

# A22

Suitable for 14 years old and above

## 4 CH RC QUAD-COPTER (LATEST 6-AXIS FLIGHT SYSTEM / 4 WAYS FLIPS)

### Locking route mode

The button can lock the flying direction, no matter what direction the head pointing, easy to control back the drone.



### MAIN PARAMETERS:

Main blade diameter:	65mm	Frame width:	240mm
Frame length:	240mm	Frame height:	84mm
Battery:	3.7V450mAh	Main motor type:	7x16 4pcs
Total weight:	90g±2g	Charge time:	About 80 minutes
Gyroscope:	Built-in	Flight time:	5-7 minuts

### MIAN FEATURES:

- 1: the 4 motors within the heli give the heli stable flight and enable it to perform the actions easily
- 2: with the modularized structure, it's easy to install and convenient to disassemble for repair
- 3: with the 6 axis gyroscope and position control system automated, the heli can be easily stopped and accurately aloft
- 4: once fully charged, the 3.7V450mAh Li-Po battery gives approximately 5-7 minutes flight

### 1.INTRODUCTION

Thanks for choosing ATTOP product! This is a 4 axle aircraft which is capable of flying in confined space and outdoor, in order for you to maneuver the R.C. helicopter more conveniently and easily, please fly it only after this instruction manual is carefully read, in the meantime, this manual shall be properly kept for future necessary adjustment and repair work.

Suitable for indoor or outdoor which under Grade 3 winds.

### WARNING LABEL LEGEND

- WARNING**: Mistakes made due to negligence of these operation instructions may cause property loss and severe human injury.
- CAUTION**: Mistakes made due to negligence of operation instruction may cause danger.
- FORBIDDEN**: Please do not fly the R.C. helicopter under any specified forbidden environment.

LI-Po battery is comparatively more dangerous than other batteries. Please make sure below instruction is carefully read and rigorously followed prior to using them. ATTOP shall not be responsible for any damages caused by improper operation of the battery.

The battery can only be charged by authentic ATTOP charger, otherwise it may lead to fire or explosion. Do not hit, disassemble, burn or connect them to the wrong pole. Avoid contact from metal or sharp item otherwise it may cause short circuit or fire.

Be cautious when charging the battery and make sure it is within sight and beyond the reach of children to avoid any danger.

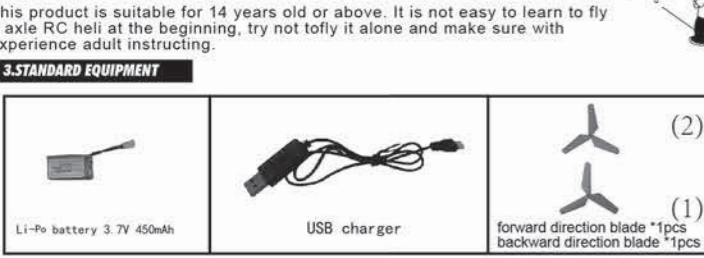
Please do not charge the battery if it becomes when during usage. Otherwise it will inflate, deform or even cause fire which could cause property damage and personal injury.

Please dispose abandoned batteries in accordance to the law and regulation of the corresponding region to prevent pollution to the environment.

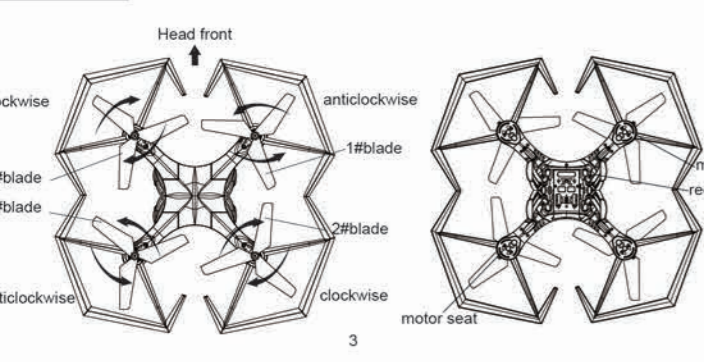
Most of the RC aircraft are made of PA fiber, plastic and electronic materials therefore it should stay away from heat source, sun shine to prevent deformation even damage caused by high temperature.

This product is suitable for 14 years old or above. It is not easy to learn to fly 4 axle RC heli at the beginning, try not to fly it alone and make sure with experience adult instructing.

### 3.STANDARD EQUIPMENT



### 4.NOMENCLATURE



### IMPORTANT NOTES

This RC helicopter is not a toy, though it is just a mini RC 4 axle heli, it still could be dangerous. Please fly the model RC heli according to the manual instruction and its notices. Any modification, maloperation or unfamiliarity to the heli could bring about unexpected danger or accident, please be prudent.

NOTE: for any RC helicopters, neither manufacture nor dealers is responsible for any losses caused by maloperation or improper assembly or accidents owing to abnormal abrasion or inappropriate environment. This product is suitable for 14years old and above. Please only operate the heli in safety environment, once sold; ATTOP will not hold any responsibilities for property loss and personal injury caused by maloperation, disassembly and modification.

This model RC heli requires high operation skills and is consumable. After its package is opened and the heli is flown, varying degree of abrasions occur. Malfunction or dissatisfaction brought about during usage will not be entitled to replacement nor return. In case of operation and repair instruction, please contact ATTOP and our agencies for technical support and after sale service.

### 2.SAFETY NOTES

**CAUTION** R.C model and 4 axle aircraft are products with danger; it must be away from the crowd when flying. Misassembly, defect, poor performance of the electronic control or improperoperation could lead to unexpected incident like plane damage or personal injury. Please pay attention to flight safety and make sure it is well understood that responsibility will fall on the player for accidents caused by himself.

**FORBIDDEN** R.C. heli. is for indoor and outdoor use only, must stay away from obstacles when flying This product is suitable for indoor and outdoor (wind scale must be under 4) use only, for indoor, please make sure it is clear of obstacles; for outdoor, stay away from crowd and pets etc., do not fly it in improper environment, such as areas with heat source, power line and power source etc. otherwise, fire or electric shock, loss of fortune or personal injury could occur due to crash, emergency landing or entwining.

**FORBIDDEN** Stay away from damp conditions

The interior of heli consists of many precise electronic and mechanic components, therefore moisture and water must be prevented and it shall not be performed in bathroom or in rainy days to avoid breakdown of the components that may cause unexpected accident!

**FORBIDDEN** Use the product properly

Please do not tear apart or modify the RC heli at will and only apply authentic ATTOP components to update, replace or fix RC heli to ensure its safety. Please only maneuver it within its limit. Any illegal purpose of use concerning its safety shall be stopped.

**FORBIDDEN** Attention to battery

When install batteries, make sure the electric polarities are correct, do not mix new batteries with old ones. For long time storage, please take them out to prevent battery leakage. Please dispose abandoned batteries in accordance to the laws and regulations of the corresponding region to prevent pollution to the environment.

**FORBIDDEN** Instruction LI-Po battery

### 5.Installation and attention of USB charger

1. Suitable for (3.7V) Li-polymer battery pack.

3.Operation steps



3.Charging statuses corresponding to LED

Step	operation	LED status	Charging status
1	Connect the USB cable to the computer	LED is in red solid on	Power on
2	Step 1 + connect the battery pin to USB cable	LED red light is off	Charging
		LED is in red solid on	Saturated

4.matters needing attention

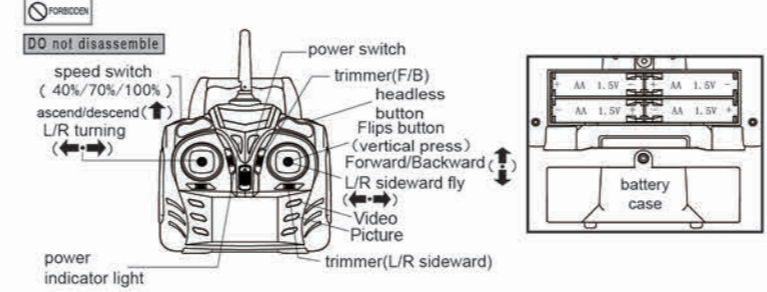
- (1) During charging, the charger should be put in dry and ventilated place and far away from heat source and inflammable and explosive substance.
- (2) Only used to charging 2S Li-ion or Li-polymer battery pack, if not, the charger or battery may be damaged.
- (3) Never leave the charger unsupervised during the process of charging in order to avoid risk of accidents.
- (4) Never immediately charge your battery pack as soon as the flight is finished, or when its temperature doesn't cool down, otherwise the battery will take a risk in swelling, even a fire.
- (5) Ensure the correctness of polarity before connection the battery to charger.
- (6) Avoid drop and violence during the process of charging, drop and violence will result in internal short circuit of the battery.
- (7) For the sake of safety, please use original charging equipment and battery pack, please change new one in time when the flying time is becoming shorter due to long time usage.
- (8) If it is retained in the charger for a long time after saturated, the battery may automatically discharge.

When the charger detects that the voltage of individual cells is lower than the rated voltage, it will re-charge until saturated. Frequently charging and discharging will shorten the lifetime of your battery pack. It is advised that please cut off the power and took off the battery after the charging is saturated.

5.Maintenance of battery pack

- (1) The battery pack should be put in dry and ventilated place. The storage temperature of environment is ranged from 18°C to 25°C.
- (2) Please avoid frequent charging and excessive discharging the battery pack in order to prolong its life cycle.
- (3) It is a must to maintain the battery pack before long-term storage. That is to charge the battery to the level of 50-60% saturation.
- (4) If the storage term is over 1 month, it is advised to monthly check the voltage of every cell of the battery pack. The voltage of every cell should be not less than 3V. Otherwise, please refer to the above article (3).
- (5) From the view point of protection, new battery pack should be motivated before usage. That is to charge and discharge 3-5 times, but discharge is not less than the level of 70% saturation. This process will make the battery lifetime longer and voltage more stable.

### 6.NOMENCLATURE

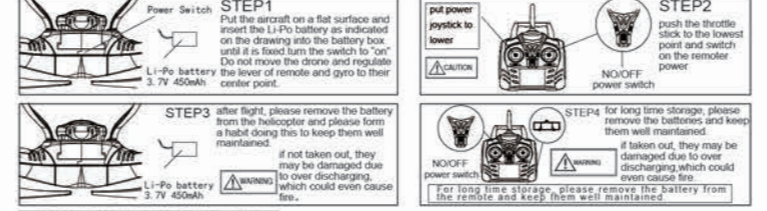


(Power indicator light is red; low power is flashing slowly, and flashing fast when searching the frequency) The model is using the last six-axis gyro system and auto frequency adjusting system, normally the user doesn't need to adjusting the trimmer. User can use trimmer when failed in auto-adjusting.

### 7.SPECIAL TIPS BEFORE OPERATING

- 1.Power on the aircraft: Connecting the power of aircraft, then put the aircraft on a flat ground or table, 3 secs rest.
- 2.power on the remote: the indicator light is flashing, pull the throttle to the top and back to the lowest, then the remote indicator light is solid lighting, that means the aircraft has succeeded connected with the remote, and you can prepare for your flying action.
- 3.Notes when flying: Throttle down the throttle stick to the lowest position promptly if the aircraft is crashing or the rotor block down. Otherwise, the received circuit board will be damaged.

### 8.BINDING OF RADIO TRANSMITTER AND RECEVET



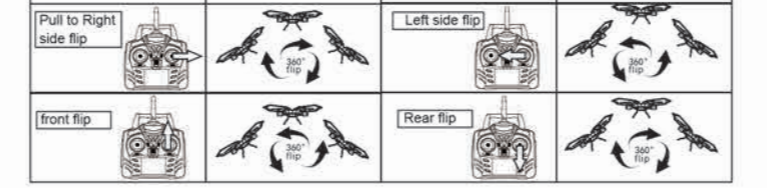
### 9.FLIGHT ADJUSTMENT AND SETTING

PRIOR TO FLIGHT, PLEASE PRACTICE FIRST

Prior to flight, please practice first so as to acquaint yourself with the operations. Before it is well understood how to maneuver the flight, please do not fly the R.C heli. Please read instruction manual and keep practicing until the basic flying skills are mastered.

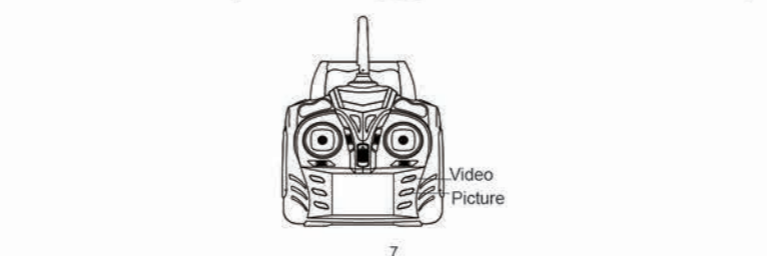
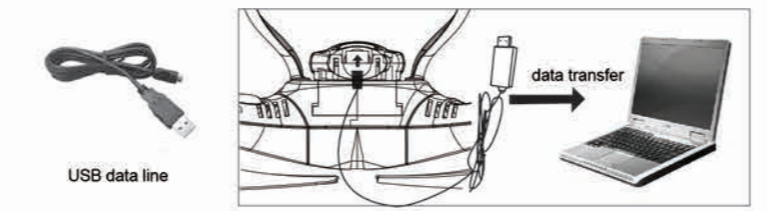
- 1.put the R.C heli in an open area with its tail facing the player.
- 2.practice operating all the controlling sticks on the remote (see detailed operation in below picture) and repeat the practice for throttle sticks, L/R turning trimmer, and F/B flying trimmer.
- 3.practice for flight is crucial, please keep practicing until all the operations can be done on hearing the orders for each movement without thinking

### 10.Instruction of Photo and video taking



### Operating as below step

- 1.Start up the quad-copter: Switch on the remote, then connecting the copter power. Shut off the quad-copter. Disconnecting the copter, then switch off the remote. (make sure to insert the memory card in the socket of the copter).
- 2.After taking off and adjustment, the copter can start the camera function, you can take picture and video and auto recording in the memory SD card. (Notes: Camera function is also working without taking off, but base on the frequency adjustment is successful.)
- 3.Camera controlled button: The first button on lower right is for "video", the second one is for "picture". The LED light of copter flashing one time when taking a picture. The LED light of copter keep flashing when taking a video until you press again "video button" to finish this section. (All the data will be recording into the memory SD card.)
4. Connect the USB data line with the USB socket on computer, after successful connection, click "my computer", open the file of "mini SD" then you can find and visit the videos and photos taken by you.



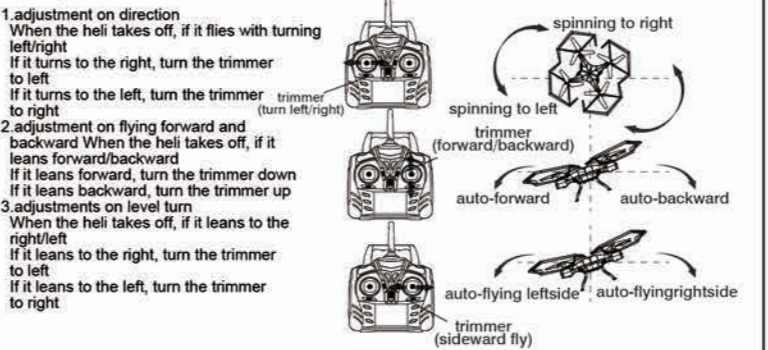
### AUTO FREQUENCY ADJUSTING

Pull the left stick to lower left corner and right stick to lower right corner simultaneously. After 3 seconds LED light on the UFO head will flash, means the adjusting is complete, you can control the quadcopter now.

MODE	ILLUSTRATION	MODE	ILLUSTRATION
Aileron	move left, move right	Throttle	go up, go down
Elevator	forward, backward	Rudder	turn left, turn right

### TRIMMING ON THE FLYING ACTIONS

Slowly push the throttle stick up till the heli flies off the ground. If the heli tilts, trimmer can be utilized to modify it.



### 360° flip function operation manual

- 1.Slowly raise the throttle stick
- 2.Keep the UFO flying smoothly in the air.
- 3.Vertical pressing the right joystick once, after "Beep..." the quad-copter is ready to do 360° flip. Now you can push the right joystick to achieve front, back, left and right side flip. The right joystick will self-return. Repeat above method to continue your flip fun.

### 11.TROUBLE SHOOTING DURING FLIGHT

ISSUES	CAUSE	SUGGESTIONS
1 After the battery is inserted in the heli, indicator light on receiver keeps flashing, no response to operations	Frequency adjusting between remote and receiver not successful	Readjust frequency for remote and receiver. (please refer to P.6 for details)
2 No response after battery is inserted in the heli	1.check if the power for remote and receiver is on 2.check the voltage of the batteries of remote and receive 3.contact on the poles are not good	1.open the transmitter and make sure if the battery is inserted in right position 2.use a fully charged battery 3.reinstall the battery and confirm if the contact for the pole is o
3 Motor does not run when operating the throttle stick and the indicator light on receiver keeps flashing	Power for the Li-Poly batter is not enough	Charge the battery or replace it with a full battery
4 Main motor blade spins but heli won't fly	1.the blade has deformed 2.battery power is not enough	1.replace the main blade 2.charge the battery or replace it with a fully charged battery
5 Heli shakes a lot	1.main blade has deformed 2.main frame has deformed	1.replace the main blade 2.replace the main frame
6 Turning trimmer has been tried but heli still spins, speed to the right and left does not conform	1.main blade has deformed 2.motor does not work wel	1.replace main blade 2.replace main motor
7 Heli leans forward/backward	Center on the gyro is not correct	Turn on the heli and center the climbing and diving trimmer then restart the heli
8 It won't fly after it falls down	1.motor has dropped off 2.gear has loosened	1.reinstall the motor 2.tighten the gear

### 12.PARTS LIST

NO	NAME	NO	NAME	NO	NAME
1	Airframe housing	2	Receiving board	3	Main frame
4	Battery case	5	battery cover	6	Main motor
7	Motor gear	8	Main gear	9	Motor seat
10	Main steel tube	11	1# blade	12	2# blade
13	Landing feet	14	Light cover	15	Light
16	Camera part	17	Camera		

Materials, specifications for the parts and packing indicated in the instruction manual are only for reference, ATTOP will not be responsible for their changes in future nor could we notify consumers. For any updates and changes, please refer to ATTOP website.

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

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.