**Actualia C138**

# Actualia C138 RC Helicopter User Manual

Model: C138

## 1. Introduction

This manual provides essential information for the safe and effective operation of your Actualia C138 RC Helicopter. Please read all instructions carefully before use and retain this manual for future reference. This remote-controlled aircraft is designed for users aged 16 and above.

Figure 1: Actualia C138 RC Helicopter with remote control and battery.

## 2. Package Contents

Verify that all items listed below are included in your package:

- Gift Box *1
- Helicopter *1
- Remote Controller *1
- Instruction Manual *1
- USB Charger *1
- Main Rotors *2 (spare)
- Tail Rotor *1 (spare)
- Lithium Battery *1
- Screwdriver *1
- Hex Wrench *1

## 3. Specifications

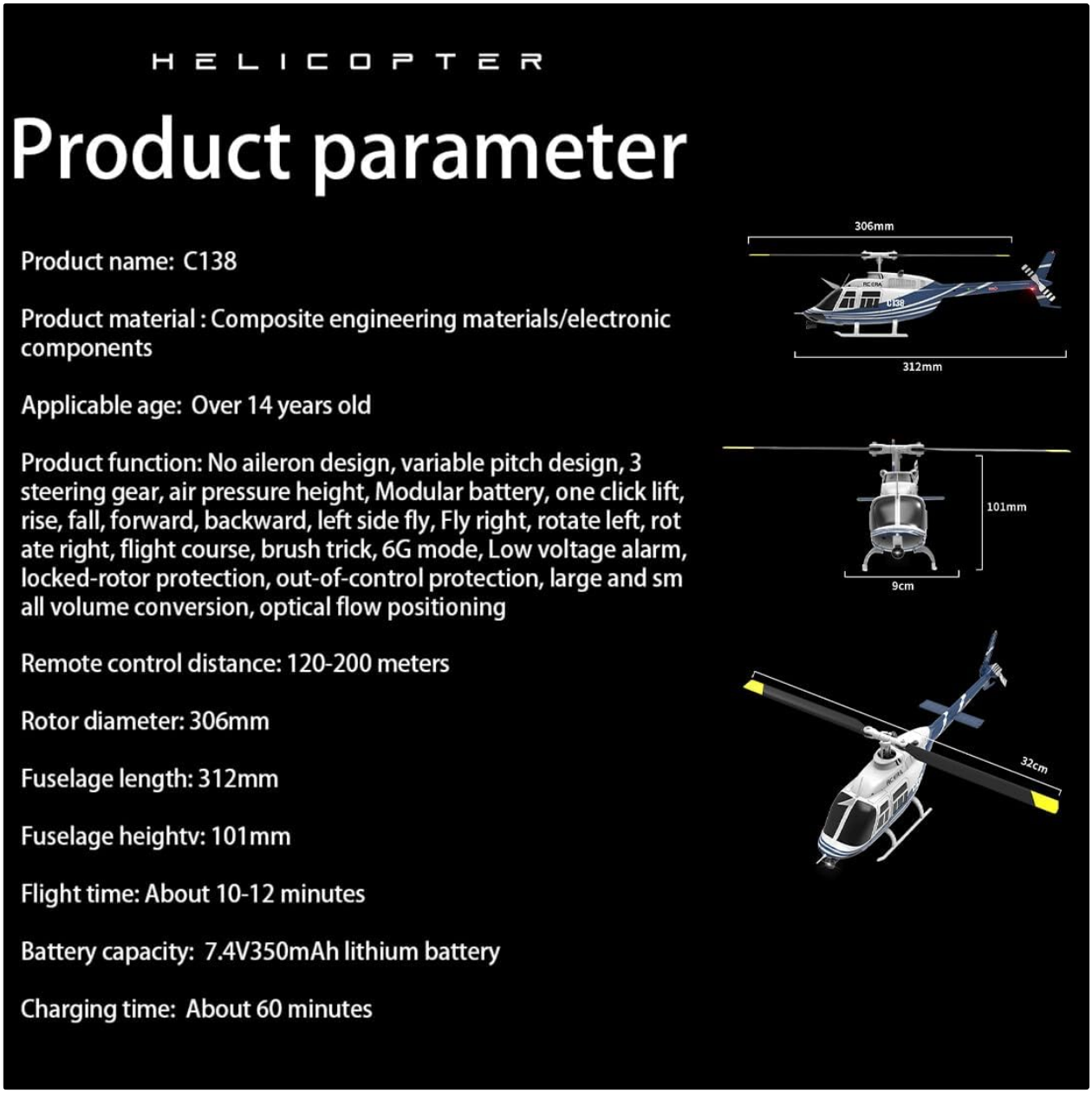


Figure 2: C138 RC Helicopter product parameters.

| Feature | Detail |
|---|---|
| Model | BELL 206 6CH Single-Rotor No-Aileron Helicopter (C138) |
| Material | PA/PC Composite Engineering Materials |
| Rotor Diameter | 306mm |
| Fuselage Dimensions | 306mm (Length) x 79mm (Width) x 101mm (Height) |
| Helicopter Battery | 7.4V Lithium Battery |
| RC Distance | 80-100m |
| Charging Time | Approximately 50 minutes |
| Usage Time | 11-13 minutes |
| Helicopter Weight | 105g |
| Recommended Age | 16+ years |

## 4. Safety Precautions

Always prioritize safety when operating the RC helicopter. Failure to follow these guidelines may result in injury or damage to the product.

- **Adult Supervision:** Recommended for all users, especially those new to RC aircraft.
- **Flight Environment:** Fly in open areas, away from people, animals, buildings, power lines, and water. Avoid flying in strong winds.
- **Pre-Flight Check:** Ensure all components are securely attached, batteries are charged, and the remote control is functioning correctly.
- **Battery Safety:** Use only the provided charger and battery. Do not overcharge or puncture batteries. Discontinue use if batteries show signs of damage or swelling.
- **Rotor Blades:** Keep hands, face, and loose clothing away from rotating blades. Blades can cause serious injury.
- **Emergency Landing:** Be prepared to perform an emergency landing if control is lost or if the helicopter encounters an obstacle.
- **Moisture:** Do not expose the helicopter or remote control to moisture or rain.

## 5. Setup

### 5.1 Battery Installation

1. Carefully open the battery compartment on the helicopter.
2. Insert the 7.4V Lithium Battery, ensuring correct polarity.
3. Close the battery compartment securely.
4. For the remote control, install the required batteries (not included, typically AA batteries) into its compartment, observing polarity.

### 5.2 Charging the Helicopter Battery

1. Connect the Lithium Battery to the provided USB Charger.
2. Plug the USB Charger into a compatible USB power source (e.g., computer USB port, USB wall adapter).
3. The charging indicator light will show the charging status (refer to charger instructions for specific light patterns).
4. Charging typically takes approximately 50 minutes. Do not leave unattended during charging.

## 6. Operating Instructions

### 6.1 Pre-Flight Check

- Ensure the helicopter battery is fully charged and securely installed.
- Verify the remote control has fresh batteries.
- Check that all rotor blades are free from damage and securely attached.
- Select a safe, open flying area, clear of obstacles and people.

### 6.2 Pairing the Remote Control

1. Turn on the helicopter. The indicator lights will flash.
2. Turn on the remote control.

3. Move the throttle stick (left stick) all the way up, then all the way down. The remote control will beep, and the helicopter lights will become solid, indicating successful pairing.


Figure 3: Remote control layout and functions.

## 6.3 Takeoff and Landing


Figure 4: One-key takeoff and landing feature.

- **One-Key Takeoff:** After pairing, press the One-Key Takeoff button (usually indicated by an upward arrow icon). The helicopter will automatically ascend and hover at a stable altitude.
- **Manual Takeoff:** Slowly push the throttle stick upwards to increase rotor speed and lift off.
- **One-Key Landing:** Press the One-Key Landing button (usually indicated by a downward arrow icon). The helicopter will automatically descend and land gently.
- **Manual Landing:** Slowly pull the throttle stick downwards to decrease altitude and land. Once landed, pull the throttle stick all the way down to stop the rotors.

## 6.4 Flight Controls and Features

Your browser does not support the video tag.

Video 1: Demonstration of the C138 RC Helicopter's stable flight capabilities.


Figure 5: Automatic stabilization system and key features.

- **6-Axis Gyro System:** Provides ultra-stable flight, making it easier to control and perform maneuvers.
- **Altitude Hold (Barometer):** The helicopter maintains a steady altitude automatically, allowing for easier control and stable hovering.
- **Optical Flow Positioning:** Enhances stability and precise positioning, especially in indoor environments or areas with clear ground patterns.
- **6CH Design with 3 Digital Servos:** Offers precise control for ascending, descending, moving forward, backward, left, right, rotating left, and rotating right.
- **Three-Speed Adjustment:** Allows adjustment of flight speed (low, moderate, high) to suit different skill levels and environments.


Figure 6: Three-speed adjustment for varied flight experience.

### 6.5 Advanced Safety Features

- **Low Voltage Alarm:** Notifies the user when the battery is running low, prompting for a safe landing.
- **Stuck Protection:** Automatically cuts power to the rotors if they become obstructed, preventing damage.
- **Loss Control Protection:** Initiates a safe landing procedure if the remote control signal is lost.

## 7. Maintenance

### 7.1 Cleaning

- Wipe the helicopter body with a soft, dry cloth after each use to remove dust and debris.
- Ensure no foreign objects are lodged in the rotor mechanisms.

### 7.2 Storage

- Store the helicopter and remote control in a cool, dry place, away from direct sunlight and extreme temperatures.
- Remove batteries from the remote control if storing for extended periods.

- Store helicopter batteries partially charged (around 50%) for optimal longevity.

### 7.3 Rotor Replacement

- If a rotor blade is damaged, use the provided screwdriver to carefully remove the retaining screw.
- Replace the damaged blade with a new one from the spare parts.
- Securely fasten the retaining screw. Ensure the new blade is installed in the correct orientation.

## 8. Troubleshooting

| Problem | Possible Cause | Solution |
|---|---|---|
| Helicopter does not respond to remote control | Not paired; low battery in remote or helicopter | Re-pair the remote control; replace/charge batteries. |
| Helicopter flies erratically or is unstable | Damaged rotor blades; strong wind; gyroscope calibration issue | Replace damaged blades; fly in calm conditions; refer to remote control instructions for gyroscope calibration. |
| Short flight time | Battery not fully charged; old battery | Ensure full charge; consider replacing the battery if it's old. |
| Helicopter does not lift off | Low battery; obstructed rotors | Charge battery; clear any obstructions from rotors. |

## 9. Warranty and Support

For warranty information, technical support, or replacement parts, please contact Actualia customer service through the retailer where the product was purchased. Keep your proof of purchase for warranty claims. **Contact Information:** Refer to your product packaging or the retailer's website for the most up-to-date contact details.