

# *Quick Start Guide*

AR600, AR1600, AR6000, and AR6000-S  
Series Routers

Issue: 08 (2020-10-15)

Part Number: 31509419



# 1 About This Guide

Thank you for purchasing a Huawei AR series router. This guide describes how to install AR600, AR1600, AR6000, and AR6000-S series routers. It also explains how to log in to your router for the first time.

- The installation, cable connection, and login methods for most routers are similar. This guide uses the **AR651W-X4**, **AR651F-Lite**, and **AR6280** as an example.
- Figures in the document are for reference only and may be different from actual devices.
- Any procedural differences between models are specified at the start of each section.

For more information, see the *Hardware Installation and Maintenance Guide* for your router on the Huawei support website.

## 2 Packing List

- |  |                                   |                     |
|--|-----------------------------------|---------------------|
| ■ Chassis (with the product model on the nameplate)            | ■ Installation accessory package: |                     |
| ■ Power cable  | - Ground cable                    | - Warranty Card     |
| ■ Power adapter (only delivered with the AR600 series routers) | - <i>Quick Start Guide</i>        | - Mounting brackets |
|  | - Rubber pads                     | - Locking latches   |
|  | - Console cable                   | - Screws            |

### NOTE

- The numbers and types of items in the installation accessory package differ for different product models.
- The installation accessory package of an AR600 series router does not include the console cable, mounting brackets and screws.
- Only the installation accessory package of an AR1610-X6/AR6280/AR6280K/AR6280-S/AR6300/AR6300K/AR6300-S router includes the console cable.

## 3 Safety Guidelines

- To ensure personal and equipment safety, observe all the safety precautions on the equipment and in this document. **WARNING** and **CAUTION** items do not cover all the safety precautions and are only supplementary to the safety precautions.
- Follow all the safety precautions and instructions provided by Huawei. The safety precautions outlined in this document are only requirements of Huawei and do not include general safety requirements. Huawei is not liable for any consequence that results from violation of regulations pertaining to safe operations or safety codes pertaining to design, production, and equipment use.

### WARNING

- Laser beams will cause eye damage. Do not look into bores of optical modules or optical fibers without eye protection.
- Do not install power cables while the power is on.
- Do not turn on the power until you have finished installing the chassis and connecting cables.

### CAUTION

- This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
- Take ESD protection measures during router installation and maintenance. For example, wear ESD gloves or an ESD wrist strap.
- Do not place other objects on the router.

## 4 Site Environment

- Do not place this product in an environment with flammable or explosive gases, or smoke.
- The installation site must be free from leaking or dripping water, heavy dew, and humidity. If the relative humidity is high, use dehumidifiers or dehumidifying air conditioners.
- The installation site must be well ventilated. Ensure that air vents on the equipment are not blocked.
- Do not install the equipment in a dusty environment.
- Leave at least 50 mm clearance at the rear and both sides of the chassis for heat dissipation.
- If multiple routers are installed in a cabinet/rack, leave at least 1 U (44.45 mm) distance between each two routers.
- The WLAN functions on the 5.15 GHz–5.35 GHz band for the equipment are restricted to indoor use only in the UK, Hong Kong, and all European Union countries.
- Ensure that the temperature and humidity at the installation site meet the router operation requirements. For the specific requirements, see the *Hardware Description* for your router on the Huawei support website.

## 5 Installing the Router

### Scenario 1: Desk Mounting

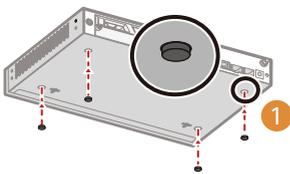
#### Before You Start

- The AR600 series, AR1600 series, AR6120, AR6120-VW, AR6121, AR6121K, AR6121-S, AR6121C-S, and AR6120-S routers can be desk-mounted. For the AR611W, AR611W-LTE4CN, AR617VW, AR617VW-LTE4, and AR617VW-LTE4EA routers, you can place the router directly on a desk to finish the installation.
- Do not stack routers on top of or closely next to each other.
- Router models provide a security slot (  ) on the side of the chassis. You can install a security lock (separately purchased) in this slot to protect the router against theft.

#### Installation Procedure

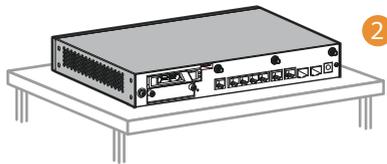
**Step 1** Attach four rubber pads to the bottom.

**Step 2** Place the router on a desk.



**Step 3** (Optional) Install a security lock.

**Step 4** Connect the ground cable to the ground point.



### Scenario 2: Wall Mounting (through the Installation Holes)

#### Before You Start

- This installation method applies to the AR600 series (excluding the AR651F-Lite and AR651C), AR6120, AR6120-VW, and AR6120-S routers.
- Before drilling holes in a wall, make sure there are no power cables in the wall to avoid electric shock.
- Ensure that there are no flammable or explosive materials near the router and no obstructions within 100 mm around the router.
- The panel with interfaces must face down to protect the interfaces from water.
- The distance between two installation holes of the AR611W, AR611W-LTE4CN, AR617VW, AR617VW-LTE4EA, and AR617VW-LTE4 routers is 153 mm.

- The distance between two installation holes of the AR651, AR651K, AR651-X8, AR651U-A4, AR651W, AR657W, and AR651W-X4 routers is 185 mm.
- The distance between two installation holes of the AR6120, AR6120-VW, and AR6120-S routers is 270 mm.

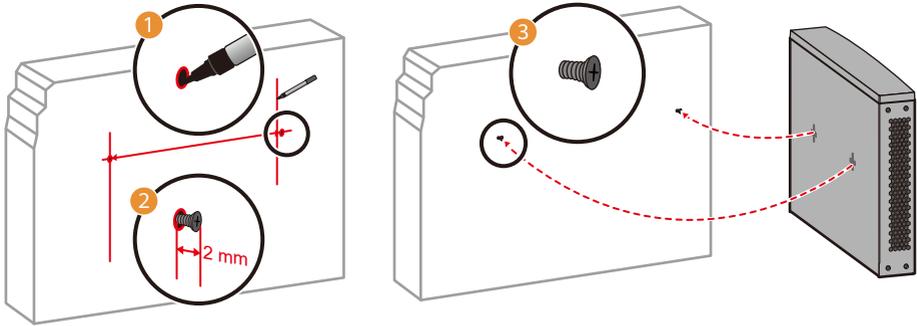
## Installation Procedure

**Step 1** Use the marker to mark installation hole positions.

**Step 2** Fix M4 mounting screws against the wall and leave 2 mm distance away from the wall.

**Step 3** Hang the router on the mounting screws.

**Step 4** Connect the ground cable to the ground point.



## Scenario 3: Wall Mounting (through the Mounting Brackets)

### Before You Start

- This installation method applies to the AR651F-Lite, AR651C, AR6121, AR6121K, AR6121-S, and AR6121C-S routers.
- Before drilling holes in a wall, make sure there are no power cables in the wall to avoid electric shock.
- Ensure that there are no flammable or explosive materials near the router and no obstructions within 100 mm around the router.
- The panel with interfaces must face down to protect the interfaces from water.
- Screws must be installed solid in the wall. Otherwise, the wall-mounted router may fall down after cables are connected.
- The wall must be a bearing wall. Otherwise, the wall is not suitable for wall-mounting.
- Install the router at an appropriate height to ensure that the indicators can be observed easily.

### Installation Procedure

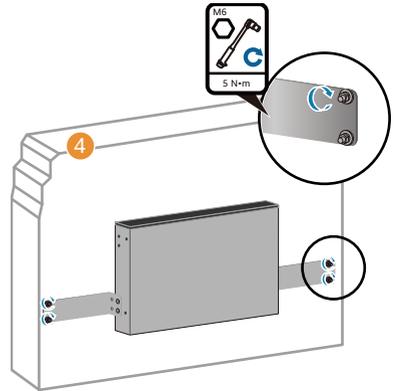
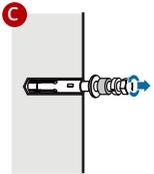
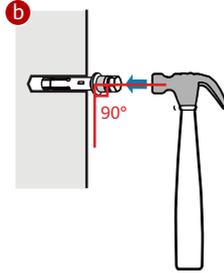
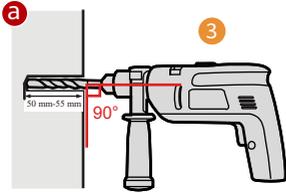
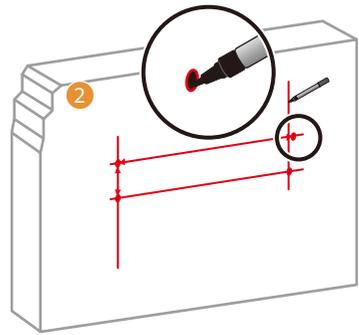
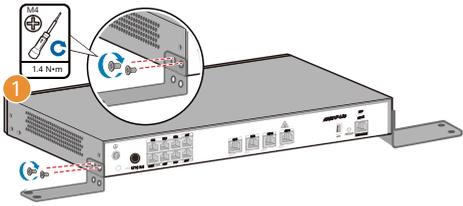
**Step 1** Use a Phillips screwdriver to fix the mounting brackets to both sides of the router using M4 screws, with a torque of 1.4 N·m.

**Step 2** Use a measuring tape to determine the four mounting bracket installation positions. Keep the upper and lower installation positions respectively on a horizontal line and mark the positions with a marker.

**Step 3** Drill holes and install mounting expansion bolts in the wall.

- Use an 8-mm drill bit to drill holes in the marked positions.
- Insert M6 expansion bolts into the holes and screw the M6 nuts to fasten the expansion bolts.
- Remove the nut, flat washer, and spring washer.

**Step 4** Place the router on the M6 expansion bolts, fasten the spring washers, flat washers, and nuts in order, and secure the router on the wall using a torque wrench, with a torque of 5 N·m.



## Scenario 4: Cabinet/Rack Mounting

### Before You Start

- AR series routers can be installed in a 19-inch standard cabinet/rack. Cabinets/racks purchased from other vendors must have enough space for equipment installation.
- If the distance between front and rear mounting rails is not within the required range, install guide rails or a tray in the cabinet/rack to support the chassis. Guide rails or trays are not delivered with the product and must be purchased separately.
- Cabinet/rack mounting is not recommended for Wi-Fi-capable routers.
- If routers with the 3G, LTE, or 5G function are installed in a cabinet, use indoor remote antennas for the routers. Install indoor remote antennas on the primary 3G, LTE, or 5G interfaces on the routers. Some router models have specific installation requirements. Refer to the following table for details about your router model.

#### AR6140-9G-2AC/AR6140K-9G-2AC/AR6140-16G4XG/AR6140-S/AR6140H-S

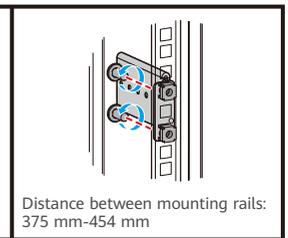
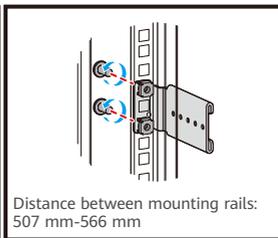
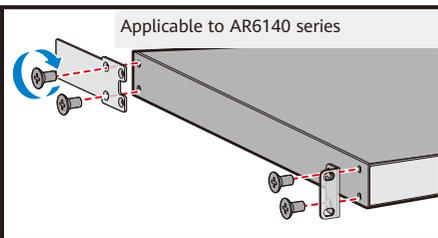
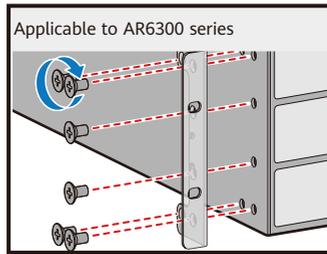
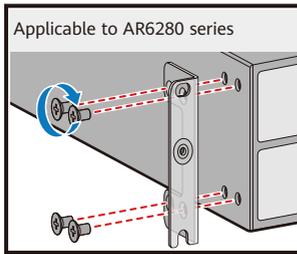
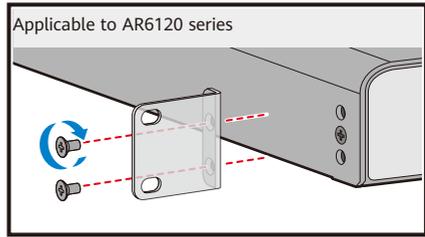
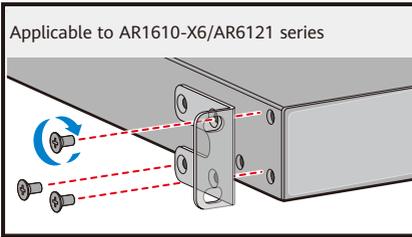
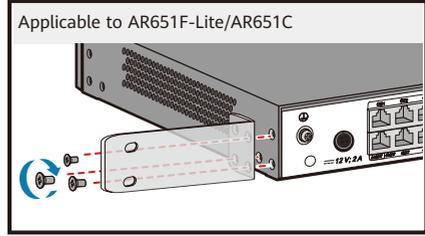
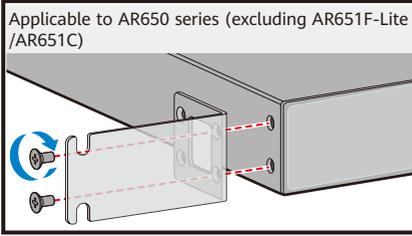
- Ensure a distance of 375–454 mm or 507–566 mm between the front and rear mounting brackets.
- Leave 1 U between the floating nuts on each front mounting rail, and 1 U between those on the rear rails. Ensure the lower floating nut on each mounting rail is level with those on the other mounting rails.

#### AR6280/AR6280K/AR6300/AR6300K/AR6280-S/AR6300-S

Chassis is heavy, so it is recommended that you install guide rails (separately purchased) in the cabinet to support the chassis.

## Installation Procedure

**Step 1** Attach mounting brackets to the router with M4 screws. Determine the mounting method according to the brackets delivered with your router.

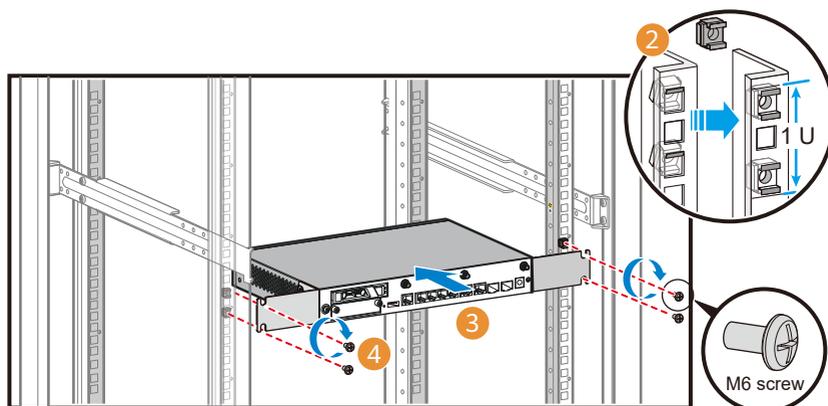


**Step 2** Install four floating nuts on front mounting rails, two on each side. Install the floating nuts in two mounting holes with one hole between them.

**Step 3** Hold bottom of the router and push the router into the cabinet.

**Step 4** Use M6 screws to secure the router onto the cabinet/rack.

**Step 5** Connect the ground cable to the ground point.



## 6 Installing Cards

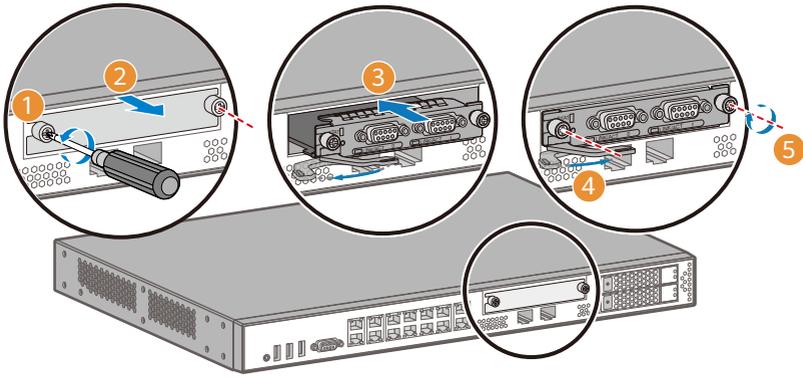
### Before You Start

- The methods for installing MIC, SIC, WSIC, XSIC, and SRU cards into MIC, SIC, WSIC, XSIC, and SRU slots are the same. The procedure in scenario 1 installs a SIC card into a SIC slot without removing the guide rail.
- Slots can be combined into a bigger slot on an AR router. The procedure in scenario 2 installs a WSIC card into two SIC slots with the guide rail removed.
- For information about the cards supported by your model, see Cards in the Hardware Description of your router on the Huawei support website.
- All cards (excluding 1LTE4, 1LTE4-EA, 1CLTE4-CN, 1ELTE6-EA, and 1LTE6-EA) are hot swappable.
- Before installing a card, wear an ESD wrist strap or ESD gloves.
- When installing a card, slowly push it into the slot. If you feel resistance or find the card inclined, pull the card out and push it into the slot again. Do not push the card with force; otherwise, the connectors on the card and router backplane may be damaged.
- Install filler panels in vacant slots.

### Scenario 1: Not Removing Guide Rails

#### Installation Procedure

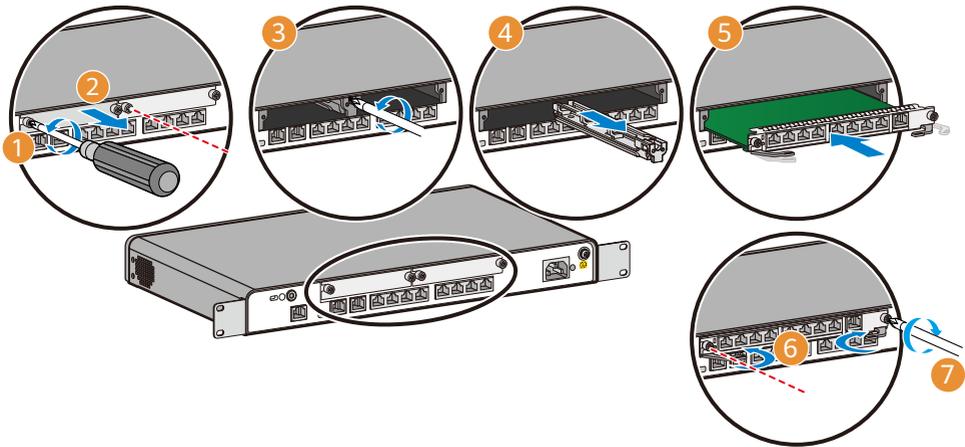
- Step 1** Use a Phillips screwdriver to loosen the captive screw on the filler panel counterclockwise.
- Step 2** Pull the filler panel out by the captive screw. Keep the filler panel for future use.
- Step 3** Turn the eject lever of the card 45 degrees outward. Push the card into the chassis with your thumbs.
- Step 4** Rotate the ejector lever inward to lock the card after the card is completely in the chassis.
- Step 5** Use the Phillips screwdriver to fasten the captive screws clockwise.



## Scenario 2: Removing a Guide Rail

### Installation Procedure

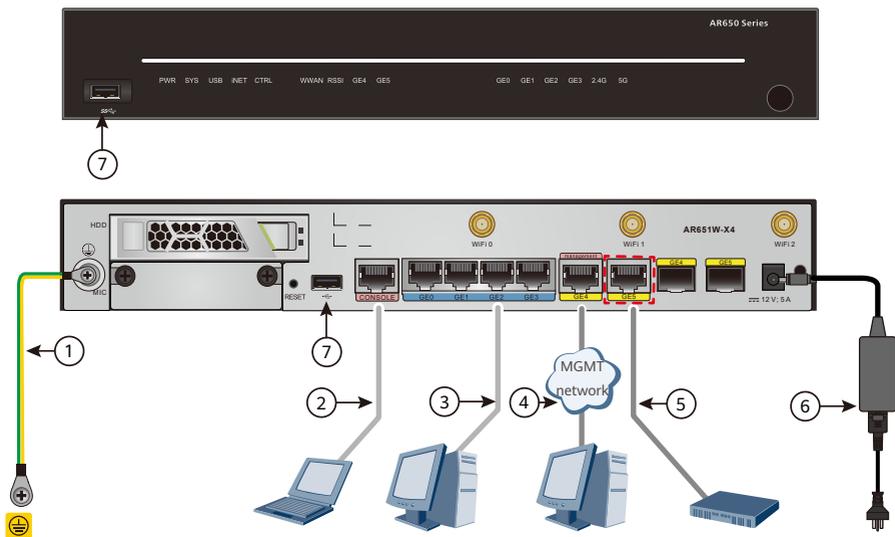
- Step 1** Use a Phillips screwdriver to loosen the captive screws on the filler panels on the two SIC slots counterclockwise.
- Step 2** Pull the filler panel out by the captive screw. Keep the filler panel for future use.
- Step 3** Use the Phillips screwdriver to loosen the screw on the guide rail.
- Step 4** Remove the guide rail in the middle of the chassis.
- Step 5** Turn the eject lever of the card 45 degrees outward. Push the card into the chassis with your thumbs.
- Step 6** Rotate the ejector lever inward to lock the card after the card is completely in the chassis.
- Step 7** Use the Phillips screwdriver to fasten the captive screws clockwise.

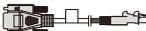


# 7 Connecting Cables

## Before You Start

- Power cables must be more than 10 cm away from signal cables.
- Optical fibers must be used with optical modules.
- The bend radius of optical fibers must be larger than 40 mm.
- For the ground cable, attach the M4 lug to the router and the M6 lug to the ground point.
- If your router uses AC power supply, use AC power cables in compliance with local standards.
- If your router uses DC power supply, ensure that the positive and negative cables are connected to the positive and negative poles correctly.
- Antennas need to be installed for routers that provide the Wi-Fi or 3G/LTE/5G functions.
- The ground cable of the AR651F-Lite and AR651C routers must be routed from the top.



No.	Item	Connect To	No.	Item	Connect To
1	 Ground cable	Protection ground	5	 Ethernet cable	Upstream network device
2	 Console cable	Operation terminal (usually a PC)	6	 Power adapter	External power source
3	 Ethernet cable	Switch or PC	7	USB port	USB flash drive
4	 Ethernet cable	Operation terminal (usually a PC)	-	-	-

# 8 Logging In to the Router for the First Time

## 8.1 Using the console interface login settings

### Before You Start

- Install third-party terminal simulation software on the PC by referring to user manual or online help.
- The password entered in interactive mode is not displayed on the screen.

### Login Procedure

**Step 1** Turn on the power switch on the external power supply and log in to the router after the SYS indicator blinks once every 2 seconds (indicating that the router is running properly).

**Step 2** Use a console cable to connect a PC to the console interface of the router.

**Step 3** Start the terminal simulation software, create a connection, configure the connected port, and set communication parameters as follows.

- **Transmission rate: 9600**
- **Data bit (B): 8**
- **Parity bit: None**
- **Stop bit (S): 1**
- **Flow control mode: None**

**Step 4** Press **Enter** until the following information is displayed. (The following information is only for reference)

#### NOTE

In V300R019C00 and later versions, the default user name is **admin** and the default password is **admin@huawei.com**.

In versions earlier than V300R019C00, the default user name is **admin** and the default password is **Admin@huawei**.

```
Login authentication
Username:admin
Password:
Info: The entered password is the same as the default. You are advised to change
it to ensure security.
```

After successful login, you can configure the router on the command line interface. For more information, see the **CLI-based Configuration** of the product.

## 8.2 Using the web login settings

### Before You Start

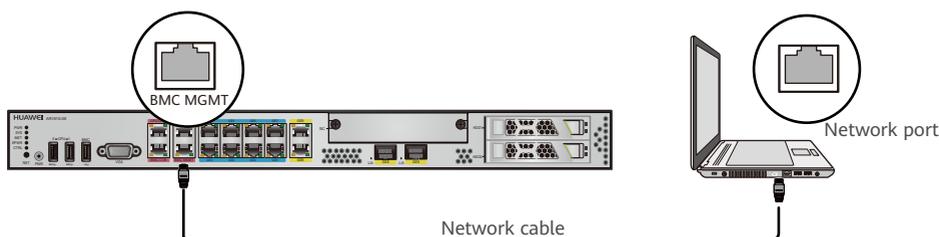
- If the web page is displayed abnormally, the browser version may be too low. Upgrade the browser and log in to the web platform using Mozilla Firefox 12.0 or later, Google Chrome 23 or later, or Internet Explorer 8.0 or later.
- The login page varies according to version.

- The following uses wired access as an example. You can also log in to a Wi-Fi-capable device in wireless access mode.
  - The Wi-Fi network SSID is a character string that consists of PnP\_ and the last six digits of the device's ESN, in the PnP\_xxxxxx format.
  - The Wi-Fi password is a character string that consists of AR and the last six digits of the device's ESN, in the ARxxxxxx format.

## Login Procedure

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- Step 1** Turn on the power switch on the external power supply and log in to the router after the SYS indicator blinks once every 2 seconds (indicating that the router is running properly).
- Step 2** Use a network cable to connect a PC to the management interface marked with the MGMT silkscreen on the router.



- Step 3** Assign the PC with an IP address on the same network segment as the router IP address. The available IP addresses are in the range from 192.168.1.2 to 192.168.1.254, and the subnet mask is 255.255.255.0.
- Step 4** Start the browser, enter the URL <https://192.168.1.1> in the address box, and press Enter to access the login page.

**AR web platform** Username:

Password:

Language:

- Step 5** Enter the user name and password, and click Login to access the web page.

### NOTE

In V300R019C00 and later versions, the default user name is **admin** and the default password is **admin@huawei.com**.

In versions earlier than V300R019C00, the default user name is **admin** and the default password is **Admin@huawei**.

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On the web page, you can configure the router. For more information, see the **Web-based Configuration** of the product.

## 9 Obtaining Product Documentation and Technical Support

- Log in to Huawei enterprise technical support website (<https://support.huawei.com/enterprise>), and select a specific product model and version to find its documentation.
- Log in to Huawei enterprise support community (<https://forum.huawei.com/enterprise/en/index.html>) and post your questions in the community.



Huawei Enterprise  
Technical Support

## 10 Open Source Software Notice

For more information, see the *Open Source Software Notice* of the product.

## 11 Declaration of Conformity

Hereby, Huawei Technologies Co., Ltd. declares that the radio equipment type is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:  
[www.huawei.com/en/product-certification](http://www.huawei.com/en/product-certification).

## 12 Supplier's Declaration of Conformity (SDoC)

**Unique Identifier:** trade name: HUAWEI; product name: Router;  
model number: AR600, AR1600, AR6000, and AR6000-S series routers

**Responsible Party- U.S. Contact Information**

Huawei Technologies USA Inc.  
5700 Tennyson Parkway, Suite 500  
Plano, Texas 75024  
Main: 214-919-6000 / TAC Hotline: 877-448-2934

**FCC Compliance Statement ( for products subject to Part 15)**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## 13 Trademarks and Permissions



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## Qualification Card

