

If the product parameters are changed, no further notice will be given, and the final interpretation right belongs to the manufacturer.

Please read this manual carefully before use and keep it properly

# Smart Remote Control Lifebuoy

## User Manual

(Universal Edition)



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# Safety

## Use environment

- This product contains lithium batteries, please store them in accordance with "Lithium Battery Storage Safety Regulations"
- It is recommended to be used in open waters with a certain depth away from high-density floating objects, submerged reefs, shallows, and electromagnetic interference.
- Use in -10°C to 50°C, non-fog or snowy weather.
- Some functions may be restricted when used indoors, without satellite signals, in a narrow space, or in a shallow environment.
- This smart lifebuoy can only be used in waters with a flow velocity of 4 meters or less. When the water velocity is greater than the speed of the lifebuoy, please drive the rescued person along the water or across the water to get to the shore quickly, out of danger and not on board. Rescue is carried out against the current in human situations, otherwise the rescue will fail.

## Check

- Make sure that the waterproof cover of the charging port is tightened.
- Make sure that the battery plug is tightened.
- Make sure that the battery pressure plate is in place and the battery compartment cover is locked.
- Make sure that the water inlet grille and nozzle of the propeller are not blocked by other objects.
- Ensure that the motor shaft and impeller are not entangled with other objects.
- Ensure that the lifebuoy and remote control are fully charged.
- Make sure that the remote control joystick, buttons are worked properly.
- Make sure that the user is familiar with each sailing mode.

## Operation

- At any time, ensure that the lifebuoy is switched on and off when the remote control is turned on.
- Do not throw the lifebuoy into the water before the preparation work is completed.
- Do not run the motor for a long time in an anhydrous environment.
- Do not put your fingers into the propeller during work rotation.
- Do not put other objects into the propeller during the work rotation.
- Try to operate the lifebuoy within line of sight.
- Please do not shuttle this lifebuoy in crowded vessels.
- Please keep the remote control from water in rainy weather or other conditions.
- Please return home as soon as possible when the battery is low.
- Please return as soon as possible when the current speed gradually increases.
- During the smart return home process, pay attention to avoiding obstructions in the route.
- In the rescue process, when the lifebuoy sails to the vicinity of the drowning person, please slow down and approach.

# Disclaimer and Warning★★★★★

This product is a professional rescue equipment and is not suitable for people under 18 years of age. Do not allow children to touch this product, especially the part of the propeller, so as to avoid unnecessary injury.

This product is a smart lifebuoy that can be remotely controlled. It provides a relaxed rescue experience when the power supply is working normally, the components are not damaged, and the environment is good. Please read this user manual carefully to get a more comprehensive understanding of this intelligent lifebuoy. Our company reserves the right to update this user manual.

The user should read this user manual and operate after being familiar with the functions of this product. If the product is not operated correctly, the user may cause injury to himself/herself or others, or cause product damage and property loss. This product has a certain degree of difficulty in getting started, it takes a period of familiarization and operation before it can be used safely, and it needs to have some basic common sense and rescue common sense before it can be operated. Without a good sense of safety, improper operation may cause product damage and property loss, and even cause harm to yourself and others.

Once you use this product, it is deemed that you have understood, approved and accepted all the terms and contents of this user manual. The user promises to be responsible for his actions and all consequences arising therefrom. The user promises to use this product only for legitimate purposes, and agrees to all terms and contents of this user manual. Our company is not responsible for all losses caused by users not using the product in accordance with the guidelines of this user manual, relevant policies or guidelines.

In compliance with laws and regulations, our company has the final right to interpret this user manual. Our company reserves the right to update, revise or terminate this user manual without prior notice.

# User notice

Dear user, you are welcome to use our smart remote control lifebuoy. This product incorporates manual control and automatic control technology. It is a water rescue product positioned between the rescue boat and the traditional lifebuoy. It has outstanding features such as high rescue efficiency and low rescue risk, can cope with various harsh water rescue environments.

This manual is a general version. If there is any customization or modification, the actual product shall prevail. All pictures in the manual are for reference only, and the actual product shall prevail. For your safety and the efficiency of rescue, please read the following information carefully:

**Please read the following information carefully:**

1. When replacing the batteries, replace the two batteries at the same time. When charging, the two batteries are charged at the same time. Do not use the battery pack with a voltage difference of more than 1V;
2. Make sure that the battery voltage is above 29V before use;
3. It is strictly forbidden to put fingers or debris into the propeller area to avoid personal injury or damage to the propeller;
4. After using the lifebuoy, it should be charged in time when the voltage is lower than 23V;
5. Please let the lifebuoy stand for 30 minutes before charging; stay away from flammable materials during the charging process and pay attention to fire prevention;
6. When the lifebuoy is near the rescued person, it is recommended to slow down to avoid a collision;
7. This smart remote-controlled lifeboat is auxiliary rescue equipment, which cannot guarantee 100% rescue success. Rescue personnel must be on-site to assist in the rescue;
8. It is forbidden for the intelligent remote control lifeboat motor set to run idle for a long time in an anhydrous environment;
9. Smart lifeboats need to be rinsed in time after being used in relatively dirty and complex water environments, especially the power part, to avoid clogging caused by condensation of residue;
10. Injury, death or property damage caused by improper use and other man-made reasons shall be borne by the user;
11. Do not allow non-professional maintenance personnel to use non-original parts or disassemble and assemble the intelligent remote control lifebuoy by themselves, so as not to cause permanent damage;
12. If the lifebuoy is not used for a long time, it is recommended to discharge and charge the lifebuoy once a month. If longer storage is required, the battery voltage should be discharged to 24V for battery storage and prolong battery life;
13. Please read the user manual carefully before use, and strictly abide by the operating procedures.

# Features

- Faster, Solider, Smarter
- Automated route driving
- Replaceable battery pack
- Home point customization
- Automatically correct the course
- Automatically flip back to the front
- Optimized fluid mechanics airframe design
- Super strong resistance to wind and waves
- Automatically return to home after losing connection
- Can be upgraded to mount a variety of detection equipment

## Packing list

Number	Description	Qty	Unit
1	Smart Lifebuoy	1	pc
2	Remote Control	1	pc
3	Smart Lifebuoy Charger	1	pc
4	User Manual	1	pc
5	Certificate of conformity	1	pc

When opening the package, please check whether the accessories are complete according to the following table, and check whether the appearance of the equipment is damaged.

# Quick start guide

- 1.Long press the power button on the remote control, after hearing three beeps, release the button to complete the boot;
- 2.Place the lifebuoy on its back in an unobstructed place on its back, press the lifebuoy switch, the indicator lights will flash alternately and then the green light will flash slowly. When the green light flashes slowly, the blue light flashes slowly to complete the satellite search; Note: The satellite search takes about 1 minute, which is mainly affected by factors such as interference from different environments.
- 3.Press the button A on the remote control, the button A lights up, the blue light of the lifebuoy flashes slowly to a constant light, and the bright yellow warning light flashes on the edge, it is unlocked, and the location of the lifebuoy is the Home Point;
- 4.After unlocking, you must wait for about 2 seconds, and then push the left joystick forward slightly, and the two motors can rotate without abnormality, and the lifebuoy can be put into the water for navigation operation;
- 5.Affected by different water environment, you can press the button B shortly. When the button B is lit, it is the course lock mode, which can ensure a long-distance and relatively straight sailing route. Short press the button B again, the light of button B is off, then switch back to manual mode;
- 6.When you need the lifebuoy to return home automatically after sailing a certain distance, press and hold the button B. When the button B flashes quickly, the automatic return is activated. When the lifebuoy automatically returns to the shore, please short press the button B to end the automatic return to avoid unnecessary losses.

## The smart remote control lifebuoy with 2-level low voltage protection

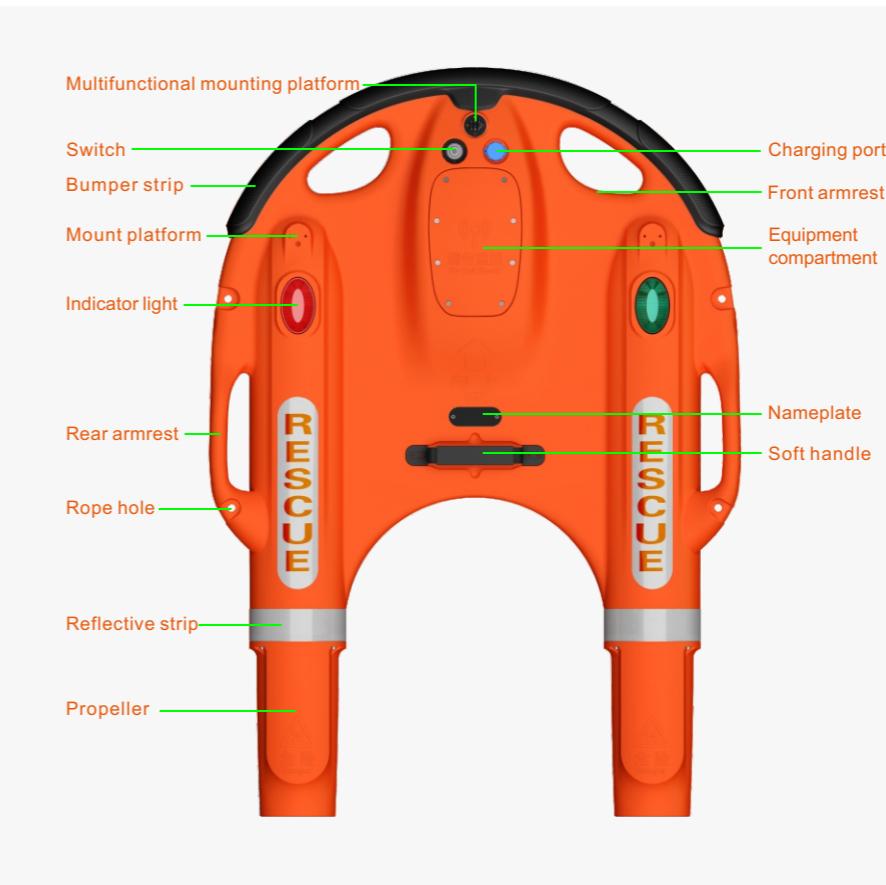
Level 1: When the voltage is lower than 23v, the lifebuoy will trigger the first level of voltage protection, and the lifebuoy will automatically switch to the mode of returning home point, which can be released by switching to the manual mode.

Level 2: When the voltage is lower than 21.7v, the lifebuoy will trigger the second level of voltage protection, the lifebuoy will stop driving, and it can be released by switching to the manual mode. When the voltage is low, please stop driving the lifebuoy as soon as possible and charge it in time.

## Note:

- 1.After the remote control is turned on, make sure that the button A and B are in the light off state, if the lights are always on or keep flashing, please short press it to turn off the lights;
- 2.Satellite search is affected by local environmental factors, and the absolute time and success rate cannot be guaranteed. If the satellite search cannot be completed for a long time, please do not use the auto-return mode;
- 3.By short pressing the button A, you can unlock and lock it, and you can also refresh the home point. In order to avoid the lifebuoy from hitting the shore without stopping in time when it returns automatically, the lifebuoy can be sailed to 10 meters offshore to refresh the home point;
- 4.If the lifebuoy is thrown or in use, the lifebuoy is turned to the bottom up: in manual mode, you can directly pull the left joystick back to make the lifeboat flip back and face upwards for normal use; and in the course correction mode, the lifebuoy will be automatically flip back to the front (make sure the water depth is more than 1.5 meters when flipping, otherwise the automatic flip may fail).

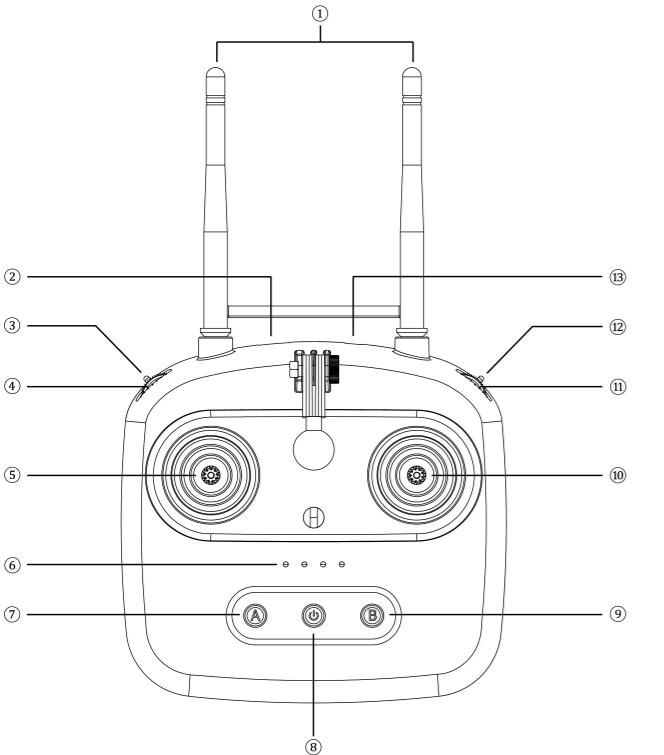
# Introduction of components



## Description of components

- 1.Propeller: high-power dual-propeller;
- 2.Reflective strips: reflective strips can be attached for easy identification;
- 3.Rope hole: a safety rope with a diameter of 10mm or less can be worn;
- 4.Rear armrest: easy to grasp when being carried by the rescuer or during daily transportation;
- 5.Indicator light: The lifebuoy status will be displayed when it is just turned on, and the highlight warning light will be activated after unlocking;
- 6.Mounting platform: used to mount external equipment such as spotlights;
- 7.Bumper strip: used for anti-collision;
- 8.Switch: turn the machine on when pressed, turn it off when pressed again;
- 9.Multifunctional mounting platform: used to mount and install more multi-function devices to be developed;
- 10.Charging port: It is used for charging, please pay attention to the correct direction when charging; Note: Please pay attention to tighten the charging port cover before launching the lifebuoy;
- 11.Front armrest: used to be grasped by the rescuer;
- 12.Equipment compartment: Intelligent electronic control equipment compartment. Because there is a satellite positioning module in the equipment compartment, please do not completely cover the upper part when it is used in the water;
- 13.Nameplate: display lifebuoy information;
- 14.Soft handle: easy to extract, grasp, etc.

# Introduction of remote control



## Introduction of remote control:

1. Antenna: When the two antennas are parallel to each other and both are upright towards the sky, better signal strength can be obtained.
2. USB charging port: for USB charging
3. Left third gear switch: undefined function
4. Left pulsator switch: undefined function
5. Left stick: used to control the lifebuoy forward and backward.
6. Indicator light: When powering on, the four LEDs light up from left to right one after another. When the four LEDs are always on, the smart remote control is fully charged.
7. Switch A: used to lock/unlock, short press and the button will be unlocked when the button is always on, and then short press the light off to lock. Note: There is no function by long press this button.
8. Power button: Long press, the four LEDs on the top will light up in turn, and after three beeps sound, release the button to complete the boot; on the contrary, long press again to shut down
9. Switch B: used to switch the navigation mode. When the button is always on after a short press, it is the navigation correction mode, and when it flashes quickly after a long press, it is returned to automatic navigation mode. A detailed description of the sailing mode can be found in the following description.
10. Right stick: used to control the left and right steering of the lifebuoy.
11. Right wave wheel switch: undefined function
12. Right third gear switch: undefined function
13. USB data transmission port: used for data transmission

# Sailing mode description

## 1. Manual mode:

This mode is purely manual control, with high operating sensitivity, and can be quickly started to use the smart lifebuoy. It is recommended to use in emergency situations;

## 2. Course correction mode:

In this mode, an intelligent system participates in the correction of long-distance straight-line navigation, and the navigation speed is greater than that in manual mode. In this mode, the left and right steering sensitivity is not high. It is recommended to enable this mode when sailing towards the target at a long distance, and switch to manual mode when approaching the target to improve rescue efficiency;

## 3. Automatic return to home mode:

When the device is turned on and the lifebuoy is used after the satellite search is completed, if this mode is enabled, the lifebuoy will automatically return to the home point (the accuracy error is about 2 meters). When time permits, it is recommended to reset the home point: sail the lifebuoy to 10 meters offshore (or any place in the water required by the user), short press the button A, and the light of button A will go out to complete the lock. Short press the button A after 2 seconds, the button's light is on, and the unlocking is completed. At this time, this point is the new home point. The lifebuoy will return to this point and stay. When the lifebuoy exceeds the remote control distance or other factors cause the signal to be lost, the lifebuoy will automatically start to return to home after 10 seconds of loss of signal. At this time, if the remote control signal is received again, the lifebuoy will stop automatically returning to home, please take over via the remote control in time. Note: The automatic return route is the straight line between the point where the current lifebuoy is located and the return point. When there is an obstacle between this straight route, please stop the lifebuoy and return automatically to avoid collision.

# Indicator light description

## Smart Lifebuoy:

1. Green light: After following the correct boot steps, the two indicator lights of the lifebuoy flash alternately in multiple colors and then turn to green light flashing slowly. At this time, the status is satellite search. In this state, the lifebuoy can already be used. After unlocking, the green light flashes slowly and turns to a steady green light, but the automatic return to home function cannot be used;

2. Blue light: When the lifebuoy is lying face-up in an open and unobstructed place, it will be turned on according to the correct steps, the indicator will enter the "green light" state to search for satellites, and the blue light will flash slowly after the satellite is found. After unlocking, the blue light flashes slowly and turns to a steady blue light;

3. High-bright warning light: Press the button A to unlock, you can start the lifebuoy status light and high-bright warning light.

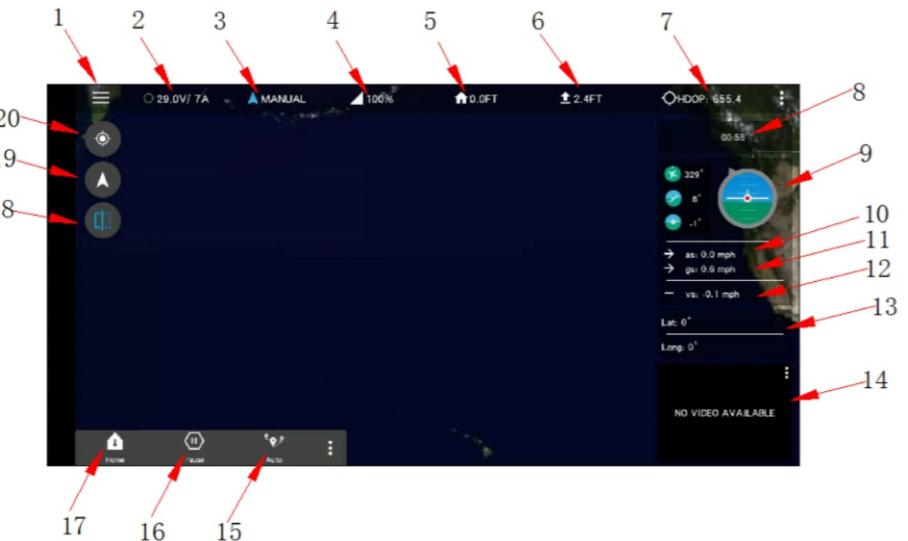
## Smart Lifebuoy Charger:

When the charger is inserted into the lifebuoy to charge, the green light of the charger will change to red, and it will turn back to green when it is fully charged.

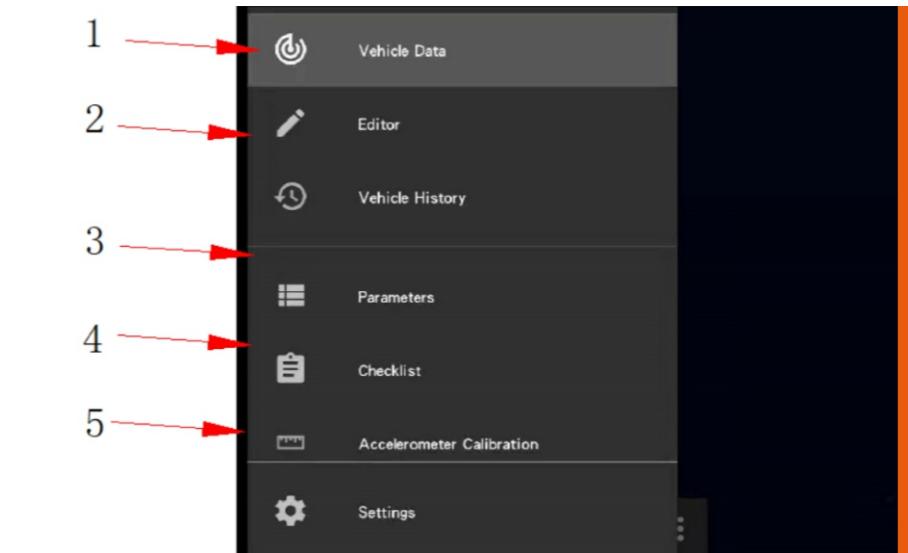
# APP page introduction

## Introduction:

- 1.Main menu
- 2.Battery voltage and current display
- 3.Modes selection
- 4.Remote control signal display
- 5.Home point selection (return to the defined point, return to the location of the remote control)
- 6.Height display(N/A)
- 7.Gps accuracy and quantity display
- 8.Time display (start timing after connection)
- 9.Course, left and right yaw angle, pitch angle, front and back display
- 10.Airspeed (based on the current speed measured by GPS)
- 11.Ground speed (based on current speed measured by accelerometer)
- 12.Comprehensive acceleration
- 13.Video window
- 14.The current location coordinates of the device
- 15.Return home switch
- 16.Pause current task switch
- 17.Autopilot switch
- 18.Function hide button
- 19.The location of the lifebuoy is shown on the map
- 20.The location of the remote control is shown on the map



# APP page introduction



## Introduction:

- 1.Edit route, define route point position (autopilot function)
- 2.Black box data record
- 3.Edit driving parameters, gain, etc.
- 4.List of inspection items before driving
- 5.Calibration

# Warranty card

(Please keep this warranty card as a warranty certificate )

User name :	Phone number:
Zip code:	Product model:
Address :	
Sold by:	Phone number:
Address:	
Zip code :	
Dealer:	Purchase date:

Stamp

## **Warning Statement**

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.

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

**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.