

HP 1920 Gigabit Ethernet Switch Series

Getting Started Guide



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Preparing for installation

The HP 1920 Gigabit Ethernet Switch Series includes models listed in [Table 1](#).

Table 1 HP 1920 Gigabit Ethernet Switch Series models

Product code	HP description	Alias	RMN
Non-PoE			
JG920A	HP 1920-8G Switch	1920-8G	HNGZA-HA0008
JG923A	HP 1920-16G Switch	1920-16G	HNGZA-HA0011
JG924A	HP 1920-24G Switch	1920-24G	HNGZA-HA0012
JG927A	HP 1920-48G Switch	1920-48G	HNGZA-HA0015
PoE			
JG921A	HP 1920-8G-PoE+ (65W) Switch	1920-8G-PoE+ (65W)	HNGZA-HA0009
JG922A	HP 1920-8G-PoE+ (180W) Switch	1920-8G-PoE+ (180W)	HNGZA-HA0010
JG925A	HP 1920-24G-PoE+ (180W) Switch	1920-24G-PoE (180W)	HNGZA-HA0013
JG926A	HP 1920-24G-PoE+ (370W) Switch	1920-24G-PoE (370W)	HNGZA-HA0014

! **IMPORTANT:**

For regulatory identification purposes, the switches are assigned Regulatory Model Numbers (RMNs). The RMNs should not be confused with the marketing name HP 1920, or the product codes.

Safety recommendations

To avoid any equipment damage or bodily injury, read the following safety recommendations before installation. The recommendations do not cover every possible hazardous condition.

- To avoid damage to the electrolytic capacitor in the switch, do not store the switch without power for more than one year.
- Before cleaning the switch, remove all power cords from the switch. Do not clean the switch with a wet cloth or liquid.
- Do not place the switch near water or in a damp environment. Prevent water or moisture from entering the switch chassis.
- Do not place the switch on an unstable case or desk. The switch might be severely damaged in case of a fall.
- Ensure good ventilation of the equipment room and keep the air inlet and outlet vents of the switch free of obstruction.
- Make sure the operating voltage is in the required range.
- To avoid electrical shocks, do not open the chassis while the switch is operating or when the switch is just powered off.

- The accessories shipped with the switch, including but not limited to power cables, are intended only for the switch. Please do not use them for other products.

Examining the installation site

The switches must be used indoors. You can mount your switch in a rack or on a workbench, but make sure:

- A minimum clearance of 5 cm (1.97 in) is reserved at the air inlet and exhaust vents for ventilation.
- The rack or workbench has a good ventilation system.
- The rack or workbench is sturdy enough to support the switch and its accessories.
- The rack or workbench is reliably grounded.

To ensure correct operation and long service life of your switch, install it in an environment that meets the requirements described in the following subsections.

Temperature/humidity

Maintain temperature and humidity in the equipment room as described in "[Environmental specifications](#)."

- Lasting high relative humidity can cause poor insulation, electricity creepage, mechanical property change of materials, and metal corrosion.
- Lasting low relative humidity can cause washer contraction and ESD and bring problems including loose captive screws and circuit failure.
- High temperature can accelerate the aging of insulation materials and significantly lower the reliability and lifespan of the switch.

Cleanness

Dust buildup on the chassis might result in electrostatic adsorption, which causes poor contact of metal components and contact points, especially when indoor relative humidity is low. In the worst case, electrostatic adsorption can cause communication failure.

Table 2 Dust concentration limit in the equipment room

Substance	Concentration limit (particles/m ³)
Dust	≤ 3 × 10 ⁴ (no visible dust on the tabletop over three days)

NOTE:

Dust diameter ≥ 5 μm

The equipment room must also meet strict limits on salts, acids, and sulfides to eliminate corrosion and premature aging of components, as shown in [Table 3](#).

Table 3 Harmful gas limits in the equipment room

Gas	Maximum concentration (mg/m ³)
SO ₂	0.2
H ₂ S	0.006

Gas	Maximum concentration (mg/m³)
NH ₃	0.05
Cl ₂	0.01

EMI

All electromagnetic interference (EMI) sources, from outside or inside of the switch and application system, adversely affect the switch in the following ways:

- A conduction pattern of capacitance coupling.
- Inductance coupling.
- Electromagnetic wave radiation.
- Common impedance (including the grounding system) coupling.

To prevent EMI, use the following guidelines:

- If AC power is used, use a single-phase three-wire power receptacle with protection earth (PE) to filter interference from the power grid.
- Keep the switch far away from radio transmitting stations, radar stations, and high-frequency devices.
- Use electromagnetic shielding when necessary. For example, use shielded interface cables.

Installing the switch

⚠ WARNING!

Before installing or moving the switch, remove the power cord.

You can install an HP 1920 switch in a 19-inch rack, on a workbench, or on a wall.

Mounting the switch in a 19-inch rack by using mounting brackets

1. Wear an ESD wrist strap and make sure it makes good skin contact and is reliably grounded.
2. Verify that the rack is securely grounded and is stable.
3. Select mounting brackets for the switch.
 - The HP 1920-8G switch uses Type-A mounting brackets, as shown in [Figure 1](#).
 - The HP 1920-8G-PoE+ (65W) and 1920-8G-PoE+ (180W) switches use Type-B mounting brackets, as shown in [Figure 2](#).
 - The HP 1920-16G, 1920-24G, 1920-24G-PoE+ (180W), 1920-24G-PoE+ (370W) and 1920-48G switches use Type-C mounting brackets, as shown in [Figure 3](#).
4. Attach the mounting brackets to both sides of the chassis with screws.

NOTE:

Mounting brackets are used only for securing the switch to the rack. A rack shelf on the rack is used to bear the switch weight.

Figure 1 Attaching Type-A mounting brackets to the switch

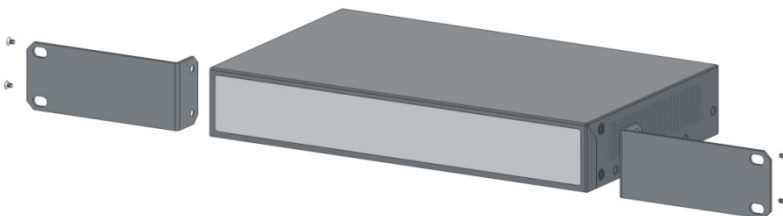


Figure 2 Attaching Type-B mounting brackets to the switch

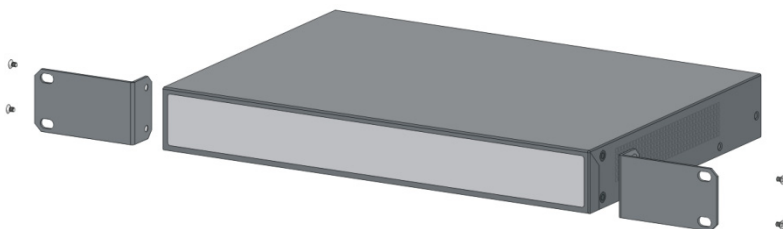
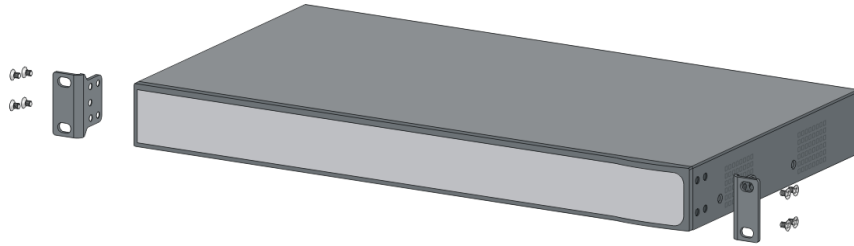


Figure 3 Attaching Type-C mounting brackets to the switch



5. Place the switch on a rack shelf in the rack. Push the switch in until the oval holes in the brackets align with the mounting holes in the rack posts.
6. Attach the mounting brackets to the rack posts with screws.

Figure 4 Attaching Type-A mounting brackets to the rack post

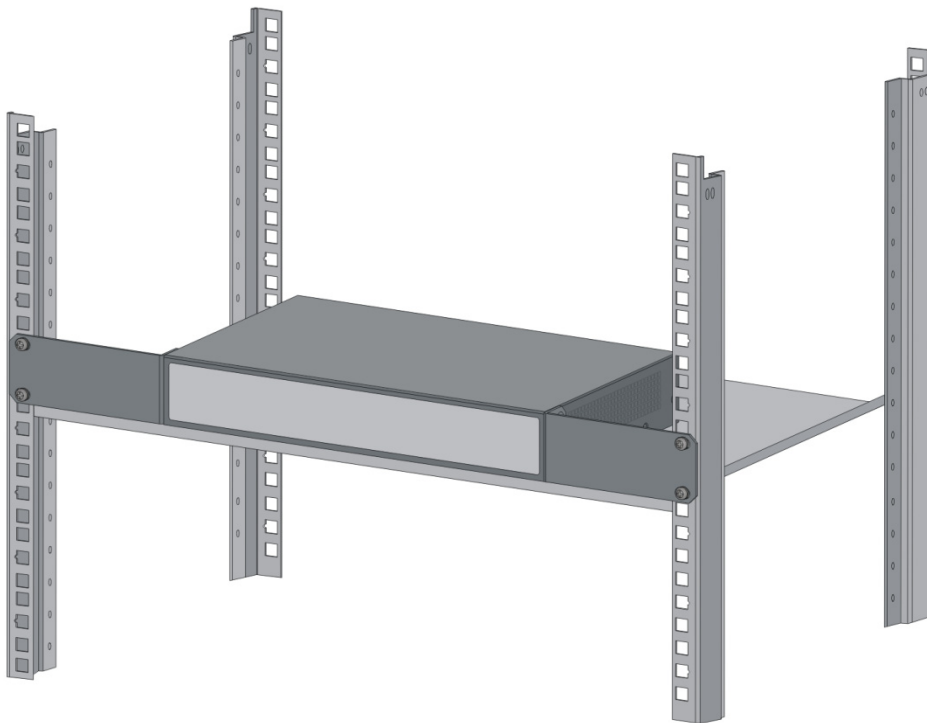


Figure 5 Attaching Type-B mounting brackets to the rack post

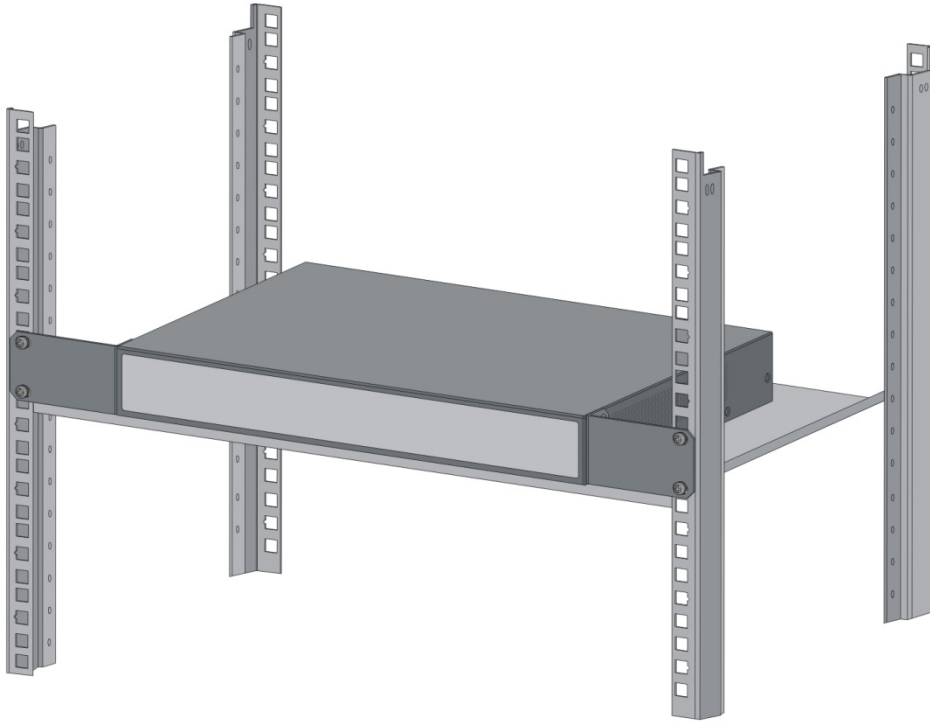


Figure 6 Attaching Type-C mounting brackets to the rack post

