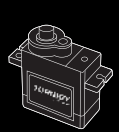
ALBATROSS

• HU-16 PNF V2 1620mm USCG •

INSTRUCTION MANUAL

For intermediate to advance pilots only.



Servo
Turnigy 9g
splash proof

Motor
AeroStar 3536 850KV
Brushless Outrunner

Length: 1210mm (47.6")

Wingspan: 1620mm (63.7")

Weight: 2170g
(2570g inc battery)

PNF VERSION

WARNING

Please read this instruction manual fully and become completely familiar with the features of this 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 as to the assembly, safe operation and maintenance of this hobby product. It is highly recommended that you follow and read 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 suitably open outdoors space.

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

2. This airplane is not a toy, due to it's advanced flying qualities it is only suitable for pilots with intermediate or higher experience. If you are a novice then please only operate with the assistance of an experienced pilot.

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 propellers 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 or lake 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.

INTRODUCTION

The Grumman HU-16 Albatross is a large twin radial engined amphibious flying boat that saw service with the US Air Force, US Navy and the US Coastguard. It's primary role was Search and Rescue and was used extensively in Korea for combat rescue and very quickly gained a reputation as a rugged and seaworthy airplane.

The Avios Albatross captures the looks and ruggedness of the full size seaplane beautifully and it is right at home taking off of water but equally happy sliding along a smooth grass runway for take off. The color scheme we have decided on for the V2 is the US Navy Coast Guard and is supplied with the decals pre-applied and includes landing / take-off flaps, and navigation lights. The Albatross V2 boasts many other features, these include, clear cockpit glazing, reduced overall weight, splash proof servos, water resistant, reversible Aerostar ESC's, and a clear more discrete water rudder.

The Avios Albatross V2 is the same quality that you have come to expect from the Avios brand and is also very straightforward to build due to the low parts count.

SPECIFICATIONS

- Wingspan: 1620mm (63.7”)
- Length: 1210mm (47.6”)
- Weight: 2170g. (2570g inc battery)
- Motor: 2 x Aerostar 3536 850kv Outrunner
- ESC: 2 x Aerostar 30A RVS Reversing Brushless ESC
- Propeller: 2 x 10x6 3 Bladed Scale Propeller
- Servo: 9g splash proofed servos.
- Recommended Battery (not supplied):
  4S (14.8V) 3000mAh~4000mAh
  or for scale flying
  3S (11.1V) 4000mAh~5000mAh

FEATURES

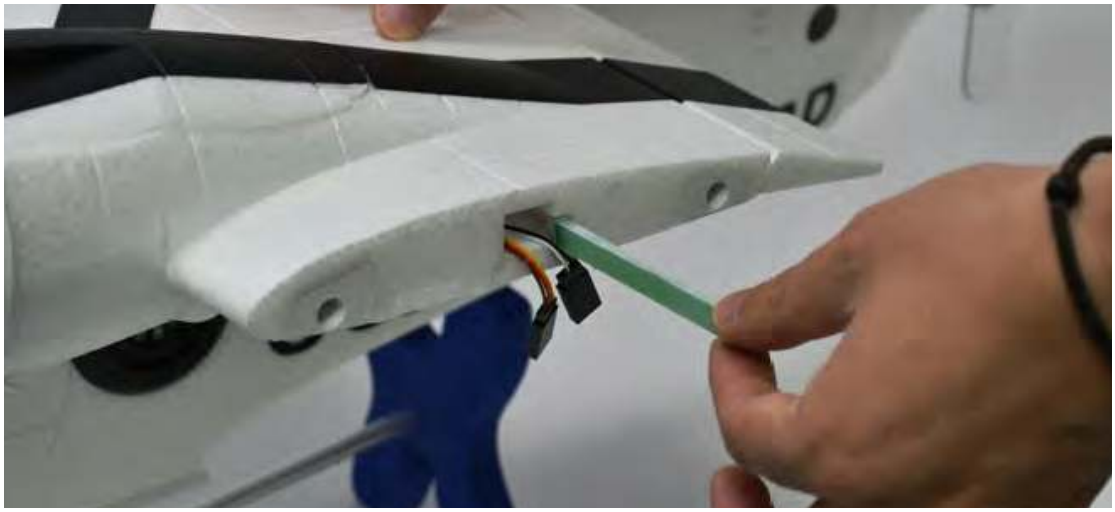
- Striking US Coast Guard scheme, pre-applied and ready to go.
- Clear cockpit windows for a more scale appearance.
- Better slow flight performance thanks to material change and weight reduction.
- Plastics color matched to the scheme for a better appearance and finish.
- Reduced length of servo wires and leads, reducing weight and increasing access.
- Clear plastic water rudder, more discrete yet fully functional.
- Aerostar RVS ESC's for complete control on the water.

ASSEMBLY

Step 1: Slide the wing into position on the fuselage.

Step 2: Screw the wing into place with the 64mm x 4mm wing bolts supplied.

Step 3: Slide into each side of the wing center section one of the glass fibre wing joiners. Ensure these are the correct way up, there is a very slight dihedral angle which should be to the top.



Step 4: Join the connectors for the aileron servo and the wing tip lights.

Step 5: Slide the outer panels onto the center section.

Step 6: Use 4 off 14mm x 3mm Hex screws to secure the outer panels.

Step 7: Apply either slow setting CA or foam glue to the tailplane seat on the fuselage.

Step 8: Apply a small amount of glue to the tailplane locator.

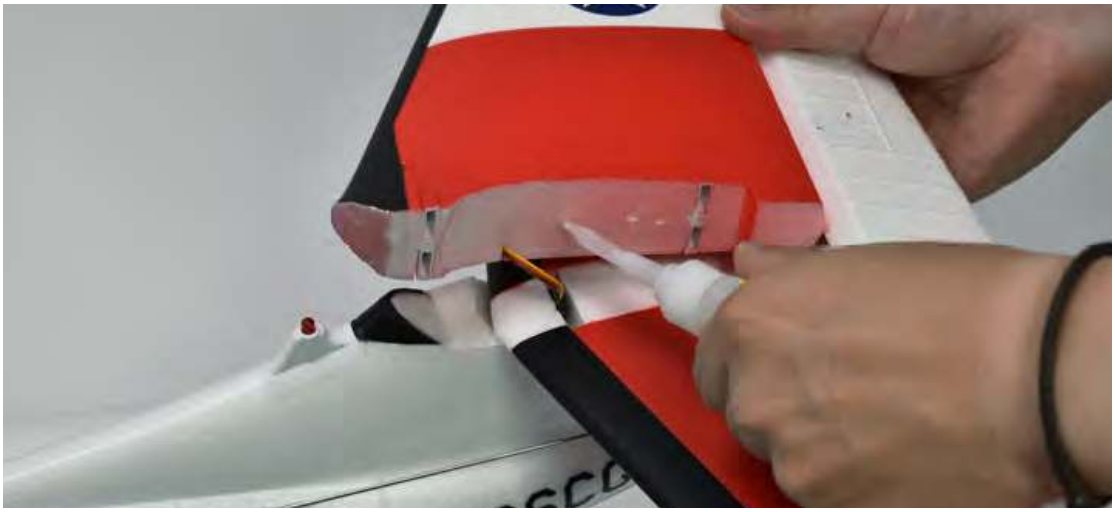
Step 9: Position the tailplane onto the rear of the fuselage.

Step 10: Ensure you pass the connector through the slot in the tailplane. Check the tailplane is correctly aligned as the glue sets.

Step 11: Connect the rudder servo extension lead.

Step 12: Apply slow setting CA or foam glue to the area where the front of the fin will sit.

Step 13: Apply glue to the base of the fin as shown.



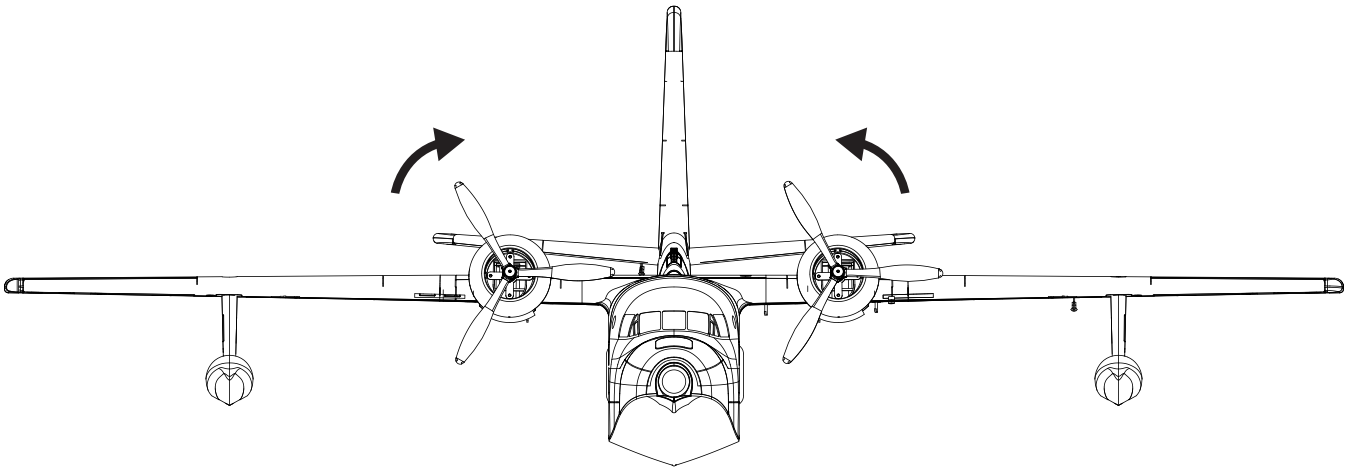
Step 14: Locate the bottom rudder hinge into the hole in rear of fuselage, do not glue.

Step 15: Secure the fin using the 2 off 50mm x 2mm PK screws. You will find it easier to locate the front screw first,then the rear.

Step 16: Secure the rudder bottom hinge with a 14mm x 3mm PK screw.

Propeller installation:

Please note that the props rotate in towards each other.



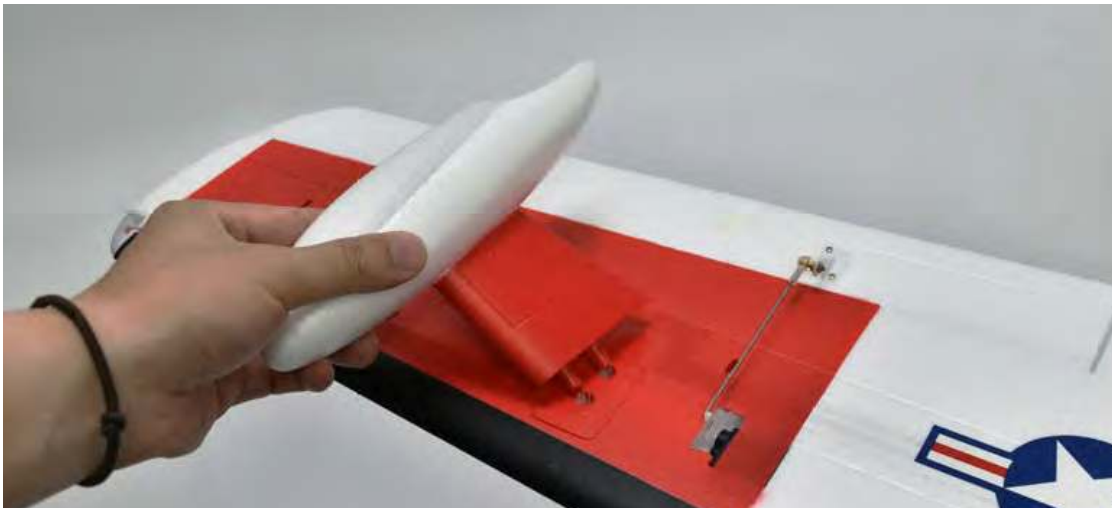
Step 17: Slide the propeller onto the motor shaft.

Step 18: Ensure the hex on the back of the prop locates with the hex on the motor shaft.

Step 19: Attach the propeller spinner nut.

Step 20: Tighten the spinner by hand until it's snug with the prop, due to an insert in the spinner this is perfectly secure. A small drop of plastic friendly loctite can be used if you wish..

Step 21: Assembly of the wing floats.



Step 22: Position the float into the mounting holes on the outer wing panel.

Step 23: Attach float using 2 off 14mm x 3mm PK screws.

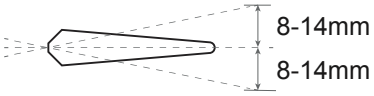
Step 24: Repeat for the other float.

Step 25: Install the receiver of your choice. We recommend that you use a minimum of a 7ch receiver if you wish to use the reversing function of the ESC's. You will also require a Y lead for the nav light function and possibly one for the 2 ESC's. You can of course mix the 2 throttles in your transmitter and couple these with the rudder function. If you do this then we recommend you only use about 15% differential motor thrust.

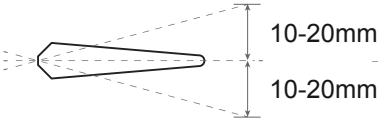
The basic assembly of your Avios Albatross is now complete. Please perform a final check on all screws, bolts and components, ensuring all are secure and firmly and correctly in place before the final set-up stage below.

CONTROL SET-UP AND CG:

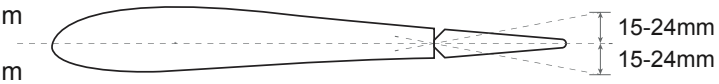
Elevator.
Low Rates: 8mm
High Rates: 14mm

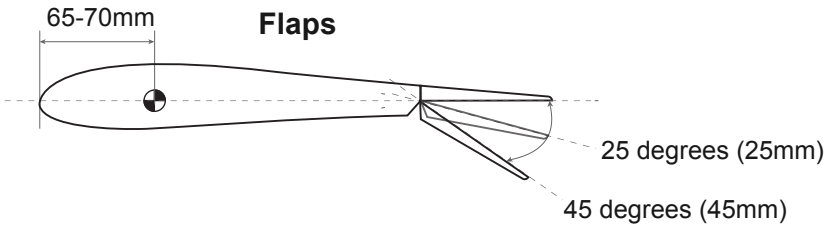


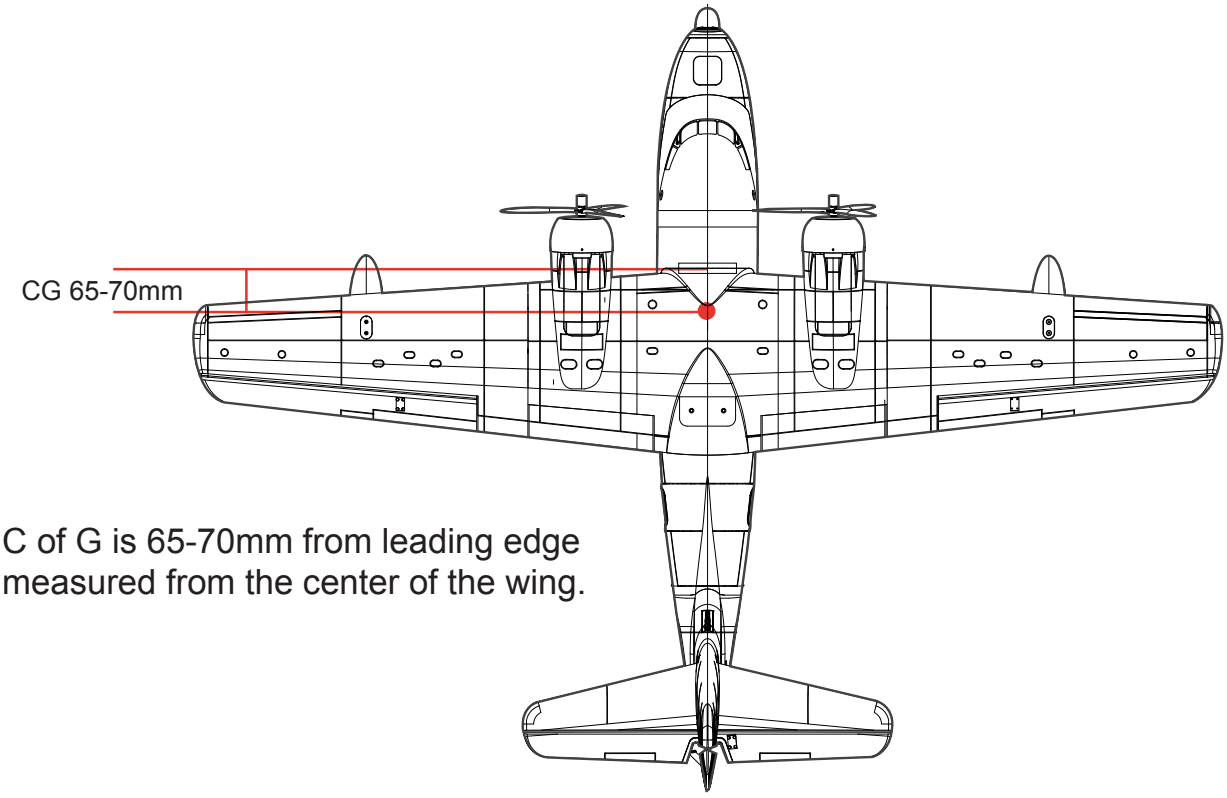
Rudder.
Low Rates: 10mm
High Rates: 20mm



Ailerons.
Low Rates: 15mm
High Rates: 24mm





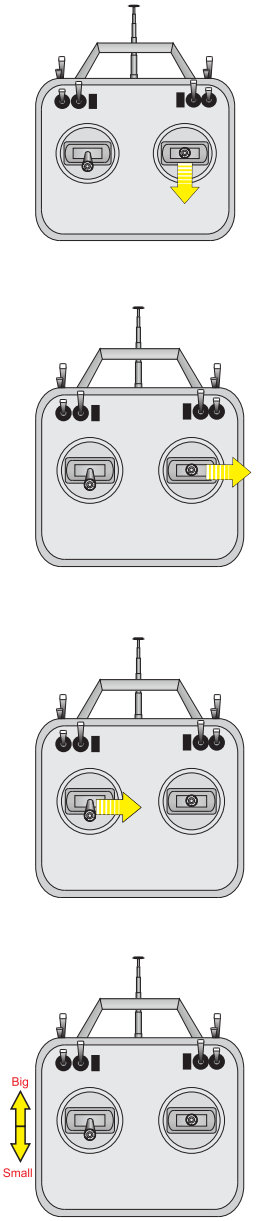


C of G is 65-70mm from leading edge measured from the center of the wing.

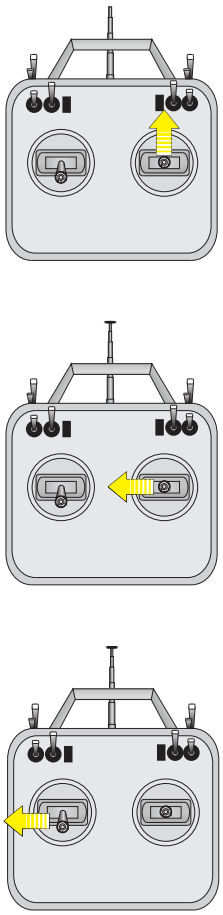
This image shows the approximate location for the correct CG when using the recommended battery.

CONTROL DIRECTION TESTS:

Assemble the aircraft and bind your transmitter to the receiver before performing this test.
After binding a transmitter to the aircraft receiver, set the trims and sub-trims to 0, then adjust the clevises to center the control surfaces.
Move the controls on the transmitter to make sure the aircraft control surfaces move in the proper direction.



	Transmitter Command	Aircraft Reaction
Elevator	Up Elevator Command	
	Down Elevator Command	
Aileron	Stick Right	
	Stick Left	
Rudder	Stick Right	
	Stick Left	
the Throttle		



FLYING THE ALBATROSS V2:

Although not aimed at the beginner the Albatross is a very straightforward aircraft to fly, it's characteristics are very stable and forgiving in flight and taking off of the water or from smooth grass. It looks superb in the air and low passes over water really makes it look the part. Whilst the full size was not aerobatic the model performs all the usual aerobatic manoeuvres with ease, even inverted flight.

Taking off from grass.

Line the model up into wind and check all the controls to ensure they are functioning correctly and in the correct direction. Hold in a small amount of up elevator then smoothly apply the power up to full throttle. Due to the contra-rotating props there should be no swing, if there is then correct with rudder and hold the wings level with the ailerons. It may need an extra tweak of up elevator to unstick, be careful not to overdo this or it could leap into the air and catch you unawares. Once airborne climb to a satisfactory height and get used to the Albatross, it is a delight to fly. Approaches and landings are a dream with flaps or no flaps, if having to land in a strong crosswind then it is best to not use the flaps.

Taking off from water.

Due to the powerful water rudder taxiing the Albatross is very easy. Place the model in the water and check the controls and ensure they are functioning and operating in the correct direction. Once satisfied all the controls are working as they should apply some up elevator and apply a small amount of power to get the Albatross moving across the water. Taxy out to the take off area and line it up into wind. Apply full up elevator and smoothly advance the throttle, keeping the Albatross straight with rudder and the wings level with ailerons. Once on the step reduce the elevator so that it balances on the step then when ready the Albatross will lift itself off and climb away. Landing on the water is also very easy, apply flaps if conditions allow and line up with the landing area into wind. Reduce power to about 15-20% so that you have a gentle descent, round out about 1 or 2ft above the water, take the power off and flare enough so that the step touches first in a slightly nose up attitude, the Albatross will then very quickly settle onto the water.

MODEL FLYING PRECAUTIONS:

- Select your flying area carefully. Always choose an open space that is clear and not obstructed by trees, poles, pylons, and buildings etc. Also ensure you are away from people and crowded areas. Avoid flying in areas with roads, near water, or within close proximity to full size air traffic.
- Do not fly this model in poor weather, for example: high winds, low visibility, inclement temperatures, and rain and storms are also to be avoided.
- Never attempt to catch the model whilst it is in flight, even a slow moving model can cause harm to yourself and risks damage to the model.
- This model is not recommended for children under the age of 14 years old. All children no matter what age, should be supervised by a capable and responsible adult when operating this model.
- Always unplug your model battery when not in use, never leave the battery installed in the model.
- Please remember to keep clear of the propellers at all times when your flight battery is connected.
- Before flying, always turn ON your transmitter first, then plug your flight battery into the model.
- After flying, always unplug your battery first in the model and then turn OFF your transmitter.
- Exercise caution when charging your batteries, and follow in full your battery manufacturers safety guideline when doing so.

PRE-FLIGHT CHECKS:

1. Always range check your model before any flying. Follow your radio manufacturers guidelines for performing this check.
2. Check all screw and mounting points are firmly secured including control horns and clevises.
3. Only fly with fully charged batteries. Failure to do so could result in loss of control, damage to the model and possibly property around you. Make sure your batteries are fully charged.
4. With the model powered up check that all control surfaces are free from damage, moving in the correct directions and with no binding.
5. Inspect the model and props for any damage that may have occurred during transit to your flying site. Listen for any unusual sounds from the electronics when powered up, if in doubt, do not fly.
6. With the model held securely and the propellers free of obstructions, increase the throttle just slightly to confirm the rotation of the propellers is correct . The model should want to pull straight forward when the throttle is applied.
7. If this is your first flight with the model double check that the C of G is at the correct position. If not, adjust the battery position inside model as necessary.
8. If you are an inexperienced model pilot, seek the help and assistance of an experienced pilot to perform these final checks, and to test fly the model for you.

TROUBLE SHOOTING:

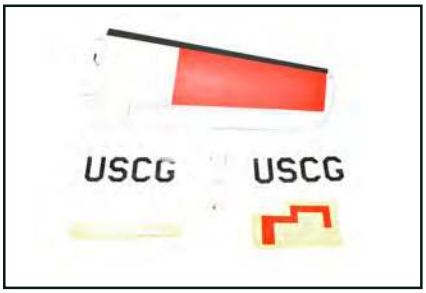
- **Motors do not run:**
  1. Battery is not fully charged (Charge the battery).
  2. Transmitter battery is low (Charge or install a fully charged battery).
  3. Motors are not connected properly (Check the motor to ESC connections and the ESC to battery connections).
  4. Receiver is not bound to the transmitter (Consult your radio manual and go through the binding procedure).
  5. ESC is in set-up mode (Hold model and move throttle up to full then back to idle, or reverse the throttle channel on your transmitter. Switch everything off before doing this).
- **Model moves backwards:**
  1. Propellers installed on the wrong motors (Swap the propellers around).
- **Control surfaces not moving with stick input:**
  1. The servo leads are not connected properly (Check the servo connections).
  2. The servo is damaged (Replace the servo).
- **The model does not fly straight:**
  1. Control surfaces are not at neutral (Adjust the trims/sub trim on your transmitter).
  2. C of G is not correct (Re-position the battery to achieve correct balance).
- **Model does not climb well:**
  1. The battery is not fully charged (Charge the battery).
  2. The elevator servo is reversed (Change the direction via your transmitter settings).
  3. C of G to far forwards making it nose heavy (move battery backwards or add weight to tail).

SPARE PARTS:

USCG Albatross fuselage
SKU: 9310000459-0

USCG Albatross wing center section
SKU: 9310000460-0

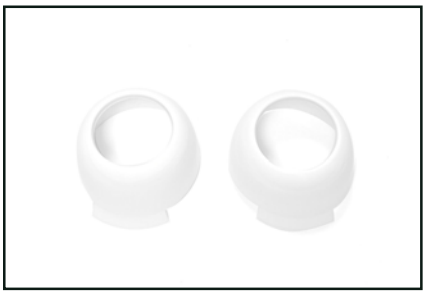
USCG Albatross left wing panel
SKU: 9310000461-0



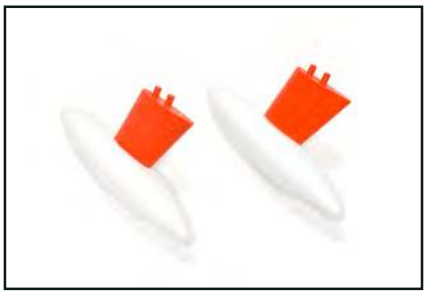
USCG Albatross right wing panel
SKU: 9310000462-0

USCG Albatross tail plane
SKU: 9310000463-0

USCG Albatross Canopy Hatch
SKU: 9310000464-0

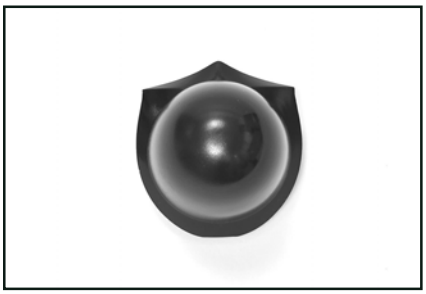


USCG Albatross Cowl set
SKU: 9310000465-0



USCG Albatross Tip floats set
SKU: 9310000466-0

USCG Albatross Water Rudder
SKU: 9310000467-0



USCG Albatross Nose cone
SKU: 9310000468-0

USCG Albatross decal set
SKU: 9310000469-0

Avios BushMule/Albatross - AeroStar 3536-850KV Brushless Motor w/X Mount
SKU: 9310000444-0

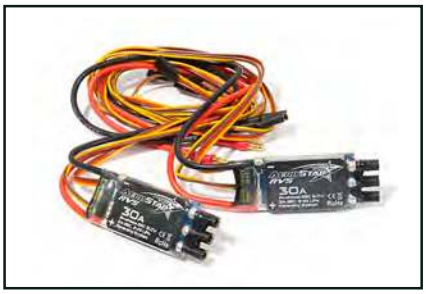
Avios Albatross HU-16/BushMule V2 - Propeller Set 10x8 3-Blade Std/Reverse (2pcs)
SKU: 9310000393-0

Avios Albatross HU-16/BushMule V2 - Spinner and Hub Set (2pcs)
SKU: 9310000394-0

Avios Albatross HU-16 - Navigation Lights Set
SKU: 9310000396-0

Avios Albatross HU-16 - Light Housing Set
SKU: 9310000397-0

Avios Albatross HU-16 - PushrodSet
9310000399-0



Avios Albatross HU-16 - AeroStar 30A RVS ESC Set (2pcs)
SKU: 9310000400-0

Avios USCG Albatross - Glass Fibre Wing Joiners (2pcs)
SKU: 9310000401-0

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 3300mAh 4S 30C Lipo Pack XT-60
SKU: 9067000259-0

Turnigy Nano-Tech Plus 3300mAh 4S 70C Lipo Pack w/XT90
SKU: 9210000267-0

Turnigy nano-tech 3300mAh 4S 35~70C Lipo Pack w/XT-60
SKU: 9210000200-0

ZIPPY Compact 3300mAh 4s 60c Lipo Pack
SKU: 9067000039-0

Rhino 5000mAh 3S 20C Lipo Battery Pack w/XT60k
SKU: 9952000006-0

UK REP

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M1 4HT, UK

EC REP

APEX CE SPECIALISTS LIMITED
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