

eFoil Plus Series ^{NEW} Instrument Manual

The 3.0 Generation eFoil from Pulseer

Elevate Your Pulse



PULSEER

ELEVATE YOUR PULSE



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Thanks For Choosing
Pulseer eFoil

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Safety Warning & Disclaimer

**USE OF THIS PRODUCT AND PARTICIPATION IN THE SPORT
INVOLVES INHERENT RISKS OF INJURY OR DEATH.
BY USING THE PRODUCT, THE USR ACCEPTS THE INHERENT RISKS OF ITS USE.
FULLY READ THIS MANUAL BEFORE USE.**

- This Product is a kind of high-powered aquatic sports equipment and not a toy. Those under age 16 are prohibited from using it.
- Please read through the Manual to master its functions prior to use. For any question about this Product, please contact our technical support persons or authorized agents. Any misoperation may result in product damage, property loss and even personal juries and deaths.
- User must try to use this Product and, master some basic knowledge and strong sense of safety before using it safely. User shall bear all liabilities for using this Product. We do not bear any responsibility for any consequence arising out of violation of this Manual or other relevant policies or criteria.
- Please use this Product for a reasonable and proper purpose. A license may be required for using this Product in some countries and regions. Where user uses this Product properly, such as violation of local laws, regulations, public order or safety, the user shall bear the legal liabilities arising therefrom.
- We do not provide any technical support or safety commitment in either of the following cases:
 1. This Product is purchased from unauthorized agents or abnormal channels; or
 2. This Product is modified, debugged or some parts are replaced at will.
- You're seen as having fully understood, recognized and accepted this Manual by using this Product. User shall undertake to bear the liabilities for all behaviors and consequences. We have the rights to update, revise or terminate this Manual, relevant policies or criteria above without a prior notice. Please visit our website www.pulseersport.com to acquire the latest version.

Warranty

Pulseer provides 1-year warranty services for the products. The aforesaid scope of warranty covers the defects of material or process that is used normally within the warranty period. For details, please visit Pulseer eFoils website at www.pulseersport.com.

Warning

⚠ Danger

FAILURE TO COMPLY WITH THESE WARNINGS MAY RESULT IN SERIOUS BODILY INJURY OR DEATH TO YOU OR OTHERS.

Contact with the product's spinning propeller can cause serious injury or death.
- Keep your body, fingers, and toes away from the propeller.
- Never handle the propeller while the battery is connected to the system.
- Disconnect the power source before servicing your propeller.
- Do not service your propeller in the water.
- Do not remove the propeller guard unless in strict compliance with the Operator's Manual's instructions that cover servicing the propeller.
- Never operate toward a person in the water.
- Do not attempt to open the waterproof hatch compartment while in the water for any reason.
- The fin or fins can be and/or become sharp and/or dangerous and can cause serious injuries or death to you and/or others.



⚠ Warning

USE OF THIS PRODUCT AND PARTICIPATION IN THE SPORT INVOLVES INHERENT RISKS OF INJURY OR DEATH BY USING THIS PRODUCT. YOU ARE RESPONSIBLE FOR THE RISK OF ITS USE. TO REDUCE RISKS:

Fully read and follow the Operator's Manual before use to ensure it is undamaged, that the battery hatch seals tightly, that the controller is in proper working order, and that the product is otherwise fit for use. NEVER use a damaged product.
Slow down when approaching other vessels. Do not exceed your skill level or in excess of your ability. Beginners should use extra caution. Too slow is better than too fast.
Use only on water.
Only use the throttle trigger lever when you are mounted on the product and ready to deliver power to the motor.
During use the hydrofoil can be submerged up to 3 feet in depth. Do not use in shallow water or close proximity to swimmers, swimmers, or other vessels on the water.
Use only in areas that are free of debris and/or abundant wildlife.
Only practice swimsills in areas where the product operator must stay close enough to stay to swim in case the product fails to function.
Always wear appropriate safety equipment during operation, including Coast Guard approved flotation devices, a helmet, and a properly fitted life vest. Avoid loose clothing that could become wrapped in the propeller. Check weather forecast before departing dock and head at weather advisories.
Never drink alcohol.
Reduce speed before attempting sudden or sharp turns and maintain safe speeds for water conditions and safety at all times. Maneuverability at high speeds is limited, and always use caution.
Keep proper lookout and safe distance for the conditions at all times to avoid collisions.
Obey all applicable navigation rules, boating laws, local regulations and orders.
The operator is responsible for safety of the operator and the operator's family. Know your environment and avoid areas where dangerous wildlife exists.
Do not allow others to operate the craft without making them fully aware of the proper operation and safety rules.
Not for use by children. The product is a powerful water device and should not be operated by anyone under the age of 16.



Risk Reduction

- This Product must be inspected prior to use, in order to avoid damage; keep battery pack sealed, and ensure normal working condition of controller and others. Do not use this Product once it is damaged.
- Whoever does not fully understand the correct procedure and eFoil risks is not allowed to operate eFoil.
- Children below 16 are forbidden from operating this Product, which is a kind of high-powered aquatic equipment.

Warning of Propelling System



- Pushing the with this Product's spinning propeller can cause serious injury or death.
- Keep your body, fingers, and toes away from the propeller.
- Never handle the propeller while the battery is connected to the system. Cut off power supply before repairing the propeller. Do not service your propeller in the water.
- Do not remove the propeller guard, unless you strictly abide by the operator manual of propeller maintenance.
- Do not operate in water.

Battery Warning



FLAMMABLE HAZARD X DO NOT OPEN CHARGE UNDER SUPERVISION

WARNING

FAILURE TO COMPLY WITH THESE MARKINGS MAY RESULT IN ELECTRIC SHOCK, ARC FLASH, FIRE, SERIOUS INJURY OR DEATH.

Nominal Voltage: 50.4V

Energy: 3kWh

PB26630

Pack

working environment temperature 0 ~ 45°C
charging environment temperature 10 ~ 45°C

Storage Temperature 5°C - 25°C		
OK 10°C - 45°C	De-Rated 45°C - 55°C	Over-Temp >45°C

HIGH VOLTAGE. DO NOT OPEN. NO USER SERVICABLE PARTS INSIDE.

- Never attempt to disassemble, modify, alter, change or operate on this battery pack. Use this battery pack only for its intended purpose.
- Do not dispose of this battery pack. Recycling or disposal of lithium-ion batteries requires specialized facilities.
- Do not subject to impact, shock or physical damage.
- Do not expose to temperatures above 600°C / 1400F.
- Do not expose to direct sunlight.
- Do not leave this battery unattended while charging. Only charge with approved charging equipment.
- Do not handle this battery and electronics with wet hands..
- Do not drop this battery.
- Inspect this battery before every use. Do not use this battery if you believe it is damaged. Damage to the battery may result in a fire.
- Do not connect this battery or any electronics while in the water. Assemble all items on shore in a dry environment.
- Transport this battery pack in accordance with all applicable laws. ent.



Never attempt to open the waterproof compartment (battery cover) in water for any reason.

- Do not dismantle, modify or repair this battery pack, which contains no any part that needs repairing inside.
- Use this battery pack only for its intended purpose.
- Do not handle it improperly, drop or damage it by any way.
- Do not pierce the battery.
- Do not expose to fire or temperature above 60°C.

- Inspect this battery before every use. Do not use this battery if you believe it is damaged. Damage to package may result in electric shock in water or fire.
- Do not dispose this battery pack. Recycling or disposal of lithium-ion batteries requires specialized facilities.
- Only charge with approved charging equipment.
- Do not leave this battery unattended while charging.
- Do not handle this battery and electronics with wet hands.
- Do not drop this battery. Do not use this battery if you believe it is damaged. Damage to the battery may result in a fire.
- Do not connect this battery or any electronics while in the water. Assemble all items on shore in a dry environment.

Guideline for Product Safe Handling

Operator Requirements

- This Product is a kind of high-powered aquatic sports equipment and not a toy. Those under age 16 are prohibited from using it.
- This Product shall not be operated by those who fail to have strenuous physical activity due to disease, overtired persons and pregnant women.
- Whoever involves drug abuse, drinking, drug paralysis, dizziness or other physical discomfort or poor mental state cannot operate this product.
- Wear the certified life jacket and helmet while using this Product.
- Read through all instructions and warnings in this Manual before using this Product.
- The user shall understand and abide by the relevant laws and regulations related to this Product, observe the public order, guarantee public safety and bear liabilities for all activities.

Use Environment Requirements

- The water depth shall be above 1.5m while using this Product.
- Keep away from aquatic plant or other floating objects while using this Product, for the propellers can be wrapped with foreign matters, resulting in propeller damage and personal injury due to falling into water.
- Do not use this Product in water area containing underwater obstacles such as rock, branch, dam, buoy and finishing net, etc., for collision may result in serious injury and even death of operators.

- Do not use this Product in the environment which may affect the operator's sight or safety, such as severe weather and night, including but not limited to gale, rain, mist, big wave and night.
- Do not use this Product near other persons in water, including but not limited to those swimming, surfing and underwater diving, etc.
- Do not use this Product near water vehicles, including but not limited to motorboats, ships, etc.
- Do not use this Product in water area with special marks, including but not limited to underwater diving, operation, shark, environmental protection and other safety marks.

Inspection before Use

- Only product and parts manufactured by Pulseer can be used and all parts should have good working status. Do not use the damaged product.
- The board battery and remote control should be fully recharged before using this Product.
- The operator should read through this Manual before using this Product or delivering it to others. You are liable for the safety of new operator.

Operation Requirements

- Do not put your body parts, such as fingers and toes, into the revolving propellers. Do not service the propellers in water. Contact with revolving blades may result in serious injury.
- Keep your clothes and hair away from the propellers; otherwise, it may result in injury or death.
- Do not wear loose and lace-up clothes to prevent the clothes edge or belt from being involved in the propellers.
- Pay attention to the surroundings while driving, especially the swimmers, ships and obstacles, etc. at the driving direction of this Product, for any collision may result in serious injury or death.
- Keep a controllable speed while driving this Product, to evade the obstacles in water, such as buoys or other ships.
- When operator falls in water, release the accelerator of remote controller immediately to cut off power supply, and prevent this Product from colliding with other swimmers or ships.
- This Product should be handled by one operator only. It may result in safety accident if being by two or more operators at the same time.

Product Introduction

1. Packing List

S/N	Name	Qty.
①	Surfboard	1
②	Front hydrofoil	1
③	Rear hydrofoil	1
④	Cross bar	1
⑤	Vertical bar	1
⑥	Motor	1
⑦	Control box	1
⑧	Battery	1
⑨	Remote control	1
⑩	Charger	1



①Surfboard



②Front

④Cross bar

⑤Mast

⑥Motor

③Rear



⑦Control Box

⑧Battery



⑨Remote control



⑩Adapter/Charger

Remote Control Introduction



- **Buttons:** The remote control has 4 buttons in total: Power button, menu button (M), + button and - button. The remote control has a magnet at its bottom.
- **Charging:** One lithium battery is mounted at the bottom of remote control handle. Open the bottom cover, use the charger for charging through the magnet, and it can realize standby for 3-4 days continuously.



- **Power:** The Power button is above the screen. Press and hold it for 3s to power on/off.
- **Display:** The main screen will display the information such as battery level, gear, power and driving speed, etc.
- **Gear:** 9 gears for standard version, or 15 gears for high-end version. Press the (+) or (-) button right below the screen to adjust the gear.
- **Reverse:** Remote control short press (-) key, reduce to 1 gear, and then long press (-) key, into R gear, that is, reverse gear.
- **Calibration:** Use the accelerator handle below the remote control to adjust the accelerator. Press and hold +- button at the same time to enter accelerator calibration mode, and handle the trigger according to page prompts to calibrate the accelerator stroke.



- **Menu:** Press and hold menu button (M) for 3s to enter menu setting interface, including:
Check current version, Bluetooth pairing, adjust lock screen time, ambient lighting setting, set track point, record time and system setting, which can be set as required.



- **Operation:** (+) and (-) indicate up and down. Press M to select it, or press Power button to return.

- **Connection:**

1. Open the control box, press and hold the Power button of remote control for 3s to turn on the remote control.
2. Put the bottom magnet at the Bluetooth icon position for sensing for 3s. Pairing mode is entered when the indicator of box button flickers quickly.

3. Press and hold M button for 3s to enter menu selection interface, select BLE Pairing to enter pairing mode.
4. When pairing succeeds, it will have green ✓ prompt and display Ble Pairing Success, and the control box indicator will be normally on. When pairing timeout occurs, it will prompt!, display Ble Pairing OutTime and control box indicator will be normally on.

Warning: When the hydrofoil has low battery, Pulseer will automatically lower the power and enter protection mode, remind the user to return to the shoe and recharge battery. Pay attention to low battery, battery overheat, motor overheat, low battery of remote control and other warnings on the screen. See “Common Faults & Troubleshooting of Hydrofoil Board” for details.

Product Use Guidance

Preparation before use

1. Charging battery of hydrofoil board

- Lay the battery flat and handle it with care. It is recommended to recharge the battery in a dry place.
- Keep the battery and adapter clean, dry and free from fragment.
- Connect the battery to adapter, then connect adapter to socket to start charging.
- **Note: Do not connect battery by force, for it may damage the pin on the panel of battery and power connector. This is a high-power charger that should not share power socket with other electric appliances. Ensure that the charging power supply can reach 1,200W.**
- Charging is started when “lightning” icon on charger starts flickering.
- The value on battery indicates the charging progress from 0% to 100%. The charging period is 1.5h for standard version, or 3h for high-end version. Complete discharging is not required prior to battery charging.
- Do not cover the charger during charging. The aluminum cooler can promote the ventilation and cooling of charger. The fan will rotate automatically during charging, but it is also normal when fan is not rotating.

2. Disconnecting battery

- When charging is done, disconnect the adapter from socket, then disconnect the adapter and battery.

3. Charging remote control

- The remote control is mounted with one lithium battery which is recharged through the magnetic. The battery can last for about 3-4 days under use status.
- Open waterproof plug at bottom of remote control, have slight contact between the magnet sticker of charging wire and the remote control bottom to have automatic fitting; connect the charger to socket and remote control to start charging.

Overall Installation

1. Installing front/rear hydrofoil on cross bar



- Align the front hydrofoil (large hydrofoil sheet) with the 3 screw holes of cross bar, find 3 M6x20 hexagon socket countersunk head screws in accessory box and fasten them with hexagon L wrench.



- Align the rear hydrofoil sheet (small hydrofoil sheet) with 2 screw holes of cross bar, find 2 M6x15 hexagon socket countersunk head screws in accessory box and fasten them with hexagon L wrench.



2. Installing hydrofoil module on vertical bar module



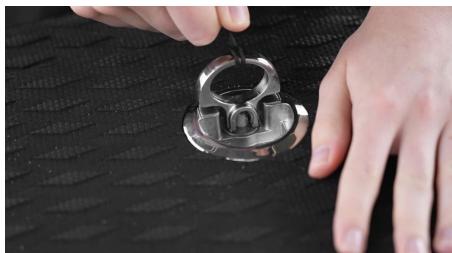
- Confirm the direction of assembled hydrofoil module, keep the large hydrofoil at front and small hydrofoil at back.
- Insert the vertical bar in cross bar, fasten two 8*30 countersunk head screws with 5mm L wrench in the tool box.

3. Installing vertical bar module on panel



- Find the vertical bar and surfboard.
- Keep the vertical bar stable, cross the cable through the bottom port of surfboard, keep vertical bar and surfboard at the same direction.
- Then, fix the vertical bar with both hands and when rubber seal is in place, press it down with force.
- Fix the vertical bar in place with one hand, then fasten the M8 screws with the other hand.
- Ensure that all four M8 screws are fastened manually before fastening them with 5mm hex wrench. Continue to fix the vertical bar in place, and fasten the bolt with 5mm hex wrench.
- Fasten the M8 bolt firmly and fix each bolt twice at least, to ensure firm connection and sealing. Ensure that all edges of vertical bar pedestal are firmly fixed at the bottom of board.

4. Installing the control box module



- Open the compartment through floor lock.

Note: Do not adjust the latch tension to ensure good waterproofing and sealing!



- The control box is installed at the rear side of board by default. Use the 3mm L wrench to fasten the 4EA4*12 hexagon head screws and 4EA gasket to fix the control box on the board.

- Connect the vertical bar plug to control box. It may have resistance to insert the plug for it has waterproof treatment.

Note: Keep plug dry and clean before connection and avoid wrong connection.

5. Installing the battery module



- Place the battery at front end of compartment and keep the labeled side upward. Lay the battery flat, then fix and fasten it through the knob.

- Connect the control box plug to control box. It may have resistance to insert the plug for it has waterproof treatment.

Note: Keep plug dry and clean before connection and avoid wrong connection.

6. Power-on Inspection

- Check if vertical bar, control box and battery are fastened, there's connection between vertical bar and control box and between control box and battery; confirm that equipment is clean, tidy and free from fragment.



- Press the Power button on control box and it will light up and power indicator will display the battery level.

7. Pairing of Remote Control and Equipment

- Open the control box, press and hold the Power button of remote control for 3s to turn on the remote control.
- Put the bottom magnet at the Bluetooth icon position for sensing for 3s. Pairing mode is entered when the indicator of box button flickers quickly.
- Press and hold M button for 3s to enter menu selection interface, select BLE Pairing to enter pairing mode
- When pairing succeeds, it will have green ✓ prompt and display Ble Pairing Success, and the control box indicator will be normally on.

- When pairing fails, it will give a prompt of !, display Ble Pairing OutTime and control box indicator will be normally on. When pairing fails, it will restart pairing.
- Connect the hydrofoil board, press +/- button to adjust the gear and try the different surfing speed of hydrofoil board.

8. Inspection of Power System

- Select Gear 1 through remote control, press the accelerator slowly, check if motor has normal rotation and noise.

Preparation for Sailing

- Find an open water area, ensure that water depth is above 1.5m, do not use this Product in densely-populated area. Please wear PPE such as life jacket and helmet before use.
- Install and fasten the battery in a dry and sand-free place.
- Move the board to water area with proper length, keep remote control powered off while carrying the board to avoid triggering the accelerator by accident.
- Press and hold the Power button for 3s to turn on remote control. When remote control connection is normal, check the battery level and wear the remote control wristband on your wrist.
- Switch the gear of remote control properly. Gear 1 or 2 is recommended for beginners.

Note: When accelerating, adjust the trigger slowly to control the accelerator, instead of pressing or releasing the accelerator quickly.

Starting Sailing

1. Beginner

- Please watch the guidance video to master the riding. Please ride safely and politely.
- Ensure that manual controller is closed when carrying the Pulseer. Carry eFoil in a comfortable way or seek for help from your friends.
- Master the setting of remote control and power supply.

2. Standing Position Sliding

- Hold the controller with one hand, then hold the front end of board with the other hand. Avoid contact between front end and water, press the trigger and step on accelerator, tilt your body forwards. Start sliding for several circles from the prone position on board, and get adapted to accelerator driving.

Note: The circuit board will be more stabilized at higher speed (about 10 miles/h). Once you prone comfortably, you can have transition to kneeling position.

- Keep accelerator stable, slide for several circles until you feel comfortably.
- Keep consistent accelerating and have slow transition from kneeling position to standing position.
- Keep a broad standing posture and form square with the sliding board, in order to enhance the stability. It is important to shift user's center of gravity forwards when accelerating the sliding board, which applies to sliding at riding, prone, kneeling or standing position.
- Don't be afraid of falling, for it is normal in the process of practice.
- When speed is affected by accelerator, redistribute the center of gravity to control the height of Pulseer eFoil.
- Practice "touch and go", relax on Pulseer eFoil, shift the center of gravity backwards when speed is enough, then shift the center of gravity forwards and release the accelerator slightly to pull the board back to water surface.
- Insurance is a key part of learning the hydrofoil, but there's big difference between them. A targeted rescue can keep certain distance between the rider and Pulseer eFoil and have uncontrolled falling, which may lead to injury.
- When control over eFoil is lost, get rid of it through the final balance to establish a distance between user and eFoil.

Warning: Always tilt to the lateral or back side of Pulseer, instead of tilting forwards.

- When you swim back to the board, make sure to close the manual controller and avoid pressing the trigger. After you return to board safely, open the manual controller again.
- Always keep your body away from the propeller.
- Do not open the compartment in water.

It takes time to study in order to enjoy the fun and keep safety.

Riding Completion

1. Cleaning and Arrangement

- Please turn off hydrofoil board and remote control after finishing riding.
- Pull out the board from water surface, keep the tail downwards and maintain a tilted status, until the residual water in board is drained completely.
- After use in seawater, clean the surface of board, pump propeller and drive with clean water, then wipe it with a towel.
- When battery connector has touch with seawater, please power off and clean the board and battery connector with clean water, then wipe it with a towel. Do not wash the battery connector directly with a high-pressure water gun.

2. Storage

- Separate the hydrofoil, vertical bar and board prior to transportation.
- Put the battery and hydrofoil board in independent storage bag separately.
- The battery level should be under 30% prior to transportation.
- Avoid damaging the battery with sharp parts, for the outer package film of battery pack can be easily damaged by sharp parts such as nickel plate and needle tip.
- It is forbidden to immerse battery pack in seawater or water.
- It is forbidden to place battery pack near heat source, such as fire and heater, etc.
- Please use the specific charger for charging lithium-ion battery.
- Do not invert the anode and cathode of battery pack and avoid short-circuit of battery.
- It is forbidden to connect battery pack to power socket directly.
- It is forbidden to throw battery pack in fire or heater.
- It is forbidden to transport or store the battery pack along with metals, such as hair clip and necklace, etc.
- It is forbidden to knock, throw or step on the battery pack.
- It is forbidden to weld battery pack or cell directly, or use nails or other sharp objects to pierce the battery pack or cell.
- It is forbidden to use or place the battery pack at high temperature (direct sunlight or in hot vehicle); otherwise, it may result in battery overheat, fire or functional failure, thus shortening the life of battery pack.
- It is forbidden to use in places with strong static electricity and magnetic field; otherwise, it may easily damage the safety protection device of battery pack and bring hidden dangers.
- When battery has leakage and electrolyte enters your eyes, do not rub your eyes, but clean them with clean water and then seek for medical treatment immediately; otherwise, the eyes can be damaged.
- When battery pack has odor, heating, color change during use or storage, or any fault during charging, immediately remove the battery from charger or device and stop using it.
- Use insulated paper to wrap the electrode of abandoned battery to prevent fire and smoke.
- The battery pack should be charged to 40% to 60% and be stored at room temperature. It is recommended to charge the battery pack every 3 months to prevent over-discharging. When storage period exceeds half a year, it is suggested to charge and discharge it in every half a year, in order to activate the battery.

Maintenance

What're the cleaning & maintenance steps after daily use of surfboard?

Cleaning & maintenance contents:

1. Clean each section of board with fresh water;
2. Clean the battery, battery connector and propeller with fresh water;
3. Ensure that all parts are cleaned;
4. Dry the board and battery completely after cleaning;
5. Precautions of blowing the battery connector terminal with air cooler: Do not use a high-pressure water gun to spray fresh water; carry out cleaning after finishing use in water and collection of board.

What're the contents of regular and in-depth maintenance?

1. Regularly remove the rust and crystal on power module and battery connectors as follows:
① Use fresh water to clean the connector for 2~3min, then use a brush to wipe the connector, until each terminal surface of connector is free from white scaling and green stain of metal corrosion.
② Precautions of using WD-40 spray terminal for further cleaning after drying of connector: Each terminal of battery connector should have cleaning and maintenance. The rust and crystal (if any) on power module and battery connector should be cleaned in time.
2. Regularly apply rust remover to battery hatch, all external screws and battery connector to prevent rusting.
3. Please replace the seal ring on the terminal connector of power module after using the surfboard for 60~100 times.
4. Maintenance of floor lock: When floor lock is blocked and smooth, drop several drops of matched lubricant to the root, or drop the lubricant regularly (once a month, for example) to keep floor lock smooth.



Precautions

What do I need to concern while using surfboard?

1. Find an open water area, ensure that water depth is above 1.5m; do not use this Product in densely-populated area. Please wear PPE such as life jacket and helmet before use.
2. Check if battery level is enough prior to surfing.
3. Do not fall down towards the driving direction of surfboard when you fall in water. After falling in water, do not panic, but release the trigger of remote control and keep your hands and feet away from propellers.
4. Do not surf near a moving ship.

What're the precautions for daily storage of surfboard batteries?

1. After finishing use, please take out battery from surfboard and put it in a safe place.
2. The ideal storage temperature of battery 0-25°C, keep it away from fire and heat.
3. Store the battery in a cool and dry place, keep it away from direct sunlight or rainwater.
4. When battery needs long-term storage (over 30 days), please charge or discharge to 45% ~ 50% in order to maintain the battery activity.
5. Carry out charging maintenance to battery once every 3 months during storage, and charge it to 45% ~ 50%.

What're the precautions for charging surfboard battery?

1. Only the matched specific charger can be used for charging. For any consequence caused by charging of unauthorized charger, we do not bear any liability.
2. Place the charger and battery at a stable and dry place without inflammables and explosives while charging the battery.
3. It is forbidden to charge the damaged battery.
4. Avoid unattended charging of battery.
5. The ambient temperature of charging is 5~40°C.
6. It is forbidden to charge the battery immediately after use, for the battery is hot after use. It is suggested to cool the battery to room temperature prior to charging.
7. It is forbidden to recharge battery for long period. Please disconnect the charger and battery after charging is done.

What're the precautions of using surfboard battery?

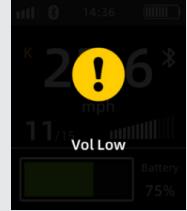
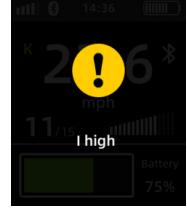
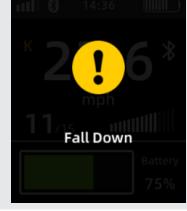
1. Handle the battery with care, lay it flat and avoid damaging the battery shell.
2. Do not dismantle, alter nor modify this battery.
3. Avoid collision, impact or physical damage.
4. Before using the battery, check if:
 - ① The connector is loose
 - ② The shell has crack
 - ③ The battery has deformation
 - ④ The battery has acid smell
 - ⑤ The charging temperature is too high (60°C or above)
5. It is forbidden to use conductor or other metals to prevent short-circuit of battery anode and cathode.
6. Do not install the battery in water. Please install all parts on shore and at dry place.
7. Do not plug/unplug the battery while battery is on; otherwise, it may damage the power interface. Keep the battery under power-off status before installing battery or unplugging battery from the board.
8. The ambient temperature of battery is 0~40°C; it may result in fire or even explosion of battery when temperature is too high, or weaken the performance and fail to satisfy demands when temperature is too low (below -10°C).
9. It is forbidden to touch the battery connectors directly after battery is powered on, for high voltage exists between electrodes.

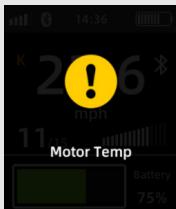
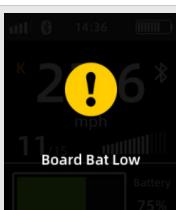
Common Faults & Troubleshooting of Hydrofoil Board

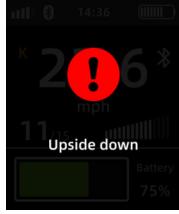
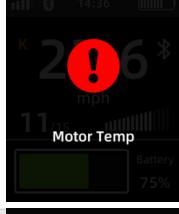
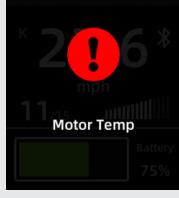
For any fault of hydrofoil board in use, the remote control and battery will display corresponding faults. Please do troubleshooting by referring to the table below. If failing to remove the fault, please timely contact the after-sales technicians, instead of dismantling this Product without permission.

Faults of remote control and control box

The fault prompts will be displayed on remote control screen. Please handle the faults according to prompts.

Warning	Prompt Text	Prompt Picture	Troubleshooting
Over voltage	Vol High		The control box is powered off, and when it is powered on, the overvoltage problem should be returned to the factory for maintenance, and the equipment can continue to be used if there is no problem.
Under voltage	Vol Low		Charge the battery in time.
Overcurrent	I high		Lower the sliding gear and speed, reduce current strength.
Hydrofoil board tilt angle exceeds 80°	Fall Down		Align the hydrofoil board and avoid tilting.

Warning	Prompt Text	Prompt Picture	Troubleshooting
Battery high temperature	Battery Temp		Lower gear and speed of sliding, wait until battery temperature is below high temperature threshold.
Plug high temperature	Motor Temp		Lower gear and speed of sliding, wait until motor plug temperature is below high temperature threshold.
Aluminum substrate high temperature	Motor Drive Temp		Lower the gear and speed of sliding, wait until aluminum substrate temperature is below high temperature threshold.
Battery level low	Board Bat Low		Timely recharge the battery and improve the battery level.
Remote battery level low	Control Bat Low		Timely recharge the remote control and improve the battery level.

Warning	Prompt Text	Prompt Picture	Troubleshooting
Under voltage	Vol Low		Timely recharge the battery.
Over current	I high		Stop using and reduce current strength.
Hydrofoil board rotates by 180°	Upside down		Stop using and align the hydrofoil board to continue sliding.
Battery high temperature	Battery Temp		Stop using, wait until the battery temperature is below the high temperature threshold.
Plug high temperature	Motor Temp		Stop using, wait until the motor plug temperature is below the high temperature threshold.
Aluminum substrate high temperature	Motor Drive Temp		Stop using, wait until the aluminum substrate temperature is below high temperature threshold.

故障警示	提示文字	提示图片	处理方式
Motor stall	Motor Stall		Stop using immediately, put the propellers on shore, clean the foreign matters before continuing the use.

Battery faults

The fault codes are displayed on the power indicators. The meaning of fault code is as follows. Please handle the fault by fault code. For any query, please consult the after-sales person.

1. High total voltage	55. High discharging temperature
2. Unit battery high voltage	56. Low discharging temperature
3. High voltage difference of unit battery	57. High MOS temperature
4. Charging hardware voltage protection	58. High ambient temperature
5. High charging temperature	59. Low ambient temperature
6. Low charging temperature	60. High socket temperature
7. High MOS temperature	61. Discharging overcurrent
8. High ambient temperature	62. Discharging overcurrent
9. Low ambient temperature	63. Discharging short-circuit
10. High socket temperature	64. Discharging hardware overcurrent
10. Charging overcurrent	65. Discharging communication timeout
14. Charging hardware overcurrent	66. Charging detected during discharging
15. Charging communication timeout	67. Full discharging
16. Discharging detected during charging	68. Discharging temperature protection
17. Fully charged	69. Stop discharging due to discharging protection
18. Charging temperature protection	70. Discharging hardware failure
19. Stop charging due to charging protection	71. Power button not pressed
20. Charging hardware failure	90. Test mode
51. Low total voltage	91. Stop
52. Single battery low voltage	92. Enter sleep mode
53. High voltage difference of unit battery	93. Power-off
54. Discharging hardware voltage protection	

Product Specification

E-foil

E-foil	
Overall dimensions	S1:5'8" x 28" (167cm*72cm) P1:5'0" x 24.5" (150cm*64cm) U1:4'2" x 23" (124cm*60cm)
Net weight	25KG
Appearance color	Black, White Gray 7534C, Green 366C, Blue5425C, Red1797C, Orange150C, Gray
Material	Mainly carbon fiber
Max. speed	45Km/H
Max. load	120kg
Max. endurance	180min
Waterproofing grade	IP67
Locating system	GPS + Galileo + Beidou
Communication mode	Bluetooth 5.3
Working temperature	0~40°C

Remote control

Remote control	
Screen	ST7789 2inch
Built-in battery	4.2V 1200mAh
Communication mode	Bluetooth 5.3
Charging port type	Magnet
Rated input	5V 1A
Charging period	2h
Waterproofing grade	IP68
Working temperature	0~40°C

Power System

Max. output power	6000W
Motor type	DC brushless motor
Power management	Overheat protection, overcurrent protection, lockage protection, overvoltage protection

Charger

Input	200-240V
Output	58.8V
Max. power	1200W

Battery

Dimensions	444*360*75cm
Weight	Standard : 6.10KG Advanced : 11.93KG
Nominal voltage	50.4V
Charging limit voltage	58.5V
Battery capacity	Standard: 32Ah Advanced: 60Ah
Charging period	Standard: 1.5h Advanced: 3h
Battery charging cycles (short-term charging and discharging)	800 cycles
Battery type	Lithium battery
Battery management system	Overcurrent protection, overheat protection, overvoltage protection, over-discharging protection, water inflow detection, balanced charging, etc.
Waterproofing grade	IP68
Working ambient temperature	-20°C~+80°C
Charging ambient temperature	0°C~+50°C

* Specifications and product models may change without further notice.

POWERED BY INNO INSTRUMENT.

FCC Warning

15.19 Labeling requirements.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

15.21 Information to user.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.105 Information to the user.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC RF Radiation Exposure Statement:

- 1.This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- 2.This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 5mm between the radiator and your body.