FMS®

HS 123

Perfect Appearance　　Excellent Performance

顺子静　　顺子动

FMS®

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WARNING

Welcome to **FMS** model, we would like to thank you for purchasing an innovative new product, designed for the hobby enthusiast.

⚠ 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 the 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 14years. 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.

FMS Kindly Reminder

Thank you for your great attention and support to our company.
If there is any problem regarding the plane, or any suggestion on our products, such as packaging, package, new scheme, even structure, please feel free to contact us at info@fmsmodel.com

Note: All of the direction instruction in the manual are given from the tail of the plane.

step1 — Installing the main Wing

1. Install the lower wing.

2. Secure the lower wing using screw. (PA3.0*40 4PCS)

3. Install the interplane strut.

4. Install the right interplane strut.

5. Install the smaller strut base to the lower wing.
Note: The opening of the base toward the tip of the wing.

step1 — Installing the main wing

6. Install the right cabane.
Note: The bigger slot toward the propeller side.

7. Secure the cabane using screws. (PA1.7*5 4PCS)

8. Repeat process for the other side.

9. Install the right bigger interplane strut base to the top wing.

10. Insert the servo wire into the big base.
Note: The opening of the base toward the inboard of the plane.

step1 — Installing the main wing

11. Constrain the servo wire in the interplane strut half.
Note: Do not clamp the wire before install the interplane strut.

12. Install the strut.
Note: The dent of the strut toward the front of the plane.

13. Secure the strut using screw. (PA1.7*10 1PC)

14. Install the airspeed head.

step1 — Installing the main wing

15. Install the left interplane strut to the top wing as the same with right strut.

16. Insert the wire into the small strut base.

17. Install the strut to the lower wing.

18. Secure the interplane strut using screw. (PA1.7*10 1PC)

19. Turn over the plane so the bottom of the plane face up.

20. Install the top wing to the cabanes.
Secure the top wing with the cabanes using screws. (PA1.7*5 4PCS)

step2 — Installing the main landing gear

1. Tuck the servo wires into the wire slot.

2. Install the main landing gear.
Note: The screws head in the wheel pant are on the inboard side of the plane.

3. Screw. (PA2.6*10 8PCS)

step3-4

Installing the propeller

1. Install the shaft shoulder.

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

3. Install the spinner make sure it is tight enough.

Installing the elevator

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

2. Install the elevator making sure the elevator and rudder meet at right angles.

3. Install the inclined stay bar (Left&Right).

step5 — Installing the small parts of FMS HS 123

1. Install the bomb rack(4PCS).
Note: The opening of the rack toward the propeller.

2. Hang on the bomb smoothly(4 PCS).

3. Install the oil tank.

4. Install the antenna.

step5 — Installing the small parts of FMS HS 123

5. Install the windshield.

6. Install the pilot.

7. Install the pedal.
Note: Distinguish the left and right pedals, making sure the mounting direction of the pedal as the same with follow.

8. Battery position.

9. Install the battery hatch cover.

step6 — Control Direction Test

1. Move the elevator stick on the transmitter forward and aft to check elevator pitch control. When the stick is pushed forward, the elevator should move down.
2. When the elevato stick is moved aft the elevator should move up.
3. Move the aileron stick left and right to check roll control. When the stick is pushed to the left, the left aileron should move up and the right aileron should move down.
4. With the aileron stick pushed right, the right aileron should move up and the left aileron should move down.
5. Move the rudder stick left and right to check yaw control. When the stick is pushed to the right the rudder should also move to the right (if viewed from behind the airplane).
6. With the rudder stick pushed to the left, the rudder should move to the left (if viewed from behind the airplane).

If at any time during the test the controls respond in the opposite direction, it may be necessary to reverse the servo channel connected to the control controls. Follow your transmitter instructions to change the direction of the various flight controls.

Factory setting

	Elevator	Ailerons	Rudder
Arms			
Horns			

Fly the model at factory setting. For pilots who wish to fly the model with more control throw, adjust position of linkages on servo arms and control horns for increased travel.

Main specification

Specification

Wingspan	:	1030mm /40.6 in
Length	:	870mm /34.3 in
Weight	:	1240g /43.7oz
C.G Position	:	65mm
Battery	:	11.1V Li-Po Battery
ESC	:	30A
Motor	:	3536-850kv
Wing Area	:	24.1dm²
Wing Load	:	51.4g/dm²
RC System	:	5 Channel, 6 Servos And 1 Brushless ESC

Center of Gravity(C.G.)

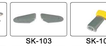
Spare Parts List

Item#	Description
SK-101.	Fuselage(Bare with all the plastic parts installed)
SK-102.	Main Wing (Lower and top wing painted with all the plastic parts installed)
SK-103.	Elevator
SK-104.	Battery Cover
SK-105.	Bo Tarck
SK-106.	Cowl(4PCS)
SK-107.	Cowl
SK-108.	Spinner
SK-109.	Pilot
SK-110.	Screw Set (Wing mounting, Interplane strut installing)
SK-111.	Front Landing Gear Set
SK-112.	Rear Landing Gear Set
SK-113.	Motor Board
SK-114.	Decal Sheet
SK-115.	Canopy
SK-116.	Linkage Rods(With clevis)
SK-117.	Motor Shaft
SK-118.	Wing Strut Set
SK-201.	Motor(D3536- KV 850)
SK-202.	Sg Servo (With arm)
SK-203.	ESC(30A)
SK-204.	Battery(11.1v,1800Mah,25C)

Spare Parts List

SK-101

SK-102



SK-103

SK-104

SK-105

SK-106

SK-107

SK-108

SK-109

SK-110

SK-111

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SK-113

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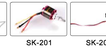
SK-118



SK-201

SK-202

SK-203

SK-204

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. Propeller 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. Replace flight battery and recharge it following 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. Check all wire and 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 motor/loses power.	Damage to motor, or battery. Loss 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 loss to receiver.	Check connection from ESC to receiver. Check servos for damage. Check linkages for binding.

Battery Selection and Installation.

1. We recommend the FMS 1800mAh 11.1V 25C Li-Po battery.
2. If using another battery, the battery must be at least a 1800mAh 11.1V 25C battery.
3. Your battery should be approximately the same capacity , dimension and weight as the FMS 1800mAh 11.1V 25C Li-Po battery to fit in the fuselage without changing the center of gravity a large amount.

Pilot Flying Tips

Range Check Your Radio System

After final assembly , range check the radio system with the **FMS HS123** . Refer to your specific transmitter instruction manual for range test information.

Flying Field

Always choose smooth asphalt runway not shorter than 20 meter with enough airspace. It is ideal for you to fly **FMS HS123** fly at a sanctioned flying field. If you are not flying at an approved site , always avoid flying near houses , trees , wires and buildings. You should also be careful to avoid flying in areas where there are many people , such as busy parks, school yards , or soccer fields . Consult local laws and ordinances before choosing a location to fly your aircraft.

Flying Preparation

1. keep less than 50 degree of aileron throw, elevator throw less than 40 degree, rudder throw less than 40 degree, flap less than 25 degree during the whole flying course.
2. Keep all the control surface level with trail edge of the main wing before any stick input.
3. Make sure the same throw of the both flap control surface to avoid any chance of yaw.

Taking Off

1. Make sure all control surfaces and motor operate normally. Pull the stick a little when taxiing to avoid nose over. Do not turn around abruptly to avoid the airplane turning on one side.
2. Keep the plane go straightly toward the runway with the most power. (Full flap would reduce the taxiing distance) Close the flap when the airplane reach the safety altitude.

Landing

1. Keep the plane go straightly toward the runway, meanwhile deploy the flap to slow down the flying speed. Trim the elevator to raise the nose of the airplane. Cut off the power after landing to slow down the taxiing speed. Pull the stick during taxiing to keep the tail on the ground all the way to prevent nose over.
2. Don't turn around abruptly before slowing down the taxiing speed, or the airplane would turn on one side.

NOTICE: When finished flying , never keep the airplane in the sun. Do not store the aircraft in a hot , enclosed area such as a car . Doing so can damage the foam.

Pilot Flying Tips

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 **HS123** is made from PA and polythene which are tinder. When it meets the heat, transformation can easily happen, so you must keep it away from heat.
6. Do not attempt to catch the **HS123** 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.