

# Installation Guide

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## 48-Port Gigabit Ethernet Hi-Power 24-Port PoE+ Unmanaged Switch (380W)

Model GS748PP



## Package contents

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

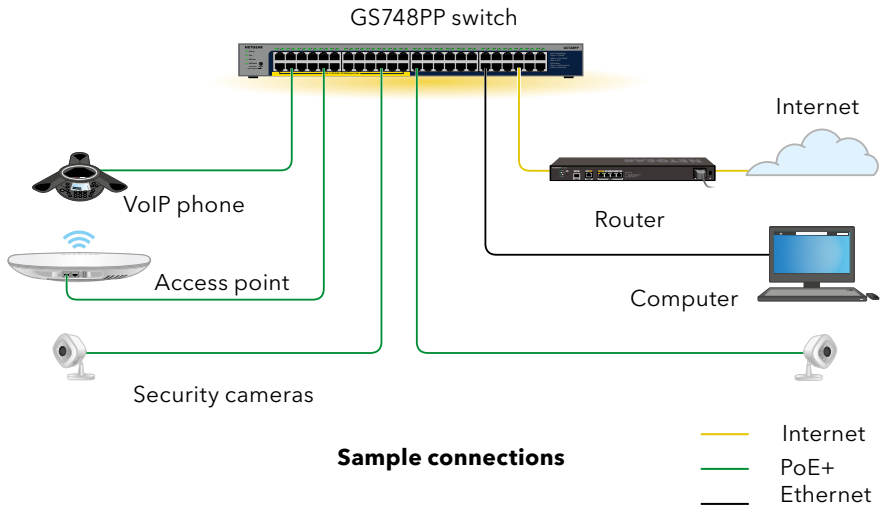
# 1. Register the switch

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Registration is required for warranty activation and support. For more information, visit [netgear.com/about/warranty](https://netgear.com/about/warranty).

1. From a computer or mobile device that is connected to the Internet, visit [my.netgear.com](https://my.netgear.com).
2. Log in to your NETGEAR account.  
**NOTE:** If you don't have a free NETGEAR account, you can create one.
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



1. (Optional) Mount the switch to the wall. For more information, see [Mount the switch in a rack](#).
2. Connect network devices to the ports on the switch using Cat5e (or better) Ethernet cables.
3. Connect any port on the switch to the network (uplink) using a Cat5e (or better) Ethernet cable.  
**NOTE:** In a small office or home office network, connect the switch to the LAN port of a router that, in turn, is connected to a modem.
4. Power on the switch.

This switch is designed for indoor use only. If you want to connect it to a device located outdoors, the outdoor device must be properly grounded and surge protected, and you must install an Ethernet surge protector inline between the switch and the outdoor device. Failure to do so can damage the switch.




















Before connecting this switch to outdoor cables or devices, see [kb.netgear.com/000057103](http://kb.netgear.com/000057103) for safety and warranty information.

### 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 switch provides PoE+ or PoE power on ports 1-24 and up to 30W to each port, with a PoE power budget of 380W across all active PoE ports.

LED	Description
Power	 <b>On:</b> The switch is receiving power.
	 <b>Off:</b> The switch is not receiving power.
Port LED	 <b>Green:</b> 1000 Mbps link on this port.
	 <b>Blinking:</b> 1000 Mbps activity on this port.
	 <b>Amber:</b> 100 Mbps or 10 Mbps link on this port.
	 <b>Blinking:</b> 100 Mbps or 10 Mbps activity on this port.
	 <b>Off:</b> No link is detected on this port.
Port LED in PoE mode	 <b>Green:</b> PoE is in use.
	 <b>Amber:</b> PoE is halted.
	 <b>Off:</b> PoE is not in use on this port.
Fan	 <b>On:</b> There is a fan error.
	 <b>Off:</b> The fan is working correctly.
PoE Max: The status of the switch's PoE budget	 <b>Off:</b> Sufficient (more than 7W of) PoE power is available on the switch.
	 <b>Solid amber:</b> Less than 7W of PoE power is available on the switch.
	 <b>Blinking:</b> At least once during the previous two minutes, less than 7W of PoE power was available.
LED Mode	 <b>Green:</b> Port is in Link/Act Mode.
	 <b>Amber:</b> Port is in PoE Mode.

# PoE considerations

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The PoE and PoE+ power supplied by the switch is prioritized in ascending port order: Ports 1-24 support PoE and PoE+ with a total power budget of 380W.

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.

A PD listed as an 802.3at PoE powered device does not necessarily require 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.

Do not use this device outdoors. The PoE source is intended for intra building connection only.

# PoE Troubleshooting

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

- If the PoE Max LED is solid yellow, 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 yellow, 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.	Restart the switch to see if the condition resolves itself.
The PoE voltage of the port is outside the range that the switch permits	

## Mount the switch in a rack

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To mount the switch in a rack, we recommend that you use the brackets and screws that are provided with the switch.

### **To mount the switch in a rack:**

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. 2 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

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Specification	Description
Network interfaces	48 Gigabit Ethernet RJ-45 ports that support 1 G, 10 M, and 10 M. 24 PoE/PoE+ ports.
Power input	100-240VAC, 8A max
Max PoE budget	380W
Dimensions (W x D x H)	17.3 x 12.2 x 1.7 in. (440 x 310 x 43 mm)
Weight	10.1 lb (4.56 kg)
Operating temperature	32-113°F (0-45°C)
Operating humidity	10%-90% relative humidity, noncondensing
Compliance	FCC class A, CB, CE class A

# Support and Community

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See the regulatory compliance document before connecting the power supply.

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Do not use this device outdoors.

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