

Wingspan:900mm Length:950mm

**Empty Weight:790G[w/o Battery]** 

#### <u>小</u> 电调使用说明:

- 1. 本款产品使用了新的40A V2版电调,新增"降落后油门反推























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## Freewing Banshee introduction

Thank you for purchasing the Freewing 64mm EDF jet Banshee. It is made of high-density EPO material. Before the product leaves the factory, the spraying and decals steps have been completed, and the degree of completion is high. This product also provides two versions of PNP and ARF Plus for selection.

Freewing "Banshee" electric jet is a new 64mm ducted aircraft built again after the Stinger 64 was launched for 12 years. In terms of appearance, the light and flat nose is perfectly combined with the streamlined body, making it stylish and concise. The fluorescent green theme color, with black and white mottled gradient style honeycomb pattern and gray lines, has a unique visual impact, which not only shows the personality, but also effectively enhances the recognition during the flight. In terms of structure, this product adopts a modular structure design, and the assembly of major components is completed through plastic structural parts and screws, which is easy to maintain and update accessories.

Through the summary of the use of previous products and the accumulation of design experience, the Wingspan of the Banshee is set as the captain respectively: 900mm / 950mm. Compared with the conventional 64-ducted products, the size has been increased to improve the flight quality of the product. The main wing adopts a leading edge sawtooth design layout, which further enhances the lateral stability of the product at low speed and elevation attitude. In the process of research and development, repeated testing of various parameters, as well as multiple optimizations and modifications, made the Banshee meet the performance that a basic sports machine should have. The PNP version of Banshee is pre-installed with a 4S 14.8V 64mm12-blade out-runner power system, which is full of power and has an average speed of 152KPH (95MPH). During the take-off, the directional stability is good, and the roll distance is about 20 meters. During the flight, the action responds quickly, and the operation process is soft and linear.

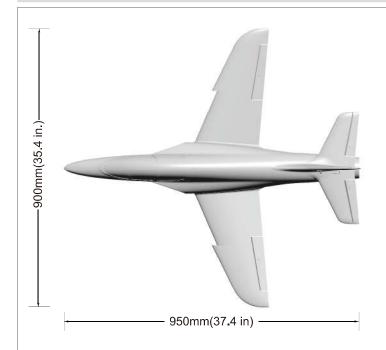
Under the same conditions, during the horizontal turn, the altitude loss is small. In the case of mastering the essentials of relevant flying movements, Banshee can easily complete common easy and difficult movements including "side flying". The fixed landing gear made of  $\Phi$ 3mm diameter carbon steel is simple and durable. During the landing process, the landing gear has an appropriate degree of softness and hardness. With a little practice and adaptation, the bouncing phenomenon during the landing process can be reduced or even avoided, and the landing gear can smoothly land and glide.

Maneuverability, controllability and stability are the striking features of this brand new Banshee electric model aircraft. It is very suitable to use this cost-effective product to practice related flight actions. I hope you like it!(Note: When using 6S 22.2V 64mm 12-blade out-runner power system, the average speed is 175KPH (109MPH). You can consult and purchase this upgraded power pack through our official or official designated channels)

NOTE: This is not a toy. Not for children under 14 years. Young people under the age of 14 should only be permitted to operate this model under the instruction and supervision of an adult. Please keep these instructions for further reference after completing model assembly.

#### Note:

- 1. This is not a toy! Operater should have a certain experience, beginners should operate under the guidance of professional players.
- 2. Before install, please read through the instructions carefully and operate strictly under instructions.
- 3. Cause of wrong operation, Freewing and its vendors will not be held responsible for any losses.
- 4. Model planes' players must be on the age of 14 years old.
- 5. This plane used the EPO material with surface spray paint, don't use chemical to clean, otherwise it will damage.
- 6. You should be careful to avoid flying in areas such as public places, high-voltage-intensive areas, near the highway, near the airport or any other place where laws and regulation clearly prohibit.
- 7. You cannot fly in bad weather conditions such as thunderstorms, snows....
- 8.Model plane's battery, don't allowed to put in everywhere. Storage must ensure that there is no inflammable and explosive materials in the round of 2M range.
- 9.Damaged or scrap battery should be properly recycled, it can't discard to avoid spontaneous combustion and fire
- 10.In flying field, the waste after flying should be properly handled, it can't be abandoned or burned.
- 11. In any case, you must ensure that the throttle is in the low position and transmitter switch on, then it can connect the lipo-battery in aircraft.
- 12.Do not try to take planes by hand when flying or slow landing process. You must wait for landing stop, then carry it.



#### Standard Version

Wingload: 91.8 g/dm<sup>2</sup> Wing Area: 11 dm<sup>2</sup>

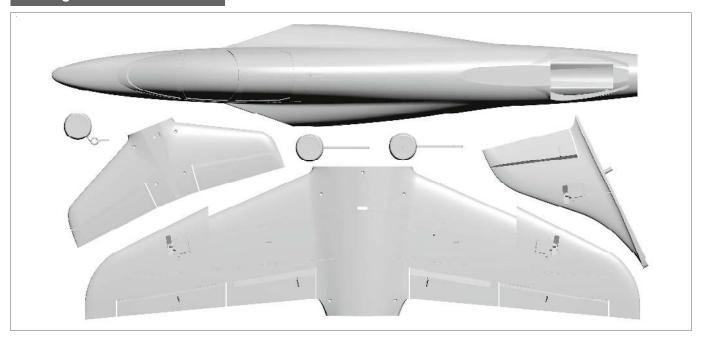
Motor: 2840-2850KV O/R Motor Servo: 9g Digital plastic servo ×8

ESC: 40A Brushless(Thrust Reverse function)

Ducted fan: 64mm 12-blade fan Weight: 790g(w/o Battery) Li-Po Battery:4S 2200-2600mAh Landing gear:Fixed landing gear

Note: The parameters in here are derived from test result using our accessories. If use other accessories, the test result will be different. Any problem since of using other accessories, we are not able to provide technical support.

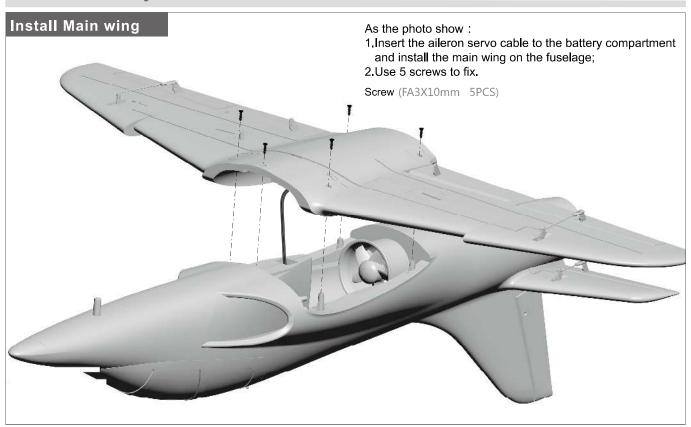
# Package List



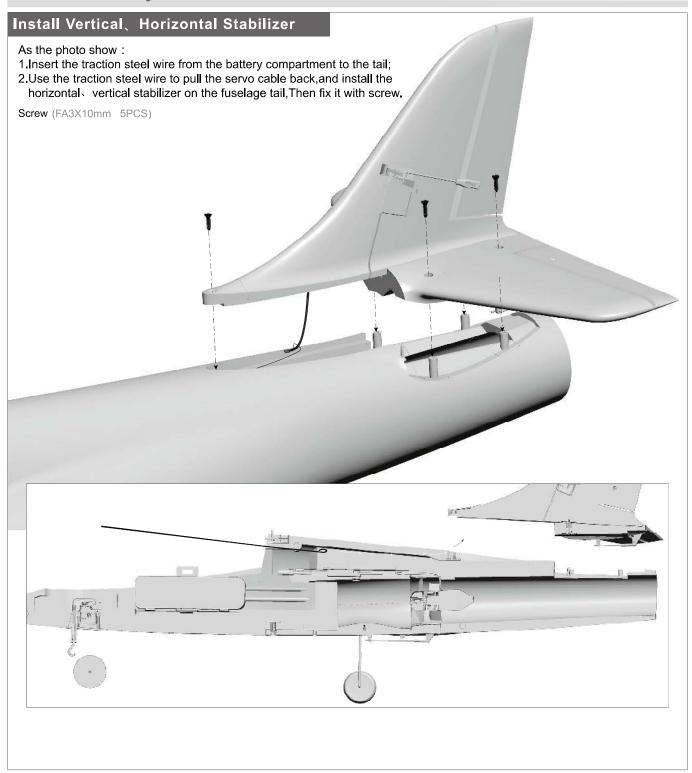
Different equipment include different spareparts. Please refer to the following contents to check your sparepart list.

No.	Name	PNP	ARF Plus	
1	Fuselage	Pre-installed all electronic parts	Pre-insta <b>ll</b> ed servo	
2	Main wing	Pre-installed all electronic parts	Pre-installed servo	
3	Horizontal tail	Pre-installed all electronic parts	Pre-insta <b>ll</b> ed servo	
4	Vertical tail	Pre-installed all electronic parts	Pre-insta <b>ll</b> ed servo	

No.	Name	PNP	ARF Plus		
5	Wheel	<b>V</b>	<b>√</b>		
6	Pushrod	√	<b>√</b>		
7	Manual	<b>V</b>	<b>V</b>		

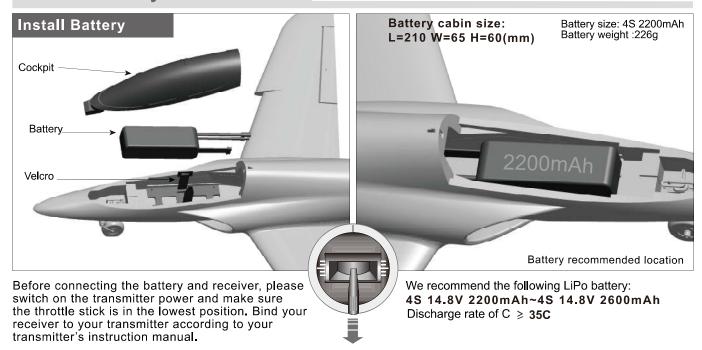




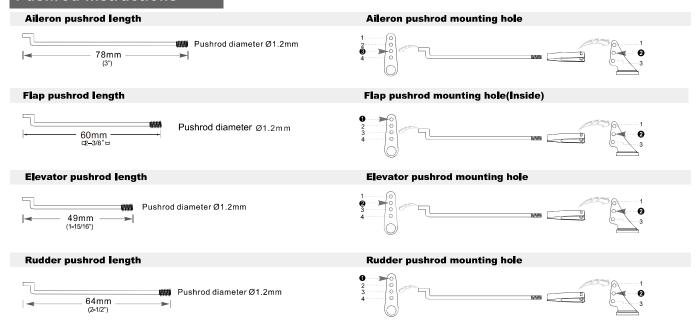








#### **Pushrod instructions**

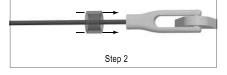


### Important additional notes

The Y-type clevis used in this product is equipped with a transparent silicone ring for secondary reinforcement, which can effectively prevent the clevis from accidentally loosening.

As shown in the following figure, when you buckle the clevis into the control surface horn, use the silicone ring to cover the clevis.







#### **Center of Gravity**

Correct Center of Gravity ("CG") is critical for enabling safe aircraft stability and responsive control. Please refer to the following CG diagram to adjust your aircraft's Center of Gravity.

- Depending on the capacity and weight of your choosen flight batteries, move the battery forward or backward to adjust the Center of Gravity.
- If you cannot obtain the recommended CG by moving the battery to a suitable location, you can also install a counterweight to achieve correct CG. However, with the recommended battery size, a counterweight is not required. We recommend flying without unnecessary counterweight.



#### **ESC Instruction**

- 1.This product uses the new 40A V2 ESC, and adds the "Reverse throttle deceleration after landing" function.
- 2.This ESC has two connecting cables: "Throttle" signal control cable and "Reverse Brake" control cable.
- 3.Connection Instruction
  - "Throttle" signal control cable insert into the throttle channel of receiver to control the throttle size.
  - "Reverse Brake" control cable insert into any free two-way switch channel of receiver. After the plane lands on the ground, switch the corresponding channel switch on the radio to turn on the "Reverse throttle deceleration" function.

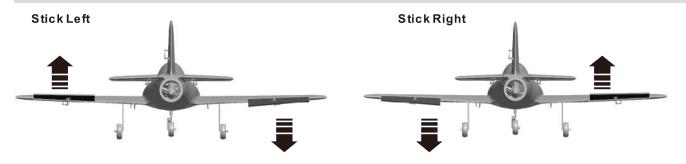
#### Note:

- 1."Reverse Brake" control cable must insert into the receiver for connection, otherwise the ESC will not start.
- 2.After the model aircraft is off the ground, during the flight, the "throttle reverse thrust" function cannot turn on, otherwise the forward power will be lost, and resulting in a serious flight accident.

### **Control Direction Test**

After installed the plane, before flying, we need a fully charged battery and connect to the ESC, then use radio to test and check that every control surface work properly.

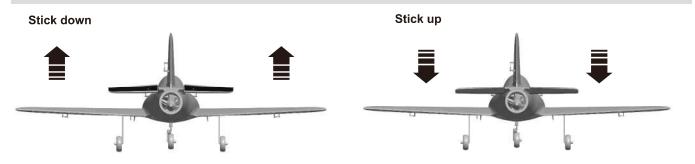
# Aileron



# Rudder



### **Elevator**

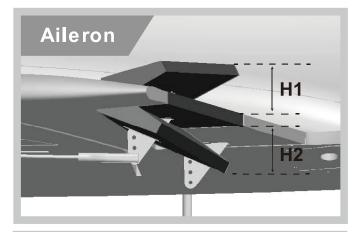


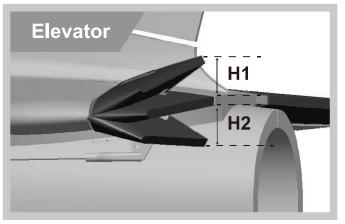
# **Flaps**

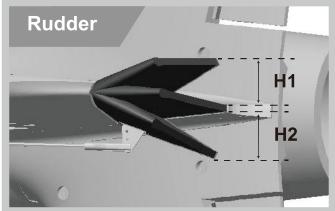


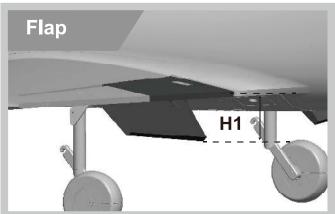
#### **Dual Rates**

According to our testing experience, use the following parameters to set Aileron/Elevator Rate. Program your preferred Exponential % in your radio transmitter. We recommend using High Rate for the first flight, and switching to Low Rate if you desire a lower sensitivity. On successive flights, adjust the Rates and Expo to suit your preference.

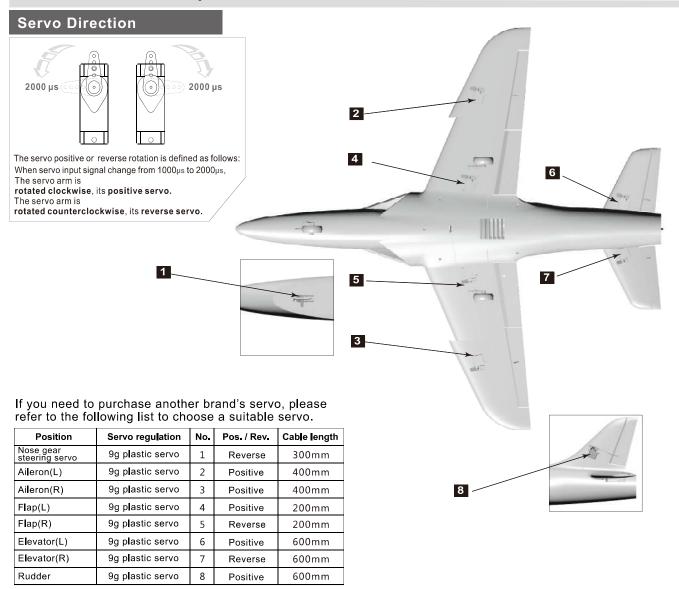




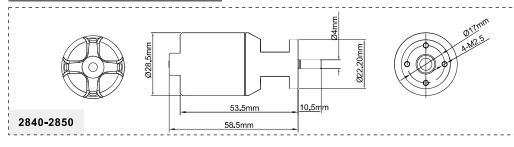




	Aileron (Measured closest to the fuselage)	<b>Elevator</b> (Measured closest to the fuselage)	Rudder (Measured from the bottom)	Flaps
Low Rate	H1/H2 9mm/9mm D/R Rate : 60%	H1/H2 17mm/17mm D/R Rate : 75%	H1/H2 24mm/24mm D/R Rate : 80%	H1 11mm
High Rate	H1/H2 12mm/12mm D/R Rate: 80%	H1/H2 23mm/23mm D/R Rate : 100%	H1/H2 31mm/31mm D/R Rate : 100%	H1 24mm



#### **Motor Specification**



2840-2850KV brushless motor use 4S 14.8V lipo battery and 40A ESC.

Note: If you need other motor to use, please refer to the dimension shown on the left to select your motor, to make sure that the motor you purchased can install successfully.

Model	KV Value	Volate (V)	Current (A)	Pull (g)	RPM	Weight (g)	No Load Current	Propeller	ESC
2840 <b>-</b> 2850KV	2850RPM/V	14.8	40	1350	42180	145	2.7A	64mm Ducted Fan	40A

感谢您购买 Freewing 64mm Banshee "女妖"电动涵道模型飞机。它采用高密度 EPO 材料制作,产品出厂前,均已完成喷涂及贴花步骤,完成度较高。本产品同时提供了 PNP 和 ARF Plus(空舵)二个版本,以供选择。

飞翼"女妖"电动涵道模型飞机,是继 Stinger 64 上市十二年之后,再次全新打造的一款 64mm 涵道级别练习飞机。外观方面,轻扁平化的机头,与流线型机身,完美结合,显得时尚、简练。荧光绿主题色,搭配黑白颜色的斑驳渐变风格蜂巢图案及灰色线条,有着独特地视觉冲击力,在彰显个性的同时,有效增强了飞行过程中的识别度。结构方面,本品采用模块化结构设计,通过塑料结构件及螺丝完成各大部件的拼装,易于后期维护及配件更新。

通过对以往产品的使用反馈总结,以及设计经验的积累。Banshee "女妖"的翼展机长分别设定为:900mm/950mm,较常规 64 涵道级别的产品,尺寸有所增加,以改善产品的飞行品质。主翼采用了前缘锯齿设计布局,进一步增强产品在低速、仰角姿态时的横向稳定性。在研发过程中,对各种参数的反复测试,及多次优化修改,使Banshee "女妖"符合一款基础运动机应有的各项表现。PNP 版本的 Banshee "女妖",预装 4S 14.8V 64mm 12叶外转动力组,动力充沛,平均时速152KPH(95MPH)。起飞滑跑时,方向稳定性较好,滑跑距离约20米。飞行过程中,动作响应迅速,运作过程柔和、线性。在相同条件下,水平转弯过程中,高度损失较小。在掌握相关飞行动作要领的情况下,Banshee "女妖"能够轻松完成包括"侧飞"在内的常见易、难动作。使用Φ3mm 直径碳钢制作的固定式起落架,简单耐用。降落过程中,此起落架软硬程度恰当,稍加练习适应,即可减少甚至避免降落过程中的弹跳现象,平稳落地滑行。

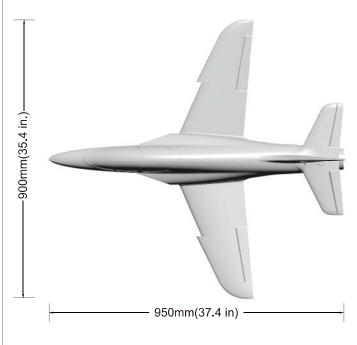
机动性、操控性、稳定性,三者均衡是这款全新 Banshee "女妖"电动模型飞机的显著特点,使用这台极具性价比的产品来练习相关飞行动作,非常合适,希望您喜欢!(备注:当使用 6S 22.2V 64mm 12 叶外转动力组时,平均时速 175KPH(109MPH)。您可以通过我们官方或官方指定渠道咨询和购买此升级动力组)。

## 重要提示

- 1.模型飞机不是玩具,操作者需要具备一定的经验;没有经验的初学者,必须在有丰富经验的专业人士指引下,逐步学习!
- 2.在组装之前,必须认真阅读产品说明书,严格按照说明书指示操作。
- 3.飞翼模型及其销售商,对于违反说明书的要求操作而造成的损失、将不负任何法律责任!
- 4.模型飞机的使用年龄必须是14岁以上的儿童或者成人。
- 5.此模型产品使用EPO材料制成,表面喷涂油漆,不可随意使用化学制剂擦拭,否则会损坏模型产品。
- 6.不可以在公共场合、高压线密集区、高速公路附近、机场附近或者其它法律法规明确禁止飞行的场合飞行。
- 7.不可以在雷雨、大风、大雪或者其它恶劣气象环境下飞行。
- 8.模型飞机的电池产品,不可以随意乱扔,乱放。存放时,必须保证周边2M范围内,无易燃、易爆物体。
- 9.损坏或者报废处理的模型飞机电池,应妥善回收处理,不准随意抛弃,避免自燃而引发火灾。
- 10.在飞场飞行时,应做到妥善处理飞行后所产生的垃圾,不可随意抛弃、焚毁模型及其配件。
- 11.在任何情况下,都必须保证油门杆处于起始位、发射机处于打开状态时,才能连接模型飞机内部的动力电池.
- 12.无论是模型飞机是在正常飞行过程中,或者是在缓慢降落过程中,都不要尝试用手去回收模型。必须等模型降落停稳以后 ,再进行回收!

注意:模型产品是具一定危险性的产品,请禁止14岁以下的儿童玩耍,14岁以上的儿童,请在有飞行经验的成人指导下使用,无飞行经验的购买者,应当在具有一定电动涵道飞机飞行经验的成人指导下使用!组装模型前,请仔细阅读说明书,按照说明书的要求进行安装。进行调试和飞行时,请根据说明书指示的参数进行调整。

**产品基本参数** 中文版



# 标准版

翼载荷: 91.8 g/dm² 翼面积: 11 dm²

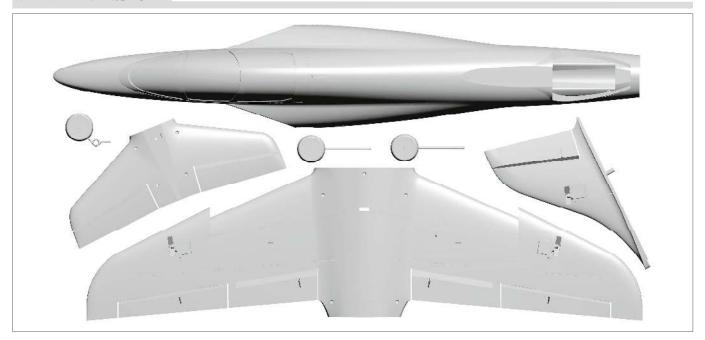
舵机:9g塑料齿舵机×8 电机:2840-2850KV外转电机 涵道风扇:64mm 12叶塑料涵道 电调:40A无刷电调(带反推刹车功能)

起飞重量: 790g(不含电池) 电池范围: 4S 2200-2600mAh

起落架:固定式起落架

★ 注意:此处各项参数,均使用本公司配件测试得出,如果使用副厂配件,会有所差异。使用副厂配件时所产生的问题,我们将无法给予技术支持!

# 产品包装清单

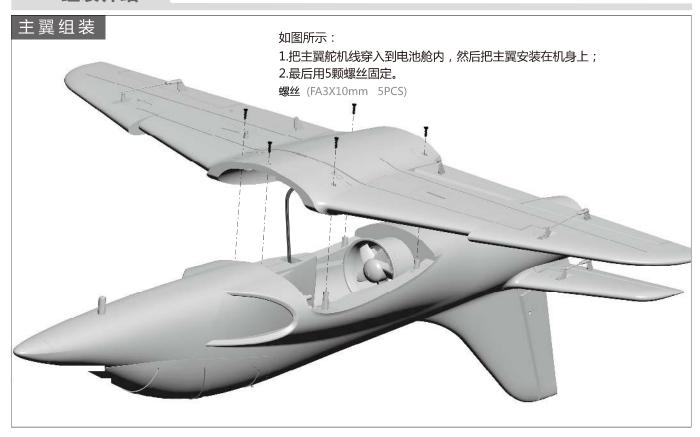


打开产品包装,核对包装清单。(不同配置的版本,包含内容不同!)

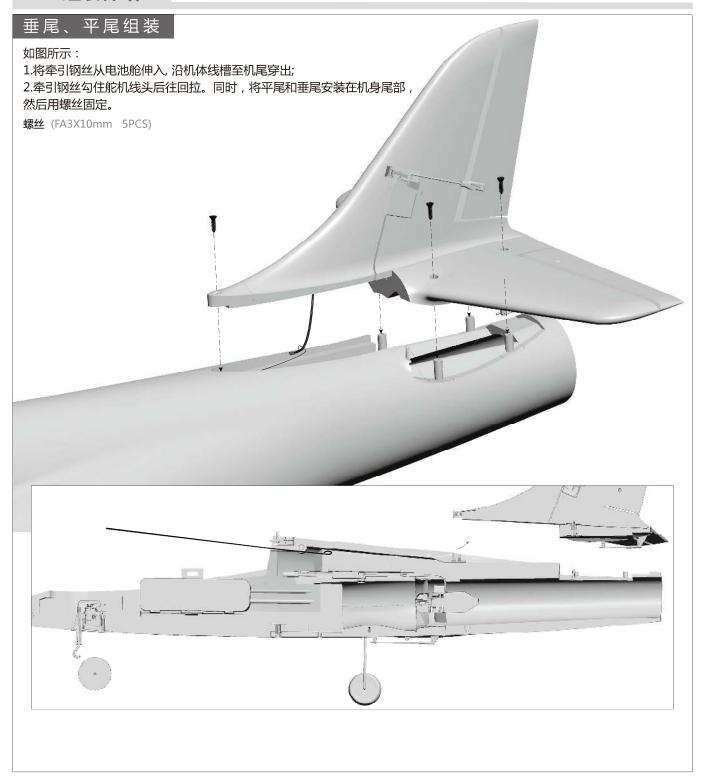
序号	配件名称	PNP	ARF P <b>l</b> us
1	机身	预装所有电子设备	预装舵机
2	主翼	预装所有电子设备	预装舵机
3	平尾	预装所有电子设备	预装舵机
4	垂尾	预装所有电子设备	预装舵机

序号	配件名称	PNP	ARF Plus
5	机轮	V	V
6	舵面控制钢丝	V	V
7	说明书	V	V

PNP组装介绍







**PNP组装介绍** 中文版





PNP组装介绍 中文版



# 舵面控制钢丝尺寸及安装孔位



#### 重要附加说明:

本产品所使用的"Y"型夹头,均配备了透明硅胶圈进行二次加固,能有效防止夹头意外松开。如下图所示,当您将夹头扣入舵面摇臂后,请使用硅胶圈套住夹头。







PNP组装介绍 中文版

### 重心示意图

#### 正确的重心,直接关系到飞行的成功与否,请参考下面的重心标示图,来调整飞机的重心。

- -您可以将电池向前,或者向后移动,来调整飞机的重心;
- -如果通过电池的移动无法调整到正确的重心位置,您还可以适当的使用一些其它材料来配重,使飞机的重心处于正确的位置!



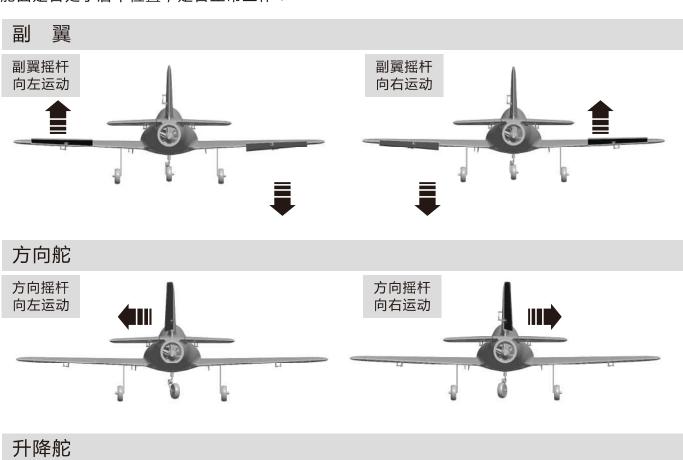
## 电调使用说明

- 1.本款产品使用了新的40A V2版电调,新增"降落后油门反推刹车"功能。
- 2.此电调有二条连接线,分别为:油门(Throttle)信号控制线及油门反推刹车(Reverse Brake)控制线。
- 3.连接说明:
  - -油门信号控制线 (Throttle)
  - 插入接收机油门通道,控制油门大小。
  - -油门反推刹车(Reverse Brake)控制线
- 插入接收机任意空闲二程开关通道。飞机降落着地后,在遥控器上,通过切换此对应通道开关,开启"油门反推刹车"功能。 \*\*\*
- 1.油门反推刹车(Reverse Brake)控制线必须插入接收机进行连接,否则,电调将不会启动。
- 2.模型飞机离地后,在飞行过程中,不能开启"油门反推刹车"功能,否则会丧失动力,导致严重飞行事故。

**PNP测试及设定** 中文版

# 舵面测试

当您按前面的步骤组装好飞机后,连接电池,用遥控器测试每个舵面的工作情况,检查各个舵面是否处于居中位置,是否正常工作!







# 升降摇杆 向上运动



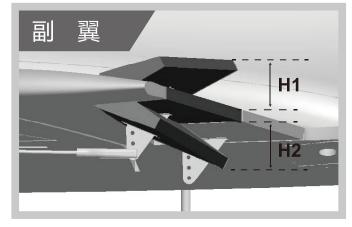
# 襟翼

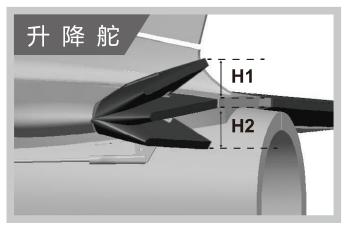


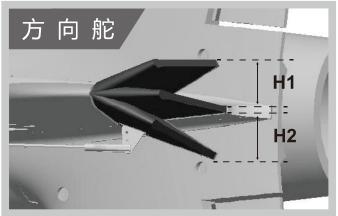
PNP电子设备介绍

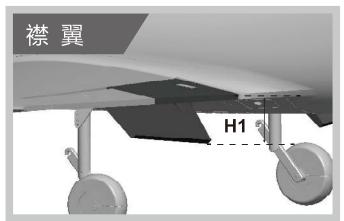
# 大、小舵参数

根据我们的测试经验,我们认为,按以下参数来设置大小舵量,将有助于飞行,舵量越大,模型飞机的动作响应更快,动作幅度可以更大。我们建议初次飞行使用大舵量起飞,然后根据个人情况调整到适合您的舵量。



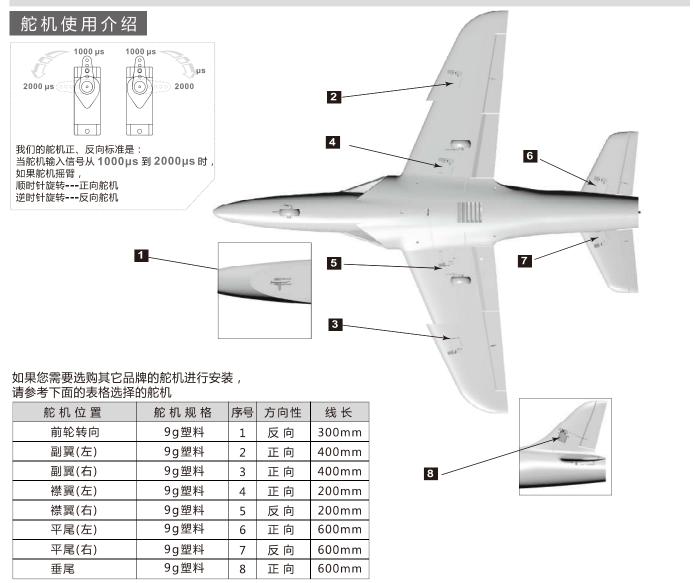




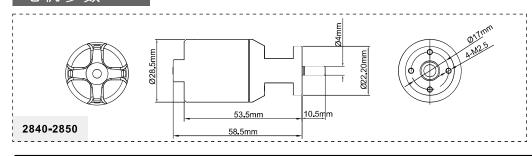


	副翼 ( 内侧 )	升降舵(内侧)	方向舵 ( 下端 )	襟翼
小舵量	H1/H2 9mm/9mm 舵量比率:60%	H1/H2 17mm/17mm 舵量比率:75%	H1/H2 24mm/24mm 舵量比率:80%	H1 11mm
大舵量	H1/H2 12mm/12mm 舵量比率:80%	H1/H2 23mm/23mm 舵量比率:100%	H1/H2 31mm/31mm 舵量比率:100%	H1 24mm

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## 电机参数



2840-2850KV无刷马达,使用4S 14.8V的电池和40A电调。

⚠ 注意: 如果需要购买副厂马达使用,请参考左图所示的尺寸图,来选择马达,确保您所购买的马达能够顺利安装。

Model	KV Value	Volate (V)	Current (A)	Pull (g)	RPM	Weight (g)	No Load Current	Propeller	ESC
2840 <b>-</b> 2850KV	2850RPM/V	14.8	40	1350	42180	145	2.7A	64mm Ducted Fan	40A



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