

HERO-COPTER^{BL}

CLASS-LEADING STABILITY WITH BRUSHLESS POWER!

FUN IS ALL THE RAGE
RAGE RC



INSTRUCTION MANUAL

Specifications

Height: 2.875" (73mm)

Canopy width: 1.50" (38mm)

Total length: 9.75" (248mm)

Total Prop Width: 9.70" (246mm)

Weight (with battery): 4.27 oz. (121g)

Battery: 7.4V 2S 300mAh 25C LiPo

Main Motor: 1200Kv Brushless

Tail Motor: Coreless

ESC: 10A

Charger: USB cord

Transmitter: 4-channel, 2.4GHz

Flight Time: Up to 8 minutes

Charge Time: Approximately 90 minutes

The Hero-Copter BL includes all the great features that made the original Hero-Copter so popular, such as 6-axis flight control, auto take-off and land, altitude hold, and three flight modes (beginner, intermediate, and advanced). A brushless motor adds power and 2-gram digital servos provide precision and responsive control. Another key new feature is the Optical Flow module that “locks” the heli in place during hover and combines with the flybarless design to provide next level stability. For added fun, the Hero BL includes a 3D switch on the transmitter that when enabled allows the heli to automatically complete 180° flips and fly inverted!

Like the original Hero-Copter, the Hero-Copter BL is a RTF (Ready-To-Fly) aircraft, so it arrives factory-assembled with everything needed to experience the fun of flying a RC heli - like a 2.4GHz 4-channel transmitter with brightly colored function buttons, a USB charger for the modular 2S 300mAh flight battery, and even an extra set of rotor blades. The box includes a handle, making it both a convenient storage option and providing easy transport to your chosen flying site. The Hero-Copter BL even includes four AA batteries for the transmitter, so you'll be flying a fun scale-like heli shortly after opening the box!



Important Notes, Safety Precautions, and Warnings

The manual includes safety information and instructions for the operation and maintenance of this aircraft. Please read the entire manual to understand the functions of this aircraft before any operation. Potential damage to the product and personal injury may occur if the product is not operated correctly.

Recommended age - Not for children under the age of 14 without adult supervision.

Operate it in an open unobstructed space – indoors in spaces of at least 400 square feet – outdoors in little to no wind.

Make sure to keep small parts and electronic equipment out of the reach of young children.

This product is not waterproof, do not get wet!

Small parts can be a choking hazard. Avoid placing them in your mouth for any reason.

Do not operate the aircraft if there is a low voltage signal coming from the transmitter.

Don't look into the LED's for an extended period of time as it may have an effect on vision.

The motor and electronics will be hot to the touch after a flight, so avoid touching them to prevent the possibility of a burn.

Battery Safety Precautions

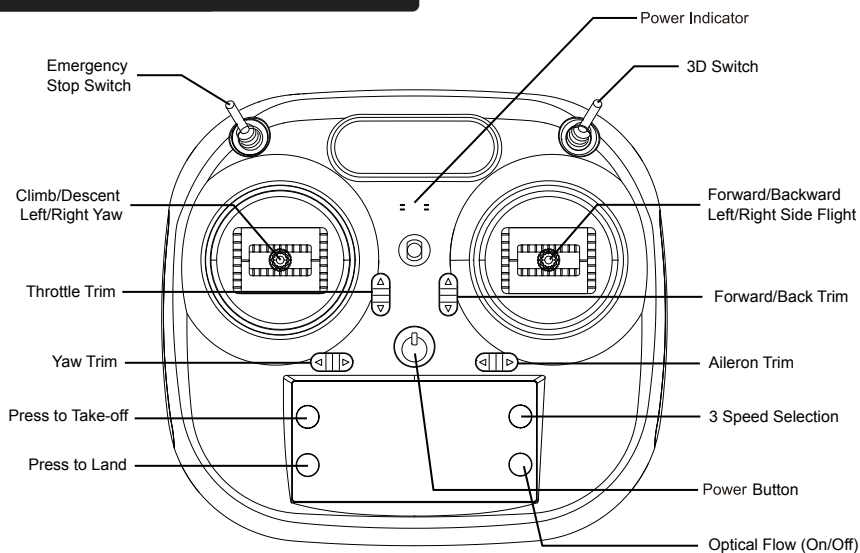
Important Note: Lithium Polymer (LiPo) batteries are more volatile than the alkaline, NiCad and NiMH batteries used in other RC applications. All instructions and warnings must be followed exactly to prevent possible personal injury or damage to property, including by fire. By handling, charging, or using the included LiPo battery you assume all potential risks. If you do not agree with these conditions, please return your complete product in new, unused condition to the place of purchase immediately.

Important - Please read the following safety instructions and warnings before handling, charging, or using the included battery.

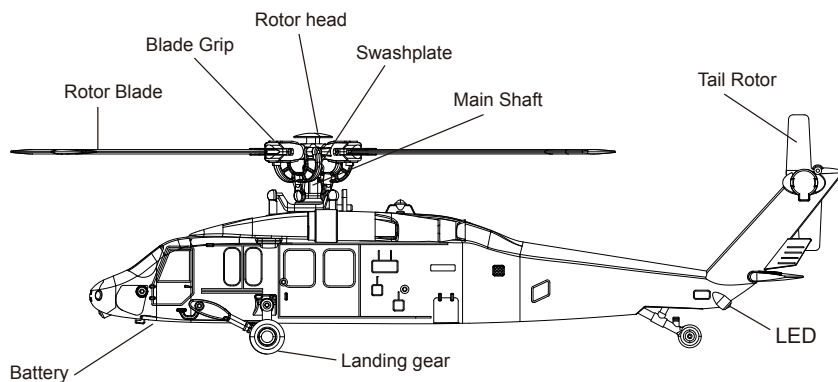
- You must charge the LiPo battery in a safe area away from any flammable materials.
- Never charge the LiPo battery unattended at any time. When charging the battery you should always remain in constant observation of the battery to monitor the process and react immediately to potential problems you observe.
- After discharging the battery during operation you must allow it to cool to ambient room temperature before attempting to recharge. Also, it is NOT recommended that you completely discharge the battery before charging. It is safe to charge partially discharged batteries when using an appropriate LiPo charger.
- For charging the battery you must use only the included charger. Failure to do so may result in a fire causing property damage and/or personal injury. DO NOT use a NiCad or NiMh charger to charge your new LiPo battery.
- If, at any time during the charge or discharge process, the battery begins to “balloon” or swell, discontinue charging or discharging immediately! Quickly and safely disconnect the battery before placing it in a safe, open area away from flammable materials for observation for at least 15 minutes. Continuing to charge or discharge a battery that has started to “balloon” or swell can result in a fire. Important note: A battery that has “ballooned” or swollen even a small amount must be removed from service immediately and completely.
- Always disconnect a battery from the product when the product is not in use.
- Avoid continually operating the battery to LVC (Low Voltage Cutoff) as this could result in damage to the battery.
- Store the battery partially charged (approximately 50% charged or 3.85V per cell) at room temperature (approximately 68° to 77° Fahrenheit) in a dry area for best results.
- When transporting or temporarily storing the battery, the temperature range should be between 40° and 100°F. Do not store the battery inside a hot car or in direct sunlight or the battery could be damaged or even catch fire.
- LiPo cells should not be discharged below 3.0V per-cell. In the case of this 2-cell 7.4V battery you should not allow the voltage to fall below 6.0V during operation.
- Do not over-discharge the LiPo battery, doing so could result in reduced power, lower run times or complete failure of the battery.

NOTE: Your aircraft features a “soft” LVC (Low Voltage Cutoff) that smoothly reduces power (regardless of your throttle position) to let you know the battery is near the minimum voltage to avoid damage to your battery.

Transmitter Functions

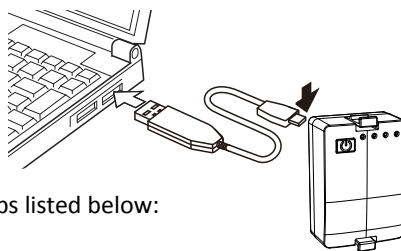


Basic Parts Identification



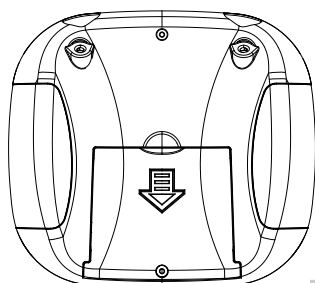
Charging Instructions

The charging process is initiated by plugging the USB connector into a power source, such as a USB port on a computer, a USB adapter into an AC power outlet, or a portable power bank. With all 3 power sources, follow the steps listed below:



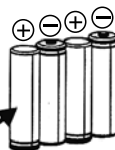
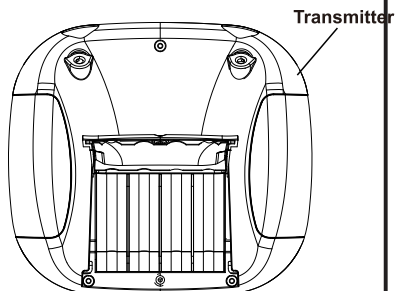
1. Connect the USB charge cord to the USB port on the power source.
2. Connect the other end of the charger to the battery.
3. When the battery is charging, the blue lights on the battery will flash. When the 4th light on the battery turns solid, the charging process is complete.
4. Disconnect the charge cord from both the power source and the battery.

Installing Transmitter Batteries



Slide the battery lid to open by following the arrow

Push

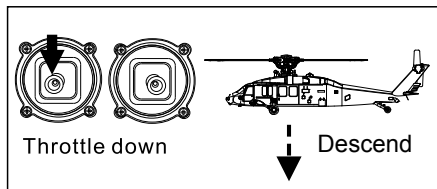
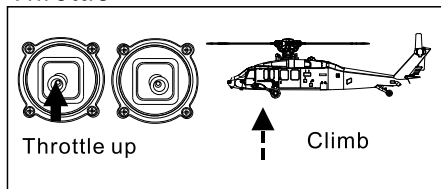


Please use 4 AA sized batteries, installed based on polarity indicated case. Do not mix batteries of different chemistry/spec.

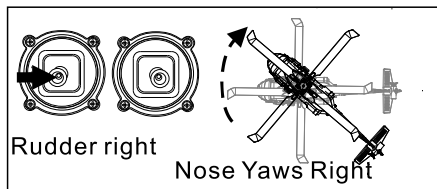
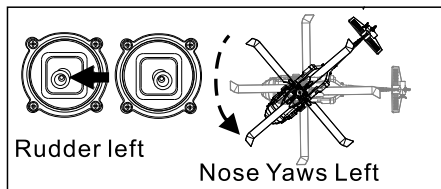
Flight Controls

Follow the diagrams below for controlling the heli from the transmitter.

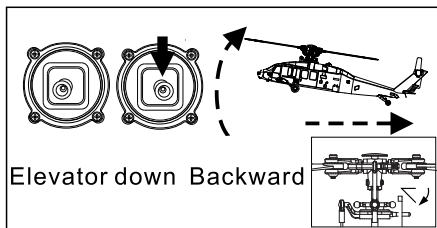
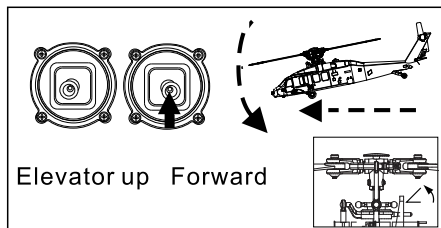
Throttle



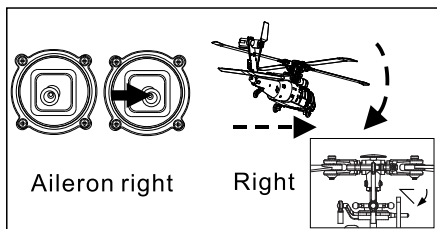
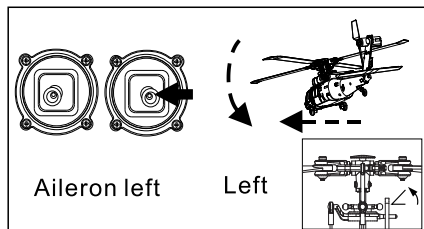
Rudder (Yaw)



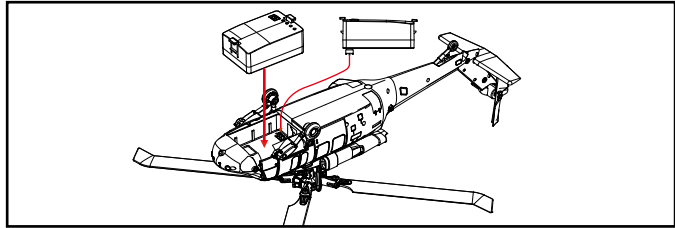
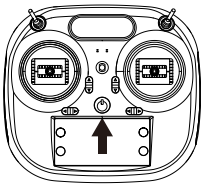
Elevator



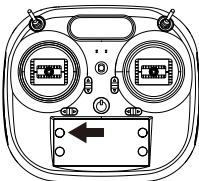
Aileron



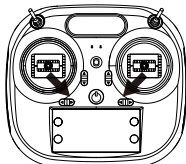
Getting Started



1. Connect the battery as shown in the diagram. Simply insert the battery into the socket until you feel it lock into place.
2. Once the battery is secured in place, turn on the aircraft by pushing the button on the left top of the battery once for the battery lights to engage. Press again quickly and hold for the power to turn on. You should hear 2 quick beeps. Next, turn on the power to the transmitter. The lights on the aircraft and transmitter will flash rapidly. To bind the transmitter to the aircraft, push the throttle stick all the way to the top and then all the way to the bottom and release. Both lights should stop flashing and you will hear 2 rapid beeps. The binding process is then complete and you are ready to fly.



Auto Take-Off



Motor Unlock

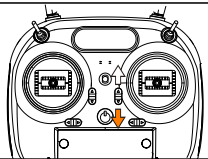
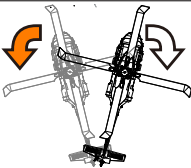
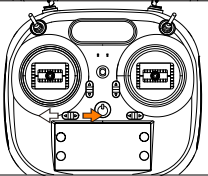
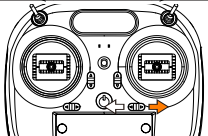
3. There are 2 options to take-off. The first is to quickly press the Auto Take-Off button on the front of the transmitter. The aircraft will automatically take off to a height of approximately 4' and remain in a steady hover.
4. The other option is to manually take off using the throttle stick. With this option, you will first need to unlock the motors by moving both sticks to the bottom inside corners, as shown. The motors are then unlocked, and the blades will start to slowly rotate. To increase the RPM to lift the aircraft off the ground, slowly move the throttle stick up until the aircraft reaches the desired altitude.

This option should only be used by intermediate to expert pilots.

5. While flying, make sure to keep the nose of the aircraft pointing away from the pilot and a safe distance from others that may be in the area.
6. When ready to land, either press the Auto Land button or hold the throttle stick at the bottom until the aircraft lands. The throttle stick can be released after the blades have stopped rotating (holding the throttle stick down is not needed when using Auto Land). Once the blades have stopped, press the power button on the transmitter to turn it off, and press the button on the battery twice again until the lights sequence down and turn off.

Trimming Instructions

The aircraft was set up at the factory for a steady hover. However, if you find that you need to make minor adjustments to maintain a steady hover, the trim buttons can be used as shown in the diagrams below. Make sure to start with small adjustments to avoid having to adjust in the other direction.

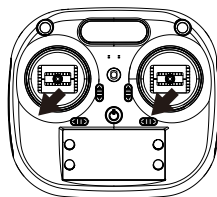
Trim adjustment for Forward/Back drift			Match the trim button according to the colors of arrows shown
Trim adjustment for Left/Right Yaw drift			Match the trim button according to the colors of arrows shown
Trim adjustment for Side to Side drift			Match the trim button according to the colors of arrows shown

Calibration

If the aircraft is flying out of control and cannot be brought to a level hover by using the appropriate trim buttons, it may need to be calibrated.

To calibrate, keep the power on for both the transmitter and aircraft, and place the aircraft on a flat level space.

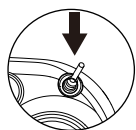
Move the control sticks on the transmitter to the bottom left position as shown on the diagram.



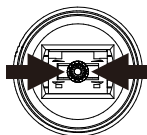
The LED on the aircraft will flash rapidly during the calibration process and will turn solid when the calibration process is complete. If the aircraft will still not fly at a level hover, it may be helpful to try the calibration process again. If the aircraft continues to fly erratically after a 2nd calibration, check the physical components of the to make sure they are working correctly and not damaged.

3D Flight

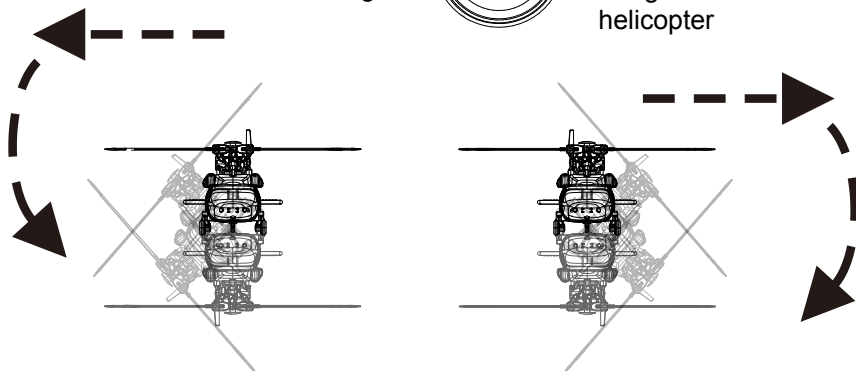
At all times when flying this aircraft, make sure that your flight is in a space suitable for the performance and capabilities of this heli. It is highly recommended NOT to fly indoors except in a location similar in size to a small gymnasium. When using the 3D Flight feature, it is strongly recommended to fly outdoors. If you do choose to fly indoors, you must make sure there is enough room (at least 25') for the heli to complete the 180° flip without any chance of hitting either the ceiling or the floor.



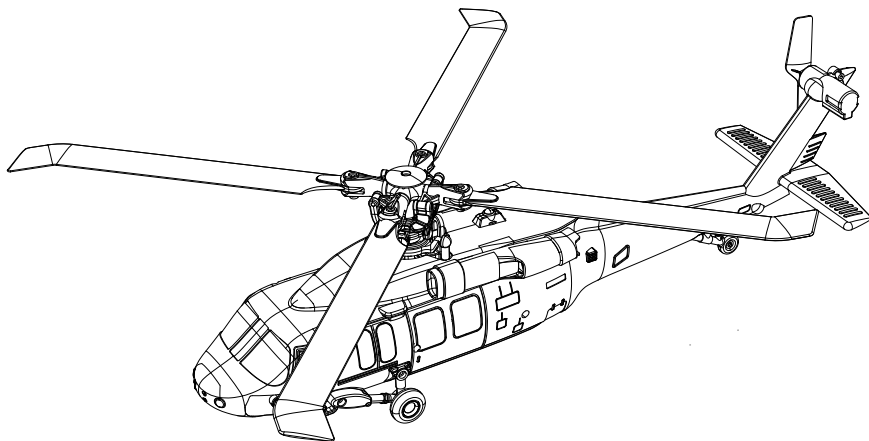
First, push the 3D switch down to activate inverted flight



Next, move the aileron stick to the left or right to invert the helicopter



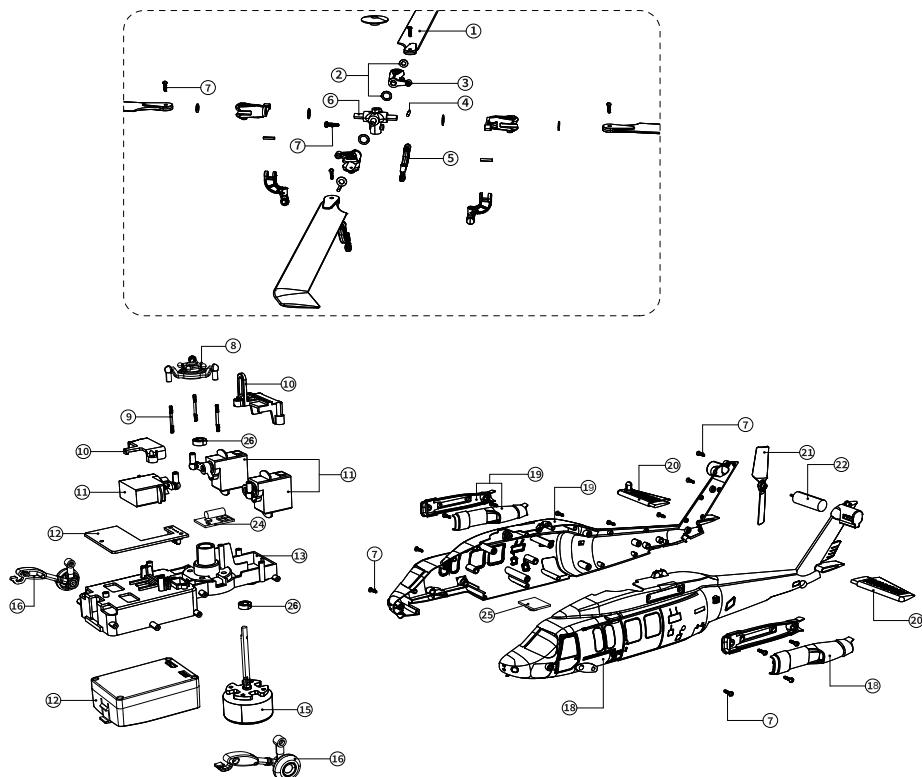
Once inverted the control of the helicopter is the same as when the helicopter is upright. To return to normal flight, push 3D switch again and move the aileron stick to the left or right.



Trouble-Shooting

	Problem	Possible Cause	Solution
1	The lights on the aircraft and transmitter continue to blink and the aircraft will not respond to controls.	The aircraft has not been bound to the transmitter.	Review step #2 on page 7 of the manual and repeat the binding process.
2	The lights on either the aircraft or transmitter do not come on.	The aircraft battery either does not have a secure connection or is not charged. For the transmitter, the batteries may not be inserted by the correct polarity or may need to be replaced.	Make sure the aircraft battery is charged and securely installed. Make sure that transmitter batteries are inserted correctly and replace them, if necessary.
3	When you try to take-off, the aircraft lights continue to flash and the unit does not take off.	The aircraft battery is either not connected correctly or needs to be charged.	Reinstall the aircraft battery to make sure it is firmly secured and connected or recharge, if necessary.
4	After binding the transmitter to the aircraft, the main rotor blades will spin, but the aircraft will not take off.	Either the aircraft battery has low voltage or the main shaft and gear are loose.	If low voltage, charge or replace the battery. Make sure the main shaft and gear are a tight fit.
5	The aircraft is flying out of control.	The aircraft may need to be calibrated. Other possible causes include the main rotor blades are damaged, the shaft has been bent, or the blade holder screws are too tight.	First try to calibrate. If that does not solve the issue, inspect the main rotor blades, the shaft, and the screws holding the blades in place. Adjust or replace parts, as necessary.
6	The aircraft spins to the left after taking off.	There is not enough power to the tail rotor motor or parts have been damaged.	Check connections to the tail rotor and replace any damaged or broken parts, including the motor.
7	The aircraft has limited yaw.	The aircraft has not been correctly trimmed from the transmitter.	Retrim the yaw according to the instructions.
8	The aircraft yaws uncontrollable in either direction.	It is likely that either the servo is not working correctly or there is an issue with the swashplate.	Check to make sure the servo is functioning correctly and the swashplate is properly connected.

Exploded View Part List



PART #	DESCRIPTION	PART #	DESCRIPTION
1	RGR6168B MAIN BLADE SET BLACK (4)	18, 19	RGR6184 CANOPY SET, ARMY
1	RGR6168W MAIN BLADE SET WHITE (4)	18, 19	RGR6185 CANOPY SET, COAST GUARD
2	RGR6188 BLADE GRIP BEARINGS (2)	20	RGR6186 HORIZONTAL TAIL SET, ARMY
2, 3, 5	RGR6164 BLADE GRIPS w/ BEARINGS & DAMPERS	20	RGR6187 HORIZONTAL TAIL SET, COAST GUARD
3	RGR6165 BLADE GRIPS w/ SCREW SET (4)	21	RGR6175 TAIL ROTOR BLADE BLACK
4	RGR6167 LINKAGE SHAFT (4)	21	RGR6175W TAIL ROTOR BLADE WHITE
5	RGR6166 LEVER LINKS (4)	22	RGR6176 TAIL MOTOR
6	RGR6161 COMPLETE ROTOR ASSEMBLY	24	RGR6180 10A ESC
7	RGR6182 COMPLETE SCREW SET	25	RGR6181 OPTICAL FLOW UNIT
8	RGR6163 SWASHPLATE ASSEMBLY	NS	RGR6160 ROTOR HEAD
9	RGR6170 SERVO PUSHRODS (3)	NS	RGR6178 USB CHARGE CORD
10	RGR6171 SERVO SUPPORT BRACKET	26	RGR6162 MAIN SHAFT BEARINGS (2)
11	RGR6169 2g REPLACEMENT SERVO		* NS=NOT SHOWN
12	RGR6177 2S 300mAh LiPo BATTERY, GREEN		
12	RGR6177W 2S 300mAh LiPo BATTERY, WHITE		
13	RGR6173 MAIN FRAME		
15	RGR6172 1200Kv BL MOTOR		
16	RGR6174 LANDING GEAR SET		

See your local hobby shop or place of purchase first. If unavailable, parts can be ordered direct at www.ragerc.com or call 1-866-724-3811 M-F 9:00-5:00PM Mountain Time.

Warranty

Warranty Period: Rage R/C warrants that the Hero-Copter BL ("Product") will be free from original factory defects in materials and workmanship upon purchase ("Warranty Period").

What is Not Covered - This warranty is not transferable and does not cover (a) cosmetic damage, (b) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (c) modification to any part of the Product, (d) attempted service by anyone other than a Rage R/C authorized service center, or (e) Product not purchased from an authorized Rage R/C dealer.

OTHER THAN THE EXPRESS WARRANTY ABOVE, RAGE R/C MAKES NO OTHER WARRANTY OR REPRESENTATION, AND THEREFORE DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND SUITABILITY FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL MEET THE REQUIREMENTS OF THEIR INTENDED USE.

Purchaser's Remedy - Rage R/C's sole obligation and purchaser's sole and exclusive remedy shall be that Rage R/C will, at its option, either (a) service, or (b) replace, any Product determined by Rage R/C to be defective. Rage R/C reserves the right to inspect any and all Product(s) involved in a warranty claim. Service or replacement decisions are at the sole discretion of Rage R/C. Proof of purchase is required for all warranty claims. SERVICE OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY.

Limitation of Liability - RAGE R/C SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF RAGE R/C HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Further, in no event shall the liability of Rage R/C exceed the individual price of the Product on which liability

is asserted. As Rage R/C 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 the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

Law - These terms are governed by Utah law (without regard to conflict of law principals). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Rage R/C reserves the right to change or modify this warranty at any time without notice.

Rage R/C, an exclusive brand of:

HRP Distributing, Inc.

2034 South 3850 West

Salt Lake City, Utah 84104

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