

Don't Just Replace Batteries Rejuvenate Them With BARS

BARS

Battery Assessment and Rejuvenation System

BARS is an integrated rejuvenation system that restores lost capacity in underperforming lead batteries, bringing them back to peak operational condition and significantly extending their service life.



How We Optimize Your Batteries

Battery Diagnosis

BARS uses a proprietary, high-precision diagnostic method to analyze electrochemical reactions and assess each battery's health. Within minutes, it captures key performance metrics, detects internal issues, and identifies batteries with the highest potential for successful capacity recovery.

Rejuvenation

Selected batteries undergo a targeted rejuvenation process that restores lost capacity and enhances electrochemical stability. Through patented technologies such as Crystal Control Technology®, Smart Charge Algorithm, and Electrolyte Equalization, BARS reverses harmful aging and returns batteries to peak operating condition.

Comprehensive Data Capture

Every battery processed by BARS is tracked in real time, with detailed performance data compiled into actionable reports. These insights support smarter maintenance, procurement, ESG reporting, and long-term battery strategy.

What BARS Delivers

Near-New Battery Performance

Restores underperforming batteries to near-new capacity and optimal operational performance.

High Rejuvenation Success

Delivers 75-90% rejuvenation success, depending on battery condition.

High Cost Savings & Strong ROI

BARS cuts OPEX and CAPEX by extending battery life and reducing replacement needs. High margins and short payback times scale effectively across battery volumes and sizes.

Extended Recycling Horizon

Delays the need for recycling by restoring batteries previously deemed end-of-life, maximizing usable life before disposal.

Reduced Carbon Footprint and Battery Scrap

Minimizes carbon emissions, battery waste, and raw material use, enabling measurable sustainability gains.

Rejuvenation + Battery Intelligence

Combines battery rejuvenation with advanced diagnostics, offering continuous, data driven insights that support smarter battery lifecycle decisions.

Rapid and Precise Battery Diagnostics

Delivers accurate battery diagnostics in minutes, quantifying electrochemical behavior to determine functionality and performance potential.

Adaptive Hardware Design

Scalable to battery types, sizes, and capacities, demands, supporting both small-scale and industrial operations.

Flexible Service Model

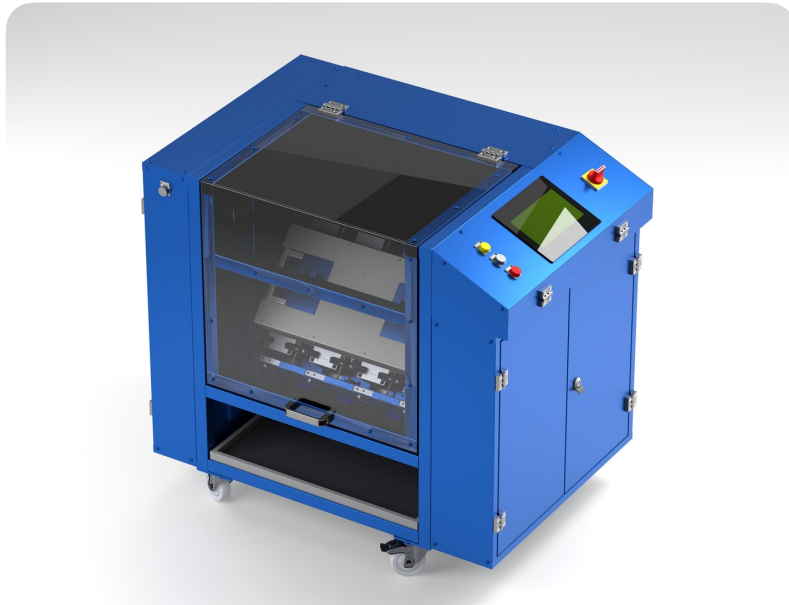
Deploy on-site or through a dedicated partner facility. BARS adapts to your operational model, scale and industry context.

Low Labor Requirement

BARS is designed for ease of use, requiring only minutes of operator time per cycle and no technical expertise.

Trusted by Industry leaders

Proven in pilot deployments with global OEMs and integrators.



Rejuvenation at Any Stage of the Battery Lifecycle



Pre-Deployment Optimization

Rejuvenate batteries that have experienced capacity loss prior to their first deployment, whether due to extended storage or other factors, bringing them back to original factory-level performance.



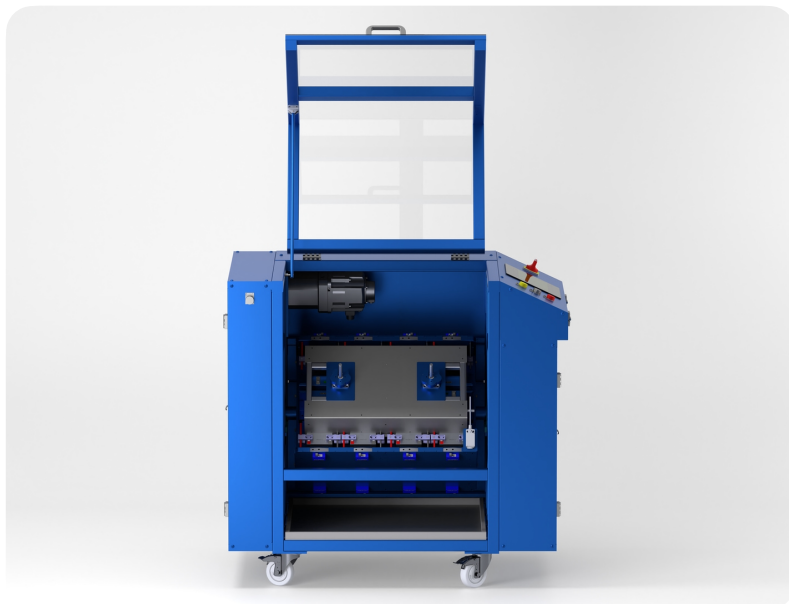
In Service Performance Boost

Rejuvenate batteries currently in active duty by recovering lost capacity caused by regular use or demanding operating conditions, enabling extended performance and lifespan.



End-of-Life Rejuvenation

Restore batteries considered to be at their end-of-life, giving them a second service life and delaying point of recycling.



Applications and Industry Use Cases

BARS delivers battery rejuvenation, diagnostics, and intelligence, purpose-built for scalable operations across industries and applications.



Battery Distributors and Warehouses

- Rejuvenate shelf-stored batteries to near-new condition before shipping or deployment.
- Reduce inventory waste by preventing stored batteries from degrading over time.



Battery Refurbishment and Recycling

- Improve value on rejuvenated batteries for second-life use applications.
- Divert more batteries from disposal, supporting circular economy goals.



Critical Backup (Data Centers, Telecom)

- Reduce unexpected failures with periodic rejuvenation.
- Extend the life of standby batteries, lowering total cost of ownership.



Fleet Management (Starter Batteries)

- Restore starter batteries used in vehicle fleets such as trucks, vans, and service vehicles.
- Reduce downtime, unplanned maintenance, and replacement needs from premature battery failure.



Sustainability Programs

- Recover used or decommissioned batteries for second-life markets and applications.
- Demonstrate measurable carbon and material conservation for ESG or CSR initiatives.



Standby Power (UPS Systems)

- Validate new shelf-stored UPS batteries before installation or deployment to ensure near-new performance.
- Perform scheduled rejuvenation cycles to maintain peak readiness.



Mobility & Material Handling

- Rejuvenate batteries in forklifts, AGVs, scissor lifts, golf carts, and e-mobility vehicles.
- Extend uptime and improve operational efficiency through on-site battery recovery.



Warranty & Quality Assurance

- Validate incoming battery shipments to ensure they meet performance specifications.
- Provide data-driven evidence for warranty claims or supplier negotiations.

Deployment Models

In-House Rejuvenation of Your Own Batteries

Own and install BARS at your facilities and manage full rejuvenation process, from diagnostics to final reporting.

Benefits

- Retain all cost savings and potential third-party revenue.
- Eliminate logistics costs. No need for off-site transport.
- Full control over battery flow, diagnostics and capacity recovery.
- Perform on-demand battery diagnostics (new and in-service)

Become a Rejuvenation Service Center

Establish BARS facility that serves multiple customers and regions. Ideal for large scale operators and for operators aiming to commercialize rejuvenation.

Benefits

- Generate new revenue by offering rejuvenation as a service.
- Serve regional or national markets and scale operations.
- Achieve higher margins through volume-based economies of scale.

Rejuvenation as a Service (RaaS)

Send your batteries to an external rejuvenation partner that manages the entire process, from diagnostics to delivery.

Benefits

- No upfront investment. Pay per battery.
- No space or staff requirements.
- Easily scale with fluctuating battery volumes and sizes.

Rejuvenation at WaveTech's Facility

Use WaveTech's in-house rejuvenation center. Batteries are shipped in and out, fully managed by WaveTech.

Benefits

- No capital or facility investment.
- Pay only for successful rejuvenations.
- Managed by experts, including diagnostics and full reporting.
- Handles both small and large volumes with ongoing technology improvements.

Powered by a Family of Five Proprietary Technologies

BARS integrates five proprietary innovations to deliver precise and reliable rejuvenation.

1

Crystal Control Technology®

WaveTech's patented core innovation that optimizes crystallization within the battery to reverse performance-degrading structures and stabilize internal chemistry, enabling precise control over electrochemical activity.

3

Electrolyte Equalization

Actively redistributes and balances electrolyte concentration, improving cell uniformity and battery response.

2

Battery Condition Assessment Tool (BCAT)

Enables rapid, high-accuracy diagnostics by analyzing electrochemical reactions and identifying batteries with the highest potential for successful rejuvenation.

4

Smart Charge Algorithm

Dynamically adjusts charging parameters based on battery condition, optimizing the restoration process.

5

Battery Analytics and Intelligence

Continuously collects, analyzes, and reports data on each battery's condition, performance metrics, and lifecycle progression.



Rejuvenation is the New Recycling

Let's talk about your batteries.

www.wavetech.com/contact