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› CADDXFPV Walksnail Ascent Lite VTX Kit User Manual

CADDXFPV WN13-4S09B-US

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Model: WN13-4S09B-US

1. INTRODUCTION

The CADDXFPV Walksnail Ascent Lite VTX Kit is a digital video transmission system designed for FPV drones and RC hobbyists. It offers high-definition video, low latency, and a compact, lightweight design for an immersive flying experience. This manual provides detailed instructions for setup, operation, maintenance, and troubleshooting to ensure optimal performance.

What's in the Box

- Ascent Lite VTX
- Lite Antenna
- VTX Upgrade Cable
- Lite VTX Power Cable
- Screws & Gasket
- User Manual

ALL ACCESSORIES

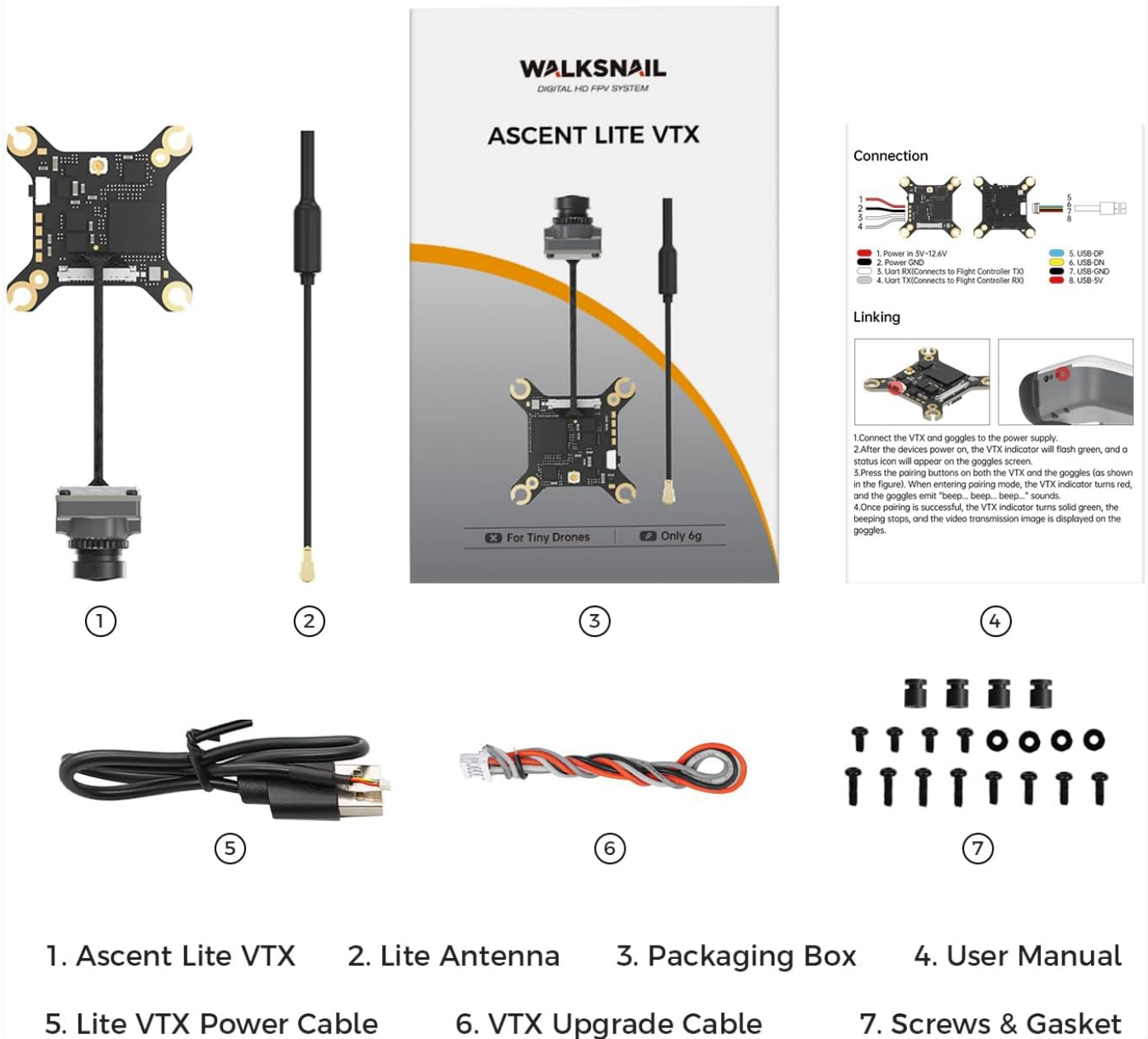


Figure 1: All accessories included in the Ascent Lite VTX Kit.

2. PRODUCT OVERVIEW

The Ascent Lite VTX Kit is engineered for performance and versatility, featuring advanced digital transmission technology and a robust design.

Key Features

- **HD 1080P/60FPS with Night Vision:** Equipped with a 1/1.8-inch sensor and an ultra-wide 147° field of view, it captures sharp, detailed footage with expansive coverage—day or night.
- **Stable 3KM Digital Video Transmission:** Supports a reliable digital signal up to 3KM for consistent, long-range performance.
- **35ms Ultra-Low Latency:** Enjoy fast, responsive visuals with minimal delay for an immersive FPV experience.

- **Compact Lightweight & Easy to Install:** Weighing only 6g, it minimizes drone load and offers straightforward installation.
- **Wide Compatibility with Popular FCs:** Integrates effortlessly with F4/F7/H7 flight controllers and firmware like Betaflight, INAV, and ArduPilot via a 4-pin UART connection.

Experience Every Detail 1080P/60FPS

Crisp visuals and smooth motion for a truly immersive FPV view.

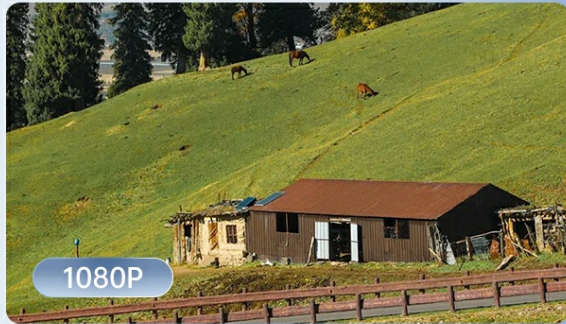


Figure 2: Experience every detail with 1080P/60FPS resolution.



Figure 3: 147° Ultra-Wide View for expansive coverage.

See More at Night

Clear visuals in low light—less noise, more detail.



Figure 4: Enhanced night vision for clear visuals in low light.

Fly Anytime, Anywhere—Day or Night

Clear views from morning light to night flights—never miss a moment.

8:00 AM



6:00 PM



10:00 PM



Figure 5: Fly anytime, anywhere, day or night.

Instant Response · Extended Reach



3km
Max Range



35ms
Low Latency



Figure 6: Instant response and extended reach with 3km max range and 35ms low latency.

Ultra-Light Design

Less weight means better agility, longer flight time, and easier builds.



Figure 7: Ultra-light design, weighing only 6g.

Product Video

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Video 1: First-Person View Immersion with Walksnail FPV System. This video demonstrates the immersive FPV experience provided by the Walksnail system, showcasing its capabilities in various flight scenarios.

3. SETUP AND INSTALLATION

Component Dimensions

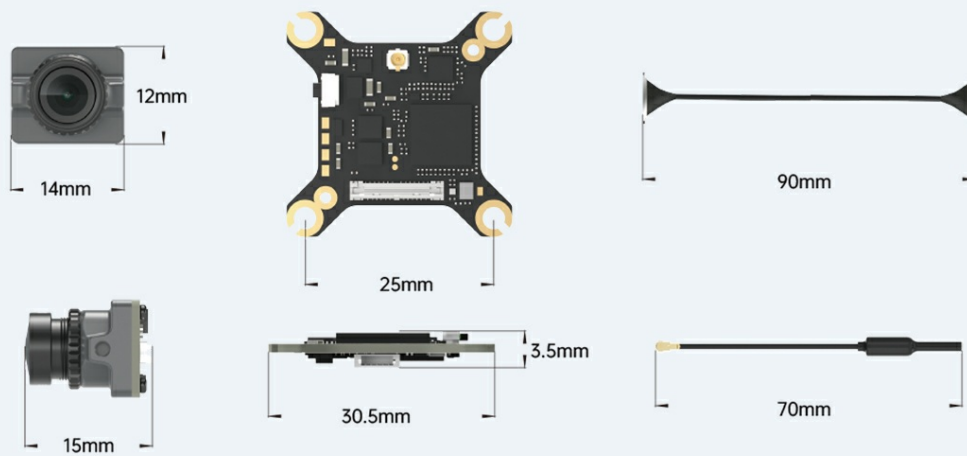


Figure 8: Physical dimensions of the Ascent Lite VTX components.

Wiring Diagram

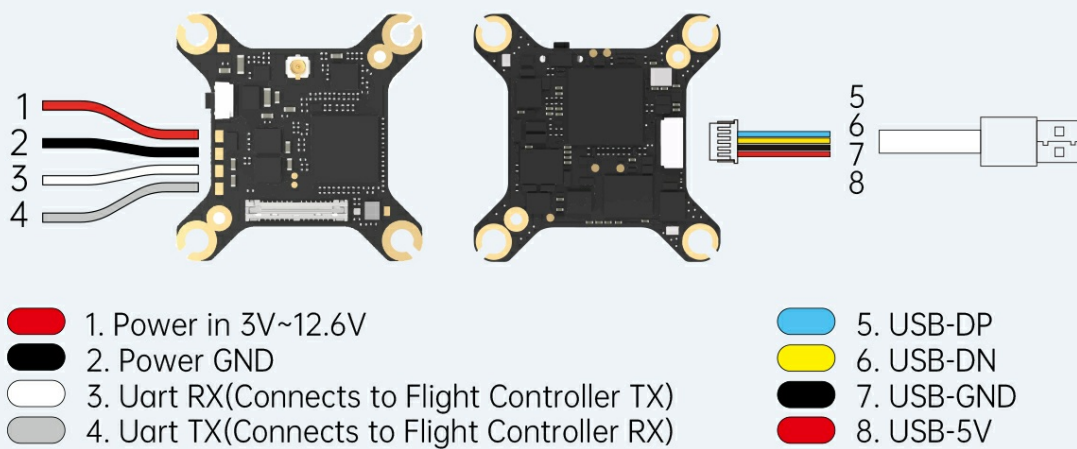


Figure 9: Wiring connections for the Ascent Lite VTX.

Basic Installation Steps

1. Connect the Ascent Lite VTX to your flight controller (FC) using the provided 4-pin UART cable. Ensure correct

- polarity for power (3V~12.6V) and ground, and match TX to RX and RX to TX between the VTX and FC.
2. Mount the VTX and camera securely to your drone or RC vehicle using the included screws and gasket. Ensure the antenna is positioned for optimal signal reception.
 3. Power on your drone/vehicle and FPV goggles.
 4. Follow the pairing instructions in your FPV goggles manual to link them with the Ascent Lite VTX.

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Video 2: How to use the CADDXFPV Walksnail Ascent Lite VTX Kit. This video provides a step-by-step guide on connecting and setting up the VTX kit for use with an RC car, including gimbal and head tracking activation.

4. OPERATING INSTRUCTIONS

Powering On and Pairing

Once the VTX is installed and powered, ensure your FPV goggles are also powered on. Navigate to the pairing menu in your goggles and initiate the pairing process. The VTX indicator light will change to confirm a successful connection.

FPV Experience

The Ascent Lite VTX provides clear flight data directly to your FPV goggles, allowing you to monitor essential information such as battery voltage, signal strength, and flight mode. This helps maintain full awareness during flight.

Fly with Full Awareness

Clear flight data keeps you focused and aware.



Figure 10: Fly with full awareness using the integrated OSD.

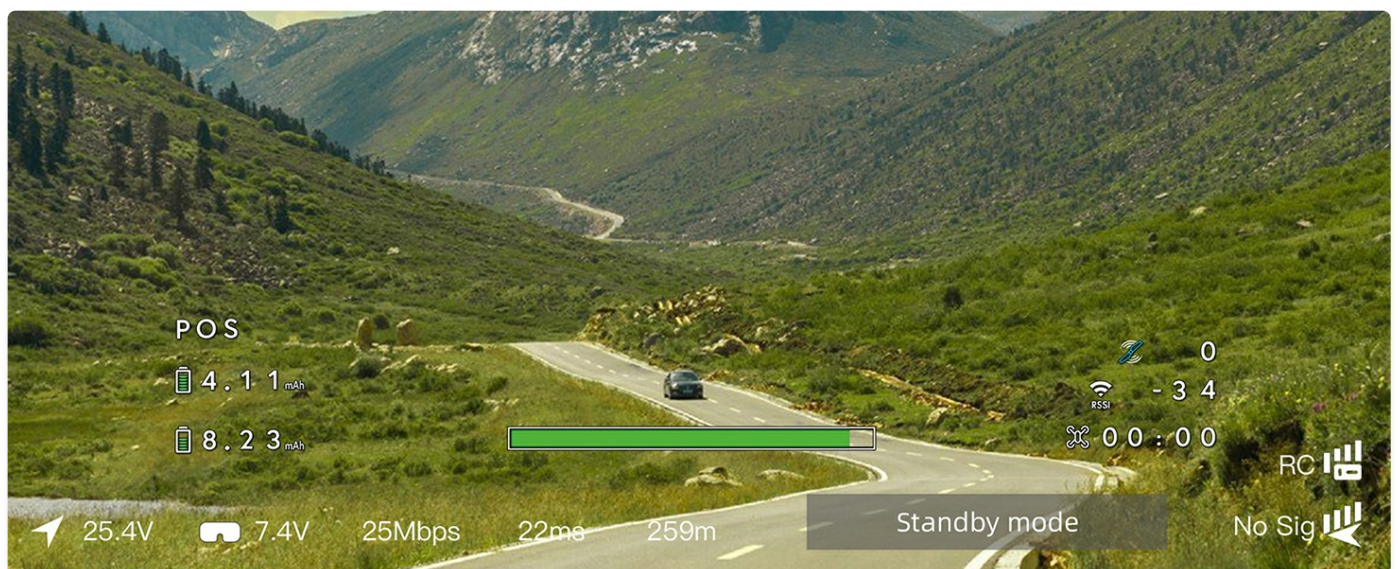


Figure 11: Example of on-screen display (OSD) during flight.

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Video 3: FPV drone soaring over rural fields. This video showcases the smooth and clear video transmission of the CADDXFPV system during an outdoor flight.

5. COMPATIBILITY

The Ascent Lite Kit is designed for use with Ascent systems. It is compatible with F4/F7/H7 flight controllers and firmware such as Betaflight, INAV, and ArduPilot. Please note the specific compatibility details below:

- **Directly Compatible:** Ascent Goggles, Avatar Goggles X (when paired with Ascent VRX).
- **Not Directly Compatible:** Avatar Goggles L.
- **Other Brands Goggles:** Compatible when paired with the Ascent VRX (requires HDMI input).



Figure 12: Compatibility notes for the Ascent Lite VTX Kit.



Figure 13: Universal FPV compatibility across various platforms.

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Video 4: Goggles L applied to RC cars. This video demonstrates the use of FPV goggles with an RC car, showcasing the versatility of the CADDXFPV system for ground vehicles.

6. SPECIFICATIONS

Technical Specifications

Feature	Detail
Brand	CADDXFPV
Model Name	Lite Kit
Special Feature	First Person View (FPV), Night Vision Camera
Color	Black
Video Capture Resolution	1080p, 720p
Connectivity Technology	HDMI
Item Weight	9.07 g
Video Capture Format	MP4
Control Type	Remote Control
Maximum Range	3 Kilometers
Wireless Communication Technology	Digital Video Transmission
Optical Sensor Technology	CMOS
Material	Plastic
Item Dimensions L x W x H	0.93"L x 0.93"W x 0.59"H

7. MAINTENANCE

Care and Storage

- Keep the VTX and camera clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Avoid exposing the components to extreme temperatures, moisture, or direct sunlight for prolonged periods.
- Store the kit in a cool, dry place when not in use, preferably in its original packaging or a protective case.
- Regularly check all cable connections for wear and tear. Replace damaged cables immediately.

8. TROUBLESHOOTING

Common Issues and Solutions

- **No Video Feed:** Ensure all power and video cables are securely connected. Verify that the VTX and goggles are properly paired and on the same channel. Check for any physical damage to the camera or VTX.
- **Poor Video Quality/Signal Loss:** Check antenna connections on both the VTX and goggles. Ensure there are no major obstructions between the drone and goggles. Reduce distance between the drone and receiver. Avoid areas with high electromagnetic interference.

- **VTX Overheating:** Ensure the VTX has adequate airflow. Avoid operating in enclosed spaces without ventilation. Verify that the VTX is not being over-volted.
- **Unable to Pair:** Confirm both devices are in pairing mode. Ensure they are within close proximity during the pairing process. Refer to your goggles' manual for specific pairing instructions.

9. WARRANTY AND SUPPORT

Warranty Information

CADDXFPV offers a 360-day warranty on the Walksnail Ascent Lite VTX Kit from the date of purchase. This warranty covers manufacturing defects and malfunctions under normal use. Please retain your proof of purchase for warranty claims.

Return Policy

A 30-day exchange/return policy is available for eligible products. Please refer to the retailer's return policy for detailed terms and conditions.

Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please contact CADDXFPV customer support:

Email: Service@caddxfpv.com

Availability: 24 x 7 x 365

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question