

SmallRig

Wireless Tethering Hub for Cameras [For DJI Cameras]

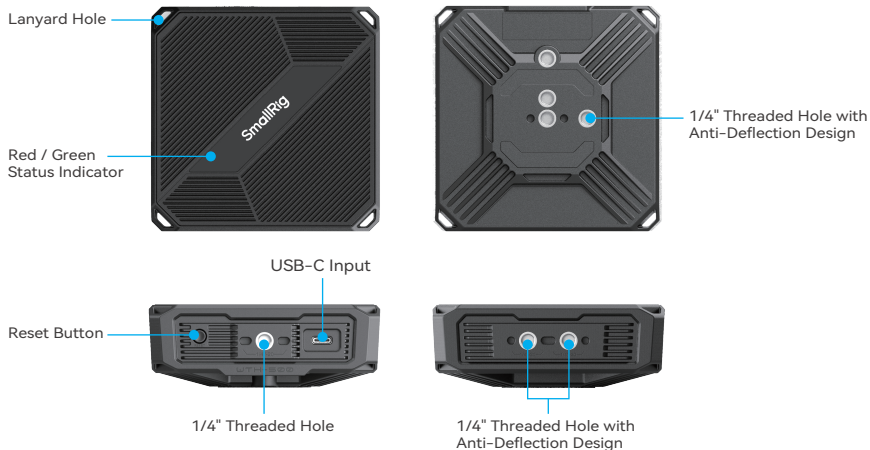


User Manual

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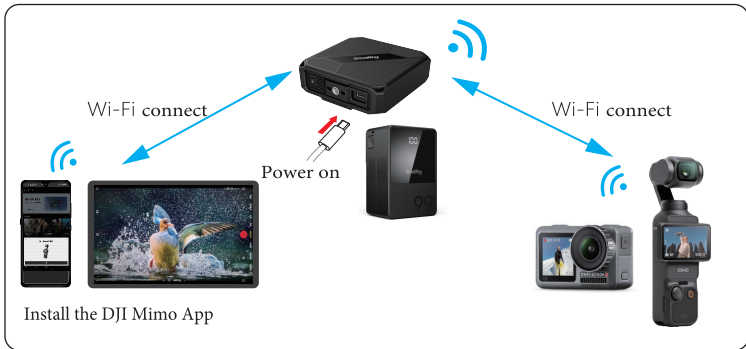
Chapter 1 Introduction and use



Note: The power supply can be a power bank with 5V=3A output.

1. Connect the power supply;
2. The "SmallRig" indicator changes from red to green, indicating successful startup;
3. Wait for approximately one minute, and the smartphone will detect the Wi-Fi signal
[SmallRig_5G_****] [SmallRig_2.4G_****]

2, Use diagram



(1) Users must prepare the power bank, camera, and smartphone (or tablet) themselves.

3,Compatible models

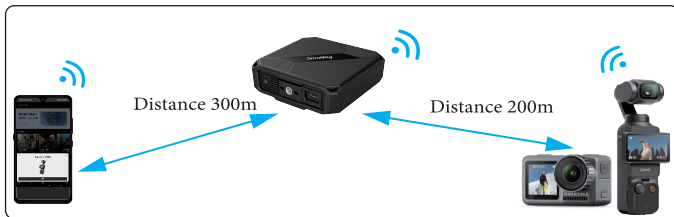
- (1)Pocketcamera:OsmoPocket 3 ,
- (2)Action camera:Osmo Action 5 Pro, Action 4, Action 3
- (3) Osmo 360
- (4) Osmo Nano

4,Communication distance diagram

II. Schematic Diagram of Remote Control Distance

Test Environment: Open riverside area with no obstructions; both the Wireless Tethering Hub for Cameras and the camera are mounted at a height of 2 meters, with good communication conditions;

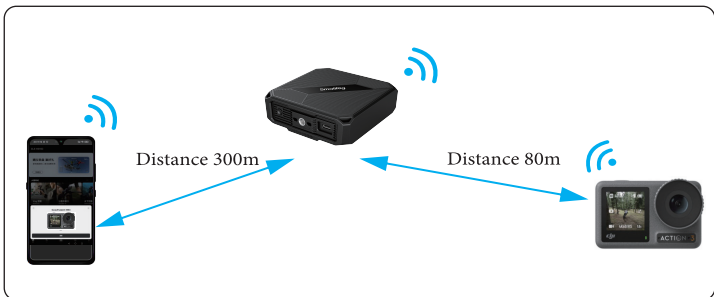
Schematic Diagram of Communication Distance Between Smartphone, Wireless Tethering Hub for Cameras, and Camera.





(2)The remote control distance of DJI Osmo Action 3 , DJI Osmo Action 4 , can be got by the following layout methods:

Diagram showing the communication distance between the mobile phone and the real-view repeater, with the camera separated.





5. Battery life

Battery life test data of PRLV 500					
Battery model	Battery capacity (Wh)	Working voltage (V)	Working current (A)	Power (W)	Actual battery life(H)
XIAOMI power bank/10000mA	37	5	0.6	3	9

Note:

1. The battery life will vary depending on the battery.
2. The battery life will vary slightly when connecting to different models of cameras.
3. The measured data is for reference only

III. Description of Communication Distance for the Wireless Tethering Hub for Cameras

1. Device Layout

Ensure there is no obstruction or slight obstruction between devices; heavy obstruction will cause signal interruption and latency.

The camera should be kept off the ground, and the Wireless Tethering Hub for Cameras should be placed close to the camera.

The higher the Hub is mounted, the stronger the signal and the longer the communication distance.

2. Device Performance

Newly Released Camera + High-Performance Smartphone = Longer Communication Distance.

3. Communication Frequency Band Selection

Wilderness/Uninhabited Areas: Use the 5.8 GHz frequency band for the longest remote control distance.

Urban/Interfered Areas: (e.g., near stadiums or base stations): Use the 2.4 GHz frequency band; the remote control distance is shorter but more stable.

IV. Device Layout Methods and Tips for Ensuring Smooth Communication

1. Smooth communication between the Wireless Tethering Hub for Cameras, camera, and smartphone (or tablet) is key to smooth shooting.

2. A triangular layout is an effective way to avoid obstructions.

Concealed Shooting Layout:

Wireless Tethering Hub for Cameras: Mounted at a commanding height (e.g., tripod, tree branch, or rock)

Camera: Placed close to the subject

Operating End: Can be hidden behind cover (e.g., inside a vehicle, in bushes, etc.)

Depression Shooting Solution:

Camera: Placed in the depression

Wireless Tethering Hub for Cameras: Must be mounted at a commanding height. An extension bracket is recommended

3. Device Maintenance

Keep the device battery level above 20%.

Impact of Low Battery Level: Picture latency will increase by 30-50%, and image quality will be automatically reduced.

4. Troubleshooting Process:

- ① Check the Wi-Fi connection status
- ② Confirm the device power supply is functioning properly
- ③ Verify the camera connection status
- ④ Restart the entire system if necessary

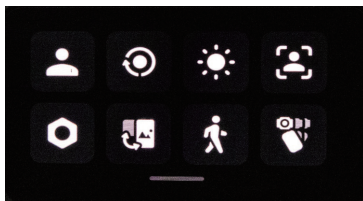


Chapter 2 Download and install the App(Preparation)

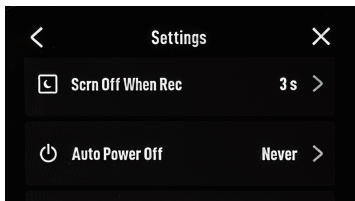
- 1, Two mobile phones or tablets(for network connecting)
- 2, Down load the DJI Mimo App
- 3,Select Android version or ISO version
- 4,Install and open the App on your phone, and complete the initial permission confirmation of the App according to the prompts. This must be done in a public network. If you are in a place without a network,cannot download and use it.

Chapter 3, camera setting

1, DJI pocket 3 camera setting

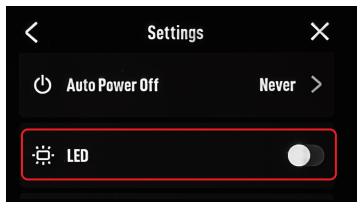


(1) Enter the system setting

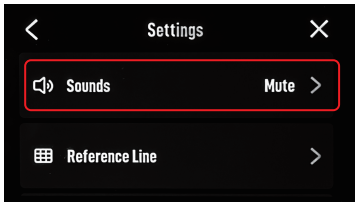


(2) [Turn off the screen after recording] set to [3 seconds], [Auto shutdown] set to [Never shutdown]

Note: If [Never sleep] is available, select this option; if not, select the option with the longest time.

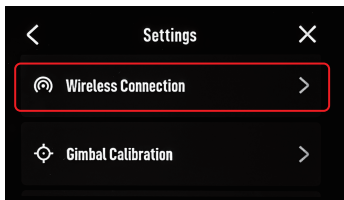
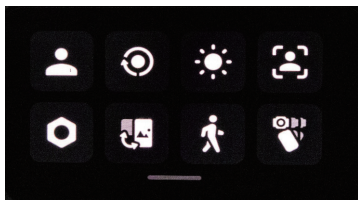


(3) [LED light] set to [Off]

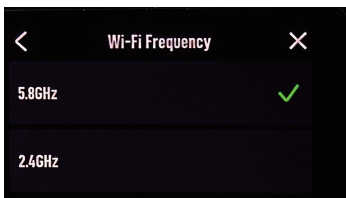
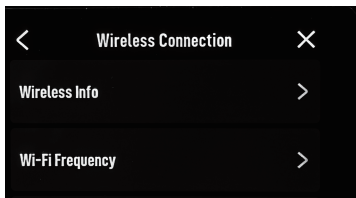


(4) Set [Prompt Tone] to [Mute]

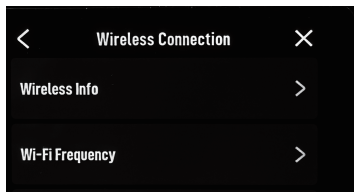
2, DJI Pocket 3 Wi-Fi setting



1. After turning on the camera, slide down to open the menu, and click the settings icon to open [System Settings] - [Wireless Connection]



2. On the [Wireless Connection] page, select [Wi-Fi Frequency] and set it to [5.8GHz]



3. On the [Wireless Connection] page, select [Wireless Info] - record the device name and password on the page.

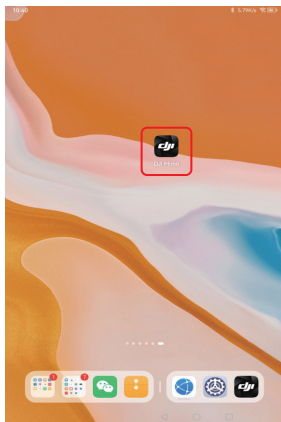
Note: If this page disappears, you can find the wireless information again, click to enter, and this page will appear again.

3, Notes

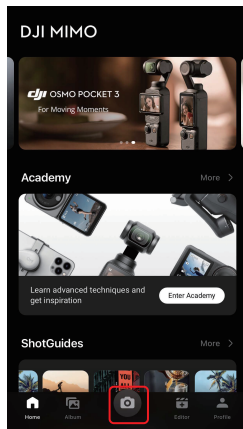
- (1) DJI Mimo App can be used for DJI pocket series and Action series
- (2) Other models' settings please refer to the setting of pocket 3
- (3) The steps of connecting the Wi-Fi are similar too

Chapter 4 Connect the camera with the first mobile phone

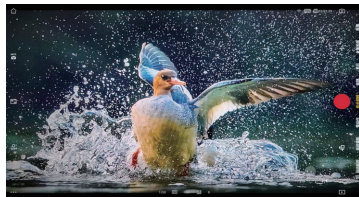
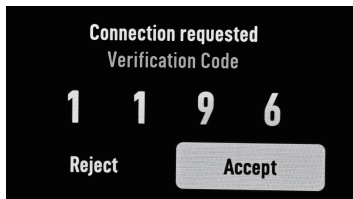
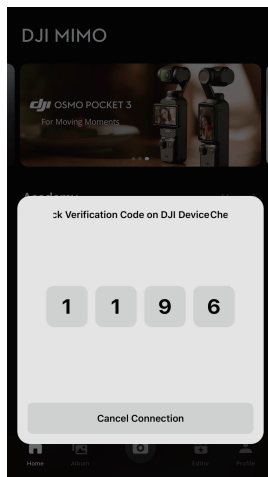
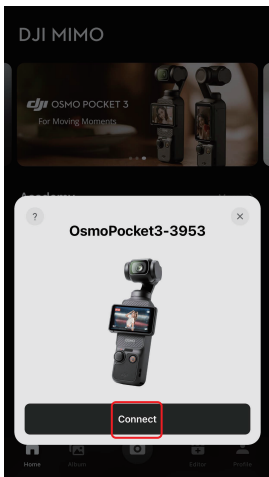
Open the DJI Mimo App on your phone to connect to the camera and keep it connected.



1, Open the DJI Mimo App



2, Click the camera icon at the bottom of the page and the App will automatically scan the camera. If the software pops up the information and location permissions, please click Allow.



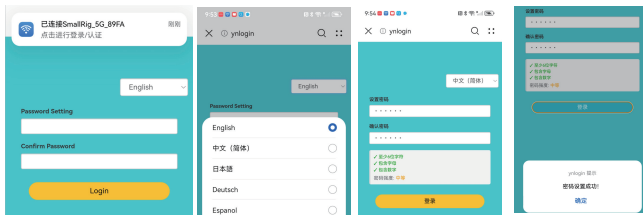
3. Click Connect. When the gimbal camera pops up a new connection verification code, click [Accept] to enter the shooting screen. Next, keep this phone in this state and do not exit the App.

Chapter 5 Set the network with the second mobile phone

1. Confirm the Wireless Tethering Hub for Cameras is turned on, open the Wi-Fi settings on the smartphone, search for the Hub's Wi-Fi [SmallRig_5G_****], tap [Connect], and the password setup page will appear.



2. Set the password:
- A password is required for every use;
 - Be sure to remember it; if forgotten, reset the Hub to factory settings (see reset instructions on page ***)
 - Password requirements: Must include letters and numbers; choose a memorable password (e.g., aaa666).
 - After connecting to Wi-Fi [SmallRig_5G_****], the password setup page should appear automatically. If it doesn't, open a browser and manually enter [192.168.100.1].



Enter the password
and tap [Login]

A [Password Setup Successful]
notification will appear, Tap [OK]



Enter the password
you just set again
and tap [Login]

Scan



After scanning is complete,
this page will pop up; exit
and navigate to the WLAN
Wi-Fi page

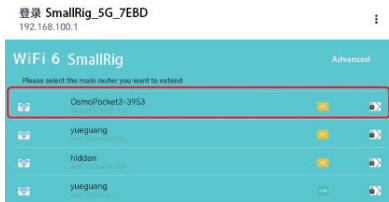
2. [Network Configuration]

- (1). After connecting to the Wi-Fi of the virtual reality repeater [SmallRigr_5G_****], the network configuration page will automatically appear. If the following page does not appear, go to your browser and enter 192.168.100.1. The following page will appear.
- (2). You can switch languages in the upper right corner.
- (3). Click "Login" to enter the network scanning interface. Due to different mobile phone models, it is possible that the next page will not appear and page 3 will appear directly.

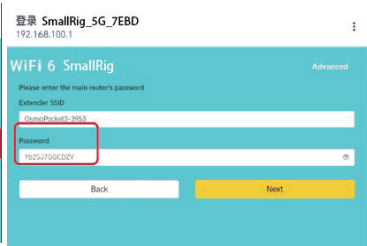
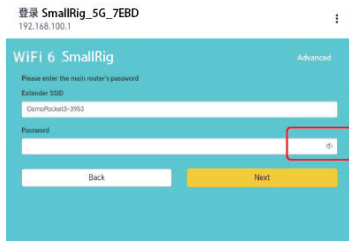


- (4) When the page automatically refreshes to the login page, you can close the window without logging in.

3. When a Wi-Fi network with the camera model name **【Osmo Pocket3-3953】** is detected, click on that name to connect.
Note: OsmoPocket3 is the camera model; 3953 is the device's unique serial number.



4. Enter the default password for the gimbal camera in the wireless password text box (see attached image). Clicking the eye icon will display the password. After verifying that it is correct, click "Next". Click the lock icon on the far right, then click the icon to display the entered password.



Note: The image on the right shows the default Wi-Fi password for the OsmoPocket3 camera. This password is different for each device; please check the password displayed on your camera during operation.



5. Enter the Wi-Fi name and password modification interface of the augmented reality repeater. After confirming that everything is correct, click "Next".
Note: On this interface, you can click to open the Wi-Fi password option and choose no password; this way, you won't need to repeatedly set the password for your DJI camera in the future.

19:05 登录 SmallRig_5G_7EBD 192.168.100.1

WiFi 6 SmallRig

请输入扩展器的无线密码,默认和主路由相同

无线名称 2.4G
OsmaPucked3-0953_EXT_2.4G

无线名称 5G
OsmaPucked3-0953_EXT_5G

请输入扩展器的无线名称(可修改密码),建议和主路由名称保持一致,实现无缝无线漫游

无线密码
1629J7G6GCTGV

上一步 下一步

192.168.100.1/mobile/home.shtml

更多高级功能

请输入扩展器的无线密码,默认和主路由相同

无线名称 2.4G
OsmaAction3-2647A8_EXT_2.4G

无线名称 5G
OsmaAction3-2647A8_EXT_5G

请输入扩展器的无线名称(可修改密码),建议和主路由名称保持一致,实现无缝无线漫游

安全加密
WPA2PSK

不加密

WPA3PSK

WPA2PSK

192.168.100.1/mobile/home.shtml

更多高级功能

请输入扩展器的无线密码,默认和主路由相同

无线名称 2.4G
OsmaAction3-2647A8_EXT_2.4G

无线名称 5G
OsmaAction3-2647A8_EXT_5G

请输入扩展器的无线名称(可修改密码),建议和主路由名称保持一致,实现无缝无线漫游

安全加密
不加密

WPA2PSK

WPA3PSK

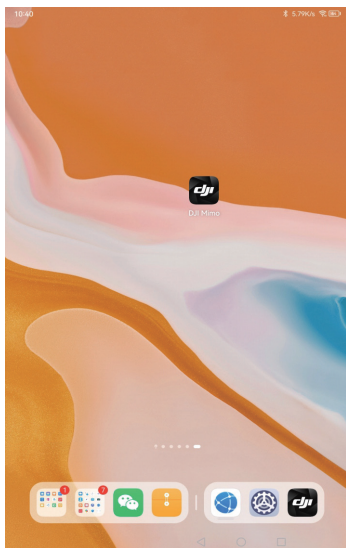
上一步 下一步



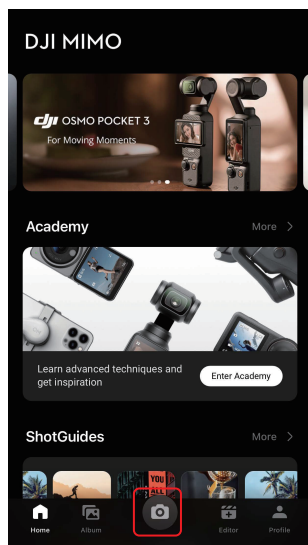
6. In the pop-up window, verify the Wi-Fi name and password. Once confirmed, click "Start Connection." The device will automatically configure the network. The countdown will end when network configuration is complete.
(At this point, please ensure the first phone is connected to the camera.)

Chapter 6 DJI Mimo App connects to the camera

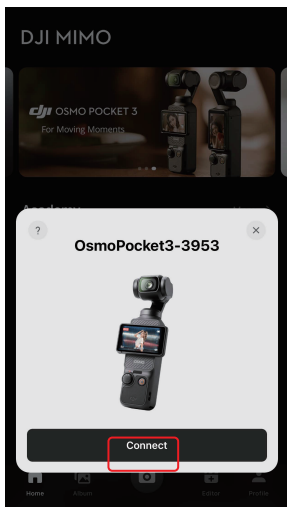
Disconnect the Wi-Fi (OsmoPocket3-3953) of the first mobile phone(or tablet), and continue operate the second mobile phone(or camera).



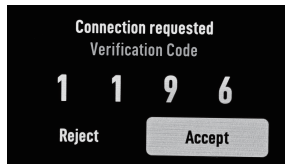
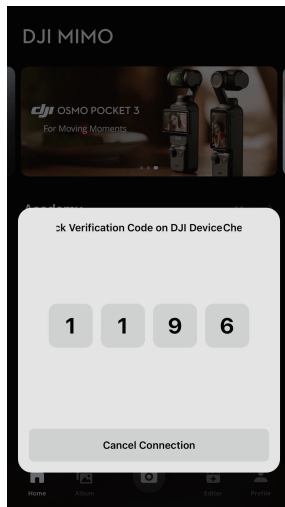
1, Open the DJI Mimo App



2, Click the camera icon at the bottom of the page and the App will automatically scan the camera. If the software pops up the information and location permissions, please click Allow.

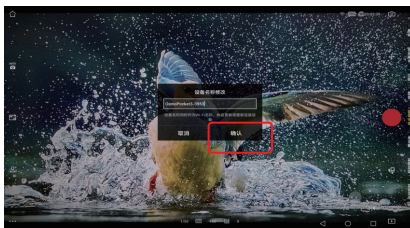


3, Click connect when the camera is scanned

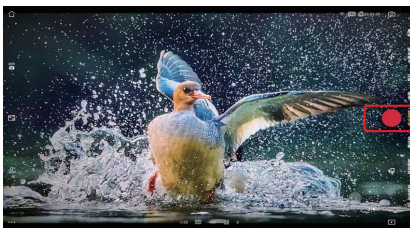


4, a verification code will pop up on App, click accept on the camera

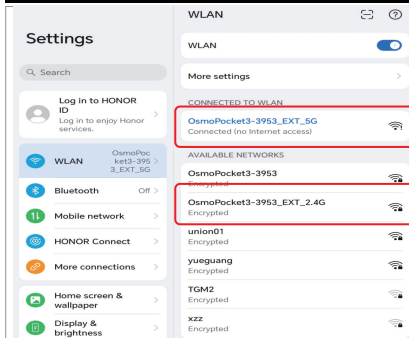
5, After the initial connection is completed, the APP will pop up a prompt to modify the device name, just click [Confirm].

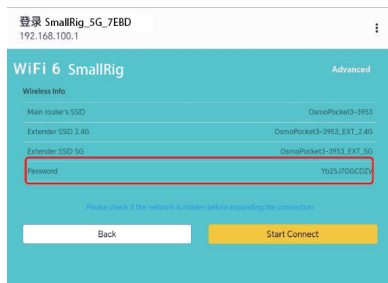
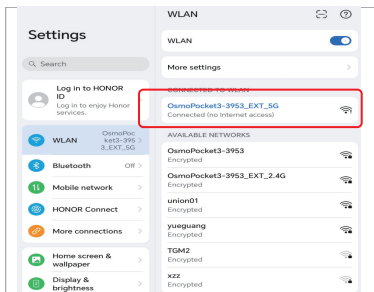


6, After confirming, you can remote control to shoot now, but the distance is short.



7, Enter the setting of mobile phone, search the [OsmoPocket3-3953-EXT-5G] in [WLAN] page and connect.

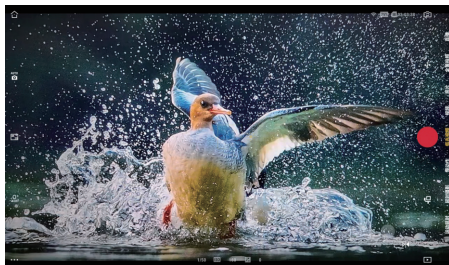
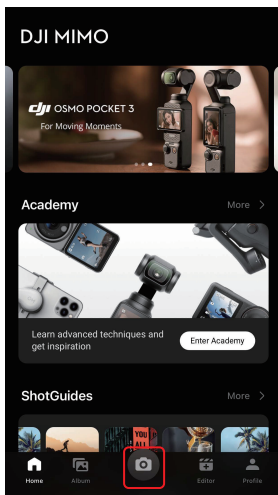




8, Some mobile phones will save the password automatically, it will automatically connect when click the name, please input the password when connecting if it requests.

Remark: The password is different for different device, please refer to the password on your own device.





9, Open the DJI Mimo App again when the Wi-Fi is [OsmoPocket3-3953-EXT-5G], click the camera icon to enter the remote control page.

Remark: As long as the camera, PRLV500, and mobile phone app remain connected, the camera will not enter sleep mode and will always remain in shooting status.

Tips: How to choose the 2.4G/5G Wi-Fi

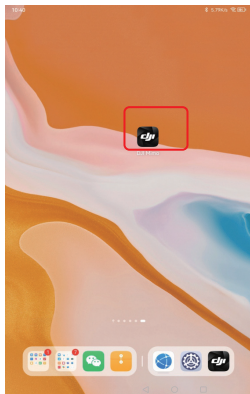
- (1) OsmoPocket3-3953-EXT-5G has a wider signal bandwidth and a higher transmission rate, making it suitable for use in open areas.
- (2) OsmoPocket3-3953-EXT-2.4G has stronger signal penetration and is suitable for use in obstructed areas.
- (3) OsmoPocket3-3953 is the camera's default Wi-Fi connection, which has a very short range.

Chapter 7, How to connect when using again

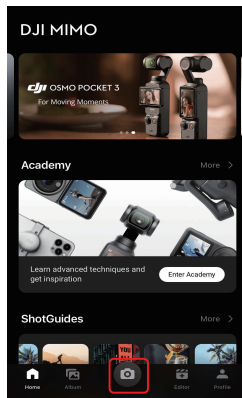
1, When use the DJI pocket camera and PRLV500 again, any mobile phone can connect the camera with the following steps.

2, Steps to connect again:

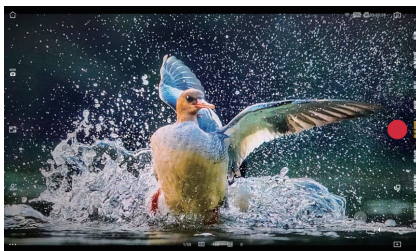
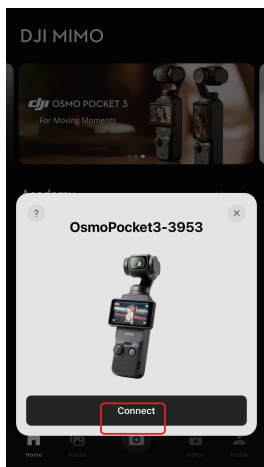
- (1) The gimbal camera loses power;
- (2) The augmented reality repeater loses power;
- (3) The network connection between the gimbal camera and the augmented reality repeater is lost.
- (4) The gimbal camera and the augmented reality repeater are not powered off, and the connection between them remains intact. If the Wi-Fi connection between the mobile phone and the augmented reality repeater is temporarily lost, simply reconnect to Wi-Fi and open the DJIMimo App.



- ① Power on the camera remote and pocket camera

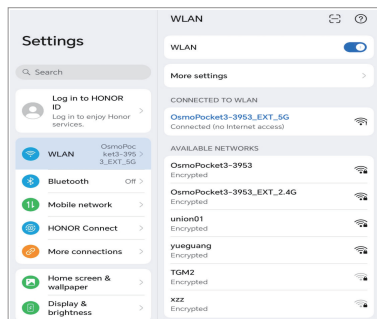


- ② Open the DJI Mimo App and click the camera icon in the bottom, it will automatically scan the pocket camera.

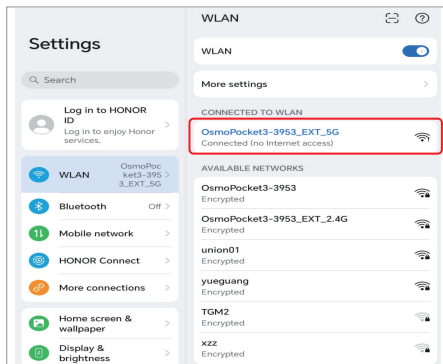


③Click connect, the shooting page will pop up once connected.

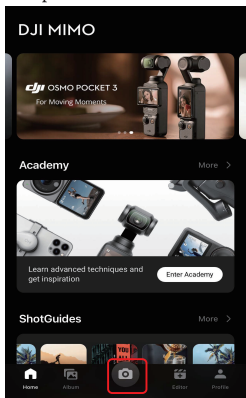
④The default connection of the app is [OsmoPocket3-3953] Wi-Fi. Although you can control shooting by connecting to this Wi-Fi, the distance is very short. You need to connect to [OsmoPocket3-3953-EXT-5G] on your mobile phone.



⑤ Connected



The picture below shows a mobile phone (or tablet) connected to the gimbal camera.



⑥ Switch the Wi-Fi to [Extender 5G 7EBD] and reopen the DJI Mimo App, click the camera icon in the bottom to enter the remote control shooting page.

Chapter 8, Usage Features Explanation

1, Action camera only support [One to one] mode

(1) If you replace the DJI camera with this augmented reality repeater, you need to reset the augmented reality repeater and then reconfigure the network.

(2) If you replace the augmented reality repeater but not the DJI camera, you also need to reconfigure the network.

(3) The latest version of DJI Mimo App is requested, and camera need to update to the latest firmware too.

2. The phone and tablet need to install the latest DJI Mimo App, and the camera needs to upgrade to the latest firmware.

3. After pairing the DJI camera with the augmented reality repeater, different mobile phones/tablets with the DJI IMimo app installed can connect to this DJI camera for remote shooting.

1. When a smartphone, tablet, or camera can detect a Wi-Fi signal but fails to connect for a long time or encounters a connection error.

Solution: Press the [Reset] button on the Wireless Tethering Hub for Cameras for approximately 10 seconds to restore it to factory settings, then reconnect to Wi-Fi. (Note: Sony cameras can directly open the official camera App for use after connecting to Wi-Fi. There is no need to access the network configuration page or configure any parameters.)



II. After connecting the power cable, the Wireless Tethering Hub for Cameras has an unlit indicator light and does not function.

Solution:

1. Check if the battery has power.
2. Check the power cable for damage or replace it with a new one.

Chapter 9 Specifications

Item/sub item		Contents
Name		Wireless Tethering Hub for Cameras
Model		WTH 500
Functions	Control method	A device that can remotely control camera shooting via a mobile phone or tablet within a range of 500m in unobstructed or slightly obstructed situations.
	Shooting function	Camera App control the camera to shoot
	App	Manufacturer's App
	Compatible model	Osmo Pocket 3, Pocket 2, Osmo Action 5 Pro, Osmo 360, Osmo Nano, Action 4, Action 3
Communication	Communication distance	The maximum communication distance between the camera and the WTH500 is less than 90m, with no obstruction or slight obstruction.
		The maximum communication distance between a mobile phone or tablet and the WTH500 is <310m, with no obstruction or slight obstruction.
		Different remote control distance for different models and environments.
	Antenna	Built-in 2 high-gain antennas
Communication	Wi-Fi standard	1201 Mbps (5 GHz, 11ax) + 574 Mbps (2.4 GHz, 11ax), Compatible to IEEE802.11B /G/N/AC/AX Wi-Fi standard
	Frequency	2.4 GHz and 5.0 GHz
	Transmit power	FCC: <18 dBm(2.4GHz), <18 dBm(5GHz)
Communication	Signal rate	2.4GHz 574 Mbps, 5GHz 1201 Mbps
Hardware	Dimension	95*95*27mm
	Network	152g
	Input voltage	5V3A
Certification		Passes the FCC, CE, SRRC, RoHS test
Ambient temperature and humidity	Operating temperature	0°C~40°C (32°F~104°F)
	Storage temperature	-40°C~70°C (-40°F~158°F)
	Operating humidity	10%~90%non-condensing
	Storage humidity	5%~90%non-condensing