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BUSINESS
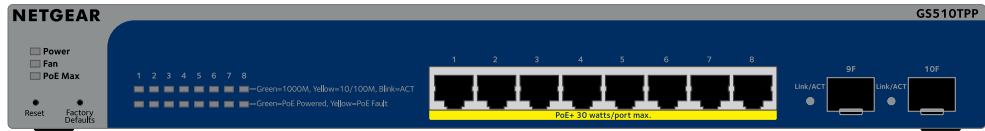
Installation Guide

8-Port Gigabit Ethernet High-Power PoE+ Smart Switch with 2 Dedicated SFP Ports (190W)
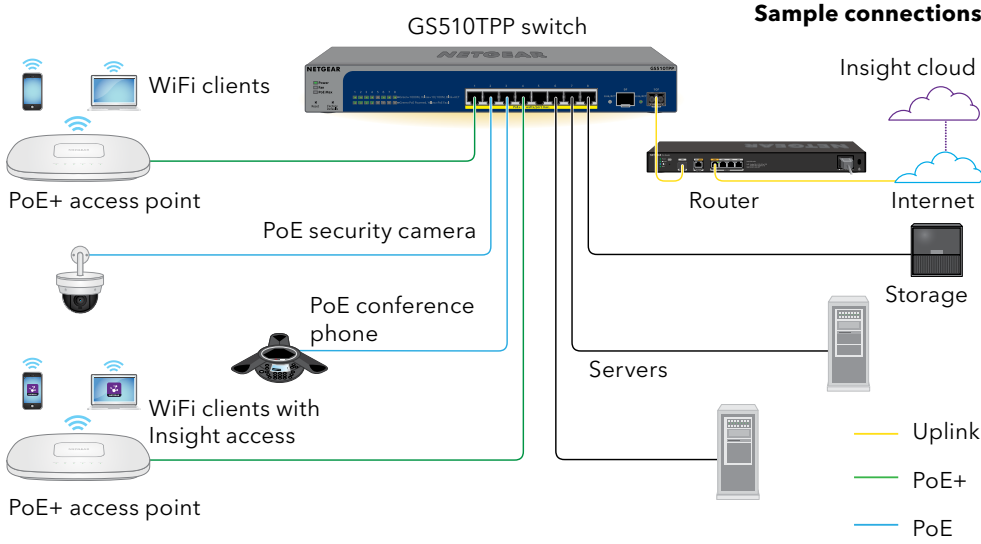GS510TPP

Package contents

- Switch model GS510TPP
- Power cord (varies by region)
- Rubber footpads for tabletop installation
- Rack-mount kit for rack installation
- Installation guide

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Step 1. Connect the switch

1. Connect devices to the RJ-45 Gigabit ports on the switch front panel.

   Use Category 5e (Cat 5e) or higher rated Ethernet cables terminated with RJ-45 connectors to make connections.

2. Connect one port on the switch to a network that includes a DHCP server such as a router.

   NOTE: In a small office or home office network, connect the switch to the LAN port of a router that is connected to a modem, or to a gateway.

   To use an SFP port, you must insert an SFP transceiver module, which you can purchase from NETGEAR

3. Power on the switch and wait three minutes.

   If you connected the switch to a network with a DHCP server, the switch is automatically assigned a new IP address. (The default switch IP address is 192.168.0.239.)

> 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.
>
> ⚠ **WARNING:** Before connecting this switch to outdoor cables or devices, see https://kb.netgear.com/000057103 for safety and warranty information.

Step 2: Check the PoE status

The switch can supply up to 30W PoE+ (IEEE 802.3at) to each PoE port. The maximum PoE power budget across all active PoE+ ports is 190W.

The PoE Max LED at the left side of the front panel indicates the status of the PoE budget on the switch:

- **Off**: Sufficient. More than 7W of PoE power is available.
- **Solid yellow**: Less than 7W of PoE power is available.
- **Blinking yellow**: At least once during the previous two minutes, less than 7W of PoE power was available.

For information about the system LEDs, port LEDs, and installation, see the hardware installation guide, which you can download by visiting www.netgear.com/support/download and entering your model number.

Step 3: Discover the switch in your network

Use one of two options to discover and manage the switch: Add the switch to a NETGEAR Insight managed network, or set it up as a locally managed standalone switch. Follow the procedure for your preferred network setup.

Insight setup	Option A: Use the NETGEAR Insight app
	Insight subscribers can use the Insight app for onsite discovery.
Standalone setup	Option B: Use the NETGEAR Switch Discovery Tool
	Use the NETGEAR Switch Discovery Tool.

Option A: Use the NETGEAR Insight app

This procedure assumes that you are already a NETGEAR Insight subscriber and want to add the switch to an Insight managed network behind a router.

You can use the Insight app on a mobile device and scan the bar code to add the switch to Insight, or use the Insight Cloud Portal to manually enter the switch's serial number and MAC address. This procedure describes how to use the Insight app.

After you discover and add the switch to the Netgear Insight app, we recommend that you connect a computer directly to the switch or to the network on which you installed the switch to complete set up. If you connect an access point to the switch, you can also use a tablet to connect to the switch.

⚠ **CAUTION:** If you add the switch to Insight before connecting it to power for the first time, wait 10 minutes to allow the default login credentials to be replaced by the Insight network location credentials.

A1: Use the NETGEAR Insight app to discover and register the switch

1. If you did not yet install the Insight app, visit the app store on your mobile device, search for NETGEAR Insight, and download the Insight app.

2. Open the Insight app, enter the email address and password for your NETGEAR account, and tap **LOG IN**.

3. Use one of the following methods to add and discover the switch:

   - **Method 1: Your switch and mobile device are connected to the same network**
     Your switch and its IP address display in the Devices list. Do the following:

     a. Select the switch or tap **Unclaimed**.

     b. On the next screen, tap **ADD DEVICE**.

     If the switch does not display in the devices list, tap **+** in the upper-right corner, and tap **Scan Network**. If the switch still does not display, use Method 2.

   - **Method 2: Your switch and mobile device are not connected to the same network**
     Your switch and its IP address do not display in the devices list. Do the following:

     a. Tap **+** in the upper-right corner.

     b. Either use the camera on your mobile device to scan the bar code, or type in the serial number and MAC address.

4. Follow the onscreen prompts to finish registering the switch.

5. If you want to manage the switch with NETGEAR Insight, do the following:

   At the **NETGEAR Insight Cloud Portal or Insight app** prompt, tap **Manage with Insight**. Then, continue with A2: Change the switch management mode to NETGEAR Insight.

A2: Change the switch management mode to NETGEAR Insight

By default, the management mode of the switch is set to Directly Connect to Web Browser Interface, which lets you manage the switch from its device user interface (UI). To manage the switch remotely from the cloud with the NETGEAR Insight Cloud Portal or Insight app, you must change the management mode in the device UI.

1. Open a web browser from a computer or tablet connected to the same network as your switch.

   You can use a wired or WiFi connection.

2. In the address field of your web browser, type the IP address of the switch.

   The switch IP address displays in the Devices list of the Insight app (see A1: Use the NETGEAR Insight app to discover and register the switch).

   Because you already registered the switch with NETGEAR, the device UI login page displays.

3. Enter the default device admin password, which is **password**, and click the **Login** button.

   If you already added the switch to an Insight network location, enter the Insight network password for the network location.

4. If the Change Default Password page displays, set and confirm a new device admin password, click the **Apply** button, and log in again using your new password

   The System Information page displays.

5. Select the **NETGEAR Insight Mobile App and Insight Cloud Portal** radio button.

6. In the pop-up window, click the **OK** button.

7. Click the **Apply** button.

8. In the pop-up window, click the **OK** button.

   Your settings are saved.

You now must manage the switch using the NETGEAR Insight Cloud Portal or Insight app. We recommend that you use the Insight Cloud Portal.

> ⊘ **NOTE:** You can still log in to the device UI and access a limited menu, but instead of the device admin password, you now must enter the Insight network password for the Insight network location to which you added the switch.

Option B: Use the NETGEAR Switch Discovery Tool

You can use the NETGEAR Switch Discovery Tool on a computer that is connected to the same network as the switch to discover the switch IP address in your network. To download this tool, visit netgear.com/support/product/netgear-switch-discovery-tool.aspx.

After discovering the IP address of your switch, continue with Standalone setup: Log in to the switch device UI.

Standalone setup: Log in to the switch device UI

You can use the switch as a plug-and-play device or you can change the settings by logging in to the device user interface (UI).

1. Open a web browser from a computer or tablet connected to the same network as your switch. You can use a wired or WiFi connection.

2. In the address field of your web browser, type the switch IP address.

   To discover the IP address of the switch, see Option B: Use the NETGEAR Switch Discovery Tool.

   You can also use the NETGEAR Insight app the discover the switch IP address only (see A1: Use the NETGEAR Insight app to discover and register the switch).

   The login page displays

3. Enter the default device admin password, which is **password**, and click the **Login** button.

   If you already added the switch to an Insight network location, enter the Insight network password for the network location.

4. If the Change Default Password page displays, set and confirm a new device admin password, click the **Apply** button, and log in again using your new password.

   The System Information page displays. You can now manage the switch.

   For more information about managing the switch from the device UI, see the user manual, which you can download by visiting www.netgear.com/support/download and entering your model number.

   If you did not yet register your switch, we recommend that you visit my.NETGEAR.com, and register your switch.

PoE considerations

The PoE and PoE+ power supplied by the switch is prioritized in ascending port order (from port 1 to port 8), with a total power budget of 190W for the switch.

The following table shows the standard power ranges without overrides applied, calculated with the maximum cable length of 328 feet (100 meters). If a device receives insufficient PoE power from the switch, consider using a shorter cable.

Device class	Compatible PoE standard	Class description	Maximum power supplied by the switch	Power delivered to the device
0	PoE and PoE+	Default power (full)	15.4W	0.44W–13.0W
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–13.0W
4	PoE and PoE+	High power	30.0W	13.0W–25.5W

PoE troubleshooting

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 PoE power demand of the PD exceeded the maximum level that the switch permits. The maximum level is 15.4W for a PoE connection and 30W for a PoE+ connection.	The problem is most likely with the attached PD. Check the condition of the PD, restart the PD by disconnecting and reconnecting the PD, or try a shorter cable.
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 condition of the PD, restart the PD by disconnecting and reconnecting the PD, or try a shorter cable.

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You can also check out our NETGEAR Community for helpful advice at community.netgear.com.

Regulatory and Legal

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For regulatory compliance information including the EU Declaration of Conformity, visit netgear.com/about/regulatory/. See the regulatory compliance document before connecting the power supply.

For NETGEAR's Privacy Policy, visit netgear.com/about/privacy-policy.

By using this device, you are agreeing to NETGEAR's Terms and Conditions at 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.

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.