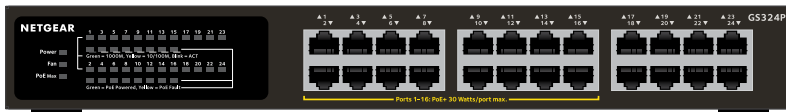**NETGEAR®**

BUSINESS

Installation Guide

24-Port Gigabit Ethernet PoE+ Unmanaged Essentials Switch (190W)
Model GS324P

Package contents

- Switch model GS324P
- Power cord (varies by region)
- Rack-mount kit with four rubber feet
- Installation guide

NOTE: We recommend that you use Category 5e (Cat 5e) cable or higher for Gigabit Ethernet connections.

1. Register the switch

Registration is required for warranty activation and support. For more information, visit netgear.com/about/warranty.

1. From a computer or mobile device that is connected to the Internet, visit my.netgear.com.
2. Log in to your NETGEAR account.

   NOTE: If you don't have a free NETGEAR account, you can create one.
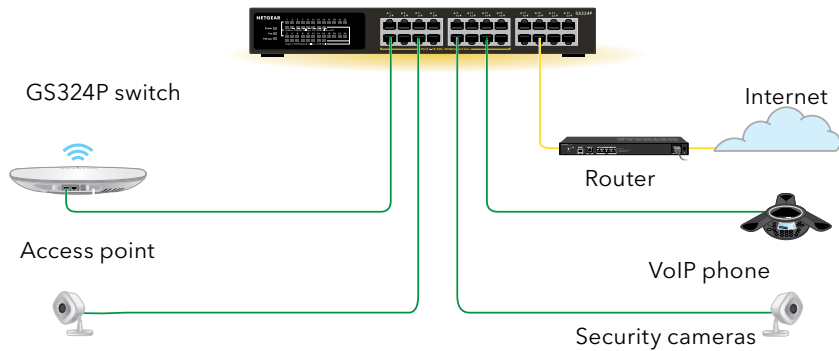
   The My Products page displays.
3. From the menu on the left, select Register a Product.
4. In the Serial Number field, type the serial number of your switch.

   The serial number is 13 digits long. It is printed on the switch label.
5. From the Date of Purchase menu, select the date that you purchased the switch.
6. Click the **REGISTER** button.

   Your switch is registered to your NETGEAR account.

   A confirmation email is sent to your NETGEAR account email address.

2. Connect the switch

GS324P switch

Internet

Router

Access point

VoIP phone

Security cameras

Sample connections

_____ Internet

_____ PoE

3. Check the LEDs

When you connect the power cord to the switch and plug it into an electrical outlet, the LEDs indicate the status.

The GS324P provides PoE+ or PoE power on ports 1–16 up to 30W to each port, with a PoE power budget of 190W across all active PoE ports.

LED	Description
Power	**On**. The switch is receiving power.
	Off The switch is not receiving power.
Ethernet 1–24	**On**.1000 Mbps link on this port.
	Blinking. 1000 Mbps activity on this port.
	On. 100 Mbps or 10 Mbps link on this port.
	Blinking. 100 Mbps or 10 Mbps activity on this port.
	Off. No link is detected on this port.
PoE GS324P 1–16	**On**. PoE is in use.
	On. PoE halted.
	Off. PoE is not in use on this port.
Fan	**On**. There is a fan error.
	Off. The fan is working correctly.
PoE Max	The PoE Max LED indicates the status of the switch's PoE budget:
	Off Sufficient. More than 7W of PoE power is available.
	On. Less than 7W of PoE power is available.
	Blinking. At least once during the previous two minutes, less than 7W of PoE power was available.

PoE considerations

The PoE and PoE+ power supplied by the switch is prioritized in this ascending port order:

• Ports 1–16 support PoE and PoE+ with a total power budget of 190W.

If the power requirements for the attached powered devices (PDs) exceed the total power budget of the switch, the PD on the highest-numbered port is disabled to make sure that the PDs connected to the higher-priority, lower-numbered ports are supported first.

Just because a PD is listed as an 802.3at PoE powered device does not necessarily mean that it requires the maximum power limit of the specification. Many PDs require less power, potentially allowing more PoE ports to be active simultaneously.

The following table shows the standard power ranges calculated with the maximum cable length of 328 feet (100 meters).

Device Class	Standard	Class Description	Power Reserved by the Device	Power Delivered to the Device
0	PoE and PoE+	Default power (full)	0.44W	0.44W–12.95W
1	PoE and PoE+	Very low power	4.0W	0.44W–3.84W
2	PoE and PoE+	Low power	7.0W	3.84W–6.49W
3	PoE and PoE+	Mid power	15.4W	6.49W–12.95W
4	PoE+ only	High power	30.0W	12.95W–25.5W

If a device receives insufficient PoE power from the switch, consider using a shorter cable.

PoE Troubleshooting

Here are some tips for correcting PoE problems that might occur:

- If the PoE Max LED is solid amber, disconnect one or more PoE devices to prevent PoE oversubscription.
- For each powered device (PD) that is connected to the switch, the associated PoE LED on the switch lights solid green. If the PoE LED lights solid amber, a PoE fault occurred and PoE halted because of one of the conditions listed in the following table.

PoE Fault Condition	Possible Solution
A PoE-related short circuit occurred on the port.	The problem is most likely with the attached PD. Check the condition of the PD, or restart the PD by disconnecting and reconnecting the PD.
The PoE power demand of the PD exceeded the maximum level that the switch permits. The maximum level is 15.4 for a PoE connection or 30W for a PoE+ connection	
The PoE current on the port exceeded the classification limit of the PD.	
The PoE voltage of the port is outside the range that the switch permits	Restart the switch to see if the condition resolves itself.

Mount the switch in a rack

We recommend that you use the brackets and screws that came with the switch.

1. Attach the mounting brackets to the side of the switch.
2. Insert the screws through each bracket and into the bracket mounting holes in the switch.
3. Tighten the screws with a No. 1 Phillips screwdriver to secure each bracket.
4. Align the mounting holes in the brackets with the holes in the rack, and insert two pan-head screws with nylon washers through each bracket and into the rack.

5. Tighten the screws with a No. 2 Phillips screwdriver to secure mounting brackets to the rack.

Technical specifications

Specification	Description
Network interfaces	24 Gigabit Ethernet RJ-45 ports that support 1G, 100 M, and 10 M, and 16 PoE/PoE+ ports.
Power input	100-240 VAC, 3A max
Max PoE budget	190W
Dimensions (W x D x H)	13 x 8.1 x 1.7 in. (330 x 206 x 43 mm)
Weight	5.38 lb (2.44 kg)
Operating temperature	32–113°F (0–45°C)
Operating humidity	10%–90% relative humidity, noncondensing
Compliance	FCC class A, CB, CE class A, VCCI class A, RCM class A, KC, BSMI

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See the regulatory compliance document before connecting the power supply.

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