Instruction Manual book

B-25J MITCHELL

SPECIFICATION

- Wingspan : 1,590mm 62.60 in.
- Length : 1,230 mm 48.43 in.
- Weight : 2.8 kg 6.16 Lbs.
- Radio : 06-7 channels.
- Servo : 08-10 servos.

Parts listing required :

- Electric Motor : (02pcs) + AXI 2814/12.
  + KMS 2814/08
- Battery: 3 CELLS-LI-POLY
  11.1V-4,500 mA.h-20^{C}.
- Speed control : (02pcs) : 40 A
- Engine (02PCS) : 25 -2 stroke.
- Propeller : 9 x 6

Made in Vietnam.

This instruction manual is designed to help you build a great flying aeroplane. Please read this manual thoroughly before starting assembly of your**B-25J MITCHELL**. 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.

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.
- ☐ (1) Left wing half with pre-installed aileron.

Tail section assembly

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

Some more parts.

HARDWARE PACK

COWLING.
Landing gear.....

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. **B-25J MITCHELL** ARF 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.

Caution: this model is not a toy!
If you are a beginner to this type of powered model, please ask an experienced model flyer for help and support. If you attempt to operate the model without knowing what you are doing you could easily injure yourself or somebody else. Please keep your safety and well-being in mind at all times.

Important: before you start construction
Even if you have already built a large number of RC models please read right through these instructions and check all the kit components against the parts list. We have taken great trouble to keep construction as simple as possible, without making any compromises in the area of safety.

Note regarding the film covering
Minor creases or bubbles may develop in the film covering due to major fluctuations in weather conditions (temperature, humidity etc.); in rare cases you may even find a slight warp in a component. These minor faults are in the nature of film-covered built-up wooden structures, and can easily be corrected using a heat gun, as commonly used for modelling.

Creases: Blow warm air over the area and rub down with a soft cloth.

Wing warp: Hold the panel twisted gently in the opposite direction to the warp, and apply warm air to remove the creases from the covering.

Caution! do not heat the film more than is absolutely necessary. If the air or the iron is too hot, the film may melt and holes may be formed.

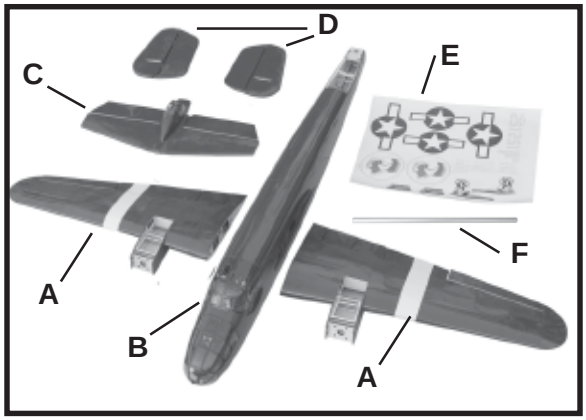
This model is highly pre-fabricated and can be built in a very short time. Howeverthe work which you have to carry out is important and must be done carefully. The model will only be strong and fly well if you complete your tasks competently - so please work slowly and accurately.

When self-tapping screws have to be screwed into wood, apply a little white glue to prevent them shaking loose: just squirt white glue into the hole and fit the screw.

SAFETY PRECAUTION.

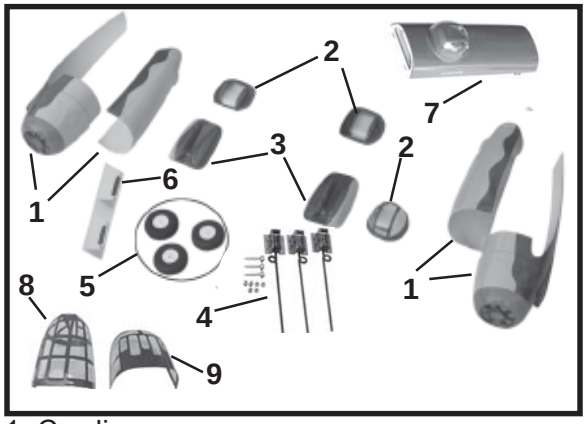
+ This is not a toy
+ Be sure that no other flyers are using your radio frequency.
+ The glow plug clip must be securely attached to the glow plug.
+ Do not flip the propeller with your fingers.
+ Keep loose clothing and wires away from the propeller.
+ Do not st art the motor if people are near . Do not stand in line with the side of the propeller.

REPLACEMENT LARGE PARTS



A. Wing panel.
B. Fuselage.
C. Horizontal stabilizer.
D. Vertical stabilizer.
E. Decal sheet.
F. Aluminium wing dihedral brace.

REPLACEMENT SMALL PARTS



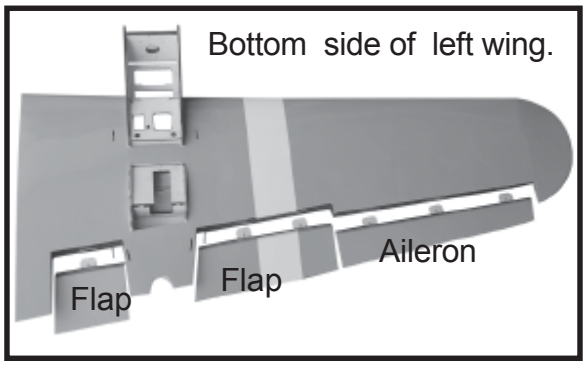
1. Cowling.
2.Gun turret.
3.Guns & Radiator.
4. Retractable landing gear and retractable nose gear.
5. Wheels.
6. Radiator.
7. Top fuselage hatch.
8.Font Greenhouse Canopy .
9.Main Cockpit canopy .

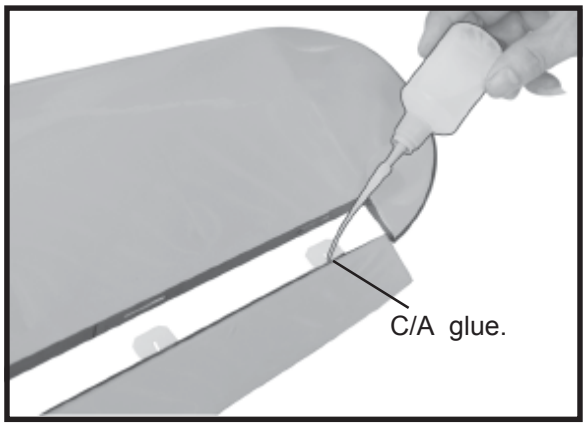
INSTALLING THE AILERON - FLAP SERVO CONTROL HORN.

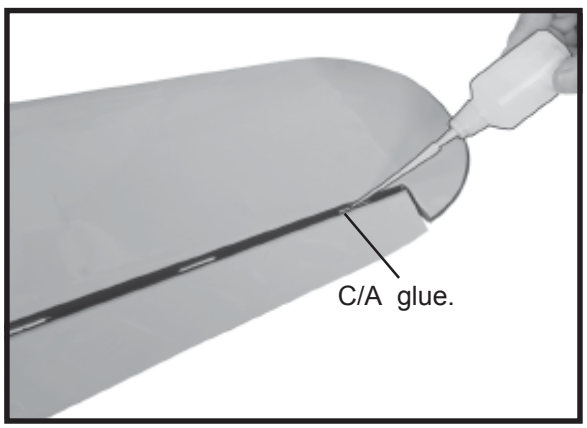
INSTALLING THE AILERON - SERVO CONTROL HORN.

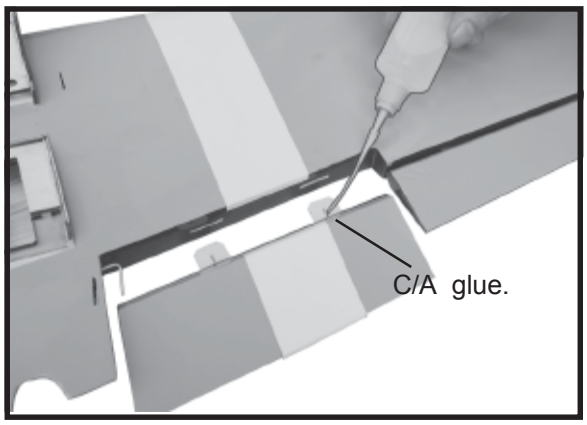
☐ 1) Install the rubber grommets and brass eyelets onto the aileron servo.

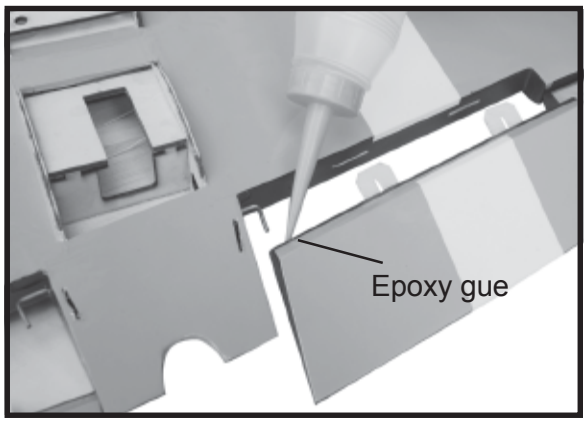
☐ 2) Install the metal connector onto servo arm.

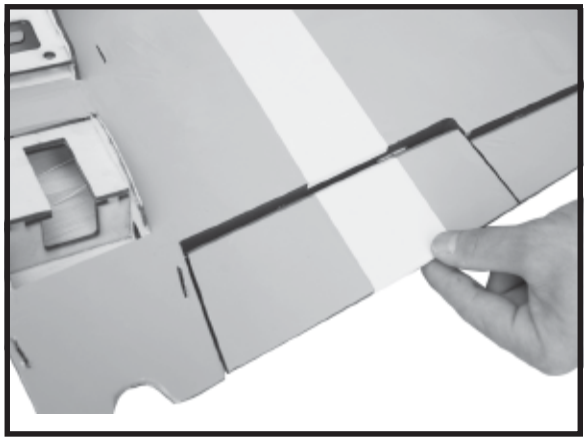


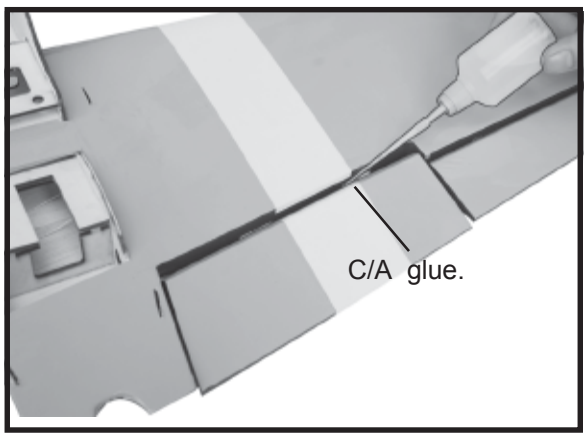


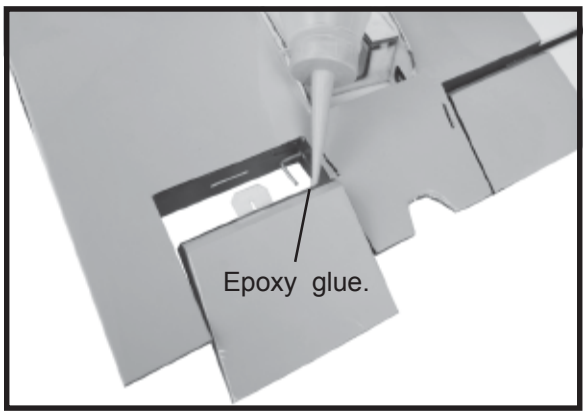


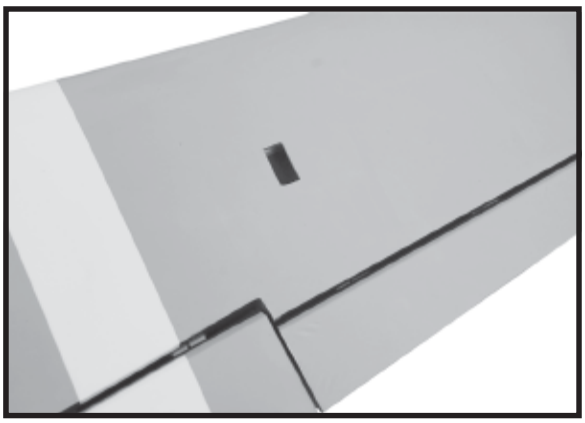




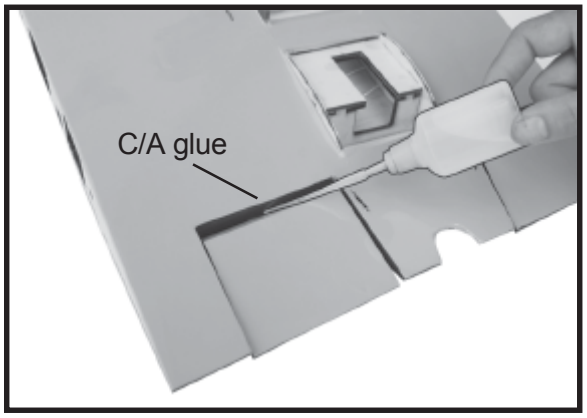


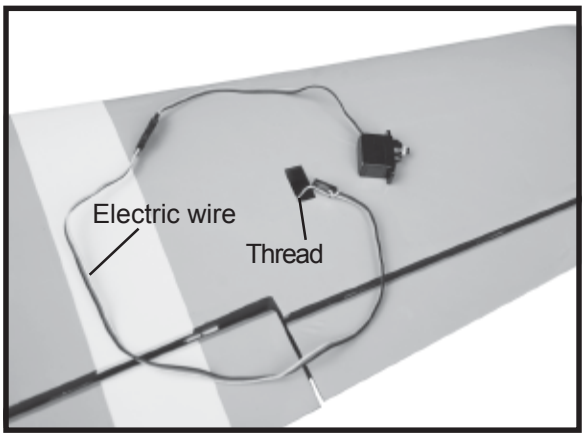


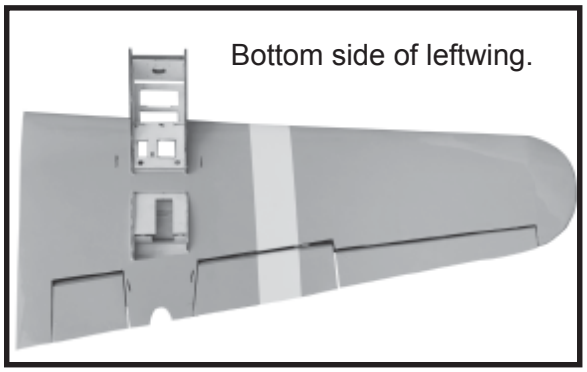


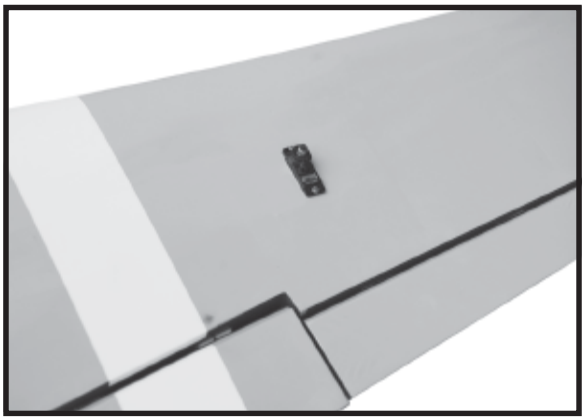


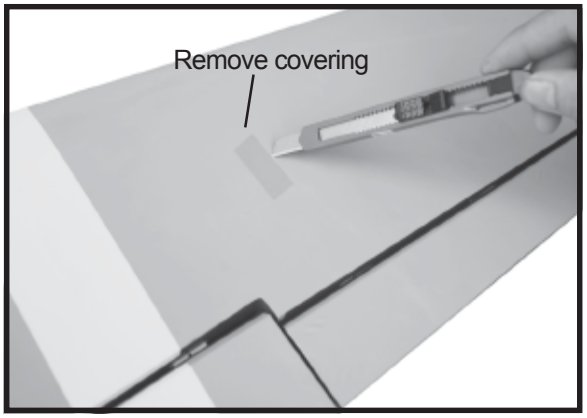
☐ 3) Install the aileron servo as same as picture.

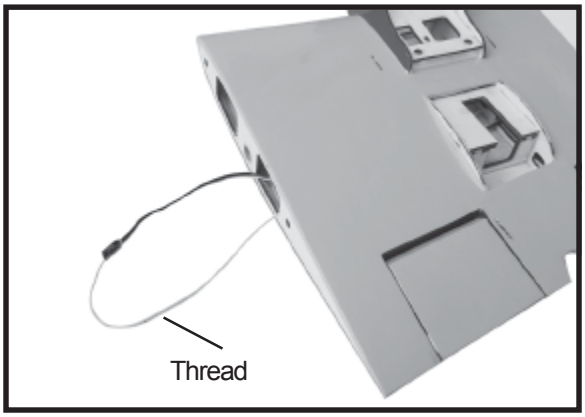


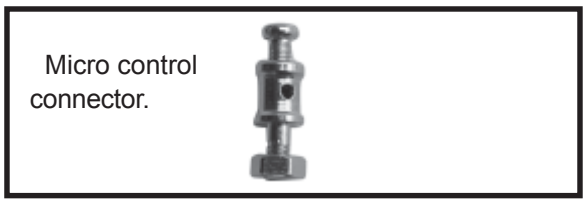




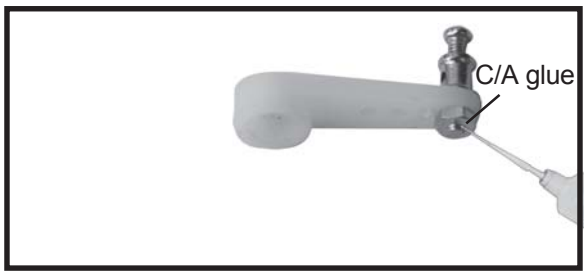




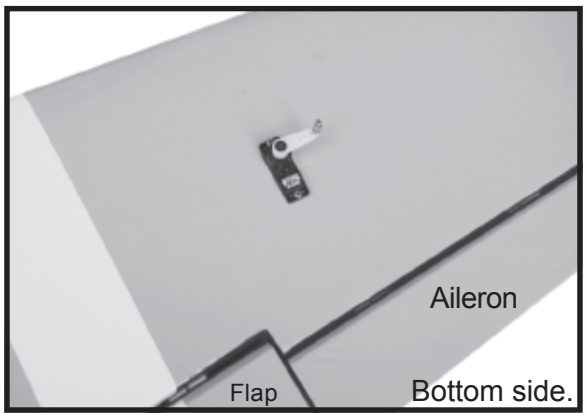


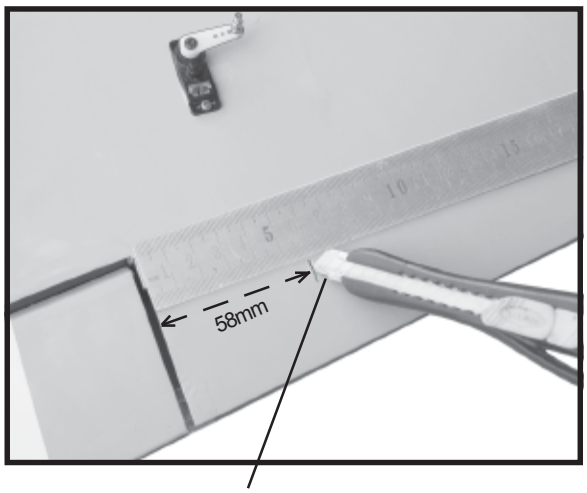


☐ 4) Attach the micro control connector to the servo arms. Be sure to use the lock tie but it could free rotation.



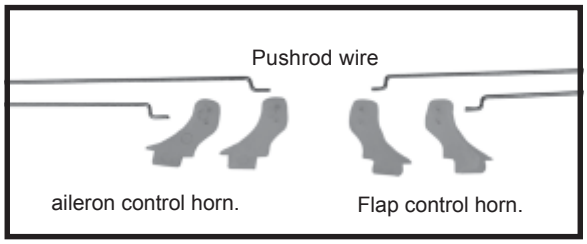
CONTROL HORN OFTHE AILERON

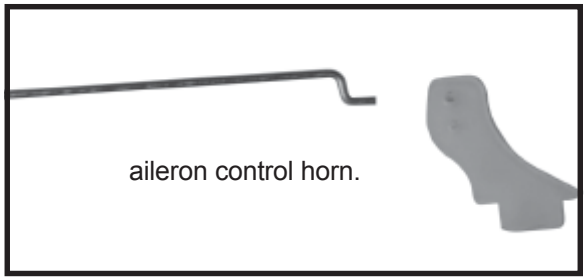


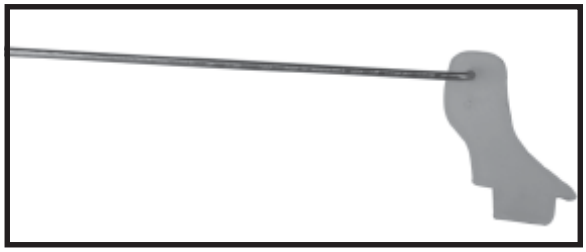


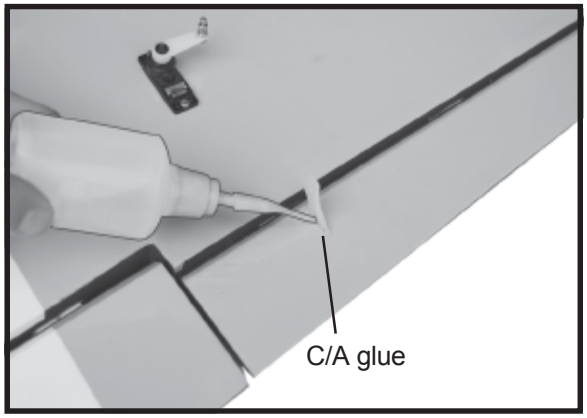
Remove the covering to pre-cut slot of aileron as picture below.

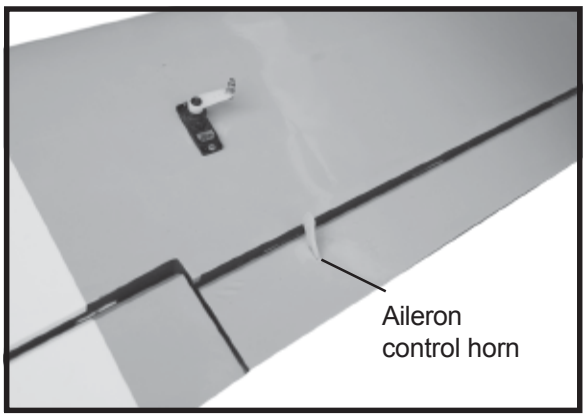
Insert aileron control horn to the aileron.

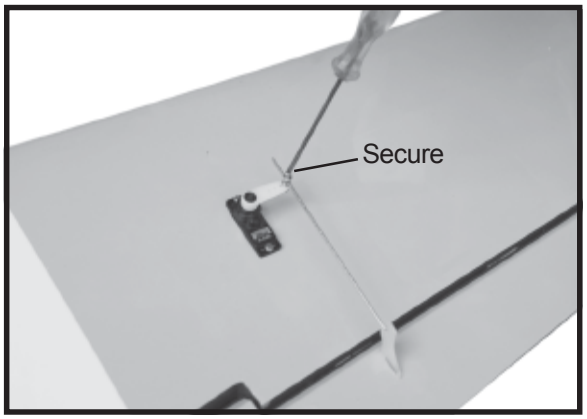


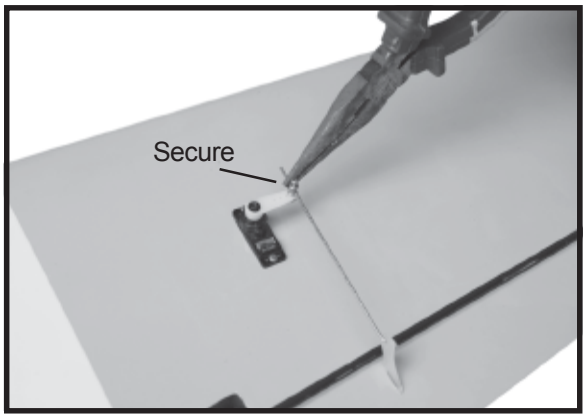






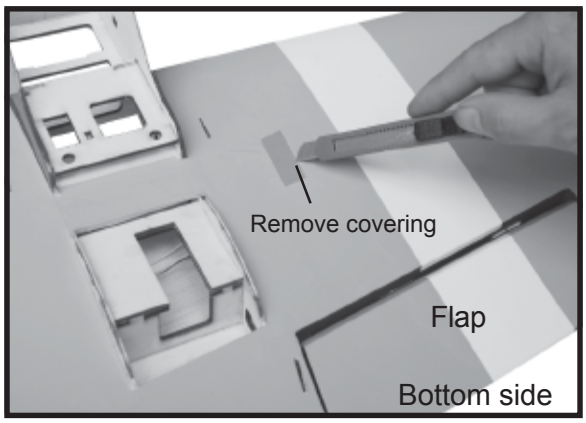


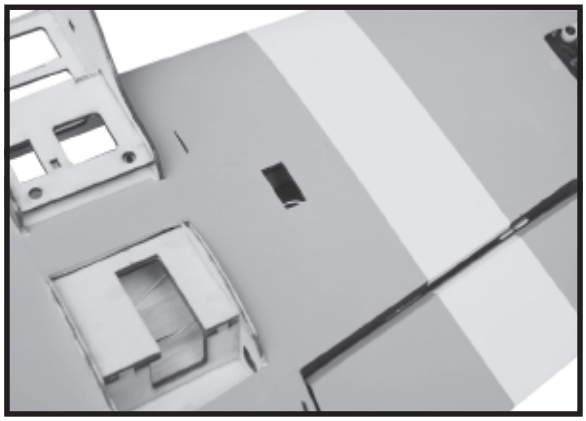




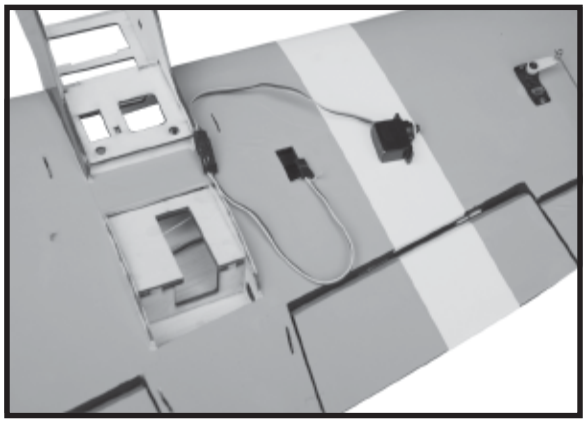
INSTALLING FLAP SERVO-CONTROL HORN.

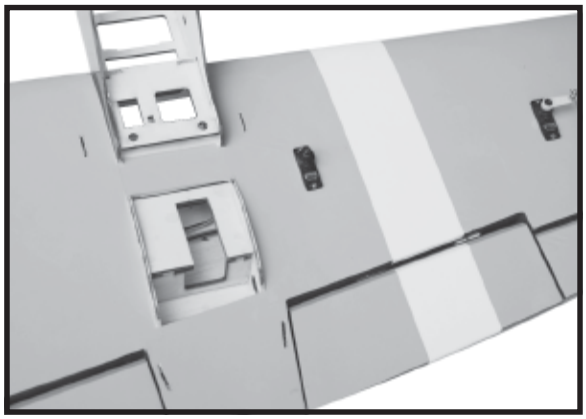
Remove the covering to pre-cut slot of flap as picture below.

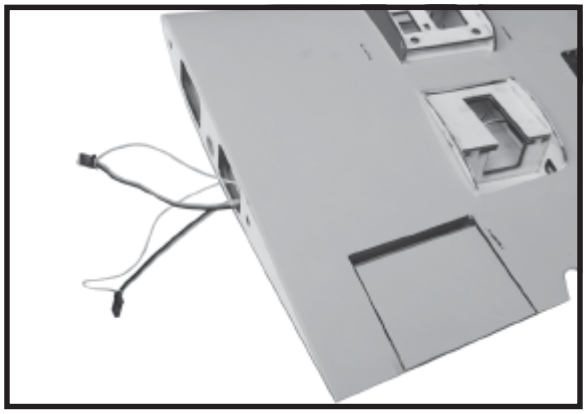


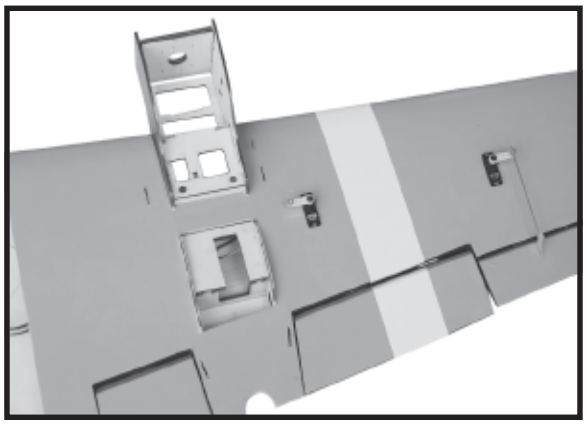


Installing the flap servo as picture below.

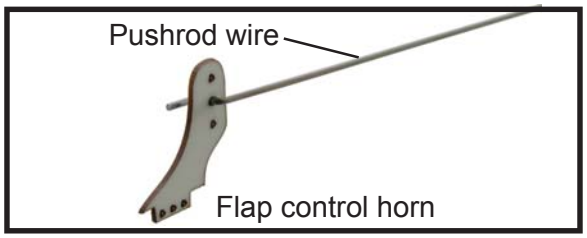


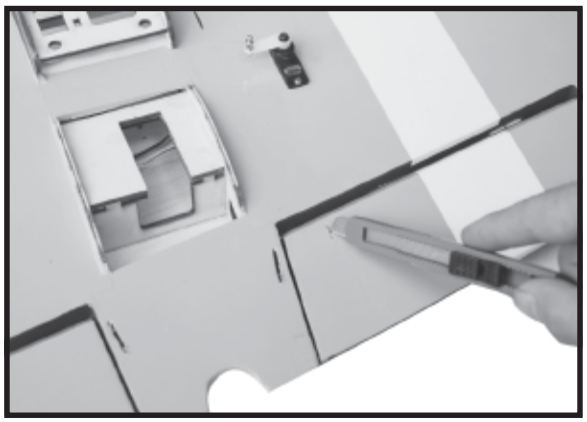


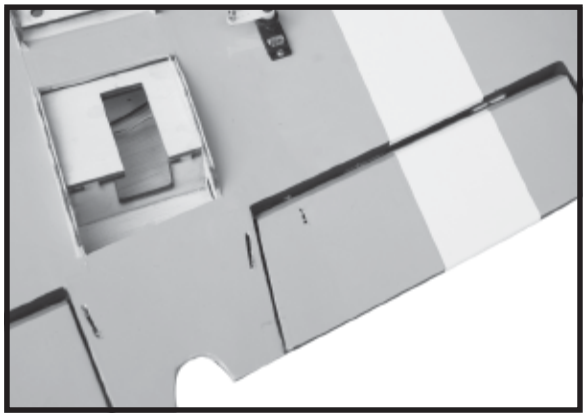




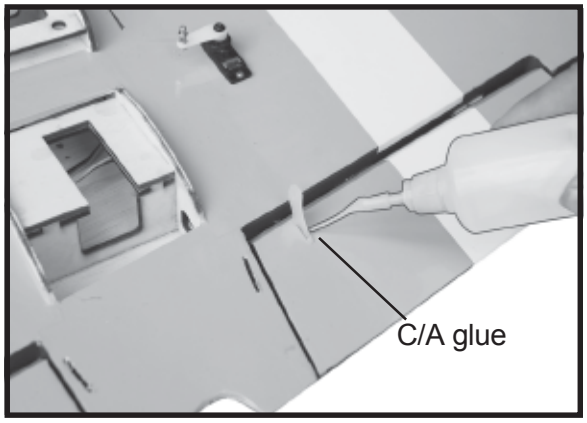
CONTROL HORN OF THE FLAP

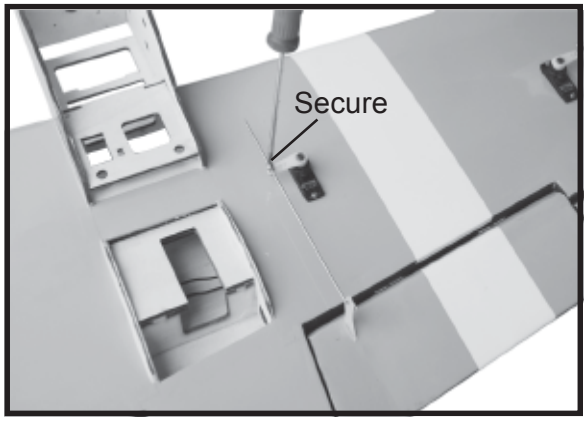


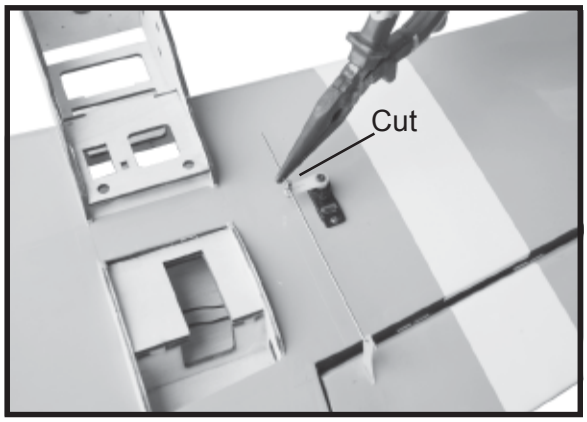


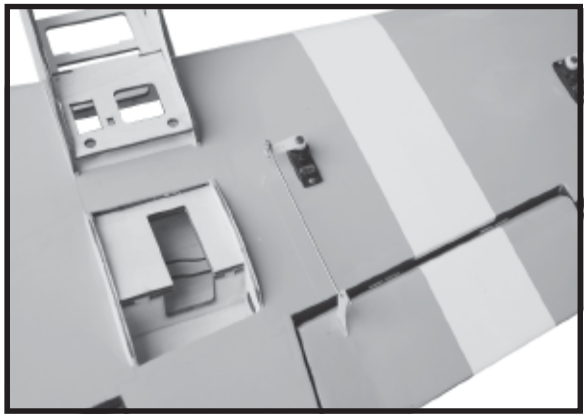


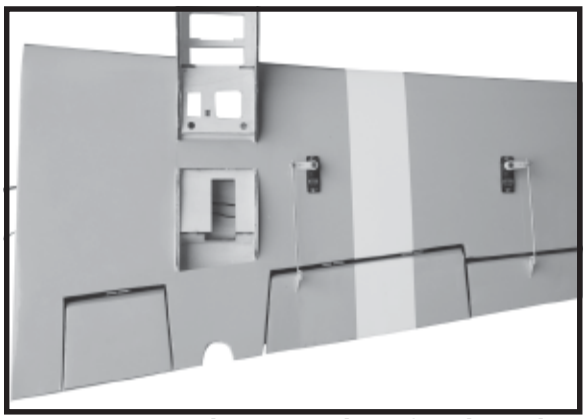
Insert flap control horn to the flap as picture below.











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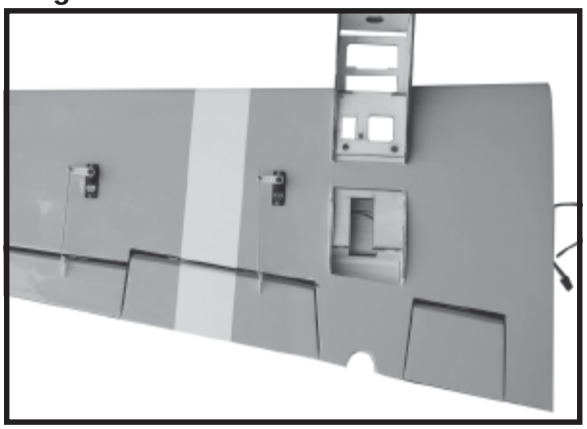
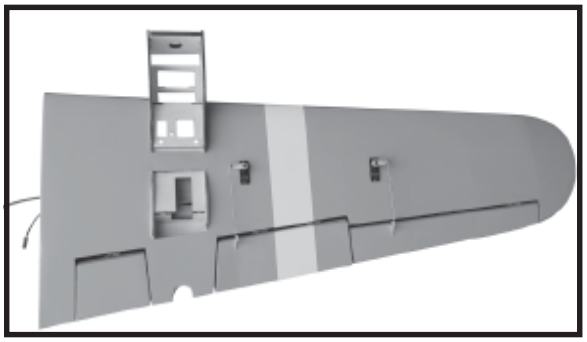
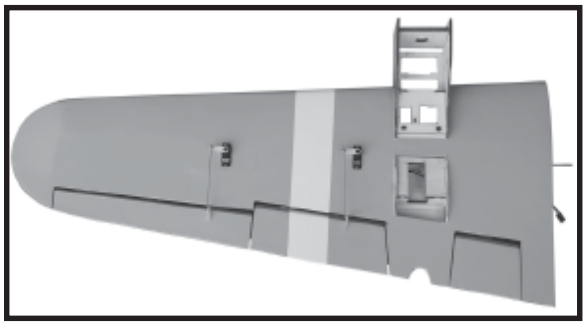






INSTALLING THE ENGINE MOUNT.

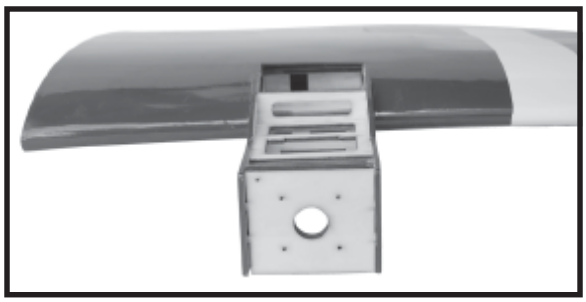
THERE ARE TWO OPTIONS:

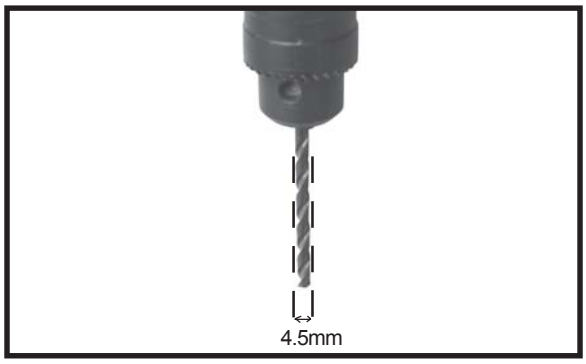
1. ELECTRIC MOTOR.

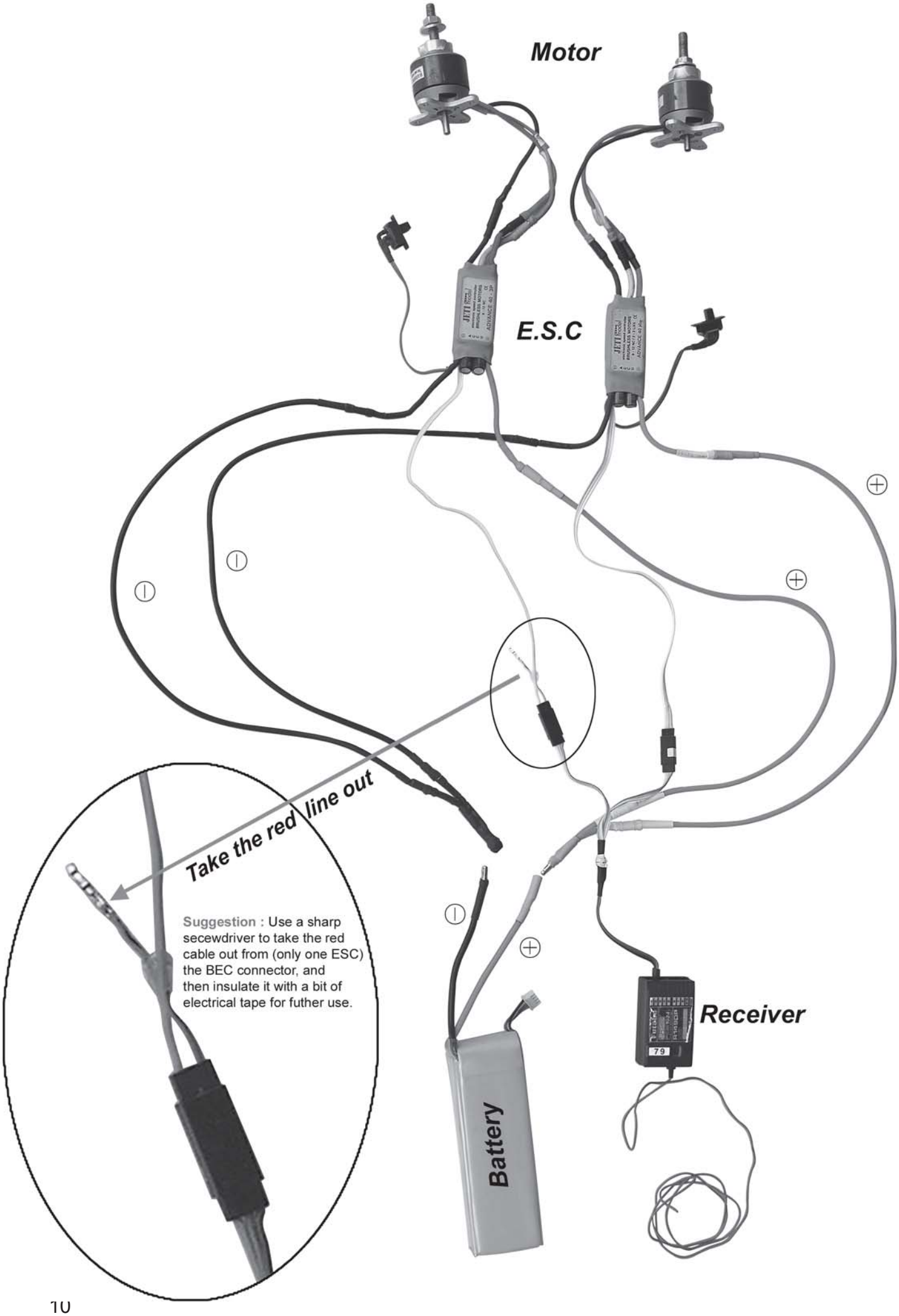
2. ENGINE MOUNT.

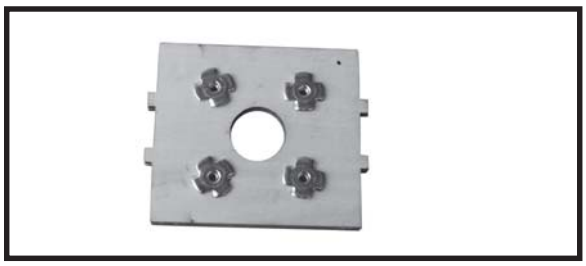
1. ELECTRIC MOTOR.

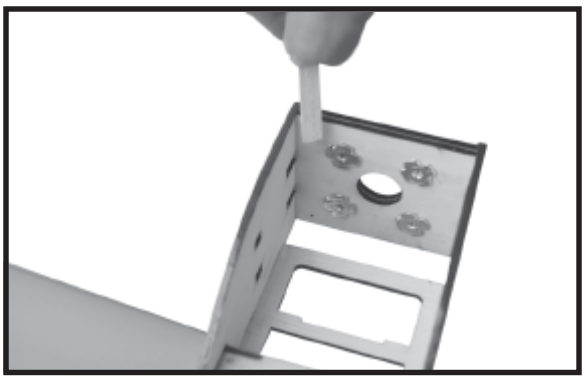
See pictures below

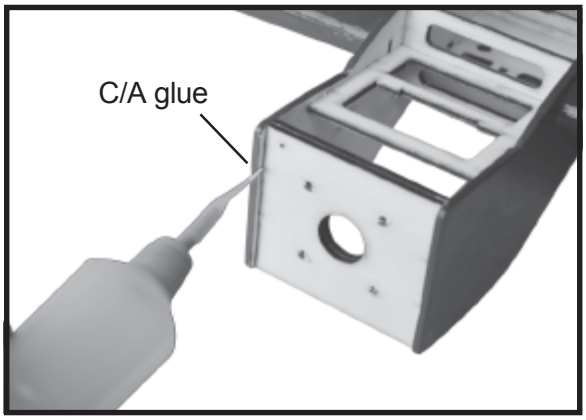


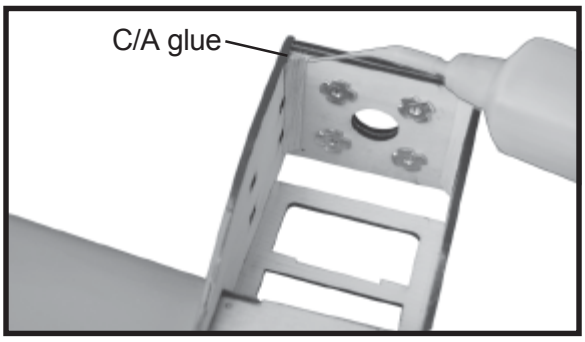


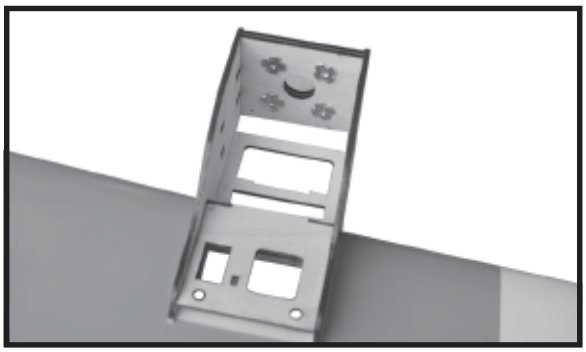

Motor
E.S.C
Take the red line out
Suggestion : Use a sharp secewdriver to take the red cable out from (only one ESC) the BEC connector, and then insulate it with a bit of electrical tape for futher use.
Battery
Receiver

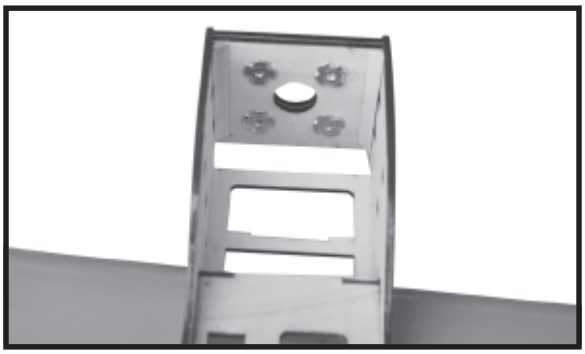


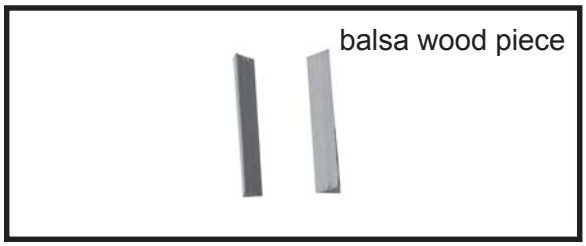


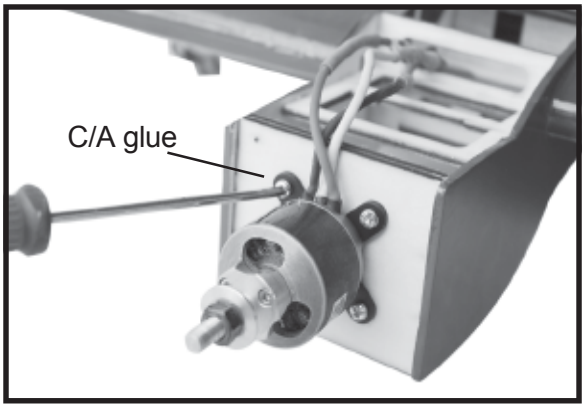

C/A glue

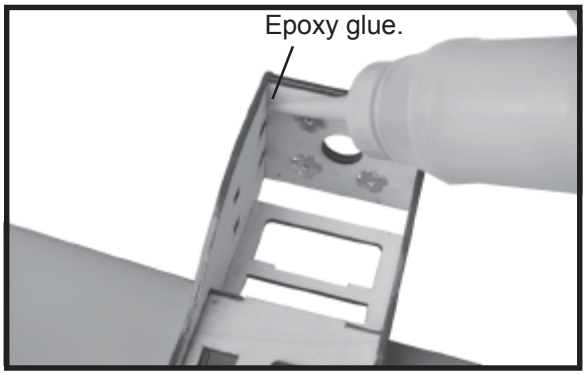

C/A glue

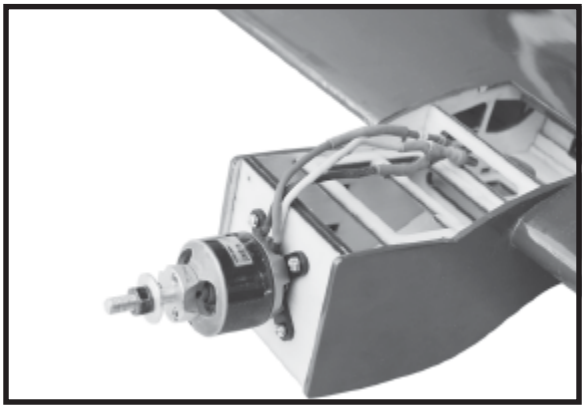


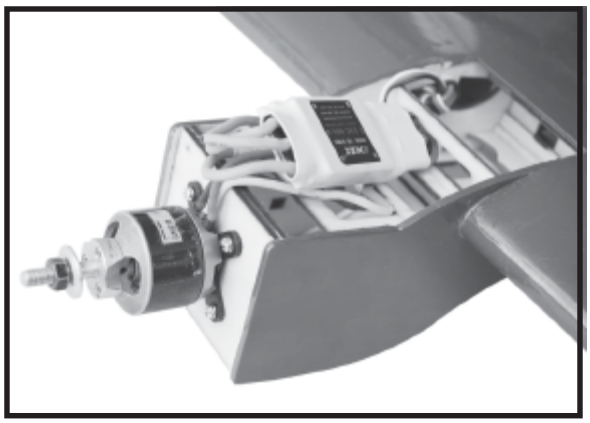


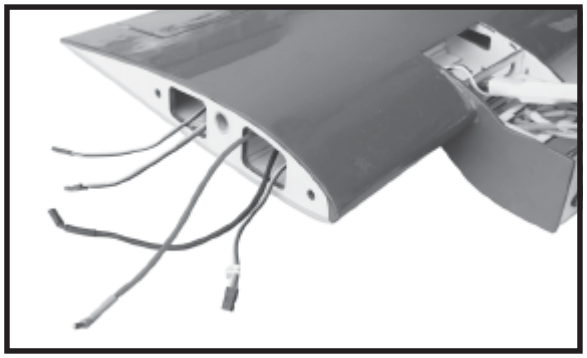

balsa wood piece

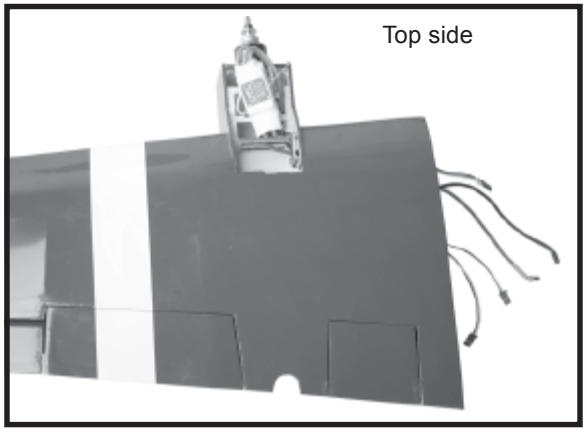

C/A glue

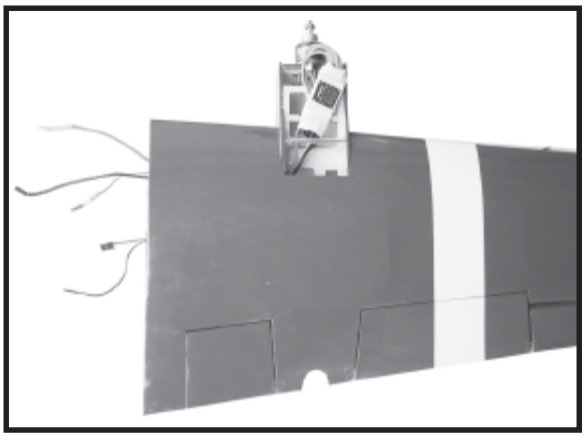

Epoxy glue.



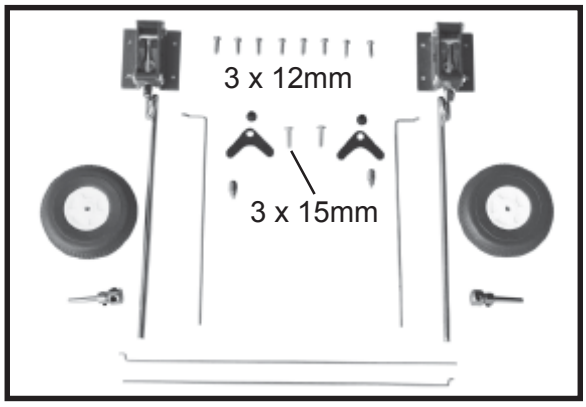


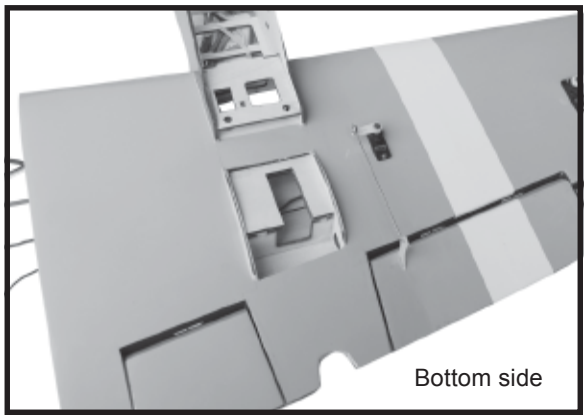


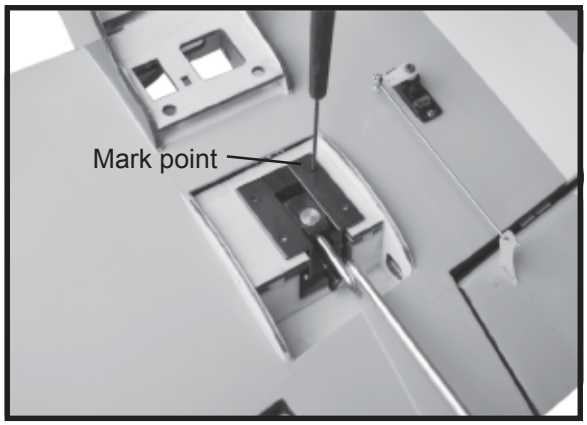


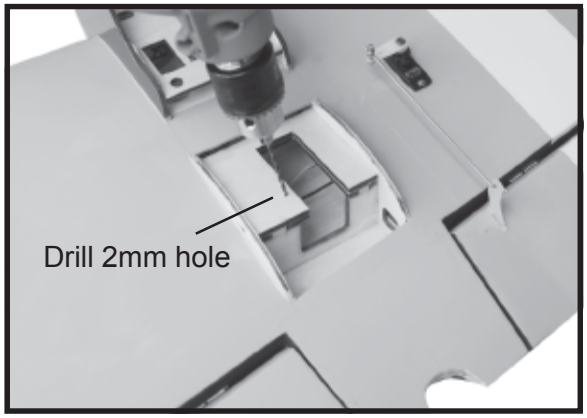


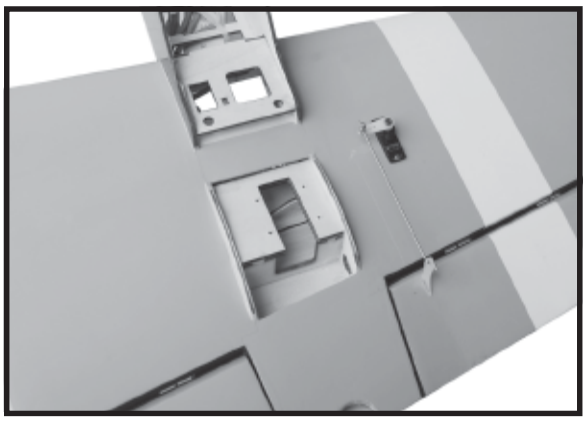
INSTALLING RETRACTABLE LANDING GEAR

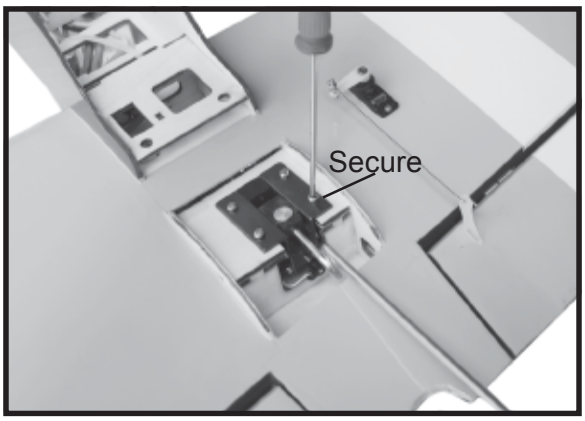


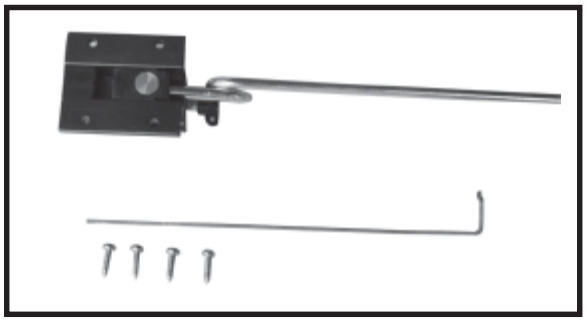


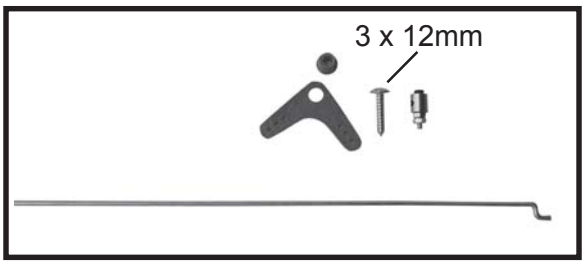


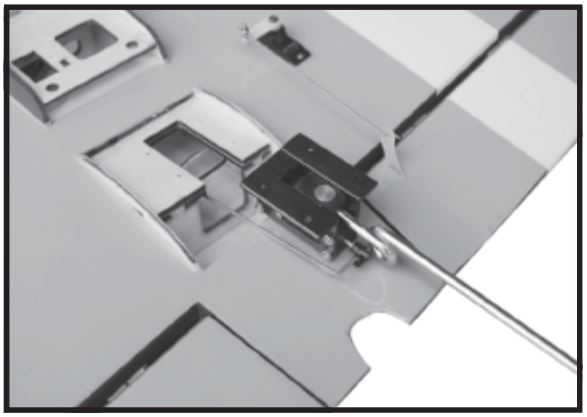


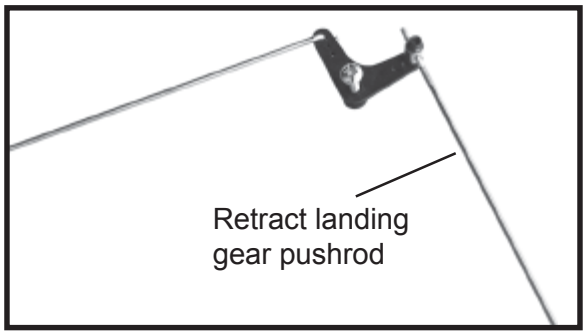


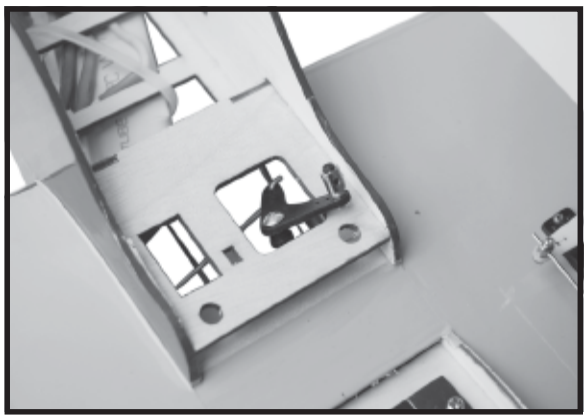

Secure

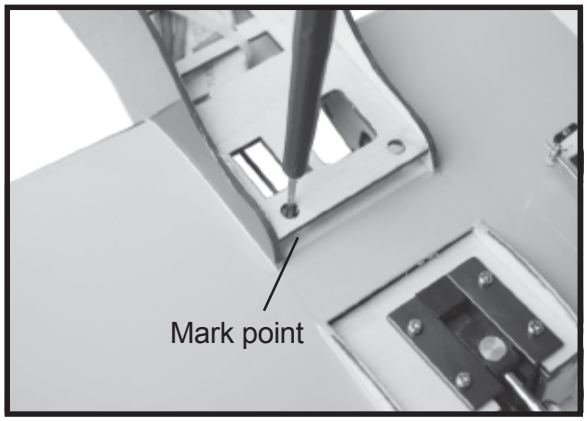


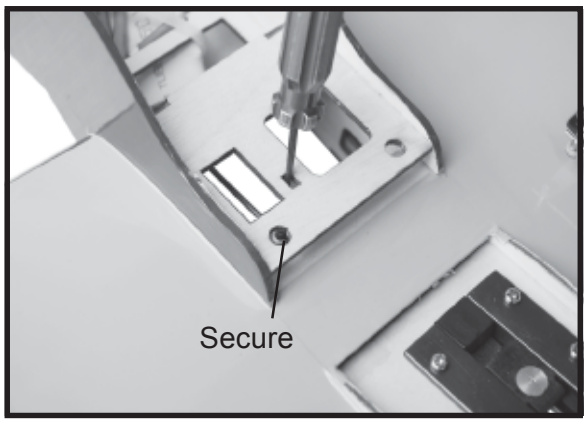

3 x 12mm

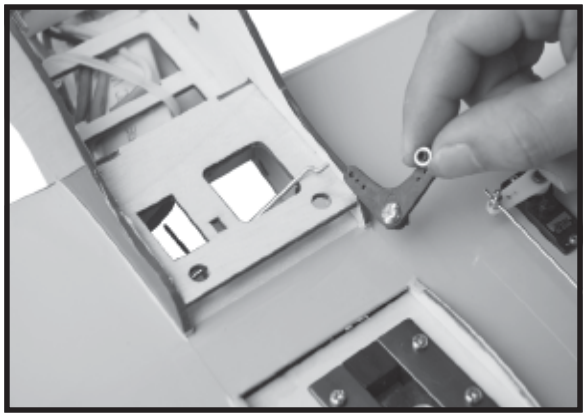


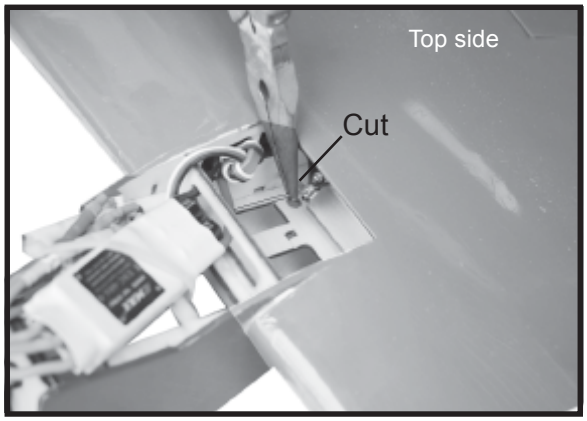

Retract landing
gear pushrod



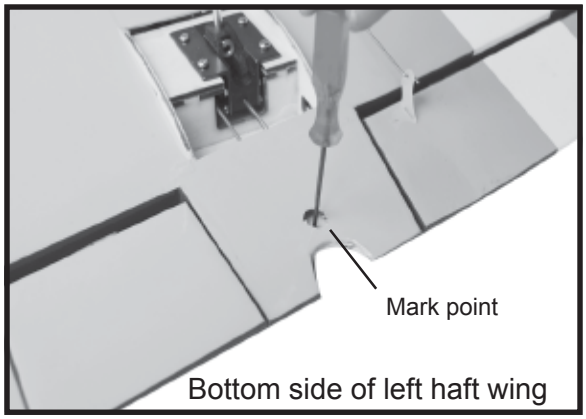

Mark point

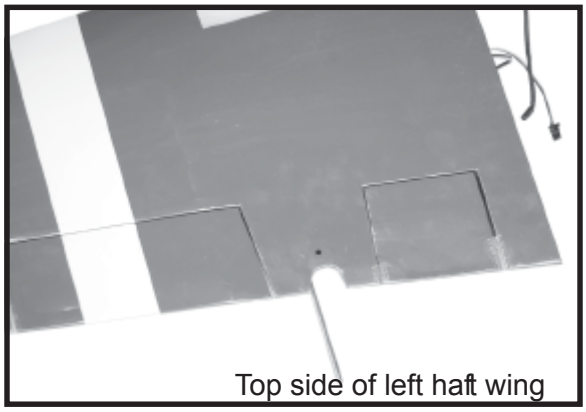

Secure

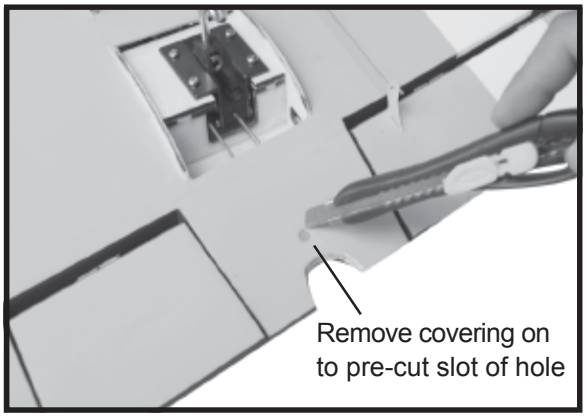


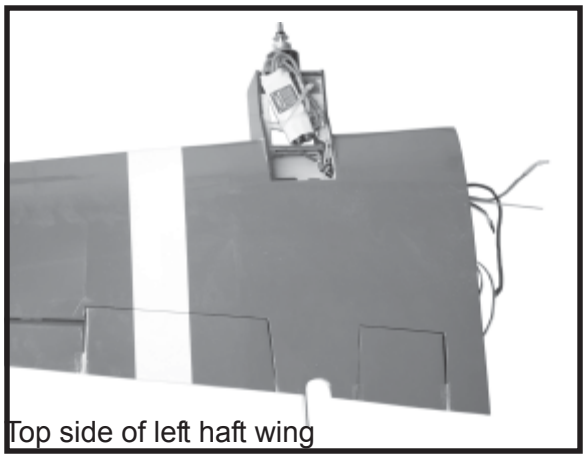

Top side
Cut


Top side


Mark point
Bottom side of left haft wing

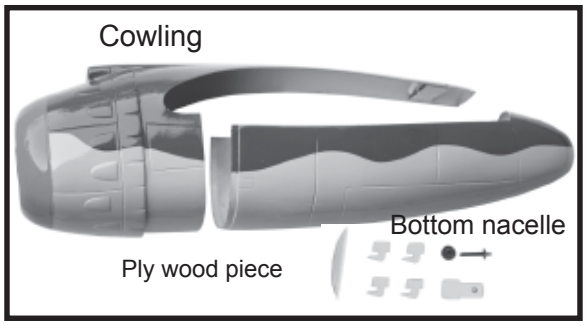

Top side of left haft wing

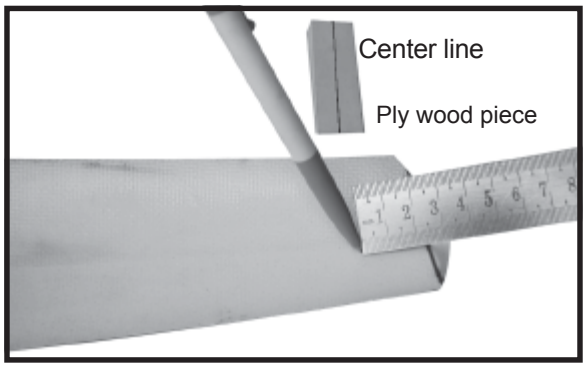

Remove covering on
to pre-cut slot of hole

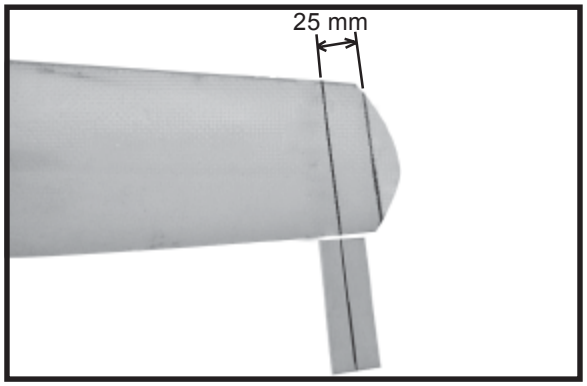

Top side of left haft wing

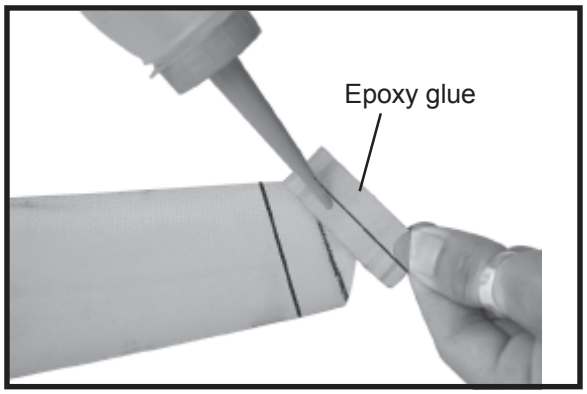
ENGINE COWLING INTALLATION.

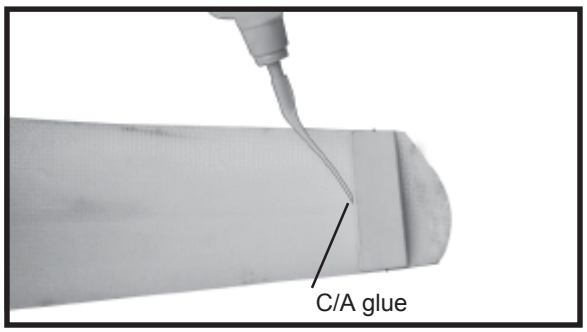
Install the engine cowl as same as picture below.

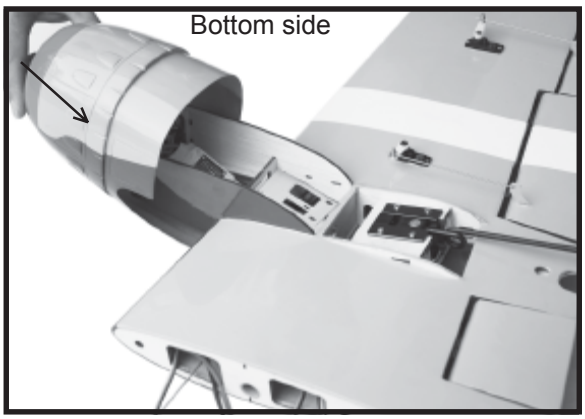


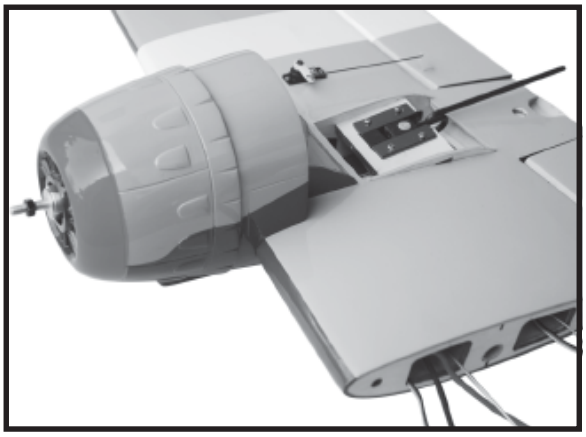


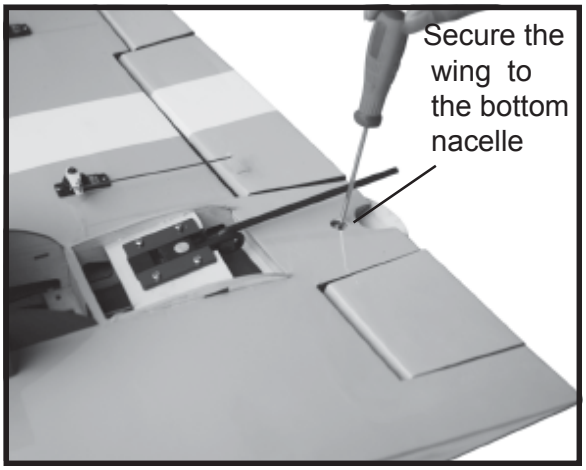


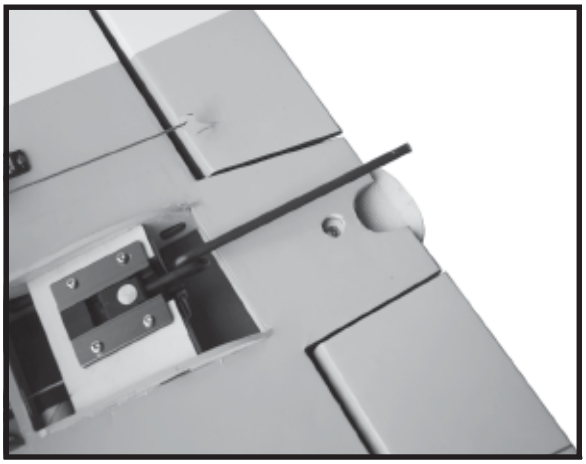


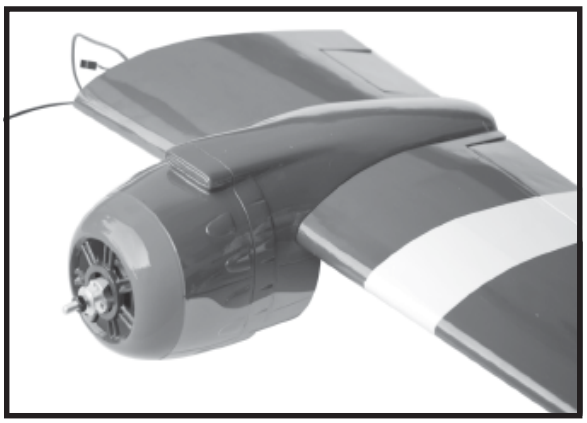


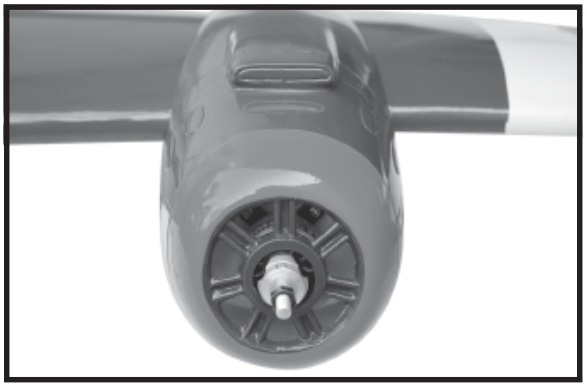


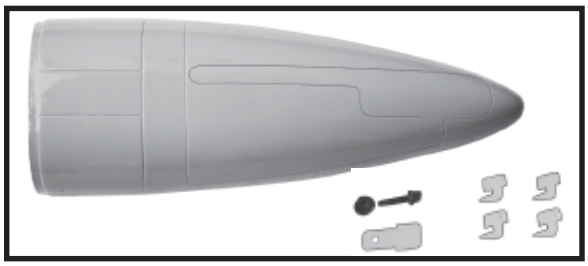




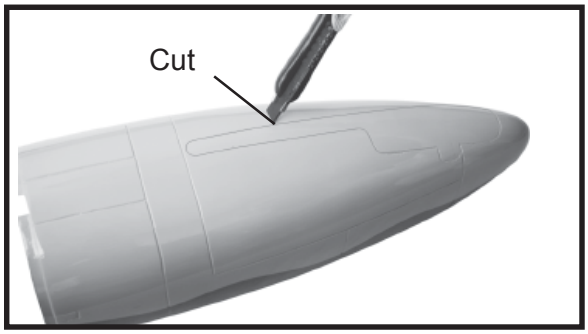


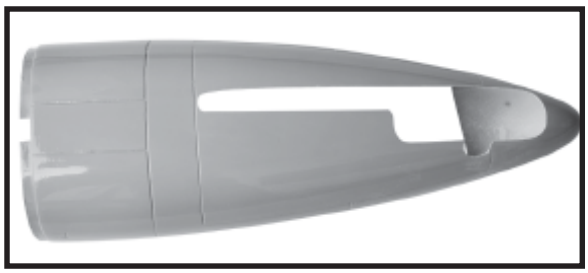


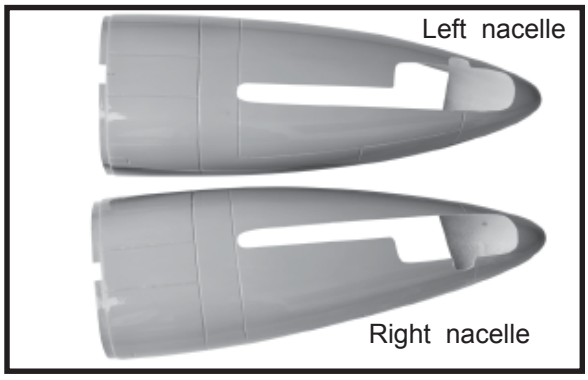


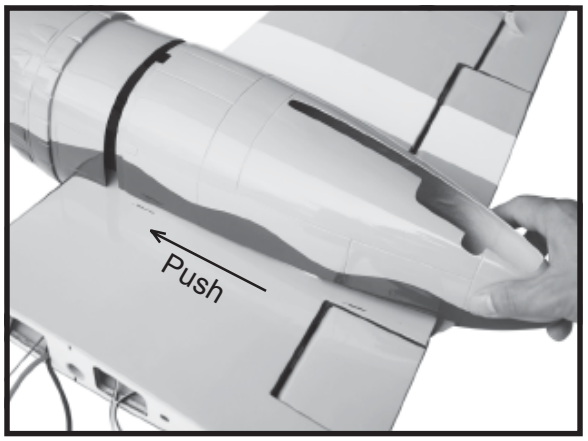


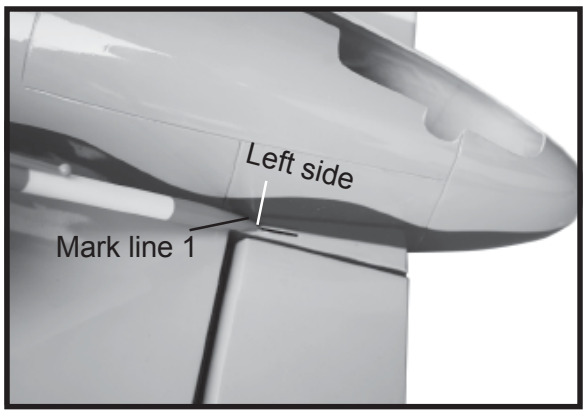
Cut nacelle as picture below

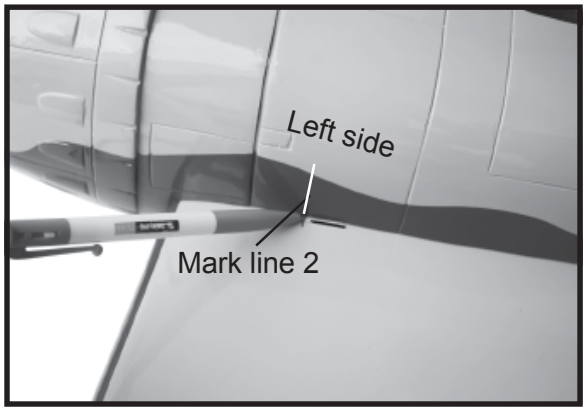


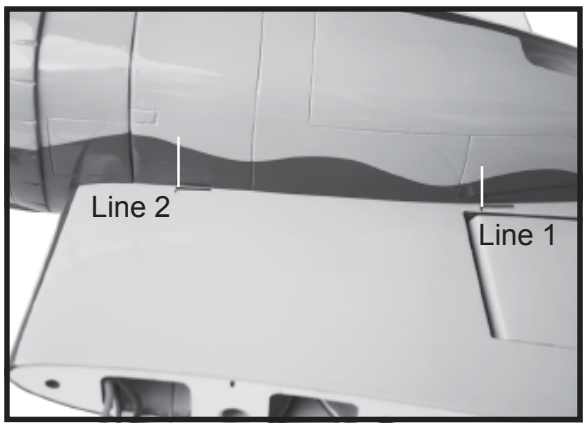


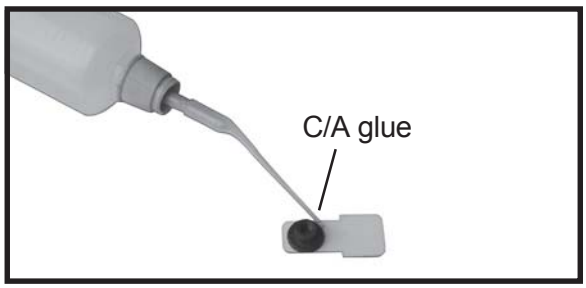


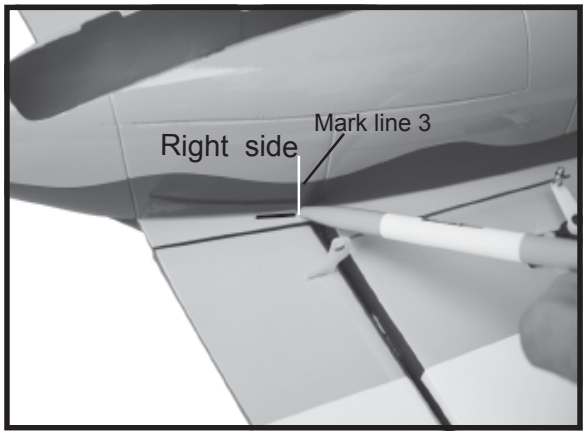


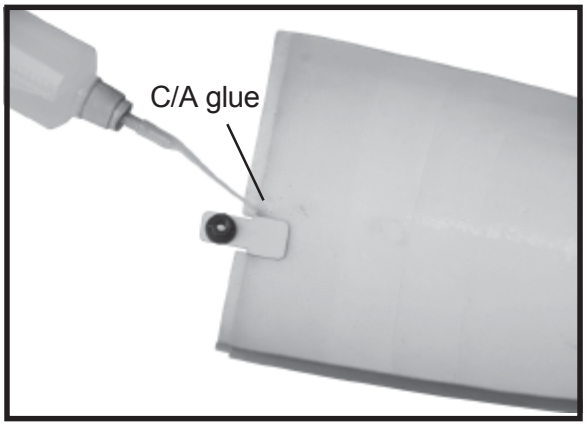


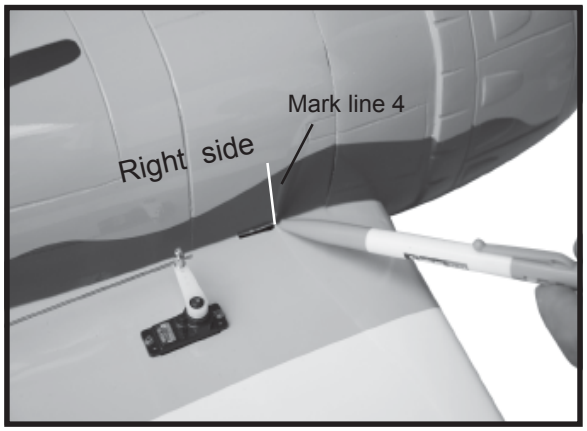


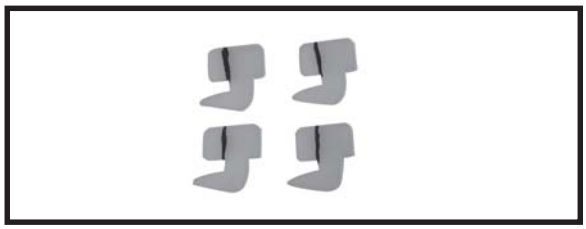

Line 2
Line 1

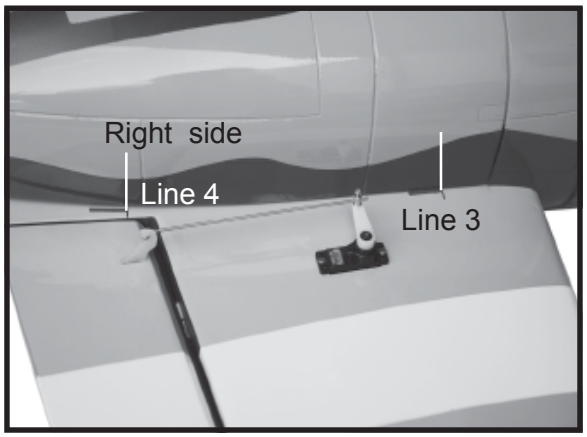

C/A glue

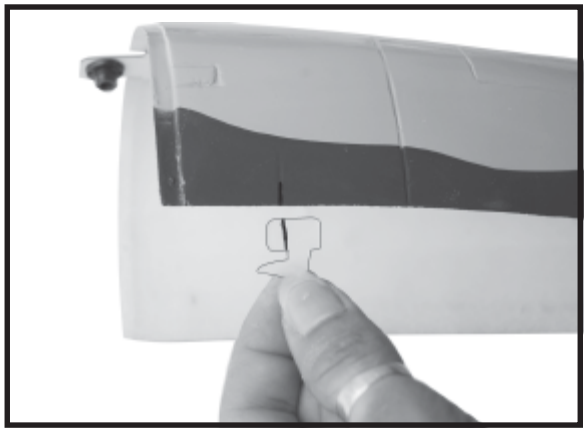

Right side
Mark line 3

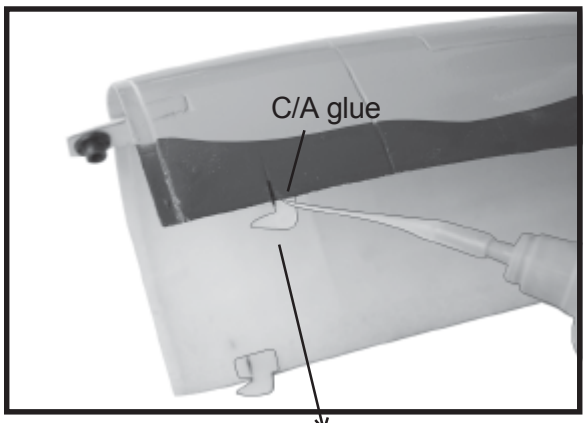

C/A glue

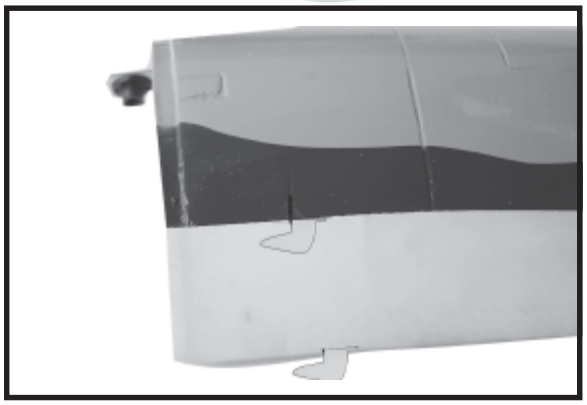

Right side
Mark line 4

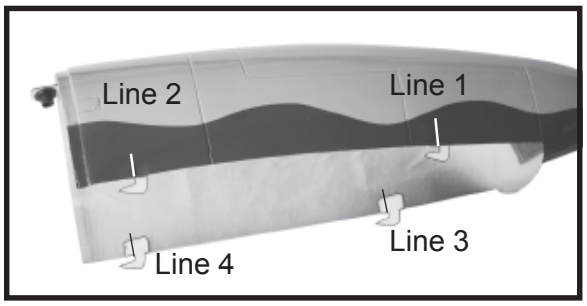


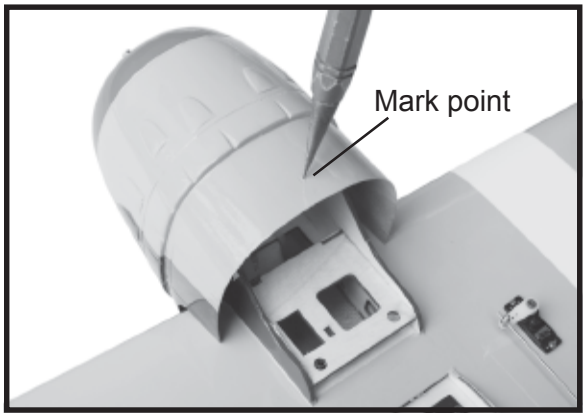

Right side
Line 4
Line 3

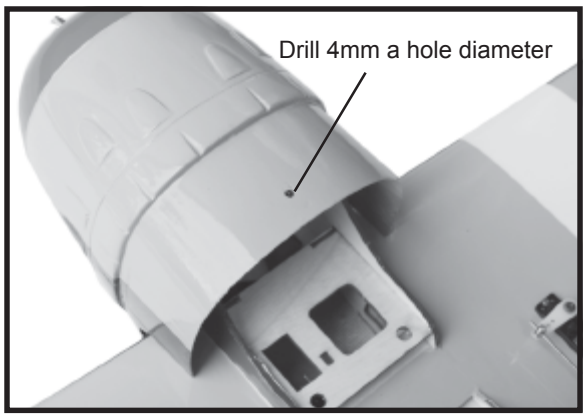


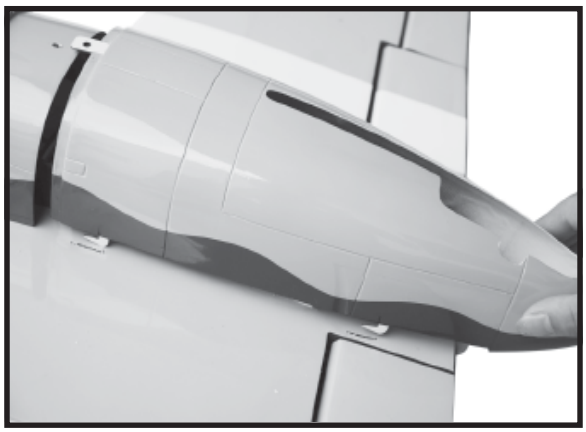


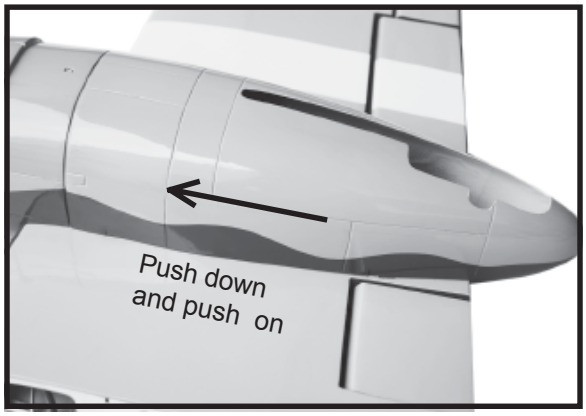


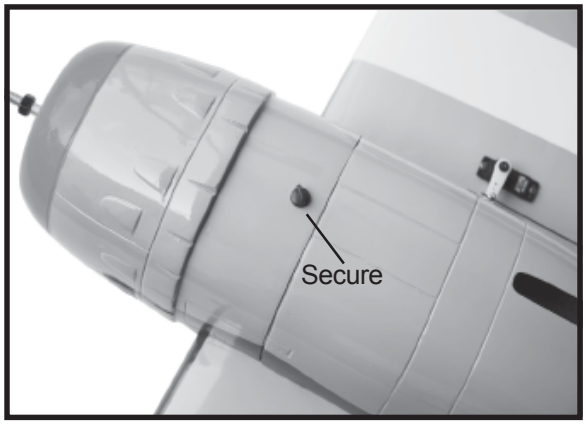




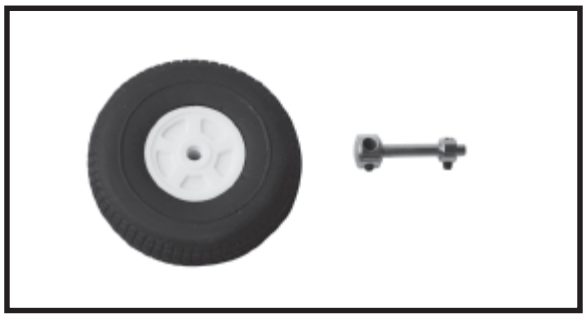


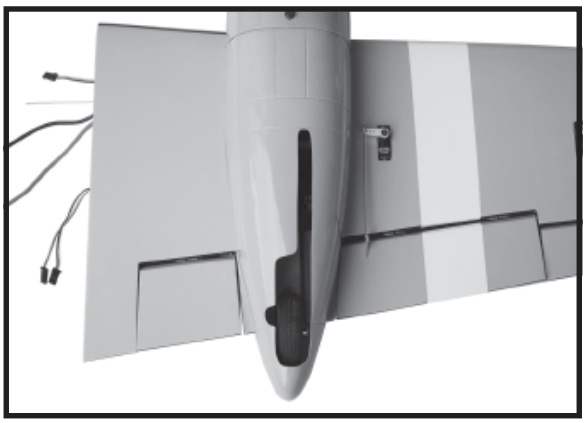


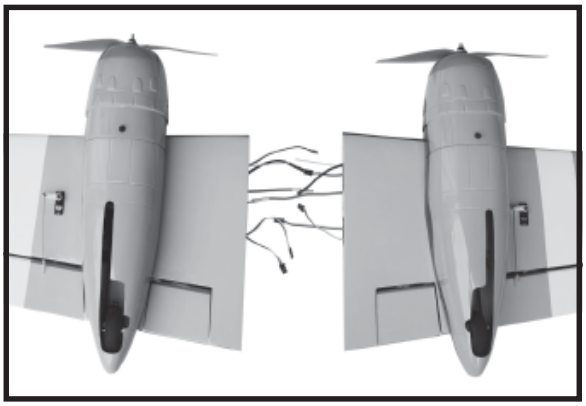




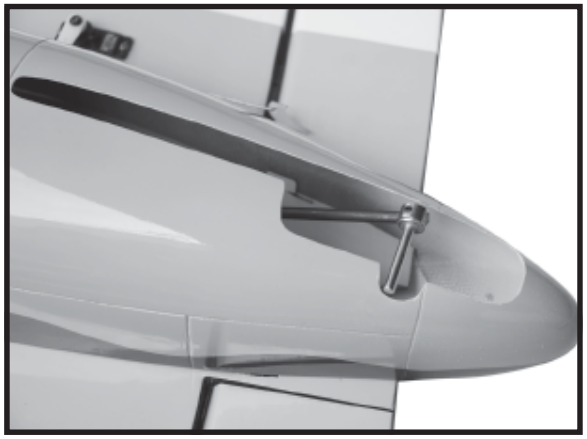
Repeat procedure for the other wing panel.

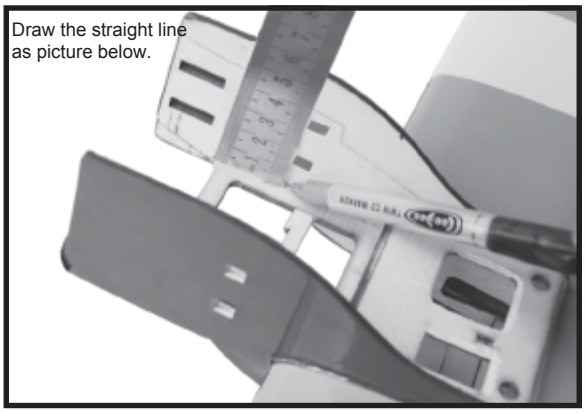


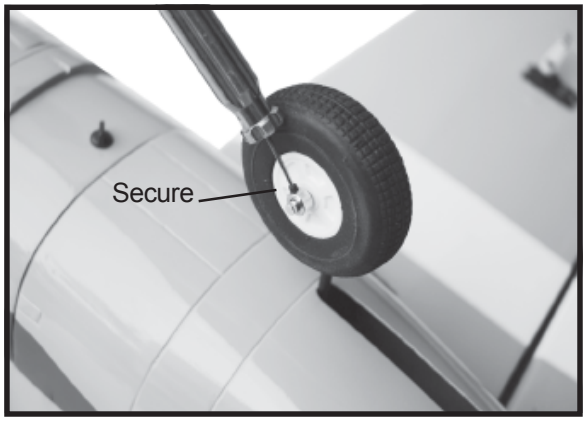


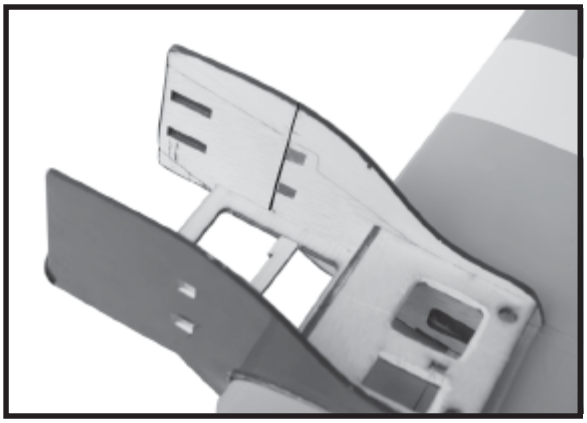


2. **<u>OPTION 2: ENGINE MOUNT.</u>**

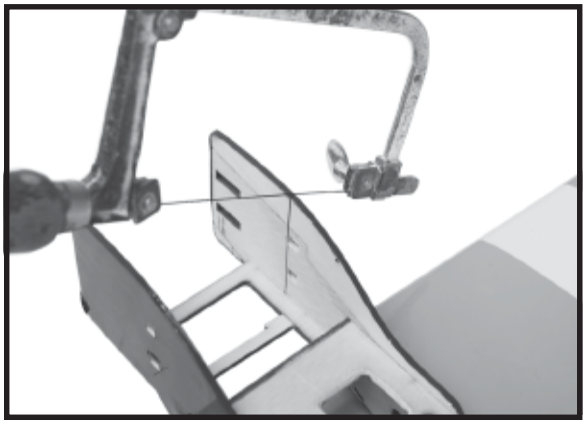


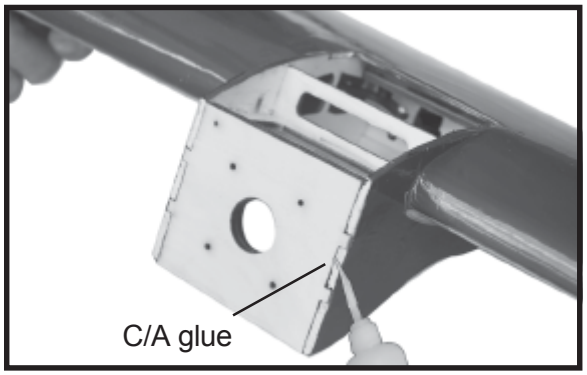


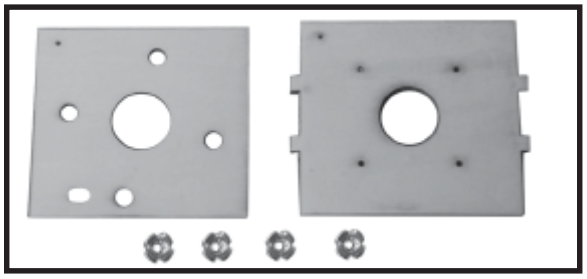


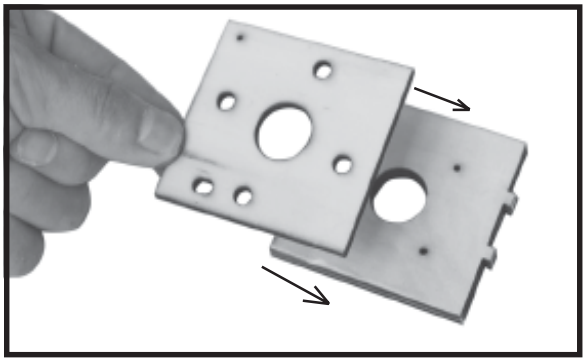


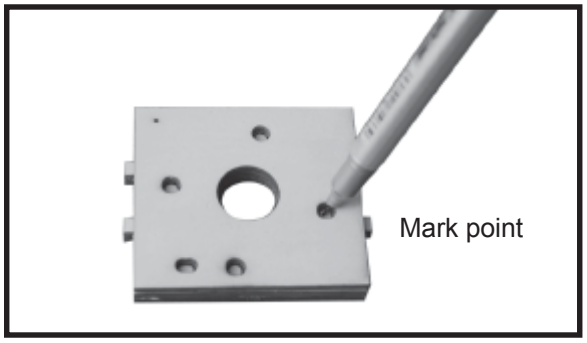
Saw cross - cut and remove the balsa ply-wood as picture below.

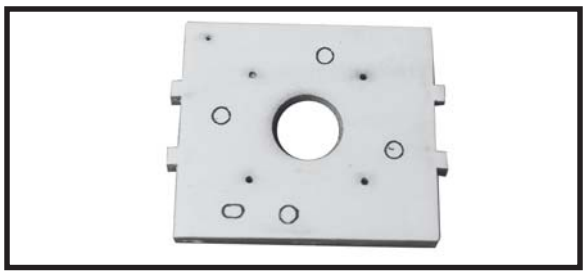


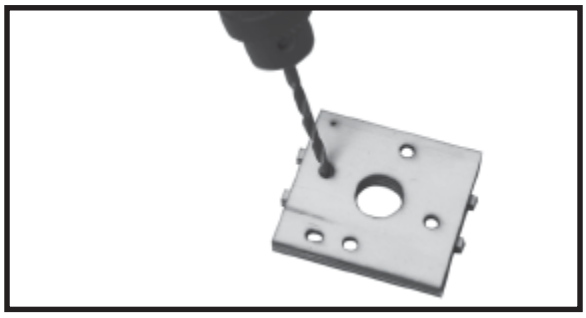


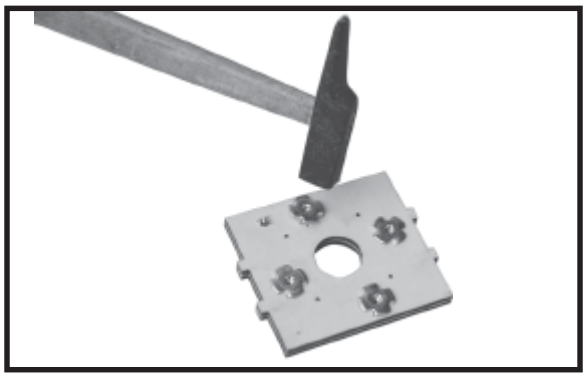


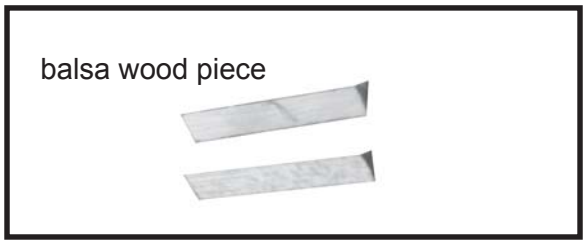


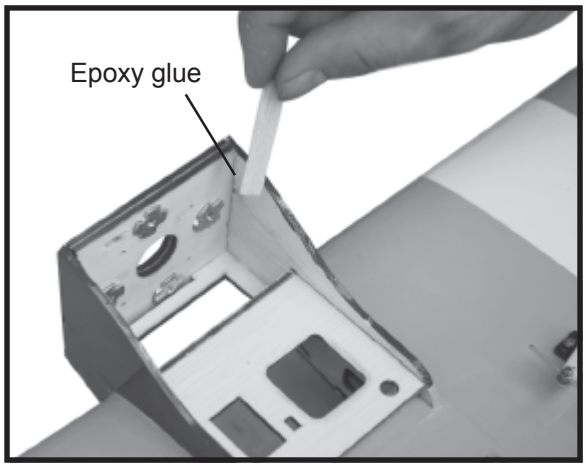


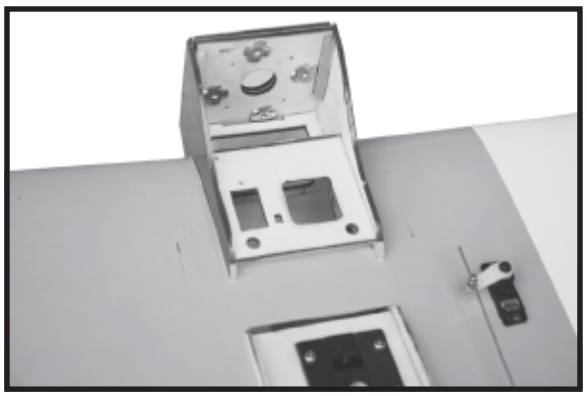




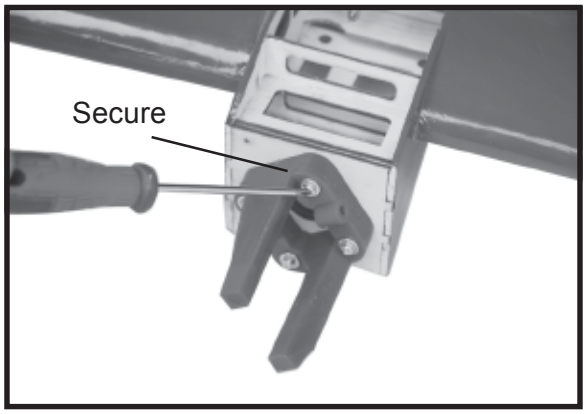


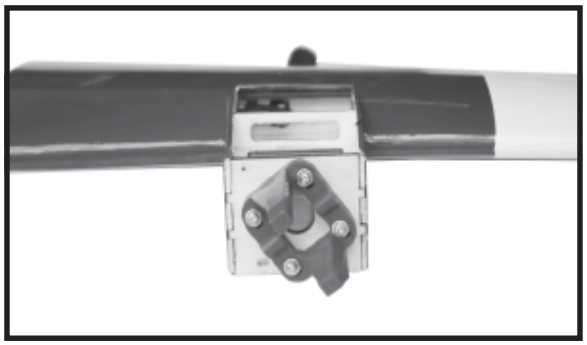




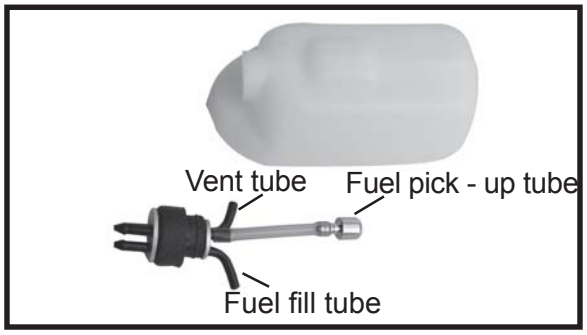


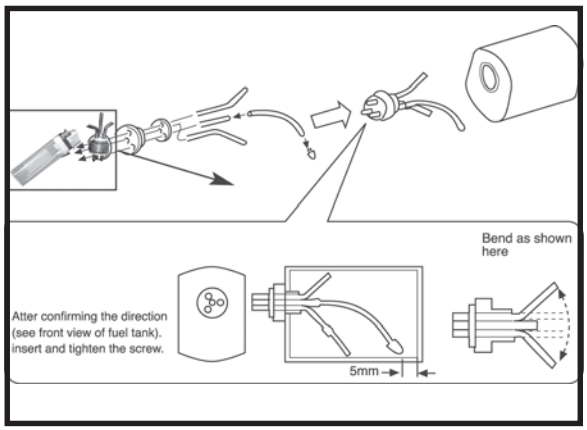

3x20mm
3x20mm

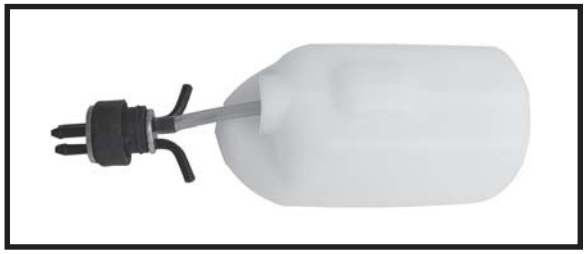

Secure



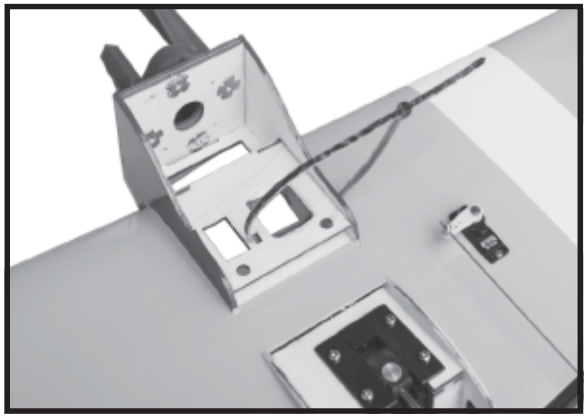
FUEL TANK.

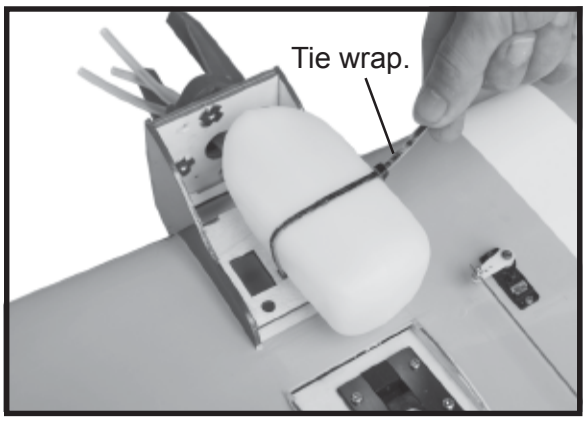

Vent tube
Fuel pick - up tube
Fuel fill tube

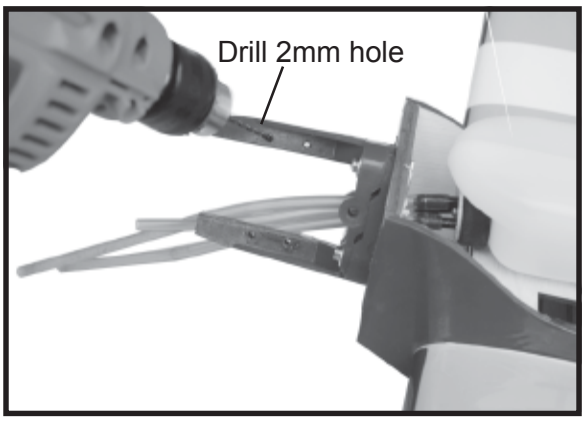

Bend as shown here
Atter confirming the direction (see front view of fuel tank). insert and tighten the screw.
5mm

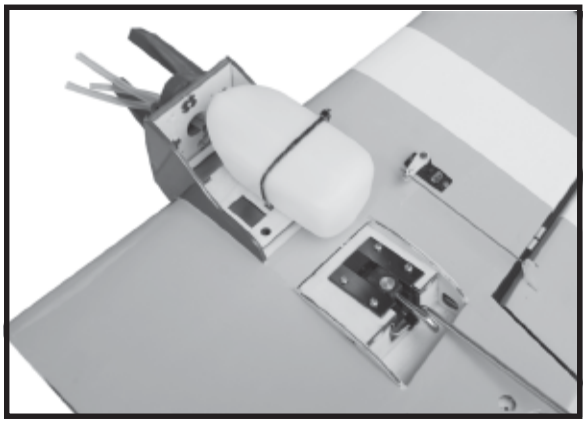


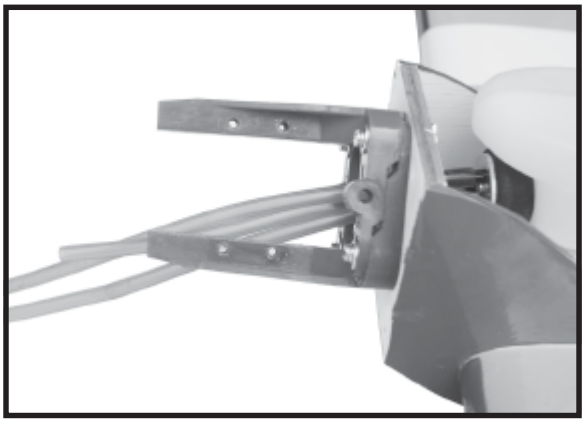

Tie wrap.

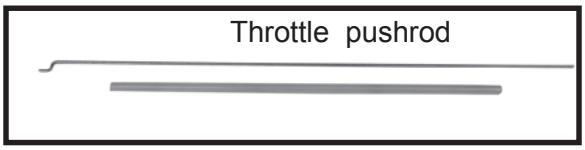


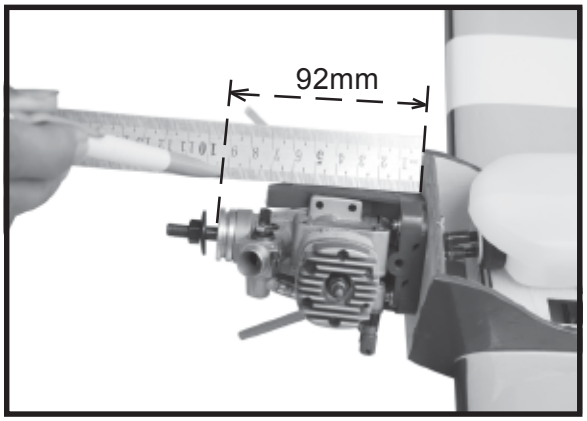

Tie wrap.

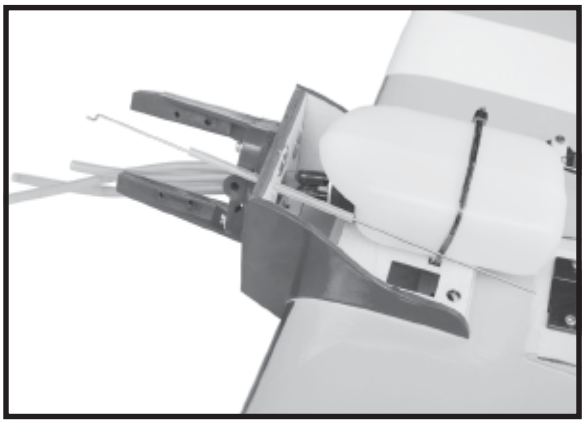

Drill 2mm hole

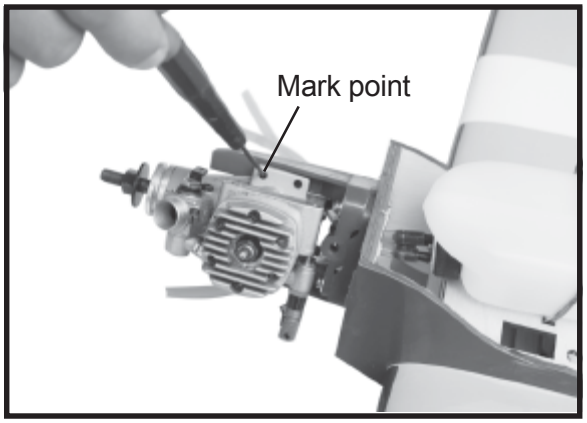


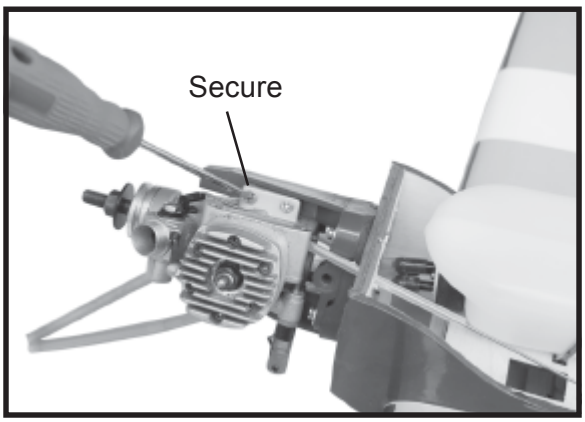


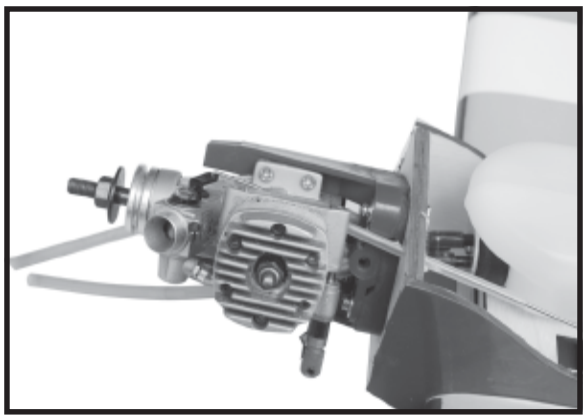

Throttle pushrod

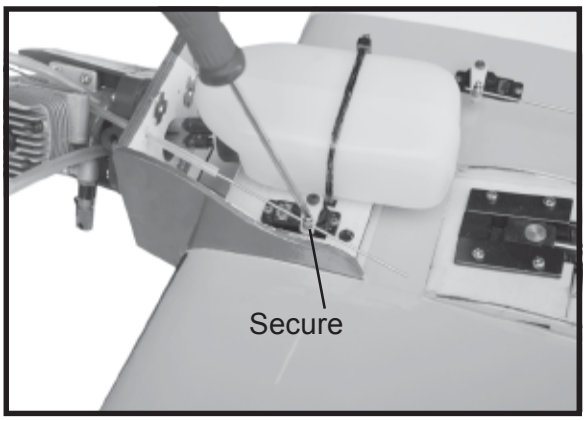

92mm



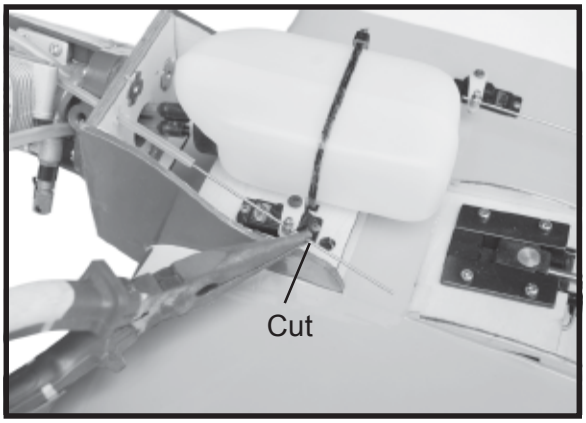

Mark point

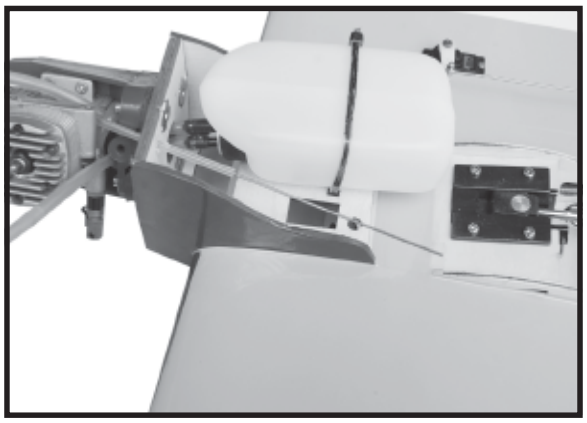

Secure

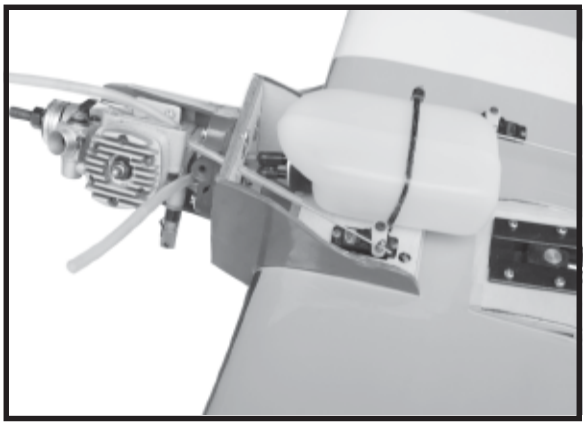


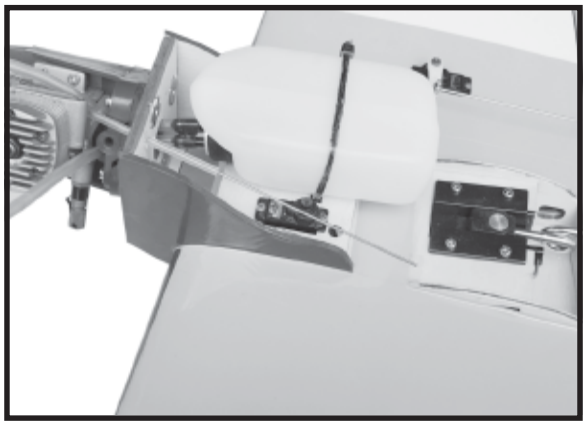

Secure

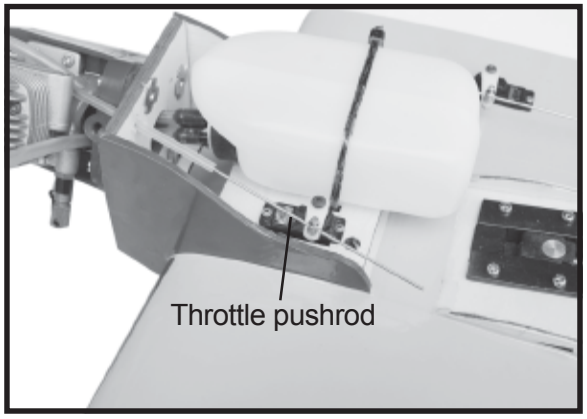

Throttle servo

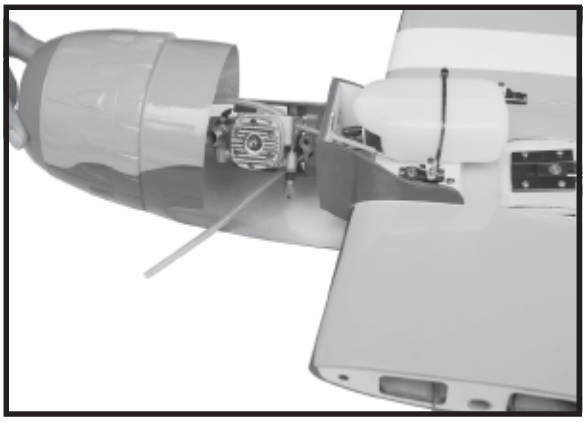

Cut

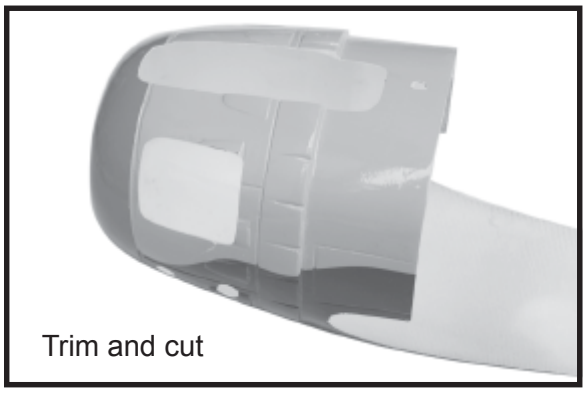


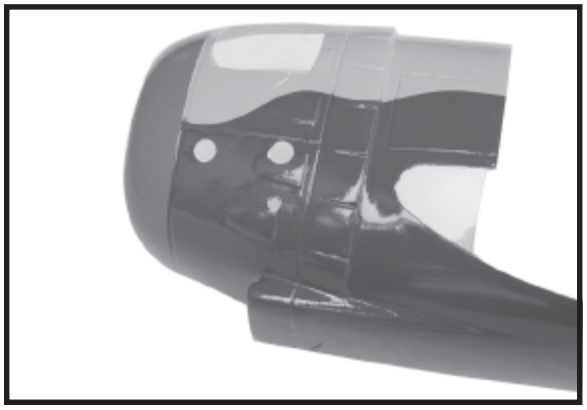


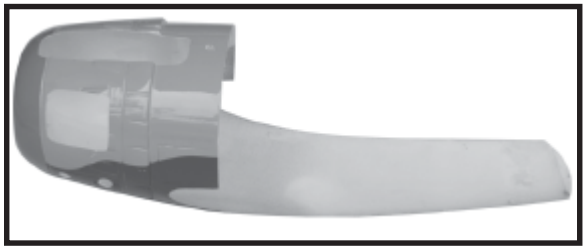


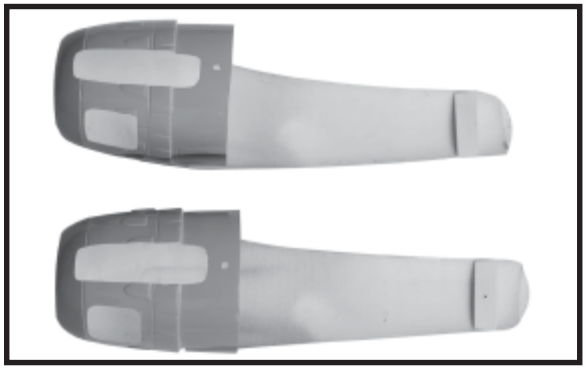

Throttle pushrod

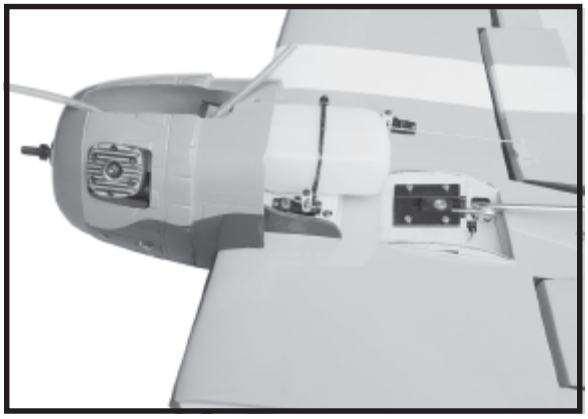


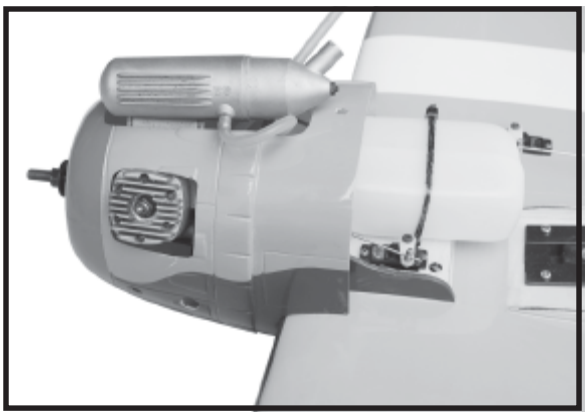

Trim and cut

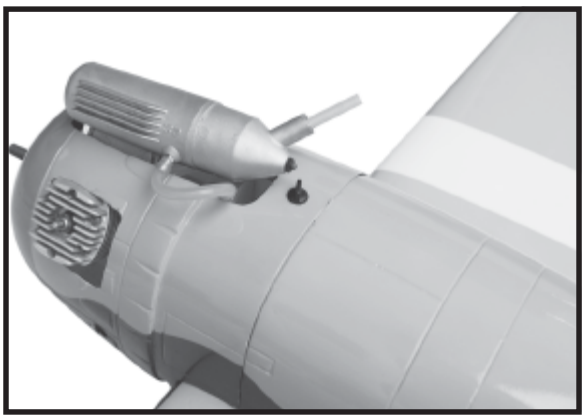


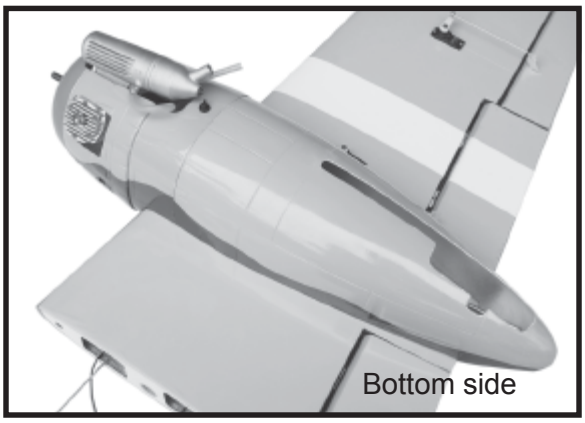


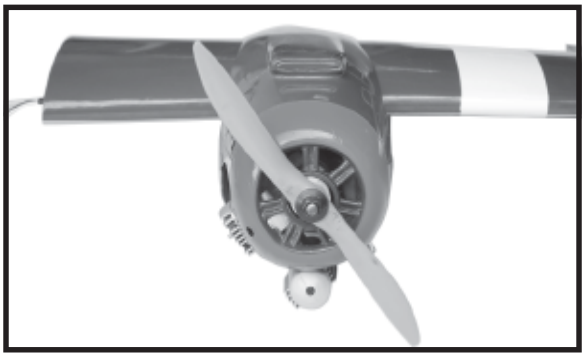




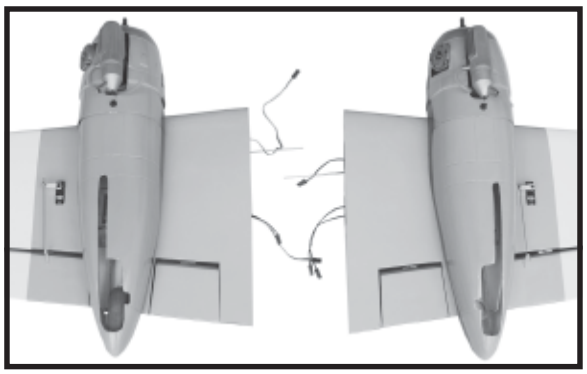




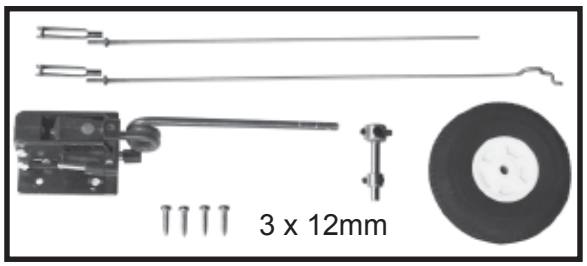

Bottom side

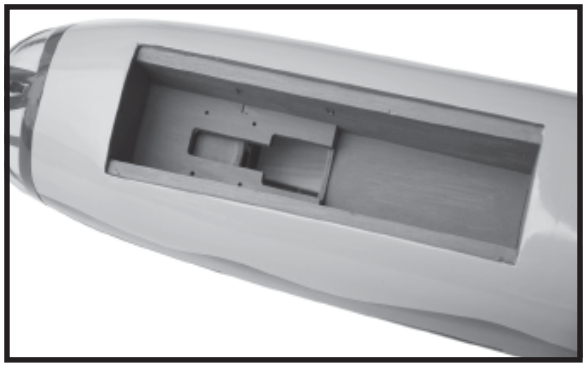


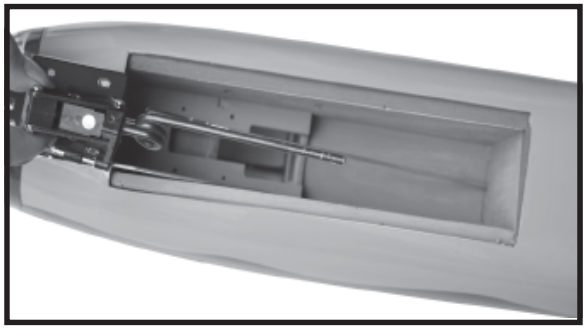
Repeat the procedure for the other wing half.

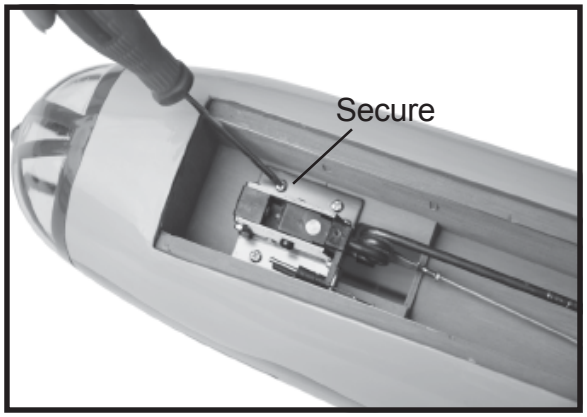


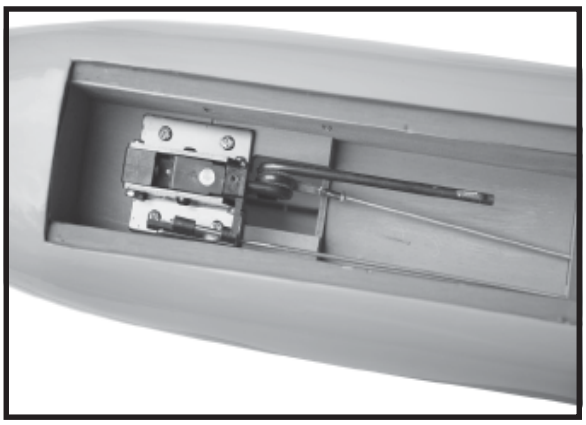
INSTALLING RETRACT NOSE GEAR.

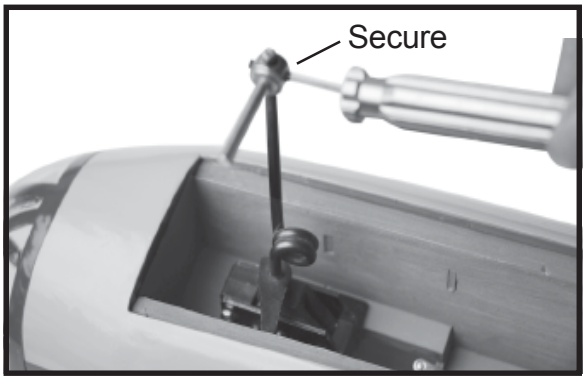


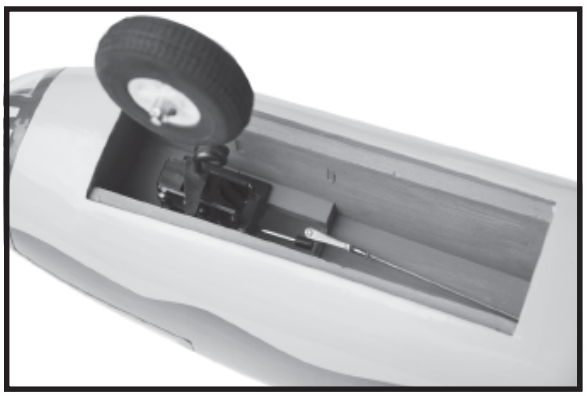


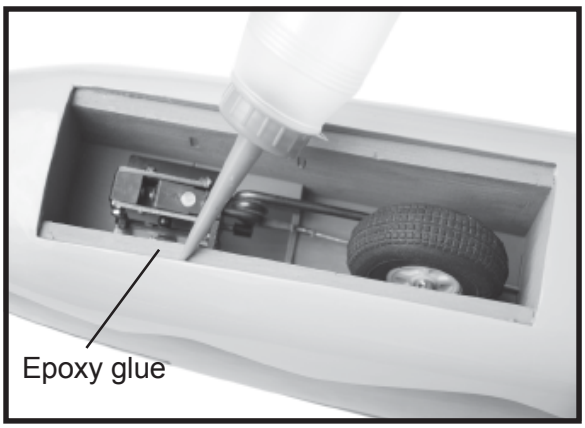


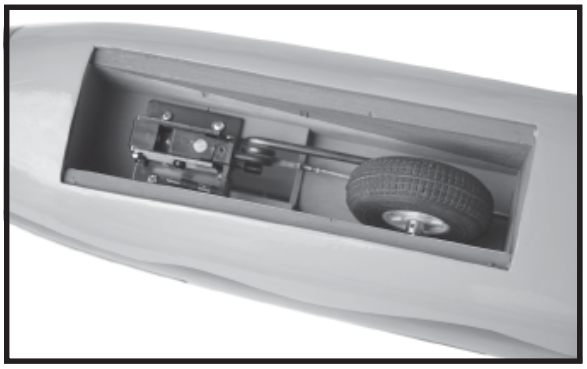


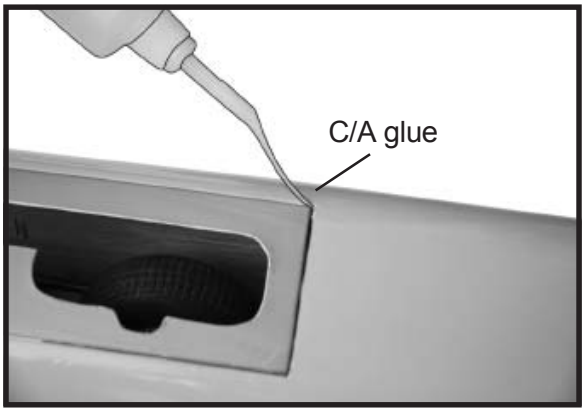


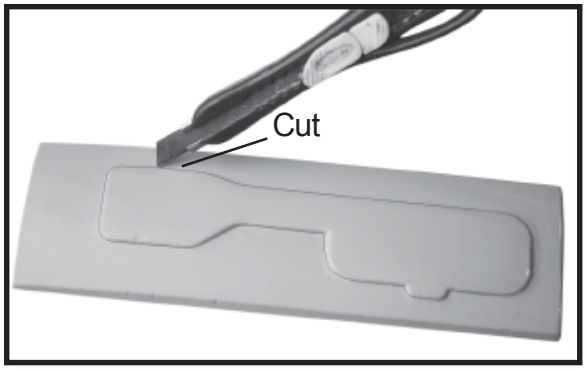


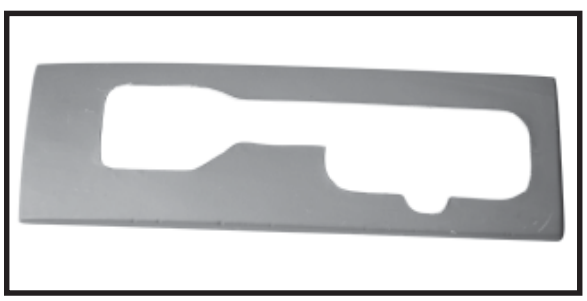


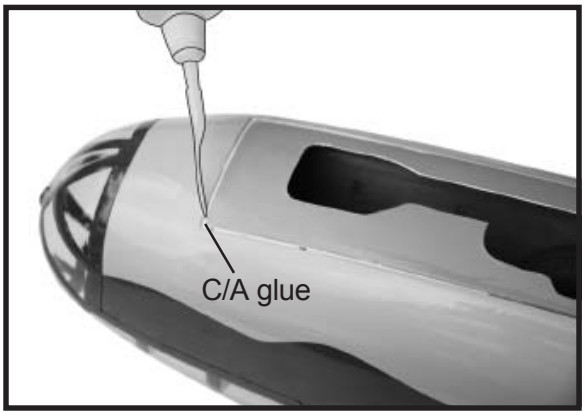

Epoxy glue

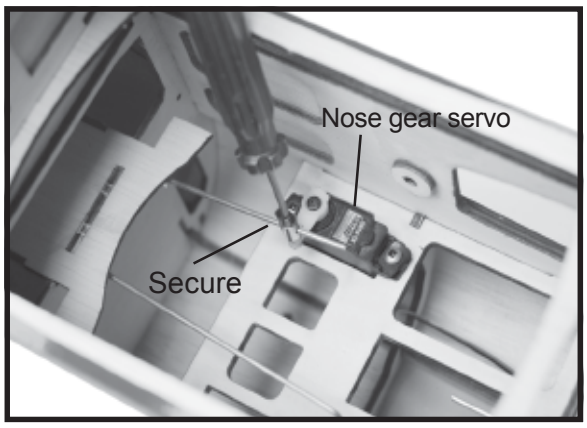



C/A glue


Cut



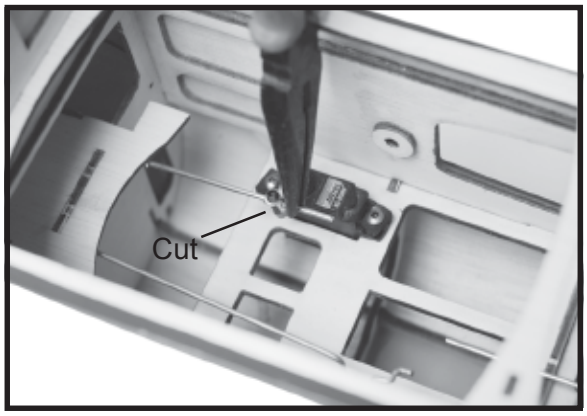

C/A glue

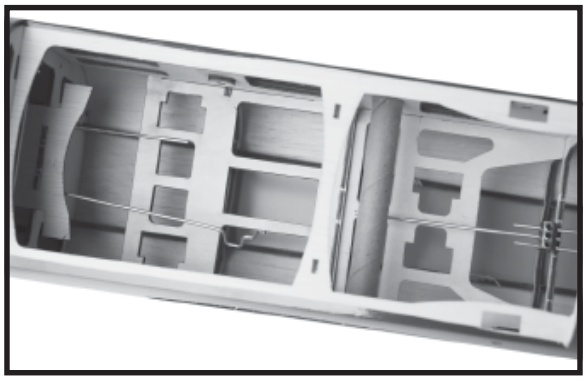


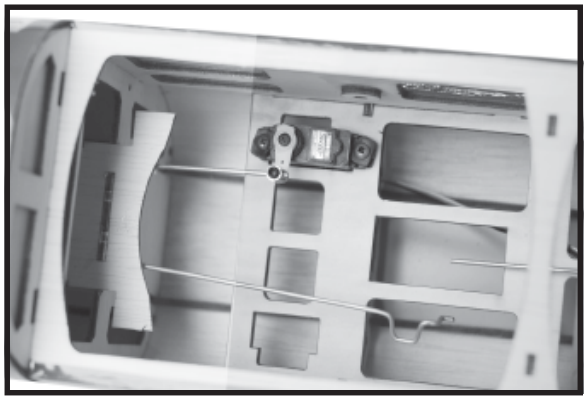
SERVO INSTALLATION.

☐ 1) Install the rubber grommets and brass eyelets onto the elevator servo and nose gear servo.

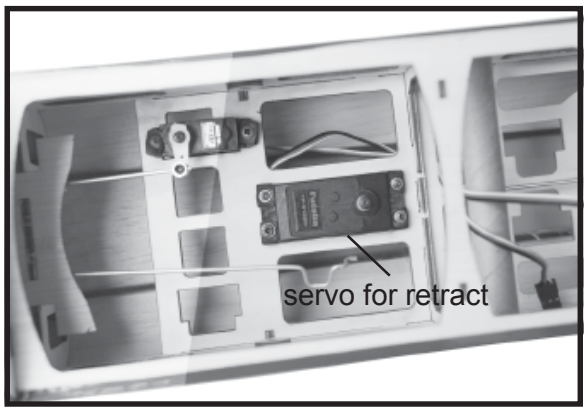
☐ 2) Install the metal connector onto servo arm.

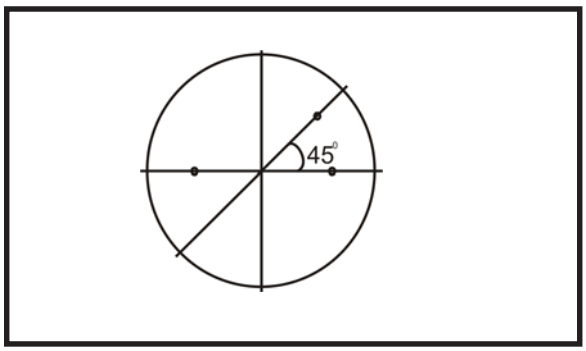


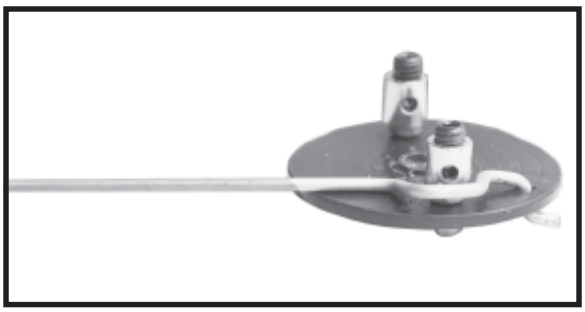


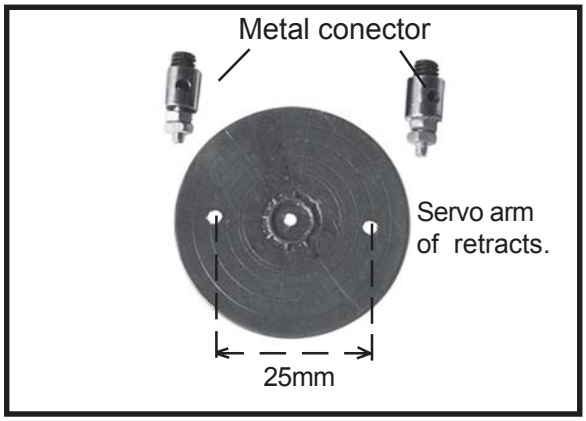


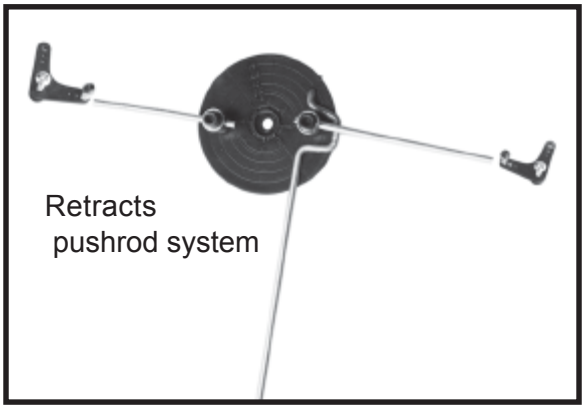
RETRACTABLE INSTALLATION



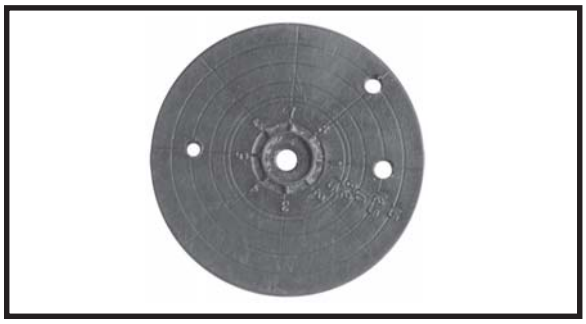

45°

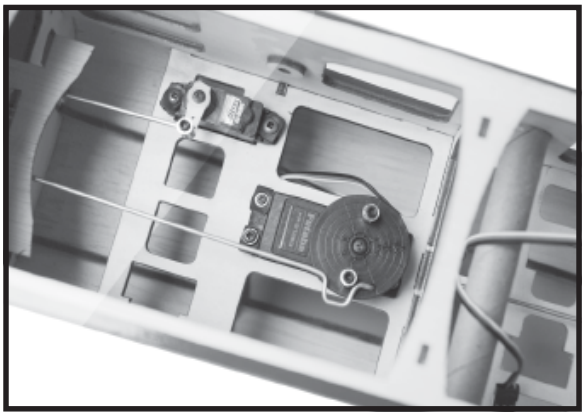


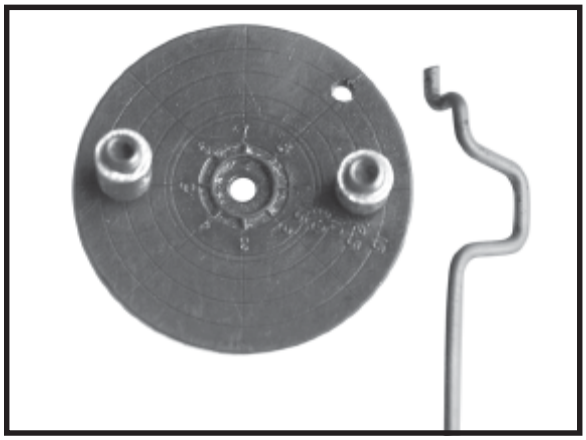

Metal conector
Servo arm
of retracts.
25mm

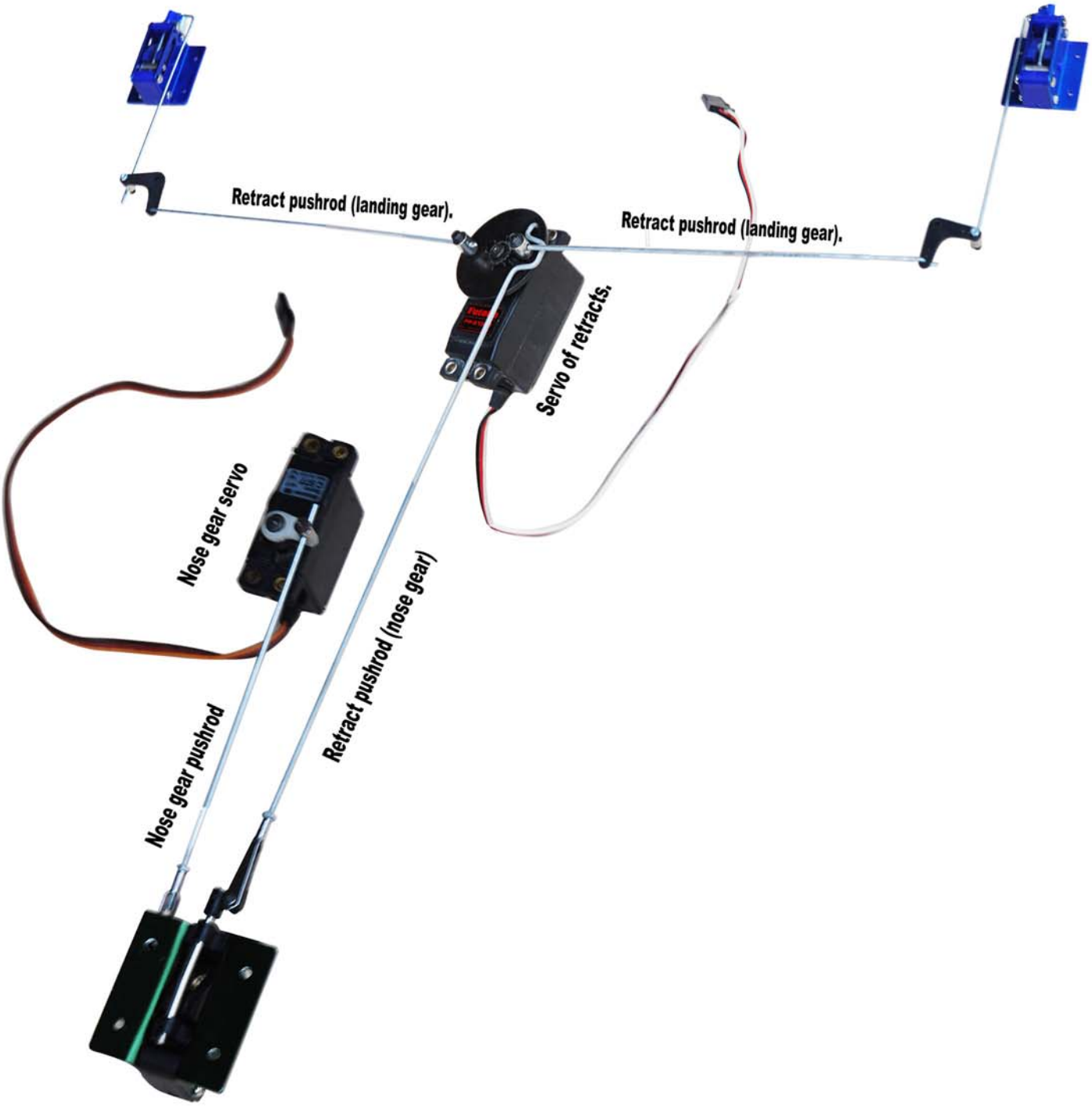

Retracts
pushrod system


15mm



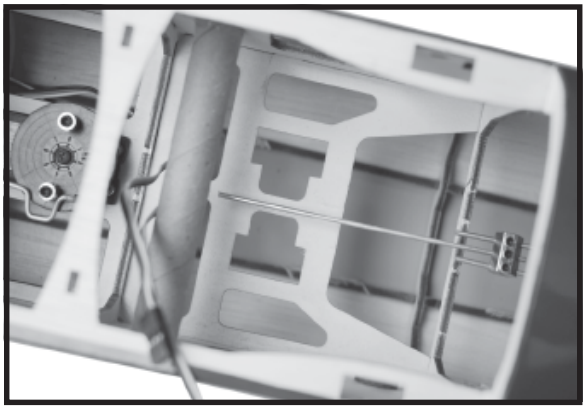


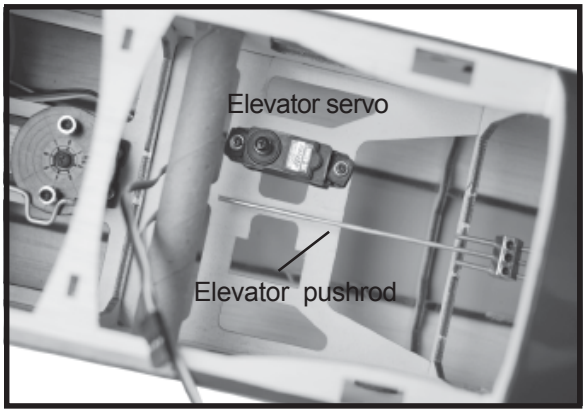


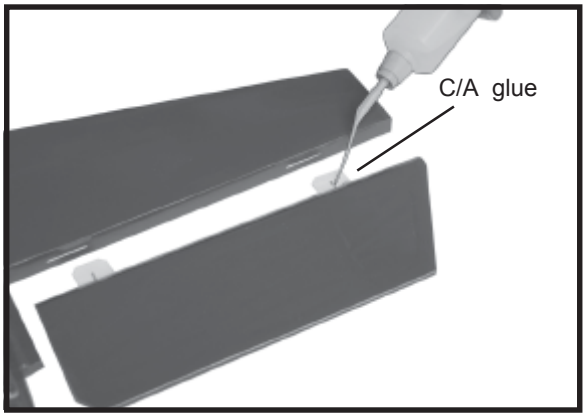

Retract pushrod (landing gear).
Retract pushrod (landing gear).
Servo of retracts.
Nose gear servo
Nose gear pushrod
Retract pushrod (nose gear)

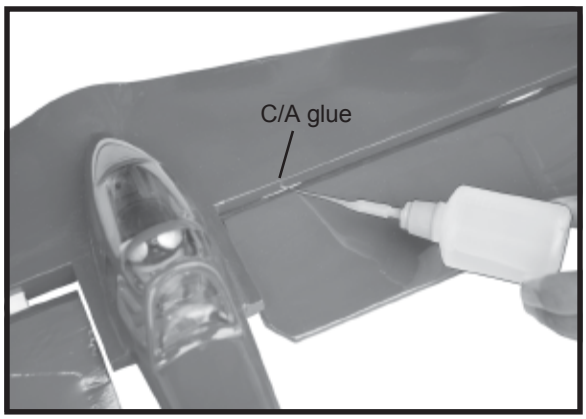
HORIZONTAL VERTICAL STABILIZER INSTALLATION.

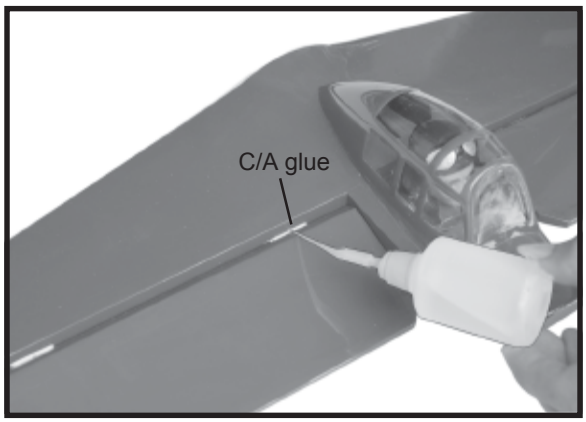
VERTICAL INSTALLATION.

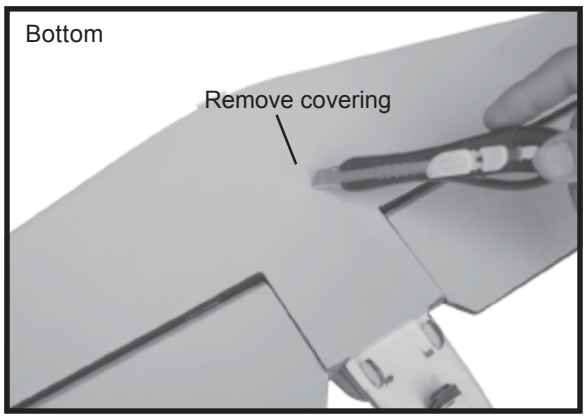


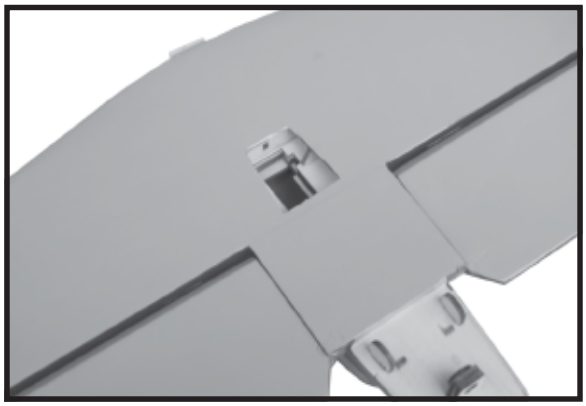


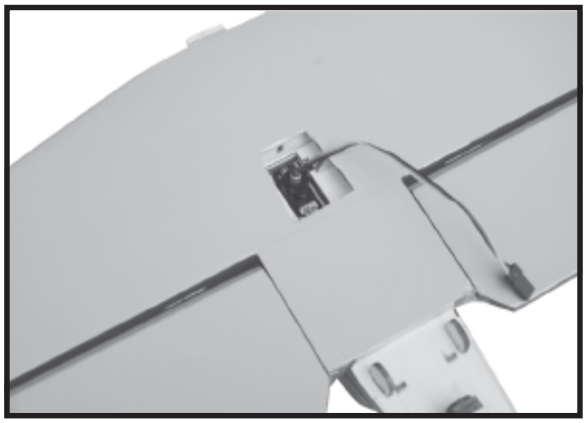


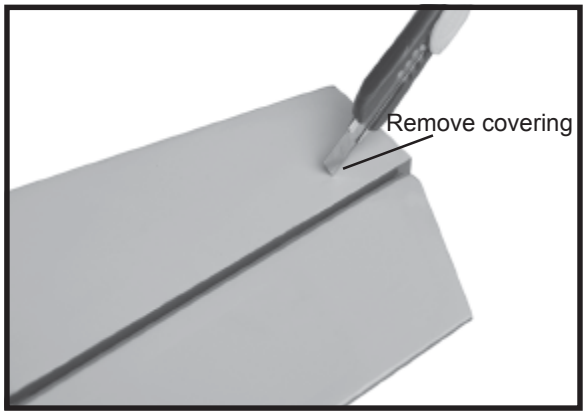


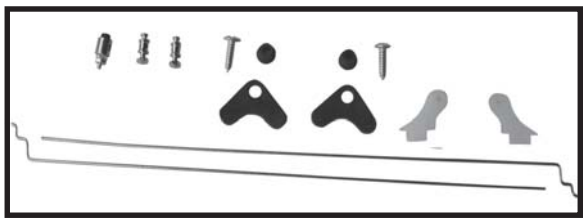


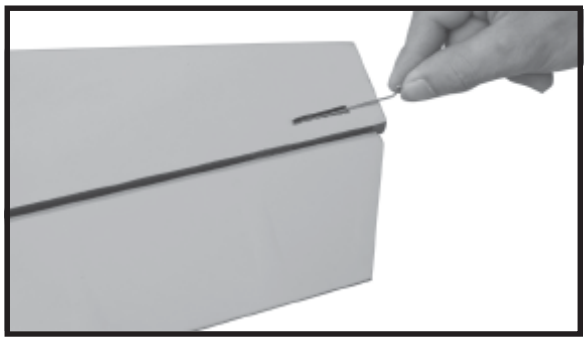


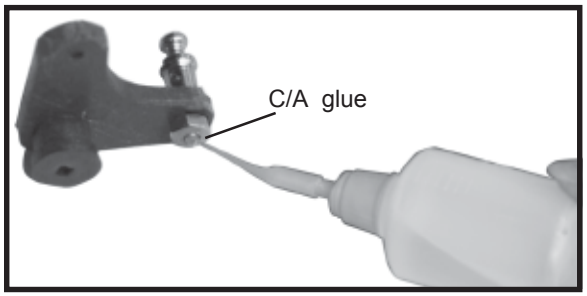


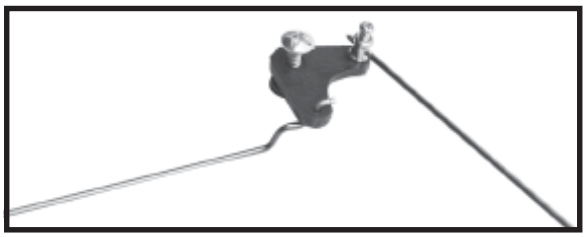


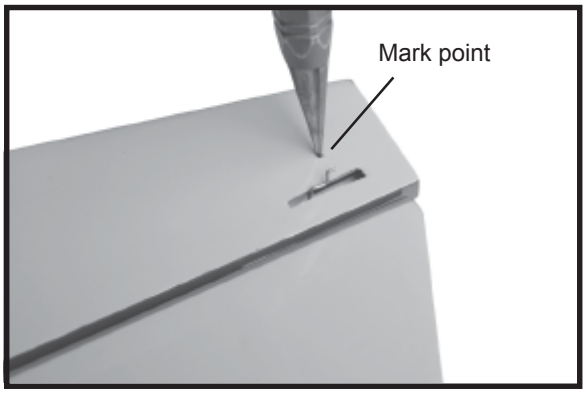

Remove covering

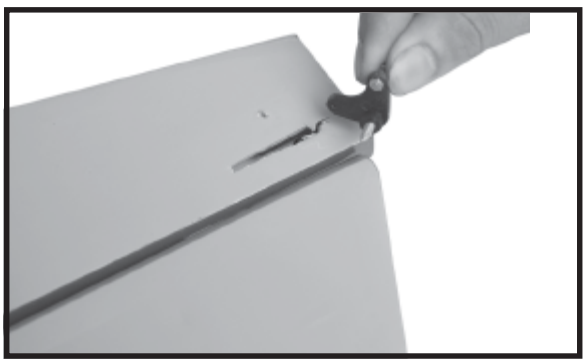


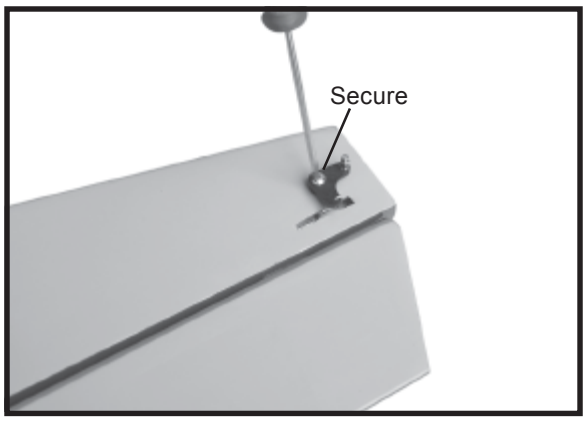


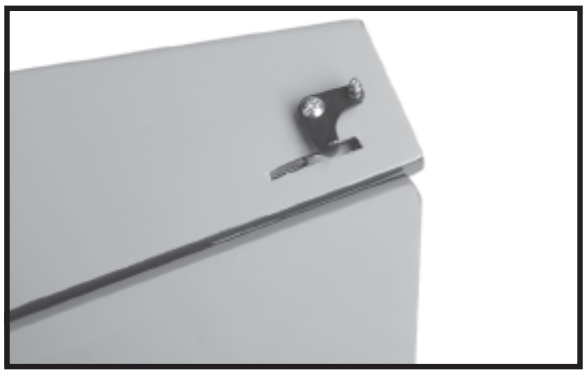

C/A glue

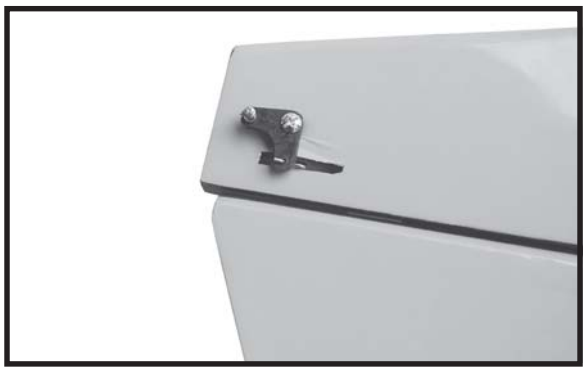


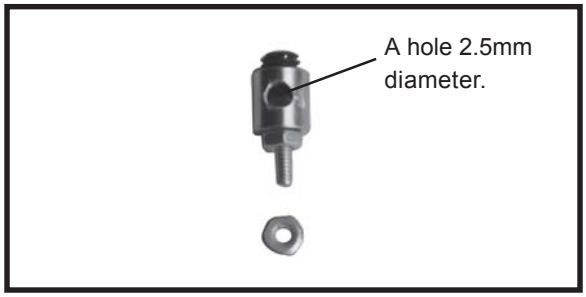

Mark point



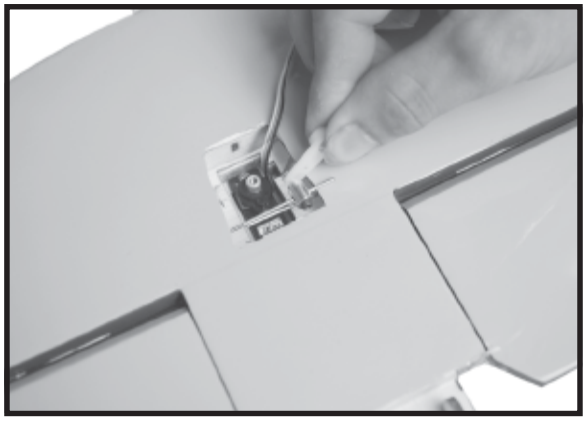

Secure

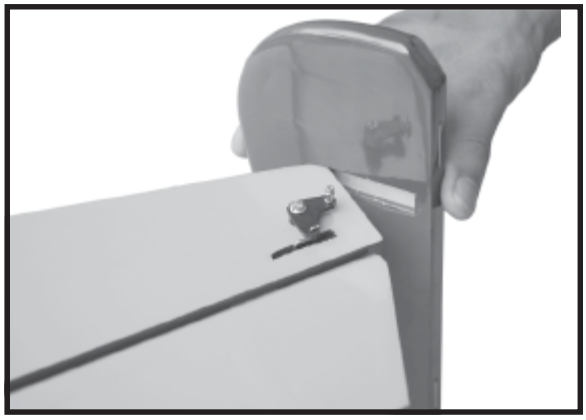


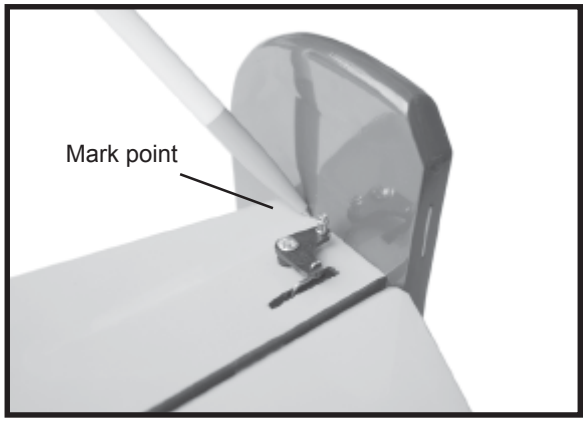


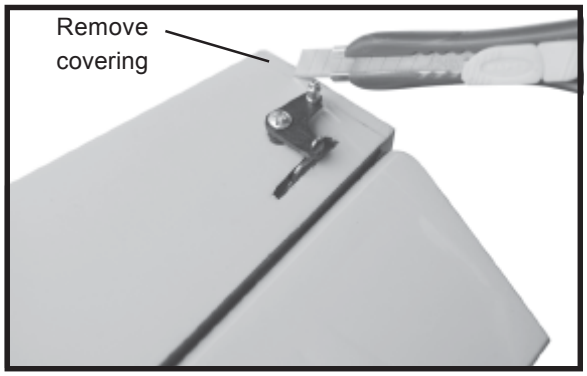

A hole 2.5mm
diameter.

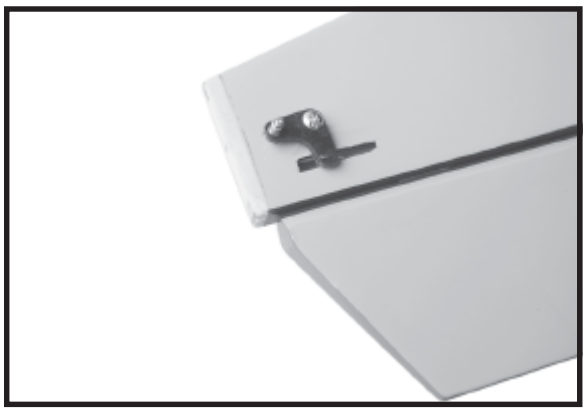

C/A glue

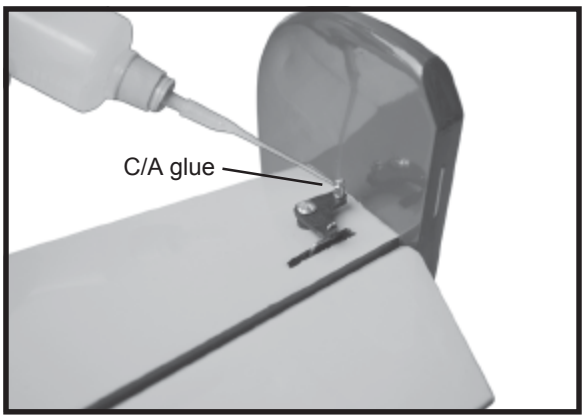


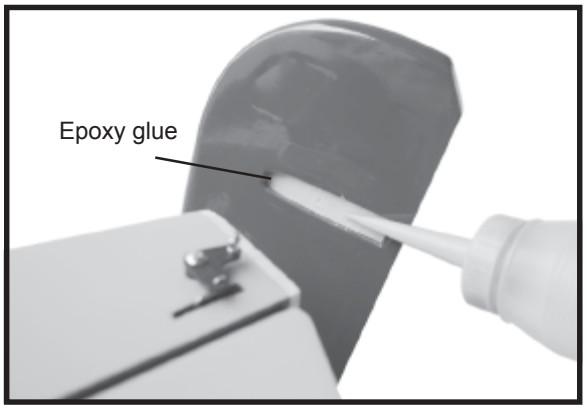


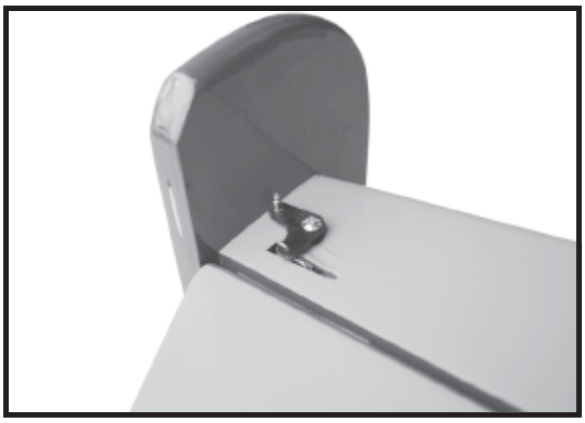

Mark point

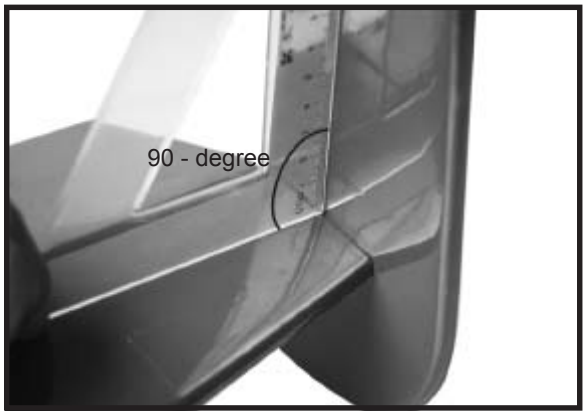

Remove
covering



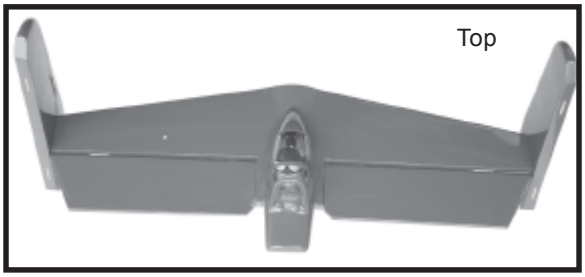

C/A glue

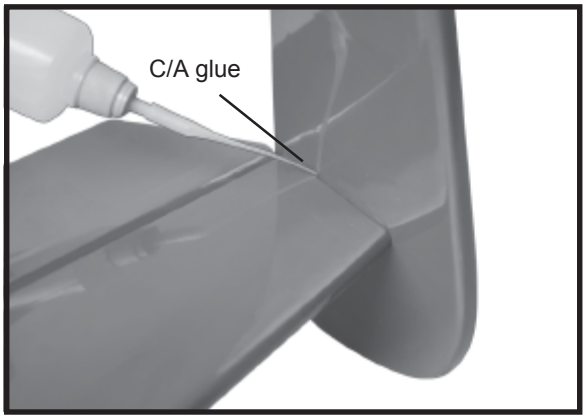

Epoxy glue

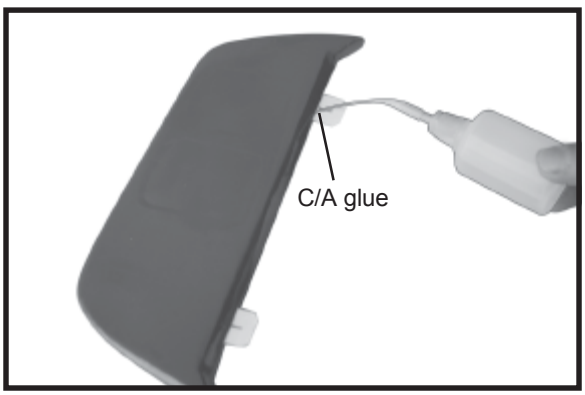


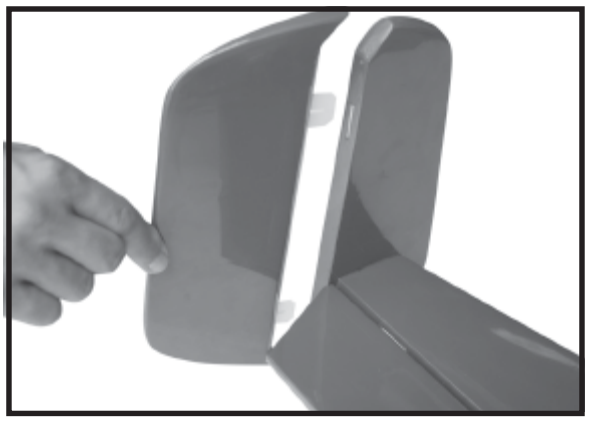

90 - degree

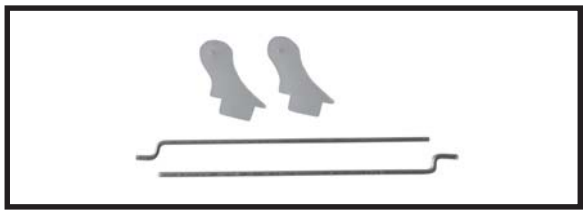

Bottom

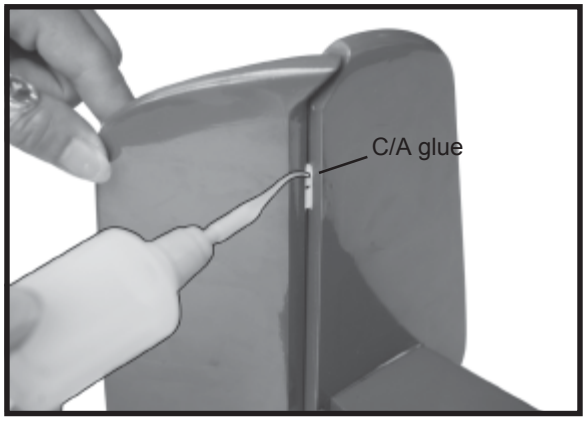

Top

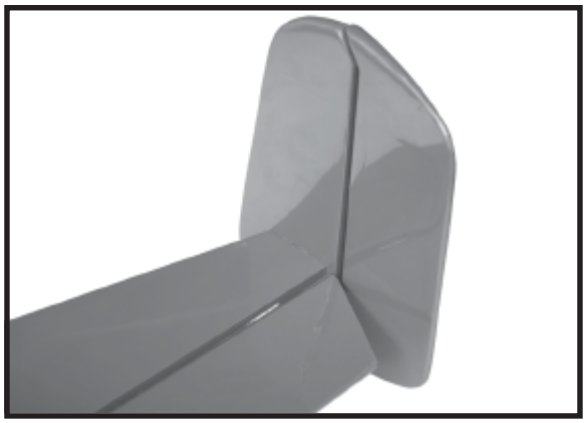

C/A glue

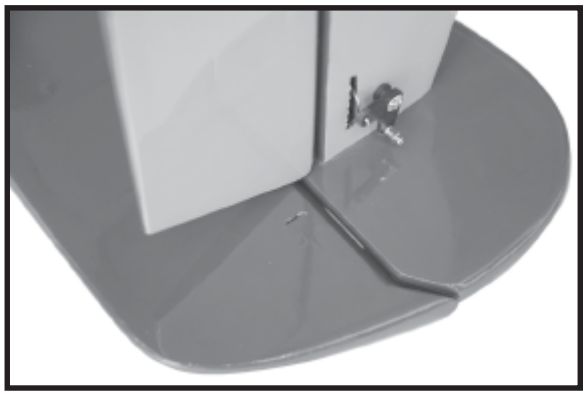

C/A glue

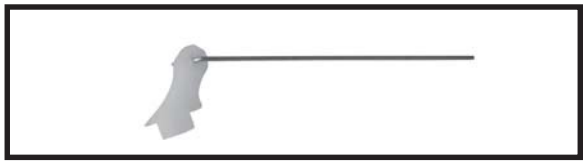


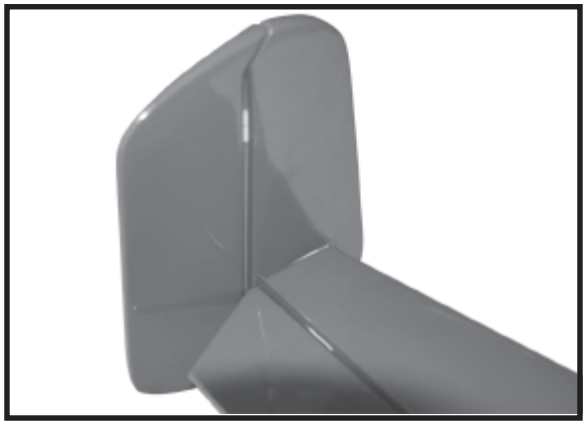


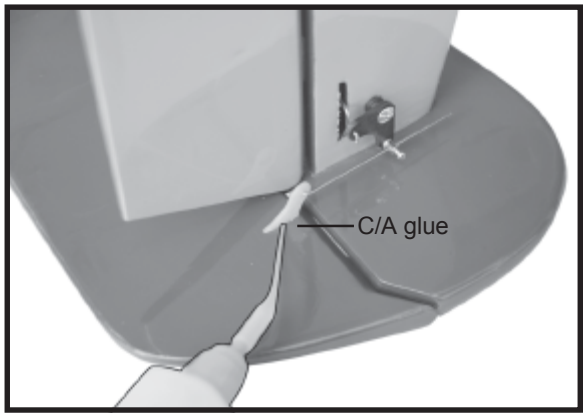

C/A glue

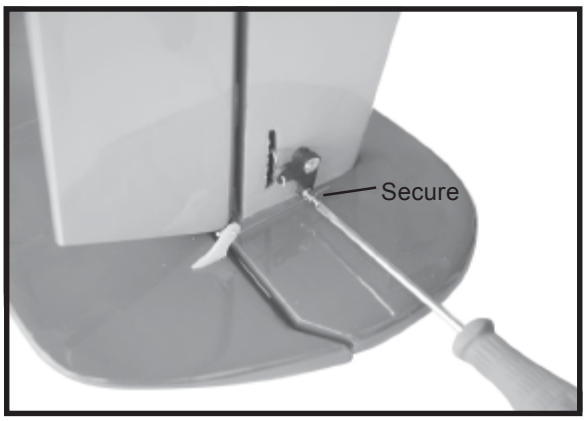


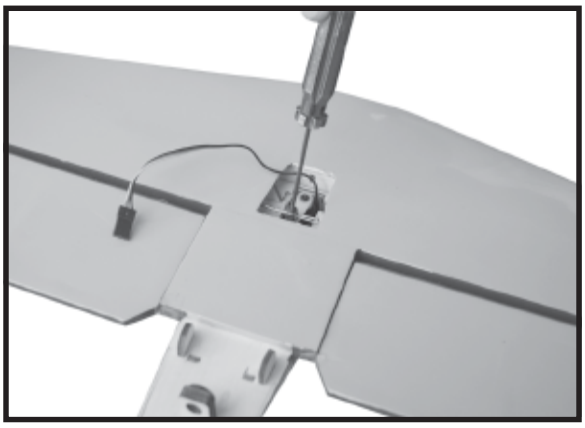


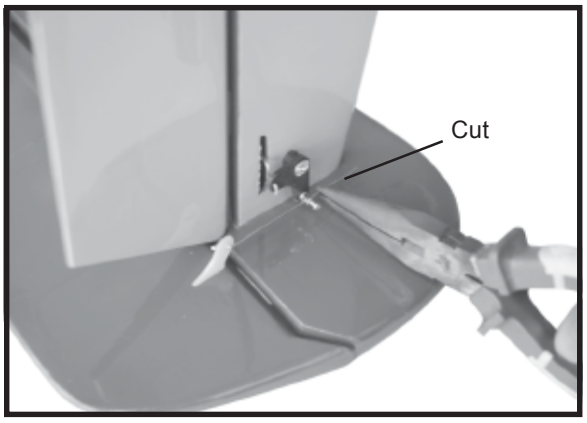




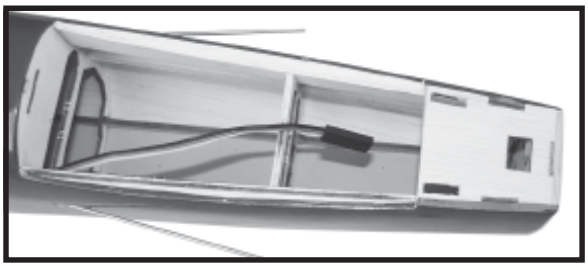

C/A glue

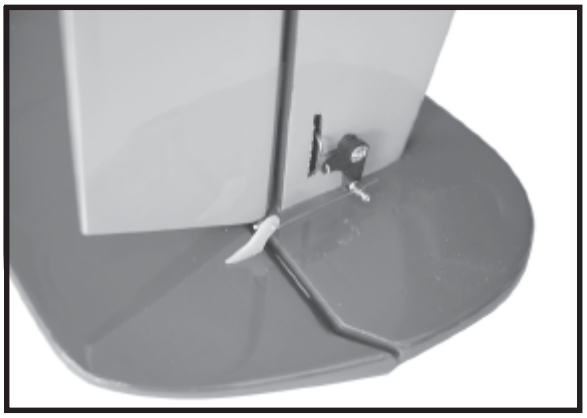


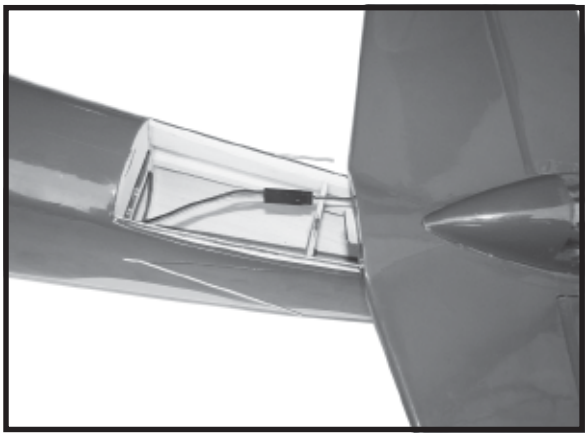


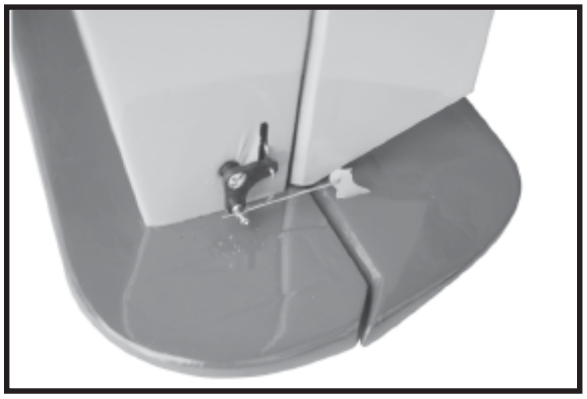


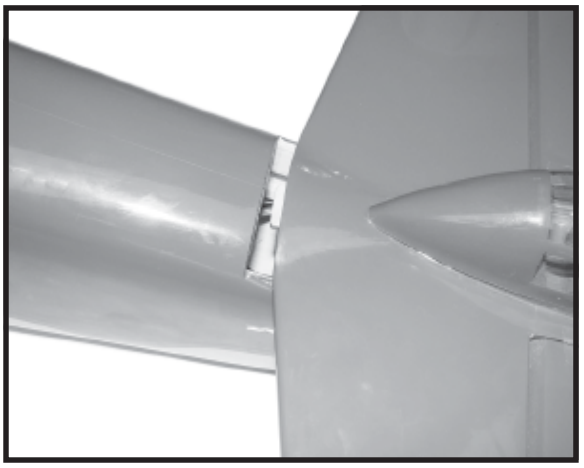
HORIZONTAL INSTALLATION.

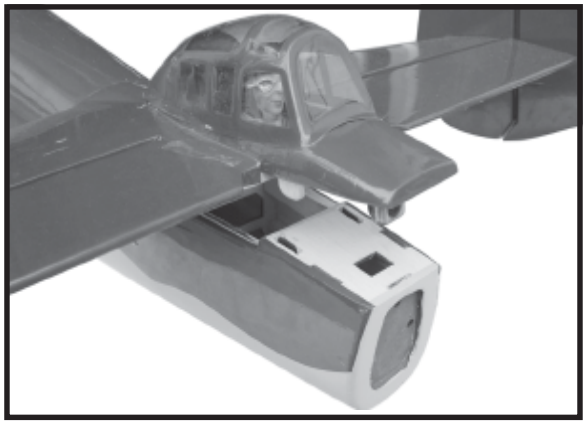


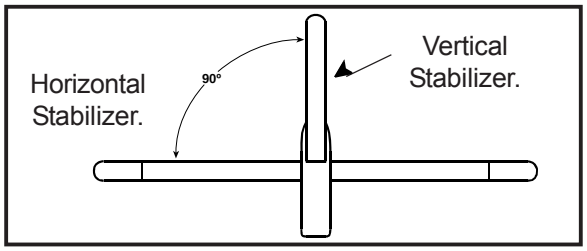


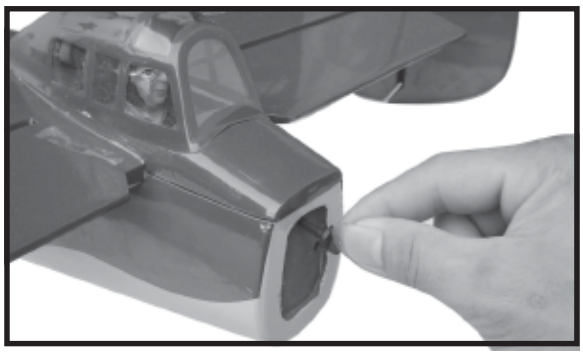




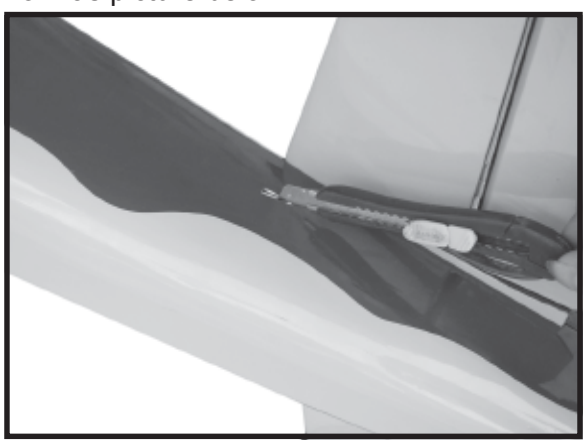


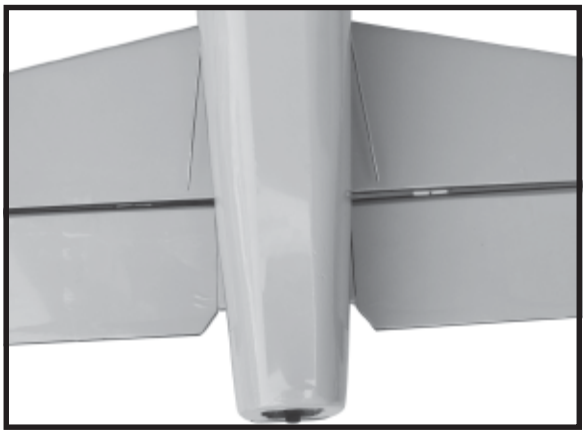


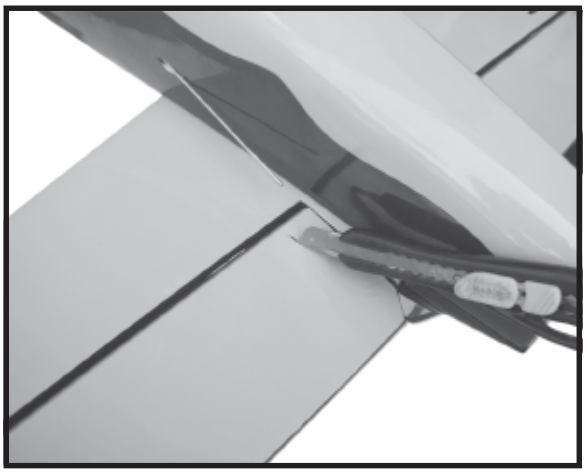


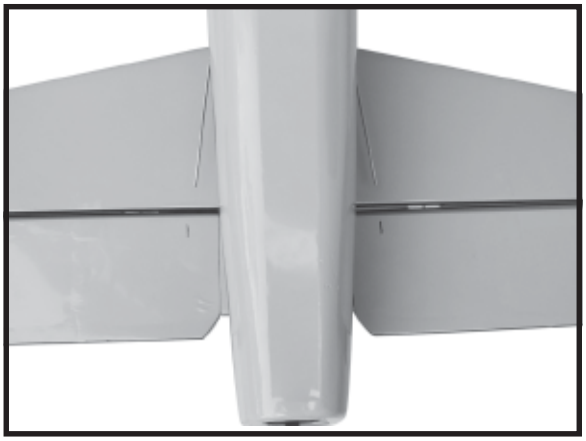


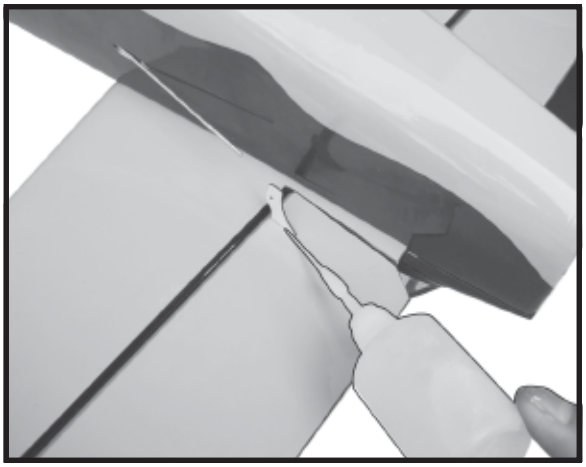
Install the elevator pushrod- elevator control horn as picture below.

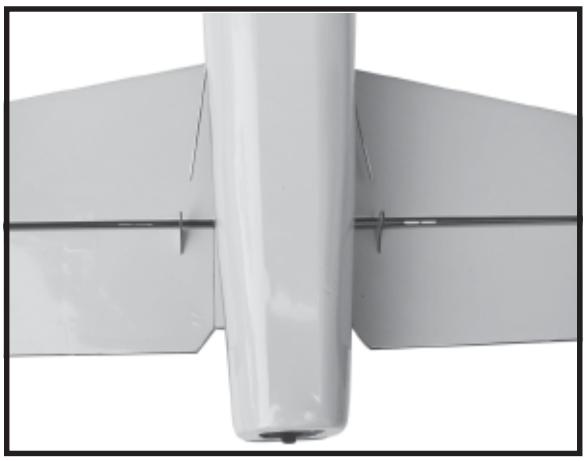


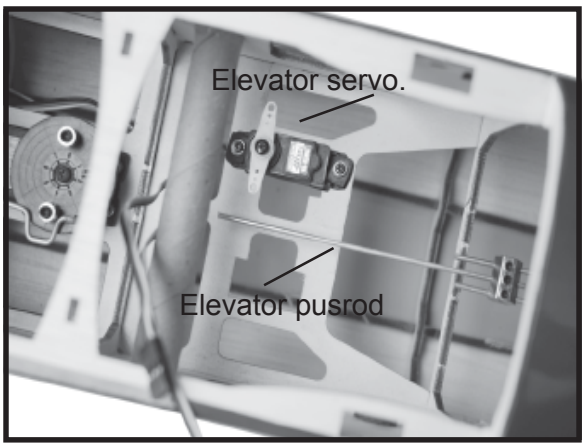


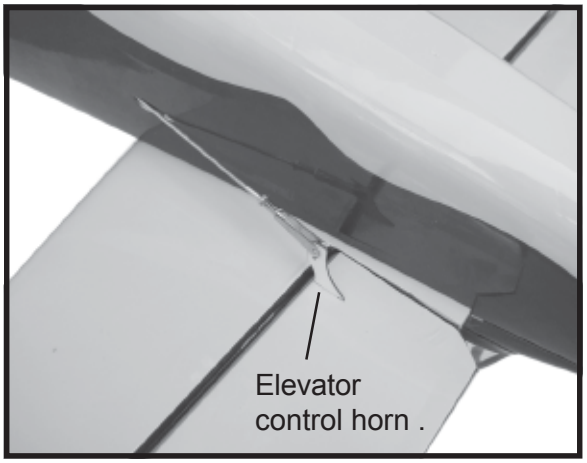


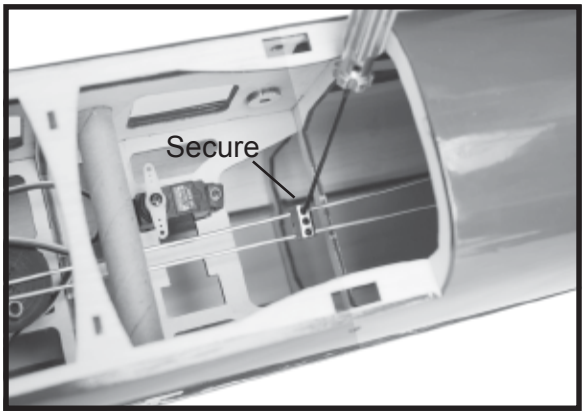


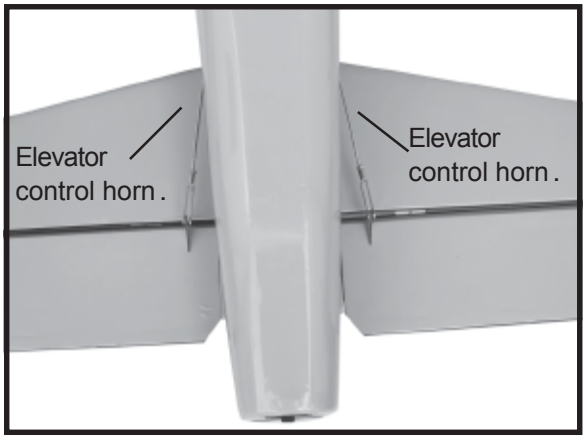


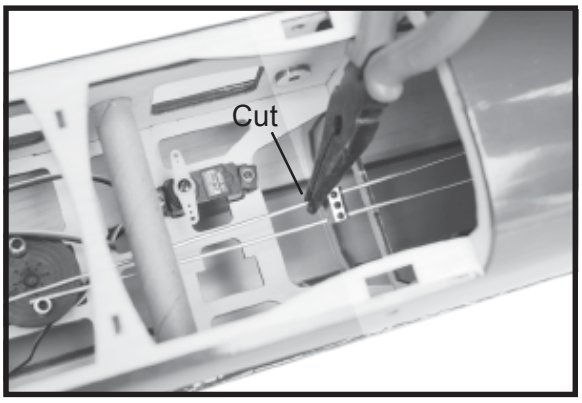



Elevator servo.
Elevator pusrod


Elevator
control horn .


Secure


Elevator
control horn .
Elevator
control horn .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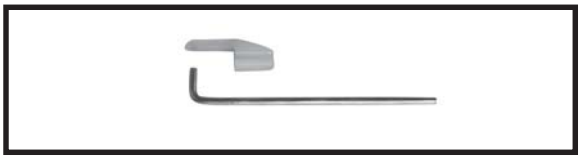
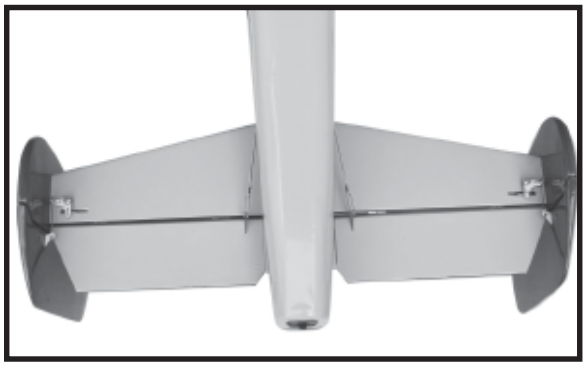
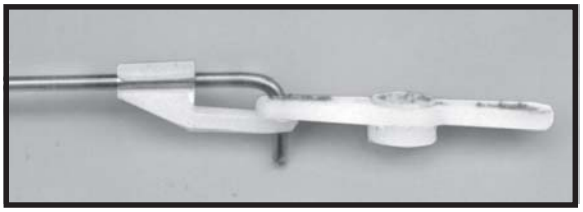
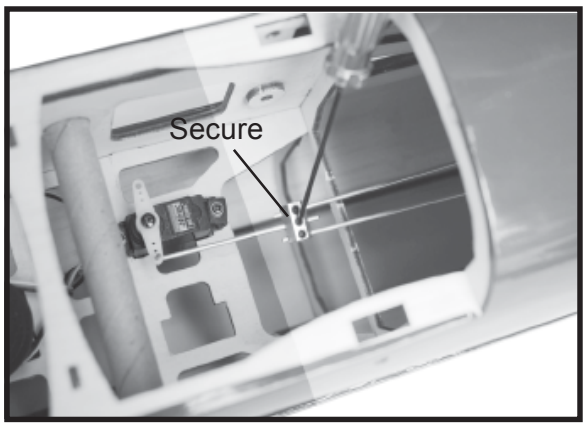
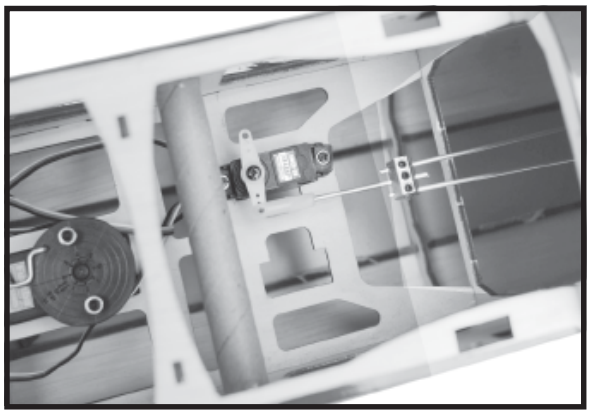




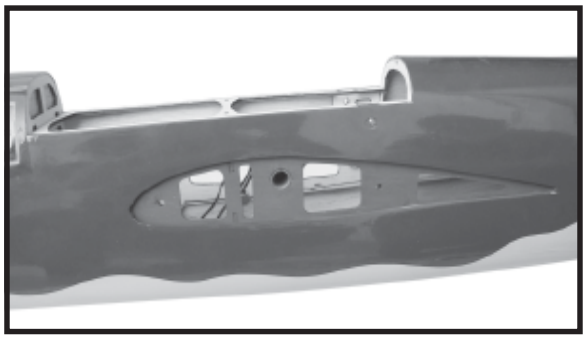


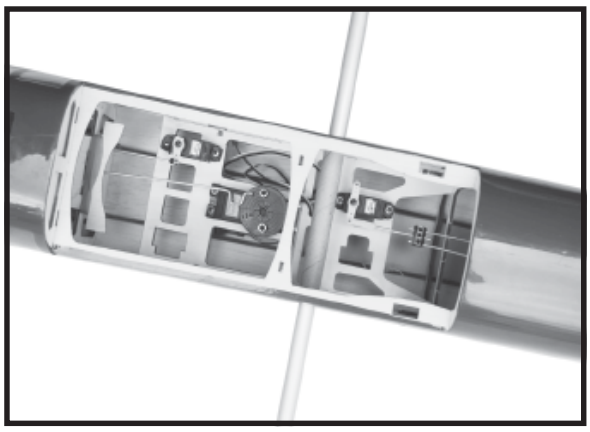


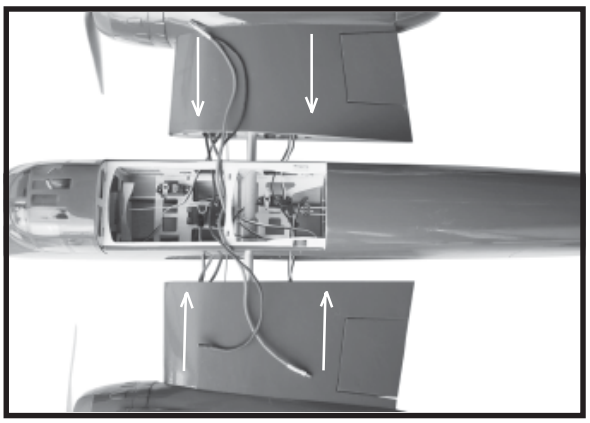


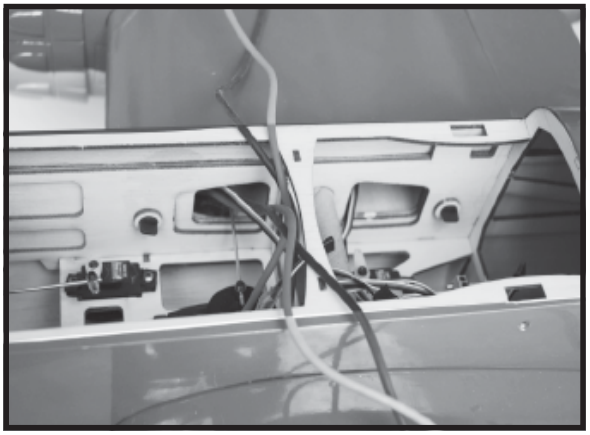
ATTACHMENT WING-FUSELAGE.

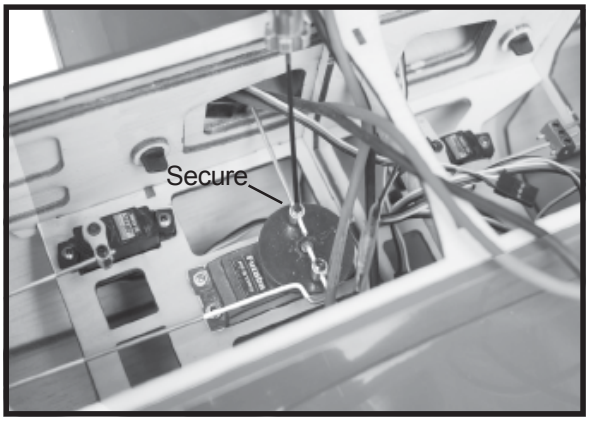
See pictures below:

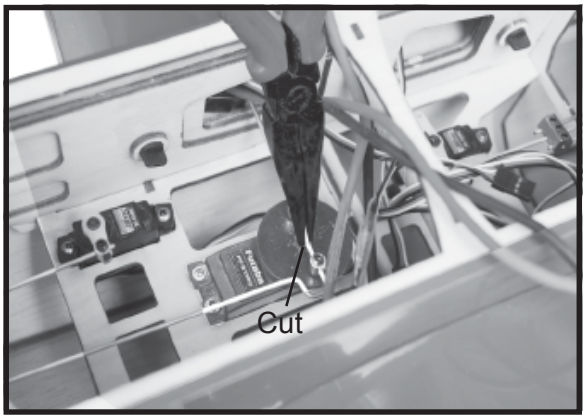






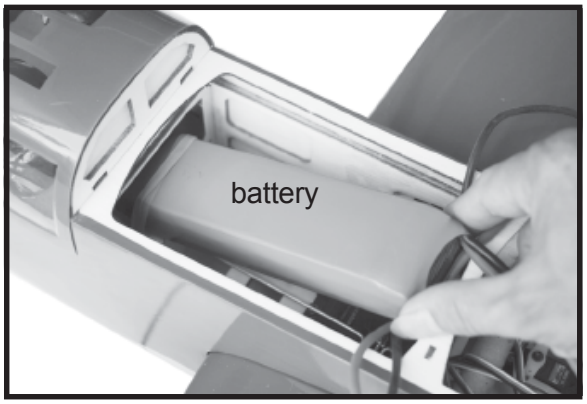


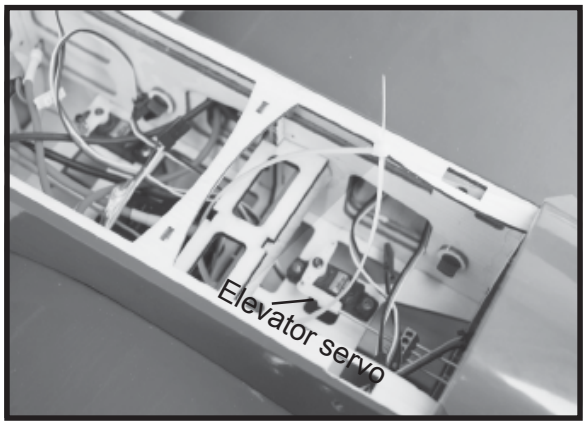


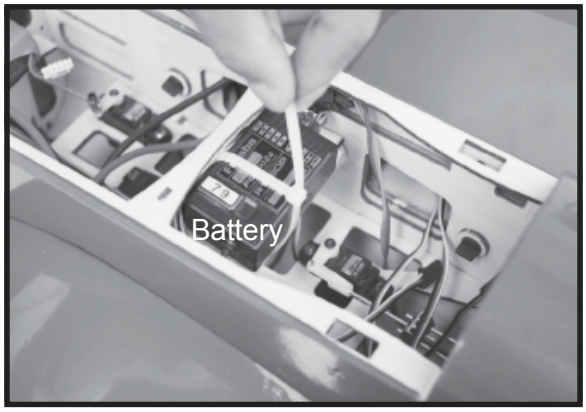


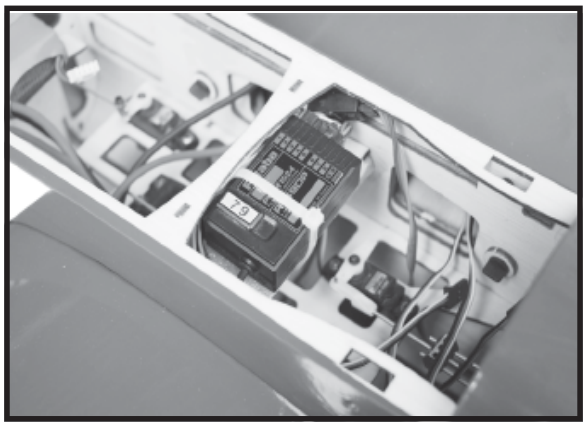
INSTALLING THE RECEIVER AND BATTERY.

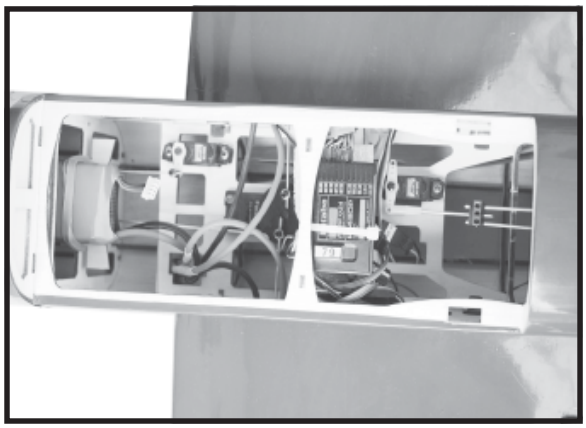
See picture below.

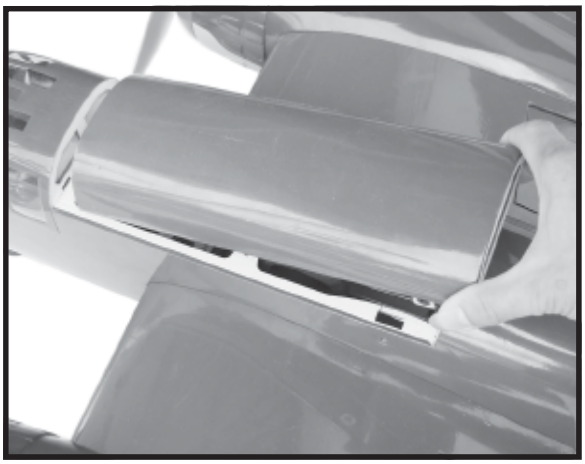


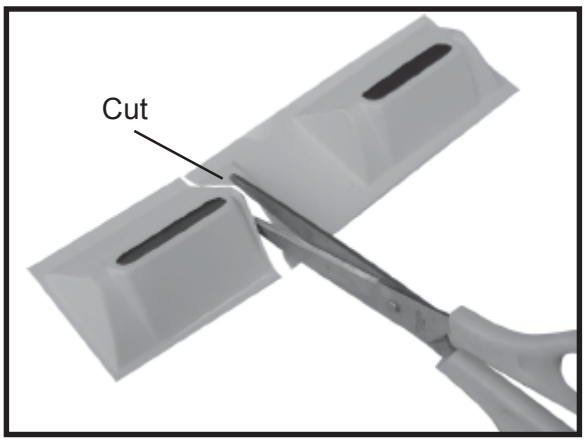








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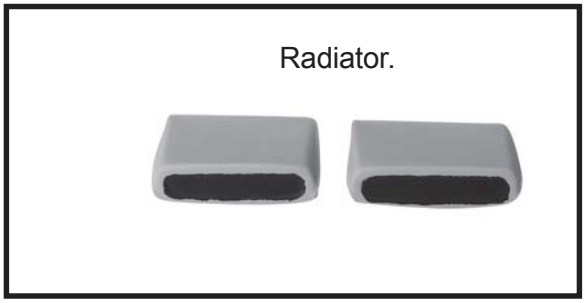
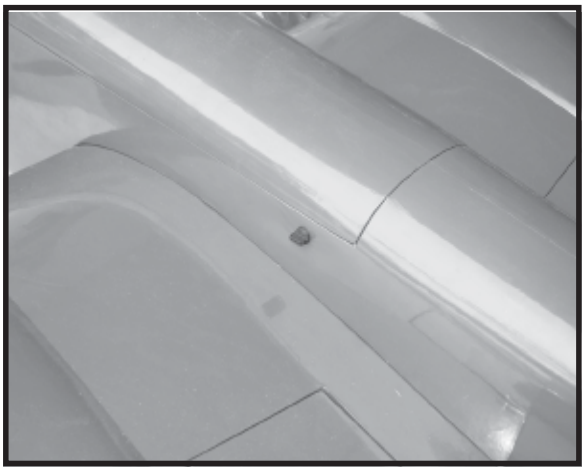
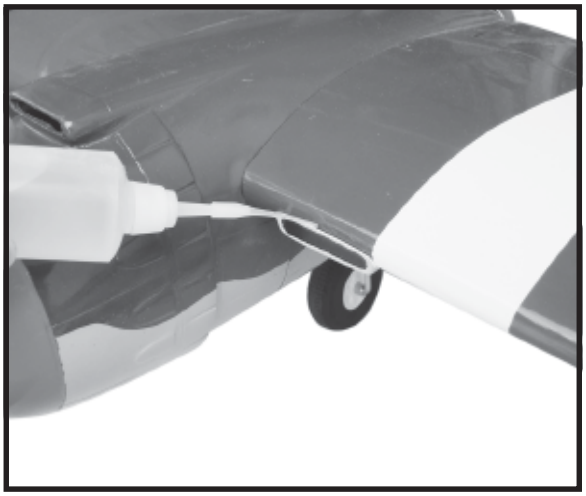
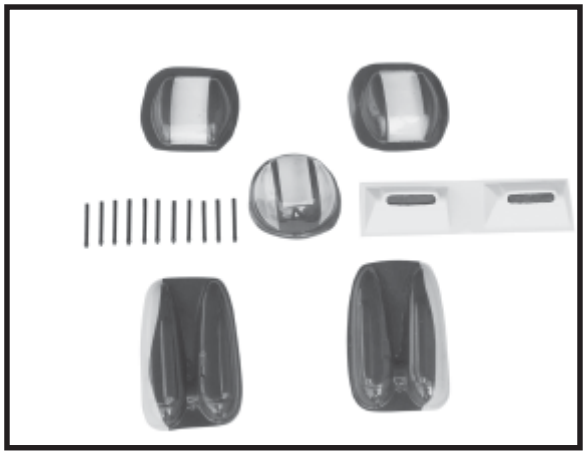
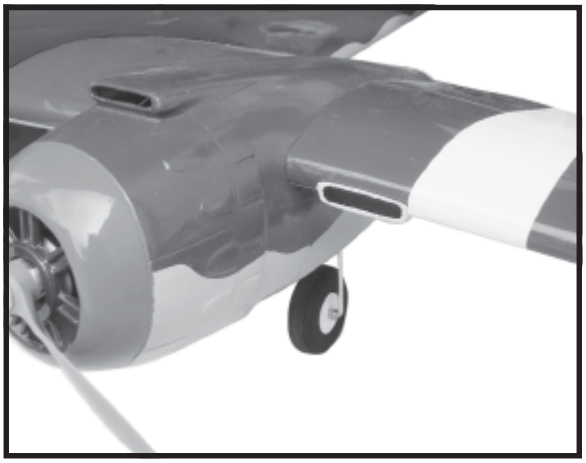
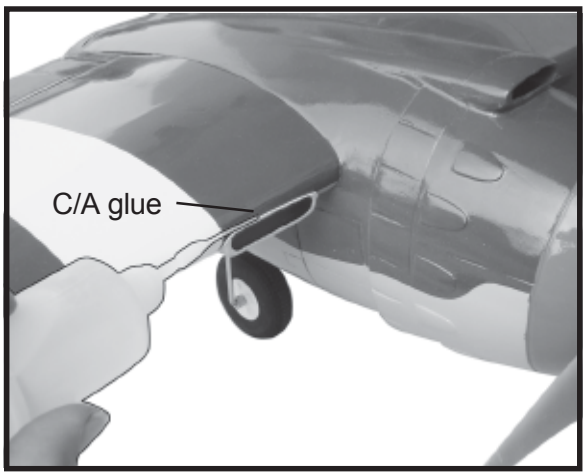

Radiator.

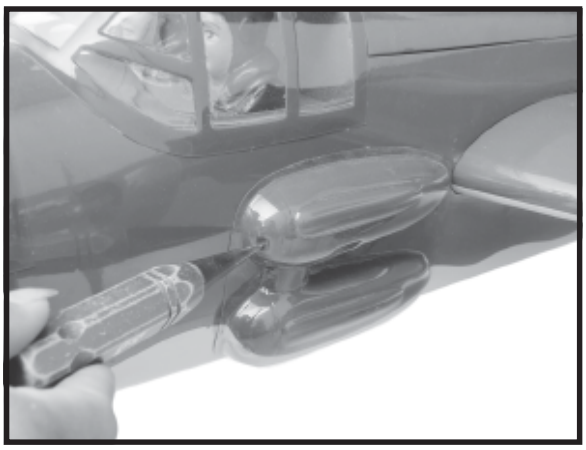


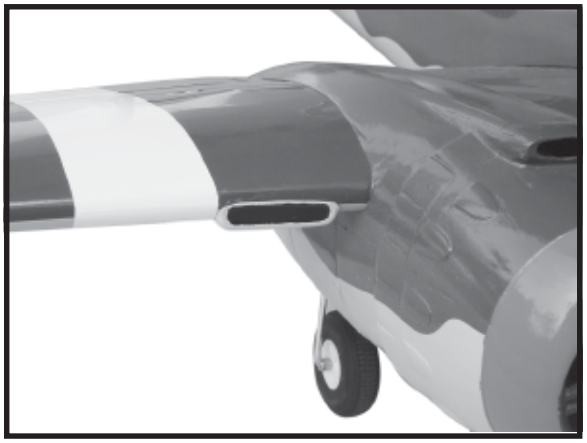


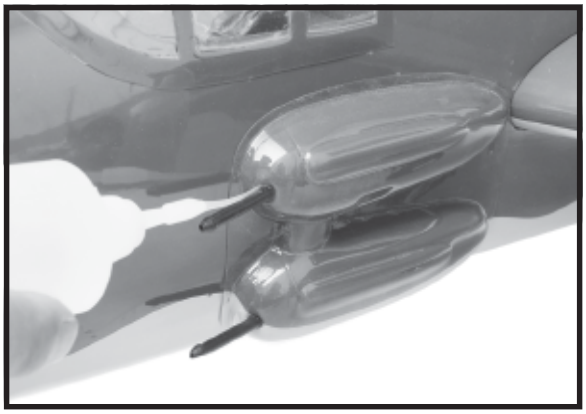


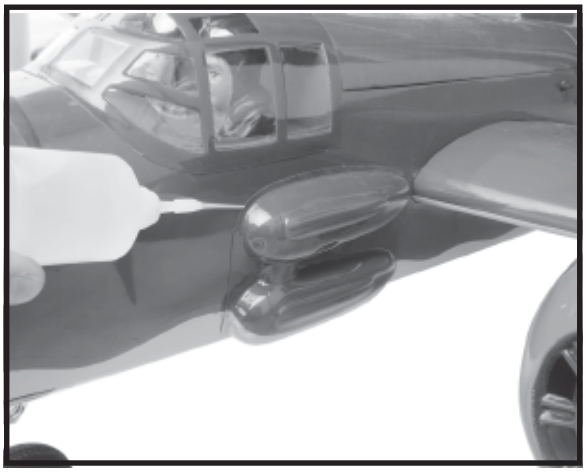


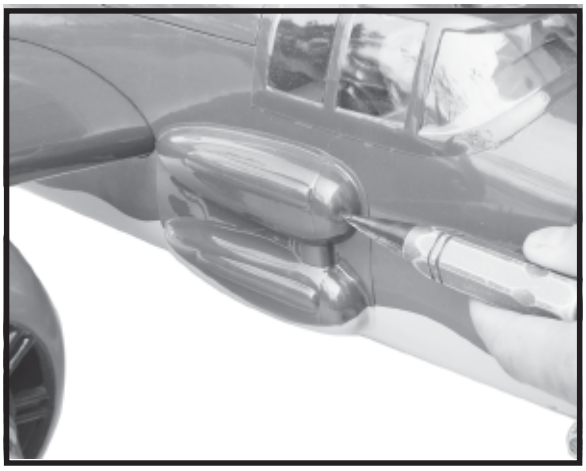

C/A glue

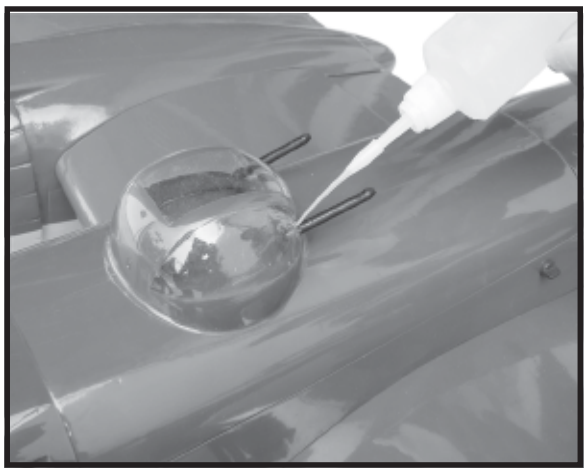


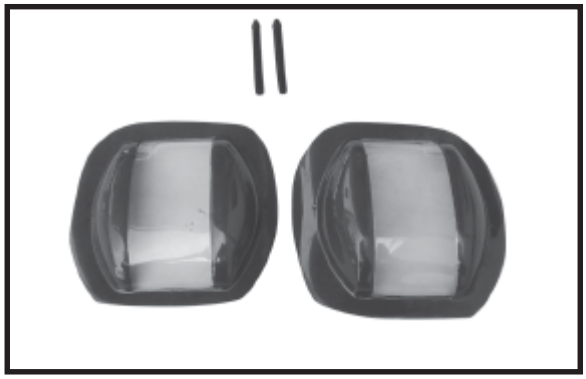


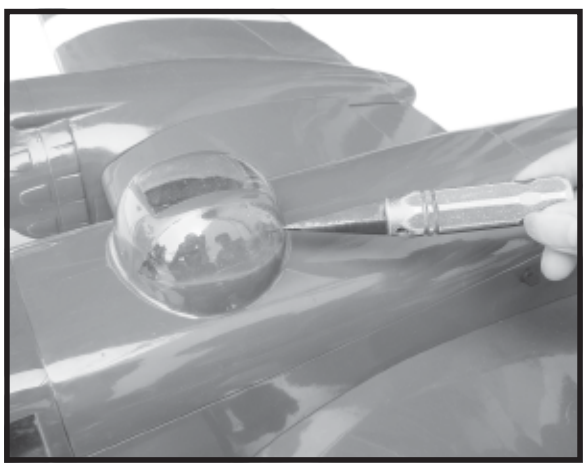


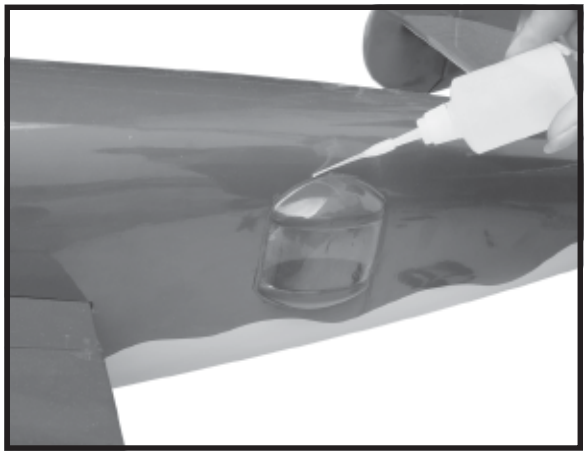


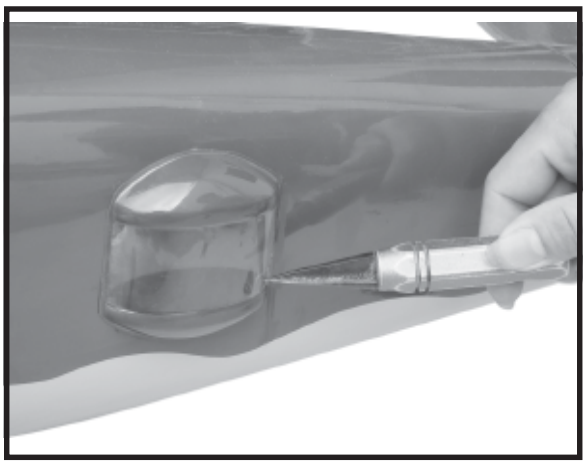


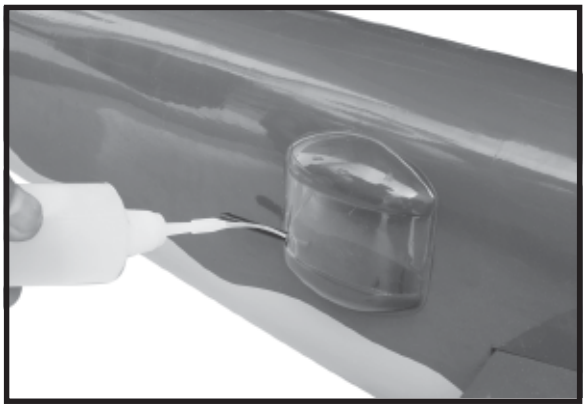


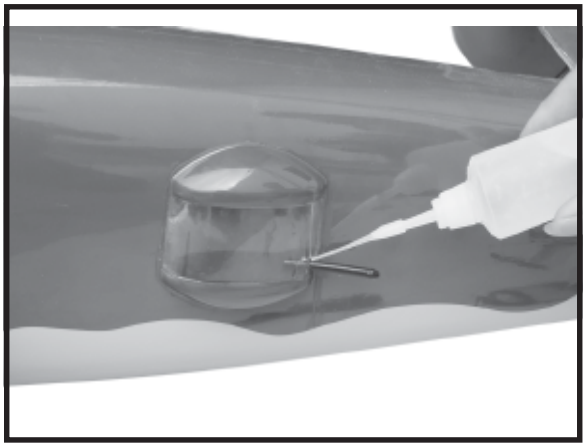


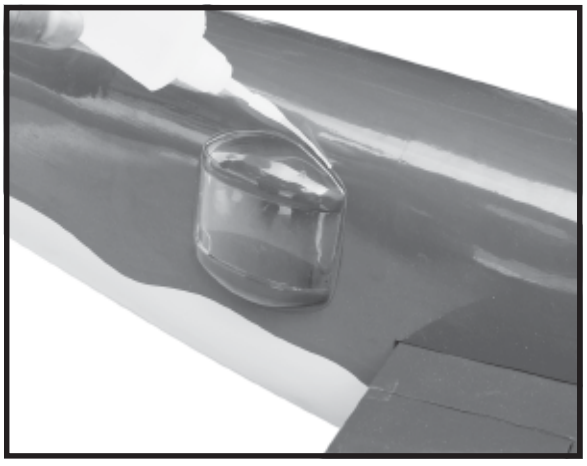


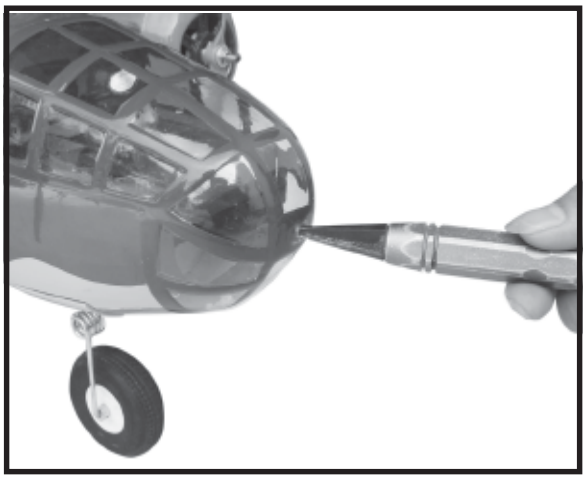


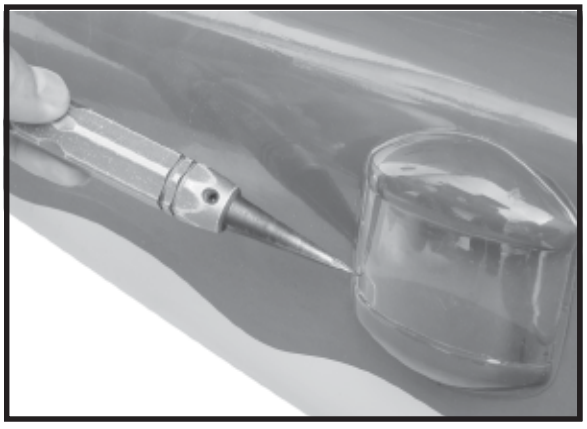


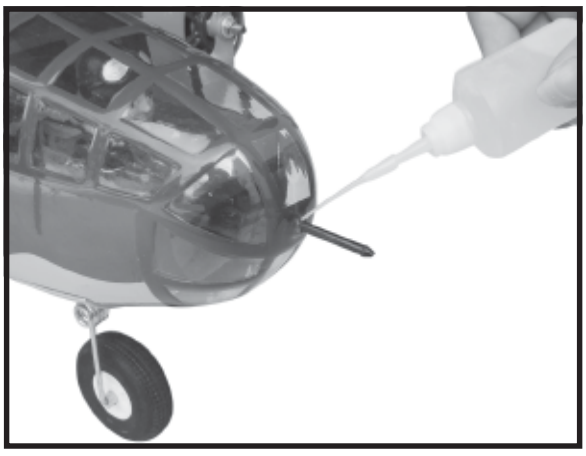


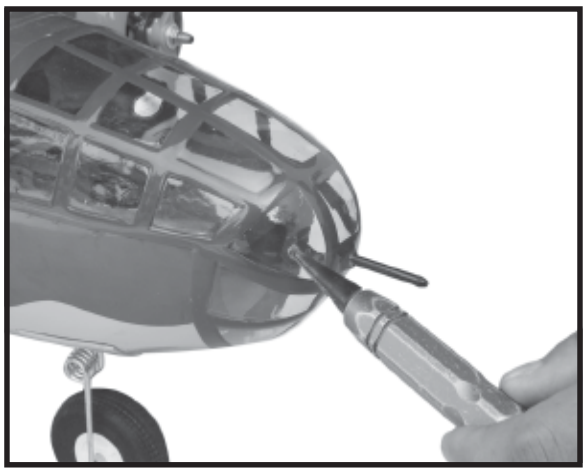


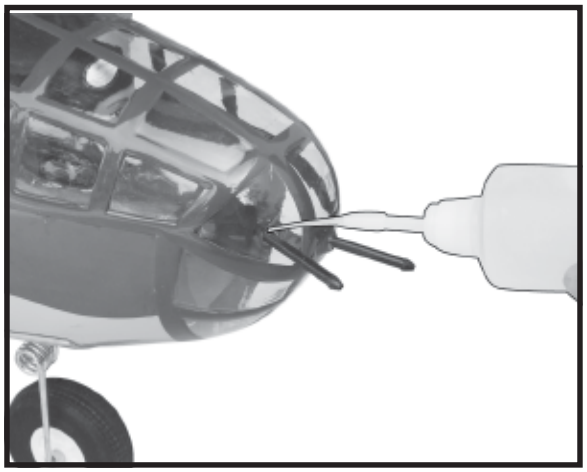


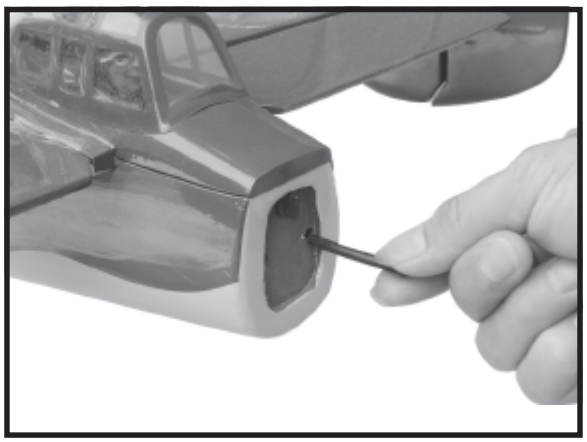


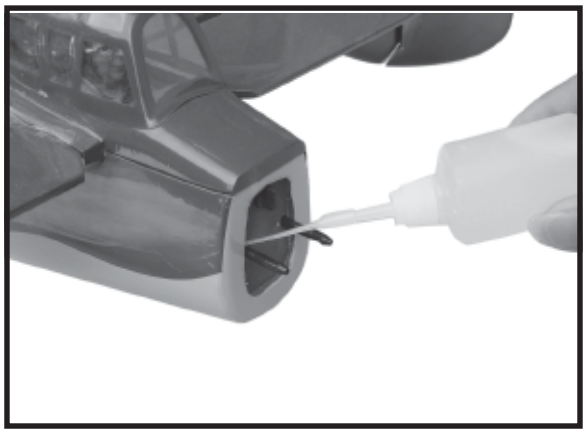












BALANCING.

☐ 1) It is critical that your airplane be balanced correctly. Improper balance will cause your plane to lose control and crash.
THE CENTER OF GRA VITY IS LOCA TED 95MM BACK FROM THE LEADING EDGE OF THE WING.

☐ 2) Mount the wing to the fuselage. Using a couple of pieces of masking tape, place them on the top side of the wing 95 mm back from the leading edge, at the fuselage sides.

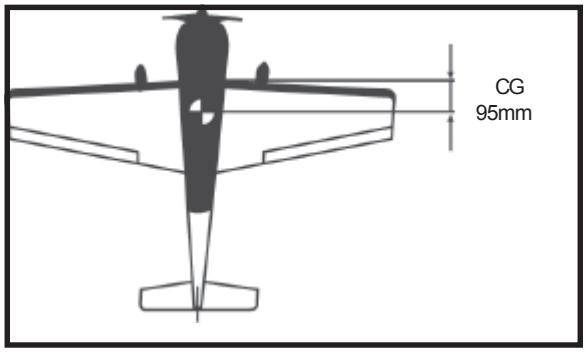
☐ 3. Turn the airplane up side down. Place your fingers on the masking tape and carefully lift the plane .

Accurately mark the balance point on the top of the wing on both sides of the fuselage. The balance point is located 95mm back from the leading edge. 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 weigh* 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.



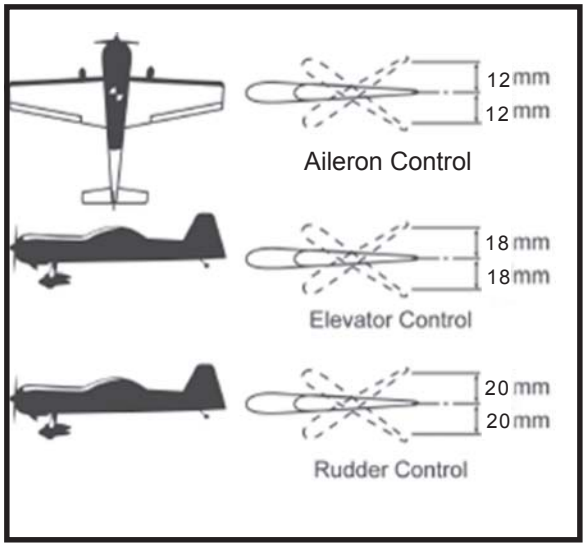
CONTROL THROWS.

- 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.

Ailerons : 12mm up 12mm down.
Elevator : 18mm up 18mm down.
Rudder : 20mm right 20mm left.



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.

We wish you many safe and enjoyable flights with your B25-MITCHELL.