

7. Trouble-shooting

Symptom	Cause	Correction
Propeller can't move.	- ON/OFF Switch is OFF. - Weak Battery.	- Set switch to ON. - Re-charge the battery pack.
Suddenly stop and drop down when flying.	- Weak power.	- Re-charge the battery pack.
GYROTOR does not react.	- Channel selection on transmitter is not correct.	- Reset the correct channel.
Loss of control.	- Another radio control device using the same frequency and channel is operated near your helicopter. - Out of the control range of distance.	- Move to another place where without radio frequency interference from another device. - Ensure the antenna is fully extended. The control range for helicopter is up to 15 meters.

8. Specification

Transmitter	
Channel	A, B, C
Frequency	27.145MHz
Modulation	AM
Control range	15 meters
Battery low detection	Yes. Power LED blinks - per sec
Power saving mode	Yes. Power LED off

Power Charger	
AC/DC adaptor	120 V, 60Hz
Charging base	12V, less than 300mA

GYROTOR	
Gyro	Yes
Gyro control	Balance
Battery pack	2×3.7V, 130mAh Li-polymer batteries (included)

Tip! FLIGHT INSTRUCTION

For the novice Pilot (after the trimming procedure was completed), it is highly recommended to focus exclusively on learning to control the Throttle stick first. Even if the helicopter may turn around a bit by itself, there is no need to keep it straight and keep it fly nicely. For the first flight, it is important to learn to keep the helicopter at a constant altitude of around 1 meter with small inputs on the Throttle stick. Once the Pilot masters this, he may start learning to take control with the Direction stick.



Key Feature

For GYROTOR:

- Miniature design for indoor flying
- Two built-in Li-Poly batteries for long flying time
- Unique roto-blade system for steady lifting-up
- Sophisticated rudder-motor assembly for gyroscopic effect
- EPS durable foam body
- Real-shape body design

For Transmitter:

- Two channels digital proportional control
- Tri-band A,B,C
- Power indicator for throttle
- Rudder Trim

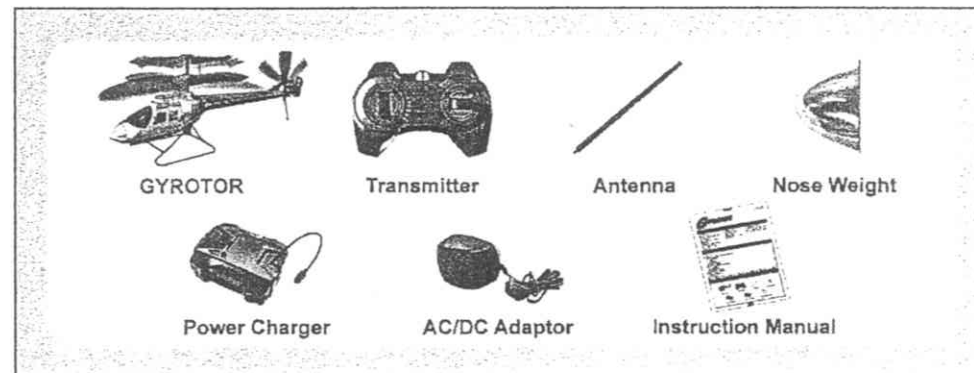
For Battery charger:

- Smart Charger for Li-Poly Battery
- Green indicator for charging-up
- Auto stop after complete charging

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1. Pack List



2. Precautions Tips, Warning & Statement

2.1 Precautions Tips

Tip! SAFETY

- Read through the whole instruction Manual before starting to play your helicopter.
- This product is designed to be used only indoors. Do not use it outdoors unless in windless days without any small gusts of wind.
- Never fly in a place cluttered with obstacles (place full of furniture, people, pets etc.)
- Make sure you and other people keep 1-2 meters away from the helicopter while you start for flight.
- Always keep an eye on the flying helicopter to prevent it flying, landing or crashing on or near your head, your body and any other people.
- Never disassemble or attempt to modify the product. It may damage the product and cause danger.
- Never put hands or face close to rotating parts. Doing so create the risk of unexpected injury. To avoid such risk, never operate this product while sitting on the floor or on a chair. Operate this product in a posture that allows you to quickly get out of the way if necessary.
- Always switch off both the flying unit and transmitter when leaving transmitter is unattended. If the power switch is left on, it is possible that unintended stick operation occurs, when the transmitter is placed on a floor or a chair.
- Never allow young children to use this product. Doing so create the risk of accident causing by the rotating parts.
- Never use parts that are damaged or have altered shape in this product to ensure safe practice.
- Never wave the antenna of transmitter around or put it close to people's face, as there is a risk that the antenna tip could poke someone's eye etc.

Tip! AVOID CRASH

- Never attempt to fly with antenna of the transmitter not fully extended. If the transmitter is used while the antenna is not fully extended, the radio wave will not reach as and it could take a crash.
- Never operate ON/OFF switch of the flying unit without ensuring that the battery level indicator of the transmitter lights up. If the flying unit power is switched on while the transmitter is not functioning, there is a risk that unintended movement of the flying unit will occur.
- Make sure the antenna is tightened and test flight before playing. If the antenna were to loosen and detach during flying, then no signal can be transmitted and the flying unit will crash.
- After a crash or hard landing, please power the "ON/OFF" switch again to "ON" position to reset the helicopter.

2.2 Warning Statement

Safety Precautions:

- Never leave equipment such as the transmitter, special purpose charger or flying unit in a location that can be accessed by infants or small children.
- Never disassemble or attempt to modify anything other than what is specified by this manual. Doing so could cause electric shock, an injury, equipment breakdown or a subsequent fire.
- Never store the transmitter, special-purpose charger, or flying unit in the following places:
 - Parents, this toy is recommended for children. To ensure that your child's play safe and fun, please review the operating instructions with your children.
 - Adult assemble is required.
 - Adult supervision is required.
- DO NOT leave equipment such as transmitter, special purpose charger or flying unit in a location that can be accessed by infants or small children.
- DO NOT play helicopter outdoors or where there is moisture.
- DO NOT play helicopter in the place close to other flying fields, for radio controlled aircraft (2 miles / 3Km radius) or close to high voltage lines or communications installations.
- DO NOT touch the turning propeller.
- Keep hands, hair and loose clothing away from the running propeller.
- Remove the battery from the transmitter when not in use.

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.

FCC Statements

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.

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 or television reception, which can be determined by turning the equipment off 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 an experienced radio/TV technician for help.

Care and Maintenance:

- Always remove batteries from the toy when it is not being used for a long period of time. (For transmitter only)
- Wipe the toy gently with a clean damp cloth.
- Keep the toy away from direct heat.
- Do not submerge the toy into water that can damage the electronic assemblies.

Battery Cautions:

- Non-rechargeable batteries are not to be recharged
- Rechargeable batteries are to be removed from the toy before being charged (Transmitter only)
- Rechargeable batteries are only to be charged by an adult
- Different types of batteries or new and used batteries are not to be mixed (Transmitter only)
- Only batteries of the same or equivalent type as recommended are to be used.
- Batteries are to be inserted with correct polarity.
- Exhausted batteries are to be removed from the toy (Transmitter only).
- The supply terminals are not to be short-circuited.

Helicopter is equipped with a Li-Poly battery, please also pay attention to the following cautions for safety use:

- Do not dispose the battery in fire or heat.
- Do not use or leave the battery near a heat source such as fire or heater.
- Do not strike or throw the battery against hard surface.
- Do not immerse the battery in water, and keep the battery in a cool dry environment.
- When recharging, only use the battery charger specifically for that purpose.
- Do not over-discharge the battery.
- Do not connect the battery to an electrical outlet.
- Do not directly solder the battery and pierce the battery with a nail or other sharp object.
- Do not transport or store the battery together with metal objects such as necklaces, hairpins etc.
- Do not disassemble or alter the battery.
- Charge the battery every 6 months.
- Turn off your equipment power switch after use.
- As for a used battery, please recycle after covering the battery terminals with insulation tape or inserting it to an individual poly-bag.


Special Note to Adults:

- Regularly examine for damage to the plug, enclosure and other parts. In the event of any damage, the toy must not be used with the charger until the damage has been repaired.
- This toy is not intended for children under 3 years old.
- This toy must only be used with the recommended charger
- Do not try to charge other batteries with charger.


Notes:

- Parental guidance is recommended when installing or replacing batteries.
- Under the environment with electrostatic discharge, the sample may malfunction and require user to reset the sample.
- New and Alkaline batteries are recommended to obtain best and maximum performance.



Battery requirement for Transmitter:


- Power Supply : 
 Rating : DC 9 V, 0.45 W
 Battery : 1 x 9 V 6LF22 / BA06
 Requires 1 x 9 V battery
 (not included)

Battery requirement for GYROTOR:

- Power Supply : 
 Rating : DC 7.4 V, 4.5 W
 Batteries : 2 x 3.7 V Li-Poly
 Rechargeable Battery Pack
 Requires 2 x 3.7 V Li-Poly Rechargeable
 Battery Pack (included)

 **WARNING:**
 CHOKING HAZARD – Small parts.
 Not for Children under 3 years.

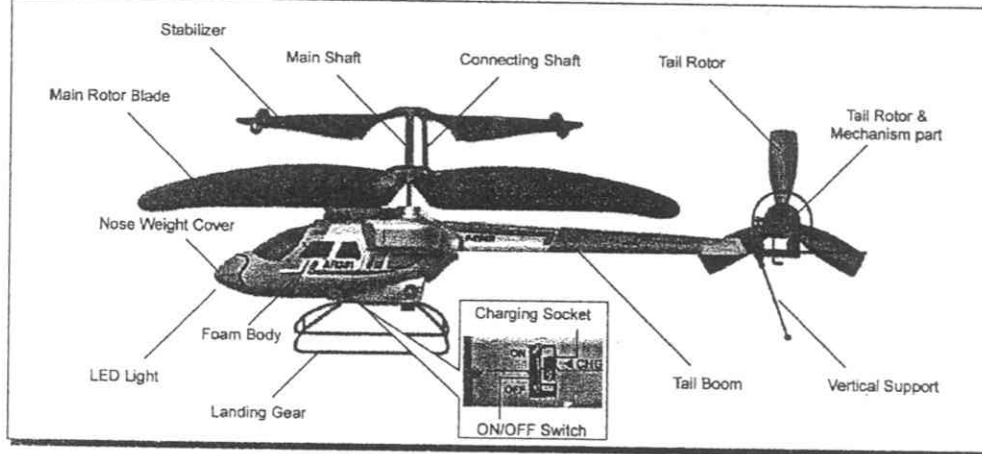
"This product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC."  

 Do not touch the running propeller!
 Do not play above someone's head!
 Adult supervision is required!

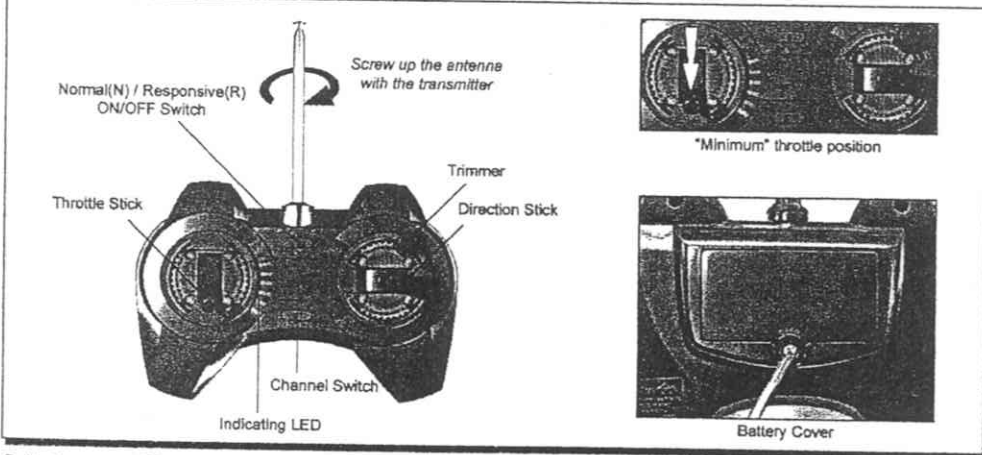


3. Parts-identification

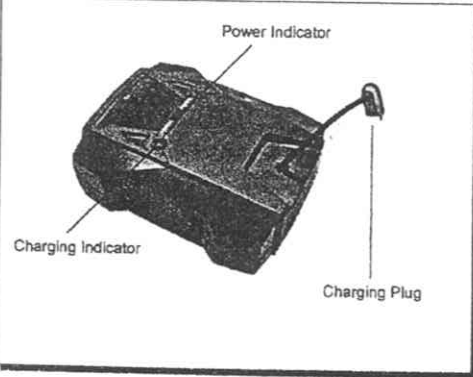
3.1 GYROTOR



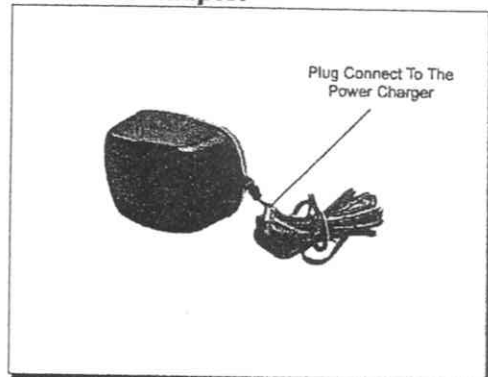
3.2 Transmitter



3.3 Power Charger



3.4 AC/DC Adaptor

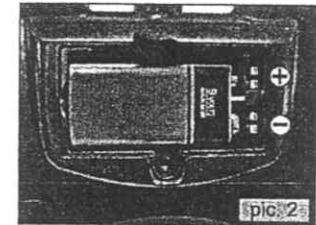
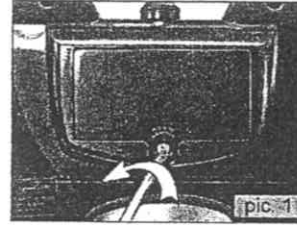


4. Battery Installation & Charging

4.1 Battery installation : Transmitter

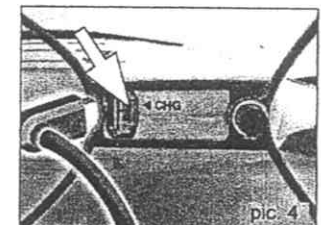
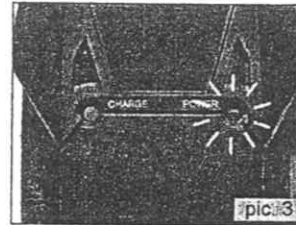
Make sure the power switch is on "OFF" position

1. Use a phillips head(Cross-Head) screwdriver to loosen screw in counter-clockwise (pic.1)
2. Insert new "9 V" size battery with "+" & "-" signs as shown inside battery compartment.(pic.2)
Close the battery cover using a phillips head(Cross-Head) screwdriver.



4.2 Charging your helicopter

1. Connect the plug of AC/DC Adaptor to power charger, and the red LED indicator will light up. (pic.3)
2. Turn off the power of helicopter. Put the plug of power charger into the socket on helicopter. The green LED will light up when charging. (pic.4)
3. After charging is completed, the green LED will turn off. Put the plug of power charger out of the socket on helicopter.
4. It takes around 25-35 minutes to fully charge the battery and a fully charged battery serves about 5 to 7 minutes flight.



Tip! CHARGING

- Used only supplied battery charger.
- Do not overcharge the internal battery.

5. Environment for Flight

Choose the place which meet the following condition:

1. Indoor environment with calm air condition. Beware of the air circulation from the air-conditioner.
2. Space area: It is recommended to have space area over 10ft(W) x 17ft(L) x 10ft(H).
3. Safety area: It is highly recommended that there is no electric fan, air-conditioner, reading lamp or other dangerous objects to flying.

6. Flying Your GYROTOR

- Put the helicopter on a smooth surface. Uneven floor surface will affect its lifting off.
- Set the channel on transmitter the same like the helicopter.
- Set the ON/OFF switch of the helicopter to ON position. BE SURE THE TRANSMITTER IS IN "OFF" POSITION before turning on the helicopter.
- Always place helicopter on the ground with the tail point towards you and the nose facing away from you. This is the better way to determine the Clockwise and Counter clockwise turn direction.
- Screw in antenna on transmitter, extend the antenna to the maximum.
- Set the throttle stick on transmitter to MINIMUM, and then set the power on.

Tip!

- 1. Normal(N) ON** : Good for beginner to learn and practice. It is highly recommended that players start with this mode.
- 2. Responsive(R) ON** : Gyrotor will react more directly to player's control. Both Normal and Responsive mode allow you to well perform Gyrotor and they just suit for different control preference of players.

1. TRIMMING THE HELICOPTER:

Gently push the throttle up to lift off your helicopter not higher than 10cm. If the floor is smooth and slippery (like on wood or stone), please trim it by not taking off at all. Just slowly push the throttle stick to a steady level without taking off and see what direction the helicopter rotates. Then correct the trim button in opposite direction. When the helicopter spirals to CLOCKWISE or goes to CLOCKWISE, turn the trimmer to LEFT. When the helicopter spirals to COUNTER CLOCKWISE or goes to COUNTER CLOCKWISE, turn the trimmer to RIGHT. (see pic. 5 & pic. 6) Repeat this procedure till the helicopter is holding its direction for at least 5 seconds without turning.

Spiral CLOCKWISE



Turn CLOCKWISE



OR

Turn the trimmer to LEFT



pic. 5

Spiral COUNTER CLOCKWISE



Turn COUNTER CLOCKWISE



OR

Turn the trimmer to RIGHT



pic. 6

2. LIFT-OFF PROCEDURE (after Trimming procedure):

- Slowly increase the throttle.
- DO NOT look at the transmitter but focus on the helicopter.
- As soon as the helicopter leaves ground, reduce the throttle slightly. (in the worst case, helicopter will go back to the floor, but that is better than crashing against the ceiling)
- VERY gently add the throttle if the helicopter goes down.
- VERY gently reduce the throttle if helicopter goes up.
- For turning, give short and small inputs to the direction stick. (Most beginners will easily overcontrol the helicopter)

3. ACCELERATES & DECELERATES:

If you turn the helicopter slowly to the counter clockwise, the helicopter will decelerate. And when turned it to the clockwise, it will accelerate.

4. FLY FORWARD AND STOP:

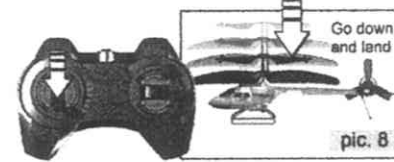
The helicopter will take a slow forward speed when a gentle Clockwise turn is made. To make it stop, it is sufficient to give a short Counter clockwise turn command. By alternating this flight technique, the helicopter can be directed anywhere and come back to its starting position.

5. HOVER UP AND DOWN:

When the GYROTOR flying steadily, you can slowly push the throttle stick upward to make sure GYROTOR to fly up and go forward (pic.7), and release down to make sure helicopter to go down and being land (pic.8).



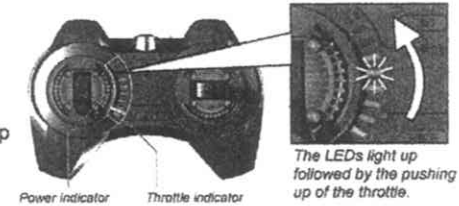
pic. 7



pic. 8

NOTE:

There is a set of LEDs on the right of throttle stick. The base one is the power indicator. The other ones (five green ones and two red ones) are the throttle indicator. When you push the throttle stick up, the LEDs will light up started from the bottom to the top and the more LEDs lighting, the higher of the throttle.



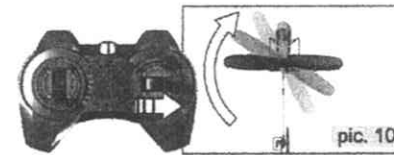
The LEDs light up followed by the pushing up of the throttle.

6. TURN COUNTER CLOCKWISE AND CLOCKWISE:

Hold helicopter at a certain height. Push the rudder stick to LEFT to turn COUNTER CLOCKWISE(pic.9), and push the Direction stick to RIGHT to turn CLOCKWISE. (pic.10)



pic. 9



pic. 10

7. LANDING:

Push the throttle down naturally.

8. EMERGENCY STOP:

Quickly push the throttle stick down to the end. The helicopter will stop at once, and all of LEDs on the transmitter will blink for 4 seconds. Within this 4 seconds, function of the throttle stick will be disabled.(pic.11)

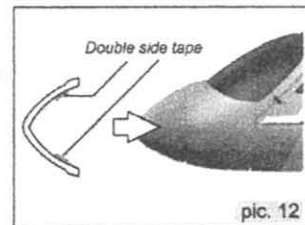


Blink for 4 seconds

pic. 11

9. NOSE WEIGHT:

If you would like to fly outdoor, make sure it is at a windless condition. You may need to add in the Nose Weight shell (stick it on the nose of the helicopter using the double side tape)(pic.12) to increase its forward force.



pic. 12

Tip! CONTROLLING

For controlling the sticks on transmitter, try not to push the sticks immediately to the extreme position. It should like steering a bicycle rather than pressing computer game sticks.