MS225 Series Installation Guide

About this Guide

This guide provides instruction on how to install and configure your MS225 series switch. This guide also provides mounting instructions and limited troubleshooting procedures. For more switch installation guides, refer to the switch installation guides section on our documentation website.

Model number	Description
MS225-24	Stackable Layer-2 24-port gigabit Ethernet switch with 4 SFP+ interfaces
MS225-24P	Stackable Layer-2 24-port gigabit Ethernet 370W PoE switch with 4 SFP+ interfaces
MS225-48	Stackable Layer-2 48-port gigabit Ethernet switch with 4 SFP+ interfaces
MS225-48LP	Stackable Layer-2 48-port gigabit Ethernet 370W PoE switch with 4 SFP+ interfaces
MS225-48FP	Stackable Layer-2 48-port gigabit Ethernet 740W PoE switch with 4 SFP+ interfaces

Product Overview

Physical Specifications

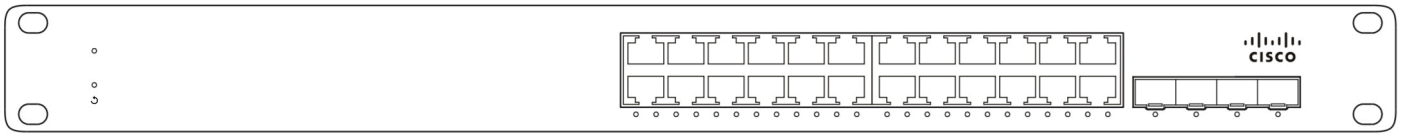
	MS225-24	MS225-24P	MS225-48	MS225-48LP
1GbE RJ45	24	24	48	48
10GbE SFP+	4	4	4	4
Hardware Stack Port	2	2	2	2
Dedicated Mgmt Interface	1	1	1	1
PoE/PoE+ Capable	-	Yes, 370W	-	Yes, 370W

Power Supply	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal
Redundant Power Supply	External RPS* (optional)	External RPS* (optional)	External RPS* (optional)	External RPS* (
Fan Operation	Fanless Operation	Fixed Internal	Fanless Operation	Fixed Internal
Power Input	100 - 240 VAC, 47-63 Hz	100 - 240 VAC, 47-63 Hz	100 - 240 VAC, 47-63 Hz	100 - 240 VAC,
Power Consumption	15 - 882W	15 - 882W	15 - 882W	15 - 882W
Power Load (idle/max)	15 / 24 W	21 / 448 W	25 / 42 W	53 / 490 W
Operating Temperature	23 °F - 122 °F -5°C - 50°C	23 °F - 122 °F -5°C - 50°C	23 °F - 122 °F -5°C - 50°C	23 °F - 122 °F -5°C - 50°C
Storage and Transportation Temperature	-4°F - 158°F -20°C - 70°C	-4°F - 158°F -20°C - 70°C	-4°F - 158°F -20°C - 70°C	-4°F - 158°F -20°C - 70°C
Humidity	5% to 95%	5% to 95%	5% to 95%	5% to 95%
Mounting	1U Rack Mount	1U Rack Mount	1U Rack Mount	1U Rack Mount

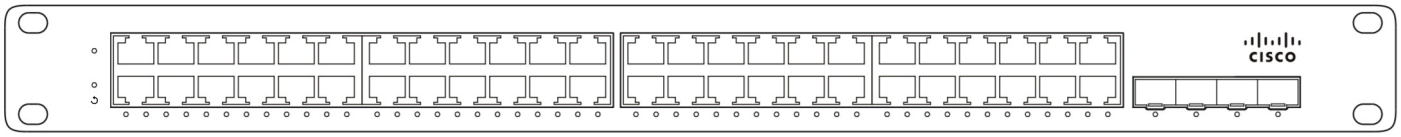
Product View and Physical Features

Front Panel

MS225-24 Series front panel

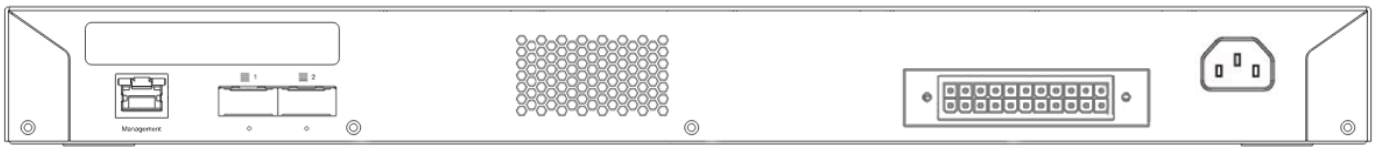


MS225-48 Series front panel



Back Panel

MS225 Series back panel



Factory Reset Button

If the button is pressed and held for at least five seconds and then released, the switch will reboot and be restored to its original factory settings by deleting all configuration information stored on the unit.

Ports and Status Indicators

The MS uses LEDs to inform the user of the device's status. When the device powers on, all the Internet LEDs flash twice. Additional functions are described below, from left to right.

Front Panel Components

Function	LED Status	Meaning
Power	Solid orange	Switch is unable to connect to the Meraki cloud
	Flashing white	Firmware upgrade in process
	Solid white	Switch is fully operational and connected to the Meraki cloud
	Off	Switch does not have power
Restore	N/A	Restore button to clear switch IP and local configuration settings
Switch Ports	Off	No link is detected on this port
	Solid orange	10/100 Mbps (1 Gbps on SFP+)
	Solid green	1 Gbps (10 Gbps on SFP+)

In addition, there is a RESTORE button available on the front panel.

Insert a paperclip if a restore is required.

- A brief, momentary press: To delete a downloaded configuration and reboot.
- Press and hold for more than 10 sec: To force the unit into a full factory restore.

Back Panel Components

Function	LED Status	Meaning
Management Interface	Green	Connected, used for easy access to the local status page
Stack Ports	Green	QSFP stacking cable is connected
	Off	No link is detected on this port
22-Pin Redundant Power Supply Connector	N/A	RPS2300 can be connected to provide redundant power in case of a failover

Region-specific power cords are not included in the box. Order the appropriate power cord separately:

- MA-PWR-CORD-US
- MA-PWR-CORD-EU
- MA-PWR-CORD-UK
- MA-PWR-CORD-CN
- MA-PWR-CORD-IN
- MA-PWR-CORD-BR
- MA-PWR-CORD-TW
- MA-PWR-CORD-AU
- MA-PWR-CORD-AR
- MA-PWR-CORD-JP

Equipment is to be used only in a restricted access location and installed/operated only by trained service personnel.

RPS2300 Redundant Power Supply (Optional)

The MS225 series supports connecting the Cisco RPS2300 for optional power redundancy. MS225 series models support failover and reversion to main power once it has been restored. The following Cisco part numbers are supported:

Part number	Description
PWR-RPS2300	RPS Chassis
C3K-PWR-750WAC	750W RPS Power supply (see recommendations)
C3K-PWR-1150WAC	1150W RPS Power supply (see recommendations)
CAB-RPS2300-E=	RPS 22-pin cable

**As of May 31, 2023, RPS2300 has reached its end-of-sale. This means that RPS2300 is no longer available for purchase and there is no replacement product. Read the notice here.*

RPS power supply matrix

Switch Model	Full power load [idle/max including PoE]
MS225-24	15 / 24 W
MS225-24P	21 / 448 W
MS225-48	25 / 42 W
MS225-48LP	53 / 490 W
MS225-48FP	54 / 882 W

Only the RPS2300 chassis (PWR-RPS2300) and accessories are supported. For more information, see the RPS2300 datasheet. See the note above regarding EoS for RPS2300.

Package contents

In addition to the MS switch, the following are provided:



Rack Mounting Kit

Rack Mount Kit includes:

- US 12-24 mounting screws and cage nuts, 5 of each
- INTL M5 mounting screws and cage nuts, 5 of each
- INTL M6 mounting screws and cage nuts, 5 of each
- Mounting washers

Note: The MS225 does not include stacking cables. Stacking cables sold separately.

Safety and Warnings

These operations are to be taken with respect to all local laws. Please take the following into consideration for safe operation:

- Power off the unit before you begin. Read the installation instructions before connecting the system to the power source.
- Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with

standard practices for preventing accidents.

- Read the mounting instructions carefully before beginning installation. Failure to use the correct hardware or to follow the correct procedures could result in a hazardous situation to people and damage to the system.
- This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 15 A, 125 Vac, or 10A, 240 Vac.
- Please only power the device with the provided power cables to ensure regulatory compliance.

Pre-install Preparation

You should complete the following steps before going on-site to perform an installation.

Configure your Dashboard Network

The following is a brief overview only of the steps required to add a switch to your network. For detailed instructions about creating, configuring and managing Meraki networks, refer to the online documentation (documentation.meraki.com).

1. Login to http://dashboard.meraki.com. If this is your first time, create a new account.
2. Find the network to which you plan to add your switches or create a new network.
3. Add your switches to your network. You will need your Meraki order number (found on your invoice) or the serial number of each switch, which looks like Qxxx-xxxx-xxxx, and is found on the bottom of the unit. You will also need your Enterprise license key, which you should have received via email.
4. Go to the map / floor plan view and place each switch on the map by clicking and dragging it to the location where you plan to mount it.

Check and Set Firmware

To ensure your switch performs optimally immediately following installation, it is recommended that you facilitate a firmware upgrade prior to mounting your switch.

1. Attach your switch to power and a wired Internet connection.
2. The switch will turn on and the power LED will glow solid orange.
3. If the unit requires an upgrade, the power LED will begin blinking white until the upgrade is complete, at which point the LED will turn solid white. You should allow at least a few minutes for the firmware upgrade to complete, depending on the speed of your internet connection.

Check and Configure Upstream Firewall Settings

If a firewall is in place, it must allow outgoing connections on particular ports to particular IP addresses. The most current list of outbound ports and IP addresses for your particular organization can be found on the firewall configuration page in your dashboard.

Assigning an IP Address

All switches must be assigned routable IP addresses. These IP addresses can be dynamically assigned via DHCP or statically assigned.

Dynamic Assignment

When using DHCP, the DHCP server should be configured to assign a static IP address for each MAC address belonging to a Meraki switch. Other features of the network, such as 802.1X authentication, may rely on the property that the switches have static IP addresses.

Static Assignment

Static IPs are assigned using the local web server on each switch. The following procedure describes how to set the static IP:

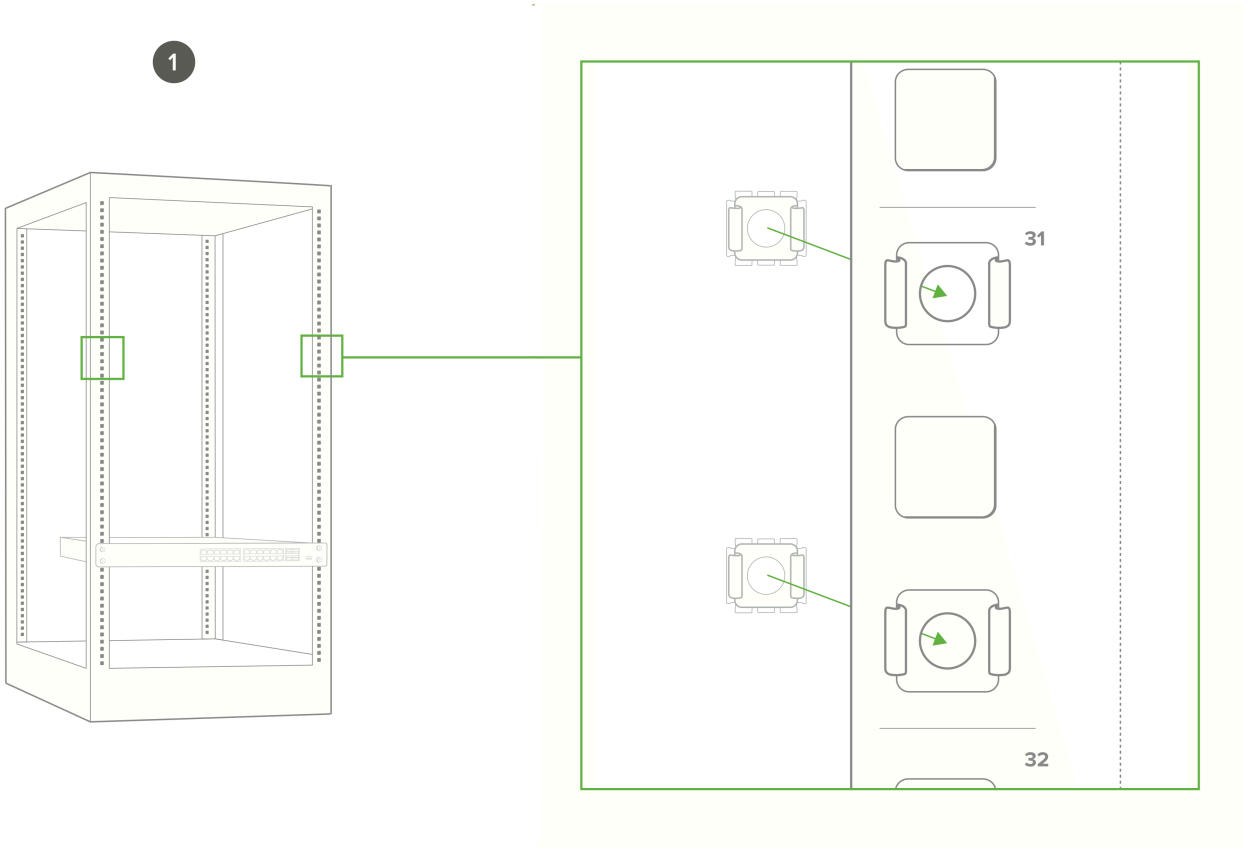
1. Using a client machine (e.g., a laptop), connect to the switch over a wired connection.
2. Using a web browser on the client machine, access the switch's built-in web server by browsing to http://my.meraki.com. Alternatively, browse to http://1.1.1.100
3. Click on the "Uplink Configuration" tab. Log in. The default login is the serial number (e.g. Qxxx-xxxx-xxxx), with no password (e.g., Q2DD-551C-ZYW3).
4. Configure the static IP address, net mask, gateway IP address and DNS servers that this switch will use on its management connection.
5. If necessary, reconnect the switch to the LAN.

Static IP via DHCP Reservations

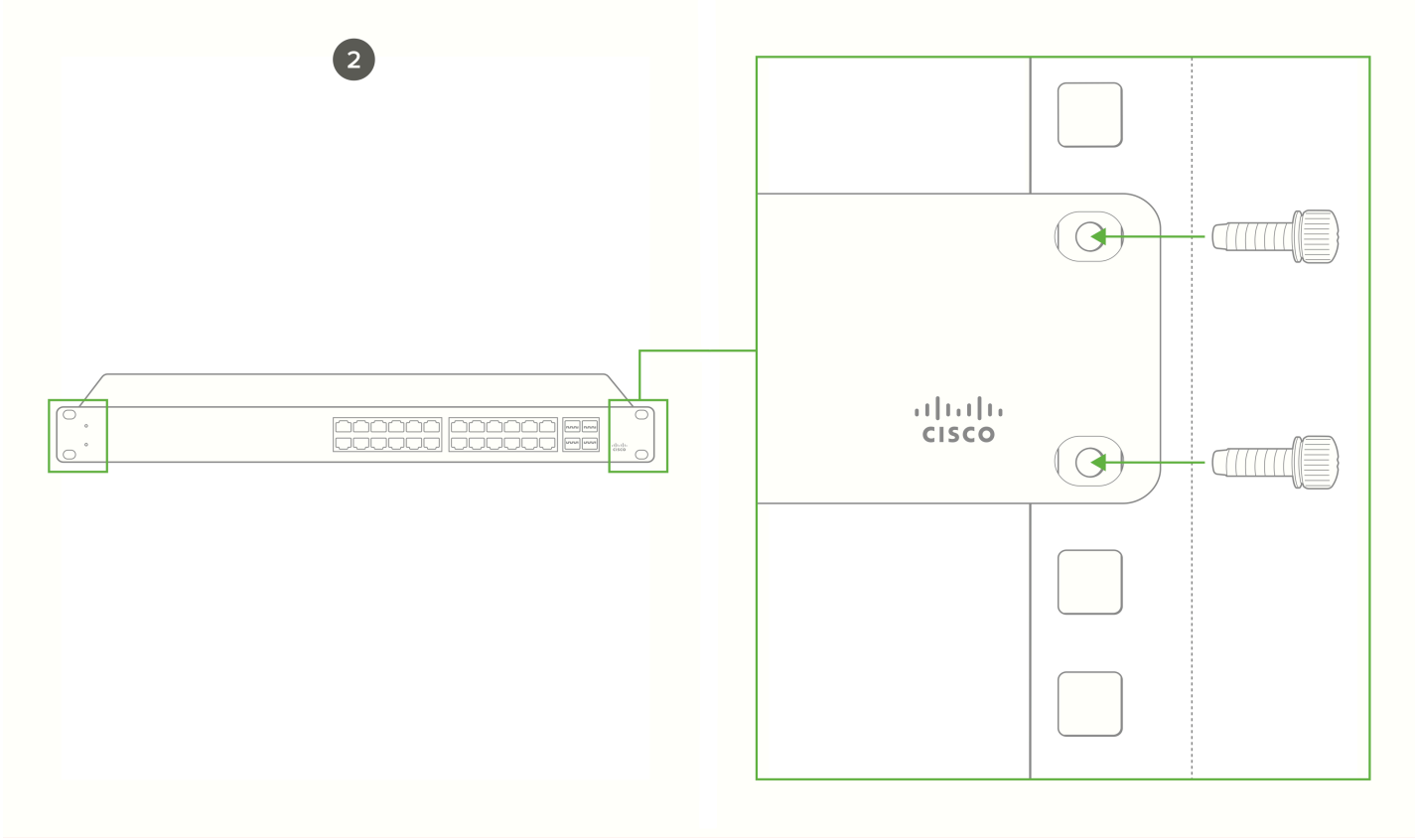
Instead of associating to each Meraki switch individually to configure static IP addresses, an administrator can assign static IP addresses on the upstream DHCP server. Through "DHCP reservations," IP addresses are "reserved" for the MAC addresses of the Meraki switches. Please consult the documentation for the DHCP server to configure DHCP reservations.

Installation Instructions

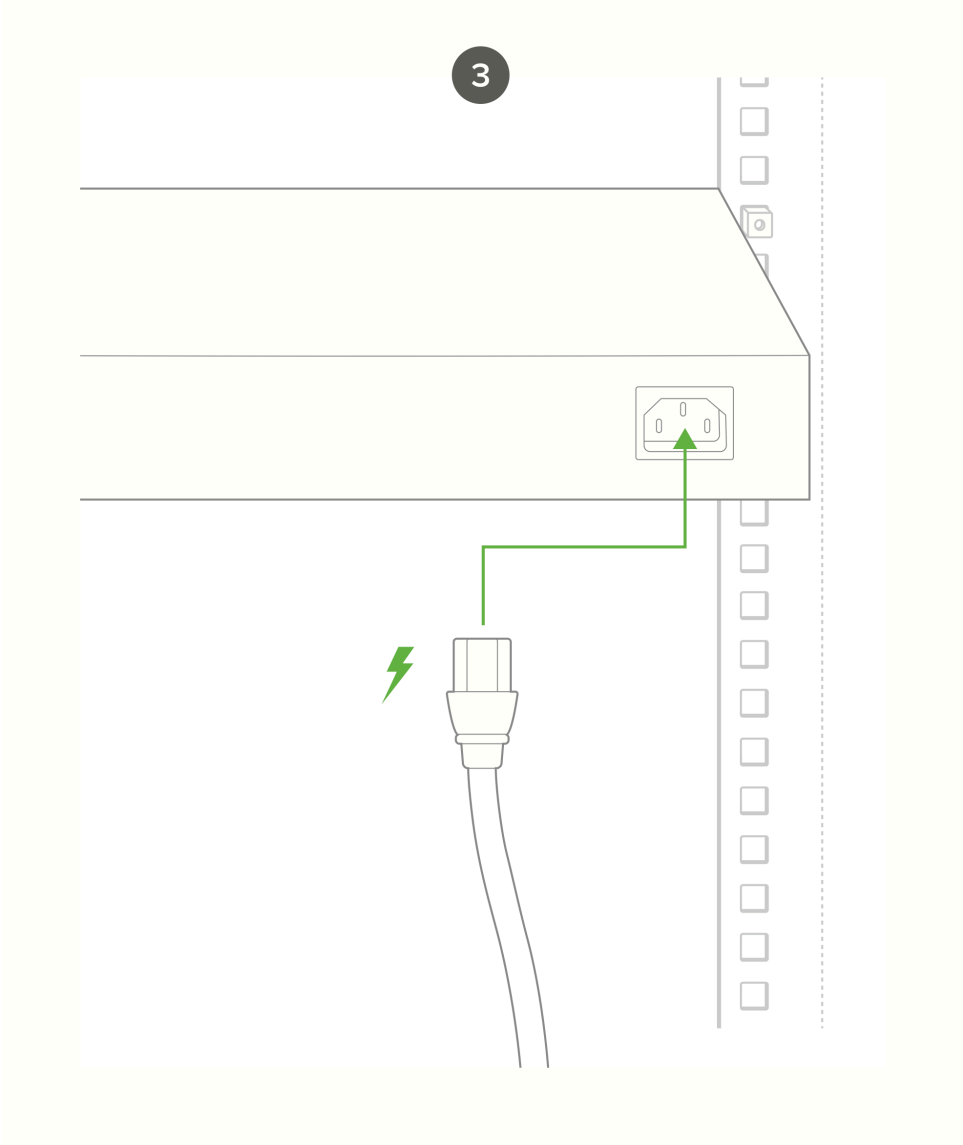
1. Install the mounting cage nuts in the rack being used for the switch.



2. Attach the switch face plate to the cage nuts on the rack.



3. Connect power to the power supply unit.



4. (Optional) Install additional SFP+ units as needed, depending on the compatibility of your model.

Mounting hardware

The mounting hardware includes a rack mount kit for standard 1U racks. When installing the device, make sure that there is sufficient space between the rear of the rack and other obstacles to ensure adequate airflow.

Optional Mid-Mount bracket

MS225 48 port models are designed for an optional MA-MNT-MID-1 mid-mount bracket when using 2-post racks.

Basic Troubleshooting

The following steps can be used for troubleshooting basic connectivity issues with your switch.

- Reset the switch

- Factory reset the switch by holding the factory reset button for 5 seconds
- Try switching cables, or testing your cable on another device

If your switch still does not connect, the following link may be useful, depending on your issue: Troubleshooting an MS Switch

Bringing your Stack Online

> The MS210 and MS225 series switches additionally support cross-model stacking, meaning an MS210 can be stacked with an MS225 and vice-versa.

MS225 switches can be connected in a physical stack using dedicated stacking ports and cables. Configuration steps and additional information about stacking can be found here.

Reference https://documentation.meraki.com/MS for additional information and troubleshooting tips.

If you are still experiencing hardware issues, please contact Cisco Meraki support by logging in to dashboard and using the **Help** option near the top of the page, then opening and email case or calling using the contact information on that page.

Warranty

MS Warranty coverage periods are as follows:

	Time Period	Comments
MS225	Lifetime	
MS Accessories	1 Year	The following are considered accessories: SFP Modules, twinax/SFP+ cables, stacking cables, all mounting kits and stands, antennas, interface modules, additional power cords, PoE injectors

Note: The above table is a general guideline for warranty terms and is not final. Warranty terms are subject to printed warranty information on the relevant online Meraki data sheets.

If your Cisco Meraki device fails and the problem cannot be resolved by troubleshooting, contact support to address the issue. Once support determines that the device is in a failed state, they can process an RMA and send out a replacement device free of charge. In most circumstances, the RMA will include a pre-paid shipping label so the faulty equipment can be returned.

> In order to initiate a hardware replacement for non-functioning hardware that is under warranty, you must have access to the original packaging the hardware was shipped in. The original hardware packaging includes device serial number and order information, and may be required for return shipping.

> Meraki MS225 devices have been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. A digital device that is marketed for use in a residential environment notwithstanding use in commercial, business and industrial environments.

Additional warranty information can be found on: https://meraki.cisco.com/support#process:warranty

Support and Additional Information

If issues are encountered with device installation or additional help is required, **contact Meraki Support** by logging in to **dashboard.meraki.com** and opening a case by visiting the **Get Help** section.

- The equipment is intended for industrial or other commercial activities.
- The equipment is used in areas without exposure to harmful and dangerous production factors, unless otherwise specified in the operational documentation and/or on the equipment labeling.
- The equipment is not for domestic use. The equipment is intended for operation without the constant presence of maintenance personnel.
- The equipment is subject to installation and maintenance by specialists with the appropriate qualifications, sufficient specialized knowledge, and skills.
- Rules and conditions for the sale of equipment are determined by the terms of contracts concluded by Cisco or authorized Cisco partners with equipment buyers.
- Disposal of a technical device at the end of its service life should be carried out in accordance with the requirements of all state regulations and laws.
- Do not throw in the device with household waste. The technical equipment is subject to storage and disposal in accordance with the organization's disposal procedure.
- The equipment should be stored in its original packaging in a room protected from atmospheric precipitation. The permissible temperature and humidity ranges during storage are specified in the Operation (Installation) Manual.
- Transportation of equipment should be carried out in the original packaging in covered vehicles by any means of transport. The temperature and humidity during transportation must comply with the permissible established ranges of temperature and humidity during storage (in the off state) specified in the Operation Manual (Installation).

For additional information on Meraki hardware and for other installation guides, please refer to **documentation.meraki.com**.