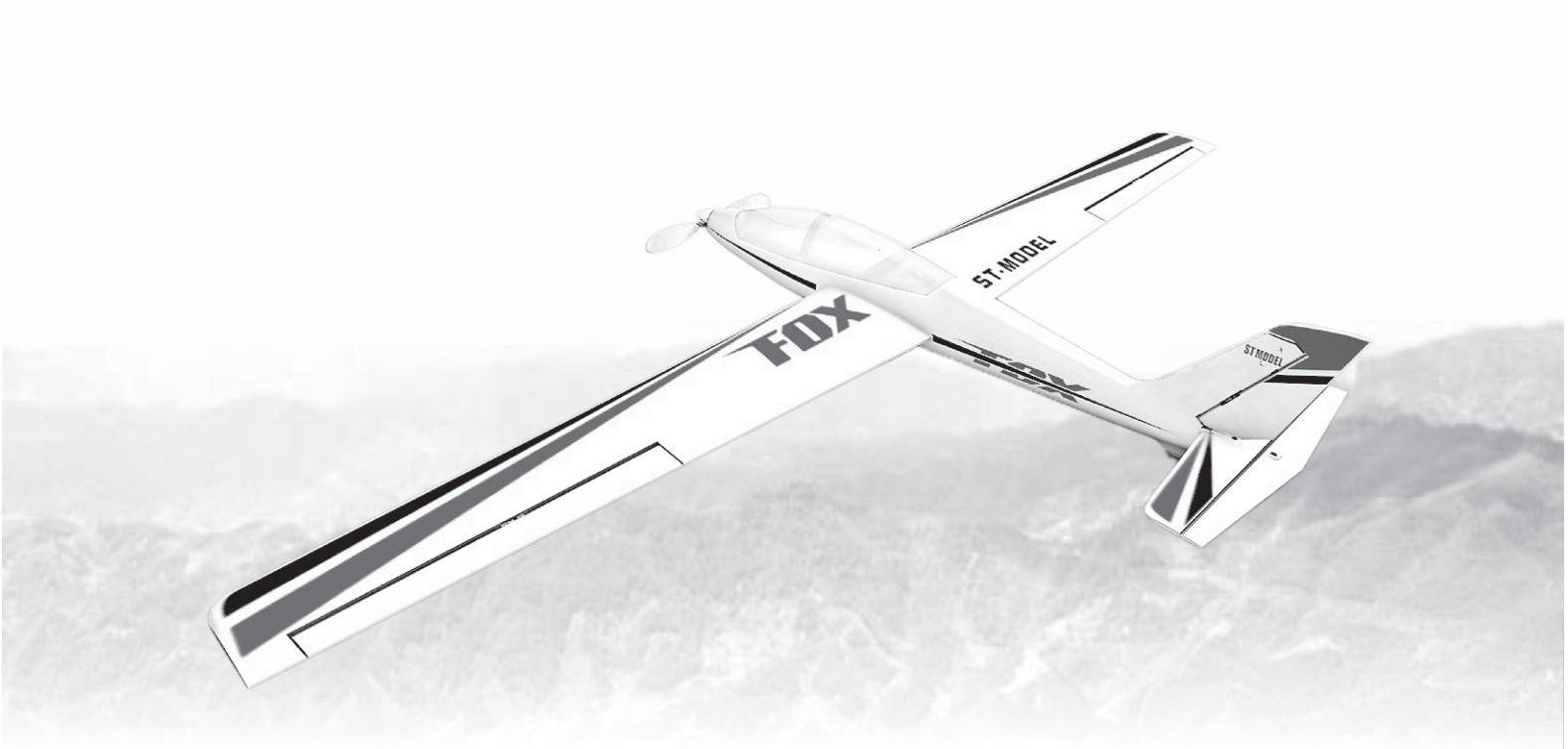
ST MODEL



Fox

PRODUCT MANUAL

ELECTRIC R/C MODEL PLANE

SAFETY PRECAUTIONS

- This electric R/C model plane is not a toy.
- Assemble the plane according to the instructuons,Do not alter or modify the model,If you make any modifications, you will void your warranty.
- Children under 12 years old must use it accompanied by an aduit.
- Test the operation of the model before before each flight to insurethat all equipment is operating properly,and that the model remainsstructurally sound.
- Fly only on calm days(with wind speeds less than 6 mph) and in large open areas free of trees,people,building or any other obsracles.

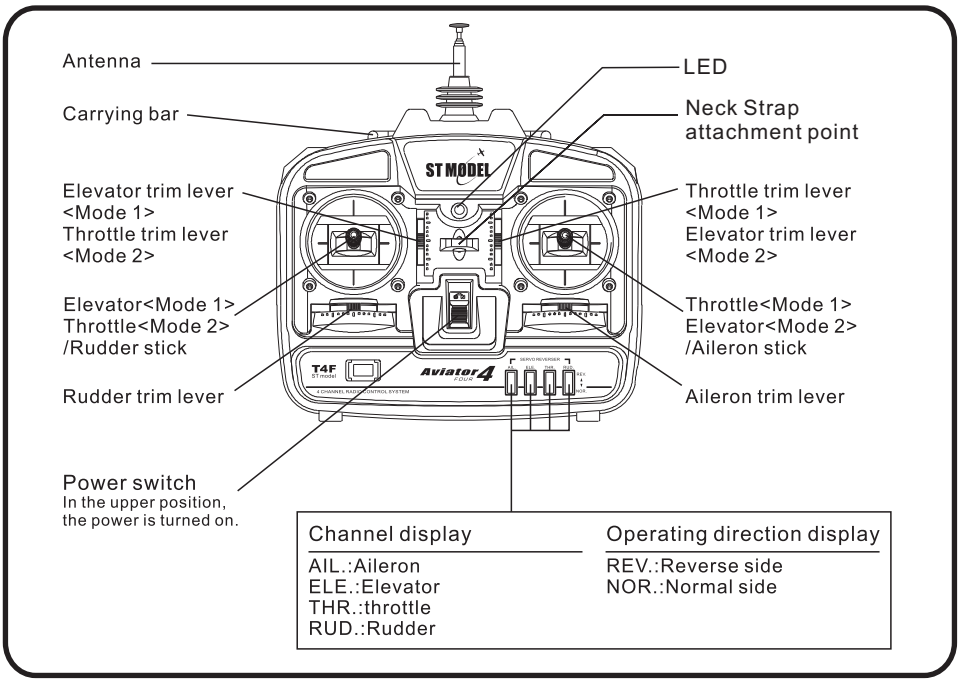
REMEMBER:Take your time and follow the instructions to end up with a well-built model that is durable and easy to fly.

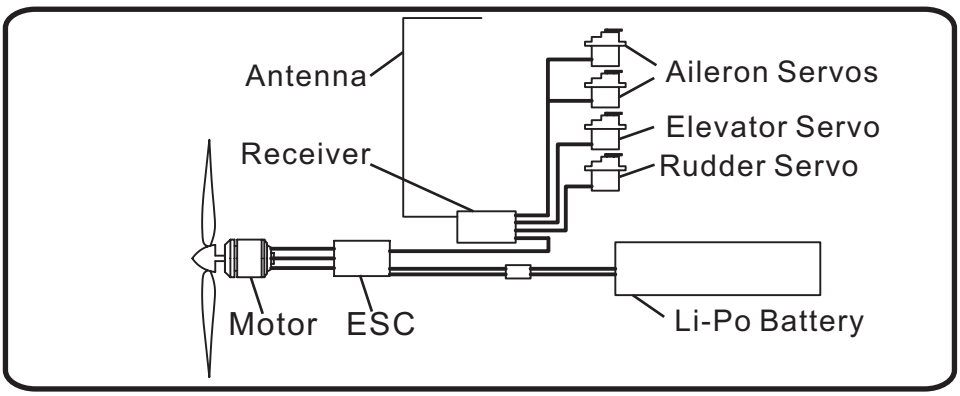
SPECIFICATIONS

Length：880mm
Wing span：1800mm
Wing area：23dm²
Flying weight：685g
Wing load：29.7g/dm²
Power system：Brushless motor ,1000mAh 11.1V Li-Po battery
Propeller：10×6 Folding propeller
Radio required：4CH transmitter & receiver, 4 micro servos

GLOSSARY

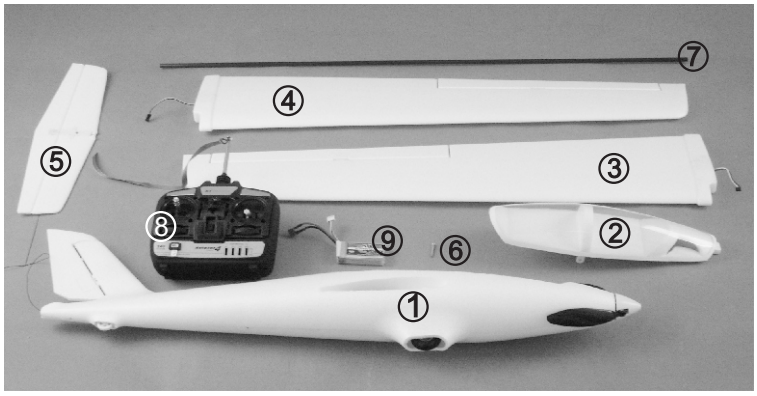
Aileron：Controls roll（right/left）；
Elevator：Controls pitch（up/down）；
Rudder：Controls yaw（right/left direction）；
Receiver（RX）：provides input to the control surfaces and ESC；
Power system-ESC(Electronic Speed control)：Controls the speed of motor;
Motor：Rotate the propeller to provide thrust;
Li-Po battery：Rechargeable batteries which are used to power the airplane . Li-Po batteries are lighter and smaller than the most other types of rechargeable batteries;
Transmitter（TX）：The hand-held unit that sends signal to the receiver. Moving the sticks control direction, climb/descent, roll and motor speed;





CONTENTS OF KIT

01、Fuselage .....×1
02、Hatch .....×1
03、Left Wing .....×1
04、Right Wing .....×1
05、Stabilizer .....×1
06、Screw .....×1
07、Carbon Rod .....×1
08、Transmitter .....×1
09、Battery pack.....×1
10、Decals.....×1
11、Product Manual .....×1



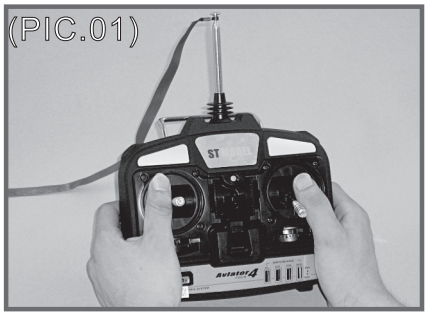
PREPARE THE TRANSMITTER

1、Locate the transmitter(PIC.01);
2、The transmitter requires eight alkaline "AA" batteries. To install the batteries, remove the battery hatch by sliding it down and inserting them into place(PIC.02). Be sure to follow the polarity diagram inside the battery compartment. Reinstall the battery hatch (PIC.03).

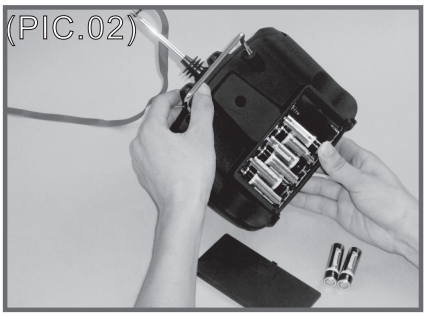
CAUTION:（1）、Don't use rechargeable batteries (NiCd&NiMh);
（2）、Don't mix old and new batteries;
（3）、Don't mix alkaline and standard (carbon-zinc) batteries;

3、Switch the transmitter on and check the LED on the front of the transmitter(PIC.04). If the green LED is on it is safe to fly. If the red LED is flashing, install fresh batteries. Also check to make sure that the batteries are installed correctly.
4、Switch the transmitter off and stand by for later use.

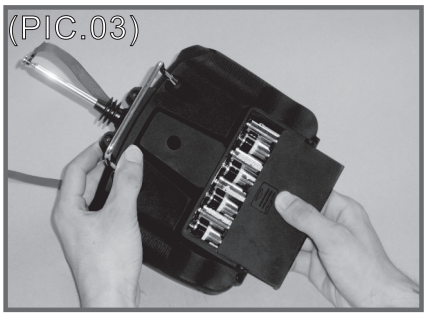
(PIC.01)



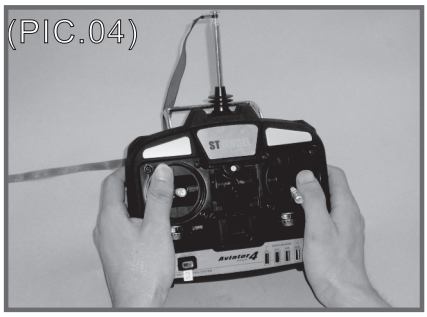
(PIC.02)



(PIC.03)



(PIC.04)

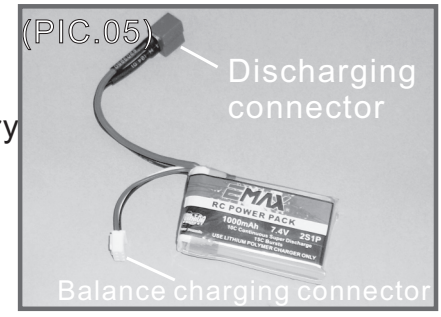


CHARGE THE BATTERY

FOX is equipped with a 2cell-7.4V Li-Po battery pack (PIC.05). The Li-Po battery has two connectors. One is for cell balance charging and the other is for discharging.

CAUTION: 1、Only charge the Li-Po battery with Li-Po battery balance charger. Or use a conforming charger which can ensure the Li-Po battery safety during charging.

(PIC.05)



（2）、Before charging, disconnect the battery with any power. After each flight , removethe pack from the airplane and allow it to cool completely before recharging.

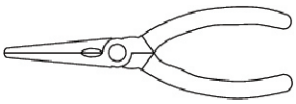
（3）、During the charging process, keep the charger or battery pack in a normal temperature area and away from source of ignition. Do not cover the charger or battery pack with carpet, clothe or anything else. Air circulation is necessary for proper cooling.

（4）、Important: Never leave a charging battery unattended. Please stop charging immediately of the battery temperature rise rapidly.

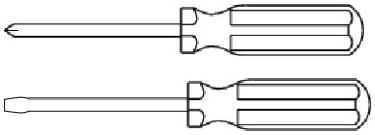
Please choose the proper power, battery and transmitter or it will reduce the longevity under the incorrect improvements.

ASSEMBLE THE AIRPLANE

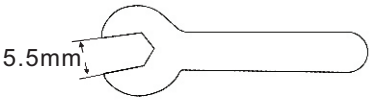
Tool will be required for assembly as below



Nipper pliers



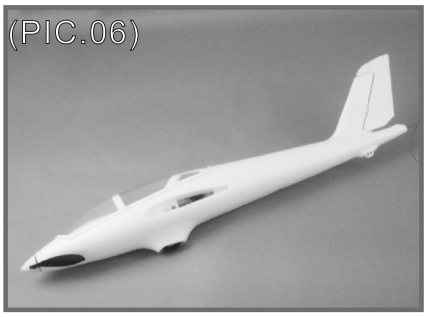
Screw driver

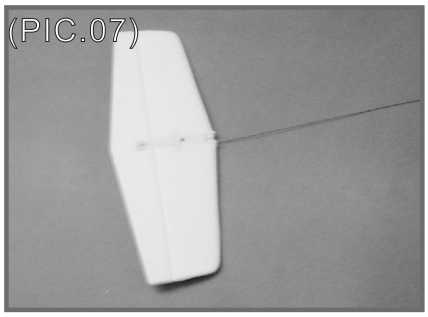


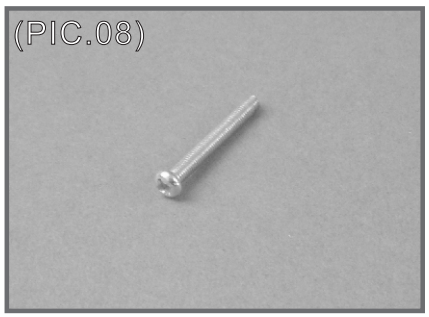
Spanner

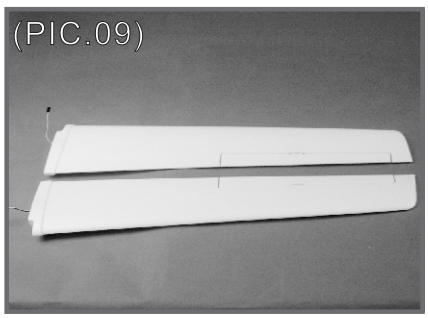
INSTALL THE FUSELAGE

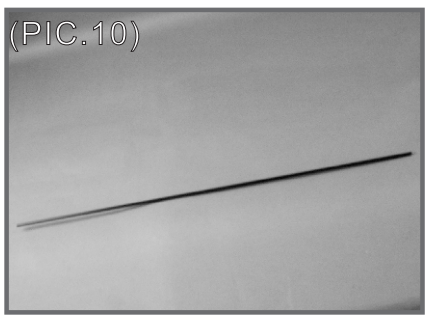
1、Parts for installation:
(1)、Fuselage(PIC.06);
(2)、Horizontal Stabilizer (PIC.07);
(3)、Screw(PIC.08);
(4)、Left Wing & Right Wing(PIC.09);
(5)、Carbon Rod(PIC.10);



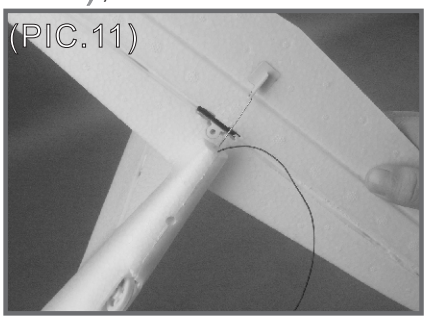


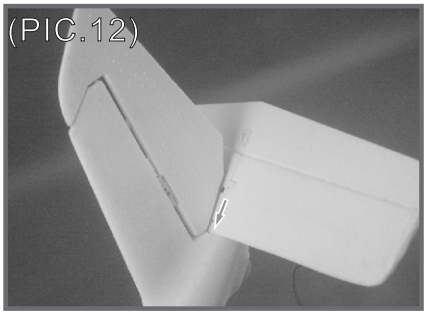


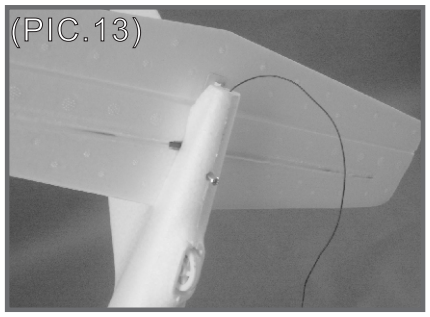


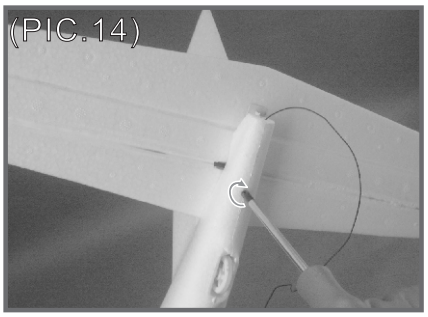


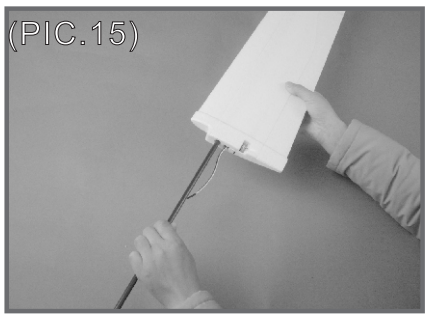
2、Install the “Z” end of push rod to the horn of elevator(PIC.11);
3、Install the horizontal stabilizer onto the holder on fin as picture shows(PIC.12,PIC.13);
4、Fix the horizontal stabilizer with the screw to avoid loosening(PIC.14);
5、Insert the carbon rod through one of the wings(PIC.15), and then put the other end of carbon rod through the fuselage and the other wing(PIC.16).

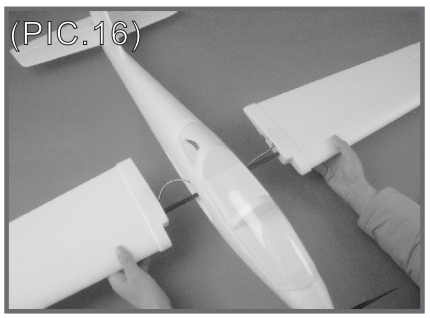


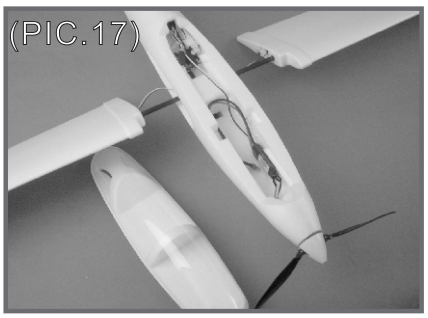

(PIC.12)


(PIC.13)

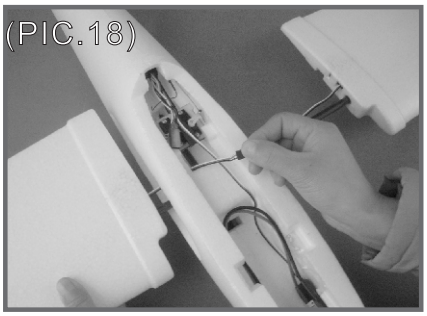

(PIC.14)


(PIC.15)

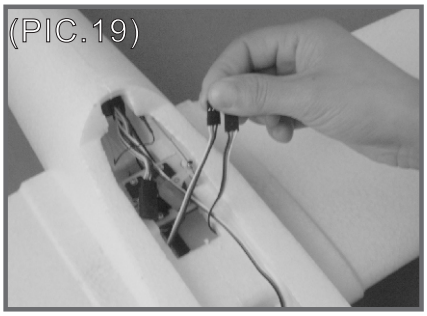

(PIC.16)


(PIC.17)

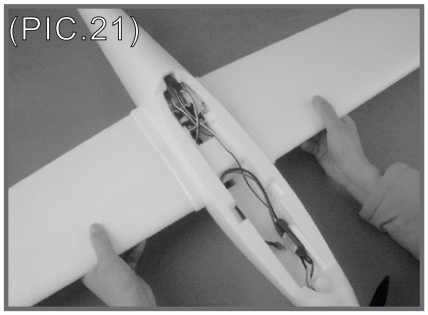
6、Before fix the wings and fuselage in place(PIC.17), open the canopy hatch and push the two aileron servo wires through the fuselage into the canopy as picture shows(PIC.18). Take the aileron servo wires and connect to the servo extension leads(PIC.19). Ensure the polarity should be contacted correctly(PIC.20).


(PIC.18)

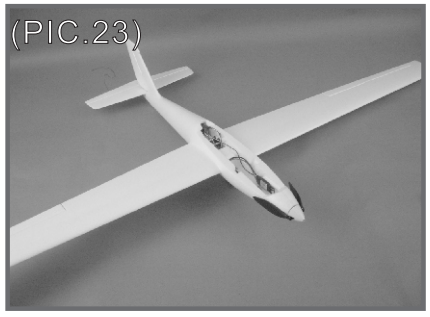
7、Fit the wings and the fuselage in place(PIC.21). Then tighten the screws under the wings(PIC.22), to avoid the wings loosening(PIC.23).

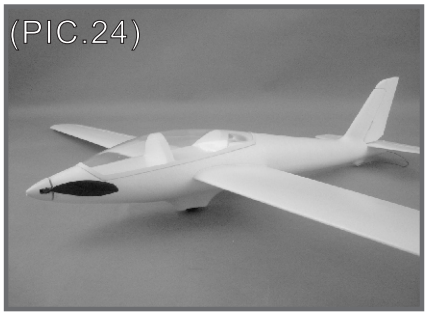

(PIC.19)


(PIC.20)


(PIC.21)


(PIC.22)

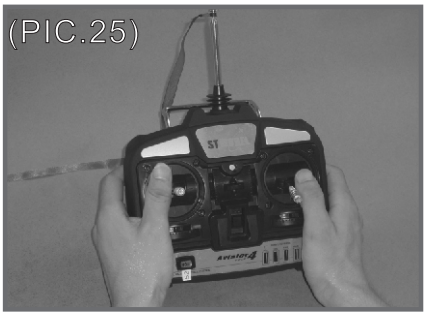

(PIC.23)

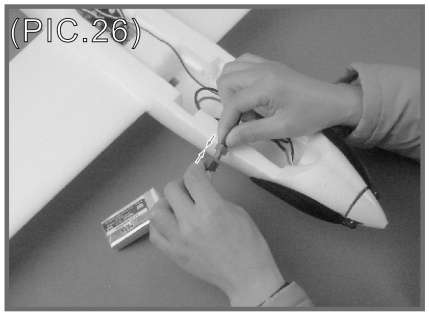

(PIC.24)

INSTALL THE BATTERY

1、Locate the battery. Ensure the battery has been charged and has enough power before next step.

2、Turn the transmitter on(PIC.25). Attach the battery connector to the power plug of the fuselage(PIC.26). The ESC will respond with one or two beeps. Place the battery in place as shown in the picture(PIC.27).


(PIC.25)

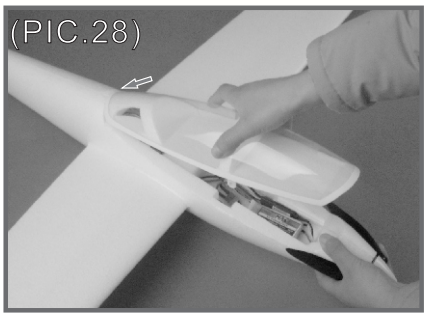

(PIC.26)

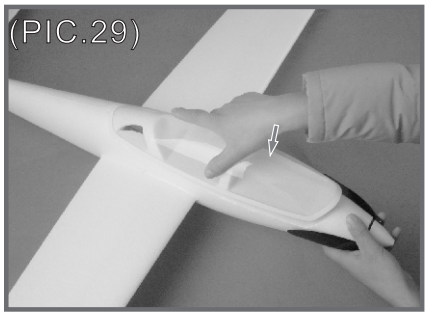

(PIC.27)

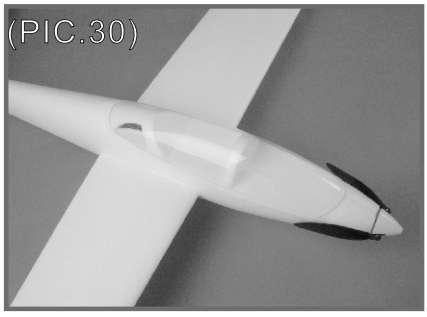
WARNING: The ESC is now armed and the propeller will turn if the throttle stick on the transmitter is moved, possibly resulting in damage or injury.

NOTICE: (1)、Before ecting the battery, make sure the LED on the transmitter is on.
(2)、Fit the battery in its place as shown. Otherwise, the CG position will be changed due to the movement of the battery. The plane will lose its balance potentially.

3、Test fit the canopy hatch into the fuselage as picture show(PIC.28). It is important to make sure the battery hatch attached tightly to avoid falling off during the flight (PIC.29,PIC.30).


(PIC.28)


(PIC.29)


(PIC.30)

TEST THE RADIO CONTROL SYSTEM

1、Make sure the transmitter is switched on. Adjust all the trim levers to their neutral positions;

2、According to the following instructions, set up the power system(ESC) propeller function, meanwhile the ESC brake function is optional to customers.
Note: The FOX RTF version includes a power system (ESC) with a brake function, which can be programmed to make the propeller stop rotating then folding, reducing wind resistance during glide when the throttle is cut off for landing.

We recommend that the brake function should be on for the FOX.

(1)、①Ensure that the throttle control stick is fully backward（to its lowest position）;
NOTE: If the battery is connected to the plane at this time, disconnect it for 5 seconds;
②Connect the battery to the plane's electronics. The power system（ESC） will immediately respond and remind the user if the propeller brake is "off"（single beep） or "on"（two beeps）.
③If there is one single, it shows that the brake is in the off position. Then the propeller will still turn under power off. This causes drag and reduces the plane's ability to maintain glide speed during landings.

Do it as the step (2) below if you want to get the brake on.

④If there are two beeps, the propeller brake is on and the propeller will come to a stop quickly when the throttle stick is in the off or down position, reducing drag. Do it as the step (3) below if you switch to brake off.

（2）、Switch from without brake mode to with brake mode: Disconnect the battery with the airplane before operation switch

①Move the throttle control stick forward (at the top) .

②Plug the battery to the fuselage.

③Wait for 5 seconds, there are two beeps.

④Move the throttle control stick backward (to its lowest place) .

（3）、Switch from the brake mode to the mode without brake Disconnect the battery with the airplane before operation switch.

①Move the throttle control stick forward (at the top).

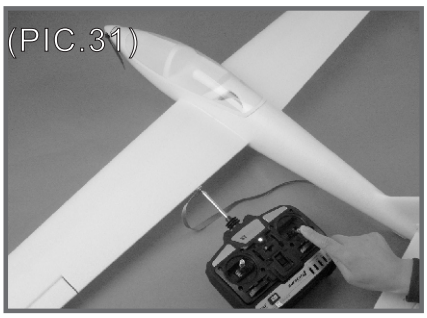
②Plug the battery to the fuselage.

③Wait for 5 seconds, there is a beep.;

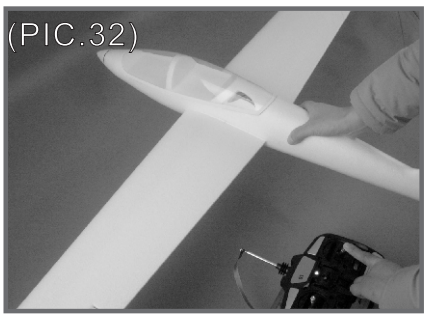
④Move the throttle control stick backward (to its lowest place).

3、Test the power system:

(1)、The transmitter power should be on now and the throttle at minimum position . Pls make sure that the ESC brake function is either " on " or " off" and the prop should be held still(PIC.31) , if the prop is turning slowly , then ensure that the throttle control stick is at minimum position , if not, then trimmed to the throttle at minimum .



(2)、Move the throttle control stick forward slowly; if the motor rotates faster gradually(PIC.32).



NOTE: If the motor doesn't react with the throttleincreasing, please check the power supply or the battery capacity.

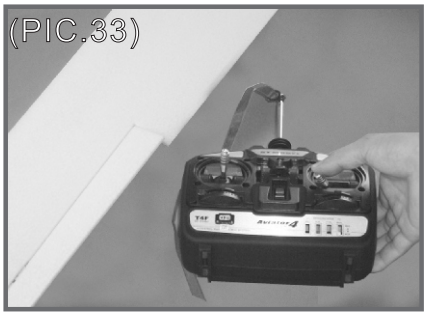
WARNING: Keep everything clear of the propeller once the battery is plugged in. Do not try to stop the propeller by hand or anything else.

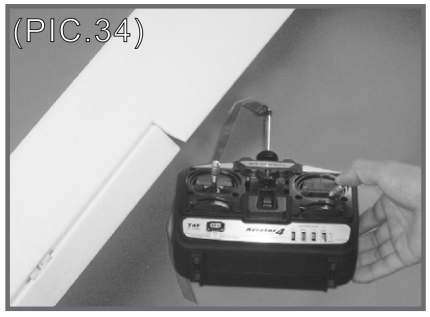
4、Test the aileron:

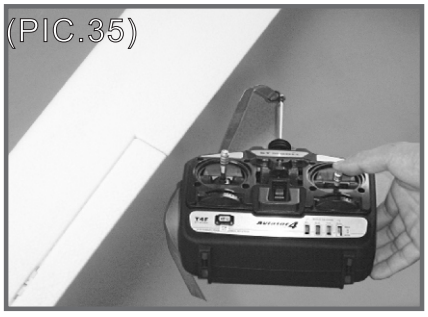
(1)、Move the aileron control stick to the left, the left aileron moves up and the right one moves down(PIC.33).

(2)、Move the aileron control stick to the right, the right aileron moves up and the left one moves down(PIC.34).

(3)、Moves the stick to its neutral position, the aileron returns its neutral position (PIC.35).







NOTE: If the movement of aileron works in opposite position, please check the aileron reverse switch on the transmitter and make necessary alignment.

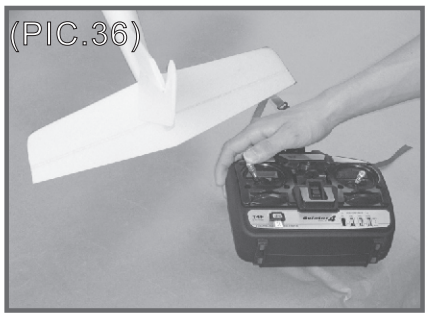
5、Test the rudder:

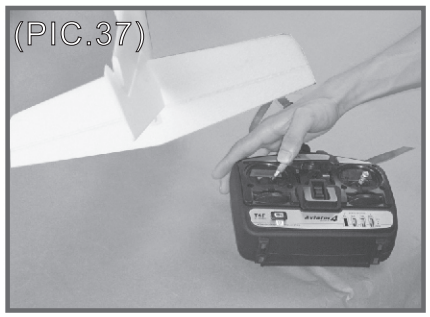
(1)、Move the rudder control stick to the left, the rudder turns to the left(PIC.36).

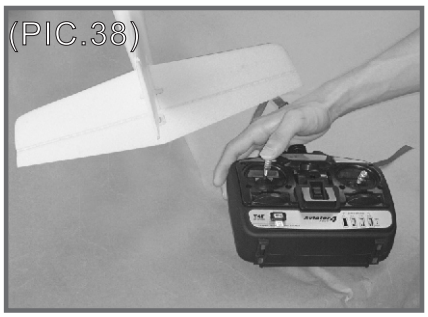
(2)、Move the rudder control stick to the right, the rudder turns to the right (PIC.37).

(3)、Move the rudder control stick to its neutral position, the rudder returns its neutral position(PIC.38).

NOTE: If the movement of rudder works in opposite position, please check the rudder reverse switch on the transmitter and make necessary alignment.


(PIC.36)


(PIC.37)


(PIC.38)

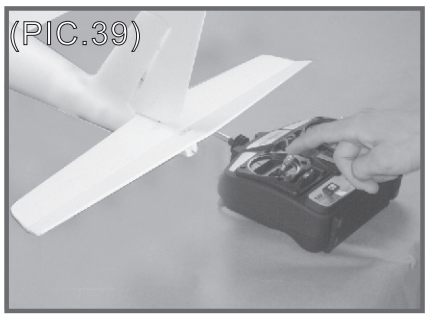
6、Test the elevator:

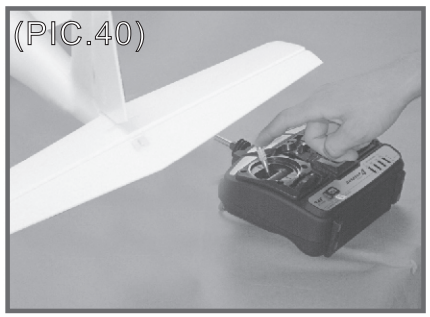
(1)、Move the elevator control stick backward, the elevator will be up(PIC.39).

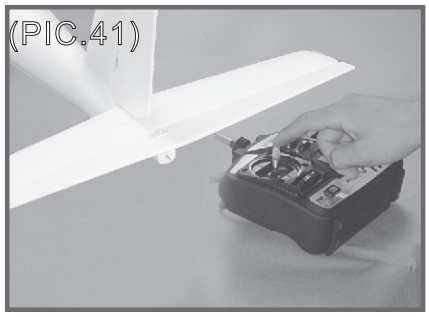
(2)、Move the stick forward, the elevator will be down(PIC.40).

(3)、Move the stick to its neutral position, the elevator returns its neutral position (PIC.41).

NOTE: If the movement of elevator works in opposite position, please check the elevator reverse switch on the transmitter and make necessary alignment.

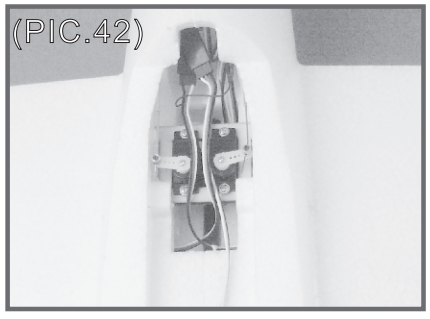

(PIC.39)

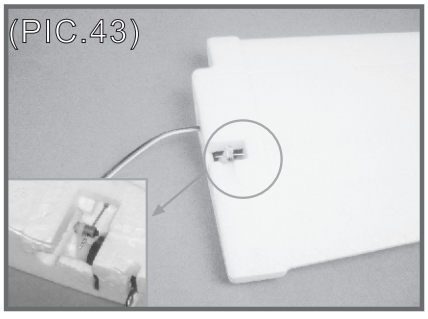

(PIC.40)


(PIC.41)

WARMNING: Please check if the aileron, rudder, elevator can be neutral position while the stick & trim is at the neutral. If not, then, untie each adjuster screw of the servo horns, adjust the length of the pushrod, and then tighten the screws to avoid the pushrod loose(PIC.42,PIC.43).

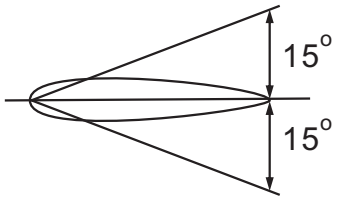
If loose of the pushrod, then lead the airplane to unstable, and result in crash.


(PIC.42)

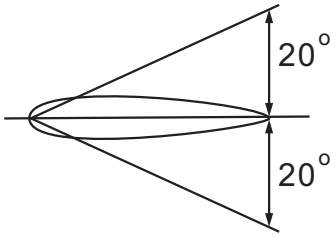

(PIC.43)

7、Movement of all control surfaces:

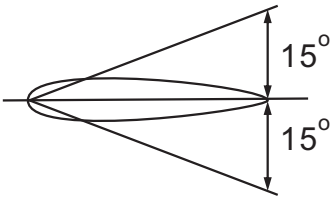
(1)、Aileron



(2)、Rudder



(3)、Elevator

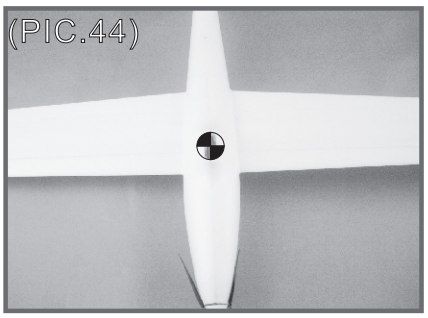


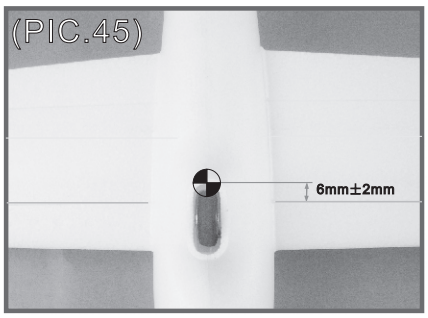
CG(Center of Gravity)POSITION

1、The standard CG is positioned ahead the line as picture shows(PIC.44,PIC.45);

2、Move the CG forward, the flying performance is stable; move backward, the flying performance is sensitive.

NOTE: The movement of the CG should not exceed ±2mm;





3、We recommend only use the battery pack intended for FOX, or use the same weight and performance battery packs. If the battery pack or other accessories have changes, please adjust the CG position according to the content above.

PRECAUTIONS BEFORE FLIGHT

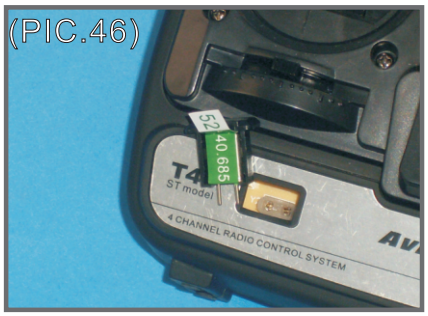
1、The FOX should be flown only when the wind speed is 6 mph or less. If the wind is calm or very light, the FOX will be docile and easy to control. If you have few flight, fly only when the wind speed is 1 mph or less. After you have enough flight, you can fly in winds that are no more than 6 mph per hour. If flown in stronger winds, the plane may be blown down wind and not have enough power to get back. The visibility range should not less than 1000m. Do not fly in rain or fog. Please check the direction of wind before your flying.

2、Also, Choose a large open area free of trees, power lines ,railway, road, parking lot, buildings or any other obstacles. Do not fly around groups of people, especially children. We recommend that the lawn or links are good flying field.

3、Don't fly in aviation control areas or military bases.

4、Make sure no one use the same radio frequency as you do in the same area to avoid frequency interference. There is a frequency label on the transmitter crystal, which shows the frequency band you use(PIC.46); if someone in your area use the same frequency, do not switch on the transmitter until their flight finished.

5、Always switch on the transmitter before supplying power for the plane to avoid interference; make sure the battery is charged and fresh AA batteries are installed in the transmitter.



6、The FOX is for pilots who graduate to a more complex airplane. Have an experienced pilots instructed how to test and fly for pilots without any experience.

FLIGHT

The FOX RTF version includes the "Auto Cut-Off" feature of the speed control provides an extra degree of insurance when the battery runs low. It reacts to low power by decelerating the rotate speed of motor even cut the power supply to the motor, in effect saving power for the receiver. That way your airplane goes into a glide and you stay in control as you land.

If you have never flown an R/C airplane before, we recommend that you get help from an experienced R/C pilot. Most R/C clubs have training programs that will help you learn to fly quickly. If you cannot find an experienced pilot to help you learn, the following will help you get your airplane into the air.

1、First switch your transmitter power switch "ON". Ensure the power control stick is at the lowest position and the trim lever ie at the neutral position.

2、Connect the battery with the plane. The propeller will rotate fast if you pull the power control stick to a higher position.

CAUTION: Stay clear of the propeller. Always keep your hands behind the propeller.

3、Make a range check before each flight. Have an assistant hold the plane. With the antenna folded, walk 100 feet (about 30m) away from the plane and then hold the transmitter with the antenna pointing up to test the responses of each control surface by moving the control sticks. Also, turn the motor on and check the range. If you still have control of the airplane, it is safe to extend the transmitter antenna and fly the plane; if not, check if there are fresh batteries installed in the transmitter and if the battery in the plane is charged; also make sure the wire antenna is extending out the back of plane.

4、Please Check the direction of wind. The plane should take-off against the wind. With the throttle stick moved fully to the top, the propeller rotates fast. Then hand launch the plane into the wind, at a slight upward angle (0-10 degrees). Pull the stick toward you so that the plane climbs at a 10 to 30 degree angle. Allow the airplane to climb a few seconds before turning it.

5、When the plane is moving away from you, move the aileron control stick to the left, combined with a small amount of up elevator, your plane will turn left; move the aileron control stick to the right, your plane will turn right. To stop the turn, move the stick the opposite direction until the plane is flying level and return the elevator to center.

CAUTION: Only a smallamount of up elevator is needed here.

6、When the plane is coming toward you, move the aileron control stick to the left. But the plane flies to your right. That is to say, you have to reverse the way to control ailerons when the plane flies toward you. Here's a good way for you, you can turn your body when the plane flies toward you so that you are facing the same direction the plane is flying to; you can look at the plane over your shoulder. Now when you move the aileron control stick to left the plane will fly to your left.

7、When the plane climbs to a high enough altitude, you can adjust the trim lever to maintain straight and level flight. When loose the elevator control stick, if the plane tends to nose up, you can push the elevator trim lever to the direction away from you; if the plane tends to nose down, you can push the elevator trim lever to the direction towards you. Only a small amount of adjustment should be OK. If the plane doesn't go as you adjusted, you can adjust twice or more. Your goal is to get the plane fly level or climb at a very small angle (like 0-5 degrees) with the elevator, throttle control stick at their neutral positions.

9、For beginners, rudder is mainly used for take off and landing. During take off and landing, it is necessary to control the plane turn to left or right by controlling the rudder, instead of controlling the aileron. Move the rudder control stick to the left will make the plane turn to left; move this stick to the right will make the plane turn to right. If the plane tends to turn with the left stick centered, move the rudder trim lever opposite the

10、With the plane flying level, check to see if the plane is flying straight. Move the aileron control stick in neutral position, if the plane wants to turn, move the aileron control trim lever opposite the direction the plane is turning. Then the plane is trimmed OK. If you take your hands off the sticks, the plane will fly straight and level on its own. Having the plane trimmed properly makes flying much easier and more enjoyable.

11、Don't let the plane get too far away from you. The farther away it is, the harder it is to see what the airplane is doing. Especially when the battery runs low, you should control the plane back to you immediately.

12、When learning to fly, it is best to keep the plane high enough so that you have enough altitude to correct it if you make a mistake.

LANDING

It's time to land the plane now. The problems you are facing are where and how to land it.

1、For the sake of safety, you should land the plane before the battery exhausted if you are a beginner. The power system of FOX comes with “Auto Cut Off” feature which reserves battery power for safe landing.

2、During the first flight, while at a high altitude, turn the motor off and retract the flaps (move it at position “1” or “2”), Then notice how the plane reacts. This will give you an idea of how the plane will react during a landing.

3、To land the FOX, fly down wind, past the landing area. Gently turn into the wind and reduce the speed so that the plane starts to come down. Adjust the throttle when needed to reach the landing area, but not fly past it. Get the plane 1m or 2m above the ground when it is closed to the landing area.

4、Just before landing, at about 0.5m above the ground, apply a little up elevator to make the plane nose up (not to make it climb). This will cause the plane to slow and settle to the ground. Please don't force it to stop by your body or anything else.

COUTION: Just before the plane touching down, pull the throttle control stick to its lowest position. Because after landing, the propeller cannot rotate with the throttle in the run position. Immediately move the throttle stick down to stop the motor. If you fail to do this, the propeller will be damaged because of hard landing. And the motor, speed control or the battery will become very hot and be dangerous.

AFTER THE FLIGHT

Unplug the battery with the plane and switch off the transmitter. Allow enough time for the motor and battery to cool before recharging. Check the plane carefully and make sure no parts have gotten loose or damaged.

SHENG TENG

ELECTRIC R/C MODEL PLANE CO.,LTD

ST MODEL

E-mail:shengteng@263.net.cn

Http://www.sheng-teng.com