



OUR CUSTOMERS. OUR MARKETS.

CARAVANS

The Lithium Extension Battery is specially developed for self-sustaining onboard electricity. Through an extension to the built-in battery, the system offers higher autarky and longer battery lifetime in caravan camping.

BOATS AND YACHTS

Low temperatures and exceptional weather conditions are special challenges. Due to its resistance under extreme conditions, the BOS Lithium Extension Batteries are very popular with sailors and other watercraft enthusiasts.

SMALL SOLAR SYSTEMS

The Lithium Extension Batteries are used in small sized solar applications around the globe. They can be installed in tiny houses, at water pumps, irrigation systems and parking ticket machines.

TRAFFIC CONTROL SYSTEMS

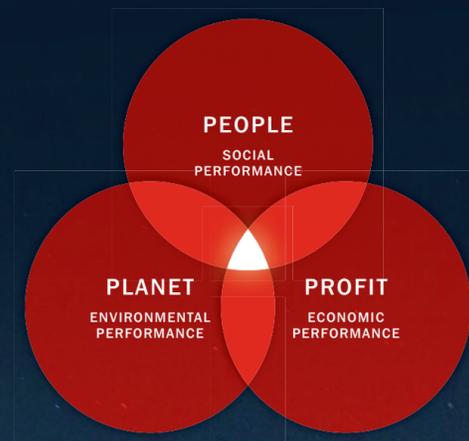
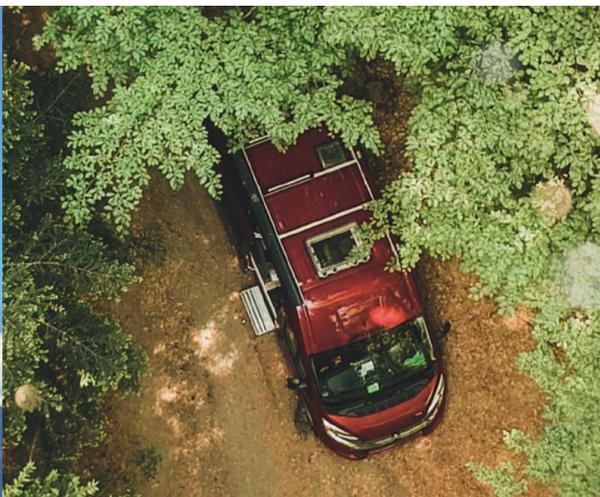
BOS Lithium Extension Batteries are maintenance-free and have the possibility to extend them with remote monitoring functions. That offers many benefits and highly qualifies them for the usage in traffic control systems.

TELECOMMUNICATION TOWERS

The network of telecom towers have expanded to far-flung regions worldwide. In many cases, areas have an unreliable grid or no grid supply. Freedom from maintenance, monitoring features and longer battery life are welcome in this scenario.

AND MANY MORE APPLICATIONS

BOS Lithium Extension Batteries can be used wherever a classic lead acid battery needs to be extended. Our customers often inspire us with new ideas and possible application areas.



BALANCED SYSTEMS.
SMART ENERGY.

LITHIUM EXTENSION BATTERY HYBRID SYSTEM LITHIUM / LEAD ACID

BALANCED SYSTEMS. SMART ENERGY.

BOS Balance of Storage Systems AG is a German company, offering smart hybrid energy storage solutions and off-grid technology. BOS aims to become the leading company in decentralised energy supply with a focus on Lithium and Lead acid hybrid charging technology for solar systems that supports intelligent load management.

Their key markets are located in rural and semi-urban areas with insufficient access to modern energy services as well as market segments in industrialized countries that require decentralized power supply.

BOS AG works for a positive balance sheet in People, Planet and Profit. Optimizing the footprint and the positive return in each area is the strategic objective.



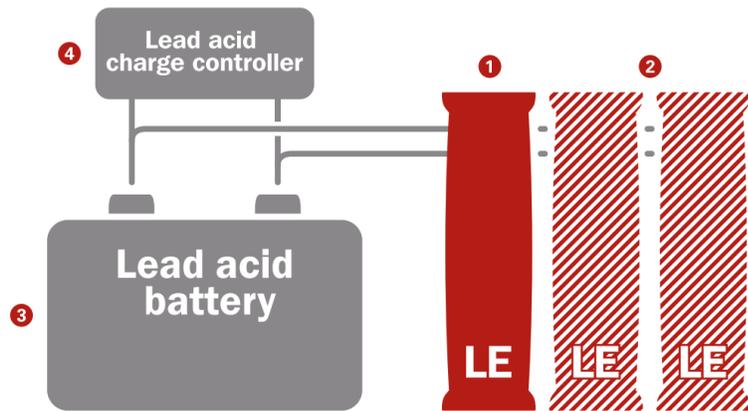
BOS LITHIUM EXTENSION BATTERIES, WITH LITHIUM (LiFePO₄) CELLS, ARE A SMART AND INTEGRATED SOLUTION. THEY CAN BE USED WHEREVER A LEAD ACID BATTERY NEEDS TO BE EXTENDED. THEY ARE DESIGNED FOR CARAVANS, BOATS, TRAFFIC SYSTEMS AND ANY OTHER LEAD ACID APPLICATIONS.

MODULAR SYSTEM. SMART FEATURES.



THE BOS LITHIUM EXTENSION BATTERY IS A FULLY SCALABLE SOLUTION TO ADD CAPACITY TO LEAD ACID BATTERIES. AN INTELLIGENT BATTERY MANAGEMENT SYSTEM ALLOWS AN EASY PLUG & PLAY AND PROLONGS THE LIFESPAN OF BOTH BATTERIES.

SMART MODULAR SYSTEMS



1 LITHIUM EXTENSION BATTERY

Our lithium battery is based on the latest lithium iron phosphate cells (LiFePO₄) technology. In addition, a Battery Management System and Display is integrated in the compact housing.

2 MODULAR AND SCALABLE

By easily stacking the modules together, the desired capacity can be assorted. The modules are connected in parallel to the lead acid batteries.

3 LEAD ACID BATTERY

Any existing or new 12 V Lead Acid Batteries can be used. The Lithium Extension Battery is directly connected to the positive and negative terminal of the Lead Acid Battery.

4 LEAD ACID CHARGE CONTROLLER

Existing charge controller for Lead Acid Batteries with a constant voltage above 14,0 V or with the IoUo Standard can still be used.



CORE BENEFITS

LONGER BATTERY LIFETIME

With the LE hook up, the Lead Acid Battery is kept fully charged, while the cycle-resistant Lithium Battery takes on most charging cycles and is preferentially discharged under load. The capacity and the performance of both Batteries are used optimally, so you can look forward to a better performance and a longer life span of your Batteries.

PLUG & PLAY

All necessary cables are included, this makes installation very easy. After installation, the system can be used directly, as every Lithium Extension Battery is a stand-alone unit with all necessary protection features and integrated Battery Management.

ADVANCED MONITORING OPTIONS

Interfaces allow easy extract and monitoring of all important key performance indicators. Each system offers the possibility to extend it with remote monitoring features.

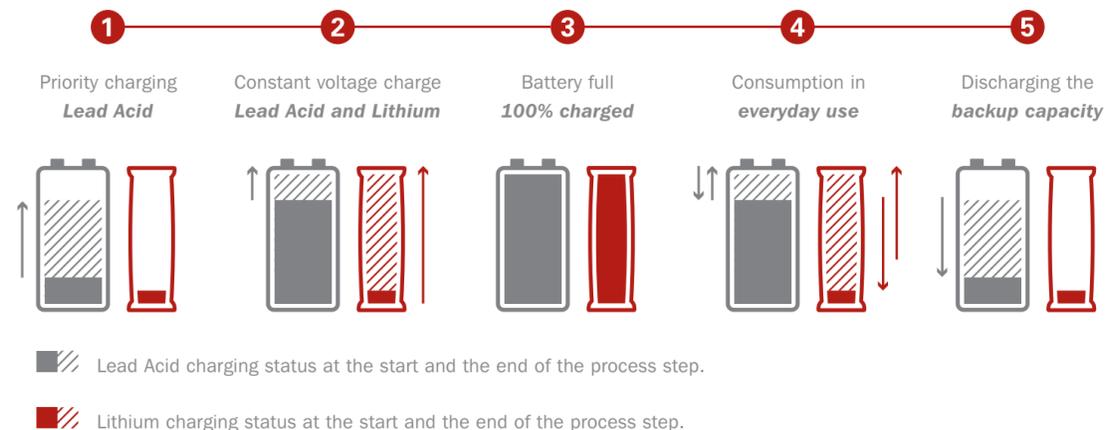
COLD-PROOF

Contrary to pure Lithium-Battery solutions, cold temperatures are no problem for the Lithium Extension Battery. Due to the integrated heating, the Lithium Extension Battery is heated with charging current before the actual charging. Consequently, the system can be charged, even in extreme temperatures. The full power is available for temperatures between -10°C and 40°C.

VIBRATION-RESISTANT

The high German quality the standards and compact design, enables every Lithium Extension Battery to withstand even extreme conditions. With the E24 certification, the reliability and the vibration and shock resistance are TÜV confirmed. This allows the modules to be installed into vehicles and makes it perfectly adapted to the needs of boats, motor vehicles and many more.

CHARGING & DISCHARGING CYCLE



SMALL SIZE. DECISIVE DIFFERENCE.

EXEMPLARY BATTERY PACK CONFIGURATION

LEAD ACID STORAGE FOR BACKUP

The capacity of the lead acid battery should be based on the intended extra time of self-sufficient.



LITHIUM STORAGE FOR DAILY USE

We recommend a lithium capacity, which covers the usual daily consumption.

95 Ah / 800 Wh
12 V



+ 51.2 Ah / 600 Wh
12 V

180 Ah / 1.5 kWh
12 V



+ 307.2 Ah / 1.8 kWh
12 V

2x 12 V in serial connection



expandable up to
a max. of 24*
+ 1.2 kWh / 14.4 kWh
12 V

2x 12 V in serial connection



expandable up to
a max. of 2x12*
+ 1.2 kWh / 14.4 kWh
2x 12 V in serial connection

The capacity of lead acid batteries is specified as 70% DOD. The capacity of lithium batteries is specified as 90% DOD.

* higher quantities are possible after consulting BOS partner.