# PR&PEL

## PR&PEL

AIR COMBAT Laser Battling Motion Control Helicopter

## **USER MANUAL**

WARNING: Never leave product charging unattended for extended periods of time. Always disconnect helicopter from charger immediately after the helicopter is fully charged. Please refer to enclosed safety instructions.

#### THIS PACKAGE CONTAINS:







Instruction Manual

**WARNING!** CHOKING HAZARD - Small parts. Not suitable for children under 3 years.

Conforms to safety requirements of ASTM, CPSIA and FCC. PROPEL RC<sup>™</sup> and AIR COMBAT<sup>™</sup> are trademarks of Rooftop Brands. 15760 W Hardy Rd Suite 400 Houston Texas 77060 tel: 949.566.9573 © 2013 Rooftop Brands™. All Rights Reserved. www.propelrc.com . Made in China

Colors and styles may slightly vary.

E

11

## TABLE OF CONTENTS

Features	1
Remote Battery Installation	2
Charging the Helicopter	2
Helicopter diagram, Remote Control diagram	. 3
Preparing for Flight	4
How to Sync your Helicopter	. 4
Demonstration Mode	4
Flying Tips	4
Understanding Helicopter Trim Adjustments	5
Basic Flight Controls	5
Interactive Battle Modes	6
Helicopter Warning And Safety Precautions	6
Part Replacement Instructions	7
Contents	7
Air Combat Propeller System	7
Replacing the Upper Propeller Blade	8
Replacing the Bottom Propeller Blade	8
Battery Warnings	9
Care and Maintenance	9
FCC Information	9

Thank you for purchasing the AIR COMBAT™ Laser Battling Motion Control Helicopter. Please read this instruction booklet carefully as it contains valuable information on how to properly fly and care for your helicopter.

## FEATURES

· Advanced technology gives you more real-flight maneuvers and battle action

Using infrared laser technology, the copter "shoots" other Combat Copters

• Side counter lights illuminate with each "hit" as the copter performs a spin

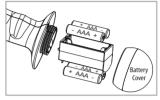
After a third"strike," the defeated copter slowly spirals to a landing and inactivates the remote control-game over
 Makes its own shooting sounds

Remote-controlled copters have their own frequencies to avoid interference

Built-in gyroscopic chip gives it ultra-stable flight

#### REMOTE CONTROL BATTERY INSTALLATION

1. Twist off the battery cover from the remote control. 2. Install 4"AAA" alkaline batteries as shown in the diagram. 3. Replace the battery cover.

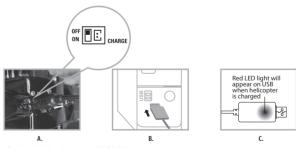


Battery Compartment (4"AAA" batteries)

### CHARGING THE HELICOPTER

 Make sure the helicopter's power switch is in the "OFF" position and plug the USB charging cord into the charging socket(see diagram A). Note: Do not force press the charging head into helicopter charging socket.

- Connect the helicopter charging cord to your computer's USB port (see diagram B).
- A red LED Light near the opter's USB port means the helicopter is fully charged. If the red LED light isn't on, that means the helicopter is still being charged, isee diagram C).
- 4. The charging time will vary depending on the amount of charge already stored in your battery. The average charging time for the battery is approximately 45-60 minutes.

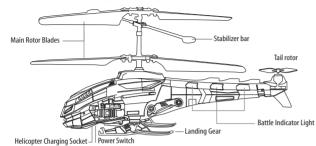


Charging socket is located on the underside of the helicopter next to the power switch. Charging cord connects as indicated. Indicator light on charger stays on until charging is complete.

IMPORTANT: ALWAYS DISCONNECT CHARGER CORD AFTER CHARGING. NEVER LEAVE CHARGER CONNECTED TO HELICOPTER OVERNIGHT OR FOR EXTENDED PERIODS OF TIME.

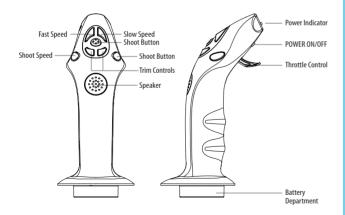
## HELICOPTER DIAGRAM

Below is a basic list of features and parts on the helicopter.



#### REMOTE CONTROL DIAGRAM

Below is a basic list of features on the infrared wireless remote control.



NOTE: The motion controller come with 2 shape battery department cover, the flat one is for advanced pilot for one hand flying, the half ball cover is for beginner pilot in order to use two hands and feel more stable playing.

#### PREPARING FOR FLIGHT

- Verify that there are 4"AAA" batteries inside the remote control unit and the helicopter has been fully charged.
- Make sure your helicopter is turned on and properly synced to your controller. (See "SYNC YOUR HELICOPTER" below)
- Make sure to be in a large room with an open radius of at least 25 feet. Close all windows and doors, turn off fans and close air ducts or any other openings that may cause drafts in the room.
- Make sure the room has no obstacles and the highest ceiling possible. DO NOT ATTEMPT TO FLY YOUR HELICOPTER OUTDOORS. Set your helicopter on a clean flat surface before take-off.

## SYNCING YOUR HELICOPTER

Your Air Combat™ utilizes an automatic 2.4G channel selection system that allows up to 8 people to fly side by side in the same wireless range.

For One Person Play:

- 1. Before starting make sure that the power on both your controller and helicopter are in the OFF position. Make sure that there are no other 2.4G devices in the area as well.
- 2. Turn ON the helicopter and set it down on a flat surface. The 2 LED indicators on each side of the body should blink in Red.
- 3. Turn ON your controller. The 2 LED indicators on each side of the body should now blink in a Red and Blue alternating fashion. This indicates that your product has been successfully synced. Should this not happen, repeat all steps again.

#### For Multi Person Play:

4. Before starting, make sure that the power on all Helicopters and Controllers are in the OFF position. Make sure that there are no other 2.4G devices in the area as well.

5. Each person will have to sync their helicopter individually at a different time to avoid interference. Follow steps 1 to 3 above making sure to keep away from other people while also making sure that no one else is syncing at the same time.

6. After syncing a players helicopter, it should be left 0N until all players have synced their helicopters. 7. Should there be a mistake/interference, all players must turn off their controllers and helicopters and start the process all over again.

Before Syncing, your Throttle should always be set to ZERO (All the way down). However, to prevent damage and injury, your helicopter has been fitted with a Safety Mechanism. After syncing your helicopter, a RED indicator light will flash on your controller in a slow pattern. Push the Throttle all the way up and the RED indicator light flashes faster. Pull back the Throttle all the way down and the RED indicator light with turn to a Solid Red. This indicates that you are ready to fly.

#### FLYING TIPS

- Operate the helicopter in a wide, indoor space. You should allow at least a 25-foot radius. The helicopter is designed for INDOOR USE ONLY.
- · Parental guidance or adult supervision is suggested at all times.
- If you are flying the helicopter with others, make sure all spectators are behind you.
- For best performance, it is recommended that you operate the helicopter in zero wind conditions. Close all open doors
  or windows, and turn off any nearby fans. Wind can greatly affect the performance of the helicopter.

#### UNDERSTANDING HELICOPTER TRIM ADJUSTMENTS

If your helicopter's nose rotates to the left or right uncontrollably, you may need to utilize the TRIM buttons. If your helicopter over-rotates CLOCKWISE (to the right), push and release the LEFT trim button repeatedly until the turning stops and proper flight is maintained. If your helicopter over-rotates COUNTER-CLOCKWISE (to the left), push and release the RIGHT trim button in the same manner until the problem is resolved. From time to time you may have to adjust the left and right trim to ensure the helicopter will fly straight and respond accurately to control commands.





Trim Controls

L R Push left trim.

## FLIGHT AND CONTROLS

Below is a list of basic flight functions for your Air Combat<sup>™</sup> wireless remote-control helicopter. While you're learning to fly your helicopter, it is best to start with a large room until you get used to the basic controls.



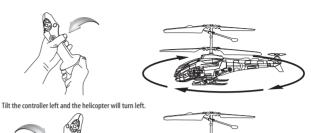
Pull the trigger back or release to increase or decrease the speed of the main rotor and the helicopter will rise up or descend.



Tilt the controller down and the helicopter will move forward.



Tilt the controller up and the helicopter will move backward.





Tilt the controller right and the helicopter will turn right.

## INTERACTIVE BATTLE MODES

Get ready for aerial combat missions with your friends-or"enemies"\_(Requires additional Air Combats helicopter.) PREPARATION FOR MISSION:

1. Make sure both helicopters are fully charged and ready to fly.

2. Sync your helicopter remote to separate?

READY, AIM, FIRE!

- 1. While your helicopter's in flight, aim the front of your helicopter towards the cockpit of your opponent's helicopter, and press the SHOOT button on your controller.
- If you score a hit, your enemy's helicopter will blink its lights and spin once. A slow-flashing red light in the window of the cockpit indicates that it has been hit once. A faster-blinking light indicates it has been hit twice.
- 3. On the third direct hit, your opponent's helicopter windows will light up in solid red, and control of their copter will be lost. The copter will gradually descend safely to the ground. Mission accomplished!

4. The downed helicopter will recover (and reset) after a few moments, and will be ready for the next dogfight.

## HELICOPTER WARNING AND SAFETY PRECAUTIONS

The helicopter blades revolve at high speeds and can cause damage to the user, spectators and animals. Stand away from the helicopter to reduce the risk of getting into the flight path. Warn spectators that you will be flying your helicopter so that they are aware of its position. Before flight, inspect the rotor blades to make certain that the blades are securely fastened to the helicopter.

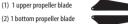
#### WARNINGS

- · Choking/Cutting Hazard. Small Parts/Sharp Rotor Blades.
- Keep hands, hair and loose clothing away from the propeller when the power switch is turned to the ON position.
  - Turn off the transmitter and helicopter power switches when not in use.
  - The remote control charger is built specifically for the helicopter's Li-poly battery. Do not use it to charge any
    other battery.
  - · New alkaline batteries are recommended for maximum performance.
  - · Parental supervision recommended when flying helicopter.

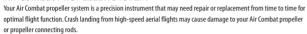
IMPORTANT: ALWAYS DISCONNECT CHARGER CORD AFTER CHARGING. NEVER LEAVE CHARGER CONNECTED TO HELICOPTER OVERNIGHT OR FOR EXTENDED PERIODS OF TIME.

## PART REPLACEMENT INSTRUCTIONS

## CONTENTS:







x

x 1

(3) 4 connecting rods

(4) 4 screws

x 4

x 4

#### TROUBLESHOOTING:

If your Air Combat loses its ability to fly correctly, please inspect the propeller system carefully for the following five common issues:

1. Replacing Connecting Rod: The connecting rod is a small "handcuff" style device that stabilizes the "upper" propellers. There is one connecting rod on the upper propeller. Please see Diagram 1.

If a connecting rod is broken or missing simply replace it by "peeling" off the existing broken unit and replacing it with a new one. You may have to use slight pressure when reattaching both ends of the new connecting rod. Make sure that the new connecting rod is secured and locked in place. See Diagram 2. For changing connecting rod, make sure there is no damage to the actual blade or arm that holds the connecting rod in place. If there is you must replace the entire blade system.

2. Replacing Upper and Bottom Propeller: The propeller is subject to damage as you learn to properly fly and control your Air Combat. If after a crash your helicopter has loss of control or flies erratically you should carefully inspect your entire propeller system for any sign of damage. Most common are: cracked or chipped blade, broken "connecting rod". frozen balance bar (this is when the balancing bar and blade are iammed and can not move freely up and down). To replace the propeller blades follow diagrams 3 through 12.

#### Diagram 1

#### Replacing Connecting Rods



rod on the upper propeller.



There is one propeller connecting Broken connecting rod



Broken connecting rod

#### Diagram 2



Replacing connecting rod



Proper connection





Using a screwdriver turn counter clockwise to remove the screw.



to tighten the screw. Upper Blade



Please note the design of the upper blade.

remove the screw.

to tighten the screw.

## REPLACING THE BOTTOM PROPELLER BLADE



Using the screwdriver turn clockwise

Bottom Blade Please note the design of the bottom blade.

Diagram 8

Diagram

10

Diagram

12



Using a screwdriver turn counter clockwise to Remove the broken blade and carefully replace with a new one.



Diagram 11

When you tighten the screw you should test the blade to make sure that it still has free movement. If the blade cannot move freely, slightly loosen the screw.



Remove the broken blade and carefully replace with a new one.



When you tighten the screw you should test the blade to make sure that it still has free movement. If the blade cannot move freely, slightly loosen the screw.

8

#### **BATTERY WARNINGS**

#### **RECHARGEABLE BATTERY:**

This helicopter uses an internal Li-Poly rechargeable battery and is not replaceable. If battery no longer stays charged, dispose of battery properly according to local disposal requirements.

#### **CONTROLLER BATTERIES:**

Remote control requires 6"AA" batteries (not included). Please read the important battery safety warning below.

- Do not mix alkaline, standard (carbon-zinc) and rechargeable batteries (Nickel Metal Hydride).
- Do not mix old and new batteries.
- Non-rechargeable batteries are not to be recharged.
- Rechargeable batteries are to be removed from the item before being charged (if removable).
- Rechargeable batteries are only to be charged under adult supervision.
- Exhausted batteries should be removed immediately and must be recycled or disposed of properly according to state or local government ordinances and regulations.
- The supply terminals are not to be short-circuited.
- Only bettering of the same or conjugation to the same of the
- Only batteries of the same or equivalent type as recommended are to be used.
- Batteries are to be inserted with the correct polarity (see inside booklet for diagram).
- Do not dispose batteries in a fire batteries may leak or explode.

## CARE AND MAINTENANCE

- Always remove the batteries from the wireless infrared remote control when it is not being used for an extended period of time.
- · To clean, gently wipe the remote control and helicopter with a clean damp cloth.
- · Keep the toy away from direct heat or sunlight.
- Do not submerge the toy into water. This can damage the unit beyond repair.
- · Parental guidance recommended when installing or replacing the batteries.

#### FCC Part 15 B Notice

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

**NOTE:** 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 reception, which can be determined by turning the equipment of 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 experienced radio/TV technician for help.

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.