

Li P.15 Diana

64mm EDF Sport Scale Park Jet

USER MANUAL

WINGSPAN: 750MM (29.5")

LENGTH: 495MM (19.5")

EMPTY WEIGHT: 260g
(W/O BATTERY)



EN

1~7

中

8~14



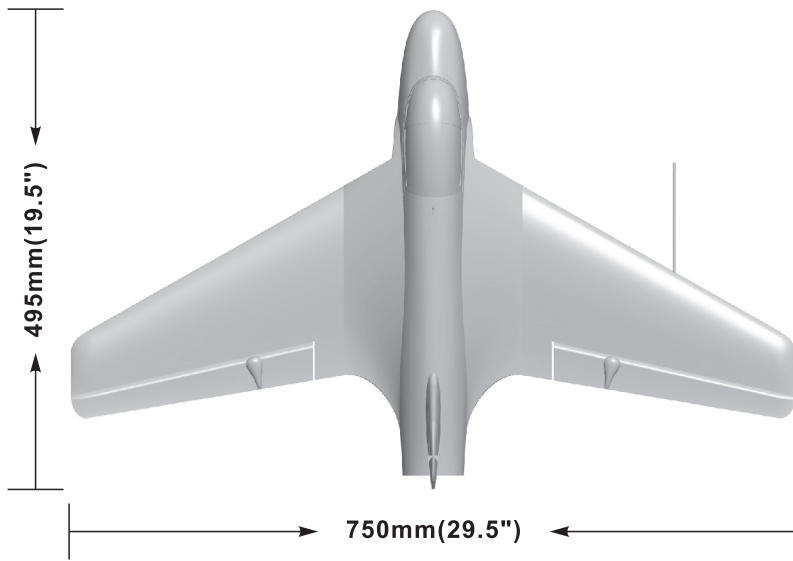
www.sz-freewing.com

MADE IN CHINA

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Note:

- 1.This is not a toy! Operator 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.



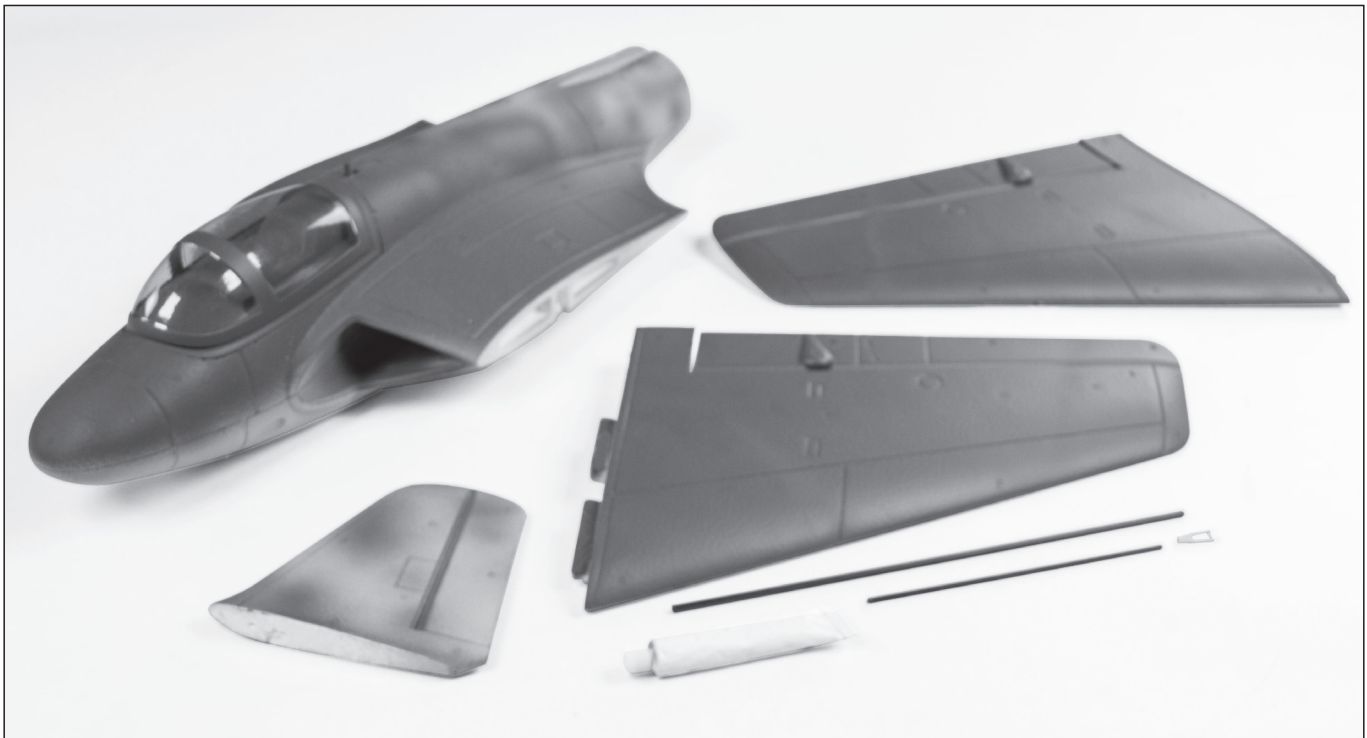
Standard version

Wing Loading: 50g/dm²
 Wing Area : 8 dm²
 Motor: 2627-4500KV
 Brushless Outrunner Motor
 Ducted fan: 64mm 5-Blade Fan
 ESC: 30A Brushless
 Servo: 9g Plastic Servo(2pcs)
 Top Speed : 160KPH/100MPH
 Empty Weight:260g(without battery)
 Bench Tested Thrust: 750g

Landing gear: fixed landing gear
 (Optional spare part, need to purchase separately.)

⚠ 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.
 The package don't include the landing gear, if you need, please contact your local dealer.

Package List



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

No.	Name	PNP	ARF Plus	Airframe	No.	Name	PNP	ARF Plus	Airframe
1	Fuselage	Pre-installed all electronic parts	✓	No electronic equipment	5	Antenna	✓	✓	✓
2	Main wing	Pre-installed all electronic parts	Pre-installed servo	No electronic equipment	6	Carbon tube	✓	✓	✓
3	Vertical tail	✓	✓	✓	7	Glue	✓	✓	✓
4	Linkage Set	✓	✓	✓	8	User Manual	✓	✓	✓

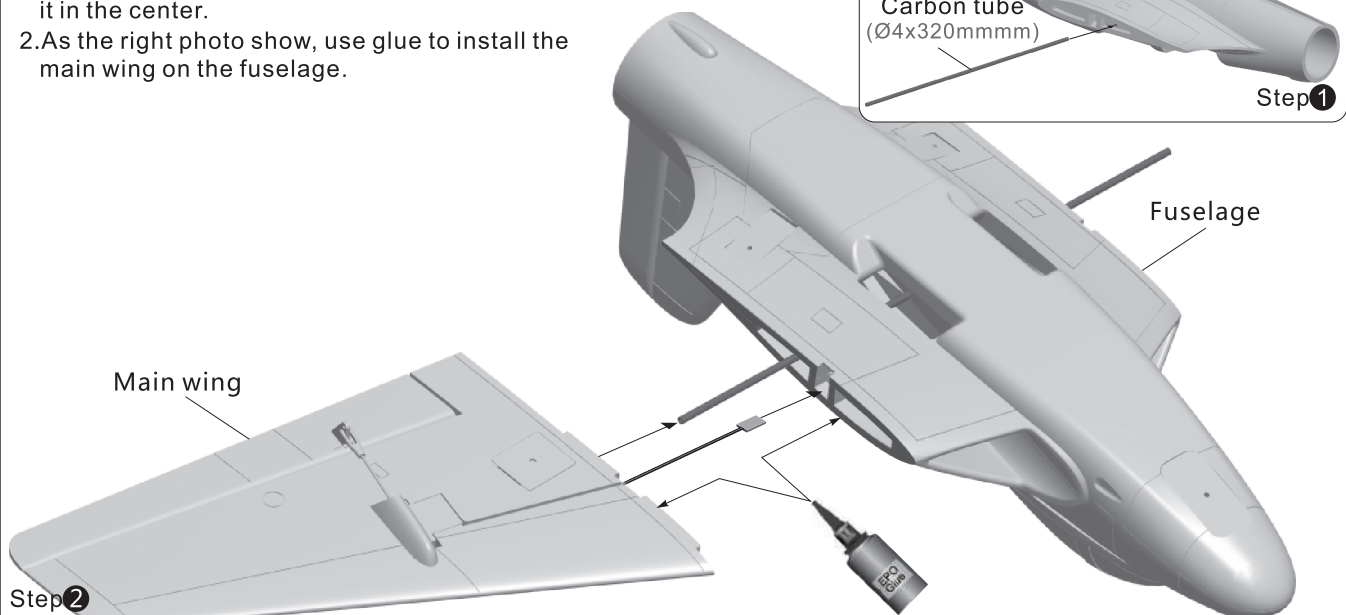
PNP Installation Instructions

EN

Install Main Wing

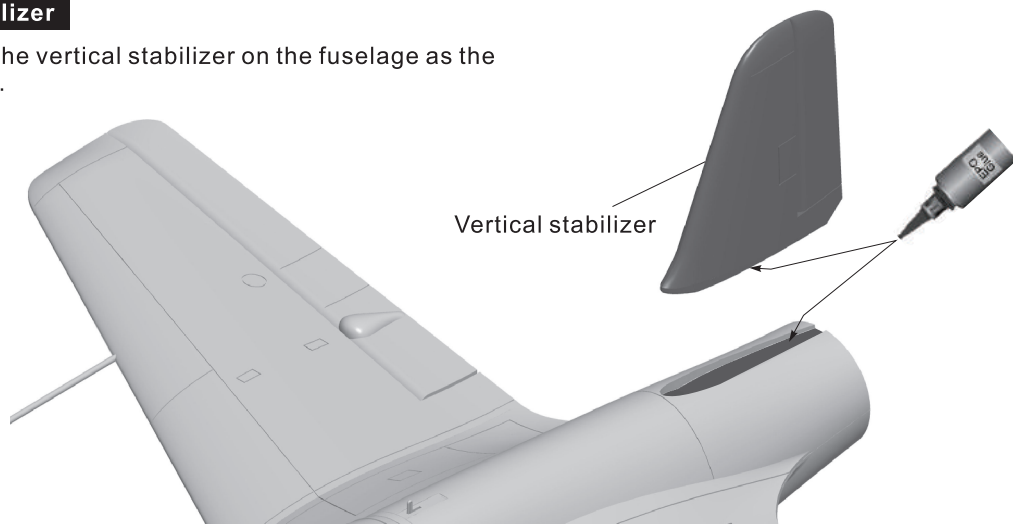
As shown in this photo:

1. Insert the carbon tube into the fuselage and keep it in the center.
2. As the right photo show, use glue to install the main wing on the fuselage.

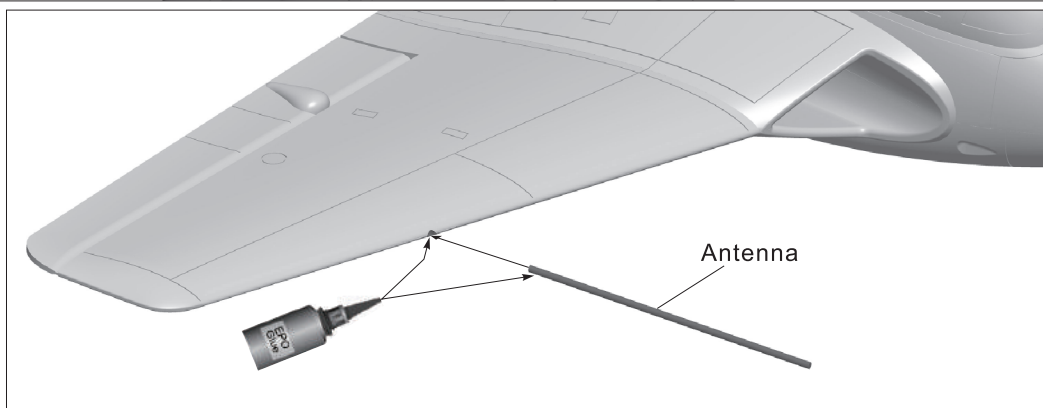


Install Vertical Stabilizer

1. Use glue to attach the vertical stabilizer on the fuselage as the below photo shown.



Install Antenna



Pushrod Instructions

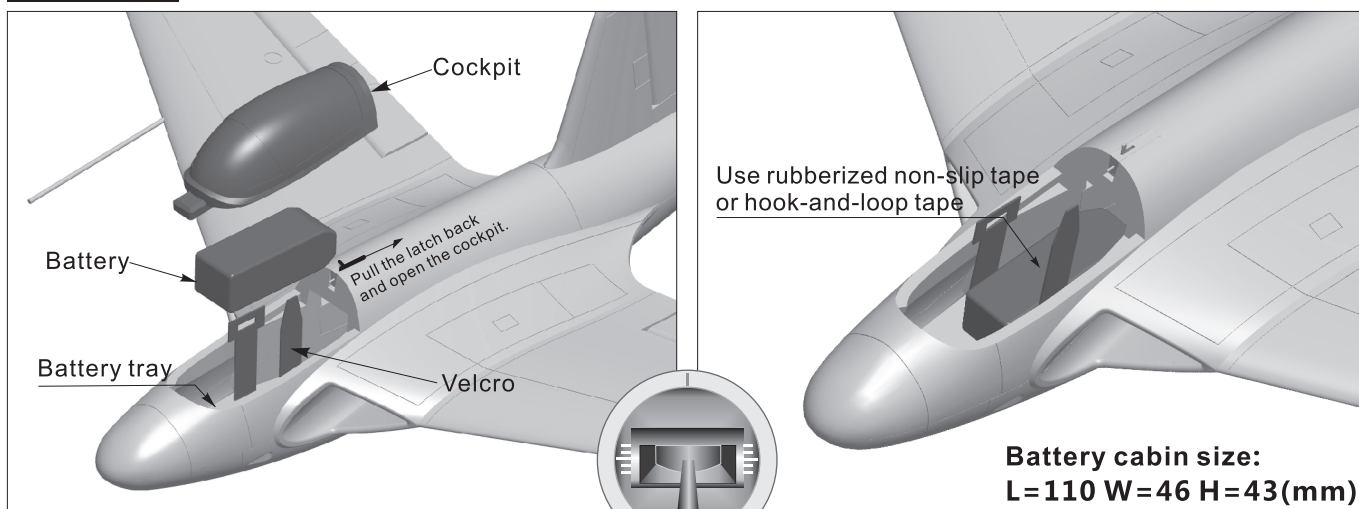
Aileron pushrod size



Aileron pushrod mounting hole



Battery Size



**Battery cabin size:
L=110 W=46 H=43(mm)**

Before connecting the battery and receiver, please switch on the transmitter power and make sure the throttle stick is in the lowest position. Bind your receiver to your transmitter according to your transmitter's instruction manual.

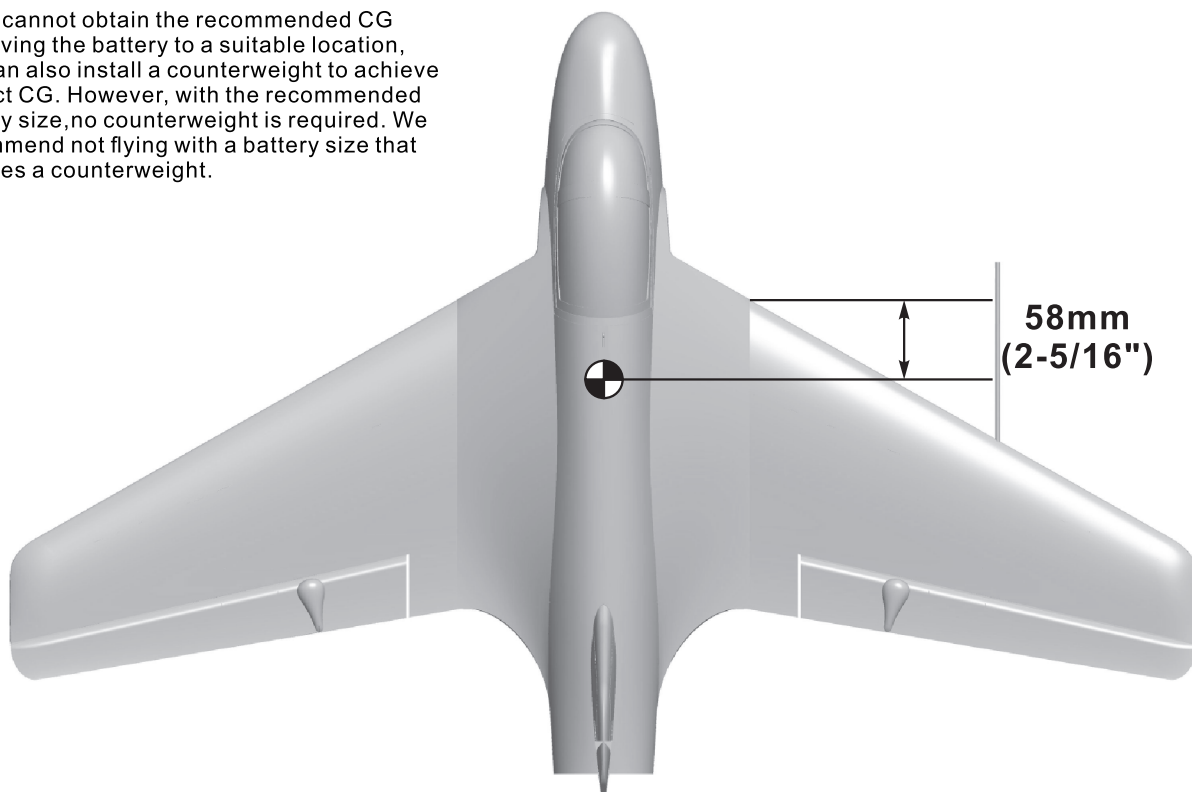
We recommend the following LiPo battery:
3S 11.1V 1000mAh ~ 3S 11.1V 1600mAh
Discharge rate of C ≥ 30C

Center of Gravity

Correct Center of Gravity ("CG") is critical for the aircraft to fly safely and in control. Please refer to the following CG diagram to adjust your plane's Center of Gravity.

- You can move the battery forward or backward to adjust the Center of Gravity.

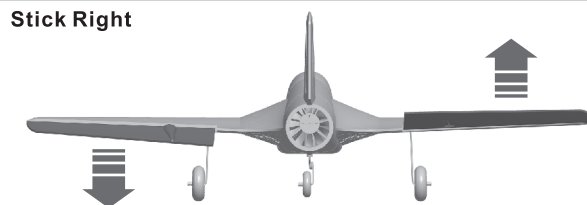
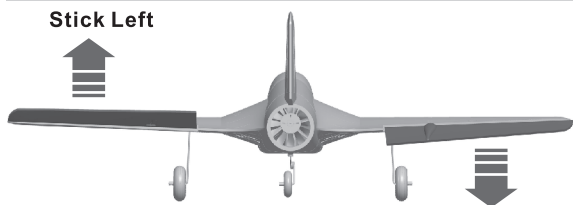
- If you cannot obtain the recommended CG by moving the battery to a suitable location, you can also install a counterweight to achieve correct CG. However, with the recommended battery size, no counterweight is required. We recommend not flying with a battery size that requires a counterweight.



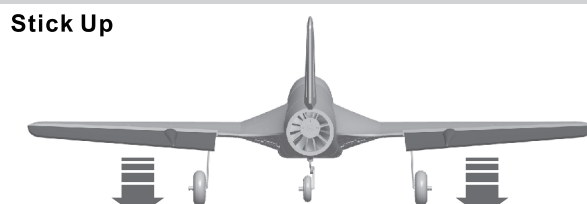
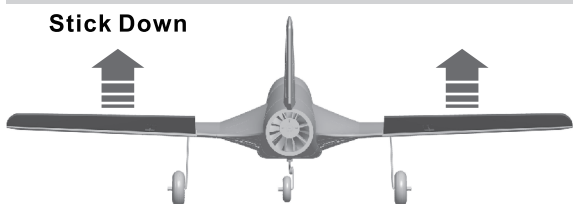
Control Direction Test

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

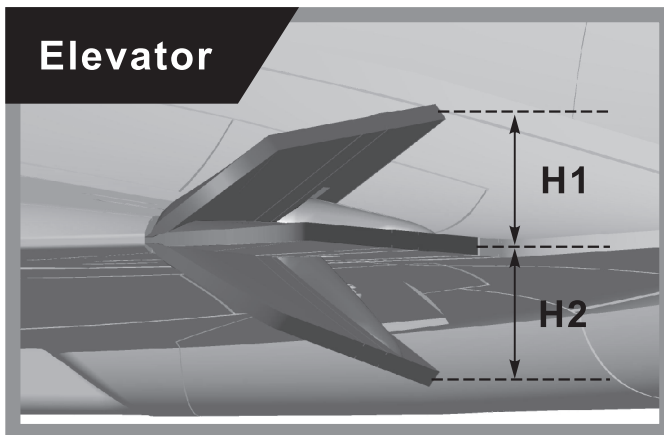
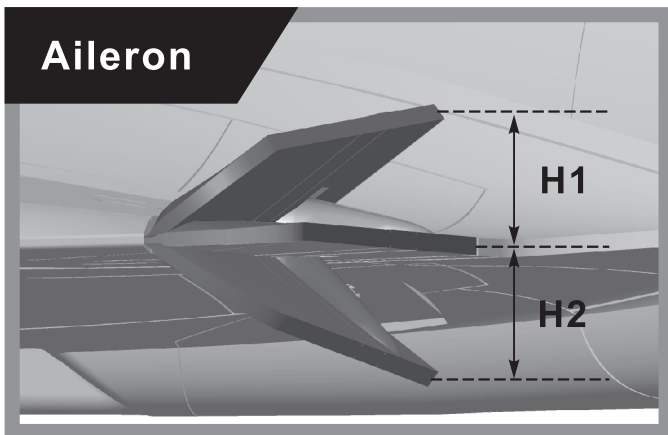


Elevator



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.



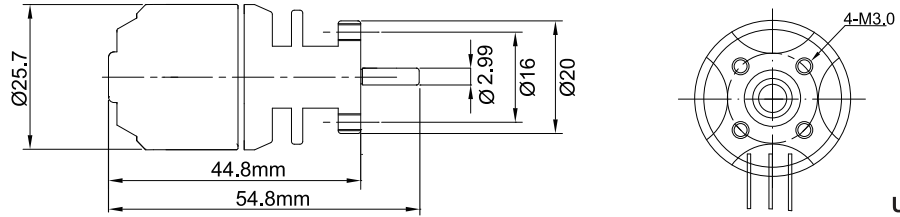
	Aileron(measured closest to the fuselage)	Elevator(measured closest to the fuselage)
Low Rate	H1/H2 11mm/11mm D/R Rate : 60%	H1/H2 15mm/15mm D/R Rate : 80%
High Rate	H1/H2 15mm/15mm D/R Rate : 80%	H1/H2 20mm/20mm D/R Rate : 100%

⚠ Flight attention: When full throttl to fly, the nose will be down. please set up 1.5mm elevator up to avoid the nose down phenomenon and maintian its in the same level.

Accessories Description

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Motor Specifications



Item No.: MO026272
2627-4500kv

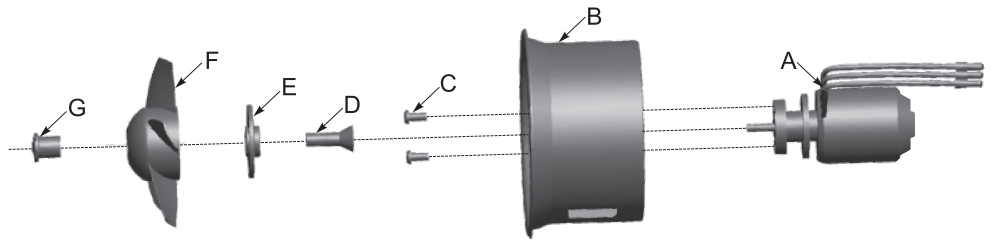
Unit:mm

Power system No.	EDF Fans	Use voltage (V)	Current(A)	Max power (W)	Thrust(g)	Efficiency (g/w)	Motor Specifications (KV)	Rotating speed (rpm)	Weight (g)
E72011	64mm 5-blade EDF	11.1	28	310	750	2.4	2627-4500	49000	50

Motor Overview

Standard version

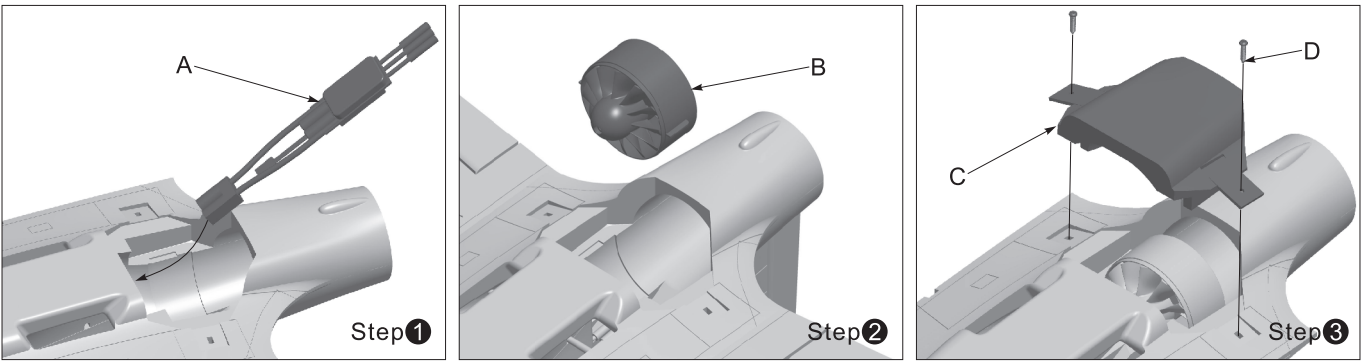
- A- Motor 2627-4500KV
- B- 64mm Outrunner ducted frame
- C- Screw (PM2.5x6 2pcs)
- D- Motor collet
- E- Motor collet backplate
- F- 64mm 5-blade ducted fan
- G- Nut



Refer to the following photo to install ESC and power system

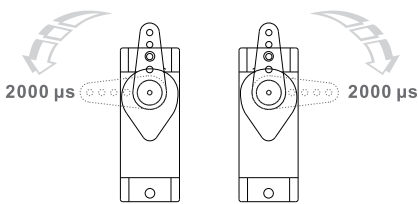
- A- ESC
- B- 64mm EDF power system
- C- EDF cover
- D- Screw (PA2.3x16 2pcs)

⚠ Note: When the ESC and battery are connected, avoid touching the ESC by hand to avoid accidental injury due to heat. When testing the EDF, please use safety test stand for testing. Never hold an EDF unit in your hand while it is powered on.



Accessories Introduction

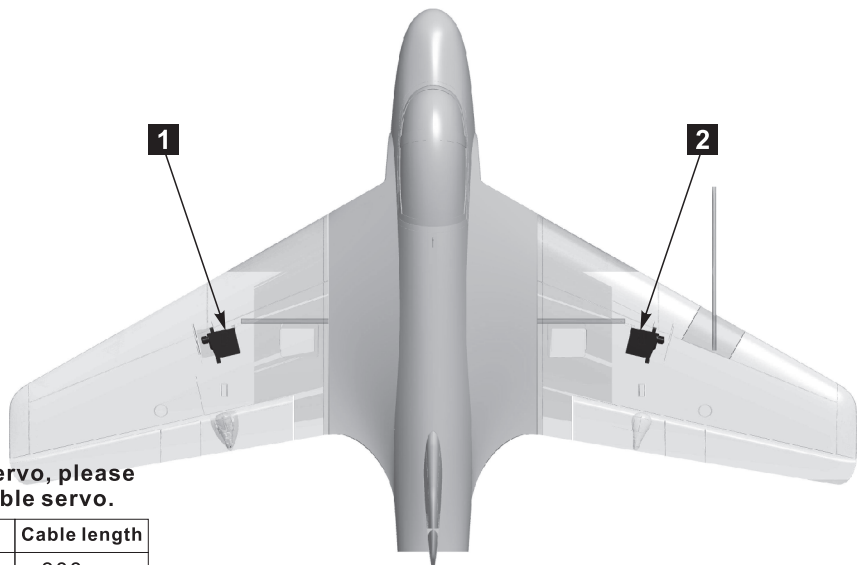
Servos Introductions



The servo positive or reverse rotation is defined as follows:
When servo input signal change from 1000µs to 2000µs,
The servo arm is rotated clockwise, its positive servo.
The servo arm is rotated counterclockwise, its reverse servo.

If you need to purchase another brand's servo, please refer to the following list to choose a suitable servo.

Position	Servo regulation	No.	Pos./Rev.	Cable length
Main wing(L)	9g plastic servo	1	Positive	300mm
Main wing(R)	9g plastic servo	2	Positive	300mm



Landing Gear Assemble

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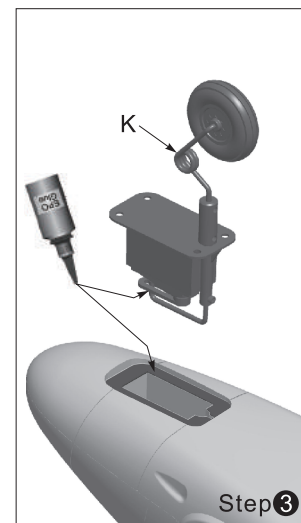
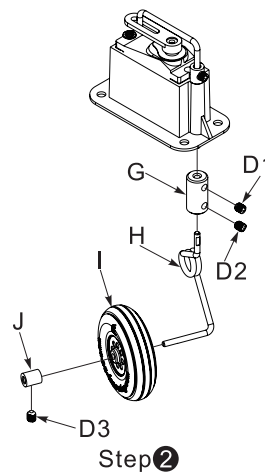
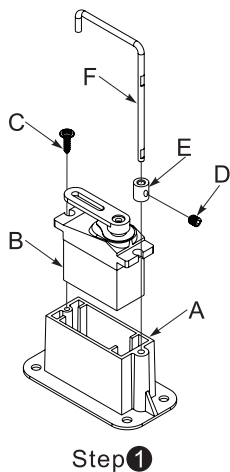
Landing gear is the optional part, please consult with the local distributor to purchase, and refer to the following instructions to install.

Install nose landing gear

Please refer to the following photo for assembly and installation of the landing gear.

Spare part name and parameters

- A-Servo fixed mount
- B-9g Servo
- C-Screw (PWA2.3x8 1pcs)
- D-Set screw (M3x3 4pcs)
- E-Nose wheel strut fixed piece
- F-Nose wheel strut (top)
- G-Wheel connecting part
- H-Nose wheel strut (bottom)
- I -Nose wheel (Ø35x10mm)
- J -Wheel chock
- K-Nose landing gear

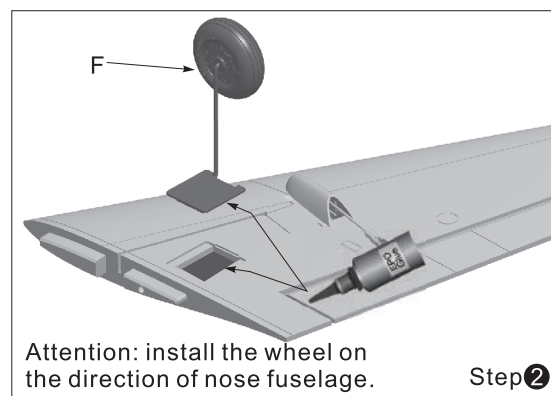
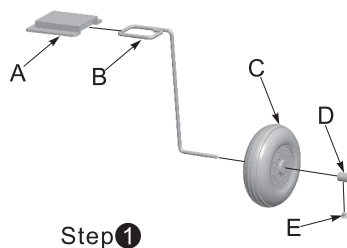


Install rear landing gear

Please refer to the following photo for assembly and installation of the landing gear.

Spare part name and parameters

- A-Main landing gear fixed mount
- B-Rear gear main strut
- C-Nose wheel (Ø50x15mm)
- D-Wheel chock
- E-Set screw (M3x3)
- F-Main landing gear door

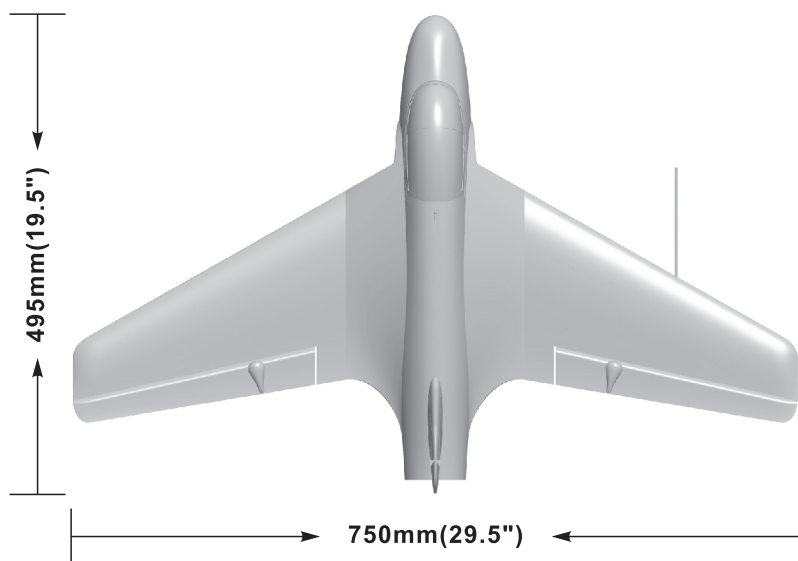


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重 要 提 示

- 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.不能在公共场合、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.不能在雷雨、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。必须等模型降落平稳以后,再进行回收!



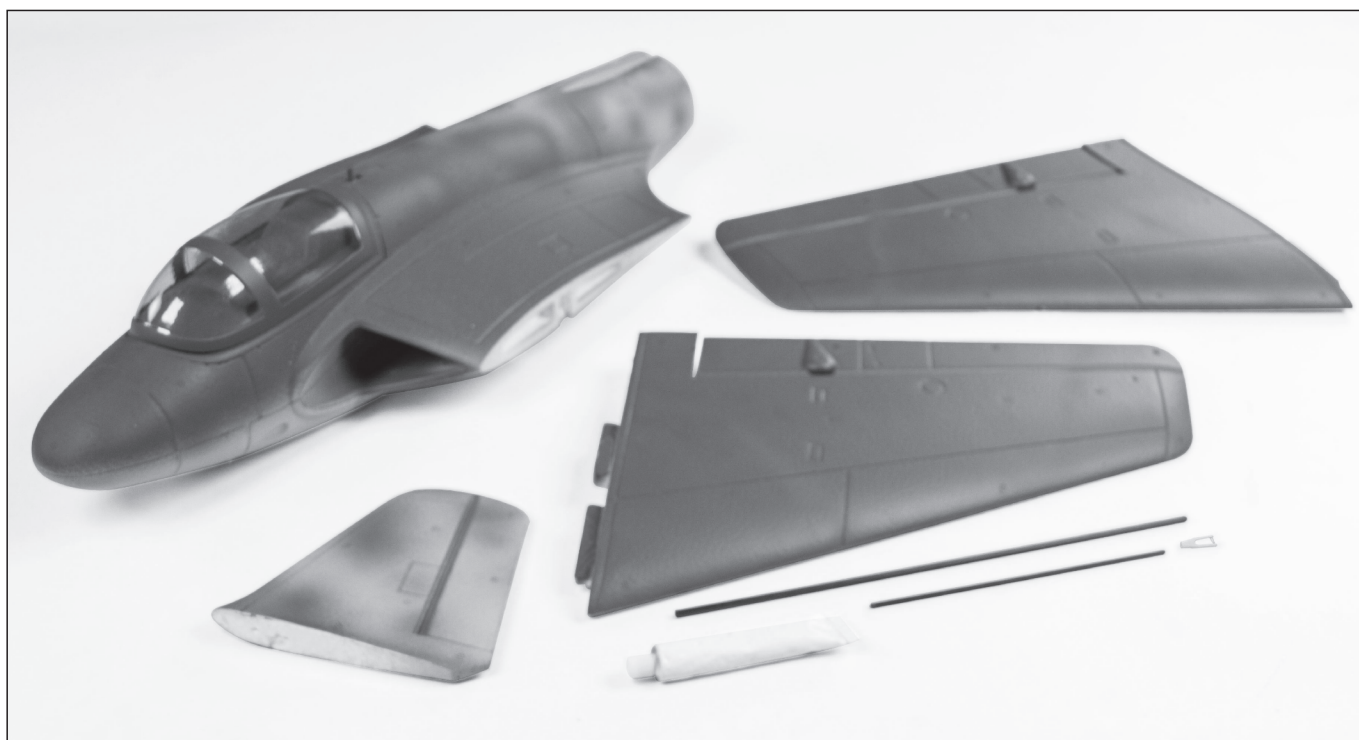
标准版

翼载荷：50g/dm²
 翼面积：8 dm²
 电机：2627-4500KV外转无刷电机
 涵道风扇：64mm 5叶涵道
 电调：30A无刷电调
 舵机：9g塑料舵机（2pcs）
 飞行速度：160公里/小时
 起飞重量：260g(不含电池)
 推力：750g

起落架：固定钢丝起落架
 (可选配件，需另行购买)

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！
 出厂产品不含起落架，需另行购买请联系当地经销商咨询。

产品包装清单



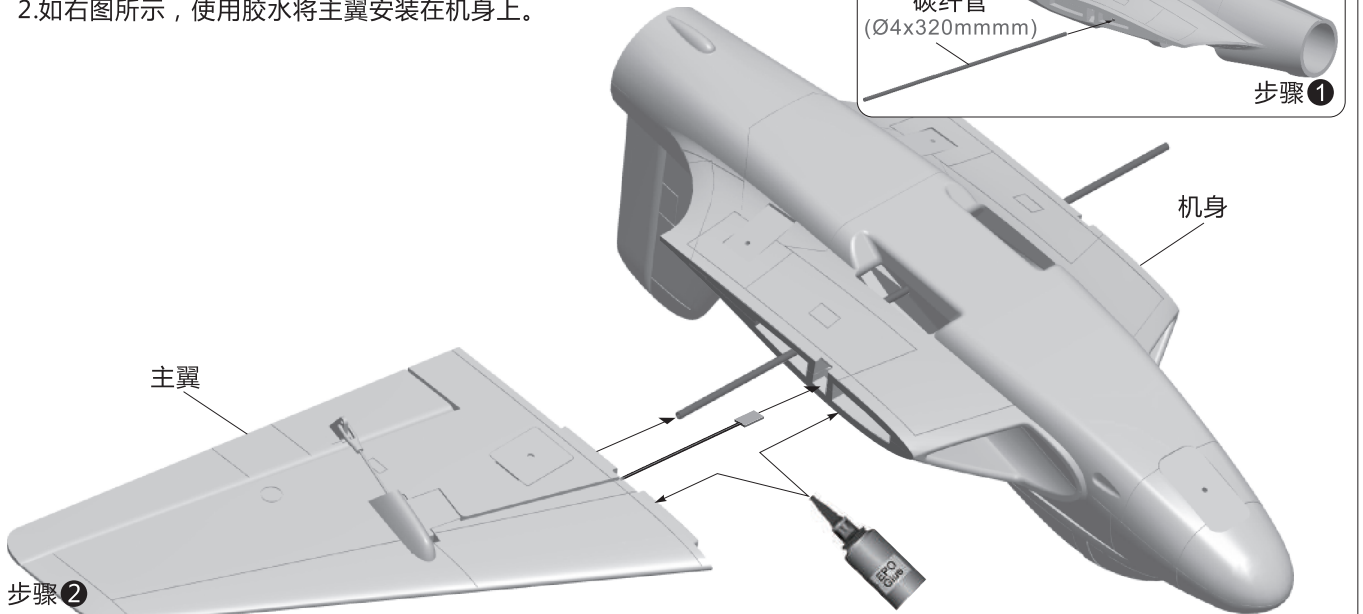
打开产品包装，核对包装清单。（不同配置的版本，包含内容不同！）

序号	配件名称	PNP	ARF Plus	Airframe	序号	配件名称	PNP	ARF Plus	Airframe
1	机身套件	预装所有电子设备	✓	不含电子设备	5	天线	✓	✓	✓
2	主翼套件	预装所有电子设备	预装舵机	不含电子设备	6	碳纤维管	✓	✓	✓
3	垂尾套件	✓	✓	✓	7	胶水	✓	✓	✓
4	舵面控制钢丝	✓	✓	✓	8	说明书	✓	✓	✓

主翼组装

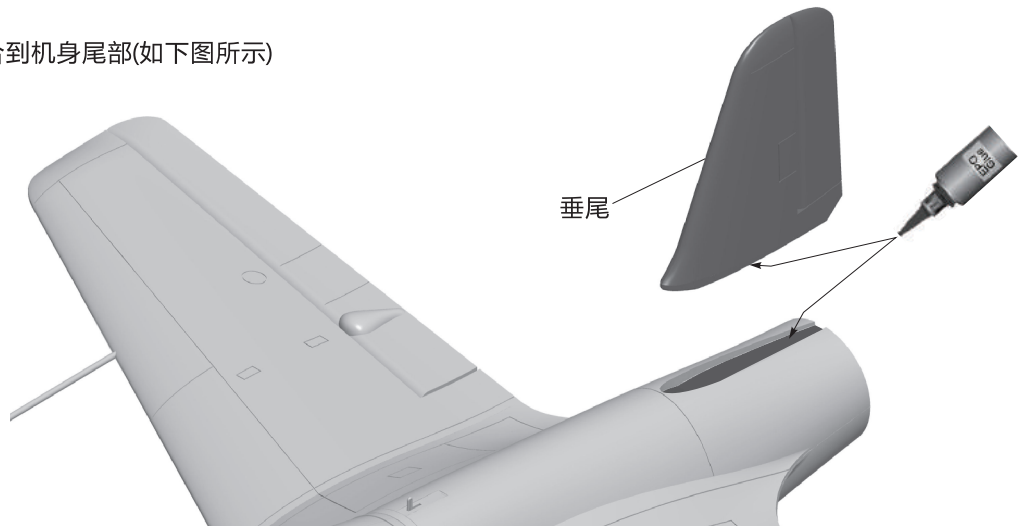
如图所示:

- 1.将碳纤维管穿入机身，保持居中的位置；
- 2.如右图所示，使用胶水将主翼安装在机身上。

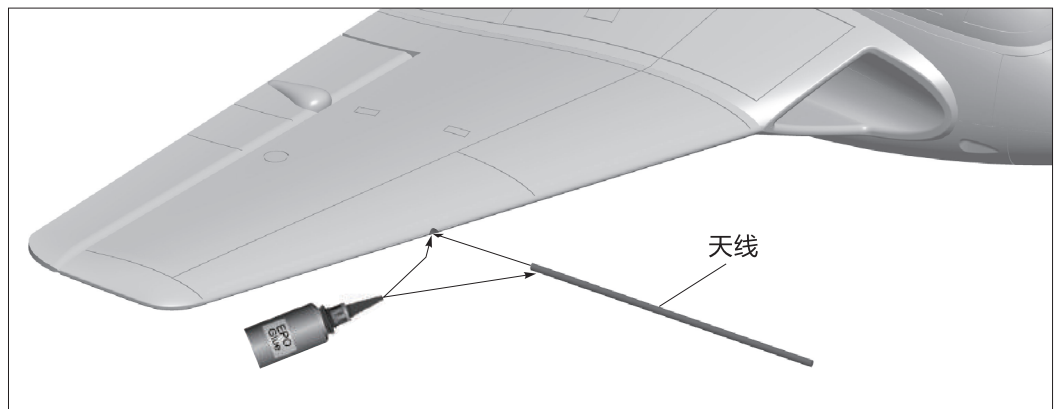


垂尾组装

- 1.使用胶水将垂尾粘合到机身尾部(如下图所示)



天线安装



舵面控制钢丝尺寸

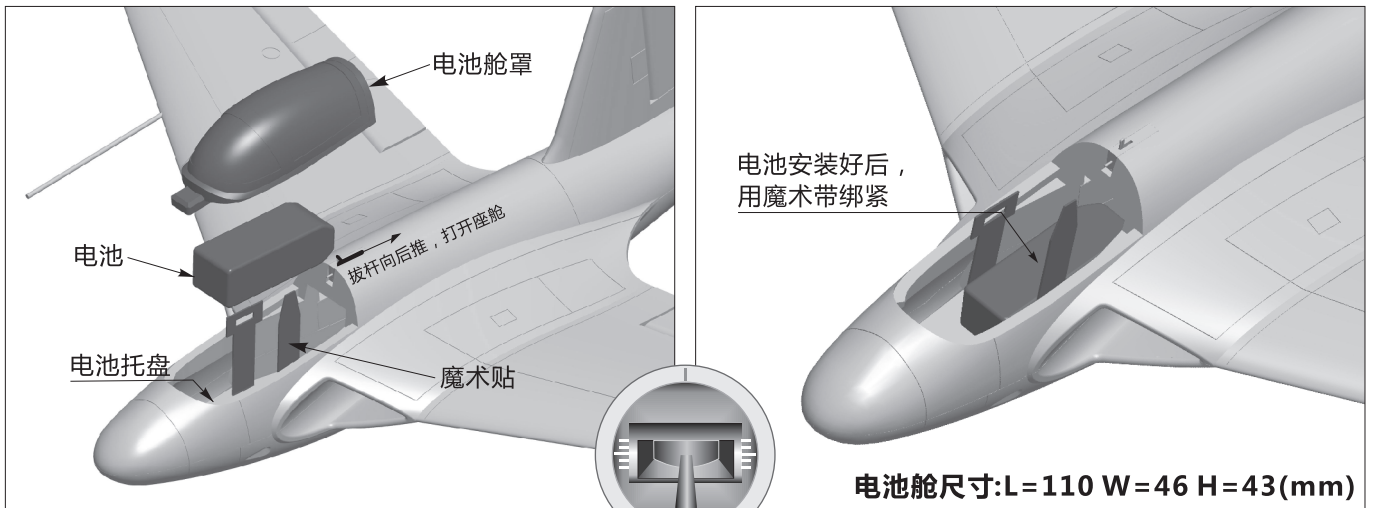
副翼控制钢丝尺寸



副翼舵机钢丝安装孔位



电池安装



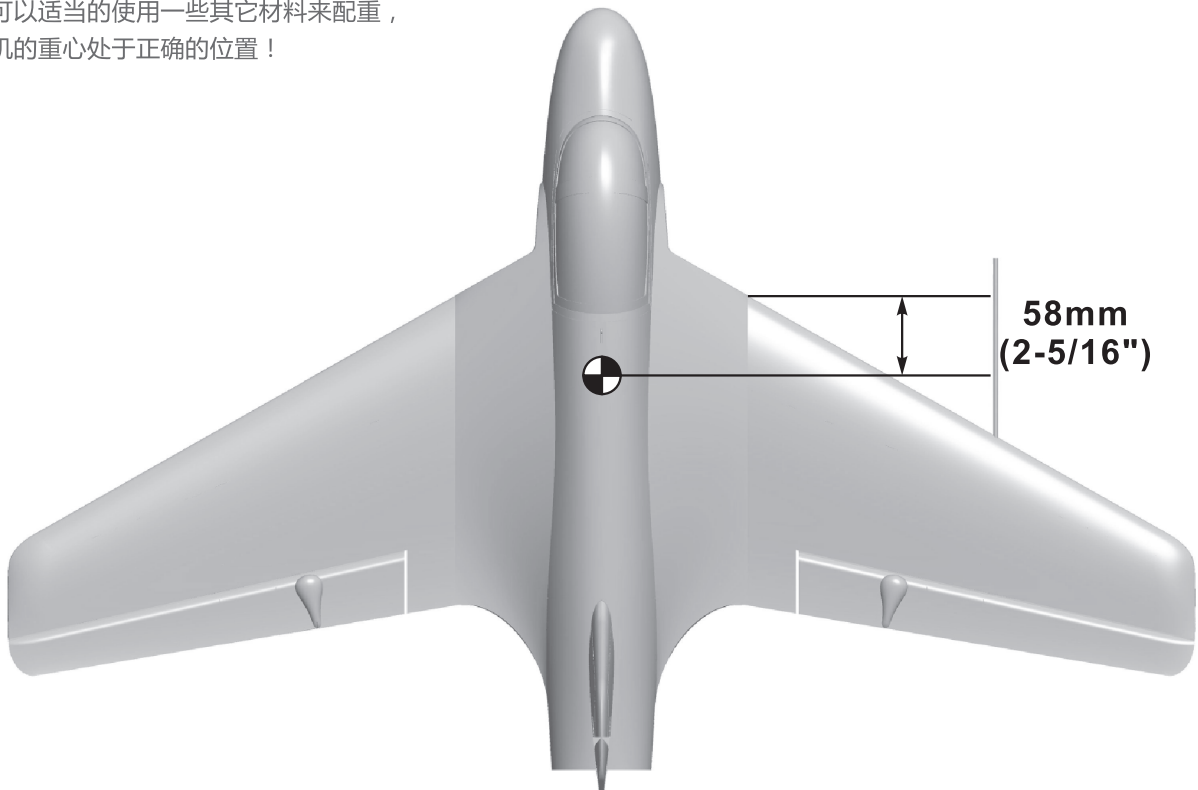
将电池与接收机连接前，首先请打开发射机电源，确认油门杆处于低位。

我们建议使用的电池容量和放电倍率如下：
3S 11.1V 1000mAh ~ 3S 11.1V 1600mAh
放电倍率 $\geq 30C$

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！

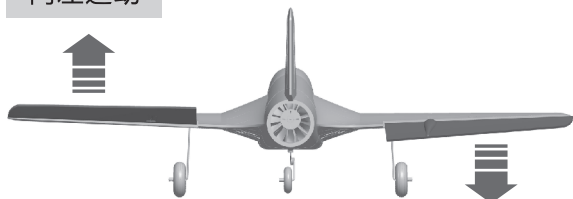


舵面测试

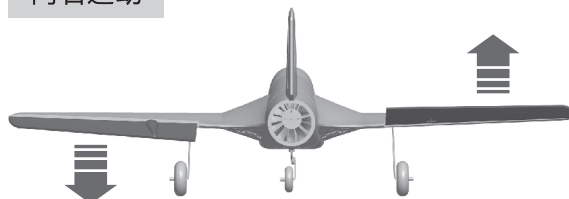
当您按前面的步骤组装好飞机后，在飞行前，我们需要用一块充满电的电池，连接到电调。用遥控器测试每个舵面的工作情况，检查是否正常！

副翼

副翼摇杆
向左运动

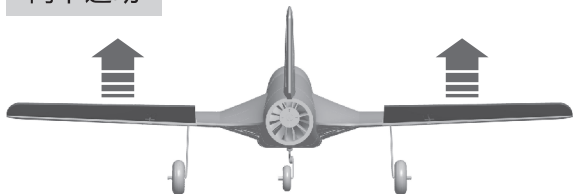


副翼摇杆
向右运动

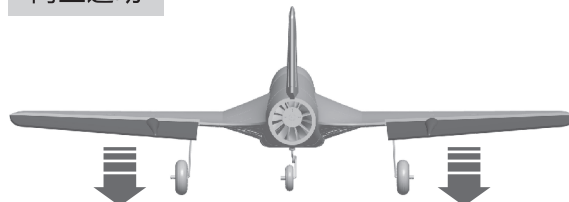


升降舵

升降摇杆
向下运动



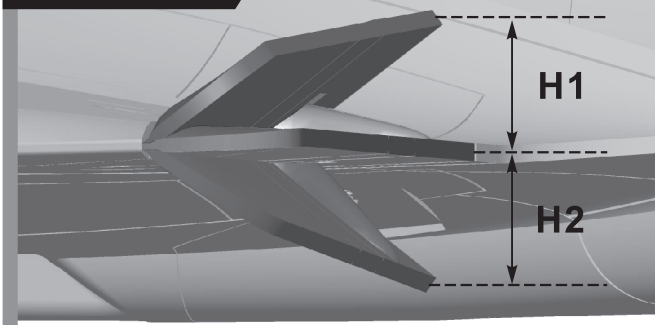
升降摇杆
向上运动



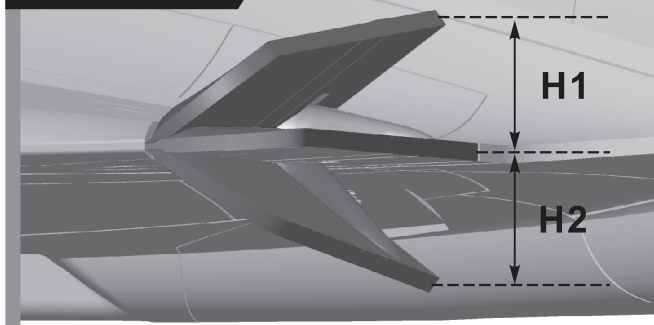
大、小舵参数

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。小舵量飞机的操纵会笨拙些，大舵量飞机的操纵会灵敏些，我们建议初次飞行使用大舵量起飞，然后视操纵习惯选用小舵量或者大舵量飞行。

副翼



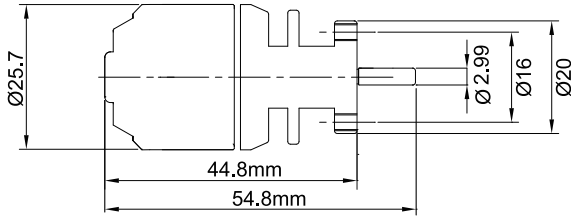
升降舵



	副翼(内侧)	升降舵(内侧)
小舵量	H1/H2 11mm/11mm 舵量比率：60%	H1/H2 15mm/15mm 舵量比率：80%
大舵量	H1/H2 15mm/15mm 舵量比率：80%	H1/H2 20mm/20mm 舵量比率：100%

⚠ 飞行注意事项： 满油飞行时，飞机会明显低头现象，请提前设定1.5mm升舵，即可消除低头现象，保持水平状态。

电机参数



Item No.: MO026272
2627-4500kv

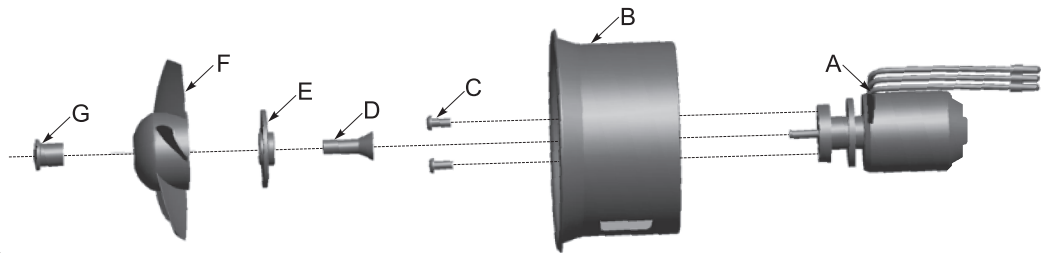
单位: 毫米 (mm)

动力组编号	涵道类型	电压(V)	电流(A)	最大功率(W)	推力(g)	效率比(g/w)	电机规格(KV)	最大转速(W)	重量(g)
E72011	64mm塑料涵道 (5叶)	11.1	28	310	750	2.4	2627-4500	49000	50

电机安装

标准版

- A- 电机2627-4500KV
- B- 64mm涵道框
- C- 螺丝 (PM2.5x6 2pcs)
- D- 夹头
- E- 夹头固定盘
- F- 64mm 5叶风扇叶
- G- 螺帽



参考下图安装电调及动力组

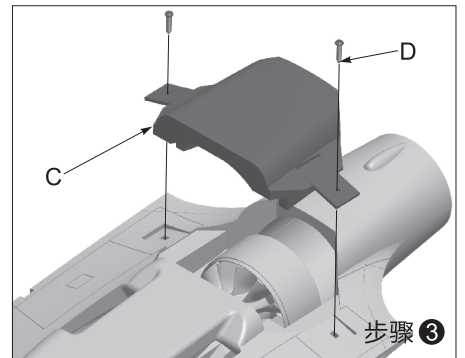
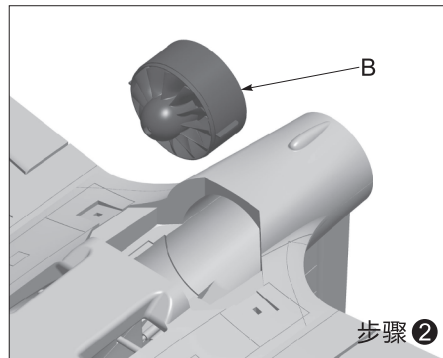
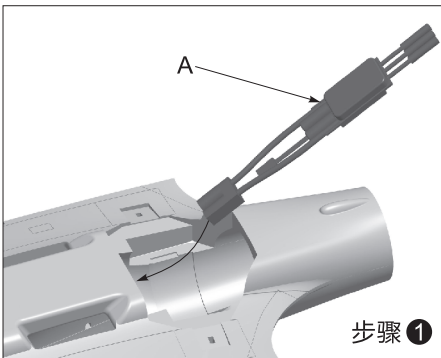
A- 电调

B- 64mm涵道动力组

C- 涵道盖

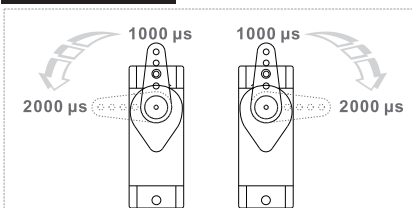
D- 螺丝 (PA2.3x16 2pcs)

注意: 当电调与电池连接后, 禁止用手触摸电调和涵道, 防止意外伤害! 测试涵道时, 请使用安全的测试架进行测试, 禁止用手抓住涵道的行为。



重要配件说明

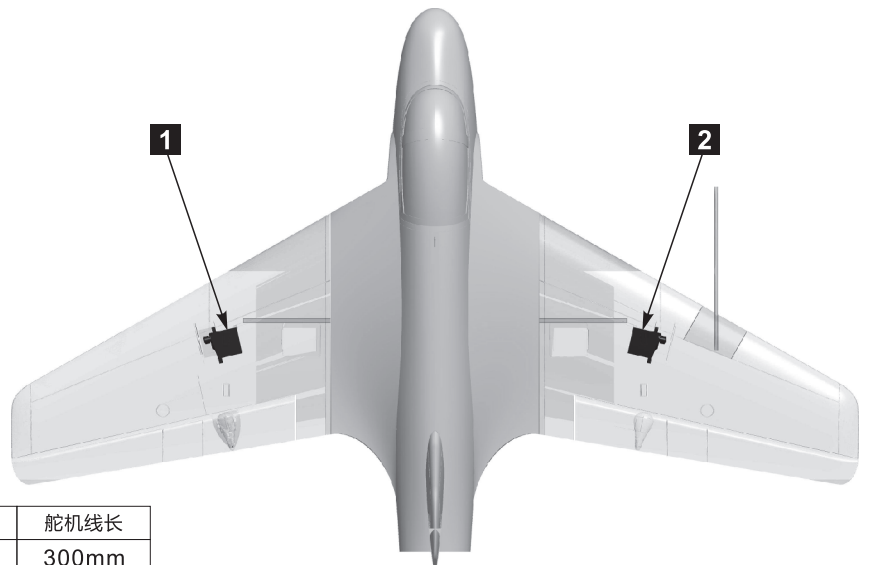
舵机使用说明



我们的舵机正、反向标准是：
当舵机输入信号从1000µs到2000µs时，
如果舵机摇臂，
顺时针旋转---正向舵机
逆时针旋转---反向舵机

如果您需要选购其它品牌的舵机进行安装，
请参考下面的表格选择正确的舵机

舵机位置	舵机规格	序号	正、反向	舵机线长
主翼(左)	9g 塑料	1	正向	300mm
主翼(右)	9g 塑料	2	正向	300mm



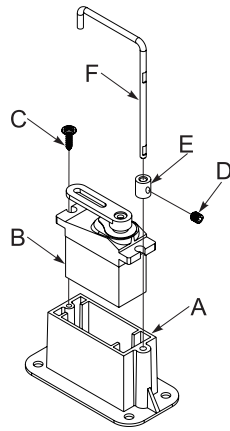
起落架为自选配件，请向经销商咨询购买，并参考以下说明安装

前起落架组装

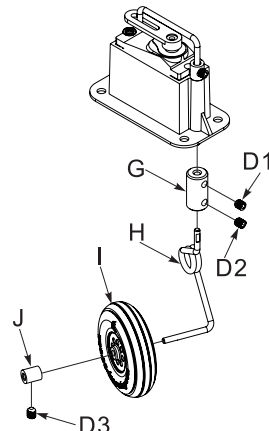
请参考以下图示、组装、更换、维修前起落架

配件名称及规格参数

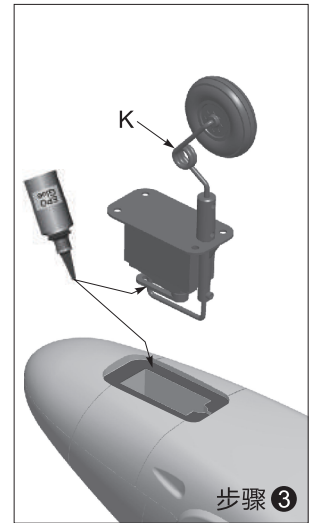
- A- 舵机固定座
- B- 舵机
- C- 螺丝 (PWA2.3x8 1pcs)
- D- 机米螺丝 (M3x3 4pcs)
- E- 前轮上钢丝固定块
- F- 前轮上钢丝
- G- 机轮连接块
- H- 前轮下钢丝
- I- 机轮 (Ø35x10mm)
- J- 轮档
- K- 前起落架组件



步骤 ①



步骤 ②



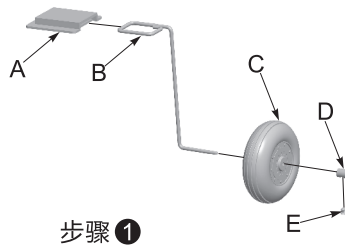
步骤 ③

后起落架组装

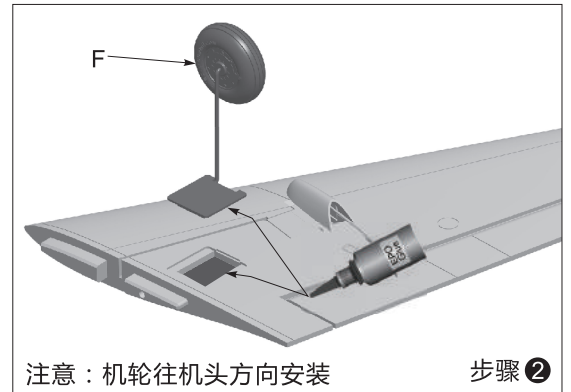
请参考以下图示、组装、更换、维修后起落架

配件名称及规格参数

- A- 后起落架固定座
- B- 后起落架主钢丝
- C- 机轮 (Ø50x15mm)
- D- 轮档
- E- 机米螺丝 (M3x3)
- F- 后起落架组件



步骤 ①



注意：机轮往机头方向安装

步骤 ②



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