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Hobbywing HWI30301200

Hobbywing Seaking 130A V3 HV Brushless ESC Instruction Manual

Model: HWI30301200

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1. Introduction

This manual provides detailed instructions for the proper installation, operation, and maintenance of your Hobbywing Seaking 130A V3 HV Brushless ESC. Please read this manual thoroughly before use to ensure optimal performance and safety.

The Seaking 130A V3 HV Brushless ESC features an excellent waterproof design (IP 67 rated), high-quality components for strong over-current capabilities, and an efficient water cooling system. It is specifically designed for RC boats, offering punchy acceleration and stable sailing. An external programming port allows for easy parameter setting with an LED program card. Multiple protections, including low-voltage cutoff, thermal protection, and throttle signal loss protection, enhance reliability. An anti-spark circuit on the input wires prevents electrical sparks when connecting to the battery. Dual water-cooling tubes ensure proportional heat distribution on the heat-sink.



Figure 1: The Hobbywing Seaking 130A V3 HV Brushless ESC showcasing its waterproof capabilities with water splashing around it. This image highlights the robust design suitable for marine applications.

2. Safety Information

WARNING: This product is not a toy. It is intended for use by individuals aged 16 years and older. Improper use can lead to serious injury or damage.

- Always ensure proper ventilation around the ESC during operation.
- Do not expose the ESC to temperatures outside its specified operating range.
- Verify all connections are secure and correct before applying power.
- Disconnect the battery when the ESC is not in use or during maintenance.
- Be aware of the anti-spark circuit, but always connect the battery carefully.
- Ensure the water cooling system is clear and functioning correctly to prevent overheating.
- Keep out of reach of children.

3. Setup and Installation

3.1 Components Check

Before installation, ensure all components are present and undamaged:

- Hobbywing Seaking 130A V3 HV Brushless ESC (1 unit)
- Instruction Manual (this document)

3.2 Wiring Diagram

Connect the ESC according to the following guidelines:

1. **Battery Connection:** The input wires (red-10AWG-150mm, black-10AWG-150mm) are designed for 5-12S LiPo batteries. Connect the red wire to the positive (+) terminal and the black wire to the negative (-) terminal of your battery. The integrated anti-spark circuit helps prevent sparks during connection.
2. **Motor Connection:** The output wires (blue-12AWG-100mm*3) connect to your brushless motor. Ensure correct phase matching (A-A, B-B, C-C) for proper motor rotation. If the motor rotates in the wrong direction, swap any two

of the three motor wires.
3. **Receiver Connection:** Connect the signal cable from the ESC to the throttle channel of your RC receiver.
4. **Water Cooling System:** Ensure the water cooling pipes (inner diameter 2.7mm, outer diameter 5.0mm) are properly connected to your boat's water intake and outlet system. This is crucial for dissipating heat during operation.

3.3 Mounting the ESC

Mount the ESC securely within your RC boat, ensuring it is protected from excessive vibration and direct impact. While the ESC is waterproof (IP67), proper mounting helps maintain its integrity and performance.

4. Operating Instructions

4.1 Initial Power-Up

1. Ensure your RC transmitter is turned on and the throttle stick is at the neutral position.
2. Connect the battery to the ESC. You may hear a series of beeps indicating the ESC is initializing and detecting the battery cells.
3. The ESC is ready for operation once the initialization sequence is complete.

4.2 Throttle Calibration

For optimal performance, it is recommended to calibrate the throttle range of the ESC with your transmitter. Refer to your transmitter's manual for specific calibration procedures, typically involving setting the full throttle, full brake/reverse, and neutral positions.

4.3 Programming Parameters

The Seaking 130A V3 HV ESC features an external programming port. You can connect an optional LED program card (sold separately) to this port to adjust various parameters such as:

- Low-Voltage Cutoff Threshold
- Start Mode (Punch)
- Timing
- Running Mode
- Reverse Force
- Initial Brake Force
- Drag Brake Force
- BEC Voltage (if applicable, though this model has no built-in BEC)

Consult the program card's manual for detailed instructions on parameter adjustment.

5. Maintenance

Regular maintenance ensures the longevity and reliable performance of your ESC.

- **Cleaning:** After each use, especially in saltwater environments, rinse the ESC with fresh water to remove any salt or debris. Allow it to dry completely before storage.
- **Connections:** Periodically inspect all wire connections for signs of wear, corrosion, or looseness. Re-solder or replace as necessary.
- **Water Cooling System:** Ensure the water cooling pipes and heat-sink fins are free from obstructions. A clogged

cooling system can lead to overheating.

- **Storage:** Store the ESC in a dry, cool place away from direct sunlight and extreme temperatures. Disconnect from the battery during storage.

6. Troubleshooting

This section provides solutions to common issues you might encounter.

Problem	Possible Cause	Solution
ESC does not power on.	Battery not connected, low battery voltage, faulty wiring.	Check battery connection and charge level. Inspect all wires for damage.
Motor does not spin or spins erratically.	Incorrect motor wiring, throttle signal loss, motor damage.	Verify motor phase connections. Check receiver and transmitter. Inspect motor for damage.
ESC overheats.	Clogged water cooling system, excessive load, improper timing.	Clean water cooling pipes. Reduce load. Adjust motor timing via program card.
Motor runs in reverse.	Two motor wires swapped.	Swap any two of the three motor wires.
ESC enters protection mode (e.g., low-voltage cutoff).	Battery voltage too low, thermal protection activated.	Recharge or replace battery. Allow ESC to cool down.

7. Specifications

Detailed technical specifications for the Hobbywing Seaking 130A V3 HV Brushless ESC:

- **Model/SKU:** seaking-130a-hv-v3 / 30301131007 (HWI30301200)
- **Cont./Peak Current:** 130A/720A
- **Applicable Boat Length:** <150cm
- **Input:** 5-12S LiPo
- **BEC Type/Output:** No built-in BEC
- **External Programming Port:** Available
- **Water Cooling Pipe (Inside/Outside):** φ2.7mm / 5.0mm
- **Input Wire:** Red-10AWG-150mm*1, Black-10AWG-150mm*1
- **Output Wire:** Blue-12AWG-100mm*3
- **Dimensions (including water cooling pipe):** 88x58x23mm
- **Weight:** 182g (approximately 6.42 ounces)
- **Waterproof Rating:** IP 67
- **Product Dimensions:** 3.63 x 5.38 x 2.13 inches
- **Manufacturer:** HobbyWing
- **Date First Available:** November 17, 2014

8. Warranty and Support

8.1 Warranty Information

This product is covered by a manufacturer's warranty. For specific warranty terms and conditions, please refer to the

official Hobbywing website or contact their customer service. Typically, warranty covers manufacturing defects under normal use.
The buybox winner information indicates a return policy of 30 days for refund/replacement. This is typically handled by the seller, AbsoluteHobbyz, for purchases made through Amazon.

8.2 Customer Support

For technical assistance, troubleshooting beyond this manual, or warranty claims, please contact Hobbywing customer support directly. You can usually find their contact information on their official website.
For purchase-related inquiries, such as returns or order status, please contact the seller (e.g., AbsoluteHobbyz if purchased via Amazon) or the platform where the product was purchased.

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