

A man is sitting in the driver's seat of a car, using a laptop and talking on a mobile phone. The car is parked in front of a building with a large "POWERWARE" sign. The scene is captured from a side angle, showing the man's profile and the interior of the car. The background includes a green lawn and some trees.

Powerware Global Services

Powerware Global Services

Supporting a wide array of industry sectors including Telecom, IT, Industrial, Financial, and Government institutions, Powerware Global Services offers a complete line of power system services worldwide with around-the-clock coverage. Global Services has 40 years of experience in supporting critical power equipment and providing industry leading quality-of-service.

Powerware Global Services provides a full spectrum of offerings ranging from Preventive Maintenance to Remote Monitoring. Services include battery maintenance and updates, service training, kVA Upgrades, UPS enhancements, Spare Parts Kits, and Multi-Vendor Services. Technical support teams and 7x24 Global Services Call Centers support all of these services.

Where there is a need, Global Services delivers a solution with integrated technical support teams, customer support associates, highly trained field service representatives and technical experts supporting critical power systems around the world.

Powerware Global Services offices are located around the globe, including the United States, Canada, Finland, France, Germany, United Kingdom, Sweden, Hong Kong, China, Singapore, Japan, India, Australia, Brazil, Mexico and Argentina. Corporate headquarters are located in Raleigh, North Carolina.

Powerware Global Services delivers on-site support from a base of more than 250 US technicians and 950 certified international service providers. These technicians support all brands manufactured by Invensys Powerware Division, including Best Power, Deltec, Exide Electronics, Hawker, Industrial Power Management (IPM), Intergy, Lortec, and Powerware.



For additional information contact Global Services at 800-843-9433

ProActive Service Plan

More than just a warranty, it's the most comprehensive service plan coverage in the industry. With the ProActive Service Plan, we prevent potential downtime by taking steps ahead of time. The result is maximum uptime. Powerware Global Services goes above and beyond your expectations with this proactive, rather than reactive, approach to service. You've come to expect a standard warranty. Now you can raise your expectations.

The ProActive Service Plan includes:

- ▶ 7x24 corrective maintenance coverage
- ▶ 7x24 annual performance check, ensures optimal system performance
- ▶ 7x24 remote monitoring advance response service to detect and diagnose UPS problems immediately, assuring maximum responsiveness and uptime
- ▶ Annual power protection audit assessment of power protection and load configuration to help you plan for the future
- ▶ A monthly UPS performance report
- ▶ Web access to account information and site service activity

Along with 7x24 start-up service, a one-year ProActive Service Plan is included in the purchase price for all Powerware 9315 and 9330 systems (USA only). The ProActive Service Plan can be purchased separately for currently installed products.

Start Up Service

Ensuring all is well from the start, our Customer Support Engineers:

- ▶ Validate the installation integrity of your UPS
- ▶ Perform a full mechanical inspection
- ▶ Start-up your UPS system
- ▶ Verify all operating and monitoring parameters
- ▶ Provide basic operational training



Powerware UpTime Guarantee

Uptime of your UPS is key to protecting your mission-critical system. By purchasing the Recommended Service Plan, you get Powerware Global Services' guarantee that you will not suffer a load-loss as a direct result of a failure or malfunction of the UPS system or its batteries. In the unlikely event such a load-loss should occur, Global Services will extend the Recommended Service Plan by one (1) year, at no additional charge.

The Recommended Service Plan includes:

- ▶ ProActive Service Plan
 - One year 7x24 corrective maintenance
 - One 7x24 Annual Performance Check
 - One Annual Power Protection Audit
 - 7x24 Remote Monitoring Advance Response Service
 - Monthly UPS Evaluation and Performance Report
 - Web access to account information and site service activity
- ▶ A minimum of one (1) UPS Preventive Maintenance service per year
- ▶ A minimum of two (2) battery Preventive Maintenance services per year for VRLA batteries or
- ▶ A minimum of four (4) battery Preventive Maintenance services per year for wet-cell batteries

The UpTime Guarantee is available on Powerware models 9315 and 9330 systems and is subject to UpTime Guarantee terms and conditions.

Intergy DC System Services

With Intergy Service from Powerware Global Services, factory-trained and authorized technicians begin caring for your Intergy DC Power System from the moment it begins supporting your mission-critical applications.

Global Services Offerings include:

- ▶ Intergy ProActive Service Plan
- ▶ 7 x 24 system start-up
- ▶ Preventive maintenance (DC electronics)
- ▶ Battery preventive maintenance
- ▶ Battery updates
- ▶ Time and material service

Global Services Gold Plan

Gold Plan Service is ideal for modular or plug and play AC single phase or DC power systems. Gold Plans are available with coverage up to five years, in four different versions:

Gold Plan

The standard Gold Plan provides enhanced maintenance coverage for 2, 3, or 5 years, technical support, advance overnight replacement, and all freight charges paid by Global Services

Gold Plan Plus

All of the features of the standard Gold Plan, plus the convenience of on-site start-up

On-Site Gold Plan

All the features of the Gold Plan Plus, with the added convenience of on-site service instead of overnight replacement

On-Site Gold Plan Plus

All the features of the On-Site Gold Plan, with the added features of annual UPS and battery performance checks

All the plans are available in 2-, 3-, and 5-year versions, allowing you to customize a program to fit your needs.

UPS Preventive Maintenance

A vital component for any comprehensive maintenance plan. Powerware UPS Preventive Maintenance provides the security of knowing your system will function when you need it most. This service will maximize UPS efficiency and uptime, and help prevent load loss. You can even plan for scheduled down time.

With Preventive Maintenance, you receive the highest quality service along with the following features:

- ▶ Calibration of all metering and protective features
- ▶ Functional testing of all transfer conditions
- ▶ Inspection of online performance of equipment with load
- ▶ Installation of system upgrades where applicable
- ▶ Review of alarm states, history and upgrade status
- ▶ Examination of interfaces to other powertrain equipment
- ▶ Visual check on batteries and battery environment
- ▶ Written evaluation providing you a historical record of your equipment performance

Feature summary for each plan	Gold Plan	Gold Plan Plus	On-Site Gold Plan	On-Site Gold Plan Plus
Start-up Service* (M-F, 5 x 8)		X	X	X
Unit Performance Check ** (M-F, 5 x 8)				X
Battery Performance Check ** (M-F, 5 x 8)				X
On-Site Corrective Maintenance* (M-F, 5 x 8)			X	X
Expedited Delivery of Replacement Parts, Modules and Batteries	X	X	X	X
Standard Battery Coverage	X	X	X	X
Telephone Technical Support	X	X	X	X
Connectivity Support	X	X	X	X

* Upgradable to 7 x 24 service.

** Upgradable to 7 x 24 service; Initial unit start-up serves as the performance check during the first year with all following performance checks scheduled on request from Customer.

For additional information, contact Global Services at 1.800.843.9433.

Comprehensive Battery Maintenance Solutions

Although batteries are sold with a variety of published life spans, the fact is, some batteries demonstrate a useful life of as little as three years. There are several factors that contribute to the shortened usefulness of a battery, including number of discharges, depth of discharges, environmental conditions and lack of regular maintenance. Battery performance is critical to your power systems, and Powerware Global Services offers a comprehensive set of battery services specifically designed to minimize the risk of system downtime and provide you with peace of mind.

These services include:

- ▶ Battery Updates
- ▶ Battery Additions
- ▶ Battery Preventive Maintenance
- ▶ Battery Coverage
- ▶ Battery Monitoring

All Battery Services conform to IEEE Guidelines and are available around the clock, scheduled at your convenience.

Battery Updates

With Battery Updates, you can refresh your UPS instead of risking critical loads on weak batteries. Providing a total battery replacement solution, Powerware Global Services technicians can replace your worn-out batteries with either identical model new batteries or upgraded, higher capacity models.

Battery Updates include:

- ▶ Installation of new batteries
- ▶ Check of charging voltage
- ▶ Ground freight
- ▶ EPA-approved battery disposal and recycling

Battery Additions

When you initially purchased your UPS system, you probably planned for the right amount of battery back-up time for your environment. Unfortunately, times have changed, and the energy environment has become more hostile than ever. After analyzing your load and runtime specifications, space restrictions and recharge time, Powerware will deliver the best solution to carry you through longer power outages. Options include additional battery strings and higher capacity batteries, with priority delivery and professional installation.

Battery Preventive Maintenance

Preventive maintenance maximizes uptime and extends battery life by eliminating problems before they happen. Whether a battery fails from defect or deterioration, the best time to find out is during preventive maintenance service, not during a power failure when critical loads might be compromised. Powerware Global Services will custom design a Preventive Maintenance package that is best for you, including the following features:

- ▶ Comprehensive maintenance for your V.R.L.A. or flooded batteries
- ▶ Measure of cell voltage levels
- ▶ Total battery terminal voltages
- ▶ Visual inspection for leaks or bad cells
- ▶ Spot checks for connection torques
- ▶ Inspection of battery environment
- ▶ Testing of cell/unit internal ohmic values
- ▶ Detailed written inspection report of battery test and inspection results and recommendations for corrective actions



Battery Coverage

Powerware Global Services Battery Coverage options are designed to provide customers with a complete service plan that eliminates unexpected maintenance costs. In addition, as long as the customer maintains this Battery Coverage on their UPS, their batteries will be replaced by an authorized Global Services' technician without requiring them to purchase new ones – EVER for ProActive Battery Coverage or up to five (5) years for Full Battery Coverage.

Full Battery Coverage provides guaranteed replacement of your batteries without any additional costs for the duration of the coverage. Full Battery Coverage on your system ensures your old, worn-out batteries are replaced by an authorized Powerware Global Services technician without requiring you to purchase new batteries – for up to five (5) years. When batteries are replaced, your new batteries are shipped priority and you incur no additional freight charges.

Full Battery Coverage includes:

- ▶ 7 x 24 On-Site Corrective Battery Maintenance Coverage by our authorized Powerware Global Services technician
- ▶ Replacement of worn-out batteries in accordance with Global Services Guidelines
- ▶ EPA-approved battery disposal and recycling

ProActive Battery Coverage provides automatic replacement of all your UPS batteries at three- or five-year intervals, regardless of the battery condition. Standard battery coverages require you to purchase replacement batteries after a limited period of time. But as long as you maintain ProActive Battery Coverage on your UPS, your batteries will be replaced by an authorized Powerware representative without requiring you to purchase new ones – EVER.

Features Include:

- ▶ Entire battery pack replacement at three- or five-year intervals
- ▶ Battery preventive maintenance at annual or semi-annual intervals
- ▶ 7 x 24 on-site full battery coverage
- ▶ Service available seven-days-a-week and 24-hours-a-day
- ▶ Guaranteed eight-hour response



For additional information contact Global Services at 800-843-9433

Battery Monitoring

The best way to avoid battery problems is to know about them before they materialize. Temperature, float level, cycling and other factors all affect UPS battery life. Batteries can fail your system by degrading to the point that they are unable to provide adequate run time for your UPS, or by simply not working at all. Powerware Global Services offers two solutions that allow you to act before a minor battery issue becomes a critical power problem.

Powerware® CELLWATCH® is an ideal solution for the most critical applications where battery health must be checked on a continuous basis to avoid any degradation in battery performance and back-up time. A full-featured battery monitoring system, Powerware CELLWATCH provides the solution to ensure your mission-critical systems are fully protected.

Powerware CELLWATCH:

- ▶ Monitors voltage, internal resistance and temperature
- ▶ Provides immediate warning and specific battery identification of deterioration and imminent failure
- ▶ Reduces the possibility of damage to the entire battery string
- ▶ Enables replacement based on battery condition, preventing expensive premature replacement
- ▶ Minimum 120 days of activity history enables you to trend individual battery and strings performance
- ▶ Continuous monitoring during discharge, recharge and float

- ▶ Remote monitoring capabilities optional
- ▶ Continuous monitoring of string and battery discharge currents ranging from 25A to 1000A

Powerware DC Tracker II is a comprehensive battery voltage monitoring solution. Monitoring individual battery voltage, DC Tracker II determines condition and charge. If a problem is detected during float service, discharge or recharge, DC Tracker II sounds an alarm to alert you of a potential failure in your backup power. A 1,000 event alarm history enables you to track battery discharges, recharges, temperature conditions and low/high voltage batteries.

DC Tracker:

- ▶ Monitors voltage and internal temperature
- ▶ Audible alert of potential battery failure
- ▶ 1000 event alarm history
- ▶ On-site monitoring panel
- ▶ Provides detailed, up-to-the-minute information on battery health
- ▶ Reduces the possibility of damage to the entire battery string
- ▶ Increases total system reliability
- ▶ 7x24 Battery Monitoring
- ▶ Continuous monitoring and reporting of individual cells and battery strings



Multi-Vendor Services

Multi-Vendor Services (MVS) provides service for a vast array of critical power equipment, regardless of manufacturer. Just because you're using power protection equipment from several companies does not mean you have to manage service relationships with all of them. With MVS you can simplify your service needs with one contract and a single point-of-contact.

Our complete line of services includes:

- ▶ A wide variety of maintenance contracts customized to meet your needs
- ▶ Battery maintenance and update programs to ensure optimal backup time
- ▶ Service training for your employees
- ▶ Available spare parts kits

Powerware Global Services experienced technicians will maximize the uptime of ALL your equipment, giving you the confidence of a job done right and on time.

MVS features include:

- ▶ Single point-of-contact
- ▶ 7 x 24, 365 days a year support
- ▶ Strategic partnerships
- ▶ Qualified service technicians
- ▶ Service locations nationwide

Product Modifications and kVA Upgrades

As your needs grow and change, so should your power protection. Powerware Global Services can offer you cost-effective options to meet your changing power needs without the hassle and high cost of replacing your existing systems.

Services include:

- ▶ kVA upgrade service provides you with an affordable alternative to help you stay current with your power protection needs
- ▶ Additional critical power capacity and protection
- ▶ A cost-effective means to support additional critical applications
- ▶ Maximized functionality of existing equipment

Product Modification Services provide a means to upgrade your existing equipment to maximize its functionality as new technology and equipment becomes available to enhance and improve your power protection equipment.

Product modifications will benefit you with:

- ▶ New technology without the expense of buying all new systems
- ▶ Additional critical power capacity and protection
- ▶ Modified equipment that is tested and ready for critical load support
- ▶ Maximized functionality of existing equipment



For additional information contact Global Services at 800-843-9433

Spare Parts

Powerware Global Services keeps a vast amount of spare parts in inventory to support our customer support engineers. There are numerous stocking locations and repair centers conveniently located to provide world class service and quick response when the need exists.

Highlights of the spare parts program include:

- ▶ Multi-million dollar inventory
- ▶ Over 65,000 square foot parts warehouse
- ▶ Priority access to manufacturing material, around the clock
- ▶ Depot repair centers located around the world
- ▶ On-site spares kits available

The training programs are further supported by comprehensive service documentation, which supplements the hands-on exercises and enables participants to retain and review subject matter later. Two levels of training are offered; they include:

Level 1 - Trainees learn how to operate the power system safely, and to troubleshoot problems using equipment loaded to simulate real-life conditions. Course length varies.

Level 2 - Advanced courses cover systems to component level including logic boards, theory of operation, adjustments and troubleshooting.

In addition to courses held at our training center, we can also conduct private group training at your site. We can vary the scope and objectives of the course to meet the special needs of your organization.

Service Training for Your Employees

Training is a key element of the service and support offered by Powerware Global Services. A variety of training programs are offered to the end users of Powerware, IPM, Lortec and Intergy power equipment. Our state-of-the-art training center located in Raleigh, North Carolina, includes five classrooms and an extensive lab area with over two million dollars in power systems equipment. Trainees receive both classroom and hands-on training from highly-qualified instructors who have extensive experience in the power protection industry.



Remanufactured Products

Powerware Global Services offers high quality remanufactured UPS products at a fraction of the cost of new equipment.

With Powerware remanufactured equipment, you get:

- ▶ Components replaced and/or refurbished to restore system to like new condition
- ▶ Each system is tested under load to ensure maximum performance and reliability
- ▶ All UPS systems are upgraded to the most recent revision levels
- ▶ A complete range of services available including start-up, preventive maintenance, and extended warranties

Products that are available as remanufactured equipment include:

- ▶ Single phase systems (standby, line interactive, and online technologies) up to 12kVA
- ▶ Three phase systems (on-line technology) through 375kVA
- ▶ Filter cabinets
- ▶ Battery cabinets
- ▶ Transformer cabinets



For additional information contact Global Services at 800-843-9433



Locations

Following are just a few examples of Powerware Global Services locations around the world:

United States

Canada

Finland

France

Germany

United Kingdom

Sweden

China

Singapore

Japan

More...



Invensys Powerware Division
8609 Six Forks Road
Raleigh, NC 27615
Toll Free: 1.800.843.9433 or 919.872.3020
Fax: 1.800.228.1899
www.powerware.com

SER40CAT
Reprint 1/02
Revision 1/02