

## Cisco WS-C2960S-48TD-L

# Cisco Catalyst 2960S-48TD-L Ethernet Switch User Manual

This manual provides comprehensive instructions for the installation, operation, maintenance, and troubleshooting of the Cisco Catalyst 2960S-48TD-L Ethernet Switch.

## 1. PRODUCT OVERVIEW

The Cisco Catalyst 2960S-48TD-L is a fixed-configuration, stackable Gigabit Ethernet switch designed for enterprise, mid-market, and branch office networks. It provides 48 Gigabit Ethernet ports and offers advanced Layer 2 switching capabilities, including Cisco FlexStack stacking and Power over Ethernet Plus (PoE+) support. This switch is engineered for ease of use, secure business operations, and improved sustainability.

### 1.1 Front Panel Features



**Figure 1: Front Panel View.** This image displays the front panel of the Cisco Catalyst 2960S-48TD-L switch, featuring 48 Gigabit Ethernet ports for network connectivity and two SFP+ uplink ports on the right side for high-speed connections to the network core or other switches. Status LEDs are visible above each port, indicating port status, speed, and PoE activity.

### 1.2 Rear Panel Features



**Figure 2: Rear Panel View.** This image shows the rear panel of the Cisco Catalyst 2960S-48TD-L switch, including the AC power input connector, a console port for out-of-band management, and ventilation grilles for cooling. The model number and serial number labels are also visible for identification.

## 2. SETUP AND INSTALLATION

### 2.1 Unpacking and Inspection

Carefully unpack the switch and verify that all components are present and undamaged. The package should contain:

- Cisco Catalyst 2960S-48TD-L Ethernet Switch
- AC Power Cord
- Rack-mount kit (if included)
- Documentation (Quick Start Guide, Safety Information)

If any items are missing or damaged, contact your Cisco representative immediately.

### 2.2 Rack Mounting

The switch can be mounted in a standard 19-inch equipment rack. Follow these steps:

1. Attach the rack-mount brackets to the sides of the switch using the provided screws.
2. Align the switch with the rack posts and secure it using the rack screws.
3. Ensure adequate airflow around the switch for proper cooling.

### 2.3 Connecting Power

Connect the supplied AC power cord to the power connector on the rear panel of the switch and then to a grounded AC power outlet. The switch will automatically power on once connected.

### 2.4 Network Connections

Connect Ethernet cables from your network devices (computers, servers, other switches) to the RJ-45 ports on the front panel. For high-speed uplinks, use appropriate SFP+ transceivers and fiber optic cables in the dedicated SFP+ slots.

## 3. OPERATING INSTRUCTIONS

### 3.1 Initial Power On

Upon connecting power, the switch will initiate its boot sequence. Observe the system LED on the front panel. It will cycle through various states (amber, green) and eventually turn solid green, indicating successful boot-up and readiness for operation.

## 3.2 Accessing the Switch

You can access and configure the switch using several methods:

- **Console Port:** Connect a console cable (RJ-45 to DB-9) from your management workstation to the console port on the rear panel. Use a terminal emulation program (e.g., PuTTY, Tera Term) with settings: 9600 baud, 8 data bits, no parity, 1 stop bit, no flow control.
- **Telnet/SSH:** Once the switch has an IP address configured, you can access it remotely via Telnet (less secure) or SSH (recommended for security) using its IP address.
- **Web Interface (HTTP/HTTPS):** If enabled and configured, you can access the switch's web-based management interface by entering its IP address into a web browser.

## 3.3 Basic Configuration

Refer to the Cisco IOS Software Configuration Guide for detailed configuration instructions. Common initial configurations include:

- Setting the hostname
- Configuring IP addresses for management interfaces (VLAN 1 by default)
- Setting up user accounts and passwords
- Enabling SSH for secure remote access
- Configuring VLANs and port assignments

# 4. MAINTENANCE

## 4.1 Cleaning

Periodically clean the exterior of the switch with a soft, dry cloth. Ensure that the ventilation openings are free from dust and debris to maintain proper airflow and prevent overheating. Do not use liquid or aerosol cleaners directly on the switch.

## 4.2 Firmware Updates

Regularly check the Cisco website for the latest firmware (IOS) updates for your switch model. Keeping the firmware up-to-date ensures optimal performance, security, and access to new features. Follow Cisco's recommended procedures for firmware upgrades to avoid service interruptions.

# 5. TROUBLESHOOTING

## 5.1 Power Issues

- **No Power:** Verify the power cord is securely connected to both the switch and the power outlet. Check the power outlet with another device.
- **System LED Off:** If the system LED is off after connecting power, the switch may not be receiving power or could be faulty.

## 5.2 Network Connectivity Issues

- **Port LED Off:** Ensure the Ethernet cable is properly connected at both ends. Check the connected device for power and proper operation.
- **No Network Access:** Verify IP configuration on the switch and connected devices. Check VLAN assignments and ensure routing is correctly configured if necessary.

## 5.3 Performance Issues

- **Slow Network:** Check for high CPU utilization on the switch. Inspect port statistics for errors, collisions, or excessive broadcasts. Consider upgrading to higher-speed uplinks if bandwidth is a bottleneck.
- **Intermittent Connectivity:** Inspect cables for damage. Check for duplex mismatches between the switch port and the connected device.

## 6. TECHNICAL SPECIFICATIONS



Feature	Value
Brand	Cisco
Model Number	WS-C2960S-48TD-L
Number of Ports	48
Interface Type	PoE
Data Transfer Rate	1000 Megabits Per Second (1 Gigabit)
Weight	16.15 pounds
Case Material	Metal
Upper Temperature Rating	40 Degrees Celsius
Compatible Devices	Desktop
UPC	808114331368, 799599493040

## 7. WARRANTY AND SUPPORT

This Cisco product is covered by Cisco's standard warranty. For detailed warranty information, technical support, and additional resources, please visit the official Cisco website or contact your authorized Cisco partner. Ensure you have your product's serial number available when seeking support.

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### Related Documents - WS-C2960S-48TD-L

	<p><a href="#">Cisco Catalyst 2960/2960-SF/2960-S Series Transition Guide</a></p> <p>A guide to transitioning from older Cisco Catalyst switch models to the Cisco Catalyst 2960-L Series, highlighting features and migration paths.</p>
	<p><a href="#">Cisco FlexConnect Bonjour Deployment Guide for Cisco DNA Service</a></p> <p>A comprehensive guide detailing the deployment of Cisco DNA Service for Bonjour with Cisco FlexConnect wireless networks, enabling seamless service discovery and distribution across wired and wireless environments.</p>

	<p><a href="#">Cisco Catalyst 3650 Series Switch Release Notes: Cisco IOS XE Denali 16.2.x</a></p> <p>This document provides release notes for the Cisco Catalyst 3650 Series Switch running Cisco IOS XE Denali 16.2.x software. It details new hardware and software features, important notes, and supported hardware models.</p>
	<p><a href="#">Cisco Catalyst 3560-CX and 2960-CX Series Switches: Features, Specifications, and FAQs</a></p> <p>A comprehensive FAQ document detailing the features, specifications, comparisons, mounting, hardware, software, security, power, energy efficiency, and warranty information for Cisco Catalyst 3560-CX and 2960-CX Series compact network switches.</p>
	<p><a href="#">Cisco Catalyst 3560-CX and 2960-CX Series Switches Release Notes - Cisco IOS 15.2(7)Ex</a></p> <p>Release notes for Cisco IOS Software Release 15.2(7)Ex for the Catalyst 3560-CX and 2960-CX series switches, detailing features, caveats, and system requirements.</p>
	<p><a href="#">Cisco IOS XE Gibraltar 16.12.x Release Notes for Cisco Catalyst 3850 Series Switches</a></p> <p>This document provides release notes for Cisco IOS XE Gibraltar 16.12.x, detailing new features, hardware support, and software updates for the Cisco Catalyst 3850 Series Switches.</p>