

F-14 JET TOMCAT **ducted fan R/C airplane**



Instruction manual

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★. 说明书内容如有需要任何修改, 不需另行通知, 艾特有最终修改权
★. Other notice is not required if there is any changes on the manual, ART-TECH keeps the final right of modification

2010. 3

Brief introduction

Thank you for purchasing F-14 "TOMCAT" JET Radio Controlled Model Aeroplane. This model use EPO style foam, which makes the model incredibly strong and durable even in a crash, the optimized structure which is simple but also has the advanced function of sweeping the wings which is easy to set up and maintain. With super scale appearance and added detail of a scale pilot, missiles and auxiliary drop tanks the model is taken to a new high level. The F-14 is easy to fly for the experienced pilot with both good stability and strong power which should provide you with lots of flying fun.

Main specifications

Wingspan: 1000 mm \ 39.37 in (minimize sweepback))	Motor : brushless outer runner C 2315
620 mm \ 24.41 in (Maximum sweepback)	Battery: 11.1V2200mAh,20C
Length: 980 mm \ 38.58 in	Radio control: 6ch 2.4 GHz
Weight: 1100g \ 38.8 OZ	

Products contents

RTF Box Contents

Fuselage, ducted fan, main wing, stabilizer, vertical tail, missile, auxiliary tank, main landing gear, motor, servo, ESC, battery, radio system, charger, accessory bag.



ARF Box Contents

The same like RTF content but without battery, ESC, radio system, charger.



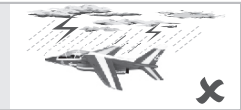
This products is subject to change without pre-notice.

Statement

1. This model airplane is not a toy; It is only suitable for experienced model pilots. Please keep in mind that the pilot are responsible for the safe operation of the model and also for its maintenance, the model should be checked before each flight and any adjustments made where needed. We do recommend a full range check before you fly.
2. Please adjust this plane correctly according to instructions and make sure your fingers and other parts of your body out of the rotating parts of the plane, or it may cause damage to the plane or injury to yourself.
3. The user bears full responsibility for proper operation and use of this model. Art-Tech and any of its distributors can not be held responsible for any liability or loss to improper operation or bad maintenance.

Safety precautions

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



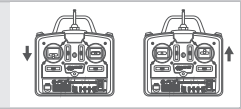
2. Do not fly nearby the airport, railway, road, power lines.



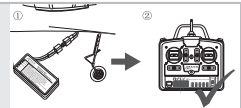
3. Do not fly where there are crowds of people.



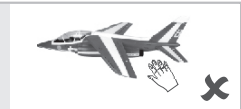
4. Make sure the model plane and control system is under normal condition before flying.



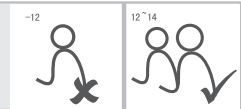
5. Only use Art-Tech genuine accessories as replacement for damaged parts.



6. Do not attempt to catch the model when landing.



7. This model is for experienced model pilots only, it is not recommended for Children under the age of 14.



8. While testing on the ground, or take off from the runway, please make sure the ducted fans are not blocked by debris as this will damage the model and reduce power.



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:

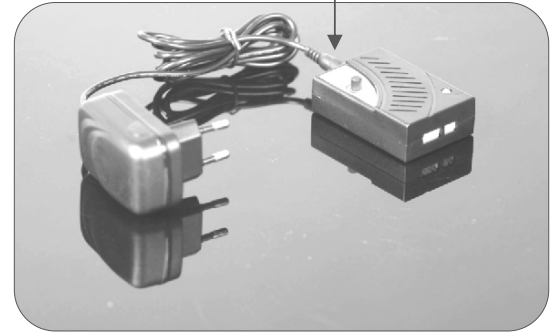
Green: Charge complete & no battery

Red: Charging

Flash: Drip current charging

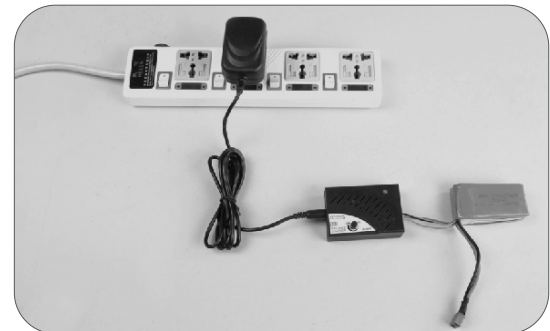
The batteries are inspected separately. When the voltage reaches 4.20V, the charging process stops.

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

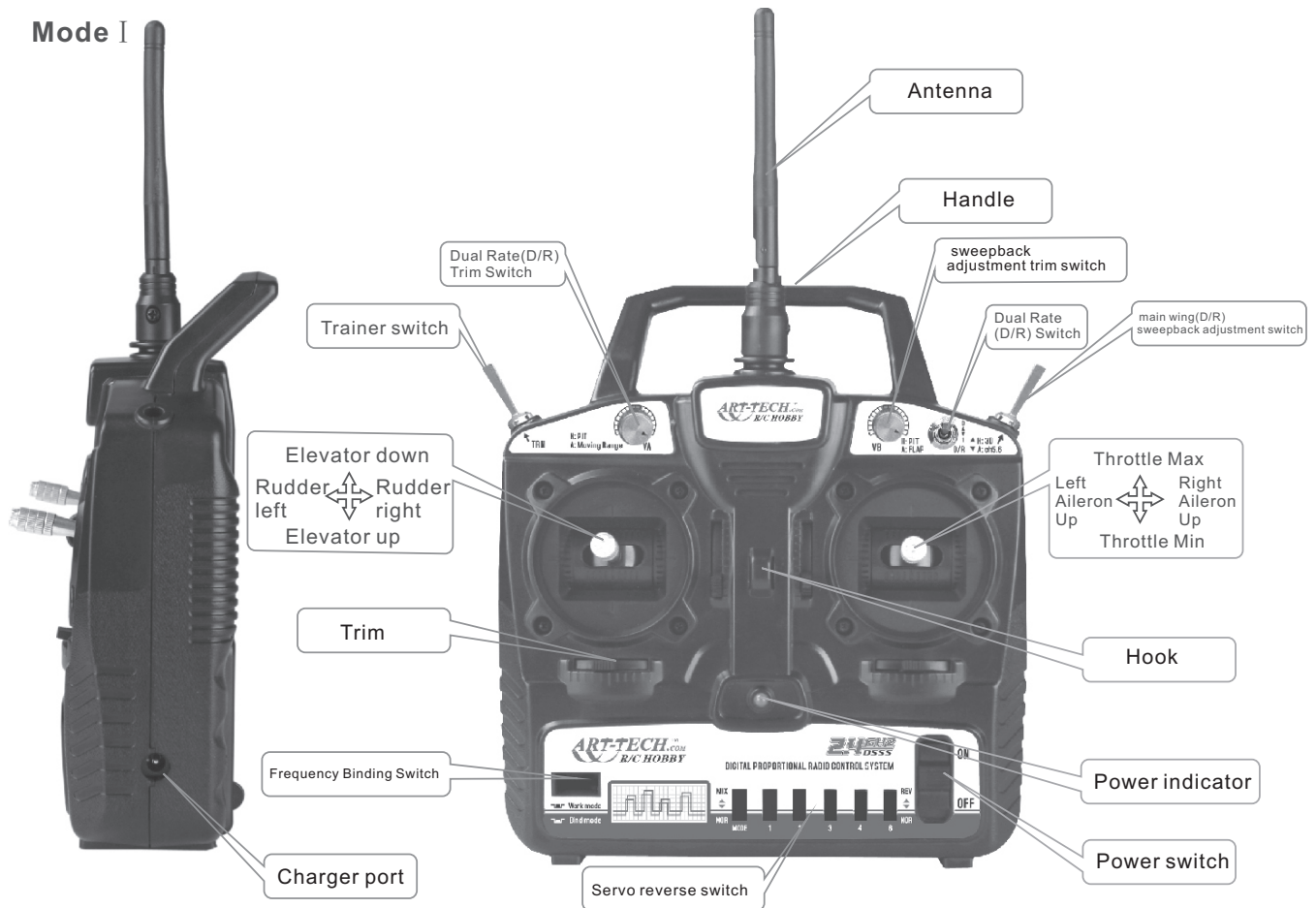
1. Do not disassemble or reconstruct the battery.
2. Do not short-circuit the battery.
3. Do not use or leave the battery nearby the fire, stove or heated place (more than 80°C).
4. Do not immerse the battery in water or sea water, do not get it wet.
5. Do not charge the battery under the blazing sunlight.
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 I



Specifications :

- Model No.: EFLY-6B II
- Number of channels: 6
- Working current: ≤200mA
- Working frequency: 2.4GHz
- Work voltage: 12V 5# (AAA) dry batteries, or 9.6V Ni-mh battery
- Air R/C distance: 400m
- Land R/C distance: 200m
- Certification: FCC, CE

Notice

1. 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.
2. 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 , please refer to the process of frequency bind for 2.4GHz R/C system for reference.
3. 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.
4. You will need 8 AA batteries for operating the transmitter.
5. 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.

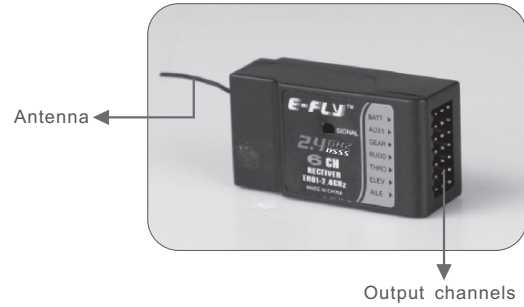
Channel display

AIL.: Aileron (Ch1) ELE.: Elevator (Ch2) THR.: Throttle (Ch3) RUD.: Rudder (Ch4) REV.: Reverse NOR.: Normal

Receiver

SPECIFICATIONS AND PARAMETERS

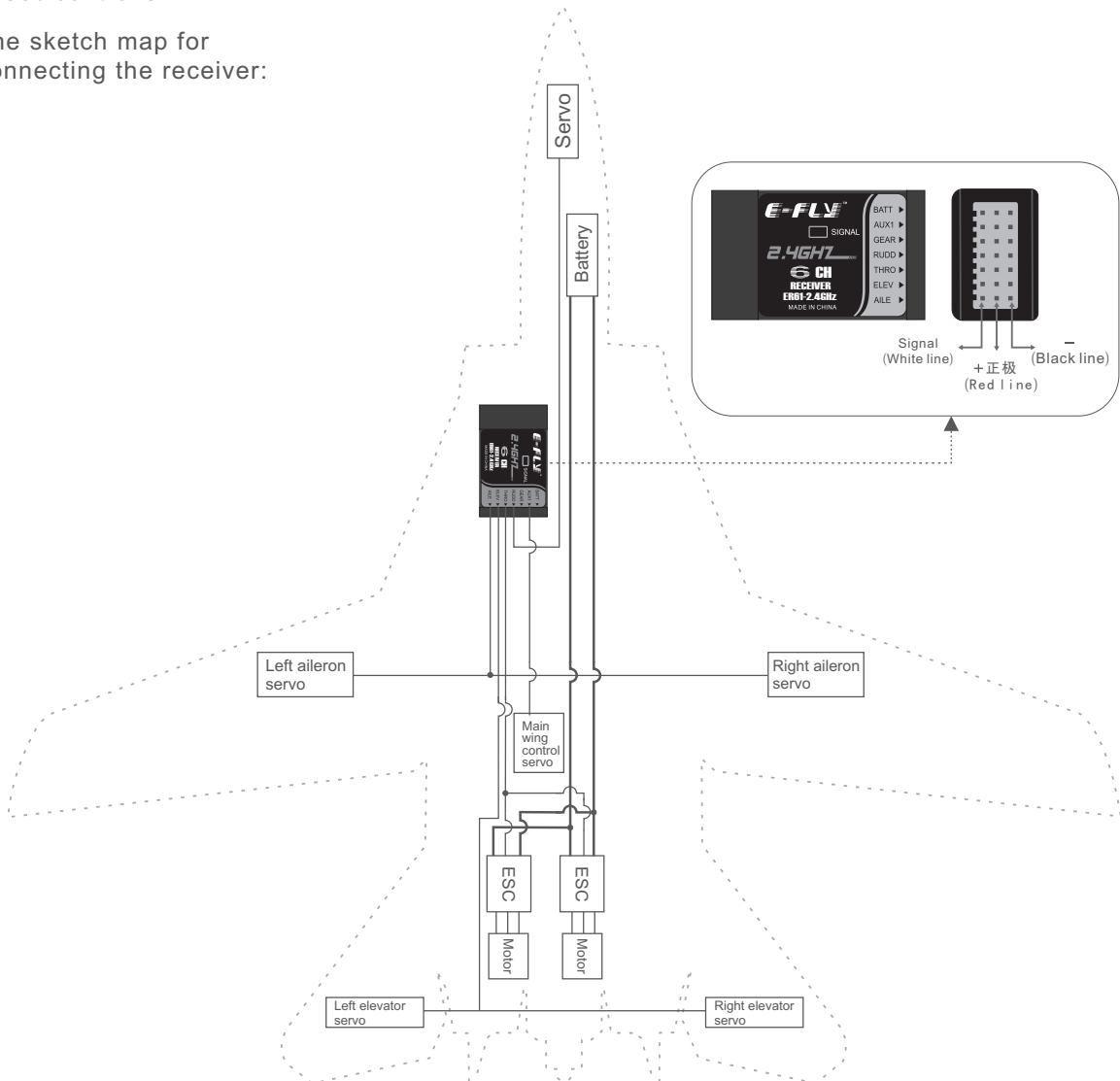
- Operating voltage: 4.8V~5.2V
- Current drain: ≤40mA
- Weight: 12g
- Dimension: 44mm*23mm*15mm
- Channel: 6CH
- Adjacent channel rejection: ≥-85dBm



Operating Manual for the radio control system

Components to the R/C system:
transmitter, receiver, servo,
speed controller

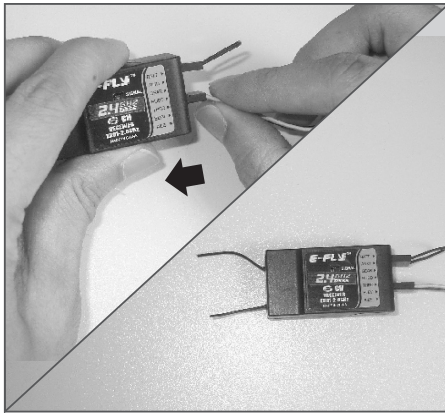
The sketch map for
connecting the receiver:



ARTF MODEL COMES PRE BINDED!

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

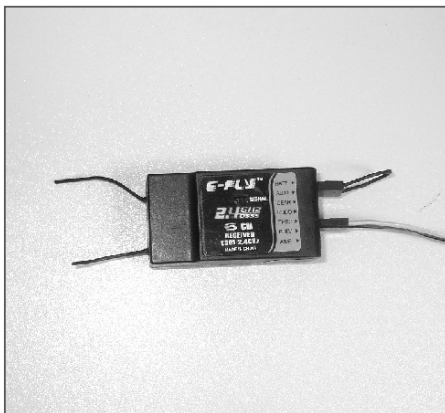
- ★ Place the transmitter and the receiver close to each other within one (1) meter. Please do not press the frequency bind switch when the Transmitter at work mode, or else your device will not work!



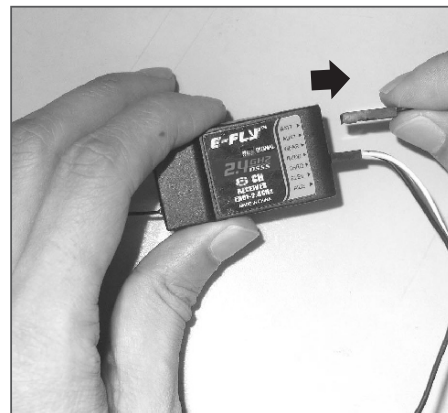
1. plug the short- circuit plug into the Receiver in the position of BATT. Connect the ESC to receiver for electricity supply, which results to the indicator light glitters.



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



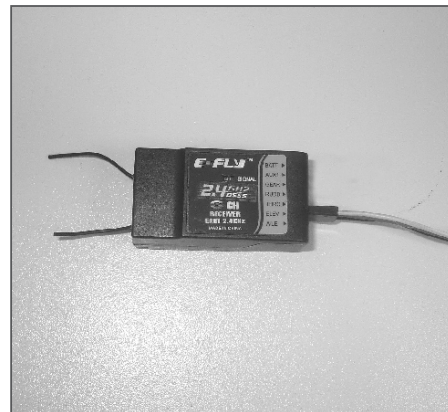
3. the indicator light of the receiver will light, which indicates that the frequency bind is successful.



4. Unplug the short-circuit, the indicator light glitters.



5. Press frequency bind button again to get it rebound. After the indicator light flashes for a few seconds, it turns green, the transmitter get into working mode.

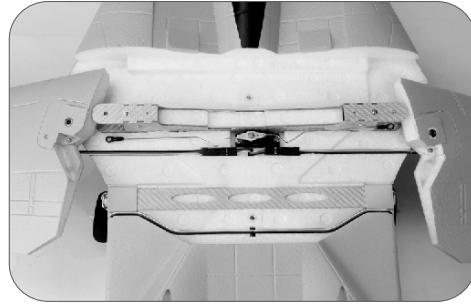


6. The indicator light turns bright again, which means that the radio system can work normally now.

Assembly of F-14 "Tom Cat"



1. Take out the fuselage and main wing, then remove the cover on the back of the fuselage.



2. Strip of the double-sided tape from the wire channel where the aileron servo wire goes, connect the aileron servos then press down the cables into the wire channels.



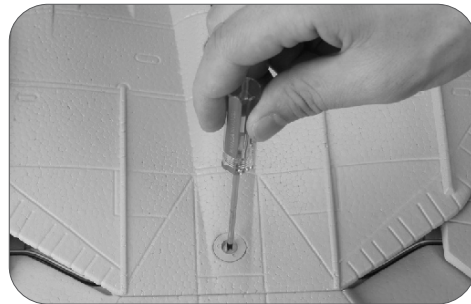
3. Take out two aluminum bolts and four screws from the accessory bag.



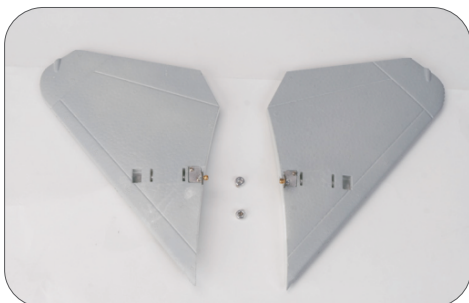
4. Fix the main wing with the long axle bolts and then fasten the whole assembly with the short screws.



5. Now you need to pop the ball joints into place between the servo and the wing.



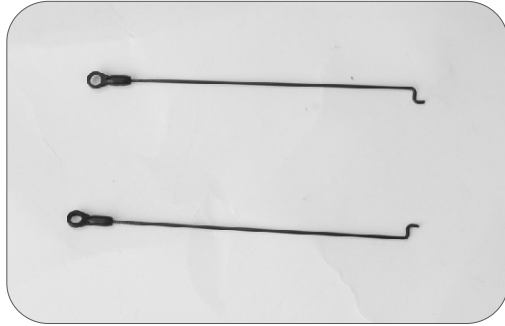
6. Replace the fuselage cover.



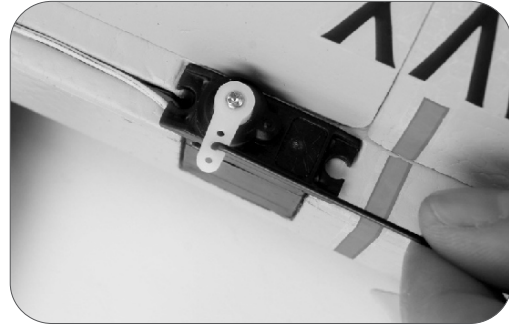
7. Take out two stabilizer and spacing sleeve from the accessory bag.



7. Fix the stabilizer properly in the fixed beam of the fuselage, then attach the aluminium spacing sleeve to the fixed beam and fasten it.



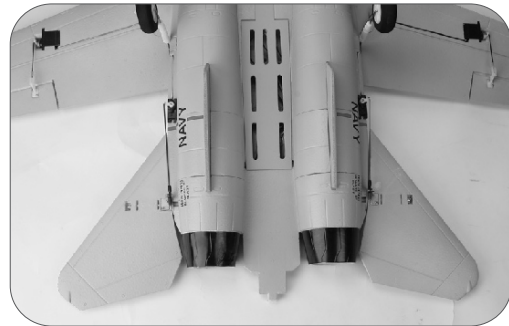
9. Take out two stabilizer control steel wires.



10. Insert one end of the stabilizer control steel wire to the middle hole of the servo arm, but the experienced pilot can choose the hole according to their own experience.



11. Instal the ball buckle of the stabilizer control steel wire to the ball buckle in stabilizer.



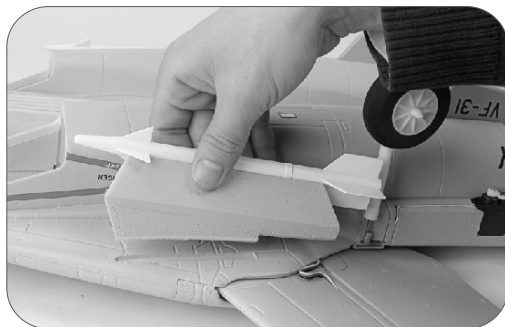
12. stabilizer assembled



13. Take out the AB glue in the accessory bag and two vertical tails



14. Mix the AB glue in 1:1 ratio and spread it on the surface between the vertical wing and the tail of the fuselage, and then paste them together.



15. Take out two missiles and paste them to the proper position below the fuselage (It's up to the customer if they want to assemble or not)



16. Take out two auxiliary tanks and fix them to the proper position below the fuselage by the magnet (It's up to the customer if they want to assemble or not)

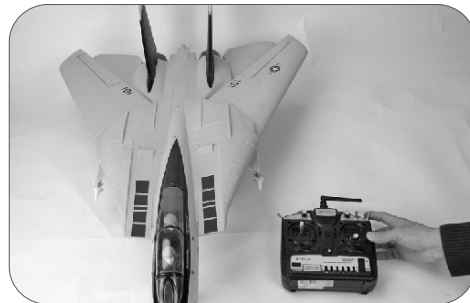


18. completed F-14 TOM CAT after assembly.

Adjustment step of F-14 "TOM CAT"



1. Turn on the transmitter, make sure the throttle is on the lowest position, connect the flight battery to the ESC then put it into the battery box.



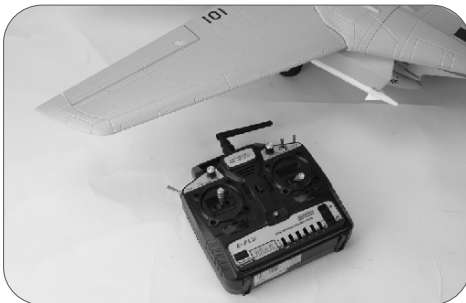
2. Make sure the main wing control servo works normally, move the switch on the right of the transmitter upward, the main wing was in the max. sweepback, move the switch on the right of the transmitter downward, the main wing was in the min. sweepback,



3. Function of the right knob of the transmitter: turn the knob and make the main wing reach the min. sweepback, now by turning the knob you can put the main wing in any position between the max. and min. sweepback.



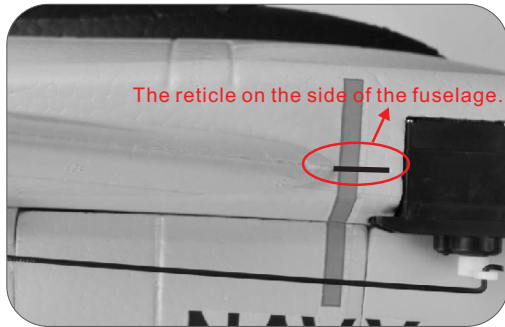
4. Please practice using this function to gain the amount of sweep you want and become familiar with its operation.



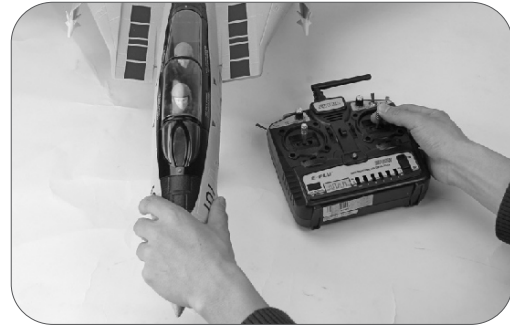
5. Put the aileron trim switch in the middle position, then make sure the aileron surface on the middle position and turn correctly, no reverse switch.



6. Put the rudder trim switch in the middle position, then make sure the front landing gear on the middle position and turn correctly.



7. Put the elevator trim switch in the middle position, then make sure the middle line of the elevator corresponds to the mark on the side of the fuselage and operates correctly.



8. Hold the fuselage tightly, move the throttle joystick slowly, make sure the duct fan work properly.



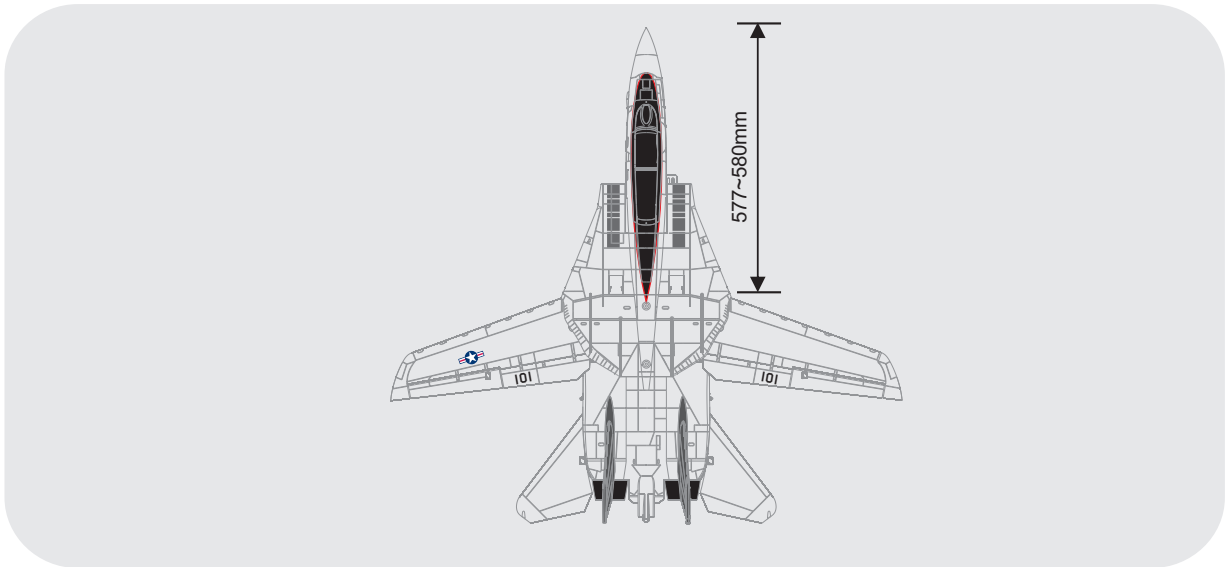
9. Your model should now be ready to fly. Have fun !

Tips for flying

1. Make sure that your flight battery and transmitter are at full charge other wise this will effect your flight performance.
2. Check if the ducted fan running properly, if not, please don't take off.
3. Check if all the servo control surface and front landing gear turn correctly, if not then adjust the servo reverses switches where necessary.
4. For take of and landing it is important to have the wings at maximum span and also to take of and land into wind, never try to land down wind.
5. Only take of from a smooth runway, this can be ash felt or grass but is must be smooth and free from debris.
6. The effect of the aileron is less in the swept back wing position so be aware of this, other radio systems can allow you to use a tailaron mix which gives a fantastic roll rate which can be used by experienced pilots.
7. Make sure to landing the airplane before the battery running down, otherwise there will be a danger of crash.

Center of Gravity Check

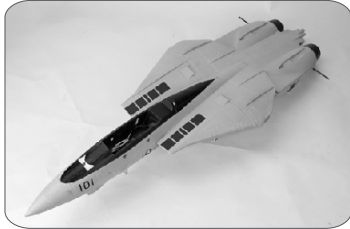
Check the CG of the model before flying. The proper CG position should be between 577~580mm like below picture.



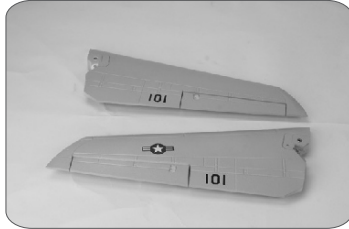
The possible problems and solutions

Phenomenons	Problems	Solutions
Motor does not run	<ol style="list-style-type: none"> 1. Battery is not fully charged. 2. The battery of transmitter is not sufficient. 3. The circuit in "F14" has been damaged due to Crash 	<ol style="list-style-type: none"> 1. Charge the battery. 2. Install a full charged battery. 3. Maintain or contact the local distributor for help.
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"> 1. The battery is not fully charged. 2. Both elevators leaning downward 	<ol style="list-style-type: none"> 1. Charge the battery 2. Adjust the micro-trim switch on the transmitter to make the two elevators upward
Limited control range	<ol style="list-style-type: none"> 1. The batteries are almost flat 2. The transmitter was fault 	<ol style="list-style-type: none"> 1. Install new batteries 2. Contact the local distributor for help.

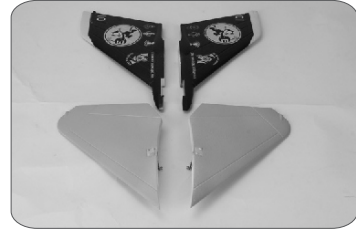
附件部分



No: 51017
Fuselage set



No:51027
Main wing set



No.:51037
Tail wing set



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



No:33012
Brushless ESC(20A)



No:51047
Ducted fan



No: 31011
Charger



No:51057
Landing gear



No:51067
Cabin



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