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Fuber E-motor for
ship WhatsApp contact



Global 1.5 User Manual

Front Control stern Control Pod

FUBER Technology Co.,Ltd

—— Leader in Green Intelligent Ship Systems ——

Use Instructions

Before using the product, please read this manual fully to understand the correct and safe operation method. The use of this product represents that you have fully read and agreed to the terms and safety matters in this manual. Fuber is not responsible for any property damage or personal injury caused by operations not complying with the provisions of this manual.

Use The Legend

When reading this manual, please refer to the following figure legends:

- (1) 、  Important instructions or warnings
- (2) 、  Tips or tricks for use

01 / Product Instruction



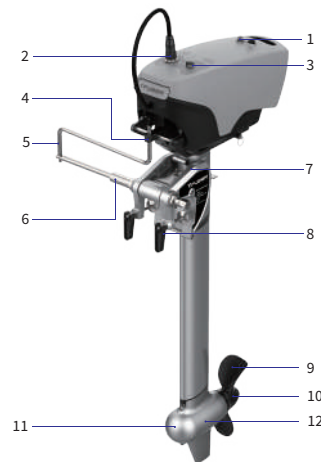
warning:

To avoid product losses caused by improper operation, please read all the operation instructions and safety information in this manual first, and then use FUBER products. For more product information, please log in to: <https://www.fuberpropulsion.com/> for inquiries.

- 1、 The display screen shows real-time operation information.
- 2、 The emergency safety switch ensures safety.
- 3、 The rudder lever type throttle operates smoothly.
- 4、 Battery level alarm reminder.
- 5、 Deep-sea grade anti-corrosion coating.
- 6、 Built-in GPS positioning.

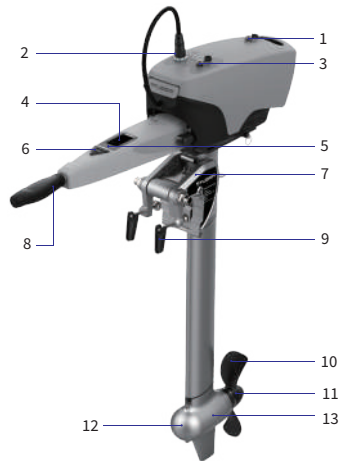
01 / Front Control

- 1 Charging port
- 2 Discharge port
- 3 12V Discharge port
- 4 Front - control replacement parts
- 5 Front-control steering connecting rod
- 6 Oil - wire flexible hose
- 7 Fixed main seat
- 8 Tightening handle
- 9 propeller
- 10 Propeller hub cap
- 11 Drive housing
- 12 Motor housing



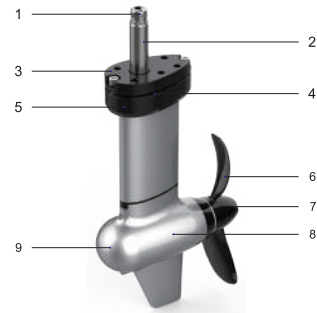
01 / Stern Control

Charging port
Discharge port
12V Discharge port
Display screen
Screen buttons
Magnetic suction safety buckle
Fixed main seat
Throttle handle
Tightening handle
propeller
Propeller hub cap
Drive housing
Motor housing



01 / Pod

1 Gland
2 Pod - borne steering rod
3 Ship - top flange
4 Pod gasket
5 Ship bottom flange
6 propeller
7 Propeller hub cap
8 Motor housing
9 Drive housing



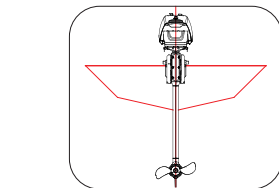
Technical Parameters

Product Name	Rated Voltage Rated Current	Input Voltage Range	Rated Power (forward/reverse)	Maximum Efficiency of the Whole Machine	Full-load Speed (forward)	control system	communication	dimension (mm)	shaft length	net weight (kg)	pitch angle	temperature
front control	48V/32A	40V/69V DC	1.5KW	56%	1200rpm	control box	CAN	505*240*1259 (Propeller Diameter) 291mm	750	(Batteries not included) 16	0° 7° 14° 21° 65°	storage: -20 C - 60 C operating: -10 C - 40 C
stern control	48V/32A	40V/69V DC	1.5KW	56%	1200rpm	rudder tiller control box	CAN	(Unfold the handle) 1028*240*1259 (Propeller Diameter) 291mm	750	(Batteries not included) 16.5	0° 7° 14° 21° 65°	storage: -20 C - 60 C operating: -10 C - 40 C
Pod	48V/32A	40V/69V DC	1.5KW	56%	1200rpm	control box	CAN	281*90*598 (Propeller Diameter) 291mm	305	10	/	storage: -20 C - 60 C operating: -10 C - 40 C

02/ Installation Instructions

Must-read before installation.

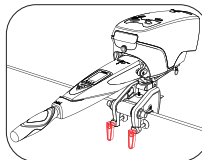
- a.** Avoid battery short circuit when connecting.
- b.** Once the power cable or communication cable is interrupted, the outboard motor will stop working.
- c.** When installing, ensure that the connector is dry to prevent short circuits.
- d.** Please clean the connection connector once every three months.
- e.** During use, if poor contact is found, it is recommended to check the connection and fastening of each terminal.



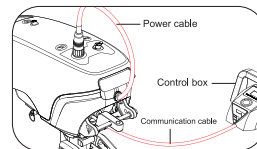
- f.** Please be sure to fix this product on the central axis of the ship. If your ship is asymmetrically designed, please consult an authorized dealer of Fuber Technology to adjust the appropriate installation position.
- g.** For long-term continuous use, it is recommended to use bolts to connect the equipment from the spare fixing holes to the hull to enhance the locking effect.

02/ Installation Instructions

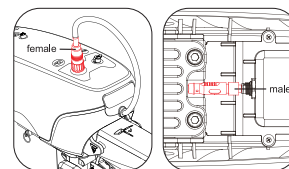
Front control Stern control



- 1.** Hang the product on the hanging plate at the stern of the boat for fixing the outboard, and rotate the locking clamp handle.

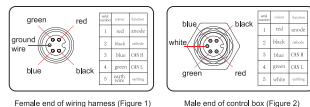


- 2.** Front control version:
For the female end of the waterproof connector of the power cable, plug it into the male end of the power connector at the handle end of the product and rotate to lock it (refer to the picture below). Connect both ends of the communication cable to the product and the control box respectively.

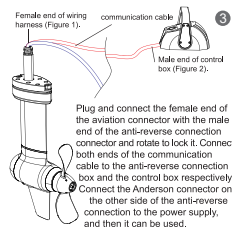
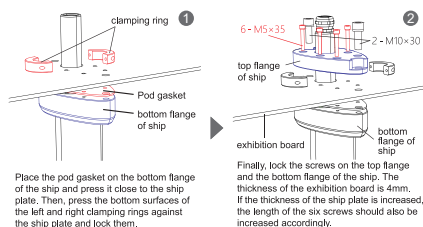


- 2.** Stern control version:
For the female end of the waterproof connector of the power cable, plug it into the male end of the power connector at the handle end of the product and rotate to lock it.

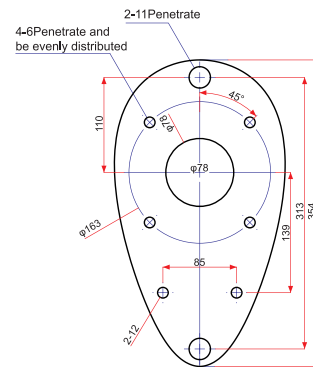
02/ Installation Instructions Pod



Note: The flatness requirement of the ship board is 0.1mm and the roughness is 3.2μm.



Pod Drilling holes in the ship board



Must-read before operation



Please check the following items before startup:

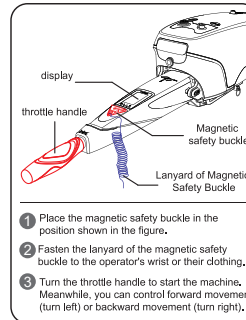
- Confirm whether the propeller is locked.
- Ensure that the product is completely locked to the stern plate and in the correct position.
- Please confirm whether the magnetic safety buckle is in the handle placement position.
- Check and confirm whether the battery installation slot is fixed (Chapter 08).
- Check and confirm whether the handle connecting rod is tightened.
- Check whether the throttle handle can rotate smoothly.
- Examine whether all connections are in good condition and free from aging.
- Inspect whether the power connection part is dry to avoid short circuits.

- ⚠**
- When starting the machine, people must keep away from the propeller area to avoid getting scratched.
 - Before connecting the power cord, make sure it is dry.
 - For safety consideration, please connect the lanyard of the magnetic safety buckle to your wrist or clothing throughout the process.
 - Please note the magnetic field of the magnetic safety buckle. Keep it away (about 50 cm) from magnetically sensitive items such as regulators and medical devices.
 - Please keep the magnetic safety buckle away from electronic products that are susceptible to interference.
 - Please keep the magnetic safety buckle away (about 50 cm) from valuable items sensitive to magnetism, such as magnetic cards.

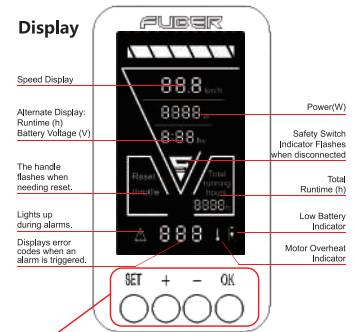
03/ Start Operation Instructions

03/ Start Operation Instructions

Stern control



Display



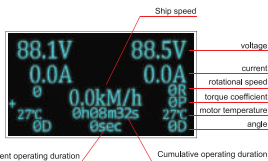
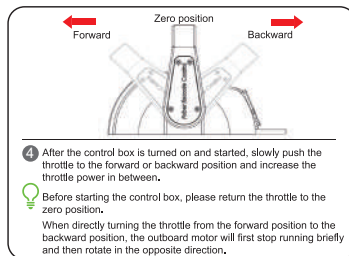
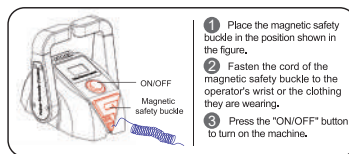
- O K button: long press to turn on the machine when it is stopped, long press to turn off the machine when it is turned on; short press to refresh the screen display immediately.
- After pressing the "+" button, press the "-" button (more than 10 seconds) to calibrate the handle.
- Press the SET button (more than 10 seconds) to clear the alarm.

Fault Code Analysis and Suggested Solutions

serial number	Screen fault display	fault analysis	Suggested Solutions
1	A01:The motor is not connected.	The motor cable is disconnected from the display board.	After confirming that the cable is restored and connected, the fault display will automatically disappear. Otherwise, since it is impossible to determine the problems of the display board circuit and the motor circuit, it needs to be returned to the factory for after-sales service.
2	A02:The battery is not connected.	The battery is disconnected from the display board.	After confirming that the battery is restored and connected, the fault display will automatically disappear. If the display still exists, further confirm whether a battery certified by Feibot has been used. Otherwise, it needs to be returned to the factory for after-sales service.
3	A03:The handle is abnormal.	The rotation of the handle cannot be detected by the controller.	Confirm that the encoder chip is reliably connected to the display board. Otherwise, it needs to be returned to the factory for after-sales service.
4	B01:Motor overheat alarm.	The current operating temperature of the motor exceeds the standard temperature range. Continued operation will cause shutdown due to high temperature protection.	Reduce the throttle and run until the high temperature alarm stops, or shut down and cool for a period of time and restart the machine.
5	B02:The motor shuts down due to high temperature.	The operating temperature of the motor exceeds the required maximum temperature. The product shuts down protectively.	Restart the machine after cooling for a period of time.
6	C01:Abnormal switch status.	Cable malfunction or the switch button fails to reset properly.	After confirming that the button wiring is correct and ensuring that the button can be turned on and off normally, if the alarm still shows, it needs to be returned to the factory for after-sales service.
7	B03:Abnormal operation status 01.	Stalled rotation or overcurrent fault. The propeller is obstructed in operation due to being entangled with grass or fishing nets, etc.	Clean it and restart the machine.
8	B04:Abnormal operation status 02.	Power over-voltage. Non-specified-manufacturer batteries were used, or the battery specifications were used incorrectly and are higher than the product's operating voltage range.	Select the specified battery brand and connect the battery of the specified specification as required.
9	B05:Abnormal operation status 03.	Power under-voltage. The battery is discharged and the voltage is too low. Non-specified-manufacturer batteries were used, or the battery specifications were used incorrectly and are lower than the product's operating voltage range.	Use the battery again after it is fully charged.

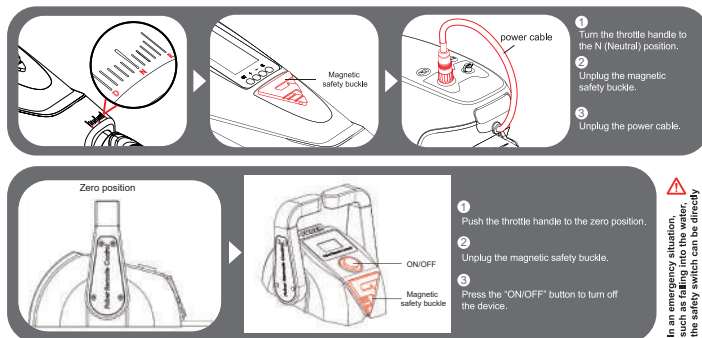
03 / Start Operation Instructions

Front control



(The current screen shows dual - drive for both the left and right sides. When in single - drive mode, only the value of one side is displayed.)

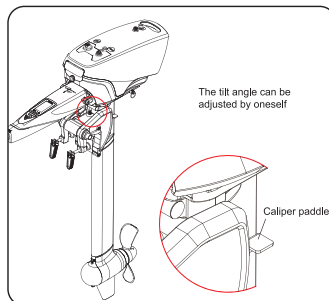
04 / Shutdown Operation Instructions



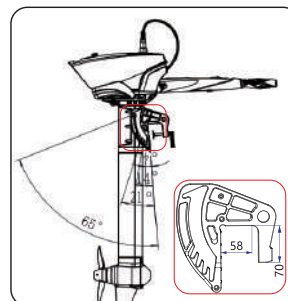
05 / Operating Instructions For Raising The Fuselage

- The product can adjust the tilt angle in the following ways:
a. Pull the caliper paddle upwards.
b. Then, press down the throttle handle and the fuselage can tilt up.

- ⚠**
- Only when the outboard motor is stopped can be adjusted the tilt angle.
 - During the process of adjusting the angle, please operate slowly when tilting up and down to avoid collision damage to people or the machine.
 - When testing the working condition of the tilt angle, please increase the speed slowly and observe the water flow at the stern at any time.
- If the water flow is abnormal (such as cavitation of water flow, etc.), please stop the machine immediately and reduce the tilt angle.



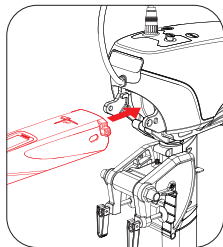
05 / Operating Instructions For Raising The Fuselage



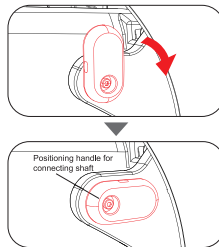
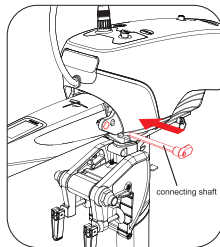
- When adjusting the fuselage angle, rotate the locking handle to the unlocked position. Then, the fuselage angle can be adjusted according to actual needs (the adjustable degrees are 7° - 14° - 21° - 65°).
- In the normal no-load state, generally select the 0° position according to the ship type. Select the 73° position in the case of stopping and docking. After loading, the other angles can be adjusted according to the driving situation to achieve the optimal speed.

- 💡**
- Equipment caliper. The opening size is as follows. Please ensure the size of the boat sternom:
a. The thickness should be less than 58mm to avoid the caliper not being able to be placed properly.
b. The height should be less than 70mm to avoid being unable to tighten the clamp handle.

06/ Operation of Handle Disassembly and Assembly



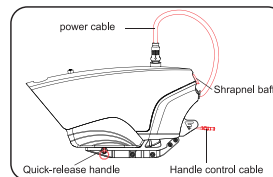
- 1 First, align the notch positions of the handle component and the battery pack component, and then insert the connecting shaft.
- 2 Tighten the connecting shaft. When the inner notch of the connecting shaft positioning handle is damped to the boss of the battery bracket, it is done.
- 3 Connect the handle control cable.



Install and remove the handle in the ways described above.

⚠ The maximum pressure that the handle can bear shall not exceed 35 kilograms.

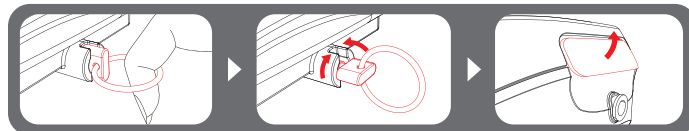
07/ Battery Disassembly and Assembly Operations



Install and remove the battery in the following ways

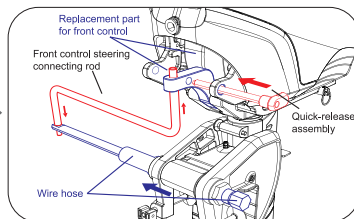
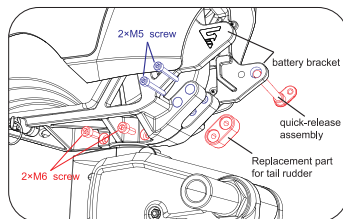
- 1 Disconnect the power cable and the handle control cable.
- 2 Pull out the quick-release handle and rotate it 90° clockwise / counterclockwise so that it locks into the rib position of the battery bracket.
- 3 Toggle the elastic sheet baffle, then lift it upwards with force to remove the battery.

⚠ Please operate strictly in accordance with the disassembly steps. Otherwise, components are likely to be damaged.



08/ Conversion of front - to - stern control

The conversion can be operated in the following ways



- 1 After removing the handle, loosen the two M6 screws of the left and right battery brackets.
- 2 Unscrew the two M5 screws of the tail rudder replacement part, remove the tail rudder replacement part (Figure 1), and replace it with the front control replacement part (Figure 2).
- 3 Insert the hose into the caliper threaded tube. Then, align the front control steering connecting rod with the hole positions of the front control replacement part and the hose and tighten the locknut.
- 4 Tighten the two M5 screws of the front control replacement part and the two M6 screws of the left and right battery brackets. Finally, screw the quick-release assembly into the thread of the battery bracket to complete the front control transformation.

09/ Instructions for Troubleshooting and Repair

This product is equipped with a protection function. If the propeller stops rotating due to incorrect operation of the machine, turn the throttle handle to zero position and wait for 2 seconds. Then rotate the throttle again and the machine can be restarted.

Situations that generally cause the propeller to stop rotating are as follows:

- a. The safety switch falls off during operation.
- b. The propeller is wrapped with grass or foreign objects, resulting in a locked - rotor condition.
- c. The throttle handle is not in the zero position when restarting the machine.

The above are common situations for shutdown. After such situations occur, perform the restart operation. If the machine cannot be restarted, please contact the dealer or agent for handling. Do not disassemble the machine by yourself to avoid danger.

10 / Product Upkeep and Maintenance

Note:

1. Do not start the outboard motor near the shore or in shallow water, and adjust the outboard motor to the highest gear of 73° to avoid touching the bottom of the water. When the water is deep enough to use the outboard motor, adjust the outboard motor to the appropriate gear and start it.
2. After using this product in seawater, please clean the immersed parts with fresh water in time to reduce corrosion.



- a. Please make sure to perform maintenance under the guidance of professionals or agents.
- b. Please make sure to turn off the power of the outboard motor for maintenance or repair.
- c. If the parts of the product are damaged or need to be replaced, please make sure to use the original parts of Fuber Technology.
- d. When checking or disassembling the propeller at any time, please make sure to disconnect the power to prevent the machine from accidentally starting up.

Propeller maintenance:

1. **Maintenance cycle:** It is recommended to perform maintenance once a month to ensure long-term stable operation of the machine.

2. Maintenance steps and precautions

- 1) Disassemble the propeller (after turning off the power)

Use dedicated tools to disassemble the components according to the instructions to avoid forced disassembly and damage to parts.

- 2) Clean up mud and foreign matter

Check the propeller blades, shaft holes and internal cavities, and use a soft brush or high-pressure water gun to remove attached debris, such as mud, water plants, fibers etc.; focus on cleaning the gaps and bearings to avoid foreign matter residues causing operation jams or abnormal noises.

- 3) Component inspection

Observe whether the propeller has cracks, deformation or wear, and whether the blade edges are smooth. Once damage is found, replace it in time; check whether the sleeve is intact. If it is aging or damaged, replace it simultaneously to prevent water leakage or poor lubrication.

- 4) Lubrication and assembly

Apply dedicated waterproof grease to the shaft and bearings to reduce operating friction.

3. Abnormal situation handling

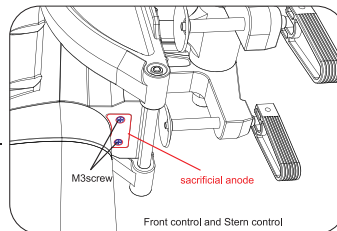
If serious accumulation of internal foreign matter or abnormal noise is found after disassembly, it is recommended to check the bearing wear first, and contact professional maintenance personnel for inspection if necessary to avoid forced use and damage to the motor.

10 / Disassembly And Instructions For Sacrificial Anode

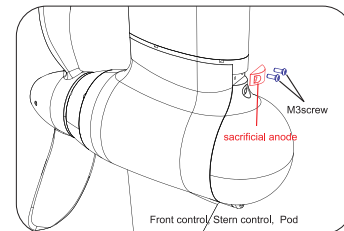
Instructions:

When the corrosion of the sacrificial anode reaches a certain degree, it should be replaced. The process of replacing the anode is relatively simple and usually involves removing the old anode and installing a new one. However, before proceeding with the replacement, it must be ensured that the new anode is ready and meets the requirements. In addition, checking the corrosion condition of the metal structure is also an important step to ensure that the performance of the anode is not impaired.

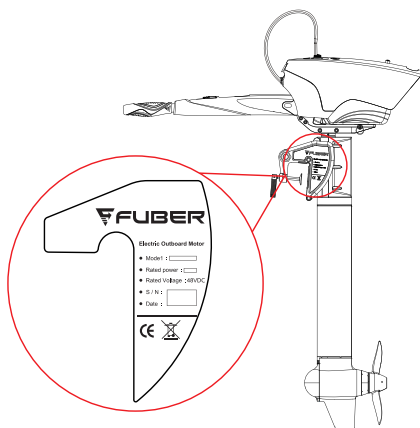
Use an M3 hexagonal wrench to unscrew the screws, and the sacrificial anode can then be removed.



Use an M3 Torx screwdriver to unscrew the screws, and the sacrificial anode can then be removed.



Product identification nameplate:
The product nameplate is the proof for product warranty or other after-sales services. It is located as shown in the figure below. Please find the face sticker on the product and record the product serial number. Do not tear off the face sticker; otherwise, the product warranty will be invalid.



11 / Instructions for Storage and Transportation

If the outboard motor needs to be stored for a long time (more than 2 months), it is recommended to contact your agent before storage for an inspection and clean the outboard motor once to prevent corrosion by seawater. Then, use the original factory packaging scheme at the time of shipment to package the outboard motor for long-term storage.



- a. Please be sure to take shock absorption and protection measures before storing and transporting the outboard motor. During the process, please ensure that the outboard motor is placed flat.
- b. Please store the outboard motor in a dry and ventilated place and avoid direct sunlight.

When placing it temporarily, place the outboard motor flat on the ground. Use the pearl cotton or foam board in the packaging to pad under the machine to avoid damaging the outboard motor.