dji Matrice 30 Series Automated Drone Dock Bundle User Manual

Contents

dji Matrice 30 Series Automated Drone Dock Bundle

Product Information

Specifications

- **Dock:**
  - **Input Voltage**: 100-240 VAC, 50-60 Hz
  - **Input Current:** Max. 15 A
  - **Input Power:** Max. 1500 W
  - **Output Voltage:** 26.1 VDC
  - **Output Current:** Max. 24 A
  - **Output Power:** Max. 626 W
  - **Backup Battery:**
    - **Battery Capacity:** 12 Ah
    - **Output Voltage:** 24 V
    - **Battery Type:** Lead-acid battery
    - **Backup Battery Life:** > 5 hours
- **O3 Transmission Enterprise Edition:**
  - **Operating Frequency Transmitter Power (EIRP):**
    - 2.4000-2.4835 GHz
    - 5.725-5.850 GHz
    - 2.4 GHz:

Product Usage Instructions

Flight Test Checklist

After creating or modifying a flight route, it is recommended to conduct an onsite flight test to ensure that the dock can operate normally.

On-site Checklist

Check the settings of the obstacle braking distance, warning distance, gimbal camera settings, aircraft RTK

Maintain Positioning Accuracy mode in the DJI Pilot 2 app.

DJI FlightHub 2 Checklist
Ensure that multiple docks are not operating simultaneously in order to avoid collision mid-air.

Operating Environment
It is important to operate the product in a suitable operating environment. Operating the product in extreme conditions may cause malfunctions and affect the functionality and safety of the aircraft.

Battery Safety Notice
Ensure proper battery safety by following the guidelines below:

- The lithium battery life will be affected if stored at a high battery level.
- The TB30 battery can be charged up to 400 cycles, as long as it is stored with a charge of 90% or above for no more than 120 days of the first year.

Charging the Batteries
Follow the instructions below to charge the batteries:

1. Connect the batteries to the dock.
2. Ensure that the dock is connected to a power source with an input voltage of 100-240 VAC and a frequency of 50-60 Hz.
3. Allow the batteries to charge until they reach their maximum capacity.

Battery Storage and Transportation
When storing and transporting the batteries, follow these guidelines:

- When the dock is working, the air conditioner can adjust the environment temperature to make it suitable for battery storage.
- Once the batteries are stored separately, observe the following:
  - Store the batteries in a cool and dry place.
  - Avoid exposing the batteries to extreme temperatures.
  - Keep the batteries away from flammable materials.
  - Ensure that the batteries are securely stored to prevent damage.

FAQ

Q: Is the product suitable for children?
A: No, this product is not intended for children.

Warnings & Notices Glossary

The following terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

- **Notice:** Procedures, which if not properly followed, create a possibility of physical property damage AND a small or no possibility of injury.

- **Warning:** Procedures, which if not properly followed, create the probability of property damage, collateral damage, and serious injury or create a high probability of superficial injury.

Disclaimer and Warning

- By using this product, you signify that you have read, understand, and accept the terms and conditions of this guideline and all instructions at **www.dji.com/dock** .
- EXCEPT AS EXPRESSLY PROVIDED IN AFTER-SALES SERVICE POLICIES AVAILABLE AT **HTTPS://WWW.DJI.COM/SERVICE/POLICY** , THE PRODUCT AND ALL MATERIALS AND CONTENT AVAILABLE THROUGH THE PRODUCT ARE PROVIDED “AS IS” AND ON “AS AVAILABLE BASIS” WITHOUT WARRANTY OR CONDITION OF ANY KIND. This product is not intended for children.

Flight Test Checklist

After creating or modifying a flight route, it is recommended to conduct an on-site flight test to ensure that the dock can operate normally.

On-site Checklist

- Make sure the TB30 batteries are installed firmly, and the battery release toggles are locked.
- Make sure the propellers are securely mounted and not damaged or deformed, that there are no foreign objects in or on the motors or propellers, that the propeller blades and arms are unfolded, and that the frame arm folding buttons are popped out in the locked position.
- Make sure the lenses of the vision systems, FPV, gimbal cameras, the glass of the infrared sensors, and the auxiliary lights are clean and not blocked in any way.
- Make sure the gimbal is unlocked and the camera is facing the front of the aircraft.
- Make sure the covers of the microSD card slot, and the PSDK port have been closed properly.
- Make sure there is no foreign object in the battery ports of the aircraft.
- Make sure that the Wind Speed Gauge rotates properly and that the rainfall gauge surface is clear of dirt or foreign objects.
- Make sure the landing pad surface is is clear of dirt or foreign objects.
- Make sure the emergency stop buttons are released.
- Modify the aircraft settings using the DJI RC Plus remote controller (purchased separately) based on actual needs. Check the settings of the obstacle braking distance, warning distance, gimbal camera settings, aircraft RTK Maintain Positioning Accuracy mode in the DJI Pilot 2 app.

DJI FlightHub 2 Checklist

- Open the DJI FlightHub 2 Project page, open the Device Status Window and check the following:
  - Make sure the dock status is Idle, and the aircraft status is in Standby or Powering Off.
  - Make sure the wind speed, external temperature, and rainfall are within the reasonable range, and that the dock network connection is stable.
  - Click Live to open the dock livestream. Make sure the dock cover surface is clear of obstacles and snow or ice.
  - Click Action to check the device status. Make sure the dock RTK is calibrated and converged, the satellite

signal is good, and that the device storage has enough free space.
    - Make sure to enable the obstacle sensing of the aircraft. Make sure to turn on the beacons of the aircraft at night. Make sure to set a maximum altitude and distance, and alternate route altitude based on actual flight conditions.
- Make sure the dock and aircraft firmware have been updated to the latest version in the Devices page.
- Make sure that an alternate landing site is set.
- Make sure that the takeoff position, altitude mode and altitude value of the flight route are set properly, and the flight route is outside the Geo Zone.
- Make sure to set an appropriate RTH Altitude when creating flight task plans.
- Pay attention to the flight altitude, flight speed, battery level, and other flight parameters during the flight test.
- Divide the airspace for flight when multiple aircraft are operating simultaneously in order to avoid collision mid-air.

Operating Environment

Warning:

- DO NOT perform the flight operation in severe weather conditions, including strong winds (speeds exceeding 12 m/s), sandstorms, snow, rain, smog, hail, lightning, tornadoes, or hurricanes. The aircraft can withstand a wind speed of up to 12 m/s during takeoff and landing. Avoid obstacles, crowds, trees, and bodies of water (recommended height is at least 3 m above water).
- Be extremely alert when flying near areas with magnetic or radio interference. It is recommended to set the remote controller as controller B during flight tests. Pay close attention to the video transmission quality and signal strength on DJI Pilot 2. Sources of electromagnetic interference include but are not limited to: high voltage lines, large-scale power transmission stations, or mobile base stations and broadcasting towers. The aircraft may behave abnormally or lose control when flying in areas with too much interference. Return to the dock and land the aircraft, and make future task plans until the flight test is stable.
- Only operate the dock and the aircraft for applications in the operating temperature range. The operating temperature of the dock is -35° to 50° C (-31° to 122° F), and the operating temperature of the aircraft is -20° to 50° C (-4° to 122° F). In low-temperature environments, it is necessary to check whether the dock cover and the aircraft is covered with snow and ice, and whether the propellers are frozen using the dock camera livestream.
- DO NOT install the dock near dangerous sources without permission, such as gas stations, oil depots, and dangerous chemical warehouses.
- DO NOT install the dock in a site with flammable materials such as debris and catkins that are easy to accumulate.
- DO NOT install the dock on moving objects, such as cars and boats.

Notice

- Fly in wide open areas. Tall buildings, steel structures, mountains, rocks, or tall trees may affect the accuracy of the GNSS and block the video transmission signal.
- It is recommended to consider the future environmental factors of the installation site. Make sure to avoid areas with large-scale construction plans or large environmental changes in the future, including but not limited

to the growth of weeds and trees (such as bamboo forests and vines), new buildings, bridges, communication base stations, and high-voltage towers. If there is any change, re-survey is required.
- It is recommended to consider whether the planned flight area is near or in a Restricted Zone. Make sure to apply for a GEO Zone Unlocking License and import it to the aircraft during installation and configuration.
- The site altitude should not be higher than 4000 m. Make sure there are no obvious biological destructive factors such as rodent infestation and termites at the installation site.
- Avoid installing the dock in lightning strike areas.
- Avoid areas that are prone to water accumulation, severe erosion, landslides, heavy snow accumulation, or other natural disasters.
- Try to avoid installing the dock in areas with chemical plants or septic tanks downwind to prevent pollution and corrosion. It is recommended that the straight-line distance from the nearest coastline is greater than 500 m.
- Avoid installing the dock directly under strobe lights and uncontrolled artificial light sources (with many reflective items on the ground). Otherwise, it will interfere with the vision system of the aircraft, affecting its landing and flight stability.
- Try to keep the dock a distance of more than 200 m from strong electromagnetic wave interference sites, such as radar stations, microwave stations, mobile communication base stations, and drone jamming equipment.
- Try to keep the dock away from iron ore and large steel structures or buildings to avoid interference with the aircraft compass.
- Try to keep the dock away from areas with strong vibration sources and strong noise. Otherwise, it will cause interference to the environment sensors of the dock, and at the same time easily lead to a decrease in the operating life of the whole machine.

Flight Safety Notice

Warning

- DJI Dock must be installed and set up by an authorized service provider. Unauthorized installation and set up may lead to safety risks. Contact DJI Support for more information on authorized service providers.
- Make sure you are not under the influence of alcohol, drugs, or anesthesia or suffering from dizziness, fatigue, nausea, or any other physical or mental conditions that could impair your ability to operate the dock safely.
- Make sure to set an alternate landing site before flight. The aircraft will fly to the alternate landing site when the dock is not suitable for landing. Follow the instructions in DJI Pilot 2 to set an alternate landing site when deploying the dock. An obvious sign should be set up near the alternate landing site. Make sure that the area within the five-meter radius of the alternate landing site is clear of obstacles.
- Stay away from spinning propellers and motors to avoid injury during take off or landing.
- When flying in windy weather, be sure to consider the power reserved for the aircraft RTH, allowing to bring the aircraft back to the Home Point or land to avoid losing power during flight and causing damage to the aircraft, property, animals, or people.
- If the aircraft accidentally falls into water, DO NOT power on the aircraft immediately after picking it up. Powering on an aircraft that has fallen into water may cause permanent component damage.
- Stop using the aircraft if it does not work properly. DO NOT use an aircraft that has been involved in a collision.
- Contact DJI Support or a DJI authorized dealer for assistance.
- Only use genuine DJI parts or DJI authorized parts. Unauthorized parts may cause system malfunctions and compromise flight safety.

- DO NOT modify or alter the aircraft or the dock. Unauthorized modification may cause malfunctions and affect the functionality and safety of the aircraft.

Notice

- If a warning message appears in DJI FlightHub 2, click the message to view warning details, and follow the instructions to conduct remote debugging.
- After a task plan is launched, the dock will automatically check whether the environment (such as wind speed, rainfall and external temperature) is suitable for flight tasks. If not, the aircraft will not be able to take off.
- 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.
- DO NOT completely rely on the vision system, infrared sensing system, information provided by DJI FlightHub 2, and other system functions. The vision and infrared sensing systems cannot work in certain environmental conditions, and the aircraft may not automatically sense an obstacle and brake.
- Before sending a flight mission to the dock, make sure to confirm the safety of the flight route in advance and set a reasonable RTH altitude. The RTH altitude is related to the home point. Make sure the RTH altitude is higher than any obstacle in the operation area.
- It is recommended to set the remote controller as controller B during flight tests. During on-site flight tests, the remote controller can take over control and manually control flight.

Battery Safety Notice

Usage

Warning

- DO NOT allow the batteries to come into contact with any kind of liquid. If the inside of a battery comes into contact with water, chemical decomposition may occur, potentially resulting in the battery catching on fire and possibly leading to an explosion.
- DO NOT use non-DJI batteries. Go to **https://www.dji.com** to purchase new batteries. DJI takes no responsibility for any damage caused by non-DJI batteries.
- DO NOT use swollen, leaking, or damaged batteries.
- Using or storing the battery in an environment above 60° C (140° F) may cause battery swelling, which may lead to a fire or even an explosion.
- DO NOT use the aircraft in strong electrostatic (e.g., thunderstorms) or electromagnetic environments. Otherwise, the battery may malfunction (e.g., abnormal battery output, battery output disabled) and cause serious accidents during flight.
- DO NOT disassemble or pierce the battery in any way. Otherwise, the battery may leak, catch fire, or explode.
- Electrolytes in batteries are highly corrosive. If any electrolytes contact your skin or eyes, immediately wash the affected area with running water for at least 15 minutes and see a doctor immediately.
- DO NOT use a battery that has been dropped.
- If the battery falls into water with the aircraft during flight, remove it immediately and place it in a safe and open area. DO NOT use the battery again. Dispose of the battery properly in accordance with local disposal

requirements.

- Put out any battery fire using sand or a dry powder fire extinguisher.
- DO NOT put the battery in a microwave oven or a pressurized container.
- DO NOT place the battery directly on any conductive surface such as a metal rack.
- DO NOT connect the positive and negative poles of the battery with a cable or other metal objects. Otherwise, the battery will short-circuit.
- DO NOT drop or strike batteries. DO NOT place heavy objects on the batteries.
- Clean the battery terminals with a clean, dry cloth to reduce the risk of connection failure.
- Regularly check the battery level and battery cycle counts. The battery is rated for 400 cycles.* It is not recommended to continue to use it afterward.
- Make sure the battery ports, battery compartment ports, battery surfaces, and battery compartment surfaces are dry before inserting the batteries.
- To ensure flight safety and allow users to have as much time as possible to deal with emergencies during flight, over-discharge protection is disabled to allow continuous output.
- The aircraft will intelligently determine whether to perform RTH or to land based on the current flight battery level. Charging an over-discharged battery may be a fire hazard. To prevent this, the battery will be locked and can no longer be charged or used.

* The lithium battery life will be affected if stored at a high battery level. The TB30 battery can be charged up to 400 cycles, as long as it is stored with a charge of 90% or above for no more than 120 days of the first year.

Notice

- It is recommended to label the two batteries as a pair before use. Continue to use the two batteries as a pair by charging and discharging them together to optimize the flight performance and maximize the service life of the batteries.
- If it is not an immediate task scenario, it is strongly recommended to set the battery operation mode to plan in DJI FlightHub 2 to maximize the service life of the batteries. Read the M30 Series Dock Bundle User Manual for detailed operation.

Charging the Batteries

Warning

- When the battery is installed in the aircraft, it can be charged by the dock. Separate batteries can also be charged using the DJI BS30 Intelligent Battery Station (purchased separately). DJI does not take any responsibility for damage caused by using a charger that does not that meet the specified requirements.
- Examine the dock charging connector and the battery regularly for damage to the cord, plug, enclosure, or other parts. DO NOT clean the battery station or the battery with alcohol or other flammable solvents.

Notice
Before using the device, make sure the dock charging connector, the charging port on the aircraft landing gear, the aircraft battery compartment port, and battery port are clean without dirt and foreign objects to prevent poor contact.

Battery Storage and Transportation

When the dock is working, the air conditioner can adjust the environment temperature to make it suitable for battery storage. Once the batteries are stored separately, the following should be observed:

Warning

- Keep the batteries out of the reach of children and animals.
- DO NOT store the battery in environments with a temperature higher than 50° C (122° F).
- DO NOT leave the batteries near heat sources such as a furnace or heater or inside a vehicle on hot days.
- DO NOT place the battery on or near wires or other metal objects, such as metal-framed glasses, watches, jewelry, and hairpins. Otherwise, the battery may short-circuit.
- DO NOT attempt to transport a damaged battery or a battery with a battery level higher than 30%.
- The battery has a capacity of 131 Wh. Follow local regulations and guidelines for lithium battery transportation when traveling with or carrying the batteries.

Notice

- Ideal storage conditions for batteries: The battery should be stored in a cool and dry environment without direct sunlight at a temperature from 20° to 30° C (68° to 86° F) and the battery level should be kept between 40 to 60%. A good storage environment can effectively extend the service life of the battery.
- If a battery with a low battery level has been stored for an extended period, the battery will be in deep hibernation mode. Charge to wake the battery.
- DO NOT store the battery for an extended period after fully discharging. Otherwise, the battery may over-discharge and cause irreparable damage to the battery cell.
- If the battery needs to be stored for a long time, it is recommended to discharge the battery to 50%. Storing with high battery level will shorten the battery life, storing with low battery level may lead to over-discharge.

Specifications

Dock	
General	
Operating Temperature	-35° to 50° C (-31° to 122° F)
Input Voltage	100-240 VAC, 50-60 Hz
Input Current	Max. 15 A
Input Power	Max. 1500 W
Output Voltage	26.1 VDC
Output Current	Max. 24 A
Output Power	Max. 626 W
Backup Battery	
Battery Capacity	12 Ah
Output Voltage	24 V
Battery Type	Lead-acid battery
Backup Battery Life	> 5 hours
O3 Transmission Enterprise Edition	
Operating Frequency	2.4000-2.4835 GHz, 5.725-5.850 GHz
Transmitter Power (EIRP)	2.4 GHz: <30dBm (FCC), <20 dBm (CE/SRRC/MIC) 5.8 GHz: <30 dBm (FCC), <23 dBm (SRRC), <14 dBm (CE)
Aircraft	
Operating Temperature	-20° to 50° C (-4° to 122° F)
Image Transmission System	O3 Transmission Enterprise Edition
Operating Frequency	2.4000-2.4835 GHz, 5.725-5.850 GHz
Transmitter Power (EIRP)	2.4 GHz: <33 dBm (FCC), <20 dBm (CE/SRRC/MIC) 5.8 GHz: <30 dBm (FCC), <30 dBm (SRRC), <14 dBm (CE)
Max Transmission Distance	15 km (FCC), 8 km (CE/SRRC/MIC)
TB30 Intelligent Flight Battery	
Capacity	5880 mAh
Standard Voltage	26.1 V
Charging Temperature	-20° to 50° C (-4° to 122° F) (The battery will initiate self-heating in low-temperature environments, and the air conditioning system will start cooling in high-temperature environments.)
Energy	131.6 Wh

Compliance Information FCC Compliance Notice

Supplier’s Declaration of Conformity

- **Product name:** DJI DOCK
- **Model Number:** DOCK-01
- **Responsible Party:** DJI Research LLC
- **Responsible** Party Address: 435 Portage Ave, Palo Alto, CA 94306
- **Website:** www.dji.com

We, DJI Research LLC, being the responsible party, declares that the above mentioned model was tested to demonstrate complying with all applicable FCC rules and regulations.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
    - Reorient or relocate the receiving antenna.
    - Increase the separation between the equipment and receiver.
    - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
    - Consult the dealer or an experienced radio/TV technician for help.

RF Exposure Information
The equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm during normal operation. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

ISED Compliance Notice
CAN ICES-003 (A) / NMB-003(A)
This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

KC Compliance Notice

EU & UK Compliance Notice

- EU Compliance Statement: SZ DJI TECHNOLOGY CO., LTD. hereby declares that this device (DJI DOCK) is in compliance with the essential requirements and other relevant provisions of the Directive 2014/53/EU.
- A copy of the EU Declaration of Conformity is available online at **www.dji.com/euro-compliance**
- **EU contact address:** DJI GmbH, Industriestrasse 12, 97618, Niederlauer, Germany

Compliance Statement: SZ DJI TECHNOLOGY CO., LTD. hereby declares that this device (DJI DOCK) is in compliance with the essential requirements and other relevant provisions of Radio Equipment Regulations 2017. A copy of the GB Declaration of Conformity is available online at **www.dji.com/euro-compliance**

Environmentally friendly disposal
Old electrical appliances must not be disposed of together with the residual waste, but have to be disposed of separately. The disposal at the communal collecting point via private persons is for free. The owner of old appliances is responsible to bring the appliances to these collecting points or to similar collection points. With this little personal effort, you contribute to recycle valuable raw materials and the treatment of toxic substances.

CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS. .

https://www.dji.com/dock/downloads

- This content is subject to change.
- DJI is a trademark of DJI.
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Documents / Resources

	**dji Matrice 30 Series Automated Drone Dock Bundle** [pdf] User Manual Matrice 30 Series Automated Drone Dock Bundle, Matrice 30 Series, Automated Drone Dock Bundle, Drone Dock Bundle, Dock Bundle

References

- **Anatel — Agência Nacional de Telecomunicações**
- **DJI - Official Website**
- **DJI Dock - Automated drone hangars - DJI Enterprise**
- **EU Declaration of Conformity - DJI**
- **DJI - Official Website**
- **After-Sales Service Policy - DJI**
- **User Manual**