

HP UPS R5000/R7000 ERM

Installation Instructions



▲ Important Safety Information

Before installation, read *Important Safety Information* on the Documentation CD.

قبل التثبيت، اقرأ معلومات هامة حول السلامة على القرص المضغوط Documentation CD.

Před instalací si přečtěte příručku *Důležité bezpečnostní informace* na disku CD.

安装之前，请阅读文档 CD 上的 **重要安全信息**。

安裝前，請閱讀說明文件光碟上的「**重要的安全性資訊**」。

Læs dokumentet Vigtige sikkerhedsoplysninger på dokumentations-cd'en, før produktet installeres.

Lesen Sie vor der Installation die *Sicherheitshinweise* auf der Documentation CD.

Enne installimist vt dokumentatsiooni CD-lt peatükki „*Tähtis ohutusteave*“.

Antes de la instalación, lea la sección *Información de seguridad importante* del CD Documentación.

Avant l'installation, lisez les *informations importantes relatives à la sécurité* CD Documentation.

Πριν την εγκατάσταση, διαβάστε *Σημαντικές πληροφορίες ασφαλείας* στο CD Documentation.

לפני ההתקנה, קרא את המידע הבטיחותי החשוב שב-Documentation CD.

Prije ugradnje, pročitaite *Važne sigurnosne informacije* na dokumentacijskom CD-u.

Prima dell'installazione, leggere sul CD le *Informazioni importanti sulla sicurezza*.

インストール前に、Documentation CDの「安全に使用していただくために」をお読みください。

설치하기 전에 Documentation CD의 **주요 안전 수칙**을 읽으십시오.

Pirms instalācijas, izlasiet drošības informāciju dokumentācijas CD.

Prieš diegdami perskaitykite *Svarbią saugos informaciją* dokumentacijos CD.

Telepítés előtt olvassa el a dokumentációs CD *Fontos biztonsági tudnivalók* dokumentumát.

Lees de *Belangrijke veiligheidsinformatie* op de documentatie-cd voordat u de installatie uitvoert.

Les "Viktig sikkerhetsinformasjon" på dokumentasjons-CDen før du installerer dette produktet.

Przed instalacją przeczytaj *Ważne informacje dotyczące bezpieczeństwa*

na dysku CD Documentation.

Antes da instalação, leia as *Informações Importantes sobre Segurança* no CD da Documentação.

Перед установкой ознакомьтесь с разделом *Указания по технике безопасности*

на компакт-диске «Документация».

Pred instaláciou si prečítajte časť *Dôležité bezpečnostné informácie* na disku Documentation CD.

Pred namestitvijo preberite *Pomembne varnostne informacije* na CD-ju Documentation.

Tärkeisiin turvatietoihin" Documentation CD -levyllä ennen tuotteen asentamista.

Läs dokumentet Viktig säkerhetsinformation på dokumentations-cd:n innan du installerar denna produkt.

Yüklemeden önce, Documentation CD'sindeki *Önemli Güvenlik Bilgileri*'ni okuyun.

Перед установкою прочитайте *Важливі відомості з безпеки* на CD документації.

Translated instructions

For translated instructions, see the documentation provided on the HP website (http://www.hp.com/support/UPSR5000_Manuals).

Traductions des présentes instructions

Les versions traduites des présentes instructions sont disponibles dans un des documents fournis sur la page d'assistance technique spécifique au produit sur le site Web HP (http://www.hp.com/support/UPSR5000_Manuals).

Übersetzungen dieser Anweisungen

Übersetzte Versionen dieser Anweisungen sind in einem der Dokumente verfügbar, die auf der produktspezifischen Support-Seite der HP Website (http://www.hp.com/support/UPSR5000_Manuals) angeboten werden.

Traduzioni di queste istruzioni

Le versioni tradotte di queste istruzioni sono disponibili in uno dei documenti forniti nella pagina di supporto specifica del prodotto del sito Web HP (http://www.hp.com/support/UPSR5000_Manuals).

Traducción de estas instrucciones

Existen versiones traducidas de estas instrucciones disponibles en la documentación proporcionada en la página de soporte del producto específico del sitio web de HP (http://www.hp.com/support/UPSR5000_Manuals).

翻訳されたインストール手順

本製品の翻訳されたインストール手順については、HPのWebサイトで提供されているドキュメントを参照してください。

(http://www.hp.com/support/UPSR5000_Manuals)

Overview

The HP UPS R5000/R7000 ERM consists of two battery packs in a 3U chassis. The ERM connects directly to a UPS R5000, a UPS R7000, or another R5000/R7000 ERM. Up to four ERM units can be connected.

At the HP recommended 80 percent load, one ERM extends the available UPS runtime up to 30 minutes.

For more information about any of the topics covered in this document, and for safety information and regulatory notices, see the *HP UPS R5000 User Guide* (http://www.hp.com/support/UPSR5000_Manuals) or the *HP UPS R7000 User Guide* (http://www.hp.com/support/UPSR7000_Manuals).

Precautions

WARNING: A risk of personal injury from electric shock and hazardous energy levels exists. The installation of options and routine maintenance and service of this product must be performed by individuals who are knowledgeable about the procedures, precautions, and hazards associated with AC power products.



63 kg

139 lb

This symbol indicates that the ERM exceeds the recommended weight for one individual to handle safely.

WARNING: To reduce the risk of personal injury or damage to the equipment, observe local occupational health and safety requirements and guidelines for manual material handling.

CAUTION: Always plan the rack installation so that the heaviest item is on the bottom of the rack. Install the heaviest item first, and continue to populate the rack from the bottom to the top.

ERM kit contents

- This document
- Warranty information
- Rails, with mounting hardware for square- and round-holed racks
- ERM
- Front bezel
- Rear mounting brackets, plates, and associated hardware
- Front mounting ears and associated hardware

Tools and materials

The following tools are required for installation:

- Phillips screwdriver
- 10-mm hex-nut driver

The following items are supplied with the rack:

- Screws
- Hex nuts
- Clip nuts

Selecting a site

⚠ WARNING: To prevent fire or electric shock, install the unit in a temperature- and humidity-controlled indoor environment, free of conductive contaminants.

When selecting a site, consider the following factors:

- Elevated operating ambient temperature—If the equipment is installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment might be greater than room ambient temperature. Install the equipment in an environment compatible with the operating temperature.
- Reduced air flow—In the rack, the rate of air flow required for safe operation of the equipment must not be compromised.
- Circuit overloading—Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- Reliable earthing—Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit, such as the use of power strips.
- Electrical requirements—All models require a dedicated (unshared) branch circuit, suitably rated for the specific UPS as stated in "Input specifications" in the user guide.

Readying the equipment

1. Check the battery recharge date specified on the label that is affixed to the shipping carton.

📄 IMPORTANT: Do not use the battery if the recharge date has passed. If the date on the battery recharge date label has passed without the battery being recharged, contact an HP authorized service representative for directions.

2. Transport the packaged unit to its installation location.
3. Unpack the equipment near the rack where the unit will be assembled.

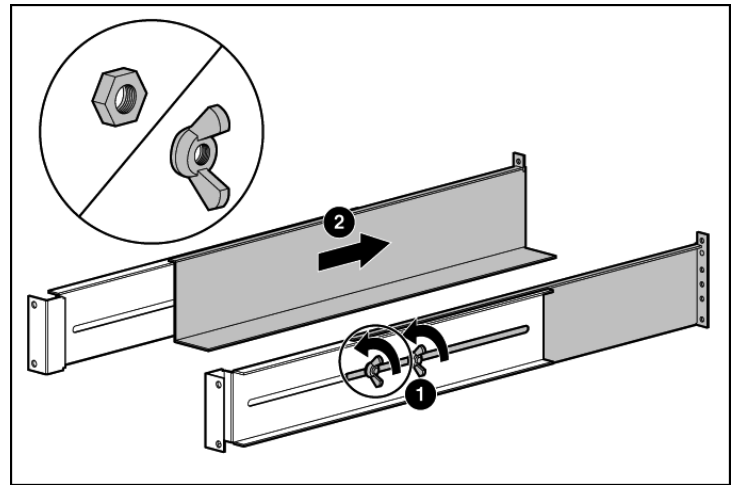
⚠ CAUTION: Always plan the rack installation so that the heaviest item is on the bottom of the rack. Install the heaviest item first, and continue to populate the rack from the bottom to the top.

Installing the mounting rails

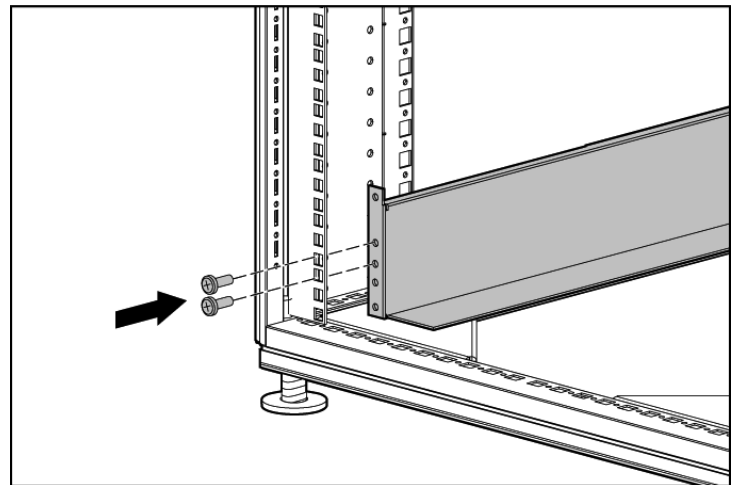
- ⚠ WARNING:** To reduce the risk of personal injury or damage to the equipment, be sure that:
- The leveling feet are extended to the floor.
 - The full weight of the rack rests on the leveling feet.
 - The stabilizing feet are attached to the rack if it is a single-rack installation.
 - The racks are coupled together in multiple-rack installations.
 - Only one component is extended at a time. A rack may become unstable if more than one component is extended for any reason.

NOTE: Mounting hardware for square- and round-holed racks is included in the UPS kit.

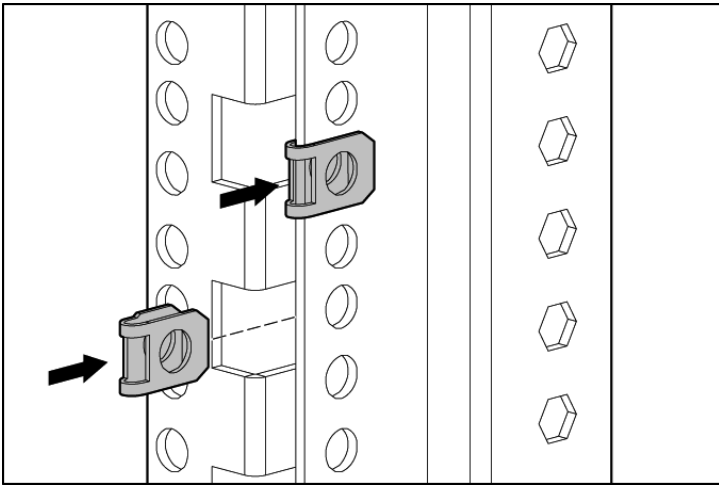
1. Loosen the wing nuts or hex nuts, and then extend the brackets to the appropriate length.



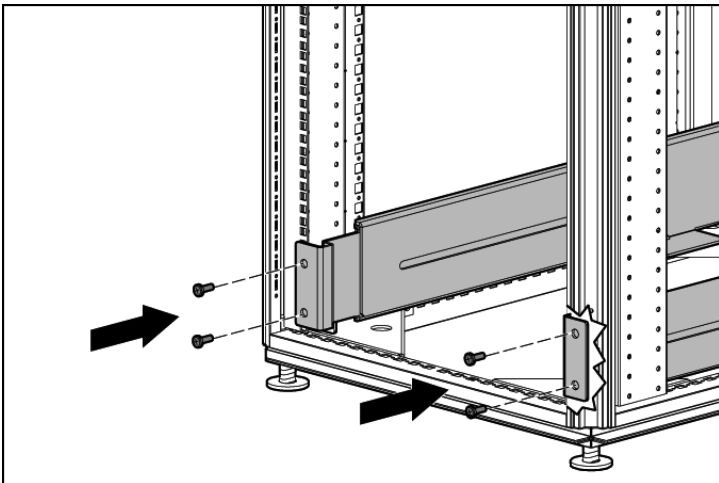
2. Insert screws through the rack into the mounting rail and the front of each mounting bracket.



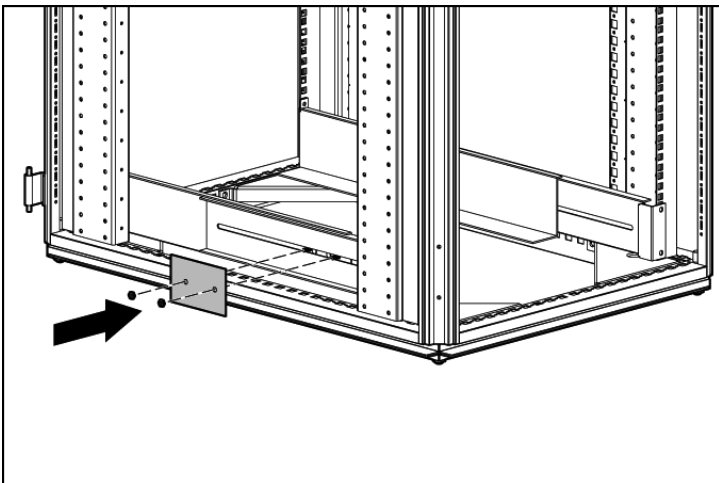
3. Install clip nuts into the rear of the rack.



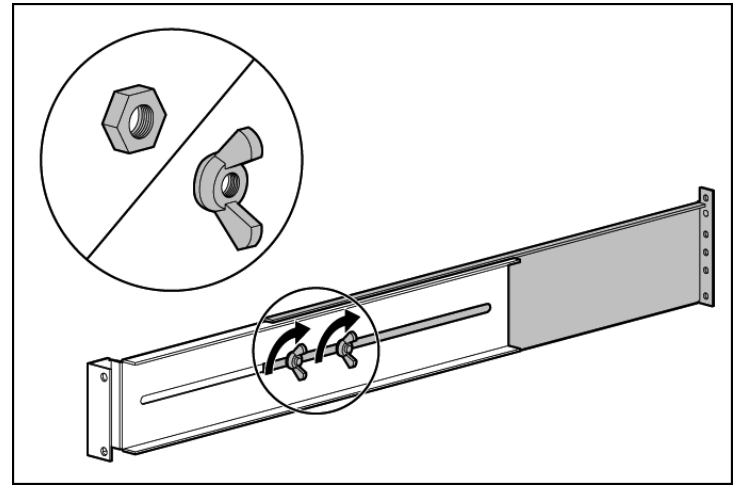
4. Insert screws through the mounting rail into the clip nuts.



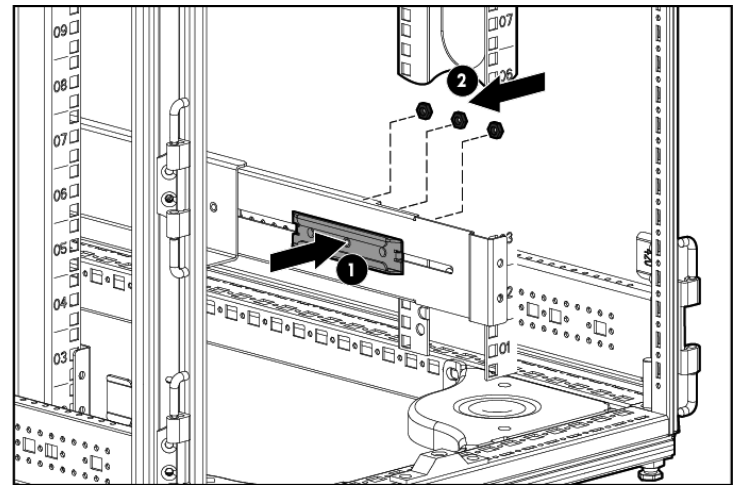
5. Install the rail reinforcement plates and tighten using hex nuts with captive washers included in the kit, instead of the nuts included with the rail.



6. Tighten the wing nuts or hex nuts.



7. Install the rear mounting brackets using hex nuts. Wait until the unit is installed and the brackets are adjusted before tightening the nuts.



Powering down the UPS

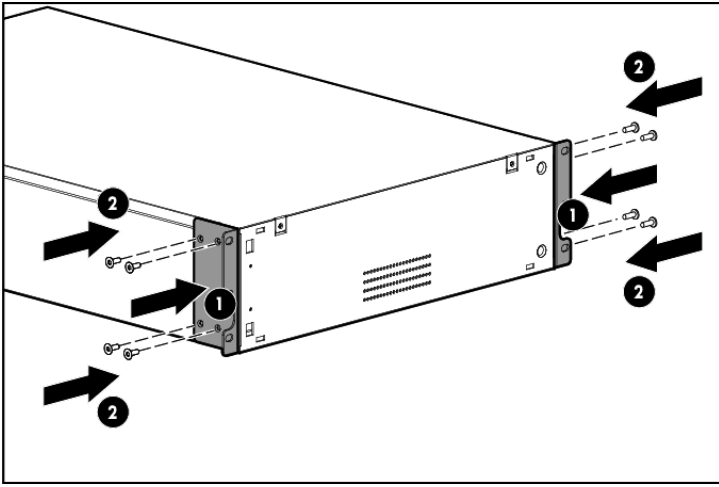
1. Shut down all load devices.
2. Switch the load segment circuit breakers to the Off position.
3. Press any button on the front panel LCD display to activate the menu options.
4. Select **TURN UPS ON/OFF**, **TURN UPS OFF**, and then press the right arrow button.
5. Confirm the selection. Press and hold the right arrow button for three seconds, until the UPS stops beeping.
The output relays open, the UPS transfers to Standby mode, and the Power On LED turns off.
6. Press **ESC** until the HP logo appears.
7. Disconnect the UPS from utility power.
8. Wait at least 60 seconds for the UPS internal circuitry to discharge.

Installing the ERM

Before installing the ERM, review and observe all warnings in "Precautions (on page 3)."

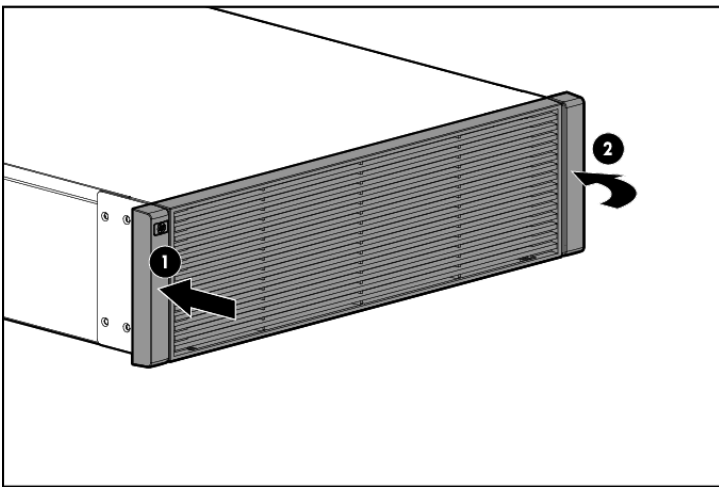
⚠ WARNING: A risk of personal injury or damage to the equipment exists. Uneven loading of equipment in the rack might cause the rack to become unstable. Install the heavier components first, and then continue to populate the rack from the bottom to the top.

1. Install the mounting rails ("Installing the mounting rails" on page 4).
2. With one person on each side of the carton, lift the chassis and lower it to the floor in front of the rack.
3. Install the mounting ears on the chassis using the screws provided.



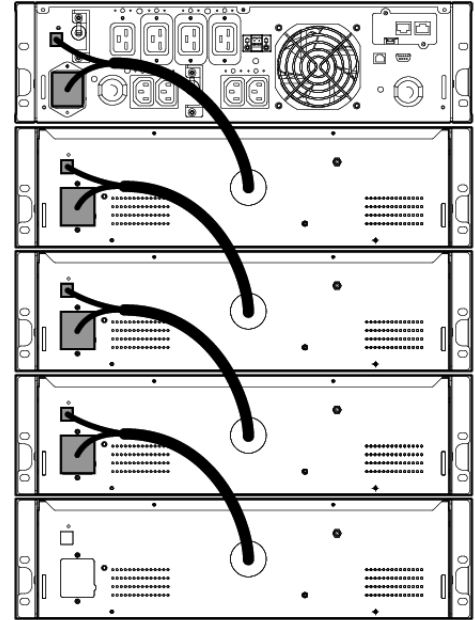
4. With one person on each side, lift the chassis to rail level and slide the chassis on the mounting rails. Be sure that the cleat brackets slide into the channels on the rear stabilization brackets.
5. Attach the chassis to the rack using the supplied screws.

Attaching the ERM front bezel



Connecting the ERM to the UPS

Connect both ends of the split ERM cable to the ERM connectors on the UPS rear panel. To install additional ERMs, connect both ends of the split ERM cable from the next ERM into the connectors on the rear panel of the previous ERM. Up to four ERM units can be connected.



Charging the ERM batteries

Connect the UPS to a grounded utility power outlet. When the UPS is plugged in, it automatically enters Standby mode and begins charging the ERM batteries. With the UPS in Standby mode, allow the ERM batteries to charge for at least 24 hours before putting the UPS into service.

⚠ CAUTION: To ensure maximum runtime, be sure to configure the UPS for the number of installed ERMs using the UPS front panel controls.

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