

## Cisco N9K-C93180YC-FX

# Cisco Nexus 9300 Series Switch Instruction Manual

MODEL: N9K-C93180YC-FX

## 1. Introduction

This manual provides essential instructions for the safe and efficient operation of your Cisco Nexus 9300 Series Switch, model N9K-C93180YC-FX. It covers installation, basic operation, maintenance, and troubleshooting. Please read this manual thoroughly before installation and use to ensure proper functionality and to prevent damage.

## 2. Safety Information

Observe the following safety precautions to prevent injury and damage to the equipment:

- Always disconnect power before performing any service or maintenance on the switch.
- Ensure the switch is properly grounded to prevent electrical shock.
- Do not operate the switch in environments that exceed the specified temperature limits (maximum 40°C).
- Keep the switch away from moisture and excessive humidity.
- Only qualified personnel should install and service this equipment.

## 3. Package Contents

Verify that your package contains the following items:

- Cisco Nexus 9300 Series Switch (Model: N9K-C93180YC-FX)
- Power Cord(s)
- Rack Mount Kit (if applicable)
- Documentation (Quick Start Guide, Safety Information)

If any items are missing or damaged, please contact your supplier immediately.

## 4. Product Overview

The Cisco Nexus 9300 Series Switch, model N9K-C93180YC-FX, is a high-performance network switch designed for data center environments. It features a modular design and supports various high-speed connectivity options.

### 4.1 Key Features

- **Modular Design:** Allows for flexible configuration and expansion.
- **High-Density Ports:** Equipped with 48 SFP ports supporting 1 Gigabit, 10 Gigabit, and 25 Gigabit Ethernet.
- **High-Speed Uplinks:** Includes 6 QSFP28 ports for 40 Gigabit and 100 Gigabit Ethernet connectivity.
- **Optical Fiber Support:** Designed for optical fiber media types.
- **High Data Transfer Rate:** Capable of up to 3600 Gigabits Per Second.

## 4.2 Front Panel Layout

The front panel of the switch provides access to all network ports and status indicators.



**Figure 1:** Front view of the Cisco Nexus 9300 Series Switch N9K-C93180YC-FX. This image displays the front panel, featuring 48 SFP ports arranged in rows, and 6 QSFP28 ports located on the right side, designed for high-speed optical fiber connections.

The 48 SFP ports (1/10G/25G) are typically used for connecting servers and other network devices, while the 6 QSFP28 ports (40G/100G) serve as high-bandwidth uplinks to other switches or core network infrastructure.

## 5. Setup

### 5.1 Rack Installation

The Cisco Nexus 9300 Series Switch is designed for standard 19-inch rack mounting. Use the provided rack mount kit to securely install the switch into a server rack. Ensure adequate airflow around the unit for proper cooling.

### 5.2 Power Connection

1. Ensure the power source matches the switch's voltage requirements (240 Volts).
2. Connect the power cord(s) to the power input receptacle(s) on the rear of the switch.
3. Plug the other end of the power cord(s) into a grounded electrical outlet.
4. Verify that the power LED on the front panel illuminates, indicating power is supplied.

### 5.3 Network Connections

Connect optical fiber cables to the SFP and QSFP28 ports as required by your network topology. Ensure that compatible transceivers are used for each port type and speed.

- For 1/10G/25G connections, use appropriate SFP/SFP+/SFP28 transceivers and optical fiber cables.
- For 40G/100G connections, use appropriate QSFP+/QSFP28 transceivers and optical fiber cables.

### 5.4 Initial Configuration

For initial configuration and management access, connect a console cable from a management workstation to the console port on the switch. Refer to the Cisco Nexus 9000 Series documentation for detailed command-line interface (CLI) configuration instructions.

## 6. Operating the Switch

### 6.1 Power On/Off

- **Power On:** Once connected to a power source, the switch will typically power on automatically. Observe the system status LEDs.
- **Power Off:** To power off, gracefully shut down the operating system (if applicable) and then disconnect the

power cord(s).

## 6.2 Status Indicators

The front panel features various LED indicators to provide visual status of the switch's operation:

- **System LED:** Indicates overall system health (e.g., green for normal, amber for warning, red for critical).
- **Power Supply LEDs:** Indicate the status of installed power supplies.
- **Fan Module LEDs:** Indicate the status of fan modules.
- **Port LEDs:** Each network port has an LED to indicate link status and activity (e.g., solid green for link, blinking for activity, off for no link).

Consult the official Cisco documentation for a detailed explanation of each LED's behavior.

## 7. Maintenance

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### 7.1 Cleaning

Regularly clean the exterior of the switch and ensure ventilation openings are free from dust and debris. Use a soft, dry cloth. Do not use liquid or aerosol cleaners directly on the unit.

### 7.2 Firmware Updates

Periodically check the Cisco support website for available firmware updates. Keeping the switch's firmware up-to-date ensures optimal performance, security, and access to new features. Follow the instructions provided by Cisco for the update process.

## 8. Troubleshooting

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This section provides basic troubleshooting steps for common issues. For more complex problems, refer to Cisco's official documentation or contact technical support.

### 8.1 No Power

- Verify that the power cord(s) are securely connected to both the switch and the power outlet.
- Check the power outlet with another device to ensure it is functional.
- Inspect the power supply unit(s) for any visible damage.

### 8.2 Port Link Issues

- Ensure the optical fiber cables are correctly connected and not damaged.
- Verify that the transceivers (SFP, QSFP28) are properly seated and compatible with both the switch and the connected device.
- Check the configuration of the port on both the switch and the connected device.
- Test with a known good cable and transceiver.

### 8.3 System Error Indicators

If the System LED indicates an error (e.g., amber or red), consult the Cisco Nexus 9000 Series documentation for specific error codes and recommended actions. This usually points to hardware failures or critical system issues.

## 9. Specifications

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Feature	Detail
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Feature	Detail
Model	N9K-C93180YC-FX
Brand	Cisco
Manufacturer	CISCO SYSTEMS - ENTERPRISE
Number of Ports	54 (48 x 1/10G/25G SFP, 6 x 40G/100G QSFP28)
Ethernet Technology	10 Gigabit Ethernet, 40 Gigabit Ethernet, 100 Gigabit Ethernet
Data Transfer Rate	3600 Gigabits Per Second
Interface Type	SFP, QSFP28
Media Type Supported	Optical Fiber
Modular	Yes
Case Material	Metal
Product Dimensions (L x W x H)	17.28 x 22.48 x 1.73 inches
Item Weight	17.2 pounds
Upper Temperature Rating	40 Degrees Celsius
Voltage	240 Volts
UPC	683332256231

## 10. Warranty and Support

This Cisco Nexus 9300 Series Switch is offered as an Amazon Renewed product. As such, it has been professionally inspected and tested to function and appear like new. It is backed by the Amazon Renewed Guarantee, which provides eligibility for replacement or refund if you are not satisfied with your purchase.

For detailed technical support, software downloads, and comprehensive documentation, please refer to the official Cisco Systems website. For inquiries related to your Amazon Renewed purchase, please contact Amazon customer service or your reseller.



### Related Documents - N9K-C93180YC-FX

A comprehensive guide to configuring sFlow (Sampled Flow) on Cisco NX-OS network devices, covering prerequisites, guidelines, default settings, and step-by-step configuration procedures for traffic monitoring.

Learn how to configure vPC Fabric Peering on Cisco Nexus switches using Cisco NDFC. This guide covers virtual peer link creation, conversion, QoS settings, and limitations for Release 12.1.3.

This guide provides detailed instructions for configuring Enhanced Policy-Based Redirect (ePBR) on Cisco Nexus 9000 Series switches running NX-OS, covering L2 and L3 configurations, platform support, service chaining, and load balancing for network administrators.

This guide provides detailed verified scalability limits for Cisco Nexus 9000 Series switches running NX-OS Release 10.2(7)M. It serves as a critical resource for network architects and engineers, outlining the maximum supported values for a wide array of features and configurations.

A comprehensive guide for configuring Quality of Service (QoS) features on Cisco Nexus 9000 Series switches running NX-OS. Learn about classification, marking, policing, queuing, and scheduling to optimize network traffic.

Explore the verified scalability limits for Cisco Nexus 9000 Series switches with NX-OS Release 9.3(4). This comprehensive guide details maximum supported values for various networking features across diverse hardware platforms, essential for network design and capacity planning.