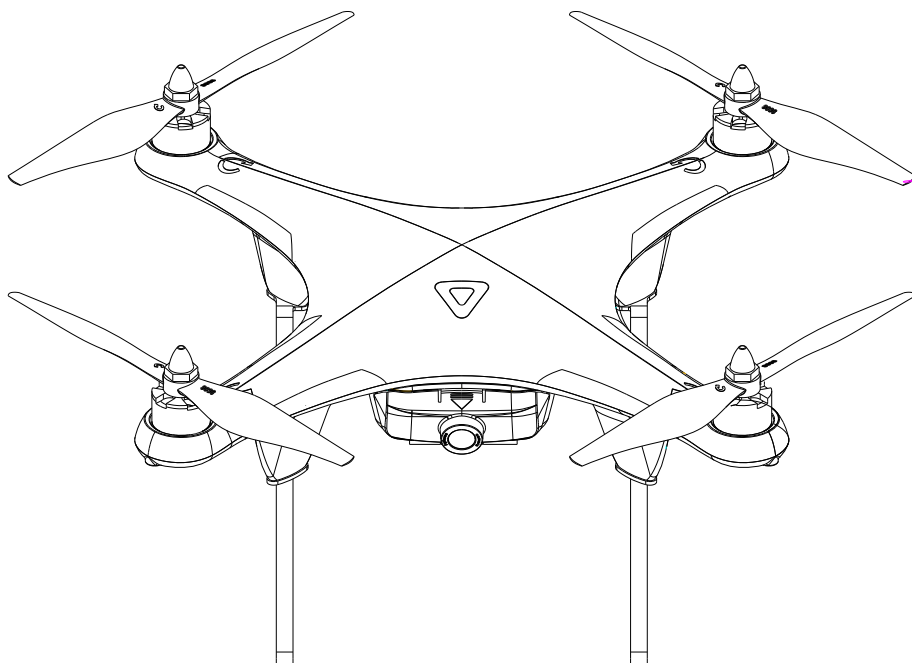


seraphi for P/H /F

GPS **User Manual**

FCC ID:2ABDRSERAPHI



CONTENT

Disclaimer	1
Specifications & Parameters	2
Diagrams of Flying Operations	2
Transmitter Stick Operation	2
Unlock and start motors	2
Lock and stop motors	2
Flight Mode	2
Forward Direction of the Aircraft	3
LEDs and Low-Voltage Alert	3
Usage of Battery and Charger	3
Propeller Installation	4
External power supply	4
Battery cover open steps	4
I. Flying warnings	4
II. Before Flying (Preparations for Flying)	5
III. Taking off	5
IV. Landing and Locking Motors	6
V. Possible Malfunctions and Solutions	6

Disclaimer



This product is designed for adults (over 18 years old)
Any user of this product is hereby deemed to have accepted the disclaimer.

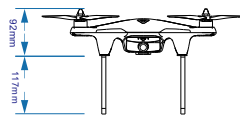
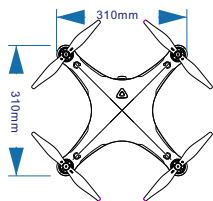
Thank you for purchasing Seraphi—the stylistic multi-rotor aircraft. Please read the following disclaimer carefully before flying to avoid any unexpected accident or damage. We won't accept any liability for the following damage(s) or injuries.

1. Damages or injuries caused by illegally flying in government regulated no-fly zones or other dangerous areas.
2. Damages or injuries caused by mis-operation, mis-judgment or when the aircraft flies beyond the users' sight.
3. Damages or injuries caused when users intentionally perform inappropriate operations.
4. Damages or injuries caused by malfunctions which result from users' refitting the aircraft at will.
5. Damages or injuries caused when users suffer from any abnormal conditions which could impair the users' ability whether physically or mentally, and couldn't concentrate their attention on the flying.
6. Damages or injuries caused by continued flying when the aircraft is in abnormal conditions due to water, sand or other unknown materials entering the aircraft or due to obviously defective components or parts or when the low voltage protection alarm has been triggered.
7. Damages or injuries caused when users don't stay away from crowds, obstruction, tall buildings or other dangerous objects.
8. Damages or injuries caused when users fail to follow the guidance of the User Manual so that the aircraft crashes because the single flight lasts so long that the battery runs out.
9. Damages or injuries caused when the aircraft flies in terrible weather, such as thunderstorm, fog, strong wind, hail, lightning, tornadoes, hurricanes, snow etc. or in magnetic interference area.
10. Damages or injuries caused by the misuse of the battery or battery chargers or by using 3rd party products, especially 3rd party battery chargers or fake Yunyi-Flight products.
11. Other losses which are not covered by the scope of Yunyi-Flight liability.
12. *Yunyi-flight* reserves all the right for the final explanations.
13. The helicopter is equipped with a GPS receiver.

It is possible to download the GPS tracks after the flight to trace the flight with google earth

Specifications & Parameters

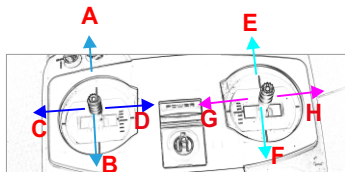
Size: 310X310X92MM
Arm length: 425MM
Motor: KV 935
Battery: 11.1V 2200mAh LiPo
Flight Load: 1.3KG
Flight Time: 15—20 minutes
Environment: indoor & outdoor



Large battery cabin
Can be Placed two 3S 2200mAh LiPo battery, flight time increase to 20 Minutes

Diagrams of Flying Operations

Transmitter Stick Operation



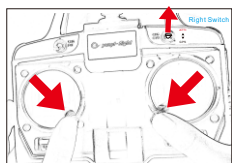
Throttle stick (AB): The throttle stick controls the up and down of the aircraft. When the throttle stick is at the mid point, the aircraft hovers in the air. pushing the throttle to A, the aircraft ascends and pulling the throttle to B, the aircraft descends.

Yaw stick (CD): The yaw stick is used to adjust yaw directions. Pull it to the left and the aircraft will rotate in the counterclockwise direction. Push it to the right and the aircraft will rotate in the clockwise direction.

Pitch stick(EF): The pitch stick controls the forward and backward directions of the aircraft. Pull it to E and the aircraft will fly forward ;Pull it to F and the aircraft will fly backward .

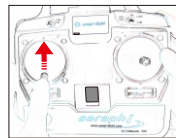
Roll stick (GH): The roll stick controls the left and right directions of the aircraft. Pull it to G and the aircraft will fly to the left direction ;Pull it to H and the aircraft will fly to right direction

Unlock motors



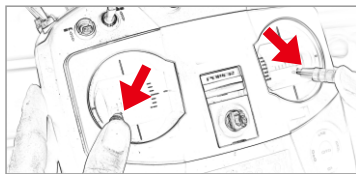
power on the aircraft, wait 10 seconds, backlight flashes ■■■ (if you fly in the outdoor with enough GPS signal, backlight will flashes green after ■■■ make sure right switch in Attitude flight mode ,Pull the left stick to the right bottom and pull the right stick to the left bottom at the same time to unlock as shown. then release the right stick, push the right stick to the middle bottom ,waiting 5 seconds for system System startup until backlight flashes red (NO GPS signal) or f flashes green then off (with enough GPS signal)

start motors



Push the throttle stick from middle bottom to start the motors until leaving ground, then keep the right stick at the middle point ,You can fly at a certain height.

Lock and stop motors



please pull the throttle stick to the bottom and carry out Lock Motor procedure to stop the motors (Very important) . pull the sticks to the left and right bottom quickly as shown to lock and stop the motors. Power off the aircraft and then remove or replace the battery.

BE SURE to power off the aircraft first and then switch off the remote. The flying is finished.

Flight Mode

Attitude flight mode

Pull the right switch to the up as shown ,start aircraft in Attitude flight mode.



GPS flight mode

1. Power on Aircraft and Transmitter, Observe backlight flash green slowly, start aircraft in Attitude flight mode, waiting 5 seconds , fly away from ground, then Pull the GPS switch to the down as shown ,start GPS flight mode.

2. In GPS mode functions

□ **position hold fly:** During the flight ,you keep all stickes in mid point, it will stay there there without moving.

□ **Fly home:** it can fly home and land when it can not receive the transmitter signal because of far distance or be Disturbed During it fly home, if you want to control aircraft you ,should switch from ATT.I. Mode to GPS Mode or GPS Mode to ATT.I. Mode .

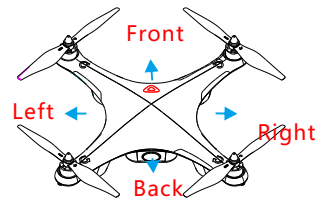


NOTE:

1. You should unlock and start motor in Attitude flight mode, or you can not start motor .
2. When you switch to GPS Mode ,you find it fly in one direction abnormally ,you should switch to attitude mode quickly , land your aircraft and carry out compass calibration ,try again.

Forward Direction of the Aircraft

Do remember the triangle mark on the aircraft indicates the forward direction of the aircraft. Before flying, be sure that the face of the operator is in line with the forward direction of the aircraft and during flying, the operator has to pull or push the Yaw stick to adjust the flight direction when necessary to keep the operator and the aircraft face the same direction(very important).



LEDs and Low-Voltage Alert

LEDs and Low-Voltage Alert

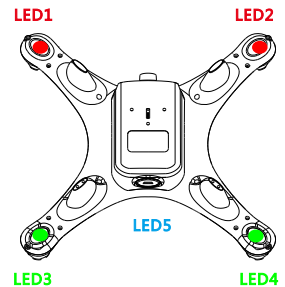
The red LEDs (LED1, LED2) indicate the forward direction of the aircraft.

The green LEDs (LED3, LED4) indicate the backward direction of the aircraft.

The LED5 is the back light of the aircraft.

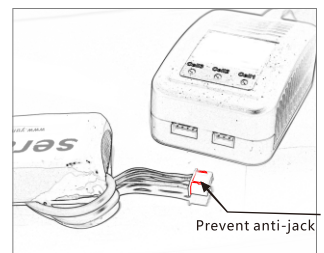
Low-Voltage Protection:

1. During flight, when the back light turn ■ (outdoor with enough GPS signal), this indicates battery voltage is low, and you should land the aircraft ASAP
 2. During the flight when the back light flash ■ ■ (indoor with no GPS signal) quickly ,this indicates battery voltage is very low and you should land the aircraft ASAP
- Otherwise, the aircraft is more likely to crash due to lack of power.



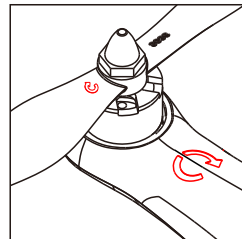
Usage of Battery and Charger

1. Before charging, please check carefully the battery charging terminal and the charger socket. Be sure the convex side of the terminal faces upwards and the front of the charger faces upwards too. Carefully plug the terminal in the charger socket. DO NOT stubbornly plug the wrong side of the terminal into the charger socket so as to damage the charger.
2. During charging, be sure to keep the battery and charger away from children and keep the charging under observation. If such abnormalities as battery suddenly smoking, expanding, or giving out smell occur, please power off the charger and stop charging immediately.
3. DO NOT use damaged, impaired or defective battery or and charger. It is not for fun. DO NOT try it! Dangerous!
4. The indicator light is red during charging and it will turn green if the charging is completed.



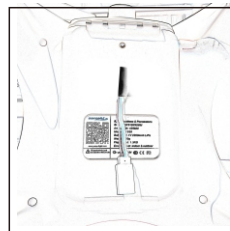
Propeller Installation

The direction of the arrow on each propeller indicates the rotation direction of the propeller and the motor. Mount each propeller on the corresponding motor with the same arrow. **BE SURE** that the side with the arrow on each propeller faces the sky. **DO NOT** mount it upside-down. Then screw down each nut.



External power supply

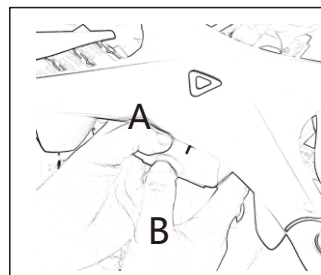
This power cord(connect to 3S lipo battery) provides power for external device ,such as Gimbal
Red wire is the positive and black wire is negative.



Battery cover open steps

A: Press down Battery cover triangular arrow icon firmly with the left thumb

B: Slide the battery cover out with right thumb, open the battery cover



I. Flying warnings

1. For the first flying, beginners are strongly suggested taking necessary trainings by professionals or doing some pre-exercises on simulators until you can skillfully operate the aircraft or the simulator and the remote controller
2. During flying, please make sure that Seraphi is always within sight and its back light always faces its operator so that he could determine its flight attitude and adjust its flight directions when necessary.
3. During flying, what's more, please watch the flash of back light at any time and keep alert to Low-Voltage signals. Low-Voltage Alert is to indicate that the battery cannot provide enough power for the aircraft and it is triggered to warn you to land the aircraft ASAP to avoid or reduce crashes or other harmful consequences.
4. Sensors in the heart of Seraphi are damageable, so be sure not to hit or drop the aircraft heavily. Otherwise, the inertial measuring unit (IMU) might be destroyed. If Seraphi flies in an abnormal way after being hit or dropped Seriously, please return it to Yunyi-Flight to repair immediately.

II. Preparations for Flying

Compass Calibration


The GPS module has a magnetic field sensor inside for measuring the geomagnetic field, which is not the same in different areas.

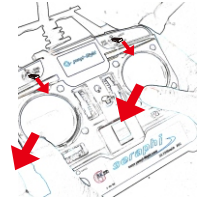
Calibrate the compass before the first flight or when flying in a different area. Make sure to keep away from ferromagnetic substance and other electronic equipment when calibrating or flying.

If the calibration was successful, calibration mode will exit automatically.

Please download the Operating Instructions and software from the website (www.yunyi-flight.com)




horizontal calibration

Turn on remote control , the Seraphi is placed on Horizontal ground, reconnect the power supply, wait 10 seconds , backlight flashes  **Pull the two switches bottom**, Pull the left and right sticks to the left bottom as shown, back light flash rapidly, release the stick, waiting 10 seconds, calibration is complete.





NOTE:

In any Drop or rollover cases or first use . You should carry out this step. This will ensure a stable flight .

- 1.Before flying, please check whether the aircraft is in good condition , whether the rotation direction of all the propellers are right, whether the motors and propellers are fixed well. Overload is strictly prohibited and the maximum load is about 1.3kg.
- 2.Power on Seraphi and if back light flashes  this indicate it is **normal** ,then it flashes  slowly,this indicate it find GPS (outdoor) , it can remember home point,if it Always flashes  this indicate it can not find GPS (indoor or **weak GPS signal**), you can fly in attitude flight mode,
- 3.Be sure to observe the surroundings before flying. Choose an open space without obstruction and tall buildings as flying field. Stay away from crowds, especially children. Place the aircraft over 4 meters away from you and others to avoid accidental injuries.
- 4、 we suggest the operator choose an open space without crowds and tall buildings as flying field. Safety comes first. Be Sure to protect your eyes and other vulnerable parts of your body. We strongly suggest you wear an eye shield to protect your eyes.

III.Taking off

- 1.Make clear the nose and tail of the aircraft and make sure the back light of the aircraft faces towards the operator. Switch on the remote controller, then power on the aircraft. waiting backlight flashes  **or**  (gps signal enough), **Unlock and start the motors** and then release the right stick and keep it at the mid point in a natural state. Push the throttle stick (left stick) from the middle bottom ,then check whether all the four propellers are rotating correctly. If all the propellers work well , continue push until Seraphi takes off from the ground. By pushing or pulling the throttle stick, Seraphi can ascend or descend in the air.
- 2.During flight, Seraphi might suffer side drift or nose rotation. Please use the Yaw stick (left stick) to adjust the back light direction and keep it facing towards the operator. Make sure the aircraft and the transmitter are in the same frame of reference and pull or push the roll and pitch stick (right stick) to adjust the flying directions.
- 3.During the flight, you can switch to GPS Flight Mode(make sure GPS signal enough)

4. When you execute ascending and descending performance, you should not over pull or push the throttle stick. Please increase or decrease the throttle little by little and always observe the flight height.
 5. During flight (flying), watch carefully the flashes of the backlight.
- When Low-Voltage Protection is triggered. you *should land the aircraft* ASAP.

IV. Landing and Locking Motors

1. When landing Seraphi, please carefully pull the left stick down slowly to lower the throttle little by little so that the aircraft could land safely. If the aircraft falls too fast, please raise the throttle a bit in order to slow down its falling speed. During landing, please always keep an eye on the flight height and flight movement. Adjust the aircraft' position by slightly pulling or pushing the right stick so that the aircraft could land on the desired destination. **DO Not** pull the throttle stick to the bottom quickly before you haven't landed the aircraft completely on the ground, otherwise, the aircraft might suffer a rollover.
2. Slowly Pull the throttle stick (left stick) to the mid bottom point to land aircraft ,after Seraphi has completely landed, Lock and stop motors.

V. Possible Malfunctions and Solutions

1. Abnormal rotation of propellers

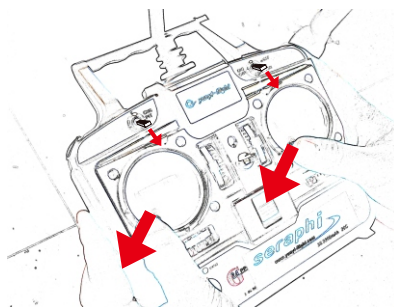
You have executed Unlock Motors procedure, but the aircraft abnormally shakes and the propellers won't rotate. We advise you to lock and stop the motors and then unlock and restart them. Try again until the propellers could rotate well. In case the propellers still can not rotate, have a try to push a propeller by hand to aid its rotation. If they keep still again, please return the aircraft to Yunyi Flight to repair.

2. Abnormal yaw flight and horizontal calibration

Turn on remote control , the Seraphi is placed on Horizontal ground, reconnect the power supply, wait 10 seconds , Pull the two switches bottom, Pull the left and right sticks to the left bottom as shown, back light flash rapidly, release the stick, waiting 5 seconds, calibration is complete.

NOTE:

In any Drop or rollover cases . You should carry out this step. This will ensure a stable flight



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.

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.

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

[http:// www.yunyi-flight.com](http://www.yunyi-flight.com)