



User Manual

5 Megapixel Day & Night Outdoor Dome Network Camera

DCS-6517

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.

Manual Revisions

Revision	Date	Description
1.0	March 19, 2015	DCS-6517 Revision A1 with firmware version 1.00
1.1	October 16, 2015	Minor updates
1.2	July 4, 2015	Minor updates
1.3	May 22, 2017	Minor updates

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Package Contents



DCS-6517
5 Megapixel Day & Night Outdoor Dome Network Camera



Power adapter*



CD-ROM with User Manual and software



Extension Adapter



Security Wrench



CAT 5 Ethernet Cable



Sunshield



Screws



Alignment Sticker



Mounting Adaptor



Quick Installation Guide

*Depending on your region, a power adapter may not be included.
If any of the above items are missing, please contact your reseller.

Introduction

D-Link DCS-6517 is an outdoor vandal-proof fixed dome camera equipped with industry-leading 5 megapixel resolution and H.264 compression. The DCS-6517 connects to a network to provide high-quality live video over the Internet. This camera is capable of capturing video in both dark and light environments thanks to its built-in IR LEDs and IR-cut removable (ICR) filter. The ICR filter can be manually applied via the web, or set to automatically adjust based on lighting conditions. This feature allows the camera to capture crisp color images during the daytime and detailed grayscale images at night or in or low-light conditions.

The DCS-6517 is equipped with metal housing certified by IK-10 criterion which protect the camera from damage. The built-in removable IR-cut filter and IR LEDs give the DCS-6517 the capability to view up to 20 meters at night. The ability to use Power over Ethernet (PoE) also allows it to be easily installed in a variety of locations without the need for supplemental power cabling. The built-in MicroSD card slot can be used as a local backup by storing important events on an easily retrievable MicroSD card.

The included D-Link D-ViewCam™ is sophisticated software which allows users to manage up to 32 network cameras, set e-mail alert notifications, create recording schedules, and use motion detection to record directly to a hard drive. D-ViewCam™ also allows users to upload a floor plan to create a realistic layout of the premises where cameras are located, further simplifying the management process.

System Requirements

Network Requirements	<ul style="list-style-type: none">• An Ethernet-based Network
DCS-6517 Web-based Configuration Utility Requirements	<p>Computer with the following:</p> <ul style="list-style-type: none">• Windows®, Macintosh, or Linux-based operating system• An installed Ethernet adapter <p>Browser Requirements:</p> <ul style="list-style-type: none">• Internet Explorer® 7 or higher• Mozilla Firefox 19 or higher
D-ViewCam Configuration Utility Requirements	<p>Computer with the following:</p> <ul style="list-style-type: none">• Microsoft Windows® 10/8/7/Vista/XP/2000• At least 256 MB of memory (512 MB recommended)• VGA card resolution: SVGA or XGA (1024x768 or above)• CPU: 1.7 GHz or above (2.8 GHz plus processor with 512 MB memory and a 32 MB video card is required for multiple camera viewing and recording in IP surveillance programs)

Features

Flexible Connectivity

The DCS-6517 includes input and output ports for connectivity to external devices such as IR sensors, switches, and alarm relays. The DCS-6517 also incorporates Power over Ethernet (PoE), allowing it to be easily installed in a variety of locations without the need for supplemental power cabling.

High-Quality Video at HD Resolution

The DCS-6517 provides real-time video feeds at up to 15 fps with 2560x1920 resolution and 30 fps with Full HD resolution. H.264 encoding ensures that images remain crisp, clear, and vivid without taking up too much network bandwidth.

Weather-proof with Tamper Detection

Designed to be mounted outdoors, the DCS-6517 includes an IP66 certified enclosure which protects against the elements. Anti-tamper features make this camera suitable for tamper-prone locations such as transportation hubs, schools, or correctional facilities. The electronic tamper detection system can sense whenever the camera has been redirected, de-focused, blocked, or spray-painted, and respond promptly with a visible or audible alarm.

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.

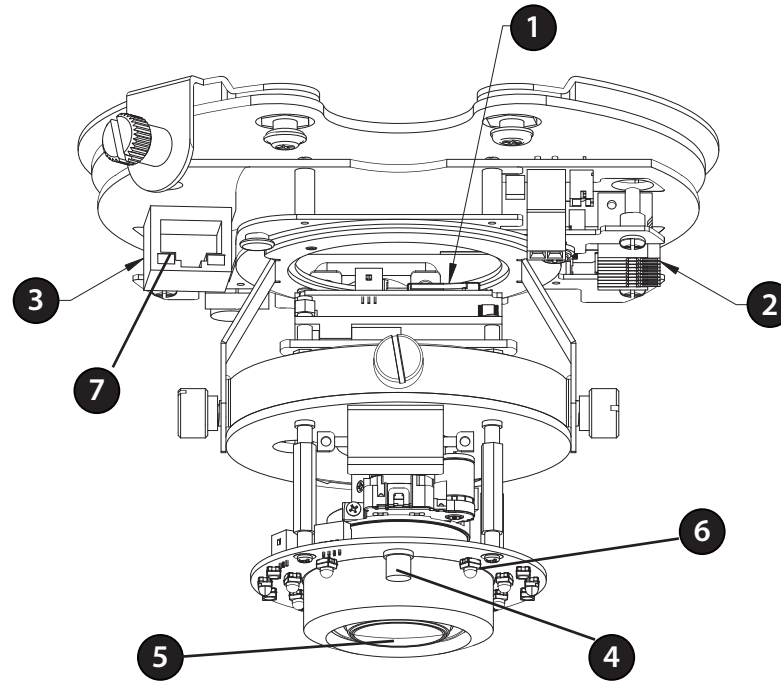
Hardware Overview



The camera is housed in an IP66 certified weatherproof casing, which protects it against rain and dust. This case is also IK-10 certified vandal-resistant.

Hardware Overview

Internal

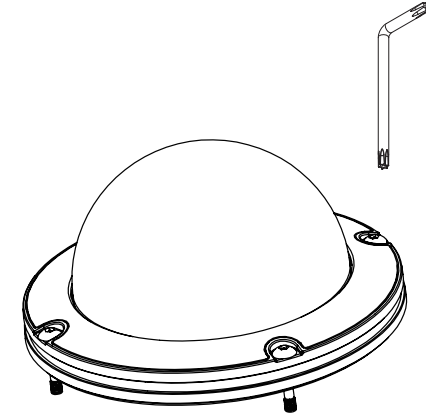


1	Micro SD Card Slot	Insert a Micro SD card for Local storage for storing recorded image and video
2	DI/DO, Audio, Power, connector	Internal connector for DI/DO, Audio, and Power connector cable harness
3	Ethernet Cable connector	Internal Ethernet cable jack
4	Light Sensor	The light sensor measures the lighting conditions and switches between color and infrared accordingly
5	Camera Lens	Vari-focal lens to record video of the surrounding area
6	IR LEDs	Infrared LEDs illuminate the camera's field of view at night
7	Power/Status	LED indicates the camera's current status

micro SD card installation

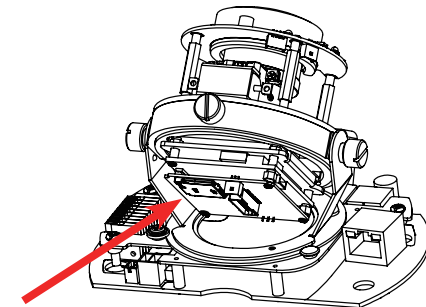
Disassemble the Camera

Open the camera enclosure by loosening the 4 screws. Lift the dome off the base of the camera.

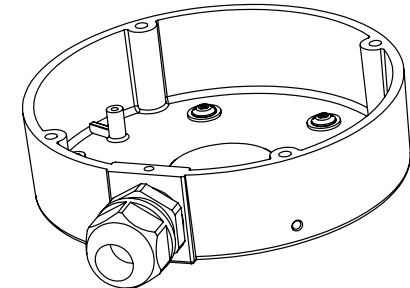


Install the SD Card

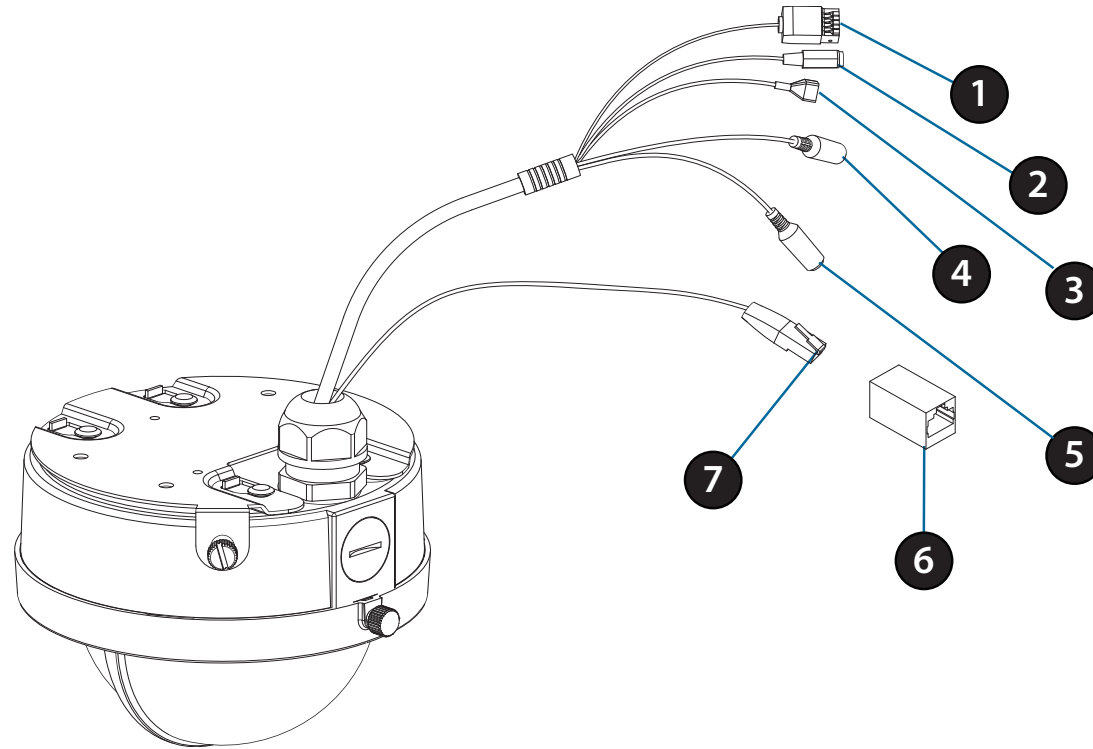
Push the SD card into the camera with the gold contacts oriented towards the base of the camera. To eject the SD card, push the SD card into the slot.



Micro SD Slot



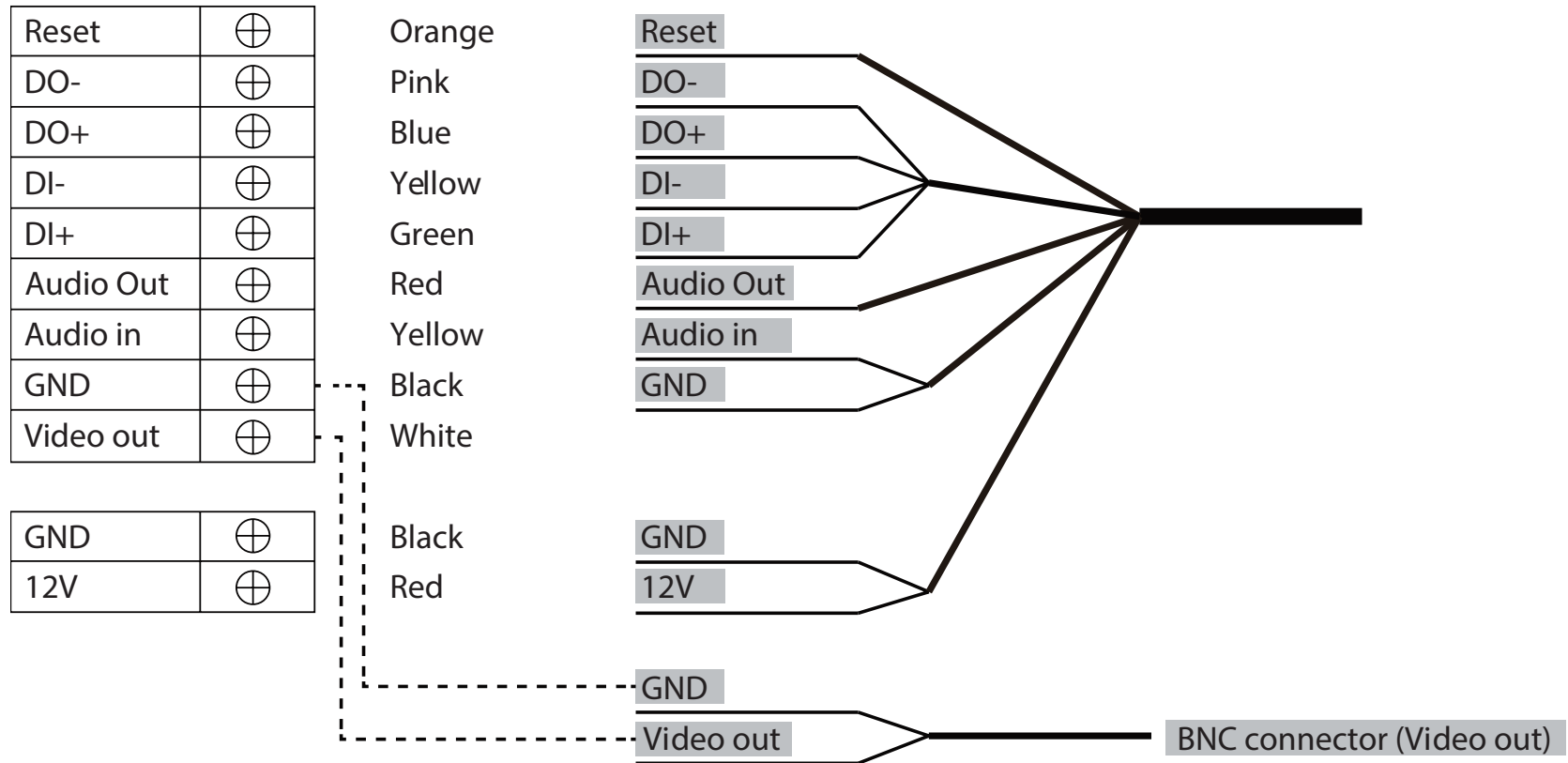
Cable Connectors



1	DI/DO Connector	I/O connectors for external devices.
2	Power Connector	Power connector for the provided 12 V DC power adapter.
3	Reset Button	Press and hold the recessed button for 10 seconds to reset the camera.
4	Audio Out (Green)	Connects to a speaker.
5	Audio In (Red)	Connects to a microphone.
6	RJ-45 Extension Connector	The Extension connector for connector the extending Ethernet cable.
7	Ethernet (PoE)	RJ-45 connector for Ethernet which can also be used to power the Camera using PoE

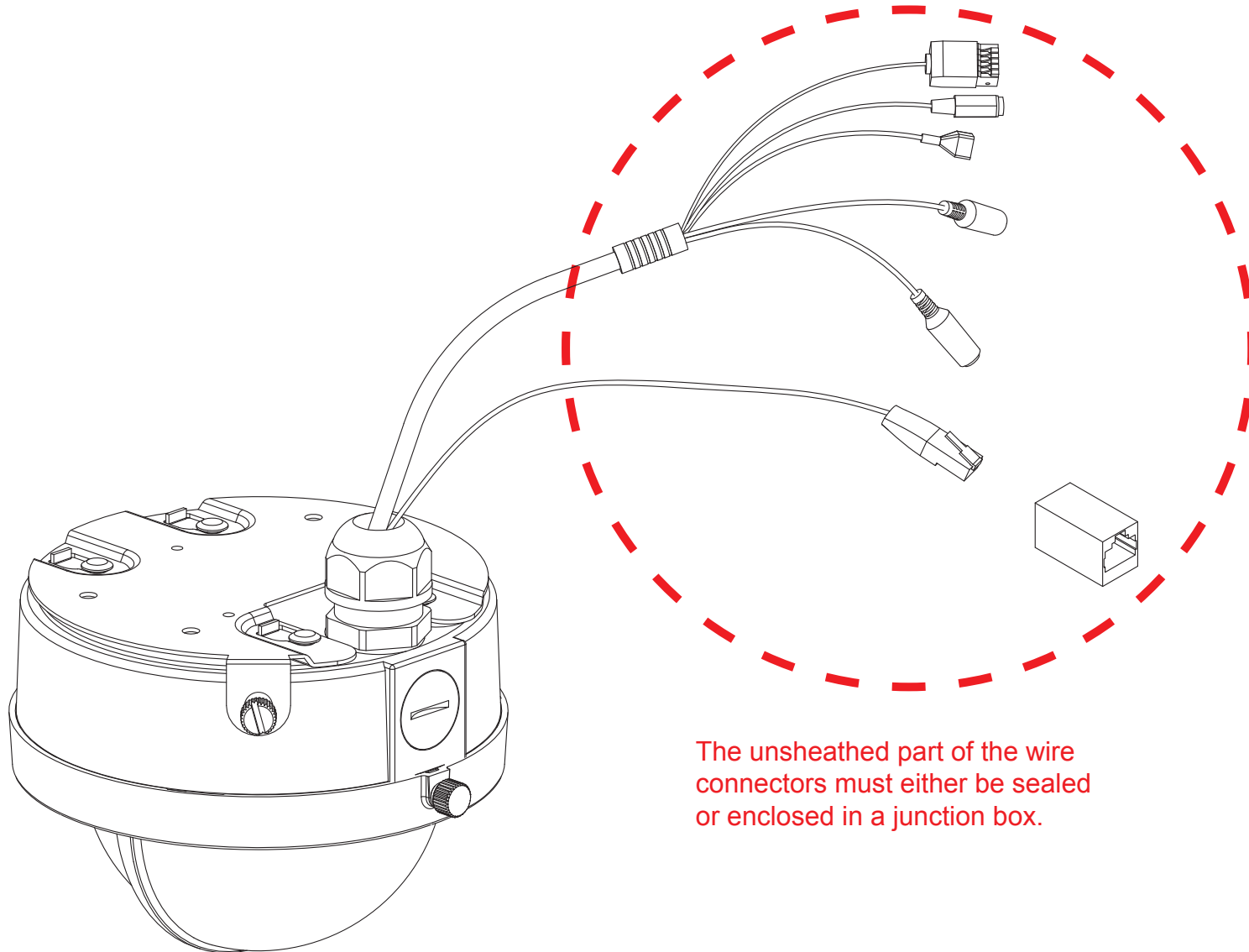
Connectors and DI/DO

Please follow the diagram below to properly connect the cables to the connector. Please be careful when using 3rd party cables as incorrectly connecting the connector to the wrong cable may damage the Camera.



Note: To prevent the camera's wire connectors from being damaged by water or other elements:

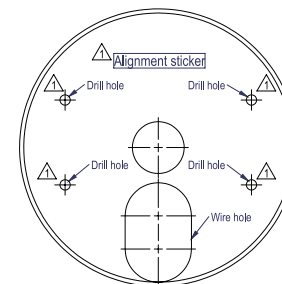
1. When connecting the camera, the unsheathed part of the wire connectors must either be sealed or enclosed in a junction box.
2. The unsheathed part of the wire connectors should be positioned at a downward-facing angle when they extend out of the rear of the camera, not upward.



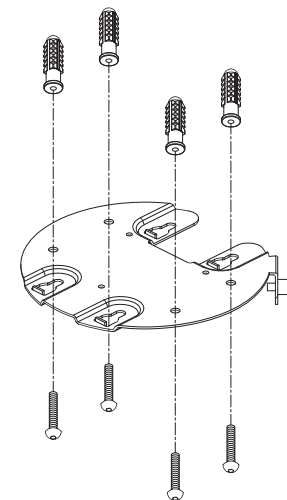
Hardware Installation

Assembly and Installation

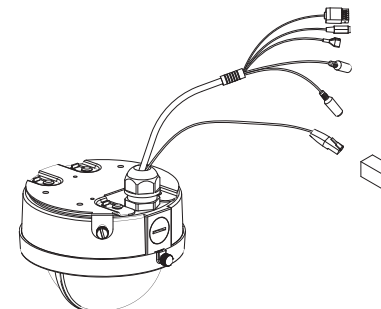
Locate a suitable position on the ceiling which is capable of supporting the weight of the camera. Attach the alignment sticker to the ceiling or wall.



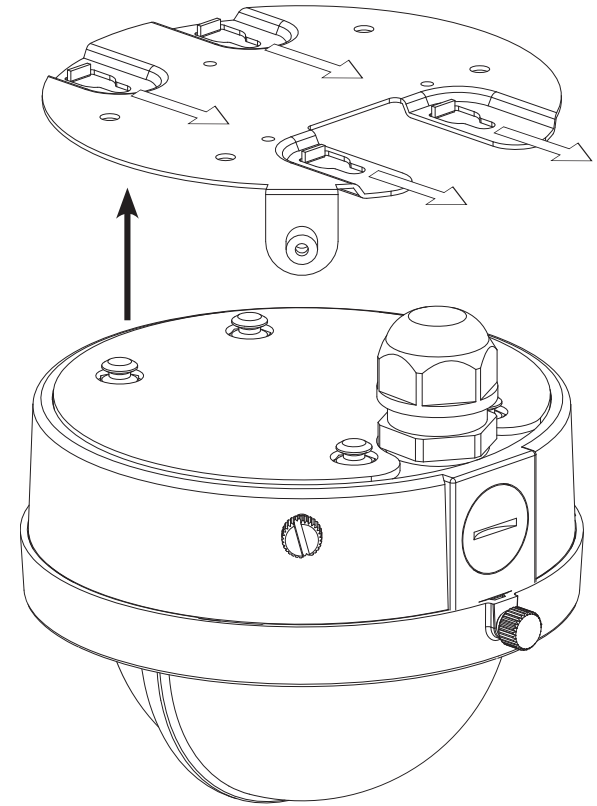
Drill four separate holes corresponding to the holes in the mounting template and insert the plastic anchors into four holes. Cut an access hole in the ceiling for the cables.



Thread the cables through the waterproof plugs at the bottom of the base of the camera. Attach the cables to the corresponding cable connectors. Connect the Camera bottom Ethernet cable and the other cable, threading them through the hole in the ceiling. Connect to the Ethernet cable.



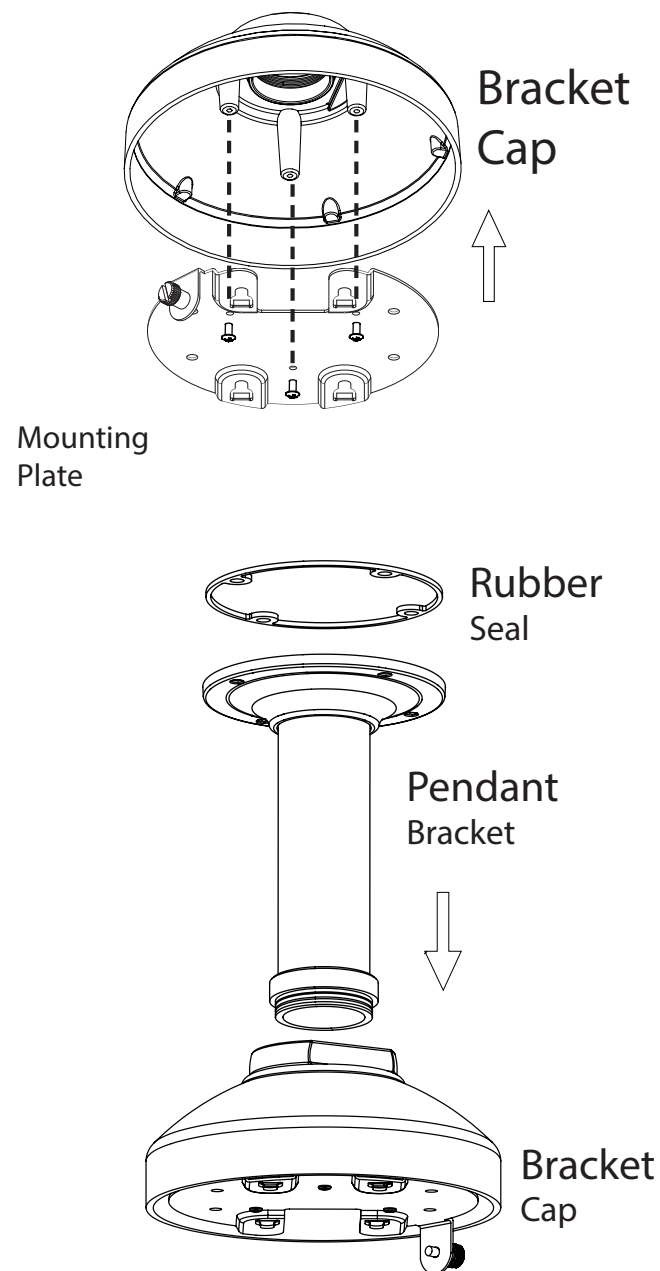
Attach the dome up with the mounting template latch, then push forward lock the latch. Using the bolt for security lock the Camera.



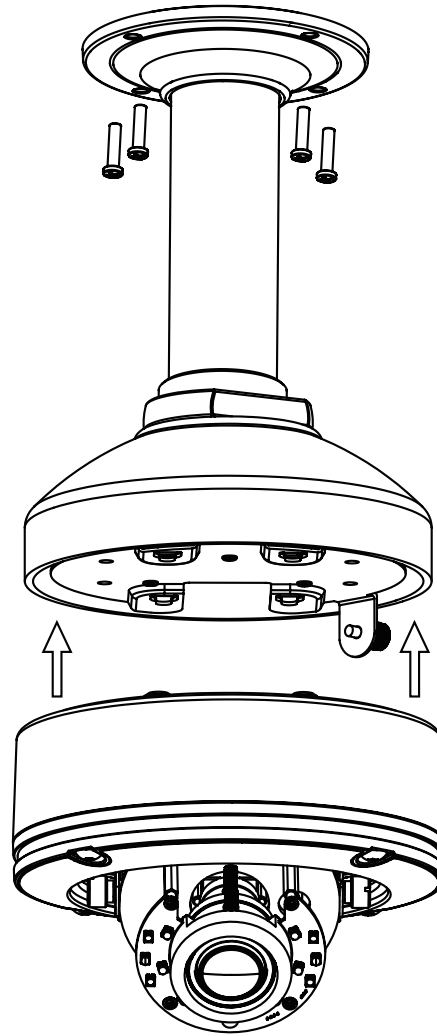
Pendant Mount (Optional)

- Height: 201 mm (7.9 inches)
- Diameter: 150 mm (5.9 inches)
- Weight: 665 g (1.45 lbs)

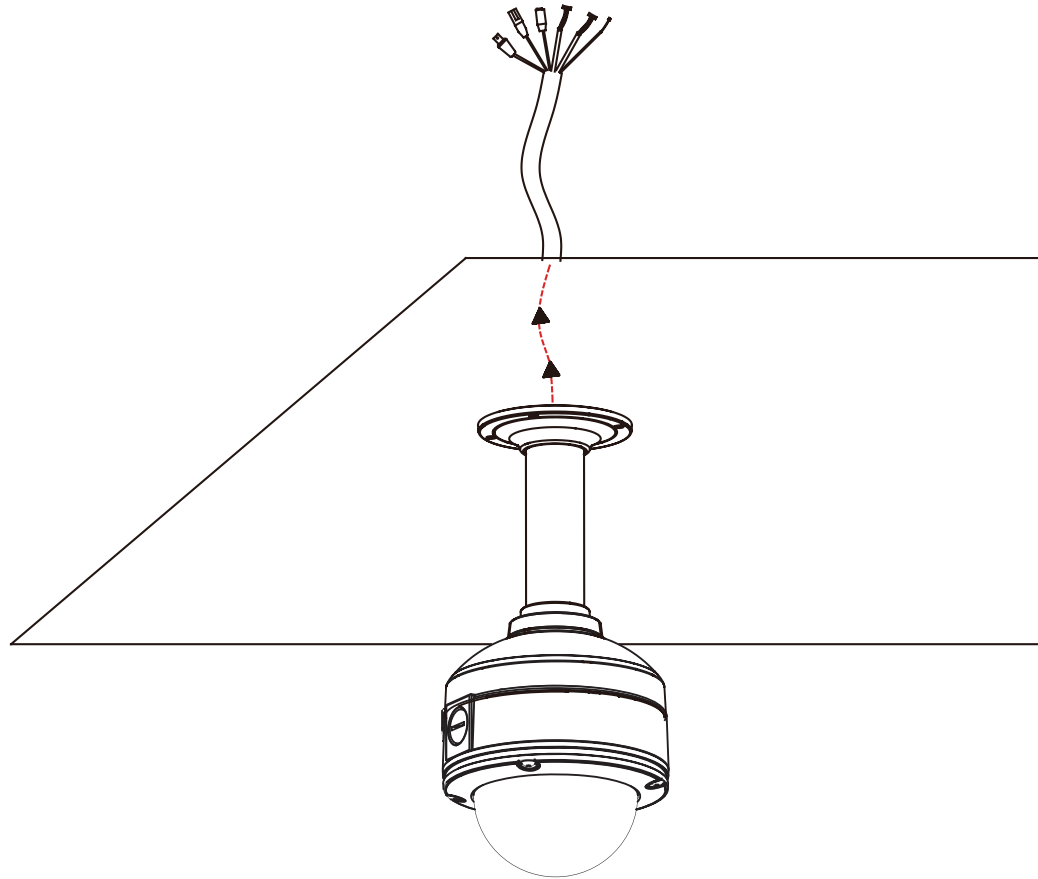
1. Attach the mounting plate to the bracket cap using the three screws.
2. Locate a suitable position on the ceiling for a 34 mm (+2 / -0 mm) hole to be cut. A template is included to aid in marking the mounting hole.
3. Cut a hole in the ceiling according to the template.
4. Drill four separate 6 mm holes corresponding to the holes in the mounting template and insert the plastic anchors into these holes.
5. Place the rubber seal between the pendant bracket and the ceiling to ensure a waterproof seal between the ceiling and the bracket.
6. Attach the pendant bracket to the ceiling using the screws provided.
7. Attach the bracket cap to the bottom of the pendant bracket by rotating the cap counterclockwise to tighten it into place.
8. Insert the screw into the base of the pendant bracket at the top of the bracket cap to secure the bracket cap into place.



1. Connect the Ethernet cable and the power cable, then thread them through the pendant bracket.
2. Place the dome body onto the base of the camera.



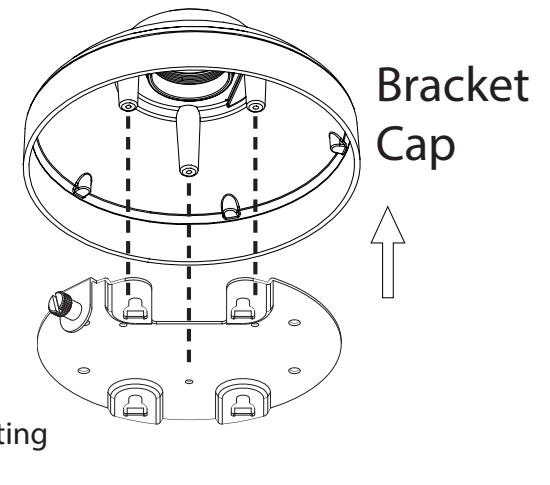
1. Attach the dome to the base of the camera using the three long screws and the provided security screw.



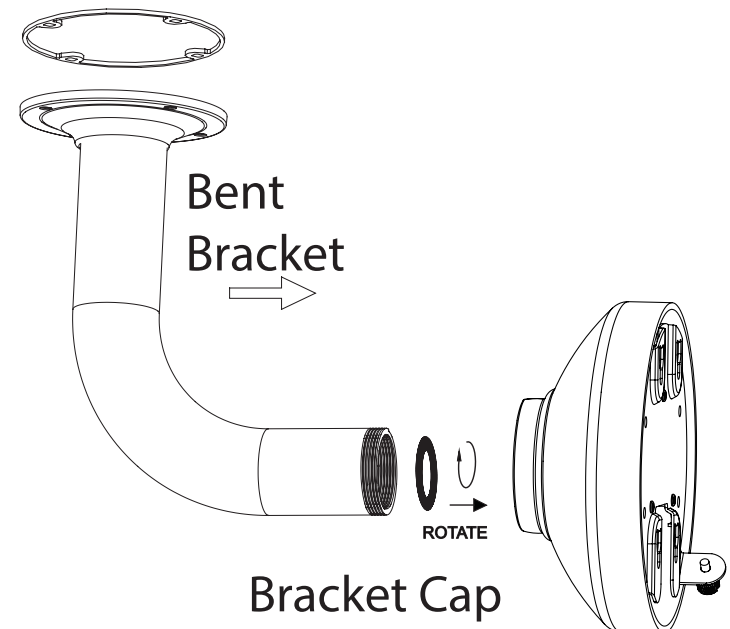
Bent Mount (Optional)

- Height: 253 mm (9.96 inches)
- Diameter: 150 mm (5.9 inches)
- Weight: 770 g (1.7 lbs)

1. Attach the mounting plate to the bracket cap using the three screws.
2. Locate a suitable position on the wall for a 34 mm (+2 / -0 mm) hole to be cut. A template is included to aid in marking the mounting hole.
3. Cut a hole in the ceiling according to the template
4. Drill four separate 6 mm holes corresponding to the holes in the mounting template and insert the plastic anchors into these holes.
5. Place the rubber seal between the wall mount bracket and the wall to ensure a waterproof seal between the wall and the bracket.
6. Attach the wall mount bracket to the wall using the screws provided.
7. Attach the bracket cap to the bottom of the wall mount bracket by rotating the cap counterclockwise to tighten it into place.
8. Insert the screw into the base of the wall mount bracket at the top of the bracket cap to secure the bracket cap into place.
9. Connect the Ethernet cable and the power cable and thread them through the wall mount bracket.

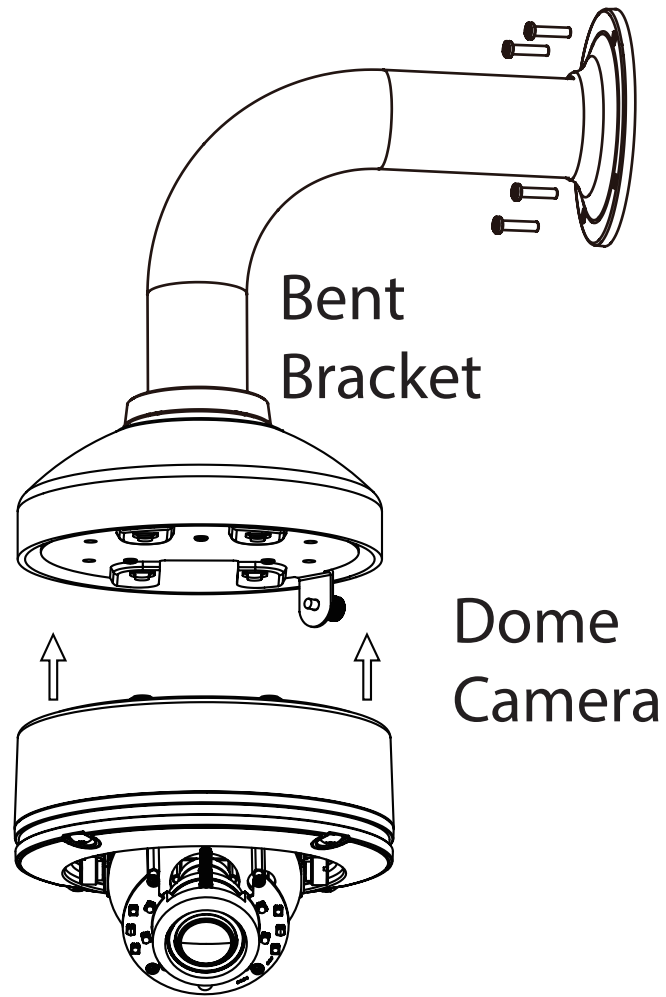


Mounting Plate

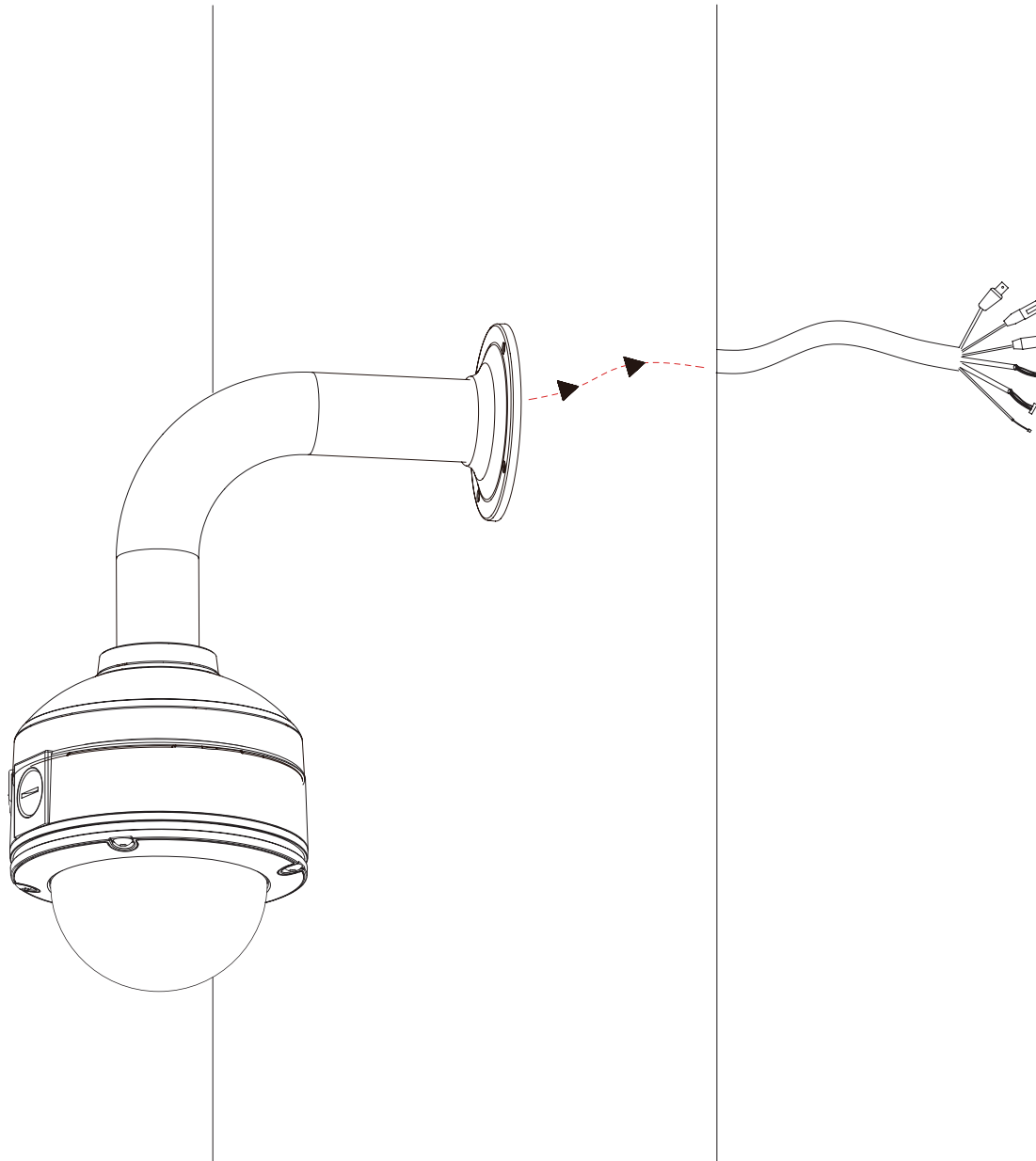


Bracket Cap

1. Place the camera body onto the housing of the bent bracket mount.



1. Attach the dome to the base of the camera using the three long screws and the provided security screw.



Cable Connections

Basic Connection (without PoE)

1. Connect the camera to your switch or router via Ethernet cable.
2. Connect the power cable from the camera to the supplied power adapter.
3. Connect the supplied power adapter to a power outlet.



Connection Using a PoE Switch

If using a PoE switch or router, connect the network camera via Ethernet cable. PoE will transmit both power and data over a single cable.



Note: Once power has been established, the LED will turn red. When the device has obtained an IP address and is accessible, the LED will turn green.

Software Installation

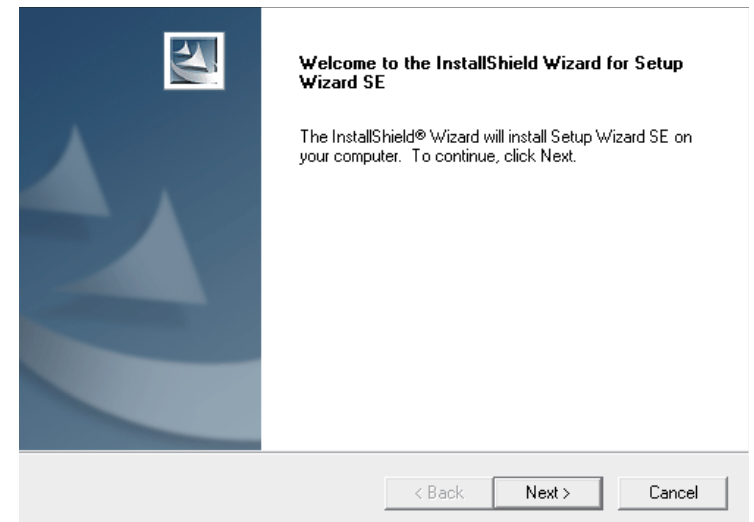
Setup Wizard

Insert the DCS-6517 CD into your computer's CD-ROM drive to begin the installation. If the Autorun function on your computer is disabled, or if the D-Link Launcher fails to start automatically, click **Start > Run**. Type **D:\autorun.exe**, where D: represents the drive letter of your CD-ROM drive.

Click **Setup Wizard** to begin the installation.

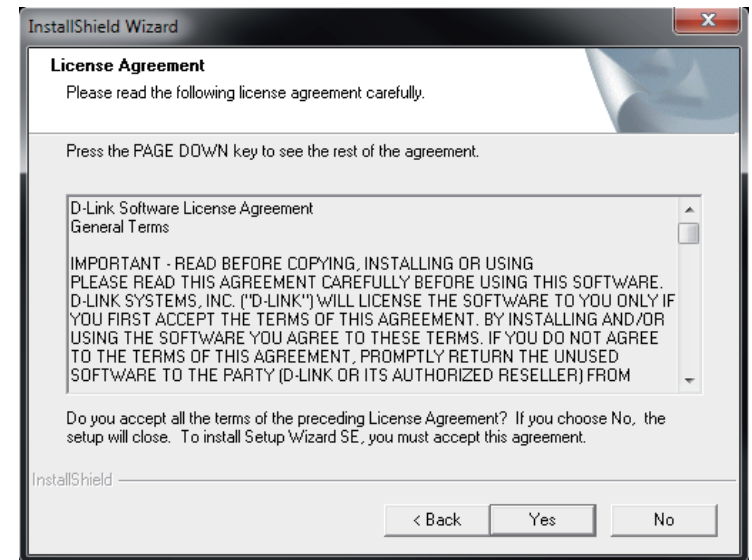
After clicking Setup Wizard, the window on the right will open.

Click **Next** to continue.



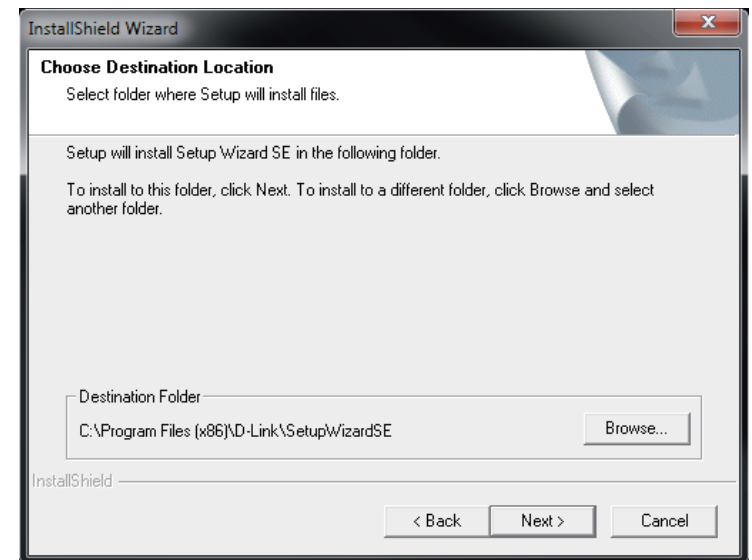
Installation

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



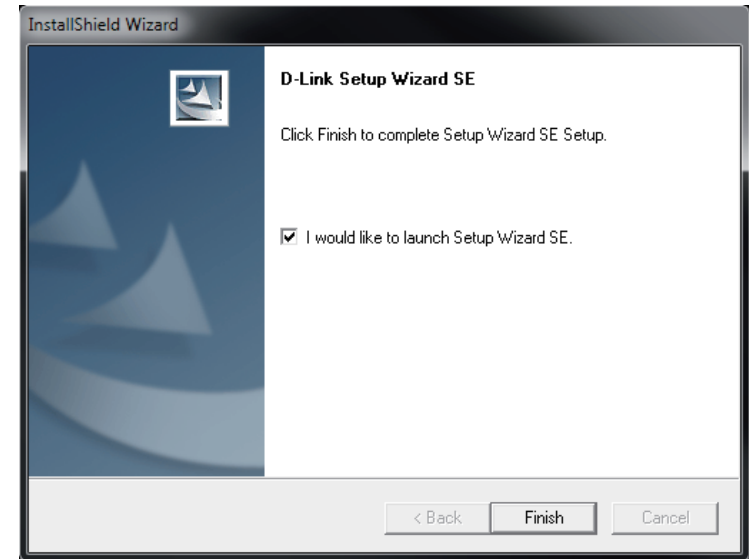
To start the installation process, click **Next**.

Note: The installation may take several minutes to finish.



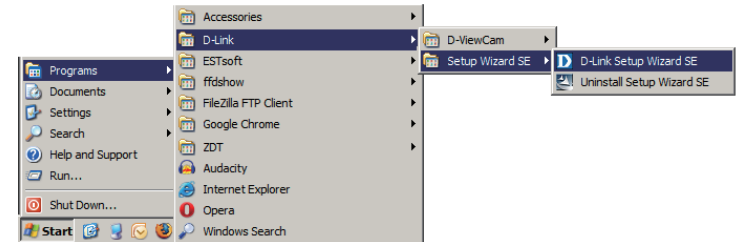
Installation

Click **Finish** to complete the installation.



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

Start > D-Link > Setup Wizard SE



Installation

The Setup Wizard will appear and display the MAC address and IP address of your camera(s). If you have a DHCP server on your network, a valid IP Address will be displayed. If your network does not use a DHCP server, the network camera's default static IP address **192.168.0.20** will be displayed.

Click the **Wizard** button to continue.



Enter the Admin ID and password. When logging in for the first time, the default Admin ID is **admin** with the password left blank.

Click **Next**, to proceed to the next page.



Installation

Select DHCP if your camera obtains an IP address automatically when it boots up. Select static IP if the camera will use the same IP address each time it is started.

Click **Next**, to proceed to the next page.



The screenshot shows the 'Set IP Address' configuration page in the D-Link SECURICAM Network web interface. The page has a blue header with the D-Link logo and 'SECURICAM Network' text. The main content area is light gray and contains the following elements:

- Set IP Address** (Section Header)
- Two radio buttons for selection:
 - DHCP
 - Static IP
- Five input fields for static IP configuration (only visible if Static IP is selected):
 - IP Address
 - Subnet Mask
 - Default Gateway
 - Primary DNS
 - Secondary DNS
- Three navigation buttons at the bottom right:
 - Back** (left arrow icon)
 - Next** (right arrow icon)
 - Exit** (power icon)

Take a moment to confirm your settings and click **Restart**.



The screenshot shows the configuration page in the D-Link SECURICAM Network web interface, displaying the 'Restart' button. The page has a blue header with the D-Link logo and 'SECURICAM Network' text. The main content area is light gray and contains the following elements:

- Configuration fields:
 - Admin ID: admin
 - Password: (empty)
 - IP Address: Auto
 - Subnet Mask: Auto
 - Default Gateway: Auto
 - Primary DNS: Auto
 - Secondary DNS: Auto
- Instructional text:

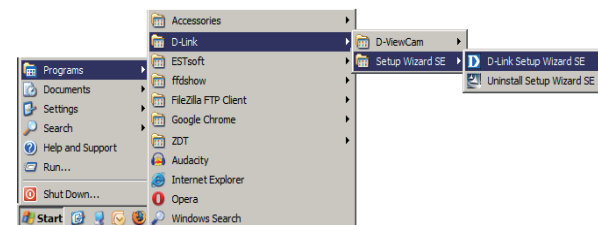
Now you have configured all settings. Please click button 'Restart' to commit the settings to the Internet camera and reboot it. Or, you can click button 'Back' to change the settings again.
- Two navigation buttons at the bottom right:
 - Back** (left arrow icon)
 - Restart** (refresh/circular arrow icon)

Web-based Configuration Utility

This section explains how to configure your new D-Link Network Camera using the Web-based Configuration Utility.

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

Start > D-Link > Setup Wizard SE

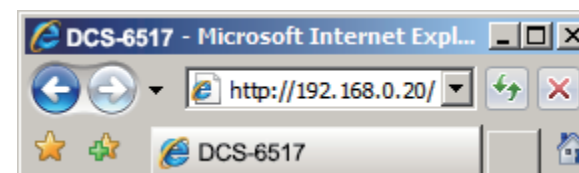


Select the camera and click the button labeled **"Link"** to access the web configuration.

The Setup Wizard will automatically open your web browser to the IP address of the camera.

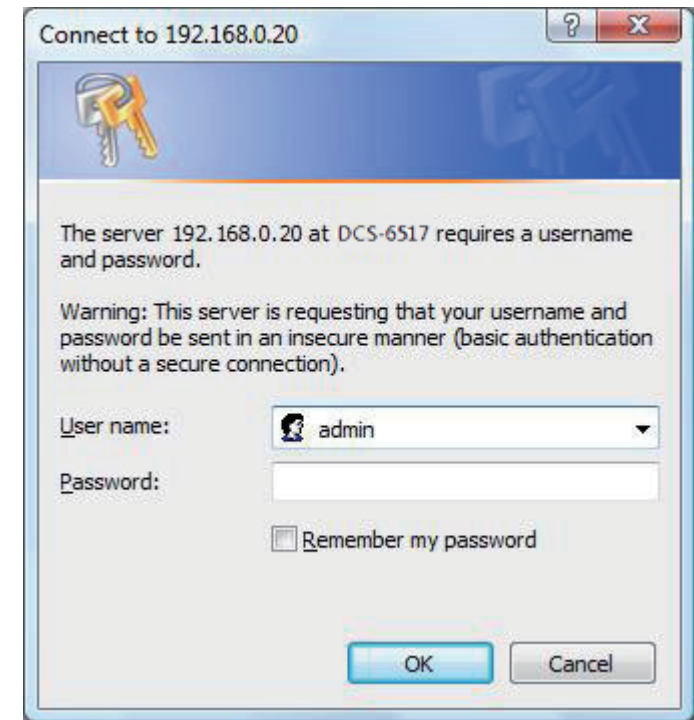


Alternatively, you may manually open a browser and enter the IP address of the camera: **192.168.0.20**



Installation

Enter **admin** as the default username and leave the password blank. Click **OK** to continue.

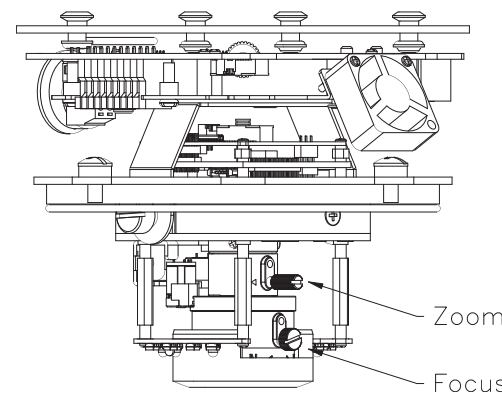
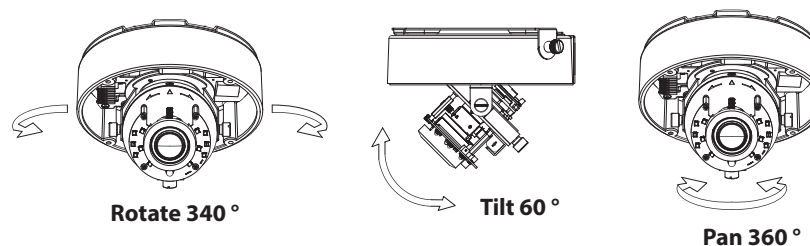
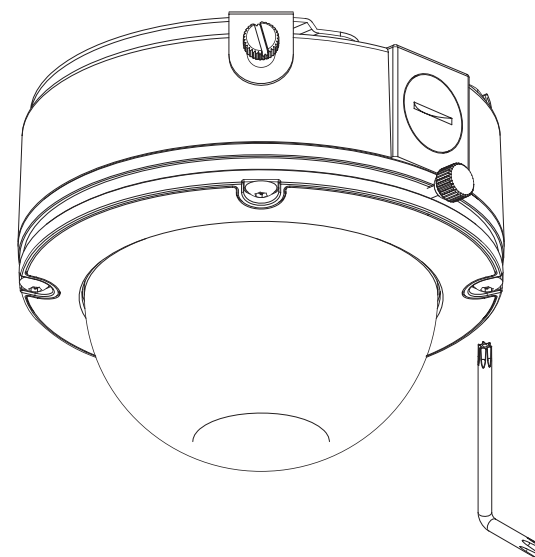


This section shows your camera's live video. You can select your video profile and view or operate the camera. For additional information about web configuration, please refer to the user manual included on the CD-ROM or the D-Link website.



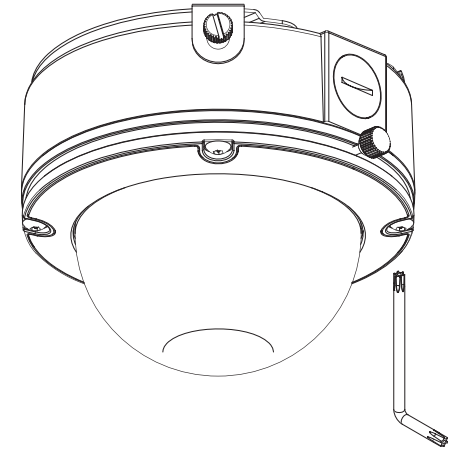
Adjusting the lens 3-axis angle

1. After the software installation, use a Web Browser linked to the Camera, to view the Streaming Video. Then prepare to adjust the Camera's direction and focus.
2. Using the Allen Wrench provided, loosen the bolts and detach the Camera from the Cover.
3. Adjust the Camera's Lens gimbal; Turn the lens module left and right, up and down and the orientation until the desired position is achieved. Tighten the pan, tilt and the adjustment screw once completed.
4. Loosen the zoom and focus controller and adjust the zoom and the focus factor by moving the controller left and right until the desired range is achieved and the image is clear; tighten the zoom and the focus controller once completed.

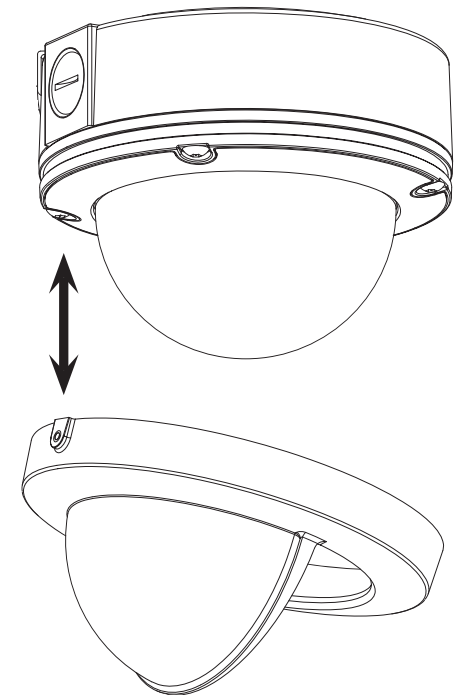


Camera Cover and Sunshield

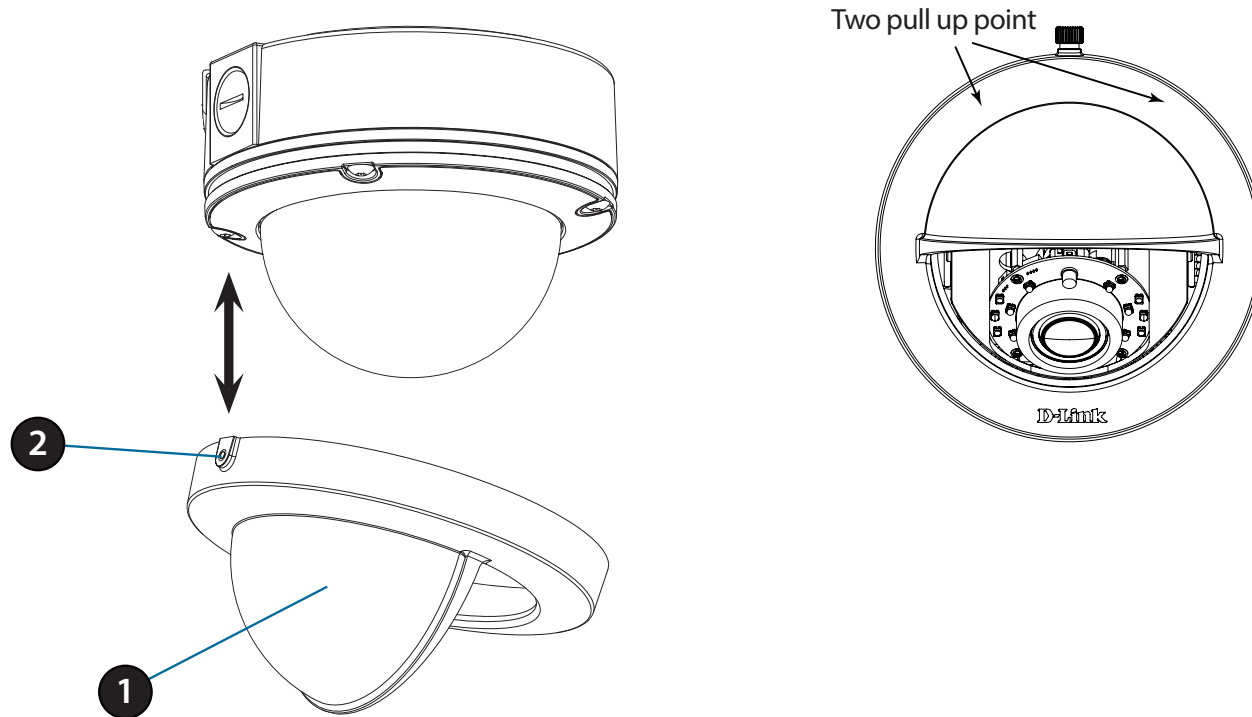
5. Using the Allen Wrench provided, tighten the bolts with the Camera with the Cover.



6. Attach the Sunshield with the Camera, attach the opposite of the bolt hook to side of the camera first then hook the bolt side. Using the bolt for security lock the Camera and the sunshield.



Sunshield

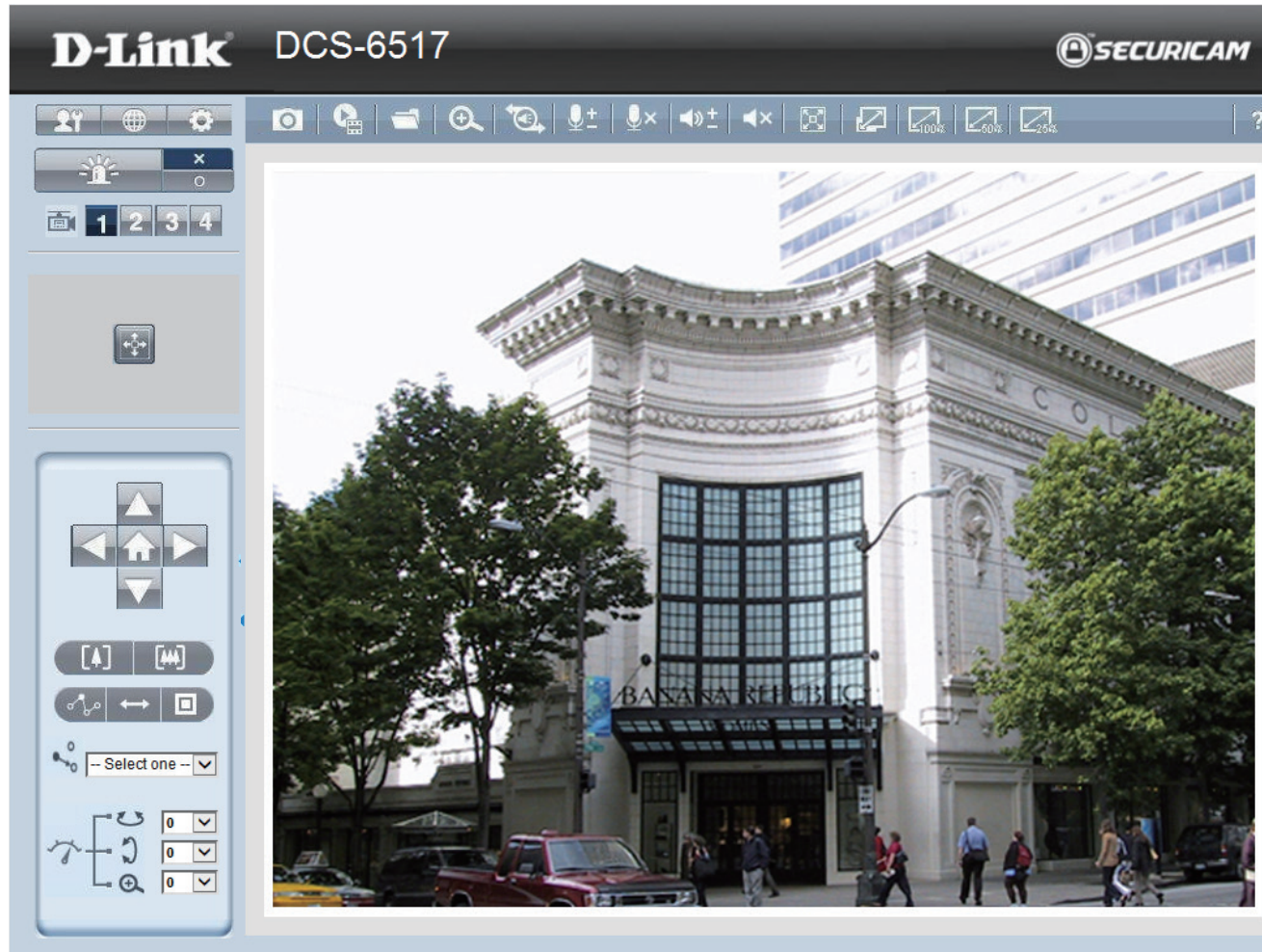








1	Sunshield	Shields the camera sensor from direct sunlight.
2	Adjustment Screw	Used to secure the sunshield to the camera.

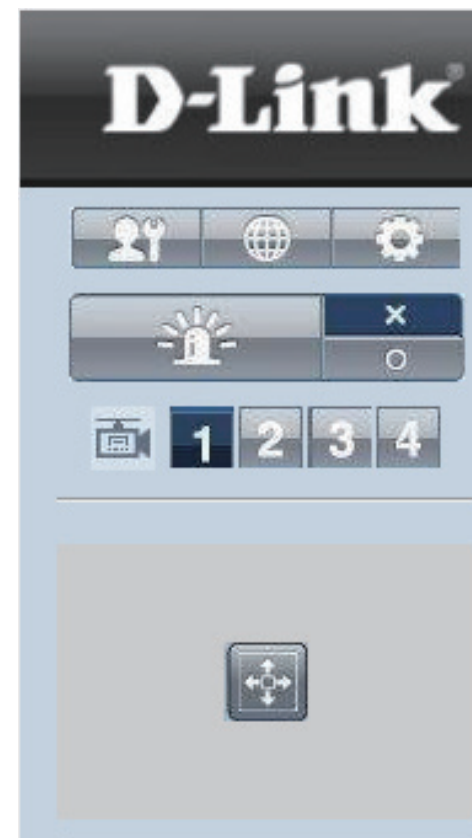
Note: When the sunshield is attached, the camera video may show reflections when the IR LEDs are on and the camera is at a high angle. If you experience this, it is recommended that you lower the angle of the camera or turn off the IR LEDs.




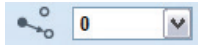
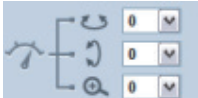
Live Video

When you connect to the camera's web interface you will see the following page. This is the Live Video page which will allow you to view the camera's video feed and control basic camera functions using the icons on the screen. Please refer to the tables on the following pages for detailed information about the icons on this screen.

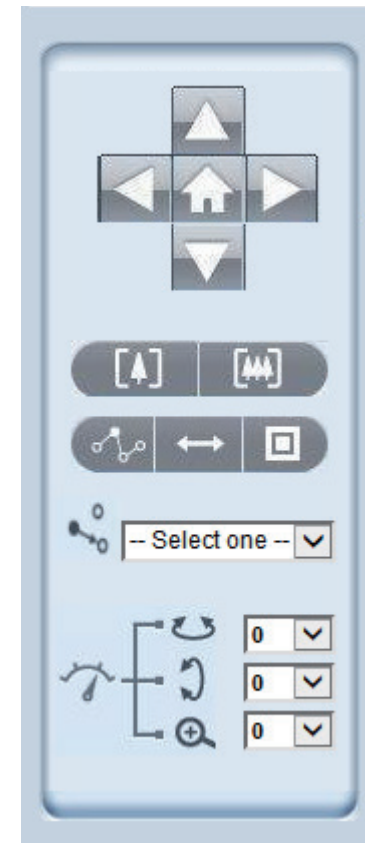














 <p>Client Settings</p>	<p>Setup the stream transmission mode and saving options on the local computer.</p>
 <p>Language</p>	<p>Select this option to adjust the language settings.</p>
 <p>Setup</p>	<p>Click on the setup icon on the main page to enter the camera setting pages. Note that only Administrators can access the setup page. To simplify the setting procedure, two types of user interfaces are available: Advanced Setup for professional users and Basic Setup for entry-level users.</p>
 <p>Digital Output</p>	<p>Click this button to turn the digital output device on or off.</p>
 <p>Video Stream</p>	<p>This camera supports multiple streams (stream 1 ~ 4) simultaneously. You may select one for live viewing.</p>
 <p>Global View</p>	<p>Click on this item to display the Global View window. The Global View window contains a full view image (the largest frame size of the captured video) and a floating frame (the viewing region of the current video stream). The floating frame allows users to control the e-PTZ function (Electronic Pan/Tilt/Zoom). For more information about e-PTZ operation, please refer to PTZ Control. For more information about how to set up the viewing region of the current video stream, please refer to Video settings on page 42.</p>




 <p>PTZ Direction</p>	<p>Home: Move the camera to the preset home position.</p> <p>Direction: Control the camera's pan or tilt directions (up/down/left/right).</p>
 <p>Zoom</p>	<p>Zoom in/out to magnify or shrink the digital image.</p> <p>Zoom in: Magnify image</p> <p>Zoom out: Diminish image</p>
 <p>Patrol Auto Pan</p>	<p>Patrol: Patrol executes a pre-defined sequence of pan, tilt, zoom, and focus features. Before selecting this, users must define at least two preset points.</p> <p>Auto Pan: Auto Pan automatically scans an area horizontally.</p> <p>Stop: Stop patrol and auto pan</p>
 <p>Go Preset</p>	<p>Select from the preset drop-down list to quickly move the camera to the desired preset position.</p>
 <p>Speed Control</p>	<p>Control Pan/Tilt/Zoom speed</p> <p>Pan Speed Control</p> <p>Tilt Speed Control</p> <p>Zoom Speed Control</p>

Digital PTZ Control Panel



 <p>Snapshot</p>	<p>Click this button to capture and save still images. The captured images will be displayed in a pop-up window. Right-click the image and choose Save Picture As to save it in JPEG (*.jpg) or BMP (*.bmp) format.</p>
 <p>Recording</p>	<p>Click this button to record video clips to your computer. When you exit the web browser, video recording stops accordingly.</p>
 <p>Recording Folder</p>	<p>Specify a storage destination for the recorded video files.</p>
 <p>Digital Zoom</p>	<p>Click and uncheck "Disable digital zoom" to enable the zoom operation. The navigation screen indicates the part of the image being magnified. To control the zoom level, drag the slider bar. To move to a different area you want to magnify, drag the navigation screen.</p>
 <p>Two Way Audio</p>	<p>Click this button to enable or disable two way audio communication.</p>
 <p>Mic Volume</p>	<p>Click this button to raise or lower the volume of the attached microphone.</p>
 <p>Mic Mute</p>	<p>Click this button to completely mute the attached microphone.</p>
 <p>Speaker Volume</p>	<p>Click this button to raise or lower the volume of the attached speaker.</p>
 <p>Speaker Mute</p>	<p>Click this button to completely mute the attached speaker.</p>
 <p>Full Screen</p>	<p>Click this button to switch to full screen mode. Press the "Esc" key to switch back to normal mode.</p>
 <p>Zoom ratio</p>	<p>Auto: The video zoom ratio will be changed automatically according to viewing window size. 100%: Keep the video zoom ratio at 100% 50%: Keep the video zoom ratio at 50% 25%: Keep the video zoom ratio at 25%</p>
 <p>Help</p>	<p>Click the Help button to learn the detailed information regarding camera setup and solve any problems you encounter.</p>

Client Setup

Clicking the Client Settings button  will bring you to the following screen which allows you to configure the basic protocol options for your camera.

H.264 Media Options

For additional information about streaming options please refer to "Audio and Video" on page 42.

Recording Options

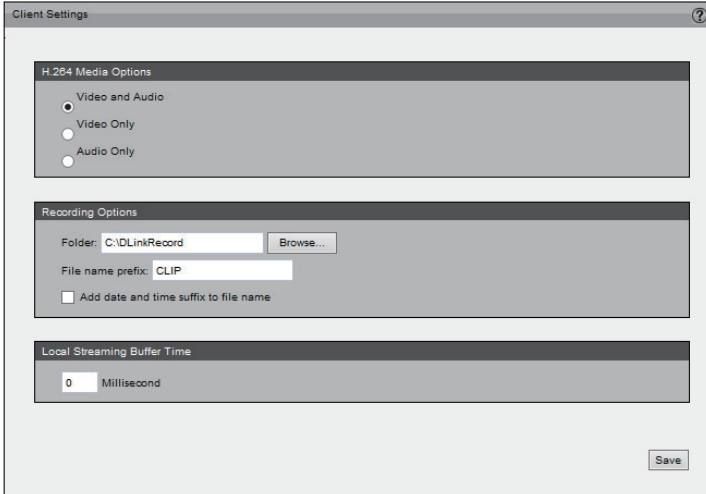
Folder: Select the folder where you would like the Recording file saved on your desktop computer.

File name prefix: Enter a file name prefix for the Recording file files.

Add date and time suffix to file name: Select this checkbox if you would like the date and time to be added to the end of each filename.

Local Streaming Buffer Time

Enter the buffer time in milliseconds. The buffer will cause a slight delay between live activity and the video of the live stream but may increase the quality of video.



The screenshot shows the 'Client Settings' window with the following configuration:

- H.264 Media Options:** Radio buttons for 'Video and Audio' (selected), 'Video Only', and 'Audio Only'.
- Recording Options:** 'Folder' set to 'C:\DLinkRecord' with a 'Browse...' button; 'File name prefix' set to 'CLIP'; and an unchecked checkbox for 'Add date and time suffix to file name'.
- Local Streaming Buffer Time:** A text input field containing '0' followed by 'Millisecond'.
- A 'Save' button is located at the bottom right of the window.

Setup

The DCS-6517 includes basic and advanced setup screens. Both screens include a tree view with multiple setup options. This manual includes detailed explanations for all advanced setup screens.

Basic Setup

Click the **setup** button to enter the setup screen.



Click on the **basic** button to enter the setup screen.



Please click the [+] next to each folder to view the options.

Basic setup includes the following options:

System Overview

Audio and Video

- Video Settings, Audio Settings, Day and Night Settings

Network

- IP Settings

Event Management

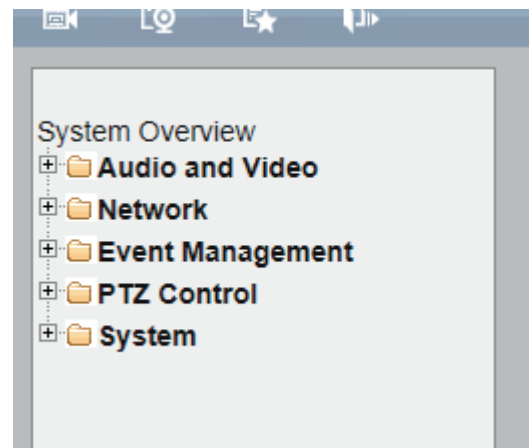
- Motion Detection, Tamper Detection, DI and DO

PTZ Control

- Digital PTZ

System

- User Settings, Device Settings, Time and Date, Maintenance



Advanced Setup

Click the **setup** button to enter the setup screen.



Click on the **advanced** button to enter the setup screen.



Please click the [+] next to each folder to view the options.

Advanced setup includes the following options:

System Overview

Audio and Video

- Video Settings, Image Settings, Audio Settings, Day and Night Settings

Network

- IP Settings, Port & Access Name Settings, Dynamic DNS, HTTPS, Access List, Advanced Settings

Event Management

- Motion Detection, Tamper Detection, DI and DO, Event Settings

Recording

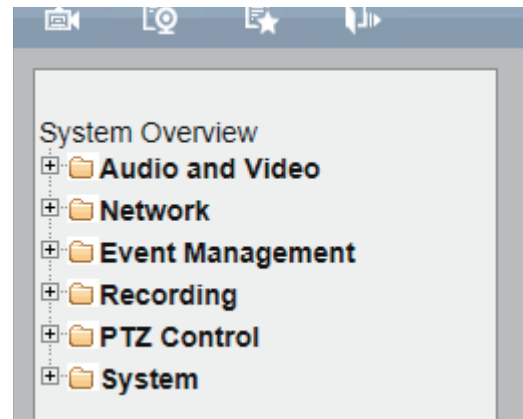
- Recording Settings, Local Storage

PTZ Control

- Digital PTZ

System

- User Settings, Device Settings, Time and Date, Maintenance, Parameter List, Logs



System Overview

The system overview page contains a summary of the camera's current settings. For more information about adjusting these settings, please consult the subsequent instructions found in this manual.

System Overview

Device Information

IP address	192.168.1.102
Link-local address	169.254.62.73
Current firmware version	v0.00.08
Current firmware date	1 Aug 2014
MAC address	00:0F:0D:00:30:F4
Connect client	0

Time and Date

Current system time	29 Aug 2014 15:6:35
System up time	1 Days, 21 Hours, 13 Minutes
Time mode	Manually

Service Status

Service	Enabled / Disabled	Protocol	Server port
HTTP	Enable	TCP	80
Secondary HTTP	Enable	TCP	8080
HTTPS	Enable	TCP	443
FTP	Enable	TCP	21
RTSP	Enable	TCP	554
UPnP presentation	Enable	-	-
UPnP port forwarding	Disable	-	-
802.1x	Disable	-	-
CoS	Disable	-	-
QoS / DSCP	Disable	-	-
SNMP	Disable	-	-
DDNS	Disable	-	-
Access list	Disable	-	-

Stream Status

Stream number	Codec type	Resolution	Max Frame Rate	Bitrate / Quality
Stream 1	H.264	2560x1920	15	6 Mbps
Stream 2	H.264	1280x960	5	2 Mbps
Stream 3	H.264	800x600	5	1 Mbps
Stream 4	H.264	800x600	5	1 Mbps

Recent Logs

Audio and Video

Video Settings

This page allows you to set up 3 video streams to be displayed on a computer, mobile device, or storage system. Each stream has independent options for proper compression type, frame size, frame rate to optimize the bandwidth utilization and video quality.

Video Options

Viewing Window: The camera supports multiple streams with frame size ranging from 320 x 240 to 2560x1920. Click **Viewing Window** to open the viewing region setting page. On this page, you can set the Region of Interest (ROI) and the Output Frame Size for stream 1~3. Please follow the steps below to set up a stream:

1. Select a stream whose viewing region you would like to set.
2. Select a Region of Interest from the drop-down list, the floating frame will resize accordingly. If you want to set up a customized viewing region, you can also resize and drag the floating frame to a desired position with your mouse.
3. Choose a proper Output Frame Size from the drop-down list according to the size of your monitoring device.

Note: All the items in the "Output Frame Size" should not be greater than the "Region of Interest" (current maximum resolution).

The definition of multiple streams:

Stream 1-3: Users can define the "Region of Interest" (viewing region) and the "Output Frame Rate" (size of the live view window).

The screenshot displays the 'Video Options' configuration page. At the top, there are two tabs: 'Viewing Window' and 'Sensor Settings'. Below the tabs, the 'Aspect Ratio' is set to 4:3, with a 'Save' button. The main section is titled 'Video Quality Settings for Stream 1' through 'Stream 4'. Each stream configuration includes:

- Stream 1:** H.264 selected. Frame size: 2560x1920. Maximum frame rate: 15 fps. Intra frame period: 1 S. Video quality: Constant bit rate (8 Mbps) selected, Fixed quality (Good).
- Stream 2:** H.264 selected. Frame size: 1280x960. Maximum frame rate: 5 fps. Intra frame period: 1 S. Video quality: Constant bit rate (2 Mbps) selected, Fixed quality (Good).
- Stream 3:** H.264 selected. Frame size: 800x600. Maximum frame rate: 5 fps. Intra frame period: 1 S. Video quality: Constant bit rate (1 Mbps) selected, Fixed quality (Good).
- Stream 4:** H.264 selected. Frame size: 800x600. Maximum frame rate: 5 fps. Intra frame period: 1 S. Video quality: Constant bit rate (1 Mbps) selected, Fixed quality (Good).

At the bottom right of the page, there is a 'Save' button.

Once finished with the setting in the Viewing Window, click **Save** to enable the settings and click **Close** to exit the window. The selected Output Frame Size will immediately be applied to the Frame size of video stream. You can then go back to the Live Video to test the new settings.

Sensor Setting: Click **Sensor Setting** to open the Sensor Setting page. On this page, you can set the maximum exposure time, exposure level, and AGC (Auto Gain Control) setting. You can configure two sets of sensor setting: one for normal situations, the other for special situations, such as day/night/schedule mode.

Exposure

- **Maximum Exposure Time:** Select a proper maximum exposure time according to the light source of the surroundings. Shorter exposure times result in less light reaching the sensor. The exposure times are selectable for the following durations: 1/120 second, 1/60 second, 1/30 second, 1/15 second, and 1/5 second.
- **Exposure level:** You can manually set the Exposure level which ranges from 1 to 8 (dark to bright).
- **Max. Gain (Auto Gain Control):** You can manually set the AGC level (2X 4X, 8X, 16x, or 32x). The higher the value, the brighter the image will be.

You may click **Preview** to fine-tune the image, or click **Restore** to recall the original setting without incorporating the changes. When completed with the setting on this page, click **Save** to enable the setting and click **Close** to exit the page. If you want to configure another sensor setting for day/night/schedule mode, please click **Profile 2** and follow the steps below to setup:

1. Click Enable this profile.
2. Select the applied mode: Day mode, Night mode, or schedule mode. Please manually enter a range of time if you choose Schedule mode.
3. Configure Exposure setting in the second column.
4. Click **Save** to enable the setting and click **Close** to exit the page.

The screenshot displays the 'Video Options' configuration page. At the top, there are two tabs: 'Viewing Window' and 'Sensor Settings'. Below the tabs, the 'Aspect Ratio' section shows radio buttons for '4:3' and '16:9', with a 'Save' button. The main area is divided into four sections, each titled 'Video Quality Settings for Stream X' (where X is 1, 2, 3, or 4). Each section contains the following settings:

- Stream 1:** H.264 selected. Frame size: 2560x1920. Maximum frame rate: 15 fps. Intra frame period: 1 S. Video quality: Constant bit rate (8 Mbps) selected, Fixed quality (Good).
- Stream 2:** H.264 selected. Frame size: 1280x960. Maximum frame rate: 5 fps. Intra frame period: 1 S. Video quality: Constant bit rate (2 Mbps) selected, Fixed quality (Good).
- Stream 3:** H.264 selected. Frame size: 800x600. Maximum frame rate: 5 fps. Intra frame period: 1 S. Video quality: Constant bit rate (1 Mbps) selected, Fixed quality (Good).
- Stream 4:** H.264 selected. Frame size: 800x600. Maximum frame rate: 5 fps. Intra frame period: 1 S. Video quality: Constant bit rate (1 Mbps) selected, Fixed quality (Good).

At the bottom right of the page, there is a 'Save' button.

Aspect Ration

Choose ether 4:3 or 16:9 for the aspect ration. This will format the video stream to better fit the type of display that it will be viewed on. 4:3 is better for standard definition displays, while 16:9 is meant for displays that are capable of showing wide format content.

Video Quality Setting for Stream 1~3

Compression Type: The compression level affects the amount of bandwidth and storage required. Lower compression uses more bandwidth and storage but delivers better image quality. Of the two options, H.264 consumes much less network bandwidth compared to JPEG.

Frame Size: Select proper frame size for different viewing devices, bigger frame size requires more bandwidth and storage usage. For smaller viewers, such as mobile phones, a smaller frame size and lower frame rate is recommended.

Frame Rate: This option affects the smoothness of the video. Select higher frame rate for smoother video quality but it requires more storage usage. 10 options for selection: customize, 1, 2, 3, 5, 8, 10, 15, 20, 25, and 30. The frame rate may automatically change and some options may not be available depending on the resolution. The max. frame rate of 4:3 aspect ratio resolution is 15 fps.

Intra Frame Period: Determines the frequency and I frame is planted. The shorter the duration, the more likely you will get better video quality, but at the cost of higher network bandwidth consumption. Select the intra frame period from the following durations: 1/4 second, 1/2 second, 1 second, 2 seconds, 3 seconds and 4 seconds.

Video Quality: This setting limits the maximum refresh frame rate.

- **Constant bit rate:** To set a fixed bandwidth regardless of the video quality, select Constant bit rate and the desired bandwidth from 20 Kbps to 8 Mbps. You can also select **Customize** and manually enter a value.
- **Fixed quality:** To optimize the bandwidth utilization and video quality. The video quality can be adjusted to the following setting: Medium, Standard, Good, Detailed and Excellent. You can also select **Customize** and manually enter a value.

The screenshot displays the 'Video Options' configuration interface. At the top, there are tabs for 'Viewing Window' and 'Sensor Settings'. Below this is the 'Aspect Ratio' section with radio buttons for '4:3' and '16:9', and a 'Save' button. The main area is divided into four sections, each for a different video stream (Stream 1, Stream 2, Stream 3, and Stream 4). Each section contains settings for 'H.264' (selected) and 'JPEG'. For each stream, the settings include: 'Frame size' (a dropdown menu), 'Maximum frame rate' (a dropdown menu), 'Intra frame period' (a dropdown menu), and 'Video quality' (radio buttons for 'Constant bit rate' and 'Fixed quality', with a dropdown menu for the fixed quality level). Stream 1 settings: Frame size 2560x1920, Max frame rate 15 fps, Intra frame period 1 S, Video quality Constant bit rate 8 Mbps. Stream 2 settings: Frame size 1280x960, Max frame rate 5 fps, Intra frame period 1 S, Video quality Constant bit rate 2 Mbps. Stream 3 settings: Frame size 800x600, Max frame rate 5 fps, Intra frame period 1 S, Video quality Constant bit rate 1 Mbps. Stream 4 settings: Frame size 800x600, Max frame rate 5 fps, Intra frame period 1 S, Video quality Constant bit rate 1 Mbps. A 'Save' button is located at the bottom right of the configuration area.

Image Settings

This page allows you to tune the white balance, brightness, saturation, contrast, and sharpness settings for the video.

Color: Select either a Color or B/W (black and white, monochrome) video display.

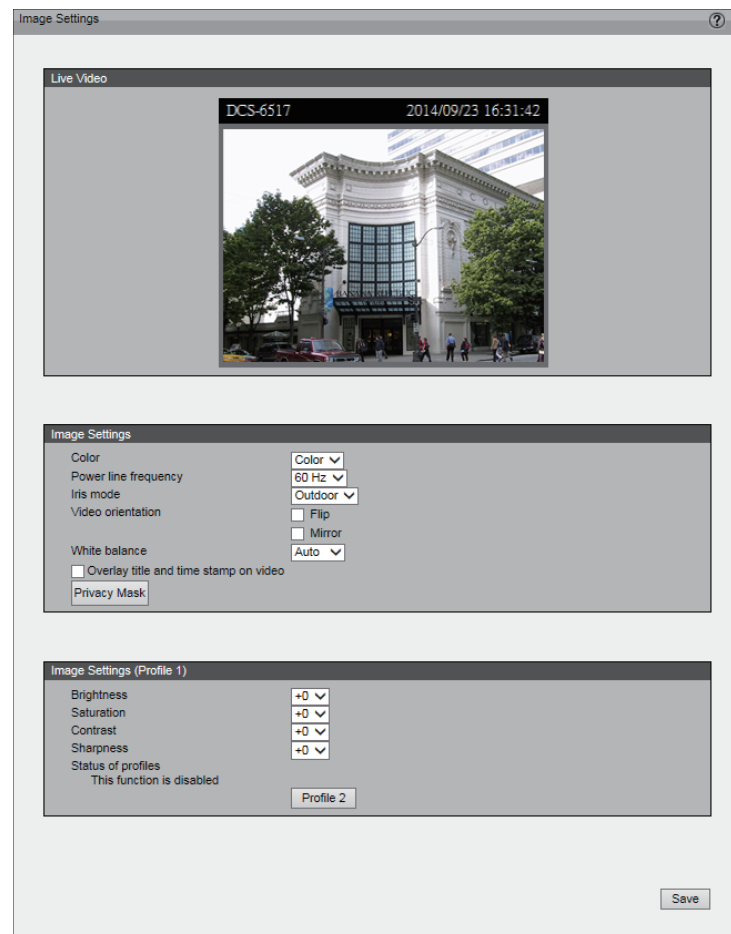
Power Line Frequency: Select either 50 or 60 Hz depending on your region.

Iris Mode: Select the environment that the camera will primarily be viewing. This can be set to Fixed, Indoor, or Outdoor.

Video Orientation: Flip will vertically rotate the video. Mirror will horizontally rotate the video. You may select both options if camera is being installed upside down.

White Balance: This adjusts the relative amount of red, green and blue primary colors in the image so that the neutral colors are reproduced correctly.

- **Auto:** The camera automatically adjusts the color temperature of the light in response to different light sources. The white balance setting defaults to Auto and works well in most situations.
- **Fixed:** Follow the steps below to manually set the white balance to compensate for the ambient lighting conditions
 1. Set the White balance to Auto and click **Save**.
 2. Place a sheet of white paper in front of the lens, then allow the camera to adjust the color temperature automatically.
 3. Select Fixed to confirm the setting while the white balance is being measured.
 4. Click **Save** to enable the new setting.



Brightness: Adjust the image brightness level, which ranges from -5 to +5

Saturation: Adjust the image saturation level, which ranges from -5 to +5

Contrast: Adjust the image contrast level, which ranges from -5 to +5

Sharpness: Adjust the image sharpness level, which ranges from -3 to +3

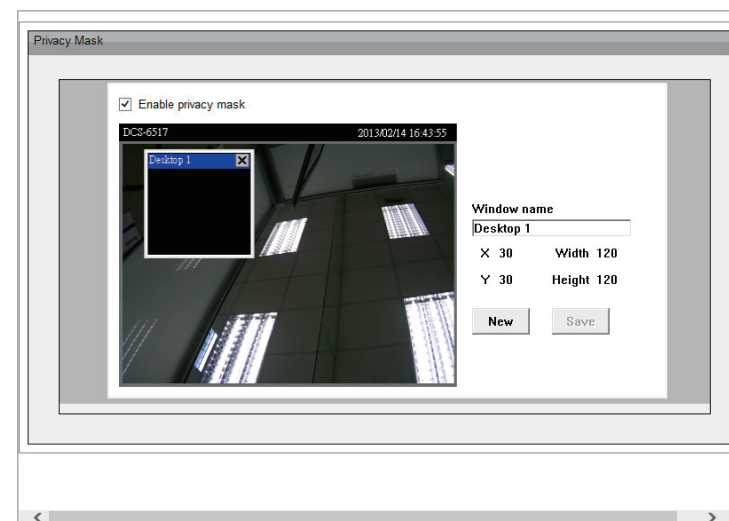
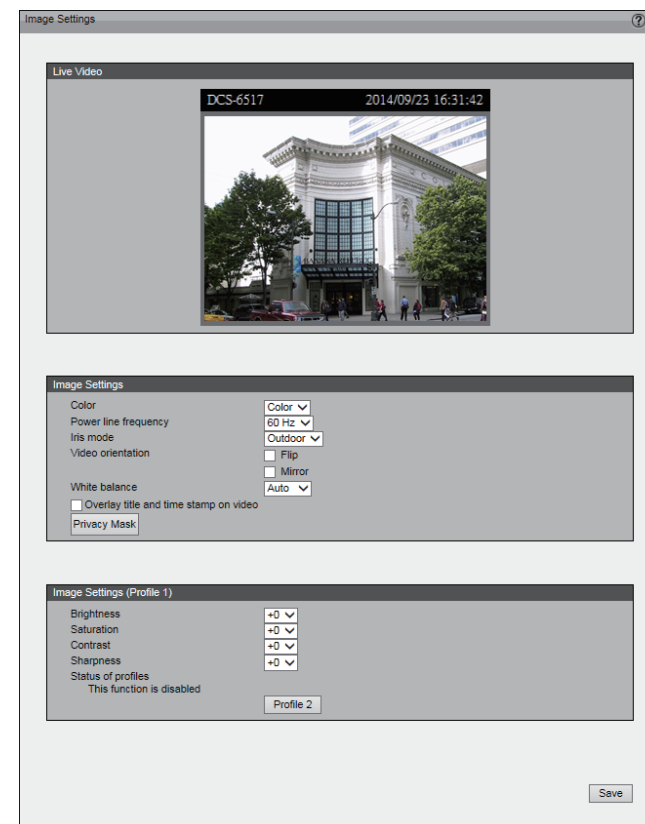
Overlay Title and Time Stamp on Video: Select this option to place the video title and time on the video streams. (When the frame size is set to 176 x 144 only the time will be stamped on the video streams.)

Privacy Mask: In this page, you can block out certain sensitive zones for privacy concerns. To set up a Privacy Mask Window, follow the steps given below:

1. Click **New** to add a window.
2. The height and width of the window can be resized and drag-dropped the window.
3. Enter a descriptive Window Name and click **Save** to apply changes.
4. Select Enable privacy mask to facilitate this function.

None:

- Up to 5 privacy mask windows can be set up on the same screen.
- If you want to delete the privacy mask window, please click the 'x' at the upper right-hand corner of the window.

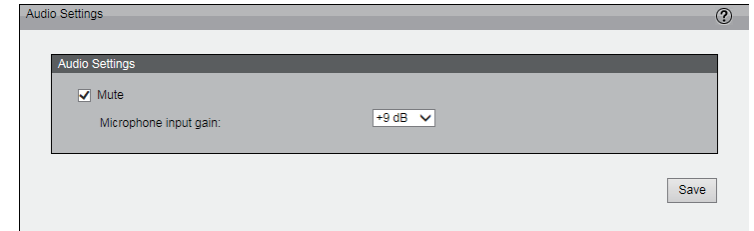


Audio Settings

This page allows you to configure the settings for the built-in audio support.

Mute: Check this box to mute all of the audio capabilities of the camera.

Microphone Input Gain: The microphone sensitivity can be increased or decreased to help provide better audio quality.



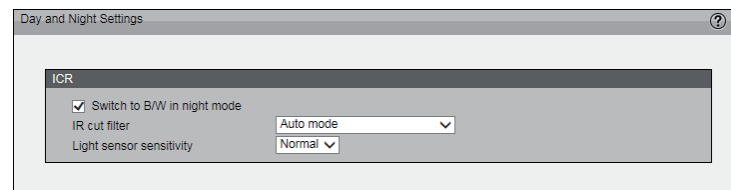
Day and Night Settings

Switch to B/W in Night Mode: Select to automatically enable the camera to switch to B/W night mode.

IR Cut Filter: The IR-Cut Removable (ICR) filter mechanically switches between two different sensor filters. It provides the best light conditions both during the day and night. The following options are:

- **Auto Mode:** The camera automatically switches between day and night mode by judging the level of ambient light. This mode is accessible only when the exposure mode is set to Auto.
- **Day Mode:** In this mode the camera switches on the IR cut filter at all times, which will block the infrared light from reaching the sensor so that the colors are not distorted.
- **Night Mode:** The camera switches off the IR cut filter to allow the infrared light to pass through. This helps the camera to see more clearly in low light conditions.
- **Synchronize with Digital Input:** The camera automatically removes the IR cut filter when DI triggers.
- **Schedule Mode:** The camera switches between day and night mode based on a specific schedule. Ensure to enter the starting and ending time for the day mode. Note that the time format is [hh:mm] and is expressed in 24-hour clock time. By default, the starting time and ending time of day mode are set to 07:00 and 18:00.

Light Sensor Sensitivity: Select Low, Normal, or High sensitivity for the light sensor.



Save

Network IP Settings

IPv4

LAN: Select this option when the camera is deployed on a local area network (LAN) and is intended to be accessed by local computers. The default setting for the Network Type is LAN. Remember to click **Save** when you complete the Network setting.

- **Get IP address automatically (DHCP):** Select this connection if you have a DHCP server running on your network and would like a dynamic IP address to be assigned to the camera automatically.
- **Use fixed IP address:** You may enter a static or fixed IP address for your camera.

IP Address: Enter an IP address.

Subnet Mask: The default value is "255.255.255.0." This helps to determine if the designated IP address is on the same subnet.

Default Router: This is the gateway used to forward frames to destinations in a different subnet. (Invalid router setting will cause the transmission to fail if its destination is in a different subnet).

Primary DNS: The Primary Domain Name Server (DNS) that translates hostname into IP address.

Secondary DNS: Secondary Domain Name Server (DNS) that backups the Primary DNS.

Primary WINS Server: The primary WINS server that maintains the database of computer name and IP address.

Secondary WINS Server: The secondary WINS server that maintains the database of computer name and IP address.

The screenshot shows the 'IP Settings' window. Under the 'IPv4' section, the 'LAN' radio button is selected. Within the LAN options, 'Get IP address automatically (DHCP)' is selected. Other options include 'Use fixed IP address', 'Enable UPnP presentation' (checked), 'Enable UPnP port forwarding' (unchecked), and 'PPPoE' (unselected). The 'IPv6' section below has 'Enable IPv6' checked, with buttons for 'IPv6 Information', 'DHCPv6', and 'Manually setup the IP address'. A 'Save' button is at the bottom right.

This screenshot shows the 'IP Settings' window with the 'Use fixed IP address' radio button selected under the 'IPv4' section. The following fields are filled in:

IP address	192.168.1.4
Subnet mask	255.255.255.0
Default router	192.168.1.2
Primary DNS	192.168.1.2
Secondary DNS	168.95.192.1

The 'Enable UPnP presentation' checkbox is checked, and 'Enable UPnP port forwarding' is unchecked. The 'IPv6' section below remains the same as in the previous screenshot. A 'Save' button is at the bottom right.

- **Enable UPnP Presentation:** Select this option to enable UPnP presentation for the camera so that whenever a camera is presented to the LAN, shortcuts of connected cameras will be listed in My Network Places. You can click the shortcut to link to the web browser. Currently, UPnP is supported by Windows XP or later. Note that to utilize this feature, please make sure the UPnP component is installed on your computer.
- **Enable UPnP Port Forwarding:** To access the camera from the Internet, select this option to allow the camera to open ports on the router automatically so that video streams can be sent out from a LAN. To utilize this feature, make sure that your router supports UPnP and it is activated.

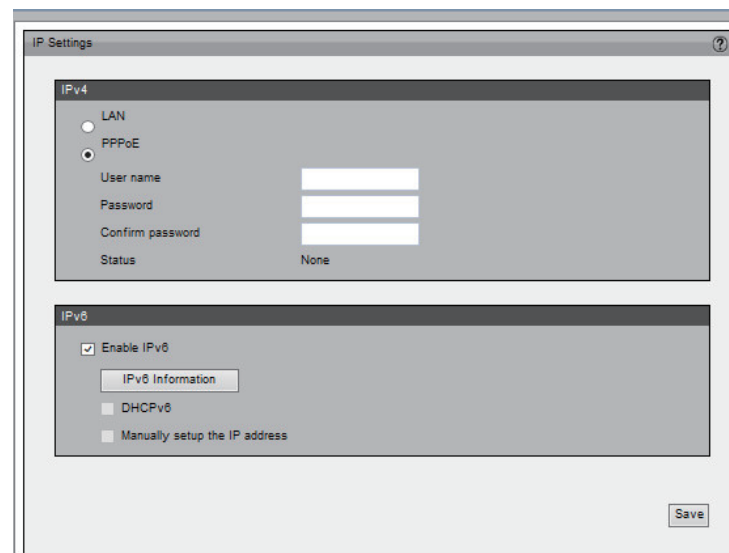
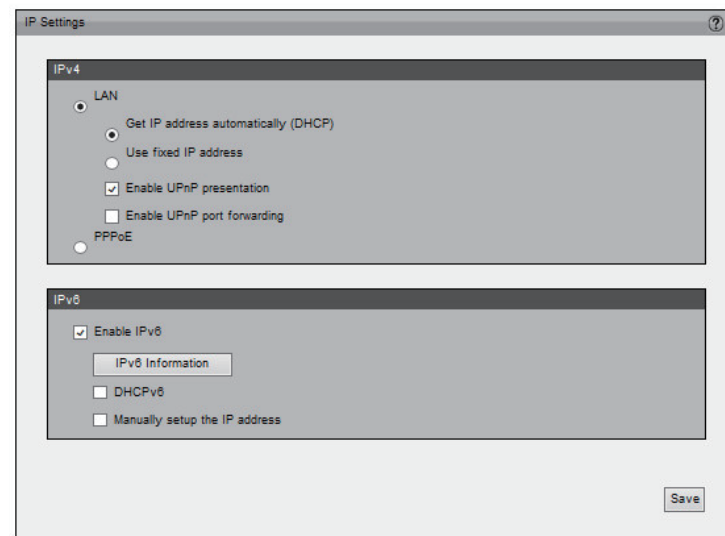
How does UPnP work?

UPnP networking technology provides automatic IP configuration and dynamic discovery of devices added to a network. Services and capabilities offered by networked devices, such as printing and file sharing, are available among each other without bothersome network configuration. In the case of Network Cameras, you will see Network Camera shortcuts at My Network Places.

PPPoE: Select this option to configure the camera to make it accessible from anywhere with an Internet connection. Note that to utilize this feature, it requires an account provided by your ISP.

Follow the steps below to acquire the camera's public IP address.

1. Set up the camera on the LAN
2. Go to **Live View > Setup > Event management > Event settings > Server Settings** (please refer to Server Settings to add a new e-mail or FTP server)
3. Go to **Setup > Event management > Event settings > Media Settings** (please refer to Media Settings). Select System log so that you will receive the system log in TXT file format which contains the camera's public IP address in your e-mail or on the FTP server.
4. Go to **Setup > Network > IP settings**. Select PPPoE and enter the user name and password provided by your ISP. Click **Save** to enable the setting.
5. The camera will reboot.
6. Disconnect the power to the camera. Remove it from the LAN environment.



IPv6

Enable IPv6: Select this option and click **Save** to enable IPv6 setting. Please note that this only works if your network environment and hardware equipment support IPv6. The browser should be Microsoft® Internet Explorer 6.5, Mozilla Firefox 3.0 or above.

When IPv6 is enabled, by default, the camera will listen to router advertisements and be assigned a link-local IPv6 address accordingly.

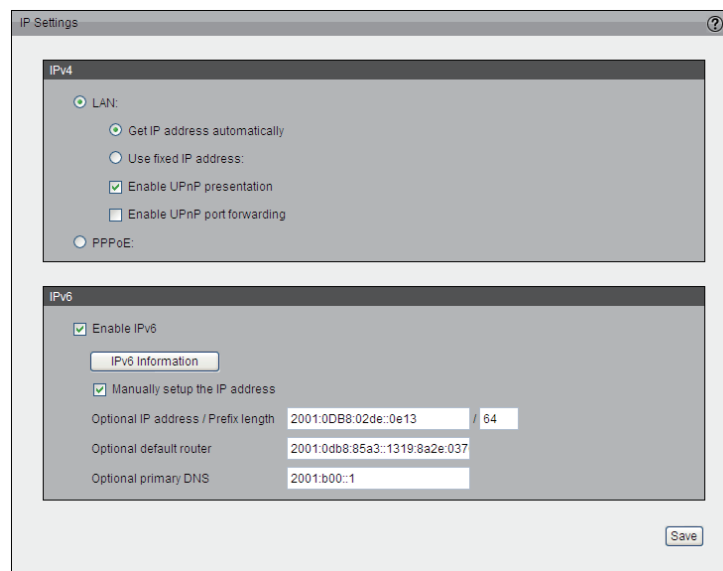
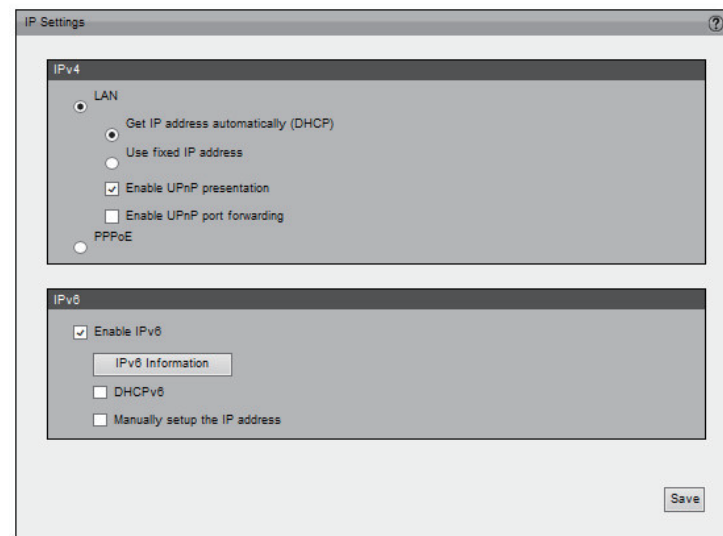
IPv6 Information: Click this button to obtain the IPv6 information. If your IPv6 setting are successful, the IPv6 address list will be listed in the pop-up window.

Please follow the steps below to link to an IPv6 address:

1. Open your web browser.
2. Enter the link-global or link-local IPv6 address in the address bar of your web browser.
3. Press **Enter** on the keyboard or click **Refresh** button to refresh the webpage.

DHCPv6: Enable this function if you have a DHCPv6 server running on your network and would like a dynamic IPv6 address to be assigned to the camera automatically.

Manually Setup the IP address: Select this option to manually configure IPv6 setting if your network environment does not have DHCPv6 server and advertisements-enabled routers.



Port and Access Name Settings

HTTPS

By default, the HTTPS port is set to 443. It can also be assigned to another port number between 1025 and 65535.

HTTP

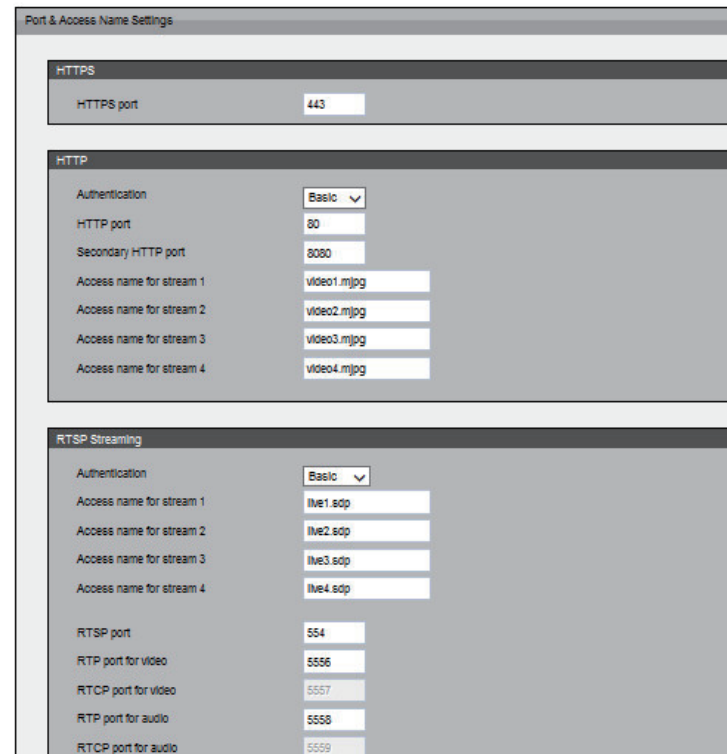
By default, the HTTP port is set to 80 and the secondary HTTP port is set to 8080. They can also be assigned to another port number between 1025 and 65535.

Authentication: Depending on your network security requirements, the camera provides two types of security setting for an HTTP transaction: basic and digest. If basic authentication is selected, the password is sent in plain text format and there can be potential risks of being intercepted. If digest authentication is selected, user credentials are encrypted using MD5 algorithm and thus provide better protection against unauthorized accesses.

Access name for stream 1 ~ 4: The Network camera supports multiple streams simultaneously. The access name is used to differentiate the streaming source. Users can click **Setup > Video > Video Settings** to set up the video quality of linked streams.

RTSP

To utilize RTSP streaming authentication, make sure that you have set a password for the camera first. Please refer to User Settings for details.



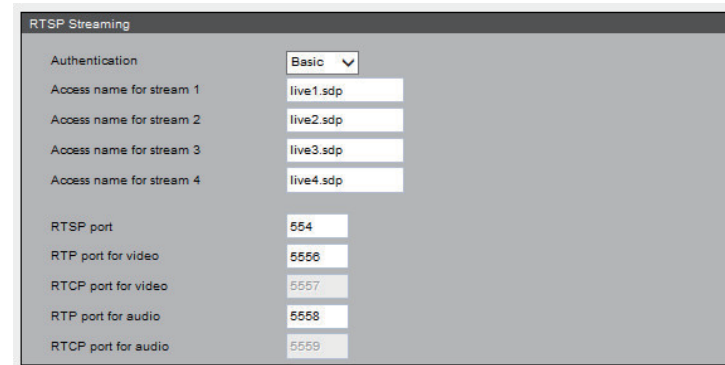
Port & Access Name Settings	
HTTPS	
HTTPS port	443
HTTP	
Authentication	Basic
HTTP port	80
Secondary HTTP port	8080
Access name for stream 1	video1.mjpg
Access name for stream 2	video2.mjpg
Access name for stream 3	video3.mjpg
Access name for stream 4	video4.mjpg
RTSP Streaming	
Authentication	Basic
Access name for stream 1	live1.sdp
Access name for stream 2	live2.sdp
Access name for stream 3	live3.sdp
Access name for stream 4	live4.sdp
RTSP port	554
RTP port for video	5556
RTCP port for video	5557
RTP port for audio	5558
RTCP port for audio	5559

Authentication: Depending on your network security requirements, the camera provides three types of security setting for streaming via RTSP Protocol: disable, basic, and digest. If basic authentication is selected, the password is sent in plain text format, but there can be potential risks of it being intercepted. If digest authentication is selected, user credentials are encrypted using MD5 algorithm, thus providing better protection against unauthorized access.

Access Name for Stream 1 ~ 4: This camera supports multiple streams simultaneously. The access name is used to differentiate the streaming source. If you want to use an RTSP player to access the camera, you have to set the video mode to H.264 and use the following RTSP URL command to request transmission of the streaming data.

Multicast and Unicast Streaming Protocols

You may choose to enable multicast or unicast for your camera audio and video streaming so that your cameras (sources) and the receivers (clients) can establish the connection to send and receive contents.



RTSP Streaming	
Authentication	Basic
Access name for stream 1	live1.sdp
Access name for stream 2	live2.sdp
Access name for stream 3	live3.sdp
Access name for stream 4	live4.sdp
RTSP port	554
RTP port for video	5556
RTCP port for video	5557
RTP port for audio	5558
RTCP port for audio	5559

Unicast video transmission delivers a stream through point-to-point transmission. Multicast, on the other hand, sends a stream to the multicast group address and allows multiple clients to acquire the stream at the same time by requesting a copy from the multicast group address. Therefore, enabling multicast can effectively save network bandwidth.

An IP Multicast group address is used to send and receive content. Sources use this group address as the destination address while sending their data packets. Receivers use this group address to inform the network that they are interested in receiving packets sent to that group.

The ports can be changed to values between 1025 and 65535. The multicast RTP port must be an even number, and the multicast RTCP port number is the multicast RTP port number plus one, and thus is always odd. When the multicast RTP port changes, the multicast RTCP port will change accordingly.

Multicast TTL [1~255]: The multicast TTL (Time To Live) is the value that tells the router the range a packet can be forwarded.

Click the items to display the detailed configuration information. Select the **Always multicast** option to enable multicast for stream 1 ~ 4.

The screenshot displays the 'Multicast' configuration page. It features four sections, each for a different stream, with a checked checkbox to 'Enable multicast for stream X'. Each section contains the following fields:

- Multicast group address
- Multicast video port
- Multicast RTCP video port
- Multicast TTL [1~255]

At the bottom of the page, there are two additional fields:

- Multicast audio port
- Multicast RTCP audio port

Stream	Group Address	Video Port	RTCP Video Port	TTL	Audio Port	RTCP Audio Port
1	239.128.1.99	5560	5561	15	5562	5563
2	239.128.1.100	5564	5565	15		
3	239.128.1.101	5568	5569	15		
4	239.128.1.102	5572	5573	15		

Dynamic DNS

This section explains how to configure the dynamic domain name service for the camera. DDNS is a service that allows your camera, especially when assigned with a dynamic IP address, to have a fixed host and domain name.

Enable DDNS: Select this option to enable the DDNS setting.

Server Name: Select a DDNS server name from the provider drop-down list. With a Dynamic DNS account, the camera automatically updates your IP address. To enable DDNS, enter your host information. Click **Next** to continue.

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

Username: Enter your username or e-mail used to connect to the DDNS

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

Status: Indicate the connection status, automatically determined by the system.



HTTPS

This section explains how to enable authentication and encrypted communication over SSL (Secure Socket Layer). It helps protect streaming data transmission over the Internet on higher security level.

Enable HTTPS

Select this item to enable HTTPS communication, then select a connection option: "HTTP & HTTPS" or "HTTPS only". Note that you have to create and install a certificate first in the second column before clicking the **Save** button.

Create and Install Certificate Method

Before using HTTPS for communication with the camera, a certificate must be created first.

There are three ways to create and install a certificate:

Create Self-signed Certificate Automatically

1. Select this option.
2. In the first column, select **Enable HTTPS secure connection**, then select a connection option: "HTTP & HTTPS" or "HTTPS only".
3. Click **Save** to generate a certificate.
4. The **Certificate Information** will automatically be displayed in the third column. You can click **Property** to view detailed information about the certificate.
5. Click **Live Video** to return to the main page. Change the address from "http://" to "https://" in the address bar and press Enter. Some Security Alert dialogs will pop up. Click **OK** or **Yes** to enable HTTPS.

Create Self-signed Certificate Manually

1. Click **Create** to open the Create Certificate page, then click **Save** to generate the certificate.
2. The Certificate Information will automatically be displayed in the third column as shown below. You can click **Property** to see detailed information about the certificate.

The screenshot shows a web interface for configuring HTTPS. It is divided into three main sections:

- Enable HTTPS:** A checkbox labeled "Enable HTTPS secure connection" is checked. Below it are two radio buttons: "HTTP & HTTPS" (selected) and "HTTPS only". A "Save" button is located to the right.
- Create and install certificate method:** Three radio buttons are present: "Create self-signed certificate automatically" (unselected), "Create self-signed certificate manually" (selected), and "Create certificate request and install" (unselected). Below the radio buttons is a "Self-signed certificate:" label and a "Create" button.
- Certificate Information:** A table-like display showing certificate details:

Status:	Active
Country:	US
State or province:	California
Locality:	Fountain Valley
Organization:	D-Link Corporation
Organization Unit:	Marketing Department
Common Name:	www.dlink.com

At the bottom of this section are "Property" and "Remove" buttons.

Create Certificate Request and Install

Select this option to create a certificate from a certificate authority.

1. Click **Create** to open the **Create Certificate** page, then click **Save** to generate the certificate.
2. If you see the information bar, click **OK** and click on the Information bar at the top of the page to allow pop-up.
3. The pop-up window shows an example of a certificate request.
4. Look for a trusted certificate authority that issues digital certificates. Enroll the camera.

Wait for the certificate authority to issue a SSL certificate. Click **Browse...** to search for the issued certificate, then click **Upload** in the second column.

How do I cancel the HTTPS setting?

1. Deselect **Enable HTTPS secure connection** in the first column and click **Save**. A warning dialog will pop up.
2. Click **OK** to disable HTTPS.
3. The webpage will redirect to a non-HTTPS page automatically.

If you want to create and install other certificates, please remove the existing one. To remove the signed certificate, deselect **Enable HTTPS secure connection** in the first column and click **Save**. Then click **Remove** to erase the certificate.

The screenshot shows a web interface for configuring HTTPS. The title bar reads "HTTPS". The main content is divided into three sections:

- Enable HTTPS:** This section has a checked checkbox for "Enable HTTPS secure connection". Below it are two radio buttons: "HTTP & HTTPS" (which is selected) and "HTTPS only". A "Save" button is located to the right of this section.
- Create and install certificate method:** This section has three radio buttons: "Create self-signed certificate automatically", "Create self-signed certificate manually" (which is selected), and "Create certificate request and install". Below the radio buttons is a "Self-signed certificate:" label and a "Create" button.
- Certificate Information:** This section displays the following details:
 - Status: Active (with a dropdown arrow)
 - Country: US
 - State or province: California
 - Locality: Fountain Valley
 - Organization: D-Link Corporation
 - Organization Unit: Marketing Department
 - Common Name: www.dlink.comAt the bottom of this section are "Property" and "Remove" buttons.

Access List

This section explains how to control access permissions by verifying the connecting client PC's IP address.

General Settings

Maximum number of concurrent streaming connection(s) limited to: Simultaneous live viewing for 1~10 clients (including stream 1 ~ stream 4). The default value is 10. If you modify the value and click **Save**, all current connections will be disconnected and automatically attempt to re-link (I.E. Explorer or Quick Time Player).

View Information: Click this button to display the connection status window showing a list of the current connections.

- **IP address:** Current connections to the camera.
- **Elapsed time:** How much time the client has been at the webpage.
- **User ID:** If the administrator has set a password for the webpage, the clients have to enter a user name and password to access the live video. The user name will be displayed in the User ID column. If the administrator allows client to link to the webpage without a user name and password, the User ID column will be empty.

There are some situations which allow clients access to the live video without a user name and password:

1. The administrator did not set up a user password. For more information about how to set up a user password and manage user accounts, please refer to User settings.
 2. The administrator has set up a user password, but set RTSP Authentication to "disable". For more information about RTSP Authentication, please refer to RTSP Streaming.
- **Refresh:** Click this button to refresh all current connections.
 - **Add to deny list:** You can select entries from the Connection Status list and add them to the Deny List to deny access. Please note that the selected connections will only be disconnected temporarily and will automatically try to re-link again (IE Explore or Quick Time Player). If you want to enable the denied list, please select **Enable access list filtering** and click **Save** in the first column.

IP address	Elapsed time	User ID

Refresh Add to deny list Disconnect

Disconnect: If you want to break off the current connections, please select them and click this button. Please note that those selected connections will only be disconnected temporarily and will automatically try to re-link again (IE Explore or Quick Time Player).

Enable Access List Filtering: Select this item and click **Save** if you want to enable the access list filtering function.

Filter Type

Select Allow or Deny as the filter type. If you choose Allow Type, only those clients whose IP addresses are on the Access List below can access the camera, and the others cannot access. On the contrary, if you choose Deny Type, those clients whose IP addresses are on the Access List below will not be allowed to access the camera, and the others can access.

Filter

Then you can add a rule to the following Access List. Please note that the IPv6 access list column will not be displayed unless you enable IPv6 on the Network page. For more information about IPv6 Setting, please refer to Enable IPv6 for detailed information.

There are three types of rules:

Single: This rule allows the user to add an IP address to the Allowed/Denied list.

Network: This rule allows the user to assign a network address and corresponding subnet mask to the Allow/Deny List.

Range: This rule allows the user to assign a range of IP addresses to the Allow/Deny List (This rule is only applied to IPv4).

Administrator IP address

Always allow the IP address to access this device: You can select this item and add the Administrator's IP address in this field to make sure the Administrator can always connect to the device.

ACCESS List

General Settings

Maximum number of concurrent streaming connection(s) limited to: 10 View Information

Enable access list filtering

Save

Filter Type

Allow Deny

Save

Filter

IPv4 access list

192.168.0.99

Add Delete

Administrator IP address

Always allow the IP address to access this device 192.168.0.200

Save

IP address	Elapsed time	User ID
Refresh	Add to deny list	Disconnect

Advanced Settings

SNMP configuration

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

The SNMP consists of the following three key components:

1. **Manager:** Network-Management Station (NMS), a server which executes applications that monitor and control managed devices.
2. **Agent:** A network-management software module on a managed device which transfers the status of managed devices to the NMS.
3. **Managed device:** A network node on a managed network. For example: routers, switches, bridges, hubs, computer hosts, printers, IP telephones, network cameras, web server, and database.

Before configuring SNMP setting on this page, please enable your NMS first.

Enable SNMPv1, SNMPv2c: Select this option and enter the names of Read/Write community and Read Only community according to your NMS setting.

Enable SNMPv3: This option contains cryptographic security, a higher security level which allows you to set the Authentication password and the Encryption password.

- **Security name:** According to your NMS setting, choose Read/Write or Read Only and enter the community name.
- **Authentication type:** Select MD5 or SHA as the authentication method.
- **Authentication password:** Enter the password for authentication (at least 8 characters).
- **Encryption password:** Enter a password for encryption (at least 8 characters).

The screenshot displays the 'Advanced Settings' web interface. It is divided into several sections:

- SNMP Configuration:**
 - Enable SNMPv1, SNMPv2c: Read / Write community (write), Read only community (public).
 - Enable SNMPv3: Read / Write Security name (write), Authentication type (MD5), Authentication password, Encryption password, Read only security name (public), Authentication type (MD5), Authentication password, Encryption password.
- IEEE 802.1x:**
 - Enable IEEE 802.1x: EAP method (EAP-TLS), Identity, Private key password, CA certificate (Browse... Upload), Status (no file, Remove), Client certificate (Browse... Upload), Status (no file, Remove), Client private key (Browse... Upload), Status (no file, Remove).
- CoS:**
 - Enable CoS: VLAN ID (4095), Live Video (0), Event / Alarm (0), Management (0).
- QoS / DSCP:**
 - Enable QoS / DSCP: Live Video (0), Event / Alarm (0), Management (0).

'Save' buttons are located at the bottom right of the SNMP and IEEE 802.1x sections.

IEEE 802.1x

Enable this function if your network environment uses IEEE 802.1x which is a port-based network access control. The network devices, intermediary switch/access point/hub, and RADIUS server must support and enable 802.1x setting.

The 802.1x standard is designed to enhance the security of local area networks, which provides authentication to network devices (clients) attached to a network port (wired or wireless). If all certificates between client and server are verified, a point-to-point connection will be enabled. If authentication fails, access on that port will be prohibited. 802.1x utilizes an existing protocol, the Extensible Authentication Protocol (EAP), to facilitate communication.

Please follow the steps below to enable 802.1x setting:

1. Before connecting the camera to the protected network with 802.1x, please apply a digital certificate from a Certificate Authority (ie. MIS of your company) which can be validated by a RADIUS server.
2. Connect the camera to a PC or notebook outside of the protected LAN. Open the configuration page of the camera as shown below. Select EAP-PEAP or EAP-TLS as the EAP method. In the following blanks, enter your ID and password issued by the CA, then upload related certificate(s).
3. When all setting are complete, move the camera to the protected LAN by connecting it to an 802.1x enabled switch. The devices will then start the authentication automatically.

QoS (Quality of Service)

Quality of Service refers to a resource reservation control mechanism, which guarantees a certain quality to different services on the network. Quality of service guarantees are important if the network capacity is insufficient, especially for real-time streaming multimedia applications. Quality can be defined as, for instance, a maintained level of bit rate, low latency, no packet dropping, etc.

The following are the main benefits of a QoS-aware network:

The ability to prioritize traffic and guarantee a certain level of performance to the data flow.

The screenshot displays the 'Advanced Settings' interface of a camera, divided into several configuration sections:

- SNMP Configuration:** Includes checkboxes for 'Enable SNMPv1, SNMPv2c' and 'Enable SNMPv3'. Fields for 'Read / Write community', 'Read only community', 'Read / Write Security name', 'Authentication type' (MD5), 'Authentication password', and 'Encryption password' are present for both versions.
- IEEE 802.1x:** Features a checked 'Enable IEEE 802.1x' option. The 'EAP method' is set to 'EAP-TLS'. Fields for 'Identity', 'Private key password', and 'CA certificate' (with 'Browse...' and 'Upload' buttons) are included. Similar fields and buttons are provided for 'Client certificate' and 'Client private key'.
- QoS:** Shows 'Enable CoS' checked. 'VLAN ID' is set to 4095. 'Live Video', 'Event / Alarm', and 'Management' are each set to 0.
- QoS / DSCP:** Shows 'Enable QoS / DSCP' checked. 'Live Video', 'Event / Alarm', and 'Management' are each set to 0.

'Save' buttons are located at the bottom right of the IEEE 802.1x and QoS / DSCP sections.

The ability to control the amount of bandwidth each application may use, and thus provide higher reliability and stability on the network.

Requirements for QoS:

To utilize QoS in a network environment, the following requirements must be met:

- All network switches and routers in the network must include support for QoS.
- The network video devices used in the network must be QoS-enabled.

CoS

IEEE802.1p defines a QoS model at OSI Layer 2 (Data Link Layer), which is called CoS, Class of Service. It adds a 3-bit value to the VLAN MAC header, which indicates prioritization from 0~7 (Eight different classes of service are available). The priority is set up on the network switches, which then use different queuing disciplines to forward the packets.

Please follow the steps below to enable CoS settings:

1. Click Enable CoS
2. Enter the VLAN ID of your switch (0~4095)
3. Choose the priority for each application (0~7).

Note:

- The VLAN Switch (802.1p) is required. The web browsing may fail if the CoS setting is incorrect.
- Class of Service technologies do not guarantee a level of service in terms of bandwidth and delivery time. They only offer a "best-effort." Users can think of CoS as "coarsely-grained" traffic control and QoS as "finely-grained" traffic control.
- Though CoS is simple to manage, it lacks scalability and does not offer end-to-end guarantees since it is based on L2 protocol.

QoS/DSCP

DSCP-ECN defines QoS at Layer 3 (Network Layer). The Differentiated Services (DiffServ) model is based on packet marking and router queuing disciplines. The marking is done by adding a field to the IP header, called the DSCP (Differentiated Services Code Point). This is a 6-bit field that provides 64 different class IDs. It gives

The screenshot displays the 'Advanced Settings' configuration page, which is divided into several sections:

- SNMP Configuration:** This section is expanded and shows two sub-sections. The first sub-section is for SNMPv1 and SNMPv2c, with 'Enable SNMPv1, SNMPv2c' checked, 'Read / Write community' set to 'write', and 'Read only community' set to 'public'. The second sub-section is for SNMPv3, with 'Enable SNMPv3' checked, 'Read / Write Security name' set to 'write', 'Authentication type' set to 'MD5', and 'Read only security name' set to 'public'. Both sub-sections have empty fields for 'Authentication password' and 'Encryption password'. A 'Save' button is located at the bottom right of this section.
- IEEE 802.1x:** This section is expanded and shows 'Enable IEEE 802.1x' checked. The 'EAP method' is set to 'EAP-TLS'. There are empty fields for 'Identity' and 'Private key password'. The 'CA certificate' section has a 'Remove' button and 'Browse...' and 'Upload' buttons. The 'Client certificate' section also has a 'Remove' button and 'Browse...' and 'Upload' buttons. The 'Client private key' section has a 'Remove' button and 'Browse...' and 'Upload' buttons. A 'Save' button is located at the bottom right of this section.
- CoS:** This section is expanded and shows 'Enable CoS' checked. The 'VLAN ID' is set to '4095'. There are three dropdown menus for 'Live Video', 'Event / Alarm', and 'Management', all set to '0'. A 'Save' button is located at the bottom right of this section.
- QoS / DSCP:** This section is expanded and shows 'Enable QoS / DSCP' checked. There are three input fields for 'Live Video', 'Event / Alarm', and 'Management', all containing the value '0'. A 'Save' button is located at the bottom right of this section.

an indication of how a given packet is to be forwarded, known as the Per Hop Behavior (PHB). The PHB describes a particular service level in terms of bandwidth, queuing theory, and dropping (discarding the packet) decisions. Routers at each network node classify packets according to their DSCP value and give them a particular forwarding treatment. For example, how much bandwidth should be reserved.

Quality of Service refers to a resource reservation control mechanism, which guarantees a certain quality to different services on the network. Quality of service guarantees are important if the network capacity is insufficient, especially for real-time streaming multimedia applications. Quality can be defined as, for instance, a maintained level of bit rate, low latency, no packet dropping, etc.

The screenshot displays the 'Advanced Settings' configuration page for a D-Link router. It is divided into four main sections:

- SNMP Configuration:** This section is titled 'SNMP Configuration' and contains two sub-sections. The first sub-section is for SNMPv1 and SNMPv2c, with 'Enable SNMPv1, SNMPv2c' checked. It includes fields for 'Read / Write community' (set to 'write') and 'Read only community' (set to 'public'). The second sub-section is for SNMPv3, with 'Enable SNMPv3' checked. It includes fields for 'Read / Write Security name' (set to 'write'), 'Authentication type' (set to 'MD5'), 'Authentication password', 'Encryption password', 'Read only security name' (set to 'public'), 'Authentication type' (set to 'MD5'), 'Authentication password', and 'Encryption password'. A 'Save' button is located at the bottom right of this section.
- IEEE 802.1x:** This section is titled 'IEEE 802.1x' and contains 'Enable IEEE 802.1x' checked. It includes a dropdown for 'EAP method' (set to 'EAP-TLS'), 'Identity' field, 'Private key password' field, and three rows for certificates and keys. Each row has a 'Status' field (all set to 'no file'), a 'Remove' button, and a 'Client' field with 'Browse...' and 'Upload' buttons.
- CoS:** This section is titled 'CoS' and contains 'Enable CoS' checked. It includes a 'VLAN ID' field (set to '4095') and three dropdown menus for 'Live Video', 'Event / Alarm', and 'Management', all set to '0'.
- QoS / DSCP:** This section is titled 'QoS / DSCP' and contains 'Enable QoS / DSCP' checked. It includes three input fields for 'Live Video', 'Event / Alarm', and 'Management', all set to '0'. A 'Save' button is located at the bottom right of this section.

Event Management

Motion Detection

Motion can be detected by measuring change in speed or vector of an object or objects in the field of view.

Enable Motion Detection: Select this option to turn on the motion detection feature.

Window Name: Create your own name for the monitored area/ window. It will show at the top of the motion window.

Sensitivity: Set the measurable difference between two sequential images that would indicate motion.

Percentage: Set the amount of motion in the window being monitored that is required to trigger a motion detected alert. If this is set to 100%, this means that motion must be detected within the whole window to trigger a snapshot.

Note: Setting a higher sensitivity and a lower percentage will make motion easier to be detected.

New: Click to add a new window. A maximum of three motion windows can be opened simultaneously. Use your mouse to drag the window frame to resize or the title bar to move. Clicking on the 'x' at the upper right corner of the window will close the window.

Profile: You can configure two sets of sensor setting: one for normal situations(Profile1), the other for special situations(Profile2), such as day/night/schedule mode.

Save: Save the configured settings.

To enable motion detection, follow the steps below:

1. Click **New** to add a new motion detection window.
2. Enter a name in the Window Name field.
3. Define the sensitivity to moving objects and the space ratio of all alerted pixels by moving the Sensitivity and Percentage slide bar.
4. Click **Save** to apply the changes.
5. Select Enable motion detection to activate motion detection.



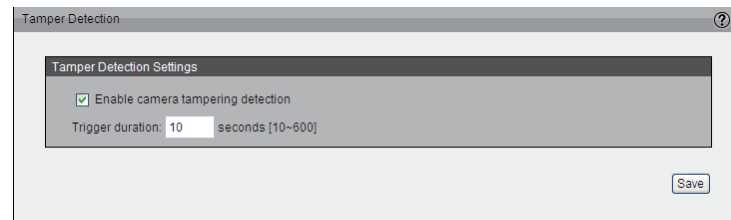
Tamper Detection

With tamper detection, the camera is capable of detecting incidents such as redirection, blocking or de-focusing, or even spray paint.

To enable tamper detection, follow the steps given below:

1. Select **Enable camera tampering detection**.
2. Enter the tamper trigger duration (10 sec. ~ 10 min.). The tamper alarm will be triggered only when the tampering factor (the difference between current frame and pre-saved background) exceeds the trigger threshold.

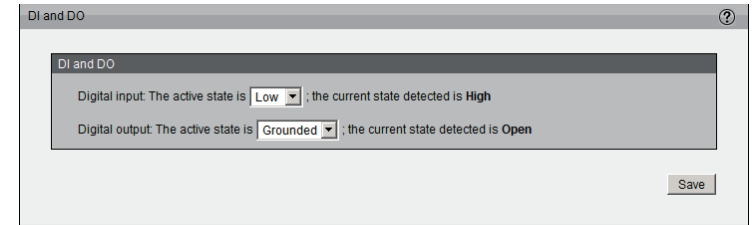
Set up the event source as Camera Tampering Detection on Event Settings > Server Settings (how to send alarm message)/ Media Settings (send what type of alarm message)/Event Settings/. Please refer to Event settings for detailed information.



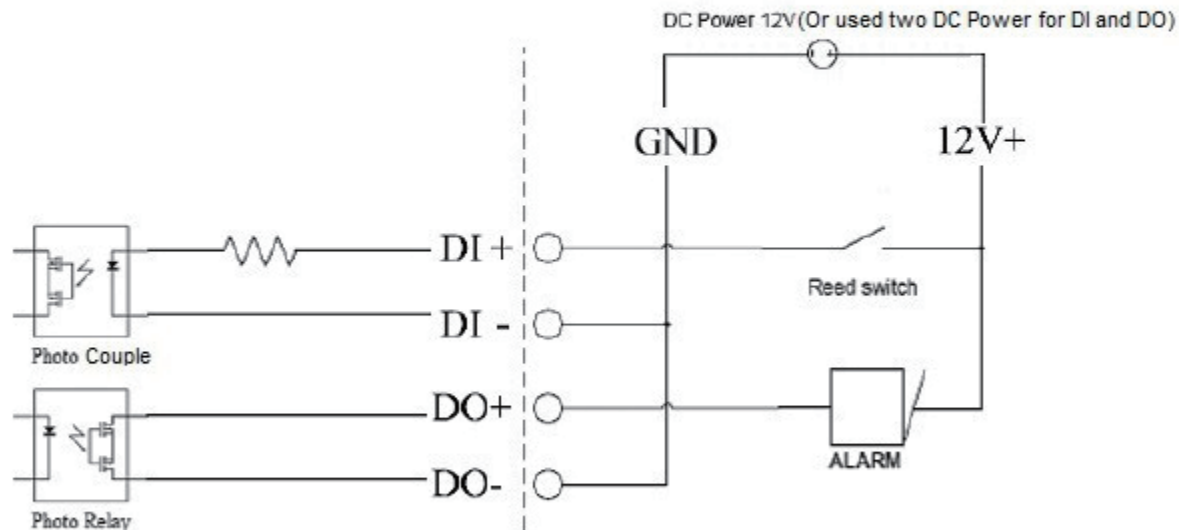
DI and DO

Network camera provides a general I/O terminal block with one digital input and digital output for device control. The I/O connector provides the physical interface for digital input (DI+, GND) and digital output (DO+, GND) that is used for connecting a diversity of external alarm devices to the camera such as IR-Sensors and alarm relays.

Set up the event source as Digital Input on Event Settings > Sever Settings (how to send alarm message) / Media Settings (send what type of alarm message)/Event settings/. Or you can set up trigger digital output. Please refer to "Event Settings" on page 67 for detailed information.



DI/DO Specifications



Event Settings

This section explains how to configure the camera to respond to particular situations (event). A typical application is that when a motion is detected, the camera sends buffered images to an FTP server or e-mail address as notifications.

Server Settings

Click **Add** on Event Settings page to open the Server Setting page. On this page, you can specify where the notification messages are sent when a trigger is activated. A total of 5 server settings can be configured.

Server name: Enter a name for the server setting.

- **Server Type:** There are four choices of server types available: E-mail, FTP, HTTP, and Network storage. Select the item to display the detailed configuration options. You can configure either one or all of them.

E-mail: Select to send the media files via e-mail when a trigger is activated.

- **Sender e-mail address:** Enter the e-mail address of the sender.
- **Recipient e-mail address:** Enter the e-mail address of the recipient.
- **Server address:** Enter the domain name or IP address of the e-mail server.
- **User name:** Enter the user name of the e-mail account if necessary.
- **Password:** Enter the password of the e-mail account if necessary.
- **Server port:** The default mail server port is set to 25. You can also manually set another port.

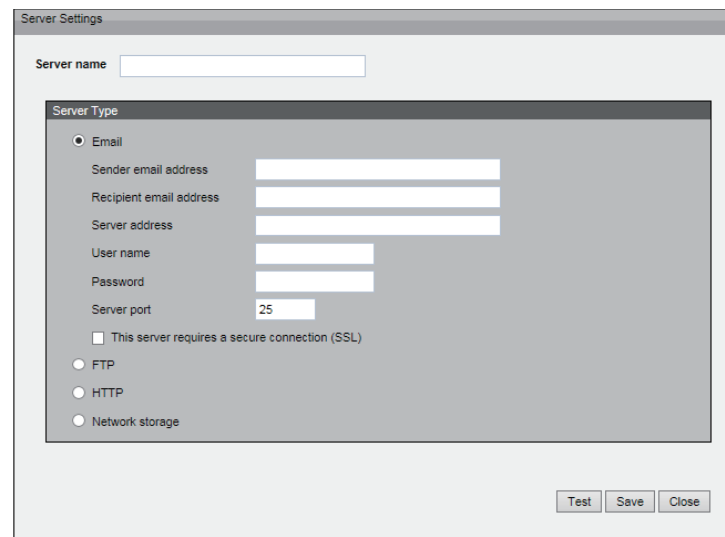
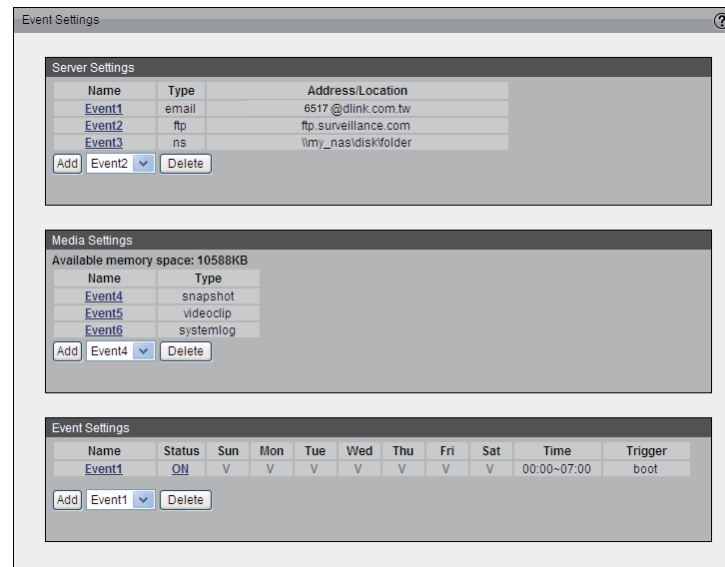
If your SMTP server requires a secure connection (SSL), select **This server requires a secure connection (SSL)**.

To verify if the e-mail settings are correctly configured, click **Test**. The result will be shown in a pop-up window. If successful, you will also receive an e-mail indicating the result.

Click **Save** to enable the settings, then click **Close** to exit the page.

FTP: Select to send the media files to an FTP server when a trigger is activated.

- **Server address:** Enter the domain name or IP address of the FTP server.



- **Server port:** By default, the FTP server port is set to 21. It can also be assigned to another port number between 1025 and 65535.
- **User name:** Enter the login name of the FTP account.
- **Password:** Enter the password of the FTP account.
- **FTP folder name:** Enter the folder where the media file will be placed. If the folder name does not exist, the camera will create one on the FTP server.
- **Passive mode:** Most firewalls do not accept new connections initiated from external requests. If the FTP server supports passive mode, select this option to enable passive mode FTP and allow data transmission to pass through the firewall.

To verify if the FTP settings are correctly configured, click **Test**. The result will be shown in a pop-up window as shown below. If successful, you will also receive a test.txt file on the FTP server.

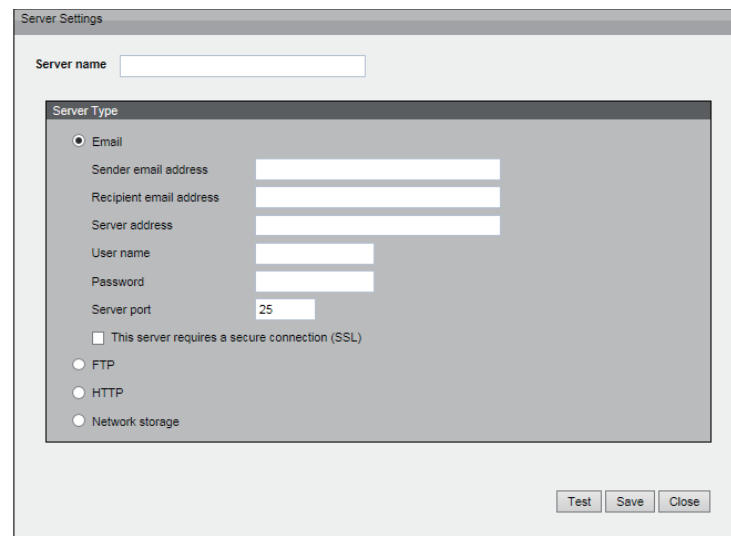
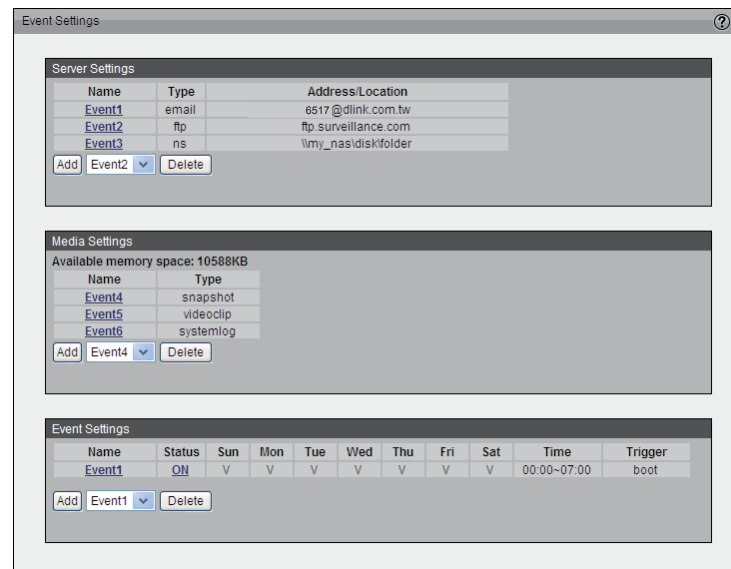
Click **Save** to enable the settings, then click **Close** to exit the page.

HTTP: Select to send the media files to an HTTP server when a trigger is activated.

- **URL:** Enter the URL of the HTTP server.
- **User name:** Enter the user name if necessary.
- **Password:** Enter the password if necessary.

To verify if the HTTP settings are correctly configured, click **Test**. The result will be shown in a pop-up window as below. If successful, you will receive a test.txt file on the HTTP server. Click **Save** to enable the settings then click **Close** to exit the page.

Network storage: Select to send the media files to a network storage location when a trigger is activated. Click **Save** to enable the setting, then click **Close** to exit the page. When completed, the new server settings will automatically be displayed on the Event Settings page.



Media Settings

Click **Add** to open the Media Settings page. On this page, you can specify the type of media that will be sent when a trigger is activated. A total of 5 media settings can be configured.

Media name: Enter a name for the media setting.

Media Type: There are three choices of media types available: Snapshot, Video Clip, and System log. Select the item to display the detailed configuration options. You can configure either one or all of them.

Snapshot: Select to send snapshots when a trigger is activated.

Source: Select to take snapshots from stream 1 ~ 4.

Send pre-event images: The camera has a buffer area. It temporarily holds data up to a certain limit. Enter a number to decide how many images to capture before a trigger is activated. Up to 7 images can be generated.

Send post-event images: Enter a number to decide how many images to capture after a trigger is activated. Up to 7 images can be generated.

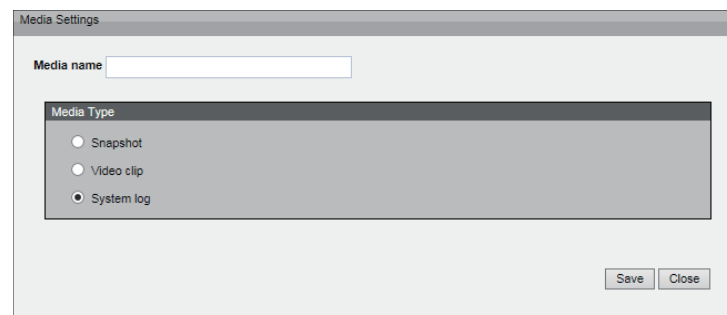
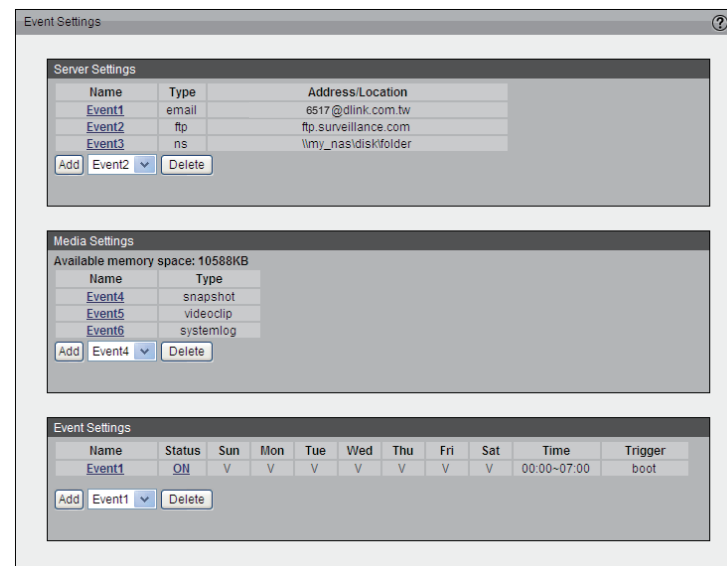
File name prefix: Enter the text that will be appended to the front of the file name.

Add date and time suffix to the file name: Select this option to add a date/time suffix to the file name.

Click **Save** to enable the settings, then click **Close** to exit the page.

Video clip: Select to send video clips when a trigger is activated.

Source: Select a source of video clip.



Pre-event recording: The camera has a buffer area. It temporarily holds data up to a certain limit. Enter a number to decide the duration of recording before a trigger is activated. Up to 9 seconds can be set.

Maximum duration: Specify the maximum recording duration in seconds. Up to 20 seconds can be set. For example, if pre-event recording is set to 5 seconds and the maximum duration is set to 10 seconds, the camera continues to record for another 4 seconds after a trigger is activated.

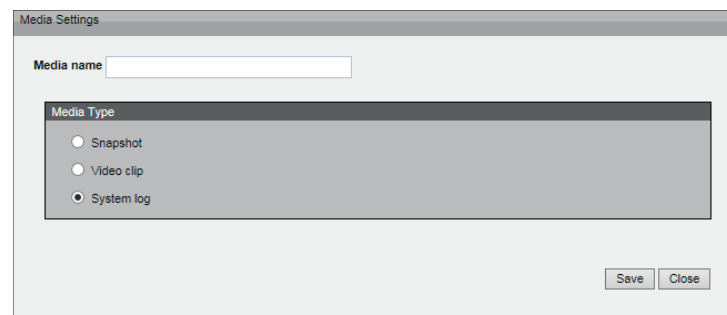
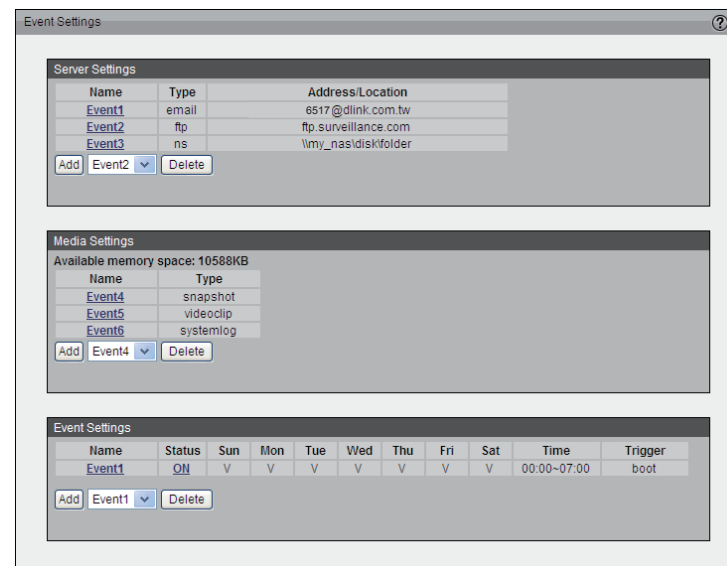
Maximum file size: Specify the maximum file size allowed.

File name prefix: Enter the text that will be appended to the front of the file name.

Click **Save** to enable the settings, then click **Close** to exit the page.

System log: Select to send a system log when a trigger is activated.

Click **Save** to enable the settings, then click **Close** to exit the page. When completed, click **Save** to enable the settings and click **Close** to exit this page. The new media settings will appear on the Event Settings page.



Event Settings

In the Event Settings column, click **Add** to open the Event Settings page. On this page, you can arrange three elements -- Trigger, Schedule, and Action to set an event. A total of 3 event settings can be configured.

Event name: Enter a name for the event.

Enable this event: Select to activate this event.

Priority: Set the priority for this event (High, Normal, or Low). The event with higher priority will be executed first

Detect next event after * seconds: Select the delay time before selecting the next event. It is being used for both events of motion detection and digital input trigger.

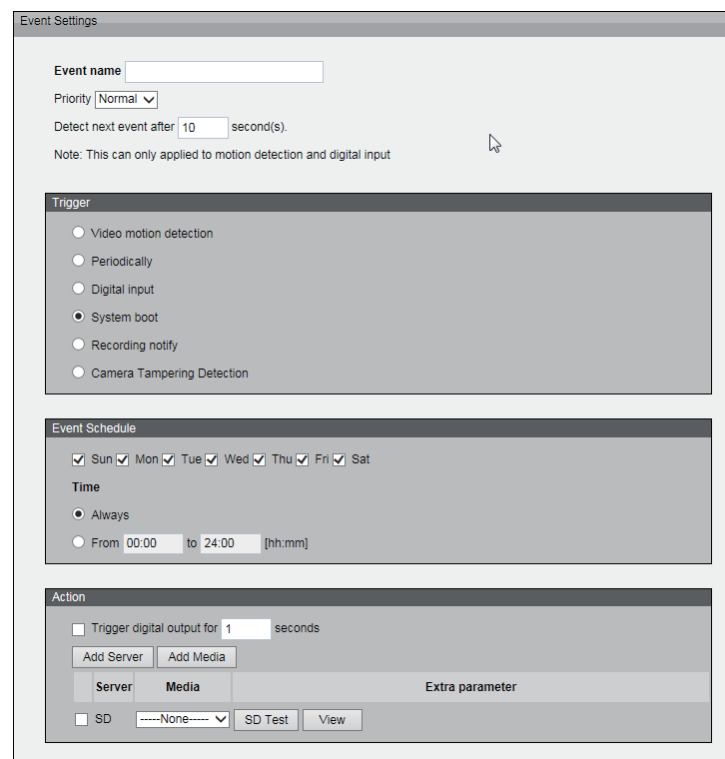
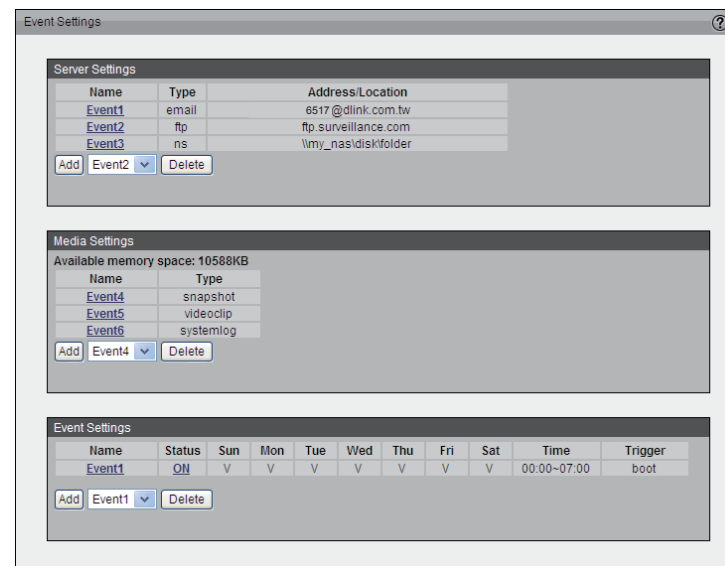
Trigger

This is the cause or stimulus which defines when to trigger the camera. The trigger source can be configured to use the camera's built-in motion detection mechanism or external digital input devices. There are several choices of trigger sources as shown below. Select the item to display the detailed configuration options. The input type that triggers the event.

Video motion detection: This option makes use of the built-in motion detection mechanism as a trigger source. To enable this function, you need to configure a Motion Detection Window first. For more information, please refer to Motion Detection for details.

Periodically: This option allows the camera to trigger periodically for every other defined minute. Up to 999 minutes are allowed.

Digital input: This option allows the camera to use an external digital input device or sensor as a trigger source. Depending on your application, there are many choices of digital input devices on the market which helps to detect changes in temperature, vibration, sound, and light, etc.



System boot: This option triggers the camera when the power to the camera is disconnected.

Recording notify: This option allows the camera to trigger when the recording disk is full or when recording starts to rewrite older data.

Camera tampering detection: This option allows the camera to trigger when the camera detects that it is being tampered with. To enable this function, you need to configure the Tamper detection option first. Please refer to Tamper detection for detailed information.

Event Schedule

Specify the period for the event

1. Select the days of the week.
2. Select the recording schedule in 24-hr time format.

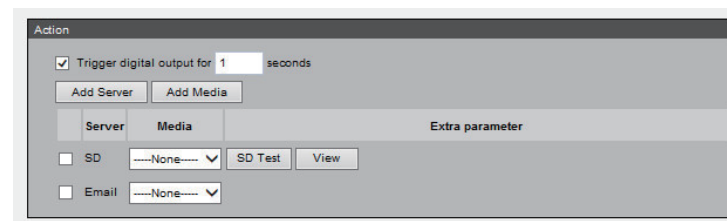
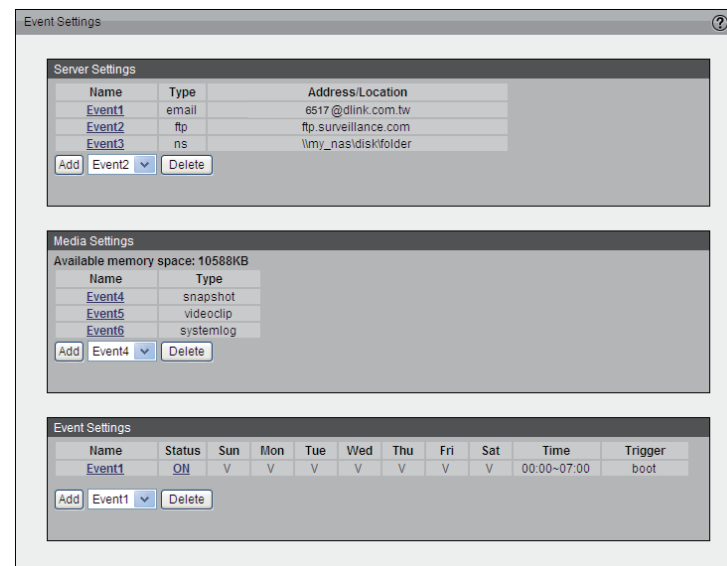
Action

Define the actions to be performed by the camera when a trigger is activated.

Trigger digital output for X seconds: Enter the number of seconds to trigger digital output when an event happens.

To set an event with recorded video or snapshots, it is necessary to configure the server and media setting so that the camera will know what action to take (i.e. the server to send the media files to) when a trigger is activated.

- **Add Server:** same as Server Settings
- **Add Media:** same as Media Settings
- **SD:** Select the location for files to be sent to. Click **SD Test** to verify the SD card. Click **View** to open the SD card for viewing files.
- **Email:** From the drop down menu, select the correct email to send notifications to.



Recording

Recording Settings

Click **Add** to open the recording setting page. In this page, you can define the recording source, recording schedule, and recording capacity. A total of 2 recording setting can be configured.

Recording name: Enter a name for the recording setting

Enable this recording: Select this option to enable video recording

Priority: Select the relative importance of this recording setting (High, Normal, and Low).

Source: Select the recording source (stream 1 ~ 4).

Trigger: Select a trigger source.

Schedule: The server will start to record files on the network storage (NAS).

Network Fail: Trigger a recording when there is a network failure detected.

Recording Schedule: Specify the recording duration.

1. Select the days of the week.
2. Select the recording start and end times in 24-hr time format.

Destination: You can select the network storage or the SD Card which will use the camera's on board SD card storage for the recorded video files.

Name	Status	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Time	Source	Destination
Record1	ON	V	V	V	V	V	V	V	00:00-08:00	stream1	Event4
Record2	ON		V	V	V	V	V		09:00-22:00	stream1	Event4

Buttons: Add, Record1 (dropdown), Delete

Recording name:

Enable this recording

Priority: (dropdown)

Source: (dropdown)

Trigger:

Schedule

Network fail

Recording Schedule:

Sun Mon Tue Wed Thu Fri Sat

Time:

Always

From to [hh:mm]

Destination: (dropdown)

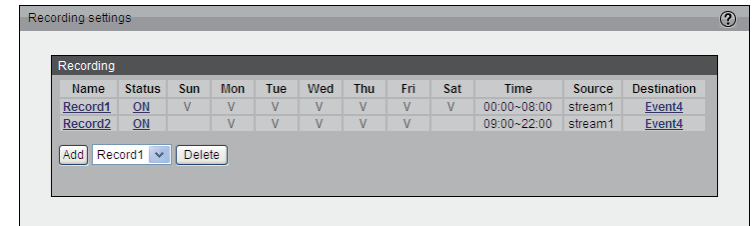
Buttons: Save, Close

Configuration

When completed, select **Enable this recording**. Click **Save** to enable the setting and click **Close** to exit this page. When the system begins recording, it will send the recorded files to the Network Storage.

The new recording name will appear in the drop-down list on the recording page.

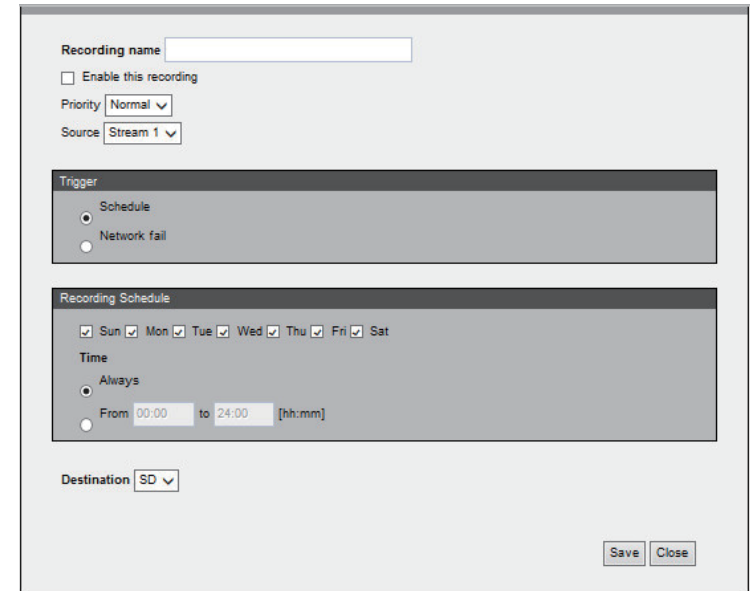
To remove a recording setting from the list, select a recording name from the drop-down list and click **Delete**.



Recording settings

Name	Status	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Time	Source	Destination
Record1	ON	V	V	V	V	V	V	V	00:00-08:00	stream1	Event4
Record2	ON		V	V	V	V	V		09:00-22:00	stream1	Event4

Add Record1 Delete



Recording name

Enable this recording

Priority

Source

Trigger

Schedule

Network fail

Recording Schedule

Sun Mon Tue Wed Thu Fri Sat

Time

Always

From to [hh:mm]

Destination

Save Close

Local Storage

Click on the dropdown icon to expand or collapse the menu items in this section.

SD Card Management

SD Card Status: This shows the status and reserved space of your SD card. Please remember to format the SD card when using for the first time.

Format: Click this icon to automatically format the SD card

Enable Cyclic Storage: If you select this item, when the maximum capacity is reached, the oldest file will be overwritten by the latest one. The reserved amount is reserved for cyclic recording to prevent malfunction. This value must be larger than 15 Mbytes.

Enable Automatic Disk Cleanup: Check this item and enter the number of days you wish to retain a file. For example, if you enter “7 days”, the recorded files will be stored on the SD card for 7 days. Click Save to enable your settings.

Searching and Viewing the Records

File Attributes: Select one or more items as your search criteria.

Trigger Type: Select the type of trigger that was used to create the recording.

Media Type: Select the type of media that was used to save the recording.

Trigger Time: Manually enter the time range you want to search. Click Search and the recorded data corresponding to the search criteria will be listed in Search Results Window.

From/To: Enter the dates to search from and to.

Search Results

Show Entries: Select the number of results to display from the search.

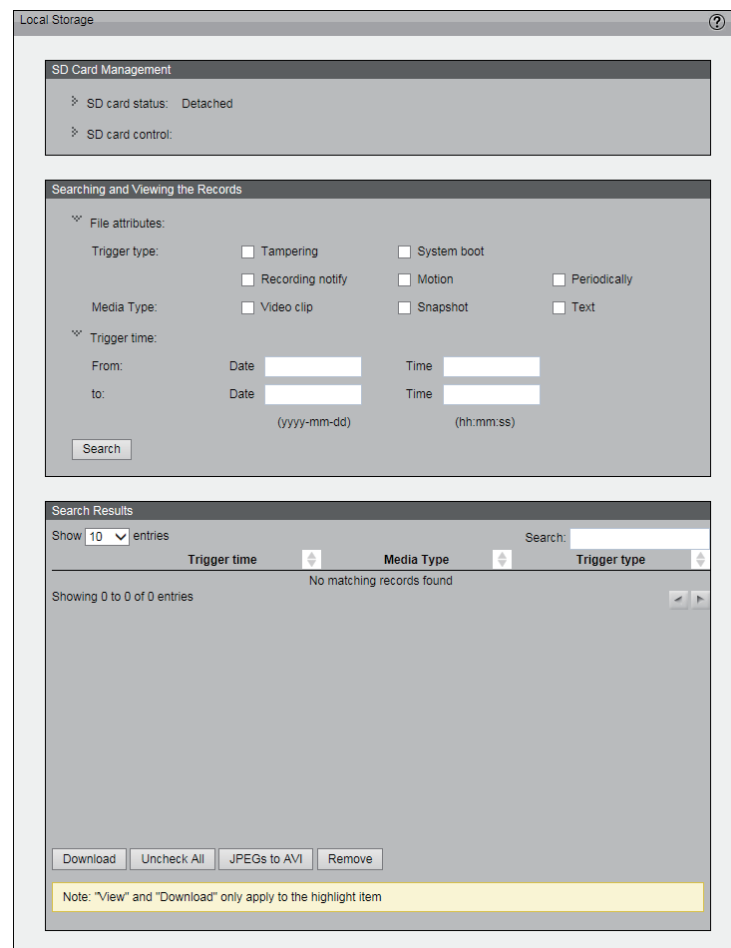
Search: Enter a keyword to search through the displayed results.

Download: Select a line from the search results and click this button to download the file to your computer.

Uncheck All: Click this button to uncheck all of the displayed search results.

JPEGs to AVI: Select multiple JPEGs and click this button to convert them into a single AVI video which can be saved to your local computer.

Remove: Select a search result and click this button to remove the file completely.



PTZ Control

Digital PTZ

You can set a total of 20 preset positions and select preset positions for the camera to patrol.

Please follow the steps below to preset a position:

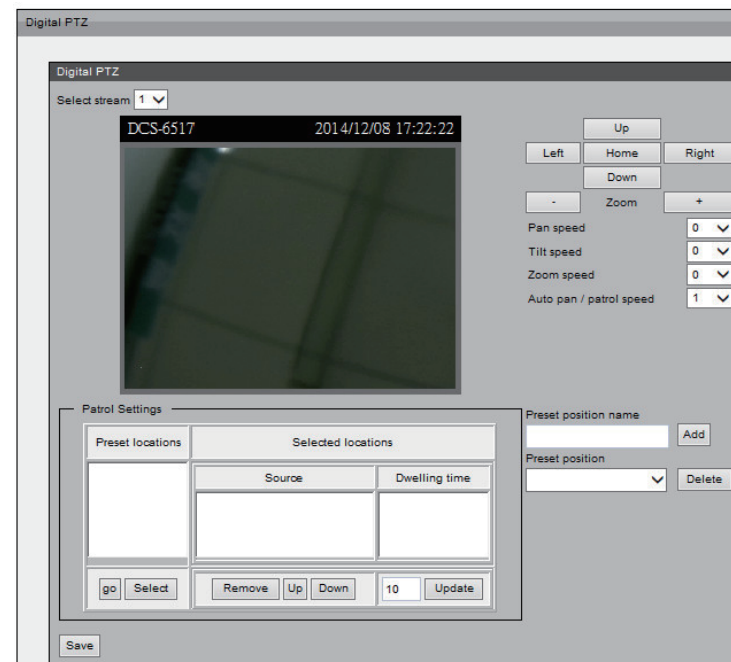
1. Adjust the shooting area to the desired position using the buttons on the right side of the window.
2. Enter a name for the preset position, which allows for up to forty characters. Click **Add** to enable the Setting. The preset positions will be displayed under the Preset Location list on the left-hand side.
3. To add additional preset positions, please repeat steps 1~2.
4. To remove a preset position from the list, select it from the drop-down list and click **Delete**.
5. The preset positions will also displayed on the main page. Please refer to the illustration on the next page.
6. Click **Save** to enable the setting. The Preset Positions will also be displayed on the Live Video. Select one from the drop-down list and the camera will move to the selected preset position.

Patrol Setting

You can select some preset positions for the camera to patrol.

Please follow the steps below to set up a patrol schedule:

1. Click a preset location on the list and click **Select**.
2. The selected preset location will be displayed on the Source list.
3. Set the Dwelling time for the preset location during auto patrol. You can also manually enter a value in the blank and click **Update**.
4. Repeat step 1 and 3 to select additional preset locations.
5. If you want to delete a selected location, select it from the Source list and click **Remove**.
6. Select a location and click **Up** or **Down** to rearrange the patrol order.
7. Click **Save** to enable the setting.



System User Settings

This section explains how to enable password protection and create multiple accounts.

Admin Password Setup:

The administrator account name is “admin”, which is permanent and cannot be deleted. The default of password is empty.

Add user account: Add a new user account.

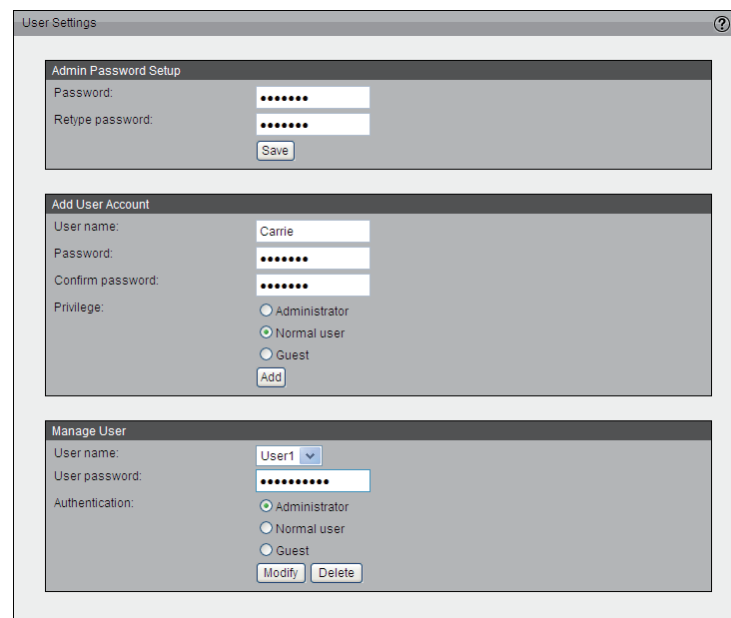
Username: Enter a username for the new account.

Password: Enter a password for the new account.

Privilege: Select the access rights for the new user.

Manage user: Manage the accounts for existing users.

Authentication: The access rights for existing users.



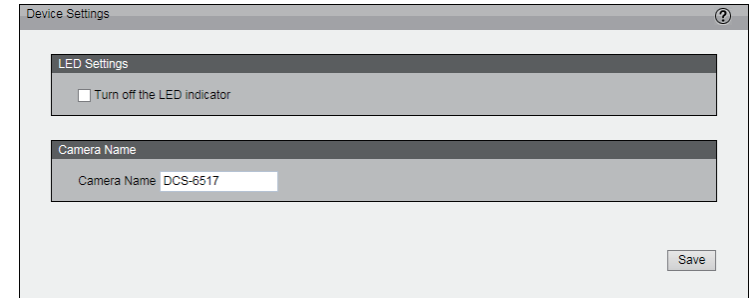
The screenshot displays the 'User Settings' web interface, which is organized into three main sections:

- Admin Password Setup:** This section contains two password input fields labeled 'Password:' and 'Retype password:', both filled with dots. A 'Save' button is located below the fields.
- Add User Account:** This section includes a 'User name:' field with the value 'Carrie', a 'Password:' field with dots, and a 'Confirm password:' field with dots. The 'Privilege:' section has three radio buttons: 'Administrator' (unselected), 'Normal user' (selected), and 'Guest' (unselected). An 'Add' button is positioned at the bottom.
- Manage User:** This section features a 'User name:' dropdown menu currently showing 'User1', a 'User password:' field with dots, and an 'Authentication:' section with three radio buttons: 'Administrator' (selected), 'Normal user' (unselected), and 'Guest' (unselected). 'Modify' and 'Delete' buttons are located at the bottom.

Device Settings

Turn off the LED indicator: Select this option to turn off the LED next to the lens. This will prevent anyone from observing the operation of the network camera.

Camera Name: Create a unique name for your camera.



The screenshot shows a web browser window titled "Device Settings" with a help icon in the top right corner. The interface is divided into two main sections. The first section, titled "LED Settings", contains a single checkbox labeled "Turn off the LED indicator", which is currently unchecked. The second section, titled "Camera Name", contains a text input field labeled "Camera Name" with the value "DCS-6517" entered. A "Save" button is located in the bottom right corner of the form area.

Time and Date

Automatically or manually configure, update, and maintain the internal system clock for your camera.

Current Server Time: Displays camera's current time.

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

Enable Daylight Saving: Select this to enable the daylight saving time (DST). During DST, the system clock moves one hour ahead. (Note: To utilize this feature, be sure to first set the time zone of your network camera. Then starting and ending time of the DST is displayed upon selecting the option.)

Automatic Time Configuration: Enable this feature to obtain time configuration automatically from NTP server.

NTP Server: Network Time Protocol (NTP) synchronizes the network camera with an Internet time server. Choose the one that is closest to your location.
Update Interval: The time interval for updating the time information from NTP server.

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

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

The screenshot shows the 'Time and Date' configuration page. It is divided into three main sections:

- Time Configuration:** Shows the current server time as '25 Oct 2010 15:18:46'. The time zone is set to 'GMT-05:00 Eastern Time, New York, Toronto'. There is a checkbox for 'Enable daylight saving' which is currently unchecked. Below this, 'Daylight saving dates' are configured with dropdown menus for Month, Week, Day of week, and Time. The DST start is set to Jan 1st Thu 12 am, and the DST end is set to Jan 1st Thu 12 am.
- Automatic time configuration:** Features radio buttons for 'Enable' (selected) and 'Disable'. An 'NTP server' dropdown menu is set to '<< Select NTP server'. The 'Updating interval' is set to 'One hour'.
- Set the Date and Time manually:** Includes dropdown menus for Year (2010), Month (10), Day (25), Hour (15), Minute (18), and Second (46). A button labeled 'Copy Your Computer's Time Settings' is located below these fields.

A 'Save' button is located at the bottom right of the page.

Maintenance

This chapter explains how to restore the camera to factory default, upgrade firmware version, etc.

Schedule Reboot: This feature allows you to perform a schedule reboot the camera. Check and input the reboot time and the week days you wants. This function needs setup the correct time and date for right perform.

Reboot: This feature allows you to reboot the camera, which takes about one minute to complete. When completed, the live video page will be displayed in your browser. The following message will be displayed during the reboot process.

If the connection fails after rebooting, manually enter the IP address of the camera in the address field to resume the connection.

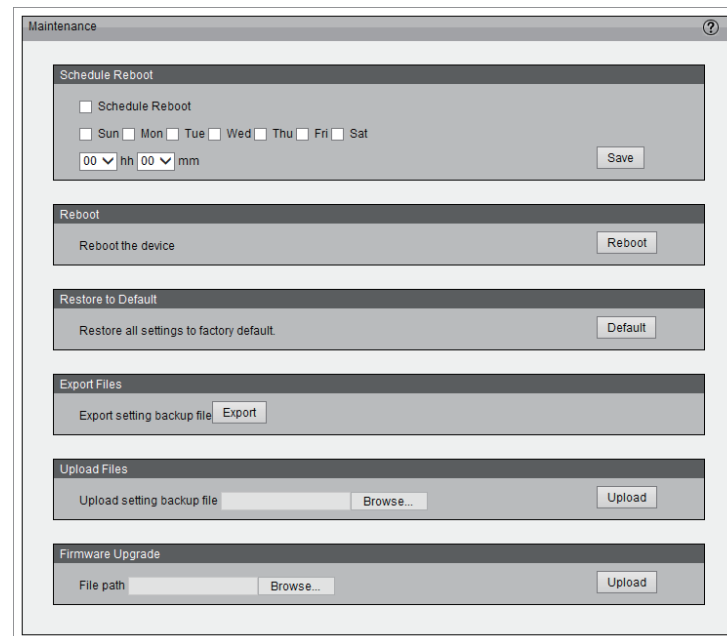
Restore to default: This feature allows you to restore the camera to factory default setting.

Export setting backup file: Click to export all parameters for the device and user-defined scripts.

Upload setting backup file: Click **Browse...** to upload a setting backup file. Please note that the model and firmware version of the device should be the same as the setting backup file. If you have set up a fixed IP or other special settings for your device, it is not suggested to upload a settings backup file.

Firmware upgrade: This feature allows you to upgrade the firmware of your camera. It takes a few minutes to complete the process.

Note: Do not power off the camera during the upgrade!



The screenshot shows a web interface titled "Maintenance" with a help icon in the top right corner. The interface is divided into several sections:

- Schedule Reboot:** Contains a "Schedule Reboot" checkbox, radio buttons for days of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat), and dropdown menus for time (hh and mm). A "Save" button is on the right.
- Reboot:** Contains a "Reboot the device" button and a "Reboot" button.
- Restore to Default:** Contains a "Restore all settings to factory default" button and a "Default" button.
- Export Files:** Contains an "Export setting backup file" button and an "Export" button.
- Upload Files:** Contains an "Upload setting backup file" text input, a "Browse..." button, and an "Upload" button.
- Firmware Upgrade:** Contains a "File path" text input, a "Browse..." button, and an "Upload" button.

Configuration

Follow the steps below to upgrade the firmware:

1. Download the latest firmware file from the D-Link website. The file is in .pkg file format.
2. Click **Browse...** and specify the firmware file.
3. Click **Upgrade**. The camera starts to upgrade and will reboot automatically when the upgrade completes.

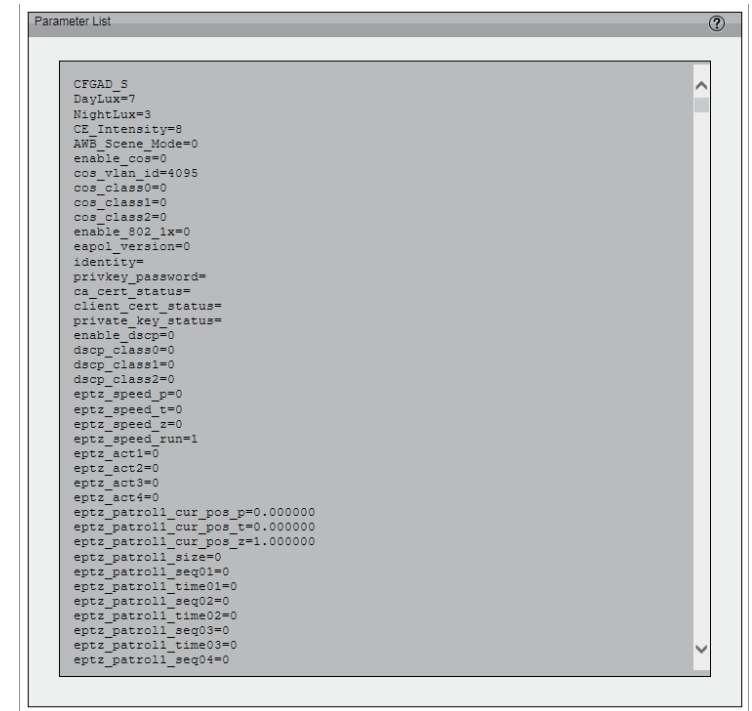
If the upgrade is successful, you will see “Reboot system now!! This connection will close”. After that, re-access the camera.

The screenshot shows the 'Maintenance' configuration page. It includes the following sections:

- Schedule Reboot:** A checkbox for 'Schedule Reboot', a row of checkboxes for days of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat), and a time selector with '00' in the 'hh' and 'mm' fields. A 'Save' button is on the right.
- Reboot:** A 'Reboot the device' label and a 'Reboot' button.
- Restore to Default:** A 'Restore all settings to factory default.' label and a 'Default' button.
- Export Files:** An 'Export setting backup file' label and an 'Export' button.
- Upload Files:** An 'Upload setting backup file' label, a 'Browse...' button, and an 'Upload' button.
- Firmware Upgrade:** A 'File path' label, a 'Browse...' button, and an 'Upload' button.

Parameter List

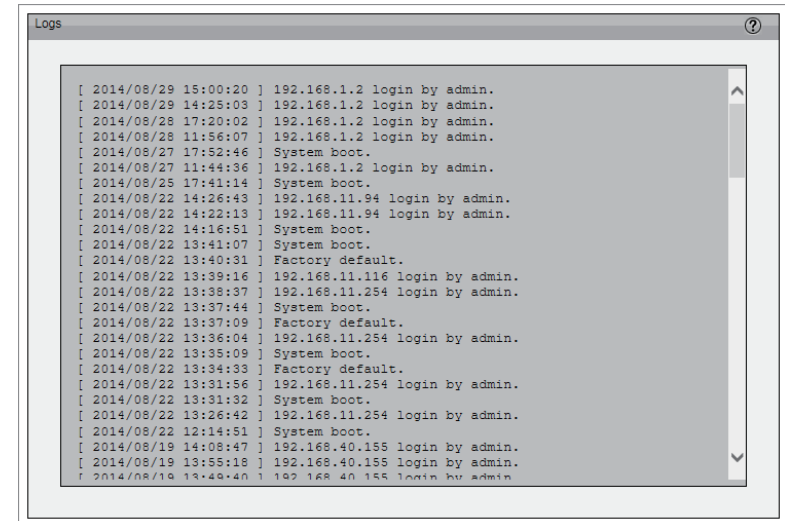
The Parameters List page lists the entire system's parameters in alphabetical order. If you need technical assistance, please provide the information listed on this page.



```
Parameter List
CFGAD_s
DayLux=7
NightLux=3
CE_Intensity=8
AWB_Scene_Mode=0
enable_coc=0
coc_vlan_id=4095
coc_class0=0
coc_class1=0
coc_class2=0
enable_802_1x=0
eapol_version=0
identity=
privkey_password=
ca_cert_status=
client_cert_status=
private_key_status=
enable_dscp=0
dscp_class0=0
dscp_class1=0
dscp_class2=0
eptz_speed_p=0
eptz_speed_t=0
eptz_speed_z=0
eptz_speed_run=1
eptz_act1=0
eptz_act2=0
eptz_act3=0
eptz_act4=0
eptz_patroll1_cur_pos_p=0.000000
eptz_patroll1_cur_pos_t=0.000000
eptz_patroll1_cur_pos_z=1.000000
eptz_patroll1_size=0
eptz_patroll1_seq01=0
eptz_patroll1_time01=0
eptz_patroll1_seq02=0
eptz_patroll1_time02=0
eptz_patroll1_seq03=0
eptz_patroll1_time03=0
eptz_patroll1_seq04=0
```

Logs

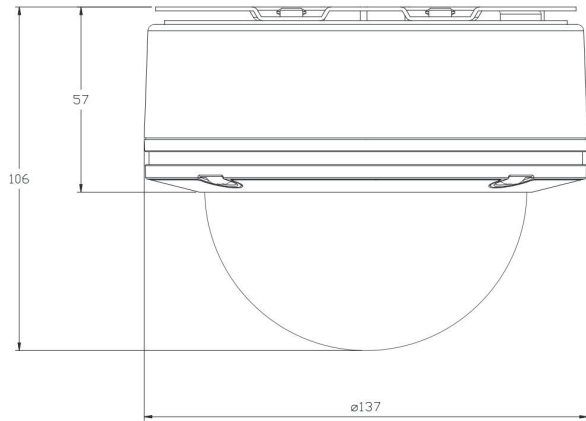
This column displays the system log in chronological order. The system log is stored in the camera's buffer area and will be overwritten when reaching a certain limit.



Technical Specifications

Camera		
Camera Hardware Profile	<ul style="list-style-type: none"> • 1/3.2" 5 Megapixel CMOS sensor • 20 meter IR illumination distance • Built-in Infrared-Cut Removable (ICR) Filter module • Minimum illumination: <ul style="list-style-type: none"> • 0.5 Lux Color mode • 0.1 Lux Black and White mode • 0 Lux Black and White mode with IR LED on • Minimum object distance 0.3 m 	<ul style="list-style-type: none"> • 3 ~ 10.5 mm DC iris vari-focal lens • Aperture F1.4 • Angle of view <ul style="list-style-type: none"> • (H) 26.94° to 67.23° • (V) 20.17° to 48.88° • Shutter Speed: 1/2.5 to 1/10,000 • 4x Digital zoom
Camera Housing	<ul style="list-style-type: none"> • IP66 compliant weatherproof housing • IK-10 compliant vandal-proof housing 	<ul style="list-style-type: none"> • Included sunshield
Image Features	<ul style="list-style-type: none"> • Configurable image size, quality, frame rate, and bit rate • Time stamp and text overlays • 3 Configurable motion detection windows • Tamper detection 	<ul style="list-style-type: none"> • Configurable privacy mask zones • Configurable exposure, brightness, saturation, contrast, sharpness, white balance, WDR, flip and mirror
Video Compression	<ul style="list-style-type: none"> • Simultaneous H.264/MJPEG format compression • H.264 multicast streaming 	<ul style="list-style-type: none"> • JPEG for still images
Video Resolution	<ul style="list-style-type: none"> • 16:9 1920x1080, 1280x720, 960 x 540, 640 x 360 at up to 30 fps 	<ul style="list-style-type: none"> • 4:3 - 2560x1920, 2048x1536, 1600x1200, 1280x960, 800 x 600, 640 x 480, 320 x 240 at up to 15 fps
Audio Support	<ul style="list-style-type: none"> • AAC 	<ul style="list-style-type: none"> • G.711
External Device Interfaces	<ul style="list-style-type: none"> • 10/100 BASE-TX Ethernet port with PoE • 1 DI / 1 DO • Reset button 	<ul style="list-style-type: none"> • Video Out (BNC) • microSD card Slot ¹ • Audio input / output
Network		
Network Protocols	<ul style="list-style-type: none"> • IPv6 • IPv4 • TCP/IP • UDP • ICMP • DHCP client • NTP client (D-Link) • DNS client • DDNS client (D-Link) • SMTP client • FTP client 	<ul style="list-style-type: none"> • HTTP / HTTPS • Samba client • PPPoE • UPnP port forwarding • RTP / RTSP / RTCP • IP filtering • QoS • CoS • Multicast • ONVIF compliant • SNMP
Security	<ul style="list-style-type: none"> • Administrator and user group protection • Remote client access control 	<ul style="list-style-type: none"> • HTTP and RTSP authentication • HTTPS encryption for web access

Appendix A - Technical Specifications

System Management	
System Requirements for Web Interface	<ul style="list-style-type: none"> • Browser: Internet Explorer 7 or higher, Firefox 19 or higher
Event Management	<ul style="list-style-type: none"> • Motion detection • Event notification and uploading of snapshots/video clips via e-mail or FTP • Supports multiple HTTP, 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 • Configuration interface accessible via web browser
OS Support	<ul style="list-style-type: none"> • Operating System: Windows 10/8/7/Vista/XP/2000
D-ViewCam™ System Requirements	<ul style="list-style-type: none"> • Operating System: Windows 10/8/7/Vista/XP/2000 • Web Browser: Internet Explorer 7 or higher • Protocol: Standard TCP/IP
D-ViewCam™ Software Functions	<ul style="list-style-type: none"> • Remote management/control of up to 32 cameras • Supports all management functions provided in web interface • Viewing of up to 32 cameras on one screen • Scheduled motion triggered, or manual recording options
General	
Weight	<ul style="list-style-type: none"> • 1.25 kg (2.75 lbs)
Power	<ul style="list-style-type: none"> • Input: 12V DC 1.5 A, 50/60 Hz, IEEE 802.3af PoE Class 0
Power Consumption	<ul style="list-style-type: none"> • Max: 11.6 W (PoE, heater on)
Temperature	<ul style="list-style-type: none"> • Operating: -40 to 50 °C (-40 to 122 °F) • Storage: -20 to 70 °C (-4 to 158 °F)
Humidity	<ul style="list-style-type: none"> • Operating: 20% to 90% non-condensing • Storage: 5% to 95% non-condensing
Certifications	<ul style="list-style-type: none"> • CE • CE LVD • FCC • C-Tick
Dimensions	 <p>Technical drawing of the D-ViewCam showing dimensions: height 106, top section height 57, and diameter ø137.</p>

¹ SD/SDHC/SDXC v3.01 compatible

Regulatory Information

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Non-modification Statement

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Caution

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.

Innovation, Science and Economic Development Canada (ISED) Statement:

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CE EMI Class A Warning

This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

SAFETY INSTRUCTIONS

The following general safety guidelines are provided to help ensure your own personal safety and protect your product from potential damage. Remember to consult the product user instructions for more details.

- Static electricity can be harmful to electronic components. Discharge static electricity from your body (i.e. touching grounded bare metal) before touching the product.
- Do not attempt to service the product and never disassemble the product. For some products with a user replaceable battery, please read and follow the instructions in the user manual.
- Do not spill food or liquid on your product and never push any objects into the openings of your product.
- Do not use this product near water, areas with high humidity, or condensation unless the product is specifically rated for outdoor application.
- Keep the product away from radiators and other heat sources.
- Always unplug the product from mains power before cleaning and use a dry lint free cloth only.

SICHERHEITSVORSCHRIFTEN

Die folgenden allgemeinen Sicherheitsvorschriften dienen als Hilfe zur Gewährleistung Ihrer eigenen Sicherheit und zum Schutz Ihres Produkts. Weitere Details finden Sie in den Benutzeranleitungen zum Produkt.

- Statische Elektrizität kann elektronischen Komponenten schaden. Um Schäden durch statische Aufladung zu vermeiden, leiten Sie elektrostatische Ladungen von Ihrem Körper ab, (z. B. durch Berühren eines geerdeten blanken Metallteils), bevor Sie das Produkt berühren.
- Unterlassen Sie jeden Versuch, das Produkt zu warten, und versuchen Sie nicht, es in seine Bestandteile zu zerlegen. Für einige Produkte mit austauschbaren Akkus lesen Sie bitte das Benutzerhandbuch und befolgen Sie die dort beschriebenen Anleitungen.
- Vermeiden Sie, dass Speisen oder Flüssigkeiten auf Ihr Produkt gelangen, und stecken Sie keine Gegenstände in die Gehäuseschlitze oder -öffnungen Ihres Produkts.
- Verwenden Sie dieses Produkt nicht in unmittelbarer Nähe von Wasser und nicht in Bereichen mit hoher Luftfeuchtigkeit oder Kondensation, es sei denn, es ist speziell zur Nutzung in Außenbereichen vorgesehen und eingestuft.
- Halten Sie das Produkt von Heizkörpern und anderen Quellen fern, die Wärme erzeugen.
- Trennen Sie das Produkt immer von der Stromzufuhr, bevor Sie es reinigen und verwenden Sie dazu ausschließlich ein trockenes fusselfreies Tuch.

CONSIGNES DE SÉCURITÉ

Les consignes générales de sécurité ci-après sont fournies afin d'assurer votre sécurité personnelle et de protéger le produit d'éventuels dommages. Veuillez consulter les consignes d'utilisation du produit pour plus de détails.

- L'électricité statique peut endommager les composants électroniques. Déchargez l'électricité statique de votre corps (en touchant un objet en métal relié à la terre par exemple) avant de toucher le produit.
- N'essayez pas d'intervenir sur le produit et ne le démontez jamais. Pour certains produits contenant une batterie remplaçable par l'utilisateur, veuillez lire et suivre les consignes contenues dans le manuel d'utilisation.
- Ne renversez pas d'aliments ou de liquide sur le produit et n'insérez jamais d'objets dans les orifices.
- N'utilisez pas ce produit à proximité d'un point d'eau, de zones très humides ou de condensation sauf si le produit a été spécifiquement conçu pour une application extérieure.
- Éloignez le produit des radiateurs et autres sources de chaleur.
- Débranchez toujours le produit de l'alimentation avant de le nettoyer et utilisez uniquement un chiffon sec non pelucheux.

INSTRUCCIONES DE SEGURIDAD

Las siguientes directrices de seguridad general se facilitan para ayudarle a garantizar su propia seguridad personal y para proteger el producto frente a posibles daños. No olvide consultar las instrucciones del usuario del producto para obtener más información.

- La electricidad estática puede resultar nociva para los componentes electrónicos. Descargue la electricidad estática de su cuerpo (p. ej., tocando algún metal sin revestimiento conectado a tierra) antes de tocar el producto.
- No intente realizar el mantenimiento del producto ni lo desmonte nunca. Para algunos productos con batería reemplazable por el usuario, lea y siga las instrucciones del manual de usuario.
- No derrame comida o líquidos sobre el producto y nunca deje que caigan objetos en las aberturas del mismo.
- No utilice este producto cerca del agua, en zonas con humedad o condensación elevadas a menos que el producto esté clasificado específicamente para aplicación en exteriores.
- Mantenga el producto alejado de los radiadores y de otras fuentes de calor.
- Desenchufe siempre el producto de la alimentación de red antes de limpiarlo y utilice solo un paño seco sin pelusa.

ISTRUZIONI PER LA SICUREZZA

Le seguenti linee guida sulla sicurezza sono fornite per contribuire a garantire la sicurezza personale degli utenti e a proteggere il prodotto da potenziali danni. Per maggiori dettagli, consultare le istruzioni per l'utente del prodotto.

- L'elettricità statica può essere pericolosa per i componenti elettronici. Scaricare l'elettricità statica dal corpo (ad esempio toccando una parte metallica collegata a terra) prima di toccare il prodotto.
- Non cercare di riparare il prodotto e non smontarlo mai. Per alcuni prodotti dotati di batteria sostituibile dall'utente, leggere e seguire le istruzioni riportate nel manuale dell'utente.
- Non versare cibi o liquidi sul prodotto e non spingere mai alcun oggetto nelle aperture del prodotto.
- Non usare questo prodotto vicino all'acqua, in aree con elevato grado di umidità o soggette a condensa a meno che il prodotto non sia specificatamente approvato per uso in ambienti esterni.
- Tenere il prodotto lontano da caloriferi e altre fonti di calore.
- Scollegare sempre il prodotto dalla presa elettrica prima di pulirlo e usare solo un panno asciutto che non lasci filacce.

VEILIGHEIDSINFORMATIE

De volgende algemene veiligheidsinformatie werd verstrekt om uw eigen persoonlijke veiligheid te waarborgen en uw product te beschermen tegen mogelijke schade. Denk eraan om de gebruikersinstructies van het product te raadplegen voor meer informatie.

- Statische elektriciteit kan schadelijk zijn voor elektronische componenten. Ontlaad de statische elektriciteit van uw lichaam (d.w.z. het aanraken van geaard bloot metaal) voordat u het product aanraakt.
- U mag nooit proberen het product te onderhouden en u mag het product nooit demonteren. Voor sommige producten met door de gebruiker te vervangen batterij, dient u de instructies in de gebruikershandleiding te lezen en te volgen.
- Mors geen voedsel of vloeistof op uw product en u mag nooit voorwerpen in de openingen van uw product duwen.
- Gebruik dit product niet in de buurt van water, gebieden met hoge vochtigheid of condensatie, tenzij het product specifiek geclassificeerd is voor gebruik buitenshuis.
- Houd het product uit de buurt van radiators en andere warmtebronnen.
- U dient het product steeds los te koppelen van de stroom voordat u het reinigt en gebruik uitsluitend een droge pluisvrije doek.

Disposing and Recycling Your Product

ENGLISH

EN



This symbol on the product or packaging means that according to local laws and regulations this product should be not be disposed of in household waste but sent for recycling. Please take it to a collection point designated by your local authorities once it has reached the end of its life, some will accept products for free. By recycling the product and its packaging in this manner you help to conserve the environment and protect human health.

D-Link and the Environment

At D-Link, we understand and are committed to reducing any impact our operations and products may have on the environment. To minimise this impact D-Link designs and builds its products to be as environmentally friendly as possible, by using recyclable, low toxic materials in both products and packaging.

D-Link recommends that you always switch off or unplug your D-Link products when they are not in use. By doing so you will help to save energy and reduce CO2 emissions.

To learn more about our environmentally responsible products and packaging please visit www.dlinkgreen.com.

DEUTSCH

DE



Dieses Symbol auf dem Produkt oder der Verpackung weist darauf hin, dass dieses Produkt gemäß bestehender örtlicher Gesetze und Vorschriften nicht über den normalen Hausmüll entsorgt werden sollte, sondern einer Wiederverwertung zuzuführen ist. Bringen Sie es bitte zu einer von Ihrer Kommunalbehörde entsprechend amtlich ausgewiesenen Sammelstelle, sobald das Produkt das Ende seiner Nutzungsdauer erreicht hat. Für die Annahme solcher Produkte erheben einige dieser Stellen keine Gebühren. Durch ein auf diese Weise durchgeführtes Recycling des Produkts und seiner Verpackung helfen Sie, die Umwelt zu schonen und die menschliche Gesundheit zu schützen.

D-Link und die Umwelt

D-Link ist sich den möglichen Auswirkungen seiner Geschäftstätigkeiten und seiner Produkte auf die Umwelt bewusst und fühlt sich verpflichtet, diese entsprechend zu mindern. Zu diesem Zweck entwickelt und stellt D-Link seine Produkte mit dem Ziel größtmöglicher Umweltfreundlichkeit her und verwendet wiederverwertbare, schadstoffarme Materialien bei Produktherstellung und Verpackung.

D-Link empfiehlt, Ihre Produkte von D-Link, wenn nicht in Gebrauch, immer auszuschalten oder vom Netz zu nehmen. Auf diese Weise helfen Sie, Energie zu sparen und CO2-Emissionen zu reduzieren.

Wenn Sie mehr über unsere umweltgerechten Produkte und Verpackungen wissen möchten, finden Sie entsprechende Informationen im Internet unter www.dlinkgreen.com.

FRANÇAIS

FR



Ce symbole apposé sur le produit ou son emballage signifie que, conformément aux lois et réglementations locales, ce produit ne doit pas être éliminé avec les déchets domestiques mais recyclé. Veuillez le rapporter à un point de collecte prévu à cet effet par les autorités locales; certains accepteront vos produits gratuitement. En recyclant le produit et son emballage de cette manière, vous aidez à préserver l'environnement et à protéger la santé de l'homme.

D-Link et l'environnement

Chez D-Link, nous sommes conscients de l'impact de nos opérations et produits sur l'environnement et nous engageons à le réduire. Pour limiter cet impact, D-Link conçoit et fabrique ses produits de manière aussi écologique que possible, en utilisant des matériaux recyclables et faiblement toxiques, tant dans ses produits que ses emballages.

D-Link recommande de toujours éteindre ou débrancher vos produits D-Link lorsque vous ne les utilisez pas. Vous réaliserez ainsi des économies d'énergie et réduirez vos émissions de CO2.

Pour en savoir plus sur les produits et emballages respectueux de l'environnement, veuillez consulter le www.dlinkgreen.com.

ESPAÑOL

ES



Este símbolo en el producto o el embalaje significa que, de acuerdo con la legislación y la normativa local, este producto no se debe desechar en la basura doméstica sino que se debe reciclar. Llévelo a un punto de recogida designado por las autoridades locales una vez que ha llegado al fin de su vida útil; algunos de ellos aceptan recogerlos de forma gratuita. Al reciclar el producto y su embalaje de esta forma, contribuye a preservar el medio ambiente y a proteger la salud de los seres humanos.

D-Link y el medio ambiente

En D-Link, comprendemos y estamos comprometidos con la reducción del impacto que puedan tener nuestras actividades y nuestros productos en el medio ambiente. Para reducir este impacto, D-Link diseña y fabrica sus productos para que sean lo más ecológicos posible, utilizando materiales reciclables y de baja toxicidad tanto en los productos como en el embalaje.

D-Link recomienda apagar o desenchufar los productos D-Link cuando no se estén utilizando. Al hacerlo, contribuirá a ahorrar energía y a reducir las emisiones de CO2.

Para obtener más información acerca de nuestros productos y embalajes ecológicos, visite el sitio www.dlinkgreen.com.

ITALIANO**IT**

La presenza di questo simbolo sul prodotto o sulla confezione del prodotto indica che, in conformità alle leggi e alle normative locali, questo prodotto non deve essere smaltito nei rifiuti domestici, ma avviato al riciclo. Una volta terminato il ciclo di vita utile, portare il prodotto presso un punto di raccolta indicato dalle autorità locali. Alcuni questi punti di raccolta accettano gratuitamente i prodotti da riciclare. Scegliendo di riciclare il prodotto e il relativo imballaggio, si contribuirà a preservare l'ambiente e a salvaguardare la salute umana.

D-Link e l'ambiente

D-Link cerca da sempre di ridurre l'impatto ambientale dei propri stabilimenti e dei propri prodotti. Allo scopo di ridurre al minimo tale impatto, D-Link progetta e realizza i propri prodotti in modo che rispettino il più possibile l'ambiente, utilizzando materiali riciclabili a basso tasso di tossicità sia per i prodotti che per gli imballaggi.

D-Link raccomanda di spegnere sempre i prodotti D-Link o di scollegarne la spina quando non vengono utilizzati. In questo modo si contribuirà a risparmiare energia e a ridurre le emissioni di anidride carbonica.

Per ulteriori informazioni sui prodotti e sugli imballaggi D-Link a ridotto impatto ambientale, visitate il sito all'indirizzo www.dlinkgreen.com.

NEDERLANDS**NL**

Dit symbool op het product of de verpakking betekent dat dit product volgens de plaatselijke wetgeving niet mag worden weggegooid met het huishoudelijk afval, maar voor recyclage moeten worden ingeleverd. Zodra het product het einde van de levensduur heeft bereikt, dient u het naar een inzamelpunt te brengen dat hiertoe werd aangeduid door uw plaatselijke autoriteiten, sommige autoriteiten accepteren producten zonder dat u hiervoor dient te betalen. Door het product en de verpakking op deze manier te recyclen helpt u het milieu en de gezondheid van de mens te beschermen.

D-Link en het milieu

Bij D-Link spannen we ons in om de impact van onze handelingen en producten op het milieu te beperken. Om deze impact te beperken, ontwerpt en bouwt D-Link zijn producten zo milieuvriendelijk mogelijk, door het gebruik van recycleerbare producten met lage toxiciteit in product en verpakking.

D-Link raadt aan om steeds uw D-Link producten uit te schakelen of uit de stekker te halen wanneer u ze niet gebruikt. Door dit te doen bespaart u energie en beperkt u de CO₂-emissies.

Breng een bezoek aan www.dlinkgreen.com voor meer informatie over onze milieuverantwoorde producten en verpakkingen.

POLSKI**PL**

Ten symbol umieszczony na produkcie lub opakowaniu oznacza, że zgodnie z miejscowym prawem i lokalnymi przepisami niniejszego produktu nie wolno wyrzucać jak odpady czy śmieci z gospodarstwa domowego, lecz należy go poddać procesowi recyklingu. Po zakończeniu użytkowania produktu, niektóre odpowiednie do tego celu podmioty przyjmą takie produkty nieodpłatnie, dlatego prosimy dostarczyć go do punktu zbiórki wskazanego przez lokalne władze. Poprzez proces recyklingu i dzięki takiemu postępowaniu z produktem oraz jego opakowaniem, pomogą Państwo chronić środowisko naturalne i dbać o ludzkie zdrowie.

D-Link i środowisko

D-Link podchodzimy w sposób świadomy do ochrony otoczenia oraz jesteśmy zaangażowani w zmniejszanie wpływu naszych działań i produktów na środowisko naturalne. W celu zminimalizowania takiego wpływu firma D-Link konstruuje i wytwarza swoje produkty w taki sposób, aby były one jak najbardziej przyjazne środowisku, stosując do tych celów materiały nadające się do powtórnego wykorzystania, charakteryzujące się małą toksycznością zarówno w przypadku samych produktów jak i opakowań.

Firma D-Link zaleca, aby Państwo zawsze prawidłowo wyłączali z użytku swoje produkty D-Link, gdy nie są one wykorzystywane. Postępując w ten sposób pozwalają Państwo oszczędzać energię i zmniejszać emisje CO₂.

Aby dowiedzieć się więcej na temat produktów i opakowań mających wpływ na środowisko prosimy zapoznać się ze stroną Internetową www.dlinkgreen.com.

ČESKY**CZ**

Tento symbol na výrobku nebo jeho obalu znamená, že podle místně platných předpisů se výrobek nesmí vyhazovat do komunálního odpadu, ale odeslat k recyklaci. Až výrobek doslouží, odnese jej prosím na sběrné místo určené místními úřady k tomuto účelu. Někteřá sběrná místa přijímají výrobky zdarma. Recyklací výrobku i obalu pomáháte chránit životní prostředí i lidské zdraví.

D-Link a životní prostředí

Ve společnosti D-Link jsme si vědomi vlivu našich provozů a výrobků na životní prostředí a snažíme se o minimalizaci těchto vlivů. Proto své výrobky navrhujeme a vyrábíme tak, aby byly co nejekologičtější, a ve výrobcích i obalech používáme recyklovatelné a nízkotoxické materiály.

Společnost D-Link doporučuje, abyste své výrobky značky D-Link vypnuli nebo vytáhli ze zásuvky vždy, když je nepoužíváte. Pomůžete tak šetřit energii a snížit emise CO₂.

Více informací o našich ekologických výrobcích a obalech najdete na adrese www.dlinkgreen.com.

MAGYAR**HU**

Ez a szimbólum a terméken vagy a csomagoláson azt jelenti, hogy a helyi törvényeknek és szabályoknak megfelelően ez a termék nem semmisíthető meg a háztartási hulladékkal együtt, hanem újrahasznosításra kell küldeni. Kérjük, hogy a termék élettartamának elteltét követően vigye azt a helyi hatóság által kijelölt gyűjtőhelyre. A termékek egyes helyeken ingyen elhelyezhetők. A termék és a csomagolás újrahasznosításával segíti védeni a környezetet és az emberek egészségét.

A D-Link és a környezet

A D-Linknél megértjük és elkötelezettek vagyunk a műveleteink és termékeink környezetre gyakorolt hatásainak csökkentésére. Az ezen hatás csökkentése érdekében a D-Link a lehető leginkább környezetbarát termékeket tervez és gyárt azáltal, hogy újrahasznosítható, alacsony károsanyag-tartalmú termékeket gyárt és csomagolásokat alkalmaz.

A D-Link azt javasolja, hogy mindig kapcsolja ki vagy húzza ki a D-Link termékeket a tápforrásból, ha nem használja azokat. Ezzel segít az energia megtakarításában és a széndioxid kibocsátásának csökkentésében.

Környezetbarát termékeinkről és csomagolásainkról további információkat a www.dlinkgreen.com weboldalon tudhat meg.

NORSK**NO**

Dette symbolet på produktet eller forpakningen betyr at dette produktet ifølge lokale lover og forskrifter ikke skal kastes sammen med husholdningsavfall, men leveres inn til gjenvinning. Vennligst ta det til et innsamlingssted anvist av lokale myndigheter når det er kommet til slutten av levetiden. Noen steder aksepteres produkter uten avgift. Ved på denne måten å gjenvinne produktet og forpakningen hjelper du å verne miljøet og beskytte folks helse.

D-Link og miljøet

Hos D-Link forstår vi oss på og er forpliktet til å minske innvirkningen som vår drift og våre produkter kan ha på miljøet. For å minimalisere denne innvirkningen designer og lager D-Link produkter som er så miljøvennlig som mulig, ved å bruke resirkulerbare, lav-toksiske materialer både i produktene og forpakningen.

D-Link anbefaler at du alltid slår av eller frakobler D-Link-produkter når de ikke er i bruk. Ved å gjøre dette hjelper du å spare energi og å redusere CO2-utslipp.

For mer informasjon angående våre miljøansvarlige produkter og forpakninger kan du gå til www.dlinkgreen.com.

DANSK**DK**

Dette symbol på produktet eller emballagen betyder, at dette produkt i henhold til lokale love og regler ikke må bortskaffes som husholdningsaffald, mens skal sendes til genbrug. Indlever produktet til et indsamlingssted som angivet af de lokale myndigheder, når det er nået til slutningen af dets levetid. I nogle tilfælde vil produktet blive modtaget gratis. Ved at indlevere produktet og dets emballage til genbrug på denne måde bidrager du til at beskytte miljøet og den menneskelige sundhed.

D-Link og miljøet

Hos D-Link forstår vi og bestræber os på at reducere enhver indvirkning, som vores aktiviteter og produkter kan have på miljøet. For at minimere denne indvirkning designer og producerer D-Link sine produkter, så de er så miljøvenlige som muligt, ved at bruge genanvendelige materialer med lavt giftighedsniveau i både produkter og emballage.

D-Link anbefaler, at du altid slukker eller frakobler dine D-Link-produkter, når de ikke er i brug. Ved at gøre det bidrager du til at spare energi og reducere CO₂-udledningerne.

Du kan finde flere oplysninger om vores miljømæssigt ansvarlige produkter og emballage på www.dlinkgreen.com.

SUOMI**FI**

Tämä symboli tuotteen pakkauksessa tarkoittaa, että paikallisten lakien ja säännösten mukaisesti tätä tuotetta ei pidä hävittää yleisen kotitalousjätteen seassa vaan se tulee toimittaa kierrätettäväksi. Kun tuote on elinkaarensa päässä, toimita se lähimpään viranomaisten hyväksymään kierrätyspisteeseen. Kierrättämällä käytetyn tuotteen ja sen pakkauksen autat tukemaan sekä ympäristön että ihmisten terveyttä ja hyvinvointia.

D-Link ja ympäristö

D-Link ymmärtää ympäristönsuojelun tärkeyden ja on sitoutunut vähentämään tuotteistaan ja niiden valmistuksesta ympäristölle mahdollisesti aiheutuvia haittavaikutuksia. Nämä negatiiviset vaikutukset minimoidakseen D-Link suunnittelee ja valmistaa tuotteensa mahdollisimman ympäristöystävällisiksi käyttämällä kierrätettäviä, alhaisia pitoisuuksia haitallisia aineita sisältäviä materiaaleja sekä tuotteissaan että niiden pakkauksissa.

Suosittelomme, että irrotat D-Link-tuotteesi virtalähteestä tai sammutat ne aina, kun ne eivät ole käytössä. Toimimalla näin autat säästämään energiaa ja vähentämään hiilidioksiidipäästöjä.

Lue lisää ympäristöystävällisistä D-Link-tuotteista ja pakkauksistamme osoitteesta www.dlinkgreen.com.

SVENSKA

SE



Den här symbolen på produkten eller förpackningen betyder att produkten enligt lokala lagar och föreskrifter inte skall kastas i hushållssoporna utan i stället återvinnas. Ta den vid slutet av dess livslängd till en av din lokala myndighet utsedd uppsamlingsplats, vissa accepterar produkter utan kostnad. Genom att på detta sätt återvinna produkten och förpackningen hjälper du till att bevara miljön och skydda människors hälsa.

D-Link och miljön

På D-Link förstår vi och är fast beslutna att minska den påverkan våra verksamheter och produkter kan ha på miljön. För att minska denna påverkan utformar och bygger D-Link sina produkter för att de ska vara så miljövänliga som möjligt, genom att använda återvinningsbara material med låg gifthalt i både produkter och förpackningar.

D-Link rekommenderar att du alltid stänger av eller kopplar ur dina D-Link produkter när du inte använder dem. Genom att göra detta hjälper du till att spara energi och minska utsläpp av koldioxid.

För mer information om våra miljöansvariga produkter och förpackningar www.dlinkgreen.com.

PORTUGUÊS

PT



Este símbolo no produto ou embalagem significa que, de acordo com as leis e regulamentações locais, este produto não deverá ser eliminado juntamente com o lixo doméstico mas enviado para a reciclagem. Transporte-o para um ponto de recolha designado pelas suas autoridades locais quando este tiver atingido o fim da sua vida útil, alguns destes pontos aceitam produtos gratuitamente. Ao reciclar o produto e respectiva embalagem desta forma, ajuda a preservar o ambiente e protege a saúde humana.

A D-Link e o ambiente

Na D-Link compreendemos e comprometemo-nos com a redução do impacto que as nossas operações e produtos possam ter no ambiente. Para minimizar este impacto a D-Link concebe e constrói os seus produtos para que estes sejam o mais inofensivos para o ambiente possível, utilizando materiais recicláveis e não tóxicos tanto nos produtos como nas embalagens.

A D-Link recomenda que desligue os seus produtos D-Link quando estes não se encontrarem em utilização. Com esta acção ajudará a poupar energia e reduzir as emissões de CO₂.

Para saber mais sobre os nossos produtos e embalagens responsáveis a nível ambiental visite www.dlinkgreen.com.

