NETGEAR GS316P 16 Port Gigabit Ethernet Unmanaged Installation Guide

NETGEAR®
BUSINESS

Installation Guide
16-port Gigabit Ethernet Unmanaged
High-Power PoE+ Switch with FlexPoE
Models GS316P and GS316PP

Contents

Package contents

- Switch
- Power cord (varies by region)
- Power Adapter (130W for GS316P/200W for GS316PP)
- Wall installation kit
- Rubber feet
- Mounting ties (for power adapter)
- Installation guide

Register the switch

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.

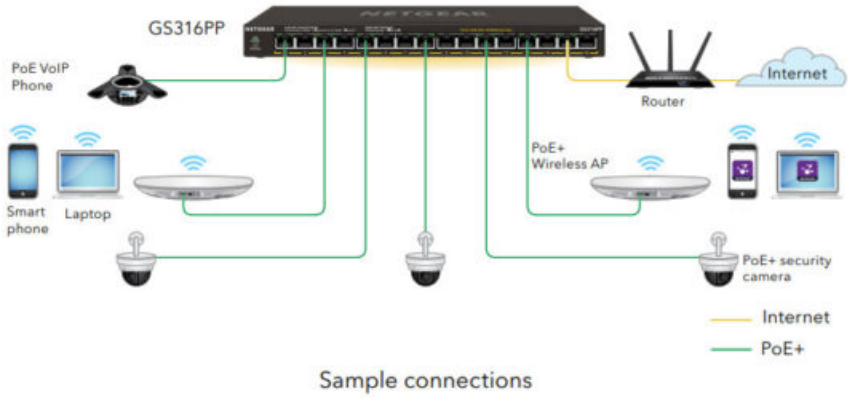
   The My Products page displays.
3. From the menu on the left, select Register a Product.
4. In the Serial Number field, type the serial number of your switch.

   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.

Connect the switch



Sample connections

1. Connect network devices to the ports on the switch.
2. Connect an RJ-45 port on the switch to your network.

   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 an Internet modem.
3. Power on the switch.

PoE considerations

The switch prioritizes the PoE power that it supplies in ascending port order (from port 1 to port 16). If the aggregate power requirements of all attached powered devices (PD) exceeds the power budget of the switch, the PD on the highestnumbered port is disabled to make sure that the PDs that are connected to the higher-priority, lower-numbered ports are supported first.
The following tables describe the power adapter models that are compatible with the GS316P and GS316PP switches and their PoE classes and switch allocations:
Note: The listed total power budget is the maximum power limit for the switch. Many PDs require less than maximum power, so the aggregate power requirements are lower than the maximum, allowing all sixteen PoE ports to be active simultaneously.

Power adapters and total power budgets for the GS316P and GS316PP:

Power adapter model	Power adapter	Total power budget
EPS90W	90W	76W
EPS130W	130W	115W
EPS200W	200W	183W

PoE classes and switch allocations:

Device class	Standard	Class description	Minimum power allocated to the powered device	Range of power delivered to the powered 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

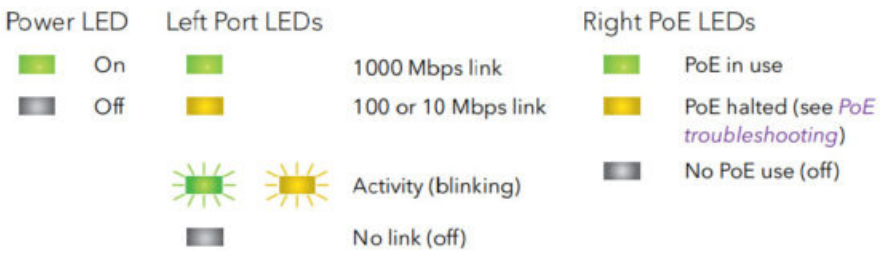
PoE troubleshooting

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

- Make sure that the PoE Max LED is off. If the PoE Max LED is solid yellow, disconnect one or more PoE devices to prevent PoE oversubscription. Start by disconnecting the device from the highest-numbered port.
- Make sure that the Ethernet cables are plugged in correctly. For each powered device (PD) that is connected to the switch, the corresponding right port LED on the switch lights solid green. If the right port LED lights solid yellow, a PoE fault occurred and PoE halted because of one of the conditions that are 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, which is 30.9W.	
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.

Check the PoE status



The switch can supply up to 30W PoE+ (IEEE 802.3at) to each port, with a maximum PoE power budget of 76W total with a 90W power adapter, a 115W total with a 130W power adapter and a 183W total with a 200W power adapter across all active PoE+ ports.

The PoE Max LED indicates the status of the PoE budget on the switch:

Solid yellow. Less than 7W of PoE power is available on the switch.

Blinking yellow. The PoE Max LED was lit solid in the previous two minutes.

Sufficient (more than 7W of) PoE power is available on the switch (the LED is off).

Cables and speeds

The following table describes the network cables that you can use for the switch connections and the speeds that these cables can support, up to 328 feet (100 meters).

Speed	Cable Type
100 Mbps	Category 5 (Cat 5) or higher
1 Gbps	Category 5e (Cat 5e) or higher

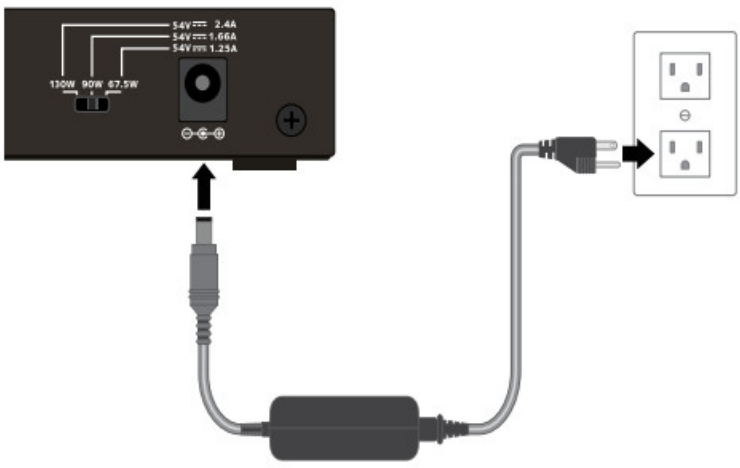
Attach the switch to a wall

To attach the switch to a wall, you need the wall-mount screws that are supplied with the switch.
To attach the switch to a wall:

1. Locate the two mount holes on the bottom panel of the switch.
2. Mark and drill two mounting holes in the wall where you want to mount the switch.
   The two mounting holes must be at a precise distance of 5.67 in. (144 mm) from each other.
3. Insert the supplied anchors into the wall and tighten the supplied screws with a No. 2 Phillips screwdriver.
   Note: Leave about 0.125 in. (4 mm) of each screw protruding from the wall so that you can insert the screws into the holes on the bottom panel.

Change the switch's PoE budget

You can move the slider on the back of the switch to increase or decrease the PoE budget. You can increase the PoE budget if you buy a higher wattage power supply. You also can move the slider to a PoE budget that is lower than the power supply wattage. This reduces your switch's power consumption. However, we recommend using the slider setting that matches your power supply.



1. Power down the switch and disconnect the power cord.

2. Move the slider to the setting that corresponds to the wattage of the new power adapter.
3. Connect the power cord and power on the switch.

Specifications

Specification	Description
Network interfaces	16 Gigabit Ethernet RJ-45 ports that support 1 Gbps, 100 Mbps, and 10 Mbps 16 PoE/PoE+ ports
Power adapter input	Power adapter varies by region.
Power adapter output	The switch supports three power adapters: 200W: 54V @ 3.7A 130W: 54V @ 2.4A 90W: 54V @ 1.66A
Max PoE budget	The maximum budget for each power adapter is as follows: 200W: 183W PoE 130W: 115W PoE 90W: 76W PoE
Dimensions (W x D x H)	11.26 x 4.02 x 1.06 in. (286 x 102 x 27 mm)
Weight	1.94 lb (0.88 kg)
Operating temperature	32–104°F (0–40°C)
Operating humidity	10%–90% relative humidity, noncondensing
Compliance	FCC class A, CB, CE class A, VCCI class A, RCM class A, KC, BSMI

Support and Community

Visit **netgear.com/support** to get your questions answered and access the latest downloads.
You can also check out our NETGEAR Community for helpful advice at **community.netgear.com**.

Regulatory and Legal

(If this product is sold in Canada, you can access this document in Canadian French at **https://www.netgear.com/support/download/**.)
For regulatory compliance information including the EU Declaration of Conformity, visit **https://www.netgear.com/about/regulatory/**.
See the regulatory compliance document before connecting the power supply.
For NETGEAR's Privacy Policy, visit **https://www.netgear.com/about/privacy-policy**.
By using this device, you are agreeing to NETGEAR's Terms and Conditions at **https://www.netgear.com/about/terms-and-conditions**. If you do not agree, return the device to your place of purchase within your return period.
Do not use this device outdoors. The PoE source is intended for intra building connection only.
Applicable to 6 GHz devices only: Only use the device indoors. The operation of 6 GHz devices is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet. Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

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Documents / Resources

	NETGEAR GS316P 16 Port Gigabit Ethernet Unmanaged [pdf] Installation Guide GS316P, GS316PP, GS316P 16 Port Gigabit Ethernet Unmanaged, GS316P, 16 Port Gigabit Ethernet Unmanaged, Port Gigabit Ethernet Unmanaged, Gigabit Ethernet Unmanaged, Ethernet Unmanaged, Unmanaged

References

- English - NETGEAR Communities
- NETGEAR - Common Account Management
- NETGEAR Support | NETGEAR
- NETGEAR Terms and Conditions | NETGEAR
- Download Center | Downloads and Documentation | NETGEAR
- User Manual