

HITEC

MADE WITH
ELAPOR[®]
FOAM
tough. resilient. survivable.

Sky Scout



Perfect for anyone who loves to fly

Fly high with Hitec's easy-to-fly Sky Scout!

Build and Fly in just 2 hours!

R2GO+

H2GO+

P2GO+

Instruction Manual Ver 1.0

www.hitecrad.com

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Note

This instruction manual is the integrated manual for all three types of the Sky Scout 2Go (R2GO, H2GO, P2GO). It is easy-to-read with essential information on flying the Sky Scout including the assembly instructions for each type. Each version is different in terms of included components and assembly instructions so be sure to read the instructions for the model you purchased. This manual includes essential information for the Sky Scout so after reading the manual, be sure to keep it in a safe place.

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Section One: Sky Scout 2Go Versions



(READY TO GO) stock# 13207

This version includes everything you need to fly your Sky Scout after a few easy assembly steps.

Semi-assembled model
 Hitec Lite 4 2.4GHz 4-channel Radio (w/4AA alkaline batteries)
 Hitec Minima 6S Receiver (installed)
 Hitec HS-55 Servos (installed)

C2812-1100 Brushless Outrunner Motor (installed)
 Hitec HBE-18A ESC (installed)
 HLP-3S 1300mah Li-Po battery (included)
 CG-115 DC Balancing Charger (included)



(HITEC TO GO) stock# 13209

This version allows you to fly your Sky Scout with the Hitec radio you already have or may wish to purchase. Any of Hitec's AFHSS 2.4GHz radios, or radios using a Spectra 2.4GHz module, can be linked with the Minima 6S included in the H2GO set.

Semi-assembled model
 Hitec Minima 6S Receiver (installed)
 Hitec HS-55 Servos (installed)
 C2812-1100 Brushless Outrunner Motor (installed)

Hitec HBE-18A ESC (installed)
 HLP-3S 1300mah Li-Po battery (included)
 CG-115 DC Balancing Charger (included)



(PLUG-IN TO GO) stock# 13210

This Sky Scout version is for modelers who already own the additional products needed for flying. A transmitter, receiver, charger and suitable batteries are required to fly the model plane.

Semi-assembled model
 Hitec HS-55 Servos (installed)
 C2812-1100 Brushless Outrunner Motor (installed)
 Hitec HBE-18A ESC (installed)

Thank you for purchasing Hitec's Sky Scout.

Developed and engineered by Multiplex, manufactured by Hitec, the Sky Scout is an ideal model for all users interested in model flying, regardless of age or gender. The Sky Scout is easy to fly, even for beginners. This instruction manual includes the model specifications, safety precautions and assembly instructions for the R2Go, H2Go and P2Go versions of the Sky Scout. Please be sure to read this manual in its entirety before beginning the assembly and operation of your Sky Scout Model Kit.

Warning, Caution, Tip and Note Boxes



Warning



Caution



Tip



Note

Specifications

Wingspan: 1366mm (53.75 in.)
 Overall length: 977mm (38.5 in.)
 Min. all-up weight, standard: 700g (24.7 oz.)
 Wing area, approx.: 28dm² (434 sq. in.) (wing + tailplane, excl. fuselage)
 Min. wing loading: 25g / dm² (8.2 oz/sq ft)
 RC functions: rudder, elevator and throttle, optional ailerons

Warning : Be sure to read this section for your own safety.

Caution : Be sure to read this section to prevent accidents and damage to your model.

Tip : This section will help you maximize the performance of your model.

Note : This section will provide more detailed explanations.



Caution

The Sky Scout is a radio control model plane designed for users over age 14. For those under age 14, please seek the help of your parents, guardian or the help of a skilled RC pilot. Improper assembly or user negligence can lead to serious injury and/or property damage to yourself or other persons. Hitec is not responsible for any damages or injuries caused by the user's negligence or improper assembly of the model. Be sure to read the instruction manual thoroughly before assembly and flying.

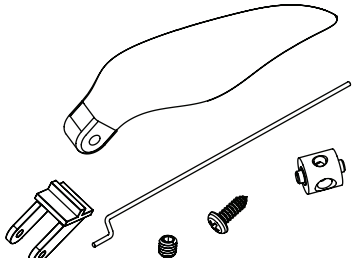



Note

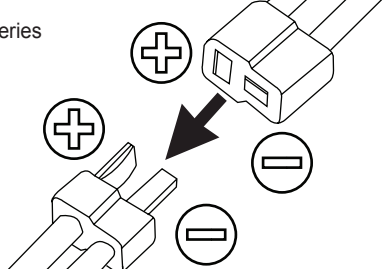

The Sky Scout is manufactured of ELAPOR, a material highly suited for model airplanes. ELAPOR is light, durable and unlike traditional foams it can be bonded successfully with traditional cyanoacrylate adhesives and activators. Do not use foam-safe or "odorless" CA, epoxy or other household glues. It is recommended that you wear safety goggles when using CA glue and be sure to follow the manufacturer's safety instructions for its use.

Safety Precautions Before Assembling The Sky Scout

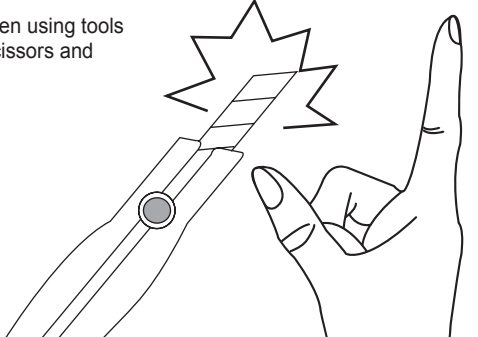

The product contains small and sharp components. Please be sure to keep them away from children at all times.

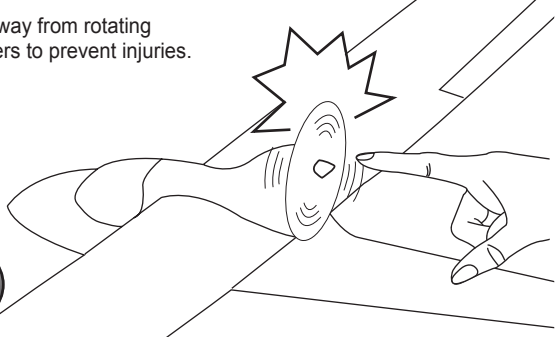

Be sure to connect the batteries with the right polarity. Disconnect the battery if it is damaged or produces excessive heat.

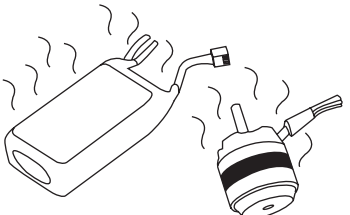

Be careful when using tools like knives, scissors and screwdrivers.

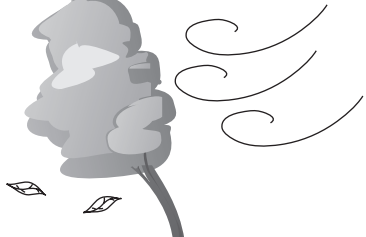

Keep away from rotating propellers to prevent injuries.

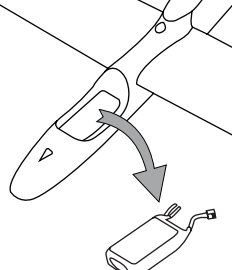

The motor and battery may produce heat during the pre-flight test or during the flight. Be sure to cool them off before touching them or recharging the battery.

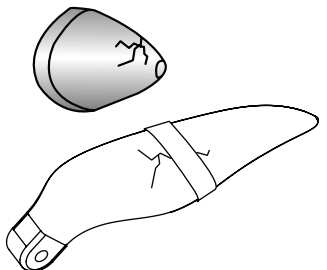

Do not fly in strong winds or storms. The Sky Scout may not perform as desired.

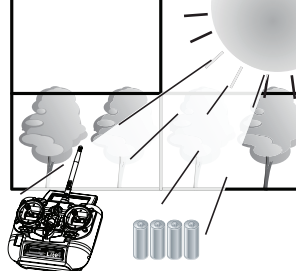

Always disconnect the batteries from the model when it is not in use. Leaving the battery connected may cause it to overheat and may damage the model.

Do not use or attempt to repair a distorted or damaged spinner or propeller blade. They may fail under operation, risking injury or property damage.

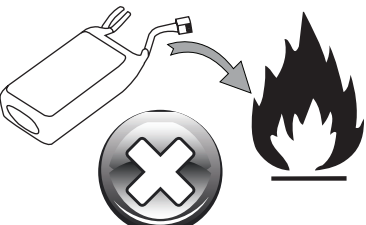

Do not store the Sky Scout or accessories in humid, closed areas, in high temperatures or in direct sunlight.

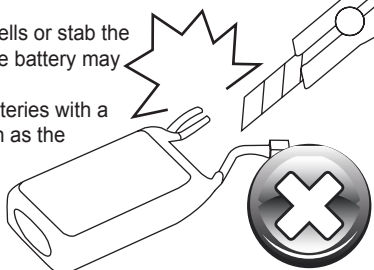

Be sure to use official Hitec products and components. Altered products may negatively affect the model's performance.



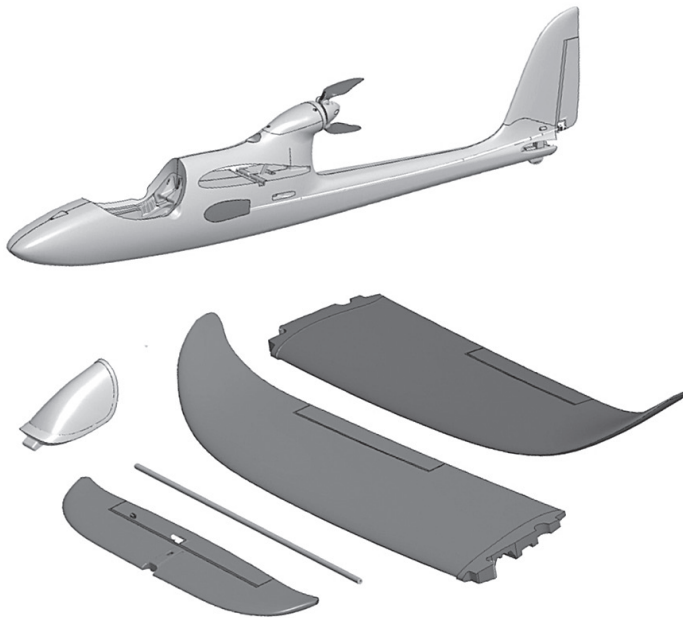

Lithium-Polymer (LiPo) batteries can pose significant risk when mishandled. Keep them away from fire to prevent explosion and unplug immediately if they feel hot or show signs of swelling.

Do not separate individual cells or stab the battery with a sharp tool. The battery may explode and cause injuries. Only recharge your LiPo batteries with a dedicated LiPo charger such as the Hitec CG-115 DC Charger. Do not attempt to recharge with a charger designed for NiCd or NiMH cells.

Package Contents



R2GO+	H2GO+	P2GO+

Recommended Equipment (H2GO, P2GO)

The Sky Scout Ready 2 Go (R2GO) version comes complete with everything you need to go fly. The H2GO and P2GO versions both require additional equipment and accessories that you may already have or can buy at your local RC hobby retailer.

The Sky Scout Hitec 2GO (H2GO) version is for modelers who already own a Hitec 2.4GHz radio or have chosen to purchase one of Hitec's other mid to high-class radios. These radios can be purchased at your local hobby shop or online at most RC hobby retailers. The H2GO version includes a Minima 6S 2.4GHz receiver that is compatible with Hitec 2.4GHz radios.

The Sky Scout Plug-n-2Go (P2GO) version is for users who already fly models and/or those who own the basic equipment and accessories needed for RC flying. To fly the P2GO version the following components are required: transmitter and receiver with four or more channels, flight battery and charger.



Note

Be sure to purchase a LiPo battery within the recommended 3-cell (11.1V) 1300-2200mAh capacity specifications with 15C or higher discharge rating to ensure optimal flight performance with your Sky Scout. A 2-cell battery will not provide enough power for full performance while attempting to use a battery over 3 cells will damage the ESC and motor, and can possibly cause a fire.

Recommended Equipment needed for flight (sold separately)



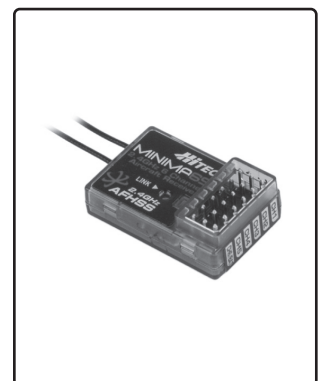
Optic 5 Transmitter



CG-115 LiPo Battery Charger



HLP-3/1300S 3S 1300mAh LiPo Battery



Minima 6S Receiver

Section Two: Charging Your Battery - for all Users (R2GO, H2GO, P2GO)



Hitec CG-115 Intelligent Lithium Balance Charger



Charging information is printed on CG-115 Charger for reference

Specifications

- Input : 10~18V DC**
- Output : 2S(8.4V) , 3S(12.6V) : 1.1A**
- Nominal Power: 15W**
- Do not open the charger**
- Read the instructions before using**

The CG-115 is designed to safely charge batteries without any additional setup or adjustment. Read the following instructions regarding the LED lights before use.



Charging 2-cell (7.4V) LiPo battery



Charging 3-cell (11.1V) LiPo battery

The current status of the charger can be checked with the red/green LEDs in the center of the product.

- 1. Charging → Red LED is ON/ Green LED is OFF
- 2. Charging complete → Green LED is ON/ Red LED is OFF
- 3. Incorrect insertion of battery → Red LED is blinking



The Hitec CG-115 charger is for 2-cell (7.4V) and 3-cell (11.1V) LiPo batteries only. Do not use the CG-115 to charge NiMH, NiCd, or Alkaline batteries.

Section Three: Quick Assembly Guide - (R2GO, H2GO, P2GO)



Caution

Cautionary Notes before Assembling the Sky Scout

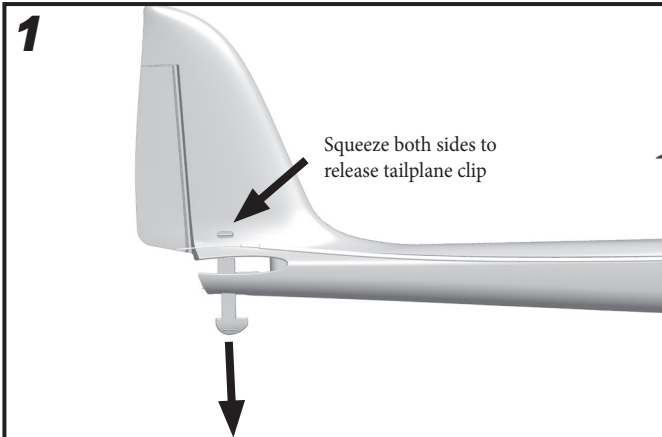
Keep in mind when assembling and flying the Sky Scout that radio control model airplanes may cause injury or property damage when improperly flown or mishandled. Always follow the warnings written in the instruction manual. Improper usage could lead to damage and / or failure of the electronic equipment. Be sure to read this instruction manual in its entirety before assembling and flying this model.



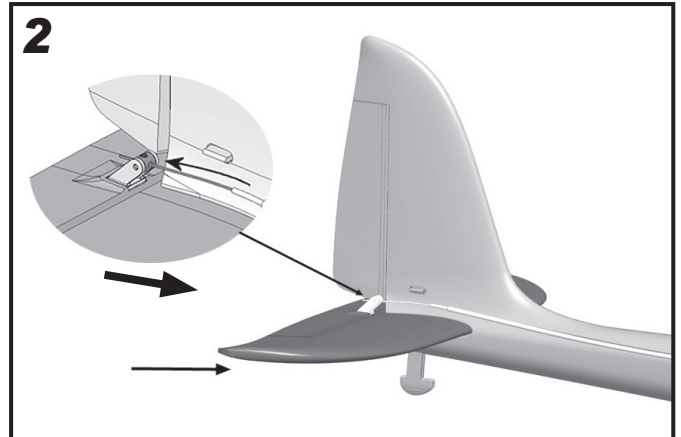
Caution

Assembly Instructions

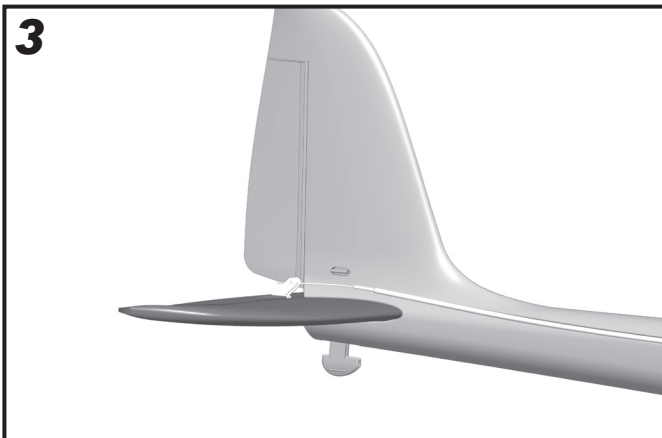
This section will help you prepare your Sky Scout for flight as quickly as possible. Read and follow the following instructions carefully. Experienced pilots may choose to install the optional ailerons for additional flight performance. While the necessary hardware is included with your Sky Scout, two additional sub-micro servos, such as the Hitec HS-55, and two servo extensions are required. The mechanical installation of the servos and aileron controls are detailed in the assembly instructions in section 6, Adding the Optional Ailerons.



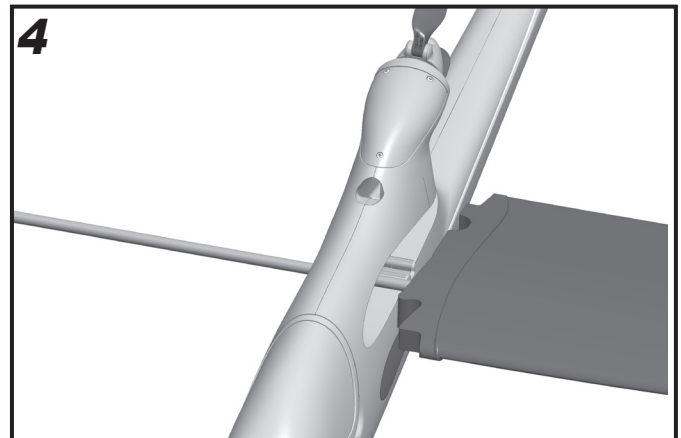
The first step is to slide the Tailplane Clip down and out of the way of the Tailplane slot in the rear of the fuselage as shown.



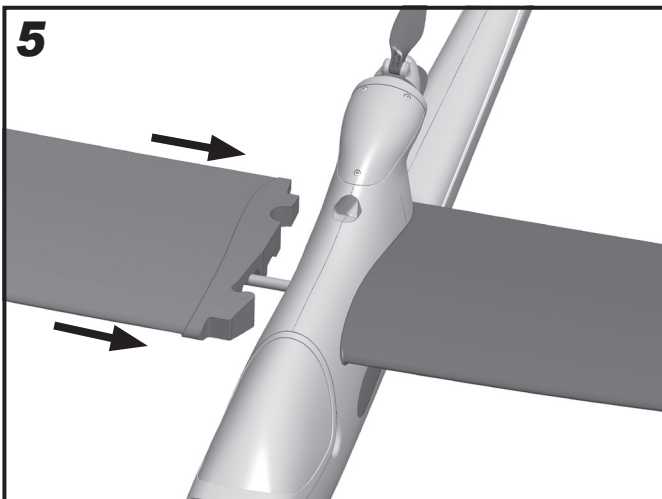
Carefully slide the Tailplane into the fuselage slot while at the same time making sure the Elevator Push rod slides through the swivel barrel.



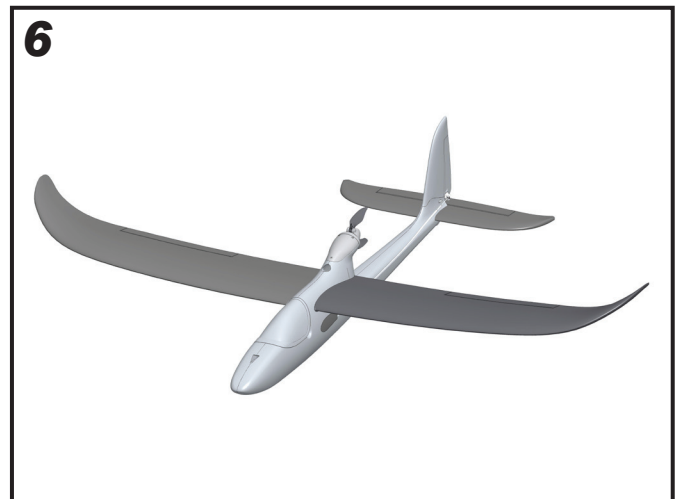
Insert the Tailplane Clip to affix the Tailplane to the fuselage. Make sure the clip latches into place and that the Tailplane is securely set in place.



Insert the Wing Joiner into one of the wing panels and insert them into the fuselage.



Slide the other wing over the joiner and into the fuselage to connect with the first panel.



You now have completed the basic assembly of your model.

Section Four: Final Assembly and Adjustments

The next steps will guide you through the process of making the final adjustments to your model's control surfaces. Before you can make the adjustments you must power up your model according to the instructions of the version you purchased.

Powering On Your Model

Ready 2Go Version

Your Lite 4 transmitter is linked to the Minima 6S receiver that is installed in your model at the factory. In the event you need to re-link your transmitter follow the instructions in the Hitec 2Go section.



1. Install the fully charged power battery into the nose of the Sky Scout pushing it in as far forward as possible. (Page 9, Fig. 1)
2. Turn on the transmitter and set the throttle stick to the lowest limit. Connect the flight battery to HM18A ESC installed in the plane. If it is connected correctly, the ESC will beep once or twice and automatically recognize the throttle.
Note: If the ESC does not beep, check to make sure the throttle is in the down (off) position. To reset the ESC unplug the battery for 5 seconds before trying it again.
3. Wiggle the Rudder and Elevator sticks to make sure everything is operating properly. Once you have verified they are working set the trims to their neutral positions.
4. Proceed to **Step 2** Final adjustments

Hitec 2Go Version

Before powering on your model you must link/bind the Minima 6S receiver to your Hitec AFHSS transmitter as detailed below. Your Hitec radio or Spectra module requires AFHSS firmware update 3.01 to use the Minima 6S. If you don't currently have this version installed, you can upgrade the firmware using the HPP-22 interface.

1. Install the fully charged power battery into the nose of the Sky Scout pushing it in as far forward as possible. (Page 9, Fig. 1)

Binding Process for the Hitec Minima 6S Receiver (Included in R2Go & H2Go Versions)

<p>2. On the transmitter or module press and hold the link button while turning on the transmitter.</p>	
<p>3. Release the link button.</p>	
<p>4A. Hitec 2.4GHz Transmitters & Modules Confirm the Blue LED is blinking. If Red LED is blinking, press the link button for 2 sec., until the LED changes to Blue.</p>	<p>4B. Lite 4 Transmitter The Red power LED will blink when the Lite 4 Transmitter is ready to bind.</p>
<p>5. Press and hold the link button on the Minima 6S receiver and connect the flight battery to HM18A ESC installed in the plane.</p>	<p>6. When the Blue LED is illuminated release the link button. The Blue LED will blink while finding the transmitter signal. When linked the Blue LED on receiver glows steady</p>
<p>7. When the link is completed, the Blue LED on the module or transmitter will blink. On the Lite 4 transmitter the Red LED will blink slowly.</p>	<p>8. Unplug the power battery then turn off the transmitter. Then turn the transmitter back on and plug the battery back in. The Red LED on the Transmitter and the Blue LED on the receiver will glow steady indicating the receiver and transmitter are bound. Additionally the ESC will beep once or twice and automatically recognize the throttle. Note: If the ESC does not beep, check to make sure the throttle is in the down (off) position. To reset the ESC unplug the battery for 5 seconds before trying it again.</p>

9. Wiggle the Rudder and Elevator sticks to make sure everything is operating properly. Once you have verified they are working set the trims to their neutral positions.
10. Proceed to **Step 2** Final adjustments

Section Four: Final Assembly and Adjustments

Plug N 2Go Version

This version requires that you have a transmitter with matching receiver, as well as a power battery and appropriate charger. Follow the manufacturer's instructions for the installation of your radio equipment.

1. **Installing the Receiver:** Using Velcro or double sided servo tape mount your receiver in the fuselage just slight aft of center in the canopy opening of the fuselage route the antennas as specified by the manufacturer.
2. Plug in the Elevator, to the appropriate channels of the receiver.
3. Plug the signal wire of the ESC into the throttle channel of the receiver.
4. Install the fully charged power battery into the nose of the Sky Scout pushing it in as far forward as possible. (Page 9, Fig. 1)
5. Turn on the transmitter and set the throttle stick to the lowest limit. Connect the flight battery to HM18A ESC installed in the plane. If it is connected correctly, the ESC will beep once or twice and automatically recognize the throttle.

Note: If the ESC does not beep, check to make sure the throttle is in the down (off) position. To reset the ESC unplug the battery for 5 seconds before trying it again.

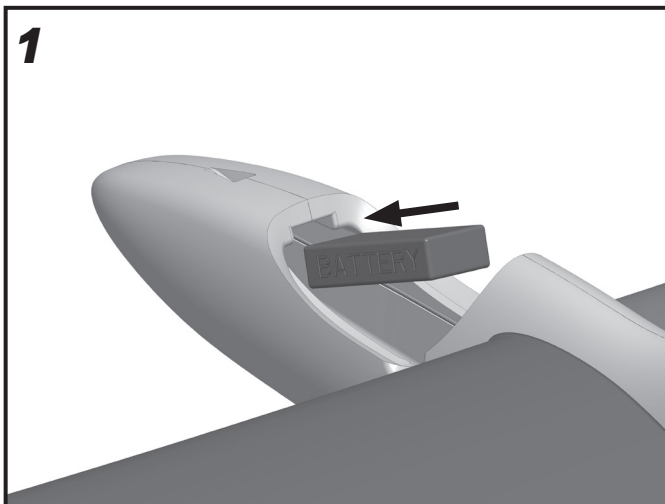
6. Wiggle the Rudder and Elevator sticks to make sure everything is operating properly. Once you have verified they are working set the trims to their neutral positions.
7. Proceed to Step 2 Final adjustments



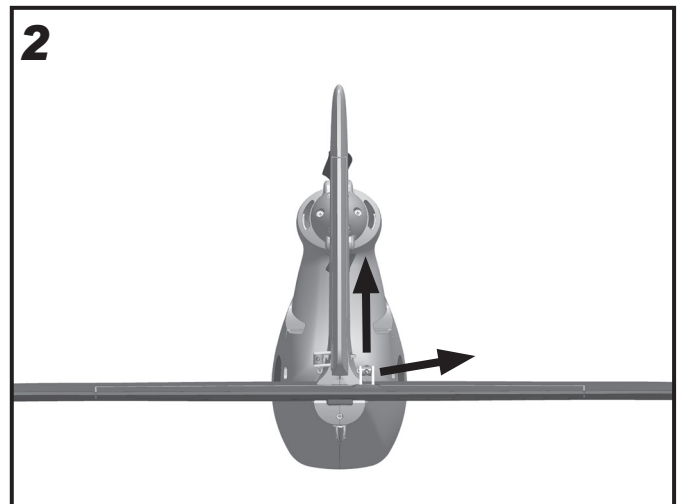
CAUTION: We recommend the Hitec HLP-3/1300S - 1300mAh 11.1V Li-Po battery. If using another battery, the battery must be a 11.1 Volt battery with a minimum capacity of 1300mAh. The battery should be approximately the dimensions and weight as the recommended Hitec battery in order to fit in the fuselage without significantly changing the center of gravity.

Centering Your Control Surfaces

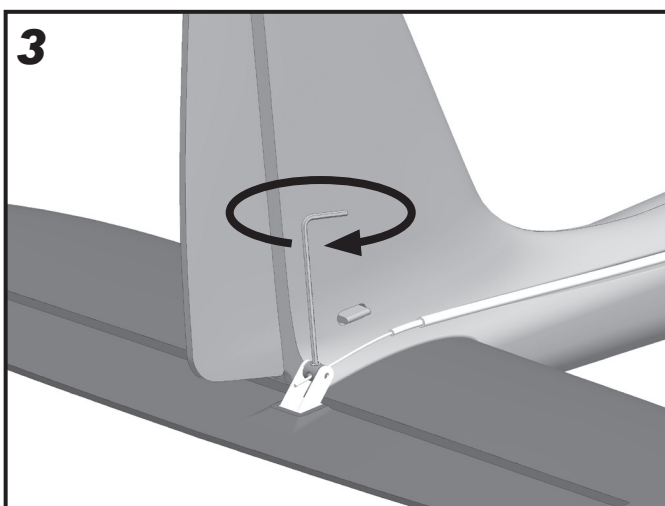
Once you have powered up your model and centered the control sticks you can center the control surfaces and finalize the assembly of your model. Follow the instructions below to adjust your model's control surfaces and finalize the assembly.



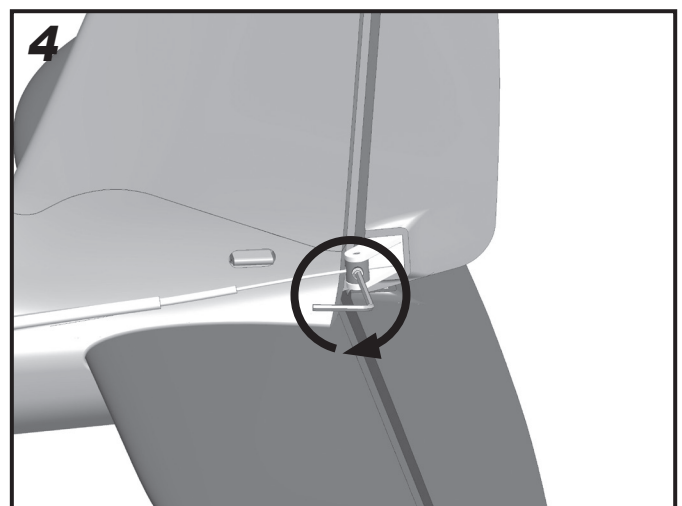
Place the charged LiPo battery in the nose of the Sky Scout as shown.



Make sure that when the servos are in their neutral positions the elevator and rudder control surfaces are parallel with the fin and tailplane.



Tighten the Allen-Head Grub screw against the Elevator push rod using the Allen Key.



Tighten the Allen-Head Grub screw against the Rudder push rod using the Allen Key.

Section Four: Final Assembly and Adjustments

Final Checks and Adjustments

1. Check Transmitter Inputs

Before attempting flight ensure that your controls are set up properly and give the appropriate response to your transmitter inputs. A complete set up guide appears at the end of this manual in **Appendix B: Transmitter Control Surface Movements**. If you have any questions about this consult an experienced local flier, your local hobby shop, or contact Hitec customer support.

2. Setting the control surface travels

It is important to set the correct control surface travels, otherwise your model will not respond to your control commands smoothly and evenly. To do this you need to complete all the electrical connections as at the beginning of Section Four.

NOTE: when we refer to a model aircraft, the terms "right" and "left" always apply to the model when viewed from above, with the nose pointing away from you.

ELEVATOR: Up-elevator (stick back, towards you) should be about 5 mm; Down elevator (stick forward, away from you) approx. 4 mm.

RUDDER: The rudder should move 10 mm to either side of center, as measured from the widest part of the control surface.

AILERONS: The ailerons should deflect 8 mm up and 4 mm down. When you move the aileron stick to the right, the aileron on the right-hand wing should deflect up; that on the left-hand wing down. If your radio control system does not include the required mixing to set up differential aileron travel (as described above), the model will still fly well with symmetrical (non-differential) travels. If you are a beginner, you will probably notice no difference in any case. However, accurate rolling maneuvers are more difficult to fly with symmetrical aileron travels.

NOTE: If you cannot set the recommended travels using your transmitter's adjustment facilities, you will have to re-position the pushrod connections, using different holes at the servo or horn.

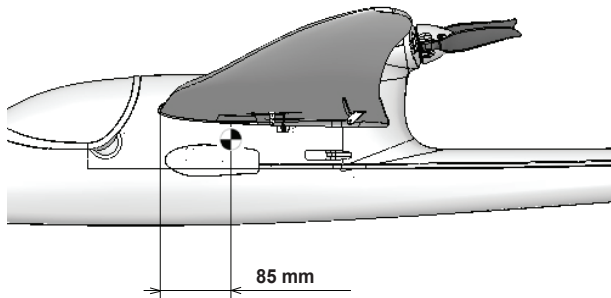
3. Balancing the model

Like every aircraft, your Sky Scout must be balanced correctly if it is to fly well and stably. To check the Center of Gravity (CG) you must first assemble your model completely as if you were ready to fly, and install the flight battery.

The correct CG is marked at a point by the rear edge of the wing joiner cover, and the model must balance at this point. This setting corresponds to about 85 mm aft of the wing root leading edge, measured either side of the fuselage.

Support the model under both wings on two fingertips at the marked point, and it should balance level.

Minor corrections can be made by adjusting the position of the flight battery. Once you have established the correct position for the battery, mark this in the fuselage to ensure that it is always positioned correctly.



Section Five: Flying Your Model

1. Safety

Safety is of the utmost importance when flying any model aircraft. Third party insurance is mandatory. If you join a model club or association, suitable coverage will usually be available through the organization. It is your personal responsibility to ensure that your insurance is adequate (i.e. that its coverage includes powered model aircraft).

Always fly in such a way that you do not endanger yourself or others. Bear in mind that even the best RC systems are subject to outside interference. No matter how many years of accident-free flying you have there is always the possibility of an unforeseen problem or error that can cause an accident. Make it your job to keep your models and your radio control system in perfect operating condition at all times.

Check and observe the correct charging procedure for the batteries you are using.

Before every flight, check that the battery, the wings and the tail panels are attached and firmly seated. Check in turn that each control surface is operating correctly!

2. Where to fly - Using Airfields

- 1) Use an official model airfield if possible when flying your model.
- 2) Check that other pilots and spectators are positioned safely before flying your model.
- 3) Wait for other pilots to land their models if they are flying already.
- 4) Always remember that the pilot is responsible for any outcome that may occur during the flight.
- 5) Do not fly the plane behind yourself or others.
- 6) Seek help from an experienced pilot for your first flight.
- 7) Do not fly under the influence of alcohol or drugs or if you are feeling ill.
- 8) Be sure to do pre-flight safety checks of the model before flying.



If you have no prior experience with flying a radio controlled model, please take the time to read through the "Appendix A" entitled "The basics of model flying".

Warning

Section Five: Flying Your Model

3. Where Not to Fly



Warning

WARNING: If you choose not to fly at an official radio controlled model flying field you must find a large, unobstructed area measuring at least 150 x 200 meters. The following is based on common safety precautions for flying RC models.

- 1) Do not fly in an area where people are gathered or near tall buildings.
- 2) Do not fly near streets or where subways or trains pass by.
- 3) Do not fly near explosive materials.
- 4) Do not fly near power lines or transmission towers.

4. Pre-Flight Inspections and Cautionary Notes

The following is based on common safety precautions for flying RC models. Please read the following information before attempting to fly your model. Check all safety aspects of your model before flying for a safe flight.

5. Pre-flight Model Inspection

The following inspection should be done **BEFORE** plugging in the battery.

- a) Check to make sure the model is in safe operating condition and that there is no damage to the wings or the tail.
- b) Check to ensure the wings and tail plane are properly seated and locked into position
- c) Make sure the prop and hub are tightly mounted to the motor
- d) Make sure the propeller spins freely and that the blades open and close properly

6. Pre-flight Radio Check

The following checks are done with the radio's system turned on and the model's main battery plugged in and fully charged. Be sure to turn on the transmitter and check to make sure that the throttle is in the OFF position BEFORE connecting the main battery.

- a) **Range Check:** Follow the instructions provided by your RC system manufacturer. The transmitter battery and flight pack must be fully charged in accordance with the manufacturer's recommendations before conducting this test.
- b) **Function Check:** Check to make sure the model responds correctly to the transmitter inputs.

If you are unsure about the proper range, operation or functionality of any part of the radio system, do not fly the model! If you cannot identify and solve the problem do not fly. Contact Hitec or the radio system manufacturer's customer service for help resolving the issue

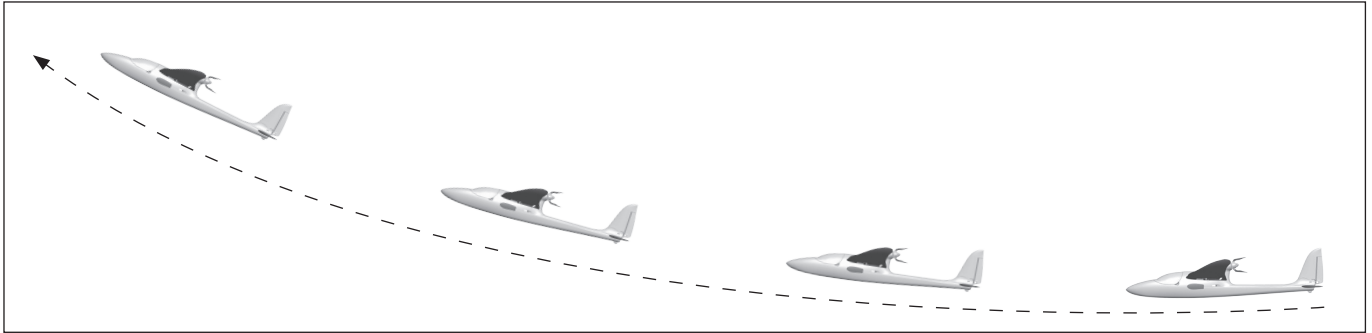
7. Maiden Flight

For the first flight wait for a day with as little breeze as possible; the evening hours often offer calmer conditions The aircraft is designed to be hand-launched (always into wind). If you are a beginner to model flying, we strongly recommend that you ask an experienced modeler to help you for the first few flights. The following instructions are for users to easily understand the process of taking off, making in flight adjustments and landing the model. The instruction manual cannot address every situation that may occur, but it does explain common situations that occur which could be useful for you when flying. Beginner fliers should seek the help of an experienced pilot through a friend, local club or nearby RC hobby retailer.

Section Five: Flying Your Model

1. Taking Off

Hold the plane facing into the wind and keep it level as you apply the throttle. Now throw it smoothly forward with the nose level or angled up no more than 30-degrees. After the take-off use the control sticks to keep the wings and fuselage level as the model gains altitude. If the battery isn't fully charged, the plane will not climb normally. Once you have climbed to an altitude of 100-130 feet (30-40 meters) high you can adjust the trim to make it fly smoothly.



2. Adjusting the Trims

Even if you balance the plane properly on land, it may not fly horizontally due to the wind or weight shift. To check the trim, once you have reached your initial climb altitude, set the throttle to about $\frac{3}{4}$ power and let go of the control sticks. If the plane turns to the right, adjust the rudder trim control on your transmitter to the left. If the plane continues to climb, adjust the elevator trim up. Adjust the rudder and elevator trim controls so that the plane will fly straight and level when you let go of the control sticks. Be sure to adjust the trim only after the plane has reached an altitude of more than 130 feet (40 meters). Adjusting the trim when the plane is flying too low could cause it to crash.

3. How to Control the Plane

The most basic flight pattern for your new plane is an oval shape. Fly the plane in one direction at a safe altitude until you are familiar with the control sticks. When moving in a straight line, slightly adjust the control sticks to keep the plane level.

To turn to the left, move the rudder stick slightly to the left and note the plane's reaction. It should begin turning to the left while also losing a little bit of altitude. To maintain its altitude in a turn, pull the elevator stick toward you slightly at the same time. To complete the turn let both sticks spring back to their neutral position.

To turn to the right, move the rudder stick slightly to the right and pull the elevator stick toward you slightly at the same time. To complete the turn let both sticks spring back to their neutral position.

With the aircraft flying at an adequate altitude, check how it responds when the motor is switched off, so that you are familiar with its behavior during the gliding process.

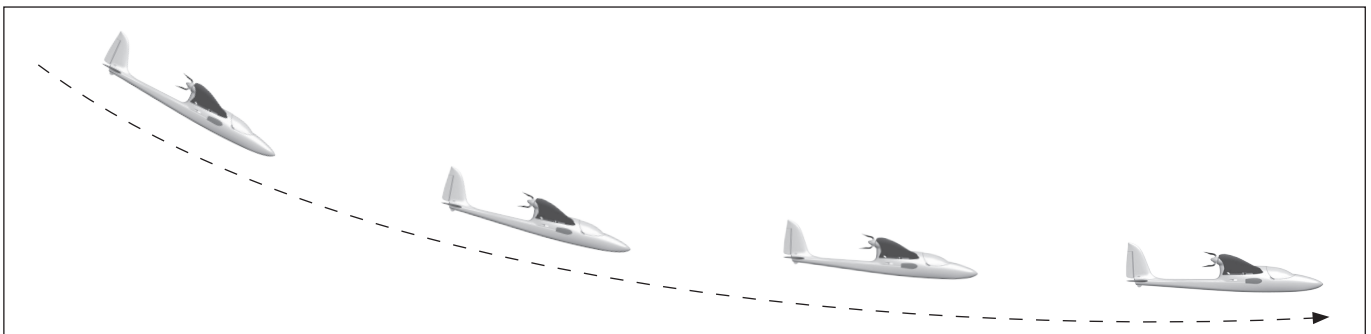
Avoid flying tight turns at first, especially close to the ground, and in particular during the landing approach.

4. How to Land the Plane

You must land the plane before the battery is too low. It is always better to land safely some distance away than to risk a crash by forcing the model back to your feet.

In order to land the plane safely, have a friend first check for any obstacles or people around the intended landing area. With the model flying into the wind reduce the power so the model starts descending. Use the control sticks to keep the wings and fuselage level until it touches down.

You could damage the plane if it lands too steeply on its nose or hits a wing tip first. Landing into the wind ensures the slowest possible landing and least chance of damage.

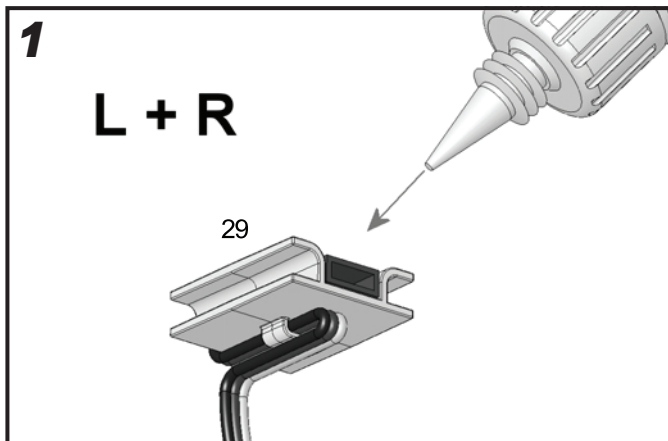


5. After Your Flight

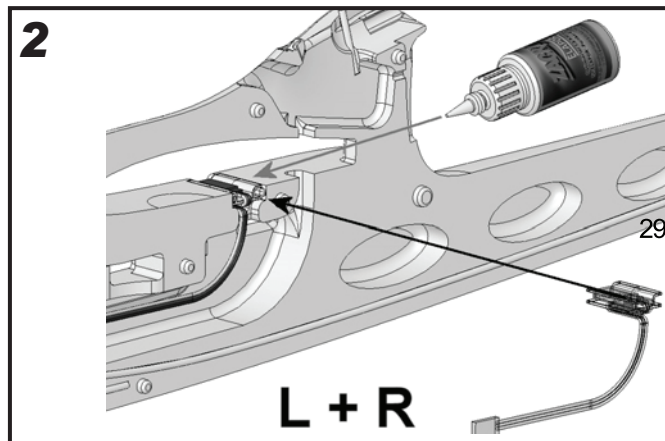
Immediately disconnect the flight battery and then turn off your transmitter. Inspect the model for any damage and realign the wings and tail if necessary. Completely recharge your battery according to the manufacturer's specifications before flying again.

Section Six: Adding the Optional Ailerons to Your Model

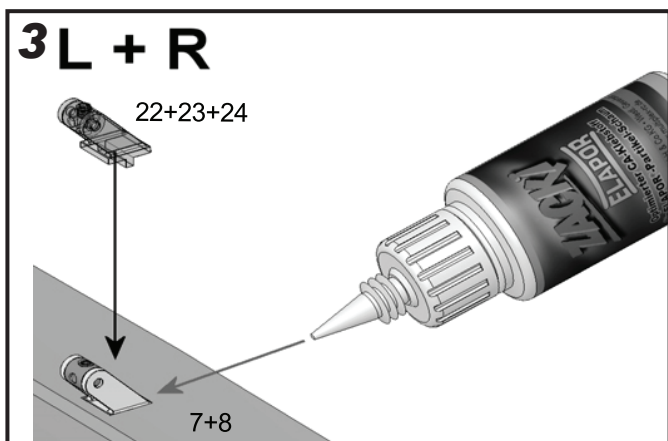
The Sky Scout is designed for success in a "3-channel" configuration using rudder, elevator and throttle control. This basic configuration is well suited to beginners and relaxing flying. More experienced pilots may prefer to increase the performance of their Sky Scout by adding the optional aileron controls. The necessary hardware to ailerons is included with your Sky Scout package. In addition to these parts you will need two additional servos and two servo extensions. Hitec Recommends using HS-55L (long servo lead version & two 57345S, 12 inch extensions. The following describes the installation process of adding ailerons. The information below is for installing ailerons in a new fuselage. To install ailerons in an assembled model you only need to do parts 3 and 4.



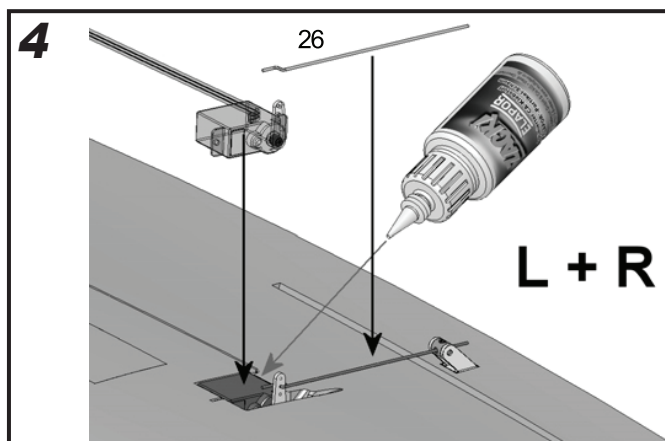
1
Preparing the cable holders (optional: required for ailerons)
Glue the female plug end of a 12" (30mm) servo extension lead to the cable holder 29, flush with the edge. Push the cable under the lug on the underside.



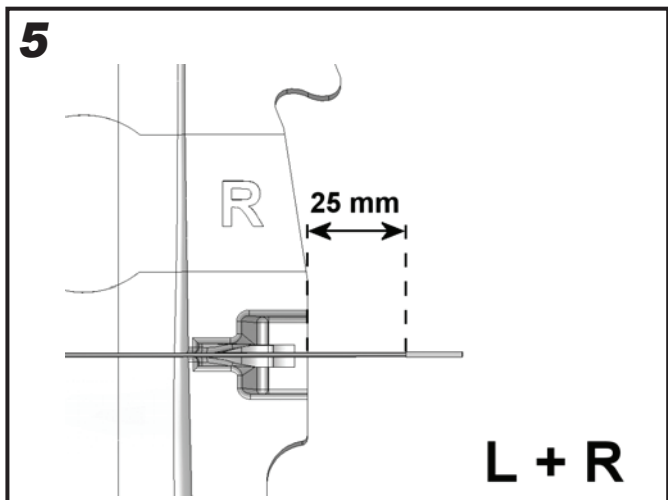
2
Installing the cable holders
First spray activator on the joint surfaces of the cable holders 29. Allow the fluid to air-dry, then glue the parts in the appropriate recesses in both fuselage shells.



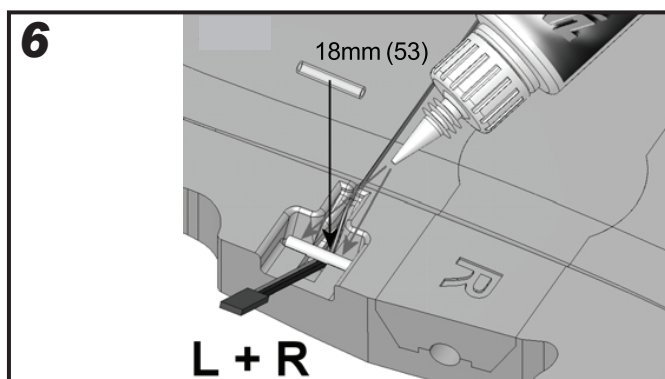
3
Attaching the (optional) aileron horns
Assemble the "Twin" horns 22, and glue them in the recesses in both ailerons (wing panels 7 + 8) using CA Glue and activator, as described earlier.



4
Installing the aileron servos
Wrap adhesive tape round the servos to prevent glue running inside the case. Fit the pre-formed aileron pushrods 26 through the second hole from the outside of the servo output arms. Press the servos and leads into the recesses and channels, and thread the plain end of the pre-formed aileron pushrods 26 through the swivel barrels mounted on the aileron horns. Check once more that the servos are at center before tightening the grub screws 24 in the swivel barrels. We recommend applying a drop of medium-strength thread-lock fluid to the grub screws to prevent them working loose.



5
Servo lead length, aileron connections
Draw the servo leads out of the wings 7 + 8 where the wing meets the fuselage.



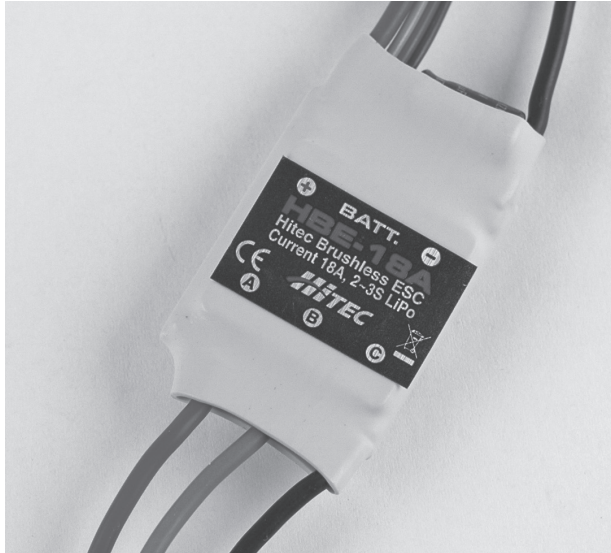
6
Installing the cable sleeves
To avoid kinking the aileron servo leads, glue 18 mm lengths of snake outer sleeve (3.2mm OD) in the recess where the cables exit the wing.

Section Seven: Repair and Maintenance of Your Model

This section will help you maintain your Sky Scout and repair it in the event of a crash or damage.

Hitec HBE-18A ESC Setup

The HBE-18A is factory set for optimal performance. In the event these settings are lost or you want to make changes to these setting you can use the following information.



Hitec HBE-18AMP Electronic Speed Control



Hitec HBE-18AMP Electronic Speed Control showing (from top to bottom) connectors to the motor, receiver and flight battery.

1. Connecting the Battery

First, turn on the transmitter and set the throttle stick to the low limit. Connect the flight battery to HM18A installed in the plane. If it is connected correctly, the ESC will beep once or twice and automatically recognize the throttle. You are ready to fly.

2. Checking the Brake Function

A single beep as you connect the battery to the ESC indicates that the brake function is activated, if it beeps twice, the brake function is turned off or deactivated.

3. Activating/Deactivating the Brake Function

To activate or deactivate the brake function

- a. **If the Brake Function is Active** - Move the channel 3 throttle stick to its maximum position then connect the ESC to the main battery. You will hear 4 continuous beeps after 5 seconds. Now move the throttle stick down to its minimum position. You will now hear 2 continuous beeps and the brake function will be deactivated.
- b. **If the Brake Function is Inactive** Move the channel 3 throttle stick to its maximum position then connect the ESC to the main battery. You will hear 4 continuous beeps after 5 seconds. Now move the throttle stick down to its minimum position. You will now hear 1 beep and the brake function will be activated.

Repairing Your Model

You have a few different options when it comes to repairing your model. In most cases of crash damage you can simply glue the pieces back together using CA adhesives. Allow ample time for the pieces to dry before attempting to fly your plane. In the event of severe damage or breakage to your model you can purchase replacement parts to repair your model. Before determining what items to purchase, make an attempt to salvage any plastic parts. In most cases the foam and CA adhesive can be removed from plastic parts and they can be reused.

The following pages show the available spare parts for your model along with instructions on how they are assembled.

Section Seven: Repair and Maintenance of Your Model

PN 57011

Decal Sheet

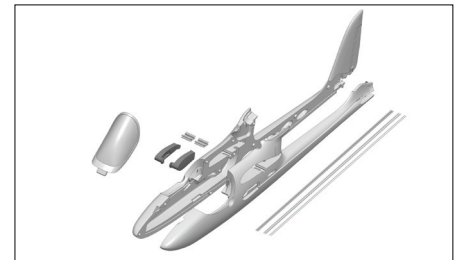


PN 57001

Fuselage & Canopy set

- L.H. fuselage shell x 1
- R.H. fuselage shell, with fin x 1
- L.H. servo well cover x 1
- R.H. servo well cover x 1

- Cable holder x 2
- Pre-formed pushrod, ele. / rud. x 2
- Snake inner tube, ele. / rud. x 2
- Snake outer sleeve, elevator x 3
- Canopy x 1



PN 57002

Wing & Tail Wing Set

- Tailplane x 1
- L.H. wing panel x 1
- R.H. wing panel x 1

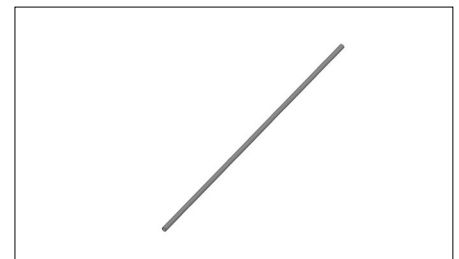
- L.H. joiner channel cover x 1
- R.H. joiner channel cover x 1
- Pre-formed aileron pushrod x 2



PN 57003

Wing Joiner

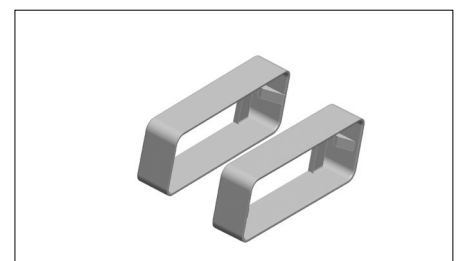
Wing joiner x 1



PN 57004

Servo Mounts

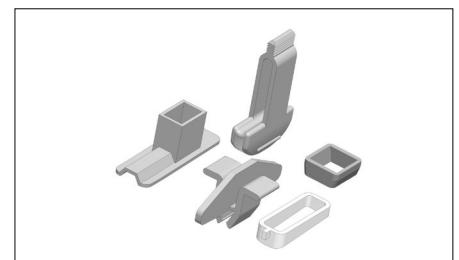
Servo mount, "Nano", upright x 2



PN 57005

TailPlane Clip Set

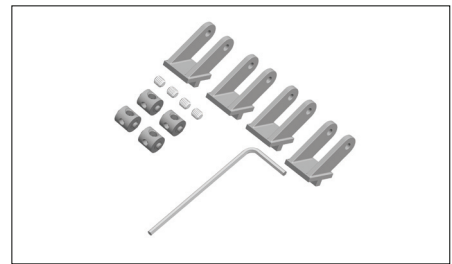
- Tailplane clip x 1
- Upper tailplane sleeve x 1
- Lower tailplane sleeve x 1
- Tailplane frame x 1
- Tailplane slider x 1



Section Seven: Repair and Maintenance of Your Model

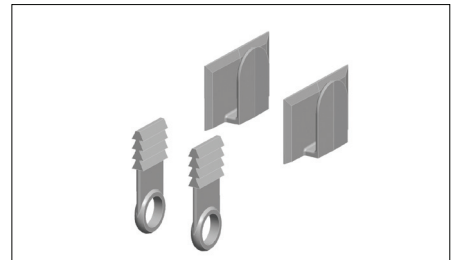
PN 57006

Control Horn Set
 Twin control surface horn x 4
 Swivel barrel x 4
 Allen-head grub screw x 4
 Allen key x 1



PN 57007

Canopy Latch Set
 Latch catch x 2
 Latch tongue x 2



PN 57008

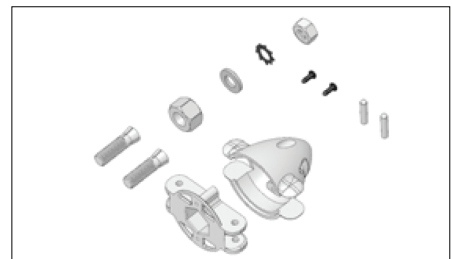
Motor Mount Set
 Screw (motor cowl) x 3
 Firewall x 1
 Motor cowl x 1
 Cowl screw support x 1



PN 57009

Prop Hub Set
 Propeller boss x 1
 Spinner x 1
 Propeller driver, taper collet x 1
 Washer x 1

Pan-head self-tapping screw x 2
 Dowel pin x 2
 Nut x 1
 Shakeproof washer x 1
 Taper collet x 1



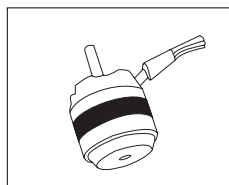
PN 57010

Replacement Props
 Folding propeller blade x 2
 O-ring x 1



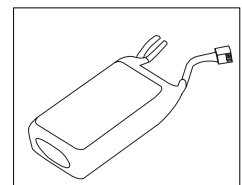
PN 57012

Motor
 HBM 2812-1100 BLDC motor x 1



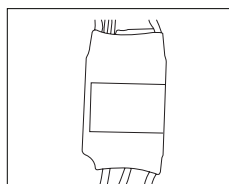
PN 57014

Battery
 HLP-3/1300S 15C Li-PO x 1



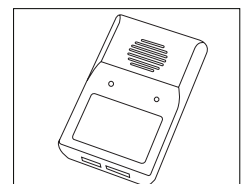
PN 57013

ESC
 HBE-18A BLDC ESC x 1



PN 57015

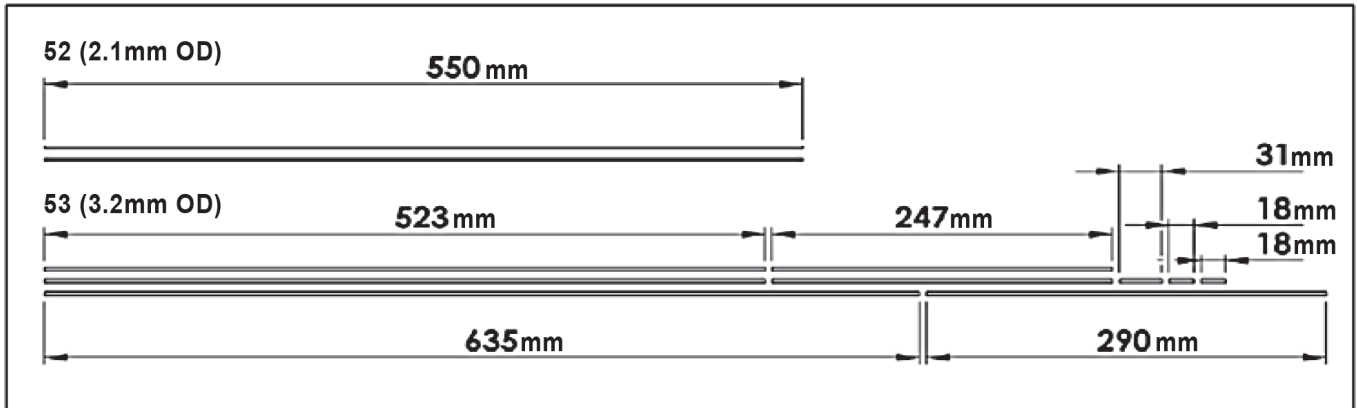
Charger
 CG-115 DC Charger x 1
 12V Clips x 1



Section Seven: Repair and Maintenance of Your Model

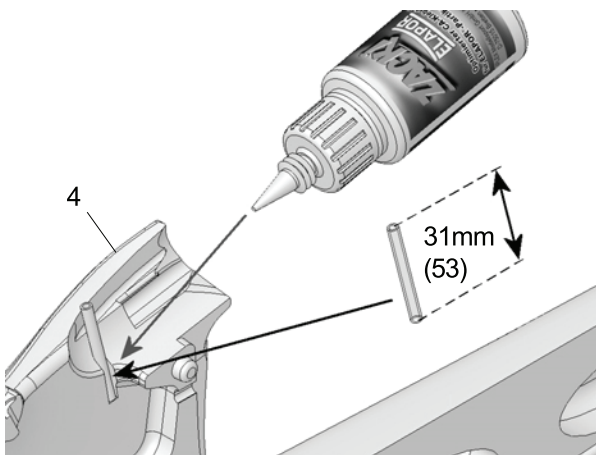
Fuselage Repair

The following instructions will help guide you through a major fuselage repair. The parts required for this are 57001, 57004, 57005, 57006 57007 and 57008. You can use a combination of new or salvaged pieces to accomplish this repair. You will also need medium body CA glue and a CA adhesive activator along with some simple tools.



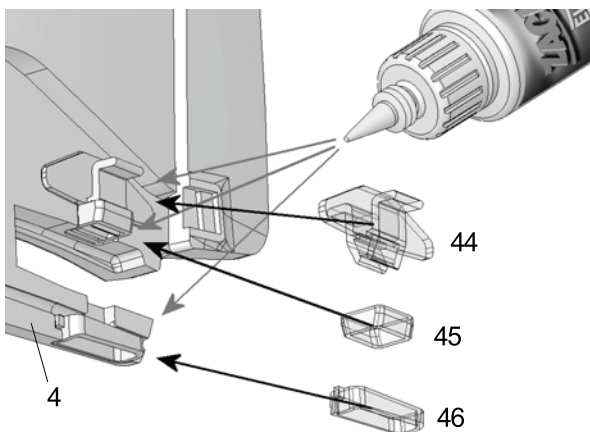
1. Prepare Snake Sleeves

Cut Parts #52 & #53 to lengths as shown using a razor knife.



2. Reinforcing the motor pod

Glue the 31 mm length of snake outer sleeve inside the motor pod using CA glue.

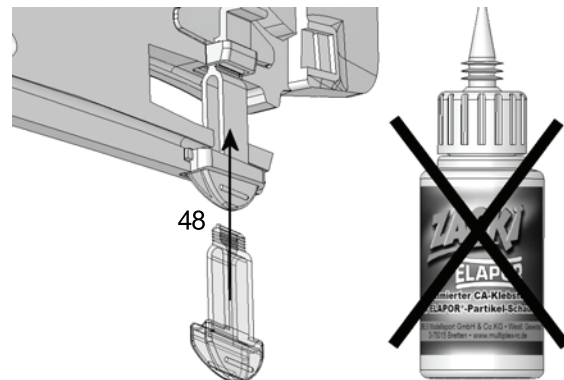


3. Installing the tailplane lock

Glue the tailplane clip 44, the upper tailplane sleeve 45 and the tailplane frame 46 in the right-hand fuselage shell 4: **lightly** spray activator thinly on the plastic parts, and allow a few seconds for the fluid to air-dry.

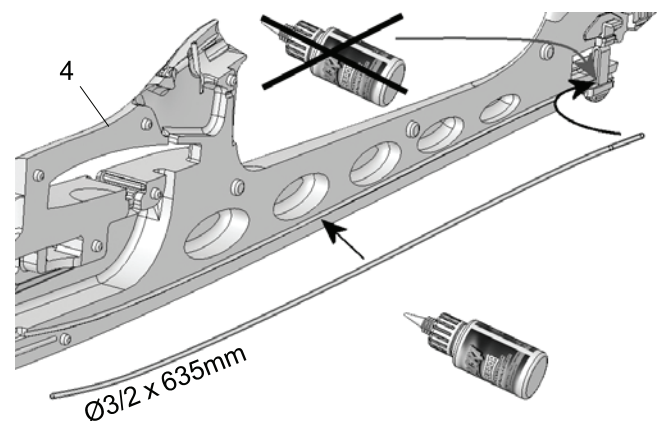


Take care not to glue together the two plastic parts (tailplane clip 44 and upper tailplane sleeve 45)!



4. Inserting the tailplane slider

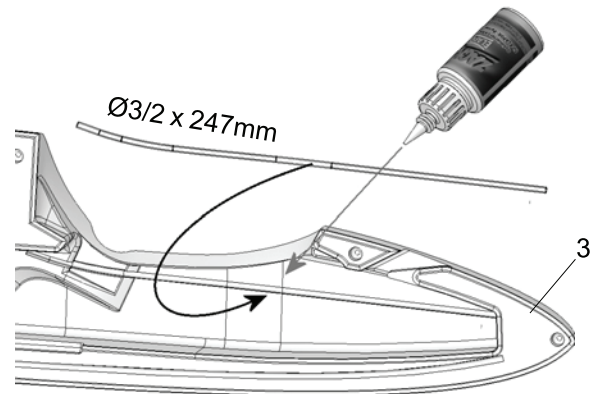
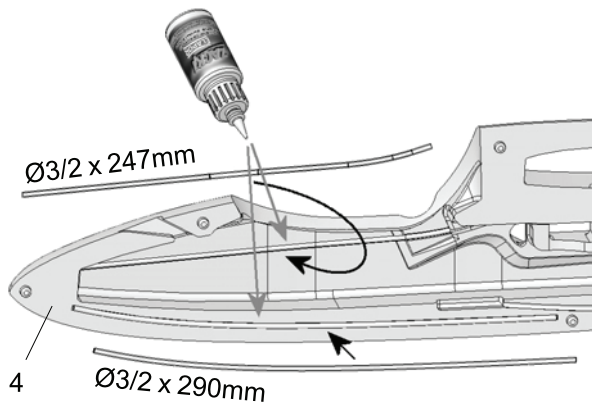
Allow the glue to set hard, then insert the tailplane slider 48 to ensure that the parts are accurately aligned. **This part must not be glued in place!**



5. Reinforcing the bottom of the fuselage

Cut the outer snake sleeve to a length of 635 mm, then glue it in the channel in the bottom of the right-hand fuselage shell 4. Temporarily fit the tailplane slider 48 to position this part accurately, but take care not to glue the parts together.

Section Seven: Repair and Maintenance of Your Model

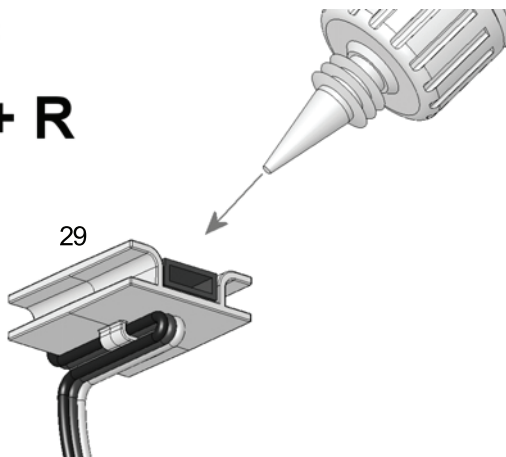


6. Reinforcing the fuselage nose

Cut the sleeves to a length of 247 mm, and glue them in the upper part of the two fuselage shells 3 + 4. Cut the sleeve to a length of 290 mm and glue it in the underside of the right-hand fuselage shell 4.

Option

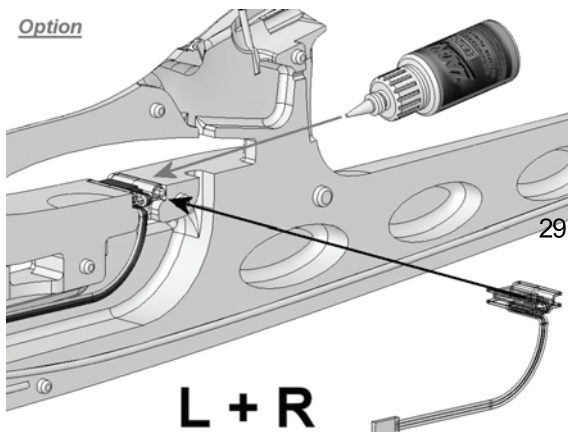
L + R



7. Preparing the cable holders (optional: required for ailerons)

Glue the female plug end of a 12" (30mm) servo extension lead to the cable holder 29, flush with the edge. Push the cable under the lug on the underside.

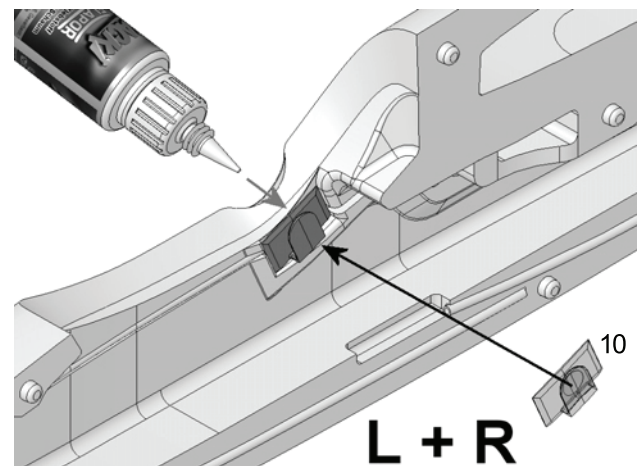
Option



L + R

8. Installing the cable holders

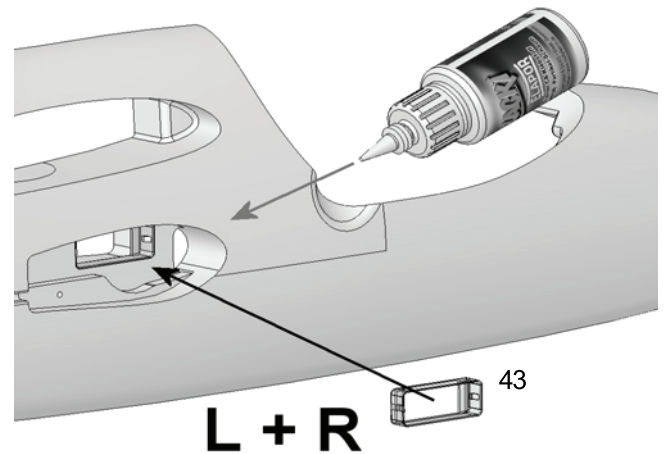
First spray activator on the joint surfaces of the cable holders 29. Allow the fluid to air-dry, then glue the parts in the appropriate recesses in both fuselage shells.



L + R

9. Gluing the latch catches in place

Glue the latch catches 27 in both fuselage shells. Once again, spray activator onto the plastic part, and allow it to air-dry.



L + R


10. Installing the servo mounts

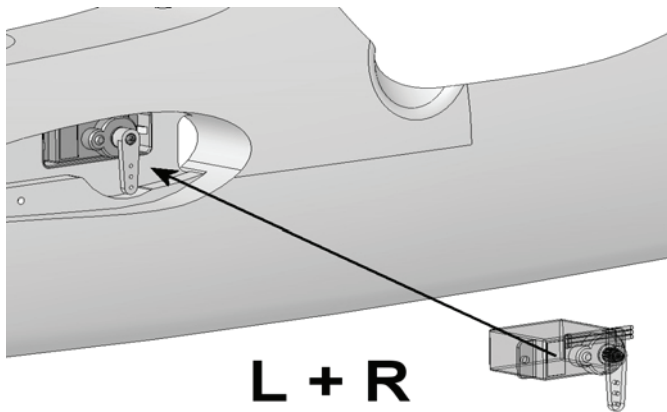
Glue both servo frames 43 in the appropriate openings using CA Glue. Ensure that no glue gets onto the mount lugs, as this could prevent them holding the servos securely.

Section Seven: Repair and Maintenance of Your Model

11. Preparing the servos for installation

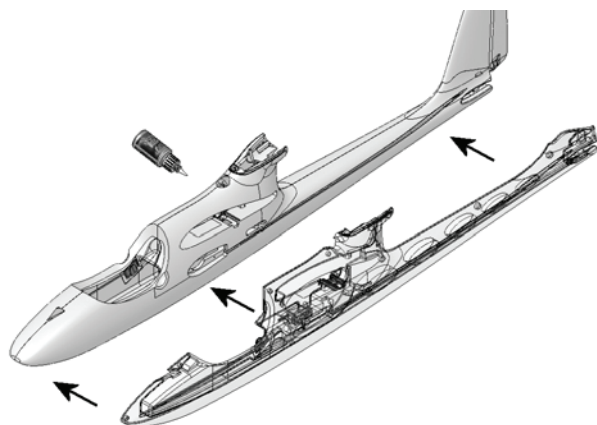
Before installing the servos, set all of them to neutral (center) from the transmitter: this is accomplished by connecting the servo to a receiver, switching the system on, and centering the stick at the transmitter; check that the transmitter trims are also at the neutral position. Locate the “double-ended” servo output levers with three holes per side, fit them on the servo output shafts at right-angles to the long side of the servo cases. If you find that the output arm is not accurately at right-angles to the case when the servo is at neutral, rotate the lever through 180° and try again; the output shaft features an odd number of splines, and reversing the output device will get you “closer to the target”. Install the elevator and rudder servos as a mirror-image pair. You will do the same with the aileron servos, if you choose to install them.

 Avoid moving the servo output levers by hand, as this can easily ruin the gears!
Caution



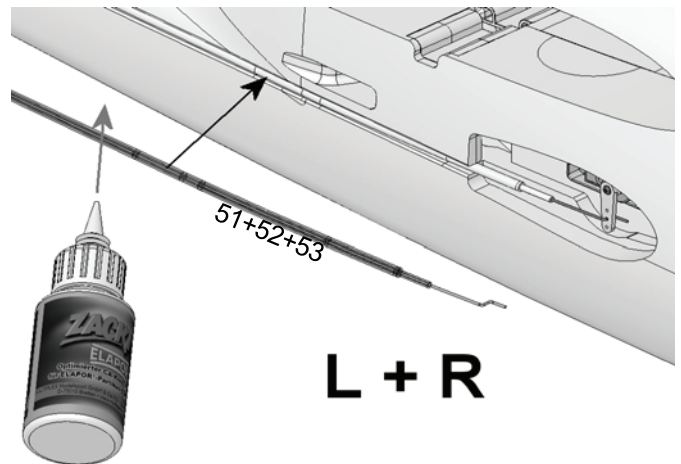
12. Installing the servos in the fuselage

Fit the servos in the servo mounts 43, with the output arms facing down, and the output shafts towards the nose. Trim the unused output arm if needed to prevent interference with the fuselage.



13. Joining the fuselage shells

Spray the joint surfaces of one fuselage shell with activator, apply medium-viscosity CA glue to the joint surfaces of the other shell, then quickly join the two shells, making sure to align the parts accurately.

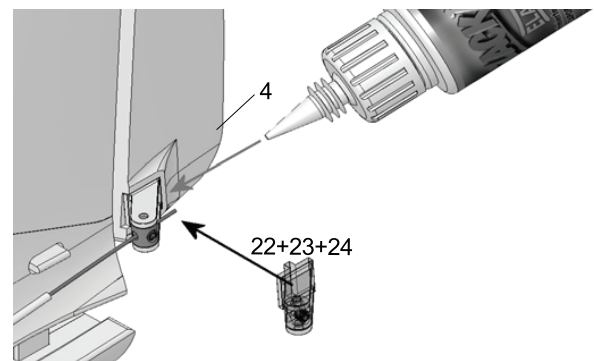


14. Installing the snakes

Slip the pre-formed steel pushrods 51 for the elevator and rudder into the inner tubes 52 (550 mm), and fit these into the prepared outer sleeves 53, which are 523 mm long. Connect the pre-formed end of the pushrod to the second hole from the outside of the servo output arm. Glue the snake outers in the appropriate channels, running CA glue right along the channel.

15. Preparing the control surface horns

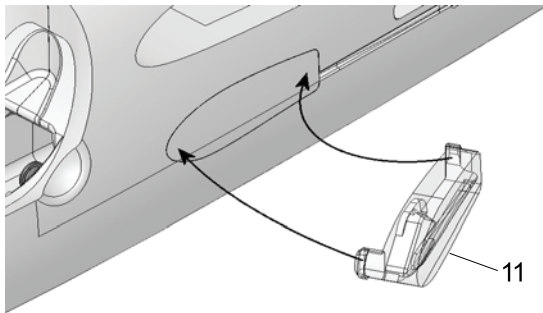
Fit the allen-head grub screws 24 in the swivel barrels 23: two for elevator and rudder, four if working ailerons are to be fitted. Engage the prepared swivel barrels in the “Twin” horns 22.



16. Attaching the horns to the rudder

Spray activator on the joint surface (the underside) of the horns. Apply CA Glue to the horn recess in the rudder. Leave the fluid to air-dry for a few seconds, then press the horn into its recess. Slip the steel pushrod for the rudder linkage through the hole in the swivel barrel 23. Check once more that the servos are at center before tightening the Allen-head grub screws 24. We recommend that you apply a drop of medium-strength thread-lock fluid to each grub screw to prevent them working loose over time.

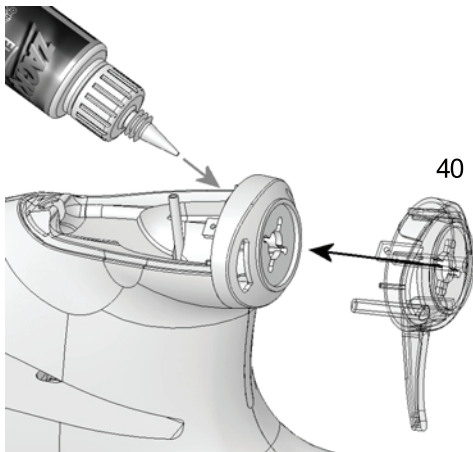
Section Seven: Repair and Maintenance of Your Model



L + R

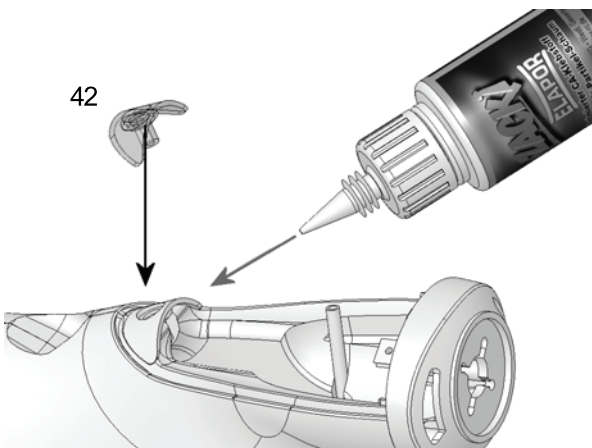
17. Attaching the servo well covers

Press the left and right servo well covers 11 and 12 into the openings in both sides of the fuselage. They should not be glued in place, as you may have to replace the servos at some time.



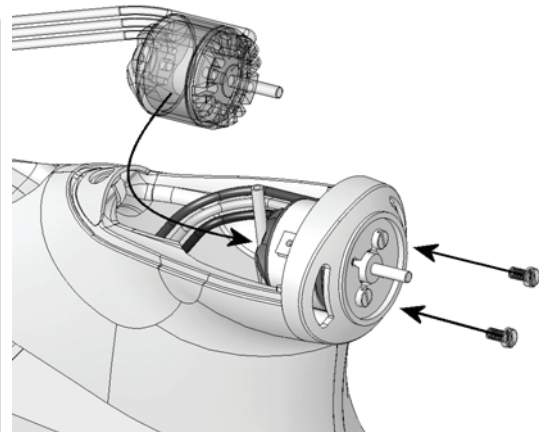
18. Installing the firewall

Glue the firewall 40 in place using thick CA glue. Don't use activator for this joint, as you will need a certain amount of time to position and align the firewall correctly.



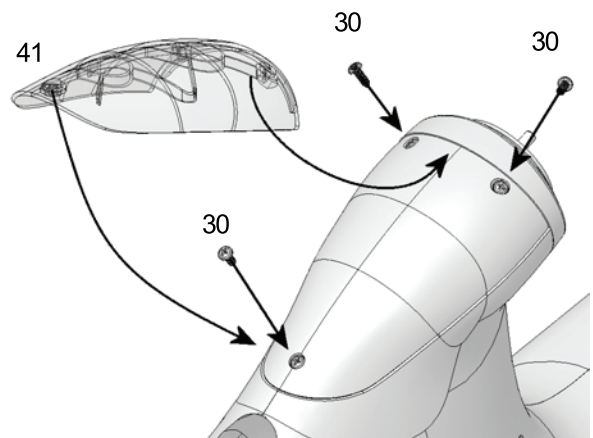
19. Gluing the cowl screw support in place

Glue the cowl screw support 42 at the front end of the motor pod.



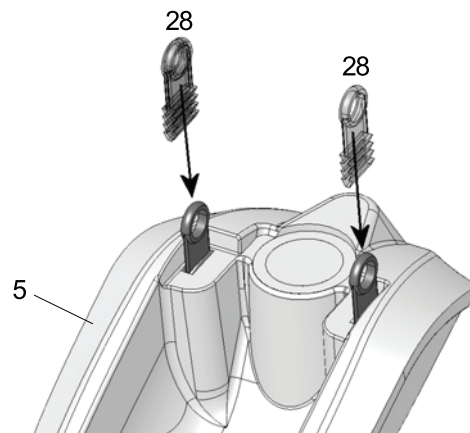
20. Installing the motor

Fix the motor in place using two M3 x 6 screws. Apply a drop of medium-strength thread-lock fluid to the screws.



21. Installing the motor cowl

Fit the three screws 30 to secure the motor cowl 41.



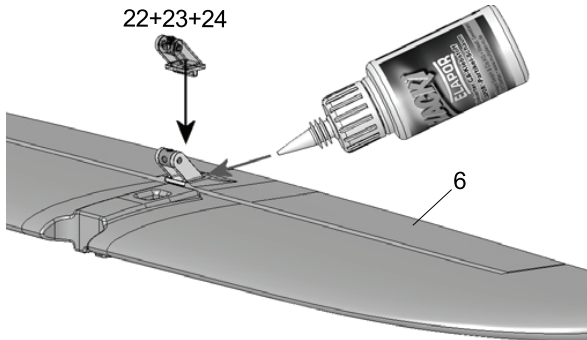
22. Completing the canopy

Glue the latch tongues 28 in the recesses in the canopy 5. Use thick CA glue initially, and fit the canopy on the model immediately, so that the latch components align themselves automatically. Wait for at least two minutes before removing the canopy, then apply drops of thin CA glue to the gaps in the latches to glue them in place, flush with the foam.

Section Seven: Repair and Maintenance of Your Model

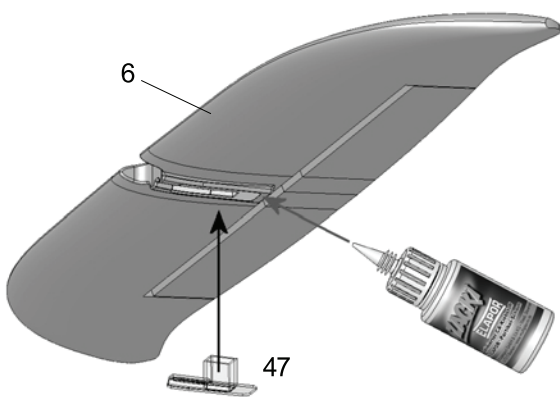
Wing and Tail Plane Repairs

The following instructions will help guide you through a major wing and / or tail plane repair. The parts required for this are 57002, 57003, 57005 and 57006. You can use a combination of new or salvaged pieces to accomplish this repair. You will also need medium body CA glue and a CA adhesive activator along with some simple tools.



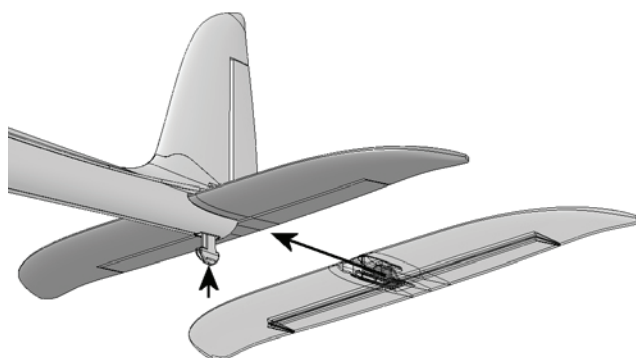
23. Attaching the horns to the Elevator

Spray activator on the joint surface (the underside) of the horns. Apply CA Glue to the horn recess in the elevator. Leave the fluid to air-dry for a few seconds, and then press the horns into its recess.



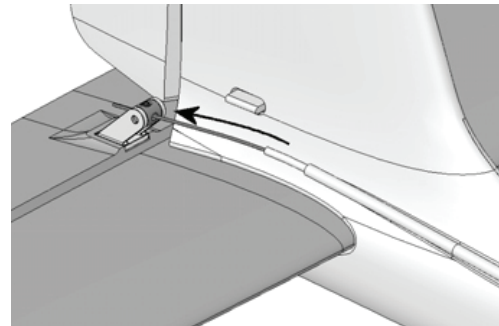
24. Installing the tailplane frame

To guarantee a secure seating, the tailplane frame 47 must be glued in the recess of the tailplane 6.



25. Attaching the tailplane

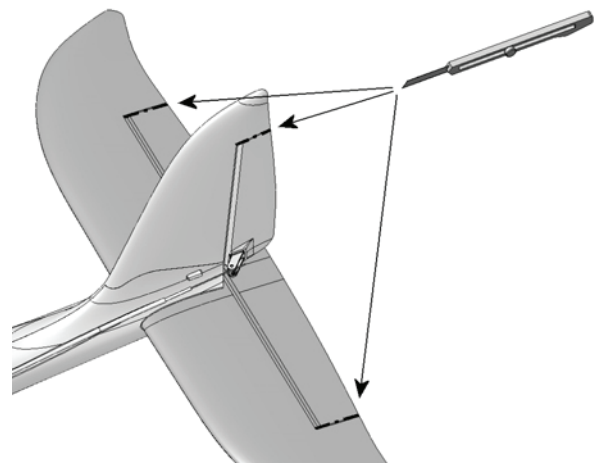
First withdraw the tailplane slider 48 slightly, then insert the tailplane 6 and push the slider back in as far as it will go to secure the tailplane. Do not glue it! The tailplane should be left detachable for safe, convenient transport. To remove the tailplane, press the tailplane clips 44 together with two fingers, and at the same time pull the tailplane slider 48 down; the tailplane can now be removed.



26. Connecting the elevator

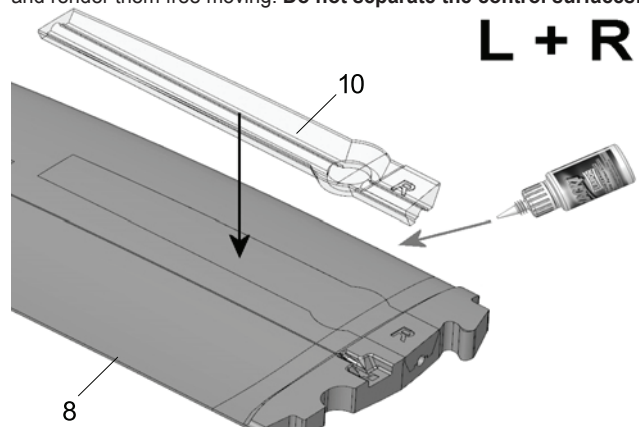
Slip the inner pushrod for the elevator through the hole in the swivel barrel 23, and check the servo neutral position once more before tightening the allen-head grub screw 24.

We recommend that you apply a drop of medium-strength thread-lock fluid to the grub screw to prevent it working loose over time.



27. Releasing the control surfaces

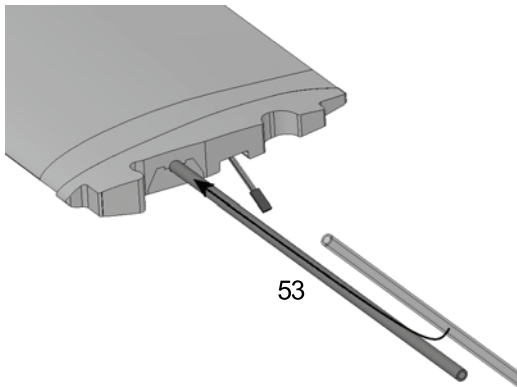
Use a sharp razor knife to remove the foam at the lateral ends of the control surfaces, cutting along the moulded-in end channels only. Repeatedly move the control surfaces to and fro in order to loosen the integral hinges and render them free moving. Do not separate the control surfaces!



28. Installing the wing joiner channel cover

Carefully glue the wing joiner channel covers 9 and 10 in the wing panels 7 and 8. Take particular care to avoid glue running onto the surfaces which will later make contact with the wing joiner 50. Check that the wing joiner 50 is a snug fit in the wings, but only when you are absolutely confident that there is no active adhesive inside the channel. If you neglect this, you could find that the model is glued together permanently.

Section Seven: Repair and Maintenance of Your Model



29. Installing the wings

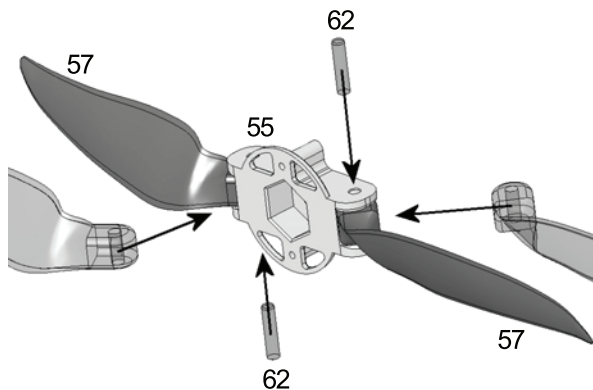
Slide the wing joiner 50 into one of the wing panels as shown in the illustration, then fit the joiner through the fuselage. Before the wing makes contact with the fuselage, connect the aileron servo lead to the extension lead already installed in the fuselage.

Connect the plug and socket, then push the wing fully into place; the cable will now form itself into a loop in the space designed for it.

Fit the other wing panel onto the joiner, and connect the aileron servo lead to the extension lead already installed in the fuselage, as described previously.

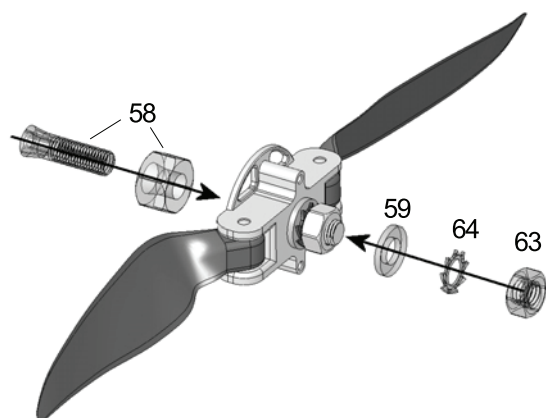
Repair and Maintenance of the Propeller, Hub and Spinner Assembly

The propeller on the Sky Scout was designed to give you trouble free performance. Occasionally you may need to replace the blades and or rubber O-ring due to crash damage. The following information will help you service the propeller, hub and spinner assembly. The parts shown are 57009 and 57010.



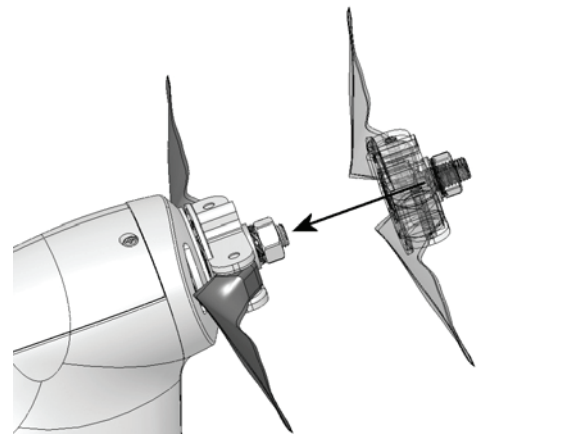
30. Assembling the propeller

Attach the propeller blades 57 to the propeller boss 55 using the two dowel pins 62.

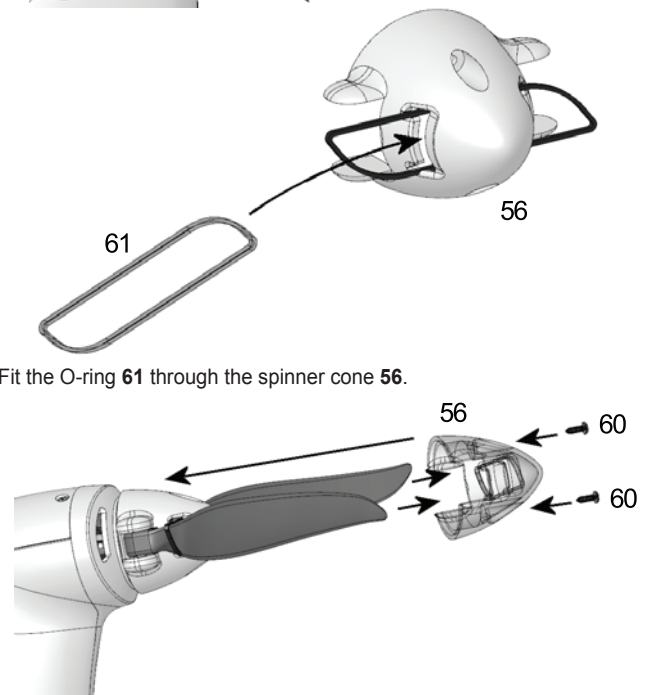


Slip the tapered collet through the driver 58 and place this assembly in the propeller boss 55. The washer 59 and the shakeproof washer 64 are fitted from the other side.

Screw the M6 nut 63 on the taper collet 58. Fit the taper collet 58 on the motor shaft and tighten the nut firmly before fitting the spinner.



Fit the O-ring 61 through the spinner cone 56.



Fold the propeller blades 57 back, and pass them through the ends of the O-ring 61 which project from the sides of the spinner.

Take care to avoid the sharp edges of the propeller blades causing damage to the O-ring 61. Fix the spinner to the propeller boss 55 using the two pan-head self-tapping screws 60.

Section Eight: Customer Service

Hitec Customer Service

Help is available from Hitec customer service through phone support and e-mail inquiries.

Our US office is generally open Monday thru Friday, 8:00AM to 4:30PM PST. These hours and days may vary by season. Every attempt is made to answer all incoming service calls. Should you get our voice mail, leave your name and number and a staff member will return your call.

Hitec Website

Make plans to visit the Hitec website, www.hitecrd.com, on a regular basis. Not only is it full of specs and other information about the entire Hitec product line, our FAQ pages will eventually hold valuable information and updates regarding the Spectra 2.4 module and Optima series of receivers.

The On-Line Community

One of the benefits of the extensive R/C online community is the vast wealth of archived knowledge available. Hitec sponsors forums on most of the popular R/C websites where a Hitec staff member or representative tries to answer all manner of product related questions. Bringing together strangers with common interests is proving to be one of the greatest gifts of the internet. If past history is any guide to the future, we are certain forums will be started about the Hitec 2.4GHz system and several are certain to stand out as valuable archives of information.

Warranty and Non-Warranty Service

All Hitec products carry a two year from date-of-purchase warranty against manufacturer's defects. Our trained and professional service representative will determine if the item will be repaired or replaced. To provide all the necessary information we need to administrate your repair, visit our website at www.hitecrd.com and download the repair form, fill it out and send in your item for repair.

Hitec Service

12115 Paine St. Poway CA 92064

1-858-748-6948

E-mail: service@hitecrd.com



Service & Support

Hitec and Multiplex Mission Statement

Hitec and Multiplex are dedicated to providing quality, affordable radio control hobby products everyone can enjoy. We will serve our customers in the same loving way we serve our families and together we shall create a higher quality of life.



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#12115 Paine Street. Poway,
CA. 92064, U.S.A.
Sales Headquarter for
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Westliche Gewerbestr. 1,
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Appendix A: The Basics of Model Flying

The basics of model flying

Any aircraft - whether model or "man-carrying" - can be controlled around three primary axes: **the vertical axis, lateral axis and longitudinal axis.**

Operating the **elevator** produces a change in the aeroplane's flight attitude around the lateral axis (pitch).

Giving a **rudder** command turns the model around the vertical axis (yaw).

If you move the aileron stick, the model rotates around the longitudinal axis (roll).

All three axes can be controlled regardless of the aeroplane's flight attitude.

All aircraft are subject to external influences, such as turbulence, which tend to disturb the aircraft, causing it to deviate from its intended flight path; the pilot's task is then to apply control commands so that the model continues to fly in the desired direction.

The power system (motor and propeller) provides control over rate of climb and speed. The rotational speed of the motor is infinitely variable using the speed controller, which follows your control commands from the transmitter.

The important point to note is that pulling up elevator by itself causes the model to climb, but only until it reaches its **minimum airspeed**. The aeroplane's ability to climb at different angles depends on the power of the motor. If the model's speed falls below its minimum airspeed, it tips forward and dives: this is known as **stalling**. This occurs when the airflow which generates the lift required to keep the aircraft in the air is no longer attached to the wing, and the lift collapses.

The Sky Scout is designed in such a way that it exhibits very docile stalling characteristics, and loses very little height when it does stall. In this situation it drops its nose, immediately picks up speed, and is very soon under the pilot's control once more.

If you are a beginner to model flying, we recommend that you initially control the Sky Scout using rudder and elevator only.

To turn the model (initial turns and circles), use the rudder to set up a slight angle of bank, then apply gentle up-elevator to avoid the nose dropping during the turn. Always try to turn away from you at first.

Once you have mastered basic control of the Sky Scout, it is time to try the ailerons. However, this does not mean that you can afford to forget the rudder. A smooth turn, i.e. one which makes efficient use of the airflow, is always flown best by co-ordinating rudder and aileron commands. This is a basic skill required to fly any model aeroplane smoothly and accurately.

Without this level of co-ordination the Sky Scout will not fly so efficiently, although it is very tolerant of such abuse. However, if you concentrate on learning the art of flying smoothly right from the outset, you will find it much easier to control more demanding models at a later date, and will be able to avoid many a critical situation.

Concentrate constantly on moving the sticks slowly and gradually.

Abrupt, jerky movement of the transmitter controls often places the model in flight situations from which the beginner is unable to escape.

If this should happen, it is generally better simply to let go of the sticks and switch the motor off.

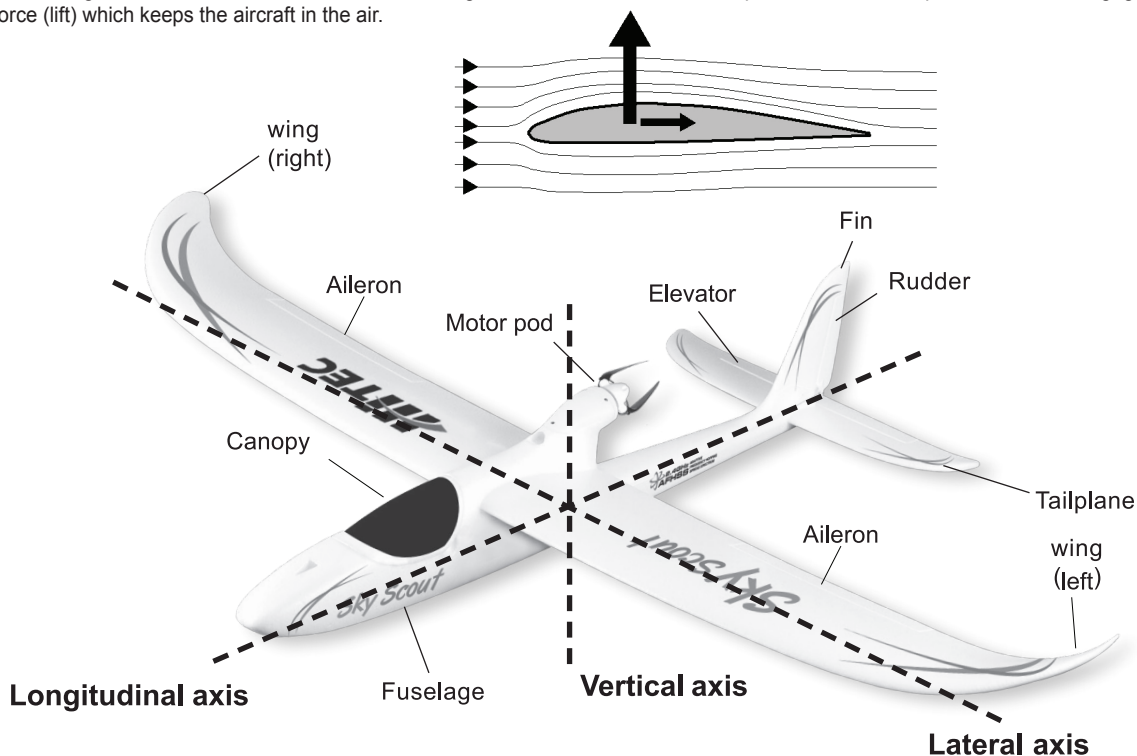
Wait a few moments until the model has "calmed down", and you will then find it easier to regain full control. If you cannot avoid a crash, at least the motor is stopped, minimizing the energy which has to be dissipated through the impact, and thereby limiting damage to the airframe.

As a beginner you are bound to find it difficult to **steer in the correct direction when the model is flying towards you**. Learn this rule by heart: the stick must be moved to the side where the "danger" lurks, i.e. move the stick towards the low wing, and "prop it up".

We suggest that you learn these suggestions in the period before the first flight, so that you are not surprised by the model's behaviour when you are actually flying!

Wing section (airfoil)

The wing has a curved (cambered) cross-section, known as an airfoil, over which the air flows when the model is flying. In a given time the air above the wing covers a greater distance than the air below the wing. This results in a reduction in pressure over the top surface of the wing, generating an upward force (lift) which keeps the aircraft in the air.



Appendix A: The Basics of Model Flying

Center of Gravity

Like any other aircraft, your model aeroplane must be balanced at a particular point if it is to have stable flying characteristics.

It is absolutely essential to balance the model correctly before its first flight.

The balance point, or Center of Gravity (CG), is stated as a linear distance measured from the wing leading edge, close to the fuselage.

When supported at this point on your fingertips, the model should balance level.

If the model does not balance at the marked point, this can usually be corrected by re-positioning the airborne components (e.g. flight battery).

If this is not sufficient, the correct quantity of ballast (lead or modelling clay) should be fixed securely to the nose or tail of the fuselage.

If the model is tail-heavy, fit the ballast at the fuselage nose; if it is nose-heavy, attach the ballast at the tail end of the fuselage.

Neutral point

The neutral point of an aircraft is the point at which the aerodynamic forces are in equilibrium.

If an aeroplane flies in a stable attitude, then its neutral point is always aft of the center of Gravity.

Any aircraft whose Center of Gravity is aft of the neutral point will be inherently unstable in the air.

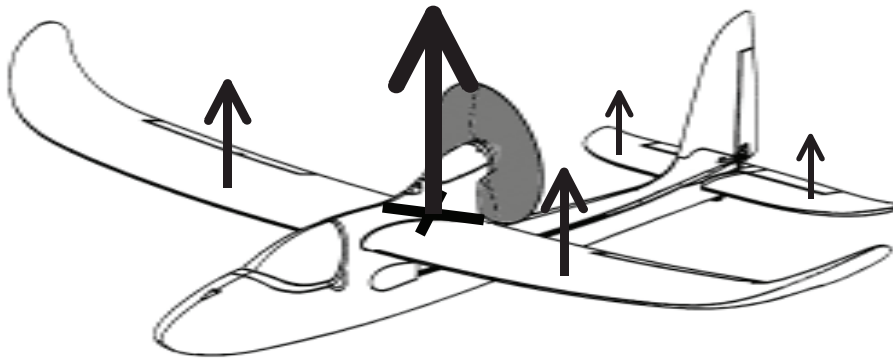
Manual control of an aircraft trimmed in this way is impossible; it requires a computer system for stabilization and control.

Longitudinal dihedral

This term refers to the difference in incidence between the wing and the tailplane.

Provided that you fit and secure the Sky Scout's wing and tailplane to the fuselage as stated in these instructions, then the longitudinal dihedral will automatically be exactly correct.

If these two settings (center of gravity and longitudinal dihedral) are correct, you will encounter no problems when flying your aeroplane, especially at the test-flying stage.



Control surfaces and control surface travels

The model can only fly safely and precisely if the control surfaces are free-moving, operate in the correct "sense" (direction relative to stick movement), and are set up to deflect by the appropriate amount.

The control surface travels stated in the building instructions have been established by a test-flying program, and we recommend that you adopt these settings initially.

You may wish to adjust them subsequently to suit your personal preferences.

Transmitter control functions

The radio control system transmitter is fitted with two primary sticks which cause the servos - and therefore the model's control surfaces - to deflect when moved.

The stated function assignment is correct for stick mode 2, but other stick modes are possible.

The following control surfaces are controlled from the transmitter:

The rudder (left / right)

The elevator (up / down)

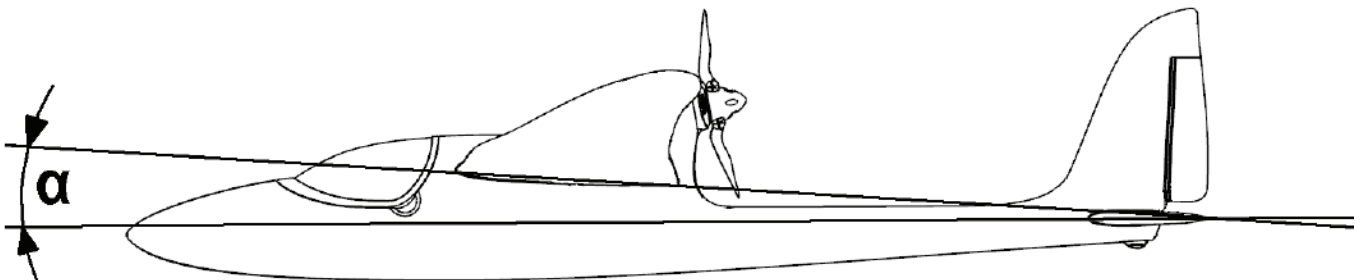
The throttle (motor off / on)

The ailerons (left / right)

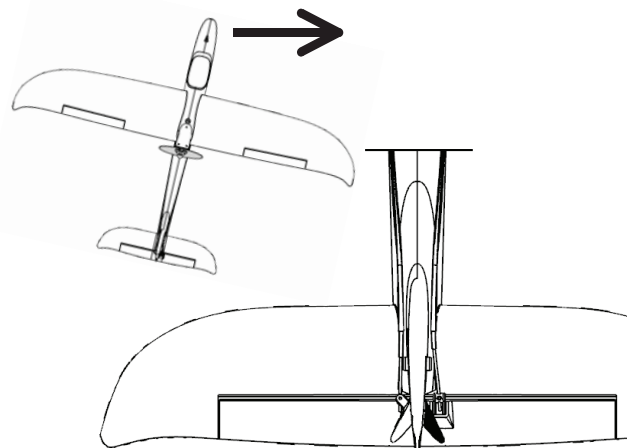
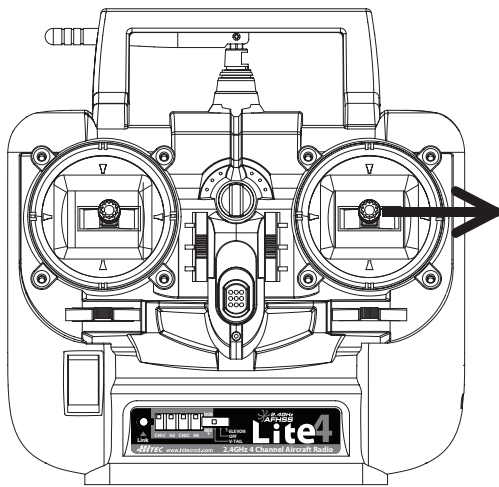
The stick which controls the throttle (motor speed) must not be of the self-centering type.

It is usually fitted with a ratchet which operates over the full stick travel.

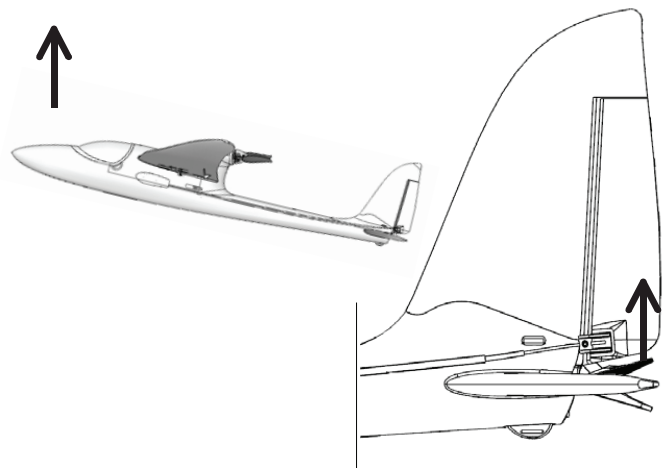
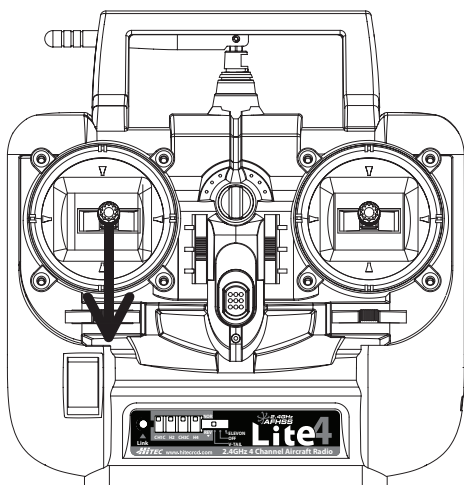
How this setting works you can read up in the operating instructions supplied with your radio control system.



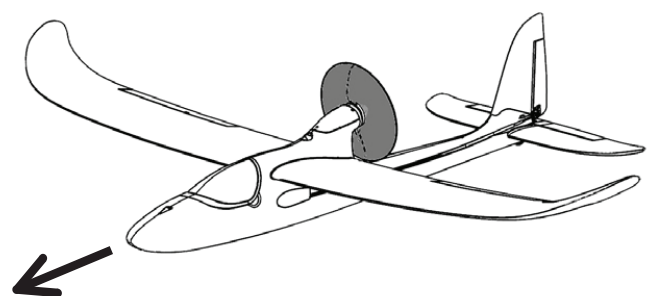
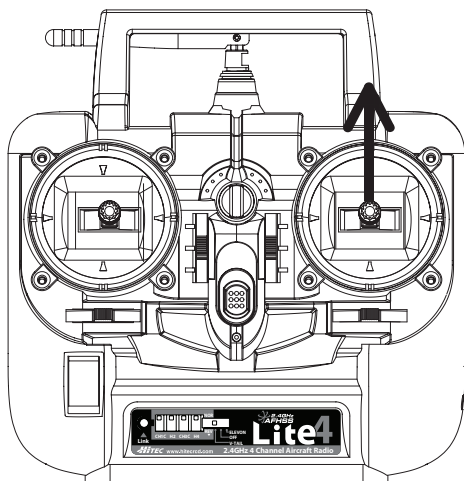
Appendix B: Transmitter Control Surface Movements



First, check the rudder movement. This control causes the nose of the model to “yaw” or move left and right in a horizontal direction. Confirm that the rudder moves to the right when moving the right transmitter stick to the right as shown. If the rudder moves to the left, use your transmitter’s REV (reverse) function to change the rudder direction.

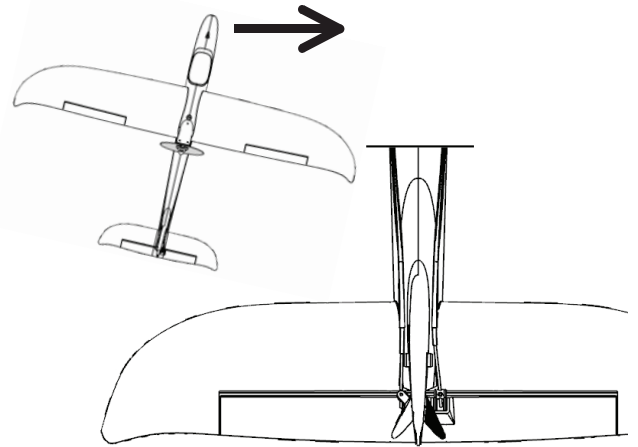
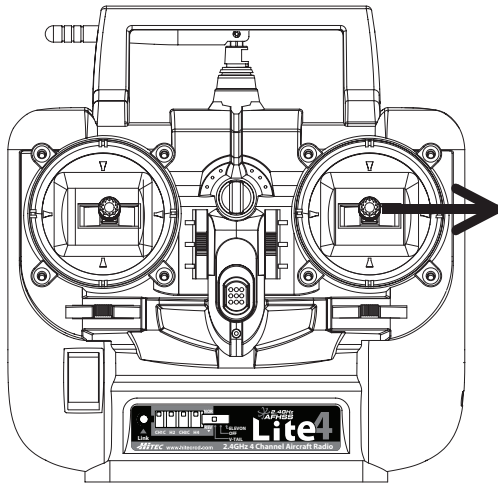


Next, check the elevator movement. This control “pitches” the nose of the model up and down. Move the left stick down as shown and confirm the elevator goes up. If the elevator goes down, use your transmitter’s REV (reverse) function to change the elevator direction.

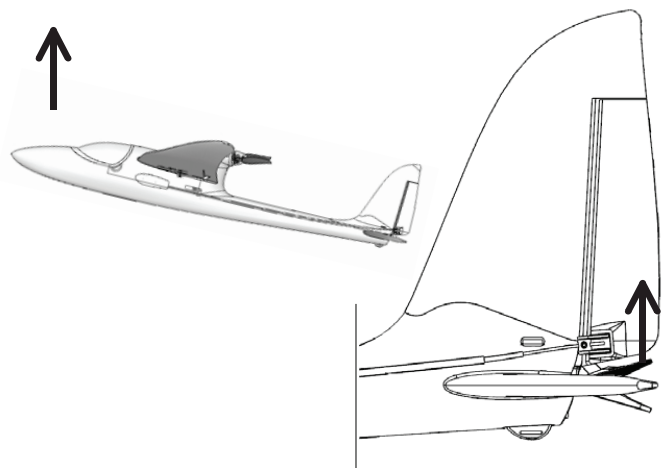
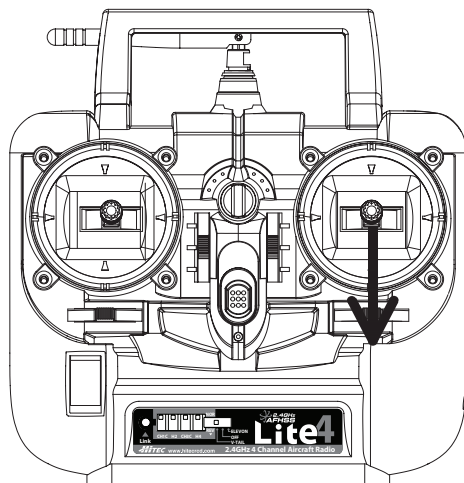


Now, it’s time to check the throttle or motor control. Be extremely careful to avoid contact with the propeller. Move the right stick up just enough to confirm that the propeller rotates. If the propeller spins when the stick is moved down, use the REV (reverse) function to change the throttle input direction.

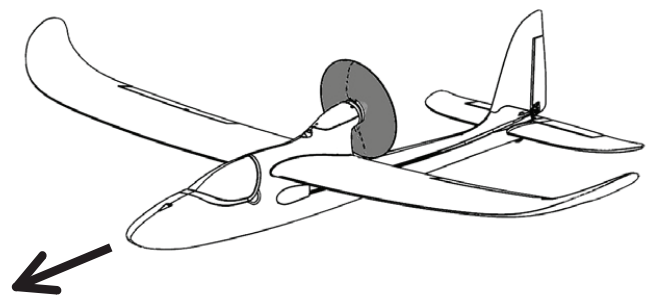
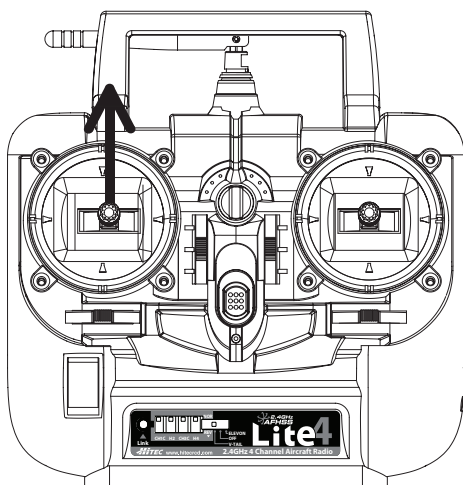
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Next, check the elevator movement. This control “pitches” the nose of the model up and down. Move the right stick down as shown and confirm the elevator goes up. If the elevator goes down, use your transmitter’s REV (reverse) function to change the elevator direction.



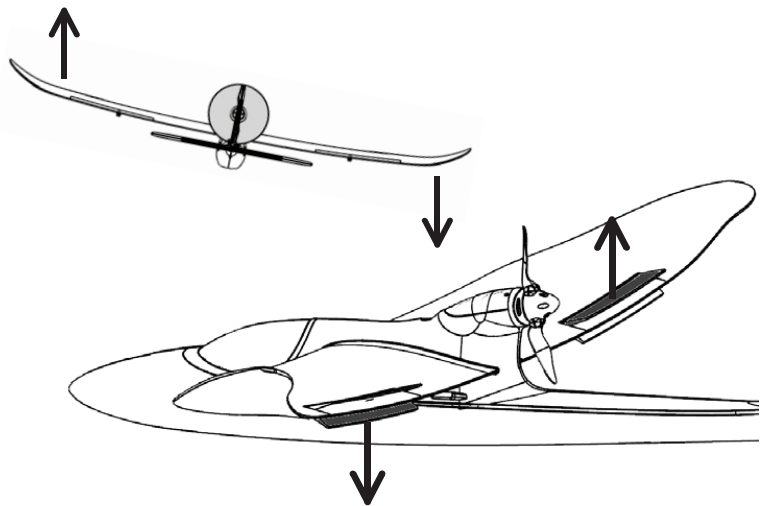
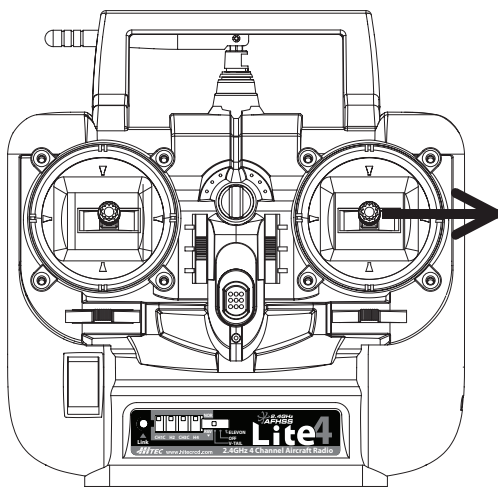
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Appendix B: Transmitter Control Surface Movements

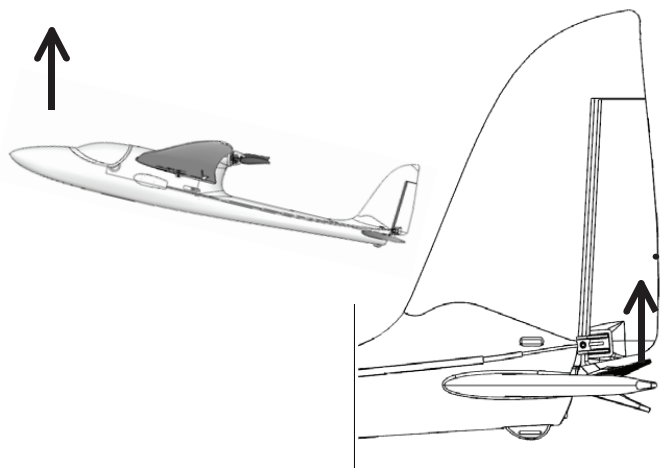
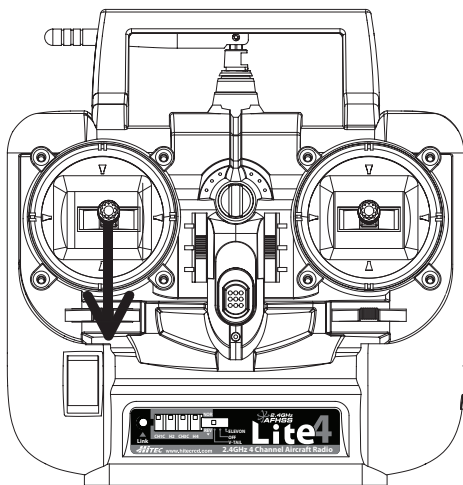
The Sky Scout is designed for success in a "3-channel" configuration using rudder, elevator and throttle control. This basic configuration is well suited to beginners and relaxing flying. More experienced pilots may prefer to increase the performance of their Sky Scout by adding the optional aileron controls. While the necessary hardware is included with your Sky Scout, two additional servos and two servo extensions are required. The mechanical installation of the servos and aileron controls is detailed in the Assembly instructions in steps 8, 9, 24-28, beginning on page 8.

When installing the optional ailerons the rudder will be controlled by moving the left stick while the ailerons will be controlled by the right. Connect the rudder servo cable to the receiver port labeled "4." Plug the aileron servo extensions into receiver ports #1 & 5. The rudder should only be connected to the receiver port #1 when ailerons are not used. If you are not comfortable doing this, please consult a local expert or your local RC hobby retailer.

Control Surface Movements with Mode 1 Transmitters and Optional Ailerons

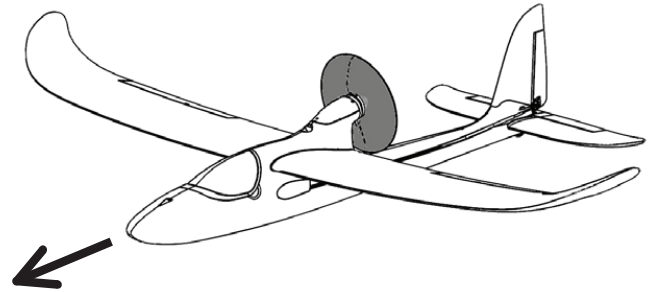
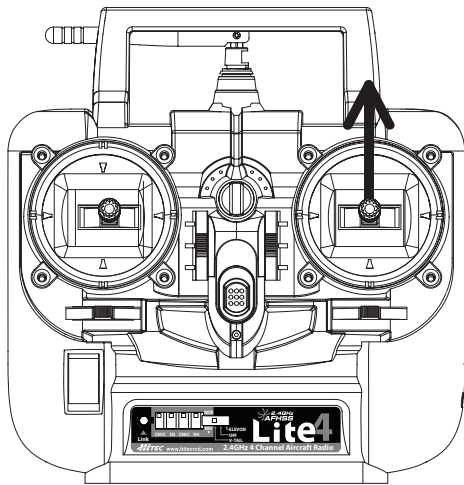


First, check the aileron control, which "rolls" or banks the wings to the left and right. Move the right stick to the right as shown and confirm the left aileron goes down and the right aileron goes up when viewing the Sky Scout from behind. If the left aileron moves up and the right down, use your transmitter's REV (reverse) function to change the aileron direction.

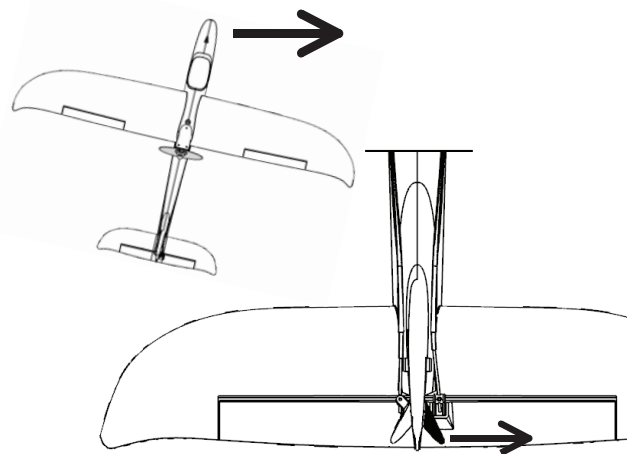
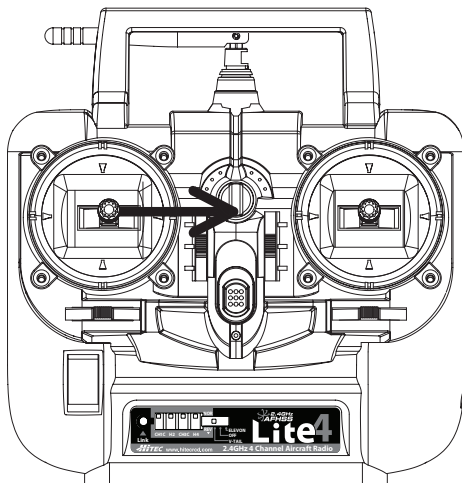


Next, check the elevator movement. This control "pitches" the nose of the model up and down. Move the left stick down as shown and confirm the elevator goes up. If the elevator goes down, use your transmitter's REV (reverse) function to change the elevator direction.

Control Surface Movements with Mode 1 Transmitters and Optional Ailerons

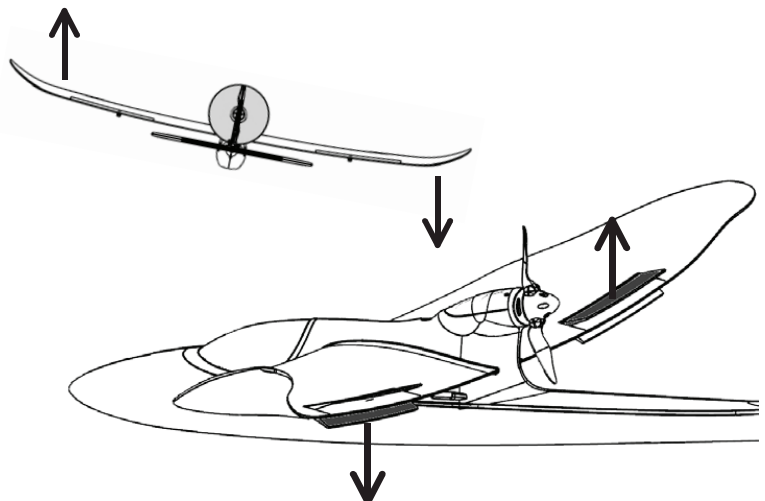
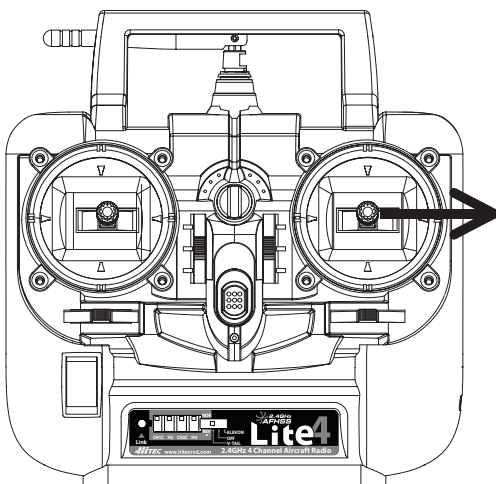


Now, it's time to check the throttle or motor control. Be extremely careful to avoid contact with the propeller. Move the right stick up just enough to confirm that the propeller rotates. If the propeller spins when the stick is moved down, use the REV (reverse) function to change the throttle input direction.



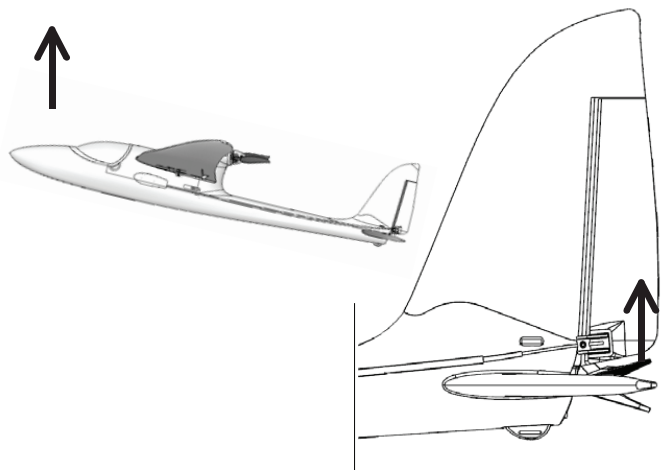
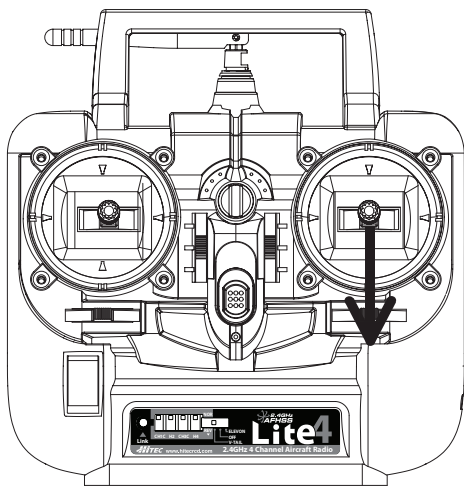
Finally, check the rudder movement. This control causes the nose of the model to "yaw" or move left and right in a horizontal direction. Confirm that the rudder moves to the right when moving the left transmitter stick to the right as shown. If the rudder moves to the left, use your transmitter's REV (reverse) function to change the rudder direction.

Control surface movements with Mode 2 transmitters (US Standard) and optional ailerons

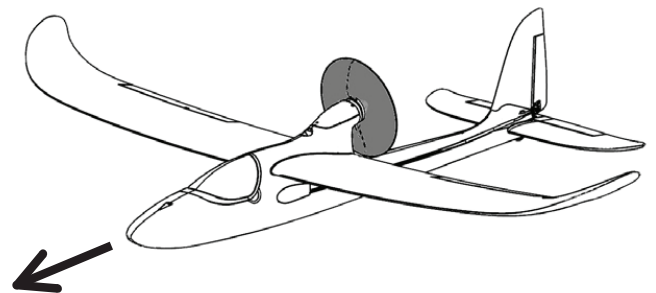
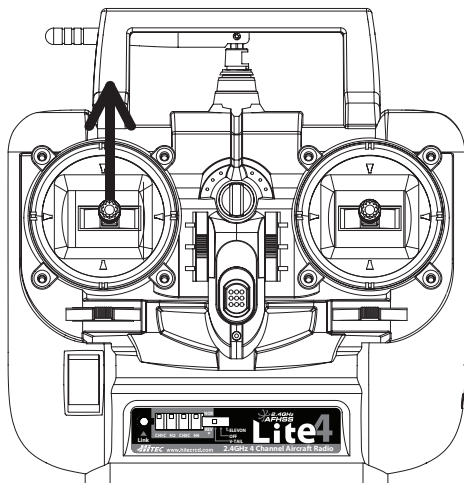


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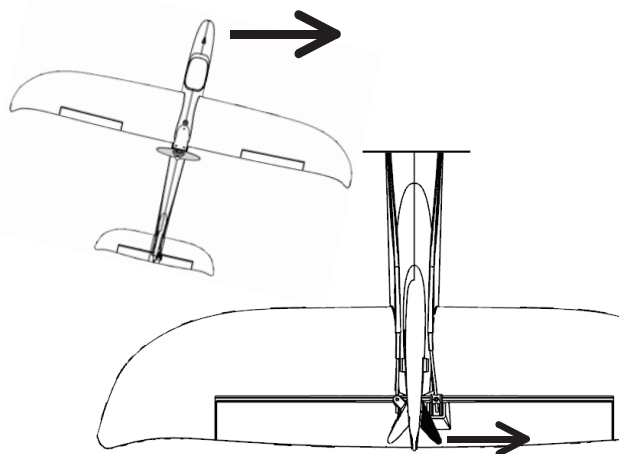
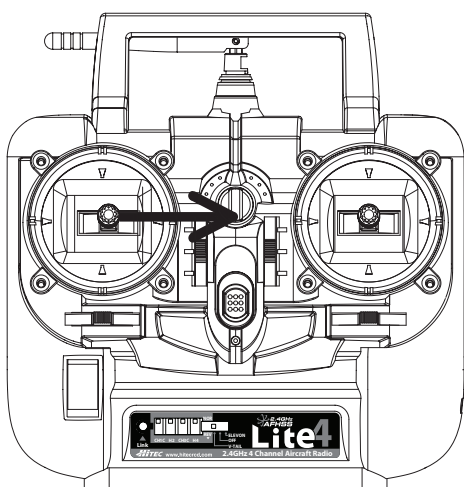
Control Surface Movements with Mode 2 Transmitters (US Standard) and Optional Ailerons



Next, check the elevator movement. This control “pitches” the nose of the model up and down. Move the right stick down as shown and confirm the elevator goes up. If the elevator goes down, use your transmitter’s REV (reverse) function to change the elevator direction.



Now, it’s time to check the throttle or motor control. Be extremely careful to avoid contact with the propeller. Move the left stick up just enough to confirm that the propeller rotates. If the propeller spins when the stick is moved down, use the REV (reverse) function to change the throttle input direction.



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Perfect for anyone who loves to fly

Sky Scout



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