

使用识明书 Specification WASP 100



Thank you for chooing SKYARTEC products. This mini 4ch rc helicopter adopts the latest technology. Please read this manual carefully before assembling and flying. Be sure to keep the manual properly for future reference regarding adjustment and maintenance.

感谢您选择SKYARTEC系列产品,这款迷你四通道直升机是采用了最新技术的遥控模型.在开始操作或组装之前,请务必详细阅读说明书,并请您妥善保管,以便以后调整,维修做参考.





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简介 Introduction

Thanks for purchasing SKYARTEC products-Mini. This bran-new Mini helicopter with advanced capabilities, is equipped with 5 channels transmitter, setting the radio control parameters directly that more accurate and convenient. This helicopter also adopts carbon fiber tail boom and metal frame connector, which ensure the helicopter react fast on any kind of acrobatic performance.. Furthermore, the small size and light weight characters will help to flight ease of control. We believe that the Mini of SKYARTEC will bring you endless wonder.

感谢您购买SKYARTEC的产品-迷你小直升机。这是一款具有出众性能的全新迷你直升机,它配备了具有强大功能的5通道 发射机,可以在发射机上直接设置遥控参数,使用更加精确和方便。采用碳纤尾管、金属中联,从而确保直升机在飞行 特技演示上反应迅速。更重要的是它极小的体积和重量轻的特点将使飞行更易于控制。我们坚信,这款迷你直升机将会 给您带来无尽的惊喜。

SPECIFICATIONS 规格:

Length 机身长: 220mm Height 机身高: 85mm

Main Rotor Diameter 主旋翼直径: 190mm

Tail Rotor Diameter 尾旋翼直径: 50mm

Weight (Battery included) 机子总重约: 50a

Standard Configuration 标准配置:

Main motor 主马达: N40 brushed motor N40碳刷 Tail motor 尾马达: High magnetic tail motor 强磁尾马达

Battery 电池: 3.7V 350mAh/20C Li-polymer battery 3.7V 350mAh 20C锂电池

Servo 伺服器: 3.5g * 2 3.5g 2个

Main Features:

- 1. "4 in 1" board integrating receiver, ESC, gyro, mix control
- 2.One cell Li-po at 3.7V 350mAh offers 8 to 10 minute flight after full charged
- 3. Super mini servo(3.5g) is prompt and accurate in reaction

主要特件

- 2. 高容量3.7V 350mAh锂电池饱和充电后一次可飞行8-10分钟
- 采用3.5g微型伺服器,响应速度快,灵敏度高





Warming 警告

This radio controlled model is not a toy! It is a high-tech product designed for recreational purposes. So it may generate danger during operating, injure may caused by misoperation or error using. This WASP 100 mini helicopter is 100% assembled at factory. Except you are experienced with rc helicopter adjustment, please do not remove any part of the helicopter. SKYARTEC is not responsible for any accident caused by misoperation or improper assembling.

遥控模型并非玩具,它是结合了许多高科技技术而设计出来的休闲用具。因而在运转过程中具有某种程度的危险性,操作不慎及使用不当都可能造成伤害。本产品出厂前已经组装、调试完成。除非您具有一定的操作,调试直升机经验,否则请勿任意拆卸直升机上的零件。本公司无法对操作失误或组装不当所造成的意外负任何责任。

SKYARTEC models are built to a high standard and while we are happy to provide free technical support and special offers of spare parts, we cannot replace parts under warranty in cases where damage is caused by a crash or abuse/misuse of the product.

模型产品属于操作技术且为消耗性商品,如经拆装使用后零件损坏及任何使用情况下造成的商品不良或不满意,将无法确保无条件更换新品或退货。您如遇到使用、操作、维修问题,本公司将提供免费的技术指导,特价零件供应服务。

Safely Notes 安全注意事项

- Incorrect operation may cause serious injury or damage 操作失误会造成人身伤害。
- 2. We strongly suggest you find an experienced pilot in R/C model to assist you if you are a novice. 如果您是新手,我们建议您找一专业或者熟练的模型爱好者指导您进行操作。





3. It is absolutely necessary to read the instruction manual of the helicopter before every flight, it is mandatory to check all control systems and mechanical linkages for operation before every flight. Safety first.



在您操控之前,请您仔细阅读说明书,学习怎样操控和检查所有控制系统是否正常。

4. Choose the place without people surrounded, high voltage cables and few trees when flying.

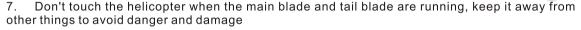
飞行时请选择四周无人,无高压线,少树林的环境。

5. It is suggested to fly in an open space for beginners.

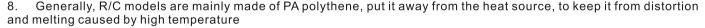
建议初学者在空旷的场地飞行

6. The inner of helis are also formed by many precise electric parts, so it must avoid damp or moisture, and avoid using in bathroom or rainy day to prevent the water enter the inner of helis form damage of causing unpredictable accident.

直升机的内部是由许多精密的电子部件组成,必须防止潮湿和水气。避免在浴室和雨 天使用,防止水气进入机身而导致故障或者意外事故。



当直升机主/尾旋翼运转时,请勿触摸且使直升机远离其他物体,以避免造成危险和损害。



由于直升机一般是由PA或聚乙烯材料做成。所以要尽量远离热源,避免因高温而变形甚至毁容的可能。

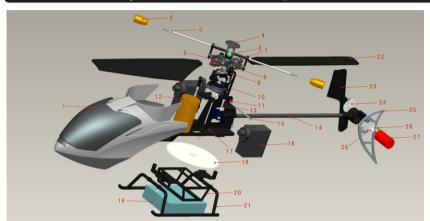








Assembly of the helicopter 整机组装

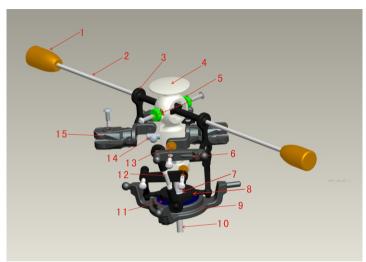


序号	名称	
1	Canopy	机头罩
2	Balancebob	平衡锤
3	Balance bar	平衡杆
4	Fram connector	中联
5	Main rotor holder	大桨夹
6	Balance bar spacer	平衡杆垫片
7	Pitch axis spacer	横轴垫片

序号		T
8	Main rotor holder arm	大桨夹摆臂 大桨夹摆臂
9	Swashplate push rod	十字盘拉杆
10	Swashplate locator	十字盘定位器
11	Stator of canopy cicle	机头罩固定杆圈
12	Motor	马达
13	Servo connector	伺服器拉杆
14	Tail boom	尾管
15	Stator of	机头罩固定杆
16	Servo	伺服器
17	Airframe	机身
18	Main gear	主齿轮
19	Battery	电池
20	Battery rack	电池架
21	Landing gear	脚架
22	Main blade	主翼
23	Tail balde	尾旋翼
24	Tail gear	尾齿轮
25	Vertical fin	垂尾
26	Tail shaft	尾轴
27	Tail motor	尾马达

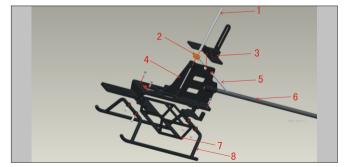






序号	名称	
1	Main shaft	主轴
2	Main shaft mount	主轴固定座
3	Swash plate mount	十字盘固定座
4	Airframe	机身
5	Stator of canopy	机头罩固定杆
6	Tail boom	尾管
7	Battery holder	电池座
8	Landing gear	脚架

序号	名称	
1	Balanceweight	平衡锤
2	Stabilizer bar	平衡杆
3	Stabilizer bar pull rod	平衡杆拉杆
4	Frame connector	中联
5	Stabilizer bar spacer	平衡杆垫片
6	Rotor holder arm	大桨夹摆臂
7	Swash plate inner conductor	十字盘内导
8	Upper swashplate	十字盘上盘
9	Under swash plate	十字盘下盘
10	Main shaft	主轴
11	Swash plate bearing	十字盘轴承
12	Swash plate pull rod	十字盘拉杆
13	Swing arm copper bush	摆臂铜套
14	Pitch axis spacer	横轴垫片
15	Main rotor holder	大桨夹







Introduction of Transmitter 发射机介绍



序号	
1	Antenna 天线
2	Elevator \$ Rudder stick(Mode 1) Throttle \$ rudder stick(Mode 2) 升降及尾舵操作杆(模式1) 油门及尾舵操纵杆(模式2)
3	Throttle trim lever(Mode 2) Elevator lever(Mode 1) 油门微调(模式2) 升降微调(模式1)
4	Power switch 电源开关
5	Rudder trim lever 尾舵微调
6	Menue:Gyro Gain setting Servo Rev actuating quantity 菜单/选择:设定陀螺仪感度 通舵机转动方向 动作量大小
7	EXIT:Save Preferences退出/保存:保存设置的按钮
8	LCD 显示屏
9	Elevator \$Aileron sticker(Mode 2) Throttle \$ Elevator stick(Mode 1) 升降及副翼操作杆(模式2)油门及副翼操纵杆(模式1)
10	Throttle trim lever(Mode 1) Elevator lever(Mode 2) 油门微调(模式1) 升降微调(模式2)
11	Aileron trim lever 副翼微调
12	Up: Increase the setting value 上升:增加设定值
13	Down: Decrease the setting value 下降:减少设定值





Backboard identification

发射机背面介绍

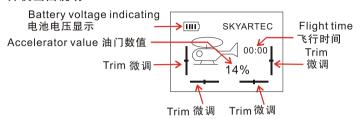


We can't provide the 4AA dry battery for the radio control and it doesn't include in the scope of our products.

遥控器动力所需的4节干电池,不包含在产品范围内.

Startup screen instruction

开机画面说明



Flight time control: press "+" to enter into flying timing, press "-" to suspend flying timing, press "-" again to eliminate flying timing

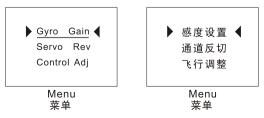
飞行时间控制:按一下"+"号键进入飞行计时,按"一"暂停飞行计时,再按"一"消除飞行计时

Gyro sensitivity setting:

陀螺仪感度设定:

Press ENTRE to choice menus, click "+" or "-", choose "Gyro Gain", confim choice then press ENTRE to adjust interface, click "+" or "-", then press EXIT for save and quit.

按ENTER键,进入选择菜单,按"+"或"-"键,选择"感度设置",确定选择按ENTER键,进入调节界面,按"+"或"-"键进行调节,按EXIT键保存并退出

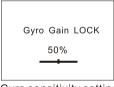






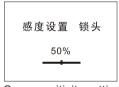


Gyro sensitivity setting 陀螺仪感度设定界面



Gyro sensitivity setting 陀螺仪感度设定界面

Gyro sensitivity setting 陀螺仪感度设定界面



Gyro sensitivity setting 陀螺仪感度设定界面

Servo turning setting:

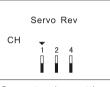
伺服器转向反切设定:

Press ENTRE to choice menus, click "+" or "-", choose "Servo Rev" confim choice then press ENTRE to adjust interface, choose the channel needed to be adjusted, click "+" or "-", then press EXIT for save and quit.

按ENTER键,进入选择菜单,按"+"或"-"键,选择"通道 反切",确定选择按ENTER键,进入调节界面,按ENTER键选择要调整 的通道,按"+"或"-"键进行调节,按EXIT键保存并退出。



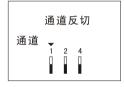
Menu 菜单



Servo turning setting 伺服器转向反切界面



Menu 菜单



Servo turning setting 伺服器转向反切界面

Control Adj:

飞行调整:

Press ENTRE to choice menus, click "+" or "-", choose" Control Adj", confim choice then press ENTRE to adjust interface, choose the actuating quantity needed to be adjusted , click "+" or "-", then press EXIT for

按ENTER键,进入选择菜单,按"+"或"-"键,选择"飞行调整"按ENTER键确定,进入调节界面,按ENTER键选择要调整的动作量大小,按"+"或"-"键进行调节,按EXIT键保存并退出。





Gyro Gain Servo Rev ▶ Control Adj ◀

> Menu 菜单



Control Adj setting 飞行调整界面 感度设置 通道反切 ▶ 飞行调整 ◀

> Menu 菜单



Control Adj setting 飞行调整界面

Please put the Elevator&aileron stick(Mode 1) Throttle&aileron stick(Mode 1) to corresponding socket (see picture)

请将升降及尾舵操作杆(模式1) 油门及副翼操纵杆(模式1) 放入相应的插口(如图所示)



(Note: It has been adjusted well at factory)

(注意:出厂前,已做好相应调整)





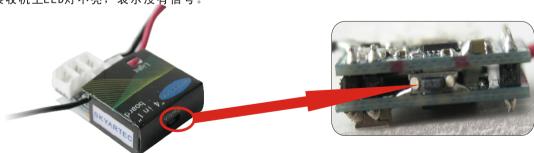
Instruction for code pairing of Transmitter and Reciver 发射机与接收机的对频介绍

First turn on the transmitter and connect the receiver

- 1. LED of the receiver flashes slowly
- 2. Press the code pairing buttom about 4-6 seconds, the LED flashes fast in this moment
- 3. After letting go the button, LED is light constantly, which indicates code pairing successful.
- 4. If LED is not light which indicates code pairing failed without signal.

首先开启发射机上面的电源开关和接通接收机上的电源

- 1. 接收机上的LED灯慢慢闪烁。
- 2. 按着接收机上的对频开关4-6秒钟,此时LED灯是快速闪烁。
- 3. 放手后,LED灯是恒亮的,表示对频成功。
- 4. 如果接收机 FLED灯不亮,表示没有信号。



Note: It is no need to re-bind because the helicopter was code pairing successful at factory 产品出厂时已经对好频,玩家无需再对,接通发射机和接收机电源就可以使用。





4 in 1 board 四合一板介绍:

Four in one board mainly feature:

四合一板主要特件:

- 1、Support SKY-G01、SKY705 radio controller 支持SKY-G01、SKY705遥控器
- 2、The mixed rate of motor intelligent adjustive 电机智能调整混控比



- 1: 3CH Throttle ESC (Brushed)
- 2: 4CH Rudder servo (Brushed)
- 3: 1CH Aileron servo
- 4: 2CH Elevator servo
- 5: 3CH Throttle ESC (Brushless)
- ①: 3通道电调油门(碳刷)
- ②: 4通道尾翼舵机(碳刷)
- ③:1通道副翼舵机
- ④: 2通道升降舵机
- ⑤: 3诵道电调油门(无刷)

Please erect the 4 in 1 board for perfect fuction

请竖立放置四合一板以达到最佳功能

Flight Procedure 飞行操作步骤

Notes before flight(put on canopy first), you can choose any solution from solution A and solution B 起飞时注意事项(机头罩先戴上)

Operation A

- 1. When the throttle is at the lowest point, connect battery to the helicopter 当油门打到最低时,接通电源
- 2. Level placed the helicopter 平放直升机
- 3. Please do not move the helicopter 请勿移动直升机
- 4. Until the red light of four in one board stops flash 直到4合 1板红灯闪烁停止

Operation B

- 1. Put the throttle to the highest point 把油门打到最高处
- 2. Connect the battery to the helicopter 连接电池与直升机
- 3. Level placed the helicopter 平放直升机
- 4. Put the throttle bar to the lowest position 油门拉杆位于最低
- 5. Red light stop flashing 红灯闪烁停止

Remark: After crash, if the helicopter have bad condition in lock, pls take off the battery and re-set.

备注: 直升机摔机后,可能会有锁定状况不良,请拆除电源重新设置





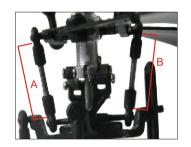
Push-rodAdjustment 拉杆调整

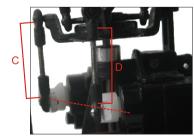
Connect to the battery, then make sure that the swashplate should be set horizontally (E=180 $^{\circ}$)

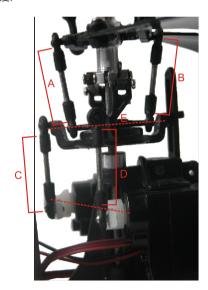
接通电源时,十字盘呈水平状态(E=180度)

The length of the servo push rod A, B and C are the same (shown as the left pitcture, A= B= C=) Also, the servo arm should be set horizontally (E=F=180 $^{\circ}$)

伺服器摆臂拉杆长度: A=B 接通电源时,伺服器摆臂呈水平状态(C=D=E=180度)











Test for the Helicopter and Transmitter 直升机与遥控器测试

Mode 1(Right throttle) 模式1(右手油门)



When the throttle stick is pushed forward, the helicopter lifts up.

当油门操作杆向上推动时,直升机上升。



When the aileron stick is moved to the left, the helicopter moves to the left.

当副翼操作杆向左推动时,直升机飞向左边。



When the throttle stick is pushed downward, the helicopter descends.

当油门操作杆向下推动时,直升机下降。



When the aileron stick is moved to the right, the helicopter moves to the right.

当副翼操作杆向右推动时,直升机飞向右边。







When the elevator stick is pushed forward, the helicopter flies forward.

当升降操作杆向上推动时,直升机向前飞。



When the rudder stick is moved to the left, the head of helicopter moves to the left.

当方向操作杆向左推动时,直升机机头向左转。



When the elevator stick is pushed downward, the helicopter flies backward.

当升降操作杆向下推动时,直升机向后飞。



When the rudder stick is moved to the right, the head of helicopter moves to the right.

当方向操作杆向右推动时,直升机机头向右转。





Mode 2(Left throttle) 模式2(左手油门)



When the throttle stick is pushed forward, the helicopter lifts up.

当油门操作杆向上推动时,直升机上升。



When the aileron stick is moved to the left, the helicopter moves to the left.

当副翼操作杆向左推动时,直升机飞向左边。



When the throttle stick is pushed downward, the helicopter descends.

当油门操作杆向下推动时,直升机下降.



When the aileron stick is moved to the right, the helicopter moves to the right.

当副翼操作杆向右推动时,直升机飞向右边。







When the elevator stick is pushed forward, the helicopter flies forward. 当升降操作杆向上推动时,直升机向前飞.



When the rudder stick is moved to the left, the head of helicopter moves to the left. 当方向操作杆向左推动时,直升机机头向左转.



When the elevator stick is pushed downward, the helicopter flies backward. 当升降操作杆向下推动时,直升机向后飞.

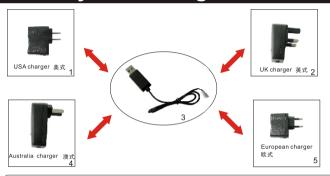


When the rudder stick is moved to the right, the head of helicopter moves to the right. 当方向操作杆向右推动时, 直升机机头向右转.





Battery and Charger use 电池和充电器的使用



- 1. When use it, pls connect the usb interface to the right UK charger, USA charger, Australia charter or European charger.
- 2.When connect the charger to electroncity power, the European charge and USA charger light red light, the UK charger and Australia charger light red and green light.
- 3. Befor connect to the battery, USB interface "3" light red light. When connect to the battery, no light. When the battery charge full, light red light.
- 1、使用时, 序号3 USB接口和英式、美式、澳式或者欧式充电器接口对接。
- 2、充电器接入电源,欧式和美式亮红灯,英式和澳式亮红灯和绿灯。
- 3、没接上电池前, USB接口"3"亮红灯,接上电池不亮灯,电池充满亮红灯。



Warning: the longest time of charging can not exceed 120 minutes. 警告:充电时间最长不能超过120分钟.

Safety guideline of Lithium Polymer batteries 锂电池使用安全准则

Lithium Polymer batteries are significantly more volatile than the alkaline, All instructions and warnings must be followed exactly, Mishandling of LI-PO battery can result in fire.

锂电池比起碱性的电池能量挥发更强,务必要了解说明和警告,对锂电池的误操作可能导致火灾.

By handling, charging or using the included Li-Po battery you assume all risks associated with lithium battery. if you do not agree with these conditions, return your complete airplane model in new, unused condition to the place of purchase immediately. 通过操作,充电或者使用锂电池,您要承担所有与电池相关的风险. 如果您不同意这些条款, 请立即将您的飞机模型在全新的、未使用的情况

下. 退回到购买点.





Do not charge the battery during installing the helicopter

不要在组装飞机的时候给电池充电

After flight, the battery must be coolde to ambient temperature before charging.

飞行后,电池务必要冷却到环境温度,才能重新充电,否则可能引起火灾,导致个人受伤或财产损失。

Please keep the charger and battery away from any flammable materials, while charing.

充电器充电时应放在干燥通风处,远离热源,远离易燃易爆物品。

In order to ensure you can quickly and safety charge, pelase use the battery from SKYARTEC original factory. 为了您更安全快捷的充电,请使用SKYARTEC原厂的电池.

Care and maintenance 维护与保养

Always remove the batteries from the wireless infrared remote control when it is not being used for an extended period of time

当飞机没有使用时,请将电池取出

To clean, gently wipe the remote control and helicopter with a clean clothe.

请用干净的布清洁飞机及遥控器

Keep it away from direct heat.

远离热源

Do not submerge the helicopter into water. This can damage the unit beyond repair.

请勿将飞机放入水中, 否则将损坏零件

Note: The specification of all kinds of spare parts, the materials or the packing contents in this WASP 100 mini helicopter instruction manual are just for your reference only. But other notice is not required if there is any change on the manual. And our company will not take initiative to inform our customer, the products of any changes or updates. Please refer to our company website mainly.

Website address: www.skyartec.com

备注:本说明书里面的各种零件之规格、材质或内容仅供参考。本公司将不对此印刷物之类负责,也无法主动通知到消费者。本产品有任何变动或更新时,请以本公司官网(http://china.skyartec.net)为主。





spare parts list 配件表



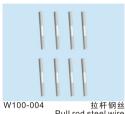
W100-001 Frame connector



W100-002 平衡桿 Balance bar



平衡杆垫片 Balance bar spacer



Pull rod steel wire



横轴 Pitch axis



横轴圈 Pitch axis spacer W100-006



W100-007 尾轴 Tail shaft



W100-008 平衡片重锤 Balancebob





W100-010 主轴定位圏 Main shaft locating ring



上摆臂台阶铜套 W100-011 Upper swing arm copper bush



W100-012 下摆臂台阶铜套 Lower swing arm copper bush



W100-013 不锈钢球头 Stainless steel bulb



主轴 Main shaft



W100-015 碳刷马达铜齿 Brushed motor copper gear 碳刷马达铜齿







W100-016 无刷马达铜齿 Brushless motor copper gear



尾管 Tail boom W100-017



机头罩固定柱 Canopy stator W100-018



Vertical fin

W100-019



W100-020 00-020 平衡杆连接球框 Connector for balance bar



大桨夹 Main rotor holder W100-021



W100-022 主桨 Main blade



W100-023



W100-024 -024 拉杆球头扣 Ball fastener of pull rod



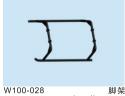
W100-025 十字盘塑胶 Swashplate (plastic)



尾旋翼 Tail balde



Airframe



Landing gear

摆臂 Swag arm



Battery holder



W100-030

尾波箱 Tail rotor frame







Main gear

Canopy rubber

W100-031



W100-032 机身轴承 (2个) Airframe bearings (2pcs)



尾轴轴承(2个) W100-033 尾轴轴承(2个) Tail shaft bearings (2pcs)



Screws package



W100-035 Swashplate (metal)



W100-036



电池 W100-037 LI-PO battery



主電機 Main motor



Tail motor



W100-040 尾电机线+主电机线 Main motor wire+tail motor wire



四合一板 4 in 1 board W100-041



2P充电器线 2P charger wire



3P充电器线 3P charger wire



W100-044 無線飛行模擬器 Wireless flight simulator



平衡翼片 Stabilizer wing



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