H·KING

SWISS J3 CUB

1400MM PNF CLASSIC OF AVIATION

Instruction Manual

Please read this manual carefully before operating this plane.

PNF VERSION

⚠ WARNING

Read this instruction manual fully so as to become completely familiar with the features of the product before operating. Failure to operate this product correctly could result in damage to the product, personal property and cause serious injury. This is a sophisticated hobby product and is NOT a toy. It must always be operated with caution, common sense and some basic mechanical ability. This manual provides instructions on the assembly, safe operation and maintenance of this hobby product. It is highly recommended that you read and follow fully the instructions and warnings stated in this manual including safety, assembly, set-up and flying guidelines in order to operate this product correctly and avoid damage or serious injury.

SAFETY PRECAUTIONS

As the user of this product you and you alone are responsible for operating it in a manner that does not endanger yourself and others around you or result in damage to the product or property of others. This product is operated via a radio controlled system that in some cases can be subject to interference from sources outside of your control. Interference may result in a momentary loss of control so it is always recommended that this product be used in a suitable open outdoors space.

• This is a radio controlled flying model and as such must always be flown with caution, this is NOT a toy.
• The H-King J3 Swiss Cub brief was to design a model for low hours to intermediate pilots.
• Always exercise great caution when using the recommended battery to power this product. For full safety notes and operating procedures please read the information provided by your battery supplier.
• Take great care when connecting/disconnecting the battery. Once again see your battery suppliers informtion for the full safety procedures.
• Never power up the model in a confined space and always keep the propeller clear of obstructions, clothing and parts of your body.
• This product is not a toy, children must be accompanied by an adult at all times when operating this product.
• Only fly this model in an open area away from crowds, people, buildings, trees, power lines, roads, airports and other obstructions.
• Always put safety first when operating this model and consider the warnings stated above.
• The supplier/manufacturer accepts no responsibility for damage or injury caused through the use of this product. A reminder that it is not suitable for children under the age of 14. THIS IS NOT A TOY.

CONTENTS:

SWISS J3 CUB

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H·KING

INTRODUCTION:

Thank you for purchasing H-King's J3 Swiss Cub Electric R\C airplane, the J3 is a propeller driven airplane which is ideal for the beginners, seasoned flyer's and scale enthusiasts. On a 2700mAh 3S LiPo battery it will give you great flight times and pure scale flying performance. Step up to a 2450 3S LiHV and you'll get scale flight but with a little extra kick in power to help with mild non scale aerobatics. Leap up to a 2200mAh 4S battery and you have a Cub that's way over powered, but a great flying, extremely cable and sturdy sports aerobatics model. The best feature of the H-King Swiss Cub is diversity. When it comes to performance, the choice is yours.

The Swiss Cub will perform most aerobatic manoeuvres from loops to stall turns and with its classic lines always look the part at any angle. Made from tough EPO foam means it will handle all the knocks and bangs of daily life on the strip but with the new all metal landing gear, the model can now handle the very hardest of touch and goes without so much as a bent axle. In order to fly the J3 please make sure you read through the instructions carefully before attempting to operate the model for the first time.

And before any flight please remember, you alone are responsible for the safe operation of your radio-controlled model. Young people should only be permitted to operate this model under the instruction and supervision of an adult who is aware of the hazards involved and is flying in compliance with national laws and guidelines related to the hobby.

FEATURES:

- Authentic scale color scheme.
- Perfect for aerobatic manoeuvres, such as rolls,loops, and stall turns.
- Stable inverted flight.
- Excellent scale performance.
- Excellent stability in pitch.
- Controllable landings and easy to fly.
- Modular design, easy to repair with the avail able spare

SPECIFICATION:

- Wingspan: 1400mm (55")
- Length: 1040 mm
- Flying weight: 1800g
- Wing load: 56 g/dm²
- 40A brushless ESC
- Powerful 3648-700KV brushless out-runner motor
- 4 x 9g servos
- Battery: 2200~2700mAh 3~4S LiPo

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3. Vertical Stabilizer
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5. Landing Gear Set
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7. Wing Struts
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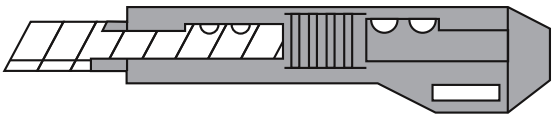
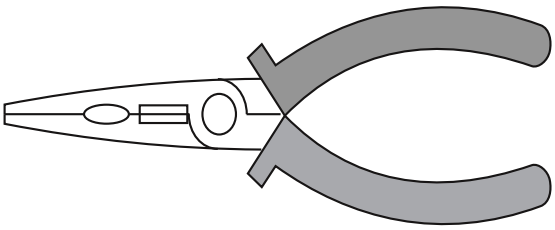
9. Wing Spar/Joining Set
10. Center Wing Canopy
11. Main Wheel Set
12. Accessory Packs

TOOLS AND ITEMS:

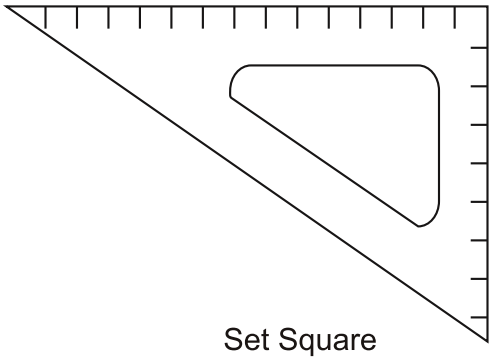
To assemble this airplane you will require the following tools.



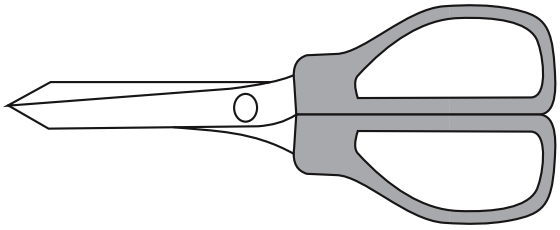
Modelling Knife



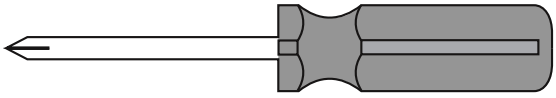
Pliers



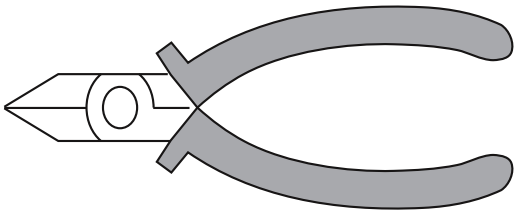
Set Square



Scissors

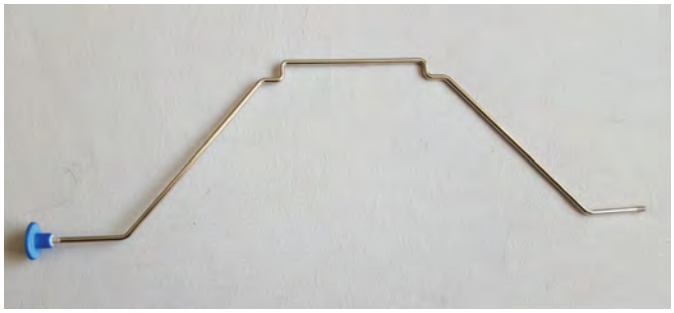


Cross Head Screwdriver

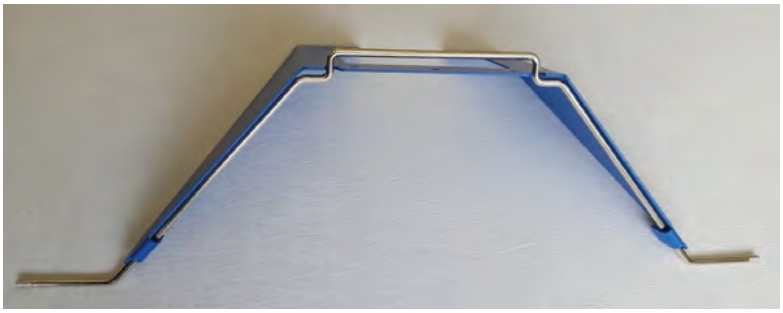


Side Cutters

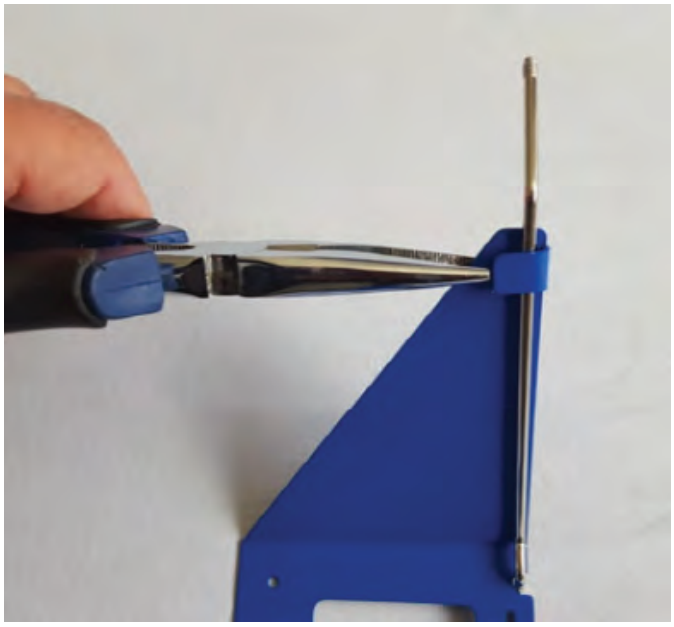
ASSEMBLY OF THE MAIN LANDING GEAR:



1. Screw on both wheel retaining caps so that you cut a thread into the plastic, then remove.



2. Clip the pre-bent wire landing gear into the landing gear fairing as shown.



3. Using a pair of pliers, squeeze the landing gear retaining tabs on the fairing to secure the wire. (Please see step 4 before doing so).

4. To save scratching the paint on the fairing, use a piece of soft cloth to protect the paint from the jaws of the pliers.

5. There is a bit of sideways movement when the wheels are fitted to the axle. We recommend you either fit some wheel collars as shown above or plastic tubing (these components are not supplied in the kit)) to remove the sideways movement. Then fit the wheels onto the axles and screw back on the wheel retaining caps.

6. Screw the main landing gear to the fuselage using the three 2.6x10mm washered screws supplied. Note: At this point do not fit the rear screws as these will be installed with the wing struts.

ASSEMBLY OF TAILWHEEL, HORIZONTAL & VERTICAL STABILIZERS:

7. Apply a small amount of glue to where the plastic tail bracing mounts are fitted on the top and lower surfaces of the horizontal stabilizer.

8. Install the tail bracing mounts as shown.

9. Repeat this operation for both sides of the vertical stabilizer.

10. Attach the elevator control horn using two 1.7x15mm screws Fit the screws diagonally as shown and screw into the plastic backing plate supplied.

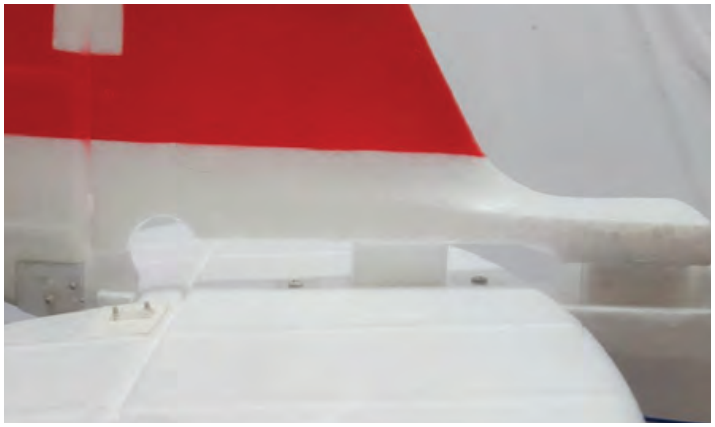
11. Apply glue to the area shown on both sides of the rudder at the bottom where the rudder to tail wheel horn is to be attached.

12. Glue into position the rudder to tail wheel steering double horn.

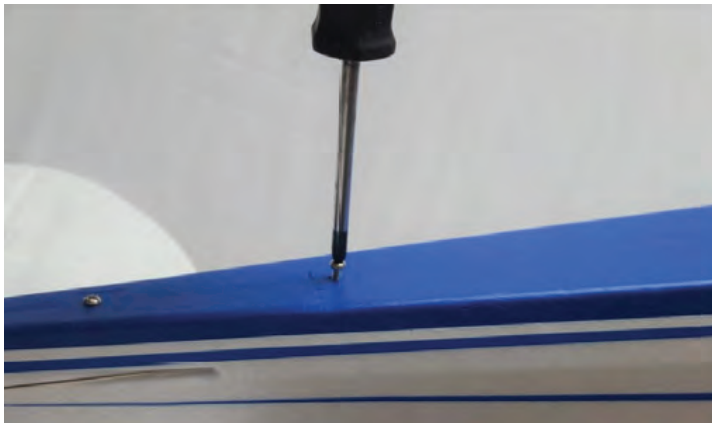
13. Attach the rudder control using two 1.7x15mm screws. Screw these through the holes as shown and into the backing plate supplied.

14. Attach the horizontal stabilizer using the two M3x30mm screws provided.

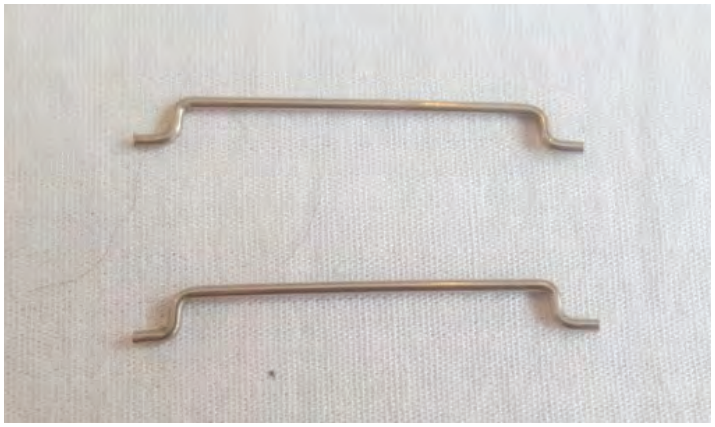
15. Pry the rear of the fuselage open slightly to put some glue in the slot for the bottom rudder hinge.



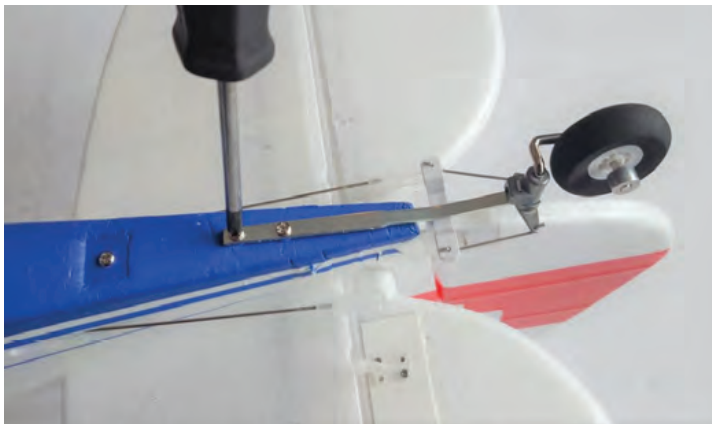
16. Fit the vertical stabilizer into the rear of the fuselage, ensure the bottom rudder hinge locates properly in the slot.



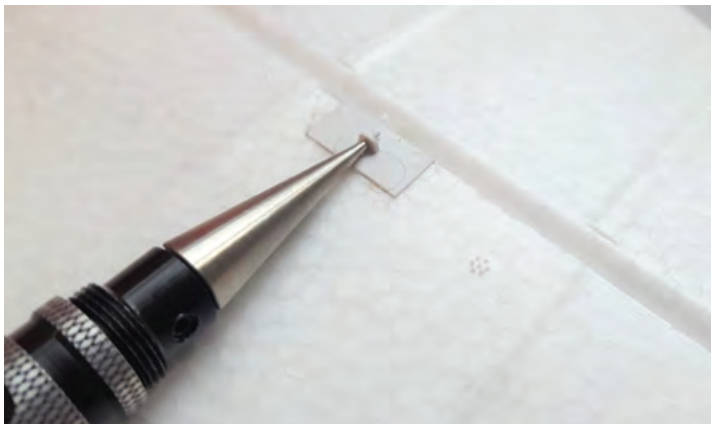
17. Attach the vertical stabilizer using one M3x40mm and one M3x45mm screw. Ensure the M3x45mm screw is used in the front fixing.



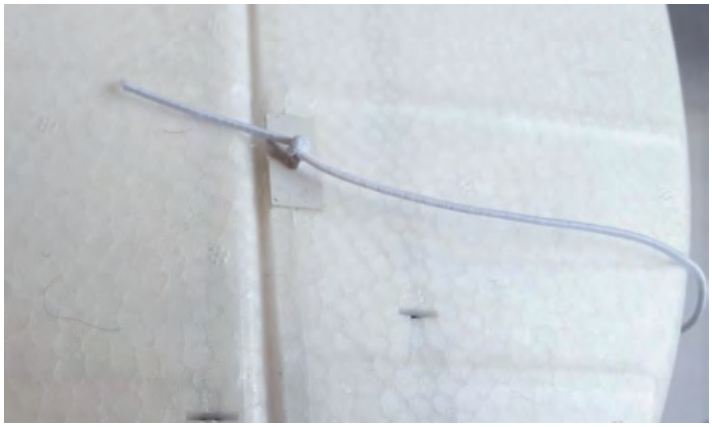
18. Identify the two rudder to tail wheel pushrods.



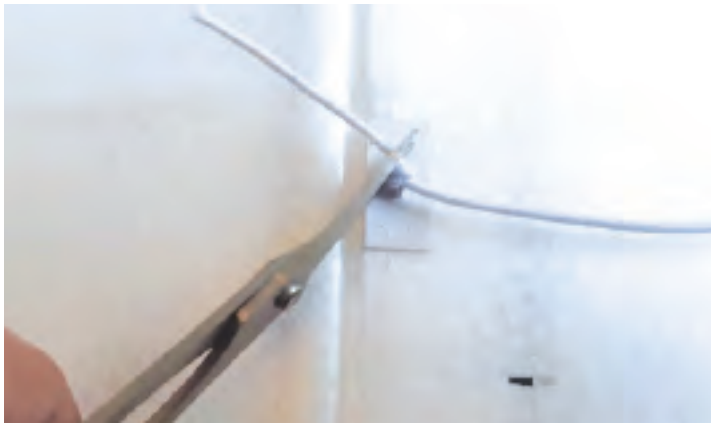
19. Feed the two pushrods through the tail wheel horn and the twin rudder horn, Secure the tail wheel assembly in place using the two 2.6x8mm screws provided.



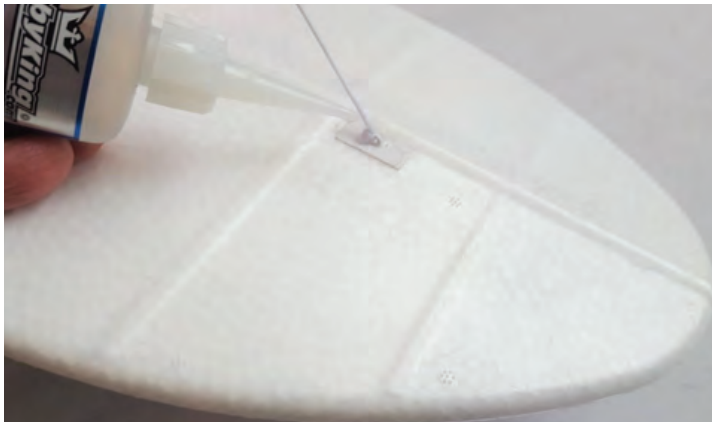
20. Reamer out the holes in the bracing wire attachments to accept the white elastic shock chord supplied.



21. Thread the white shock cord through the attachment and tie a knot.



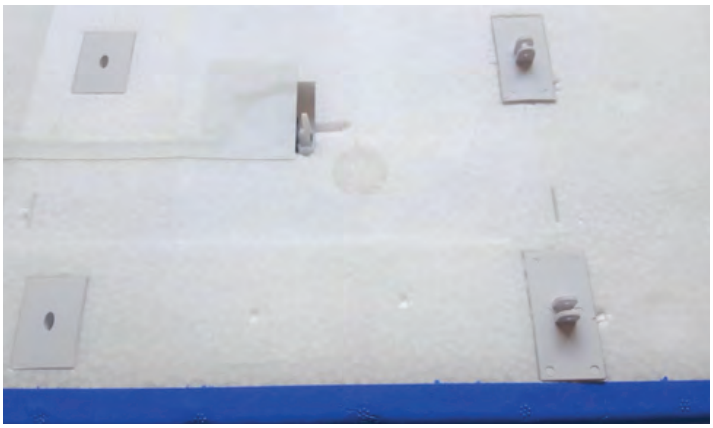
22. Cut of the excess shock chord with scissors or a sharp knife.



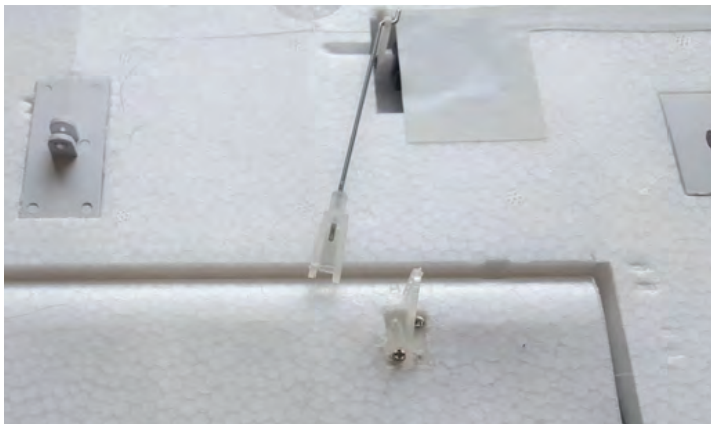
23. Seal the knot with some thin CA glue. Complete this process for all four tail bracing wires.

24. The tail section is now complete.

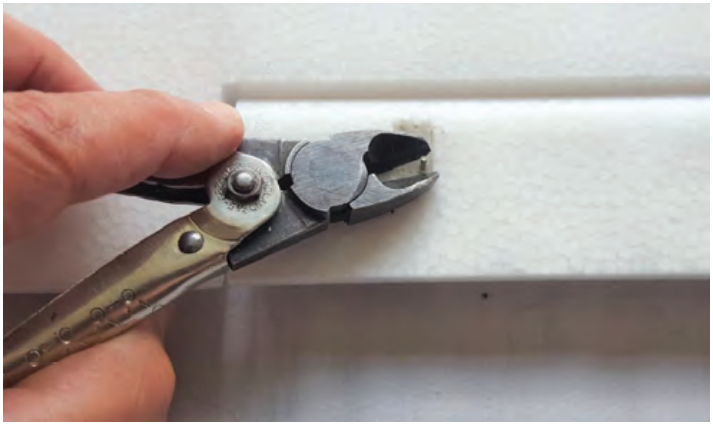
ASSEMBLY OF MAIN WINGS AND WING STRUTS:



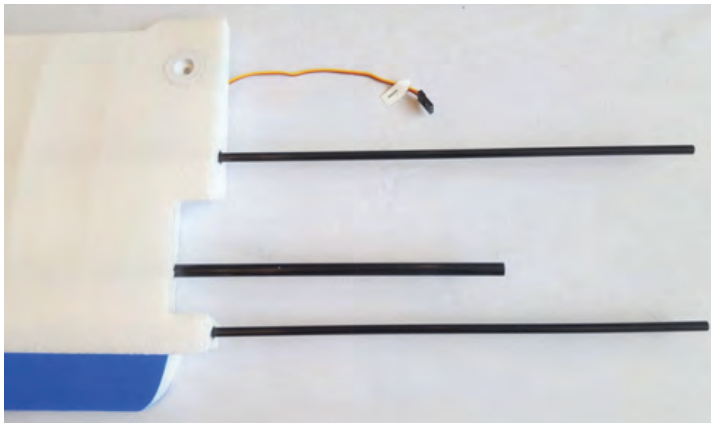
25. Glue to each wing the four wing strut mountings as shown. Note: The outer ones are handed in as much as the wing strut screws pass through one side and thread into the other. Orientate these so that all the screws will be facing the same way.



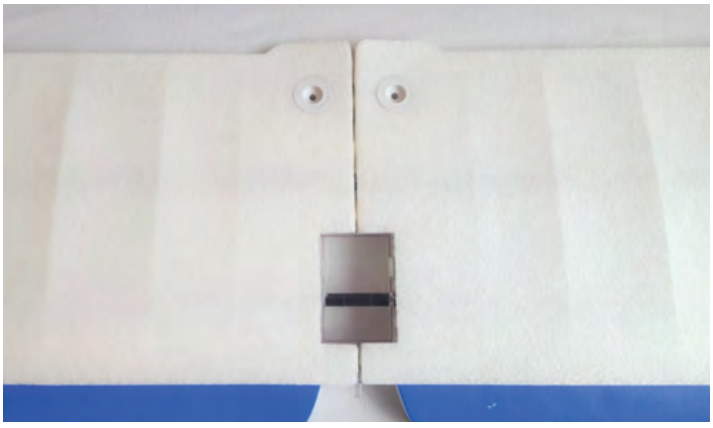
26. Fit to each wing the aileron controls horns using two 1.7x15mm screws positioned diagonally.



27. Trim of any excess length from the aileron horn mounting screws.



28. Slide the three main spars into one of the wings.



29. Slide on the center wing canopy over the middle spar and slide into place the other wing. Check that there is no gap in the center and that the wings fit snuggly together. If they don't quite meet, adjust the spar lengths accordingly.

30. Dummy fit the wing to the fuselage and install the wing bolts. Check that everything aligns properly.

31. At this point we recommend that you remove the wing and apply some glue as shown to the various root surfaces.

32. Re-attach the wing to the fuselage and leave until the glue has set.

33. Assemble and attach the wing struts as shown.

34. Use the 2.6x20mm screws provided to secure to the fuselage, and use the 2x10mm screws to attach the wing struts to the wing mounts.

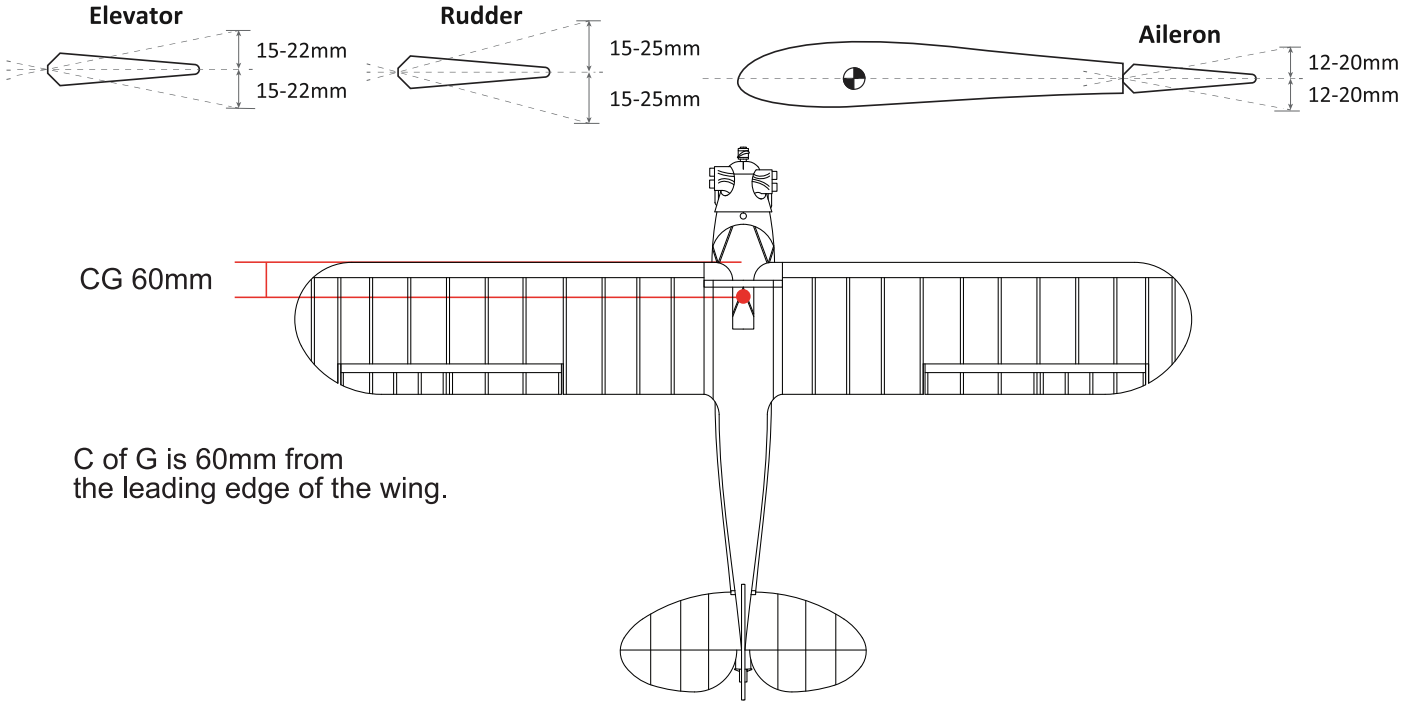
35. Slide the 12x6 propeller onto the motor shaft and secure with the nut and washer.

36. Your J3 Swiss Cub is now basically complete.

35. Finally, connect the servo leads to your receiver, if using the provided "Y" lead then connect the two aileron servos to the lead and connect to the receiver. If you wish to mix the ailerons in your computer set then connect the two aileron servos to their respective channels in the receiver. Once everything is connected including the ESC, switch on your transmitter and connect your flight battery, you should then get a series of beeps to say the ESC is armed, best to do this bit with the propeller removed. Center the servos and then connect the clevises to the control surface horns. Adjust the clevises on the pushrods so that with the servos centered, the control surfaces are in their neutral position. Once adjusted, ensure the clevises are firmly clipped/locked together so that they cannot come undone.

Control Set-up and CG

Please follow the below control throw and Center of Gravity recommendations before attempting to fly your 1400mm Swiss Cub.



Recommended Battery:

- Zippy compact 2650mAh 3S 40C, for scale flying
- Turnigy Bolt LiHV 2400mAh 3S 65C, for sports/scale flying
- Turnigy Blue 2200mAh 4S 30C, for sports/aerobatic no scale flying

PRE-FLIGHT CHECK

1. Check wings and control surfaces for alignment and damage. Check all connections to the control surfaces, check all screws and glue joints.
2. Check the propeller, and undercarriage.
3. Check the Centre of Gravity. (C of G)
4. Always turn your transmitter on before powering up your RC plane.
5. Switch the transmitter on, then connect the flight battery.
6. Always perform a range check with your transmitter. Make sure your plane is secure to prevent damage to people and property.
7. Check plane responds properly to control inputs.
8. Re-check all your control surfaces, airframe, screws and undercarriage etc.
9. If there is no interference on the RC controls then the plane is ready to fly.

FLIGHT

Take-off:

1. Place the model into wind and hold in some elevator, slowly increase the throttle, use the rudder to keep the Cub flying straight. Slowly ease off some of the elevator and let the tail of the Cub rise slightly until it is running on the main wheels only, a small touch of up elevator will see the Cub become airborne.
2. Try and fly straight into wind gaining height, once at height and you are comfortable with the flying attitude of your plane then adjust the trims for hands off flying. If trimmed correctly the Cub should fly straight and level at about 50% throttle.
3. Be careful not to over control the plane, just keep the turns gentle and steady and fly at a safe height as you get used to the Cub's flying characteristics. As you get used to it you should start to make gentle circular climbs. As you become more familiar with your H-King Swiss Cub and your flying confidence develops then the more manoeuvres you can try and perform.

Flight:

1. The plane should fly level at around 50% throttle.
2. The flight time will be prolonged if you are economic with the power, the Cub does not want to be flown about at full throttle all the time.

Landing:

Now your first flight is coming to an end, it’s time to land. Make sure you do a practice approach. After this approach start your landing pattern beginning with a downwind leg, reducing throttle to slow the Cub to a suitable speed. Turn onto your base leg part of the circuit, use your rudder elevator and ailerons to fly a co-ordinated turn. Turn onto the final approach and keep flying the Cub straight using the rudder, and the wings level using the ailerons. The elevator controls your attitude and speed, and the throttle controls your altitude and descent, using this method, the Cub is easy to control and land. Slowly decrease throttle and slowly fly the Cub onto its main landing gear, when the Cub settles cut the throttle and slowly apply some up elevator. this keeps the tailwheel on the ground. You have now finished your first flight. Taxi your plane back holding in full up elevator and steering with the rudder. Once back in the pit area safely remove the flight battery and switch off your transmitter.

TIPS

1. Train yourself with an RC flight model simulator before you fly the H-King J3 Swiss Cub electric RC airplane. It will help you with coordination for when fly your model.
2. Taxi the J3 Swiss Cub on the ground to learn how to control the direction of the plane. Please remember when the plane flies towards to you the aileron and rudder control direction is reversed.
3. Fly with the assistance of an experienced pilot if this is your first flight with this type of model.
4. Do not fly in strong winds or inclement weather.
5. Always head into wind when taking off and landing.
6. Do not fly the plane above or behind you, this can lead to disorientation, always fly the plane in front of the flight line and never behind.
7. Please consider purchasing a spare battery pack for longer flights.
8. Do not fly this plane with damaged or broken parts this may result in accidents or injury. Spare parts are available via our website.

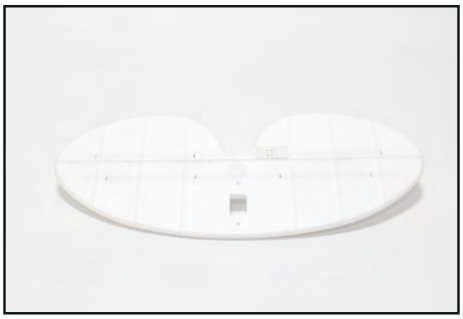
PROBLEM SOLVING:

Phenomenon	Typical error	Problem solving
Motor does not run	1. The battery is not full charged 2. The battery of the transmitter is low on power. 3. Something is disconnected in the plane	1. Charge the battery 2. Replace the battery in the transmitter. 3. Check motor, ESC connections.
Motor runs backwards	1. Motor/ESC connection error	1. Swap around any 2 of the 3 ESC/motor wire connections
Servos not operating properly	1. The servo leads are connected to the Rx incorrectly. 2. The servo is damaged.	1. Make sure the servo leads are connected properly. 2. Replace servo.
Difficult to trim	1. Control surfaces not centered. 2. CoG is not in the correct position.	1. Adjust the trims on the transmitter. 2. Re-position the battery suggested.

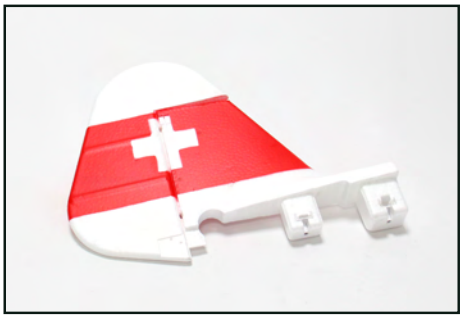
SPARE PARTS:

Fuselage without cowl
SKU: 9306000531-0

Main wing
SKU: 9306000532-0



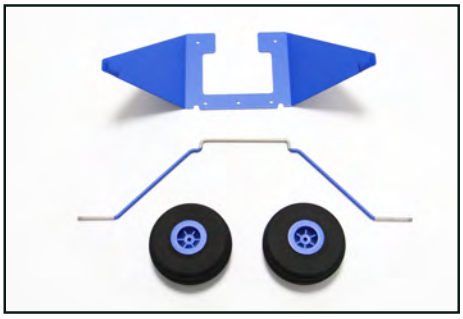
Horizontal stabilizer
SKU: 9306000533-0



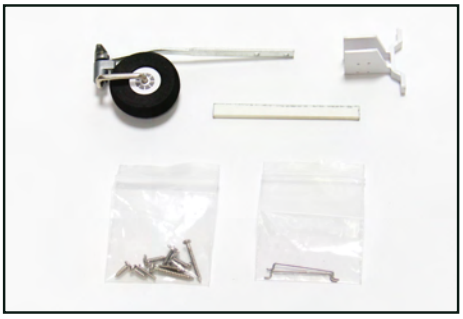
Vertical Stabilizers
SKU: 9306000534-0

Cowl
SKU: 9306000535-0

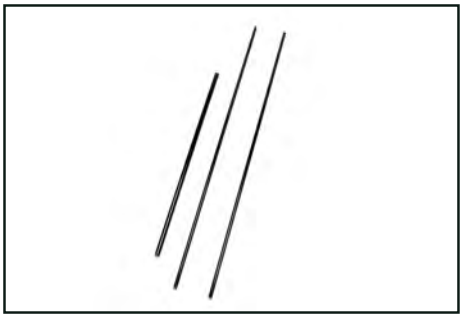
Propeller blade set
SKU: 9306000536-0



Main landing gear set
SKU: 9306000537-0



Tail landing gear
SKU: 9306000538-0



Main wing rod (1set)
SKU: 9306000539-0

Center Wing Canopy
SKU: 9306000540-0

Control Accessories
SKU: 9306000541-0

Motor and Spinner
SKU: 9306000542-0

RECOMMENDED ACCESSORIES:

OrangeRx Tx10i Mode 2 EU Version
SKU: 9171001399-0

Turnigy 9X 9Ch Transmitter w/ Module & iA8 Receiver
SKU: 9114000070-0

OrangeRx R720X V3 7Ch 2.4GHz DSMX
SKU: 9171001395-0

OrangeRx RSF08SB Futaba S-FHSS/FHSS-2
SKU: 9295000020-0

Turnigy Graphene Panther 2200mAh 3S 75C Battery Pack
SKU: 9067000371-0

Turnigy 2200mAh 4S 20C Lipoly Pack w/ XT60 Connector
SKU: 9067000234-0

Turnigy Bolt 2200mAh 3S 11.4V 65~130C High Voltage Lipoly Pack (LiHV)
SKU: 9210000171-0

ZIPPY Compact 2700mAh 3s 40c Lipo Pack
SKU: 9067000031-0

HXT900 Micro Servo 1.6kg / 0.12sec / 9g
SKU: HXT900

Turnigy TG9e Eco Micro Servo 1.5kg / 0.10sec / 10.1g
SKU: TG9e

Foam-Cure EPP and EPO Foam Glue 4 oz.
SKU: 9117000006-0

UHU POR Glue
SKU: 9934000001-0

HobbyKing Super Glue CA (50g / 1.7oz) Medium
SKU: HC-50-175C

HobbyKing Super Glue CA (50g / 1.7oz) Thick
SKU: HC-50-1100C

NOTES:

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Made in China