# **D-RTK 2** High Precision GNSS Mobile Station

User Guide 使用说明

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### Disclaimer

Thank you for purchasing D-RTK<sup>™</sup> 2 High Precision GNSS Mobile Station (hereinafter referred to as the 'Product'). Read this disclaimer carefully before using this Product. By using this Product, you hereby agree to this disclaimer and signify that you have read it fully. Please use this Product in strict accordance with the manual and be sure to pay attention to the Warnings. SZ DJI TECHNOLOGY CO., LTD., and its affiliated companies assume no liability for damage(s) or injuries incurred directly or indirectly from using, installing or refitting this Product improperly, including but not limited to using nondesignated accessories.

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This disclaimer is produced in various languages. In the event of divergence among different versions, the Chinese version shall prevail when the Product in question is purchased in China, and the English version shall prevail when the Product in question is purchased in any other region.

### Warnings

- MG-12000P batteries can be purchased separately to be used with D-RTK 2 High Precision GNSS Mobile Station (abbreviated as D-RTK 2 Mobile Station). Please DO NOT use other battery models.
- Only use the D-RTK 2 in the corresponding frequency band and in accordance with local laws and regulations.
- 3. DO NOT bend or fold the cables excessively.
- 4. Ensure that the D-RTK 2 Mobile Station is perfectly level when mounted and placed.
- Only operate in an open environment free from radio interference. Turn off nearby devices using the same frequencies as the D-RTK 2 Mobile Station (e.g. radio transceivers).
- 6. Ensure that the antennas of all the devices used are unobstructed when in use.
- Only use genuine DJI parts or parts certified by DJI. Unauthorized parts or parts from non-DJIcertified manufacturers may cause the system to malfunction and compromise safety.
- Ensure that the D-RTK 2 Mobile Station and its components are free from contamination (e.g. water, oil, soil and sand).
- 9. DO NOT attempt to disassemble any part of the D-RTK 2 Mobile Station that has already been mounted prior to shipping.
- 10. Handle the sharp ends of the extension rod and tripod with caution.
- Take necessary measures to protect the D-RTK 2 Mobile Station and batteries from water in rain, snow, and/or thunderstorms. Operate with caution in severe weather conditions.
- To maximize the lifespan of the battery, remove the Intelligent Battery from the D-RTK 2 Mobile Station when not in use.

### Introduction

The D-RTK 2 High Precision GNSS Mobile Station is a next-generation high-precision satellite signal receiver that supports four global satellite navigation systems: GPS, BEIDOU, GLONASS, and Galileo with 11-band satellite signal reception. Its built-in OCUSYNC<sup>™</sup>, Wi-Fi, LAN, and 4G data transmission links ensure uninterrupted, stable data transmission under a variety of application scenarios. The D-RTK 2 Mobile Station can be used as an RTK mobile base station to achieve centimeter-level positioning accuracy of an aircraft equipped with a DJI RTK positioning system (such as MG-1P RTK or PHANTOM<sup>™</sup> 4 RTK). Its functions are uncompromised even in environments with strong magnetic interference, for example, near high-voltage power lines or metal structures. The D-RTK 2 Mobile Station can also be used as a handheld mapping device to achieve enhanced precision in point positioning during surveying and mapping, or lofting and other engineering applications. In addition, the D-RTK 2 Mobile Station can be used as a stationary RTK base station to quickly build network RTK services\*\*.

- \* Refer to the Specifications for details.
- \*\* Supported later. DJI only provides technical services, users must comply with the local laws, regulations and requirements for building network RTK services.

### In the Box



① When using the T16 battery or MG-12000P battery, the Battery Accessories Package is for battery installation and connection.
② When using the D-RTK 2 Mobile Station as a mobile base station, use the Tripod to support the D-RTK 2 body.

3 When using the D-RTK 2 Mobile Station as a handheld mapping device, use the Mobile Phone Holder to fasten the phone.

When using the D-RTK 2 Mobile Station as a stationary base station, use the Power Adapter II to connect to the AC power for long-term power supply.

(5) When using the D-RTK 2 Mobile Station as a stationary base station, use the LAN Cable to access the cloud server.

When transporting the D-RTK 2 Mobile Station, place the D-RTK 2 Body, Extension Rod and other accessories into the Carrying Case.







Tripod

- 1. Antenna
- 2. Link Button and Indicator
- 3. Power Button and Indicator
- 4. Operating Mode Button and Indicator
- 5. USB-C Port
- 6. Dongle Compartment
- 7. Rosette Mount
- 8. Battery Compartment
- 9. Battery Cover
- 10. Lock Nut
- 11. LAN Port\*
- 12. External Power Port\*

- 1. Sleeve
- 2. Mount Base
- 3. Retractable Legs
- 4. Knobs

\* Equipped with a protective cover that can be stored when the unit is in use. When not in use, cover the ports to protect the unit from moisture and dust.

The illustrations in this document may be slightly different from the actual product. Please refer to the actual one.

### Preparation

### Charging the Battery

Press the battery level button once to check the battery level. Fully charge the batteries before firsttime use.

- Place the battery into the charging hub, connect the AC power adapter to the Charging Hub, and then connect the AC power adapter to a power outlet (100–240V, 50/60Hz).
- The charging hub will intelligently charge batteries in sequence according to battery power levels from high to low.
- The Status LED blinks green when charging and turns solid green when fully charged. The buzzer will begin beeping when charging is complete. Remove the battery or turn off the buzzer to stop it.



C Refer to the WCH2 Charging Hub User Guide and the WB37 Intelligent Battery Safety Guidelines for more details.

### Mounting the Battery







### Powering the D-RTK 2 Mobile Station On/Off

Press and hold the power button to power on/off the D-RTK 2 Mobile Station.



#### Power Indicator Descriptions

| Solid Red       | System initializing/error notification   |
|-----------------|--|
| Quick Red Blink | Battery level is less than 20%           |
| Slow Red Blink  | Signals from $\leq$ 5 Satellite received |
| Solid Yellow    | Signals from 6-9 Satellite received      |
| Solid Green     | Signals from ≥10 Satellite received      |

### **Operating Modes**

Press and hold the Operating Mode button to switch modes. The indicator will blink yellow once to indicate that the switch is successful.

Operating modes are indicated by the number of green blinks in the indicator.

|                      | Operating Mode 1    | Operating Mode 2*       | Operating Mode 3 |
|----------------------|---------------------|-------------------------|------------------|
| Mode Name            | Mobile Base Station | Stationary Base Station | Handheld         |
|                      |                     |                         | Mapping Device   |
| Green Blinking Times | Once                | Twice                   | Three Times      |

\* Supported later.

### How to Use the D-RTK 2 Mobile Station

The D-RTK 2 Mobile Station can be used as a compatible base station for the MG-1P RTK or the Phantom 4 RTK. The linking, activation, and usage procedures are similar for the two aircraft. The following procedures use the MG-1P RTK and DJI MG app. When using with the Phantom 4 RTK, use the DJI GS RTK app.

### Linking

### Linking Procedure

The D-RTK 2 Mobile Station must be linked to the remote controller when using with the MG-1P RTK or Phantom 4 RTK. The following descriptions use the MG-1P RTK for example.

- Turn on the D-RTK 2 Mobile Station, wait until system initialization is completed, and then press and hold the operating mode switch to enter Operating Mode 1.
- 2. Turn on the MG-1P RTK remote controller and ensure that the DJI MG app is launched.
- In the DJI MG app go to Operation View > ●●● > RTK to enable RTK function. Select the RTK service type to D-RTK 2 Mobile Station. Then, tap Linking at the bottom. The remote controller status indicator will blink blue and a beeping sound from the remote controller will indicate that the remote controller is being linked.
- Press the Link button on the D-RTK 2 Mobile Station and the link indicator will blink red and green alternately, indicating that the D-RTK 2 Mobile Station is being linked.
- The linking is successful when the indicator light on the remote controller becomes solid green. The D-RTK 2 link indicator shows the current working status. Refer to the table below for the details.
- 6. The remote controller and aircraft must be relinked after the remote controller is linked with the D-RTK 2 Mobile Station. There are three ways that this can be done:
  - After linking the remote controller with the D-RTK 2 Mobile Station, tap Link with Aircraft in the popup window to link it with the aircraft. Then press the Link button on the aircraft to finish linking.
  - On the RTK Settings page, tap the ⑦ button next to the prompt indicating the aircraft has been disconnected, and then tap Link with Aircraft in the pop-up window to link it with the aircraft.
  - Link the remote controller with the aircraft on the RC Settings page. When finished, go to the RTK Settings page and tap Try to Reconnect next to the D-RTK 2 Status to reconnect to D-RTK 2. The D-RTK 2 status must indicate Connection Success for the RTK functions to work.

- When the D-RTK 2 Mobile Station has been connected to the remote controller and the aircraft is being controlled by the remote controller, the D-RTK 2 Mobile Station cannot be linked with other remote controllers. If required, link after the aircraft lands and the motors stop.
  - · One D-RTK 2 Mobile Station can link with up to five remote controllers.

#### Link Indicator Descriptions

When the linking process starts, the indicator blinks red and green alternately. When the linking process is finished, the indicator blinking patterns are as shown below.

| Operating Mode 1 and 3 | Status                         |
|------------------------|--------------------------------|
| Solid Green            | OcuSync signal quality >70%    |
| Quick Green Blink      | OcuSync signal quality 35%-70% |
| Slow Green Blink       | OcuSync signal quality ≤ 35%   |
| Solid Red              | OcuSync signal quality = 0     |
| Operating Mode 2       | Status                         |
| Solid Green            | Network connected              |
| Solid Red              | Network disconnected           |

### Activation

Make sure to activate the D-RTK 2 Mobile Station before first-time use. Activation can be done in the app or in the DJI ASSISTANT<sup>™</sup> 2 software. The following descriptions use the app for example.

- 1. Power on the D-RTK 2 Mobile Station.
- 2. Turn on the MG-1P RTK remote controller and ensure that the DJI MG app is launched.
- In the DJI MG app go to Operation View > ● > RTK to enable the RTK function. Select D-RTK 2 Mobile Station under RTK service type. When connecting for the first-time, a prompt for activation will appear. Follow the on-screen steps for activation.

#### Setup

Choose an open area to set up the D-RTK 2 Mobile Station. Mark the location and align the center of the tripod with the mark to ensure that the D-RTK 2 Mobile Station can be replaced at the same location.

 Unfold the tripod, stretch the three retractable legs to the desired length, and then tighten each of the three knobs. Ensure that the bubble of the bubble level on the mount base is located within the black circle (viewed from the top of the bubble level vertically) while keeping the tripod secure.



 Insert the extension rod into the tripod and tighten the sleeve on the tripod. Then attach the D-RTK 2 body onto the extension rod and tighten the lock nut on the D-RTK 2 body. Ensure that the bubble of the bubble level on the D-RTK 2 is located within the black circle (viewed from the top of the bubble level vertically).



- DO NOT change the position or angle of the tripod or the D-RTK 2 Mobile Station after the tripod has been leveled, or else it should be readjusted.
  - The setup environment requires a wild field of vision. Ensure that there are no obstructions (trees, buildings) within the zone more than a 15° angel above the horizontal plane of the D-RTK 2 antenna to prevent the GNSS signals from being absorbed or blocked.
  - The setup location should be at least 200 m away from high-power radio emission sources (such as television stations, microwave stations, etc.) and at least 50 m away from highvoltage transmission lines to avoid electromagnetic interference to GNSS signals.
  - The setup location should be away from large-area waters or objects that strongly interfere with satellite signal reception to reduce multipath effects.

### Usage

#### Instructions

- Lift the extension rod in the tripod to adjust the D-RTK 2 Mobile Station to the desired height, and then tighten the sleeve.
- Turn on the D-RTK 2 Mobile Station, wait until system initialization is completed, and then press and hold the operating mode button to enter Operating Mode 1.
- Turn on the MG-1P RTK remote controller and ensure that the DJI MG app is launched, and then turn on the aircraft.
- In the DJI MG app go to Operation View > ••• > RTK to enable RTK function. Select the RTK service type to D-RTK 2 Mobile Station. Then view the Status display to check the connection.
- Wait for the system to start searching for satellites. The RTK status icon and satellite number will be shown on the status bar at the top of the Operation View. Start the motors and take off the aircraft when the RTK status is FIX.

• Descriptions of the RTK/GNSS signal strength displayed in the Operation View are as below: """ : This icon is displayed once the RTK is enabled and begins working properly. The number on the upper right corner indicates the number of satellites connected. The RTK status below includes two statuses: FIX indicates that differential data analysis is completed and RTK can be used for aircraft positioning. Only under this status can the aircraft take off. FLOAT indicates that differential data is in analysis. Waiting for it to be FIX is required. """ This icon is displayed if the RTK is disabled, indicating the current GNSS signal

Main and number of satellites connected.
 Strength and number of satellites

 During flight, if the D-RTK 2 Mobile Station is moved or it is powered off, the aircraft RTK will switch to GNSS mode and will not enter the RTK FIX status again. Restart the D-RTK 2 Mobile Station after flight and wait for it to enter the RTK FIX status.

### Advanced Settings

- 1. Go to the bottom of the RTK settings page, and then tap Advanced Settings.
- 2. Manage the list of linked remote controllers.
- Input measured coordinates and altitude\* to set them to the D-RTK 2 Mobile Station when using as a base station.
- 4. The Wi-Fi connection password can be set.
- \* If coordinates input into the app are more than 50 m away from the actual coordinates of the D-RTK 2 Mobile Station, they will not be imported.

If the D-RTK 2 Mobile Station is restarted after input coordinates are successfully set, these coordinates will be used only if the difference between the actual coordinates and the set coordinates is less than 5 m. Otherwise, the actual positioning coordinates will be used.

## Appendix

### Specifications

| -                                 |                                |   |  |  |
|-----------------------------------|--------------------------------|---|--|--|
|                                   |                                | Simultaneously receive:   |  |  |
|                                   | GNSS Frequency                 | GPS: L1, L2, L5; BeiDou: B1, B2, B3   |  |  |
|                                   |                                | GLONASS: F1, F2; Galileo: E1, E5A, E5B  |  |  |
|                                   |                                | Single Point  |  |  |
|                                   |                                | Horizontal: 1.5 m (RMS)   |  |  |
|                                   |                                | Vertical: 3.0 m (RMS)   |  |  |
|                                   |                                | RTK   |  |  |
|                                   | Positioning Accuracy           | Horizontal: 1 cm + 1 ppm (RMS)  |  |  |
|                                   |                                | Vertical: 2 cm + 1 ppm (RMS)  |  |  |
| GNSS Receiver                     |                                | 1 ppm: For every 1 km increase in distance, the   |  |  |
|                                   |                                | accuracy will be 1 mm less. For example, the  |  |  |
|                                   |                                | is 1 km away from the base station  |  |  |
|                                   | Desitioning Undets Data        | 1 Hz 2 Hz 5 Hz 10 Hz and 20 Hz  |  |  |
|                                   | Positioning Opdate Hate        | 1 HZ, 2 HZ, 5 HZ, 10 HZ and 20 HZ   |  |  |
|                                   | Cold Start                     | < 45 S  |  |  |
|                                   | Hot Start                      | < 10 s  |  |  |
|                                   | Recapture Time                 | <1s   |  |  |
|                                   | Initialization Reliability     | > 99.9%   |  |  |
|                                   | Differential Data Format       | RICM 2.x/3.x  |  |  |
|                                   | Data Link                      | OcuSync, WI-FI, LAN, 4G   |  |  |
|                                   |                                | 2.400 GHz to 2.483 GHz (China, United States,   |  |  |
|                                   | Operating Frequency            | Australia, Europe, Japan, Korea)  |  |  |
|                                   |                                | Australia)  |  |  |
|                                   |                                |   |  |  |
|                                   |                                | Coudyne   |  |  |
|                                   |                                | 24 047  |  |  |
|                                   |                                | 2.4 GHz<br>ECC (Lipited States, Australia) / NCC (Taiwan, China):   |  |  |
|                                   |                                | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm  |  |  |
|                                   |                                | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CF (Furone) / MIC (Janan) /   |  |  |
|                                   |                                | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm  |  |  |
|                                   |                                | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz   |  |  |
|                                   |                                | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland  |  |  |
|                                   |                                | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm  |  |  |
| Communication                     | EIRP                           | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi   |  |  |
| Communication<br>and Data Storage | EIRP                           | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz  |  |  |
| Communication<br>and Data Storage | EIRP                           | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):   |  |  |
| Communication<br>and Data Storage | EIRP                           | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 22 dBm   |  |  |
| Communication<br>and Data Storage | EIRP                           | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 22 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /  |  |  |
| Communication<br>and Data Storage | EIRP                           | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 22 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm   |  |  |
| Communication<br>and Data Storage | EIRP                           | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 22 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz  |  |  |
| Communication<br>and Data Storage | EIRP                           | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 22 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland   |  |  |
| Communication<br>and Data Storage | EIRP                           | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 22 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 22 dBm   |  |  |
| Communication<br>and Data Storage | EIRP                           | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 22 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 22 dBm<br>OcuSync: 2 km (FCC/SRRC, unobstructed and free   |  |  |
| Communication<br>and Data Storage | EIRP                           | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 22 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 22 dBm<br>OcuSync: 2 km (FCC/SRRC, unobstructed and free<br>of interference, when the distance from the D-RTK  |  |  |
| Communication<br>and Data Storage | EIRP                           | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 22 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>SRRC (Mainland China) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 22 dBm<br>OcuSync: 2 km (FCC/SRRC, unobstructed and free<br>of interference, when the distance from the D-RTK<br>2 antenna to the bottom of the tripod is 1.8 m, when  |  |  |
| Communication<br>and Data Storage | EIRP<br>Communication Distance | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 22 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 22 dBm<br>0 CuSync: 2 km (FCC/SRRC, unobstructed and free<br>of interference, when the distance from the D-RTK<br>2 antenna to the bottom of the tripod is 1.8 m, when<br>the difference in height between the remote controller   |  |  |
| Communication<br>and Data Storage | EIRP<br>Communication Distance | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 22 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 22 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 22 dBm<br>0 cuSync: 2 km (FCC/SRRC, unobstructed and free<br>of interference, when the distance from the D-RTK<br>2 antenna to the bottom of the tripod is 1.8 m, when<br>the difference in height between the remote controller |  |  |
| Communication<br>and Data Storage | EIRP<br>Communication Distance | 2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 26 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 26 dBm<br>Wi-Fi<br>2.4 GHz<br>FCC (United States, Australia) / NCC (Taiwan, China):<br>< 22 dBm<br>SRRC (Mainland China) / CE (Europe) / MIC (Japan) /<br>KCC (Korea): < 20 dBm<br>5.8 GHz<br>FCC (United States, Australia) / SRRC (Mainland<br>China) / NCC (Taiwan, China): < 22 dBm<br>OcuSync: 2 km (FCC/SRRC, unobstructed and free<br>of interference, when the distance from the D-RTK<br>2 antenna to the bottom of the tripod is 1.8 m, when<br>the difference in height between the remote controller<br>and D-RTK 2 is less than 2 m, and when the remote<br>controller is 1.2 m from ground level)           |  |  |

| IMU                      | Features  | Built-in high-precision 6-axis accelerometer<br>D-RTK 2 movement monitoring<br>Sloping measurements<br>Electronic bubble level |  |  |  |
|--------------------------|---|--|--|--|--|
|                          | Power Consumption                               | 12 W   |  |  |  |
| Electrical               | Power Supply                                    | 16.5 to 58.8VDC  |  |  |  |
| Characteristics          | Battery   | Type: Lithium-ion battery<br>Capacity: 4920 mAh<br>Energy: 37.3 WH   |  |  |  |
|                          | Run Time  | WB37 battery: > 2 h<br>MG-12000P battery: > 50 h   |  |  |  |
| Physical                 | Dimensions (D-RTK 2<br>body with extension rod) | 168 mm × 168 mm × 1708 mm  |  |  |  |
| Characteristics          | IP Rating                                       | IP65   |  |  |  |
| Operating<br>Temperature | -4° to 131° F (-20° to 55° C)                   |  |  |  |  |

### Updating the Firmware

Update the D-RTK 2 firmware in the DJI Assistant 2 software or the app\*. The following instructions use the DJI Assistant 2 software for example.

- 1. Turn on the D-RTK 2 Mobile Station.
- 2. Connect the D-RTK 2 Mobile Station to the computer via the USB-C cable.
- 3. Launch DJI Assistant 2 and login with a DJI account.
- 4. Click D-RTK 2 and then click the firmware update tag.
- 5. Select the desired firmware version.
- 6. DJI Assistant 2 will download and update the firmware automatically.
- 7. Restart the D-RTK 2 Mobile Station after the firmware update is completed.

\* An app version that supports firmware update is required. Connect the D-RTK 2 Mobile Station to the remote controller via the USB-C cable and USB-C OTG cable when updating the firmware using the app.

### Accessories Usage

### Power Adapter II

Connect the Power Adapter II to the external power port, then connect the Power Adapter II to a power outlet (100-240V, 50/60Hz) with the AC power cable.



### T16 Battery / MG-12000P Battery

When using the D-RTK 2 Mobile Station as a mobile base station in the field, the T16 battery or MG-12000P battery should be used. DO NOT use other batteries. In this case, the Battery Strap and Clasp are required to mount the battery to the extension rod.

Be sure to replace the battery when the Battery Level Indicator indicates that the battery level is less than 25% to avoid excessive discharge that may affect battery life.

### Installation

The illustrator uses the MG-12000P battery as an example.



### Connection

#### T16 Battery

Connect the MG-12000P XT90 Shorting Plug to the XT90 port on the MG Power Cable. Connect the T16 Battery Plug Adapter to the battery communication port on the MG Power Cable, and plug it into the T16 battery. Then connect the other end of the MG Power Cable to the external power port of the D-RTK 2 Mobile Station.



When connecting the T16 Battery Plug Adapter to the MG Power Cable, make sure the plug adapter is inserted in position (there will be a 0.8-mm yellow line near the adapter and the cable). If the plug adapter is not in position, push it inward to secure it.

### MG-12000P Battery

Connect the MG-12000P XT90 Shorting Plug to the XT90 port on the MG Power Cable. Connect one end of the MG Power Cable to the external power port on the D-RTK 2 Mobile Station, and the other end to the power port of the MG-12000P battery.



### LAN Cable

Use the LAN cable to access the public network.



Be sure to comply with local laws and regulations when transmitting satellite positioning information on a public network.

### Mobile Phone Holder

When using the D-RTK 2 Mobile Station as a handheld mapping device, a Mobile Phone Holder is required if connecting the mobile station to the app\* on a mobile phone for mapping operations.







\* Coming soon.

This content is subject to change.

Download the latest version from http://www.dji.com/d-rtk-2

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### 免责声明

感谢您购买 D-RTK<sup>™</sup> 2 高精度 GNSS 移动站(简称 D-RTK 2 移动站)。在使用之前,请仔细阅 读本声明,一旦使用,即被视为对本声明全部内容的认可和接受。请严格遵守本文安装和使用该 产品,并务必重视注意事项。因用户不当使用、安装、改装(包含但不限于使用非 DJI 指定的零 配件)造成的任何损失,深圳市大疆<sup>™</sup>创新科技有限公司及其关联公司将不承担任何责任。

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### 注意事项

- 若使用 MG-12000P 电池为 D-RTK 2 移动站供电,请自行购买。切勿使用其他非指定型号的 电池。
- 2. 根据当地无线电规定,使用对应频段的 D-RTK 2 移动站,并遵守当地无线电法律法规。
- 3. 安装时切勿过度弯曲和折叠线材。
- 4. 安装和摆放时,务必确保 D-RTK 2 移动站与水平面相对水平。
- 在开阔、不受无线电干扰的环境中使用D-RTK 2移动站。务必在关闭其他同频段的无线设备(如 对讲机等)后再使用。
- 6. 使用过程中请确保所有设备的天线均不受遮挡。
- 7. 使用原厂配件或经过 DJI 认证的配件。使用非原厂配件有可能对系统的安全使用造成危险。
- 8. 确保部件内部没有进入任何异物(如:水、油等液体,沙土等)。
- 9. 切勿自行拆下出厂时已安装的任何部件。
- 10. 延长杆底部及三脚架底部较为尖锐,使用时务必小心。
- 雨雪天气时使用,请对 D-RTK 2 移动站和电池采取必要的防水措施。雷电天气请谨慎使用, 注意防雷。
- 12. 为提高电池使用寿命,关闭 D-RTK 2 移动站后,请及时取出其中的智能电池。

### 简介

D-RTK 2 高精度 GNSS 移动站是 DJI 最新研发的高精度卫星信号接收机,支持 GPS、BEIDOU、 GLONASS 和 Galileo 4 系统 11 频\*的卫星信号接收,同时内置 OCUSYNC<sup>™</sup>、Wi-Fi、LAN、4G 等数据传输链路,方便用户在不同应用场景使用。D-RTK 2 移动站可作为 RTK 移动基站,将装备 有 DJI RTK 定位系统的飞行器(如 MG-1P RTK、PHANTOM<sup>™</sup> 4 RTK 等)定位精度由米级提升至 厘米级,而且提供强大的抗磁干扰能力,在高压线、金属建筑等强磁干扰的环境下保障可靠的作 业飞行。D-RTK 2 移动站作为手持测绘杆,用于手持测绘、工程放样等其他用途,可实现更加精 准的定点测量。另外,D-RTK 2 移动站达可以作为固定基站,用来快速建立网络 RTK 服务\*\*。

\* 详见规格参数。

\*\* 后续支持;网络 RTK 服务的建设必须符合当地法律法规和资质要求,DJI 仅提供技术服务。

### 物品清单



○使用 116 电泡燃 Moi LAOUP 电泡机电回;用于电池安装及建线。 ②作为移动退给使用时,用于固定 D-RTK 2 基体。 ③作为与持规绘件使用时,用于固定手机。 ②作为固定基础使用时,用于检查卫星观测数据。 ③作为固定基础使用时,连接至交流电源提供长时间供电。 ④作为固定基础使用时,连接 LAN 线通过有线网络接入到云端服务器。 ③用于放置 D-RTK 2 主体、延长开发其他包件,方便运输。 D-RTK 2 主体

三脚架





- 1. 天线
- 2. 对频按键及指示灯
- 3. 电源按键及指示灯
- 4. 模式按键及指示灯
- 5. USB-C 接口
- 6. 无线上网卡仓
- 7. 盘齿
- 8. 电池仓
- 9. 电池盖
- 10. 锁定螺母
- 11. LAN 🗆 \*
- 12. 外部电源接口\*

- 1. 套筒 2. 基座 3. 伸缩杆
- 0. 17:5611
- 4. 旋钮

\* 配备保护盖,接口使用时取下保护盖并保存好;接口未使用时请盖好保护盖以防水防尘。

文中图示可能与实物存在细微差别,请以实物为准。

### 安装无线上网卡

- ▲ ・务必使用 DJI 认证的无线上网卡(详情咨询 DJI 授权代理商)。否则可能无法安装到 设备上,无法上网或者干扰 OcuSync 通信。
  - 用户需自备 SIM 卡,并根据实际使用情况选择合适的流量服务。无线上网卡支持多种网络制式,根据当地运营商网络的实际情况选择合适的 SIM 卡,以获得最佳体验。
  - 按照无线上网卡及 SIM 卡本身的使用说明进行操作。
- 1. 使用内六角扳手移除无线上网卡仓盖。
- 2. 无线上网卡中装入 SIM 卡, 然后安装到仓内。测试确保工作正常\*。
- 3. 重新安装无线上网卡仓盖。
- \* 测试方法: 长按电源按键开启 D-RTK 2 移动站,按照后文的"对频方法"与遥控器对频后,进入 App 作业界面或相机界面 > ●●● > RTK,在移动站状态显示的右侧,4G al 为三格及以上表示 4G 传输信号 良好。





### 充电

短按一次电池的电量按键,可查看电池电量。首次使用时,务必将电池充满。

- 1. 安装电池到充电管家中,再将电源适配器接头插入充电管家的电源接口,最后连接充电器到 交流电源(100-240V,50/60Hz)。
- 2. 充电过程中,充电管家会优先选择电量较高的电池进行充电。
- 充电管家绿灯闪烁表示正在充电,绿灯常亮表示充电完毕。电池充满时会有声音提示,拔下 电池或关闭蜂鸣器开关可停止声音提示。



必 参考《WCH2 充电管家使用说明》和《WB37 智能电池安全使用指引》,了解更多内容。

### 安装电池







### 开启 / 关闭 D-RTK 2 移动站

长按电源按键以开启 / 关闭 D-RTK 2 移动站。



### 电源指示灯说明

| 红灯常亮 | 正在初始化/错误报警   |
|------|--------------|
| 红灯快闪 | 电量 <20%      |
| 红灯慢闪 | 接收卫星数量 ≤5 颗  |
| 黄灯常亮 | 接收卫星数量 6-9 颗 |
| 绿灯常亮 | 接收卫星数量 ≥10 颗 |

### 选择工作模式

长按模式按键进行切换,模式指示灯黄灯闪烁一次表示切换成功。 模式状态指示灯绿灯周期内循环闪烁的次数表示不同的工作模式,详细见下表:

|        | 工作模式 1 | 工作模式 2* | 工作模式3 |
|--------|--------|---------|-------|
| 模式     | 移动基站   | 固定基站    | 手持测绘杆 |
| 闪灯(绿色) | 1次     | 2次      | 3次    |

\* 后续支持。

### 使用

D-RTK 2 移动站与 MG-1P RTK 及 Phantom 4 RTK 一起使用时作为移动基站,两者的激活、对 频和使用等的方法类似。下面均以 MG-1P RTK 和 DJI MG App 为例进行说明;若配合 Phantom 4 RTK,则使用 DJI GS RTK App。

### 对 频

### 对频方法

D-RTK 2 移动站与 MG-1P RTK 及 Phantom 4 RTK 一起使用时,需要遥控器与 D-RTK 2 移动站 对频,对频的方法类似,下面以 MG-1P RTK 为例进行说明。

- 1. 开启 D-RTK 2 移动站电源,等待系统完成初始化,长按模式按键切换到工作模式 1。
- 2. 打开 MG-1P RTK 遥控器,确保显示设备已运行 DJI MG App。
- 点击"执行作业"进入作业界面,点击 ●●● > RTK,打开"RTK 功能"。选择 RTK 服务类型 为"D-RTK 2 移动站",然后点击"对频"。遥控器状态指示灯蓝色闪烁,并且发出"滴滴" 提示音,表示进入对频状态。
- 4. 短按一次 D-RTK 2 移动站上的对频按键,对频状态指示灯红绿交替闪烁表示进入对频状态。
- 对频成功, 遥控器指示灯绿灯常亮, D-RTK 2 移动站指示灯显示当前工作模式下的状态, 详 见下表。
- 6. 遥控器与 D-RTK 2 移动站对频成功后,需要重新与飞行器对频。有以下三种方式:
  - 与 D-RTK 2 移动站对频完成后,在弹出的窗口中点击"与飞行器对频",进入与飞行器对频的状态,按下飞行器对频按键以完成对频。
  - 在"RTK 设置"页面,点击飞行器未连接提示旁边的 ⑦ 按钮,在弹出的窗口中点击"与 飞行器对频",进入与飞行器对频的状态。
  - •在"遥控器设置"页面进行与飞行器的对频。完成对频后,需在"RTK 设置"页面 D-RTK
     2 移动站状态处点击"尝试重连"重新连接 D-RTK 2,并确保状态为"连接成功",否则将无法使用 RTK 功能。
  - \* 当 D-RTK 2 移动站已经连接遥控器且遥控器正在控制飞行器作业时, D-RTK 2 移动站 无法与其他遥控器进行对频,请等待飞行器降落并关闭电机后再进行对频。
    - 一个 D-RTK 2 移动站最多可与 5 个遥控器对频。

### 对频状态指示灯说明

进入对频状态时,对频状态指示灯将红绿交替闪烁。 退出对频状态时,对频状态指示灯显示如下:

| 工作模式1/工作模式3 | 状态                   |
|-------------|----------------------|
| 绿灯常亮        | OcuSync 信号质量 >70%    |
| 绿灯快闪        | OcuSync 信号质量 35%-70% |
| 绿灯慢闪        | OcuSync 信号质量 ≤ 35%   |
| 红灯常亮        | OcuSync 信号质量 =0      |
| 工作模式 2      | 状态                   |
| 绿灯常亮        | 网络已连接                |
| 红灯常亮        | 网络未连接                |

### 激 活

首次使用,需激活 D-RTK 2 移动站。用户可通过 App 或 DJI ASSISTANT<sup>™</sup> 2 调参软件完成激活, 下面以 App 为例进行说明。

1. 开启 D-RTK 2 移动站电源。

- 2. 打开 MG-1P RTK 遥控器,确保显示设备已运行 DJI MG App。
- 点击"执行作业"进入作业界面,点击 ●●● > RTK,打开"RTK 功能"。选择 RTK 服务类型 为"D-RTK 2 移动站",首次连接将会提示激活,请根据弹出的引导进行激活操作。

### 架设 D-RTK 2 移动站

选择视野开阔的地点架设 D-RTK 2 移动站并作标记(使三脚架的中心对准标记点中心 ),以便 D-RTK 2 移动站被移动后可以准确复位。

 撑开三脚架,将三根伸缩杆拉伸至合适长度,然后拧紧旋钮。确保基座上水平仪中的气泡保 持在黑色圆圈内(从水平仪垂直正上方观察),同时确保三脚架稳固。



2. 安装延长杆至三脚架,拧紧三脚架上的套筒。安装 D-RTK 2 主体至延长杆,拧紧主体上的 锁定螺母。确保 D-RTK 2 移动站上水平仪中的气泡保持在黑色圆圈内(从水平仪垂直正上 方观察)。



- ▲ 三脚架调至水平后,请勿改变三脚架或 D-RTK 2 移动站的位置及角度,否则需要重新 调平。
  - 移动站的架设环境要求视野开阔,确保 D-RTK 2 移动站天线周围 15°以上没有障碍物(树木、建筑物),以避免 GNSS 信号被吸收或遮挡。
  - •移动站的架设环境应远离大功率无线电发射源(如电视台、微波站等)至少200 m, 远离高压输电线至少50 m,以避免电磁场对 GNSS 信号的干扰。
  - 移动站的架设环境附近不应有大面积水域或强烈干扰卫星信号接收的物体,以减弱多路径效应的影响。

### 使用 D-RTK 2 移动站

### 使用方法

- 1. 升起延长杆调整 D-RTK 2 移动站至合适的高度,然后拧紧套筒。
- 2. 开启 D-RTK 2 移动站电源,等待系统完成初始化,长按模式按键切换到工作模式 1。
- 3. 打开 MG-1P RTK 遥控器和飞行器电源,确保显示设备已运行 DJI MG App。
- 4. 点击"执行作业"进入作业界面,点击 ●●● > RTK,打开"RTK 功能",在"选择 RTK 服务 类型"中选取"D-RTK 2 移动站"。查看"状态"项是否为连接成功。
- 等待搜星,作业界面状态栏显示 RTK 状态图标及卫星数,RTK 状态为 FIX 可启动电机起飞。
  - 作业界面状态栏显示的 RTK/GNSS 信号强度说明如下:

    - 张<sup>12</sup>:若 RTK 未工作,则显示此图标,表示当前获取的 GNSS 卫星数及信号强度。
    - 飞行器飞行过程中,如果移动 D-RTK 2 移动站或关闭电源,则飞行器 RTK 会切换到 GNSS 模式,并且不会再次进入 RTK FIX 状态。需要等待飞行结束后重启电源,才能 进入 RTK FIX 状态。

### 高级设置

- 1. 在"RTK 设置"页面底部, 点击"高级设置", 进入高级设置。
- 2. 管理与移动站对频的遥控器 ID 列表,执行删除等操作。
- 3. 当移动站做基站时,可以输入已有坐标,从而使基站的坐标定位为已知的坐标和海拔\*。
- 4. 设定 Wi-Fi 连接密码等。
- \* 在 App 中输入坐标时,若 D-RTK 2 移动站实际定位坐标与输入坐标距离超过 50 m,则无法写入坐标。 若在成功写入坐标后重启 D-RTK 2 移动站,当实际定位坐标与输入坐标距离在 5 m 内,则使用之前通 过 App 写入的坐标。否则,将使用当前定位的坐标。

## 附录

### 规格参数

| GNSS 接收机         同时接收:<br>GPS; L1, L2, L5<br>BeiDou: B1, B2, B3<br>GLONASS; F1, F2<br>Galileo: E1, E5A, E5B           #点<br>水平: 1.5 m (RMS)<br>垂直: 3.0 m (RMS)           #点<br>水平: 1.5 m (RMS)<br>垂直: 2.0 m 1 ppm (RMS)<br>重描范           定位東新率         1 Hz, 2 Hz, 5 Hz, 10 Hz 和 20 Hz           冷启动         < 45 s           热启动         < 10 s           重捕获         < 1 s           初始化可靠性         > 99.9%           差分数据传输格式         RTCM 2.X/3.X           数据链路         OcuSync           工作频率         2.400 GHz 至 2.483 GHz (中国, 美国, 澳大利亚, 欧洲,<br>日本, 韩国)<br>5.725 GHz 至 5.850 GHz (中国, 美国, 澳大利亚)           OcuSync         2.4 GHz<br>SRRC (中国大陆) / CE ( 欧洲) / MIC ( 日本 ) / KCC ( 韩<br>国) : < 20 dBm<br>FCC ( 美国, 澳大利亚) / NCC ( 中国台湾) : < 26 dBm<br>5.8 GHz<br>SRRC ( 中国大陆) / NCC ( 中国台湾) : < 26 dBm |          |                     |   |
|--|----------|---------------------|---|
| GNSS 接收机         单点<br>水平: 1.5 m (FMS)<br>垂直: 3.0 m (FMS)           定位精度         RTK<br>水平: 1 cm+1 ppm (RMS)<br>垂直: 2 cm+1 ppm (RMS)<br>重信: 2 cm+1 ppm (RMS)           应位更新率         1 Hz, 2 Hz, 5 Hz, 10 Hz 和 20 Hz           冷启动         < 45 s  |          | 卫星接收频点              | 同时接收:<br>GPS: L1, L2, L5<br>BeiDou: B1, B2, B3<br>GLONASS: F1, F2<br>Galileo: E1, E5A, E5B  |
| GNSS 接收机         定位精度         PTK<br>水平: 1 cm+1 ppm (RMS)<br>垂直: 2 cm+1 ppm (RMS)<br>1 ppm: 每增加 1 km, 精度变差 1 mm。<br>例如距离基站 1 km, 则精度为 1.1 cm。           定位更新率         1 Hz, 2 Hz, 5 Hz, 10 Hz 和 20 Hz           冷启动         < 45 s   | GNSS 接收机 |                     | 单点<br>水平: 1.5 m(RMS)<br>垂直: 3.0 m(RMS)  |
| 定位更新率         1 Hz, 2 Hz, 5 Hz, 10 Hz 和 20 Hz           冷启动         < 45 s   |          | 定位精度                | RTK<br>水平: 1 cm+1 ppm(RMS)<br>垂直: 2 cm+1 ppm(RMS)<br>1 ppm: 每增加1 km, 精度变差 1 mm。<br>例如距离基站 1 km,则精度为 1.1 cm。   |
| 冷启动         < 45 s   |          | 定位更新率               | 1 Hz,2 Hz,5 Hz,10 Hz 和 20 Hz  |
| 热启动         < 10 s   |          | 冷启动                 | < 45 s  |
| 重捕获         <1 s   |          | 热启动                 | < 10 s  |
| 初始化可靠性         > 99.9%           差分数据传输格式         RTCM 2.X/3.X           数据链路         OcuSync, Wi-Fi, LAN, 4G           工作频率         2.400 GHz 至 2.483 GHz (中国,美国,澳大利亚,欧洲,<br>日本,韩国)           5.725 GHz 至 5.850 GHz (中国,美国,澳大利亚)           OcuSync           2.4 GHz           SRRC (中国大陆)/CE (欧洲)/MIC (日本)/KCC (韩<br>国): < 20 dBm  |          | 重捕获                 | <1s   |
| 差分数据传输格式         RTCM 2.X/3.X           数据链路         OcuSync, Wi-Fi, LAN, 4G           工作频率         2.400 GHz 至 2.483 GHz (中国,美国,澳大利亚,欧洲,<br>日本,韩国)           5.725 GHz 至 5.850 GHz (中国,美国,澳大利亚)           OcuSync           2.4 GHz           SRRC (中国大陆)/CE (欧洲)/MIC (日本)/KCC (韩<br>国): < 20 dBm   |          | 初始化可靠性              | > 99.9%   |
| 数据链路         OcuSync, Wi-Fi, LAN, 4G           工作频率         2.400 GHz 至 2.483 GHz (中国,美国,澳大利亚,欧洲,<br>日本,韩国)           5.725 GHz 至 5.850 GHz (中国,美国,澳大利亚)           OcuSync           2.4 GHz           SRRC (中国大陆)/CE (欧洲)/MIC (日本)/KCC (韩<br>国): < 20 dBm   |          | 差分数据传输格式            | RTCM 2.X/3.X  |
| 工作频率         2.400 GHz 至 2.483 GHz (中国,美国,澳大利亚,欧洲,<br>日本,韩国)           5.725 GHz 至 5.850 GHz (中国,美国,澳大利亚)           OcuSync           2.4 GHz           SRRC (中国大陆)/CE (欧洲)/MIC (日本)/KCC (韩<br>国): < 20 dBm  |          | 数据链路                | OcuSync, Wi-Fi, LAN, 4G   |
| OcuSync<br>2.4 GHz<br>SRRC(中国大陆)/CE(欧洲)/MIC(日本)/KCC(韩<br>国): < 20 dBm<br>FCC(美国,澳大利亚)/NCC(中国台湾): < 26 dBm<br>5.8 GHz<br>SRRC(中国大陆)/NCC(中国台湾)/FCC(美国,澳  |          | 工作频率                | 2.400 GHz 至 2.483 GHz(中国,美国,澳大利亚,欧洲,<br>日本,韩国)<br>5.725 GHz 至 5.850 GHz(中国,美国,澳大利亚)   |
|  |          | 等效全向辐射功率<br>(EIRP ) | OcuSync<br>2.4 GHz<br>SRRC(中国大陆)/CE(欧洲)/MIC(日本)/KCC(韩<br>国): < 20 dBm<br>FCC(美国,澳大利亚)/NCC(中国台湾): < 26 dBm<br>5.8 GHz<br>SRRC(中国大陆)/NCC(中国台湾)/FCC(美国,澳 |
|  |          |                     | 2.4 GHz<br>SRRC (中国大陆)/CE(欧洲)/MIC(日本)/KCC(韩<br>国):<20 dBm<br>FCC (美国,澳大利亚)/NCC (中国台湾):<22 dBm   |
| 2.4 GHz<br>SRRC(中国大陆)/CE(欧洲)/MIC(日本)/KCC(韩<br>国):<20 dBm<br>FCC(美国,澳大利亚)/NCC(中国台湾):<22 dBm   |          |                     | 5.8 GHz<br>SRRC(中国大陆)/ NCC(中国台湾)/ FCC(美国, 澳<br>大利亚): < 22 dBm   |
| 2.4 GHz<br>SRRC(中国大陆)/CE(欧洲)/MIC(日本)/KCC(韩<br>国): < 20 dBm<br>FCC(美国,澳大利亚)/NCC(中国台湾): < 22 dBm<br>5.8 GHz<br>SRRC(中国大陆)/NCC(中国台湾)/FCC(美国,澳<br>大利亚): < 22 dBm   |          | 通信距离                | OcuSync: 2 km (FCC/SRRC标准下,无干扰,无遮挡,<br>D-RTK 2 移动站架设高度即天线至三脚架未端的高度为<br>1.8 m,与遥控器的高度差在 2 m 内,遥控器距地面高度<br>为 1.2 m)                                     |
| 2.4 GHz           SRRC(中国大陆)/CE(欧洲)/MIC(日本)/KCC(韩国):<20 dBm  |          | 内存容量                | 16G   |

| 惯性测量单元 功能特性 |                          | 内置高精度 6 轴加速度计<br>D-RTK 2 移动监测<br>倾斜测量<br>电子气泡 |
|-------------|--------------------------|---|
|             | 功耗                       | 12 W  |
|             | 电源                       | 16.5 至 58.8VDC                                |
| 电气特性        | 电池                       | 类型: 锂离子电池<br>容量: 4920 mAh<br>能量: 37.3 WH      |
|             | 工作时间                     | WB37电池: > 2 h<br>MG-12000P电池: > 50 h          |
| 物理特性        | 尺寸(D-RTK 2 主<br>体 + 延长杆) | 168 mm × 168 mm × 1708 mm                     |
|             | 防尘防水                     | IP65  |
| 工作环境温度      | -20℃至 55℃                |   |

### 固件升级

D-RTK 2 移动站可以使用调参软件或 App\* 进行固件升级。以下使用 DJI Assistant 2 调参软件对 D-RTK 2 移动站进行升级。

- 1. 开启 D-RTK 2 移动站电源。
- 2. 使用 USB-C 线连接 D-RTK 2 移动站的 USB-C 接口至电脑。
- 3. 启动 DJI Assistant 2 调参软件,使用 DJI 账号登陆并进入主界面。
- 4. 点击 D-RTK 2,然后点击左边的固件升级选项。
- 5. 选择并确认需要升级的固件版本。
- 6. DJI Assistant 2 调参软件将自行下载并升级固件。
- 7. 升级完成后,请重启 D-RTK 2 移动站。
- \* 需配合支持固件升级的 App 版本。使用 App 进行固件升级,请通过 USB-C 线和 USB-C OTG 线连接 D-RTK 2 移动站至遥控器。

### 部分配件使用方法

### 使用电源适配器 ||

先将电源适配器 II 连接到 D-RTK 2 移动站的外部电源接口,再使用 AC 电源线连接到交流电源 (100-240V,50/60Hz)。



### 使用 T16 电池 / MG-12000P 电池

当 D-RTK 2 移动站用作移动基站应用于野外场景时,请自备 T16 电池或 MG-12000P 电池供电, 切勿使用其他型号的电池。此时,需要使用电池绑带和电池扣将电池安装到延长杆。

当电池电量指示灯显示电量低于 25% 时,请更换电池,切勿继续使用。否则可能导致 电池过放,影响电池使用寿命。

### 安 装

安装图示以 MG-12000P 电池为例。



### 连 线

T16 电池

将 MG-12000P XT90 短接头连接至 MG 电源线的 XT90 接口,将 T16 电池转接头连接至 MG 电源 线的电池通信接口,然后连接至 T16 电池的电源接口。将 MG 电源线的另一端连接至 D-RTK 2 移 动站的外部电源接口。



▲ 连接 T16 电池转接头至 MG 电源线时,务必确保安装到位(安装到位时,转接头处仅能 看到宽度为 0.8 mm 的黄色细线)。若未到位,请用力推动转接头,确保连接良好。

MG-12000P 电池

首先将 MG-12000P XT90 短接头连接至 MG 电源线的 XT90 接口,然后将 MG 电源线一端连接 至 D-RTK 2 移动站的外部电源接口,另一端连接至 MG-12000P 电池的电源接口。



### 使用 LAN 线

当需要通过网线接入公网时,请使用 LAN 线连接。



▲ 卫星定位信息接入公网时,务必符合当地法律法规要求。

### 使用手机支架

当 D-RTK 2 移动站用作手持测绘杆时,若通过手机上的 App\* 连接至移动站完成手持测绘操作, 请安装手机支架。



\*即将推出。

内容如有更新,恕不另行通知。 您可以在 DJI 官方网站查询最新版本 http://www.dji.com/d-rtk-2

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### **Compliance Information**

#### FCC Compliance Notice

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**

This 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.

#### **ISED Warning**

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RS(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.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :(1)L'appareil ne doit pas produire de brouillage; (2)L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux radiations CNR-102 établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.

#### KCC Warning Message

"해당무선설비는 운용 중 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없습니다 ." "해당 무선설비는 운용 중 전파혼신 가능성이 있음"

#### NCC Warning Message

低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅自變更頻率、加大功率或變更 原設計之特性及功能。

第十四條 低功率對病實機之使用不得影響所航安全及干擾合法通信,經發現有干擾現象時,應改善至無干擾時方得繼 續使用。前項合法通信,指來電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用 電波輻射性環機設備之干擾。

EU Compliance Statement: SZ DJI TECHNOLOGY CO., LTD. hereby declares that this device 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

Declaración de cumplimiento UE: S2 DJI TECHNOLOGY CO., LTD. por la presente declara que este dispositivo cumple los requisitos básicos y el resto de provisiones relevantes de la Directiva 2014/S3/EU. Hay disponible online una copia de la Declaración de conformidad UE en www.dji.com/euro-compliance

Dirección de contacto de la UE: DJI GmbH, Industriestrasse 12, 97618, Niederlauer, Germany

EU-verklaring van overeenstemming: SZ DJI TECHNOLOGY CO., LTD, verklaart hierbij dat dit apparaat voldoet aan de essentiële vereisten en andere relevante bepalingen van Richtliin 2014/53/EU.

De EU-verklaring van overeenstemming is online beschikbaar op www.dii.com/euro-compliance

Contactadres EU: DJI GmbH. Industriestrasse 12, 97618. Niederlauer, Germany

Declaração de conformidade da UE: A SZ DJI TECHNOLOGY CO., LTD, declara, através deste documento, que este dispositivo está em conformidade com os reguisitos essenciais e outras disposições relevantes da Diretiva. 2014/53/EU

Existe uma cópia da Declaração de conformidade da UE disponível online em www.dii.com/euro-compliance Endereço de contacto na UE: DJI GmbH, Industriestrasse 12, 97618, Niederlauer, Germany

Dichiarazione di conformità UE: SZ DJI TECHNOLOGY CO., LTD. dichiara che il presente dispositivo è conforme ai reguisiti essenziali e alle altre disposizioni rilevanti della direttiva 2014/53/EU.

Una copia della dichiarazione di conformità UE è disponibile online all'indirizzo Web www.dji.com/euro-compliance Indirizzo di contatto UE: DJI GmbH. Industriestrasse 12, 97618. Niederlauer, Germany

Déclaration de conformité UE: Par la présente, SZ DJI TECHNOLOGY CO., LTD déclare que cet appareil est conforme aux principales exigences et autres clauses pertinentes de la directive européenne 2014/53/EU. Une copie de la déclaration de conformité UE est disponible sur le site www.dii.com/euro-compliance

Adresse de contact pour l'UE : DJI GmbH. Industriestrasse 12. 97618. Niederlauer. Germany

EU-Compliance: Hiermit erklärt SZ DJI TECHNOLOGY CO., LTD., dass dieses Gerät den wesentlichen Anforderungen und anderen einschlägigen Bestimmungen der EU-Richtlinie 2014/53/EU entspricht. Eine Kopie der EU-Konformitätserklärung finden Sie online auf www.dji.com/euro-compliance.

Kontaktadresse innerhalb der EU: DJI GmbH, Industriestrasse 12, 97618, Niederlauer, Germany

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

#### 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.

#### Umweltfreundliche Entsorauna



Elektro-Altaeräte dürfen nicht mit gewöhnlichem Abfall entsorgt werden und müssen separat entsorgt werden. Die Entsorgung an kommunalen Sammelstellen ist für Privatpersonen kostenlos. Die Eigentümer der Altgeräte sind für den Transport zu den Sammelstellen verantwortlich. Durch diesen geringen Aufwand können Sie zur Wiederverwertung von wertvollen Rohmaterialien beitragen und dafür sorgen, dass

umweltschädliche und giftige Substanzen ordnungsgemäß unschädlich gemacht werden.

#### Tratamiento de residuos responsable con el medio ambiente



Los aparatos eléctricos viejos no pueden desecharse junto con los residuos orgánicos, sino que deben ser desechados por separado. Existen puntos limpios donde los ciudadanos pueden dejar estos aparatos gratis. El propietario de los aparatos viejos es responsable de llevarlos a estos puntos limpios o similares puntos de recogida. Con este pequeño esfuerzo estás contribuyendo a reciclar valiosas materias primas y

al tratamiento de residuos tóxicos.

#### Mise au rebut écologique



🖙 Les appareils électriques usagés ne doivent pas être éliminés avec les déchets résiduels. Ils doivent être éliminés séparément. La mise au rebut au point de collecte municipal par l'intermédiaire de particuliers est gratuite. Il incombe au propriétaire des appareils usagés de les apporter à ces points de collecte ou à des points de collecte similaires. Avec ce petit effort personnel, vous contribuez au recyclage de matières premières précieuses et au traitement des substances toxiques.

#### Smaltimento ecologico



I vecchi dispositivi elettrici non devono essere smaltiti insieme ai rifiuti residui, ma devono essere smaltiti separatamente. Lo smaltimento da parte di soggetti privati presso i punti di raccolta pubblici è gratis. È responsabilità del proprietario dei vecchi dispositivi portarli presso tali punti di raccolta o punti di raccolta analoghi. Grazie a questo piccolo impegno personale contribuirete al riciclo di materie prime preziose e al

corretto trattamento di sostanze tossiche

#### Milieuvriendeliik afvoeren



#### Eliminação ecológica



😋 Os aparelhos elétricos antigos não podem ser eliminados juntamente com os materiais residuais. Têm de ser eliminados separadamente. A eliminação no ponto de recolha público através de entidades particulares é gratuita. É da responsabilidade do proprietário de aparelhos antigos levá-los a estes pontos de recolha ou a pontos de recolha semelhantes. Com este pequeno esforço pessoal, contribui para a reciclagem de matérias-primas úteis e para o tratamento de substâncias tóxicas.

#### Thailand Warning message

เครื่องโทรคมนาคมและอุปกรณ์นี้ มีความสอดคล้องตามข้อกำหนดของ กทช.

#### Mexico Warning message

"La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada."

#### Brazil Warning message

Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário

|               | 有害物质      |           |           |                            |               |              |
|---------------|-----------|-----------|-----------|----------------------------|---------------|--------------|
| 部件名称          | 铅<br>(Pb) | 汞<br>(Hg) | 镉<br>(Cd) | 六价铬<br>(Cr* <sup>6</sup> ) | 多溴联苯<br>(PBB) | 多溴二苯醚 (PBDE) |
| 线路板           | ×         | 0         | 0         | 0                          | 0             | 0            |
| 外壳            | ×         | 0         | 0         | 0                          | 0             | 0            |
| 金属部件<br>(铜合金) | ×         | 0         | 0         | 0                          | 0             | 0            |
| 内部线材          | ×         | 0         | 0         | 0                          | 0             | 0            |
| 其他配件          | ×         | 0         | 0         | 0                          | 0             | 0            |
|               |           |           |           |                            |               |              |

本表格依据 SJ/T 11364 的规定编制。

○:表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。

×:表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。 (产品符合欧盟 ROHS 指令环保要求)

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