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dji Wireless Video Receiver User Guide
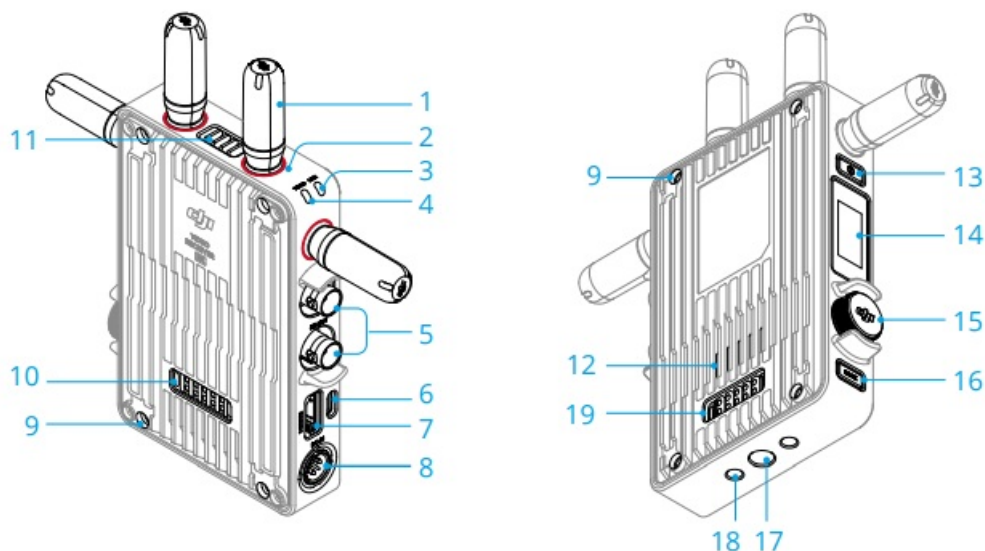
Contents

dji Wireless Video Receiver

Disclaimer and Warning
Carefully read this entire document and all safe and lawful practices provided before use.

Introduction

The DJITM Video Receiver features DJI O3 Pro video transmission and receives video signals from the transmitter. In an environment without interference or obstruction, the video receiver provides video transmission with a maximum transmission range of 6 km*, a bitrate of up to 40 Mbps, and a minimum end-to-end latency of 70 ms. It supports multiple frequency bands in both Control and Broadcast modes and simultaneously outputs multiple video signals to display devices for remote monitoring. When used with the DJI Video Transmitter or DJI Ronin 4D Video Transmitter, the video receiver can meet the filming requirements of mediums such as movies, TV series, advertisements, and documentaries.

Measured with the video transmission control system in Control mode (Broadcast mode in the transmitter device disabled) in an unobstructed environment free of interference with FCC compliance.

1. **Detachable Antennas**

Transmit the wireless signal.

2. **Color Marks**

   Used to identify the receiver and transmitter. The receiver is identified by the red color marks. Users can also place the different colored stickers included in the package on the devices for identification.

3. **Linking Status Indicator**

   Shows the connection status between the receiver and transmitter. Refer to the Linking section for more information on blinking patterns.

4. **Video Status Indicator**

   Indicates if there is a video signal transmitted from the transmitter to the receiver. Solid green indicates there is a video signal transmission, while solid red indicates no video signal transmission.

5. **SDI Output Ports**

   Output the video signal.

6. **USB-C Port**

   Connect to the DJI Assistant 2 (Ronin Series) software using a USB-C cable for device activation and firmware updates. Connect headphones with a built-in mic for voice calls. It is required to set the Type-C function on the receiver before use. Refer to the Menu section for more information.

7. **HDMI Port (Type A)**

   Outputs the video signal.

8. **DC-in Port**

   Supplies power to the video receiver using the provided power cable. Voltage 6-18 V and max current 2 A.

9. **M4 Screw Holes**

   Mount the battery adapter or other adapters for expansion.

10. **Power Output Port**

    Supplies power to an external device.

11. **Air Vent**

12. **Air Intake**

    DO NOT cover the air vent, air intake, or both sides of the battery adapter if mounted. Otherwise, the performance of the device may be affected due to overheating.

13. **Power Button**

    Press once to power on. Press and hold to power off.

14. **Display Screen**

    Displays the device status and menu.

15. **Menu Dial**

    Turn or press the dial to select or confirm settings in the menu. See details below.

    - **Press once:** enter the menu from the home screen, or confirm settings in the menu.
    - **Turn:** switch between options.
    - **Press and hold**: enter linking status (Control mode) or search for devices (Broadcast mode). Press twice: in the home screen, select the channel (Control mode) or device number (Broadcast mode).

16. **Back Button**

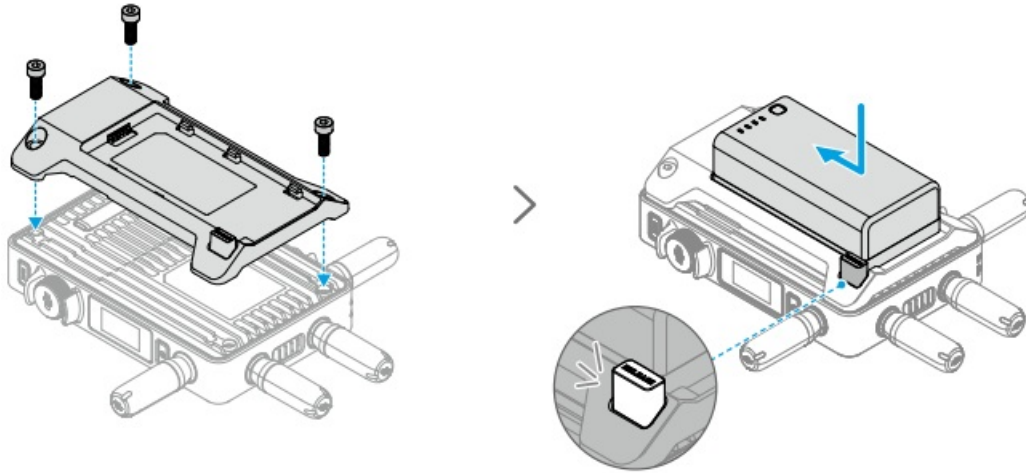   Press to return to the previous screen of the menu.

17. **3/8″-16 Screw Hole**

18. **1/4″-20 Screw Holes**

19. **External Power Input Port**

    Mount the battery adapter and compatible battery to supply power to the video receiver.

Installation and Connection
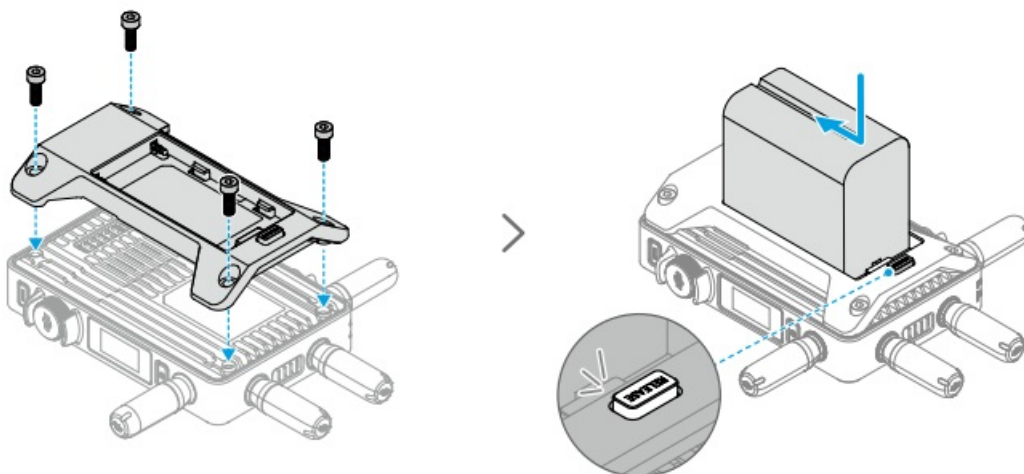
Mounting the WB37 Intelligent Battery

Before first use, activate the WB37 battery by charging with the WB37 Battery Charging Hub (USB-C). Refer to the WB37 Battery Charging Hub (USB-C) User Guide for more information.

1. Mount the WB37 battery adapter to the back of the video receiver and tighten the three M4×12 screws.
2. Insert the WB37 battery into the battery compartment of the video receiver. Make sure that the battery release button pops up and the battery clicks into place.

warning: Make sure to use the WB37 battery within the operating temperature range. DO NOT disassemble or pierce the battery in any way. Otherwise, the battery may leak, catch fire, or explode. Refer to the WB37 Intelligent Battery Safety Guidelines for more information.

Press and hold the release button and push the battery in the opposite direction to remove it.

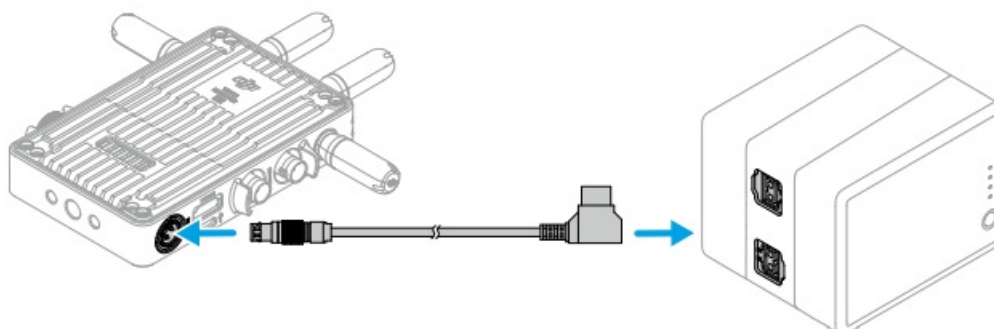### Mounting the NP-F Series Battery

1. Mount the NP-F battery adapter to the back of the video receiver and tighten the four M4×12 screws.
2. Insert the NP-F series battery into the battery compartment of the video receiver. Make sure that the battery

release button pops up and the battery clicks into place.

Press and hold the release button and push the battery in the opposite direction to remove it.

Connecting the DC to P-Tap Power Cable

A battery with a P-Tap port can be used to provide power to the video receiver. Use the provided DC to P-Tap power cable to connect the P-Tap port of the battery and the DC-in port of the video receiver.

Activation
Activation is required when using the video receiver for the first time. Power on the video receiver and connect it to a computer using a USB-C cable. Launch DJI Assistant 2 (Ronin Series), click the corresponding device icon, and follow the on-screen instructions to activate the device.
Download the software from: **https://www.dji.com/transmission/downloads**

Linking
The video receiver must be linked to the transmitter device before use. The video transmission system of the video receiver offers Control mode and Broadcast mode for connection between the video receiver and transmitter device, which use different linking methods. Refer to the following section for instructions and linking status indicator descriptions.

Control Mode
In Control mode (with Broadcast mode in the transmitter device disabled), the video transmission system has a longer transmission distance, stronger anti-interference, and more selectable channels. The transmitter device can also receive the control signal from the video receiver when connecting a DJI Pro accessory, such as the DJI Master Wheels to the video receiver for remote control.

- Power on the video receiver. Press the menu dial on the video receiver to enter the menu.
- Press the dial to enter the Connect menu, turn the dial to select Control in the menu, and press the dial to

confirm. Select to set the video receiver to Control A or Control B and press the dial again to confirm. The display screen shows Linking and the linking status indicator blinks red and green alternately, indicating the device is linking.

- ○ 🔆 If the video receiver is in Control mode and is set to the desired Control A or Control B, press and hold the menu dial directly to enter linking.
  - ○ If two video receivers will be connected to the same transmitter device, link with the Control A video receiver first and then link with the Control B video receiver.
- Using DJI Video Transmitter:

  Power on the DJI Video Transmitter. Press and hold the menu dial on the video transmitter to enter the linking status. The linking status indicator on the video transmitter blinks red and green alternately, indicating the device is linking.
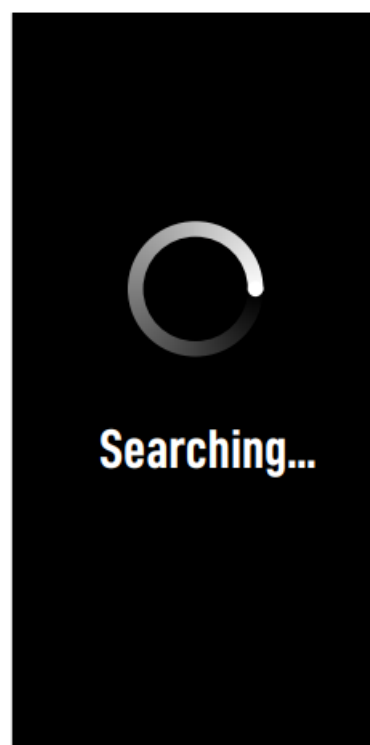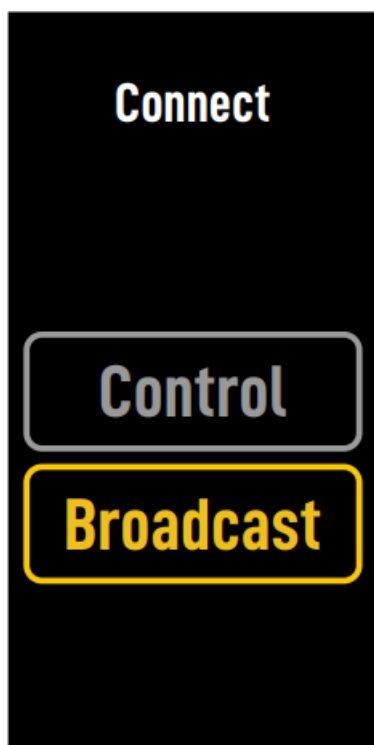
  Using DJI Ronin 4D Video Transmitter:

  To start linking, hold the link button on the Ronin 4D Video Transmitter or go to the menu on the Ronin 4D High-Bright Main Monitor, tap Transmission, and then Link Device. The linking status indicator on the video transmitter blinks red and green alternately, indicating the device is linking.
- When linking is complete, the linking status indicator on the video receiver turns solid green and the video receiver can communicate with the transmitter device.

Broadcast Mode

In Broadcast mode, an unlimited number of video receivers used as monitoring devices can connect to the transmitter device. In scenarios using multiple transmitter devices, video receivers in Broadcast mode can select the desired transmitter device quickly to achieve multi-channel monitoring.

1. Power on the video receiver. Press the menu dial on the video receiver to enter the menu.
2. Press the dial to enter the Connect menu, turn the dial to select Broadcast in the menu, and then press the dial to confirm.
3. Wait for the search results to be complete and select a device to connect.
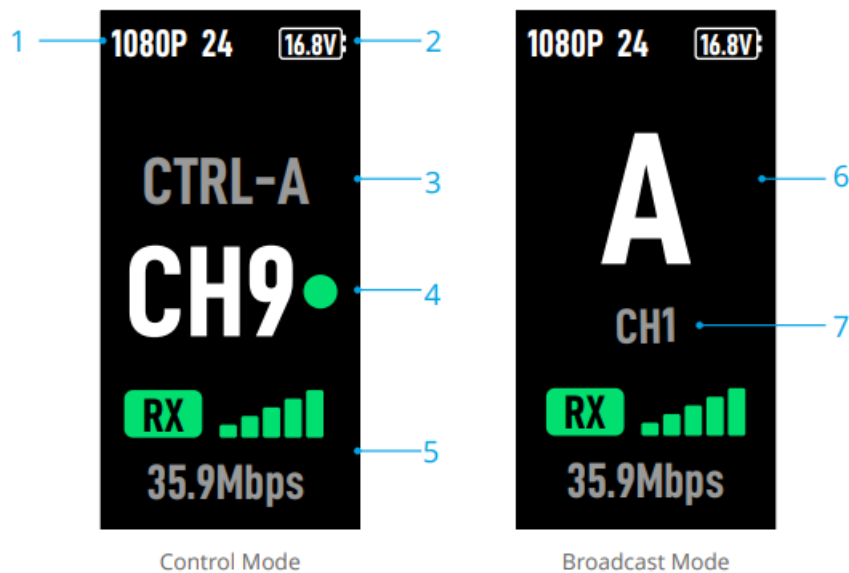
- 🔆 In Broadcast mode, press and hold the dial to refresh the search results.

Linking Status Indicator

Linking Status Indicator	Description
Solid red	Device started, not connected.
Blinks red and green alternately	Linking.
Solid green	Successfully linked in Control mode. Wireless video transmission is normal. Broadcast mode enabled.
Blinks red	Device malfunction. Contact DJI Support.

Display Screen Operations

Home Screen

Control Mode   Broadcast Mode

1. **Video Specifications**

   Displays the resolution and frame rate of the input from the transmitter device.

2. **Power Supply Voltage**

   Displays the voltage of the battery or the DC-in power input.

3. **Control Device**

   In Control mode, displays whether the video receiver is set to Control A or Control B.

4. **Channel (Control Mode)**

   Displays the current channel in use and its signal quality. There are two statuses, including strong (green) and weak (red). Press the menu dial twice for quick channel switch.

5. **Video Transmission Signal Strength and Bitrate**

   Displays the video transmission signal strength and bitrate. There are three statuses for the video transmission signal strength, including strong (green), moderate (orange), and weak (red).

6. **Device Number**

   In Broadcast mode, displays the device number of the transmitter device. Press the menu dial twice to view the last recorded search results in Broadcast mode, and then switch between devices or refresh the search results.

7. **Channel (Broadcast Mode)**

   Displays the channel in use. View the signal quality of each channel in the menu.

Menu: On the home screen, press the menu dial on the video receiver to enter the menu and perform the following configuration and operations. Turn or press the dial to select or confirm settings in the menu. Press the back button to return to the previous screen.

Connect	Select Control mode or Broadcast mode. When Control mode is selected, it is required to set the device in use to Control A or Control B.
Channel	In Control mode, view the signal quality of each channel and select the channel.
	In Broadcast mode, view the signal quality of each channel only to assist channel selection in the transmitter device.
Device Number	This menu will appear only in Broadcast mode. The last search results in Broadcast mode will be displayed after entering the menu. Switch between devices or refresh the search results.
Fan Mode	Set the fan mode to Standard or Low Noise.
	☼ If Low Noise is selected, the fan mode will switch to Standard automatically when the temperature of the device is too high.
Type-C Function	Select USB when using the USB-C port for the firmware update in DJI Assistant 2.
	In Control mode, set the Type-C function on both the transmitter and receiver to Voice Call and connect headphones with a built-in mic to the USB-C ports to enable voice calls between the transmitter and receiver. Use the volume buttons on the headphones to adjust the volume for voice calls.
	☼ View the compatible headphones on the FAQ page of the product page on the official DJI website. Other 48kHz/16bit digital headphones are also supported.
Low Latency	When enabled, the frame rate is converted to 60fps.
Language	Select the system language in the language list.
Device Info	View information such as the device SN and firmware version.

Appendix

Update the video receiver using the DJI Assistant 2 (Ronin Series) software.

1. Power on the device. Make sure the Type-C function is set to USB on the menu. Connect the device to a computer with a USB-C cable.
2. Launch DJI Assistant 2 (Ronin Series) and log in with a DJI account.
3. Select the device and click Firmware Update on the left side of the screen.
4. Select the firmware version.
5. The firmware will download and update automatically.
6. The device will restart automatically after the firmware update is complete.
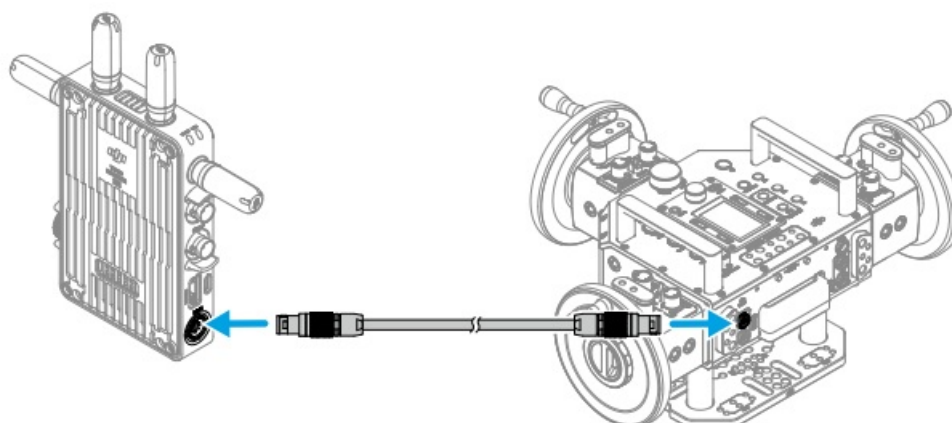
Specifications

Weight	Approx. 350 g (receiver only, excl. antennas)
Dimensions	127×87×26 mm (excl. antennas)
Operating Frequency[1]	2.4000-2.4835 GHz, 5.150-5.250 GHz, 5.250-5.350 GHz, 5.470-5.725 GHz, 5.725-5.850 GHz
Transmitter Power (EIRP)	2.4 GHz: <33 dBm (FCC), <20 dBm (SRRC/CE/MIC) 5.8 GHz: <33 dBm (FCC), <14 dBm (CE), <23 dBm (SRRC)
Power Consumption	9 W
Power Supply Voltage	6-18 V
Output Voltage	6-18 V
Battery Life[2]	3 hours 50 minutes
Output Video Format	• When used with the DJI Video Transmitter: 1080p: 23.98/24/25/29.97/30/50/59.94/60fps 720p: 50/59.94/60fps • When used with Ronin 4D: 1080p: 24/25/30/50/60fps
Output Audio Format	SDI embedded, HDMI embedded
Video Transmission System	O3 Pro
Max Bitrate	40 Mbps
Latency	70 ms (1080p 60fps)
Video Coding Format	H.264
Max Transmission Distance	6 km (FCC), 4 km (CE/SRRC/MIC) (Unobstructed, free of interference)
Max Bandwidth	40 MHz
Operating Temperature[3]	-10° to 45° C (14° to 113° F)

1. Due to local regulations, the 5.1/5.2/5.8 GHz frequencies are prohibited in some countries and the 5.1/5.2 GHz frequencies are only allowed for use indoors in some countries. 5.600-5.650 GHz is not used.
2. Tested in a room temperature of 25° C (77° F) when powered by a fully charged WB37 Intelligent Battery and used with the DJI Video Transmitter.
3. When using the WB37 Intelligent Battery, it is recommended to operate the device in a temperature above 0° C. Take measures to keep the battery warm when using in a temperature below 0° C.

Using Other Control Devices

Connect the DJI Master Wheels to the video receiver to control the transmitter device remotely.
Connection: connect the DC-OUT port on the DJI Master Wheels to the DC-IN port on the video receiver using the DJI High-Bright Remote Monitor Controller Cable.

QR SCAN

WE ARE HERE FOR YOU

Contact: DJI SUPPORT
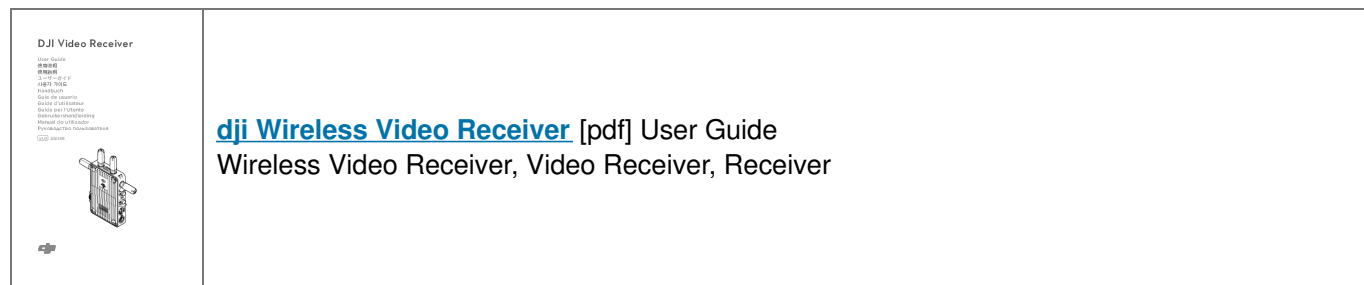

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Documents / Resources

DJI Video Receiver User Guide 快速指南 快速指南 ユーザーガイド 사용가이드 Handbuch Guía de usuario Guide d'utilisateur Guida per l'Utente Gebruikershandleiding Manual do utilizador Руководство пользователя 	**dji Wireless Video Receiver** [pdf] User Guide Wireless Video Receiver, Video Receiver, Receiver

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