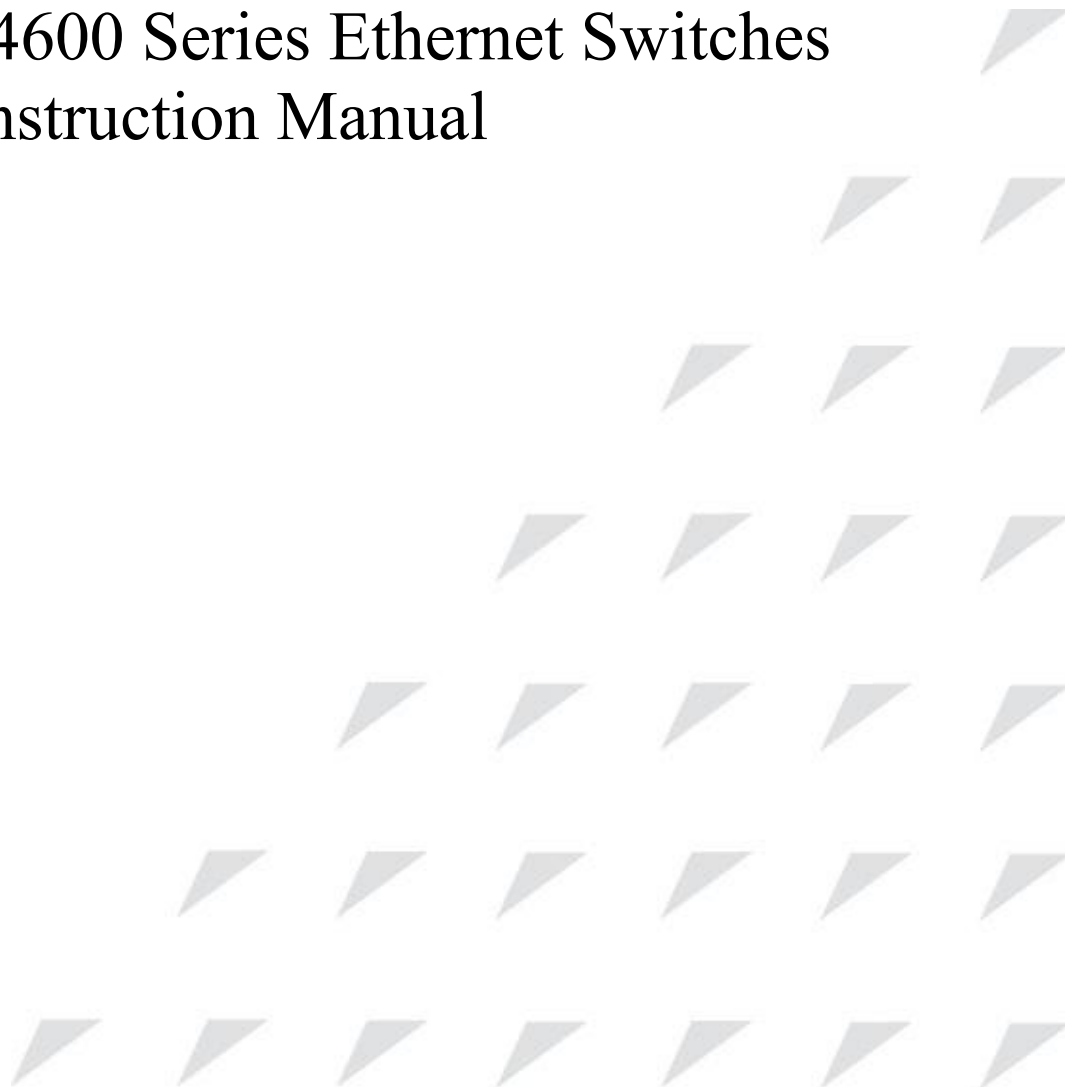# NADDOD S4600 Series Ethernet Switches Installation Instruction Manual

NADDOD Pte. Ltd. provides customers with all-around technical support and services. Where users, who purchase products directly from NADDOD, face any problem during the usage, they may contact the local offices or user service centers of NADDOD, and may also contact the headquarters of the Company directly.

Where readers face any problem about the products of NADDOD , or intend to learn more about other relevant products of the Company, they may contact us by the following ways:

Website of the Company: http://www.naddod.com/

Technical support hotline: 400-0698-860

Technical support e-mail: tech@naddod.com

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Customer complaint hotline: 400-0698-860

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   East Lake High-tech Zone, Wuhan ,P.R.China

Postcode: 430000

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Declaration

Preface

Introduction

This file introduces NADDOD S4600 series Ethernet switches from such perspectives as product introduction, installation instruction, start after being powered on, fault maintenance.

Product version

The product version corresponding to this file is shown as follows.

Product name	Hardware version
S4600-24X2C	

Stipulations

Symbol stipulations

The following symbols that may appear herein represent the following meanings.

Symbol	Instruction
Warning	Texts started with this symbol indicate that there exists potential risk, which may cause person injured unless being avoided.
Note	Texts started with this symbol indicate that there exists potential risk, and ignoring such texts may cause device damage, data loss, and worse performance of devices or unforeseeable results.
Instruction	Texts started with this symbol are additional information of the text, emphasizing and complementing the text.
Tricks	Texts started with this symbol can help you solve certain problem or save your time.

General format stipulations

Format	Instruction
Song typeface	The text adopts song typeface.
Boldface	The title, subtitle, the third level title and Block adopt boldface.
Regular script	Content such as warning and prompt adopts regular script.
Lucida Console	The output information on the screen adopts Lucida Console form. In addition, the information input by users from the terminals among the output information on the screen adopts bold font.

Contents

1 Product introduction

NADDOD S4600 switches are high-performance 10G Ethernet switches launched by NADDOD for the intelligent campus network. This switches support high-performance IPv4 and IPv6 routes, VxLAN features and QoS strategies, and may provide medium and large-scale campus network with high-reliability, high-performance and manageable new intelligent campus network solutions. These switches are also suitable for data center, hyper-convergence and other scenarios.

1.1 Instruction on product models

Form 1-1 S4600 series switches

Product models	Description
S4600-24X2C	• Standard 1RU 19-inch rack • 24 10G SFP+ ports • 2 40G/100G QSFP28 ports • 2 reserved expansion slots • Pluggable 1+1 redundant power supplies

1.2 Instruction on front panels

1.2.1 S4600-24X2C
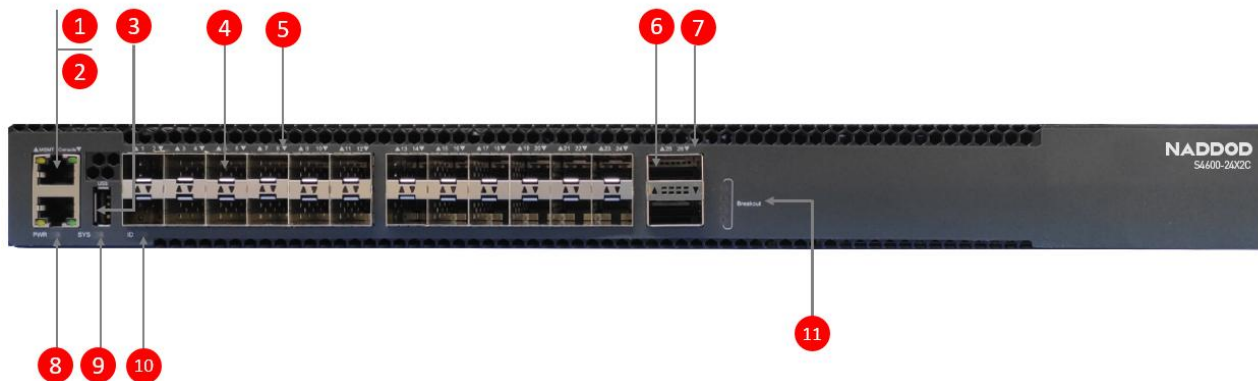
Figure 1-2   Diagram of front panels of S4600-24X2C

(1): Management Ethernet port (MGMT)   (2): RJ45 Console port (CON)

(3): USB port   (4): 10G SFP+ ports

(5): Indicator light of SFP+ ports   (6): 100G QSFP28 ports

(7): Indicator light of QSFP28 ports   (8): PWR indicator light

(9): SYS indicator light   (10): Indicator light of ID (for locating switch)

(11): Indicator light of QSFP28 ports breakout

1.3 Instruction on rear panels

1.3.1 S4600-24X2C

Figure 1-3 Diagram of rear panels of S4600-24X2C

(1): Ground screws   (2): reserved expansion slot 2

(3): reserved expansion slot 1   (4): Fan module 2

(5): Fan module 1   (6): PSU Power supplies (PS2)

(7): PSU Power supplies (PS1)

1.4 Instruction on ports

1.4.1 Business ports

The business ports of S4600 series switches are shown in Form 1-2.

Form 1-2 Business ports of S4600 series switches

Product models	Interface type	Quantity	Description
S4600-24X2C	QSFP28	2	Use the category of QSFP28 optical modules Use the category of QSFP+ optical modules
	SFP+	24	Use the category of SFP+ optical modules

1.4.2 Management ports

Console port

The console interface uses a RJ-45 8-pin connector. To connect the console interface of switch to a computer, we need adaptive cables of RJ-45-to-DB-9. It's recommended to use the additionally donated random network cables.
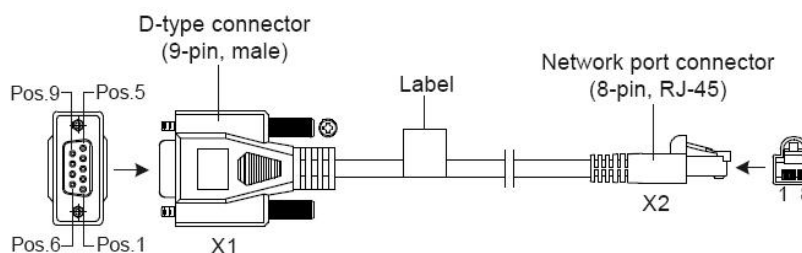
Figure 1-4 DB9 to RJ45 console interface connection cables

Refer to the following form for specific pins:

RJ45	Signal	Direction	DB-9
1	CTS (Clear To Send)	→	8
2	DSR (Data Set Ready)	→	6
3	RXD (Receive Data)	→	2
4	GND	---	5
5	GND	---	5

6	TXD (Transmit Data)	←	3
7	DTR (Data Terminal Ready)	←	4
8	RTS (Request To Send)	←	7

Form 1-3 RJ-45-to-DB-9 cable order

The properties of CONSOLE interface are shown in the following form:

Properties	Description
Connector type	RJ45
Standards met	EIA/TIA-232
Rate	115200bit/s
Services supported	• Connect to the character terminal • Connect to the serial port of local terminal (which may be a PC), and run terminal simulation programs on the terminal

Ethernet ports used for management

S4600-24X2C switches integrate out-of-band management Ethernet ports featured by 1000Base-TX or 100Base-T. It's recommended to use the additionally donated random cables.

Properties	Description
Connector type	RJ45
Port transmission rate	• Support 10/100M rate self-adaption • Support full-duplex/half-duplex working mode auto-negotiation • MDI/MDI-X self-adaption
Specification of cables used	Twisted-pair of class 5 and above
Maximum transmission distance	100m
Standards met	IEEE 802.3
Role and service	Used for applications and BIOS, ONIE upgrade and network management

Form 1-4 Properties of Ethernet ports used for management

USB port

> S4600-24X2C switches provide a USB2.0 interface meeting OHC standards, which may support the uploading and downloading rates of 480Mbps. Through this interface, users may carry out file interchange with Flash file system on the switches, e.g., uploading or downloading application files, etc.

⚠ Note

Because there exist differences among USB devices from different manufactures in compatibility and driving, NADDOD doesn't ensure that the USB devices from all manufactures can be used normally on the switches. If a USB device fails to be used normally, it doesn't belong to switch fault. Please try to use USB devices from other manufactures then.

1.5 Instruction on indicator lights

1.5.1 Indicator light of system

> The working status of the switch can be preliminarily determined by the SYS status indicator light, please see below for details.

Name of indicator light	State	Instruction
SYS	Green solid	The system has been started and works normally
	Green blinking	The system is starting
	Yellow solid	The system exists minor failure
	Red solid	The system exists major failure
	Dark	The device isn't powered on

1.5.2 Indicator light of power supply

> The operating status of the S4600-24X2C power supply modules can be determined by the pluggable PWR indicator light in the front panel, please see below for details.

Name of indicator light	State	Instruction
PWR	Green solid	Two PSU are present and work normally
	Red solid	Major fault: One PSU power supply is present and works abnormally or two PSU power supplies are present and work abnormally
	Dark	The device isn't powered on

1.5.3 Indicator light of ID

Name of indicator light	State	Instruction
ID	Blue solid	Controlled by OS for locating the chassis
	Dark	By default

1.5.4 Indicator light of Ethernet management port

Name of indicator light	State	Instruction
MGMT	Green solid	Port links up, working in 100/1000M mode
	Green blinking	Port works in 100/1000M mode, and has data receipt and sending
	Dark	Port isn't connected to the network cables or the port doesn't link up

1.5.5 Indicator light of SFP+ port

Name of indicator light	State	Instruction
1-24	Green solid	Port works in 25G mode and links up
	Green blinking	Port works in 25G mode and has data receipt and sending
	Yellow solid	Port works in 10G mode and links up
	Yellow blinking	Port works in 10G mode and has data receipt and sending
	Dark	Not connected to the network cables or the port doesn't link up

1.5.6 Indicator light of QSFP28 port

Name of indicator light	State	Instruction
25-26	Green solid	Port works in 100G mode and links up
	Green blinking	Port works in 100G mode and has data receipt and sending
	Yellow solid	Port works in 40G mode and links up
	Yellow blinking	Port works in 40G mode and has data receipt and sending
	Dark	Not connected to the network cables or the port doesn't link up
Breakout	Green solid	This lane is in link status
	Green blinking	This lane is in active status

Name of indicator light	State	Instruction
	Dark	No link

2 Installation instruction

2.1 Preparation before installation

2.1.1 Safety warning

To avoid device damage and personal injuries caused by improper usage, please conform to the following precautions:

- The power supply should be unplugged before cleaning switch. Don't use wet duster cloth to wipe the switch, or use liquid to wash the switch.

- Don't place the switch beside water or in a moist place, and prevent water or moisture from entering the enclosure of the switch.

- Don't place the switch on unstable boxes or tables, to avoid major damage to the switch in case of falling down.

- Keep good ventilation indoor and keep the venthole of the switch unblocked.

- The switch can work normally only under correct voltage, please confirm that the working voltage conforms to the voltage indicated by the switch.

- To reduce the risk of electronic shock, don't open the enclosure when the switch is working, and don't open the enclosure of the switch randomly even though it isn't powered on.

- The electro-static dissipative (ESD) gloves must be used when replacing the interface board, to prevent the static electricity from damaging the single board.

2.1.2 Pre-installation check

To ensure normal working environment of switch, S4600 series switches have the following requirements for workplaces:

- Confirm that there is space left at the air intake vent and ventilation opening of switch, so as to facilitate the heat dissipation of the crate of switch.

- Confirm that the rack and workbench have good ventilation and heat dissipation system themselves.

- Confirm that the rack and workbench are solid enough, and can bear the weight of switch and its installation accessories.

- Confirm that the rack and workbench are grounded properly.

To ensure long-term stable work of switch, the installation place should also meet the following several requirements:

Requirements for temperature and humidity

To ensure normal operation and service life of switches, it's necessary to keep certain temperature and humidity in the machine room. Where the humidity in the machine room is too high for a long term, it's easy to cause poor insulation performance of insulating materials and even electric leakage, and it's also easy to cause change in mechanical performance of materials, corrosion of metal components and other phenomenon sometimes; where the relative humidity is too low, the fastening screw may be loosened by the air shrinkage of insulating spacer, and meanwhile it's easy to generate static electricity in dry climate environment and damage the circuit of switch; too high temperature is more hazardous, long-term high temperature will accelerate the aging of insulating materials, reduce greatly the reliability of switch, and affect significantly its service life.

Form 2-1 Requirements for temperature and humidity

Items	S4600 series switches
Temperature in working environment	0～45℃
Relative humidity in working environment (incondensable)	10%～95%

Cleanliness requirement

Dust is a main hazard for the operation safety of switch. The dust accumulated on the machine indoor may cause electrostatic adsorption, which may cause poor contact of metal connectors or metal contact points. In particular, when the relative humidity indoor is too low, it's easier to cause electrostatic adsorption, which may not only affect the service life of device, but also improve the risk of communication fault.

Form 2-2 Dust content requirements in the machine room

Mechanical active substance	Unit	Content
Dust particles	Particle/m3	≤3×104 (No visible dust on the table within 3 days)
Note: The diameters of dust particles are ≥5um		

In addition to dust, the machine rooms of switches also have strict requirements for the content of salt, acid and sulfide in the air. Such harmful gases will accelerate the corrosion of

metal and aging of certain components. Harmful gases, such as SO2, H2S, NH3 and Cl2 shall be kept away from the machine rooms.

Form 2-3 Limit values of harmful gases in the machine room

Gases	Maximum values (mg/m3)
Sulfur dioxide SO_2	0.2
Sulfuretted hydrogen H_2S	0.006
Ammonia NH_3	0.05
Chlorine Cl_2	0.01

Anti-interference requirements

The switches may be affected by external interference of the system during usage through such conduction methods as capacity coupling, inductive coupling, electromagnetic radiation, common impedance (including grounding system) coupling and wires (power line, signal line, output line, etc.).

For this purpose, it should be noted that:

- The alternating current power supply system is TN system, the alternating current power socket should adopt single-phase three-wire power socket with protective earth wire (PE), to allow the filter circuit on the device to filter the interference of power grid effectively.

- Keep the workplace of switches far away from high power radio launcher, radar launcher, high frequency high current equipment.

- Adopt electromagnetic shielding method if necessary, for example, the interface cables adopt shield cables.

- The interface cables are required to cable indoor, and cabling outdoor is prohibited, so as to prevent overvoltage and overcurrent caused by thunder from damaging the signal port of devices.

Laser usage safety

- This series switches belong to Class 1 laser devices.

Instruction

If the optional fiber interface boards of this series switches are in working state, don't look straight at these fiber interfaces, because the light beams of the optical fiber have energy at a very high level, which may harm the retina.

2.1.3 Installation tools

Before installation, please prepare the following tools:

- Electro-static dissipative (ESD) wrist strap
- Phillips screwdriver or One-word screwdriver
- Left and right guide rails (optional)
- Floating nuts
- Racking screws

📖   Instruction

No installation tool is attached to the switches, the users should prepare installation tools by themselves.

2.2 Installation

S4600-24X2C switches adopt two installation methods as follows:

- Installing the front mounting brackets with rack rails.
- Installing the devices to the desktop.

2.2.1 Mounting bracket introduction
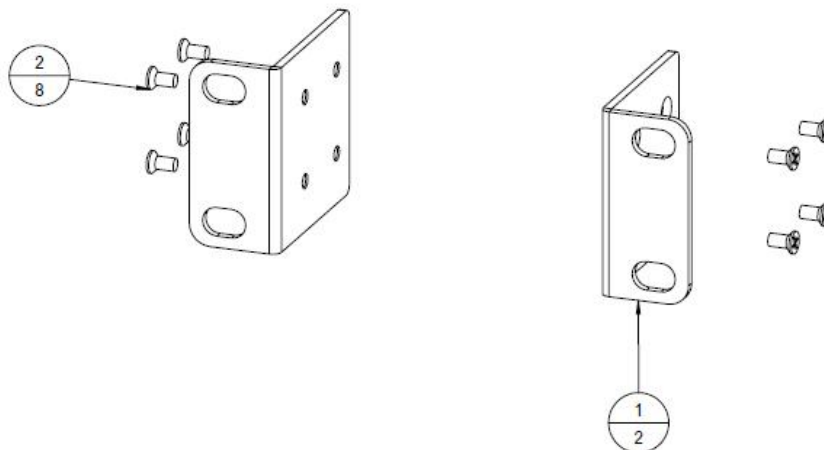

Figure 2-1 Diagram of front mounting brackets

Instruction:

(1): The screw holes for front mounting brackets to be fixed on the rack

(2): The screw holes for front mounting brackets to be fixed on the switch

⚠ Note

Front mounting brackets are only for fixing the switch and can't be used for load-bearing.

2.2.2   Install the front mounting brackets to rack with rack rails

Installation procedures

Step 1: Wear an electro-static dissipative (ESD) wrist strap and check the grounding and stability of rack.

Step 2: Fix the rail attached to the rack horizontally to proper positions of the rack.
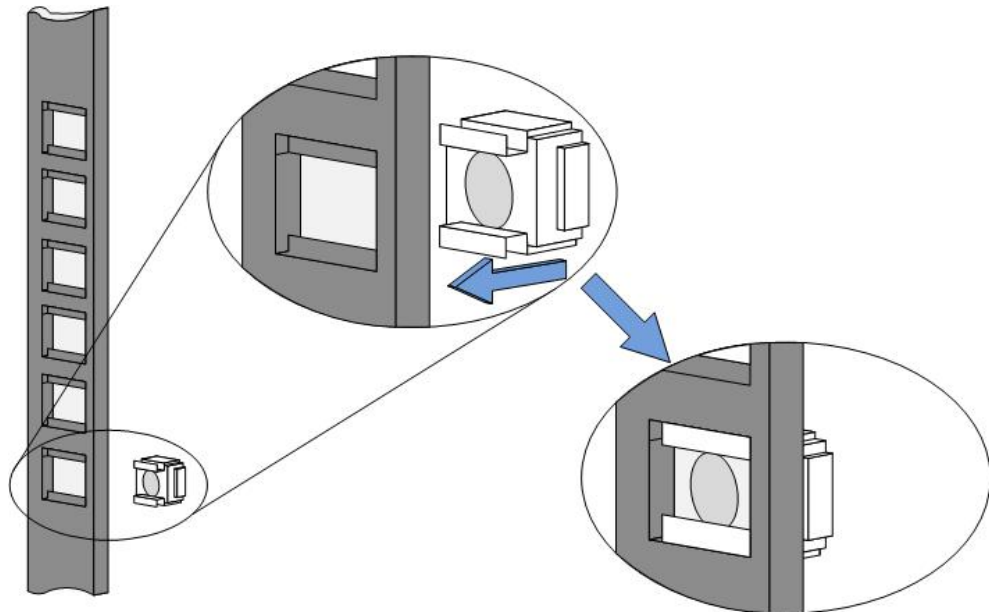
Step 3: Take out the screws (packed with front mounting bracket), install one end of each front mounting bracket to the switch
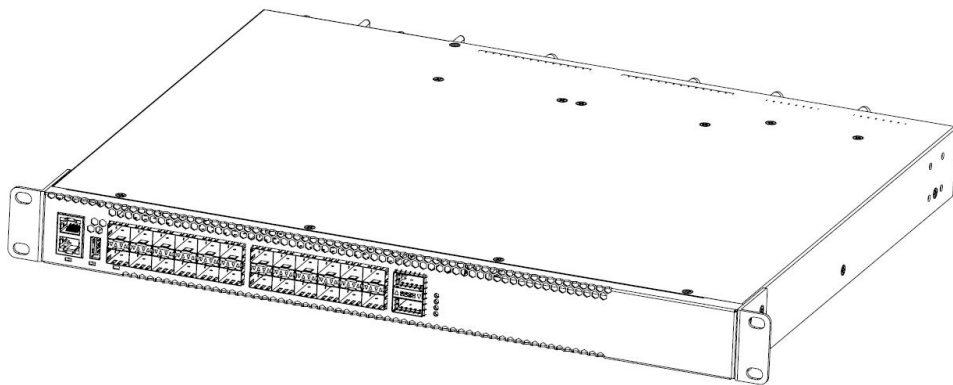
Figure 2-2 Installation diagram of front mounting brackets

Step 4: Place the switch horizontally on the rail, push it gently into the rack along the rail, fix the other end of each front mounting bracket to the front mounting rails of rack with screws and supporting floating nuts.
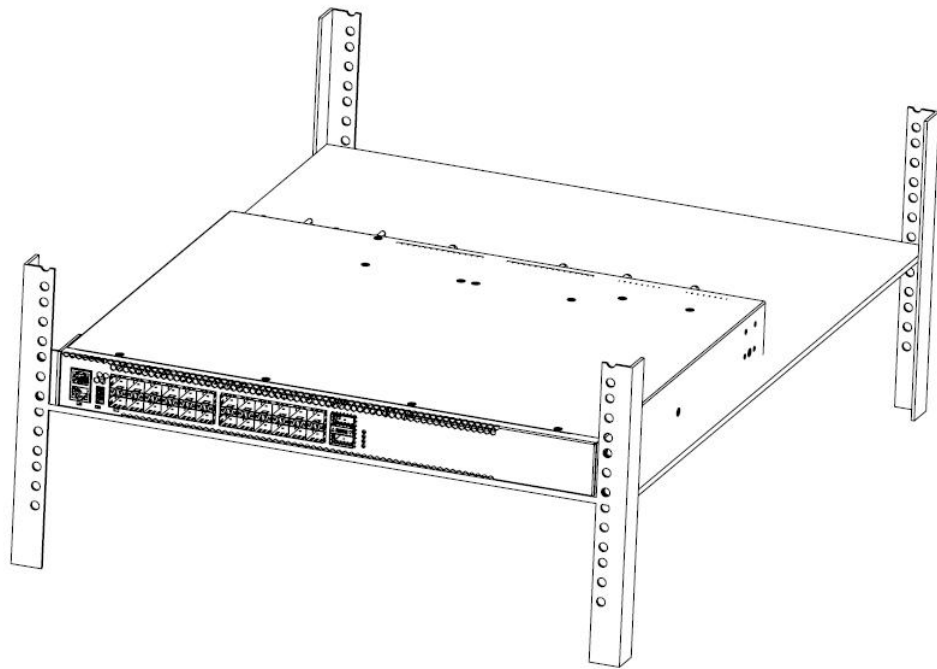
Figure 2-3 Diagram of installing switch to rack (with rails)

2.2.3   Installing the switch to the desktop

Usually, users don't have 19-inch standard racks, in which case people usually place the switch on the clean workbench simply.

During the operation, pay attention to the following precautions:

● Guarantee the stability and good grounding of workbench.

● Leave 10cm clearance around the switch for heat dissipation.

● Don't place heavy items on the switch.

● 4 foot pads are attached to the device, please paste them to the places near to the corners respectively at the bottom of the switch, as shown in the following diagram:

Figure 2-4 Installation diagram of foot pads

2.2.4　Installation and disassembly of power module

Installation procedures

The power module of S4600-24X2C switches is hot-pluggable, and the installation procedures are as follows:

Step 1: Wear an electro-static dissipative (ESD) wrist strap, and confirm that it is well grounded.

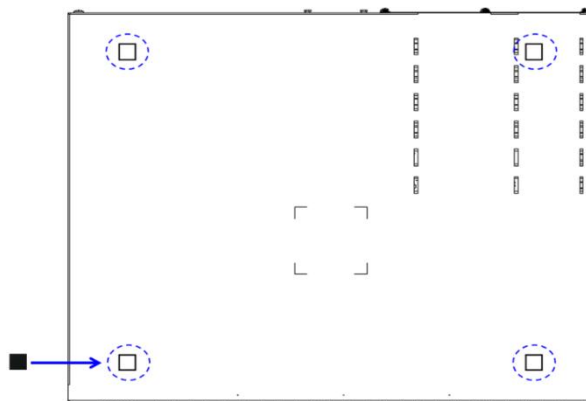**Step 2:** Ensure correct upward and downward directions of power supply (otherwise, the power supply will fail to be installed to the bottom completely).

Step 3: Hold the handle of power supply module with one hand, and hold the bottom of power supply module with the other hand. Slide in the power supply module smoothly and steadily along the power supply slot until the power supply module is completely connected to the chassis.

Step 4: Fix the power supply to the switch with the fixing device of power supply.

Figure 2-5 Installation diagram of power supply module

Instruction:

(1): Handle of power module

(2): Fixing devices of power module

Disassembly procedures

The power module of S4600-24X2C switches is hot-pluggable, and the disassembly procedures are as follows:

Step 1: Wear an electro-static dissipative (ESD) wrist strap, and confirm that it is well grounded.

Step 2: Disconnect the power connection of switch.

Step 3: Hold the handle of power supply module with one hand while pressing the fixing device, and press the top of the switch with the other hand.

Step 4: Pull out the power supply module smoothly along the power supply slot.

Figure 2-6 Disassembly diagram of power supply module

⚠ Note

S4600-24X2C switches can install two power supply modules to be used for hot standby, and power supply can be switched directly to the other power supply when one of them fails (without power interruption).

2.2.5 Ground wire connection

The power supply input terminals of switch are connected to a noise filter, whose central place is directly connected to the crate, which is referred to as enclosure place (i.e., protected area) and must be grounded properly, so as to make induction electricity and leakage electricity be able to flow to the earth safely, and improve the capacity of anti-electromagnetic interference of switch.

Correct grounding method:

Connect one end of yellow and green protective ground cables of switch to the ground terminal of switch, and the other end to the wiring terminal along the grounding strip in the machine room.

📖 Instruction

The ground wires of Ethernet switches should be connected to the machine room of switch and grounded, and grounding connections through firefighting artery and lightning rod are incorrect.

Figure 2-7 Installation diagram of ground wires of switches

Instruction:

(1): The ground terminal of switches

(2): Protective ground cables

(3): The ground terminal in the machine room

⚠ Note

The normal connection of ground wires of switches is an important anti-thunder and anti-interference guarantee of switches, therefore, users must connect the ground wires correctly. The ground wire connection position and grounding in the machine room shown in the diagram are only for reference, please connect based on the actual situation of devices.

3   First power-on and start the switch

3.1   Build configuration environment and connect cables
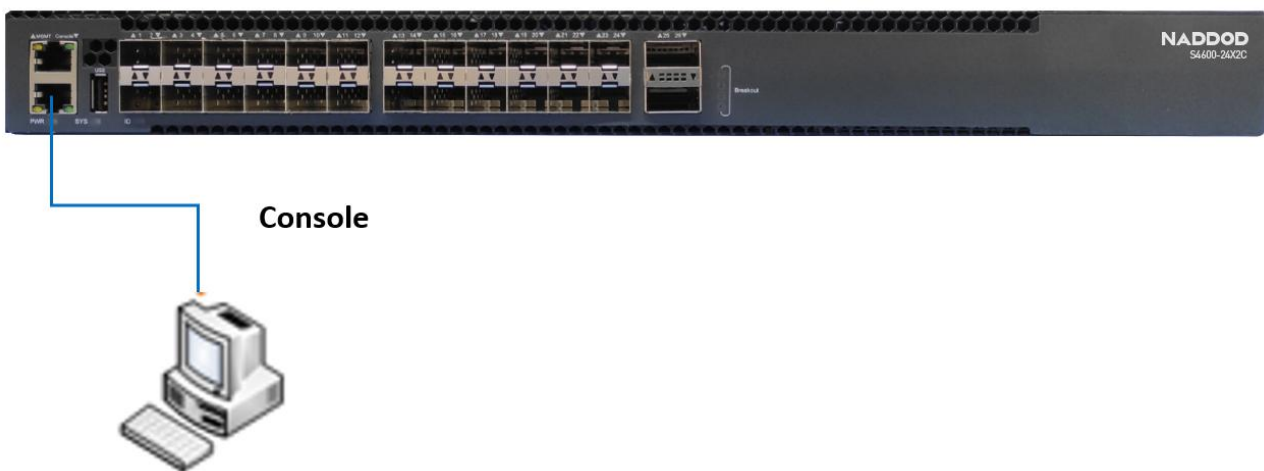
Figure 3-1 Build local configuration environment through Console interface

Step 1: Connect the DB-9 cellular type plug of configuration cables to the serial ports of PC to configure the switch.

Step 2: Connect the RJ-45 end of configuration cables to the configuration interface (Console) of switch.

⚠ Note

Please use DB-9 to RJ-45 cables provided in the box, otherwise it may be incompatible.

3.2   Setting the terminal parameters (Windows hyperterminal)

Step 1.   Open PC, and run terminal simulation program (e.g., hyperterminal attached to Window system) on the PC;

Step 2.   Setting the terminal parameters (taking the setting of hyperterminal of Windows XP as an example). The specific methods are as follows:

1.   Click the "Start Menu → Programs→ Accessories→ Communications→ Hyperterminal", enter the window of hyperterminal, and creat a new connection. The system will pop up the connection instruction interface as shown in the figure.
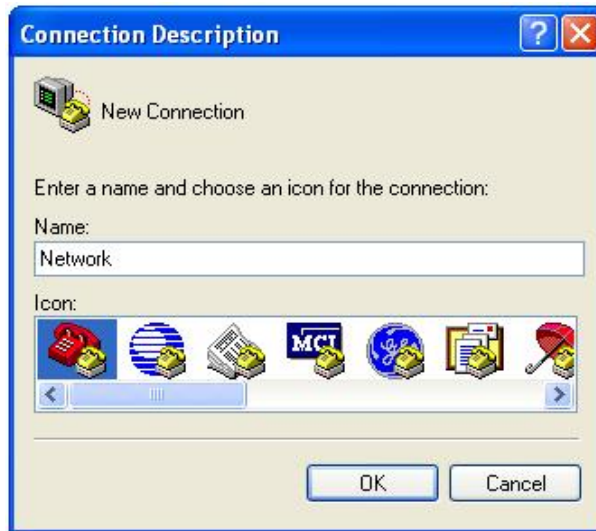
Figure 3-2 Create a new connection

2.   Enter the new connection name (e.g., Network) in the connection instruction interface, click the button of "OK", the system will pop up the interface as shown in the following figure, and select the serial port to be used by the connection in the column of [Connect using].


Figure 3-3 Set port connection

3.   After selecting the serial port, click the button of <OK>, the system will pop up the parameter setting interface of connection serial port, set the bits per second as 115200, the data bits as 8, the odd-even check as none, the stop bits as 1, and the data flow control as none. (In other Windows

operating systems, the "bits per second" may be described as the "Baud rate"; and the "data flow control" may be described as "traffic control".)

4. After setting the parameters of serial port, click the button of "OK", the system will enter the hyperterminal interface shown in the following figure.
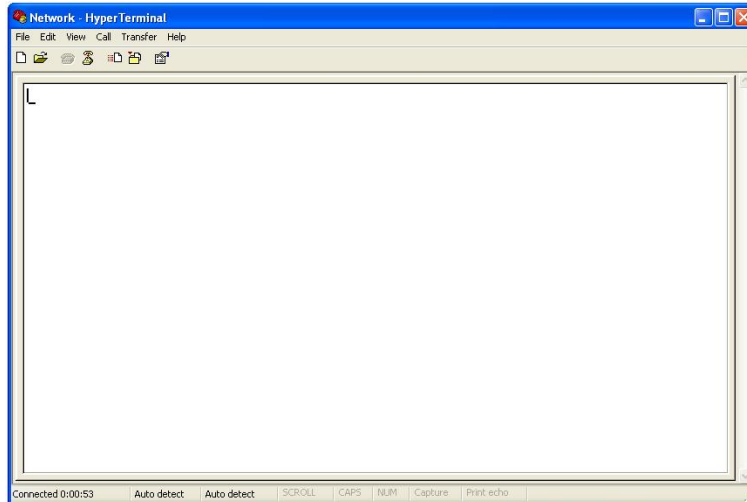
Figure 3-4 Hyperterminal interface

5. Select the [Files/Properties] menu item in the dialog box of hyperterminal properties, and enter the window of properties. Click the tab of "Settings" in the window of properties, enter the window of property settings (as shown in the following figure), select the terminal simulation as VT100 there, and click the button of <OK> after finishing the selection.
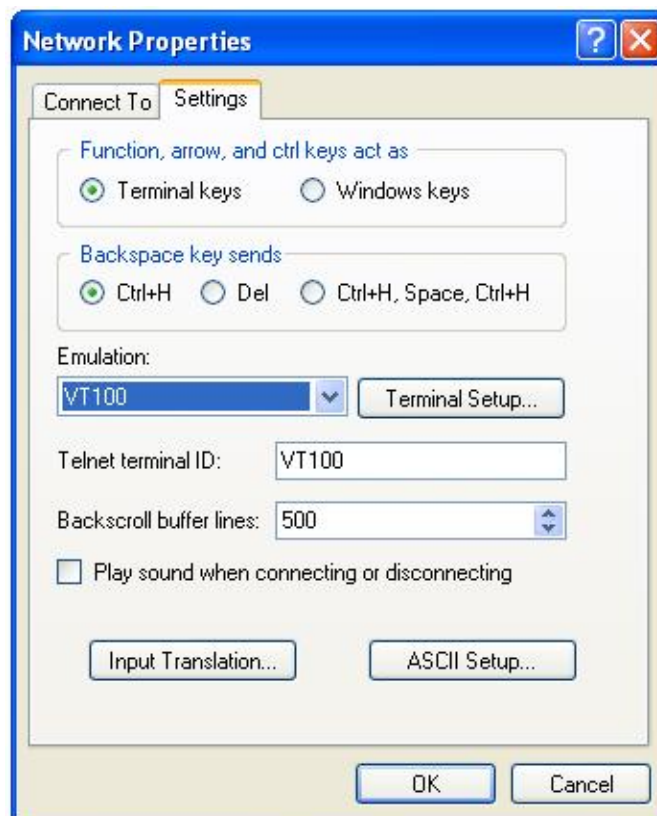
Figure 3-5 Setting of terminal simulation in the window of property settings

 Note

Please use DB-9 to RJ-45 cables provided by us with the box, otherwise it may be incompatible.

3.3 Set port parameters (SecureCRT)

Step 1.   Install the software SecureCRT on the PC;

Step 2.   Set the terminal parameters of SecureCRT:

1.   Click the button of "Quick Connect" to enter the window of quick link.
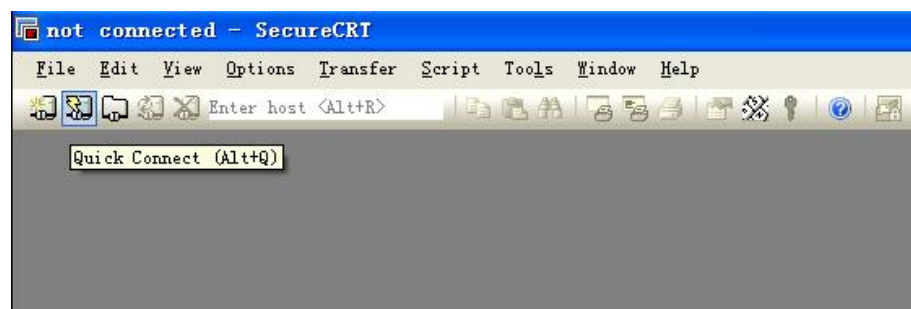
Figure 3-6 Create a quick connection

2.   Select the "Serial" protocol.
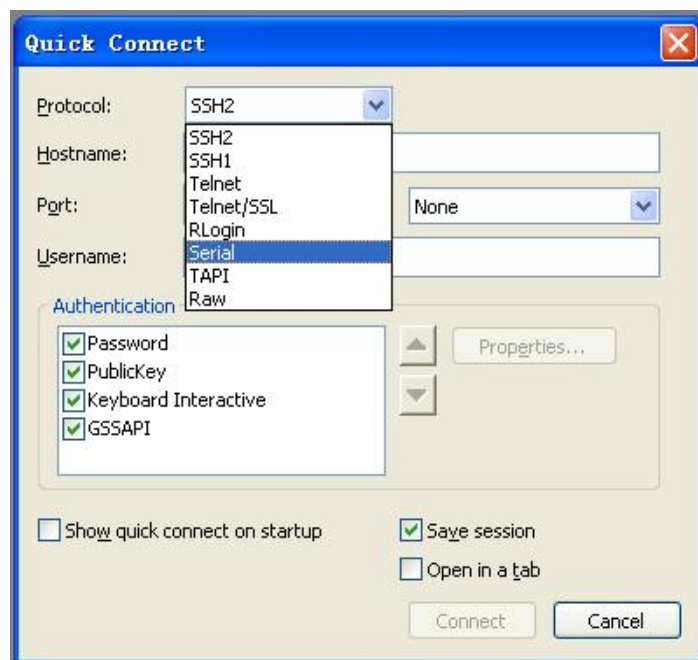
Figure 3-7 Serial port protocol setting

3.   Serial port number used by the PC (taking COM4 as an example).
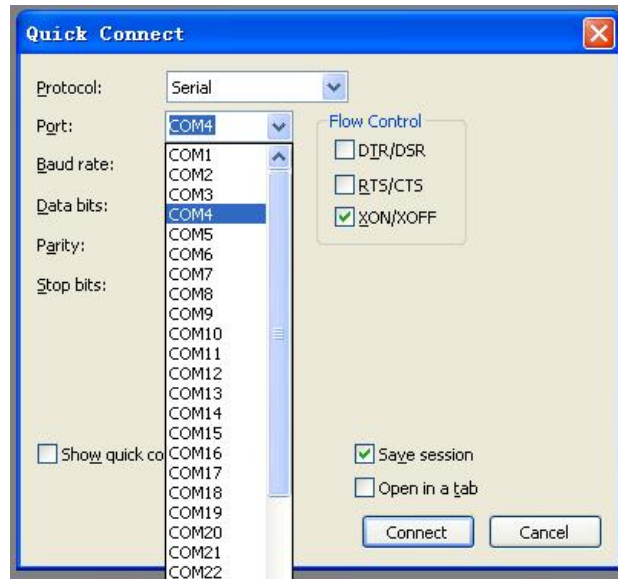
Figure 3-8 Parameter settings of serial port (selection of serial port number)

4.   Set the Baud rate as **115200**, the data bits as **8**, the odd-even check as **none**, the stop bits as **1**, the traffic control as **XON/XOFF**, and click the button of **Connect**.

5.   Use the serial port to connect to PC, you can see CLI shown in the following figure when you press the Enter key on the PC.
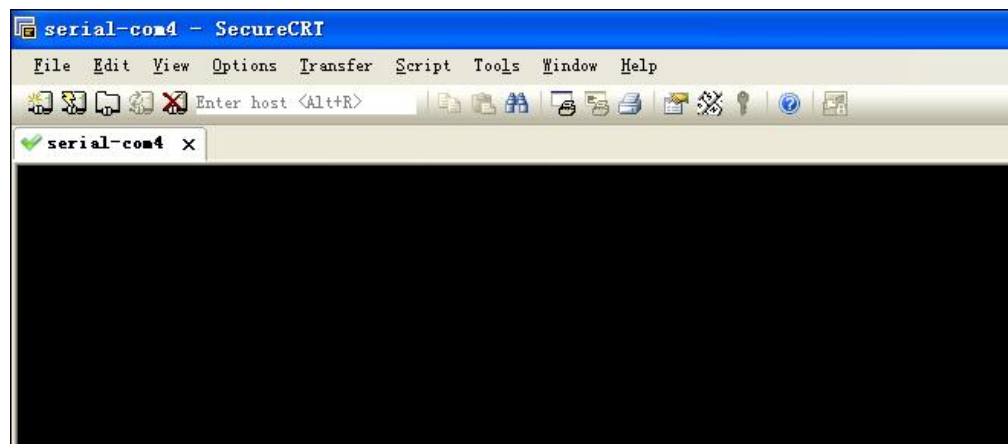
Figure 3-9 Serial port display window

  Note

Please use the cables attached in the box, otherwise it may be incompatible.

3.4 Powering on the switch

After the switch is powered on and started, the terminal will show the self-inspection information of the device, and after the self-inspection, the system will enter the command line prompt (e.g., switch#), etc.

Enter the command, configure the Ethernet switch or check the operational state of Ethernet switch. May enter "?" at any time for help, and please refer to the command line manual or configuration manual for specific configuration command.

4   **Technical parameters**

This chapter introduces the switch indicator, system indicator, single board indicator, performance indicator and other technical indicators of S4600 series switches, mainly including the following content:

- Switch parameters

4.1   Chassis parameters

The switch parameters of S4600-24X2C are shown as below.

Items		Parameters
Boundary dimension (mm)		440 (width) $\times$ 360 (depth) $\times$ 44 (height)
The maximum power consumption of switch		80W/100W
Weight (kg)		5.1
Working temperature (℃)		0～45
Working humidity		10%～90% RH, incondensable
AC input voltage	Nominal voltage (V)	220
	Voltage range (V)	100～240（50Hz/60Hz）
HVDC input voltage	Nominal voltage (V)	240
	Voltage range (V)	180～400

5   Switch OS Loading

The traditional switch software adopts serial port loading method, which, however, is slow and time-consuming, and doesn't have remote loading function, being inconvenient. To solve these problems, the switches introduce TFTP modules, and realize convenient software loading and file downloads through Ethernet port.

Step 1: Enter uBoot operation mode. Please press combination keys of ctrl+b to enter uBoot operation mode when the prompt of Press ctrl+b to stop autoboot: appears during the start of host, and the start information is as follows:

```
Restarting system.
U-Boot 3.0.2 (Development build) (Build time: May 10 2011 - 17:14:19)
P1010 board revision major:1, minor:0, serial #:
P1010 pass 1.1, Core clock: 533 MHz, DDR clock: 265 MHz (530 Mhz data rate)
Board descriptor tuple not found in eeprom, using defaults
DRAM:  1 GB
Clearing DRAM...... done
Flash: 2 GB
BIST check passed.
Net:  octeth0, octeth1
Press ctrl+b to stop autoboot:  3 - Press Ctrl + b to enter uBoot operation mode
```

Step 2: Determine a set of PC as the loading server, connect the management port of switch to this PC with network cables; and set the IP address of this PC and management IP address of switch as the same network segment. The specific operations are as follows:

1) Use the help open_all command to open all commands.

2) Use the command setenv ipaddr address to set the management IP address of switch. The switch may copy the system Image from TFTP server through such address.

3) Use the command setenv serverip address to set the IP address of loading server.

4) Use the command ping to examine whether the switch is connected to the loading server.

5) May use the command printenv to check the current environment variables of switch.

6) May use the command saveenv to store the current environment variables of switch to EPROM.

7) May use the command reenv to restore the environment variables of switch to default values.

Step 3: Run the program TFTP Server on the PC as the server, and set the catalogue where the load files are located, here the uBoot file to be upgraded is assumed to be u_boot_v1.0.bin.

Run the command upgrade_uboot u_boot_v1.0.bin to upgrade uBoot; here the filename is u_boot_v1.0.bin.

Step 4: Run the command upgrade_uboot filename spiflash to upgrade uBoot. Here the filename is u_boot_v1.0.bin.

Step 5: Run the command reset to complete the upgrade of uBoot.

6 Switch OS upgrade

S4600-24X2C switches may carry out operating system software upgrade through operating system, and don't need to replace hardware to add new features or enhance the performance of the system.

Figure 6-1 Upgrading operating system

Step 1: Copy the system software to be upgraded to the switch

In the privileged mode of switch, use the command copy to copy the mirror image files of software on the TFTP server to the boot folder of Flash of the switch.

```
Switch# copy mgmt-if tftp://10.10.29.160/SwitchOS-ma-v3.1.12.it.r.bin flash:/boot/
SwitchOS-ma-v3.1.12.it.r.bin
```

Before copying, please check whether the Flash of switch has enough space. If not, please delete the redundant files.

Step 2: Designate the mirror image files of software to be loaded by the system next time

After copying the new software Image files to the designated folder of switch, you may use the command boot to set the image as the software Image to be used by the switch after the next restart.

```
Switch(config)# boot system flash:/boot/SwitchOS-ma-v3.1.12.it.r.bin
```

Step3: Check the software Image loaded after the next restart of switch

After setting the Image used after the next restart of switch, you may use the command show to check whether the settings are correct.

```
Switch# show boot images
System image files list:
Current boot image version: 3.1.12
  Create Time          Version               File name
================================================================
2011-01-01 15:03:30      3.1.11            SwitchOS-ma-v3.1.11.it.r.bin
* 2011-05-28 10:08:38    3.1.12             SwitchOS-ma-v3.1.12.it.r.bin
```

Among these accessed image files of software, those marked with the asterisk * ahead are the software system mirror image of operating system to be loaded after the next restart of switch.
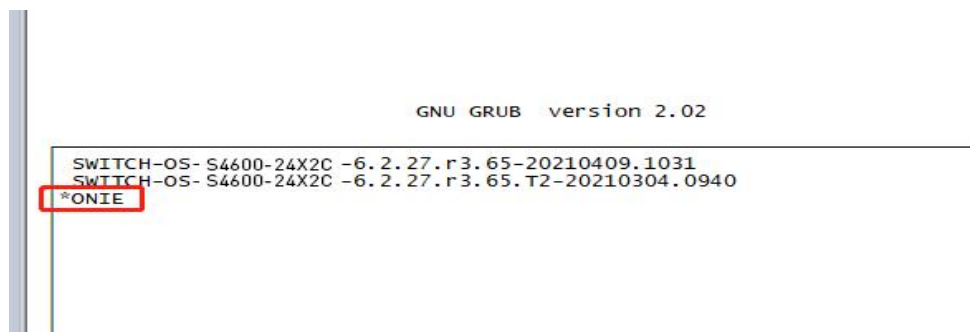
7 Maintenance and troubleshooting

7.1 Loading failure handling

After the loading fails, the system will maintain running on the original version. At this moment, users should recheck whether the physical ports are connected properly first. Where any port hasn't been connected properly, connect the port again, ensure correct physical connection, and restart the loading procedures. Where the physical connection is proper, check the information on the loading procedures shown on the HyperTerminal, and check whether there exist input errors, etc. Where there exist input errors, please correct input errors and reload. For example, having entered wrong IP addresses of Server and Switch when using TFTP protocol, wrong name of loading software, and failing to designate correct working path of correct TFTP server, etc.; where the loading finally fails in case of proper physical connection and no input error during the loading, please contact your technical support/seller/agent for help.

7.2 The user password is lost

Step 1. Restart the system, press the upward or downward key to select "ONIE" when the following interface appears, and press the Enter key to enter


```
                    GNU  GRUB   version 2.02


  SWITCH-OS- S4600-24X2C -6.2.27.r3.65-20210409.1031
  SWITCH-OS- S4600-24X2C -6.2.27.r3.65.T2-20210304.0940
 *ONIE
```

Step 2. Press upward or downward key again to select rescue, and press the Enter key
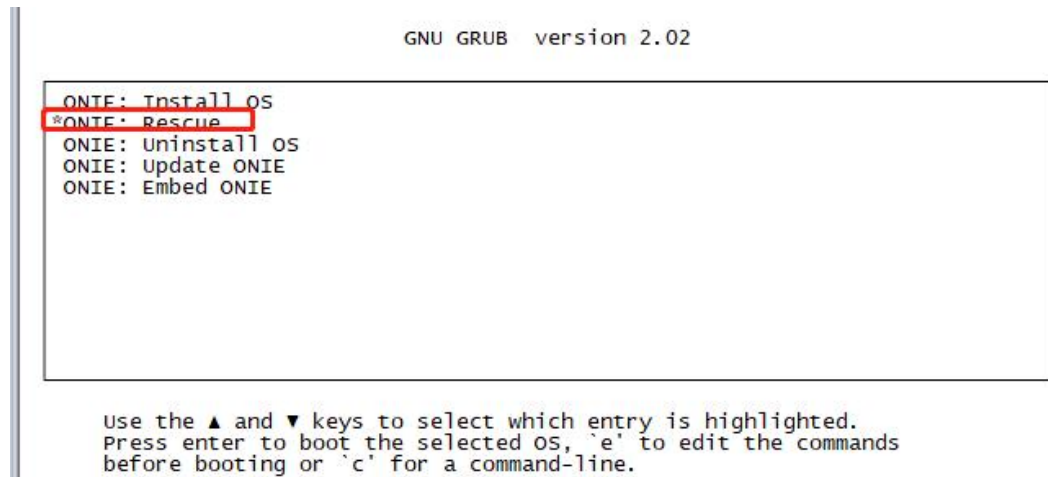
Step 3.   After entering the system, enter the following mode based on the prompt:

ONIE:/ #

Step 4.   Input the following commands in order:

ONIE:/ # sgdisk -p /dev/sda

Disk /dev/sda: 468862128 sectors, 223.6 GiB

Logical sector size: 512 bytes

Disk identifier (GUID): EEF80A4F-8B68-4FDE-B01F-C01CA6A51EF7

Partition table holds up to 128 entries

First usable sector is 34, last usable sector is 468862094

Partitions will be aligned on 2048-sector boundaries

Total free space is 417743981 sectors (199.2 GiB)

Number	Start (sector)	End (sector)	Size	Code	Name
1	2048	526335	256.0 MiB	EF00	EFI System
2	526336	788479	128.0 MiB	3000	ONIE-BOOT
3	788480	17565695	8.0 GiB	8300	Switch-OS
4	17565696	34342911	8.0 GiB	8300	Switch-BOOT
5	34342912	51120127	8.0 GiB	8300	Switch-CONFIG

ONIE:/ # mkdir -p /mnt/flash

ONIE:/ # mount -t ext4 /dev/sda5 /mnt/flash

ONIE:/ # cd /mnt/flash/

ONIE:/mnt/flash # vi startup-config.conf

After entering the vi interface, input "i" first, and then press the downward key to pull the interface to the end, modify partial configuration of line con 0 and line vty 0 7 of configuration files as follows (the part marked in red)

line con 0

  exec-timeout 35791 0

  no line-password

  no login

line vty 0 7

  exec-timeout 35791 0

  privilege level 4

  no line-password

  no login

5. Press down the "Esc" key after correction, and then enter ":wq" to store configuration;

6. Return to the ONIE interface again to enter the following commands:

ONIE:/mnt/flash # cd /

ONIE:/ # sync

ONIE:/ # umount /mnt/flash/

7. Input reboot again to restart

ONIE:/ # reboot

7.3   Fault handling of power system

The switch can judge whether there exists any fault in the power supply system of switch according to the PWR indicator light on the front panel; when the power supply system works normally, the PWR indicator light should be solid; when the power indicator light PWR is dark, please check as follows:

- whether the power lines of switch are connected correctly.

- whether power supply of switch and the power supply required by the switch are matched (AC or DC).

7.4   Fault handling of configuration system

After the switch is powered on, if the system runs normally, the start information will be shown on the configuration terminal; if the configuration system fails, the configuration terminal may show nothing or messy code.

7.5   The terminal doesn't show fault handling

After being powered on, if the configuration terminal shows no information, check as follows first:

Step 1: whether the power works normally.

Step 2: whether the cables of configuration interface (Console) are connected correctly.

Step 3: If no problem is found in the inspection above, it is probably caused by improper configuration cables or incorrect settings of terminal parameters of terminal (e.g., hyperterminal), please carry out corresponding inspection.

Step 4: Fault handling of the terminal showing messy code

If the configuration terminal shows messy code, it is probably caused by wrong settings of parameters of terminals (e.g., hyperterminal). Please confirm the settings of parameters of terminal (e.g., hyperterminal): the Baud rate set as 115200, the data bits as 8, the odd-even check as none, the stop bits as 1, the traffic control as none, and the terminal simulation selected to be VT100.