

TFLhobby®

Explorer

MINI MONO



Boat No. 1158

使用说明书
INSTRUCTION MANUAL

简介

感谢您选购本产品！Explorer模型船由专业团队研发，以创新设计和精湛工艺打磨，流畅线条与硬朗轮廓尽显TFL魅力。表面采用先进喷涂工艺，漆面均匀光滑，色彩持久鲜艳，长期使用仍保美观。性能上，搭载高性能无刷电机、优质电池及高品质电子调速器。无刷电机高效平顺，配合调校螺旋桨可实现高速航行；电子调速器能精准控速，还具备过流、过热保护，保障动力稳定。内部元件与传动部件均选优质材质，经严格质检，确保性能可靠、操控稳定，有效延长使用寿命。我们致力于为您带来出色操控体验，请妥善保管本手册以备查阅！

模型船使用与保养注意事项

1. 避免暴晒：请勿将模型船长时间置于阳光直射下，高温可能会对船体材料以及内部电子元件造成不可逆的损伤。
2. 远离干扰源：禁止操控模型船靠近高压电线、无线电铁塔，或进入设有无线电波管制的区域，以防信号干扰导致操控失灵。
3. 做好防水：务必采取有效的防水措施，严禁让水或其他液体接触电机、遥控器、伺服电路、电子调速器等电气部件，避免因短路引发故障。
4. 妥善储存：模型船应存放在阴凉干燥的地方，高湿度环境会加速船体及零部件的锈蚀，缩短其使用寿命。
5. 保持清洁：保持船身及电气部分的洁净，防止灰尘、油污附着。定期进行检查和清理，确保设备始终处于良好的工作状态。
6. 安全运输：在运输过程中，要确保船体平稳放置，避免剧烈颠簸、摇晃以及硬物撞击，防止船身结构损坏或零部件松动脱落。
7. 清理异物：除必要的零部件外，船舱内不得遗留任何异物，以免影响航行稳定性或造成内部零件损坏。
8. 防止意外：严禁在模型船运行时将手或其他物体靠近高速旋转的螺旋桨、外转子无刷电机外壳，防止发生意外受伤事故。
9. 注意烫伤：模型船停航后，马达和电池仍处于高温状态，为避免烫伤，请勿立即触摸。

警告

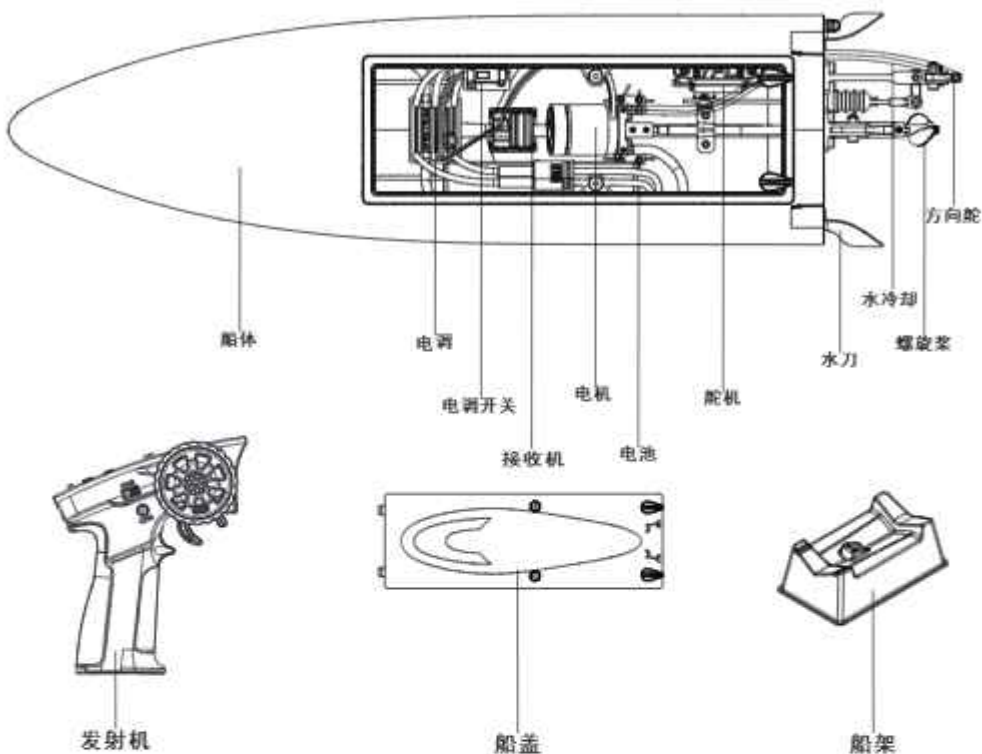
1. 禁止在人群密集区域操作：严禁在公众海滨浴场、游泳池、水上会所及主航道等人员密集或船只通行区域操控模型，操作者需对模型安全承担全部责任。
 2. 遭遇突发意外：（如强烈撞击、异物缠绕、极端水流冲击等情况）时，防翻机制可能失效，船体倾覆后无法自主复位，需立即手动回收，避免设备损坏。
 3. 恶劣天气禁止下水：遇风急浪涌、潮汐高涨等天气时，切勿让模型下水，此时水面下可能存在强大暗流，需同时注意保护船只及自身安全，避免失足落水。
- 安全第一，谨慎操作，共同守护水上环境与人身安全。**



目录

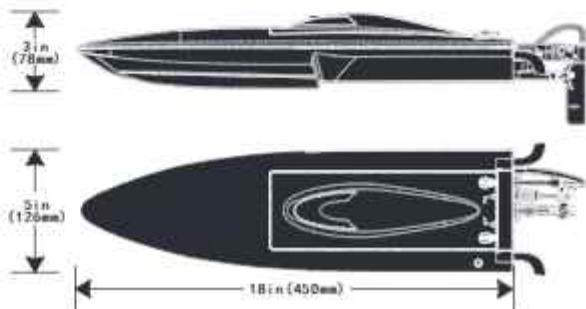
船体概述	3	船舱连接图	6
船规格	3	传动系统保养	7
智能翻转	4	螺旋桨保养	8
转向舵安装	4	发射机指南	8
模型船电池安装	5	电池安全说明	9
发射机电池安装	5	充电器使用	9
模型船操作	6	易损部件	10

船体概述



船规格

长度: 18 in (450mm)
 宽度: 5 in (126mm)
 高度: 3 in (78mm)
 速度: 50+km/h
 船体材料: ABS
 电机: 2818kv3000
 电调: 30A
 电池: 11.1V 3S 1950mAh
 舵机: 17克
 螺旋桨: 30mm
 发射器: 4 通道2.4GHz, R4B接收机



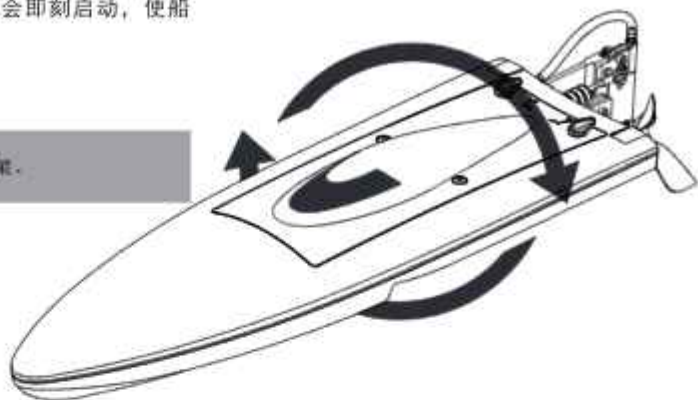
智能翻转

当模型船意外翻覆时，只需瞬间加大油门，模型船内置的自动回正系统便会即刻启动，使船身迅速翻转回正。



注意

电机需要静止时操作此功能。



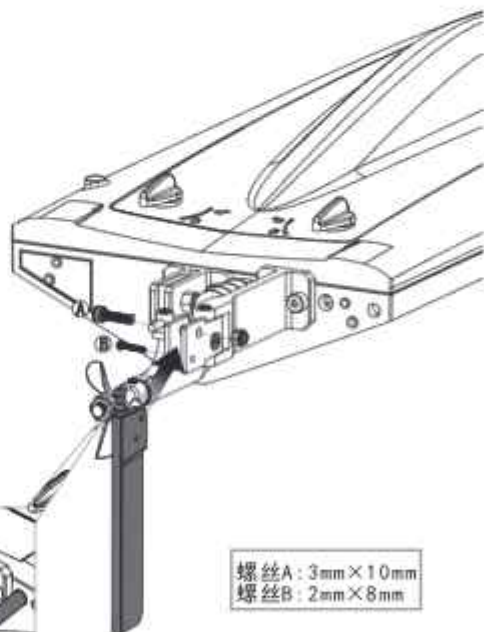
转向舵安装

1. 请将螺丝A和B按照图示方向安装到位，其中螺丝A材质为不锈钢，螺丝B材质为铜。
2. 在船舵遭遇碰撞时，铜制螺丝B会优先折断，以此起到保护船身和船舵的作用，避免船身和船舵因过度受力而受损。另外，也可以选择使用相同尺寸的塑料螺丝来替代铜制螺丝B。
3. 将水管插入船方向舵上对应的水嘴位置，确保插入深度合适，接口处密封良好。

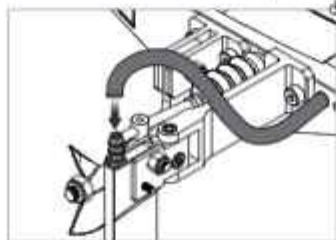


注意

1. 下水前需，检查船舵进水孔是否畅通。若堵塞清理后再下水。
2. 若水冷系统出现异常，会导致电机和电调温度过高，甚至可能引发烧毁情况。
3. 行驶时，需经常观察排水口，是否正常排水。要是船舵被杂物缠绕，或进水孔堵塞必须马上回航清理后，方可继续行驶。

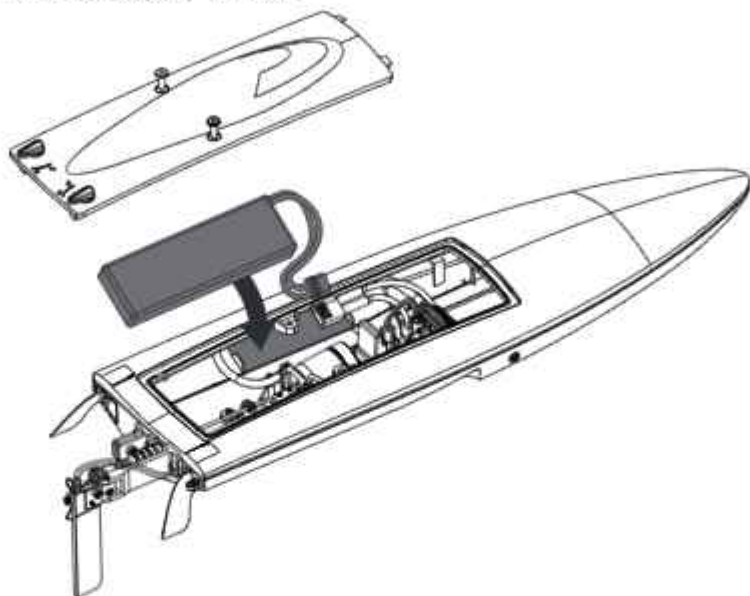


螺丝A: 3mm×10mm
螺丝B: 2mm×8mm



模型船电池安装

1. 松开固定螺丝，打开船盖锁。
2. 从船盖尾部抬起拔出船盖。
3. 将电池安装在指定位置。
4. 将电池连接ESC电源接口。
5. 在将您的船放入水中之前，请确保船盖没有损坏，如有需要请使用防水胶带，贴住船盖周边。

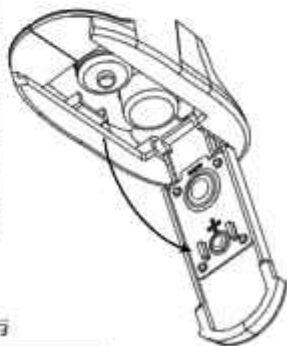


发射机电池安装

- | | |
|------|----------------------|
| ⚠ 危险 | · 仅使用厂家指定的电池。 |
| ⚠ 危险 | · 请勿打开、拆卸或自行维修电池。 |
| ⚠ 危险 | · 请勿挤压、刺穿或接触电池的金属端子。 |
| ⚠ 危险 | · 请勿将电池置于高温环境或液体中。 |
| ⚠ 危险 | · 请注意防止电池跌落、碰撞或震动。 |
| ⚠ 危险 | · 请将电池存放在干燥阴凉的环境中。 |
| ⚠ 危险 | · 如果电池损坏，请立即停止使用。 |

请按照以下步骤安装发射机电池：

1. 打开电池仓盖。
2. 将4颗电量充足的AAA电池装入电池仓内，确保电池上的金属端子与电池内的金属端子接触。
3. 盖好仓盖。



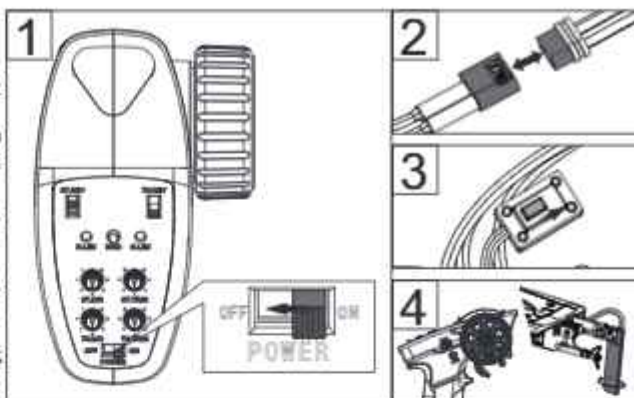
注意

1. 低电量报警：当电量低于4.2V时，面板上的G:LED灯闪烁报警提示。
2. 安装电池时，请留意电池正负极，避免安装错误。（如右图所示）

模型船操作

启动指南:

1. 打开发射机电源开关，确保其处于开启状态。
2. 将适配的电池插头与电调（ESC）对应的接口牢固连接，确保接触良好。
3. 开启ESC电源开关，此时会响起识别提示音，在提示音播放期间，切勿触碰发射机。
4. 通过操作发射机，测试对船只电机转向等功能的控制，确认各项操作响应正常。
5. 在航行过程，船只速度突然降低，这时电设非正常工作状态，应立即返航进行检查。

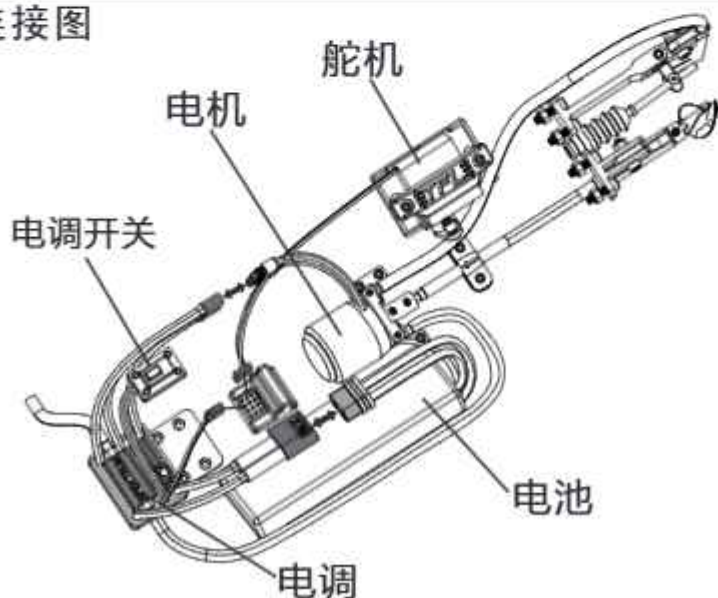


控制船只前进时，切勿直接切换至倒车模式，否则可能导致传动轴因受力冲击而损坏。

关闭指南:

1. 将电调（ESC）上的开关关闭，停止设备供电。
2. 断开电池与电调之间的连接插头，小心取出安装在船上的电池，妥善存放，避免短路或损坏。
3. 关闭发射器的电源开关，确保其处于关闭状态，节省电量并防止误触发。

船舱连接图

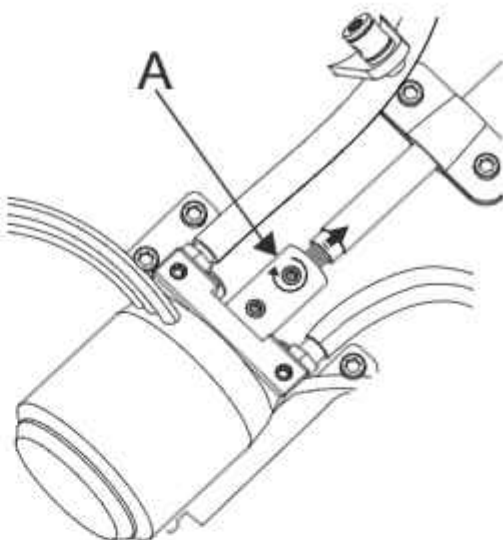


传动系统保养

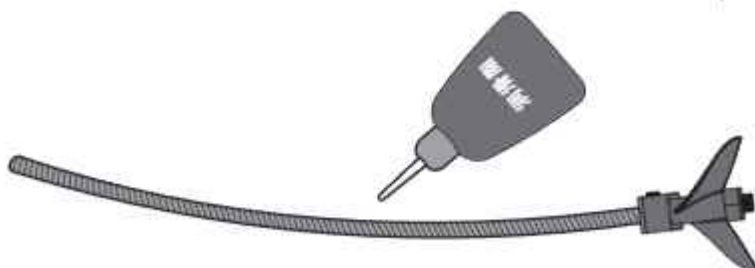
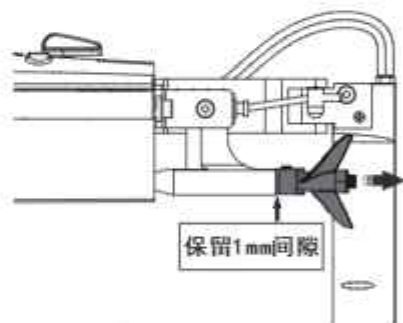
当发现传动系统部件出现损坏，或者存磨损和损伤时，必须立刻进行更换。

润滑传动轴对于延长传动系统的使用寿命至关重要。优质的润滑油还具备防水密封的功能，可在一定程度上防止水通过传动管道进入船体。

1. 先断开模型船电源。
2. 使用规格为1.5mm的内六角扳手，将固定传动轴的机米(A)逆时针松开。
3. 将传动轴从轴套中抽出，并清理干净。
4. 选取浓稠度合适的润滑脂，均匀地涂抹在传动轴的表面。
5. 将涂抹好润滑脂的传动轴顺着螺纹方向旋转插回轴套中，确保安装到位。
6. 使用规格为1.5mm的内六角扳手，将固定传动轴的机米(A)顺时针拧紧。
7. 调整桨叉和轴支架之间的缝隙，保留1mm间隙。

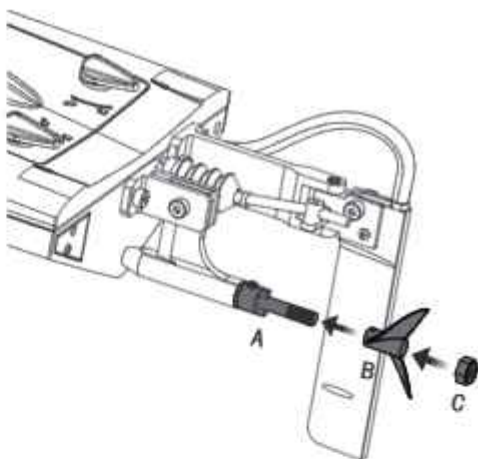


注意 确保传动轴安装正确，安装不正确可能导致船只无法修复的损坏。



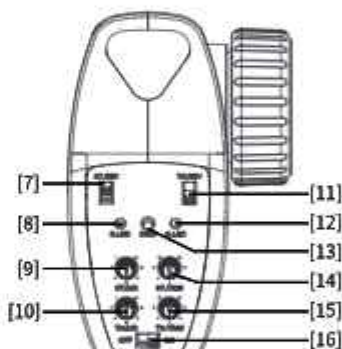
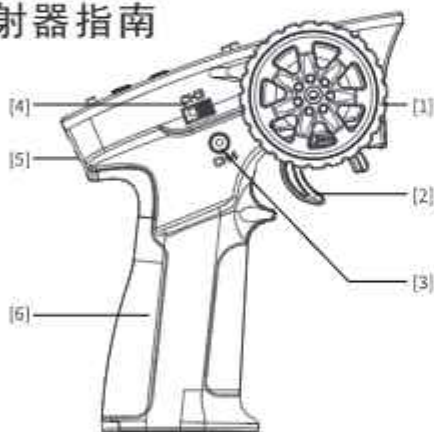
螺旋桨保养

1. 先断开模型船的电源。
2. 使用规格为5mm的扳手，按照逆时针方向将螺母拆卸下来。
3. 将螺旋桨从传动轴上平稳拆下。
4. 检查拆下的螺旋桨是否存在损坏或磨损情况。若发现螺旋桨有裂纹、变形等损坏现象，或磨损程度已影响正常使用，则需及时更换新的螺旋桨。
5. 依次将螺旋桨和螺母安装回原位。



1. 严禁在设备通电状态下拆卸螺旋桨，避免安装过程中意外触碰到遥控器，从而导致的人身伤害或财产损失。

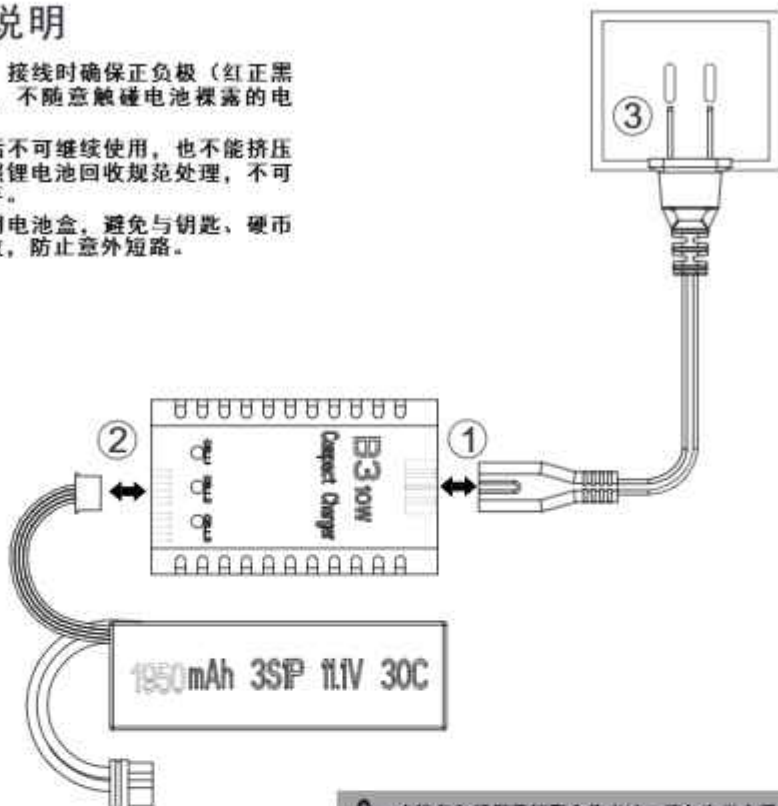
发射器指南



1	方向手轮，左右35度 (CH1)	9	方向能量调节按钮 (ST. D/R)
2	油门扣机，前25度后12.5度 (CH2)	10	油门能量调节按钮 (TH. D/R)
3	按键开关 (CH4) [按键功能为翻转式]	11	油门倒置开关 (TH. REV)
4	三档拨动开关 (CH3)	12	状态指示灯绿色LED (G. LED)
5	挂绳孔	13	对码按键 (BIND)
6	手柄，4*AAA电池仓	14	方向微调按钮 (ST. TRIM)
7	方向倒置开关 (ST. REV)	15	油门微调按钮 (TH. TRIM)
8	电源指示灯LED (R. LED)	16	电源开关

电池安全说明

1. 避免电池短路，接线时确保正负极（红正黑负）正确连接，不随意触碰电池裸露的电极。
2. 电池发生鼓包后不可继续使用，也不能挤压或穿刺，需按照锂电池回收规范处理，不可随生活垃圾丢弃。
3. 携带时使用专用电池盒，避免与钥匙、硬币等金属物品混放，防止意外短路。



本设备仅适用于锂离子电池，请勿在无人看管的情况下使用充电器。

充电器使用

1. 检查电池外观无破损、无鼓包、无漏液现象。
2. 请首先将B3Pro充电器连接到电源，此时三个电源LED灯会从红色变为绿色，表示充电器工作正常。
3. (以3S电池组为例)其次，请将电池组连接到3S平衡端口，此时三个电源指示灯将全变为红色，并开始充电。请注意，当一个电池块的充电完成时，其对应的电源指示灯将变为绿色。
4. 当三个电源LED灯全部变绿时，3S电池组的充电完成。
5. 充电完成后，先断开充电器电源再拔下电池。

易损部件

编号	名称	规格(mm)	照片
3016221	螺旋桨	30	
502B22-02	舵刀	81.8x4x19.5	
510B22	传动轴	M4x46.3	
518B20	桨叉	4x8x8	
212B35	垫片	4x8x1	
212B10	塑料王管	4.4x0.4	

Introduction

Thank You for Choosing Our Product!

The Explorer model boat is developed by a professional team, refined with innovative design and exquisite craftsmanship. Its smooth lines and bold contours fully embody the charm of TFL. The surface adopts an advanced spraying process, resulting in an even and smooth paint finish with long-lasting vivid colors that maintain an attractive appearance even after long-term use. In terms of performance, it is equipped with a high-performance brushless motor, a high-quality battery, and a premium ESC. The brushless motor operates efficiently and smoothly, and when paired with a calibrated propeller, it enables high-speed navigation. The ESC allows for precise speed regulation and is also equipped with overcurrent and overheating protection to ensure stable power output.

Both internal components and transmission parts are made of high-quality materials and undergo strict quality inspections, guaranteeing reliable performance, stable coordination, and an effective extension of the service life. We are committed to providing you with an excellent control experience. Please keep this manual properly for future reference!

Precautions

1. Keep the model boat away from direct sunlight for extended periods to prevent high temperatures from damaging the hull and electronic components.
2. Avoid operating near high-voltage power lines, radio towers, or other signal-restricted zones to prevent control failure due to interference.
3. Never let water or liquids contact motors, remotes, or other electrical components to avoid short circuits.
4. Store the boat in a cool, dry environment to prevent moisture corrosion and extend its lifespan.
5. Regularly clean the hull and electrical parts to avoid dust or oil buildup that could affect performance.
6. Ensure stable transportation to avoid severe shaking or impacts that may damage the structure or loosen parts.
7. Only essential components are allowed in the cabin; foreign objects may impair stability or damage internal parts.
8. Keep hands and objects clear of the propeller and motor casing while the boat is running to prevent injury.
9. Allow the motor and battery to cool after stopping to avoid burns from high temperatures.

Warnings

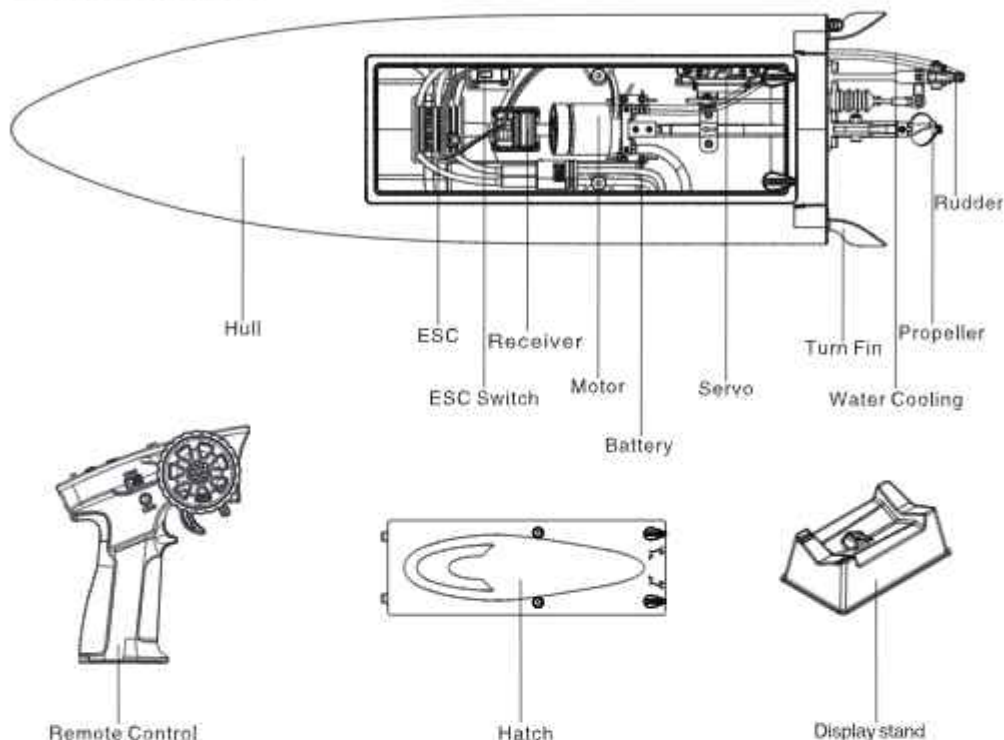
1. Do not operate in crowded areas such as beach resorts, swimming pools, or main waterways (with heavy vessel traffic). Full safety responsibility must be assumed by the operator.
2. In the event of sudden accidents (such as severe collisions, entanglement with foreign objects, extreme water current impacts, etc.), the self-righting function may fail. After the hull capsizes, it cannot right itself automatically and must be manually recovered immediately to avoid equipment damage.
3. Do not launch the model during strong winds, rough waves, or high tides. Beware of undercurrents and prioritize personal safety.



Table of Contents

Hull Overview	12	Cabin Connection Diagram	15
Specifications	12	Transmission System Maintenance	16
Self-righting Function	13	Propeller Maintenance	17
Steering Rudder Installation	13	Transmitter Guide	17
Battery Installation	14	Battery Safety Instructions	18
Transmitter battery Installation	14	Charger Usage	18
Operation	15	Vulnerable Parts	19

Hull Overview



Specifications

Length: 18in(450mm)

Width: 5in(126mm)

Height: 3in(78mm)

Speed: 50+km/h

Hull Material: ABS

Motor: 2818kv3000

ESC: 30A

Battery: 11.1V 3S1950mAh

Servo: 17g

Prop: 30mm

Remote Control: 4-Channel 2.4 GHz Transmitter & R4B Receiver

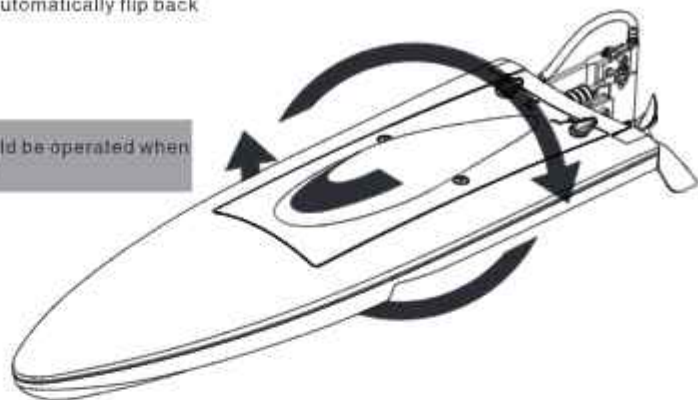


Self Righting Function

When the boat capsizes, you can instantly increase the throttle, and the boat will automatically flip back to the correct position.

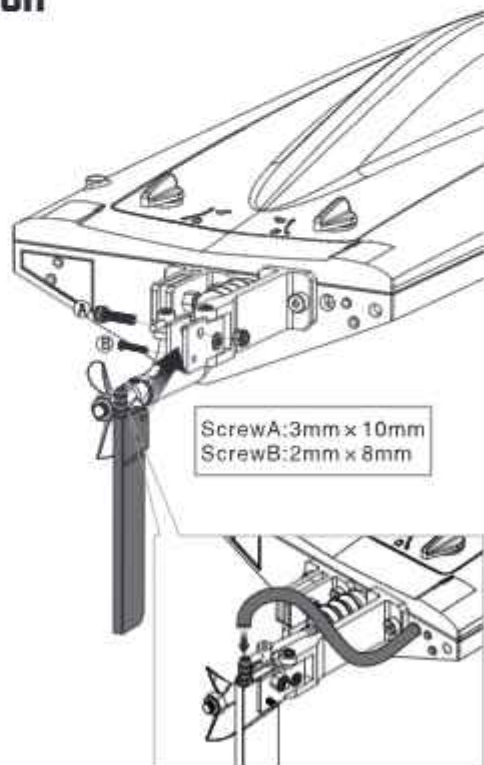


Note: This function should be operated when the motor is stationary.



Steering Rudder Installation

1. Please install Screws A and B in place according to the direction shown in the diagram. Screw A is made of stainless steel, and Screw B is made of copper.
2. When the rudder encounters a collision, the copper Screw B will break preferentially, so as to protect the hull and the rudder and prevent the hull and the rudder from being damaged due to excessive force. Additionally, plastic screws of the same size can also be chosen to replace the copper Screw B.
3. Insert the water cooling tube into the corresponding water pickup position on the rudder, ensuring that the insertion depth is appropriate and the interface is well-sealed.



Note: Before launching, check whether the water inlet hole of the rudder is unobstructed. If it is blocked, clean it before launching.



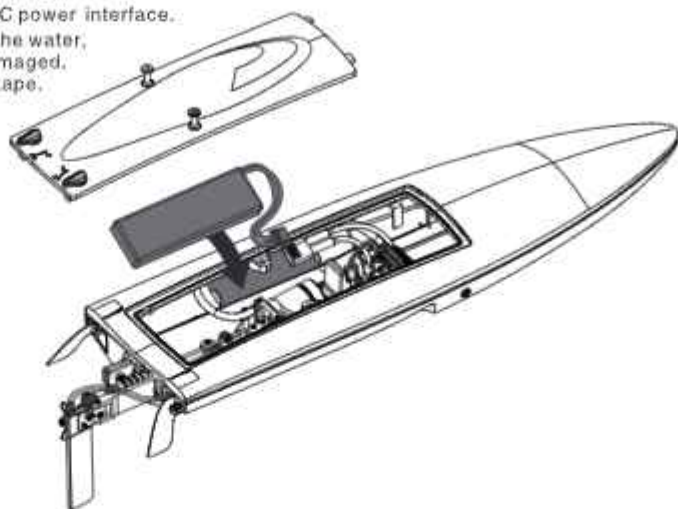
Note: If the water-cooling system malfunctions, it will cause the motor and ESC to overheat, and may even lead to burnout.



Note: During driving, Always check if the water outlet is draining properly if the rudder is entangled by plants or the water inlet hole is blocked, you must return immediately for cleaning before continuing to drive.

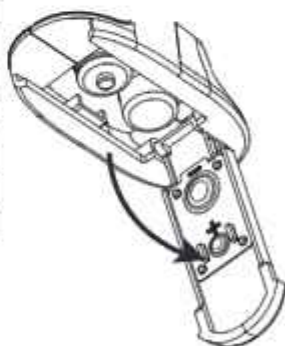
Battery Installation

1. Loosen the fixing screws and open the boat hatch lock.
2. Lift and pull out the hatch from the tail of the boat.
3. Install the battery on the battery tray.
4. Connect the battery to the ESC power interface.
5. Before putting your boat into the water, make sure the hatch is not damaged. If necessary, use waterproof tape.



Transmitter battery Installation

Danger	• Only use the battery specified by the manufacturer.
Danger	• Do not open, disassemble, or repair the battery by yourself.
Danger	• Do not squeeze, pierce, or contact the metal terminals of the battery.
Danger	• Do not place the battery in a high-temperature environment or liquid.
Danger	• Pay attention to prevent the battery from falling, collision, or vibration.
Danger	• Store the battery in a dry and cool environment.
Danger	• If the battery is damaged, stop using it immediately.



Please install the transmitter battery according to the following steps:

1. Open the battery compartment cover.
2. Install 4 fully charged AAA batteries into the battery compartment, ensuring that the metal terminals on the batteries are in contact with the metal terminals in the battery compartment.
3. Close the compartment cover.

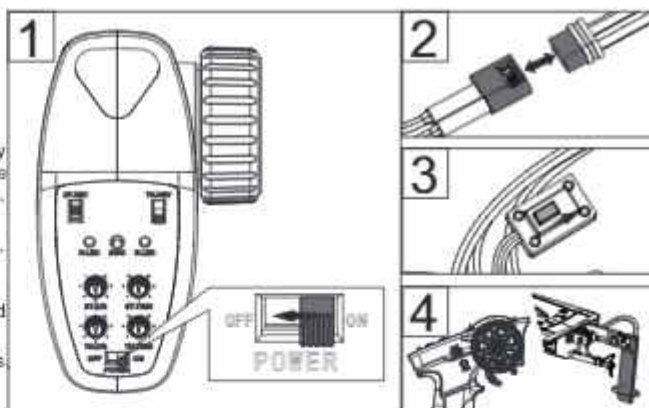
Low Battery Alarm: When the battery level is lower than 4.2v, the G.LED on the panel will flash slowly to alarm.

Note: When installing the battery, pay attention to the positive and negative poles of the battery to avoid incorrect installation. (As shown in the right figure)

Operation

Startup Guide:

1. Turn on the power switch of the transmitter to ensure it is in the on state.
2. Firmly connect the adapted battery plug to the corresponding interface of the ESC to ensure good contact.
3. Turn on the ESC power switch. At this time, a prompt tone will sound. During the playing of the prompt tone, do not touch any buttons or joysticks of the transmitter to avoid misoperation.
4. Power steering and other functions respond normally.
5. If the boat suddenly slows down, it means the electrical equipment is not functioning properly, and you should return immediately for inspection.

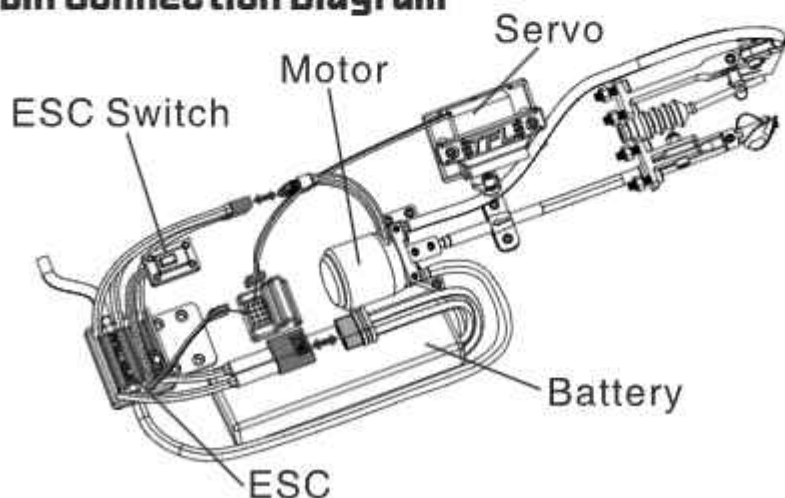


Note: When controlling the boat to move forward, do not switch directly to reverse mode; otherwise, the drive shaft may be damaged due to impact from force.

Shutdown Guide:

1. Turn off the switch on the ESC to stop the power supply to the equipment.
2. Disconnect the connection plug between the battery and the ESC. Carefully take out the battery installed on the boat and store it properly to avoid short circuits or damage.
3. Turn off the power switch of the transmitter to ensure it is in the off state, save power and prevent accidental triggering.

Cabin Connection Diagram

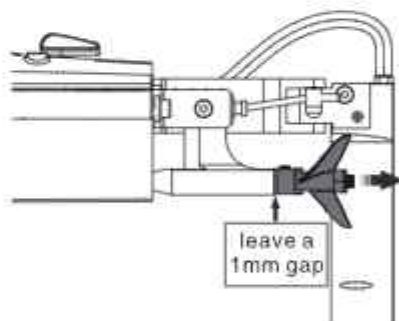
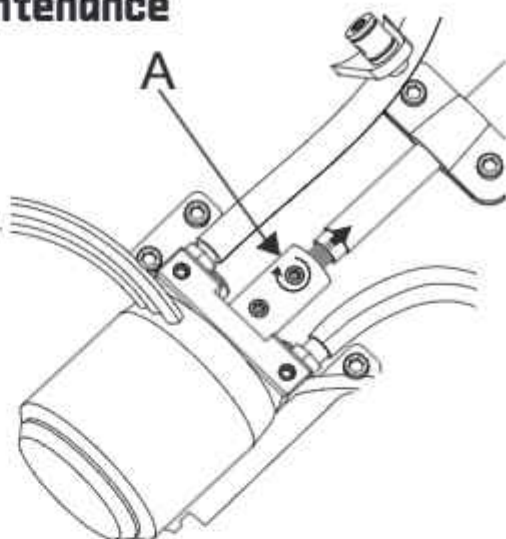


Transmission System Maintenance

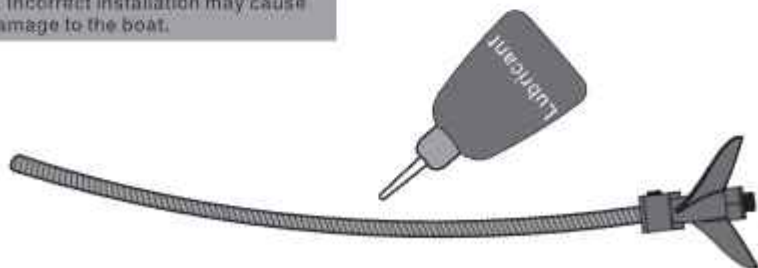
When damage is found in the components of the drive system, or there is visible wear and damage, it is necessary to replace them immediately.

Lubricating the shaft is crucial for extending the service life of the drive system. High-quality lubricant also has waterproof sealing function, which can prevent water from entering the hull through the transmission pipeline to a certain extent.

1. First, disconnect the power supply of the model boat.
2. Use a 1.5mm Allen wrench to loosen the set screw A fixing the drive shaft counter clockwise.
3. Pull out the drive shaft from the shaft sleeve and clean it thoroughly.
4. Select appropriate viscosity lubricant and apply it evenly on the surface of the transmission shaft.
5. Insert the lubricated shaft back into the shaft sleeve along the threaded direction, ensuring it is installed in place.
6. Use a 1.5mm Allen wrench to tighten the setscrew A fixing the shaft clockwise.
7. Adjust the gap between the drive dog and the struct, leaving a 1mm gap.

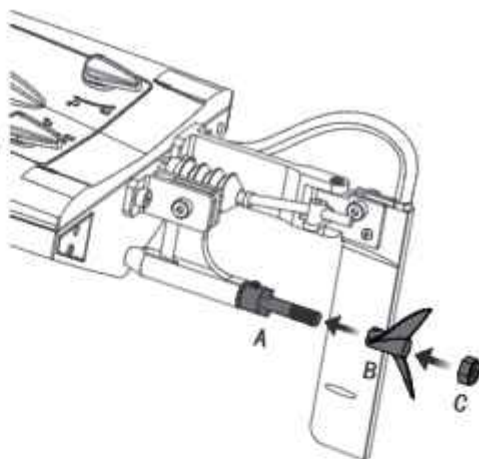


Note: Ensure the drive shaft is installed correctly. Incorrect installation may cause irreparable damage to the boat.



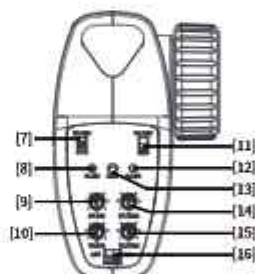
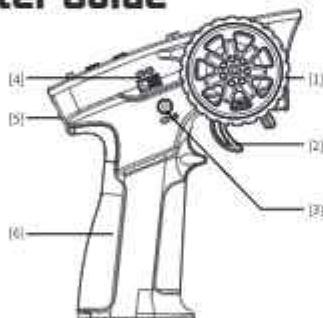
Propeller Maintenance

1. First, disconnect the power supply of the model boat.
2. Use a 5mm wrench to remove the nut in the counterclockwise direction.
3. Smoothly remove the propeller from the rive shaft.
4. Check whether the propeller is damaged or worn. If the propeller has damage phenomena such as cracks and deformation, or the wear has affected normal use, a new propeller needs to be replaced in time.
5. Install the propeller and the nut back to their original positions in sequence.



⚠ Note: It is strictly forbidden to install the propeller when the equipment is powered on. Avoid accidentally touching the controller during the installation process, which may cause personal injury or property loss.

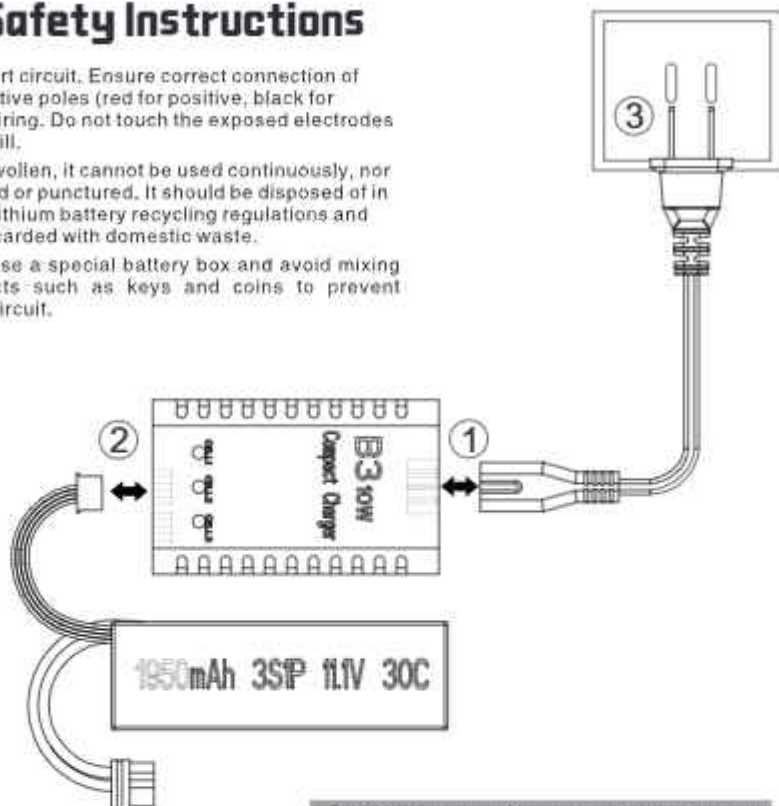
Transmitter Guide



1	Direction Handwheel, 35 degrees left and right (CH1)	9	Direction Rudder Volume Adjustment Knob (ST.D/R)
2	Throttle Trigger, 25 degrees forward and 12.5 degrees backward (CH2)	10	Throttle Rudder Volume Adjustment Knob (TH.D/R)
3	Button Switch (CH4) [Button function is flip type]	11	Throttle Inversion Switch (TH.REV)
4	Three-Gear Toggle Switch (CH3)	12	Status Indicator Light Green LED (G.LED)
5	Lanyard Hole	13	Pairing Button (BIND)
6	Handle, 4*AAA Battery Compartment	14	Direction Trim Knob (ST.TRIM)
7	Direction Inversion Switch (ST.REV)	15	Throttle Trim Knob (TH.TRIM)
8	Power Indicator Red Light LED (R.LED)	16	Power Switch

Battery Safety Instructions

1. Avoid battery short circuit. Ensure correct connection of positive and negative poles (red for positive, black for negative) when wiring. Do not touch the exposed electrodes of the battery at will.
2. If the battery is swollen, it cannot be used continuously, nor can it be squeezed or punctured. It should be disposed of in accordance with lithium battery recycling regulations and should not be discarded with domestic waste.
3. When carrying, use a special battery box and avoid mixing with metal objects such as keys and coins to prevent accidental short circuit.



Note: This device is only suitable for lithium polymer batteries. Do not use the charger when unattended.

Charger Usage

1. Check that the battery has no damage, no swelling, and no leakage.
2. First, connect the B3 Pro charger to the power supply. At this time, the three power LEDs will change from red to green, indicating that the charger is working normally.
3. (Take a 3S battery pack as an example) Secondly, connect the battery pack to the 3S balance port. At this time, the three power indicator lights will all turn red and start charging. Please note that when the charging of a battery cell is completed, its corresponding power indicator light will turn green.
4. When all three power LEDs turn green, the charging of the 3S battery pack is completed.
5. After charging is completed, first unplug the battery, and then disconnect the charger from the power supply.

Vulnerable Parts

Ref code	Part Name	Specification (mm)	Photo
3016221	Propeller	30	
502B22-02	Rudder Blade	81.8*4*19.5	
510B22	Drive Shaft	M4x46.3	
518B20	Drive dog	4x8x8	
212B35	Washer	4x8x1	
212B10	Plastic Pipe	4.4x0.4	

