ePropulsion
TECHNOLOGY

SPIRIT 1.0 User Manual

V1.1 August. 8th, 2016

Appreciations

Thanks for choosing ePropulsion, your trust and support are sincerely appreciated. We are dedicated to providing clean, safe and reliable electric outboards. Welcome to visit http://www.epropulsion.hk/ or contact us if you have any questions.

Using this manual

Before using this product, please read this instruction to learn about correct and safe operation of SPIRIT 1.0. By using this product, you hereby agree that you have fully read and understand this manual. ePropulsion accepts no liability for any damage or injury caused by improper operations.

Due to an ongoing optimization, if you find any discrepancy between your outboard and this manual, or have any question regarding the product or this manual, please contact ePropulsion.

This manual is subject to update without prior notice, please refer to www.epropulsion.hk for the latest version.

ePropulsion reserves the right of final interpretation of this manual.

This manual is multilingual, in the case of any discrepancy in the interpretation of different language versions, the English version shall prevail.

Symbols

The following symbols provide key information for understanding this manual.

Important instructions or warnings

Useful information or tips

Product Identification

The label on the outboard is positioned as shown below. The serial number is marked on the label. Record the serial number as a reference for maintenance or ordering spare components from the dealer.

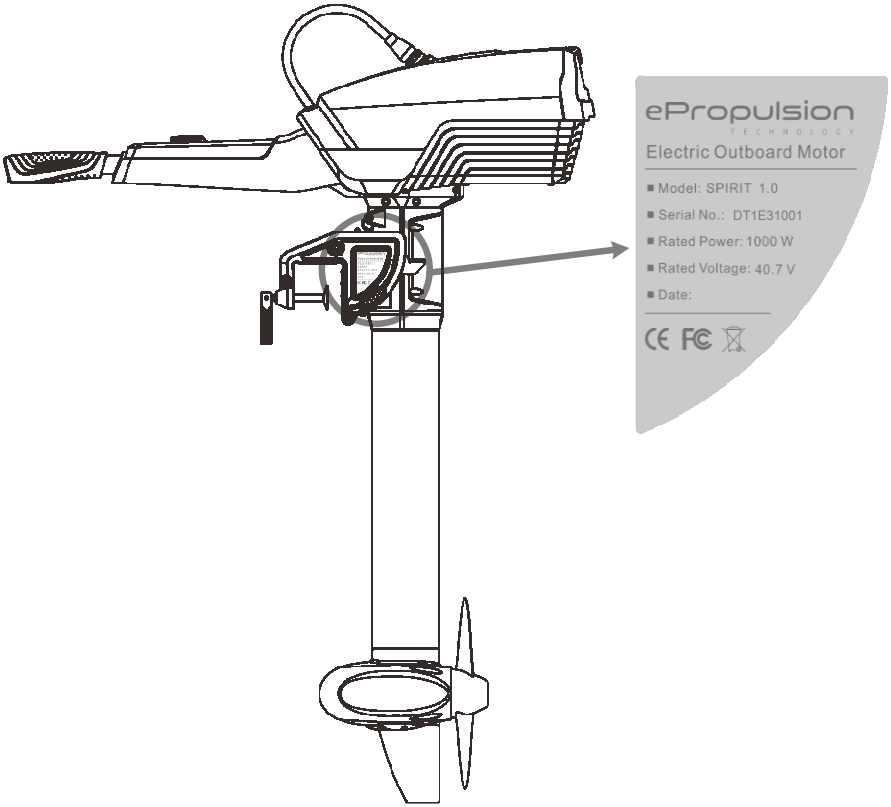


Figure 0-1

Table of Content

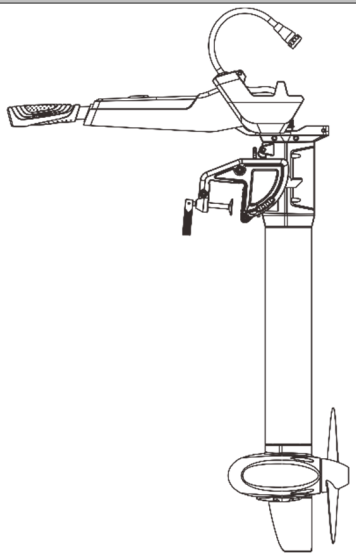
1 Product Overview

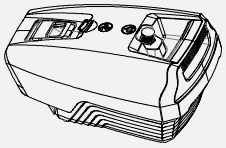
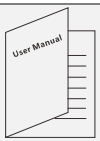
SPIRIT 1.0 is designed to be an integrated electric outboard with high overall efficiency and long cruising duration. The power of SPIRIT 1.0 is equivalent to 3hp outboards and it can work quieter. With detachable battery and foldable tiller, it's easy to carry and store. All these high performances make SPIRIT 1.0 to be an ideal option for tenders, dinghies and sailboats.

The SPIRIT 1.0 includes two variants, SPIRIT 1.0-L and SPIRIT 1.0-S, which have different shaft lengths for adaptation of different transom height. SPIRIT 1.0-L is recommended for the transom height of 400mm-500mm and SPIRIT 1.0-S is recommended for the transom height of 300mm-400mm.

1.1 In the Package

Please check whether all of the items below are included in the package, if something is missing, please contact your dealer.

Items	Qty./Unit	Figure
Outboard (Main part)	1 set	

Battery	1 set	
Battery charger	1 set	
Magnetic key	2 sets	
Front Fixed Pin	2 sets	
User Manual	1 set	

Save the ePropulsion package for the outboard storage.

1.2 Components and Consists

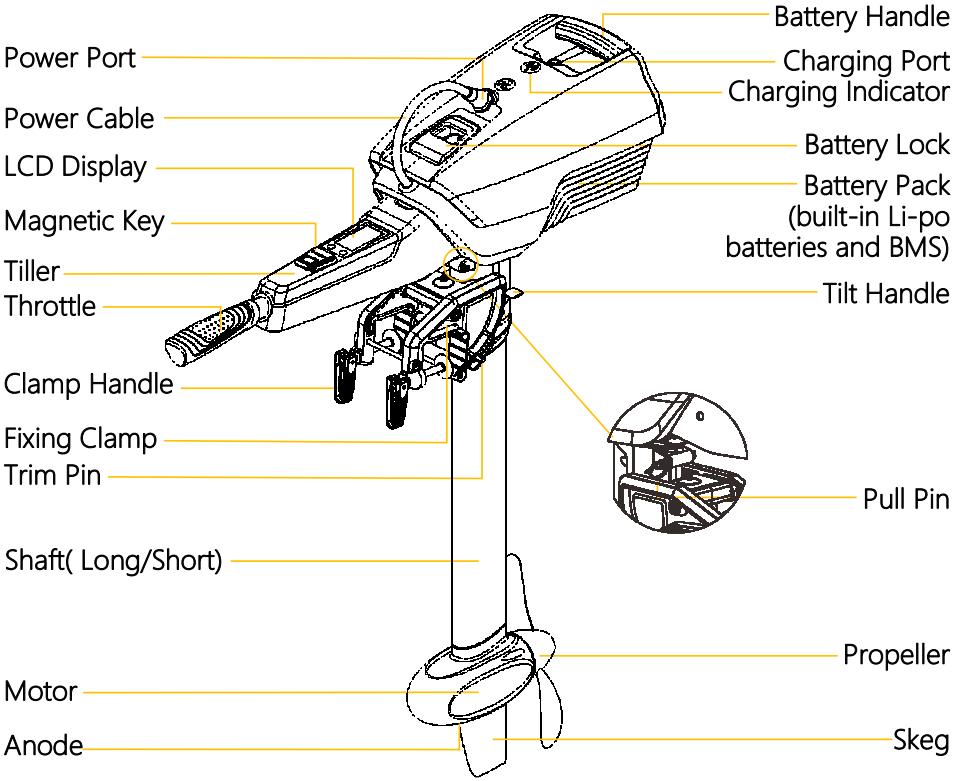


Figure 1-1

1.3 Specifications

SPIRIT 1.0-L / SPIRIT 1.0-S	
Type	Electric
Maximum Input Power	1Kw
Rated Current	24.6A
Comparable Petrol Outboard	3Hp
Maximum Overall Efficiency	50%
Maximum Rotation Speed	Forward: 1200rpm Reverse: 1200rpm
Control System	Tiller control
Weight(without battery)	10.9Kg/24lbs(S) 11.2Kg/24.7lbs (L)
Dimension(L×W×H)	884mm×275mm×1042mm(S) 884mm×275mm×1167mm(L)
Shaft Length	650mm(S) 775mm(L)
Trim Angle	0° , 7° , 14° , 21° , 75°
Propeller Specification	280mm x 5.8inch

Battery	
Type	Lithium-Polymer
Rated Capacity	1000Wh
Rated Voltage	40.7V
Cutoff Voltage	33V
Full Charged Voltage	46.2V
Charging Time	~6Hr

Cycle Life	≧500 cycles(80% of Rated Capacity)
Temperature Range	Charging:0℃ ~ 45℃(32°F~113°F) Discharging: -20℃ ~ 60℃(-4°F~140°F)
Relative humidity	65±20%RH
Dimension(L×W×H)	416mm×275mm×202mm
Weight	8.5Kg/18.7bls

Battery Charger	
Watt	180W
Temperature Range	Operating: -29℃~45.5℃(-20.2°F~113.9°F) Storage: -40℃~75℃(-40°F~167°F)
Input Voltage	100V~264V
Input Frequency	50Hz/60Hz
Input Current(AC)	≦3A
Output(DC)	24V/8A
Efficient	≧88%

2 Important Notes before Start

The SPIRIT 1.0 electric outboard is designed to offer clean propulsion and excellent experiences on water. For safety reasons, please read following instructions and notes before using this product. By using this product you hereby agree to these notes and instructions. You agree you are responsible for your own conduct and content by using this product and should never use this product in a way that infringes upon or contravenes laws and regulations.

2.1 Outboard

⚠ Only allow adults who have understood this manual thoroughly and been instructed on how to operate the outboard to operate it.

⚠ Always have an oar on board especially if the electric outboard motor is the sole propulsion system.

⚠ Familiarize yourself with all the outboard operations, including start/stop, steering and tilting.

⚠ Check the status of the outboard and battery level before each trip.

⚠ Follow the boat manufacture's instruction on the permissible motorization of your boat, do not overload the boat or the outboard.

⚠ Take serious of battery safety. Follow battery instructions, especially notes on short-circuiting, overheat, over charge and over discharge.

⚠ Only run the outboard while the propeller is under water.

⚠ Stop the outboard immediately if someone falls overboard.

⚠ Tilt up the outboard above water after use.

⚠ Wash the outboard with fresh water after operating in salt water.

⚠ Do not leave the outboard in the water if the boat is driven by other power such as sailing or rowing.

⚠ If an error code displayed and the outboard malfunctions. Please put the throttle to zero position and power off, then adhere to the Warning Information to obtain solutions by the error code.

⚠ For protection consideration, the motor will stop immediately if the battery voltage drops below a critical level during operation or when running.

⚠ To keep electric contacts in good condition, please spray the contacts about every 3 months with contact spray.

⚠ To store the outboard motor, put the machine in ePropulsion package and place in dry, ventilated place, avoid directly sun exposure.

2.2 Battery

The SPIRIT 1.0 battery is specially designed for SPIRIT 1.0, can only be charged with an ePropulsion specified charger. The battery has built-in battery management system and it provides cell balancing protection, over charge protection, over discharge protection, short-circuit protection, over temperature protection, under temperature protection, over current protection, communication functions and so on. Though the battery has been tested to be reliable and efficient during normal operation, it should be handled carefully and correctly as battery safety is critically important. Please adhere to following instructions when use it.

⚠ Do not drop, strike or squash the battery.

⚠ Do not disassemble the battery pack or repair it by yourself, the battery disassembly can only be conducted by ePropulsion service.

⚠ Never charge a broken or damaged battery.

⚠ Only charge the battery with an ePropulsion specified charger.

⚠ Do not charge the battery near flammable materials such as carpet or wood.

⚠ Disconnect charger when not in use.

⚠ Though the battery is IP67 waterproof, it's not suggested to immerse in water or store in moist environment.

⚠ Keep conductive subject away from the power port and charging port to avoid damages of electronic components.

⚠ Use the port cap to avoid accidental short-circuit.

⚠ Never discharge the battery below 33V.

⚠ Store the battery in dry place.

⚠ Before long time storage, ensure the battery charge level is 60% around, store the battery in 18℃~28℃(64.4°F~82.4°F) ambient temperature. If the battery level is larger than 60% for more than ten days without activity, the battery itself will discharge with a small current around 100mA until it reaches the 60% battery level.

⚠ During long time storage, activate the battery every 3 months by a charge condition and keep the battery charge level at 60% around .This activation is very important and it can help to keep the battery in good condition.

⚠ After long time storage, full charge the battery before use.

⚠ Do not leave the battery in a heating or pressurized container, such as trunk of the vehicle on hot days.

⚠ Dispose of unusable or damaged batteries in a container specially reserved for this purpose, follow appropriate local guideline and regulations. For further information you can contact your local solid waste collecting point or your dealer.

⚠ Never discard the battery as general household waste or in fire.

3 Installation

Step1: Hang the motor on the transom on the motor holder and tighten the two clamp handles.

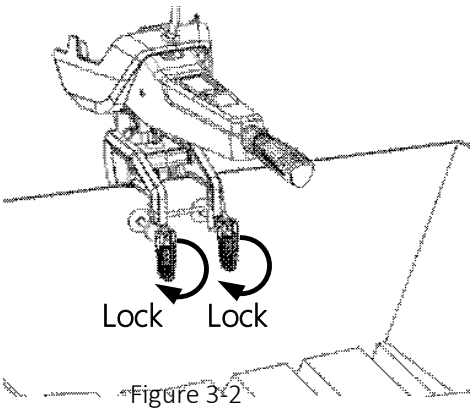


Figure 3-1 Figure 3-2

Ensure to mount the outboard on the centerline of your boat. If the boat shape is asymmetric, please consult your dealer to get proper solution.

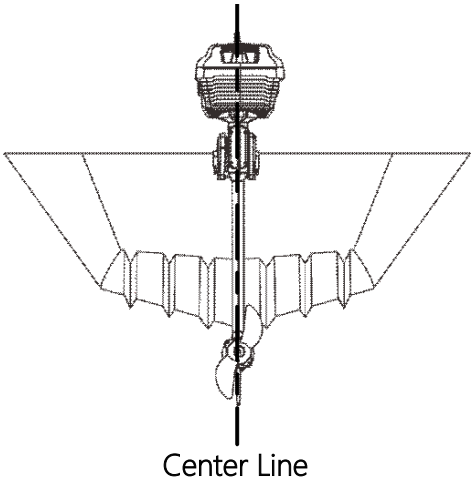


Figure 3-3

The mounting height of the outboard affects the running speed seriously. When the mounting height is too high, cavitation may occur to waste power.

When the mounting height is too low, the water resistance will increase and it will lead to efficiency and running speed reducing. Mount the outboard and ensure the top of propeller is under the bottom of the boat at a distance of 150mm or below.

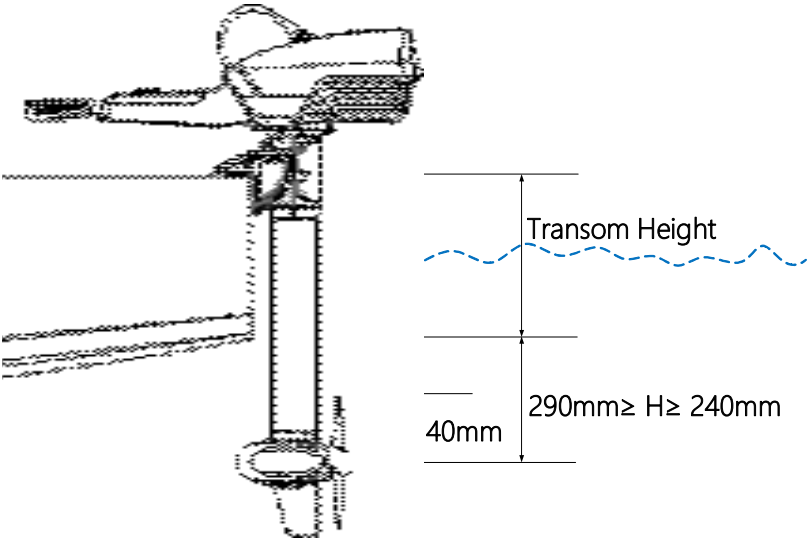


Figure 3-4

Select a proper shaft length according to your transom height and applications. The optimum mounting height is affected by the conditions of boat and requirements. It's recommended to test running at a different height to help obtain the optimum mounting height. You can consult your dealer to get more information.

Step2: Lift the battery by carrying the handle and pulling up the battery lock. Align the two slots on battery to the blocks on bracket and put down the battery. Release the battery lock and lock the battery on the bracket.

Ensure to hold the battery handle before detaching or mounting the battery.

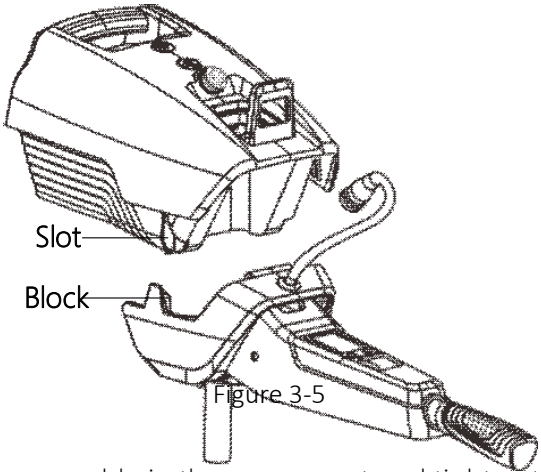


Figure 3-5

Step3: Plug the power cable in the power port and tighten the connector.

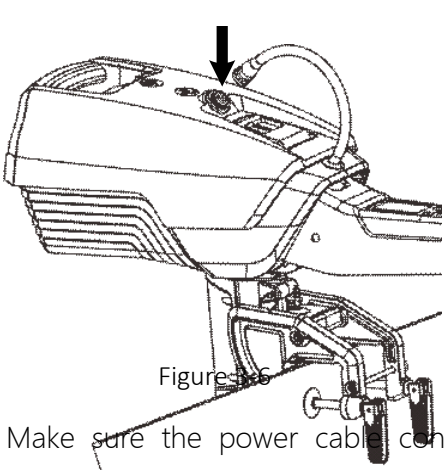


Figure 3-6

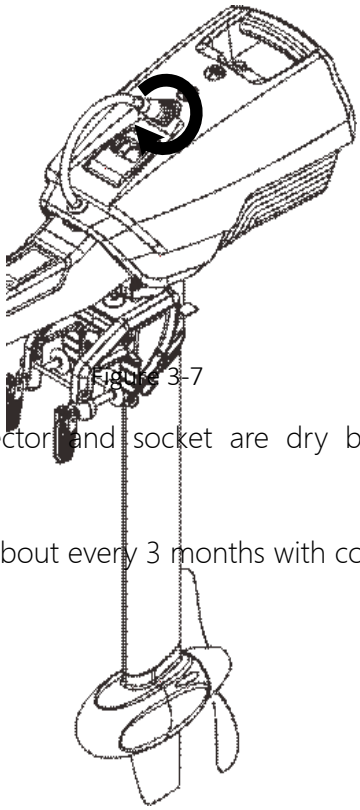


Figure 3-7

Make sure the power cable connector and socket are dry before connecting to avoid short-circuit.

Please spray and clean the contacts about every 3 months with contact spray.

4 Operation

4.1 Checking List before Start

1. Check and ensure the battery has enough charge.
2. Ensure the outboard is correctly and firmly installed on the boat.
3. Ensure the propeller is correctly and firmly installed on the outboard.
4. Ensure the battery is correctly and firmly installed on the outboard.
5. Before start, check and ensure the throttle is in zero position.
6. Ensure the throttle can travel smoothly.
7. Check the connections before each trip, ensure the connections are correct and secure, no disconnection or worn or aging connections.
8. Check and ensure the power port is dry to avoid short-circuit.

⚠ Only start the outboard when the propeller is under water.

⚠ If the cable has been immersed in water, please dry the cable thoroughly before connection or power on.

4.2 Starting

Step1: Put the magnetic key on the pointed position of tiller.

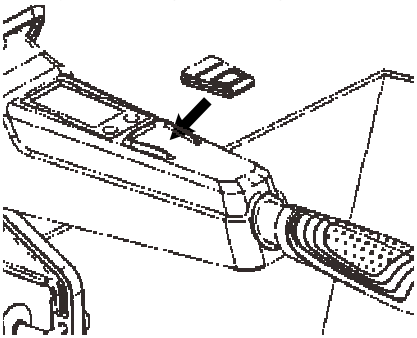


Figure 4-1

Step2: Attach the other end of the magnetic key to your wrist or life vest.

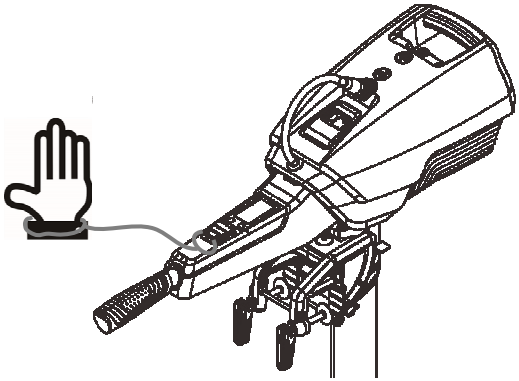


Figure 4-2

⚠ For safety consideration, always attach the lanyard of magnetic key to your wrist or life vest. So that the outboard will be stop in falling overboard emergency.

⚠ The magnetic key has magnetic field, keep it 50cm/20inch away from pacemakers and other medical implants.

⚠ The magnetic field of magnetic key may interfere with some electronic instruments, keep it away from these electronic instruments.

⚠ Keep the magnetic key 50cm/20inch away from magnetic cards (e.g. Credit cards) and other magnetic media.

Step3: Press and hold(≥2secs) the "POWER" button to power on system.

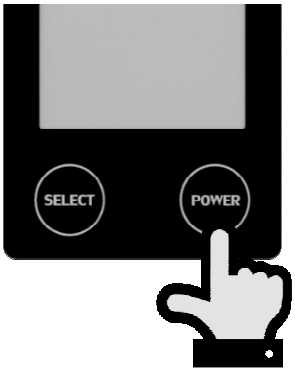


Figure 4-3

Step4: Turn the throttle form zero position to desiring direction to start the outboard motor. Change the heading direction of the boat by turning the tiller on horizontal level.

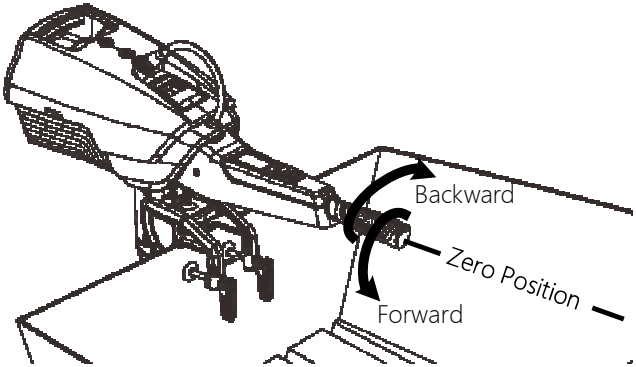
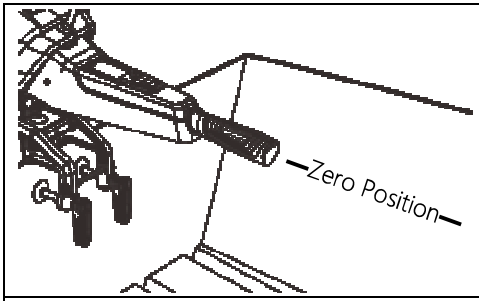


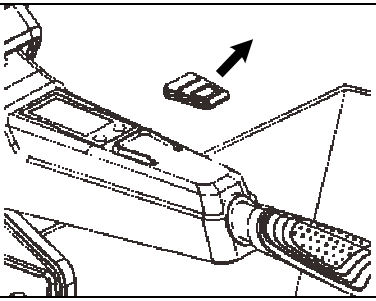
Figure 4-4

4.3 Stopping

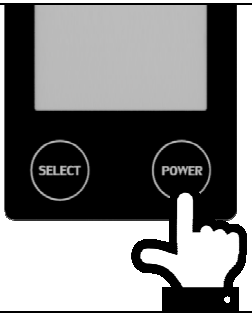
The outboard can be stopped in one of the following four ways.



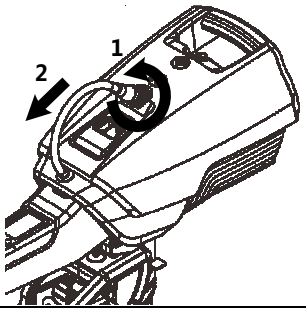
- Turn throttle to zero position.



- Remove the magnetic key.



- Switch off the power button.



- Disconnect the power cable.

In normal operating procedure, it's recommended to stop the outboard as following steps.

1. Rotate the throttle to zero position.
2. Wait until the outboard stops, then remove the magnetic key from tiller.
3. Press and hold(≥2secs) the "POWER" button to power off system.
4. Tilting the outboard out of the water or uninstall it from boat according to your requirement.

In abnormal situations like a fall over emergency, it's recommended to stop the outboard motor by removing the magnetic key from the tiller.

In malfunction situations, the outboard will stop immediately for protection. The outboard will stop if one of the following situations occurs.

1) The throttle is in zero position.
2) The power button is switched off. By pressing the power button.
3) The magnetic key is removed.
4) The connection between tiller and battery is broken.
5) The battery is out of charge.
6) The outboard goes malfunction (e.g. motor blocked or the battery voltage drops lower than 33V).

⚠ It's recommended to tilt up the outboard out of water when the motor is not running.

4.4 Tiller Adjustment

The tiller of SPIRIT 1.0 is adjustable on both horizontal and vertical direction.

Pulling up the tiller

Pull up the tiller if necessary during operation.

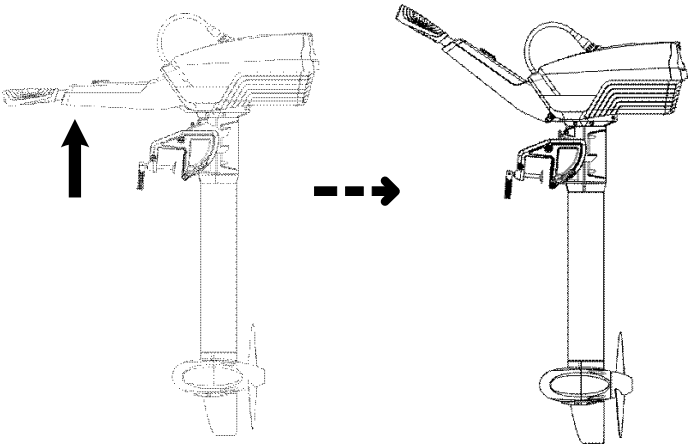


Figure 4-5

Folding the tiller

Draw the tiller along axial direction to the limit then the tiller can be folded down.

1

2

Figure 4-6

⚠ Rotate the clamping bracket by 90 degrees before folding down the tiller to avoid interference.

Folding the tiller provides convenience when transporting or storing the outboard motor.

4.5 Tilting up the Outboard Motor

Toggle up the tilt handle once, then take the battery handle to tilt up the outboard motor to maximum height. After a click sound, release the battery handle and the outboard will stay at a position of 75° trim angle.

Hold the battery handle and toggle up the tilt handle once again, users can lay down the outboard gently to the original position in water.

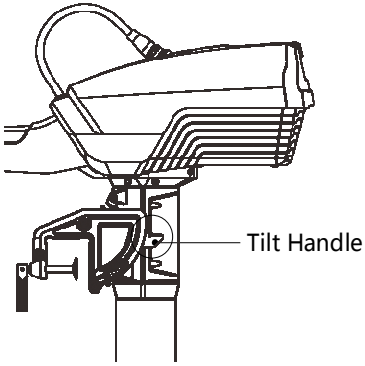


Figure 4-7

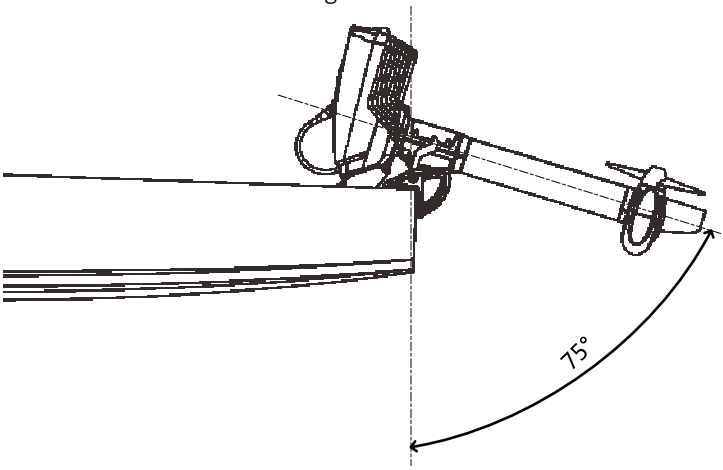


Figure 4-8

⚠ Never toggle the tilt handle when the propeller is rotating.

⚠ Slight and gentle operations are recommended when tilting up and down.

4.6 Fixing of Steering

Put the front fix pin into the hole (shown in Figure 4-11) can fix the steering, and the rotation of tiller on horizontal level will be disabled. Use the pin if necessary.

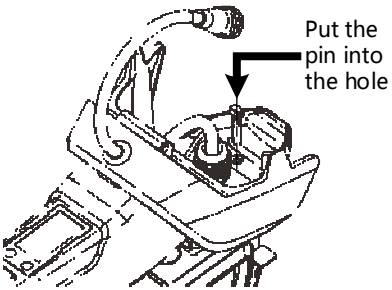


Figure 4-9

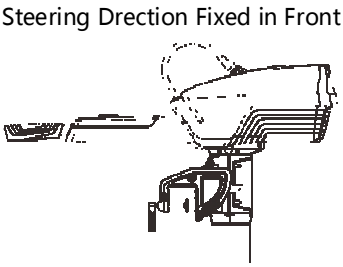


Figure 4-10

4.7 Fixing for Porting

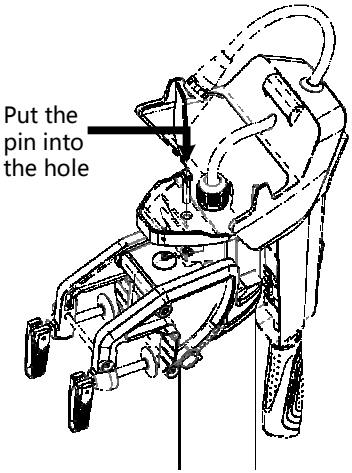


Figure 4-11

By rotating the tiller with 180 degrees from the status of Figure 4-10, the fix pin can be put into another hole. It is aimed to prevent the rotation of tiller during porting or transportation so the process maybe more conveniently.

5 LCD Displaying

The LCD display screen will show current state of the outboard or warnings messages during operating.

5.1 Display introduction

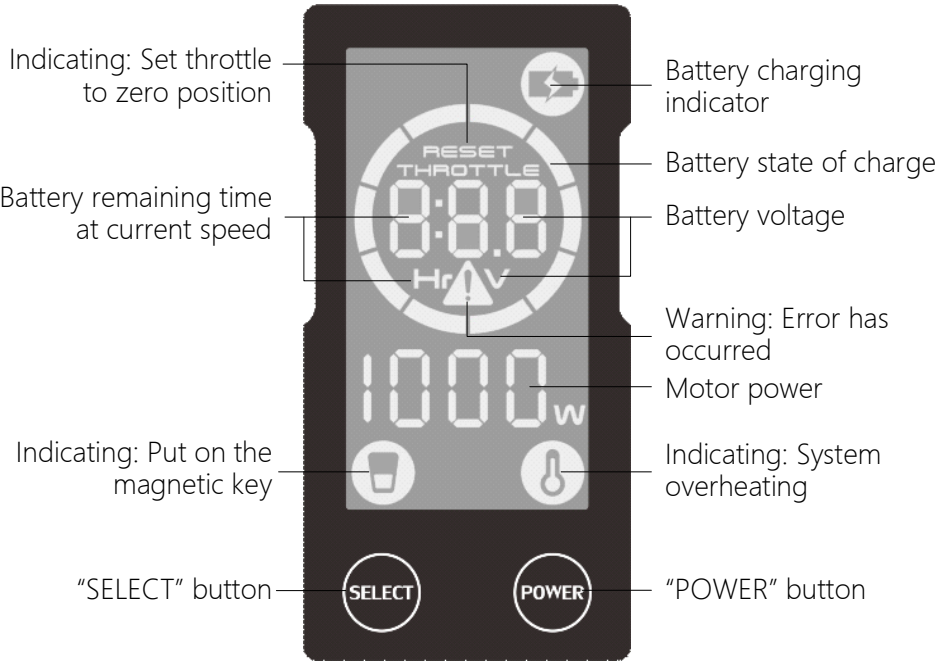


Figure 5-1

Button	Function
POWER	In power off state, press and hold "POWER" button(≥2secs), power on the motor. Repeat this operation to power off.
SELECT	In power on state, press the "SELECT" button to switch the display between "Battery remaining time" and "Battery voltage". In power on state, press and hold "SELECT" button(≥10secs), to enter throttle calibration mode.

Icon	Function
	This icon will display when the battery is charging.
	This icon shows the state of battery charge, the solid circular section indicates the percentage ratio of the reserved charge. e.g.  60% reserved charge All the 10 blocks will be blinking when the battery charge is less than 5%, we suggest to steer your boat to shore or wharf as soon as possible, and full charge the battery in time.
	This icon will display when some error has occurred. An error code will also be displayed. Please refer to the error coding list to trouble shoot errors. e.g.  Error code: E01
	This icon will display when magnetic key is removed from the tiller, which will lead to motor stop. Please put the magnetic key back.
	This icon will display when the system is overheating. The motor speed will descend when this signal is shown.

5.2 Error codes and solutions

When the outboard is running in abnormal conditions or having malfunction, a warning message will display with an error code. The table below will help you get a solution.

Code	Description	Solutions
E01	Motor Over Voltage	Stop the motor and wait until the error message disappears. If the problem still exists, contact your dealer for repairing.
E02	Motor Over Current	Disconnect the battery and check if the motor is blocked. If not, continue driving at lower speed. If this issue cannot be solved, please contact ePropulsion service.
E03/ E04	Motor Overheating	Wait a few minutes until the motor cools down and the warning message disappears.
E05	Motor Under voltage	Indicate the battery level is extremely low. The outboard can probably be restarted at lower speed after the message is dismissed.
E10	Motor Blocked	Disconnect the battery and remove anything that is blocking the motor. Make sure the propeller can be rotated by hand smoothly.
E20	Battery Communication Fault	Turn off the motor and reconnect the battery cable. If this issue cannot be solved, please contact ePropulsion service.
E21	Motor Communication Fault	Turn off the motor and reconnect the battery cable. If this issue cannot be solved please contact ePropulsion service.
E30	Throttle Calibration	Calibration process: 1. Press and hold "SELECT" button(≥10secs)

	Required	until "CAL Fo" is displayed. 2. Put the throttle to forward full power position and press "SELECT" button. "CAL ST" will be displayed. 3. Put the throttle to middle (stop) position and press "SELECT" button. "CAL BA" will be displayed. 4. Put the throttle to backward full power position and press "SELECT" button, the display will return to normal and the calibration is completed.
E50	Faulty Charger	If you are not using an ePropulsion charger, please switch to an ePropulsion charger. If this issue continues, please contact ePropulsion service.
E51	Battery Temperature Fault	Make sure the environment temperature is within 0°C to 45°C. Charging will continue when cell temperature is in that range.
E54	Battery Pack Over Voltage	Stop the motor and wait until the error message disappears. If the problem still exists, contact your dealer for repairing.
E55	Battery Empty	Indicate the battery is empty. The outboard can probably be restarted at lower speed after the message is dismissed.
E56	Battery Charging Over Current	Switch off and on the motor again and drive at lower speed. If this issue cannot be solved, please contact ePropulsion service.
E57	Battery Discharging	Battery can only work within -20°C to 60°C. Motor can be started again after the battery

	Over Current	temperature is within that range.
E58	Battery Hardware Fault	Battery has encountered serious hardware break down. Please replace the battery and contact your dealer to repair it.
E59	Battery Cell Fault	Bad cell fault occurs, please replace the battery and contact your dealer to repair the bad battery.
Other	Other faults	Please contact ePropulsion service.

⚠ Carry out the throttle calibration procedures strictly as the sequences.

6 Battery Charging

Charge the battery when the state of battery charge is low or empty. It's recommended to charge the battery after detaching it from the outboard though it's allowed to use and charge the outboard simultaneously.

Step1: Disconnect the power cable and unplug it from the power port. Hold the battery handle and pull up the battery lock to detach the battery.

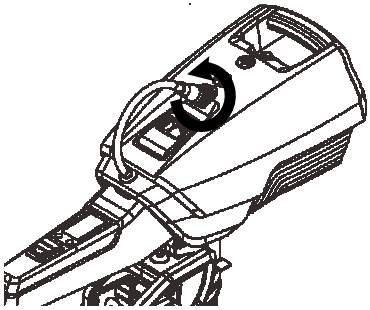


Figure 6-1

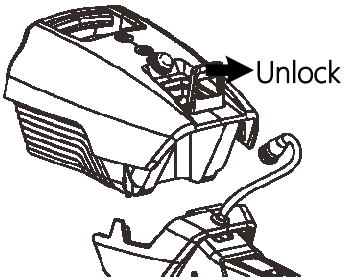


Figure 6-2

Step2: Connect the battery charger to the walls socket with 100V~240V AC power, then connect the battery charger port and charger.

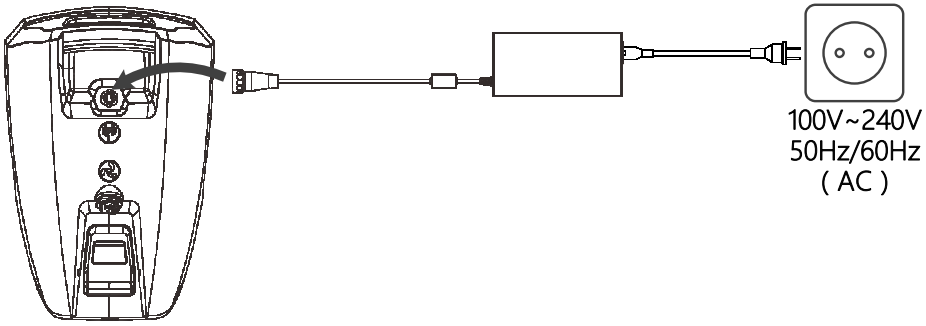


Figure 6-3

Indicator	Normal Status	Description
Charger indicator	Solid green light	The charger has connected to the power socket successfully and it

		works well.
Charging status indicator	Solid red light	The battery is charging.
	Solid blue light	The battery has been fully charged.

Indicator	Abnormal Status	Description
Charger indicator	Light out	1. Check whether the wall socket has output. 2. Disconnect the battery with charger, if the charger indicator become solid green, there may be a fault in battery, please contact your dealer to change the battery. 3. Disconnect the battery with charger, if the charger indicator is still light out, there may be a fault in battery, please contact your dealer to change the charger.
Charging status indicator	Light out	1. Disconnect the battery with charger, if the charger indicator become solid green, there may be a fault in battery, please contact your dealer to change the battery. 2. Disconnect the battery with charger, if the charger indicator is still light out, there may be a fault in battery, please contact your dealer to change the charger.

Step3: Disconnect the battery charger with the walls socket after the battery has been fully charged, then disconnect the battery charger port and charger.

7 Trim Angle Adjusting

Spirit 1.0 has four trim angle options including 21°, 14°, 7° and 0°. The trim angle should be adjusted according to the boat type and the running speed to achieve higher efficiency. It is recommend to test different trim angles at your desired running speed to achieve the best performance

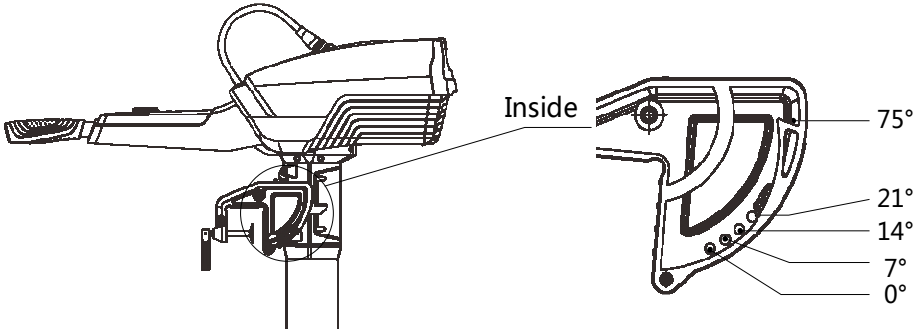


Figure 7-1

⚠ Only adjust trim angle when the outboard is stopped.

⚠ Never toggle the tilt handle if the propeller is rotating.

To adjust trim angle

Step1: Toggle the tilt handle and tilt up the outboard at 75°position.

Step2: Remove the ring on the fixing pin and then pull the pin out.

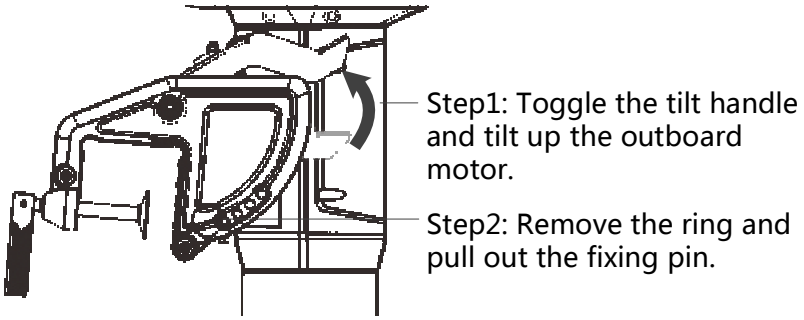


Figure 7-2

Step3: Select a desired trim angle and put the fixing pin into according

position, attach the ring to keep the fixing pin from dropping out.

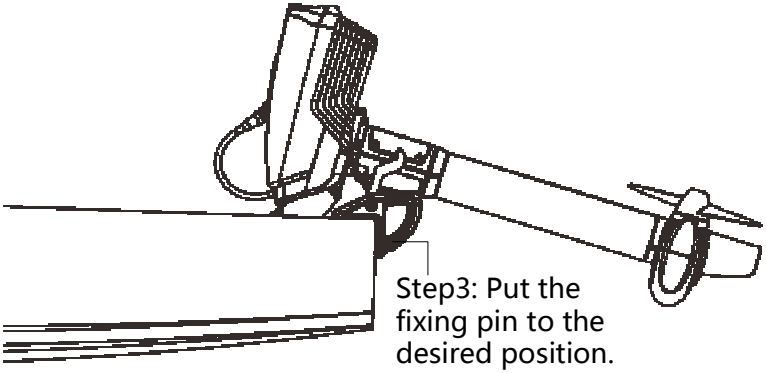


Figure 7-3

Step4: Toggle the tilt handle again to lay down the outboard motor, and the outboard motor will stay at the desired trim angle.

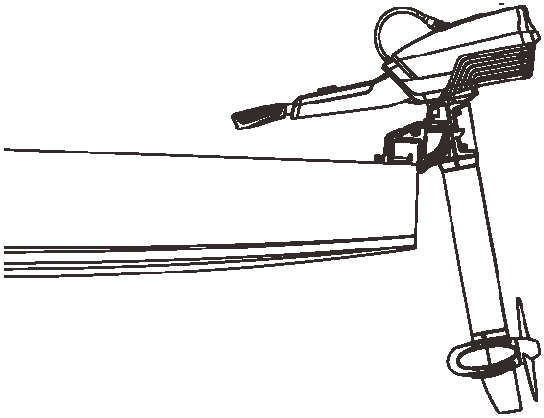


Figure 7-4

Step5: Try to tilt up the outboard and test if the fixing angle is successfully fixed.

Tests with different trim angles are recommended to help find the best working trim angle for the boat and operating conditions. Note that increase the speed gradually when test, watch for water cavity and other instability problems, if the problem become serious, stop the outboard immediately and try to decrease the trim angle.

8 Propeller Assembling

The propeller type affects the performance of outboard critically. Users can select a proper propeller according to different applications. For a larger load boat and a low running speed, a smaller-pitch propeller is more suitable. Inversely, for a smaller load boat and a fast running speed, a large-pitch one is more suitable. Contact your dealer on propeller selection.

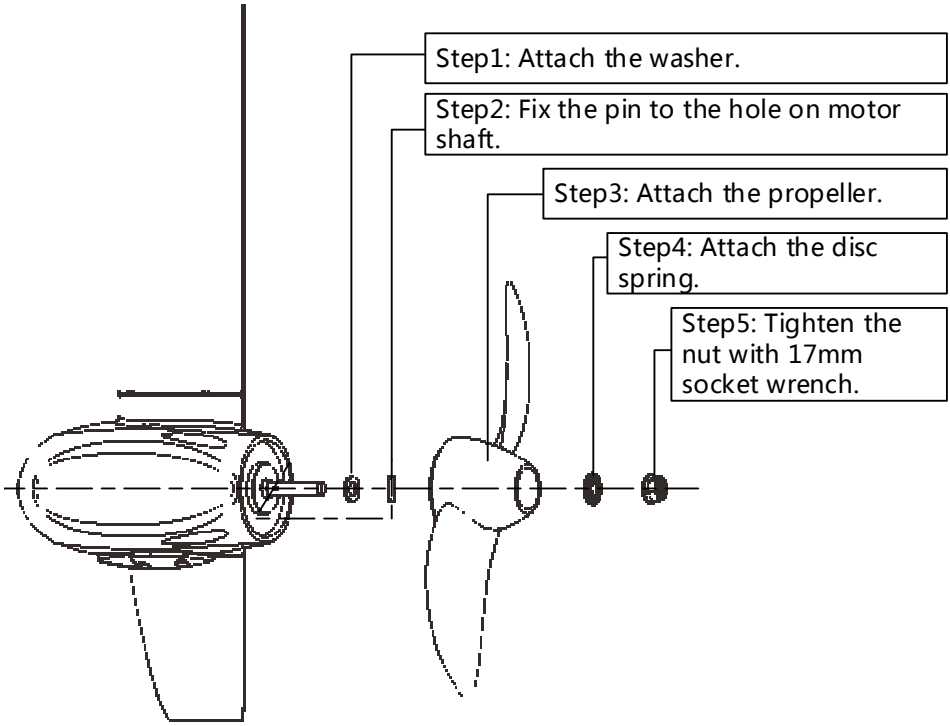


Figure 8-1

9 Anti-grounding Mode

When the boat runs in shallow water or complicated underwater conditions, it may have grounding dangers. Set the outboard in anti-grounding mode will protect the outboard motor from damage if the outboard hits submerged reefs or rocks. In anti-grounding mode, the underwater part of outboard is flexible in tilting direction and the motor will tilt up if it hits something underwater.

⚠ Never turn the throttle backward when the outboard is in anti-grounding mode.

To set the outboard in anti-grounding mode:

Step1: Pull the pin to the limit and hold, then toggle the tilt handle to upmost position.

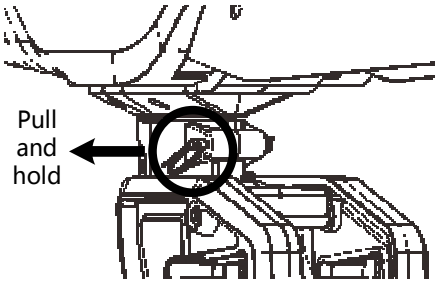


Figure 9-1

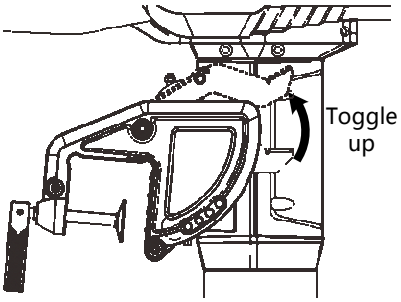


Figure 9-2

Step2: Release the pin and the tilt handle will stay at the position shown in the figure below. And then the anti-grounding mode is activated.

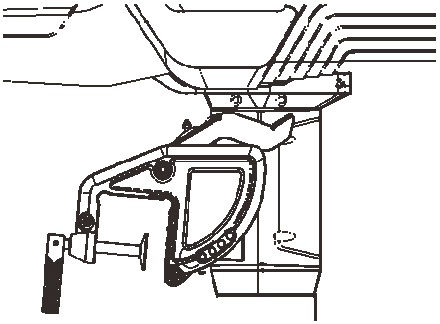


Figure 9-3

To inactivate the anti-grounding mode, pull the pin again and make the tilt handle recover to horizontal position, the anti-grounding protection will be disabled and the outboard will work in normal state.

⚠ Never toggle the tilt handle when the propeller is rotating.

⚠ Never operate the anti-grounding mode activation when the propeller is rotating.

⚠ Only use the anti-grounding mode in needed conditions, such as shallow water, near the shore or unclear underwater conditions.

10 Maintenance

10.1 Notes

Regular maintenance is beneficial to keep your outboard work in optimal condition.

Do not start the outboard in shallow or unknown water conditions. Only use the outboard in water deep enough.

In order to clean and reduce corrosion, use fresh water to wash the whole outboard after salt water use.

⚠ Disconnect the battery from outboard before maintenance.

⚠ Conduct the maintenance under instructions of professional experts or your dealer.

⚠ Only use ePropulsion original components for replacement and maintenance.

10.2 Propeller Maintenance

⚠ Ensure disconnect the battery before each check, as a rotating propeller is dangerous.

⚠ Gloves are recommended to wear, in order to protect your hand from the sharp propeller edges.

Checking the propeller as following tips , then refer to the chapter Propeller Assembly (Page21) to replace a new propeller if necessary.

1. Check the propeller blades for wear broken and other damage.
2. Check the pin for wear and damage.
3. Check for water plants, fishing net or line twine around the propeller.

10.3 Changing the Anode

Please refer to the figure below to replace a new anode if necessary.

Figure 10-1

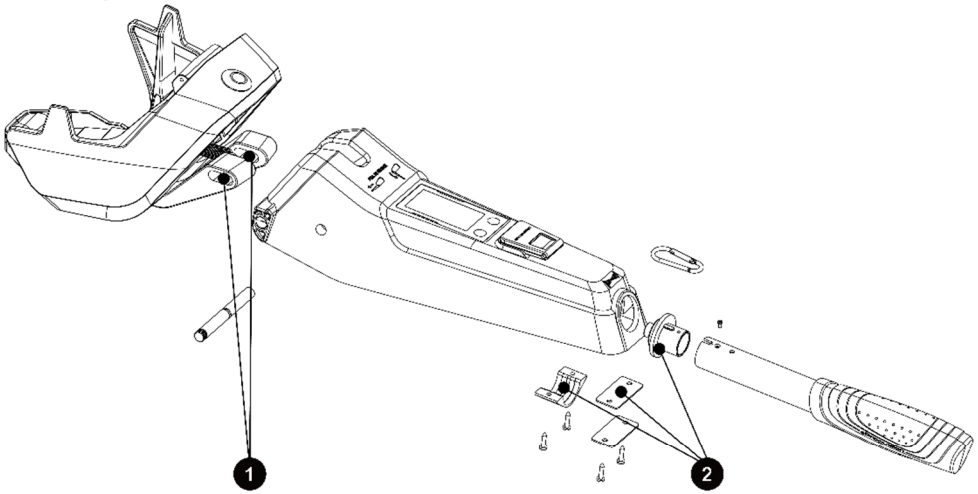
10.4 Maintenance Time Table

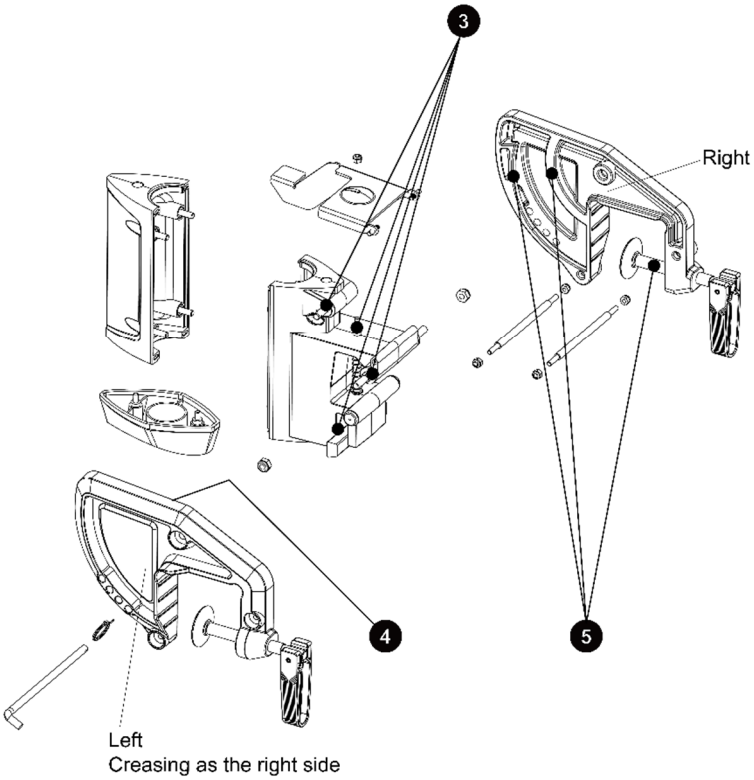
Regular maintenance in proper manner and use in normal condition, the outboard can work at optimal state. Following table show a general maintenance frequency, however it may be adjusted according to operating conditions.

Item	Operations	Initial	Every		
		10 hours (1 month)	50 hours (3 months)	100 hours (6 months)	200 hours (12 months)
Anode	Check/ Replace				■
Greasing points	Greasing				■
Propeller and Pin	Check /Replace				■

The" "symbol indicates checks may carry out by users. The"■"symbol indicates work to be carried out by your dealer.

Creasing Map





11 Transportation and Storage

11.1 Transportation

For long distance transport, please use the ePropulsion original packing to pack the outboard before transportation.

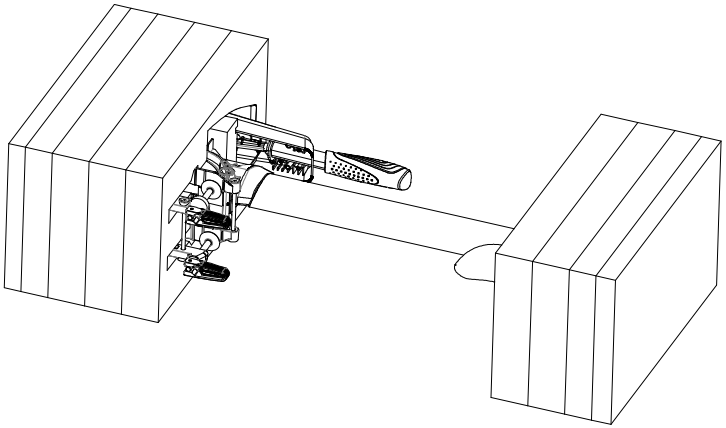


Figure 11-1

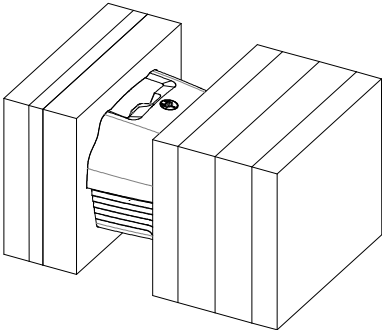


Figure 11-2

⚠ The Li-Ion batteries higher than 100 W-hour are not allowed in the aircraft. The Li-Ion batteries are classified under Class 9 (dangerous goods - see *Lithium Battery Guidance Document* IATA 2015 Revision 1 – I-Site www.iata.org).

⚠ Never ship a damaged or out of order battery.

11.2 Placement

When place the outboard on the ground, ensure the ground is flat and clean. It's better to put some damping cotton or cushion under the outboard to prevent damage.

11.3 Storage

If your outboard is going to be stored for more than 2 months, it's advised to have the outboard cleaned, checked prior to storage. It's recommended to pack the outboard with ePropulsion original packing for storage.

⚠ Take adequate damping-absorber protections before transport and storage. And ensure the propeller receives no pressure if the propeller is installed on the propeller shaft.

⚠ Store the outboard in a dry, well ventilated place, not in direct sunshine.

12 Emergency Situations

12.1 Impact Damage

If the outboard strikes some object in the water, please follow the procedure below.

1. Stop the outboard immediately.
2. Check the propeller and other components before you start the motor again.
3. Return to the nearest harbor or beach.
4. If the motor is damaged, find your dealer or ePropulsion service center for help.

12.2 Sodden Outboard

If the outboard is sodden, stop it immediately and disconnect the battery. Then take the outboard to a dealer immediately. Ensure the outboard is thoroughly inspected before operated again.

12.3 Low Battery Level

When the battery voltage is lower than a set threshold, the outboard will stop automatically to prevent battery over discharge. If this happens when the outboard is far away from the shore, and no new battery can be replaced, it's recommended to wait until the battery voltage recovered, and you can restart the outboard to return with throttle power under 100W.

13 Warranty Claim

The ePropulsion limited warranty is provided for the final purchaser of an ePropulsion outboard motor, consumers are entitled to a free charge repair or replacement of defective goods or goods which do not conform with the contract of sale. This warranty operates in addition to your statutory rights under your local consumer law.

13.1 Warranty Expiry Date

Spirit 1.0 (battery not included)	Two years after the date on which the product was delivered to the final purchaser.
Spirit 1.0 Battery	Two year after the date on which the product was delivered to the final purchaser.
Components have been repaired or replaced	The longer limit between the above date and 3 months after the date on which the repaired or replaced components are delivered to the consumer.

13.2 Warranty Conditions

Our warranty is limited to the replacement of supplied parts and admitted as defective by ePropulsion after-sales service or to a repair network. In general, our warranty excludes any corporal, material and immaterial damages, consecutive or not consecutive.

Should your product be defective or if it does not conform to the contract of sale, you can make a claim to your ePropulsion dealer.

The defective or faulty components will be repaired or replaced after estimation based on actual cases by ePropulsion service. The replaced components will be brand new and your ePropulsion dealer reserves the final explanation.

It's prerequisite to provide the invoice, receipt or contract as a proof of

purchasing.
Please fulfill the warranty claim exactly in detail to assistant the ePropulsion service.
The warranty service applies only in the region or country where the product purchased. Consumer will take charge of the repair cost if your product is repaired out of the covered region.
Ensure the product is proper packing during delivery, the original ePropulsion package is recommended. If the product got damaged by improper packaging during delivery, this operation maybe estimated as out of warranty coverage.
Indemnity or financial losses caused in accidental cases are excluded in this warranty.

13.3 Out of Warranty

Products used commercially or deal with special contract are not covered by this ePropulsion limited warranty.
Normal wear and tear are excluded from the warranty.
The Warranty Claim Form is not submitted correctly.
The purchasing proof is invalid.
Damages caused by operations conflict with this manual.

13.4 Warranty Procedures

If your product is defective, you can complain to your dealer ePropulsion Technology by using the following procedure:
1. Make your warranty claim with all the details necessary for a proper understanding and send it to your authorized ePropulsion Technology dealer with the purchase invoice.
2. Send the defective motor (shipping at your expense) to your authorized ePropulsion Technology dealer after they confirming with you.

3. The defective components will be repaired or replaced with new parts according the decision - approval or rejection – according the diagnosis made by the ePropulsion Technology after-sales service.
4. If your warranty claim is accepted, the equipment will be repaired or replaced free of charge and the return shipping will be also free of charge.
5. In the case of a refusal of your warranty claim, a repair fee estimate will be sent to you including transportation back.

13.5 How to make a claim

Contact ePropulsion service, complete and send the Warranty Claim Form.
Tel: +852 66794477
Email: service@epropulsion.hk
You can download and submit the Warranty Claim Form through www.epropulsion.hk, a proof of purchase is also necessary.