

Blue Sea Systems 3002

Blue Sea Systems 3002 HD-Series Heavy Duty Selector Battery Switch User Manual

Model: 3002

1. INTRODUCTION

This manual provides essential instructions for the safe and effective installation, operation, and maintenance of your Blue Sea Systems 3002 HD-Series Heavy Duty Selector Battery Switch. Please read this manual thoroughly before using the product to ensure proper function and safety.

2. SAFETY INFORMATION

WARNING: Electrical systems can be dangerous. Installation should be performed by qualified personnel. Always disconnect power before working on electrical systems.

- Always wear appropriate personal protective equipment (PPE) when working with electrical components.
- Ensure all connections are secure and properly insulated to prevent short circuits.
- Do not switch to the 'OFF' position while the engine is running, as this can damage the alternator. Always stop the engine before switching to 'OFF'.
- This product is designed for 12V or 24V DC systems, with a maximum voltage of 32V DC.
- Proposition 65 Warning: This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

3. PRODUCT OVERVIEW

The Blue Sea Systems 3002 HD-Series Heavy Duty Selector Battery Switch is designed for marine and RV applications, allowing selection between two battery banks for starting and auxiliary power, or combining them. It features a robust design for high current applications and is ignition protected for safe installation in gasoline-powered boats.



Image 1: Front view of the Blue Sea Systems 3002 HD-Series Heavy Duty Selector Battery Switch. The dial clearly indicates positions for Battery 1, Battery 2, Both (1+2), and OFF. Important safety warnings like 'STOP ENGINE BEFORE SWITCHING TO OFF' are visible on the dial.

Key Features:

- **Selector Functionality:** Allows selection of Battery 1, Battery 2, Both (1+2), or OFF.
- **Heavy Duty Design:** Rated for high current applications.
- **Ignition Protected:** Safe for installation aboard gasoline-powered boats.
- **UL Listed:** Ensures compliance with safety standards.
- **Copper Contact Material:** Provides excellent conductivity and durability.

4. SETUP AND INSTALLATION

Proper installation is critical for the safe and reliable operation of the battery switch. Refer to the wiring diagram provided with the product packaging for specific connection details.

Installation Steps:

1. **Choose Location:** Select a dry, accessible location close to the batteries, ensuring adequate ventilation and protection from physical damage.

2. **Mounting:** Securely mount the switch using appropriate fasteners. The switch dimensions are approximately 12 x 11 x 4 inches.
3. **Wiring:**
 - Connect the positive terminal of Battery 1 to the terminal labeled '1' on the switch.
 - Connect the positive terminal of Battery 2 to the terminal labeled '2' on the switch.
 - Connect the common load (e.g., engine starter, main distribution panel) to the common terminal on the switch.
 - Ensure all connections are tight and corrosion-free. Use appropriately sized marine-grade wiring and terminals.
4. **Verify Connections:** Double-check all wiring against the provided diagram before applying power.



Image 2: Side view of the Blue Sea Systems 3002 HD-Series Battery Switch, highlighting the robust housing and screw-type terminals for secure electrical connections. The four mounting holes are visible for installation.

5. OPERATING INSTRUCTIONS

The 3002 HD-Series Selector Battery Switch offers four positions for managing your battery banks:

- **OFF:** Disconnects all batteries from the load. Use this position when the vessel or vehicle is not in use or during maintenance. **Always stop the engine before switching to OFF.**
- **1:** Connects Battery 1 to the load. Typically used for starting or powering primary systems.
- **2:** Connects Battery 2 to the load. Typically used for auxiliary systems or as a backup starting battery.
- **1+2:** Connects both Battery 1 and Battery 2 in parallel to the load. Use this position for charging both banks simultaneously or for maximum power output.

Switching Positions:

To change the switch position, rotate the knob clockwise or counter-clockwise to the desired setting. Ensure the knob clicks firmly into place for each position.

6. MAINTENANCE

Regular maintenance ensures the longevity and reliable performance of your battery switch.

- **Inspect Connections:** Periodically check all electrical connections for tightness and corrosion. Loose or corroded connections can lead to overheating and poor performance.
- **Clean Switch:** Keep the exterior of the switch clean and free of dirt, dust, and moisture. Use a damp cloth for cleaning; avoid harsh chemicals.
- **Check for Damage:** Inspect the switch housing for any signs of physical damage, cracks, or discoloration. Replace the switch if any damage is observed.

7. TROUBLESHOOTING

If you experience issues with your battery switch, consider the following troubleshooting steps:

- **No Power to Load:**
 - Ensure the switch is not in the 'OFF' position.
 - Check battery voltage. Ensure batteries are charged.
 - Inspect all wiring connections for looseness or corrosion.
 - Check for blown fuses or tripped circuit breakers in the system.
- **Switch Overheating:**
 - This often indicates loose or corroded connections, leading to high resistance. Tighten and clean all terminals.
 - Ensure the current draw does not exceed the switch's continuous rating.
- **Difficulty Turning Knob:**
 - Ensure no debris is obstructing the mechanism.
 - If the switch is new, it may be stiff initially. If it persists, contact support.

If problems persist after troubleshooting, contact Blue Sea Systems customer support or a qualified marine electrician.

8. SPECIFICATIONS

Specification	Value
Model Number	3002 (Manufacturer's Item Number: 548035649)
Brand	Blue Sea Systems
Operation Mode	ON-NONE-OFF (Selector)
Continuous Current Rating	500 Amps
Intermittent Current Rating	700 Amps (5 min)
Maximum Voltage	32V DC
Contact Type	Normally Open
Connector Type	Screw Terminal

Circuit Type	2-way
Actuator Type	Rotary Knob
Contact Material	Copper
Product Dimensions (L x W x H)	12 x 11 x 4 inches
Weight	1.3 Pounds
Ignition Protected	Yes
UL Listed	Yes

9. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided with your purchase or visit the official Blue Sea Systems website. Warranty terms typically cover defects in materials and workmanship for a specified period.

For technical support, product inquiries, or to locate authorized service centers, please contact Blue Sea Systems directly through their official website or customer service channels.