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■ Conventions

If not specifically indicated, the switch, this product or this device mentioned in this Install Guide stands for IP-COM 9-port 10/100Mbps desktop switch with 8-port PoE F1109P.

Symbols in this Install Guide:

Symbol	Meaning
 Note	This symbol is used to highlight information of importance or special interest. Ignoring this type of note may result in a malfunction or damage to this device.
 Tips	This symbol is used to highlight a procedure that will save time or resources.

■ Overview of This Install Guide

Chapter	Description
Chapter 1 Product Overview	Introduction to this switch's package contents and physical appearance
Chapter 2 Hardware Installation	Introduction to this switch's hardware installation and installation considerations
Chapter 3 Physical Connection	Introduction to cable connections between this switch and other devices, and connection considerations
Appendix	Introduction to technical specifications of this switch and safety, emission statement

Chapter 1 Product Overview

1.1 Package Contents

Unpack the package and verify that the following items are included:

Item	Number	Description
Switch	1	/
Power Adapter	1	/
Install Guide	1	Used for instructing you how to use this device
Magnet	4	Used for magnet installation
Screw	4	Used for magnet installation
Anti-slip Footpad	4	Used for desktop installation
Expansion Bolt	2	Used for wall-mounting installation
Expansion Screw	2	Used for wall-mounting installation

If any item is missing or damaged, contact the place of purchase immediately.

1.2 Physical Appearance

■ Front Panel

The front panel contains RJ45 ports, VLAN ON/OFF (a hardware switch), and LEDs as shown in **Figure 1-1**.

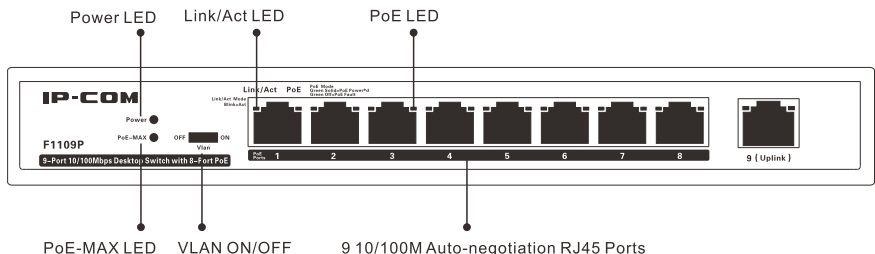


Figure 1-1 Front Panel

RJ45 Ports

9 10/100M auto-negotiation RJ45 ports: Port 9 is the Uplink port with inductive lightning protection (4KV). Ports 1-8 are 8 PoE, IEEE 802.3af-compliant and IEEE 802.3at-compliant Downlink ports with up to 40W on a single port . And they can connect up to 8 IEEE 802.3af-compliant PDs (powered devices) or 4 IEEE 802.3at-compliant PDs at the same time.



Tips

- As pair 1, 2 and pair 3, 6 are delivering PoE power , it is advisable to use cat 5 or higher UTP/STP cables. When cat 5e or cat 6 twisted cables are adopted, the cable length between the switch and the attached device can be as long as 150m.
- The PoE mode is dynamic, i.e. the switch delivers power for powered devices automatically.
- The maximum allowed PoE power consumption of this switch reaches 115W . When the total power consumption of all PoE PDs exceeds 115W, the PoE-MAX LED will be flashing.

Meanwhile, in terms of the priority order: port 1 > port 2 > port 3 > port 4 > port 5 > port 6 > port 7 > port 8, the PD linked to the port with lower priority will be disconnected.

VLAN ON/OFF

VLAN ON: Port VLAN is enabled on this switch. In this mode, ports 1- 8 are isolated and any two of them cannot intercommunicate. However, all of them can communicate with the Uplink port (port 9). This can prevent broadcast storm and DHCP cheating. As long as the switch is powered on and the VLAN mode is ON, VLAN function will take effect.

VLAN OFF: Port VLAN is disabled on this switch. In this mode, all ports can intercommunicate and won't be limited by VLAN. As long as the switch is powered on and the VLAN mode is OFF, VLAN function won't take effect.

LEDs

You can know the working status of your device according to LED status.

LED	Color	Status	Description
Power	Green	Solid	Proper connection to power supply
		Off	Improper connection to power supply or malfunction occurs
PoE-MAX	Green	Flashing	<p>PoE power consumption reaches the maximum power budget (115W).</p> <p>In terms of the priority order: port 1 > port 2 > port 3 > port 4 > port 5 > port 6 > port 7 > port 8, PDs linked to ports with lower priority will be disconnected automatically one by one until PoE power consumption becomes normal.</p> <p>Note: To make the PoE-MAX LED extinguished (PoE power supply becomes normal), you need to manually cut off PoE power supply of some ports, i.e., unplug Ethernet cables of these ports.</p>
		Off	PoE power consumption is within the maximum power budget. Power can be available for additional PDs.
Link/Act	Orange	Solid	A valid link is established on the corresponding RJ45 port.
		Flashing	Data transmission is occurring on the corresponding RJ45 port.
		Off	No link is established on the corresponding RJ45 port or malfunction occurs.
PoE	Green	Solid	The PoE powered device (PD) is connected on the corresponding RJ45 port and the port is supplying power successfully.
		Off	No PoE-powered device (PD) connected on the corresponding RJ45 port or the port is not supplying power.

Table 1 LED Status Description

Note

LED of port 9 (Uplink port) is for decoration only.

Back Panel

The back panel contains the anti-theft lock hole, grounding terminal and power interface as shown in **Figure 1-2**.

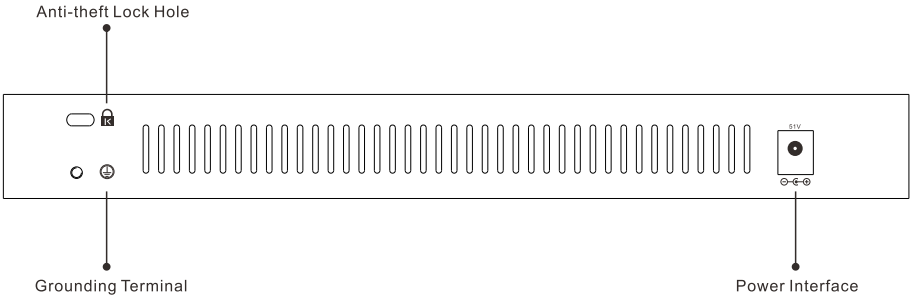


Figure 1-2 Back Panel

Anti-theft Lock Hole

Used for locking this device and an object together with an anti-theft lock (not included) for the purpose of anti-theft.

Grounding Terminal

Used for connecting the protective grounding cable for inductive lightning protection. As for the method of connecting protective grounding cable, please refer to 2.3 Connect to Protective Grounding Cable (Page 9).

Power Interface

Used for connecting to the included power adapter for power supply.

Note

Please use the included power adapter for power supply. The rated power input voltage is 100-240V AC, 50/60Hz and the rated power output voltage is 51V DC, 2.5A.

Chapter 2 Hardware Installation

2.1 Installation Considerations

To avoid any equipment damage or bodily injury caused by improper use, read the following safety recommendations before installing the switch. Note that the recommendations do not cover every possible hazardous condition.

■ Safety Caution

- Do wear anti - static gloves while installing this device and disable the power supply of this device;
- Use the included power cord for power supply;
- Ensure operating power supply accords with the rated input standard.
- Ensure ventilation holes of the switch are in good condition;
- Do not open or remove the housing of the switch;
- Do disconnect power supply while cleaning the switch and do not use damp cloth or any liquid to clean the switch;
- It's suggested to ground the switch to avoid strong inductive lightning. Keep the switch away from power lines, electric lights or strong power grid or anywhere the power grid with strong current is reachable, all for better performance.



Note

There is an IP-COM seal on one of the screws. You should keep the seal unbroken so that the technical staff can maintain your switch. You cannot open the housing of the device unless you get the local reseller's permission, or you have to be responsible for the result that the device cannot be maintained because of unpermitted operation.

■ Environmental Requirements

Temperature & Humidity

Environment	Temperature	Humidity
Operating Environment	-10°C ~ 45°C	10% ~ 90%RH (Non-condensing)
Storage Environment	-40°C ~ 70°C	5% ~ 90% RH (Non-condensing)

Table 2 Temperature & Humidity Requirements

Cleanliness Requirements

In case that static electricity affects this device's normal operation, please observe following guidelines:

- Keep indoor environment clean and dust the switch regularly;
- Keep the switch well-grounded for electrostatic transferring.

Lightning Protection

In case that strong current does damage to the switch due to inductive lightning, verify that:

- Power socket, rack, work bench and the grounding terminal of the switch are well-grounded;
- The switch is cabled properly. When the switch is cabled outdoors, it is advisable to use it together with the signal lightning arrester.

Installation Site Requirements

Before installing the switch in a rack or on a flat work bench, please verify:

- The rack or work bench is stable, sturdy enough and well-grounded;
- The switch should be clean and well ventilated. Keep at least 10 centimeters free on all sides for cooling;
- There are no articles, especially heavy articles, on the switch;
- There is more than 1.5 centimeters vertical distance free between devices that stack up.

2.2 Installation

You can choose a suitable installation method as you need.

A. Desktop Installation

Step 1: Place the switch bottom up on a big enough, flat desktop;

Step 2: Attach four anti-slip footpads to the corresponding circular grooves on the bottom of the switch as shown in **Figure 2-1**;

Step 3: Place the switch face up on the desktop.

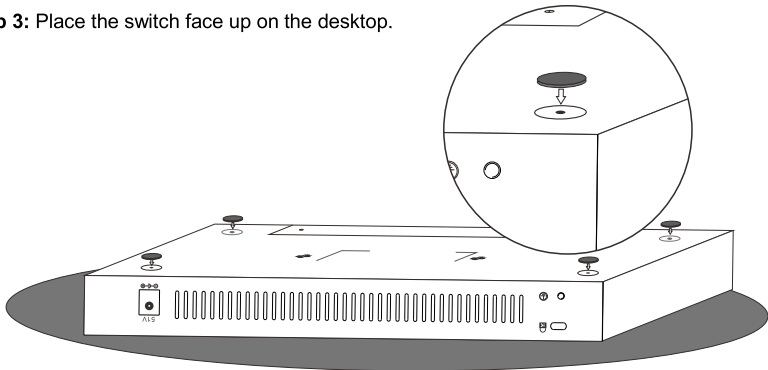


Figure 2-1 Mount the Switch on a Desktop

B. Magnet Installation

Step 1: Prepare a phillips screwdriver;

Step 2: Attach four magnets to the corresponding circular grooves on the bottom of the switch;

Step 3: Use screws to secure the magnets to the switch's housing, shown as **Figure 2-2 (a)**;

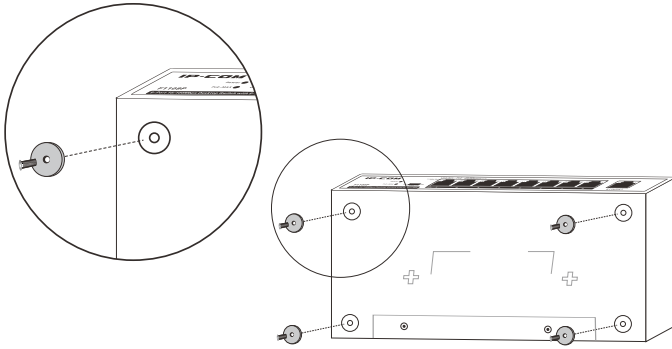


Figure 2-2 Magnet Installation (a)

Step 4: Attach the switch (installed with magnets) tightly onto a stable surface you select, shown as **Figure 2-2 (b)**. When installing, mind your fingers.

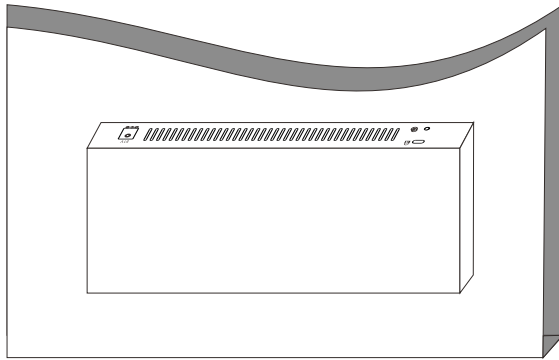


Figure 2-2 Magnet Installation (b)

Note

- Select the installation surface carefully. If the surface is not proper, the reliability of this installation will be influenced.
- Too high installation position or vibration might cause a fall, leading to switch damage or personal injury.
- When installation is finished, don't move the switch very often to avoid surface coating damage.
- To make the cabling more easily, please place the switch bottom up when you mount it vertically and pay attention to the weight of the installed cables to avoid a fall.
- Keep magnets away from objects such as the floppy disk, magnetic card, computer or monitor, which are easy to be magnetized. Otherwise the device malfunctions may occur.

C. Wall-mounting Installation

Step 1: Prepare the following tools;



Step 2: Use the hammer drill to punch 2 holes with a diameter of 6mm on the wall. The distance between the 2 holes is 110mm, and the line through them should be horizontal;

Step 3: Insert expansion bolts into holes you've drilled and knock the expansion bolts with the rubber hammer into the wall until they are on the same horizontal line of the wall surface;

Step 4: Use the Phillips screwdriver to fix the expansion screws into the expansion bolts. Distance between the inside surface of the screw header and the edge of the conductor pipe should not be less than 2.5mm, to make sure that the device can be hung on the bolt tightly;

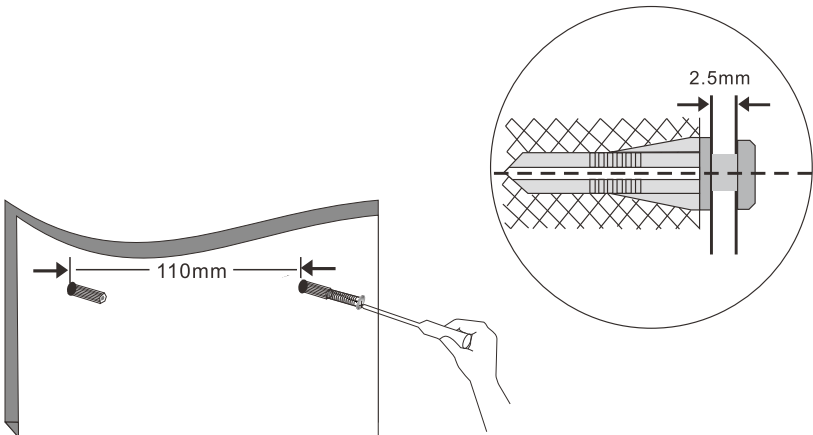
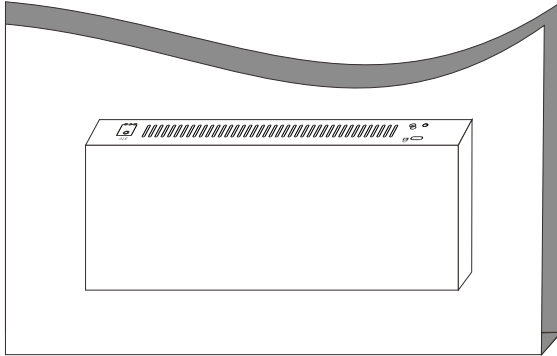


Figure 2-3 Wall-mounting Installation

Step 5: Maneuver the switch until the two wall - type holes on the bottom of the device fit in the expansion screws to hang the switch.



2.3 Connect to Protective Grounding Cable

Proper connection of protective grounding cable is not only important for inductive lightning protection and anti-interference, but for your own personal safety. Please select the most suitable method to connect protective grounding cable according to your installation environment.

A. With grounding bar

Step 1: Connect one end of the protective grounding cable to the grounding terminal;

Step 2: Connect the other end of the protective grounding cable to the binding post on the grounding bar and fix the screw.

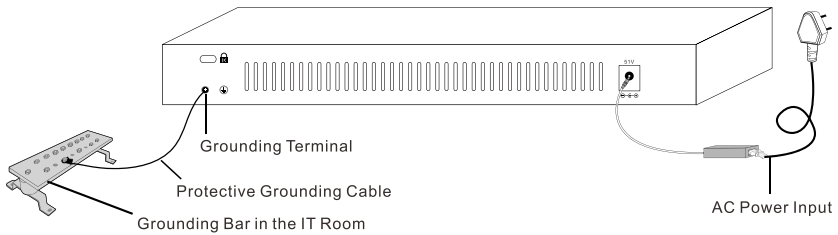


Figure 2-4 Installation with Grounding Bar

Note

Firefighting hoses and building lightning rods are not the proper options for grounding bar. The grounding cable on the switch should be connected to the grounding bar in the IT room.

B. Without grounding bar

With mud land nearby and allowed to bury grounding bar, follow below steps:

Step 1: Bury an angle iron or steel pipe ($\geq 0.5\text{m}$) into the mud land;

Step 2: Weld one end of the protective grounding cable to the angle iron or steel pipe and embalm the welding point;

Step 3: Connect the other end of the protective grounding cable to the grounding terminal.

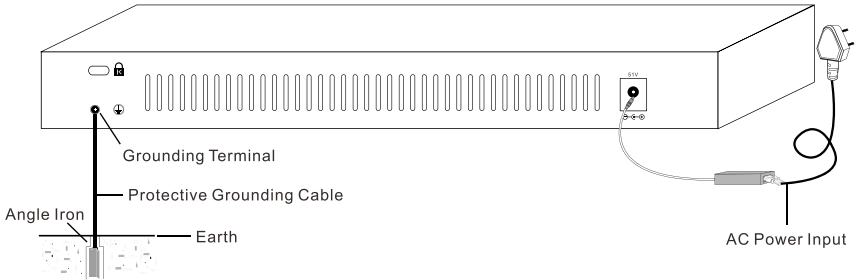


Figure 2-5 Installation with buried grounding bar

If not allowed to bury the grounding bar, you can connect it to ground through the three-core PE cable of the AC power socket on the precondition that the PE cable in the switchgear room or beside the AC power supply transformer is well-grounded.

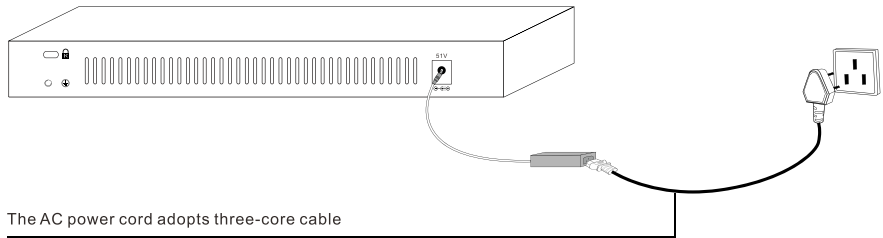


Figure 2-6 Connect to ground through the PE cable of the AC power socket

Chapter 3 Physical Connection

Step 1: Connect the Uplink port (port 9) of this switch to the remote Ethernet device (switch, router, etc.) with an Ethernet cable as shown below:

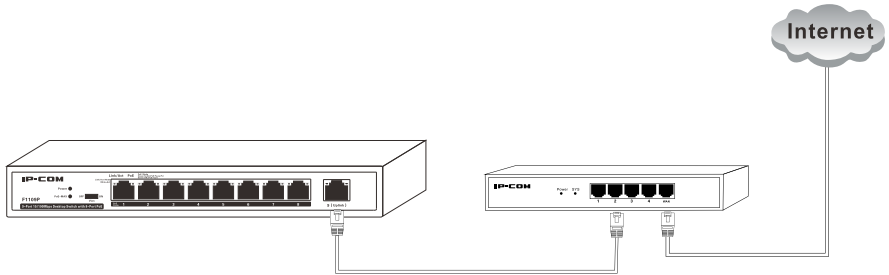


Figure 3-1 Connect to the Remote Ethernet Device

Step 2: Connect Downlink ports (ports 1-8) to Ethernet PDs, like APs, IP telephones, IP cameras, etc. with Ethernet cables as shown below:

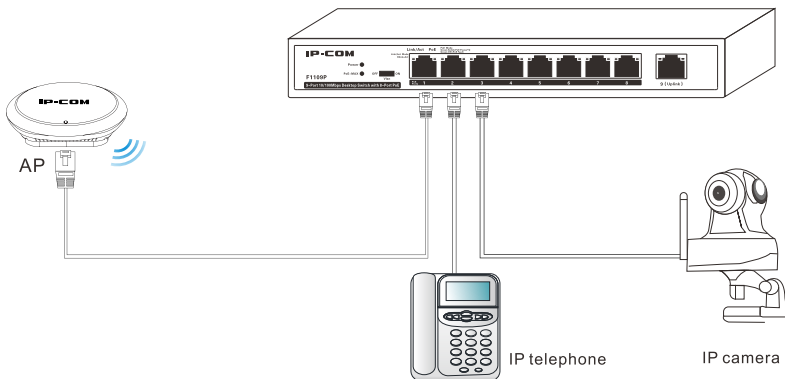


Figure 3-2 Connect to PDs

Note

If cabling outside, please equip corresponding RJ45 ports with lightning arrestors.

Step 3: Use the included power adapter for power supply.

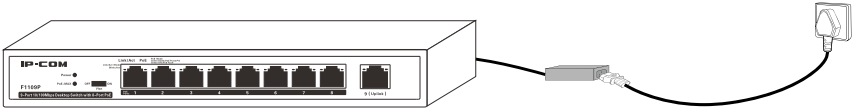


Figure 3-3 Connect to Power Supply

Step 4: After powered on, the switch will be initialized automatically. Check LEDs' status, and verify that:

- All LEDs (except LED of port 9) will light up and extinguish immediately, which indicates the system has been restored to factory defaults;
- The Power LED lights up.