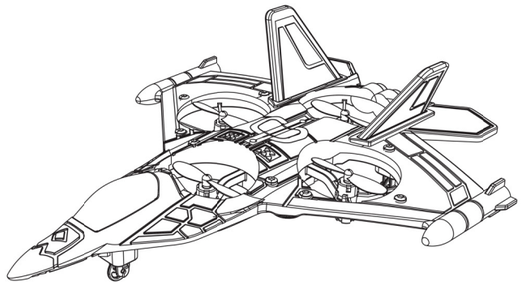
AGE:14+

# FOUR-AXIS AERIAL DRONE

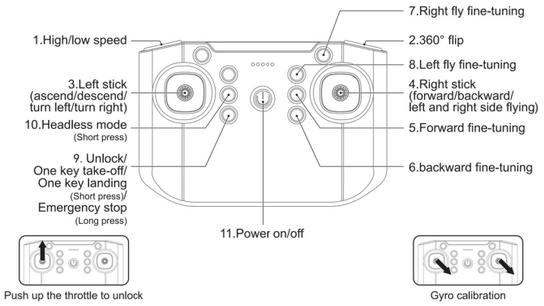
## INSTRUCTION MANUAL



Thank you for purchasing our products. In order to use them properly and ensure your safety, please read this instruction manual carefully before using the products, and please keep them in a safe place for future reference.



## 1.LH-X811 Model:X88 FCC ID:2BKNVLHX81SK






Push up the throttle to unlock



Gyro calibration

| Serial Number | Function keys / Names | Function / Effect |
|---|---|---|
| 1 | High/low speed | Adjust the aircraft left / right / forward / backward / left / right side fly speed. |
| 2 | 360° flip | This button is for 360 degree flip function , control the aircraft achieve the 3D flip function. |
| 3 | Right stick | Forward/backward/left and right side flying |
| 4 | Left stick | Up/down, left/right turn 360° rotation. |
| 5-6 | Forward/backward trim | If the vehicle move to the forward (backward) without any operation , press the trim button backward (forward) correspondingly , it can make the vehicle more stable. |
| 7-8 | Turn left/right Trim | If the aircraft have left (right) rotation, press right (left) trim correspondingly, make the vehicle stable. |
| 9 | Unlock/One key take-off/Linding/ Emergency stop | Touch this key to unlock the aircraft and start the motor. Then touch this key to increase the height of the aircraft. In normal flight, touch this key again and the aircraft will slowly land on the ground. Long press this button to make the aircraft drop quickly. |
| 10 | Headless mode | Short press into Headless Mode. |
| 11 | Power ON/OFF | Press once to power on the remote control and press again to disconnect the power. |

## 2.REMOTE CONTROL BATTERY INSTALLATION

2.1 Remove the battery cover from the back of controller (Fig. A)
2.2 Install 3 "AAA" batteries intc the controller, make sure to install batteries to their correct polarity. (Fig. B)
Do not mix old and new bateries or battery types.
2.3 Replace the battery cover

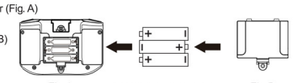


Fig.A 3*AAA"Batteries(Not Included) Fig.B



## 3.DRONE LITHIUM BATTERY CHARGING INSTRUCTIONS

3.1 Pull the lithium battery module out of the battery compartment of the drone.(Fig.C)
3.2 Plug the USB charging cable into the USB power socket,and then connect the other end to the charging socket of the lithium battery module. When charging, the LED light is always on. When the charging is finished, the LED light is off, and the charging time is about 60 minutes.(Fig.D)
3.3 After charging is complete, insert the lithium battery module into the battery slot as shown below.(Fig.E)
⚠ **Special note:** Please fully charge the battery before flying.
⚠ **Low-pressure warning tips:** When the drone enters the low-pressure alarm, the body light will flash slowly. At this time, it indicates that the drone has been exhausted and needs to fly back immediately.

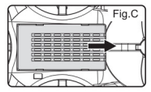


Fig.C

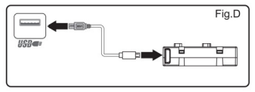


Fig.D

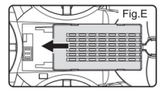
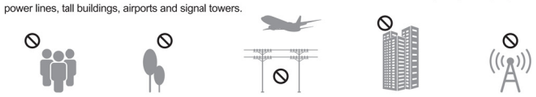


Fig.E

**Attention:**
1.Make sure the voltage of the USB charger fits the local electricity supply.(Keep the battery in a cool place to avoid exposure)
2.The Charging plug will overheat if overcharged. Please stop charging immediately as it may cause damage to the battery.
3.Do not leave the battery aside when charging.
4.Do not use other chargers other than the one supplied in consideration of safety.
5.Recharge the battery 30 minutes later after flying, because the battery temperature could be too high when flying and charging immediately could damage the battery.
(The drone needs to take out the battery when not in use and store it at 60% to extend battery life)
6.Do not leave the battery in the fire in consideration of safety.
7.Do not short circuit the battery. Do not leave the battery together with tiny medal parts in consideration of safety.

## 4.PRE-FLIGHT ENVIRONMENTAL REQUIREMENTS

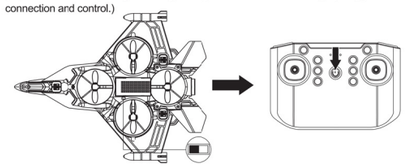
Please choose an outdoor environment with no rain or snow, wind less than level 4. Please stay away from people, trees, power lines, tall buildings, airports and signal towers.



## 5.PREPARATION BEFORE FLIGHT

### 5.1 Drone frequency

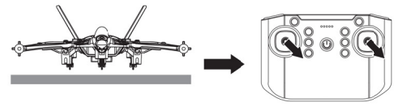
1.Install the batteries for the aircraft and remote controller, turn on the power switch of the aircraft, and place it on a level surface after the body lights up and flashes.
2.Turn on the power switch of the remote controller, the body lights up steadily, indicating successful frequency matching. (Important note: Frequency matching of the product must be done step by step, otherwise it may lead to poor connection and control.)





### 5.2 Calibration of gyroscope operation

After the drone and the remote control have successfully matched the frequency, the drone can be corrected, and the throttle lever and the direction control lever are simultaneously hit to the lower right corner. At this time, the indicator light of the drone flashes rapidly, and the indicator light is always on, and all the buttons of the remote controller are released. The calibration is complete.
⚠ **Special Tips:** If the drone takes off and flies, it can also be corrected by correcting the gyroscope.



⚠ **Note:** Correction should be done at the horizontal level.

### 5.3 Drone unlock

When the aircraft is operated by the remote control, it needs to be unlocked to start, press the unlock button of the remote control lightly (Fig.1), or push the left joystick of the remote control upward (Fig.2), then the four propellers will turn at the same time at the same speed,which means the unlocking is successful. When the unlocking is completed, the aircraft canbe operated normally.

Fig.1

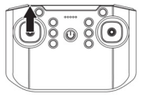


Fig.2

### 5.4 One key take off and landing

When the unlocking is completed, press the function button of the remote control (Fig. 3) again, the drone will automatically rise to a height of about 1 meter to keep the altitude flying smoothly; when the button is used for the takeoff/landing icon, the drone will automatically land slowly.
⚠ **Note:** One key landing must land on a horizontal plane, because a fixed-height function landing on a horizontal surface will cause the drone to fly and fly.

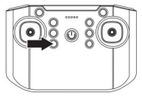
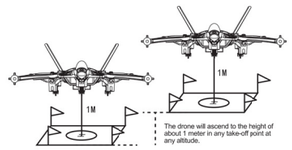


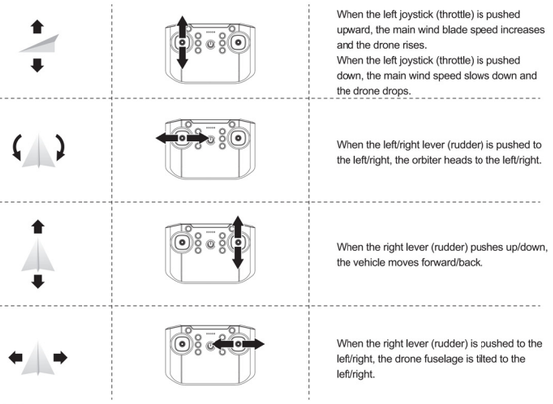
Fig.3




⚠ **Flight step prompt**: frequency(5.1) → gyroscope correction(5.2) → unlock(5.3) → one key take off/one key landing(5.4)



## 6.CONTROL METHOD



When the left joystick (throttle) is pushed upward, the main wind blade speed increases and the drone rises.
When the left joystick (throttle) is pushed down, the main wind speed slows down and the drone drops.

When the left/right lever (rudder) is pushed to the left/right, the orbiter heads to the left/right.

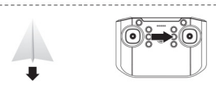
When the right lever (rudder) pushes up/down, the vehicle moves forward/back.

When the right lever (rudder) is pushed to the left/right, the drone fuselage is tilted to the left/right.

WARNING When the drone is located 30CM above the ground, The Drone is not stable due to the influence of the eddy current, which is called "ground effect reaction", and the height more lower the drone is,the greater the impact of the effect will be.

## 7. TRIMMING FUNCTION

If the drone does not push the rudder lever during flight and is still spinning or flying in the air, you can use the fine adjustment function to adjust the rudder. The operation is as follows:



If the drone moves backward while hovering, press the forward trimming button ,until the drone stops moving backward.

If the drone moves forward while hovering , press the backward trimming button,until the drone stops moving forward.

If the drone flies to the left while hovering , press the right sideward trimming button ,until the drone stops flying to the left.

If the drone flies to the right while hovering, press the left sideward trimming button ,until the drone stops flying to the right.



## 8. SPEED SWITCHING

The default boot up obstacle avoidance mode and low speed mode, switching speed need to turn off the obstacle avoidance mode, in order to switch the speed: "Di~" is the low speed mode, "Di~Di~" is the medium speed mode, and "Di~Di~Di" is the high speed mode.(power on default low speed mode)

## 9.HEADLESS MODE

### 9.1 Startup and setup

In front of the drone when the power is turned on, the default is the front of the headless mode; if the impact or the front of the flight is biased, please restart the drone and adjust to the direction you need to perform the frequency; after the frequency is successful, the machine The head direction is the front of the headless mode. When the headless mode button is pressed (Fig.4), the drone body light flashes and enters the headless mode.

### 9.2 Exit headless mode

Press the headless mode button again (the remote control emits a "Di~"), the body light turns on constantly, and the headless mode is exited.

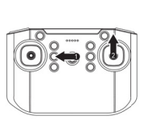
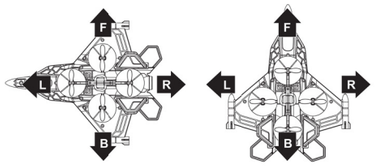


Fig.4



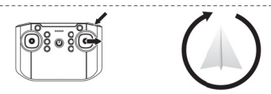

As shown in the above figure, in the headless mode state, no matter which direction the drone head is turned, the remote control direction lever is pushed forward, and when the drone is turned on, the head moves in the direction of the head.

## 10.ONE KEY 360° FLIPS

The drone can make a 360° flight through the rocker operation below.
In order to perform the tumbling function better, please ensure that the drone is fully charged and maintains a height of about 1.5 meters with the ground. It is best to operate the drone for tumbling during the ascent, so that it is easier to maintain the height after the drone is tumbling. When the battery is low, the roll will show height or roll.
Please charge it in time to experience more flying fun.

10.1 360° flips on the left
Short press the flips button, then push the right joystick to the left, and the drone will turn 360° to the left.

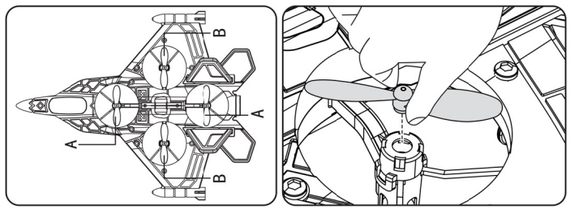
10.2 360° flips on the right
Short press the flips button, then push the right joystick to the right, and the drone will turn 360° to the right.





## 11.MAIN BLADE INSTALLATION

Please unscrew the screws to open the fan blades and the connecting parts as shown in the figure below. Remove the fan blades and replace them.
Make sure all propellers are installed in the correct orientation; if the installation is wrong, the aircraft will not be able to fly normally.




## 12.COMMON PROBLEM SOLVING GUIDELINES

| Problems | Reasons | Solutions |
|---|---|---|
| No response to the drone indicator flicker | 1.The drone and the remote are not successful 2.Low power | 1.Re-frequency the drone and remote control(5.1) 2.Charge the battery(3) |
| The drone blades turn but can't fly | Insufficient battery power | Charge the battery(3) |
| The drone vibrates badly | Blade deformation | Replace blade |
| Tweaked to the end but still can't smooth the drone | Poor motor | Replace the motor |
| The drone was launched again after the crash, but not stable | The sensor is out of balance because of the crash | After the aircraft is placed for 5-10 seconds, or by correcting the gyroscope, it will be fine(5.2) |
| One motor does not turn | Motor stuck | 1. Clean up foreign objects rolled up by the blades 2. Gently dial the blade upwards, restart and correct the gyroscope and take off (5.2) |

⚠ **Special note:** The product has a function of air pressure and height, but it does not have a fixed point effect. When it is not controlled in the air, the product will move slightly at the same height in the air.

## 13.NOTES

13.1 Please ensure that the battery power is sufficient and the remote distance will be affected when the battery is low.
13.2 If the batter power is not enough, it will not fly high enough or take off
13.3 If the drones are broken and deformed, please repair them in time. If the rotors are broken and damaged, they will not fly, or they will cause injury
13.4 Please avoid crash or a serious collision, which can damage the drone or shorten the life of the Drone.



## FCC Statement

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 isconnected.
-Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.
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.

RF Exposure Information
The device has been evaluated to meet general RF exposure requirement. This equipment should be installed and operated with minimum distance 0mm between the radiator & your body.