# USER MANUAL DCS-6511

**VERSION 1.0** 



D-Link®

SURVEILLANCE

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## **Preface**

D-Link reserves the right to revise this publication and to make changes in the contents hereof without obligation to notify any person or organization of such revisions or changes.

## **Manual Revisions**

Revision	Date	Description
1.0	September 30, 2010	DCS-6511 Revision A1 with firmware version 1.00

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# **Package Contents**



DCS-6511 Network Camera



**Power Adapter** 



**Security Wrench** 



A/V & Power Cables



Manual and Wizard on CD-ROM



Quick Installation Guide



CAT-5 Ethernet Cable



**Extension Adapter** 



**Cable Cover** 



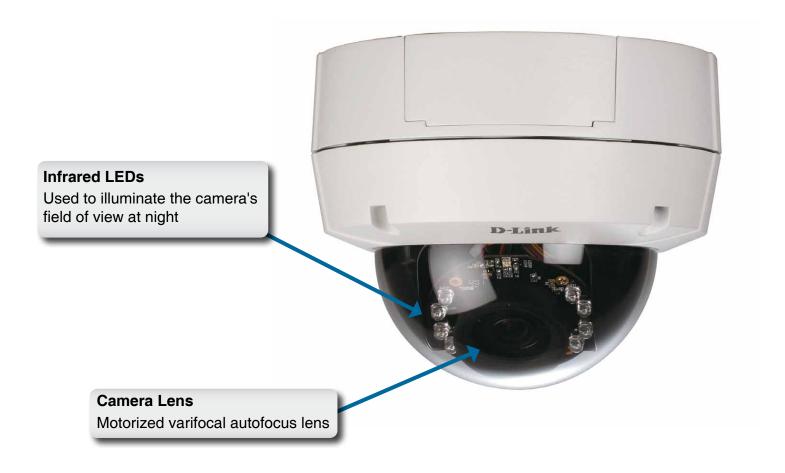
Mounting Bracket and Screws



**Rubber Plug** 

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

## **Hardware Overview**



## Camera Enclosure Disassembly and SD Card Installation

#### Disassemble the Camera

Open the camera enclosure by removing the 3 standard screws using a screwdriver. Remove the 4th screw using the provided security wrench.

Lift the dome off of the base of the camera.

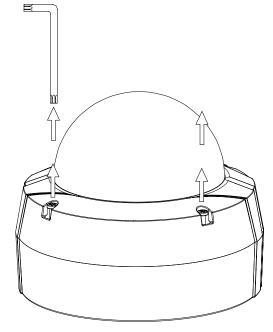


Figure A.

#### 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.

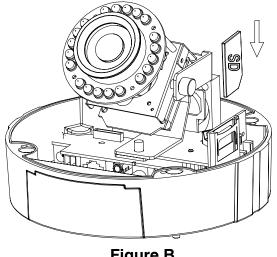
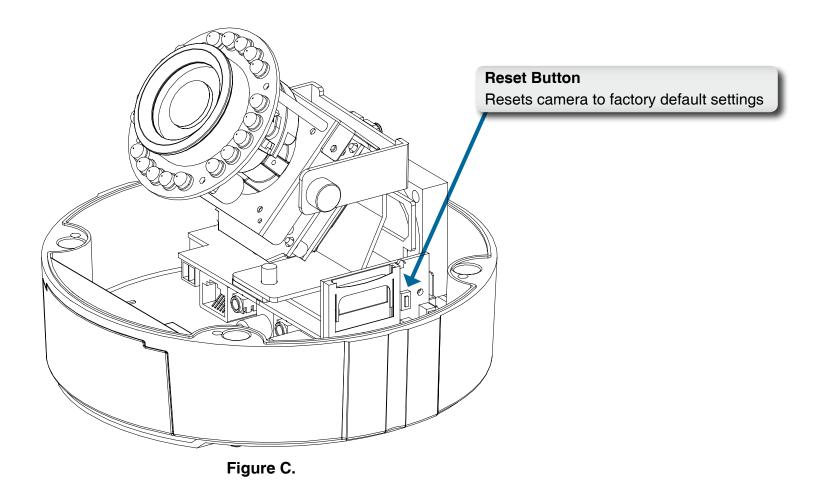


Figure B.

## **Hardware Reset**

#### **Resetting the Camera**

If the camera is malfunctioning, you may use the hardware reset button located on the underside of the camera apparatus to reset the camera to factory default settings. Press and hold the reset button for approximately 10 seconds to reset the camera.



# **Preparing for Installation**

A. Depending on how you choose to mount the camera, you may need to change the orientation of the cable. For instance, when using the Surface Mounting Bracket, the cables may need to exit through the side of the camera base rather than the top.

### **Changing Cable Orientation:**

- 1. Disassemble the camera enclosure. (See Figure A. on page 6.)
- 2. Loosen, but do not remove, the two screws that secure the camera bracket to the base of the enclosure using a screwdriver. (Figure 1.1)
- 3. Slide the camera bracket towards the front of the camera base. (Figure 1.2)

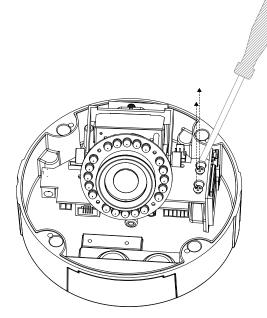


Figure 1.1

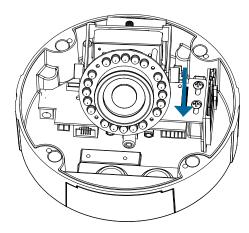


Figure 1.2

- 4. Lift the camera bracket up and off from the camera base. (Figure 1.3)
- 5. Disconnect the cables from the connectors at the base of the camera.
- 6. Place the cable into the new hole and reconnect the cables to the cable connectors at the base of the camera. (Figure 1.4)
- 7. Replace the chrome plug and tighten it into place.
- 8. Replace the chrome nut and tighten it into place
- B. Replace the dome enclosure over the IP camera and tighten the 4 screws.

### **Safety Notice:**

Installation and servicing should be done by certified technicians so as to conform to all local codes and prevent voiding your warranty.

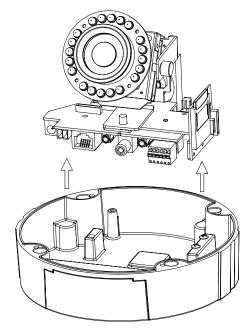
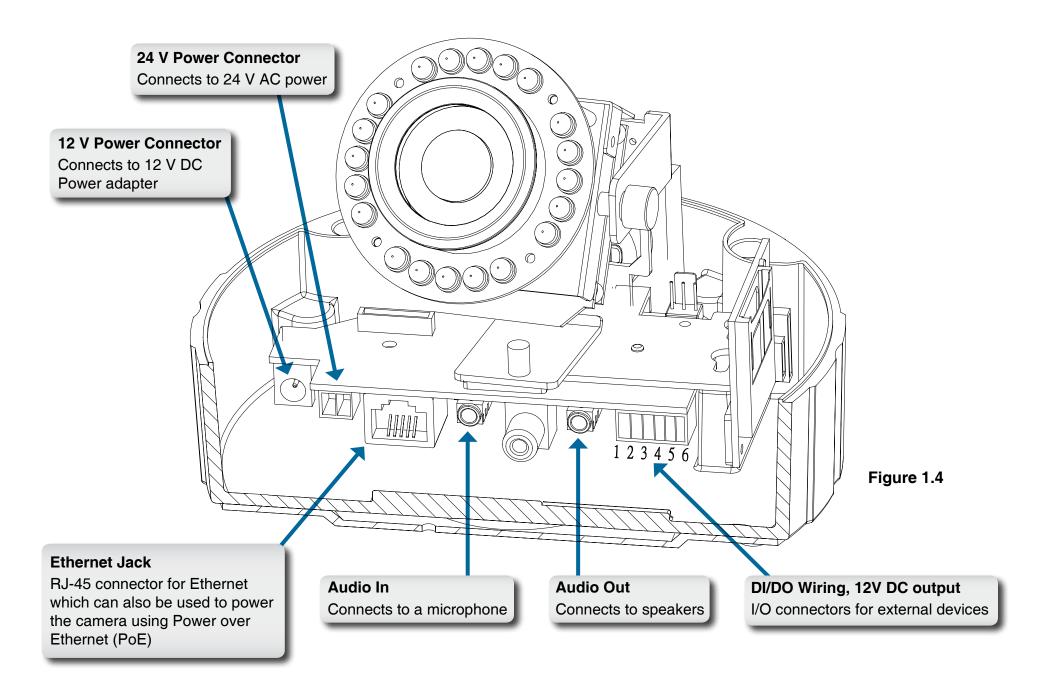


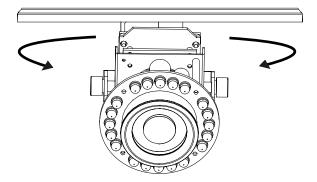
Figure 1.3



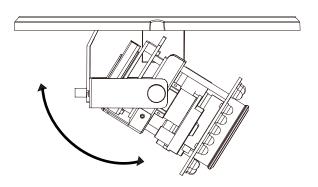
# **Adjusting the Viewing Angle**

## Adjust the Viewing Angle of the 3-Axis Mechanism

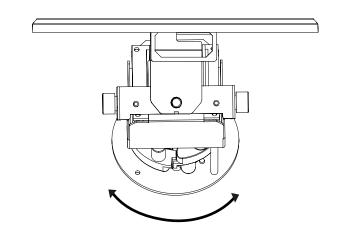
Turn the lens module left and right until the desired position is achieved; tighten the pan screw once completed.



Loosen the tilt screws on both sides of the camera, and turn the lens module up and down until the desired position is achieved; tighten the tilt screws once completed.



Turn the lens to adjust the IP camera's image until the desired orientation is achieved. Tighten the image adjustment screw once completed.



# **Standard Mounting Instructions**

## **Style 1 - Concealed Cable Installation**

- 1. Disassemble the camera enclosure (see page 6).
- 2. Thread the cables through the waterproof plugs at the bottom of the base of the camera. Attach the cables to the corresponding cable connectors. (Figure 2.1)
- 3. Locate a suitable position on the ceiling for the mounting plate to be installed.
- 4. Use the mounting template to mark the holes for installation.
- 5. Cut an access hole in the ceiling for the cables.
- 6. Drill four separate 6 mm holes corresponding to the holes in the mounting template and insert the plastic anchors into these holes.
- 7. Attach the surface bracket to the ceiling using the screws provided.

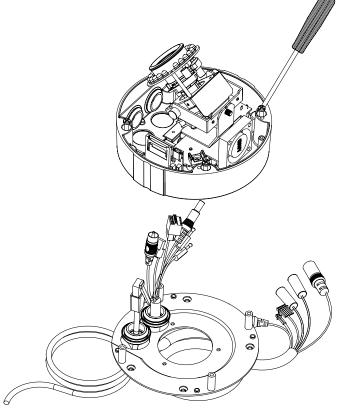


Figure 2.1

- 8. Connect the Ethernet cable and the power cable, threading them through the hole in the ceiling. (Figure 2.2)
- 9. Push the dome body up over the base of the camera.
- 10. Attach the dome to the base of the camera using the 3 long screws and the provided security screw.

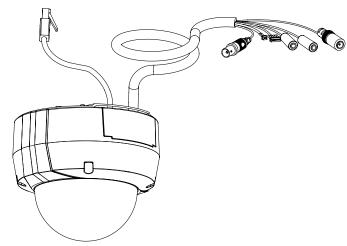


Figure 2.2

## **Style 2 - Exposed Cable Installation**

- 1. Disassemble the camera enclosure (see page 6).
- 2. Remove the small screw to release the faceplate on the side of the base of the camera. (Figure 2.3)
- 3. Thread the cables through the waterproof plugs on the side of the base of the camera. Attach the cables to the corresponding cable connectors. (See page 10.)
- 4. Attach the dual-holed plate to the base of the camera. (Figure 2.4)

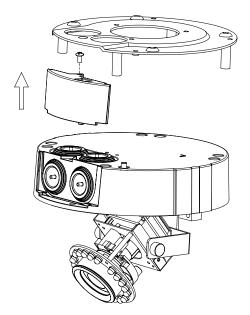


Figure 2.3

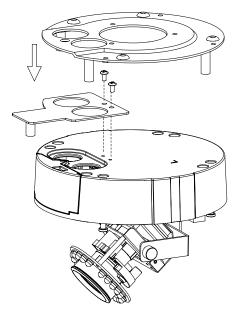
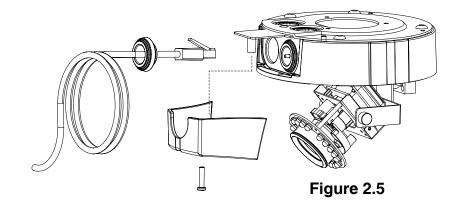


Figure 2.4

- 5. Place the plastic cable cover onto the dual-holed plate and attach it using the screw. (Figure 2.5)
- 6. Locate a suitable position on the ceiling for the mounting plate to be installed.
- 7. Use the mounting template to mark the holes for installation.
- 8. Drill 4 separate 6 mm holes corresponding to the holes in the mounting template and insert the plastic anchors into these holes.
- 9. Attach the surface bracket to the ceiling using the screws provided.
- 10. Place the dome body onto the base of the camera. (Figure 2.6)
- 11. Attach the dome to the base of the camera using the 3 long screws and the provided security screw.



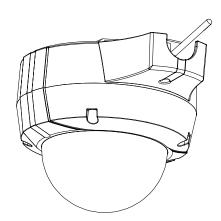


Figure 2.6

# **Pendant Mount (DCS-34-2)**

- 1. Attach the mounting plate to the bracket cap using the three screws as shown in Figure 3.1.
- 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 the hole in the ceiling according to the template.
- 4. Drill 4 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. (Figure 3.2)
- 6. Attach the pendant bracket to the ceiling using the screws provided.
- 7. Attach the bracket cap to the bottom of the pendant bracket, rotating the cap counter-clockwise 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.

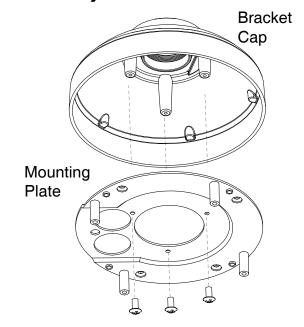


Figure 3.1

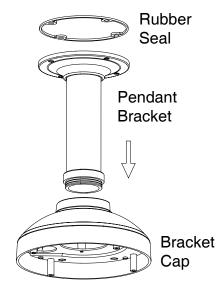
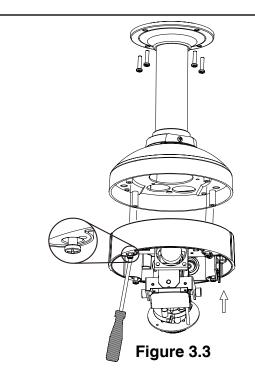


Figure 3.2

- 9. Connect the Ethernet cable and the power cable and thread them through the pendant bracket.
- 10. Place the dome body onto the base of the camera. (Figure 3.3)
- 11. Attach the dome to the base of the camera using the 3 long screws and the provided security screw.



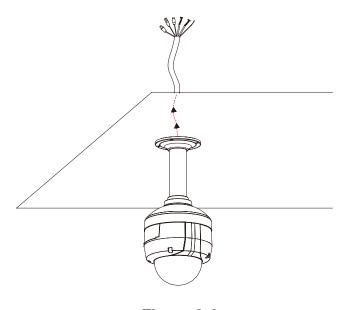


Figure 3.4

# **Bent Mount (DCS-34-3)**

- 1. Attach the mounting plate to the bracket cap using the three screws as shown in Figure 4.1.
- 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 the hole in the ceiling according to the template
- 4. Drill 4 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 bent bracket and the ceiling to ensure a waterproof seal between the ceiling and the bracket. (Figure 4.2)
- 6. Attach the pendant bracket to the ceiling using the screws provided.
- 7. Attach the bracket cap to the bottom of the bent bracket, rotating the cap counterclockwise to tighten it into place.
- 8. Insert the screw into the base of the bent 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 pendant bracket.

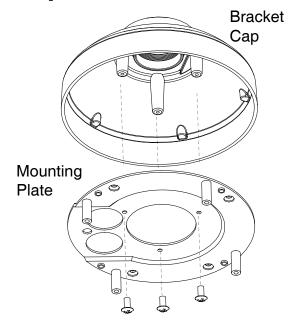
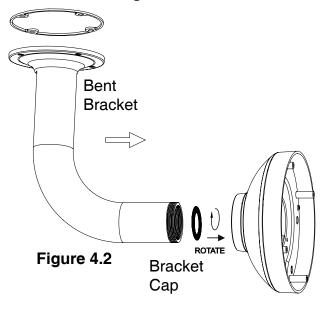


Figure 4.1



- 10. Place the dome body onto the base of the camera. (Figure 4.3)
- 11. Attach the dome to the base of the camera using the 3 long screws and the provided security screw.

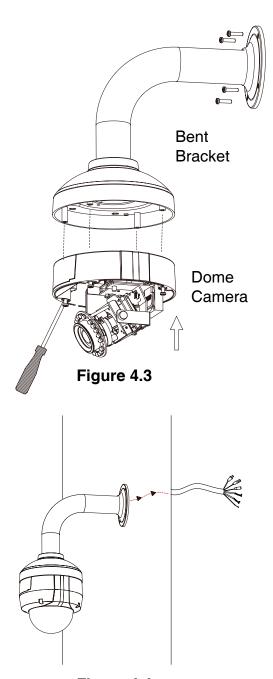
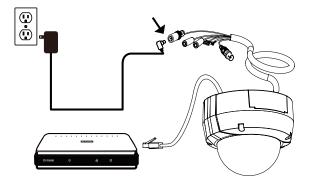


Figure 4.4

## **Network and Power Connections**

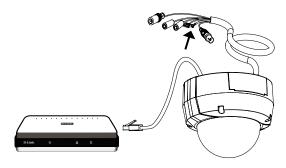
## **General Connection Using 12 V DC Power Adapter**

- 1. Connect the network camera to a hub via an Ethernet cable.
- 2. Connect the supplied power cable from the camera to a power outlet.



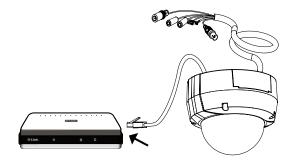
#### **General Connection Using 24 V AC Power Wiring**

- 1. Connect the network camera to a hub via an Ethernet cable.
- 2. Connect the supplied power cable from the camera to a power source such as your building's emergency power.



#### Connection with a PoE Hub

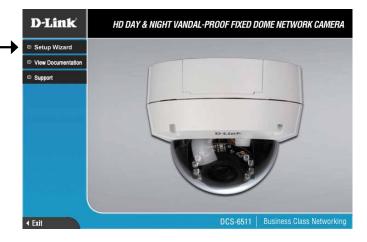
If you are using a PoE hub, connect the IP camera to the hub via an Ethernet cable, which will provide transmission of both power and data over a single cable.

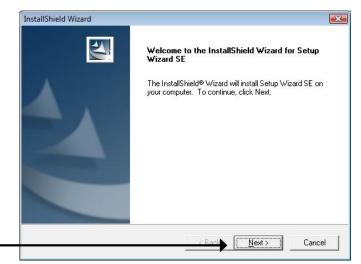


# **Configuration with Wizard**

Insert the DCS-6511 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.

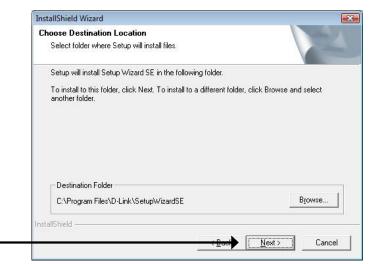
Click **Setup Wizard** to begin the installation.





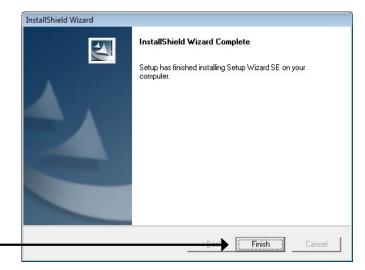
Click **Next** to continue.





To start the installation process, click Next.

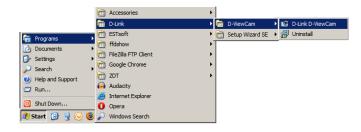
Note: The installation may take several minutes to finish.



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



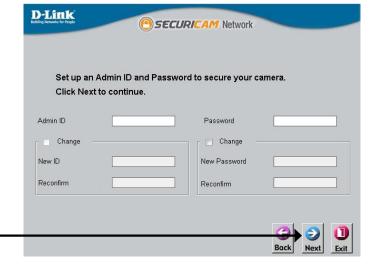
The Setup Wizard will appear and display the MAC address and IP address of your camera(s). If you have a DHCP server on your network, a valid IP Address will be displayed. If your network does not use a DHCP server, the network camera's default static IP address 192.168.0.20 will be displayed.

Click the **Wizard** button to continue.

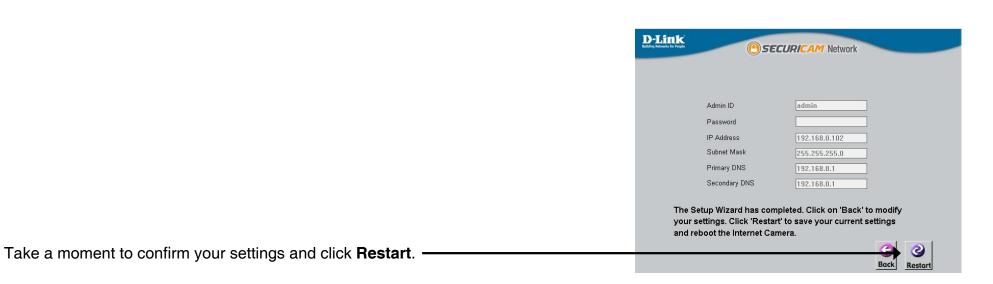


Enter the Admin ID and password. When logging in for the first time, the default Admin ID is **admin** with the password left blank.

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



D-Link **SECURICAM** Network Set IP Address DHCP Static IP IP Address 192.168.1.185 Subnet Mask 255.255.255.0 Default Gateway 192.168.1.1 Select **DHCP** if your camera obtains an IP address automatically when it boots up. Primary DNS 192.168.1.1 Select Static IP if the camera will use the same IP address each time it is started. Secondary DNS 192.168.1.1 Click **Next**, to proceed to the next page.



# **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** 





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.



## **Live Video**

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

	Digital Input Indicator	This indicator will change color when a digital input signal is detected.
W.	Motion Trigger Indicator	This indicator will change color when a trigger event occurs.
		<b>Note:</b> The video motion feature for your camera must be enabled.
REC	Recording Indicator	When a recording is in progress, this indicator will change color.





- Video Profile 3
- Full screen mode
- Taking a Snapshot
- Recording a Video Clip
- Set a Storage Folder
- Listen/Stop Listening
- Talk/Stop Talking
- ▲ Start/Stop Digital Output





**Control Pad** 

This control pad can be used to pan, tilt, and zoom within the camera's predefined view area, if one has been defined.

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

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

IO Status: This option displays the status of your I/O device if a device has been connected.

PTZ Control: This camera uses electronic pan/tilt/zoom (ePTZ) to select and view areas of interest in the field of view. Please see page 40 for information about setting the frame size and view window area.

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

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

Language: You may select the interface language using this menu. The available options are English and Traditional Chinese.

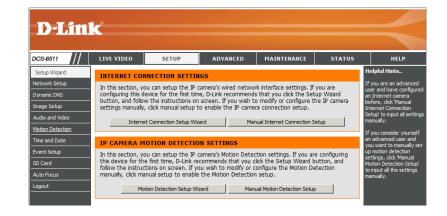


$\leftrightarrow$	Auto Pan	Starts the automatic panning function. The ROI will pan from back and forth within the FOV
×	Stop	Stops the camera ePTZ motion
<b>~</b>	Preset Path	Starts the camera's motion along the predefined path

# **Setup** Wizard

To configure your Network Camera, click Internet Connection Setup Wizard. Alternatively, you may click Manual Internet Connection Setup to manually configure your Network Camera and skip to page 22.

To quickly configure your Network Camera's motion detection settings, click **Motion Detection Setup Wizard**. If you want to enter your settings without running the wizard, click **Manual Motion Detection Setup** and skip to page 27.



## **Internet Connection Setup Wizard**

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

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

Click Next to continue.



Step 1: Setup LAN Settings		
Please select whether your camera will connect to the Internet with a DHCP connection or Static IP address. If your camera is connected to a router, or you are unsure which settings to pick, D-Link recommends that you keep the default selection of DHCP connection. Otherwise, click on Static IP address to manually assign and IP address before clicking on the Next button. Please enter your ISP Username and Password in the case that your ISP is using PPPOE and then click on the Next button. Please contact your ISP if you do not know your Username and Password in the Case that your ISP is using the click on the Next button. Please contact your ISP if you do not know your Username and Password in the Case that you ISP is using the click on the Next button. Please contact your ISP if you do not know your Username and Password in the Case that you ISP is using the Case that you ISP is used to the Case that you ISP is using the Case that you ISP is used to the Case that you ISP is		
C Static IP Client		
IP address 172.17.5.113		
Subnet mask 255.255.255.0		
Default router 172.17.5.254		
Primary DNS 0.0.0.0		
Secondary DNS 168.95.1.1		
☐ Enable PPPoE		
User Name		
(e.g. 123456@hinet.net)		
Password		
Back Next Cancel		

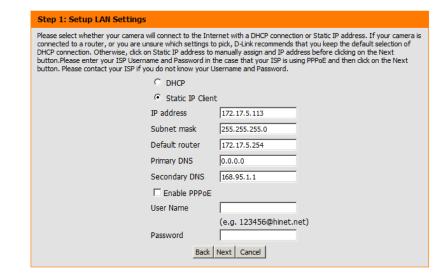
## Configuration

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

If you are using PPPoE, select **Enable PPPoE** and enter your user name and password, otherwise click **Next** to continue.

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

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



Step 2: Setup DDNS Settings		
If you have a Dynamic DNS account and would like the camera to update your IP address automatically, enable DDNS and enter in your host information below. Please dick on the Next button to continue.		
Enable DDNS		
Server Address	www.dlinkddns.com	
Host Name		
User Name		
Password		
Verify Password		
Timeout	24 (hours)	
	Back Next Cancel	

Step 3: Camera Name Settings

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

IP Camera Name DCS-6511

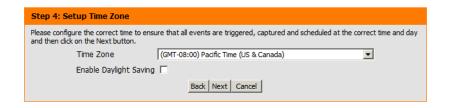
Back Next Cancel

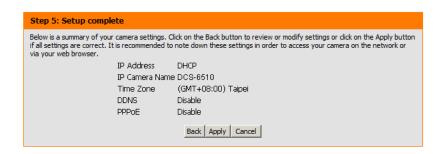
## Configuration

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

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

Click **Apply** to save your settings.

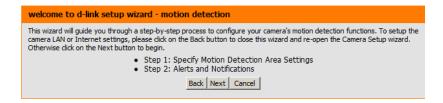




## **Motion Detection Setup Wizard**

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

Click **Next** to continue.



#### Step 1

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

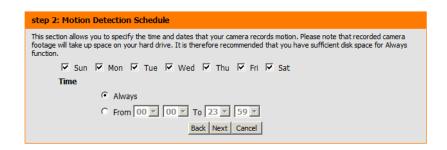
You may specify whether the camera should capture a snapshot or a video clip when motion is detected.

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



#### Step 2

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



### Step 3

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

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

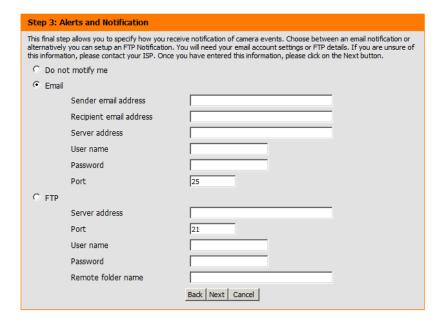
Click **Next** to continue.

## Step 4

You have completed the Motion Detection Wizard.

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

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



#### Step 4: Setup Complete

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

Motion Detection : Enable EVENT : Video Clip

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

Schedule Time : Always
Alerts and Notification : Email

Back Apply Cancel

#### Step 4: Setup Complete

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

Changes saved.IP Camera's network is restarting, please wait for 3 seconds ...

Back Apply Cancel

## **Network Setup**

Use this section to configure the network connections for your camera. All relevant information must be entered accurately.

LAN Settings: Settings for your local area network.

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

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

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

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

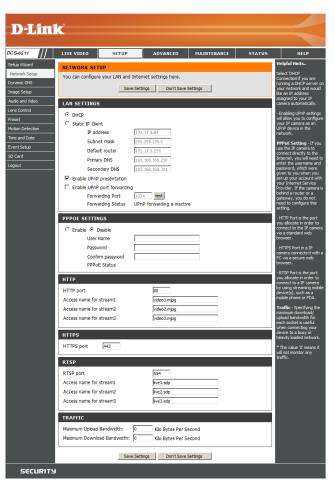
**Default Gateway:** The gateway used to forward frames to destinations in a different subnet. Invalid gateway settings may cause the failure of transmissions to a different subnet.

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

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

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

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



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

**User Name:** The unique name of your account. You may

obtain this information from your ISP.

Password: The password to your account. You may obtain

this information from your ISP.

**HTTP Port:** The default port number is 80.

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

number of the stream.

HTTPS Port: You may use a PC with a secure browser to

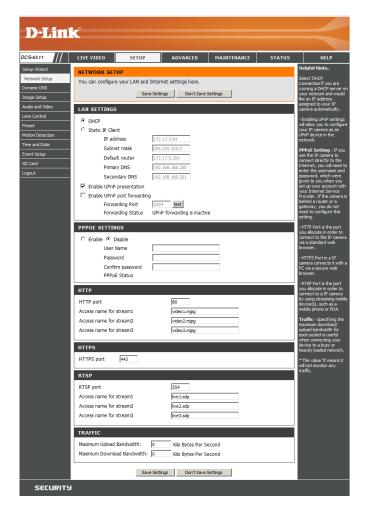
connect to the HTTPS port of the camera. The

default port number is 443.

RTSP Port: The port number that you use for RTSP streaming

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

Maximum Upload/Download Specifying the maximum download/upload Bandwidth: bandwidth for each socket can be useful when connecting your device to a busy or heavily loaded network. Entering a value of '0' indicates that the camera should not monitor bandwidth. Specifying other values will limit the camera's transfer speed to the specified number of Kilobytes per second.



# **Dynamic DNS**

DDNS (Dynamic Domain Name Server) will hold a DNS host name and synchronize the public IP address of the modem when it has been modified. A user name and password are required when using the DDNS service.

Enable DDNS: Select this checkbox to enable the DDNS

function.

Server Address: Select your Dynamic DNS provider from the drop-

down menu or enter the server address manually.

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

**User Name:** Enter your user name or e-mail used to connect

to the DDNS.

Password: Enter your password used to connect to the

DDNS server.

**Timeout:** Enter DNS Timeout values.

Status: Indicates the connection status, which is

automatically determined by the system.



# **Image Setup**

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

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

> You may click and drag the mouse cursor over the camera image to draw a mask area.

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

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

Mirror: This option horizontally reverses your images 180°.

Flip: This option vertically reverses your images 180°.

**Power Line:** This option can be used to remove 50/60 Hz flicker.

White Balance: This option can be used to remove unrealistic color casts so that objects which appear white in reality are rendered white for images on your screen.

Max AGC: Auto Gain Control - Controls the gain of a signal. Using AGC means that weaker signals receive more gain and stronger signals receive less gain or none at all.

For better performance in low light environments, use a higher AGC value.

For better WDR performance, use a higher AGC value. To reduce sharpness and noise, use a lower AGC value.



**Exposure Time:** This setting affects the frame rate of the camera. Auto is the recommended setting, however

advanced users may adjust this value if needed. If an AGC value has been set, the exposure time

will be automatically set to "Auto".

**Brightness:** This option can be used to compensate for backlit scenes.

Contrast: Adjustment of this option may help to improve the image under a dull grey sky.

**Saturation:** This option controls the strength of color from black and white to bold colors.

**Sharpness:** This option controls the amount of sharpening applied to the image.

WDR Level: This option allows the camera to operate in environments with high-contrast such as lobby entrances,

parking lots, ATMs, loading areas, and more. You may adjust the level from 0 to 8 depending on your

particular application.

## **Audio and Video**

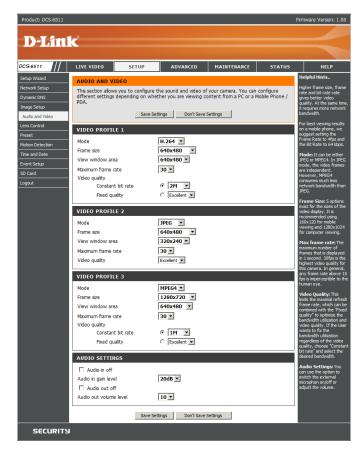
You may configure 3 video profiles with different settings for your camera. Hence, you may set up different profiles for your computer and mobile display. In addition, you may also configure the two-way audio settings for your camera. Higher frame size, frame rate and bit rate rate gives better video quality. At the same time, it requires more network bandwidth.

**Resolution:** This option allows the user to choose the video resolution of the camera between 160x120, 320x240, 640x480, 1280x720, 1280x1024:

- QQVGA @ 160x120 Typically used on handheld devices.
- QVGA @ 320x240 Standard resolution for mobile phones and PDAs.
- VGA @ 640x480 Standard resolution for computer displays.
- 720P @ 1280x720 Typically used on handheld devices.
- SXGA @ 1280x1024 Standard resolution for computer displays.

**Mode:** Select the video compression mode. You may select JPEG, MPEG4, or H.264. H.264 consumes less network bandwidth than JPEG.

Frame Size: Select the frame size. 5 options exist for the sizes of the video display. 160x120 is recommended for mobile viewing and 1280x1024 is recommended for computer viewing.



**View Window Area:** Select the size for the view window. Be sure to set the view window area to equal or smaller than the frame size so that the EPTZ system functions correctly.

Maximum Frame Rate: A higher frame rate provides smoother motion for videos. Lower frame rates will result in stuttering motion. The maximum number of frames that is displayed in 1 second. 30 fps is the highest video quality for this camera. In general, any frame rate above 15 fps is imperceptible to the human eye.

Video Quality: This limits the maximal refresh frame rate, which can be combined with the "Fixed quality" option to

optimize the bandwidth utilization and video quality. If fixed bandwidth utilization is desired regardless

of the video quality, choose "Constant bit rate" and select the desired bandwidth.

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

video quality.

**JPEG Quality:** Select the image quality level of JPEG images. You may choose **Standard**, **Good**, or **Excellent**.

Audio in off: Select this box to turn off the audio input (microphone).

Audio in gain level: Choose the gain level. You may select 0 dB or 26 dB.

Audio out off: Select this box to turn off the audio output (speaker).

Audio out volume level: Select a level between 1 (lowest) and 10 (highest) for the audio out.

## **Lens Control**

The red rectangular frame can be moved within the live image of this setting page. The camera will automatically adjust the focus based on the region of interest indicated by the red frame.

Focus Mode: You may select Auto to allow the camera

to automatically adjust the focus. You may select Manual focus to adjust the focus

using the focus slider.

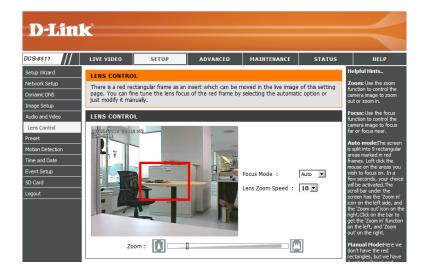
Lens Zoom Speed: Select a speed between 1 and 10 for the

camera's optical zoom feature.

**Zoom:** Use the slider bar to adjust the zoom level.

Focus: When Manual focus is selected, you may

use this slider bar to adjust the focus level.





## **Motion Detection**

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

Enable Video Motion: Select this box to enable the motion detection

feature of your camera.

**Sensitivity:** Specifies the measurable difference between two

sequential images that would indicate motion.

Please enter a value between 0 and 100.

Percentage: Specifies the amount of motion in the window

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

**Draw Motion Area:** Draw the motion detection area by dragging your

mouse in the window (indicated by the red square).

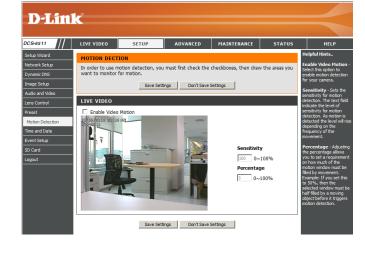
**Erase Motion Area:** To erase a motion detection area, simply click on the red square that you wish to remove.

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

**Select All:** Draws a motion detection area over the entire screen.

**Clear All:** Clears any motion detection areas that have been drawn.

**Restore:** Restores the previously specified motion detection areas.





## **Time and Date**

This section allows you to automatically or manually configure, update, and maintain the internal system clock for your camera.

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

menu.

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

Auto Daylight Saving: Select this option to allow your camera

to configure the Daylight Saving settings

automatically.

Set Date and Time Manually: Selecting this option allows you to configure

the Daylight Saving date and time manually.

Offset: Sets the amount of time to be added or

removed when Daylight Saving is enabled.

Synchronize with NTP Server: Enable this feature to obtain time

automatically from an NTP server.

NTP Server: Network Time Protocol (NTP) synchronizes

the DCS-6511 with an Internet time server.

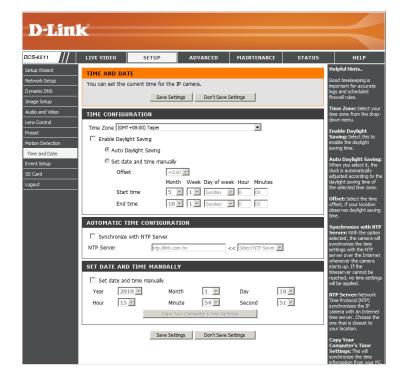
Choose the one that is closest to your location.

**Set the Date and Time** 

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

**Copy Your Computer's Time** 

**Settings:** This will synchronize the time information from your PC.



# **Event Setup**

The Event Setup page includes four different sections.

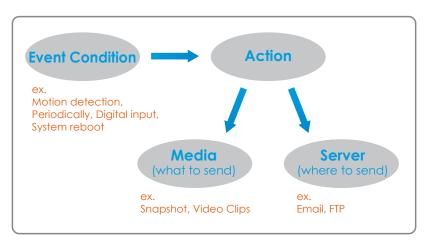
- Event
- Server
- Media
- Recording
- 1. To add a new item "event, server or media," click **Add**. A screen will appear and allow you to update the fields accordingly.
- 2. To delete the selected item from the drop-down menu of event, server or media, click **Delete**.
- 3. Click on the item name to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

**Note:** You can add up to four events, five servers, and five media fields.



# **Application**

In a typical application, when motion is detected, the DCS-6511 Network Camera sends images to a FTP server or via e-mail as notifications. As shown in the illustration below, an event can be triggered by many sources, such as motion detection or external digital input devices. When an event is triggered, a specified action will be performed. You can configure the Network Camera to send snapshots or videos to your e-mail address or FTP site.



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

## **Add Server**

Configure up to 5 servers to store media.

**Server Name:** Enter the unique name of your server.

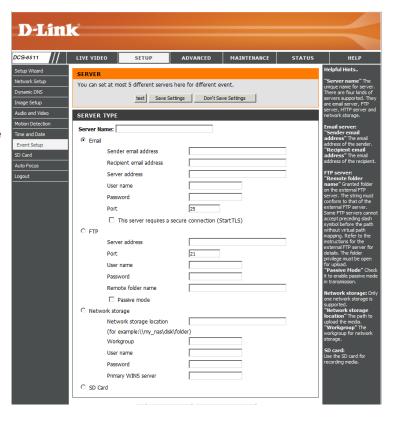
**E-mail:** Enter the configuration for the target e-mail server account.

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

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

device is supported.

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



## **Add Media**

There are three types of media, Snapshot, Video Clip and System Log.

**Media Name:** Enter a unique name for media.

**Snapshot:** Select this option to enable snapshots.

**Source:** The stream source: **Profile 1**, **Profile 2** or **Profile 3**.

Send pre-event

image(s) [0~4]: The number of pre-event images.

**Send post-event** 

image(s) [0~7]: The number of post-event images.

**File name prefix:** The prefix name will be added on the file name.

Add date and time

suffix to file name: Check it to add timing information as file name suffix.

Video clip: Select this option to enable video clips.

**Source:** The source of the profile: **profile1**, **profile2**, or **profile3**.

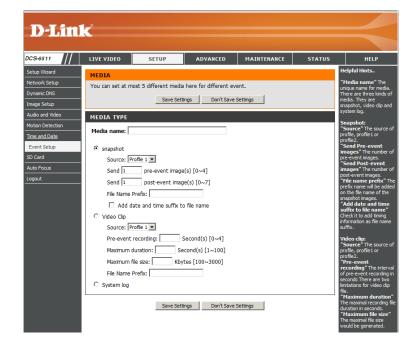
**Pre-event recording:** The interval of pre-event recording in seconds.

**Maximum duration:** The maximal recording file duration in seconds.

**Maximum file size:** The maximal file size would be generated.

File name prefix: The prefix name will be added on the file name of the video clip.

System log: Select this option to save events to the camera system log.

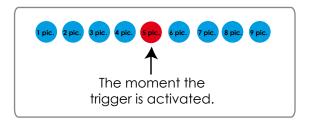


### Send post-event image (s) [0~7)

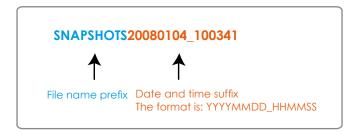
Specify to capture the number of images after a trigger is activated. A maximum of seven images can be generated.

## For example:

If both the Send pre-event images and Send post-event images are set to four, a total of 9 images are generated after a trigger is activated.



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



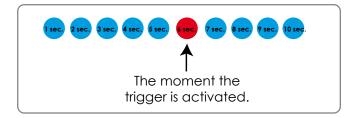
### **Maximum duration**

Specify the maximal recording duration in seconds. You can set up to ten seconds.

For example:

## Configuration

If the Pre-event recording is set to five seconds and the Maximum duration is set to ten seconds, the Network Camera continues to record for another four seconds after a trigger is activated.



## File name prefix

Enter the text that will be added at the beginning of the file name.



## **Add Event**

Create and schedule up to three events with their own settings here.

**Event name:** Enter a name for the event.

**Enable this** 

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

**Priority:** Set the priority for this event. The event with higher

priority will be executed first.

**Delay:** Select the delay time before checking the next event. It

is being used for both events of motion detection and

digital input trigger.

**Trigger:** Specify the input type that triggers the event.

Video Motion Motion is detected during live video monitoring. Select

**Detection:** the windows that need to be monitored.

**Periodic:** The event is triggered in specified intervals. The trigger

interval unit is in minutes.

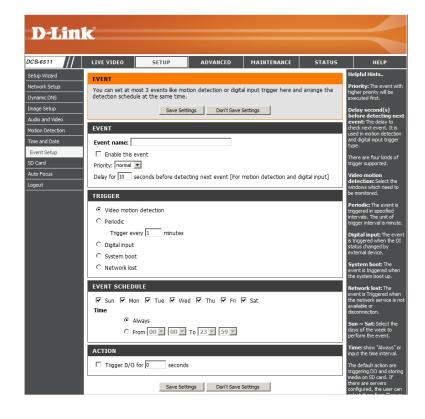
**Digital Input:** The external digital input trigger input to the camera.

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

Network Lost: Triggers and event when the network is lost.

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

**Trigger D/O:** Select to trigger the digital output for a specific number of seconds when an event occurs.



## **Add Recording**

Here you can configure and schedule the recording settings.

**Recording entry** 

name: The unique name of the entry.

**Enable this** 

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

**Priority:** Set the priority for this entry. The entry with a higher priority

value will be executed first.

**Source:** The source of the stream.

Recording

**schedule:** Scheduling the recording entry.

Recording

**settings:** Configuring the setting for the recording.

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

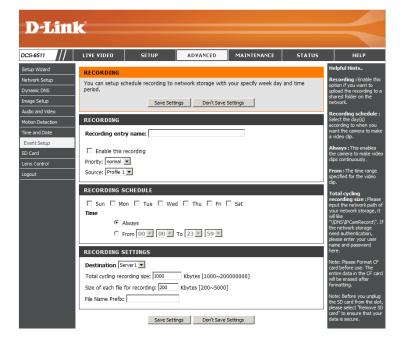
Total cycling Please input a volume size between 1MB and 200GB for recording space. The recording data will replace the recording size: oldest record when the total recording size exceeds this value. For example, if each recording file is 6MB, and the total cyclic recording size is 600MB, then the camera will record 100 files in the specified location (folder) and then will delete the oldest file and create new file for cyclic recording.

> Please note that if there is not enough free space, the recording will stop. Before you set up this option please make sure that sufficient free space is available. It is better to not save other files in the same folder as recordings.

Size of each file

for recording: File size for each recording file. You may input the value in the range of 200-5000.

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



## **SD Card**

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

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

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

on the picture folder and choose the picture file

you would like to view.

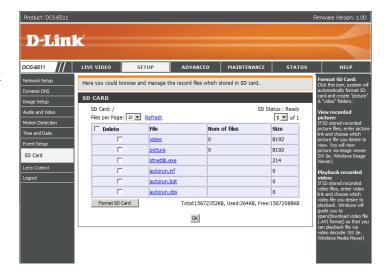
Playback Recorded Video: If video files are stored on the SD card, click on

the video folder and choose the video file you

would like to view.

Refresh: Reloads the file and folder information from the

SD card.



# **Advanced**

# **Digital Input/Output**

This screen allows you to control the behavior of digital input and digital output devices. The I/O connector provides the physical interface for digital output (DO) and digital input (DI) that is used for connecting a diversity of external alarm devices such as IR-Sensors and alarm relays. The digital input is used for connecting external alarm devices and once triggered images will be taken and e-mailed.

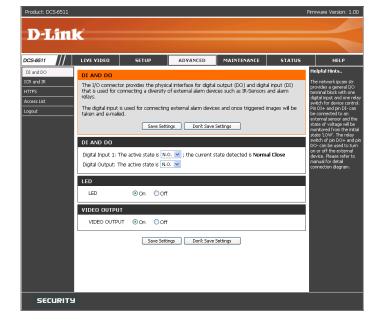
Select D/I or D/O Mode: The camera will send a signal when an event is triggered, depending upon the type of device connected to the DI circuit.

> N.C. stands for **Normally Closed**. This means that the normal state of the circuit is closed. Therefore events are triggered when the device status changes to **Open**.

> N.O. stands for **Normally Open**. This means that the normal state of the circuit is open. Therefore events are triggered when the device status changes to Closed.

LED: You may specify whether or not to illuminate the LED on the side of the camera.

**Video Output:** Enable/ disable the BNC terminal TV output signal.



## ICR and IR

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

**Automatic:** The Day/Night mode is set automatically.

Generally, the camera uses Day mode and switches to Night mode when needed.

Day Mode: Day mode enables the IR Cut Filter.

Night Mode: Night mode disables the IR Cut Filter.

**Schedule Mode:** Set up the Day/Night mode using a schedule.

The camera will enter Day mode at the starting time and return to Night mode at the ending

time.

IR Light Control: The camera can enable or disable the IR

(infrared) light according to your preferences.

This setting provides additional controls depending on your specific application.

Off: The IR light will always be off.

On: The IR light will always be on.

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

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



## **HTTPS**

This page allows you to install and activate an HTTPS certificate for secure access to your camera.

**Enable HTTPS Secure** 

**Connection:** Enable the HTTPS service.

Create Certificate Method: Choose the way the certificate should be

created. Three options are available:

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

**Status:** Displays the status of the certificate.

**Note:** The certificate cannot be removed while the HTTPS is still enabled. To remove the

certificate you must first uncheck **Enable** 

HTTPS secure connection.



## **Access List**

Here you can set access permissions for users to view your DCS-6511.

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

Start IP address: The starting IP Address of the devices (such

as a computer) that have permission to access the video of the camera. Click **Add** 

to save the changes made.

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

End IP address: The ending IP Address of the devices (such

as a computer) that have permission to

access the video of the camera.

Delete allow list: Remove the customized setting from the

Allow List.

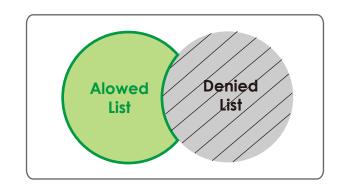
**Deny list:** The list of IP addresses that have no access right to the camera.

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

## For example:

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





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# **Maintenance**

# **Device Management**

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

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

account.

Add User Account: Add new user account.

User Name: The user name for the new account.

Password: The password for the new account.

**User List:** All the existing user accounts will be

displayed here. You may delete accounts includes in the list, but please reserve at

least one as guest.

Camera Name: Create a unique name for your camera that

will be added to the file name prefix when

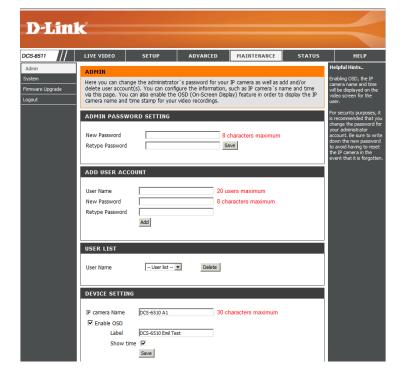
creating a snapshot or a video clip.

**Enable OSD:** Select this option to enable the On-Screen

Display feature for your camera.

Label: Enter a label for the camera.

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



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# **Backup and Restore**

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

Save To Local Hard Drive: You may save and document your current

settings into your computer.

Local From Local Hard Drive: Locate a pre-saved configuration by clicking

**Browse** and then restore the pre-defined settings to your camera by clicking **Load** 

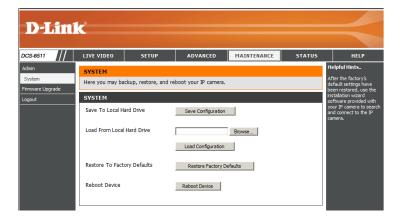
Configuration.

Restore to Factory Default: You may reset your camera and restore the

factory settings by clicking Restore Factory

Defaults.

Reboot Device: This will restart your camera.



# Firmware Upgrade

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

To upgrade the firmware on your DCS-6511, please download and save the latest firmware version from the D-Link Support Page to your local hard drive. Locate the file on your local hard drive by clicking the **Browse** button. Select the file and click the **Upload** button to start upgrading the firmware.

Current Firmware Version: Displays the detected firmware version.

**Current Product Name:** Displays the camera model name.

File Path: Locate the file (upgraded firmware) on your

hard drive by clicking Browse.

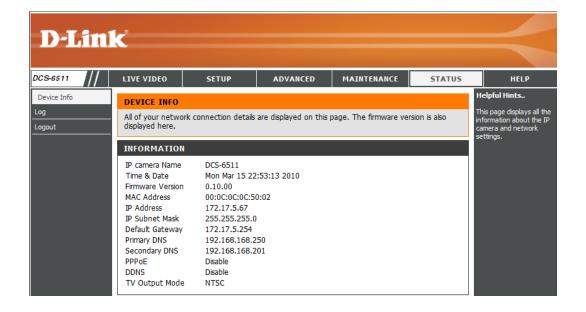
**Upload:** Uploads the new firmware to your camera.



# **Status**

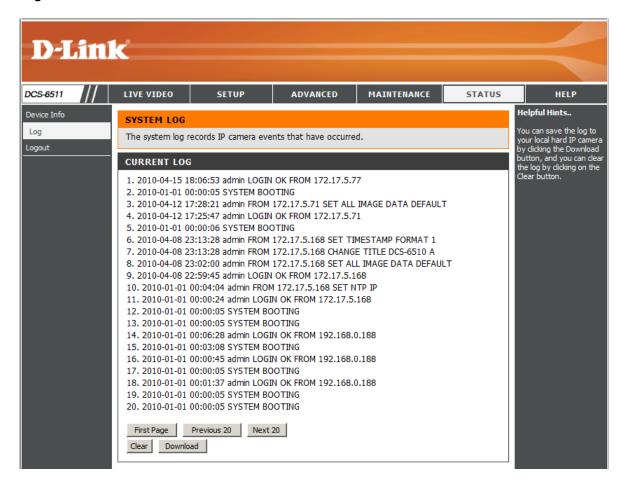
## **Device Info**

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



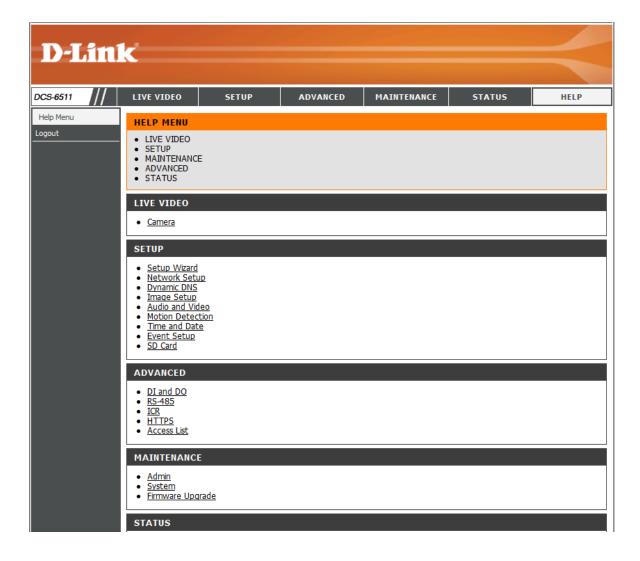
# Logs

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

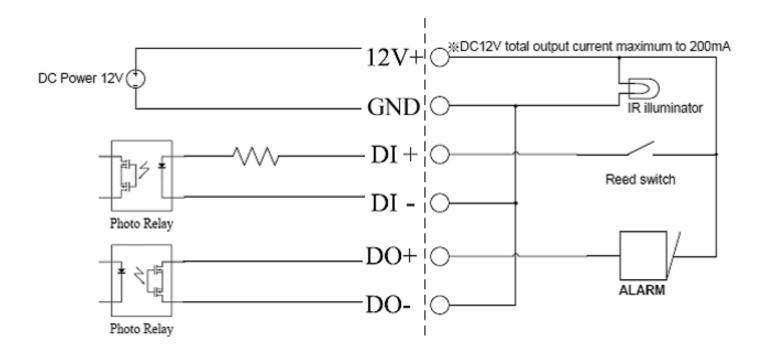


# Help

This page provides helpful information regarding camera operation.



# **DI/DO Schematics**



# **Technical Specifications**

#### **GENERAL SPECIFICATION**

- 1/3" Megapixel WDR Progressive Scan CMOS
- WDR SN ratio: 100 dB
- Motorized varifocal autofocus lens 3.3 ~ 12 mm, F1.4 ~ F360C

#### **VIEW ANGLE**

- Vertical 63.6° (W) ~ 17.9° (T)
- Horizontal 89.8° (W) ~ 23.9° (T)
- Diagonal 125.7° (W) ~ 29.9° (T)

#### IR LED

 20 meter illumination distance with 12 LEDs and light sensor

#### MINIMUM ILLUMINATION:

- Color: 0.2 lux @ F1.4
- B/W: 0.02 lux @ F1.4
- B/W: 0 lux with IR LED on

### **3-AXIS ANGLE:**

- Vertical: 120
- Horizontal: 340
- Rotational: 300

### **SYSTEM REQUIREMENTS**

- Operating System:
  - Microsoft Windows XP, Vista, Windows 7
- Internet Explorer 6 or above, Firefox 3.5 or above, Safari 4

### **NETWORKING PROTOCOL**

■ IPv4, DHCP, ARP, DNS, TCP/IP, DDNS (D-Link), HTTP, HTTPS, UPnP<sup>TM</sup> Port Forwarding, Samba, SMTP, PPPoE, NTP (D-Link), FTP, RTP, RTSP, UDP, RTCP, ICMP, 3GPP

#### BUILT-IN NETWORK INTERFACE

10/100BASE-TX Fast Ethernet

#### **VIDEO CODECS**

- H.264
- MPEG4
- MJPEG
- JPEG for still images

### **RESOLUTION (UP TO 30 FPS)**

- 1280x1024
- 1280x720
- 640x480
- 320x240
- 160x120

#### **VIDEO FEATURES**

- Adjustable image size, quality and bit rate
- Time stamp and text overlays
- 3 configurable privacy masks
- Flip & mirror
- ePTZ

### **AUDIO CODECS**

■ G.726

### **POWER INPUT**

- 12 V DC 1.25 A
- 24 V AC
- 802.3af PoE

### PHYSICAL AND ENVIRONMENTAL

- IP-66 weather-proof standard
- IK-10 vandal-proof standard
- Built-in heater and fan

#### WEIGHT

■ 1030.5 g

### STANDARD MOUNTING BRACKET

■ Height: 23 mm (0.9 inches)

■ Diameter: 183 mm (7.2 inches)

Weight: 400 g (0.9 lbs)

### **OPERATING TEMPERATURE**

■ -40 to 50 °C (-40 to 122 °F)

### STORAGE TEMPERATURE

■ -20 to 70 °C (-4 to 158 °F)

### **RELATIVE HUMIDITY**

■ 20% to 80% non-condensing

#### **CERTIFICATIONS**

- FCC
- IC
- C-Tick
- CE
- LVD

# MOUNTING ACCESSORIES (NOT INCLUDED WITH CAMERA)

### DCS-34-2

■ Height: 201 mm (7.9 inches)

■ Diameter: 150 mm (5.9 inches)

• Weight: 665 g (1.45 lbs)

### DCS-34-3

Height: 253 mm (9.96 inches)

■ Diameter: 150 mm (5.9 inches)

Weight: 770 g (1.7 lbs)

### **DIMENSIONS**

