Enterasys K-Series

K-POE-4BAY PoE Shelf

Hardware Installation Guide

enterasys®

Electrical Hazard: Only qualified personnel should perform installation procedures.

Riesgo Electrico: Solamente personal calificado debe realizar procedimientos de instalacion.

Elektrischer Gefahrenhinweis: Installationen sollten nur durch ausgebildetes und qualifiziertes Personal vorgenommen werden.

Notice

Enterasys Networks reserves the right to make changes in specifications and other information contained in this document and its web site without prior notice. The reader should in all cases consult Enterasys Networks to determine whether any such changes have been made.

The hardware, firmware, or software described in this document is subject to change without notice.

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Documentation URL: https://extranet.enterasys.com/downloads/

Regulatory Compliance Information

Federal Communications Commission (FCC) Notice

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.

NOTE: This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment uses, generates, and can radiate radio frequency energy and if not installed in accordance with the operator's manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference in which case the user will be required to correct the interference at his own expense.

WARNING: Changes or modifications made to this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Industry Canada Notice

This digital apparatus does not exceed the class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

Class A ITE Notice

WARNING: 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.

Clase A. Aviso de ITE

ADVERTENCIA: Este es un producto de Clase A. En un ambiente doméstico este producto puede causar interferencia de radio en cuyo caso puede ser requerido tomar medidas adecuadas.

Klasse A ITE Anmerkung

WARNHINWEIS: Dieses Produkt zählt zur Klasse A (Industriebereich). In Wohnbereichen kann es hierdurch zu Funkstörungen kommen, daher sollten angemessene Vorkehrungen zum Schutz getroffen werden.

VCCI Notice

This is a class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.

この装置は，情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

BSMI EMC Statement — Taiwan

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.

警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，可能
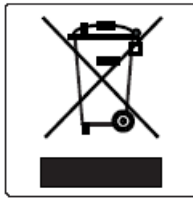會造成射頻干擾，在這種請況下，使用者會被要求採
取某些適當的對策。

AS/NZS CISPR 22

Hazardous Substances

This product complies with the requirements of European Directive, 2002/95/EC, Restriction of Hazardous Substances (RoHS) in Electrical and Electronic Equipment.

European Waste Electrical and Electronic Equipment (WEEE) Notice

In accordance with Directive 2002/96/EC of the European Parliament on waste electrical and electronic equipment (WEEE):

1. The symbol above indicates that separate collection of electrical and electronic equipment is required and that this product was placed on the European market after August 13, 2005, the date of enforcement for Directive 2002/96/EC.

2. When this product has reached the end of its serviceable life, it cannot be disposed of as unsorted municipal waste. It must be collected and treated separately.

3. It has been determined by the European Parliament that there are potential negative effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment.

4. It is the users' responsibility to utilize the available collection system to ensure WEEE is properly treated.

   For information about the available collection system, please go to www.enterasys.com/support/ or contact Enterasys Customer Support at 353 61 705586 (Ireland).

Battery Notice

This product contains a battery used to maintain product information. If the battery should need replacement it must be replaced by Service Personnel. Please contact Technical Support for assistance.

Caution: There is an explosion risk if you replace the battery with the incorrect type. Dispose of expended battery in accordance with local disposal regulations.

Precaución: Hay riesgo de explosion si la bateria se reemplaza con el typo incorrecto. Deshágase de las baterías gastadas de conformidad con las regulaciones de eliminación local.

产品说明书附件
Supplement to Product Instructions

部件名称 (Parts)	有毒有害物质或元素 (Hazardous Substance)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr^{6+})	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件 (Metal Parts)	✕	○	○	✕	○	○
电路模块 (Circuit Modules)	✕	○	○	✕	○	○
电缆及电缆组件 (Cables & Cable Assemblies)	✕	○	○	✕	○	○
塑料和聚合物部件 (Plastic and Polymeric parts)	○	○	○	○	○	✕
电路开关 (Circuit Breakers)	○	○	✕	✕	○	○

○： 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。
Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T 11363-2006 standard.

✕： 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006 标准规定的限量要求。
Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T 11363-2006 standard.

对销售之日的所售产品, 本表显示,
凯创供应链的电子信息产品可能包含这些物质。注意:在所售产品中可能会也可能不会含有所有所列的部件。
This table shows where these substances may be found in the supply chain of Enterasys' electronic information products, as of the date of sale of the enclosed product. Note that some of the component types listed above may or may not be a part of the enclosed product.

除非另外特别的标注, 此标志为针对所涉及产品的环保使用期标志. 某些零部件会有一个不同的环保使用期(例如, 电池单元模块)贴在其产品上.
此环保使用期限只适用于产品是在产品手册中所规定的条件下工作.
The Environmentally Friendly Use Period (EFUP) for all enclosed products and their parts are per the symbol shown here, unless otherwise marked. Certain parts may have a different EFUP (for example, battery modules) and so are marked to reflect such. The Environmentally Friendly Use Period is valid only when the product is operated under the conditions defined in the product manual.

Safety Information
Class 1 Laser Transceivers

The single mode interface modules use Class 1 laser transceivers.
Read the following safety information before installing or operating these modules.

The Class 1 laser transceivers use an optical feedback loop to maintain Class 1 operation limits. This control loop eliminates the need for maintenance checks or adjustments. The output is factory set, and does not allow any user adjustment. Class 1 Laser transceivers comply with the following safety standards:

- 21 CFR 1040.10 and 1040.11 U.S. Department of Health and Human Services (FDA).

- IEC Publication 825 (International Electrotechnical Commission).

- CENELEC EN 60825 (European Committee for Electrotechnical Standardization).

When operating within their performance limitations, laser transceiver output meets the Class 1 accessible emission limit of all three standards. Class 1 levels of laser radiation are not considered hazardous.

When the connector is in place, all laser radiation remains within the fiber. The maximum amount of radiant power exiting the fiber (under normal conditions) is -12.6 dBm or 55×10^{-6} watts.

Removing the optical connector from the transceiver allows laser radiation to emit directly from the optical port. The maximum radiance from the optical port (under worst case conditions) is 0.8 W cm^{-2} or 8×10^3 W m^2 sr-1.

Do not use optical instruments to view the laser output. The use of optical instruments to view laser output increases eye hazard. When viewing the output optical port, power must be removed from the network adapter.

Safety Compliance

Warning: Fiber Optic Port Safety

CLASS I
LASER DEVICE

When using a fiber optic media expansion module, never look at the transmit laser while it is powered on. Also, never look directly at the fiber TX port and fiber cable ends when they are powered on.

Avertissment: Ports pour fibres optiques - sécurité sur le plan optique

DISPOSITIF LASER
DE CLASSE I

Ne regardez jamais le laser tant qu'il est sous tension. Ne regardez jamais directement le port TX (Tramsmission) à fibres optiques et les embouts de câbles à fibres optiques tant qu'ils sont sous tension.

Warnhinweis: Faseroptikanschlüsse - Optische Sicherheit

LASERGERÄT
DER KLASSE I

Niemals ein Übertragungslaser betrachten, während dieses eingeschaltet ist. Niemals direkt auf den Faser-TX-Anschluß und auf die Faserkabelenden schauen, während diese eingeschaltet sind.

Declaration of Conformity

Application of Council Directive(s):	**2004/108/EC** **2006/95/EC**
Manufacturer's Name:	**Enterasys Networks, Inc.**
Manufacturer's Address:	**50 Minuteman Road** **Andover, MA 01810** **USA**
European Representative Name:	**Enterasys Networks, Ltd.**
European Representative Address:	**Nexus House, Newbury Business Park** **London Road, Newbury** **Berkshire RG14 2PZ, England**
Conformance to Directive(s)/Product Standards:	**EC Directive 2004/108/EC** **EN55022:2006** **EN 55024:1998** **A1:2001** **A2:2003** **EN 61000-3-2:2006** **EN 61000-3-3:1995** **A1:2001** **A2:2005** **EC Directive 2006/95/EC** **EN 60950-1:2006** **A11:2009** **A1:2010** **EN 60825-1:2007** **EN 60825-2:2004** **A1:2007**
Equipment Type/Environment:	**Information Technology Equipment, for use in a Commercial or Light Industrial Environment.**

Enterasys Networks, Inc. declares that the equipment packaged with this notice conforms to the above directives.

Enterasys Networks, Inc. Firmware License Agreement

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9. **OWNERSHIP.** This is a license agreement and not an agreement for sale. You acknowledge and agree that the Program constitutes trade secrets and/or copyrighted material of Enterasys and/or its suppliers. You agree to implement reasonable security measures to protect such trade secrets and copyrighted material. All right, title and interest in and to the Program shall remain with Enterasys and/or its suppliers. All rights not specifically granted to You shall be reserved to Enterasys.

10. **ENFORCEMENT.** You acknowledge and agree that any breach of Sections 2, 4, or 9 of this Agreement by You may cause Enterasys irreparable damage for which recovery of money damages would be inadequate, and that Enterasys may be entitled to seek timely injunctive relief to protect Enterasys' rights under this Agreement in addition to any and all remedies available at law.

11. **ASSIGNMENT.** You may not assign, transfer or sublicense this Agreement or any of Your rights or obligations under this Agreement, except that You may assign this Agreement to any person or entity which acquires substantially all of Your stock assets. Enterasys may assign this Agreement in its sole discretion. This Agreement shall be binding upon and inure to the benefit of the parties, their legal representatives, permitted transferees, successors and assigns as permitted by this Agreement. Any attempted assignment, transfer or sublicense in violation of the terms of this Agreement shall be void and a breach of this Agreement.

12. **WAIVER.** A waiver by Enterasys of a breach of any of the terms and conditions of this Agreement must be in writing and will not be construed as a waiver of any subsequent breach of such term or condition. Enterasys' failure to enforce a term upon Your breach of such term shall not be construed as a waiver of Your breach or prevent enforcement on any other occasion.

13. **SEVERABILITY.** In the event any provision of this Agreement is found to be invalid, illegal or unenforceable, the validity, legality and enforceability of any of the remaining provisions shall not in any way be affected or impaired thereby, and that provision shall be reformed, construed and enforced to the maximum extent permissible. Any such invalidity, illegality, or unenforceability in any jurisdiction shall not invalidate or render illegal or unenforceable such provision in any other jurisdiction.

14. **TERMINATION.** Enterasys may terminate this Agreement immediately upon Your breach of any of the terms and conditions of this Agreement. Upon any such termination, You shall immediately cease all use of the Program and shall return to Enterasys the Program and all copies of the Program.

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About This Guide

This guide explains how to install a K-POE-4BAY PoE shelf for use with a K10 or K6 chassis. This guide also provides information on how to contact Enterasys Networks for additional help.

Who Should Use This Guide

Electrical Hazard: Only qualified personnel should install or service this unit.

Riesgo Electrico: Nada mas personal capacitado debe de instalar o darle servicio a esta unida.

Elektrischer Gefahrenhinweis: Installationen oder Servicearbeiten sollten nur durch ausgebildetes und qualifiziertes Personal vorgenommen werden.

This guide is intended for a network administrator who is responsible for installing and setting up the K-Series K-POE-4BAY PoE shelf.

How to Use This Guide

Read through this guide completely before installing a K-POE-4BAY PoE shelf.

To locate information about various subjects in this guide, refer to the following table.

For...	Refer to...
An overview of the K-POE-4BAY PoE shelf	Chapter 1, **Introduction**
Instructions for installing the K-POE-4BAY PoE shelf	Chapter 2, **Installing the PoE Shelf**
Instructions for installing a power supply in the K-POE-4BAY PoE shelf	Chapter 3, **Installing a Power Supply**
Specifications and regulatory compliance information	**Appendix A**, **Specifications and Regulatory Compliance**

Related Documents

The manuals listed below can be obtained from the World Wide Web in Adobe Acrobat Portable Document Format (PDF) at the following site:

https://extranet.enterasys.com/downloads

Conventions Used in This Guide

The following typographical conventions and icons are used in this document.

blue type	Indicates a hypertext link. When reading this document online, click the text in blue to go to the referenced figure, table, or section.
Lowercase x	Indicates the general use of an alphanumeric character (for example, 6x1xx, the x's indicate a combination of numbers or letters).
	Note: Calls the reader's attention to any item of information that may be of special importance.
	Caution: Contains information essential to avoid damage to the equipment. **Precaución:** Contiene información esencial para prevenir dañar el equipo. **Achtung:** Verweißt auf wichtige Informationen zum Schutz gegen Beschädigungen.
	Warning: Warns against an action that could result in personal injury or death. **Advertencia:** Advierte contra una acción que pudiera resultar en lesión corporal o la muerte. **Warnhinweis:** Warnung vor Handlungen, die zu Verletzung von Personen oder gar Todesfällen führen können!
	Electrical Hazard: Warns against an action that could result in personal injury or death. **Riesgo Electrico:** Advierte contra una acción que pudiera resultar en lesión corporal o la muerte debido a un riesgo eléctrico. **Elektrischer Gefahrenhinweis:** Warnung vor sämtlichen Handlungen, die zu Verletzung von Personen oder Todesfällen – hervorgerufen durch elektrische Spannung – führen können!

Getting Help

For additional support related to the K-Series hardware or this document, contact
Enterasys Networks using one of the following methods:

World Wide Web	http://www.enterasys.com/support
Phone	1-800-872-8440 (toll-free in U.S. and Canada) or 1-978-684-1000
	For the Enterasys Networks Support toll-free number in your country:
	http://www.enterasys.com/support
Email	support@enterasys.com
	To expedite your message, please type **[K-Series]** in the subject line.

Before contacting Enterasys Networks for technical support, have the following data ready:

• Your Enterasys Networks service contract number

• A description of the failure

• A description of any action(s) already taken to resolve the problem (for example, changing mode switches or rebooting the unit)

• The serial and revision numbers of all involved Enterasys Networks products in the network

• A description of your network environment (such as layout, cable type, other relevant environmental information)

- Network load and frame size at the time of trouble (if known)

- The device history (for example, if you have returned the device before, or if this is a recurring problem)

- Any previous Return Material Authorization (RMA) numbers

Registering Your Product

Be sure to register your K-POE-4BAY PoE shelf for warranty support at:

www.enterasys.com/support/register-your-product.aspx

Registering your K-POE-4BAY PoE shelf is an important part of the warranty process. Registering tells Enterasys that the warranty or maintenance agreement is active, as well as other important information that ensures Enterasys can provide support in a fast, efficient, and effective manner.

Warranty information for the K-POE-4BAY PoE shelf is located online at:

www.enterasys.com/support/warranty.aspx

www.enterasys.com/company/literature/enterasys-lw-ds.pdf

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Introduction

This chapter provides an overview of the K-POE-4BAY PoE shelf and its features.

Overview

The K-POE-4BAY PoE shelf provides four slots for K-Series AC power supplies. A fully loaded K-POE-4BAY PoE shelf can supply up to four K-Series chassis with additional PoE power. Each K-Series AC power supply installed in the K-POE-4BAY PoE shelf provides from 400 watts (at 120V) to 800 watts (at 240V) of PoE power to powered devices (PDs).

You must install the K-POE-4BAY PoE shelf in a restricted access location. The K-POE-4BAY PoE shelf can be installed as a freestanding unit or installed into a standard 48.26-centimeter (19-inch) rack.

Each K-Series AC power supply installed in the K-POE-4BAY PoE shelf connects to the PoE connector on the rear of a K-Series chassis. Use a K-POE-CBL-2M cable to connect a K-Series AC power supply installed in a K-POE-4BAY PoE shelf to a K-Series chassis.

> **Note:** The K-Series AC power supplies and the K-POE-CBL-2M cables do not ship with the K-POE-4BAY PoE shelf.
>
> You must purchase the K-Series AC power supplies and K-POE-CBL-2M cables separately.

You can connect one K-Series AC power supply to a K6 chassis. You can connect two K-Series AC power supplies to a K10 chassis.

Figure 1-1 shows the K-POE-4BAY shelf installed on top of a K10 chassis.

Figure 1-1   K-Series Chassis with K-POE-4BAY Shelf

Precautions

You must install a K-POE-4BAY PoE shelf in a restricted access location. Ensure that you have read and understood the installation and operation precautions before installing a K-POE-4BAY PoE shelf.

> **Warning:** Install the Enterasys K-POE-4BAY PoE shelf in a Restricted Access Location only. Access to the equipment by users must be restricted through the use of a tool or lock and key or other means of security and is controlled by the authority responsible for the location.
>
> **Advertencia:** Instalar el K-POE-4BAY en un lugar de Acceso Restringido. Acceso al equipo debe ser restringido mediante el uso de una herramienta o candado o cualquier otro método de seguridad y debe ser controlado por el responsable del lugar.
>
> **Warnhinweis:** Installieren Sie das K-POE-4BAY nur in einer zugangsgeschützten Umgebung. Der Bereich zu den Komponenten sollte durch ein Schloß, einen Schlüssel oder sonstigen Sicherungen geschützt und durch einen Verantwortlichen kontrolliert werden.

2

Installing the PoE Shelf

Electrical Hazard: Only qualified personnel should perform installation procedures.

Riesgo Electrico: Solamente personal calificado debe realizar procedimientos de instalacion.

Elektrischer Gefahrenhinweis: Installationen sollten nur durch ausgebildetes und qualifiziertes Personal vorgenommen werden.

Note: Before installing the K-POE-4BAY PoE shelf, ensure that you read the installation precaution in "Precautions" on page 1-2.

For information about...	Refer to page...
Required Tools	2-1
Unpacking the PoE Shelf	2-1
Installing the PoE Shelf	2-2

Required Tools

- ESD wrist strap (included with the K-POE-4BAY PoE shelf)
- Phillips screwdriver

Unpacking the PoE Shelf

Unpack the PoE shelf as follows:

1. Open the box and remove the packing material protecting the PoE shelf.

   Save the shipping box and materials in the event the unit must be reshipped.

2. Remove and set aside the anti-static wrist strap.

3. Verify the contents of the carton as listed in the Table 2-1.

Table 2-1   Contents of the K-POE-4BAY PoE Shelf

Item
K-POE-4BAY PoE shelf
Anti-static wrist strap
Installation Guide

Note: The K-POE-4BAY-RAIL rail kit, for free standing or mid-mount installation of the K-POE-4BAY PoE shelf, is available for purchase separately.

4. Inspect the PoE shelf for any signs of physical damage.

    If there are any signs of damage, DO NOT install the PoE shelf; instead, contact Enterasys Networks. Refer to "Getting Help" on page xiv for details.

Installing the PoE Shelf

The default method of installing the PoE shelf is directly on top of a K-Series chassis. See Installing the PoE Shelf on Top of a K-Series Chassis

If you purchase the K-POE-4BAY-RAIL rail kit, you can also install the PoE shelf by itself in a four-post or two-post rack.

*   For information on installing the PoE shelf by itself in a four-post rack, see "Installing the PoE Shelf on Top of a K-Series Chassis" on page 2-2.

*   For information on installing the PoE shelf by itself in a two-post rack, see "Installing the PoE Shelf in a Two-post Rack" on page 2-6.
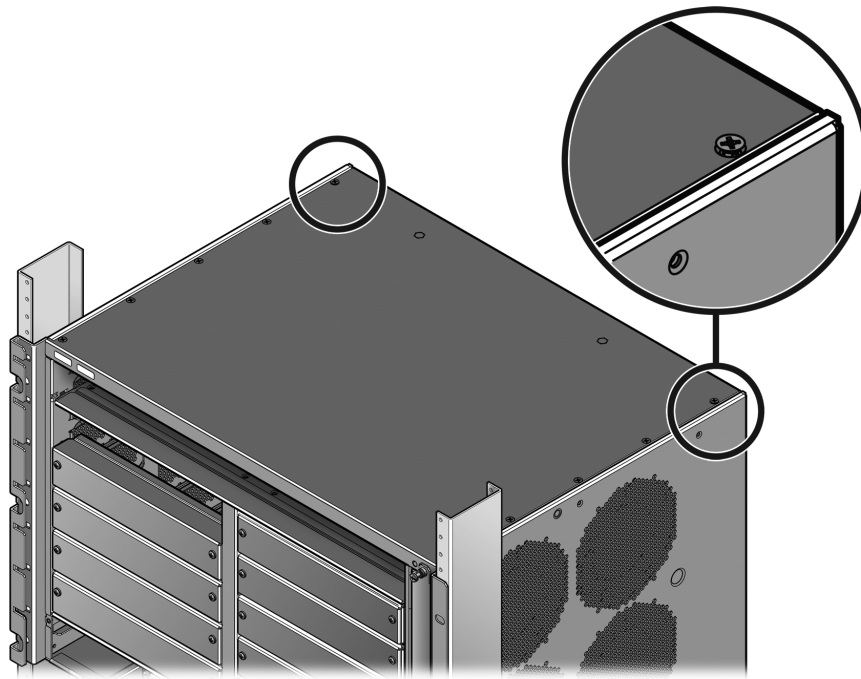
Installing the PoE Shelf on Top of a K-Series Chassis

You must supply four rack screws to complete this installation.

To install the PoE shelf on top of a K-Series chassis:

1. (Optional) Loosen the back screws at each corner of the K-Series chassis if you want to secure the tabs at the back of the PoE shelf to the K-Series chassis. See Figure 2-1.

Figure 2-1   Loosening the Screws on the K-Series Chassis

2. Slide the PoE shelf into the rack directly on top of the K-Series chassis. See Figure 2-2.

Figure 2-2   Installing the PoE Shelf on Top of the K-Series Chassis
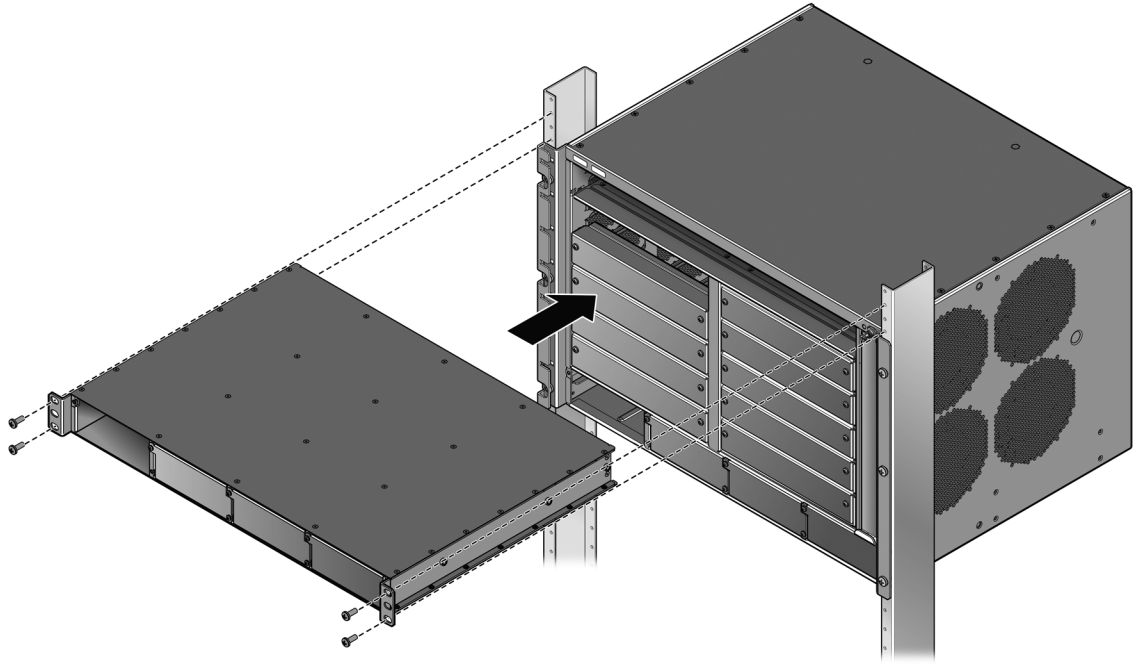
3. If you have loosened the back screws on the K-Series chassis, ensure that the tabs at the back of the PoE shelf slide onto the loosened screws. See Figure 2-3.

Figure 2-3   Securing the Rear of the PoE Shelf
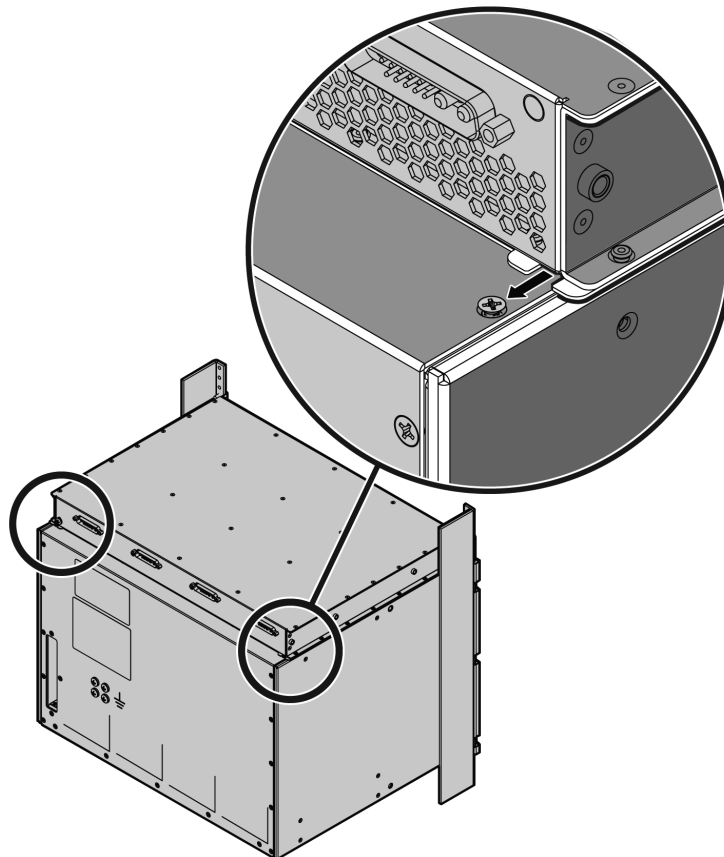
4. Secure the front of the PoE shelf to the rack rails with two customer-supplied screws through each mounting ear.

You have completed the installation of the PoE shelf. You can now connect the PoE shelf to the K-Series chassis and install power supplies in the PoE shelf. See Chapter 3, **Installing a Power Supply**.

Installing the PoE Shelf in a Four-post Rack

Using the long rails included with the K-POE-4BAY-RAIL rail kit, you can install the PoE shelf in a four-post rack.

> **Note:** The K-POE-4BAY-RAIL rail kit, for free standing or mid-mount installation of the K-POE-4BAY PoE shelf, is available for purchase separately.

You must supply eight rack screws to complete this installation.

To install the PoE shelf in a four-post rack:

1. Attach the long rails, included with the PoE shelf, to the sides of the PoE shelf as shown in Figure 2-4.

    Flat washers and pan head screws are included with the K-POE-4BAY-RAIL rail kit for attaching the rails to the shelf.
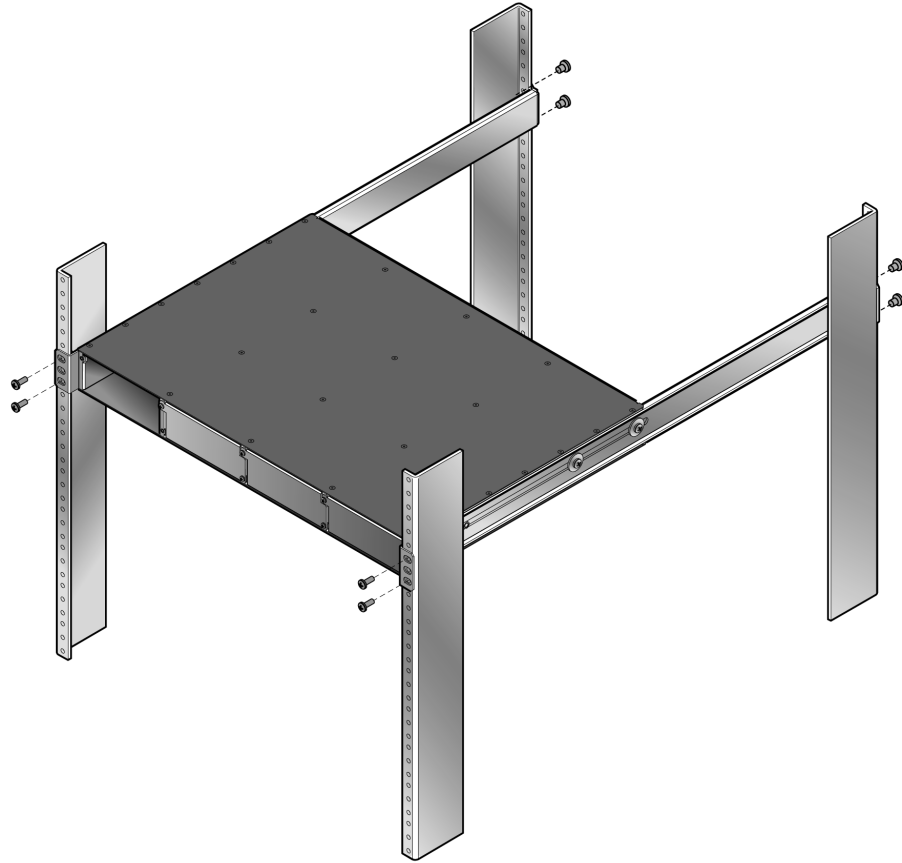
Figure 2-4   Attaching the Long Rails to the PoE Shelf
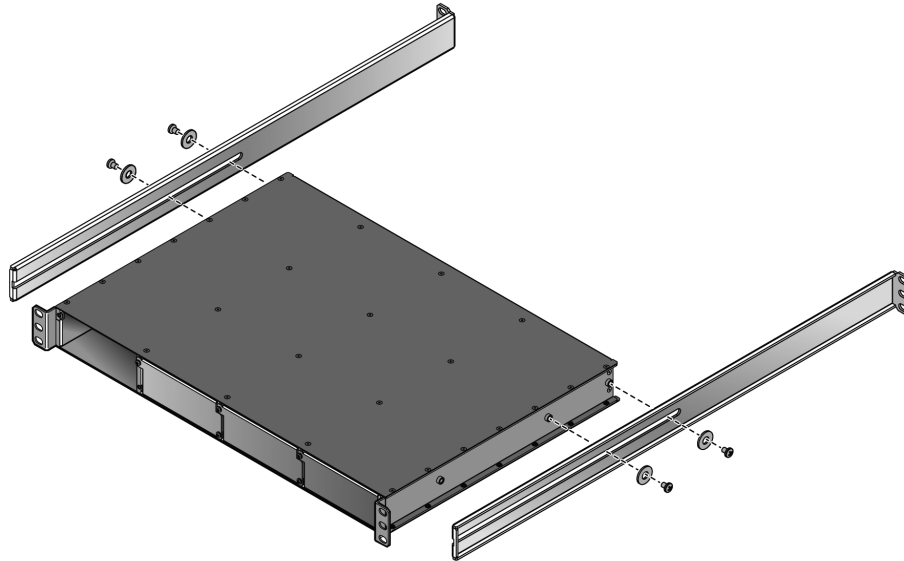
2. Place the PoE shelf in the rack.

3. Attach the PoE shelf to the rack rails using eight customer-supplied rack screws (two screws for each mounting ear). See Figure 2-5.

Figure 2-5   Securing the PoE Shelf in a Four-post Rack

You have completed the installation of the PoE shelf. You can now connect the PoE shelf to the K-Series chassis and install power supplies in the PoE shelf. See Chapter 3, **Installing a Power Supply**.

Installing the PoE Shelf in a Two-post Rack

Using the short rails included with the K-POE-4BAY-RAIL rail kit, you can install the PoE shelf in two-post racks with 3-inch rails or 7-inch rails.

> **Note:** The K-POE-4BAY-RAIL rail kit, for free standing or mid-mount installation of the K-POE-4BAY PoE shelf, is available for purchase separately.

Refer to the following procedures as appropriate:

Front Mounting the PoE Shelf in a Two-post Rack (3-inch Rails)
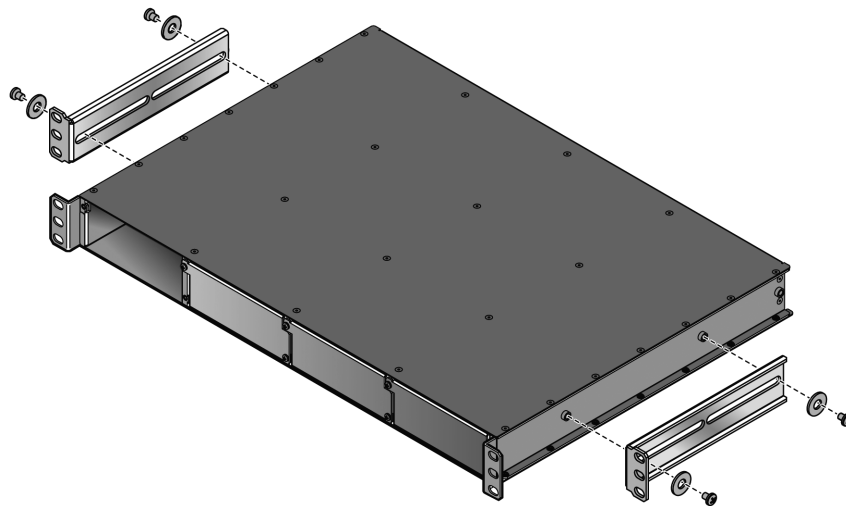
You must supply eight rack screws to complete this installation.

To front mount the PoE shelf in a two-post rack with 3-inch rails:

1. Attach the short rails, included with the K-POE-4BAY-RAIL rail kit, to the sides of the PoE shelf as shown in Figure 2-6.
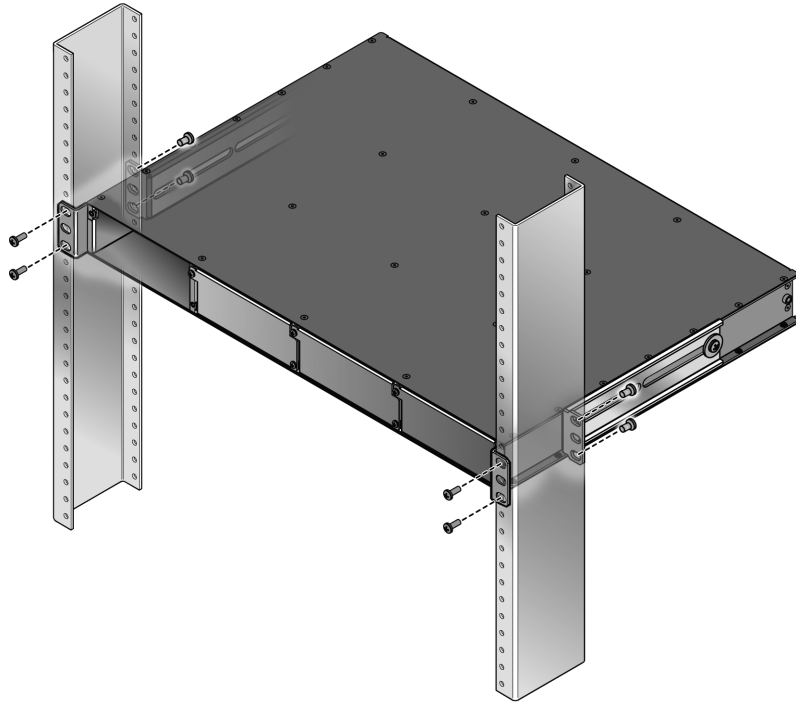
    Flat washers and pan head screws are included with the K-POE-4BAY-RAIL rail kit for attaching the rails to the shelf.

Figure 2-6   Attaching the Short Rails to the PoE Shelf for Front Mounting in a Two-post Rack (3-inch Rails)

2. Place the PoE shelf in the rack as shown in Figure 2-7.

Figure 2-7   Front Mounting the PoE Shelf in a Two-post Rack (3-inch Rails)

3. Attach the PoE shelf to the rack rails using eight customer-supplied rack screws (two screws for each mounting ear). See Figure 2-7.

You have completed the installation of the PoE shelf. You can now connect the PoE shelf to the K-Series chassis and install power supplies in the PoE shelf. See Chapter 3, **Installing a Power Supply**.

Mid-mounting the PoE Shelf in a Two-post Rack (3-inch Rails)
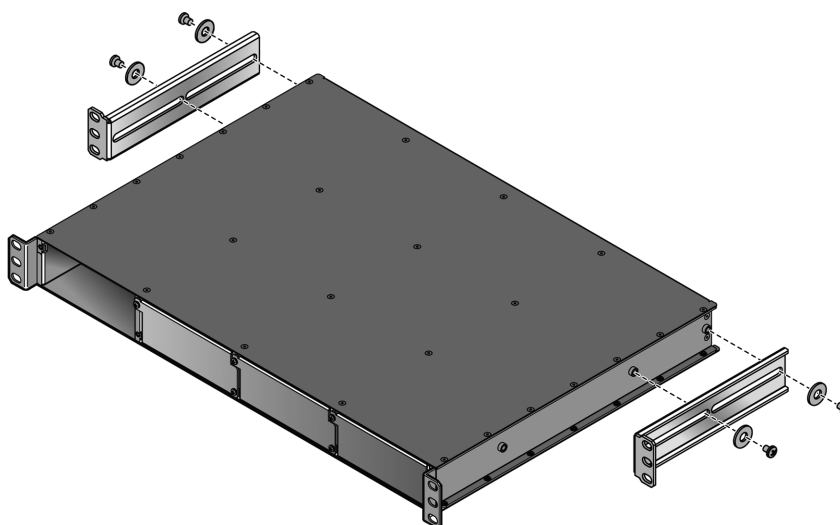
You must supply four rack screws to complete this installation.

To mid-mount the PoE shelf in a two-post rack with 3-inch rails:

1. Attach the short rails, included with the K-POE-4BAY-RAIL rail kit, to the sides of the PoE shelf as shown in Figure 2-8.
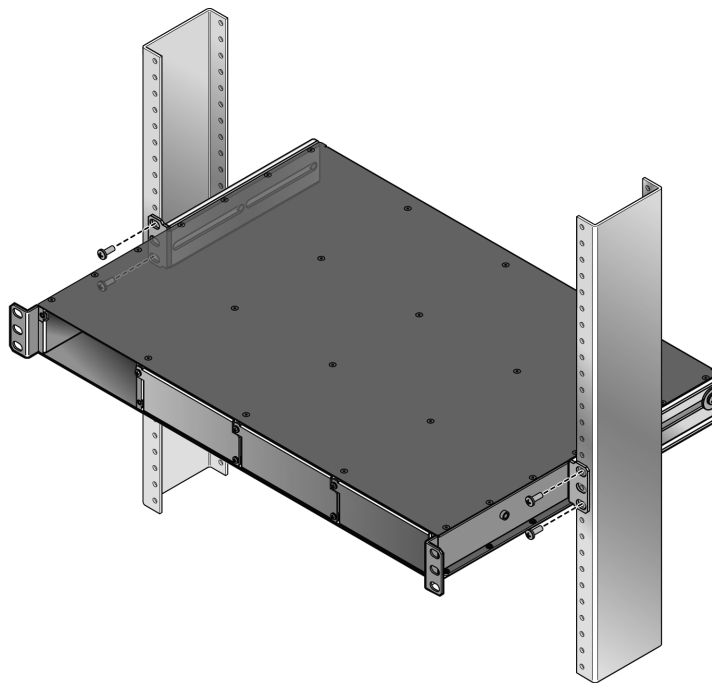
    Flat washers and pan head screws are included with the K-POE-4BAY-RAIL rail kit for attaching the rails to the shelf.

Figure 2-8   Attaching the Short Rails to the PoE Shelf for Mid-mounting in a Two-post Rack (3-inch Rails)

2. Place the PoE shelf in the rack as shown in Figure 2-9.

Figure 2-9   Mid-mounting the PoE Shelf in a Two-post Rack (3-inch Rails)

3. Attach the PoE shelf to the rack rails using four customer-supplied rack screws (two screws for each mounting ear). See Figure 2-9.

You have completed the installation of the PoE shelf. You can now connect the PoE shelf to the K-Series chassis and install power supplies in the PoE shelf. See Chapter 3, **Installing a Power Supply**.

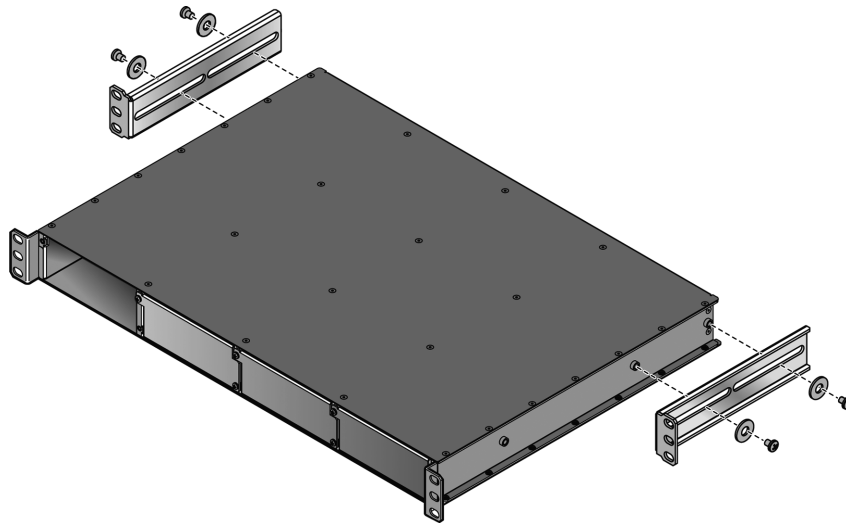## Front Mounting the PoE Shelf in a Two-post Rack (7-inch Rails)

You must supply eight rack screws to complete this installation.

To front mount the PoE shelf in a two-post rack with 7-inch rails:

1. Attach the short rails, included with the K-POE-4BAY-RAIL rail kit, to the sides of the PoE shelf as shown in Figure 2-10.

   Flat washers and pan head screws are included with the K-POE-4BAY-RAIL rail kit for attaching the rails to the shelf.

Figure 2-10   Attaching the Short Rails to the PoE Shelf for Front Mounting in a Two-post Rack (7-inch Rails)

2. Place the PoE shelf in the rack as shown in Figure 2-11.

Figure 2-11   Front Mounting the PoE Shelf in a Two-post Rack (7-inch Rails)
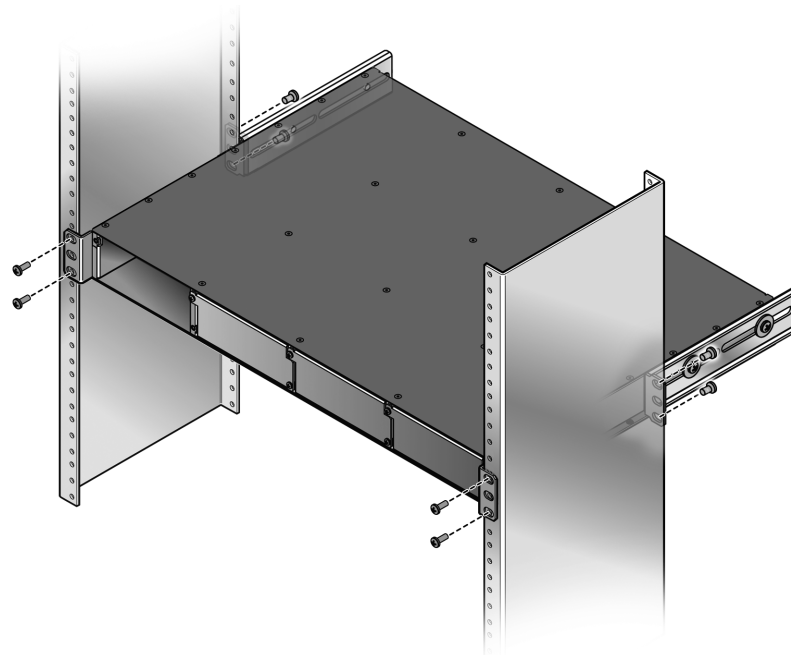
3. Attach the PoE shelf to the rack rails using eight customer-supplied rack screws (two screws for each mounting ear). See Figure 2-11.

You have completed the installation of the PoE shelf. You can now connect the PoE shelf to the K-Series chassis and install power supplies in the PoE shelf. See Chapter 3, **Installing a Power Supply**.

3

Installing a Power Supply

⚠ **Electrical Hazard:** Only qualified personnel should perform installation procedures.

Riesgo Electrico: Solamente personal calificado debe realizar procedimientos de instalacion.

Elektrischer Gefahrenhinweis: Installationen sollten nur durch ausgebildetes und qualifiziertes Personal vorgenommen werden.

This chapter provides instructions for installing and connecting power to the K-Series AC power supplies.

For more information about:	Refer to page...
Unpacking a K-Series AC Power Supply	3-1
Connecting the K-POE-4BAY PoE Shelf to a K-Series Chassis	3-2
Installing a K-Series AC Power Supply in the K-POE-4BAY PoE Shelf	3-3
Connecting a K-Series AC Power Supply to AC Power	3-5

Unpacking a K-Series AC Power Supply

The K-Series AC power supply is shipped separately from other K-Series hardware. To unpack a power supply:

1. Unpack the power supply by removing it from the shipping box and sliding the two foam end caps off the unit.

    Save the shipping box and materials in the event the unit must be reshipped.

2. Verify the contents of the box using Table 3-1 as appropriate.

3. Remove the power supply from its protective plastic bag.

4. Examine the power supply carefully, checking for damage.

    If there are any signs of damage, DO NOT install the power supply; instead, contact Enterasys Networks. Refer to "Getting Help" on page xiv for details.

Table 3-1   Contents of K-Series AC Power Supply Carton

Item	Quantity
K-Series AC power supply	1
For USA shipments: NEMA power cord 5-15,C13 Type of power cord is dependent on country of installation.	1
WEEE notice card	1
Documentation notice card	1

Connecting the K-POE-4BAY PoE Shelf to a K-Series Chassis

Use a K-POE-CBL-2M cable to connect a K-Series AC power supply installed in a K-POE-4BAY PoE shelf to a K-Series chassis.

Note: You must purchase the K-POE-CBL-2M cable separately. Ensure that you purchase and install one K-POE-CBL-2M cable for each power supply that you plan to install in the K-POE-4BAY PoE shelf.

You can connect up to two K-Series AC power supplies to a K10 chassis for PoE power. You can connect a single K-Series AC power supply to a K6 chassis for PoE power.

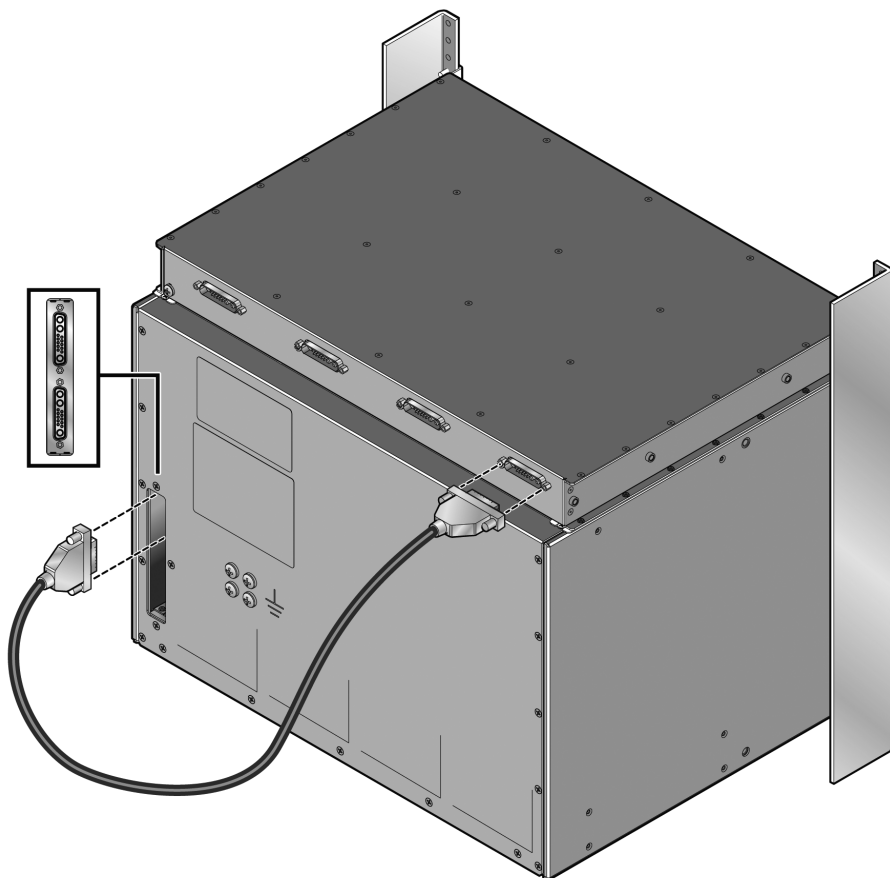To connect a K-Series AC power supply to a K-Series chassis for PoE power:

1. Remove the cover from the recessed PoE connector at the rear of the K-Series chassis. See Figure 3-1.

    If you are connecting two power supplies to a K10 chassis, remove the covers from both PoE connectors.

Figure 3-1   Removing the Cover from the PoE Connector on a K-Series Chassis
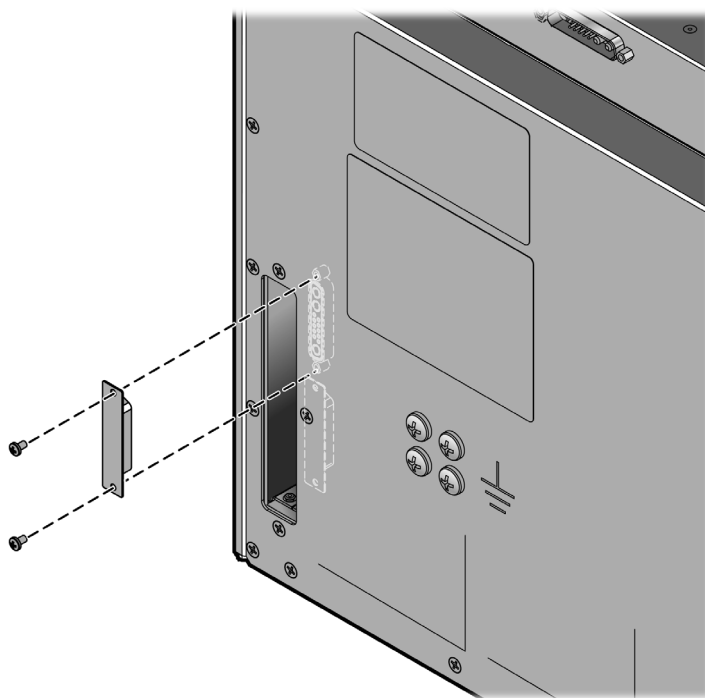
2. Connect and secure one end of the cable to the connector for the K-POE-4BAY slot in which you will install a K-Series AC power supply. See Figure 3-2.

    Each connector at the rear of the K-POE-4BAY PoE shelf corresponds to slot in the front of the shelf.

3. Connect and secure the other end of the cable to the PoE connector on the K-Series chassis. See Figure 3-2.

Figure 3-2   Connecting a K-Series AC Power Supply to a K-Series Chassis

4. Repeat steps 2 and 3 if connecting a second K-Series AC power supply to the K-Series chassis.

Installing a K-Series AC Power Supply in the K-POE-4BAY PoE Shelf

To install a K-Series AC power supply in the K-POE-4BAY PoE shelf:

1. Attach the anti-static wrist strap before handling the power supply. Hold the power supply by placing one hand on the handle located on the front panel and using the other hand to support the power supply.

2. Holding the power supply right side up, align the power supply with the bottom of the opening of the slot that is connected to the K-Series chassis with a K-POE-CBL-2M cable.

3. With the power supply properly inserted into the slot, carefully slide the supply forward until it is connected to the backplane. See Figure 3-3.

The front panel should be flush with the face of the K-Series chassis. If significant resistance is encountered before the front panel is flush, remove and reinsert the power supply. Do not force the power supply into place.

⚠️ **Caution:** Forcing a misaligned power supply into place can damage the power supply and/or the chassis backplane.

Precaución: Colocar de manera forzada una fuente de poder o no colocarla bien alineada podría dañarla y/o maltratar el panel posterior del chasis.

Figure 3-3   Installing a K-Series AC Power Supply in the K-POE-4BAY PoE Shelf
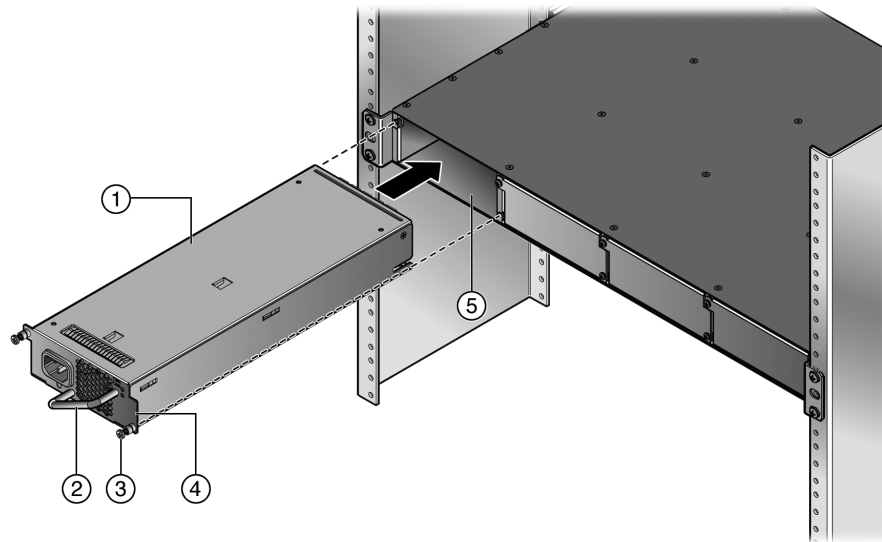
1	Power supply	**4**	Faceplate
2	Power supply handle	**5**	Power supply slot
3	Captive screw		

4. Secure the power supply to the shelf by screwing the captive screws into the shelf.

5. If you are installing more than one power supply, remove the coverplates from the applicable number of power supply slots, as shown in Figure 3-4.

   Keep the coverplates in the event you need to remove the power supplies.

Figure 3-4   Removing a Cover Plate from the K-POE-4BAY PoE Shelf
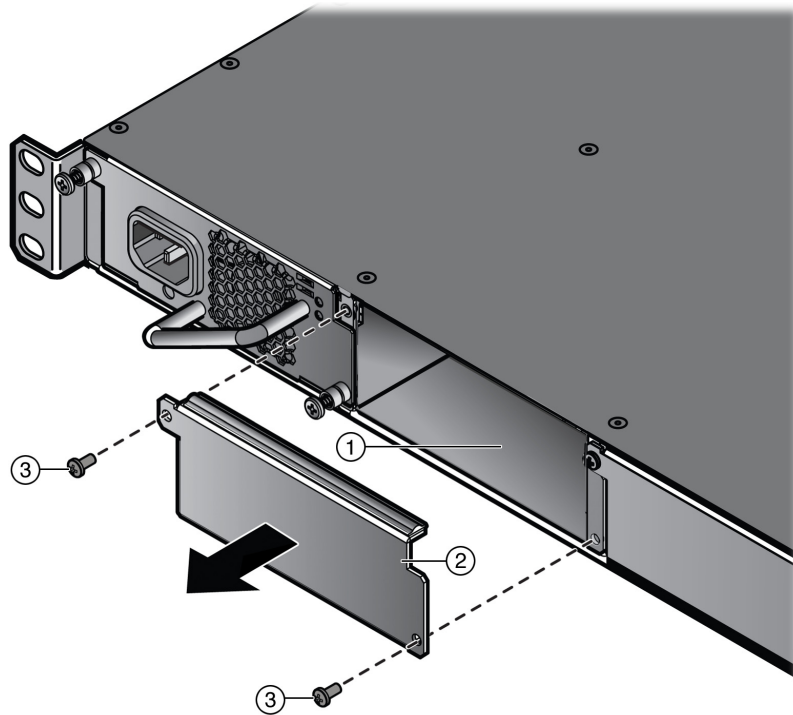
1	Power supply slot	**3**	Coverplate screws
2	Coverplate		

Connecting a K-Series AC Power Supply to AC Power

To power up the K-Series AC power supplies installed in the K-POE-4BAY PoE shelf:

> **Note:** If multiple power supplies are installed, repeat the following procedure for each supply.
>
> For redundancy using multiple K-Series AC power supplies, each of the power cords from the power supplies must be connected to dedicated 15 A AC power circuits.

1. Plug one end of each power cord (supplied with the power supply) into the AC power socket on the front panel of the power supplies.

2. Plug each of the power cords into separate dedicated 15 A/120 Vac receptacles.

3. Ensure that the LEDs on each power supply are green.

If you experience any problems with this installation, contact Enterasys Networks for assistance.

A

Specifications and Regulatory Compliance

This appendix provides operating specifications for the K-POE-4BAY PoE shelf and the K-Series AC power supplies. Enterasys Networks reserves the right to change the specifications at any time without notice.

For specifications for the K-Series multi-slot chassis, refer to the *Enterasys K-Series Chassis Hardware Installation Guide* for your chassis.

For MTBF information, refer to the following Enterasys Networks support Web site:

http://secure.enterasys.com/support/mtbf/

K-POE-4BAY Shelf Specifications

Table A-1   K-POE-4BAY Shelf Specifications

Item	Specification
Dimensions	4.52 cm x 44.70 cm x 33.23 cm (1.78 in x 17.60 in x 13.09in)
Weight	3.26kg (7.2 lb)
Environmental Requirements	
Operating Temperature	5°C to 45°C (41°F to 113°F)
Storage Temperature	-30°C to 73°C (-22°F to 164°F)
Operating Relative Humidity	5% to 90% (non-condensing)

Power Supply Specifications

K-AC-PS

Table A-2   K-AC-PS Power Supply Specifications

Item	Specification
Electrical	
Input Frequency	50 to 60 Hz
Input	100 to 120Vac 12A @ 12Vdc 50A/54Vdc14.8A
	200 to 240Vac 10A @ 12Vdc 50A/54Vdc14.8A
Physical	
Weight	1.66 kg (3.65 lb)

K-AC-PS-1400W

Table A-3   K-AC-PS-1400W Power Supply Specifications

Item	Specification
Electrical	
Input Frequency	50 to 60 Hz
Input	100 to 120Vac 12A @ 12Vdc 50A/54Vdc14.8A
	200 to 240Vac 10A @ 12Vdc 50A/54Vdc14.8A
Physical	
Weight	1.66 kg (3.65 lb)

Torque Values

Table A-4 describes the recommended torque values to use when using standard threaded fastener machine screws and bolts.

Table A-4   Recommended Torque Values by Screw Size

Screw Size		Torque in Pounds			Bit Size
English	Metric	-%5	Nominal	+%5	
N/A	N/A	1.42	1.5	1.57	0
2 – 56	1.5	2.85	3.0	3.15	0
4 – 40	2.5	4.75	5.0	5.25	0/1
6 – 32	3.5	8.55	9.0	9.45	1
8 – 32	4.5	17.10	18.0	18.90	2
10 – 32	5	30.40	32.0	33.60	2
1/4 – 20	6.5	63.65	67.0	70.35	3

Regulatory Compliance

This product meets the safety, electromagnetic compatibility (EMC), and environmental requirements listed in Table A-5.

Table A-5   Compliance Standards

Regulatory Compliance	Standard
Safety	UL 60950-1, FDA 21 CFR 1040.10 and 1040.11, CAN/CSA C22.2 No. 60950-1, EN 60950-1, EN 60825-1, EN 60825-2, IEC 60950-1, 2006/95/EC (Low Voltage Directive)
Electromagnetic Compatibility (EMC)	FCC 47 CFR Part 15 (Class A), ICES-003 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, EN 61000-3-3, AS/NZ CISPR-22 (Class A). VCCI V-3. CNS 13438 (BSMI), 2004/108/EC (EMC Directive)
Environmental	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)