D-Link®

User Manual

PowerLine HD Day/Night Cloud Camera
PowerLine HD Day/Night Cloud Camera kit

DCS-6045L/DCS-6045LKT

Manual Overview

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Manual Revision

Revision	Date	Description
1.00	March 15, 2014	Initial release

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

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

System Requirements

- Computer with Microsoft Windows® 8/7/Vista/XP, or Mac with OS X 10.6 or higher
- PC with 1.3 GHz or above and at least 128 MB RAM
- Internet Explorer 7, Firefox 12, Safari 6, or Chrome 20 or higher version with Java installed and enabled
- Existing 10/100 Ethernet-based network

Introduction

Congratulations on your purchase of the DCS-6045L PowerLine HD Day/Night Cloud Camera. The DCS-6045L is a versatile and unique solution for your small office or home. Unlike a standard webcam, the DCS-6045L does away with traditional wired or wireless connections and instead uses your existing electrical wiring. The DCS-6045L plugs directly into a power outlet, and does not require any additional cables. Designed to be used with any D-Link PowerLine adapter, which turns every power outlet into a possible network connection to access digital media devices, game consoles, print servers, computers, and network storage devices throughout your home. A complete system with a built-in CPU and web server, the DCS-6045L transmits high quality video images for round-the-clock security and surveillance. The IR LED provides around the clock surveillance regardless of the lighting conditions.

The DCS-6045L is a standalone surveillance camera that requires no special hardware or software, and can run independently even without a PC. Send e-mail notifications with snapshots or video clips whenever motion or sound is detected using just the DCS-6045L and an Internet connection. You can customize areas of the video to monitor for motion to keep watch over entry ways, and you can set volume limits to detect when a loud sound is picked up by the camera. Night time monitoring is possible with the built-in infrared LEDs which allow for night time viewing of up to 6 meters (19.6 feet), enabling round-the-clock monitoring of a home or small office.

Built mydlink™ support DCS-6045L makes it easier and more convenient for you to look after your family, home, or office environment. With a mydlink service enabled camera, you can stay connected to everything you love from anywhere, anytime. The mydlink service can be accessed using a web browser, and there is also an optional downloadable mydlink app that allows users to have a better experience on their mobile devices. With the mydlink app, you can quickly and easily view your camera feed from anywhere using a Wi-Fi, 3G, or 4G connection.

Features

Easy to Use and mydlink-Enabled for Easy Access and Management
The DCS-6045L is a standalone surveillance camera that requires no special hardware or software, and can run independently even without a PC. This camera is also mydlink-enabled, which means you can view and manage your camera through the mydlink website, or through the mydlink mobile app for iPhone, iPad, iPod touch, and Android.

Data Transmission Over Electrical Wiring
The DCS-6045L plugs directly into a power outlet, and does not require any additional cables. Designed to be used with any D-Link PowerLine adapter, which turns every power outlet into a possible network connection to access digital media devices, game consoles, print servers, computers, and network storage devices throughout your home.

IR LEDs for Day and Night functionality
The built-in infrared LEDs enable night time viewing of up to 6 meters (19.6 feet).

H.264 Codec for Smooth, Space-Efficient Video
This camera supports use of the H.264 video codec, which gives you high-quality video with reduced bandwidth requirements. This means that you can enjoy smoother, more reliable video streaming over the Internet, and less disk space is required to save recordings.

Motion and Sound Triggered Notifications and Recordings
The DCS-6045L can send e-mail notifications with snapshots or video clips whenever motion or sound is detected. You can customize areas of the video to monitor for motion to keep watch over entry ways, and you can set volume limits to detect when a loud sound is picked up by the camera.
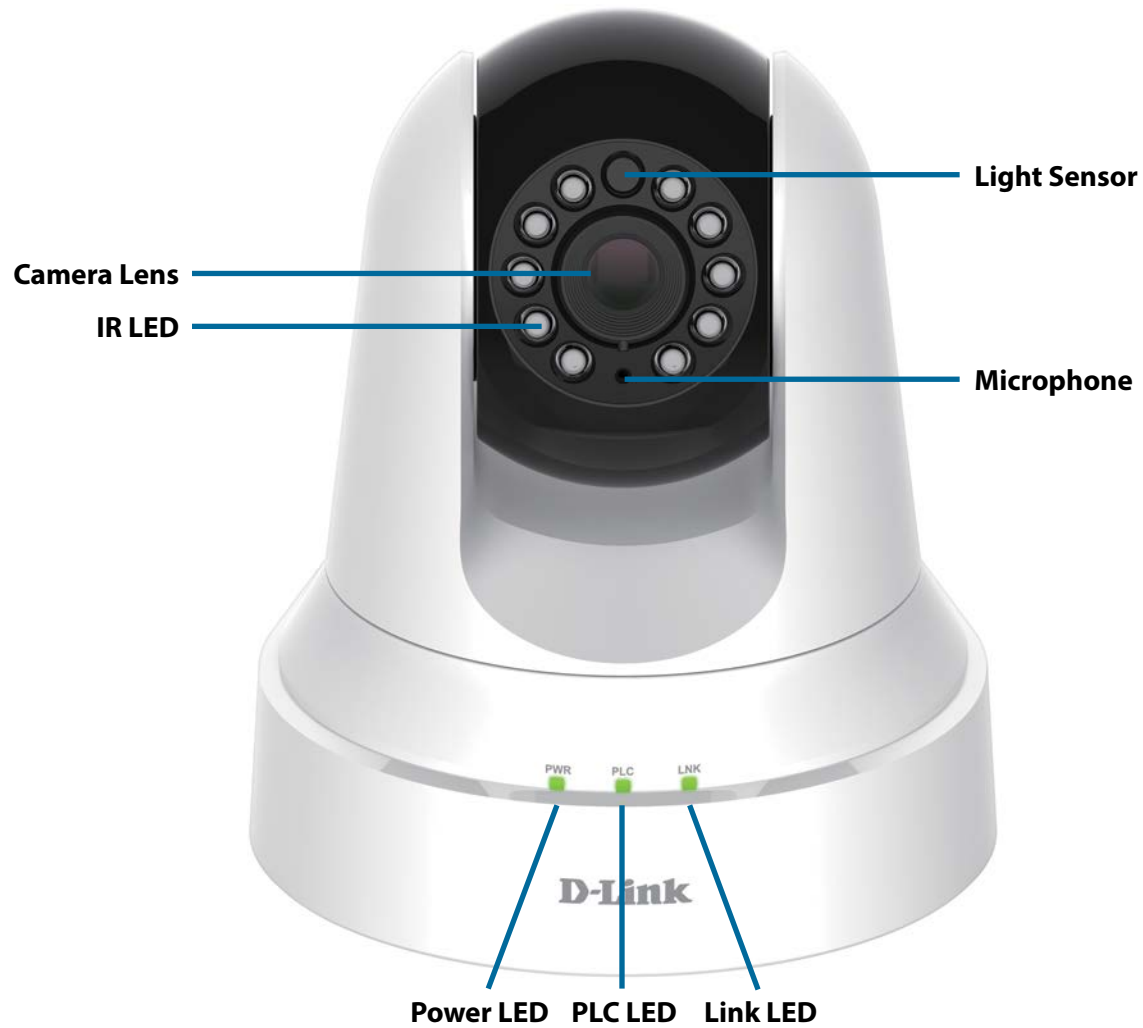
Supports a Variety of Platforms
Supports TCP/IP networking, HTTP, and other Internet related protocols. The DCS-6045L can also be integrated easily into other Internet/Intranet applications because of its standards-based features.

Remote Monitoring Utility
This camera also includes the D-ViewCam software, which adds enhanced features and functionality that helps you create a full surveillance system for up to 32 cameras. With D-ViewCam, you can view multiple cameras at the same time, record video, and set up scheduled and triggered recordings.
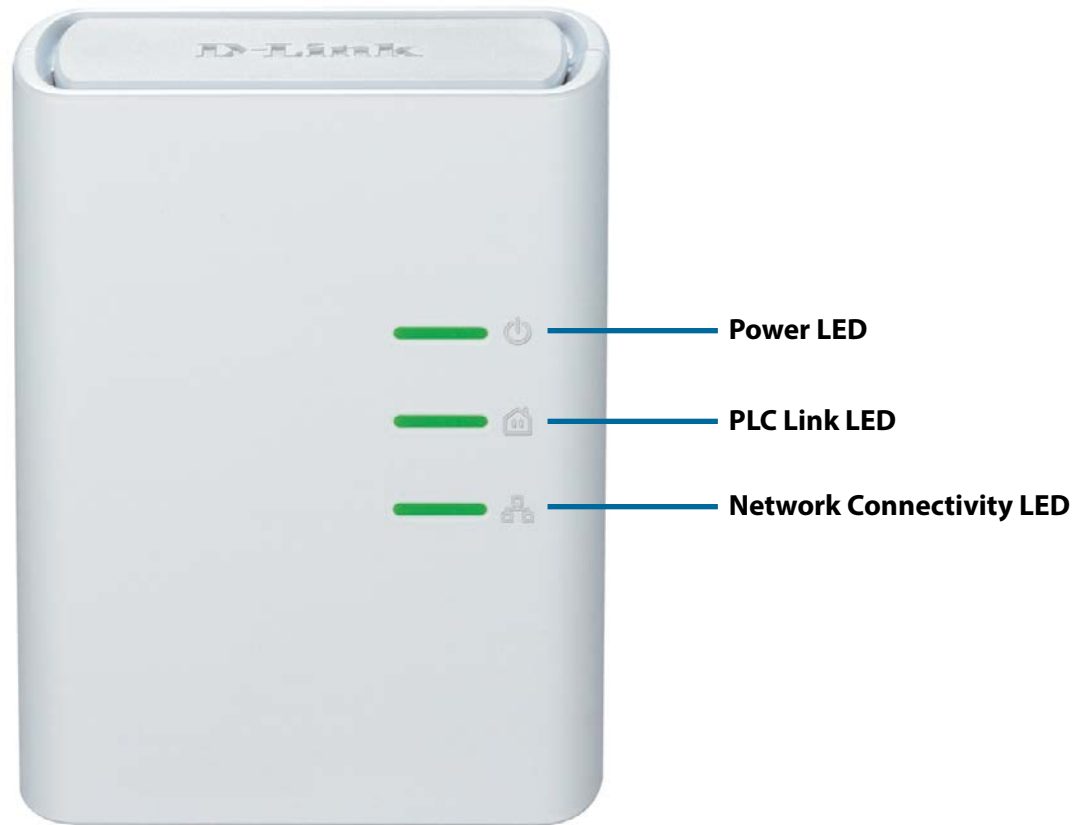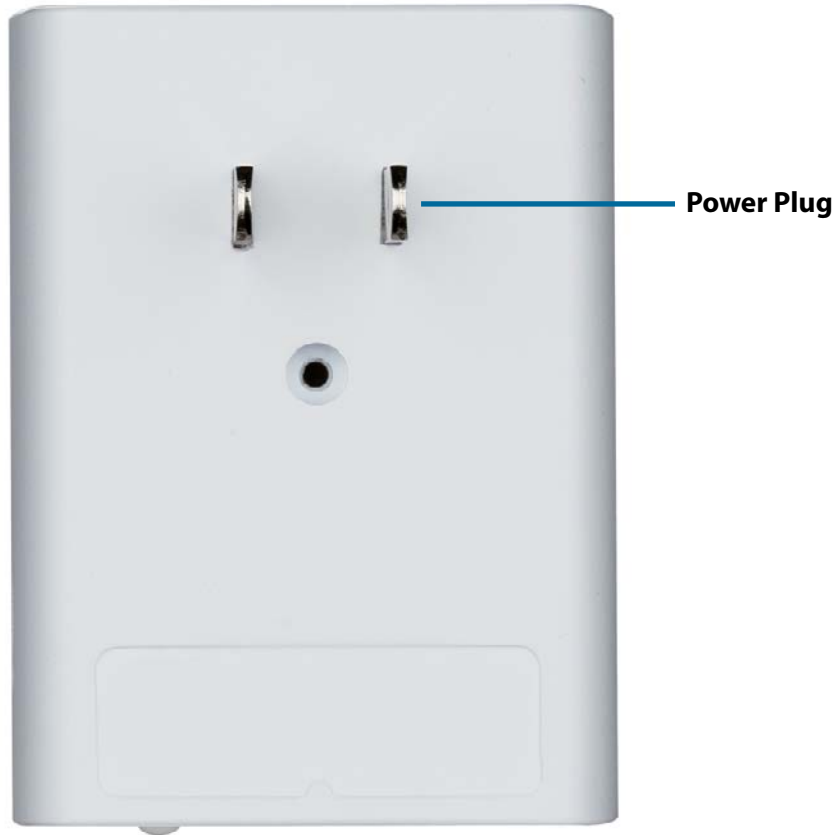
DCS-6045L Hardware Overview
Front View

Light Sensor

Camera Lens

IR LED

Microphone

PWR PLC LNK

D-Link

Power LED   PLC LED   Link LED

Rear View

Power Connector

MicroSD Slot

Reset Button   **PLC Sync Button**   **Power On/Off Switch**

DHP-308AV Hardware Overview
Front View

Power LED

PLC Link LED

Network Connectivity LED

Rear View

Power Plug

Rear View

LAN Port

PLC Sync Button

PowerLine Installation Considerations

Plan the location of your PowerLine devices:

1. Connect PowerLine devices to electrical outlets that are not controlled by a wall switch to avoid accidentally turning off power to the device.

2. Do not connect the PowerLine devices to an extension cord, surge protector, or power strip as this might prevent it from working correctly, or reduce the network performance.

3. Avoid using the PowerLine devices in an electrical outlet that is located near an appliance that uses a lot of power, such as a washer or dryer, or a refrigerator. This may prevent the adapter from working correctly, or negatively impact network performance.

4. Verify that your PowerLine devices are electrically rated to operate with the power available in your location.

5. To help prevent against electrical shock, be sure to plug the power cables into properly grounded electrical outlets.

6. The PowerLine device is equipped with a three-pronged plug to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from the cable.

Important safety instructions

Please read all of the safety and operating instructions before using your device:

1. Do not open the device or attempt to repair or service the device.

2. Only use the included power adapter to power your device.

3. Ensure that the device is plugged into the wall in a vertical position, with the ports facing down.

4. The AC socket-outlet of equipment was intended to be connected with AC power supply cord only, and no any direct plug-in equipment can be plugged.

5. Use the device in a dry location, and avoid placing it in humid environments.

6. Do not submerge the device in liquid or attempt to clean it with liquids or solvents. To clean the device, disconnect it from the power outlet and use a damp towel.

7. Keep the device out of direct sunlight.

8. Do not cover or block the vents on the device.

9. Make sure that the device has adequate room for ventilation.

10. Avoid placing the device near a heater or radiator.

11. The device should be located only where sufficient ventilation can be ensured.

Installation

There are three ways to set up your camera:

Zero Configuration Setup: If you have a mydlink-enabled router, this is the easiest way to set up your camera. Refer to page 15.

Camera Installation Wizard: If you do not have a mydlink-enabled router, use the Camera Installation Wizard to guide you through setup and initial configuration of your camera. Refer to page 18.

Manual Hardware Installation: This section shows you how to manually set up your camera, though in order to use the mydlink features of your camera, you will still need to run the Camera Installation Wizard. Refer to page 21.

Zero Configuration Setup

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

Connect your camera to your mydlink-enabled Cloud Router and Zero Configuration will automatically configure your DCS-6045L and automatically add the camera to your mydlink account. After the short time it takes to do this you can remotely access your camera from the www.mydlink.com website to manage and monitor your DCS-6045L.

Connect the PowerLine Adapter

Plug in the PowerLine adapter to a wall outlet. Connect an Ethernet cable from the PowerLine adapter to your existing network.
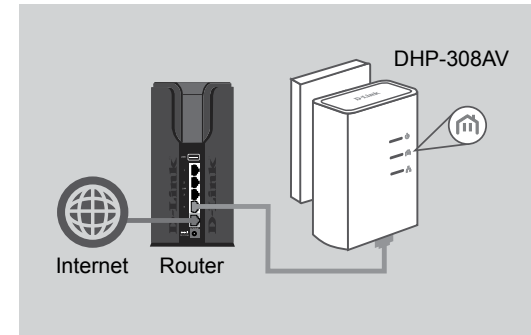
DHP-308AV

Internet   Router

Connect the Camera

Plug in the camera power cord into the DCS-6045L. Move the power switch to the ON position and wait for the PWR, PLC, and LNK to turn green. If you have an existing PowerLine adapter, you will need to press and hold the PLC button on the camera for 5 seconds. After the PLC LED on the camera begins blinking, press the PLC button on your existing PowerLine adapter within the next 60 seconds.
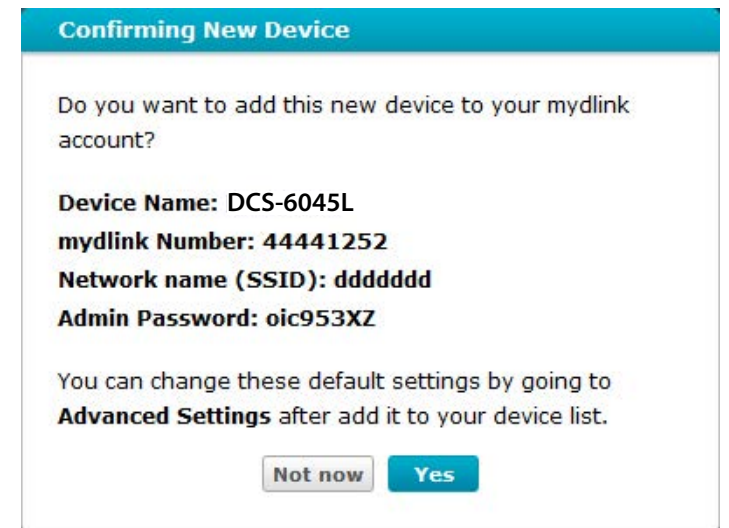

Green
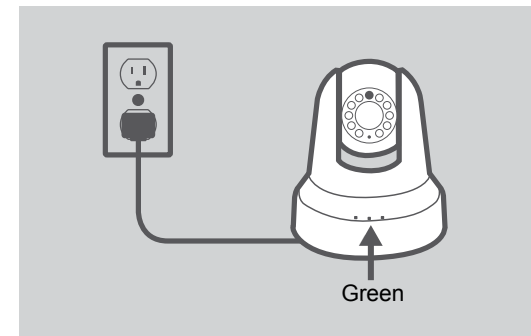
Check Your mydlink Account

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

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

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

Your camera is now set up, and you can skip to "mydlink" on page 24 to learn more about the mydlink features of this camera, or to "Configuration" on page 25 for advanced configuration of your camera.
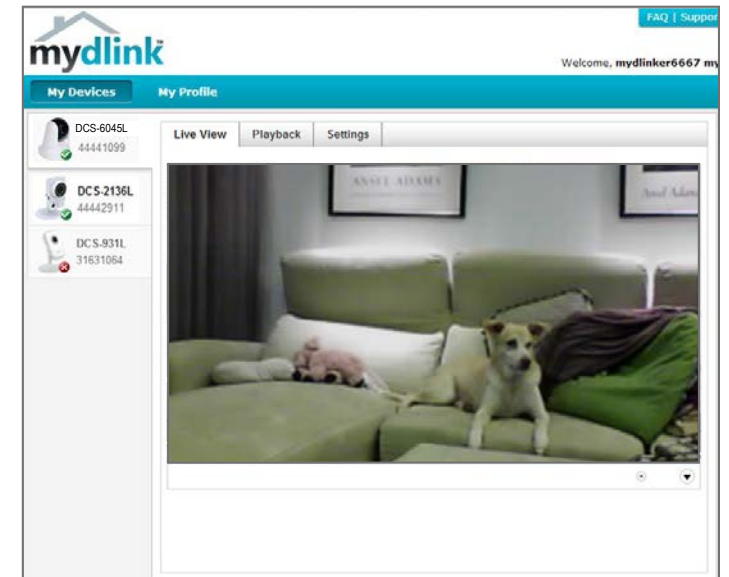
Camera Installation Wizard
Windows Users

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

Simply click **Set up your Cloud Camera** to go through the Setup Wizard, which will guide you step-by-step through the installation process from connecting your hardware to configuring your camera and registering it with your mydlink account.
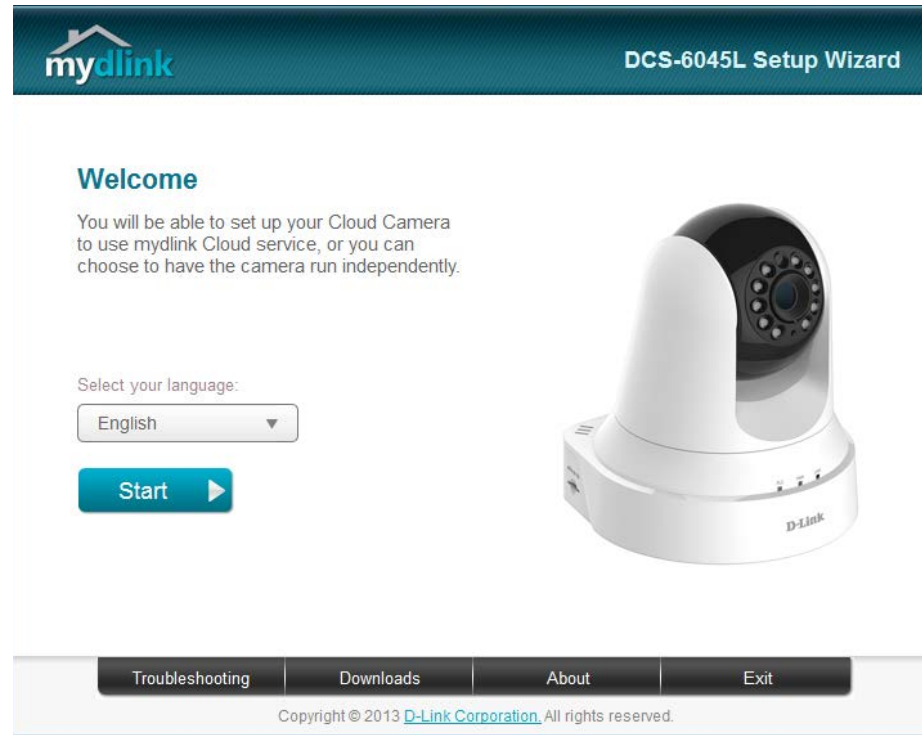
Note: If the autorun program does not open, go to My Computer, browse to your CD drive, and double-click on the autorun.exe file.

Mac Users

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

After about 20-30 seconds, the Setup Wizard will open, which will guide you step-by-step through the installation process from connecting your hardware to configuring your camera and registering it with your mydlink account.
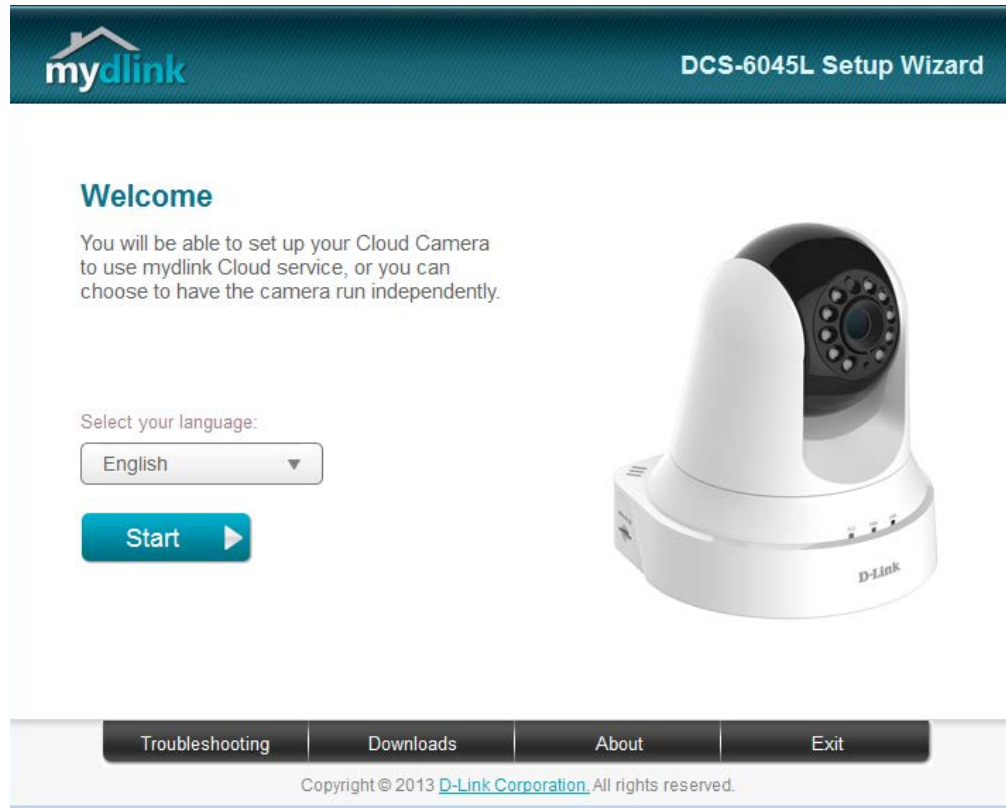
PLC - Push Button Setup

Alternatively, you may create a secure connection using the PLC Sync Button on the back of the camera.

To create a PLC connection:

Step 1
Make sure the camera is plugged in, then press and hold the PLC button for three seconds. The green PLC status LED will start blinking.

Step 2
Press the PLC button on your PowerLine adapter within 60 seconds. The PLC button is usually on the front or side. If you are not sure where the PLC button is on your adapter, please refer to your adapter User Manual.

The DCS-6045L will automatically create a secure connection to your PowerLine adapter. While connecting, the green LED will flash and your camera will reboot.

PLC Sync Button

PLC Sync Button
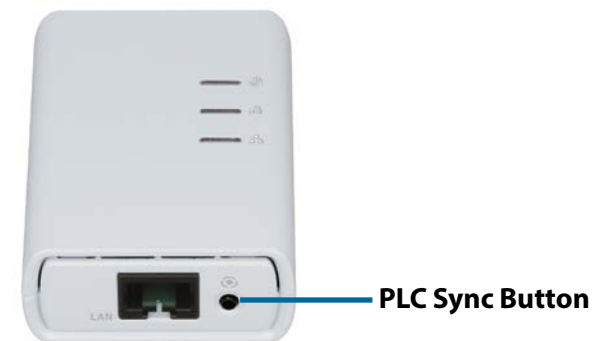
Manual Hardware Installation

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

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

Connect the Camera

Plug in the camera power cord into the DCS-6045L. Move the power switch to the ON position and wait for the PWR, PLC, and LNK to turn green. If you have an existing PowerLine adapter, you will need to press and hold the PLC button on the camera for 5 seconds. After the PLC LED on the camera begins blinking, press the PLC button on your existing PowerLine adapter within the next 60 seconds.

Green
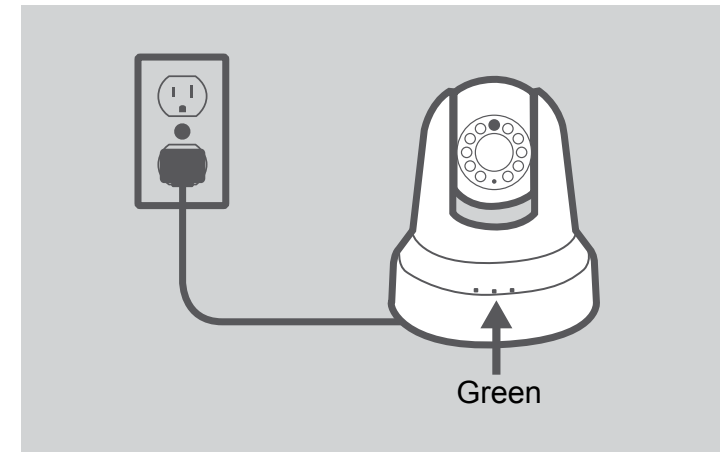
Configure Your Camera

Refer to "Configuration" on page 25 for information on how to configure your camera.

Use PLC to Connect

You can use PLC to connect your camera to your PowerLine adapter. For more information, refer to "PLC - Push Button Setup" on page 20.

Mounting The Camera

Please refer to the steps below to assist you with mounting the camera. We suggest that you configure the camera before mounting.

Step 1:
Place the mounting bracket where you want to position the camera and use a pencil to mark the holes.
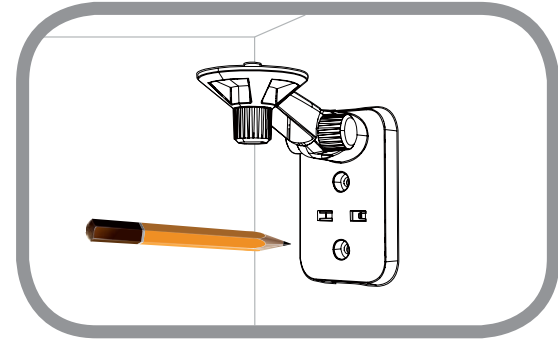

Step 2:
Depending on the material of the wall or ceiling, use proper tools to drill two holes or screws where you placed the mounting sticker. If the wall is made out of concrete, drill the holes first, insert the plastic anchors and then the screws. The space between the camera and the screwheads should be 3 mm.
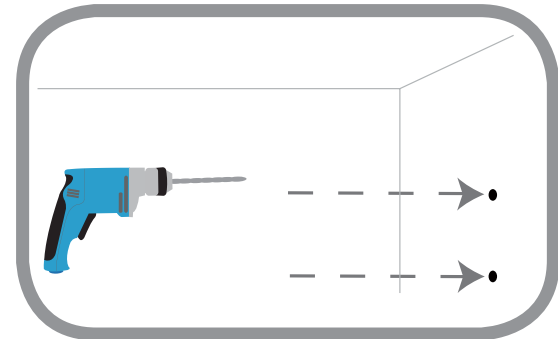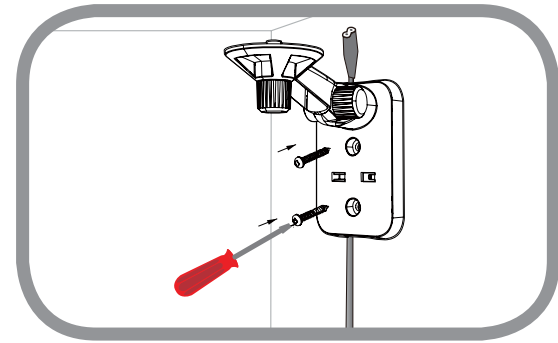

Step 3:
If desired, the camera power cord can be concealed behind the mounting bracket. Run the cable through the back of the mounting bracket, securing it with the built-in guides. Be sure to leave enough cable length protruding from the top to allow connection to the camera.
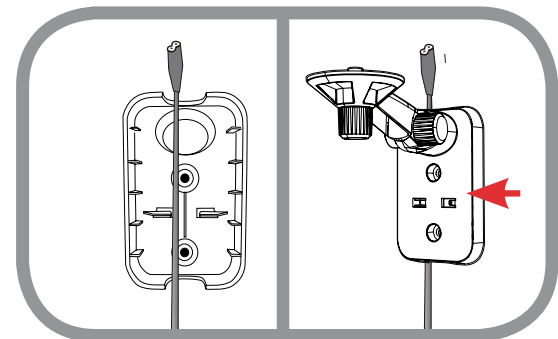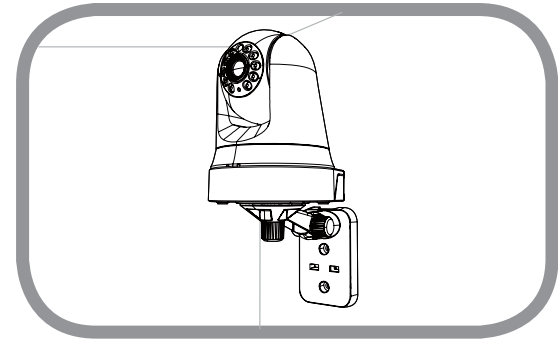
Step 4:

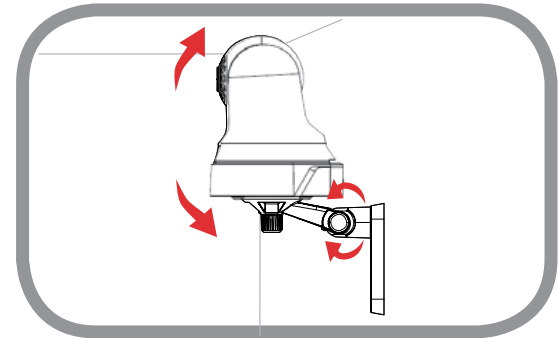Fasten the mounting bracket to the wall using the screws provided.

Step 5:

Using the supplied thumbscrew, fasten the camera to the mounting bracket. Connect the camera power cord to the camera.

Step 6:

Adjust the angle of the arm on the mounting bracket as required. Tighten the thumbscrew to lock the arm in place.

mydlink

After registering your DCS-6045L camera with a mydlink account in the Camera Installation Wizard, you will be able to remotely access your camera from the www.mydlink.com website. After signing in to your mydlink account, you will see a screen similar to the following:
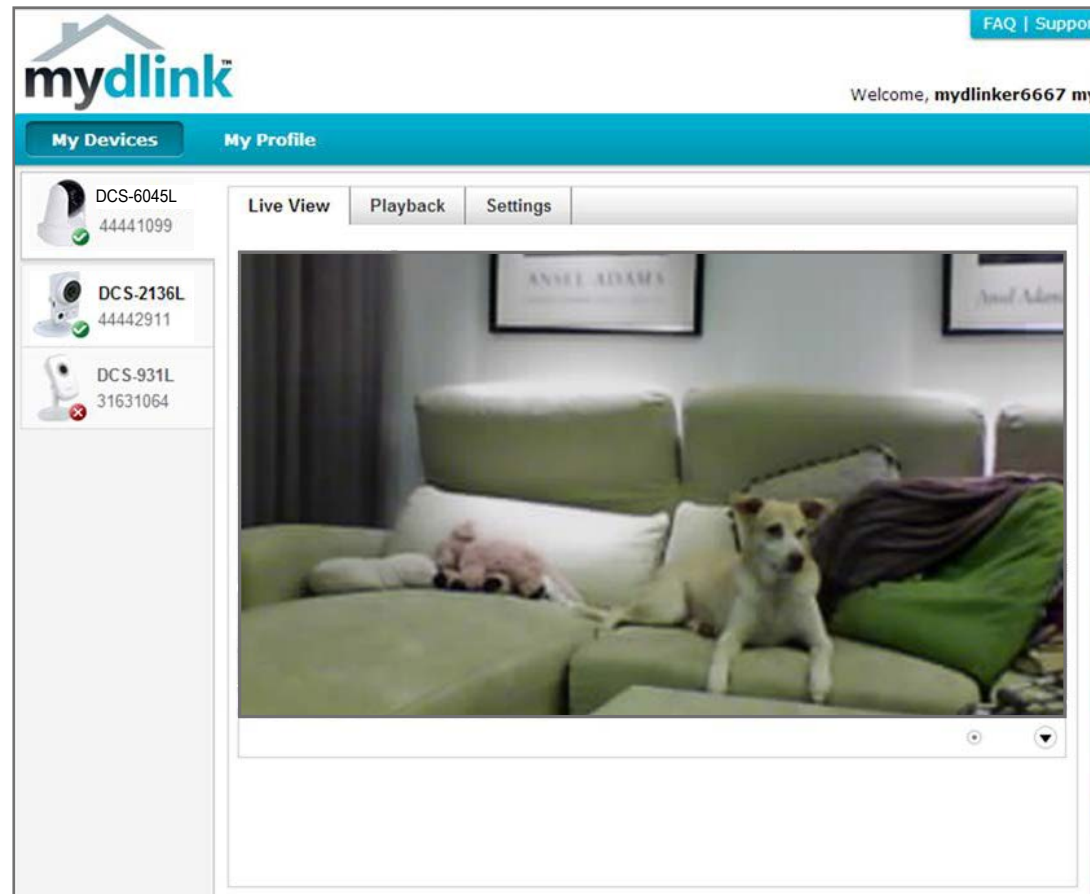
For more details on using your camera with mydlink, go to the **Support** section of the mydlink website and check the **User Manual** section for your product to find the latest instruction guide for your camera's mydlink features.

Configuration
Using the Web Configuration Interface

After completing the Camera Installation Wizard, you are ready to use your camera. The camera's built-in Web configuration interface is designed to allow you to easily access and configure your DCS-6045L. At the end of the wizard, enter the IP address of your camera into a web browser, such as Internet Explorer®. To log in, use the User name **admin** and the password you created in the Installation Wizard. If you did not create a password, the default password is blank. After entering your password, click **OK**.

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

Live Video

The Live Video screen shows you the live video feed from your camera. For information on how to configure your Live Video streams, refer to "Audio and Video" on page 33.

Video Compression Format: Click the **H.264** or **MJPEG** radio button to choose which stream to view.

Zoom: Click on these buttons to zoom in and out of the video.

Audio: Click on these buttons to turn audio playback on and off.

Setup
Wizard

You may choose to configure your network by using the **Internet Connection Setup Wizard** that includes step-by-step instructions. Otherwise, you may manually configure your connection using the **Manual Internet Connection Setup**.

INTERNET CONNECTION SETTINGS

In this section, you can setup the IP camera's network interface settings. If you are configuring this device for the first time, D-Link recommends that you click the Internet Connection Setup Wizard button, and follow the instructions on screen. If you wish to modify or configure the IP camera settings manually, click the Manual Internet Connection Setup button.

[Internet Connection Setup Wizard]   [Manual Internet Connection Setup]

Note: To register your camera with mydlink and enable its mydlink-related features, you will need to use the Camera Installation Wizard. Please refer to "Camera Installation Wizard" on page 18 for more details.

Internet Connection Setup Wizard

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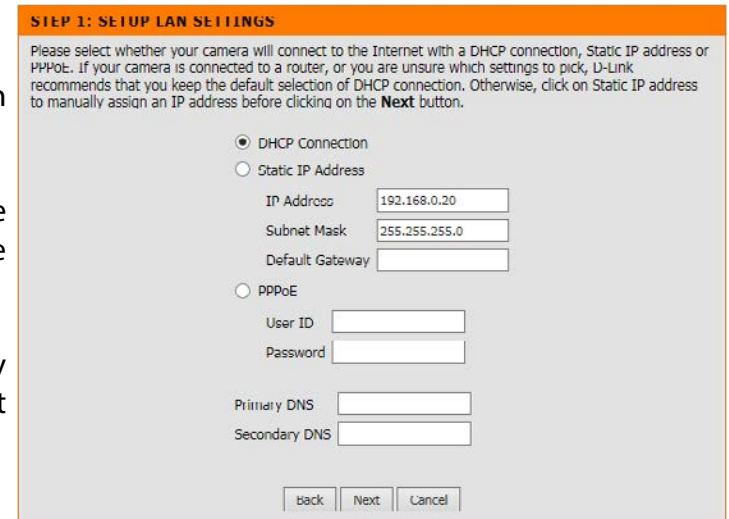
Click **Next** to continue.

Select what kind of Internet connection your camera should use:

• **DHCP Connection (Default)**: If you are connected to a router, or are not sure which connection to use, select DHCP Connection.

• **Static IP Address**: This will allow you to manually enter your network settings for the camera. If you are not sure what settings to enter, check with your Internet service provider or network administrator.

• **PPPoE Connection**: If your camera is directly connected to a DSL modem, you may need to use PPPoE. Enter the username and password provided to you by your Internet service provider.

Click **Next** to continue.

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

Click **Next** to continue.

Enter a name for your camera. Click **Next** to continue.

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

This page displays your configured settings. Click **Apply** to save and activate your changes, or click **Back** to change your settings.

Network Setup

This section allows you to configure your network settings.

DHCP Connection: Select this connection if you have a DHCP server running on your network and would like a dynamic IP address to be updated to your camera 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 will ease you for accessing your camera in the future.

IP Address: The fixed IP address
Subnet Mask: The default value is "255.255.255.0." Used to determine if the destination is the same subnet.
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: Primary domain name server that translates names to IP addresses.
Secondary DNS: Secondary domain name server to backup the Primary DNS.

PPPoE Settings: If you are using a PPPoE connection, enable it and enter the User Name and Password for your PPPoE account. You can get this information from your Internet service provider (ISP).

Port Settings: You may configure a Second HTTP port that will allow you to connect to the camera via a standard web browser. The port can be set to a number other than the default TCP ports 80. A corresponding port must be opened on the router. For example, if the port is changed to 1010, users must type **http://192.168.0.100:1010** instead of only "http://192.168.0.100".

UPnP Settings: Enable this setting to configure your camera as a UPnP device in the network.

Bonjour: You can enable or disable Bonjour services. Bonjour provides a simple way of sharing services on your camera to other clients on your network.

Bonjour Name: Enter a name that will be used with Bonjour to help identify your camera.

DDNS

This section allows you to configure the DDNS setting for your camera. DDNS will allow all users to access your camera using a domain name instead of an IP address.

Enable/Disable: Click to enable or disable the DDNS function.

Server Address: Select your Dynamic DNS Server from the pull down menu.

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

User Name: Enter your username or e-mail used to connect to the DDNS.

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

Timeout: You can set a refresh timeout by entering the number of hours before the current DDNS session will expire.

Image Setup

This section allows you to configure the image settings for your camera.

Enable Anti Flicker: If you have lights flickering in your camera video, try enabling anti flicker. Otherwise, you should leave this disabled.

Flip Image: Select this box to vertically flip the video.

Mirror: Horizontally flip the video.

Note: If the camera is installed upside down, **Flip Image** and **Mirror** should both be checked

Brightness Control: Allows you to adjust the brightness level.

Contrast Control: Allows you to adjust the contrast level.

Saturation Control: Allows you to adjust the saturation level.

Light Frequency: Select the frequency used by your lighting and power to help reduce image flicker.

Audio and Video

This section allows you to configure the audio and video settings for your camera.

Note: Please wait a few seconds for the camera to adjust the audio after making changes.

Video Profile: This section allows you to change the **Resolution**, **FPS**, and **Quality**.

Encode Type: Your camera has separate settings for the H.264 and MJPEG video streams.

Resolution: Select the desired video resolution from three formats: 1280 x 720, 640 x 480, and 320 x 240.

Bit Rate: Higher settings offer better quality, but will require more bandwidth to stream.

Frame Rate: Select the frame rate(FPS) to use for the video stream. Higher settings offer better quality, but will require more bandwidth to stream.

JPEG Quality: Select one of five levels of image quality: **Highest, High, Medium, Low, and Lowest**.

Default View Mode: Select the default encoding to use when viewing your video on the **Live Video** page.

Day/Night Mode: If **Auto** is selected, the camera will automatically switch between day and night mode. If **Manual** is selected, you can select **Day Mode** or **Night Mode** from the **Live Video** page. **Always Day Mode** or **Always Night Mode** will cause the camera to only operate in that mode. **Day Mode Schedule** will allow you to specify periods of time when the camera should be in **Day Mode**, otherwise it will operate in **Night Mode**.

Microphone: You can enable or disable the onboard camera microphone by checking this option.

Volume: If the microphone option is enabled, you can set the volume of the microphone by selecting an option from the dropdown menu.

Time and Date

This section allows you to configure the settings of the internal system clocks for your camera.

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

Synchronize NTP Server: Enabling this will allow the camera to update its clock automatically from an NTP server. Select the NTP server closest to you, and select whether you want to apply daylight saving corrections.

Set the Date and Time Manually: If Synchronize NTP Server is disabled, you can set the date and time manually. You can also click on the **Copy Your Computer's Time Settings** to automatically set the date and time based on your computer's settings.

TIME AND DATE

The Time Configuration option allows you to configure, update, and maintain the internal system clock. In this section you can set the time zone the camera is in, and set the NTP (Network Time Protocol) Server.

[Save Settings] [Don't Save Settings]

TIME CONFIGURATION

Current Time   06 Jan 2014 1:29:21 A.M.
Time Zone   (GMT-12:00) International Date Line West

AUTOMATIC TIME CONFIGURATION

Synchronize NTP Server   ☐
NTP Server Used   [   ] << Select NTP Server
Daylight Saving   ○ Enable   ● Disable
                          Offset : +1:00

              Month   Week   Day of Week   Time
Start   Jan   1st   Sun   12 am
End   Jan   1st   Sun   12 am

SET THE DATE AND TIME MANUALLY

Year   2014   Month   1   Day   6
Hour   1   Minute   29   Second 20

[Copy Your Computer's Time Settings]

[Save Settings] [Don't Save Settings]

Mail

This section allows you to configure your camera to send snapshots and video clips to an e-mail address. If you are not sure what settings to use, check with your e-mail service provider.

SMTP Server Address: This is the domain name or IP address of your external e-mail server.

SMTP Server Port: If your e-mail server uses a non-standard port, you can enter it here.

Sender e-mail Address: This is the e-mail address listed as the sender for your notification e-mails.

Receiver e-mail Address: This is the e-mail address that your notification e-mails will be sent to.

User Name: If the SMTP server uses authentication, enter your user name.

Password: If the SMTP server uses authentication, enter your password.

Use SSL-TLS/ STARTTLS: If your e-mail server requires a secure authentication connection, you can select the type of authentication by choosing either **SSL-TLS** or **STARTTLS**.

Enable the e-mailing of images to an e-mail account: Enabling this will allow snapshots to be e-mailed to you in different ways:

- Choosing **Always** will e-mail snapshots continuously based on the **E-mail Interval** specified.
- Choosing **Schedule** will allow you to schedule when to start and stop the e-mailing of snapshots.
- Select **Motion/Sound Detection** if you would like the camera to e-mail images only when motion or sound is detected. You can choose whether to e-mail a snapshot immediately, or e-mail 6 snapshots together, with 3 frames before and after motion/sound was detected. You can also set the **Frame interval time** to specify how far apart the snapshots should be.

E-mail Interval: This sets the limit for how frequently e-mail notifications will be sent. This can be set from 1 to 65535 seconds.

Enable the e-mailing of video clips to an e-mail account: Enabling this will allow video clips to be e-mailed to you in different ways. This is the same as e-mailing images, as specified above, but will take video clips according to the **Video Limit** settings you specify.

Test E-mail Account: This will send a test e-mail according to the e-mail settings you have specified above.

TIME SCHEDULE

☐ Enable the emailing of images to an email account

◉ Always

◯ Schedule
Day ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun
Time Period Start : `00:00:00` (Example : 06:30:00)
Stop : `00:00:00` (Example : 22:30:00)

◯ Motion/Sound Detection
◯ E-mail frame immediately
◉ E-mail attached with 6 frames (3 frames before and 3 frames after detection)
Frame interval time : `1 ▾` second

E-mail Interval `300` Seconds

☐ Enable the emailing of video clip to an email account

◉ Always

◯ Schedule
Day ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun
Time Period Start : `00:00:00` (Example : 06:30:00)
Stop : `00:00:00` (Example : 22:30:00)

◯ Motion/Sound Detection

E-mail Interval `300` Seconds
Video Limit : Size `2048` KBytes (max is 3072 KBytes)
Time `10` Seconds (max is 15 Seconds)

TEST E-MAIL ACCOUNT

A test e-mail will be sent to the e-mail account listed above. [Test]

[Save Settings] [Don't Save Settings]

FTP

This section allows you to configure your camera to send snapshots and video clips to an FTP server.

Host Name: Enter the IP address of the FTP server that you will be connecting to.

Port: Enter the port of the FTP server that you will be connecting to.

User Name: Enter the user name of your FTP server account.

Password: Enter the password of your FTP server account.

Path: Enter the destination path/folder to save files to on the FTP server.

Passive Mode: Enabling passive mode may help you reach your FTP server if your camera is behind a router protected by a firewall.

Enable the uploading of images to an FTP server: Enabling this will allow snapshots to be uploaded in different ways:

- Choosing **Always** will upload snapshots continuously based on the **Image Frequency** specified.
- Choosing **Schedule** will allow you to schedule when to start and stop the uploading of snapshots.
- Select **Motion/Sound Detection** if you would like the camera to upload images only when motion or sound is detected.

Image Frequency: Set how frequently you want images to be taken and uploaded. You can choose to upload by frames per second, or by seconds per frame.

Base File Name: Set what you want the base file name to be for your snapshots.

File: Select how you want uploading of snapshots to be handled:

- **Overwrite** will replace the old snapshot with the new one. This means you will only have one snapshot that is updated every time a new one is taken.
- **Date/Time Suffix** will add the date and time to the end of the snapshot file name. You can also choose to make subfolders based on a period of time you specify to help you organize your snapshots.
- **Sequence Number Suffix** will add a number to the end of the snapshot file name up to the number you specify, after which the oldest files will be overwritten.

Test FTP Server: Clicking on the **Test** button will send a test JPEG snapshot to the FTP server specified above to make sure that your settings are correct.

This will send a test e-mail according to the e-mail settings you have specified above.

SD Recording

This option allows you to configure and set a schedule for the recording feature of the camera to the local SD Card.

Enable recording of images to SD card: Check this box to enable the recording feature for images.

Trigger by: Select whether the event is activated by **Motion, Schedule,** or if the video is **Always** recording.

Always: This will enable continuous recording to the SD card.

Schedule: Click day and time for SD recording during a specified time.

Motion/Sound Detection: Enables SD recording after motion or sound is detected.

Recording Interval: You can set the interval of time in seconds the camera will wait for taking snapshots when it is recording.

SD Card: You can set how much free space to keep in SD card and if recording should be done cyclically or not.

Keep Free Space: Set the capacity of your local SD Card to prevent the system from becoming unstable.

Cyclic: When this option is selected, it will cause the oldest image files to be deleted when the system requires storage space for new image files.

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

Enable recording of video clip to SD card: Check this box to enable the recording feature for video.

Trigger by: Select whether the event is activated by **Motion, Schedule,** or if the video is **Always** recording.

Always: This will enable continuous recording to the SD card.

Schedule: Click day and time for SD recording during a specified time.

Motion/Sound Detection: Enables SD recording after motion or sound is detected.

File Format: You can select recording type for video. Video profile options are found under the Audio and Video setup tab).

Recording Length: You can set the recording time in minutes per file by selecting an option from the dropdown menu. The camera will create individual files of the selected length anytime the camera is actively recording.

SD Card: You can set how much free space to keep in SD card and if recording should be done cyclically or not.

Keep Free Space: Set the capacity of your local SD Card to prevent the system from becoming unstable.

Cyclic: When this option is selected, it will cause the oldest snapshot/video files to be deleted when the system requires storage space for new snapshot/video files.

Test SD Card: You can test the the SD card by clicking on the **Test** button. This will write a small file to the card.

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

Motion Detection

Motion detection allows you to mark areas of your camera's video to monitor for motion, which can be used to trigger snapshots or recordings. Refer to "Mail" on page 35 and "FTP" on page 37 for more details.

Motion Detection: Select whether you want to enable or disable the motion detection feature of your camera.

Time: Specify whether you want to **Always** have motion detection enabled, or according to a **Schedule** that you define.

Sensitivity: Specify the amount of difference required to determine whether there was motion.

Detection Areas: Use your mouse to click on the areas of the video that you would like to monitor for motion.

Sound Detection

Sound detection allows you to detect when there is a loud sound in the area, which can be used to trigger snapshots or recordings. Refer to "Mail" on page 35 and "FTP" on page 37 for more details.

Sound Detection: Select whether you want to enable or disable the sound detection feature of your camera.

Time: Specify whether you want to **Always** have motion detection enabled, or according to a **Schedule** that you define.

Detection Level: Specify the volume level that a sound must exceed in order to be "detected".

SD Management

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

If your SD card is not available or not formatted correctly, you camera will not list any pictures or videos, or display "SD Status : Not Ready". If you insert a new SD card, you may need to reboot the camera in order for it to recognize the newly inserted media.

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

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

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

Maintenance
Admin

This section allows you to change the administrator's password and configure the server settings for your camera. You can also manage the user account(s) that are allowed to access to your camera.

Admin Password Setting: To change the admin password used to log into the web interface, enter the old password, then enter the new password and retype it in the next text box, then click **Apply**.

Camera Name: Specify a name for your camera

LED Control: Select **Normal** to enable the LED on the front of the device, or select **Off** to disable the LED. Turning this off may be useful if you do not want the camera to be noticeable.

User Access Control: Select **Enable** to enable user access control or **Disable** to allow only the administrator account to access the camera.

Snapshot URL Authentication: Select **Enable** to allow access to the current camera snapshot via the web address indicated.

OSD Time: Select **Enable** to allow the current time to be added to the camera video, and select a color to use for the text.

Add User Account: You can create new users to provide viewing access for your camera's video. User accounts will only be able to access the **Live Video** section of the web configuration interface, but cannot access any other parts or change any settings.

To create a new user, enter a user name, password, and retype the password, then click **Add**. A maximum of 8 user accounts can be created.

User List: Displays the account names of authorized users. You can modify or delete an account by clicking on its modify or delete icon.

System

This section allows you to save and restore your configuration, restore the factory settings, and/or restart the camera.

Save To Local Hard Drive: Click the **Save Configuration** button to save the current camera configuration to your local PC.

Load From Local Hard Drive: To load a previously saved configuration, click the **Browse...** button, select your saved configuration file, then click the **Restore Configuration From File** button.

Restore To Factory Default: Click the **Restore Factory Defaults** button to reset all settings back to the factory defaults. Please note that this will erase any changes you have made to the settings of the camera.

Reboot The Device: Click the **Reboot the Device** button to reboot the camera.

SYSTEM

Here you can save and restore your configuration, restore the factory settings, and/or restart the camera.

SYSTEM

Save To Local Hard Drive	Save Configuration
Load From Local Hard Drive	[ ] Browse...
	Restore Configuration From File
Restore To Factory Default	Restore Factory Defaults
Reboot The Device	Reboot the Device

Firmware Upgrade

Your current firmware version and date will be displayed on your screen. You may go to the D-Link Support Page to check for the latest firmware versions available.

To upgrade the firmware on your DCS-6045L, download the latest firmware from the D-Link Support Page to your local hard drive. Click the **Browse...** button and select the firmware file, then click the **Upload** button to start the firmware upgrade.

Warning: The firmware upgrade process must not be interrupted or the camera may be damaged. When upgrading firmware, do not unplug the camera or your PC or close your web browser until the process is complete. It is also highly recommended that you use a wired connection for your camera and PC when upgrading firmware.

FIRMWARE UPGRADE

A new firmware upgrade may be available for your camera. It is recommended that you keep your camera firmware up to date to maintain and improve its functionality and performance. Click here D-Link Support Page to check for the latest available firmware version.

To upgrade the firmware on your IP camera, 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. Once you have found and opened the file using the browse button, click the **Upload** button to start the firmware upgrade.

FIRMWARE INFORMATION

Current Firmware Version : 0.99
Current Firmware Date : 2013-12-23
Current Agent Version : 2.0.17-b40

FIRMWARE UPGRADE

File Path :   Browse...
                          Upload

Status
Device Info

This section displays all the detailed information about your device and network settings.

Active User

This page lists all the active users' information including the User Name, IP address, and the time that camera access began.

Troubleshooting

1. What is Remote Access? How do I enable it?

Remote Access allows you to access your camera from any PC connected to the Internet through a web browser. This lets you view your camera feed and manage your camera's settings when you're away from home.

To enable Remote Access, simply go through the Camera Installation Wizard included on the Installation CD that came in your package.

After going through the wizard, you should see Remote Status: Enabled on the summary page.

If you see Remote Status: Disabled, make sure that:

...the front LED on your camera is lit solid green

...your Internet connection is working

...your router's LAN & WAN connections are working properly

...your router has UPnP enabled (if your router does not support UPnP, please refer to Appendix A)

...your router can get a public IP

...your router is upgraded to the latest firmware

...you have tried rebooting your router by unplugging it, then plugging it back in

After checking the above items, you can click the Retry button to refresh the summary screen to see if Remote Access has been enabled.

2. What can I do if I forget my password?

If you forget your password, you will need to perform a hard reset of your camera. This process will change all your settings back to the factory defaults.

To reset your camera, please use an unfolded paperclip to press and hold the RESET button for at least 10 seconds while your camera is plugged in.

3. Why does the LED not light up?

The power supply might be faulty. Confirm that you are using the provided DC 5V power supply for this network camera. Verify that the power

supply is correctly connected. If the camera is functioning normally, the LED may have been disabled. See "Admin" on page 44 for information about how to enable the LED.

4. Why is the camera's network connection unreliable?

There might be a problem with the network cable. To confirm that the cables are working, ping the address of a known device on the network. If the cabling is OK and your network is reachable, you should receive a reply similar to the following (…bytes = 32 time = 2 ms).

Another possible problem may be that the network device such as a hub or switch utilized by the Network Camera is not functioning properly. Please confirm the power for the devices are well connected and functioning properly.

5. Why does the Network Camera work locally but not remotely?

This might be caused by the firewall protection. Check the Internet firewall with your system administrator. The firewall may need to have some settings changed in order for the Network Camera to be accessible outside your local LAN. For more information, please refer to the section about installing your camera behind a router.

Make sure that the Network Camera isn't conflicting with any Web server you may have running on your network.

The default router setting might be a possible reason. Check that the configuration of the router settings allow the Network Camera to be accessed outside your local LAN.

6. Why does a series of broad vertical white lines appear through out the image?

It could be that the image sensor has become overloaded when it has been exposed to bright light such as direct exposure to sunlight or halogen lights. Reposition the camera into a more shaded area immediately, as prolonged exposure to bright lights will damage the sensor.

7. The camera is producing noisy images. How can I solve the problem?

The video images might be noisy if the camera is used in a very low light environment.

8. The images are poor quality, how can I improve the image quality?

Make sure that your computer's display properties are set to at least 6-bit color. Using 16 or 256 colors on your computer will produce dithering

artifacts in the image, making the image look as if it is of poor quality.

You may also need to check your image settings to make sure the brightness, contrast, and other settings are set properly. For more, refer to"Image Setup" on page 32.

9. Why are no images available through the Web browser?

ActiveX might be disabled. If you are viewing the images from Internet Explorer make sure ActiveX has been enabled in the Internet Options menu. You may also need to change the security settings on your browser to allow the ActiveX plug-in to be installed.

If you are using Internet Explorer with a version number lower than 6, then you will need to upgrade your Web browser software in order to view the streaming video transmitted by the Network Camera.

Technical Specifications

SYSTEM REQUIREMENTS
- Microsoft Windows® 8/7/Vista/XP, or Mac with OS X 10.6 or higher
- PC with 1.3 GHz or above and at least 128 MB RAM
- Internet Explorer 7, Firefox 12, Safari 6, or Chrome 20 or higher version with Java installed and enabled

NETWORKING PROTOCOL
- IPV4, ARP, TCP, UDP, ICMP
- DHCP Client
- NTP Client (D-Link)
- DNS Client
- DDNS Client (Dyndns and D-Link)
- SMTP Client
- FTP Client
- HTTP Server
- PPPoE
- UPnP Port Forwarding

BUILT-IN PROTOCOL
- HomePlug AV

RESET BUTTON
- Reset to factory default

VIDEO CODECS
- H.264
- MJPEG
- JPEG for still images

VIDEO FEATURES
- Adjustable image size and quality
- Time stamp and text overlay

- Configurable motion detection windows
- Flip and Mirror
- Pre-event snapshot

RESOLUTION
- 1280 x 720, 640 x 480, 320 x 240 at up to 30 fps

LENS
- Focal length: 3.3 mm, F2.0

SENSOR
- 1/4" 1 MP Progressive CMOS Sensor

IR LED
- 6 meter illumination distance

MINIMUM ILLUMINATION
- Color: 1 lux @ F2.0 (Day)
- B/W: 0 lux @ F2.0 (Night)

VIEWING ANGLE
- Horizontal: 68.88°
- Vertical: 37.85°
- Diagonal: 79.77°

DIGITAL ZOOM
- Up to 4x

3A CONTROL
- AGC (Auto Gain Control)
- AWB (Auto White Balance)
- AES (Auto Electronic Shutter)

POWER
- Input: 100-240 V AC, 50/60 Hz

DIMENSIONS (W X D X H)
- 113 x 114 x 139 mm

WEIGHT
- 262 grams (without stand)
- Stand: 60.8 grams

MAX POWER CONSUMPTION
- 8 W

OPERATION TEMPERATURE
- 0 ˚C to 40 ˚C (32 ˚F to 104 ˚F)

STORAGE TEMPERATURE
- -20 ˚C to 70 ˚C (-4 ˚F to 158 ˚F)

HUMIDITY
- 20-80% RH non-condensing

EMISSION (EMI), SAFETY & OTHER CERTIFICATIONS
- FCC Class B
- IC
- C-Tick
- CE