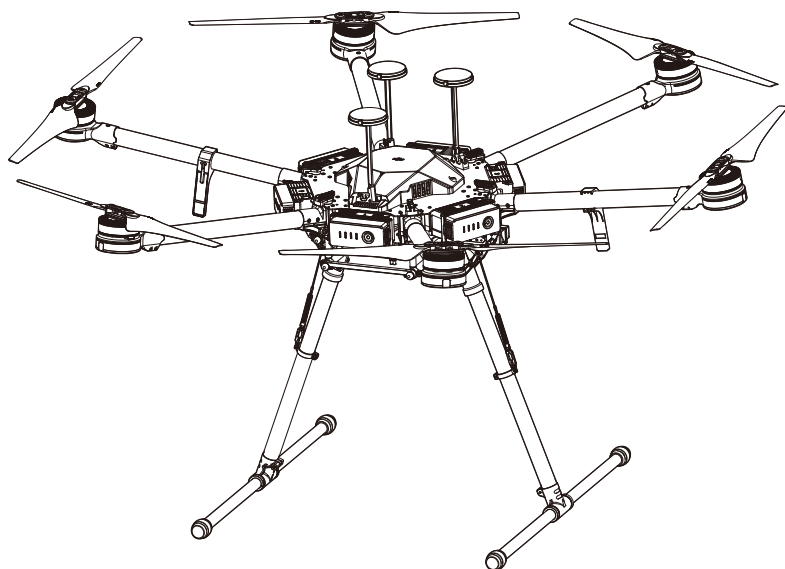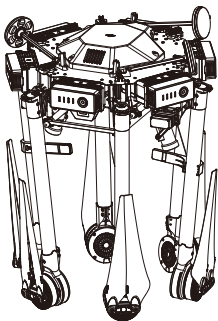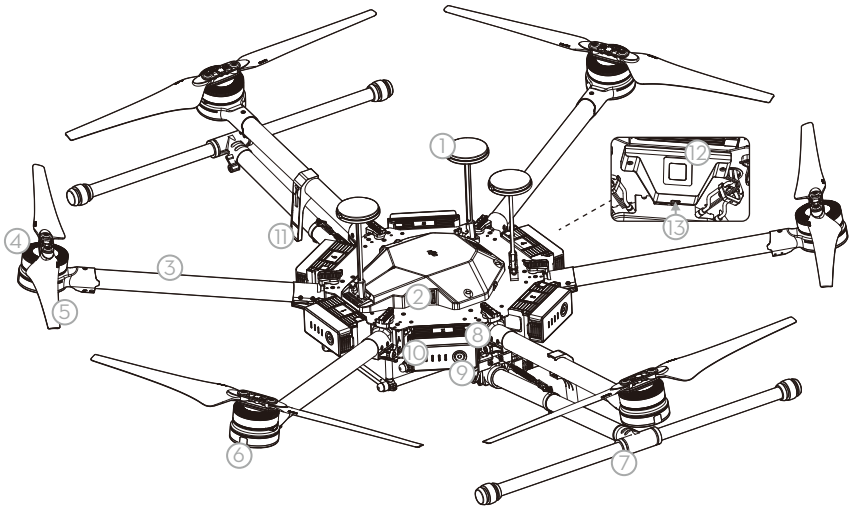# MATRICE 600 PRO

Quick Start Guide

V1.0

dji

Matrice 600 Pro

The MATRICE™ 600 Pro is equipped with a dedicated DJI™ A3 Pro triple-modular redundancy system and advanced intelligent flight functions, ensuring safe and stable operation at all times. With six Intelligent Flight Batteries, the Matrice 600 Pro has 32 minutes of hover time*. Its mechanical design, with quick-release landing gear and mounted folding arms, make it easy to transport, store, and prepare for flight.

The standard DJI Hex Charger can charge up to six Intelligent Flight Batteries and two remote controllers simultaneously.

The Matrice 600 Pro is compatible with many of DJI's gimbals* and has retractable landing gear, allowing for clear 360-degree views from your camera. With a no-payload weight* of 9.5 kg, and maximum takeoff weight of 15.5 kg, the Matrice 600 Pro can meet specific needs across a range of industries.

1. GPS-Compass Pro
2. Center Frame
3. Frame Arms
4. Motors
5. Propellers
6. ESC LEDs
7. Landing Gear
8. Intelligent Flight Batteries
9. Power Button
10. Battery Level LEDs
11. Antennas
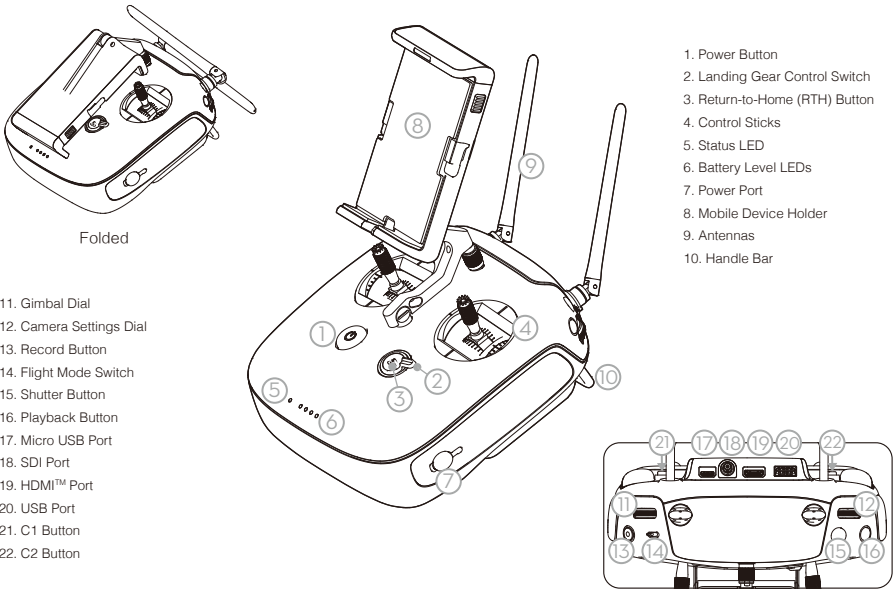12. Aircraft Status Indicator
13. Micro USB Port

The Matrice 600 Pro folded without landing gear.

* Hover time is based on flying 10 meters above sea level in no-wind conditions and landing with a 10% battery level using six TB47S Intelligent Flight Batteries. Please refer to Specifications for more information on compatible DJI gimbal models. No-payload weight includes landing gear and six TB47S Intelligent Flight Batteries.
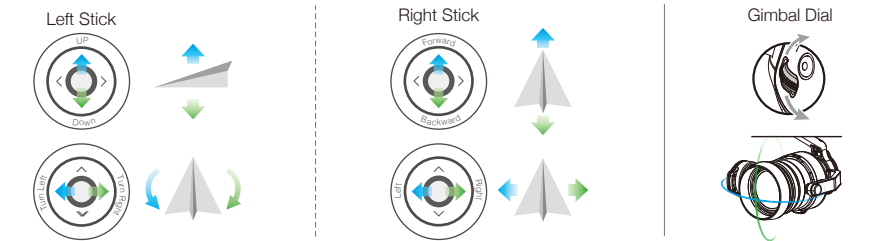
Remote Controller

The maximum transmission distance of the Matrice 600 Pro remote controller is 16,400 feet (5 km)*. The built-in LiPo battery powers the device for up to four hours* in between charges. An ergonomic design puts gimbal (optional) control functions within comfortable reach, crucial when operating the aircraft. Important controls such as raising and lowering the landing gear and activating the Return-to-Home procedure can also be triggered with a tap of a button.

The LIGHTBRIDGE™ 2 HD video downlink is integrated into the remote controller, allowing real-time camera footage to be displayed in the DJI GO™ app. Dual remote controller mode makes it possible for the aircraft and camera to be operated on two separate controls, which have a communication range of up to 50 meters.

Folded

1. Power Button
2. Landing Gear Control Switch
3. Return-to-Home (RTH) Button
4. Control Sticks
5. Status LED
6. Battery Level LEDs
7. Power Port
8. Mobile Device Holder
9. Antennas
10. Handle Bar

11. Gimbal Dial
12. Camera Settings Dial
13. Record Button
14. Flight Mode Switch
15. Shutter Button
16. Playback Button
17. Micro USB Port
18. SDI Port
19. HDMI™ Port
20. USB Port
21. C1 Button
22. C2 Button

The stick mode is set to Mode 2 by default (left hand throttle). The left stick controls the aircraft's elevation and heading. The right stick controls the aircraft's forward, backward and lateral movements. The gimbal dial controls camera tilt or pan.

Left Stick

UP
Down
Turn Left / Turn Right

Right Stick

Forward
Backward
Left / Right

Gimbal Dial

⚠
• For more information about how to connect and use the remote controller, please refer to the user manual of the Matrice 600 Pro.
• You can change the stick mode in the DJI GO app.

* The remote controller is able to reach its maximum transmission distance (FCC) in a wide open area with no Electro-Magnetic Interference, and at an altitude of about 400 feet (120 meters). The maximum run-time is tested under laboratory environment, only for your reference.

Using Matrice 600 Pro

1. Download DJI Assistant 2 and the DJI GO App

Download and install DJI ASSISTANT™ 2 on your computer via the website link below:
http://www.dji.com/matrice600-pro

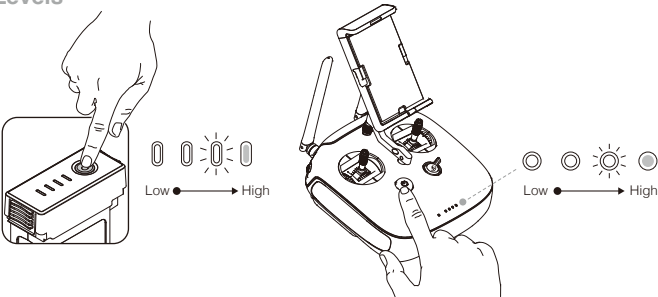Search 'DJI GO' in the App Store or Google Play, and download the app to your mobile device.

DJI GO App

⚠ • DJI Assistant 2 supports Windows 7 (or later) or OS X 10.11 (or later).
  • DJI GO supports iOS 8.0 (or later) or Android 4.1.2 (or later).
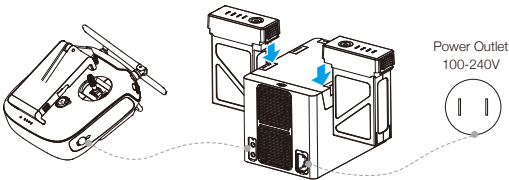
2. Checking Battery Levels

• Press once to check the battery level.
• Press once, again and hold to turn on/off.
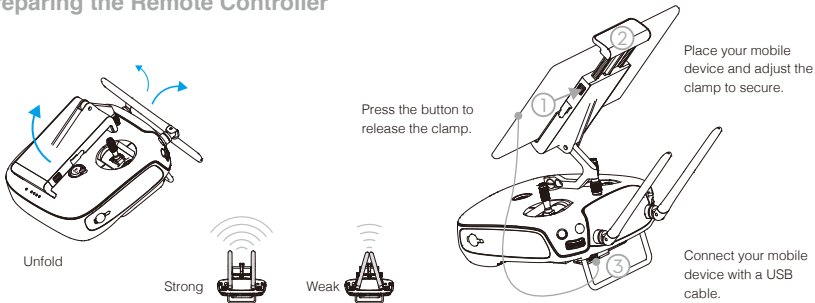
Low ●——→ High

Low ●——→ High

3. Charging Batteries

Make sure all six Intelligent Flight Batteries are fully charged before using the Matrice 600 Pro.

⚠ • The Intelligent Flight Battery must be fully charged before using it for the first time.
  • Only use the official DJI charger for your Intelligent Flight Battery and remote controller. Power off the Intelligent Flight Battery before charging.
  • When charging is complete, the LED lights on the Intelligent Flight Battery and remote controller will turn off.

Power Outlet
100-240V

4. Preparing the Remote Controller

Press the button to release the clamp.

② Place your mobile device and adjust the clamp to secure.

①

Unfold

Strong

Weak

③ Connect your mobile device with a USB cable.

5. Preparing the Aircraft

Mounting the Landing Gear

Note the orientation
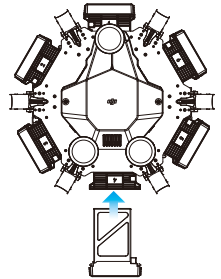
Note the orientation

Attach

Mounting and Powering On Batteries

1. Make sure all six Intelligent Flight Batteries are fully charged and powered off. Insert the batteries into the battery compartments.
2. Press the Power Button once, then press it again and hold for two seconds. This will power on one of the six batteries, automatically triggering the others.

⚠ • DO NOT manually power on more than one Intelligent Flight Battery to avoid damaging the batteries.
• If powering on one of the six batteries does not trigger the others, follow the instructions in the DJI GO app.
• You only need to power off just one battery and all the other batteries will power off automatically.
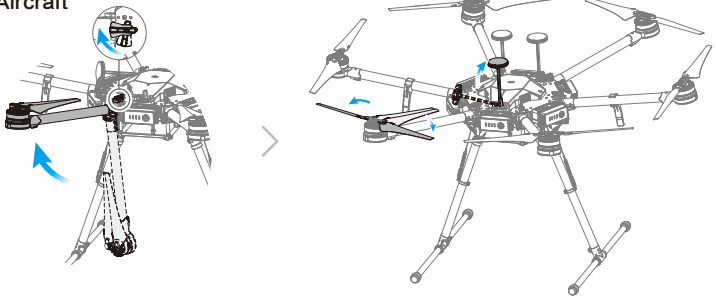
Activating the Aircraft

When using your Matrice 600 Pro for the first time, activate it in DJI Assistant 2 software. Connect the Micro USB port of the Matrice 600 Pro to the computer with a Micro USB cable and follow the steps in DJI Assistant 2.
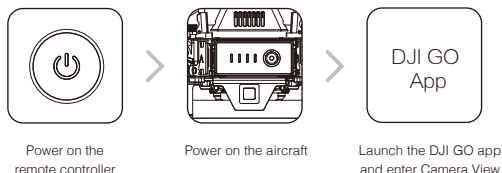
⚠ • First-time activation requires your DJI account and internet connection.

Unfolding the Aircraft

⚠ • Ensure that all the Intelligent Flight Batteries are powered off before unfolding the aircraft.
• Ensure that all the arrows on the GPS-Compass Pro point toward the front of the aircraft after unfolding them.

6. Flight

Power on the remote controller > Power on the aircraft > Launch the DJI GO app and enter Camera View

Ready to Go (GPS)

Before taking off, ensure the Aircraft Status Bar in the DJI GO app indicates 'Ready to Go (GPS)'.

In the DJI GO App:

Auto Takeoff
The aircraft will take off and hover at an altitude of 4 feet (1.2 meters).

Auto Landing
The aircraft will land vertically and stop its motors.

Return-to-Home (RTH)
Bring the aircraft back to the Home Point. Tap again to stop the procedure.

Intelligent Flight Modes
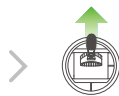Tap to use Point of Interest (POI), Waypoints and more.

⚠ • The aircraft will not avoid obstacles while it is returning to the Home Point, and an appropriate RTH altitude must be set before takeoff. You should also use the control sticks to guide the aircraft. Refer to the Disclaimer and Safety Guidelines for more details.

Manual Takeoff

Combination Stick Command to start/stop the motors   OR

Left stick up (slowly) to take off

Manual Landing

Ensure the landing gear is lowered before landing.

Raise   Lower

Return-to-Home (RC)

Same as the RTH button in the DJI GO app. Brings the aircraft back to the Home Point. Press and hold to initiate the RTH procedure. Press again to cancel.

Left stick down (slowly) until you touch the ground.
Hold a few seconds to stop the motors.

⚠ • Rotating propellers can be dangerous. Do not start the motors when there are people nearby.
• Never stop the motors in mid-flight, or else the aircraft will crash.
• Always keep your hands on the remote controller so long as the motor is still spinning.

It is important to understand basic flight guidelines for the safety of both you and those around you.
Refer to the Disclaimer and Safety Guidelines for more information.

No Fly Zones

Learn more:
http://flysafe.dji.com/no-fly

Specifications

- **Aircraft**

Diagonal Wheelbase	1133 mm
Dimensions	1668 mm × 1518 mm × 727 mm with propellers, frame arms and GPS mount unfolded (including landing gear)
	437 mm × 402 mm × 553 mm with propellers, frame arms and GPS mount folded (excluding landing gear)
Weight (with six TB47S batteries)	9.5 kg
Weight (with six TB48S batteries)	10 kg
Max Takeoff Weight Recommended	15.5 kg
Hovering Accuracy (P-GPS)	Vertical: ±0.5 m, Horizontal: ±1.5 m
Max Angular Velocity	Pitch: 300°/s, Yaw: 150°/s
Max Pitch Angle	25°
Max Wind Resistance	8 m/s
Max Ascent Speed	5 m/s
Max Descent Speed	3 m/s
Max Speed	40 mph / 65 kph (no wind)
Max Service Ceiling Above Sea Level	2170 propellers: 2500 m, 2195 propellers: 4000 m
Hovering Time* (with six TB47S batteries)	No payload: 32 min, 6 kg payload: 16 min
Hovering Time* (with six TB48S batteries)	No payload: 38 min, 5.5 kg payload: 18 min
Flight Control System	A3 Pro
Supported DJI Gimbals	Ronin-MX; ZENMUSE™ Z30, Zenmuse X5/X5R, Zenmuse X3, Zenmuse XT; Zenmuse Z15 Series HD Gimbal: Z15-A7, Z15-BMPCC, Z15-5D III, Z15-GH4
Retractable Landing Gear	Standard
Operating Temperature	14° to 104° F (-10° to 40° C)

- **Remote Controller**

Operating Frequency	920.6 MHz to 928 MHz (Japan); 5.725 GHz to 5.825 GHz; 2.400 GHz to 2.483 GHz
Max Transmission Distance	FCC Compliant: 3.1 mi (5 km), CE Compliant: 2.2 mi (3.5 km) (Unobstructed, free of interference)
Transmitter Power (EIRP)	10 dBm @ 900M, 13 dBm @ 5.8G, 20 dBm @ 2.4G
Video Output Port	HDMI, SDI, USB
Operating Temperature	14° to 104° F (-10° to 40° C)
Battery	6000 mAh LiPo 2S

- **Charger (Model: MC6S600)**

Voltage Output	26.1 V
Rated Power	600 W
Single Battery Port Output Power	100 W

- **Standard Battery (Model: TB47S)**

Capacity	4500 mAh
Voltage	22.2 V
Battery Type	LiPo 6S
Energy	99.9 Wh
Net Weight	595 g
Operating Temperature	14° to 104° F (-10° to 40° C)
Max Charging Power	180 W

- **Optional Battery (Model: TB48S)**

Capacity	5700 mAh
Voltage	22.8 V
Battery Type	LiPo 6S
Energy	129.96 Wh
Net Weight	680 g
Operating Temperature	14° to 104° F (-10° to 40° C)
Max Charging Power	180 W

* Hovering time is based on flying at 10 meters above sea level in a no-wind environment and landing with a 10% battery level.

HDMI™

Download the detailed user manual at:
www.dji.com/matrice600-pro

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