

## Radiolink F121

# Radiolink F121 FPV Mini RC Drone User Manual

Model: F121 | Brand: Radiolink

## 1. INTRODUCTION

The Radiolink F121 is a Ready-To-Fly (RTF) FPV mini RC drone designed for both adult and kid beginners, as well as for FPV racing and training. This 121mm brushed RC quadcopter features a 5.8GHz 25mW image transmission system with an 800TVL camera and FPV monitor, providing a clear, low-latency first-person view experience. It includes two 1S 3.7V Lithium Polymer batteries, offering approximately 9 minutes of flight time per battery, and comes with a T8S RC transmitter. The F121 is built with a high-strength carbon fiber fuselage and propeller protectors for enhanced durability and safety during flight.

## 2. WHAT'S IN THE BOX

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

- 1x F121 Drone
- 1x T8S Transmitter
- 2x 1S 3.7V Batteries
- 1x CM120 Charger
- 1x User Manual
- 1x Carrying Case



Image: All components of the Radiolink F121 FPV Mini RC Drone package, including the drone, transmitter, batteries, charger, and carrying case.

## 3. SETUP

### 3.1 Battery Charging

Before first use, fully charge both 1S 3.7V Lithium Polymer batteries using the included CM120 charger. Connect the charger to a USB power source and then connect the batteries. The indicator light on the charger will show the charging status.



Image: Two 1S 3.7V drone batteries being charged via a USB charger.

### 3.2 Propeller and Guard Installation

The F121 drone comes with pre-installed propeller protectors. Ensure they are securely attached. If removed for maintenance or customization, reattach them carefully. The durable PC material guards provide crash resistance.



Image: Illustration demonstrating the easy removal and installation of a propeller guard on the F121 drone.

### 3.3 Transmitter and FPV Monitor Preparation

Ensure the T8S transmitter is powered on and the FPV monitor is charged and securely mounted. The FPV monitor will display the live video feed from the drone's camera.

## 4. OPERATING INSTRUCTIONS

## 4.1 Flight Modes

The F121 offers three distinct flight modes to accommodate various skill levels:

- **Altitude Hold Slow:** Ideal for beginners, providing stable flight characteristics.
- **Altitude Hold High:** For intermediate pilots seeking a more advanced experience.
- **Stabilize Mode:** Offers freestyle control for FPV racing and training, allowing for greater maneuverability.



Image: Visual representation of the three flight modes and their corresponding flight characteristics.

## 4.2 FPV Operation

The integrated 5.8GHz 25mW image transmission system provides a real-time video feed to the FPV monitor. This allows for an immersive first-person view, crucial for racing and precise flight. The 800TVL camera ensures clear images with minimal latency.





Image: A user viewing the FPV monitor, showing the drone's perspective during flight.

#### 4.3 Flight Characteristics

The F121 drone features flight stability and an accurate algorithm, combining Kalman filtering technology and inertial navigation. This provides excellent anti-interference capabilities and allows for stable low-altitude flight, as low as 10 cm from the ground. The drone also supports 360-degree free rolls and pattern take-offs for an exciting flight experience.



Image: The F121 drone demonstrating stable flight at a low altitude of 10 cm.

#### 4.4 Flight Time and Range

Each 1S 3.7V battery provides approximately 9 minutes of flight time. The T8S RC transmitter offers a control range of over 1.24 miles (2000 meters), ensuring reliable operation both indoors and outdoors.



Image: A visual comparison highlighting the 9-minute flight time of the F121 drone.

## 5. MAINTENANCE

### 5.1 General Cleaning

After each flight, gently clean the drone's frame, propellers, and camera lens with a soft, dry cloth to remove dust, dirt, or debris. Avoid using liquids directly on electronic components.

### 5.2 Propeller Inspection

Regularly inspect the propellers for any signs of damage, such as cracks, bends, or chips. Damaged propellers can affect flight stability and efficiency. Replace them immediately if any damage is found. Ensure propeller guards are intact and securely fastened.

### 5.3 Battery Care

Store batteries in a cool, dry place away from direct sunlight and extreme temperatures. Do not overcharge or over-discharge batteries. If storing for an extended period, charge them to approximately 50% capacity. Always use the provided CM120 charger or a compatible charger.

## 6. TROUBLESHOOTING

### 6.1 Difficulty Hovering or Unstable Flight

- **Check Battery Charge:** Ensure both the drone battery and transmitter battery are fully charged. Low battery can lead to unstable flight.

- **Propeller Condition:** Inspect all propellers for damage. Even minor damage can significantly impact stability. Replace any damaged propellers.
- **Flight Mode Selection:** For beginners, ensure 'Altitude Hold Slow' mode is selected for maximum stability.
- **Calibration:** Refer to the full user manual for instructions on calibrating the drone's sensors if flight issues persist.
- **Environmental Factors:** Avoid flying in windy conditions, which can make hovering difficult, especially for mini drones.

6.2 No FPV Video Feed

- **Monitor Power:** Ensure the FPV monitor is powered on and charged.
- **Antenna Connection:** Verify that the antenna on the FPV monitor is securely attached.
- **Channel Matching:** Confirm that the FPV monitor is set to the correct frequency channel as the drone's video transmitter.
- **Obstructions:** Ensure there are no physical obstructions between the drone and the FPV monitor that could block the signal.

6.3 Loss of Control Signal

- **Transmitter Battery:** Check the battery level of the T8S transmitter.
- **Range:** Ensure the drone is within the specified control range (up to 2000 meters).
- **Interference:** Avoid flying near strong electromagnetic interference sources.
- **Re-binding:** If connection is lost, attempt to re-bind the drone to the transmitter as per the full user manual instructions.

7. SPECIFICATIONS

| Feature                           | Detail   |
|-----------------------------------|--|
| Brand                             | Radiolink  |
| Model Name                        | F121   |
| Special Features                  | Compact, Crash Resistant, First Person View (FPV), One key altitude hold, Ready to Fly             |
| Age Range (Description)           | 14 years and up  |
| Color                             | RTF (Ready to Fly)   |
| Video Capture Resolution          | 720p (800TVL Camera)   |
| Connectivity Technology           | USB  |
| Included Components               | 1*CM120 Charger, 1*F121 Drone, 1*T8S Transmitter, 2* 1S 3.7V Batteries, Carrying Case, User Manual |
| Skill Level                       | All  |
| Item Weight                       | 1.67 ounces (independent F121 aircraft), 2.16 pounds (package)                                     |
| Battery Capacity                  | 660 Milliamp Hours (per battery)   |
| Video Capture Format              | MP4  |
| Remote Control Technology         | 2.4GHz   |
| Control Type                      | Remote Control   |
| Maximum Range                     | 3900 Feet (approx. 1.24 miles / 2000 meters)   |
| Material                          | Carbon Fiber, Plastic  |
| Wireless Communication Technology | RF   |
| Battery Cell Composition          | Lithium Polymer  |
| Product Dimensions                | 4.76"L x 4.76"W x 1.61"H   |

8. SAFETY GUIDELINES

Operating the F121 drone requires adherence to safety practices to prevent injury or damage:





- Always fly in open areas, away from people, animals, and obstacles such as buildings, trees, and power lines.
- Check weather conditions before flying. Avoid strong winds, rain, or fog.
- Maintain a safe distance from the drone during operation.
- Never fly near airports or restricted airspace. Be aware of and comply with local drone regulations.
- Ensure batteries are properly charged and installed before each flight.
- Do not attempt to catch the drone while its propellers are spinning.
- The F121 features a high-strength carbon fiber fuselage and propeller protectors for enhanced safety, but caution is always advised.
- Adult supervision is recommended for younger users.

9. WARRANTY AND SUPPORT

For any questions, technical assistance, or after-sales service, please contact Radiolink customer support. You can find support resources and full user manuals on the [Radiolink Direct store](#) or through the online user instructions. FAQ and troubleshooting files are also available on the product's Amazon sales page. Radiolink is committed to providing high-quality products and friendly after-sales service.

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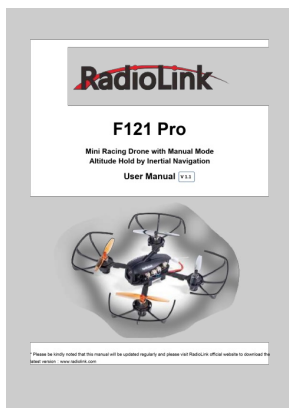


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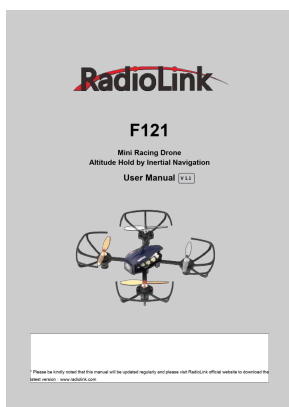
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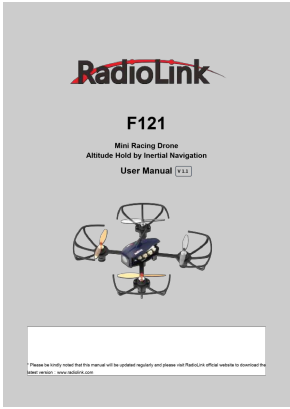
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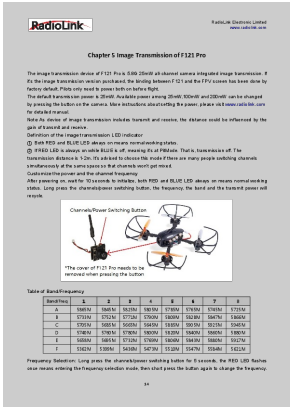
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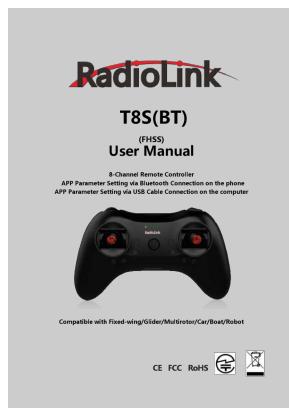
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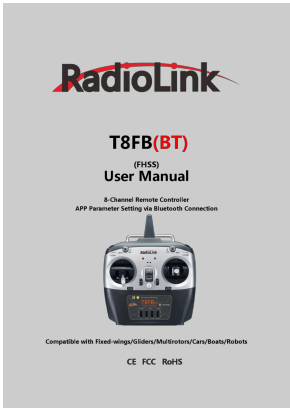
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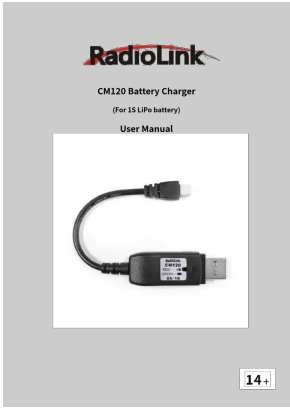
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