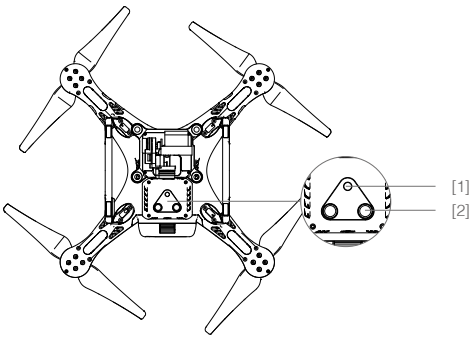
There are two options for Dynamic Home Point.
1. Set the aircraft current coordinate as the new Home Point.
2. Set the mobile device's coordinate as the new Home Point.

Setting Up Dynamic Home Point

Follow the steps below to setup Dynamic Home Point:
1. Connect to the mobile device and launch the DJI Pilot app and go to the "Camera" page.
2. Tap"H"and select"", to set the mobile device's coordinates as the new Home Point.
3. Tap"H"and select"", to set the aircraft's coordinates as the new Home Point.
4. The aircraft status indicator blinks green to show Home Point is set successfully.

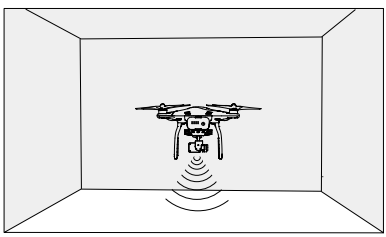
Vision Positioning System

DJI Vision Positioning is a positioning system that uses ultrasonic and image data to help the aircraft identify its current position. With the help of Vision Positioning, your Phantom 3 Advanced can hover in place more precisely and fly indoors or in other environments where there is no GPS signal available. The main components of DJI Vision Positioning are located on the bottom of your Phantom 3 Advanced, including [1] one monocular camera and [2]two sonar sensors.



Using Vision Positioning

Vision Positioning is activated automatically when the Phantom 3 Advanced is powered on. No manual action is required. Vision Positioning is typically used in the indoor environment where no GPS is available. By using the sensors on the Vision Positioning system, Phantom 3 Advanced can perform precision hovering even when no GPS is available.



Follow the steps below to use Vision Positioning:

1. Toggle the switch to "P" mode.
2. Place the aircraft on a flat surface. Notice that the Vision Positioning system cannot work properly on surfaces without pattern variations.
3. Power on the aircraft. The aircraft status indicator will flash twice in green light, which indicates the Vision Positioning system is ready. Gently push the throttle up to lift off, and the aircraft will hover in place.

⚠ The performance of your Vision Positioning System is subject to the surface you are flying over. The ultrasonic waves may not be able to accurately measure the distance over sound absorbing materials, and the camera may not function correctly in suboptimal environments. The aircraft will switch from "P" mode to "A" mode automatically if both GPS and Vision Positioning System are not available. So operate the aircraft cautiously when in any of the following situations:

- Flying over monochrome surfaces (e.g. pure black, pure white, pure red, pure green).
- Flying over a highly reflective surfaces.
- Flying at high speeds(over 8 m/s at 2 meters or over 4 m/s at 1 meter).
- Flying over water or transparent surfaces.
- Flying over moving surfaces or objects.
- Flying in an area where the lighting changes frequently or drastically.
- Flying over extremely dark (lux < 10) or bright (lux > 100,000) surfaces.
- Flying over surfaces that can absorb sound waves (e.g. thick carpet).
- Flying over surfaces without clear patterns or texture.
- Flying over surfaces with identical repeating patterns or textures (e.g. tiles with same design).
- Flying over inclined surfaces that will deflect sound waves away from the aircraft.

- Keep the sensors clean at all times. Dirt or other debris may adversely affect the effectiveness of the sensors.
- The effective hovering altitudes of the aircraft is from 0 to 3 meters.
- Vision Positioning system may not function properly when the aircraft is flying over water.
- Vision Positioning system may not be able to recognize pattern on the ground in low light conditions (less than 100 lux).
- Do not use other ultrasonic devices with frequency of 40 KHz when Vision Positioning system is in operation.
- Vision Positioning system may not be able to stabilize the aircraft when flying close to the ground (below 0.5 meters) in fast speed.

⊘ Keep the animals away from the aircraft when Vision Positioning system is activated. The sonar sensor emits high frequency sound that is only audible to some animals.

Flight Recorder

Flight data is automatically recorded to the SD card. This includes flight telemetry, aircraft status information, and other parameters. Access these data from the DJI Pilot app through the Aircraft Micro-USB Port.

Attaching and Detaching the Propellers

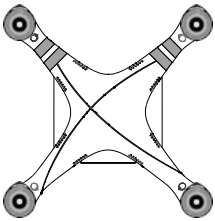
Use only DJI approved propellers with your Phantom 3 Advanced. The grey or black nut on the propeller indicates the rotation direction of the propeller and where it should be attached. To attach

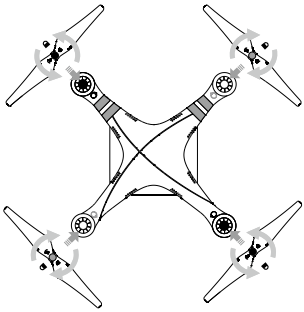
the propellers properly, match the nut with the axis on the motors of your Phantom 3 Advanced.

Propellers	Grey cap	Black cap
Figure		
Attach On	Motors with a grey axis	Motors with a black axis
Legends	Lock : Turn the propellers in the indicated direction to mount and tighten Unlock : Turn the propellers in the indicated direction to loosen and remove	

Attaching the Propellers

1. Attach the propellers with a grey nut onto a motor with the grey axis and spin the propellers clockwise to secure them in place. Attach the propellers with a black nut onto a motor with the black axis and spin the propellers counter clockwise to secure its position. Be sure to completely tighten each propeller by hand before flight.





⚠
- Ensure propellers are attached to its corresponding motors, otherwise the aircraft cannot take off.
- Wear gloves when handling propellers.
- Manually tighten each of the propellers on the corresponding motors to ensure it is attached firmly.

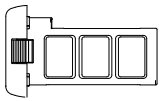
Detaching the Propellers

Hold the motor still. Then spin the propeller in the unlock direction indicated on the propeller itself.

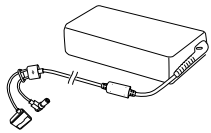
⚠
- Check that the propellers and motors are installed correctly and firmly before every flight.
- Ensure that all propellers are in good condition before each flight. DO NOT use aged, chipped, or broken propellers.
- To avoid injury, STAND CLEAR of and DO NOT touch propellers or motors when they are spinning.
- ONLY use original DJI propellers for a better and safer flight experience.

DJI Intelligent Flight Battery

The DJI Intelligent Flight Battery has a capacity of 4480 mAh, voltage of 15.2 V, and smart charge-discharge functionality. It can only be charged with an appropriate DJI approved charger.



Flight Intelligent Flight Battery



Charger

⚠ Battery must be fully charged before using it for the first time. Refer to "Charging the Intelligent Flight Battery" for more information .

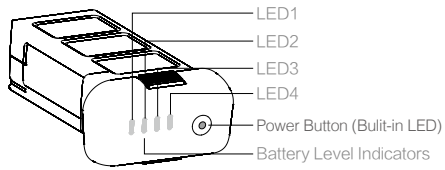
Be aware that the output power of the supplied Phantom 3 Advanced charger is 57W.

DJI Intelligent Flight Battery Functions

1. Battery Level Display: LEDs display the current battery level.
2. Battery Life Display: LEDs display the current battery power cycle.
3. Auto-discharging Function: The battery automatically discharges to below 65% of total power when it is idle for more than 10 days to prevent swelling. It takes around 2 days to discharge the battery to 65%. It is normal to feel moderate heat emitting from the battery during the discharge process. Discharge thresholds can be set in the DJI Pilot app.
4. Balanced Charging: Automatically balances the voltage of each battery cell when charging.
5. Over charge Protection: Charging automatically stops when the battery is fully charged.
6. Temperature Detection: The battery will only charge when the temperature is between 0°C(32°F) and 40°C (104°F).
7. Over Current Protection: Battery stops charging when high amperage (more than 8 A) is detected.
8. Over Discharge Protection: Discharging automatically stops when the battery voltage reaches 12 V to prevent over-discharge damage
9. Short Circuit Protection: Automatically cuts the power supply when a short circuit is detected.
10. Battery Cell Damages Protection: DJI Pilot app shows warning message when damaged battery cell is detected.
11. Battery Error History Browse the battery error history from the DJI Pilot app.
12. Sleep Mode: Sleep mode is entered after 20 minutes of inactivity to save power.
13. Communication: Battery voltage, capacity, current, and other relevant information is provided to the aircraft's to the main controller.

⚠ Refer to *Disclaimer* and *Intelligent Flight Battery Safety Guidelines* before use. Users take full responsibility for all operations and usage.

Using the Battery



Powering ON/OFF

Powering On: Press the Power Button once, then press again and hold for 2 seconds to power on. The Power LED will turn red and the Battery Level Indicators will display the current battery level.

Powering Off: Press the Power Button once, then press again and hold for 2 seconds to power off.

Low Temperature Notice:

1. Battery capacity is significantly reduced when flying in low temperature environment (< 0°C).
2. It is not recommended to use the battery in extremely low temperature (< -10°C) environment. Battery voltage should reach to the appropriate level when using in the environment where temperature range between minus 10°C to 5°C.
3. Stop flying when DJI Pilot app displays “Low Battery Level Warning” in low temperature environment.
4. Place the battery indoors to warm up the battery before using it in the low temperature environment.
5. To ensure the performance of the battery, keep the battery body temperature above 20°C.

⚠ In cold environments, insert the battery into the battery compartment and allow the aircraft to warm up for approximately 1-2 minutes before taking off.

Checking the battery level

The Battery Level Indicators display how much remaining power the battery has. When the battery is powered off, press the Power Button once. The Battery Level Indicators will light up to display the current battery level. See below for details.

The Battery Level Indicators will also show the current battery level during charging and discharging. The indicators are defined below.

▯ : LED is on. ▯ : LED is flashing.
▯ : LED is off.

Battery Level				
LED1	LED2	LED3	LED4	Battery Level
▯	▯	▯	▯	87.5%~100%
▯	▯	▯	▯	75%~87.5%
▯	▯	▯	▯	62.5%~75%
▯	▯	▯	▯	50%~62.5%
▯	▯	▯	▯	37.5%~50%
▯	▯	▯	▯	25%~37.5%
▯	▯	▯	▯	12.5%~25%
▯	▯	▯	▯	0%~12.5%
▯	▯	▯	▯	=0%

Battery life

The battery life indicates how many more times the battery can be discharged and recharged before it must be replaced. When the battery is powered off, press and hold the Power Button for 5 seconds to check the battery life. The Battery Level Indicators will light up and/or blink as described below for 2 seconds:

Battery Life				
LED1	LED2	LED3	LED4	Battery Life
▯	▯	▯	▯	90%~100%
▯	▯	▯	▣	80%~90%
▯	▯	▯	▯	70%~80%
▯	▯	▣	▯	60%~70%
▯	▯	▯	▯	50%~60%
▯	▣	▯	▯	40%~50%
▯	▯	▯	▯	30%~40%
▣	▯	▯	▯	20%~30%
▯	▯	▯	▯	below 20%

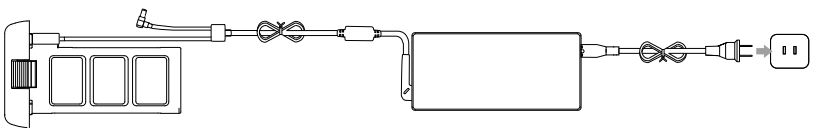
⚠ When battery life reaches 0%, it can no longer be used.

For more information about the battery, launch DJI Pilot app and check the information under the battery tab.

Charging the Intelligent Flight Battery

1. Connect Battery Charger to a power source (100-240 V 50/60 Hz).
2. Open the Protection Cap and connect the Intelligent Flight Battery to the Battery Charger. If the battery level is above 95%, turn on the battery before charging.
3. The Battery Level Indicator will display the current battery level during charging.
4. The Intelligent Flight Battery is fully charged when Battery Level Indicators are all off.
5. Air cool the Intelligent Flight Battery after each flight. Allow its temperature to drop to room temperature before storing it for an extended period.

⚠ • Always turn off the battery before inserting it or removing it from the Phantom 3 Advanced. Never insert or remove a battery when it is powered on.



Intelligent Flight Battery Charger Power Outlet

Battery Level Indicators while Charging				
LED1	LED2	LED3	LED4	Battery Level
				0%~25%
				25%~50%
				50%~75%
				75%~100%
				Fully Charged

Charging Protection LED Display

The table below shows battery protection mechanisms and corresponding LED patterns.

Battery Level Indicators while Charging					
LED1	LED2	LED3	LED4	Blinking Pattern	Battery Protection Item
				LED2 blinks twice per second	Over current detected
				LED2 blinks three times per second	Short circuit detected
				LED3 blinks twice per second	Over charge detected
				LED3 blinks three times per second	Over-voltage charger detected
				LED4 blinks twice per second	Charging temperature is too low
				LED4 blinks three times per second	Charging temperature is too high

After any of the above mentioned protection issues are resolved, press the button to turn off the Battery Level Indicator. Unplug the Intelligent Flight Battery from the charger and plug it back in to resume charging. Note that you do not need to unplug and plug the charger in the event of a room temperature error, the charger will resume charging when the temperature falls within the normal range.

⚠ • DJI does not take any responsibility for damage caused by third-party chargers.

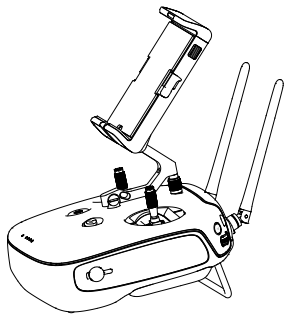
How to discharge your Intelligent Flight Battery:

Slow : Place the Intelligent Flight Battery into the Phantom 3 Advanced's Battery Compartment and power it on. Leave it on until there is less than 8% of power left, or until the battery can no longer be turned on. Launch the DJI Pilot app to check battery levels.

Rapid : Fly the Phantom 3 Advanced outdoors until there is less than 8% of power left, or until the battery can no longer be turned on.

Remote Controllers

This chapter describes the features of the remote controller that includes, how to operate the aircraft and camera.



Remote Control

Remote Controller Profile

The Phantom 3 Advanced remote control is a multi-function wireless communication device that integrates the video downlink ground system and aircraft remote control system. The video downlink and aircraft remote control system operate at 2.4 GHz. The remote controller features a number of camera functions, such as taking and previewing photos and video, and controlling gimbal motions. The remote controller is powered by a 2S rechargeable battery. The current battery level is displayed by LEDs on the front panel of the remote control.

- **Compliance Version:** The remote control is compliant with both CE and FCC regulations.
- **Operating Mode:** Control can be set to Mode 1 , Mode 2.
- **Mode 1:** The right stick serves as the throttle.
- **Mode 2:** The left stick serves as the throttle.

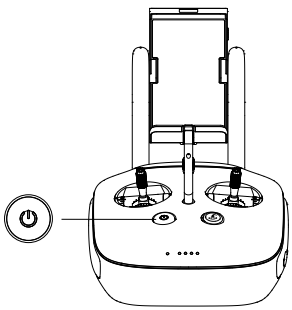
⚠ Do not operate more than 3 aircrafts within in the same area (size equivalent to a soccer field) to prevent transmission interference.

Remote Controller Operations

Powering On and Off the Remote Controller

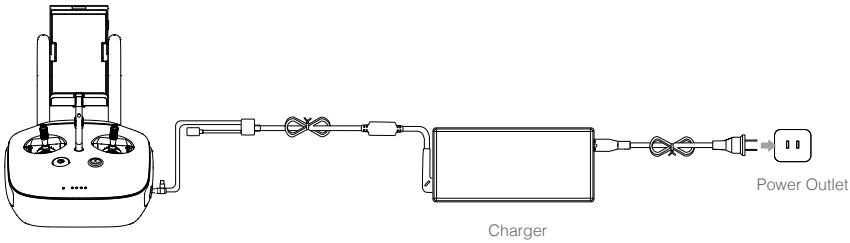
The Phantom 3 Advanced remote controller is powered by a 2S rechargeable battery with a capacity of 6000 mHA. The battery level is indicated by the Battery Level LEDs on the front panel. Follow the steps below to power on your remote controller:

1. When powered off, press the Power Button once and the Battery Level LEDs will display the current battery level.
2. Press and hold the Power Button to power on the remote controller.
3. The remote controller beeps when it is powered on. The Status LED will blink green rapidly, indicating that the remote controller is linking to the aircraft. The Status LED will show a solid green light when linking is complete.
4. Repeat step 2 to power off the remote controller.



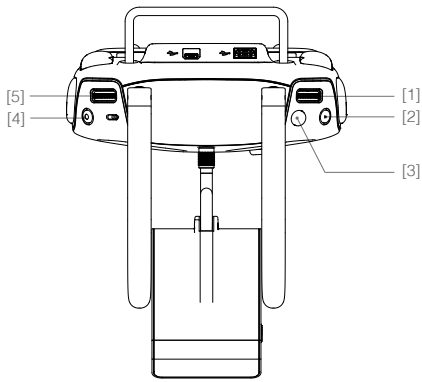
Charging Remote Controller

Charge the remote controller via supplied charger. Refer to the figure below for more details.



Controlling Camera

Shoot videos or images and adjust camera settings via the Shutter Button, Camera Settings Dial, Playback Button and Video Recording Button on the remote control.



[1] Camera Settings Dial

Turn the dial to quickly adjust camera settings such as ISO, shutter speed, and aperture without letting go of the remote controller. Move the dial button to left or right to view the pictures or videos in playback mode.

[2] Playback Button

Press to view images or videos that have already been captured.

[3] Shutter Button

Press to take a photo. If burst mode is activated, multiple photos will be taken with a single press.

[4] Recoding Button

Press once to start recording video, then press again to stop recording.

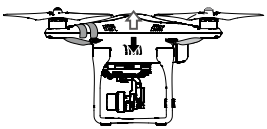
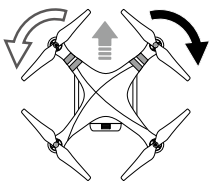
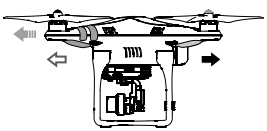
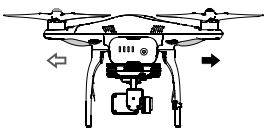
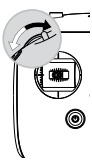
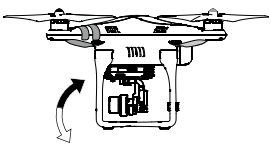
[5] Gimbal Dial

Use this dial to control the tilt of the gimbal.

Controlling Aircraft

This section explains how to control the orientation of the aircraft through the remote controller. The Remote Control is set to Mode 2 by default.

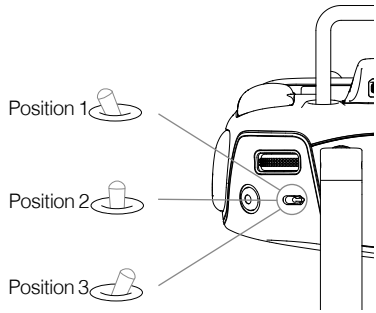
Stick Neutral/ mid point: Control sticks of the Remote Control are placed at the central position.
Move the Stick: The control stick is pushed away from the central position.

Remote Control (Mode 2)	Aircraft (● indicates nose direction)	Remarks
		Moving the left stick up and down changes the aircraft's elevation. Push the stick up to ascend and down to descend. Push the throttle stick up to takeoff. When both sticks are centered, the Phantom 3 Advanced will hover in place. The more the stick is pushed away from the center position, the faster the Phantom 3 Advanced will change elevation. Always push the stick gently to prevent sudden and unexpected elevation changes.
		Moving the left stick to the left or right controls the rudder and rotation of the aircraft. Push the sick left to rotate the aircraft counter clock-wise, and push the stick right to rotate the aircraft clockwise. If the stick is centered, the Phantom 3 Advanced will stay facing its current direction. The more the stick is pushed away from the center position, the faster the Phantom 3 Advanced will rotate.
		Moving the right stick up and down changes the aircraft's forward and backward pitch. Push the stick up to fly forward and down to fly backward. Phantom 3 Advanced will hover in place if the stick is centered. Push the stick further away from the center position for a larger pitch angle (maximum 30˚) and faster flight.
		Moving the right stick control left and right changes the aircraft's left and right pitch. Push left to fly left and right to fly right. The Phantom 3 Advanced will hover in place if the stick is centered. Push the stick further away from the center position for a larger pitch angle (maximum 30˚) and faster flight.
		Gimbal Dial: Turn the dial to the right, and the camera will shift to point upwards. Turn the dial to the left, and the camera will shift to point downwards. The camera will remain in its current position when dial is static.

Flight Mode Switch

Toggle the switch to select the desired flight mode. You may choose between; P mode, F mode and A mode.

Position	Figure	Flight Mode
Position 1		F mode
Position 2		A mode
Position 3		P mode



P mode (Positioning) : P mode works best when GPS signal is strong. There are three different states of P mode, which will be automatically selected by the Phantom 3 Advanced depending on GPS signal strength and Vision Positioning sensors:

P-GPS: GPS and Vision Positioning both are available, and the aircraft is using GPS for positioning.

P-OPTI: Vision Positioning is available but the GPS signal is not. Aircraft is using only Vision Positioning for hovering

P-ATTI: Neither GPS or Vision Positioning available, aircraft is using only its barometer for positioning, so only altitude is controlled.

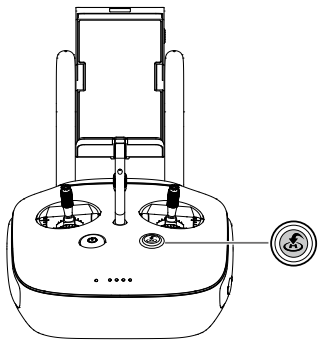
A mode (Attitude): GPS and Vision Positioning System is not used for stabilization. The aircraft only uses its barometer to stabilize. The aircraft can automatically return home if remote control signal is lost if the Home Point is recorded successfully.

F mode (Function): Intelligent Orientation Control (IOC) is activated in this mode. For more information about IOC, refer to the IOC in Appendix.

The Flight Mode Switch is locked in P mode by default. To unlock the switch, launch the DJI Pilot app, enter the “Camera” page, tap “MODE”, and then activate “Multiple Flight Mode” .

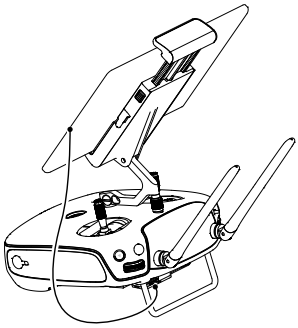
RTH button

Press and hold this button to start the Return to Home (RTH) procedure. The LED around the RTH Button will blink white to indicate the aircraft is entering RTH mode. The aircraft will then return to the last recorded Home Point. Press this button again to cancel the RTH procedure and regain the control of the aircraft.



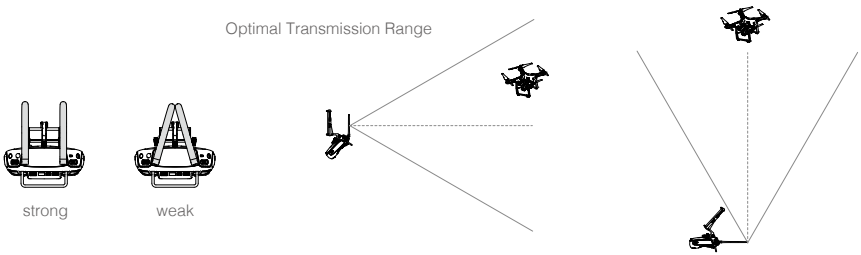
Connecting Mobile Device

Tilt the Mobile Device Holder to the desired position. Press the button on the side of the Mobile Device Holder to release the clamp, and then place your mobile device into the clamp. Adjust the clamp to secure your mobile device. Then connect your mobile device to the remote controller with a USB cable. Plug one end of the cable into your mobile device, and the other end into the USB port on the back of the remote controller.



Optimal Transmission Range

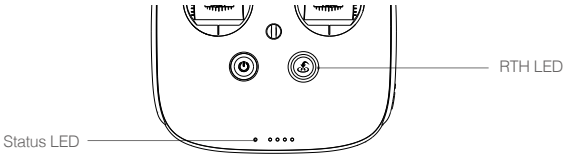
The signal transmission between aircraft and remote controller perform best within the range that displayed in the picture shown below:



Ensure the aircraft is flying within the optimal transmission range. Adjust the distance and position between the operator and the aircraft to achieve optimal transmission performance.

Remote Controller Status LED

The Status LED reflects connection status between remote control and aircraft. The RTH LED shows the Return to Home status of the aircraft. The table below contains details on these indicators.



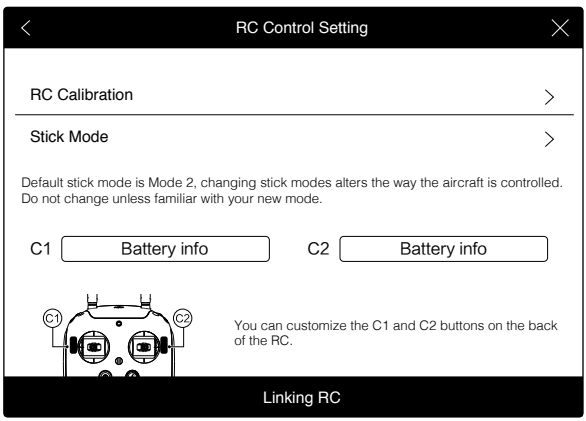
Status LED	Alarm	Remote Controller Status
Ⓡ —— Solid Red	♪ chime	The remote controller is disconnected from the aircraft.
Ⓖ —— Solid Green	♪ chime	The remote controller is connected with the aircraft.
Ⓡ ····· Slow Blinking Red	D-D-D·····	Remote controller error.
Ⓡ Ⓖ / Ⓡ Ⓨ ····· Red and Green/ Red and Yellow Alternate Blinks	None	HD downlink is disrupted.
RTH LED	**Sound**	**Remote Controller Status**
Ⓦ —— Solid White	♪ chime	Aircraft is returning home.
Ⓦ ····· Blinking White	D · · ·	Sending Return to Home command to the aircraft.
Ⓦ ····· Blinking White	DD ·· ·· ··	Aircraft Return to Home in progress.

⚠ The Remote Status Indicator will blink red, sound an alert, when the battery level is critically low.

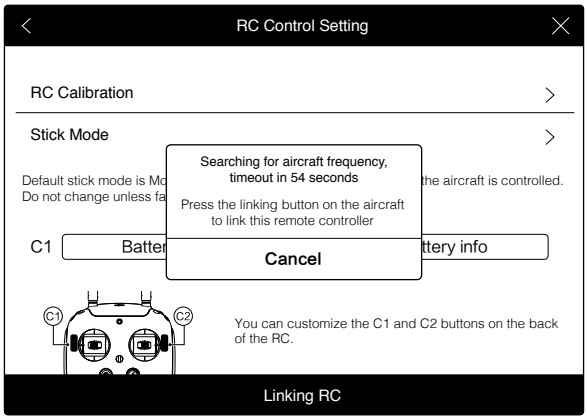
Linking the Remote Controller

The remote controller is linked to your aircraft before delivery. Linking is only required when using a new remote controller for the first time. Follow these steps to link a new remote controller:

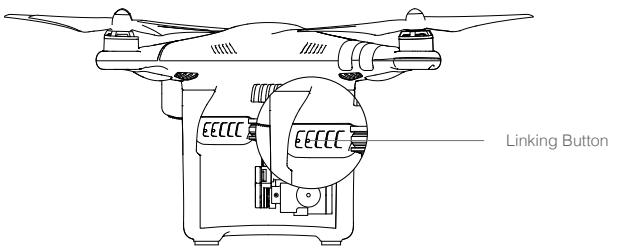
1. Power on the remote controller and connect to the mobile device. Launch DJI Pilot app.
2. Power on the Intelligent Flight Battery.
3. Enter "Camera" view and tap on and then tap "Linking RC" button as shown below.



4. The remote controller is ready to link. The Remote Controller Status Indicator blinks blue and "beep" sound is emitted.



5. Locate the Linking button on the side of the aircraft, as shown in the figure shown below. Press the Linking button to start linking. The LED to the left of the linking button blinks green to indicate that the aircraft is ready to link, and it blinks solid green when linking is complete. The Remote Controller Status Indicator will display solid green if Link is succeed.



⚠ • Remote controller will disconnect from the linked aircraft if a new remote controller is linked to the same aircraft.

Remote Controller Compliance Version

The remote controller is compliant with both CE and FCC requirements.

Gimbal Camera

This chapter provides the technical specifications of the camera, explains the operating mode of the gimbal.