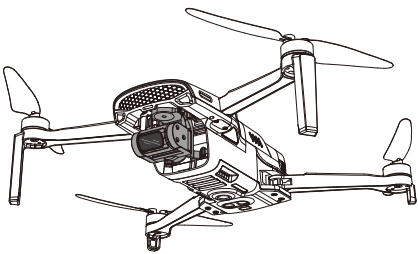
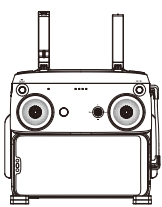
MINI SE (P2)

Operation Guide v1.0 2023.7.26





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⚠ Understand the flight safety

Use of this product may pose certain safety risks. It is not suitable for people under the age of 14. The Safety Summary contains only a portion of the flight safety knowledge, so be sure to read the entire Quick Start Guide carefully to avoid property damage or even personal injury due to improper operation.

☆This product uses 2.4GHz high-definition map, should fly in an open without shielding and electromagnetic interference environment.

☆This product is suitable for people who have experience in operating models and who are not less than 14 years old.

☆Do not fly in bad weather, such as strong wind, snow, rain, fog weather, etc.

☆Choose an open space without tall buildings around it.A large use ofreinforcement buildings will affect the work of the compass, and will block the GPS signal, resulting in the positioning effect of the aircraft is worse or even impossible.

☆When flight, stay away from high speed rotating components (eg. propeller, brushless motor).

☆When flying, keep in line of sight, away from obstacles, people, water, etc.

☆Do not fly in areas such as high-voltage line, communication base station or transmission tower to avoid interference with the remote control.

☆Do not fly in no-fly areas restricted by relevant laws or regulations.

☆Do not use the throw to fly method to take-off the aircraft in a crowded place.

☆Flying at an altitude of about 4,500 meters, due to environmental factors, the aircraft battery and power system performance will decline, and the flight performance will be affected.

⚠ Disclaimer & Warnings

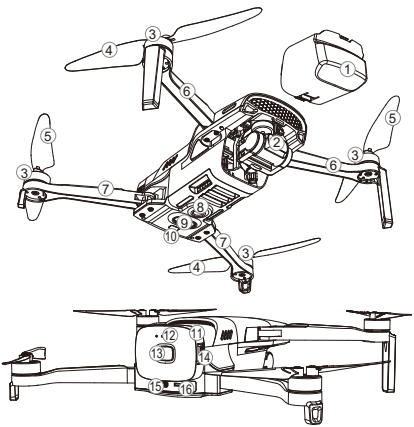
There are safety risks associated with the use of the aircraft, and is only suitable for people aged 14 and above who have experience in operating models, not for people under the age of 14. Keep children away from the aircraft, and special care must be taken when operating it in scenes where children are present. Please read this document carefully before using this product. This statement is of great importance for the safe use of this product and for your legal rights.

The product is a multi-rotor aircraft and will provide an effortless flying experience when the power supply is working normally and all components are undamaged. Walkera reserves the right to update this disclaimer at any time. It is important that you read this document carefully to understand your legal rights, responsibilities and safety instructions before using this product; failure to do so may result in property damage, accidents and personal safety hazards. Once you use this product, you are deemed to have understood, approved and accepted the terms and conditions of this statement in its entirety. The user undertakes to be responsible for his or her own actions and for all consequences arising therefrom. The user undertakes to use this product only for legitimate purposes and agrees to these terms and conditions and to any related policies or guidelines that Walkera may establish. To the fullest extent permitted by law, in no event will Walkera be liable for any indirect, consequential, punitive, incidental, special or criminal damages, including damages resulting from your purchase of, use of, or inability to use this product (even if Walkera has been advised of the possibility of such damages).

The laws of some countries may prohibit the exemption of warranties, so your rights may vary from country o country. Walkera reserves the right of final interpretation of these terms and conditions, subject to the laws and regulations of the country in which you reside. Walkera reserves the right to update, revise or discontinue these terms and conditions at any time without prior notice.

Get to know MINI SE aircraft

- The MINI SE features a mainstream lightweight, foldable design that is unprecedentedly easy to use and carry, while maintaining flight and usage quality.
- Adopt GPS/GLONASS/BeiDou tri-mode satellite positioning navigation system, ensuring more accurate and safer flight.
- Equipped with downward vision system and TOF ranging system, it can achieve stable flight and hovering at ultra-low altitude or indoors.
- A self-developed leading flight control system is used, which provides agile, stable and safe flight performance, and can achieve various new intelligent flight modes such throwing flight, etc
- Using high-precision three-axis mechanical anti-shake and stabilized gimbal, the camera can steadily take 4K HD video and 48 megapixel photos.
- A new 2.4GHz long-distance digital encryption transmission technique provides stronger anti-interference ability and longer distance of video transmission.



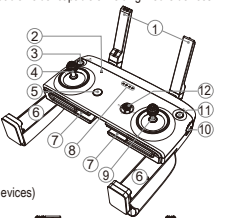
1) Gimbal shield (remove it before flight)
2) All-in-one gimbal camera
3) Brushless motor
4) CCW blade( )
5) CW blade( )
6) Front arm
7) Rear arm
8) Downward vision system
9) TOF ranging sensor
10) Aircraft status indicator
11) Battery
12) Battery level indicator
13) Power button
14) Battery snap
15) Type-C upgrade/charging port
16) MicroSD card slot

*** 1) Before using Mini SE, please watch the instructional video in WK Fly App to upgrade related firmware and calibration related items and read the "Operation Guide" carefully to avoid property damage or even personal injury caused by improper operation.**

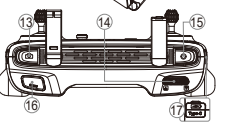
2) The high-speed rotating propeller is dangerous. The operator should keep a safe distance from the aircraft and keep the aircraft away from people, buildings, trees or other obstructions to avoid collision.

Get to know P2 remote controller

This remote control has a built-in a ground receiving terminal of 2.4G digital image transmission system. which can achieve a real-time display of high-definition images on a mobile device by using APP,with a foldable holder capable of holding mobile devices.



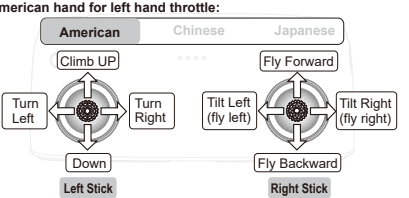
1) Antennas
2) System status light
3) RTL Mode Button
4) Left Stick
5) Power Button
6) Handle(used to place mobile devices)
7) Stick storage slot
8) Power Indicator
9) Right Stick
10) Type-C port (for connecting mobile devices)
11) Flight gear switch button
12) Small Stick(left/right camera exposure adjustment, up/down cruising speed adjustment)



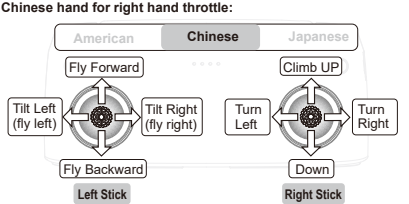
13) Take a photo button
14) Gimbal dial (gimbal tilt adjustment)
15) Start/Stop recording button
16) Custom function buttons, the default is cruise control on/off, you can customize the button function in the App.
17) Charging port (connect the charger to charge the remote control)

The remote control stick operation mode is divided into American hand, Chinese hand and Japanese hand, and the factory default stick operation mode is "American hand" (left-hand throttle), which can switched in the APP settings, and it is recommended that beginners use the American hand as the mode of operation.

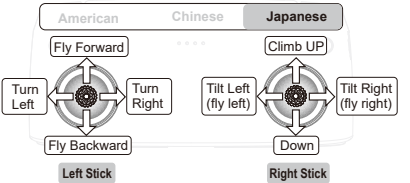
American hand for left hand throttle:



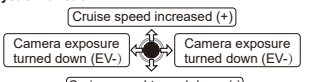
Chinese hand for right hand throttle:



Japanese hand for right hand throttle:



Small joystick function:

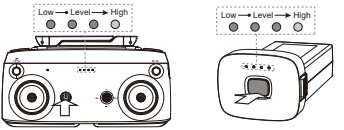


Tips:
The factory default of the small joystick up or down is to adjust the cruising speed, and the function of dialing up or down can be customized in the App.

Check Battery Level

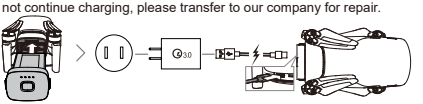
Remote controller battery:
Short press the power switch to turn on the battery indicator light (displaying the battery level) to check the battery level.

Aircraft battery:
Short press the power switch to turn on the battery indicator light (displaying the battery level) to check the battery level.



Charge

Aircraft battery charging
Tips: The aircraft battery must be installed on the aircraft to charge, the aircraft is compatible with the market standard Type-C interface, please use a USB charger that meets the QC3.0 protocol (such as mobile phones, cameras and other digital product USB chargers) for charging. If you encounter smoke, odor, or night leakage while charging the aircraft, do not continue charging, please transfer to our company for repair.

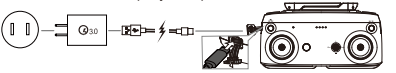


The battery indicator flashes green to indicate the start of charging. the battery indicator turns off when fully charged.

Note:
Charging is not supported in the boot state, and the aircraft cannot be turned on during charging.
After the flight, the aircraft battery temperature is high, and the aircraft battery must be charged after the aircraft battery drops to room temperature.

Remote control charging

Tip: This remote control uses a built-in integrated rechargeable lithium battery, which is compatible with the market standard Type-C interface. Please use a USB charger (such as a USB charger for digital products such as mobile phones and cameras) that meets QC3.0 protocol for charging. If there is smoke, peculiar smell or liquid leakage when charging the remote control, please do not continue to charge the remote control, please send it to our company for repair.



Battery indicator flashing green indicates that charging starts; the indicator is off when fully charged.

Caution:

Walkera will not be responsible for any consequences of charging with a charger that is not officially designated by Walkera.

Download the WK Fly Application

WK Fly APP supports Android 5.1 and above, HarmonyOS 2.0 and above, and Apple iOS9.0 and above mobile phones and tablets.For Android system or Hongmeng system mobile device, please open the browser and enter the URL (https://fly.walkera.cn/a/) or scan the QR code below to download and install the APP;

Android system can also go to Google Play search WK Fly to download and install.

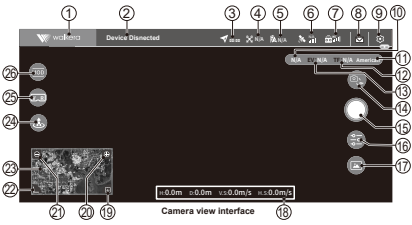
For Apple iOS system, please go to the APP Store and search for WK Fly to download and install.

※ In order to ensure flight safety, users who use aircraft in Chinese mainland need to complete real-name registration in accordance with the relevant regulations of the Civil Aviation Administration of China, please register through the UAV real-name registration system of the Civil Aviation Administration of China, or directly activate in the WK Fly App, bind the mobile phone and complete the registration information. For more information, visit https://uas.caac.gov.cn

Outside of China, there is no need to register or activate a bound mobile phone.

Introduction of the WK Fly APP interface

In this interface, you can preview the real-time HD video and photos taken by the aircraft camera, as well as dynamically set the parameters such as the aircraft, remote controller, camera gimbal and battery.



1) Return: Return to the previous level.

2) Device Status: Display real-time status information of the device.

3) Time of flight: the time of the aircraft flight.

4) Flight mode: Displays the current flight mode of the aircraft.

5) Aircraft battery information: Click the icon to expand and view the current power and voltage information of the aircraft battery.

6) GPS status: Click the icon to expand to view the number of GPS stars and GPS positioning mode received by the current aircraft.

7) HD signal intensity: shows the intensity of the transmission signal between the aircraft and the Remote controller.

8) Notification information: Click the icon to view the list of notification information.

9) Settings: Click the icon to expand the Settings menu: there are aircraft settings, battery information and settings, system settings.

"**aircraft setting:** RTL height setting,fly speed,max climb speed, max down speed,action time,steering sensitivity,limit height,fence enable,limit distance, gimbal roll,gimbal rate,follow me alt,take point, lost action,sensor setting and gimbal calibration.

"**battery setting:** it has battery remaining power,current voltage, current temperature, series number, charge and discharge shield ring times; low power automatic return switch.

"**system setting:** equipped with map settings; stick mode,trajectory switch ,live setting; firmware upgrade,App Version.

10) Preview resolution: The image preview quality of the camera view (i.e., image transmission quality).

11) Remote control stick operation mode: Displays the currently set remote control stick operation mode.

12) Aircraft TF card capacity: Display the current aircraft TF card capacity information in real time.

13) Exposure: Displays the current exposure value of the aircraft camera.

14) Camera working mode switching: Click the icon, the camera working mode will switch between taking photos and recording video.

15) Camera shutter icon: In taking photos mode, click this icon to take a photo; in recording video mode, click this icon to start recording, click this icon again to stop recording and save the video.

16) Camera Settings: click the icon to expand the camera settings interface, which has professional settings, photo settings, video settings and other settings.

Profe ssional setting: it can be set with ISO sensitivity, shutter speed, exposure compensation, white balance, etc.

Photo Settings: you can set the shooting mode,photo format, photo size (quality), etc.;

Video setting: you can set the preview resolution, preview code rate, video code rate, video resolution, video display mode.(with the same preview resolution,the greater the preview code rate, the better the picture quality and the transmission distance accordingly).

Other settings: grid(grid setting); anti-flicker(on/off anti-flicker); defogging(on/off); formatting TF card(in-aircraft TF card), TF card capacity information; photo animation switch; photo sound switch, etc.

17) Media Library: Click the icon to open the location of photos and videos taken by the aircraft, click on the pictures or videos to quickly share, download or manage media files.

18) Aircraft Status Parameters:

H Height: Vertical distance of the aircraft to the return point.

D Distance: Horizontal distance between the aircraft and the return point.

V.S Vertical speed: the flight speed of the aircraft in the vertical direction.
H.S Horizontal speed: the flight speed of the aircraft in the horizontal direction.

19) Posture thumbnail icon: Click this icon to expand the attitude ball suspension window.

20) zoom in the map: Click the icon to zoom in the map.

21) zoom out the map: Click the icon to zoom out the map.

22) Hide the small window: Click on the icon to hide the map/camera view small window.

23) Map/camera view small window: Click the small window the map window to swap with the camera view window(the map window switch to the full-screen large window, the camera view switch to the small window).

24) Take-off/RTL mode icon (when the aircraft is not taking off, the takeoff icon is displayed; after the aircraft takes off, the RTL mode icon is displayed):
When the auto takeoff condition is reached,click the takeoff icon, and the aircraft will take off automatically and hover at a certain height; when the aircraft has taken off,click the RTL mode icon, and the aircraft will abort all flight missions and automatically return to home point landing.

25) VR mode icon: Click this icon, the camera window preview video will switch to display in SBS mode (side by side). With a pair of VR glasses, it allows users to experience, and relying on the gyroscope of mobile phone, achieve head tracking function to control the flight gimbal camera pitch and yaw angle.
In VR mode, the information displayed on the interface includes aircraft battery information, flight mode, real-time status parameters, etc. Dragging up or down on the left side of the VR mode display interface can switch the video display mode;Dragging up or down on the right side of the VR mode display interface can adjust the video display window size.

26) Intelligent Flight Function Icon: Click the icon to expand the Intelligent Flight Mode selection interface. There are intelligent flight modes such as TimeLapse(Time-Lapse), and Lock Assist(auxiliary) functions.

Map window interface

27) Position display switch: Click the icon to select the aircraft position or remote control(mobile device) position:
click the icon "**A**" to display the aircraft position; click the icon "Ⓡ" to display the remote control (mobile device) location.

28) Map lock: Click the icon to lock/unlock the north (upper, north, south, south,west, right, east);"" to lock the north state;"" to unlock the map status;

29) Erase the flight track: Erase the flight track displayed on the map interface.

30) Map switching: Click the icon to expand the map type switching options.

31) Clear the route: clear Except for the points that have been up to the aircraft.

32) Show/hide traces: Click the icon to display/hide the flight track of the aircraft on the map window.

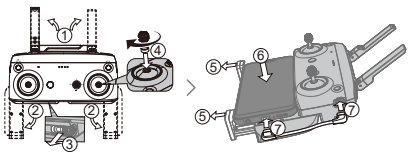
33) Map follows the aircraft: Lights up the icon map to follow the movement of the aircraft, and the aircraft is always in the center of the map.

34) zoom out the map: Click the icon to zoom out the map.

35) zoom in the map: Click the icon to zoom in the map.

Preparing the remote control

1) Unfold the antennas and nufold the handles.
2) Remove the control sticks from the storage slots and mount them on the remote controller.
3) Pull out the mobile device holder and load the mobile device (data cable interface facing right), according to the mobile device interface type, select the corresponding remote control adapter cable (Lightning connector, Micro USB connector, Type-C connector) in the package to connect to the mobile device, and the other end of the Type-C connector is connected to the Type-C interface on the right side of the remote control.



※ When connecting an Android phone, when the system pops up the USB connection option, please click "Cancel".

Prepare the aircraft

All aircraft arms are folded before the aircraft is packaged. Follow the steps below to unfold the aircraft arms.

1) Install the battery and MicroSD card.
2) Remove the gimbal protection latch
3) Unfold the front arms and front propellers.
4) Unfold the back arms and back propellers.

Notch facing left, gold finger facing up