# DUAL ROTOR RADIO CONTROLLED MINI HELICOPTER

**Model 95125** 

# **ASSEMBLY AND OPERATION INSTRUCTIONS**



# IMPORTANT!

RC transmitter has safety feature that will keep it from transmitting to helicopter until left control stick is raised to top, then dropped to bottom.

Power LED illuminates steadily to indicate transmitter ready.

# WARRANTY VOID IF DAMAGE CAUSED BY CRASH.

Diagrams within this manual may not be drawn proportionally.

Due to continuing improvements, actual product may differ slightly from the product described herein.

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

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For technical questions or replacement parts, please call 1-800-444-3353.

Manual Revised 02/07

# **SPECIFICATIONS**

Helicopter Dimensions	13-5/8" L X 10" W X 4-5/8" W
Frequency Listed	27.145 MHz
Helicopter Battery	3.7 V, 300 mAh Lithium Polymer
Remote Batteries	8-AA batteries (Not Included)
Transformer	110 V~,50-60 Hz Input 6 V/400 mA Output
Flight Time	Approximately 7 minutes with 2 minute pause*

\*Note: With each battery charge, flight time is approximately 7 minutes. Initial flights are approximately 4 minutes, followed by a required pause of 2 minutes, which can be followed by an additional flight of approximately 3 minutes.

## **Save This Manual**

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

### SAFETY WARNINGS AND PRECAUTIONS

#### READ ALL INSTRUCTIONS BEFORE USING THIS PRODUCT

- 1. When using, basic safety precautions should always be followed to reduce the risk of personal injury and/or damage to the product.
- 2. Sharp antenna on RC Transmitter can cause injury.
- 3. **Keep spectators, pets, and children away.** Spectators should only watch from a safe distance. Children should not operate without adult supervision.
- 4. **Do not attempt to open the Helicopter's housing or to modify its design.** Doing so may cause damage and/or make it dangerous.
- 5. Battery safety: Do not attempt to remove, overcharge or short helicopter's Battery. Use only the supplied Battery Charger to charge the battery. The battery may explode if short-circuited; keep the battery dry at all times. Monitor battery while charging; DO NOT leave unattended. Charge the toy on a non-flammable surface and keep it away from flammable items. Turn the charger off when the toy's battery is charged, and always unplug it from the toy. Disconnect AC wall chargers from outlets while not in use. If the toy has been damaged, immediately stop use, unplug, and safely move the toy away from flammable materials. Follow the manufacturer's instructions for charging the toy. Do NOT charge longer than recommended
- 6. **Use in an open area, such as a empty garage or auditorium.** It is fragile, like most model-type aircraft, but can be used many hours if treated properly. Start with short test flights consisting of 10 to 15 seconds and keep flights at low altitude. The Helicopter is very light. Do not fly near vents or fans that effect airflow.
- 7. **Store in the foam box it is shipped in.** This will help prevent damage and extend the usable life of the Helicopter. Improper storage may result in components becoming bent. This will result in decreased or unpredictable flight performance.

REV 07c; 07d

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Page 2

- 8. If you start losing control, gently reduce the throttle and land softly.
- 9. The warnings, cautions, 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 that cannot be built into this product but must be supplied by the operator.

## **UNPACKING**

- 1. Carefully slide the foam box containing the Helicopter from the cardboard box.
- 2. The Helicopter and its rotors are held in place by at least 3 pieces of tape. Remove all 3 pieces of tape.
- 3. Note the two foam corners that are precut to slide up, and out. These protect the Rotor Blades when it is stored or moved to another location. Carefully remove them.
- Remove the Charger, the RC Transmitter, and the antenna. Insert and thread 4. the Antenna into the top of the RC Transmitter.
- 5. Until the wire ties to disconnect the Trestle from the bottom of the foam packing.
- 6. Gently remove the Helicopter from the foam package. CAUTION! Do not pull the helicopter out by the rotors or the tail. If any part seems to not come easily, stop and remedy the obstruction before proceeding.
- 7. When unpacking, check to make sure that the Helicopter, RC Transmitter, Charger, and Antenna are all included and intact. If any parts are missing or broken, please call Harbor Freight Tools as soon as possible.

#### **SET UP**

- 1. If the Tail Rotor/Blade is not facing straight up and horizontal, gently move it until it is horizontal to the surface it sits upon. (Sometimes the Tail Rotor is tilted slightly in shipping.)
- 2. Keep all pieces of the packing material to store the Helicopter properly.

# **Installing RC Transmitter Batteries**

- 1. Remove the Battery Cover on the back of the RC Transmitter.
- 2. Place eight "AA" batteries (sold separately) into the space provided. Be careful to match up the polarity markings correctly. CAUTION: Replace all batteries at one time. All batteries must be of the same type and charge level.
- 3. Replace the Battery Cover.

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# **Initial Charge Level**

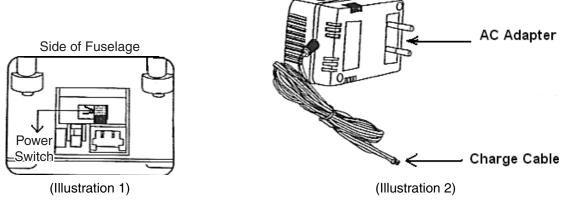
The Helicopter is shipped with an installed Lithium Polymer Flight Battery, partially charged. This allows the Helicopter to be tested before charging the battery initially. Do not charge the Helicopter before first use. Simply fly it for a few minutes. As soon as the power begins to fade, land the Helicopter and charge the battery.

# **Lithium Battery Charging Safety**

- 1. Do not leave unattended while charging.
- 2. Battery charging should be done by adults only.
- 3. Charge on non-flammable surface and keep away from flammable items.
- 4. Turn charger off when battery is charged, and unplug charger from battery-powered device.
- 5. Disconnect AC wall chargers 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.

# Recharging

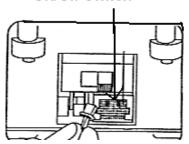
1. **Note:** When recharging, monitor battery. Do NOT leave unattended while recharging. Switch the switch on the fuselage of the helicopter towards the nose to turn it off. (See Illustration 1.)



2. Plug the AC Adapter into a wall outlet. (See Illustration 2.)

REV 07c; 07d; 08c

#### Charge Jack...Next to On/Off Switch



(Illustration 3)

- 3. Gently plug the Charge Cable into the Micro Jack located on the side of the Mini-Helicopter. NOTE: The Connector will only connect one way. Do not force it. It should connect smoothly and with minimal force. (See Illustration 3.)
- 4. When the Charger Plug is plugged into the Helicopter, the LED on the charger will go out, indicating that charging is taking place.

Charging LED Indication		
AC Adapter LED Status	Meaning	
Off	Battery low in power, charging in progress	
On	Battery full, charging done, disconnect immediately.	
Blinking	Connection fault Indicates that the Charge Cable is not properly connected to the Mini-Helicopter, or the Switch under the Mini-Helicopter is not in the OFF position.	

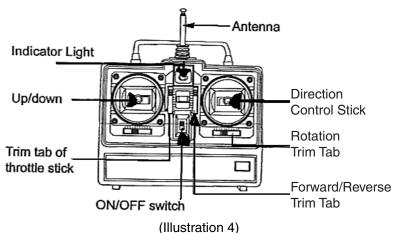
- 5. Charging takes about 30 minutes. When the LED brightens, the charge is complete.
- 6. Disconnect the Charge Cable from the Helicopter.
- 7. Keep the Helicopter switched off when not flying. If left on, the battery may be depleted or damaged.

# **OPERATION**

**CAUTION:** Keep all spectators a safe distance away while flying and do not fly too near to yourself.

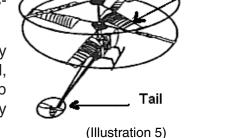
**Note:** Flying any helicopter, even a dual rotor model helicopter, takes a great deal of patience and practice. Take time to get familiar with the controls of the helicopter in a location that will be relatively safe for the delicate helicopter.

**Note:** Read through this entire section completely and get familiar with the controls BEFORE flying the helicopter for the first time. There will likely not be time to review instructions during flight.



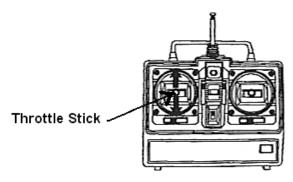
(IIIustration 4)

- 1. Extend the Antenna on the RC Transmitter. (Illustration 4)
- 2. Switch the Helicopter on by moving the switch on the side of the fuselage towards the tail of the helicopter.
- Place the Helicopter on the floor with the tail facing towards you and the nose facing away. (Illustration 5)
- Turn ON the ON/OFF Switch on the RC Transmitter.
- 5. Disarm the safety lock on the transmitter by pressing the Throttle stick all the way forward, then all the way back. The LED on the top middle on the RC Transmitter will light and stay on.



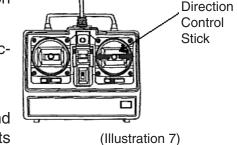
- 6. Smoothly move the Throttle Stick forwards, the two Rotors will start spinning. The farther the Throttle Stick is moved forward, the faster the two main Rotors will spin. As the Throttle Stick is moved past center, the Helicopter will lift off.
- 7. Try to lift the helicopter at least three or four feet off the ground before practicing on the controls. It will be easier to control at that height.

#### **Controls**



(Illustration 6)

- To gain altitude, move the Throttle Stick forward. To descend, slowly move the 8. Throttle Stick back. (See Illustration 6)
- To rotate clockwise, move the Direction Control Stick left. (See Illustration 7) 9.
- 10. To rotate counterclockwise, move the Direction Control Stick right. (See Illustration 7)
- 11. To move forward or backward, move the Direction Control Stick forward or backward. (See Illustration 7)



To land, move the Throttle Control slowly and 12. smoothly backwards until the helicopter starts to descend.

> An advanced technique to help cushion the landing is to apply a slight amount of throttle when the helicopter is just above the ground.

#### **Trimming**

- 12. Locate the two Trim Tabs near the Direction (right) Control Stick on the RC Transmitter\*. (See Illustration 4, previous page.)
  - a. The Trim Tab under the right control stick effects Helicopter Body rotation direction and speed\*\*.
  - b. The Trim Tab to the left of the right control stick can be adjusted to control forward and backward movement.
  - c. Gently and slowly move these Trim Tabs to help maintain control of the helicopter. The changes may take a slight amount of time to be evident, so adjust slowly.

Note: Adjustment of the internal rotation potentiometer should be performed ONLY by a qualified technician. Improper adjustment of any potentiometer can result in permanent damage to the transmitter.

Under the rectangular center cover in the RC Transmitter, there are three delicate potentiometers. Only the center potentiometer can be adjusted gently and slightly to adjust the rotation control of the helicopter. Turn it clockwise to slow down counterclockwise rotation and turn it counterclockwise to slow clockwise rotation. Replace the center cover before use.

The trim tabs near the Throttle (left) Control Stick do not effect helicopter operation.

Additional adjustment of the rotation control is as follows:

### <u>Tips</u>

- 13. Flight times of four minutes are normal when the Helicopter is fully charged. Then, after waiting two minutes, it can fly another two to three minutes before being recharged. Running the helicopter until the battery completely runs out of power may ruin the battery.
- 14. Do not let the Helicopter get closer than two feet from walls and ceilings. The Helicopter tends to gravitate towards large flat surfaces.
- 15. When taking off, do not move the Throttle Stick too slowly. Take off is a critical time and if the Helicopter hovers at a low height for too long, or sits on the floor too long with the Rotors turning, it will likely lean to its side. The key is to try to get it into the air smoothly and quickly. This does not mean that the throttle should be jammed forward. Slow and smooth does it.
- 16. Avoid sudden movement of the Control Stick.
- 17. The Helicopter has a receiving range of 30 feet but wiring in walls or other interference may reduce this range.
- 18. During initial flights, try to keep the Helicopter within 5 feet of the ground in case it needs to be landed quickly.
- 19. As noted before: When landing, give the Helicopter a bit more throttle just prior to touch down. This will help make a smooth landing.
- 20. When the Helicopter touches down, back all the way off on the Throttle Stick. This will prevent the Helicopter from bouncing and possibly turning over.
- 21. After use, switch the RC unit off first, then switch the Helicopter off by moving the switch on the fuselage towards the nose of the Helicopter.

### MAINTENANCE

- 1. Keep the Helicopter clean and dry.
- 2. Store the Helicopter inside the original Foam Packing out of the reach of children.

# **Replacing Rotors**

- 1. Remove top cap on Rotor Assembly
- 2. Remove Rotors and Fittings.
- 3. Install new Rotors and Fittings.
- 4. Hold Helicopter in hand and brace bottom while replacing top cap gently but firmly. Pushing top cap down while Helicopter is sitting on a surface may cause damage to Landing Gear.

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### **PARTS LIST**

Part	Description	SKU
1	Main & rear rotors, one set purple, one set black, fittings in red	29662
2	Four piece gear set	29663
3	Black main and rear rotors, red fittings	29664
4	Fuselage and frame, includes nose	
5	Transmitter	
6	Battery	
7	Both main motors	
8	Landing gear	
9	Control Board	
10	Charger	
11	Tail rotor	

Note: Some parts are listed and shown for illustration purposes only, and are not available as replacement parts.

#### PLEASE READ THE FOLLOWING CAREFULLY

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Page 9

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