

# Acrobat

## PRODUCT MANUAL

### SPECIFICATIONS

Wing span:	1200mm/47.24in
Length:	1340mm/52.76in
Wing area:	37.8dm <sup>2</sup> /586in <sup>2</sup>
Flying weight:	1700g/60.0oz
Wing loading:	45.0g/dm <sup>2</sup>
Propeller:	13x4in
Battery & ESC:	4S 2200mAh 40A ESC
Radio required:	4channel radio system

### SAFETY PRECAUTIONS

This electric R/C model plane is not a toy.

Assemble the plane according to the instructions. Do not alter or modify the model, If you make any modifications, you will void your warranty.

Children under 14 years old must use it accompanied by an adult.

Test the operation of the model before each flight to insure that all equipment is operating properly, and that the model remains structurally sound.

Fly only on calm days (with wind speeds less than 10 mph) and in large open areas free of trees, people, building or any other obstacles.

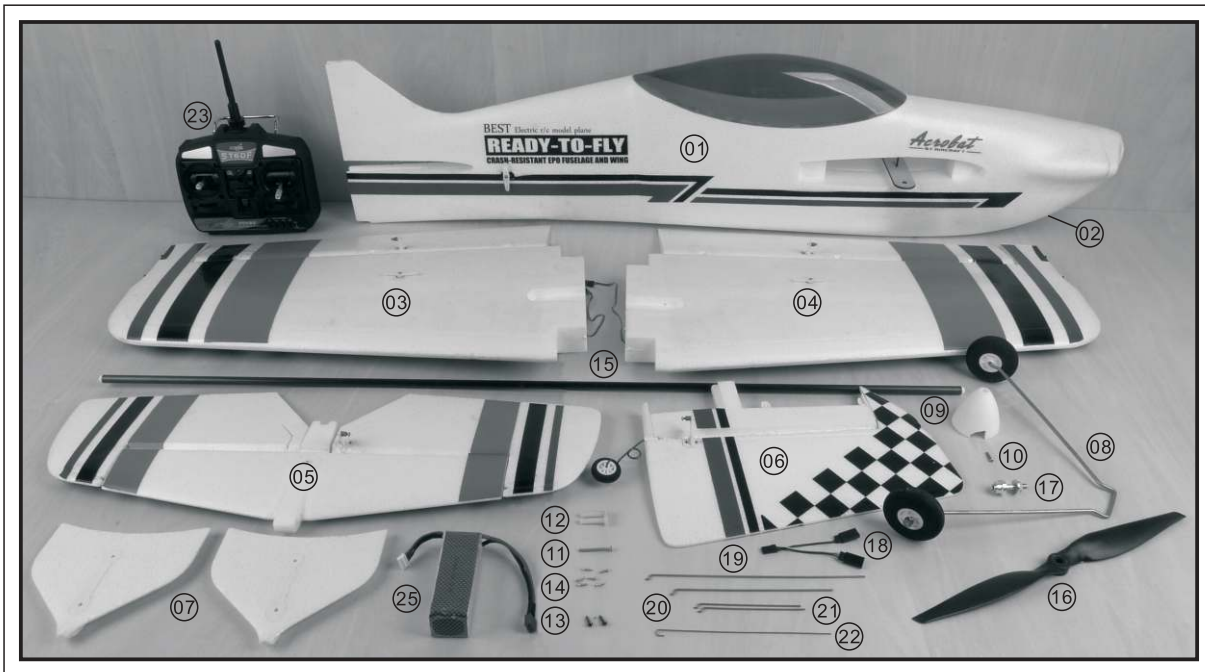
#### REMEMBER:

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

# INTRODUCTION

Before starting to build, inspect the parts to make sure they are of acceptable quality. If any parts are missing or not of acceptable quality, or if you need assistance with assembly, contact Product Support. When reporting defective or missing part, use the part names exactly as they are written in the Kit Contents List.

01. Fuselage.....x1	15. Carbon rod .....x1
02. Hatch .....x1	16. Propeller .....x1
03. Left Wing.....x1	17. Propeller adapter .....x1
04. Right Wing.....x1	18. "Y" Servo Extension .....x1
05. Stabilizer.....x1	19. Push Rod for Rudder .....x1
06. Fin .....x1	20. Push Rod for Elevator.....x1
07. Wing Let.....x2	21. Push Rod for Aileron.....x2
08. Landing Gear.....x1	22. Hook for Servo Wire.....x1
09. Spinner .....x1	23. Transmitter .....x1
10. Screw M2.5x14 .....x1	24. Changer .....x1
11. Screw M3.0x30 .....x1	25. Battery Pack .....x1
12. Nylon Screw M6.0x24 .....x2	26. Decals.....x1
13. Tapping Screw M3.0x16 .....x2	27. Instruction .....x1
14. Tapping Screw M2.0x10 .....x6	



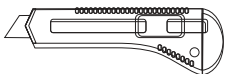
## Replacement Parts List

Replacement part for the ST MODEL Acrobat are available using the numbers in the Replacement Parts List that follows.

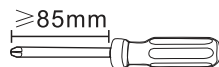
Order NO.	Description	Order NO.	Description
ST 109	14.8V LiPo 2200mAh	STAT 011	Brushless Motor
STAT 010	Fuselage Set	ST 203	13x4 Propeller
STAT 020	Wing Set	ST 110	40 AMP U-BEC ESC.
STAT 030	Stabilizer	ST 108	17g Servo (M Gear)
STAT 040	Vertical Fin	ST 104	ST 6DF 2.4GHz 4CH Transmitter
STAT 050	Landing Gear	ST 105	ST 6DF 2.4GHz Receiver
STAT 041	Tail Gear		

## TOOLS REQUIRED

■ Sharp Hobby Knife



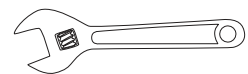
■ Phillips Screwdrivers (size:M,S)



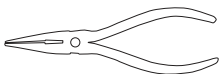
■ Ruler



■ Hex Wrench



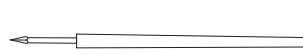
■ Needle Nose Pliers



■ Flathead Screwdrivers (size:M,S)



■ Awl

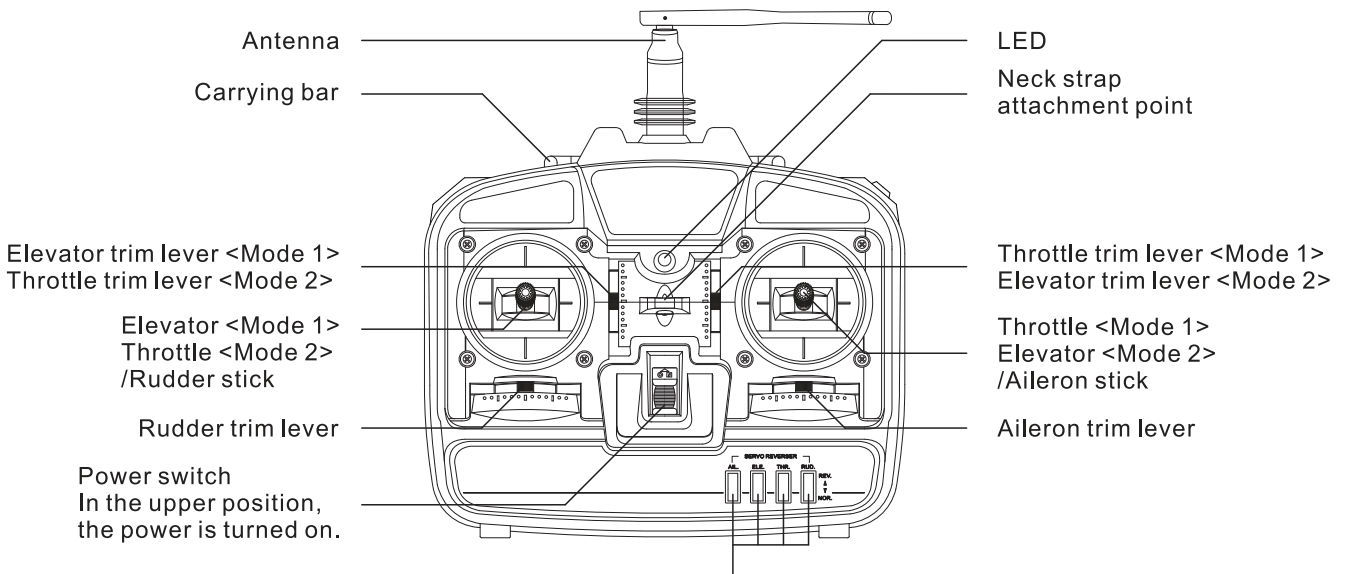
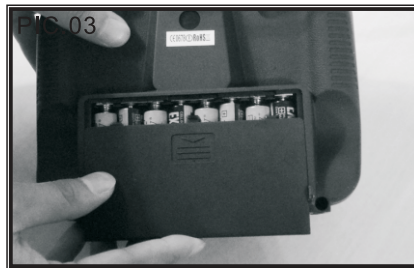
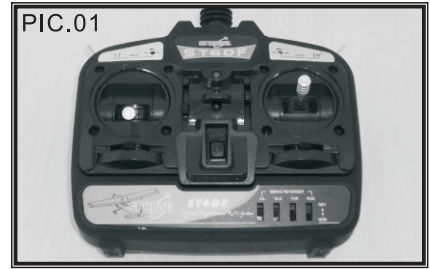


# PREPARE THE RADIO CONTROL SYSTEM

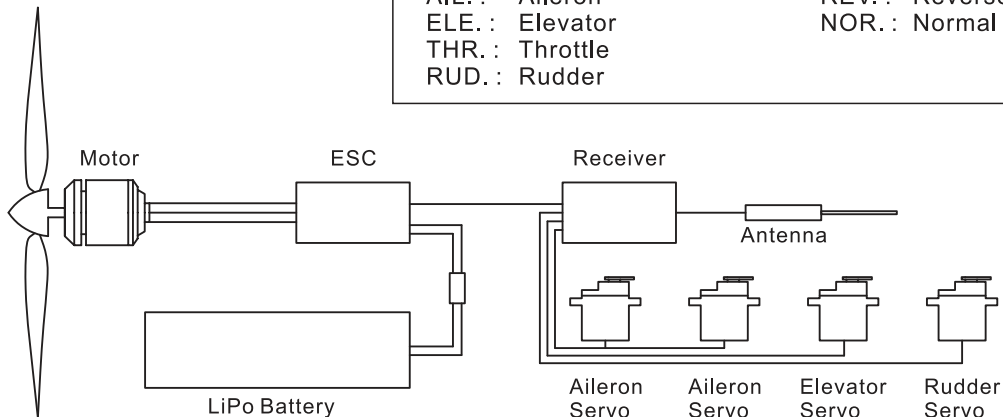
1. Locate the transmitter (PIC.01).
2. The transmitter requires eight alkaline "AA" batteries. To install the batteries, remove the battery hatch by sliding it down and inserting them into place (PIC.02). Be sure to follow the polarity diagram inside the battery compartment. Reinstall the battery hatch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

**CAUTION:**

- (1). Do not use rechargeable (NiCd & NiHy) batteries.
  - (2). Do not mix old and new batteries.
  - (3). Do not 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.

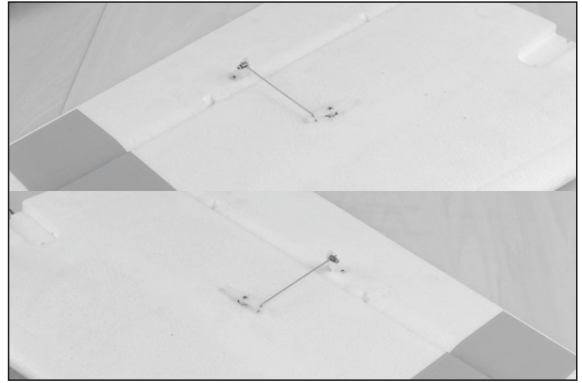


Channel display	Operating direction display
AIL. : Aileron	REV. : Reverse side
ELE. : Elevator	NOR. : Normal side
THR. : Throttle	
RUD. : Rudder	

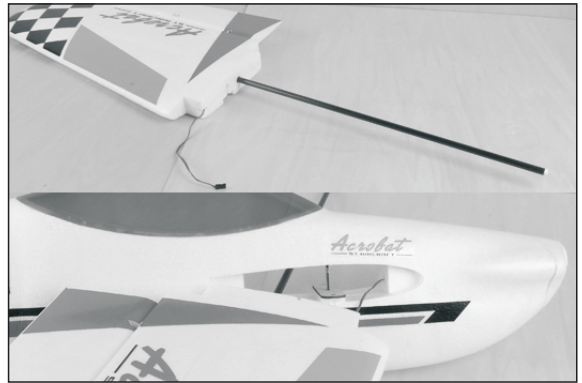


## 1 Main Wing

First, fix the pushrods of aileron to the wings.

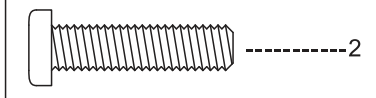


Insert the carbon rod through one of the wings, and then put the other end of carbon rod through the fuselage.  
Put the aileron servo wire through the fuselage into the battery cabin.

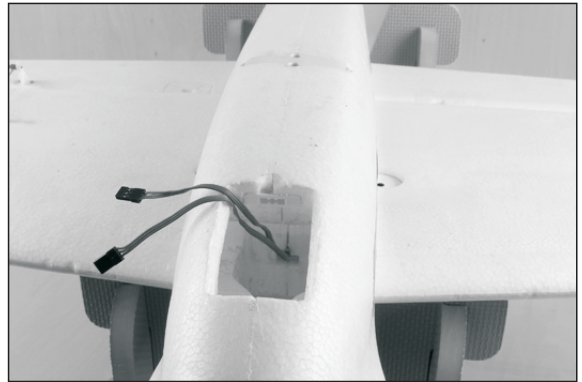


## 2 Main Wing

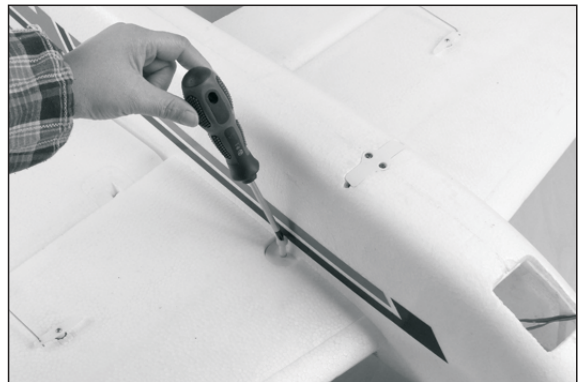
6.0x24mm Nylon screw



Insert the carbon rod through the other wing.  
And also put the aileron servo wire through the fuselage into the battery cabin.



Fit the wings and the fuselage in place with the nylon screws to avoid loosening.

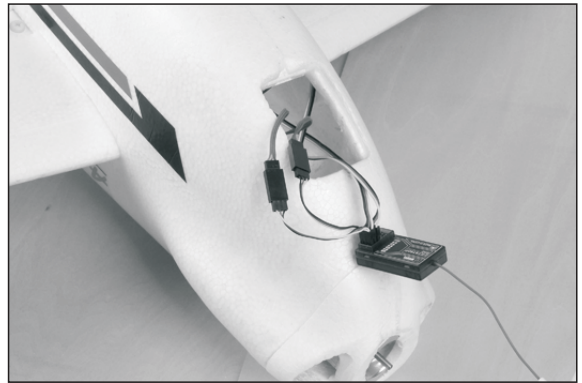


### 3 Main Wing

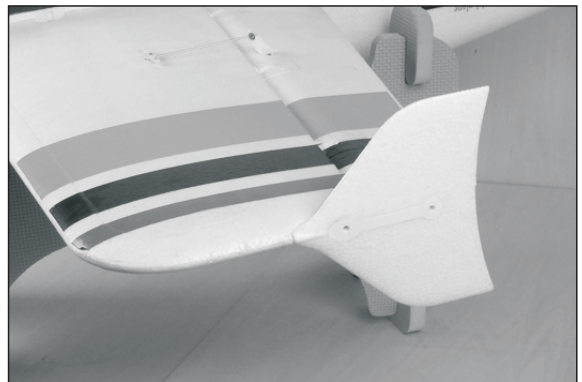
2.0x10mm Tapping screw



Take the aileron servo wires and connect to the servo extension leads. Ensure the polarity should be contacted correctly.

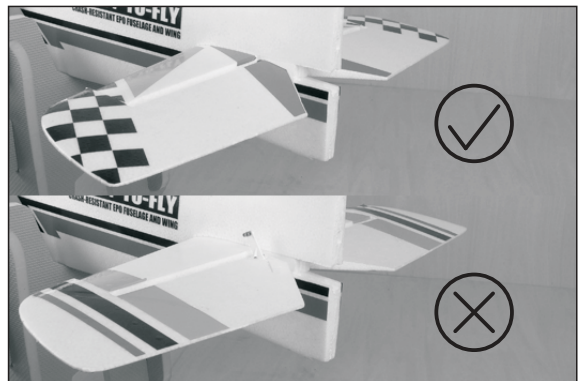


Mount the winglets to the wingtip use M2.0x10mm tapping screws.



### 4 Tail Wing

Take the stabilizer and slide it into the fuselage in right direction as shown.



Mount the fin to the fuselage.



## 5 Tail Wing

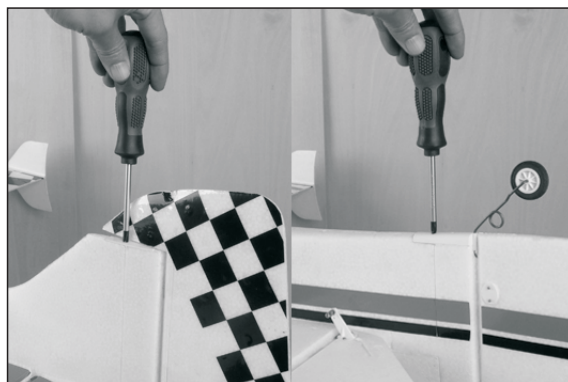
3.0x30mm Screw



2.0x10mm Tapping screw

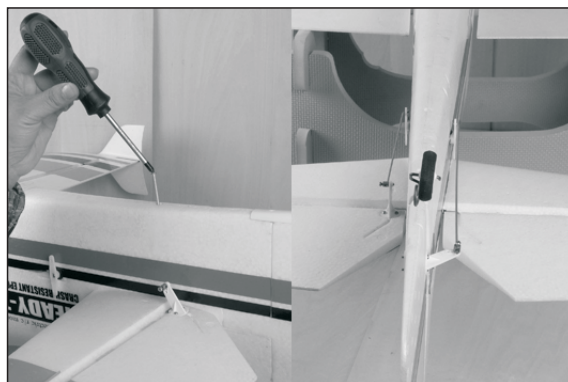


Fix the tail wing with the screw as shown.



Put the Z-bend of pushrod into the servo horn, then guide the pushrod into the screw-lock connector on rudder/elevator horn and lock them.

Note: The longer pushrod should be used for rudder, and the shorter one for elevator.

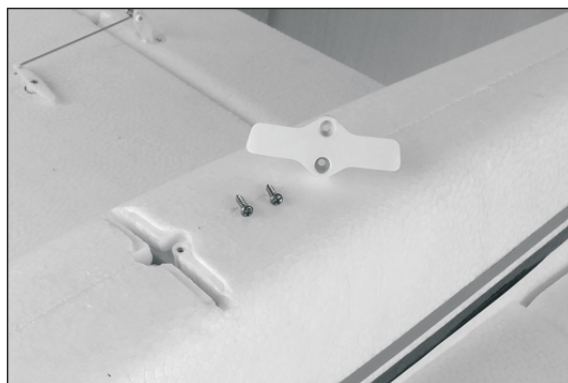


## 6 Landing Gear

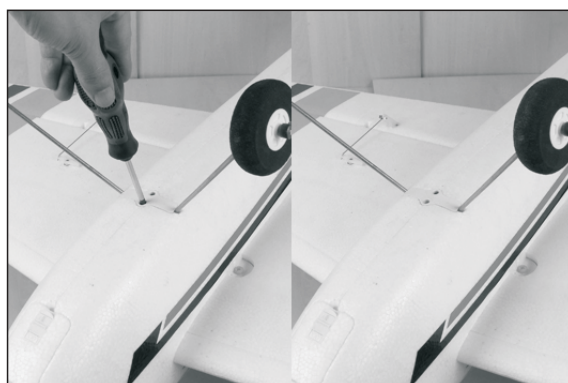
3.0x16mm Tapping screw



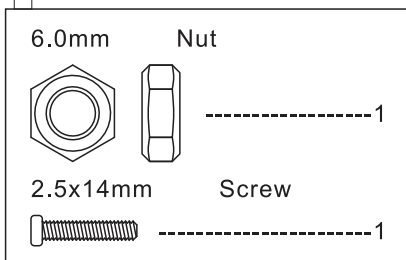
Remove the locker of landing gear from the fuselage.



Insert the landing gear into its location, then lock it with the locker and screws to loosening.



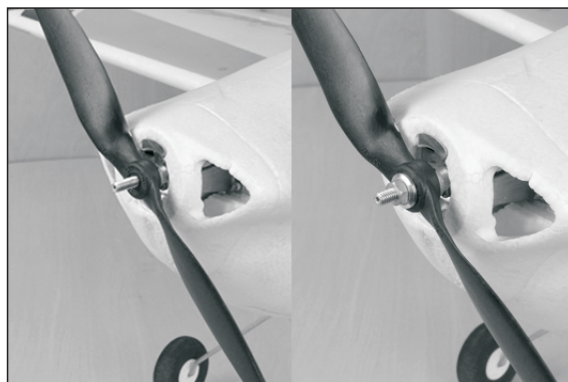
## 7 Propeller and spinner



Install the propeller adapter with retainer and propeller over the motor shaft.  
Put the propeller washer on the adapter shaft, and screw the nut onto the adapter. Tighten the nut with a hex wrench.

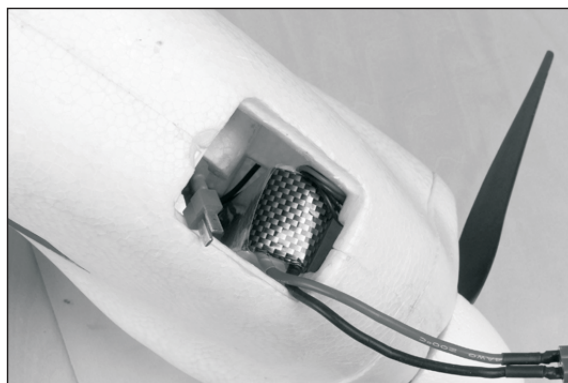
**⚠** Tighten the screws securely. If it comes off during flights, you may lose control of your airplane, resulting in an accident!

Fix the spinner with the screw as shown.



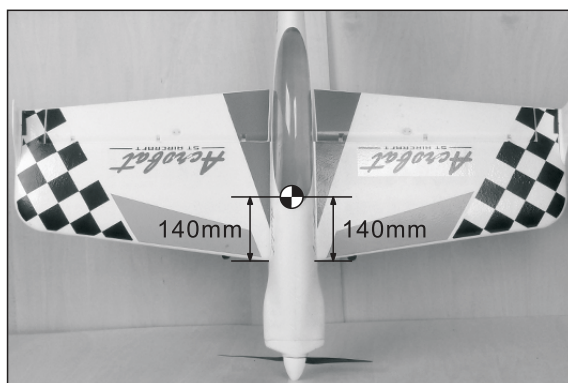
## 8 Battery & C.G

Remove the battery hatch and install the battery.



The standard C.G is positioned the line as the picture shows. The movement of C.G should not exceed  $\pm 10\text{mm}$ ; otherwise, it will have an effect on flying performance.

**⚠** Do not fly before confirming the correct location of the C.G. If the C.G is incorrect, you may lose control of your airplane and may lead to accidents.



# OPERATING YOUR MODEL SAFETY

## Before Flying

Before flying your airplane, ensure the airfield is spacious enough. Always fly it outdoors in safe areas with no debris or obstacles!

For proper radio handling, refer to it's instruction manual.

Ensure the spinner and propeller are securely installed.

Switch on the transmitter.

Plug in the battery.

**Warning!**  
Beware of spinning propeller! With some electronic speed controllers, the motor (propeller) starts spinning as soon as battery is connected.

## Flying

Do not fly your airplane on days with strong winds or side winds.

Ensure the main wing & stabilizer is securely installed.

Move the sticks on your transmitter to ensure that all controls move according to your input and the way you adjusted them.

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.

Launch your airplane by hand into the wind.

If your airplane does not function correctly, land it at once and find out the reason.

## After Flying

Always land airplane into the wind.

Unplug the battery.

**Warning!**  
Beware of spinning propellers!

Switch off the transmitter.

Unplug the battery when not in use.

Remove grime, check the plane carefully and make sure no parts have gotten loose or damaged.

## ⚠ Cautions for Safety

Do not allow people watching to get too close to rotating propeller.

Don't use defective propeller.

Batteries and chargers become hot. Keep away flammable materials.

Never try to modify battery. This is very dangerous.

Do not dispose of used batteries, return them to the shop.

Do not dispose of batteries in a fire. They explode and release harmful materials.

 **ST MODEL**  
SHENG TENG ELECTRIC R/C MODEL PLANE CO.,LTD

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