



# Q333可变形飞行器 使用说明书

## INSTRUCTION MANUAL

**WLtoys**  
www.drone-hobby.com

伟力玩具有限公司



## Standard Accessories 标准配件



## Standard Packing List

## 标配包装清单

NO	PART NAME	零件名称	QUANTITY
1	Instruction Manual	使用说明书	1
2	Aircraft	飞行器	1
3	Charger + balance charge	充电器+平衡充	1
4	7.4V 2000MAH lithium battery	7.4V 2000MAH锂电池	1
5	Blade	风叶	4
6	Remote control	遥控器	1
7	Blade garnish	风叶装饰件	4

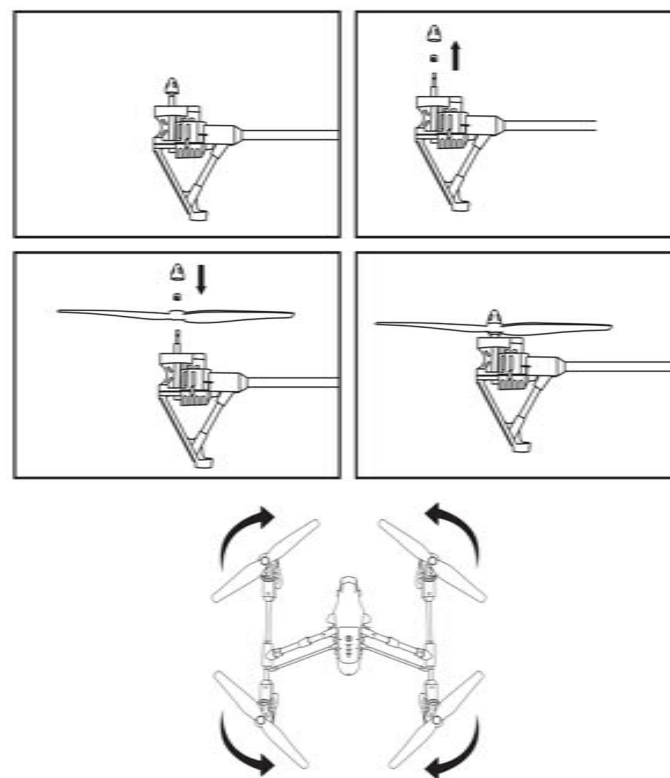
## Upgrade Parts List

## 升级配件清单

Num. 货号	Inventory 清单
Q333-A	Built-in 5.8G illustrated camera * 1, 5.8G display * 1, * 1 set of monitor stand, a display bracket bolts * 2, 5.8G camera monitor specification * 1 * 1 USB charging cable. 内置5.8G图传摄像机*1, 5.8G显示器*1, 显示器支架一套*1, 显示器支架螺栓*2, 5.8G摄像头说明书*1显示器USB充电线*1。
Q333-B	Built-in WIFI camera * 1, * 1 a cell phone holder, cell phone holder bolt * 2, WIFI camera manual * 1. 内置WIFI摄像机*1, 手机支架一套*1, 手机支架螺栓*2, WIFI摄像头说明书*1。
Q333-C	Built-720P camera * 1, * 1,4G memory card reader * 1. 内置720P摄像机*1, 读卡器*1, 4G内存卡*1。

## Blade installation diagram

## 风叶安装示意图



## Notice 注意事项

- All instructions, warranties and other collateral documents are subject to change at the sole discretion of our company. For up-to-date product literature, visit <http://www.wlmodel.com>
- 所有的说明, 本公司有权更改担保及其他相关文件, 更新的信息请访问<http://www.wlmodel.com>

## Warning 警告

■ Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury. This is a sophisticated hobby product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

■ 操作前, 请阅读整个说明书以便了解产品的功能。未能正确地操作本产品可能会导致产品损坏, 对人身财产造成严重损害。这是一个复杂的模型产品, 而不是一玩具。不仅要谨慎操作, 还需要具备操作常识和操作基础。若未能安全使用该产品, 会损坏该产品或者对人身, 或者对其他财产造成损失。本产品不供没有成人监管下的儿童直接使用。本手册内容包括安全、操作、维护。因此, 在装配、安装或使用产品前, 我们必须阅读并遵守本手册中所有的提示和警告, 以便正确操作, 避免造成损坏或严重伤害。

## Additional Safety Precautions and Warnings 附加安全措施防范和警告

1. Age Recommendation: Not for children under 14 years. This is not a toy.
  2. Always operate your model in open spaces away from full-size vehicles, traffic and people.
  3. Always carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.).
  4. Always keep all chemicals, small parts and anything electrical out of the reach of children.
  5. Always avoid water exposure to all equipment not specifically designed and protected for this purpose. Moisture causes damage to electronics.
  6. Never place any portion of the model in your mouth as it could cause serious injury or even death.
  7. Never operate your model with low transmitter batteries
1. 年龄建议: 不适合14岁以下的儿童, 这不是一个玩具。
  2. 始终在开放的空间操作你的模型, 远离车辆、交通和人。
  3. 必须仔细地遵循操作说明和警告, 以及任何可选的支持设备。(充电器, 可选充电电池等)
  4. 始终保持远离所有的化学品, 细小部件跟用电子设备需远离儿童接触。
  5. 应避免与水接触, 尤其此设备的设计不具备防水功能; 水汽也会导致电子产品损害。
  6. 切勿将模型的任何部件放在嘴里, 因为它可能会导致严重受伤甚至死亡。
  7. 当发射机电池电压过低时切勿操作你的模型。

## Introduction 简介

- Thank you for choosing Weili product! This is a four-axis aircraft can fly outdoors, in order to make it easier and easier to control the aircraft, please carefully reading this manual before operating this aircraft units, and please keep this manual for future adjustments and maintenance of reference

感谢您选购伟力产品! 这是一台能在室外飞行的4轴飞行器, 为了让您更方便, 更容易操控飞行器, 请您仔细阅读完此说明书, 再操作此台飞行器, 同时请您妥善保管这本说明书, 作为日后调整及维修的参考。

- Before your first flight, please take the time to carefully read this manual containing important flight information, which will help it your first flight, to become a great course.

在你第一次飞行前, 请花时间仔细阅读本手册重要的飞行资料, 这将有助于您的第一次飞行, 成为一次伟大的历程。

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## Warning and the guide of using battery 电池使用警告与向导



The Battery Charger included with the Q333 has been designed to safely charge the Li-PO battery

Q333附带的电池充电器可以安全的给聚合物锂电池充电

**CAUTION:** All instructions and warnings must be followed exactly. Mishandling of Li-Po batteries can result in a fire, personal injury, and/or property damage.

1. By handling, charging or using the included Li-Po battery you assume all risks associated with lithium batteries.
2. If at any time the battery begins to balloon or swell, discontinue use immediately. If charging or discharging, discontinue and disconnect. Continuing to use, charge or discharge a battery that is ballooning or swelling can result in fire.
3. Always store the battery at room temperature in a dry area for best results.
4. Always transport or temporarily store the battery in a temperature range of 40-120°F. Do not store battery or model in a car or direct sunlight. If stored in a hot car, the battery can be damaged or even catch fire.
5. Never use a Ni-CD or Ni-MH charger. Failure to charge the battery with a compatible charger may cause fire resulting in personal injury and/or property damage.
6. Never exceed the recommended charge rate.
7. Never cover warning labels with hook and loop strips.

**注意：**必须严格遵守所有的提示和警告，不正确处理聚合物电池可能会：

1. 导致火灾、导致人生伤害或财产损失。
2. 通过处理，充电或使用包括锂电池，你承担所有与锂电池相关的风险。
3. 在任何时间如果电池开始膨胀，请立即停止使用；如果充电或放电，终止和断开；继续使用，充电或放电的膨胀电池，可能会导致火灾。
4. 电池始终储存在温室下，在干燥的地方以取得最佳效果。
5. 始终运输或暂时存放在40-120华氏度的温度范围内，不要存放在模型车内或直射阳光下；如果在热车中电池会被损坏，甚至着火。
6. 切勿使用镍镉或镍氢电池充电器，不兼容的充电器充电电池可能会引起火灾，造成人生伤害和财产损失。
7. 电池电压过低时，千万不要操作你的设备。

**WARNING:** Only use the charger supplied by our company. Do not use a 12V power supply or property damage and injury could occur

**警告：**充电时建议使用原厂提供的电源充电器，否则会导致财产损失和伤害发生。

**Notice:** when a Li-Po battery is discharged below 3.7V, the battery may be damaged and may no longer accept a charge. Please land the helicopter immediately and recharge the flight battery

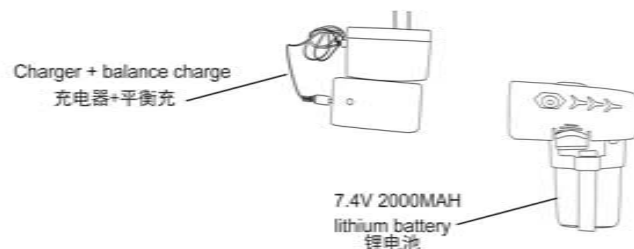
**注意：**当低于3.7V时，锂电池可能会被损坏，或者可能不再接受充电，飞机飞行时电池电压低于3.7V时，飞行动力下降明显，请立即降落并且及时给电池充电。

## Battery Charging 电池充电

WLTOYS 1-cell 7.4V Balance Charger  
WLtoys 1节7.4V平衡充电器

Instructions:  
With WLtoys distribution UFO dedicated charger,  
as the picture shows

说明：  
用伟力配送的飞碟专用的充电器。  
如图所示



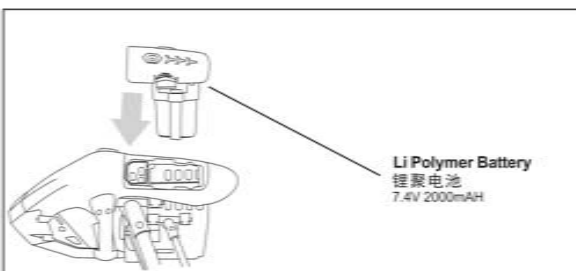
**Notice:** Only use the charger provided by WLtoys

**Notice:** Never attempt to power the charger from an AC outlet without the use of a proper AC to DC adapter/power supply

**注意：**只能使用WLtoys提供的充电器  
**注意：**请勿尝试无任何交流转换直流装置。

## First Flight preparation CAUTION 飞行前注意事项

1. Make sure the power is sufficient
  2. When the power switch, make sure the throttle stick at the bottom, both sides confirmed the throttle hold switch and pull the stunt mode switch to the back (After the shell direction)
  3. Indeed if the same frequency and Aircraft, if an exception on the code again
  4. Looking for a suitable venue flight, away from the crowds, cars, high-voltage towers, reservoirs, etc., can be carried out safe and enjoyable flight
1. 确认电源是否充足。  
2. 打开电源开关时，请确认油门摇杆在最下方。  
3. 确认与飞行器是否同频，如果异常请重新对码。  
4. 寻找一个合适飞行的场地，远离人群、车、高压电塔、水塘等，方可进行安全愉快的飞行。

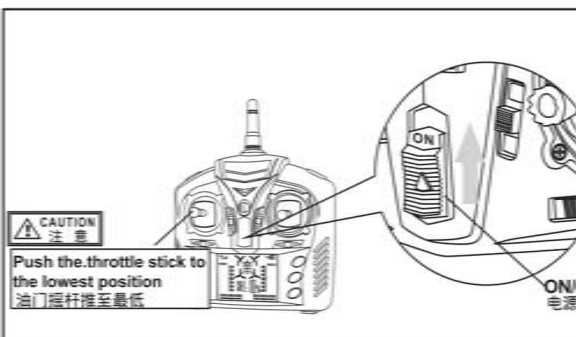


**Li Polymer Battery**  
锂离子电池  
7.4V 2000mAh

**Step 1 步骤 1**

After the vehicle on a flat position, the Li-po battery in the direction shown by pushing the battery compartment UFO, UFO power on, then the fuselage LED flashes at this time do not move, so that the gyroscope from the neutral point cross reading.

将飞行器置于平坦位置后，将Li-po电池图示方向推入机体的电池仓，飞碟上电，此时机身LED灯闪烁这时不要在移动，让陀螺仪自校准取中立点。



**CAUTION 注意**

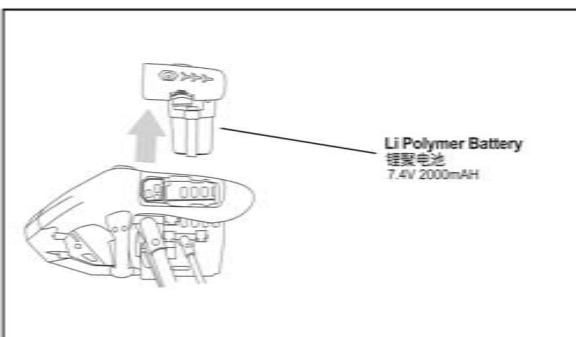
Push the throttle stick to the lowest position  
油门摇杆推至最低

**ON/OFF**  
电源开关

**Step 2 步骤 2**

Open the remote control power switch, remote controller Vibration will be a small vibration, if the electric transmission is not normal, the leakage could be code is which may damage the transmitter, and C种频率的电磁波干扰了遥控器发出信号的频率，几秒钟后电路来检测导致电池漏液而损坏遥控器甚至造成起火燃烧的危险。

Note! Please do not put the time code on the UFO on the uneven or shake desktop, resulting in prolonged detection gyroscope, so the code too long.  
注意！对码时请不要把飞碟放在不平的或有抖动的桌面，导致检测陀螺仪时间延长，使对码时间过长。



**Li Polymer Battery**  
锂离子电池  
7.4V 2000mAh

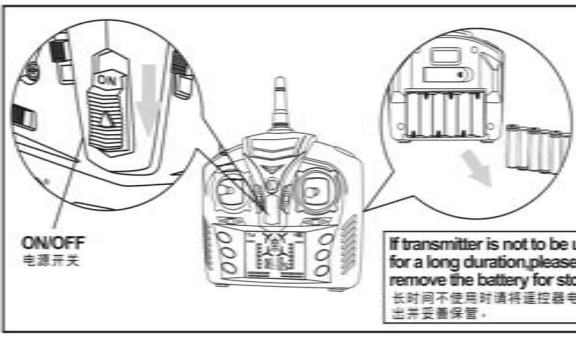
**Step 3 步骤 3**

Remove the flight vehicle battery safely at the conclusion off light, this should be made into a post flight habit to avoid unforeseeable problems

结束飞行时，请将飞行器电池安全取下，请养成良好的习惯以免造成遗憾

**WARNING 警告**

Warning: If left connected in the flight vehicle for long duration, the battery may be damaged due to over-discharge or even become fire hazards.  
电池未取下，将导致电池过放电而损坏，甚至造成起火燃烧的危险。



**ON/OFF**  
电源开关

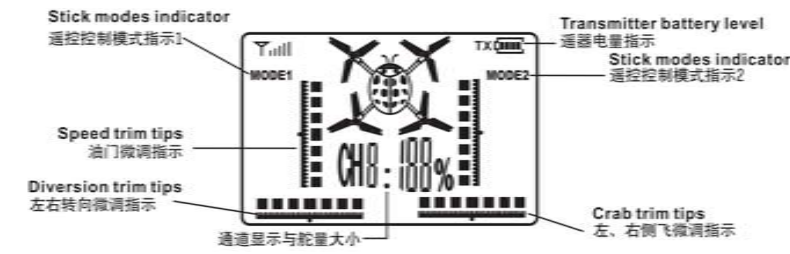
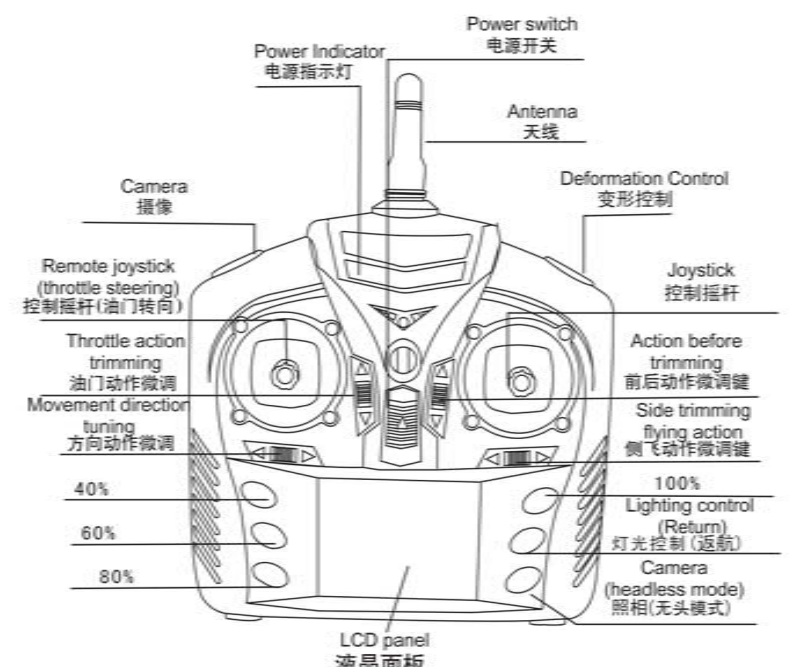
**Step 4 步骤 4**

Turn off the transmitter, if transmitter is not to be used for a long duration, please remove the battery for storage.  
关闭发射器电源，长时间不使用时请将遥控器电池取出并妥善保管。

**WARNING 警告**

If transmitter is not to be used for a long duration, please remove the battery for storage.  
长时间不使用时请将遥控器电池取出并妥善保管。

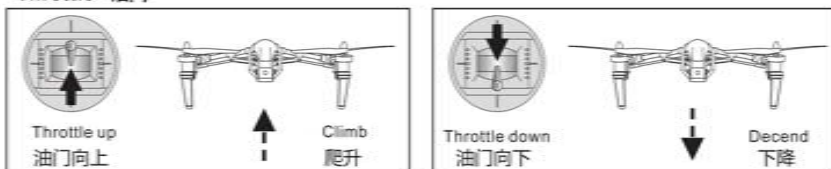
1. Transmitter Chart  
遥控器面板外说明



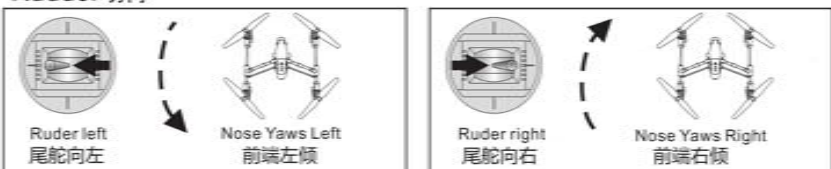
## First Flight instruction 首次飞行指挥

If you are not familiar with the controls of your Q333, take a few minutes to familiarize yourself with them before attempting your first flight  
如果你不熟悉Q333的控制,花几分钟熟悉它们,然后尝试你的第一次飞行。

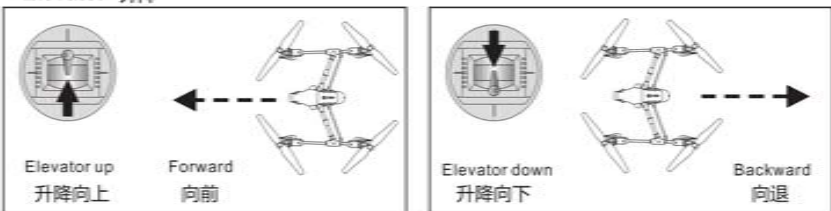
### Throttle 油门



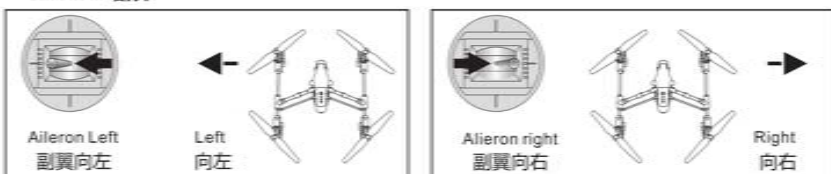
### Rudder 方向



### Elevator 升降



### Aileron 副翼



## Deformation Control 变形控制

Press the remote control buttons to control the deformation, aircraft changes according to the figure three modes.

按动遥控器变形控制按键,飞行器按图中三种模式变化。

## CF MODE 无头模式

On the front of the UFO, the sound drops after take-off by remote control code headless mode button to enter the headless mode from the remote control at the same time, press the mode button to exit headless mode Note: You must use the headless mode before being put on the code of the aircraft (red paddle toward the front)! When people can not change the direction of control!

把飞碟放在正前方,对码起飞后按遥控器无头模式按键进入无头模式同时遥控器发出的滴滴声响,再按一下无头模式按键退出无头模式。注意:使用无头模式时必须在对码前把飞机放正(红桨朝正前方)!操控时人不能改变方向!

## Automatic return by a button 一键返航

Press headless mode button 2 seconds, the remote control occur by bit noise, aircraft tail light flashes quickly, the aircraft began to return.

Note! In the use of return; it must be in the code when the aircraft head is placed just before. And when in flight, super control cannot change the direction.

长按无头模式按键2秒,遥控器发生滴滴响,飞行器尾灯快速闪烁,飞行器开始返航。注意!在使用返航时;必须在对码时把飞行器的头朝正前方。且在飞行时,操作者不能改变航线。

## Calibration aircraft 飞行器的校准

If the aircraft due to collision or replace the circuit board and cause instability in flight, can be calibrated at the gyroscope, in what amounts to two joysticks rudder simultaneously for 2 seconds to play in the end to the lower left corner, then aircraft lights flash, a few seconds bell LED is lit, calibration is complete.

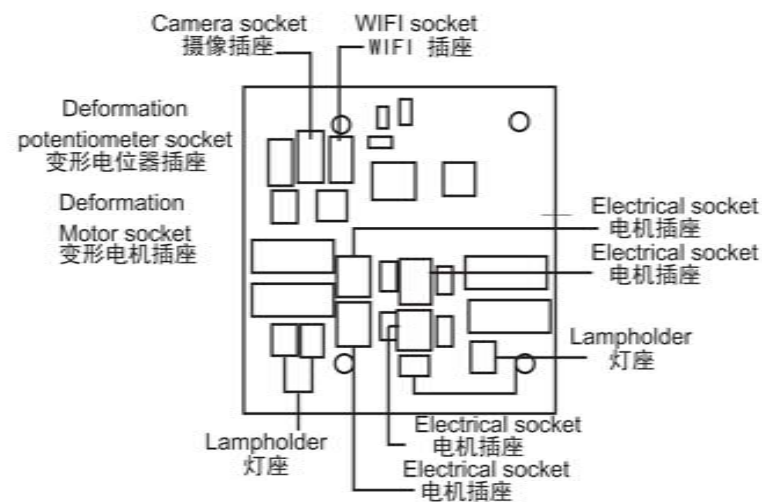
如果飞行器因碰撞或更换电路板而引起飞行不稳定,可以校准一下陀螺仪,在何能量下把两个摇杆同时向左下角打到底2秒钟,这时飞行器的指示灯闪,几秒钟指示灯为常亮,校准完毕。



## Troubleshooting Guide 如何排除飞行中的异常

Situation 状况	Cause 原因	Way to deal 对策
1 Receiver status LED blinks continuously for more than 4 seconds after helicopter battery inserted. No response to control input. 插上飞行器电池接收器指示灯持续闪烁，操作无反应	Unable to bind to transmitter 遥控器与接收器未对接成功	Repeat the power up initializing process. (Refer to P.8 Binding of radio transmitter and receiver) 请从新执行遥控器与接收板的对接动作 (请参考P.7遥控器与接收器的对接)
2 No response after battery is connected to helicopter. 插上飞行器电池后飞行器没有任何反应	1.Power to transmitter and receiver. 2.Check transmitter and receiver voltage. 3.Poor contact on battery terminals. 1. 检查遥控器和接收器是否接通电源 2. 检查遥控器和接收器的电压 3. 电池板片接触不良	1. Turn on transmitter and ensure flight vehicle battery is inserted properly. 2. Use fully charged batteries 3. Re-seat the battery and ensure good contact between battery contacts 1. 打开发射器与确实插入飞行器电池至定位 2. 使用完全充电电池的电池 3. 从新插入电池，确认电池和电池板片的接触是否正常
3 Motor does not respond to throttle stick, receiver LED flashes 推动油门杆杆马达不转，且接收器指示灯开始闪烁。	Helicopter battery depleted 飞行器锂电电量不足	Fully charge the battery, or replace with a fully charged battery. 将电池充电或更换另一个充电的电池
4 Main rotor continue to spin after landing 降落之后，主旋翼仍在旋转未停止	No zero throttle 油门没有归零	The throttle return to the zero position 把油门回到零位
5 Main rotor spins but unable to takeoff 飞行器主旋翼有持续转动但不能起飞	1. Rotor deformation 2. Helicopter battery depleted 1. 旋翼变形 2. 飞行器电量不足	1. Replace main blades 2. Charge or replace with a fully charged battery. 1. 更换主旋翼 2. 将电池充电或是更换另一个充电的电池
6 Strong vibration of helicopter 飞行器震动得很厉害	1.Rotor deformation 1.旋翼变形	1. Replace the rotor 1. 更换旋翼
7 Tail still off trim after tab adjustment, or inconsistent speed during left/right pirouette 已调整方向舵，但机身仍在打转，左旋/右旋速度不一致	1. Damaged tail rotors 2. Damaged tail drive motor 1. 旋翼变形 2. 马达不良	Replace the rotor Replace the main motor. 更换旋翼 更换主马达
8 Helicopter still wanders forward after trim adjustment during hover. 飞行器会往前或往后偏移	1.Elevator servo not level during power up 2.Elevator pushrod too long or too short. 陀螺仪中点不对	The boot Will lift fine-tune the normalized Neutral point, the new boot. 开机后将升降舵调归中立点，从新开机。
9 Can not fly the aircraft fall 飞行器跌落飞不起来	1. motor fall out 2. gear loosen 1. 电机脱落 2. 齿轮松动	1. Install the motor again 2. Tighen the gear 1. 从新装回电机 2. 把齿轮紧固
10 Large deviations headless mode 无头模式偏差较大	Partial release of the aircraft when the code 对码时飞行器放偏	To put the aircraft on time codes are 对码时飞行器要放正

## Schematic circuit board 电路板示意图



## Helicopter Parameters 飞行器参数

Length	对角长度	420mm
Height	高度	150mm
Blade length	风叶长度	230mm
Battery Specification	电池规格	7.4V 2000MAH
Flight time	飞行时间	8-9min