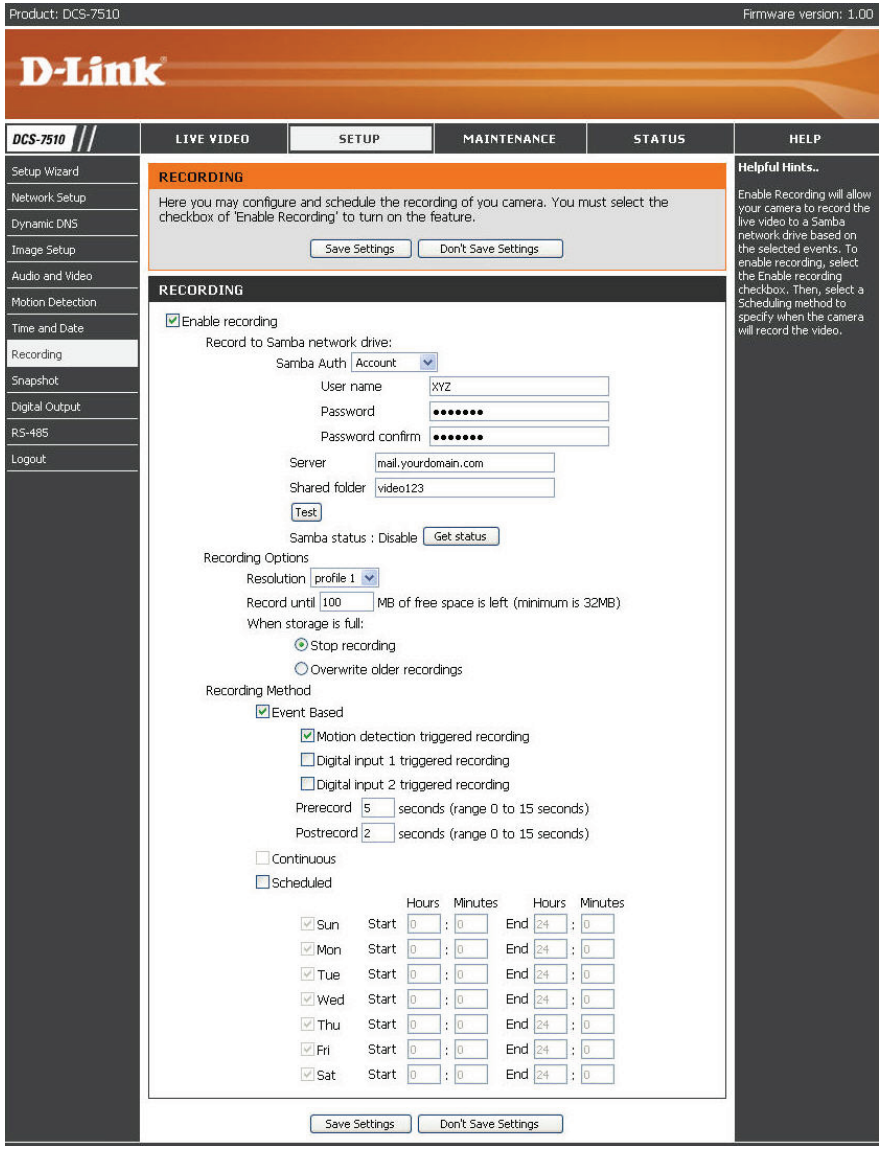
**Password confirm:** Re-enter the password required to access your Samba drive for verification.

**Server:** Enter the name or the IP of the server where your Samba drive is located.

**Shared Folder:** Enter the name of your shared folder.

**Test:** Click this button to test the connection of the Samba network drive.

**Samba status:** Displays the connection status which is determined by the system. Click **Get Status** to refresh the status.



## Recording Options

**Resolution:** Select the pre-defined profile you wish to use to record video.

**Record until:** Select to adjust how much free space must remain when recording. It is suggested that you set this to at least 32MB to allow for enough buffer space for the camera to record with.

**When Storage is full:** When your storage device is full or has reached the free space limit specified in **Record until**, you can choose to stop recording, or you can have the camera delete old recordings to free space for new recordings to be saved.

**Event Based:** Allow you to record video when specific events happen.

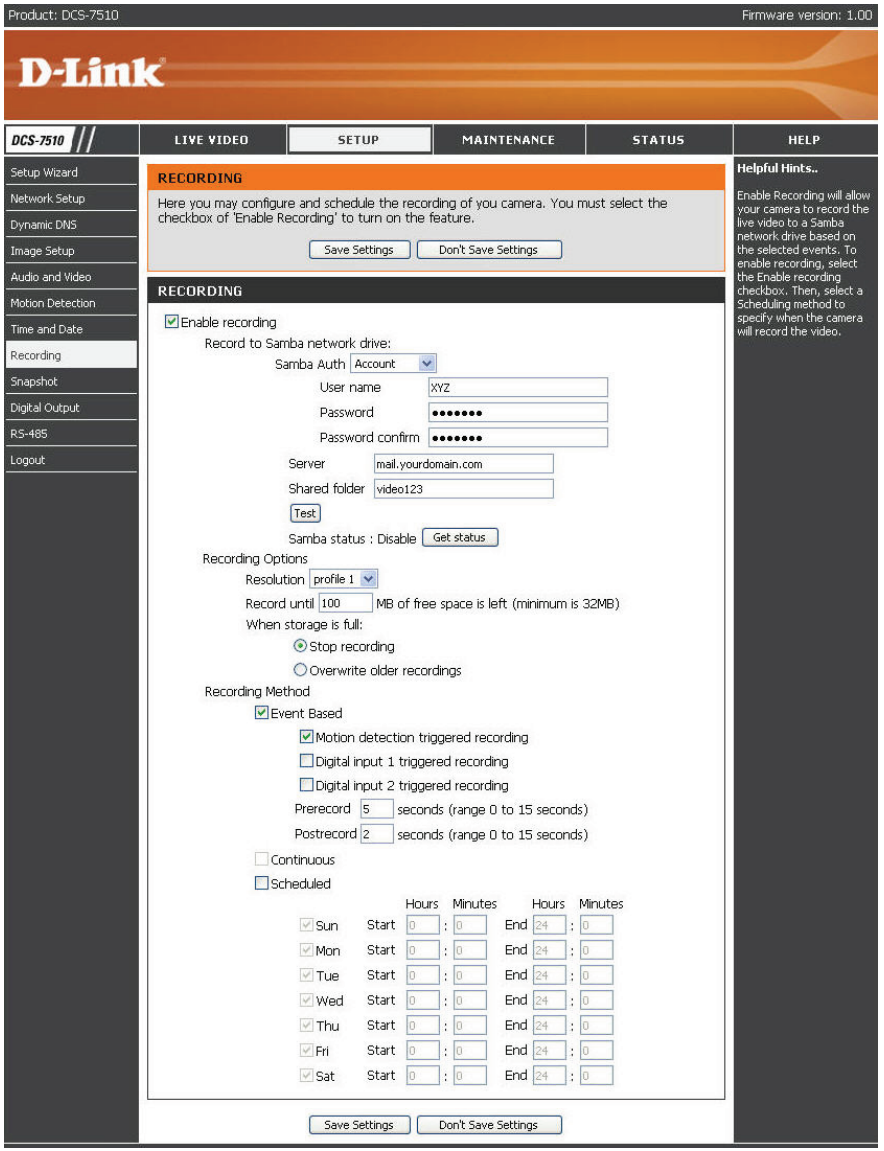
**Motion detection triggered recording:** Enabling this option will set the camera to record video when motion is detected by the camera.

**Prerecord:** Preset amount of time before motion recording is triggered.

**Postrecord:** Preset amount of time after motion recording is triggered. **Example:** Using motion detection triggered recording and setting Prerecord to 5 seconds and Postrecord to 9 seconds, the camera will save video from 5 seconds before motion was detected to 9 seconds after motion was detected.

**Continuous:** This will set the camera to record continuously.

**Scheduled:** Select to manually configure the start and end time for recording.




Click **Save Settings** to save your changes, or click **Don't Save Settings** to discard your changes.

# Creating a Samba network drive for saving video

Follow the instructions below to create a simple Samba network drive on your Windows PC.

1. Right-click on a folder and select **Sharing and Security** and then select **Share this folder**.

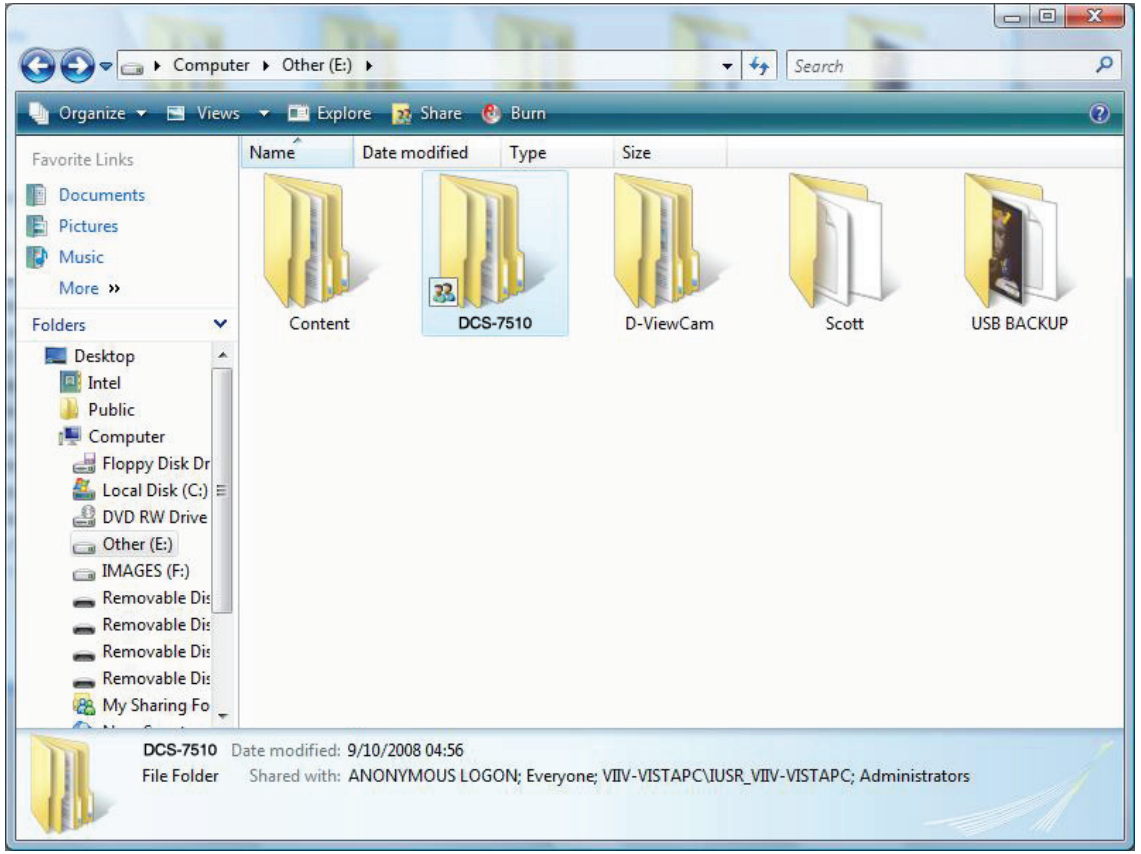
2. Enter a Share name you would like to use for the folder, then click **Permissions**.

3. Check the **Full Control / Allow Everyone** group box.

4. For your camera's **Recording** settings, select **Anonymous** for the **Samba Auth**, your computer's IP address for the **Server**, and the Share name you chose for the **Shared Folder**.

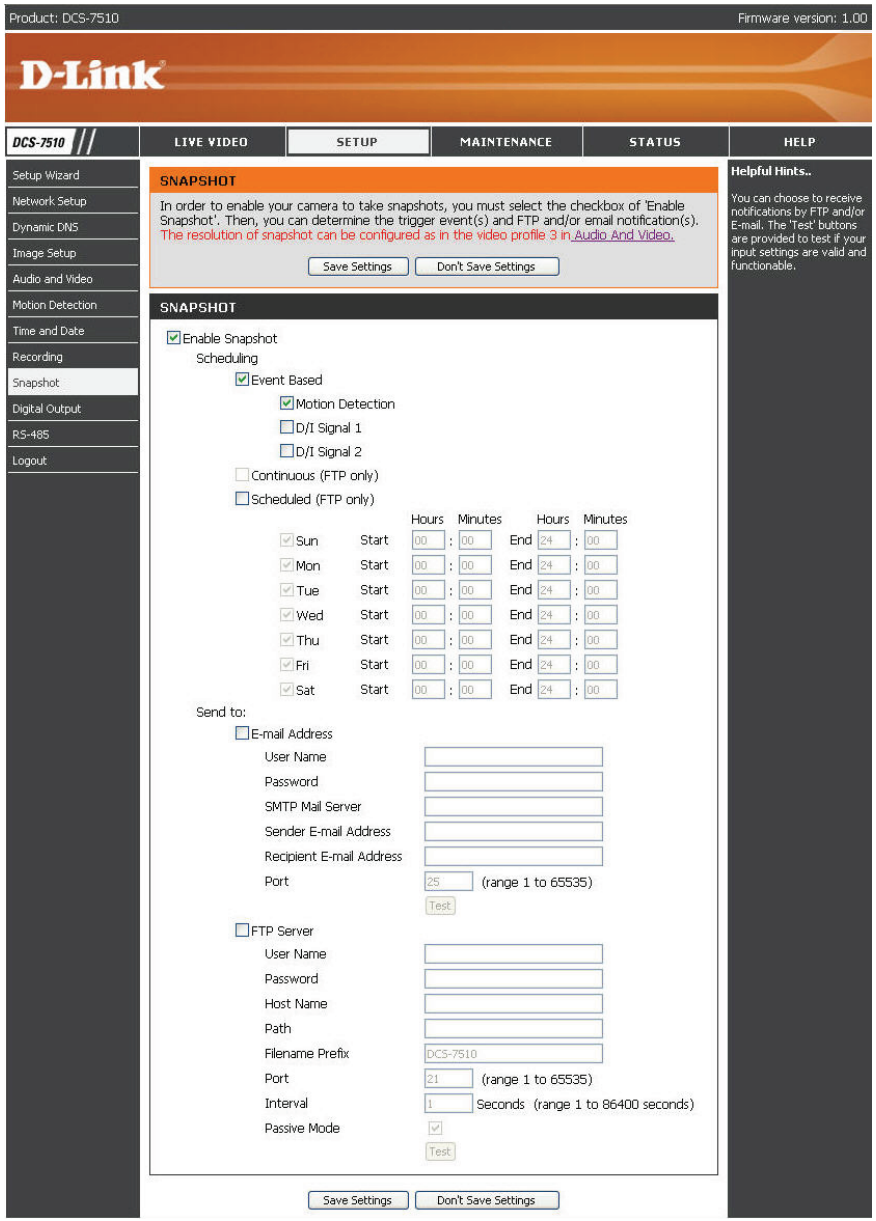
5. Click **Test** to test your connection.

Click **Save Settings** to save your changes, or click **Don't Save Settings** to discard your changes.



# SETUP > Snapshot

**Snapshot** enables your camera to take snapshots when motion is detected. Snapshots can be sent to an e-mail address and/or to an FTP server.




**Enable Snapshot:** Check this box to enable the snapshot feature.

**Event Based:** Select one or more events to trigger a snapshot, such as Motion Detection, D/I Signal 1 and D/I Signal 2.

**Continuous (FTP only):** This will set the camera to take snapshots continuously at intervals specified in **FTP Server > Interval** below. You can only save to an FTP server when taking continuous snapshots.

**Scheduled (FTP only):** This will set the camera to take snapshots continuously at intervals specified in **FTP Server > Interval** below according to schedule you define by checking days and entering the times you want to record between. You can only save to an FTP server when taking scheduled snapshots.

**E-mail Address:** The camera will send the snapshots to the e-mail address specified in the following text boxes. If you do not know what to enter for the **User Name**, **Password**, or **SMTP Mail Server**, contact your e-mail service provider for details.

**User Name:** Enter the username or login name for your e-mail account.

**Password:** Enter the password for your e-mail account.

**SMTP Mail Server:** Enter the SMTP server for your e-mail account.

**Sender E-mail Address:** Enter the e-mail address you want to appear as the "From:" e-mail address in the snapshot e-mail.

**Recipient E-mail Address:** Enter the e-mail address you want to send your snapshots to.

**Port:** Enter the port used by your SMTP server.

**Test:** Click this button and the camera will take a snapshot and then will try to upload it to your FTP server using the settings you have entered.

**FTP Server:** When selected, the camera will send the snapshots it takes to the e-mail address specified in the text fields. If you do not know what information to enter, contact the administrator of the FTP server for details.

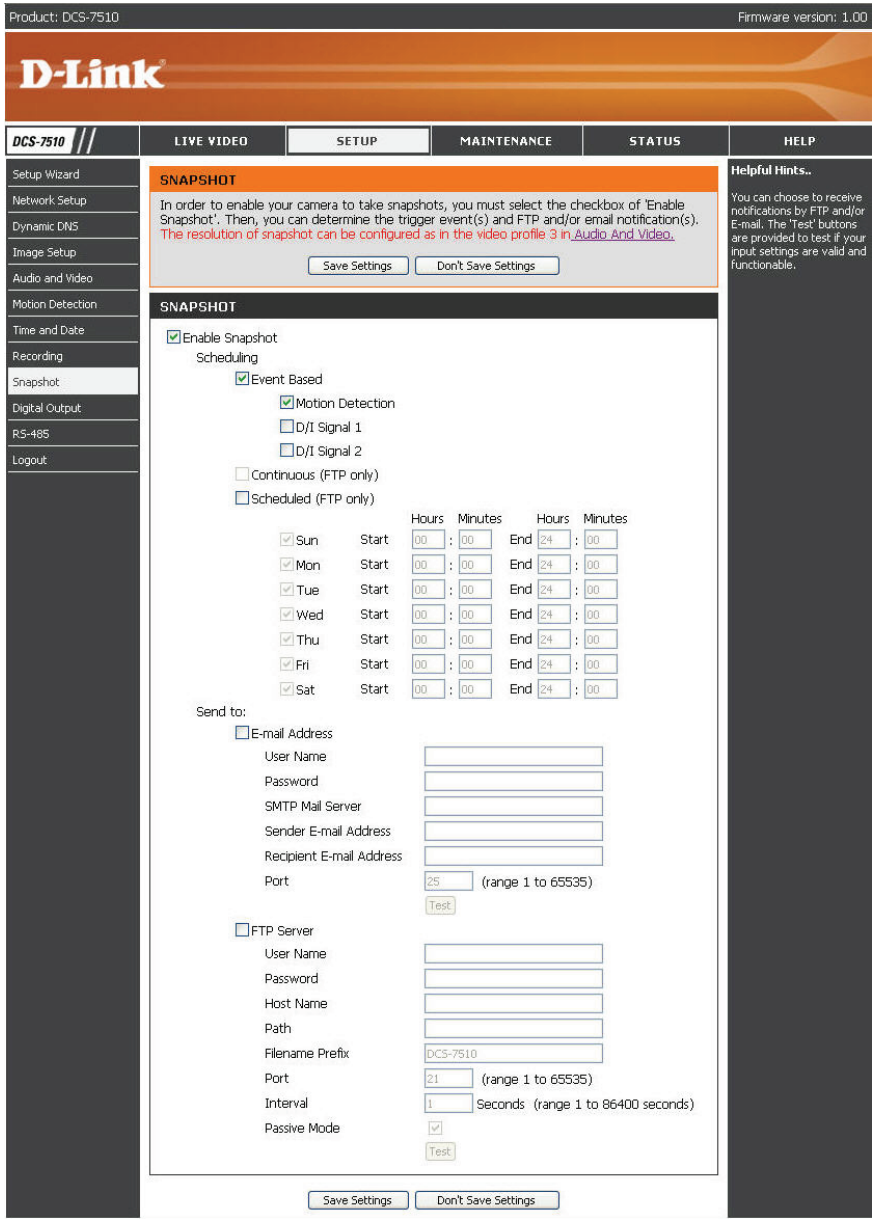
**Host name:** Enter the host name of your FTP account.

**Path:** Enter the directory or path where the images will be uploaded to (for example: \pub\images).

**Prefix Filename:** Enter the prefix you want to attach to your snapshot files.

**Port:** Enter the port used by the FTP server. The default port is 25.

**Passive mode:** If your FTP server requires you to use passive mode, check this box. Some FTP servers allow clients to use passive mode when connecting to an FTP. The server uses random ports for transfer.




Click **Save Settings** to save your changes, or click **Don't Save Settings** to discard your changes.

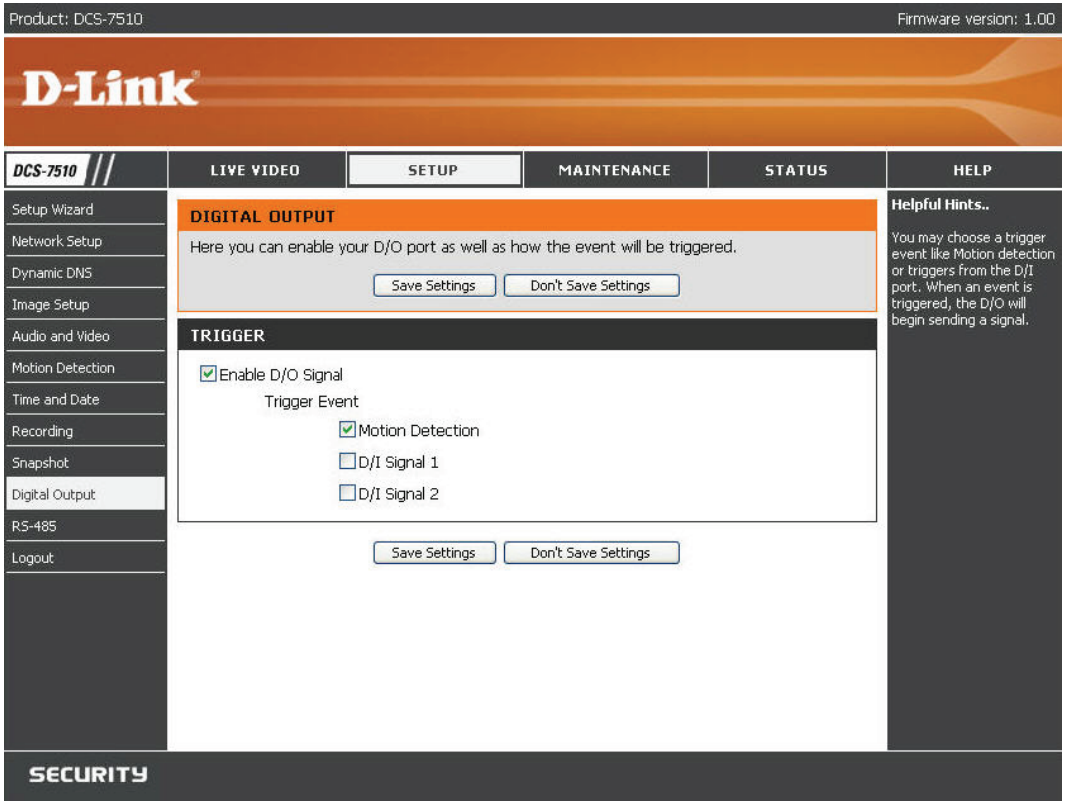
# SETUP > Digital Output

**Digital Output** (**DO**) feature enables you to configure your DO port to send signals whenever certain events occur.

**Enable D/O signal:** This enables the D/O to send a signal when there is a triggered event.

**Trigger Event:** Use the checkboxes to configure the camera to send a signal through the D/O port whenever motion is detected, or when a signal is detected on D/I port 1 or D/I port 2.

Click **Save Settings** to save your changes, or click **Don't Save Settings** to discard your changes.



# SETUP > RS-485

You may configure the **RS-485** settings or communication specifications (baud rate, data bit, stop bit, and parity bit) for your camera. RS-485 is a serial communication method for computers and devices. For your camera, RS-485 is used to control a PAN/TILT device, such as an external camera enclosure to perform PAN and TILT movement.

**Support PAN-TILT:** Once you enable this feature, a control panel will be displayed on the **Live Video** window that provides control over an external camera enclosure through the RS-485 signals.

**Protocol:** Select the protocol type from the drop-down box.

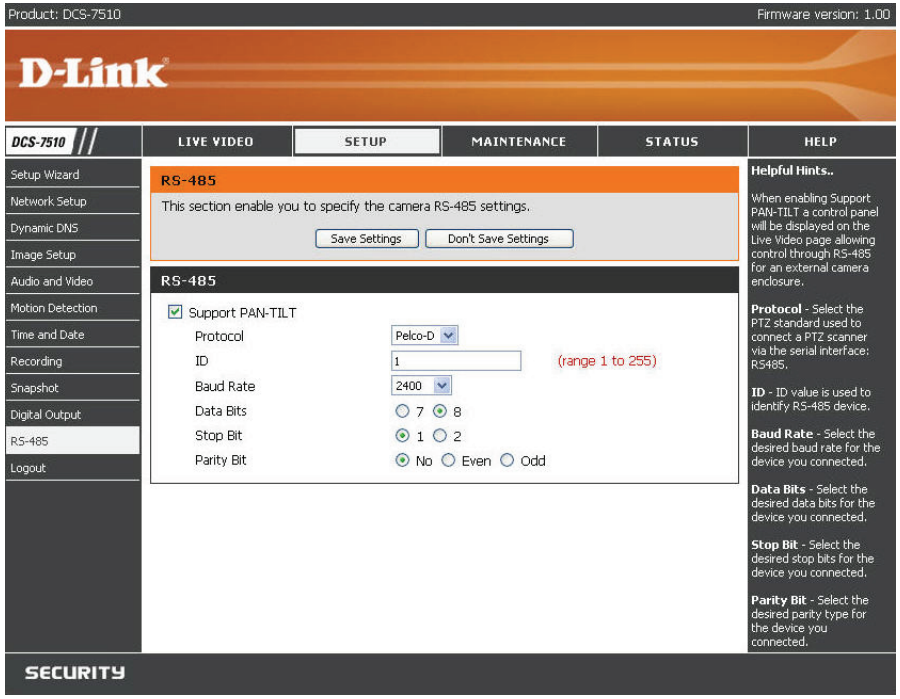
**ID:** This is the identifier for each RS-485 device. The ID range is from **1** to **255**.

**Baud Rate:** Enter the **Baud Rate** settings required by your RS-485 equipment. If you are not sure what settings to use, check your RS-485 equipment's User Manual. The default value is **2400**. The range is from **2400** to **38400** bps.

**Data Bit:** Enter the **Data Bit** settings required by your RS-485 equipment. If you are not sure what settings to use, check your RS-485 equipment's User Manual. The default value is **8**.

**Stop Bit:** Enter the **Stop Bit** settings required by your RS-485 equipment. If you are not sure what settings to use, check your RS-485 equipment's User Manual. The default value is **1**.

**Parity Bit:** Enter the **Parity Bit** settings required by your RS-485 equipment. If you are not sure what settings to use, check your RS-485 equipment's User Manual.
For example, if the data is 011, for even parity, the parity bit is 0 to keep the number of logic-high bits even. If the parity is odd, the parity bit is 1, resulting in 3 logic-high bits.




Click **Save Settings** to save your changes, or click **Don't Save Settings** to discard your changes.

# MAINTENANCE > Admin

Here, you can modify the Admin password and manage users. You can also use this section to configure the OSD settings for your camera.

**Admin Password Setting:** This section lets you change the admin password used to log in to the camera and adjust settings. After installing the camera for the first time, it is highly recommended that you change the admin password for security purposes.

**New Password:** Enter the new admin password.

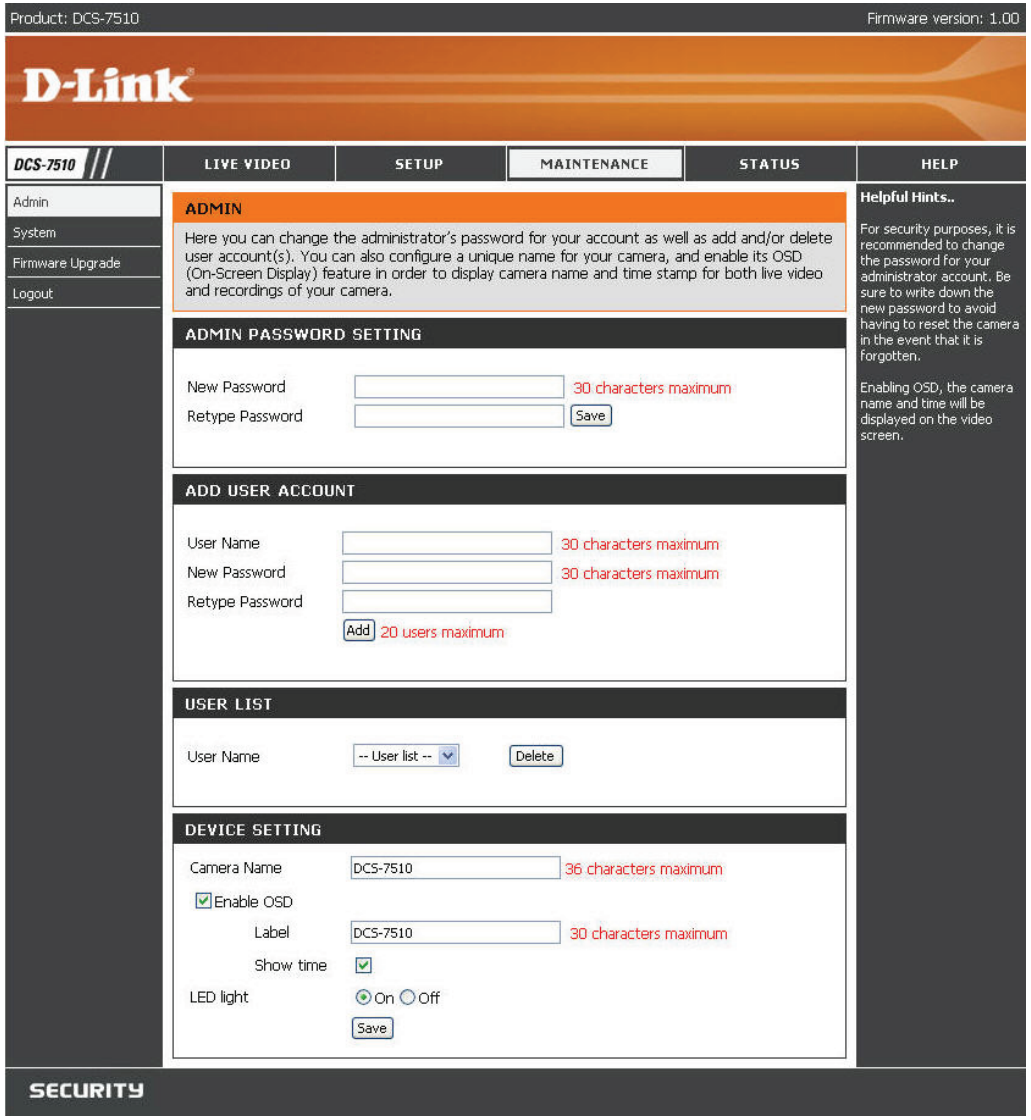
**Retype Password:** Enter the new admin password again for verification. After entering the new password again, click **Save** to save your changes.

**Add User Account:** The admin can create user accounts to allow others to log in to your camera to view the live camera feed.

**User Name:** Enter the **User Name** you wish to use for the new user account.

**New Password:** Enter the password for the new user account.

**Retype Password:** Re-enter the password for the new user account for verification. After entering the password again, click **Add** to create the new user account.



**User List:** You can view the current list of users by using the drop-down box. You can also delete a user by selecting them with the drop-down box, and then clicking **Delete**.

**Device Setting:** You can change various other settings for your camera.

**Camera Name:** Create a unique name for your camera, in which you can access the camera by using this name in your web browser. For example: http://DCS-7510 (by default).

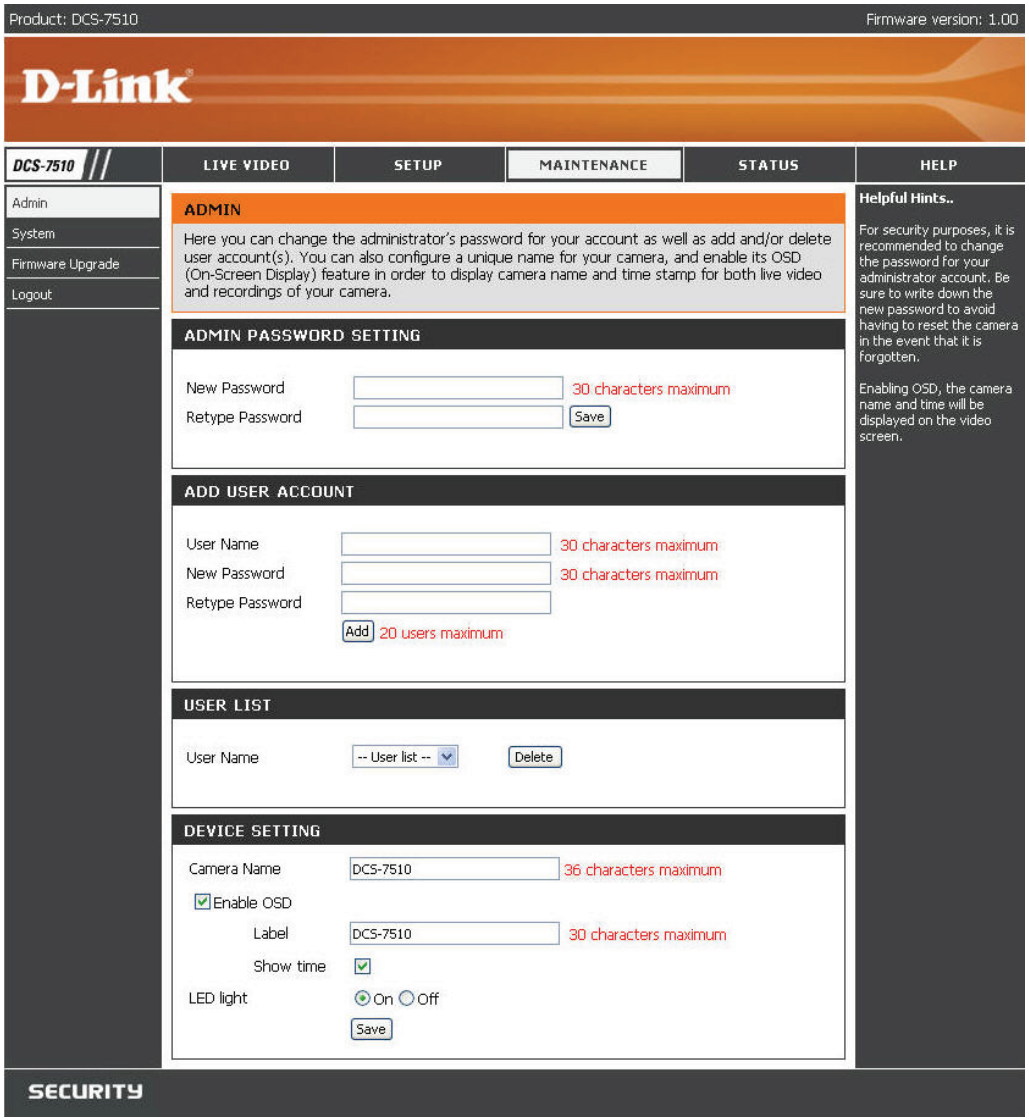
**Enable OSD:** Select to enable the On-Screen Display feature for your camera.

**Label:** This is the text label that will appear on the OSD.

**Show time:** Select to display the time-stamp on the video screen.

**LED light:** This will turn the camera's front LED indicator on or off.

Click the **Save** to save your changes.



# MAINTENANCE > System

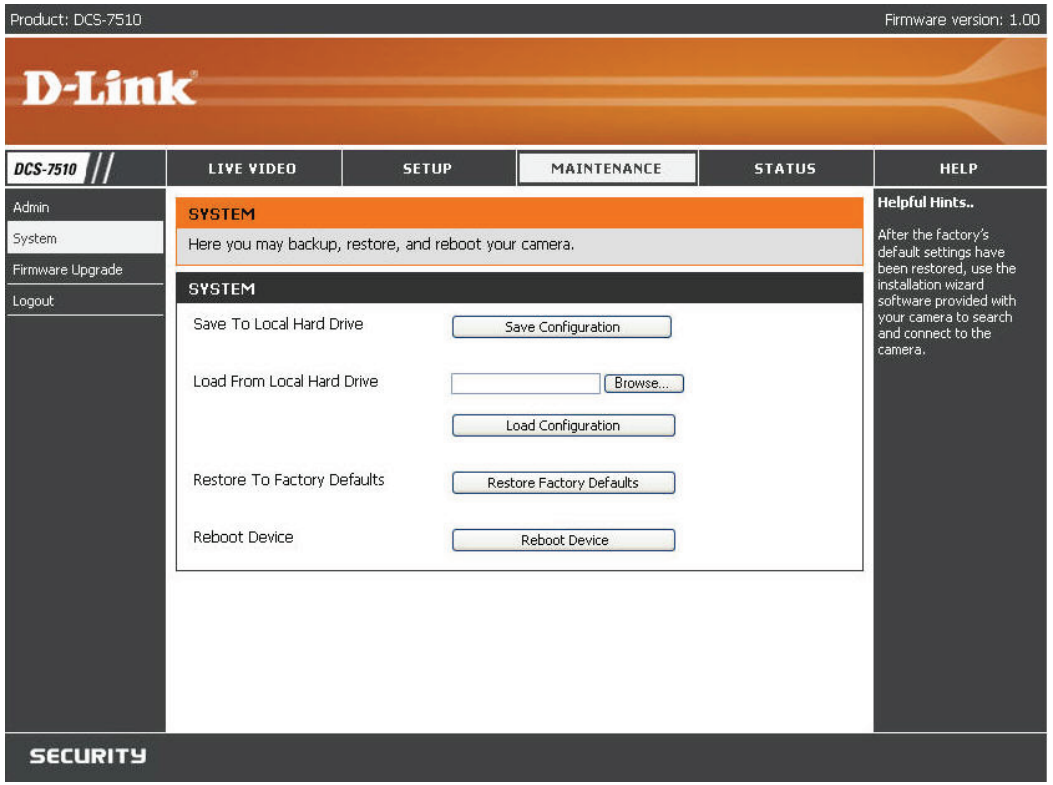
This screen allows you to save and restore the camera's current configuration. You can also reset all settings to factory default or reboot the device.

**Save To Local Hard Drive:** Click **Save Configuration** to save the current configuration to a hard drive.

**Local From Local Hard Drive:** To load a saved configuration, click **Browse** to select a configuration file from your hard drive, then click **Load Configuration** to load the new configuration.

**Restore To Factory Default:** Reset your camera and restore the factory settings to your camera by clicking **Restore Factory Defaults**.

**Reboot Device:** Click this button to reboot your camera.

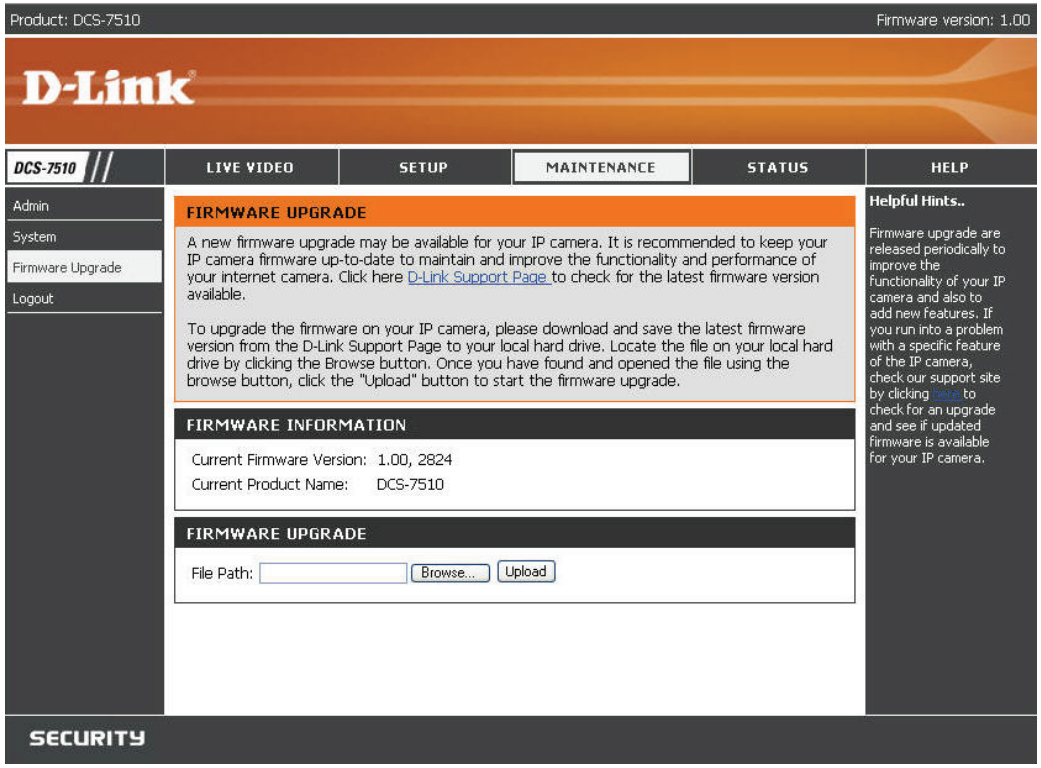


# MAINTENANCE > Firmware Upgrade

Your current firmware version and date will be displayed on this page. Here, you can also upgrade your firmware with a new version.

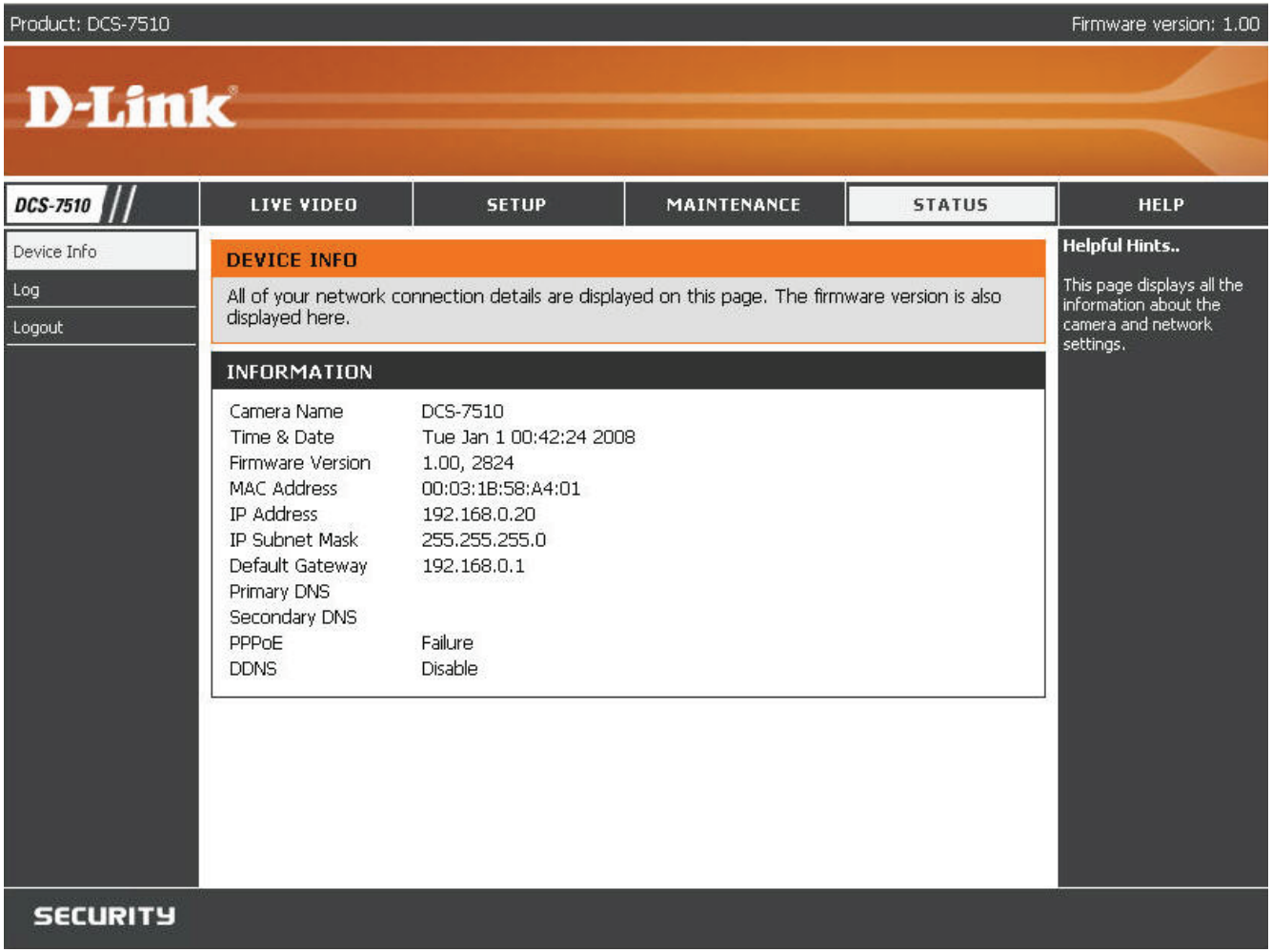
To upgrade your firmware, go to **support.dlink.com.tw** and download the latest firmware to your computer's hard drive. Click **Browse**, select the firmware file, then click **Upload**. While the firmware is being upgraded, do not turn off your computer or camera, and do not disconnect your network connection from your computer or camera. Upgrading the firmware will not change any of your system settings, but it is recommended that you save your system configuration before doing a firmware upgrade.

**Note:** It is recommended that you use a wired connection for your computer and camera when upgrading the firmware.



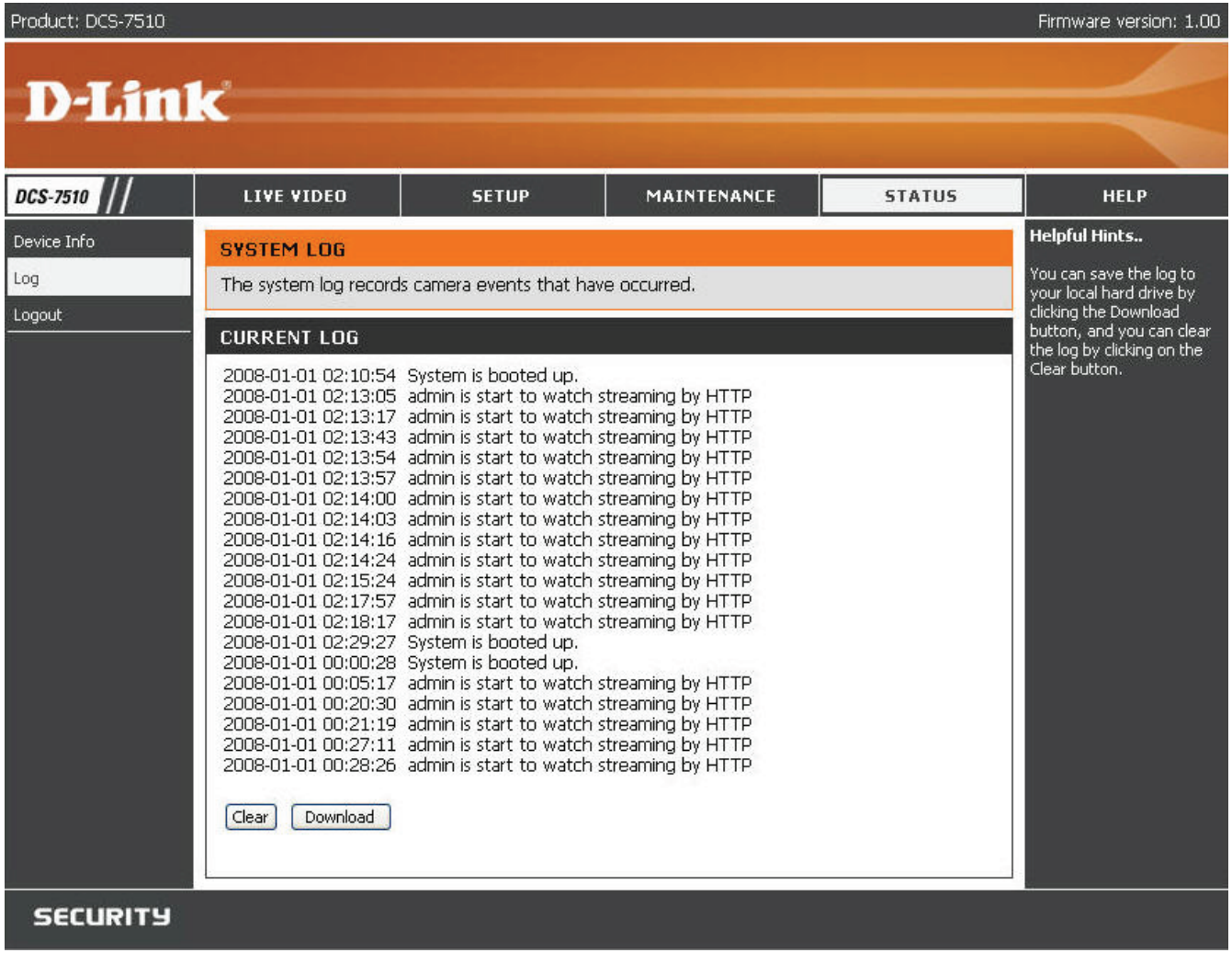
# STATUS > Device Info

This **Device Info** screen shows you various information about your camera and its current settings.



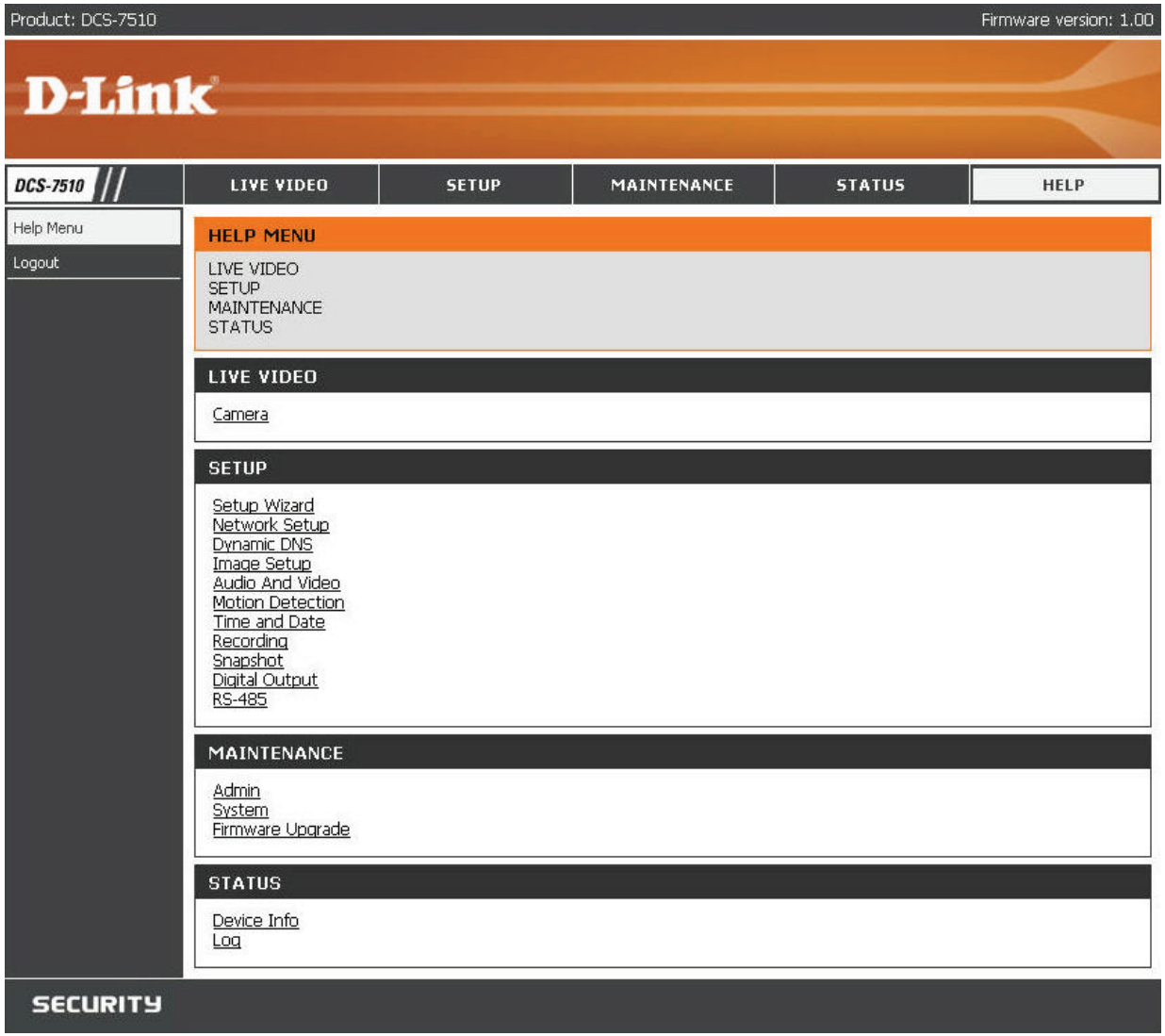
# STATUS > Logs

The log shows you a list of events that have happened recently. You can download the log by clicking **Download**, or you can empty the log by clicking **Clear**.



# Help

The **Help** screen provides you with support information about the DCS-7510 for your reference.



# Troubleshooting

**1. What is a Network Camera?**

An Network Camera is a standalone system that connects directly to an Ethernet or Fast Ethernet network whereas conventional PC Cameras require connection to a powered PC to function. An Network Camera is an all-in-one system with a built-in CPU, providing a low cost web-based solution that can transmit high quality video images for monitoring. The Network Camera can be managed remotely, and can be accessed and controlled from any PC locally or through the Internet via a Web browser.

**2. What is the maximum number of users that can be allowed to access DCS-7510 simultaneously?**

The maximum number of users that can log onto the Network Camera at the same time is 10. Please keep in mind that the overall performance of the transmission speed will slow down when a large number of users are logged on.

**3. What algorithm is used to compress the digital image?**

MPEG-4 and MJPEG are used to provide high quality images at low bandwidths.

**4. Can I capture still images from the Network Camera?**

Yes. You may record snapshots using the snapshot feature on the Home page. When viewing this page, press the “snapshot” button to capture the image and save it to your hard drive.

**5. What network cabling is required for the Network Camera?**

The Network Camera uses Category 5 UTP cable for 10Base-T and 100Base-TX networking.

**6. Can the Network Camera be used as a webcam for my computer?**

No, the DCS-7510 Network Camera only functions through a Fast Ethernet network.

**7. Can the DCS-7510 be connected to the network if it consists of only private IP addresses?**

Yes, the Network Camera can be connected to a LAN with private IP addresses.

**8. Can the DCS-7510 be installed and work if a firewall exists on the network?**

If a firewall exists on the network, port 80 needs to be opened for ordinary data communication, streaming audio, streaming video. The DCS-7510 uses port 5002 for streaming audio and port 5003 for streaming video. These ports or the ports you specify from the Advanced Tab in the Configuration screen, needs to be opened.

**9. Why am I unable to access the DCS-7510 from a Web browser?**

Ensure that the ports configured for the DCS-7510 on the router or firewall are correct. In order to do that, you need to determine if the DCS-7510 is behind a router or firewall and then properly configure the ports of your DCS-7510. Other possible problems might be due to the network cable. Try replacing your network cable. Test the network interface of the product by connecting a local computer to the unit, with an Ethernet crossover cable. If the problem is not solved the Network Camera might be faulty.

**10. Why does the Network Camera work locally but not externally?**

This might be caused by the firewall protection on your network. You may have to change the firewall settings in order for the Network Camera to be accessible outside your local LAN. Check with the Network Administrator and ensure that the Network Camera isn't conflicting with any Web server you may have running on your network. The default router setting might be a possible reason. Check that the configuration of the router settings allow the Network Camera to be accessed outside your local LAN.

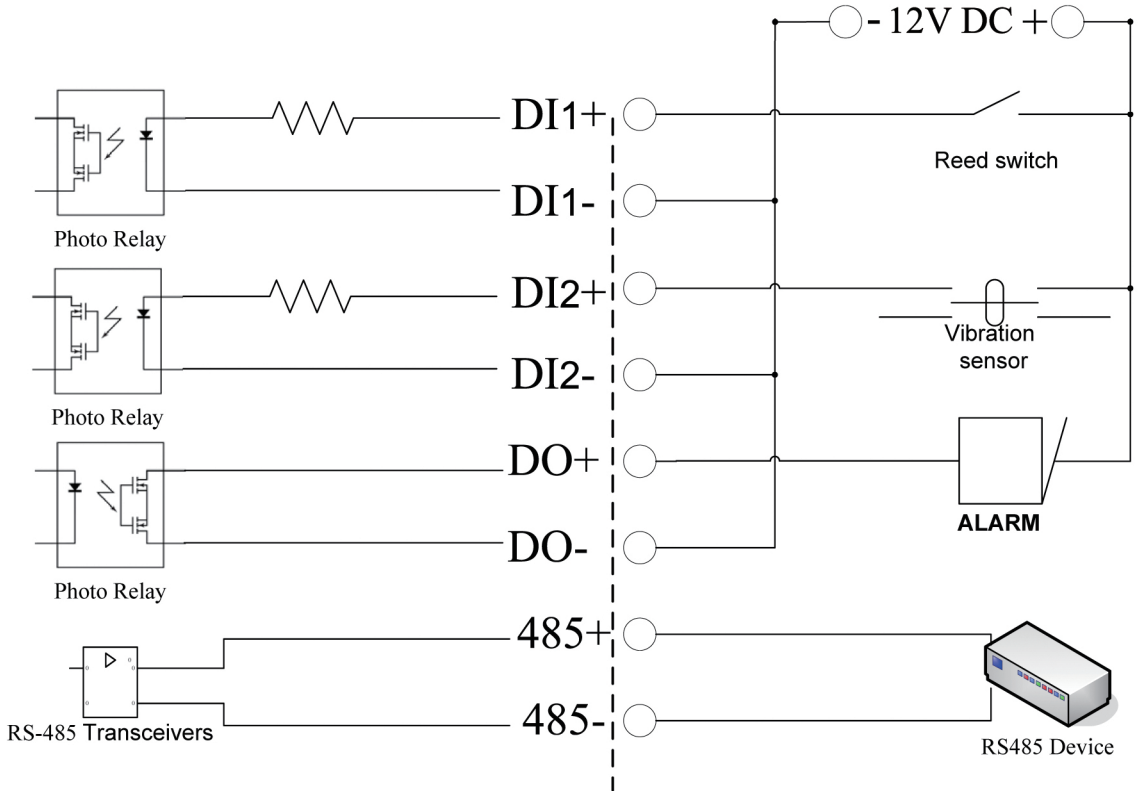
**11. I connected the Network Camera directly to a computer with a Ethernet cable and received a Windows error upon running the Installation Wizard.**

This Windows error will occur if the Network Camera is connected to a computer that is not properly configured with a valid IP address. Turn off DHCP from the Network Settings in Windows and configure the computer with a valid IP address, or connect the camera to a router with DHCP enabled. This error can also occur if the Installation Wizard icon is clicked more than once starting from the setup wizard.

**12. The images appear to be of poor quality, how can I improve the image quality?**

Make sure that your computers display properties are set to at least 6-bit color. Using 16 or 256 colors on your computer will produce dithering artifacts in the image, making the image look as if it is of poor quality. In the Image Setup section of the web interface, you can adjust image related parameters including brightness, contrast, and saturation. Please refer to the **Setup > Image Setup** section for detailed information.

# DI/DO




| | |
|---|---|
| **DI** | Receives signals from a motion detector or any other external security device. |
| **DO** | Connects to an alarm or buzzer. |
| **485+/485-** | Connects to an RS-485 interface for controlling auxiliary equipment such as an external camera enclosure to perform PAN and TILT movement. |

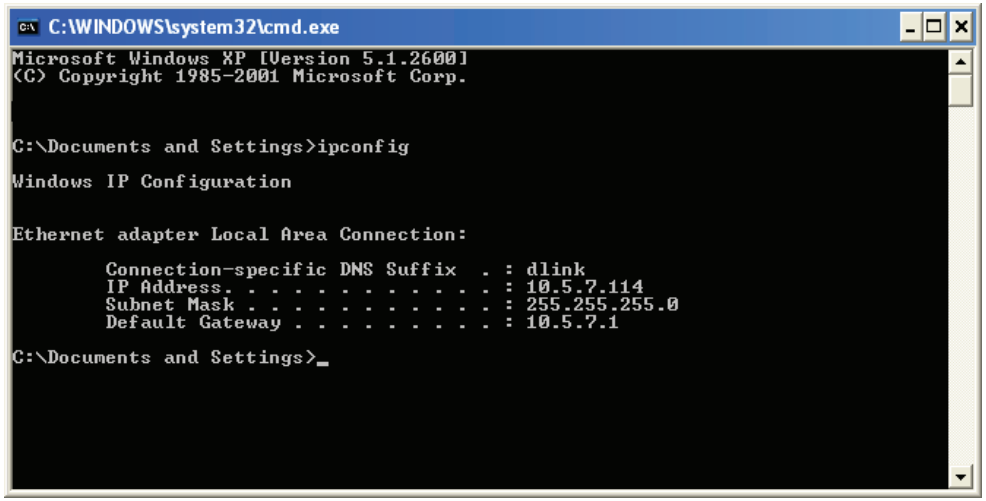
# Networking Basics

## Check your IP address

After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. router) automatically. To verify your IP address, please follow the steps below.

Click on **Start** > **Run**. In the run box type **cmd** and click **OK**.

At the prompt, type **ipconfig** and press **Enter**.




This will display the IP address, subnet mask, and the default gateway of your adapter.

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your router. Some firewall software programs may block a DHCP request on newly installed adapters.

If you are connecting to a wireless network at a hotspot (e.g. hotel, coffee shop, airport), please contact an employee or administrator to verify their wireless network settings.

# Assigning a Static IP Address

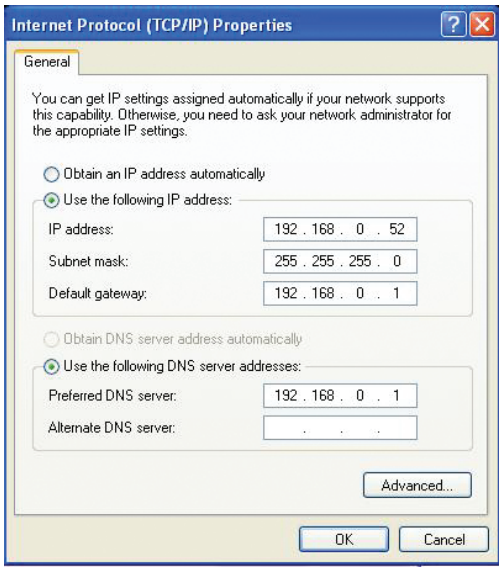
If you are not using a DHCP capable gateway/router, or you need to assign a static IP address, please follow the steps below:

**Step 1**
Windows® XP - Click on **Start** > **Control Panel** > **Network Connections**.
Windows® Vista - From the desktop, right-click **My Network Places** > **Properties**.

**Step 2**
Right-click on the **Local Area Connection** which represents your D-Link network adapter and select **Properties**.

**Step 3**
Highlight **Internet Protocol (TCP/IP)** and click **Properties**.

**Step 4**
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.




Example: If the camera´s LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network. Set Default Gateway the same as the LAN IP address of your router (192.168.0.1).

Set Primary DNS the same as the LAN IP address of your router (192.168.0.1). The Secondary DNS is not needed or you may enter a DNS server from your ISP.

**Step 5**
Click **OK** twice to save your settings.

# Technical Specifications

**Video Codec**
- MPEG4 / MJPEG

**Audio Codec**
- GSM-AMR: 12.2Kbps, PCM: 8Kbps
- Full-duplex audio communication

**PoE**
- Supports IEEE 802.3af standard

**Sensor**
- 1/3” CCD sensor, interlace scan mode

**SDRAM**
- 64 Mbytes

**Flash Memory**
- 8 Mbytes

**Lens**
- 9-22mm, F1.5-360

**LAN**
- 10/100Base - TX Ethernet ports x1
- IEEE 802.3 compliance
- IEEE 802.3u compliance
- Supports full-duplex operation
- MDI/MDIX auto-negotiation
- 802.3x Flow Control for full-duplex mode
- Supported IEEE 802.3af standard (PoE)

**Audio In**
- Yes

**RS 485**
- 2-pin (485A,485B) (Supports control of an external Pan-Tilt device)

**Audio Out**
- Yes

**Reset Button**
- Reset to factory default

**Dimension (WxDxH)**
- 240(L) x 8.79(W) x 109.1(H)mm

**Weight**
- 1.72kg

**Max Power Consumption**
- 12.00W
- Input: 100-240VAC, 50/60Hz
- Output: 12VDC, 1.25A

## Networking

**Protocol**
- IPV4, ARP, TCP, UDP, ICMP
- DHCP Client
- NTP Client
- DNS Client
- DDNS Client
- SMTP Client
- FTP Client
- HTTP Server
- Samba Client
- PPPoE
- RTP

- RTSP
- RTCP
- 3GPP

**Ethernet**
- 10/100M BaseT Fast Ethernet auto negotiation

## Video
**Algorithm Supported**
- Simultaneous MPEG4/MJPEG dual format compression
- JPEG for still images

**Features**
- Adjustable image size and quality
- Time stamp and text overlay

**Video Resolution**
- MPEG-4/MJPEG video resolution up to D1

**Low Lux**
- 0.2 lux @ F2.0
- IR / 0 lux

**3A control**
- AGC (Auto Gain Control)
- AWB (Auto White Balance)
- AES (Auto Exposure Setting)

**Electronic shutter**
- NTSC: 1/60 ~ 1/100000 sec.
- PAL: 1/50 ~ 1/110000 sec.

## Operating System
- Microsoft Windows XP or Vista

## Physical Environment
**Power**
- 12V 1.25A switching power adapter
- External AC-to-DC Switching Power Adapter or PoE Ethernet port

**Operation Temperature**
- 0 to 40°C (32 to 104°F)

**Storage Temperature**
- - 20 to 70°C (-4 to 158°F)

**Humidity**
- 20-80% RH non-condensing

## Emission (EMI), Safety & Other Certifications
- FCC Class A
- IC
- CE
- C-Tick