



X252 SHUTTLE

7 CH 3D6G BRUSHLESS MOTOR QUADCOPTER



INSTRUCTION MANUAL

COMPATIBLE WITH FUTABA S-FHSS SYSTEM

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PACKING DETAILS

No.	SPARE PARTS NAME	No.	SPARE PARTS NAME
1	Manual	6	Charger
2	Body	7	Power Adapter
3	TX	8	Spare Parts Parcel
4	Lipo Battery	9	Charging Adapter
5	Cross Screwdriver		

NOTICE

XK company has the rights to change related files of this product. Updating info, please visit our website, 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 3D flying experience. Children are 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 outlook patent,Futaba 2.4G S-FHSS, high efficient brushless motor, and high response brushless ESC,this quadcopter is very classic with many funny functions, and has high strong motor which can easily surpass other drones. This quadcopter also use the high precision gyro, support 3D6G mode, which makes beginners to fly easily.

PRODUCT PARAMETERS

Wheel Base: 246mm	Blade Diameter: 132mm
Product Height: 68mm	Flying Time: 10-12 minutes
Brushless Motor: 1804 2600KV	
Battery: 7.4V 950mAh 20C	
Flying Weight: 198g	

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:

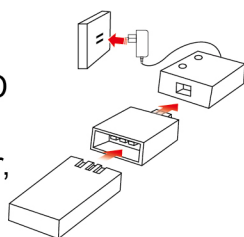
- 1.Resulting in a fire.
- 2.All the risk of battery is at your side.
- 3.Pl's stop to use expansion battery.
- 4.Store the battery in dry and normal temperature conditions.
- 5.Pl's store the battery during temperature 10F-120 F. Don't put it into the quadcopter and under direct solar radiation.
- 6.Don't 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; Pl's change battery immediately when it is lower than 7V.

WARNING:

Pl's charge the lipo battery using our original charger, otherwise it would cause fire.

LIPO BATTERY CHARGING

1. Connect power adapter with charging adapter, insert the power adapter into the charging adapter. Then power adapter LED light turns out to be green.
2. Insert the lipo battery into charging adapter, then insert the connected battery and charging adapter into 2S slot of charger, red light turns out to be on when charging begins. When full charged, red light will be off. Pls take out battery, charging finished.



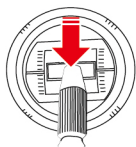
CAUTIONS BEFORE FLYING

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.

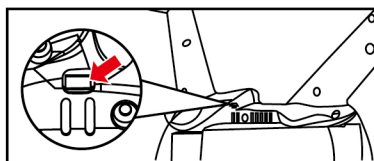
TX AND RX BINDING

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

1. Open TX, make sure the throttle stick at the bottom (pls refer to diagram as below).



The throttle stick








Binding

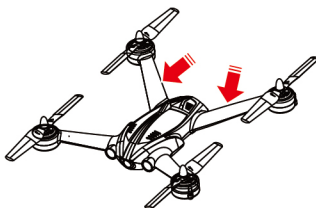
2. Power on the quadcopter, and put it next to TX.
 3. Using screwdriver or round bar with a diameter less than 2.5mm to put into binding slot. Press binding button for 1s, then the indicators will be off to enter binding status.
 4. LED indicators on the RX are lasting on, then binding finish.
- Notice: Green LED always on is 6G mode; Red LED always on is 3D mode.



WARNING:

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. Lipo battery voltage is too lower	Red LED slow flash	
4. TX no signal	Red and green LED always on	
5. Binding	Tail indicators is off firstly, then Green LED always on is 6G mode.	

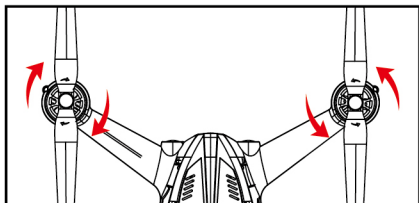


1. Gyro calibration	Navigation LED fast flash to always on, means calibration finish.	
2. 6G hovering setting	Navigation LED slowly flash to always on, means calibration finish.	

PROPELLER INSTALLATION

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

Notice: Before every flying, pls check if propeller is got stuck, if propeller loose, it will fly out in air and cause unnecessary loss.

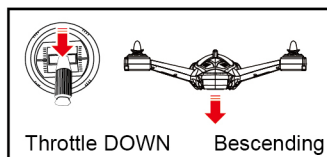
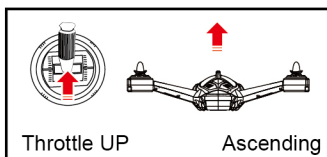


Notice: The arrows on the propeller should be the same as the motor arrows, otherwise, it can not fly.

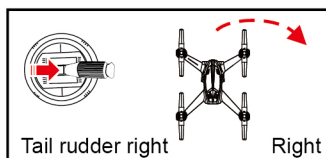
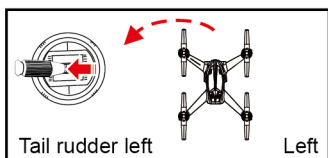
FLYING OPERATION DIAGRAM

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

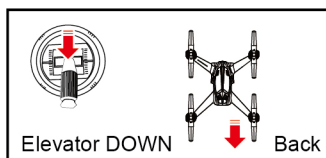
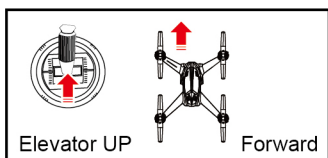
Throttle



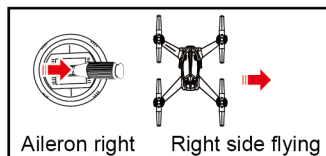
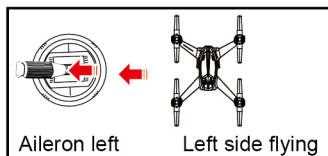
Direction



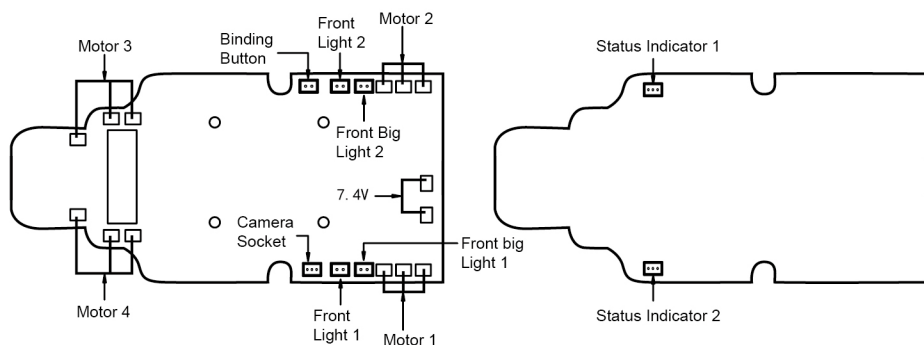
Elevator



Aileron

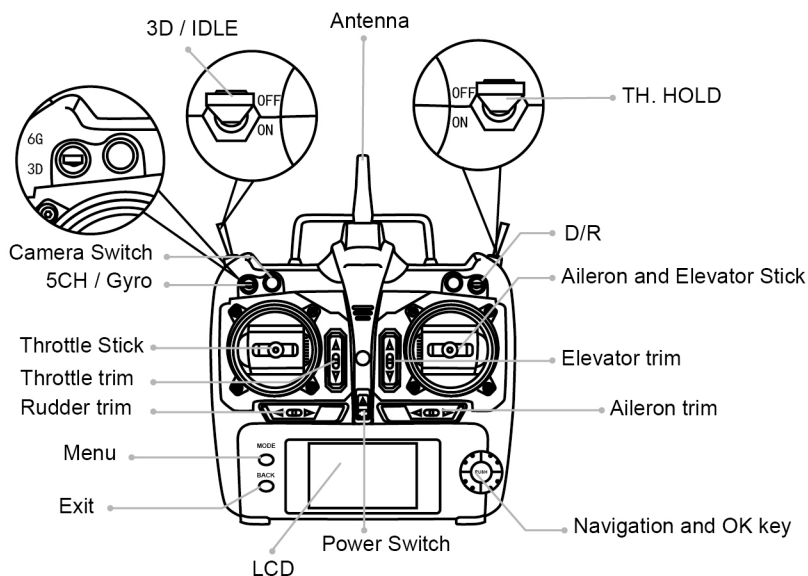


ESC DIAGRAM

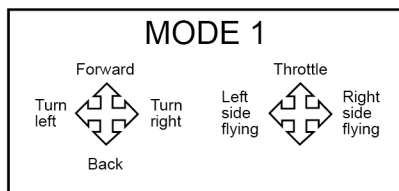


TX USAGE

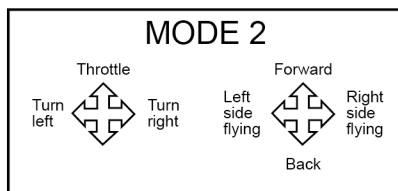
1. TX functions instruction



Right Throttle

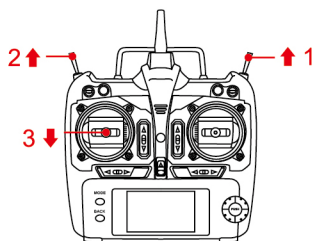


Left Throttle



Note:

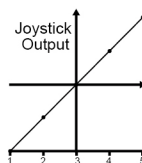
When throttle button is not at the bottom, T.H HOLD button and 3D button is on, TX will send "didi" sound, TX and RX can not bind. Pls make sure 1 2 3 button at the arrow position, before open TX.



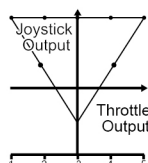
THROTTLE CURVE AND PITCH CURVE SETTING REFERENCE TABLE

Throttle curve	Position	Normal Mode	3D Mode
	1	0	100
	2	25	60
	3	35	30
	4	55	60
	5	75	100

Normal Mode:

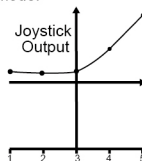


3D Mode:

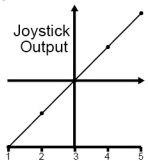


Pitch Curve	Position	Normal Mode	3D Mode
	1	60	0
	2	60	25
	3	60	50
	4	75	75
	5	100	100

Normal Mode:

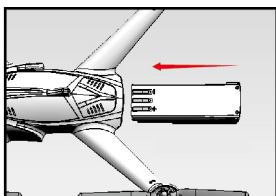


3D Mode:



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

LIPO BATTERY INSTALLATION



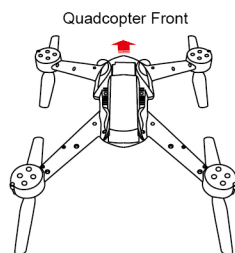
1. Insert battery into battery case directly.

6G FUNNY FLYING

Unique 6G inverted fly, same as general fly, beginners can also fly easily.

Step:

1. Power on the quadcopter, turn on the TX, gyro control button is under 6G mode, indicator shows lastingly green light.
2. Invert the quadcopter, put its head (big light) forward, as show in diagram.
3. Pull throttle stick slowly, propeller reversely rotate automatically, pull up throttle gradually, fly operation is same as generally fly, very easy to operate.



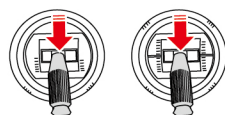
BEGINNERS FLYING CAUTION

1. If it is your first time to fly, please follow an expert pilots.
2. Please be familiar with all the functions of TX and the related sticks before fly.
3. Please do don't do 3D fly if you are not familiar with 6G fly, beginner should practice generally 4 sides hovering flying gradually under 6G mode, after that, practice 3D generally 4 sides flying, then if these 2 modes are learned, you can practice inverted flying under guidance of expert.
4. Inverted flying also should be learned how to do 4 sides hovering, which will enables you to fly in more wonderful actions.
5. 6CH quadcopter is not a toy. To avoid unnecessary loss, please simulate to fly on computer firstly.

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", Futaba TX should set the button position by player.
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.

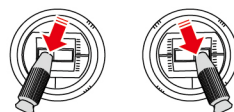


6G Hovering Setting

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 idle button "OFF", 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 foursquare navigation LED will fast flash.
3. Loose two sticks, wait till foursquare navigation LED always on. Then gyro calibration finish.

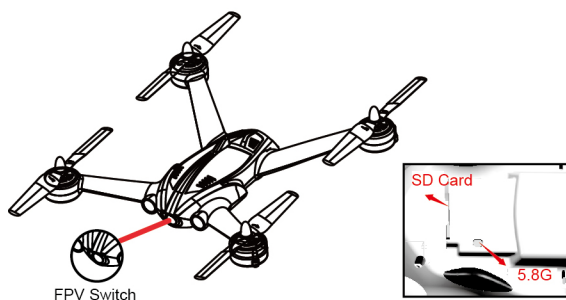


Gyro Calibration

FPV

Instruction:

Internally installed 5.8G HD FPV, 140° wide angle camera to meet demands of users, it also can race across.



After power on the quadcopter, 5.8G FPV launch frequency is same as that of screen, it can transfer videos now. Use TX camera switch to control video, after taking photos it can save the file automatically into SD card for your read.

5.8G HD FPV

1. Feature

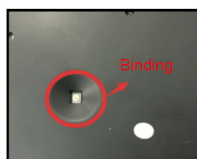
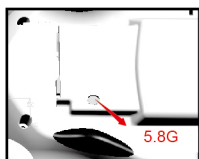
This item use 5.8GHz communication transfer system, with 4.3 inch HD big screen, transfer distance is more than 300 meters, strong performance in anti-interference. Without any delay in transferring videos and with good steady. It support 8 frequency, this enables you to fly in complex electronic interference.

2. Main parameter of 5.8G FPV launch and receive display screen

LCD screen + 5.8GHz receiving module	Launch module
LCD screen size: 4.3 TFT screen, LED backlight, resolution: 272*480	Working voltage: 7.4V
Voltage: internally installed a lipo battery (3.7V 400mAh)	Transferring distance: >300m
Frequency: 5.8GHz	Electric current: <250mA (7.4v)>
Using time: above 60 minutes when full	Transmit power: 500mW
Charging time: 80 minutes	Antenna gain: 2dBi
Antenna gain: 2dBi	Working temperature:-10° ~ 80°
Electric current: < 450mA (3.7) >	Camera: 720P, 140° wide angle
5.8G receiving sensitivity: -95dbm	
Working temperature: -10° ~ 60°	

3. Frequency adjustment instruction

Function: When using with other same 5.8G signal quadcopter, it will affect video transferring, so you can adjust the frequency to avoid interference.



4. Screen charging

Using the equipped USB charger to charge for screen. When charging, USB charger indicator light turns out to be red, when full charged, light to be off (Charging time is about 2 hours).

Notice: Please close the LED screen when charging.
LED screen can show about 1 hour .

SPARE PARTS LIST



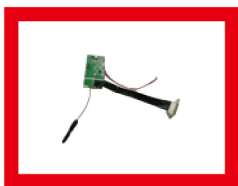
XK. 2. X252. 001
Fore ward propellers



XK. 2. X252. 002
Reverse propellers



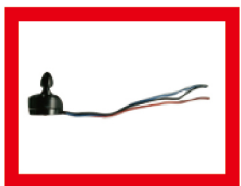
XK. 2. X252. 003
Upper canopy



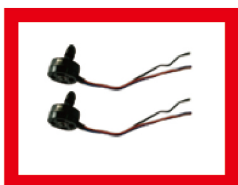
XK. 2. X252. 004
5.8G FPV



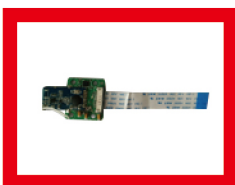
XK. 2. X252. 005
Camera seat



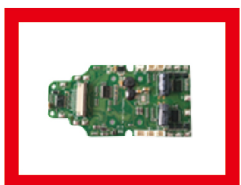
XK. 2. X252. 006
CW motot



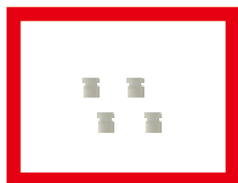
XK. 2. X252. 007
CCW motor



XK. 2. X252. 008
Receiver

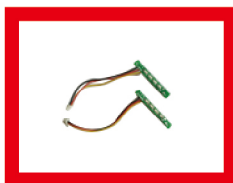


XK. 2. X252. 009
Double way ESC



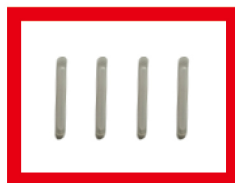
XK. 2. X252. 010

Anti- shock ball



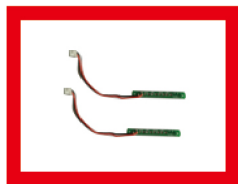
XK. 2. X252. 011

Double color indicator lights



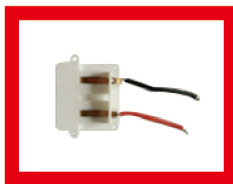
XK. 2. X252. 012

Status light cover



XK. 2. X252. 013

Front status light



XK. 2. X252. 014

Power seat



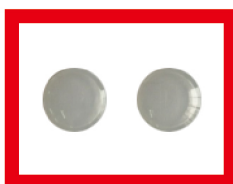
XK. 2. X252. 015

Down cover



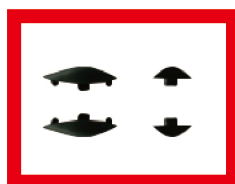
XK. 2. X252. 016

Front big light



XK. 2. X252. 017

Big light cover



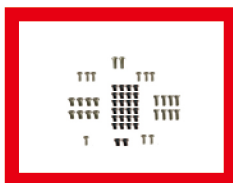
XK. 2. X252. 018

Foot pad



XK. 2. X252. 019

Battery



XK. 2. X252. 020

Screw



XK. 2. X252. 021

Charging adapter



V. 2. 959. 014

Charger



XK. 2. X6. 001

TX



Email:sales@xk-innovations.com