Manuals+ — User Manuals Simplified.

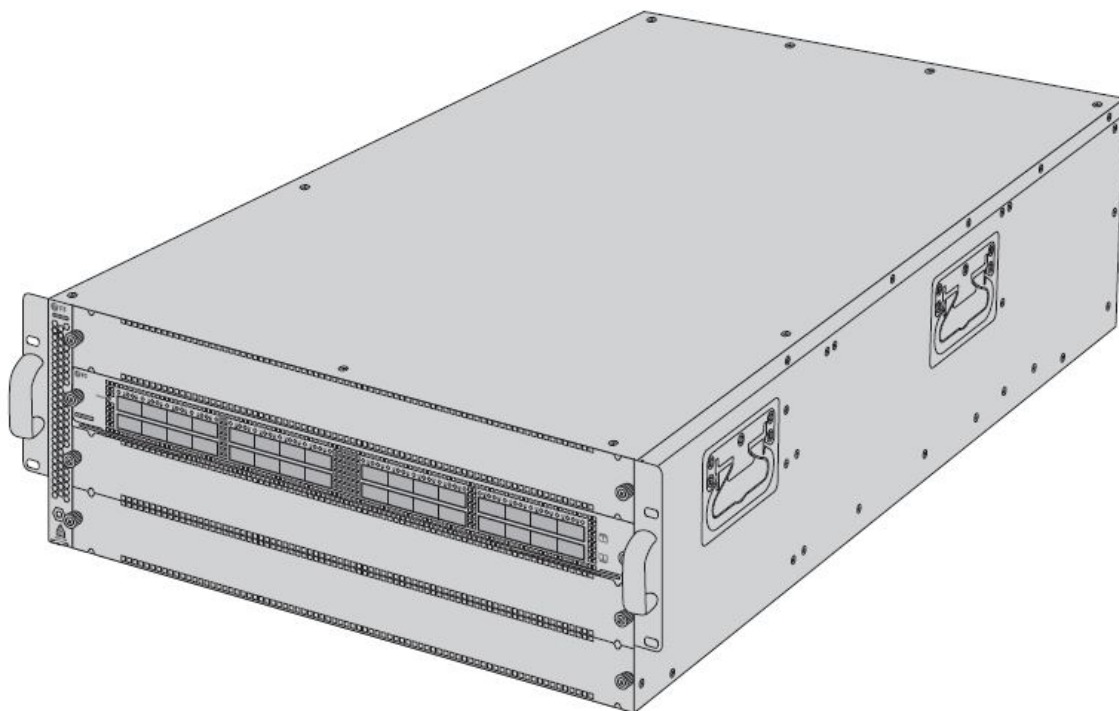# FS NC8400 Series 4-Slot 4U L3 Data Center Switch Chassis and Line Card User Guide
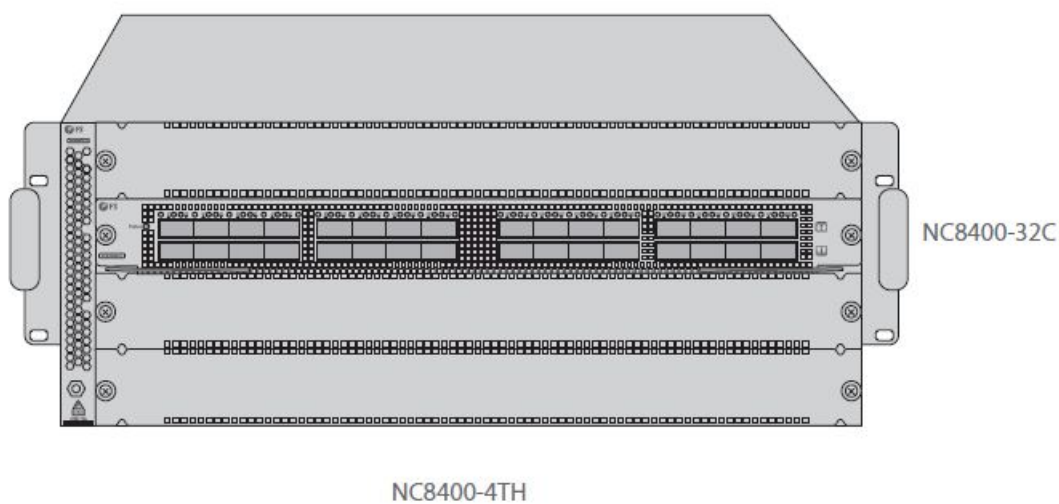
Contents

FS NC8400 Series 4-Slot 4U L3 Data Center Switch Chassis and Line Card

Introduction

Thank you for choosing NC8400-4TH switch chassis and NC8400-32C line card. This guide is designed to familiarize you with the layout of the switch and describes how to deploy the switch in your network.

NC8400-32C

NC8400-4TH

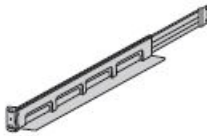## Accessories

Power Cord x4   Grounding Cable x1   M6 Nut x12   Blank Plate x4

Guide Rail x2   M6*16 Screw x12   Vertical Cable Manager x2   M6*25 Screw x4
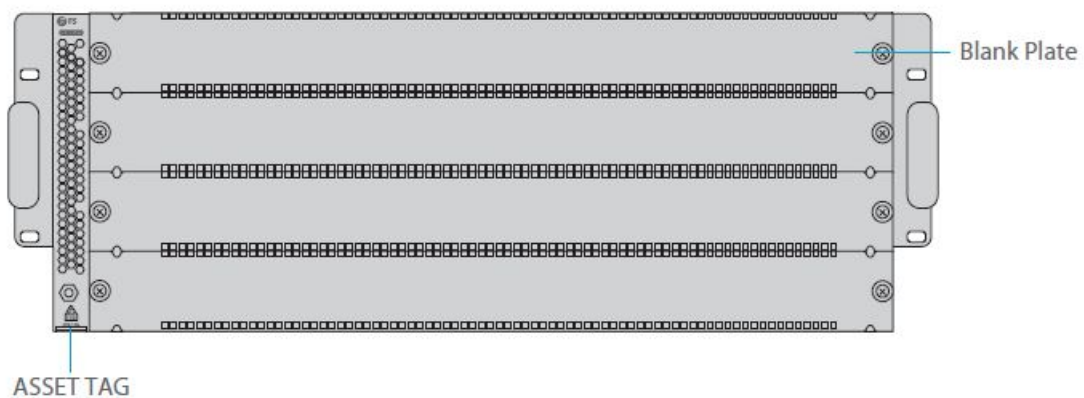
- Power Cord x4
- Grounding Cable x1
- M6 Nut x12
- Blank Plate x4
- Guide Rail x2
- M6*16 Screw x12
- Vertical Cable Manager x2
- M6*25 Screw x4

NOTE: NC8400-32C line card has dust plugs delivered with it. Keep the dust plugs properly and use them to protect idle optical ports.

Hardware Overview

Switch Chassis Front Panel NC8400-4TH

NC8400-4TH

Blank Plate

ASSET TAG

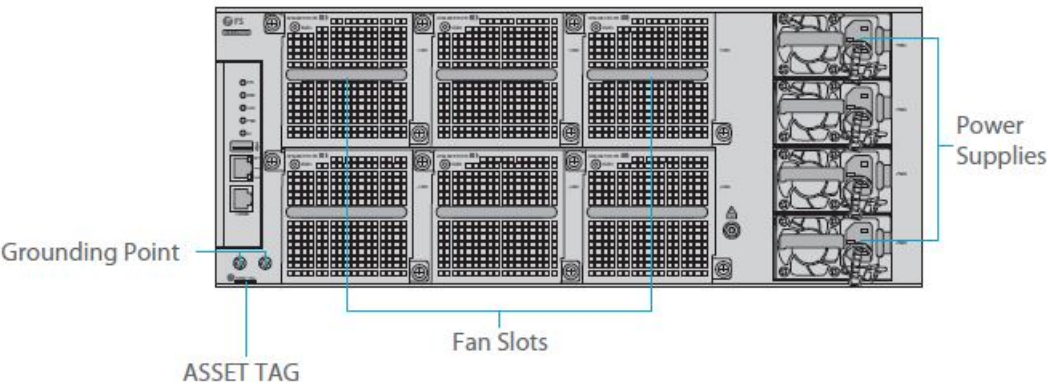| Parts	Description
Blank Plate	Install a blank panel to the empty slot to prevent dust from entering the switch.
ASSET TAG	Asset management label

Front Panel Port NC8400-4TH

Port	Description
ESD	ESD port for wearing ESD wrist strap

Back Panel NC8400-4TH

Back Panel Ports NC8400-4TH
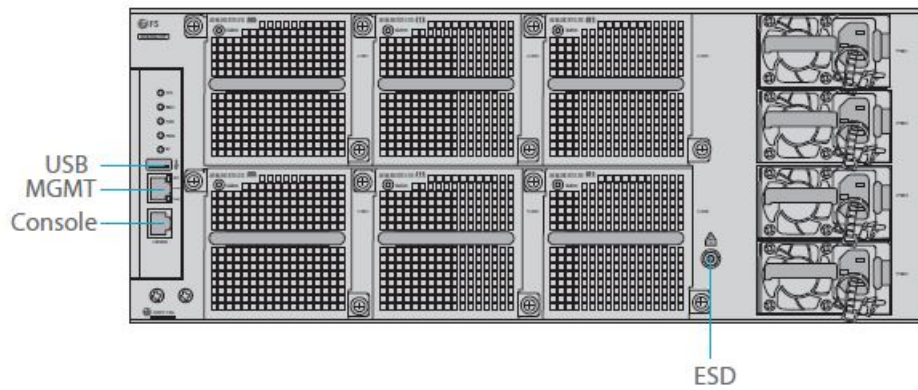
Ports	Description
USB	A USB management port for software and configuration backup and offl ine software u pgrade.
MGMT	An Ethernet management port.
Console	An RJ45 console port for serial management.
ESD	ESD port for wearing ESD wrist strap.

LEDs	Status	Description
	Off	The system is powered off.
SYS	Solid Red	1. One of the power supply modules or fan modules fails. 2. There are less than five fans. 3. There are less than three power supplies. 4. The internal or partial temperature exceeds the warning working temperature, and the switching service resets.
	Blinking Green	The system is initializing.
	Solid Green	The system is operational.
	Solid Yellow	1. The temperature exceeds the threshold. 2. One of the fans is not in the position. 3. One of the power supplies is not connected with AC power cord.

FAN		
BMC	Off	The BMC (Baseboard management controller) module is NOT in the position or does not work.
	Solid Green	The BMC module is operational.
	Blinking Green	The BMC module is initializing.

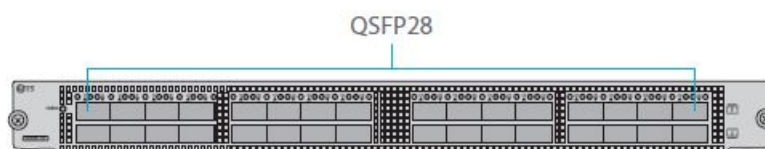| LEDs	Status	Description
FAN	Off	The system is powered off.
	Blinking Green	The fan is initializing.
	Solid Green	The fan is operational.
	Solid Yellow	One of the fans is not in the position.

	Solid Red	1. One of the fan modules fails. 2. There are less than five fan.
PWR	Off	The system is powered off.
	Blinking Green	The power supply module is initializing.
	Solid Green	The power supply module is operational.
	Solid Yellow	One of the power supplies is not connected with AC power cord.
	Solid Red	1. One of the power supply modules fails. 2. There are less than three power supplies.
ID	Off	Device location is disabled.
	Solid Blue	Device location is enabled.
	Link Off	The port is not connected.

Link/ACT	Link Solid Green	The port is connected at 1000Mbps.
	Link Solid Yellow	The port is connected at 100Mbps.
	ACT Off	The port is not transmitting or receiving data.
	ACT Blinking Green	The port is transmitting or receiving data.
Fan Status	Off	The fan is powered off.
	Solid Green	The fan is operational.
	Solid Red	The fan fails or stops.

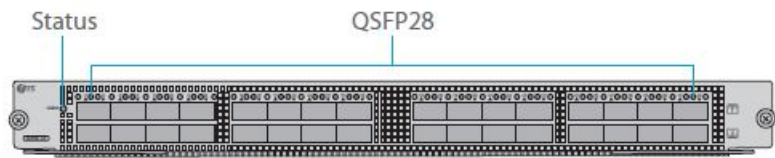| LEDs	Status	Description
Power Suppl y Status	Off	There is no power input or the power supply fails.
	Solid Green	The power input is normal.
	Solid Red	An error occurs, e.g., overcurrent, overvoltage or fan fault.
	Solid Yellow	The AC power in redundancy is plugged out.
	Blinking Red	An alarm is generated but the power module keeps working. The alar m may be caused by high power, high current, high temperature, or lo w fan rotation speed.

Line Cards Front Panel Ports

NC8400-32C

Ports	Description
QSFP28	QSFP28 ports for 40/100G connection

Front Panel LEDs NC8400-32C

LEDs	Status	Description
Status	Off	The line card is powered off.
	Solid Red	The line card fails or resets.
	Blinking Green	The line card is initializing.
	Solid Green	The line card is operational.
	Solid Yellow	The temperature exceeds the threshold.
QSFP28	Off	The QSFP28 port is NOT connected.
	Solid Green	The QSFP28 port is connected at 40/100G.
	Blinking Green	The QSFP28 port is transmitting or receiving data at 40/100G.

Installation Requirements

Before you begin the installation, make sure that you have the following:

- Phillips screwdriver.
- Standard-sized, 19″ wide rack with a minimum of 4U height available.
- Category 5e or higher RJ45 Ethernet cables, fiber optical cables and console cable for connecting network

devices.

Site Environment:

- Do not operate it in an area that exceeds an ambient temperature of 40°C.
- The installation site must be well ventilated. Ensure that there is adequate airflow around the switch.
- The switch should be installed at least 4U (177.8mm) away from devices to its sides.
- Be sure that the switch is level and stable to avoid any hazardous conditions.
- Do not install the equipment in a dusty environment.
- The installation site must be free from leaking or dripping water, heavy dew, and humidity. Ensure rack and working platforms are well earthed.

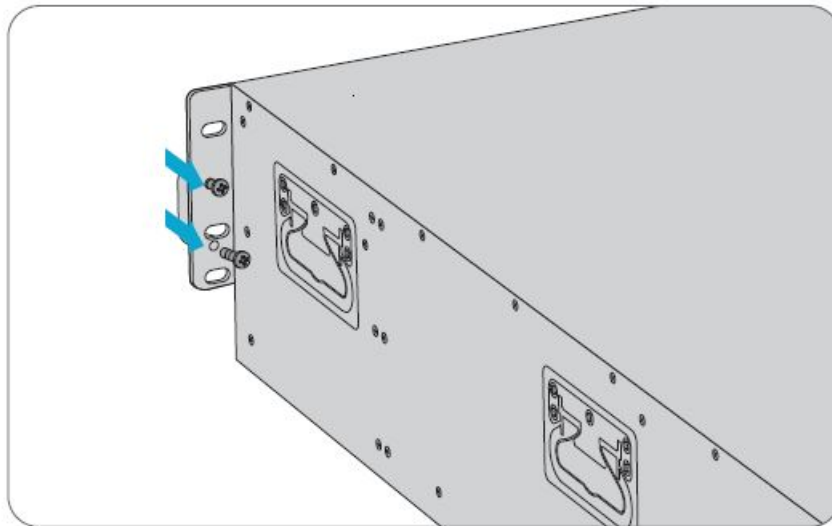## Mounting the Switch

Rack Mounting
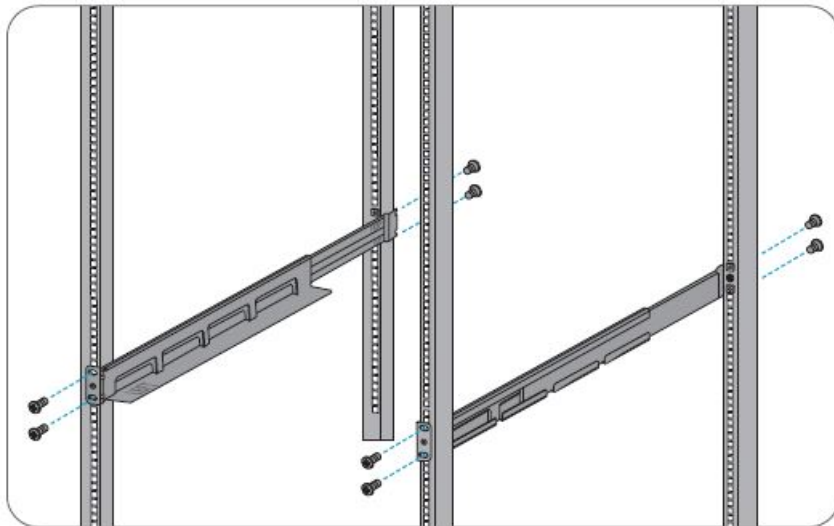
1. Attach the guide rails to the rack using eight M6*16 screws and nuts.
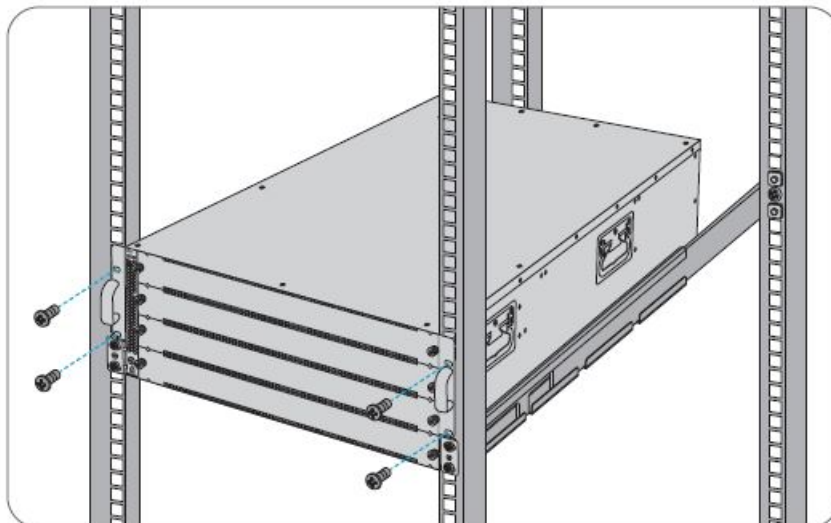
2. Attach the switch to the rack using four M6*16 screws and nuts. The switch chassis stops on the guide rails.

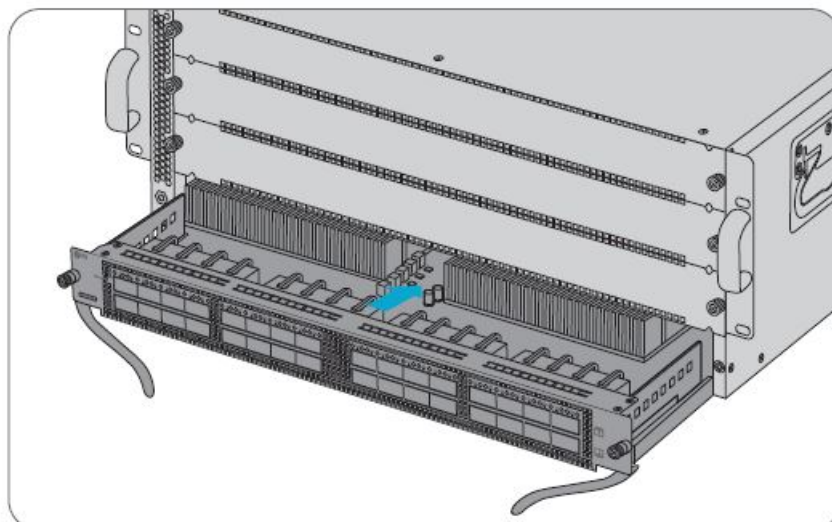**Installing the Vertical Cable Managers**

1. The four M6*16 screws and nuts on the mounting brackets should be removed before installing the vertical cable managers.
2. Remove the handles on the mounting brackets.
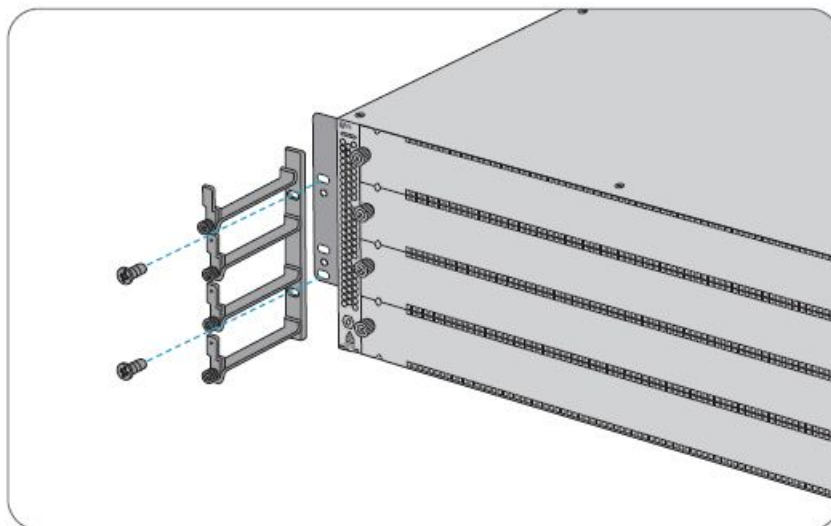
3. Attach the vertical cable managers to the rack using four M6*25 screws and nuts.

Installing the Line Cards

1. Pinch the captive screws on line card and rotate the ejector lever outward. Push the line card into the slot horizontally.
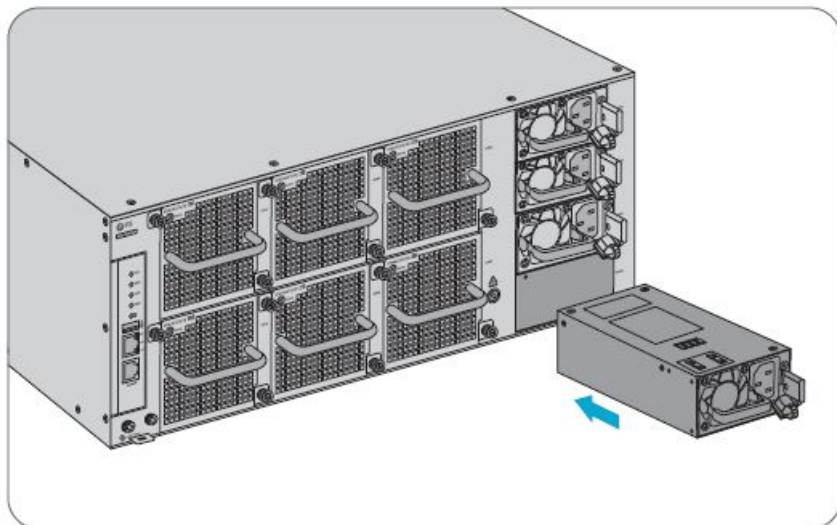2. Tighten the captive screws with a screwdriver to secure line card in the chassis.
   NOTE: Line card NC8400-32C is hot-swappable. It can be safely installed and removed while the switch is powered on and running.

## Replacing the Power Supply Module
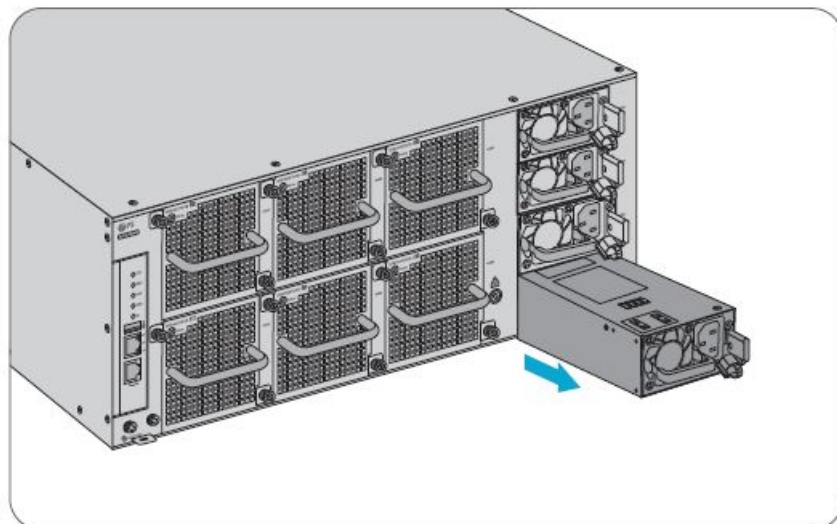
1. Press and hold the lock of the power module leftward and pull the module out by the handle.


2. Take the plane printed with power information as the top panel of the power module. Hold the handle of the power module with one hand, and support the bottom with the other hand. Horizontally push the power module into the slot. The power module is completely seated in the slot until a click is heard.

NOTE: 1. Insert the power module steadily. Please pay attention to the direction of the power panel to avoid wrong insertion. If the position is not proper, pull the power supply module out slowly and re-insert it.
2. The power supply modules are factory-installed, please take steps above to replace the modules if necessary.

Replacing the Fan Module
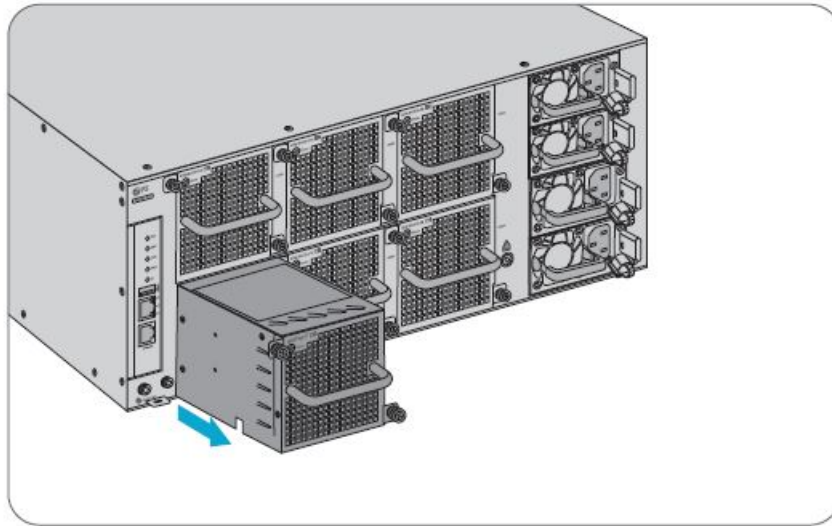
1. Loosen the captive screws of the fan module with a screwdriver.
2. Hold the handle at the end of the fan module, and withdraw the fan module slowly.
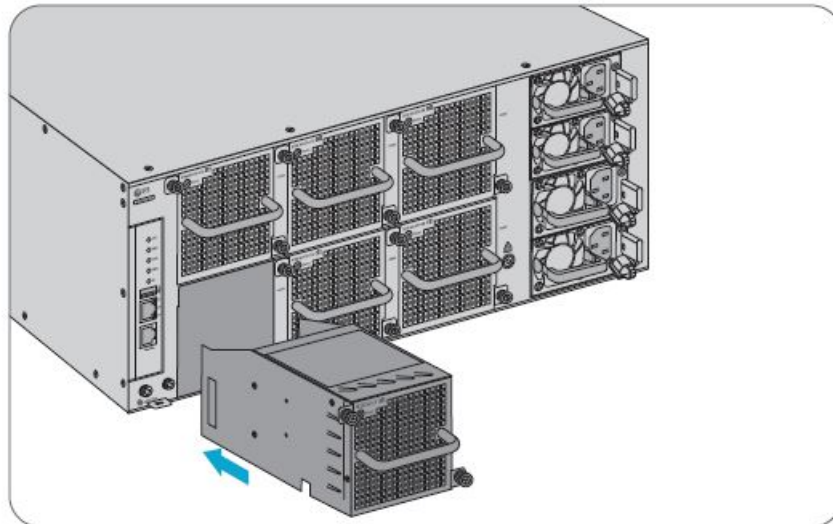

3. Hold the handle at the end of a new fan module. Insert the fan module to the chassis slowly until it is fully seated, and make sure that it is in good contact with the slot.
4. Tighten the captive screws with a screwdriver to fix the fan module in the switch chassis.

NOTE: 1. If the screws cannot be tightened, it is probably because the fan module is not fully inserted. Please check it carefully.
2. The fan modules are factory-installed, please take steps above to replace the modules if necessary.

Grounding the Switch
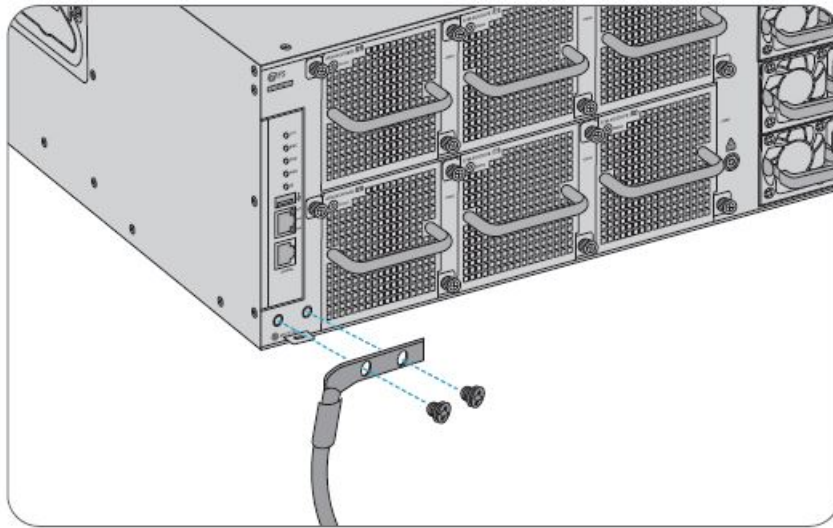
1. Connect one end of the grounding cable to a proper earth ground, such as the rack in which the switch is mounted.
2. Secure the grounding lug to the grounding point on the switch back panel with the washers and screw.
   CAUTION: The earth connection must not be removed unless all supply connections have been disconnected.

Connecting the Power
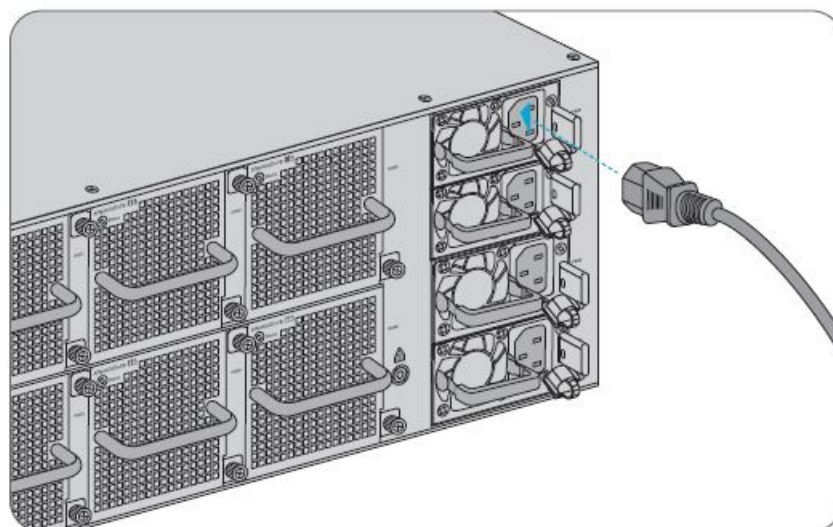
1. Plug the AC power cord into the power port on the back of the switch.
2. Connect the other end of the power cord to an AC power source.

Connecting the QSFP28 Ports
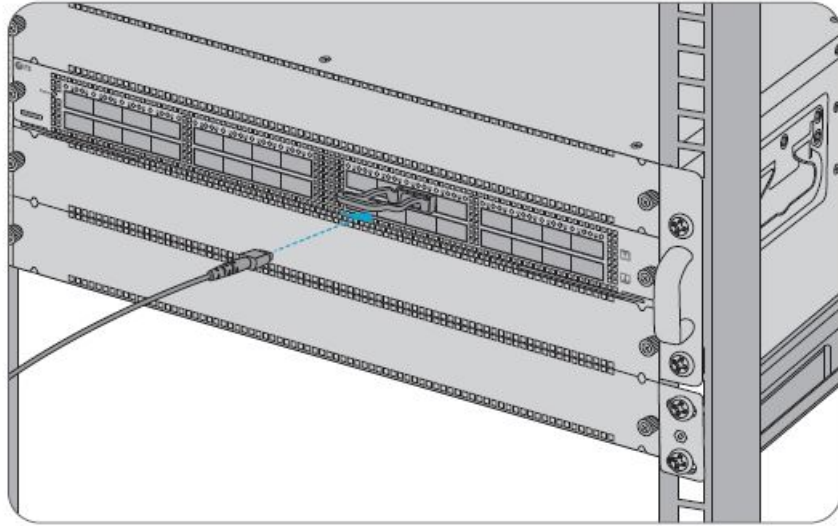
First install QSFP28 transceivers and then connect fiber optic cables to the transceiver ports, or directly connect DAC cables to the QSFP28 slots.
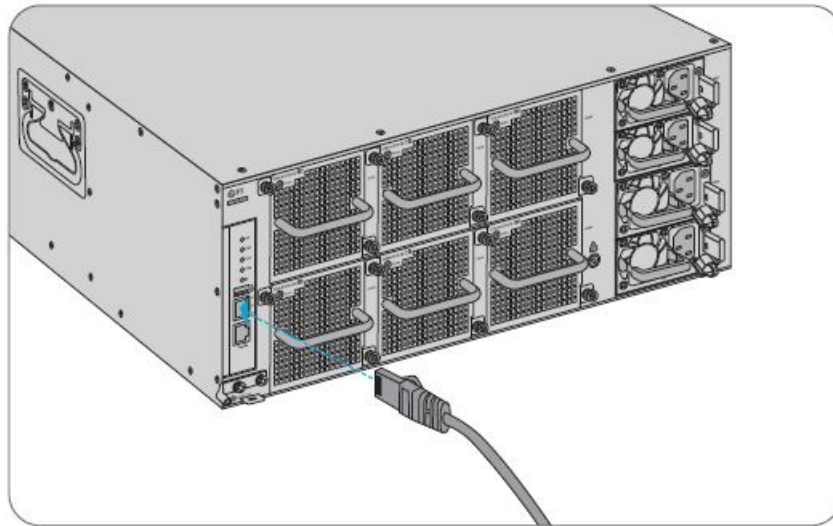
WARNING: Laser beams will cause eye damage. Do not look into bores of transceivers or optical fibers without eye protection.

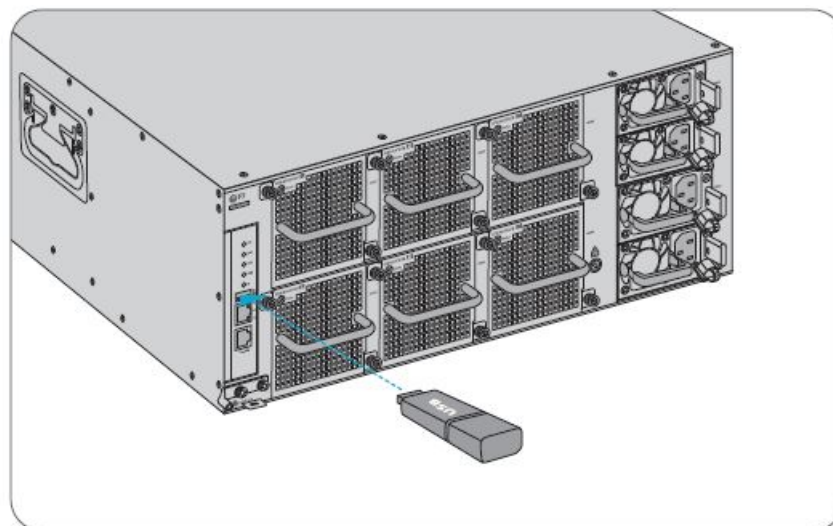**Connecting the Console Port**
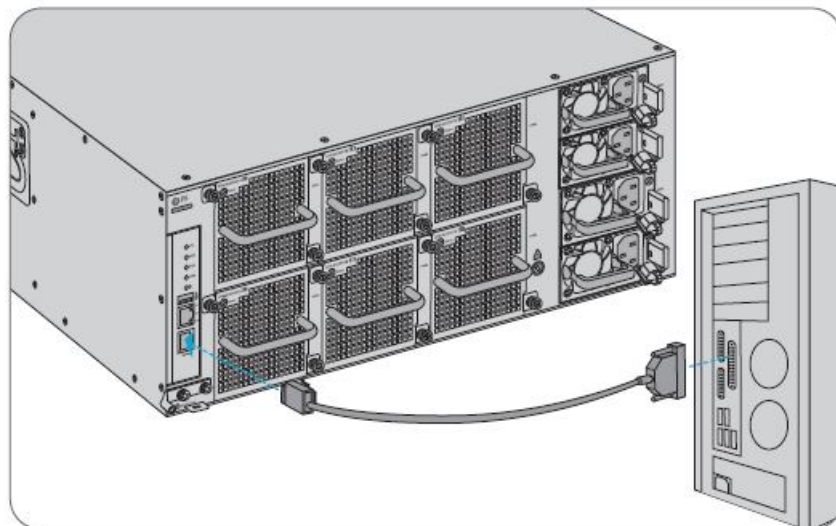
1. Insert the RJ45 connector into the RJ45 console port on the rear of the switch.

2. Connect the DB9 female connector of the console cable to the RS-232 serial port on the computer.

Connecting the MGMT Port

1. Connect one end of a standard RJ45 Ethernet cable to a computer.
2. Connect the other end of the cable to the MGMT port on the rear of the switch.

Connecting the USB Port

Insert the Universal Serial Bus (USB) flash disk to the USB port for software and configuration backup and offline software upgrade.
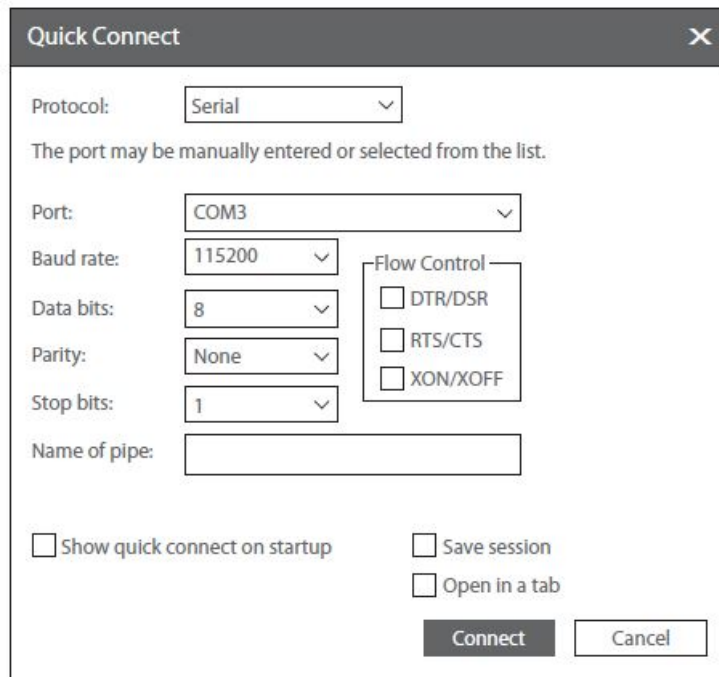
Configuring the Switch

Configuring the Switch Using the Console Port:
Step 1: Connect a computer to the console port of the switch using the console cable.
Step 2: Start the terminal simulation software such as HyperTerminal on the computer.
Step 3: Set the parameters of the HyperTerminal: 115200 bits per second, 8 data bits, no parity, 1 stop bit and no flow control.
Step 4: After setting the parameters, click Connect to enter.

Troubleshooting

Power System Fault

The indicator on the front panel of the host is OFF. The Status indicator of the fan module is OFF, and the fan does not work. The indicator of the power module is OFF. Please check the following:
First disconnect the power cord of the power module.

1. Whether the cables of the cabinet have been correctly connected.

2. Whether the cabinet power sockets are loosely connected to power modules.

3. Whether the power modules are installed correctly.

The Fan Does Not Work

After the system starts, the fan does not work or the Status indicator is OFF.
Please check the following:
Check if the connection between the fan module and the backplane is secure and if the connector gets loose. If the connection is secure, you need to replace the fan module.

Serial Port Console Has No Output or Outputs Illegible Characters

1. Check whether serial port cable is connected correctly, whether serial port cable is disconnected, and whether the connected serial port is identical with that configured on the HyperTerminal.

2. Check that the parameter configuration of the serial port matches that specified in the instructions.

Support and Other Resources

Download
https://www.fs.com/download.html

Help Center
https://www.fs.com/service/help_center.html

Contact Us
https://www.fs.com/contact_us.html

Product Warranty

FS ensures our customers that any damage or faulty items due to our workmanship, we will offer a free return within 30 Days from the day you receive your goods. This excludes any custom made items or tailored solutions.

Warranty: NC8400-4TH switch chassis and NC8400-32C line card enjoy 5 years limited warranty against defects in materials or workmanship. For more details about warranty, please check at
https://www.fs.com/policies/warranty.html
Return: If you want to return item(s), information on how to return can be found at
https://www.fs.com/policies/day_return_policy.html

Documents / Resources

FS NC8400 Series Switch **4-SLOT 4U L3 DATA CENTER SWITCH CHASSIS AND LINE CARD** Quick Start Guide	**FS NC8400 Series 4-Slot 4U L3 Data Center Switch Chassis and Line Card** [pdf] User Guide NC8400 Series, 4-Slot 4U L3 Data Center Switch Chassis and Line Card

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