



# Hillstone Networks Hardware Reference Guide

[www.hillstonenet.com](http://www.hillstonenet.com)

TW-QSG-IPS-EN-V1.0-Y18M03

# Installation Quick Start

## Tools

Cross screwdriver

Antistatic gloves

Ethernet cable

## Prerequisite

Before installation, make sure that you have taken the ESD prevention measures.

## Installing Mounting Rail Assemblies

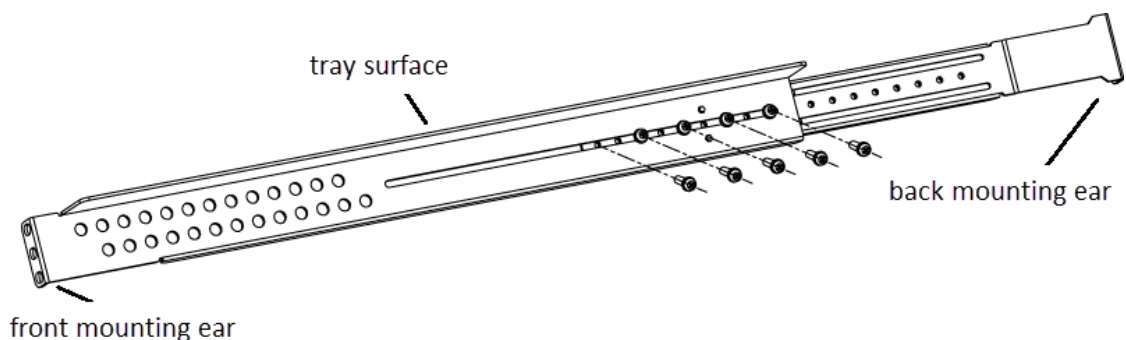
Only devices of some models are shipped with Mounting Rail Assemblies. Please check your inventory. If there is no tray on your rack, install the mounting rail assemblies first.

The mounting ears are used to fix the position of the chassis but cannot bear weight. The mounting rail assemblies shipped with the device are used to support the chassis if there is no tray on your rack. The mounting rail assemblies are used for 19-inch racks, with a height of 1U.

**Step 1:** Hold the mounting rail assembly and shift the tray surface upwards. In the desired position, hook the front mounting ear onto the front rack post.

**Step 2:** Keep the mounting rail assembly horizontal and adjust the length of it until the back mounting ear can hook the back rack post. Mark the positions of squared holes on front and back rack posts.

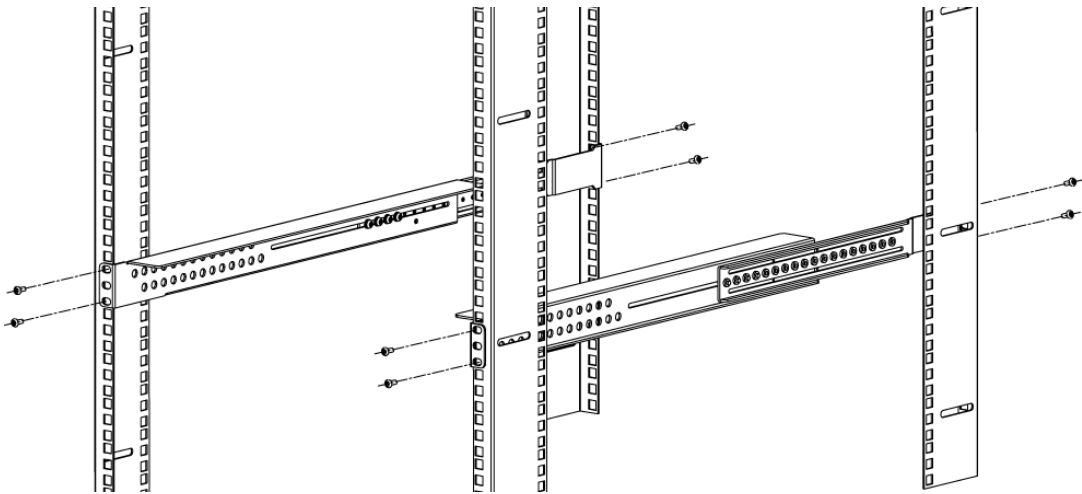
**Step 3:** Use the cross screwdriver to tighten the screws in the mounting rail assembly until the rail cannot slide. Five screws are provided; arrange the position of these screws on average according to the length of the mounting rail assembly.



**Step 4:** Move the mounting rail assembly aside. Install floating nuts in the marked squared holes.

**Step 5:** Move the mounting rail assembly back and keep the center of the rack-mounting ear and the center of the rack hole horizontally even and tighten the screws.

**Step 6:** Repeat above steps to install the mounting rail assembly on the other side. The two mounting rail assemblies should be at the same horizontal surface.



## Installing Rear Brackets

Only devices of some models are shipped with rear brackets. Please check your inventory. If there is no tray on your rack, install the rear brackets first.

The mounting ears are used to fix the position of the chassis but cannot bear weight. The rear brackets shipped with the device are used to support the chassis if there is no tray on your rack. The rear brackets are used for 19-inch racks, with a height of 1U.

**Step 1:** Locate the pre-installed position and install the squared nuts in the accessory to the aligned holes on the rear side of the cabinet. Note that the distance between the upper and lower nuts is determined according to the spacing of the positioning holes on the rear bracket.

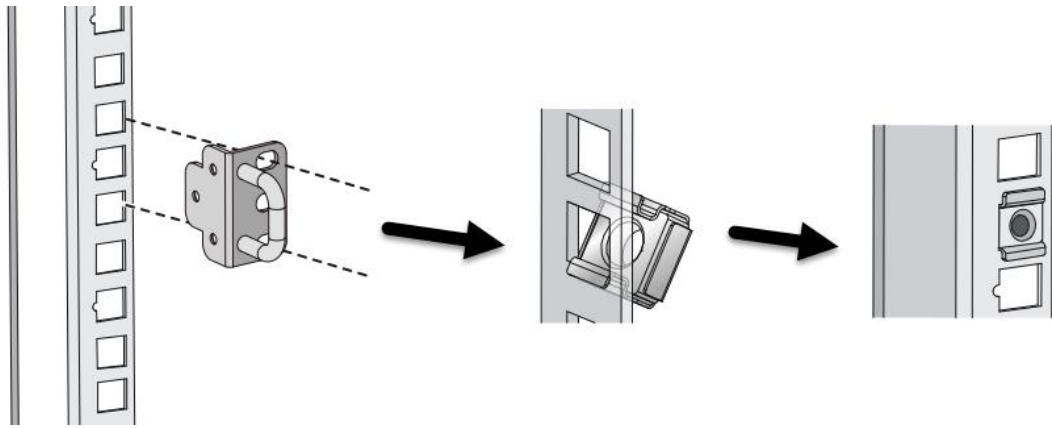
**Step 2:** Hold the rear bracket with the tray facing up to align the holes of the rear bracket rail with the squared nut holes.

**Step 3:** Use cross screwdriver to tighten the upper and lower two screws to secure the rear tray rail.

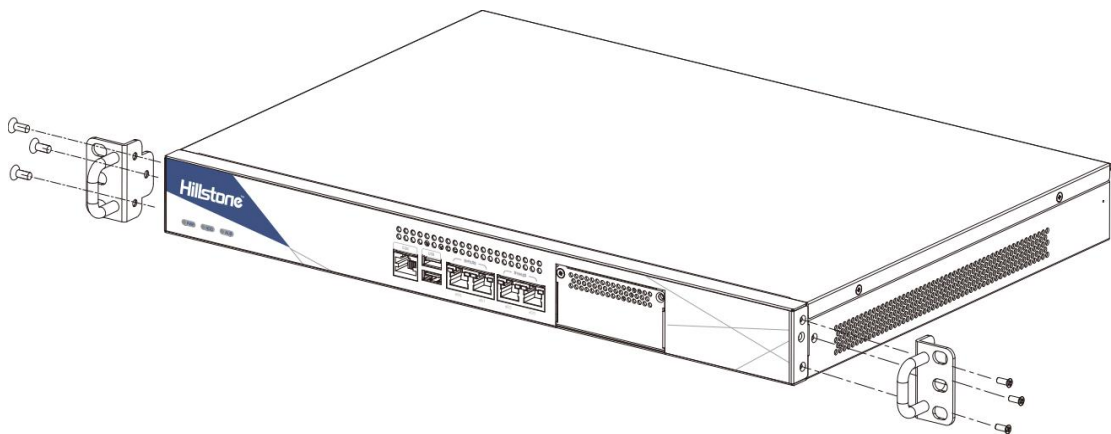
**Step 4:** Repeat above steps to install the rear bracket on the other side. The two rear brackets should be at the same horizontal surface.

## Installing the Device on a Rack

**Step 1:** Use rack-mounting ear to mark the positions of floating nuts on the rack and then install the floating nuts.

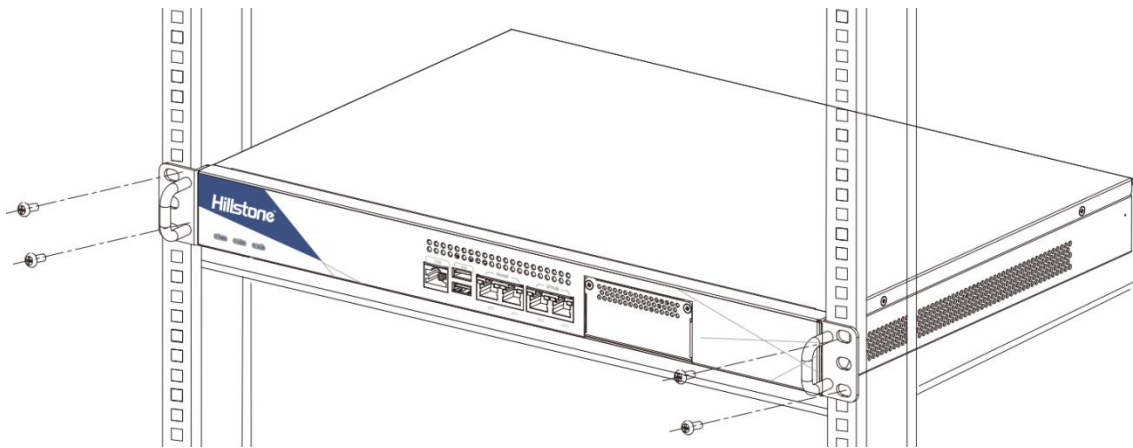


**Step 2:** Attach rack-mounting ears to the left and right side panels of the chassis respectively, and then fasten the rack-mounting ears with screws provided in the accessories.



**Step 3:** Two people are needed to safely raise the device and place it on the tray of the rack or the rear brackets or the tray of the mounting rail assemblies. Alternatively, two people can place the device on the tray of lift first, and then use the lift to place the device on the tray of the rack or the tray of the mounting rail assemblies.

**Step 4:** Keep the center of the rack-mounting ear and the center of the rack hole even and tighten the screws.



## Installing the Expansion Module

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**Note:** The expansion module is not hot-swappable.

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**Step 1:** Make sure the power is switched off and you are properly wearing the antistatic gloves.

**Step 2:** Face the front panel of the device.

**Step 3:** Use a screwdriver to remove the blank panel from the expansion slot.

**Step 4:** Even out the outline of the expansion module and the outline of the expansion slot. Slide the expansion module into the slot until there is resistance.

**Step 5:** Tighten the screws on the expansion module.

The following table lists the extension modules of all models:

Extension Module	Description	Models
IOC-S-4GE-B-H	4 Gigabit Ethernet ports (Bypass)	SG-6000-S5760/S5560
IOC-S-4SFP-H	4 SFP ports	
IOC-S-8GE-B-H	8 Gigabit Ethernet ports (Bypass)	
IOC-S-8SFP-H	8 SFP ports	
IOC-S-4GE-4SFP-H	4 Gigabit Ethernet ports,4 SFP ports	
IOC-S-2SFP+-H	2 SFP+ ports	
IOC-S-4SFP+-H	4 SFP+ ports	
IOC-S-2SFP+-B-H	2 SFP+ ports (Bypass)	
IOC-S-4SFP-B-H	4 SFP ports (Bypass)	
IOC-S-4GE-B	4 Gigabit Ethernet ports(Bypass)	SG-6000-S3960/S3860/S3560/S3260/S3060/S2660/S2560/S2160/2060
IOC-S-4SFP	4 SFP ports	
IOC-S-8GE-B	8 Gigabit Ethernet ports (Bypass)	
IOC-S-8SFP	8 SFP ports	
IOC-S-4GE-4SFP	4 Gigabit Ethernet ports,4 SFP ports	
IOC-S-2SFP+	2 SFP+ ports	
IOC-S-4SFP+	4 SFP+ ports	
IOC-S-4SFP-B	4 SFP ports (Bypass)	
IOC-S-2SFP+-B	2 SFP+ ports (Bypass)	
IOC-S-4SFP+-B	4 SFP+ ports (Bypass)	
IOC-S-4GE-B-L	4 Gigabit Ethernet ports (Bypass)	SG-6000-S1560/S1060/S800/S600
IOC-S-4SFP-L	4 SFP ports	

**Notes:**

- "-B" means that the extension module is a bypass module which can bypass the device by connecting two networks directly. When a device is bypassed, two networks connected to the ports in a bypass pair connect to each other directly through the Ethernet cable. For example, IOC-S-4GE-B-H has four gigabit Ethernet copper ports which can be grouped as two bypass pairs. The ports labeled 0 and 1 are in one bypass group; the ports labeled 3 and 4 are in another bypass group. When the device fails, reboots or accidentally disconnects from power, the device will be bypassed: the LANs connected to Ethernet0 and Ethernet1 are directly connected; the LANs connected to Ethernet2 and Ethernet3 are directly connected.
- The bypass function is supported on the electrical interfaces of factory standard and is enabled by default. The following table lists the bypass groups of all models:

Platform Models	Bypass Groups	Bypassed Ports Pairs
SG-6000-S3960/3860/S3560/S3260/S3060	3	eth0/0 and eth0/1
		eth0/2 and eth0/3
		eth0/4 and eth0/5
SG-6000-S2660/S2560/S2160/2060	2	eth0/0 and eth0/1
		eth0/2 and eth0/3
SG-6000-S1560/	2	eth0/0 and eth0/1

## Removing the Expansion Module

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**Note:** The expansion module is not hot-swappable.

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**Step 1:** Make sure the power is switched off and you are properly wearing the antistatic gloves.

**Step 2:** Face the front panel of the device.

**Step 3:** Loosen the screws on the expansion module.

**Step 4:** Pull the expansion module out of the chassis.

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**Note:** Place a blank plate in the slot where no expansion module is installed.

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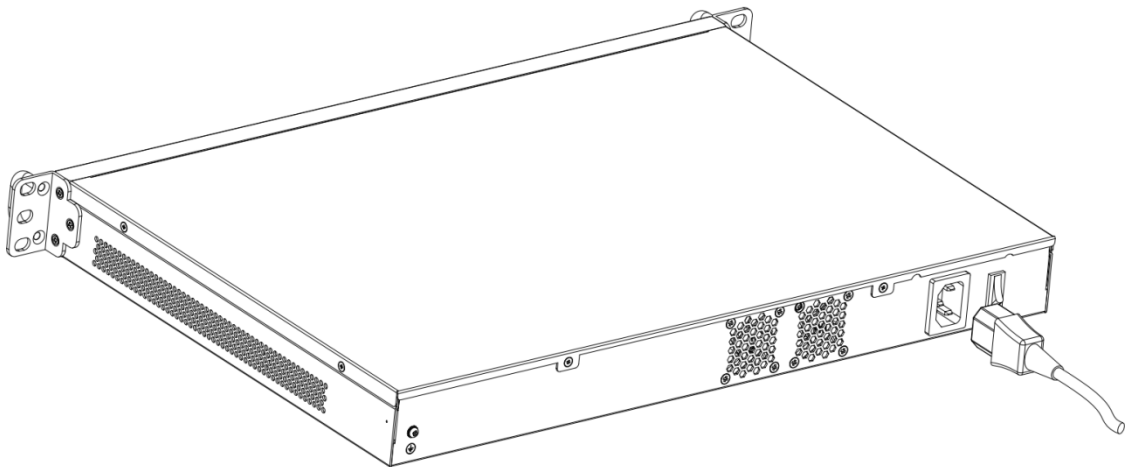
## Connecting an AC Power Cable

**Step 1:** Make sure the power is switched off.

**Step 2:** Insert the plug of the AC power cable into the power socket of the device.

**Step 3:** Plug the other end of the AC power cable to the power socket of the power source. If the device has dual power supplies, repeat step 2 and step 3.

**Step 4:** Power on the switch of the device. Check the PWR LED on the front panel. A green shining light indicates correct power supply.



## Accessing a Device via Console Port

**Step 1:** Connect one end of the console cable to a computer's port, and the other end to a device's console port (labeled CON).

**Step 2:** Start the terminal emulation program on the computer and use the following parameters:

Parameter	Value
Baud	9600 bit/s
Data	8
Parity	None
Stop	1
Flow Control	None

**Step 3:** Power on the device for the system to start. In the **login** prompt, type the default login name (hillstone). In the **password** prompt, type the default password (hillstone). Press **Enter** to log in.

## Accessing a Device via WebUI

**Step 1:** Use an Ethernet cable to connect your PC and the device.

- If the device has a MGT0 interface, connect the cable to this interface.
- If the device does not have a MGT0 interface, connect the cable to the e0/0 interface.

**Step 2:** Assign an IP address to your PC. The address should be the same subnet with 192.168.1.1/24.

**Step 3:** In the PC, launch a web browser and visit <http://192.168.1.1>.

**Step 4:** Type the default username (hillstone) and password (hillstone) into the text boxes respectively.

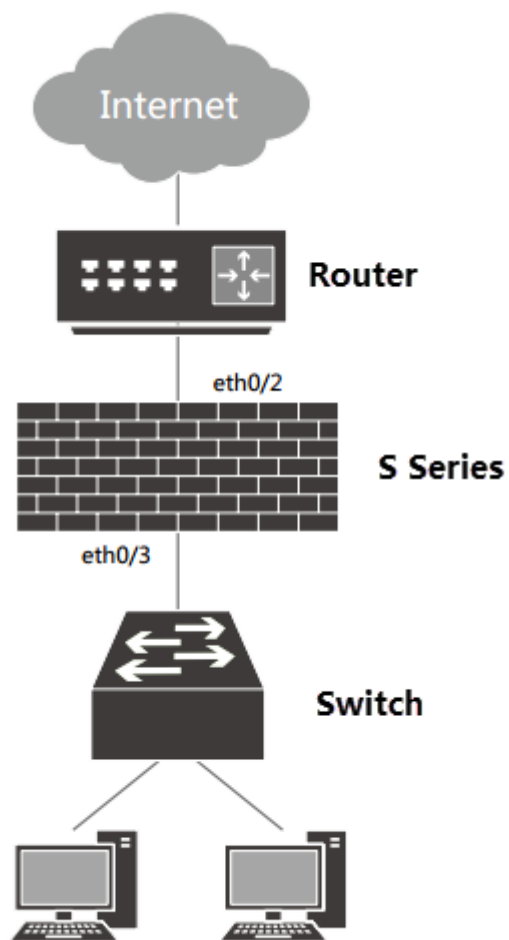
**Step 5:** Click **Login** to enter the home page.

## Connecting to the Internet (Transparent Mode)

The device has pre-defined configurations of security zones, interfaces and security policies for transparent mode, which facilitates deployment of the device in your network environment. After deploying the device as shown in the following topology, intranet users can access the Internet. The configuration of interfaces, security zones, security policy and IPS are described as follows.

Option	Value
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<b>Interface</b>	
Interface Name	ethernet0/2
Binding Zone	Layer 2 zone
Zone	l2-direct-a
Interface Name	ethernet0/3
Binding Zone	Layer 2 zone
Zone	l2-direct-a
<b>Security Policy</b>	
Source zone	l2-direct-a
Destination zone	l2-direct-a
Source address	any
Destination address	any
IPS	Select the <b>Enable</b> check box and select the <b>l2-direct-a-default-ips</b> profile.



## Completing Configuration

You have completed the initial configurations. For more information, refer to the complete set of user manuals here: <http://docs.hillstonenet.com/>.

## Shutdown

If you want to shut down your device, please press the power switch at the back of the device. When the device is powered off, remove the power cord.