

Smart Tiller User Manual



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THANK YOU

Thank you for purchasing a product from ePropulsion, world leaders in clean, safe and reliable electric marine propulsion systems. We are sure you'll be pleased with your new motor and welcome your feedback at www.epropulsion.com.

Conditions of Use

Before using this product, please read this user manual thoroughly to understand how to use the product correctly and safely. By using this product, you indicate that you have fully read and understood, and agree to, all the contents of this manual. Do not use the electric outboard motor until you have understood how it operates. Do not lend the outboard motor to anyone who is not familiar with its operation. ePropulsion is not responsible for any economic loss or personal injury resulting from operations that do not comply with the instructions in this manual.

Please note that ePropulsion has a policy of continuous product optimisation, and reserves the right to update the contents of this manual at any time. Please visit www.epropulsion.com to obtain the latest version. If you find any discrepancies between your product and this manual or have any questions about the product or this manual, please visit the website www.epropulsion.com or contact us. ePropulsion reserves the right to make the final interpretation of this manual.

This manual is available in multiple languages, and in the event of any discrepancies between different language versions, the English version shall prevail.

ePropulsion also retains all relevant intellectual property and industrial rights, including copyrights, patents, trademarks, and designs.

Product Serial Number

The serial number is located as shown below. Please take note of it and keep it in a safe place, as it may be required when purchasing accessories or if you need service or warranty.

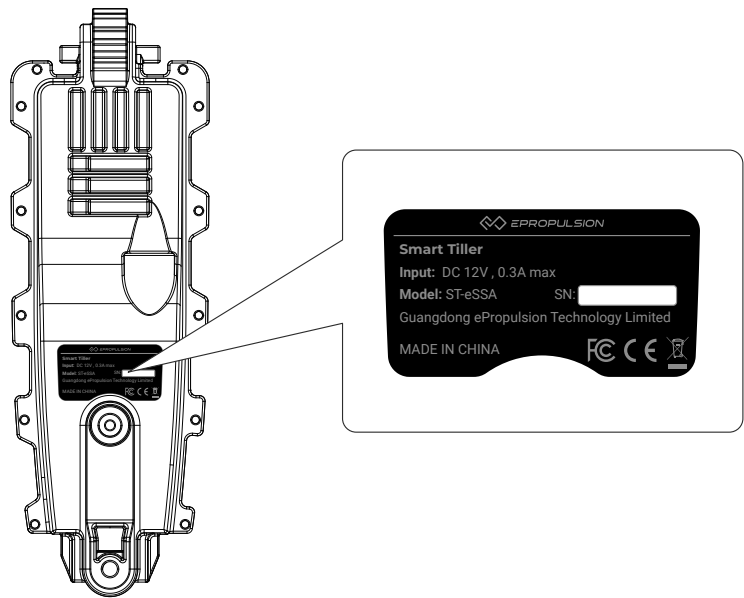


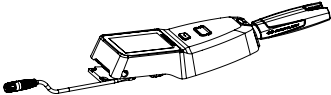
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1 Product Introduction

The Smart Tiller is a stern control solution provided by ePropulsion, enabling easy and responsive vessel control, including throttle and gear control, electric steering, manual tilt adjustment, and more.

1.1 In the Package

Items	Qty.	Figure
Smart Tiller	1 pcs	
Kill Switch	2 pcs	
Float	2 pcs	
Hex Socket Set Screw 6*8*M5	6 pcs	
User Manual	1 set	



Save ePropulsion original package for transport and storage.

1.2 Specification

Rated Voltage	Compatible with 12V/24V
Maximum Current	300mA
Net Weight	1.83kg
Dimensions (L x W x H)	510 x 115 x 90 mm
Waterproof Rating	IP67
Operating Temperature	-5°C to 55°C
Storage Temperature	-25°C to 70°C

1.3 Important Notes

1. Only adults who have fully read and understood this manual are allowed to operate this product.
2. Make sure the Smart Tiller is properly installed before use.
3. Remove the kill switch when the Smart Tiller is not in use.

1.4 EU Declaration of Conformity

We Guangdong ePropulsion Technology Limited, hereby, declares that this equipment is compliance with the applicable Directives and European Norms, and amendments.

Object of the Declaration:

Product: Smart Tiller

Model: ST-eSSA



The object of the declaration is in conformity with the following directives and regulation:

Electromagnetic Compatibility (EMC) Directive 2014/30/EU

Restriction of Hazardous Substances Directive 2011/65/EU and Delegated Directive (EU) 2015/863

EC REACH Regulation (EC 1907/2006)

Regulation on General Product Safety 2023/988

Applied Standards:

ISO 25197:2020

This declaration of conformity is issued under the sole responsibility of the manufacturer:
Guangdong ePropulsion Technology Limited.

Address: Room 801, Building 1, 11 Daxue Road, Songshan Lake, Dongguan, Guangdong
Province, China

Signature:  **Date:** 2025.5.20
Shizheng Tao, Chief Executive Officer & Cofounder of
Guangdong ePropulsion Technology Limited

1.5 FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

1.6 Disposal and Environment

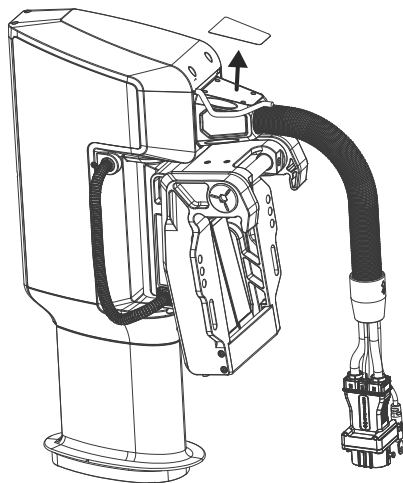


This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

2 Product Wiring & Installation

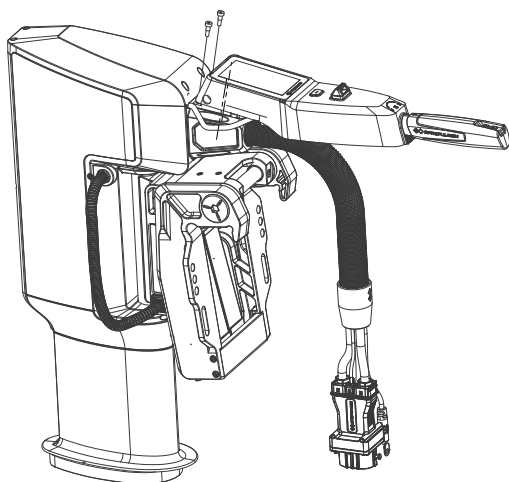
Please install the Smart Tiller on the machine according to the steps below.

Step 1: Peel off the protective film on the corrugated tube outlet bracket of the motor.

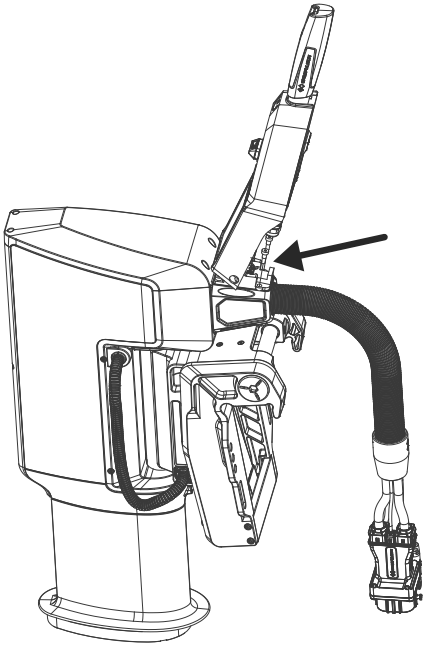


Step 2: Clean the four screw holes on the corrugated tube outlet bracket of the entire machine, ensuring that the screws can be smoothly inserted.

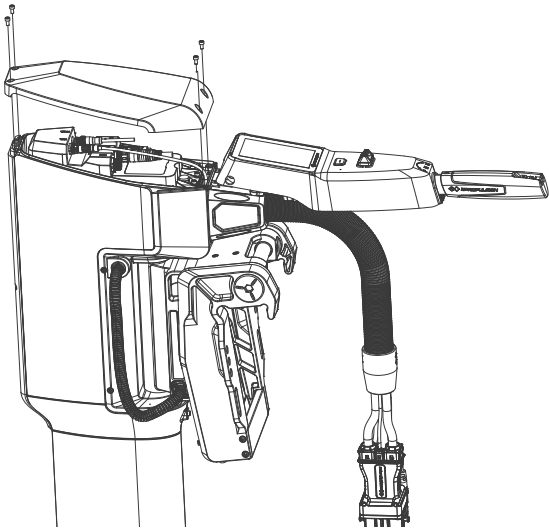
Step 3: Place the Smart Tiller onto the corrugated tube outlet bracket. Install the front 2 $\Phi 6*8*M5$ Hex Socket Set Screws.



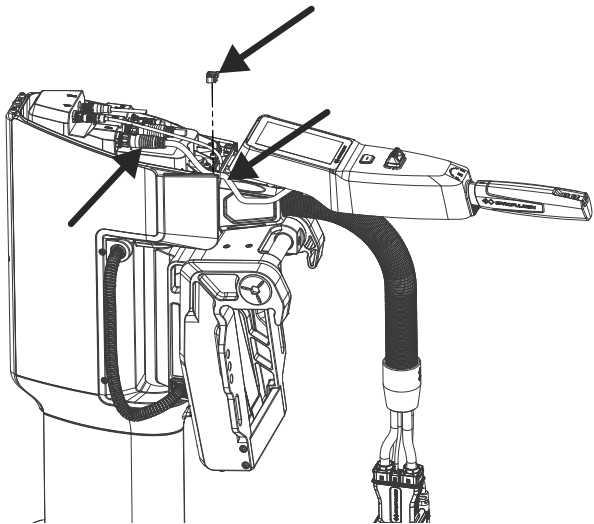
Step 4: Lift the Smart Tiller to its highest tilt angle position. Install the rear 2 pcs of $\Phi 6*8*M5$ Hex Socket Set Screws.



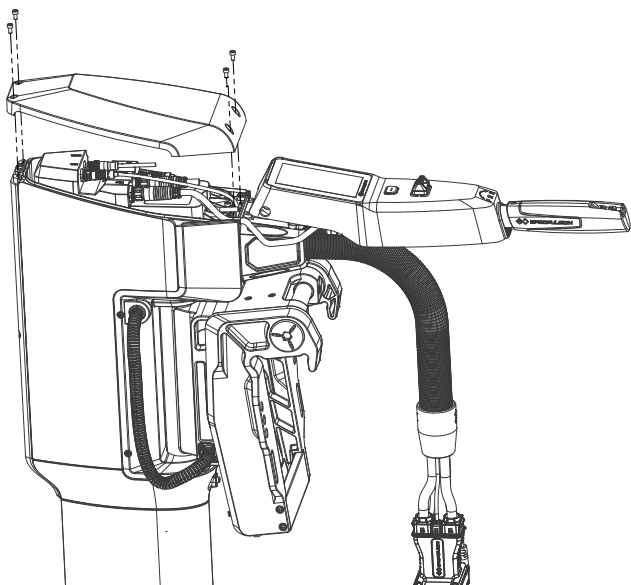
Step 5: Remove the 4 M4 Hex Socket Round Head Screws securing the motor's decorative cover. Open the decorative cover upwards.



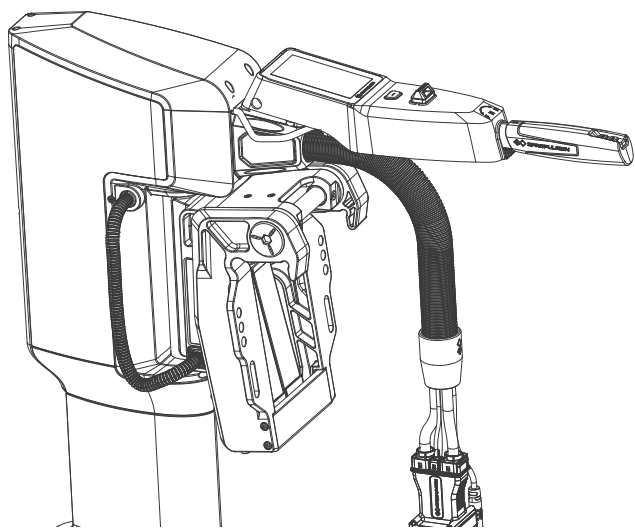
Step 6: Remove cable grommet ,connect the Smart Tiller communication cable to the motor's "tiller" marked port. Route the cable into the reserved slot.



Step 7: Install the motor decorative cover and secure it with 4 screws.

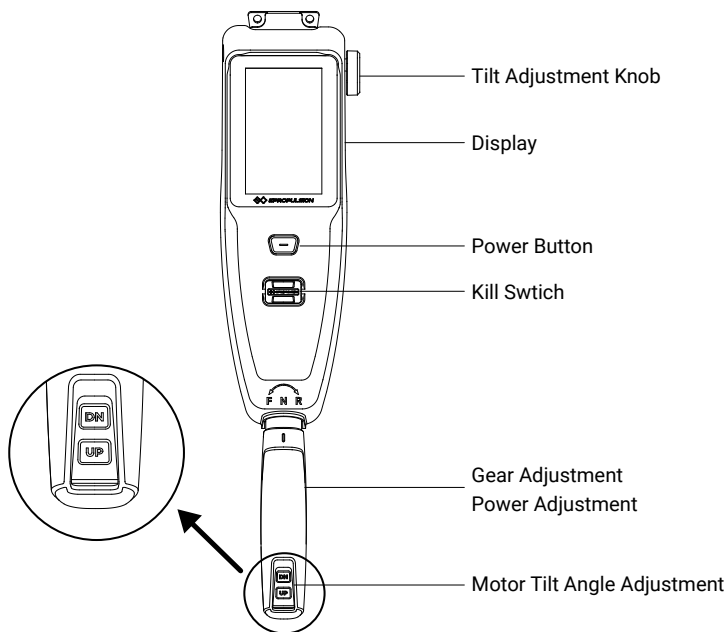


Complete the installation.



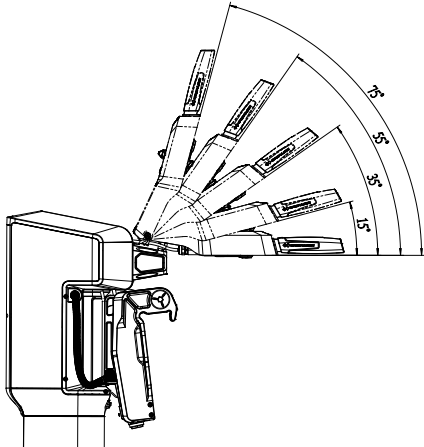
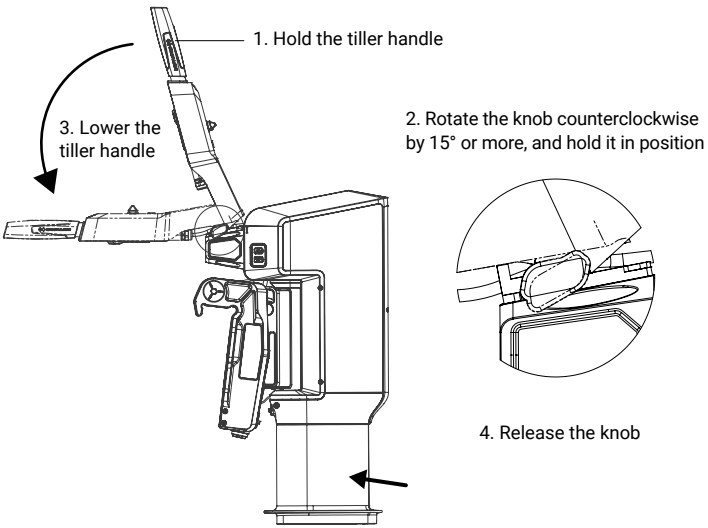
3 Function

3.1 Function Description



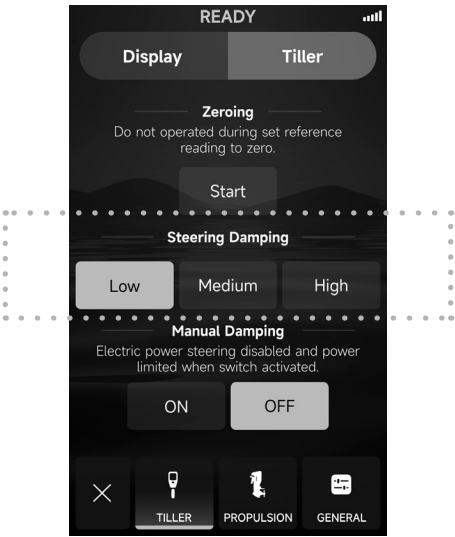
Button	Function Description
Kill Switch	Attach before starting the boat. Remove when shutting down. In an emergency, the motor can be stopped by pulling the kill switch off throttle. Motor can be restarted after emergency stop by first putting throttle in neutral position, then replacing the kill switch, and operating as normal.
Power Button	Press and hold down the button for 1 second to power the system on or off. When the system is turned on, press and hold down the button for 2 seconds to stop the motor.

Button	Function Description
Gear Adjustment	Rotate the handle clockwise/counter-clockwise according to the directional indicators on the tiller. F: Forward gear. N: Center position, neutral. R: Reverse gear.
Power Adjustment	Rotate the handle to adjust the power.
Motor Tilt Angle Adjustment	Press the tilt button on the tiller to adjust the motor tilt angle. UP: Raise the motor or angle it outwards from the hull DN: Lower the motor or angle it towards the hull
TURBO	TURBO: Overpower mode, allows the motor to operate beyond rated power for a maximum of 30 seconds (maximum power depends on the motor model). Activate: While powered on and at full throttle, quickly press the UP button twice. Deactivate: While TURBO is active, quickly press the UP button twice, OR shift the throttle to R (Reverse) gear.
DOCK	DOCK: Power limit mode. Activates DOCK at a default 50% power limit (adjustable via the display). Activate: While powered on, press the DN button twice. Deactivate: While DOCK is active and the gear is in N (Neutral), quickly press the DN button twice.
Display	View power, speed, battery level, and other information. Supports system settings, firmware updates, and connection to ePropulsion Connectivity.

Button	Function Description
Tiller Tilt Angle Adjustment	Upwards: Grip the end of the tiller handle and lift upwards; supports 5 angle positions. 
	Downwards: Grip the tiller handle, press down the tilt adjustment knob, and adjust the tiller angle downwards.  1. Hold the tiller handle 2. Rotate the knob counterclockwise by 15° or more, and hold it in position 3. Lower the tiller handle 4. Release the knob Note: When lowering the tiller, hold the tiller handle firmly to prevent the tiller from dropping straight down and pinching fingers.

3.2 Steering Damping

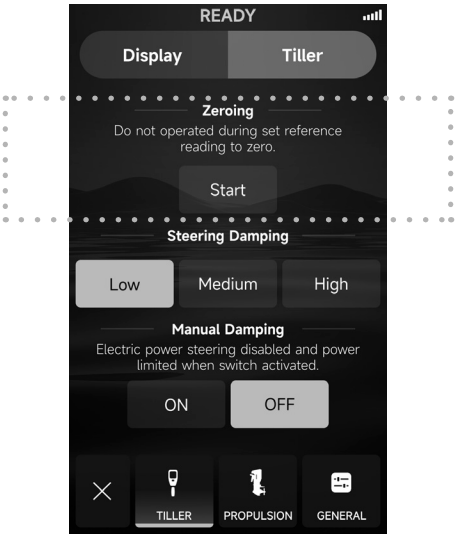
The steering damping force can be adjusted via the display, allowing adjustment the tiller steering effort to personal preference.



3.3 Troubleshooting for Steering

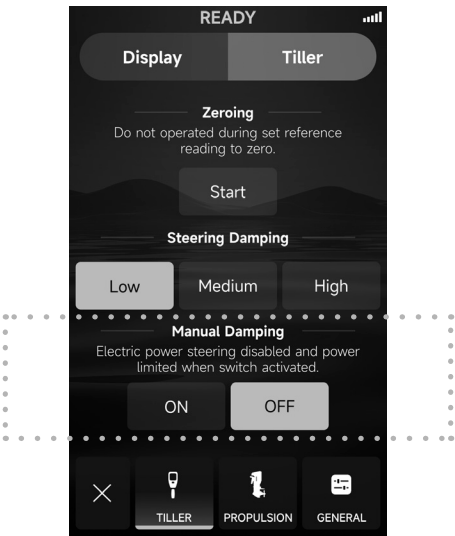
3.3.1 Zeroing

If the tiller steering malfunctions (e.g., automatically steering when power on), try zeroing the steering via the display.



3.3.2 Manual Damping

If steering remains abnormal after zeroing, you can turn on the "Manual Damping" function in the display settings menu. Once activated, electric steering will be disabled, and the system will operate at reduced power. This setting resets after shutdown.



4 Limited Warranty

Guangdong ePropulsion Technology Co., Ltd. ("ePropulsion"), China, warrants its products to be free of defects in material and workmanship under normal usage with proper installation and routine maintenance for a period of twenty-four (24) months from the date of delivery of invoice (the "Limited Warranty Period"). The Limited Warranty is provided to the first end customer of ePropulsion products ONLY. The Customer is entitled to free repair or replacement of defective or non-conforming parts. Any warranty claim must be made within six (6) months of discovery of issues as provided below.

If the Limited Warranty Period has expired, you can still enjoy maintenance services from dealers/distributors authorized by ePropulsion (the "ePropulsion Service Partners") who will endeavour to keep costs to a minimum.

In all warranty cases, ePropulsion will only bear the repair or replacement cost for items that are covered by the Limited Warranty. Any costs not covered by the Limited Warranty – such as those related to product installation, disassembly, transportation, financing, rental, etc – shall be borne by the customer alone.

Beyond the Limited Warranty, the Customer may have statutory rights in their jurisdiction according to applicable laws. Nothing in this Limited Warranty affects such rights. The Customer may have warranty claim rights arising from the purchase contract with ePropulsion Service Partners in addition to the rights granted by this Limited Warranty.

Products used for commercial or professional purposes*, even if only temporarily, are not covered by the Limited Warranty. Instead, the statutory warranty in your jurisdiction shall apply. You are encouraged to consult with ePropulsion Service Partners for applicable warranty and advice before engaging in such use.

*** Commercial/Professional Purposes include those where the product is used with the intention of making profit, or high frequency, or very high reliability requirements, etc.**

To keep your warranty valid, please note the following:



Products without the original product label will not be covered by ePropulsion's Limited Warranty. Keep the product label intact and record the serial number from it. Never remove the label from the product;



The Limited Warranty is not transferable and will not be reissued;



The Limited Warranty may change from time to time. Please visit our website (<http://www.epropulsion.com>) for the latest version.

Capacity guarantee for high-voltage batteries

A guarantee of the capacity of the high-voltage batteries, in addition to the standard guarantee. Depending on the long-term average temperature and the usage profile, this guarantee runs for a longer life.

Comment on average temperature:

The average temperature is calculated using the Arrhenius equation; this means that higher temperatures are given a greater weighting.

4.1 Warranty Exclusions

ePropulsion may refuse a warranty claim if:

- The product is operated in contradiction to what is written in the user manual;
- Damage is caused by accident, misuse, dropping, improper care or storage, wilful abuse, physical damage, unauthorized repair;
- Water ingress is caused by external sources such as fishing nets, submersion, etc;
- Product has been modified, altered, dismantled, or had parts/accessories attached in any way not expressly permitted or recommended by ePropulsion;
- Due to failure of, or damage caused by, any 3rd party products;
- The high-voltage batteries have been repositioned in the boat, without contacting ePropulsion service. Repositioning may result in changes to cabling, and other risks to system operation;
- The battery has been incorrectly charged, overcharged, over-discharged, or operated in temp out of scope described in the user manual;
- Consumables (such as replacement propeller, anodes, oil/fluids...etc.);
- Purchases of products from unauthorized dealers or sellers;
- Normal wear and tear and routine servicing;
- Damage caused by improper packing or handling of the product during its return. The additional damage part will be deemed out of warranty;
- Incorrect shipping of lithium batteries. These are classed as a UN9 hazardous item, and must be shipped in accordance with regulations in your jurisdiction. Non-compliance may result in warranty exclusion.

4.2 Limited Warranty Claim Procedures

The process shown below must be followed in order to make a Limited Warranty claim:

1. Contact your nearest ePropulsion Service Partner with details of the problem. They will advise if such defects are covered by the Limited Warranty or any additional rights you may have from your purchase.
2. Send the defective product to them (or the Service Partner they advise) together with Proof of 1(st)-time (first time) Purchase (e.g., receipt, invoice, etc., with information of product purchased and date of purchase), the Confirmation of Online Warranty Registration, ex-factory Serial Number, etc. Note that all labels must be kept intact. Warranty claims will only be valid only when the information above is correct, genuine, and complete.
3. Make sure the product is properly packed during delivery, the original packaging is highly recommended.
4. The ePropulsion Service Partner will examine and diagnose the defective products to check the validity of the warranty claim.
5. If your warranty claim is accepted, the Product or its defective components/parts will be either repaired or replaced free of charge. Note that any delivery cost incurred in the process shall be borne by you.
6. If your warranty claim is rejected, a repair/replacement cost and fee with round trip delivery cost will be estimated and sent to you for confirmation. ePropulsion Service Partners will only begin the work after your written confirmation that you wish to proceed with the repair/replacement and will pay for it.

ePropulsion

(*In order to validate warranty, please fill in this form first and read the Warranty Policies.)

|| OWNER INFO. ||

Owner Name			
Address			
Phone		Email	

|| DEALER INFO. ||

Store Name			
Address			
Phone		Email	

|| PRODUCT INFO. ||

Date of Purchase (mm/dd/yyyy)	
Serial No.	



Thanks for reading this user manual.

If you have any concerns or find any problems while reading, please don't hesitate to contact us. We are delighted to offer service for you.

Guangdong ePropulsion Technology Limited

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E-Mail: service@epropulsion.com