

# INSTRUCTION MANUAL

5 Channel Coaxial Blades R/C Helicopters

## X350 SERIES

# 5

## CHANNEL

Patented Extreme-flyers 5 Channel  
Anti-Wind System gives the Co-Axial X350  
unmatched control and fast-forward flight  
ability for outdoor flight performance.  
Patent No.: PCT/CN2010/002183

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This is not a toy.  
This product is intended for users 14 years of age and older.

**EXTREME**  
FLYERS

## Introduction

Thank you for purchasing 5 Channel Coaxial Blades Series RC Helicopters made by Extreme-flyers. Before your operation, we'd like to introduce the relevant knowledge and general notes of the helicopter to you through this manual which can help you to operate this helicopter as what your mind wishes. Please read this instruction manual carefully before using and keep it in good condition for your future reference.

Extreme-flyers X350 series products, radio control coaxial blades model helicopters, are the innovative 5 channel radio control electric helicopters. Besides the features of 4 channel coaxial blades helicopter, it is equipped with 5 channel which is an anti-wind linkage device. We have gained the international patent for this technology, and the patent No.: PCT/C N2010/002183. This device efficiently solves the problem of poor flexibility and poor anti-wind feature in coaxial blades helicopters. Both mode ②CH and mode ③CH are designed for beginners to fly indoor with height limit device; mode 3CH、mode 4CH and mode ⑤CH are suitable for indoor flight; mode ⑤CH and mode 5CH are suitable for skilled pilot to fly against winds outdoors. You can practice in order of mode ②CH/③CH/3CH/4CH/⑤CH/5CH one by one. Focus on practicing one mode well at a time, then next one. In this case, you will become a skilled pilot very soon. Plenty of upgrade kits which will make this helicopter have better characteristics and performances are ready to install by yourself when you become a skilled pilot. Our helicopters are the best choice for beginners as well as a good recreation for experienced hands.

## Important Announcement

This radio control model is not a toy, but a kind of recreational sporting goods which utilize various high-tech products and technologies. Improper and unfamiliar use will result in serious injury. Please do read through this manual carefully before using to make sure to be conscious of your own personal safety and the safety of others when operating this radio control model.

Manufacturers, wholesalers and retailers have no liability for any damage or accident that caused by users' spare parts wastage and improper operations. This product is only intended for users 14 years of age and old.

Beginners should be guided by experienced pilots at their first flight to ensure that the flight must be safe. After the sale of this product we have no liability for any damage, injury and accident caused by any improper operation and use.

## General Notes on Safety



Radio control helicopters fly powerfully at high speed, existing a certain of potential danger. In order to forestall the lose control of the helicopters and other unexpected accidents, Pilots must pay attention to the flying safety and are responsible for their actions and damage or injury occurring during operation.



It is very important to choose an appropriate flying site. So please fly the helicopter at the place designated by local laws and regulations. Be sure there are no people, trees, buildings and high voltage cables around your flying place to avoid any lost and damages to yourself and others. Please do not fly the model in a rainy, thundery and other inclement weather to ensure the safety of yourself, others and your model.



Keep the model away from damp environment. Helicopters are composed of many precision electrical components. So it must be prevented far away from moisture and steam. Do not operate or expose the model to a cloudy and rainy day to prevent the helicopter to malfunction resulting in loss of use, or a crash by rainwater.



Please do not dismantle the transmitter、the receiver and other electrical equipment by yourself.  
Please do not improve or process the model helicopter yourself or use this model for other illegal purpose.



Please do not fly or operate this model under tired or bad condition.



During the operation of the helicopter, please do not touch the rotating main rotor blades and do always fly the helicopter a safe distance from yourself and others, as well as surrounding objects to avoid inflicting serious bodily harm and damage to property.



Radio control helicopters are mainly made up of carbon fiber or polyethylene and electronic products. Plastic parts are very easy to be deformed due to the heat and strong sunshine.

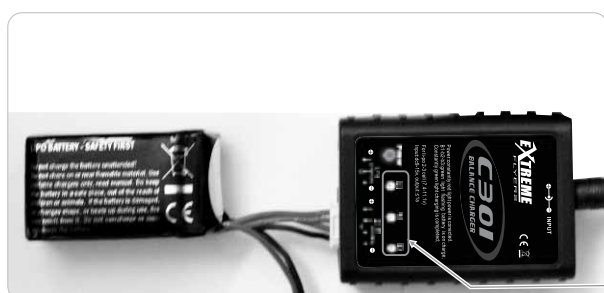
## Battery Charging

(Only for the charger produced by Extreme-flyers)

1. Connect the charger to the power supply (DC 15V/1A), if the power indicator of the charger is red, it means the charger is properly connected.



2. Connect the second or the third Lithium ion battery to the charger interfaces separately. If the green indicator is flashing, the battery is charging.



3. When the green indicator stops flashing, the battery is fully charged.



## General Notes on Battery Charging and Safety

1. Remove the battery from the model when you charge the battery.
2. A charging Lithium Polymer battery must be watched over.
3. A charging Lithium Polymer battery must be kept away from heat, inflammable and explosive substance and charge only in well-ventilated areas.
4. Do not try to charge the battery if it swells or distorts.
5. Do not touch the battery with your hands when the battery leaks. If you happen to touch the leaking substance, please wash it off immediately, or go and see the doctor in time.
6. Keep the battery far away from the children.
7. Remove the battery from the model and be sure that the battery comes back to the normal temperature before you charge it.

## Maintenance on Lithium Polymer Battery

Be sure that the battery is fully charged before you keep it in a safe place. Lithium Polymer battery will discharge if it is not used for a long time. If the voltage of one cell is lower than 3V, damage will occur to the battery. We suggest that you check your battery periodically and avoid over-discharge of your battery, so that you can continuously keep your battery in the best state. We suggest that stored batteries should be charged 80% before you put it away in a safe place.

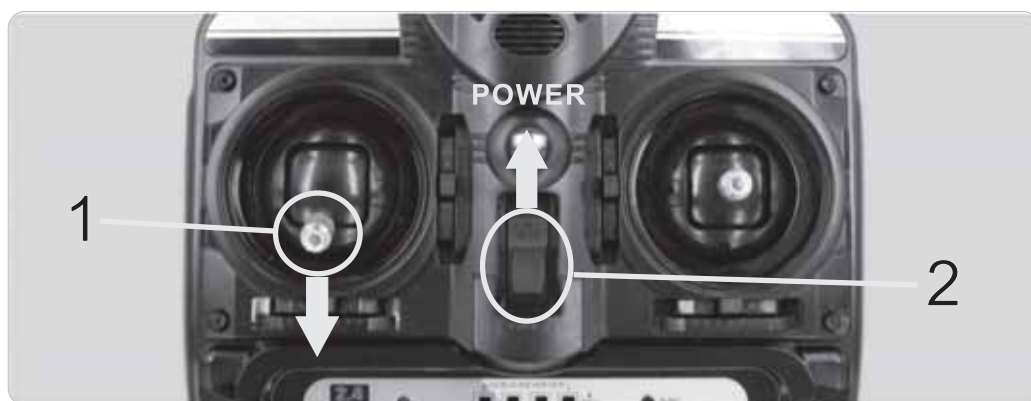
## Take-off Steps of Helicopters

Mode 2 (Left Hand Throttle)

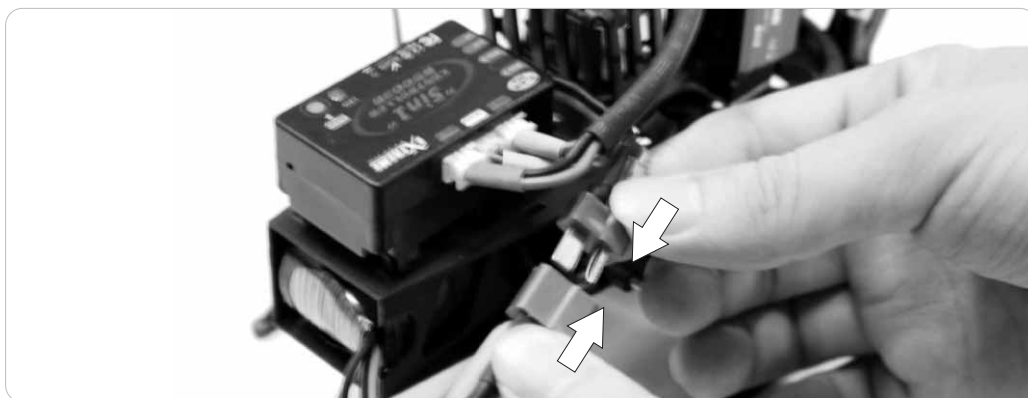
- 1、Install the batteries in the transmitter (4 cells AA 1.5V)



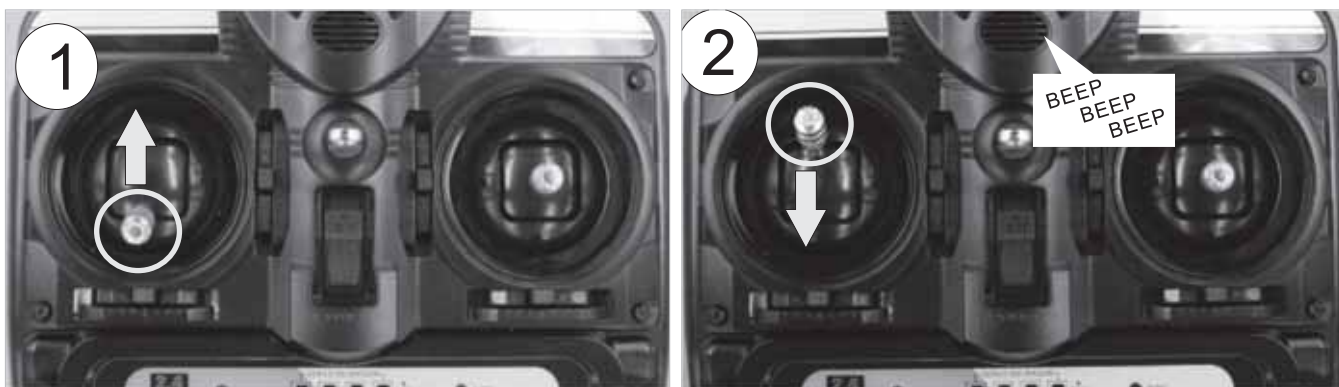
- 2、Put throttle stick to the lowest position, and turn on the power of the transmitter.

Mode 2  
(Left Hand Throttle)

3. Connect the receiver to the battery on the helicopter.



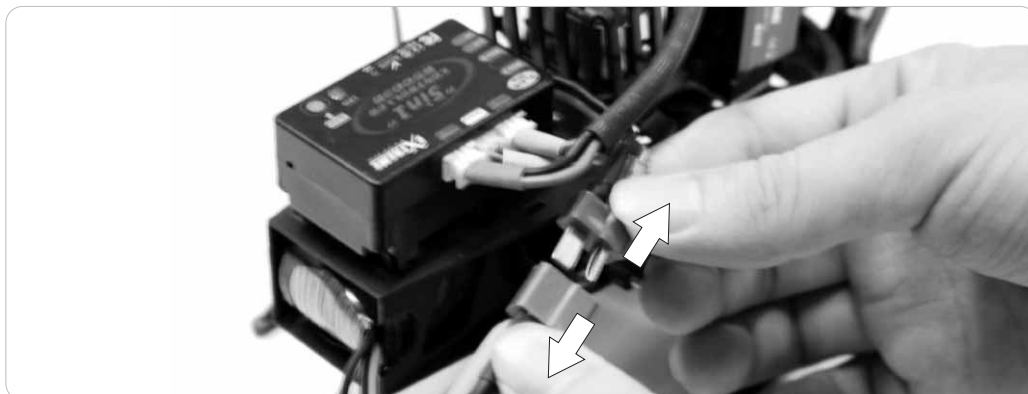
- 4、 For the sake of safety, please push the throttle stick to the highest position first, and then pull it back to the lowest position. When you hear three " beep, beep, beep" , your helicopter is ready to fly.



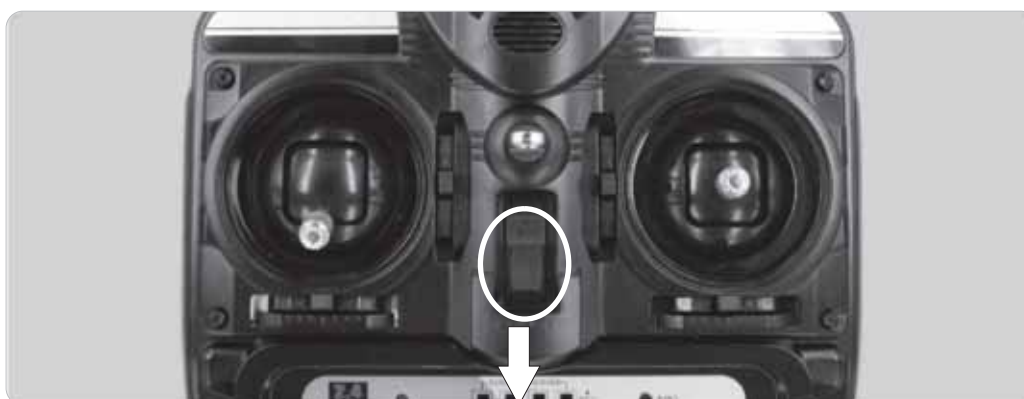
## Landing Steps of Helicopters

Mode 2 (Left Hand Throttle)

- 1、 After the flight, remove the power pin from the receiver to avoid the battery damage by over discharging.



- 2、 And then turn off the power of the transmitter.

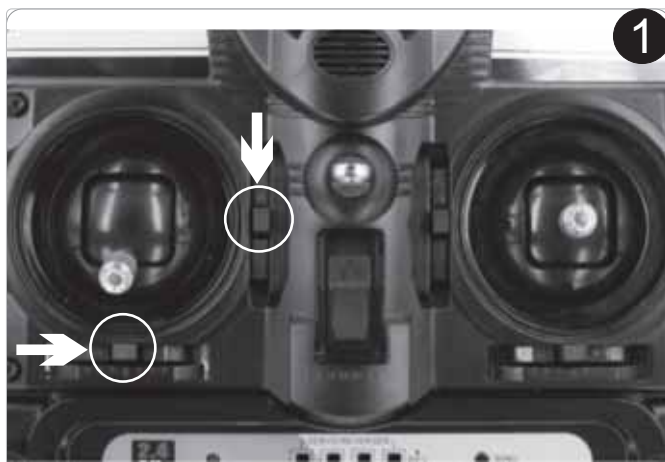


Mode 2  
(Left Hand Throttle)

## Adjustment of Transmitter Stick Neutral Point and Pitch

Neutral point and pitch of the transmitter sticks were well calibrated in the factory. It is no need to be readjusted generally. But if the operation parts are changed to a new one, or the operation parts have been worn a lot after using for a long time and the stick operation gap begins to affect accuracy of the operation , you have to adjust the neutral point and pitch of the sticks yourself. Adjustment as follows:

1. Turn on the power of the transmitter.
2. As figure 1 shows, push two trim tabs of left hand side at the same time, you can hear “Beep” ,and the power indicator of the transmitter begins flashing.
3. As figure 2 shows, move the two sticks in a circle to the biggest pitch for a few times.
4. At last, repeat figure 1 action, push two trim tabs of left hand side at the same time, you can hear “Beep” from the transmitter, now the power indicator is on. The adjustment is completed.





## Bind 2.4GHz Radio Transmitter and Receiver

The binding process between the transmitter and receiver is set in our factory. It's no need to set up again. But if the radio equipment doesn't work properly, or you change another transmitter or receiver, you must bind it again by yourself.

First press "BIND" button on the receiver, now the LED is flashing.



The LED is flashing

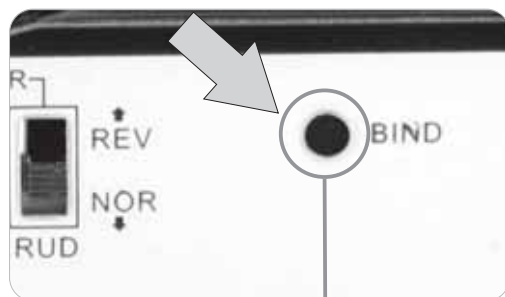
Press "BIND" button

Then place your helicopter on the horizontal ground or on the table (be sure your helicopter does not slant or shake).

Press the "BIND" button on the transmitter before LED stops flashing. You can hear one "beep" from the transmitter, and at the same time, LED on the receiver is off and then it is on again and stays solid red.

Now the set-up of the binding process is completed and you can operate your model.

If you fail to set up the binding, you must repeat the above steps again.



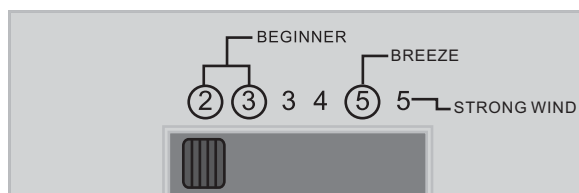
BIND



The LED stays solid red

## Functions of Channel Switches

Shown as figure:



According to flight situations and proficiency, there are 6 modes of channel to choose. They are ② CH/ ③ CH/3CH/ 4CH/ ⑤ CH/5CH. Their functions are different. The first ② CH/ ③ CH modes are perfect for beginners flying indoors, but an extra professional height limit device must be purchased from Extreme Flyers. The followed 3CH mode is suitable for apprentice to learn how to fly indoors. The next 4CH mode is for the experienced pilot, and 5CH mode is for skilled pilot who can control helicopter to fly in outdoor winds. ⑤ CH mode applies to breeze, and 5CH mode applies to strong wind. See details in the table below:

Functions CH	Throttle	Rudder	Elevator	Aileron	Tail power	Reaction speed	Height limit device	Height	Target flyer	Flying situation
② CH	●	●	—	—	—	Slow	●	Limited	Beginner	Indoor
③ CH	●	●	●	—	—	Slow	●	Limited	Beginner	Indoor
3 CH	●	●	●	—	—	Slow	—	Unlimited	Intermediate	Indoor
4 CH	●	●	●	●	—	Average	—	Unlimited	Experienced pilot	Indoor
⑤ CH	●	●	●	●	●	Fast	—	Unlimited	Skilled pilot	Indoor/Outdoor
5 CH	●	●	●	●	●	Fast	—	Unlimited	Skilled pilot	Outdoor

Remarks: ● available — Unavailable

## Mode 1 (Right Hand Throttle)



When throttle stick is pushed upward, your helicopter goes up. And when throttle stick is pulled downward, your helicopter descends.



When elevator stick is pushed forward, your helicopter flies upward. And when elevator stick is pulled downward, your helicopter flies backward.



When aileron stick is moved to the left, your helicopter flies to the left. And when aileron stick is moved to the right, your helicopter flies to the right.



When rudder stick is moved to the left, your helicopter flies to the left. And when rudder stick is moved to the right, your helicopter flies to the right.



## Mode 2 (Left Hand Throttle)



When throttle stick is pushed upward, your helicopter goes up. And when throttle stick is pulled downward, your helicopter descends.



When elevator stick is pushed forward, your helicopter flies upward. And when elevator stick is pulled downward, your helicopter flies backward.



When aileron stick is moved to the left, your helicopter flies to the left. And when aileron stick is moved to the right, your helicopter flies to the right.



When rudder stick is moved to the left, your helicopter flies to the left. And when rudder stick is moved to the right, your helicopter flies to the right.

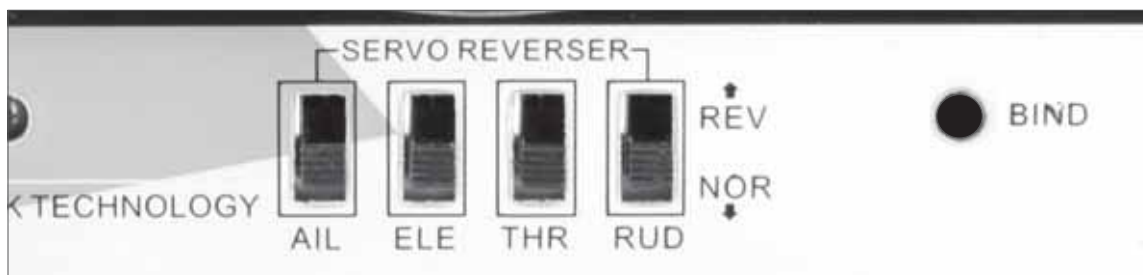




## Channel Reversing Switches

If your helicopter runs reverse in your test process, please use the reversing switches to correct it. Please do not always use THR switch, it is dangerous if it is used rashly and improperly.

CHANNEL 1	AIL	NOR
CHANNEL 2	ELE	NOR
CHANNEL 3	THR	NOR
CHANNEL 4	RUD	NOR

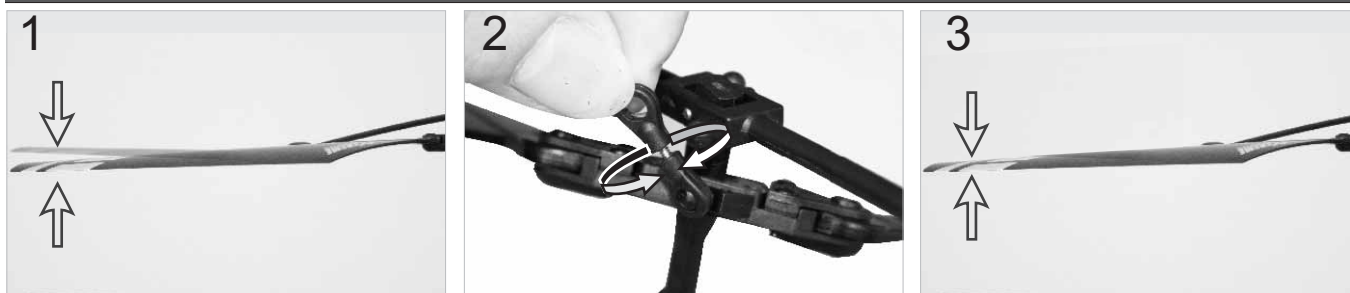


## Adjustment of Servo Push Rods

The helicopter is debugged in the factory. In the windless weather conditions, only by moving throttle stick (no need to move other operation sticks), the helicopter can smoothly take off and up to 1 meter high, hovering there, and the helicopter does not yaw to any directions. If the helicopter yaws to the left, move the aileron servo rod anticlockwise and make it longer to the position that the helicopter does not yaw to the left anymore. On the contrary, if the helicopter yaws to the right, move the aileron servo rod clockwise and make it shorter to the position that the helicopter does not yaw to the right or left anymore. If the helicopter yaws forward, move the elevator servo rod clockwise and make it shorter to the position that the helicopter does not yaw forward. On the contrary, if the helicopter yaws backward, move the elevator servo rod anticlockwise and make it longer to the position that the helicopter does not yaw backward.



## Adjustment of Flybar Push Rod

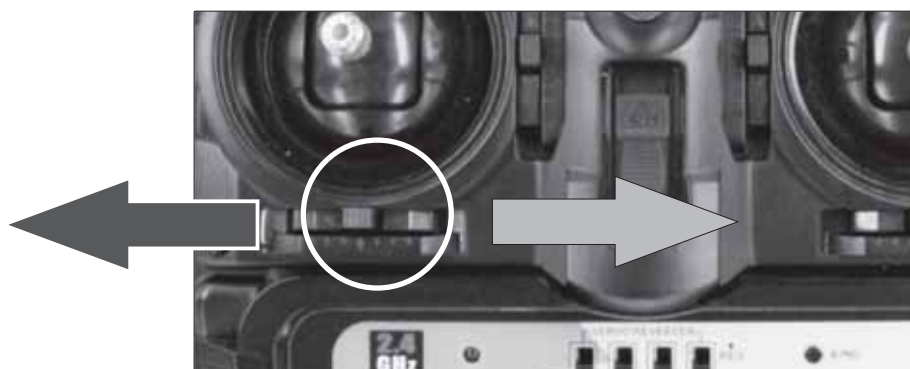
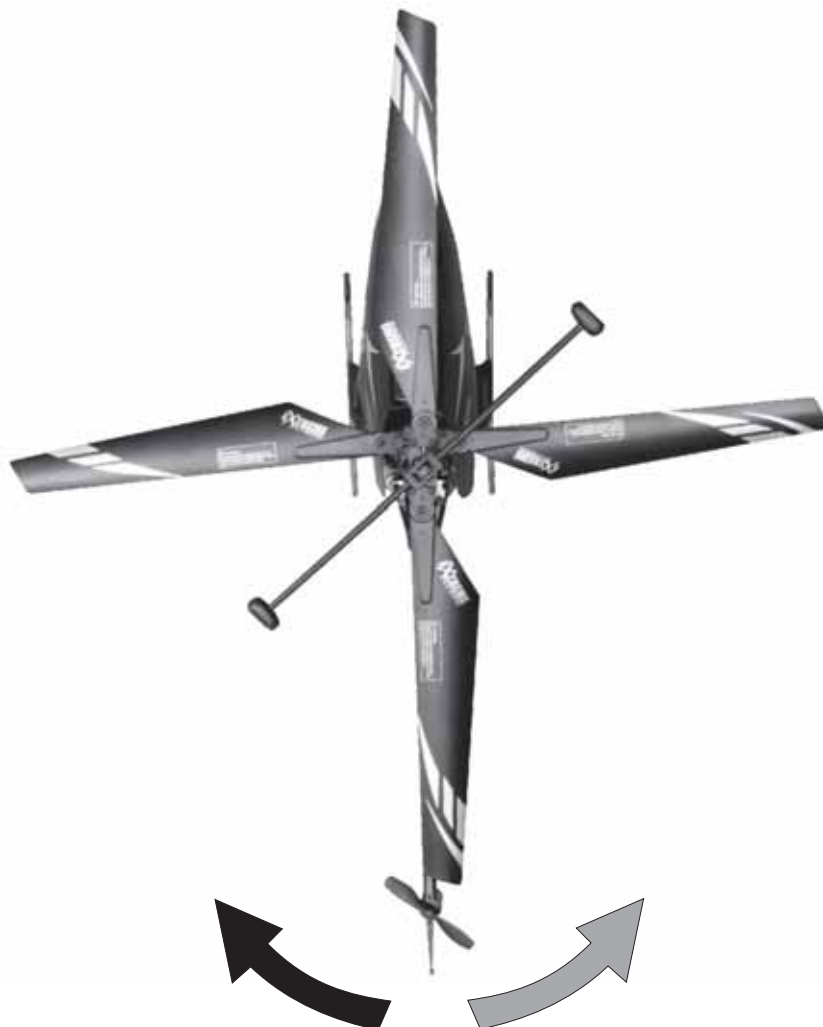


Flybar push rod is well adjusted in the factory, and generally it is no need to readjust. When the rotating plane of the upper rotor appears double blades and the helicopter is unstable during hovering, the push rod needs length adjustment to make the double blades disappear and the helicopter stable again.

## Tail Swinging Treatment

"5 in 1" receiver has the tail self-lock function. It is unnecessary to debug it again generally. Once the tail swings as the figure shows, please try to treat it by the following two methods:

1、Place the helicopter on the horizontal ground, reset the binding process to make it self-locked again.

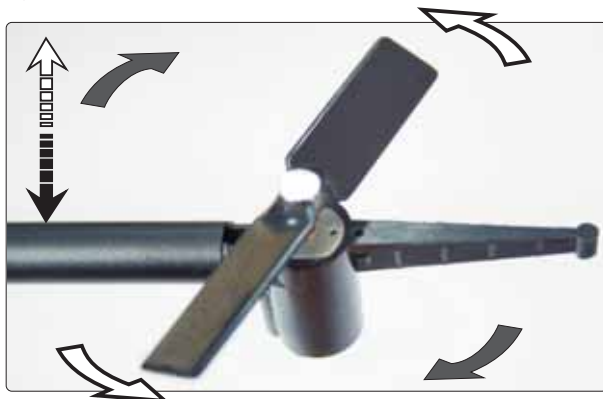


2、As shown in the figure, move the rudder trim on the transmitter to the left or right till the tail stops swinging.

## Different Functions of Bi - directional Tail Rotor and One - way Tail Rotor

Switch on ⑤ CH 、 5CH mode flying outdoor, you can use bi-directional tail rotor for your helicopter moving forward and Backward in the breeze; if you want the helicopters to fly in strong wind only move forward not backwards, it is ideal to use one-way tail rotor.

As figures show :



Elevator stick



Elevator stick

## Other Protection Functions

1、 Start-blocking protection function. For the sake of the safety, the circuit will disconnect automatically when the rotor blades receive outside force. And it is a kind of normal protection phenomenon that the rotor blades stop working automatically. In this condition, if you want the circuit to work again, you must make sure to move the transmitter throttle stick to the lowest position first, and pull out the battery pin and then put it in again.

2、 When battery voltage is too low after landing, you can hear the sound from the servo push rod with deflection. This phenomenon reminds you to pull out the battery plug as soon as possible, charging the battery to avoid the battery damage by over discharging.

3、 Transmitter low voltage warning function. When the transmitter voltage is lower than 4V and the power indicator flashes with “beep, beep” warning alarm, please change the battery to avoid the out of control of the helicopter because of low voltage.

## Installation Note

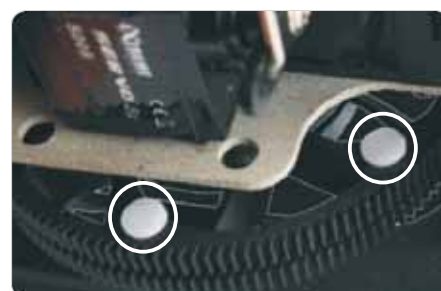
1. As figure shows, please do not screw the blades tightly, because the helicopter will shake if the blades cannot swing easily.



2. As figure shows, you must install the flybar with UP side upwards. Don't make it wrong. Or, the flight will lose balance.



3. In order to use ②CH and ③CH easily, please keep all white dots on the upper rotor gear clean and intact. Please change a new upper main gear if any damage caused.





Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

**FCCID:ZYOX5 C€0678 RoHS**  

We are very excited about the new Extreme-flyers helicopters as we feel there is a huge GAP in the market especially on easy to fly, easy to learn helicopters. We are often confronted with learners that want to go from infra-red to outdoor helicopters and most of them are indoor short range co-axile helicopters and they do not achieve what the learners need or want. They want an outdoor full range helicopter that is as stable as the indoor ones. Our Extreme -flyers helicopters are exactly what is required; we have had great feedback from the helicopter learners and in fact from the helicopter pilots. This helicopter is the missing link between really simple flying helicopters and outdoor 3D flying.

#### FCC Warning Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### IC Statement

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**Extreme -flyers Hobby**