IBM UPS Extend Run Battery Pack
Operation and Setup Guide

02R2717

1: INSTALLATION

Introduction

The IBM® Uninterruptible Power Supply (UPS) Extend Run Battery Pack provides extended load protection and extra security during UPS battery replacement.

The IBM UPS 3000XLV and UPS 3000XHV models can support up to four external battery packs. Both models use the Extend Run Battery Pack and are designed to operate in the rack mount and tower configurations.

Battery pack connectors are color-coded and keyed to prevent improper connection.

For battery replacement and service information, please see the UPS *Operation and Setup Guide*.

Unpacking

Attention: Read the Safety Instructions before installing the UPS.

Inspect the battery pack upon receipt. Accidents and damage may occur during shipment. Notify the carrier and your IBM marketing representative or authorized reseller if there is damage.

The packaging is recyclable; save it for reuse or dispose of it properly.

Check the package contents:

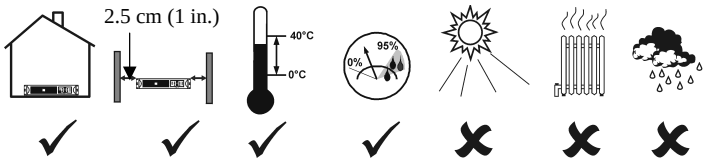
- Battery pack
- Front bezel
- Rail kit including rails and rack mounting brackets
- Tower conversion kit including top panels and expansion pieces for mounting stabilizers
- Extend Run Battery Pack literature kit containing:
  - Quick Installation Guide
  - Warranty Flyer

Positioning the Battery Pack

Attention: The battery pack and battery modules are heavy. Select a location sturdy enough to handle the weight.

Do not operate the UPS where the temperature and humidity are outside the specified limits.

PLACEMENT

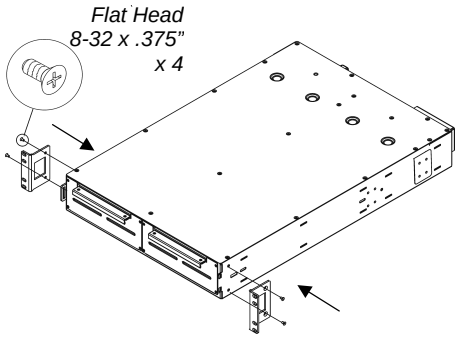


AETES

Installing the Battery Pack in a Rack

Step 1
Attach the mounting brackets.

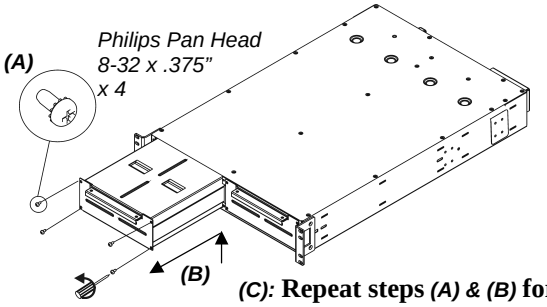
Note: Illustrations in this document might differ slightly from your hardware.



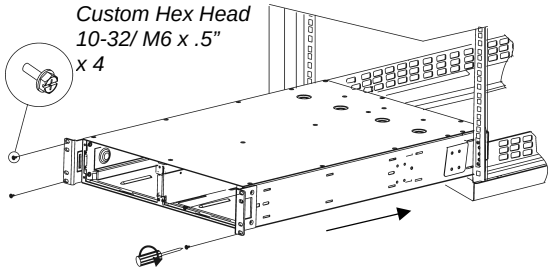
Step 2
To lighten the battery pack, remove the battery modules before mounting.

Step 3
See the Rail Installation Diagram that is included in the Rail Kit.

Install the battery pack above or below the UPS. Make sure the rack will not tip.

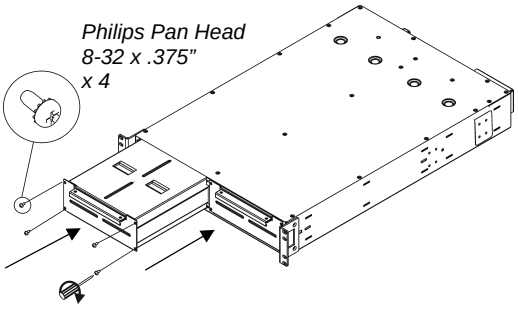


(C): **Repeat steps *(A) & (B)* for the second battery.**

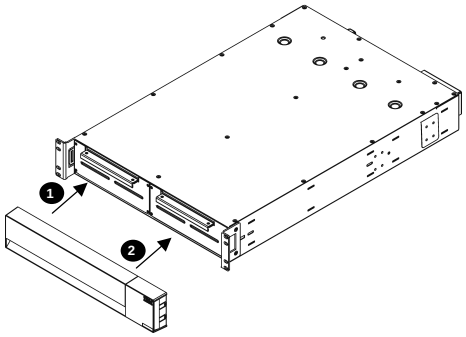


Installing the Batteries and Attaching the Front Bezel

Step 1
Reinstall the battery modules.



Step 2
Attach the front bezel.

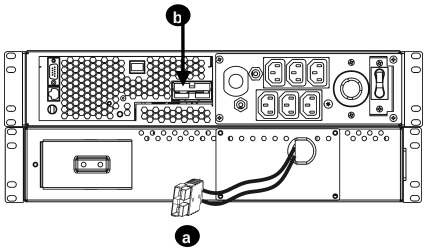


Connecting the Battery Pack(s) to the UPS

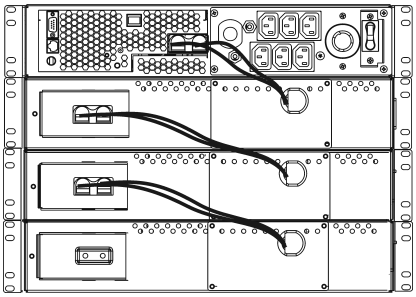
Allow the battery pack to charge for 24 hours. Do not expect full runtime during this initial charge period.

One Battery Pack

Connect ⓐ to ⓑ.



Multiple Battery Packs

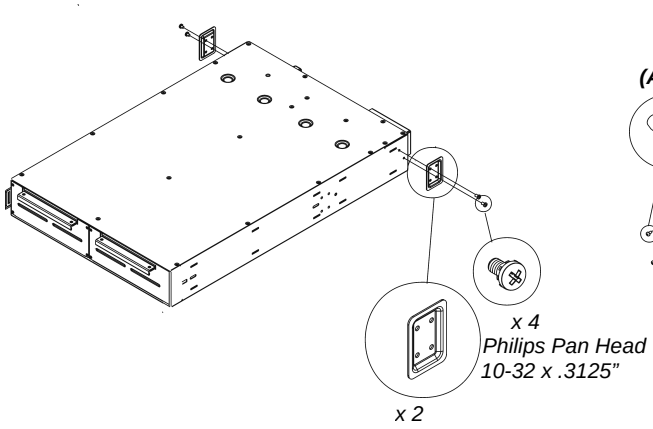


Tower Configuration of the External Battery Pack

Attention: If you are going to connect more than two external battery packs, you will need more than one person to properly support and rotate the attached units during the installation, even after removal of all battery trays.

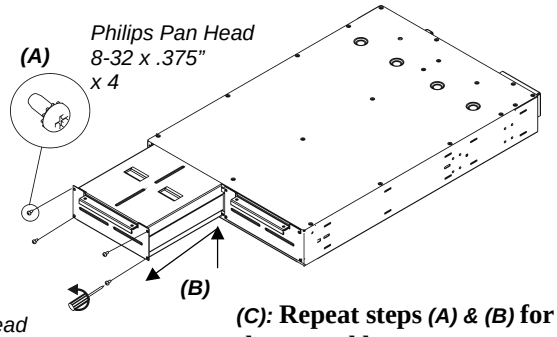
Step 1

Remove the rail guides.



Step 2

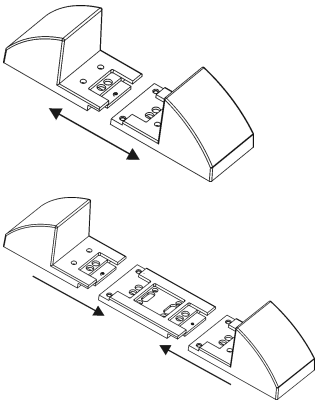
To lighten the battery pack, remove the battery modules.



(C): **Repeat steps *(A) & (B)* for the second battery.**

Step 3

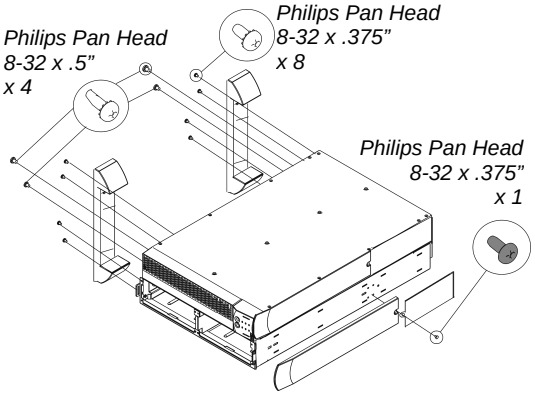
Separate mounting stabilizers and insert expansion pieces.



Step 4

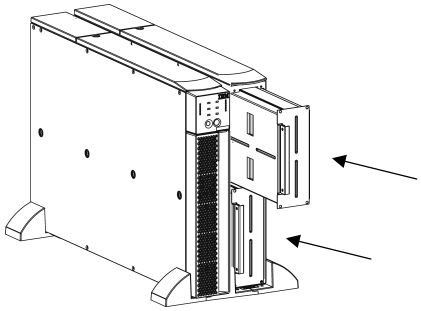
The UPS is pictured with bezels and top panels already attached.

Attach top panels and mounting stabilizers. Rotate unit to tower position.



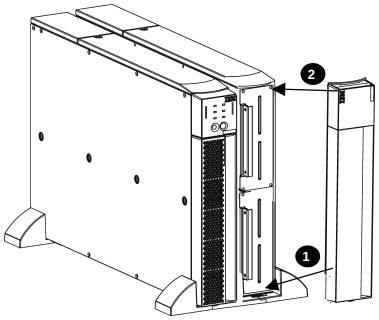
Step 5

Reinstall battery modules.



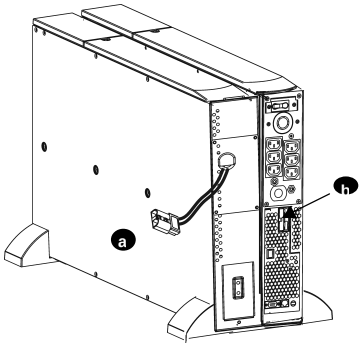
Step 6

Attach front bezel.



Connecting a Battery Pack to the UPS

Connect ⓐ to ⓑ .



DETERMINING ON BATTERY RUNTIME

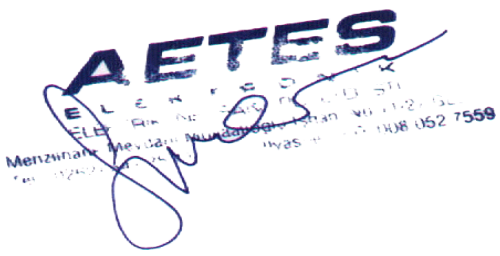
Extend Run Battery Packs charge when connected to a UPS. See *Battery Runtime Table* for corresponding recharge times. ***Do not*** expect full battery run capability during the initial charge period.

BATTERY RUNTIME TABLE
(gray= minutes; other= hours)

	Number of Battery Packs				
	Internal	**+1**	**+2**	**+3**	**+4**
90 W	***4.2***	***18.5***	***30.5***	***43.2***	***55.9***
190.0 W	***2.3***	***8.2***	***15.2***	***20.5***	***26. 5***
290.0 W	***1.5***	***4.6***	***9.0***	***13.9***	***18.1***
380.0 W	***57.0***	***3.0***	***6.9***	***9.5***	***13.6***
570.0 W	***36.8***	***2.5***	***3.8***	***6.4***	***8.5***
760.0 W	***24.8***	***2.1***	***2.8***	***4.2***	***6.2***
950.0 W	***17.0***	***1.7***	***2.6***	***3.0***	***4.4***
1,140.0 W	***13.4***	***1.2***	***2.3***	***2.8***	***3.2***
1,330.0 W	***11.3***	***57.0***	***2.1***	***2.6***	***2.9***
1,520.0 W	***8.6***	***51.2***	***1.8***	***2.4***	***2.7***
1,710.0 W	***7.0***	***45.5***	***1.5***	***2.2***	***2.6***
1,900.0 W	***6.3***	***39.7***	***1.3***	***2.0***	***2.5***
2,090.0 W	***5.6***	***33.9***	***1.0***	***1.9***	***2.3***
2,280.0 W	***4.9***	***29.3***	***57.0***	***1.7***	***2.2***
2,470.0 W	***4.4***	***27.0***	***53.6***	***1.5***	***2.0***
2,700.0 W	***4.0***	***25.1***	***48.3***	***1.1***	***1.7***
2,850.0 W	***3.4***	***22.6***	***46.9***	***1.1***	***1.8***

	Number of Battery Packs				
	Internal	**+1**	**+2**	**+3**	**+4**
Recharge Hours*	**3**	**9**	**15**	**22**	**28**

**Recharge time is approximate time to 90% capacity from a complete discharge at a 50% load.*

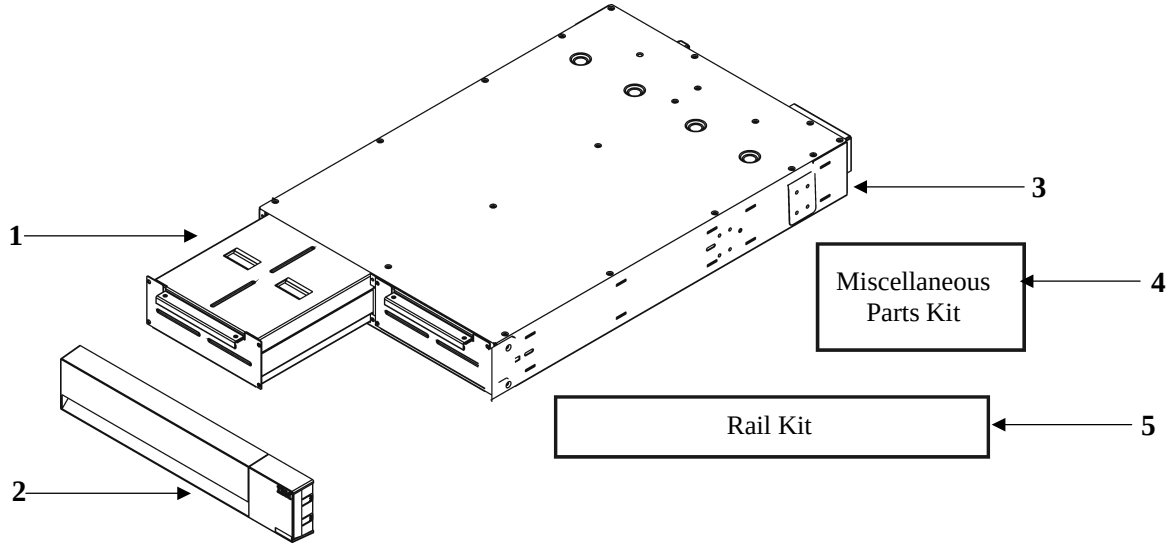


2: HARDWARE MAINTENANCE INFORMATION

This chapter contains information about IBM field replaceable unit (FRU) availability for the IBM UPS Extend Run Battery Pack.

FIELD REPLACEABLE UNIT PART NUMBERS

IBM FRU part numbers are subject to change without notice. This section contains a listing of the FRU part numbers available at the time this document was published.



Index	FRU Part #	Description
1	32P1793	Extend Run Battery Pack Battery Module
2	32P1798	Extend Run Battery Pack Bezel
3	32P1791	Extend Run Battery Pack Chassis
4	73P5770	Miscellaneous Parts Kit (hardware)
5	73P5769	Rail Kit

3: SETTING THE UPS TO RECOGNIZE THE BATTERY PACK (S)

Attention: It is important to follow these instructions. This configuration affects the accuracy of the runtime calculations that the UPS performs while running on battery power.

You must program the UPS with the appropriate number of external batteries in one of three ways.

- ***VIA THE NETWORK PORT***
  1. At the operating system command prompt, open a Telnet session by typing 'telnet' and the System IP address for the network port. (Example: telnet 129.205.12.104)
  2. When prompted, enter your case-sensitive user name and password. (Default settings for an Administrator are **apc** and **apc**; and for a Device Manager, **device** and **apc**.)
  3. Select the following menu options, in order. (To select a menu option, type the number of the option at the prompt, and press *enter*.)
     A. From the main screen, select 'Device Manager' (Option 1)
     B. Select 'IBM UPS 3000XLV' or 'IBM UPS 3000XHV' (Option 1)
     C. Select 'Configuration' (Option 3)
     D. Select 'Battery' (Option 1)
     E. Select 'External Batteries' (Option 2)
  4. Enter the number of external battery packs, and select 'Accept Changes' (Option 3).

- ***USE POWERCHUTE® BUSINESS EDITION 6.2***

  See the *Quick Installation Guide* packaged with the UPS to install PowerChute Business Edition (PCBE).

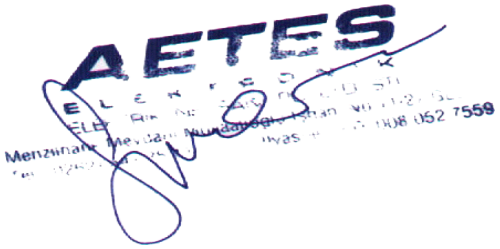
  1. Use any PCBE Console to log on to the PCBE Server monitoring the UPS system.
  2. Double-click on the UPS system in the Status display's device list to access the 'Device Properties' dialog box for the UPS.
  3. Click 'Battery Status' under 'General'.
  4. Type in the number of external battery packs in the 'Battery Packs' dialog box and click 'Apply'.

- ***ALLOW THE UPS TO DETERMINE THE NUMBER OF EXTERNAL BATTERY PACKS BY CONDUCTING A RUNTIME CALIBRATION TEST***

  In order for the UPS to conduct a valid runtime calibration test, the following conditions must be met.

  ✓ The UPS must be 100% charged. This can be accomplished if the UPS is left online, without power interruption for at least 3 hours, plus 8 hours per external battery module.

  ✓ The load on the UPS must be constant. Usually a computer connected to the UPS or some other electronic load is a good source. Whenever possible, use a load that is expected to be supported by the UPS.

  The runtime calibration test will discharge all connected batteries to 25% of their original capacity.

  See the *Quick Installation Guide* packaged with the UPS to install PowerChute Business Edition.