

# HW Installation Guide

Product Model : DIS-200G Series  
Industrial Gigabit Ethernet Switch  
Release 1.00

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### **SFP (Mini-GBIC), XENPAK, and XFP Regulatory Compliance**

Networks pluggable optical modules meet the following regulatory requirements:

- Class 1.
- IEC/EN60825-1:2007 2nd Edition or later, European Standard
- FCC 21 CFR Chapter 1, Subchapter J in accordance with FDA and CDRH requirements.
- Application of CE Mark in accordance with 2004/108/EEC EMC Directive and the 2006/95/EC Low Voltage Directives.
- UL and/or CSA registered component for North America.
- 47 CFR Part 15, Class A when installed into products.

## Intended Readers

The DIS-200G Series Layer 2 Gigabit Industrial Smart Managed Switches Hardware Installation Guide contains detailed information about the hardware specifications of the switches in this series. It also contains brief information on how to configure and manage a switch in this series. This manual is intended for advanced level users that are familiar with network management concepts and terminology. For all practical reasons, all the switches in this series will simply be referred to as the 'switch' throughout this manual.

## Typographical Conventions

Convention	Description
<b>Boldface Font</b>	This convention is used to place emphasis on keywords. It also indicates a button, toolbar icon, menu, menu item, system message, or a prompt appearing on the screen. For example, click the <b>Apply</b> button.
Initial capital letter	This convention is used to indicate a window name or keyboard key. For example, press the Enter key.
<code>Blue Courier Font</code>	This convention is used to represent a Command Line Interface (CLI) example.

## Notes and Cautions



**NOTE:** A note indicates important information that helps you make better use of your device.



**CAUTION:** A caution indicates a potential for property damage, personal injury, or death.

## Safety Instructions

Please pay careful attention to the following safety guidelines to ensure your own personal safety and to help protect your system from potential damage.

### Safety Cautions

To greatly reduce the risk of physical injury, electrical shock, fire, and damage to equipment, observe the following precautions.

Observe and follow service markings.

- Do not attempt to service any product, except when it is explained in the system's documentation.
- Opening or removing covers, marked with a high voltage sign, may expose the user to electrical shock.
- Only a trained service technician should service components inside these compartments.

If any of the following conditions occur, unplug the product from the electrical outlet and replace the part or contact your trained service provider:

- Damage to the power cable, extension cable, or plug.
- An object has fallen into the product.

- The product has been exposed to water.
- The product has been dropped or damaged.
- The product does not operate correctly when the operating instructions are correctly followed.

General safety cautions:

- Keep the system away from radiators and heat sources. Also, do not block cooling vents.
- Do not spill food or liquids on system components, and never operate the product in a wet environment. If the system gets wet, contact your trained service provider.
- Do not push any objects into the openings of the system. Doing so can cause fire or electric shock by shorting out interior components.
- Only use this product with approved equipment.
- Allow the product to cool before removing the cover or touching internal components.
- Operate the product only from the type of external power source indicated on the electrical ratings label. If you are unsure which type of power source is required, consult your service provider or local power company.
- Be sure that attached devices are electrically rated to operate with the power available in your location.
- Use only approved power cable(s). If you have not been provided with a power cable for your system or for any AC-powered option intended for your system, purchase a power cable that is approved for use in your country. The power cable must be rated for the product and for the voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cable should be greater than the ratings marked on the product.
- To help prevent electric shock, plug the system and peripheral power cables into properly grounded electrical outlets. These cables are equipped with three-prong plugs to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable. If using an extension cable is necessary, use a 3-wire cable with properly grounded plugs.
- Observe the extension cable and power strip ratings. Make sure that the total ampere rating of all products plugged into the extension cable or power strip does not exceed 80 percent of the ampere ratings limit for the extension cable or power strip.
- To help protect the system from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptible power supply (UPS).
- Position system cables and power cables carefully. Route cables so that they cannot be stepped on or tripped over. Be sure that nothing rests on any cables.
- Do not modify power cables or plugs. Consult a licensed electrician or your power company for site modifications. Always follow your local or national wiring rules.
- Do not store this device in an environment where the temperature may go below -40 °C or above 75 °C. This device should be kept in a controlled environment.
- This product is to be connected only to PoE networks without routing to the outside plant.
- This equipment provides eight RJ-45 ports with PoE functionality. Ports 1 to 8 can deliver a maximum of 30 W of PoE output power. The total PoE output power budget is 240 W.

Restricted access location

Location for equipment where both of the following apply:

- Access can only be gained by SERVICE PERSONS or by USERS who have been instructed about the reasons for the restrictions applied to the location and about any precautions that be taken; and
- Access is through the use of a TOOL or lock and key, or other means of security, and is controlled by the authority responsible for the location.

When connecting or disconnecting power to and from hot-pluggable power supplies, observe the following guidelines:

- Install the power supply before connecting the power cable to the power supply.
- Unplug the power cable before removing the power supply.
- If the system has multiple sources of power, disconnect the power from the system by unplugging all power cables from the power supplies.
- Move products with care and ensure that all casters and stabilizers are firmly connected to the system. Avoid sudden stops and uneven surfaces.

To help avoid damage to the system, be sure that the voltage selection of the switch and on the power supply, is set to match the power available at the switch's location:

- 115V/60Hz is used mostly in North and South America as well as Far Eastern countries like as South Korea and Taiwan
- 100V/50Hz is used mostly in Eastern Japan and 100V/60Hz in Western Japan
- 230V/50Hz is used mostly in Europe, the Middle East, Africa and the Far East

## General Precautions for Rack-Mountable Products

Please pay careful attention to the following precautions concerning rack stability and safety. Systems are considered to be components in a rack. Thus, a component refers to any system, as well as to various peripherals or supporting hardware:



**CAUTION:** Installing systems in a rack without the front and side stabilizers installed could cause the rack to tip over, potentially resulting in bodily injury under certain circumstances. Therefore, always install the stabilizers before installing components in the rack. After installing system/components in a rack, never pull more than one component out of the rack on its slide assemblies at one time. The weight of more than one extended component could cause the rack to tip over and may result in serious injury.

- Before working on the rack, make sure that the stabilizers are secured to the rack, extended to the floor, and that the full weight of the rack rests on the floor. Install front and side stabilizers on a single rack or front stabilizers for joined multiple racks before working on the rack.
- Always load the rack from the bottom up, and load the heaviest item in the rack first.
- Make sure that the rack is level and stable before extending a component from the rack.
- Use caution when pressing the component rail release latches and sliding a component into or out of a rack; the slide rails can pinch your fingers.
- After a component is inserted into the rack, carefully extend the rail into a locking position, and then slide the component into the rack.
- Do not overload the AC supply branch circuit that provides power to the rack. The total rack load should not exceed 80 percent of the branch circuit rating.
- Ensure that proper airflow is provided to components in the rack.
- Do not step on or stand on any component when servicing other components in a rack.



**CAUTION:** Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if uncertain that suitable grounding is available.



**CAUTION:** The system chassis must be positively grounded to the rack cabinet frame. Do not attempt to connect power to the system until grounding cables are connected. Completed power and safety ground wiring must be inspected by a qualified electrical inspector. An energy hazard will exist if the safety ground cable is omitted or disconnected.

## Protecting Against Electrostatic Discharge

Static electricity can harm delicate components inside the system. To prevent static damage, discharge static electricity from your body before touching any of the electronic components, such as the microprocessor. This can be done by periodically touching an unpainted metal surface on the chassis.

The following steps can also be taken prevent damage from electrostatic discharge (ESD):

- When unpacking a static-sensitive component from its shipping carton, do not remove the component from the antistatic packing material until ready to install the component in the system. Just before unwrapping the antistatic packaging, be sure to discharge static electricity from your body.
- When transporting a sensitive component, first place it in an antistatic container or packaging.
- Handle all sensitive components in a static-safe area. If possible, use antistatic floor pads, workbench pads and an antistatic grounding strap.

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# 1. Introduction

*Switch Description*  
*Package Contents*  
*Front Panel Components*  
*Rear Panel Components*  
*Top Panel Components*

## Switch Description

The DIS-200G Series Layer 2 Gigabit Industrial Smart Managed Switches are equipped with 8 standard or PoE-capable 10/100/1000BASE-T ports (PS/PSW models), 2 10/100/1000BASE-T ports, and 2 SFP ports. These switches feature a robust design capable of withstanding the harshest environments, making them ideal for deployment in industrial and cabinet surveillance settings. The DIS-200G Series furthermore integrates advanced management and security functions to provide a complete solution.

The DIS-200G Series consists of the following switch models: DIS-200G-12S, DIS-200G-12SW, DIS-200G-12PS, and DIS-200G-12PSW. Some features, throughout this guide, will apply to all the switches within the DIS-200G Series while certain feature are exclusive to specific models.

## Package Contents

Open the shipping carton of the switch and carefully unpack its contents. The carton should contain the following items:

- One DIS-200G Series switch
- One Quick Installation Guide
- One DIN rail mounting kit
- One wall mounting kit
- One RJ-45-to-serial console cable
- One CD containing the user manual

If any item is missing or damaged, please contact your local D-Link reseller for replacement.



# Front Panel Components

Below is an overview of the interface present on all switch models in the DIS-200G series.

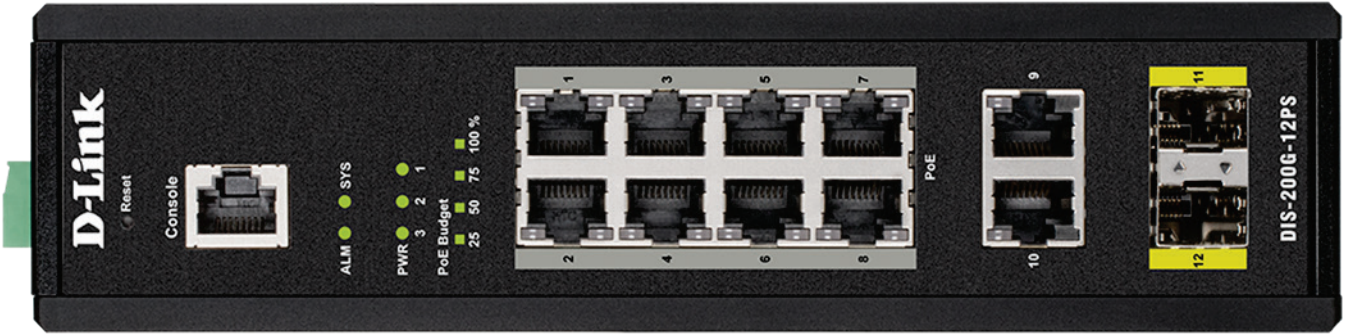


Figure 1-1 Front panel view of the DIS-200G Series switches

Ports that can be found on the front panel of this switch are listed in the table below.

LED	Description
1	<b>Reset</b> This the reset button which is used to perform a factory reset.
2	<b>Console</b> This is a console port which is used to connect to the DIS-200G switch using a RJ-45 to serial cable.
3	<b>Ports 1 - 10</b> These are 10/100/1000 Mbps ports that can be used to connect to any device using a standard Category 5/5e RJ-45 Ethernet cable.
4	<b>Ports 11 - 12</b> These are 1 Gbps SFP ports that can be used to connect to other switches using compatible SFP adapters and fiber cable.

For a complete list of SFP transceivers that are compatible with this switch, refer to the **Supported Transceivers** section in **Appendix A - Technical Specifications**.

# Rear Panel Components

Figure 1-2 Rear panel view of the DIS-200G Series switches



Ports that can be found on the rear panel of this switch are listed in the table below.

LED	Description
1	<b>Power Input</b> This is used to connect an external power adapter to the switch.

## Top Panel Components

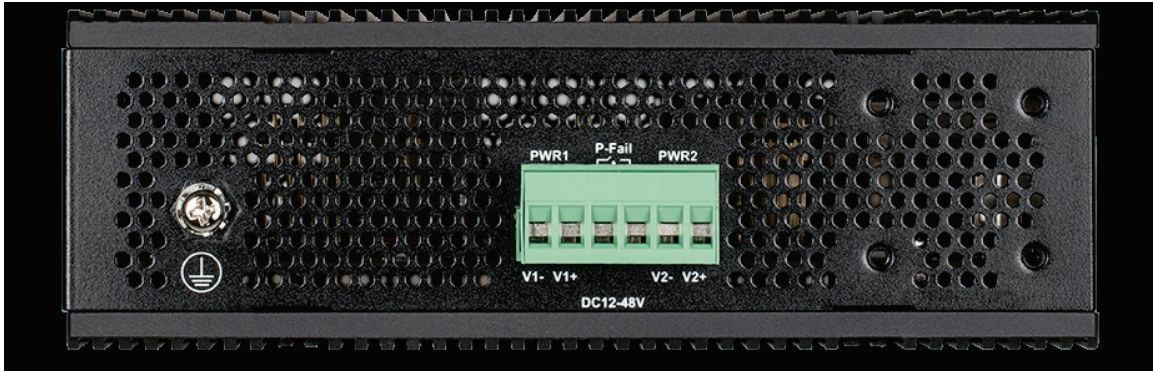


Figure 1-3 Top panel view of the DIS-200G Series switches

Ports that can be found on the top panel of this switch are listed in the table below.

LED	Description
1	<b>Switch Ground</b> This is used to connect the switch to ground.
2	<b>Terminal Block</b> This is used to connect the switch to external power sources and an alarm relay.

# LED Indicators

## All Switches

Below is an overview of the LED indicators present on all switch models in the DIS-200G series.

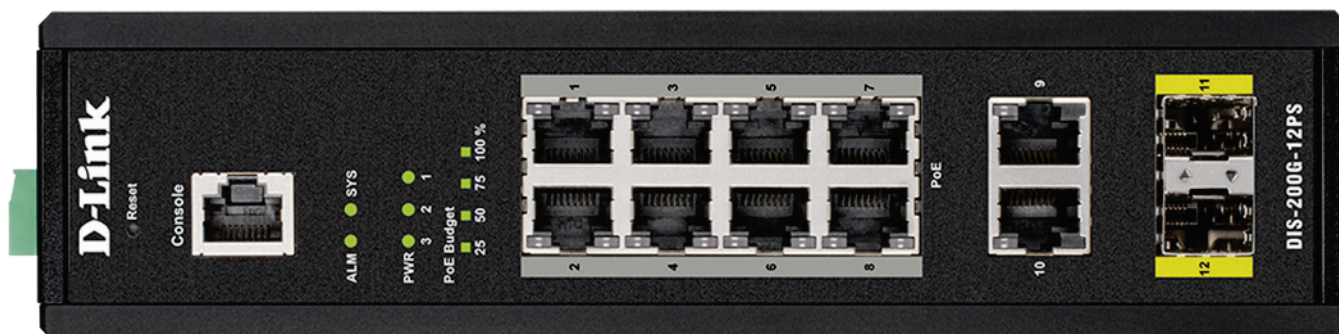


Figure 1-4 LED indicators for all DIS-200G Series switches

LED	Description		
1	<b>SYS</b>		
	Solid green	The DIS-200G switch is on and accepting web connections.	
	Blinking green	A firmware update is in progress.	
	Solid amber	The DIS-200G switch is not ready for communication.	
1	Blinking amber	The DIS-200G switch is booting up, or PoE has failed during system operation (DIS-200G-12PS/PSW PoE models only).	
	2	<b>ALM</b>	Solid amber
3	<b>PWR 1</b>	Solid green	Power source 1 is connected.
4	<b>PWR 2</b>	Solid green	Power source 2 is connected.
5	<b>PWR 3</b>	Solid green	Power source 3 is connected.
6	<b>Ports 11 - 12</b>		
	Solid green	Port is connected at 1 Gbps.	
	Blinking green	There is activity on the port at 1 Gbps.	

## DIS-200G-12PS/12PSW Switches

Below is an overview of LED indicators exclusive to the DIS-200G-12PS/PSW PoE models.

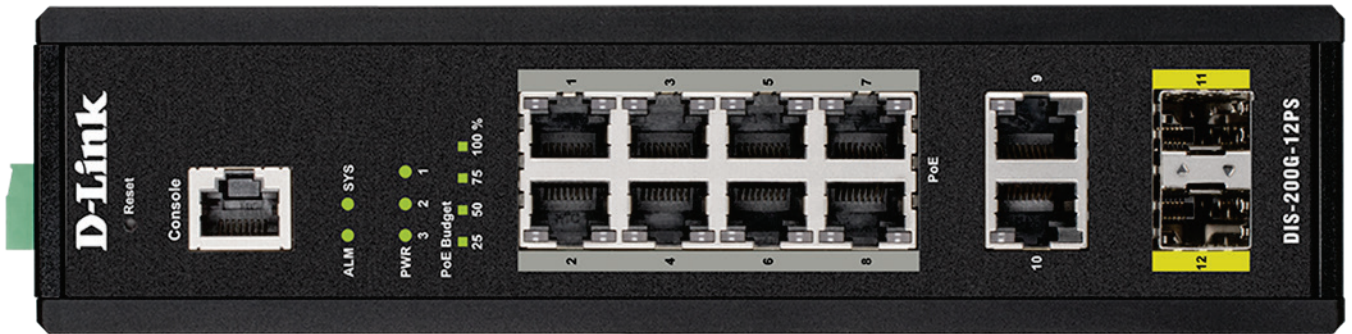


Figure 1-5 LED indicators for the DIS-200G-12PS/12PSW

LED	Description		
1	<b>PoE Budget 100</b>	Solid green	The power budget is 100% and no PoE is being used.
	<b>PoE Budget 75</b>	Solid green	The power budget is between 100 and 75%.
	<b>PoE Budget 50</b>	Solid green	The power budget is between 75 and 50%.
	<b>PoE Budget 25</b>	Solid green	The power budget is between 50 and 25%.
		Solid amber	The power budget is between 25 and 0%, but still has more than 15.4 W of power remaining.
		Blinking amber	The power budget is between 25 and 0%, and has less than 15.4 W of power remaining.
2	<b>Left: Ports 1 - 10</b>	Solid green	Port is connected at 1 Gbps.
		Blinking green	There is activity on the port at 1 Gbps.
		Solid amber	Port is connected at 10/100 Mbps.
		Blinking amber	There is activity on the port at 10/100 Mbps.
3	<b>Right: Ports 1 - 8</b>	Solid green	The PoE output is using IEEE 802.3af/at and is less than 15.4 W.
		Solid amber	The PoE output is using IEEE 802.3at and is between 15.4 and 30 W.
		Blinking amber	The PoE output on the port is over 30 W and the port has been shut down.

Refer to the **LED Indicators** section in the **Appendix A - Technical Specifications** for more LED information.

## DIS-200G-12S/12SW Switches

Below is an overview of LED indicators exclusive to the DIS-200G-12S/SW PoE models.



Figure 1-6 LED indicators for the DIS-200G-12S/12SW

LED		Description	
1	Left: Ports 1 - 8	Solid green	Port is connected at 1 Gbps.
		Blinking green	The port is undergoing cable diagnostics.
		Solid amber	Port is connected at 10/100 Mbps.
2	Right: Ports 1 - 8	Blinking green	There is activity on the port at 1 Gbps.
		Blinking amber	There is activity on the port at 10/100 Mbps.
3	Left: Ports 9 - 10	Solid green	Port is connected at 1 Gbps.
		Blinking green	There is activity on the port at 1 Gbps.
		Solid amber	Port is connected at 10/100 Mbps.
		Blinking amber	There is activity on the port at 10/100 Mbps

## 2. Installation

### *Installation Guidelines*

#### *Mounting the Switch onto a DIN Rail*

#### *Mounting the Switch on a Wall*

#### *Installing the Switch into a Rack*

#### *Grounding the Switch*

#### *Installing Transceivers into the Transceiver Ports*

#### *Connecting to a Power Source*

## Installation Guidelines

This section will discuss the hardware installation guidelines that the user must follow in order to properly and safely install this switch into the appropriate environment.

- Visually inspect the power cord and see that it is fully secured to both the power connector on the switch, and to the electrical outlet that supplies power.
- Install the switch in a fairly cool and dry place within the acceptable operating temperature and humidity ranges. For more information about the acceptable operating temperature and humidity ranges, refer to the Physical and Environmental section.
- Install the switch in a site free from strong electromagnetic field generators such as motors, vibration, dust, and direct exposure to sunlight.

## Mounting the Switch onto a DIN Rail

Before beginning either mounting or removing the DIS-200G from a DIN rail, please ensure that the DIN rail is level and that the DIN rail mounting kit is installed correctly on the DIS-200G switch.

Use the following instructions to install the DIS-200G switch on a DIN rail.

1. With the back of the switch facing the DIN rail, lower the top part of the rail mounting kit onto the DIN rail.
2. Push the switch vertically down and rotate the bottom of the switch towards the DIN rail to attach the switch to the DIN rail.

Use the following instructions to remove the DIS-200G switch from a DIN rail.

1. Push the switch vertically down to create space at the bottom of the rail mounting to remove the switch from the DIN rail.
2. Rotate the switch upwards to remove the bottom of the rail mounting kit from the rail, and lift the switch upwards to remove the whole of the switch from the DIN rail.

## Mounting the Switch on a Wall

The DIS-200G switch can be installed on a solid surface by using the included wall mounting plates attached to the back of the switch. It can also be mounting using the in-built screw hooks on the underneath of the Switch.

## Using the Wall Mounting Brackets

Use the following instructions to install the DIS-200G switch on a wall:

1. Remove the DIN rail mounting from the back of the switch (if present).
2. Align the cross-section of the mounting plates with the openings on the back of the switch and secure the plates to the switch with the included screws.

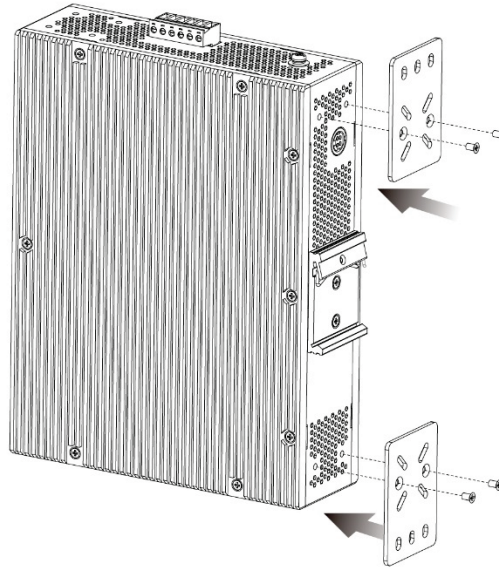


Figure 2-1 Attaching the mounting plates

3. Place the switch with the mounting brackets installed on the location where you want to mount it, and use the mounting brackets as a guide to mark where to drill the screw holes.
4. Drill holes on the marks and insert wall anchors appropriate for the material of the wall.
5. Align the switch with the wall anchors and secure the switch to the wall using the appropriate screws for the wall anchors.

## Using the Screw Hooks

Use the following instructions to mount the DIS-200G switch on a wall using the screw hooks on the underneath of the switch.

1. Mark two points on the surface where you wish to mount the switch 60 mm apart.
2. Drill holes on the marks and insert wall anchors appropriate for the material of the wall.
3. Insert screws into the wall anchors, leaving roughly 4.50 mm of distance from the wall for the switch to be mounted.
4. Mount the switch on the screws using the screw hooks on the underneath of the switch.

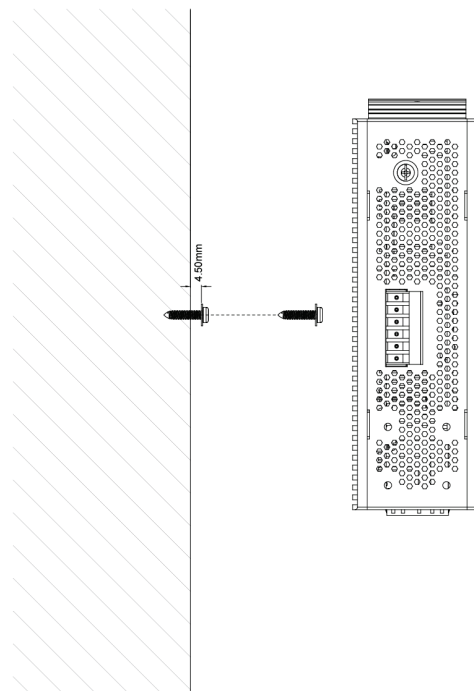


Figure 2-2 Mounting the Switch using screw hooks

## Installing the Switch into a Rack

The DIS-200G switch can be mounted in a standard 19" server rack by using the included rack mounting brackets (optional).

Use the following instructions to mount the DIS-200G switch on a wall using the screw hooks on the underneath of the switch

1. Attach the included mounting brackets to each side of the switch using the provided screws.

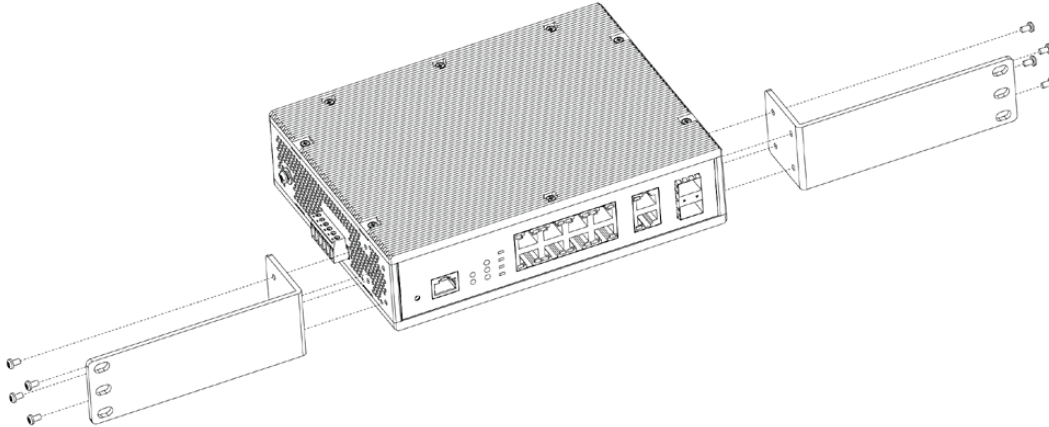


Figure 2-3 Attaching rack-mount brackets to the Switch

2. Use the screws that were provided with the rack to install the switch in the rack.

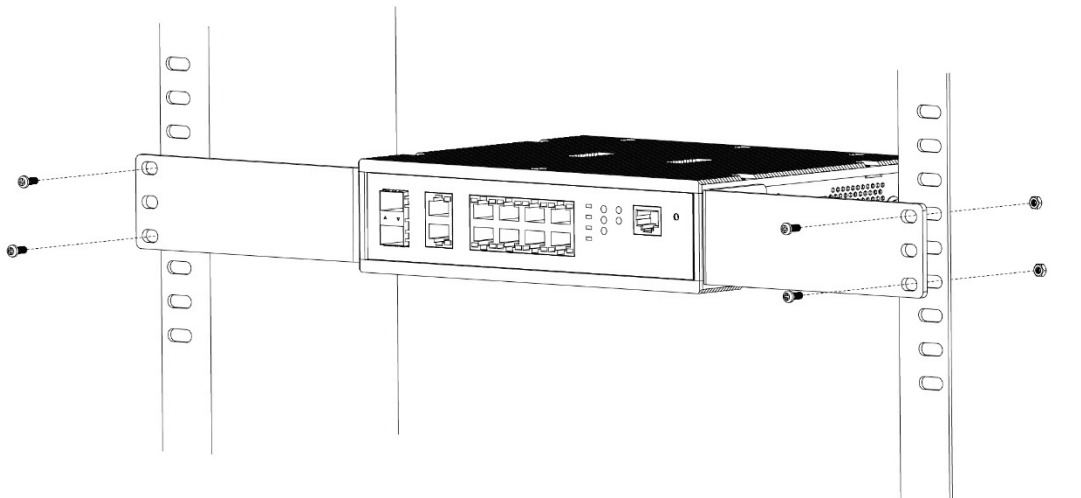


Figure 2-4 Installing the Switch in a Rack

Make sure that there is adequate space around the switch to allow for proper air flow, ventilation, and cooling.

## Grounding the Switch

To use the DIS-200G switch safely, it needs to be grounded. Please complete these steps before powering on the switch.

Use the following instructions to ground the DIS-200G switch:

1. Remove the grounding screw from the top of the DIS-200G and place the grounding cable lug ring on top of the grounding screw opening.



2. Insert the grounding screw back into the grounding screw opening and use a screwdriver to tighten the grounding screw, securing the grounding cable to the switch.
3. Attach the terminal lug ring at the other end of the grounding cable to an appropriate grounding source.
4. Verify that the connection between the grounding connector on the switch and the grounding source is secure.

## Installing Transceivers into the Transceiver Ports

The switch is equipped with Small Form-factor Pluggable (SFP) ports that can be used to connect various other networking devices to this switch that do not support the standard RJ-45 wiring connection. These ports are generally used to connect this switch to optical fiber connections and can be used to connect devices to the switch over great distances. The maximum distance that the RJ-45 wiring connection can reach is 100 meters. Fiber optic connections can span several kilometers.

The figure below illustrates how to properly insert SFP transceivers into the switch's SFP ports.

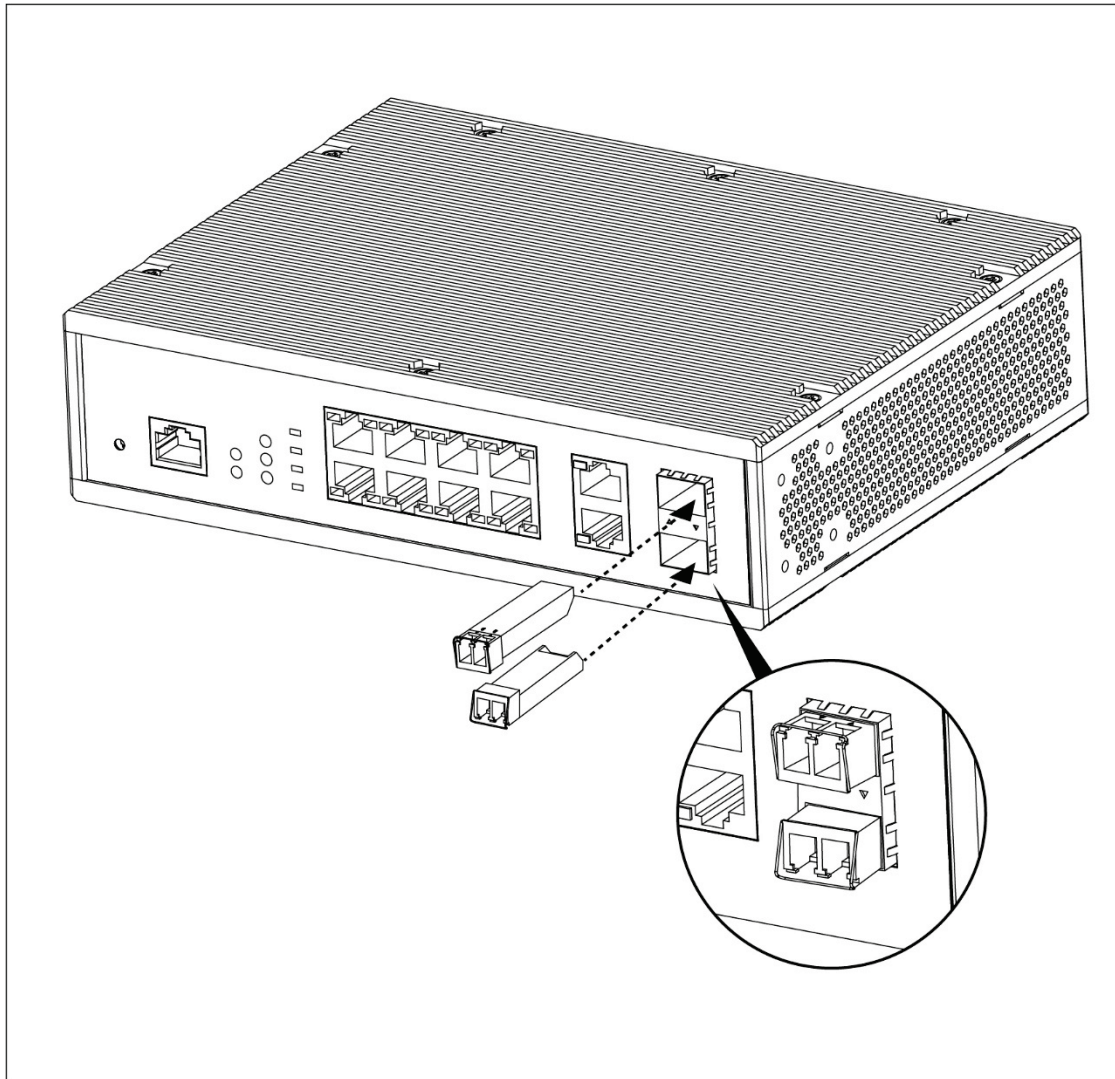


Figure 2-5 Inserting transceivers into the transceiver ports

The SFP ports also support other transceiver form factors like **SFP** transceivers. A complete list of SFP transceivers, compatible with this switch, can be found in the **Supported Transceivers** section in **Appendix A - Technical Specifications** at the end of this document.

## Connecting to a Power Source

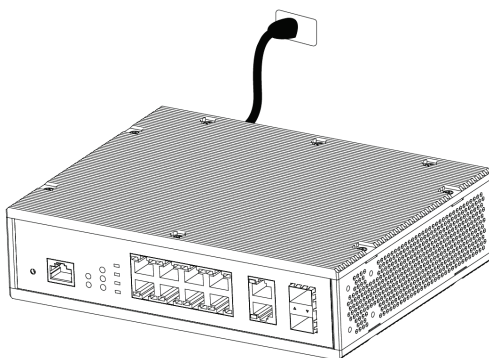
The DIS-200G Series switches can be powered using a power adapter (optional) or by using the built-in terminal connector. This allows dual power inputs using wires from the power source(s) screwed into the terminal connections.

**Note:** Inclusion of the power adapter is optional and may not be included in the package.

### Using the Power Adapter (Optional)

Use the following instructions to power the switch using the power adapter (optional):

1. Connect the power adapter (if included) to the power connector on the back of the switch. Connect the other end of the power adapter to a main power source.



**Figure 2-6** Connecting the power adapter

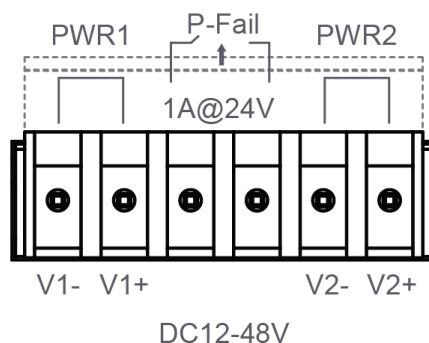
**Note:** The DIS-200G power adapter can be purchased separately. Please contact your local D-Link reseller.

### Using the Terminal Connections

Before proceeding, ensure that all power sources have been disconnected from the switch, including the power source you are wiring to the switch.

Use the following instructions to power the switch using the terminal connections:

1. Before continuing, consult the diagram below to decide which wires from the power source need to connect to which contacts on the terminal block. Note that two power sources can be used; one inserted into V1-/V1+ (labeled PWR 1) and the other inserted into V2-/V2+ (labeled PWR2). This diagram is also provided on the switch itself.



**Figure 2-7** Terminal block diagram

2. Use a lever to remove the terminal block from the switch.

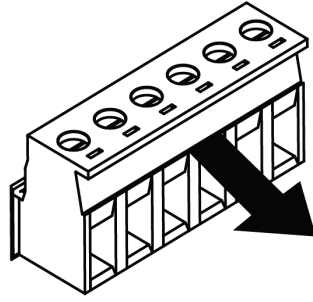


Figure 2-8 Removing the terminal block

3. Using a flat head screwdriver, loosen the connections in the terminal block by unscrewing the terminals connections that you wish to use.
4. Insert the wires into the terminal connections and use the screwdriver to tighten the screws to secure the wires.

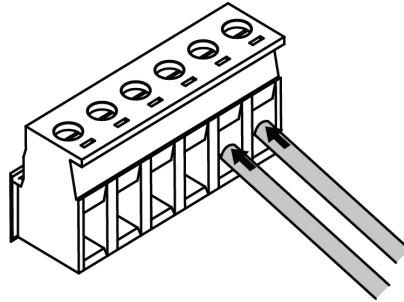


Figure 2-9 Connecting a power source to the terminal block

5. Re-insert the terminal block into the terminal block socket on the switch.

## Redundant Power Design

A power source can be connected to the power input on the back, and to PWR 1 and PWR 2 on the terminal block at the same time. The power source that is connected first to the switch will automatically be designated as the main power source. Any additional power sources connected afterwards will be designated redundant power sources. When one of the power source is behaving abnormally or fails, the alarm relay and ALM LED will be triggered. There is no order or hierarchy for determining active and redundant power sources. For example, if the first power source is connected to PWR 2, the switch will consider this the main power source. If a power source is then connected to the power input on the back and to PWR 1 on the terminal block, these will be designated as backup power sources.

Please note that multiple power sources connected to the switch cannot supply power to the Switch at the same time. For example, when two 120 W power sources are connected to PWR1 and PWR2 on the switch, the switch will only take 120 W power from the power source that was connected first, while the second power source serves as a backup.

## 3. Switch Connections

*Switch to an End Node*  
*Switch to Another Switch*

### Switch to an End Node

An end node is a generic name for edge networking devices that will be connected to this switch. Typical examples of end nodes are Personal Computers (PCs), Notebooks, Access Points, IP cameras and more. Each end node should be fitted with a 10/100/1000 Mbps RJ-45 networking port. Normally, end nodes will connect to this switch by using a standard twisted-pair UTP/STP network cable. When a successful connection is established, the corresponding port light will illuminate and blink to indicate that network activity is taking place on that port.

The diagram below displays a typical end node connected to the switch.

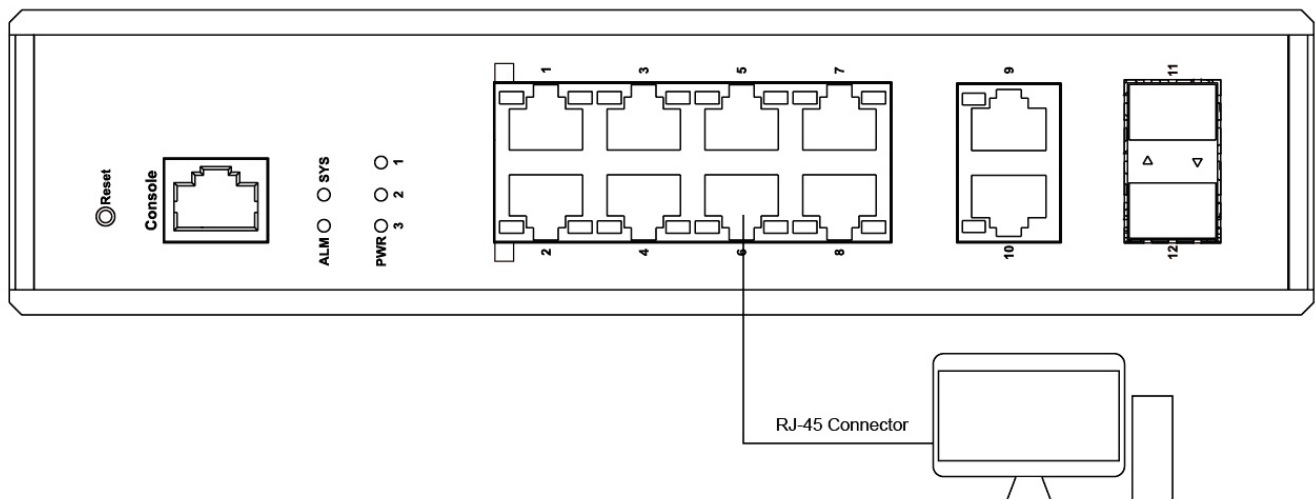


Figure 3-1 Connecting the Switch to an End Node

### Switch to Another Switch

The switch can be used to connect to any other switch or hub in the network. This network topology is used when the switch does not have enough ports to cater for all the end nodes in the network.

There is a great deal of flexibility on how connections are made using the appropriate cabling.

- Connect a 10BASE-T switch port to the switch via a twisted-pair Category 3, 4, or 5 UTP/STP cable.
- Connect a 100BASE-TX switch port to the switch via a twisted pair Category 5 UTP/STP cable.
- Connect a 1000BASE-T switch port to the switch via a twisted pair Category 5e UTP/STP cable.
- Connect a switch supporting a fiber-optic uplink to the switch's SFP ports via fiber-optic cabling.

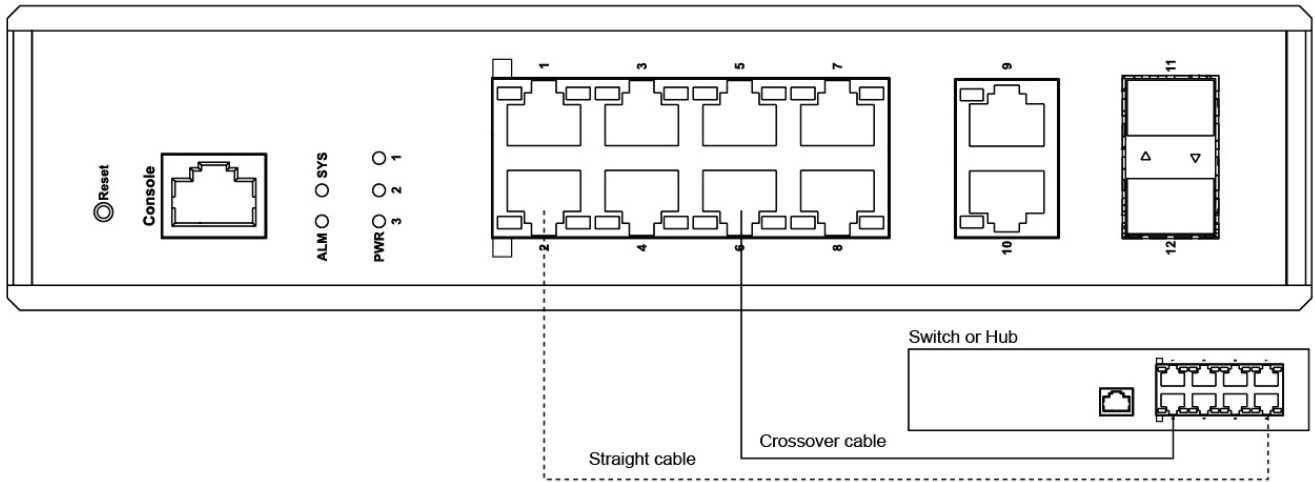


Figure 3-2 Connecting the Switch to another switch/hub

## 4. Switch Management

### *Management Options*

#### *Connecting to the Web User Interface*

#### *Using the D-Link Network Assistant (DNA)*

#### *Connecting to the Console Port*

#### *Connecting using Telnet*

#### *Connecting using SNMP*

## Management Options

The DIS-200G Series switches can be managed by using the web-based user interface (web UI), D-Link Network Assistant (DNA), the console port, Telnet, or Simple Network Management Protocol (SNMP) management interfaces.

If you are configuring a single switch, the web UI may be the best option. Each switch must be assigned its own IP address, which is used for communication with the management PC. However, if you wish to manage multiple D-Link switches, DNA may be the best option. You do not need to change the IP address of your PC and it makes the initial setup of multiple switches easy.

Please refer to the following installation instructions to get started with the web UI, DNA, Console port, Telnet, and SNMP management interfaces.

## Connecting to the Web User Interface

Most software functions of the switch can be managed, configured, and monitored via the embedded HTML Web UI. Management can be done on the switch from remote stations anywhere on the network through a standard web browser. The web browser acts as a universal access tool and can communicate directly with the switch using the HTTP or HTTPS (SSL) protocol.

Once the switch has been successfully installed, you can begin configuration, monitor the LED panel, and display graphical statistics using a web browser. Supported browsers include: Microsoft Internet Explorer, Firefox, Chrome, and Safari.

You need the following equipment to access the web UI of your device:

- A PC with an RJ-45 Ethernet connection
  - A standard Ethernet cable
1. Connect the Ethernet cable to any of the ports on the switch's front panel and to the Ethernet port on the PC.
  2. Configure the PC's IP address to be in the same network segment as the switch. The switch's default IP address is 10.90.90.90, with subnet mask 255.0.0.0. For example, to connect to the switch using the default settings, your PC should have an IP address in the range: 10.0-255.0-255.0-254 and a subnet mask of 255.0.0.0.
  3. Open a web browser and enter **http://10.90.90.90/** in the address box. **Note:** The web UI can also be accessed through the DNA, by clicking the Switch's IP in the device list.
  4. Log into the switch. To do this, enter **admin** in the user name and password fields and click OK.

## Using the D-Link Network Assistant (DNA)

D-Link Network Assistant (DNA) is a program that is used to discover switches which are in the same Layer 2 network segment as your PC. You can download the DNA APP from <http://tools.dlink.com/intro/dna/>.

1. Click the **Free Download** button to download the DNA app.
2. Click the **'ADD TO CHROME'** button on the right-hand side of the search results.
3. Click **'Add app'** button in the pop up window install the D-Link Network Assistant in Chrome
4. When the installation completes:

(Option 1) Click the **'LAUNCH APP'** button in the upper-right corner of the window to start DNA.

↑ LAUNCH APP

(Option 2) Click the 'Apps' icon in the upper-left corner of the Chrome browser and click 'DNA' in the apps list to start DNA.



**Note:** For managed switches, users need to enable D-Link Discovery Protocol (DDP) and create a user name and password to be able to log in to DNA.

## Connecting to the Console Port

To connect to the switch's console, use the supplied RS-232 serial to RJ-45 cable to connect to the Console port on the switch. A terminal emulation program is required to connect to the console port on the switch. These are widely available and can be easily downloaded from the Internet.

You need the following equipment to use the console port of your device:

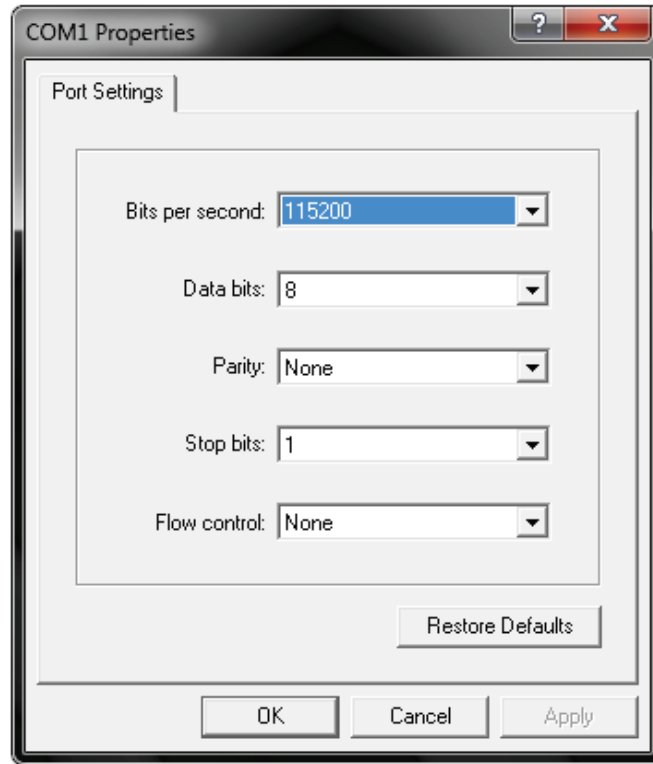
- A PC with both an RS-232 serial port and terminal emulation software
- A RS-232 Serial to RJ-45 console cable (included in this package)

Use the following steps to connect to the switch's console port:

1. Connect the RS-232 serial interface to the serial port of the management PC.
2. Connect the RJ-45 interface to the console port of the switch.
3. Open a terminal emulation program on the management PC and configure the properties of the connection as follows:

Data rate: **115200 baud**  
Data bits: **8**  
Parity: **None**  
Stop bits: **1**  
Flow control: **None**

4. Connect to the switch and the Command Line Interface (CLI) should be available.



**Figure 4-1 COM port Configuration**

To be able to view the boot procedure, the switch needs to be rebooted. The simplest way, at this stage, to reboot the switch is to unplug and re-insert the power cable from and into the power receptacle on the back of the switch or terminal block on the top of the switch.

After correctly configuring the terminal settings and re-inserting the power cable, the boot procedure will appear in the terminal.

```
3 tests completed successfully
RedBoot> fis load -d managed
Image loaded from 0x80040000-0xB12d1d30
RedBoot> go

Press ENTER to get started
```

After the boot sequence has been completed, the console login screen will be displayed.

## Connecting to the Switch for the First Time

The switch supports user-based security that can prevent unauthorized users from accessing the switch or changing its configuration. This section will explain how to log into the switch's Command Line Interface via the out-of-band console connection.

```
DIS-200G-12PS/12PSW PoE GE Switch
```

```
Command Line Interface
```

```
Firmware: Build 1.00.B032
```

```
Copyright © 2017 D-Link Corporation. All rights reserved.
```

```
User Access Verification
```

```
Username:
```



By default, the switch is configured with a privilege level 15 administrator account with the user name **admin** and password **admin**. This will allow the user to simply connect to this switch for the first time by pressing the 'Enter' key. After pressing **Enter**, access will be given to enter commands after the command prompt (**Switch>**) appears.



**NOTE:** The default user account automatically gets Administrator level privileges. At least one Administrator-level user account must exist for the switch.



**NOTE:** It is highly recommended to create a user account containing a username and a password on the switch to prevent unauthorized access to the management interface.

## Creating a User Account

Additional user accounts can be created for various levels. This section provides instructions for creating additional user accounts using the Command Line Interface (CLI).

An example to create a user account for the switch called 'user':

```
Switch>enable
Switch#configure terminal
Switch(config)#username user password pass1234
Switch(config)#
```

In the example above:

1. At the CLI command prompt, enter the **enable** command to enter the **Privileged EXEC Mode**. Press **Enter**.
2. Enter the **configure terminal** command to enter the **Global Configuration Mode**. Press **Enter**.
3. Enter the **username User password pass1234** command. Press **Enter**. This will create a user account with the username of *User* and a password of *pass1234*.



**NOTE:** Passwords are case sensitive. Usernames can be up to 32 characters in length. Passwords can be up to 32 plain-text characters in length.

Save the running configuration to the start-up configuration. This means saving the changes made so that, when the switch is rebooted, the configuration will not be lost. The following shows how to save the running configuration to the start-up configuration.

```
Switch# copy running-config startup-config
Building configuration...
% Saving 733 bytes to flash:startup-config
Switch#
```

After the switch is rebooted, or when the user logs out and logs back in, the newly created username and password must be entered to access the CLI interface again, as seen below.

```
DIS-200G Gigabit Ethernet Switch
```

```
Command Line Interface
```

```
Firmware: Build 1.00.001
```

```
Copyright (C) 2017 D-Link Corporation. All rights reserved.
```

```
User Access Verification
```

```
Username:user
```

```
Password:*****
```

```
Switch#
```

## Connecting using Telnet

To connect to the switch using Telnet, a Telnet client is required. This may be included with your operating system, or can be easily downloaded from the Internet.

Before connecting to the switch, ensure that your PC has an IP address in the same range as the switch. Follow the instructions in the **Connecting to the Web User Interface** section for more information on how to do this.

1. Launch the Telnet software and connect to the IP address of the switch.
2. When you are prompted for a user name and password, enter **admin** as the default user name and password.

## Connecting using SNMP

You can manage the switch with D-Link D-View, or any other SNMP-compatible program. The SNMP function is disabled default and must be enabled on the switch first by using either the web UI, DNA, CLI, or Telnet.

D-View SNMP Network Management System is a comprehensive standard-based management tool designed to centrally manage critical network infrastructure. D-View provides useful tools to allow network administrators to effectively manage device configurations, fault tolerance, performance, and security. D-Link offers a free version of D-View which can be used to manage up to 25 devices. Visit <http://dview.dlink.com/> to download the software and get more information.

The Simple Network Management Protocol (SNMP) is an OSI Layer 7 (Application Layer) protocol, designed specifically for managing and monitoring network devices. The SNMP protocol enables Network Management Station (NMS) to read and modify the settings of gateways, routers, switches, and other network devices. Use SNMP to configure system features for proper operation, monitor performance, and detect potential problems in the switch, switch group, or network.

Managed devices that support SNMP include software (referred to as an agent), which runs locally on the device. A defined set of variables (managed objects) is maintained by the SNMP agent and used to manage the device. These objects are defined in a Management Information Base (MIB), which provides a standard presentation of the information controlled by the on-board SNMP agent. SNMP defines both the format of the MIB specifications and the protocol used to access this information over the network.

The switch supports SNMPv1, SMNPv2c, and SNMPv3. The administrator may specify which SNMP version to use to monitor and control the switch. The three SNMP versions vary in the level of security provided between the management station and the network device.

In SNMPv1 and SNMPv2c, user authentication is accomplished using 'community strings', which function like passwords. The remote user SNMP application and the switch SNMP must use the same community string. SNMP packets from any station that has not been authenticated are ignored (dropped).

The default community strings for the switch used for SNMPv1 and SNMPv2c management access are:

- **public** - Allows authorized management stations to retrieve MIB objects.

- **private** - Allows authorized management stations to retrieve and modify MIB objects.

SNMPv3 uses a more sophisticated authentication process that is separated into two parts. The first part is to maintain a list of users and their attributes that are allowed to act as SNMP managers. The second part describes what each user on that list can do as an SNMP manager.

The switch allows groups of users to be listed and configured with a shared set of privileges. The SNMP version may also be set for a listed group of SNMP managers. Thus, a group of SNMP managers can be created to view read-only information or receive traps using SNMPv1 while assigning a higher level of security to another group, granting read/write privileges using SNMPv3.

Using SNMPv3 individual users or groups of SNMP managers can be allowed to perform or be restricted from performing specific SNMP management functions. The functions that have been allowed or restricted are defined using the Object Identifier (OID) associated with a specific MIB. An additional layer of security is available for SNMPv3 in that SNMP messages may be encrypted.

## **Traps**

Traps are messages that are sent by an SNMP-enabled device to the NMS, and can be used to alert network personnel of events that occur on the switch. The events can be as serious as a reboot (someone accidentally turned off the switch), or less serious like a port status change. The switch generates traps and sends them to a pre-configured IP address, usually a Network Management Station (NMS). Typical traps include trap messages for Authentication Failure and Topology Change.

## **Management Information Base (MIB)**

A Management Information Base (MIB) stores management and counter information. The switch uses the standard MIB-II Management Information Base module. Consequently, values for MIB objects can be retrieved from any SNMP-based network management software. In addition to the standard MIB-II, the switch also supports its own proprietary enterprise MIB as an extended Management Information Base. The proprietary MIB may also be retrieved by specifying the MIB Object Identifier. MIB values can be either read-only or read-write.

## 5. Web-based Switch Configuration

### Introduction

#### Logging into the Web UI

#### Smart Wizard

#### Web User Interface (Web UI)

## Introduction

Most software functions of the switch can be managed, configured, and monitored via the embedded HTML Web UI. Management can be done on the switch from remote stations anywhere on the network through a standard web browser. The web browser acts as a universal access tool and can communicate directly with the switch using the HTTP or HTTPS (SSL) protocol.

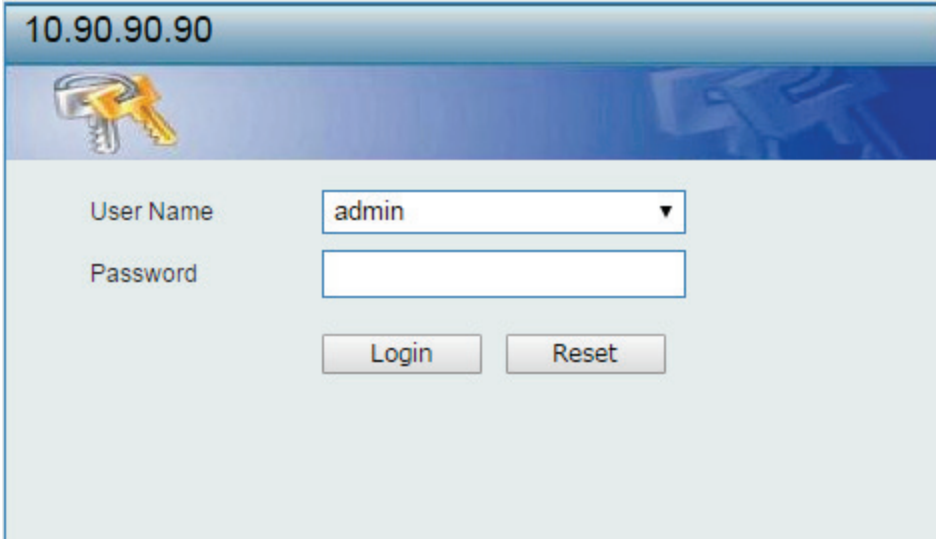
The following web browsers are supported:

- Internet Explorer
- Firefox
- Google Chrome
- Safari

## Logging into the Web UI

To access the Web UI, open a standard web browser, enter the switch's default IP address **10.90.90.90** into the address bar of the browser, and press the ENTER key.

After pressing the ENTER key, the following authentication window should appear, as shown below.



The screenshot shows a web browser window with the address bar containing "10.90.90.90". The page has a blue header with a key icon. Below the header, there are two input fields: "User Name" with a dropdown menu showing "admin" and "Password" with a text box. At the bottom, there are two buttons: "Login" and "Reset".

Figure 5-1 Web UI Login Window

When connecting to the Web UI of the switch for the first time, enter the default user name and password of **admin** and press Enter.

## Smart Wizard

After a successfully connecting to the Web User Interface for the first time, the Smart Wizard embedded Web utility will be launched. This wizard will guide the user through basic configuration steps that is essential for first time connection to the switch.

## Step 1 - System IP Information

In this window, the user can configure the IP address assignment method, the static IP address, netmask and gateway address.

The screenshot shows a 'Welcome to Wizard' dialog box. It contains a wizard icon and text explaining the wizard's purpose: 'The wizard will guide you to do basic configurations on 3 steps for the IP Information, and SNMP. If you are not changing the settings, click on "Exit" to go back to the main page.' Below this, it states 'Step 1 of 3: The wizard will help to complete settings for System IP address, Netmask, and Gateway.' The main configuration area is titled 'System IP Information' and includes two radio buttons: 'Static' (selected) and 'DHCP'. There are three input fields: 'IP Address' with the value '10 . 90 . 90 . 90', 'Netmask' with a dropdown menu showing '8 (255.0.0.0)', and 'Gateway' with a text box containing three dots. At the bottom, there is a checkbox for 'Ignore the wizard next time' and two buttons: 'Exit' and 'Next'.

Figure 5-2 Configuring Switch network information

The fields that can be configured are described below.

Parameter	Description
<b>Static</b>	Select this option to manually configure and use IP address settings on this switch.
<b>DHCP</b>	Select this option to obtain IP address settings from a DHCP server.
<b>IP Address</b>	If you selected Static, enter the IP address of the switch here.
<b>Netmask</b>	If you selected Static, select the netmask here.
<b>Gateway</b>	If you selected Static, enter the default gateway IP address here.

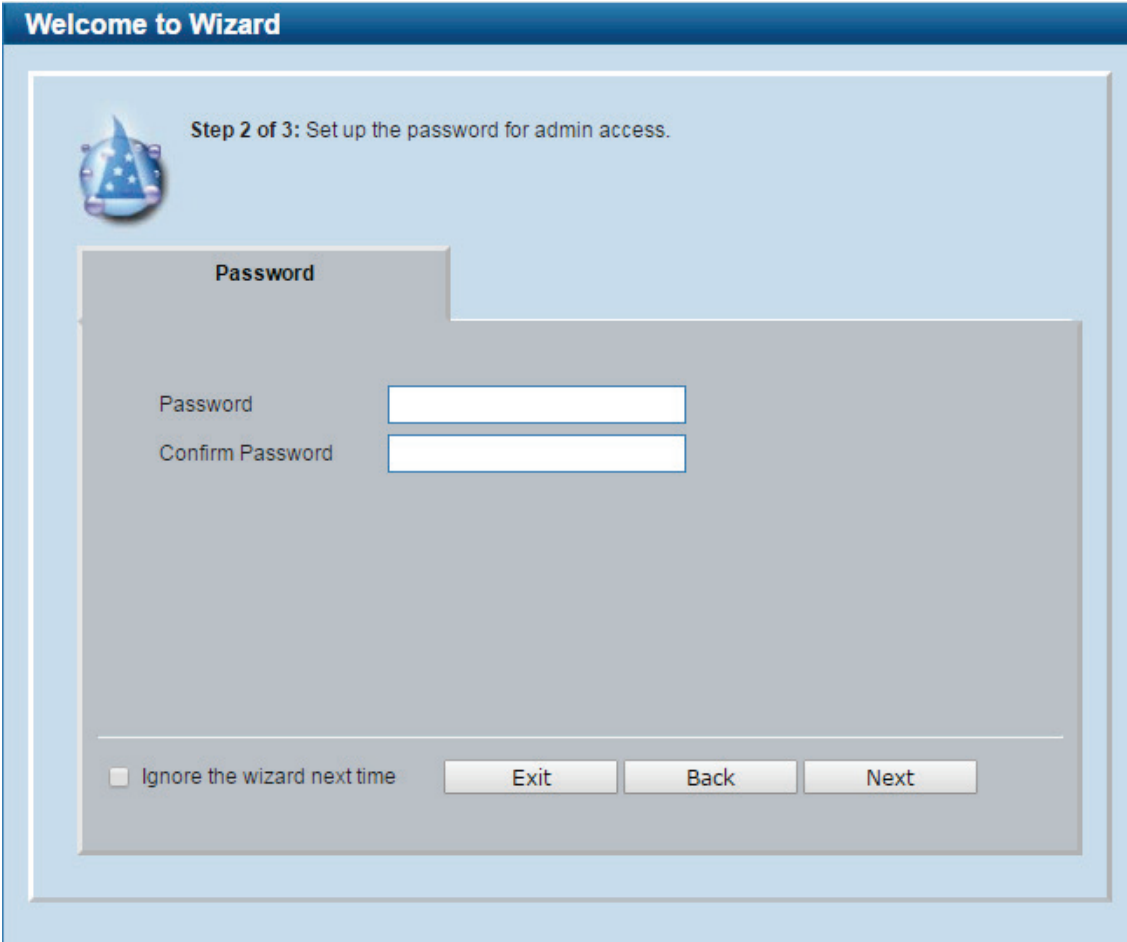
Tick the **Ignore the wizard next time** option to skip the Smart Wizard on the next login.

Click the **Exit** button to discard the changes made, exit the Smart Wizard, and continue to the Web UI.

Click the **Next** button to accept the changes made and continue to the next step.

## Step 2 – User Account Settings

In this window, the user can configure the password of the administrator account used to access the web UI.



**Welcome to Wizard**

Step 2 of 3: Set up the password for admin access.

**Password**

Password

Confirm Password

Ignore the wizard next time

Exit Back Next

**Figure 5-3 Setting a new password**

The fields that can be configured are described below.

Parameter	Description
<b>Password</b>	Enter the new password for the user account here.
<b>Confirm Password</b>	Enter the new password again for confirmation.

Tick the **Ignore the wizard next time** option to skip the Smart Wizard on the next login.

Click the **Exit** button to discard the changes made, exit the Smart Wizard, and continue to the Web UI.

Click the **Back** button to discard the changes made and return to the previous step.

Click the **Next** button to accept the changes made and continue to the next step.

### Step 3 – SNMP

In this window, the user can enable or disable SNMP functionality.

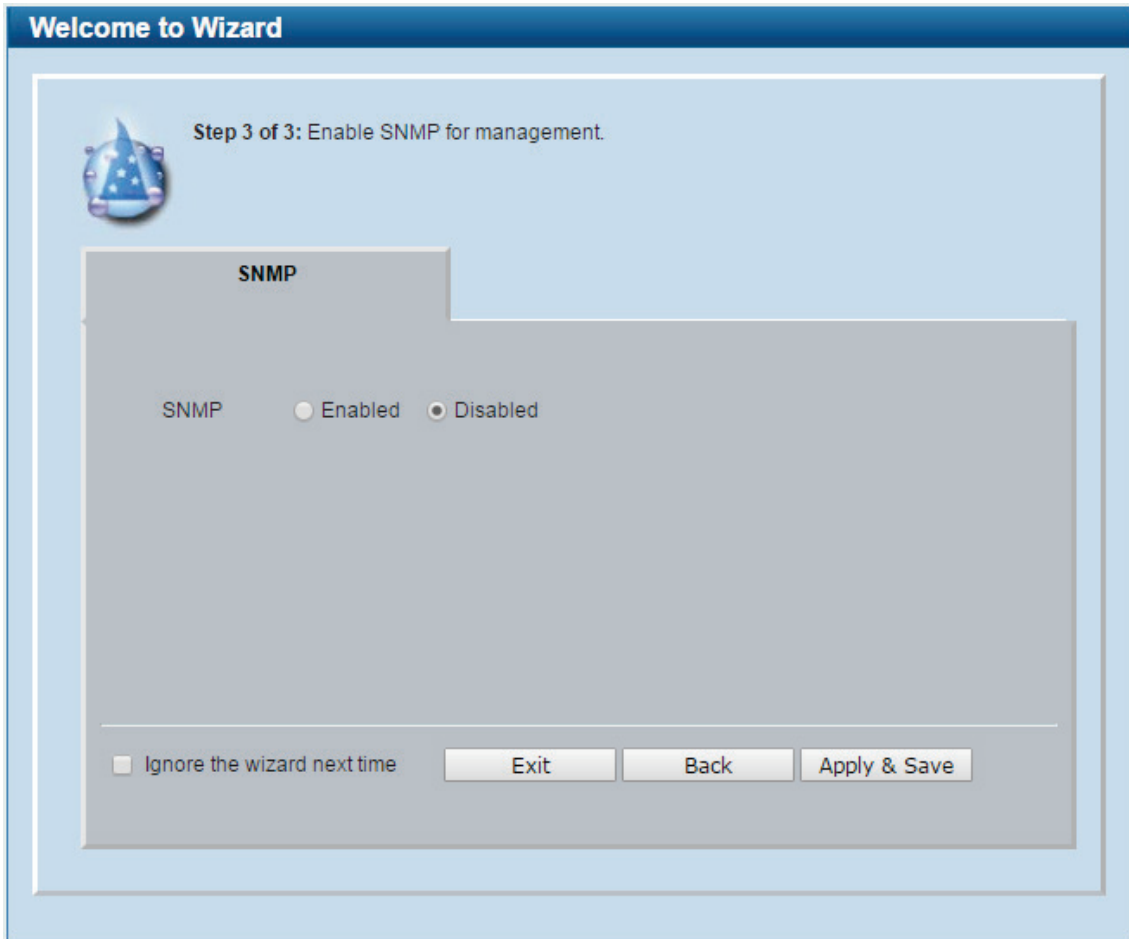


Figure 5-4 SNMP configuration

The fields that can be configured are described below.

Parameter	Description
SNMP	Select the <b>Enabled</b> option to enable SNMP functionality. Select the <b>Disabled</b> option to disable SNMP functionality.

Tick the **Ignore the wizard next time** option to skip the Smart Wizard on the next login.

Click the **Exit** button to discard the changes made, exit the Smart Wizard, and continue to the Web UI.

Click the **Back** button to discard the changes made and return to the previous step.

Click the **Apply & Save** button to accept the changes made and continue to the Web UI.

## Web User Interface (Web UI)

When completing, skipping, or exiting the Smart Wizard when logging into to the switch, you will enter the main management interface.

The Web UI provides access to various switch configuration and management windows. It allows the user to view performance statistics, and permits graphical monitoring of the system's status.

## Areas of the Web UI

After logging into the switch's Web UI, the following page will be displayed. The Web UI can be divided into three distinct areas that are described in more detail in the table below.

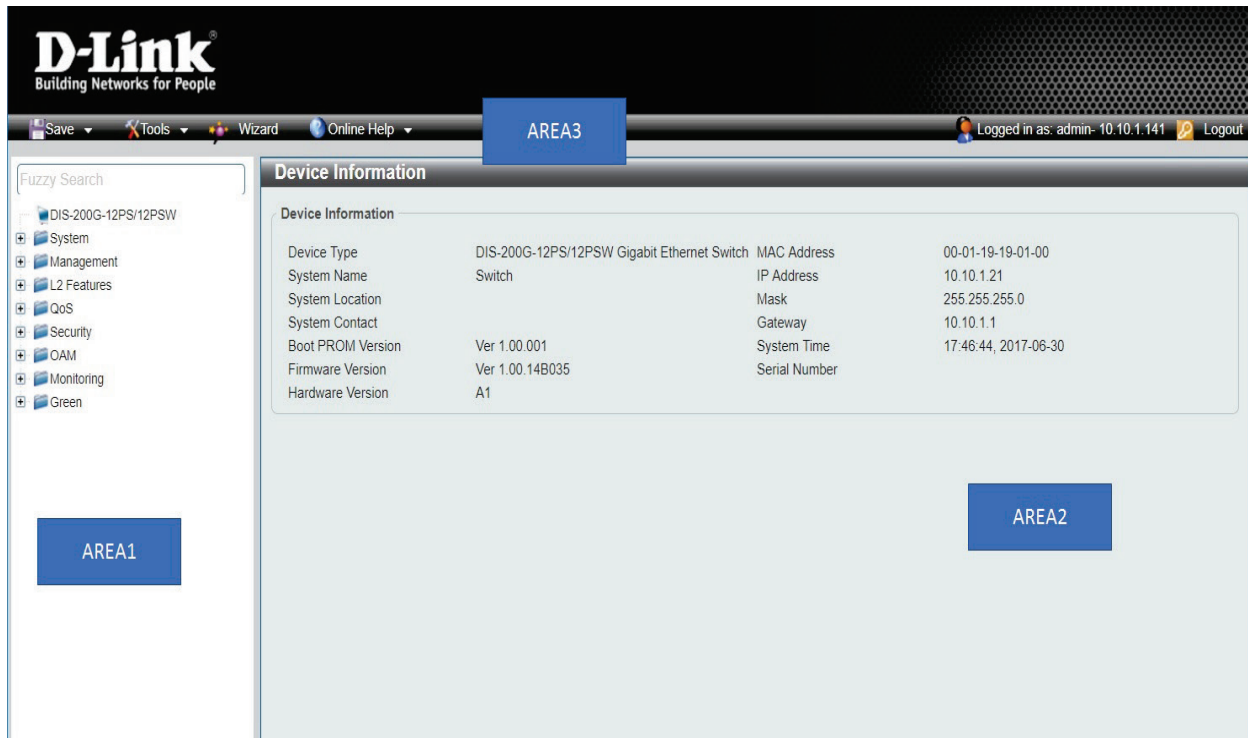


Figure 5-5 Main Web UI Window

Three main areas are displayed in the window.

Area Number	Function
AREA 1	Select the folder or window to display. Open folders and click the hyperlinked window buttons and subfolders contained within them to display windows.
AREA 2	Presents switch status based on user selection and the entry of configuration data. In addition, a hyperlink to Settings is offered to enable quick Gateway configuration.
AREA 3	Presents a toolbar used to access function like <b>Save</b> , <b>Tools</b> , the <b>Wizard</b> and <b>Online Help</b> .

## Web Pages

In area 1, mentioned above, the following main folders will be available for selecting.

Folder Name	Description
System	Features regarding the switch's configuration can be viewed and configured in this folder.
Management	Features regarding the switch's management can be viewed and configured in this folder.
L2 Features	Features regarding the Layer 2 functionality of the switch can be viewed and configured in this folder.



<b>Folder Name</b>	<b>Description</b>
<b>QoS</b>	Features regarding the Quality of Service functionality of the switch can be viewed and configured in this folder.
<b>Security</b>	Features regarding the switch's security can be viewed and configured in this folder.
<b>OAM</b>	Features regarding the switch's Operations, Administration and Maintenance (OAM) can be viewed and configured in this folder.
<b>Monitoring</b>	The switch's configuration and statistics can be viewed and configured in this folder.
<b>Green</b>	Features regarding the D-Link Green Technology can be viewed and configured in this folder.

# Appendix A - Technical Specifications

## General

General	DIS-200G-12S	DIS-200G-12SW	DIS-200G-12PS	DIS-200G-12PSW
Hardware Version	A1	A1	A1	A1
Number of Ports	10 x 10/100/1000BASE-T ports 2 x SFP ports 1 x RJ-45 Console port	10 x 10/100/1000BASE-T ports 2 x SFP ports 1 x RJ-45 Console port	8 x 10/100/1000BASE-T PoE ports 2 x 10/100/1000BASE-T ports 2 x SFP ports 1 x RJ-45 Console port	8 x 10/100/1000BASE-T PoE ports 2 x 10/100/1000BASE-T ports 2 x SFP ports 1 x RJ-45 Console port
Port Functions	IEEE 802.3 for Ethernet IEEE 802.3u for Fast Ethernet IEEE 802.3ab for Gigabit Ethernet IEEE 802.3z for Gigabit fiber IEEE 802.3af/at Power over Ethernet (DIS-200G-12PS/DIS-200G-12PSW only) IEEE 802.3az-compliant			
Media Interface Exchange	Auto-MDI/MDIX adjustment for all twisted pair ports			
<b>Performance</b>				
Switching Capacity	24 Gbps			
Maximum Forwarding Rate	17.85 Mpps			
MAC Address Table Size	Up to 8K entries			
Transmission Method	Store-and-forward			
<b>PoE</b>				
PoE Standards	N/A	N/A	IEEE 802.3af/at	IEEE 802.3af/at
PoE Capable Ports	N/A	N/A	Ports 1 to 8	Ports 1 to 8
PoE Power Budget	N/A	N/A	Max. 240 W <sup>1</sup>	Max. 240 W <sup>1</sup>
<b>Physical</b>				
Diagnostic LEDs	SYS ALM PWR1/2/3 Link/Activity/Speed	SYS ALM PWR1/2/3 Link/Activity/Speed	SYS ALM PWR1/2/3 Link/Activity/Speed PoE status PoE budget	SYS ALM PWR1/2/3 Link/Activity/Speed PoE status PoE budget
Power Input	12 to 48 V DC terminal block dual input 12 V DC 4-pin DIN single power input	12 to 48 V DC terminal block dual input 12 V DC 4-pin DIN single power input	48 to 54 V DC terminal block dual input 54 V DC 4-pin DIN single power input	48 to 54 V DC terminal block dual input 54 V DC 4-pin DIN single power input
Power Consumptions	Maximum: 10.26 W	Maximum: 10.26 W	Maximum: 260 W (PoE)	Maximum: 260 W (PoE)

	Standby: 5.94 W	Standby: 5.94 W	on) Maximum: 10.8 W (PoE off) Standby: 7.02 W	on) Maximum: 10.8 W (PoE off) Standby: 7.02 W
Alarm Relay	1 A at 24 V			
Heat Dissipation	35.01 BTU/hr	35.01 BTU/hr	887.16 BTU/hr (PoE on) 36.85 BTU/hr (PoE off)	887.16 BTU/hr (PoE on) 36.85 BTU/hr (PoE off)
Weight	1.63 kg (3.59 lbs)	1.63 kg (3.59 lbs)	1.76 kg (3.88 lbs)	1.76 kg (3.88 lbs)
Dimensions	210 x 171.2 x 48 mm (8.27 x 6.74 x 1.89 inches)			
Ventilation	Fanless			
Operating Temperature	-40 to 65 °C (-40 to 149 °F)	-40 to 75 °C (-40 to 167 °F)	-40 to 65 °C (-40 to 149 °F)	-40 to 75 °C (-40 to 167 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)			
Operating Humidity	0% to 95% RH, non-condensing			
Storage Humidity	0% to 95% RH, non-condensing			
Material	IP30-rated metal casing			
Installation	DIN rail/wall/rack mountable			
MTBF	276,773 hours	219,314 hours	213,112 hours	156,452 hours
Certifications	CE, FCC, BSMI			
Safety	UL60950-1			
EMI	CISPR 22, FCC Part 15B Class A			
EMS	EN 61000-4-2 ESD EN 61000-4-3 RS EN 61000-4-4 EFT EN 61000-4-5 EN 61000-4-6 CS EN 61000-4-8			
Environmental Tests	IEC 60068-2-27 Shock IEC 60068-2-32 Freefall IEC 60068-2-6 Vibration			

1 PoE outputs were loaded to 204 W for terminal input and to 150 W for power DIN input during testing.

## Software Features

Software Features		
VLAN	IEEE 802.1Q tagged VLAN Port-based VLAN Auto-Surveillance VLAN 2.0 (ASV 2.0) Voice VLAN	Asymmetric VLAN VLAN group Supports 128 static VLAN groups Max. 4094 VIDs GVRP

<p>L2 Features</p>	<p>Flow Control                      IEEE 802.3x Flow Control                      HDL Blocking Prevention                      Jumbo frames up to 9600 bytes                      IGMP Snooping                      IGMP v1/v2/v3                      Supports up to 256 IGMP snooping groups (shared with MLD snooping)                      IGMP Snooping Querier                      MLD Snooping                      MLD snooping v1/v2                      Supports up to 256 MLD snooping groups (shared with IGMP snooping)                      MLD Snooping Querier                      IEEE 802.3ad Link Aggregation                      Supports 6 groups per device, 8 ports per group                      Ethernet Ring Protection Switching (ERPS)<sup>1</sup>                      G.8032 ERPSv1 single ring</p>	<p>Loopback detection                      LLDP                      Port mirroring                      One-to-One                      Many-to-One                      Statistics                      Tx Ok                      Tx Error                      Rx Ok                      Rx Error                      Spanning Tree Protocol (STP)                      IEEE 802.1D STP                      IEEE 802.1w RSTP                      IEEE 802.1s MSTP</p>
<p>Quality of Service (QoS)</p>	<p>IEEE 802.1p Quality of Service (QoS)                      4 queues per port                      Queue handling                      Strict Priority Queue (SPQ)                      Weighted Round Robin (WRR)                      Port-based bandwidth control (rate limiting)                      Ingress: 8 kbps                      Egress: 64 kbps</p>	
<p>Security</p>	<p>D-Link Safeguard                      Traffic segmentation                      Broadcast/Multicast/Unknown Unicast Storm Control</p>	<p>DoS attack prevention                      SSL                      Port security</p>
<p>AAA</p>	<p>Web-based access control</p>	<p>RADIUS</p>
<p>Management</p>	<p>Web-based UI (supports IPv4/IPv6)                      Client-based D-Link Network Assistant (DNA)                      Industry-standard CLI                      SNTIP                      SNMP v1/v2c/v3                      SNMP trap                      Telnet server</p>	<p>System Log                      DHCP client                      TFTP client                      LLDP                      D-Link Discovery Protocol (DDP)                      Dual images                      Dual configurations</p>
<p>OAM</p>	<p>Cable diagnostics</p>	<p>Optical transceiver Digital Diagnostics Monitoring (DDM)</p>
<p>Green Technology</p>	<p>Power saving through:                      Link status detection                      LED shut-off                      Port shut-off                      System hibernation                      IEEE 802.3az Energy-Efficient Ethernet (EEE)</p>	
<p>MIB/RFC Standards</p>	<p>RFC768 UDP                      RFC791 IP                      RFC792 ICMP                      RFC793 TCP                      RFC826 ARP                      RFC1213 MIB II                      RFC1493 Bridge MIB</p>	<p>RFC1907 SNMPv2 MIB                      RFC2668 802.3 MAU MIB                      RFC4133 Entity MIB                      RFC4363 IEEE 802.1p MIB                      ZoneDefense MIB                      Private MIB</p>

## Supported Accessories

DIS-200G Series Accessories	
DIS-RK200G	Standard 19" rack mounting kit
DIS-PWR40AC	40 W, 100 ~ 240 V AC input, 12 V DC output power adapter with 60 °C operating temperature
DIS-PWR180AC	180 W, 100 ~ 240 V AC input, 54 V DC output power adapter with 60 °C operating temperature
DIS-200G-RPK40	Rack mounting kit and 40 W, 100 ~ 240 V AC input, 12 V DC output power adapter with 60 °C operating temperature
DIS-200G-RPK180	Rack mounting kit and 180 W, 100 ~ 240 V AC input, 54 V DC output power adapter with 60 °C operating temperature

## Supported SFP Transceivers

Optional SFP Transceivers	
DEM-310GT	1000BASE-LX, single-mode, 10 km, 0 to 70 °C operating temperature
DIS-S310LX	1000BASE-LX, single-mode, 10 km, -40 to 85 °C operating temperature
DEM-311GT	1000BASE-SX, multi-mode, 550 m, 0 to 70 °C operating temperature
DIS-S301SX	1000BASE-SX, multi-mode, 550 m, -40 to 85 °C operating temperature
DEM-312GT2	1000BASE-SX, multi-mode, 2 km, 0 to 70 °C operating temperature
DIS-S302SX	1000BASE-SX, multi-mode, 2 km, -40 to 85 °C operating temperature
DEM-314GT	1000BASE-LHX, single-mode, 50 km, 0 to 70 °C operating temperature
DIS-S330EX	1000BASE-EX, single-mode, 30 km, -40 to 85 °C operating temperature
DIS-S350LHX	1000BASE-LHX, single-mode, 50 km, -40 to 85 °C operating temperature
DIS-S380ZX	1000BASE-ZX, single-mode, 80 km, -40 to 85 °C operating temperature

## Appendix B - Cables and Connectors

### Ethernet Cable

When connecting the switch to another switch, a bridge or hub, a straight-through Cat5/5e/6a/7 cable is necessary. Please review these products for matching cable pin assignment.

The following diagrams and tables show the standard RJ-45 socket/connector and their pin assignments.

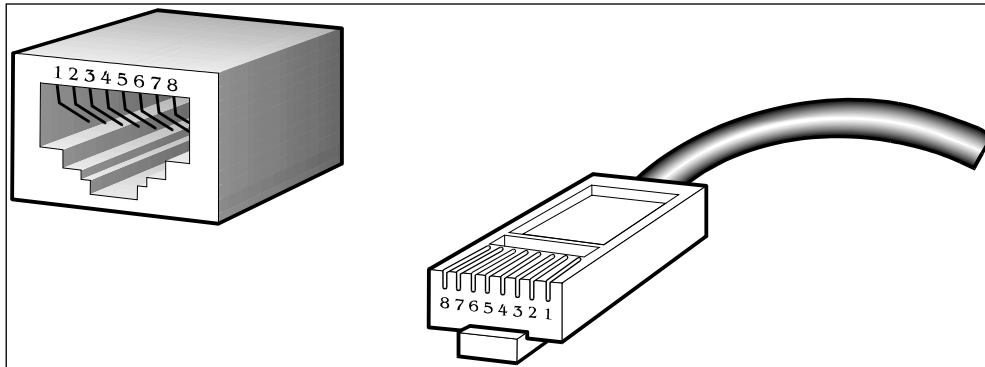


Figure B-1 Standard RJ45 socket and connector pin assignments

#### RJ-45 Pin Assignment

Contact	MDI-X Port	MDI-II Port
1	RD+ (receive)	TD+ (transmit)
2	RD- (receive)	TD- (transmit)
3	TD+ (transmit)	RD+ (receive)
4	1000BASE-T	1000BASE-T
5	1000BASE-T	1000BASE-T
6	TD- (transmit)	RD- (receive)
7	1000BASE-T	1000BASE-T
8	1000BASE-T	1000BASE-T

## Console Cable (RJ-45 to RS-232)

A console cable is used to connect to the console port of the switch to access the command line interface. The following diagram and table show the standard RJ-45 to RS-232 cable and pin assignments.

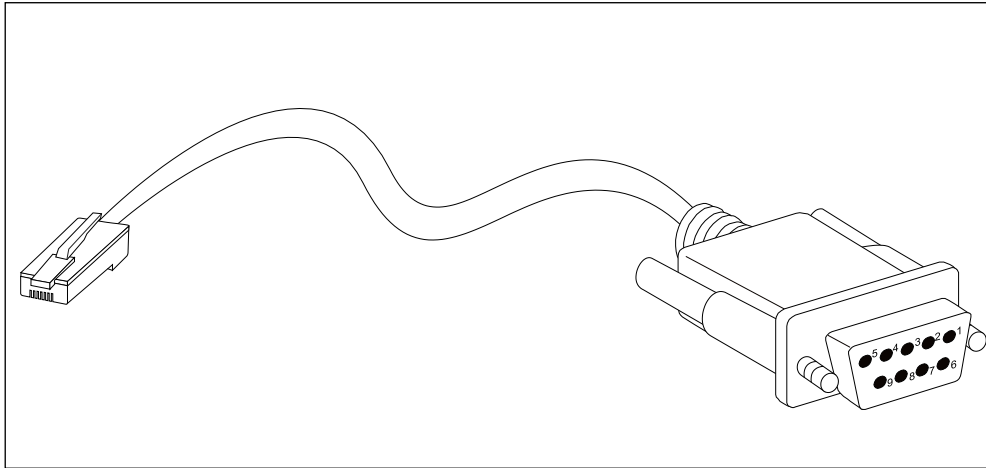


Figure B-2 Console to RJ45 Cable

Contact	Console (DB9/RS232)	RJ-45
1	Not Used	Not Used
2	RXD	Not Used
3	TXD	TXD
4	Not Used	GND
5	GND (shared)	GND
6	Not Used	RXD
7	Not Used	Not Used
8	Not Used	Not Used

# Technical Support

You can refer to the user manual or visit <http://support.dlink.com/> for more support.

## D-Link Managed Switch User Manual

This manual describes the general installation and how to connect the switch in various scenarios.

## Online Support

If there are any issues that are not in the user manual, please visit <http://support.dlink.com/> which will direct you to your appropriate local D-Link support website.

## Warranty Information

Visit <http://warranty.dlink.com/> to view the D-Link Limited Lifetime Warranty information.



# Regulatory Statements

## Federal Communication Commission Interference Statement

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

## Non-modification Statement

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

## Caution

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

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

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

## Japan Voluntary Control Council for Interference Statement

この装置は、クラス A 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。 VCCI-A

## Japan Voluntary Control Council for Interference Statement

This is a Class A product based on the standard of the Voluntary Control Council for Interference (VCCI). If this equipment is used in a domestic environment, radio interference may occur, in which case the user may be required to take corrective actions.

## 警告使用者:

此為甲類的資訊技術設備，在居住環境中使用時，可能會造成射頻擾動，在這種情況下，使用者會被要求採取某些適當的對策。

Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

## CE EMI Class A Warning

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

## SAFETY INSTRUCTIONS

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

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

## SICHERHEITSVORSCHRIFTEN

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

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

## CONSIGNES DE SÉCURITÉ

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

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

## INSTRUCCIONES DE SEGURIDAD

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

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

## **ISTRUZIONI PER LA SICUREZZA**

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

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

## **VEILIGHEIDSINFORMATIE**

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

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

## Disposing and Recycling Your Product

### ENGLISH

EN



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

### D-Link and the Environment

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

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

To learn more about our environmentally responsible products and packaging please visit [www.dlinkgreen.com](http://www.dlinkgreen.com).

### DEUTSCH

DE



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

### D-Link und die Umwelt

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

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

Wenn Sie mehr über unsere umweltgerechten Produkte und Verpackungen wissen möchten, finden Sie entsprechende Informationen im Internet unter [www.dlinkgreen.com](http://www.dlinkgreen.com).

### FRANÇAIS

FR



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

### D-Link et l'environnement

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

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

Pour en savoir plus sur les produits et emballages respectueux de l'environnement, veuillez consulter le [www.dlinkgreen.com](http://www.dlinkgreen.com).

## ESPAÑOL

ES



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

## D-Link y el medio ambiente

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

D-Link recomienda apagar o desenchufar los productos D-Link cuando no se estén utilizando. Al hacerlo, contribuirá a ahorrar energía y a reducir las emisiones de CO<sub>2</sub>.

Para obtener más información acerca de nuestros productos y embalajes ecológicos, visite el sitio [www.dlinkgreen.com](http://www.dlinkgreen.com).

## ITALIANO

IT



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

## D-Link e l'ambiente

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

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

Per ulteriori informazioni sui prodotti e sugli imballaggi D-Link a ridotto impatto ambientale, visitate il sito all'indirizzo [www.dlinkgreen.com](http://www.dlinkgreen.com).

## NEDERLANDS

NL



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

## D-Link en het milieu

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

D-Link raadt aan om steeds uw D-Link producten uit te schakelen of uit de stekker te halen wanneer u ze niet gebruikt. Door dit te doen bespaart u energie en beperkt u de CO<sub>2</sub>-emissies.

Breng een bezoek aan [www.dlinkgreen.com](http://www.dlinkgreen.com) voor meer informatie over onze milieuverantwoorde producten en verpakkingen.

## POLSKI

PL



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

## D-Link i środowisko

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

Firma D-Link zaleca, aby Państwo zawsze prawidłowo wyłączały z użytku swoje produkty D-Link, gdy nie są one wykorzystywane. Postępując w ten sposób pozwalają Państwo oszczędzać energię i zmniejszać emisję CO<sub>2</sub>.

Aby dowiedzieć się więcej na temat produktów i opakowań mających wpływ na środowisko prosimy zapoznać się ze stroną Internetową [www.dlinkgreen.com](http://www.dlinkgreen.com).

## ČESKY

CZ



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

## D-Link a životní prostředí

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

Společnost D-Link doporučuje, abyste své výrobky značky D-Link vypnuli nebo vytáhli ze zásuvky vždy, když je nepoužíváte. Pomůžete tak šetřit energii a snížit emise CO<sub>2</sub>.

Více informací o našich ekologických výrobcích a obalech najdete na adrese [www.dlinkgreen.com](http://www.dlinkgreen.com).

## MAGYAR

HU



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

## A D-Link és a környezet

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

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

Környezetbarát termékeinkről és csomagolásainkról további információkat a [www.dlinkgreen.com](http://www.dlinkgreen.com) weboldalon tudhat meg.

## NORSK

NO



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

## D-Link og miljøet

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

D-Link anbefaler at du alltid slår av eller frakobler D-Link-produkter når de ikke er i bruk. Ved å gjøre dette hjelper du å spare energi og å redusere CO<sub>2</sub>-utslipp.

For mer informasjon angående våre miljøansvarlige produkter og forpakninger kan du gå til [www.dlinkgreen.com](http://www.dlinkgreen.com).



## DANSK

DK

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

## D-Link og miljøet

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

D-Link anbefaler, at du altid slukker eller frakobler dine D-Link-produkter, når de ikke er i brug. Ved at gøre det bidrager du til at spare energi og reducere CO<sub>2</sub>-udledningerne.

Du kan finde flere oplysninger om vores miljømæssigt ansvarlige produkter og emballage på [www.dlinkgreen.com](http://www.dlinkgreen.com).

## SUOMI

FI



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

## D-Link ja ympäristö

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

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

Lue lisää ympäristöystävällisistä D-Link-tuotteista ja pakkauksistamme osoitteesta [www.dlinkgreen.com](http://www.dlinkgreen.com).

## SVENSKA

SE



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

## D-Link och miljön

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

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

För mer information om våra miljöansvariga produkter och förpackningar [www.dlinkgreen.com](http://www.dlinkgreen.com).

## PORTUGUÊS

PT



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

## A D-Link e o ambiente

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

A D-Link recomenda que desligue os seus produtos D-Link quando estes não se encontrarem em utilização. Com esta acção ajudará a poupar energia e reduzir as emissões de CO<sub>2</sub>.

Para saber mais sobre os nossos produtos e embalagens responsáveis a nível ambiental visite [www.dlinkgreen.com](http://www.dlinkgreen.com).