



X251 WHIRL WIND

2.4G 3D6G BRUSHLESS QUADCOPTER



INSTRUCTION MANUAL

COMPATIBLE WITH FUTABA S-FHSS SYSTEM

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PACKING DETAILS

No.	Spare Parts Name	No.	Spare Parts Name
1	Gift box	7	Charger
2	Inner box	8	Power Adaptor
3	Manual	9	Spare parts parcel
4	Body	10	1.5mm wrench
5	TX	11	screwdriver
6	Lipo battery		

NOTICE

XK company has the rights to change related files of this product. Updating info, please visit our website, <http://www.xk-innovations.com>

WARNING

Pls read this manual firstly before operation. Wrong operation might cause problems for products or your safety. This is a very complex aero model, not a toy. Not only needs careful operation, but also needs very good flying experience. Children is forbidden to operate this product. This manual includes safety, operation, and maintenance. Pls read this manual carefully before operation. To avoid any damage, pls follow this manual strictly.

SAFETY PRECAUTIONS

- 1.Age: it is not suitable for younger than 14, it is not a toy.
- 2.Space: always operate it in a very open space, and far away from vehicle and person.
- 3.Pls strictly follow the operation manual and select the supported device.
- 4.All the chemicals, small parts and electric device should be away from children.
- 5.Be away from water and water steam.
- 6.Pls don't put any parts into mouth, which might cause severe injury and even death.
- 7.Pls don't operate it under low voltage battery status.

SUMMARY

With patent appearance, compatible with FUTABA S-FHSS, brushless motor and ESC, this is a very classic racing quadcopter. Perfect combine with 3D and 6G mode, makes it has normal quadcopter stabilization and 3D flexibility. 6G gesture mode, is very suitable for beginner. 3D mode, is very flexible for pilots.

PRODUCT PARAMETERS

Wheel base: 250mm	Blade Diameter: 130mm
Product Height: 83mm	Flying time: 10-12 minutes
Brushless motor: 1307 3000KV	Flying weight: 199g
Battery: 7.4V 950mah 25C	

BATTERY USAGE



There is a charger inside the box, which can charge the lipo battery safely.

Cautions:

Pls comply with all the notice and warning. Wrong operation will cause,

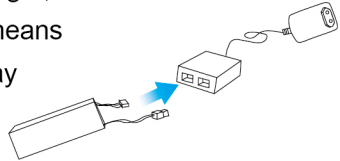
1. Resulting in a fire.
2. All the risk of battery is at your side.
3. Pls stop to use expansion battery.
4. Store the battery in dry and normal temperature conditions.
5. Pls store the battery during temperature 10F-120 F. Don't put it into the quadcopter and under direct solar radiation.
6. Don't use other charger, especially for Ni-Cb or Ni-mh charger, to charge our lipo battery, otherwise it will result in a fire.
7. Do operate when low voltage.
8. When lower than 6.6V, lipo battery might be damaged and can't be charged; Pls change battery immediately when it is lower than 7V.

Warning:

Pls charge the lipo battery using our original charger, otherwise it would cause fire.

LIPO BATTERY CHARING

1. Connect power adaptor with charger; connect the power adaptor with the power supply. Then LED is light on the power adaptor, means power on.
2. Insert the lipo battery into 2S slot on the charger, Red LED turns from flashing to always on, means charging successfully. The voltage will display continually on the charger LCD.



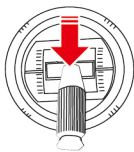
CAUTIONS BEFORE FLYING

1. Make sure full power of TX and Lipo battery.
2. Make sure Throttle stick at the bottom, TH. Hold button and 3D button on the back, before power on the TX.
3. Make sure binding successfully for TX and quadcopter. Pls re binding if have problems.
4. Open TX firstly, then connect the battery with RX to bind. Power off, pls remove lipo battery firstly, then turn off the TX.
5. Find a open space, away from person, car, tower, pool etc., to start flying.

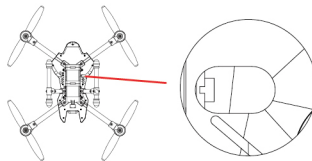
TX AND RX BINDING

Original from factory is already successfully binding. If you need recoding, pls do as following.

1. First open the remote control and make sure that the direction of the throttle rocker in the lowermost position.



Throttle








Bind button

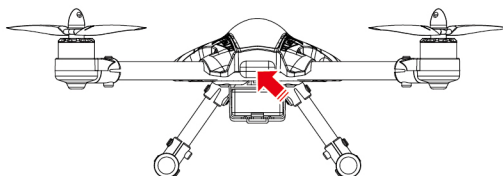
3. Power on the quadcopter firstly, then the red and yellow LED on the quadcopter will flash fast. Press RX binding button for 1s, then the indicators will be off to enter binding status.
4. LED indicators on the RX are always on, then binding finish. Special notice: Green LED always on is 6G mode; Red LED always on is 3D mode.





Cautions:

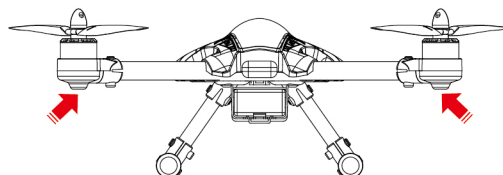
When throttle button is not at the bottom, T.H HOLD button and 3D button is on, TX will send "didi" sound, TX and RX can not bind.

LED INDICATORS

- | | | |
|--------------------------------|---|---|
| 1. Normal state for 6G mode | Tail green LED always on |  |
| 2. Normal state for 3D mode | Tail red LED always on |  |
| 3. Low voltage of lipo battery | Red LED slow flash |  |
| 4. RX lose signal/no signal | Tail yellow LED flash/always on |  |
| 5. Binding | Tail indicators is off firstly, then Green LED always on is 6G mode, Red LED always on is 3D mode |  |

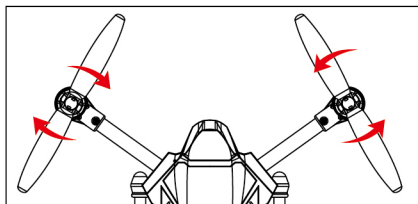


- | | | |
|------------------------|---|---|
| 1. Gyro calibration | Foursquare navigation LED change from fast flash to always on, means calibration finish |   |
| 2. 6G hovering setting | Foursquare navigation LED change from slow flash to always on, means calibration finish |   |



PROPELLER INSTALLATION

1. Take off the hoop, put on the propeller, fix the propeller by hoop.
2. Use hand or wrench to fix motor, then insert the 1.5mm round rod into the hole of hoop, rotate the rod tighten or loosen the hoop.



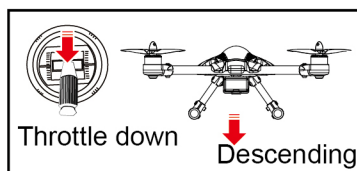
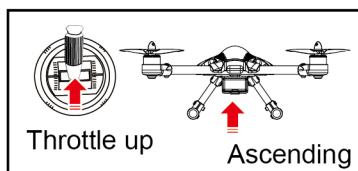
Notice:

The arrows on the propeller should be the same as the motor arrows, otherwise, it can not fly.

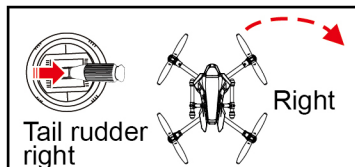
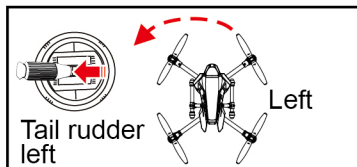
ESC DIAGRAM

If you are not familiar this product, pls take a little time to study before flying.

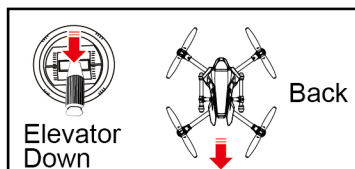
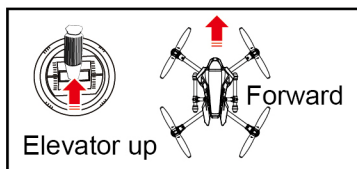
Throttle



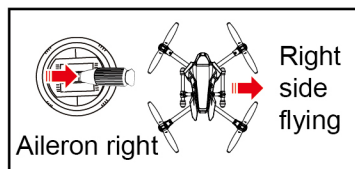
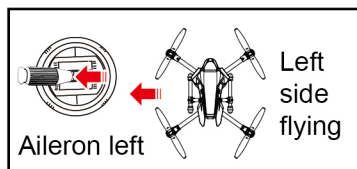
Direction



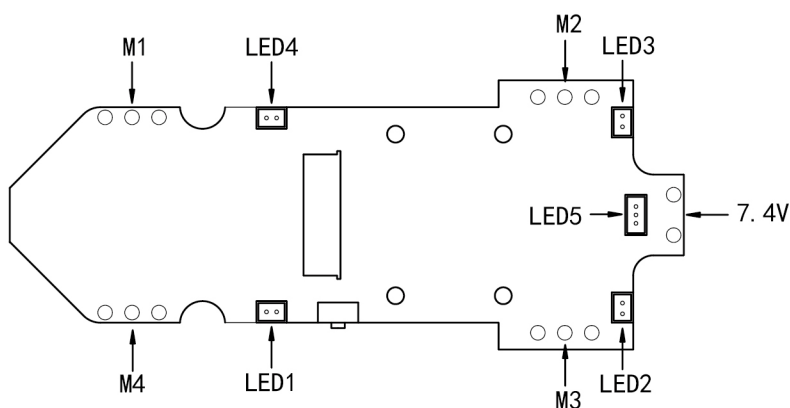
Elevator



Aileron

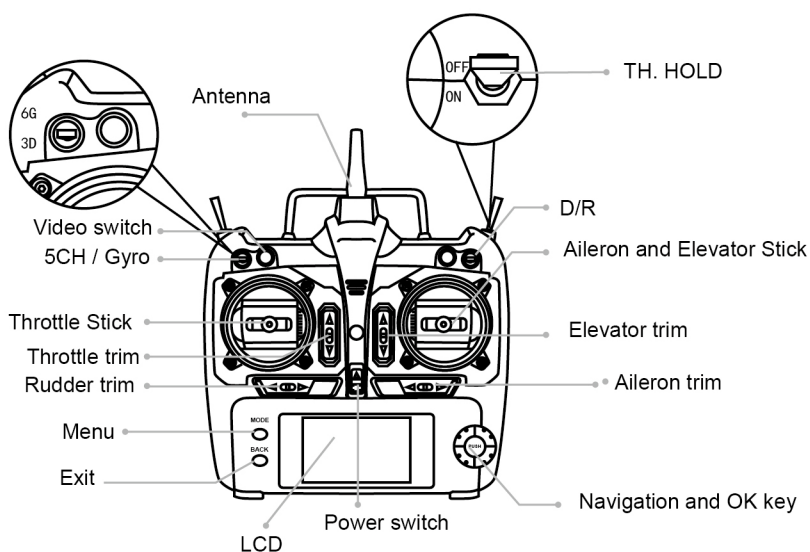


RX INTERFACE DIAGRAM

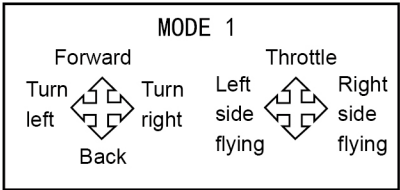


TX FUNCTIONS INSTRUCTION

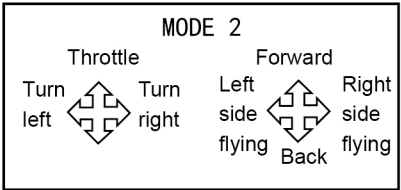
1. TX functions instruction



MODE 1

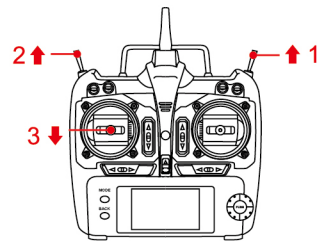


MODE 2



Note:

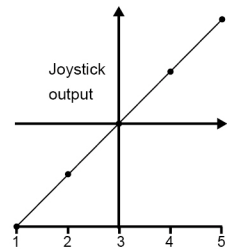
When throttle button is not at the bottom, T.H HOLD button and 3D button is on, TX will send “didi” sound, TX and RX can not bind. Pls make sure 1 2 3 button at the arrow position, before open TX.



THROTTLE CURVE AND PITCH CURVE SETTING REFERENCE TABLE

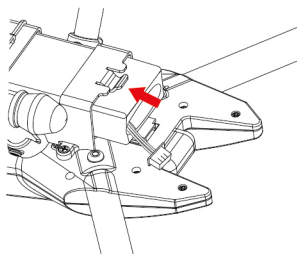
Throttle curve	Position	Normal mode
	1	0
	2	25
	3	35
	4	55
	5	75

Normal mode:

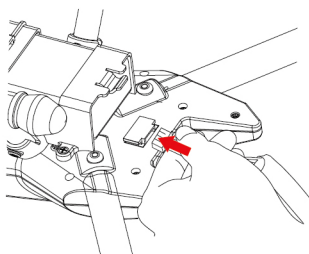


It is only for your reference. You can set it as your requirement.

BATTERY INSTALLATION



1. Enclose battery into the fuselage.

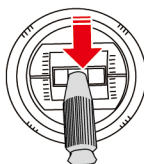
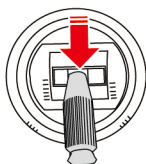


2. Connect battery connector with receiver.

6G HOVERING SETTING

6G hovering is perfect before leaving the factory. If something wrong, please reset it as following,

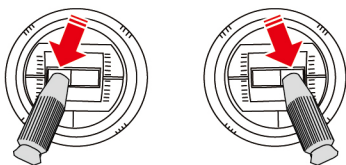
1. Open TX, to make sure 6G button "ON".
2. Power on quadcopter to wait till gyro self-inspection finish, then pull throttle stick and elevator stick at the bottom position at the same time for 3 seconds. You will find foursquare navigation LED flash.
3. Then push throttle stick to fly, to make it hover by two joysticks. When hovering, land the quadcopter slowly.
4. Pull throttle stick and elevator stick at the bottom position at the same time for 3 seconds, to save hovering data. You can enjoy hovering fly after foursquare navigation LED always on.



GYRO CALIBRATION

Temperature change and accumulated error of Gyro can result in yawing of quadcopter. Calibrating gyro is good for stable flying.

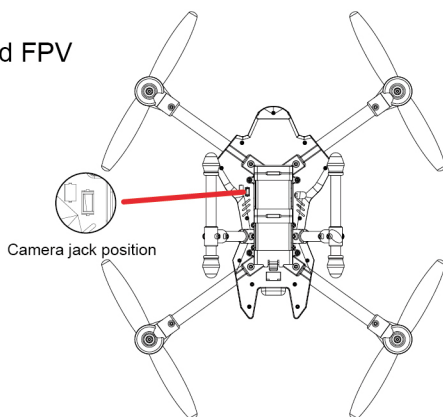
- 1) Make sure 6G button "ON", throttle stick at the bottom. Then open TX and install Lipo battery, Gyro self detection finished when RX indicator long light.
- 2) Pull the two sticks as the diagram for 3-4 seconds, then four-square navigation LED will fast flash.
- 3) Loose two sticks, wait till four-square navigation LED always on. Then gyro calibration finish.



CAMERA AND FPV

Instruction:

You can hang your camera and FPV to take photo or race across.



Notice for beginners:

1. If it is your first time to fly, please follow an experienced pilot.
2. Please be familiar with all the functions of TX and the related sticks before fly.
4. 6CH quadcopter is not a toy. To avoid unnecessary loss, please simulate to fly on the computer firstly.

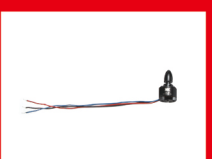
SPARE PARTS LIST



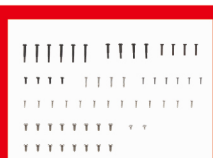
XK. 2. X251. 001
Lipo battery



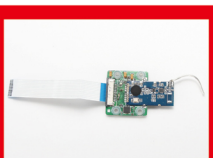
XK. 2. X251. 002
CW motor



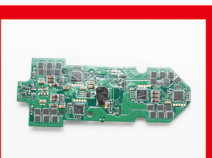
XK. 2. X251. 003
CCW motor



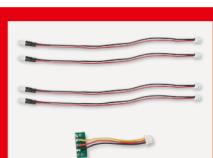
XK. 2. X251. 004
Screw



XK. 2. X251. 005
PCB



XK. 2. X251. 006
ESC



XK. 2. X251. 007
LED light bar



XK. 2. X251. 008
Cover



XK. 2. X251. 009
Motor seat/Landing skids



XK. 2. X251. 010
Support arm



XK. 2. X251. 011
Landing skids A



XK. 2. X251. 012
Landing skids B



XK. 2. X251. 013

lampshade



XK. 2. X251. 014

Battery Cover



XK. 2. X251. 015

Blade



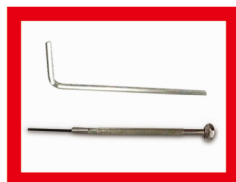
XK. 2. X251. 016

Ottomans



XK. 2. X7. 001

TX



V. 2. 977. 023

Screwdriver/ Wrench



V. 2. 959. 014

Charger and
power adaptor



XK. 2. X251. 017

5.8G FPV Fitting



XK. 2. X251. 018

5.8G FPV Displays
Fitting



XK. 2. X251. 019

FPV Support



XK. 2. X251. 020

5.8G camera



XK. 2. X251. 021

720P camera



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