



# SEAGULL 2000

MS:130

## ASSEMBLY MANUAL

“Graphics and specifications may change without notice”.



### **Specifications:**

Wing span -----78.7in (200cm).  
Wing area -----488.3sq.in (31.5sq dm).  
Weight -----2.2lbs (1kg).  
Length -----37in (94.1cm).  
Engine motor -----400-480.  
Radio-----4 channels.  
Servo-----3 mini servos (23x12x24mm).  
Propeller-----9x5.  
Speed control-----30A.  
Parts listing required (not included)

**INTRODUCTION.**

Thank you for choosing the **SEAGULL 2000** ARTF by SEAGULL MODELS. The **SEAGULL 2000** was designed with the sports trainer flyer in mind. It is a High-wing aeroplane which is easy to fly and quick to assemble. The airframe is conventionally built using balsa, plywood and veneer to make it stronger than the average ARTF, yet the design allows the aeroplane to be kept light. You will find that most of the work has been done for you already. The pushrods are pre-made to the correct lengths, the motor mount has been fitted and the hinges are pre-installed and pinned for security. Flying the **SEAGULL 2000** is simply a joy.

This instruction manual is designed to help you build a great flying aeroplane. Please read this manual thoroughly before starting assembly of your **SEAGULL 2000**. Use the parts listing below to identify all parts.

**WARNING.**

Please be aware that this aeroplane is not a toy and if assembled or used incorrectly it is capable of causing injury to people or property. **WHEN YOU FLY THIS AEROPLANE YOU ASSUME ALL RISK & RESPONSIBILITY.**

If you are inexperienced with basic R/C flight we strongly recommend you contact your R/C supplier and join your local R/C Model Flying Club. R/C Model Flying Clubs offer a variety of training procedures designed to help the new pilot on his way to successful R/C flight. They will also be able to advise on any insurance and safety regulations that may apply.

**ADDITIONAL ITEMS REQUIRED.**

- motor 400 - 480
- 4 channel radio with 3 servos.
- Glow plug to suit engine.
- Propeller to suit engine.
- Protective foam rubber for radio system.
- Silicone fuel line.
- Stick-on weights for balance (If necessary).

**TOOLS & SUPPLIES NEEDED.**

- Thick cyanoacrylate glue.
- 30 minute epoxy.
- 5 minute epoxy.
- Hand or electric drill.
- Assorted drill bits.
- Modelling knife.
- Straight edge ruler.
- 2mm ball driver.
- Phillips head screwdriver.
- 220 grit sandpaper.
- 90° square or builder's triangle.
- Wire cutters.
- Masking tape & T-pins.
- Thread-lock.
- Paper towels.

**PARTS LISTING.****FUSELAGE ASSEMBLY**

- 1) Fuselage.

**WING ASSEMBLY**

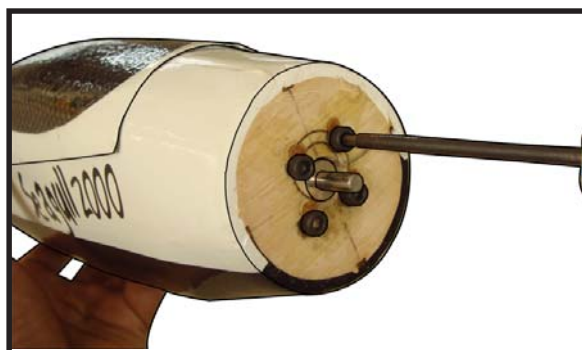
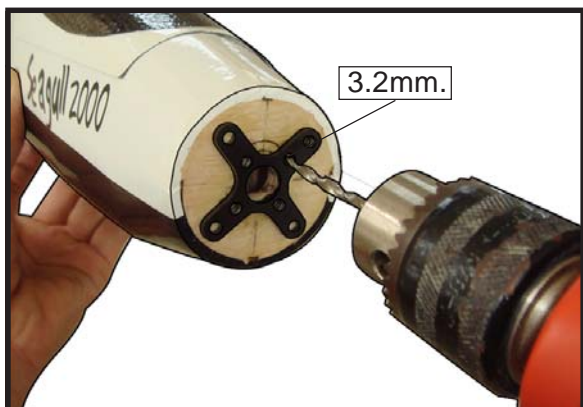
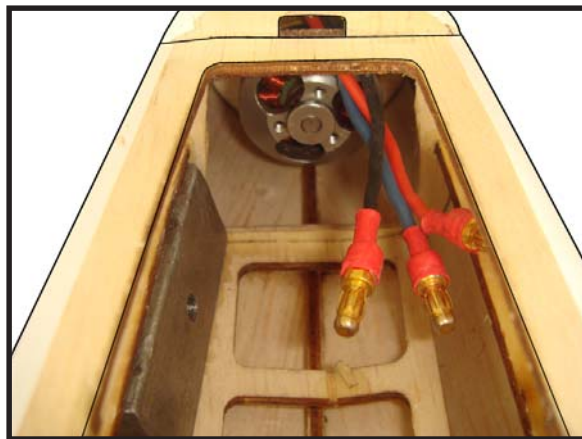
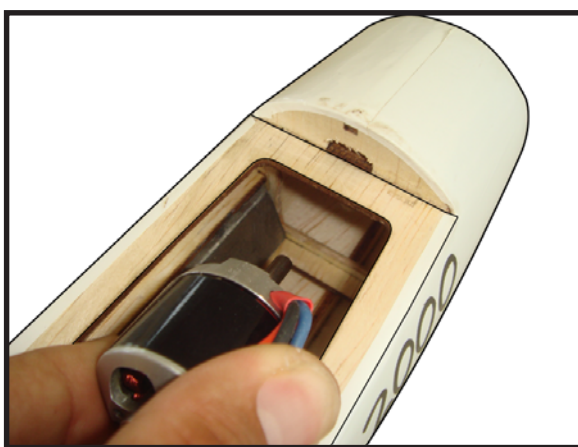
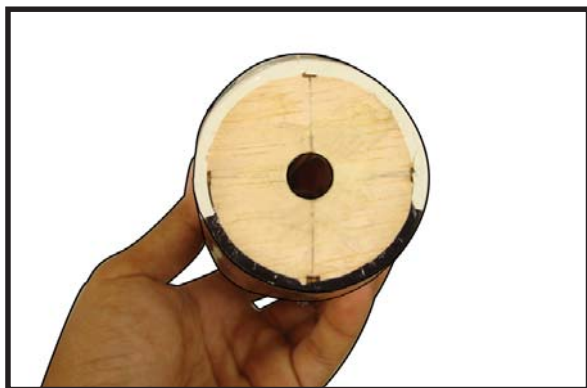
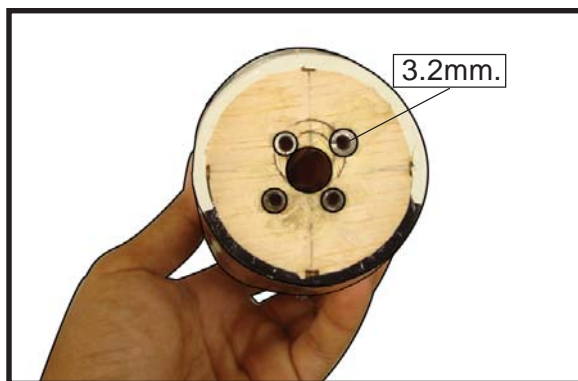
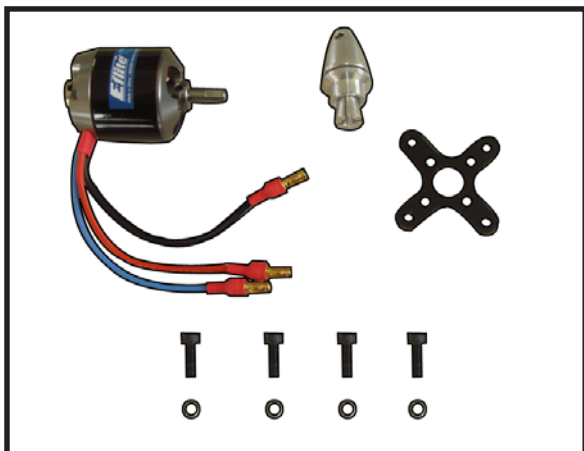
- 1) Right wing half with pre-installed aileron.
- 2) Left wing half with pre-installed aileron.

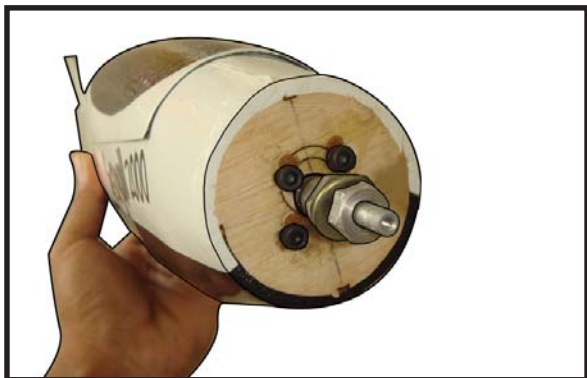
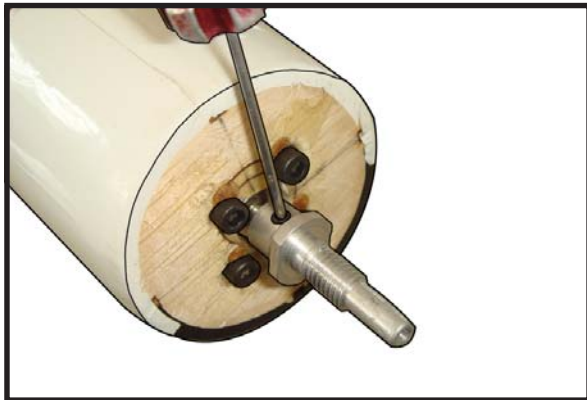
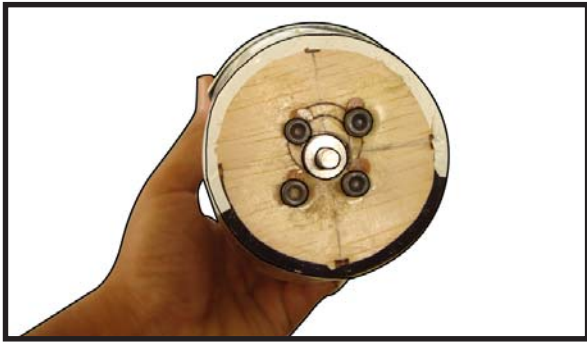
**TAIL SECTION ASSEMBLY**

- 1) Vertical stabilizer with pre-installed rudder.
- 2) Horizontal stabilizer with pre-installed elevator halves.

### ELECTRIC POWER CONVERSION.

1) Locate the items necessary to install the electric power conversion included with your model.

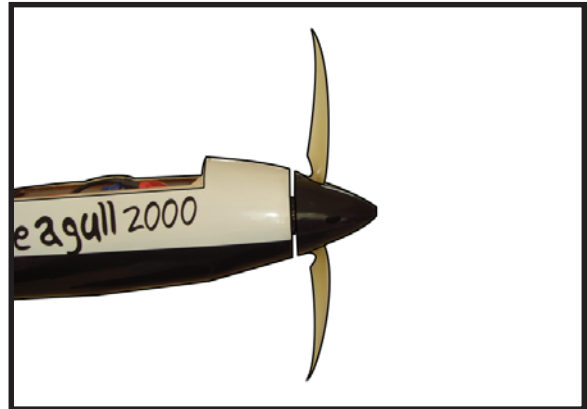
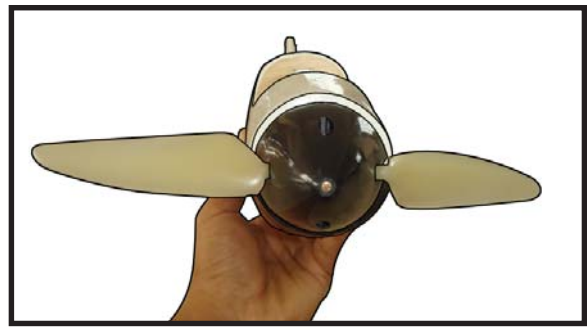
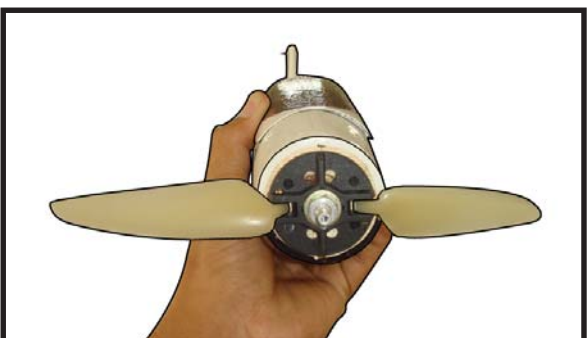




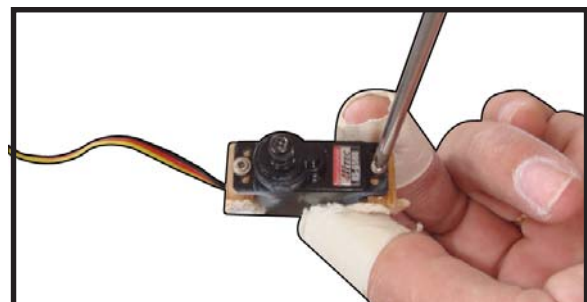
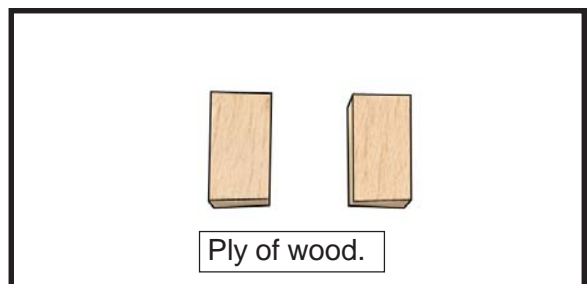
**INSTALLING THE SPINNER.**

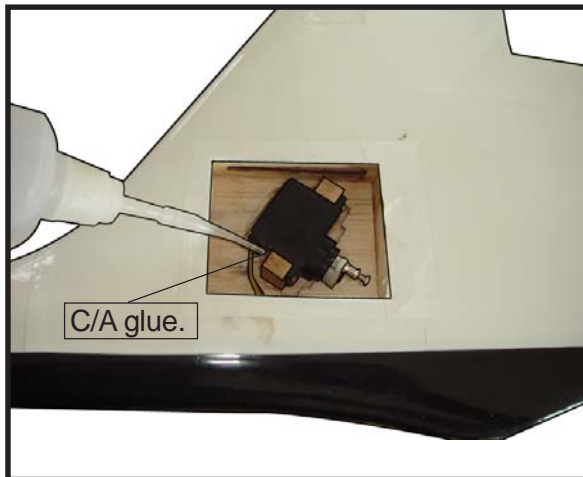
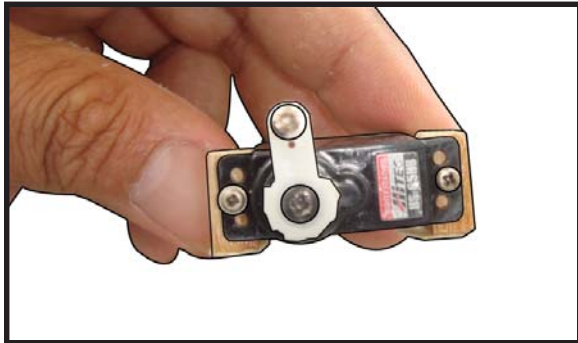
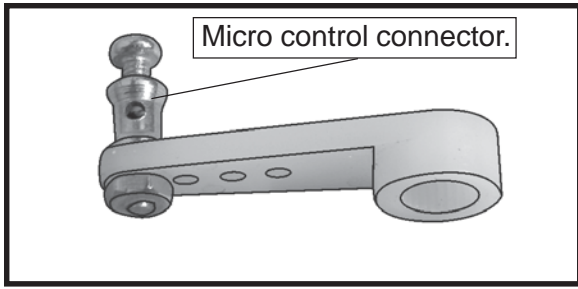
Install the spinner backplate, propeller and spinner cone.

**!** *The propeller should not touch any part of the spinner cone. If it does, use a sharp modeling knife and carefully trim away the spinner cone where the propeller comes in contact with it.*



**ELEVATOR SERVO.**



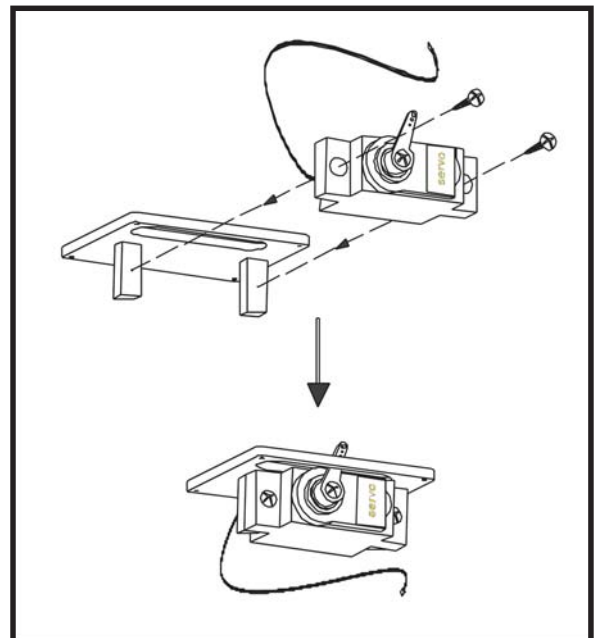
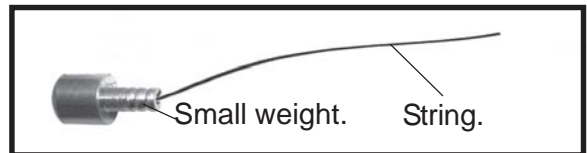


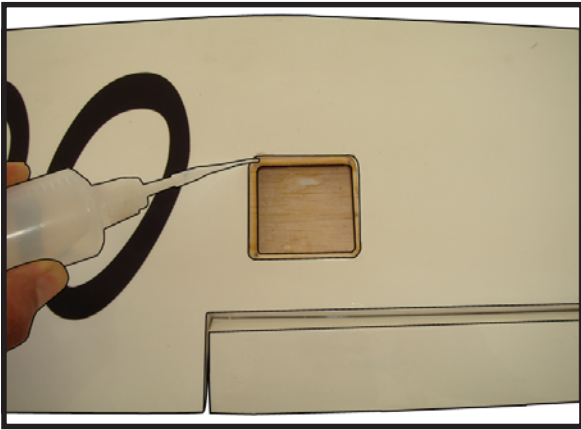
**AILERON SERVO INSTALLATION.**



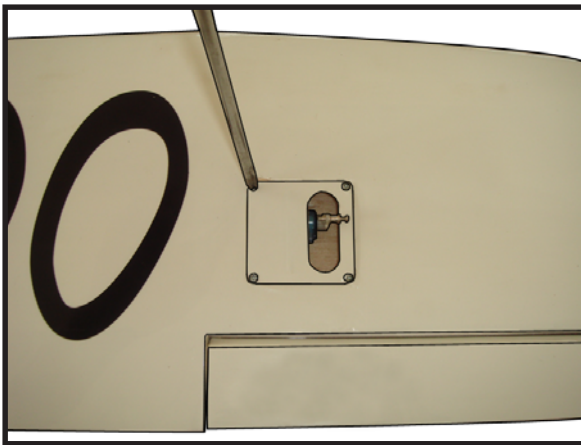
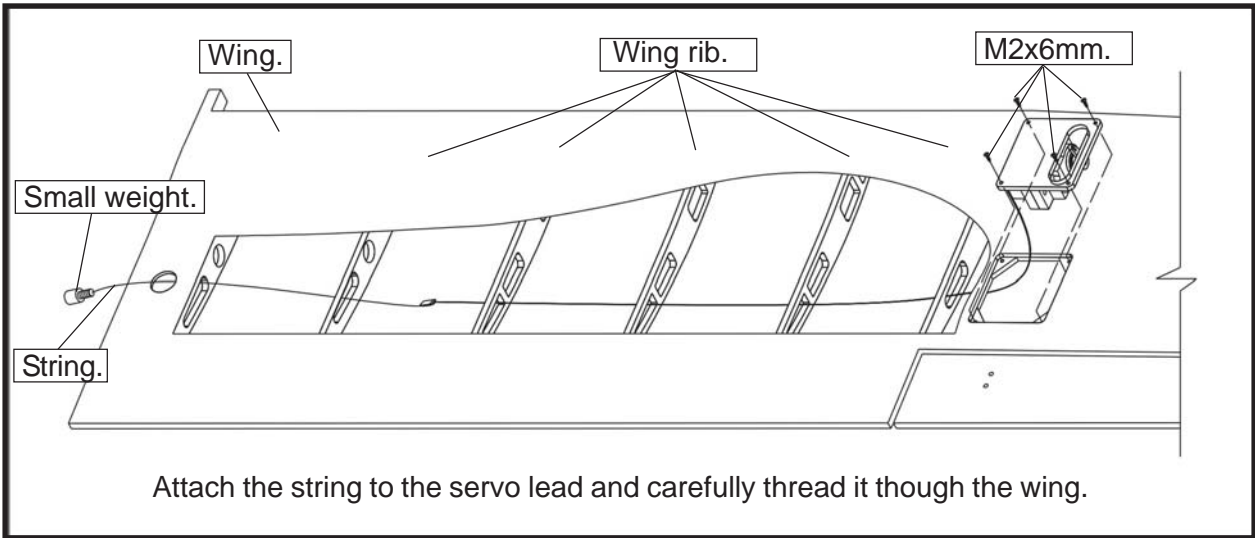
**!** *Because the size of servos differ, you may need to adjust the size of the precut opening in the mount. The notch in the sides of the mount allow the servo lead to pass through.*

- 1) Using a small weight (*Weighted fuel pick-up works well*) and string, feed the string through the wing as indicated.

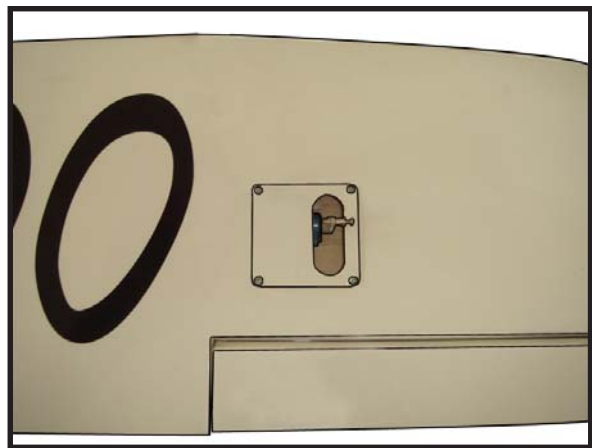




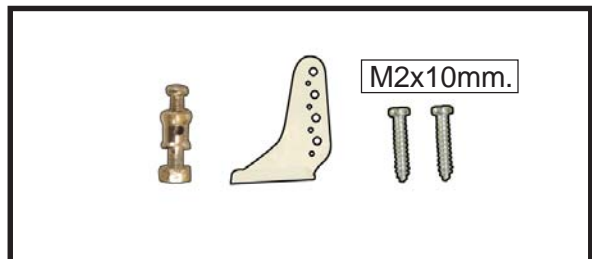
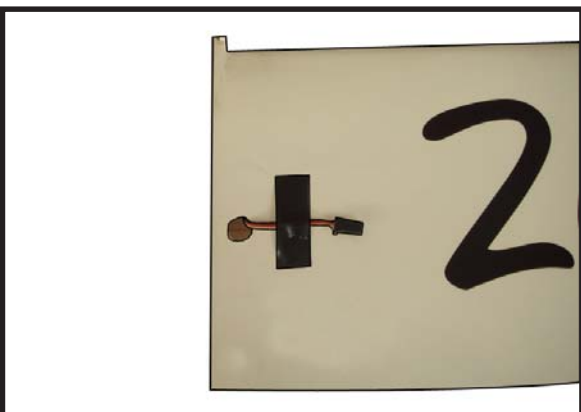
2) A string has been provided in the wing to pull the aileron lead through to the wing root. Remove the string from the wing at the servo location and use the tape to attach it to the servo extension lead. Pull the lead through the wing and remove the string.

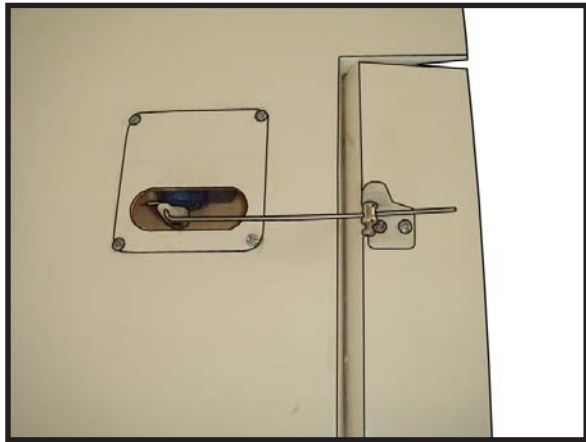
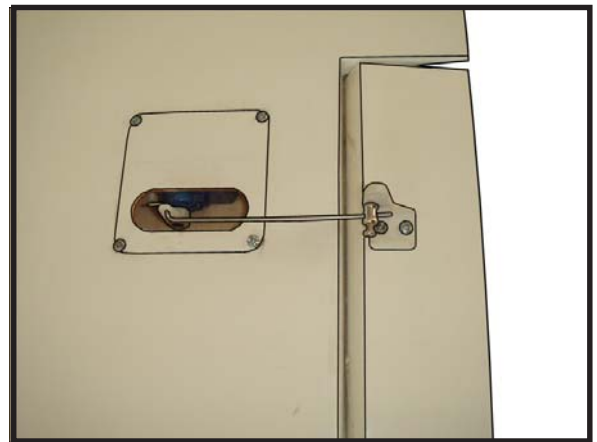
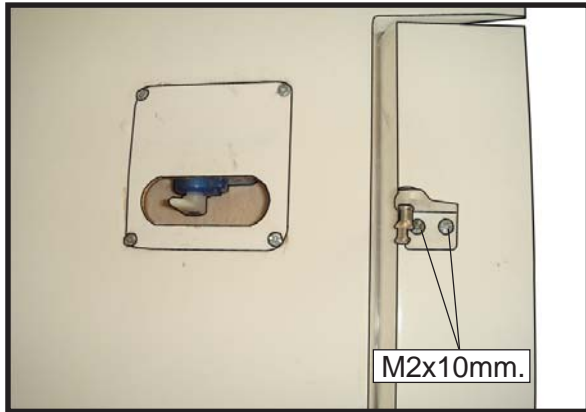
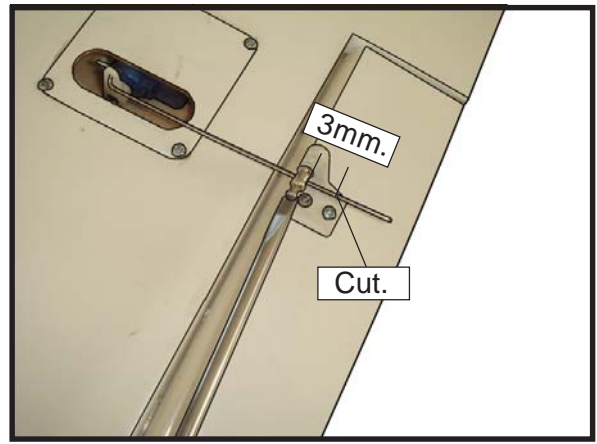
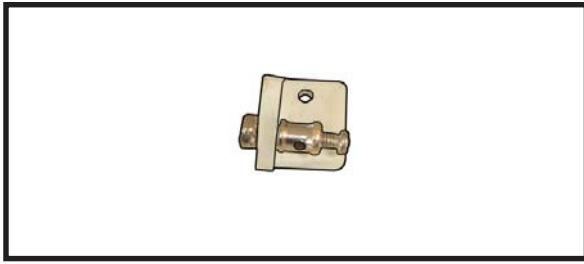


3) Set the aileron hatch in place and use a Phillips screw driver to install it with four wood screws.



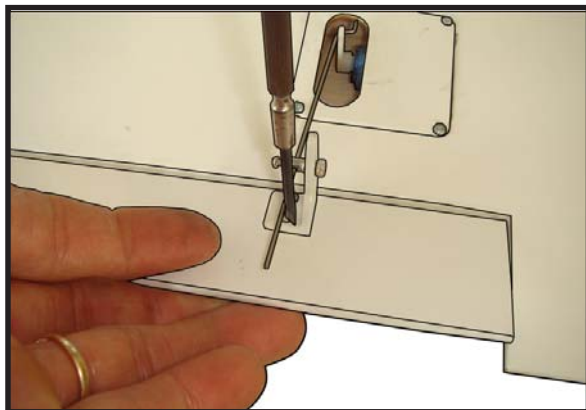
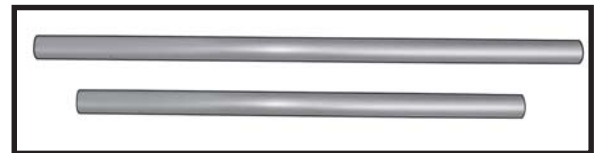
**AILERON PUSHROD HORN INSTALLATION**

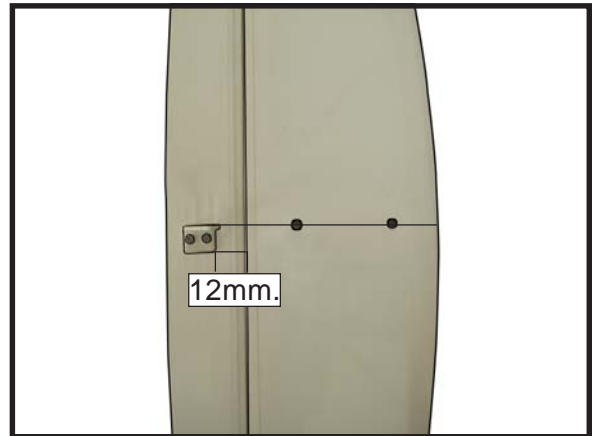
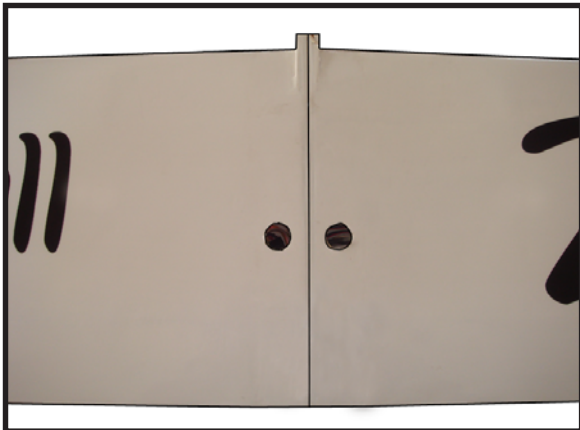
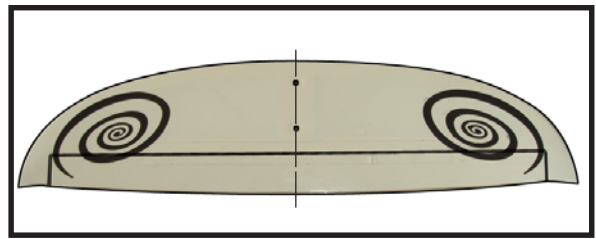
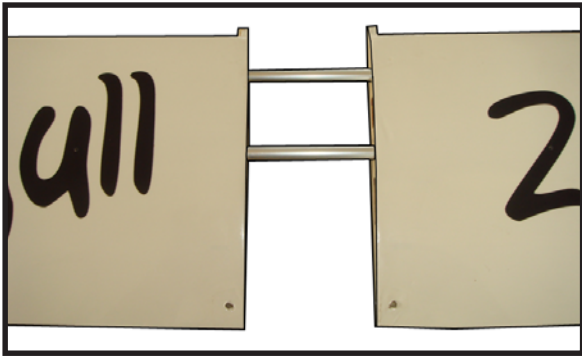




Repeat the procedure for the other aileron servo.

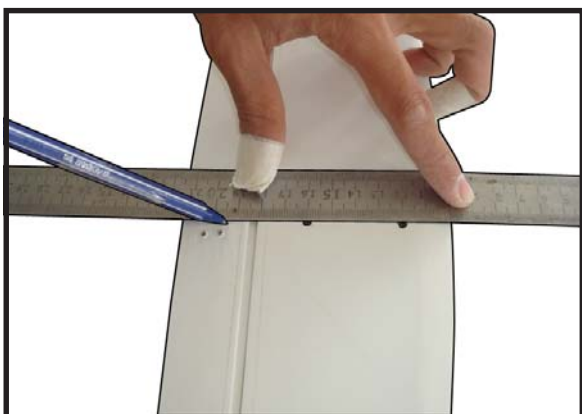
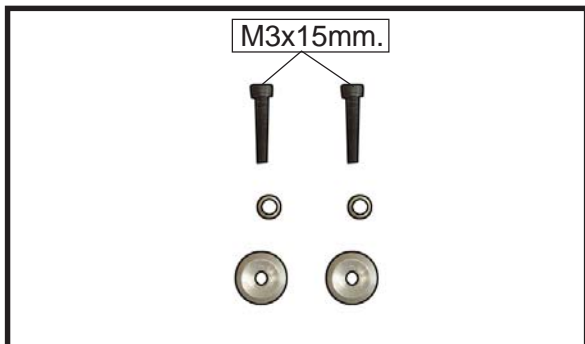
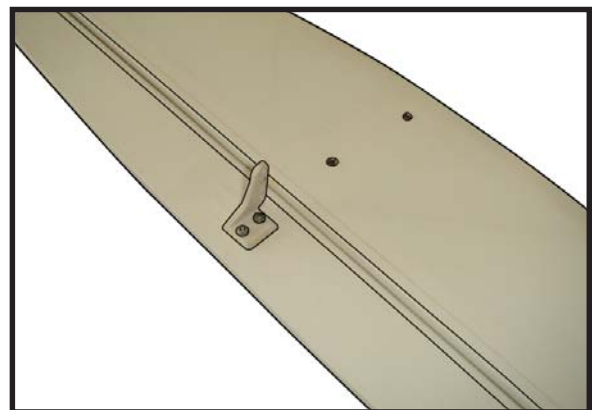
**WING ASSEMBLY.**



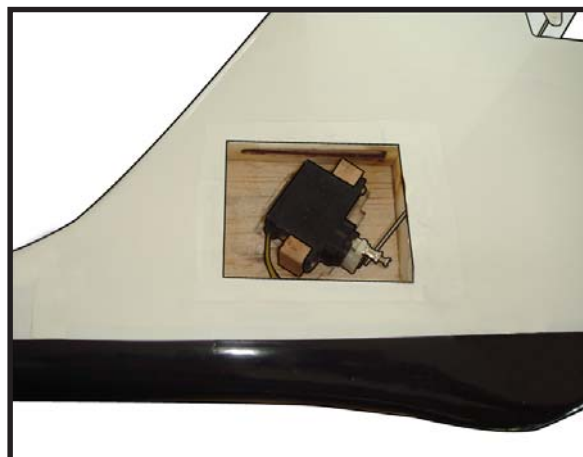
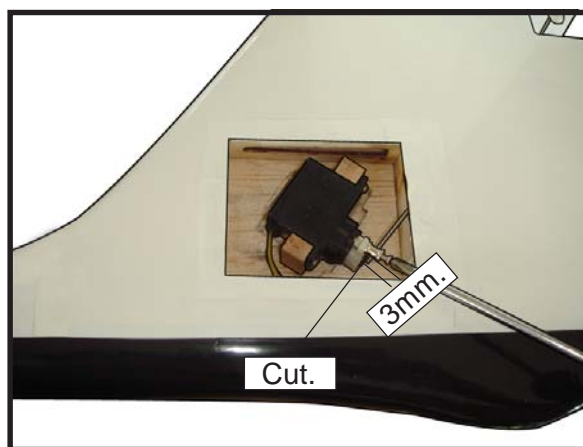
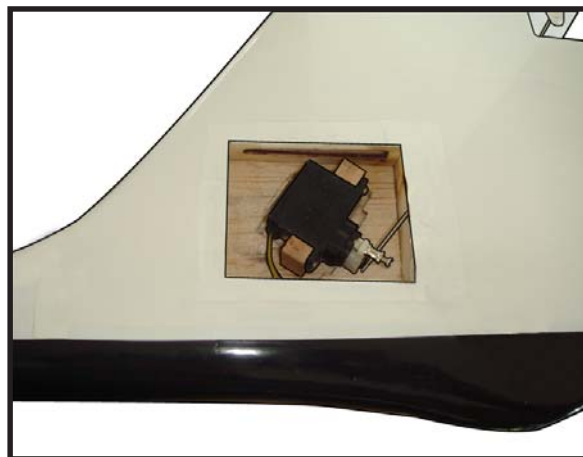
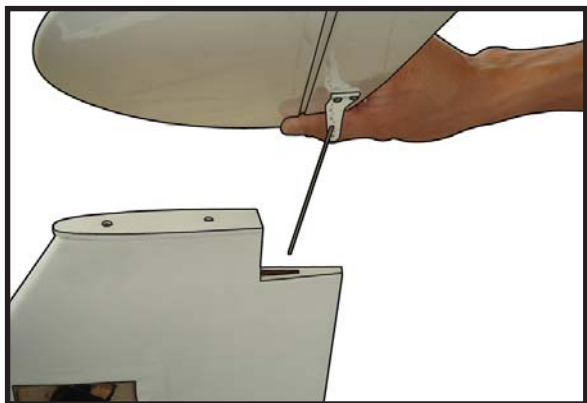
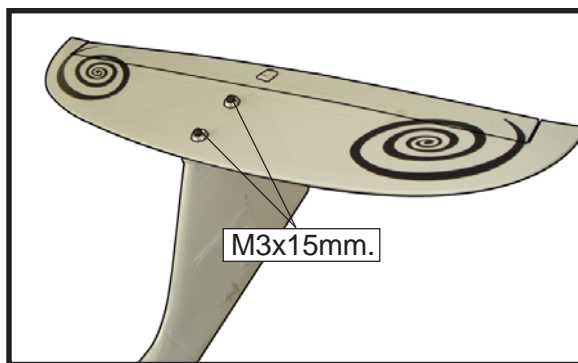
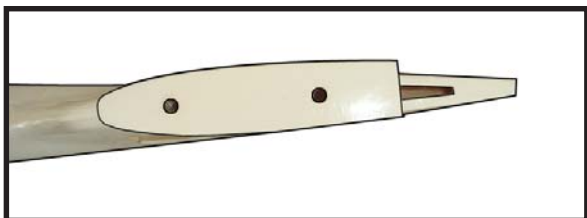


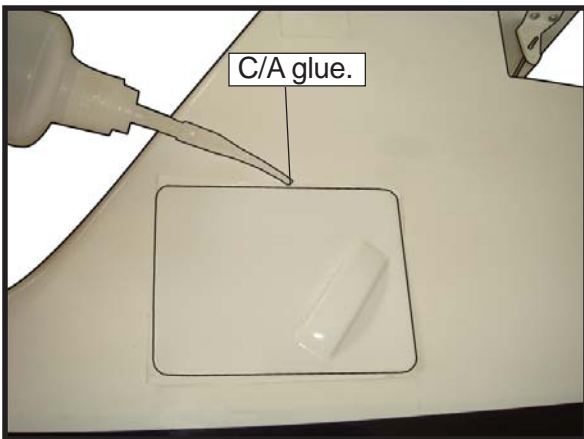
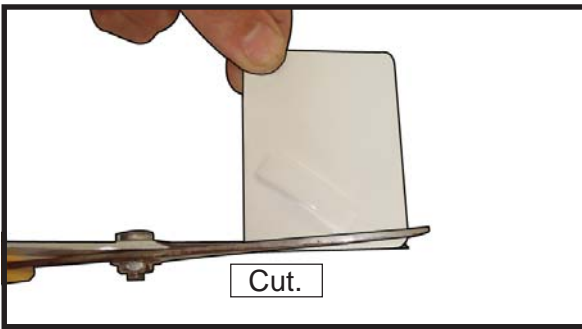
**VERTICAL STABILIZER  
INSTALLATION.**

**AILERON PUSHROD INSTALLATION.**



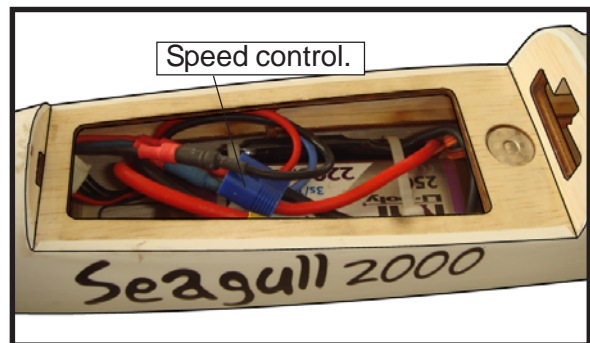
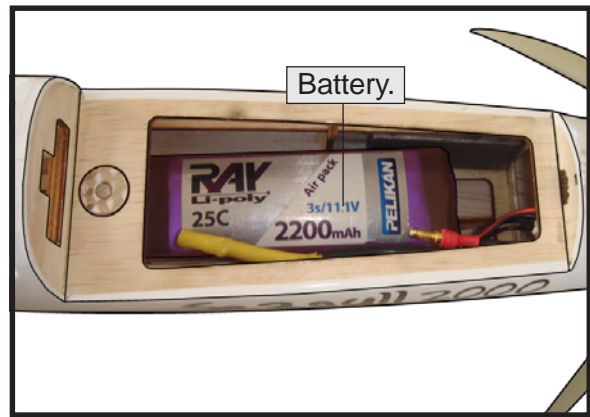




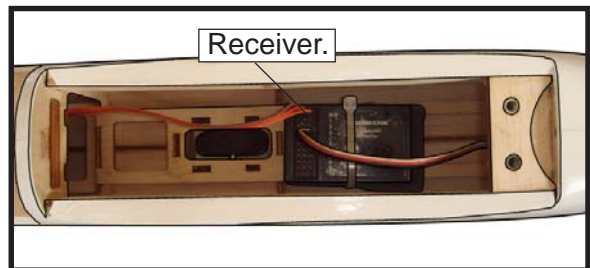


**INSTALLING THE BATTERY.**

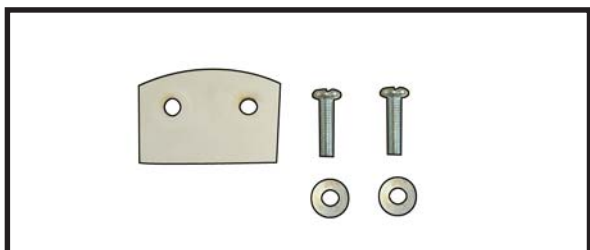
- 1) Plug the five servo leads and the switch lead into the receiver. Plug the battery pack lead into the switch also.
- 2) Wrap the receiver and battery pack in the protective foam rubber to protect them from vibration.
- 3) Route the antenna in the antenna tube inside the fuselage and secure it to the bottom of fuselage using a plastic tape.

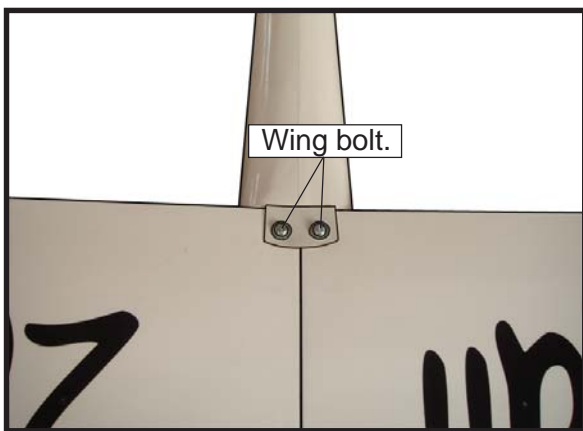
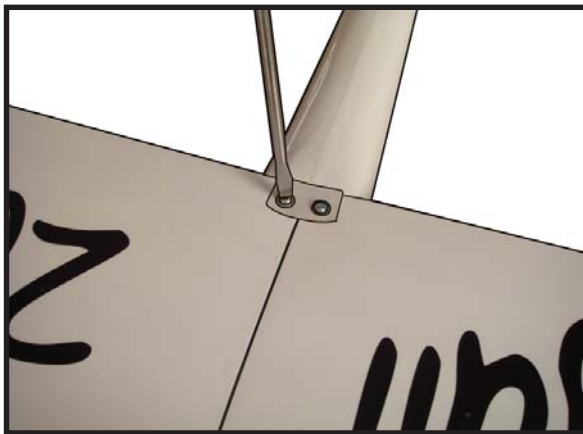
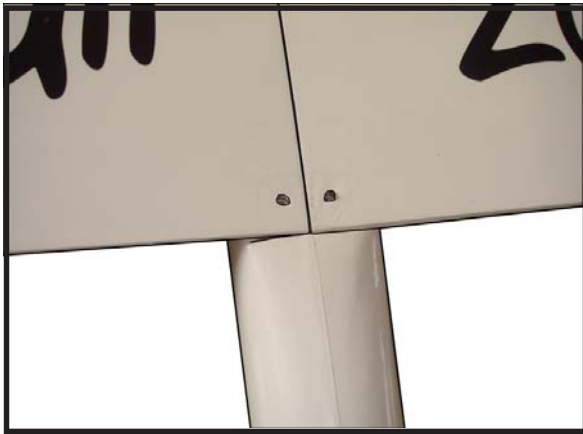


**INSTALLING THE RECEIVER .**



**ATTACHMENT WING-FUSELAGE.**





**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 **60 MM** BACK FROM THE LEADING EDGE OF THE WING AT THE WING ROOT.

❑ 2) Mount the wing to the fuselage. Using a couple of pieces of masking tape, place them on the top side of the wing **60 mm** back from the leading edge of the wing at the wing root.

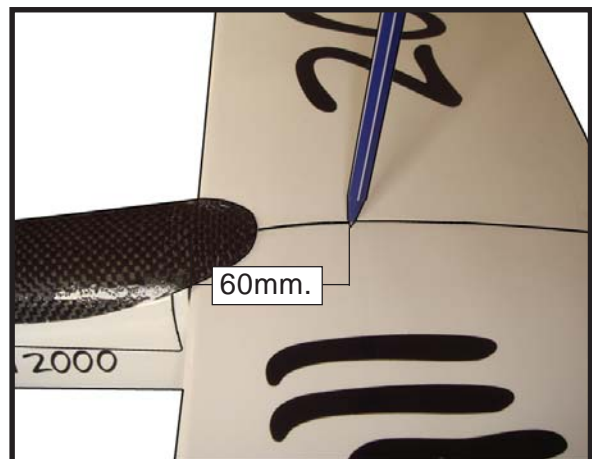
❑ 3) Turn the airplane upside down. Place your fingers on the masking tape and carefully lift the plane .

Accurately mark the balance point on the top of the wing on both sides of the fuselage. The balance point is located **60 mm** back from the leading edge of the wing at the wing root. This is the balance point at which your model should balance for your first flights. Later, you may wish to experiment by shifting the balance up to 10mm forward or back to change the flying characteristics. Moving the balance forward may improve the smoothness and arrow- like tracking, but it may then require more speed for take off and make it more difficult to slow down for landing. Moving the balance aft makes the model more agile with a lighter and snappier "feel". In any case, please start at the location we recommend .

With the wing attached to the fuselage, all parts of the model installed ( ready to fly), and empty fuel tanks, hold the model at the marked balance point with the stabilizer level..

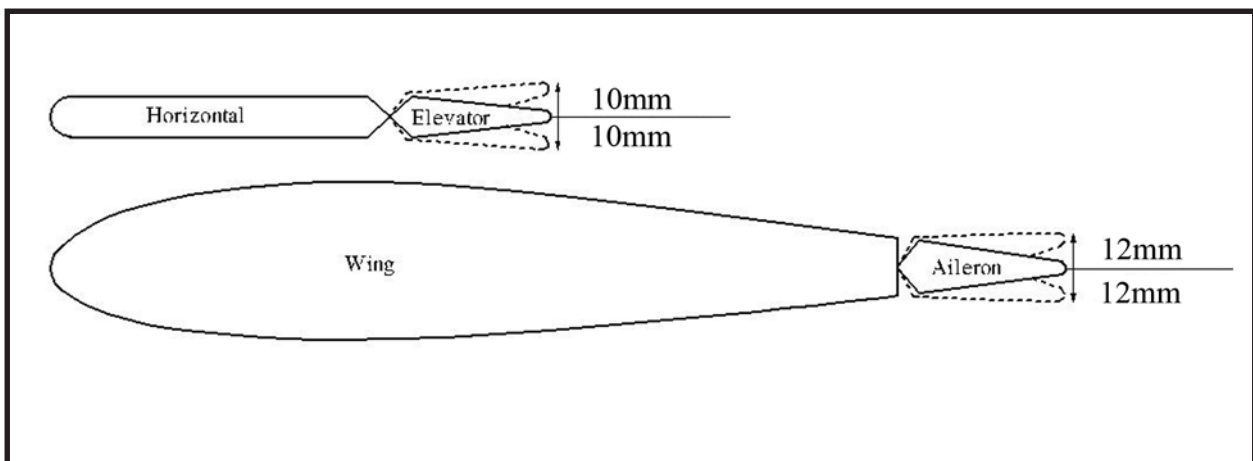
Lift the model. If the tail drops when you lift, the model is "tail heavy" and you must add weight\* to the nose. If the nose drops, it is "nose heavy" and you must add weight\* to the tail to balance.

\*If possible, first attempt to balance the model by changing the position of the receiver battery and receiver. If you are unable to obtain good balance by doing so, then it will be necessary to add weight to the nose or tail to achieve the proper balance point.



**CONTROL THROWS.**

Ailerons:	12mm up	12mm down
Elevator:	10mm up	10mm down



### FLIGHT PREPARATION.

- A) Check the operation and direction of the elevator, rudder, ailerons and throttle.
- B) Plug in your radio system per the manufacture's instructions and turn every thing on.
- C) Check the elevator first. Pull back on the elevator stick. The elevator halves should move up. If it they do not, flip the servo reversing switch on your transmitter to change the direction.
- D) Check the rudder. Looking from behind the airplane, move the rudder stick to the right. The rudder should move to the right. If it does not, flip the servo reversing switch on your transmitter to change the direction.
- E) Check the throttle. Moving the throttle stick forward should open the carburetor barrel. If it does not, flip the servo reversing switch on your transmitter to change the direction.
- F) From behind the airplane, look at the aileron on the right wing half. Move the aileron stick to the right. The right aileron should move up and the other aileron should move down. If it does not, flip the servo reversing switch on your transmitter to change the direction.

### PREFLIGHT CHECK.

- 1) Completely charge your transmitter and receiver batteries before your first day of flying.
- 2) Check every bolt and every glue joint in the **SEAGULL 2000** to ensure that everything is tight and well bonded.
- 3) Double check the balance of the airplane. Do this with the fuel tank empty.
- 4) Check the control surfaces. All should move in the correct direction and not bind in any way.
- 5) If your radio transmitter is equipped with dual rate switches double check that they are on the low rate setting for your first few flights.
- 6) Check to ensure the control surfaces are moving the proper amount for both low and high rate settings.
- 7) Check the receiver antenna. It should be fully extended and not coiled up inside the fuselage.
- 8) Properly balance the propeller. An out of balance propeller will cause excessive vibration which could lead to engine and/or airframe failure.

***We wish you many safe and enjoyable flights with your SEAGULL 2000.***