

A large, black, rectangular industrial battery pack is shown floating in a body of water. The battery has several metal terminals and connectors on its top surface. The water is dark blue with white foam and ripples around the battery, suggesting it is being tested or submerged. The overall lighting is cool and blue-toned.

## Battery Services

Powerware Global Services

POWERWARE®



## 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 to five 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 update service
- ▶ 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 backup 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 Global Services 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 up-time 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



*Your power protection is only as reliable as the battery supporting it*

## 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 Powerware 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 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. ProActive battery coverage 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

## 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. Features include:

- ▶ 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
- ▶ 7 x 24 Battery monitoring
- ▶ Continuous monitoring and reporting of individual cells and battery strings

Specifications subject to change without notice



Powerware Global Services delivers on-site support from a base of more than 300 engineers in North America and 1200 certified international service providers. These engineers support all brands manufactured by Powerware and other best of class power products.



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