

Installation Guide

8-Port 10G Multi-Gigabit Desktop/Rackmount Switch
DS108X & DS1008X

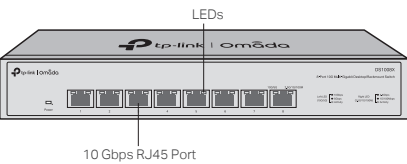
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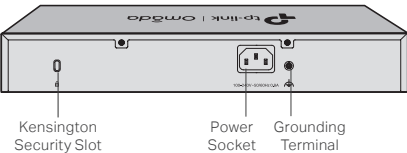


Appearance

Front Panel



Rear Panel



Note: For simplicity, we will take DS1008X for example.

Power

On: Power on
Off: Power off

Port LED

When one of the LED is on/flashing:
On: Connecting to a device but no activity.
Flashing: Transmitting or receiving data.

Left LED (10G/5G):
Green: Running at 10 Gbps.
Amber: Running at 5 Gbps.

Right LED (2.5G/1G/100M):
Green: Running at 2.5 Gbps.
Amber: Running at 100/1000 Mbps.

Kensington Security Slot

Secure the lock (not provided) into the security slot to prevent the device from being stolen.

Power Socket

Plug the female connector of the power cord directly into the power socket and plug the male connector into an AC outlet. Make sure that the voltage of the power supply meets the requirement of the input voltage (100–240 V ~ 50/60 Hz).

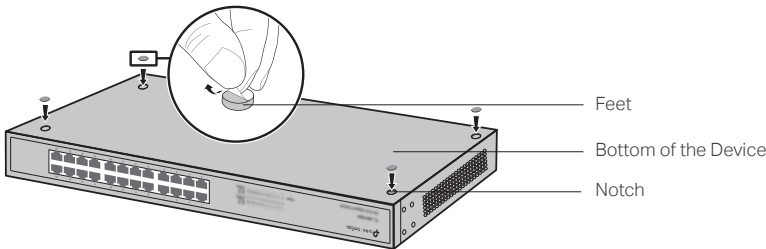
Grounding Terminal

The switch already comes with lightning protection mechanism. You can also ground the switch through the PE (Protecting Earth) cable of AC cord or with Ground Cable.

Installation

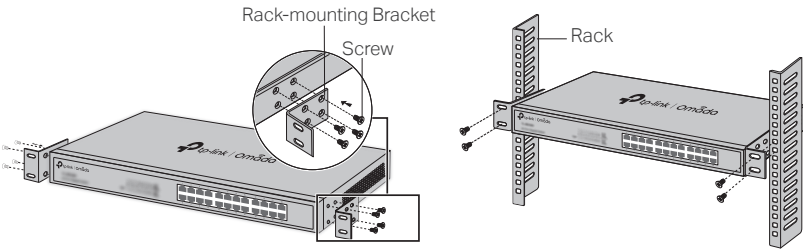
Note: The images in this guide are for demonstration only and may differ from your actual product.

Method 1: Desktop Installation



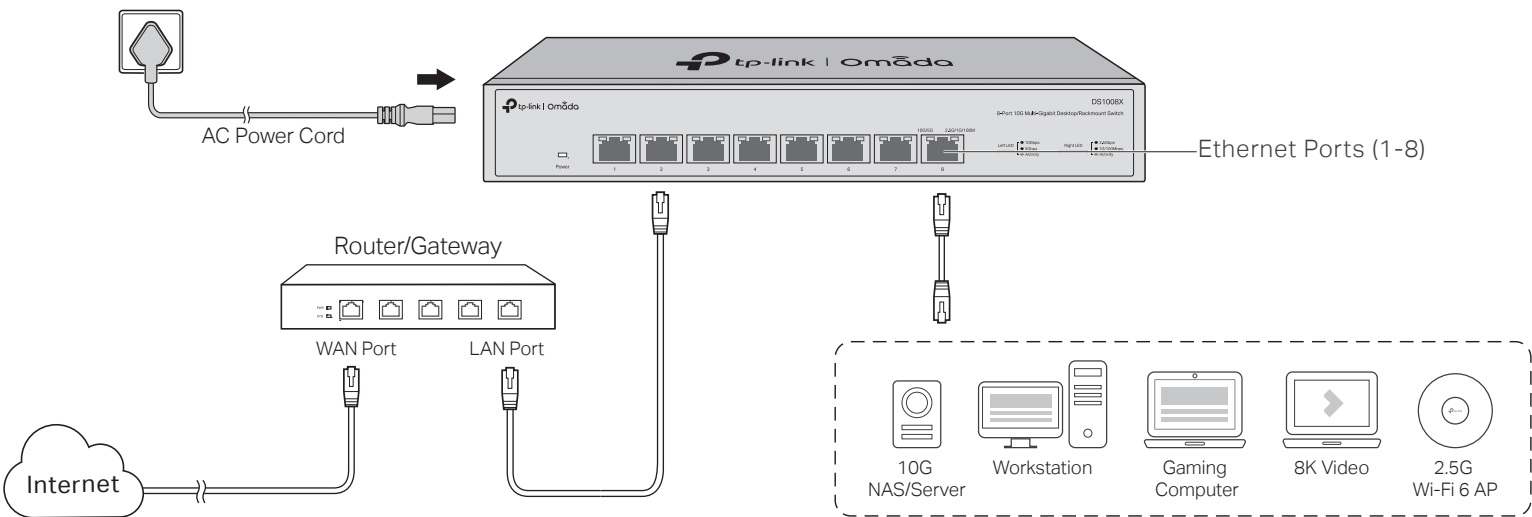
- 1) Remove the adhesive backing papers from the feet.
 - 2) Attach the feet to the bottom of the switch to prevent it from slipping when placed on a desktop.
- Note:
- Place nothing on the top of the switch to avoid blocking the top ventilation openings for better cooling.
 - Leave at least 7.6 cm (3 inches) gaps around the device, especially the vertical space above, for air circulation.

Method 2: Rack Installation



- Note:
- Leave 5 to 10 cm gaps around the devices for air circulation.
 - Avoid placing heavy things on the device.
 - Place the device with its bottom facing downwards.
 - Mount devices in sequence from the bottom to top of the rack and ensure a certain clearance between devices for the purpose of heat dissipation.
 - For DS108X: The preferred rack-mounting position is at the base of the rack or cabinet (for optimal cooling) or below as many of the other products as can be accommodated.

Connection



Specifications

General Specifications

Standard	IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3an, IEEE 802.3bz IEEE 802.3x, IEEE802.1p
Protocol	CSMA/CD
Interface	8 100M/1G/2.5G/5G/10G RJ45 Ports Auto-Negotiation/Auto MDI/MDIX
Network Media (Cable)	100BASE-TX: 2-pair UTP/STP of Cat. 5 or above (maximum 100 m) 1000BASE-T: 4-pair UTP/STP of Cat. 5e or above (maximum 100 m) 2.5GBASE-T: 4-pair UTP/STP of Cat. 5e or above (maximum 100 m) 5GBASE-T: 4-pair UTP/STP of Cat. 5e or above (maximum 100 m) 10GBASE-T: 4-pair UTP of Cat 6 (maximum 55 m) or STP of Cat 6, 6a, 7 (maximum 100 m)
Switching Capacity	160 Gbps
Transfer Method	Store-and-Forward
MAC Address Learning	Automatically learning, automatically aging
Frame Forwarding Rate	100Base-TX: 148810 pps/port 1000Base-TX: 1488095 pps/port 2.5GBase-TX: 3720238 pps/port 5GBase-TX: 7440476 pps/port 10GBase-TX:14880952 pps/port
Fan Quantity	DS108X: 0 DS1008X: 1

Environmental and Physical Specifications

Certification	FCC, CE, RoHS
Operating Temperature	DS108X: 0 °C to 40 °C (32 °F to 104 °F) DS1008X: 0 °C to 50 °C (32 °F to 122 °F)
Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Operating Humidity	10% to 90%RH non-condensing
Storage Humidity	5% to 90%RH non-condensing

Safety Precautions

To avoid any device damage and bodily injury caused by improper use, you should observe the following rules.

- Keep the power off during the installation.
- Wear an ESD-preventive wrist strap, and make sure that the wrist strap has a good skin contact and is well grounded.
- Use only the power cord provided with the switch.
- Make sure that the supply voltage matches the specifications indicated on the rear panel of the switch.
- Ensure that the switch is installed in a well-ventilated environment and its ventilation hole is not blocked.
- Do not open or remove the cover of the switch.
- Before cleaning the device, cut off the power supply. Do not clean it by the waterish cloth, and never use any other liquid cleaning method.
- Place the device with its bottom surface downward.

For DS108X, you should note the following:

- Avoid blocking any ventilation openings on the top, sides, rear, or front of the switch. Ensure that the airflow around the switch is not restricted.
- Beware of hot surface. Note that a fanless switch usually operates with a warmer enclosure than the normal one, but it has no effect on functionality or performance of the switch.

Site Requirements

Temperature/Humidity



Keep the equipment room at an appropriate level of temperature and humidity. Too much or too little humidity may lead to bad insulation, leakage of electricity, mechanical property changes, and corrosion. High temperatures may accelerate aging of the insulation materials, significantly shortening the service life of the device. To find out the best temperature and humidity conditions for the device, check the following table.

Environment	Temperature	Humidity
Operating	0 °C to 40 °C (DS108X) 0 °C to 50 °C (DS1008X)	10% to 90%RH Non-condensing
Storage	-40 °C to 70 °C	5% to 90%RH Non-condensing

Cleanness



The dust accumulated on the switch can be absorbed by static electricity and result in poor contact of metal contact points. Some measures have been taken for the device to prevent static electricity, but too strong static electricity can cause deadly damage to the electronic elements on the internal circuit board. To avoid the effect of static electricity on the operation of the switch, attach much importance to the following items:

- Dust the device regularly, and keep the indoor air clean to ensure that the ventilation holes are not blocked.
- Keep the device well grounded and ensure that the static electricity has been transferred.

Electromagnetic Interference



Electronic elements including capacitance and inductance on the device can be affected by external interferences, such as conducted emission by capacitance coupling, inductance coupling, and impedance coupling. To decrease the interferences, make sure to take the following measures:

- Use the power supply that can effectively filter interference from the power grid.
- Keep the device far from high-frequency and strong-current devices such as radio transmitting station.
- Use electromagnetic shielding when necessary.

Lightning Protection



Extremely high voltage currents can be produced instantly when lightning occurs and the air in the electric discharge path can be instantly heated up to 20,000 °C. As this instant current is strong enough to damage electronic devices, more effective lightning protection measures should be taken.

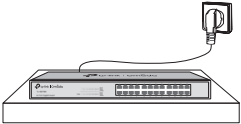
Ensure that the rack and the device are well earthed.

- Make sure the power socket has a good contact with the ground.
- Keep a reasonable cabling system and avoid induced lightning.
- Use the signal SPD (Surge Protective Device) when wiring outdoor.

Note:

For detailed lightning protection measures, refer to the Lightning Protection Guide of our website: https://www.tp-link.com/us/configuration-guides/lightning_protection_guide.

Installation Site



When installing the device on a rack or a flat workbench, attach much importance to the following items:

- The rack or workbench is flat, stable, and sturdy enough to support the weight of 5.5 kg at least.
- The rack or workbench has a good ventilation system. The equipment room is well ventilated.
- The rack is well grounded. Keep the device less than 1.5 meters away from the power socket.

EU declaration of conformity

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of directives 2014/30/EU, 2014/35/EU, 2011/65/EU and (EU)2015/863.

The original EU declaration of conformity may be found at <https://www.tp-link.com/en/ce>.

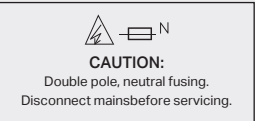
UK declaration of conformity

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of the Electromagnetic Compatibility Regulations 2016 and Electrical Equipment (Safety) Regulations 2016.

The original UK declaration of conformity may be found at <https://www.tp-link.com/support/ukca/>

Safety Information

- Keep the device away from water, fire, humidity or hot environments.
- Do not attempt to disassemble, repair, or modify the device. If you need service, please contact us.
- Place the device with its bottom surface downward.
- The plug on the power supply cord is used as the disconnect device, the socket-outlet shall be easily accessible.
- Plug the product into the wall outlets with earthing connection through the power supply cord.
- The protective earthing terminal must be connected to the installation protective earthing conductor.



Please read and follow the above safety information when operating the device. We cannot guarantee that no accidents or damage will occur due to improper use of the device. Please use this product with care and operate at your own risk.

