

Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

23g

REMOTE CONTROL HELICOPTER



59809

Visit our website at: <http://www.harborfreight.com>
Email our technical support at: productsupport@harborfreight.com

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

⚠ WARNING

Read this material before using this product. Failure to do so can result in serious injury. **SAVE THIS MANUAL.**

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

Important Safety Information

- 1. Do not allow children younger than age 8 to use this Helicopter.** Children should not operate without adult supervision.
- 2. Keep out of reach of children younger than 8.** Contains small parts that may present a choking hazard.
3. Only fly outdoors during daylight hours in an area with no obstructions, power lines, vehicles, animals or people nearby.
- 4. Do not fly in temperatures above 113° F or below 50° F. Do not fly in wet or windy conditions.**
- 5. Keep spectators and pets away.** Spectators should only watch from a safe distance.
- 6. Position remote control batteries in proper polarity.** Do not install batteries of different types, charge levels, or capacities together in remote control.
- 7. Do not mix old and new batteries. Do not mix alkaline, standard (carbon-zinc), or rechargeable (nickel-cadmium) batteries. Do not use swollen or leaking batteries.**
- 8. Do not open the Helicopter's housing or modify its design.** Doing so may cause damage and/or make it dangerous.
- 9. Do not use if parts are loose or damaged.** If the toy has been damaged, immediately stop using it.
10. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
11. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.
12. Maintain product labels and nameplates. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

Lithium Battery Charging Safety

1. Do not leave Helicopter unattended while charging.
2. Battery charging should be done by adults only.
3. Use the supplied USB Cable only.
4. Charge on non-flammable surface and keep away from flammable items.
5. Disconnect USB Cable from outlets while not in use.
6. If battery-powered device has been damaged, immediately stop use, unplug, and safely move away from flammable materials.
7. Follow instructions for charging battery. **DO NOT** charge longer than recommended.
8. Allow a clearance of at least 4" on all sides during charging.

Personal Safety

1. **Operator and spectators must wear ANSI-approved safety goggles during use.**
2. Do not wear loose clothing or jewelry. Keep hair and clothing, and away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
3. Do not use the Helicopter while tired or under the influence of drugs, alcohol, or medications. A moment of interruption can result in serious personal injury.

Specifications

Remote Control Battery Type	4-AA (sold separately)
Helicopter Battery Type	3.7V / 150 mAh rechargeable Li-ion battery
Battery Charging Time	Approximately 30 minutes
Flying Time	Approximately 7.5 minutes
Cool Down Time Between Charges	30 minutes
Remote Control Range	25 meters

Set Up



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this document including all text under subheadings therein before set up or use.

WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:
Switch the Helicopter and Remote Control OFF before performing any procedure in this section.

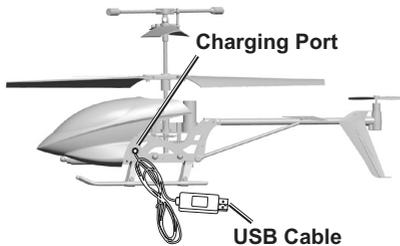
Charging Helicopter

CAUTION! Do not leave Helicopter unattended while charging. Battery charging should be done by adults only. **DO NOT** charge longer than 30 minutes.

1. Turn off Remote Control.
2. Turn off Helicopter.
3. Insert USB Cable into port of a proper USB power source.
4. Plug USB Cable into Helicopter Charging Port.
5. When charging is complete, disconnect USB Cable from Helicopter.
6. Unplug USB Cable from power source.
7. Store away USB Cable.

Note: LED off when charging.
LED on when fully charged.

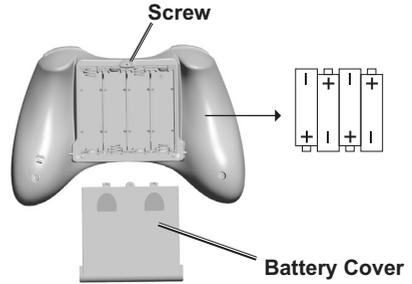
CAUTION! Allow Helicopter Battery to cool down for 30 minutes between charges.



Remote Control

CAUTION! Do not mix old and new batteries. Do not mix alkaline, standard (carbon-zinc), or rechargeable (nickel-cadmium) batteries. Position batteries in proper polarity. Do not use swollen or leaking batteries.

1. Remove Screw from Battery Cover.
2. Remove Battery Cover.
3. Insert four AA batteries (sold separately) into battery compartment following indicated polarity.
4. Replace Battery Cover.
5. Replace Screw.

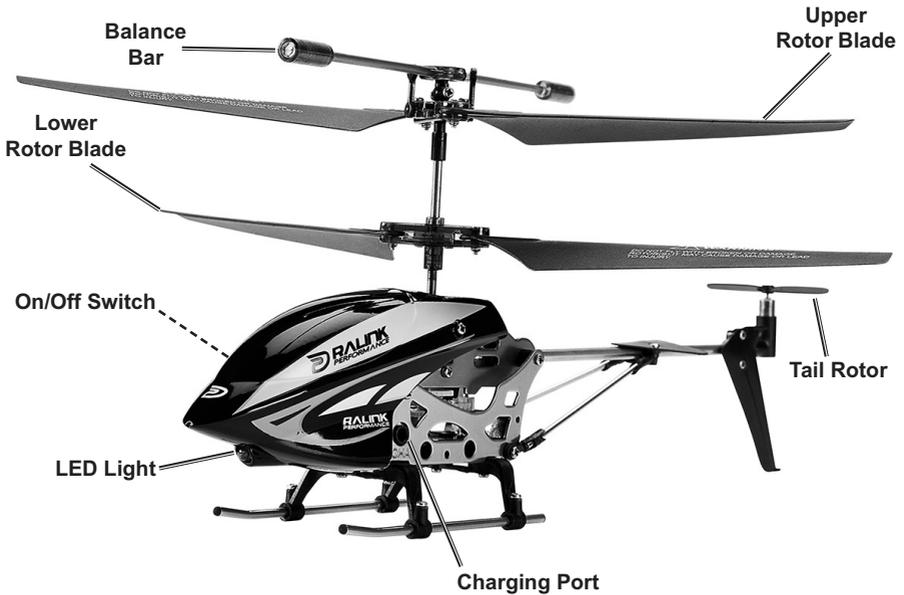


Components and Controls

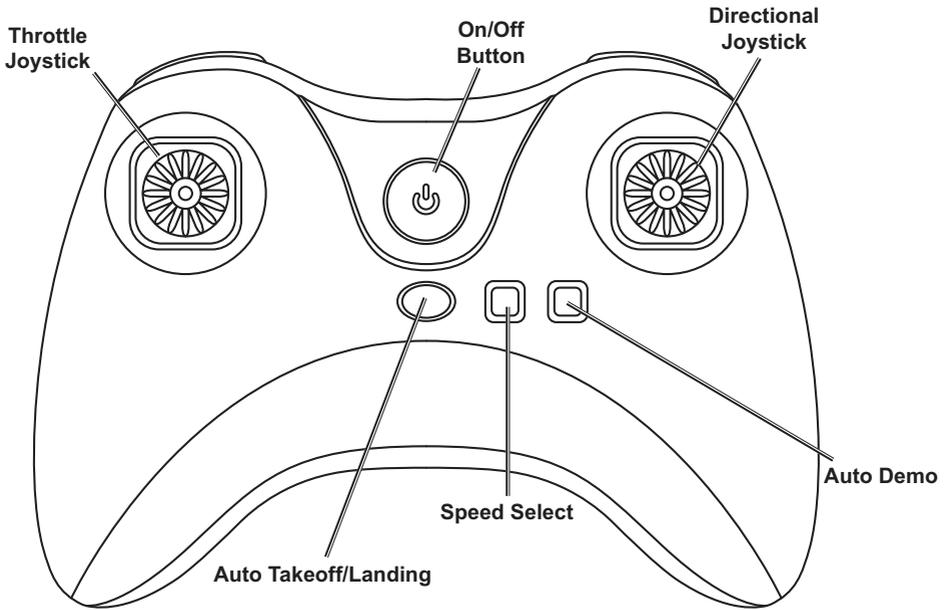


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Components



Controls



FUNCTIONS	
On/Off Button	Power Controller on/off.
UP	Throttle Joystick Up
DOWN	Throttle Joystick Down
FORWARD	Directional Joystick Up
BACKWARD	Directional Joystick Down
LEFT	Directional Joystick Left
RIGHT	Directional Joystick Right
Auto Takeoff/Landing	Press for Helicopter to automatically take flight. During flight, press for Helicopter to automatically land.
Speed Select	Press to select between Low and High speed.
Auto Demo	Note: Please use this function in an open and barrier free space. Helicopter will automatically fly forward, backward, turn right to make a circle, then left to make a circle. To exit demo, press Auto Demo button again or move Directional Joystick.

Operating Instructions



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this document including all text under subheadings therein before set up or use of this product.

⚠️WARNING

TO PREVENT SERIOUS INJURY:

Operator and spectators must wear ANSI-approved safety goggles during use. Keep Helicopter within 25 meters of Remote Control. If Helicopter goes out of range, it will stop working and fall.

Pairing

1. Turn Helicopter On/Off Switch to ON, LED's will flash.
2. Place Helicopter on a level surface.
3. Press Remote Control On/Off button to power on, Controller will beep once and power indicator light will flash.
4. Point Remote Control at Helicopter and push Throttle all the way up, controller will beep once.
5. With Remote Control pointed at Helicopter, push Throttle all the way down, controller will beep once.
6. Successfully paired when Helicopter LED light and Remote Control power light are both red.

Checking Trim

WARNING! To prevent serious injury, avoid sudden movements of controls while flying.

CAUTION! Only fly outdoors during daylight hours in an area with no obstructions, power lines, vehicles, animals or people nearby.

Note: Helicopter should stay in one place without excessive rotation during flight.

1. Using a light touch, slowly push Throttle Joystick up until Helicopter is at a hover.
2. If Helicopter rotates to left or right without Directional Joystick input, perform Auto Trim Function:
 - a. Place Helicopter on a level surface.
 - b. Push Throttle Joystick all the way down and Directional Joystick all the way down and to the left at a 45° angle, hold until Helicopter LED lights flash.
 - c. Release Throttle Joystick and Directional Joystick. Helicopter LED lights will stop flashing and remain steady when auto trim is complete.



Flight

WARNING! To prevent serious injury, avoid sudden movements of controls while flying.

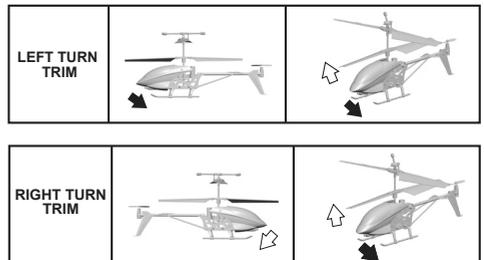
CAUTION! Only fly outdoors during daylight hours in an area with no obstructions, power lines, vehicles, animals or people nearby.

Note: Rotor speed set to slow by default.

1. Press Speed Select Button to select desired Rotor speed. One beep indicates slow speed, two beeps indicates high speed.
2. **Taking Flight:** Slowly push Throttle up until Helicopter rises off surface. Or press Auto Takeoff/Landing Button.
3. **Hovering:** Keep Helicopter at a hover in these four positions:
 - a. Tail facing you.
 - b. Left side facing you.
 - c. Nose facing you.
 - d. Right side facing you.
4. **Forward/Backward:** Move Helicopter forward and backward in these four positions by pushing Directional Joystick up and down:
 - a. Tail facing you.
 - b. Left side facing you.
 - c. Nose facing you.
 - d. Right side facing you.
5. **Left/Right:** Rotate Helicopter clockwise and counterclockwise in these four positions by pushing Directional Joystick left and right:
 - a. Tail facing you.
 - b. Left side facing you.
 - c. Nose facing you.
 - d. Right side facing you.
6. **Landing:** Slowly push Throttle down until Helicopter almost touches surface. Ease off Throttle slightly to avoid bouncing, then lower Helicopter all the way to surface. Or press Auto Takeoff/Landing Button.

Fine Tuning Trim

1. Using a light touch, slowly push Throttle up until Helicopter is at a hover.
2. Click Directional Joystick button and hold while pushing Directional Joystick left or right until the helicopter hovers steadily.



Inspection and Maintenance



Procedures not specifically explained in this manual must be performed only by a qualified technician.

WARNING

TO PREVENT SERIOUS INJURY FROM ELECTRICAL SHOCK:
Make sure that the Helicopter and Remote Control are OFF before performing any procedure in this section.

Inspection

- BEFORE EACH USE**, inspect general condition of Helicopter. Check for:
 - stripped gears,
 - bent main rotor shaft,
 - cracked or broken rotors, and
 - any other condition that may affect its safe operation.

Cleaning and Storage

- AFTER USE**, use a mild detergent on a clean cloth to remove any dirt from Helicopter.
- Remove batteries from Remote Control, then store Helicopter, and accessories in a dry area away from direct sunlight and out of the reach of children.
- Li-ion BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY.**
Do not short, incinerate or open battery.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Helicopter won't work or moves slowly.	<ol style="list-style-type: none"> 1. Helicopter battery needs to be charged. 2. Remote Control needs new batteries. 3. Radio Interference. 	<ol style="list-style-type: none"> 1. Charge Helicopter battery. 2. Replace Remote Control batteries. 3. Move to another location.
Helicopter rotates left or right.	<ol style="list-style-type: none"> 1. Trim needs adjustment. 2. Potentiometer needs adjustment 	<ol style="list-style-type: none"> 1. Perform Auto Trim Function 2. Have qualified technician adjust potentiometer.
Cannot control Helicopter.	<ol style="list-style-type: none"> 1. Wind too strong. 2. Helicopter out of range. 3. Main Rotors installed incorrectly. 4. Tail Rotor installed incorrectly 	<ol style="list-style-type: none"> 1. Wait for wind to stop. 2. Only operate within range. 3. Install Main Rotors correctly. 4. Install Tail Rotor correctly.



Follow all safety precautions whenever diagnosing or servicing the Helicopter.
Turn off Switches on Helicopter and Remote Control before service.

Parts List

Part	Description	Qty
1	Helicopter	1
2	Remote Control	1
3	Upper Rotor	1
4	Lower Rotor	1
5	Tail Rotor	1
6	USB Charging Cable	1

Record Serial Number Here:

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175486608 when ordering parts.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST IN THIS DOCUMENT AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.