



# BF 109

Perfect Appearance


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Excellent Performance

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## WARNING

 **WARNING:** Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

This is a sophisticated hobby product and NOT a toy. It must be operated with caution and common sense and enquires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision.

This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

### Safety Precautions and Warnings

As the user of this product, you are solely responsible for operating in a manner that does not endanger yourself and others or result in damage to the product or the property of others. This model is controlled by a radio signal subject to interference from many sources outside your control. This interference can cause momentary loss of control so it is advisable to always keep a safe distance in all directions around your model, as this margin will help avoid collisions or injury.

Age Recommendation: Not for children under 14 years. This is not a toy.

- Never operate your model with low transmitter batteries.
- Always operate your model in an open area away from cars, traffic or people.
- Avoid operating your model in the street where injury or damage can occur.
- Never operate the model in the street or in populated areas for any reason.
- Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) you use.
- Keep all chemicals, small parts and anything electrical out of the reach of children.
- Moisture causes damage to electronics. Avoid water exposure to all equipment not specifically designed and protected for this purpose.
- Never lick or place any portion of your model in your mouth as it could cause serious injury or even death.

## Installing the main wing

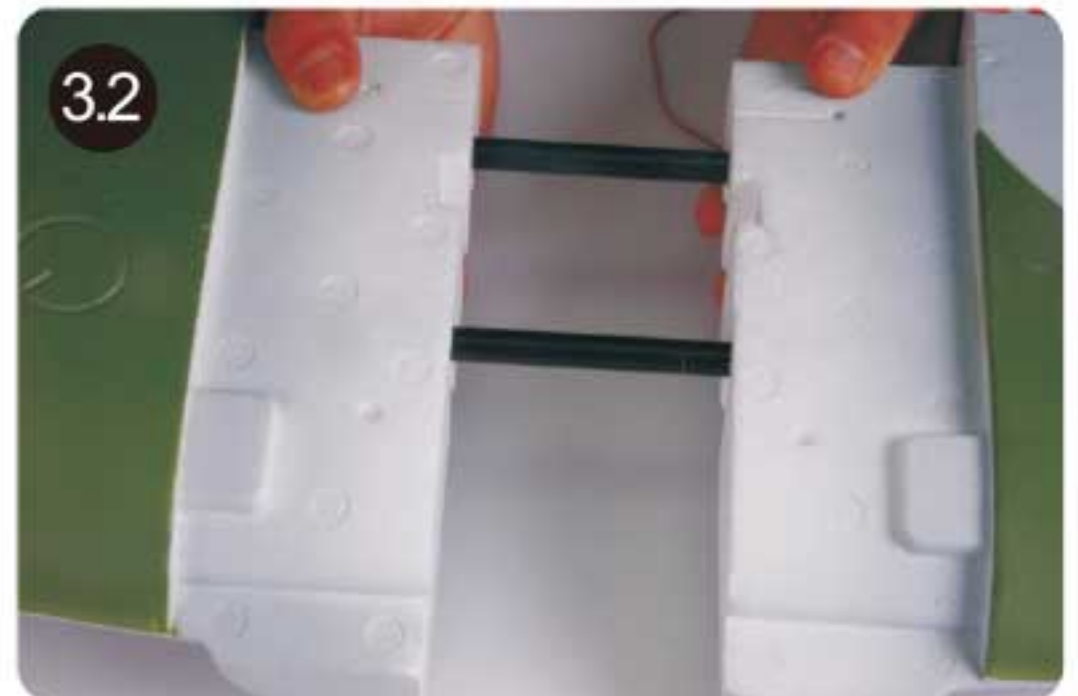
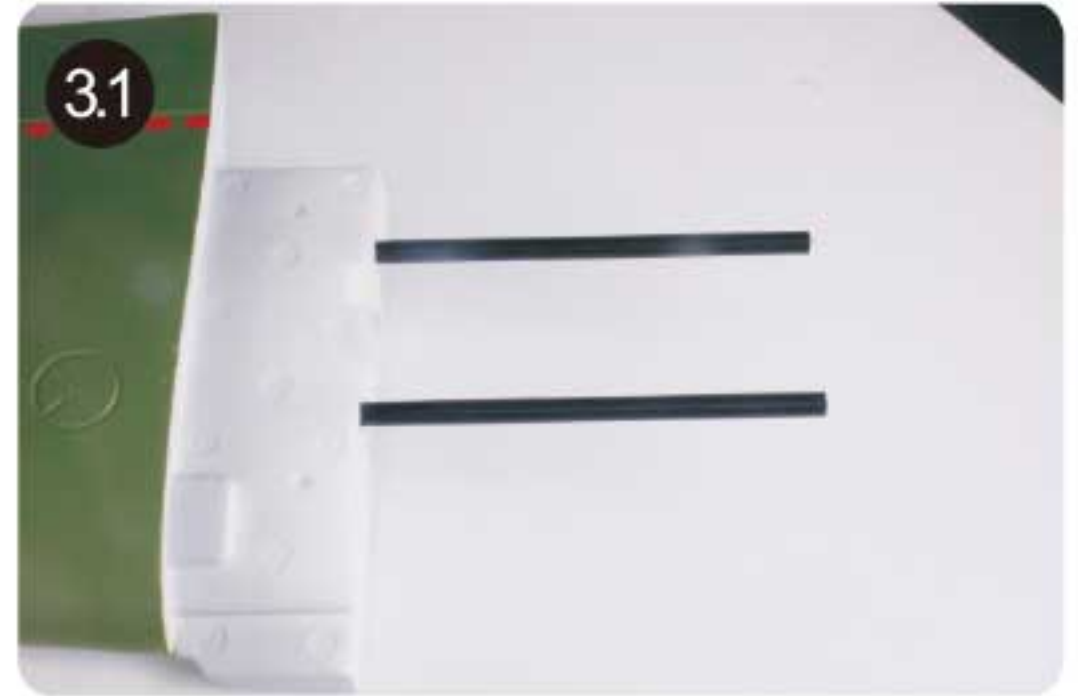
1. Apply glue on the combined side of the foam part.



2. Install the foam part.

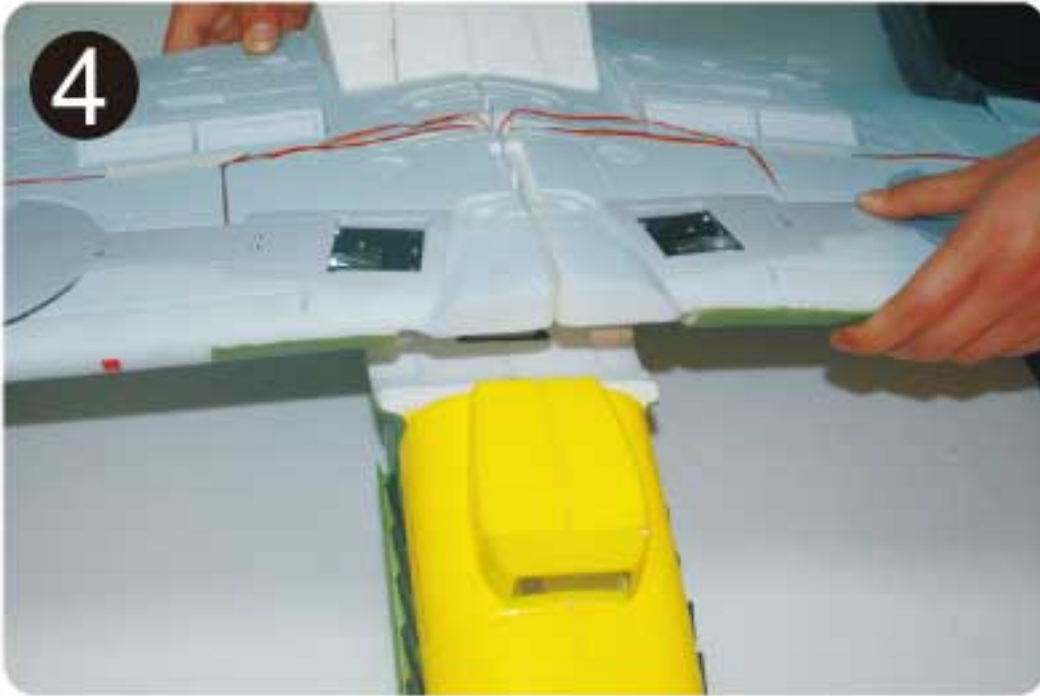


3. Install the glass fiber rods.



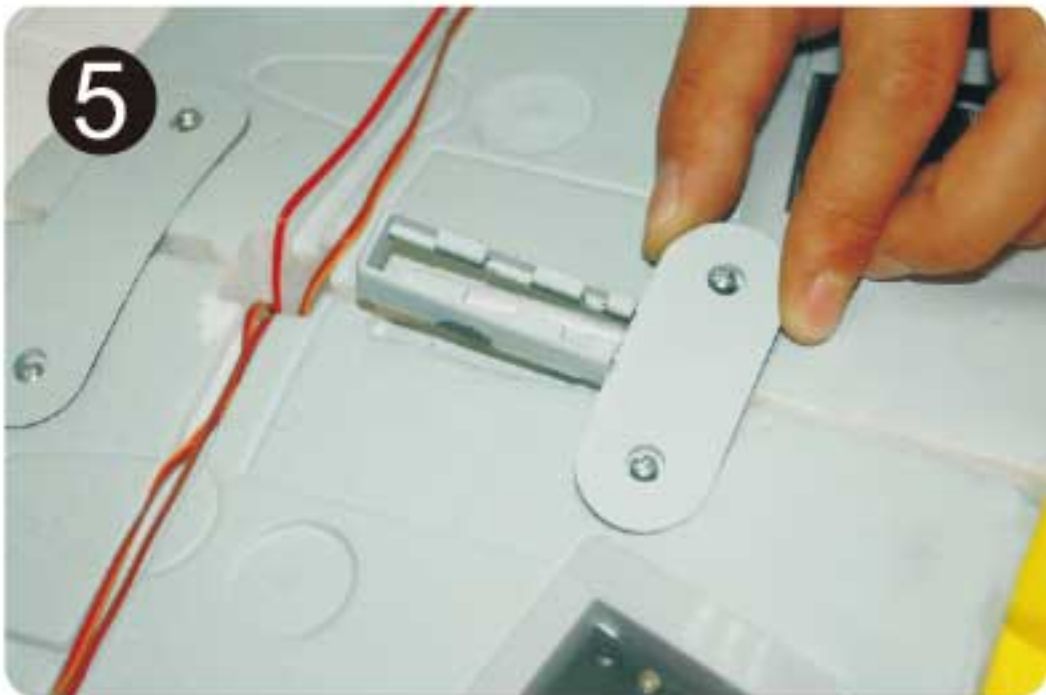
## Installing the main wing

4. Install the main wing.



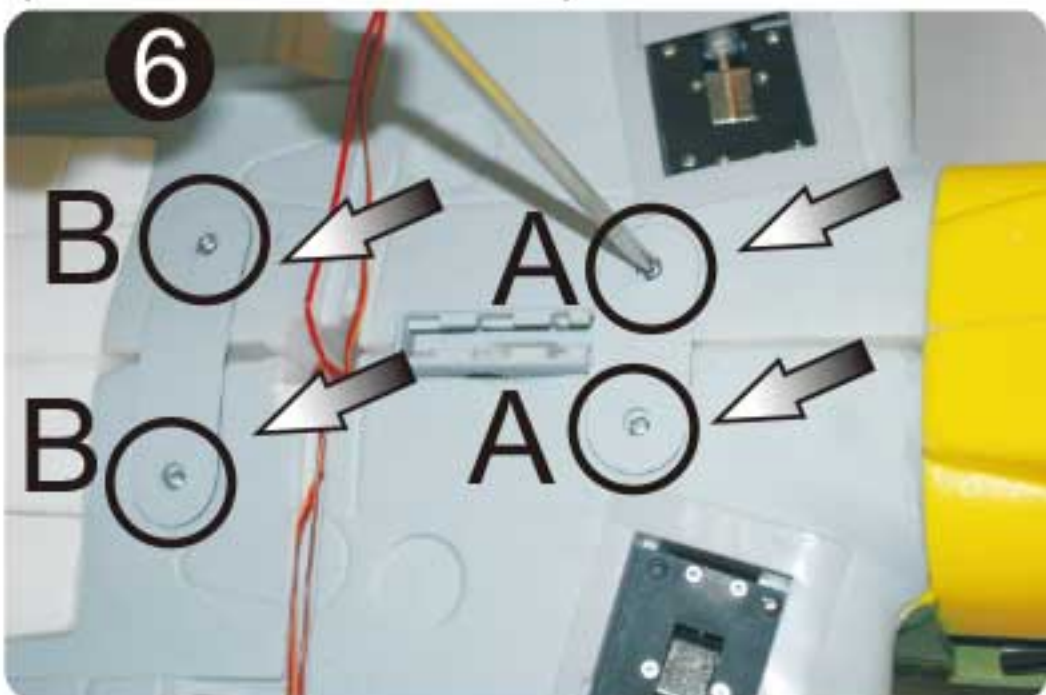
5. Install the wing connector.

**Note:** Put the connector into the position rightly. Making sure there is no slot between the two wing panel.



6. Thread the bolt into the connector making sure it is tight enough.

(A:PM3.0\*65 2PCS)  
(B:PM4.0\*65 2PCS)



7. Install the Oil Tank.

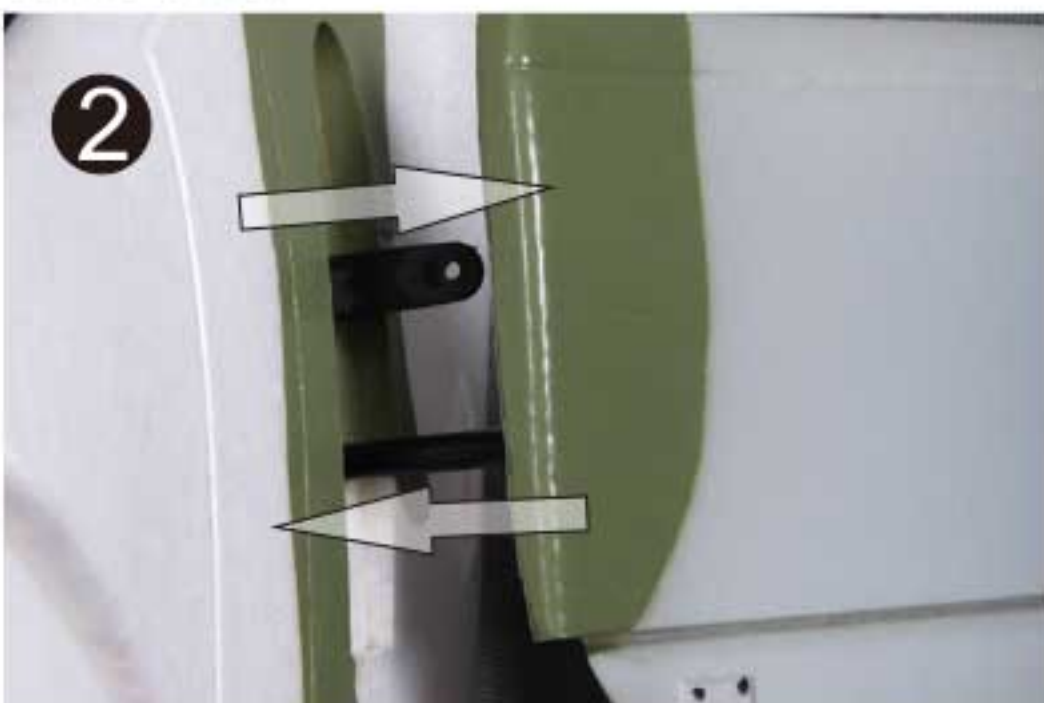


## Installing the Elevator

1. Slide the horizontal connecting tube into the round hole located in the stabilizer mounting slot.



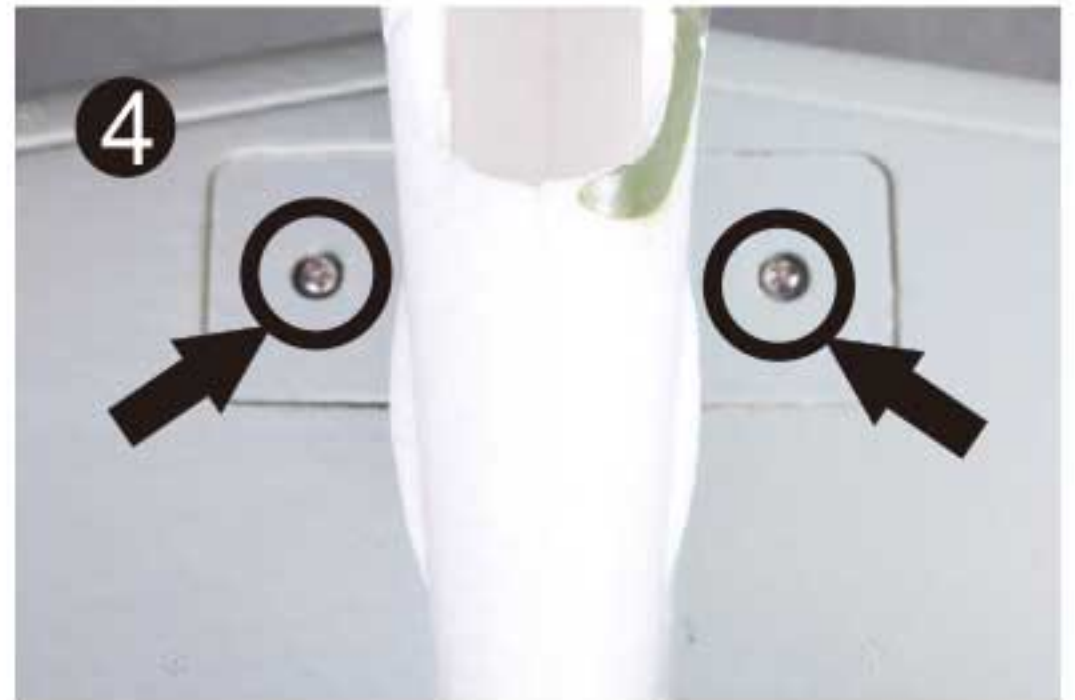
2. Slide the starboard(Right) stabilizer onto the tube, make sure the stabilizer tube, the connector and the elevator connector are interlock to the relative parts at the same time.



3. Fully sit the rudder into place.



4. Secure the rudder using the provided screws **PA 3.0\*15( 2PCS)**.  
**Note:** Do not over tighten the screws but make sure it is tight enough.

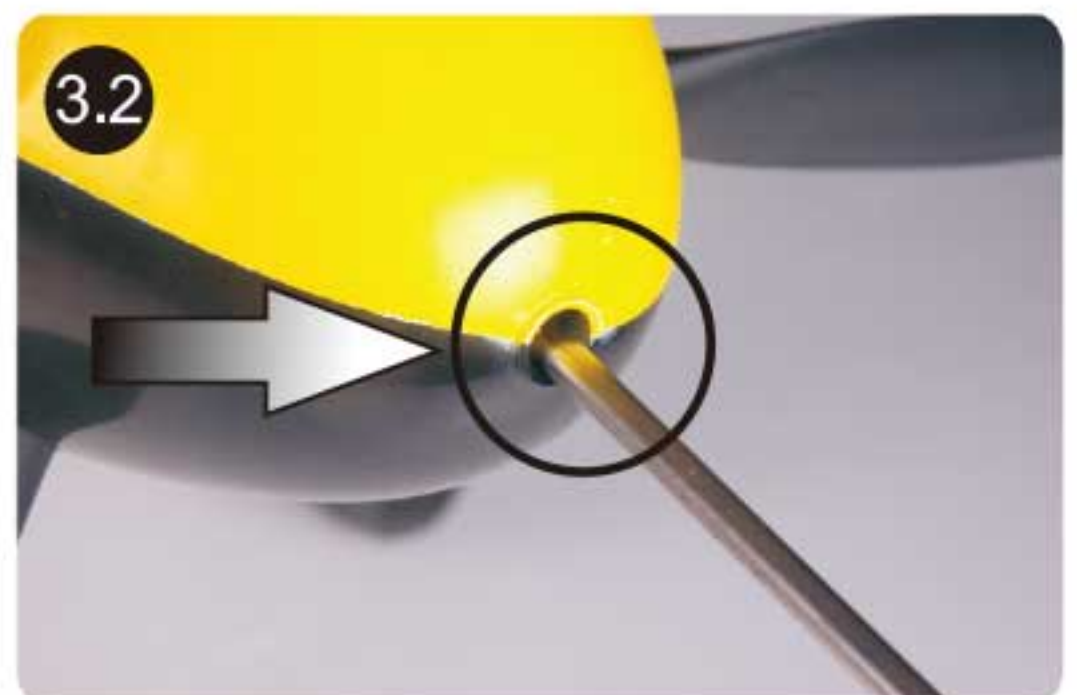


## Installing the propeller

1. Assemble the blades using screws.  
(PA 2.6\*15 6PCS)



2. Install the propeller set making sure it is keyed into the motor shaft.



## Installing the small parts of the aircraft

1. Apply glue on the combined side of the antenna.



2. Install the antenna as shown.



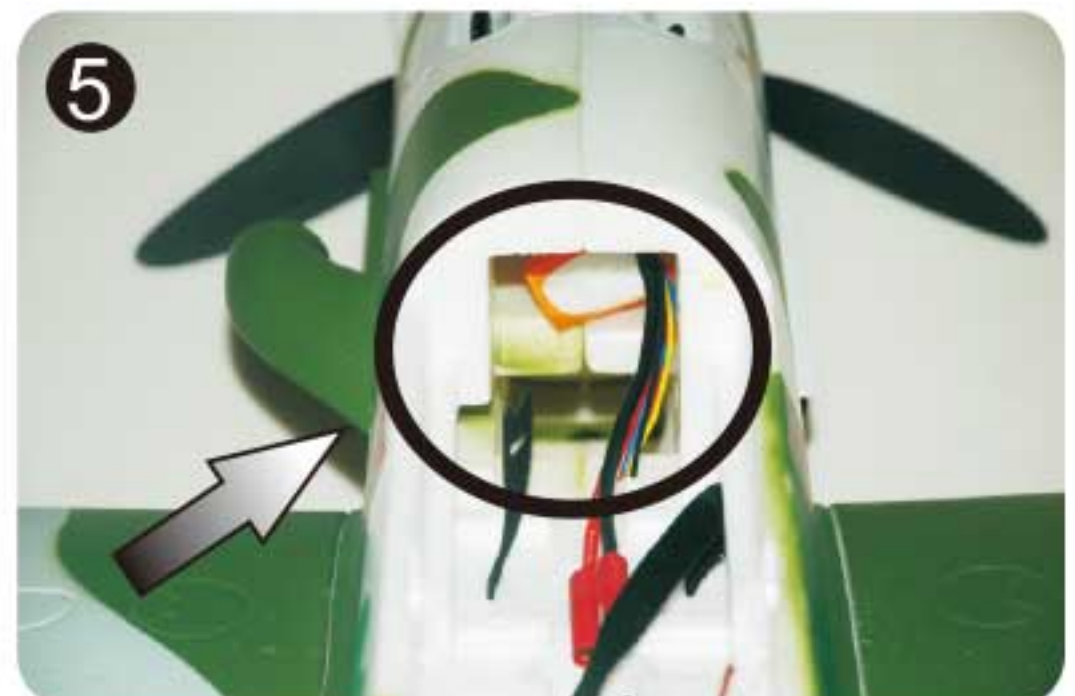
3. Apply glue on the combined side of the air intake and install it.



4. Install the wire antenna.



5. Battery position.



## Main specification

### Specification

Wingspan : 1400mm /55.2 in  
 Length : 1300mm /51.2 in  
 Weight : 2560g /90.3 oz  
 CG Position : 80mm  
 Battery : 14.8V 2600mAh Li-Po Battery  
 ESC : 70A  
 Motor : 4250-580kv  
 Wing Area : 33.8dm<sup>2</sup>  
 Wing Load : 75.4g/dm<sup>2</sup>  
 RC System : 6 Channel, 7 Servos  
 And 1 Brushless ESC

### Center Of Gravity(C.G.)



### Spare Parts List

Item#	Description
ML-101	Fuselage
ML-102	Main Wing Set
ML-103	Elevator
ML-104	Cowl
ML-105	Spinner
ML-106	Canopy
ML-107	air intake
ML-108	Oil Tank
ML-114	E-retract
ML-115	E-retract System
ML-116	Rear Landing Gear Set
ML-117	Propeller
ML-118	Linkage Rod
ML-119	Motor Amout
ML-120	Stickers
ML-121	Screws Set
ML-122	Motor Board
ML-123	Motor Shaft
ML-127	Pipe
ML-128	LED
ML-129	Lamp Cover
ML-130	Motor Board
FMS-Battery-14.8V 2600mah 25C	
FMS-Motor-4250 Kv580	
FMS-ESC-70A 5A SBEC (200mm length cable)	
FMSSER9GP	
FMSSER17	



# Spare Parts List



ML-101



ML-102



ML-103



ML-104



ML-105



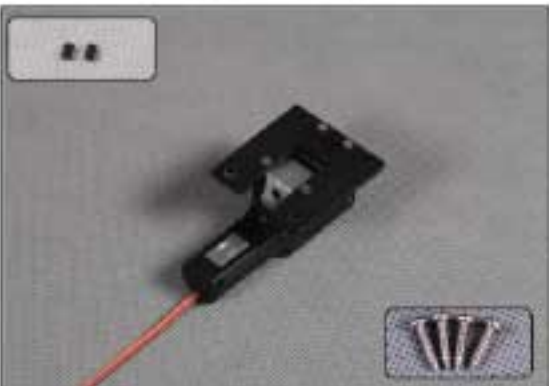
ML-106



ML-107



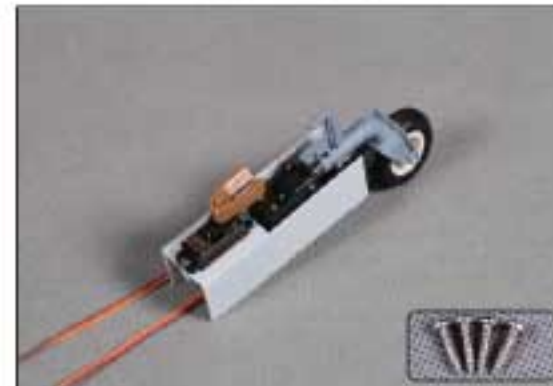
ML-108



ML-114



ML-115



ML-116



ML-117



ML-118



ML-119



ML-120



ML-121



ML-122



ML-123



ML-127



ML-128



ML-129



ML-122



FMS-Motor-4250 Kv580



FMSSER9GP



FMS-Battery-14.8V  
2600mah 25C



FMS-ESC-70A 5A SBEC  
(200mm length cable)



FMSSER9GP

## Trouble shooting

Problem	Possible Cause	Solution
Aircraft will not respond to the throttle but responds to other controls.	ESC is not armed. Throttle channel is reversed.	Lower throttle stick and throttle trim to lowest settings. Reverse throttle channel on transmitter.
Extra propeller noise or extra Vibration.	Damaged spinner, propeller, motor or motor mount. Loose propeller and spinner parts. Propellor installed backwards.	Replaced damaged parts. Tighten parts for propeller adapter, propeller and spinner.
Reduced flight time or aircraft underpowered.	Flight battery charge is low. Propeller installed backward. Flight battery damaged.	Remove and install propeller correctly. Completely recharge Flight battery. Remove and install propeller correctly. Replace flight battery and obey flight battery instructions.
Control surface does not move, or is slow to respond to control inputs.	Control surface, control horn, linkage or servo damage, Wire damaged or connections loose.	Replace or repair damaged parts and adjust controls. Do a check of connections for loose wiring.
Control reversed.	Channels need be reversed in the transmitter.	Do the Control Direction Test and adjust controls for aircraft and transmitter.
Motor loses power. Motor power pulses then motorloses power.	Damage to motor, or battery. Lose of power to aircraft. ESC uses default soft Low Voltage Cutoff(LVC).	Do a check of batteries, transmitter, receiver, ESC, motor and wiring for damage (replace as needed). Land aircraft immediately and Recharge flight battery.
LED on receiver flashes slowly.	Power lose to receiver.	Check connection from ESC to receiver. Check servos for damage. Check linkages for binding.

### Battery Selection and Installation.

1. We recommend the 14.8V 2600mAh 25C Li-Po battery.
2. If using another battery, the battery must be at least a 14.8V 2600mAh 25C battery.
3. Your battery should be approximately the same capacity , dimension and wight as the 14.8V 2600mAh 25C Li-Po battery to fit in the fuselage without changing the center of gravity a large amount.

## Flying Tips

### Range Check Your Radio System

After final assembly, range check the radio system with the **FMS BF109**. Refer to your specific transmitter instruction manual for range test information .

### Take off and landing tips

1. Take off using full power, as soon as you have taken off retract the landing gear.
2. Use the flaps to give a steeper landing approach, increase throttle slightly to offset the increased drag.
3. Ensure that you set a timer and land with plenty of battery power in reserve.
4. It's difficult to landing the plane perfect from the speedy flying state when the flaps keep in the contour.
5. Never exceed 3 minutes to fly with the maximum power others.
6. Never exceed the limited flying weight.

### First Flight Preparation

1. Remove and inspect contents.
2. Charge flight battery.
3. Read this instruction manual thoroughly.
4. Fully assemble model.
5. Install the flight battery in the aircraft (once it has been fully charged).
6. Bind aircraft to your transmitter.
7. Make sure linkages move freely.
8. Make sure the rubber ring has been properly slide on the clevis.
9. Perform the Control Direction Test with the transmitter.
10. Adjust light controls and transmitter.
11. Perform a radio system Range Check.
12. Find a safe and open area.

### Please read the following instructions and fully understand it.

1. Do not fly in strong wind or bad weather.
2. Never fly the model in crowded areas, where there are lots of people, automobiles on the road or power lines overhead . Also do not to fly around the airport. Please make yourself enough room for the flying and operating, as the plane can travel at high speed. Remember you are responsible for the safety of others.
3. Children under the age of 12 should have an adult guide. Never recommend for the children under the age of 14.
4. Never leave the charger in wet conditions.
5. The **BF109** is made from PA and polythene which are tinder. When it meets the heat, transfiguration can easily happen, so you must keep it away from heat.
6. Do not attempt to catch the **BF109** while flying, please do not touch the propeller.
7. Never leave this system unattended around children with battery in the unit, as injury may be caused due to children's turning on the transmitter or the plane.
8. During the preparation for the flight, please remember to turn on the transmitter before connecting the battery pack.
9. Close the throttle on the transmitter before connecting battery otherwise the motor may operate.



Email: [info@fmsmodel.com](mailto:info@fmsmodel.com)  
Http: // [www.fmsmodel.com](http://www.fmsmodel.com)