

M^{odel} Freewing

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

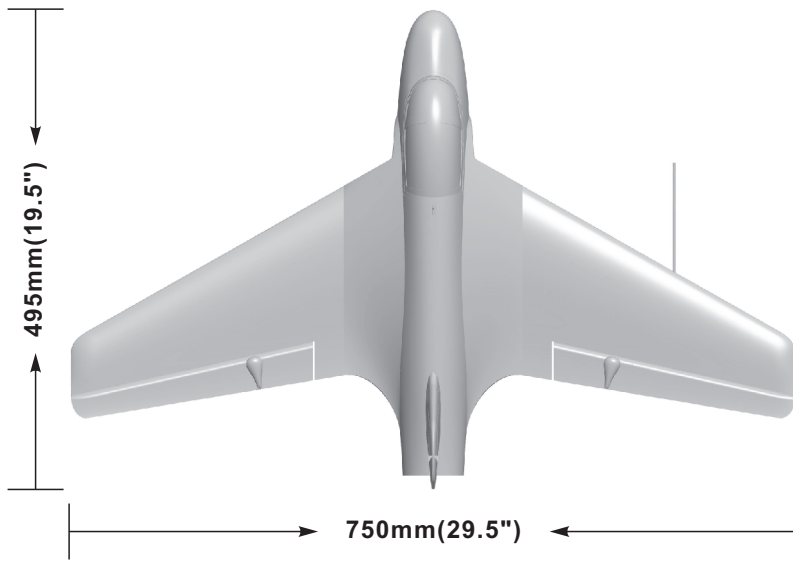


MADE IN CHINA

Introduction.....	1
Basic Product Information.....	2
Package List.....	2
PNP Install Instructions	
Install Main Wing.....	3
Install Vertical Stabilizer.....	3
Install Antenna.....	3
Pushrod instructions.....	3
Battery Size.....	4
Center of Gravity.....	4
Control Direction Test.....	5
Dual Rates and Flight Attention.....	5
Accessories Description	
Motor Specifications.....	6
Motor Overview.....	6
Accessories Introduction	
Servos Introductions.....	6
Install nose landing gear.....	7
Install rear landing gear.....	7

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.



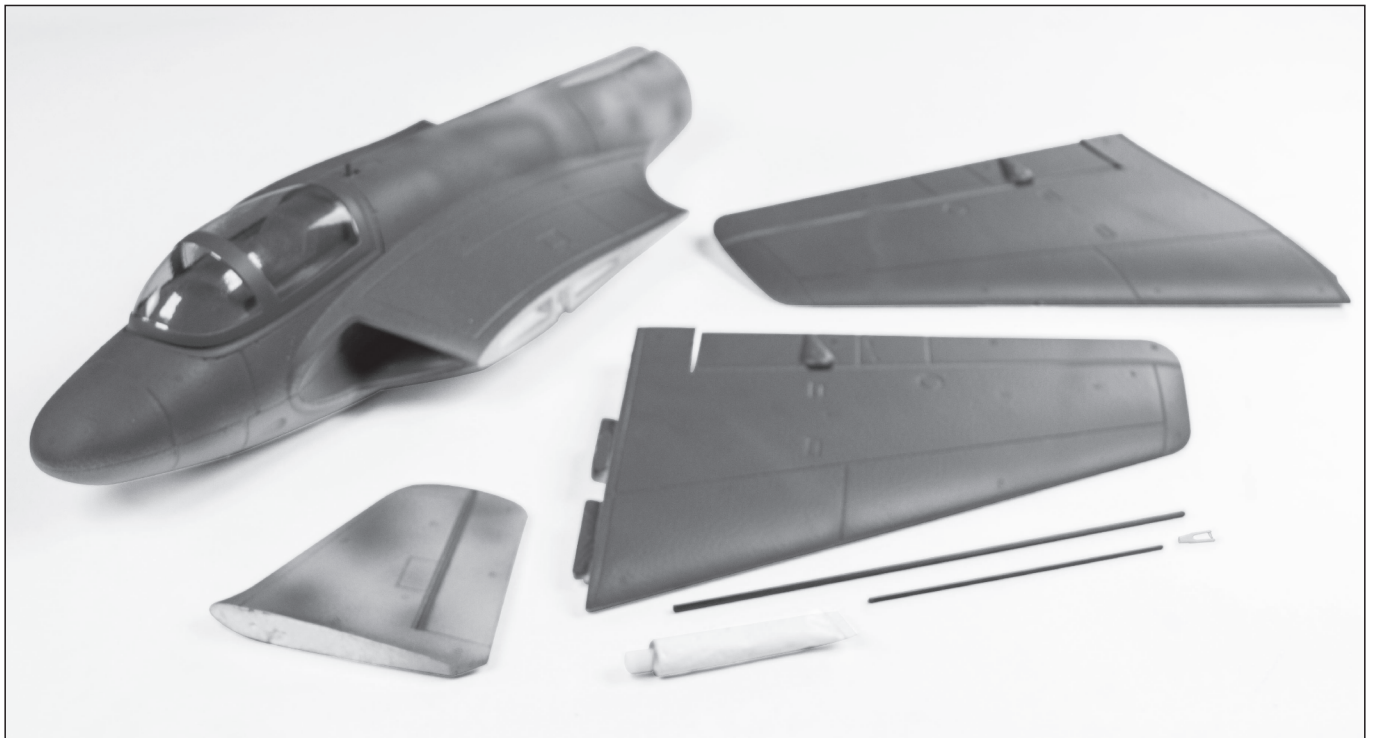
Standard version

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	✓	No electronic equipment	6	Carbon tube	✓	✓	✓
3	Vertical tail	✓	✓	✓	7	Glue	✓	✓	✓
4	Linkage Set	✓	✓	✓	8	User Manual	✓	✓	✓

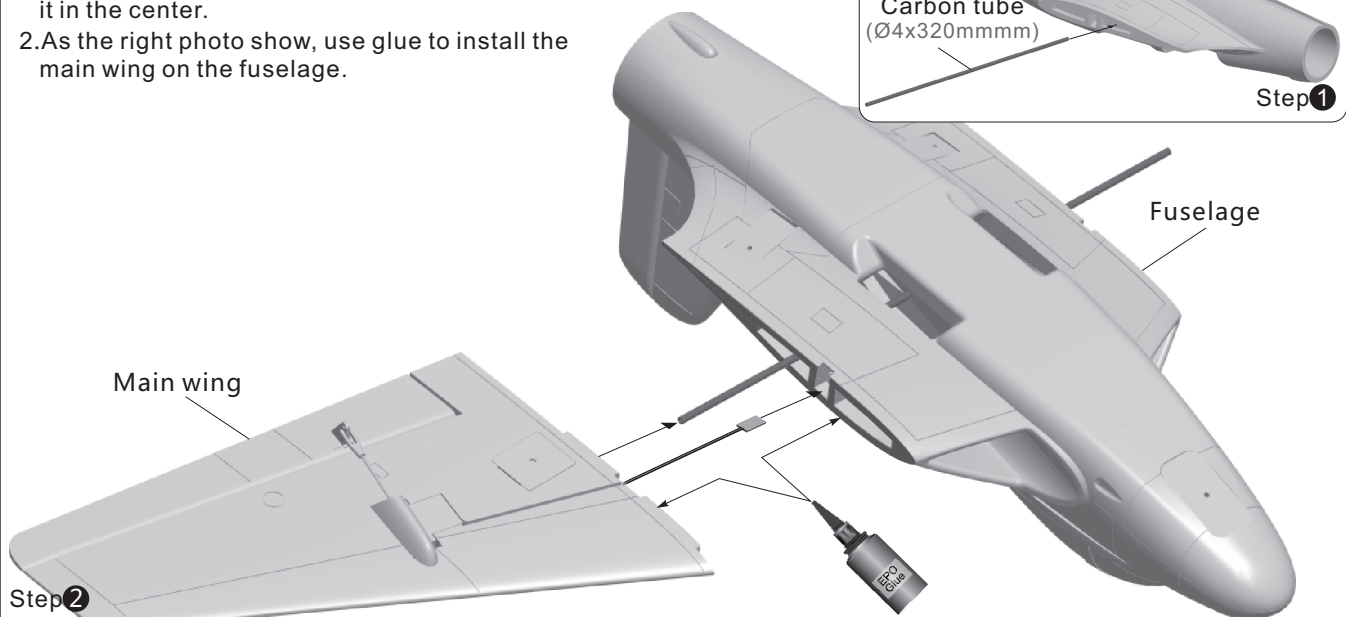
PNP Installation Instructions

EN

Install Main Wing

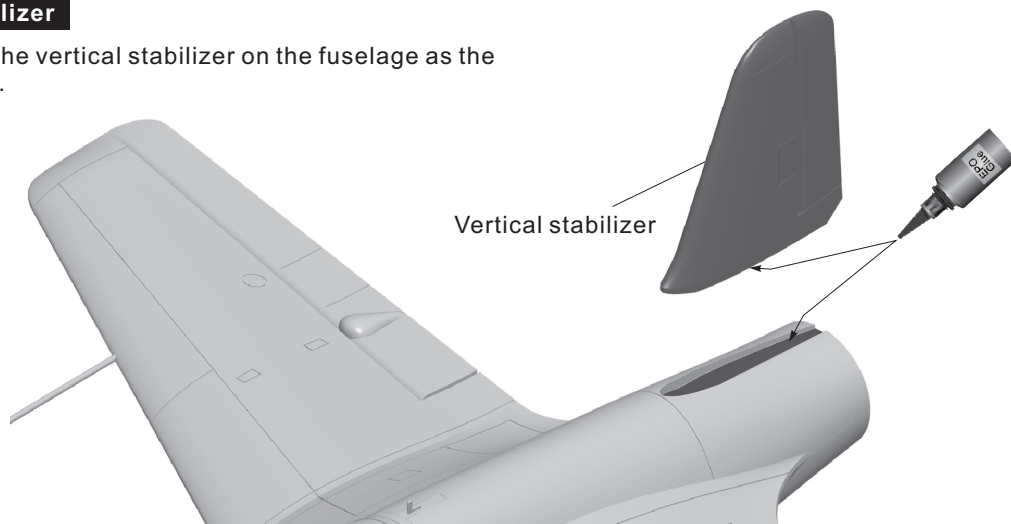
As shown in this photo:

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

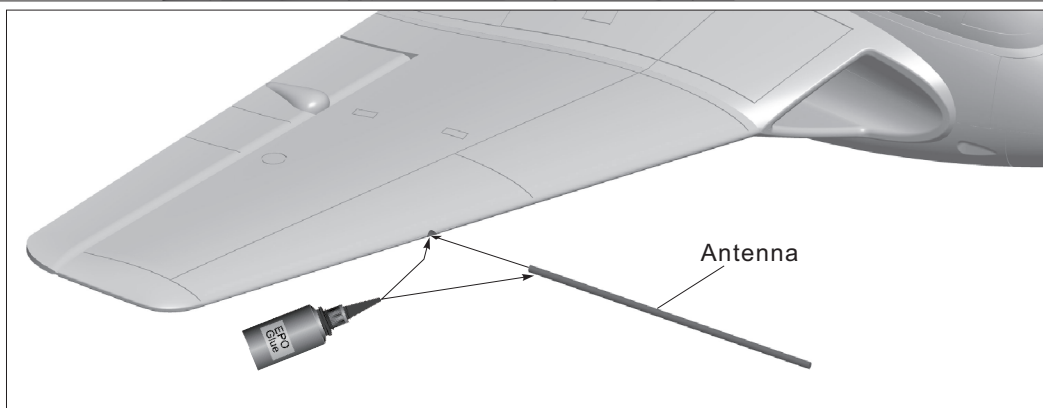


Install Vertical Stabilizer

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

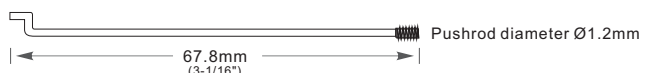


Install Antenna



Pushrod Instructions

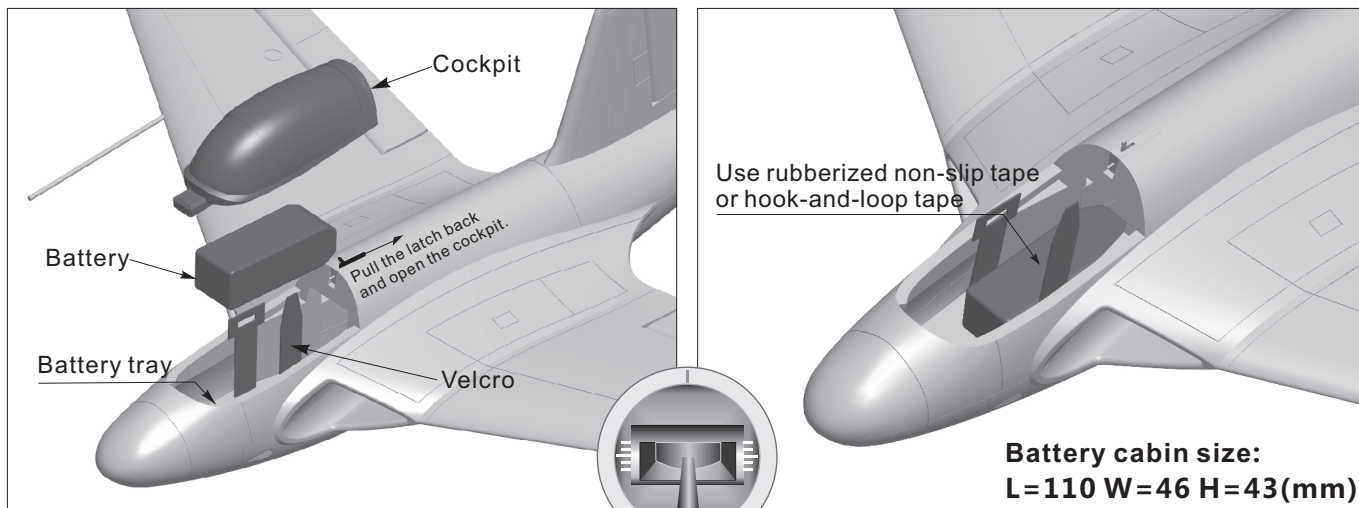
Aileron pushrod size



Aileron pushrod mounting hole



Battery Size



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.

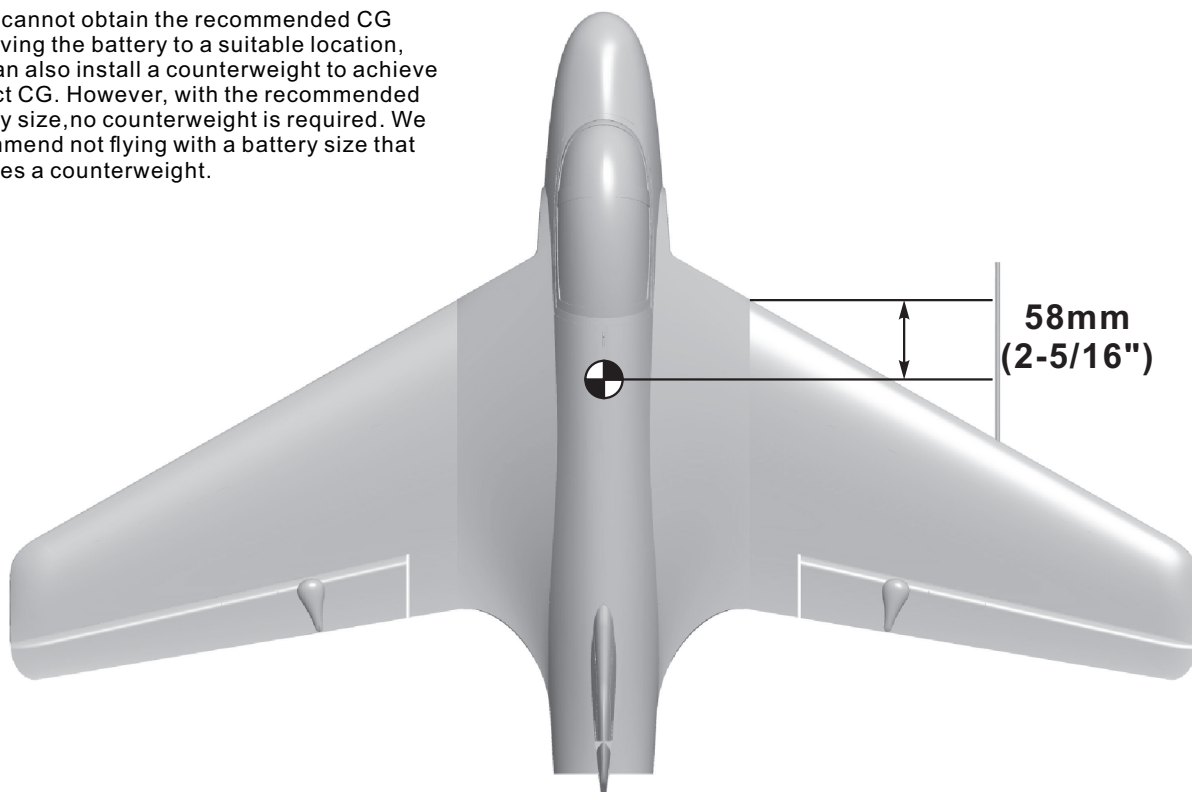
We recommend the following LiPo battery:
3S 11.1V 1000mAh ~ 3S 11.1V 1600mAh
Discharge rate of C ≥ 30C

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.

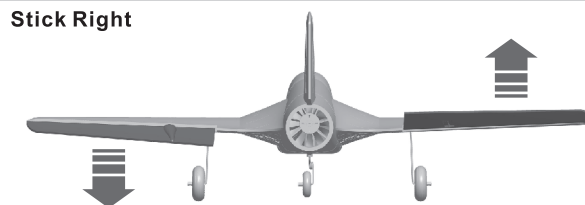
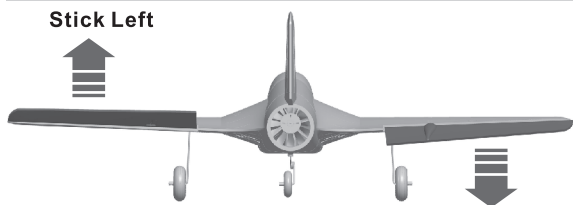
- If you cannot obtain the recommended CG by moving the battery to a suitable location, you can also install a counterweight to achieve correct CG. However, with the recommended battery size, no counterweight is required. We recommend not flying with a battery size that requires a counterweight.



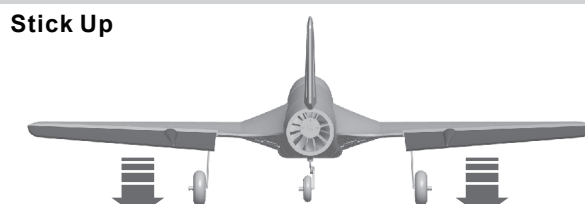
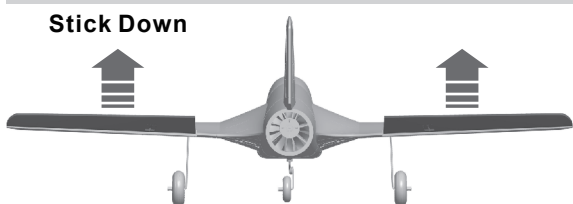
Control Direction Test

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

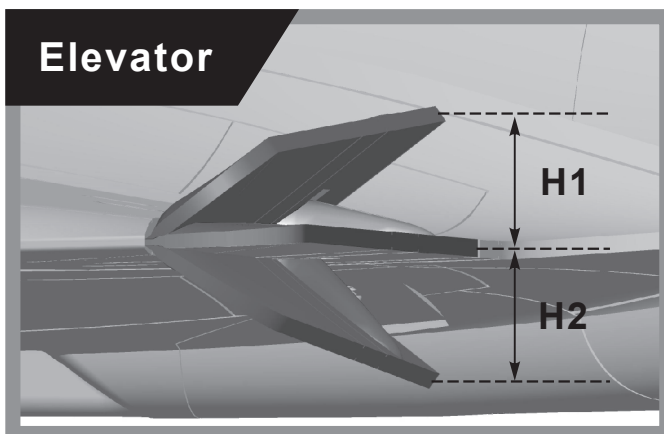
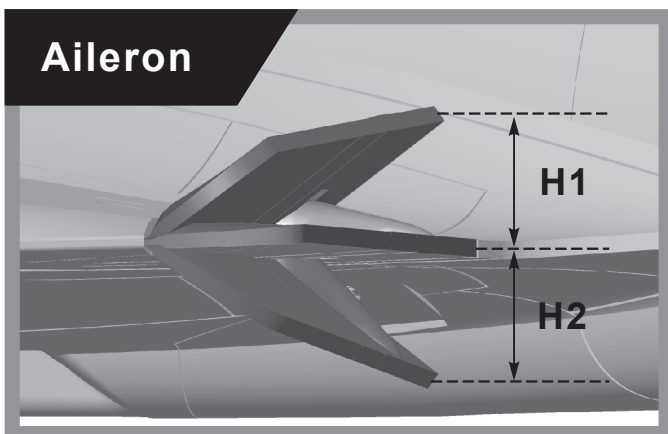


Elevator



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.



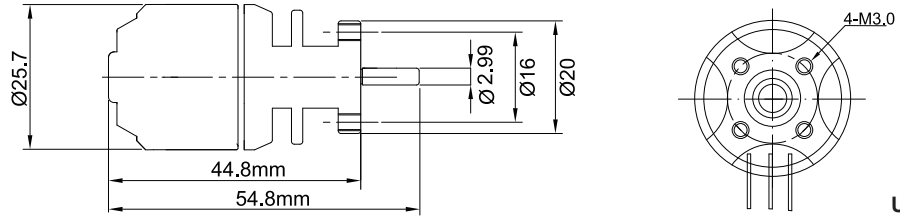
	Aileron(measured closest to the fuselage)	Elevator(measured closest to the fuselage)
Low Rate	H1/H2 11mm/11mm D/R Rate : 60%	H1/H2 15mm/15mm D/R Rate : 80%
High Rate	H1/H2 15mm/15mm D/R Rate : 80%	H1/H2 20mm/20mm D/R Rate : 100%

⚠ 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

EN

Motor Specifications



Item No.: MO026272
2627-4500kv

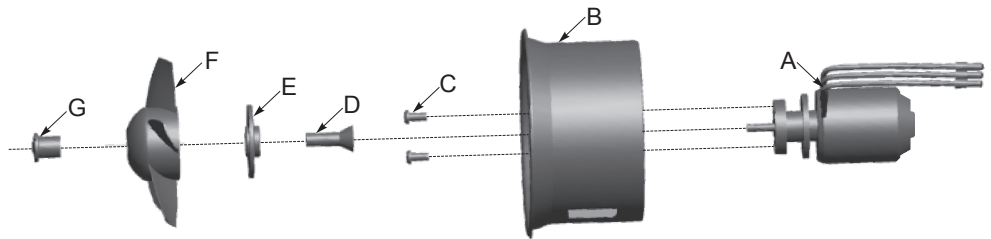
Uni:mm

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

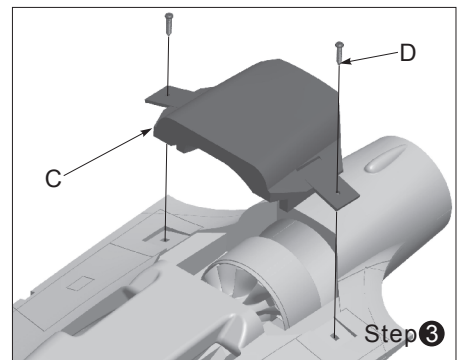
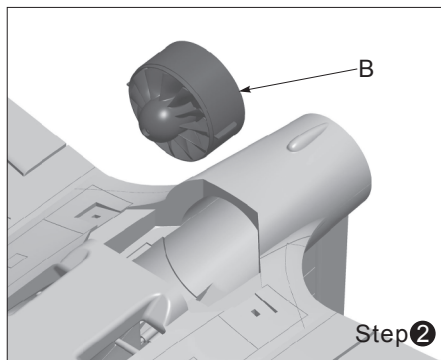
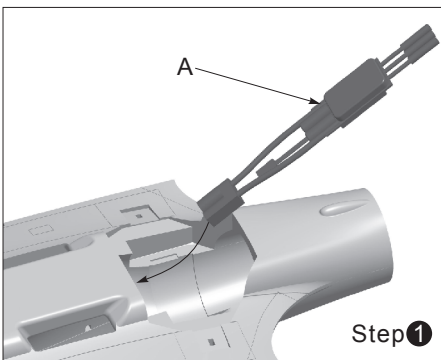
- A- Motor 2627-4500KV
- B- 64mm Outrunner ducted frame
- C- Screw (PM2.5x6 2pcs)
- D- Motor collet
- E- Motor collet backplate
- F- 64mm 5-blade ducted fan
- G- Nut



Refer to the following photo to install ESC and power system

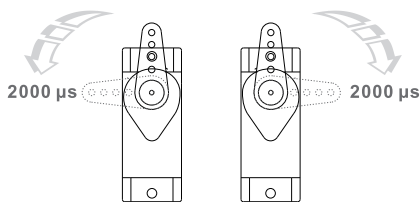
- A- ESC
- B- 64mm EDF power system
- C- EDF cover
- D- Screw (PA2.3x16 2pcs)

⚠ 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.

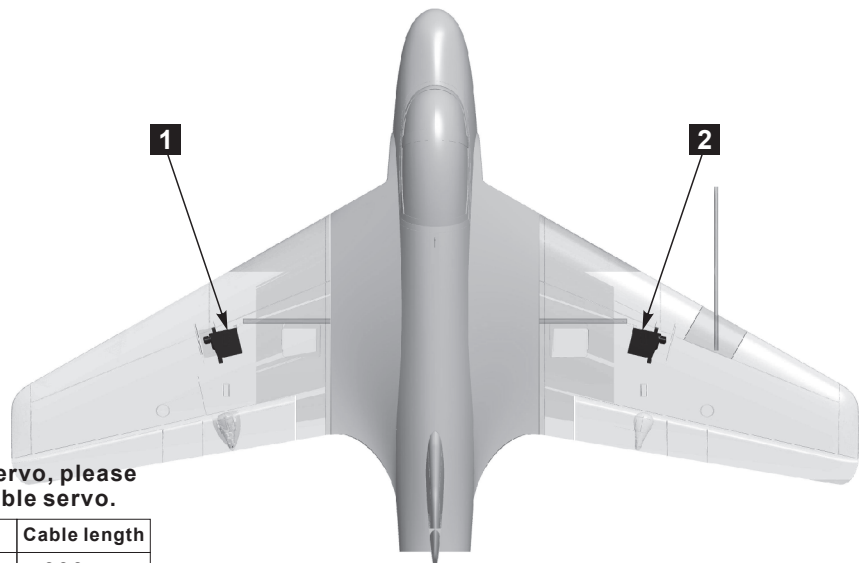


Accessories Introduction

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

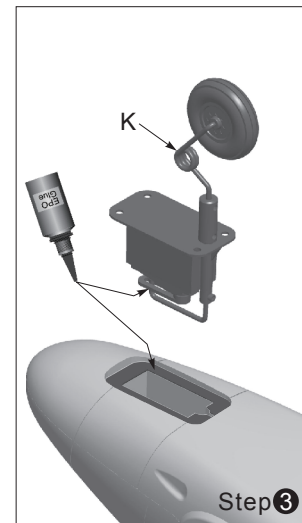
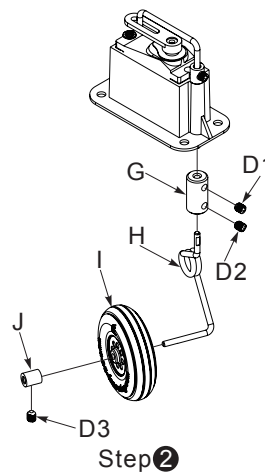
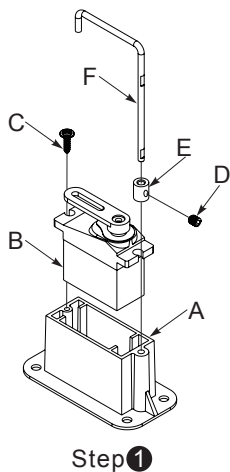
Landing gear is the optional part, please consult with the local distributor to purchase, and refer to the following instructions to install.

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

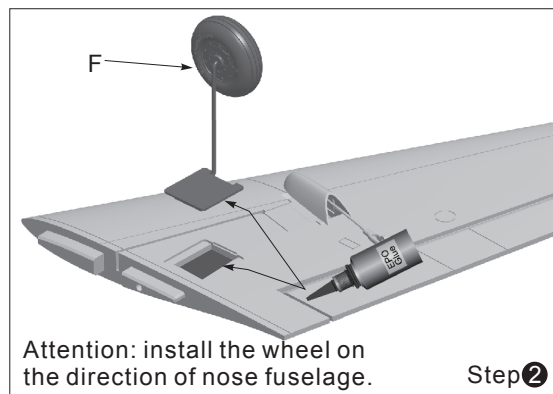
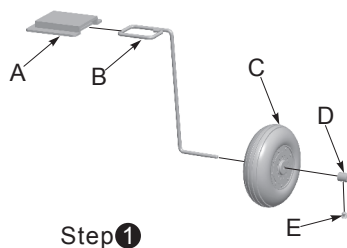


Install rear landing gear

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





www.freewing-model.com