

Pretty

WARNING - THIS IS NOT A TOY! Radio controlled model aircraft are capable of inflicting serious injury and/or property damage if not assembled, operated and maintained in a competent and safe manner. The successful assembly, operation and maintenance of radio controlled model aircraft are not intuitive skills and performing them safely and competently takes experience. If you are not already an experienced radio controlled aircraft modeler, we **strongly** suggest that you find someone who is, to inspect your completed model, to teach you to fly and to point out the proper maintenance procedures to keep your model aircraft in safe operating condition.

INSTRUCTIONS

Congratulations on your purchase of this excellent almost-ready-to-fly 4-ch radio controlled electric aerobatic glider! Nevertheless, because of its un-usual aileron-control system, you have to read the instruction manual thoroughly and carefully before starting the final assembly and installation, especially installing the servos and connecting the aileron control linkage.

Specifications

Wing span: 1500mm

Wing area: 21.4 sq.dm²

Length: 963mm

Weight: 650gram

Motor: Brshless motor

Folding prop: 8 x 4.5

Battery: 9.6V-11.1V

Kit highlights

1. One-piece blow-molded fuselage.
2. Conventional rib & spar frame structure wing and tail-surfaces, covered with quality heat-shrink film.
3. Easy to assemble and dis-assemble for transportation.
4. Semi-symmetric airfoil NACA-2410 for easy aerobatics.
5. When trimmed properly, hands-off stability and glides right side up as well as up side down.

Requirements

To complete your Kit, you only need:

1. 4-ch radios (with 4 servos)
2. An on/off switch or a proportional speed controller.
3. A Battery charger.
4. 11.1V/1300mAh Li-Po Battery.

Parts List

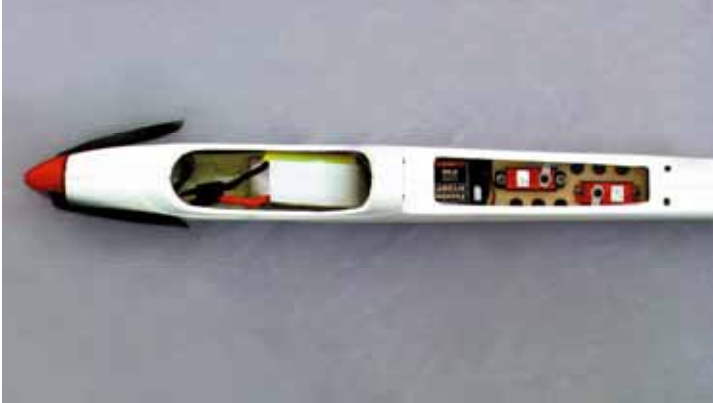
Inspect all the parts carefully. Please call your shopkeeper immediately if any parts are missing or damaged. The parts and sub-assemblies are shown in the illustrations:



1. Left and right wing panels with ailerons hinged.
2. The wing dihedral joiner (a straight steel rod).
3. Two wing hold-down plastic bolts (with nuts built-in fuselage).
4. An adhesive tape to seal the joint of wing panels.
5. A stabilizer with elevator hinged.
6. The fin with two long bolts built-in it and elevator hinged.
7. Two M2 screws to match the built-in the fin used to fix the complete tail-surfaces in place.
8. A one-piece blow-molded fiberglass fuselage with motor, folding prop, servo tray, and control linkage all factory-installed.
9. A canopy with two screws and 2 spare ones to fix it onto the fuselage

Assembly and installation

Radio installation:



1. Install the 2 servos on the servo-tray.
2. Connect the servos respectively to the elevator-channel, and the rudder-channel in the receiver.
3. Insert the battery, into fuselage under the servo-tray Make sure to secure the battery tightly in place with the Velcro straps supplied. Remember do not connect the motor to the controller until you are ready to fly.
4. Connect the controller to the" throttle" channel in the receiver.
5. Set the transmitter to "on" position first and the receiver next. Then, set the power switch of the controller to "on" position in order to find out the neutral position of the servo horns.
6. Always turn-off the receiver first before you turn-off your transmitter.

(2) Assembling and mounting the tail- surfaces



1. Fix the elevator horn in place. There are two small holes factory-made locate the position of the horns.

2. To mount the tail surfaces onto the tail end of fuselage, you should first insert the two long bolts (built-in the fin) through the two holes in the stabilizer, then fitting the rudder to fin. Nevertheless, it is impossible to do this unless **YOU TURN THE ELEVATOR 90DEGREES UPWARD**
3. Tighten the two M2 from beneath the tail end of the fuselage to fix the complete tail-surfaces in place.

(3) Push-rod connection and adjustment



1. The elevator push-rod connections:
Connect the “Z-end” of the elevator push-rod to the servo horn and the clevis to the control-horn of elevator.
2. Adjustment of pushes rods:
The affective length of the push rods can be adjusted by turning the clevis clockwise or counter-clockwise. The length of push rods should be adjusted such that when the servo horns are in neutral position, the control- surfaces are also neutral.
3. The control stroke adjustment:
To increase or decrease the control stroke, you can choose a suitable hole in the servo arm or\and the hole in the control horn. The recommended range of movement (i.e. .the control stroke) for the elevator is 15 degrees up and 25 degrees down. And the stroke for ailerons is 15 degrees up and down. *No need to build differential ailerons for model airplanes.*
4. If you find it is not enough fixation after you mounted the elevator and stroke, you can use the hard paper we offer you.(put it into the gap of fuselage and elevator).

(4) Installation of the aileron servos



1. Mount the aileron control horns and ailerons pushrods on the ailerons. There are holes pre-drilled to locate the position of the horns.
2. Mount the aileron servo onto the servo-tray and connect the Z-end of aileron push-rod to the aileron servo.
3. Connect the aileron pushrods to the aileron servo arms
4. After installing the servos and connecting the servo extensions, re-install the servo-tray.

(5) Assembling the wing panels and mounting the complete wing



The glider features two plug-in wing panels which are easily to be assembled and

mounted onto the fuselage before flying or dis-assembled after flight for easy transportation.

1. Insert the wing dihedral joiner (a straight steel bar) in the hole built-in the root section of each wing panel and join the two panels tightly together. Then, apply the supplied adhesive tape to make the joint seamless and airtight.
2. To mount the complete wing saddle on top of fuselage. Note first that there are two fiberglass tubes made inside the wing and two holes in the fuselage. Make sure that the holes are centered with the dowels so as to let the complete wing settled in place on the fuselage.
3. Insert the two plastic hold-down bolts through the holes in the T.E. of the wing and let the bolts get into the nuts built-in the wing saddle Finally screw and tighten the two bolts to fix the wing in place.

Final check before flying

1. Check the alignment and symmetry of the glider after final assembly.
2. Make sure that the servos operate. When the control sticks are in neutral, the servo horns and control surfaces are also in neutral as well. Adjustment can be made by tuning the clevis clockwise or counter-clockwise to change the effective length of the control-rods so as to get the neutral position of the control surfaces.
3. Check the movements and direction of the elevator and ailerons.
CONTROL SURFACE TRAVEL (Measured at the rear edge.)
 - a) Ailerons $3/8$ " each way
 - b) Elevator $1/2$ " each way
4. There is one final step, and this is very important. In order to be controllable in the air, the Oriole-3 must balance properly. Make a mark on the bottom of the wing on each side of the fuselage $2\ 5/8$ " behind the front of the wing. Now try to pick up the airplane using only your fingertips positioned on the marks. If the tail rises higher than the nose, you must add weight to the tail until the airplane will rest level on your fingertips. If the nose rises you must add weight to the nose. Hobby shops and tire stores sell stick-on lead weights for this purpose.
5. Radio check as follows:
 - a) Collapse the antenna.

- b) Before switch on your transmitter, make sure that the throttle stick is at its lowest position.
- c) Turn on the transmitter first, and then the receiver.
- d) Move the controls to be sure that they are all functioning correctly.
- e) Walk away from your model for at least 100 feet (30meters) and check all the movements.
- f) Press the motor start switch and gradually push forward the throttle sticks to check if the auto-cut-of or on/off switch is functioning properly.
- g) Don't forget to extend the antenna of you transmitter to its full length before you start flying.

Flying the glider

1. Whilst the glider will fly in wind up to and over 20mph, we suggest you should choose a day with less the 15 mph breeze for initial flights. After final double checking the controls for operation, the motor should be switched on and the model hand-launched parallel to the ground and directly into the wind. Never throw it upwards, as it may cause the plane to stall and crash before it reaches airspeed.
2. Initially keep flying directly into the wind with slightly correcting signals to the ailerons. At the same time the model should be made to climb with slight up-elevator control if necessary.
3. Should the plane has any tendency to turn or dive on its own accord the movement should be prevented by opposite use of the transmitter controls, and as quick as possible correcting trim control should be applied from the transmitter
4. When the model has reached over 100 feet climbing into the wind, you can try a "gently" turn to the left or right to commence a circle to bring the glider back to your flying position in order to repeat a controlled flight back into the breeze. Do not let the model fly "Down wing" behind you at any time ,until you have become an experienced pilot.
5. Aerobatics, such as loops and rolls, are easy with the sport glider, once it has been trimmed out for straight and level flight. To do loops, merely face the model directly into the wind at a reasonable height. After a gentle dive apply a

medium “up” elevator, taking it half off at the top of the loop and applying it again as the plane dives on the final part of the manoeuvre. Rolls are commenced again by flying directly into the wind and then applying right or left aileron control. It is important, when the model is half way through its roll and on its back inverted, to give medium “down” elevator to keep the aircraft level. Similarly you can roll the plane upside down and fly inverted provided you apply the required amount of “down” elevator. Directional control whether flying upright or inverted is easy with the use of aileron movement.

Designed and Manufactured by Green R/C Model Airplanes Co., Ltd.