Defender Ufo 拥护者飞行器

MANUAL 使用说明书

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Thanks to your choice of our factory remote world products, and grateful. Before you enter the remote world, to telling you a number of related knowledge and precautions to ensure that you can in the process of learning more Handy. Before operation, be sure to read this manual, I believe we can take you a great help, also please keep this manual for futher reference.

承蒙阁下来选用本厂遥控世界系列产品,谨表谢意。进入遥控世界之前必须告诉您许多相关的知识与注意事项,以确保您能够在学习的过程中较得心应手。在开始操作之前,请务必详阅本说明书,相信一定能够给您带来相当大的帮助,也请您妥善保管这本说明书,以作为日后参考。

. FOREWORD 前言

Thank you for choosing Our products! This is a stunt aircraft suitable for indoor and outdoor flying, in order to bring more convenientce and easy to use please carefully reading this manual before operating this aircraft, you properly preserved thismaunal, adjustment and maintenance for reference in the future.

感谢您选购本厂产品!这是一台能在较小空间及室外飞行的特技飞行器,为了让您更方便,更容易使用,请您仔细阅读 完此说明书后,再操作这台飞行器,同时请您妥善的保存这本说明书,作为日后调整及维修的参考。

Can be hurt because of negligence of these instructions and wrong using. 因为疏忽这些操作说明,而使用错误可能造成财产损失或严重伤害。 Can be dangerous because of the negligence of these instrutions and wrong using. _____CAUTION 注意 因为疏忽这些操作说明, 而使用错误可能造成危险。 O FORBIDDEN Do not attempt under any circumstances 在任何禁止的环境下, 请勿尝试操作。

IMPORTANT NOTES 重要声明

The product is a sophisticated hobby product but not a toy. Although small, it still poses certain risk factors that should not be over looked. Please follow safety and operation recommednsations to ebsure correct operation of this helicopter. The use of this helicopter beyond itsintended purposes and disassembly may cause unforeseen adanger, and shoule be avoided.

本产品并非玩具,虽然是微型的飞行器,但是仍然有一定的危险性,请您依安全注意事项与操作说明来正确的使用 该模型,任意的改装拆解或使用不当以及对产品的不熟悉,都可能造成不可预期的危险或意外,请勿轻忽。

Manufacturer and dealer assume no liability for accidental damages by abnormal wear fo parts, improper assembly, or operation in unsafe manners. This product is intended for use by age 14 years or older. Please ensure the product is operated under safe environment.

注意!任何遥控飞行器的使用,制造商或经绡商是无法对使用者於零件使用的损耗异常,组装不当或不安全的环境 操作所发生之意外负任何责任。本产品适用年龄14岁以上,请确保安全无误的环境下操作,产品售出后本公司将 不负责因不当操作/拆卸/改装所引起的财产损失与人身伤害。

We recommend that you seek the assistance or an experienced pilot before attempting to fly our products for the first time. A local expert is the best way to properly assemble, setup, and fly your model for the first time. The requires a certain degree of skill to operate, and is an item subject to normal wear and tear. Any damage or dissatisfaction as a result of accidents or modifications are not covered by any warrantee and cannot be returned for repair orreplacement. Please contact our distributors are not covered by anywarrantee and cannot discounted rates when you experience problems during operation or maintenace.

模型商品属于需高操作技术且为消耗性商品,如经拆装使用后,会造成不等情况零件损耗,任何使用情况所造成商 品不良或不满意,将无法於保固条件内更换新品或退货,如遇有使用操作维修问题,本公司全省分公司或代理将提 供技术指导, 特价零件供应服务。

2.PRECAUTIONS 安全注意事项

▲ CAUTION Ely only in safe areas away from other peole Do not operate stunt aircraft within the vicinity of crowds or people. Stunt aircraft are prone to accidents failures, and responsible for their actions and damage or injury occurred during pilot error, and radio interference, pilots are responsible for their actions and damage or injury occurred during the operation or as of a fesult of R/C aircraft models.

遥控模型飞碟,特技飞行器属于危险性商品,飞行时务必远离人群,人为组装不当或机件损坏,电子控制设备不良以及 操控上的不熟悉。都有可能导致飞行控损签伤到等不可预期的意外,请飞行者务必注意飞行安全,并需了解自负疏忽所 造成任何意外之责任。

Please choose a place without obstacle, and keep distance from crowd and pets, don't play it under unsafty, for instance,heat source,wite or electonic power source,in order not to be damaged by collision landing, entanglement and lead to a fire, electric shock and cause losses of lives and property.

飞行时请妥善选择无障碍物的室内、室外场地,并与人群或宠物等保持适当距离,切勿於不安全的环境下操作, 如热源、电线、电源等等,以免飞行器碰撞、迫降、纠缠而引发火灾、电击等危险,造成生命财产损失。

Aircraft internal is composed by a number of sophisticated electronic components, it must absolutely prevent moisture or water vapor avoid use in bathroom or wet weather to prevent water vapor into the internal baody parts and electronic components caused by failure caused by unexpected accidents.

飞行器内部也是由许多精密的电子零件组件组成,成以必须绝对的防止潮湿或水汽,避免在浴室或雨天时使用, 防止水汽进入机身内部而导致机件及电子零件故障而引发不可预期的意外!

● FORBIDDEN 禁止

Please do not remove or any reform at any processing, any of the modified or upgrade maintenance, please use the original product catalogue of parts, to ensure the safety of the structure. Please confirm the product boundary operation, do not overload use, and not used for safety, decrees, the other illegal purposes.

请勿任意拆卸或任意改造加工,任何的升级改装或维修、请使用原厂产品目录的零件,以确保结 构的安全。请确认於产品界限内操作,请勿过载使用、并勿用於安全、法令外其它非法用途。

OFORBIDDEN 禁止

AFETY NOTE FOR NI-MH BATTERIES 碳酸电池使用安

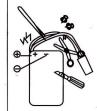
Make sure the batteries are installed based on polarity indicated in the case and no not mix batteries of different chemistry/spec. Please take out the batteries if you are not going to use for a long time to avoid potential leakage which may damage the transmitter. Please dispose depleted batteries according to local laws and ordinances. Do not dispose improperly.

安装时请确认正负极位置,新旧电池请勿同时混用以免影响电池寿命。若长时间不使用本产品, 请取出电池,以免造成电池漏液、故障。若电池有漏液状况请勿再使用。废弃的电池,请依照 该使用国家或地区的废弃物清理法令回收,切勿任意丢弃以免污染环境。



Li-Po batteries poses higher operational risks compared to other battery chemistry, thus it is imperative to follow its usage instructions. Manufacturer and dealer assume no liability for accidental damages caused by improper usage. Do not use charger other than the factory supplied unit to avoid potential fire and explosion. Do not crush, disassemble, burn, and reverse polarity. Avoid metallic materials to come into contact with battery"s polarity and cause it short and never puncture batteries to avoid fire hazards.Battery charging musst be done under supervision at all times, and at location out of reach by children. Please stop the use or charge of the battery should there be an unusual increase in battery temperature after usa. Continue use of this battery may cause it to expand, deform, explode, or even result in fire haxards. Please dispose depleted batteries according to local laws and ordinances. Do not dispose improperly.

锂聚电池较其他电池有更高的危险性,使用前请务必详读并遵照下列注意事项使用本电池,本公司将 不对任何不当使用所造成的损害负责。严禁使用原厂以外的充电器进行充电,以免发生爆炸起火的危险。 严禁撞击、拆解、正负极反接、焚烧电池、避免金属物品碰撞电池正负极造成短路。并请防止尖锐的物品 刺穿电池,以避免电池起火的危险。充电时请谨慎小心,确保在您的视线范围内进行充电。并远离幼童可 以接触到的地方,以免发生危险。电池使用后如有发热情况,严禁充电,否则会造成电池膨胀、变型、爆炸 甚至起火燃烧,危险生命财产的安全。废弃的电池,请严格依照该使用国家或地区的废弃物清理法令回收, 污染环境。



R/C models are made of various forms or plastic. Plasticis very susceptible to damage or deformation due to extreme heat and cold climate. Make sure not to store the model near any source of heat such as an oven,or heater. It is best to store the model indoors, in a climate-controlled, room tem perature environment.

飞行器多半是以PA纤维或聚乙烯、电子商品为主要材料质,因此要尽量远离热源、日晒、以避免 因高温而变形甚至熔毁损坏的可能。



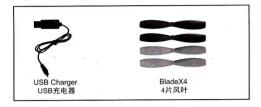


OBTAIN THE ASSISTANCE OF AN EXPERIENCED PILOT 避免独自操控

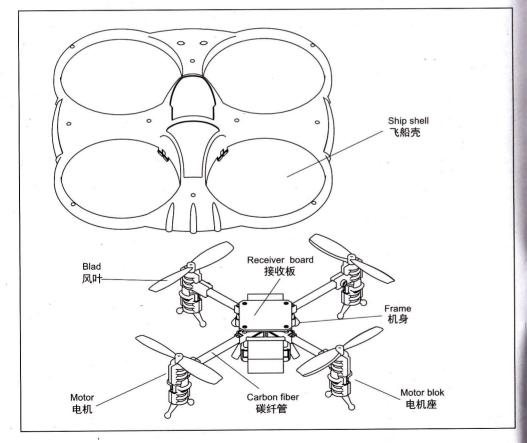
The products are suitable for more than 14 years old age,at the beginning it will have some certain difficulty in learing, suggestion guidance by exprienced when playing.
本产品适用年龄14岁以上,遥控特技飞行器在学习初期有着一定难度,建议有经验的人士在旁指导



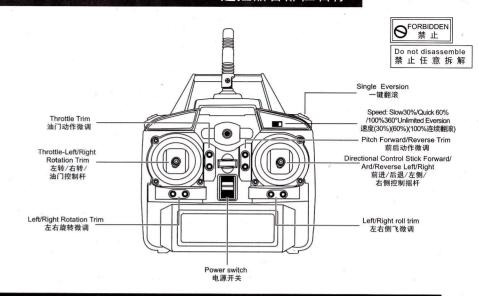
3. STANDARD ACCESSORIES 标准配件



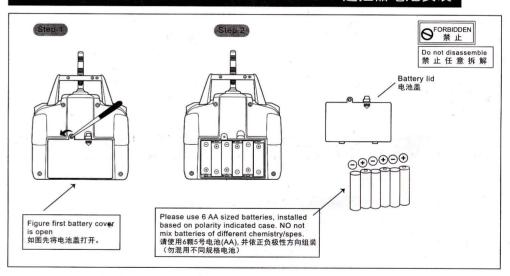
4. MAMES OF AIRCRAFT 飞行器各部位名称



5. NAMES OF CONTROLLER 遥控器各部位名称



6. CONTROLLER BATTERY INSTALLATION 遥控器电池安装

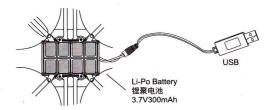


Correct Disposal of this product. This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material 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.

CAUTION RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING

7. CHARGING 电池的充电

Use the charger to the vehicle batery charging 利用充电器给飞行器电池充电



Charge of the factory and distribution of the flying saucer special charger. plane power switch to position OFF, the charger into a power outlet; The USB is red lighting when the USB connect the power source. After connect the battery, the red lighting will be goes out. When the battery charging is finish, the USB will be red lighting As shown.

用本厂配送的飞机专用充电器充电。把飞机的电源插口拔出,保持飞机关闭状态,把充电器插入电源插座;USB红灯亮,连接电池充电后USB红灯熄灭,当充电完成后变红灯。如图所示



For safety concerns, battery charging must be done under supervision at all tiomes. 为确保安全,充电时务必在视线范围内进行



LED Indicator LED 表示

Red light 红灯亮	The red light out 么如 么如 么如 。
Idie and Charge Completion	Charging
充电完成	充电中

Charger Specifications 充电规格

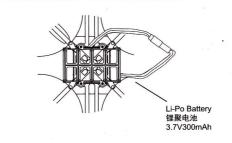
Input	Charging Current	Full Voltage	
输入	充电电流	充饱电压	
110-240V	500MA	4.2 ± 0.03V	

8. BATTERY AND CHARGER SPECIFICATION 电池与充电器相关规格

Battery usage and charge duration reference 电池使用时间与充电时间参考表

Battery type	Battery Specification	Usage Duration	Charge Time
电池种类	电池规格	可使用时间	充电所需时间
Li-Po battery	3.7V300mAh	Aircraft flight time 5-7 minutes	About 40 minutes
锂聚电池		飞行器飞行时间 5至7分钟	约40分钟
Carbon-Zinc (Non Rechargeable) 碳锌电池(不可充电)	1.5V (GP 15G R6P)	Transmitter Operation Time 18 Hours 供遥控器开机时间 18小时	Non Rechargeable 不可充电

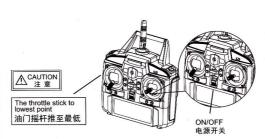
9. BINDING OF RADIO TRANSMITTER AND RECEIVER 遥控器与接收器的对频



Step :

Aircraft placed in a flat position, the batteries according to the diagram shown in Dirction pushed into the electrical outlet to the positioning of the motherboard light is blinking Do not Then move the the body, so that the remote control on the frequency and gyroscope read the neutral point.

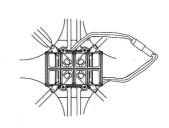
将飞行器置于平坦位置后, 电池依图所示方向推入电插 座至定位, 主板指示灯闪烁此时不要再移动机身, 使遥 控器对频与陀螺仪读取中立点。



Step 2

The throttle stick to lowest power on the remote conrtol.

将油门摇杆推至最低,打开遥控器电源。

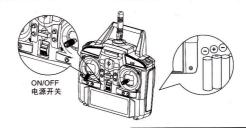


Step 3

When the end of the flight,unplug power cord. 结束飞行时,拔出电源插头。

Waming: Battery plug is not pulled out, will cause the batery to excessive discharge, and even cause a risk of fire.

电池插头未拔出,将导致电池过度放电而损坏,甚至 造成起火燃烧的危险。



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。

Step 4

Power down the remote control. If rtansmitter is not to be used for a long duration, please remove the batery for storage.

关闭遥控器电源,长时间不使用时请将遥控器 电池取出并妥善保管。

♪ WARNING

Waming: If left connected in the flight vehicle for long duration,the battery may be damaged fire hazards.

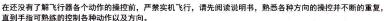
电池未取下,将导致电池过度放电而损坏, 甚至造成起火燃烧的危险。

10. FLIGHT ADJUSTMENT AND SETTING 飞行动作调整与设定

PLEASE PRACTICE SIMULATION FLIGHT BEFORE ACTUAL FLYING 飞行前请事先熟练模拟飞行

Before you are familiar with the flight vehicle, pleasure don't set it fly, read the instrustion carefully. Get familiar with all kinds of direction control and keep repeating until you can play it as you perform your wishes

- 1. Place the flight vehicle a clear open field and the tail of helicopter point to yourselt.
- 2. Practice to operate the throttle stick(as below illustration) and repeat practicing "Throttle high/low", "Aileron left/right" "Rudder left/right", and "Elevator up/down".
- 3.The simulation flight practice is very important, please keep practicing until the fingers move naturally when you hear operation opeeration orders being call out.



- 1. 将飞行器放在空旷的地方,并将飞行器的背面对准自己。
- 2. 练习操作遥控器的各摇杆(各动作的操作方式如下图),并反复练习油门高/低、副翼左/右、升降舵前/后及方向舵左/右操作方式。
- 3. 模拟飞行的练习相当重要,请重复练习直到不需要思索,手指能自然随意喊出的指令移动控制。

Mode	Illustration 图示	Mode	Illustration 图示
Aileron 副翼	Move right 右移 Move left 左移	Throttle 油门	Ascent 上升 Descent 下降
Elevator 升降/前后	Fly forward fi进 Fly backward 后退	Rudder方向	Turn left 左旋 Turn right 右旋

-7-

_____CAUTION 注意

- O Check if the screws are firmly tightened.
- Check if the transmitter and receivers are fully charged.
- ◎ 再次确认螺丝是否锁固?
- ◎发射器和接收器电池是否足够。

When arriving at the flying field. 请在没有人及障碍物的空旷室内、室外飞行。







- Make sure that no people or obstructions in the vicinity.
- O You must frist practice hovering for flying safety. This is a basic flight action. (Hovering means keeping the flight vehicle in mid air in a fixed position)
- O Please stand approximately 2 m diagonally behing the flight vehicle.
- ◎ 确认邻近地区没有在和障碍物。
- ◎ 为了飞行安全,你必须先练习悬停,这是飞行动作的基础(悬停:飞行器滞留空中并保持固定位置)。
- ◎ 练习时,请站在飞行器后方2公尺



STEP 1 THROTTLE CONTROL PRACTICE 油门控制练习





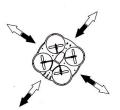
when the flight vehicle begins to lift-off the ground, slowly reduce the throttle to bring the flight vehicle back down. keep practicing this action until you control the throttle smoothly.

keep practicing this action until you control the throttle smoothl 当飞行器离地后,慢慢降低油门将飞行器降下。

持续练习飞行器从地面上升和下降直到你觉得油门控制很顺。

STEP 2 AILERON AND ELEVATOR CONTROL PRACTICE 副翼和升降控制练习





- 1.Raaise the throttle stick slowly.
- 2.Move the flight vehicle in any direction back, forward,left and right,slowly move the aileron and elevator sticks in the opposite direction to fly back to its original position.
- 1. 慢慢升起油门摇杆
- 使飞行器依指示:移动向后/向前/向左/向右,慢慢的反向移动副翼和升降摇杆并将飞行器开回到原来位置。

- **⚠**CAUTION 注意
- If the nose of the flight vehicle moves, please lower the throttle stick and land the flight vehicle. Then move your position diagonally behind the flight vehicle 2m and continue practicing.
- © If the flight vehicle flies too far away from you, please land the flight vehicle and move your position behind 2m and continue practicing.
- ◎ 当飞行器偏移时,请降低油门并且降落,然后移动自己的位置到飞行器的正后方2公尺再继续练习。
- ◎ 假如飞行器离你太远,请先降落飞行器,并到飞行器后2公尺再继续练习。

STEP 3 RUDDER CONTROL PRACTICING 劳向影響作练习

- 1. Slowly raise the throttle stick.
- 2.Move the nose of the flight vehicle to right or left, and then slowly move the rudder stick in the opposite direction to fly back to its original
- rudder stick in the opposite direction to fly back to its origina position.
- 1. 慢慢升起油门摇杆
- 将飞行器左右移动,然后慢慢反方向移动方向摇杆,并将移动 飞回原来位置。

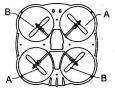
IOW TO CHANGE THE AIRCRA OF THE BLADE 风时安

When you want to change the aircraft of the blade, you can see the picture as above .Please pay attention on the picture of the letter which consistent with the blade of the letter.This to avoid the aircraft can not fly.

当你想取换飞行器风叶时,可按照如图标示,风叶编号和图相对应,这样可以避免风叶装错飞行器飞不起来。



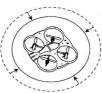




After you are familiar with all actions from step 1 to 3, drcle on the ground and practice within the circle to increase your accuracy.

当你觉得step1-3动作熟悉了,在地上画圈圈并在这个圈圈的范围内练习飞行,以增加你操控的准确度。

- ◎ 当你更加习惯操作动作,你可以画更小的圈圈。



Narrow the circle 缩小范围

After you are familiar with step 1 to 4, stand at side of the flight vehicle and continue practicing sterp 1 to 4. Ther repeat the step 1 to 4 by standing in front of the flight vehicle.

当你觉得step 1-4 动作熟悉了站在面对飞行器测边并继续练习step 1-4后,站在飞行器前方重复步骤练习。









Slowly raise the throttle stick and just as the flight vehicie lift-off the ground, you can use the trim to correct the cation if the flight vehicle leans in a differnt direction. 慢慢升起油门摇杆, 当飞行器刚刚离开地面时,若飞行器倾向不同方向,可使用微调修正动作。

1.Rotation around Trim 左右旋转微调 just before the flight vehicle lift-off, the nose lean left/right...

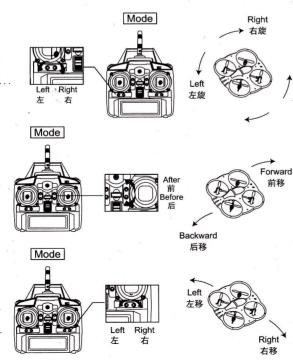
When rotation right, adjust the trim to left rotation. When rotation left, adjust the trim to fight rotation. 在飞行器正要起飞时,飞行器朝向左/右方向旋转一向右旋转时,微调向左调整。向左旋转时,微调向右调整。

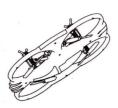
1.Rotation around Trim 前后动作微调 just before the flight vehicle lift-off, the nose lean left/right...

When rotation right, adjust the trim to left rotation. When rotation left, adjust the trim to fight rotation. 在飞行器正要起飞时,飞行器朝前后方向偏移向前偏移时,微调向左调整。

1.Rotation around Trim 左右侧飞微调 just before the flight vehicle lift-off, the nose lean left/right...

When rotation right, adjust the trim to left rotation. When rotation left, adjust the trim to fight rotation. 在飞行器正要起飞时,飞行器朝左/右方向偏移...向右偏移时,微调向左调整。向左偏移时,微调向右调整。







Stable, flexible, flight routes, Drift, 3D tp roll easily 飞行稳定、灵活、航线、 甩尾、3D翻滚动作轻松实现



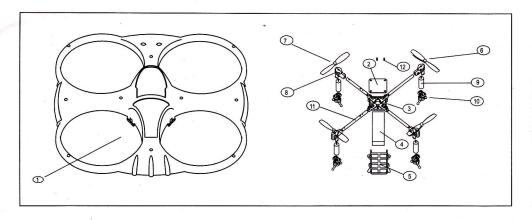
You can play some exciting control if you were real familiar in all the base operation. Firstly,flying the UFO to 3 meter while pressing the button of rolling controler,then,release the button of rolling control meanwhile the UFO will be rolling by 360 angle. If you do real want to control your own UFO in any direction, push the button of speeding controller to 100 percent. Push any of the forward/back/left side/right side controller to the end and release all the controller, then the UFO will be rolling by 360 angle.

当前面的基本动作都很熟了就可以玩一些惊险的翻滚动作,首先把飞行器飞到3米以上按住一键翻滚键后松开,就可以向前360度翻滚,如果想实现不同方向翻滚,把速度建开关开到100%,把前进、后退、左侧飞、右侧飞摇杆任意推到底到松开,就可以360度翻。

11. RULE OUT TROUBLE DURING FLIGHT 如何排除飞行中的状况

	Situation 状况	Cause 原因	Way to deal 大流 计 对策 电电子电子系统
1	The receiver light keeps flashing operation 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频成功	Repeat the power up initializing process. 请重新执行遥控器与接收板的对频动作
2	The aircraft not any reaction 飞行器没有任何反应	1.Power to transmiter and receiver 2.Check transmitter and receiver voltage. 3.Poor contact on battery terminals. 1. 检查運控器和接收器是否接通电源 2. 检查遥控器和接收电池的电压 3. 电池极片接触不良	1.Turn on transmutter 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. 打开发射器与确认插入飞行器电池至定位 2. 使用完全充电饱满的电池 3. 重新插入电池,确认电池和电池极片的接触是否正常
3	Motor does not respond to throttle stick, receiver LED flashes. 推动油门摇杆时马达不转,且接收器指示灯开始闪烁。	WHEN UFO li-po battery power not enough. 飞行器锂聚电池电量不足	Fully charge the battery,or replace with a fully charged battery. 将电池充电或更换另一个充饱电池
4	Main rotor spins but unable to takeoff. 飞行器主旋翼有持续转动但不能起飞	1.Deformed main blades. 2.Flight vehicle battery depleted 3.Not detected horizontal point. 1. 主旋翼变形 2. 飞行器电池电量不足 3. 未检测到水平点	1.Replace main blades 2.Charge or replace with fully charged battery. 3.Placed on the flat ground,reboot 1. 更换主旋翼 2.将电池充电或是换另一个充饱的电池 3. 放置到平坦地面,重新开机
5	Strong vibration of flight vehicle 飞行器震动的很厉害	1.Deformed main blades 1. 主旋翼变形	1.Replace main blades 1. 更换主旋翼
6	Tail still off trim after tab adjustment, or inconsistent speed during left/right pirouette. 已调整方向微调,但机身会打转,左旋/右旋 速度不一致	1.Danaged tail rotors 2.Danaged tail drive motor 3.Not detected horizontal point 1. 尾旋翼变形 2. 尾马达不良 3. 未检测到水平点	1.Replace main blades 2.Replace the main motor 3.Placed on the flat ground,reboot 1. 更换主翼 2. 更按主马达 3. 放置到平坦地面,重新开机
7	Flight vehicle still wonders forward after trim adjustment during hovert. 飞行器仍会往前或往后偏移	1.Gyroscope midpoint not 1. 陀螺仪中点不对	1.The boot will lift fine-tune the normalized neutral point, reboot 1. 开机后将升降微调归中立点,重新开机

12. PARTSLIST 各种零件名称



	The telescope and the second	Marrie 12 To April 1997 1997 1997 1997 1997 1997 1997 199	Clarity
1	Ship shell	飞船壳	1
2	Receiver board	接收板	1
3	Frame	机架	1
4	Batery	电池	1
5	Battery Box	电池盒	1
6	Blad(A)	A风叶	2
7	Blad(B)	В风叶	2
8	Motor blok	电机座	4
9	Motor	电机	4
10	Motor cover	电机盖	4
11	Carbon fiber	碳纤	4
12	LED Light	LED灯	2

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