SHARK CAPTAIN

User Manual

Version 2.5

Trolling motor

Applicable models

- SS90
- SS120
- SS180
- SS240
- SS280
- SS430

Thank you for choosing the Shark Captain trolling motor. Whether you'd like to hold your fishing boat steadily in place at a favorite spot or move smoothly along a set path, Shark Captain trolling motor is here to help—making every moment on the water more enjoyable and effortless.

⚠ Warning

Please read and fully understand the contents of this manual carefully. Improper operation or use may cause personal injury or render the equipment out of warranty.

* For any inquiries during the product usage period, please contact your local authorized agent or the Shark Captain Customer Service Center.
* Due to ongoing product upgrades, discrepancies may exist between the information provided in this manual and the actual product configuration. For the most accurate and up-to-date information, users are advised to consult the physical product or the official manufacturer website.

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Product Components

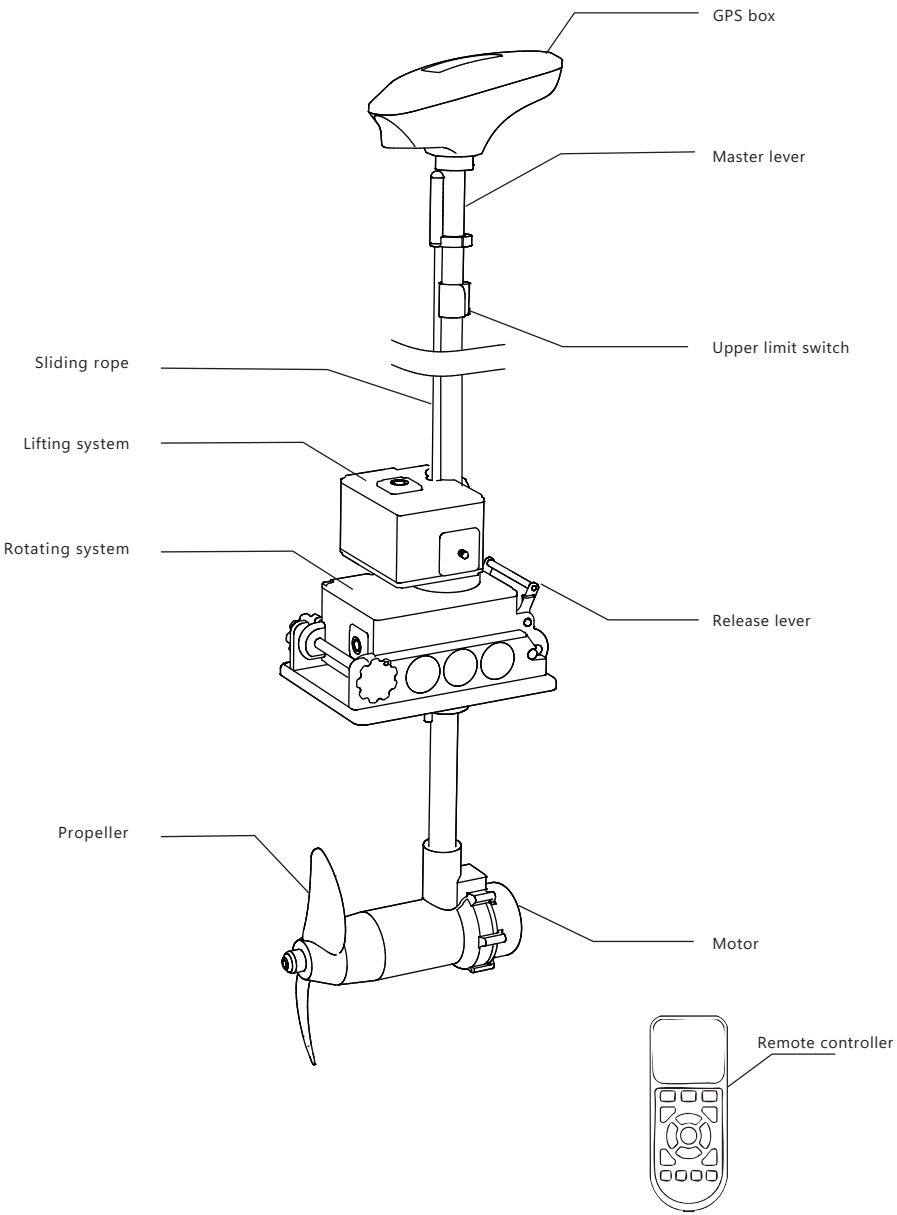
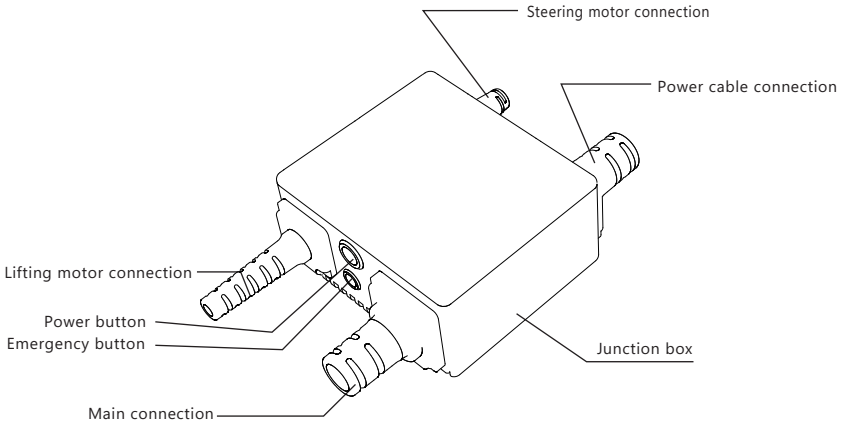


Illustration of the whole machine's components

Product Components



Slight differences may occur depending on the model.iuii

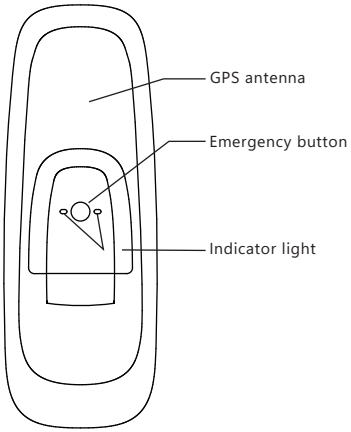


Illustration of the whole machine's components

Instructions for use

1 Lay down the trolling motor when sailing.

During navigation, make sure the trolling motor is raised and out of the water, and lay down the master lever. Any damage resulting from the use of the trolling motor in the upright position is not covered under warranty.

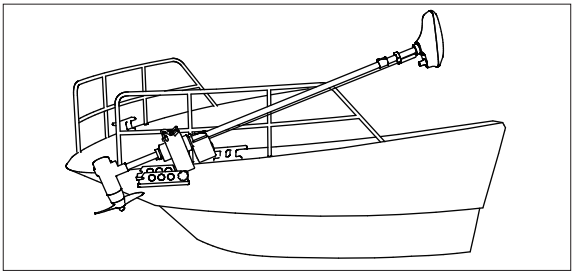


Illustration of the main unit in the stowed position.

2 Precautions for manual lifting and lowering operations

When manual lifting or lowering of the main unit is required, the clutch main shaft within the lifting mechanism must be fully extended until the retaining ring on the shaft is clearly visible, which corresponds to an extraction distance of approximately 20 mm. Manual operation should only be initiated after this condition is confirmed. Failure to fully extend the main shaft prior to manual lowering may result in severe damage to the main unit. Please note that any damage caused by such improper handling will not be covered under the warranty.

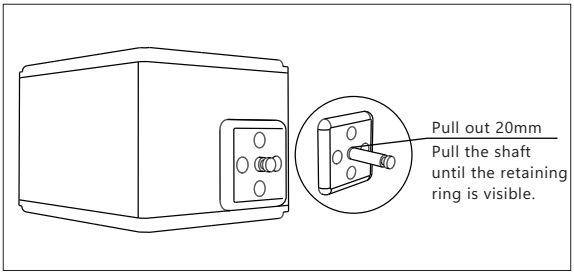


Illustration of pulling out the clutch main shaft during manual lifting and lowering operations

3 Safety assurance during operations

Users must ensure their personal safety during operation by wearing appropriate safety equipment, such as life jackets, and operating only under favorable weather conditions.

4 Equipment cleaning

After use, rinse the immersed parts with fresh water to maintain cleanliness.

5 Be careful of the shallow water area

When operating the trolling motor in shallow water area, exercise caution to avoid underwater obstacles that may come into contact with the motor.

6 Battery and power supply selection

The battery and power supply must meet the following specifications: the maximum continuous discharge current (>10 seconds) shall exceed 1.5 times the rated current of the electronic anchor, and the maximum instantaneous discharge current (>2 seconds) shall exceed 2.5 times the rated current. Insufficient discharge current may result in unexpected power interruption and automatic restart of the electronic anchor during operation, and could potentially damage the battery or power supply. When operating with high-power configurations, only the manufacturer-supplied power solution or a company-approved alternative shall be used. The use of unauthorized power supplies is strictly prohibited.

Product Specifications

Model	SS90	SS120	SS180	SS240	SS280	SS430
Rated power (W)	1500	2500	3500	5500	7000	9500
Rated Voltage - DC (V)	24	36	36	72	72	72
Operating Voltage - DC (V)	18-30	30-48	30-48	60-89	60-89	60-89
Rated current (A)	63	70	97	76	97	132
Positioning system	BeiDou/GPS/Galileo/GLONASS four-satellite multi-frequency positioning					
Motor type	Brushless					
Motor material	316L stainless steel					
Number of propeller blades	2	2	2	3	3	3
Protection grade / Motor		IPX8				
Protection grade / Whole machine		IPX5				
Master lever diameter (mm)	32	32	38	45	50	50
Net weight (kg)	25-30	30-35	30-35	45-50	80-100	80-100

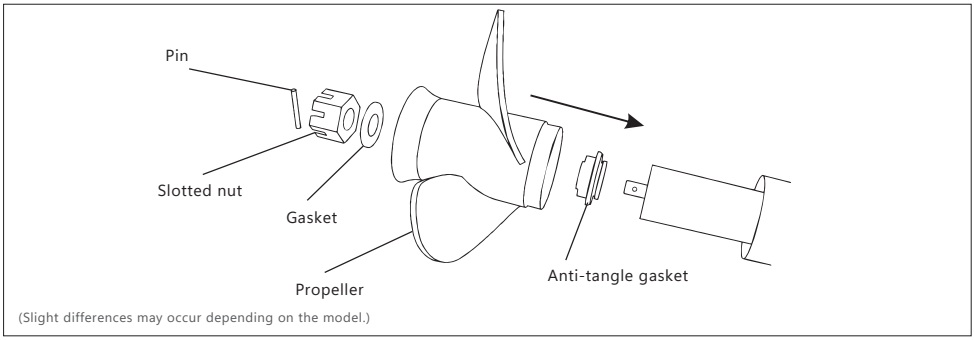
*Due to ongoing product updates, please refer to the final product configuration or the most up-to-date information available on the official website.

Product Specification Parameters Table

Product Installation and Testing

1.Propeller installation

Please install the propeller according to the direction and sequence illustrated in the figure below. If the propeller is already installed, this instruction may be disregarded.



(Slight differences may occur depending on the model.)

Propeller installation diagram

2.Host installation

1 Installation location

Select a suitable installation location and mount the equipment at the bow of the boat or on either side of the bow.

Attention

A. The installation position should be as close to the bow as practicable, as anchoring efficiency decreases when approaching the midship region.
B. Ensure that, after installation, the propeller does not contact the hull in both upright and laid down positions.
C. Clear all items surrounding the base installation area to prevent collisions between the main unit and nearby objects during rotation, which could result in propeller damage. Additionally, ensure that when the master lever is laid down, the distance between the master lever and the guardrail handrail is no more than 5 cm, allowing the master lever to be securely fastened to the handrail.

2 Installation steps

(1) Install the base fixing bracket.

Secure the installation base to the ship's deck using the provided screws or threaded rods.

Attention

Determine the number and placement of fixing screws based on the specific conditions at the installation site, and ensure that the mounting base is securely fastened and capable of withstanding operational vibrations during use.

(2) Fix the main unit in place.

Secure the main unit or quick-release plate to the installation base using the provided screws, ensuring reliable attachment even when submerged during operation.

(3) Install the junction box

Secure the box to the handrail or mounting bracket, and fasten the cables to prevent tangling or dislodgement during operation.

Attention

Ensure that the junction box is mounted at a higher position than the lifting system enclosure to prevent excessive tangling of the lifting motor cables during machine operation.

(4) Install the fixed button of the master lever

Select an appropriate location on the handrail to install the fixed button of the master lever, which is used to reliably fix the master lever to the handrail after it is laid down when the equipment is not in use.

Methods for laying down and erecting the master lever

▷ Lay down the master lever

Raise the master lever to an appropriate height, then push the release lever toward the master lever to disengage it from the locking slot. While supporting the master lever, slowly lower it in the same direction as the lever movement until fully laid down.

▷ Lift the master lever

Manually raise the master lever until it is fully upright and the release lever automatically engages into the locking slot.

⚠ Attention

Lay down or raise the master lever with care. If it is heavy, coordinated operation by multiple personnel is required to prevent personal injury or equipment damage.

The upper limit switch is designed to restrict the maximum lowering distance of the master lever. It is recommended that the propeller be submerged to a depth between 1 and 1.5 meters under normal operating conditions. Once the propriate position is determined, securely install the upper limit switch onto the master lever.

3. Power supply & battery installation

Choose a suitable location to securely mount the battery or dedicated power supply, and ensure proper connection to the main unit.

⚠ Attention

A. The battery and power supply installation must be protected from direct sunlight and rain.
B. Appropriate fuses must be installed at both the output terminals of the battery or power supply and the charging input terminals.

4. Equipment commissioning

(1) Inspect the equipment and wiring installations to verify correct assembly and connection.

(2) Power on the system by pressing and holding the power button on the junction box until the device starts.

(3) Pair the remote controller; refer to the Remote controller pairing section for detailed instructions.

(4) Configure the bow direction: in manual mode, adjust the orientation of the GPS antenna so that its front end aligns with the vessel's bow direction. Then, navigate to the [Setting] menu, select [Boat Direction Setting (Encoder Calibration)], and confirm the configuration.

(5) Verify the magnetometer reading: with the GPS antenna front end aligned with the bow of the boat, compare the [Current Propulsion Direction] displayed on the remote controller with the heading indicated by the magnetic compass. If a significant deviation exists, perform magnetometer calibration as specified in the Magnetometer Calibration section.

Remote Controller Introduction

1.Product Specifications

Product model	TC70
Charging Specifications	DC 5V2A
Charging interface	Type-C interface
Battery type	Polymer lithium battery
Battery capacity	5000mAh
Battery voltage	3.7V
Connection method	Wireless connection

2. Button Functions

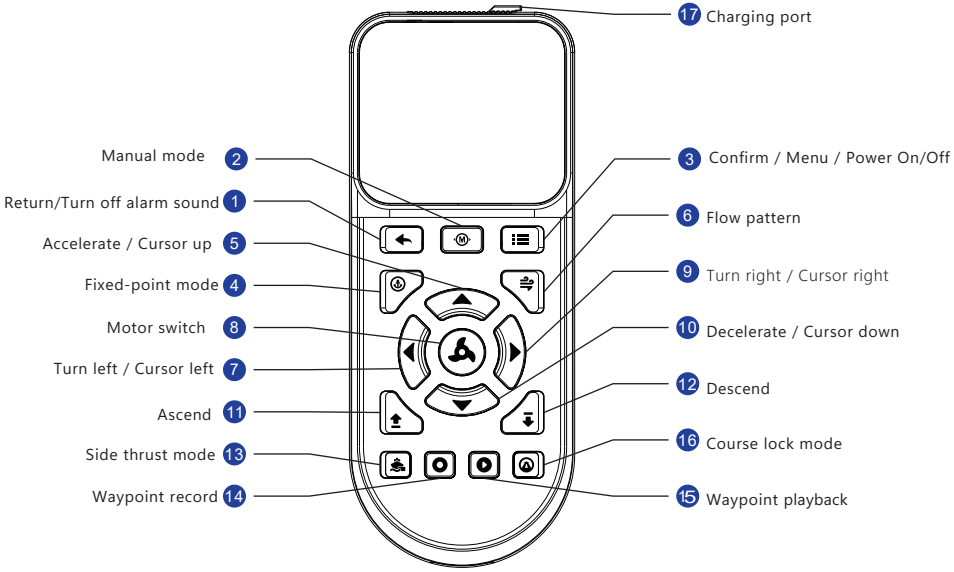


Illustration of remote controller

Return: Go back to the previous step/page.

Confirm / Power on/off: Press briefly to confirm, hold for 3 seconds to power on/off.

Fixed-point anchoring: Enter the fixed-point anchoring mode.

Manual mode: Enter manual remote control mode.

Accelerate / Cursor up:

Manually increase the propeller gear level; the cursor moves up; the anchoring position moves forward. The specific functionality depends on the propeller's operating mode.

Decelerate / Cursor down:

Manually decrease the propeller gear level; the cursor moves down; the anchoring position moves backward. The specific functionality depends on the propeller's operating mode.

Turn left / Cursor left:

A brief press results in a minor leftward adjustment of the propeller's propulsion direction, while a prolonged press enables continuous leftward adjustment; simultaneously, the anchoring position shifts to the left. The specific functionality depends on the propeller's operating mode.

Turn right / Cursor right:

A brief press results in a minor rightward adjustment of the propeller's propulsion direction, while a prolonged press enables continuous rightward adjustment; simultaneously, the anchoring position shifts to the right. The specific functionality depends on the thruster's operating mode.

Propeller on/off switch: Controls the activation and deactivation of the propeller.

Course lock mode: Enter the course lock mode.

Flow mode: Enter flow mode.

Side thrust mode: Enter side thrust mode.

Master lever ascend: Manually raise the master lever.

Master lever descent: Control the master lever to descend manually.

Waypoint record: Waypoint saving, viewing and settings.

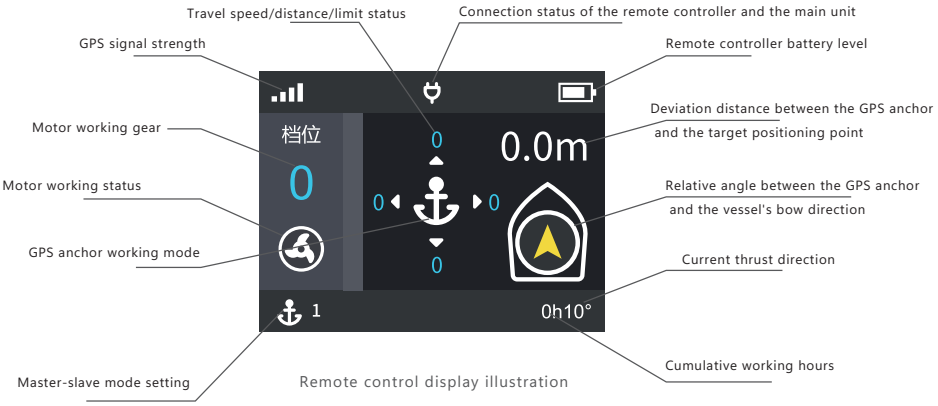
Waypoint playback: Enter the waypoint view and playback settings.

3. Remote Controller Power Management

（1）Standby Screen-Off: The display automatically powers down after 5 minutes of inactivity.

（2）Low Battery Alert: The remote controller display shows "LOW" when the remaining battery level falls below 10%.

4. Display descriptions



Remote control display illustration

	Displays the GPS signal strength level. If GPS positioning is not acquired, the icon will not be displayed.
	Display the remaining battery level of the remote controller.
档位 0	Displays the current propulsion motor gear level, ranging from 0 to 10. Higher values indicate greater thrust output, while the motor remains inactive at gear 0.
	Displays the rotational status of the propulsion motor. The icon rotates synchronously with motor operation and remains stationary when the motor is stopped.
	Displays the connection status between the remote controller and the main unit. The icon appears as " " when connected and as " " when disconnected.

	Display the on-line mode. 1 indicates host mode and 2 indicates slave mode.
	Displays the relative orientation between the propeller's propulsion direction and the boat heading.
0.0m	Display the distance between the propeller and the target positioning point.
	Displays the propeller's current operating mode as fixed-point anchoring mode. For detailed information on mode functionality, refer to the product functions section.
	Displays the propeller's current operating mode as manual mode. For detailed information on mode functionality, refer to the product functions section.
	Displays the propeller's current operating mode as flow mode. For detailed information on mode functionality, refer to the product functions section.
	Displays the propeller's current operating mode as course lock mode. For detailed information on mode functionality, refer to the product functions section.
	Displays the propeller's current operating mode as side thrust mode. For detailed information on mode functionality, refer to the product functions section.
	Displays the propeller's current operating mode as waypoint playback mode. For detailed information on mode functionality, refer to the product functions section.
	Displays the propeller's current operating mode as on-line mode. This icon  indicates a successful dual-unit connection.

Product Functions and Operational Instructions

Note: The content of this section applies to single-unit operation or the host unit during multi-machine synchronization, but not to the slave units in such configurations.

1.Preparation before use

(1) After the main unit is powered on, press and hold the button on the wiring protection box until the system starts up. The indicator light will then illuminate.

(2) Press and hold the [Confirm] button on the remote controller to power it on. If the main unit and the remote controller are not paired, pairing must be completed prior to operation. Refer to the remote controller pairing instructions for the correct procedure.

2. Manual control

1 Function description

In manual control mode, you can take direct control of the trolling motor according to your preferences.

2 Operating instructions

(1) Entry into manual mode

Short press the [Manual mode] button on the remote controller to enter manual control mode.

(2) Master lever lifting control

Short press the [Ascend] and [Descend] buttons to to control the elevation of the master lever. It will cease rising upon reaching the upper limit position and cease descending upon reaching the lower limit position.

Note: The master lever does not support automatic lifting or lowering. To initiate forced lowering, press and hold both the [Ascend] and [Descend] buttons simultaneously for 5 seconds. This operation is permitted only under abnormal operating conditions.

(3) Direction control of propulsion

The propulsion direction is consistent with the orientation of the GPS head. Short press the [Left] or [Right] button can control the anchor to rotate left or right. Pressing and holding the button can sustain the rotation until it reaches the safety limit for line winding and then stops.

(4) Propeller gear control

Short press the [Accelerate] or [Decelerate] button to manually adjust the propeller speed. After mode switching, the propeller defaults to an initial speed of 0. The speed range is from 0 to 10 gears, with higher values corresponding to greater thrust. At gear 0, the propeller remains stationary.

(5) Motor switch on and off

Short press the [Motor switch] button to toggle the propeller between on and off states. If the operating gear is set to 0, the propeller will remain inactive.

3. Fixed-point anchoring

1 Function description

The fixed-point anchoring function enables the propeller to be fixed at the GPS location when it starts in this mode.

2 Operating Instructions

(1) Drop anchor

Short press the [Manual mode] button on the remote controller to enter manual control mode. Subsequently, short press the [Descend] button to initiate automatic lowering of the master lever. To halt the descent, short press the [Descend] button once again.

(2) Activate fixed-point anchoring.

When the boat is stationary at the desired location, short press the [Fixed-point anchoring] button to engage the trolling motor into fixed-point anchoring mode.

(3) End fixed-point anchoring

Short press the [Manual mode] button on the remote controller to enter manual control mode. The trolling motor will automatically shift to gear 0 and cease operation. Short press the [Ascend] button to initiate automatic raising of the master lever.

(4) Pause anchoring

During the fixed-point anchoring process, a brief press of the [Motor switch] button can temporarily disable the trolling motor, and another press will reactivate it.

Attention

A. Prior to activating the fixed-point anchoring function, ensure that the trolling motor's master lever does not come into contact with any surrounding objects during rotation, to prevent potential injury to personnel or damage to the equipment.

B. Fixed-point anchoring can only be performed when a stable GPS signal is available.

4. Fixed-point offset

1 Function description

The fixed-point offset function allows for manual adjustment of the target position forward, backward, left, and right relative to the trolling motor's current anchor point, enabling precise positional fine-tuning.

2 Operating instructions

From the fixed anchor point, a brief press of the [Ascend] , [Descend] , [Left] , or [Right] button will shift the target position in the respective direction by 1 meter per actuation.

5. Flow mode

1 Function description

The flow mode enables the boat to navigate along a set fixed direction and synchronize with the water flow speed.

2 Operating instructions

(1) Enter into flow mode.

Short press the [Flow mode] button to activate the flow mode.

(2) Direction & speed

Briefly press or long press the left and right buttons to adjust the direction of the boat's movement.

Briefly press the acceleration and deceleration buttons to modify the travel speed.

6.Side thrust mode

1 Function description

In side thrust mode, the direction of the propeller's propulsion will be perpendicular to the bow direction of the boat, which can assist in achieving the side thrust function.

2 Operating instructions

(1) Enter side thrust mode

Briefly press the [Side thrust mode] button to activate the function.

(2) Controlling propulsion direction

To initiate propulsion, press and hold the [Left] or [Right] button. The propeller will operate continuously in the selected direction as long as the button is held. Release the button to stop propulsion immediately.

*Note: The defined "left" and "right" directions in side thrust mode are based on the bow orientation indicated by the encoder. If this reference direction does not align with the actual bow direction, the intended side thrust effect may not be achieved.

7.Waypoint record

1 Function description

Waypoint record allows the current GPS position to be saved, with a maximum of six waypoints supported. These waypoints are temporary and will be cleared upon shutdown of the main unit. They can be used for playback purposes and support looped, constant-speed cruising between designated positions.

2 Operating instructions

Short press the [Waypoint record] button. The interface will prompt you to select between 1 and 6 waypoints. After selecting the desired positions and confirming, the waypoints will be saved. If a previously saved waypoint is re-recorded, it will overwrite the existing data.

8.Waypoint playback

1 Function description

The waypoint playback function enables the boat to automatically navigate through previously saved waypoints in a user-defined sequence, maintaining a constant speed and following the specified order.

2 Operating instructions

Short press the [Waypoint playback] button. The interface will prompt you to select 1 to 6 waypoints. Use the cursor to highlight the desired positions. Press the [Confirm] button to set the playback sequence. Once selection and ordering are complete, confirm to exit. To modify the sequence of selected waypoints, highlight a point and press the [Confirm] button again to cancel its assigned order.

9.Course lock mode

1 Function description

Upon entering course lock mode, the propeller will continue to operate in the current direction, maintaining propulsion without directional adjustment.

2 Operating instructions

(1) Start course lock mode

Short press the [Course lock] button on the remote controller. The interface will indicate that course lock mode has been activated. Once engaged, the propeller will maintain the current propulsion direction. Regardless of changes in the vessel's orientation, propulsion will remain fixed at the locked heading.

(2) Direction & speed

Long press the left or right button to adjust the heading. Short press the ascend or descend button to change the motor speed setting.

10.Emergency Button

1 Function description

In the event of remote controller loss, the emergency button located on the GPS box or the junction box can be activated to execute operational functions.

2 Operating instructions

(1)Press the button twice consecutively to enter anchoring mode; a single additional press will deactivate and exit the mode.
(2)Press the button three times consecutively to initiate automatic ascent to the maximum position. During ascent, a brief press of the button will halt the upward movement.
(3)Press the button four times consecutively to initiate automatic descent to the lowest position. During descent, a brief press of the button will halt the downward movement.
(4)Press the button five times consecutively to activate forced ascent. Once the desired position is reached, press the button once manually to stop the motion; otherwise, the system will continue to rise. (Intended for use only when the lift sensor is malfunctioning)
(5)Press the button six times consecutively to activate forced descent. Once the desired position is reached, press the button once manually to stop the motion; otherwise, the system will continue to descend. (Intended for use only when the lift sensor is malfunctioning)
(6)Press and hold the button for 5 seconds to enter Bluetooth pairing mode. Upon successful pairing, the buzzer will emit one audible beep.
(7)Press and hold the button for 10 seconds to enter on-line pairing mode. Upon successful pairing, the buzzer will emit one audible beep.

11.Other functions

1 Deactivating the remote controller alarm

When an alarm is triggered, press and hold the return button on the remote controller for 5 seconds to disable the audible alarm. The sound alarm function will automatically resume after restarting the remote control.

2 Remote Controller Pairing (Applicable only when the remote controller is not paired with the main unit)

(1) Press and hold the [Confirm] button on the remote controller to power on. Then, briefly press the [Confirm] button to enter the settings menu. Select, after completing the second step, press the [Confirm] button to enter pairing mode.
(2) Press and hold the emergency button on the GPS box or the junction box for 5 seconds. The indicator light will transition from a steady red to a flashing blue state.
(3) Upon successful pairing, the indicator light on the GPS antenna box will change from flashing blue to a steady purple, and the remote control will provide corresponding visual or audible feedback.

3 Boat direction setting (encoder calibration)

Align the propeller's propulsion direction with the vessel's bow orientation. To initiate calibration, navigate to the remote controller settings menu and select [Boat direction setting (encoder calibration)].

4 On-line mode setting

Define the operational role of the current host unit in an on-line system. Available options are: 1 – Host, 2 – Slave.

5 Anchoring deviation threshold setting

Set the maximum allowable distance between the target position and the actual position. If the deviation exceeds this threshold, the remote controller will trigger an alarm. The default value is 10 meters.

6 Magnetometer calibration

Magnetometer calibration is intended for use when geomagnetic heading measurements are inaccurate. Although pre-calibrated at the factory, recalibration may be necessary under certain conditions. Ensure the vessel is in a stable and level state before initiating the procedure. Access the remote controller settings menu and select "Magnetometer calibration." During calibration, the propeller will oscillate left and right to collect directional data. Upon successful completion, the system will automatically exit calibration mode. If calibration fails, an error message will be displayed on the remote controller.

7 Forced ascent and descent

Method 1: Enter manual mode and press and hold the [Ascend]  or [Descend]  button for 5 seconds. The trolling motor will initiate forced ascent or descent; release the button to stop the motion.

Method 2: Enter manual mode, navigate to the "Forced ascent and descent" page within the settings menu, then press the [Ascend]  or [Descend]  button to activate forced ascent or descent. Release the button to halt the operation.

8 On-line Pairing

Method 1: Initiate pairing by pressing and holding the emergency button on the GPS antenna box.

Method 2: Access the remote controller settings menu and select [On-line Pairing] to begin the pairing process.

9 Language selection

Navigate to the language option in the settings menu to change the display language of the remote controller interface.

Product Functions and Operating Instructions for Multi-Machine On-line Systems

1 Dual-device pairing

(1) Mode configuration: Navigate to the [Settings] menu and select [On-line mode setting]. Designate the primary unit as [1 – Host] and the secondary unit as [2 – Slave]. The configuration will take effect only after a full system restart, requiring power-off duration of more than 10 seconds.

(2) Pairing procedure: On both the host and slave devices, access the [Setting] menu and simultaneously select [On-line pairing], then confirm the action. Upon successful pairing, the [Connection successful] indicator  will appear on the main interface

2 The slave device enters linked operation mode

To enter linked mode using the slave remote controller, press the anchor button. This function is not available in manual mode.

3 Dual-device linked operation

When the host device enters fixed-point anchoring mode, the slave device will synchronously follow the host's movements.

4 Exiting dual-device linked operation

To terminate the linked operation, set the [Online Mode] of the slave device to [1 – Host], then restart the device.

Fault Description

When a trolling motor malfunction occurs, the remote controller will display the corresponding fault code and activate an audible buzzer alarm. To disable the buzzer, press and hold the [Return] button for 5 seconds.

Error Type	Remote Controller Error Codes	Error Type	Remote Controller Error Codes
GPS Module Offline	E0	MAG Sensor Abnormal	E9
Encoder Offline	E2	Positioning Exit Error 1	E10
Lift Motor Offline	E3	Positioning Exit Error 2	E11
Anchoring Alarm	E4	GPS Module Not Calibrated	E12
Underwater Motor Offline	E5	System Not Unlocked	E13
Abnormal Left/Right Rotation	E6	Encoder Abnormal	E14
IMU Sensor Abnormal	E7	Gyroscope Abnormal	E15
GPS Sensor Abnormal	E8		

Product Maintenance

(1) Regularly inspect all screws for looseness. Remove the propeller and check for any foreign objects entangled within the housing.

(2) Prior to each use, verify the battery level of the remote controller.

(3) After operation, thoroughly rinse the propeller to perform routine maintenance and remove any accumulated debris.

(4) Periodically apply lubricating oil to all moving components to ensure smooth operation.

(5) Conduct regular inspections of all connecting cables—including power cables, connectors, and main unit wiring—for signs of loosening, wear, or aging, and address any issues promptly.

(6) Store the product in a dry, well-ventilated environment when not in use.

(7) This product is designed as an outdoor recreational device and must not be used for extended periods, long-distance travel, or under heavy-load operational conditions.

Common Problems and Solutions

Motor operation issues

(1) Verify that the power supply is functioning properly and that the battery is sufficiently charged.

(2) Inspect the propeller for any entangled foreign objects and power off the device before performing cleaning.

*Note: For issues that cannot be resolved independently, please contact your local authorized agent or the official after-sales service center for support. Official after-sales service hotline:86 0755-82123123

SHARK CAPTAIN

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