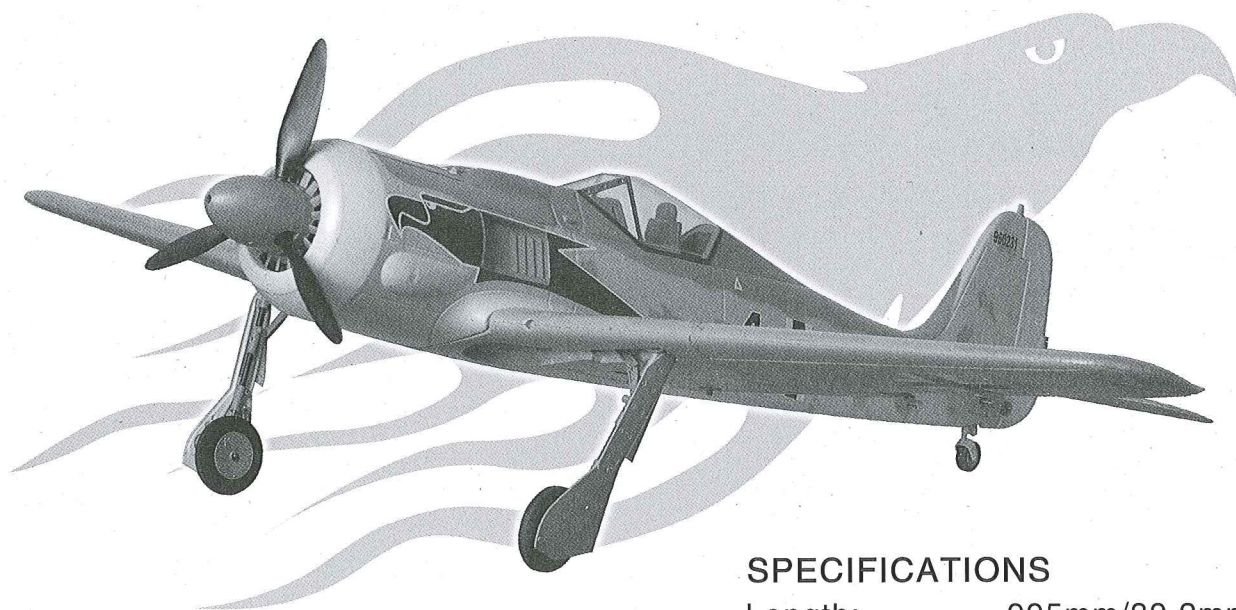


FW 190

For Intermediate
&
Advanced Flyers

ST MODEL

INSTRUCTION MANUAL



SPECIFICATIONS

Length:	995mm/39.2mm
Wing Span:	1130mm/44.5in
Wing Area:	21.3dm ² /330in ²
Wing Loading:	46.5g/dm ²
Flying Weight:	990g/34.92oz

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 12 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, buildings 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.

The product you have purchased is powered by a rechargeable battery.

The battery is recyclable. At the end of its useful life, under various national / state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

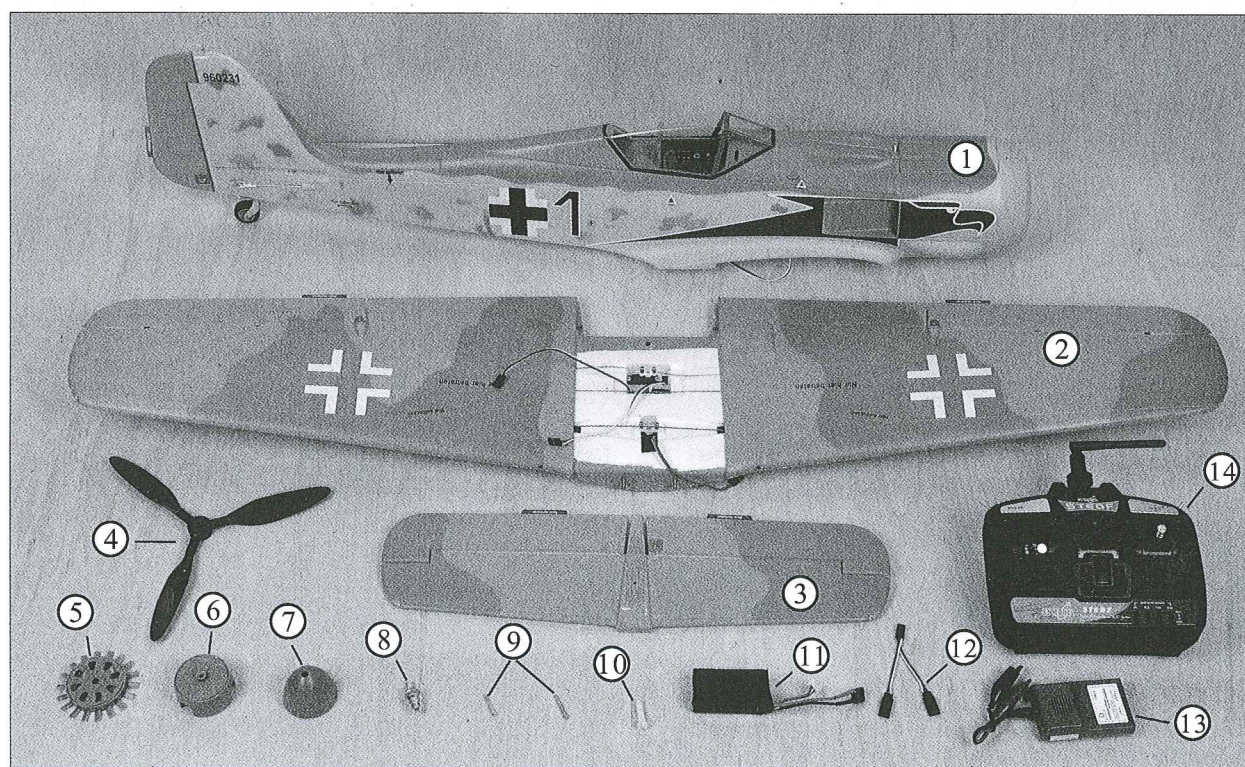


BEFORE YOU BEGIN

- 1 Read through the manual before you begin, so you will have an overall idea of what to do.
- 2 Check all parts.

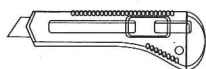
01.Fuselagex1
 02.Wing x1
 03.Horizontal Stabilizer x1
 04.Propeller x1
 05.Propeller Hubx1
 06.Rear Spinnerx1
 07.Nose Spinnerx1
 08.Propeller Adapterx1

09.Screw(M3.0x25) x2
 10.Wing Bolt(M6.0x24).....x1
 11.Battery Packx1
 12."Y" Servo Extensionx1
 13.Charger.....x1
 14.Transmitter.....x1
 15.Decals.....x1
 16.Instruction.....x1

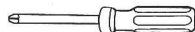


TOOLS REQUIRED

■ Sharp Hobby Knife



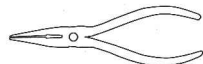
■ Phillips screwdrivers(sizes:M,S)



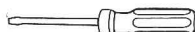
■ Awl



■ Needle Nose Pliers



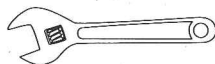
■ Flathead screwdrivers(sizes:M,S)



■ Ruler



■ Hex Wrench



GLOSSARY

Aileron:Controls roll(right/left).

Elevator:Controls Pitch(up/down).

Rudder:Controls Yaw(right/left direction)(yaw).

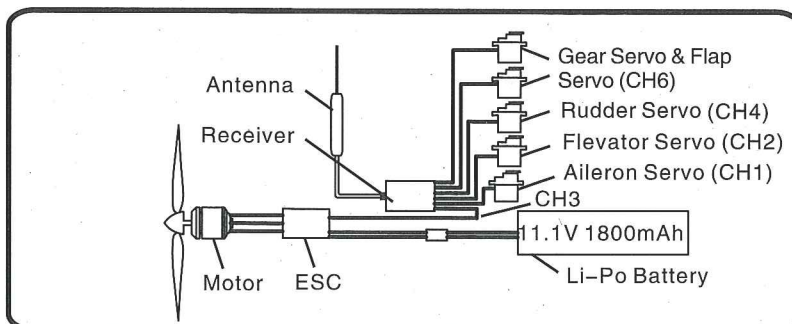
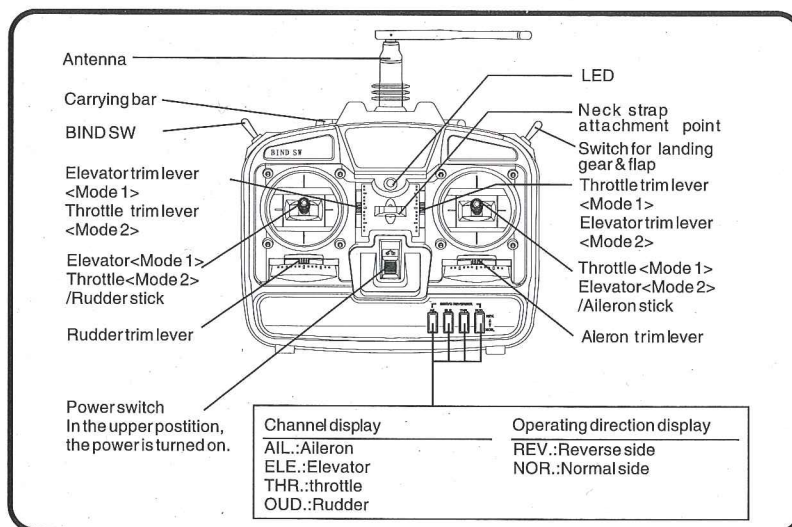
Receiver:Provides input to the control surfaces and ESC.

Power System–ESC(Electronic Speed Control):Controls the speed of the motor.

Motor:Rotates the prop to provide thrust.

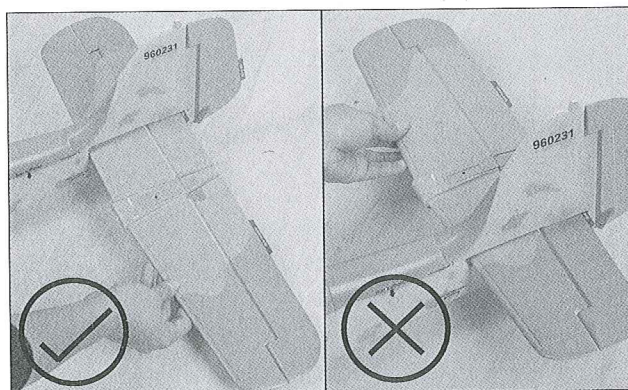
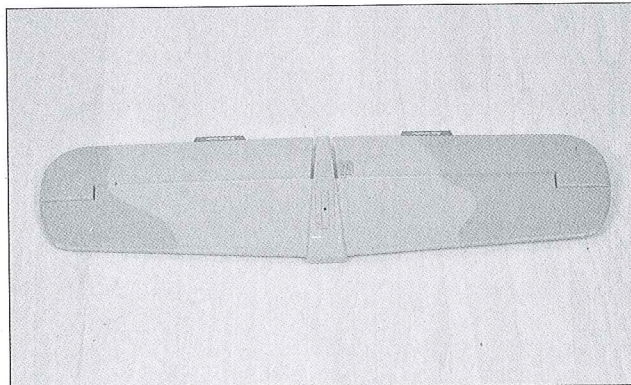
Transmitter(TX):The hand–held unit that sends the signal to the receiver.Moving the sticks control direction,climb/descent,roll and motor speed.

Li–Po battery:Rechargeable batteries which are used to power the airplane.Li–Po batteries are lighter and smaller than most other types of rechargeable batteries.



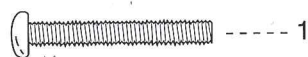
1 Tail Wing

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

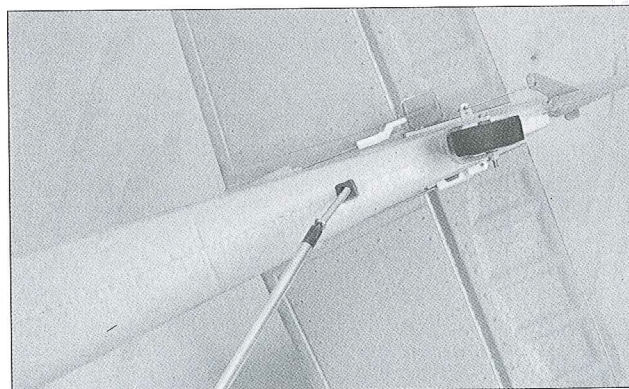
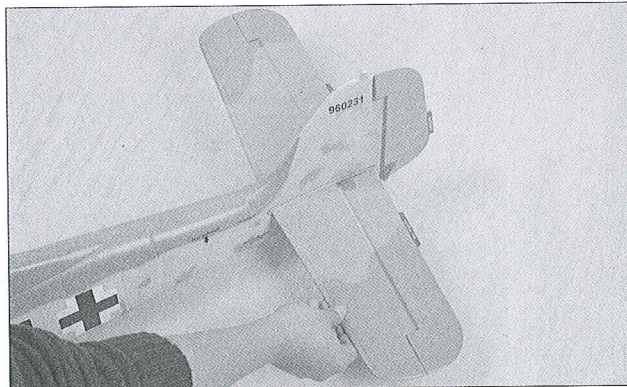


2 Tail Wing

3.0x25mm Screw



Fix the tail wing with the screw as shown.

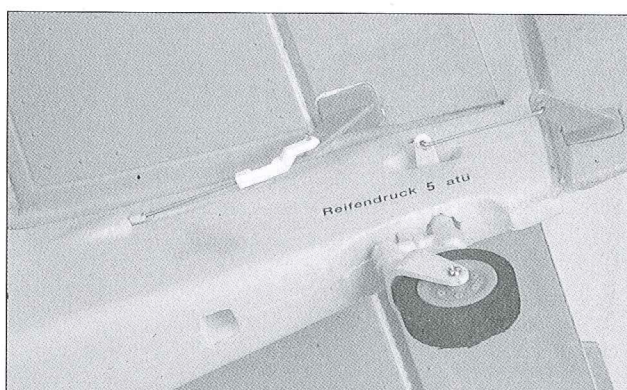
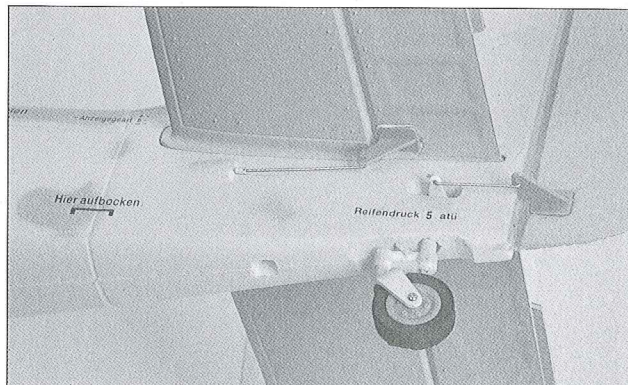


3 Tail Wing

Remove the pushrod locker from the elevator pushrod for next step.

Put the L-bend of elevator pushrod into the elevator horn.

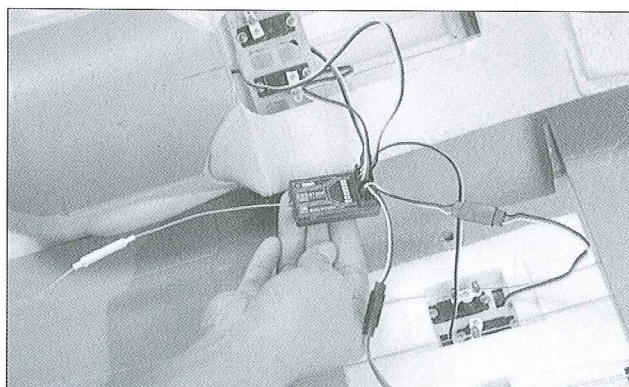
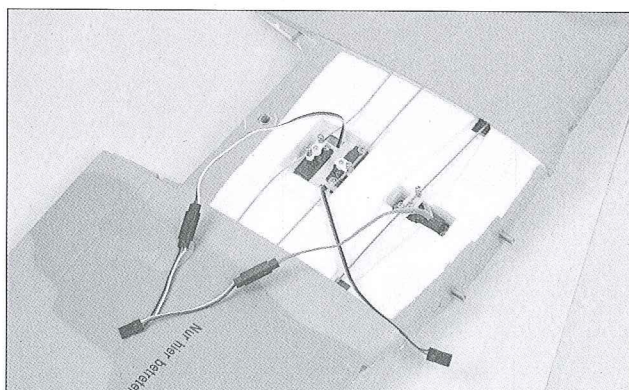
Lock the pushrod by the pushrod locker.



4 Main Wing

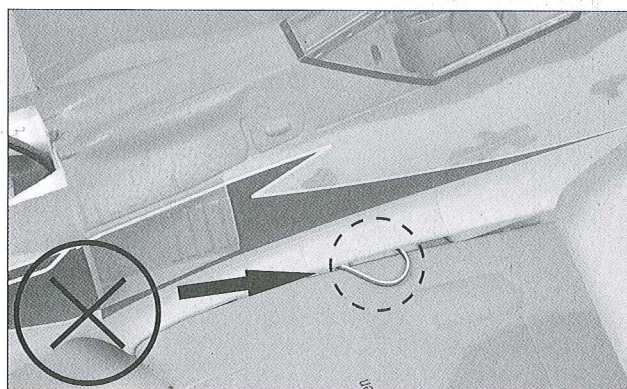
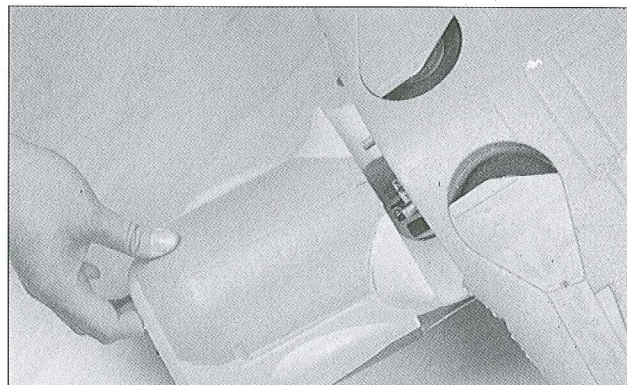
Connect the landing gear servo wire and flap servo wire to "Y" extension leads.

Connect the servos extension to the receiver in fuselage.



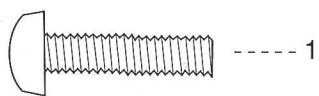
5 Main Wing

Install the wing as pictures show, to avoid the wire will be tangled with the fuselage and wing.

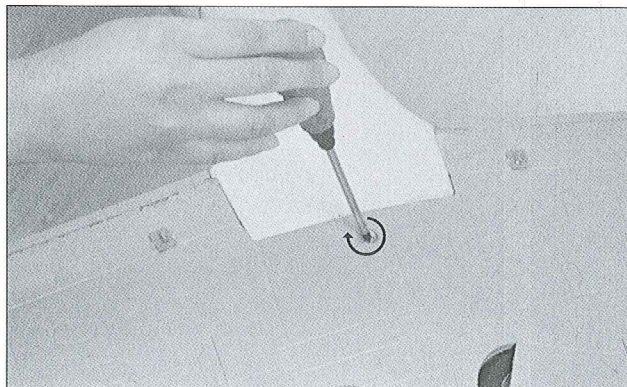
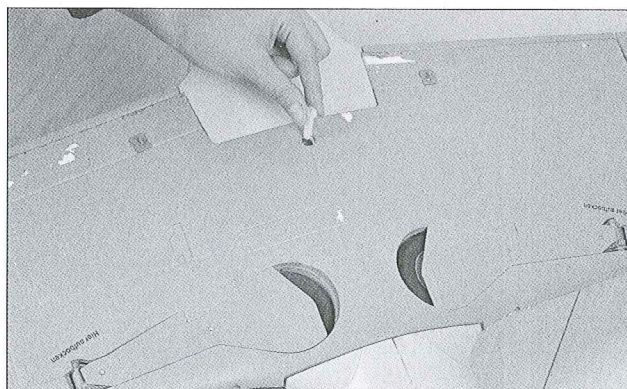


6 Main Wing

6.0x24mm Nylon Screw

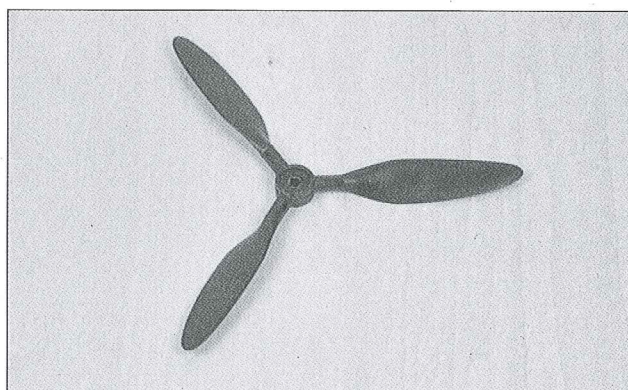
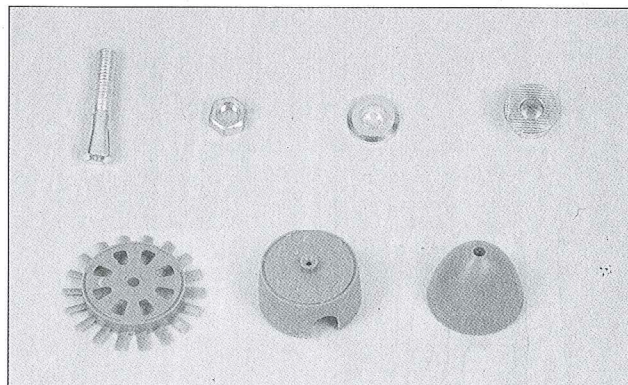


Lock the wing by the wing bolt as shown.



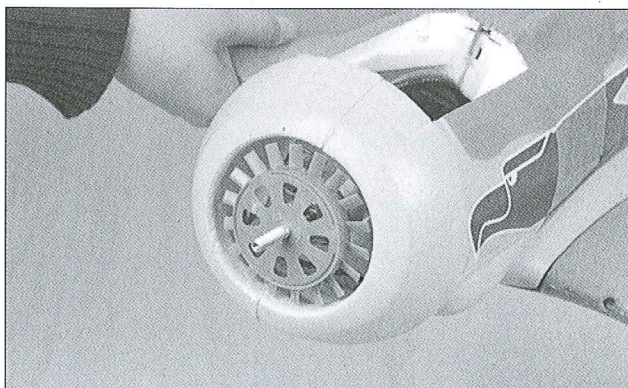
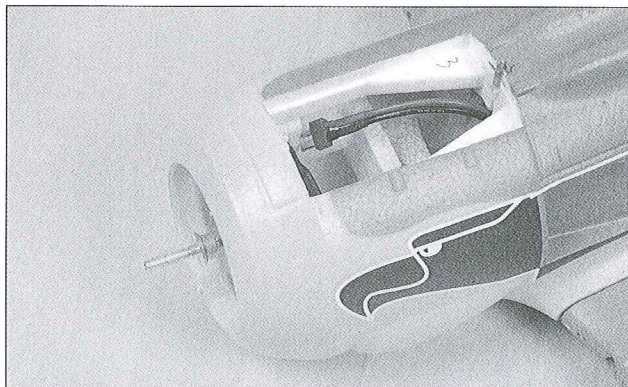
7 Propeller and spinner

Take the propeller adapter set, spinner set and propeller to your hands.



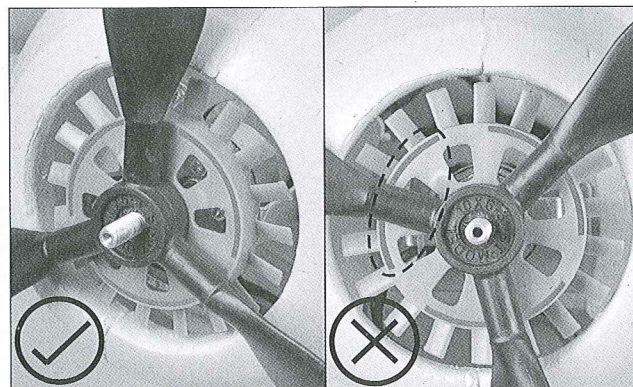
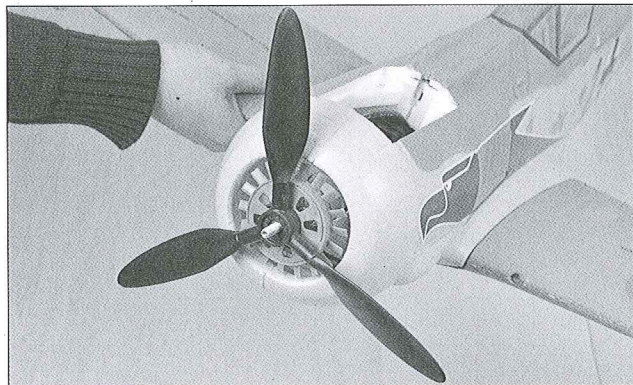
8 Propeller and spinner

Install the propeller adapter with retainer and propeller hub over the motor shaft.



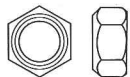
9 Propeller and spinner

Install the propeller onto the hub in its place as shown.



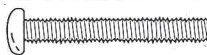
10 Propeller and spinner

6.0mm Nut



----- 1

3.0x25mm Screw



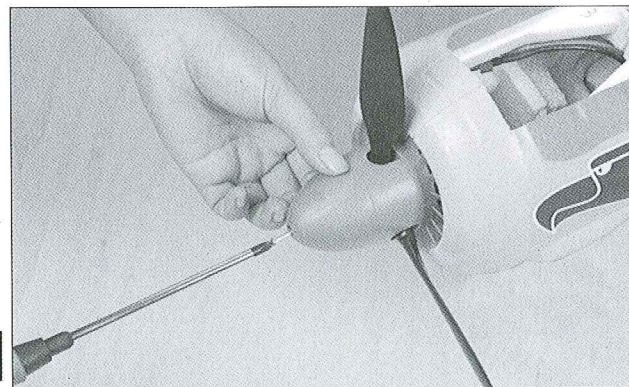
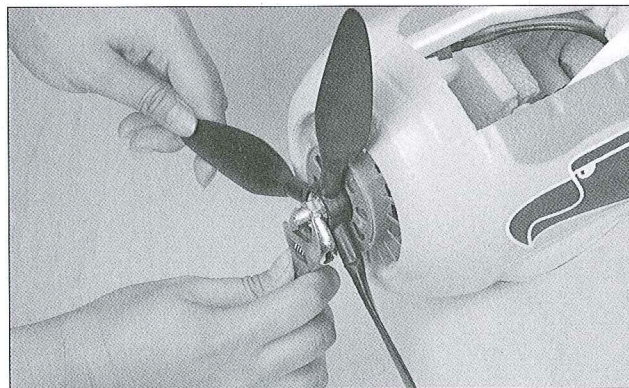
----- 1

Put the propeller washer on the adapter shaft. Take the propeller nut and screw it on the adapter shaft. 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!

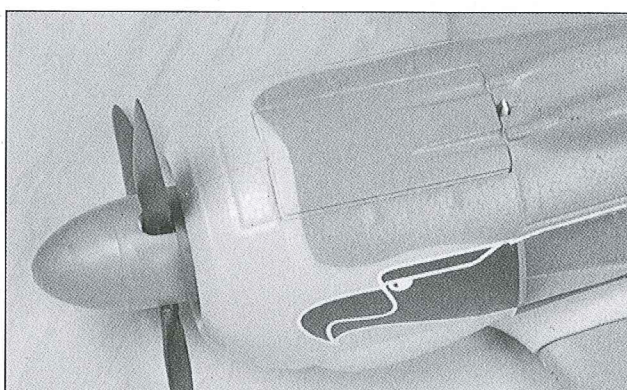
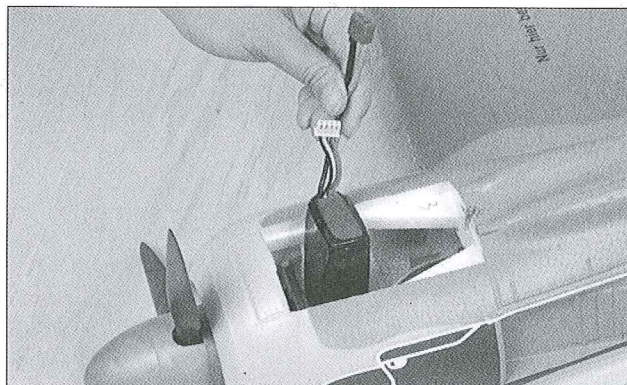
Fix the spinner with the screw as shown.

⚠ Make sure the screw are secured safely!



11 Battery

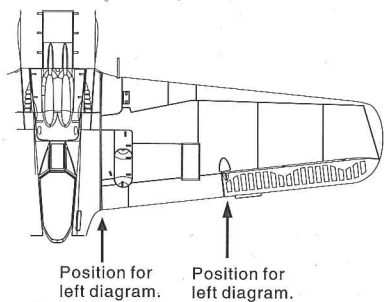
Remove the battery hatch and fix the battery with velcro tape, according to the C of G on step.



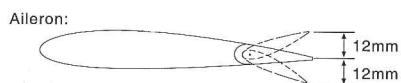
12 Adjustment

Adjust the travel of each control surface to the values in the diagrams.

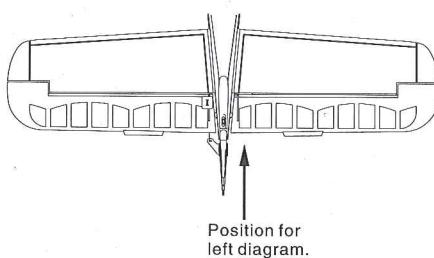
< Aileron > & < Flap >



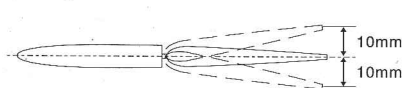
● Angle



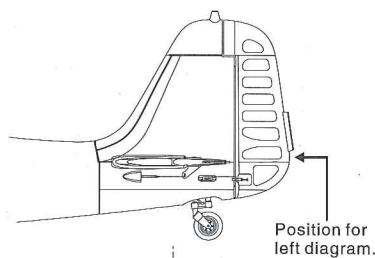
< Elevator >



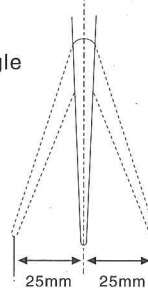
● Angle



< Rudder >

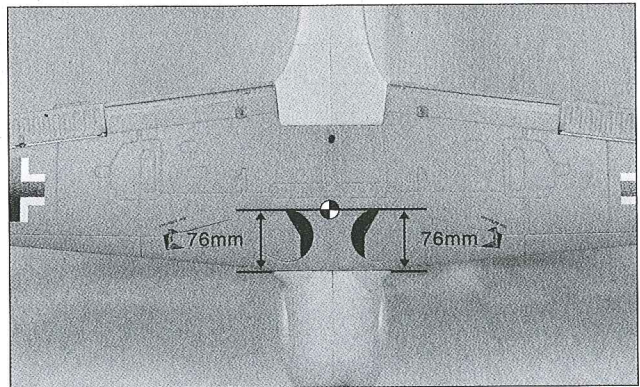


● Angle



13 C of G position

The standard CG is positioned the line as the picture shows. The movement of the CG should not exceed $\pm 5\text{mm}$; otherwise, it will have an effect on flying performance.



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

OPERATING YOUR MODEL SAFELY

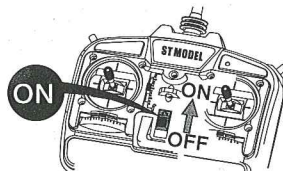
Before Flying

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

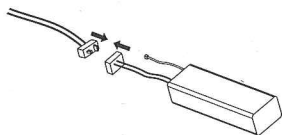
For proper radio handling, refer to its instruction manual.

Ensure the spinner and propeller are securely installed.

Switch on the transmitter.



Plug in the battery.



Warning!

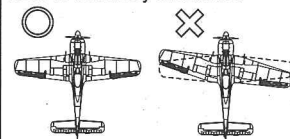
Beware of spinning ducted fan! With some electronic speed controllers, the motor (ducted fan) starts spinning as soon as battery is connected.

Flying

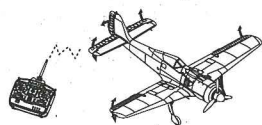
Do not fly your airplane on days with strong winds or side winds.



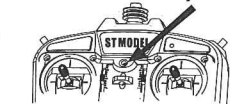
Ensure the main wing & stabilizer is securely installed.



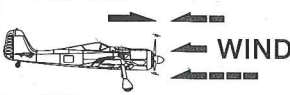
Move the sticks on your transmitter to ensure that all control move according to your inputs and the way you adjusted them.



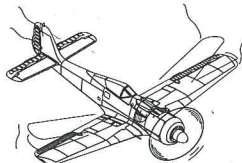
If the green LED is on, it is safe to fly. If the red LED is flashing install fresh batteries. Also check to make sure that the batteries are installed correctly.



Launch your airplane by hand into the wind.

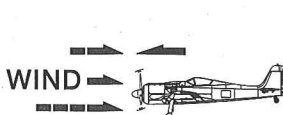


If your airplane does not function correctly, land it at once and find out the reason.

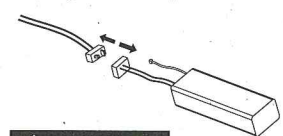


After Flying

Always land airplane into the wind.



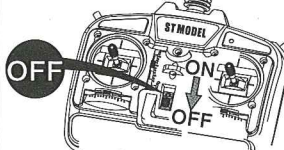
Unplug the battery.



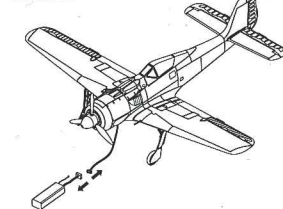
Warning!

Beware of spinning propellers!

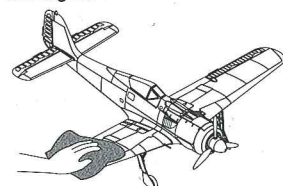
Switch off the transmitter.



Unplug the battery when not in use.

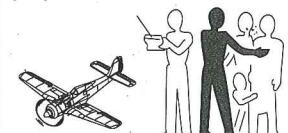


Remove grime, check the plane carefully and make sure no parts have gotten loose or damaged.

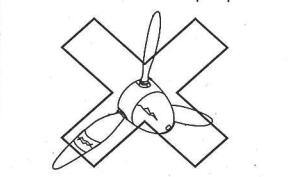


Cautions for Safety

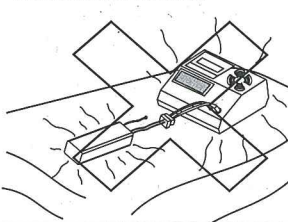
Do not allow people watching to get too close to rotating propeller.



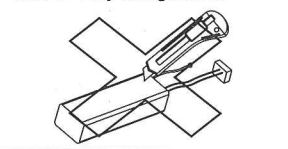
Don't use defective propeller.



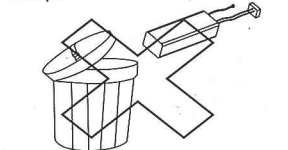
Batteries and chargers become hot. Keep away flammable materials.



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 will explode and release harmful materials.

