



***4 CH BlitzRCWorks  
Sky Surfer RC Trainer Airplane***

## NOTICE

Please read this manual carefully before operating this plane. We hope this manual is useful in guiding you through the installation and adjustment of the plane so that you may successfully fly it.

Please read the entire manual before attempting to assemble anything and before contacting Banana Hobby. For contact information, please go to the back of this manual.

## Meaning of Special Language:

The following terms are used throughout the product manual to indicate various levels of potential harm when operating this product:

**NOTICE:** If procedures are not properly followed, the risk of physical property damage AND a possibility of serious injury are likely.

**CAUTION:** If procedures are not properly followed, the risk of physical property damage AND a possibility of serious injury are likely.

**WARNING:** If procedures are not properly followed, the risk of physical property damage AND a possibility of serious injury are likely.



**WARNING:** Read this instruction manual entirely to become thoroughly familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product or personal property and it can cause serious injury.

This is a sophisticated hobby product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. Do not use with incompatible components or alter this product in any way contrary to the instructions provided by Banana Hobby. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual prior to assembly, setup or use, in order to correctly operate the product and/or avoid damage or serious injury.

# 14+

AGE RECOMMENDATION:

Not for children under 14 years. This is not a toy.

## Safety Precautions and Warnings

As the user of this product, you are solely responsible for operating it in a manner that does not endanger yourself and/or others or result in damage to the product and property of others.

- Always keep a safe distance, in all directions, around your model to avoid collisions or injury. This model is controlled by a radio signal subject to interference from many sources outside of your control; interference can cause momentary loss of control.
- Always operate your model in open spaces away from full-size vehicles, traffic and people.
- Always carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.).
- Always keep all chemical, small and electric parts out of the reach of children.
- Always avoid water exposure to all equipment that is not specifically

designed for this purpose. Moisture causes damage to electronics.

- Never place any portion of the model in your mouth as it could cause serious injury or death.
- Never operate your model with low transmitter batteries.
- Always keep aircraft in sight and under control.
- Always use fully charged batteries.
- Always keep the transmitter in the on state while aircraft is in use.
- Always remove batteries before disassembly.
- Always keep moving parts clean.
- Always keep parts dry.
- Always let the parts cool before touching after use.
- Always remove batteries after use.
- Always ensure failsafe is properly set before flying.
- Never operate aircraft with damaged wiring.
- Never touch moving parts.

## Charging Warnings

**CAUTION:** All instructions and warnings must be followed exactly. Mishandling of Li-Po batteries can result in a fire, personal injury, and/or property damage.

- By handling, charging or using the included Li-Po battery, you assume all risks associated with lithium batteries.
- If, at any time, the battery begins to balloon or swell, discontinue use immediately. If charging or discharging, discontinue and disconnect. Continuing to use, charge or discharge a battery that is ballooning or swelling can result in a fire.
- Always store the battery at room temperature in a dry area for best results.
- Always transport or temporarily store the battery in a temperature range of 40-120° F (5-49° C). Do not store battery or aircraft in a car or direct sunlight. If stored in a hot car, the battery can catch fire or be damaged.
- Always charge batteries away from flammable materials.
- Always inspect the battery before charging and never charge dead or damaged batteries.

- Always disconnect the battery after charging, and let the charger cool between charges.
- Always consistently monitor the temperature of the battery pack while charging.
- **ONLY USE A CHARGER SPECIFICALLY DESIGNED TO CHARGE LI-PO BATTERIES.** Failure to charge the battery with a compatible charger may cause fire, resulting in personal injury and/or property damage.
- Never discharge Li-Po cells to below 3V under load.
- Never cover warning labels with hook and loop strips.
- Never leave charging batteries unattended.
- Never charge batteries over recommended levels.
- Never attempt to dismantle or alter the charger.
- Never allow minors under the age of 14 to charge battery packs.
- Never charge batteries in extremely hot or cold places (recommended temperature is 40-120°F or 5-49°C) or place in direct sunlight.



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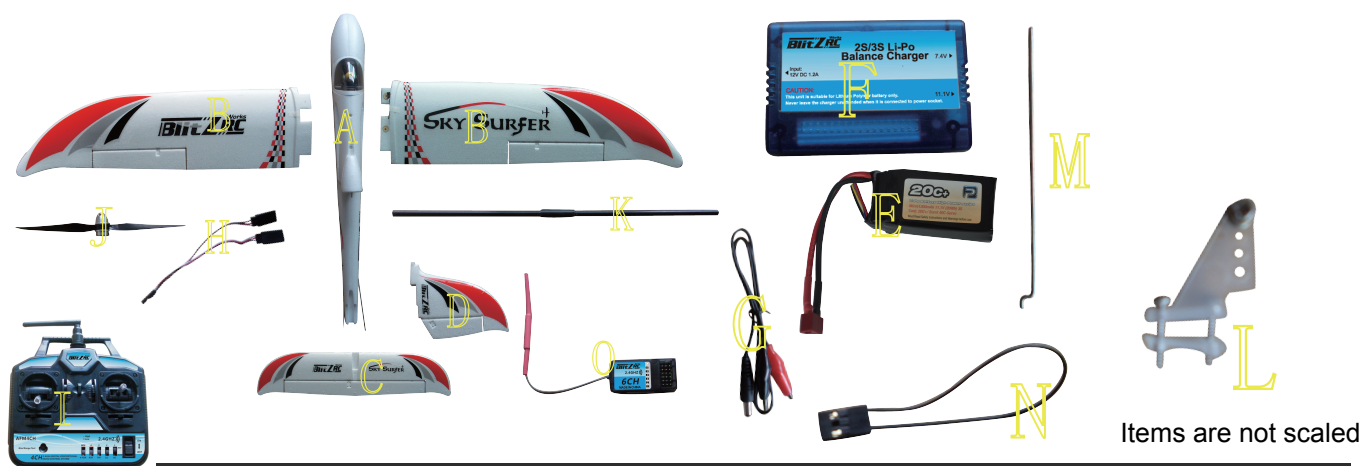
## Box Contents

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<b>A) Fuselage</b>	<b>F) Balance Charger</b>	<b>K) Wing Spar</b>
<b>B) Main Wings</b>	<b>G) Balance Charger Adapter</b>	<b>L) Control Horn (4)</b>
<b>C) Horizontal Stabilizer (Elevator)</b>	<b>H) Aileron Y-Split Cable</b>	<b>M) Linkage Rod (4)</b>
<b>D) Vertical Stabilizer (Rudder)</b>	<b>I) Transmitter</b>	<b>N) Bind Plug</b>
<b>E) Plane Battery</b>	<b>J) Propeller</b>	<b>O) Receiver</b>

Transmitter, receiver, and balance charger models may vary for each package and is subject to change by the manufacturer without notice

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## Specifications

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Length: 925 mm (about 36.5 inches)  
 Wing Span: 1400 mm (about 55 inches)  
 Wing Area: 26 dm<sup>2</sup>  
 Wing Loading: 25g/dm<sup>2</sup>  
 Flying Weight: 650 grams (about 33 ounces)  
 Servos: 9g.  
 ESC: With brushed motor - 15A  
 With brushless motor - 20A  
 Battery: With brushed motor - 7.4V 1600MAh Li-Po  
 With brushed motor - 11.1V 1300MAh Li-Po

Flight Time: Approximately 5 minutes per charge This varies depending on how much charge your battery has and your throttle usage. To prolong the flight time, you can lower the throttle and let the plane glide.  
 Radio Control Range: 3.000 feet (1.000 meters)  
 Material: EPO Foam

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Measurements are approximated

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## Battery Charging

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The battery balance charger that you received comes with a universal adapter equipped with a voltage system that varies depending on the country. To eliminate the danger of voltage incompatibility, the manufacturer has supplied a universal adapter that plugs directly to your car's battery. If you are using this glider in North America, you can purchase a 12V DC wall adapter from any local electronics store or on our website at [www.bananahobby.com](http://www.bananahobby.com) under the name "RC Airplane Parts" and then clicking on "RC Airplane Parts & Accessories". The charging process may vary depending on which model balance charger you receive. Please match the battery charger that you received with one of the chargers below.

To connect the adapter to a car battery, use the end with the red and black alligator clips. The red is for + (positive) and black is for - (negative). You don't need to turn on your car. DO NOT charge for more than 1.5 hours. This will damage the battery.

### BC-3S10 2S/3S Balance Charger

1. Plug in the power source to the charger. The power light turns on.
2. Plug in the battery to the charger and the charge light will turn red.
3. When the charge is complete, the charge light will turn green.

### BlitzRCWorks BZ-C005 Balance Charger for Lithium Battery Pack

1. Plug in the power source to the charger. The status LED will turn red.
2. Plug in the battery to the charger and the light will blink red.
3. When the charge is complete, this light usually turns solid red or turns off.

### BlitzRCWorks V2 Balance Charger (ATI-0910)

1. Plug in the power source to the charger. The light will turn green.
2. Turn the dial between 1. 0A and 0. 3A.  
This indicates how fast you want to charge you battery. The recommended setting to prolong the battery life is 0. 3A but this is the slowest charging rate. If you are in a hurry, you can turn the dial to 1. 0A for faster charging.
3. Plug in the battery to the charger and the light will turn green.
4. When the charge is complete, the light will turn green.

### 2S/3S LiPo Charger (YTF1003)

1. Plug in the power source to the charger, The power light will turn on.
2. Plug in the battery to the charger and the left light will blink red.
3. When the charge is complete, the left light will turn green.

### Starmax Balance Charger (ST-E00S-A1)

1. Plug in the power source to the charger. The light on the right will turn red.
2. Plug in the battery to the charger and the left light will turn green.
3. When the charge is complete, the left light should turn off.

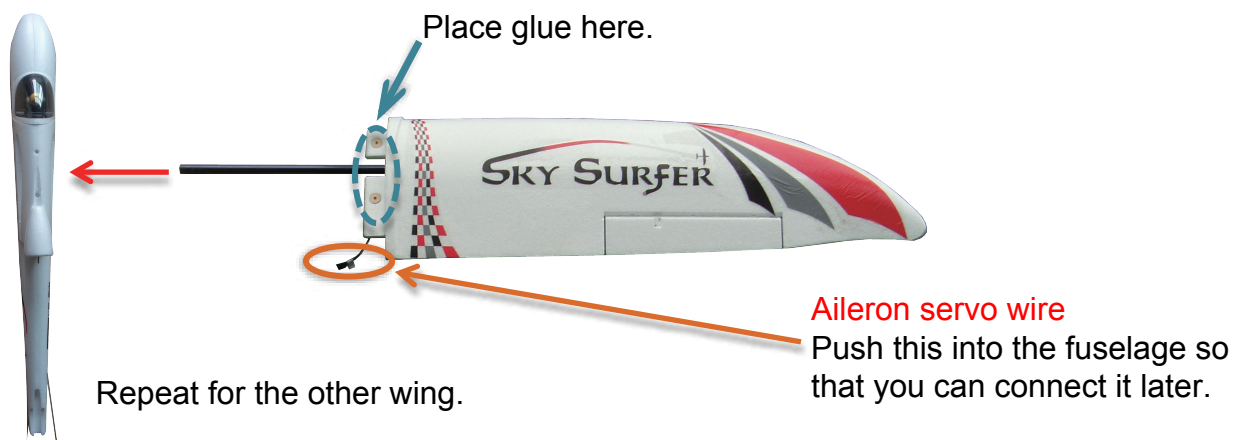
## Assembly Instructions

### 1. Install the main wings.

Install one wing at a time. Push the black wing rod into one wing first

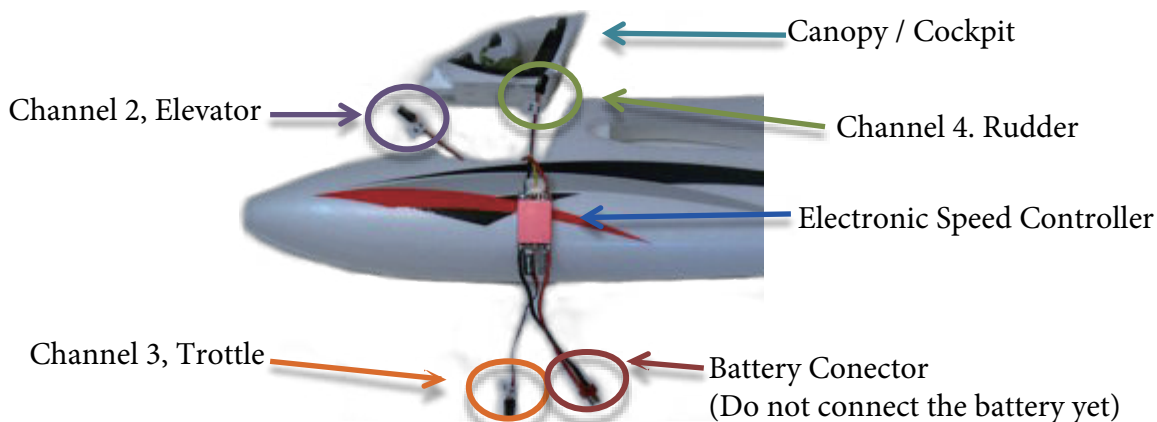


Fix the wing onto the fuselage with the installed wingspar. Afterwards, install the second main wing to the other side and make sure you can access the aileron servo leads to connect them to the y-harness on the cockpit side. Afterwards, fix the main wings onto the fuselage and secure them with the supplied screws.



### 2. Remove the canopy from the fuselage to connect wires.

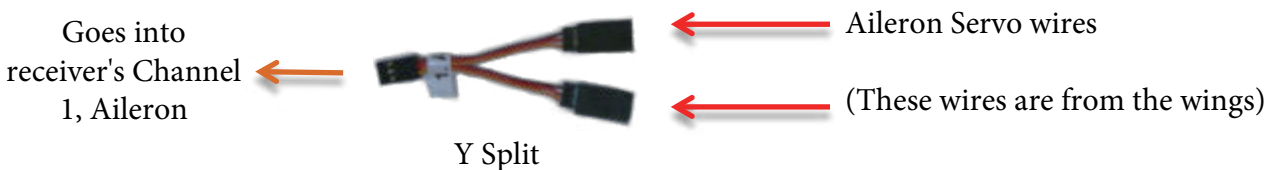
Look for the wires as shown inside the fuselage. These wires will need to attach to the receiver according to their labels.



## Assembly Instructions

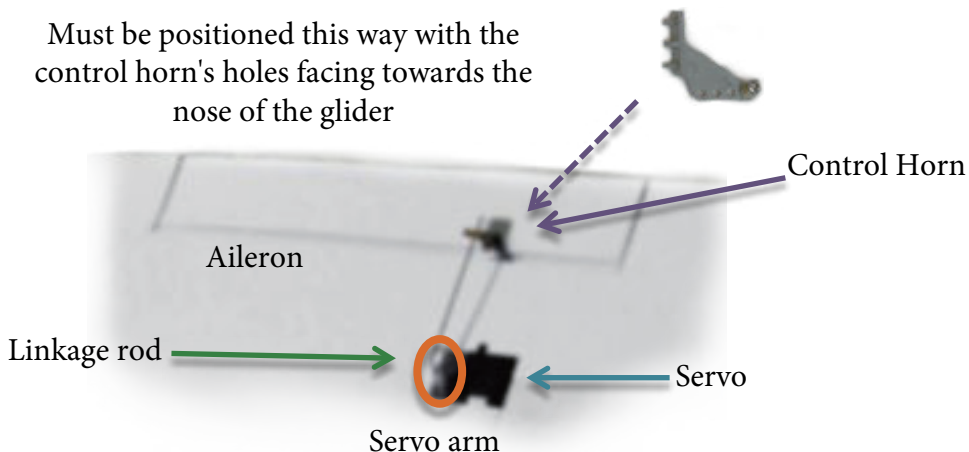
### 3. Attach the aileron wires.

Since there are two ailerons (1 on each wing) but both are controlled together by a single channel, they will need to be connected to a cable with a single end. Once you have the aileron wires ( from the aileron servos) for both wings pushed into the fuselage, connect the Y split cable as shown.



### 4. Attach the aileron servo to the aileron.

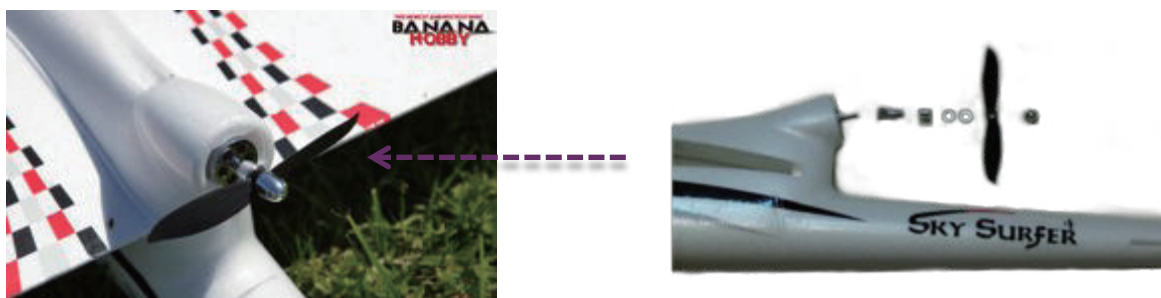
In order to control the movement of the aileron on both wings, you will need to attach the aileron servo's push rod/clevis to the control horn using the linkage rod as shown. This is as it appears on the underside of each wing. Make sure to secure the control horns with the supplied screws and backing plates



Repeat for the other wing

### 5. Install the propeller.

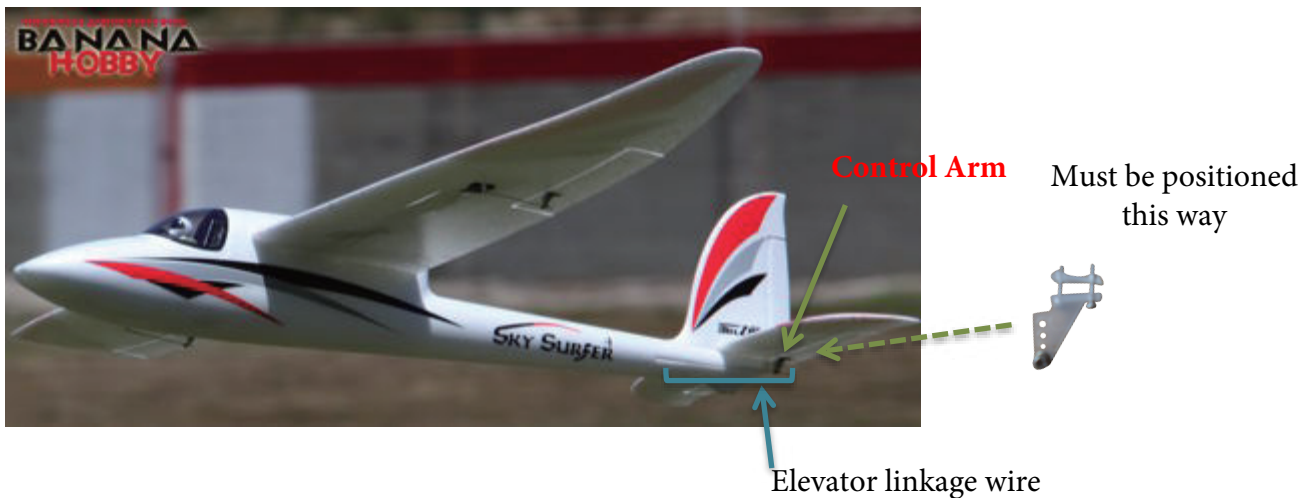
Make sure to push the propeller all the way in and to secure it using a tool to tighten the propeller nut.



## Assembly Instructions

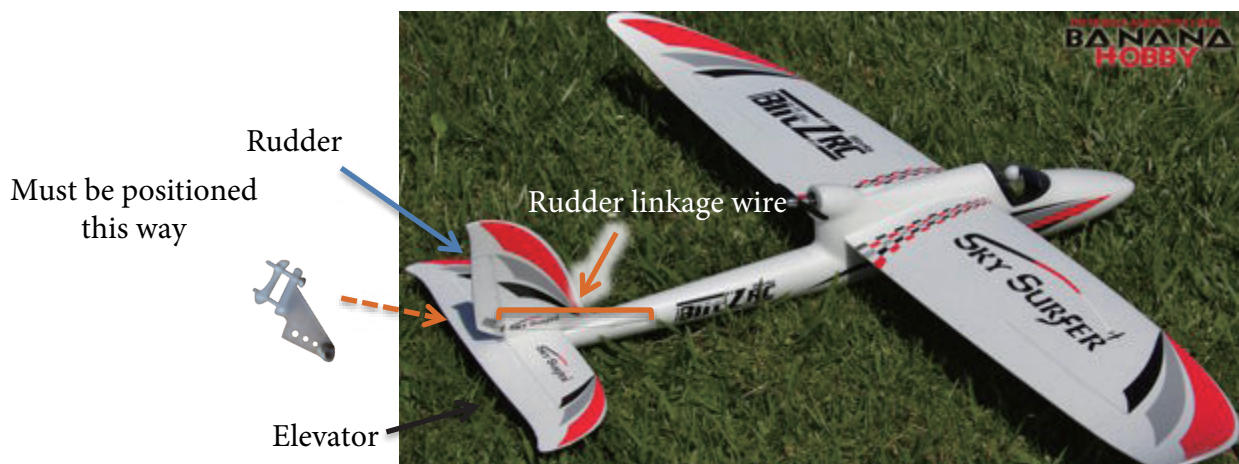
### 6. Attach the elevator servo to the horizontal stabilizer (elevator).

Glue the horizontal stabilizer into the fuselage as shown. In order to control the movement of the elevator, you will need to attach the elevator servo's push rod/clevis to the control horn using one of the long linkage rods that runs along the inside of the fuselage. Make sure to secure the control horns with the supplied screws and backing plates. Please note that the elevator and rudders use a similar push rod, do not get them confused.



### 7. Attach the rudder servo to the vertical stabilizer (rudder).

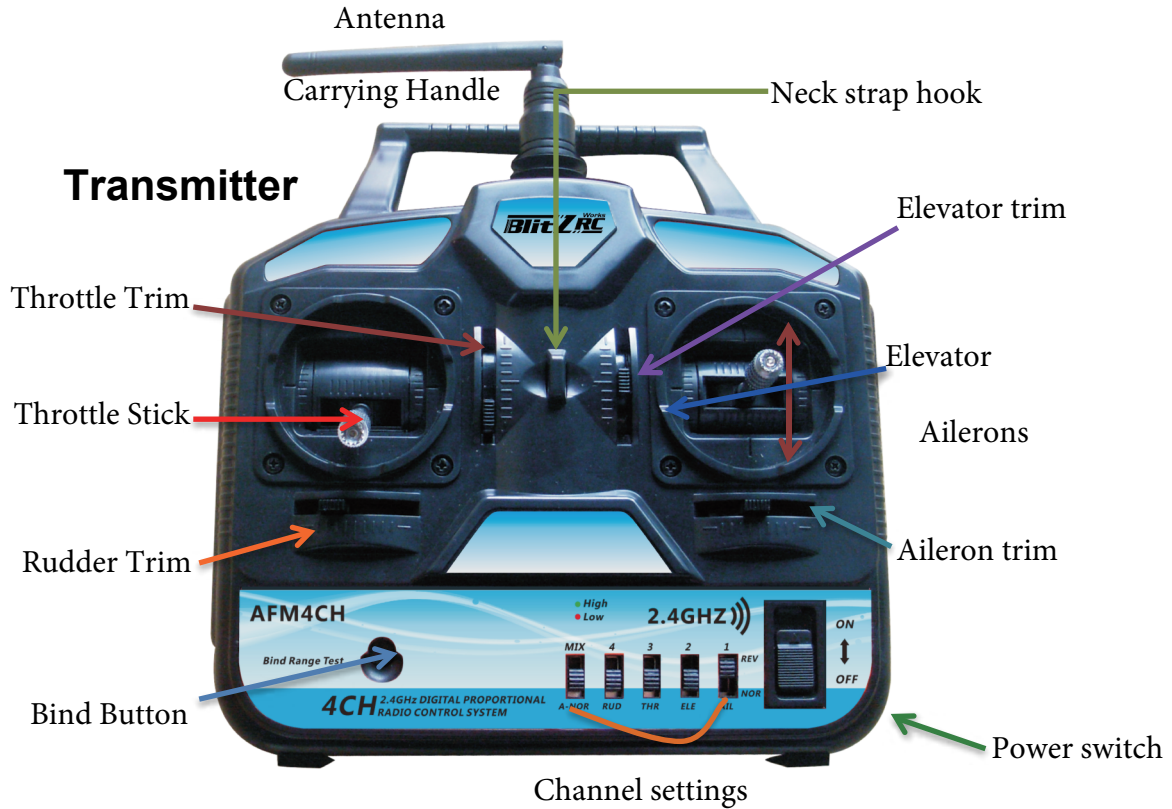
Glue the vertical stabilizer to the end of the fuselage first. In order to control the movement of the rudder, you will need to attach the rudder servo's push rod/clevis to the control horn using one of the long linkage rods that runs along the inside of the fuselage. Make sure to secure the control horns with the supplied screws and backing plates. Please note that the elevator and rudders use a similar push rod, do not get them confused.





## About the Radio System

### Mode two



### Receiver



BAT- For bind plug  
 CH 6- N/A  
 CH 5- N/A  
 CH 4- Rudder  
 CH 3- Throttle  
 CH 2- Elevator  
 CH 1- Ailerons

Transmitter and receiver model may vary for each package by the manufacturer.  
 All radio systems are similar and work the same way.

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## How to Operate

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Please make sure to read and follow these instructions carefully first before attempting to operate the plane. This is a requirement for your safety and the safety of others. Failure to follow these instructions can and may void your warranty. You must do a preflight check before operating.

### How to power up correctly

1. Turn on the transmitter (controller).
2. Lower the throttle stick and throttle trim both all the way down first.
3. Turn on your glider by plugging in your battery.

Make sure all the other trims (except throttle) are centered.

Make sure to turn off the glider first before the transmitter as your glider may somehow pick up stray signals and take off.

When plugging in the battery, your glider must be on a leveled surface (i.e. ground or table) and not in your hand.

### How to speed up and slow down

Use the throttle settings. Pushing the throttle stick and throttle trim usually makes the motor run faster; pushing these settings down usually slows down the motor. The throttle setting may be different for some people depending on which direction the manufacturer had set the channel settings on the transmitter.

### How to hand launch

Prepare the Sky Surfer by tilting its nose up to about a 45° angle and apply roughly about 80% throttle. Afterwards, launch the model with some force and quickly apply up elevator to keep it from pitching down. Please establish positive rate of climb, positive altitude and positive speed before attempting flight maneuver.

### How to go up and down in altitude

To gain altitude, ensure that the model is generating suitable lift. Then push the elevator stick (right stick) down so that the elevator on the glider can move up and provide positive pitch for a climbing setting. To reduce altitude, pitch the elevator stick up so that the elevator on the glider can move down and provide negative pitch for descent.

### How to roll left and right

Use the aileron settings. Moving the right stick left usually raises the left aileron and lowers the right one. Moving the right stick right usually raises the right aileron and lowers the left one. This setting also depends on what your aileron settings is on the transmitter's channel setting.

### How to turn left and right

Use the rudder settings. Moving the left stick to the left usually moves the rudder to the left. So that when the wind hits the rudder, it applies pressure on this area and make the glider turn left. Moving the left stick right will turn the rudder to the right, which will make the glider turn right.

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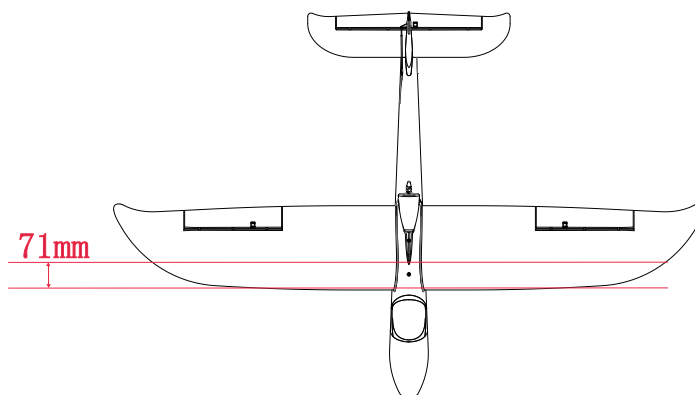
## Binding the Radio System

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The transmitter and receiver are usually already binded by the manufacturer, however, if you need to bind the system by yourself, please follow these steps:

1. Turn off everything. Unplug the plane's battery and turn off the transmitter.
2. Plug in the bind plug into the receiver's BAT channel.
3. Turn on the glider by plugging in the battery. Make sure the throttle wire is plug into channel
4. Push down the bind button on the transmitter.
5. Turn on the transmitter.
6. Wait about a few seconds and unplug the bind button.
7. Unplug the glider's battery.
8. Turn off the transmitter.
9. Push the bind button up to work mode. Make sure you do not press the bind button during flight or when operating this plane. This can also make the transmitter lose connection with the receiver

## Center of Gravity



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## TROUBLESHOOTING

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### 1. My motor is running in reverse.

Your wires from the motor to the ESC may have been switched. How to solve this problem depends on which version of the Sky Surfer you have.

Brushed: There are two wires connecting from the ESC to the motor. You will need to pull the wires out from the opened space to the motor (as shown below), unsold the wires from the motor, switch the wires around and sold it back to the motor.

Brushless: There are three wires connecting from the ESC to the motor. You will have to pull the wires out (as shown below), unplug two of the wires, switch them and plug them back. It may take more than one or two tries of switch another combination to get the right result

To access to the  
motor wires from  
the ESC.



### 2. The controls in the glider are not working.

You may need to either rebind the transmitter to the receiver (in other words, establish a connection) or it could be that you plugged in the throttled channel in the receiver incorrectly. Try going into channel 3 in the receiver, unplug the wire, flip the wire upside down (or 180°) and plug it back to the same slot. If this still does not work, make sure the copper terminal of the throttle connector is facing down and then proceed to rebind the radio system.

### 3. My ailerons and elevators are working together. I want these functions to work separately.

You have the Delta Wing Mixing function on. To turn it off, go to your transmitter and flip the first channel setting switch. It should be labeled as "mix". Just flip the switch to the opposite direction (i.e. If it is set to NOR, flip it to REV and viceversa).

### 4. My motor keeps cutting in and out.

There is more than likely a loose connection between the ESC and the motor. If you have the brushed Sky Surfer, you may need to resold the wire. If you have the brushless Sky Surfer, you will need to secure any loose wires.

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## TROUBLESHOOTING

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### 5. My motor is making a screeching sound.

There may be something wrong with your motor and it can be internal. Contact Banana Hobby as soon as possible and do not operate this glider using the same motor. If possible, try using another motor(of the same type or compatible) to test the glider but please contact us to solve this issue.

### 6. I hear beeping from the glider and no functions are working.

The amount of beeps varies depending on what is going on with the glider. The most common issue is that your transmitter is not binded to your receiver. If you have tried the bind process already, make sure the throttle stick and the throttle trim are both all the way down and try the bind process again. Please contact Banana Hobby if you continue experiencing the same problem.

### 7. My motor suddenly started going at full speed when I turned it on and my throttle settings were all set to the lowest position before I turned on the plane.

There may have been some wiring issues or the manufacturer didn't set up the throttle settings correctly on your transmitter. If this gets to happen, please unplug the the glider's battery as soon as possible and then turn the transmitter off. Your plane may act as if it were alive if you turn off the transmitter before the glider. After doing so, go to channel 3 (throttle) and flip this switch (i.e. If it is set to NOR, flip it to REV and viceversa).

### 8. I cannot get my motor to run mbut my servos are still working.

You may need to jumpstart your ESC. Please follow these instructions:

1. Make sure everything is turned off.
2. Set all setting in the middle position or centered, except for the left vertical trim (throttle trim) which should be located in the lowest position.
3. Have the throttle stick up at the highest position.
4. Turn on the glider by plugging in the battery.
5. Pull the throttle stick down and then take up slowly.
6. The glider should start throttling up now and the motor should be working perfectly.

### 9. My glider keeps veering to the left or right.

Make sure the motor is mounted on properly and that it is centered. If it is angled incorrectly, this may affect the performance of the glider. If your motor is angled incorrectly, you will have to use a hobby knife to take the motor out. You should be careful and you will probably have to take some foam out but that is fine. Once you took it out, glue it back correctly.

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## MODEL FLYING PRECAUTIONS

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- Select your flight area carefully. Always choose an open space that is unobstructed by trees and/or buildings and away from crowded area. Avoid flying in area with roads, electricity/telephone poles or wires and water nearby or within close proximity to full size air traffic.
- Do not fly this model in poor weather, high winds, low visibility, extreme temperatures, rain and storms.
- Never attempt to catch this model whilst in flight. Even a slow moving model can cause harm to yourself and to others and this risks damage to the model.
- This model is recommended for children no younger than 14 years old. All children, not matter what age, should always 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 propeller 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 then turn off your radio transmitter.
- Exercise caution when charging your batteries and follow your battery manufacturer's safety guideline when doing so.

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## PRE-FLIGHT CHECKS

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1. Always range check your model before any flight (especially when flying a newmodel for the first time). Follow your radio manufacturer's guidelines to perform this check.
2. Check that all screw/bolts and mounting points are firmly secured, including control horns and clevises.
3. Only fly with fully charged batteries (both in your radio and model). Failure to do so could result in loss of control, damage to the model and/or persons/property around you. Check that your batteries are fully charged.
4. With the model powered on (transmitter on first, then receiver/model) check that all surfaces are free from damage/obstructions, moving freely in the correct directions with stick input.
5. Inspect the model and prop for any damage that may have occurred during transit and listen for any unusual sounds from the electronics when powered on. If in doubt, do not fly.
6. If this is your first flight with the model double check that the CG is at the correct position. If not, adjust the battery position inside your model accordingly.
7. If you are an inexperienced model pilot, seek the assistance of an experienced pilot to perform these final checks and to test fly the model for you.



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Sky Surfer RC Trainer Airplane***

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