FLYING YOUR BLADERUNNER HELIQUAD 2.4: (Continued)

As the BladeRunner HeliQuad is flying towards you, you will naturally experience a phenomenon called "Control Reversal". This is normal and just takes a little practice to master. Below is a short list of the effects:

-Moving the right stick to the right will make the HeliQuad turn to your left.
-Moving the right stick to the left will make the HeliQuad turn to your right.
-Moving the left stick to the right will make the HeliQuad slide to your left.
-Moving the left stick to the left will make the HeliQuad slide to your right

5. To land your HeliQuad, gently and gradually move the Left Stick all the way down. This will slow the rotation of the 4 Rotors and the HeliQuad will land. It is very important to NOT move the Left Stick all the way down suddenly, as the Rotors will stop spinning instantly and the HeliQuad will fall and possibly sustain damage.

6 - A. To fly again, it may or may not be necessary to recharge your HeliQuad, depending on the charge that is remaining in the HeliQuad's internal Lithium-Polymer battery. Simply follow the steps described in the "CHARGING YOUR BLADERUNNER HELIQUAD 2.4" section above to recharge your HeliQuad.

6 - B. If you are finished playing, turn off the BladeRunner HeliQuad and 2.4 GHz Controller by sliding their respective On / Off Switches to the off position.

ALT BUTTON - STUNT MODE:

The HeliQuad 2.4 is capable of performing stunts by flipping forward, backwards, or sideways 360º. To perform a flipping stunt follow the next steps:

IMPORTANT: The HeliQuad 2.4 must hovering with altitude NOT LESS than 6.6' (2 meters) from ground to perform the STUNT actions.

1. Press the Alt Button. The Controller's LED will flash rapidly. The Controller will also emit a rapid beeping sound.

2. Choose the stunt flip direction with the Right Stick as follows:
-Flip to the right - Move the Right Stick to the right.
-Flip to the left - Move the Right Stick to the left.
-Flip forward - Move the Right Stick up.
-Flip backwards - Move the Right Stick down.

3. When the stunt is complete, the HeliQuad will hover normally. The Controller will stop beeping and its LED will light up continuously.

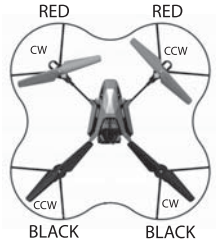
If you want to cancel the stunt after the Alt Button has been pressed, do not move the Right Stick. Just press the Alt Button again to resume normal flight. The Controller's LED will stop flashing and the Controller will stop beeping.

REPLACING DAMAGED ROTOR BLADES:

In the event that any of your Rotor Blades sustain damage, they are easy to replace by following these steps. Note, there are 4 different Rotor Blades on the HeliQuad. There is an extra set of all 4 blades included within your HeliQuad package.

Rotor Blade Replacement:
1. Locate the broken Rotor Blade and gently pull it upwards off of the axle shaft.

2. Note the color (red or black) of the Rotor Blade as well as the rotational direction indicator (CW or CCW) at the bottom of the Rotor Blade. It is important that the correctly colored Rotor Blade with the proper indicator is mounted on each axle shaft or the HeliQuad will not fly correctly. The color helps to distinguish the frontal area of the HeliQuad from the rear area when the unit is flying. The red Rotor Blades should be at the front, and the black Rotor Blades should be at the rear of the HeliQuad. When looking at the HeliQuad from the top, the correct layout pattern is as shown:



3. Install a new Rotor Blade in the same location on the rotor hub by sliding it on gently. Your BladeRunner HeliQuad is ready to fly again.

TROUBLESHOOTING - If additional Rotor Blades are required or if Rotor Blade replacement does not solve the your flying problem, visit www.interactivetoy.com.

There is a vast list of Troubleshooting tips for the BladeRunner HeliQuad on our website.

STORING YOUR BLADERUNNER HELIQUAD:

If you will be storing your BladeRunner HeliQuad for a longer period of time, remove the Batteries from the Controller. This will prolong the operational life of the HeliQuad and the Batteries. It is a good idea to store the HeliQuad, Controller, Charger and USB Charging Cable together so no components become misplaced or lost. Please respect the below points to extend the operational life of your BladeRunner HeliQuad during storage.

1. *Product may be damaged or performance may be adversely affected if your BladeRunner HeliQuad is not properly stored.*
2. *Never place any items on top of any components of the BladeRunner HeliQuad.*
3. *Always keep your BladeRunner HeliQuad in a cool dry place.*
4. *Keep BladeRunner HeliQuad away from pets and other household animals.*
5. *Do not rest your BladeRunner HeliQuad on any potential heat source such as electronic equipment or a radiator.*

IMPORTANT SAFETY INFORMATION

Do not modify your HeliQuad 2.4! Any changes or modifications to this product are strictly prohibited and will void product warranty. Do not attempt to charge the HeliQuad 2.4 with any other source, only charge with the provided charger or you will void the warranty! Any attempts at charging other products with provided charger are strictly prohibited and will void the warranty! The Lithium Polymer Battery is permanently built-in to the HeliQuad2.4. Any attempts to tamper with or remove the Lithium Polymer Battery inside the HeliQuad 2.4 is strictly prohibited and will void the warranty. Do not point the Antenna directly at the HeliQuad 2.4! Do not use in strong winds, use only in VERY mild conditions! Do not use in rain, snow or around heavy debris! Do not use near electrical lines or high voltage wires or other sources of electricity! Do not use around smoke or flames! Do not use around water and other liquids! Do not use in crowded areas! Do not use around air conditioning! Do not use around air vents! Do not use around ceiling fans! Do not use around large obstacles! Do not use in very small spaces! Do be conscious of changes in your area! Keep moving Rotors and Propellers away from eyes, hands, hair and loose clothing. Always turn off your HeliQuad 2.4 and Controller when not in use. Always remove the batteries from the Controller during storage. Always use new and fresh Alkaline Batteries in Controller for optimal performance. Battery performance will greatly influence flight characteristics. Keep your Instruction Manual in a safe place for future reference. Parental supervision required.

IMPORTANT BATTERY INFORMATION

Do not mix old and new batteries, different types of batteries, standard carbon zinc, or alkaline batteries of different capacities. Do not use rechargeable batteries. Ensure that the contact surfaces are clean and bright before installing new batteries. Please respect the correct polarity (-) or (+) when replacing batteries. Do not throw batteries into the fire. Replace all batteries of the same type/brand at the same time. The supply terminals are not to be short-circuited. Exhausted batteries must be removed from the toy. Batteries should be replaced by adults. Remove batteries if the toy is not going to be operated or store for a long time to prevent leakage or other damage. Non-rechargeable batteries are not to be recharged. Rechargeable batteries are only to be charged under adult supervision. Rechargeable batteries are to be removed from the toy before being charged. Never leave a battery unattended while it is being charged. Never leave a battery unattended in the presence of children. The Controller uses one 3 x AA Akaline type batteries(not included).

FCC NOTE: U.S. ONLY

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.
2) This device must accept any interference received including interference that may cause undesired operation.
Warning: 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. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications 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 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 turn the equipment off and on, the user is encouraged to try and 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 to 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.

Industry Canada Notice: Canada only.

Industry Canada Notice
This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions:
1. (1) this device may not cause interference, and
2. (2) this device must accept any interference, including interference that may cause undesired operation of the device."
3. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Avis d'Industrie Canada
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
Cet appareil numérique ne dépasse pas les Règlements sur l'interférence radio par un appareil numérique de classe B stipulées dans les Règlements sur l'interférence radio d'Industrie Canada.

Limited 30-day warranty
Product is warranted by Interactive Toy Concepts Limited against manufacturing defects in material and workmanship under normal use for thirty (30) days from the date of purchase.
Warranty is validated upon receipt of proof or purchase and confirmation of UPC code.

Lithium Polymer Rechargeable Batteries must be recycled or disposed of properly.

Manufactured by and distributed by Interactive Toy Concepts Ltd.
Conforms to Safety Standards ASTM F963-03 Regulatory Requirements.
Meets CPSC Safety Requirements.
Products and colors may vary. MADE IN CHINA.

INS-22033-130510-US

BLADERUNNER SERIES HeliQUAD 2.4 INSTRUCTION MANUAL

The BladeRunner HeliQuad 2.4 is a delicate machine, before removing it from the packaging please read the instructions!

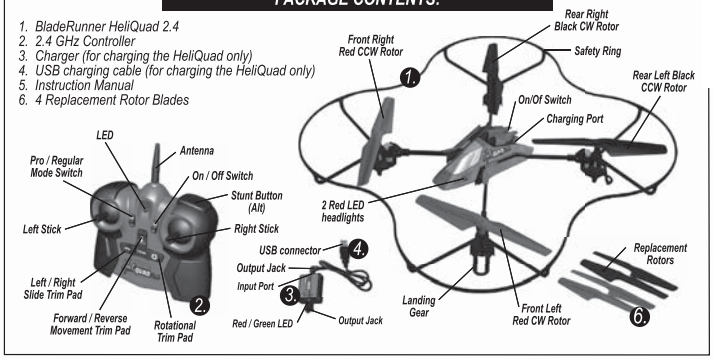
Welcome to the BladeRunner HeliQuad 2.4. The BladeRunner HeliQuad brings advanced, hobby-level 4-Channel flying technology to beginner or advanced flyers who are looking for great performance from a Quadrotor Helicopter. The BladeRunner HeliQuad has 32 bit MCU technology as well as a built-in advanced 3+3 gyroscope which provides an ultra-smooth flight, and balance control assistance. A 3D (3 axis) accelerometer detects the flight condition during operation. The 32 bit on-board microprocessor also provides continuous in-flight assistance for control comfort and smooth actions. The BladeRunner HeliQuad operates indoors and outdoors on the 2.4 GHz frequency, allowing up to 6 units to fly in the same area within a 100' (30 Meters) range. The 2.4GHz Controller is a digital proportional radio, therefore small movements in the Control Sticks produce precise control. Do not throw away this instruction manual as it contains valuable information for the operation of your HeliQuad as well as warranty information. The helpful tips in this pilot's manual will improve your skill and enhance your experience. Look for these symbols for extra help.

UNPACKING YOUR BLADERUNNER HELIQUAD:

WARNING:The BladeRunner HeliQuad 2.4 is a delicate machine, before removing it from the packaging please read the instructions! To prevent damage during shipping, the BladeRunner HeliQuad 2.4 is securely fastened in the package. Please ensure that all of the tie-down and fastening locations are unfastened before attempting to remove the BladeRunner HeliQuad 2.4 from the package. Be very careful when removing the BladeRunner HeliQuad 2.4 to prevent damaging the helicopter.

PACKAGE CONTENTS:

1. *BladeRunner HeliQuad 2.4*
2. *2.4 GHz Controller*
3. *Charger (for charging the HeliQuad only)*
4. *USB charging cable (for charging the HeliQuad only)*
5. *Instruction Manual*
6. *4 Replacement Rotor Blades*



INSTALLING BATTERIES:

Your BladeRunner HeliQuad has a built-in, non-removable, non-replaceable, rechargeable 3.7 Volt Lithium-Polymer Battery. Do not tamper with this Battery. Tampering with this battery is dangerous and will void the warranty.

The BladeRunner HeliQuad controller requires 3 AA batteries (Alkaline only). Install the batteries as shown:

1. Use a Philips screwdriver (not included) to unscrew the Battery Compartment Door's retaining screw at the rear of the HeliQuad Controller.
2. Open the Battery Compartment Door on the back of the HeliQuad Controller by sliding it down.
3. Insert the 3 AA batteries as shown. Make sure to respect the polarity.
4. Replace the Battery Compartment Door and tighten the screw with your Philips Screwdriver.

When the 2.4 GHz Controller's Batteries are low on power, the Controller will emit short beeping sounds every 2 seconds and the Controller's LED will also blink. It will be necessary to stop flying and replace the 3 AA Alkaline Batteries in the Controller.

CHARGING YOUR BLADERUNNER HELIQUAD 2.4:

1. Ensure the BladeRunner HeliQuad's On / Off switch is in the OFF position. (The 2 red Headlight LEDs at the front of the HeliQuad will turn off when the HeliQuad is turned off.

2. Connect the USB cable's Output Jack to the Charger's Input Port.

3. Plug the USB Charging Cable into the USB power source. Make sure the electronic device (such as a laptop) is turned on and is delivering power through the USB Charging Cable. Most laptops will only transmit power through the USB port if they are turned on. The LED on the Charger with light up green.

4. Plug in the Charger's Output Jack into the Charging Port at the rear of the HeliQuad's body. Charging will start automatically. The Charger's LED will light up red to indicate charging has started.

Charging will NOT start if the Power Switch is in the "ON" position.

The HeliQuad has a built-in, advanced power management circuit. Charging will NOT start unless the battery charge is depleted to below 70% of capacity. It is safe to fly the HeliQuad even if the Battery is not fully charged. Only the flying time will be decreased.

Always insert the USB connectors to the USB power source before inserting the Charger's Output Jack into the HeliQuad.

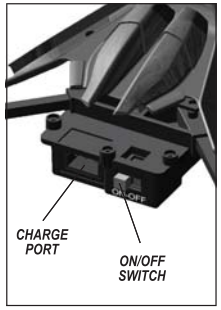
5. When the Charger's LED turns green, the charging is complete.

Charging will take 30 – 75 minutes for 4-7 minutes of flight. Charging time depends on the current supplied by the USB Power Source and the internal Battery charge conditions. Not all USB Power Sources supply the same current.

Get in the air fast!!!
The BladeRunner HeliQuad is partially charged so you can fly immediately out of the box.

If you your HeliQuad starts to fly erratically and its Headlight LEDs are flashing rapidly, the build-in Li-Po Battery is out of charge. Please re-charge the HeliQuad with the provided Charger to fly again.

6. Make sure to unplug the USB Charging Cable from the USB Power Source first. Secondly, unplug the Charger's Output Jack from the HeliQuad's Charging Port. The HeliQuad is now ready to fly.



Charger's LED Functions

LED lights up green - Charger is plugged into a USB Power Source but is not harging, or the Charging has completed.
LED lights up red - Charger is plugged in and is charging the HeliQuad.
LED is off - Charger is not plugged in and is not charging the HeliQuad.

CHOOSING YOUR FLYING LOCATION:

You can operate your BladeRunner HeliQuad outdoors on a calm day or indoors. The outdoor space should be at least 50' x 50' (15 meters x 15 meters) with a minimum height allowance of about 33' (10 meters). Avoid operating your HeliQuad near power-lines, trees, or roof-tops. Do not fly your HeliQuad during windy conditions, rain or any other form of precipitation or harsh weather. Also make sure that your HeliQuad does not have the opportunity to land in a wet or hazardous area such as snow, water, mud, or dangerous rocks. The HeliQuad is not water resistant. If flying your HeliQuad indoors, the area should be roughly 16' x 16' (5 meters x 5 meters) with the standard household ceiling height as a minimum. The radio control range of your HeliQuad is up to 100' (30 meters), and varies depending on interference within the operational environment. Up to 6 HeliQuads can operate in the same vicinity. If multiple HeliQuads are flying in the same area, it is recommended to choose a location with more flying space.

If you your HeliQuad goes out of control during operation and the HeliQuad's headlight LEDs are slowly flashing, the 2.4GHz radio link to the Controller has been lost. This may be caused by radio interference or if the HeliQuad flies out of radio control range (up to 30M/100Feet). Make sure to operate the HeliQuad within the radio control range or operate in another location with less radio interference.

WARNING:
The spinning rotors of the HeliQuad are capable of damaging or injuring plants, furniture, pets or people so fly carefully.

SYNCING YOUR HELIQUAD WITH ITS CONTROLLER:

1. Place the HeliQuad on a flat surface and Turn it on. The HeliQuad's Headlight LEDs will be flashing rapidly for about 3 seconds. The on-board computer is booting and calibrating during this time. Once booting and calibration is complete, the LEDs will flash slowly, and the HeliQuad is ready for sync with the 2.4GHz Controller.

2. Turn on the 2.4GHz Controller by sliding up the On / Off Switch. The Controller's LED will be flashing and the Controller will be emitting short beeping sounds.

3. Move the Left Stick all the way up and down. The LEDs on both the HeliQuad and the Controller will be on continuously. The Controller will stop beeping and the syncing is completed.

It is possible to fly up to 6 HeliQuads in the same vicinity without any control frequency conflicts. Simply sync each HeliQuad with its 2.4 GHz Controller one by one using the above steps. Ensure that only one HeliQuad and Controller are syncing at a time and those HeliQuads and Controllers that have not yet been synced are turned off.

If you experience a problem in syncing your HeliQuad with the Controller, power off both the HeliQuad and the Controller. Repeat the above steps.

If the Syncing problem persists, locate another place to fly your HeliQuad with less radio interference and repeat the above steps.

4. Select either the Regular Mode or the Pro Mode on the Controller by sliding the Pro / Regular Mode Switch to the desired setting.

In Regular Mode, the HeliQuad will fly at normal speed. In Pro Mode the HeliQuad will fly at a faster speed. Regular Mode is recommended for beginners and intermediate users, while Pro Mode is recommended for advanced users. Pro / Regular Mode setting can be switched during flight.

5. Gently push the Left Stick up to increase the throttle and ensure that the Rotors start spinning. Now that you know your HeliQuad is functioning as it should - RELAX! -DO NOT TAKE OFF!

Be sure to read the next section on "FIRST FLIGHT / TRIMMING YOUR HELQUAD" before your first flight!

FIRST FLIGHT / TRIMMING YOUR HELIQUAD:

Your HeliQuad must be "Trimmed" to counteract unwanted drifting or rotation. First, using the Left Control Stick, raise the HeliQuad to just below eye level. There are 3 Trim Pads ergonomically positioned on the 2.4GHz Controller. These Pads are used to counter the effects of unwanted drifting forwards / backwards, drift-sliding sideways, or rotating in mid-air. This should be done every time you fly your HeliQuad after charging. The Trim setting will vary as the HeliQuad Battery drains. In addition to the Battery condition, some other factors will affect the trim of the HeliQuad such as, throttle setting and damage to the Rotor Blades. Trim re-adjustment during flight may be required. Once trimmed, minor corrections can be managed using the Right, and Left Sticks in conjunction with the appropriate Trim Pads. The operational details of each Trim Pad are described below:

Left / Right Slide Trim Pad - *If your HeliQuad is sliding left or right while flying it will be necessary to adjust this by using the "Left / Right Slide Trim Pad". Press the Pad left or right until the HeliQuad stops sliding sideways.*

Forward / Reverse Movement Trim Pad - *If your HeliQuad has unwanted forward or backward movement while flying it will be necessary to adjust this by using the "Forward / Reverse Movement Trim Pad". Press the Pad up or down to compensate for unwanted movement of HeliQuad in forward or reverse directions.*

Rotational Trim Pad - *If your HeliQuad has unwanted rotation during flight it will be necessary to compensate for this by using the "Rotational Trim Pad". Press the Pad left or right to compensate for unwanted rotation of the HeliQuad along its vertical axis until the HeliQuad holds a true heading.*

Trimming under Control Reversal Conditions - If the HeliQuad is flying towards you, all trim operations will appear to reverse. This is normal and just requires some practice. It is important to keep in mind that left / right sliding, forward / reverse movement, and rotation, are still controlled by their respective Trim Pads.

When any TRIM Pad is pressed, a short beeping tone is heard indicating that the trim input was successful. A long beeping tone is heard if the trim input has reached its maximum limit. If the HeliQuad is still exhibiting excessive drifting or rotation, this is indicative of possible problems with the Rotor Blades.

The HeliQuad should never be flown with damaged Rotor Blades. Flying the HeliQuad with damaged Rotor Blades is potentially dangerous. See the "REPLACING DAMAGED ROTOR BLADES" section for more information.

FLYING YOUR BLADERUNNER HELIQUAD 2.4:

WARNING:
Check the condition of all the Rotor Blades prior to each flight. Do not try to operate the BladeRunner HeliQuad if any rotor blade has been damaged. Broken or damaged Rotor Blades may have sharp edges or corners and they will be spinning fast with a potential for injury! Flying the HeliQuad with broken Rotor Blades can also make it fly in an unstable or uncontrollable manner. This may cause damage to furniture and other property, as well as injury to plants, animals and people. Broken Rotor Blades can be easily replaced as described in the "REPLACING DAMAGED ROTOR BLADES" section below.

1. Move the Left Stick completely up and watch the HeliQuad leap off the ground. Once off the ground, gently reduce the throttle with the Left Stick so that the HeliQuad is at the desired height above the ground. This is a digital proportional system, therefore fine up and down movements of the Left Stick will modulate the throttle and produce minor changes in the HeliQuad's altitude. Take time to practice controlling the altitude and getting accustomed to the throttle sensitivity.

2. Fly forward or backwards by moving the Right Stick up or down respectively. Since this is a digital proportional Control Stick, you will be able to attain a very smooth transition between slower and faster forward and reverse speeds as well as hovering in place. The best forward flight motion is achieved by gently moving the Right Stick up, this produces the smoothest transition from hover to flying forward. Sharp or abrupt movements can cause the HeliQuad to "porpoise" or swing, but might be required to overcome a slight wind or draft.

3. Turn left or right by moving the Right Stick left or right. Since this is a digital proportional Control Stick, you will be able to attain a very smooth transition between turning left and turning right. Move the Right Stick quickly for a quick turn, or slowly for a slow turn. Direction convention is based as if you were sitting in the pilot's seat of the HeliQuad.

4. Slide to the left or right by moving the Left Stick left or right. Since this is a digital proportional Control Stick, you will be able to attain a very smooth transition between sliding left and sliding right. Move the stick quickly for quick sideways slides, or slowly for slow sideways slides.