

# Commercial Ethernet Switch User Guide

## Packing List

- ◆ Ethernet switch/PoE switch (1 PC)
- ◆ Installation kit (1 Set)
- ◆ AC power cord (1 PC)/or DC power adapter (1 set, only for DC input models)
- ◆ Mounting ears (1 pair)
- ◆ User guide (1 PC)
- ◆ Warranty card (1 PC)

# First, Safety Precautions

- To ensure the safety of people and equipment, when installing, operating, and maintaining the equipment, follow the signs on the equipment and the safety precautions described in the manual. “Warnings” and “notes” in this manual do not represent all safety precautions that should be followed, and are only supplementary to safety precautions.
- When carrying out various operations of our equipment, we must strictly observe the relevant equipment precautions and special safety instructions provided by ONV company. The "safety warnings" listed in the manual only reflect the requirements of ONV company. The safety requirements have not been reflected, and ONV company will not bear any responsibility for the loss caused by the violation of the general safety operation requirements or the violation of the design production and use equipment safety standards.

## Description

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- The figures in this document are for reference only. The appearance of the device is subject to actual delivery.
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## Second, the installation environment requirements

- The Ethernet switch support desktop, wall-mounted, and 19”in racked mounted.
- The temperature and humidity of the installation site must be kept within the temperature and humidity range in which the Ethernet switch can work normally. For the normal temperature range and relative humidity range of the Ethernet switch, refer to the Ethernet switch product datasheet.
- PoE switch grounding is an important step in the installation process. The correct connection of the grounding cable is an important guarantee for the switch's lightning protection, high-voltage surge protection, interference protection, and static electricity damage.

## Third, lightning protection requirements

- Do not use outdoor overhead wiring. The equipment may be damaged by lightning. Please use buried or steel pipe wiring.
- The switch must be grounded before turning on the power to ensure that the grounding resistance of the installation environment does not exceed  $10\Omega$ , otherwise the equipment may be damaged.

## Fourth, Pre-commissioning

- If commissioning is required to confirm whether the switch functions are complete, it is recommended to commission the switch before installation.

### 4.1 Debugging steps

- ◆ Connect the switch to the DC/AC power supply, then turn on the power AC, observe whether the switch has

completed the self-check normally, and confirm that the switch has been powered on normally.

- ◆ Use a network cable to connect the computer to the Ethernet port/optical interface of the switch.
- ◆ Connect the test equipment to check whether the port data is received/sent normally and whether there is packet loss through the computer ping method.
- ◆ For PoE switches, please confirm that the connected device supports the PoE power supply and the power is within the specified range.
- ◆ For single-mode single-fiber optical module switches, please confirm that the optical modules at both ends of the single fiber jumper must be paired with A and B before the test can communicate normally.

## **Fifth, industrial switch installation**

### **Installation instructions**

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- ◆ Please select a suitable installation location or cabinet according to the installation method of the switch.  
(Rack-mounted installation is suitable for national standard 1U/19 inch cabinet)
  - ◆ When installing the switch, you need to use the matching mounting ear accessories and screws.
  - ◆ Please wear protective gloves when installing.
  - ◆ It is forbidden to install the switch with power on.
  - ◆ The exterior paint decoration of the switch should be kept intact. If there is any paint drop, the paint part needs to be touched up immediately to prevent corrosion.

## Installation preparation tool

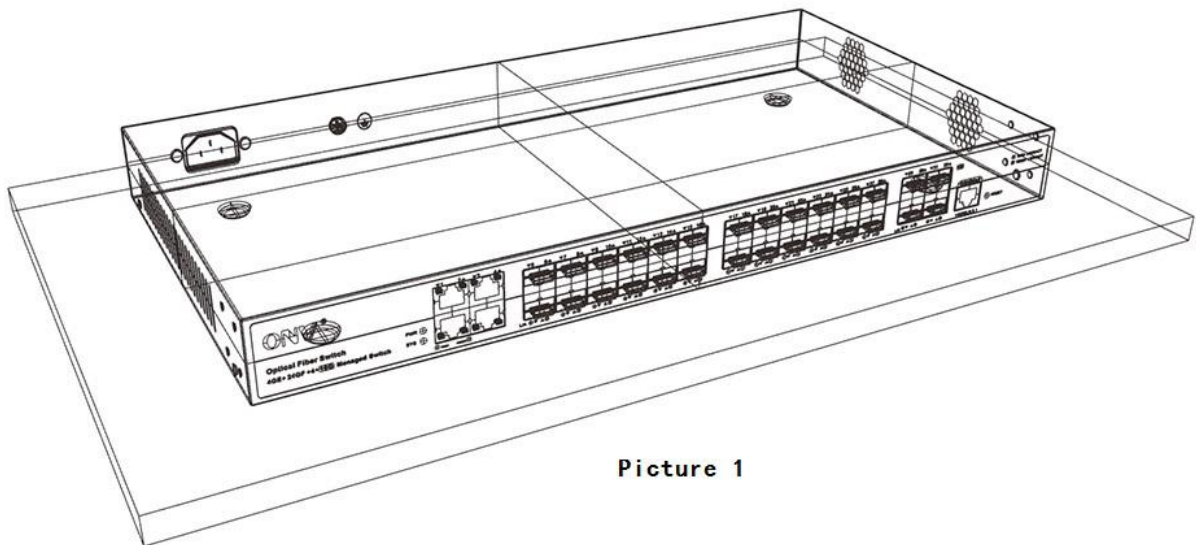
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- ◆ Labor protection gloves
- ◆ Plum screwdriver
- ◆ Flat screwdriver

# Installation steps

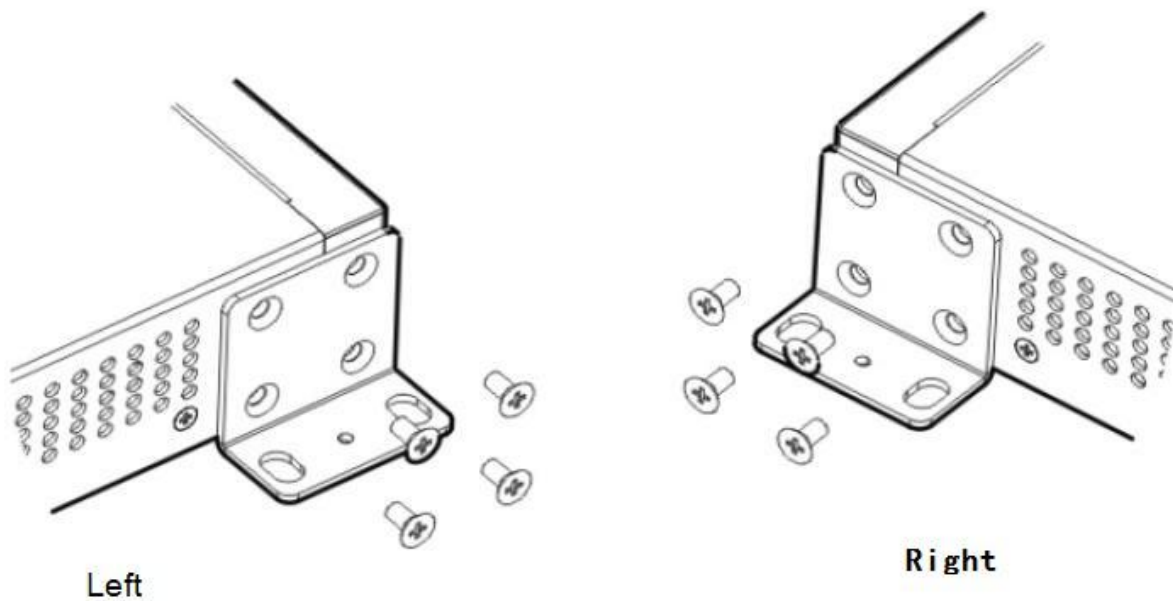
## ■ Desktop installation

**Step 1:** As shown in picture 1, lay the switch flat on the desktop, and ensure that at least 10cm of space is reserved on both sides of the vent of the switch so that the switch can be well ventilated and cooled.



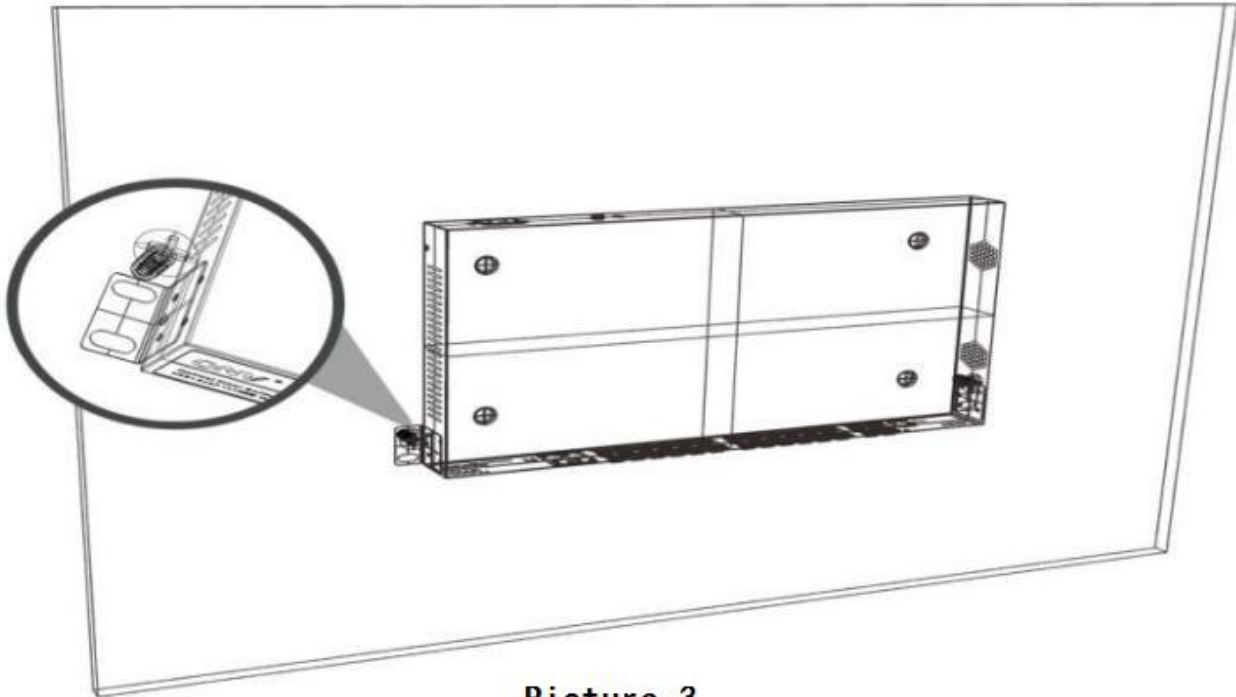
Picture 1

## ■ Wall-mounted installation



Picture 2



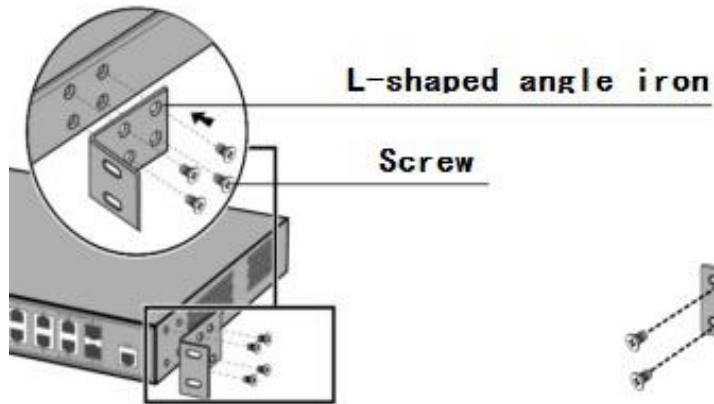


Picture 3

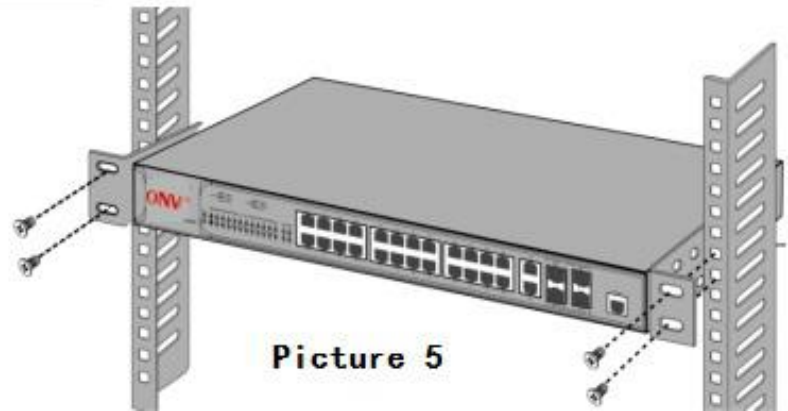
**Step 1:** As shown in picture 2, find the mounting ears and screws (M3\*5mm) from the accessory bag of the machine, then place the switch upright, place the mounting ears to the installation position, and see if the screw holes are aligned properly After confirming the match, use a Torx screwdriver to fix the hanging ears on both sides of the machine with screws.

**Step 2:** As shown in picture 3, place the machine in a suitable installation position, measure and mark the location of the positioning holes of the mounting ears. If the installation wall is a wooden board, use self-tapping screws to fix it directly. If the installation wall is a concrete wall, You need to punch + expansion screws to fix.

## ■ Rack installation



**Picture 4**



**Picture 5**

**Step 1:** As shown in picture 4, first fix the brackets on both sides of the machine with screws.

**Step 2:** As shown in picture 5, put the machine into a suitable position in a standard 19-inch cabinet, and then fix it on the rack.

## Sixth, Connect the switch

- Connect the switch power line to the power supply.
  - The grounding cable is prepared by the user and properly connected to ensure that the switch meets the requirements for safe use.
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- Before installing or removing the switch or power line, the power must be disconnected, and live operation is prohibited to avoid personal injury.
- Ensure that the protective ground wire of the equipment is effectively grounded. All power cables must not have metal parts exposed in the air.

## Seventh, check after installation

- Check whether the mounting parts (hanging ears) are firm and whether the screws are tightened.

- Check whether the polarity of all cable connections is correct, whether the connection is firm and reliable, and ensure that there is no short circuit.
- Check whether there are screw holes without screws and whether the screws of each module are firm.
- Power on and check. Whether the industrial switch has completed the self-check process normally, and whether the indicator of the connected port is normal.

## Eighth, indicator and button function table

Symbol	Indicator Function	State	Description	Colour
PWR or P	Work indicator	On	Normal	Green
		Off	Switch no power supply or failure	
		Blink	System abnormality or failure	

PoE	PoE	On	Normal power supply	Green
		Blink	PD device failure or power overload	
		Off	No connected PD or PoE power off	
Link	Network	On	Link is ok	Yellow
		Blink	The link port is receiving/sending data	
		Off	Link failure or port failure	
L/A or F	Optical fiber	On	The optical fiber port is ok	Green
		Blink	The optical fiber port is receiving/sending data	
		Off	Optical fiber failure or port failure	
Speed or 1000M	Port rate	On	Gigabit transmission	Green
		Off	Non-gigabit transmission	
<b>Function Switch</b>				
E or Extend	250m transmission	Turn the switch to the	Enable the PoE port 10M/250m long-distance transmission function	Green

V	VLAN	symbol, then the function is turned on	Enable PoE port VLAN isolation function	—
D	Watchdog		Enable the PoE port self-healing network restart (watchdog) function	—
P	Power priority mode		Enable PoE port power priority function	—



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