

FlyFishRC VX3.5 O4 PRO

FlyFishRC VOLADOR VX3.5 O4 Pro FPV Drone Frame Kit Instruction Manual

Model: VX3.5 O4 Pro | Brand: FlyFishRC

1. INTRODUCTION

This manual provides detailed instructions for the assembly, operation, and maintenance of your FlyFishRC VOLADOR VX3.5 O4 Pro FPV Drone Frame Kit. This kit is designed for enthusiasts building a 3.5-inch FPV racing or freestyle quadcopter, specifically compatible with the O4 Pro HD Air Unit. Please read this manual thoroughly before beginning assembly to ensure correct setup and optimal performance.

2. SAFETY INFORMATION

- Always operate FPV drones responsibly and in accordance with all local laws and regulations.
- Ensure all components are securely fastened before any flight attempt. Loose parts can lead to catastrophic failure.
- Keep fingers and loose clothing clear of propellers during operation. Propellers can cause serious injury.
- Use appropriate safety gear, including safety glasses, when working with tools and electronic components.
- This product is a frame kit and requires additional electronic components (motors, ESCs, flight controller, FPV system, battery, etc.) for a complete drone. Ensure all electronic components are installed and configured correctly.

3. PACKAGE CONTENTS

Your FlyFishRC VOLADOR VX3.5 O4 Pro FPV Drone Frame Kit includes the following components:

- T700 Carbon Fiber Plates (top plate, bottom plate, arms)
- CNC Aluminum Alloy Standoffs and Components
- TPU Accessories (camera mounts, antenna mounts, arm protectors, etc.)
- Hardware Kit (screws, nuts, washers)

Note: Electronic components such as motors, ESCs, flight controller, FPV camera, video transmitter, receiver, and battery are not included and must be purchased separately.

4. SETUP AND ASSEMBLY

Follow these general steps for assembling your VOLADOR VX3.5 O4 Pro frame. Refer to detailed diagrams for specific screw placements.

4.1 Frame Base Assembly

1. Attach the four carbon fiber arms to the bottom plate using the provided screws. Ensure the arms are oriented correctly for the Squashed-X configuration.
2. Install the CNC aluminum alloy standoffs onto the bottom plate. These will support the top plate and provide space for your electronics stack.



Figure 1: Top view of the assembled frame base.

4.2 Electronics Stack Installation

3. Mount your flight controller and Electronic Speed Controllers (ESCs) onto the designated M2*20mm or 25.5mm stack mounting holes. Ensure proper insulation and orientation.
4. Connect motors to ESCs and ESCs to the flight controller as per your component's instructions. The frame is compatible with 1404 brushless motors.

4.3 Camera and FPV System Setup

5. Install your FPV camera into the 19/20mm camera side plates. The frame supports a 15-60 degree adjustable camera angle. Utilize the silicone vibration dampers for effective camera protection.

6. Mount the O4 Pro HD Air Unit in its dedicated space, ensuring proper ventilation and secure fastening.



Figure 2: Side view showing camera mounting and internal space.

4.4 Final Assembly

7. Secure the top plate to the aluminum standoffs.
8. Attach any remaining TPU accessories, such as antenna mounts or arm protectors.
9. Install 3.5-inch FPV racing drone propellers onto the motors, ensuring correct rotation direction.



Figure 3: Fully assembled frame kit.

5. OPERATING INSTRUCTIONS

The VOLADOR VX3.5 O4 Pro is a frame kit, providing the structural foundation for your FPV drone. Its operation depends entirely on the electronic components you install. Once assembled with a flight controller, motors, ESCs, FPV system, and receiver, follow the operational guidelines provided by the manufacturers of

those specific components.

- **Pre-Flight Checks:** Before each flight, visually inspect the frame for any damage, loose screws, or worn TPU parts. Ensure propellers are securely attached and free from damage.
- **Balance:** Proper weight distribution and balance are crucial for optimal flight performance and stability. Position your battery and other components to achieve a balanced center of gravity.
- **Flight Controller Configuration:** Configure your flight controller (e.g., Betaflight, ArduPilot) according to the frame's geometry and your chosen motor/propeller combination.

6. MAINTENANCE

Regular maintenance will extend the lifespan of your VOLADOR VX3.5 O4 Pro frame kit.

- **Inspection:** Periodically inspect all carbon fiber plates for cracks, delamination, or stress marks, especially after hard landings or crashes.
- **Screw Tightness:** Check all screws and fasteners regularly. Vibrations during flight can cause screws to loosen. Apply thread-locker if necessary, but avoid over-tightening carbon fiber components.
- **TPU Parts:** Inspect TPU accessories for wear, tears, or deformation. Replace damaged TPU parts to maintain camera protection and antenna integrity.
- **Cleaning:** Clean the frame with a soft, dry cloth. Avoid using harsh chemicals that could damage the carbon fiber or TPU.

7. TROUBLESHOOTING

This section addresses common issues related to the frame kit itself.

Problem	Possible Cause	Solution
Excessive frame vibration	Loose screws, damaged arms, unbalanced propellers.	Check and tighten all frame screws. Inspect arms for damage and replace if necessary. Ensure propellers are balanced and undamaged.
Unstable FPV camera view	Loose camera mount, worn vibration dampers.	Verify the camera is securely mounted. Inspect and replace silicone vibration dampers if they appear worn or damaged.
Components not fitting	Incorrect component size, improper orientation.	Double-check component specifications against frame compatibility (e.g., camera width, stack mounting holes). Ensure components are oriented correctly.

8. SPECIFICATIONS

- **Brand:** FlyFishRC
- **Model Name:** VOLADOR VX3.5 O4 Pro
- **Material:** T700 Carbon Fiber, CNC Aluminum Alloy, TPU
- **Frame Type:** Squashed-X
- **Propeller Size Compatibility:** 3.5 inch
- **Motor Compatibility:** 1404 brushless motors
- **Camera Compatibility:** 19/20mm side plate, 15-60 degree adjustable angle

- **Stack Mounting:** M2*20mm / 25.5mm
- **Weight:** Approximately 0.2 Pounds (90g)
- **Designed For:** O4 Pro HD Air Unit low-latency digital transmission

9. WARRANTY

This FlyFishRC VOLADOR VX3.5 O4 Pro FPV Drone Frame Kit is typically covered by a limited warranty against manufacturing defects. The warranty period and terms may vary depending on your region and point of purchase. Please retain your proof of purchase. For specific warranty details and claims, refer to the official FlyFishRC website or contact your retailer.

10. SUPPORT

For technical assistance, troubleshooting, or general inquiries regarding your FlyFishRC VOLADOR VX3.5 O4 Pro FPV Drone Frame Kit, please visit the official FlyFishRC website. You may find additional resources, FAQs, and contact information for customer support there.

Official Website: www.flyfishrc.com (Note: This is a placeholder link, please verify the actual official website)