VOUGHT F4U CORSAIR

WITH

ORX STABILIZER

INSTRUCTION MANUAL

H·KING

Please read this manual carefully before operating this plane.

VOUGHT F4U CORSAIR

750mm (29.5") w/6 Axis ORX Flight Stabilizer (PNF)

This plane is guaranteed to be free from defects in material and workmanship at the date of purchase. It does not cover any damage caused by use or modification. The warranty does not extend beyond the product itself and is limited only to the original cost. By the act of controlling this product, the user accepts all resulting liability for damage caused by the final product. If the buyer is not prepared to accept this liability, it can be returned new and unused to the place of purchase for a refund.

Notice: Adult Supervision Required

This is not a toy, assembly and flying of this product requires adult supervision. Read through this book completely and become familiar with the assembly and flight of this airplane. Inspect all parts for completeness and damage. Please contact HobbyKing for service if you encounter any problems.

SAFETY INSTRUCTIONS

1. Please read this manual carefully and follow the instructions before you use this product.

2. This airplane is not a toy but due to having installed the ORX stabilization system it is suitable for pilots with low experience. However, if you do fall into this category then we recommend you enlist the help of an experienced RIC pilot to give you a hand with the initial flights.

3. Not recommended for children under 14 years old.

4. Please set up this plane according to the instructions and make sure you keep your hands and other parts of your body out of the way of the rotating propeller at all times. Failure to do so will result in damage to yourself and to the airplane.

5. Do not fly in thunderstorms, strong winds or wet weather.

6. Never fly RIC planes where there are overhead power lines, automobiles, airports, railway lines or near a highway.

7. Never fly RIC planes where there are crowds of people or over organized games. This airplane requires a very flat landing and take-off area that is clear of trees and other obstacles. Remember safety is the responsibility of the pilot.

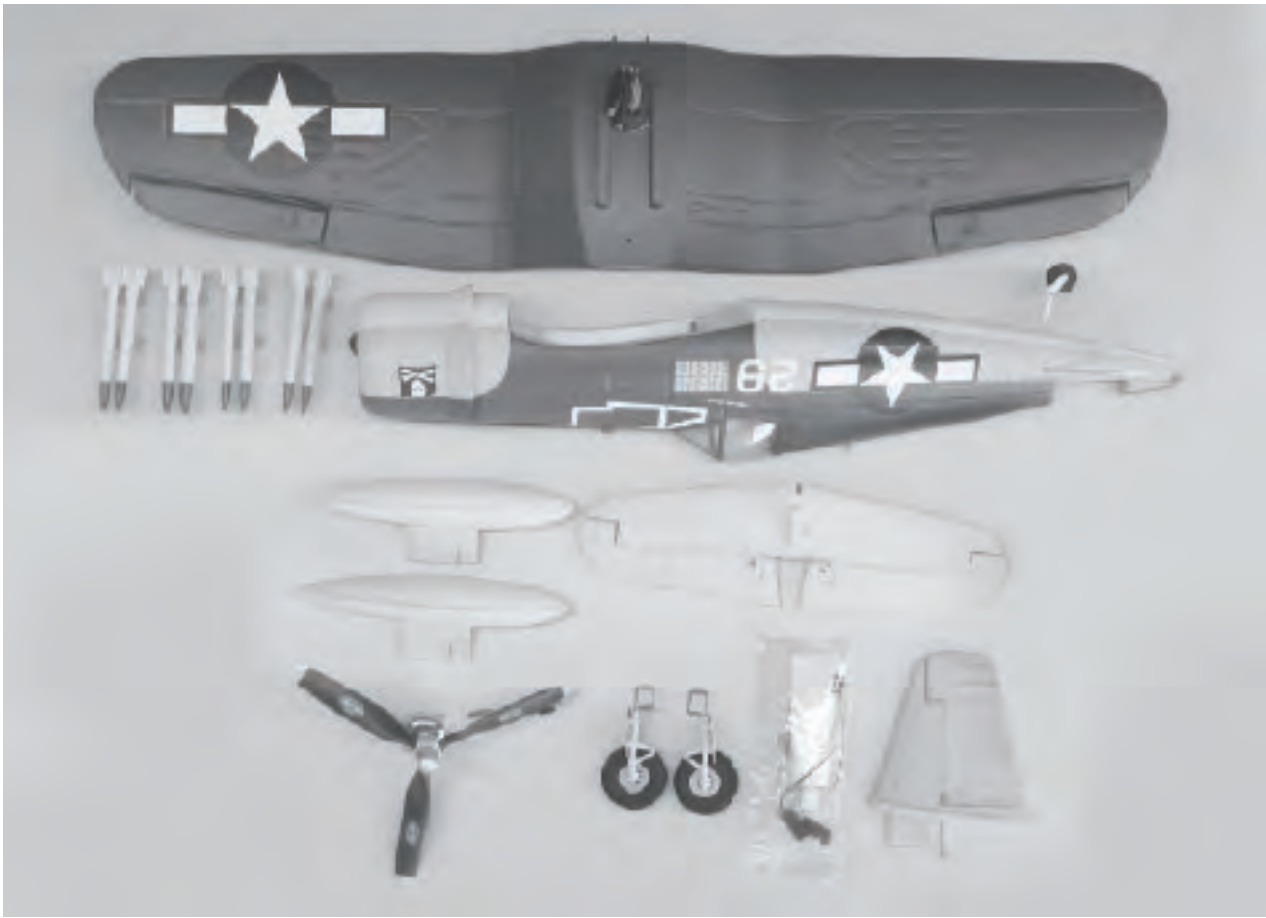
8. Do not attempt to catch the plane when you are flying it.

9. The operator will bear the full responsibility of flying and the proper operation and usage of this model. We at Hobbyking will not be responsible for any liability or loss due to improper use of this model.

Kit content

PNF Version

Fuselage, Main Wing, Horizontal Stabilizer, Main Landing Gear, Propeller, Missile set, Drop tanks and an accessory bag.

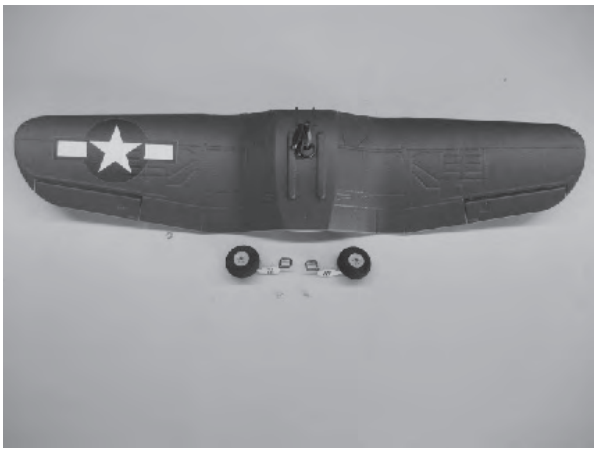


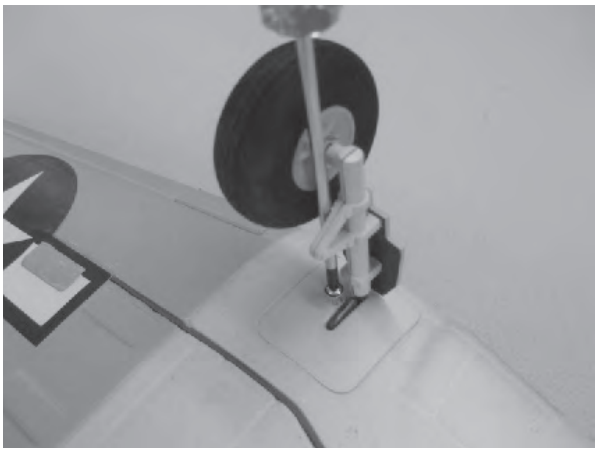
Specifications:

★Wingspan	750mm
★Length	610mm
★Weight	420g
★Thrust	≥450g
★Flying time	≥5 min
★Radio system	5 channel & up (Recommended)
★Motor	2408-1200KV
★Battery	800-850mAh 3S (Recommended)
★ESC	20A brushless
★Servo	9g x 4 pcs

Assembly Instruction:

1. Assembly of the main landing gear
   Install the landing gear into the slots which are located on the underside of the main wing.
   Note: Both wheels face each other. Secure each one using 2 x 8mm self-tapping screws.





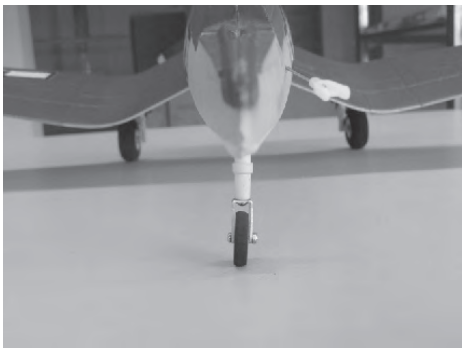
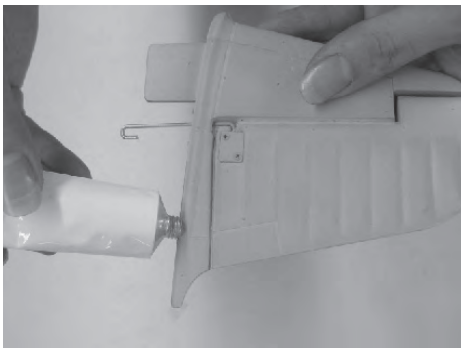
2. Assembly of the main wing
   Connect the aileron servo connectors together. Then install the main wing onto the fuselage wing saddle using the supplied 4 x 35mm machine screw to secure it in place.

3. Attaching the stabilizer to the fuselage

   Apply some foam glue to the saddle mount as shown, assemble the stabilizer onto the mount and apply some pressure to it whilst the glue dries. Ensure the stabilizer is aligned to the wing as the glue sets.

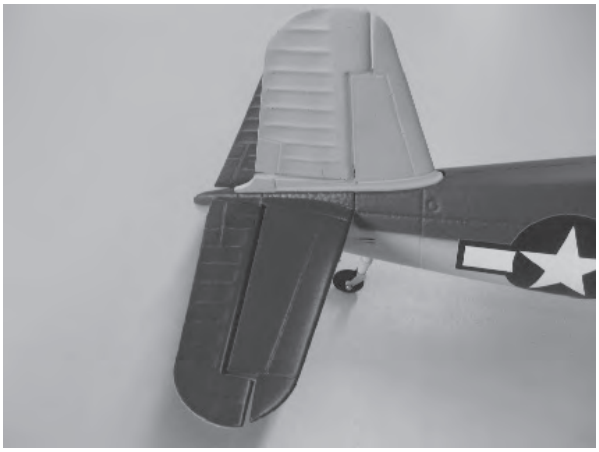
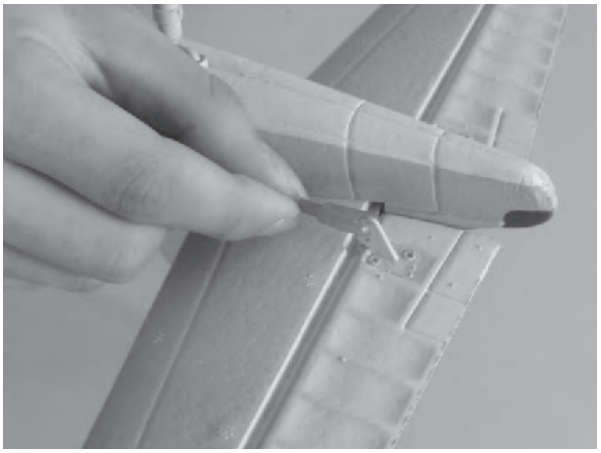
4. Attaching the fin and rudder assembly to the fuselage.

Before you insert the fin post into the slot in the rear of the fuselage, ensure the tail wheel is aligned as shown in the picture below. Apply some glue to the base of the fin and the mounting tab and insert it into the slot. At the same time, the U-shaped wire also needs to be aligned straight before you insert and glue the fin/rudder assembly into place. Ensure the fin/rudder assembly remains at 90° to the wing and stabilizer as the glue sets.

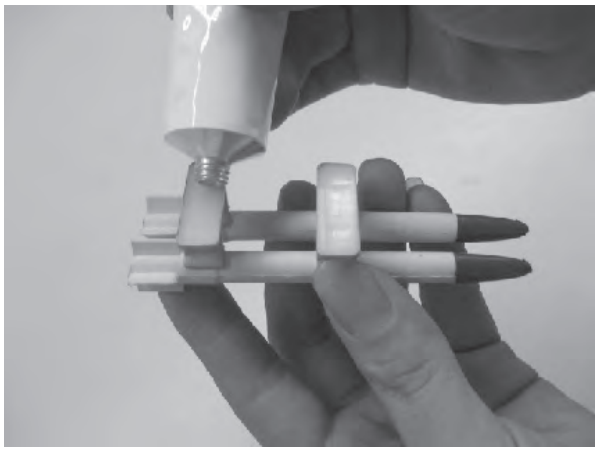
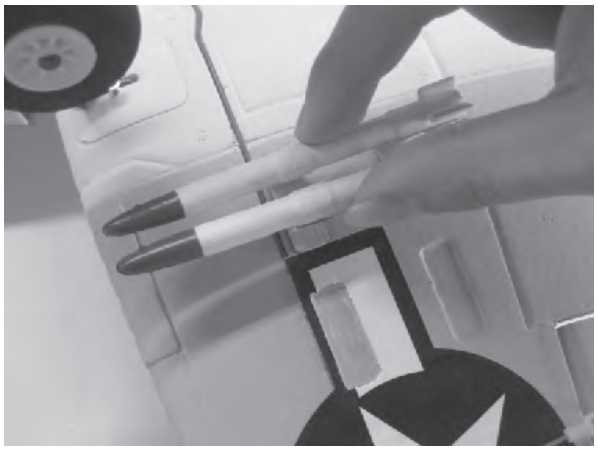
5. Control linkages

The elevator and rudder control surfaces must be set at neutral and the servo control arms must be 90° to the servo cases. Connect the pushrod clevises to both the elevator and rudder control horns and adjust accordingly. Both clevises should be connected to the outer most holes on the control horns.

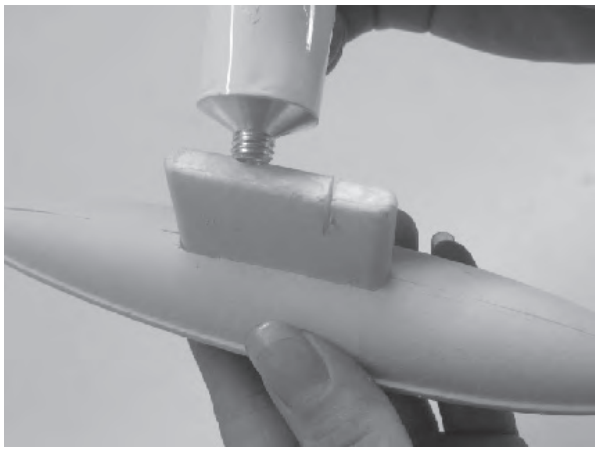
6. Attaching the missiles to the main wing

Apply glue to the one of the missile mounting assemblies and glue it into one set of indents beneath the wing as shown. Repeat this procedure for the other missile mounting assembly.

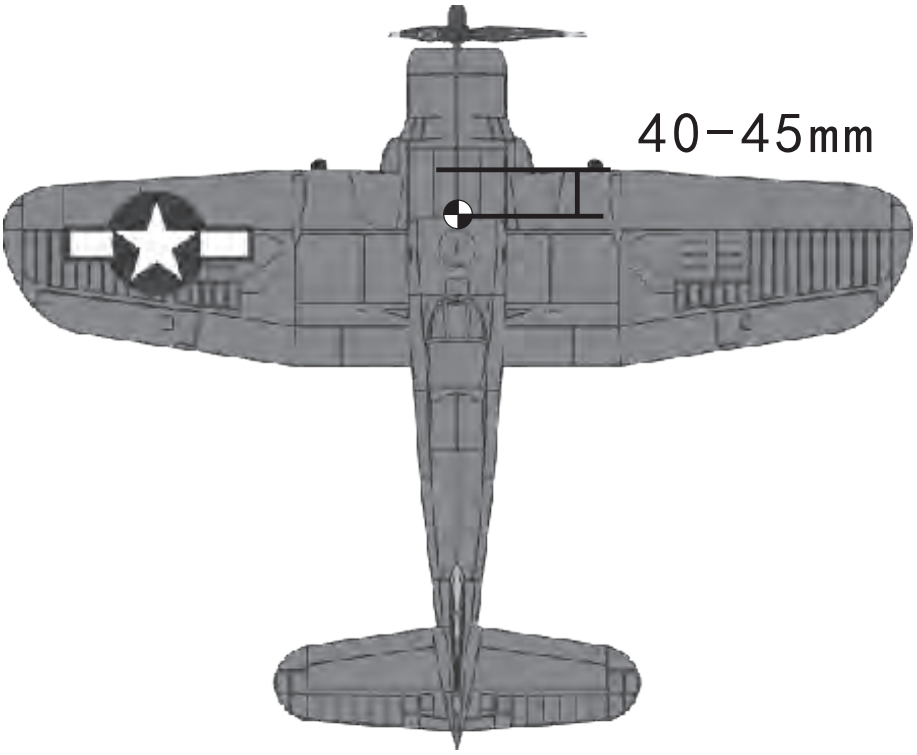
7. Attaching the drop tank to the main wing

Apply glue to the drop tank and glue it into the indent which is located beneath the wing as shown.



8. Your F4U Corsair is complete

Check the center of gravity and make sure it is within the range shown below. For initial flights it is best to balance the model on or near the 40mm mark to make the flying characteristics more docile.



ORX flight stabilisation system

Features:

- Integrated with a 32bit MCU and a 6 axis digital gyro for ultra fast flight control response
- The ORX stabilization device is tuned specifically to a particular model for the best flying performance.
- Supports PWM, PPM and SBUS. Auto-detect.
- Supports 2 different flight modes (Beginner and Expert)

Channel Input:

- PWM input: Here is the channel assignment and shown as follows. Ch 1. Aileron, Ch 2.Elevator, Ch 3 Throttle, Ch 4 Rudder and Ch 5 Flight mode (A 2 position or a 3 position switch should be assigned for flight mode selection)
- PPM input: Plug the flight mode/SBUS/PPM channel input plug into your receiver which supports PPM out.

Here is the ch assignment and shown as follow.

1. Aileron, Ch 2. Elevator, Ch 3 Throttle and Ch 4 Rudder. Ch 5 (A 2 position or a 3 position switch for flight. mode selection)

- SBUS input: Plug the Flight mode/SBUS/PPM channel input plug into a receiver which supports SBUS.

Setup:

Place your F4U Corsair on level ground. Plug in your battery flight pack and let it sit still, at this moment the plane is in auto self-calibration mode. The LED light on the stabilization device will keep flashing rapidly for 3-6 secs, then the light will remain solid. In the mean time the aileron, elevator and rudder control surfaces will move up/down and left/right 3 times to indicate the self-calibration is successful.

When the self calibration has been carried out the stabilization system is still not in ready mode. Now check to see if all the control surfaces are in a neutral position. If not, please adjust the push-rod clevises to ensure all the control surfaces are in neutral position before flight, then cycle the battery power to store this setup.

After all these setup procedure have been completed plug in the battery once again and wait until all the control surfaces move up/down and left/right 3 times to confirm the self-calibration before flight.

At this point the gyro is not in ready mode until you give the throttle a short blip 10-15% in order to switch on the stabilization system. Check that the gyro responds accordingly to the plane when being tilted up/down, left/right and the roll. (Please see the flying tips down below).

LED indication status

- LED light off (No radio signal)
- LED light flashes slowly (Expert mode)
- Led light turns solid (Beginner mode)

Flying the VOUGHT F4U CORSAIR

Re-check the center of gravity, move the battery position if necessary so that it balances in a very slight nose down attitude somewhere near the forward mark (40mm). Check that the linkages and push-rods are secure, the propeller is secure and the wings are correctly attached.

Switch on the transmitter with the throttle closed and the throttle trim fully down then connect the flight battery. Check that all the controls are working freely, no binding and that they are working in the correct sense, ie, aileron stick left (left aileron goes up), elevator stick back (elevator goes up), rudder stick left (rudder goes left). To arm the stabilization system you need to open the throttle to a low setting for 1 or 2 seconds then close the throttle. Now pick the model up and check to see if it is in beginners mode or advanced mode. To do this move the nose up and down with the battery hatch off and watch the elevator servo movement. If it's in beginners mode the servo will move quite a bit, in advanced mode the servo will move less. Set the stabilization system into beginners mode then check that it is working correctly by doing the following test. Roll the aircraft to the right, the left aileron should go up and the right down. Roll the aircraft to the left and the right aileron should go up and the left down. Move the nose down and the elevator should go up, move the nose up and the elevator should go down. Move the nose of the aircraft to the left and the rudder should move right, move the nose right and the rudder should go left. If all works correctly then you are ready to fly.

So for which ever level of skill you are select the appropriate flight mode. Place the aircraft on your take off area pointing into wind. It is best to use either a tarmac area or an area with very short grass, long grass could cause it to nose over. Re-check the controls are working correctly then hold in some up elevator, gently open up the throttle and correct any swing using the rudder, with a clockwise rotating propeller the tendency will be to swing right so some left rudder may be needed. As the model accelerates ease off some of the up elevator so that the tail rises and the model is running on its main wheels slightly nose up. When full power is reached the F4U Corsair will take off very smoothly, climb out gently, do not try and climb too steeply. The whole time keep it pointing into wind, do not allow it to turn (in beginners mode the stabilizer will help keep the model flying straight). Climb up to a safe height then throttle back to about half or just over. When at a safe height and upwind you can practice some gentle turns left and right, do not try and turn too steeply at first if you are inexperienced. If things start to go wrong, close the throttle a bit more and centralize the ailerons and elevator, the stabilizer will then fly the model for you in a steady straight line. Once you have regained your composure gently turn the model back to overhead the take off area.

Once you have settled down and are happy doing very gently turns then it is time to think about landing. Try and fly a nice circuit around the landing strip at about 100ft so that you end up slightly downwind of the landing area pointing into wind. Gently close the throttle to a point where the model is descending nicely, not too steeply and keep the wings level (the stabilizer will be helping you with this). When the model is about 5ft from the ground close the throttle completely, at about 2ft from the ground apply a small amount of up elevator and just hold it there and the model will gently flare and land. If all is well and as the model slows on the ground feed in full up elevator to keep the tail-wheel on the ground. To taxi back keep full up elevator in and gently use the throttle and the rudder to steer the model back.

We hope you enjoy flying your H-KING F4U Corsair and if you haven't already tried out the others in our range then we recommend you visit our website at www.hobbyking.com and take a look at our ever increasing range of quality model aircraft and accessories.

Accessories

Turnigy nano-tech 850mah 3S
25~40C Lipo Pack

SKU: N850.3S.25

Turnigy 800mAh 3S
20C Lipo Pack

SKU: T800.3S.20

ZIPPY Flightmax 800mAh 3S1P
20C Lipo Pack

SKU: Z8003S20C

Turnigy Nano-Tech 850mAh 3S
30C Lipo Pack

SKU: 9210000273-0

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