GEO Zone	Flight Restriction	Scenario
Restricted Zones (Red)	UAVs are prohibited from flying in Restricted Zones. If you have obtained permission to fly in a Restricted Zone, visit https://fly-safe.dji.com/unlock or contact fly-safe@dji.com to unlock the zone.	The aircraft cannot take off.
Authorization Zones (Blue)	The aircraft will not be able to take off in an Authorization Zone unless it obtains a permission to fly in the area.	To fly in an Authorization Zone, the user is required to submit an unlocking license request and synchronize the license.
Warning Zones (Yellow) Enhanced Warning Zones (Orange)	The aircraft can fly in the zone.	The aircraft can fly in the zone. Please view GEO information in DJI FlightHub 2 and stay alert.
Altitude Zones (Gray)	The aircraft's altitude is limited when flying inside an Altitude Zone.	The dock aircraft cannot take off, and a prompt will appear in DJI FlightHub 2 when the planned flight altitude exceeds the maximum altitude of the aircraft.

Buffer Zone

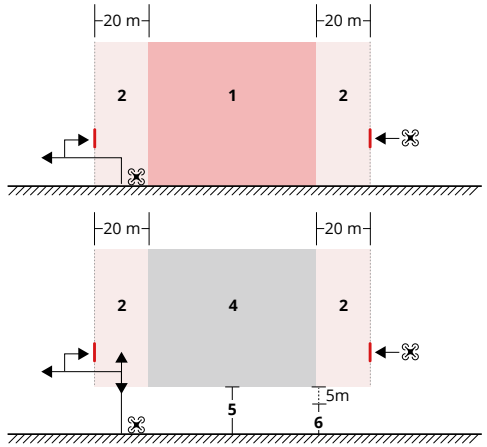
Buffer Zones for Restricted Zones/Authorization Zones

To prevent the aircraft from accidentally flying into a Restricted or Authorization Zone, the GEO System creates a buffer zone of about 20 meters wide outside each Restricted and Authorization Zone. As shown in the illustration below, the aircraft can only take off and land away from the Restricted or Authorization Zone when inside the buffer zone. The aircraft cannot fly toward the Restricted or Authorization Zone unless an unlocking request has been approved. The aircraft cannot fly back into the buffer zone after leaving the buffer zone.

Buffer Zones for Altitude Zones

A buffer zone of about 20 meters wide is established outside each Altitude Zone. As shown in the illustration below, when approaching the buffer zone of an Altitude Zone in a horizontal direction, the aircraft will gradually reduce its flight speed and hover outside the buffer zone. When approaching the buffer zone from underneath in a vertical direction, the aircraft can ascend and descend in altitude or fly away from the Altitude

Zone. The aircraft cannot fly toward the Altitude Zone. The aircraft cannot fly back into the buffer zone in a horizontal direction after leaving the buffer zone.



1. Restricted Zone/Authorized Zone
2. Buffer Zone
3. Ground
4. Altitude Zone
5. Altitude Limit
6. Flight Altitude

Unlocking GEO Zones

To satisfy the needs of different users, DJI provides two unlocking modes: Self-Unlocking and Custom Unlocking.

Self-Unlocking is intended for unlocking Authorization Zones. o complete Self-Unlocking, the user is required to submit an unlocking request via the DJI Fly Safe website at https://www.dji.com/flysafe.

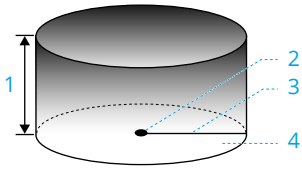
Custom Unlocking is tailored for users with special requirements. It designates user-defined custom flight areas and provides flight permission documents specific to the needs of different users. This unlocking option is available in all countries and regions and can be requested via the DJI Fly Safe website at https://www.dji.com/flysafe.

Remote Unlocking: Open DJI FlightHub 2 and go to **Device Management** > **Dock** > > **Remote Debugging** > **Aircraft Control** for unlocking.

For more information about unlocking, please visit https://www.dji.com/flysafe or contact flysafe@dji.com.

Flight Altitude and Distance Limits

Max altitude restricts the flight altitude of the aircraft, while max distance restricts the flight radius around the Home Point. These limits can be changed in DJI FlightHub 2 for improved flight safety.



1. Max Altitude
2. Home Point (Hotizontal Position)
3. Max Distance
4. Height of aircraft when taking off

Strong GNSS Signal

	Flight Restrictions	DJI FlightHub 2 Tips
Max Altitude	Altitude of the aircraft cannot exceed the value set in DJI FlightHub 2.	Aircraft approaching max flight altitude. Fly with caution.
Max Distance	The straight-line distance from the aircraft to the Home Point cannot exceed the max flight distance set in DJI FlightHub 2.	Aircraft approaching max flight distance. Fly with caution.

Weak GNSS Signal

	Flight Restrictions	DJI FlightHub 2 Tips
Max Altitude	Altitude is restricted to 30 m from the takeoff point if lighing is sufficient. Altitude is restricted to 3 m above the ground if lighting is not sufficient and the 3D infrared sensing system is functioning. Altitude is restricted to 30 m from the takeoff point if lighting is not sufficient and the 3D infrared sensing system is not functioning.	Aircraft approaching max flight altitude. Fly with caution.
Max Distance	No Limit	N/A

⚠ • When performing flight tasks with the dock, the aircraft can only takeoff when the GNSS signal is strong. If the GNSS signal becomes weak during a flight route task, the flight route task will be interrupted and RTH will be triggered.

- If an aircraft exceeds a specified limit, the pilot can still control the aircraft but cannot fly any closer to the restricted area.
- For safety reasons, DO NOT fly the aircraft near airports, highways, railway stations, railway lines, city centers, or other sensitive areas, unless any permit or approval is obtained under local regulations.

Customize No Landing Zone

Users can set **Customize No Landing Zones** in the Map Task Area page in DJI FlightHub 2. The aircraft cannot land in the no landing zones.

During a manual flight or a flight route task, if landing is triggered in a no landing zone, the aircraft will plan the optimal route to fly back to the dock or escape the no landing zone before landing. During the escaping process, if the aircraft encounters obstacles or reaches a GEO zone, or if landing is canceled, the aircraft will stop escaping. In this case, take control and manually fly the aircraft out of the no landing zone, and land the aircraft in a safe area. If the aircraft cannot fly to a safe landing area and force landing is triggered in the no landing zone, make sure to check the area is clear and safe before landing the aircraft manually.

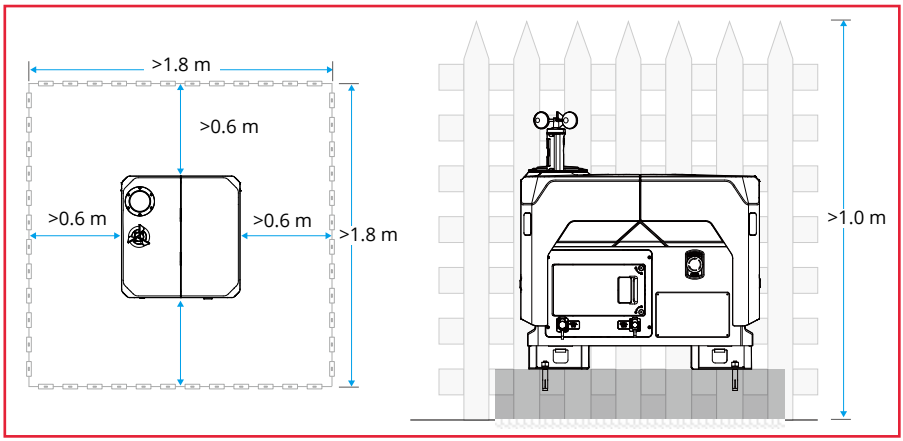
3.3 Use of Takeoff and Landing Equipment

The dock can accommodate one aircraft, from where it can take off and land. The dock can also charge the aircraft battery and provide a suitable environment for aircraft storage.

3.4 Distance to Control Station

When the user performs automated operations remotely using DJI FlightHub 2, the aircraft will take off from and land at the dock. It is recommended to install a protective fence so that unauthorized personnel cannot enter the area where the dock is installed. Make sure that no flight plan is performed on DJI FlightHub 2 and that the aircraft has landed inside the dock before entering the protective fence when operating the dock on site. After entering the area, make sure to press the emergency stop button of the dock.

During a flight task, the aircraft should be more than 10 m away from users to ensure safety.



⚠
- If it is necessary to take off and land the aircraft using the remote controller, the aircraft should be more than 10 m away from operator to ensure safety. Fly the aircraft within visual line of sight (VLOS). Any flight beyond visual line of sight (BVLOS) can be conducted only when the aircraft performance, the knowledge and skills of the pilot, and the operational safety management are compliant with local regulations for BVLOS.

3.5 System Assembly and System Starting

System Assembly

The dock needs to be installed by a DJI-authorized service provider with the aircraft prepared on site at the same time, in order for the dock and the aircraft to be configured after assembly and installation. After completing the dock configuration, perform a flight test in DJI FlightHub 2 to ensure that the dock and aircraft are properly functioning Refer to the Quick Installation Guide for more information.

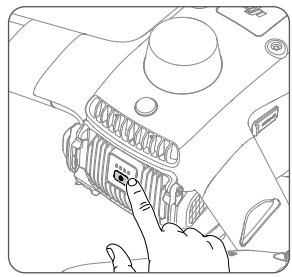
⚠
- Make sure to contact a DJI authorized service provider for installation. There may be potential safety hazards if the product is installed by the user. Contact DJI Support for information on authorized service providers.
- Make sure the dock RTK is calibrated before a flight task to ensure accurate flight along the flight route. There is no need to re-calibrate the dock RTK if the dock position remains the same.

- Make sure to calibrate the aircraft compass when using the aircraft for the first time, or after installing payloads. Otherwise, the aircraft positioning accuracy may be adversely affected.

Powering on/off the Aircraft

The aircraft will automatically power on if a flight task is initiated, and the aircraft will land in the dock and automatically power off after completing the flight task.

Press, then press and hold the power button to manually power on/off the aircraft.



Linking

The dock and the aircraft are linked and activated during dock configuration. If a different aircraft is used, follow the instructions to link the dock to the aircraft:

Linking the Dock

1. Press, then press and hold the power button to power on the aircraft.
2. Press and hold the multi-functional button in the electrical cabinet, then press and hold the power button of the aircraft to start linking.
3. When the linking process is successful, the dock status indicators will blink white.
4. The aircraft requires activation before first time use. An internet connection is required for the mobile phone during activation. After the dock and the aircraft are linked, run app and follow the instructions to activate the device.

Linking the Remote Controller B

1. Power on the remote controller and the aircraft.
2. Run DJI Pilot 2 and switch aircraft model in the home page.
3. Tap **Controller A** > **Switch to Controller B**.

4. Press and hold the power button on the aircraft and wait for linking. When linking is successful, the remote controller will beep twice.

⚠ • Make sure to link the dock to the aircraft first, and then link remote controller B.

3.6 Pre-Flight Checklist

After adding new flight route or changing flight route settings, it is recommended to perform on-site flight test to ensure normal dock operation.

1. Make sure there are no foreign objects in the battery ports of the aircraft.
2. Make sure the battery is installed firmly and the battery locks are completely tightened.
3. Make sure the propellers are securely mounted and not damaged or deformed and that there are no foreign objects in or on the motors and propellers.
4. Make sure the lenses of the vision system, gimbal cameras, the glass of the infrared sensors, and the auxiliary lights are clean and not blocked in any way.
5. Make sure the covers of all the ports on the aircraft are firmly closed. Otherwise the IP rating will be affecte
6. Make sure that the Wind Gauge rotates properly and that the rainfall gauge surface is clear of dirt or foreign matter.
7. Make sure the landing pad surface is clear of dirt and foreign objects.
8. The aircraft is placed properly on the landing pad.
9. Make sure the Emergency Stop button is released and the dock power supply is normal.
10. Check the following in DJI FlightHub 2 before a flight task:
    a. Make sure the dock and aircraft firmware have been updated to the latest version.
    b. Make sure the dock status **Idle** and that the aircraft status is set to **Standby** or **Powered Off**.
    c. Make sure the wind speed, external temperature, and rainfall are suitable for a flight task, and that the dock network connection is stable.
    d. Check the dock livestream and make sure the dock cover surface is clear of obstacles and snow or ice.
    e. Make sure the aircraft has enought battery power, and the GNSS signal is strong.
    f. Make sure the dock RTK is calibrated and converged, and the alternate landing site and the alternate landing altitude is set.

g. Make sure to enable the obstacle sensing of the aircraft. Make sure to turn on the beacons of the aircraft at night.

h. Set the Max Altitude and the Max Distance based on actual needs. Make sure to set the RTH altitude at least 5 meters below the altitude limit.

i. Make sure that the flight route does not pass through any GEO zones, and that the flight route keep a horizontal distance of at least 20 meters from the GEO zone. When flying near a GEO zone, it is recommended to set the flight altitude at least 5 meters below the altitude limit of the GEO zone.

11. Pay attention to the flight altitude, flight speed, battery level, and other flight parameters during the flight test.
12. Divide the airspace for flight when multiple aircraft are operating simultaneously in order to avoid collisions during flight.

⚠
- It is recommended to link the remote controller as controller B before flight tests for safety reasons.
- To ensure flight precision, when importing flight routes to DJI FlightHub 2, make sure the RTK signal source of the flight route is the same as the signal source used to calibrate the dock RTK. Otherwise, the actual flight trajectory of the aircraft differs from the preset flight route, and may even cause the aircraft to crash.

3.7 Takeoff and Landing

Auto Take Off/Landing

The aircraft automatically takes off and lands when performing a flight task with the dock. The dock cover opens after initiating a flight task, and the aircraft takes off from the dock. Once the aircraft takes off, the dock cover will close and the aircraft will begin to perform the flight task.

After completing the flight, the aircraft flies to the top of the dock, and the dock will automatically open the covers. After the aircraft lands, the dock pushes the driving rods forward and closes the covers.

When the aircraft is used with the dock, quick takeoff can be achieved. The aircraft can quickly take off and perform flight tasks without waiting for the aircraft RTK data to converge. Quick Takeoff can be achieved in DJI FlightHub 2:

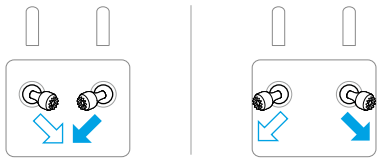
- Click **Takeoff** in the device status window after gaining aircraft control.
- Select the positioning accuracy as GNSS in the Task Plan Library.

⚠ • Quick Takeoff is only available when the dock has network connection and the network signal is strong.

Manual Takeoff/Landing

Starting the Motors

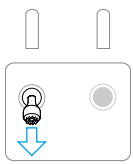
Perform one of the Combination Stick Commands (CSC) as shown below to start the motors. Once the motors have started spinning, release both sticks simultaneously.



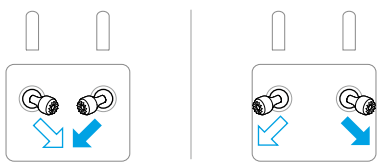
Stopping the Motors

The motors can be stopped in two ways:

Method 1: When the aircraft has landed, push the throttle stick down and hold until the motors stop.



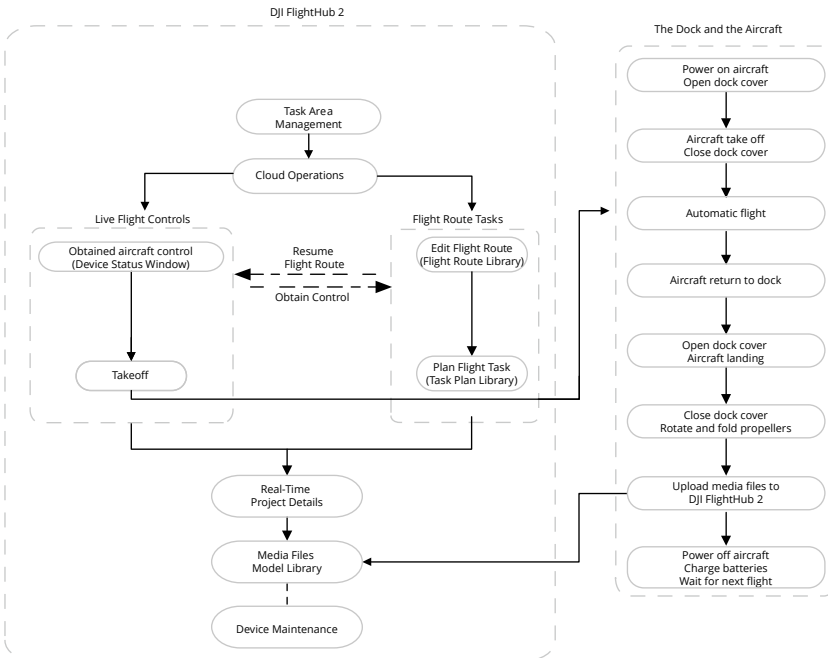
Method 2: When the aircraft has landed, perform one of the CSC as shown below until the motors stop.



3.8 Planned and Manual Flight

Flight Procedure

The operating procedure in DJI FlightHub 2 and the automated flight procedure of the dock and the aircraft is shown in the figure:



- For more information, refer to the DJI FlightHub 2 User Guide which is available on https://fh.dji.com/user-manual/en/overview.html.

Flight Route Tasks

Users can create flight routes create task plans in DJI FlightHub 2 based on their actual needs. The aircraft will take off automatically according to the preset Plan Timer.

- Select the takeoff dock and the landing dock based on the flight routes and actual needs, and perform flight tests on the flight routes for multi-dock tasks. Follow the Pre-Flight Checklist during flight tests.
- It is recommended to install the DJI Cellular Dongle 2 and enable enhanced transmission.
- If the wind speed is close to wind resistance limit, try lowering the flight altitude and the RTH altitude to reduce the effect of the strong wind. Meanwhile, check the flight altitude and the RTH altitude to ensure the flight path and the RTH path is free of any obstacles.
- After a flight task is distributed in DJI FlightHub 2, the dock will automatically check whether the environment (such as wind speed, rainfall and external temperature) is suitable for flight tasks. If a warning message appears in DJI FlightHub 2, click the message to view warning details and follow the instructions to conduct remote debugging.
- To ensure flight safety, only RTK can be selected in the positioning accuracy for multi-dock tasks.
- Remote flight controls and remote controller B will be unavailable during a multi-dock task.
- After a multi-dock task is complete, pay attention to the following:
  - If emergency landing or alternate landing is triggered during a flight task, make sure to re-link the aircraft and the dock before flying again.
  - During on-site flight tests, the aircraft may be disconnected with the dock if remote controller is linked to the aircraft. Make sure to re-link the aircraft and the dock before leaving the site. In this case, if remote controller B is also needed, make sure to link the aircraft with the dock first, and then with the remote controller.
  - A Dock that has performed multi-dock tasks can also perform single-dock tasks simply by selecting Single-Dock Plans in the Task Plan Library.

Live Flight Controls

DJI FlightHub 2 supports sending commands directly to the aircraft that is bound to the dock and remotely operating the aircraft. Go to the *DJI FlightHub 2 User Guide* and refer to the "Live Flight Controls" section for more information.

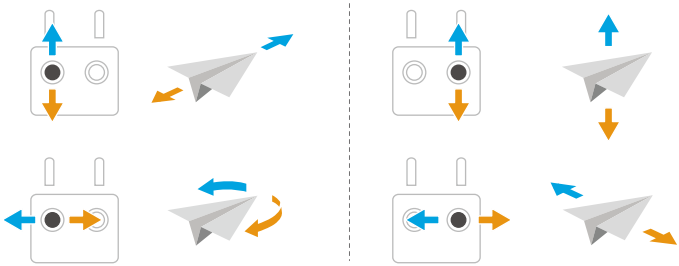
Remote Controller Control

Controlling the Aircraft

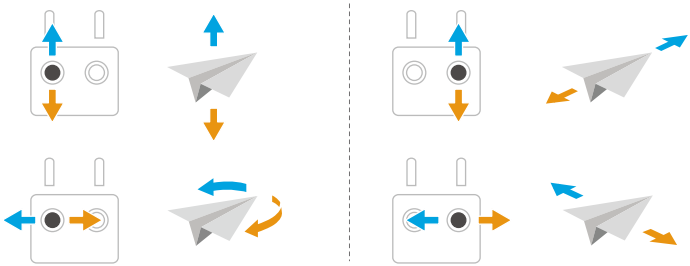
The control sticks of the remote controller can be used to control the aircraft movements. The control sticks can be operated in Mode 1, Mode 2, or Mode 3, as shown below.

The default control mode of the remote controller is Mode 2. In this manual, Mode 2 is used as an example to illustrate how to use the control sticks. The more the stick is pushed away from the center, the faster the aircraft moves.

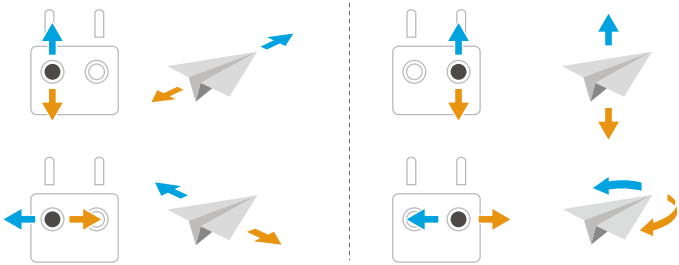
Mode 1



Mode 2



Mode 3



Flight Modes

The aircraft supports the following flight modes, which can be switched via the Flight Mode switch on the remote controller.

Normal Mode

Normal Mode is suitable for most flight scenarios. The aircraft can hover precisely and fly stably. If obstacle sensing is enabled, obstacles can also be avoided using the vision system.

Sport Mode

The maximum horizontal flight speed of the aircraft will be higher when compared with Normal mode. Note that obstacle sensing is disabled in Sport Mode.

Function Mode

F mode can be set to T-mode (Tripod mode) or A-mode (Attitude mode) in DJI Pilot 2. Aircraft speed is limited compared to Normal mode, and aircraft is more stable when recording. Attitude mode must be used with caution.

The aircraft automatically changes to Attitude (ATTI) mode when the vision systems are unavailable or disabled and the GNSS signal is weak or the compass experiences interference. When the Vision System is unavailable, the aircraft cannot position itself or brake automatically, which increases the risk of potential flight hazards. In ATTI mode, the aircraft may be more easily affected by its surroundings. Avoid flying in confined spaces or in areas where the GNSS signal is weak. Otherwise, the aircraft will enter ATTImode, leading to potential flight risks. Land the aircraft in a safe place as soon as possible.

- DO NOT switch from Normal mode to other modes unless you are sufficiently familiar with the aircraft behavior under each flight mode. You must turn on

Multiple Flight Modes in DJI Pilot 2 before switching from Normal mode to other modes.

- The vision systems are disabled in Sport mode, which means the aircraft cannot sense obstacles on its route automatically. The user must stay alert to the surrounding environment and control the aircraft to avoid obstacles.
- The maximum flight speed and braking distance of the aircraft significantly increases in Sport mode. Make sure to maintain enough braking distance in windless conditions.
- Make sure to maintain enough braking distance in windless conditions while the aircraft is ascending and descending in Sport mode or Normal mode.
- The responsiveness of the aircraft significantly increases in Sport mode, which means a small control stick movement on the remote control device translates into the aircraft moving a large distance. Make sure to maintain adequate maneuvering space during flight.
- When switching the GNSS to the BeiDou satellite positioning system in DJI Pilot 2, the aircraft only uses a single positioning system and the satellite search capability becomes poor. Fly with caution.

3.9 Return to Home (RTH)

Read this section carefully and make sure that you are familiar with the aircraft action during Return to Home (RTH).

The Return to Home (RTH) function will automatically fly the aircraft back to the last recorded Home Point. RTH can be triggered in three ways: the user actively triggers RTH, the aircraft has low battery, or the control signal lost. If the aircraft records the Home Point successfully and the positioning system is functioning normally, when the RTH function is triggered, the aircraft will automatically fly back and land at the Home Point.

Notice

- The aircraft may not be able to return to the Home Point as normal if the positioning system is functioning abnormally. During Failsafe RTH, the aircraft may enter ATTI mode and land automatically if the positioning system is functioning abnormally.
- When there is no GNSS, do not fly over water surfaces, buildings with glass surface, or in scenarios where the altitude above the ground is greater than

30 meters. If the positioning system is functioning abnormally, the aircraft will enter ATTI mode.

- It is important to set a suitable RTH altitude before each flight. Launch and set the RTH altitude. The default RTH altitude is 100 m.
- The aircraft cannot sense obstacles during RTH if the environment conditions are not suitable for the sensing system.
- GEO zones may affect the RTH. Avoid flying near GEO zones.
- The aircraft may not be able to return to a Home Point if the wind speed is too high. Fly with caution.
- Pay extra attention to small or fine objects (such as tree branches or power lines) or transparent objects (such as water or glass) during RTH. Exit RTH and control the aircraft manually in an emergency.
- Set Advanced RTH as **Preset** if there are power lines or transmission towers that the aircraft cannot bypass on the RTH path and make sure the RTH Altitude is set higher than all obstacles.
- The aircraft will brake and return to home according to the latest settings if the **Advanced RTH** settings in are changed during RTH.
- If the max altitude is adjusted below the current altitude during RTH, the aircraft will descend to the max altitude first and then continue returning to home.
- The RTH Altitude cannot be changed during RTH.
- If there is a large difference between the current altitude and the RTH altitude, the amount of battery power used cannot be calculated accurately due to wind speed differences at different altitudes. Pay extra attention to the battery power prompts and warning prompts in DJI Fly.
- When the remote controller signal is normal during Advanced RTH, the pitch stick can be used to control the flight speed, but the orientation and altitude cannot be controlled and the aircraft cannot be controlled to fly to the left or right. Constantly pushing the pitch stick to accelerate will increase the battery power consumption speed. The aircraft cannot bypass obstacles if the flight speed exceeds the effective sensing speed. The aircraft will brake and hover in place and exit RTH if the pitch stick is pushed all the way down. The aircraft can be controlled after the pitch stick is released.
- If the aircraft reaches the altitude limit of the aircraft current location or of the Home Point while it is ascending during Preset RTH, the aircraft stops ascending and returns to the Home Point at the current altitude. Pay attention to flight safety during RTH.

- If the Home Point is within the Altitude Zone but the aircraft is not in the Altitude Zone, when the aircraft reaches the Altitude Zone it will descend below the altitude limit, which may be lower than the set RTH altitude. Fly with caution.
- If the OcuSync video transmission is obstructed and disconnects, the aircraft can only rely on 4G enhanced transmission. Considering there may be large obstacles on the RTH route, to ensure safety during RTH, the RTH route will take the previous flight path as reference. When using 4G enhanced transmission, pay more attention to the battery status and the RTH route in the map.
- The aircraft will exit RTH if the surrounding environment is too complex to complete RTH, even if the sensing system is working properly.
- RTH cannot be triggered during auto landing.

Advanced RTH

The aircraft will automatically plan the best RTH path, which will be displayed in the DJI FlightHub 2 and will adjust according to the environment. During RTH, the aircraft will adjust the flight speed automatically according to environmental factors such as the wind speed, wind direction, and obstacles.

The user can cancel RTH after gaining aircraft control in DJI FlightHub 2. RTH can also be cancelled by pressing the Flight Pause button or the RTH button on the remote controller B after gaining aircraft control. After exiting RTH, users will regain control of the aircraft.

- It is recommended to mark the waypoint with obstacle above as no-return point to ensure the flight safety during RTH.

- During RTH, the aircraft may not return to the dock if the Home Point is updated using remote controller B in DJI Pilot 2.
- The aircraft will exit RTH if the surrounding environment is too complex to complete RTH, even if the vision systems are working properly.
- In rainy or foggy weather, the vision system is unavailable and the RTH route may be inaccurate, which can cause flight safety risks. DO NOT fly when it is rainy, smoggy, or the visibility is lower than 100 m.

Trigger Method

The user actively triggers RTH

Advanced RTH can be initiated by clicking **Return to Home** in the device status window in DJI FlightHub 2.

Aircraft low battery

During flight, if the battery level is low and only sufficient to fly to the Home Point, a warning prompt will appear in DJI FlightHub 2, andthe aircraft will automatically initiate low battery RTH.

If you cancel the low battery RTH prompt and continue flying the aircraft, the aircraft will land automatically when the current battery level can only support the aircraft long enough to descend from its current altitude.

Auto landing cannot be cancelled but you can still manually fly the aircraft horizontally and change the descent speed of the aircraft using the remote controller or in DJI FlightHub 2. Direct the aircraft to a suitable place for landing as soon as possible.

⚠
- When the Intelligent Flight Battery level is too low and there is not enough power to return home, land the aircraft as soon as possible. Otherwise, the aircraft will crash after the battery power runs out.
- DO NOT keep pushing the throttle stick upward during auto landing. Otherwise, the aircraft will crash after the battery is completely depleted.

Loss of Control Signal

When the signal lost action is set to RTH, RTH automatically activates after the control signal is lost.

When the lighting and environment conditions are suitable for the vision system, DJI FlightHub 2 will display the RTH path that was generated by the aircraft before the signal was lost. The aircraft will start RTH using Advanced RTH according to the RTH settings. The aircraft will remain in RTH even if the remote controller signal is restored. DJI FlightHub 2 will update the RTH path accordingly.

When the lighting and environment conditions are unsuitable for the vision system, the aircraft will brake and hover, then enter Original Route RTH.

- If the RTH distance (the horizontal distance between the aircraft and the Home Point) is farther than 50 m, the aircraft adjusts its orientation and flies backward for 50 m on its original flight route before entering Preset RTH.
- If the RTH distance is farther than 5 m but less than 50 m, the aircraft adjusts its orientation and flies straight horizontally back to the home point at the current altitude.
- If the RTH distance is less than 5 m, the aircraft will fly above the dock and land.

RTH Procedure

After Advanced RTH is triggered, the aircraft brakes and hovers in place.

- **When the environment or lighting conditions are suitable for the vision system:**

  - The aircraft will adjust its orientation to the Home Point, plan the best path according to the RTH settings and then return to the Home Point if GNSS was available when takeoff.
- **When the environment or lighting conditions are not suitable for the vision system:**
  - If the RTH distance is further than 50 meters, the aircraft will return to home according to the **Preset.**
  - If the RTH distance is less than 5 m, the aircraft will fly above the dock and land.

RTH Settings

RTH settings are available for Advanced RTH. **Optimal Route Planning** can be enabled in the device status window under **Live Flight Controls** before taking off. **Optimal Route Planning** can also be enabled in the **Task Plan Library** when creating a task plan.

- It is recommended to enable **Obstacle Data** in DJI FlightHub 2 for the optimal route planning. Go to the *DJI FlightHub 2 User Guide* and refer to the Map Task Area section for more information.

- **Optimal:**

  - If the lighting is sufficient and the environment is suitable for the vision system, the aircraft will automatically plan the optimal RTH path and adjust the altitude according to environmental factors, such as obstacles and transmission signals, regardless of the RTH Altitude setting. The optimal RTH path means the aircraft will travel the shortest distance possible to reduce the amount of battery power used and to increase flight time.
  - If the lighting is insufficient or the environment is not suitable for the vision system, the aircraft will perform Preset RTH based on the RTH Altitude setting.
- **Preset:**

RTH Distance/Altitude		Suitable Lighting and Environment Conditions	Unsuitable Lighting and Environment Conditions
RTH distance > 50 m	Current altitude < RTH altitude	The aircraft will plan the RTH path, fly to an open area while bypassing obstacles, ascend to the RTH Altitude, and return to home using the best path.	The aircraft will ascend to the RTH altitude, and fly to the Home Point in a straight line at the RTH altitude. [1]
	Current altitude ≥ RTH altitude	The aircraft will return to home using the best path at the current altitude.	The aircraft will fly to the Home Point in a straight line at the current altitude. [2]
RTH distance is within 5-50 m			

[1] If the aircraft detects an obstacle ahead, the aircraft will ascend to avoid the obstacle. It will stop climbing once the path ahead is clear and then continue to RTH. If the obstacle height exceeds the altitude limit, the aircraft will brake and hover, and the user will need to take control.

If the distance to the obstacle ahead is less than 6 meters, the aircraft will fly backward to a safe distance and then ascend to avoid the obstacle. If the upward or backward vision system is working and detects an obstacle, the aircraft will brake, and the user will need to take control. If the upward or backward vision system is not working, the aircraft will not be able to avoid obstacles in those directions.

[2] The aircraft will brake and hover, and the user will need to take control.

When the aircraft is approaching the Home Point, if the current altitude is higher than the RTH altitude, the aircraft will intelligently decide whether to descend while flying forward according to the surrounding environment, lighting, the set RTH altitude, and the current altitude. When the aircraft reaches the area above the Home Point, the current altitude of the aircraft will not be lower than the set RTH altitude.

The RTH plans for different environments, RTH trigger methods, and RTH settings are as follows:

<table>
<tr><th>RTH Trigger Method</th><th>Suitable Lighting and Environment Conditions
(The aircraft can bypass obstacles and GEO zones)</th><th>Unsuitable Lighting and Environment Conditions</th></tr>
<tr><td>The user actively triggers RTH</td><td rowspan="3">The aircraft will execute RTH based on the RTH setting:
• Optimal
• Preset</td><td rowspan="2">Preset (The aircraft can ascend to bypass obstacles and GEO zones)</td></tr>
<tr><td>Aircraft low battery</td></tr>
<tr><td>Loss of remote controller signal</td><td>Original route RTH,
Preset RTH will be executed when the signal is restored (The aircraft can bypass GEO zones and will brake and hover if there is obstacle)</td></tr>
</table>

Dock Landing Detection

Dock landing detection is activated during landing and the procedure is as follows:

1. If dock landing detection determines the dock is suitable for landing, the aircraft will land on the landing pad directly.
2. If the dock is not suitable for landing (when the dock cover fails to open or when the emergency stop button is pressed), the aircraft will fly to the alternate landing site. If an alternate landing site is not set, the aircraft will hover above the dock, and will start descending only when the battery level is too low.
3. If dock landing detection is not operational (when the dock and the aircraft are disconnected), or the aircraft fails to land on the dock due to bad weather conditions, the aircraft will descend and hover. The aircraft will fly to the alternate landing site when the battery level low. If an alternate landing site is not set, the aircraft will hover above the dock, and will start descending only when the battery level is too low.

⚠ • Make sure to set an alternate landing site when configuring the dock. Otherwise, the aircraft may crash-land if the dock is not suitable for landing, damaging the aircraft and the dock.

3.10 System Shutdown

After completing a flight task, the aircraft will land on the landing pad, the dock cover will close and the dock will charge the aircraft. The media files will be automatically uploaded to the cloud before the aircraft powers off.

- If the remote controller is used to take control of the aircraft manually during on-site flight tests, push the throttle stick down and hold to stop the motors after landing. Press, then press and hold the power button to power off aircraft and the remote controller.

3.11 Post-Flight Inspection

1. Make sure that the aircraft has landed in the dock, and the dock covers are closed properly.
2. Make sure the media files are automatically uploaded to the cloud, and the media files can be captured properly during flight.
3. Make sure to view the warning details of the dock and aircraft in DJI FlightHub 2.
4. Check if there is any error message in DJI FlightHub 2.
5. Check if the aircraft can be powered off and charged by the dock properly.
6. Check if the dock is working normally.

- Inspect the following items if the remote controller is used to take control of the aircraft manually during on-site flight tests.
  - Make sure that the aircraft is powered off.
  - Check the aircraft structure, clean the dirt and dust, and replace any loose or damaged parts.
  - Make sure the aircraft is placed properly on the landing pad and the aircraft heading is consistent with the arrow mark, and the propellers are at 90° with each other.
  - Make sure that the battery port on the aircraft is clean and dry.

Emergency Procedures

4 Emergency Procedures

4.1 Fire

A prompt will appear in DJI FlightHub 2 and the flight controller will reduce the power of the aircraft when the Intelligent Flight Battery temperature is too high. The battery will be locked for future use if the temperature is too high during flight and cannot be used again after landing.

Follow the instructions below if the Intelligent Flight Battery catches fire:

1. If the battery catches fire when it is being charged using a charging device, make sure that personal safety is guaranteed, power off the charging device immediately, and disconnect the battery from the charging device. If the battery catches fire when the battery is in the aircraft, make sure that personal safety is guaranteed and remove the battery from the aircraft immediately.
2. Move the flammable materials surrounding the battery to a safe distance of more than 5 m .
3. If the fire is controllable, use a large amount of sand to cover the location of the fire and pour cold water to cool the battery until there is no smoke coming out. Use fire-resistant gloves or other protective tools to avoid direct contact with the battery. Move the battery to a container with an appropriate amount of salt solution, and then fully immerse the battery in the solution. Leave the container in a cool place for more than 72 hours to fully discharge the battery and take out the battery and dispose it.
4. If the fire is uncontrollable, double check that there are no flammable materials surrounding the battery, extend the safety distance to more than 10 m, and evacuate people from the surrounding area. Wait until the battery burns out and the fire is extinguished in order to avoid any further accidents.

4.2 Loss of C2 Link

The aircraft will perform the signal lost action if the control signal is lost during flight. Refer to the Loss of Control Signal section for more information.

4.3 Control Station Failure

Loss of Control Signal

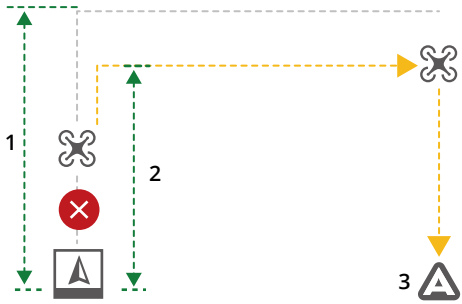
If the control signal is lost during flight, the aircraft will perform signal lost action. Refer to the Loss of Control Signal section for more information.

DJI FlightHub 2 Failure

If DJI FlightHub 2 crashes during automatic operations while the control signal is normal, the C2 link between the aircraft and the control station is still in good condition, so the aircraft will continue performing the current operation until RTH is triggered by low battery level.

Alternate Landing

If the dock is determined unsuitable for landing, alternate landing will be triggered. The aircraft will ascend to the alternate route altitude, then fly to the alternate landing site for landing. Open DJI FlightHub 2, Click **Devices** > **Dock** and then to check the alternate route altitude.



1. RTH Altitude
2. Alternate Route Altitude
3. Alternate Landing Site

- To ensure flight safety, make sure to set an alternate landing site and suitable alternate route altitude when configuring the dock.

Gaining Control Using Remote Controller B

1. Run DJI Pilot 2 and tap **Enter Camera View** on the homepage. Users will be directed to the camera view by default after finishing the preflight check.
2. Tap on the upper left corner to gain the aircraft control and the gimbal control.

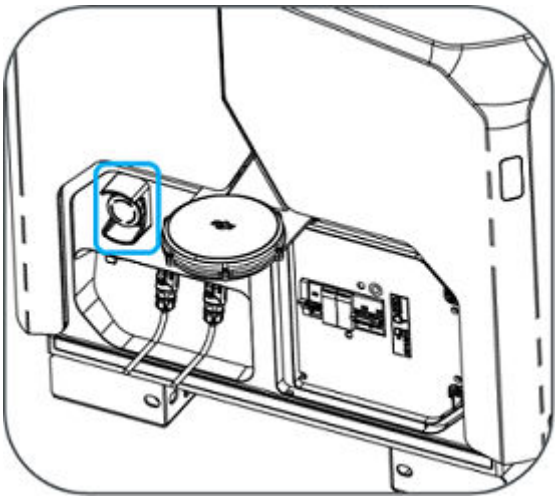
- The remote controller should be purchased separately. Pay attention to flight safety when manually controlling with the remote controller.
- DO NOT update the Home Point after gaining control. Otherwise the aircraft cannot return to the dock.
- DO NOT take off using the remote controller if a flight task is initiated from the dock after gaining control with remote controller B. In this case, restart the aircraft before taking off using the remote controller.

Dual Control of the Dock and the Remote Controller

1. The aircraft supports dual control mode, and can be controlled by the dock (controller A) and remote controller B. By default, the dock is given control of both the aircraft and the gimbal camera, while remote controller B is not given any control.
2. When the remote controller has full control, the control sticks are used for controlling the aircraft and the dials for adjusting gimbal movement.
3. When the remote controller has control, it can be used to trigger or cancel RTH, modify aircraft settings, and download or replay media files.
4. The dock will automatically take control of the aircraft before each flight task. A control transfer mechanism will be triggered if either the dock or the remote controller is disconnected from the aircraft. If the remote controller disconnects from the aircraft, control will be transferred to the dock. If the dock disconnects from the aircraft, the remote controller will receive a notification that the user may manually take over aircraft control. If the pilot of the remote controller chooses not to take over aircraft control, the aircraft will automatically perform the signal lost action. If the pilot of the connected remote controller does not choose either option within a specified time, the aircraft will also perform the signal lost action.
5. If the disconnected remote controller reconnects with the aircraft during the flight, it will not resume its previous control and will by default have no control of any device.
6. RTH cannot be triggered in DJI FlightHub 2 after remote controller B takes control. The dock will automatically take control of the aircraft if remote controller B is disconnected from the aircraft (such as when the remote controller is powered off or the video transmission signal is lost). The aircraft can continue the flight task in progress.
7. During a flight task, if the remote controller takes control in N mode, the aircraft will continue the flight task. If the flight mode is switched to another mode after taking control, the flight route task will be interrupted and RTH will be triggered. If the remote controller takes control in S mode or F mode, the flight route task will be interrupted and RTH will be triggered.
8. The remote controller can be used to modify the flight control system, the sensing system, other aircraft settings, and the camera settings.
9. Both the firmware of the dock and the aircraft can be updated in DJI FlightHub 2, but the remote controller can only be used to update the firmware of the remote controller.
10. Users can upload the logs of both the dock and the aircraft in DJI FlightHub 2, but can only upload the logs of remote controller using the remote controller.
11. Remote controller B cannot be used to update the Fly Safe database, and cannot upload unlocking license for GEO Zones.

12. If both the dock and the remote controller are connected to the aircraft, enhanced transmission is unavailable on the remote controller.

Emergency Stop Button



The dock has one emergency stop button. In an emergency, press the emergency stop button to stop all dock movements when operating or maintaining the dock. The status indicators blink red and yellow alternatively after pressing the emergency stop button.

If the aircraft is powered on but the motors are not running, the aircraft cannot take off after pressing the emergency stop button. If the emergency stop button is pressed when the aircraft is performing a flight task, the aircraft will fly to the alternate landing site after completing the flight task.

- Pull out or rotate the button clockwise to release the emergency stop button before performing any dock operations (e.g. dock cover control).

Other Failures

When other dock failures occur, such as when the dock has no power supply, no network connection, or when the dock cover cannot be opened, perform troubleshooting.

4.4 Flyaway

When the aircraft is connected to the dock, the coordinates of the aircraft will be uploaded to the cloud and can be viewed in DJI FlightHub 2.

When the aircraft is disconnected from the dock, the last recorded time and coordinates of the aircraft will be displayed in the device status window in DJI FlightHub 2. Users can click the information to center the aircraft location in the middle of the map and then right-click to create a PinPoint to help locate the aircraft during a search. The information will not be displayed after the aircraft re-connects to the dock.

Handling, Servicing and Instructions for Maintenance

5 Handling, Servicing and Instructions for Maintenance

5.1 Ground Handling

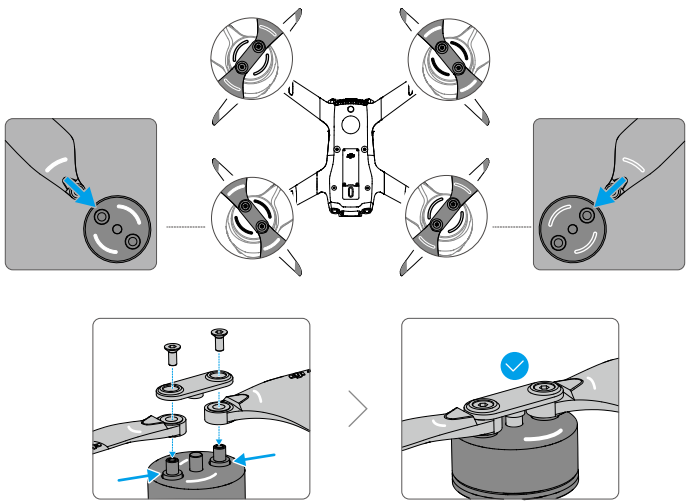
Refer to the *Maintenance Manual* for more information.

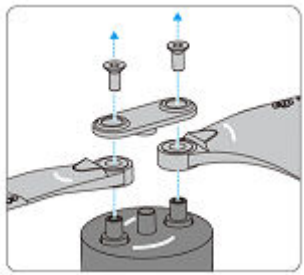
5.2 Installation, Removal, and Storage

Propellers

Installing and Removing the Propeller

Attach the marked propellers to the motors of the marked arm, and the unmarked propellers to the motors of the unmarked arm.





Make sure to use the provided washers, screws, and proper screw glue (recommended model: 243) when replacing the propeller.

It is recommended to contact DJI Support or an authorized service provider for propeller replacement.

Notice

- The propeller blades are sharp. Handle with care to avoid personal injury or propeller deformation.
- Make sure that the propellers and motors are installed securely before flight.
- Only use official DJI propellers. DO NOT mix propeller types.
- Propellers are consumable components. Purchase additional propellers if necessary.
- Make sure that all propellers are in good condition and clean (without any foreign matter in or on them) before each flight. DO NOT use aged, chipped, or broken propellers. Clean the propellers with a soft, dry cloth if there is any foreign matter attached.
- To avoid injury, stay away from rotating propellers or motors.
- To avoid damaging the propellers, pack the aircraft correctly for transportation or storage. DO NOT squeeze or bend the propellers. If the propellers are damaged, the flight performance may be affected.
- Make sure the motors are mounted securely and rotating smoothly. Land the aircraft immediately if a motor is stuck and unable to rotate freely.
- DO NOT attempt to modify the structure of the motors.
- DO NOT touch or let hands or body parts come in contact with the motors after flight, as they may be hot.
- DO NOT block any of the ventilation holes on the motors or the body of the aircraft.

- Make sure the ESCs sound normal when powered on.
- Make sure to keep the screws vertical while tightening them. The screws should not be at a tilted angle to the installation surface. After installation is complete, check whether the screws are flush and rotate the propellers to check for any abnormal resistance.
- The screwdriver is only for mounting the propellers. DO NOT use the screwdriver to disassemble the aircraft.
- If a propeller is broken, remove the two propellers and screws on the corresponding motor and discard them. Use two propellers from the same package. DO NOT mix with propellers from other packages.
- Return to the dock and land the aircraft as soon as possible and if a motor overload or overheating warning prompt appears in DJI FlightHub 2.

Storage

Dock Storage

If the dock is not used immediately, follow the requirements as shown below for temporary storage:

- Store it in a dry, rainproof, and fireproof place with no corrosive materials.
- Protect it from erosion and damage caused by wildlife.
- Make sure to check that the outer packaging of the dock is in good condition regularly. Make sure to charge the backup battery for at least 6 hours every three months.
- If the dock is removed from storage and not used for a period of time, place it in a water-resistant bag sealed with adhesive tape and then store it in the original packaging with a desiccant.
- DO NOT tilt or invert the dock or place items on top of the box when the dock is stored in the box.

Aircraft Storage

When the dock is powered on and working normally, the air conditioning system can adjust the environment temperature making the aircraft suitable for storage. If the aircraft is stored separately, follow the requirements as shown below:

- Keep the aircraft and parts clean and dry and store them in a cool dry place.

- Make sure small parts are stored properly to avoid loss. Small parts, such as cables and straps are dangerous if swallowed. Keep all parts out of reach of children and animals.
- Remove the battery from the aircraft when stored.

Battery Storage

When the dock is powered on and working normally, the air conditioning system can adjust the environment temperature making the battery suitable for storage. If the batteries are stored separately, refer to the *Safety Guidelines* and follow the instructions on battery storage.

⚠
- The battery may be damaged once it exceeds the maximum storage period. The battery should no longer be used.
- The actual maximum storage period will vary slightly due to the batteries being part of different production batches and stored in different environments.
- The maximum storage days are theoretically calculated at room temperature and the storage days will be significantly reduced at high temperatures.

5.3 Ingress Protection Rating

IP Rating of the Dock

1. Under stable laboratory conditions, DJI Dock 3 achieves an IP55 protection rating by IEC 60529 standards when used with DJI Matrice 4D Series aircrafts. The protection rating is not permanent and may lower over an extended period of time. Maintain the device on a regular basis.
2. The dock does not achieve an IP55 protection rating in the following circumstances:
   - The electrical cabinet door is not firmly closed.
   - The wind speed gauge is not firmly installed.
   - The dock cover is not firmly closed.
   - The dock shell is cracked or the water-resistant adhesive is aged or damaged.
3. The body surface may become discolored after long-term use. However, such color change does not affect the performance and IP rating of the product.

IP Rating of the Aircraft

1. Under stable laboratory conditions, the DJI Matrice 4D Series aircraft achieves an IP55 protection rating of IEC 60529 standards when equipped with the Intelligent Flight Battery. The protection rating is not permanent and may lower over an extended period of time.
   - DO NOT fly when the amount of rainfall exceeds 2 mm/hour.
   - Make sure the battery surfaces, battery ports, and the battery compartment ports and surfaces are dry before inserting the battery.
   - The product warranty does not cover water damage.
2. The aircraft does not achieve an IP55 protection rating in the following circumstances:
   - Batteries other than the DJI Matrice 4D Series Battery are used.
   - The covers for the ports are not attached correctly, or the rubber covers are not firmly closed.
   - The dongle compartment cover is not firmly secured.
   - The aircraft shell is cracked or the water-resistant adhesive is aged or damaged.
3. The body surface may become discolored after long-term use. However, such color change does not affect the performance and IP rating of the product.

5.4 Charging, Conditioning, and Replacing Batteries

Charging Mode

Charging Mode can be set as Schedule or Standby in DJI FlightHub 2. When the dock is in idle status, the battery level and the temperature inside the dock can be automatically modified to meet different scenarios. Two hours before a Timed flight task, the dock will automatically charge the batteries and the flight task will be performed after charging is completed.

Schedule mode is suitable for performing regular tasks such as patrol inspections. The battery will be charged and stored at approximately 60% when no task is distributed.

Standby mode is suitable for performing urgent tasks such as fire rescue. The battery will be charged and stored at approximately 90% when no task is distributed.

Switching charging modes: Open the DJI FlightHub 2 project page, click > , and then **Action** to switch to different charging modes.

⚠ • Battery level may be low under Schedule mode. If the **Plan Timer** is selected as **Immediate**, Low Battery RTH may be triggered during the flight task.

- Maintaining a high power level in Standby mode will affect battery life. It is recommended to select Schedule mode if the scenario is not urgent.

Charging via the Dock

The battery can be charged via the dock when it is inserted into the aircraft. Charging will begin after the battery temperature reaches the charging temperature range. In this case, the charging time will be extended.

To charge the Intelligent Flight Battery, open the DJI FlightHub 2 Project page, click > > **Action**, enable **Remote Debugging**, and then click **Charge**.

- Users can also charge the battery in the Device Maintenance page: open the DJI FlightHub 2 Project page, click **Dock** > , enable **Remote Debugging**, and then click **Charge**.

- After the dock is powered on, DO NOT place any metal objects such as rings or any electronic devices on the landing pad, or touch the landing pad surface when placing the aircraft on the landing pad to avoid burns.
- To ensure safety, the dock cannot charge the aircraft battery when the dock cover is opened.

Using the Charging Hub

Usage

1. Insert the Intelligent Flight Battery into the battery port. Connect the charging hub to a power outlet (100-240 V, 50-60 Hz) using the DJI 240W Power Adapter.
2. Toggle the mode switch to select a charging mode.

   Standard Mode: Charges each battery to 100% sequentially.

   Ready-to-Fly Mode: Charges each battery to 90% sequentially and maintains that level, enabling quick deployment.

   The Intelligent Flight Battery with the highest power level will be charged first, and then the rest will be charged in sequence according to their power levels. Refer to the Status LED Indicator Descriptions for more information about the blinking patterns of the status LED.
3. Disconnect the Intelligent Flight Battery from the charging hub when charging is complete.

Status LEDs Descriptions

Blinking Pattern	Descriptions
Solid yellow	No battery is inserted.
Pulses green	Charging the battery
Solid green	Fully Charged
Blinks yellow	Abnormal temperature of battery or charging hub (no further operation needed, charging can continue after battery or charging hub automatically recovers)
Solid red	Unrecoverable abnormality of battery or charging hub (remove and reinsert the battery or unplug and plug in the adapter)

- The DJI 240W Power Adapter is required when using the charging hub to charge Intelligent Flight Batteries.
- The charging hub is only compatible with the Intelligent Flight Battery. DO NOT use the charging hub with other battery models.
- Place the charging hub on a flat and stable surface when in use. Make sure the device is properly insulated to prevent fire hazards.
- DO NOT touch the metal terminals on the battery ports. Clean the metal terminals with a clean, dry cloth if there is any noticeable buildup.

Conditioning Batteries

The Intelligent Flight Battery will perform a self-evaluation and the dock will automatically maintain the battery to ensure optimal battery performance. If a warning message appears in DJI FlightHub 2, click the message to view warning details, and follow the instructions to perform battery maintenance.

When the battery life is approaching, a prompt will appear in DJI FlightHub 2. If users continue to use the battery, the dock cannot perform flight tasks when the battery life is reached.

- The battery contains hazardous chemicals, DO NOT dispose of the battery in a regular waste disposal container. Strictly follow local laws and regulations regarding the disposal and recycling of batteries.
- Batteries that are over-discharged, swollen, involved in a crash, come into contact with liquid, damaged, or leaky must be disposed. DO NOT use any battery in such a condition to avoid damage or injury. Contact a professional battery disposal or recycling agent for further assistance.

Replacing Batteries

The battery should not be used again if any accident occurs. Users should replace the battery immediately. See details below.

1. DO NOT use swollen, leaking, or damaged batteries.
2. DO NOT use a battery that has been dropped.
3. If the battery falls into water while inserted in an aircraft during flight, take it out immediately, and put it in a safe and open area. DO NOT use the battery again.
4. If the battery cannot be discharged completely, replace the battery and contact a professional battery disposal or recycling agent for assistance on disposal.

Disposal

Observe the local regulations related to electronic device when dispose the aircraft and dock.

Battery Disposal

Dispose of the batteries in specific recycling containers only after a complete discharge. DO NOT dispose of the batteries in regular trash containers. Strictly follow the local regulations regarding the disposal and recycling of batteries.

Dispose of a battery immediately if it cannot be powered on after over-discharging.

If the power button on the battery is disabled and the battery cannot be fully discharged, contact a professional battery disposal/recycling agency for further assistance.

5.5 Cleaning and Maintaining

Refer to the *Maintenance Manual* for more information.

Appendix

6 Appendix

6.1 Specifications

Visit the following website for specifications: https://enterprise.dji.com/dock-3/specs

6.2 Firmware Update

Using DJI FlightHub 2

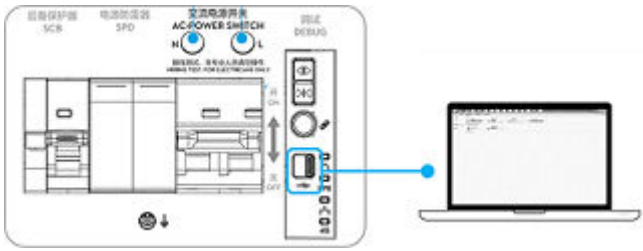
1. Power on the aircraft and the dock. Make sure the aircraft and the dock are linked, and the battery level of the aircraft is higher than 50%.
2. Open DJI FlightHub 2, and click **Devices** > **Dock**.
3. Click **Can Update**, and a prompt will appear in the window indicating the firmware version and updates.
4. Select the checkbox on the left to upgrade device firmware in batches.
5. Click **Update**, the firmware will be downloaded automatically.
6. The firmware of both the dock and the aircraft will be updated simultaneously. If the aircraft is not placed inside the dock, only the dock firmware will be updated.
7. The aircraft and the dock will restart automatically after the firmware update is complete.

- Make sure the dock and DJI FlightHub 2 is connected to the internet during the whole update process.

- The Intelligent Flight Battery installed on the aircraft will be updated to the latest firmware version.
- Users cannot operate the aircraft or the dock during a firmware update. The aircraft and the dock will be available after the update is complete or cancelled.

Using DJI Assistant 2 (Enterprise Series)

Make sure that the computer is connected to the internet and that the device has sufficient power before updating the firmware. The aircraft firmware update follows the same steps as those of the dock firmware update. Take the dock firmware update as an example:



1. Open the electrical cabinet and power on the dock. Connect the computer to the USB-C port of the dock.
2. Run DJI Assistant 2 and log in with a DJI account.
3. Select DJI Dock 3, and click the firmware update button on the left.
4. Select the firmware version and click **Start Update**. The firmware will be downloaded and updated automatically.
5. The DJI device will restart automatically after the firmware update is complete.

⚠
- Make sure the AC power supply of the dock is normal before firmware update. If there is no AC power supply and the dock is only powered by the backup battery, firmwares cannot be updated using DJI FlightHub 2 or DJI Assistant 2.

6.3 Expansion Ports

The aircraft is equipped with an E-Port and an E-Port Lite to allow the access to third-party payloads, which facilitates the expansion of the aircraft operating capabilities.

The aircraft supports installing payloads such as speaker and spotlight. Visit https://enterprise.dji.com/dock-3/downloads and refer to the product user guide for more information on installation and usage.

⚠
- To ensure flight safety, make sure to follow the Payload Development Criteria when developing PSDK payloads. Visit https://developer.dji.com/payload-sdk/ to view the documentation and the DJI Enterprise Ecosystem Solution Catalogue to learn more about the payload development criteria and the recommended payloads.
- The E-Port supports high power output and standard PSDK functions, while the E-Port Lite only supports a low power output.

Installation Requirements

- The size and the height of the payload should meet the Payload Development Criterion. Refer to https://developer.dji.com/doc/payload-sdk-tutorial/en/ for more information.
- After installing the payload, make sure that the third-party payload does not block the aircraft vision system to avoid affecting the obstacle-sensing performance.
- Make sure that the payload is installed securely to avoid risk of falling payload during flight tasks, which will seriously affect flight safety.
- Make sure to seal the ports properly when connecting the payload to the aircraft. Use sealants if necessary. If any of the seals fail and water leaks into the aircraft, it will seriously affect flight safety.

Third-Party Payload Requirements

- Installing a third-party payload will shorten the fight time and reduce the aircraft wind resistance.
- Make sure to install the payload as needed.
- The third-party payload should have the protection rating as or above that of the aircraft in order not to reduce the working stability or the service life of the aircraft.
- The port of the third-party payload connecting to the aircraft should have a water-resistant rubber ring.

6.4 Enhanced Transmission

Enhanced Transmission integrates OcuSync video transmission technology with 4G networks. If the OcuSync video transmission is obstructed, experiencing interference, or used over long distances, 4G connectivity allows you to maintain aircraft control.

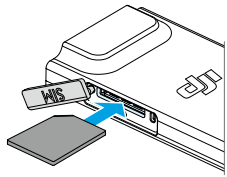
Enhanced Transmission will consume data. If the transmission completely switches to a 4G network, a 30-minute flight consumes about 1 GB of data on the aircraft and the remote controller, respectively. This value is for reference only. Refer to the actual data usage.

⚠
- Enhanced Transmission is only supported in some countries and regions.
- The DJI Cellular Dongle 2 and its related service are only available in some countries and regions. Comply with local laws and regulations and DJI Cellular Dongle 2 Terms of Service.

- Due to high data consumption on the dock, it is not recommended to only use the 4G network for video transmission. Otherwise, there might be latency or other problems in the livestream.

Installing the nano-SIM Card

Open the SIM card slot cover on the dongle, insert the nano-SIM card into the slot in the same direction as shown in the figure, and then close the cover.



- It is strongly recommended to purchase a nano-SIM card which supports a 4G network from official channels of the local mobile network operator.
- DO NOT use an IoT SIM card, otherwise the video transmission quality will be seriously compromised.
- DO NOT use a SIM card provided by the virtual mobile network operator, otherwise it may lead to an inability to connect to the Internet.
- DO NOT cut the SIM card by yourself, otherwise the SIM card may be damaged, or the rough edges and corners may cause the SIM card to be unable to be inserted or removed properly.
- If the SIM card is set with a password (PIN code), make sure to insert the SIM card into the mobile phone and cancel the PIN code setting, otherwise it will fail to connect to the Internet.

- Open the cover and push the nano-SIM card to partially eject it.

Installing DJI Cellular Dongle 2

Refer to the Quick Installation Guide to install the DJI Cellular Dongle 2 for the dock and the aircraft.

Using Enhanced Transmission

When the aircraft is installed with the DJI Cellular Dongle 2, and the dock is connected to a network (wired network or wireless network), users can enable Enhanced Transmission via the following methods:

- Open the DJI FlightHub 2 Project page, click > to open the device status window. Make sure the aircraft is powered on. Click **Action** > **Remote Debugging**, and then enable or disable Enhanced Transmission.
- Make sure the aircraft is powered on. Open the DJI FlightHub 2 Devices Page, click **Dock** > . Enable Remote Debugging, and then enable or disable Enhanced Transmission.

⚠
- Pay close attention to the video transmission signal strength after enabling Enhanced Transmission. Fly with caution.

Security Strategy

Based on safe flight considerations, Enhanced Transmission can only be enabled when the OcuSync video transmission is in effect.

In the 4G-only transmission scenario, the control signal between the dock and the aircraft will be lost and RTH will be triggered if Enhanced Transmission is also disabled. Enhanced transmission can be restored after the OcuSync link is restored.

In the 4G-only transmission scenario, a takeoff countdown will start after the aircraft lands. If the aircraft does not take off before the countdown ends, it will not be allowed to take off until the OcuSync link is restored.

Remote Controller Usage Notes

If using the 4G network via the DJI Cellular Dongle 2, make sure to install the DJI Cellular Dongle 2 correctly, and turn off the Wi-Fi of the remote controller while using Enhanced Transmission to reduce interference.

If using the 4G network by connecting the remote controller to a mobile device Wi-Fi hotspot, make sure to set the mobile device hotspot frequency band to 2.4 GHz and the network mode to 4G for a better video transmission experience. It is not recommended to answer incoming phone calls with the same mobile device or to connect multiple devices to the same hotspot.

4G Network Requirements

The 4G network transmission speed is determined by the 4G signal strength of the aircraft at the current position and the network congestion level of the corresponding base station. The actual transmission experience is closely related to the local 4G network signal conditions. The 4G network signal conditions include both sides of the aircraft and the remote controller with various speeds. If the network signal of either the aircraft or remote controller is weak, has no signal, or is busy, the experience of 4G transmission may drop and lead to the video transmission freezing, a delayed response of the controls, loss of video transmission, or loss of controls.

Therefore, when using Enhanced Transmission:

1. Make sure to use the remote controller and aircraft in locations where the 4G network signal is close to full for a better transmission experience.
2. If the OcuSync signal is disconnected, the video transmission may lag and stutter when the aircraft relies fully on a 4G network. Fly with caution.
3. When the OcuSync video transmission signal is poor or disconnected, make sure to maintain an appropriate altitude during the flight. In open areas, try to keep the flight altitude below 120 meters for a better 4G signal.
4. For flight in the city with tall buildings, make sure to set a suitable RTH altitude (higher than the tallest building).
5. For flight in a restricted flight area with tall buildings, fly with caution.
6. When the app prompts that the 4G video transmission signal is weak, fly with caution.

6.5 Access to a Third-Party Cloud Platform

Based on Cloud API, users can tailor a customized management system for the dock or quickly connect it to a third-party cloud platform, facilitating efficient and convenient private configuration. Visit https://developer.dji.com/cloud-api/ at cloud API.

Users can bind the dock to a third-party cloud platform using the app when deploying the dock. Refer to Quick Installation Guide for more information.

6.6 Troubleshooting Procedures

1. **Why can the battery not be used before the first flight?**

   Check if the battery has power. If the battery power is low, charge the battery via the dock if the aircraft has linked with the dock. Charge the battery using the charging hub (purchased separately) to charge the battery.

2. **How to solve the gimbal drift issue during flight?**

   Calibrate IMU and compass in DJI Pilot 2. If the problem persists, contact DJI Support.

3. **No function**

   Check the warning messages in DJI FlightHub 2 and follow the instructions to solve the problems. If the problems persist, contact DJI Support.

4. **Power-on and start-up problems**

   Check if the battery has power. If yes, contact DJI Support if it cannot be started normally.

5. **SW update issues**

   Follow the instructions in the user manual to update the firmware. If the firmware update fails, restart all the devices and try again. If the problem persists, contact DJI Support.

6. **Procedures to reset to factory default or last known working configuration**

   Use the DJI Pilot 2 app to reset to factory default.

7. **Shutdown and power-off problems**

   Contact DJI Support.

8. **How to detect careless handling or storage in unsafe conditions**

   Contact DJI Support.

6.7 Risk and Warnings

When the aircraft detects a risk after powering on, there will be a warning prompt on DJI FlightHub 2.

Pay attention to the list of situations below.

1. If the location is not suitable for takeoff.
2. If an obstacle is detected during flight.
3. If the location is not suitable for landing.
4. If the compass and IMU experience interference and need to be calibrated.
5. Follow the on-screen instructions when prompted.

Make sure to use official softwares for operations that require connecting to external devices, such as firmware updates and exporting media files.

