

# **NETGEAR MS510TXM Smart Managed Pro Switch Installation Guide**

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# **NETGEAR MS510TXM Smart Managed Pro Switch**



8-Port Multi-Gigabit/10G Ethernet Smart Managed Pro Switch with 2 SFP+ Ports MS510TXM 8-Port Multi-Gigabit/10G Ethernet Ultra60 PoE++ Smart Managed Pro Switch with 2 SFP+ Ports MS510TXUP

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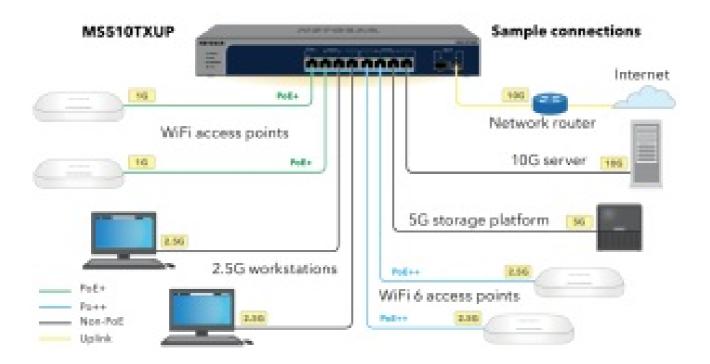
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## **Package contents**

- NETGEAR MS510TXM or MS510TXUP Switch
- Detachable power cord (varies by region)
- Rubber footpads for tabletop installation
- · Rack-mount kit
- Installation guide

**Note:** For information about installation, see the hardware installation guide, which you can download by visiting <a href="https://www.netgear.com/support/">www.netgear.com/support/</a>.

## Connect the switch



This switch is designed for indoor use only. If you want to connect 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 <a href="https://kb.netgear.com/000057103">https://kb.netgear.com/000057103</a> for safety and warranty information.

- 1. Connect devices to the RJ-45 ports (18) on the switch front panel.
  - Use Category 5e (Cat 5e) Ethernet cables terminated with RJ-45 connectors to make 1G, 2.5G, and 5Gbps connections. For 10G connections, use Cat 6a or higher rated Ethernet cables terminated with RJ-45 connectors.
- 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.

To use the SFP+ port, you must insert a SFP+ transceiver module, which you can purchase from NETGEAR.

3. Power on the switch and wait two 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.)

## Check the PoE++ status (MS510TXUP only)

Model MS510TXUP can supply PoE++ power on ports 1-8, with up to 60W PoE++ (IEEE 802.3bt) to each port, and a PoE power budget of 295W across all active PoE++ ports.

The PoE Max LED 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.

## Discover the switch and activate the warranty with the NETGEAR Insight app

You can use the NETGEAR Insight app to discover the switch in your network and register the switch and activate your warranty. Note: If the switch is connected to a WiFi router or access point and to the Internet and you connect your smartphone to the same WiFi network as the switch, you can use the NETGEAR Insight app to both discover the IP address of the switch in your network and register the switch to activate your warranty.







- 1. On your mobile device, visit the app store, search for NETGEAR Insight, and download the latest version of the app.
- 2. Open the NETGEAR Insight app.
- 3. If you do not have a NETGEAR account, tap Create NETGEAR Account and follow the onscreen instructions.
- 4. Enter the email address and password for your account and tap LOG IN.

**Note:** If your switch and smartphone are connected to the same network, after you log in to your account, the IP address of the switch displays in the devices list. Then, in the devices list, select the switch, tap the **ADD DEVICE** button, and continue with Step 7. However, if the switch does not display in the devices list, tap + in the upperright corner, and either tap Scan Network or continue with Step 6.

- 5. Tap + in the upper right corner.
- 6. Either use the camera on your smartphone to scan the bar code or QR code, or type in the serial number. Then, follow the onscreen instructions.
- 7. Follow the onscreen instructions to complete the registration of the switch.
  - 8. Create or select a network location to add the switch to.
  - 9. To manage and configure the switch from the NETGEAR Insight app or Insight Cloud Portal, see Change the management mode to Insight.

## Log in to the device UI to configure the switch

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, enter the IP address of the switch. To discover the IP address of the switch, use the NETGEAR Insight app or another discovery method (see Other discovery and configuration methods).
  - If the switch is connected to the Internet and you did not yet register the switch, the Register to activate your warranty page displays. If you already registered the switch, the Device UI login page displays, and you can continue with Step 4.
- 3. If you did not yet register the switch, click one of the following buttons:
  - Register Your Device. This option displays if the switch is connected to the Internet, allowing you to register the switch to activate the full warranty. For information about the many benefits of registering your switch, visit <a href="https://www.netgear.com/why-register/">www.netgear.com/why-register/</a>.
  - Enter Registration Key. If you obtained a registration key, for example by registering your switch on the MyNETGEAR.com site, you can enter the key and then log in to the device UI.
  - Skip Registration and Access the UI. Registration is not mandatory, but we highly recommend it. If you do not register the switch within 30 days of purchase, your warranty entitlement might be affected.
- 4. If prompted, enter the default device admin password, which is **password**, and click the **Go** button.
- 5. If the Change Default Password page displays, specify and confirm a new device admin password, click the **Submit** button, and log in again using your new password. The System Information page displays. You can now configure the switch.

For more information about configuring the switch from the device UI, see the user manual, which you can download by visiting <a href="https://www.netgear.com/support/">www.netgear.com/support/</a>.

Change the management mode to Insight By default, the management mode is set to Directly Connect to Web Browser Interface, which lets you configure the switch from the device UI. You can change the management mode so that you can manage the switch remotely from the cloud with the NETGEAR Insight app or Insight Cloud Portal.

- 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, enter the IP address of the switch. The Device UI login page displays. If you did not yet register the switch, the Register to activate your warranty page displays. For more information, see Log in to the device UI to configure the switch.
- 3. Enter your device admin password. This is the password that you specified the first time that you logged in.
- 4. Click the **Go** button. 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.
- In the pop-up window, click the **OK** button. Your settings are saved.

The first time that you change the management mode to Insight, the switch is reset to its factory default settings, and you must configure the switch using the NETGEAR Insight app or Insight Cloud Portal.

#### Other discovery and configuration methods

The NETGEAR Switch Discovery Tool and the Smart Control Center Utility let you discover the IP address in your network and configure the switch.

- NETGEAR Switch Discovery Tool. You can use a Mac or Windows-based computer on the same network as
  the switch. To download this tool, visit <u>www.netgear.com/support/product/netgear-switch-discovery-</u>
  tool.aspx.
- Smart Control Center Utility. You can use a Windows-based computer on the same network as the switch. To
  download this utility, visit <u>www.netgear.com/support/product/SCC</u>.

# PoE considerations (for MS510TXUP only)

PoE power supplied by the switch is prioritized in ascending port order (from port 1 to port 8), with a total power budget of 295W across all active PoE++ ports. This 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 cla | Compatible PoE standa rd | Class description    | Maximum power su pplied by the switch | Power delivered to the device |
|------------|--------------------------|----------------------|---------------------------------------|-------------------------------|
| 0          | PoE, PoE+, and PoE++     | Default power (full) | 15.4W                                 | 0.44W-13.0W                   |
| 1          | PoE, PoE+, and PoE++     | Very low power       | 4.0W                                  | 0.44W-3.84W                   |
| 2          | PoE, PoE+, and PoE++     | Low power            | 7.0W                                  | 3.84W-6.49W                   |
| 3          | PoE, PoE+, and PoE++     | Mid power            | 15.4W                                 | 6.49W-13.0W                   |
| 4          | PoE+ and PoE++           | High power           | 30.0W                                 | 13.0W–25.5W                   |
| 5          | PoE++                    | Ultra high power     | 45.0W                                 | 25.5W-40.0W                   |
| 6-8        | PoE++                    | Ultra high power     | 60.0W                                 | 40.0W–51.0W                   |

## PoE troubleshooting (for MS510TXUP only)

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, restart the PD by discon necting and reconnecting the PD, or try a shorter cable            |  |
| 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, 30W for a PoE+ connection, and 60W 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. Check the condition of the PD, restart the PD by disconnecting and reconnecting the PD, or try a shorter cable. |  |

# **Support and Community**

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

(If this product is sold in Canada, you can access this document in Canadian French at <a href="https://www.netgear.com/support/download/">https://www.netgear.com/support/download/</a>.)

For regulatory compliance information including the EU Declaration of Conformity, visit <a href="https://www.netgear.com/about/regulatory/">https://www.netgear.com/about/regulatory/</a>.

See the regulatory compliance document before connecting the power supply.

For NETGEAR's Privacy Policy, visit <a href="https://www.netgear.com/about/privacy-policy">https://www.netgear.com/about/privacy-policy</a>.

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

<u>https://www.netgear.com/about/terms-and-conditions</u>. 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.

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## **Documents / Resources**



NETGEAR MS510TXM Smart Managed Pro Switch [pdf] Installation Guide MS510TXM, MS510TXUP, Smart Managed Pro Switch

## References

• N English - NETGEAR Communities

- ONETGEAR Common Account Management
- N NETGEAR Support | NETGEAR
- N NETGEAR Support | NETGEAR
- Switch Discovery Protocol | Product | Support | NETGEAR
- Smart Control Center (SCC) | Product | Support | NETGEAR
- Why Register | Why Register | Services | Business | NETGEAR
- N Do I need to use a surge protector with my NETGEAR Business device? | Answer | NETGEAR Support
- N NETGEAR Privacy Policy | NETGEAR
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