Manuals+ — User Manuals Simplified.

dji MA.00000406.02 RC Pro Remote Controller User Guide

Contents

DJI MA.00000406.02 RC Pro Remote Controller

Disclaimer

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Introduction

The DJI RC Pro remote controller features O3+, the latest version of DJI's signature OCUSYNCTM image transmission technology, and can transmit a live HD view from the camera of an aircraft [1] at a distance of up to 15 km[2]. Users can connect to the internet via Wi-Fi or by using a 4G dongle and the Android operating system comes with a variety of functions such as Bluetooth and GNSS. The built-in 5.5-in high brightness 1000 cd/m2 screen boasts a resolution of 1920×1080 pixels while the remote controller comes with a wide range of aircraft and gimbal controls as well as customizable buttons and has a maximum operating time of 3 hours[3].

1. Refer to the Specifications for more information on supported aircraft.
2. The DJI RC Pro can reach its maximum transmission distance (FCC) in a wide-open area with no electromagnetic interference using a DJI MAVICTM 3 at an altitude of approximately 120 meters.
3. The maximum operating time was tested in a lab environment and is for reference only.

Important

Stay alert when using the remote controller to control an Unmanned Aerial Vehicle (UAV). Carelessness may result in serious harm to yourself and others. Download and read the user manuals for the aircraft and remote controller before using them for the first time.

1. Fully charge the remote controller before each flight.
2. The remote controller will sound an alert if it is powered on but has not been used for five minutes. It will automatically power off after a further 30 seconds. Move the control sticks or perform any other remote controller action to cancel the alert.
3. Make sure the antennas of the remote controller are unfolded and adjusted to the proper position for optimal transmission.
4. Contact DJI Support to repair or replace the antennas if they are damaged. Damaged antennas greatly decrease performance.
5. Link the remote controller and the aircraft every time the aircraft is changed.
6. Make sure to power off the aircraft before the remote controller.
7. Fully charge the remote controller every three months.
8. Charge the remote controller immediately if the power level reaches 0%. Otherwise, the remote controller may be damaged due to being over-discharged for an extended period. Discharge the remote controller to between 40% and 60% if stored for an extended period.
9. DO NOT cover the air vent or the air intake on the remote controller. Otherwise, the performance of the remote controller may be affected due to overheating.
10. Contact DJI or a DJI authorized dealer to replace the components of the remote controller if damaged. DO NOT disassemble the remote controller without the assistance of a DJI authorized dealer.

Overview
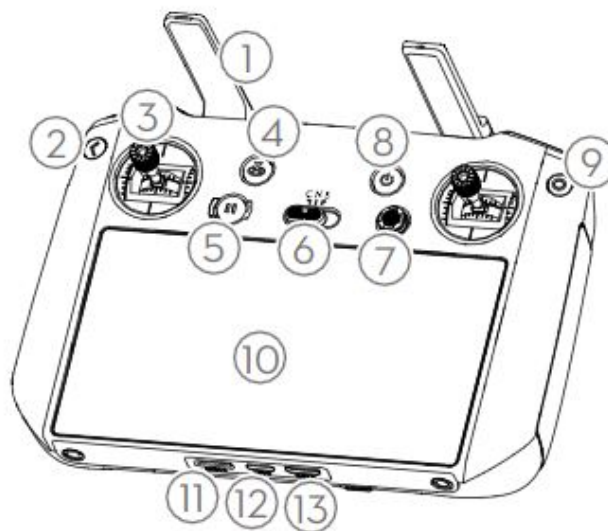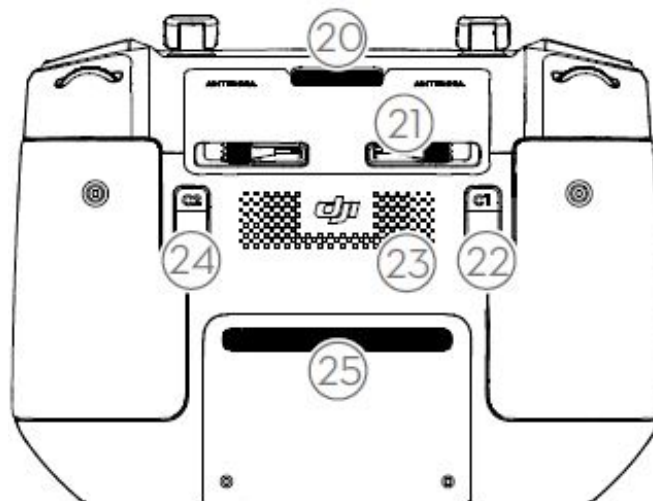

1. Antennas
2. Back Button/Function Button
3. Control Sticks
4. RTH Button
5. Flight Pause Button
6. Flight Mode Switch

7. 5D Button

8. Power Button

9. Confirm Button/Customizable C3 Button

10. Touchscreen

11. microSD Card Slot

12. USB-C Port

13. Mini HDMI Port
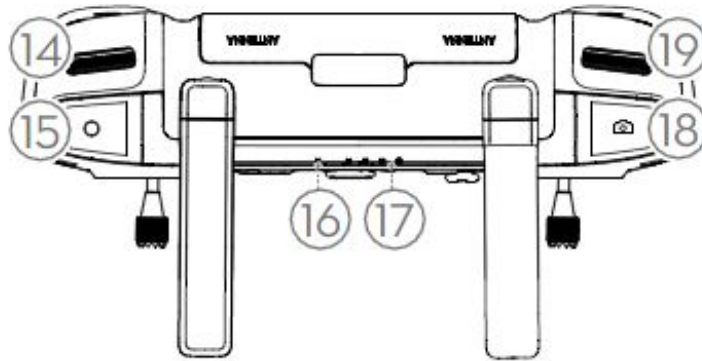
14. Gimbal Dial

15. Record Button

16. Status LED

17. Battery Level LEDs

18. Focus/Shutter Button

19. Camera Settings Dial


20. Air Vent

21. Control Sticks Storage Slots [1]

22. Customizable C1 Button

23. Speaker

24. Customizable C2 Button

25. Air Intake

1. A pair of control sticks are stored in the control sticks storage slot before delivery. The control sticks have already been mounted to the remote controller in the illustration in the Overview section.

Charging and Checking Battery Level

The built-in battery is placed in hibernation mode before delivery. It must be charged before using for the first time.

It takes approximately two hours to fully charge the remote controller using a recommended USB charger rated 12V and one and a half hours using a recommended USB charger rated 15V.
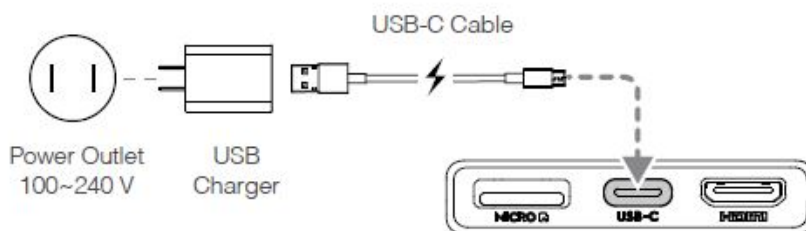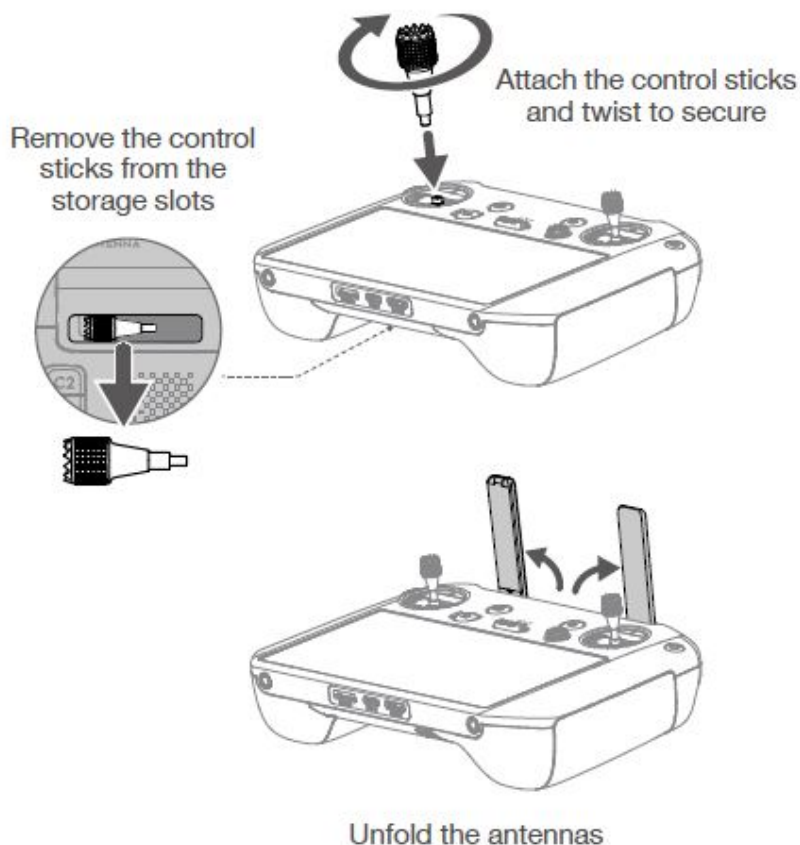

Check battery level: press the power button. Power on/off: press the power button once and then hold.
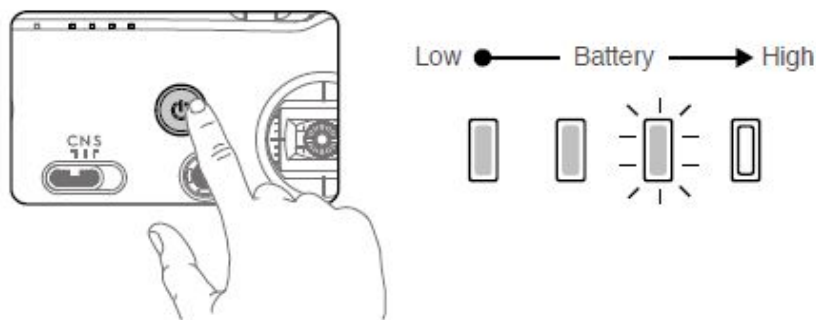
- It is recommended to use an FCC/CE certified USB charger rated 12 or 15V.
- Recharge the battery at least every three months to prevent over-discharging. The battery depletes when stored for an extended period.

Preparing the Remote Controller

Unfold the antennas

The optimal transmission range is where the antennas are facing toward the aircraft and the angle between the antennas and the back of the remote controller is 180° or 270°. The illustrations show situations where the operator and aircraft are far away.
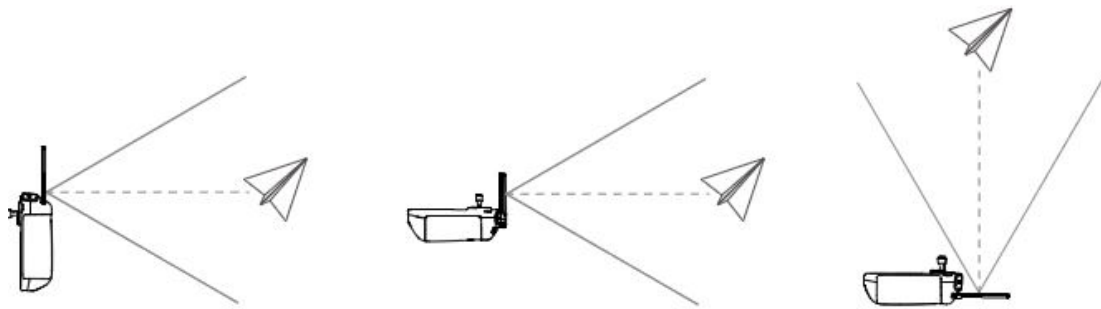
- Make sure the control sticks are firmly mounted.
- A prompt will be received in DJI Fly if the transmission signal is weak during flight. Adjust the antennas to make sure that the aircraft is in the optimal transmission range.

Activating the Remote Controller

The remote controller needs to be activated before using for the first time. An internet connection is required for activation.

- Power on the remote controller
- Select the language
- Follow the prompts to activate

Check the internet connection if activation fails. Try to activate the remote controller again if the internet connection is normal. Contact DJI if activation fails several times.

Linking

The remote controller is already linked to the aircraft when it is purchased together as part of a combo. Otherwise, follow the steps below to link the remote controller and the aircraft after activation.

1. Power on the remote controller and the aircraft.
2. Press the customizable C1 button, customizable C2 button, and the record button simultaneously. The status LED will blink blue and the remote controller will beep twice to indicate linking has started.
3. Press the linking button of the aircraft. The status LED of the remote controller will turn solid green if linking is successful.
4. Refer to the DJI RC Pro User Manual for more information about linking. To download the user manual, visit **https://www.dji.com/rc-pro**

Flight

Before takeoff, make sure that takeoff is permitted in the camera view of DJI Fly.

- Auto Takeoff/Landing Tap this icon in the camera view. When the prompt appears, press and hold the button to initiate auto takeoff or landing.

- Manual Takeoff/Landing Perform combination stick command to start/stop the motors.
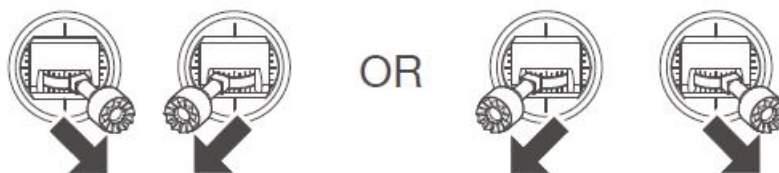

- **Takeoff** Slowly pushes the left control stick (Mode 2) up to take off.

- **Landing** Slowly push the left control stick down until the aircraft lands. Hold for three seconds to stop the motors.

The default control stick mode is Mode 2. The left control stick controls the altitude and heading of the aircraft, while the right control stick controls the forward, backward, and sideward movements.

Left Stick
Up
Down
Turn Left   Turn Right

Right Stick
Forward
Backward
Left   Right
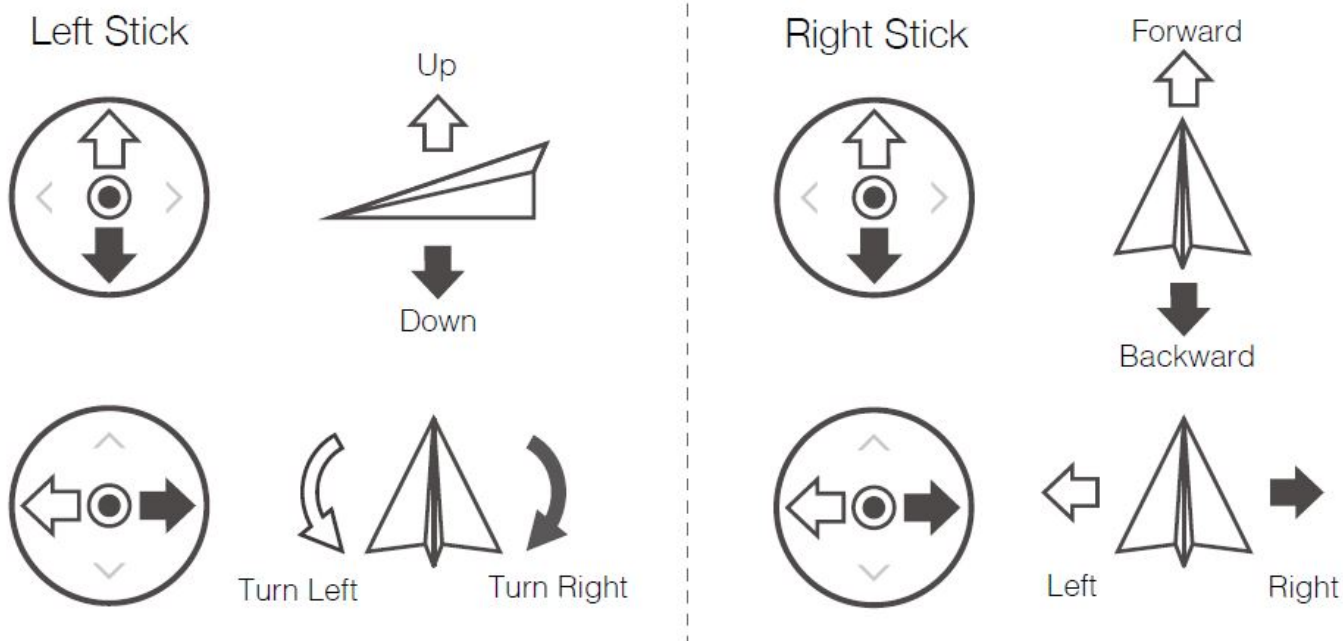
- The motors can only be stopped mid-flight when the flight controller detects a critical error.
- Make sure the remote controller is linked to the aircraft.

Specifications

O3+	
Operation Frequency Range	2.400-2.4835 GHz; 5.725-5.850 GHz*
Max Transmission Distance (Unobstructed, free of interference)	15 km (FCC); 8 km (CE/SRRC/MIC)
Transmission Power (EIRP)	2.4 GHz: <33 dBm (FCC); <20 dBm (CE/SRRC/MIC) 5.8 GHz: <33 dBm (FCC); <14 dBm (CE); <23 dBm (SRRC)
Wi-Fi	
Protocol	802.11b/a/g/n/ac/ax 2×2 MIMO
Operation Frequency Range	2.400-2.4835 GHz; 5.725-5.850 GHz*
Transmission Power (EIRP)	2.4 GHz: <26 dBm (FCC); <20 dBm (CE/SRRC/MIC) 5.8 GHz: <26 dBm (FCC/SRRC); <14 dBm (CE)
Bluetooth	
Protocol	Bluetooth 5.1
Operation Frequency Range	2.400-2.4835 GHz
Transmission Power (EIRP)	<8 dBm
General	
Battery	Li-ion (5000 mAh @ 7.2 V)
Charging Type	Recommended to use USB chargers rated 12V or 15V
Rated Power	12 W
Storage Capacity	ROM 32GB + expandable storage via microSD card
Charging Time	2 hours (using a USB charger rated 12V) 1.5 hours (using a USB charger rated 15V)
Operating Time	3 hours
Video Output Port	Mini HDMI Port
Operation Temperature Range	-10° to 40° C (14° to 104° F)
Storage Temperature Range	Less than one month: -30° to 60° C (-22° to 140° F) One to three months: -30° to 45° C (-22° to 113° F) Three to six months: -30° to 35° C (-22° to 95° F) More than six months: -30° to 25° C (-22° to 77° F)
Charging Temperature Range	5° to 40° C (41° to 104° F)
Supported Aircraft Models**	DJI Mavic 3
GNSS	GPS+GLONASS+Galileo
Weight	Approx. 680 g
Model	RM510

Documents / Resources

DJI RC Pro Quick Start Guide dji	**dji MA.00000406.02 RC Pro Remote Controller** [pdf] User Guide MA.00000406.02 RC Pro Remote Controller, MA.00000406.02, RC Pro Remote Controller