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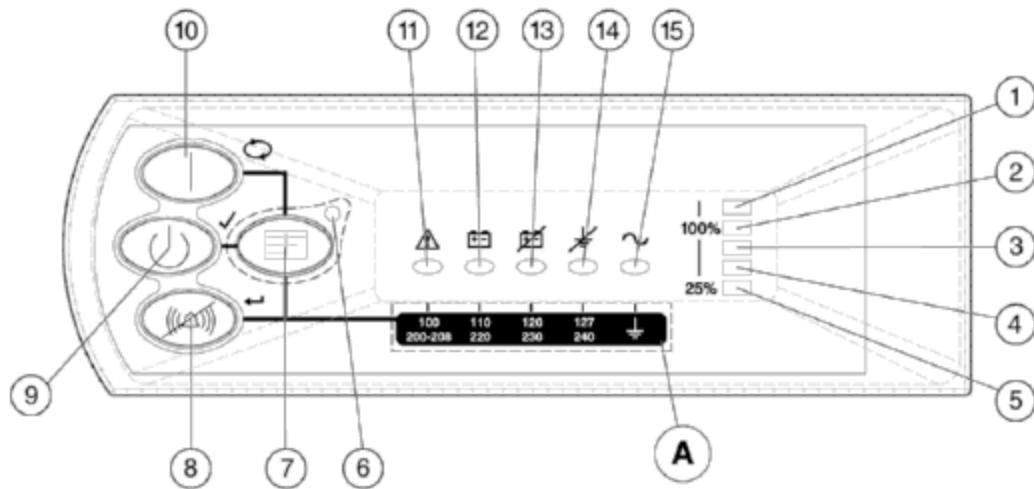
## Overview

### HP UPS R1500 XR

Rated up to 1500 VA / 1340 Watts, the new HP UPS R1500 XR features a 2U rack-mountable design, and an improved easy-to-configure front panel display. Ideal for rack-mountable storage and server environment, this Uninterruptible Power System (UPS) is an enhancement of the legacy R1500 UPS, and is an integral part of the proven family of HP Power Management Products.

The new UPS R1500 XR is a high power density solution, designed for customers who want to provide power protection in space-constrained rack enterprise environments. In addition, the new UPS R1500 XR has the capability of being connected

to two, maximum, optional Extended Runtime Modules (ERM). Customers can further increase the run-time on their UPS R1500 XR by using this ERM. The Compaq UPS "XR" models denote "eXtended Runtime Capable" UPS models. This product is a refresh of our existing R1500 UPS, and brings increased power density and innovative features to the proven HP family of rack-mountable UPS products.



- |                                             |                                                  |
|---------------------------------------------|--------------------------------------------------|
| 1. LED indicating Overload capacity         | 10. ON Button                                    |
| 2. LED indicating 76% to 100% load capacity | 11. General Alarm                                |
| 3. LED indicating 51% to 75% load capacity  | 12. On Battery                                   |
| 4. LED indicating 26% to 50% load capacity  | 13. Bad Battery/Low Battery                      |
| 5. LED indicating 0% to 25% load capacity   | 14. Site Wiring Fault Indicator                  |
| 6. Configure mode on LED*                   | 15. Utility LED                                  |
| 7. Configure Button*                        | A. Voltage Configuration Panel*                  |
| 8. TEST/ALARM RESET Button                  | *Accessible only when the front bezel is removed |
| 9. STANDBY Button                           |                                                  |

## Models

UPS R1500 XR - Low Voltage

204404-001

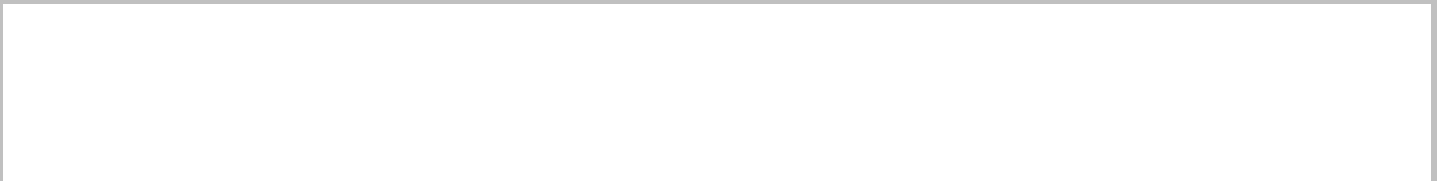
## Key Features

- Increased power density with up to 1500VA/1340Watts of power packed in just 2U rack space
- Greater system uptime with support for Extended Runtime Module (ERM)
- Easy configuration through enhanced front panel display
- Enterprise-wide intelligent manageability with bundled power management software
- Support for HP Option Cards that extend 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 Batteries
- Backed by a three-year warranty with the first year including parts and labor Pre-Failure warranty, and a \$25,000 load protection guarantee

**NOTE:** Certain restrictions and exclusions apply

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## Product Highlights

### 2U Power Packed Design

Rated up to 1500VA/1340W, the HP UPS R1500 XR 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 2U (3.5 inches) of rack space. The UPS R1500 XR supports two, maximum, Extended Runtime Modules (ERM), which extend your overall battery runtime.

### Lower Cost of Ownership with Innovative Technology

The UPS R1500 XR utilizes a line-interactive plus topology which features sine wave output and superior input/output voltage regulation. This technology is inherently reliable and highly efficient. The HP UPS can correct input voltage variations as low as -35% of nominal voltage without transferring to the battery. This will ensure the battery is preserved and ready for the next power anomaly

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## **Investment Protection with HP Enhanced Battery Management**

The UPS R1500 XR 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.

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## **Enhanced System Flexibility with HP Option Cards**

The UPS R1500 XR models are equipped with a standard serial communications port via an internal slot. This option slot supports two option cards, the Six Port Card and the SNMP / Serial Port Card. These option cards seamlessly integrate into the back of the R1500 XR and provide increased system flexibility.

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## **Remotely Monitor UPSs on the Network**

The SNMP/Serial Port Card 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 the provided Online power management software or SNMP capable Network Management Software, power-related problems on the network are quickly discovered and remedied.

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## **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)

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## **Intelligent Manageability**

HP Power Management Software, an integrated component of HP Insight Manager, the industry-leading hardware management platform, is included with the R1500 XR 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.

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## **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 R1500 XR can be configured to extend the runtime for more critical devices.

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## **Ease of Maintenance with Hot-Swappable Batteries and Electronics Modules**

The UPS R1500 XR 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.

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## **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.

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## **Warranty**

The HP UPS R1500 XR 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:** \$25,000 Computer/Load Protection Guarantee is also provided, in addition to the HP three year, limited warranty.

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## Service and Support, HP Care Pack, and Warranty Information

### HP Care Pack Installation

Hardware Installation (Electronic) U4690E

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

**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>

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**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.

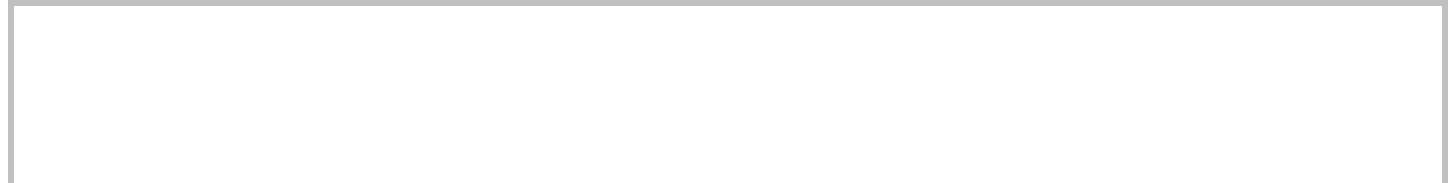
**NOTE:** The warranties for HP products and services are set forth in the express limited warranty statements accompanying such products and services.

## Warranty Upgrade Options

- Response – Upgrade on-site response from next business day to same day 4-hours
- Coverage – Extend hours of coverage from 5 days x 9 hours to 7 days x 24 hours
- Duration – Select duration of coverage for a minimum period of 1 year or multiple years

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## Innovative Options to Meet Your Data Center Needs

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# UPS R1500 XR Model Matrix

| Part Number                                                                              | Operating Voltage Settings | Power Out (VA/Watts) | Input Connection | Output Connection |
|------------------------------------------------------------------------------------------|----------------------------|----------------------|------------------|-------------------|
| Low-Voltage Models                                                                       |                            |                      |                  |                   |
| 204404-001                                                                               | 120V                       | 1440/1340            | NEMA 5-15P       | (6) 5-15R         |
| 204404-291                                                                               | 100V                       | 1500/1340            | NEMA 5-20P       | (6) 5-15R         |
| NOTE: Part Number 204404-001 is user selectable for 110V, 120V, or 127V via front panel. |                            |                      |                  |                   |
| High Voltage Model                                                                       |                            |                      |                  |                   |
| 204404-B31                                                                               | 230V                       | 1500/1340            | IEC-320 C14      | (6) IEC 320-C13   |
| NOTE: Part Number 204404-B31 is user selectable for 220V, 230V, or 240V via front panel. |                            |                      |                  |                   |
| Kit Contents                                                                             |                            |                      |                  |                   |
| HP UPS R1500 XR                                                                          |                            |                      |                  |                   |
| HP Power Management Software CD                                                          |                            |                      |                  |                   |

Power Products Documentation CD  
Depth adjustable fixed rack mounting rails  
Communications cable (12 ft)  
Additional IEC to IEC jumper cords, and detachable country specific input cord with the high voltage INTL model

|                            |                                                 |
|----------------------------|-------------------------------------------------|
| <b>Unit Dimensions</b>     | 19.1 x 3.4 x 17.0 in (48.51 x 8.64 x 43.18 cm)  |
| <b>Shipping Dimensions</b> | 32 x 11.5 x 26.75 in (81.28 x 29.21 x 67.95 cm) |
| <b>Unit Weight</b>         | 50 lb (23 kg)                                   |
| <b>Shipping Weight</b>     | 76 lb (34.5 kg)                                 |

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Technical Specifications

|                  |                   |                                                                                             |
|------------------|-------------------|---------------------------------------------------------------------------------------------|
| Electrical Input | Voltage Range     | 100, 120 and 230V models. See Model Matrix for nominal and user selectable voltage settings |
|                  | Frequency         | 50/60 Hz ± 5Hz (auto sensing)                                                               |
|                  | Input Plug        | See Model Matrix                                                                            |
|                  | Online Efficiency | 95%                                                                                         |
|                  | Surge Suppression | High Energy 6500A peak                                                                      |
|                  | REPO              | Remote Emergency Power-Off disables AC power to load                                        |

|                                 |                                 |                                                                                                                                                                                 |
|---------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Electrical Output</b>        | <b>Online Regulation</b>        | -10% to +6% of nominal voltage                                                                                                                                                  |
|                                 | <b>On battery Regulation</b>    | ±5% of nominal voltage                                                                                                                                                          |
|                                 | <b>Voltage Wave Form</b>        | Sine wave                                                                                                                                                                       |
|                                 | <b>Connections</b>              | See Model Selection Matrix; divided into 2 Load Segments                                                                                                                        |
|                                 | <b>Output Protection</b>        | Re-settable circuit protectors                                                                                                                                                  |
| <b>Battery</b>                  | <b>Type</b>                     | Maintenance-free, sealed, valve-regulated lead acid (VRLA)                                                                                                                      |
|                                 | <b>Extended Batteries</b>       | ERM with two battery strings                                                                                                                                                    |
|                                 | <b>Backup Time</b>              | See Backup Times Chart                                                                                                                                                          |
|                                 | <b>Recharge Time</b>            | <3 hours to 80% usable capacity; <24 hours for complete recharge                                                                                                                |
|                                 | <b>Voltage</b>                  | 48V Battery String                                                                                                                                                              |
| <b>Communications</b>           | <b>Serial Ports</b>             | Standard DB-9 ports (ships with communication cable)                                                                                                                            |
|                                 | <b>Option Slot</b>              | One                                                                                                                                                                             |
|                                 | <b>Option Cards</b>             | Six Port Card and SNMP / Serial Port Card                                                                                                                                       |
|                                 | <b>LED Indicators</b>           | 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). |
| <b>Environmental and Safety</b> | <b>Software</b>                 | Compaq Power Management Software                                                                                                                                                |
|                                 | <b>Operating Temperature</b>    | 50° to 104° F (10° to 40° C)                                                                                                                                                    |
|                                 | <b>Transit Temperature</b>      | -13° to 131° F (-25° to 55° C)                                                                                                                                                  |
|                                 | <b>Storage Temperature</b>      | 32° to 77° F (0° to 25° C )                                                                                                                                                     |
|                                 | <b>Humidity (Operation)</b>     | 20% to 80% (non-condensing)                                                                                                                                                     |
|                                 | <b>Humidity (Non-operating)</b> | 5% to 95%                                                                                                                                                                       |
|                                 | <b>Operating Altitude</b>       | Up to 10,000 ft (3048 m) above sea level                                                                                                                                        |
|                                 | <b>Storage Altitude</b>         | 30,000 ft (9,144 m) above sea level                                                                                                                                             |
|                                 | <b>Audible Noise</b>            | <46db (at 1m from surface of unit)                                                                                                                                              |
|                                 | <b>Safety Markings</b>          | FCS, UL, CSA, VDE, NEMKO, FIMKO, DEMKO, SEMKO, NOM                                                                                                                              |
|                                 | <b>Safety Certifications</b>    | UL1778; CSA22.2 No.107.1, No.107.2, No.950; CB Bulletin No.86A1; EN50091-1; EN60950; EMKO-TSE207/95; NOM-019-SCFI-1993                                                          |
|                                 | <b>EMC Markings</b>             | FCC; CISPR; VCCI; CE                                                                                                                                                            |
|                                 | <b>Emissions</b>                | FCC CFR 47, Part 15 Class A, EN50091-2                                                                                                                                          |
|                                 | <b>Immunity</b>                 | IEC 801-2, IEC 801-3, IEC 801-4, IEC 801-5                                                                                                                                      |
|                                 | <b>Surge Suppression</b>        | Conforms to IEEE 587B and ANSI C62.41                                                                                                                                           |
|                                 | <b>REPO Port</b>                | Meets NEC code 645-11 intent and UL requirements                                                                                                                                |

## Estimated Backup Times Chart (Minutes)

| Load (Percent*) | With Standby Battery | With 1 ERM | With 2 ERMs |
|-----------------|----------------------|------------|-------------|
| 20              | 34                   | 146        | 290         |
| 50              | 13                   | 57         | 161         |
| 80              | 6                    | 32         | 63          |
| 100             | 5                    | 23         | 49          |

\* Percent of 1500VA or 1340W of load

**NOTE:** Backup times are estimated for typical applications. Actual performance will depend on load and battery conditions.

|                      |                                                                                                      |
|----------------------|------------------------------------------------------------------------------------------------------|
| <b>Compatibility</b> | Compatible with all HP servers, storage, racks, rack options, and other rack mountable HP equipment. |
|----------------------|------------------------------------------------------------------------------------------------------|

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