



**Ruijie RG-N18000 Series Switches
Quick Installation Guide V1.03**

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Preface

Thank you for using our products. This manual will guide you through the installation of the device.

This manual describes the functional and physical features and provides the device installation steps, hardware troubleshooting, module technical specifications, and specifications and usage guidelines for cables and connectors.

Audience

It is intended for the users who have some experience in installing and maintaining network hardware. At the same time, it is assumed that the users are already familiar with the related terms and concepts.



Obtaining Technical Assistance

- Ruijie Networks Website: <https://www.ruijienetworks.com/>
- Technical Support Website: <https://ruijienetworks.com/support>
- Case Portal: <http://caseportal.ruijienetworks.com>
- Community: <http://community.ruijienetworks.com>
- Technical Support Email: service_rj@ruijienetworks.com
- Skype: [service_rj@ruijienetworks.com](https://www.skype.com/people/service_rj@ruijienetworks.com)

Related Documents

Documents	Description
Configuration Guide	Describes network protocols and related mechanisms that supported by the product, with configuration examples.
Command Reference	Describes the related configuration commands, including command modes, parameter descriptions, usage guides, and related examples.

Symbol Conventions

-
-  Means reader take note. Notes contain helpful suggestions or references.
 -  Means reader be careful. In this situation, you might do something that could result in equipment damage or loss of data.
-

1 Product Overview

Launched by Ruijie independently, RG-N18000 series next generation core switches adopt the Clos/full mesh architecture and support large buffer. RG-N18000 series support dual supervisor modules and power supply redundancy, which are available in four models, namely, RG-N18014, RG-N18012, RG-N18010 and RG-N18007.

Adopting the Clos architecture, RG- N18014 supports dual supervisor modules and provides 12 slots for service modules.

Adopting the Clos architecture, RG- N18012 supports dual supervisor modules and provides 10 slots for service modules.

Adopting the Clos architecture, RG- N18010 supports dual supervisor modules and provides 8 slots for service modules.

Adopting the full mesh architecture, RG-N18007 supports dual supervisor modules and provides 5 slots for service modules.

2 Safety Precautions for Movement

RG-N18000 series is large and heavy. When you carry them, please pay attention to the following requirements:

- Unplug all power cords before you move the switch. Note: There may be more than one power cord.
 - Remove the power supply, fans and service modules to reduce the chassis weight before moving the switch for a long distance.
 - At least 4 people are needed to move the switch.
 - Keep balance when moving the switch by 4 people, and keep the pace with each other.
 - Grasp the handles on both sides of the chassis, not the power supply handle, fan handle or the rear panel handle. Those handles are just used to install and remove corresponding parts, and cannot bear the whole switch weight.
 - The whole switch weight may be higher than 80 kg during the movement.
-
- i** To correctly move the RG-N18014, see the Figure 2-1. For the RG-N18012, see Figure 2-2. For the RG-N18010, see Figure 2-3. For the RG-N18007, see the Figure 2-4.
- i** Note that the following figures are just the schematic diagrams, do not insert the line card and power supply when moving the chassis to avoid the chassis weight increment or line card damage.
-

Figure 2-1 Moving the RG-N18014 Switch

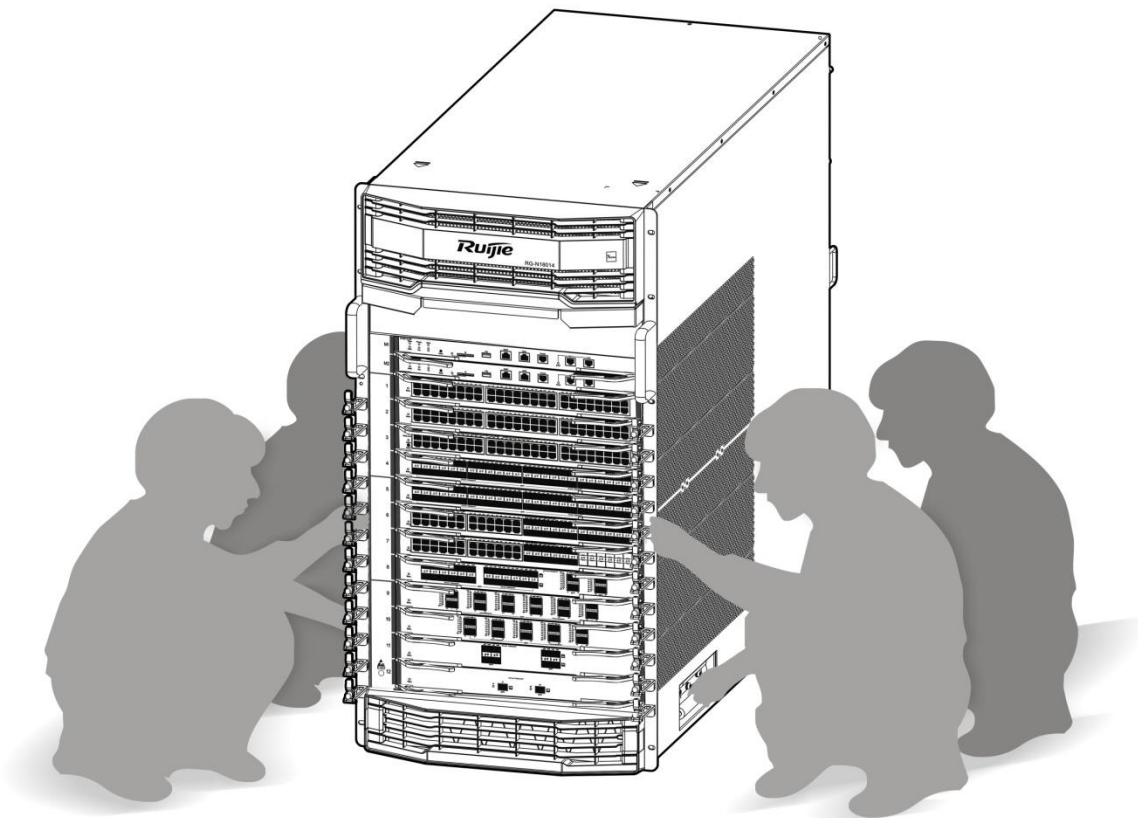


Figure 2-2 Moving the RG-N18012 Switch

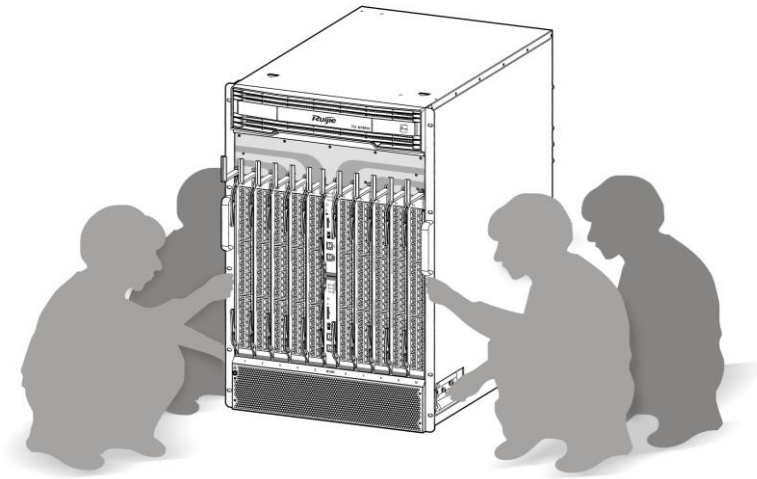


Figure 2-3 Moving the RG-N18010 Switch

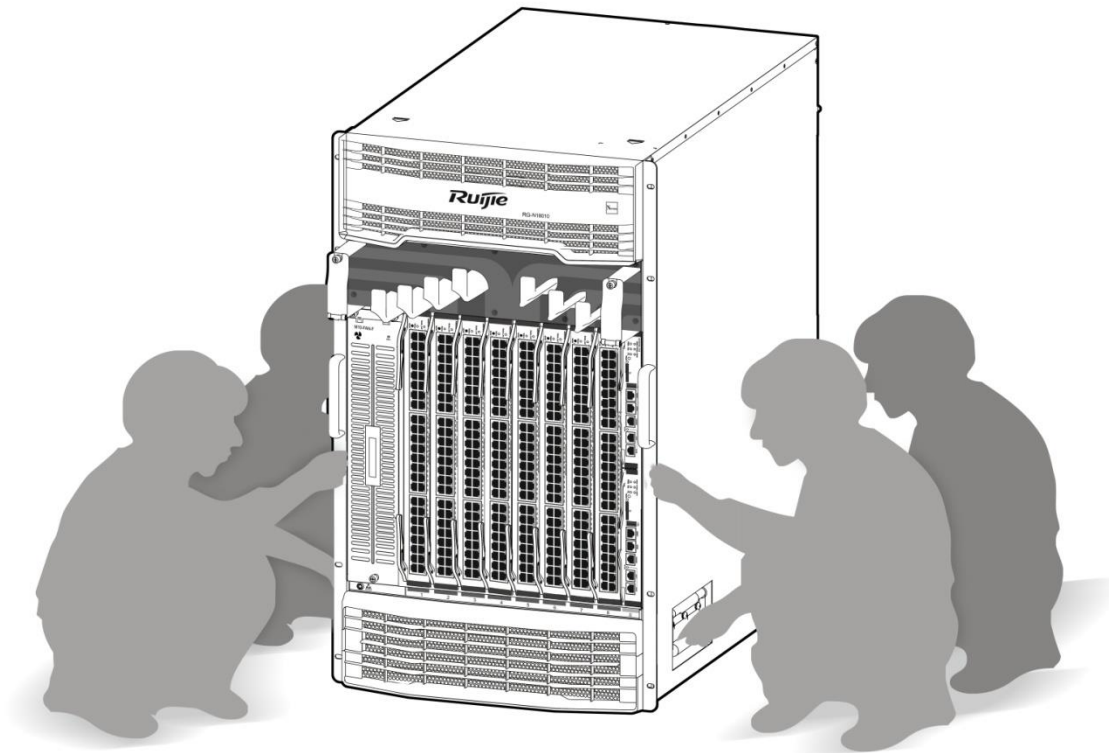
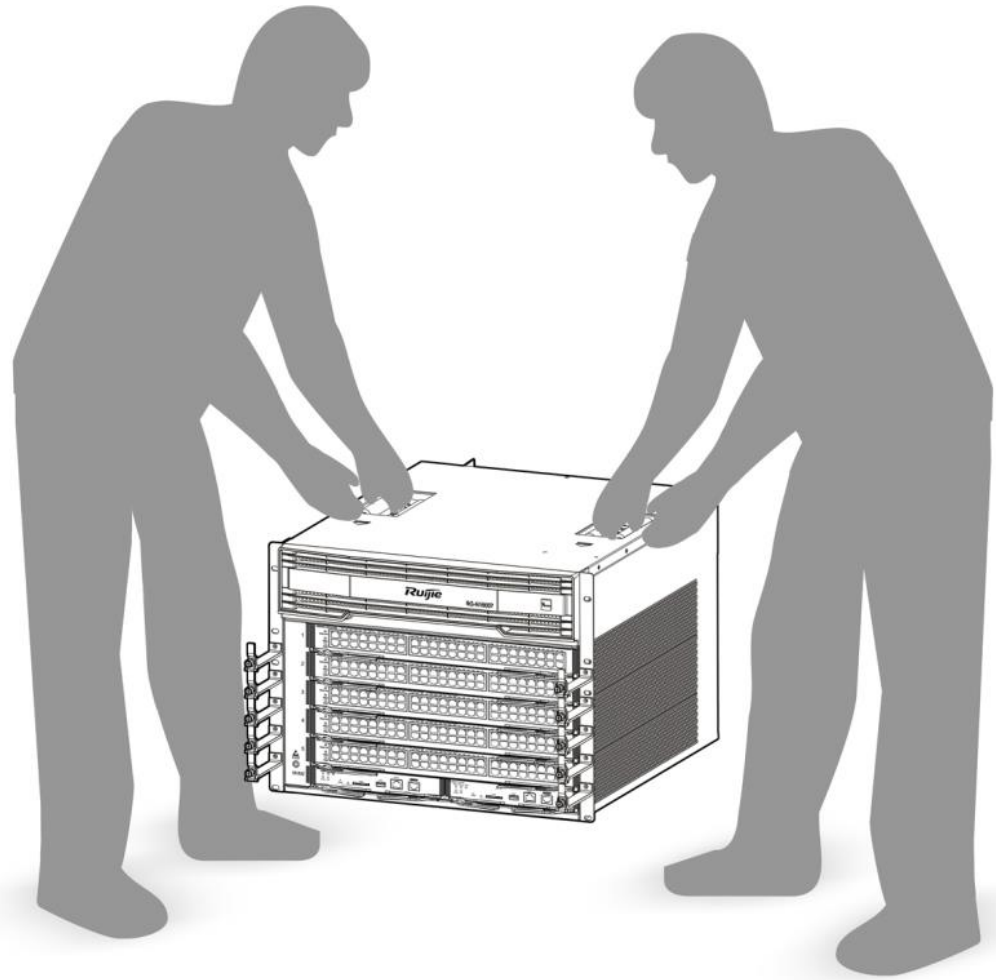


Figure 2-4 Moving the RG-N18007 Switch



3 Preparations Before Installation

3.1 ESD Prevention

Precaution

To avoid the damages from static electricity to the internal parts of switches, do as follows:

- ESD prevention measures are taken in the sites where switches are installed.
- Wear the antistatic wrist strap while installing various switch parts, especially when you may touch circuit boards with hands.
- Grasp the edge of modules. Do not touch the parts or printed circuits directly.

Wearing the anti-static wrist strap

The antistatic wrist strap is shipped with RG-N18000, which is used as follows:

1. Stretch out your hand into the antistatic wrist strap.
2. Lock the wrist strap and make sure that the metal part of the antistatic wrist strap is in good contact with skin.
3. Insert the antistatic wrist strap in the antistatic wrist strap jack of the switch chassis or clip on the grounding pole of the chassis.

The antistatic wrist strap jack is located on the front panel of the chassis marked with yellow ESD.

4. The antistatic wrist strap is grounded well and the DC electric resistance between the body and the ground is in the range of 1 to 10 mega ohms.

Figure 3-1 ESD Prevention on RG-N18014

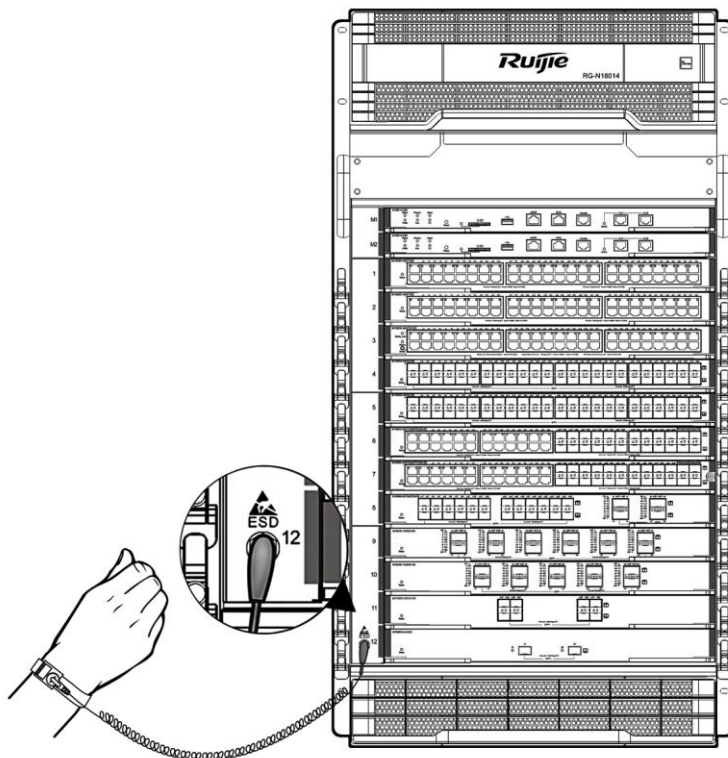


Figure 3-2 ESD Prevention on RG-N18012

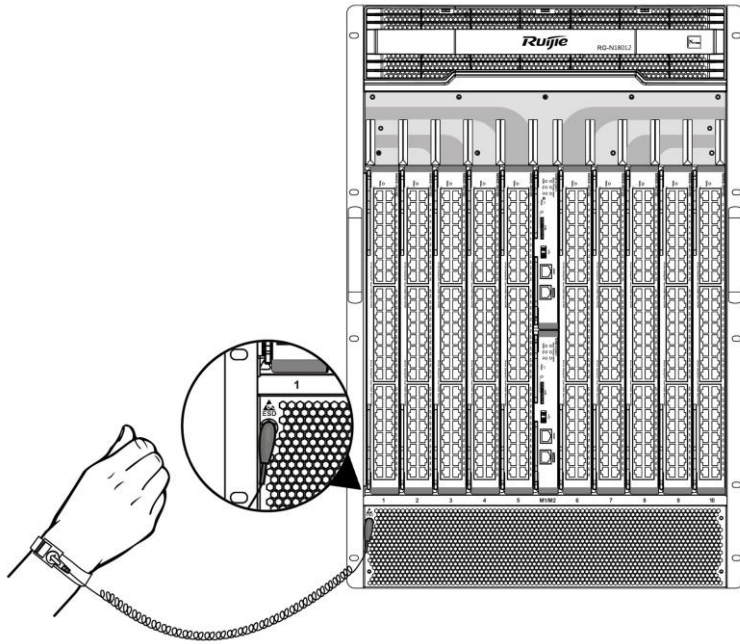


Figure 3-3 ESD Prevention on RG-N18010

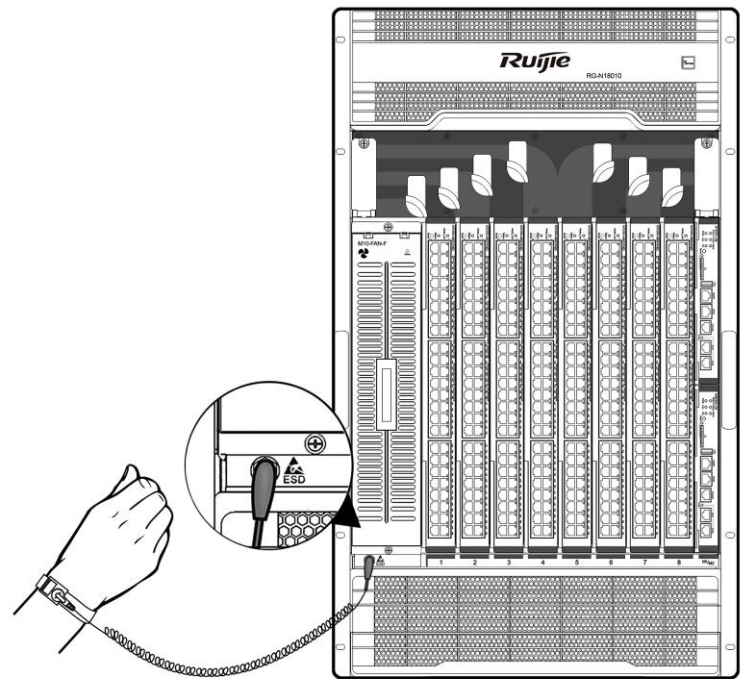
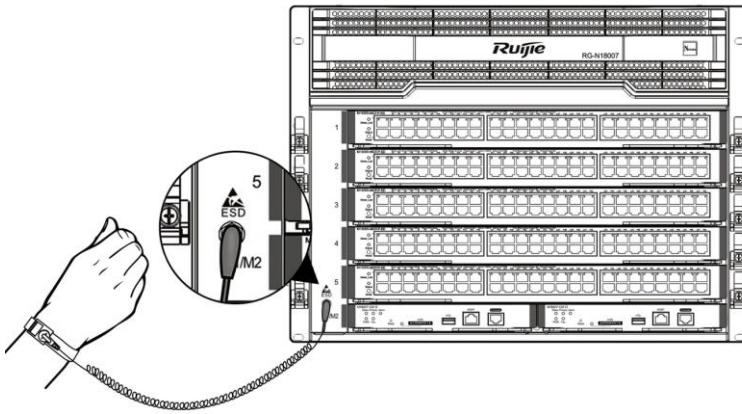


Figure 3-4 ESD Prevention on RG-N18007



3.2 Installation Site

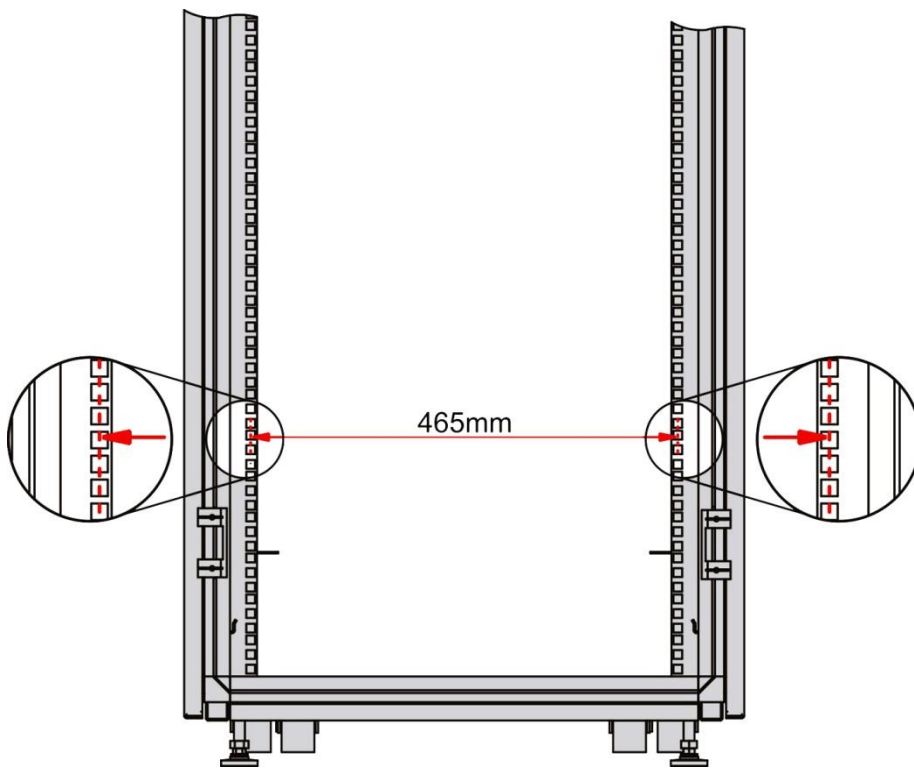
RG-N18000 series must be used in the room. To ensure normal operation and a prolonged use life of the device, the installation site must meet the requirements of weight capacity, humidity, cleanness, EMI consideration, grounding system, power, and ventilation. See the *Preparation before Installation* chapter of *RG-N18000 Series Switches Hardware Installation and Reference Guide* for details.

3.3 Cabinet Mounting

Make sure the cabinet complies with the following conditions:

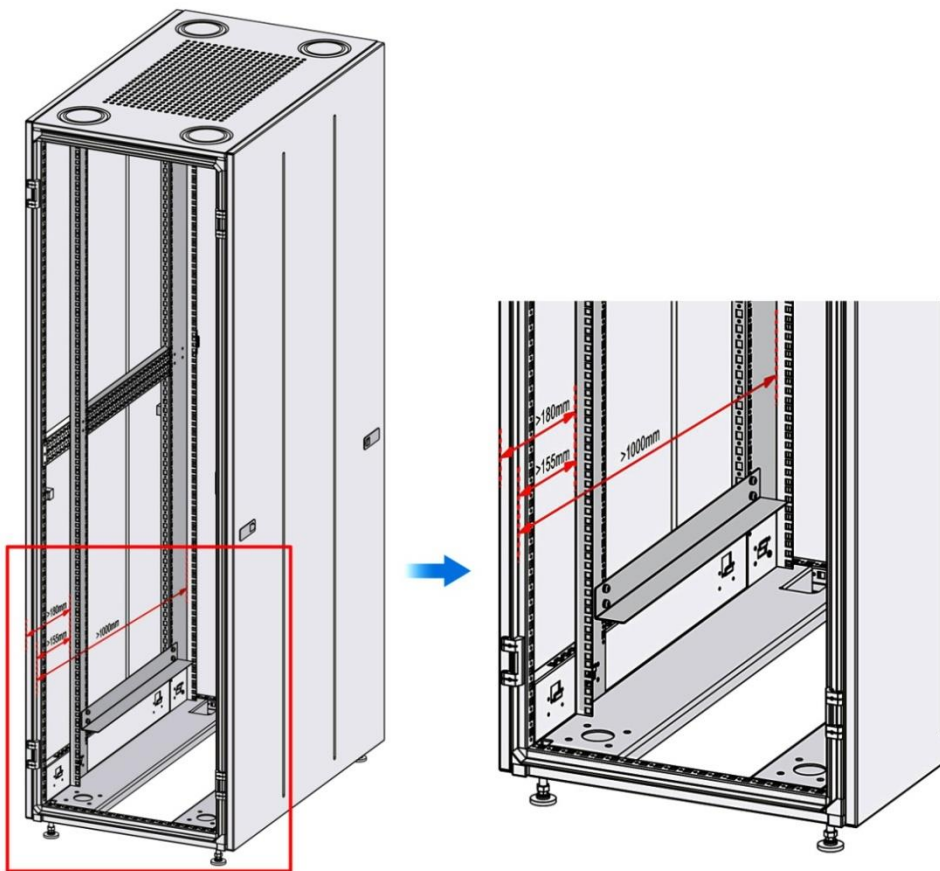
- Install the switch in a 19-inch cabinet in 4-port form hold.
- Be sure the distance between two square hole strips, one on each side, is 465 mm.

Figure 3-5 19-inch Cabinet



- Be sure that the square hold strip is at least 180 mm far from the outboard front door and the door is at most 25 mm thick to ensure a minimum available distance of 155 mm. The front door is at least 1000 mm far from the back door,


Figure 3-6 Cabinet Dimensions



- Be sure that the slide rail in the cabinet is enough to bear the weight of a RG-N18000 and its installation accessories.
- Be sure that the cabinet provides an earthing terminal for the switch to be grounded.
- Be sure that the front and back doors of the cabinet have porosities greater than 50% for good ventilation and heat dissipation.

3.4 Installation Tools

Common Tools	Cross screwdriver, straight screwdriver, related electric and optical cables Bolts, diagonal pliers, straps
Special Tools	Anti-static glove, stripping pliers, crimping pliers, crimping pliers for the crystal head, wire cutter
Fiber Optic Cleaning Tools	Air-laid paper, optical fiber microscope
Meter	Multimeter, bit error rate tester (BERT), optical power meter

 The tool kit is customer supplied.


3.5 Fiber Connection

Before connecting fiber cables, make sure the model of the optical transceiver and fiber type match the optical port. The transmit port on the local device should be connected to the receive port on the peer device and vice versa.

3.6 Unpacking

Goods Checklist

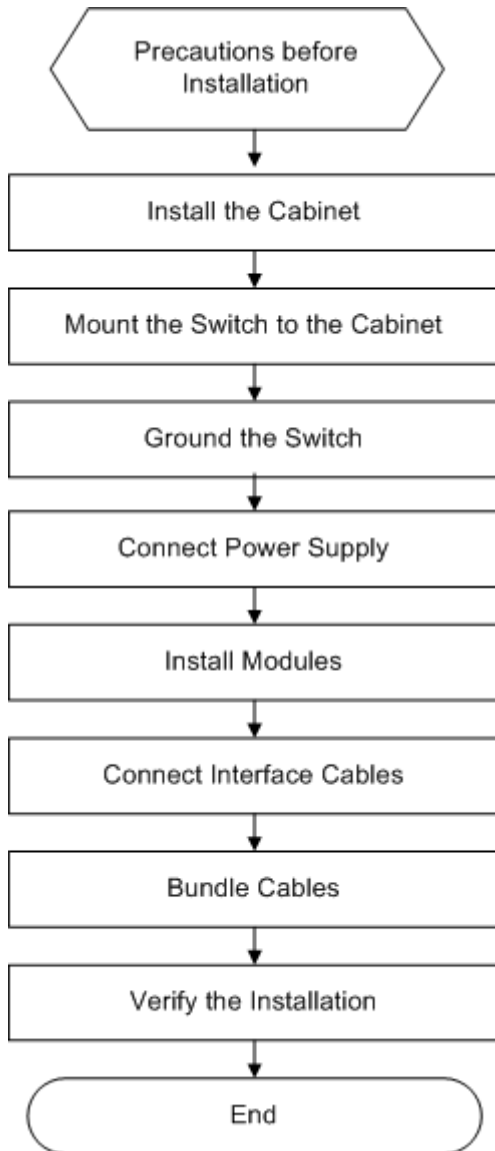
Chassis Carton	Device panels are installed and operational. Fans, screwdriver, anti-static wrist strap, yellow/green grounding wires, quick installation guide, packing list
Module Carton	Modules, packing list, documentation

 A normal delivery should contain the above mentioned items, which may differ from the actual delivery, depending on purchase contracts. Please check your goods carefully against the packing list or purchase contract. If you have any questions or there are any errors, please contact your distributor.

4 Installing the Switch

4.1 Installation Flowchart

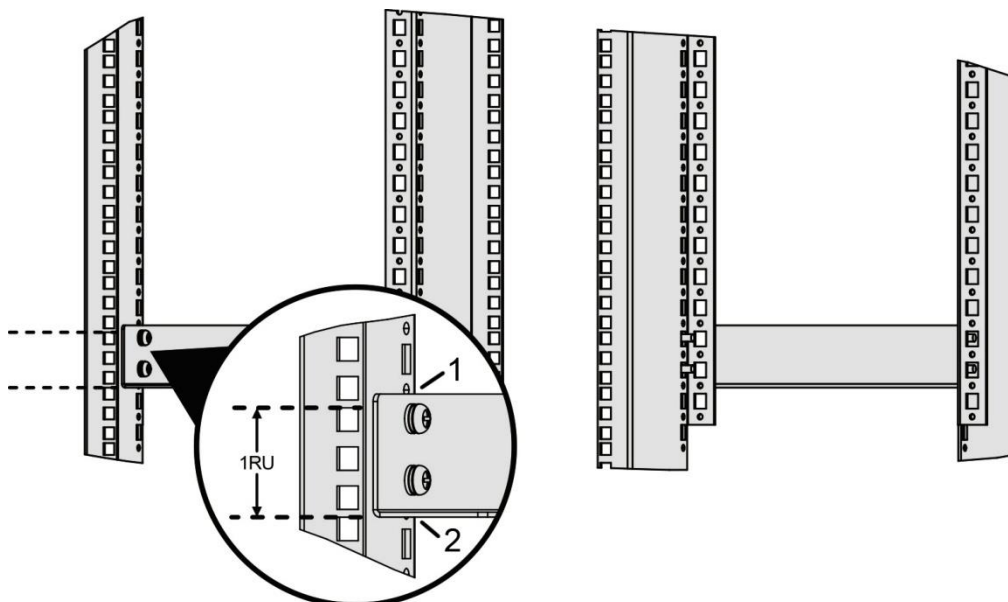
Figure 4-1 Installation Flowchart



4.2 Installing Slide Rails

When installing slide rails for the RG-N18000, ensure that the plane to carry the chassis should be installed on the plane of delimiters of 1 RU, as shown in Figure 4-2.

Figure 4-2 Installing Slide Rails



Note: ① and ② represents 1 RU delimiters.

- i Before installing a slide rail, please verify that it is firm enough to bear the device weight and its installation accessories.
- i The RG-N18000 series switch is available in four models with different heights/widths.
- i There are variable kinds of slide rails. The rail appearance and installation is subject to actual conditions.
- ! In order to keep the cabinet balanced, please install the slide rail to as low a position as possible in the cabinet if only one RG-N18000 switch is installed. If you are mounting multiple device to the cabinet, mount the heaviest device in the lowest position of the cabinet first and proceed to mount the rest of the devices from bottom to top.

4.3 Installing the Air Filter (Optional)

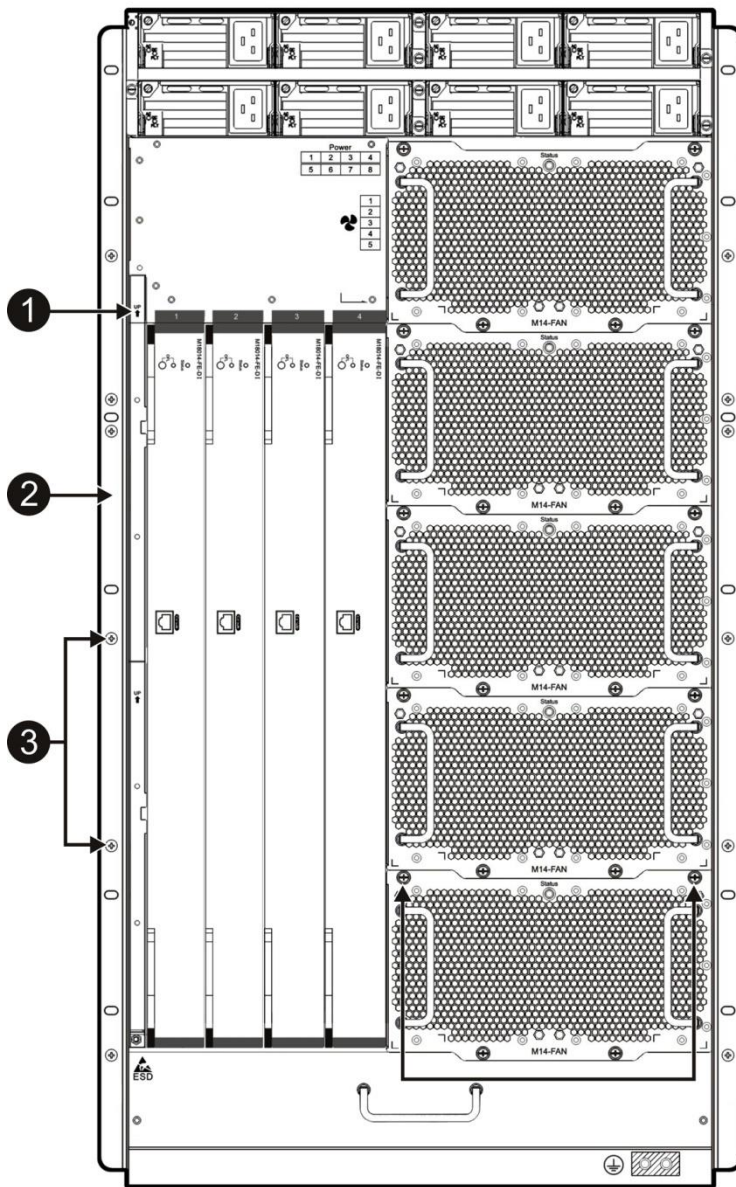
Install air filters of the supervisor module, service module and switch fabric module on the RG-N18000.

- ! If an air filter is used for a long time, dust may block its air vent, weakening system ventilation. It is recommended you wash the air filter every three months.

Installing the Air Filters of the Supervisor Module and Service Module

(1) RG-N18014

Figure 4-3 Air Filter Location of the Supervisor Module and Service Module on RG-N18014 Switch

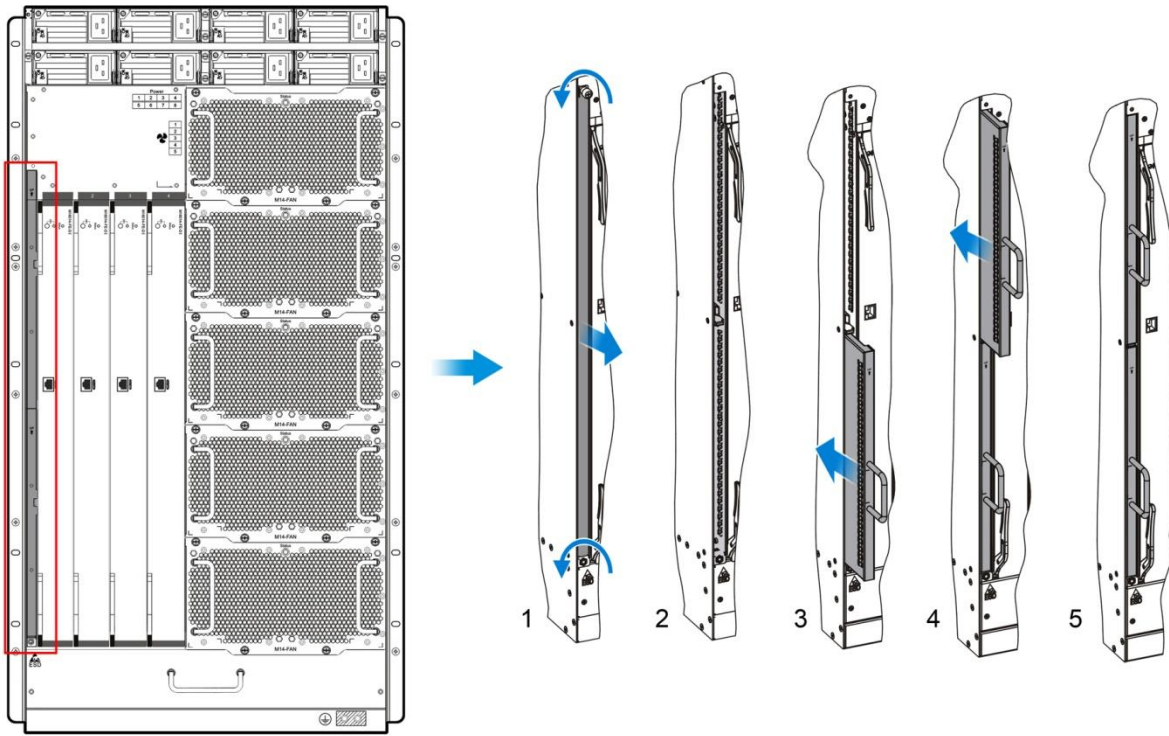


Note: ① Installation direction identifier of the air filter
 ② Installation location for the air filter
 ③ Handle for air filter

● To install the air filter, follow these steps:

- 1) Pull out the filler panel of the air filter.
- 2) Insert the air filter along the slide rail. Note the direction identifier to ensure the correct direction.

Figure 4-4 Installing the Air Filter of the Supervisor Module and Service Module on RG-N18014 Switch

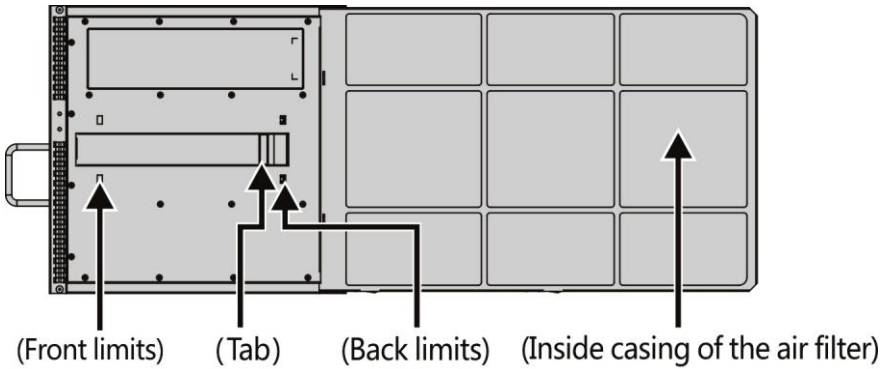


- The following describes how to use the air filter assembly:

Air filter assembly in working state: the tab is locked in the back limits.

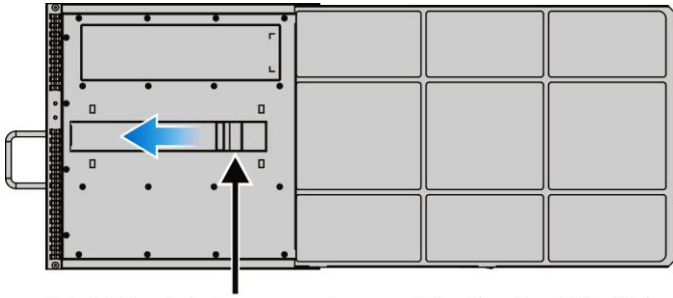
- ❗ After the air filter is inserted into the chassis, make sure the air filter is in working state.

Figure 4-5 Air Filter Assembly in Working State



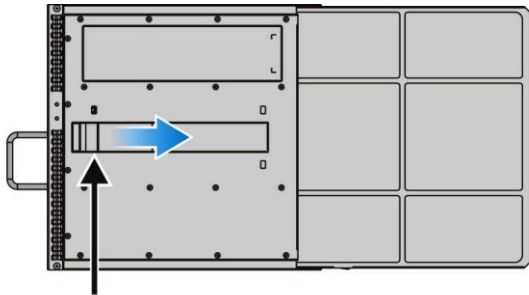
If the rack is not long enough for the air filter, push in the inside casing of the air filter to reduce the length of the assembly so that you can easily plug/unplug the air filter. To push in the inside casing, hold and press the tab and move it forward to the front limits (see Figure 4-6). Conversely, you can pull out the inside casing of the air filter. (see Figure 4-7)

Figure 4-6 Moving forward the Front Limits



(Hold the tab to move forward to the front limits)

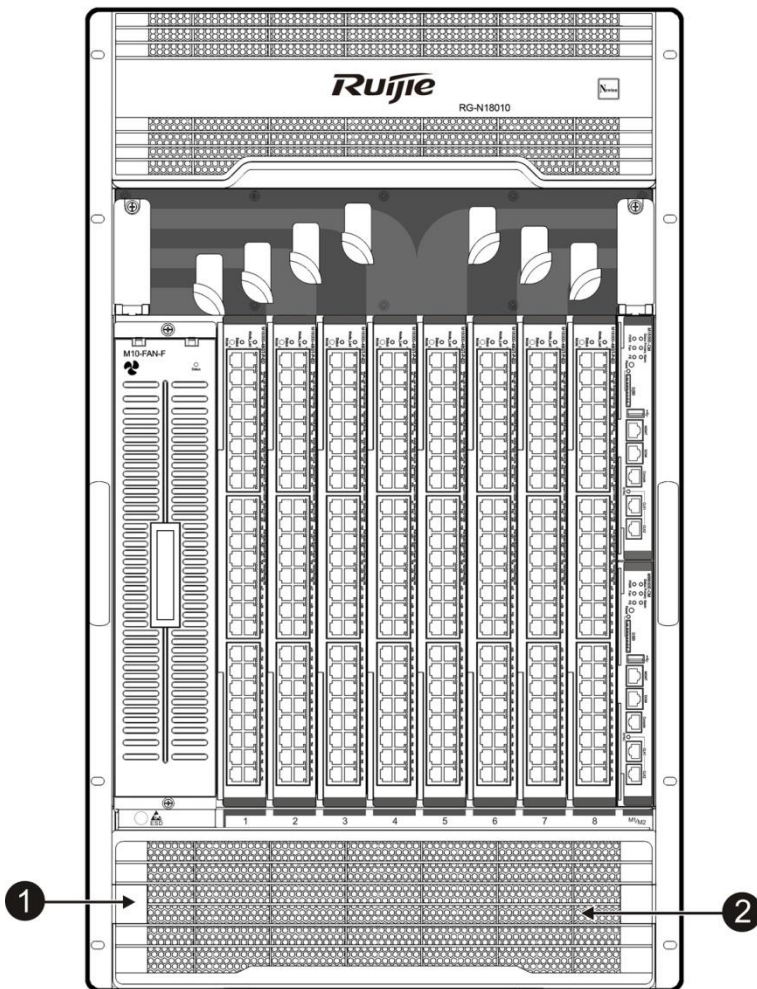
Figure 4-7 Moving toward the Back Limits



(Hold the tab to move toward the back limits)

(2) RG-N18010

Figure 4-8 Air Filter Location of the Supervisor Module and Service Module on RG-N18010 Switch

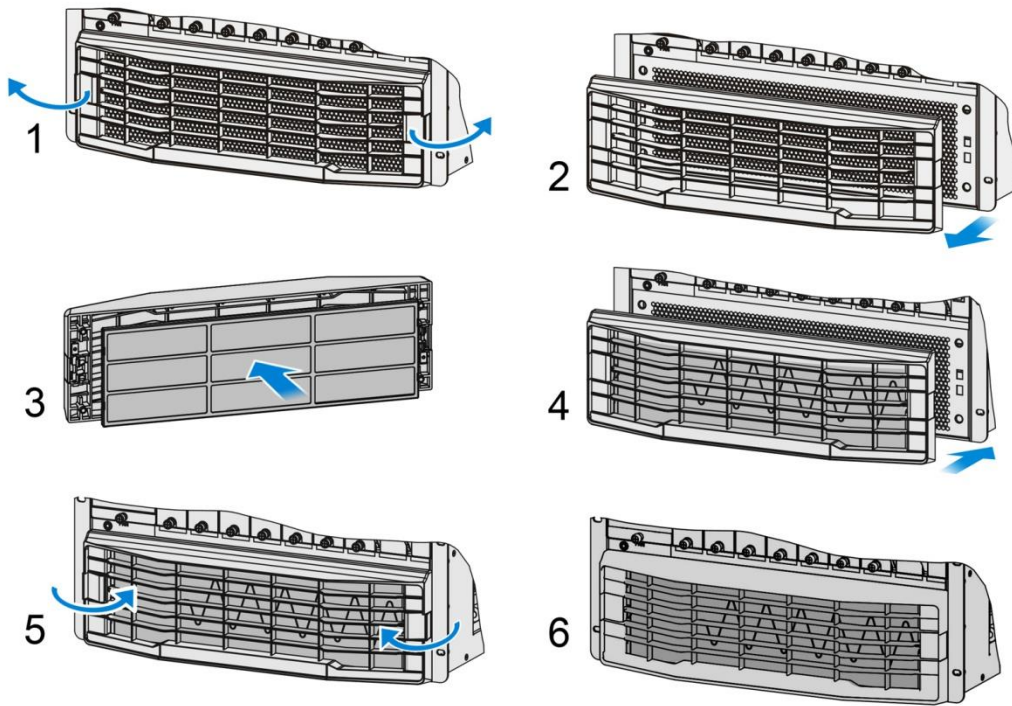


Note: ① Buttons on plastic cover ② Plastic cover over air filter

● To install the air filter, follow these steps:

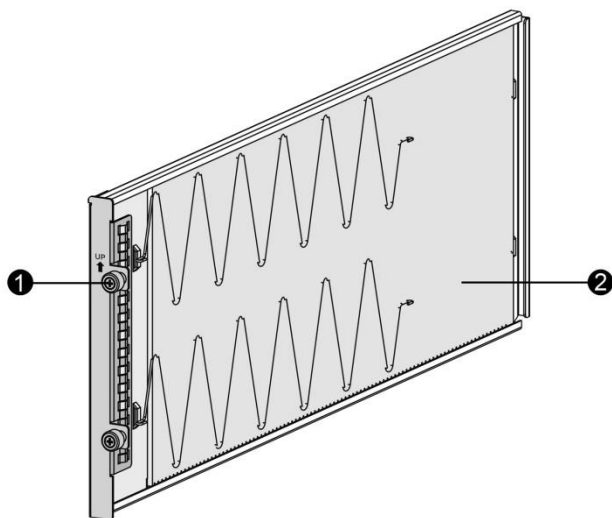
- 1) Seat the air filter in the plastic cover and tighten screws.
- 2) Install the plastic cover before the air filter by pressing firmly the two buttons on the both sides of the plastic cover.

Figure 4-9 Installing the Air Filter of the Supervisor Module and Service Module on RG-N18010 Switch



(3) RG-N18007

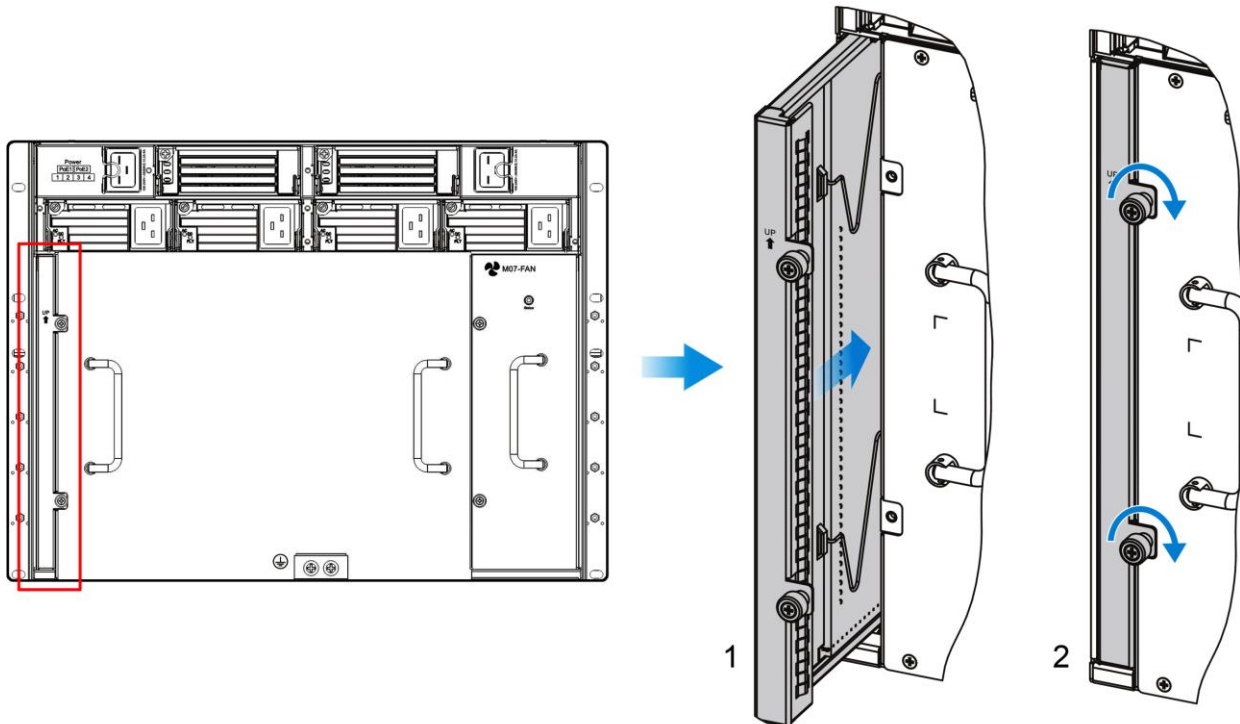
Figure 4-10 Air Filter Location of the Supervisor Module and Service Module on RG-N18007 Switch



Note: ① Captive screw ② Air filter

- To install the air filter, follow these steps:
 - 1) Insert the air filter along the slide rail. Note the direction identifier to ensure the correct direction
 - 2) Tighten the captive screws.

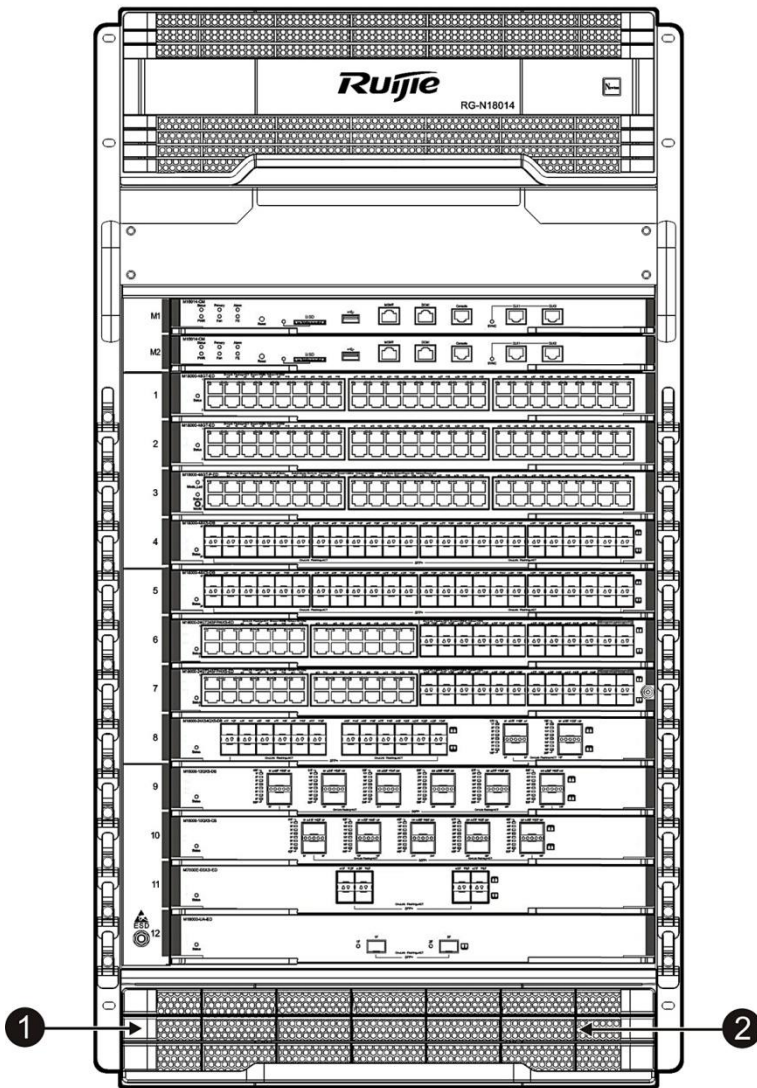
Figure 4-11 Installing the Air Filter of the Supervisor Module and Service Module on RG-N18007 Switch



Installing the Air Filters of the Switch Fabric Module

- (1) RG-N18014

Figure 4-12 Location of the Air Filter of the Switch Fabric Module on RG-N18014 Switch



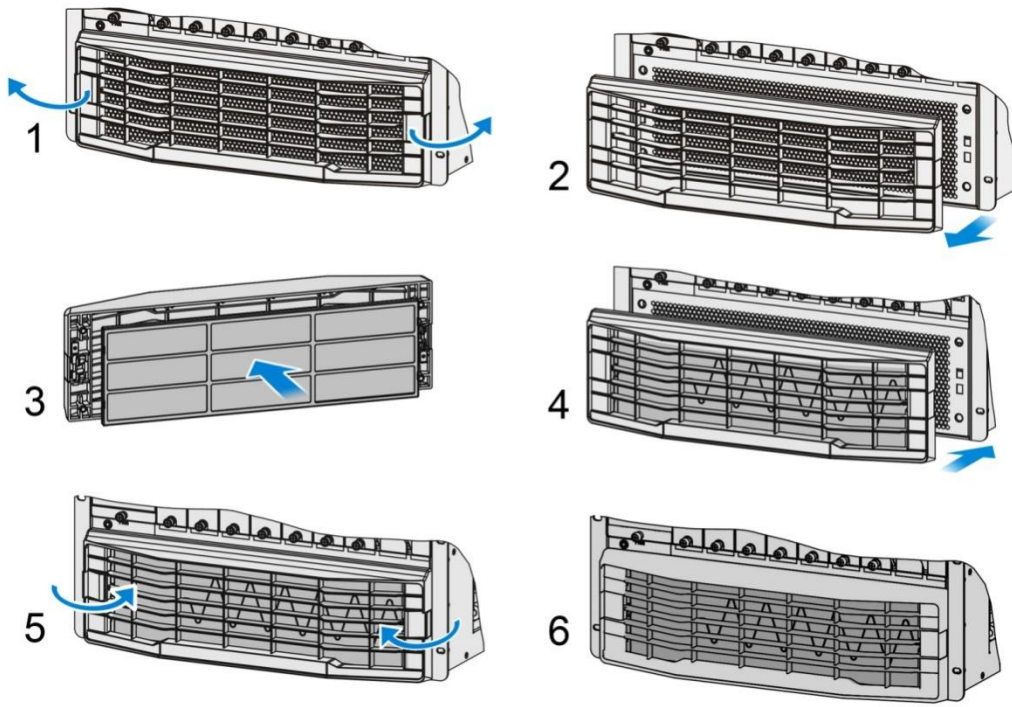
Note: ① Buttons on plastic cover

② Plastic cover over air filter

● To install the air filter, follow these steps:

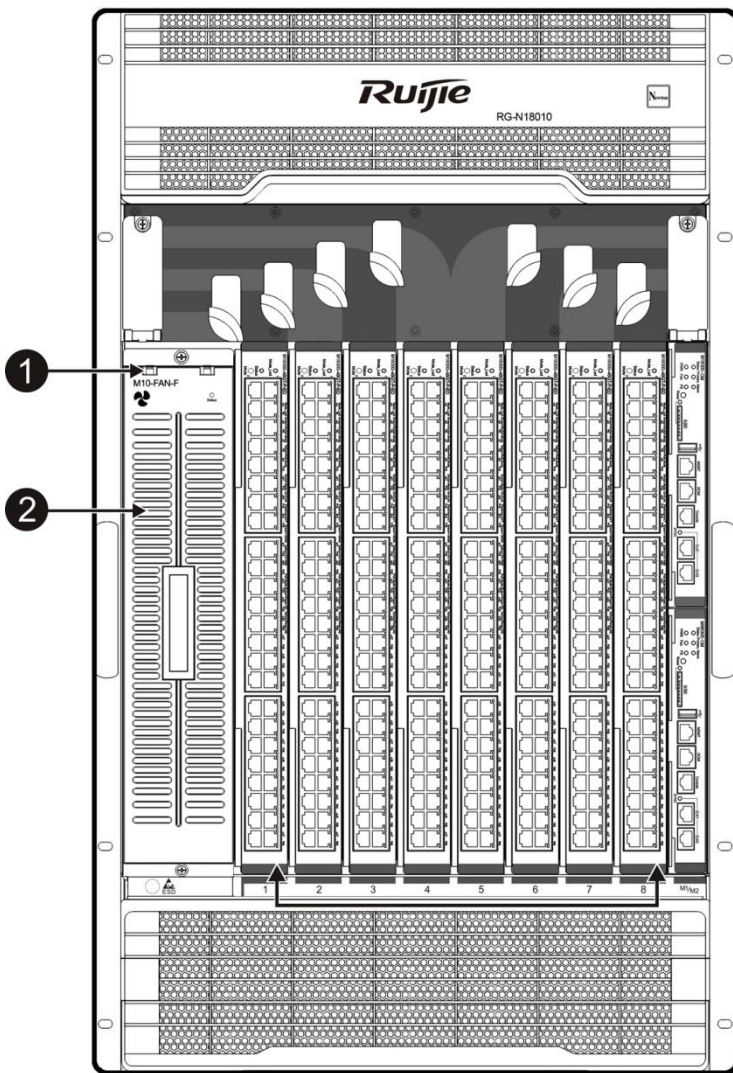
- 1) Seat the air filter in the plastic cover and tighten screws.
2. Install the plastic cover over the air filter by pressing firmly the two buttons on the both sides of the plastic cover.

Figure 4-13 Installing the Air Filter of the Switch Fabric Module on RG-N18014 Switch



(2) RG-N18010

Figure 4-14 Location of the Air Filter of the Switch Fabric Module on RG-N18010 Switch

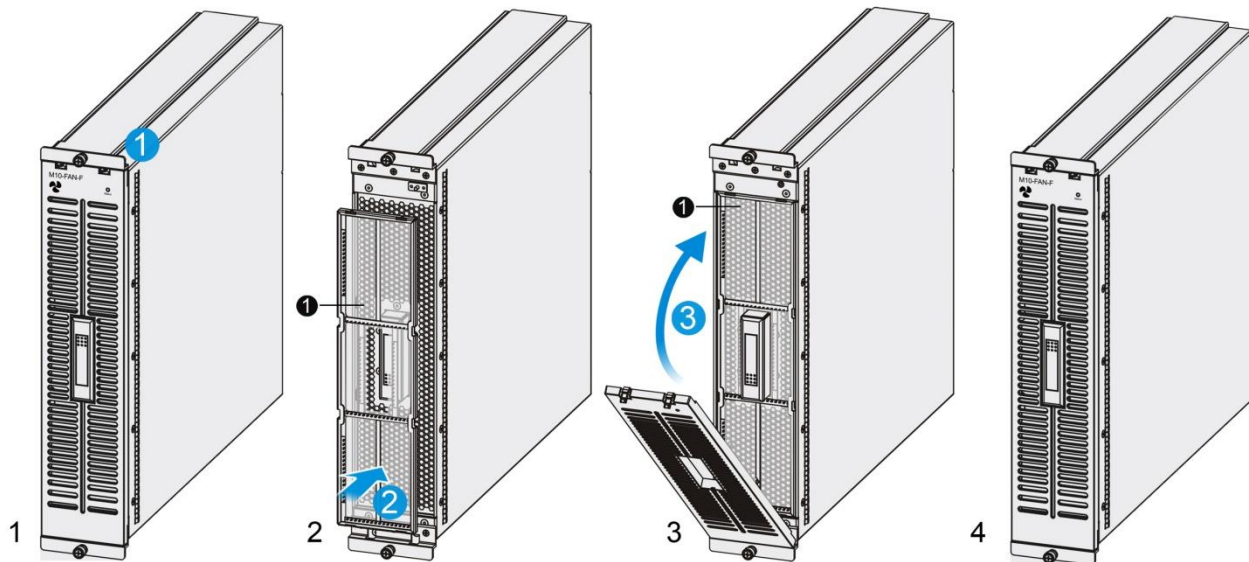


Note: ① Buttons on plastic cover ② Plastic cover over air filter

● To install the air filter, follow these steps:

- 1) Seat the air filter in the plastic cover and tighten screws.
2. Install the plastic cover over the air filter by pressing firmly the two buttons on the both sides of the plastic cover.

Figure 4-15 Installing the Air Filter of the Switch Fabric Module on RG-N18010 Switch



Note: ① Air filter

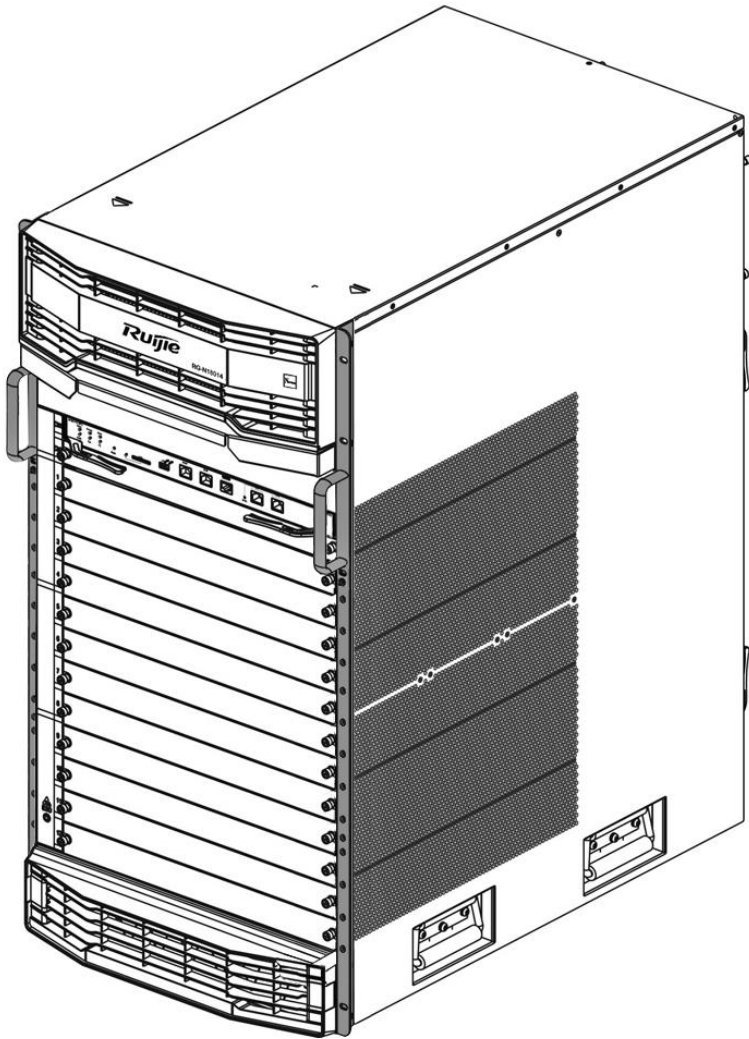
4.4 Installing Brackets

- ① Wear the antistatic wrist strap and make sure the antistatic wrist strap is grounded well.
- ② The brackets of RG-N18010, RG-N18012, RG-N18014 and RG-N18007 are installed before delivery, as shown in Figure 4-16, 4-17, 4-18 and 4-19). If you want to adjust the location of the bracket, see Figure 4-20, 4-21 and 4-22. This adjustment is not supported on the RG-N18012.

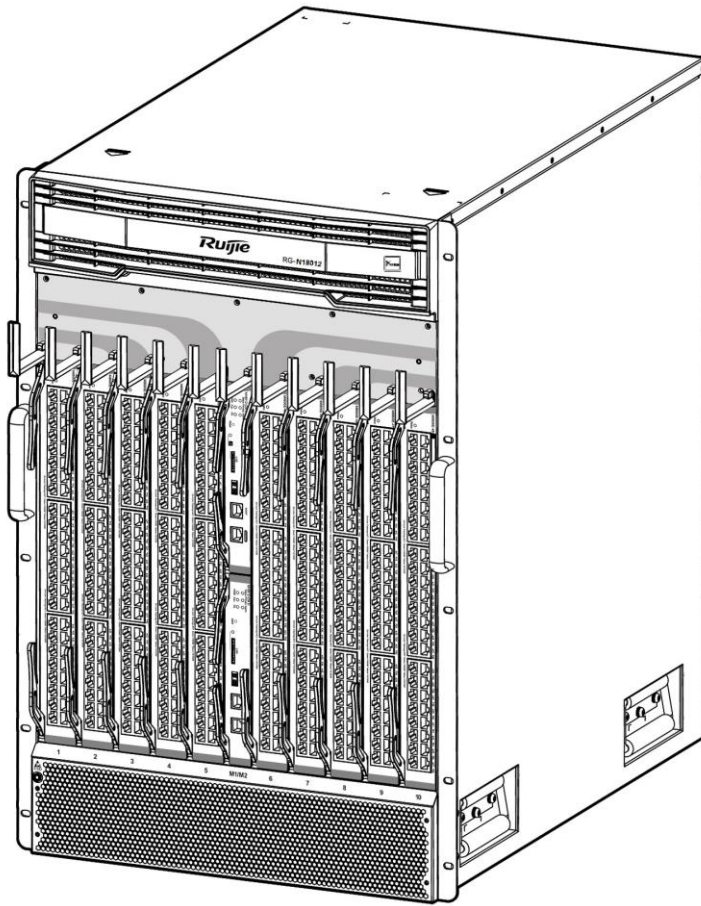
- Install the bracket to the front chassis side

(1) RG-N18014 bracket (installed before delivery)

Figure 4-16 Installing Brackets to Front Chassis Side

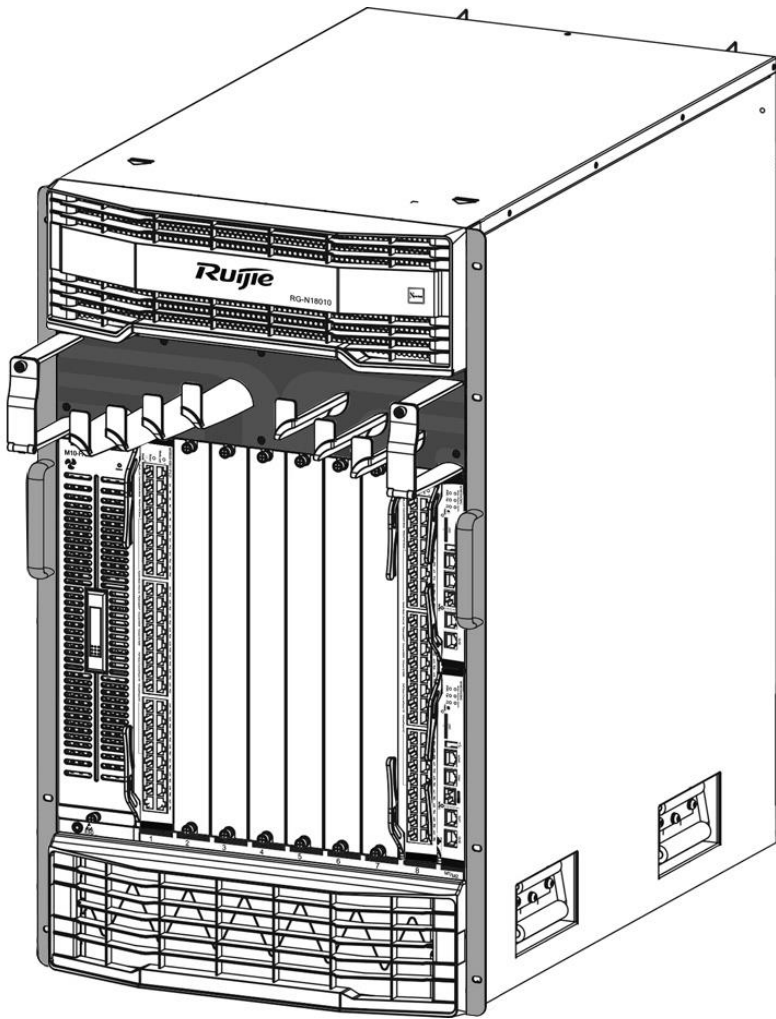


(2) RG-N18012 bracket (installed before delivery)
Figure 4-17 Installing Brackets to Front Chassis Side



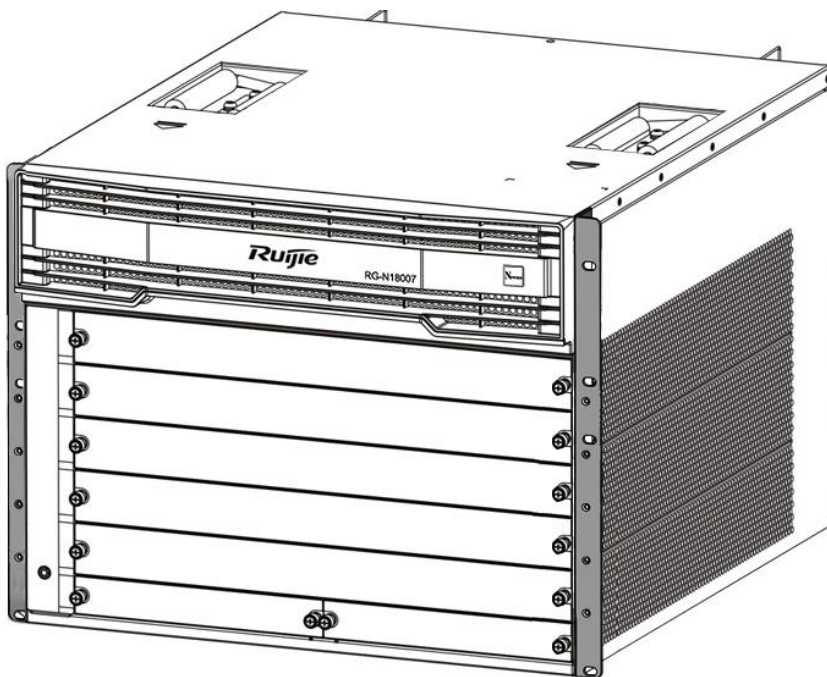
(3) RG-N18010 bracket (installed before delivery)

Figure 4-18 Installing Brackets to Front Chassis Side



(4) RG-N18007 bracket (installed before delivery)

Figure 4-19 Installing Brackets to Front Chassis Side

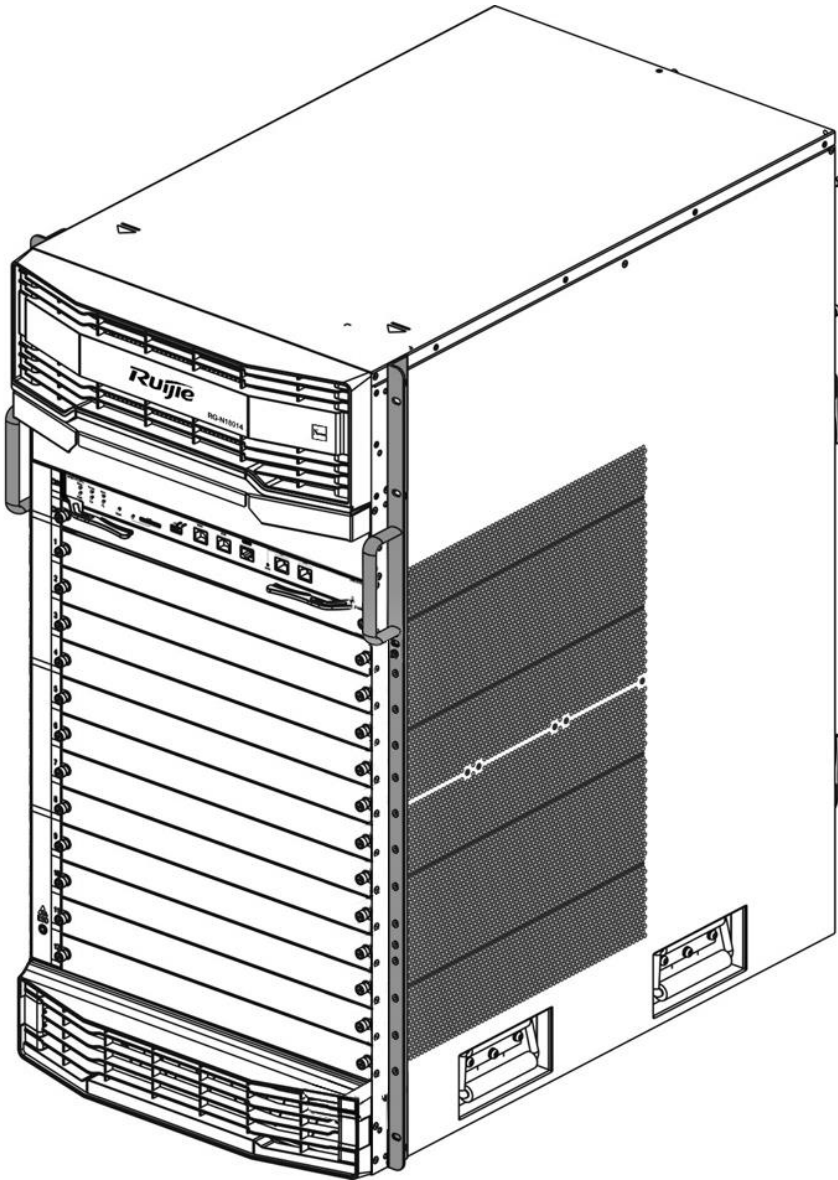


- Move the bracket backward

(1) RG-N18014 bracket

1. Remove the bracket from the front chassis side.
2. Install the bracket at a backward location, as shown in figure 4-20:

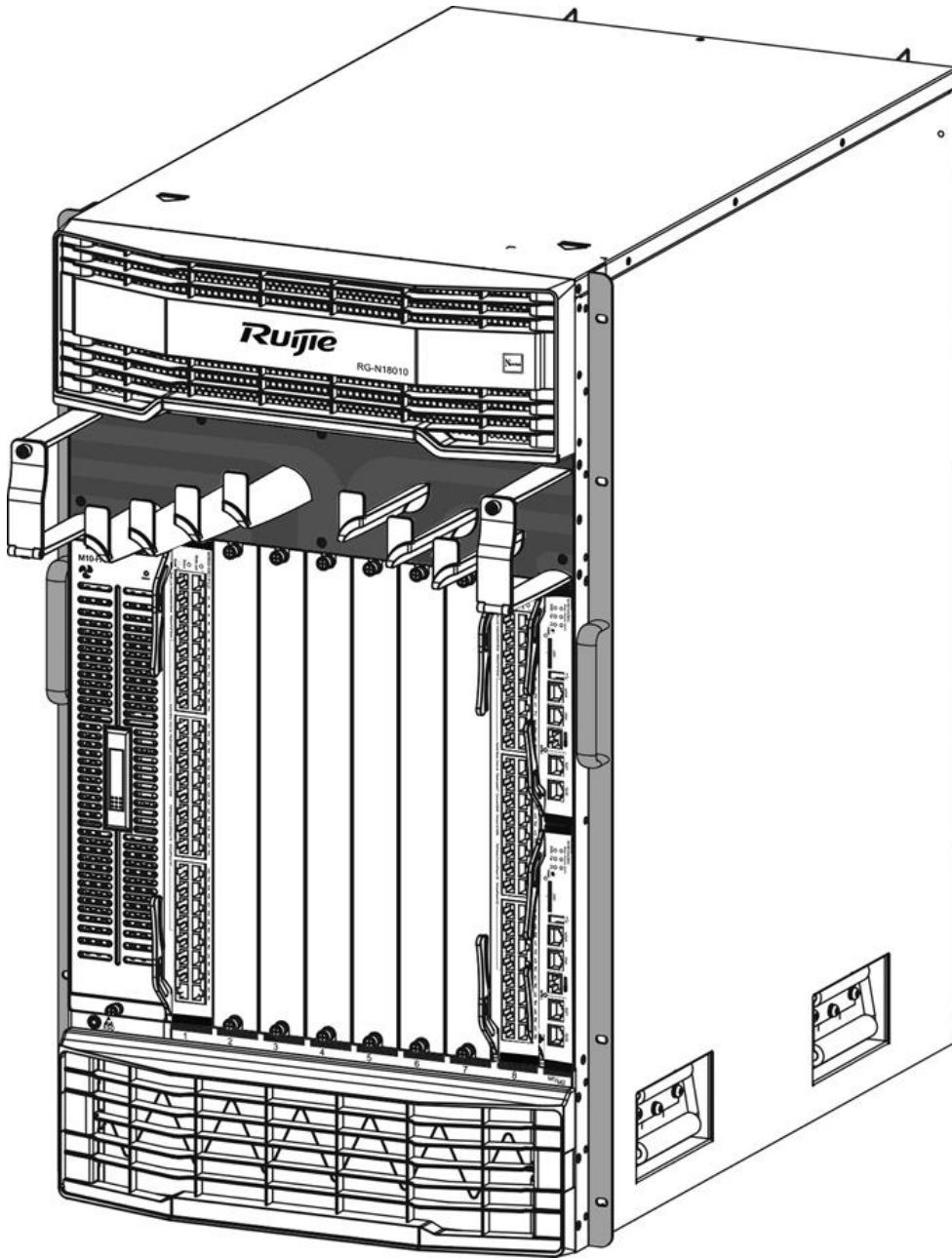
Figure 4-20 RG-N18014 Bracket



(2) RG-N18010 bracket

1. Remove the bracket from the front chassis side.
2. Install the bracket at a backward location, as shown in figure 4-21:

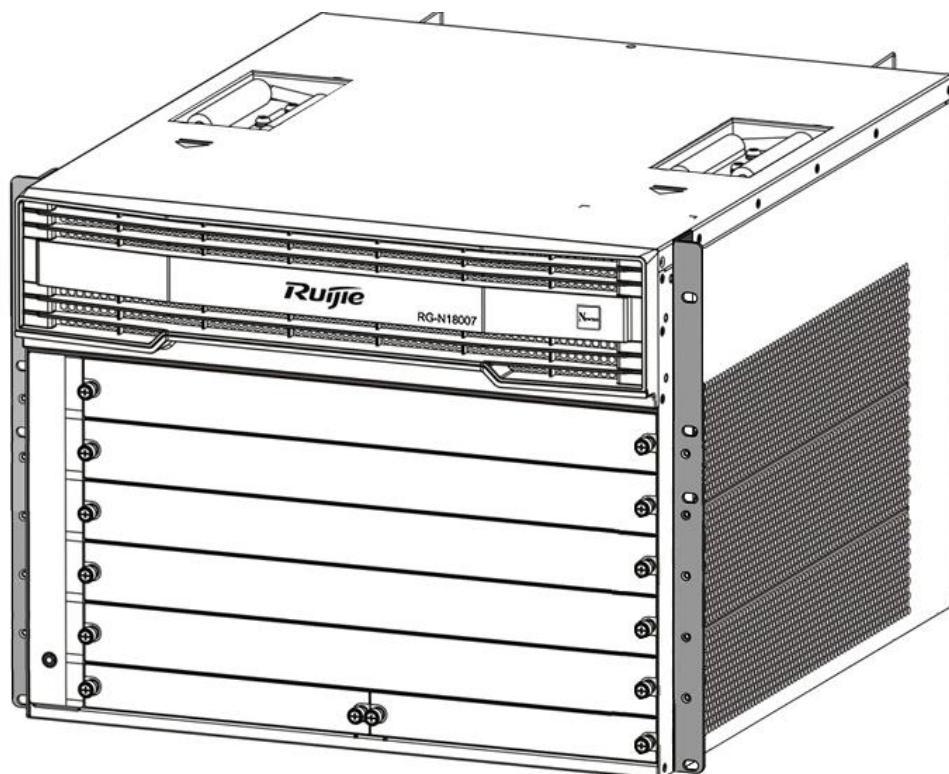
Figure 4-21 RG-N18010 Bracket



(3) RG-N18007 bracket

1. Remove the bracket from the front chassis side.
2. Install the bracket at a backward location, as shown in figure 4-22:

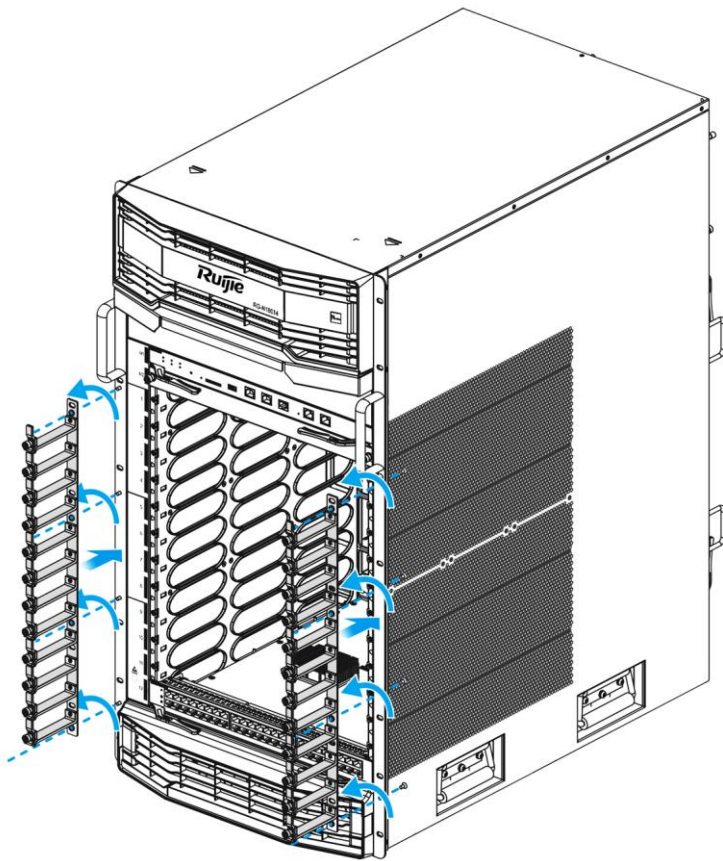
Figure 4-22 RG-N18007 Bracket



4.5 Mounting Cabling Rack

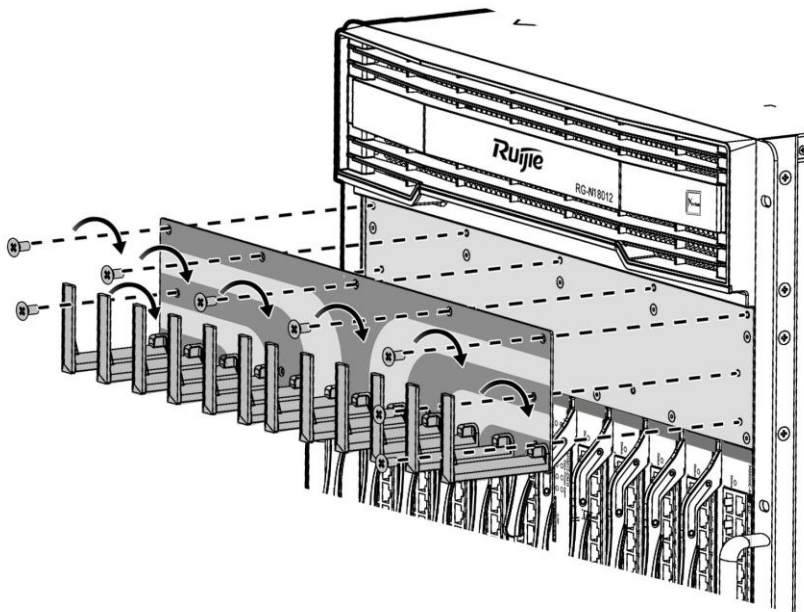
- i Make sure the antistatic wrist strap is grounded well and wear the antistatic wrist strap.
 - i The cabling rack of RG-N18010 is mounted before delivery while RG-N18014, RG-N18012 and RG-N18007 not. See the following steps and figures for installation.
-
- Mount the cabling rack for RG-N18014
 1. Take out cabling racks.
 2. There are three cabling racks on each side respectively. Pay attention to the direction to mount cabling racks, as shown in figure 4-23.
 3. Align the screw holes on the cabling rack with those on the chassis and tighten the screws, as shown in figure 4-23.

Figure 4-23 Mounting the Cabling Rack for RG-N18014



- Mount the cabling rack for RG-N18012
- 1) Take out cabling racks.
 - 2) Tighten the screws to fasten the cabling rack, as shown in figure 4-24

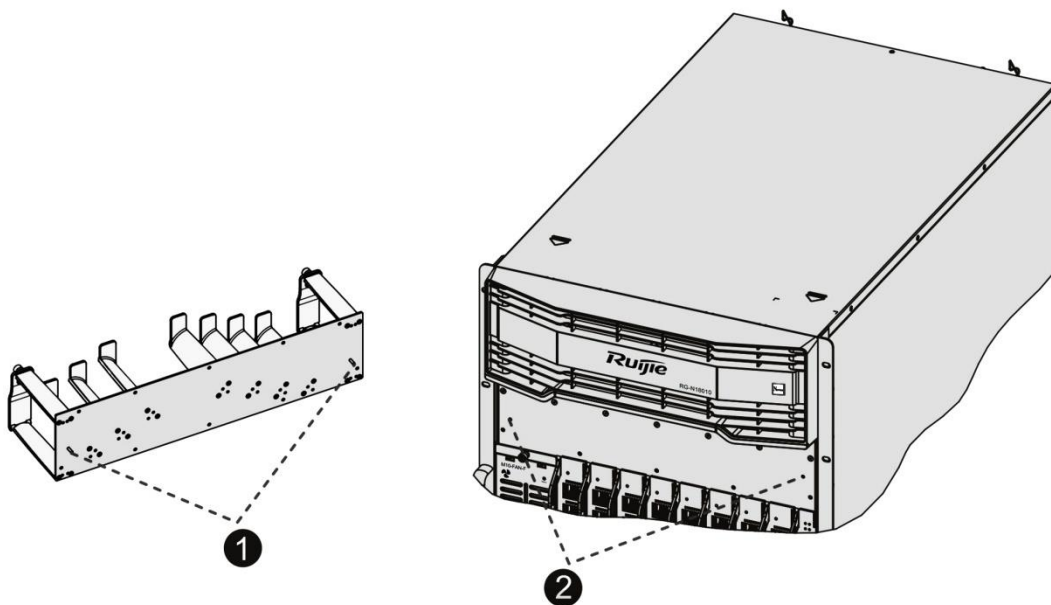
Figure 4-24 Mounting the Cabling Rack for RG-N18012



- Mount the cabling rack for RG-N18010

- 1) Take out cabling racks.
- 2) Align the screw holes on the cabling rack (① in figure 4-25) with those on the chassis (② in figure 4-25).
- 3) Tighten the screws to fasten the cabling rack, as shown in figure 4-25.

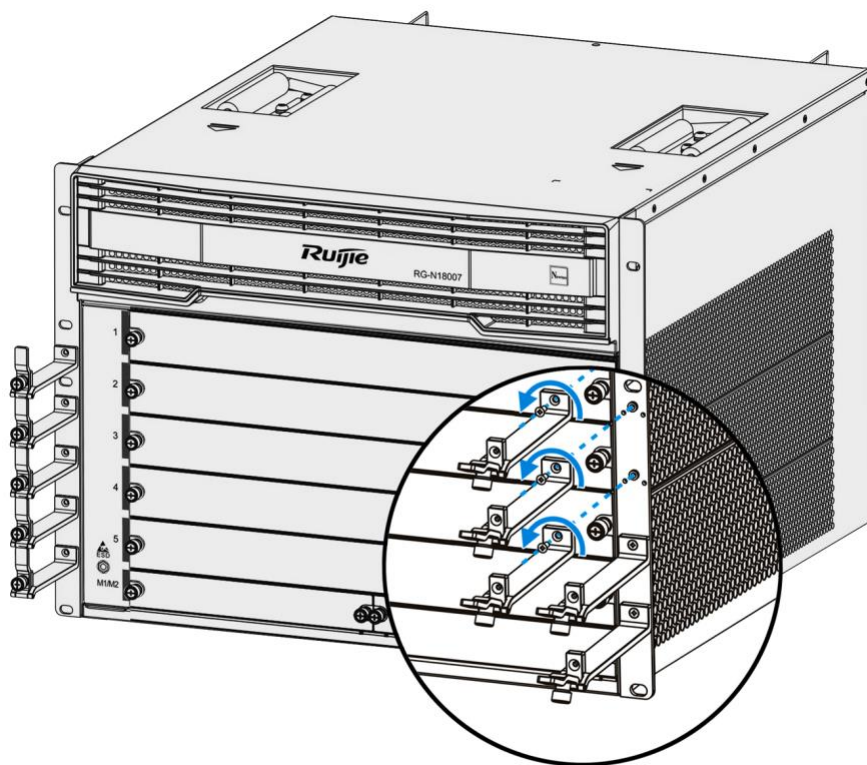
Figure 4-25 Mounting the Cabling Rack for RG-N18010



- Mount the cabling rack for RG-N18007

1. Take out cabling racks.
2. There are cabling racks on each side respectively. Pay attention to the direction to mount cabling racks, as shown in figure 4-26.
3. Align the screw holes on the cabling rack with those on the chassis and tighten the screws, as shown in figure 4-26.

Figure 4-26 Mounting the Cabling Rack for RG-N18007



4.6 Mounting the Switch to a Cabinet

Precautions

Before mounting RG-N18000 series to the cabinet, first verify that the front and back brackets of the cabinet are at the right locations. If the bracket is too far forward, the front panel of the equipment may be too close to the front door, so that the front door cannot be closed when network cables and fibers are connected. Usually, you should reserve at least 10 mm between the front panel of the switch and the front door of the cabinet. Before mounting the switch to a cabinet, you need to address the following conditions:

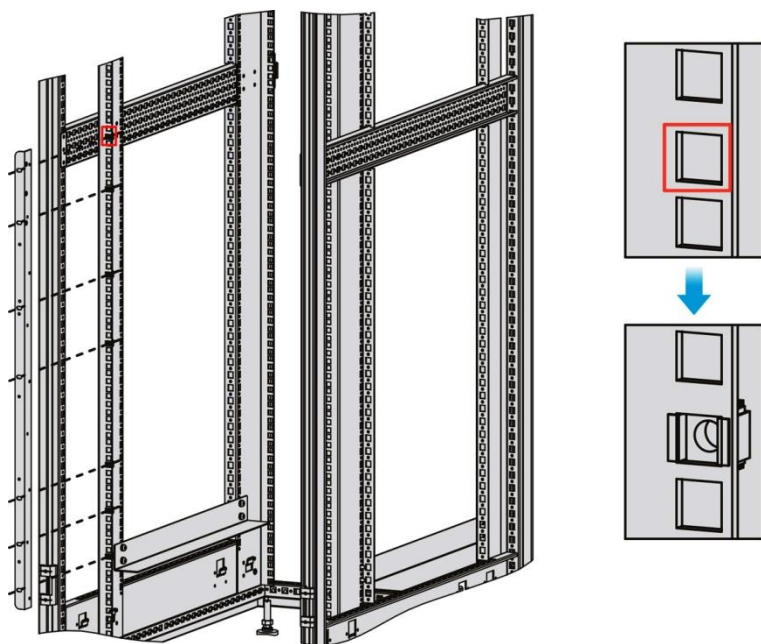
- Fasten the cabinet.
- Insert various modules in the frame properly.
- Remove any obstacle in the frame and the surrounding environment.
- Prepare the equipment and move it to the place near the cabinet where you can handle it easily.

i Five people is recommended to carry or lift the switch. One is responsible for directing and the other four carrying or lifting the switch.

Installation Steps

Measure the cabinet height and locate the position on the bracket for installing the slide rail. Then locate the position on the other bracket through the carrying plane and mark the locations. Install seven cage nuts on the marked square holes on each bracket as shown in figure 4-27.

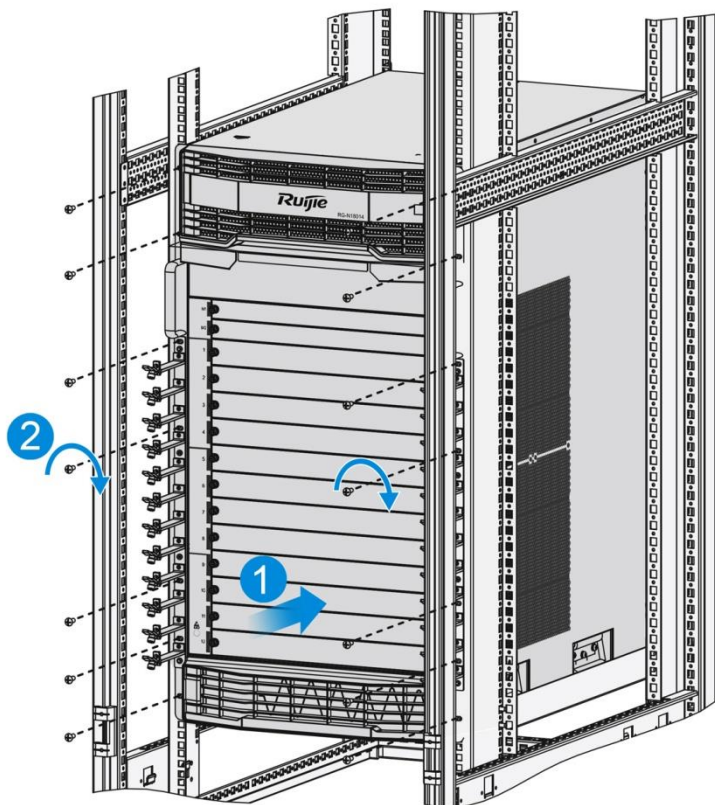
Figure 4-27 Slide Rail Installation Positions



Place the switch on the slide rail, and drive it smoothly into the cabinet until the front bracket reaches the square hole strip.

Align the installation holes on the bracket with the cage nuts on the square hole strip, and mount them with screws.

Figure 4-28 Mounting the Switch into the Cabinet



4.7 Connecting the System Ground

- i** A good grounding system protects your switch against lightning strikes and interferences and ensures its normal operation and reliability.

Precautions

- The sectional area of the grounding wire should be determined according to the possible maximum current. Cables of good conductor should be used.
- Do not use bare wire.
- To ensure security, the switch should be well grounded. The grounding resistance for combined grounding should be less than 1Ω .

Connecting the System Ground

To connect the system ground, follow these steps:

- 1) Remove the two screws on the rear of the switch.

- 2) Attach the one end of the grounding wire to the switch with the two screws. Connect the other end of the grounding wire to the grounding wire of the cabinet.

Figure 4-29 Grounding Point on the Rear of the RG-N18014 Switch

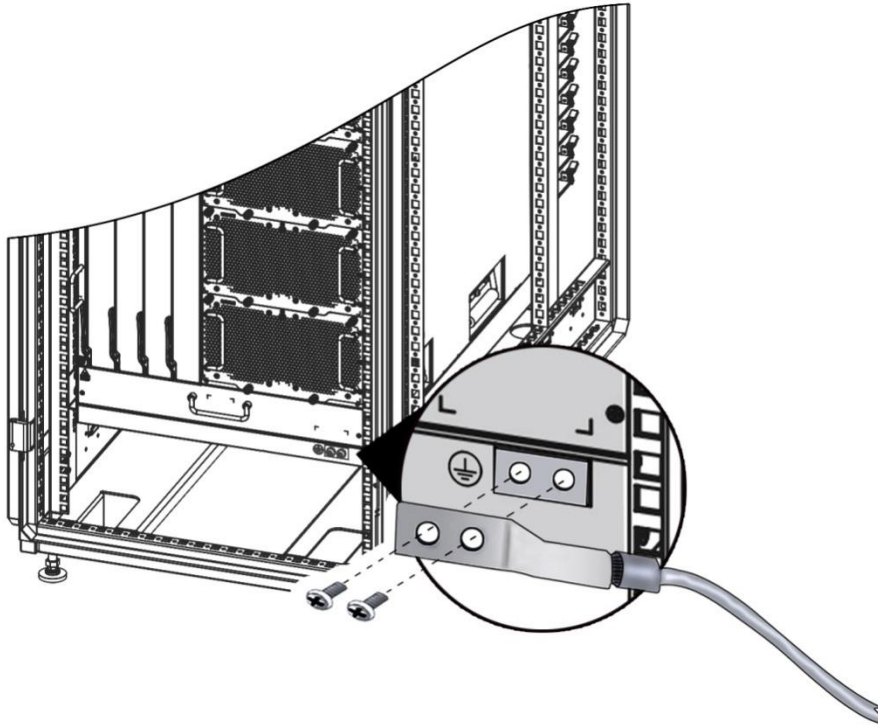


Figure 4-30 Grounding Point on the Rear of the RG-N18012 Switch

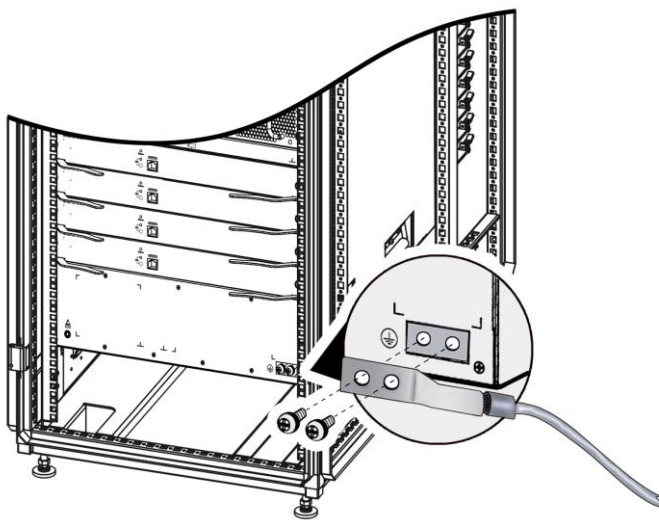


Figure 4-31 Grounding Point on the Rear of the RG-N18010 Switch

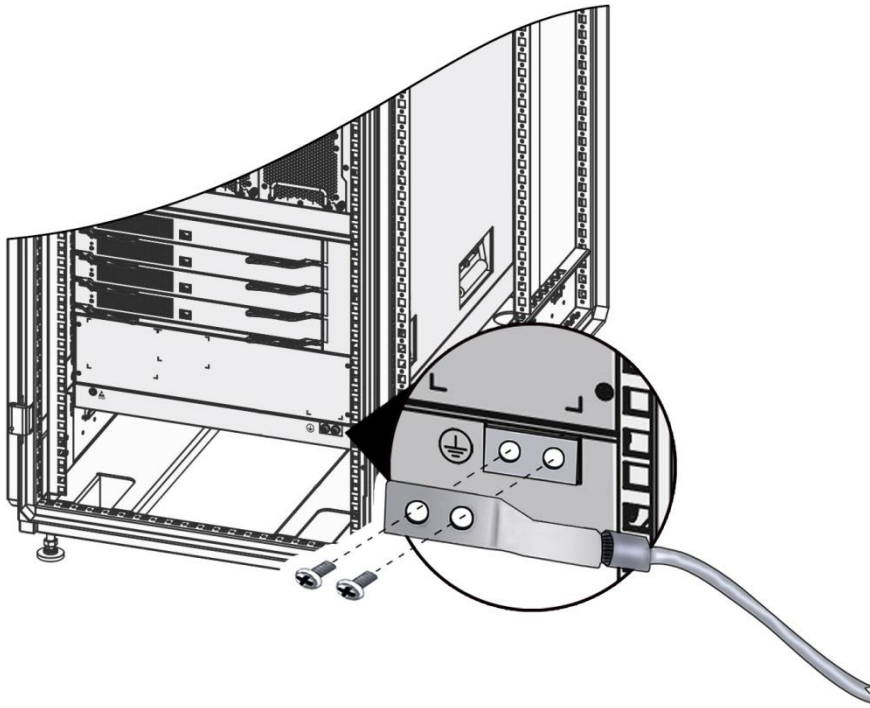
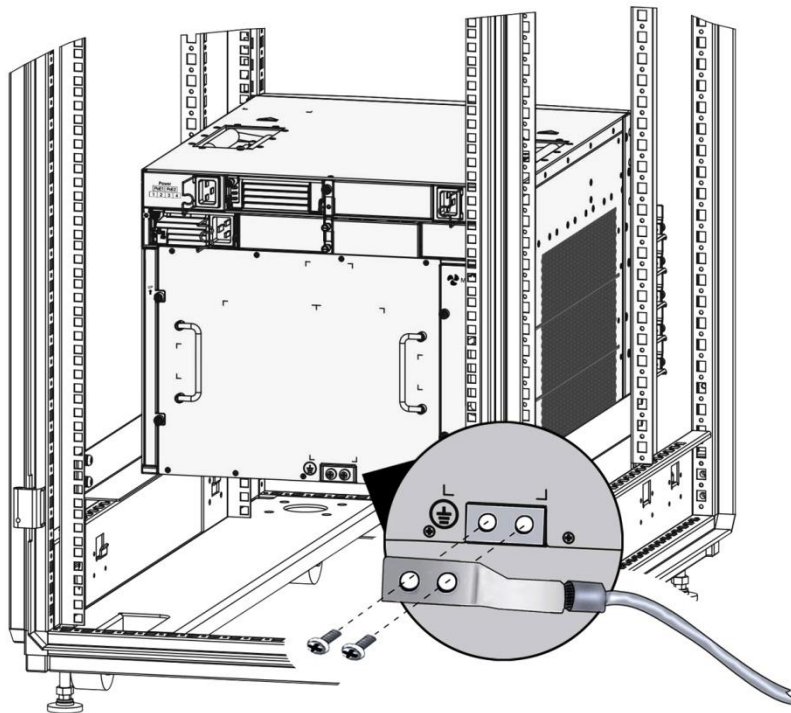


















Figure 4-32 Grounding Point on the Rear of the RG-N18007 Switch



-  To guarantee the security of the person and the device, the RG-N18000 must be well-grounded. The grounding resistance shall be less than 1Ω.
-  A service person shall check whether or not the socket-outlet from which the equipment is to be powered provides a connection the building protective earth. If not, the service person shall arrange for the installation of a protective earthing conductor from the separate protective earthing terminal to the protective earth wire in the building.
-  The socket-outlet shall be installed near the equipment and shall be easily.
-  When installing the unit, always make the ground connection first and disconnect it last.
-  The cross-sectional area of protective earthing conductor shall be at least 2.5 mm² (12AWG).

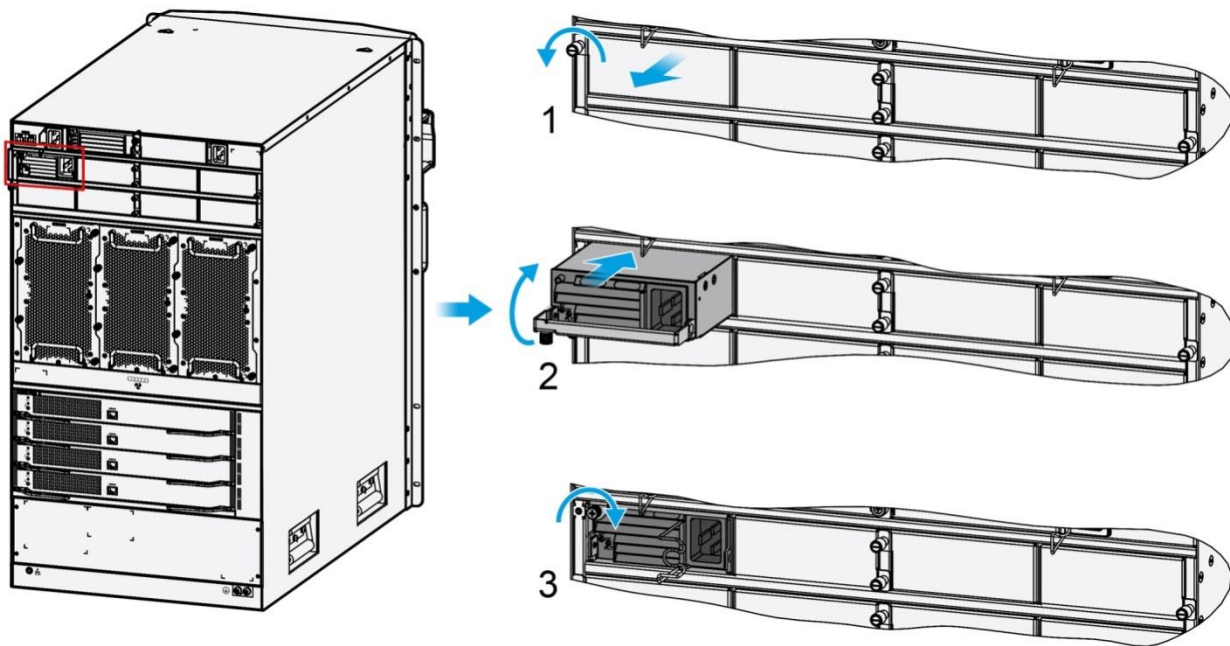
4.8 Installing Power Supplies

The RG-N18000 series switches provide AC power supplies including RG-PA1600, RG-PA600I, RG-PA1600I-P, RG-PA1600I-PL and RG-PA3000I-PL, and DC power supplies including RG-PD1600I and RG-PD600I. Before performing the following procedures, wear an anti-static wrist trap close to your kin and keep it grounded well.

-  The RG-N18014 power system provides eight power supply slots. It is recommended that you configure n+m power supply redundancy.
 -  The RG-N18012 power system provides six power supply slots, which support n+m redundancy. By adopting a PSE power frame, the power system also provides two PoE ports, which support 1+1 redundancy. It is recommended that you configure power supply redundancy.
 -  The RG-N18010 power system provides eight power supply slots, which support n+m redundancy. The power system also provides two PoE ports, which support 1+1 redundancy. It is recommended that you configure power supply redundancy.
 -  The RG-N18007 power system provides four power supply slots, which support n+m redundancy. The power system also provides two PoE ports, which support 1+1 redundancy. It is recommended that you configure power supply redundancy.
 -  When RG-N18014/RG-N18012/RG-N18010/RG-N18007 is powered up by more than one source, the power must be in the same model.
 -  RG-PA1600I-P applies to the RG-N18010 and RG-N18007 host with an earlier version than 1.20.
 -  RG-PA1600I-PL and RG-PA3000I-PL apply to the RG-N18010 and RG-N18007 host with version 1.20 and later.
 -  If you want to carry or lift the power module, please hold the bottom of the module with your hand instead of carrying the module by the handle. Otherwise, the module may be damaged.
 -  Before inserting or removing the power module, please verify whether the switch is well mounted. The switch is high, avoid switch tumble when you are inserting or removing the power module.
 -  If you want to hot swap a power supply, please make sure that the interval between two operation is greater than 30s.
 -  Please do not touch the golden finger part of the power supply which is removed after power off in case that capacitor discharge is not full.
-
- Install the AC power system
 1. Loosen the captive screws on the fake panel covering the power slot at the rear of the chassis.

2. Insert the power module into the slot along the rail until the rear connector of the power module stays in good contact with the rear panel.
3. Tighten the captive screws on the power module to fix it.

Figure 4-33 Installing AC Power Supplies



- Install the PoE power system

The PoE power system and the DC power system share the same installation steps with the AC power system.

- ⚠ The total power of power supplies of the RG-N18000 must be greater than the working power of the host. Otherwise, some modules may fail to start.
- ℹ The host power is the summation of the power of all working modules, including the supervisor module, service module and fan. For the power of each module, see *RG-N18000 Series Switches Quick Installation Guide*.

4.9 Installing Fans

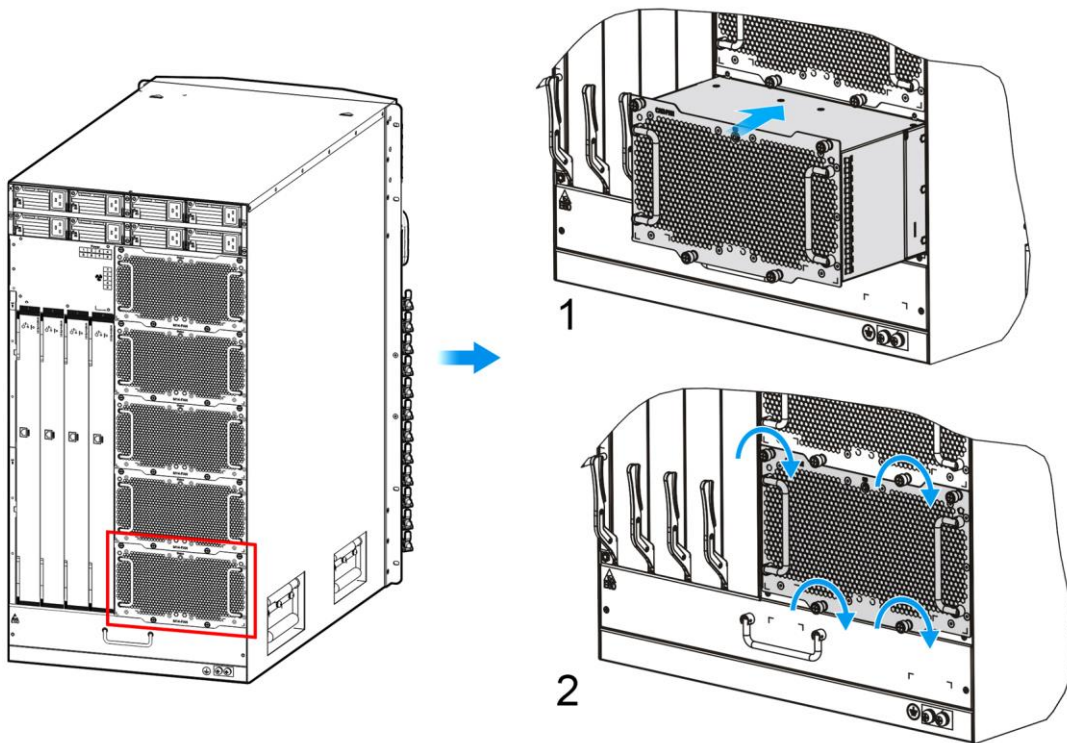
- ℹ RG-N18014 adopts five M14-FAN fans for heat dissipation.
- ℹ RG-N18012 adopts two M12-FAN-R fans for heat dissipation.
- ℹ RG-N18010 adopts three M10-FAN-R fans and one M10-FAN-F fan for heat dissipation.
- ℹ RG-N18007 adopts one M07-FAN fan for heat dissipation.
- ℹ The fans of RG-N18014, RG-N18012, RG-N18010 and RG-N18007 are installed before delivery. If you want to replace the fan, see *Replacing Fan* in *RG-N18000 Series Switches Hardware Installation and Reference Guide*.

Before the following procedures, wear an anti-static wrist trap close to your skin and have it properly grounded.

- Steps for installing the M14-FAN fan tray:

- 1) Install the fan tray into the fan slot in the rear panel of RG-N18014. Note the direction identifier of the fan tray's name to ensure the correct direction.
- 2) Tighten the captive screws on the fan tray with a screwdriver.

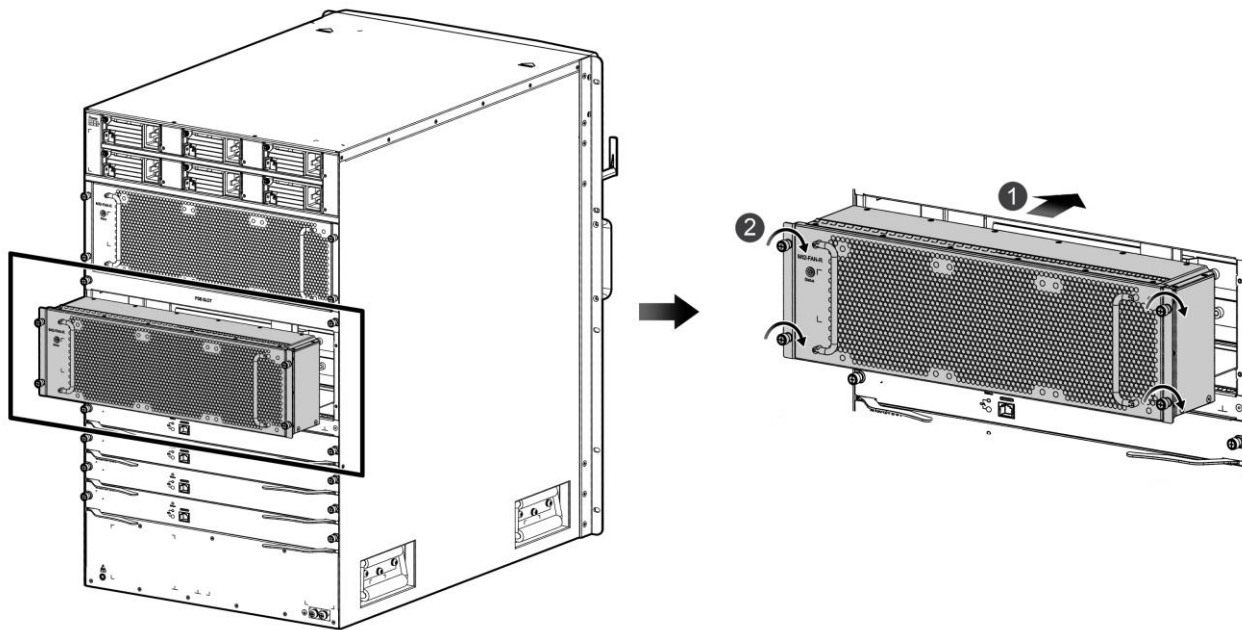
Figure 4-34 Installing M14-FAN Fan Tray



● Steps for installing the M12-FAN-R fan tray:

- 1) Install the fan tray into the fan slot in the rear panel of RG-N18012. Note the direction identifier of the fan tray's name to ensure the correct direction.
- 2) Tighten the captive screws on the fan tray with a screwdriver.

Figure 4-35 Installing M12-FAN-R Fan Tray



- Steps for installing the M10-FAN-R fan tray:

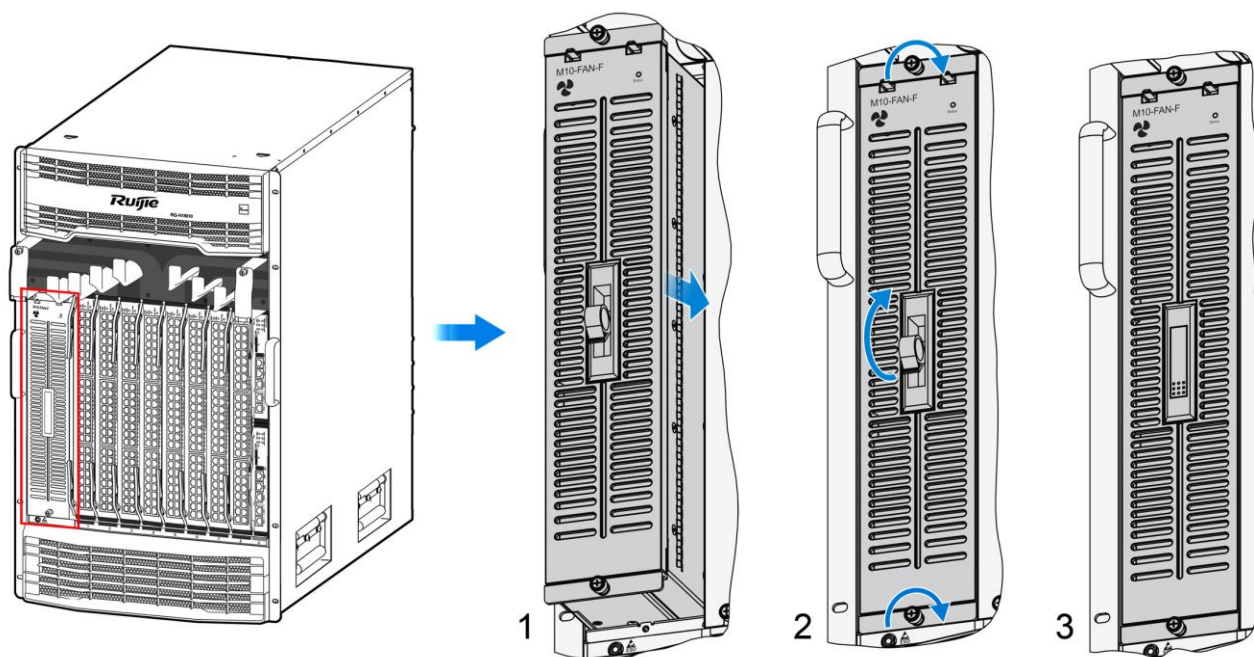
- 1) Install the fan tray into the fan slot in the rear panel of RG-N18010. Note the direction identifier of the fan tray's name to ensure the correct direction.
- 2) Tighten the captive screws on the fan tray with a screwdriver.

i The figure of M10-FAN-R fan tray installation is similar to that of M14-FAN fan tray installation, and therefore it is omitted.

- Steps for installing the M10-FAN-F fan tray:

- 1) Install the fan tray into the fan slot in the front panel of RG-N18010. Note the direction identifier of the fan tray's name to ensure the correct direction.
- 2) Tighten the captive screws on the fan tray with a screwdriver.

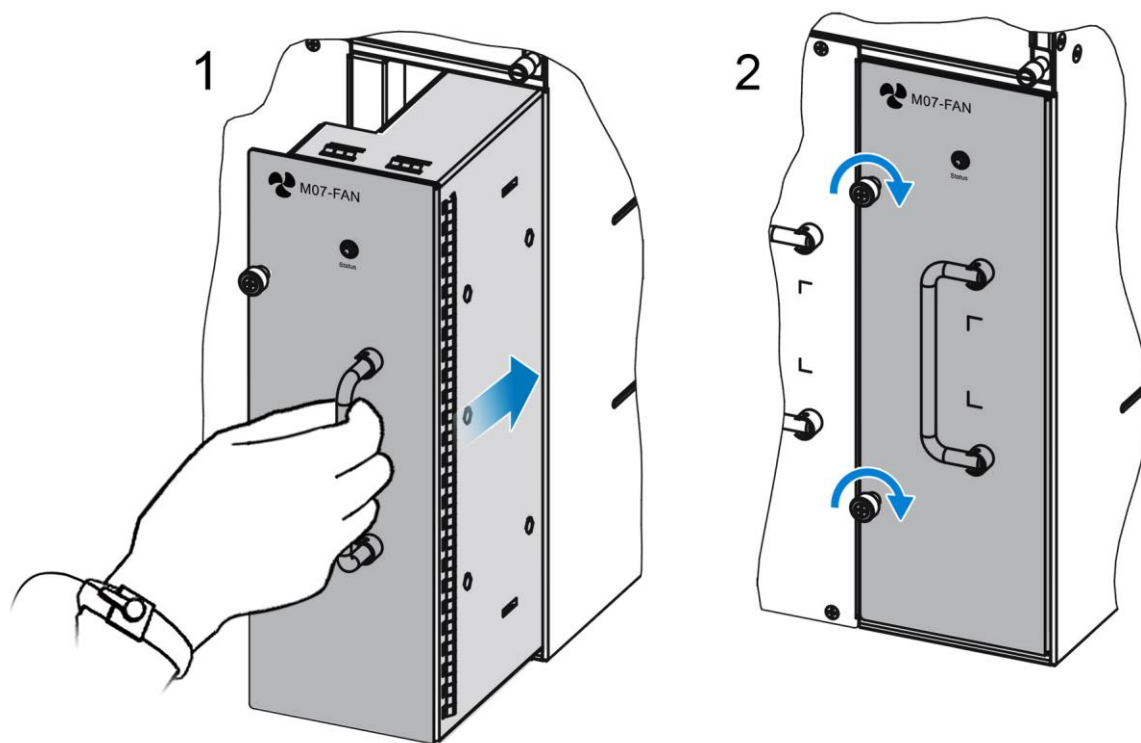
Figure 4-36 Installing M10-FAN-F Fan Tray



● Steps for installing the M07-FAN fan tray:

- 1) Install the fan tray into the fan slot in the rear panel of RG-N18007. Note the direction identifier of the fan tray's name to ensure the correct direction.
- 2) Tighten the captive screws on the fan tray with a screwdriver.

Figure 4-37 Installing M07-FAN Fan Tray



- ⚠ Do not remove the fan tray forcibly. You can use the fan handle. Otherwise, component damage may occur, which causes deformation of the fan tray, and the fan tray cannot be removed.

4.10 Installing Modules

Always wear an anti-static wrist strap when installing the module and the metallic part of the anti-static wrist strap should be fully touched with the skin. Besides, for the sake of security, please not touch any component of the module.

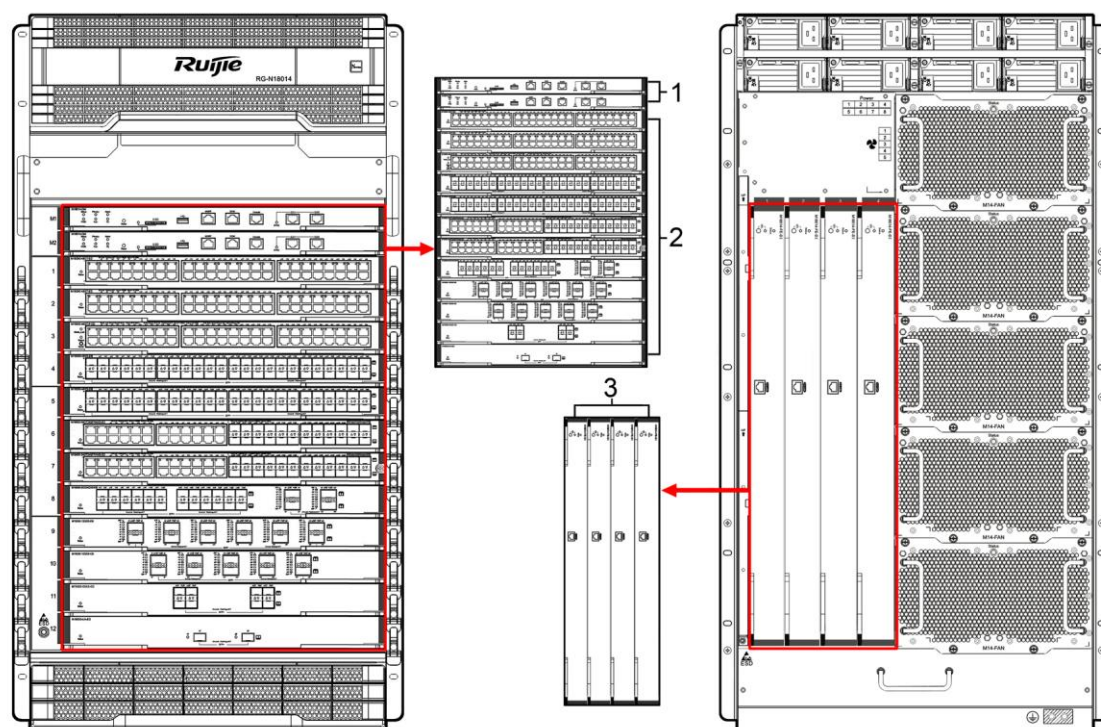
- ⚠ Do not hold the edge of the PCB or collide the components on the PCB.
- ⚠ Do not plug/unplug a supervisor module, service module or switch fabric module forcibly, use the ejector.

● Select Slots

- 📘 For the slot location of the supervisor module, service module and switch fabric module, please see figure 4-34, 4-35 and 4-36.

1. Select slots (RG-N18014)

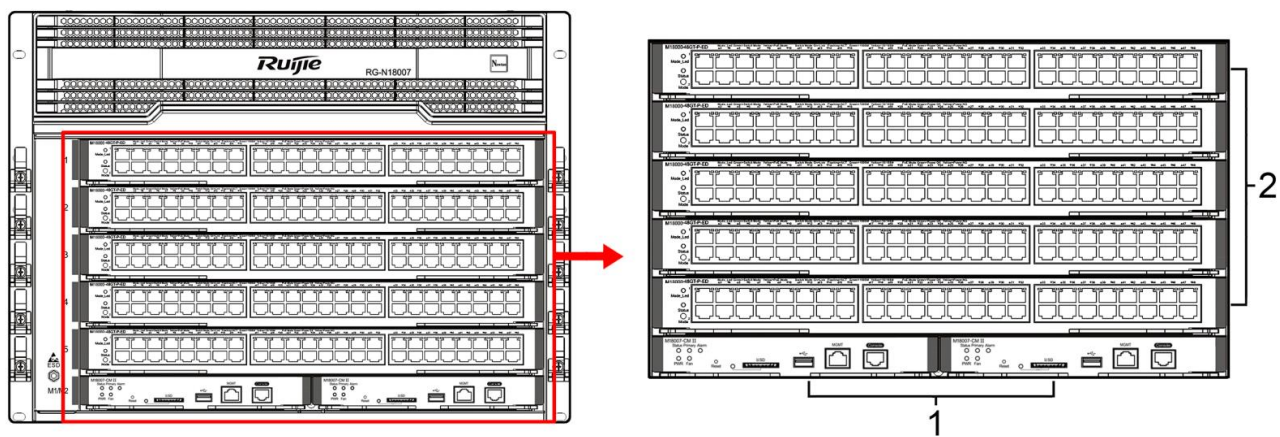
Figure 4-38 RG-N18014 Chassis



Note: ①Supervisor module slot ②Service module slot
 ③Switch fabric module slot

2. Select slots (RG-N18012)

Figure 4-39



Note: ① Supervisor module slot ② Service module slot

● Install modules

- ① The supervisor module, service module and switch fabric module adopt the design of self-locking lever. See figure 4-37 for operation.

(1) Lever Operation

Hold down the button on the lever (1 in figure 4-42) and then pull out the lever (2 in figure 4-42).

Figure 4-42 Pulling out the Lever

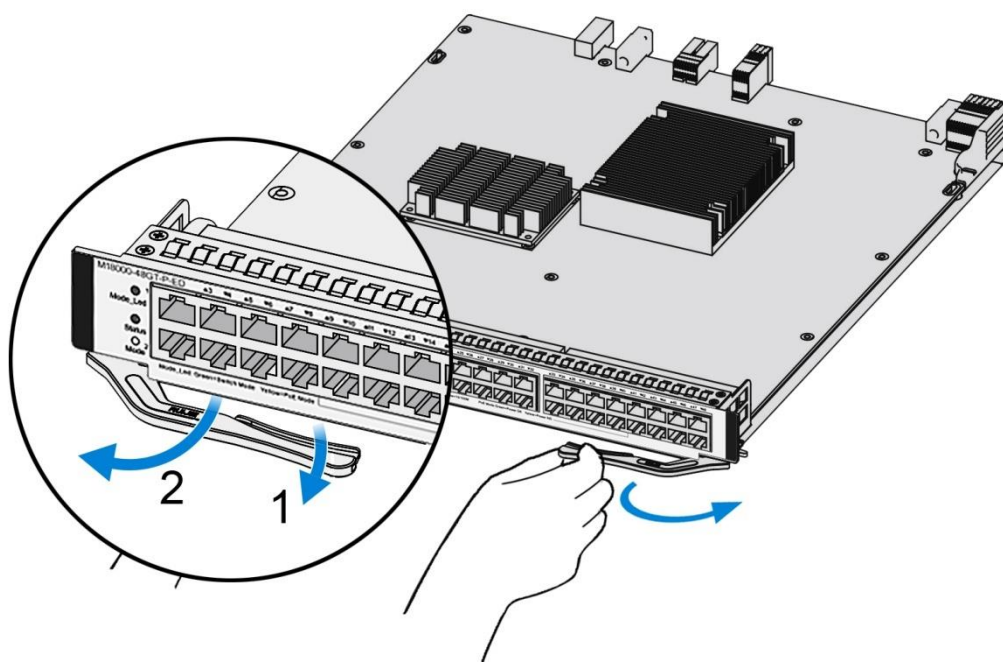
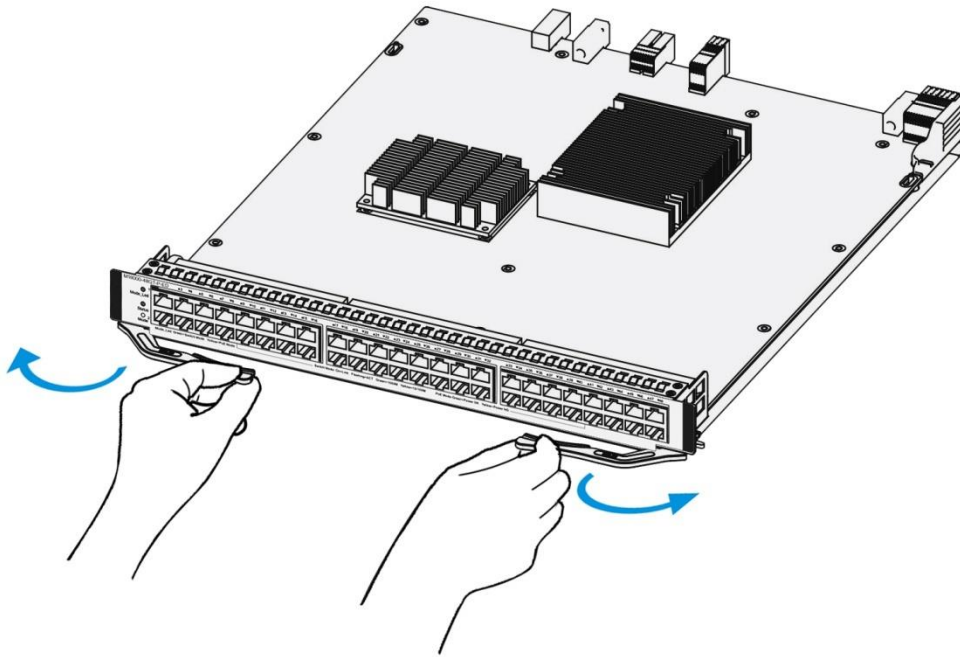


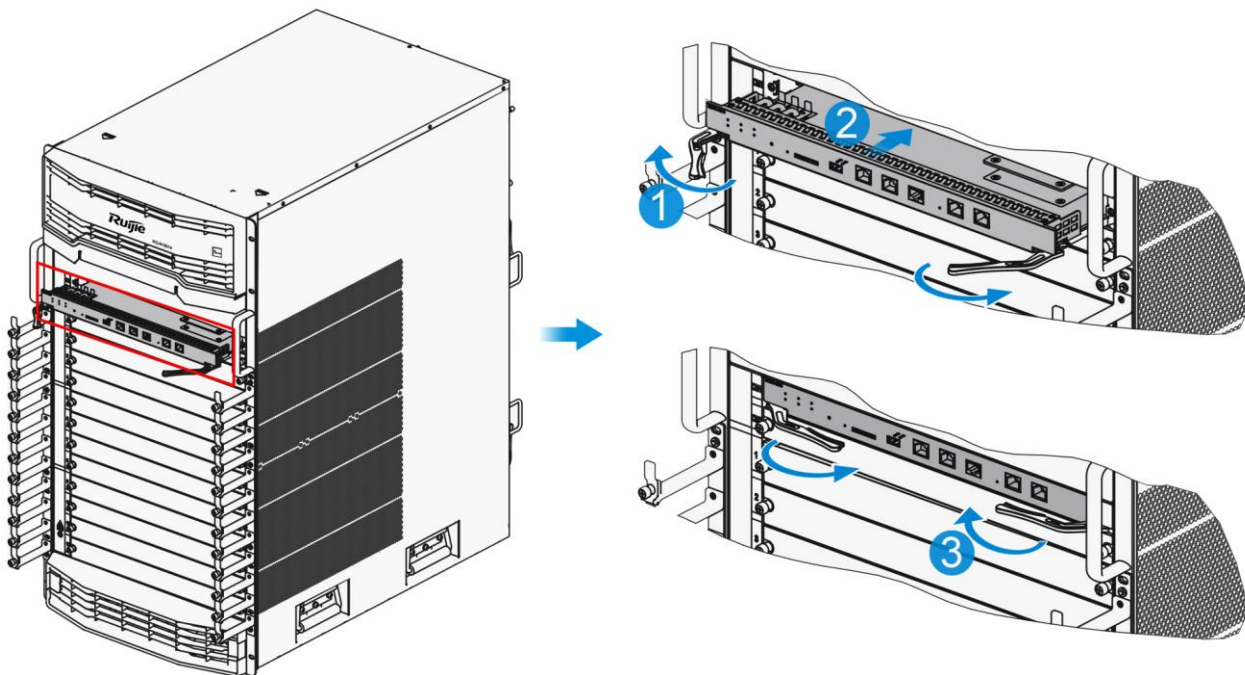
Figure 4-43 Pulling out the Levers with Both Hands



(2) Install modules into slots (RG-N18014)

- 1) Pull out both levers (① in figure 4-44).
- 2) Insert the module into the slot along the rail and drive it ahead smoothly (② in figure 4-44).
- 3) Push both levers toward the slot (③ in figure 4-44).

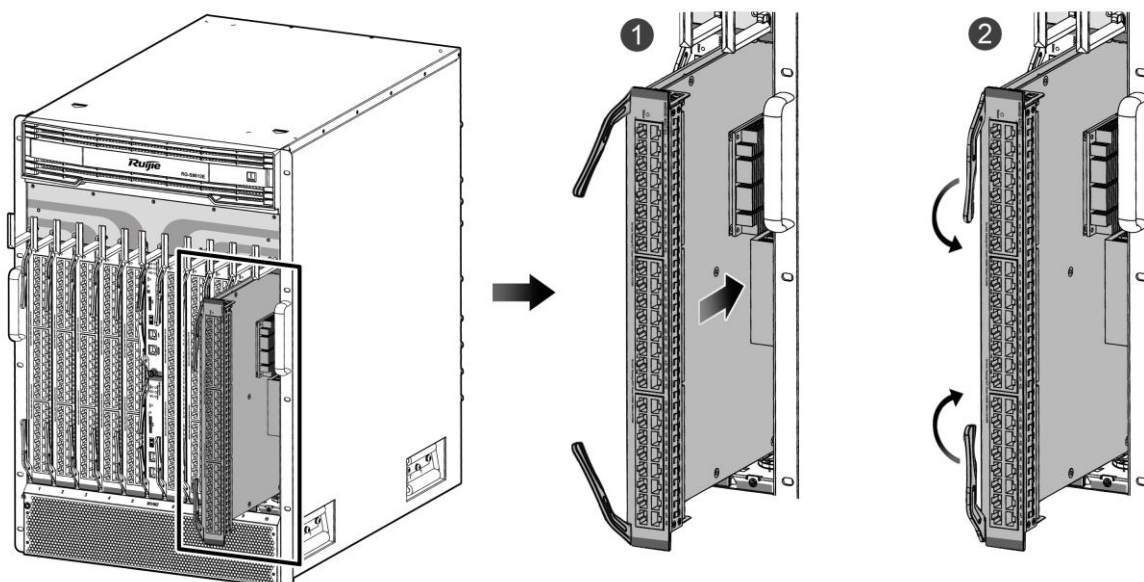
Figure 4-44 RG-N18014 in the Chassis



(3) Install modules into slots (RG-N18012)

- 1) Pull out both levers (① in figure 4-45).
- 2) Insert the module into the slot along the rail and drive it ahead smoothly (② in figure 4-45).
- 3) Push both levers toward the slot (③ in figure 4-45).

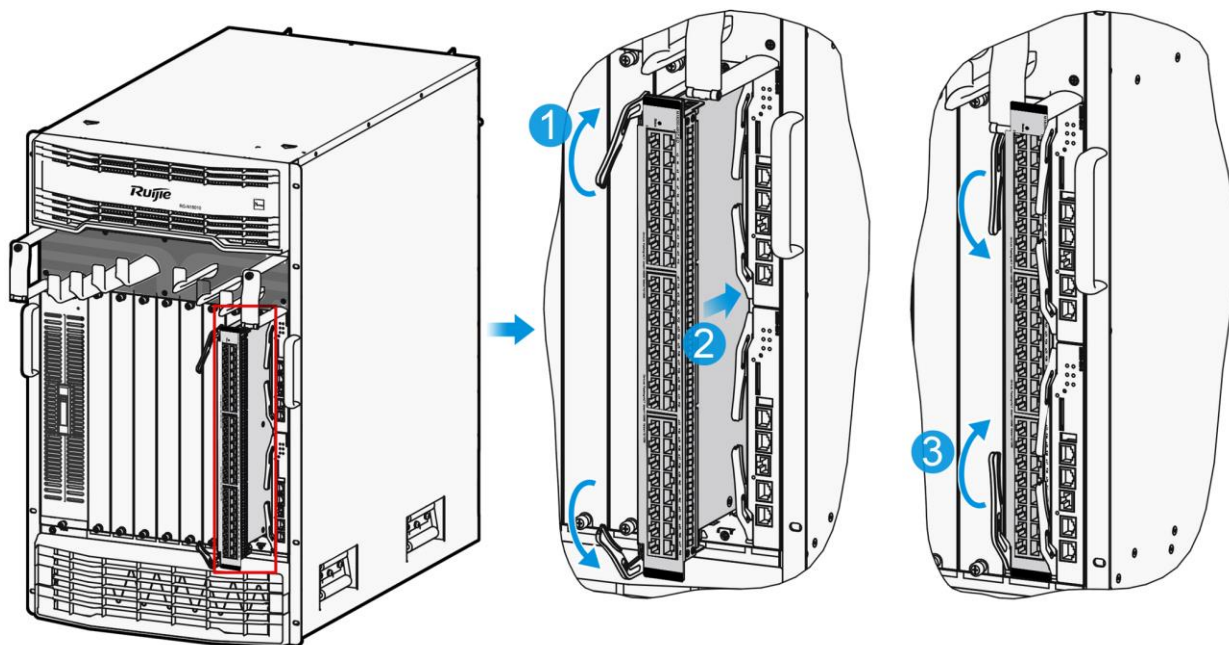
Figure 4-45 RG-N18012 in the Chassis



Install modules into slots (RG-N18010)

- 1) Pull out both levers (① in figure 4-46).
- 2) Insert the module into the slot along the rail and drive it ahead smoothly (② in figure 4-46).
- 3) Push both levers toward the slot (③ in figure 4-46).

Figure 4-46 RG-N18010 in the Chassis

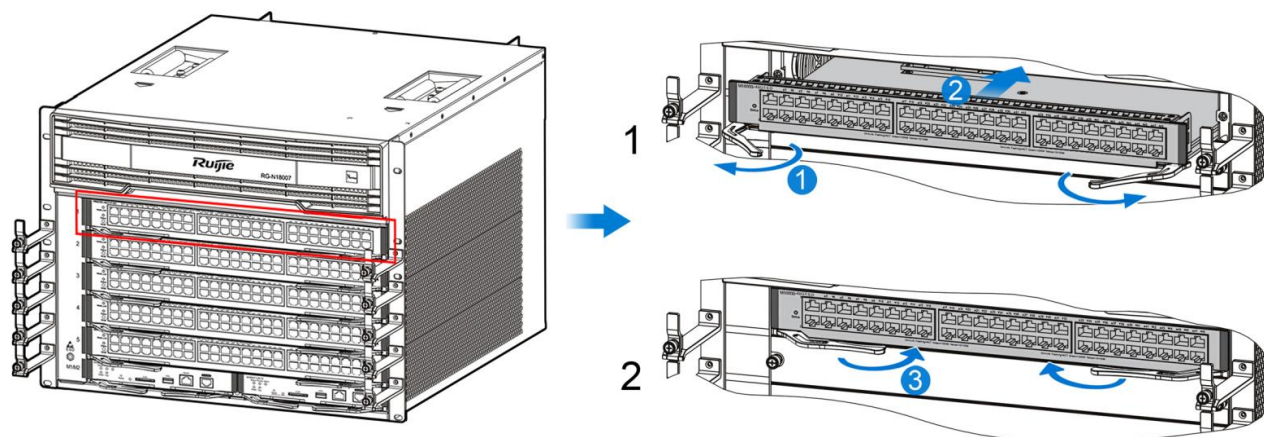


(4) Install modules into slots (RG-N18007)

- 1) Pull out both levers (① in figure 4-47).
- 2) Insert the module into the slot along the rail and drive it ahead smoothly (② in figure 4-47).

- 3) Push both levers toward the slot (③ in figure 4-47).

Figure 4-47 RG-N18007 in the Chassis



- i** If a slot is not inserted with a supervisor module, service module or switch fabric module, please cover the slot with a baffle for heat dissipation.

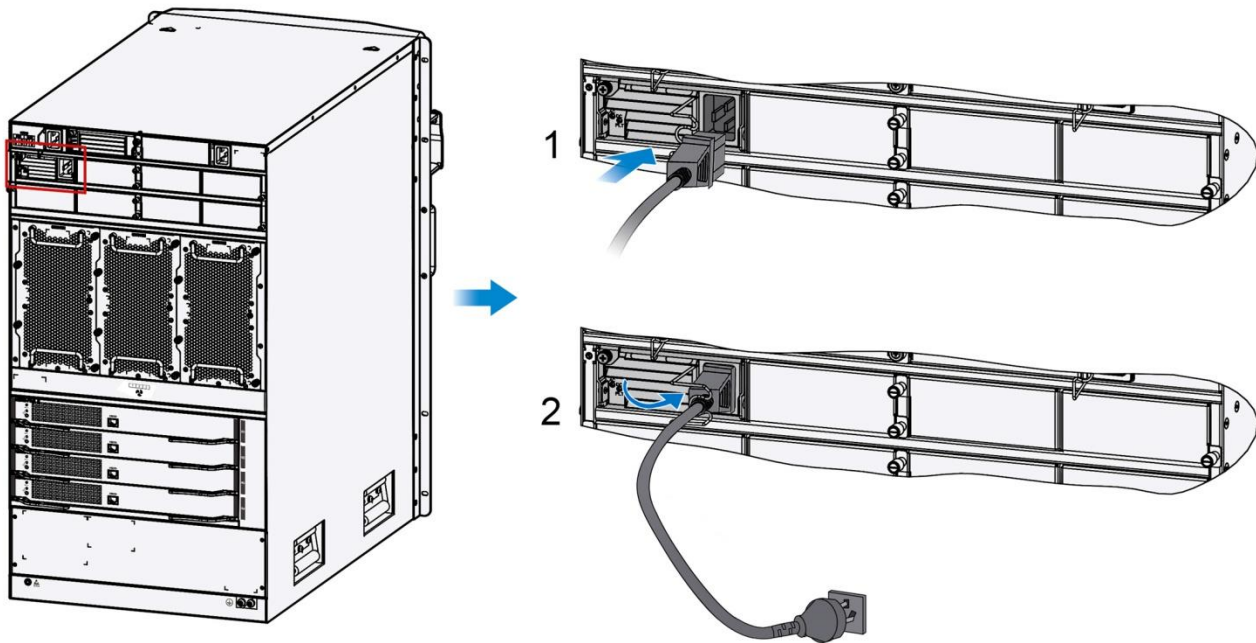
4.11 Connecting the Power Cord

Connect the power cord to the location as required according to the identification on the AC power module panel, including RG-PA1600I, RG-PA600I, RG-PA1600I-PL, RG-PA3000I-PL and RG-PA1600I-P.

- i** Make sure the socket is powered off before the power cord is connected.

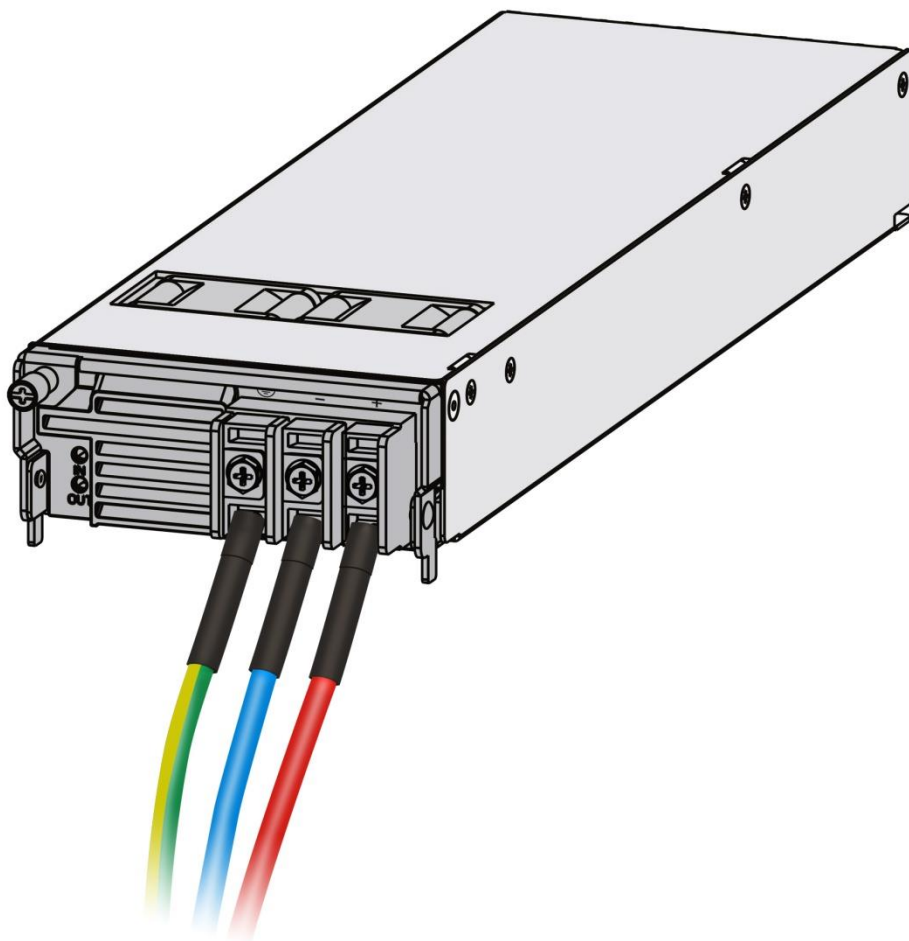
- Connect the AC power cord
 - 1) Insert the AC power plug into the power module socket.
 - 2) Take out the anti-loose buckle.
 - 3) Install the anti-loose buckle on the front panel of the power module
 - 4) Fasten the anti-loose buckle to the power cord.
 - 5) Connect the other end of the power cord to an external power socket.

Figure 4-48 Connecting the Power Cord



- ⚠ Please use the 3-pin power cord. The cross-sectional area of each pin is 1.5 mm² or 14 AWG minimum.
 - ⚠ 16A and 10A power cords are available for the RG-N18014, RG-N18012, RG-N18010 and RG-N18007 AC power supply. Adopt the proper socket and verify the AC power supply capacity in the machine room.
- Connect the power cord to the DC power module (RG-PD1600I or RG-PD600I) as required according to the identification on the power module panel.
1. Take out the DC power module and power cord. Insert the DC power plug into the power module slot.
 2. Remove the screws on the grounding terminal of the DC power supply with the screwdriver.
 3. Connect the DC power cords according to the instructions on the panel, which are green with yellow strip(ground wire), blue(-) and red(+) from left to right, as shown in figure 4-43.
 4. Fasten the OT terminal of the DC power cord to the connecting terminal with the screwdriver.

Figure 4-49 Connecting Power Cord



-
- ⚠** Before connecting the power supply, make sure the external power supply matches the power module installed. Before connecting the DC power cord to the terminal, make sure the other end of power cord is not plugged in. Make sure the power supply is properly connected.
-

4.12 Installation Verification

-
- ⚠** Before you check the installation, please make sure that all power supplies have been turned off to avoid hurting you or the switch.
-

Before powering up the RG-N18000, please verify the following items:

- Verify that the fan meets the requirement. See *RG-N18000 Series Hardware Installation and Reference Guide* for details.
- Verify that the power supply is properly selected. See *RG-N18000 Series Hardware Installation and Reference Guide* for details.
- Verify that the power module is inserted properly and the screws are fastened tightly.
- Please don't power up the switch by yourself and don't perform live-line maintenance.
- Verify that there is no potential danger in the working area, for example, the power supply is not grounded well, or the ground is wet.
- Please do not place the switch at a damp place to prevent the moisture from entering the switch.
- Be sure of the location of the emergency power switch. If an emergency occurs, cut off the power first.
- Verify that all power supplies are turned off if you want to turn off the power.

- Verify that the power cord is connected properly and won't be loosened.
- Verify that the power cord is long enough to avoid being stretched.
- Verify that the rated current of the external power socket is greater 16A and that the socket is grounded well.
- Verify that each power module is connected to a power socket.
- Verify that the vacant slot is covered with a baffle for ventilation and heat dissipation.

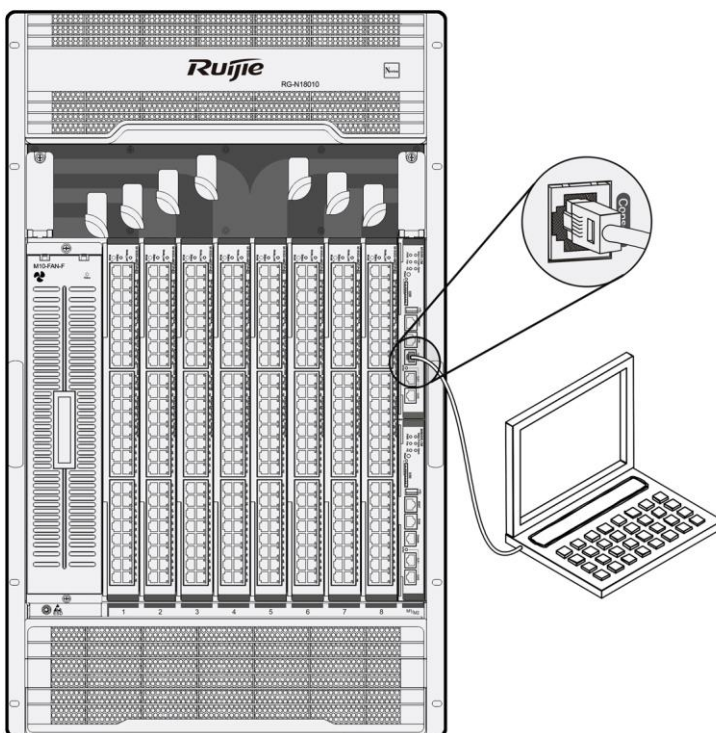
5 Logging in to the Switch

i You can log in to the switch through the Console port.

Connecting Console Cables

- 1) Connect one end of the DB-9 jack of the console cable to the serial port of the PC or the terminal.
- 2) Connect one end of the console cable DB-9 to the console port on the switch fabric module.

Figure 5-1 Connecting the Switch to the PC through the Console Port




Powering-on and Checking

Make sure that the power cord is connected to the power supply, and the power supply is operational. The following table lists the operational conditions indicated by the module LEDs.

Module	LED Indicator	Status
Supervisor Module	Status	Solid green
Service Module	Status	Solid green
Switch Fabric Module	Status	Solid green
Power Supply	Status	Solid green

Fan	Status	Solid green
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 For the detailed description of LEDs, see RG-N18000 Series Switches Hardware Installation and Reference Guide.
