

CISCO DESIGNED MS120-48LP

Cisco Meraki MS120-48LP Switch User Manual

Model: MS120-48LP

1. INTRODUCTION

This manual provides essential information for the installation, operation, maintenance, and troubleshooting of the Cisco Meraki MS120-48LP 1G L2 Cld Managed 48x GigE 370W PoE Switch. The MS120-48LP is a cloud-managed access switch designed for small to medium-sized businesses, offering 48 Gigabit Ethernet ports with 370W Power over Ethernet (PoE) capabilities. It integrates seamlessly with the Meraki cloud platform for centralized management and monitoring.

2. SAFETY INFORMATION

Please read all safety warnings and instructions before installing or operating this equipment. Failure to comply with these instructions could result in injury or damage to the device.

- Ensure the power source meets the voltage and current requirements specified for the device.
- Do not operate the device in environments with excessive heat, humidity, or dust.
- Only use the power supply provided or approved by the manufacturer.
- Do not open the device enclosure. Refer all servicing to qualified personnel.
- Properly ground the device according to local electrical codes.

3. PACKAGE CONTENTS

Verify that your package contains the following items:

- Cisco Meraki MS120-48LP Switch
- Power Cord
- Rack Mount Kit (brackets, screws)
- Quick Start Guide

- Cisco Meraki Enterprise License (as part of the bundle)

4. PHYSICAL OVERVIEW

The Cisco Meraki MS120-48LP switch features 48 Gigabit Ethernet ports, designed for high-density network deployments. It includes LED indicators for status and port activity, and a console port for local management.



Figure 1: Front panel of the Cisco Meraki MS120-48LP Switch. This image displays the 48 Gigabit Ethernet ports, each with its own activity LED, and the system status LEDs on the right side. The ports are arranged in rows, indicating its high-density design for network connectivity.

4.1 Front Panel

- **Ethernet Ports (1-48):** RJ45 ports supporting 10/100/1000BASE-T connections with PoE/PoE+ capabilities.
- **Status LED:** Indicates system status (e.g., booting, connected to Meraki cloud, error).

4.2 Rear Panel

- **Power Input:** Connector for the AC power cord.
- **Console Port:** RJ45 port for local console access (CLI).
- **Grounding Screw:** For connecting an earth ground cable.

5. SETUP

Follow these steps to properly install and configure your Cisco Meraki MS120-48LP switch.

5.1 Rack Mounting

1. Attach the rack mount brackets to the sides of the switch using the provided screws.
2. Secure the switch into a standard 19-inch equipment rack using appropriate rack screws.

5.2 Power Connection

1. Connect the provided power cord to the power input on the rear panel of the switch.
2. Plug the other end of the power cord into a grounded AC power outlet.
3. Ensure the power LED on the front panel illuminates, indicating the switch is receiving power.

5.3 Network Connection

1. Connect an Ethernet cable from one of the switch's Gigabit Ethernet ports to your existing network infrastructure (e.g., router, firewall).
2. The switch will attempt to obtain an IP address via DHCP and connect to the Meraki cloud.

6. OPERATING THE SWITCH

The Cisco Meraki MS120-48LP switch is managed entirely through the Meraki cloud dashboard. Once connected to the internet, it will automatically register with your Meraki organization.

6.1 Meraki Dashboard Access

1. Open a web browser and navigate to dashboard.meraki.com.
2. Log in with your Meraki account credentials. If you do not have an account, create one.
3. Add your MS120-48LP switch to your network in the dashboard using its serial number.

6.2 License Activation

The MS120-48LP requires an active Meraki license for full functionality and cloud management. Your product bundle includes an Enterprise License.



Figure 2: Example of a Cisco Meraki Enterprise License. This image displays the front of a license card, indicating it is an "Enterprise License" for "one unit" and states that "Licenses are activated on your Cisco Meraki Dashboard." This license is essential for enabling cloud management features for the MS120-48LP switch.

1. In the Meraki dashboard, navigate to **Organization > License Info**.
2. Click **Add licenses** and enter the license key provided with your bundle.
3. Follow the on-screen prompts to assign the license to your MS120-48LP switch.

6.3 Basic Configuration

From the Meraki dashboard, you can configure various aspects of your switch, including:

- Port settings (speed, duplex, PoE status)
- VLANs and Layer 3 routing
- Quality of Service (QoS)
- Access Control Lists (ACLs)
- Monitoring and alerts

7. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your MS120-48LP switch.

7.1 Firmware Updates

Firmware updates are automatically managed by the Meraki cloud. You can schedule maintenance windows for updates via the dashboard to minimize disruption.

7.2 Cleaning

- Periodically clean the exterior of the switch with a soft, dry cloth.
- Ensure ventilation openings are free from dust and obstructions.
- Do not use liquid or aerosol cleaners directly on the device.

7.3 Environmental Considerations

Maintain the operating environment within specified temperature and humidity ranges to prevent hardware failure.

8. TROUBLESHOOTING

This section provides solutions to common issues you might encounter.

8.1 No Power

- **Symptom:** Power LED is off.
- **Solution:**
 - Check if the power cord is securely connected to both the switch and the power outlet.
 - Verify the power outlet is functional by plugging in another device.
 - Ensure the power source meets the switch's requirements.

8.2 No Cloud Connectivity

- **Symptom:** Status LED is amber or blinking.
- **Solution:**
 - Verify the Ethernet cable connecting the switch to your network is functional and properly connected.
 - Ensure your network provides DHCP services for the switch to obtain an IP address.
 - Check firewall rules to ensure outbound access to Meraki cloud services (ports 80, 443, 7734) is permitted.
 - Confirm the switch is added to your Meraki dashboard and has an active license.

8.3 Port Not Functioning

- **Symptom:** Device connected to a port is not receiving network access or PoE.
- **Solution:**
 - Check the cable connecting the device to the switch port. Try a different cable.
 - Verify the port status in the Meraki dashboard. Ensure it is enabled and configured correctly.
 - For PoE issues, confirm the connected device is PoE-compatible and that the switch's PoE budget is not exceeded.
 - Try connecting the device to a different port.

9. SPECIFICATIONS

Detailed technical specifications for the Cisco Meraki MS120-48LP switch.

Feature	Description
Model Number	MS120-48LP
Ports	48 x 10/100/1000BASE-T Gigabit Ethernet (PoE/PoE+)
PoE Budget	370W
Layer	Layer 2 (L2)
Management	Cloud Managed (Meraki Dashboard)
Dimensions (L x W x H)	23.11 x 17.4 x 4.88 inches
Item Weight	14.56 pounds
Brand	CISCO DESIGNED

Feature	Description
UPC	739420054064
First Available	November 17, 2017

10. WARRANTY INFORMATION

Cisco Meraki products typically come with a limited lifetime warranty. This warranty covers defects in materials and workmanship under normal use and service. Specific terms and conditions may vary by region and product. Please refer to the official Cisco Meraki website or your purchase agreement for detailed warranty information.

The product bundle includes "Enterprise Security and Support 1 Year BDL," which implies a one-year support and security service. This is separate from the hardware warranty.

11. TECHNICAL SUPPORT

For technical assistance, please contact Cisco Meraki support through the following channels:

- **Meraki Dashboard:** Access support directly from your Meraki dashboard.
- **Online Documentation:** Visit documentation.meraki.com for comprehensive guides and articles.
- **Support Portal:** Log in to the Meraki support portal for case management and resources.

Ensure you have your device's serial number and your Meraki organization ID ready when contacting support.