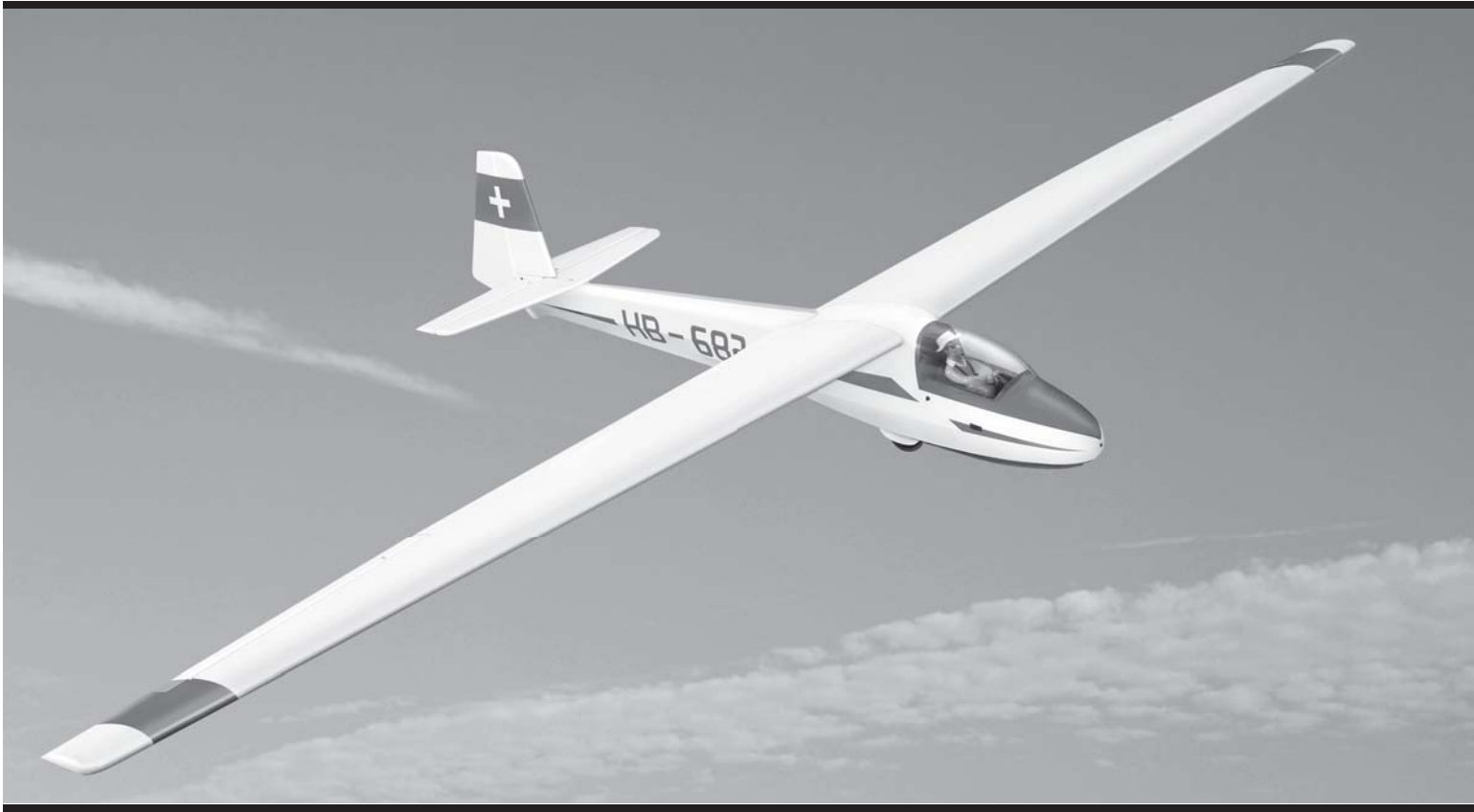




PHOENIX MODEL®

# Instruction Manual



# K8B



**Wingspan** : 6000mm (236.22 inch)



**Length** : 2800mm (110.24 inch)



**Weight** : 13kg - 14kg



**Radio** : 7 servo / 6 channel

**KIT CONTENTS:** We have organized the parts as they come out of the box for better identification during assembly. We recommend that you regroup the parts in the same manner. This will ensure you have all of parts required before you begin assembly.

# **KIT CONTENTS**

## **MAIN GEAR**

- (1) Metal pushrod
- (1) 100mm wheel
- (2) Collar
- (6) Wooden plate

## **ELEVATOR CONTROL SYSTEM**

- (2) Set aluminum control horn
- (2) 3mm x 30mm screw
- (2) 3mm x 10mm screw
- (2) 3mm x 12mm screw
- (2) 6mm flat washer
- (2) M3 Nut
- (4) Aluminum ball
- (4) Nylon ball link
- (3) 4mm x 20mm machine screw
- (8) 8mm flat washer
- (8) 2mm x 10mm wood screw
- (2) 3mm x 110mm metal pushrod

## **RUDDER CONTROL SYSTEM**

- (1) Set aluminum control horn
- (1) 3mm x 50mm screw
- (1) 3mm x 10mm screw
- (1) 3mm x 12mm screw
- (1) 6mm flat washer
- (1) M3 Nut
- (2) Aluminum ball
- (2) Nylon ball link
- (2) 4mm x 20mm machine screw
- (2) 8mm flat washer
- (2) 4mm flat washer
- (4) 2mm x 10mm wood screw
- (1) 3mm x 185mm metal pushrod

## **AILERON CONTROL SYSTEM**

- (2) Set aluminum control horn
- (2) 3mm x 30mm screw
- (2) 3mm x 10mm screw
- (2) 3mm x 12mm screw
- (2) 6mm flat washer
- (2) M3 Nut
- (4) Aluminum ball
- (4) Nylon ball link
- (8) 2mm x 10mm wood screw
- (2) 3mm x 90mm metal pushrod

## **MISCELLANEOUS ITEMS**

- (2) Aluminum dihedral
- (6) Carbon dihedral
- (10) Wing screw
- (4) 4mm x 30mm nylon screw
- (4) 4mm x 35mm wood screw
- (4) Plastic joiner
- (1) Aluminum ball
- (1) Nylon ball link
- (1) 3mm x 12mm wood screw
- (1) 6mm flat washer
- (1) M3 Nut
- (2) Wood plate
- (2) Plastic part
- (1) 3mm x 100mm metal pushrod
- (1) Instruction manual
- (6) 3mm x 12mm wood screw

## **TOOLS AND SUPPLIES NEEDED.**

- Medium C/A glue.
- 30 minute epoxy.
- 6 minute epoxy.
- Hand or electric drill.
- Assorted drill bits.
- Modeling knife.
- Straight edge ruler.
- 2 bender plier.
- Wire cutters.
- Masking tape.
- Thread lock.
- Paper towels.
- Rubbing alcohol

## **SUGGESTION**

To avoid scratching your new airplane, do not unwrap the pieces until they are needed for assembly. Cover your workbench with an old towel or brown paper, both to protect the aircraft and to protect the table. Keep a couple of jars or bowls handy to hold the small parts after you open the bag.

## **NOTE:**

Please trial fit all the parts. Make sure you have the correct parts and that they fit and are aligned properly before gluing! This will assure proper assembly. The K8B is hand made from natural materials, every plane is unique and minor adjustments may have to be made. However, you should find the fit superior and assembly simple.

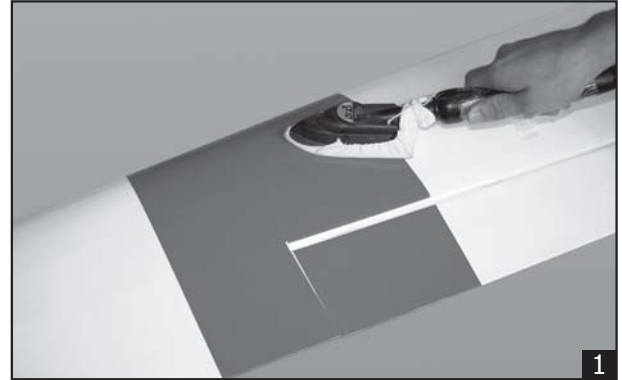
The painted and plastic parts used in this kit are fuel proof. However, they are not tolerant of many harsh chemicals including the following: paint thinner, C/A glue accelerator, C/A glue debonder and acetone. Do not let these chemicals come in contact with the colors on the covering and the plastic parts.

## **SAFETY PRECAUTION:**

- This is not a toy
- Be sure that no other flyers are using your radio frequency.
- Do not smoke near fuel
- Store fuel in a cool, dry place, away from children and pets.
- Wear safety glasses.
- The glow plug clip must be securely attached to the glow plug.
- Do not flip the propeller with your fingers.
- Keep loose clothing and wires away from the propeller.
- Do not start the engine if people are near. Do not stand in line with the side of the propeller.
- Make engine adjustments from behind the propeller only. Do not reach around the spinning propeller.

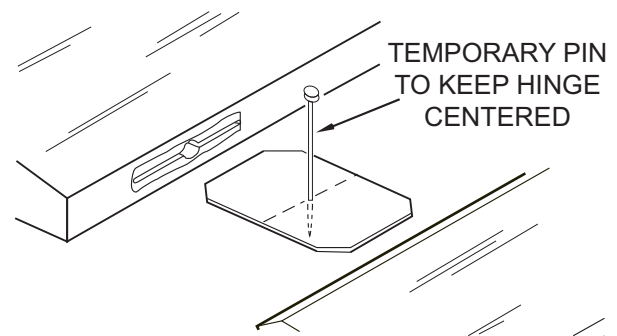
## **PREPARATIONS**

Remove the tape and separate the ailerons from the wing and the elevators from the stab. Use a covering iron with a covering sock on high heat to tighten the covering if necessary. Apply pressure over sheeted areas to thoroughly bond the covering to the wood.

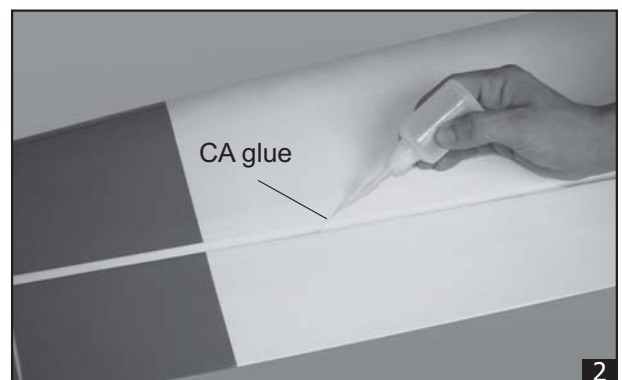


## **INSTALLING THE AILERONS**

1. Test fit the ailerons to the wing with the hinges. If the hinges don't remain centered, stick a pin through the middle of the hinge to hold it in position.



2. Apply six drops of thin CA to the top and bottom of each hinge. Do not use CA accelerator. After the CA has fully hardened, test the hinges by pulling on the aileron.

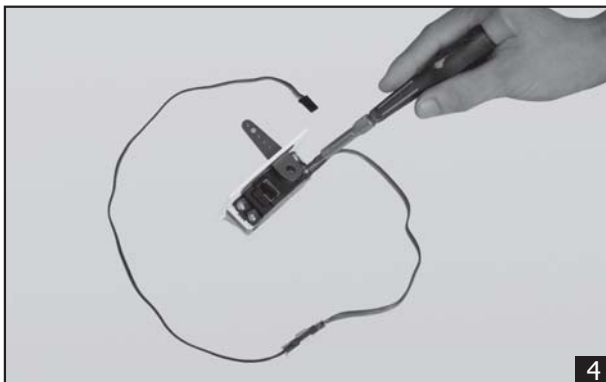


## INSTALLING THE AILERON SERVOS

1. Install the rubber grommets and brass eyelets onto the aileron servo.
2. Using a modeling knife, remove the covering from over the pre-cut servo arm exit hole on the aileron servo tray / hatch. This hole will allow the servo arm to pass through when installing the aileron pushrods.



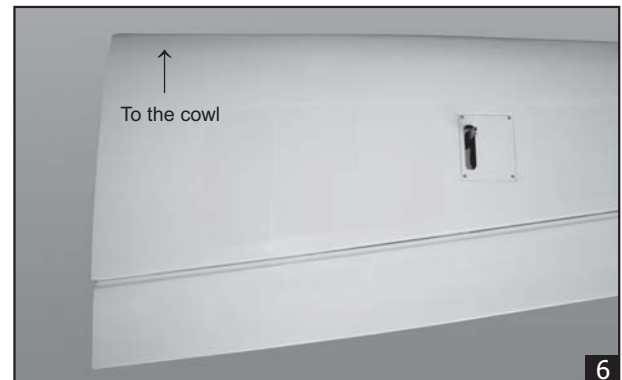
3. Place the servo into the servo tray. Center the servo within the tray and drill 1,6mm pilot holes through the block of wood for each of the four mounting screws provided with the servo.



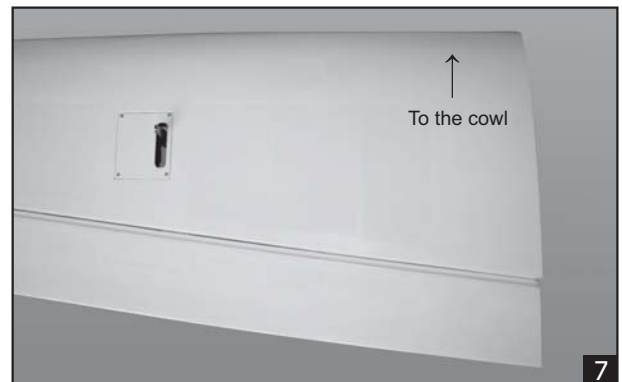
4. Using the thread as a guide and using masking tape, tape the servo lead to the end of the thread: carefully pull the thread out. When you have pulled the servo lead out, remove the masking tape and the servo lead from the thread.



5. Place the aileron servo tray / hatch into the servo box on the bottom of the wing and drill 1,6mm pilot holes through the tray and the servo box for each of the four mounting screws. Secure the servo tray in place using the mounting screws provided ( 2mm x 12mm ).

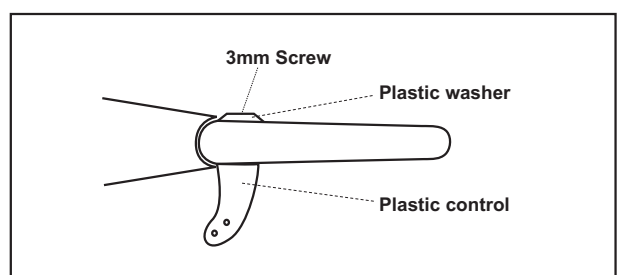


6. Repeat step # 2 - # 5 to install the second aileron servo in the opposite wing half.



## INSTALLING THE CONTROL HORNS

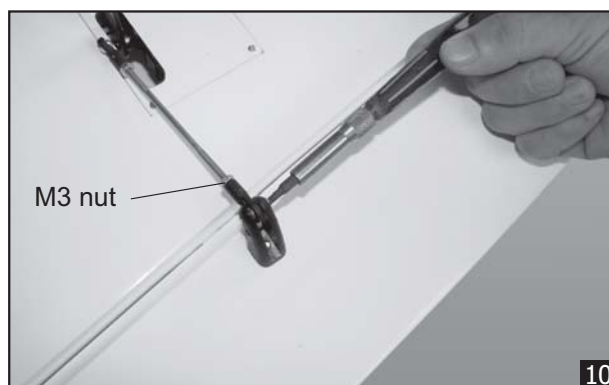
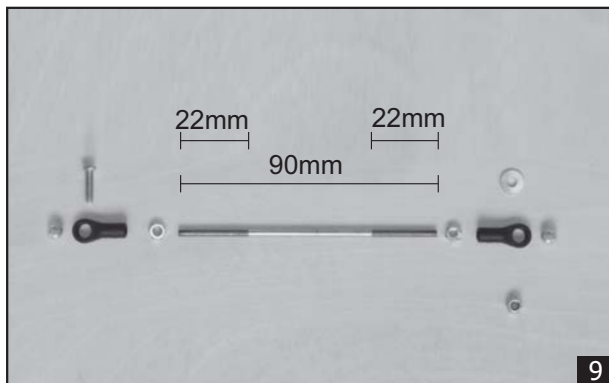
1. One aileron control horn is positioned on each aileron. Remove the covering from the aileron and secure it.



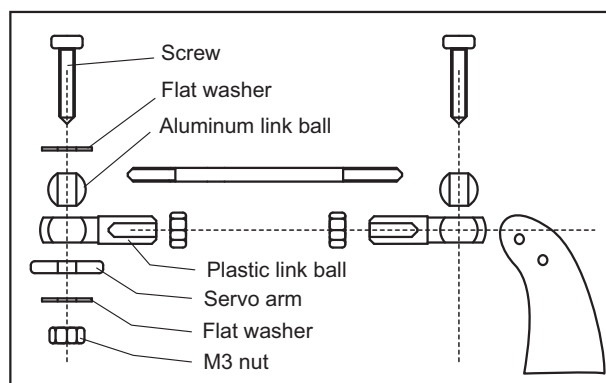
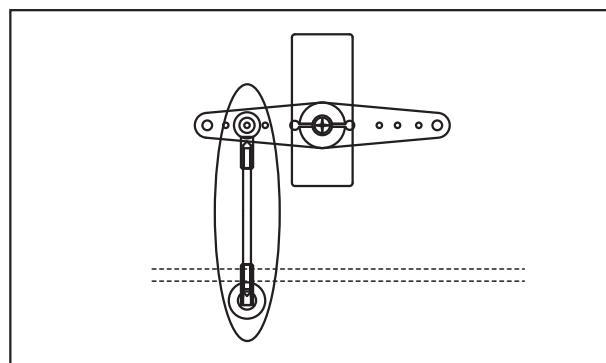
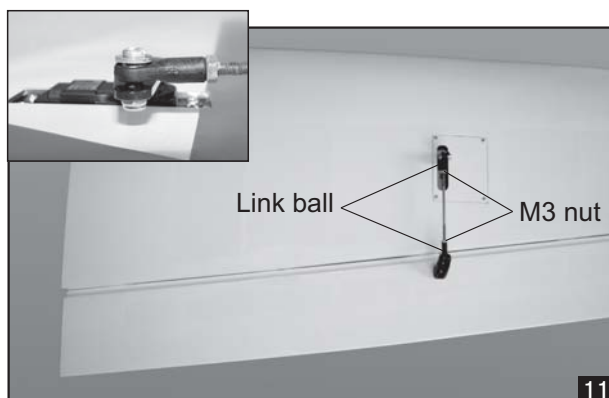
2. Repeat step # 1 - # 2 to install the control horn on the opposite aileron.

## INSTALLING THE AILERON LINKAGES

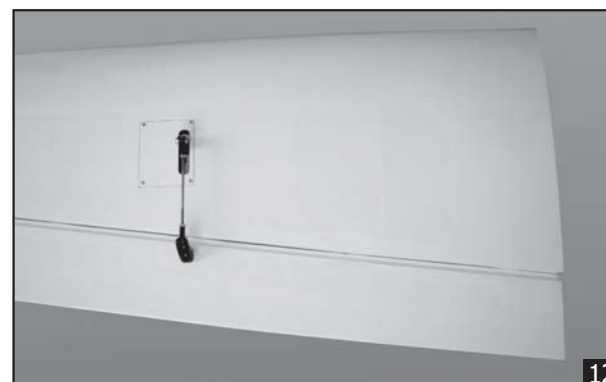
The aileron linkages are assembled as shown below.



1. Plug the aileron servo into the receiver and center the servo. Install the servo arm onto the servo. The servo arm should be perpendicular to the servo and point toward the middle of the wing.
2. Center the aileron and hold it in place using a couple of pieces of masking tape. Adjust the linkage until the aileron and the servo arm are both centered and then tighten the nut against the clevis. Install the plastic linkball to the servo arm. Remember use thread locking compound to secure.



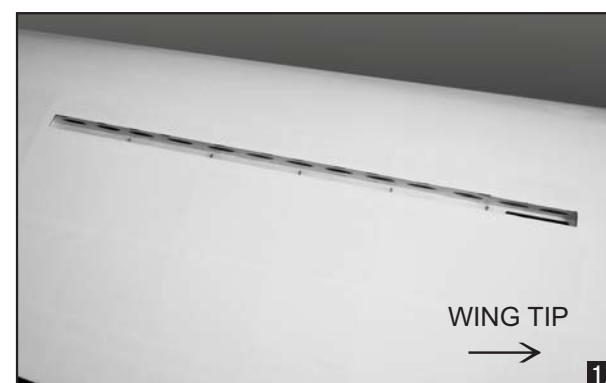
3. Repeat step 1 - step 2 for the second aileron linkage.



## INSTALLING THE ELECTRIC AIR BRAKES

(NOT INCLUDED WITH THE KIT)

1. Remove the covering from the top of the wing.

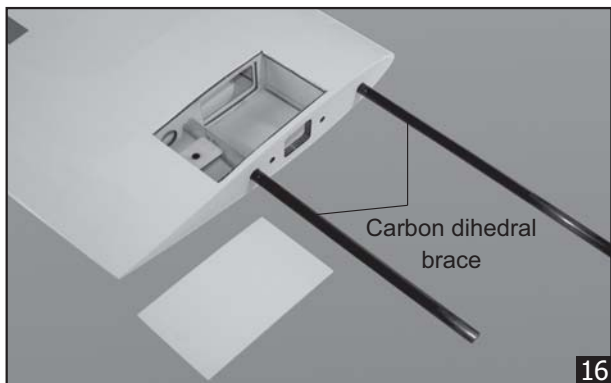


2. Install the air brake into the bay.

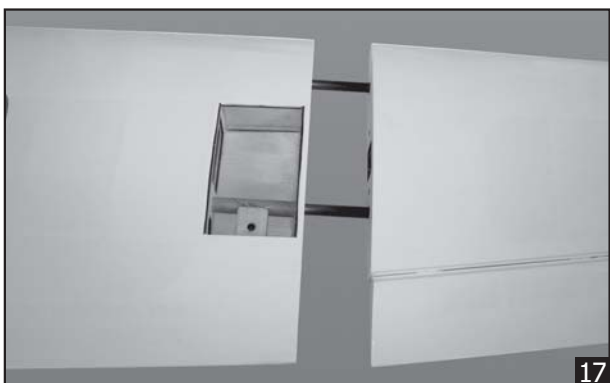


## **JOINING THE WING HALVES**

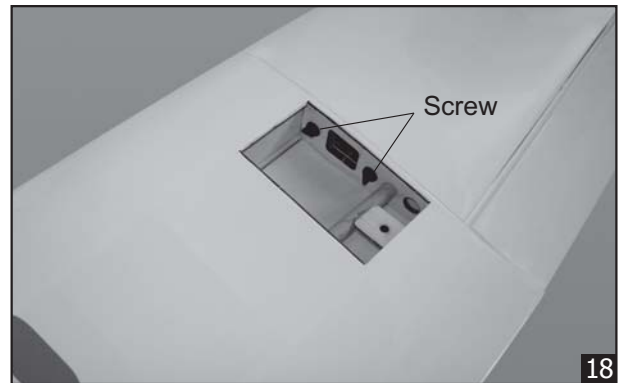
1. Slide two carbon tube the wing.



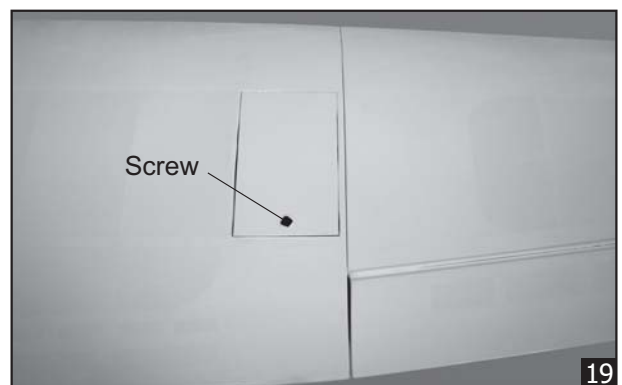
2. Attach the wing to the joiner.



3. Secure the wing using the plastic screws.



4. Secure the plate.



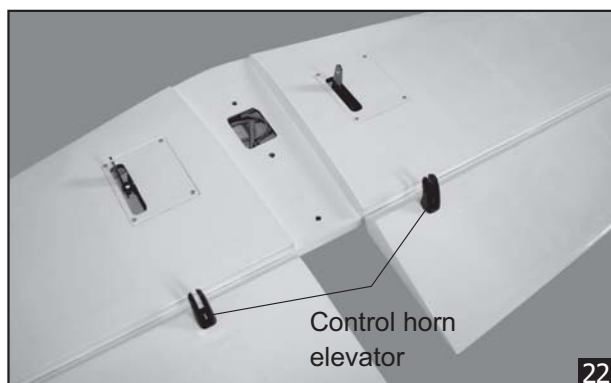
## **INSTALLING THE ELEVATOR SERVO**

1. Remove the covering.



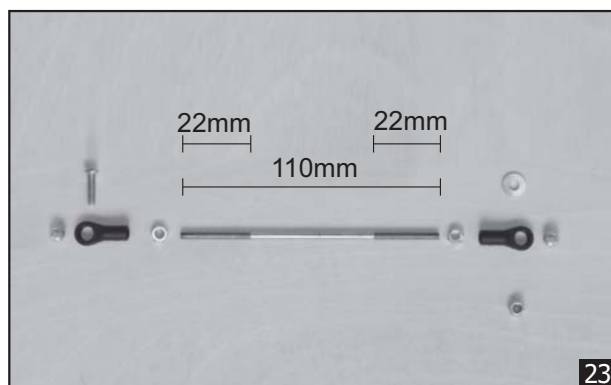


2. Repeat step #1 - #4 from installing the aileron control horn to install the control horn elevator.



## **INSTALLING THE ELEVATOR LINKAGES**

The elevator linkages are assembled as shown below



- Repeat these step as installing the aileron linkages.



## **INSTALLING THE HORIZONTAL STABILIZER**

1. Remove the covering.

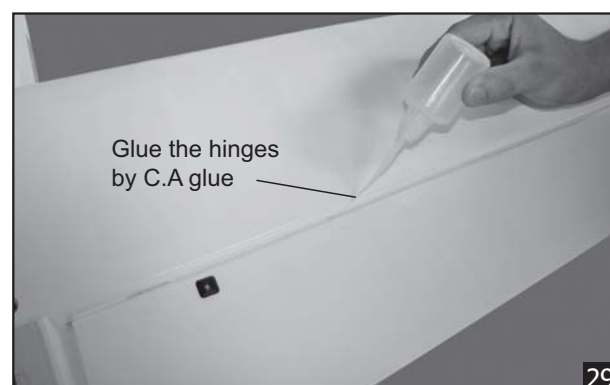


2. Secure the horizontal onto the fuselage.



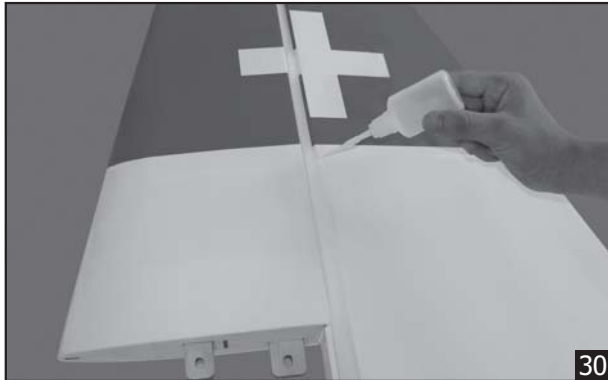
## **INSTALLING THE ELEVATOR**

- Repeat step #1 - #2 from installing the aileron to install the elevator.



## **INSTALLING THE RUDDER**

1. Repeat step #1 - #2 from installing the aileron to install the rudder.



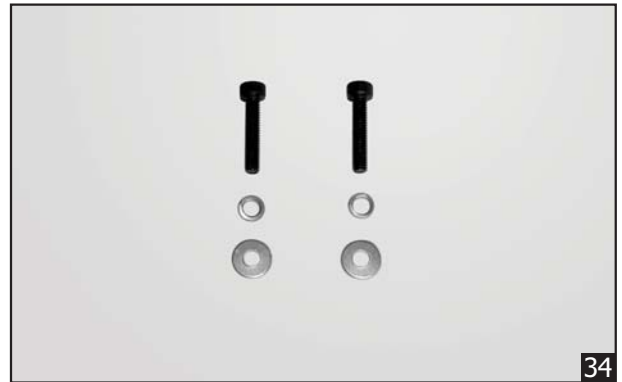
2. Remove the covering from the fuselage.



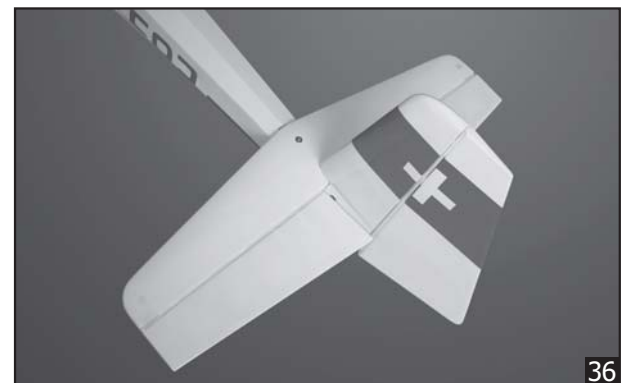
3. Insert the vertical stabilizer into the fuselage.



4. Remove the covering from the fuselage.

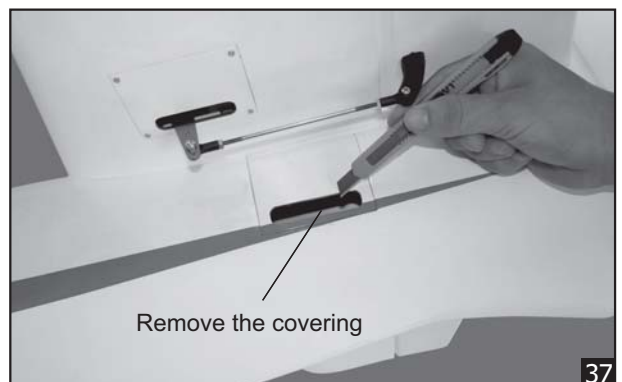


5. Secure the vertical stabilizer into the fuselage.

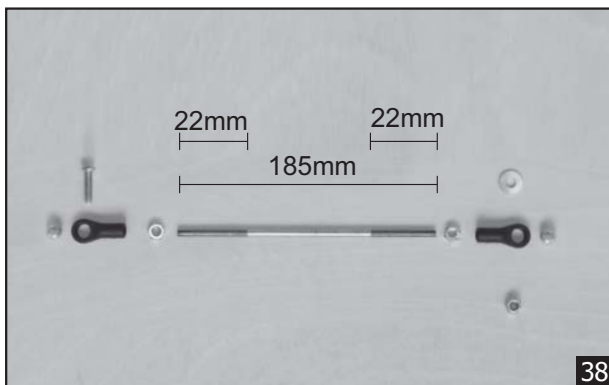


## **INSTALLING THE RUDDER SERVOS**

Repeat these step from installing the aileron linkages to install the rudder linkages.

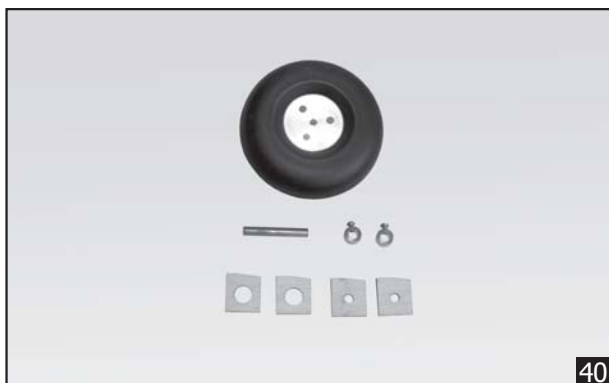




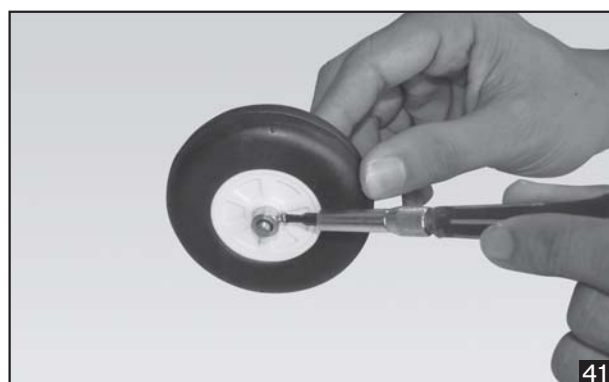


## **INSTALLING THE MAIN LANDING GEAR**

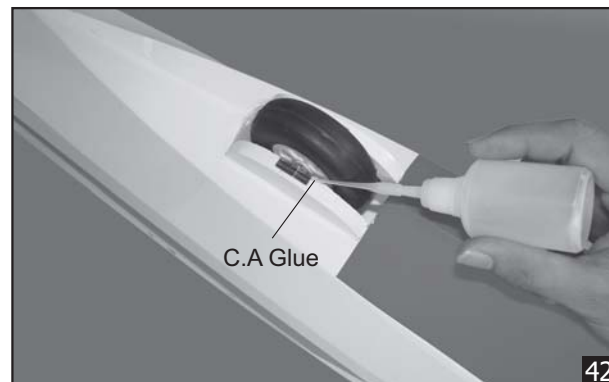
1. The full set wheel.



2. Secure the collars.



3. Glue the wooden plate to the fuselage.



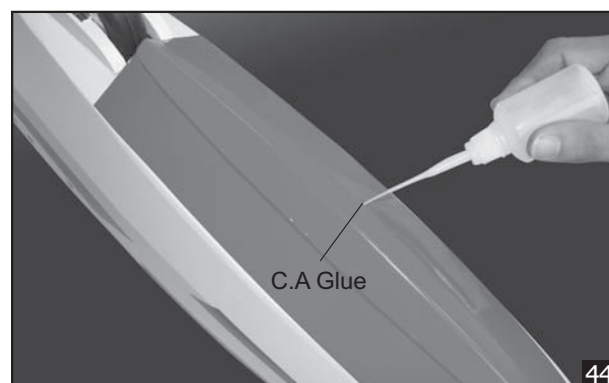
## **INSTALLING THE RECEIVER AND BATTERY**

1. Plug the servo leads and the switch lead into the receiver. You may want to plug an aileron extension into the receiver to make plugging in the aileron servo lead easier when you are installing the wing. Plug the battery pack lead into the switch.
2. Wrap the receiver and battery pack in the protective foam to protect them from vibration. Use a rubber band or masking tape to hold the foam in place.

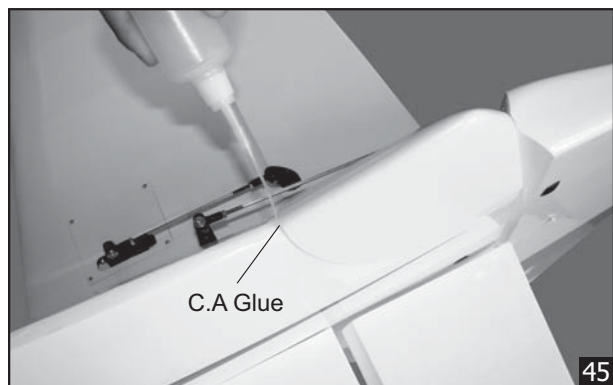
## **OPEN AND CLOSE THE CANOPY**



- Glue the plastic cover to the fuselage.

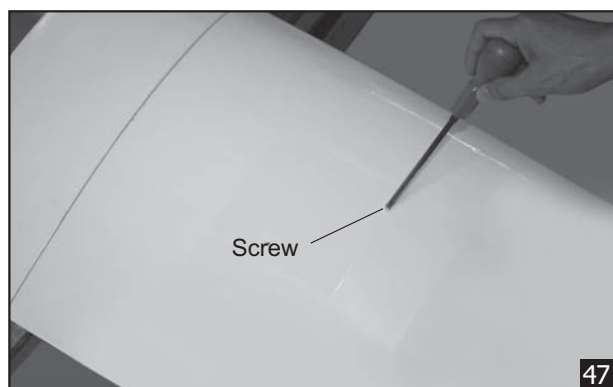
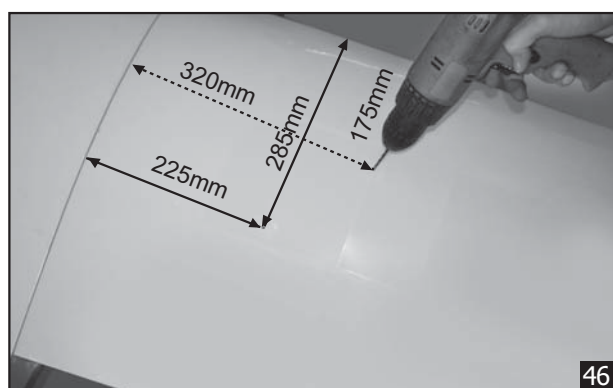


- Glue the plastic cover to the fuselage.

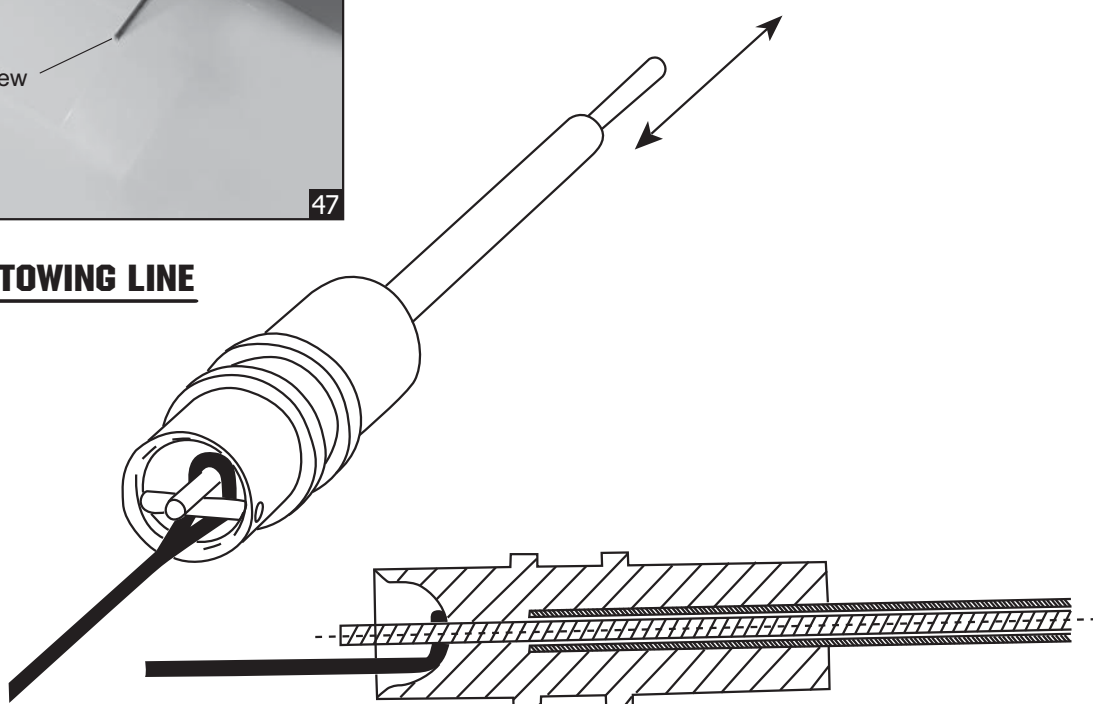


## **SECURE THE WING**

Screw four screws to the both wing.



## **INSTALLING THE TOWING LINE**

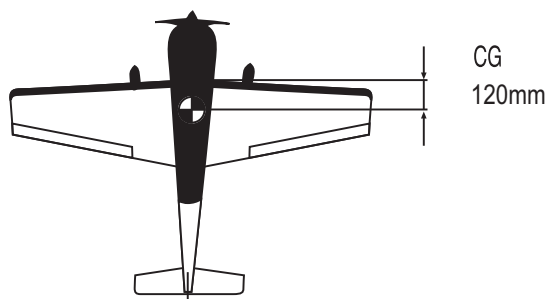


## BALANCING

1. It is critical that your airplane be balanced correctly. Improper balance will cause your plane to lose control and crash.

THE CENTER OF GRAVITY IS LOCATED 120mm BACK FROM THE LEADING EDGE OF THE WING, AT THE FUSELAGE. This location is recommended for initial test flying and trimming. There is a 5mm margin forward and aft. **BALANCE A PLANE UPSIDE DOWN WITH THE FUEL TANK EMPTY.**

2. Mount the wing to the fuselage. Using a couple of pieces of masking tape, place them on the top side of the wing 120mm back from the leading edge, at the fuselage sides.
3. Turn the airplane upside down. Place your fingers on the masking tape and carefully lift the plane.
4. If the nose of the plane falls, the plane is nose heavy. To correct this first move the battery pack further back in the fuselage. If this is not possible or does not correct it, stick small amounts of lead weight on the fuselage under the horizontal stabilizer. If the tail of the plane falls, the plane is tail heavy. To correct this, move the battery and receiver forward or if this is not possible, stick weight into the firewall. When balanced correctly, the airplane should sit level or slightly nose down when you lift it up with your fingers.



## LATERAL BALANCE



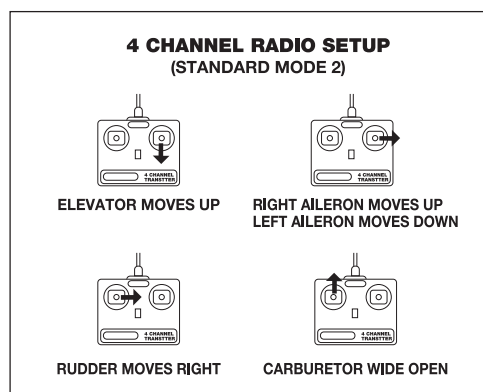
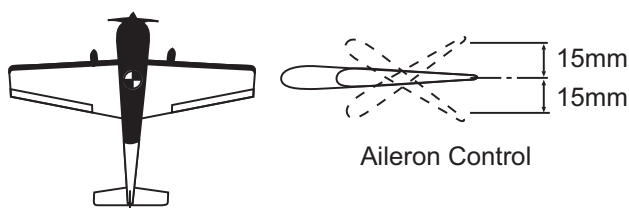
*After you have balanced a plane on the C.G. You should laterally balance it. Doing this will help the airplane track straighter.*

5. Turn the airplane upside down. Attach one loop of heavy string to the engine crankshaft and one to the tail wheel wire. With the wings level, carefully lift the airplane by the string. This may require two people to make it easier.
6. If one side of the wing fall, that side is heavier than the opposite. Add small amounts of lead weight to the bottom side of the lighter wing half's wing tip. Follow this procedure until the wing stays level when you lift the airplane.

## CONTROL THROWS

1. We highly recommend setting up a plane using the control throws listed.
2. The control throws should be measured at the widest point of each control surface.
3. Check to be sure the control surfaces move in the correct directions.

Aileron	: 15mm up	15mm down
Elevator	: 15mm up	15mm down
Rudder	: 70mm right	70 mm left

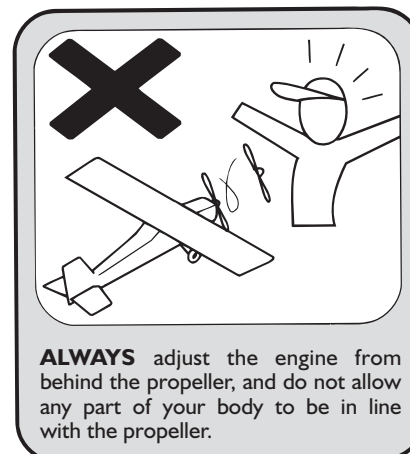
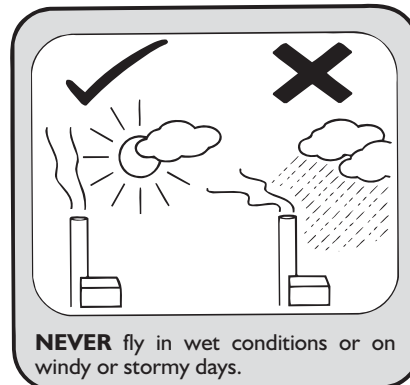
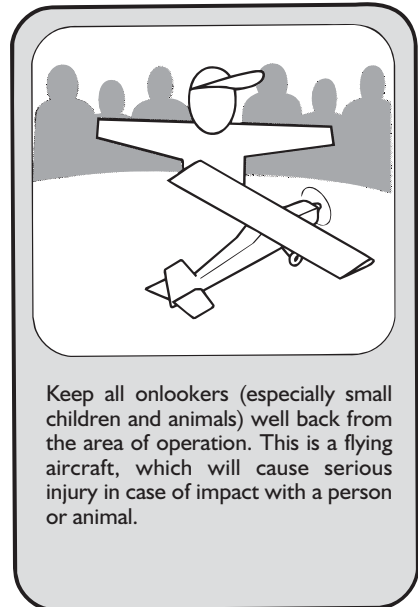
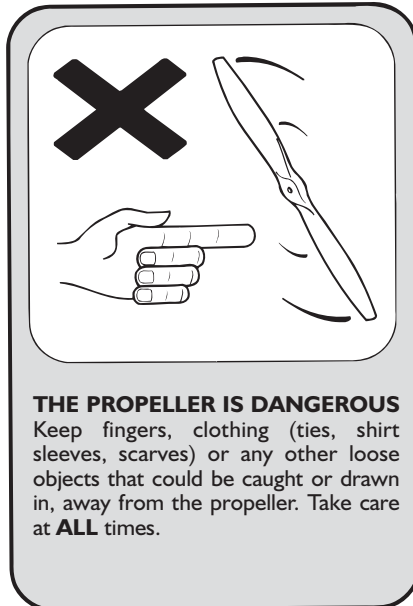


## FLIGHT PREPARATION

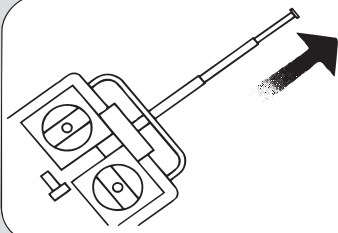
### PRE FLIGHT CHECK

1. Completely charge your transmitter and receiver batteries before your first day of flying.
2. Check every bolt and every glue joint in your plane to ensure that everything is tight and well bonded.
3. Double check the balance of the airplane.
4. Check the control surface.
5. Check the receiver antenna. It should be fully extended and not coiled up inside the fuselage.
6. Properly balance the propeller.

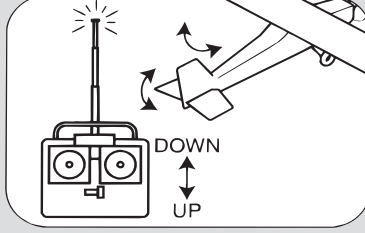
# I/C FLIGHT WARNINGS



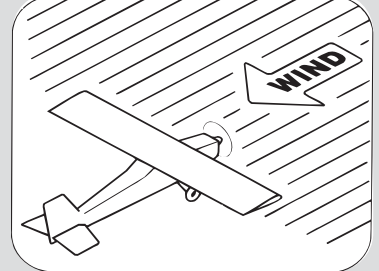
# I/C FLIGHT GUIDELINES



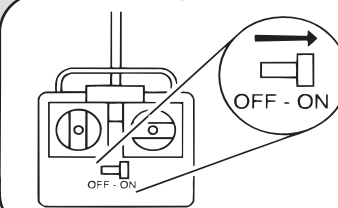
When ready to fly, first extend the transmitter aerial.



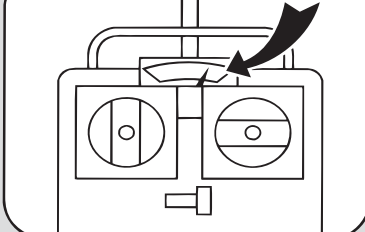
Operate the control sticks on the transmitter and check that the control surfaces move freely and in the **CORRECT** directions.



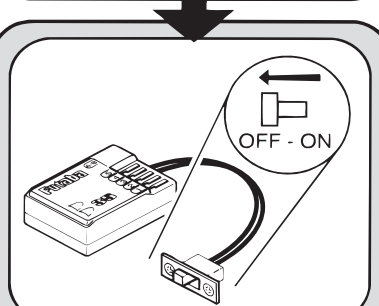
**ALWAYS** land the model **INTO** the wind, this ensures that the model lands at the slowest possible speed.



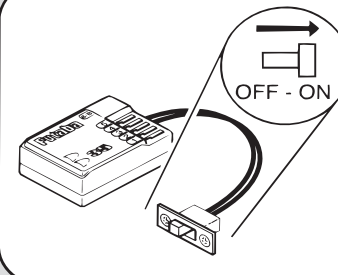
Switch on the transmitter.



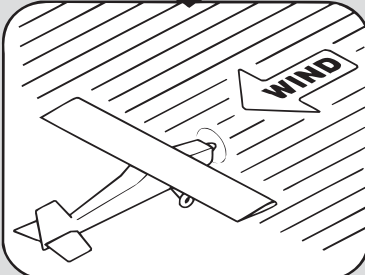
Check that the transmitter batteries have adequate power.



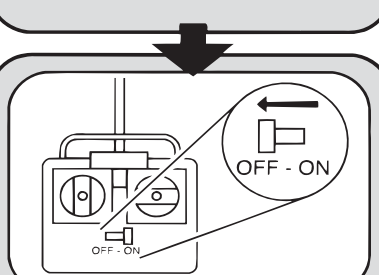
Switch off the receiver.



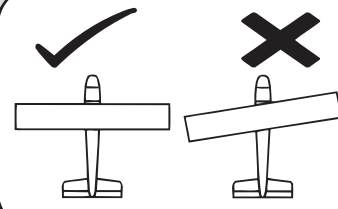
Switch on the receiver.



**ALWAYS** take off into the wind.



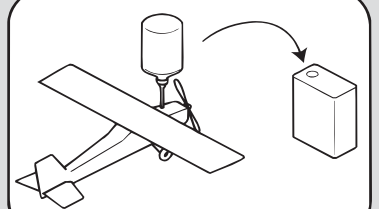
Switch off the transmitter.



Check that the wings are correctly fitted to the fuselage.



If the model does not respond correctly to the controls, land it as soon as possible and correct the fault.



Empty the fuel tank after flying, fuel left in the tank can cause corrosion and lead to engine problems.