

# ALPHA JET

“阿尔法喷气” 涵道遥控模型飞机

Instruction manual



ART-TECH<sup>TM</sup>.COM  
R/C HOBBY

## CONTENTS

Brief introduction.....	2
Main specifications.....	2
Product's constitution.....	2
Statement.....	3
Safety precautions.....	3
Charging method and cautions.....	4
Safety Instruction of Li-Po/Ni-MH battery.....	5
Notification for ESC.....	5
Functions for control set.....	6
Receiver .....	7
The process of frequency bind for 2.4GHz R/C system.....	7
Assembling steps for ALPHA JET.....	8
Center of gravity check.....	9
The possible problems and solutions .....	9
Spare parts list.....	10
中文说明.....	11-18

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★. Other notice is not required if there is any changes on the manual, ART-TECH keeps the final right of modification

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### Brief introduction

Thank you for purchasing ALPHA JET Radio Controlled Model Aeroplane. This model use EPO style foam, which makes the model incredibly strong and durable even in a crash. It is easy to control, with excellent flight performance in high-speed, superior flight stability. This model adopts 3 channel control mode, with simple structure, easy maintenance, with high scale, vivid appearance, and luxuriant paintings. This is the best model for intermediate and high-level enthusiast to make high speed flight. We hope it will bring you more fun while flying.

### Main specifications

Wingspan:	728mm\ 28.66 in	Motor Model:	Outside brushless motor AE2810
Length:	900mm\ 35.43 in	Battery:	11.1 V Li-Poly 2200 mAh, 20C
Weight:	650g\ 18.34 Oz	Radio control:	4 CH 2.4GHz

### Product's constitution

RTF Constitution: Fuselage, main wing, cabin, seat, transmitter, receiver, ESC, servo, battery, charger, set bolt for main wing, manual.

ARF Constitution: Fuselage, main wing, cabin, seat, servo, set bolt for main wing, manual.



**Statement**

1. " ALPHA JET " is not a toy; which is only suitable for the experienced pilot. Please keep in mind that you are responsible for the safe operation for this model and damage or harm which may cause.
2. Please adjust this plane correctly according to instructions and make sure the finger and other parts of your body out of the rotating parts of the plane, or it may cause damage to the plane or injury yourself.
3. The user bears full responsibility of proper operation and use of this model. Art-Tech and any of its distributors can not be held responsible for any liability or loss due to improper operation.

**Safety precautions**

1. Do not fly outside in the thunderstorm, rainy and strong winds.



2. Do not fly nearby the airport, railway, road, power lines.



3. Do not fly where there are crowds of people.



4. Make sure the model plane and control system is under normal condition before flying.



5. Only use Art-Tech genuine accessories as replacement for damaged parts.



6. Do not attempt to catch the ALPHA JET while flying.



6. Beginner should have an adult to guide. Not recommend for the children under the age of 14.



## Charging method and cautions

### Li-Po battery(balance changer)

#### ATI-0910 Li-Po battery(balance changer) specifications

##### Specifications:

Input voltage: DC 10V~15V

Output voltage: DC 7.4V & 11.1V (to 2 or 3 cell Li-Po battery)

Charging current: 0.3A~1.0A (can be continuously adjusted)

##### Indicator state:

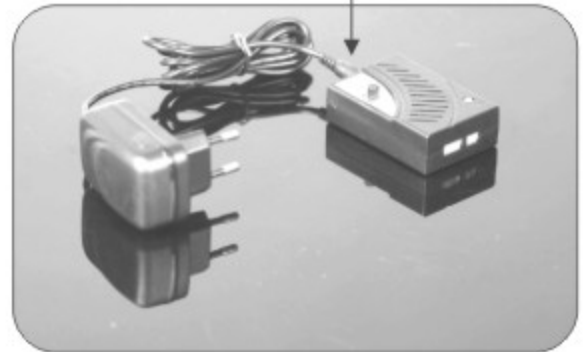
Green: Charge complete & no battery

Red: Charging

Flash: Drip current charging

The batteries are inspected separately. When the voltage reaches 4.20V, the charging process stops.

12V DC Power supplier



## Operating

1. Then plug cigarette into its socket in car (Adapter should be connected if charge at home: connect the adapter to home power socket, then plug the adapter' DC end to charger). The LED will turn green indicating it is ready for charging.
2. Connect the battery to charger per its interface mark. The LED becomes red, which means charging is on the way.
3. Adjust the current among 0.3A~1.0A. In order to prolong battery' life-span, we recommend to charge them under low current if you have enough time.
4. When LED flashing, the charger will enter the stage of drip current charging. The LED turns green when fully charged, and the battery will be used at any time.



## Notice

1. Do not insert anything conductive into the cooling hole when power is on, or damage will be caused to the charger.
2. While charging is in process, please do not make it near flammable materials.
3. It is not allowed to charge two-cell and three-cell Li poly battery at the same time.
4. Expect Li poly battery, this charger is not allowed for other kinds of battery.
5. While charging, please keep it out of the reach of Children.
6. When this charger is in use, please do not go away and leave it unwatched, if any abnormality occurs (such as the power indicator is off, the temperature of the battery rise rapidly, etc.) stop charging immediately.
7. Please do not use power with output voltage higher than 15V.
8. Please do not disassemble the charger or its accessories.
9. When the battery is not cool down, please do not urge to charge it.

**Notice**

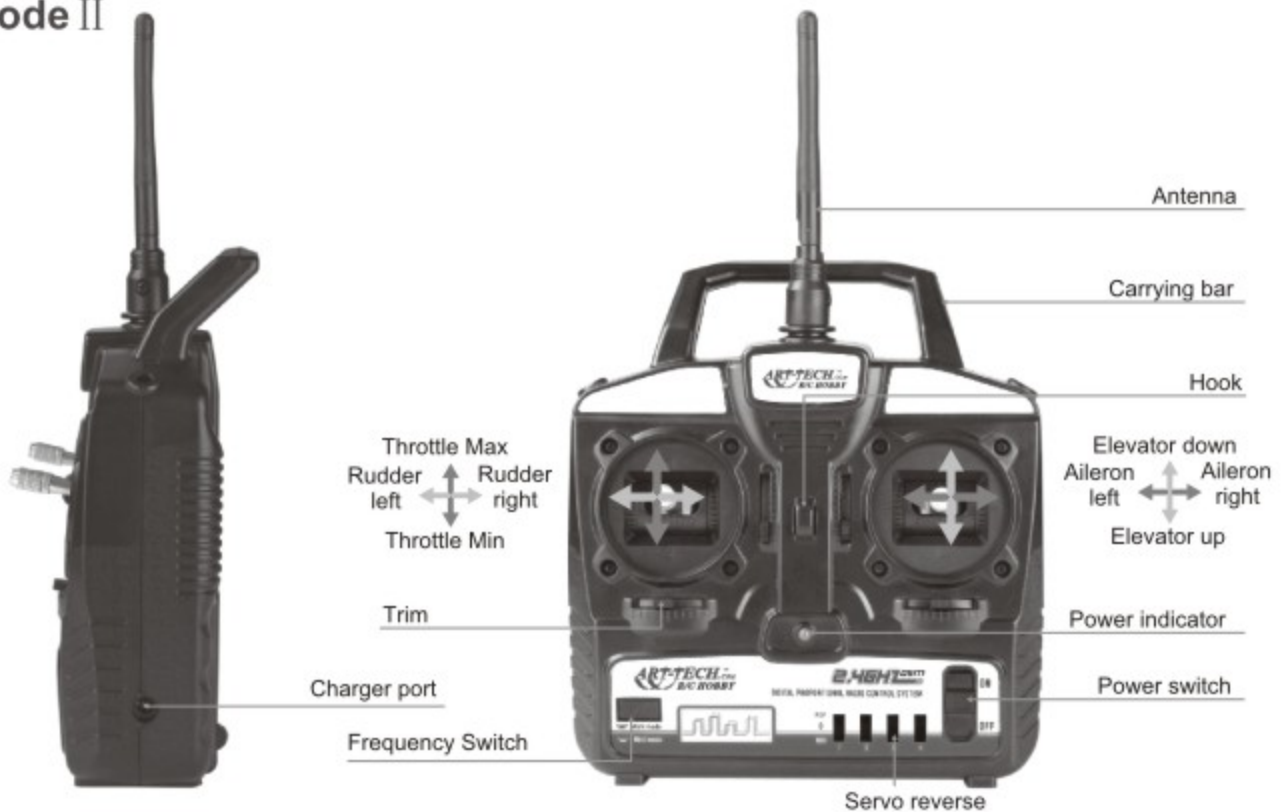
1. Be fully charged under no more than 1 A voltage by using the specified charger.
2. Be discharged under 10C voltage but avoiding discharge time too long to harm the battery.
3. Repeat the first and second step one or two times.
4. When the Li-poly battery was stored more than 3 months, it needs to be recharged to maintain its voltage, and ensure its life time.

**Safety Instruction of Li-Po/Ni-MH battery**

1. Do not disassemble or reconstruct the battery.
2. Do not short-circuit the battery.
3. Do not use or leave the battery nearby the fire, stove or heated place (more than 80 °C).
4. Do not immerse the battery in water or sea water, do not get it wet.
5. Do not charge the battery under the blazing sunlight.
6. Do not drive a nail into the battery, strike it by hammer or tread it.
7. Do not impact or toss the battery.
8. Do not use the battery with conspicuous damage or deformation
9. Do not charge a warm battery. Allow it to cool completely before attempting to charge.
10. Do not reverse charge or over discharge the battery.
11. Do not connect the battery to the ordinary charger socket or car cigarette jack.
12. Do not use the battery for unspecified equipment.
13. Do not touch the leaking battery directly, please wash your skin or clothes with water if they are bedewed by liquid leaking from the battery.
14. Do not mix the Li-Poly battery with other un-chargeable battery in using.
15. Do not continue charging the battery over the prescribed time.
16. Do not put the battery into the microwave oven or high-pressure container.
17. Do not use the abnormal battery.
18. Do not use or keep the battery under the sunlight.
19. Do not use the battery nearby the place where generates static electricity (over 64V).
20. Do not charge the battery when the environmental temperature is under 0 °C or over 45 °C.
21. If you find the battery leaking, smelling or abnormal, stop using it and return it to the seller.
22. When the battery is charging, please do not make it near the flammable materials!
23. Keep the battery away from the children.
24. Use the specified charger and observe charging requirement (under 1A).
25. When using by minors, parents should show them to the correct instruction.

**Notification for ESC**

1. The function of this ESC was in the best condition after factory setting; please do not change it by yourself.
2. Before connecting the battery, please make sure the throttle and Micro-trim were in the lowest position. If the throttle and Micro-trim were not in the lowest position by mistake after connecting the battery, you can cut off the battery; move the throttle and pitch to the lowest position, then connect the battery.
3. The ESC of the airplane was in a good cooling position after factory assembly; please do not move its position.
4. The ESC should be connected to the brushless motor correctly, otherwise the motor will be reversed turning, and the model airplane can not fly correctly.

**Functions for control set**
**Mode II**

**Specifications :**

- Model No.: EFLY-4B II
- Number of channels: 4
- Work frequency: 2.4GHz
- Work current:  $\leq 150\text{mA}$
- Work voltage: 12V (1.5V\*8AA batteries)
- Land R/C distance: 200m
- Air R/C distance: 400m
- Certification: FCC, CE

**Notice**

- When turn on the power of the transmitter, the throttle should be in the lowest position. The power of the transmitter should be turn on first, and then turn on the receiver.
- The transmitter can not work properly if the frequency bind button is pressed down neglectfully. In this case, The transmitter and the receiver must be bind again. More details , ease refer to the process of frequency bind for 2.4GHz R/C system.
- Please do not turn on several RC devices and bind them at the same time, bind only one set of RC device at one time. The RC device should not be stay in bind state for a long time.
- You will need 8 AAA batteries for operating the transmitter.
- Servo reversing switches

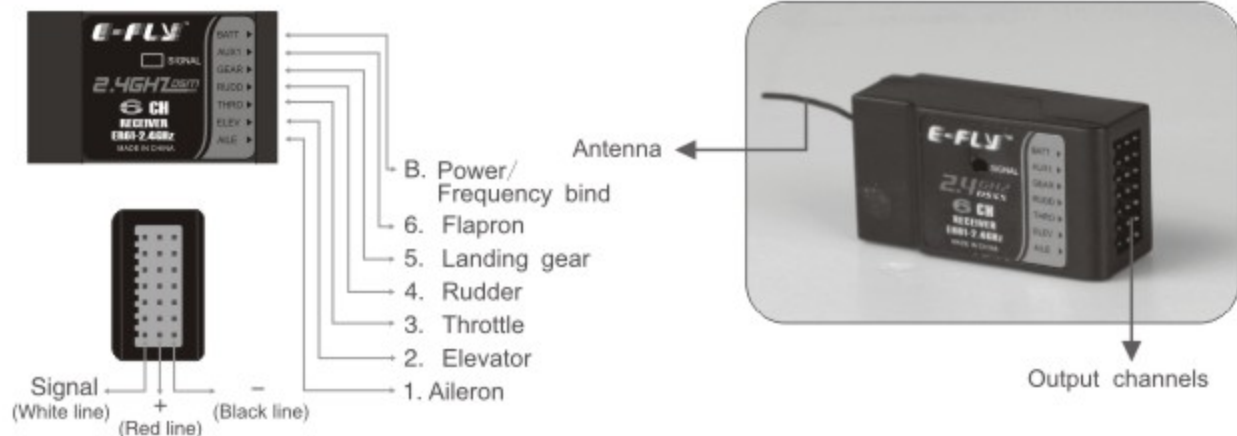
If the direction of servo operation is not the same as the model, adjust the reversing switches to reverse the direction. The lower position is the normal setting and the upper position is the reverse setting.

**Channel display**

AIL.: Aileron	(CH1)
ELE.: Elevator	(Ch2)
THR.: Throttle	(CH3)
RUD.: Rudder	(CH4)



**Receiver**



**SPECIFICATIONS AND PARAMETERS**

- Operating voltage: 4.8V~5.2V
- Current drain:  $\leq 40\text{mA}$
- Weight: 12g
- Dimension: 44mm\*23mm\*15mm
- Channel: 6CH
- Adjacent channel rejection:  $\geq -85\text{dBm}$

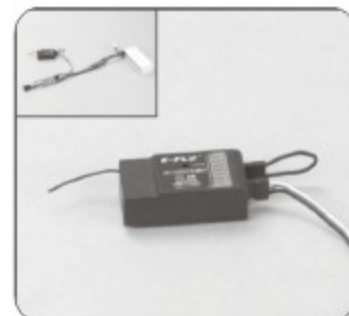
**The process of frequency bind for 2.4GHz R/C system**



1. Press the button for frequency bind, then turn on the transmitter's power.



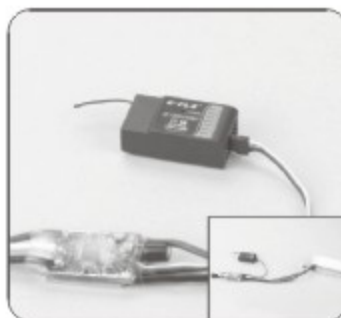
2. Connect the ESC to receiver for electricity supply, which results to the indicator light glitter. And then plug the short-circuit plug into the Receiver in the position of BATT.



3. If the frequency bind is successful, the indicator light will extinguish.



4. Press frequency bind button again to get it rebound. The transmitter get into working mode.



5. The indicator light turns bright again seconds after pulling out the short-circuit plug, which means that the radio system can work normally now.

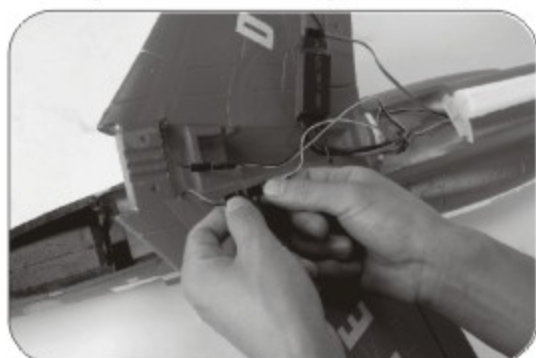
### Assembly steps for ALPHA JET



1. Take out the AB glue from the accessory bag, mix the glue in 1:1 ratio, and spread it on the surface between the vertical wing and the tail of fuselage, and then paste them together.



2. Connect the servo plug in the aileron to the Y cable in the receiver, put the ESC and other cables orderly in the rabbit of the fuselage back, and then install the main wing.



3. Fix the main wing into the fuselage with the 2 nylon bolt from the accessory bag.



4. Make sure the switch on the transmitter is in the OFF position. Place the 8 AA batteries in the back of the transmitter. Ensure the throttle is fully closed before turning the transmitter on.



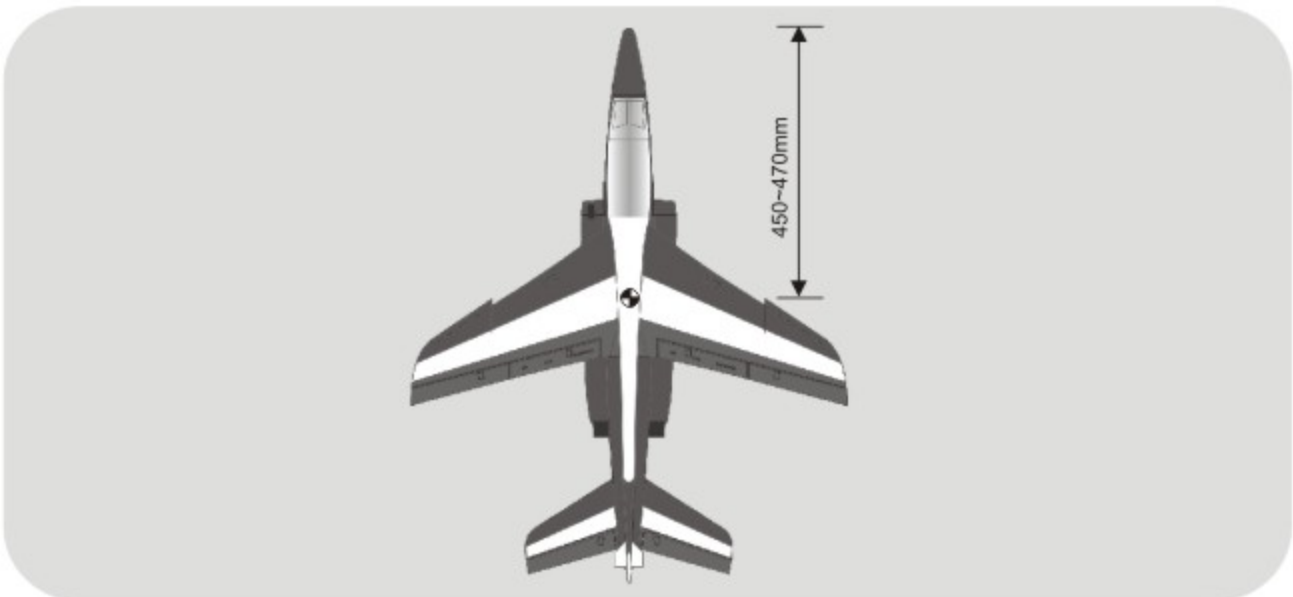
5. Connect the battery to the ESC, and install them in the appointed position in the fuselage, and then cover the seat.



6. Cover the cabin well and ensure every control surface (Aileron and elevator) on the center position, make sure the turning direction of each control surface is consistent with the joystick direction. Or, you can adjust the grip and the servo reverse switch set in the transmitter to solve this problem.

### Center of Gravity Check

Make sure to check the CG of the model, the CG of ALPHA JET should be between the ranges in below picture. The proper CG position should be 450~470mm away from the front.



### The possible problems and solutions

Phenomenons	Problems	Solutions
Motor does not run	<ol style="list-style-type: none"> <li>1. Battery is not fully charged.</li> <li>2. The battery in the transmitter is not full.</li> <li>3. The circuit in "ALPHA JET" has been damaged due to Crash</li> </ol>	<ol style="list-style-type: none"> <li>1. Charge the battery.</li> <li>2. Install new dry cells.</li> <li>3. Maintain or contact the local distributor for help.</li> </ol>
Can not fly straight	Elevator and / or Ailerons are out of trim	Adjust the trim switch of the appropriate control to correct.
Can not climb	<ol style="list-style-type: none"> <li>1. The battery is not fully charged.</li> <li>2. Both elevators leaning downward</li> </ol>	<ol style="list-style-type: none"> <li>1. Charge the battery</li> <li>2. Adjust the micro-trim switch on the transmitter to make the two elevators upward</li> </ol>
Limited control range	<ol style="list-style-type: none"> <li>1. The batteries are almost flat</li> <li>2. The transmitter was fault</li> </ol>	<ol style="list-style-type: none"> <li>1. Install new batteries</li> <li>2. Contact the local distributor for help.</li> </ol>

**Spare parts list**



No: 5X011  
Fuselage set



No: 5X021  
Main wing set



No: 5X031  
Cabin



No: 3F024  
Li-poly battery(11. 1V,2200mAh)



No: 3F341  
Brushless ESC(40A)



No: 5X041  
Ducted fan



No: 3I011  
Adapter and balance charger



No: 32016  
Receiver



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