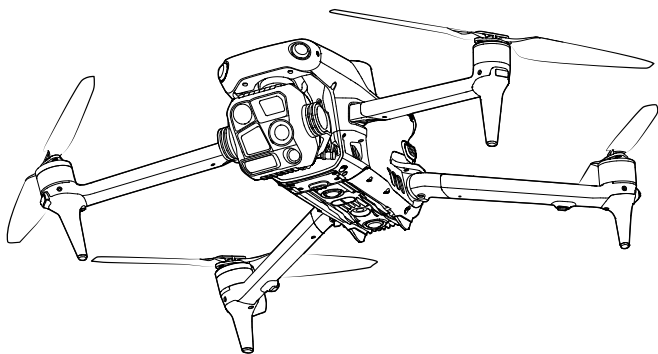


dji MATRICE 4 SERIES

Maintenance Manual

v1.0 2025.01





This document is copyrighted by DJI with all rights reserved. Unless otherwise authorized by DJI, you are not eligible to use or allow others to use the document or any part of the document by reproducing, transferring or selling the document. Only refer to this document and the content thereof as instructions to operate DJI products. The document should not be used for other purposes.

In the event of divergence among different versions, the English version shall prevail.

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.

Contents

1	Introduction	4
2	Disclaimer	5
3	Safety Flight Guidelines	6
3.1	Flight Condition Requirements	6
	Operational Requirements	6
	Flight Restrictions	6
3.2	Updating the Firmware	6
4	Inspection and Maintenance	7
4.1	Pre-Flight Checklist	7
4.2	Regular Maintenance	8
	Parts Inspection	8
	Propulsion System	8
	Flight Controller System	9
	Aircraft Structure	10
	Intelligent Flight Battery	14
	Updates and Calibration	16
	List of Wearing Parts	16
4.3	Health Management System	17
4.4	DJI Maintenance Program	21
5	After-Sales Service	24
5.1	Warranty Policy	24
5.2	Handling Procedures for Flight Accident	24
	Flyaway Accident	24
	Collision or Crash Accident	24
5.3	Shipping the Product for Repair	25

1 Introduction

This Maintenance Manual offers guidelines to help you in the daily upkeep and maintenance of the aircraft, and also provides after-sales service information.

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

2 Disclaimer

Carefully read this entire document and all safe and lawful practices provided by DJI™ before use. 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 document 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.

DJI is a trademark of SZ DJI TECHNOLOGY CO., LTD. (abbreviated as "DJI") and its affiliated companies. Names of products, brands, etc., appearing in this document are trademarks or registered trademarks of their respective owner companies. This product and document are copyrighted by DJI with all rights reserved. No part of this product or document shall be reproduced in any form without the prior written consent or authorization of DJI. This disclaimer is available in various languages. In the event of divergence among different versions, the English version shall prevail. The final interpretation of this document and all related documents of this product belong to DJI. This content is subject to change without prior notice. For up-to-date product information, visit the product page for this product at <http://www.dji.com>.

3 Safety Flight Guidelines

3.1 Flight Condition Requirements

Operational Requirements

Before use, read the Disclaimer and 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://fly-safe.dji.com>

3.2 Updating the Firmware

To optimize the experience, it is recommended to keep the firmware of the aircraft, Intelligent Flight Batteries and remote controller up to date before each flight. Refer to the User Manual for instructions on updating the firmware.

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

4 Inspection and Maintenance

Routine inspection before operations or regular maintenance can greatly improve the aircraft's reliability, and reduce potential safety hazards.

4.1 Pre-Flight Checklist

1. Make sure the remote controller and the aircraft batteries are fully charged, and that both of the battery buckles pop out ensuring that the Intelligent Flight Battery is installed firmly.
2. Make sure there are no foreign objects inside the aircraft or its components, such as water, oil, soil, or sand. Make sure the air vents of the aircraft, the cooling holes of the camera, and the ventilation holes of the motor are not blocked. Ports such as the E-Port must be closed firmly if not used.
3. Make sure the propellers are of the same model and securely mounted. Make sure the motors or propellers are not damaged or deformed, there are no foreign objects in or on the motors or propellers, and the propeller blades and arms are unfolded.
4. Make sure the lenses of the vision systems, the cameras, the glass of the infrared sensors, and the auxiliary lights are clean, free of stickers, and not blocked in any way.
5. Make sure to remove the gimbal protector before powering on the aircraft.
6. Make sure the remote controller antennas are adjusted to the proper position.
7. Make sure the firmware of all devices and DJI Pilot 2 have been updated to the latest versions.
8. Power on the aircraft and the remote controller, and toggle the flight mode switch to N-mode. Make sure the status LED on the remote controller and the battery level indicators on the aircraft are solid green. This indicates that the aircraft and the remote controller are linked, and the remote controller is in control of the aircraft.
9. Make sure your flight area is inside approved zones for UAVs, and flight conditions are suitable for flying the aircraft. 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 pilot. The pilot should be facing the rear of the aircraft.
10. To ensure flight safety, enter the flight view of DJI Pilot 2 and check the parameters on the preflight checklist.
11. Make sure DJI Pilot 2 is properly opened to assist your operation of the aircraft.
WITHOUT 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 AFTER SALES SUPPORT TO YOU OR ASSUME LIABILITY.


12. Divide the airspace for flight when multiple aircrafts are operating simultaneously in order to avoid collision mid-air.

4.2 Regular Maintenance

It is recommended to perform inspection and maintenance regularly by following the standards below to keep the aircraft in a good condition and reduce safety risks.

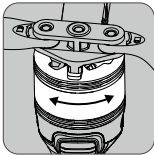
Type	Maintenance Items	Maintenance Advice	Maintenance Interval ^[1]
Basic	Deep cleaning, parts inspection, updates and calibrations	Recommend factory service or contact a DJI authorized service provider	Based on actual use
Standard	Deep cleaning, parts inspection, updates and calibrations, and replacement of wearing parts	Factory Service (Recommended)	Per 200-hour flights / Per year ^[2]

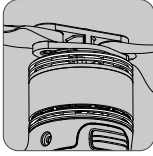
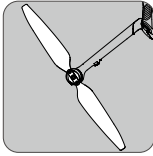
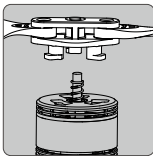
[1] The time specified in the maintenance period or the flight time shall be whichever comes first.
[2] Per year expresses the device activation time.

 • DJI may adjust the above maintenance services accordingly in different areas. Please contact authorized dealers or DJI Support for the latest information.

Parts Inspection

Propulsion System



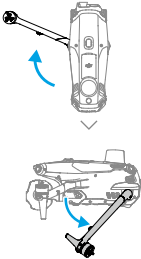
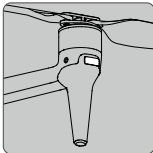
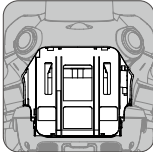
Type	Inspection Process	Illustrations
Motor Rotation	<ol style="list-style-type: none">1. Unfold the frame arms.2. Rotate the motor to check if there is any blockage or rubbing. Observe the gap between the rotor and stator of the motor to check if there is any contact with the motor base.3. DO NOT fly the aircraft if there is any blockage or contact. It is necessary to return the aircraft to the factory for repair.	

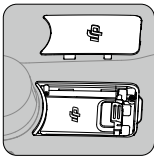
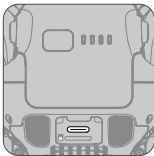
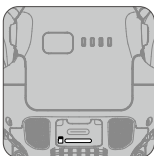
Type	Inspection Process	Illustrations
Motor Air Filters	<ol style="list-style-type: none"> 1. The air filters are not severely damaged or deformed. 2. If they are severely damaged or deformed (such as being bumped), return the aircraft to the factory for repair. 	
Propellers	<ol style="list-style-type: none"> 1. Check the propellers for visible deformation, severe wear, nicks, cracks, or any foreign matter attached. 2. Clean the propellers with a dry, soft cloth. 3. Replace the propellers immediately if there are any visible deformations, severe wear, nicks, or cracks. 4. Replace the propellers after flying over 200 hours or using for one year. 	
Propeller Adapters	<ol style="list-style-type: none"> 1. Make sure the propeller adapters are not deformed or broken. 2. Replace the propeller adapters if they are damaged or deformed. 	

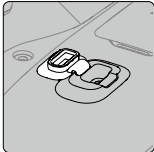
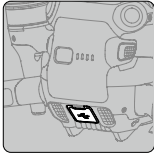
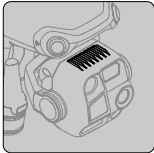
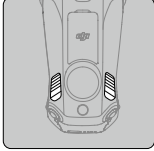
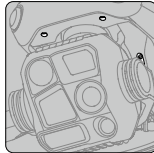
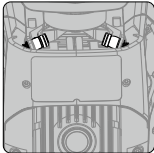
Flight Controller System

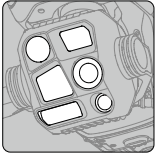
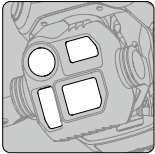
1. After the aircraft is powered on and self-check is complete, there are no error prompts related to the flight controller in the app.
2. In outdoor open environments, the GNSS signal reaches “Strong” level within 1 minute of powering on the aircraft, indicating that the Home Point can be recorded automatically.
3. In outdoor open environments, the interference of the compass after calibration is less than 50.
4. Sensor bias is less than 0.05 after the IMU calibration.

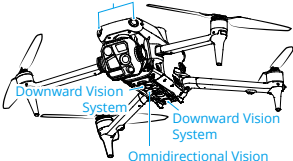
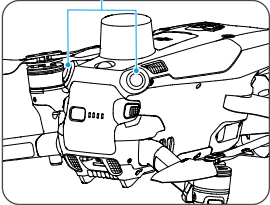
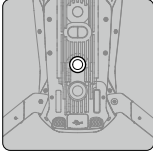
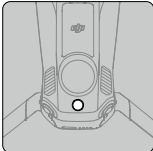
Aircraft Structure

Type	Inspection Process	Illustrations
Aircraft Ap- pearance	<ol style="list-style-type: none">1. The aircraft body is clean and not damaged or deformed.2. Clean the aircraft body with a soft, dry cloth, paying special attention to the lenses of the infrared sensing and vision systems and the heat dissipation vents.	
Screws	<ol style="list-style-type: none">1. All the screws on the aircraft body are securely tightened.	
Frame Arms	<ol style="list-style-type: none">1. The arm junctions are not damaged or cracked.2. The frame arms can be folded/unfolded smoothly, without jamming, shaking, or producing any abnormal noises.3. The frame arms do not retract after being unfolded.	
Frame Arm LEDs	<ol style="list-style-type: none">1. There is no foreign object or damage on the surface.	
Battery Com- partment	<ol style="list-style-type: none">1. The battery ports are clean and dry without any corrosion. Clean any unwanted dust or water inside the battery compartment.	

Type	Inspection Process	Illustrations
Cellular Dongle Compartment	<ol style="list-style-type: none"> 1. The connection cables inside the cellular dongle compartment are not damaged. 2. The ports are clean and dry without any corrosion. Clean any unwanted dust or water inside the battery compartment. 3. The cover is not damaged, cracked, or loose. 	
Data Ports	<ol style="list-style-type: none"> 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. Clean any adhesive materials that are in the port with a gauze. 5. Place the aircraft in an inclined position with the ports facing downward. 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. 	
microSD Card Slot	<ol style="list-style-type: none"> 1. Check if there are any foreign objects in the microSD card slot, and if the microSD card can be correctly installed and removed. 2. Check if the microSD card is working properly. 	

Type	Inspection Process	Illustrations
Port Covers	1. The port covers are not damaged or loose.	 
Heat Dissipation Vents	1. The heat dissipation vents are not blocked. The cooling fans work properly without any abnormal sounds.	 
Gimbal Damping Plate	1. The screws connecting the damping plate and aircraft body are securely tightened.	
Gimbal Dampers	1. The gimbal dampers are not damaged, loose, aged, or deformed. 2. Replace the dampers after flying over 200 hours or using for one year. Return the aircraft to the factory or contact a DJI-authorized dealer for replacements.	

Type	Inspection Process	Illustrations
Gimbal and Camera	1. The lenses on the camera are not damaged or cracked.	<div><p>Matrice 4T</p><p>Matrice 4E</p></div>

Type	Inspection Process	Illustrations
Sensing System Lenses, Auxiliary Light, and Beacon	<div>1. Clean the lenses with a soft cloth.</div> <div>2. Lenses are not loose or cracked.</div> <div>3. The auxiliary light and beacon are not loose or cracked.</div>	<div>Sensing System</div> <div><div>Omnidirectional Vision System</div><div>Downward Vision System</div><div>Downward Vision System</div><div>Omnidirectional Vision System</div></div> <div><div>Omnidirectional Vision System</div></div> <div>Auxiliary Light</div> <div>Beacon</div>

Intelligent Flight Battery

Battery Maintenance Conditions

Maintenance is required when any of the events below occur:

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

Checklist for Maintenance

1. Charge and discharge the battery as per instructions.
2. Insert the battery into the aircraft and power it on. Check the battery information in DJI Pilot 2 to see if there are any error messages. Make sure battery firmware is updated to the latest version.
3. The battery is not swollen, leaky, or damaged.
4. The battery terminals are clean.
5. The battery buckles are not cracked or damaged.

Standard Charge and Discharge Operation Instructions

1. Insert the battery into the aircraft and take off.
2. Let the aircraft hover at an altitude of up to 2 m. Land the aircraft and remove the battery when the remaining power level is 15%.
3. Leave the battery for >2 hours.
4. Fully charge the battery.
5. Leave the battery for >2 hours.
6. The battery can be used after completing battery maintenance. Repeat the steps above if the warning persists.

Battery Replacement Standards

1. The battery is visibly swollen, leaky, or damaged.
2. The battery buckles are cracked or damaged.
3. The battery is rated for 200 cycles. It is recommended to replace the battery after 200 cycles.
4. Replace the battery if the error still exists after performing two consecutive standard charge and discharge cycles.

Battery Disposal

1. Fully immerse the battery in an insulated bucket with 5% salt solution. Leave the battery in the solution for more than 72 hours to fully discharge the battery.
2. After completing Step 1, contact a professional battery recycling company for proper disposal to avoid environmental pollution.

Warnings

- 1. DO NOT charge the battery near flammable materials, objects, or on flammable surfaces.
- 2. DO NOT use the battery in a humid environment to avoid short circuit.
- 3. DO NOT disassemble or pierce the battery in any way.
- 4. Store the battery in a well-ventilated and dry place.
- 5. Initiate RTH immediately when the app prompts that the battery temperature is too high.

Updates and Calibration

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

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

List of Wearing Parts

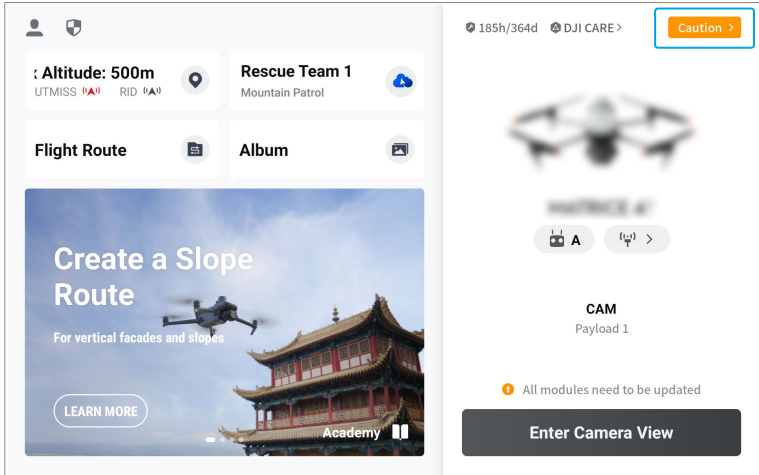
Replace easily damaged and worn parts promptly to maintain optimal flight performance and minimize safety risks.

No.	Category	Quantity
1	Propellers A	2
2	Propellers B	2
3	DJI Cellular Dongle Compartment Cover	1
4	Bottom Shell Baffle	1
5	Gimbal Dampers	4
6	Gimbal Protector	1

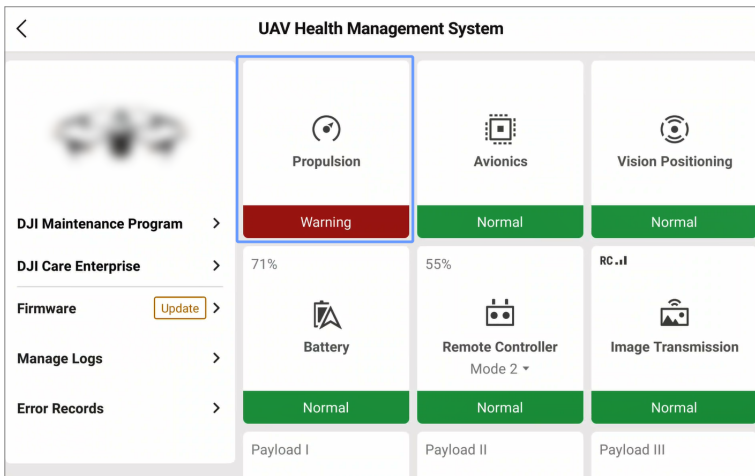
4.3 Health Management System

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

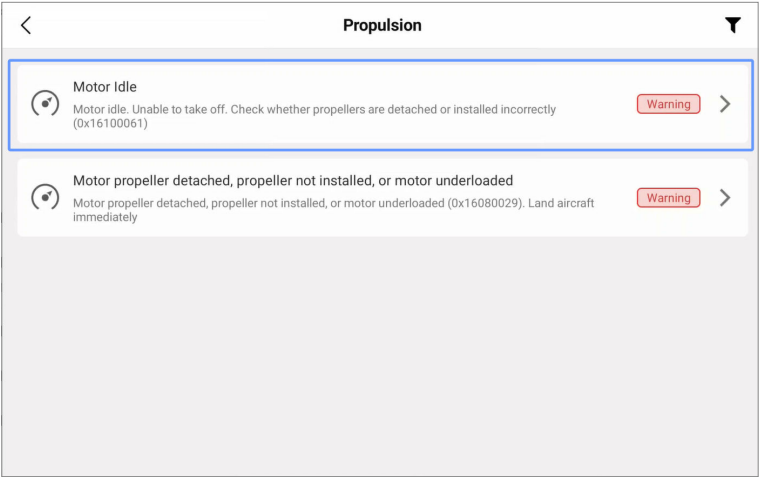
1. Enter the HMS page.



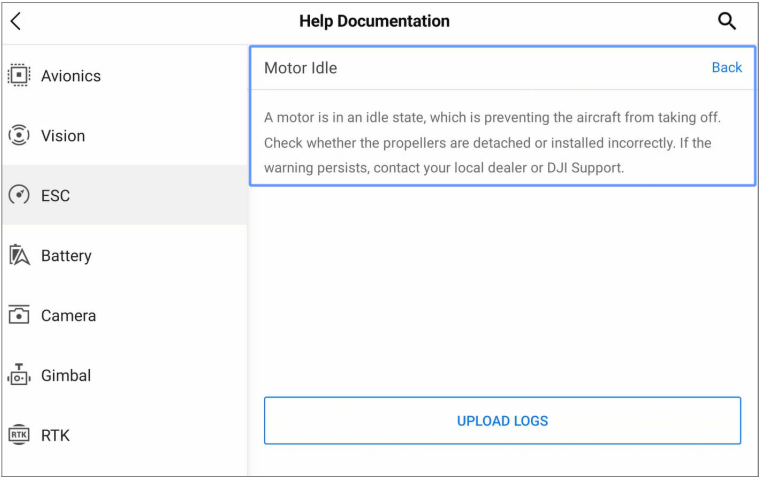
2. View the condition of each module of the connected device.



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



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



<

Manage Logs

Relevant Logs (30): ?

Log Name	On/Off Time	Time Period	
<div><div></div><div>Aircraft_20241210211133</div></div>	2024-12-10 21:09:55 2024-12-10 21:11:33	00:01:38	<input checked="" type="checkbox"/>
<div><div></div><div>Aircraft_20241210210854</div></div>	2024-12-10 21:05:49 2024-12-10 21:08:54	00:03:05	<input type="checkbox"/>
<div><div></div><div>Aircraft_20241210210349</div></div>	2024-12-10 20:55:22 2024-12-10 21:03:49	00:08:27	<input type="checkbox"/>
<div><div></div><div>Aircraft_20241203202631</div></div>	2024-12-03 20:15:27 2024-12-03 20:26:31	00:11:04	<input type="checkbox"/>

(1) Selected


SAVE TO AIRCRAFT/
RC

UPLOAD

<

Manage Logs

Relevant Logs (30): ?



Log uploaded. Thanks for your feedback!

You may submit this QR code or this confirmation number to Customer Service for follow-up actions.

Aircraft(Gimbal Control)

Log name:

Upload Time:2024-12-10 21:29:09

Cancel

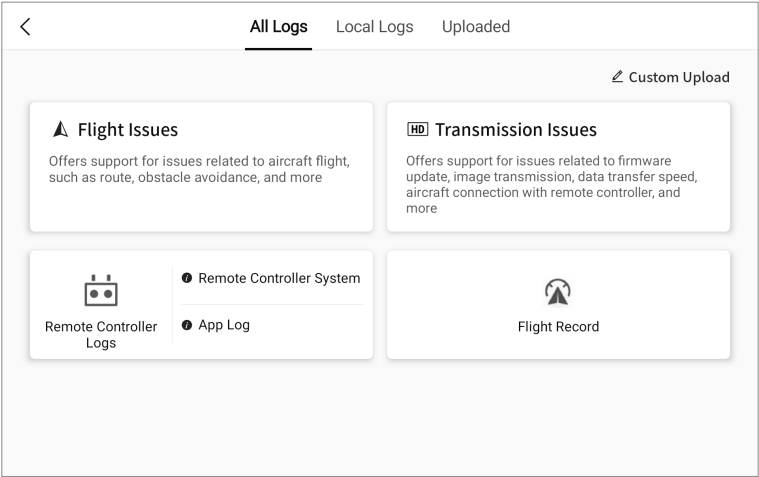
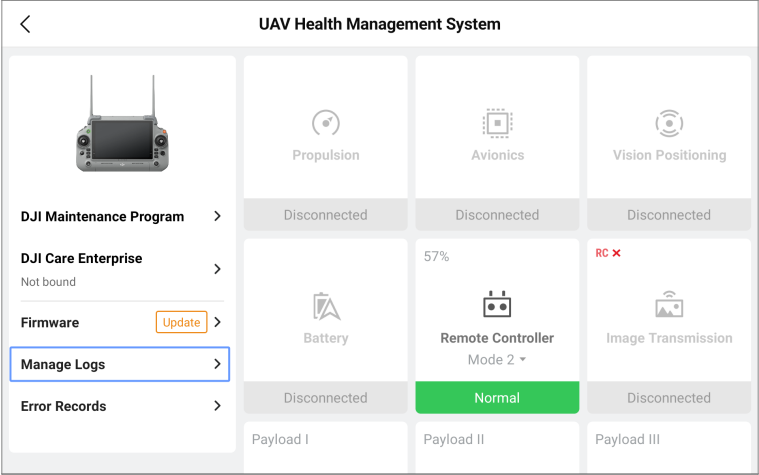
Save QR Code

(1) Selected

SAVE TO AIRCRAFT/
RC

UPLOAD

5. At the same time, users can tap Manage Logs to select the aircraft, and remote controller with abnormal flights according to the on/off time of the logs.



<

Manage Logs

Relevant Logs (10): ?

Log Name	On/Off Time	Time Period	
<div><div></div><div>20241210210434</div></div>	2024-12-10 21:02:01 2024-12-10 21:04:34	00:02:33	<input checked="" type="checkbox"/>
<div><div></div><div>20241210205443</div></div>	2024-12-10 20:50:04 2024-12-10 20:54:43	00:04:39	<input type="checkbox"/>
<div><div></div><div>20241210195706</div></div>	2024-12-10 19:48:24 2024-12-10 19:57:06	00:08:42	<input type="checkbox"/>
<div><div></div><div>20241209214153</div></div>	2024-12-09 20:54:39 2024-12-09 21:41:53	00:47:14	<input type="checkbox"/>

(1) Selected

SAVE TO AIRCRAFT/RC


UPLOAD

4.4 DJI Maintenance Program

1. Tap Maintenance Program in HMS.

<

UAV Health Management System



DJI Maintenance Program >

DJI Care Enterprise >
Not bound

Firmware >


Manage Logs >

Error Records >

Propulsion

Normal

63%

Battery


Normal

Payload I

Avionics

Normal

50%

Remote Controller
Mode 2 ▾


Normal

Payload II

Vision Positioning

Normal

RC .11

Image Transmission

Normal

Payload III

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

DJI Maintenance Program

DJI Care Enterprise

Flight Data

Total Flight Duration

1h 50min

Total Flights

7

Total Distance

6.223 km

Activation Date

Battery (SN:)

Cycle Counts 6

DJI Maintenance Program

DJI Care Enterprise

Cycle Counts

Maintenance Details

Periodic maintenance of your aircraft is required to help ensure flight safety. Contact DJI Support or your local dealer to conduct standard or premium service maintenance. As well as standard or premium service maintenance, users are recommended to perform basic service maintenance regularly to ensure optimal performance.

Last Maintenance

Type

Total Flight Duration

Date

Maintenance Records

Next Maintenance

Basic Service

Standard Service

Based on actual use

199h/344d

The above maintenance schedule is for reference only. Schedule maintenance services for your DJI devices based on their maintenance records on the official DJI website.

Maintenance Tips Settings

PURCHASE DJI MAINTENANCE PROGRAM

REQUEST MAINTENANCE

3. When the standard maintenance interval is approaching or is due, the text color will be highlighted in orange. When the premium maintenance interval is approaching or is due, the text color will be highlighted in red.

Type

Total Flight Duration

Date

Basic Service

Standard Service

Based on actual use

199h/344d

22 © 2025 DJI All Rights Reserved.

Type	Basic Service	Based on actual use
Total Flight Duration	Standard Service	13h/344d
Date		

Type	Basic Service	Based on actual use
Total Flight Duration	Standard Service	600h overdue
Date		

5 After-Sales Service

5.1 Warranty Policy

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

5.2 Handling Procedures for Flight Accident

When your aircraft encounters a flight accident, please follow below steps below to handle it.

Flyaway Accident

1. Contact DJI Support as soon as possible to describe the accident.
2. View the flight record in DJI Pilot 2, and look for the aircraft near the data interruption location based on the actual terrain.
3. Connect the remote controller to the computer, export the flight control system data and flight records, and contact DJI Support or local dealers for assistance in applying for data analysis.
4. DJI will provide a solution based on the analysis results.

Collision or Crash Accident

1. Take photos of the aircraft status and surrounding environment promptly after the accident, and record the aircraft status before the accident and the accident process.
2. Make sure the aircraft is powered off, remove the battery from the aircraft, and use an isolation box to store the battery. Note: DO NOT power on the aircraft again if the accident is serious, otherwise it may damage the internal circuit of the aircraft and cause greater loss.
3. Connect the remote controller to the computer, export the flight control system data and flight records, and contact DJI Support or local dealers for assistance in applying for data analysis.
4. Ship the device for repair.

5.3 Shipping the Product for Repair

Choose one of the methods below to ship the product for repair:

1. 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.

2. Contact Local Dealer for Assistance

Contact your local dealer and describe the product issue. The dealer can assist in sending the product for repair.

3. 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>

WE ARE HERE FOR YOU



Contact

DJI SUPPORT

The content is subject to change without prior notice.

Download the latest version from



<https://enterprise.dji.com/matrice-4-series/downloads>

If you have any questions about this document, contact DJI by sending a message to **DocSupport@dji.com**.

DJI and MATRICE are trademarks of DJI.

Copyright © 2025 DJI All Rights Reserved.