D-Link L3 Stackable Managed Switch DGS-3130-54TS Installation Guide

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D-Link

DGS-3130-54TS

48 10/100/1000Base-T ports + 2 10GBase-T ports + 4 10 GbE SFP+ ports
L3 Stackable Managed Switch

Quick Installation Guide

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Package Contents

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

- One DGS-3130-54TS switch
- One AC power cord
- One console cable (RJ-45 to RS-232)
- One rack mounting kit (two brackets and screws)
- Four rubber feet with adhesive backing
- One power cord retainer set
- One Quick Installation Guide

LEDs

LED	Status	Description
Power	Solid green	Device power on.
	Light off	Device power off.
Console	Solid green	Console on.
	Light off	Console off.
MGMT	Solid green	Link presents but not sending or receiving data.
	Blinking	Port is sending or receiving data.
	Light off	No link or port was administratively shutdown.
USB	Solid green	USB disk is connected.
	Blinking	Data is transmitting.
	Light off	No device is connected.
RPS	Solid green	RPS in using.
	Light off	RPS off.
Fan Error	Solid yellow	The fan has run time failure and is brought offline.
	Light off	All fans work normally.
Stack ID	Capable 1-8	The Box ID is assigned in the stack.
		When the box becomes stacking master, the box ID and «H» will be shown by turn. That is boxID -> H -> boxID -> H … off.
Link/Activity/Speed (per 10/100/1000Base-T port)	Solid green	When there is a secure 1000 Mbps connection at the port.
	Blinking green	When there is reception or transmission occuring at the port.
	Solid amber	When there is a secure 10/100 Mbps connection at the port.
	Blinking amber	When there is reception or transmission occuring at the port.
	Light off	No link.
Link/Activity/Speed (per 10GBase-T port)	Solid green	When there is a secure 10 Gbps connection at the port.
	Blinking green	When there is reception or transmission occuring at the port.

	Solid amber	When there is a secure 100/1000 Mbps connection at the port.
	Blinking amber	When there is reception or transmission occuring at the port.
	Light off	No link.
Link/Activity/Speed (per 10GBase-X SFP+ port)	Solid green	When there is a secure 10 Gbps connection at the port.
	Blinking green	When there is reception or transmission occuring at the port.
	Solid amber	When there is a secure 1000 Mbps connection at the port.
	Blinking amber	When there is reception or transmission occuring at the port.
	Light off	No link.

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 the electrical outlet that supplies power.
- Install the Switch in a fairly cool and dry place within the acceptable operating temperature and humidity ranges.
- Install the Switch in a site free from strong electromagnetic field generators such as motors, vibration, dust, and direct exposure to sunlight.

Installing the Switch without a Rack

This section is used to guide the user through installing the Switch in an area other than a switch rack. Attach the included rubber feet to the bottom of the Switch. Take note that there should be marked blocks on the bottom of the Switch to indicate where to attach the rubber feet. These markings are usually found in each corner on the bottom of the device. The rubber feet cushion the Switch, protecting the casing from scratches and preventing it from scratching other surfaces.

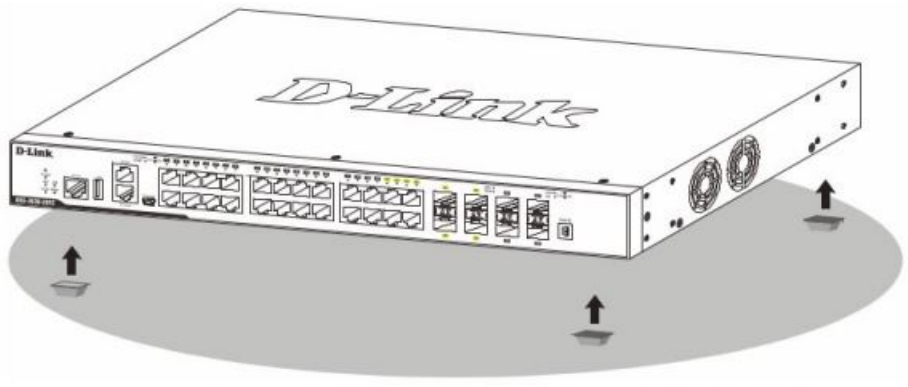

Figure 1 — Attaching rubber feet to the Switch

Install the Switch on a sturdy, level surface that can support the weight of the Switch. Do not place any heavy objects on the Switch. The power outlet should be within 1.82 meters (6 feet) of the Switch. Make sure that there is proper heat dissipation from and adequate ventilation around the Switch. Leave at least 10 cm (4 inches) of space at the front, sides, and rear of the Switch for ventilation.

Installing the Switch in a Standard 19” Rack

This section is used to guide the user through installing the Switch into a switch rack. The

Switch can be mounted in a standard 19″(1U) rack using the provided mounting brackets. Fasten the mounting brackets to the sides of the Switch using the screws provided.

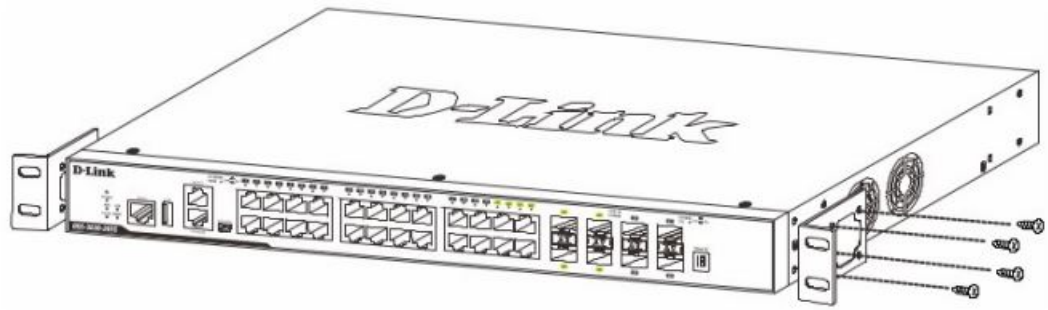

Figure 2 — Attaching rack-mount brackets to the Switch

Fasten the mounting brackets in any available open space in the rack using the screws provided.

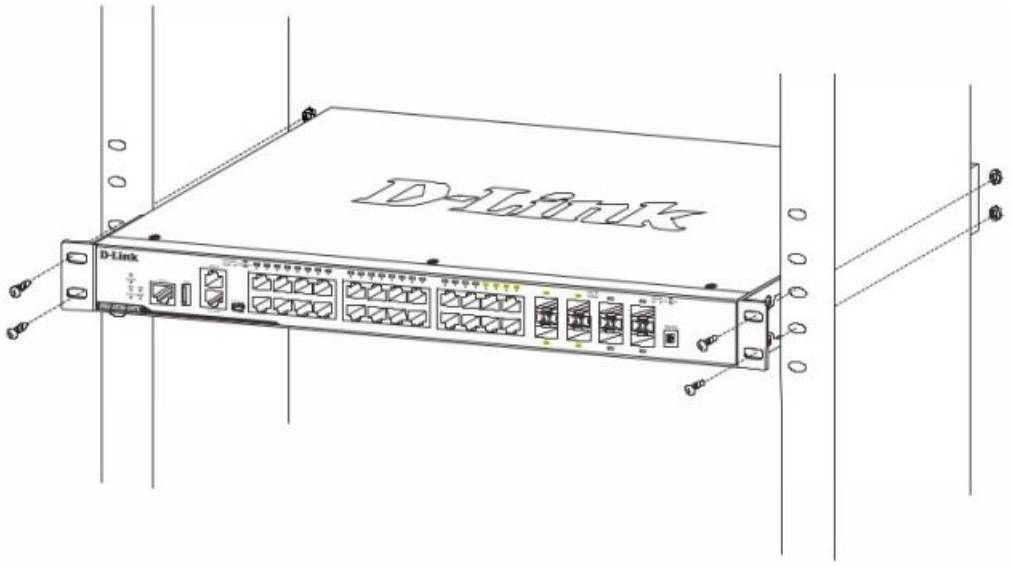

Figure 3 — Installing the Switch in a Rack

Installing Transceivers into the Transceiver Ports

The Switch is equipped with Small Form-factor Pluggable (SFP) and Enhanced 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.

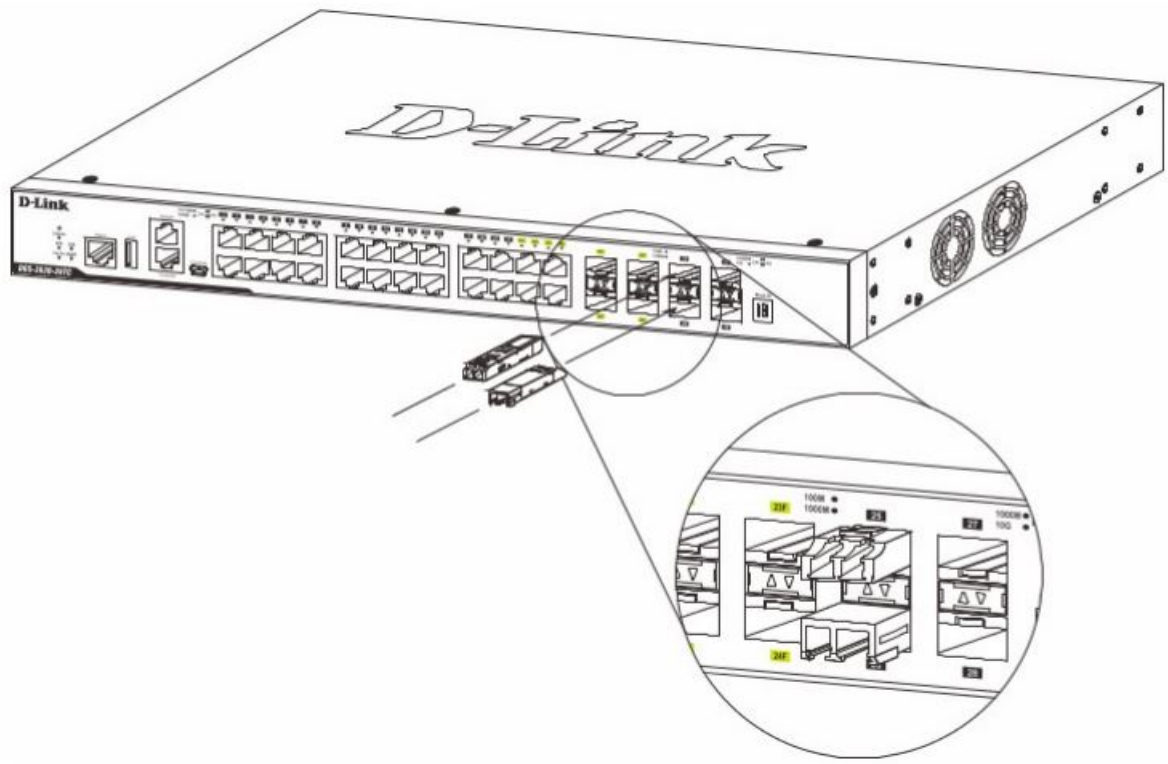

Figure 4 — Inserting transceivers into the transceiver ports

Power On (AC Power)

Plug one end of the AC power cord into the power socket of the Switch and the other end into the local power source outlet. After the system is powered on, the LED will blink green to indicate that the system is booting up.

Power Failure (AC Power)

In the event of a power failure, just as a precaution, unplug the power cord from the Switch. After the power returns, plug the power cord back into the power socket of the Switch.

Installing Power Cord Retainer

To prevent accidental removal of the AC power cord, it is recommended to install the power cord retainer together with the power cord. With the rough side facing down, insert the tie wrap into the hole below the power socket.

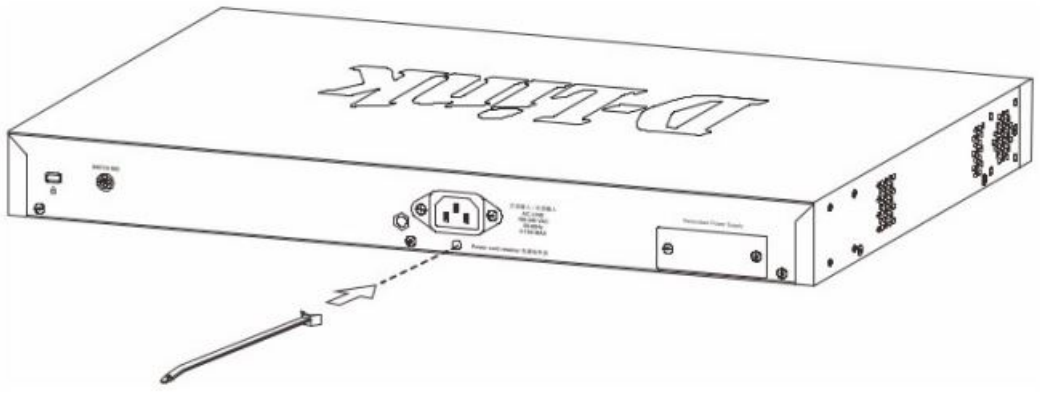

Figure 5 — Insert Tie Wrap into the Switch

Plug the AC power cord into the power socket of the Switch. 5

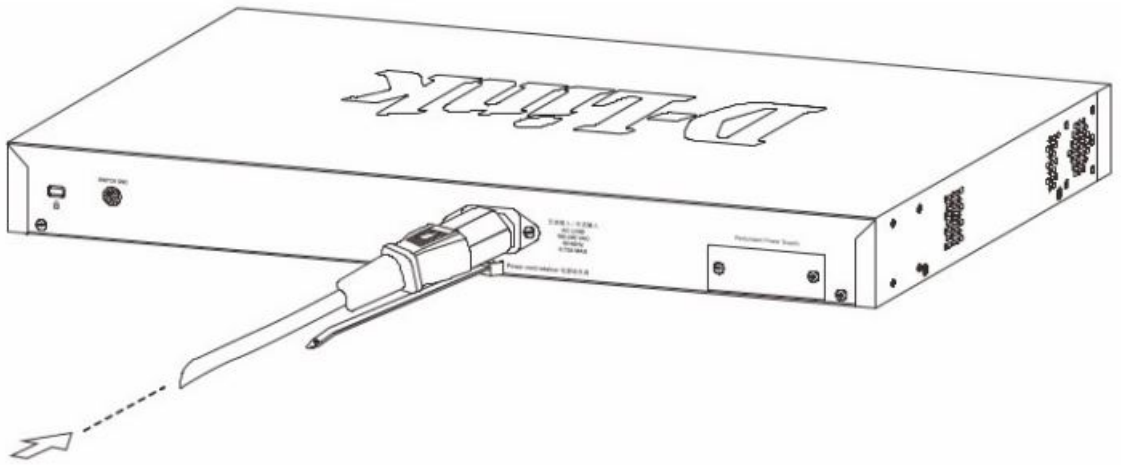

Figure 6 — Connect the power cord to the Switch

Slide the retainer through the tie wrap until the end of the cord.

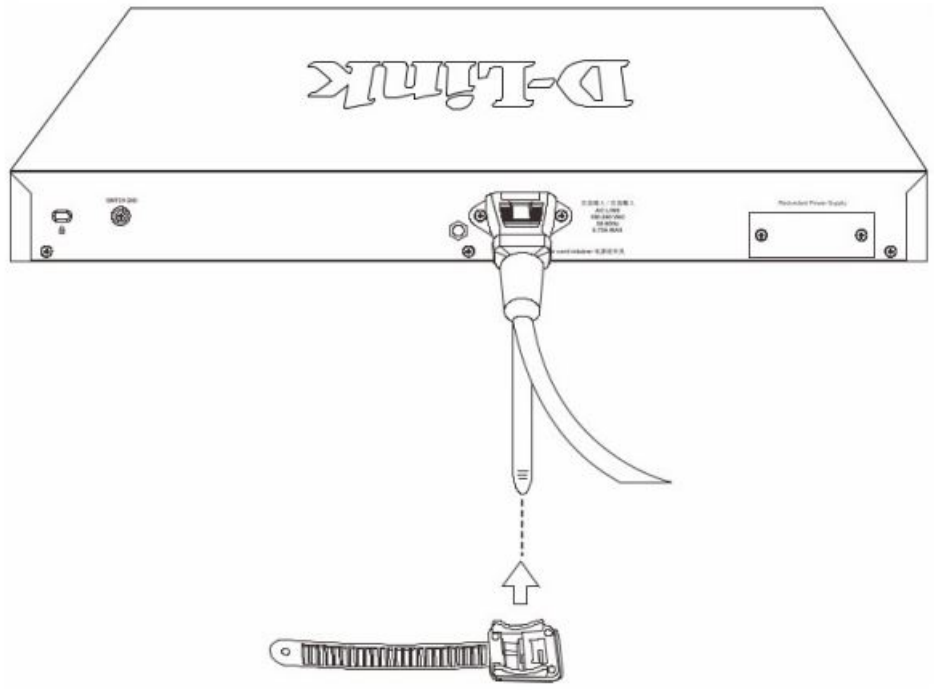

Figure 7 — Slide the Retainer through the Tie Wrap

Circle the tie of the retainer around the power cord and into the locker of the retainer.

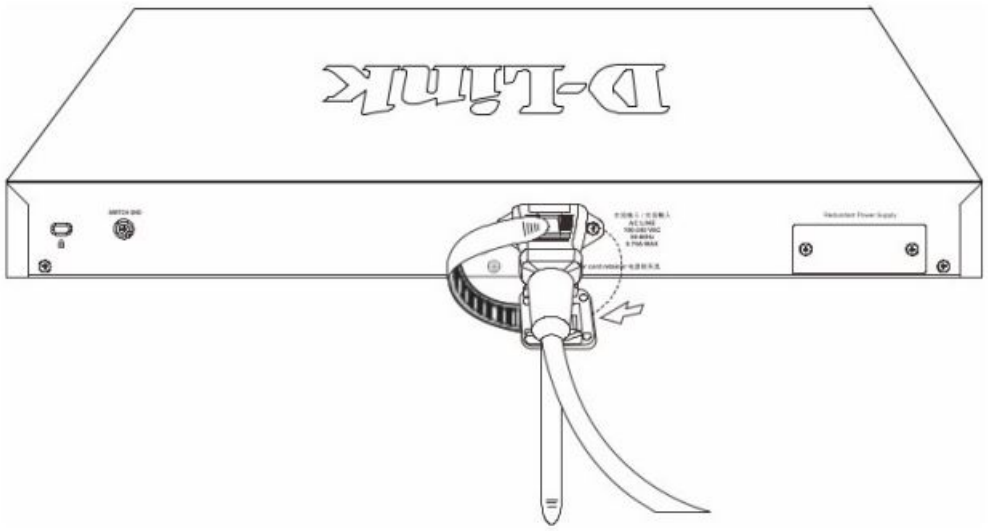

Figure 8 — Circle around the power cord

Fasten the tie of the retainer until the power cord is secured.

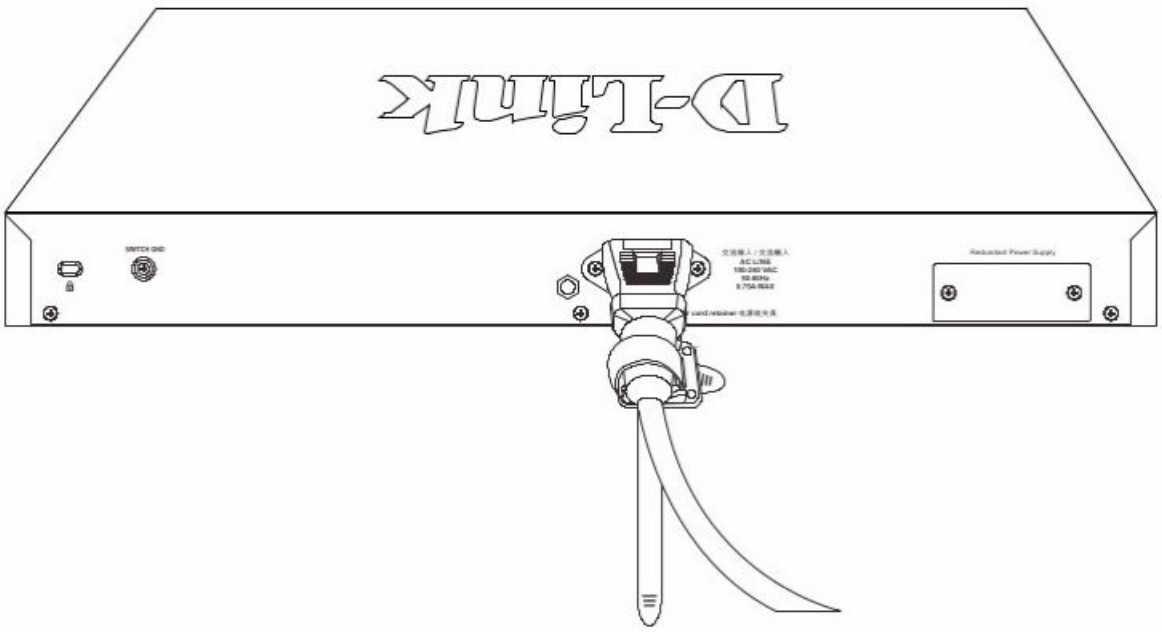

Figure 9 — Secure the power cord

Installing the Redundant Power Supply (RPS)

The Redundant Power Supply (RPS) is designed to conform to the wattage requirements of D-Link's Ethernet and Gigabit switches. It is an external RPS unit enclosed in solid metal case with sockets to connect AC or DC power sources on one end, and to connect to a switch's internal power supply on the other end. The RPS provides a low-cost, simple solution to the problem of an inadvertent failure of the internal power supply of an Ethernet switch, which can result in the shutdown of that switch, the devices attached to its ports, or an entire network.

CAUTION: Do not connect the RPS to AC power before the DC power cable is connected. This might damage the internal power supply.

CAUTION: Leave at least 15 cm (6 inches) of space at the rear of the Switch when an RPS is installed to prevent cable damage.

DPS-500A Redundant Power Supply

This RPS (DPS-500A) can be connected to the Switch's RPS port using a 14-pin DC power cable. A standard, three-pronged AC power cable connects the RPS to the main power source.

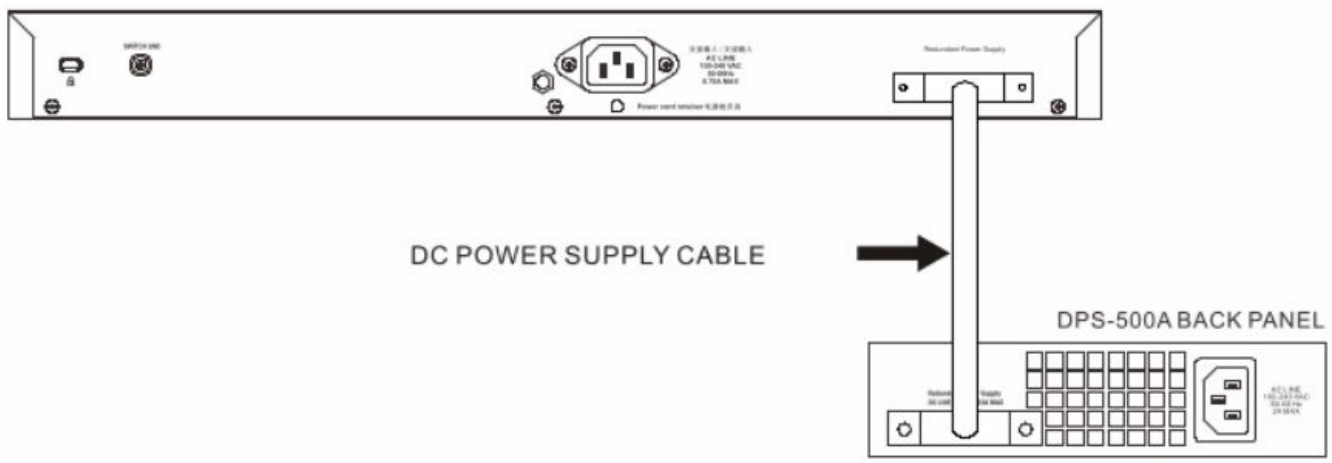

Figure 10 — Connecting a DGS-3130 Series Switch to the DPS-500A

Installing the RPS into a Rack-mount Chassis

DPS-800

The DPS-800 is a standard-size (1 standard unit in height) rack-mountable unit designed to hold up to two RPS units.

NOTE: This rack-mount chassis supports the following RPS units: DPS-500A and DPS-500DC.

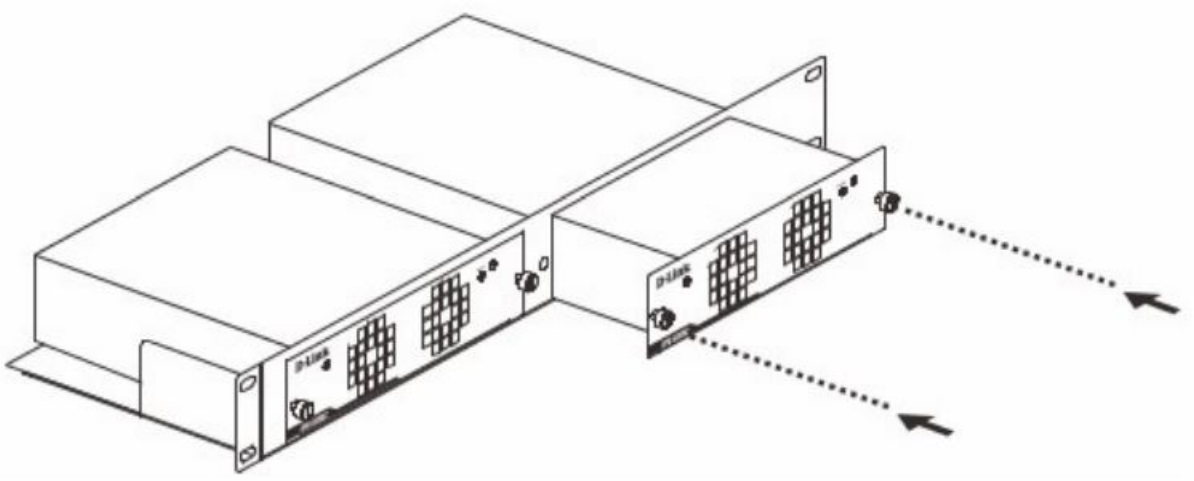

Figure 11 — Install the DPS-500A in the DPS-800

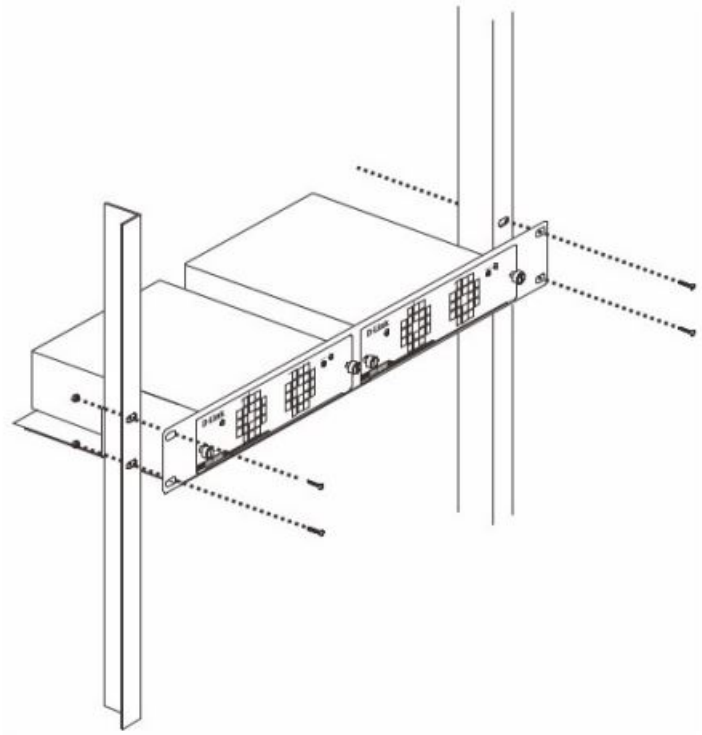

Figure 12 — Install the DPS-800 in an Equipment Rack

Management Options

This switch provides multiple access platforms that can be used to configure, manage, and monitor networking features available on this switch. Currently there are three management platforms available which are described below.

Command Line Interface (CLI)

This switch can be managed, out-of-band, by using the console port or the MGMT port on the rear panel of the Switch. Alternatively, the Switch can also be managed, in-band, by using a Telnet connection to any of the LAN ports on the Switch. The command line interface provides complete access to all switch management features.

SNMP-based Management
The Switch can be managed with an SNMP-compatible console program. The Switch supports SNMP v1, SNMPv2c and SNMPv3.

Web User Interface (Web UI)
The Web UI can be accessed from any computer running web browsing software from its MGMT port, or LAN port when it is connected to any of the RJ-45 or SFP/SFP+ ports. The Web UI on the Switch can also be accessed using an HTTPS (SSL) connection. This management interface is a more graphical representation of the features that can be viewed and configured on this Switch. Most of the features available through the CLI can be accessed through the Web UI. Web browsers like Microsoft's Internet Explorer, Mozilla Firefox, or Google Chrome can be used.

Connecting to the Console Port

The rear panel of the Switch provides an RJ-45 console port to connect a remote system for monitoring and configuring the Switch. To use the RJ-45 console port, the following equipment is needed:

- A terminal or a computer with both an RS-232 serial port and terminal emulation software
- A console cable with a male DB9 connector on one end and an RJ-45 connection on the other

To connect the RJ-45 console port on the Switch to the computer:

- Connect the male DB9 connector on the console cable (shipped with the Switch) to the RS-232 serial port on the computer running terminal emulation software then insert the RJ-45 connector into the RJ-45 console port on the rear of the Switch.

To configure the terminal emulation software as follows:

- Select the appropriate serial port (COM1 or COM2).
- Set the data rate to 115200 baud.
- Set the data format to 8 data bits, 1 stop bit, and no parity.
- Set flow control to none.

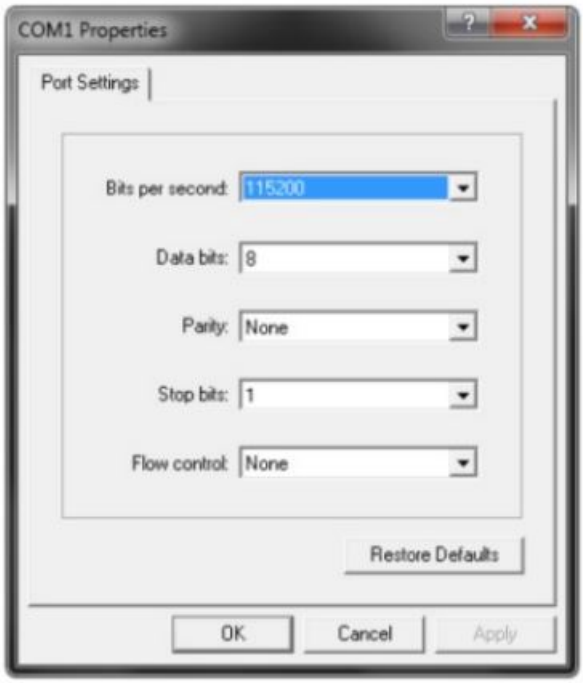

Figure 13 — COM Port Configuration

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

```
 Boot Procedure                                        V1.00.001
-------------------------------------------------------------------------------

 Power On Self Test ....................................  100 %

 MAC Address    : F0-7D-68-36-30-00
 H/W Version    : A1

 Please Wait, Loading 1.00.001 Runtime Image ..............  100 %
 UART init ................................................  100 %
 Starting runtime image
 Device Discovery .........................................  100 %
 Configuration init .......................................  100 %
```

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

Connecting to the Switch for the First Time

By default, there is no **Username** and **Password** configured in the account settings of this switch. 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.

```
                    DGS-3130-30TS Gigabit Ethernet Switch

                                Command Line Interface
                               Firmware: Build 1.00.001
                  Copyright(C) 2017 D-Link Corporation. All rights reserved.
Switch>
```

NOTE: The first user automatically gets Administrator level privileges. At least one Administrator-level user account must be created for the Switch.

N**OTE:** 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.

Connecting to the MGMT Port

The rear panel of the Switch features an Out-Of-Band (OOB) RJ-45 MGMT port which can be used to connect to a computer using a standard Ethernet cable. A web browser or Telnet client can be used to connect to the Switch using the MGMT port. To use the MGMT port, connect one end of an Ethernet cable to a computer and the other end to the Switch. The default IP address of the MGMT port is 192.168.0.1 and the subnet mask is 255.255.255.0. Make sure that the computer being used for the switch management has a non-conflicting IP address in the 192.168.0.0/24 network. To view the IP settings of the MGMT port, use the following command:

```
Switch#show ip interface mgmt 0

mgmt_ipif 0 is enabled, Link status is up
  IP address is 192.168.0.1/24
  Gateway is 0.0.0.0

Switch#
```

The IP settings or enabled status of the MGMT port can be changed through the console port. For example, to change the IP address of the MGMT port, use the following commands:

```
Switch#configure terminal
Switch(config)#interface mgmt 0
Switch(config-if)#ip address 192.168.1.1 255.255.255.0
Switch(config-if)#
```

Logging into the Web UI

Supported Web browsers:

- Microsoft Internet Explorer 7 or above
- Firefox
- Google Chrome
- Safari

To access the Web UI, open a standard web browser, enter the Switch's IP address into the address bar of the browser, and press the ENTER key. To access the Web UI from normal LAN ports, the default IP address is 10.90.90.90. When connecting to the Web UI of the Switch for the first time, leave the User Name and Password fields blank and click Login since there are no login user accounts created by default on this switch.

Figure 14 — Web UI Login Window

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Documents / Resources

	D-Link L3 Stackable Managed Switch DGS-3130-54TS [pdf] Installation Guide L3 Stackable Managed Switch, DGS-3130-54TS, D-Link

References

- D-Link Главная