THE RAF''S WORKHORSE OF WW2

HAWKER HURRICANE

WITH

ORX STABILIZER



INSTRUCTION MANUAL

H·KING

Please read this manual carefully before operating this plane.



HAWKER HURRICANE

THE RAF"S WORKHORSE OF WW2

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 Super Vision Required

This is not a toy, assembly and flying of this product requires adult supervision. Read through this manual completely and become familiar with the assembly and flying instructions for this airplane. Inspect all parts for damage and also check that no items are missing Please contact HobbyKing Customer 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 R/C 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 R/C planes where there are overhead power lines, automobiles, airports, railway lines or near a highway.

7. Never fly R/C planes where there are crowds of people or over organised games. This airplane requires a very flat landing and take-off area that is clear of tree's and other obstacles. Remember safety is the responsibility of the pilot.

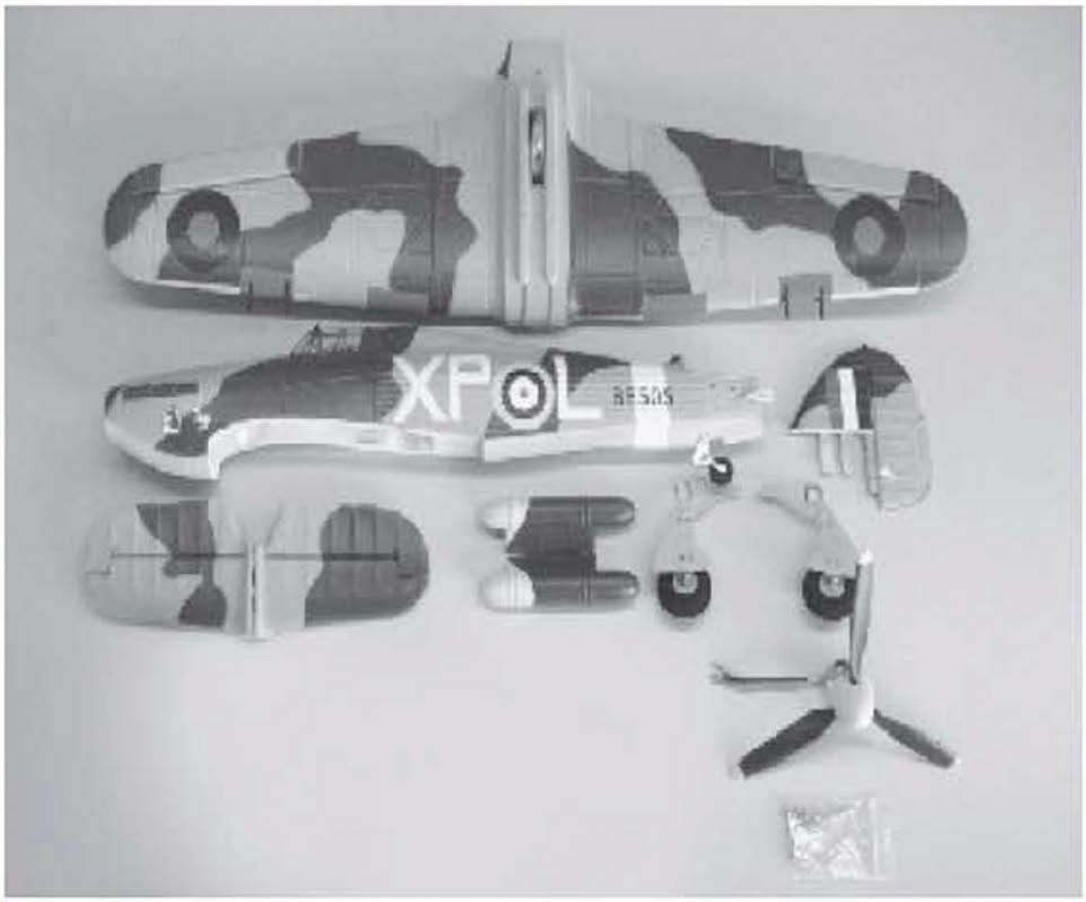
8. Do not attempt to catch the plane when you are flying it.

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, A set of main wings, horizontal stabilizer, fin/rudder, main landing gear set, auxillary drop tanks, power system with prop and spinner and a bag of hardware accessories



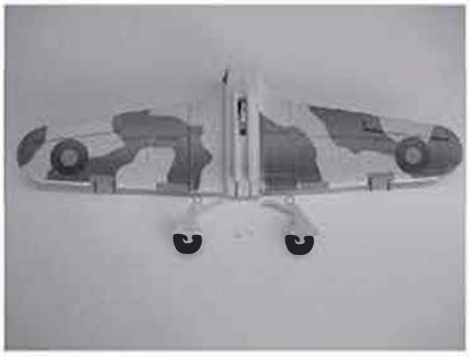
Specifications:

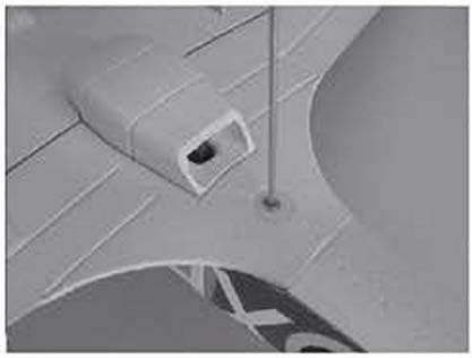
★ **Wingspan**	750mm/30.00 inches
★ **Length**	622mm/24.5 inches
★ **Weight**	430 grams
★ **Propeller**	8*6 three blades
★ **Motor**	2408-1300KV
★ **ESC**	20A Brushless ESC
★ **Servo**	9 grams plastic gear x 4 pcs
★ **Battery**	Li-Po 800 mAh 15C 11.1V/Option
★ **R/C System**	2.4 Ghz 5 ch and up
★ **Flight Time**	about 5 minutes

Assembly Instruction:

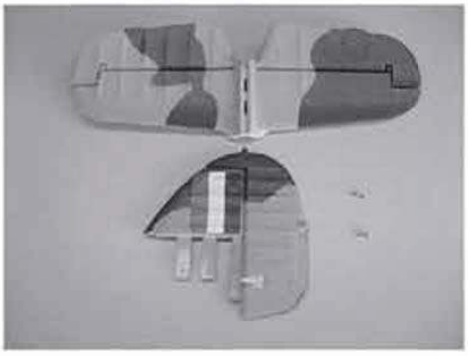
1. Assembly of the landing gear.
Install the landing gear into the slots which are located on the underside of the main wing, note: both wheels face each other. Secure each one using 2 x 8mm self -tapping screws.

2. Assembly of the main wings.
Connect the aileron servo leads and fit the main wing to the wing seat of the fuselage. Secure the wing using a 4 x 45mm machine screw.





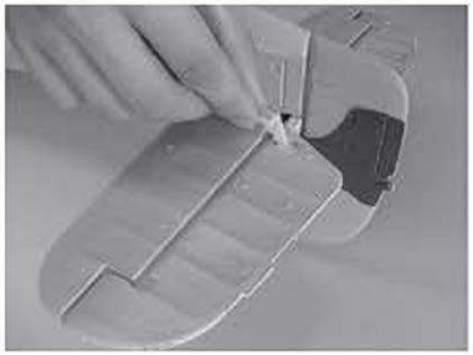
3. Attaching the empennage assembly to the fuselage.
Have the rudder/fin, stabilizer and 2 off 2 x 10mm self-tapping screws ready. Insert the rudder/fin wooden post into the stabilizer as shown, then install the empennage onto the tail section of the fuselage. Lock the empennage assembly in place by using the 2 self-tapping screws.

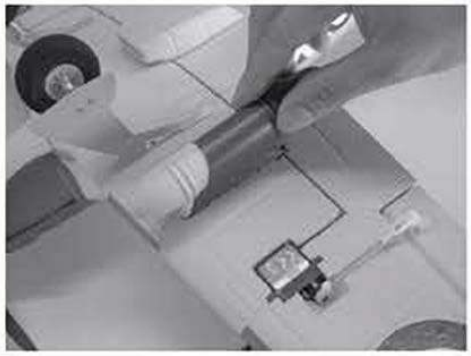




4. Control linkages
Ensure the elevator and rudder control surfaces are set at neutral and the servo control arms are 90° to their cases. Adjust the elevator pushrod clevis and connect to the surface control arm as shown. Repeat the above steps for the rudder control surface. Both clevises should be connected to the outer most holes on the control horns.

5. Auxiliary fuel tank set assembly.
Remove the backing paper from the self adhesive tape. Stick one aux. fuel tank into the indent on the underside of one wing panel as shown. Repeat this step on the other side.

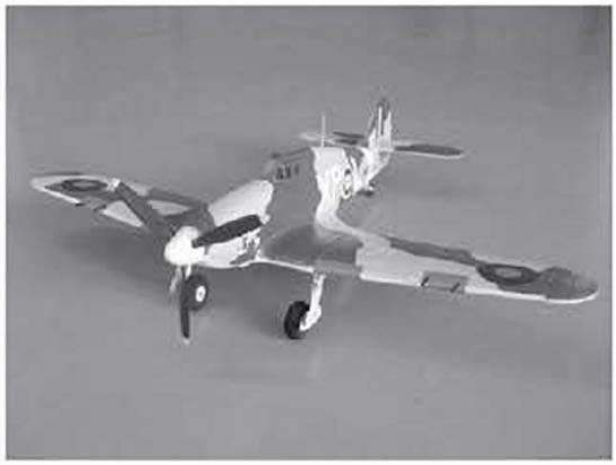




6. Assembly of the antenna

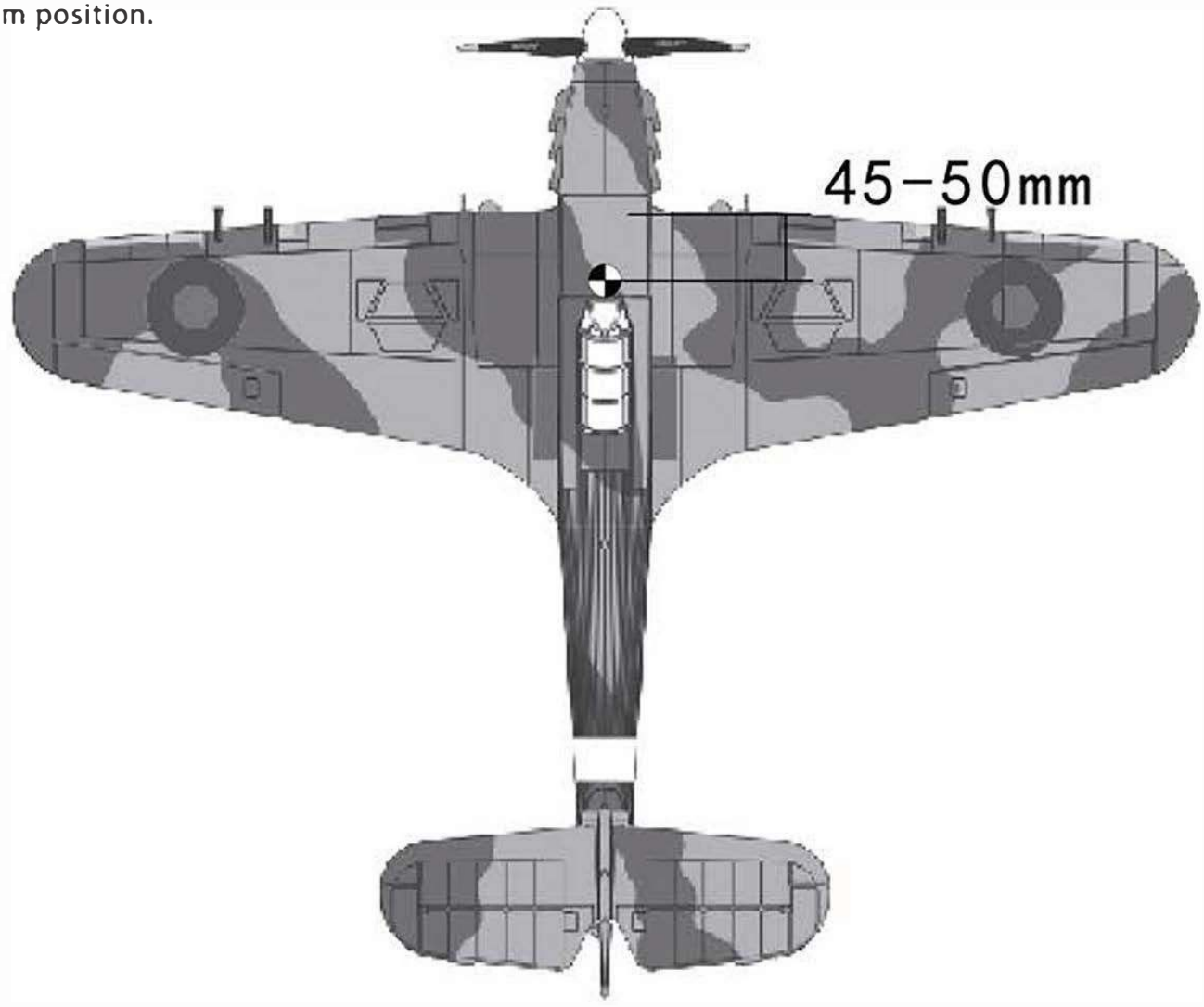


7. Completed.



Note: Due to the detail of the scale stringers on the rear fuselage some of the decals stuck on this area may lift due to the uneven surface. The decals will stick down if you use a soft cloth to lightly rub over them to make them adhere to the surface once again.

8. With the flight battery installed check the center of gravity and make sure that it is within the range as indicated by the arrows below. For first flights it is best to balance the model near the forward 45mm position.



ORX flight stabilisation system

Features:

- Integrated with a 32bit MCU and a 6 axis digital gyro for ultra fast flight control respond
- The ORX stabilisation 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 follow. Ch 1. Aileron, Ch 2.Elevator, Ch 3 Throttle, Ch 4 Rudder and Ch 5 Flight mode (Use a 2 position or a 3 position switch 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 S (Use 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.

Note: Before you start working on the TX control setup, ensure all travels of those primary channels (Aileron, Elevator and Rudder) are 100% on your TX. (Please consult the instruction manual of your radio for details) The control throws on the primary channels are factory preset in the ORX stabiliser.

Setup:

Switch on your Tx and with your model plane set stationary on level ground and plug in your battery flight pack and let it sit still. During this time the plane is in auto self-calibration mode.

The LED light on the stabilization device will start flashing rapidly for 3-6 secs then it should stay on continuously. Whilst the unit is initializing the aileron, elevator and rudder control surfaces will move up/down and left/right 3 times to indicate the self-calibration process has succeeded.

When the self calibration is complete the stabilization system is still not ready for flight. Next check that all the control surfaces are in their neutral position. If not, please adjust the pushrod clevises to ensure all the control surfaces are at neutral before flight. Then you may cycle the battery power to store the setup and switch off your transmitter..

After all these setup procedure have been completed switch your transmitter back on and plug in the flight battery. Once again wait until all the control surfaces move up/down and left/right 3 times to confirm the self-calibration before flying. To actually activate the gyro system you need to give the throttle a short blip 10-15% in order to switch the unit on. Once the gyro is armed check that it responds correctly when the plane is being tilted around it's 3 axis. (Please see the flying tips down below)

Stabilization LED indication status

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

Flying the Hawker Hurricane:

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 (45mm). Check that the linkages and pushrods 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 Hawker Hurricane 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 centralise 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 tailwheel on the ground. To taxy 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 Hawker Hurricane 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