

EC135 X2

Roban RC Helicopter EC135 X2 Model Instruction Manual

Model: EC135 X2 | Brand: Generic

INTRODUCTION

This manual provides essential information for the safe and effective operation, setup, and maintenance of your Roban RC Helicopter EC135 X2 Model. Please read this manual thoroughly before operating the helicopter to ensure proper function and to prevent damage or injury.

SAFETY PRECAUTIONS

Operating a remote-controlled helicopter requires caution and responsibility. Failure to operate this product in a safe manner may result in injury or property damage. Always adhere to the following safety guidelines:

- **Always operate in open areas:** Ensure there is ample space free from people, animals, and obstacles.
- **Maintain visual contact:** Never fly the helicopter out of your line of sight.
- **Check weather conditions:** Avoid flying in strong winds, rain, or other adverse weather.
- **Inspect before each flight:** Verify all components are securely attached and undamaged.
- **Battery safety:** Use only the recommended battery and charger. Follow all charging instructions carefully.
- **Age recommendation:** This product is recommended for users 14 years and up.

WHAT'S IN THE BOX

Your Roban RC Helicopter EC135 X2 Model package includes the following items:

- Roban RC Helicopter RTF 450Size EC135 Yellow 4 Blades X2 Model (Ready-To-Fly)
- 10-channel Radio Control Transmitter
- 14.8V 3300mAh 35C Flight Battery
- Product Manual (this document)
- Necessary accessories for operation

PRODUCT OVERVIEW AND DIMENSIONS

The Roban RC Helicopter EC135 X2 Model is a 450-size, four-blade, Ready-To-Fly (RTF) remote-controlled helicopter. It features an X2 Roban (ardupilot F407) flight stabilization system for enhanced control.



A side view of the Roban RC Helicopter EC135 X2 Model, showcasing its yellow body, four-blade main rotor, and red-striped tail.

Key dimensions and components are detailed below:

- Body length: 850mm
- Length including rotors: 1000mm
- Width: 210mm
- Height: 270mm
- Main rotor diameter: 720mm
- Main blade length: 325mm
- Tail diameter: 130mm
- Tail blade length: 130mm
- Main shaft diameter: 6mm
- Tail shaft diameter: 5mm

- Spindle diameter: 6mm
- Main Motor: 1x 2820 1300KV brushless outrunner
- Tail Motor: 1x 2205 2450KV brushless outrunner
- Speed controller: 1x Dual 60A brushless, 6S capable
- Servo: 3x digital metal gear cyclic
- Flight Stabilization: X2 Roban (ardupilot F407)

Aircraft external dimensions (excluding paddle length)



This image illustrates the key external dimensions of the helicopter, including overall length (75cm), height (26.5cm), and width (16.5cm), excluding paddle length.



This image provides a detailed view of the enclosed tail rotor system and the distinctive red and white striped tail fin.



A detailed shot of the helicopter's front section, highlighting the clear canopy, internal components, and landing skids.

SETUP

Your Roban RC Helicopter is supplied as a Ready-To-Fly (RTF) model, meaning most assembly is complete. However, some initial setup steps are required before your first flight.

1. **Battery Charging:** Fully charge the included 14.8V 3300mAh 35C flight battery using a compatible LiPo charger (not specified if included, assume user has one or it's part of RTF package). Follow the charger's instructions carefully. Never leave charging batteries unattended.
2. **Transmitter Batteries:** Install fresh batteries into the 10-channel radio control transmitter.
3. **Binding (if necessary):** If the helicopter and transmitter are not already bound, follow the specific binding procedure outlined in the separate transmitter manual. Ensure the helicopter is powered off before initiating the binding process.
4. **Pre-Flight Check:** Before connecting the flight battery, ensure the throttle stick on the transmitter is at its lowest position. Verify all control surfaces (swashplate, tail rotor) move freely and correctly in response to transmitter inputs.
5. **Secure Battery:** Once charged, carefully insert the flight battery into the helicopter's battery compartment and secure it to prevent movement during flight. Connect the battery to the helicopter's

ESC.

OPERATING INSTRUCTIONS

Once setup is complete, you are ready for flight. Always prioritize safety and choose an appropriate flying environment.

1. **Power On:** With the throttle stick at its lowest position, power on your transmitter first, then connect the flight battery to the helicopter. Wait for the helicopter's flight stabilization system to initialize (indicated by LED lights).
2. **Pre-Flight Checks:** Confirm all controls respond correctly. Check rotor blades for any obstructions.
3. **Take-off:** Slowly and smoothly increase the throttle. The helicopter will begin to lift. Apply small, precise corrections with the cyclic (aileron/elevator) and rudder controls to maintain stability. Aim for a smooth, controlled ascent.
4. **Flight Controls:**
 - **Throttle (Left Stick, vertical):** Controls main rotor speed and collective pitch, thus controlling altitude.
 - **Rudder (Left Stick, horizontal):** Controls tail rotor pitch, causing the helicopter to yaw (rotate horizontally).
 - **Aileron (Right Stick, horizontal):** Tilts the helicopter left or right, causing it to move sideways.
 - **Elevator (Right Stick, vertical):** Tilts the helicopter forward or backward, causing it to move in those directions.
5. **Landing:** Slowly and smoothly reduce the throttle while maintaining a level attitude. Aim for a gentle descent. Once on the ground, immediately reduce throttle to zero.
6. **Power Off:** Disconnect the flight battery from the helicopter first, then power off your transmitter.

MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your helicopter.

- **Rotor Blades:** Inspect main and tail rotor blades for cracks, chips, or damage before and after each flight. Replace damaged blades immediately.
- **Mechanical Components:** Check all screws, linkages, and moving parts for looseness or wear. Tighten or replace as needed.
- **Motors and ESC:** Ensure motors are free of debris and spin smoothly. Check the Electronic Speed Controller (ESC) for any signs of overheating or damage.
- **Battery Care:** Store LiPo batteries in a cool, dry place at storage voltage. Do not overcharge or over-discharge. Discontinue use if a battery shows signs of swelling or damage.
- **Cleaning:** Gently clean the helicopter body and components with a soft, dry cloth. Avoid using solvents or harsh chemicals.

TROUBLESHOOTING

This section addresses common issues you might encounter.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Helicopter does not power on	Battery not charged or connected; Transmitter not powered on; Loose wiring.	Charge battery; Power on transmitter first; Check all connections.
Unstable flight / Drifting	Improper trim settings; Damaged rotor blades; Wind interference; Flight stabilization issue.	Adjust transmitter trims; Inspect and replace blades; Fly in calm conditions; Consult flight stabilization manual.
Loss of control range	Low transmitter battery; Interference; Antenna obstruction.	Replace transmitter batteries; Fly away from sources of interference; Ensure antennas are clear.
Motor not spinning	ESC not armed; Motor or ESC damage; Loose motor wires.	Ensure throttle is at zero and then advanced; Check connections; Inspect for damage.

SPECIFICATIONS

Detailed technical specifications for the Roban RC Helicopter EC135 X2 Model:

- **Body Length:** 850mm
- **Length (incl. rotors):** 1000mm
- **Width:** 210mm
- **Height:** 270mm
- **Main Rotor Diameter:** 720mm
- **Main Blade Length:** 325mm
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- **Main Shaft Diameter:** 6mm
- **Tail Shaft Diameter:** 5mm
- **Spindle Diameter:** 6mm
- **Main Motor:** 1x 2820 1300KV brushless outrunner
- **Tail Motor:** 1x 2205 2450KV brushless outrunner
- **Speed Controller:** 1x Dual 60A brushless, 6S capable
- **Servo:** 3x digital metal gear cyclic
- **Battery:** 14.8V 3300mAh 35C
- **Flight Time:** Approximately 15 minutes
- **Takeoff Weight:** 1800g
- **Flight Stabilization:** X2 Roban (ardupilot F407)
- **Radio Control:** 10 channel (included)
- **Product Dimensions (packaging):** 14 x 9 x 32 inches
- **Manufacturer Recommended Age:** 14 years and up
- **Manufacturer:** FLTHOBBY

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided by the manufacturer or contact your retailer. Keep your proof of purchase for any warranty claims.

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