

# **Escale**

# SEAFIRE

## ASSEMBLY MANUAL



Celebrating over 100 years of Naval Aviation!



### SPECIFICATIONS

Wing span .....	64.6in (164cm)
Wing area .....	764.2sq.in (49.3sq dm)
Weight .....	8.8lbs (4.0kg)
Length .....	50.4in (128cm)
Engine .....	0.75-0.91cu.in (2-stroke)
.....	0.91-1.00cu.in (4-stroke)
Radio .....	6 channels with 8 servos
Retracts landing gear (included)	

Graphics and specifications may change without notice



**IMPORTANT!**  
**Radio controlled model**  
**NOT A TOY!**

**This model must be operated  
according to the instructions.**

**May cause serious injury to persons  
or property if not used responsibly.  
Unsuitable for children under 14 years.**



## VITAL SAFETY INFO

**CAUTION!** The EScale Seafire is not a toy. It can cause injury to persons/animals and/or property if not used correctly. It is unsuitable for persons under the age of 14. You should take care and observe the principles of safety when flying this model. In the UK, we recommend you observe the British Model Flying Association (BMFA) safety code at all times, which can be found at the following address: <http://www.bfma.org>

In Australasia, please contact your hobby supplier.

**YOU ASSUME ALL RISK.**

Before beginning construction, please read this document thoroughly and familiarize yourself with the construction sequence of the EScale Seafire. If any information in this manual is unclear, please contact your supplier for help. After reading this manual store it in a safe place for future reference. This is a kit for intermediate and advanced flyers, basic RC flying knowledge and skills are required.

## ABOUT THE FLYING AREA REQUIRED

If you are a newcomer to R/C flight and have never flown a radio control model before; it is vital you seek advice from an experienced model pilot on where and how to fly.

Only fly in large open spaces that are approved for R/C model flying and that are away from people, animals, buildings, power lines, water or trees.

Only fly in bright sunny conditions where wind speed does not exceed 15mph.

## GUARANTEE/WARRANTY

J. Perkins Distribution Ltd. guarantee this product to be free of manufacturing and assembly defects for a period of one year from time of purchase and Model Engines Pty Ltd. for 30 days. This does not affect your statutory rights. This warranty is not valid for any damage or subsequent damage arising as a result of a crash, misuse, modification or for damage or consequential damage arising as a result of failure to observe the procedures outlined in this manual. Operation of this model is carried out entirely at the risk of the operator. Please note that, whilst every effort is made to ensure the accuracy of instructions and material included with this product, mistakes can occur and neither J. Perkins Distribution Ltd/Model Engines (Aust.) Pty. Ltd. nor it's distributors will be held liable for any loss or damage arising from the use of this model or for any loss or damage arising from omissions or inaccuracies in the associated instructions or materials included with this product.

We reserve the right to modify the design of this product, contents and manuals without prior notification.

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## INTRODUCTION

Thank you for choosing the EScale Seafire ARTF. The EScale Seafire was designed with the intermediate/advanced sport flyer in mind. It is a semi scale airplane which is easy to fly and quick to assemble. The airframe is conventionally built using balsa plywood 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 motor mount has been fitted and the hinges are pre-installed. Flying the EScale Seafire 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 EScale Seafire. Use the parts listing below to identify all parts.

## KIT CONTENTS



- 1 Fuselage with canopy
- 2 Left wing panel
- 3 Right wing panel
- 4 Tail set
- 5 Aluminium wing tube
- 6 Fiberglass cowl
- 7 Retracts landing gear
- 8 EP conversion pack
- 9 Hardware bag included

### ADDITIONAL ITEMS REQUIRED

- 0.75-0.91 2-stroke. or 0.91-1.00 4-stroke
- Computer radio with 8 servos
- Glow plug to suit engine
- Propeller to suit engine
- Protective foam rubber for radio system
- Silicone fuel line

### TOOLS & SUPPLIES NEEDED

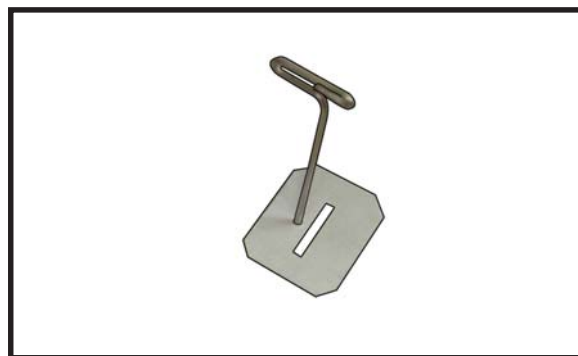
- Thick cyanoacrylate glue
- 30 minute epoxy
- 5 minute epoxy
- Hand or electric drill
- Assorted drill bits
- Modelling knife
- Straight edge ruler
- 2mm ball driver
- Phillips head screwdriver
- 220 grit sandpaper
- 90° square or builder's triangle
- Wire cutters
- Masking tape & T-pins
- Thread-lock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



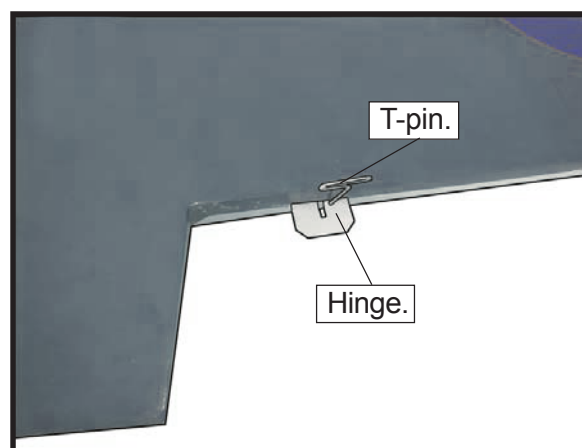
## HINGING THE AILERONS

**Note:** *The control surfaces, including the ailerons, elevators, and rudder, are prehinged with hinges installed, but the hinges are not glued in place. It is imperative that you properly adhere the hinges in place per the steps that follow using a high-quality thin C/A glue.*

1) Carefully remove the aileron from one of the wing panels. Note the position of the hinges.

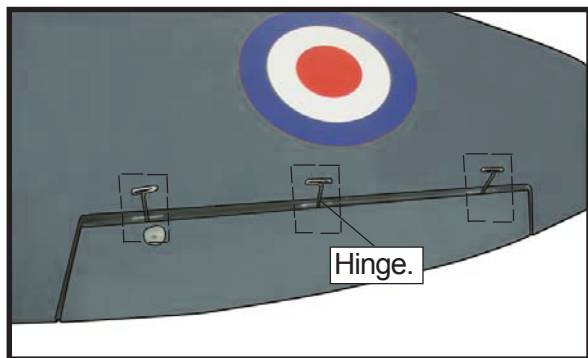


2) Remove each hinge from the wing panel and aileron and place a T-pin in the center of each hinge. Slide each hinge into the aileron until the T-pin is snug against the aileron. This will help ensure an equal amount of hinge is on either side of the hinge line when the aileron is mounted to the wing panel.



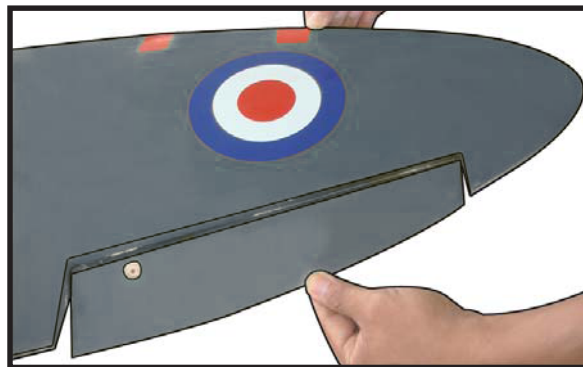
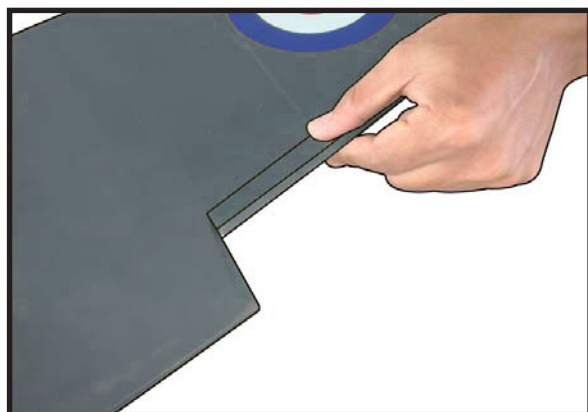
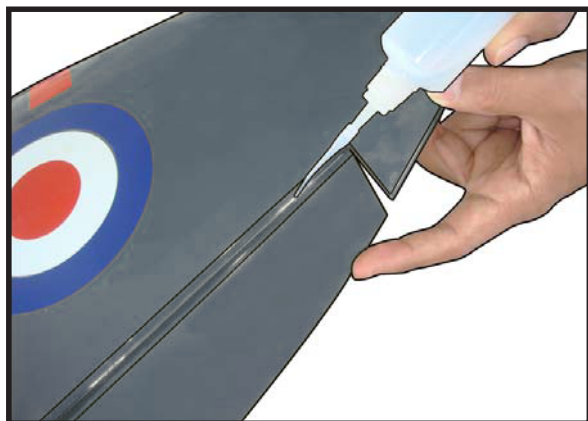
3) Slide the aileron on the wing panel until there is only a slight gap. The hinge is now centered on the wing panel and aileron. Remove the T-pins and snug the aileron against the wing panel. A gap of 1/64" or less should be maintained between the wing panel and aileron.





4) Deflect the aileron and completely saturate each hinge with thin C/A glue. The aileron's front surface should lightly contact the wing during this procedure. Ideally, when the hinges are glued in place, a 1/64" gap or less will be maintained throughout the length of the aileron to the wing panel hinge line.

**Note:** *The hinge is constructed of a special material that allows the C/A to wick or penetrate and distribute throughout the hinge, securely bonding it to the wood structure of the wing panel and aileron.*

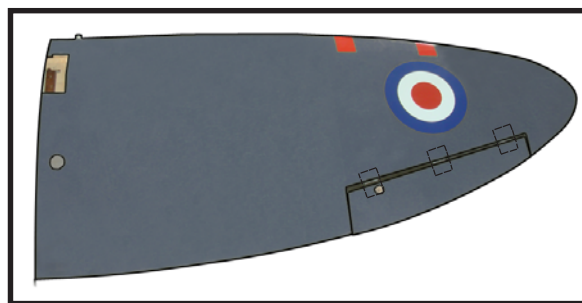


5) Turn the wing panel over and deflect the aileron in the opposite direction from the opposite side. Apply thin C/A glue to each hinge, making sure that the C/A penetrates into both the aileron and wing panel.

6) Using C/A remover/debonder and a paper towel, remove any excess C/A glue that may have accumulated on the wing or in the aileron hinge area.

7) Repeat this process with the other wing panel, securely hinging the aileron in place.

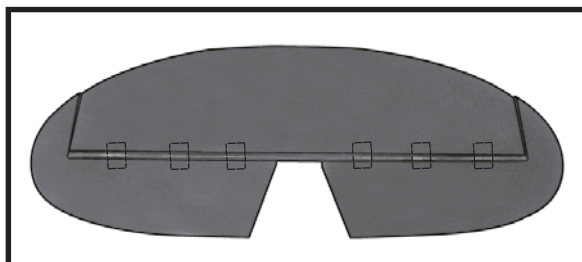
8) After both ailerons are securely hinged, firmly grasp the wing panel and aileron to make sure the hinges are securely glued and cannot be pulled out. Do this by carefully applying medium pressure, trying to separate the aileron from the wing panel. Use caution not to crush the wing structure.



**Note:** *Work the aileron up and down several times to "work in" the hinges and check for proper movement.*

## HINGING THE ELEVATOR

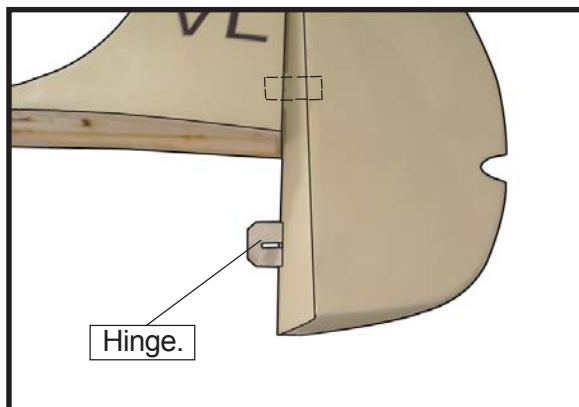
Glue the elevator hinges in place using the same techniques used to hinge the ailerons.





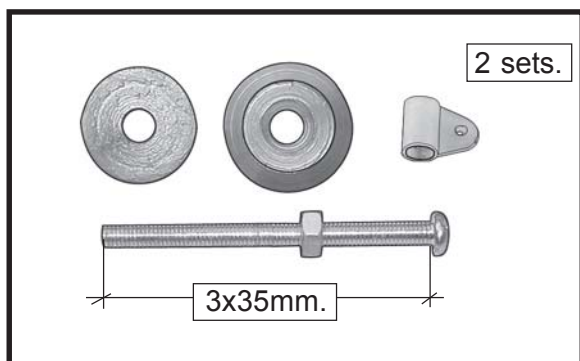
## HINGING THE RUDDER

Glue the rudder hinges in place using the same techniques used to hinge the ailerons.

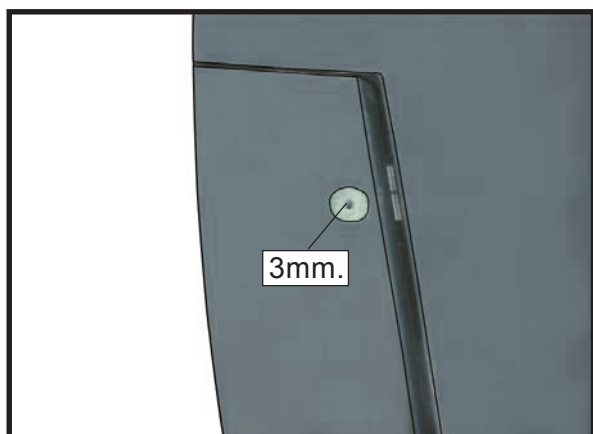


## INSTALL THE AILERONS CONTROL HORN

1) Locate the hardware necessary to install the control horns for the ailerons.

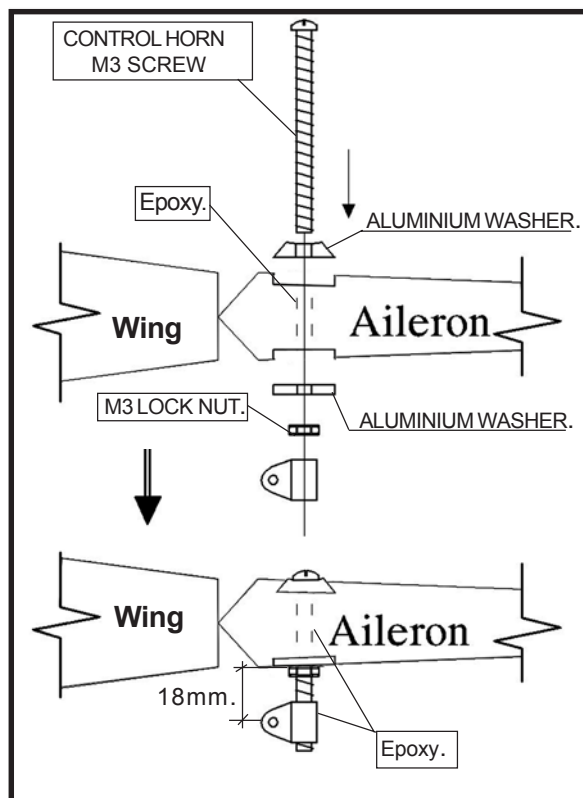


2) Position the control horn on the bottom of the aileron. You will see pre-drill hole 3mm for the horn mounting screw on the aileron.



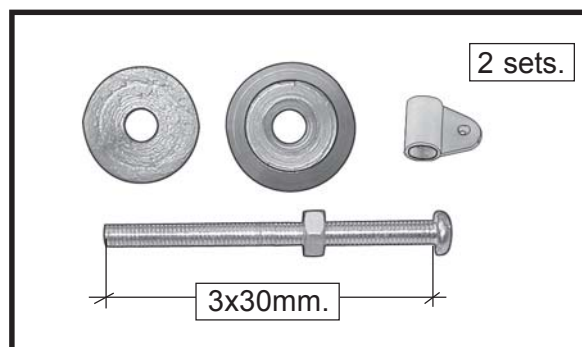
3) Place epoxy into hole. This will harden the threads and prevent the screws from pulling loose.

4) Thread a control horn end with aluminium washer, lock nut until the top edge of the end is 18mm from the base of the horn as shown.

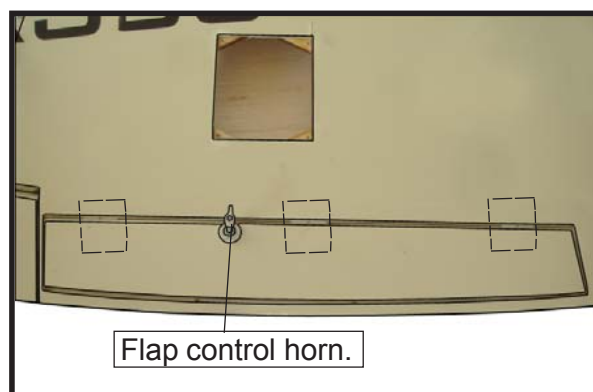
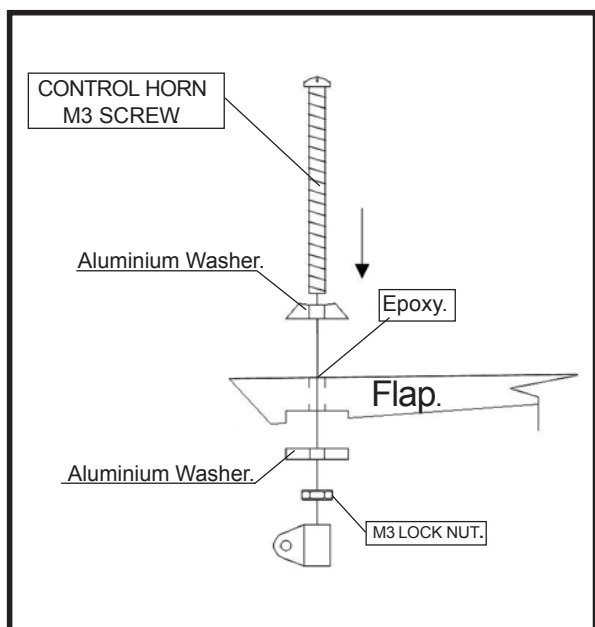
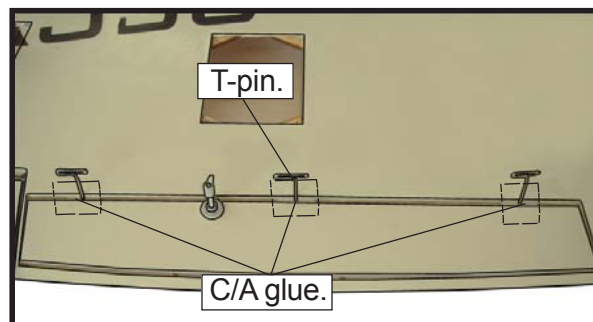
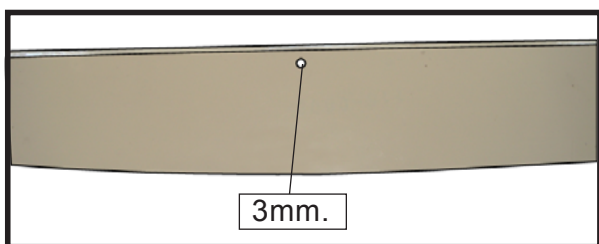


## INSTALL FLAP CONTROL HORN

Install the flap control horn using the same method as same as the aileron control horns.

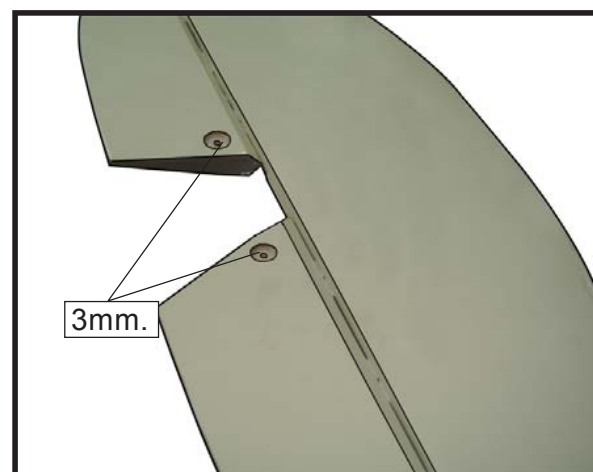
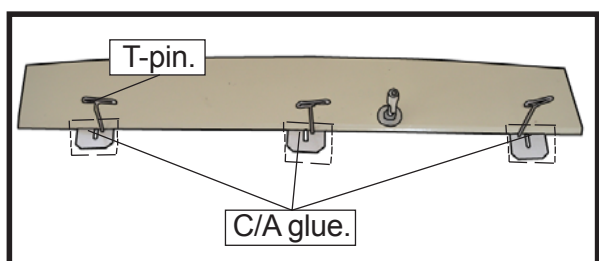
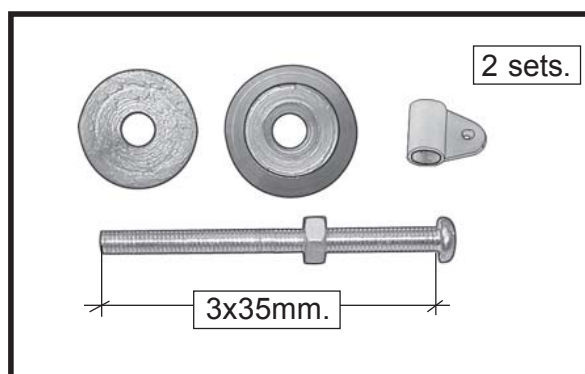
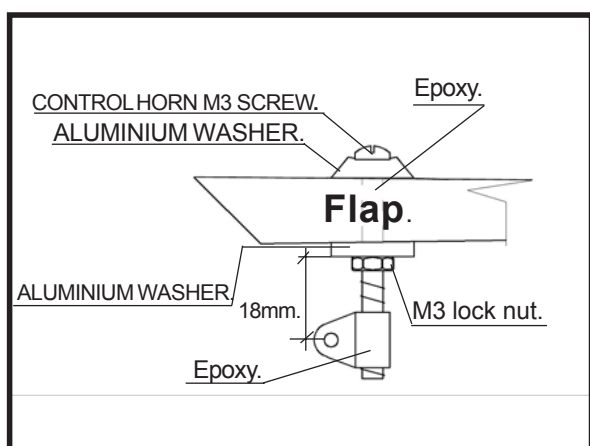




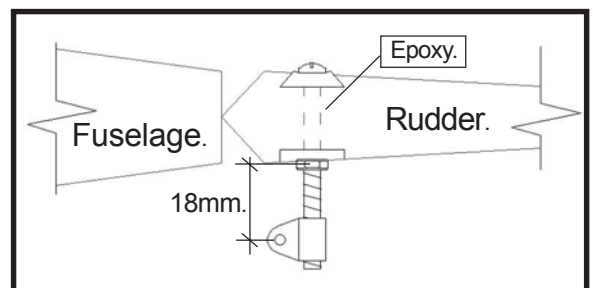
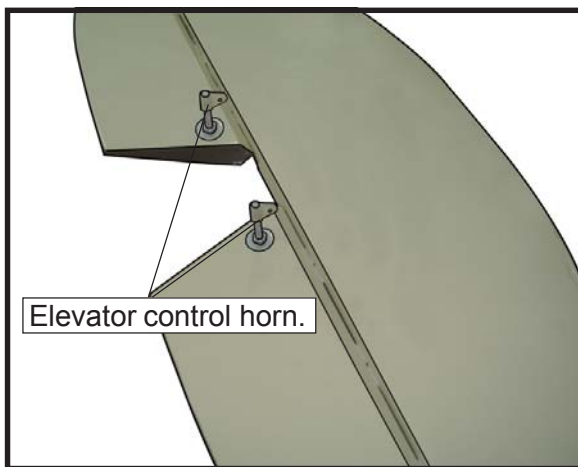
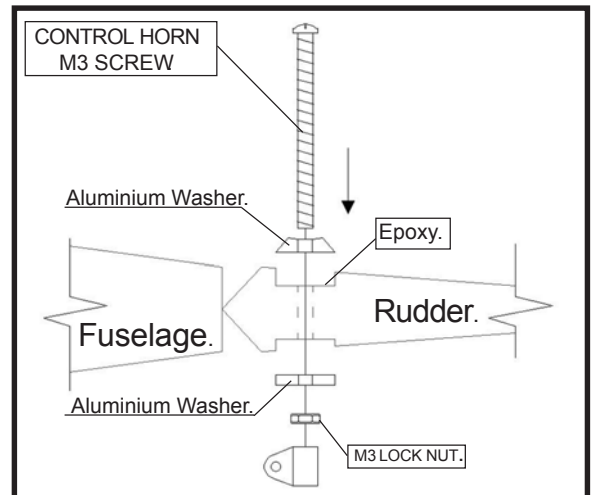
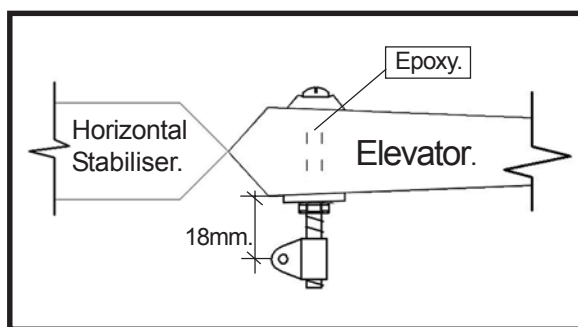
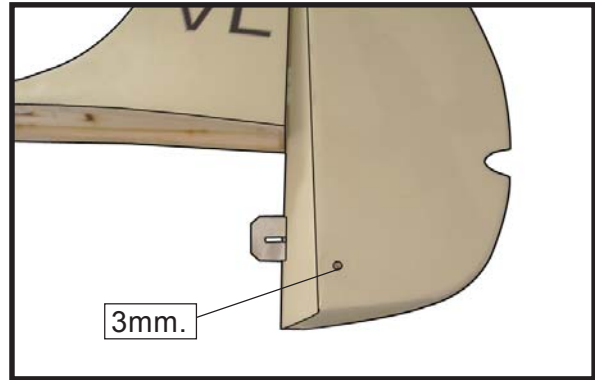
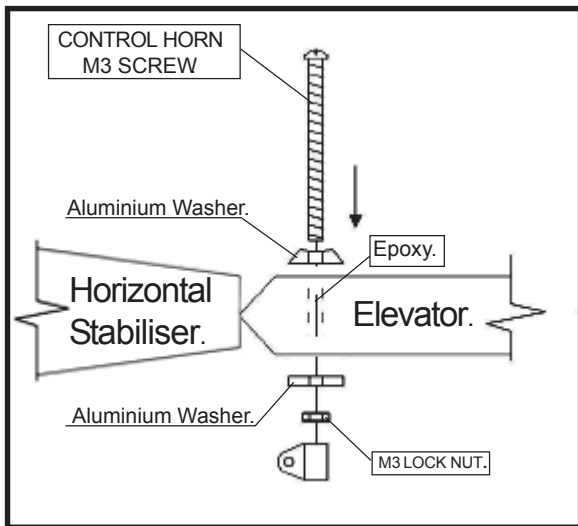


## INSTALL ELEVATOR CONTROL HORN

Install the elevator control horn using the same method as the aileron control horns.

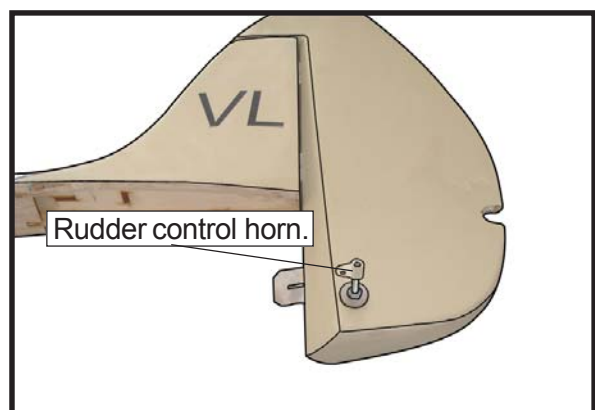
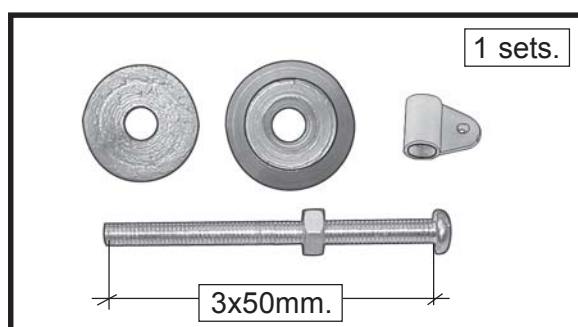






## INSTALL RUDDER CONTROL HORN

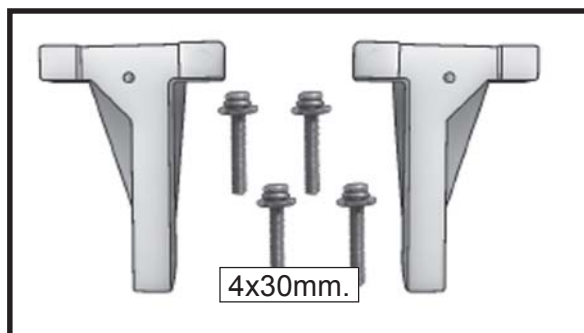
Repeat steps to install the rudder control horn as same as steps done for ailerons.



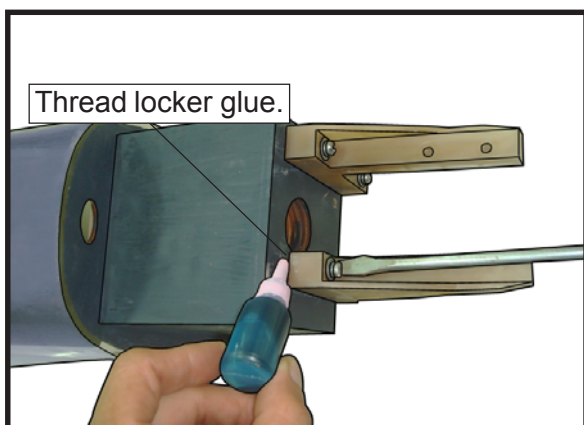


## ENGINE MOUNT INSTALLATION

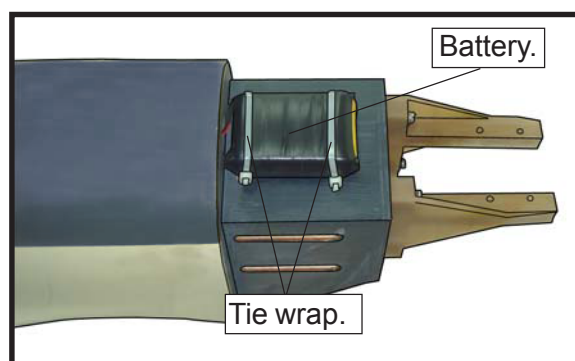
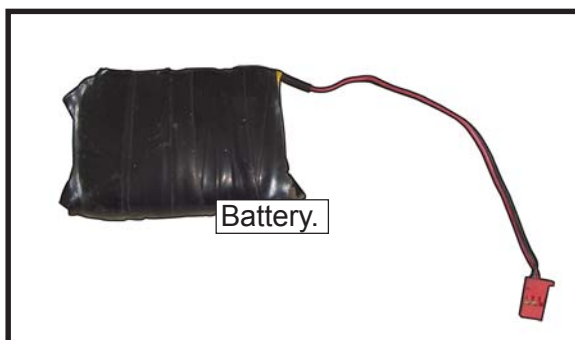
1) Locate the items necessary to install the engine mount included with your model.



2) Use four 4x30mm head bolts and four 4mm washers to attach the engine mount rails to the firewall. Tighten the screws. Make sure to use threadlock on the screws to help prevent them from vibrating loose.



## INSTALLING THE BATTERY

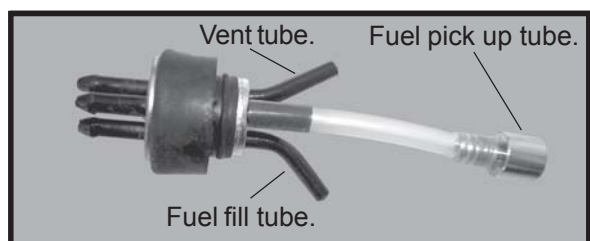
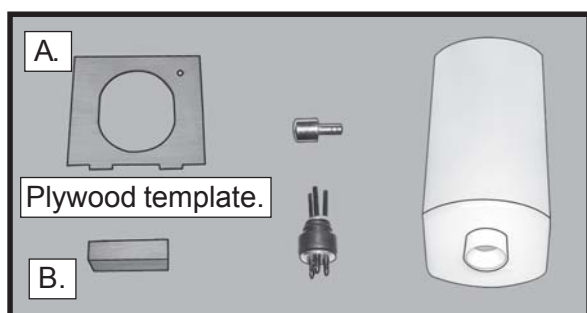
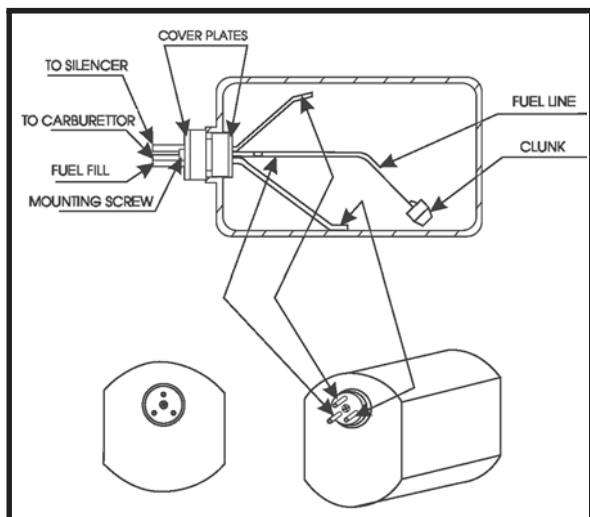


## INSTALLING THE STOPPER ASSEMBLY

1) Using a modelling knife, carefully cut off the rear portion of one of the 3 nylon tubes leaving 1/2" protruding from the rear of the stopper. This will be the fuel pick up tube.

2) Using a modelling knife, cut one length of silicon fuel line. Connect one end of the line to the weighted fuel pick up and the other end to the nylon pick up tube.





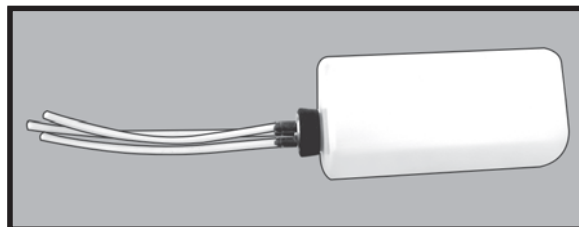
3) Carefully bend the second nylon tube up at a 45° angle. This tube is the vent tube.

4) Test fit the stopper assembly into the tank. It may be necessary to remove some of the flashing around the tank opening using a modelling knife. If flashing is present, make sure none falls into the tank.

5) With the stopper assembly in place, the weighted pick-up should rest away from the rear of the tank and move freely inside the tank. The top of the vent tube should rest just below the top of the tank. It should not touch the top of the tank.

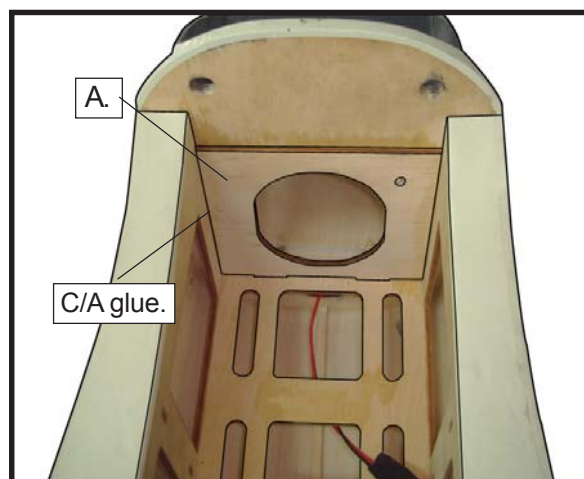
6) When satisfied with the alignment of the stopper assembly tighten the 3 x 20mm machine screw until the rubber stopper expands and seals the tank opening. Do not overtighten the assembly as this could cause the tank to split.

## FUEL TANK INSTALLATION

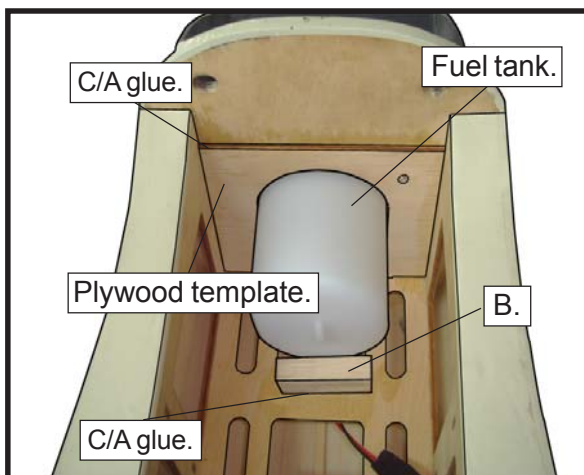


**!** You should mark which tube is the vent and which is the fuel pickup when you attach fuel tubing to the tubes in the stopper. Once the tank is installed inside the fuselage, it may be difficult to determine which is which.

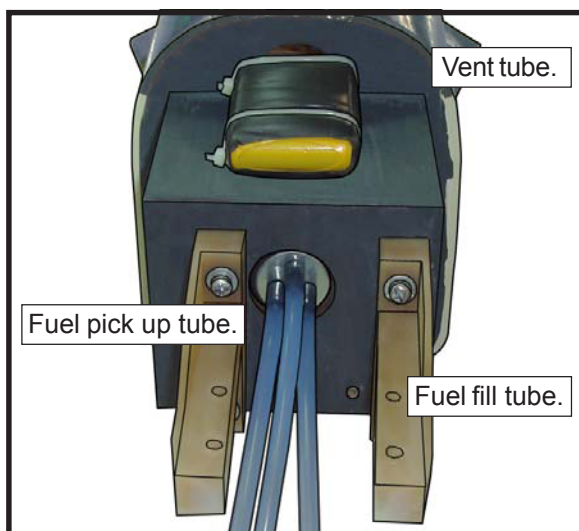
7) Slide the fuel tank into the fuselage. Guide the lines from the tank through the hole in the firewall.



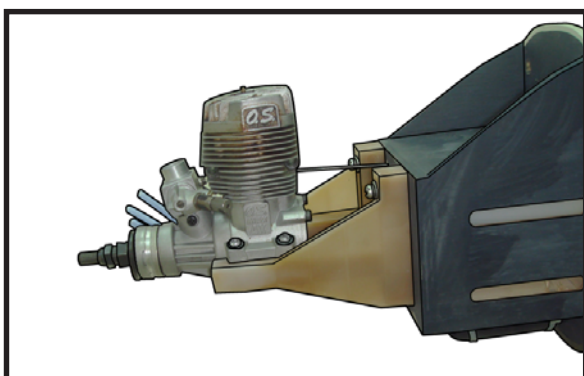
8) Use plywood template to hold in place the fuel tank with C/A glue to secure the fuel tank inside the fuselage.







9) Connect the lines from the tank to the engine and muffler. The vent line will connect to the muffler and the line from the clunk to the carburettor.



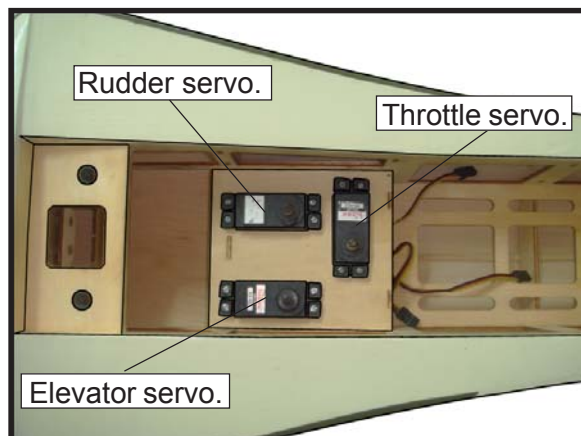
**!** *Blow through one of the lines to ensure the fuel lines have not become kinked inside the fuel tank compartment. Air should flow through easily.*

### INSTALLING THE FUSELAGE SERVOS

**!** *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.*

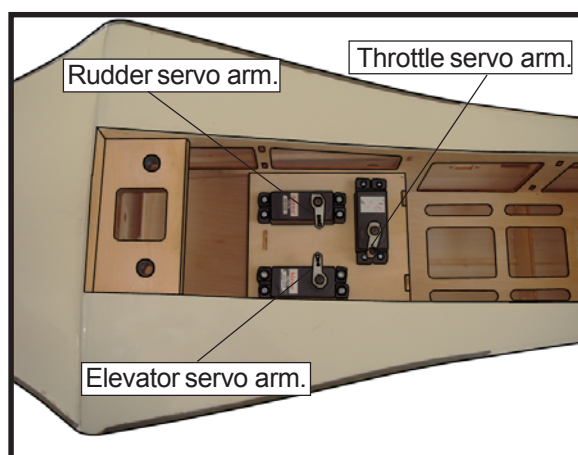
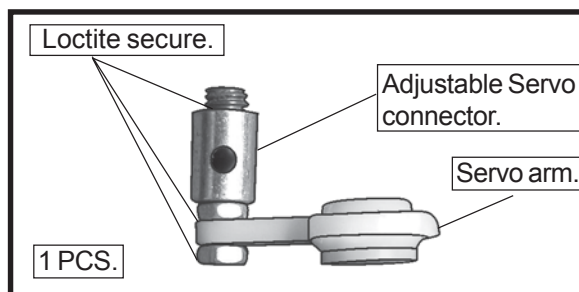
2) Install the rubber grommets and brass collets onto the throttle servo. Test fit the servo into the aileron servo mount.

3) Secure the servos with the screws provided with your radio system.



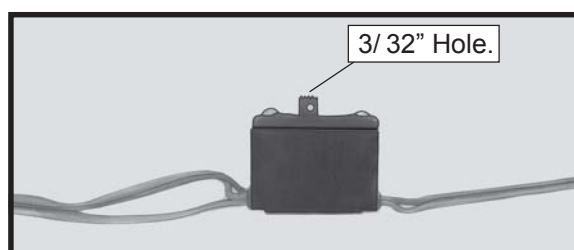
### THROTTLE SERVO ARM INSTALLATION

Install adjustable servo connector in the servo arm as same as picture below:

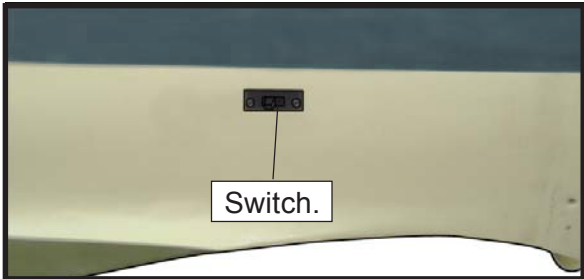
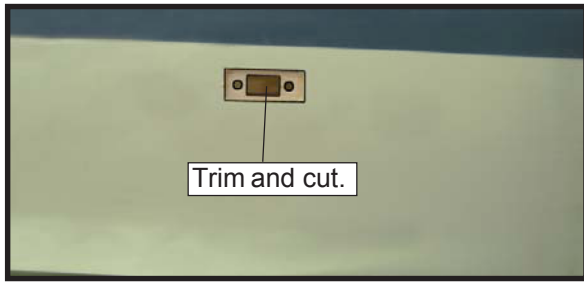


### INSTALLING THE SWITCH

Install the switch into the precut hole in the side, in the fuselage.

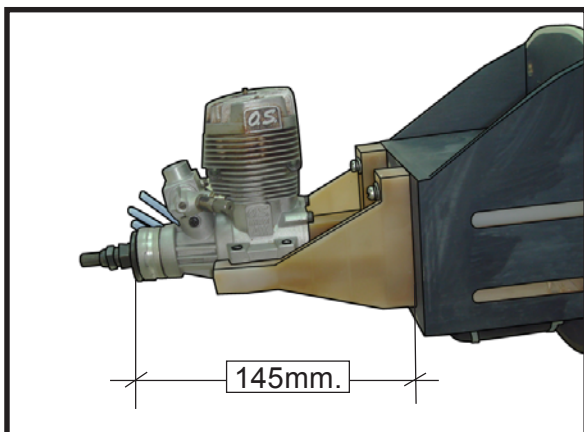




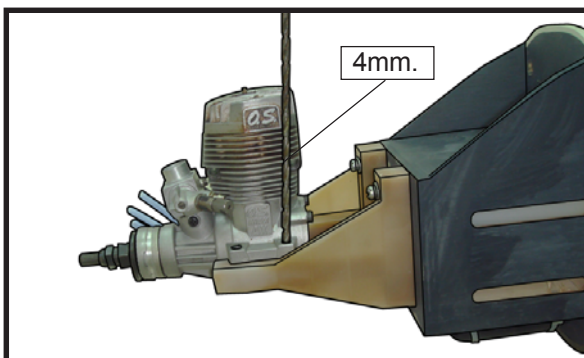


## MOUNTING THE ENGINE

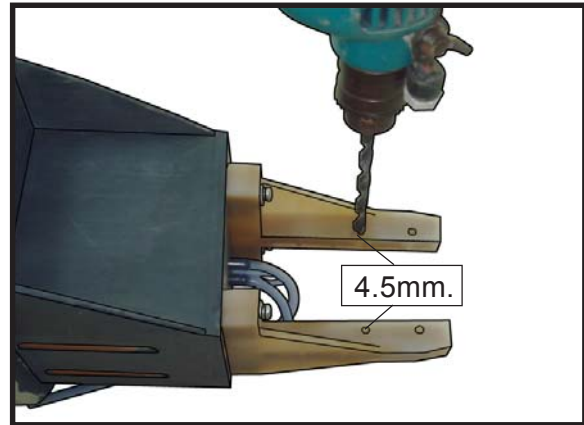
- 1) Position the engine with the drive washer (145mm) forward of the firewall as shown.



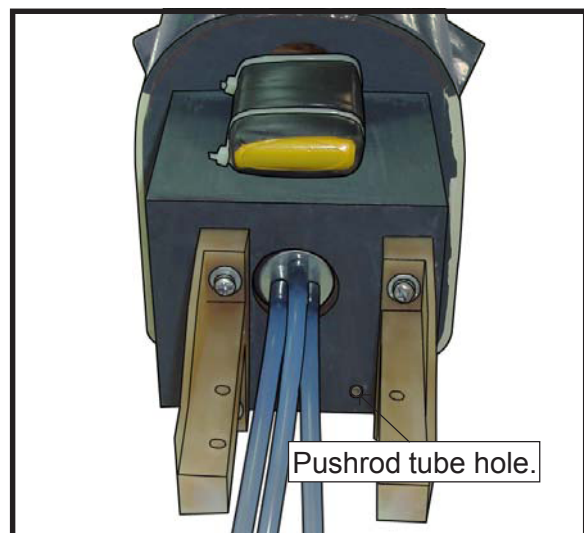
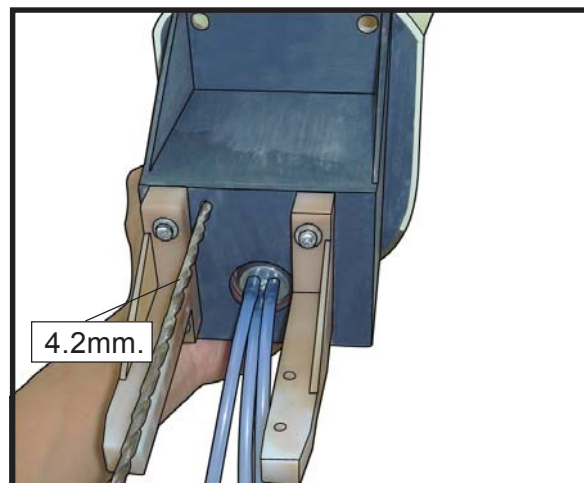
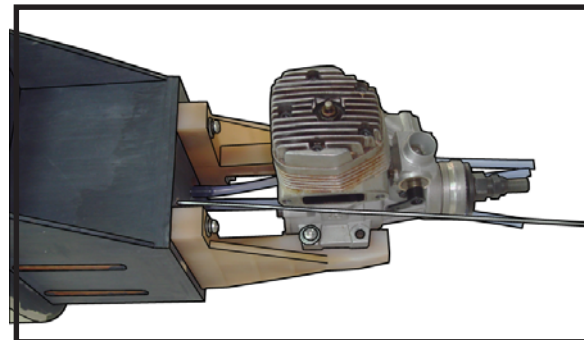
- 2) Use a pin drill and 2mm drill bit to drill a small indentation in the mount for the engine mounting screw.



- 3) Use a drill to drill the four holes in the engine mount rails.



- 4) On the fire wall has the location for the throttle pushrod tube (pre-drill).

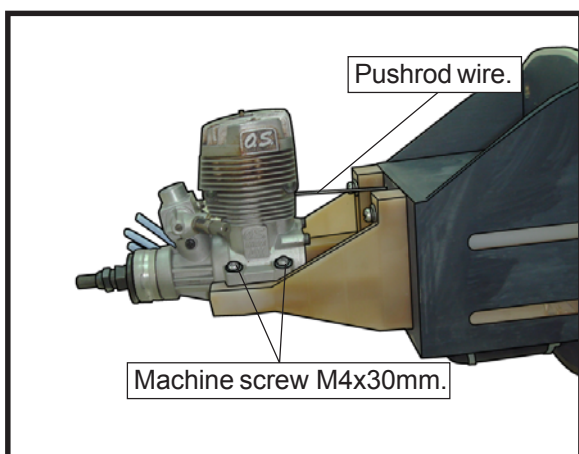
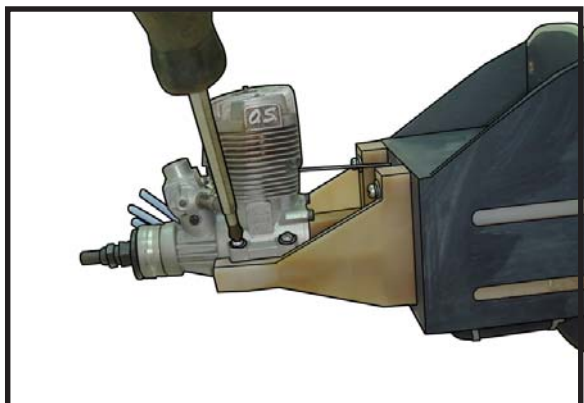




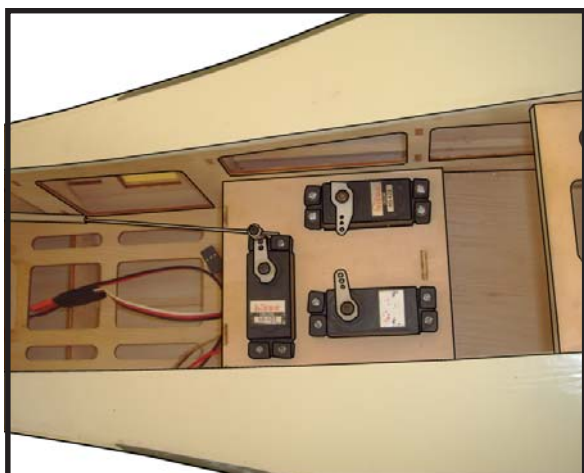
5) Slide the pushrod tube in the firewall and guide it through the fuel tank mount. Use medium C/A to glue the tube to the firewall and the fuel tank mount.

6) Connect the Z-bend in the 450mm throttle pushrod to the outer hole of the carburetor arm.

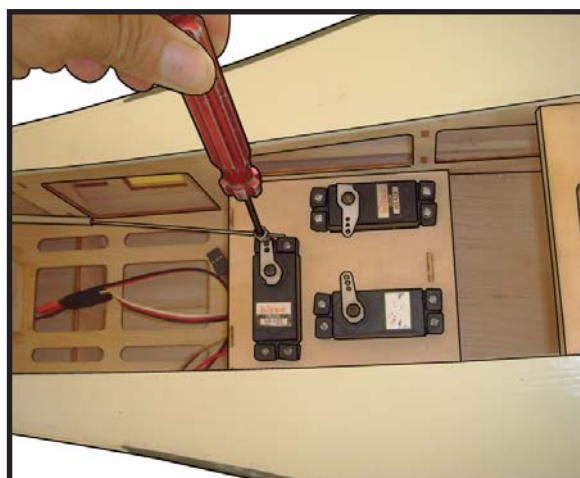
7) Slide the throttle pushrod wire into the tube. Position the engine between the mounts. Use four M4x30mm machine screws to secure the engine to the mount as shown.



8) Reinstall the servo horn by sliding the connector over the pushrod wire. Center the throttle stick and trim and install the servo horn perpendicular to the servo center line.

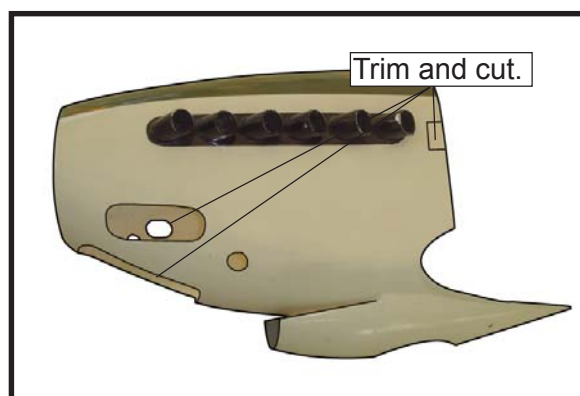
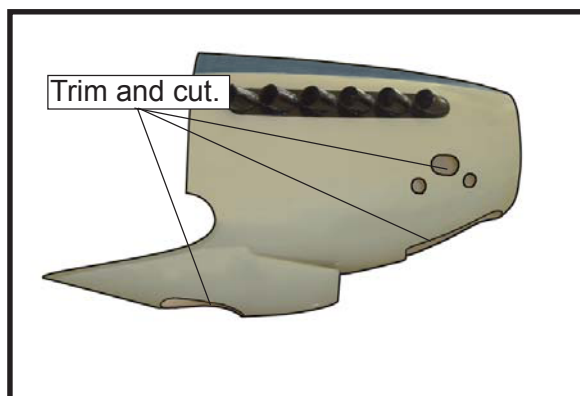


9) Move the throttle stick to the closed position and move the carburetor to closed. Use a 2.5mm hex wrench to tighten the screw that secures the throttle pushrod wire. Make sure to use threadlock on the screw so it does not vibrate loose.

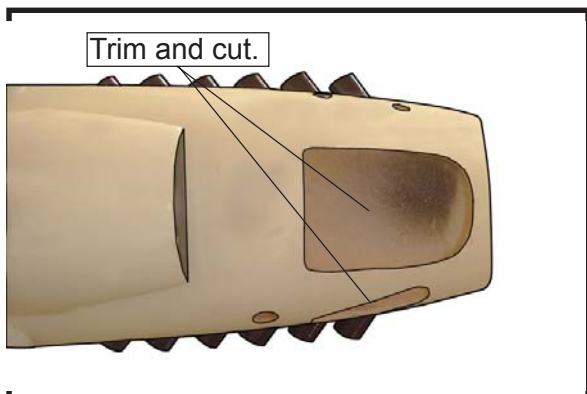


## COWLING

1) Slide the fiberglass cowl over the engine and line up the back edge of the cowl with the marks you made on the fuselage then trim and cut as shown.

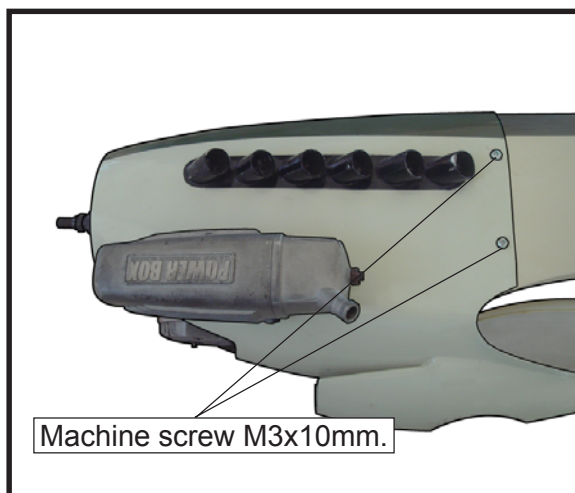
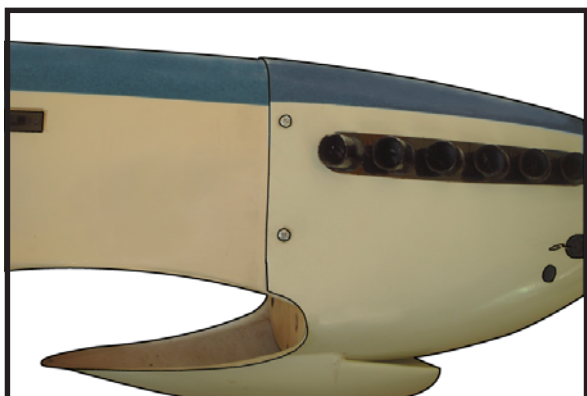
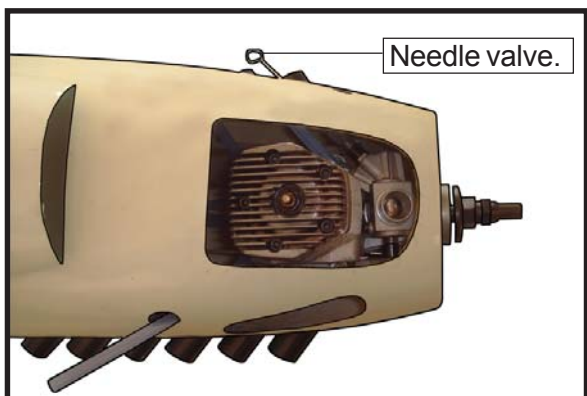






Because of the size of the cowl, it may be necessary to use a needle valve extension for the high speed needle valve. Make this out of sufficient length 1.5mm wire and install it into the end of the needle valve. Secure the wire in place by tightening the set screw in the side of the needle valve.

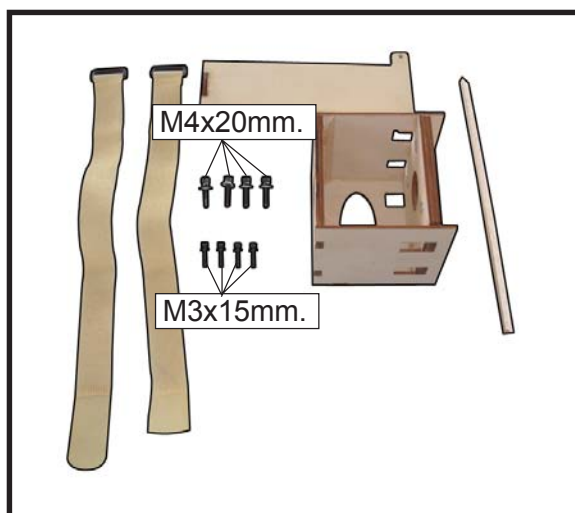
- 2) While keeping the back edge of the cowl flush with the marks, align the front of the cowl with the crankshaft of the engine. The front of the cowl should be positioned so the crankshaft is in **nearly** the middle of the cowl opening. Use the spinner backplate as a guide. Hold the cowl firmly in place using pieces of masking tape.



- 3) Install the muffler and muffler extension onto the engine and make the cutout in the cowl for muffler clearance. Connect the fuel and pressure lines to the carburetor, muffler and fuel filler valve. Secure the cowl to fuselage using the M3x10mm screws.

### ELECTRIC POWER CONVERSION

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



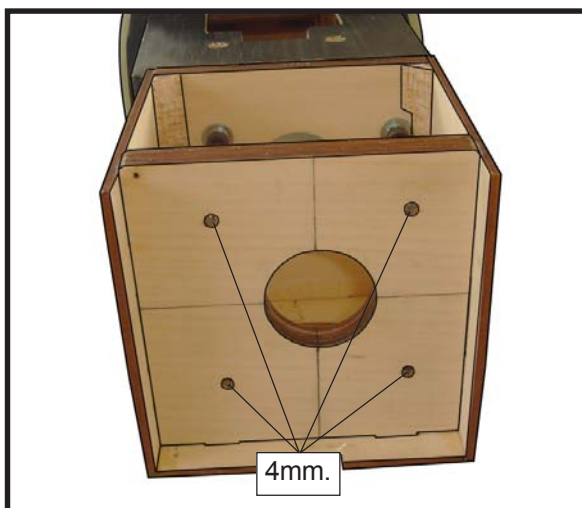
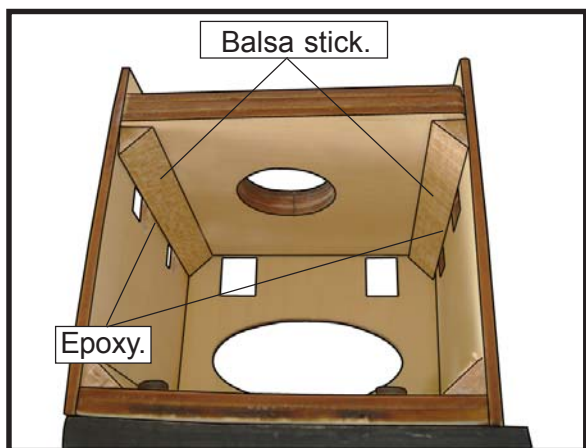
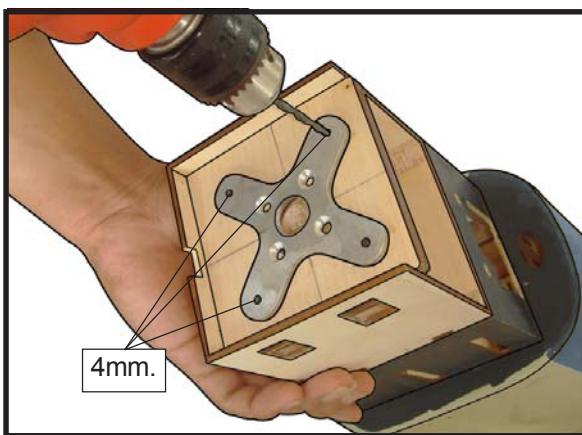
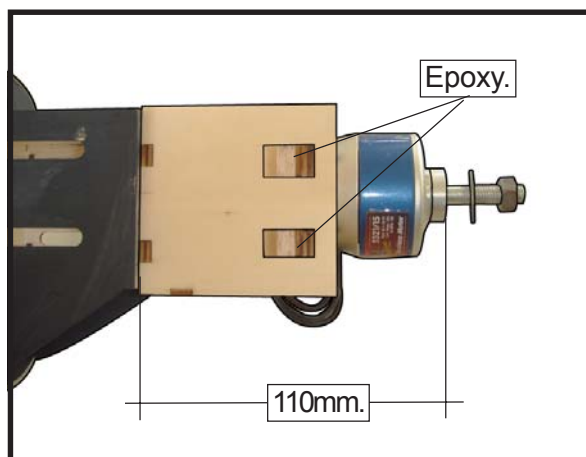
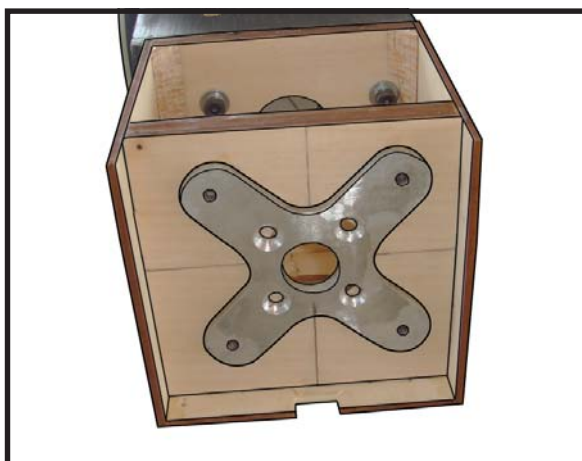
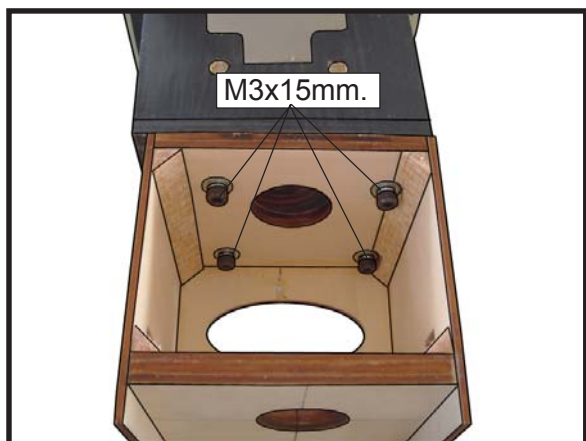
- **Model size: .75-.90 size models**
- **Motor: 50mm 310 rev per volt**
- **Propeller: 14x10 ~ 15x10**
- **ESC: 60A**
- **Lipo Batteries: 8 cell 3200mA**

- 2) Attach the electric motor box to the firewall suitable with the cross lines drawn on the electric motor box and firewall. Using epoxy and balsa stick to secure the motor box to the firewall. Please see pictures below.

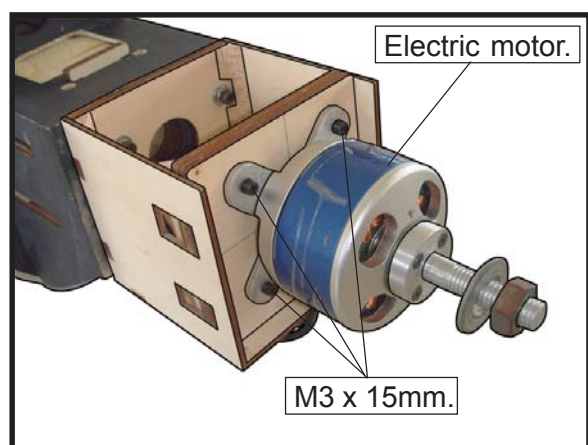
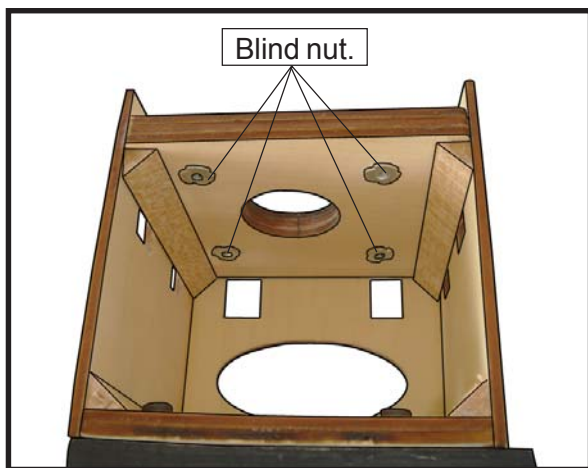




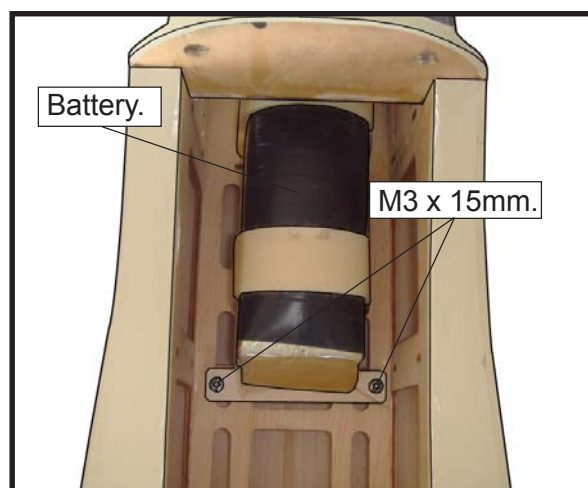
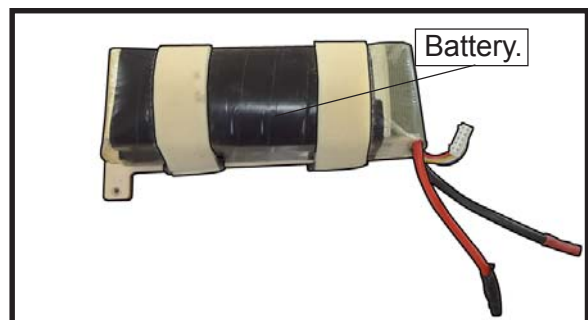
3) Attach the motor to the front of the electric motor box using four 3mm blind nut, four M3x15mm hex head bolts to secure the motor . Please see picture shown.



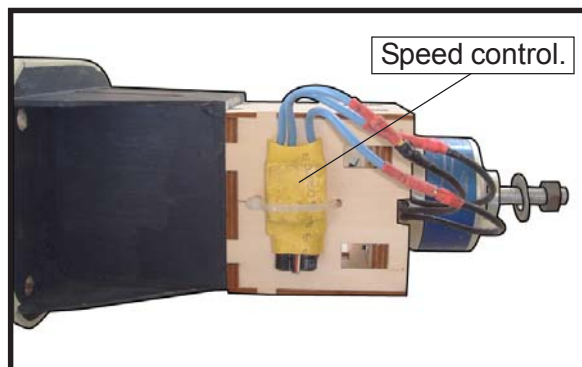




4) Locate the plywood battery tray to the fuselage. Tighten the screws using machine screws M3x15mm to secure the tray in position.

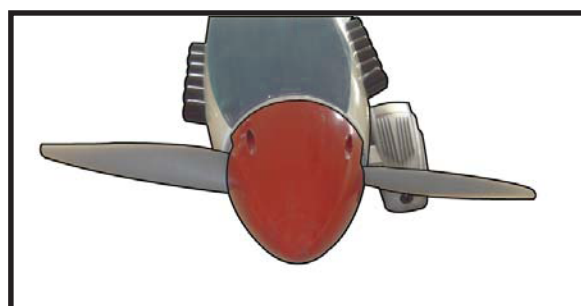


5) Attach the speed control to the side of the motor box using two-sided tape and tie wraps. Connect the appropriate leads from the speed control to the motor. Make sure the leads will not interfere with the operation of the motor.

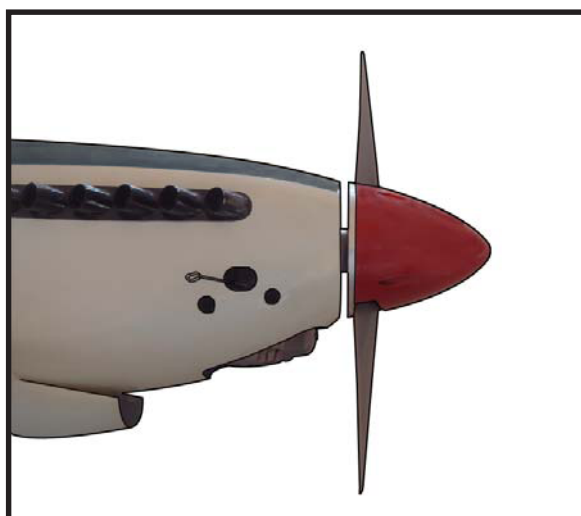


## INSTALLING THE SPINNER

Install the spinner backplate, propeller and spinner cone.

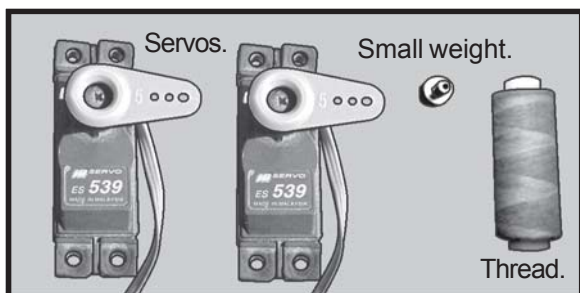


**!** The propeller should not touch any part of the spinner cone. If it does, use a sharp modelling knife and carefully trim away the spinner cone where the propeller comes in contact with it.



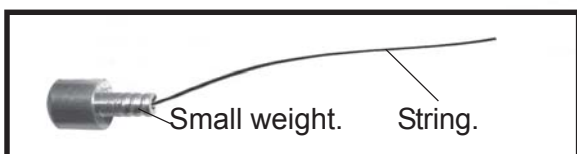


## INSTALLING THE AILERON - FLAP SERVOS

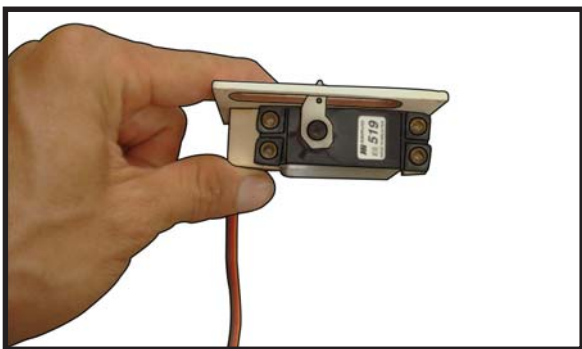


Because the size of servos differ, you may need to adjust the size of the precut opening in the mount. The notch in the sides of the mount allow the servo lead to pass through.

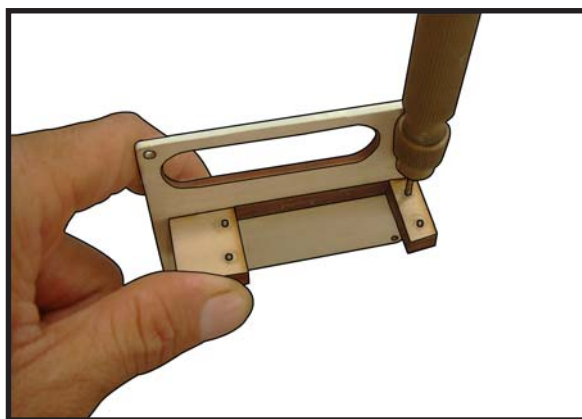
1) Using a small weight (Weighted fuel pick-up works well) and string, feed the string through the wing as indicated.



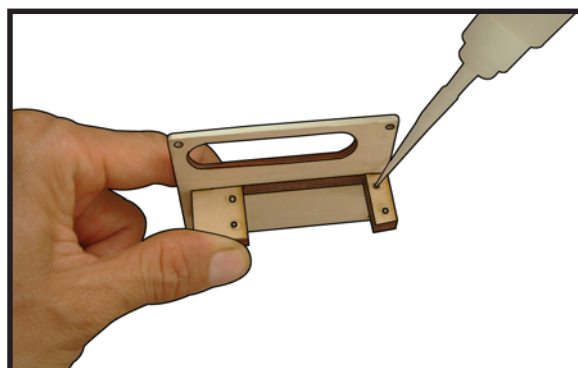
2) Place the servo between the mounting blocks and space it from the hatch. Use a pencil to mark the mounting hole locations on the blocks.



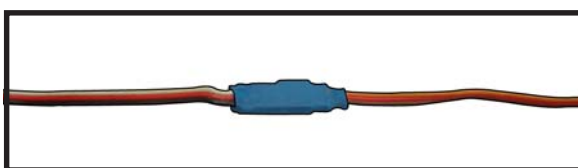
3) Use drill bit in a pin vise to drill the mounting holes in the blocks.



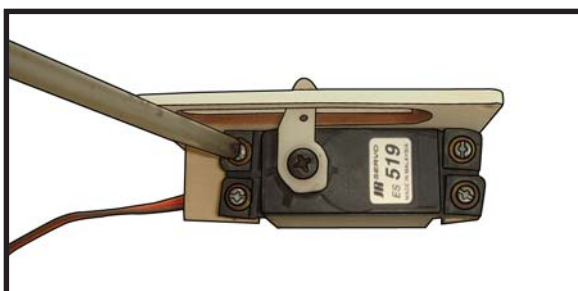
4) Apply 2-3 drops of thin C/A to each of the mounting holes. Allow the C/A to cure without using accelerator.



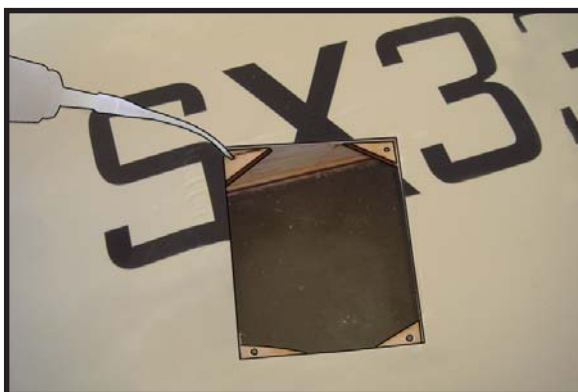
5) Use dental floss to secure the connection so they cannot become unplugged.



6) Secure the servo to the aileron hatch using Phillips screwdriver and the screws provided with the servo.

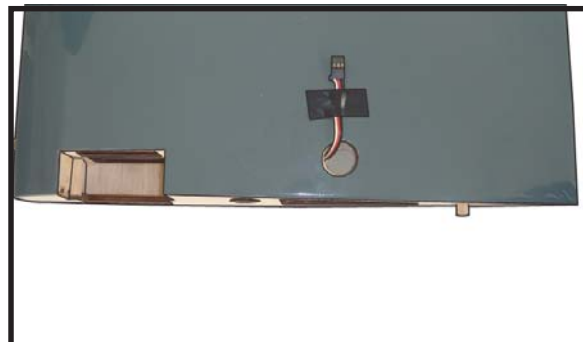
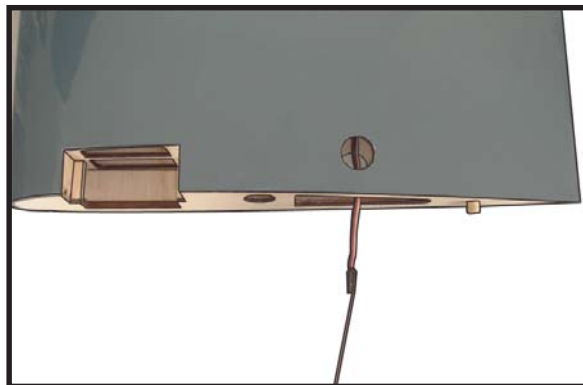
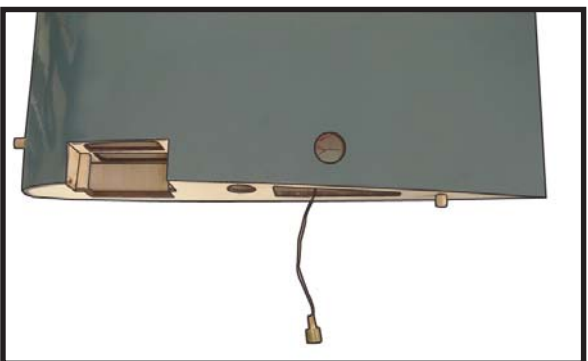
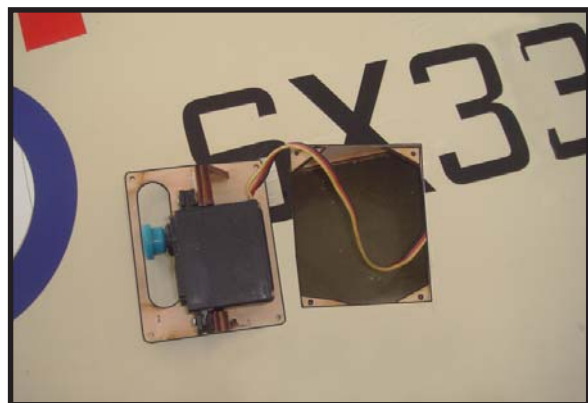
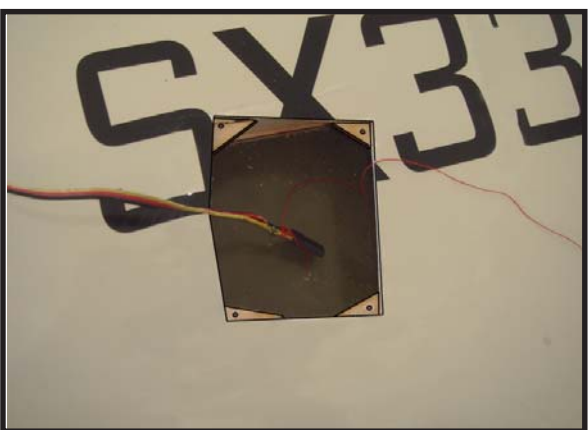
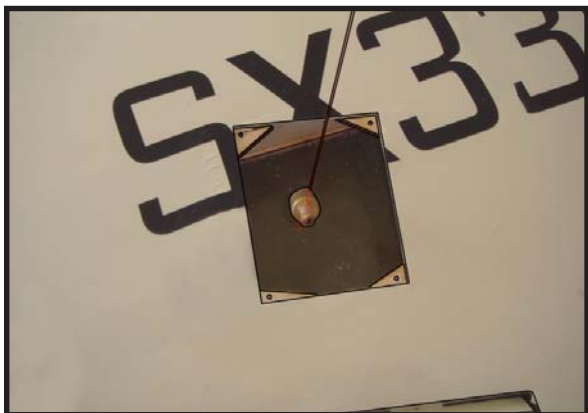


7) Apply 1-2 drops of thin C/A to each of the mounting tabs. Allow the C/A to cure without using accelerator.

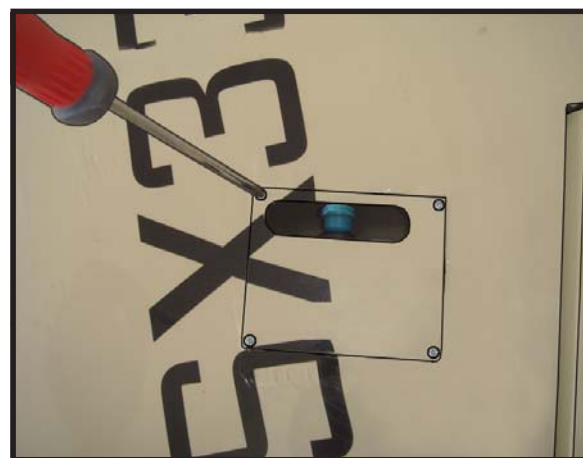




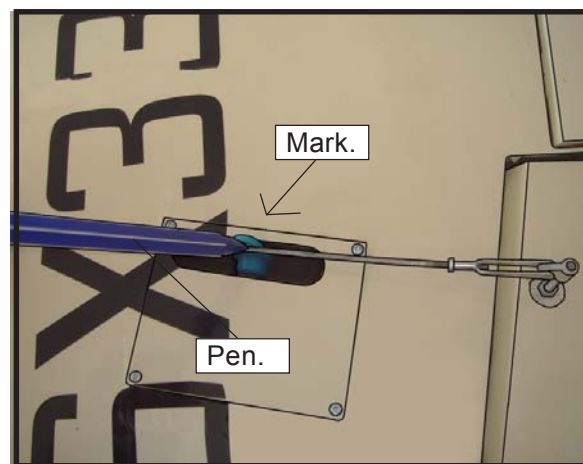
8) A string has been provided in the wing to pull the aileron lead through to the wing root. Remove the string from the wing at the servo location and use the tape to attach it to the servo extension lead. Pull the lead through the wing and remove the string.



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

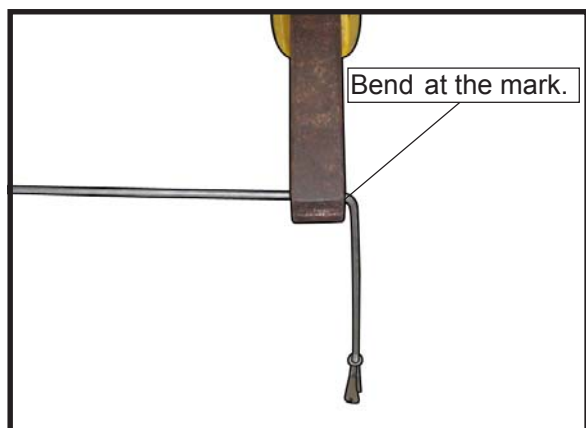


#### AILERON PUSHROD HORN INSTALLATION

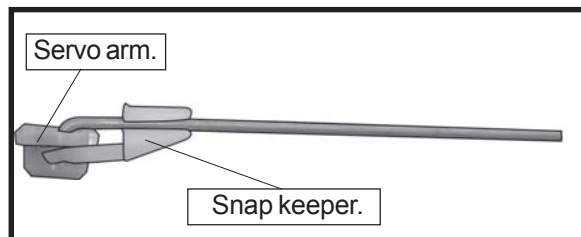
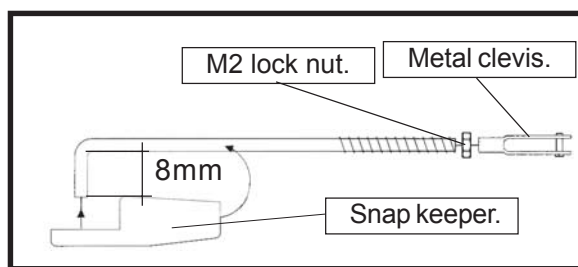




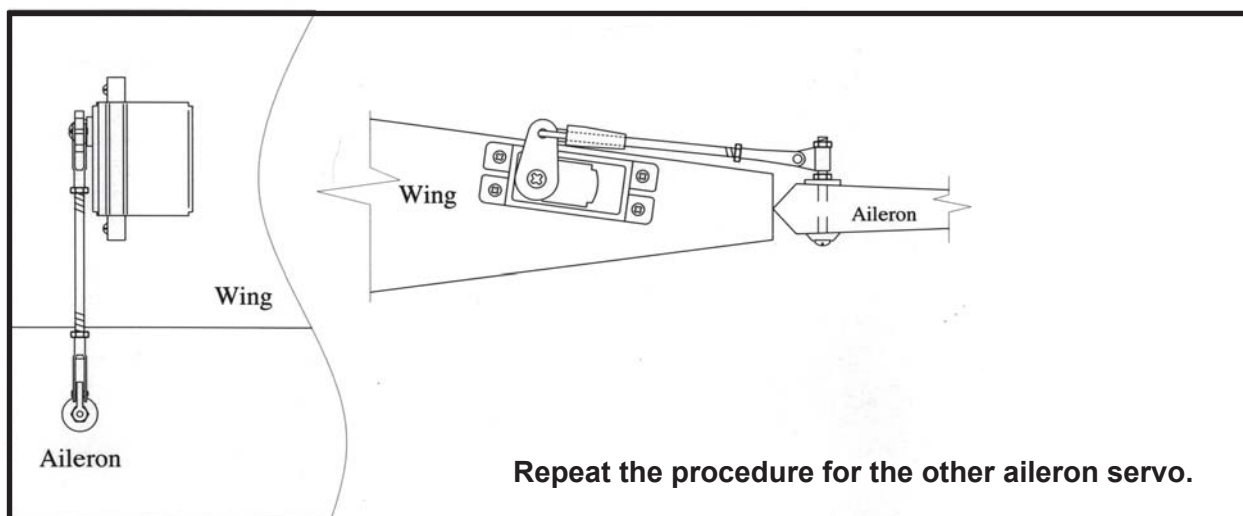
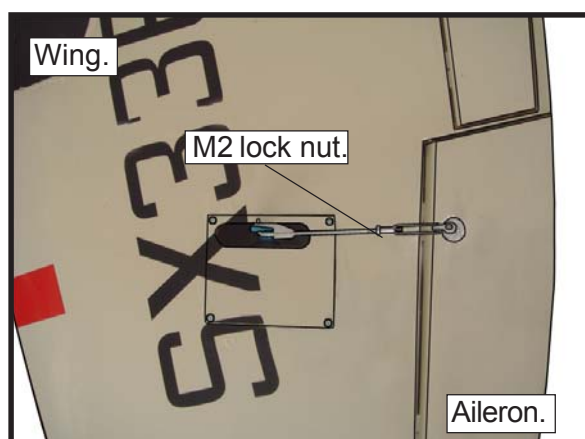
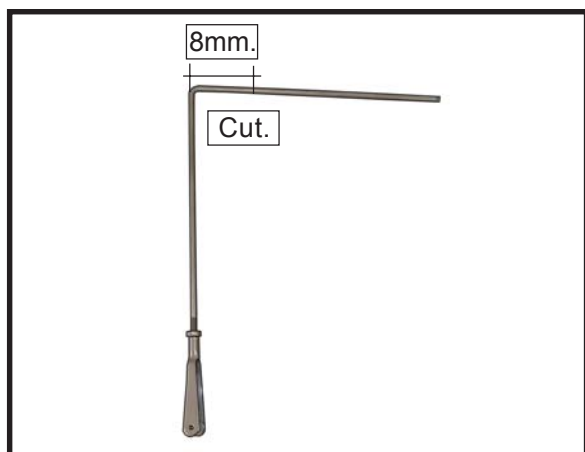
1) Mark the control wire where it crosses the servo arm hole.



2) Make a 90-degree bend at the mark and cut off the excess wire leaving 8mm past the bend.



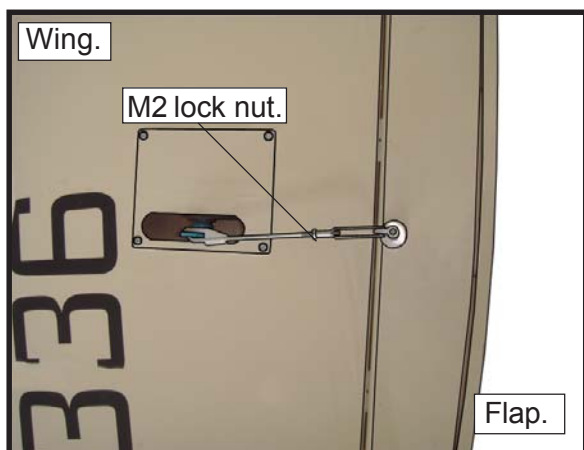
3) Connect the linkage as shown and secure the control wire with a snap keeper.



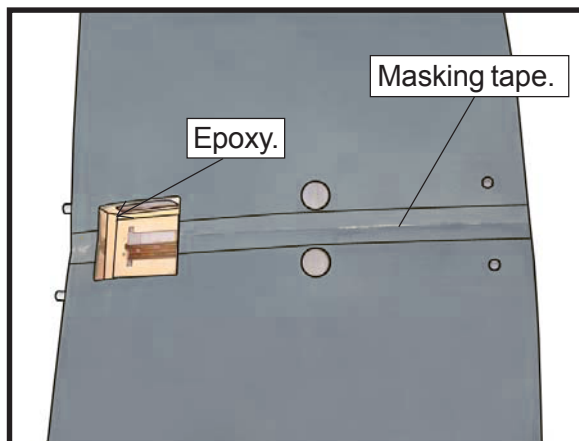
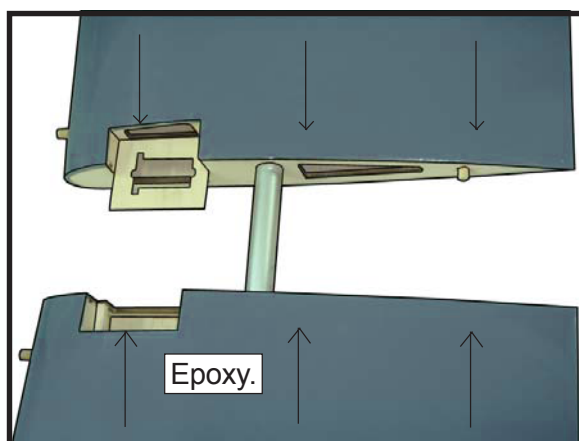
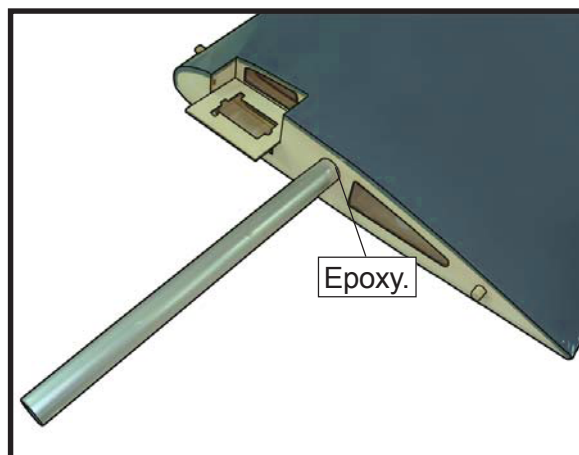
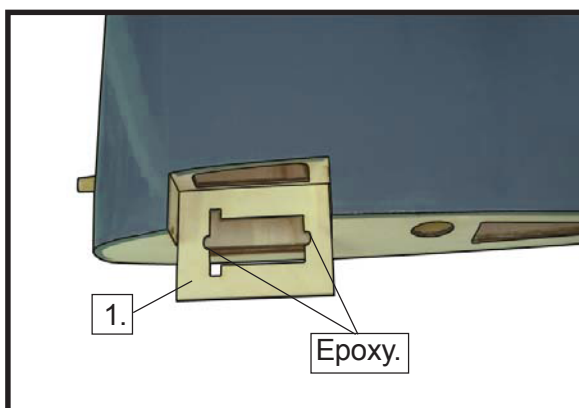
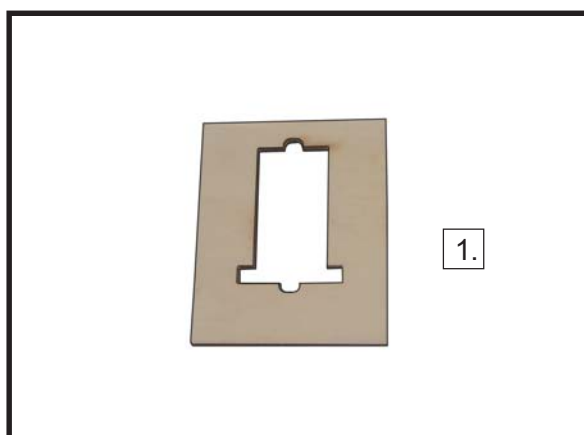


## INSTALLING THE FLAP SERVO

Repeat the procedure for the aileron servo.



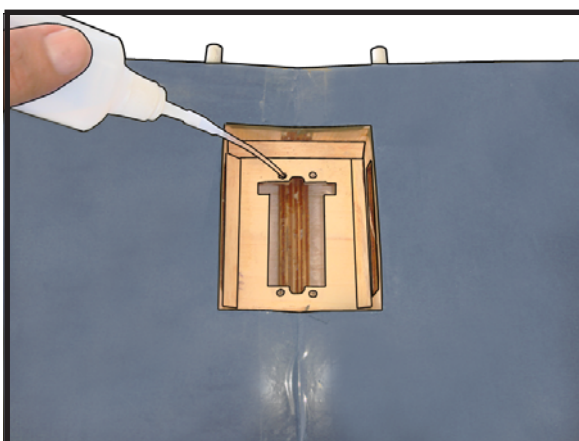
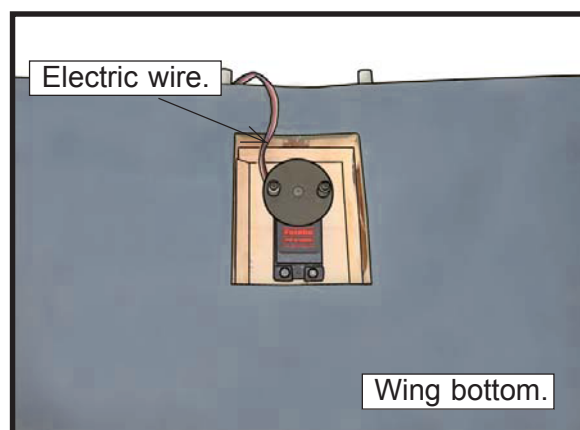
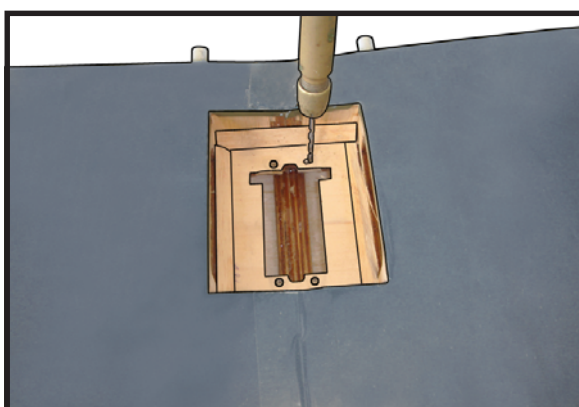
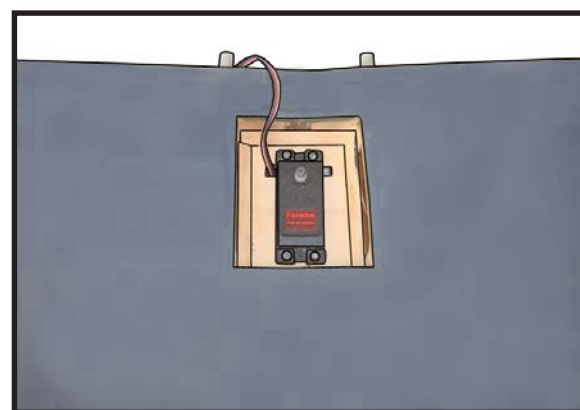
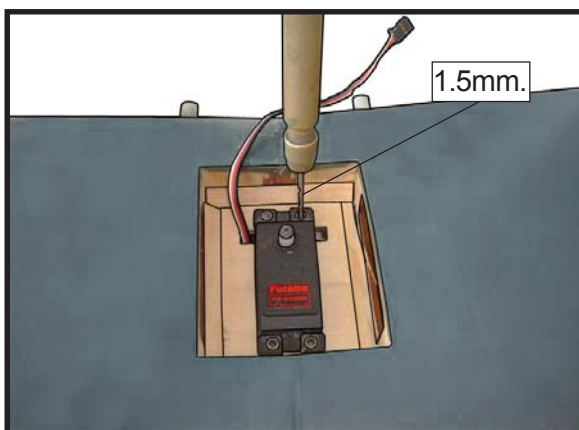
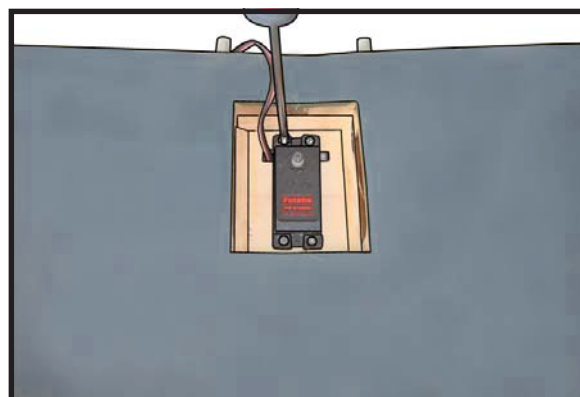
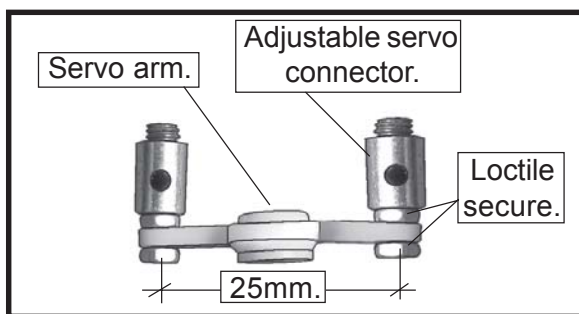
## WING ASSEMBLY



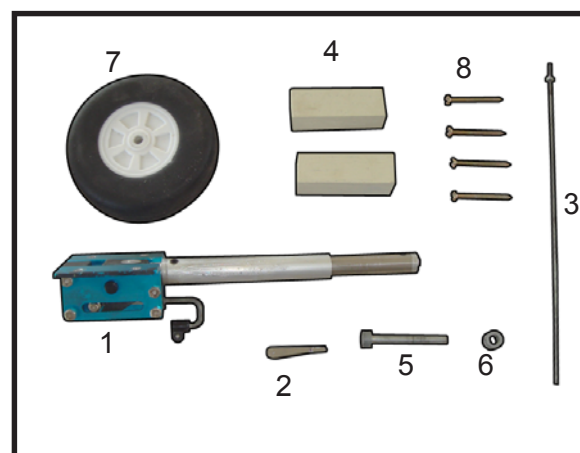
## SERVO GEAR INSTALLATION





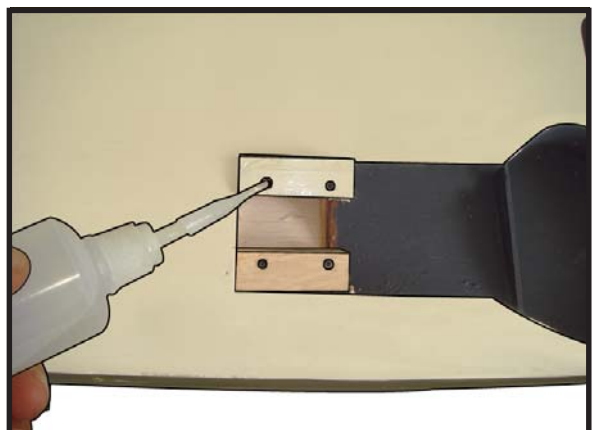
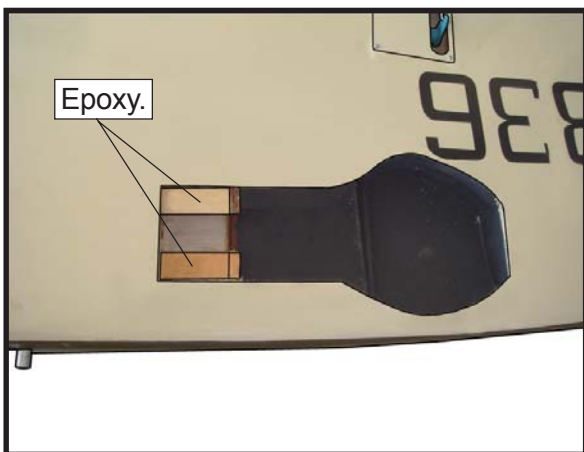
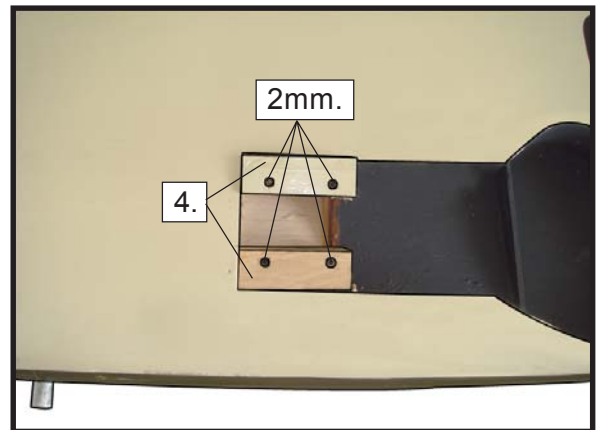
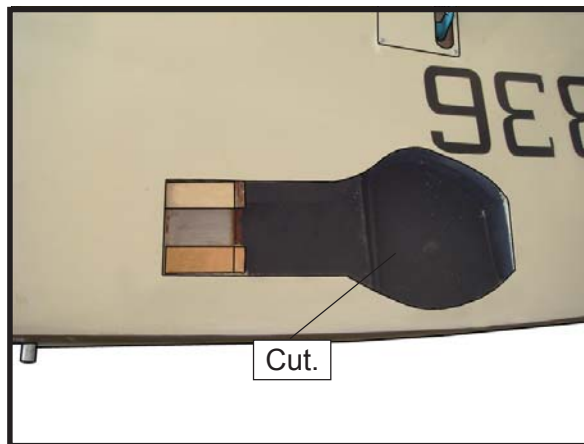
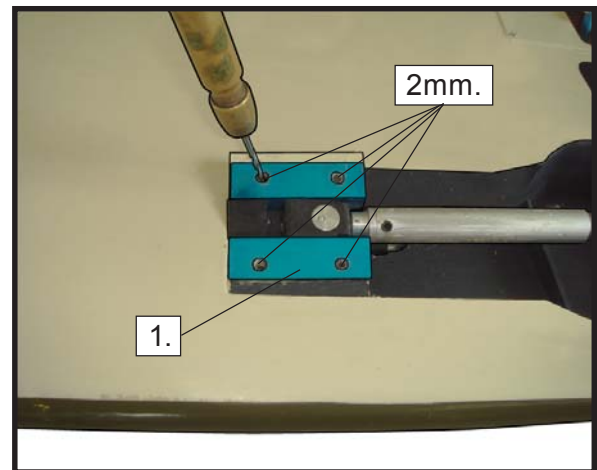
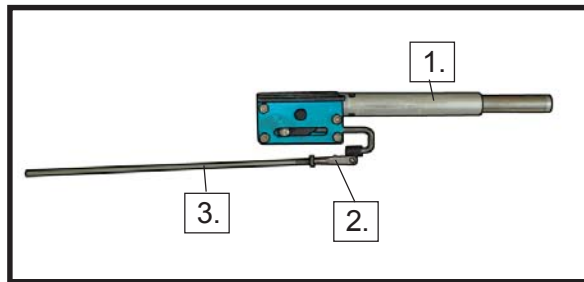
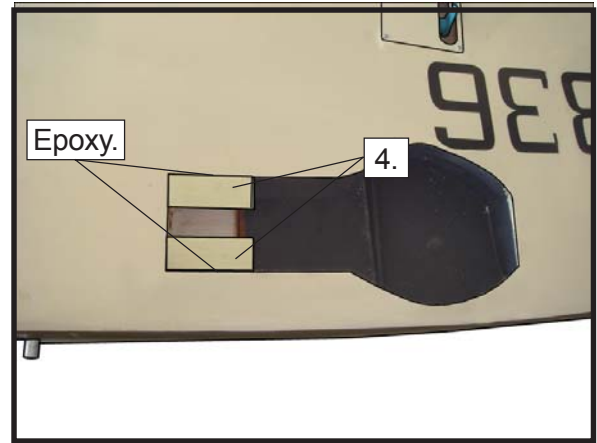
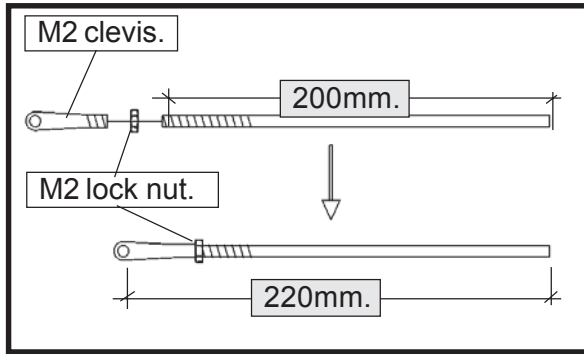


## INSTALLING RETRACTABLE LANDING GEAR

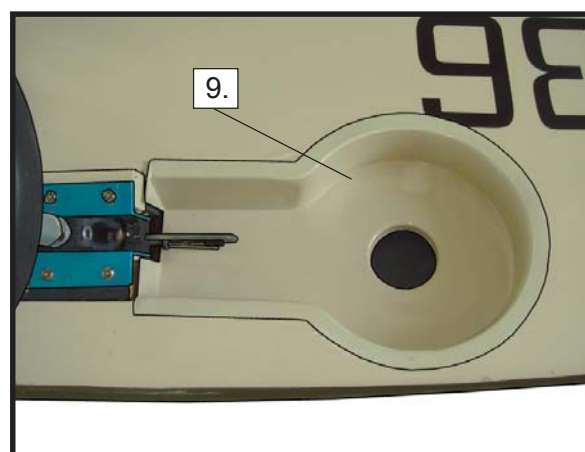
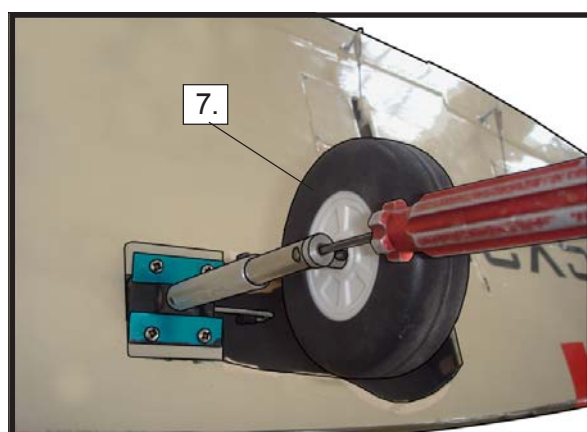
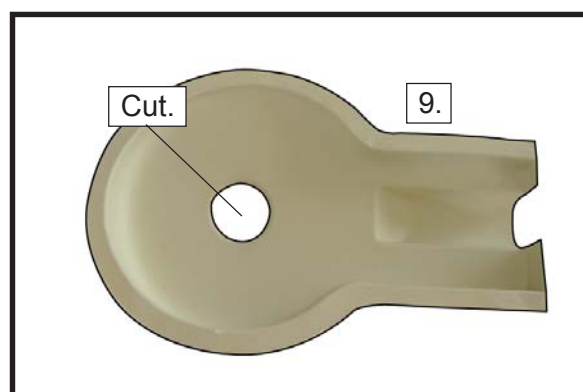
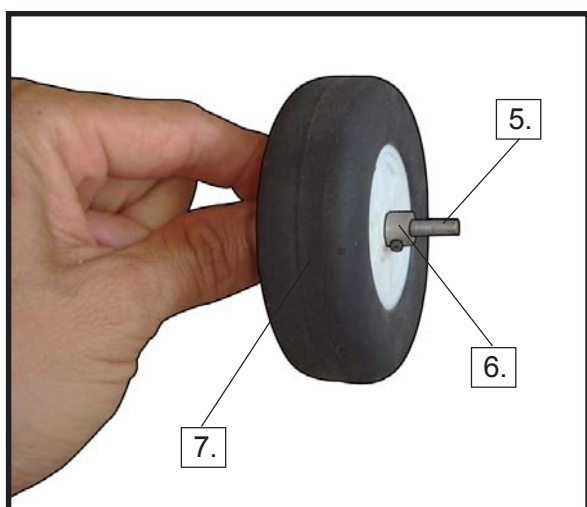
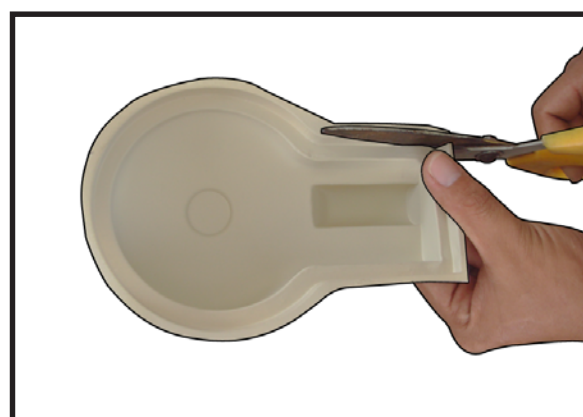
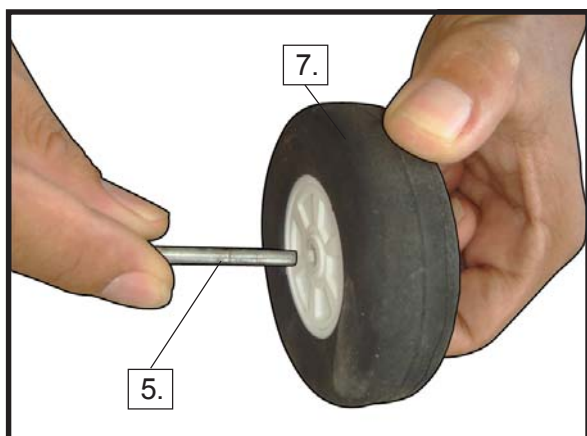
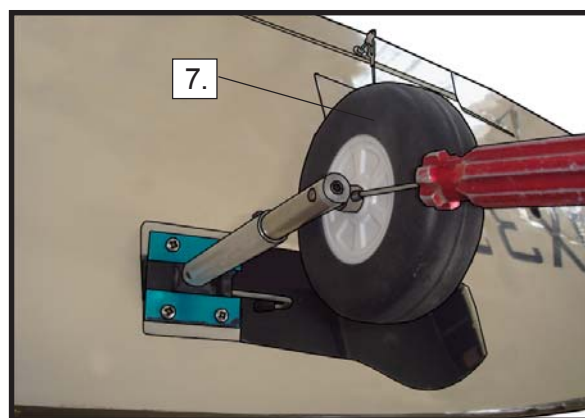
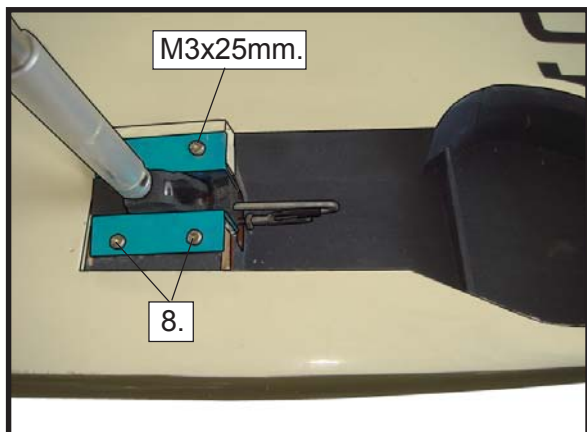




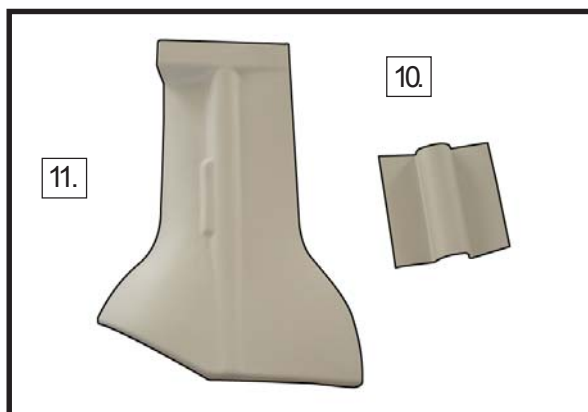
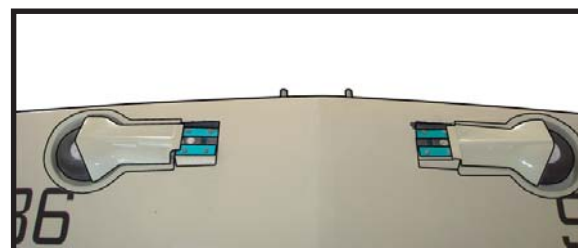
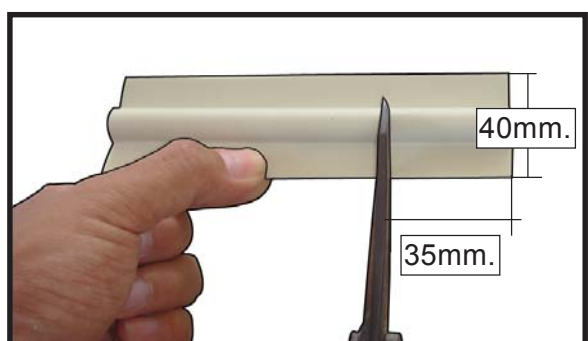
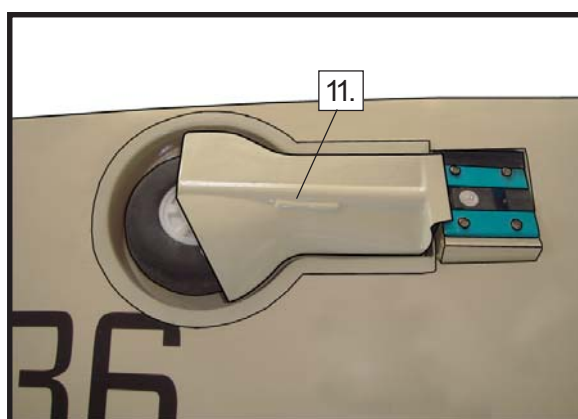
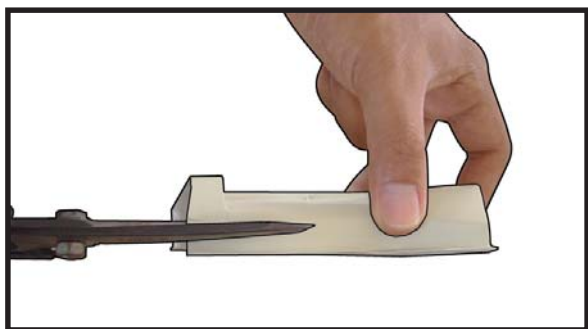
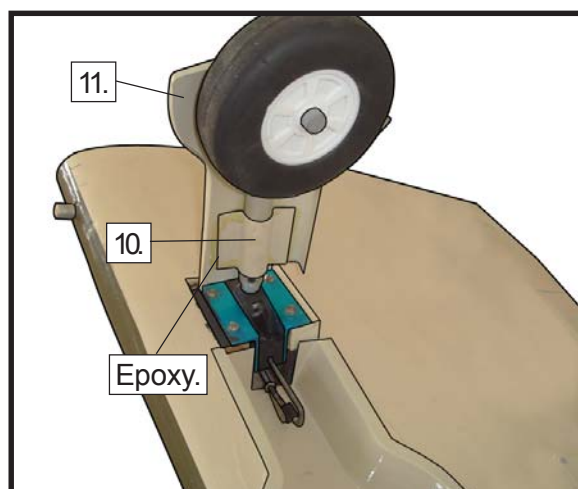
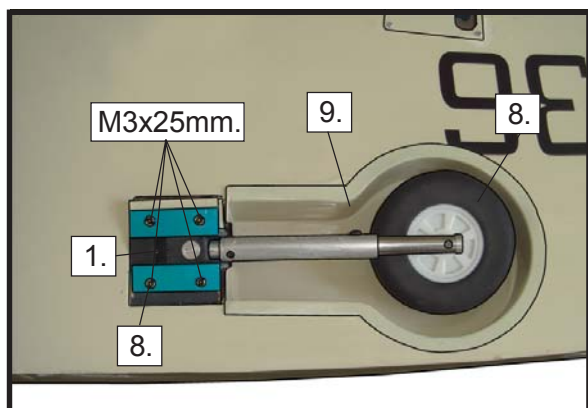
## PUSHROD INSTALLATION



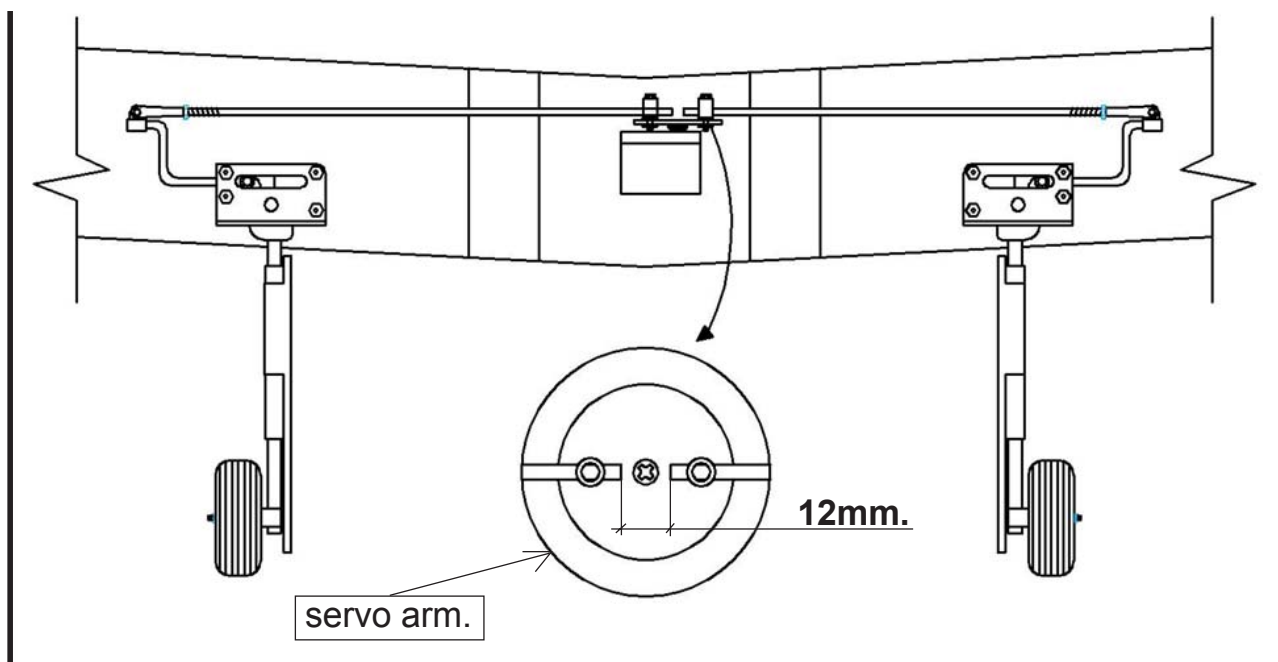




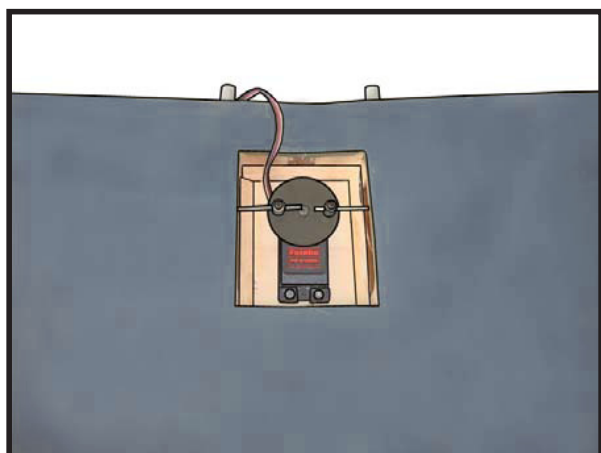
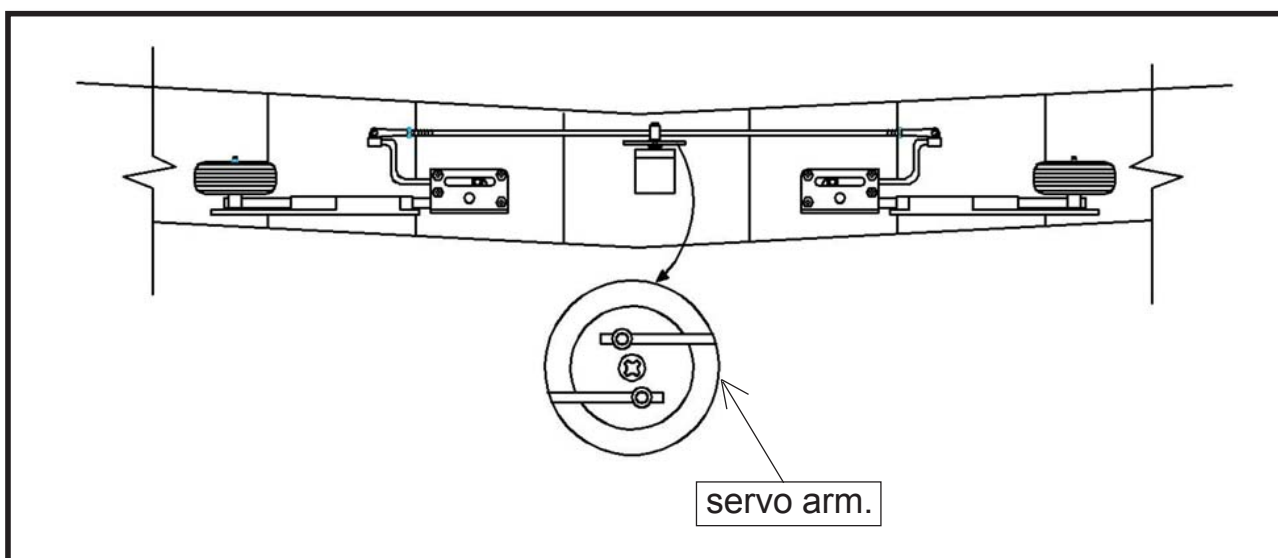




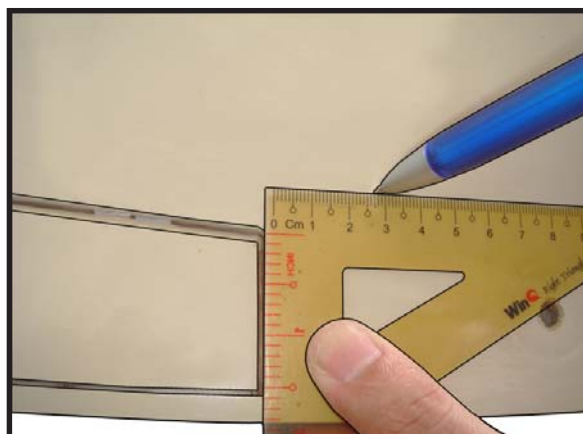
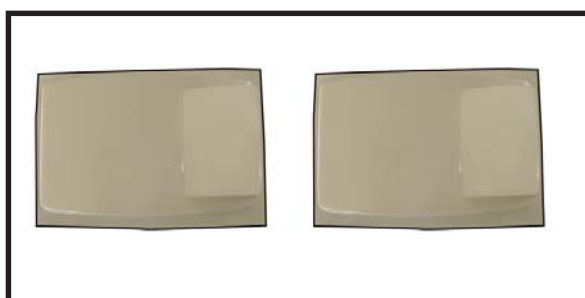
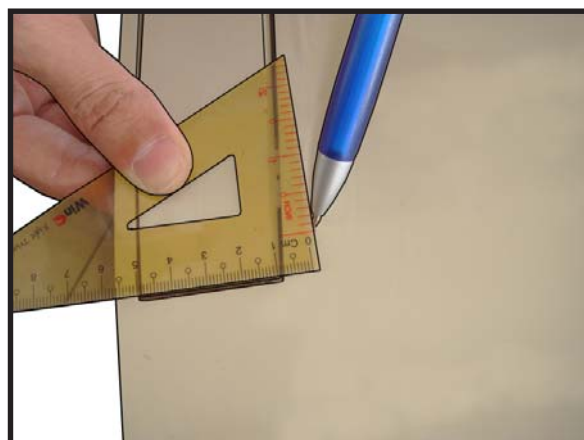
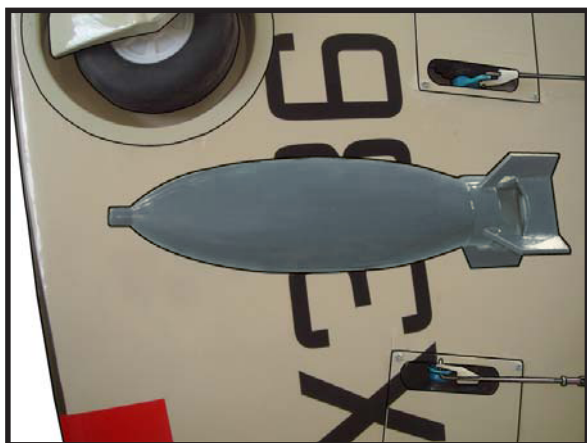
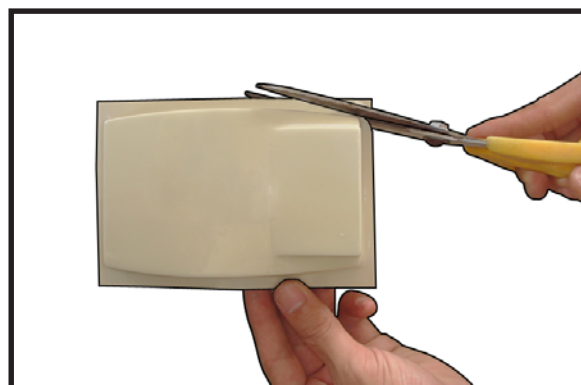
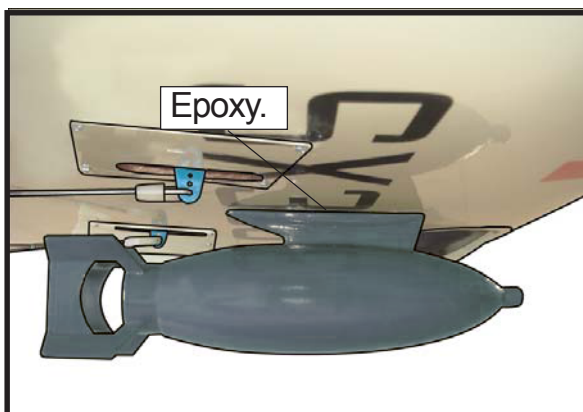
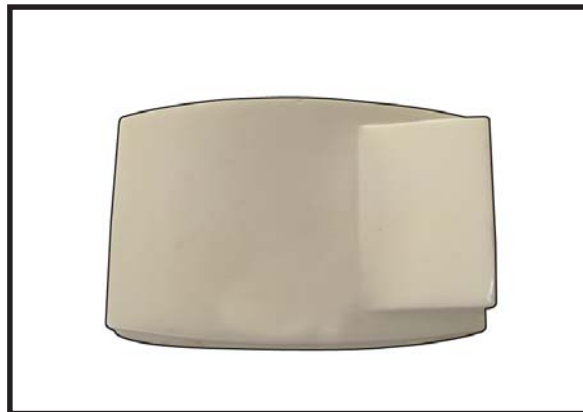
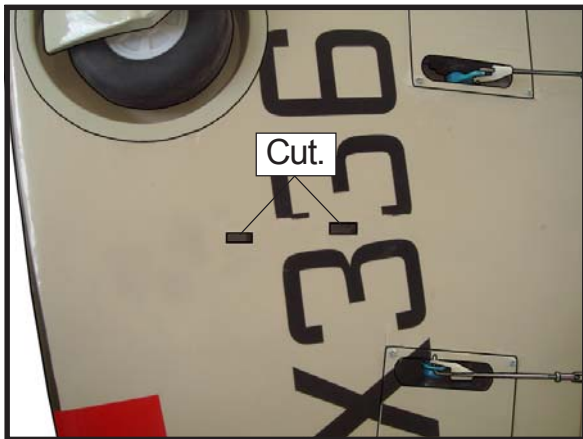




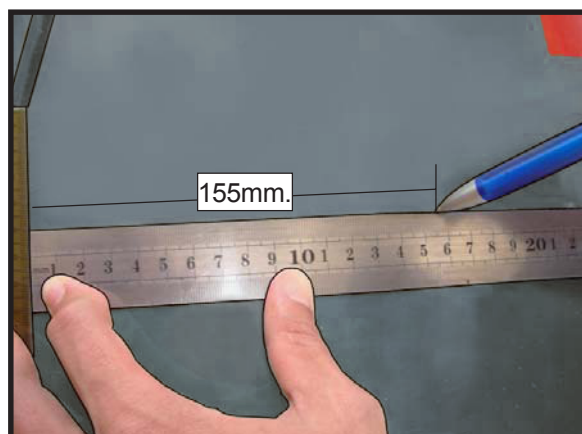
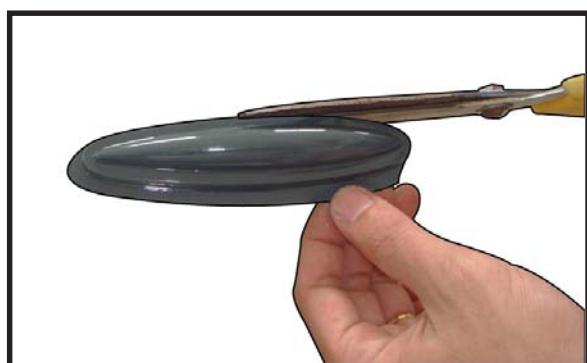
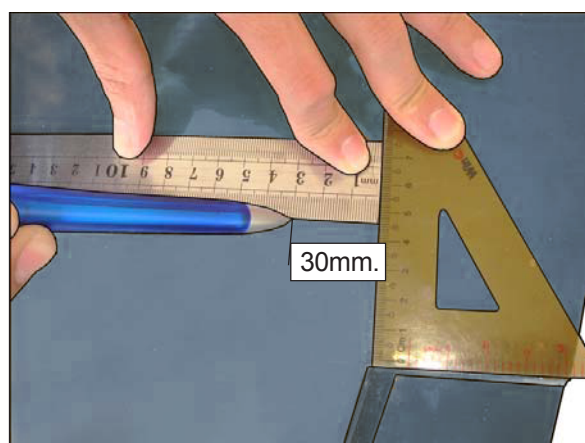
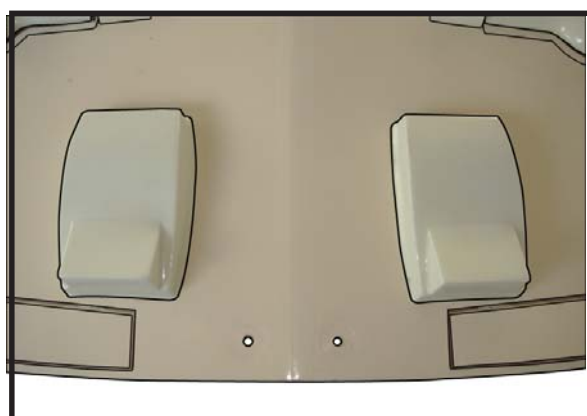
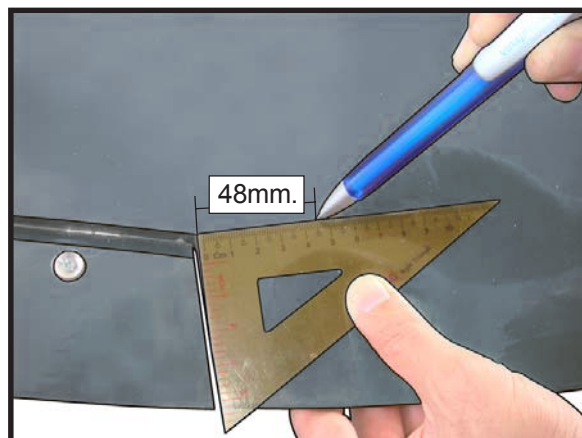
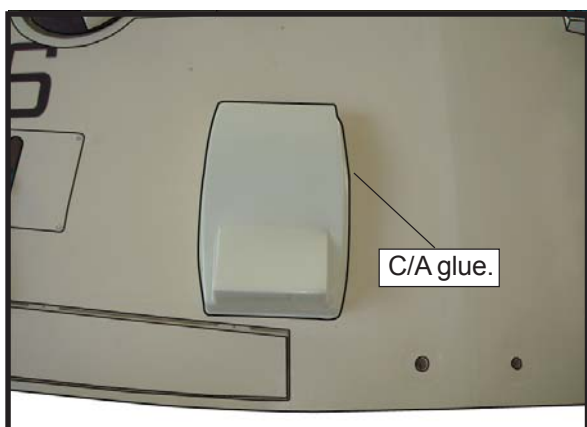
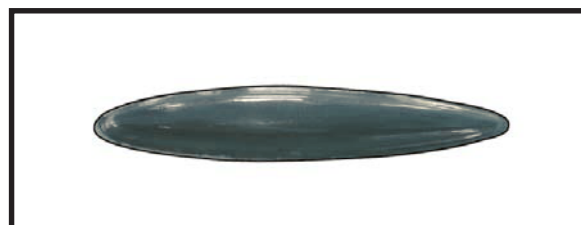
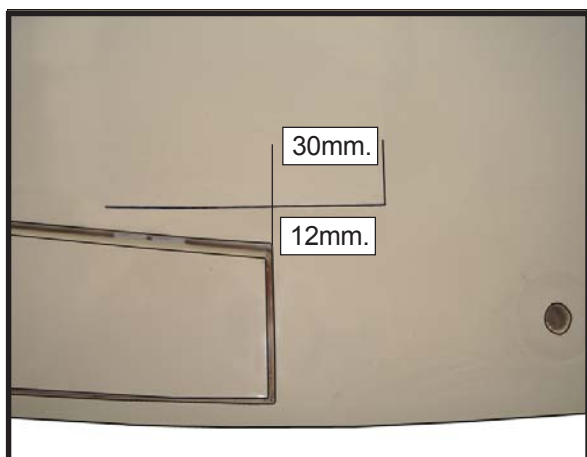
Close Position.



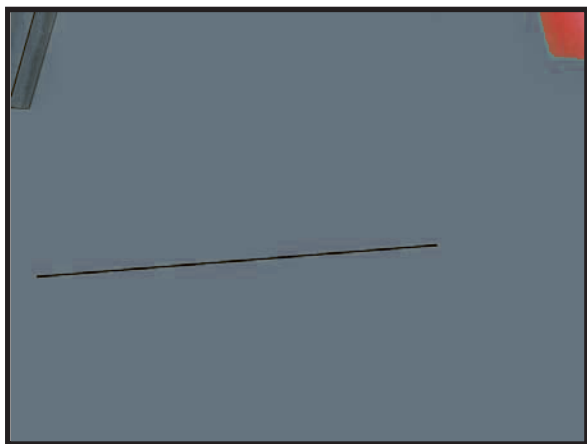






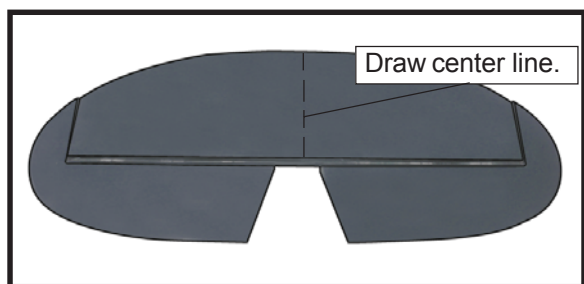




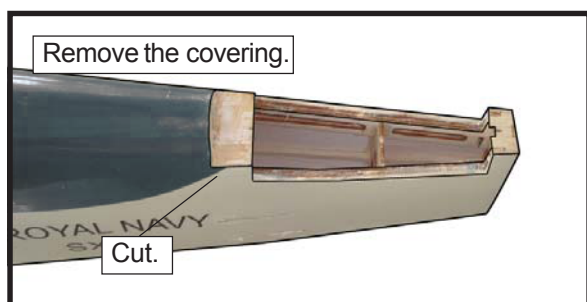


#### INSTALLING THE HORIZONTAL STABILISER

1) Using a ruler and a pen, locate the centerline of the horizontal stabiliser, at the trailing edge, and place a mark. Use a triangle and extend this mark, from back to front, across the top of the stabiliser. Also extend this mark down the back of the trailing edge of the stabiliser.



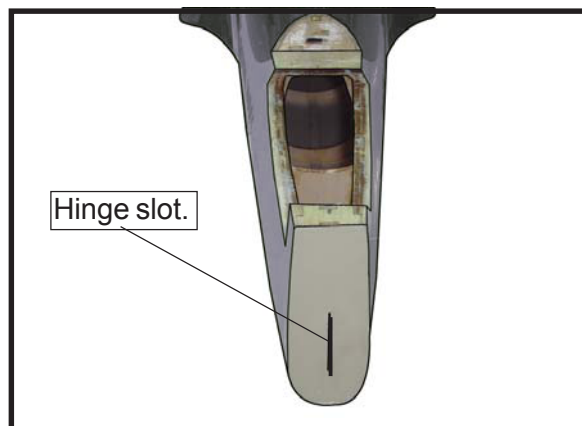
2) Using a modelling knife, carefully remove the covering at mounting slot of horizontal stabiliser.



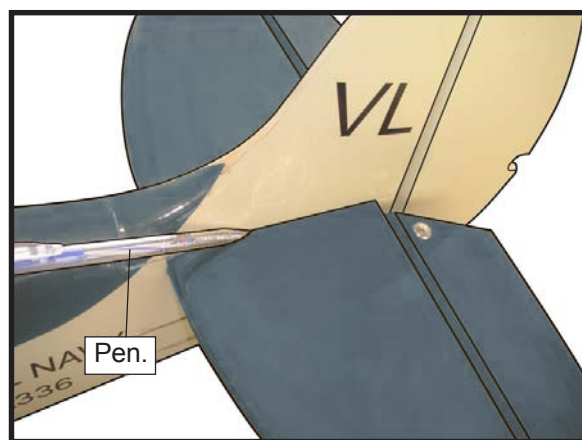
3) Put the stabiliser into place in the position of the fuselage.

4) Install the stabiliser onto the fuselage. Align the centerline drawn on the top and the rear of the stabiliser with the centre of the fuselage. When that is aligned, hold the stabiliser in that position using T-pins or masking tape. Align the horizontal stabiliser with the wing. When viewed from the rear, the horizontal stabiliser should be level with the wing. If it is not level, use sandpaper and sand down the high side of the stabiliser mounting platform until the proper alignment is achieved. The tips of the stabiliser should also be equal distance from the tips of the wing.

5) When you are satisfied with the alignment, hold the stabiliser in place with T-pins or masking tape, but do not glue at this time.

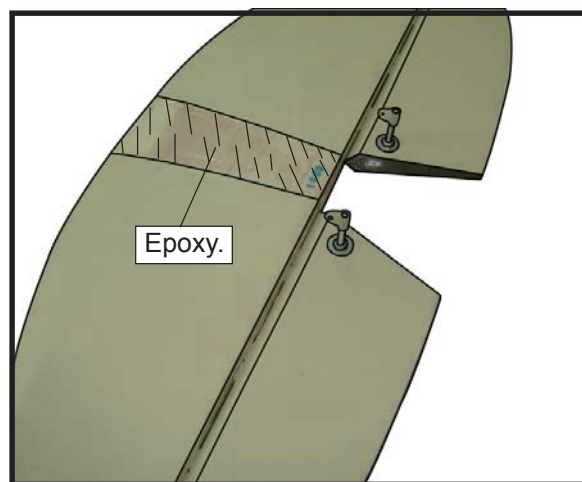
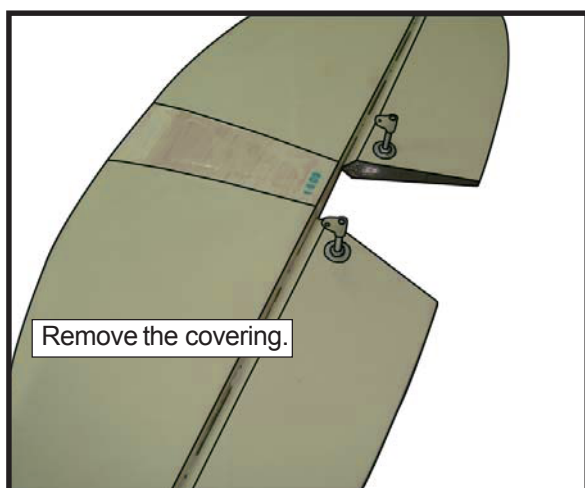


6) With the stabiliser held firmly in place, use a pen and draw lines onto the stabiliser where it and the fuselage sides meet. Do this on both the right and left sides and top and bottom of the stabiliser.



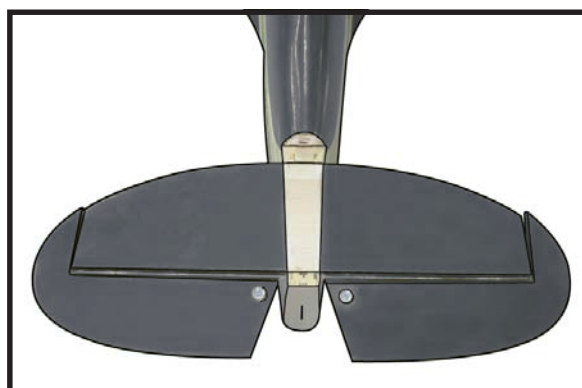
7) Remove the stabiliser. Using the lines you just drew as a guide, carefully remove the covering from between them using a modelling knife.





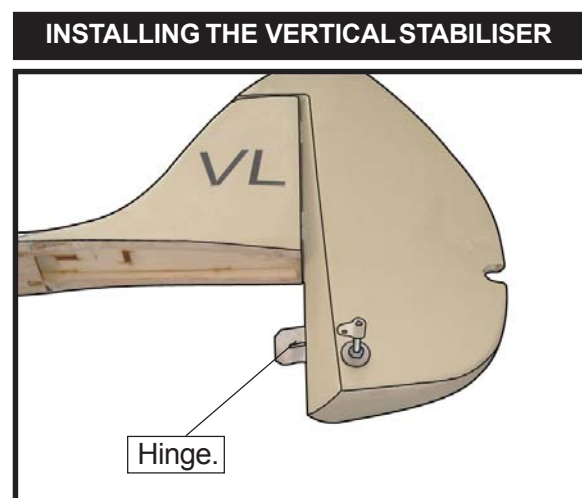
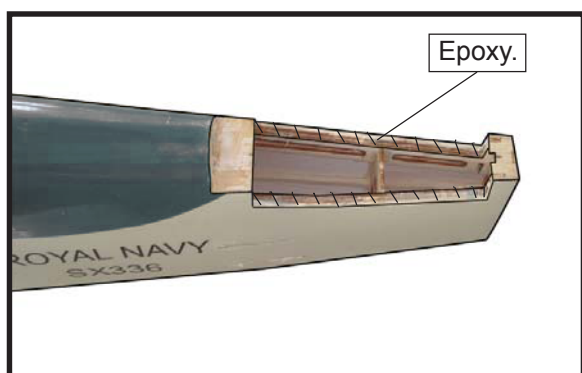
**⚠ When cutting through the covering to remove it, cut with only enough pressure to only cut through the covering itself. Cutting into the balsa structure may weaken it.**

8) Using a modelling knife, carefully remove the covering that overlaps the stabiliser mounting platform sides in the fuselage. Remove the covering from both the top and the bottom of the platform sides.



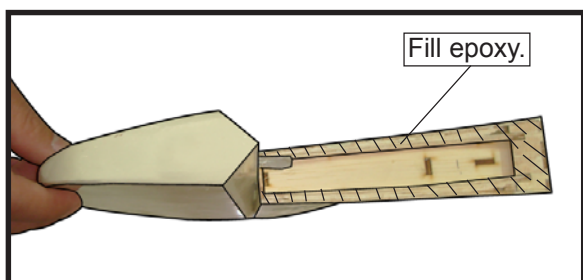
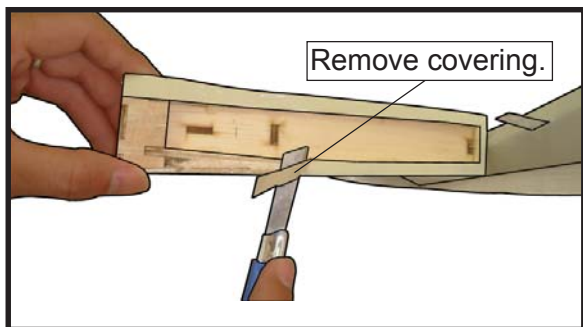
9) When you are sure that everything is aligned correctly, mix up a generous amount of 30 Minute Epoxy. Apply a thin layer to the bottom of the stabiliser mounting area and to the stabiliser mounting platform sides in the fuselage. Put the stabiliser in place and realign. Double check all of your measurements once more before the epoxy cures. Hold the stabiliser in place with T-pins or masking tape and remove any excess epoxy using a paper towel and rubbing alcohol.

10) After the epoxy has fully cured, remove the masking tape or T-pins used to hold the stabiliser in place. Carefully inspect the glue joints. Use more epoxy to fill in any gaps that may exist that were not filled previously and clean up the excess using a paper towel and rubbing alcohol.

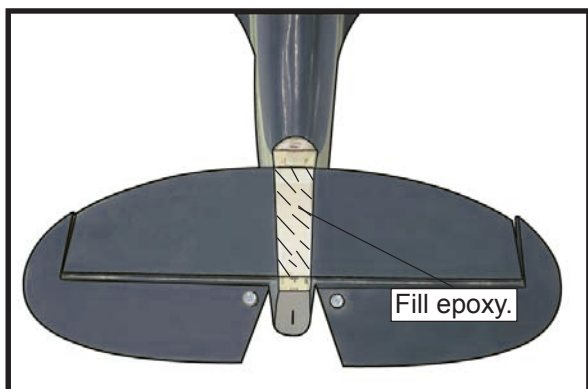


1) Using a modelling knife, remove the covering from over the precut hinge slot cut into the lower rear portion of the fuselage.

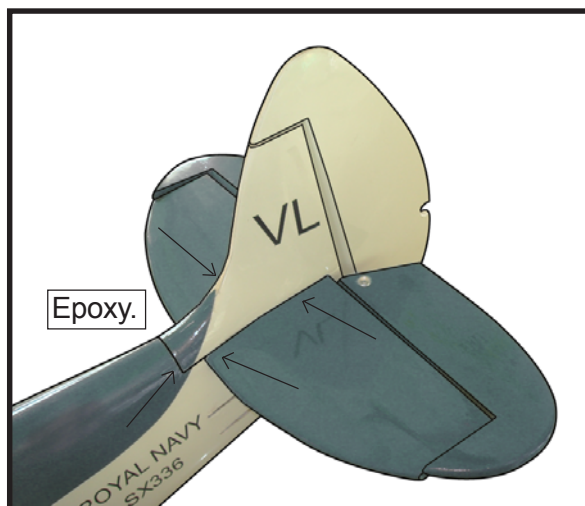
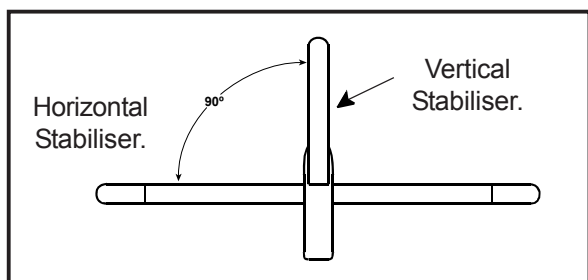




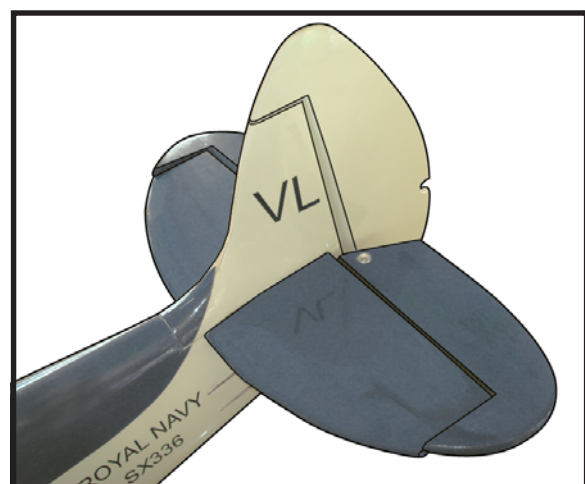
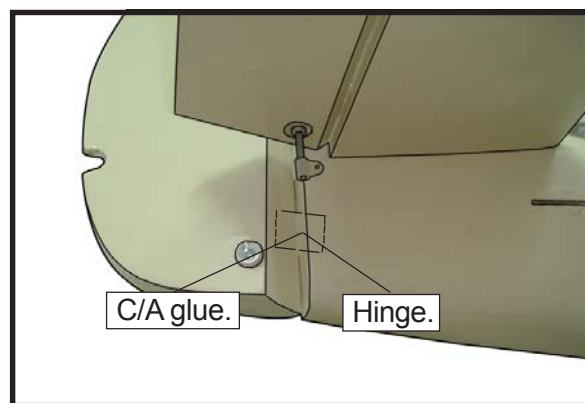
2) While holding the vertical stabiliser firmly in place, use a pen and draw a line on each side of the vertical stabiliser where it meets the top of the fuselage.



3) Slide the vertical stabiliser back in place. Using a triangle, check to ensure that the vertical stabiliser is aligned 90° to the horizontal stabiliser.

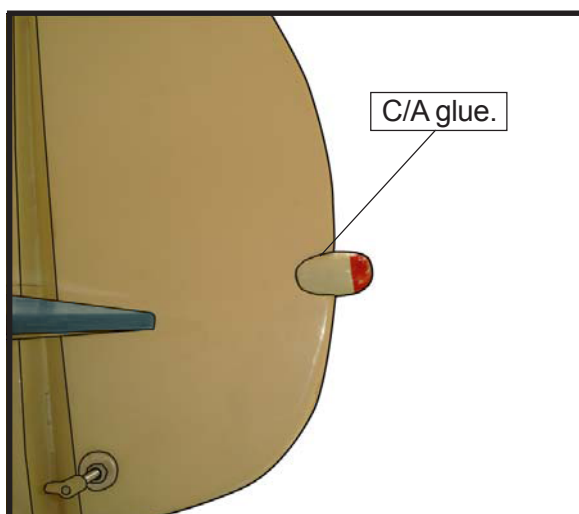
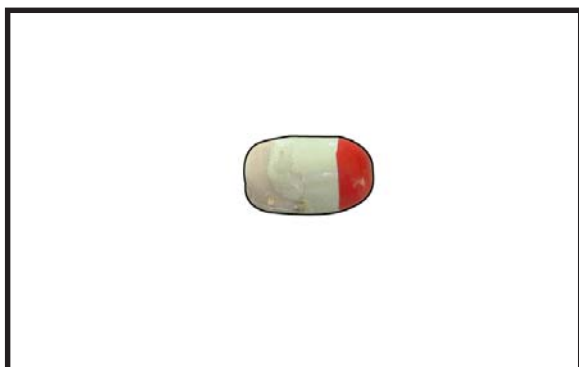


4) When you are sure that everything is aligned correctly, mix up a generous amount of 30 Minute Epoxy. Apply a thin layer to the mounting slot and to bottom of the vertical stabiliser mounting area. Apply epoxy to the bottom and top edges of the filler block and to the lower hinge also. Set the stabiliser in place and realign. Double check all of your measurements once more before the epoxy cures. Hold the stabiliser in place with T-pins or masking tape and remove any excess epoxy using a paper towel and rubbing alcohol. Allow the epoxy to fully cure before proceeding.



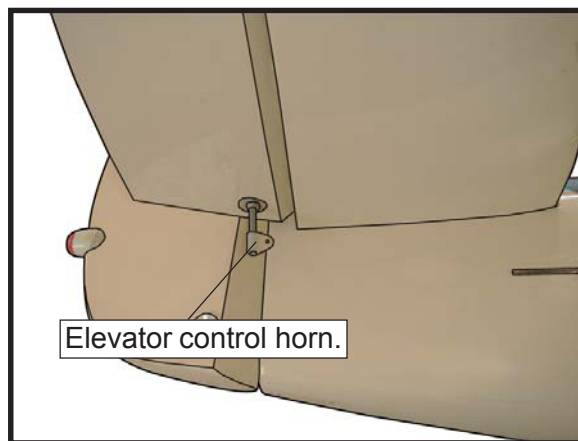
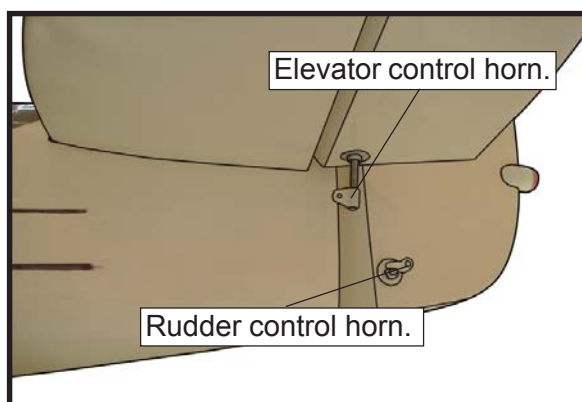


## ELEVATOR PUSHROD HORN INSTALLATION



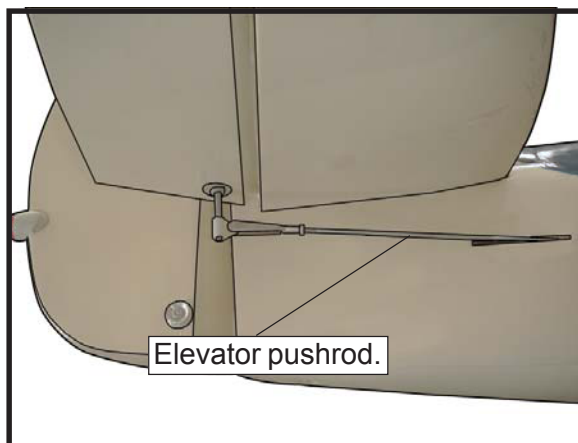
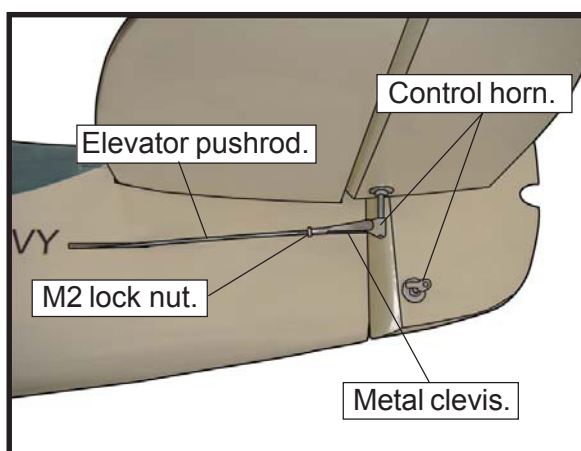
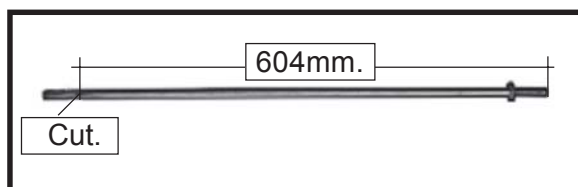
1) Install the elevator control horn using the same method as with the aileron control horns.

2) Position the elevator control horn on the both side of elevator.

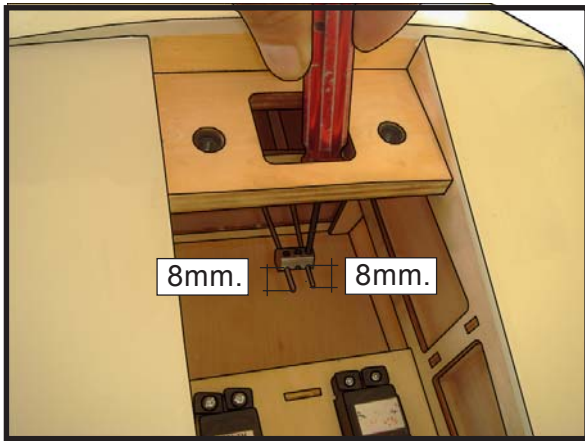


3) Thread one clevis and M2 lock nut on to each elevator control rod. Thread the horns on until they are flush with the ends of the control rods.

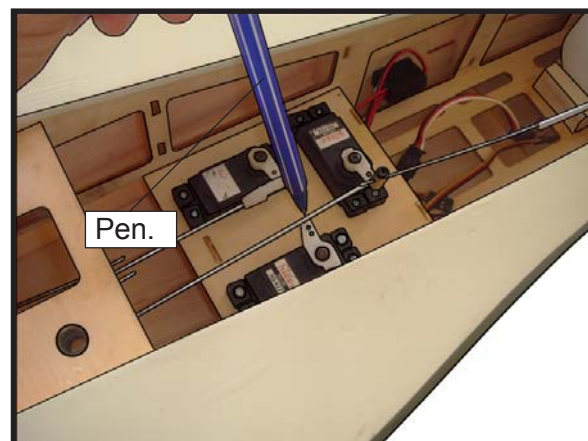
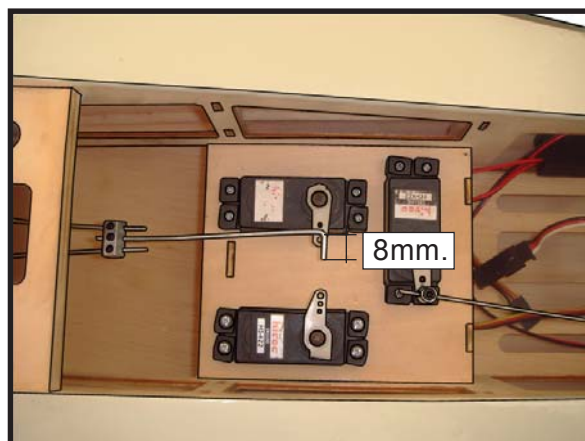
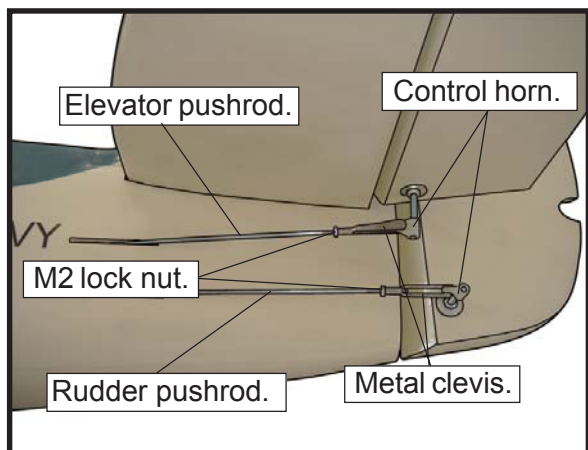
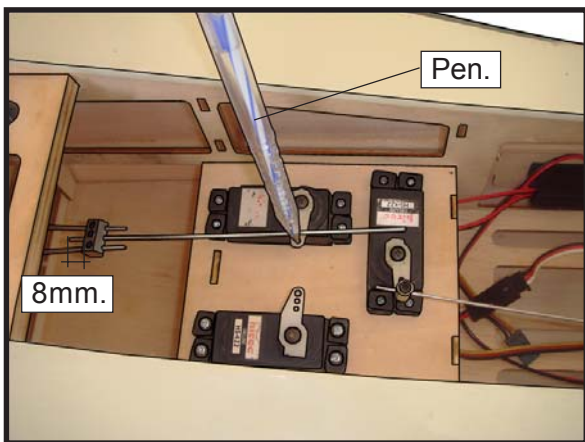
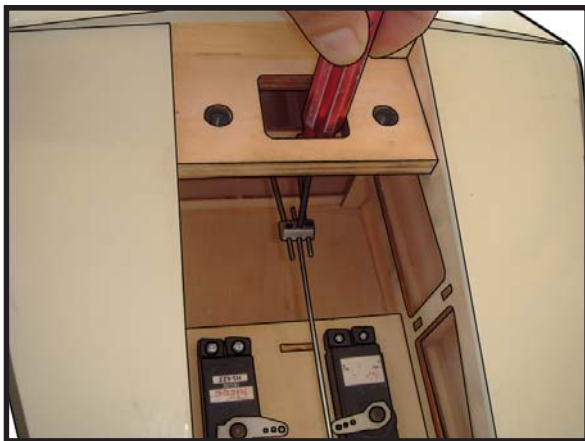
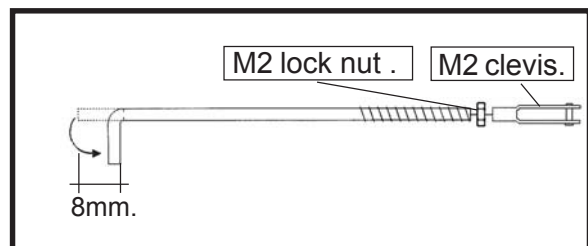
4) Elevator and rudder pushrods assembly as pictures below.



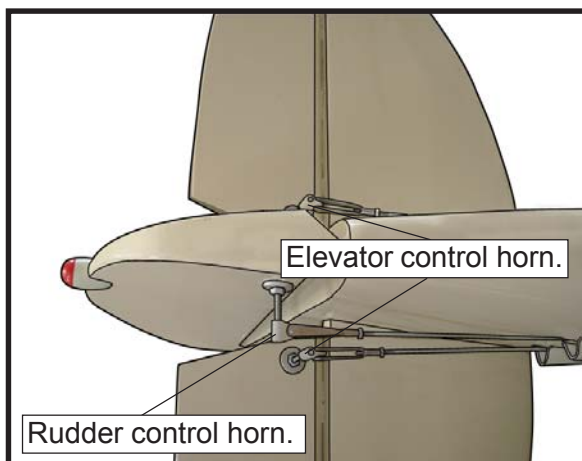
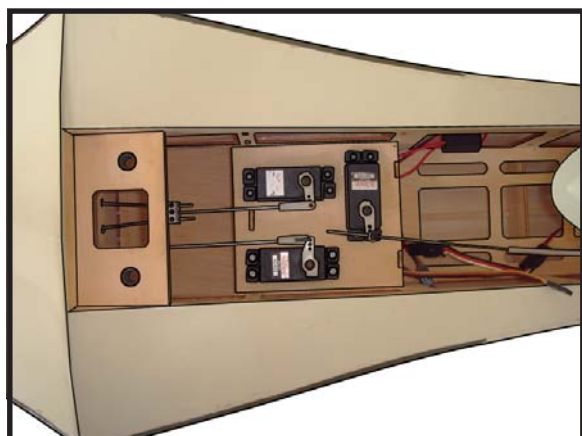
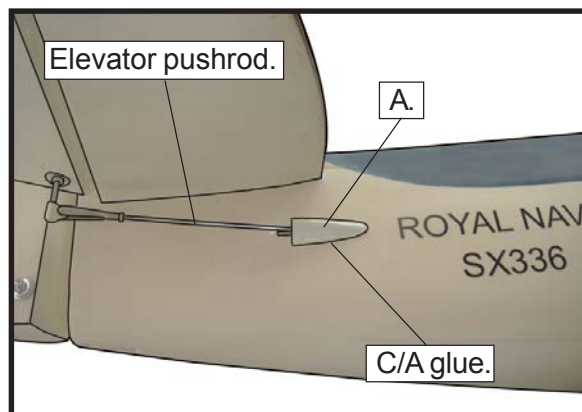
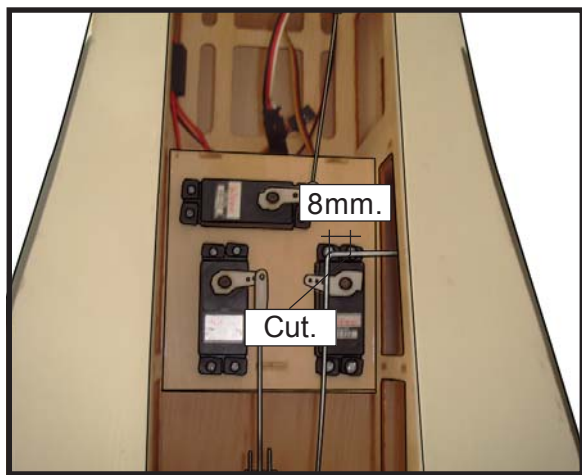




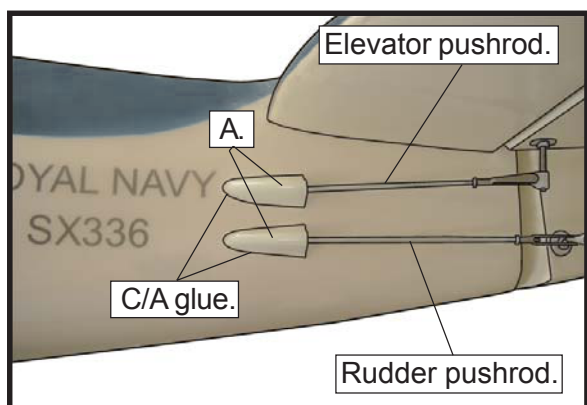
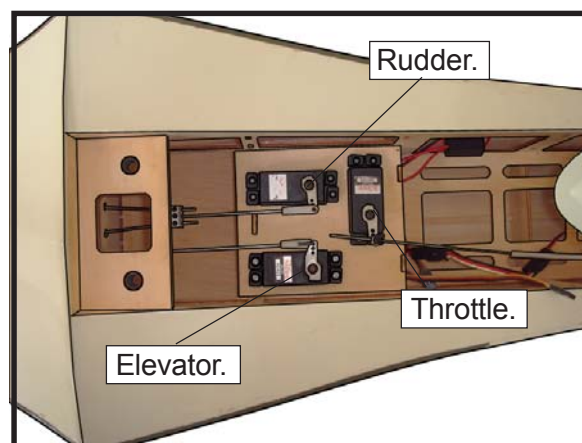
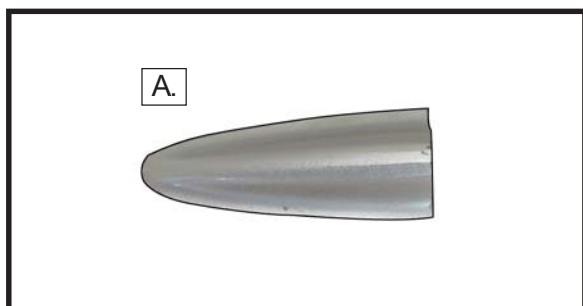
## RUDDER PUSHROD HORN INSTALLATION





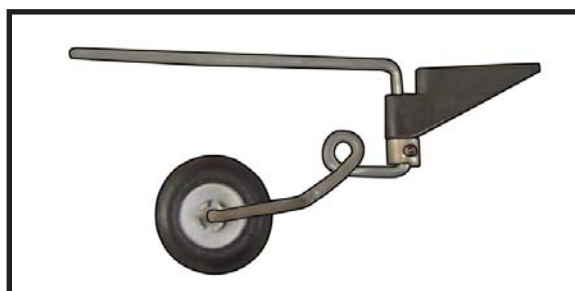


Install servos arm to servos. Notice the position of the servo arms on the servos. See picture below.

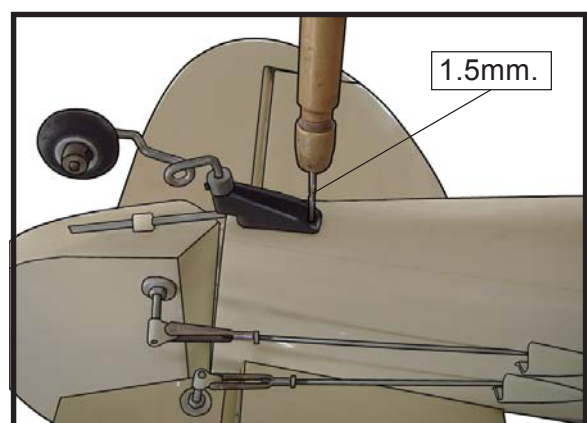
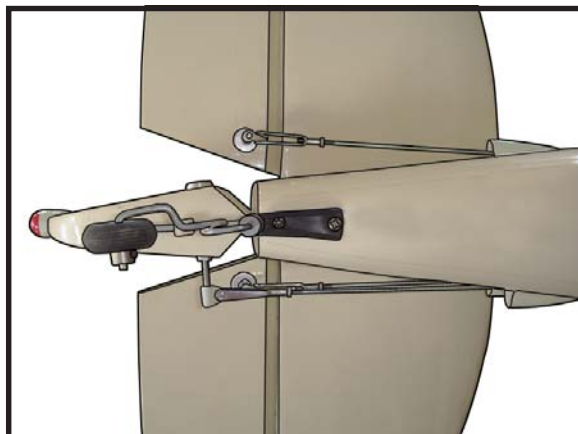
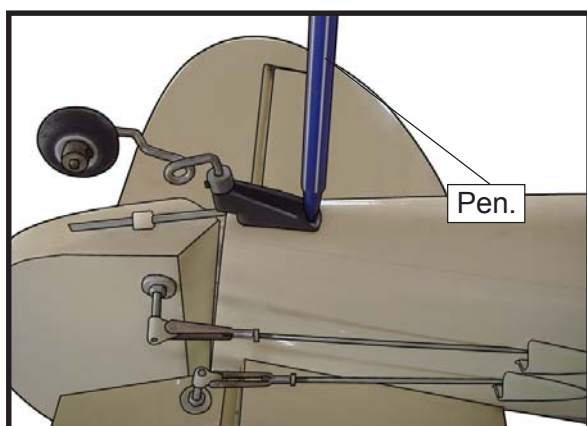
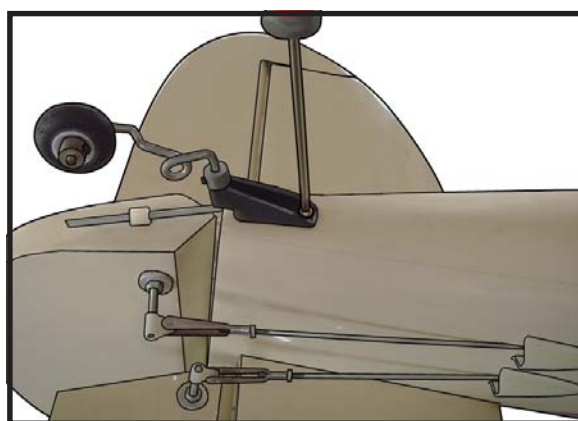
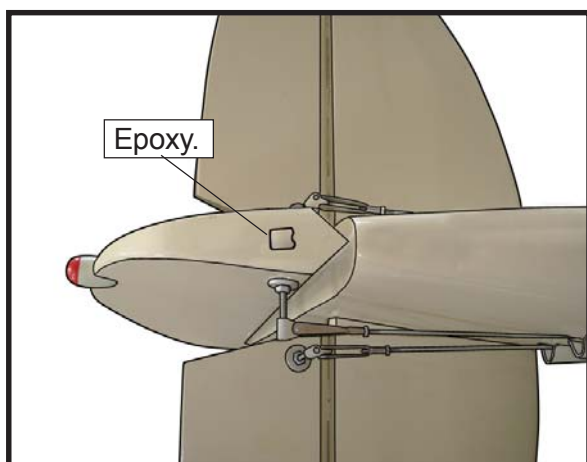
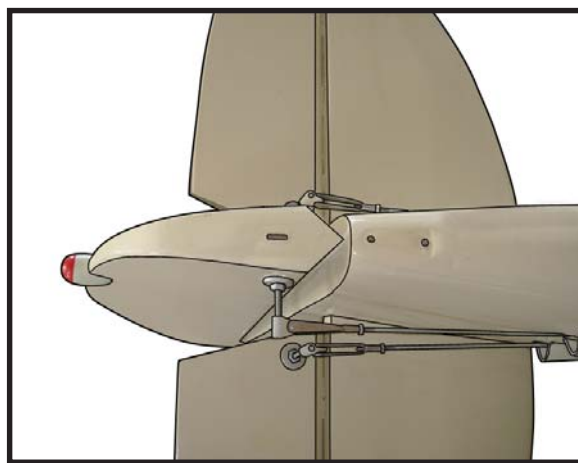
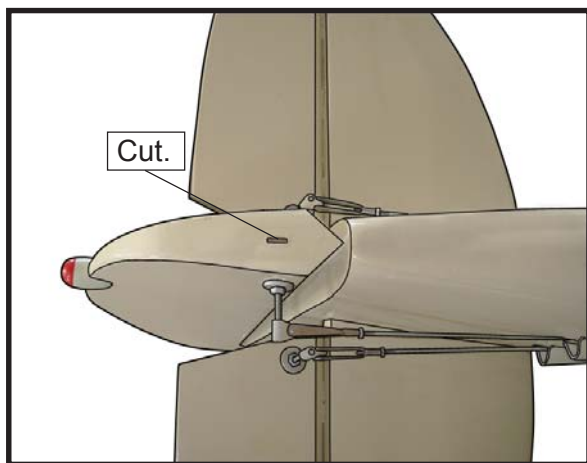


## MOUNTING THE TAIL WHEEL

Locate items necessary to install tail gear.







### APPLY THE DECALS

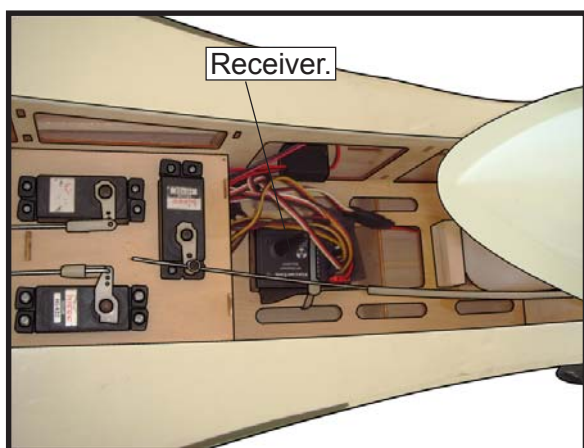
1) If all the decals are precut and ready to stick. Please be certain the model is clean and free from oily fingerprints and dust. Position decal on the model where desired, using the photos on the box to aid in their location.

2) If all the decals are not precut, please use scissors or a sharp hobby knife to cut the decals from the sheet. Please be certain the model is clean and free from oily fingerprints and dust. Position decal on the model where desired, using the photos on the box to aid in their location.

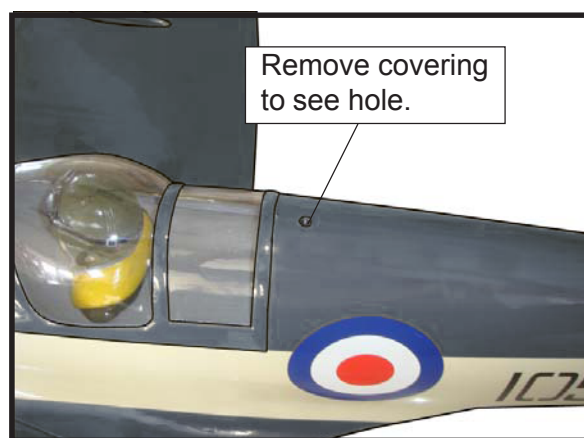


## INSTALLING ANTENNA AND THE RECEIVER

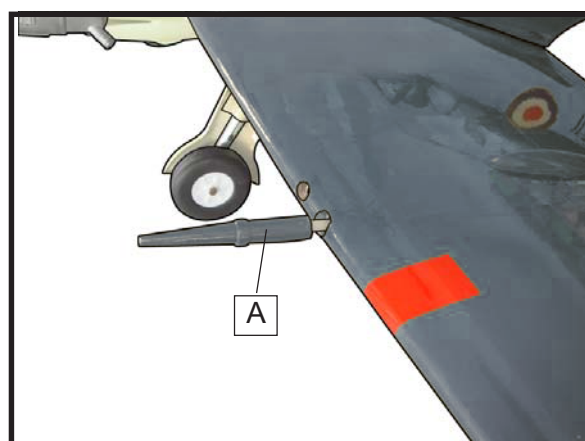
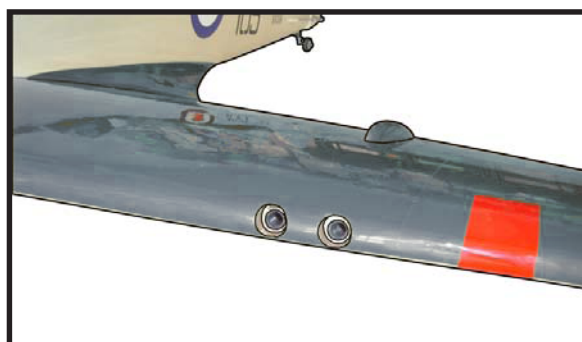
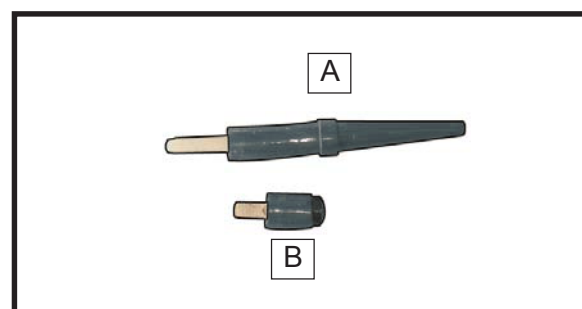
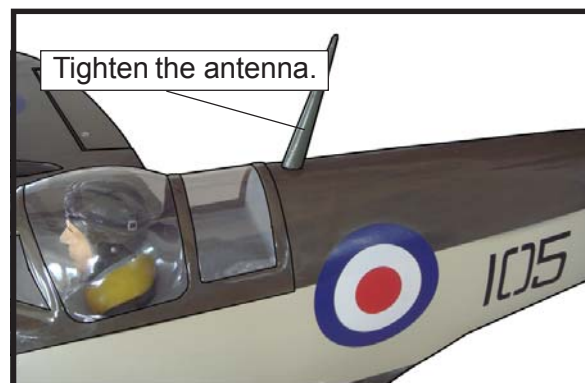
- 1) Plug the five servo leads and the switch lead into the receiver. Plug the battery pack lead into the switch also.
- 2) Wrap the receiver and battery pack in the protective foam rubber to protect them from vibration.
- 3) Route the antenna in the antenna tube inside the fuselage and secure it to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



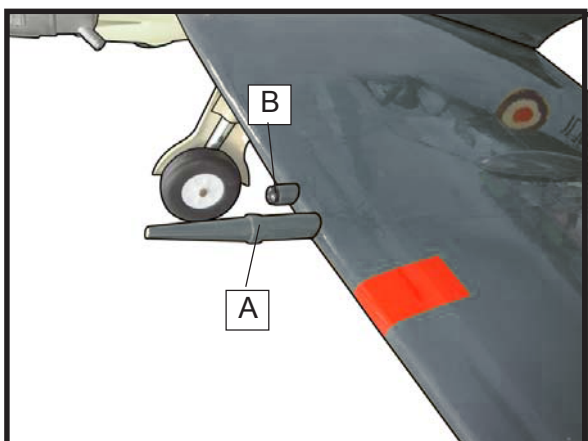
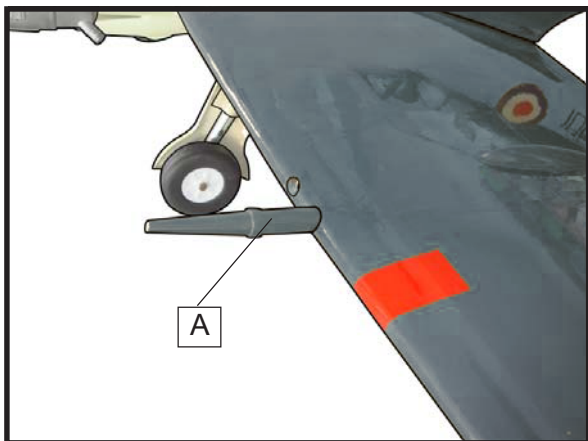
- 4) The last detail is to install the antenna onto the fuselage. Use a hobby knife to cut a slot in the top of the fuselage for the antenna.



- 5) Tighten the antenna to the fuselage. The antenna is removeable so you can install it at the flying field to prevent damage in transporting.

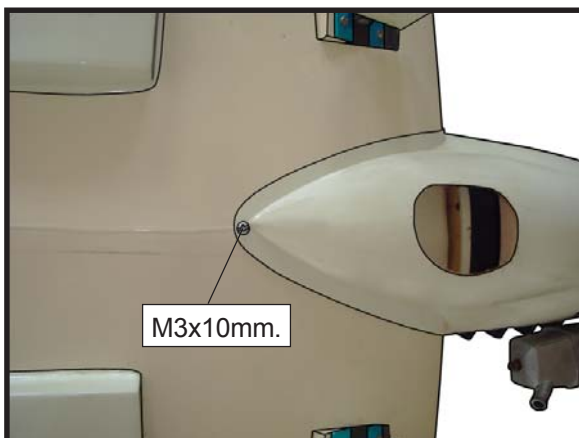
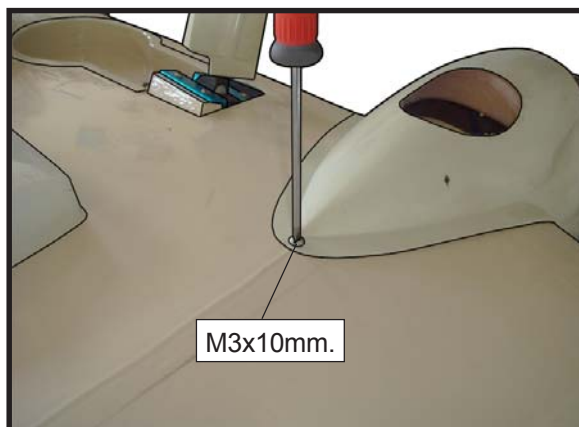
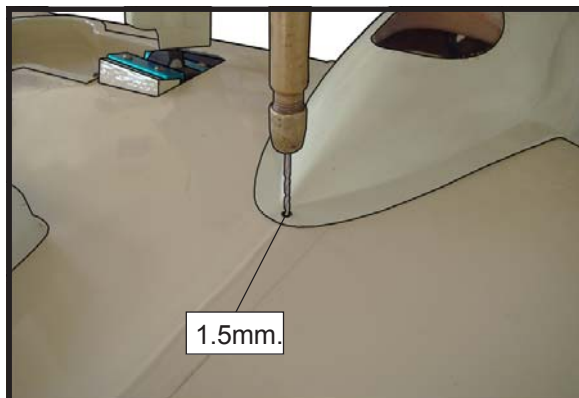
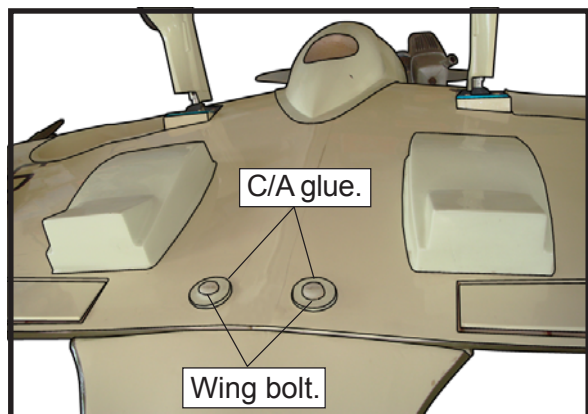




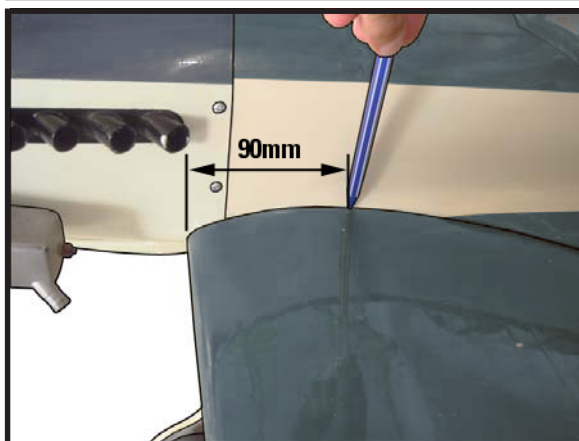


### ATTACHMENT WING-FUSELAGE

Use the two wing bolts to attach the wing to the fuselage. Make sure the distance between a point centered at the rear of the fuselage and each wing tip. The measurement will be equal if the wing is aligned correctly. If the measurement is not the same, slightly the hole for the wing bolts until an equal measurement is achieved.



### CENTRE OF GRAVITY





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 90mm back from the leading edge of the wing, measured at the wing root.

2) If the nose of the plane falls, the plane is nose heavy. To correct this first move the battery pack further back in the fuselage. If this is not possible or does not correct it, stick small amounts of lead weight on the fuselage sides under the horizontal stabilizer. If the tail of the plane falls, the plane is tail heavy. To correct this, move the battery and receiver forward or if this is not possible, stick weight onto the firewall or use a brass heavy hub spinner hub. When balanced correctly, the airplane should sit level or slightly nose down when you lift it up with your fingers.

### CONTROL CHECKS AILERONS

1) We highly recommend setting up the SEAFIRE using the control throws listed BELOW. We have listed control throws for both Low Rate (initial test flying/sport flying) and High Rate (aerobatic flying).

2) Turn on the radio system, and with the trim tabs on the transmitter in neutral, center the control surfaces by making adjustments to the clevises or adjustable servo connectors. The servo arms should be centered also.

3) When the elevator, rudder and aileron control surfaces are centered, use a ruler and check the amount of the control throw in each surface. The control throws should be measured at the widest point of each surface!

4) By moving the position of the adjustable control horn out from the control surface, you will decrease the amount of throw of that control surface. Moving the adjustable control horn toward the control surface will increase the amount of throw.

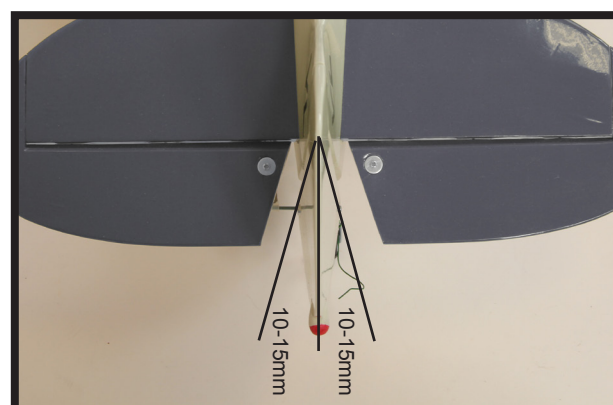
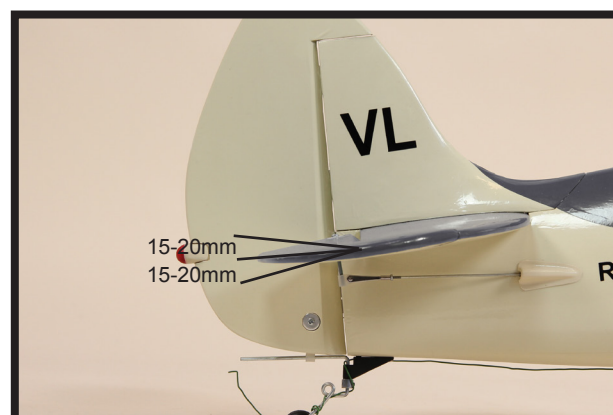
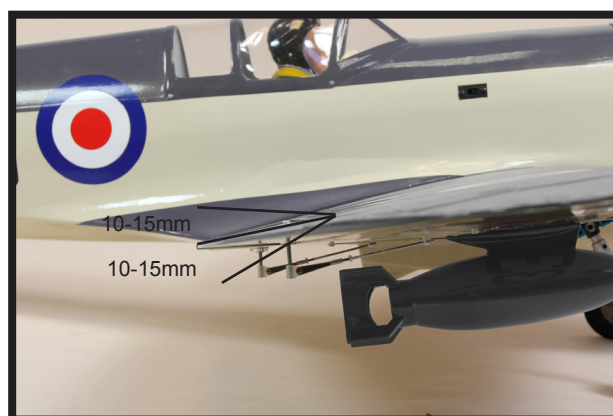
### INITIAL FLYING/SPORT FLYING

Ailerons:	10mm up	10mm down
Elevator:	15mm up	15mm down
Rudder:	10mm right	10mm left

### AEROBATIC FLYING

Ailerons:	15mm up	15mm down
Elevator:	20mm up	20mm down
Rudder:	15mm right	15mm left

Do not use the aerobatic settings for initial test flying or sport flying.





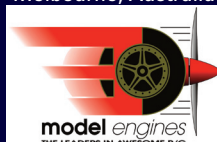








Australasia agents: Model Engines,  
Melbourne, Australia



[www.modelengines.com.au](http://www.modelengines.com.au)

European agents: J Perkins Distribution,  
Lenham, England



[www.jperkinsdistribution.co.uk](http://www.jperkinsdistribution.co.uk)