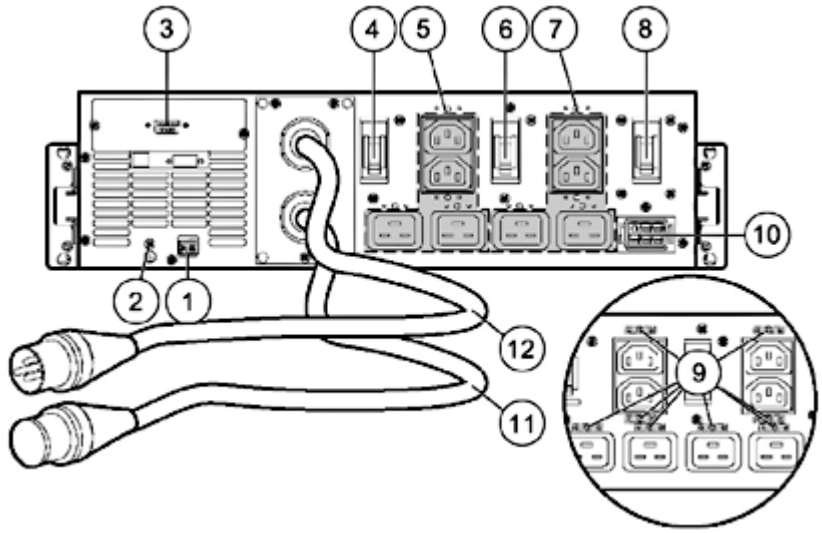
Overview

The most dense, most power packed UPS available - offering HP customers more watts per U than any other UPS - allowing for more valuable rack space to be utilized by all your server, storage and networking equipment.

The leading edge HP UPS R5500 Uninterruptible Power System features a slim 3U rack-mount design, offering up to 4500 Watts of true power (5400 watts international). This new rack-space saving design allows more support for critical rack mountable equipment. This product brings unprecedented power density and innovative features to the proven HP family of rack-mountable UPS products.

The UPS R5500 is a high power density solution, designed for customers who want to provide power protection in space-constrained rack enterprise environments. In addition, this new UPS R5500 has the capability to be connected to an optional Extended Runtime Module (ERM). Customers can further increase the run-time on their UPS R5500 by using this ERM. The HP UPS "" models denote "Extended Runtime Capable" UPS models.



1. REPO port
2. Ground bonding screw
3. Communications port/option slot
4. Load segment 1 circuit breaker
5. Load segment 1 (two IEC-320-C19 receptacles and two IEC-320-C13 receptacles)
6. Load segment 2 circuit breaker
7. Load segment 2 (two IEC-320-C19 receptacles and two IEC-320-C13 receptacles)
8. Battery circuit breaker
9. Cord retention clip attach. locations
10. ERM connector
11. PDU output NEMA L6-30 receptacle (NA/JPN) or 32 A IEC-309 receptacle (INTL) associated with load segment 1
12. Power cord with NEMA L6-30 plug (NA/JPN) or 32 A IEC-309 plug (INTL)

What's New

- New HP R5500 UPS Rack to Tower Conversion Kit allows you to convert the rack mounted R5500 into a tower configuration to work with tower Servers or Blade Enclosures. Kit includes a stand and supporting feet for stability.

Overview

Models

HP R5500 VA UPS, INTL	AF416A
NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.	
HP R5500 VA UPS, NA/JPN	AF426A
NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.	

Product Highlights

NOTE: For a brief, printer friendly data sheet that describes this product and informs you of the essential capabilities and specifications, please visit: http://h71028.www7.hp.com/ERC/downloads/4AA0-6981ENW.pdf.

Key Features

- Increased power density with up to 5500VA / 4500 Watts of power packed in just 3U rack space (5400 watts international)
- Greater system uptime with support for Extended Runtime Modules (ERM)
- Easy configuration through enhanced front panel display
- Enterprise-wide intelligent manageability with bundled power management software
- Support for the HP UPS Management Module that extends the power management capabilities of the UPS
- More efficient voltage regulation with revolutionary technology
- Ultimate long-term battery reliability with HP Enhanced Battery Management
- Enhanced system flexibility with two independently controlled load segments
- Support for Remote Emergency Power Off (REPO) circuitry
- Easy serviceability through modular design
- Hot-Swappable Battery and Electronics Modules
- Backed by a three year warranty with the first year including parts and labor. HP's Pre-Failure warranty, and a $250,000 load protection guarantee*. (Certain restrictions and exclusions apply; *Load protection guarantee available in North America only.)
- Optional upgrades include:
  - Extended Runtime Modules (ERMs)
  - Management Cards
  - HP R5500 UPS Tower Conversion Kit

3U Power Packed Design	Rated near unity at 5500VA / 4500W (5400W international), the HP UPS R5500 packs more power in space-conserving rack-mount design, allowing you to support more critical equipment in your rack.
Increase System Uptime with Extended Runtime Modules	The Extended Runtime Modules are rack mounted battery modules that occupy 3U (5.25 inches) of rack space. The HP UPS R5500 supports up to two Extended Runtime Modules (ERM), which extend your overall battery runtime.
Lower Cost of Ownership with Innovative Technology	The HP UPS R5500 utilizes a new industry-leading technology that continually conditions and regulates power without using the battery, thereby increasing the life of the battery. The output voltage is automatically regulated, based on the connected load and the input voltage.
Investment Protection with HP Enhanced Battery Management	HP UPS R5500 incorporates Enhanced Battery Management: an exclusive, patented technology that doubles battery service life, optimizes battery recharge time, and provides advance notice of pending battery failure. With Enhanced Battery Management, you have a lower total cost of ownership and receive the best in the industry protection for your critical equipment.
Enhanced Flexibility	The UPS R5500 models include four PDU Extension Bars. Each extension bar has seven C13 outlets for powering equipment in the rack and attaches to the C19 outlets on the back of the UPS. The 6.5 foot (2 meter) cord allows the extension bars to mounted in many locations inside the rear of the rack.

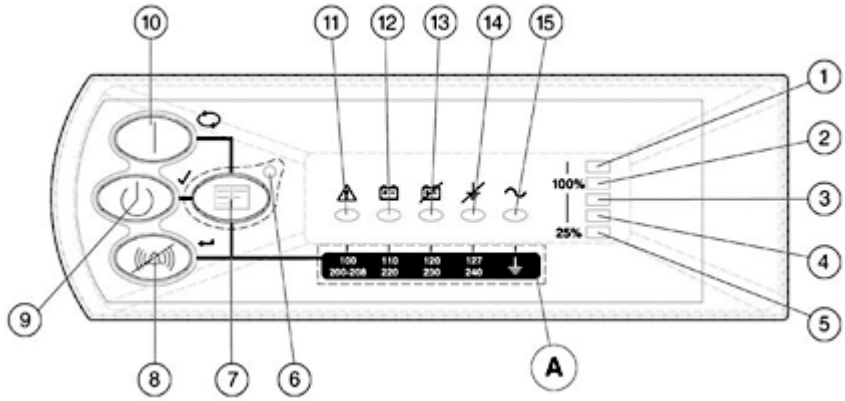
Product Highlights

Remotely Monitor UPSs on the Network

The optional HP UPS Management Module features the ability to perform simultaneous network and out-of-band communications. It enables network administrators to remotely monitor UPSs and reboot network devices. It provides SNMP functionality, including power event alerts, network power diagnostics, and remote UPS reboot and testing. Used in conjunction with HP Systems Insight Manager or other SNMP capable Network Management Software, power-related problems on the network are quickly discovered and remedied.

Easy Configuration via Enhanced Front Panel Display

LED and switch membrane integrated into the front panel with four button controls (three buttons for UPS power control and one button under the front bezel for configuration)



1. LED indicating Overload capacity
2. LED indicating 76% to 100% load capacity
3. LED indicating 51% to 75% load capacity
4. LED indicating 26% to 50% load capacity
5. LED indicating 0% to 25% load capacity
6. Configure mode on LED*
7. Configure Button*
8. TEST/ALARM RESET Button
9. STANDBY Button
10. ON Button
11. General Alarm
12. On Battery
13. Bad Battery/Low Battery
14. Site Wiring Fault Indicator
15. Utility LED

A. Voltage Configuration Panel*

* Accessible only when the front bezel is removed

Intelligent Manageability

Free HP Power Management Software, an integrated component of HP Systems Insight Manager, the industry-leading hardware management platform, is included with the HP UPS R5500 models. The HP Power Management Software enables you to monitor and control HP UPSs locally or remotely. This software is a versatile, fully configurable, alert response tool that gives system administrators a full overview of the network's conditions. It enables you to monitor system status and power conditions, configure shut down timing, customize alert messages, and perform UPS diagnostic checks quickly and easily.

Product Highlights

Independently Controllable Load Segments	With two load segments, you have the flexibility to configure scheduled startups and shutdowns, in addition to independently control the separate load segments. Working in conjunction with HP Power Management Software, the HP UPS R5500 can be configured to extend the runtime for more critical devices.
Ease of Maintenance with Hot-Swappable Batteries and Electronics Modules	The UPS R5500 is modular in design, and both the battery and the electronics modules are hot swappable. HP UPSs are designed with simple access through the front panel. Users can safely install new batteries and even the electronics module without ever powering down connected server and server options.
HP Quality	HP's hardware qualification is the toughest in the industry. Extensive evaluation, testing, product improvement, and an unsurpassed warranty guarantee the highest level of system protection, electrical performance, product quality and compatibility.
Compatibility	Compatible with all HP servers, storage, racks, rack options, and other rack mountable HP equipment (for PDU options please refer to the UPS/PDU compatibility matrix on http://www.HP.com/ups).
Warranty	The HP UPS R5500 is covered by a three year warranty, with the first year including parts and labor. Also, standard on all HP UPS units, is our exclusive Pre-Failure Warranty, which extends the advantage of a HP three-year, limited warranty by applying it to the battery before it actually fails. This warranty is offered worldwide. Specifically, the Pre-Failure Battery Warranty ensures that when customers receive notification from HP Power Management Software that the battery may fail, the battery is replaced free of charge under the warranty. NOTE: $250,000 Computer/Load Protection Guarantee is also provided in NA, in addition to the HP three year, limited warranty.

HP Care Pack Installation

HP Care Pack Services provide a range of life cycle support options that let you choose the service levels that meet your business requirements, from basis to mission-critical.
A full range of HP Care Pack hardware and software services are available including:

- Installation and start up
- Education courses
- Extended onsite hardware coverage hours from same business day 13 hours, 5 day to 24 hours, 7 days call window with options including 4-hour response or 6-hour Call to Repair
- Comprehensive range of software technical support for Microsoft, Linux, ProLiant essentials and VMware-based IT solutions helping to deliver high level of application availability. Response times range from 30 mins for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

HP Care Pack Services include HP branded hardware options qualified for the server, purchased at the same time or afterwards, internal to the enclosure, as well as 22" and smaller external monitors and rack mounted UPS options. HP Uninterruptible Power Systems will be covered at the same service level and coverage period as the server. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack.

NOTE: For more information on HP Care Pack Services, contact any of our worldwide sales offices or resellers or visit our worldwide web site on the internet at: http://www.hp.com/hps/carepack
NOTE: For more complete information on HP Services offerings, customers and resellers, please visit us at: http://www/hp.com/hps
NOTE: Additional information regarding worldwide limited warranty and technical support is available at: http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html
NOTE: For additional information on Server Services, Rack and Power Options, please visit: http://h20219.www2.hp.com/services/cache/111072-0-0-225-121.html
NOTE: The information contained herein is subject to change without notice and is provided "as is" without warranty of any kind.
NOTE: The warranties for HP products and services are set forth in the express limited warranty statements accompanying such products and services.

Optional UPS Management Module

The HP UPS Management Module enables you to monitor and manage power environments through comprehensive control of HP UPSs. The HP UPS Management Module can support either a single UPS configuration or provides additional power protection with support for dual redundant UPS configuration for no-single-point-of-failure. The additional serial ports will provide greater power management control and flexible monitoring.

The management module can be configured to send alert traps to HP Systems Insight Manager and other SNMP management programs or used as a standalone management system. This flexibility enables you to monitor and manage UPSs through the network. To facilitate day-to-day maintenance tasks, the embedded management software provides detailed system logs.
The HP UPS Management Module provides remote management of a UPS by connecting the UPS directly to the network. Configuration & Management of the UPS from anywhere and at anytime via a standard web browser.

NOTE: For more information on the UPS Management Module please see: http://h18004.www1.hp.com/products/servers/proliantstorage/powerprotection/software/module/ups/index.html web browser.

Extended Runtime Module (ERM), R5500

The UPS R5500 supports up to two Extended Runtime Modules. Each module is 3U (5.25 inches), a rack mountable battery module that extends your overall battery runtime.

Rack to Tower Conversion Kit

The HP R5500 UPS Tower Conversion Kit allows you to use the powerful R5500 in a tower configuration for your most powerful tower Servers or with Blade Enclosures. The kit contains a stabilizing platform and feet, a vertical bezel and appropriate hardware for a fast, easy form factor change.

Related Options

Rack to Tower Conversion Kit	HP R5500 UPS Tower Conversion Kit	AF442A
UPS Options	UPS Management Module	AF401A
	RJ45 to Serial adapters for UPS Management Module DCE Female, 5 pack	AF402A
	Extended Runtime Module (ERM), R5500	AF417A
	NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.	
Service & Support (Care Pack)	Hardware Installation (Electronic)	U4693E

UPS R5500 Model Matrix

High Voltage Models

Part Number	Operating Voltage Settings	Power Out (VA/Watts)	Input Connection	Output Connection
AF426A (NA/JPN)	200/208*, 220, 230, 240	5000/4500	L6-30P, 3m cord	LS1: 15A CB -> 2 x C19 + 2 x C13 LS2: 15A CB -> 2 x C19 + 2 x C13 Plus one pigtailed receptacle (LS1) 1 x L6-30R for NA/JPN model
AF416A (International)	220, 230*, 240 if set at: 200/208 then: 5000/4500	6000/5400	IEC-309 32Amp, 3m cord	LS1: 15A CB -> 2 x C19 + 2 x C13 LS2: 15A CB -> 2 x C19 + 2 x C13 Plus one pigtailed receptacle (LS1) 1 x IEC-309 32Amp for Int'l model

* Factory default setting.

Kit Contents

- HP UPS R5500
- HP Power Management Software CD
- Power Products Documentation CD
- Depth adjustable fixed rack mounting rails, mounting brackets, cord retention clips
- Communications cable
- 4 PDU sticks (7 x C13 outlets each)
- Two 10 Amp IEC to IEC jumper cords

Estimated Backup Times Chart (Minutes)

NA/JPN model
(5000 VA / 4500 Watt)

Load (Percent*)	With Standby Battery (Minutes)	With One Extended Runtime Module (Minutes)	With Two Extended Runtime Modules (Minutes)
20	59	169	303
50	19	61	106
80	9	31	60
100	7	24	46

* Percent of 5000VA or 4500W of load
NOTE: Backup times are estimated for typical applications. Actual performance will depend on load and battery conditions.

Int'l model
(6000 VA / 5400 Watt)

Load (Percent*)	With Standby Battery (Minutes)	With One Extended Runtime Module (Minutes)	With Two Extended Runtime Modules (Minutes)
20	49	138	247
50	15	49	85
80	7	25	48
100	5	19	36

* Percent of 6000VA or 5400W of load
NOTE: Backup times are estimated for typical applications. Actual performance will depend on load and battery conditions.

Technical Specifications

Unit Dimensions	5.13 x 17.53 x 26 in / 13.0 x 44.5 x 66.0 cm	
Shipping Dimensions	14 x 32 x 38.5 in / 35.6 x 81.3 x 97.8cm	
Unit Weight	160 lbs/73 kg	
Shipping Weight	200 lbs/91 kg	
BTU Break Down	BTU On Line	629
	BTU On Battery	2730
	Battery String Voltage	240V
	Battery Type	12V 5ah
	Battery Quantity	20
Electrical Input	Voltage Range	See Model Matrix for nominal and user selectable voltage settings
	Frequency	50/60 Hz
	Input Plug	Part number 326529-D71: L6-30P, 3m cord Part number 326529-B31: IEC-309 32Amp, 3m cord
	Online Efficiency	95%
	REPO	Remote Emergency Power-Off disables AC power to load
Electrical Output	Online Regulation	-10% to +6% of nominal voltage
	On battery Regulation	±5% of nominal voltage
	Voltage Wave Form	Sine wave
	Connections	See Model Selection Matrix; divided into 2 Load Segments
	Output Protection	Re-settable circuit protectors
Battery	Type	Maintenance-free, sealed, valve-regulated lead acid (VRLA)
	Extended Batteries	Up to two ERMs supported
	Backup Time	See Backup Times Chart
	Recharge Time	<3 hours to 80% usable capacity; <24 hours for complete recharge
Communications	Serial Ports	Standard DB-9 ports (ships with communication cable)
	Option Slot	One
	Option Cards	Six Port Card and SNMP / Serial Port Card
	LED Indicators	LED and switch membrane integrated into the front panel; with four-button control (three buttons for UPS power control and one button under the front bezel for configuration).
Environmental and Safety	Operating Temperature	50° to 104° F (10° to 40° C)
	Transit Temperature	-13° to 131° F (-25° to 55° C)
	Storage Temperature	32° to 77° F (0° to 25° C)
	Operating Humidity	20% to 80% (non-condensing)
	Storage Humidity	5% to 95%
	Operating Altitude	Up to 6,562 ft (2000 m) above sea level
	Transit Altitude	49,212 ft (15,000 m) above sea level
	Audible Noise	<46db (at 1m from surface of unit)
	Safety Markings	NA/JPN: UL, cUL Int'l: GS, CE, GOST
	Safety Certifications	UL1778, UL60950-1; CSA22.2 No.107.3, No.60-1950; EN50091-1-1; EN60950-1 IEC62040-1-1

	EMC Markings	NA/JPN: FCC, VCCI, ICES, CISPR Int'l: BSMI, C-Tick, CISPR
	Emissions	FCC CFR 47, Part 15 Class A, EN50091-2
	Immunity	IEC 801-2, IEC 801-3, IEC 801-4, IEC 801-5
	REPO Port	Meets NEC code 645-11 intent and UL requirements
Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.