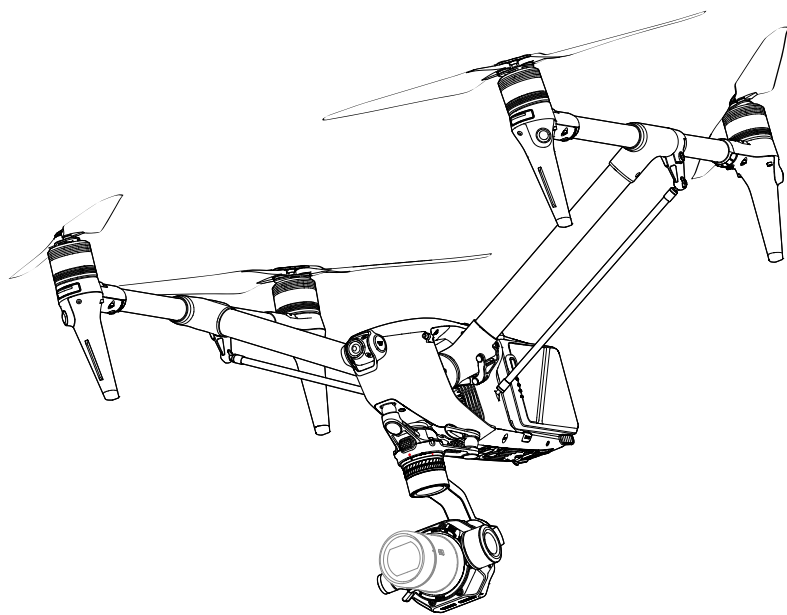


dji INSPIRE 3

Maintenance Manual

v1.0 2023.12





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Searching for Keywords

Search for keywords such as “battery” and “install” to find a topic. If you are using Adobe Acrobat Reader to read this document, press Ctrl+F on Windows or Command+F on Mac to begin a search.

Navigating to a Topic

View a complete list of topics in the table of contents. Click on a topic to navigate to that section.

Printing this Document

This document supports high resolution printing.

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Introduction

This Maintenance Manual offers guidelines to help you in the daily upkeep and maintenance of the product.

This document will focus on the maintenance instructions and the notes, cautions, and warnings during use. Read the User Manual and Maintenance Manual carefully to optimize the user experience. If you have any questions on the maintenance operations, contact DJI Support.

Disclaimer

Carefully read this entire document and all safe and lawful practices provided by DJITM before using this product for the first time. Failure to read and follow instructions and warnings may result in serious injury to yourself or others, damage to your DJI product, or damage to other objects in the vicinity. By using this product, you hereby signify that you have read this disclaimer carefully and that you understand and agree to abide by all terms and conditions of this document and all relevant documents of this product. You agree to use this product only for purposes that are proper. You agree that you are solely responsible for your own conduct while using this product and for any consequences thereof. DJI accepts no liability for damage, injury, or any legal responsibility incurred directly or indirectly from the use of this product.

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Flight Safety Guidelines

Flight Condition Requirements

Operational Requirements

Before use, read the Safety Guidelines, User Manual, and Maintenance Manual carefully.

Flight Restrictions

1. Connect the aircraft to the internet to update the DJI GEO Zones database regularly. Consult the relevant local government agencies or governing bodies before flight to ensure you comply with all the relevant laws and regulations.
2. If flying in GEO Zones is required, apply for unlocking in advance.
<https://www.dji.com/flysafe>

Storage and Transportation

There are safety requirements for the storage and transportation of the Intelligent Batteries. Strictly follow the instructions in the User Manual.

Updating Firmware

It is recommended to update the firmware of the aircraft, Intelligent Batteries, and remote controller before each flight to optimize the flight experience. Refer to the User Manual for instructions on updating the firmware to the latest version.

If the firmware update fails, restart the device and try again. Contact DJI Support if the issue persists.

Pre-Flight Checklist

It is recommended to perform the following routine checks before each flight.

1. Only use genuine parts that are in good condition. DO NOT modify or alter the aircraft, its components or parts, or install non-DJI-approved third-party external devices.
2. All devices, such as the remote controller and intelligent batteries are fully charged.
3. There is no foreign matter, such as water, oil, soil, or sand, inside the aircraft or its components. The air vents of the aircraft, camera, and motor are not blocked.
4. The propellers are securely mounted and not damaged or deformed. DO NOT use chipped or broken propellers.
5. The aircraft motors are clean and in good condition. Rotate the propellers to examine the motors. Make sure the motors can rotate smoothly without any abnormal sounds. If there are any abnormalities, stop using the aircraft immediately and contact DJI Support.
6. The camera lens is clean and in good condition and the gimbal can rotate without any obstructions.
7. The surface of the vision system, infrared sensors, gimbal camera, FPV camera, and auxiliary lights are clean.
8. The port covers have been closed properly.
9. The flight area is outside any GEO zone and the flight conditions are suitable for flying the aircraft.
10. Place the aircraft on open and flat ground. Make sure there are no obstacles, buildings, or trees nearby and that the aircraft is 5 m away from the user. Make sure that the user is facing the rear of the aircraft.
11. The ESC is beeping after powering on the aircraft.
12. Open DJI Pilot 2 in order to assist with aircraft operations. Without having the flight data recorded by the DJI Pilot 2 app in certain situations (including the loss of your aircraft), DJI may not be able to provide aftersales support to you or assume liability.
13. DJI Pilot 2 and the aircraft firmware have been updated to the latest version.
14. Check DJI Pilot 2 for any ESC error messages. Make sure to follow the prompts and fix any abnormalities before flight.
15. The DJI Pilot 2 app displays at least 8 satellites and the aircraft has a strong GNSS signal.

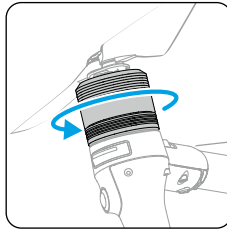
Inspection and Maintenance

Routine inspection before operations or regular maintenance can greatly improve the reliability of the aircraft, reduce potential safety hazards, and extend the service life of the aircraft. Make sure to check the following items carefully.

Propulsion System

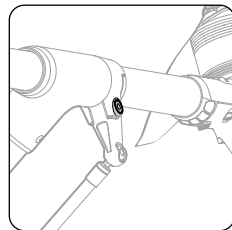
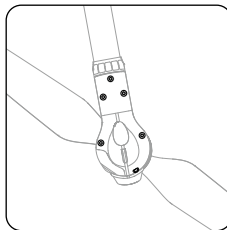
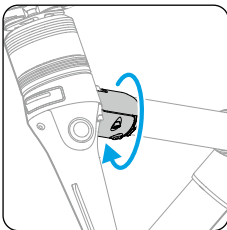
Motor Rotation

- Rotate the propeller motors to check if the propellers are jammed or make any abnormal sounds and whether the rotor and stator of the motors scratch the motor base.
- DO NOT fly the aircraft if the propellers are jammed or make any abnormal sounds. If there are any abnormalities, make sure to return the aircraft to the factory for repair.



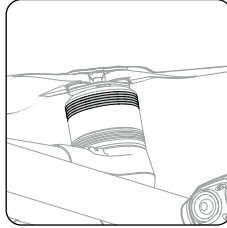
Connection between Motor and Frame Arm

- Rotate the motor base around the central line of the carbon tube to check if the motor and carbon tube connection is firmly secure.
- The six fixing screws are securely tightened.
- The ball hinge tightening screws are securely tightened.
- If any screws are loose, return the aircraft to the factory for repair.



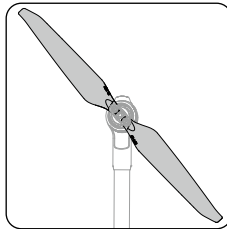
Motor Air Filters

- The air filters are not severely damaged or deformed.
- If they are severely damaged or deformed (such as being bumped), return the aircraft to the factory for repair.



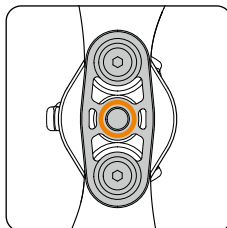
Propellers

- Check the propellers for visible deformation, severe wear, nicks, and cracks, and if there is any foreign matter on the propellers.
- Clean the propellers with a dry, soft cloth.
- Replace the propellers immediately if there are any visible deformations, nicks, cracks, or severe wearing occurs.
- Replace the propellers after flying over 300 hours or one year of use.



Propeller Adapters

- The propeller adapter screws are securely tightened.
- If the screws are loose, apply a thread locker and tighten the screws.
- The propeller adapters are not damaged or deformed.
- Replace the propeller adapters if they are damaged or deformed.



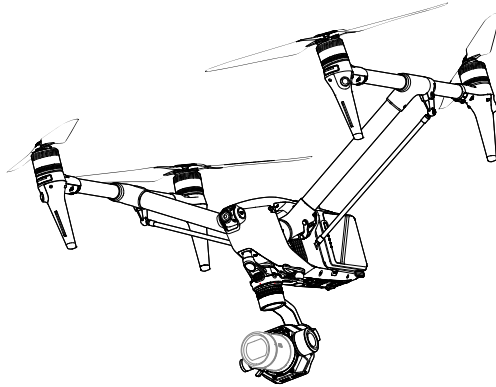
Flight Controller

- After powering on the aircraft, wait for the self-check to complete and that there are no flight controller error messages in the app.
- Within 1 minute of powering on the aircraft a strong GNSS signal is reached in an outdoor open environment, with the Home Point automatically updating and the RTK data meeting the heading measurement standard.

Aircraft Structure

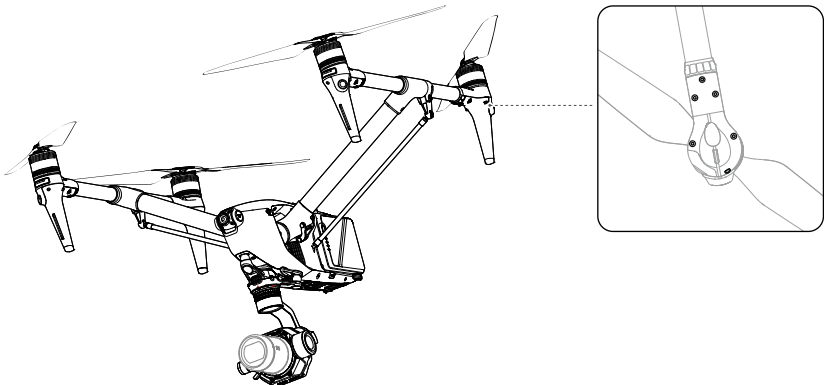
Aircraft Appearance

- The aircraft body is clean and not damaged or deformed.
- Clean the aircraft body with a dry, soft cloth paying special attention to the lenses of the infrared sensing and vision systems and the heat dissipation vents.



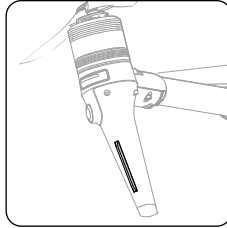
Screws

- Make sure that all the screws on the aircraft body are securely tightened, paying special attention to the screws that connect the motor and the carbon tube.



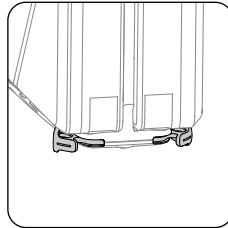
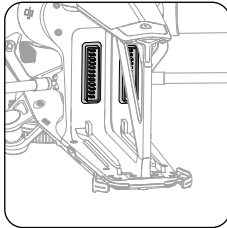
Frame Arm LEDs

- Make sure that the frame arms are not damaged and that there is no foreign matter on the frame arm surface.



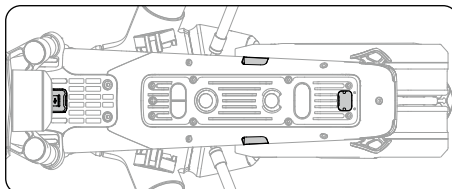
Battery Compartment

- The battery ports are clean and dry without any corrosion. Clean any unwanted dust or water inside the battery compartment.
- The battery ports are not damaged and the metal terminals are not deformed.
- The screws on the battery release toggles are securely tightened.
- The battery release toggles is working properly after being pressed.
- After the battery is installed, make sure that the battery release toggle is working properly.



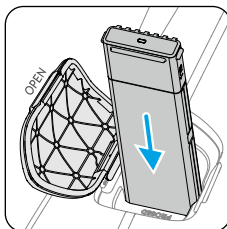
Data Ports

1. Clean any unwanted residue near the ports with a gauze.
2. If the ports are in use, disconnect the cables and check for any unwanted residue in the ports with the help of a torch.
3. Use tweezers to remove any foreign matter in the port, such as small stones and pieces of paper.
4. Remove any unwanted residue inside the port with a gauze.
5. Place the aircraft on its side and use a gauze or brush to remove any unwanted foreign matter, such as dust from the port. Note, clean the port thoroughly making sure to sweep away from the port.



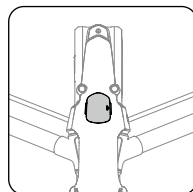
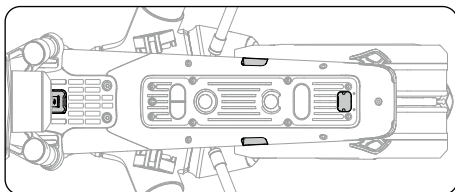
PROSSD Slot

- Make sure that there is no foreign matter in the PROSSD slot and to check if the thermal pad in the PROSSD slot is worn.
- The PROSSD can be correctly installed and removed.
- The PROSSD is working properly.



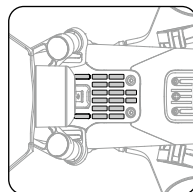
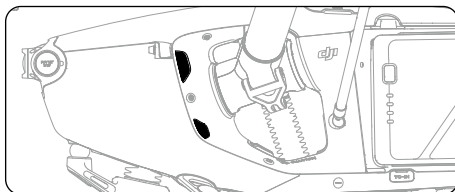
Waterproof Covers

- The waterproof covers are not damaged or loose.



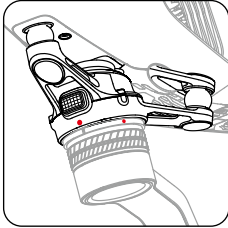
Heat Dissipation Vents

- The heat dissipation vents are not blocked and that the cooling fans work properly without any abnormal sounds.



Gimbal Damping Plate

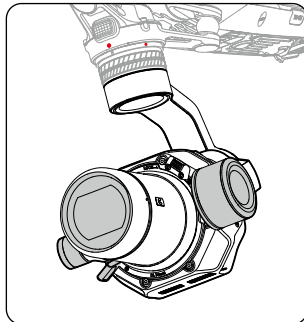
- The gimbal dampers are not damaged, loose, aged, or deformed. If necessary, scan the QR code or go to the address listed to watch the tutorial video on how to replace the gimbal damper.
- The screws connecting the damping plate and aircraft body are securely tightened.
- The quick-disassembly structure on the aircraft is not damaged or deformed.
- The connector pins are clean of any dirt or foreign matter.



<https://s.dji.com/guide70>

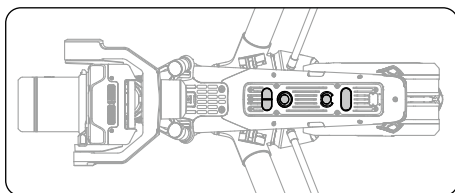
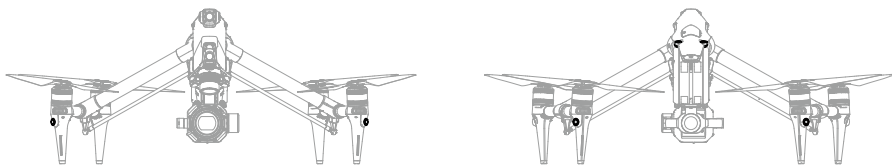
Gimbal Camera

- The lenses on the camera are not damaged or cracked.
- The lens is not loose after the lens locking lever is locked.
- Make sure that the gimbal camera motor is not blocked and that no abnormal sounds are coming from the roll and pitch motors when rotating.



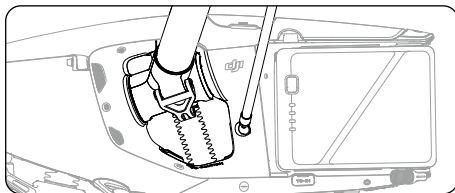
Infrared Sensing System and Vision System Lenses, Auxiliary Lights

- Clean the lenses with a soft, dry cloth.
- Make sure that the lenses of the sensor are not loose, cracked, or worn.
- The auxiliary lights are not loose, cracked, or worn.



Transformation Mechanism

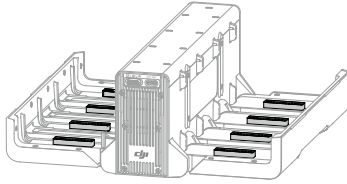
- Make sure that the transformation mechanism is operating smoothly and that it is not jammed or loose in any way.



Charging Hub

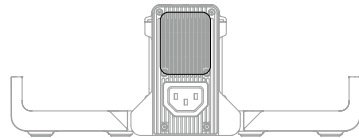
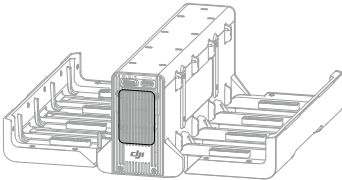
Charging Ports

- The charging ports are not damaged and the metal terminals are not deformed.
- There is no foreign matter in the slot of the charging ports.
- Regularly clean the charging port slots to remove any foreign matter.



Heat Dissipation Vents

- Make sure there is no foreign matter in the air inlet and outlet of the charging hub.
- Regularly clean the charging hub air inlet and outlet of any foreign matter.



Battery

Battery Maintenance Conditions

Maintenance is required when any of the events below occur:

- Every 50 cycles.
- The battery is idle for more than three months.
- There is a maintenance prompt in the app.

Checklist for Maintenance

- Charge and discharge the battery as per instructions.
- Insert the battery into the aircraft and power on to view the battery information in DJI Pilot 2. Make sure the difference in cell voltage is less than 0.1 V and that the battery firmware is updated to the latest version.
- The battery is not swollen, leaky, or damaged.
- The battery terminals are clean.



Standard Charge and Discharge Operation Instructions



1. Fully charge the battery and let the battery rest for at least 24 hours.
2. Install the battery into the aircraft before flight. If the remaining power level is less than 20%, land the aircraft and remove the battery.
3. Let the battery rest for at least one hour.
4. Fully charge the battery or charge it to the proper power level for storage after completing battery maintenance.

Battery Replacement Standard

- The battery is visibly swollen*, leaky, or damaged.
- The battery is rated for 200 cycles. It is not recommended to continue using the battery after 200 cycles.
- The battery error still exists after performing the standard charge and discharge operations twice continuously.

* The TB51 battery shell is made of soft material and may bulge slightly. The battery can be used if it can be successfully inserted into the aircraft properly.

Battery Disposal

1. Fully immerse the battery in an insulated bucket with 5% salt solution. Leave the battery in the solution for more than 48 hours to fully discharge the battery.
2. It is recommended to recycle the battery by following the instructions in the User Manual to avoid environmental pollution.

Battery Usage Notes

- DO NOT charge the battery near flammable materials or objects or on flammable surfaces.
- DO NOT use the battery in a humid environment to avoid short circuit.
- Never disassemble or pierce the battery in any way.
- Store the battery in a well-ventilated and dry place.
- Initiate RTH immediately when the app prompts that the battery temperature is too high.

Firmware Update and System Calibration

It is recommended to update the firmware of the aircraft and the remote controller in time and to perform calibration regularly to keep the aircraft in its best condition.

No.	Category
1	Aircraft firmware update
2	Remote controller firmware update
3	Charging hub firmware update
4	IMU calibration
5	Compass calibration
6	Gimbal calibration

List of Wearing Parts

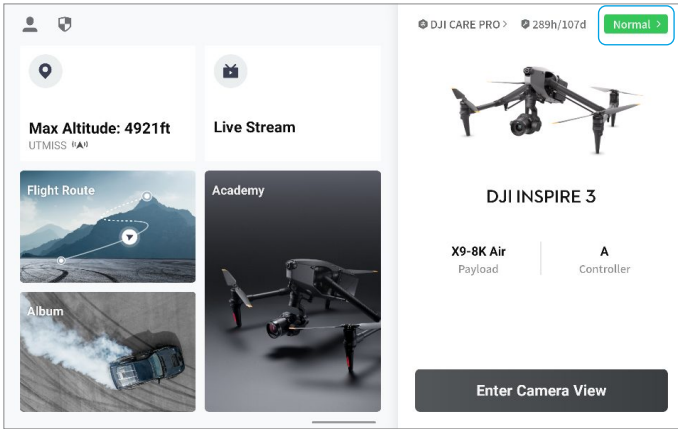
Replace parts that are easily damaged and worn in time to maintain the best flight results and reduce potential safety hazards.

No.	Category	Quantity
1	Propellers	4
2	Gimbal Dampers	3

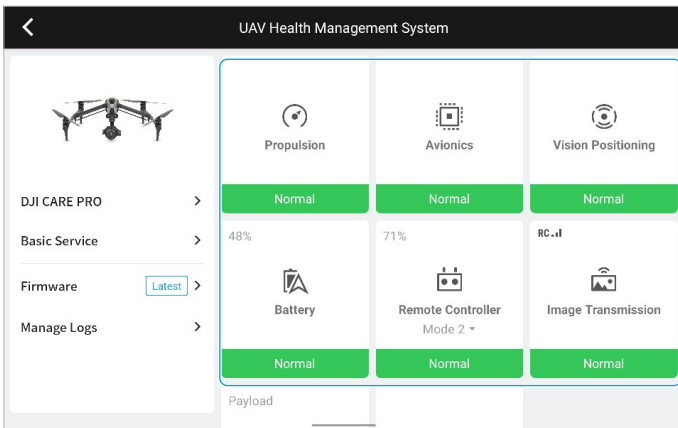
Health Management System

View the status of each module and upload abnormal status logs on the Health Management System (HMS) page in DJI Pilot 2.

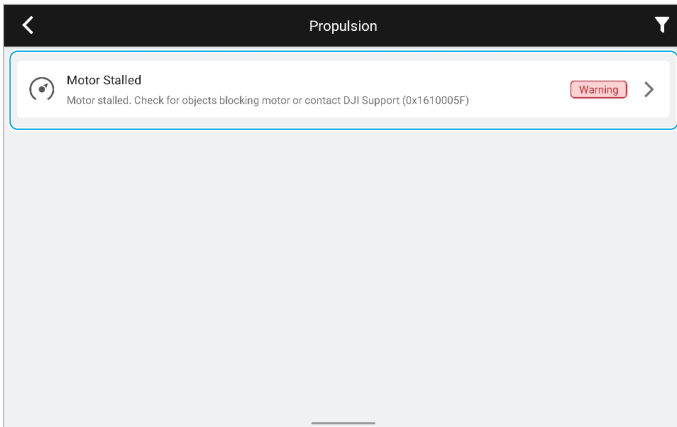
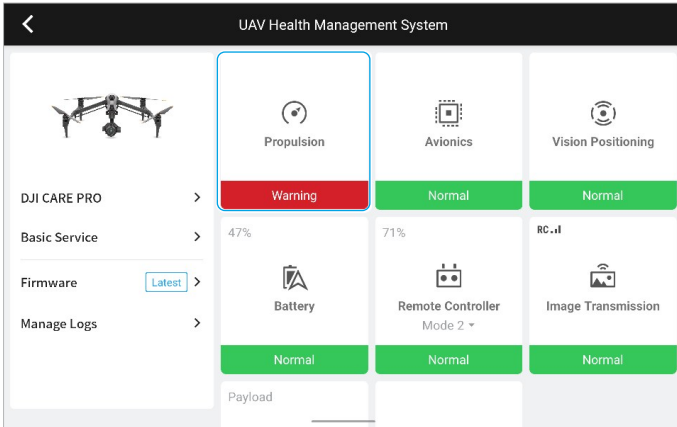
1. Enter the HMS page in DJI Pilot 2.



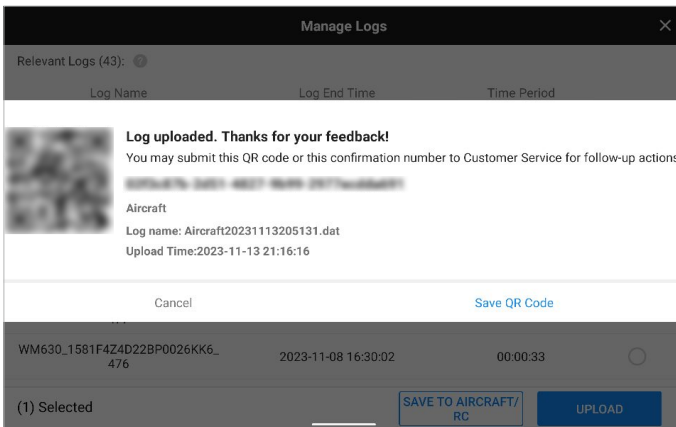
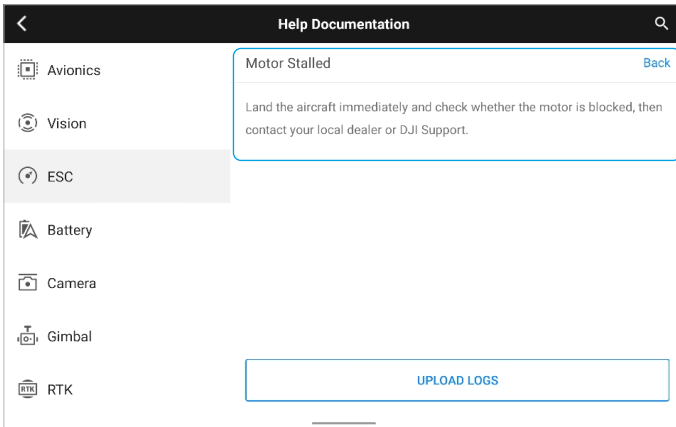
2. View the condition of each module of the connected device.



3. If any module is abnormal, tap to view the warning message.

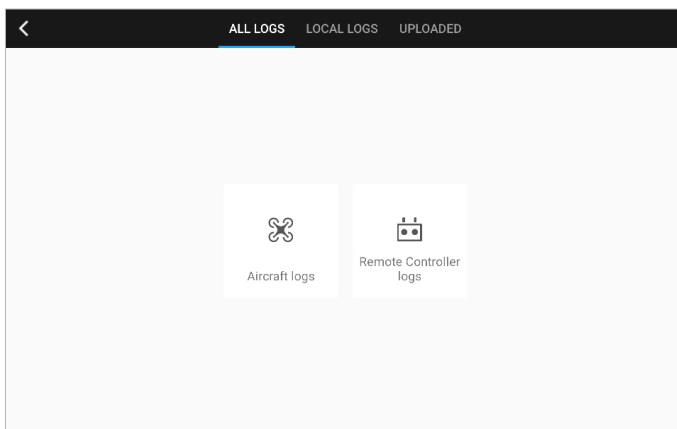
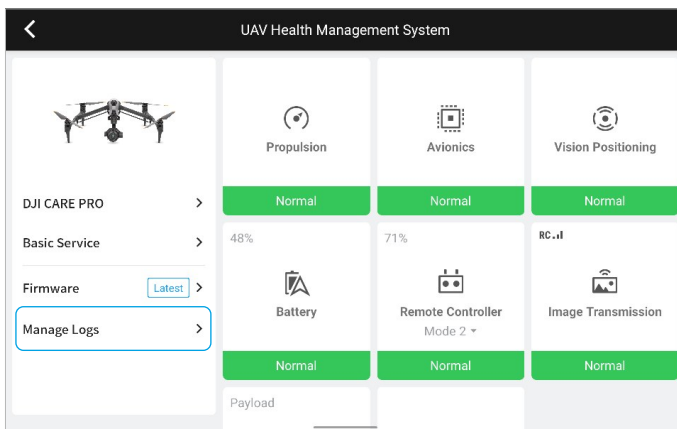


4. Tap the warning message troubleshooting. If the abnormal status still exists after troubleshooting, users can upload the log and send the QR code or the tracking number to DJI Support for help.



5. At the same time, go to log management and select the aircraft, remote controller, and charging hub* with abnormal flights to upload logs according to the log deadline.

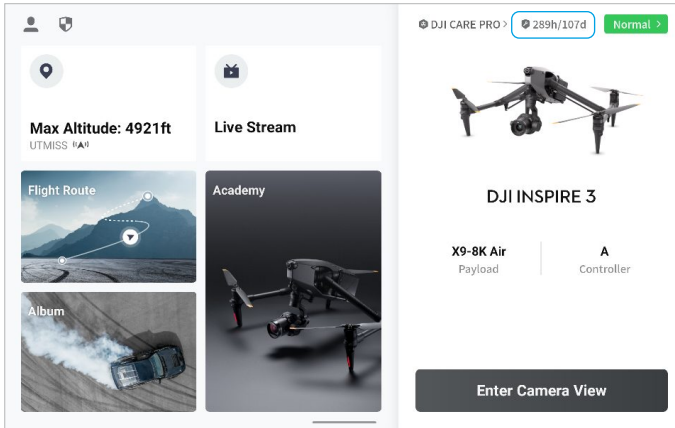
* The charging hub USB-C port must be connected to the remote controller USB-A port by using a cable when exporting the charging hub log.



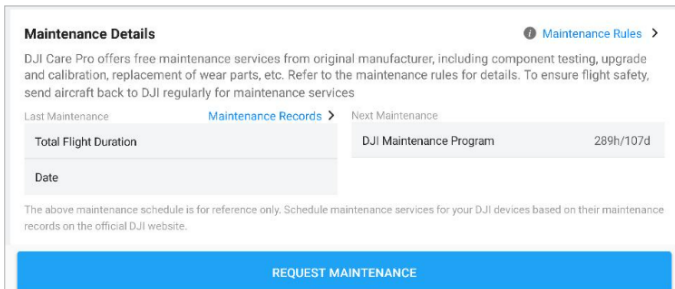
Manage Logs			
Relevant Logs (99)			
Log Name	Log End Time	Time Period	
...	2023-12-22 12:24:51	00:23:41	<input type="radio"/>
...	2023-12-21 21:39:36	02:23:15	<input type="radio"/>
...	2023-12-21 18:08:40	01:32:37	<input type="radio"/>
...	2023-12-21 13:34:44	00:00:11	<input type="radio"/>
...	2023-12-21 13:32:23	00:00:10	<input type="radio"/>
...	2023-12-21 13:19:02	00:00:34	<input type="radio"/>
...	2023-12-21 12:25:13	00:00:18	<input type="radio"/>

DJI Maintenance Service

1. Enter the Maintenance Service page in DJI Pilot 2.



2. View the flight data and maintenance items of the current devices.



3. When the conditions for maintenance service are met, it is recommended to tap Request Maintenance to open the Maintenance Service page, and tap Maintenance Application and then fill in the information. <https://repair.dji.com/repair/maintenance>

After-Sales Service

Warranty Policy

Visit <https://www.dji.com/service/policy> to view the product warranty period and warranty policy.

Shipping the Product for Repair

Choose one of the following methods below to ship the product for repair according to the actual situation:

- Official website self-service repair.
Visit the DJI Service Center on the official website at <https://repair.dji.com/repair/index>, and follow the instructions to complete the self-service repair service.
- Contact your local dealer for assistance.
Contact your local dealer and describe the product issue. The dealer can assist in sending the product for repair.
- DJI Support hotline service.
Contact DJI Support to describe the product issue and service type, such as a repair, return, or replacement, and then ship the product back according to the guidelines.
Visit the following website to view phone support options for the hotline service:

<https://www.dji.com/support>

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<https://www.dji.com/inspire-3/downloads>

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