Hewlett Packard Enterprise

HPE 5400R zl2 Switches Quick Setup Guide and Safety/Regulatory Information

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1

The drawings used in this document are for illustration purposes only and may not exactly match your particular switch.

For complete installation instructions, see the *HPE 5400R zl2 Installation and Getting Started Guide* on the Hewlett Packard Enterprise Networking Web site at: **http://www.hpe.com/networking/support**

Auto search on “zl modules,” and select your module from the list. Click **Display selected**, and then click on the links that have **Manuals** listed to get on to the webpage that lists the available manuals.

Rack mounting instructions

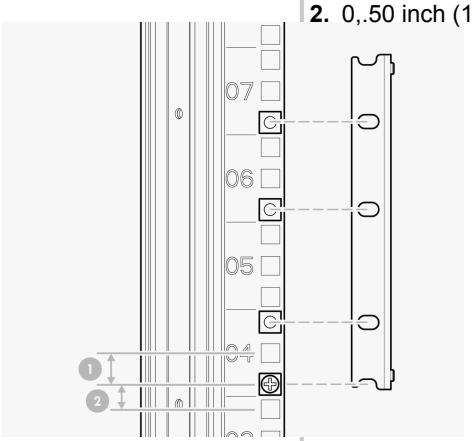
(These drawings show a 6-slot chassis, but the procedures are the same for the 12-slot chassis.)

Before installation, read Section .

1. Determine position of switch in rack and install a cage nut in the lower hole of the lowest rack unit.
2. Install a screw half-way into this cage nut.
3. Align the included Rack Mount Bracket such that the half-hole lines up with the screw, install additional cage nuts at each hole position in the bracket.
4. Repeat for opposite column in the rack.
5. Secure the Rack Mount Brackets to the switch with included flat head screws.

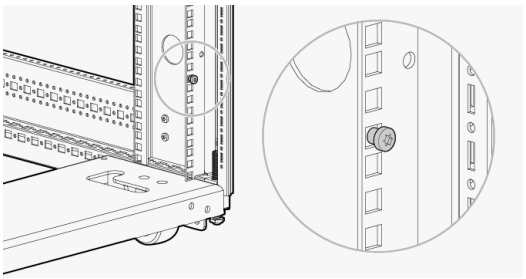
   NOTE: Use only the included 6 mm/0.24 inch flat head screws. Using any of the 8 mm/0.31 inch screw included in other rack mounting kits interferes with internal components.
6. Rest the switch on the two half-way installed screws and secure the switch to the rack using the top hole in each Rack Mount Bracket.
7. Align each Cable Manager such that two holes in the Cable Manager align with two empty holes in the Rack Mount Bracket and secure with two screws.
8. Snap the Cable Retainers into the arms of the Cable Managers.

1.



1. 0.625 inch (1.588 cm)
2. 0,.50 inch (1.27 cm)

2.



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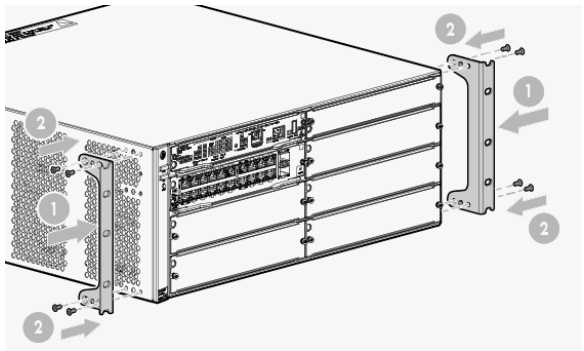
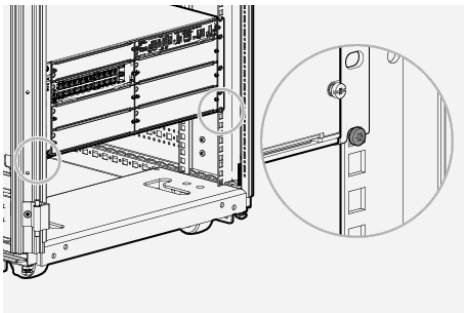
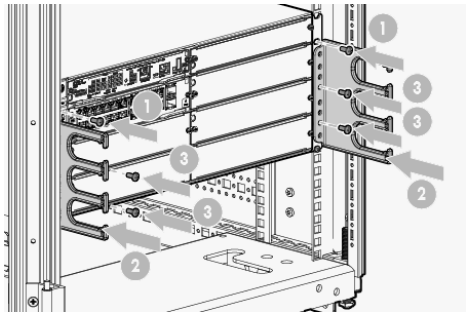
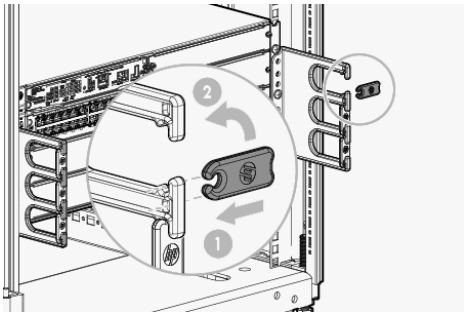


4.



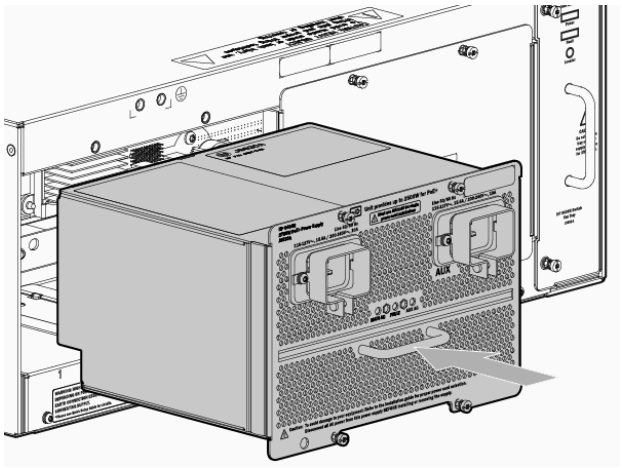
1. Rack Brackets **2.** Flat head Screws	
5. 	**6.** 
1. Pan Head Screw **2.** Cable Manager **3.** Pan Head Screw	**1.** Install the retainer horizontally **2.** Rotate the retainer to the vertical position

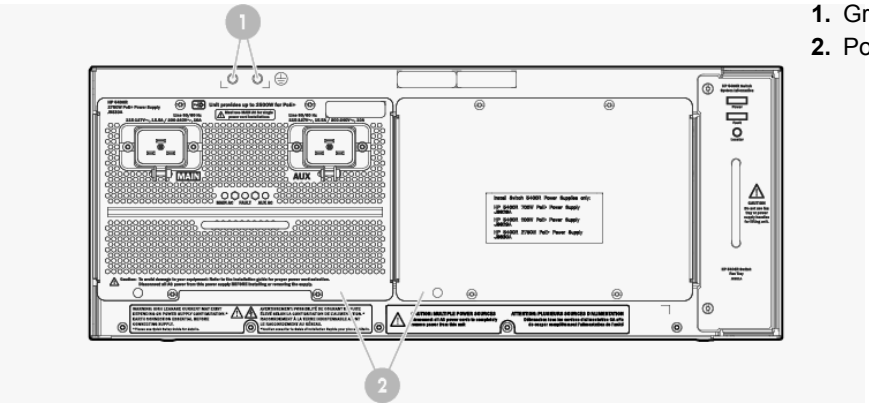
Power supply instructions

⚠ **WARNING!** During the installation, ensure that AC power is NOT connected to the Power Supply.

Power Supply Slots:

- **While installing multiple power supplies in a switch, Hewlett Packard Enterprise recommends that all power supplies are the same models.**
- See the *HPE 5400R zl2 Installation and Getting Started Guide* for selecting the correct power cord to use with the supply.

1. Remove the slot cover plate. **2.** Align the power supply in the switch slot and insert it until the external wall of the power supply is flush with the switch chassis. **3.** Tighten the retaining screws to secure the power supply to the switch.	



1. Grounding Lug Mounting Holes
2. Power Supply Slots

Software version

For the latest software version, go to: **http://www.hpe.com/networking/support**

Installation notes

Transceiver operation notes

Revision “B” or later SFP transceivers only. This product requires revision “B” or later mini-GBICs or SFP transceivers (product number ends with the letter “B” or later, for example J4858B or J4859C). These switches do not support revision “A” mini-GBIC or SFP transceivers. This applies only to SFP transceivers and not SFP+ transceivers.

Use only genuine Hewlett Packard Enterprise transceivers: Non-Hewlett Packard Enterprise transceivers are not supported. Use of genuine products ensures that your network maintains optimal performance and reliability. Should you require additional transceivers, please contact a sales representative or an authorized reseller. For a complete list of supported transceivers, visit the Hewlett Packard Enterprise networking Web site at **http://www.hpe.com/networking/support**. Locate **FAQs**, and under **Mini-GBICs and Transceivers**, select one of the following:

- HPE 10-GbE Transceivers and Cables
- HPE Mini-GBICs and SFPs

Click on the first question in the “General product information” category.

Hot-Swapping transceivers: The transceivers that you can install in your Hewlett Packard Enterprise switch can be “hot swapped”–removed and installed after the switch is receiving power. You should disconnect the network cables from the transceivers before hot swapping them.

Best practice tip: After inserting a transceiver into a switch, the Mode LED will be on for two seconds while the transceiver is initialized. Do not remove the transceiver until the Mode LED has turned off.

When you replace a transceiver with another transceiver of a different type and then execute the **write memory** command in the switch console, the switch configures the port on the new transceiver with the default mode (speed and duplex) settings used for the new transceiver type. The default mode for the transceivers is **Auto**. Note that the switch retains other port-specific configuration settings, such as trunking Spanning Tree Protocol (STP) and VLAN values that were configured for the previous transceiver.

Connecting the transceivers to devices with fixed configurations: For some older network devices, including some older Hewlett Packard Enterprise devices, the default for the Gigabit-SX, Gigabit-LX, and Gigabit-LH ports is a fixed configuration, for example 1000 Mbps/Full Duplex, or is otherwise different from these default configurations for the transceivers, which is **Auto**. As a result, those devices may not connect properly to your transceiver port; you will not get a link. Because of these default configuration and full-duplex considerations, for best operation, you

should make sure that the devices connected to the transceiver ports are also configured to **Auto**. *At a minimum, make sure the configurations match.*

NOTE: For improved cable management, install the GigT/SFP and GigT/SFP+ combination modules on the left side of the chassis. This will improve access to the uplink ports when the RJ45 cables are retained in the cable manager.

Module installation notes

The following cases automatically result in a change to the running-configuration on your switch.

- Replacing a module with another module of a different type and then rebooting the switch
- Installing a module in a slot that has not previously been used (including when you install a module and apply power to the switch for the first time)

If you want to save such changes to the startup-configuration file, use the **write memory** command in the switch's command line interface. This causes the switch to use the current new hardware configuration for subsequent reboots. (The switch always reboots from the startup-configuration file.)

One of the features of your 5400R zl2 switch is the ability to "hot swap" the switch modules. You can install, exchange, or remove modules after the switch has been powered on. Whenever a module is installed during this process, it is initialized and tested for correct operation. During this process, the switch Self Test LED is on. If you hot swap another module while the switch is initializing and testing the first module, it is possible to cause the first module or the entire switch to be reset.

To prevent the modules or switch from being reset when you must hot swap multiple modules, follow these simple precautions: Before removing or installing any modules, make sure that all network cables are disconnected from the module. Do not remove any modules from the switch while the switch Self Test LED is lit.

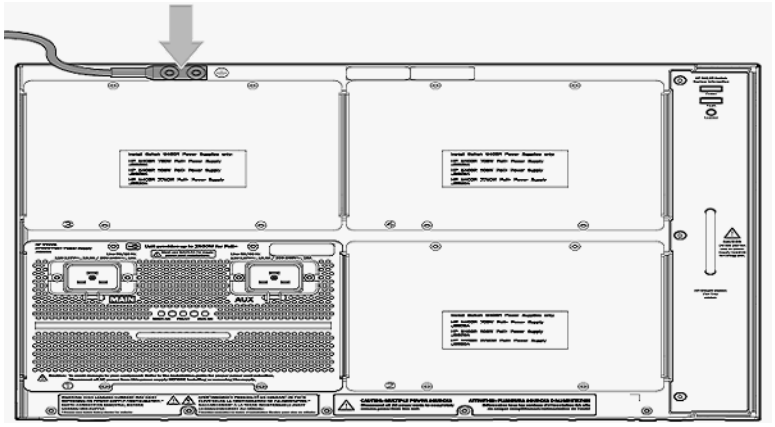
Installation Precautions

WARNINGS

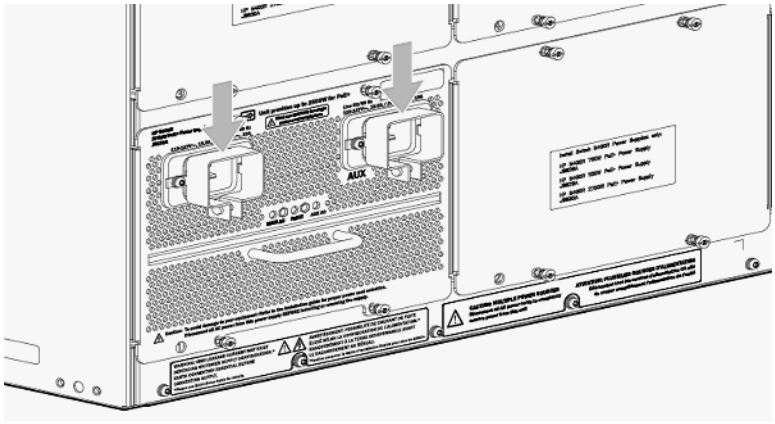
- **Devices installed in a rack or cabinet should be mounted as low as possible, with the heaviest device at the bottom and progressively lighter devices installed above.**
- **The rack or cabinet should be adequately secured to prevent it from becoming unstable and/or falling over.**
- **Ensure a cover plate is installed on any empty switch power supply or module slot. A cover plate is required for safe operation, and to ensure proper switch cooling. Never have more than one power supply or module slot uncovered at a time while the switch is powered on.**
- **To avoid energy and mechanical hazards, never allow any part of your body, jewelry, tool, or other foreign object to enter any module or power supply slot.**
- **This unit may have more than one power supply cable. To fully power down the switch, you must disconnect all power supply cables from the unit.**
- **When the HPE 5412R zl2 switches are operating in the high-line voltage range (200 - 240 V), the switch may have high leakage current depending on the power supply configuration. Safety leakage current per cord for the three available 5400R zl2 power supplies is 0.85 mA maximum, regardless of the power supply model. When more than four power cords are installed in the chassis, the leakage current safety limit threshold of 3.5 mA may be exceeded. If the switch has four or fewer power cords installed or if the equipment is operating in the low line (100 - 130 V) voltage range,**

no precautions are required. Use one of the following installation methods while performing an installation, when using more than four power cords:

- Using normal pluggable cords:
  - Place the equipment in a restricted access area such as a locked closet or key card access room, the access for which is granted only for qualified or service personnel.
  - The building installation must provide a protective earth ground and a means for connection to the switch. The service personnel must check whether the socket-outlet from which the switch is to be powered provides a connection to the building protective earth. If not, the service personnel must arrange for the installation of a protective earthing conductor, which shall be sized appropriately, from the grounding lug terminal (as shown in the figure) to the protective earth wire in the building.



- Using industrial/locking pluggable cords:
  - Secure at least one of the power cord connector ends on the switch power supply using the retention clip provided on the 5400R 2750W PoE+ power supply as displayed in the figure. When you use this option, the restricted access caution is not required.



⚠ **CAUTION:**

- If the switch is to be shipped in a rack, use only J9852A HPE X450 4U/7U Universal 4-Post Rack Mounting Kit for each switch. The switch is qualified for rack shipping only in Hewlett Packard Enterprise Shock Racks.
- Ensure the power source circuits are properly grounded.
- If your installation requires a different power cord than the one supplied with the switch and power supply, be sure the cord is adequately sized for the switch's current requirements. In addition, be sure to use a power cord displaying the mark of the safety agency that defines the regulations for power cords in your country. The mark is your assurance that the power cord can be used safely with the switch and power supply.
- When installing the switch, note that the AC outlet should be near the switch and should be easily accessible in case the switch must be powered off.
- Ensure the switch does not overload the power circuits, wiring, and over-current protection. Each power supply should be connected to a dedicated branch circuit to prevent tripping building circuit breakers. To determine the possibility of overloading the supply circuits, add together the ampere ratings of all devices installed on the same circuit as the switch and compare the total with the rating limit for the circuit. The maximum ampere ratings are usually printed on the devices near the AC power connectors.
- Do not install the switch in an environment where the operating ambient temperature might exceed 45°C (113°F).
- Allow at least three inches of space around the sides and back of the switch to make sure the air flow for the switch is not restricted.

Regulatory information

⚠ **WARNING! Do not wall-mount any of the 5400R zl2 switches or bundles.**

Applicable Products	**HPE 5406R zl2 (J9821A) and 5412R zl2 Switches (J9822A) including all bundles**
Environmental Operating Temperature:	0°C to 45°C (32°F to 113°F)
Relative humidity:	15% to 95% at 45°C (113°F) (non-condensing)
Non-Operating Temperature:	-40°C to 85°C (-40°F to 185°F)
Non-Operating Relative humidity:	15% to 95% at 65°C (149°F)
Maximum Operating Altitude:	3.1 km (10,000 ft) **NOTE:** If you are using the J9830B power supply unit with your switch, the maximum operating temperature is reduced to 40°C between altitudes of 5000 feet (1.52 km) and 10000 feet (3.1 km).
Non-Operating Altitude:	15.24 km (50,000 ft)
Safety Standards:	EN60950-1:2006+A11:2009+A1:2010+A12:2011 / IEC60950-1:2005; Am1:2009; CSA22.2 No. 60950-1-07 2nd; UL60950-1 2nd
Lasers:	EN60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products/Laser Klasse 1 (Use only Hewlett Packard Enterprise supported SFPs)

Table 1 HPE 5400R zl2 Power Supplies

Electrical	J9828A	J9829A	J9830B	
			Main	Aux
AC voltage:	100 -127 volts; 200 - 240 volts	110 -127 volts; 200 - 240 volts	115-127; 200-240 volts	115-127; 200-240 volts
Maximum current:	8.5; 4.3 A max	12; 6.8 A max	15.5; 8 A max	15.5; 8 A max
Frequency range:	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
PoE output wattage (MAX):[1]	275 W	900 W	1100 W	1400 W

[1] Actual power available depends on system configuration

Power cord, use one of the following appropriately for the power supplies:

Country/Region	J9830B Power Supply Cable
Australia/New Zealand	8121-1550
China	8121-1551
Mainland Europe/South Korea	8121-1554
India	8121-1074
Japan/Thailand	8121-1555[1]
Denmark/Switzerland	8121-1287
United Kingdom/Hong Kong/Singapore/Malaysia	8121-1549
United States/Canada 125V	8121-1553
South Africa	8121-1552
Taiwan/USA 250V	8120-6362[2]
Israel	8121-1010
Argentina	8121-0925
Brazil	8121-1101
Chile	8121-0923

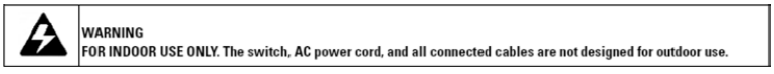
[1] Japan: NEMA 6-20P, 200V.

[2] Taiwan/U.S.A. 250V: NEMA L6-20P, 250V

Country/Region	J9829A Power Supply Cable
Australia	8121-1476
China	8121-1484
Europe/South Korea	8121-1479
Japan	8120-5338
Thailand/Philippines	8121-1485
Denmark	8121-1486
Switzerland	8121-1480
United Kingdom/Hong Kong/Singapore/Malaysia	8121-1475
South Africa/India	8121-1483

Country/Region	J9829A Power Supply Cable
Taiwan	8121-1511
Israel	8121-1478
Argentina	8121-1481
Brazil	8121-1474
Chile	8121-1477
North America 110V	8121-0914

Country/Region	J9828A Power Supply Cable
Australia	8121-0834
China	8120-8707
Europe/South Korea	8120-6811
Japan	8120-4753
Thailand/Philippines	8121-0668
India	8121-0780
Denmark	8120-6814
Switzerland	8120-6815
United Kingdom/Hong Kong/Singapore/Malaysia	8120-6809
South Africa	8120-6813
Taiwan	8121-0974
Israel	8121-1035
Argentina	8120-6869
Brazil	8121-1069
Chile	8120-6980
USA/Canada	8121-0914

Japan Power Cord Warning	製品には、同梱された電源コードをお使い下さい。 同梱された電源コードは、他の製品では使用出来ません。
Interior Wiring Warning	
Russia, Belarus and Kazakhstan Mark of Conformity	EAC
Brazil Statement	Este equipamento deve ser conectado obrigatoriamente em tomada de rede de energia elétrica que possua aterramento (três pinos), conforme a Norma NBR ABNT 5410, visando a segurança dos usuários contra choques elétricos.)

Battery Statements

ATTENTION	Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

ATTENTION	The battery supplied on the management module with this product may contain perchlorate material. Special handling may apply in California and certain other states. See **http://www.dtsc.ca.gov/hazardouswaste/perchlorate** Web site for more information.

⚠ **CAUTION:** Risk of explosion if battery on the management module is replaced by an incorrect type. Dispose of used batteries according to the instructions.

For important safety, environmental, and regulatory information, see *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at **http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts**.

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