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Walksnail Avatar HD Kit V2

Walksnail Avatar HD Kit V2-32GB w/Gyro User Manual

Model: Avatar HD Kit V2

INTRODUCTION

This manual provides comprehensive instructions for the setup, operation, and maintenance of your Walksnail Avatar HD Kit V2. This kit is designed for FPV (First Person View) applications, featuring a built-in 32GB storage and Gyroflow support for enhanced video stabilization. It utilizes H.265 encoding to deliver 1080p FPV image quality with ultra-low latency, making it suitable for high-performance drone applications.

WHAT'S IN THE BOX

Please verify that all components listed below are present in your package:

- Avatar HD V2 Camera
- Avatar V2 VTX (Video Transmitter)
- Antenna
- Coaxial Cable (140mm)

PRODUCT OVERVIEW

Familiarize yourself with the main components of the Avatar HD Kit V2.



Figure 1: Overview of the Walksnail Avatar HD Kit V2, showing the camera, video transmitter (VTX), and antenna connected by a coaxial cable.



Figure 2: Another view of the Walksnail Avatar HD Kit V2, highlighting the compact design of the camera and VTX unit with the antenna.



Figure 3: Detailed view of the Avatar HD V2 Camera, featuring a 1/3.2-Inch 4Mp 4:3 sensor and F2.0 aperture lens. Dimensions are 19x19x22mm.



Figure 4: Close-up of the Avatar V2 VTX (Video Transmitter), showing its heat sink design and connection ports. This unit includes 32GB built-in storage.



Figure 5: Detailed view of the included antenna, designed for optimal signal transmission and reception with the Avatar HD system.

SETUP INSTRUCTIONS

Follow these steps for the initial setup of your Avatar HD Kit V2:

1. **Mounting the Camera:** Securely mount the Avatar HD V2 Camera to your drone frame. Ensure the lens is clear and unobstructed.
2. **Mounting the VTX:** Install the Avatar V2 VTX using its 20x20mm mounting holes. Ensure adequate airflow around the VTX for heat dissipation.
3. **Connecting the Camera to VTX:** Connect the camera to the VTX using the provided 140mm coaxial cable. Ensure the connection is firm and secure.
4. **Connecting the Antenna:** Attach the antenna to the designated port on the VTX. Ensure it is finger-tight to prevent signal loss.
5. **Power Connection:** The VTX supports 6V-25.2V input. Connect the power leads from your drone's power distribution board (PDB) or flight controller to the VTX's power input pads. Observe correct polarity. The spare pad provides two power connection modes.
6. **Firmware Update (Optional):** It is recommended to check the official Walksnail website for the latest firmware updates for both the camera and VTX to ensure optimal performance and access to new features.

OPERATING INSTRUCTIONS

Once installed, the Avatar HD Kit V2 is ready for operation. Ensure your FPV goggles or receiver are compatible with the Walksnail Avatar HD system.

- **Power On:** Power on your drone. The VTX will initialize and begin transmitting video.
- **Channel Selection:** Use the frequency button on the VTX to cycle through available channels. Refer to your FPV goggles' manual for channel matching.
- **Video Quality:** The system supports 1080P 120fps HD FPV. Ensure your goggles are set to the appropriate resolution and frame rate for the best experience.
- **Gyroflow Support:** The kit supports Gyroflow for post-stabilization of recorded footage. Ensure your flight controller is configured to output Gyro data if you plan to use this feature.
- **Built-in Storage:** The 32GB built-in storage allows for direct recording of your FPV footage. Files can be accessed by connecting the VTX to a computer via USB (if supported, or through an SD card reader if an SD card slot is present, though the description states "built-in storage").
- **Ranging Mode:** Utilize the ranging mode feature for optimal signal strength and range assessment.

MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your Avatar HD Kit V2.

- **Cleaning:** Regularly clean the camera lens with a soft, lint-free cloth. Avoid abrasive materials that could scratch the lens. Keep the VTX free from dust and debris, especially around the heat sink fins.
- **Inspections:** Periodically inspect all cable connections (coaxial, power) for wear, fraying, or loose connections. Ensure the antenna is securely attached.
- **Storage:** When not in use, store the kit in a dry, cool environment, away from direct sunlight and extreme temperatures.
- **Firmware:** Keep the firmware updated to the latest version as released by Walksnail to benefit from performance

improvements and bug fixes.

TROUBLESHOOTING

This section addresses common issues you might encounter with your Avatar HD Kit V2.

Problem	Possible Cause	Solution
No video signal in goggles.	Incorrect channel selected. Loose cable connection. Insufficient power to VTX. VTX or camera malfunction.	Ensure goggles and VTX are on the same channel. Check coaxial and power cable connections. Verify power supply voltage (6V-25.2V) and current. Contact support if components are faulty.
Poor video quality (static, breakup).	Weak signal due to distance or obstacles. Antenna not properly connected or damaged. Interference from other electronic devices.	Reduce distance to drone or move to an open area. Check antenna connection and condition. Replace if damaged. Fly in an area with less RF interference.
VTX overheating.	Insufficient airflow. Operating at high power without proper cooling.	Ensure VTX is mounted in a location with good airflow. Avoid prolonged bench testing without a fan.

SPECIFICATIONS

Detailed technical specifications for the Walksnail Avatar HD Kit V2:

AVATAR HD V2 CAMERA

- **Image Sensor:** 1/3.2-Inch 4Mp 4:3 sensor
- **Resolution:** 1080P/60fps; 720P/100fps; 720P/60fps; 1080P/120fps compatibility; 1080P/100fps compatibility
- **Min. Illumination:** 0.001Lux
- **Dimensions:** 19*19*22mm
- **Coaxial Cable:** 140mm
- **Shutter:** Rolling shutter
- **Ratio:** 4:3 native /16:9
- **Gyroflow:** Supported
- **Aperture:** F2.0
- **Lens:** 2.1mm
- **Weight:** 7.2g
- **FOV:** 160°

AVATAR V2 VTX

- **Built-in Storage:** 32GB
- **Mounting Holes:** 20*20mm

- **Low Latency:** 22ms
- **Range:** 4KM
- **Input Voltage:** 6V-25.2V
- **Video Encoding:** H.265
- **Features:** Optimized antenna base design, frequency button position, updated PCB board, updated outer shell, GPS anti-jamming, Ranging Mode.

General Product Specifications

- **Item Weight:** 1.28 ounces
- **Model Name:** Avatar HD
- **Camcorder type:** Video Camera
- **Connectivity Technology:** Wi-Fi
- **Supported Audio Format:** AAC, PCM
- **Video Capture Format:** MP4
- **Maximum Aperture:** 2 Millimeters
- **Photo Sensor Technology:** CMOS

For further assistance, please visit the official Walksnail support website or contact your retailer.

This manual is subject to change without notice.

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

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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

