

# BLADERUNNER SERIES™ BLACKGHOST™

## INSTRUCTION MANUAL

AGE  
8+

*The Black Ghost is a delicate machine. Before removing it from the packaging, please read the instructions. Do NOT pull on the rotors!*

Congratulations on the purchase of your state-of-the-art, indoor helicopter. The Black Ghost uses the latest in electronic and battery technology to give you a flight experience you won't forget. Though your Black Ghost is designed to be easy to fly and extremely stable, it is an aircraft and as such you need to spend a bit of time reading this manual to learn to operate it properly and safely. There is a very active internet-based community where you can get all sorts of tips and connect with other pilots.



Check out <http://www.rcgroups.com/forums/> then scroll down to "Vendors" "Bladerunner Heli".

Please note that this helicopter is meant to be flown inside only. Do NOT fly it outside!

### Unpacking

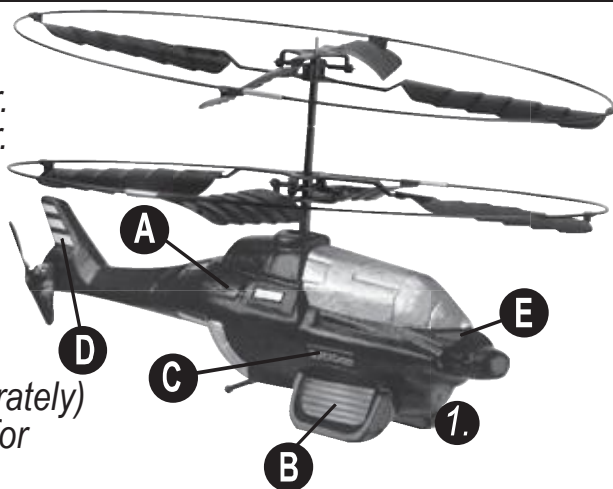
Your helicopter is fastened securely in place to prevent shipping damage. The Black Ghost is a delicate device and you must be very careful when removing it from the packaging to prevent any damage.

### Assembly

The Black Ghost itself is partially charged and fully assembled. The Black Ghost uses infrared signal (IR) to control it's flight. While the Black Ghost is easy to fly, it still requires some basic training and understanding on how to operate the transmitter control sticks, its cause and effect. With the proper care and maintenance, your flying experience can be greatly enhanced. Please take the time to read this instruction manual.

### PACKAGE CONTENTS:

1. Black Ghost Helicopter.
2. IR Transmitter/Charger.
3. Decal Sheet



Also required; (sold separately)  
6 "AA" alkaline batteries for  
transmitter/charger.



FOLLOW LETTERS FOR DECAL  
PLACEMENT GUIDE





# BLACKGHOST™

## Step 1

Open the battery cover at the back of the IR Controller by removing the screw.

Be sure to install the batteries in the correct orientation (as shown). Insert six (6) new AA batteries\*  
Use only alkaline batteries.

Replace the battery cover and secure by tightening the screw.



**TTU** FOR BEST PERFORMANCE ONLY USE NEW ALKALINE BATTERIES, DO NOT MIX OLD AND NEW BATTERIES.

\* Batteries are sold separately

## Step 2

Open the charger cover at the side of the IR Controller. Locate the charge cable and extend it out (as shown)

The IR Controller also works as the charger for the Black Ghost which has its own internal rechargeable battery.



## CHARGING YOUR BLACK GHOST HELICOPTER

### Step 3

- 1) Ensure the helicopter's on/off switch is in the **OFF** position.
- 2) Plug the charging cord into the helicopter (as shown).



- 3) Switch the IR Controller/Charger to **ON** position.
- 4) Let the charger run its charge cycle. When charge is finished the green LED goes out.

### Color LED showing battery power and charging status

#### Red LED is ON:

Power switch in "ON" position.

#### Red LED rapid flashing:

After the controller initialized.

#### Green LED is ON:

The helicopter is charging.

#### Green LED is OFF:

The helicopter is fully charged.

### **TTU** GET IN THE AIR FAST!!!

THE HELICOPTER IS PARTIALLY CHARGED SO YOU CAN FLY IMMEDIATELY OUT OF THE BOX.

**TTU** CHARGE TIME VARIES BASED ON HELICOPTER AND CHARGER BATTERY CONDITIONS. TYPICALLY AFTER A 4 MINUTE FLIGHT THE HELICOPTER WILL NEED A 20 MINUTE CHARGE.

**TTU** YOU DO NOT NEED TO WAIT FOR THE CHARGE TO BE COMPLETE TO FLY, SHORTER CHARGE TIMES = SHORTER FLIGHT TIMES.

**WARNING!** Interrupting the charge before the charge cycle is completed will not damage the battery, however for the longest flight times please let the charger finish its charge cycle.

## PILOT INFORMATION NOTICE!

The Black Ghost is an indoor helicopter only. Do not attempt to fly it outdoor even on a calm day.

## FIRST FLIGHT- ARMING AND TRIMMING YOUR HELICOPTER

“Arm” the throttle by cycling the throttle control from off (bottom) to full on (full up) and back to off, the Green LED on the Controller will turn on – this is a safety feature to prevent accidental starts. Your helicopter must be “trimmed” to stop unwanted rotation. First, using the “UP” control stick, simply raise the helicopter to eye level and turn the trim control knob (as shown) on the transmitter unit either left or right till the helicopter stops spinning. This should be done everytime you fly your helicopter after charging. Trim setting will vary as the helicopter battery drains. Re-adjust trim during flight as required.



TRIM CONTROL KNOB

## FLYING TIPS!

**Take off** - To take off, the rotors need to spin upto speed to produce lift. For great take offs use the following steps.

- 1) Push the UP/DOWN throttle completely to UP and watch the helicopter leap off the ground.
- 2) Once off the ground, gently reduce the throttle so that the helicopter is at the desired height above the ground.

**Altitude Control** - the throttle control is a digital proportional system, therefore fine movement of the throttle stick will produce minor changes in the helicopter altitude.

Take time to practice controlling the altitude and getting accustomed to the throttle sensitivity.

**Note:** The helicopter will always fly forward based on its design.

**Trimming** - Once flying at the desired height the helicopter may be spinning under the rotors instead of holding a heading. Adjust the trim control so that the helicopter body does not spin: Turn the trim control left if the body is spinning right (Clockwise)- Turn the trim control right if the body is spinning left (Counter Clockwise).

**Note:** many factors affect the trim of the helicopter such as battery condition, throttle setting and damage to the rotors. It may be required to adjust the trim control more than once during a flight - once trimmed minor corrections can be managed using the steering control. See the troubleshooting section for more information.

**Direction control** - Direction control convention is based as if you were sitting in the pilot's seat of the helicopter. The LEFT/RIGHT stick on the transmitter controls the steering of the helicopter. Pushing the stick left results in a left turn. Pushing the stick right results in a right turn.

**Control Reversal**- When the helicopter is flying towards you the steering will appear to reverse.



Control Reversal



## TROUBLESHOOTING

### ISSUE:

### CAUSE:

### CORRECTIVE ACTION:

Helicopter will not start, LED on helicopter is OFF.

- 1) Helicopter not turned on.
- 2) Battery is not charged.
- 3) Helicopter was not set to OFF during charging.
- 4) Rotors locked for overload protection.

- 1) Turn helicopter on.
- 2) Ensure helicopter is off and charge battery.
- 3) Ensure batteries are fresh.
- 4) Adjust helicopter's on/off switch to OFF, then switch on again.

Helicopter will not start, LED on helicopter is ON.

- 1) Transmitter is not turned ON.
- 2) Speed control is not initialized .
- 3) Battery is low.

- 1) Turn transmitter on.
- 2) Push UP/DOWN completely to UP, then back to DOWN to initialize speed control.
- 3) Ensure helicopter is OFF and charge battery.



## TROUBLESHOOTING -CONTINUED

ISSUE:	CAUSE:	CORRECTIVE ACTION:
Helicopter is flying too low.	<ol style="list-style-type: none"><li>1) Needs more power/throttle.</li><li>2) The battery in the helicopter is low.</li><li>3) The batteries in the charger are drained.</li></ol>	<ol style="list-style-type: none"><li>1) Move the throttle stick up.</li><li>2) Ensure the helicopter is OFF and charge the battery.</li><li>3) Remove batteries from charger &amp; replace with new batteries and charge the helicopter again.</li></ol>
Helicopter doesn't hover.	<ol style="list-style-type: none"><li>1) The helicopter is designed to always fly forward.</li></ol>	<ol style="list-style-type: none"><li>1) No corrective action required.</li></ol>
Helicopter doesn't fly forward fast enough.	<ol style="list-style-type: none"><li>1) The helicopter is not designed for fast flight.</li></ol>	<ol style="list-style-type: none"><li>1) If desired, add a small amount of weight to the bottom side of the nose (ie. tape a small coin to nose of the bottom of the helicopter).</li></ol>
Helicopter always turns.	<ol style="list-style-type: none"><li>1) Trim control is not set correctly.</li><li>2) The rotor blades have sustained damage / or wear from use:<ol style="list-style-type: none"><li>a. Helicopter spins counter clockwise.</li><li>b. Helicopter spins clockwise.</li></ol></li></ol>	<ol style="list-style-type: none"><li>1) Adjust the trim control knob. See the FLYING TIPS section.</li><li>2) Gently bend more curvature into the blades.<ol style="list-style-type: none"><li>a. Adjust the top rotor blades.</li><li>b. Adjust the lower rotor blades.</li></ol></li></ol>

## FREQUENTLY ASKED QUESTIONS

### **Flying Area/Location?**

Your Black Ghost has a control range of about 20 feet with the direct line of sight with the controller. Any obstruction of the infrared signal may temporarily interrupt the proper function of the Black Ghost. Please note that this helicopter is meant to be flown inside only. The Black Ghost is very lightweight and so is very sensitive to air currents. You must be very careful to fly only in calm air - keep away from fans, air vents or any other sources of moving air. Also, fly only in areas that are free of furniture to avoid flying into household objects, and keep the heli at least 3 feet away from walls and ceilings.

### **Safety?**

Do not fly your helicopter near people or pets. Stay clear of furniture and other obstructions. If you lose control of the helicopter, reduce the throttle and allow it to land. Do not attempt to open the body of the helicopter or modify the design, doing so may damage the aircraft and may be hazardous. Do not attempt to replace or overcharge the internal battery. To prevent battery damage, use only the supplied battery charger.

### **Advanced pilot?**

At full throttle the overall output from the motors is actually reduced when you apply trim or rudder stick. This is because the motors are already at 100% and to turn, the only thing the control can do is to reduce the speed of one of the motors. The other motor is at 100% and can not increase; therefore the combined output is lowered. If you need full trim in one direction, this means that one of your motors will never get up to 100%.

### **How long will the Black Ghost fly?**

This very much depends on the condition of your battery. Normal flight times are between 3 & 6 minutes. If you are able to fly for more than 4 minutes you should land and let the motors cool down for a few minutes.



## FREQUENTLY ASKED QUESTIONS -CONTINUED

### **Black Ghost is tipping over during takeoff?**

Launch the Black Ghost from flat, smooth surfaces - only. When taking off, briskly move the throttle stick forward to get the Black Ghost airborne quickly, then, reduce throttle a bit to prevent it from shooting skywards. Do NOT let the helicopter sit on the ground with the rotors spinning at partial power - this will almost certainly cause the helicopter to tip over due to uncompensated torque effects and gyroscopic precession. If for some reason the helicopter tips over or crashes it is important to stop the rotors immediately by pulling the throttle stick to DOWN (to the 'off' position). Stop-ping the rotors while the throttle stick is not in the 'off' position could damage the motor brushes or the battery fuse.

### **Can my Black Ghost fly forward more quickly?**

If you feel that you are ready for the Black Ghost to move forward a bit more quickly, you can move the center of gravity forward. Attach a paper clip to the body under the nose of the Black Ghost. This will cause it to have a bit more forward flight speed but be aware that in this case, the Black Ghost will tend to fly forward even with the controls at neutral.

### **The tail rotor is tilted (or angled)?**

This is quite normal and does not influence on the stability of the helicopter. You should not try to change the angle of the motor. If the small black propeller itself is deformed and not spinning properly you could try to gently bend the propeller to be perpendicular to the motor shaft.

### **Why is the tail rotor not spinning when I operate the right hand stick?**

With the helicopter on the ground, initialize the transmitter by moving the right stick up and then down again. Now test the tail by pushing the right stick left or right. If the tail motor does not start, try to turn it by hand while you hold full forward on the right stick. If the motor starts, run it at full speed for one minute and then reverse it by pulling the right stick to full reverse. Run the tail motor for another minute.

### **My charging takes much longer than 20 minutes?**

The weight of the Black Ghost can vary a little and this will influence your flight times. If you are able to fly for about 4-5 minutes, a full charge will take 20-30 minutes. However, if you are able to fly for more than one flight, resulting in longer total flight times - the charging time will also increase relatively.

### **Charger won't charge the battery?**

Make sure that the Black Ghost is switched OFF.

### **Charger LED shuts OFF as soon as I plug in the Black Ghost ?**

Your helicopter is fully charged - fly it.

## **BROKEN ROTOR BLADES?**

**If you break one of your rotor blades -don't panic.**

Replacement blades can be purchased at the original retail outlet for most BladeRunner Series Helicopters. Or inform us at the numbers listed on the following page. Please retain proof of purchase.



# BLACKGHOST™

## NOTICE!

**IF YOU HAVE ANY PROBLEMS OR CONCERNS ABOUT THIS PRODUCT, CONTACT OUR CUSTOMER CARE CENTRE BEFORE RETURNING IT TO ANY RETAIL STORE!**

**Please contact us at:**

**Email: [info@interactivetoy.com](mailto:info@interactivetoy.com)**

**Phone: Outside North America: +1 416 444 6873**

**Inside North America: 1 866 214 2220**

**Address: Interactive Toy Concepts, 1192 Martin Grove Road, Toronto, Ontario, Canada. M9W 5M9**

**Web site: [www.interactivetoy.com](http://www.interactivetoy.com)**

### IMPORTANT SAFETY INFORMATION

Keep the helicopter away from face, eyes and hair at all times. Keep fingers away from moving rotors or propellers. Do not fly the plane near or at other people or animals. Use caution when flying, make sure people around you know that you are playing with the helicopter. Recommended for use indoors only in rooms without obstacles, breakable objects or fans. The charger provided in this package is for charging the helicopter ONLY. Only use the provided charger included in the package to charge the lithium polymer battery installed in the Black Ghost micro indoor IR controlled helicopter. Do not attempt to overcharge your helicopter. Follow the charging instructions provided in this instruction manual.

### IMPORTANT BATTERY INFORMATION

Use only batteries recommended in this instruction manual. Do not mix old and new batteries. Battery installation should be performed by an adult. Be careful to install the batteries with the correct polarity, as indicated. Do not use rechargeable batteries. Do not mix alkaline, standard, lithium, rechargeable, or different types of batteries. The supply terminals are not to be short-circuited. Exhausted batteries are to be removed as they will hinder performance. Never leave a battery unattended while it is being charged. Never leave a battery unattended in the presence of children. Helicopter charging time will increase with usage as the condition of the C cells diminish. The Infrared Controller also works as a charger and it takes six (6) AA size batteries (sold separately).

### 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.

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.

### Limited 30-day warranty

This product is warranted by Interactive Toy Ltd. against manufacturing defects in material and workmanship under normal use for thirty (30) days from the date of purchase. **Please retain proof of purchase.**

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Manufactured by and distributed by Interactive Toy Concepts Ltd.

Conforms to Safety Standards ASTM F963-03 Regulatory Requirements.

Products and colors may vary.

MADE IN CHINA.



United States Patent Application No. 20040245376A1  
PCT Application WO04103814A1  
Canadian Patent CA 2,496,385  
Norway Patent NO317612.

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