POWERWARE®
UNINTERRUPTIBLE POWER SYSTEMS

Features & Benefits

▶ Real-time, enterprise-wide monitoring provides valuable information for analysis of critical power conditions and problem identification

NEW ▶ Supports 100Mb and 10Mb networks

NEW ▶ Built-in three port switching hub (in X-slot version) adds three 10/100Mb network connections with no additional expense

▶ Monitoring via Web (computer, PDA or cell phone) or Network Management Software packages (e.g. HP Openview) provides easy, "anywhere, anytime" access

▶ Analyze chronic power problems and determine trends through data logging and sophisticated graphing tools

▶ Alarm notification through any combination of email, SNMP traps or NetWatch network message speeds corrective action

▶ Powerful control features allow the remote shutdown and restart of a UPS to reboot a hung device

▶ Integrated NetWatch software provides graceful, unattended shutdown of operating systems of computers to preserve data integrity in the event of an extended power failure

NEW ▶ ConnectUPS MultiView software allows simultaneous monitoring of multiple ConnectUPS-X and -BD cards

NEW ▶ Firmware upgrades are easy and fast through the included upgrade utility software

Note: These features and benefits apply to ConnectUPS-X and -BD

ConnectUPS™-X and -BD Web/SNMP Cards and the ConnectUPS Family

With the growth of distributed computing, more and more computers and network devices – routers, hubs, and bridges – are running mission-critical applications. The ConnectUPS-X and ConnectUPS-BD Web/SNMP cards are powerful, intelligent devices that are designed for the rigorous task of managing the UPSs that protect the equipment and, ultimately, the critical data residing throughout the network.

Real-time Monitoring

The ConnectUPS-X and ConnectUPS-BD Web/SNMP cards provide real-time monitoring of power conditions throughout today's far reaching enterprises. Network managers can check system status and critical parameters to identify and analyze problems. The cards support both 100Mb and 10Mb networks. The ConnectUPS-X even acts as a switching hub with its three additional network connections. Because it is built-in to the ConnectUPS, the switching hub not only eliminates the expense and effort of buying a hub but also automatically receives protected power from the UPS.

Monitoring can be done via the Web through a computer running a standard Web browser or through a properly configured PDA or Cell phone. Network managers can also monitor the power through a Simple Network Management Protocol (SNMP) compatible Network Management Software (NMS) package (e.g. HP Openview). Data logging and sophisticated graphing features enable trend analysis to solve chronic power problems.

Rapid Notification of Alarm Conditions

Real-time notification of power anomalies provides system managers with precious time to make informed decisions regarding corrective action. The cards support Simple Mail Transport Protocol (SMTP) based email, SNMP traps and network messaging (through NetWatch software).

Control the Power Remotely

With the cards, remote, hung devices can be shutdown and restarted eliminating travel time and expense. Remote UPS battery tests can also be performed.

Graceful Operating System Shutdown

With the included NetWatch software, up to 255 computers can be gracefully shutdown in the event of an extended power outage preserving mission-critical data. Shutdowns can be performed in tandem with the load segment control feature of the ConnectUPS-X and ConnectUPS-BD to prolong UPS battery life for more critical loads.

Easy, Fast Firmware Upgrades

With the included firmware upgrade utility, enhancements to cards anywhere on the network are fast and easy.

The ConnectUPS-X and ConnectUPS-BD Web/SNMP cards enable the efficient management of power across the network. Network up time is increased and critical data is protected.

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Real-time Remote Monitoring

Powerware ConnectUPS Web/SNMP cards have powerful monitoring capabilities that provide important power information whenever it is needed. Through easily navigable screens, a network manager is able to check system status and view critical meter information such as input and output voltage, UPS load and battery voltage in real-time. Monitoring may be performed anywhere, anytime through a variety of means:

▶**Via the Web**

The ConnectUPS-X and ConnectUPS-BD cards support conventional Web Browsers such as Internet Explorer or Netscape. The cards are also accessible through a Wireless Application Protocol (WAP) compliant PDA or cell phone. The ConnectUPS Web page content is formatted specifically for simplified viewing using a PDA or cell phone browser. Simple, custom web pages provide easy viewing of critical power parameters via a cell phone or PDA.
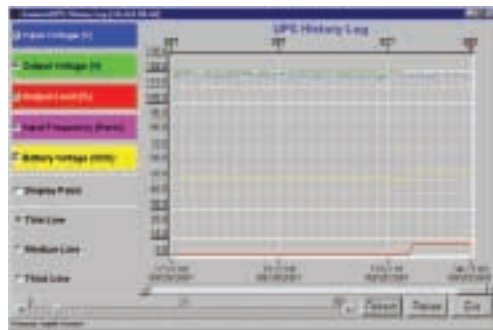

Simple, custom web pages provide easy viewing of critical power parameters via cell phone or PDA

▶**Via SNMP**

Power conditions may be monitored across the enterprise through common NMS packages such as HP Openview. With this software system managers are able to monitor critical power parameters using software they may be already using for other system management tasks.

Anywhere, anytime monitoring via a Web browser

Historical Data

The ConnectUPS Web/SNMP cards have built-in data and event logs that track and record specific power-related occurrences over time. User definable time resolutions down to one-minute intervals are attainable. Through these historical records, system managers are able to analyze chronic power problems and identify trends and cause-and-effect relationships.

Track key parameters with the UPS Data Log

Using the ConnectUPS Web/SNMP cards' Java applet, a system manager can graph meter values over time. Zoom and datamasking functions pinpoint specific anomalies for further investigation. The applet also features text-based event logs that contain easy-to-understand event descriptions with corresponding date and time stamp.

Analyze trends with powerful graphing tools

Real-time Notification of Alarms

Rapid notification of power problems is essential to quick remedial action and ensuring maximum availability for the network. The ConnectUPS Web/SNMP cards come standard with advanced functionality for notifying key personnel that a significant power event has occurred.

▶Email

The ConnectUPS card sends immediate SMTP-based email notification of a power anomaly to four recipients. The personnel may receive the notification via a PC with email client software, PCS phone or alphanumeric pager. Each recipient has the option of receiving:

-Real-time event message
-Daily status report containing data and event log files
-Combination of event messages and data/event log files

Though these methods a system manager not only receives real-time notification of a power problem but also detailed information that helps with understanding and trou-bleshooting the issue.

Rapid notification via email speeds corrective action

▶SNMP Traps

The ConnectUPS Web/SNMP card can be configured to send traps to an NMS package if a power event occurs.

This enables the ConnectUPS to provide rapid, seamless communication regarding important power events. The ConnectUPS models support not only the standard UPS MIB (RFC-1628) but also Powerware's PowerMIB. The PowerMIB contains extensions that provide access to the advanced features of Powerware UPSs.

Real-time notification via NetWatch

▶NetWatch

By using the NetWatch client shutdown feature, a system manager can automatically receive warning messages that a UPS with an associated NetWatch enabled client computer is experiencing a power-related event; e.g. "On Battery", "Low Battery", "Beginning Shutdown", etc.
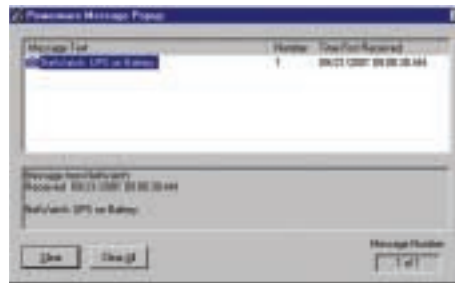
Powerful UPS Control

The ConnectUPS Web/SNMP cards come equipped with powerful control features. For example the system manager may initiate a shutdown/reboot of a UPS. This may be useful to restart a hung remote device that is located hundreds or even thousands of miles away. Battery tests may also be initiated remotely.

A system manager may also set-up a scheduled shutdown of UPSs and the associated servers to conserve power or tighten security during specific time periods such as evenings or weekends.

Note: UPSs that are supported by the control functions are carefully selected by Powerware. Check with your Powerware representative for compatibility with a specific model.


Configuration of control settings is fast, easy and password-protected.

Integrated Shutdown Protects Valuable Data

In the event of a power failure that exceeds the backup time of the UPS, the proper shutdown of an operating system is essential to ensure data integrity. A ConnectUPS together with NetWatch client software provides graceful, unattended shutdown of many popular Windows®-based, Novell®, and UNIX (including Linux)operating systems.

NetWatch resides on the protected computers and upon receiving a signal from the ConnectUPS, begins the orderly shutdown. Shutdowns can be configured to begin after the UPS has been on battery or at any given time specified by the Web/SNMP Card. The shutdown of multiple servers powered by the same UPS can be staggered to allow the more critical servers to remain operational longer. Up to 255 severs running NetWatch can be supported by a single ConnectUPS-X or ConnectUPS-BD.
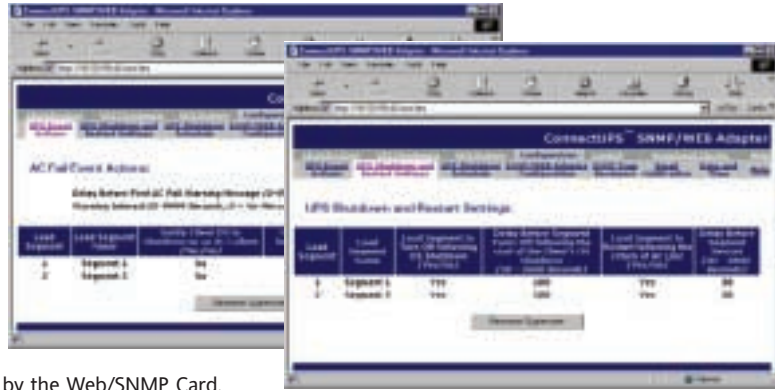

Configuration of shutdown and load segments through easy-to-use screens

Load Segment Control

Some UPS models feature individual control of load segments (outlets). These load segments are detected by the ConnectUPS and parameters such as turn-off, delay before turnoff and restart are configurable through the intuitive user-interface.

Firmware Upgrades

The ConnectUPS Web/SNMP cards are easy to upgrade whenever new firmware releases are made available. A simple network-based utility called upgrade100.exe is used to discover and update multiple ConnectUPS Web/SNMP cards on the network.
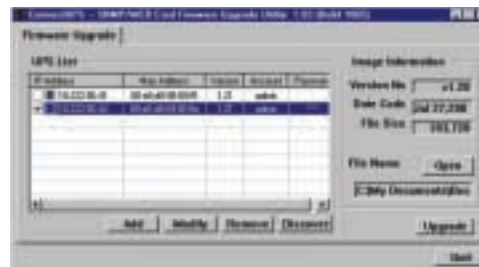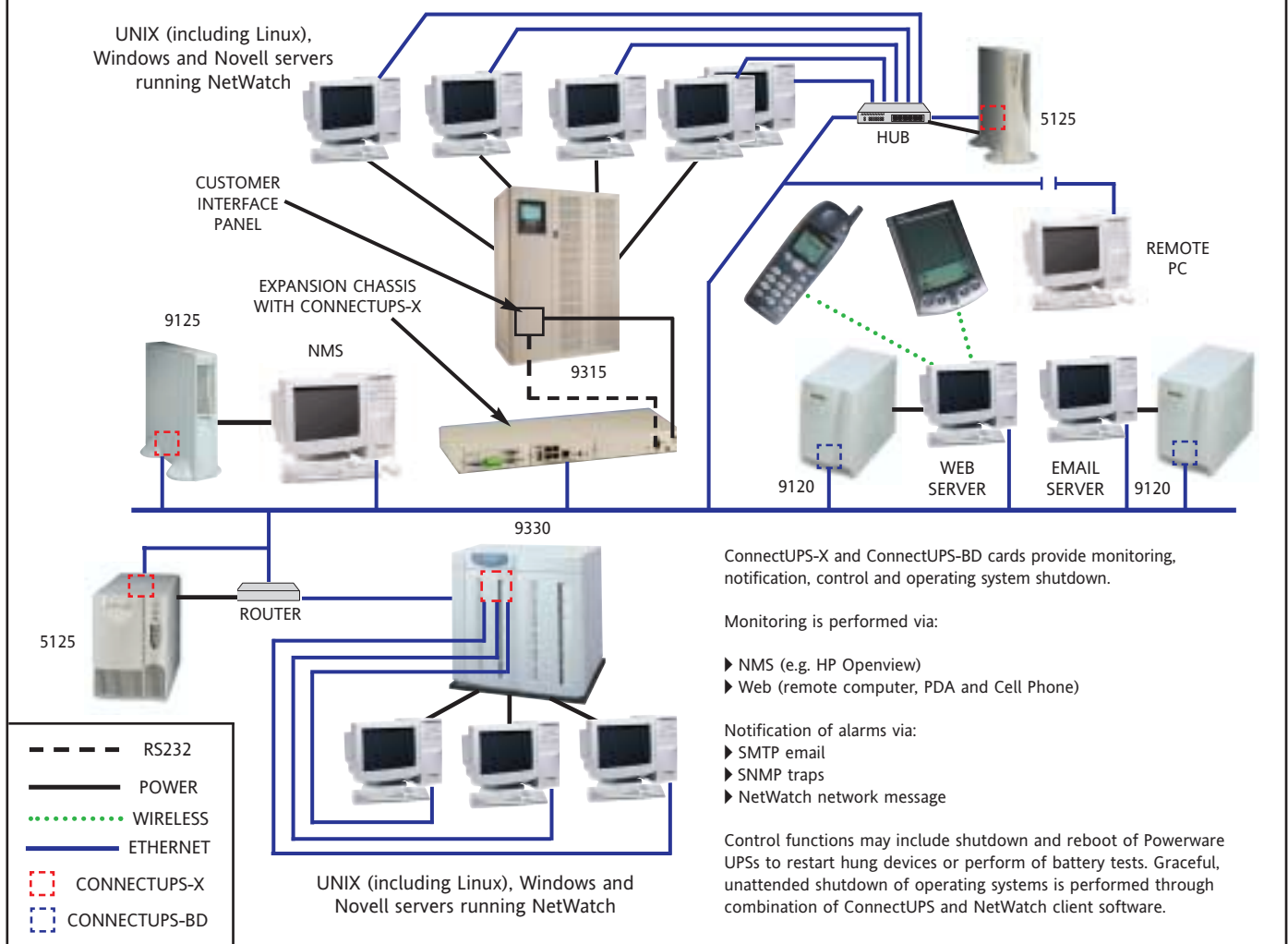

Firmware upgrades are easy and fast

Other ConnectUPS Models

There are other ConnectUPS models that have been designed to operate with particular Powerware UPSs. These ConnectUPS models also have some features that differentiate them from the ConnectUPS-X and ConnectUPS-BD. For example, the X-Slot ConnectUPS-M and ConnectUPS-M have dial-in/dial-out modem capabilities. These models plus the ConnectUPS Ethernet Twisted Pair perform graceful operating system shutdown via OnliNet software. The Powerware website (www.powerware.com) contains detailed information regarding the features and benefits of these products. A selection guide and compatibility matrix for all ConnectUPS products can be found on the last page of this brochure.

ConnectUPS-M, X-slot ConnectUPS-M, ConnectUPS-X, ConnectUPS-BD

Typical Network Using ConnectUPS-X and -BD

UNIX (including Linux), Windows and Novell servers running NetWatch

HUB

5125

CUSTOMER INTERFACE PANEL

EXPANSION CHASSIS WITH CONNECTUPS-X

9125

NMS

9315

REMOTE PC

WEB SERVER

EMAIL SERVER

9120

9120

9330

5125

ROUTER

RS232

POWER

WIRELESS

ETHERNET

CONNECTUPS-X

CONNECTUPS-BD

UNIX (including Linux), Windows and Novell servers running NetWatch

ConnectUPS-X and ConnectUPS-BD cards provide monitoring, notification, control and operating system shutdown.

Monitoring is performed via:

▶ NMS (e.g. HP Openview)
▶ Web (remote computer, PDA and Cell Phone)

Notification of alarms via:
▶ SMTP email
▶ SNMP traps
▶ NetWatch network message

Control functions may include shutdown and reboot of Powerware UPSs to restart hung devices or perform of battery tests. Graceful, unattended shutdown of operating systems is performed through combination of ConnectUPS and NetWatch client software.

ConnectUPS/Powerware UPS Compatibility

ConnectUPS Model	X-slot ConnectUPS-X (3)	Best Dock ConnectUPS-BD	X-slot ConnectUPS-M (3)	ConnectUPS-M	ConnectUPS Ethernet Twisted Pair	BestLink Web/SNMP
Part #	103002974-5501	103002973-5501	05146288-5501	103000202-002	101690002-001/003	IPK-0318
UPS Models						IPK-0319
PW 5115	EC		EC			
PW 5125	X (1)		X (1)			
PW 9 Prestige	EC		EC	X	X	
PW 9120	EC	X	EC			
PW 9125	X (1)		X (1)			
PW 9170+	EC	X	EC			
PW 9305					X	
PW 9315	EC		EC		(2)	
PW 9330	X		X			
PW 9340	X		X			
Ferrups						X

Key: X = compatible, EC = compatible via Expansion Chassis

Notes: (1)If multiple cards are required, use Expansion Chassis (2)Model 103001458 (3)ConnectUPS-X is preferred choice (over ConnectUPS-M)

Technical Specifications

MODEL	CONNECTUPS-X Web/SNMP/xHub	CONNECTUPS-BD Web/SNMP
Description	Card providing remote monitoring and control of Powerware UPSs	
Protocol Support	HTTP, SNMP, TFTP, Telnet, BootP, DHCP, WAP, ARP, RARP	
UPS Slot Type	X-slot	BestDock
Network Support	Ethernet 10/100BaseT	
Switching hub	Yes (Three 10/100BaseT Connections)	No
UPS Compatibility	see chart on previous page	
Supported MIB	UPS standard MIB RFC-1628, Powerware MIB, MIB II	
O/S Supported for Shutdown	Microsoft Windows 9X, ME, 2000/NT and XP, Various UNIX (including Linux) versions, Novell NetWare	
Operating Temperature	0 to 40° C	
Operating Humidity	10 – 80%, non-condensing	
Power Input	9VDC unregulated	
Power Consumption	3.5 Watts	
Dimensions (inches) (mm)	4.7x4.5x1.5 120x114x39	5.3x3.2x1.3 134x81x33
Weight	6oz.	4oz.
Regulatory	FCC Class B	

MODEL	X-SLOT CONNECTUPS-M (INTERNAL)	CONNECTUPS-M (EXTERNAL)	CONNECTUPS ETHERNET TWISTED PAIR (EXTERNAL)	BESTLINK SNMP/WEB (EXTERNAL)
Description	Card/Adapter providing remote monitoring and control of Powerware UPSs			
Protocol Support	SNMP, NetXCP, BootP, ARP, TFTP, ICMP, TAP			HTTP, SNMP, TFTP, Telnet, BootP, DHCP, WAP, ARP, RARP
UPS Slot Type	X-slot	External		
Network Support	Ethernet 10BaseT			
Switching hub	No			
UPS Compatibility	see chart on previous page			
Supported MIB	UPS Standard MIB RFC-1628/Powerware MIB/MIB II			BestLink MIB
O/S Supported for Shutdown	Microsoft Windows 9X, 2000/NT and XP, Various UNIX (including Linux) versions, Novell NetWare			
Operating Temperature	0 to 40° C			
Operating Humidity	10 – 90%			10 – 80%
Power Input	8-24VDC	120/230VAC	120/230VAC	12V unregulated
Power Consumption	2.5W			
Dimensions (inches) (mm)	4.5x4.7x1.5 115x120x40	4.7x3.5x1.3 120x90x35	4.6x2.8x1.0 120x75x30	5.3x3.4x1.1 134x86x27
Weight	6 oz.	7 oz.	7 oz.	6 oz.
Regulatory	FCC Class B			FCC Class A

CONNECTUPS MODEL	PART NUMBER	NETWORK/MODEM CONNECTION & NETWORK SPEED	EXTERNAL POWER SUPPLY	INTERNAL/ EXTERNAL INSTALLATION	GEOGRAPHIC APPLICATION AREA
X-slot ConnectUPS-X Web/SNMP/xHub Card	103002974-5501	Network 10/100Mb	No	Internal	Worldwide
ConnectUPS-BD Web/SNMP	103002973-5501	Network 10/100Mb	No	Internal	Worldwide
X-Slot ConnectUPS-M	05146288-5501	Network 10Mb Modem	No	Internal	Worldwide
ConnectUPS Ethernet Twisted Pair (for 9315 UPSs only)	103001458	Network 10 Mb	Yes	External	Worldwide
ConnectUPS-M Twisted Pair	103000202-002	Network 10Mb Modem	Yes	External	North America
ConnectUPS Ethernet Twisted Pair	101690002-001	Network 10Mb	Yes	External	North America
BestLink SNMP/Web	IPK-0318	Network 10Mb	Yes	External	North America
ConnectUPS Ethernet Twisted Pair	101690002-003	Network 10 Mb	Yes	External	International (IEC-320)
BestLink SNMP/Web	IPK-0319	Network 10 Mb	Yes	External	International (IEC-320)

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