GPS four-axis aerial drone

User's manual

®

TOYS - SKY

Download on the
App Store

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Google Play

Speed changing

Power Indicator

Photograph (short press) / video (long press)

Geomagnetic calibration (long press)

Gyro calibration (long press)

One-key takeoff/landing (short press)

GPS switch

Rise/lower/left turn/right turn joysticks

Forward/backward/left fly/right fly joysticks

Power switch

One-key return

Headless mode

Speed indicator
(it is constant on when in slow speed and quick-flash when in fast speed)

Return indicator
(it will be slow-flash when returning, and it will be off when GPS is turned off)

Photograph indicator
(it flashes once when taking a picture and slow-flash when recording)

Headless indicator
(flashes slowly when it enters the headless mode)

Outward unlock
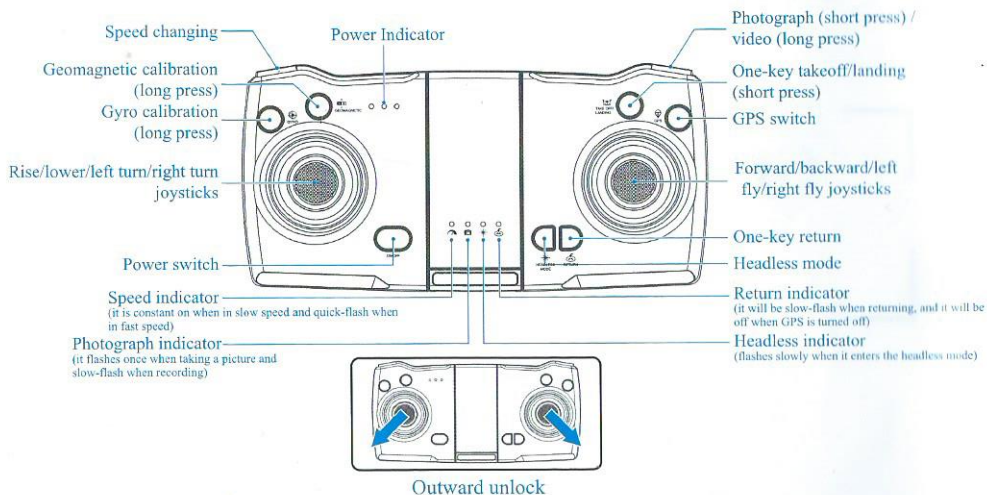
⚠ Special note: When power switch is short pressed, it will be turned on; when it is long pressed, it will be turned off.

2. Charging instructions of remote controller:

Connect USB charging cable C to the socket. The power indicator of remote controller will be constant on when charging; the indicator will automatically turn off when charging is completed, with the charging time of about 60min. (Figure 1)

Figure 1

3. Charging instructions of the lithium battery:

3.1 Press the battery module at rear of aircraft and pull it out of the battery compartment. (Figure 2)
3.2 Connect the USB cable to the socket. The LED indicator turns on constantly when charging; the LED indicator will automatically turn off when charging is completed with charging time of about 120-160min. (Figure 3)
3.3 After charging, install the lithium battery module into its compartment. (Figure 4)

⚠ Special note: When aircraft alarms due to low-voltage, the body indicator will be slow-flash, meaning the electricity being about to be exhausted, and aircraft needs to return immediately.
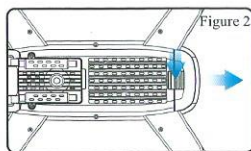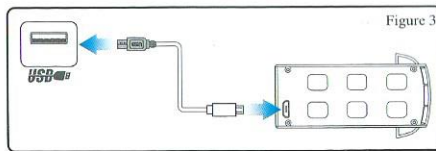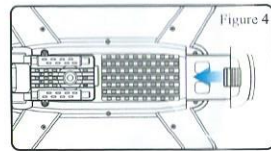
Figure 2

Figure 3

Figure 4

Note:
1. Ensure that the charger's voltage and plug meet your local standards. (The battery shall be stored in a cool place to avoid exposure under sunlight)
2. If the plug is overheated in charging, it means that aircraft is charged excessively, and it will damage the battery and will cause permanent damage in serious situation. Please stop charging immediately.
3. Attended charging must be ensured.
4. It adopts advanced balanced mode of charging for safety. Do not use other chargers to charge the lithium battery in order to avoid the danger of explosion.
5. When the flying of aircraft has just ended, and the battery is at higher temperature; it is better to wait for 30min or so until the battery is cooled, and the lithium battery can be charged to avoid the damage of the battery. (The battery needs to be taken out from aircraft when it is not in use and it shall be stored with its electricity content of 80% to extend its life).
6. Do not put the battery into fire to avoid the danger of explosion.
7. Do not short-circuit the positive and negative terminals of the battery. Do not put the battery together with small metal parts to avoid the risk of explosion.
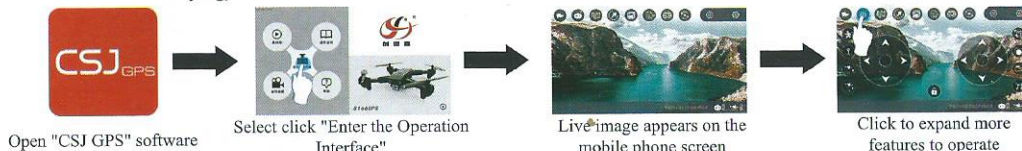
1

4. Download and installation instructions of APP software:

4.1 Download and install the software

Scan this QR code to download and install the software.

Download on the App Store

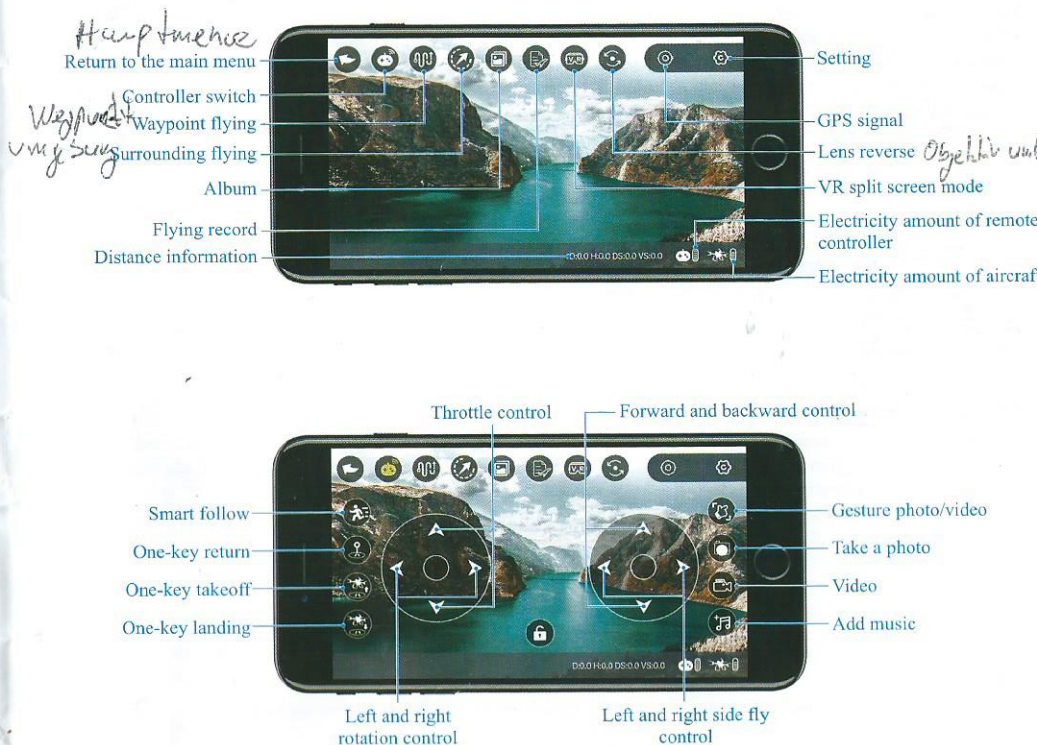Scan this QR code to download and install the software.

GET IT ON Google Play

4.2 Description of links

① Turn on aircraft power, enter (Mobile or IPAD) "Settings" option, open the wireless network, find the name of the device "CSJ-XXXXXX" in the wireless network search list and connect it. After the connection is successful, exit the setting option.

② Open "CSJ GPS" software icon in mobile phone and enter the control interface. (Try to stay away from other signal sources when flying)


Open "CSJ GPS" software

Select click "Enter the Operation Interface"

Live image appears on the mobile phone screen

Click to expand more features to operate

5. Function introductions of APP control interface:

Hauptmenüe
Return to the main menu

Controller switch

Weypunkt Waypoint flying

Umg Sug Surrounding flying

Album

Flying record

Distance information

Setting

GPS signal

Lens reverse Objektiv uml

VR split screen mode

Electricity amount of remote controller

Electricity amount of aircraft

Throttle control

Forward and backward control

Smart follow

One-key return

One-key takeoff

One-key landing

Left and right rotation control

Gesture photo/video

Take a photo

Video

Add music

Left and right side fly control

2

6. Environmental requirements before flying:

Please choose an open indoor area or a rainless outdoor place with a wind force below grade 4. Please keep away from people, trees, wires, tall buildings, airports and signal towers when flying.

⚠ Special note: flying height and distance limit: full-electricity fence shall be with a height of 120m and a distance of 300m; low-electricity fence shall be with a height of 15m and a distance of 20m.
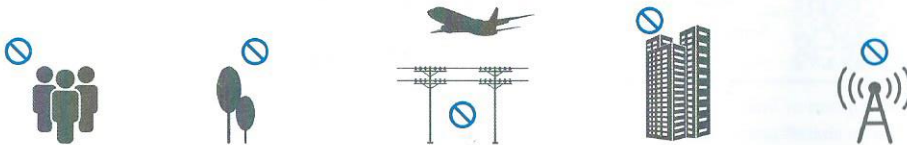
7. Preparation instructions before flying:

7.1 Map Update:

When APP is started for the first time, the mobile data network of your device (mobile phone or IPAD) shall be connected(Figure 5); return to APP control interface, double-click the GPS signal icon (Figure 6) in the upper right corner to make the map can update your location in real time through the mobile data network. After completion of the update, click the back icon in the top left corner (Figure 7) to return to the mobile phone interface.


Figure 5   Figure 6   Figure 7

7.2 Aircraft pairing

1. Turn on the power of aircraft and place it on a horizontal plane; turn on the power supply of remote controller, then remote controller will make a "beep" sound, and aircraft indicator will fast-flash, which means aircraft enters the pairing state automatically; when remote controller make a "beep" sound again, the automatic pairing is completed.
2. Turn on the WiFi function in the mobile device, and select "CSJ-XXXXXX" in the WiFi list. After connection, open the APP.
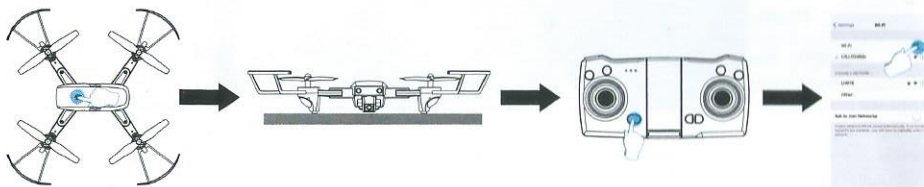
7.3 Gyro Calibration:

After pairing of aircraft and remote controller, aircraft needs to be calibrated. Long press "Gyro Calibration" key for 3 seconds, remote controller will make a "beep" sound and the body indicator will fast flash for 3 seconds, which means the success of the calibration.

⚠ Special note: If aircraft takes off and flies inclined to one side, it can also be corrected by correcting the gyroscope.

⚠ Note: In order to calibrate, aircraft must be placed on a level surface .

7.4 Geomagnetic calibration:

Press and hold "Geomagnetic Calibration" key for 3 seconds, the remote control will make a "beep" sound, and the front and rear lights of aircraft will be off, which means it enters the geomagnetic calibration mode.

1. Rotate aircraft horizontally a circle (360°), the front indicator (blue light) lights up, and the horizontal calibration is completed(Figure 8).

2. After the horizontal calibration, erect the aircraft and rotate a circle (360°), the rear indicator (red light) lights up, which means the calibration is succeeded (Figure 9).

Figure 8　　　　Figure 9

7.5 GPS star searching:

After "Gyro" calibration and "geomagnetic" calibration, the headlight will change from slow flash to constant fast flash, and then place aircraft on the open horizontal plane and when the headlight become constant on (the process will take a few min), it means the star searching is completed, and the aircraft can take off normally.

⚠ Special note: Aircraft can only fly after the outdoor GPS star searching. To fly indoors, turn off the GPS and press "GPS Switch" key, the remote controller will make a "beep" sound, and body eye indicator and return indicator on remote controller will turn off simultaneously, indicating that the GPS has been switched off and the aircraft can fly indoors.

7.6 Aircraft unlock

Aircraft needs to unlock before flying, turn the left and right joysticks of remote controller outward simultaneously and then return (Fig. 10). The four propellers rotate synchronously, indicating that unlocking is completed, and then the aircraft can be operated normally.

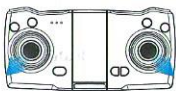APP operation: Click "Unlock" icon (Figure 11) in APP control interface to unlock aircraft.

Figure 10　　　　Figure 11

7.7 One-key takeoff and landing

When unlocking is completed, presses "One Key Takeoff/Landing" (Fig. 12) on remote controller, aircraft will automatically rise to a height of about 2m and will fly smoothly at this altitude. When you press this key again, aircraft will automatically land slowly on the ground.

APP operation: Click "One Key Takeoff" icon (Figure 13) in APP control interface, which can also realize the one-key take-off function; during the flying, click "One Key Landing" icon (Figure 14) in the interface, aircraft will automatically land slowly on the ground.

Figure 12　　　　Figure 13　　　　Figure 14

Before taking off of aircraft, please follow the steps in the above sequence:
Pairing (Ref. 7.2) → gyro calibration (Ref. 7.3) → Geomagnetic calibration (Ref. 7.4) → One-key take-off/landing (Ref. 7.5)

8. Control method:

APP operation: Enter APP control interface, and click "Controller Switch" icon, you will see the joystick on the desktop. The operation mode is as follows:

When the left joystick (throttle) is pushed up, the main rotor speed increases and aircraft rises. When the left joystick (throttle) is pushed down, the main rotor speed slows down and aircraft descends.

When the left joystick (rudder) is pushed to the left, the nose of aircraft will turn to the left. When it is pushed to the right and the nose of aircraft will turn to the right.

When the right joystick (rudder) is pushed up, aircraft advances forward. When the right joystick (rudder) is pushed down, aircraft will move back.

When the right joystick (rudder) is pushed to the right, aircraft will fly inclined to the right. When the right joystick (rudder) is pushed to the left, aircraft will fly incline to the left.

Warnings When aircraft is within 100cm from the ground, aircraft will become unstable due to the influence of its own blade vortex. This is called "Ground Effect". The lower the altitude of the drone, the greater the ground effect is.

9. Speed switching:

Turn on remote controller which is by default at the low speed mode (remote controller indicator is always on) and press "Speed Switch" key of remote controller, it will make two "beep" sounds and will switch to high speed mode (remote controller indicator flashes quickly) ; press the key again and after a "beep" sound, it will switch back to the low speed mode.

10. Instructions for operation of APP and remote controller functions:

10.1 Headless mode

The front of aircraft when it is turned on and pairing will by default be the front under the headless mode; if you need to adjust the direction, please turn on aircraft again, and press "Headless Mode" key (Figure 15) of remote controller. If you want to exit this mode, please press this key again.

⚠ Special note: Please be sure to align aircraft in a straight line and let the gyroscope automatically detect the straight line to realize the straight flying under headless mode.

Figure 15
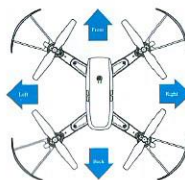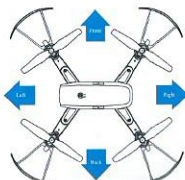
10.2 One-key return

During the flying, press "One Key Return" key (Fig. 16) to realize the returning flying. After starting the returning flying aircraft will return directly to the take-off point; during the return flying, press the return key to cancel the return flying. APP operation: Click "One Key Return" icon (Figure 17) in APP control interface, and you can also return aircraft. When you click this icon again during the return flying, cancel the return flying.

| Figure 16 | Figure 17 |

10.3 Waypoint flying mode

① Click "Waypoint Flying" icon in APP's control interface (Figure 18), the interface will convert from image transfer p to map page. Zoom in the map (Figure 19), and click in the red circle to set the waypoint (Figure 20). It can be set as single waypoints or as path range with continuous line of waypoints. During the setup process, if you think that the t waypoint is too dense, you can click the delete icon to delete a single point or to delete all waypoints (Figure 21).

② After setting, click the send icon (Figure 22), a pop-up window will pop up for confirming the waypoints; Please hol down the slider (Figure 23) and drag it to the far right. Aircraft will fly from the initial point and go to all waypoints complete the preset flying path. The orientation of aircraft can be controlled by a joystick during flying.

| Figure 18 | Figure 19 | Figure 20 | Figure 21 |

| Figure 22 | Figure 23 |

10.4 Surround flying mode

Click "Surround Flying" icon in APP control interface (Figure 24), and enter the radius value of 5-100m in the pop-up window (Figure 25), and click OK (Figure 26); aircraft will fly to the distance of the set radius and fly around and with the current position as its center.

⚠ Special note: When electricity of aircraft is too low, the surround flying will not be possible.

| Figure 24 | Figure 25 | Figure 26 |

10.5 Smart follow mode

Click on "Smart Follow" icon (Figure 27) in APP control interface, aircraft will track the change of the position of the mobile device based on the distance from the current location to the control device(mobile phone or IPAD). During the follow process, press the follow-key gently to cancel the follow.

⚠ Special note: After changing the position of the drone, if the electricity of aircraft is too low or there is a phone cal aircraft will exit the follow mode.

Figure 27