

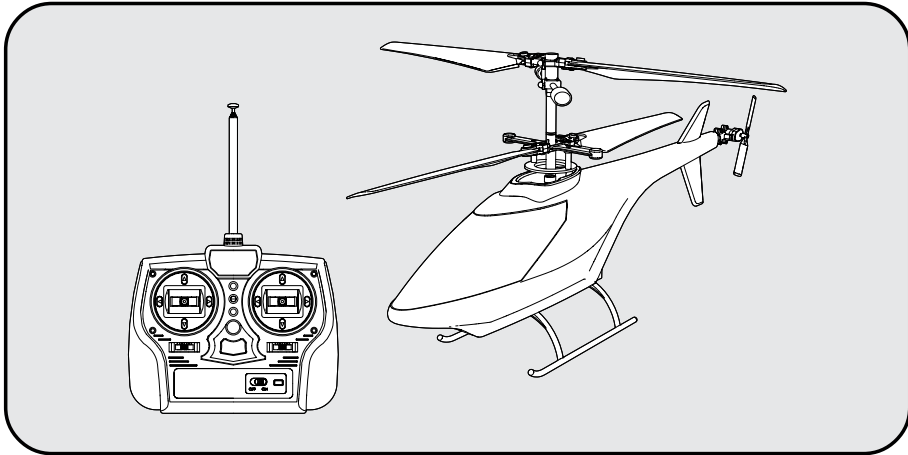
SPARC!

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Champaign, IL 61822
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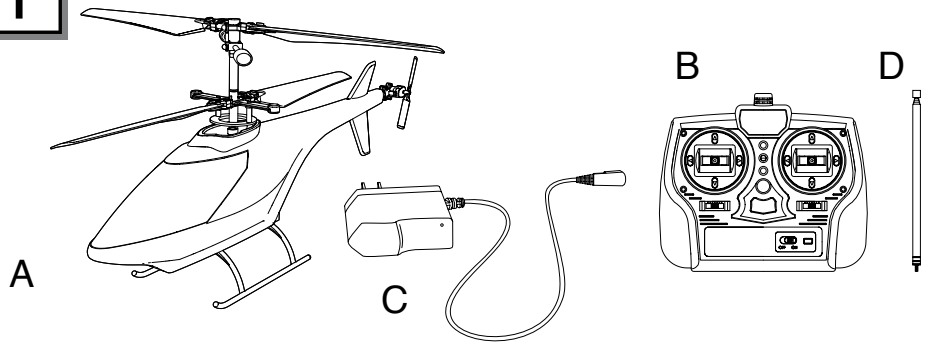
**Hoverflash logo to
go here. FPO**



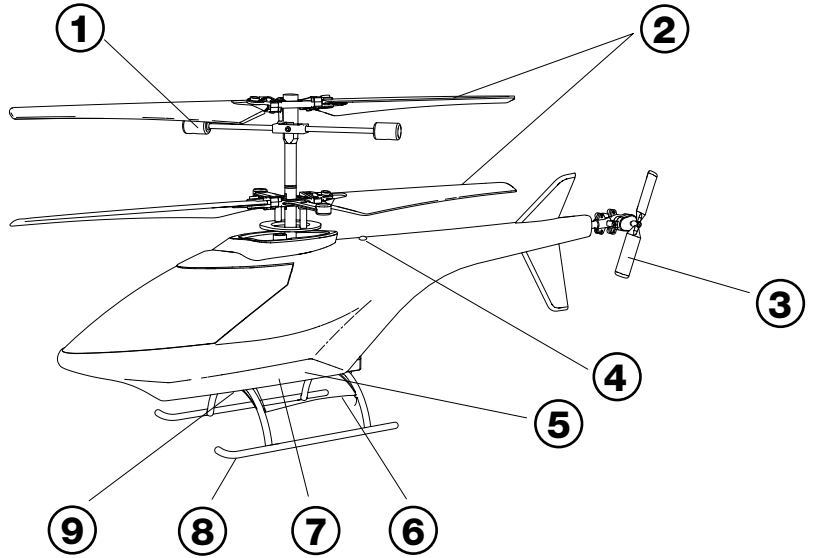
OWNER'S MANUAL

Keep these instructions for future reference as they contain important information.

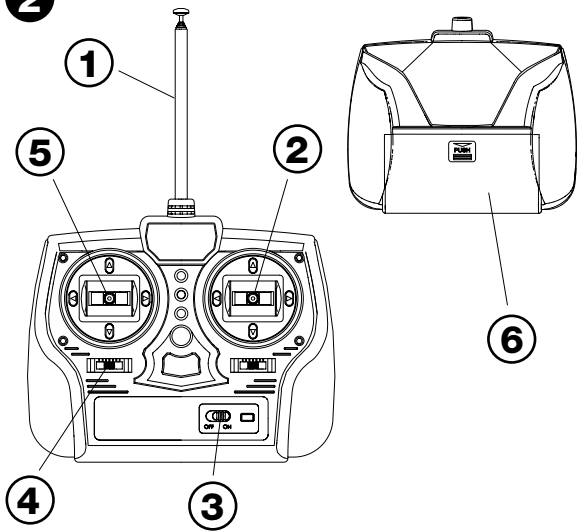
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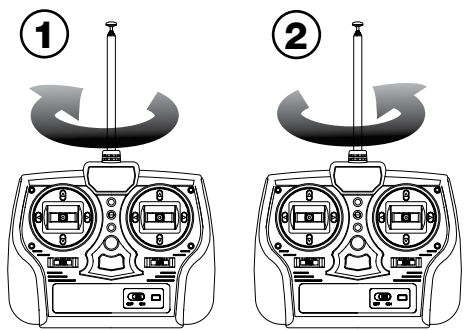


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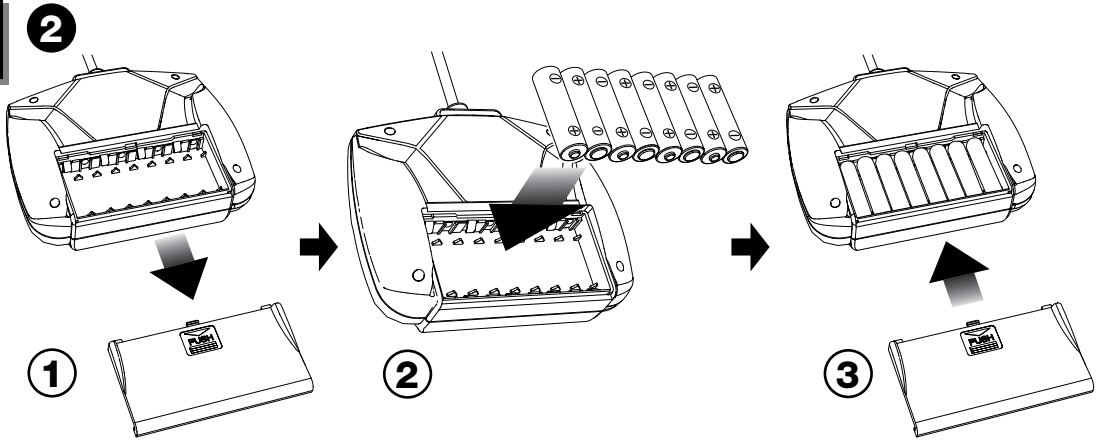


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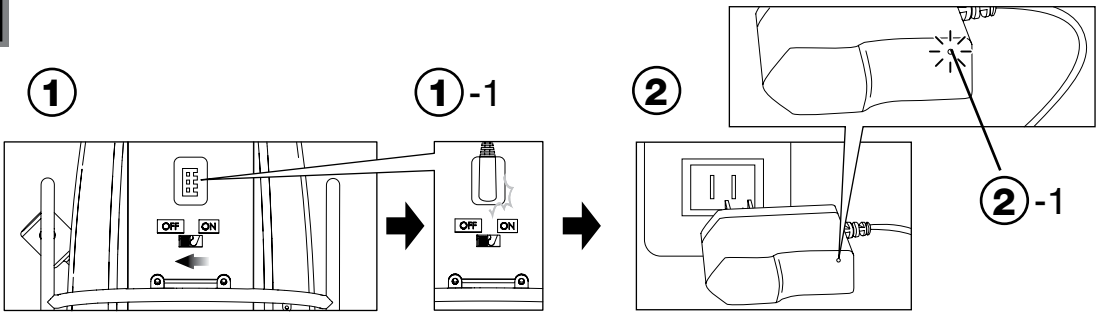
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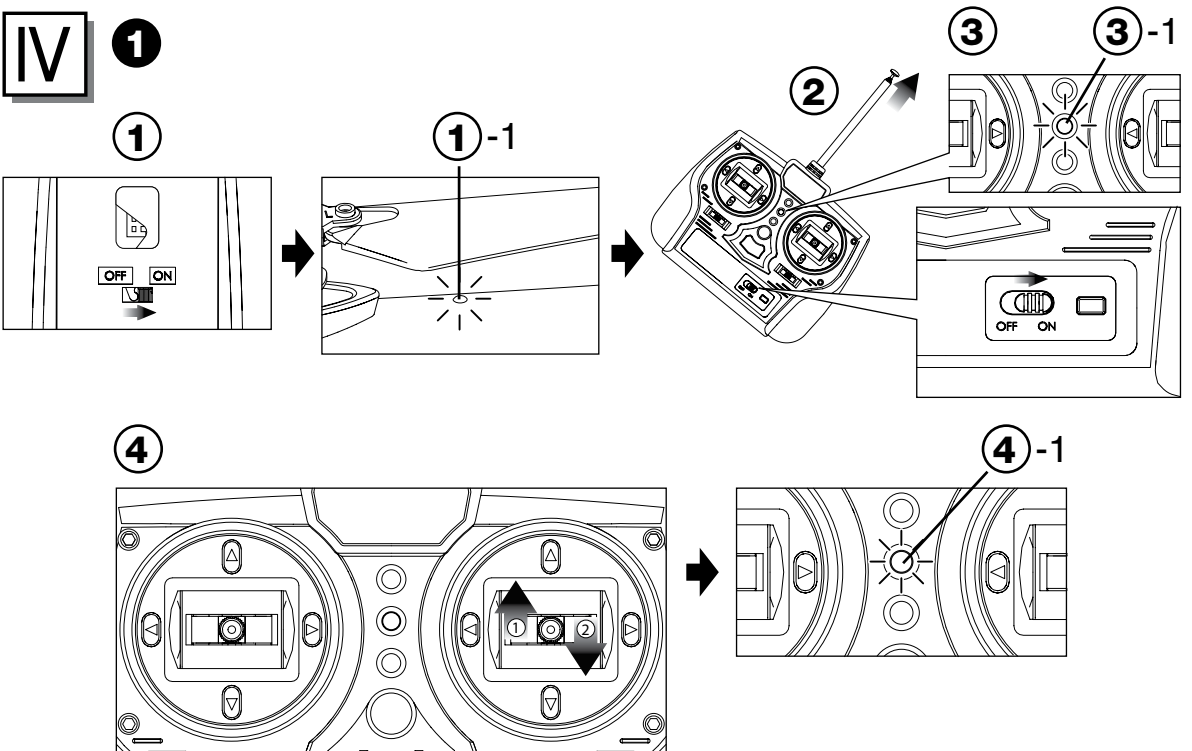
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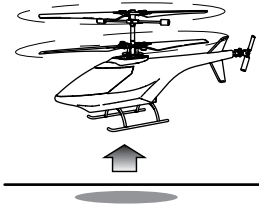
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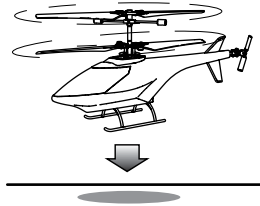
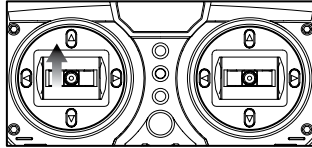
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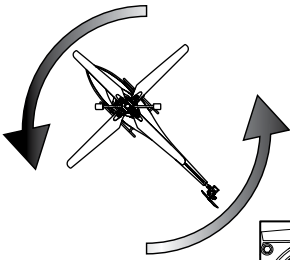
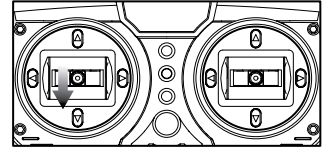
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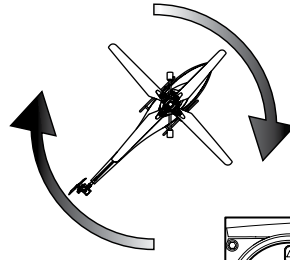
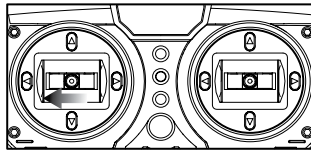
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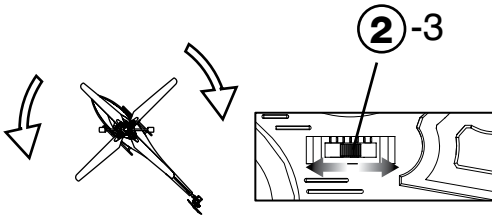
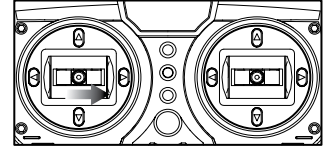
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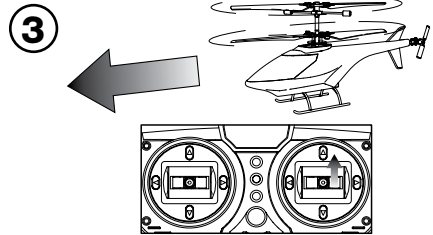
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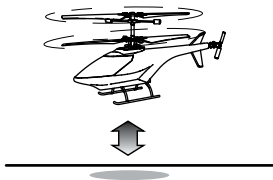
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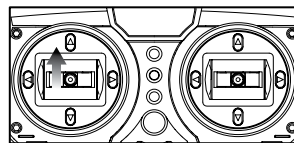
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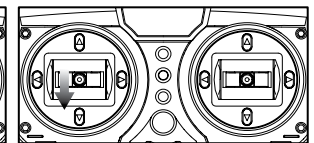
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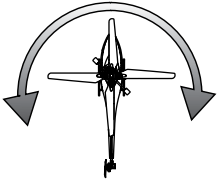
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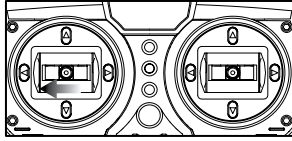
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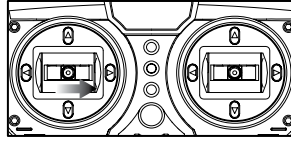
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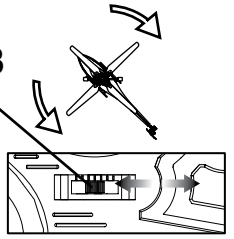
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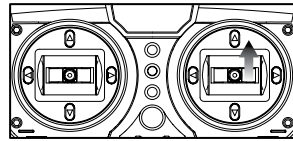
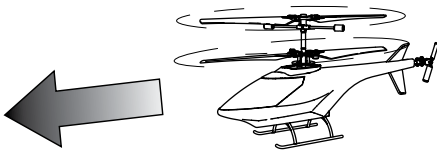
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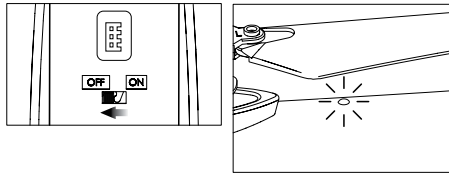
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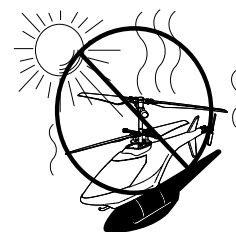
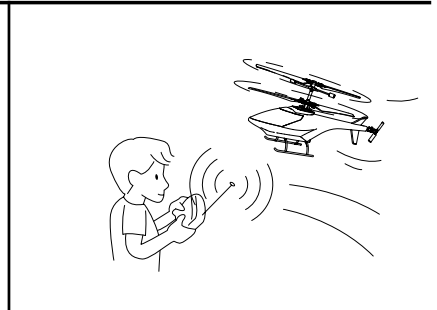
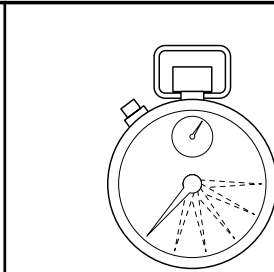
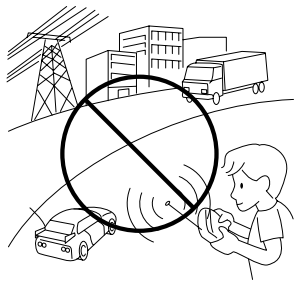
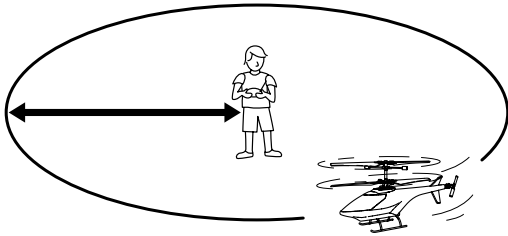
3



1



V



Precautions

Safety first

CAUTION: TO AVOID BATTERY LEAKAGE. (OF AA BATTERIES FOR TRANSMITTER)

- Use AA batteries for transmitter.
- Make sure the batteries are inserted with correct polarity and follow the toy and battery manufacturer's instructions.
- After use, remove the batteries from the transmitter to store.
- Do not attempt to short-circuit, charge, disassemble or heat batteries. Do not dispose of batteries in fire or get them wet.
- If battery fluid contacts your eyes, skin or clothes, immediately wash them with water and consult a doctor.
- Do not mix new and old batteries together in the transmitter.

Precautions Before Flight

Depending on flight condition or due to improper control, flying a helicopter can be hazardous resulting in unforeseen accidents such as bodily injury and property damage, and the helicopter operator shall be held responsible for such accident. To be a responsible operator, you are recommended to obtain adequate insurance before playing with the helicopter.

Compared with other R/C toys, the R/C helicopter is perceived as harder to control. Inexperienced operators can get skilled after training, though they may not successfully fly the helicopter at the beginning. So do not give up, and have more training.

CAUTIONS DURING PLAYING

- After use, store the helicopter in a place out of the reach of children 3 years old or younger.
- For avoiding hazards from improper use, this helicopter is not intended for children under 15 years old. Also, children are recommended to use this helicopter under adult's supervision.
- Make sure you have plenty of open space in all directions. Fly the helicopter in a safe area away from people, pets, etc.
- Do not throw the helicopter toward a person, otherwise an injury may occur.
- Do not store the helicopter in a place near a heater or like where temperature rises (e.g., a shut up car in summer).
- Do not fly the helicopter in windy days or when it thunders.
- Fly the helicopter away from roads, railways and power lines, and avoid crowded and narrow areas.

- If the helicopter gets stuck on a tree, building or power line, do not climb to retrieve it. Contact the owner or the power company in such a case.
- Do not bring your face or hands near the rotating rotor. For safety's sake, you are recommended to wear goggles.
- Do not use a helicopter if it is unrecoverably damaged or distorted.
- Keep supervision to the helicopter in flight.
- Do not touch charging terminals (i.e., the metal part) on the helicopter body and the charger.
- The helicopter is intended for outdoor use only.
- Do not point the transmitter antenna toward a person's or animal's head, otherwise an unforeseen accident may occur. Also, do not bend the antenna.
- Do not keep looking at the blinking LEDs on the transmitter and the helicopter body. Doing so may cause you to feel uncomfortable.
- Never attempt to disassemble or modify the helicopter.
- Do not bend or pull the components with a strong force.
- Do not operate the helicopter with the main rotor locked.
- Do not drop or impact.
- Do not give an impact to batteries and the charger during charging. Otherwise, the charging port may be damaged.
- When charging is complete, remove the charger connector from the charging port on the helicopter then unplug the charger from the wall outlet.
- Check if a near transmitter produces interference or signals with the same frequency. In such a case, move to another place or try after a while.

Precautions

Handling of LiPoly Batteries and Charger

This product contains high-performance Lithium Polymer batteries. The battery features large capacity and high voltage and has a lightweight design, which is best suitable for use in R/C helicopters. Because of the extremely large energy content, be sure to handle the battery with due care.

CAUTION: TO AVOID BATTERY LEAKAGE. (OF BUILT-IN LiPoly RECHARGEABLE BATTERIES)

- Charge batteries following the battery and charger manufacturer's instructions.
- Charge batteries with the included charger at the first use.

- Do not charge batteries with a charger other than the included one.
- Do not charge batteries other than the built-in LiPoly battery with the included charger or use the charger as the power source for other equipment.
- Do not charge batteries in a place within the reach of small children.
- Do not give an impact to batteries and the charger during charging
- Do not re-peak a LiPoly battery that has peaked, otherwise the battery may be degraded. LiPoly batteries have a low natural discharge rate, it does not require recharging in the first one or 2 hours after a charge.
- When charge is complete, unplug the charger from the wall outlet.
- After use, be sure to turn the switch off. Failure to do so may adversely affect batteries, resulting in disabled charge.
- Do not short circuit battery terminals, otherwise the battery may swell and get hot, leading to a danger.
- Do not wet batteries, heat, disassemble or modify them. Do not dispose of batteries in fire.
- Do not use, store or charge batteries in a place near a heater, or in high temperature or humidity condition.
- When the use out of batteries becomes shorter and shorter, it is most likely time to replace the battery. Contact our service representative in such a case.

Battery Disposal Instructions

The built-in LiPoly battery, when used under normal conditions, is capable of approx. 200 charge/discharge cycles. **THIS PRODUCT USES A LITHIUM POLYMER BATTERY. MUST BE RECYCLED OR DISPOSED PROPERLY.**

Contact your local area office of solid waste management or other appropriate local agency for information. Do not attempt to disassemble the battery before disposal.

Please check the headings I - V with the diagrams in pages 2, 3, 4, 5.

I. CONTENTS & FEATURES

This kit includes:

- A. Hoverflash x 1
- B. Transmitter x 1
- C. Charger x 1
- D. Transmitter antenna x 1

The product shown in the figure may slightly differ from the real ones.

1 Hoverflash

- ① Stabilizer
- ② Main Rotor

* The rotor has a play structure for safety, but not completely fixed. When the rotor starts rotating, the centrifugal force acts on the rotor allowing it to operate normally.

- ③ Tail rotor
- ④ LED lamp (on top)
- ⑤ Body
- ⑥ Antenna
- * Do not cut the antenna rods.
- ⑦ 7.4V LiPoly battery embedded
- ⑧ Skid
- ⑨ Charging port / Power switch (at the bottom)

2 Transmitter

Front

- ① Antenna
- ② Elevator Stick
- ③ Switch
- ④ Rudder trim
- ⑤ Throttle stick (left/right)

Rear

- ⑥ Battery Door

II. Installation

1 Transmitter Antenna Installation/ Uninstallation

- ① Antenna Installation

Turn the antenna clockwise to screw it in the transmitter body.

The antenna is screw-in type. Securely screw it in place, otherwise a malfunction may result from loose antenna connection.

- ② Antenna Uninstallation

Turn the antenna counterclockwise to remove it. When housing the antenna, retract it from the root rib for avoiding bending of the antenna rod.

3 Transmitter Battery Installation

Use eight AA batteries for the transmitter.

- ① Slide open the BATTERY DOOR in the direction shown in the figure.
- ② Insert the BATTERY with correct polarity (+/-). Insert AA BATTERIES with the polarity (+/-) as shown.

- ③ Replace BATTERY DOOR, following the removal procedure in reverse.

* When the capacity of the batteries becomes low, Power LED lamp changes from steady to blinking. You need to replace the batteries, otherwise a malfunction may occur due to shortened operating distance.

III. Built-in Battery Charging Instructions

A rechargeable battery is built into the helicopter body. Be sure to charge the battery before you use it. The built-in LiPoly battery, if not handled properly, may explode, cause burns or catch fire resulting in a serious accident.

Read "Handling of LiPoly Batteries and Charger" and handle the battery properly.

- ① Set the power switch of the helicopter to "OFF", insert the charger connector to the charging port on the helicopter then plug the charger to a standard wall outlet.
- ①-1 Charging port.
- ② LED lamp on charger will light to show charger is operating.
- ②-1 LED lamp
- ③ When charge is complete, the LED lamp goes off. Remove the charger connector from the charging port on the helicopter then unplug the charger from the wall outlet.

* Battery charging time varies with battery level. As a guide, it takes approx. 1 hour when the battery is near empty, or 30 minutes if half-empty.

Important:

- To prevent overcharge of batteries, observe the following instructions: Do not re-peak a LiPoly battery that has peaked. The battery, if not used to fly the helicopter, does not require recharging in the first one or 2 hours after a charge.

IV. How to Fly

1 Preparation for Flight

- ① Turn on the switch on the helicopter body, then the LED lamp starts blinking. When the LED lamp changes to steady, the helicopter becomes ready for flight.
- ①-1 LED lamp
- ② Completely extend the transmitter antenna.
- ③ Turn on the switch on the transmitter. Then, the LED lamp starts blinking.
- ③-1 LED lamp (blinking)
- ④ Move the throttle stick to the top position then to the bottom. The transmitter gets ready when the LED lamp changes from blinking to steady. (This procedure aims to prevent misoperations.)
- ④-1 LED lamp (steadily lighting)
- ⑤ Stay at least 4 or 5 m (10-15 ft) away from the helicopter before flying it.
- ⑥ Check safety of environment around you. Now you are ready if no obstacles exist.

2 Transmitter Functions

- ① Throttle stick (left) (UP/DOWN)
Moving the throttle stick up allows the helicopter to ascend, and moving the stick back makes the helicopter descend.
- ①-1 Up
- ①-2 Down
- ② Rudder stick (left) (Left / Right)
Moving the rudder stick left allows the helicopter to turn left, and moving the stick right makes the helicopter turn right.
- ②-1 Left turn
- ②-2 Right turn
- ②-3 Rudder trim
- * If the helicopter rotates, adjust the rudder trim to stop the rotating.
- * Move the rudder trim right if the helicopter rotates rightward, and move the rudder trim left if the helicopter rotates leftward.
- ③ Elevator stick (right)
Moving the elevator stick up allows the helicopter to fly forward.

3 Fly the Helicopter

Flying an R/C helicopter in air requires a number of operations to be carried out concurrently. Get the feeling through training so that your fingers naturally move. Though learning all at once is a tough job, you may find it easy to learn one by one. You can get skilled after training though you may not successfully fly the helicopter at the beginning.

- ① Slowly move the throttle stick (left) up to make the helicopter take off. When the helicopter is slightly floating, slowly move the stick back to make it land. Gradually increase the height as you get accustomed to the controls, and fine adjust the stick up and down to get the feeling of hovering.
 - * To move the helicopter down, move the throttle stick back more slowly than when moving the helicopter up.
 - * The throttle stick is moved in small increment of a few millimeters. For this operation, proper training is required.
- As a feature of a contra-rotating rotor helicopter, hovering can be achieved rather easily.
- ①-1 Up
 - ①-2 Down
- ② When the helicopter reaches hovering, make it rotate at its position. Move the rudder stick (left) of the transmitter left or right to change the direction of the helicopter.
 - * If the helicopter rotates by itself, adjust the rudder trim to stop the rotating.
 - ②-1 Left turn
 - ②-2 Right turn
 - ②-3 Rudder trim
 - ③ When you get accustomed to the control of hovering and rotating, move the forward stick (right) on the transmitter up to fly the helicopter forward. The helicopter keeps flying forward while the stick is moved up and held in position. To stop it, move the stick back.
 - * The helicopter cannot smoothly fly forward while it is rotating. Stop the rotating before flying the helicopter forward.

If you get the feeling through steps 1 to 3, try to conduct two operations at the same time. After that, you can freely fly the helicopter by conducting any combinations of operations.

Important:

When the helicopter crashes, immediately move the throttle stick (left) back, otherwise a damage may result from the idling of the main motor.

⚡ After use

Turn off the switch on the helicopter then turn off the transmitter. Be sure to retract the transmitter antenna.

Important:

- This helicopter is equipped with a feature for monitoring the battery level of the builtin battery. The LED lamp blinks if the battery level becomes low.

Turn off the switch when the LED lamp starts blinking. Failure to do so may adversely affect batteries, resulting in disabled charge.

V. Flight Location and Condition

Flight Location

First you have to find a suitable location for flight.

Check that there are no obstacles around the flight location before flying the helicopter.

Fly the helicopter in a safe area away from roads, other persons and animals, trees, buildings, overhead power lines and other obstacles.

Check that there are no such obstacles in the surroundings before flying the helicopter.

Flight Condition

Fly the helicopter in warm days, since it may suffer degradation in flight performance in a low-temperature condition. Avoid locations exposed to wind, otherwise the helicopter may become uncontrollable. Be sure to fly the helicopter in calm condition. Do not fly the helicopter in bad weather with heavy thunderstorm, rain, sleet, snow and the like.

Important:

- Check if a near transmitter produces interference or signals with the same frequency.
- Keep supervision to the helicopter in flight.
- Children are recommended to play under adult supervision.
- * The helicopter is intended for outdoor use only.

VI. Maintenance

Care and Service

- The life of the helicopter can be extended by daily care. Wipe the helicopter clean if dust or the like builds up and check if any loose part.
- The helicopter body is made of polystyrene foam. If damaged, use scotch tape or suitable adhesives to repair.
- * Never use instant glue which will make the polystyrene foam dissolve.
- The helicopter may lose balance if broken and will not fly correctly.

Replacement Parts

SPJ1001	Skid Set: Hoverflash	\$ 3.99
SPJ1002	Rotor Blad Set: Hoverflash	\$7.99
SPJ1003	Body Set: Hoverflash	\$9.99
SPJ1004	Tx Antenna: Hoverflash	\$5.99
SPJ1005	Tx Battery Cover: Hoverflash	\$3.99

Ellen placed this guide from the vehicle manual. Do we need it? Orig. one didn't have it.

TROUBLESHOOTING GUIDE

Checking Points When Helicopter Strangely Operates

- Make sure the power is on.
- Make sure the main battery and the transmitter battery have sufficient charge.
- Check if the main battery and the transmitter battery are inserted with correct polarity.
- Check if the antenna of the transmitter is broken.
- Check if the distance between the transmitter and the helicopter exceeds 20m.
- Check if a near transmitter produces interference or signals with the same frequency. In such a case, move to another place or try after a while.

WARRANTY

Warranty Period

Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warranties that the Products purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase by the Purchaser.

Limited Warranty

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for warranty claims. Further, Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

(b) Limitations HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

(c) Purchaser Remedy Horizon's sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be defective. In the event of a defect, these are the Purchaser's exclusive remedies. Horizon reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than Horizon. Return of any goods by Purchaser must be approved in writing by Horizon before shipment.

Damage Limits

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.

If you as the Purchaser or user are not prepared to accept the liability associated with the use of this Product, you are advised to return this Product immediately in new and unused condition to the place of purchase.

Law

These Terms are governed by Illinois law (without regard to conflict of law principals).

Safety Precautions

This is a sophisticated toy product and 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. The Product 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 operate correctly and avoid damage or injury.

Questions, Assistance, and Repairs

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to productsupport@horizonhobby.com, or call 877.504.0233 toll free to speak to a service technician.

Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon Hobby.

Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. A Service Repair Request is available at www.horizonhobby.com on the "Support" tab. If you do not have internet access, please include a letter with your complete name, street address, email address and phone number where you can be reached during business days, your RMA number, a list of the included items, method of payment for any non-warranty expenses and a brief summary of the problem. Your original sales receipt must also be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

All other Products requiring warranty inspection or repair should be shipped to the following address:

Horizon Product Support
4105 Fieldstone Road
Champaign, Illinois 61822

Please call 877-504-0233 with any questions or concerns regarding this product or warranty.

FCC STATEMENT

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.

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