

Raritan PXC/PXO

Thank you for purchasing the PXC/PXO intelligent power distribution unit (PDU).

This guide describes two types of PDU models that can distribute power to IT devices: PXC and PXO. For their differences, see *Comparison between PXO and PXC* (on page 1).

This Quick Setup Guide explains how to install and configure the PXC/PXO. For further details on using the PXC/PXO, access online help from the application, or download the user guide from Raritan's *Support page* (<http://www.raritan.com/support/>). For more detailed information on this release, see the latest release notes on the Support page.

Safety Precautions

WARNING! Read and understand all sections in this guide before installing or operating this product. Failure to heed any of the following WARNINGS may result in electric shock, fire, personal injury and death. Prior to operating this product, the user should read the online help and specifically the warnings in the online help.

WARNING! Connect this product to an AC power source whose voltage is within the range specified on the product's nameplate.

WARNING! Connect this product to an AC power source that is current limited by a suitably rated fuse or circuit breaker in accordance with national and local electrical codes.

WARNING! Use this product in a dry location.

WARNING! Connect this product to a protective earth ground. Never use a "ground lift adaptor" between the product's plug and the wall receptacle.

WARNING! If this product is a model that requires assembly of its line cord or plug, all such assembly must be performed by a licensed electrician and the line cord or plugs used must be suitably rated based on the product's nameplate ratings and national and local electrical codes.

Comparison between PXO and PXC

PXO and PXC are functionally similar and have the same connection ports on their front panels. However, their purposes and mechanical designs vary.

- PXC is designed for an information technology equipment room like data centers or server rooms.
- PXO is designed for regular offices.
- PXO is usually smaller than PXC and has much less outlets.
- PXC has more rackmount methods than PXO.

For additional information, refer to the user guide or online help.

Unpacking the PXC/PXO

The following describes the equipment shipped with PXC or PXO PDU in addition to this Quick Setup Guide. If any pieces are missing or damaged, report this to Raritan Technical Support, or contact the Raritan partner where you purchased the product.

PXC

- One PXC
- Buttons (Zero U), or bracket pack and screws (1U/2U)

PXO

- One PXO
- Brackets and screws

Before You Begin

1. Prepare the installation site. Make sure the installation area is clean and not exposed to extreme temperatures or humidity. Allow sufficient space around the device for cabling and outlet connections. Safety instructions are provided in the PXC/PXO online help.
2. Fill out the Equipment Setup Worksheet found in the PXC/PXO online help. Record the model, serial number, and use of each IT device connected to the PDU's power outlets.

Mounting the PDU

Use one of the mounting methods to install your PXC/PXO as appropriate.

Circuit Breaker Orientation Limitation

Usually a PDU can be mounted in any orientation. However, when mounting a PDU with circuit breakers, you must obey these rules:

- Circuit breakers CANNOT face down. For example, do not horizontally mount a Zero U PDU with circuit breakers on the ceiling.
- If a rack is subject to shock in environments such as boats or airplanes, the PDU CANNOT be mounted upside down. If installed upside down, shock stress reduces the trip point by 10%.

Note: If normally the line cord is down, upside down means the line cord is up.

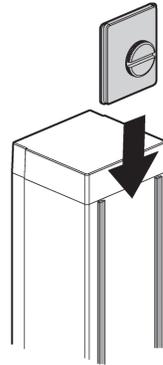
PXC Rackmount Methods

The proper PXC rackmount method is model dependent.

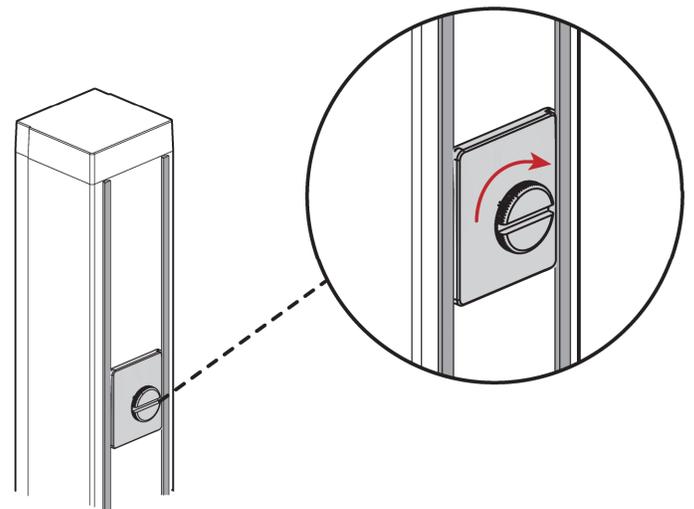
Mounting Zero U Models with Mount Buttons

1. Turn to the rear of the PXC.

2. Align and slide the Raritan-provided mounting button to the rear rail of the PDU.



3. Turn the button clockwise until it is securely locked in place.



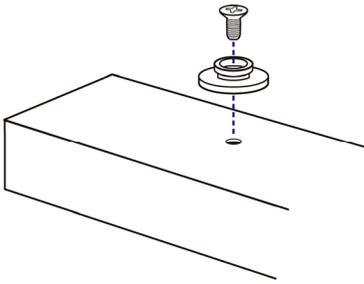
4. Repeat the same steps to install the other button onto the PDU's rear side.



5. Properly install the PDU by fitting the attached rear buttons into position of the rack.
 - a. Press the PDU toward the rack.
 - b. Push the mounting buttons through the mounting holes.
 - c. Let the PDU drop slightly.

Mounting Zero U Models with Screw Buttons

1. Turn to the rear of the PXC.
2. Locate the two screw holes on the rear panel.
3. Screw a button in each screw hole. The recommended torque for the button is 1.96 N·m (20 kgf·cm).



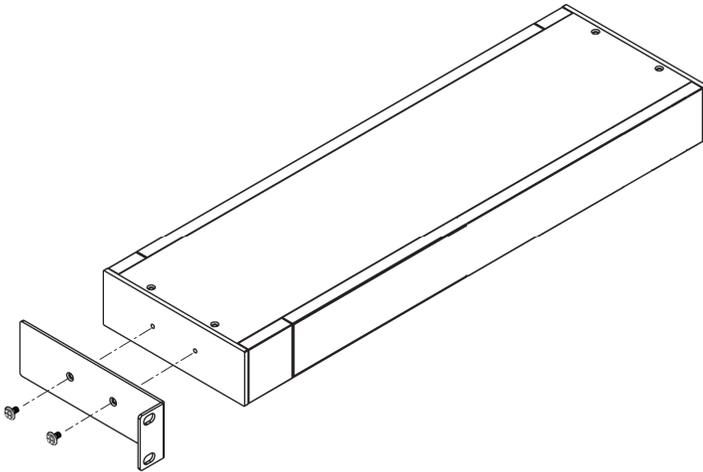
4. Press the PDU forward, pushing the mounting buttons through the mounting holes, then letting the PDU drop slightly.

Mounting 1U or 2U Models

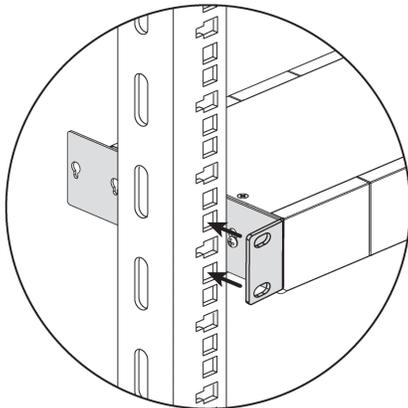
Using the appropriate brackets and tools, fasten the 1U or 2U PXC PDUs to the rack or cabinet.

► To mount 1U/2U device:

1. Attach a rackmount bracket to both sides of the PXC with the provided screws.

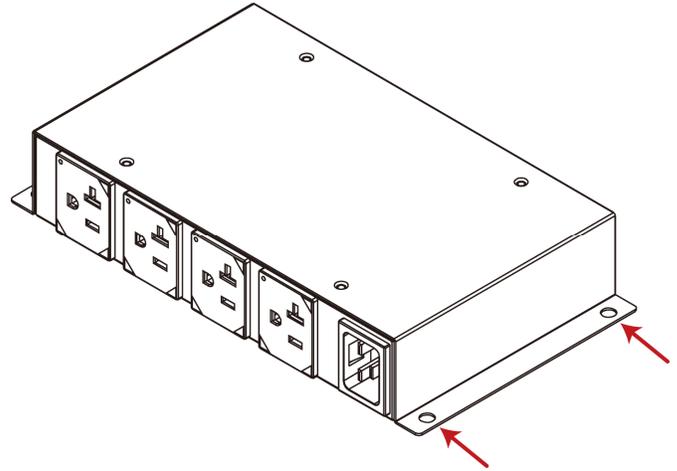


2. Attach PXC to the rack. Fasten the rackmount brackets' ears to the rack using your own fasteners.



PX0 Rackmount Method

You can place PX0 in any appropriate location with or without fastening it. To fasten it, simply screw up fasteners to screw holes on two sides of PX0.



Connecting the PDU to a Power Source

The distance between a PDU and its power source must be SHORTER than the PDU's line cord to avoid stretching out the cord. A locking connector used at the power source is highly recommended for a secure connection.

► To connect a PDU to the power source:

1. Verify that all circuit breakers on the PXC/PX0 are set to ON. If not, turn them ON.
Or make sure that all fuses are inserted and seated properly. If there are any fuse covers, ensure that they are closed.

Note: Not all models have overcurrent protectors.

2. Connect each PXC/PX0 to an appropriately rated branch circuit. Refer to the label or nameplate affixed to your PXC/PX0 for appropriate input ratings or range of ratings.

Note: When a PXC/PX0 powers up, it proceeds with the power-on self test and software loading for a few moments.

3. When the software has completed loading, the outlet LEDs show a steady color and the front panel display illuminates. Note that outlet LEDs are only available on some PDU models.

Connecting the PDU to Your Network

PXC/PX0 can be connected to a wired or wireless network.

► To make a wired connection:

1. Connect a standard network patch cable to either or both Ethernet ports on the PXC/PX0.

2. Connect the other end of the cable to your LAN.

Note: If connecting both ports to the LAN, you must connect them to two "different" subnets. If you are not sure whether the device is connected to the same or different subnets, contact your IT department.

► **To make a wireless connection:**

1. Connect an appropriate USB wireless LAN adapter to PXC/PXO.
2. Make sure the wireless LAN configuration is supported by your PXC/PXO. See **Appendix B: Wireless LAN Information** (on page 5).

Initial Network Configuration

Depending on your networking environment, the best method to initially configure your PXC/PXO differs.

- For a DHCP IPv4 networking environment, see **Using a Web Browser** (on page 4).
- For an IPv6 or "static" IPv4 networking environment, see **Appendix A: Configuration via a Mobile Device or PDView** (on page 5).

Using a Web Browser

Initial configuration using a web browser involves these two steps.

Step 1: Retrieve the IP Address (on page 4)

Step 2: Log in to the PXC/PXO Web Interface (on page 4)

Step 1: Retrieve the IP Address

After connecting to a DHCP IPv4 network, an IPv4 address is automatically assigned to your PXC/PXO. You can operate the front panel display to retrieve the IPv4 address. See **Using the Front Panel Display** (on page 4).

Tip: You can also retrieve the IPv4 address by connecting an iOS or Android mobile device to PXC/PXO. See **Appendix A: Configuration via a Mobile Device or PDView** (on page 5).

Using the Front Panel Display

The PXC/PXO front panel display is similar to the diagram below.



► **To retrieve the IP address:**

1. Press  or  to show the "Main Menu."

2. Press  or  to select "Device Info," and press .
3. Press  or  until the device's IP address is displayed.

Step 2: Log in to the PXC/PXO Web Interface

The PXC/PXO supports common web browsers, including Microsoft Internet Explorer®, Mozilla Firefox®, and Google® Chrome.

► **To access the PXC/PXO web interface:**

1. Open a web browser and type the IP address of PXC/PXO.



2. Accept any security warnings that may appear.
3. Type the default user credentials and click Login.
 - User name: admin
 - Password: raritan
4. When prompted to change the password, change or ignore it.
 - To change it, type the new password and click Ok.
 - To ignore it for this time only, click Not Now.
 - To ignore it permanently, select "Do not ask again" and click Not Now.

It is highly recommended to change the default password. Make sure the new password is noted down and kept in a secure place.

What To Do Next

1. Connect IT equipment to the outlet(s) on the PXC/PXO.
2. Launch the web browser if not yet. See **Step 2: Log in to the PXC/PXO Web Interface** (on page 4).
3. Choose Device Settings > Date/Time to configure the PXC/PXO with the proper date and time or synchronize it with an NTP server. The PXC/PXO device's time must be in sync with the LDAP server to use LDAP authentication.

Note: If you are using Sunbird's Power IQ to manage the PXC/PXO, you must configure Power IQ and the PXC/PXO to have the same date/time or NTP settings.

4. To change network settings, choose Device Settings > Network.

Tip: You can enable both wired and wireless networking so that the PXC/PXO can be accessed via either wired or wireless IP address.

5. PXC/PXO is sent from the factory with all the outlets ON. If your model is outlet-switching capable, turn OFF the outlets without devices connected.
6. Use the menu to the left to configure user profiles, privileges, security, or inlet thresholds.

Note: Detailed instructions are available in the PXC/PXO online help or user guide.

Appendix A: Configuration via a Mobile Device or PDView

An iOS or Android mobile device, such as a smartphone or tablet, can function as a local display of PXC/PXO. Note that the Android device must support USB "On-The-Go" (OTG), or this function does not work.

Step 1: Download the "PDView" App

Raritan's app "PDView" is required for the mobile device to function as a local display. It is a free app.

► To download PDView:

1. Visit either Apple App or Google Play Store.
 - <https://itunes.apple.com/app/raritan-pdview/id780382738>



- <https://play.google.com/store/apps/details?id=com.raritan.android.pdview>



2. Install PDView.



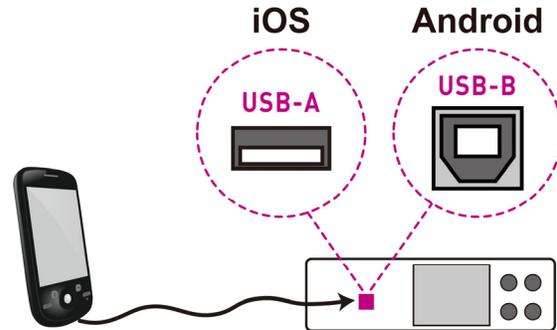
Step 2: Connect the Mobile Device to PXC/PXO

The USB cable and USB port to connect are determined by your mobile operating system.

► To connect your mobile device to PXC/PXO:

1. Get an appropriate USB cable for your mobile device.
 - *iOS*: Use the regular USB cable shipped with your iOS mobile device.
 - *Android*: Use an **USB OTG** adapter cable.

2. Connect the mobile device to the appropriate USB port on the PXC/PXO.
 - *iOS*: USB-A port.
 - *Android*: USB-B port



Step 3: Launch PDView

You can access the PXC/PXO web interface via PDView to view or change the settings.

► To access the PXC/PXO web interface:

1. Launch PDView on your mobile device.
2. Wait until PDView detects the connected PXC/PXO and shows the word "Connected" in green.

Connected

3. If the factory-default user credentials "admin/raritan" remain unchanged, PDView automatically logs in to the web interface of PXC/PXO.

If they have been changed, the login screen displays instead and you must enter appropriate user credentials for login.
4. (Optional) For initial login, you are prompted to change the password. See **Step 2: Log in to the PXC/PXO Web Interface** (on page 4).
5. Now you can view the data or change any PXC/PXO settings.
 - For details, refer to the user guide or online help on the Raritan website.

Appendix B: Wireless LAN Information

USB Wireless LAN Adapters

The PXC/PXO supports the following USB Wi-Fi LAN adapters.

Wi-Fi LAN adapters	Supported 802.11 protocols
SparkLAN WUBR-508N	A/B/G/N
Proxim Orinoco 8494	A/B/G
Zyxel NWD271N	B/G

Wi-Fi LAN adapters	Supported 802.11 protocols
Edimax EW-7722UnD	A/B/G/N
TP-Link TL-WDN3200 v1	A/B/G/N
Raritan USB WIFI	A/B/G/N

Connecting the Wireless LAN Adapter

You can connect the wireless LAN adapter either to PXC/PXO or to a USB hub attached to PXC/PXO.

► To make a wireless connection:

Do one of the following:

- Plug a supported USB wireless LAN adapter into the USB-A port on your PXC/PXO.
- Connect a USB hub to the USB-A port on the PXC/PXO. Then plug the supported USB wireless LAN adapter into the appropriate USB port on the hub.

Supported Wireless LAN Configuration

If wireless networking is preferred, ensure that the wireless LAN configuration of your PXC/PXO matches the access point. The following is the wireless LAN configuration that the PXC/PXO supports.

- Network type: 802.11 A/B/G/N
- Protocol: WPA2 (RSN)
- Key management: WPA-PSK, or WPA-EAP with PEAP and MSCHAPv2 authentication
- Encryption: CCMP (AES)

Tip: Supported 802.11 network protocols vary according to the wireless LAN adapter being used with the PXC/PXO. See *USB Wireless LAN Adapters* (on page 5).

Note: You must configure PXC/PXO to enable its wireless LAN interface. See the topic titled *Configuring Network Settings in the User Guide*.

Appendix C: More Information

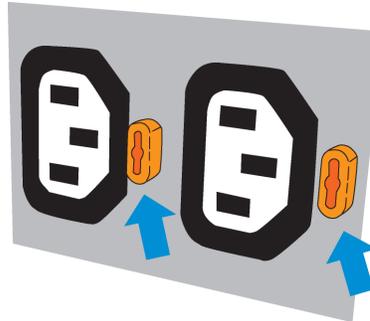
Disconnecting Devices from 'Locking' Outlets

Not every PXC/PXO is implemented with locking outlets.

Locking outlets, if available on your PXC/PXO, help secure the connection of power cords from your IT equipment to PXC/PXO.

► To remove an IT device from a locking outlet:

1. Press and hold down the tiny button adjacent to the PXC/PXO outlet.



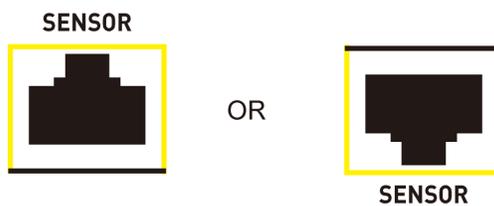
2. Unplug the power cord now.

Identifying the Sensor Port

Warning: If you purchase Raritan's environmental sensor packages, make sure you connect them to the correct port on the PXC/PXO, or damages may be caused to PXC/PXO and/or connected sensor packages.

► How to identify the SENSOR port:

- The correct port is labeled SENSOR.
- The SENSOR port is marked with YELLOW color, as shown below.



Threaded Grounding Point

If the PXC/PXO model you purchased is designed to have a threaded grounding point, you can identify it via the grounding symbol as shown below:



Wire this point to an electrical system in order to protectively ground the PXC/PXO.

Additional Information

For more information about PXC/PXO and the entire Raritan product line, see Raritan's website (www.raritan.com). For technical issues, contact Raritan Technical Support. See the Contact Support page in the Support section on Raritan's website for technical support contact information worldwide.

Raritan's products use code licensed under the GPL and LGPL. You can request a copy of the open source code. For details, see the Open Source Software Statement at (<http://www.raritan.com/about/legal-statements/open-source-software-statement/>) on Raritan's website.