Item No.:FJ20311

REBEL 70mm EDF JET

User Manual

Wingspan : 900mm (35.43 in)



EN 1 ~ 9
中 10 ~ 18

Version No.:FJ20311-V01

MADE IN CHINA

Introduction

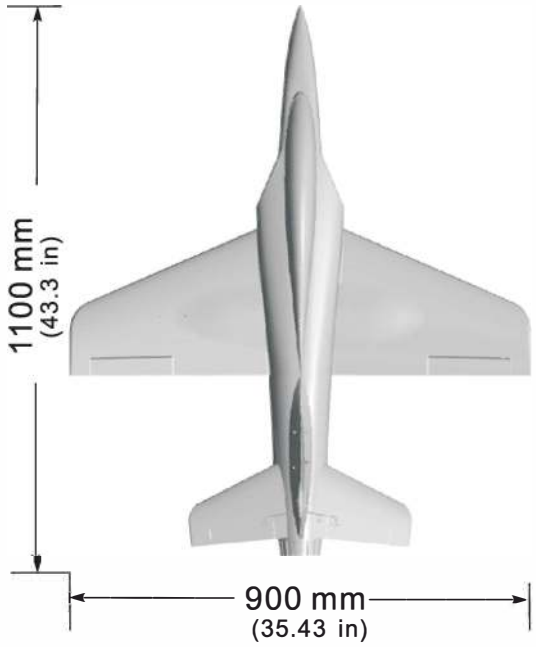
Thank you for purchasing the new Rebel V2! This EDF, with its superb stability, has proven itself to be an excellent trainer for those wishing to step up into jets. In the new version, V2, the power plant has been upgraded,the battery compartment revised as well as retractable landing gear and functioning flaps.

⚠ **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! Operators should have some basic experience. Beginners should operate only under the guidance of a professional instructor.
2. Before beginning assembly, please read through the instructions and carefully follow them throughout the build.
3. Freewing and it's vendors will not be held responsible for any losses due to improper assembly and operation.
4. Model airplane operators must be at least 14 years of age.
5. This airplane is made of EPO foam material, covered with surface spray paint. Don't use chemicals to clean as it may cause damage.
6. You should avoid flying in areas such as public places, areas with high voltage power lines, nearby highways, airports or in other areas where laws and regulations clearly prohibit flight.
7. Do not fly in bad weather conditions, including thunderstorms, snow, etc...
8. Lipo batteries should be properly stored in a fire proof container and be kept at a minimum of 2M distance away from flammable or explosive materials.
9. Damaged or scrap batteries must be properly discharged before disposal or recycling to avoid spontaneous combustion and fire.
10. At the Flying Field, properly dispose of any waste you have created, don't leave or burn your waste.
11. Ensure that the throttle is in the lowest position and transmitter is turned on, before connecting a Lipo Battery to the ESC of the aircraft.
12. Do not try to catch the airplane while in flight or during landing. Wait for the airplane to come to a complete stop before handling.

Basic Product Information



- **Motor**
  2839-3000KV
- **ESC**
  50A
- **Servo**
  9g servos (7pcs)
- **Battery**
  4S 14.8V 2600mAh 35C
- **Fan**
  70mm EDF
- **Take-off Weight**
  1250g (44.1 oz.)
- **Thrust**
  1200g (42.32 oz.)

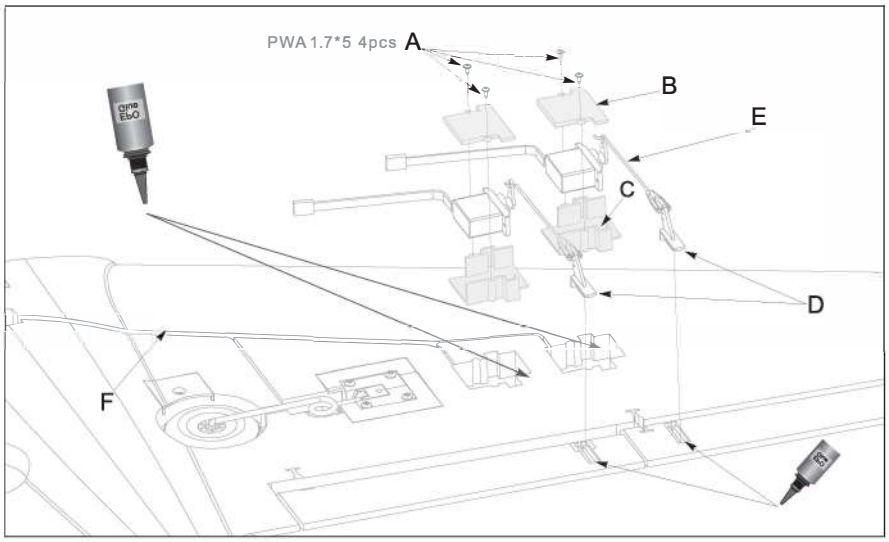
⚠ Note: The parameters stated here are derived from test results using our accessories. If you use other accessories, the test results will differ. We cannot provide technical support if you have a problem when using other accessories.

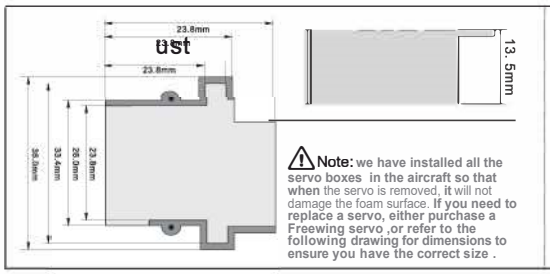
Main Wing Installation

Main Wing Servo Installation

A- Screws(PWA1.7x5mm)
B- 9g servo cover
C- 9g servo box
D- Control horn
E- Pushrod
F- Trough

1. Use a servo tester or your radio to center the servo arm.
2. Use the supplied glue to attach the "9g servo box(C)" and the "Control horn (D)" to the Main Wing.
3. Feed the servo wires into the Trough.
4. Fit the 9g servo covers (B)over the servos and use 2 screws (A) to attach them.
5. Feed the open end of the push rod (E) into the servo arm and adjust the length so that the control surface is neutral when the servo is centered.
6. When the push rod is at the proper length, snap the clevis into the control horn.





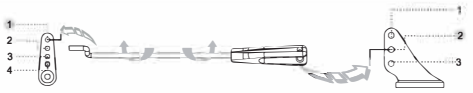
Note: we have installed all the servo boxes in the aircraft so that when the servo is removed, it will not damage the foam surface. If you need to replace a servo, either purchase a Freewing servo ,or refer to the following drawing for dimensions to ensure you have the correct size .

Aileron pushrod size



Pushrod diameter : Ø 1.2mm

Aileron pushrod mounting hole



Flap pushrod size



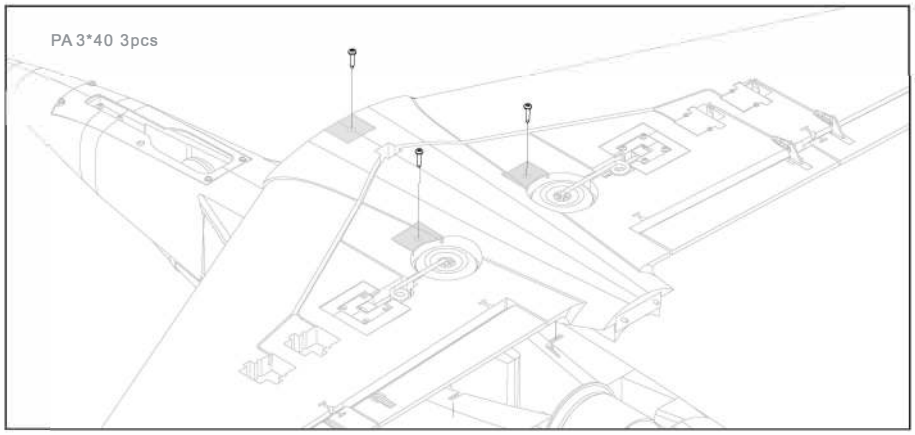
Pushrod diameter : Ø 1.2mm

Flap pushrod mounting hole



A. Screws (3xPA3*40)

1. Place the main wing on the fuselage and secure it with three screws.

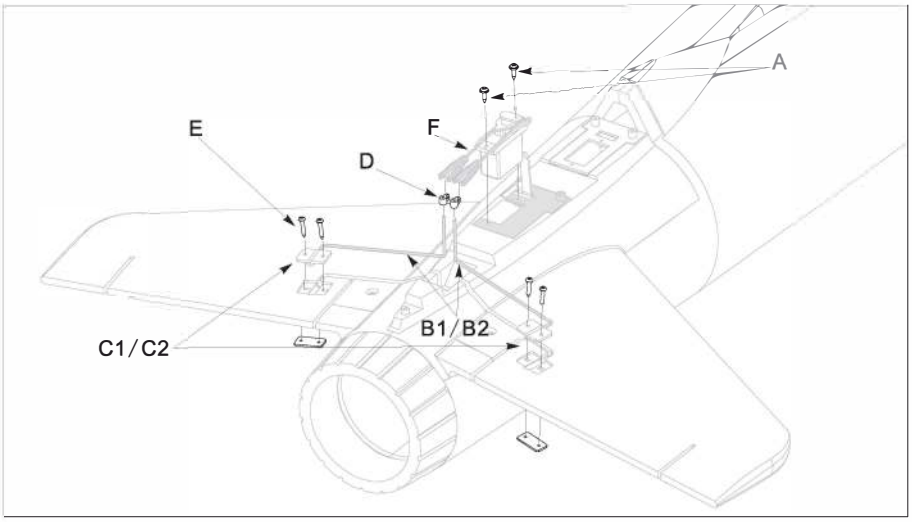


Elevator Installation

Elevator Servo Installation

A- Screws (PWA2x8mm)
B- Elevator drive pushrod
C- Elevator control horn
D- Control collars
E- Screws (PT1.7x10mm)
F- Pushrod

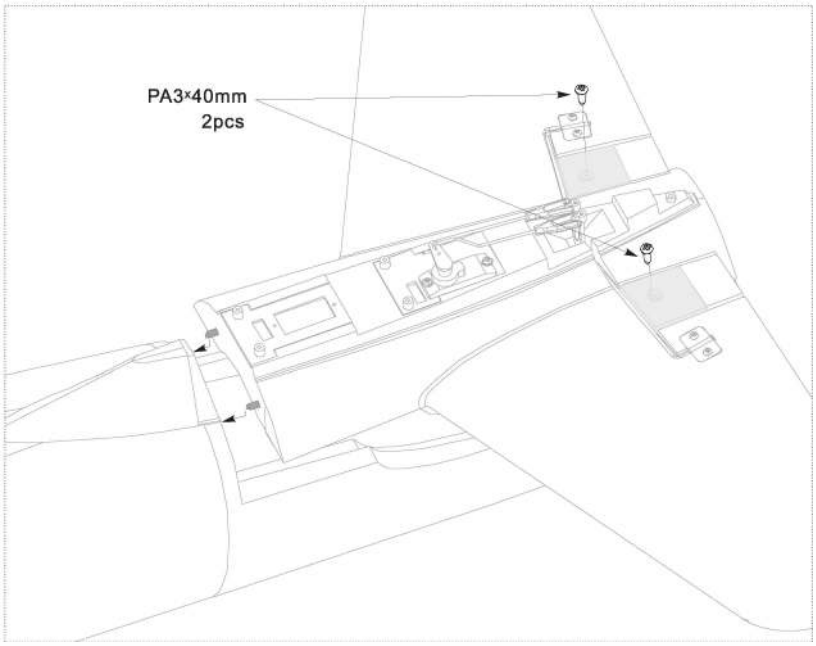
1. Using the diagram as a guide,use screws (A) to secure the elevator servo to the fuselage.
2. Insert the open ends of the elevator pushrods (B1&B2)into the servo control horn and attach the clevis' to the control collars (D).
3. Secure the control collars (D) to the control horns (B1&B2).
4. Use the 4 screws (E) to secure the elevator horns (C1&C2).



Elevator Installation

A- Screws (3xPA3x40mm)

1. Use the 2 screws (PA3x40mm) to secure the elevator to the tail of the fuselage.



Elevator pushrod size(1)

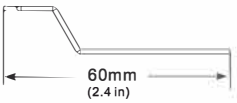


Pushrod diameter : Ø 1.2mm

Elevator pushrod mounting hole(1)



Elevator pushrod size(2)



Pushrod diameter : Ø 1.2mm

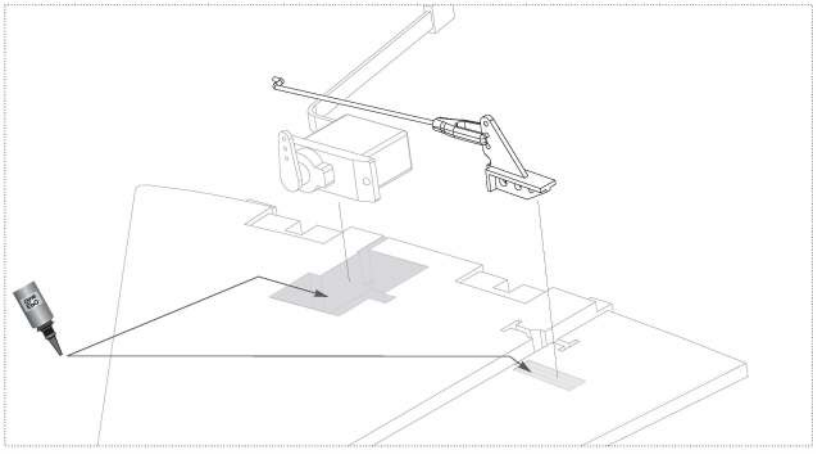
Elevator pushrod mounting hole(2)



Rudder Installation

Rudder Servo Installation

1.Use your servo tester or radio to center the servo.
2.Use the supplied glue to attach the 9g servo and control horn to the rudder.
3.Adjust the push rod length so that the rudder is in the neutral position when the pushrod is connected
4.When the pushrod is properly adjusted, attach the clevis to the rudder control arm.



Rudder pushrod size



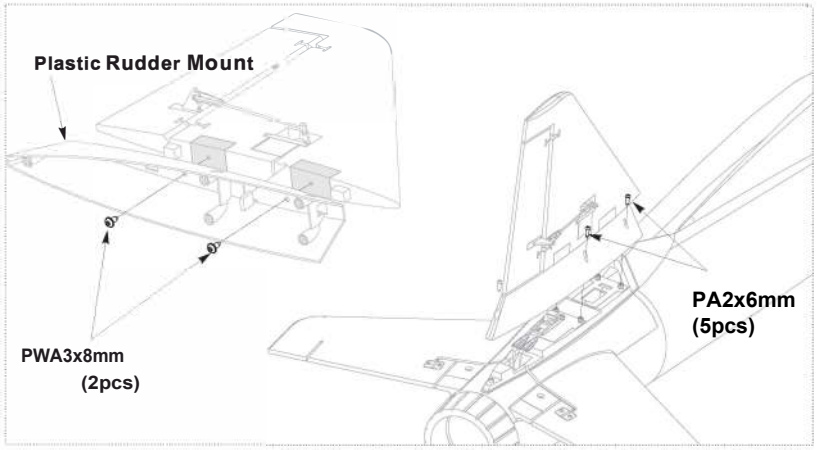
Pushrod diameter : Ø 1.2mm

Rudder pushrod mounting hole



A- Screws (PWA3x8mm)
B- Screws (PA2x6mm)
C- Plastic rudder mount

1. Using the diagram as a guide, use the 2 screws (PWA3x8mm) to attach the rudder to the plastic rudder mount.
2. Use the 5 screws (PA2x6mm) to secure the rudder to the fuselage.



Nose Landing Gear Installation

Nose landing gear sparepart list:

A- Electric retracts
B - E-Clip (02.0mm)
C - Nose landing gear steering pushrod D- Nose landing gear steering control ring E - Trunnion
F - Nose landing gear strut
G - Steering tiller
H - Screw (PT2.6.6mm)
I -Wheel
J -Wheel lock bolt
K- Grub screw (M3*3mm)
L - Nose landing gear set
M - Screws (PA2.G·1omm)
N - Nose gear mount

1.Put the "Steering tiller (G)" and "Landing gear rotating arm(E)" in the "Landing gear metal wire (F)".

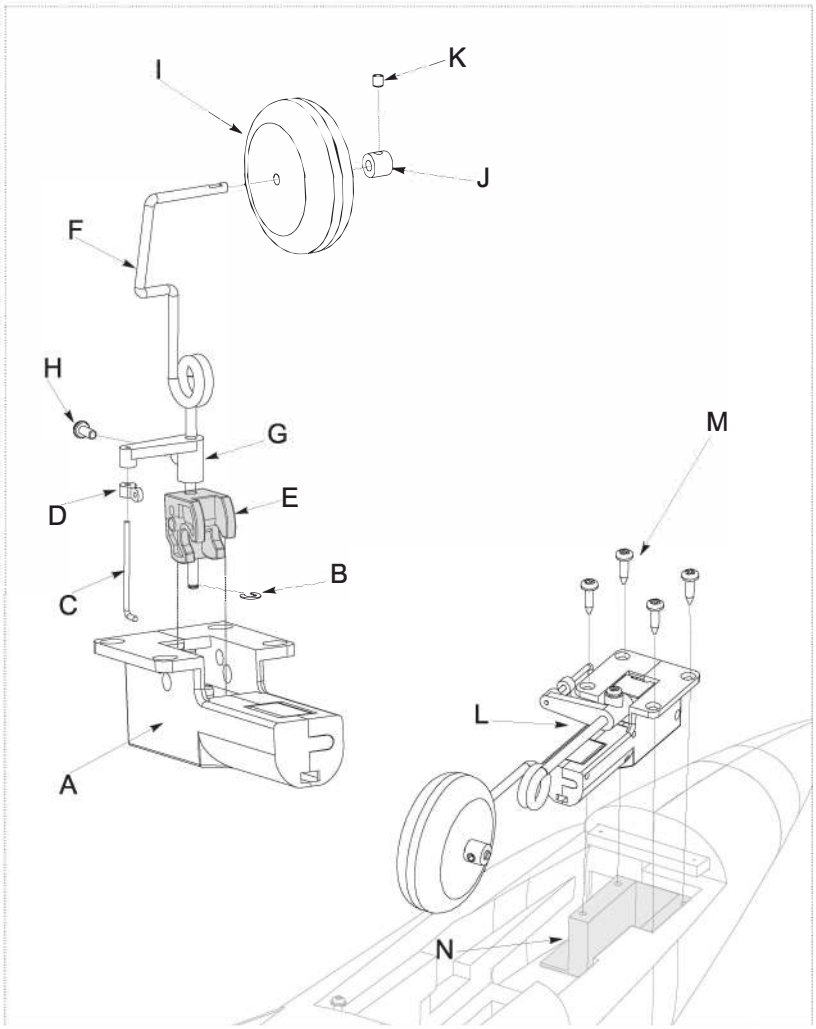
2.Snap the "E-clip(B)" on the notch of "Landing gear metal wire (F)" to secure it. Use"screw(H)" to anchor the"Steering tiller(G)".

3.Put the"nose landing gear steering control ring(D)" on the"Nose landing gear steering push rod(C)", and screw the threaded end of"Nose landing gear steering pushrod(C)" to the "Steering tiller(G)".

4.Put the"wheel(I)and"Wheel lock bolt(J)" to the bottom of"nose landing gear strut (F)", and use "Grub screw(K)" to secure the "Wheel lock bolt(J)".

5.Place the assembled"nose landing gear (L)" on the"nose gear mount (N)". and use "screws (M)" to secure it.

Note: when installing, please check the flat position of applicable parts, when screwing a part to seat properly, the flat position must face the screw hole. If they are not seated properly, they may fall off.



Main Landing Gear Installation

Main landing gear sparepart list:

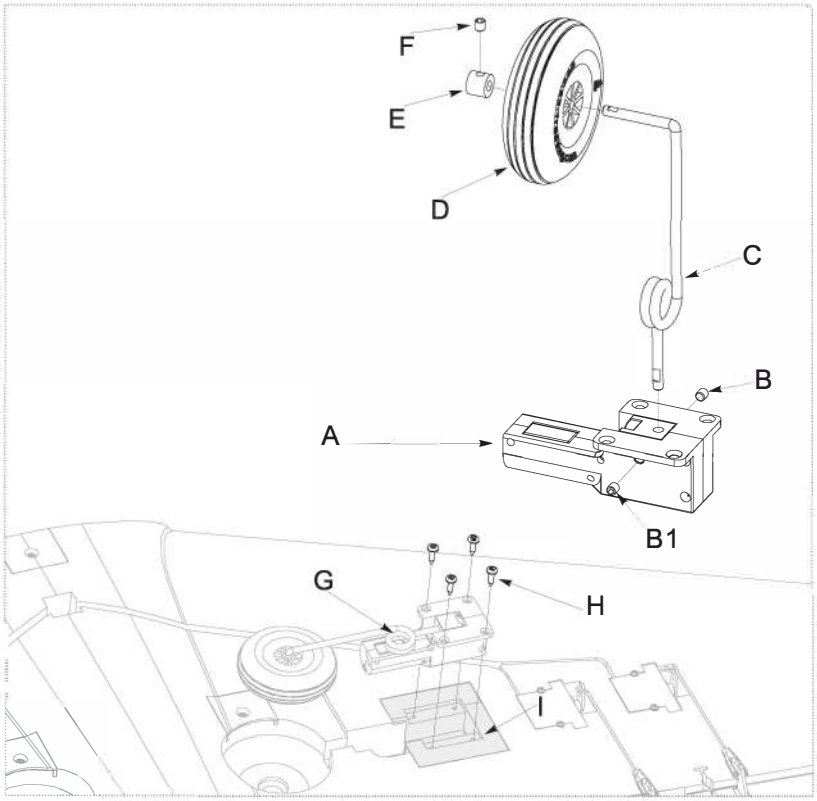
A- Electric retract
B - Grub screw (M3·3mm)
C - Main landing gear metal strut
D-Wheel
E -Wheel lock bolt
F - Grub screw (M3*3mm)
G - Rear landing gear set
H - Screws (PA2.6•1omm)
I - Main gear mount

1.Insert the"Main landing gear metal strut (C)"into the"Electric retract(A)", and use "Grub screw (B)," to secure it.

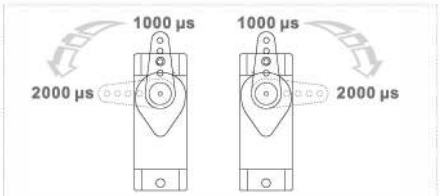
2.Put the"wheel(D) "Wheel lock bolt(E)" to the"Main landing gear metal strut(C)", and use"Grub screw(F)" to secure the" wheel lock bolt(F)".

3.Place the main landing gear assembly (G) on the "Main gear mount (I)" and secure it with "4 screws (H)".

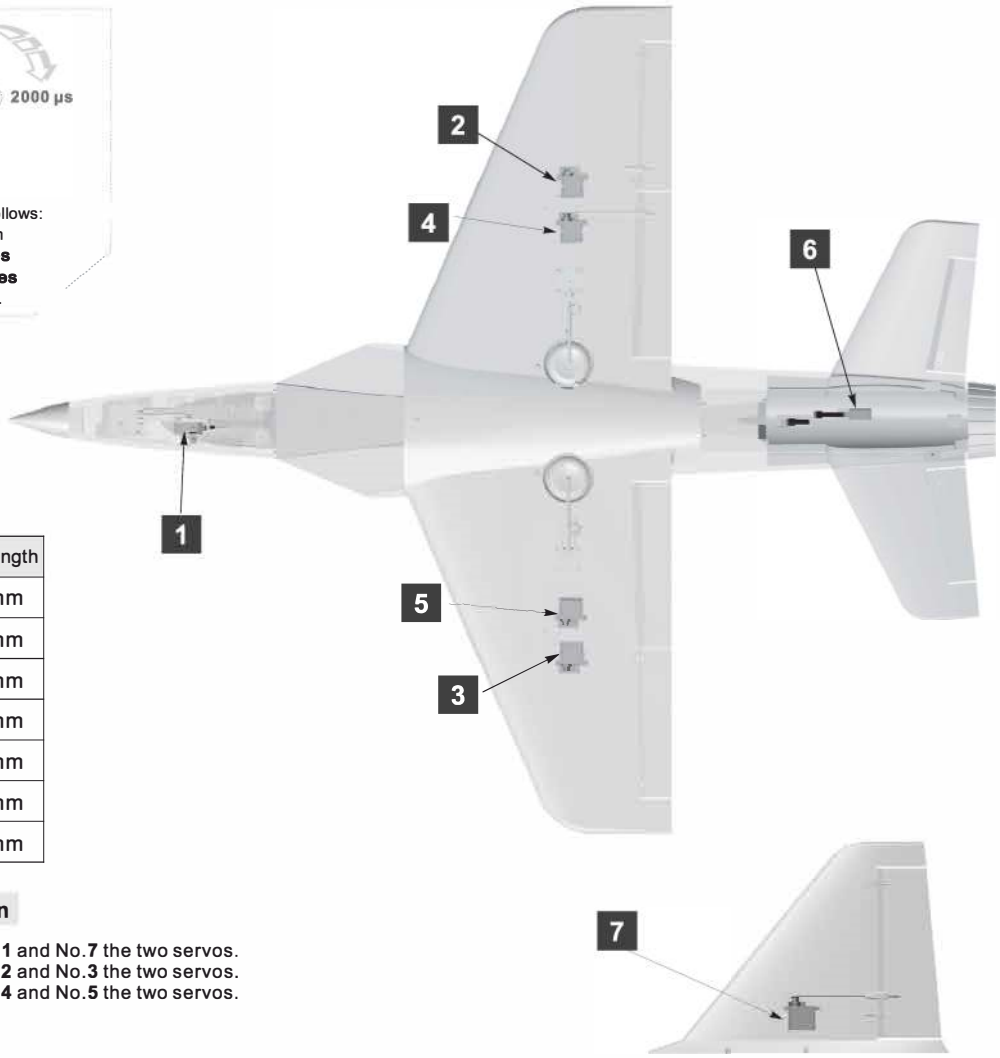
⚠**Note:** When installing, please check the flat position of applicable parts, when screwing a part to seat properly , the flat position must face the screw hole. If they are not seated properly , they may fall off.



Servo introduction



A servo or reversed servo is defined as follows: When the servo input signal changes from 1000µs to 2000µs, if the servo arm **rotates clockwise**, it's a **positive servo.** If it **rotates counter clockwise**, it's a **reversed servo**.

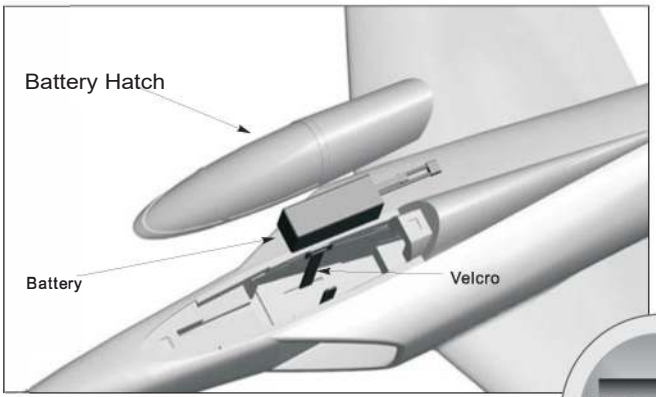


Servo No.	Pos. / Rev.	Cable length
1	Positive	200 mm
2	Positive	360 mm
3	Positive	360 mm
4	Positive	300 mm
5	**Reverse**	300 mm
6	Positive	100 mm
7	Positive	100 mm

Servo connection instruction

1.Use Y-harness to connect the No.**1** and No.**7** the two servos.
2.Use Y-harness to connect the No.**2** and No.**3** the two servos.
3.Use Y-harness to connect the No.**4** and No.**5** the two servos.

Battery Installation





Remove Battery Hatch, place the battery on the deck and secure it with the Velcro straps.
Before connecting the battery to the ESC, please switch on the transmitter and ensure that the throttle is in the low position. Engage the Kill switch is one is assigned.



The recommended battery is: **4514.8V 2600mAh 35C**
If you wish to use a different sized battery refer to the battery cabin size to ensure it will fit:

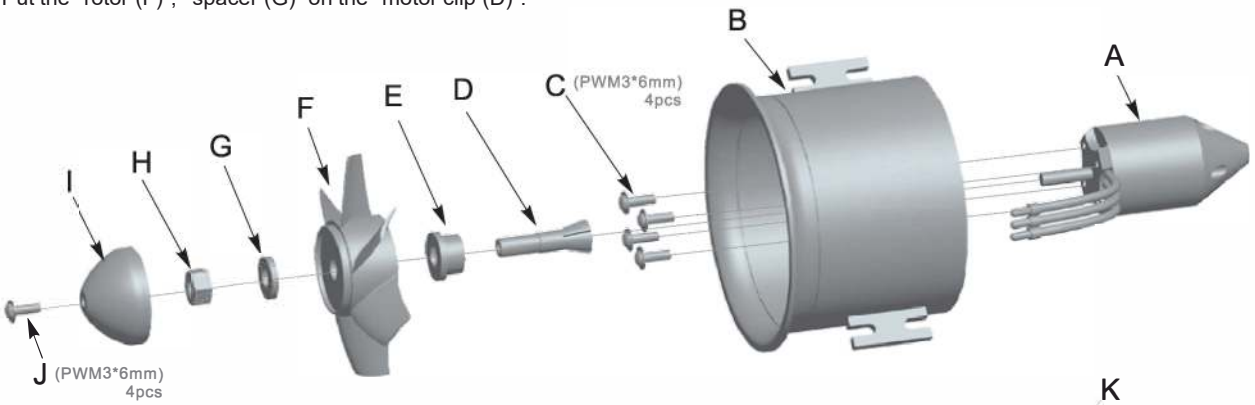
L=140mm; W=50mm; H=55mm

4514.SV 2200mAh - 45 14.8V **3200mAh**
Discharge rate of C > 35C

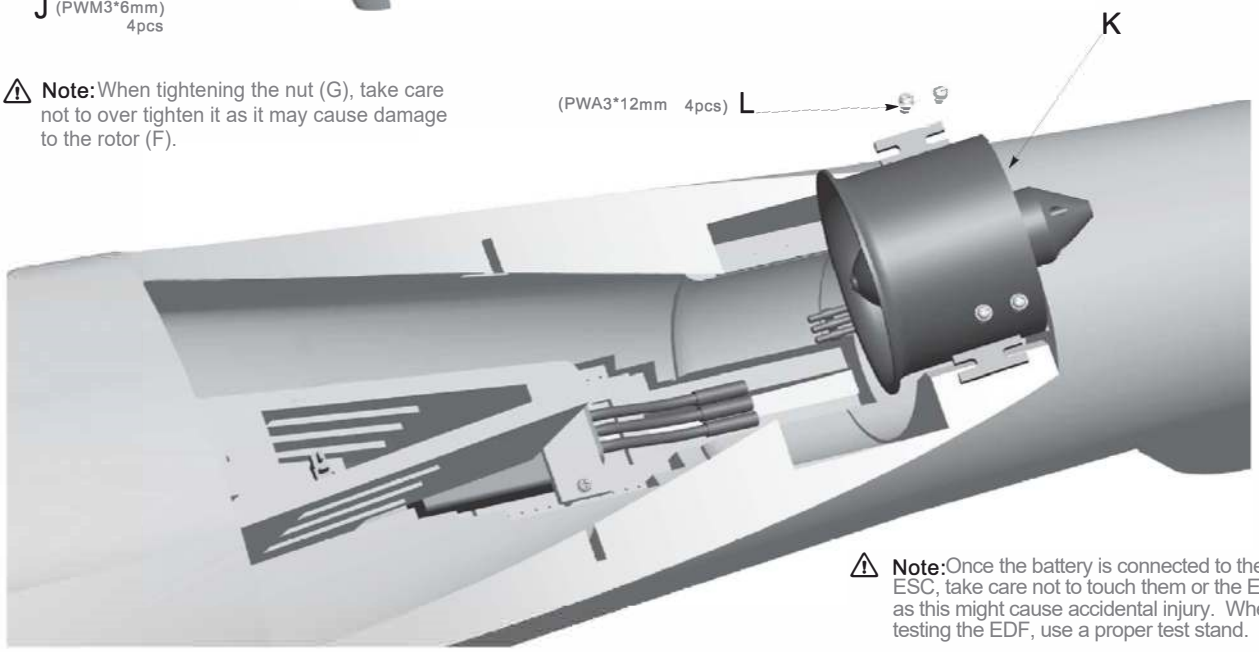
Ensure that the weight difference between different sizes/types of batteries does not affect your CG

Power System Installation

1.Fit "motor (A)" into "ducted fan housing (B)".
2.Secure the motor with 4 "screws (C)".
3.ISlide the "motor clip (D)" over the motor shaft.
4.Put the "fixed disk (E)" on the "motor clip (D)".
5.Put the "rotor (F)", "spacer (G)" on the "motor clip (D)".
6.Use "nut (H)" to secure the "motor clip (D)" and the "rotor (F)".
7.Cover the "spinner (I)", and use "screw (J)" to secure it.
8.Put the installed "EDF (K)" in the fuselage and secure it with 4 "screws (L)".



⚠ **Note:** When tightening the nut (G), take care not to over tighten it as it may cause damage to the rotor (F).

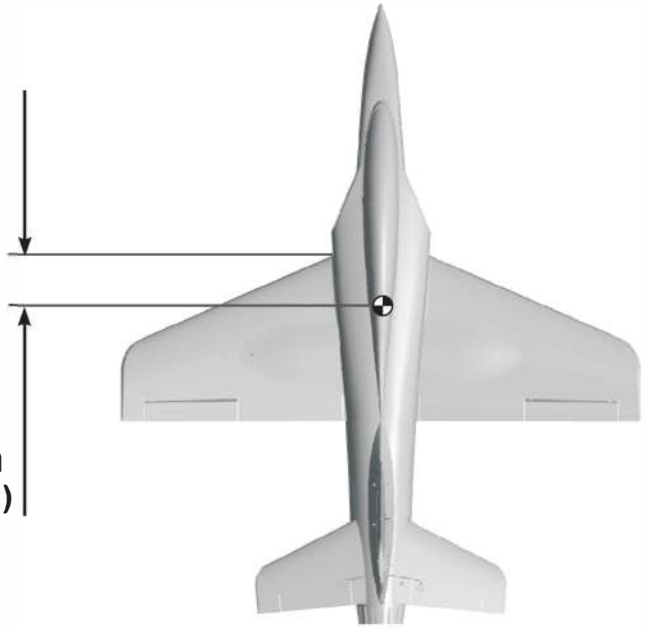


⚠ **Note:** Once the battery is connected to the ESC, take care not to touch them or the EDF as this might cause accidental injury. When testing the EDF, use a proper test stand.

Center of Gravity

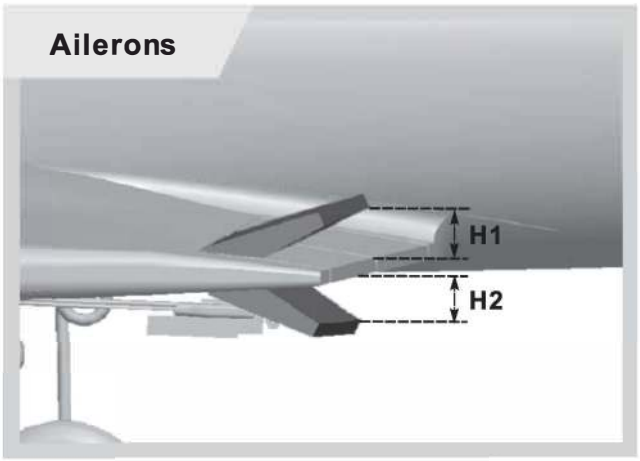
Correct center of gravity is directly related to the success of the flight, please refer to the following CG diagram to adjust your plane's center of gravity.

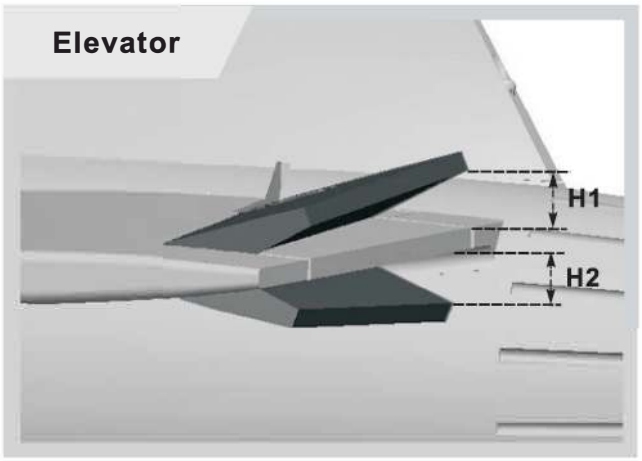
- You can move the battery forward or backward to adjust the center of gravity.
- If you can not adjust the CG by moving the battery, you can also use some other suitable material weight to counterweight.
- Bottom line: make sure that CG is in the correct position.

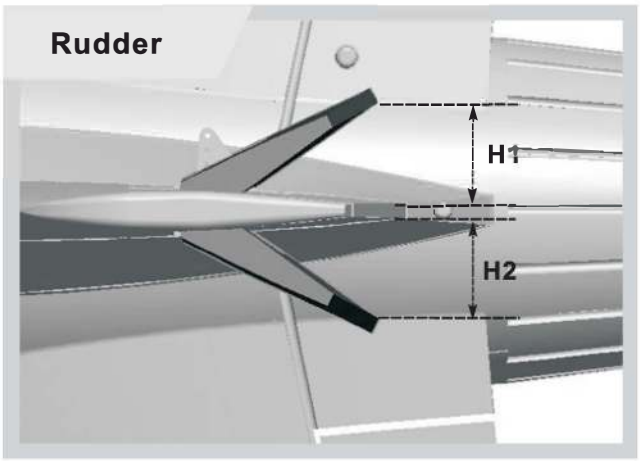


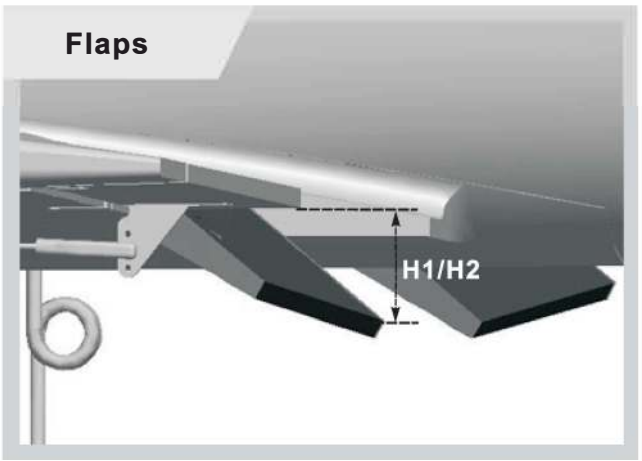
Dual Rates

According to our test results, the following rates proved to be a good starting point. Low rates are good for initial flights or less experienced pilots. High Rates will be more sensitive to control inputs After initial flights, adjust the rates to suit your own style.





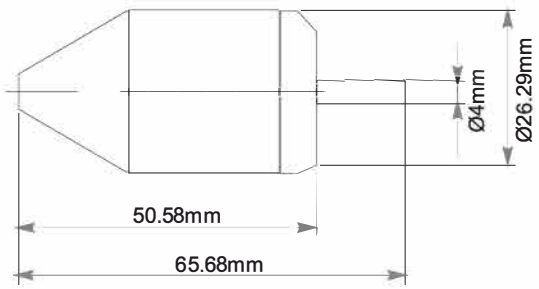


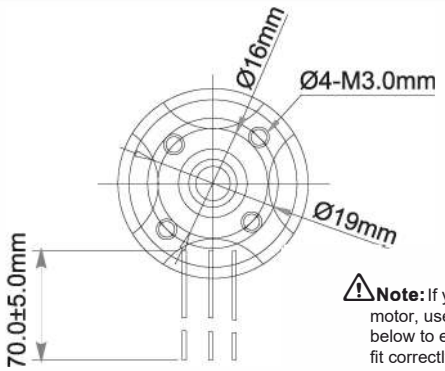


	Aileron	Elevator	Rudder	Flaps
Low Rate	H1/H2 10mm/10mm	H1/H2 12mm/12mm	H1/H2 20mm/20mm	H1 8mm
High Rate	H1/H2 14mm/14mm	H1/H2 16mm/16mm	H1/H2 30mm/30mm	H1 13mm

Motor parameters

2839-3000





⚠**Note:** If you decided to use a different motor, use the dimensions shown below to ensure that the new motor will fit correctly.

Model	KV (RPM/V)	Volate (V)	Load Current (A)	Pull (g)	Rotate Speed (rpm)	Weight (g)	No Load Current	Propeller	ESC
MO028391	3000RPM/V	14.8	42	1250	33000	86	4.5A	70mm Ducted Fan	>45A

Control direction test

Once the airplane is assembled, prior to the first flight, you need to ensure that the control surfaces are moving in the correct direction. Turn on the radio and set the throttle to the lowest position. Engage the kill switch if one is assigned. Use the radio to test the control surface direction. Refer to th diagrams below for proper control inputs.

Aileron

Stick Left



Stick Right



Elevator

Stick Back



Stick forward



Rudder

Stick Left



Stick Right



Optional Flaps

Flaps down



Troubleshooting Guide

Motor does not turn on	A) Li-Po battery depleted	A) Recharge Li-Po battery
	B) Transmitter batteries depleted	B) Replace or recharge batteries
	C) Transmitter not turned on	C) Turn on transmitter
	D) Li-Po battery not plugged in	D) Plug in Li-Po battery
	E) Motor not armed	E) Arm motor
	F) A crash has damaged an internal component	F) Replace
	G) ESC or other damaged	G) Check ESC or contact local distributor
Airplane is difficult to control	A) You are flying in too much wind	A) Fly when there is no wind
	B) Li-Po battery depleted	B) Recharge Li-Po battery
	C) Transmitter batteries depleted	C) Replace or recharge batteries
	D) Transmitter antenna not extended completely	D) Extend transmitter antenna completely
	E) Surface control rate is too high	E) Use low rate to fly
The airplane flies nose heavy, needs continuous up elevator	A) CG is forward	A) Adjust CG backward refer to instruction
Airplane drifts left or right, climbs or descends, with no control input.	A) The aircraft is out of trim adjustment	A) Adjust the transmitter trim tabs
	B) You are flying in too much wind	B) Fly when there is no wind
The airplane flies tail heavy	A) CG is too far back	A) Adjust CG forward refer to instruction
The airplane does not taxi straight	A) Nose gear is not center.	A) Center nose gear
	B) Rudder is not center.	B) Center rudder
Take off is difficult	A) Thrust is not on the high position	A) Thrust is on the high position
	B) Taxi distance is not enough	B) Long taxi distance
	C) Elevator rate is not enough high	C) Use high rate of elevator
Airplane will not climb	A) Li-Po battery is depleted	A) Recharge Li-Po battery
	B) Ducted fan is damaged	B) Check and replace ducted fan
	C) Motor is damaged	C) Check and replace motor
	D) ESC overheat protection,power reduction.	D) Landing, check and select a more powerful ESC
Li-po battery is warm after charging	A) This is normal	A) The Li-Po battery may be slightly warm when fully charged. It should not be hot to the touch.
Motor vibrates excessively	A) Ducted fan is damaged	A) Check and replace ducted fan
	B) Motor is damaged	B) Check and replace motor
	C) Ducted fan is not balance	C) Adjust the ducted fan balance
	D) At high speed, it will vibrate slightly	D) Its normal
Control surface move the wrong direction	A) Servo direction is reversed	A) Adjust servo reversing function

前　言

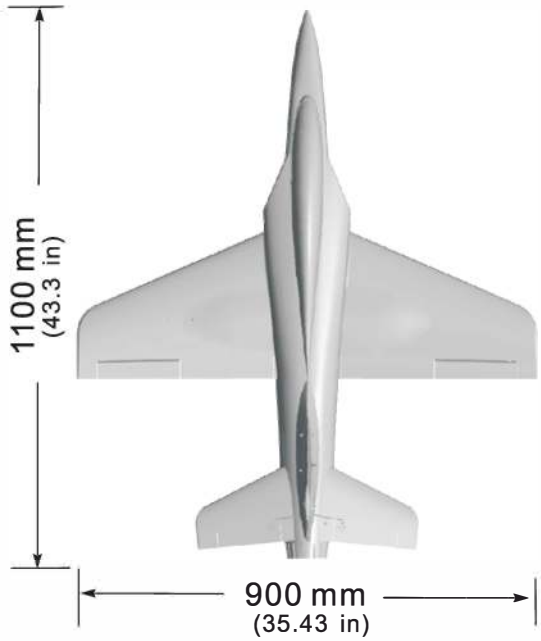
感谢您购买我们的Rebel V2, Rebel是一款稳定性非常好的涵道练习机，简单的结构使得组装和维护变得非常容易！新的Rebel V2增强了动力，改良了电池舱位置，增加了襟翼功能和收放起落架功能。

⚠ 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。

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EPS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！

产品基本参数



⚠ 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！

- 电机
  2839-3000KV
- 电调
  50A 无刷电调
- 舵机
  9g 模拟舵机 (7pcs)
- 电池
  4S 14.8V 2600mAh 35C
- 涵道风扇
  70mm 涵道
- 起飞重量
  1250g (44.1 oz.)
- 推力
  1200g (42.32 oz.)

起落架	副翼	襟翼	升降舵	方向舵	油门
电动收放起落架 简易起落架	有	有	有	有	有

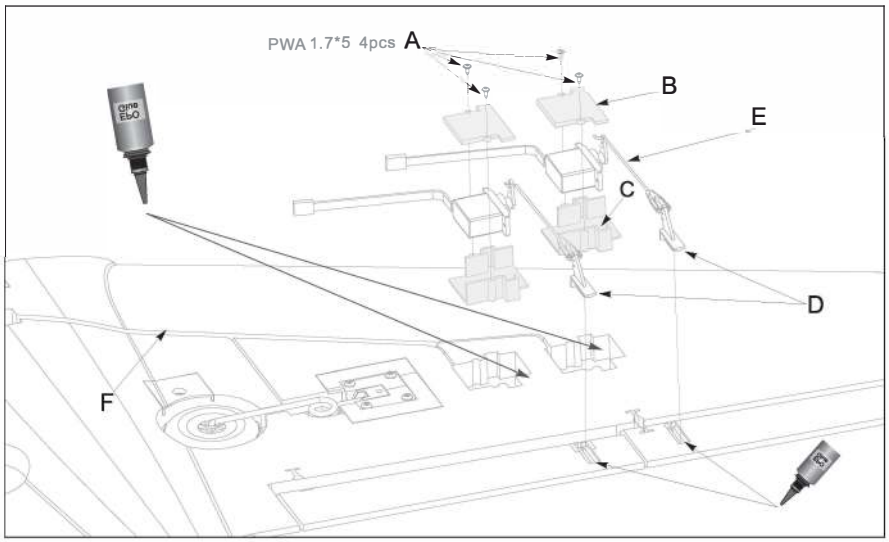
主翼安装

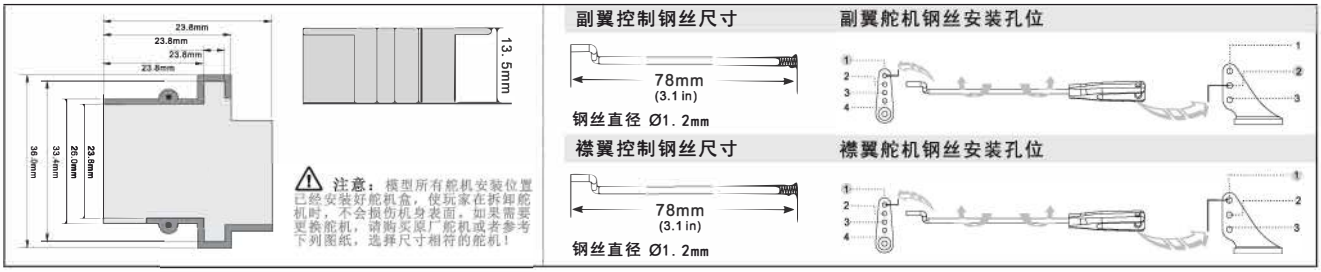
主翼舵机安装

A - 螺丝 (PWA1.7×5mm)
B - 9g舵机盖
C - 9g舵机盒
D - 舵面摇臂
E - 主翼舵机控制钢丝
F - 舵机线槽

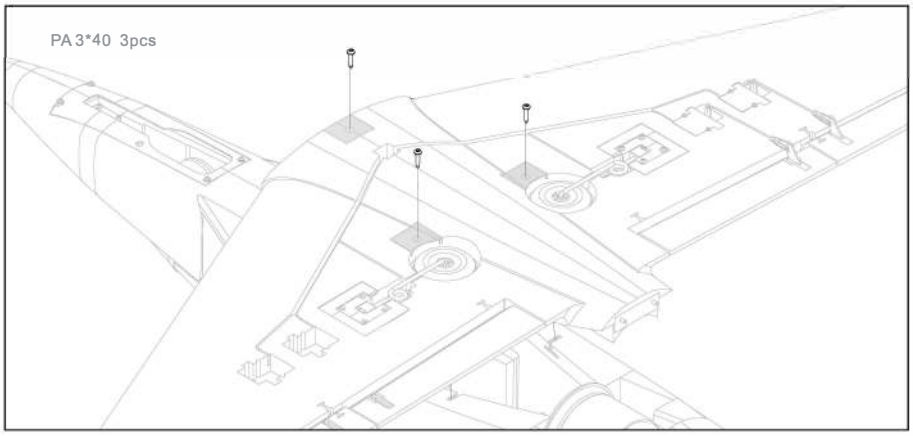
1. 通过舵机测试仪或者遥控器，把舵机摇臂校正到居中位置；
2. 用胶水把“9g舵机盒(C)”和“舵面摇臂（D）”粘在主翼上；
3. 把舵机安装到“9g舵机盒(C)”内，同时把舵机线压入“舵机线槽(F)”，然后盖上“9g舵机盖”，最后用2颗“螺丝(A)”锁紧固定；
4. 用舵机传动控制钢丝连接舵机摇臂与“舵面摇臂(D)”。

通过调整钢丝长短距离，使主翼舵面处于居中位置！





1. 把主翼扣在机腹上，用螺丝固定机身；

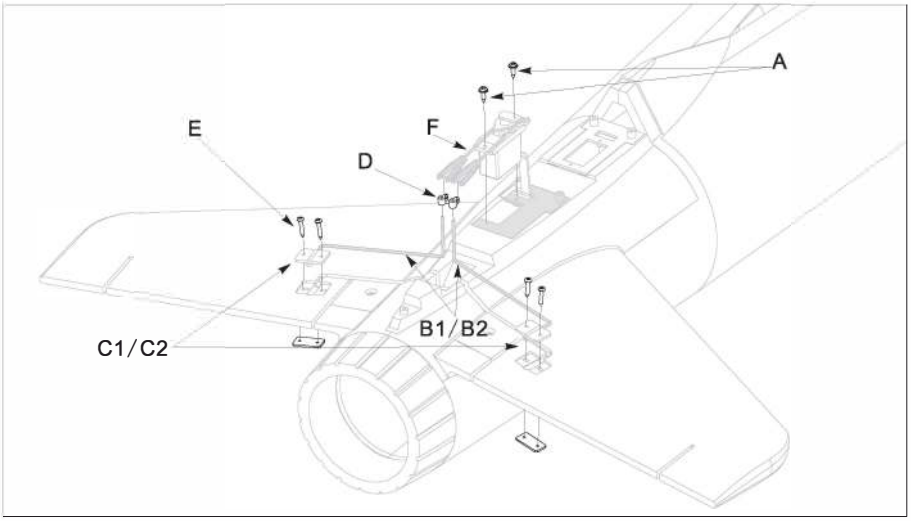


平尾安装

平尾舵机安装

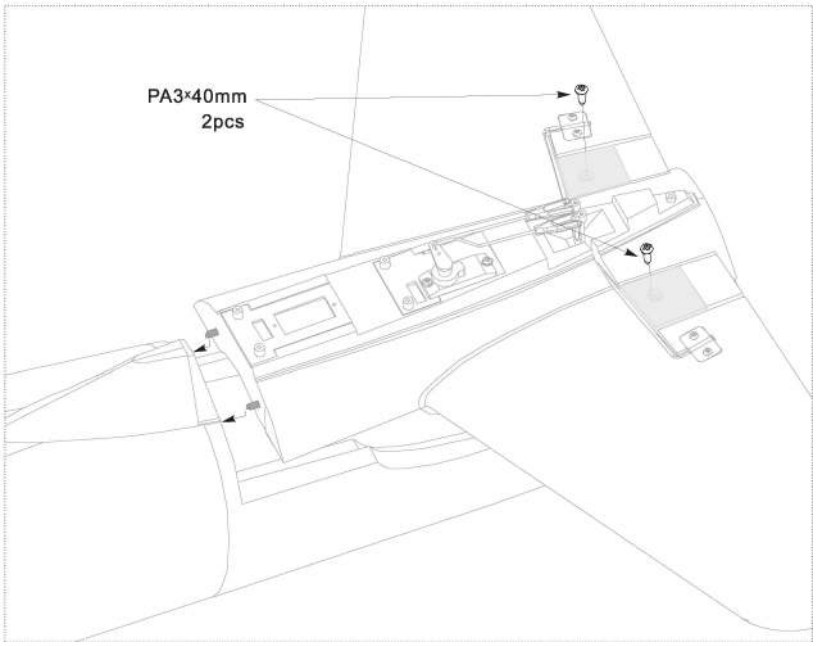
A - 螺丝 (PWA2×8mm)
B - 平尾传动钢丝
C - 平尾舵面摇臂
D - 传动固定栓
E - 螺丝 (PT1.7×10mm)
F - 舵机控制钢丝

1. 用螺丝(A)固定好平尾控制舵机；
2. 如右图所示：将平尾传动钢丝(B1/B2)其中一端插入平尾舵面摇臂(C1/C2)中，另外一端拧上传动固定栓(D)；
3. 分别用4颗螺丝(E)固定平尾舵面摇臂(B1/B2)；
4. 最后用舵机控制钢丝(F)连接舵机摇臂和传动固定栓(D)。



平尾安装

1. 把装好舵机的平尾套件，用2颗螺丝固定在机身尾部；

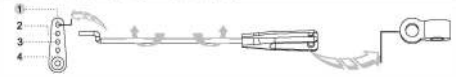


平尾舵机控制钢丝尺寸（1）

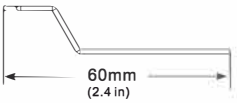


钢丝直径 Ø1. 2mm

平尾舵机控制钢丝安装孔位



平尾舵机控制钢丝尺寸（2）



钢丝直径 Ø1. 2mm

平尾舵机控制钢丝安装孔位

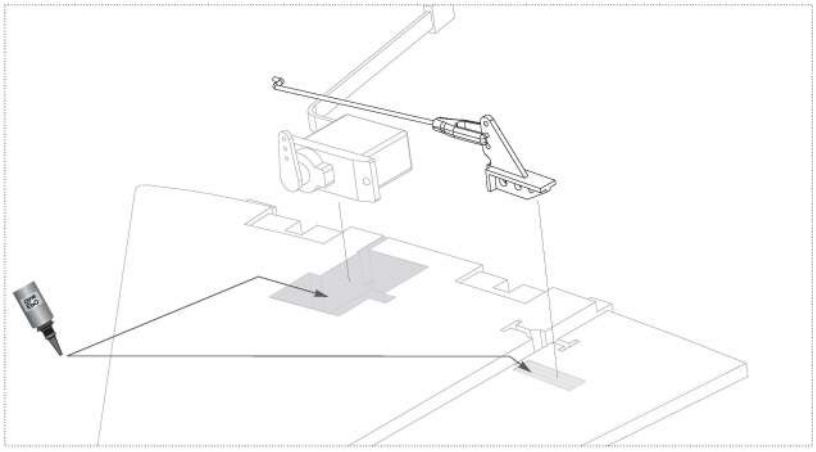


垂尾安装

垂尾舵机安装

1. 通过舵机测试仪或者遥控器，把舵机摇臂校正到居中位置；
2. 用胶水把9g舵机和舵面摇臂粘在垂尾上；
3. 用舵机传动控制钢丝连接舵机摇臂与舵面摇臂。

   通过调整钢丝长短距离，使方面舵面处于居中位置！



副翼控制钢丝尺寸

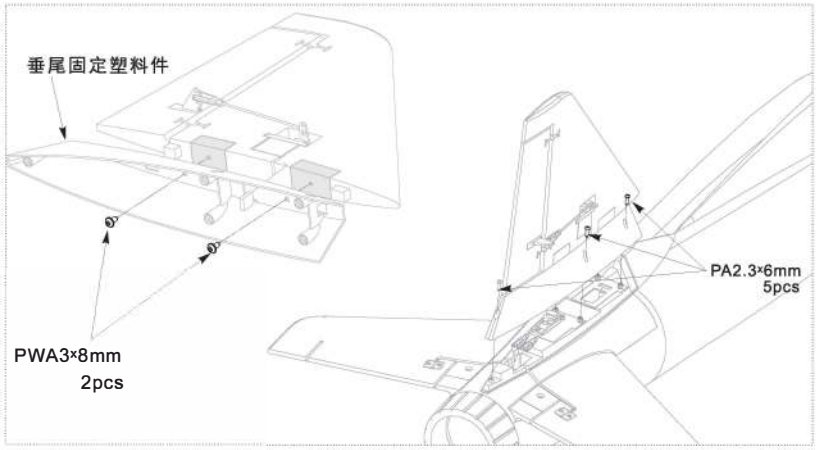


钢丝直径 Ø1. 2mm

副翼舵机钢丝安装孔位



1. 如右图所示：首先用2颗螺丝把垂尾固定在垂尾固定塑料件上；
2. 最后用5颗螺丝把垂尾组件固定到机身尾部；



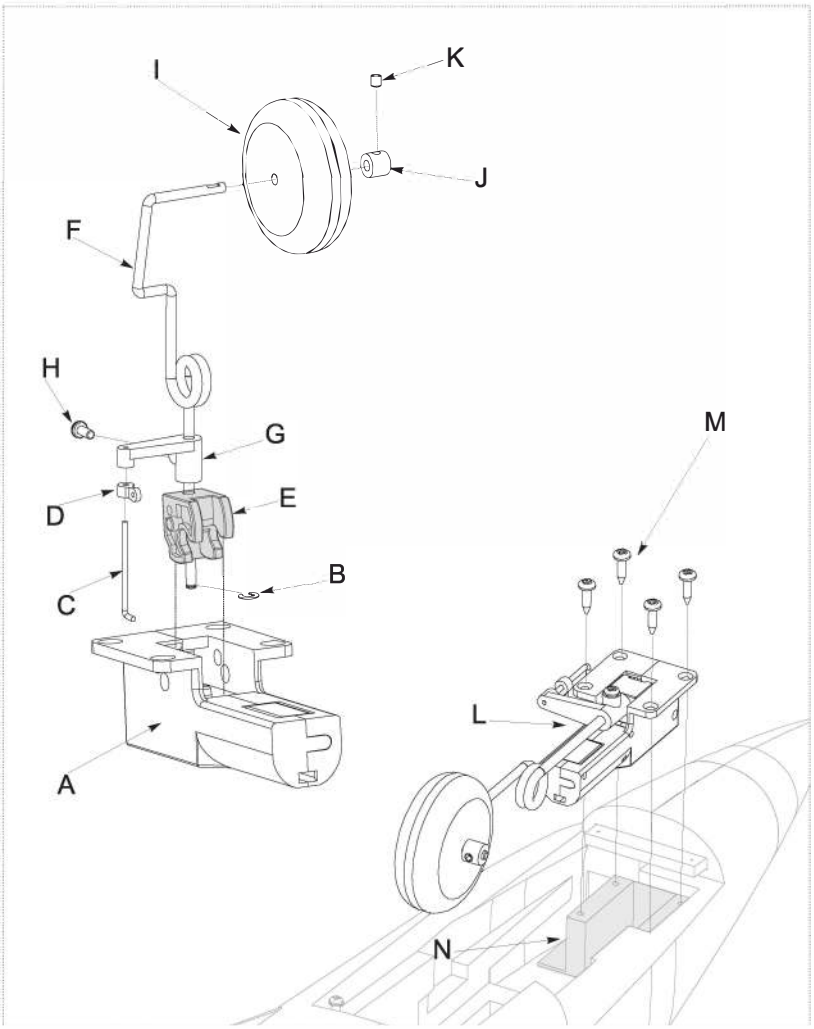
前起落架组装

前起落架零件列表：

A - 起落架收放控制器
B - E型扣 (Ø2.0mm)
C - 前起落架转向钢丝
D - 前起落架转向控制环
E - 起落架收放旋转臂
F - 前起落架主钢丝
G - L型摇臂
H - 螺丝 (PT2.6*6mm)
I - 机轮
J - 轮档
K - 机米螺丝 (M3*3mm)
L - 前起落架套件
M - 螺丝 (PA2.6*10mm)
N - 前起落架固定座

1. 把“L型摇臂(G)”与“起落架收放旋转臂(E)”分别套在“前起起落架主钢丝(F)”上；
2. 接着用“E型扣（B）”卡在“前起起落架主钢丝（F）”顶端凹槽上，防止脱落。并用“螺丝（H）”紧固“L型摇臂（G）”；
3. 把“前起落架转向控制环(D)”套入“前起落架转向钢丝(C)”,然后将“前起落架转向钢丝(C)”螺纹端拧入到“L型摇臂(G)”上；
4. 将“机轮（I）、轮档（J）”分别套入到“前起起落架主钢丝（F）”下端，然后用“机米螺丝（K）”紧固“轮档（J）”。
5. 把组装好的“前起落架套件（L）”安放在“前起落架固定座(N)”上，最后用“螺丝(M)”固定。

⚠ **注意：** 在整个起落架组装过程中，所有带扁口的零件，在用螺丝固定时，扁口面必须面向螺丝孔，只有这样，螺丝的固定才是有效的，零件才不会转动和脱落；



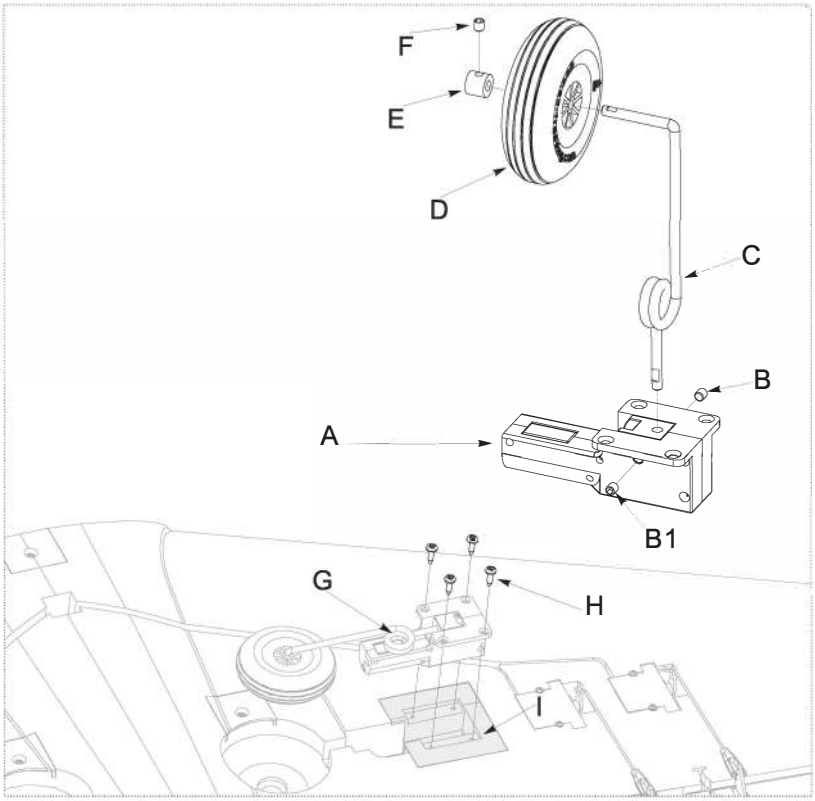
后起落架组装

后起落架零件列表：

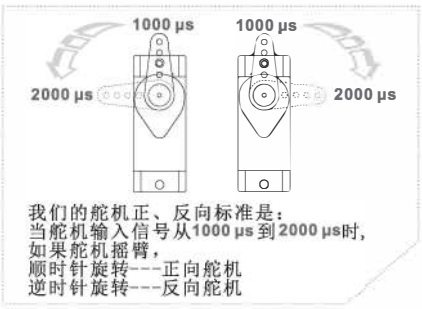
A - 起落架收放控制器
B - 机米螺丝 (M3*3mm)
C - 后起落架主钢丝
D - 机轮
E - 轮档
F - 机米螺丝 (M3*3mm)
G - 后起落架套件
H - 螺丝 (PA2.6*10mm)
I - 后起落架固定座

1. 首先把“后起落架主钢丝（C）”插入到“起落架收放控制器（A）”里,然后使用“机米螺丝（B、B1）”固定；
2. 接下将“机轮（D）”、“轮档（E）”分别套入到“后起落架主钢丝（C）上”，最后使用“机米螺丝（F）”锁紧轮档；
3. 把组装好的“后起落架套件（G）”安放在“前起落架固定座（I）”上，最后用“螺丝（H）”固定。

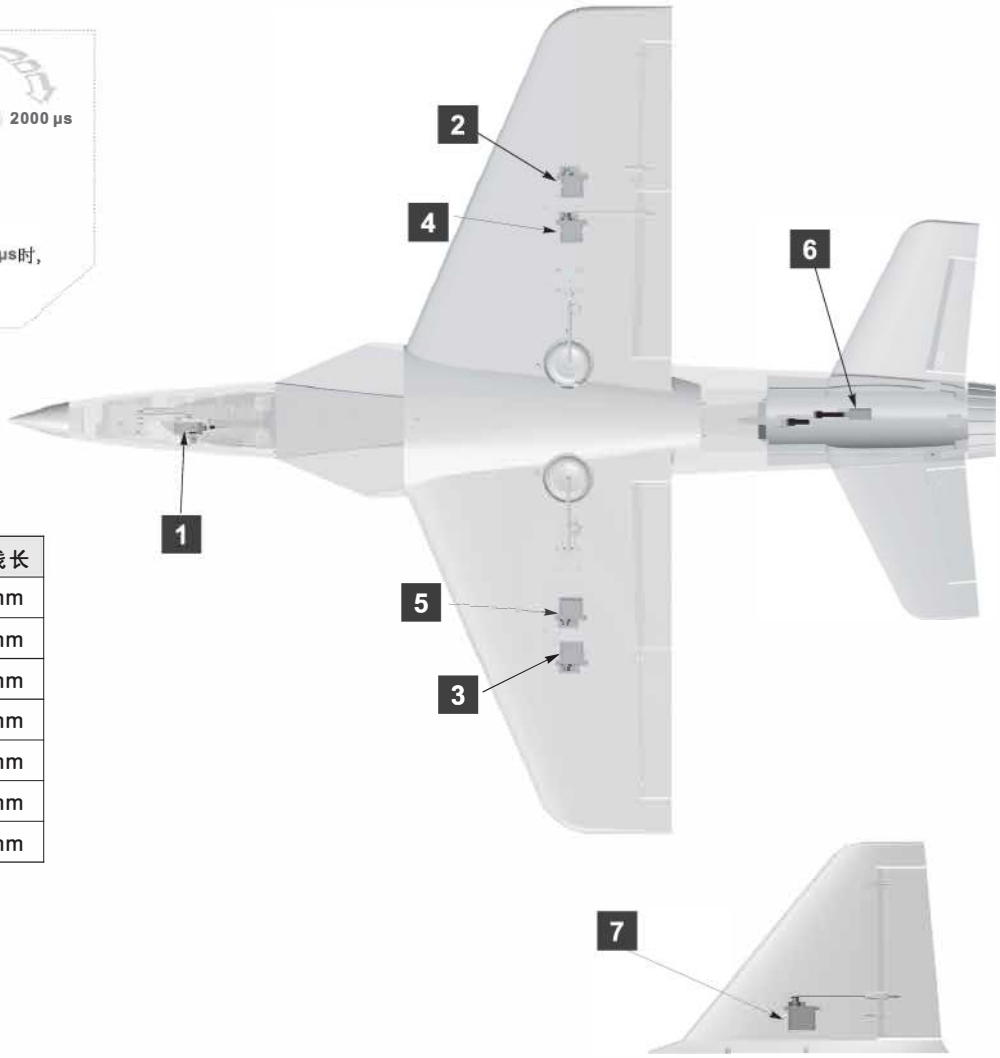
⚠ **注意：** 在整个起落架组装过程中，所有带扁口的零件，在用螺丝固定时，扁口面必须面向螺丝孔，只有这样，螺丝的固定才是有效的，零件才不会转动和脱落；



舵机使用介绍

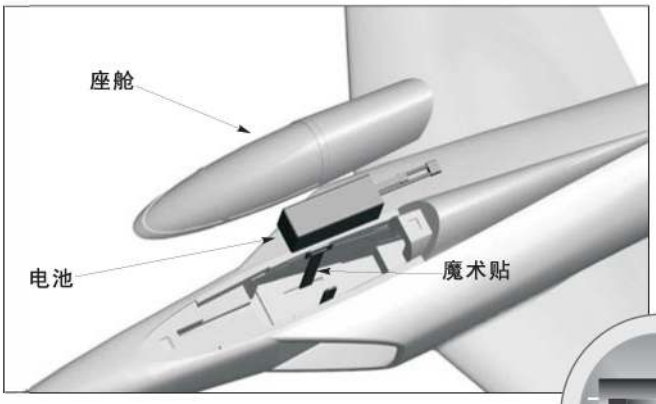


我们的舵机正、反向标准是：
当舵机输入信号从1000 μs到2000 μs时，
如果舵机摇臂，
顺时针旋转---正向舵机
逆时针旋转---反向舵机



舵机序号	正、反向	舵机线长
1	正向	200 mm
2	正向	360 mm
3	正向	360 mm
4	正向	300 mm
5	反向	300 mm
6	正向	100 mm
7	正向	100 mm

电池安装说明





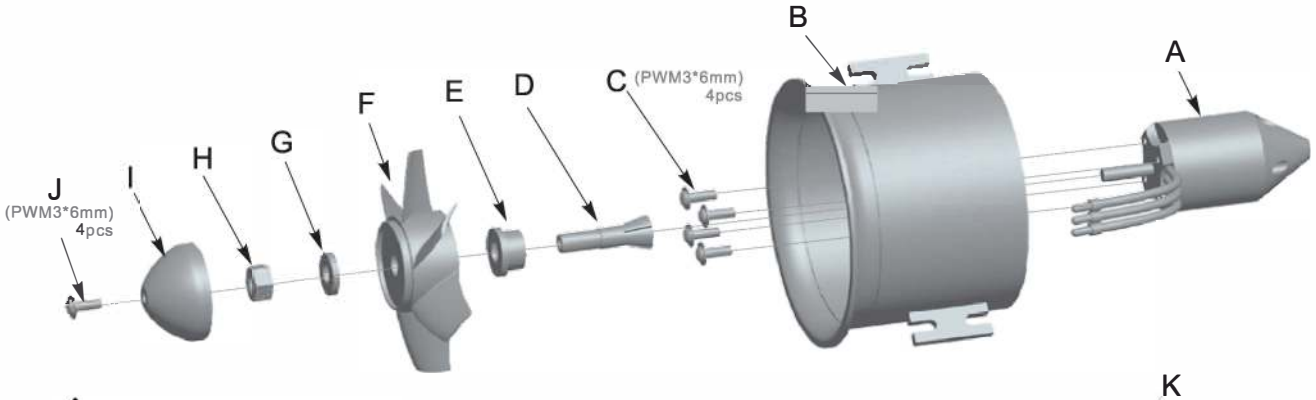
取下座舱，放入电池，然后用魔术贴绑紧电池；

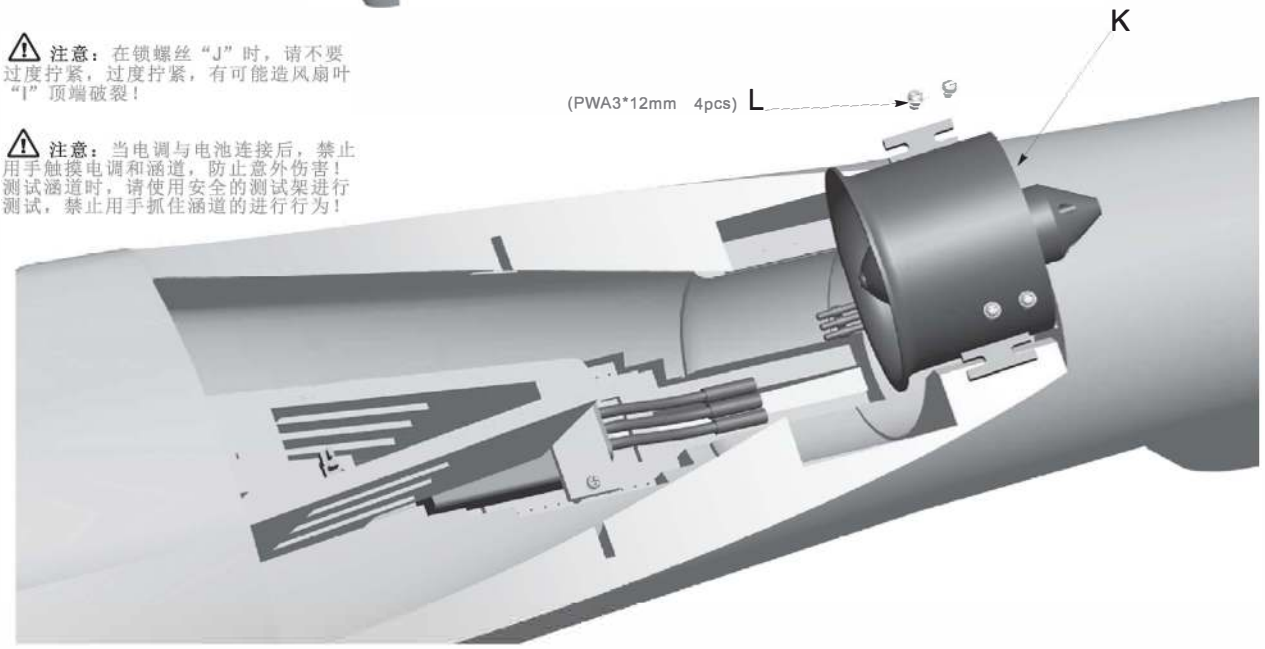
将电池与接收机连接前，首先请打开发射机电源，确认油门杆处于低位。

我们出厂时配备的电池为：
4S 14.8V 2600mAh 35C
您可以参考电池舱尺寸，选择的电池！
L=140mm；W=50mm；H=55mm
我们建议使用的电池容量和放电倍率如下：
4S 14.8V 2200mAh ~ 4S 14.8V 3200mAh
放电倍率 **≥ 35C**
不同重量的电池,会影响重心！请注意飞机的重心在说明书指示的正确范内！

电机涵道安装

1.将电机(A)装入涵道(B)内；
2.用4颗螺丝(C)固定马达；
3.把电机夹头(D)插入到电机轴上；
4.然后将夹头固定盘(E)套入电机夹头(D)；
5.把风扇叶(F)、垫片(G)分别套入电机夹头(D)；
6.使用螺母(H)锁住电机夹头(D),固定风扇叶(F)；
7.最后盖上整流罩(I),并使用螺丝(J)固定整流罩；
8.把组装好的涵道(K)放置到机身内,用螺丝(L)固定；



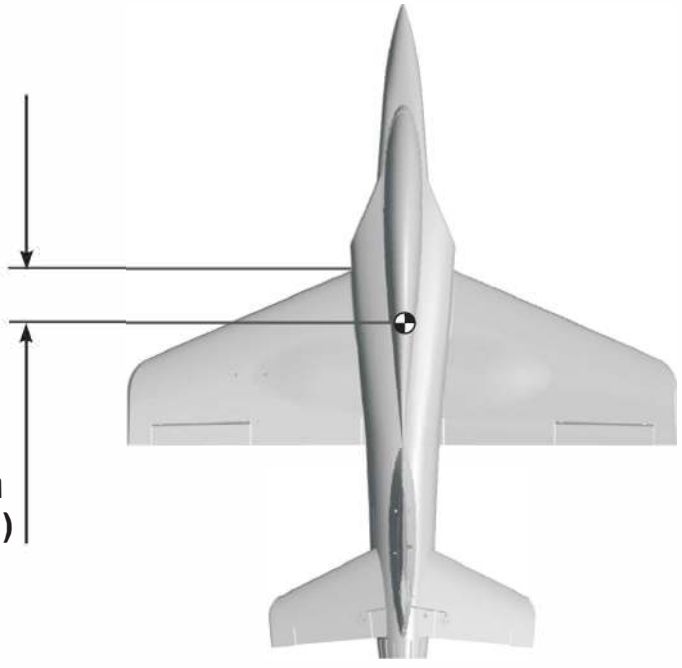


⚠ **注意**：在锁螺丝“J”时，请不要过度拧紧，过度拧紧，有可能造风扇叶“I”顶端破裂！

⚠ **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进行行为！

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;
-如果通过电调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！

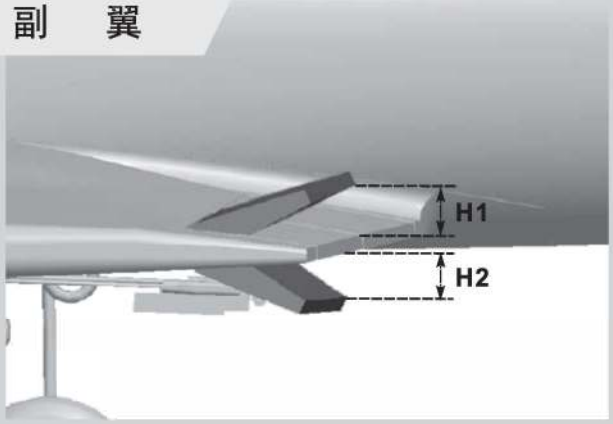


90~100mm
(3.54~3.94 in.)

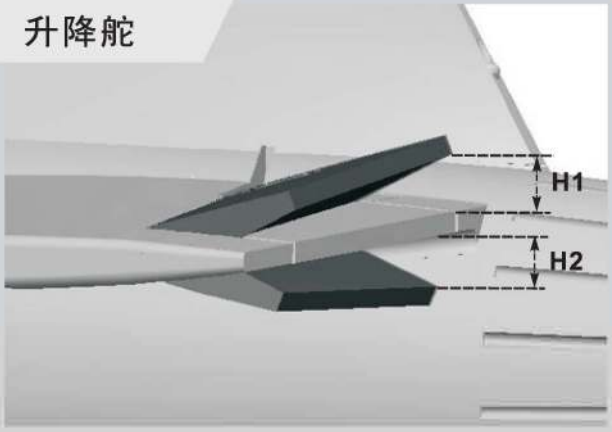
大、小舵参数

根据我们的飞行经验，我们认为，按以下参数来设置副翼和升降舵的大、小舵，将有助于飞行。在小舵角的情况下,飞机的可操控性能会好一些,适合初次飞行或者不太熟练的玩家飞行。而大舵角的设置，可以提高动作灵敏度，使用经验丰富的玩家。您可以根据自身的情况，来选择其中一种舵量进行飞行！

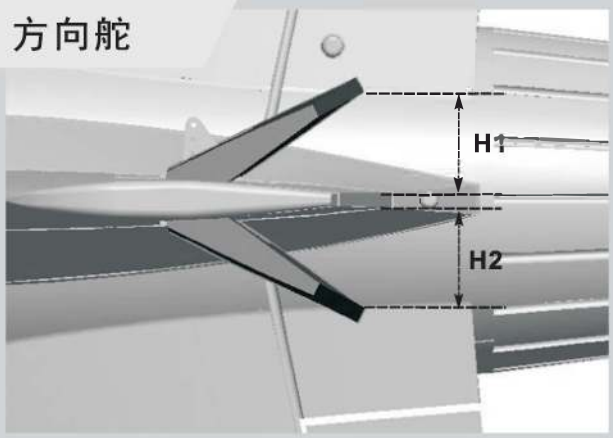
副　翼



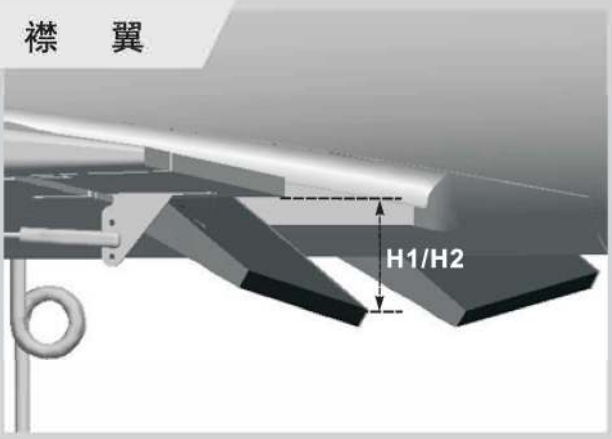
升降舵



方向舵



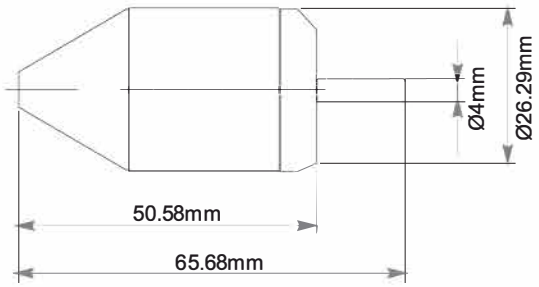
襟　翼

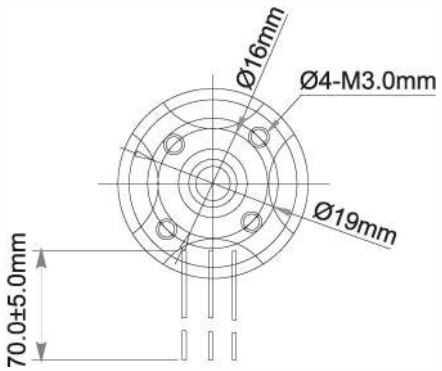


	副　翼	升降舵	方向舵	襟　翼
小舵角	H1/H2　10mm/10mm	H1/H2　12mm/12mm	H1/H2　20mm/20mm	H1　8mm
大舵角	H1/H2　14mm/14mm	H1/H2　16mm/16mm	H1/H2　30mm/30mm	H1　13mm

电机参数

2839-3000





⚠ 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 (RPM/V)	Volate (V)	Load Current (A)	Pull (g)	Rotate Speed (rpm)	Weight (g)	No Load Current	Propeller	ESC
MO028391	3000RPM/V	14.8	42	1250	33000	86	4.5A	70mm Ducted Fan	>45A

舵面测试

当您按前面的步骤组装好飞机后，在飞行前，我们需要用一块充饱电的电池，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



方向舵

方向摇杆向左运动



方向摇杆向右运动



襟翼

襟翼放下



电机不工作	A）电池电量耗尽	A）充电
	B）发射机电量耗尽	B）更换或者充电
	C）发射机开关没开	C）打开发射机开关
	D）电池没有连接好	D）检查并连接好电池
	E）电机连接错误	E）检查并正确连接电机
	F）因为摔机等原因损坏	F）更换
	G）其它或者ESC故障	G）检查ESC或者经销商
飞机难以控制	A）飞行中遇到强风或者乱流	A）无风的时候起飞
	B）电池电量耗尽	B）需要充电
	C）发射机电池电量耗尽	C）更换电池或者给电池充电
	D）发射机天线没有完全展开	D）展开发射机天线
	E）舵面的控制过量	E）使用小舵量进行飞行
飞行时机头一直向下，需要补偿升舵	A）重心靠前	A）参考说明书，向后调整重心
在没有控制发射机时，飞机总是向上、向下；或者飞机总是向左、向右倾斜	A）没有对升降舵、副翼进行微调	A）适当调节一些微调
	B）飞行时遇到太大的自然风力	B）先降落,选择无风天气飞行
飞行时升降舵异常灵敏，俯、仰不安定	A）重心靠后	A）参考说明书,向前调整重心
地面滑跑时方向会偏	A）前轮没有居中	A）居中前轮
	B）方向舵没有居中	B）居中方向舵
起飞困难	A）油门没有推到最大	A）油门推到最大
	B）滑跑助飞距离不够	B）尽可能滑跑得更远些
	C）升舵舵量不够	C）使用更大的舵量
飞机爬升困 难	A）电池电量不足	A）需要重新充电
	B）涵道风扇损坏	B）确认并重新更换
	C）电机损坏	C）确认并重新更换
	D）电调过热保护，功率降低	D）先降落，确认并选择更大功率的电调
电流充电后发热	A）电池充电时,会产生热量,这是正常的	A）电流充饱电后,会发热，但用手触摸不烫
电机震动	A）涵道风扇损坏	A）确认并更换
	B）马达损坏	B）确认并更换
	C）涵道需要调节动平衡	C）调节动平衡
	D）高速运转时,可能产生轻微震动	D）轻微震动是正常的,可以使用
控制面向错误的方向运动	A）舵机方向装反	A）重新安装舵机

Dongguan Freewing Electronic Technology Ltd
HK Freewing Model International Limited

Add.:FeiYi Building,face to Labor Bureau, Fumin Middle Road, Dalang Town,
Dongguan City，Guangdong Province, China
Web: http://www.sz-freewing.com
Email:freewing@sz-freewing.com
Tel: 86-769-82669669 Fax:86-769-82033233

东莞市飞翼电子科技有限公司
香港飞翼模型国际有限公司

地址：广东省东莞市大朗镇富民中路402-408号飞翼楼四楼
Web: http://www.sz-freewing.com
Email:freewing@sz-freewing.com
Tel: 86-769-82669669 Fax:86-769-82033233