

Aztech

RC Helicopter



HELEX SERIES

User Manual

Contents

1	Operating Precautions	2
2	Using the Lithium-Polymer Batteries	3
3	Using the Transmitter	4
4	Charging the Transmitter	5
5	Package Contents	7
6	Flight Basics	8
7	Flight Trimming	12
8	Flight Tips	13
9	Flight Troubleshooting	14
10	Hexex Sticker Sticking Instructions	15
11	Hexex Exploded View	17

Operating Precautions

To ensure safety, please read through the manual thoroughly before flying for the first time. It is important to be familiar with the precautions, limitations and the flight controls of this product while observing the safety rules.

Improvements are constantly being made to this product and changes to the specifications may occur without notification.

WARNING

- Never leave equipment such as the battery, transmitter, charger and Helex in a location easily accessible by infants or children.
- Never disassemble or attempt to modify the product other than what is specified by this manual.
- Never store the transmitter, battery, charger of Helex in the following conditions
 - Under -10 degrees and over 40 degrees
 - Under direct sunlight
 - High humidity, vibration or dust
- Never fly this product in the following areas:
 - Outdoors with winds
 - Places with sand and grit where they can penetrate the inner parts
 - Close to other flying fields for radio controlled aircraft (3km radius)
 - Close to high voltage lines or communications installations

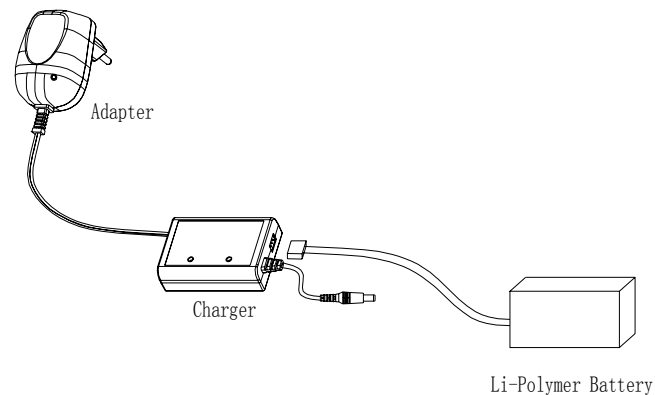
CAUTION

- Always use the batteries and charger provided. If non-genuine parts are used, we will not be liable for any loss arising of such use.
- Refrain from flying units that are on the same radio frequency at the same time. The radio interference may cause crashes.
- Refrain from touching parts that are installed in the Helex, before and after use as they may cause misalignment and affect flight performance. Heat generated during flight may cause burns as well.
- The Helex is a high precision RC product with parts rotating at high speeds and children below the age of 14 are not permitted to play.

Li-Polymer Battery

Do not overcharge or over discharge the lithium polymer batteries provided. This could cause battery to rupture, get hot or ignite. Always adhere to the following instructions on the usage of the battery.

- Never throw the battery into fire or heat it up in any way.
- Never attempt to disassemble or modify the battery.
- Never leave the battery inside places where it can get very hot or where the temperature exceeds 60 degrees
- Never drop the battery or hit it hard
- Never wet it with water
- Never short the battery by connecting the positive (+) terminal with the negative (-) with a metal object such as a necklace or paperclip
- Never attempt to charge battery with something other than the supplied charger
- Never use the battery provided with this product with any other equipment
- Always ensure charger is kept with it's plug removed from the power outlet at all times when not charging
- Always charge the battery after flying to prevent over discharge
- Never use an abnormal battery. During charging, if it becomes hot, has a strange smell, goes out of shape, or discoloured, disconnect the connector immediately and discontinue battery use.



Transmitter

Name and function of the transmitter parts

Battery Indicator

Green is up to 100% capacity.
Yellow is up to 40% capacity.
Red is up to 20% capacity.

Antenna

Ensure antenna is fully extended during use

Elevator Trim

Use to adjust neutral position of forward/backwards movement

Throttle Trim

Mode I

Throttle/aileron stick
Controls vertical movement and horizontal movement

Mode I

Elevator/rudder stick
Controls forward/backwards movement and left/right turning

Mode II

Elevator/aileron stick
Use to control forward/reverse movement and horizontal movement.

Mode II

Throttle/rudder stick
Use to control up/down movement and left/right turning.

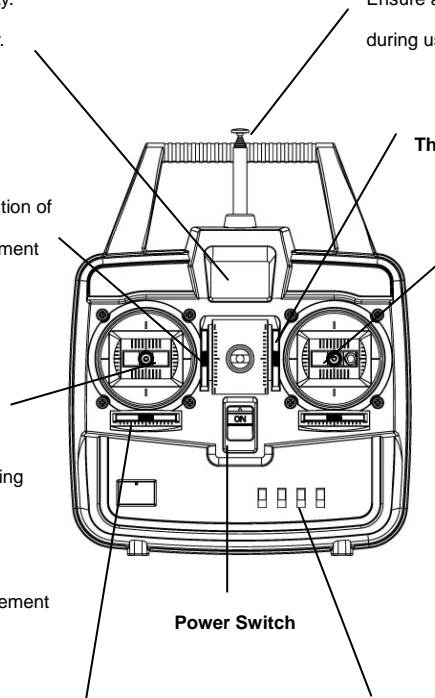
Power Switch

Rudder Trim

Use to adjust neutral position of left/right turning

Reverse Switch

Use switch to toggle movements in opposite direction

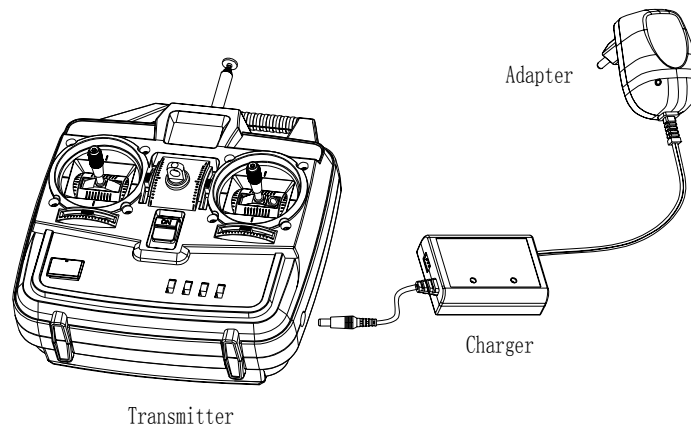


WARNING

- Never use a combination of different batteries such as alkali batteries with NiCd batteries or NiMH batteries.
- Never wave the antenna of the transmitter around or put it close to people's faces as there's a risk the antenna tip could poke someone in the eye
- Never attempt to fly with the antenna not fully extended
- Never operate the on/off switch of the unit during flight

Transmitter Charging

The Helix charger is designed to charge both the Li-Poly batteries provided and also AA NiMH batteries. Batteries are not included



CAUTION

- The Helix charger is optimized to use with 1500mAH NiMH rechargeable batteries.
- It will take up to 12 hours to fully charge.
- Using rechargeable batteries of other capacities may cause leaks and explosion to the batteries and users are advised to use only the recommended capacity size.

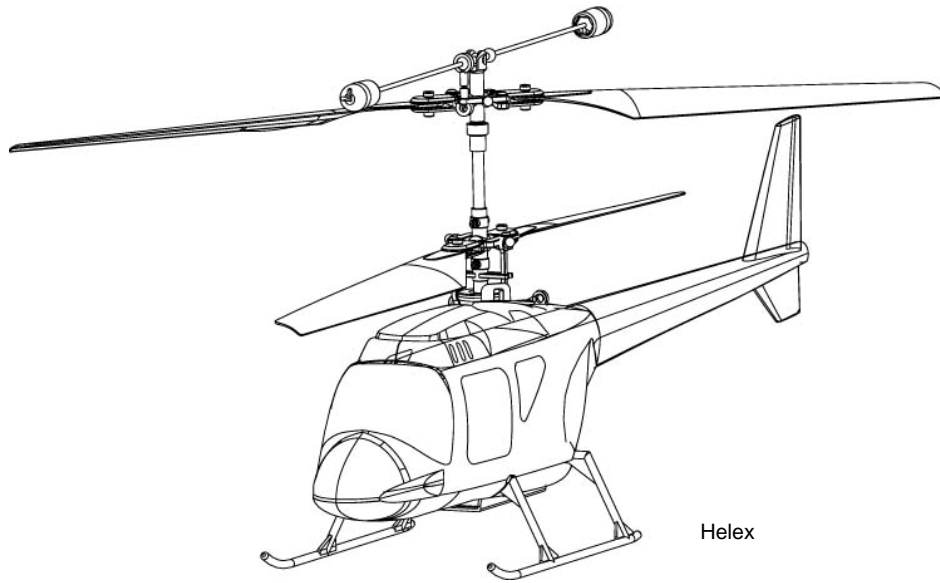
Caution

This product is designed to be used only indoors. Do not use outdoors.

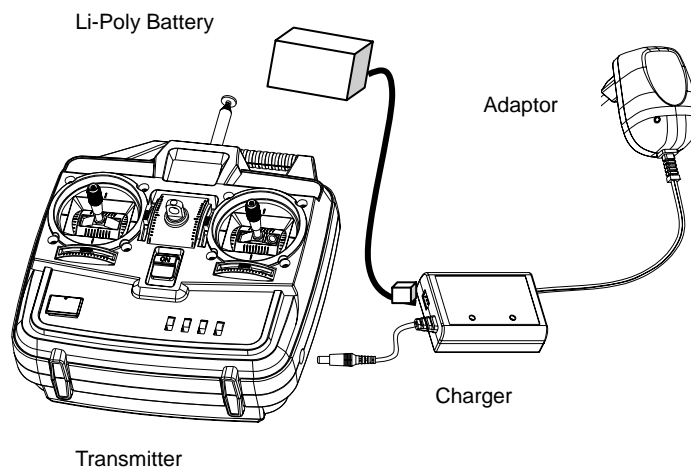
- Never fly in a place cluttered with obstacles
- Never disassemble or attempt to modify the product yourself.
- Never put hands or face close to the rotating parts.
- Operate this product in a standing position that allows you to get quickly out of the way when necessary
- Always switch off the unit and transmitter when leaving the transmitter unattended.
- Never allow young children to use this product.
- Always use this product in a way that is proper and safe to maintain its performance. To do this you must read this instruction manual thoroughly.
- Never use parts that are damaged or have altered shape to ensure safe flight.
- This product is a high precision machine.
- Always pay attention to the functionality of each parts which includes small items, sharp items and items made from metal. Prevent any possibility of children putting these parts in their mouth or getting injured by these parts. If a child swallows any of these parts, seek urgent medical advice immediately at your nearest clinic or hospital.

Specifications and dimensions of products can change without prior notification.

Set Contents



Helix



Li-Poly Battery

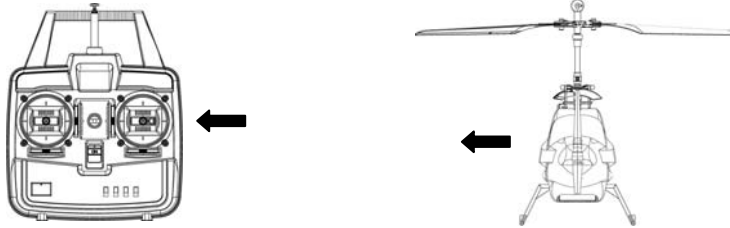
Adaptor

Charger

Transmitter

Flight Basics

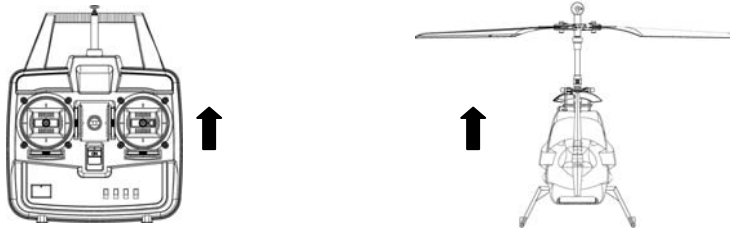
Mode 1 (Right Throttle)



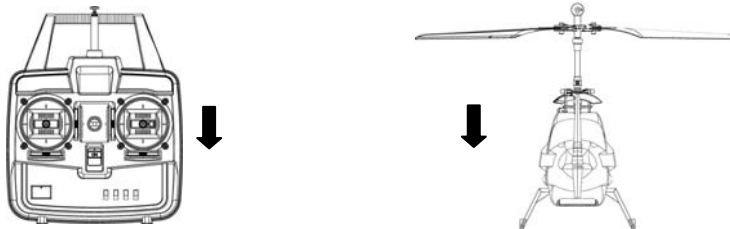
When aileron is moved to the left, swash plate should also tilt and Helix moves to the left.



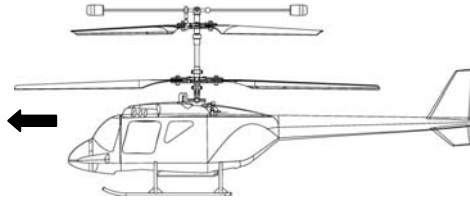
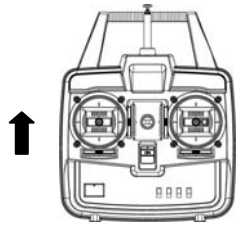
When aileron is moved to the right, swash plate should also tilt and Helix moves to the right.



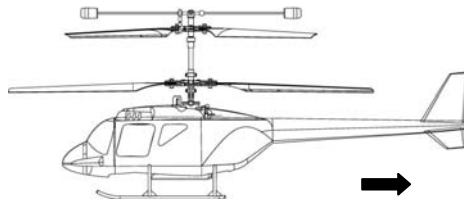
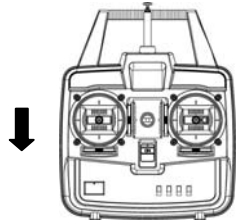
When throttle is pushed up, rotor speed increases and Helix lifts up.



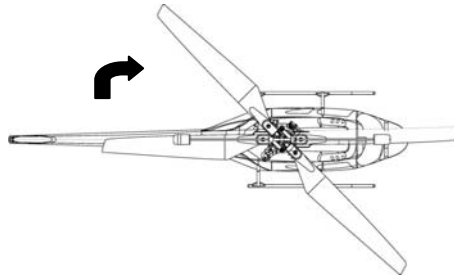
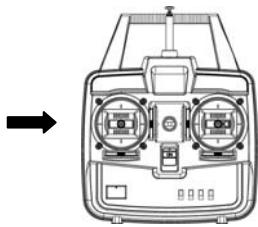
When throttle is pushed down, rotor speed reduces and Helix descends.



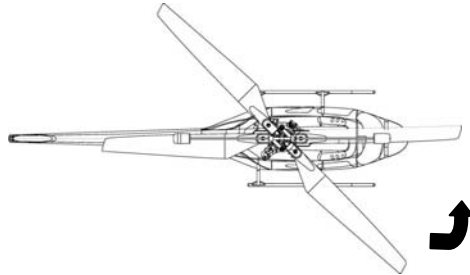
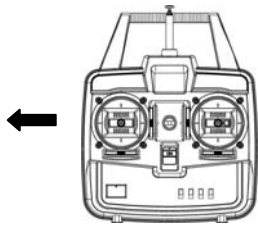
When elevator stick is pushed up, nose will tilt down and Helex moves forward.



When elevator stick is pushed down, nose will tilt down and Helex moves backwards.

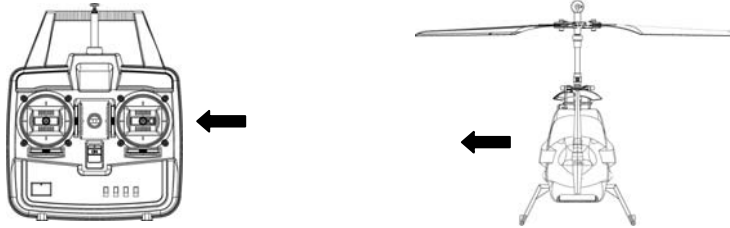


When rudder is moved to the right, nose of Helex turns right.



When rudder is moved to the left, nose of Helex turns left.

Mode 2 (Left Throttle)



When aileron is moved to the left, swash plate should also tilt and Helix moves to the left.



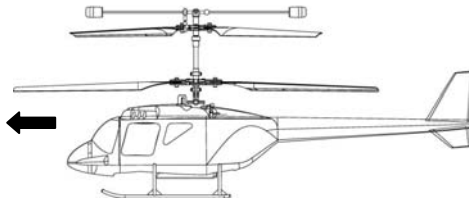
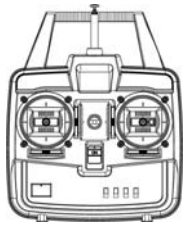
When aileron is moved to the right, swash plate should also tilt and Helix moves to the right.



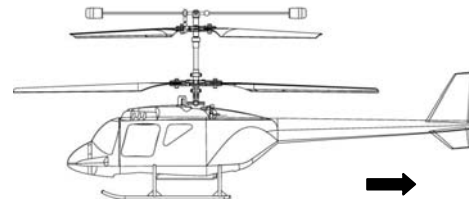
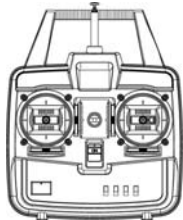
When throttle is pushed up, rotor speed increases and Helix lifts up.



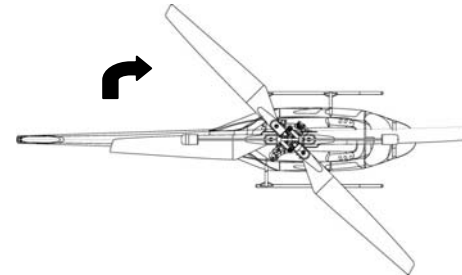
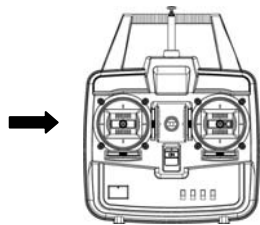
When throttle is pushed down, rotor speed reduces and Helix descends.



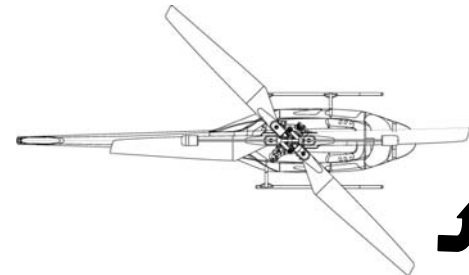
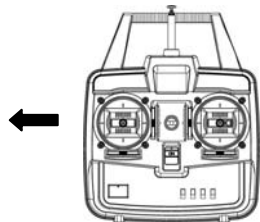
When elevator stick is pushed up, nose will tilt down and Helex moves forward.



When elevator stick is pushed down, nose will tilt down and Helex moves backwards.



When rudder is moved to the right, nose of Helex turns right.

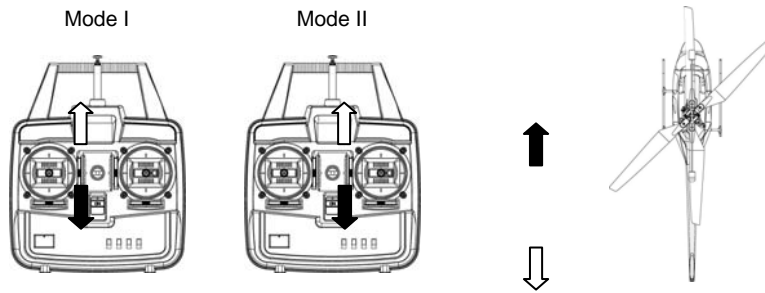


When rudder is moved to the left, nose of Helex turns left.

Trimming

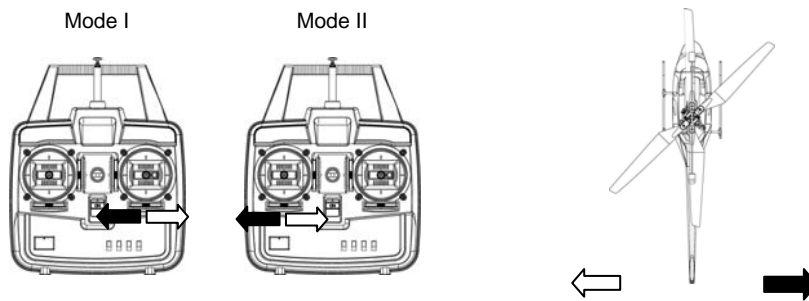
When the Helex moves forward on its own, trim the elevator lever back.

When the Helex moves backward on its own, trim the elevator lever forward.



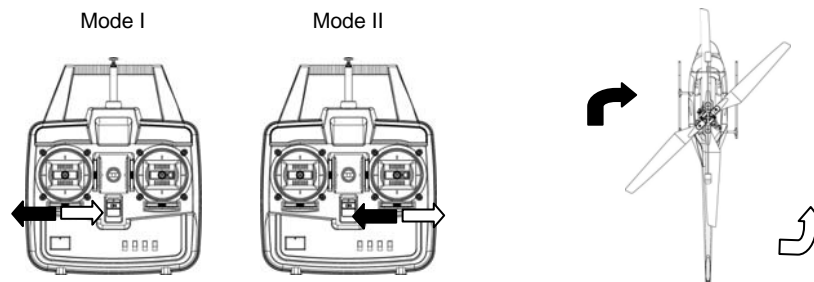
When the Helex moves right on its own, trim the aileron lever left..

When the Helex moves left on its own, trim the aileron lever right.



When the Helex turn right on its own, trim the rudder lever left..

When the Helex turns left on its own, trim the rudder lever right.



Flight Tips

To make it easier, always stand behind the helicopter, facing in the same direction. This will make it easier for you to understand the basics of flying a helicopter.

Avoid moving the control sticks too abruptly as sudden changes in direction or speed may cause the upper and lower blades to hit one another.

Hovering means maintaining the helicopter in a static position in mid air. Hovering is the most basic and important skill in flying helicopter and should be well practiced.

1. Gently push the throttle up until the skid pads are about to leave the floor.
2. Increase the throttle further to lift it off the ground.
3. Practice hovering around 50cm above the ground initially before flying it higher.
4. Reduce the throttle gently to land the helicopter.

Sudden increase or decrease of the throttle may cause crashes to the helicopter and is dangerous.

Once you've mastered the hovering, slowly tilt the other control sticks in the direction in which you want. Practice one operation at a time.

When you're familiar, you can increase the throttle further increase flying height. If the unit starts moving in any direction, use the trimmers to improve stability of the product.

Flight Troubleshooting

The main blades are the parts that take the most impact during flying. It is often that flying performance improves just by replacing the main blade. It is recommended that during blade replacements, both blades are to be balance adjusted to ensure smooth flying.

Helex does not move at all

1. Check if power is switched on at the transmitter and Helex.
2. Check that the battery levels on transmitter and Helex are sufficient.
3. Check that the radio frequency on transmitter is the same as that of Helex.
4. Check if the throttle is pushed to the top.

Helex flies unsteadily

1. Check that the battery levels on transmitter and Helex are sufficient.
2. Check that the antenna is fully extended for maximum range coverage.
3. Check that the main blades are not damaged.

Helex does not stop rotating

1. Check that the rudder has been trimmed correctly.
2. Check that the main blade is balanced.
3. Check if the motor is not damaged or worn.

Helex does not stop moving

1. Check that the unit is not being caught in winds
2. Check if the battery is properly aligned in the battery cage
3. Check to ensure trimming has been done

Helex vibrates strongly

1. Check that the main blades are able to move smoothly
2. Check that the main mast is not deformed.

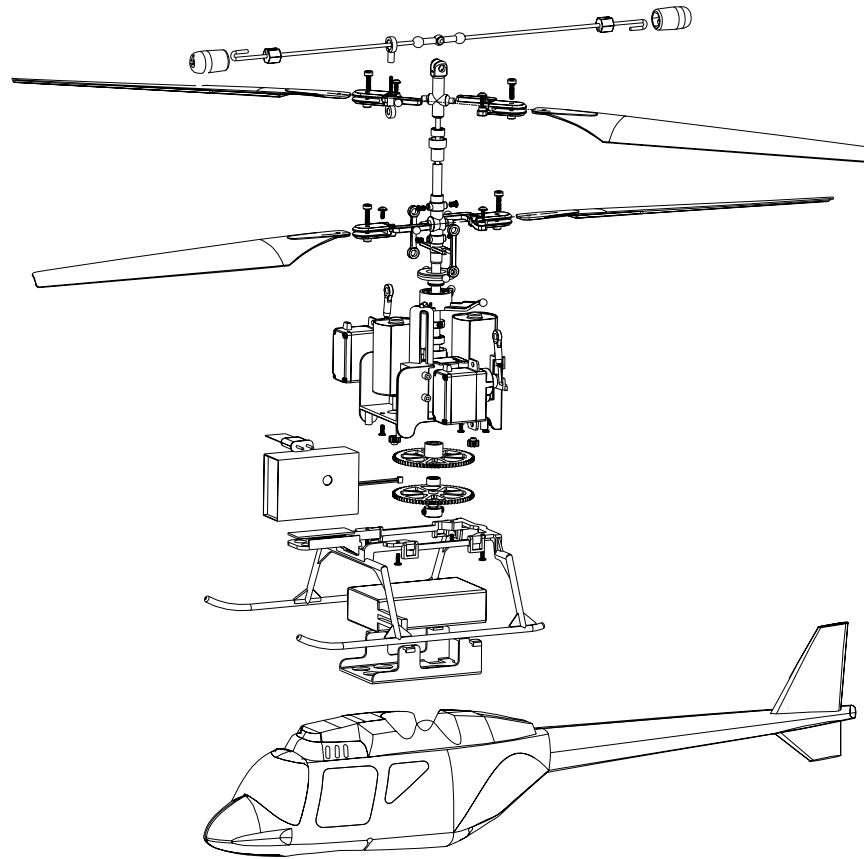
Sticker Label (Rescue Series)



Sticker Label (Sports Series)



Helix Exploded View



Warning:

Changes or modifications to this unit not expressly approved by the party responsible for compliance will void the user's authority to operate the equipment. Any change to the equipment will void FCC grant.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

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.

The equipment compliance with FCC radiation exposure limit set forth for uncontrolled environment



Head Office

AZTECH SYSTEMS LTD.
 31 Ubi Road 1, Aztech Building, S408694.
 Tel: (65) 6741 7211 Fax: (65) 6749 1198

Hong Kong Office

AZTECH SYSTEMS (H.K) LTD.
 Rooms 2-10, 3rd Floor, No.1 Science Park East Ave,
 Hong Kong Science Park, Pak Shek Kok, Shatin, New Territories, Hong Kong
 Tel: (852) 2757 1177 Fax: (852) 2753 0578

China Office

AZTECH COMMUNICATION DEVICE (DG) LTD.
 Jiu Jiang Shui Village, Chang Ping Town,
 Dong Guan City, Guang Dong Province, China.
 Tel: (86)(769) 8393-6688 Fax: (86) (769) 8393-1138

USA Office

AZTECH LABS, Inc.
 4005 Clipper Court, Fremont, CA 94538, U.S.A.
 Tel: (1)(510) 683-9800 Fax: (1)(510) 683-9803

Germany Office

AZTECH SYSTEMS GmbH.
 Kreuzberger Ring 21, 65205 Wiesbaden, Germany.
 Tel: (49)(0)(611) 9748-450 Fax: (49)(0)(611) 9748-455

Malaysia Office

AZ-TECHNOLOGY SDN BHD.
 105 & 106, Ground Floor, Block A, Kelana Business Centre, 97,
 Jalan SS7/2, Kelana Jaya, 47801 Petaling Jaya, Selangor, Malaysia.
 Tel: (60)(3) 7804-8450 Fax: (60)(3) 7804-8457



www.aztech.com/rc