



# BB-Series

# US Solar Mounts

## Battery Backup Aeration

U.S. Solar Mounts delivers the most robust, intelligently engineered battery-backup solar aeration systems available today. Designed for extreme reliability and year-round performance, our BB-Series systems are built to last a lifetime. Proudly made in the USA, they offer industrial-grade quality and proven performance trusted by property owners and professionals alike.



## SmartSolar MPPT

Our Charge Controllers use high-efficiency Smart MPPT Technology. Maximum Power Point Tracking technology constantly monitors the output of the solar panels and delivers the highest possible energy harvest. At 98% charger efficiency, batteries are charged in the shortest possible time. Built-in Bluetooth technology allows you to monitor charge status, voltage and charging current, all using your smartphone.



## Easy Installation

Our systems have been designed from the ground up for easy installation. No special tools or skills are required. If you can run a wrench and a screwdriver, you can install these systems. Whether you're a seasoned installer or a DIY homeowner, everyone appreciates the quality construction and ease of installation.



## Modular Flexibility

Our battery system is the only one on the market designed to seamlessly integrate with existing solar-direct aerators. That means current U.S. Solar Mounts customers can upgrade to battery backup at any time—no need to replace their system. Likewise, customers can start with a solar-direct system today and easily add battery power down the road. This flexibility makes it easier than ever to future-proof your pond aeration investment.



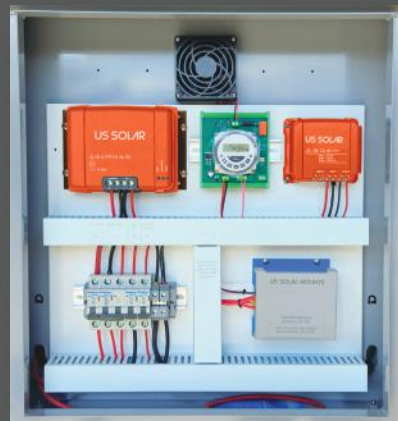
## Temperature Control

Smart sensors monitor enclosure temperature to optimize cooling fan operation—running only when needed to conserve power and extend fan life. Cold-weather logic protects against battery freeze during frigid conditions. Includes an alarm output for optional external alerts or signal devices.



## Warranty & Tech Support

If you need some help, we've got you covered. Product selection, system design and technical help are just a phone call away. Our Technical Support is 100% US-Based and in-house.



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# Battery Backup Aerators

## Specifications

SD1-BB	SD2-BB	SD4-BB
Up to 1 Acre	Up to 2 Acres	Up to 5 Acres

### Power & Electrical

Solar Modules	2x USA-Made Mono-Crystalline High-Efficiency
Charge Controller	MPPT Tracking w/Bluetooth
Batteries	4x 100AH AGM Included. 4x 125AH available.
Circuit Protection	Individual Thermal-Magnetic Circuit Breakers
Low Voltage Protect	Yes - Battery Low-Voltage Disconnect with Automatic Reconnect
Run Time Control	Programmable Digital Time Clock

### Compressor

Type	3-Phase Brushless Rocking Piston	
Airflow	2.8 SCFM	5.6 SCFM
Operating Depth	Up to 50'	
Over-Pressure	Brass Automatic Pressure Relief Valve	
Flow Balancing	2x Full-Flow Brass Valves	4x Full-Flow Brass Valves
Sound Level	<60db @ 6'	<50db @ 6'
Air Intake	Compressor intake filter/silencer with replaceable cartridge.	

### Thermal Management

Compressor Cooling	Automatic Active Ventilation
High-Temp Limit	Yes - With Automatic Restart
Low-Temp Limit	Yes - Battery Freeze Protection with Automatic Restart
Alarm Outputs	Yes - Normally OPEN Dry Contacts for external alarm devices.

### Air Distribution

Connection Type	Brass Barb Fittings on Enclosure Bottom
Diffuser	All units include DB-36 Stainless Steel Diffusers. Compatible with any diffuser type.

### Mechanical

#### Battery Enclosure

Material	All Welded Laser Cut Steel
Finish	Baked-On Powder Coat
Hardware	Stainless Steel
NEMA Rating	3R / 4X / 12
Weight	130lbs - Without Batteries
Dimensions (Inches)	22W x 22.5D x 30H

#### Solar Racking

Standard Wind Load	100 MPH @ IBC
Aluminum	6061-T6 Anodized Extrusions
Steel Parts	Laser Cut & Welded
Hardware	Stainless Steel
Tilt	Adjustable, 0-60°
Standards	ASTM A36, A53 Plating ASTM B633

