CADDXFPV WN02-FP001-US

CADDXFPV Walksnail Avatar FPV VRX Receiver Instruction Manual

Model: WN02-FP001-US

Brand: CADDXFPV

1. Introduction

The CADDXFPV Walksnail Avatar FPV VRX Receiver is designed to provide a high-definition, low-latency video experience for First-Person View (FPV) drone flying. This receiver is compatible with the Walksnail Avatar HD System, offering 1080P 60FPS video transmission with latency as low as 22ms. Its lightweight and portable design, coupled with a 4-antenna system, ensures stable transmission over distances up to 10km. The VRX features HDMI output for versatile display options and supports micro SD cards up to 256GB for recording flight footage. Customizable FPV experience is available through Canvas Mode, compatible with Betaflight, INAV, and KISS OSD systems.

2. Safety Information

ELECTRIC SHOCK HAZARD: Always ensure the device is powered off and disconnected from all power sources before performing any installation, maintenance, or troubleshooting. Do not expose the device to moisture or extreme temperatures. Handle with care to avoid damage to internal components.

3. What's in the Box

- Avatar FPV VRX ×1
- 2-in-1 DC Power Cable ×1
- HDMI Cable ×1
- Red Bird Antenna ×2

Figure 3.1: Package contents including the VRX unit, cables, and antennas.

4. Product Overview

The CADDXFPV Walksnail Avatar FPV VRX Receiver is a compact and powerful unit designed for seamless integration into your FPV setup. It features essential ports and antenna connections for optimal performance.

4.1 VRX Unit

Figure 4.1: Top view of the VRX unit showing antenna ports.

The top of the VRX unit features two antenna connectors for the included Red Bird Antennas, which are crucial for stable video transmission.

Figure 4.2: Rear view of the VRX unit highlighting the HDMI output port.

The rear of the unit includes an HDMI output port for connecting to compatible FPV goggles, monitors, or other display devices.

Figure 4.3: Side view of the VRX unit with the SD card slot and DC power input.

One side of the VRX unit houses the micro SD card slot for video recording and a DC power input for connecting the power cable.

Figure 4.4: Dimensions of the VRX unit for installation planning.

The compact dimensions (114×55×22mm) and lightweight design (83g) make the VRX easy to integrate into various FPV setups.

5. Setup

5.1 Antenna Installation

Carefully screw the two Red Bird Antennas into the designated antenna ports on the top of the VRX unit. Ensure they are securely fastened but do not overtighten.

5.2 Power Connection

Connect the 2-in-1 DC Power Cable to the DC input port on the side of the VRX unit. Connect the other end to a compatible power source (e.g., a battery or power distribution board).

5.3 HDMI Output Connection

Use the provided HDMI cable to connect the VRX's HDMI output port to your FPV goggles, monitor, or other display device. This will transmit the HD video feed.

Figure 5.1: VRX connected to FPV goggles for video display.

5.4 Micro SD Card Insertion

Insert a micro SD card (up to 256GB, not included) into the micro SD card slot on the side of the VRX unit. Ensure it is inserted correctly until it clicks into place. This card will be used for recording flight footage.

5.5 Compatibility

The VRX Receiver is designed for use with the Walksnail Avatar HD System. Ensure your FPV drone is equipped with a compatible Walksnail Avatar HD VTX (Video Transmitter) for proper operation.

Your browser does not support the video tag.

Video 5.1: A short demonstration on how to use the Walksnail FPV system, including basic connections.

6. Operating Instructions

6.1 Powering On/Off

Once all connections are secure, apply power to the VRX unit. Refer to your specific FPV system's documentation for power-on procedures. To power off, disconnect the power source.

6.2 Pairing with FPV System

The VRX receiver will automatically attempt to connect with a compatible Walksnail Avatar HD VTX. Ensure your VTX is powered on and within range. Follow the pairing instructions provided with your Walksnail Avatar HD VTX for specific steps.

Figure 6.1: The 4-antenna system provides stable transmission up to 10km.

6.3 Canvas Mode (OSD Adjustments)

The Avatar VRX supports Canvas Mode, allowing you to adjust flight parameters directly through the On-Screen Display (OSD). This feature is compatible with Betaflight, INAV, and KISS OSD systems. Consult your flight controller's manual for detailed instructions on configuring and utilizing Canvas Mode.

Figure 6.2: Example of the Canvas Mode OSD for flight parameter tuning.

6.4 Video Recording

With a micro SD card inserted, the VRX can record your FPV flights in 1080P 60FPS. Refer to the VRX's specific controls or your FPV goggles' interface for initiating and stopping recordings.

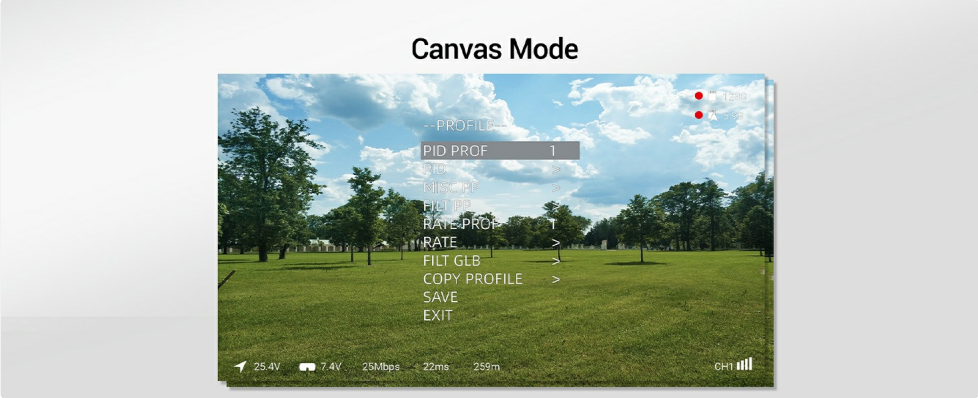

Figure 6.3: The VRX supports 1080p60fps and 720p/100fps video output.

Your browser does not support the video tag.

Video 6.1: Demonstration of the Walksnail Avatar HD Goggles L being used with the FPV system.

Your browser does not support the video tag.

Video 6.2: Experience first-person view immersion with the Walksnail FPV System.

Your browser does not support the video tag.

Video 6.3: Overview of the 3-Axis Head Tracking Control feature, compatible with the FPV system.

7. Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the VRX unit. Avoid using liquid cleaners or solvents.
- **Storage:** Store the VRX in a cool, dry place away from direct sunlight and extreme temperatures when not in use.
- **Antennas:** Inspect antennas regularly for any damage. Replace if bent or broken to maintain optimal signal quality.
- **Cables:** Check all cables for wear and tear. Damaged cables can affect performance and safety.

8. Troubleshooting

- **No Video Feed:**
  - Ensure the VRX and VTX are both powered on.
  - Verify all cables (power, HDMI) are securely connected.
  - Check that the VRX and VTX are correctly paired and on the same channel.
  - Inspect antennas for damage and ensure they are properly installed.

- **Poor Video Quality/Signal Loss:**
  - Ensure antennas are correctly oriented and not obstructed.
  - Reduce distance between the drone (VTX) and the receiver (VRX).
  - Avoid areas with high electromagnetic interference.
  - Check for firmware updates for both VRX and VTX.
- **Recording Issues:**
  - Ensure a compatible micro SD card (up to 256GB) is inserted.
  - Check if the SD card has sufficient free space.
  - Format the SD card if recording errors persist.

9. Specifications

Product Dimensions	4.49 x 2.17 x 0.87 inches (114 x 55 x 22mm)
Item Weight	6.4 ounces (83g)
Model Number	WN02-FP001-US
ASIN	B0FP1BF79H
Video Resolution	1080P 60FPS
Latency	As low as 22ms
Transmission Range	Up to 10km
Storage	Supports micro SD cards up to 256GB
Output	HDMI

10. Warranty and Support

This CADDXFPV product comes with a**360-day warranty** from the date of purchase. For any technical assistance, troubleshooting, or warranty claims, please contact CADDXFPV customer support.

Customer Support Email: Service@caddxfpv.com

CADDXFPV is committed to providing 24/7/365 customer service.