

RADIO CONTROL MODEL

VQAA040G
VQAA040B

HURRICANE

Almost ready to fly

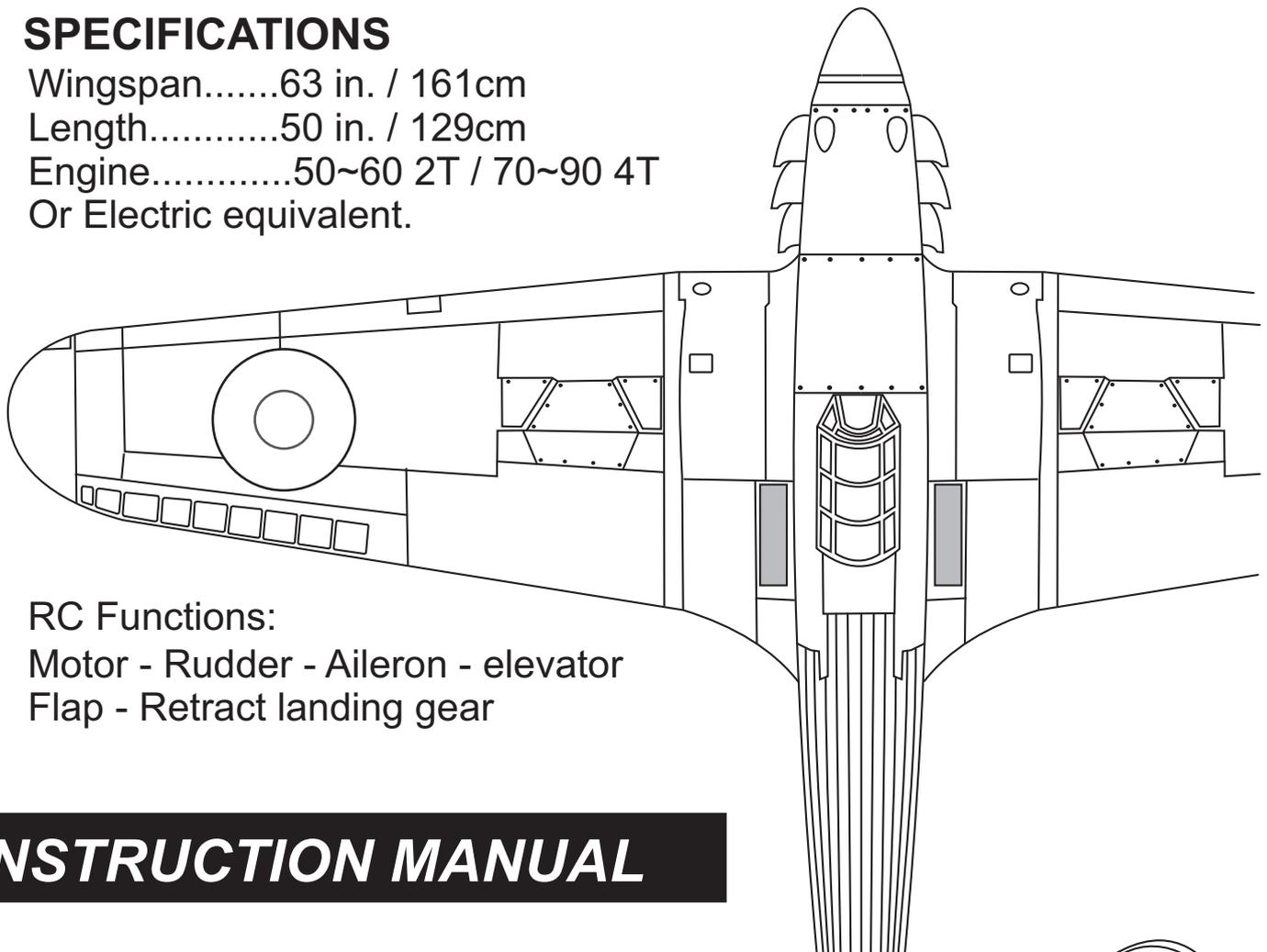
SPECIFICATIONS

Wingspan.....63 in. / 161cm

Length.....50 in. / 129cm

Engine.....50~60 2T / 70~90 4T

Or Electric equivalent.

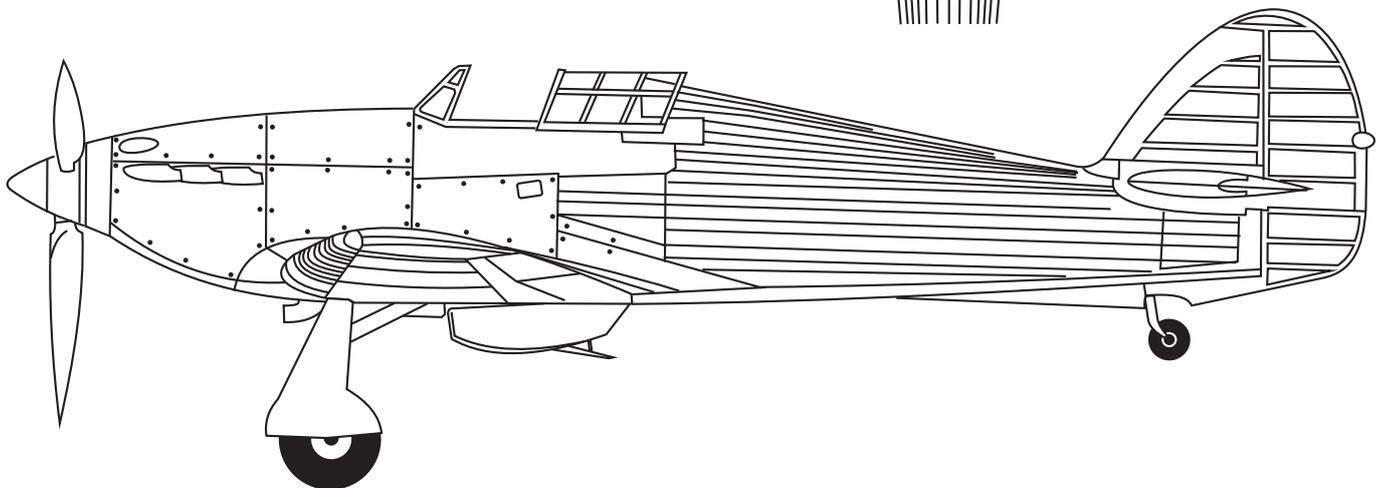


RC Functions:

Motor - Rudder - Aileron - elevator

Flap - Retract landing gear

INSTRUCTION MANUAL



WARNING!

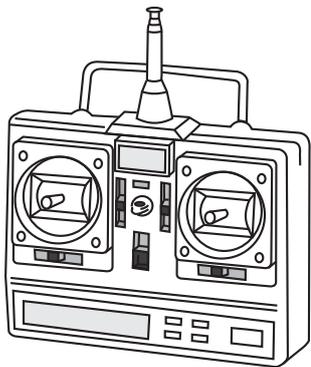
This radio control model is not a toy. If modified or flown carelessly it could go out of control and cause serious bodily injury or property damage.

Before flying your airplane, ensure the air field is spacious enough.

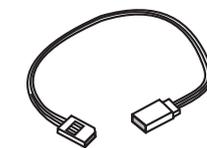
Always fly it outdoors in safe areas with no debris or obstacles.



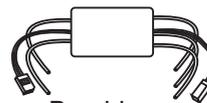
REQUIRED FOR OPERATION (Purchase separately)



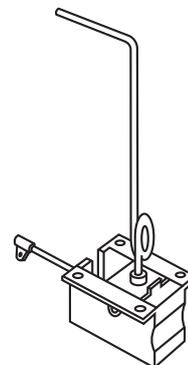
12x6 for .60 - 2 cycle engine
 13x6 for .70 - 4 cycle engine
 14x6 for .90 - 4 cycle engine
 14x8 ~ 15x8 - Brushless Motor



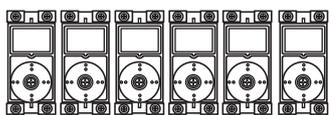
Extension for aileron servo, retract servo.



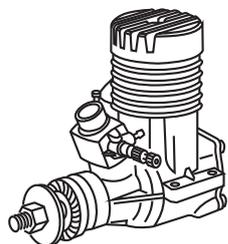
Brushless Motor Control



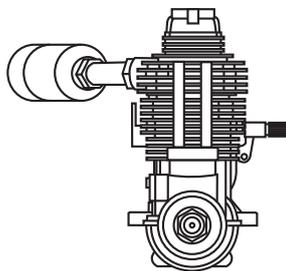
Retract landing gear VQAR06



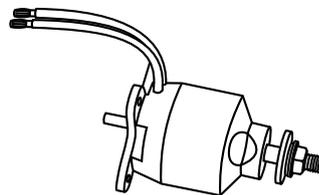
Minimum 6 channel radio for airplane with 6 servos
 .Motor control x1 .Aileron x2
 .Elevator x1 .Rudder x1
 -Flap x1



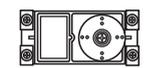
.50 ~ .60 - 2 cycle



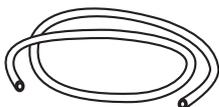
.70 ~ .90 - 4 cycle



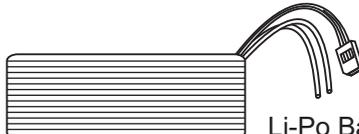
Quantum 4120/07 Brushless Motor or equivalent.



Retract servo x1



Silicone tube



Li-Po Battery.

Linkage Stopper x2 (for retract servo)

GLUE (Purchase separately)



Silicon sealer

Cyanoacrylate Glue

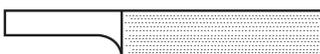


Epoxy Glue (5 minute type)
 Epoxy Glue (30 minute type)

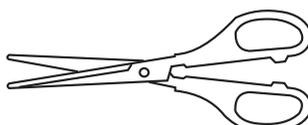
TOLLS REQUIRED (Purchase separately)

Hobby knife 

Needle nose Pliers 

Sander 

Phillip screw driver 

Scissors 

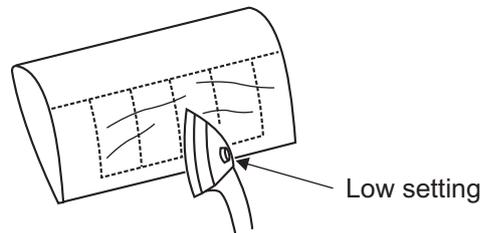
Hex Wrench 

Awl 

Wire Cutters 

Masking tape - Straight Edged Ruler - Pen or pencil - Rubbing alcohol - Drill and Assorted Drill Bits

The pre-covered film on ARF kit may wrinkle due to variations of temperature. Smooth out as explained right.
 * Use an iron or heat gun. Start as low setting. Increase the setting if necessary. If it is too high, you may damage the film



Symbols used throughout this instruction manual, comprise:

 Drill holes using the stated size of drill (in this case 1.5 mm Ø)

 Take particular care here

 Hatched-in areas: remove covering film carefully

 Check during assembly that these parts move freely, without binding

 Use epoxy glue

 Apply cyano glue

 Assemble left and right sides the same way.

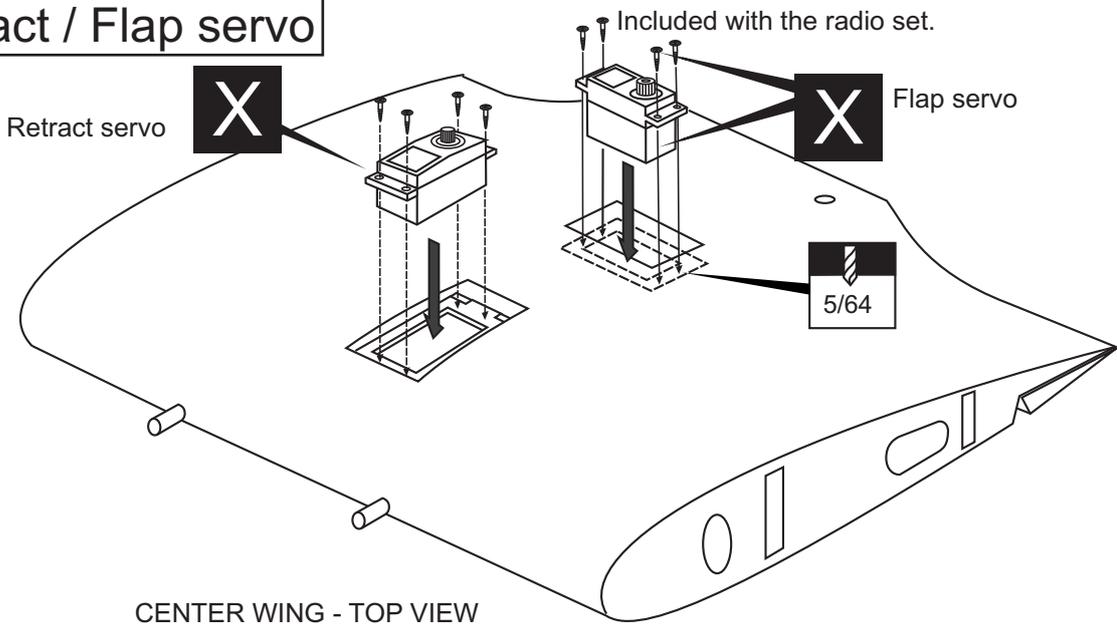
 Not included. These parts must be purchased separately

Read through the manual before you begin, so you will have an overall idea of what to do.

CONVERSION TABLE

1.0mm = 3/64"	3.0mm = 1/8"	10mm = 13/32"	25mm = 1"
1.5mm = 1/16"	4.0mm = 5/32"	12mm = 15/32"	30mm = 1-3/16"
2.0mm = 5/64"	5.0mm = 13/64"	15mm = 19/32"	45mm = 1-51/64"
2.5mm = 3/32"	6.0mm = 15/64"	20mm = 51/64"	

1- Retract / Flap servo



2- Retract landing gear

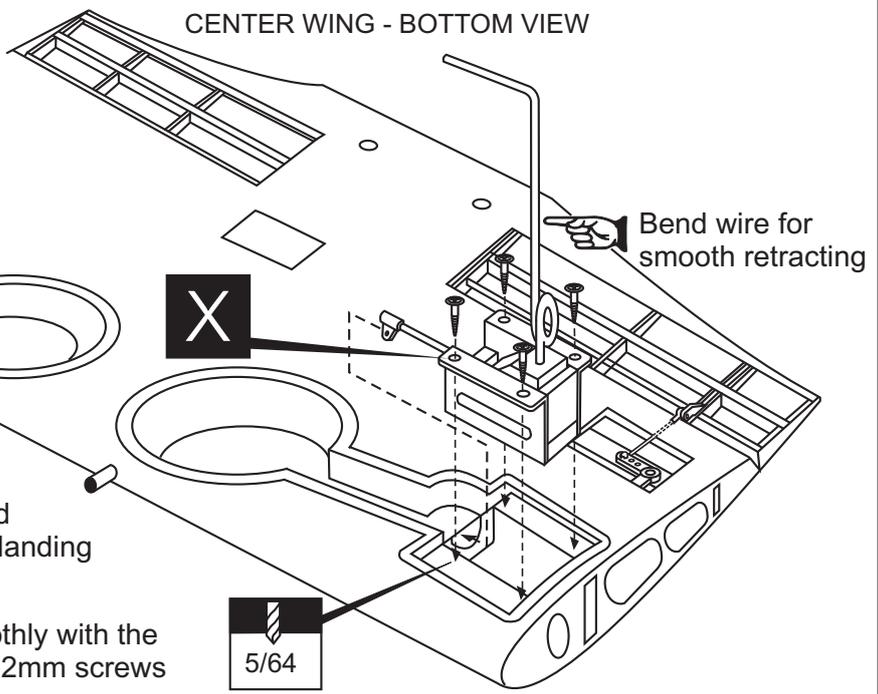
3x12mm screw
8

L/R

Trial fit the push rod into the wing. Join the pushrod to the retract gear arm and trial fit the retract into the wing.

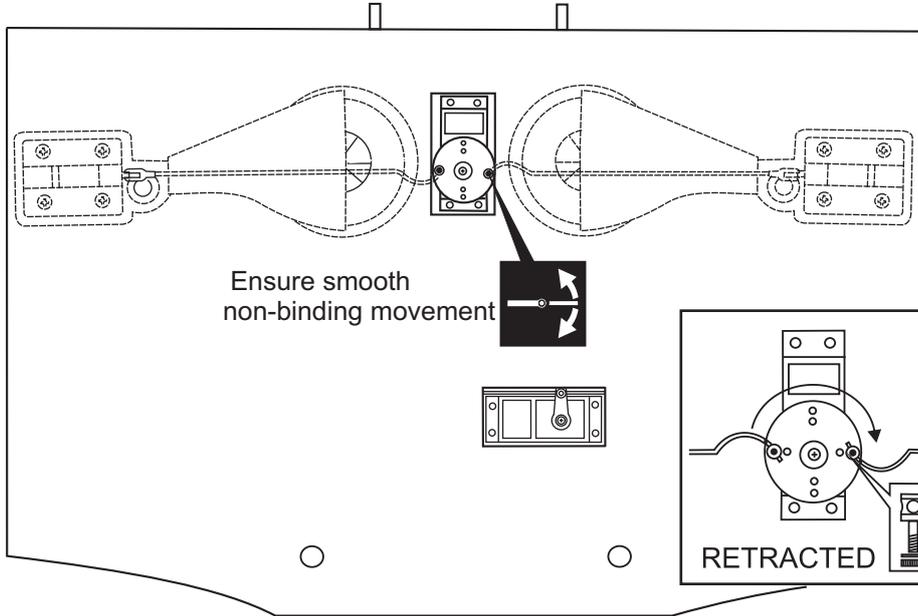
Pull and push the retract push rod by hand to be sure to adjust the stroke so that the landing gear locks in both up and down position.

After checking that the retract works smoothly with the servos, fix the retract on the wing with 3x12mm screws



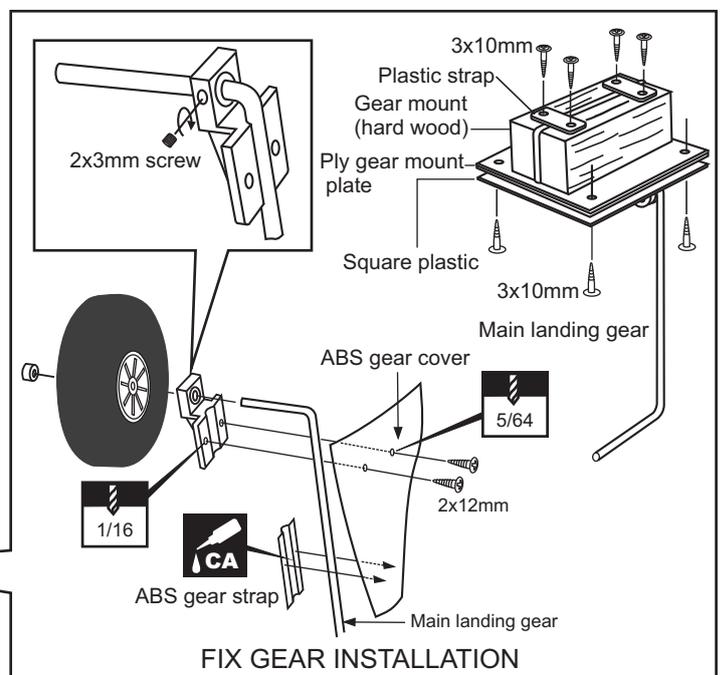
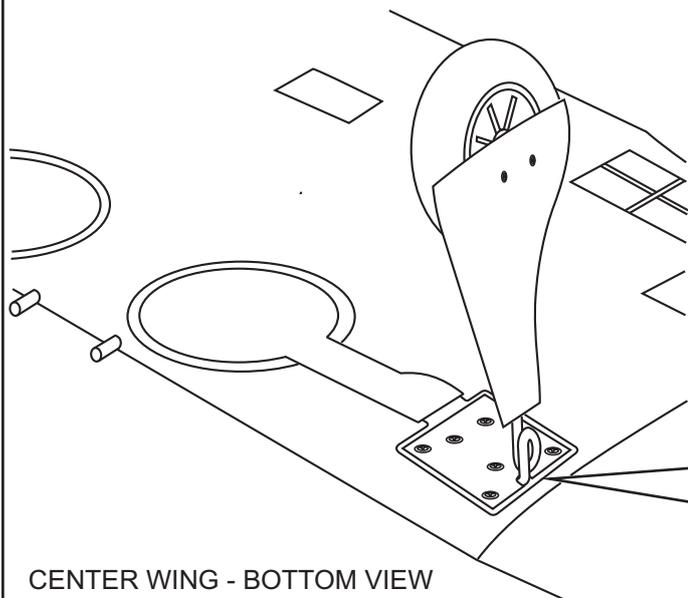
3- Retract landing gear

CENTER WING - TOP VIEW



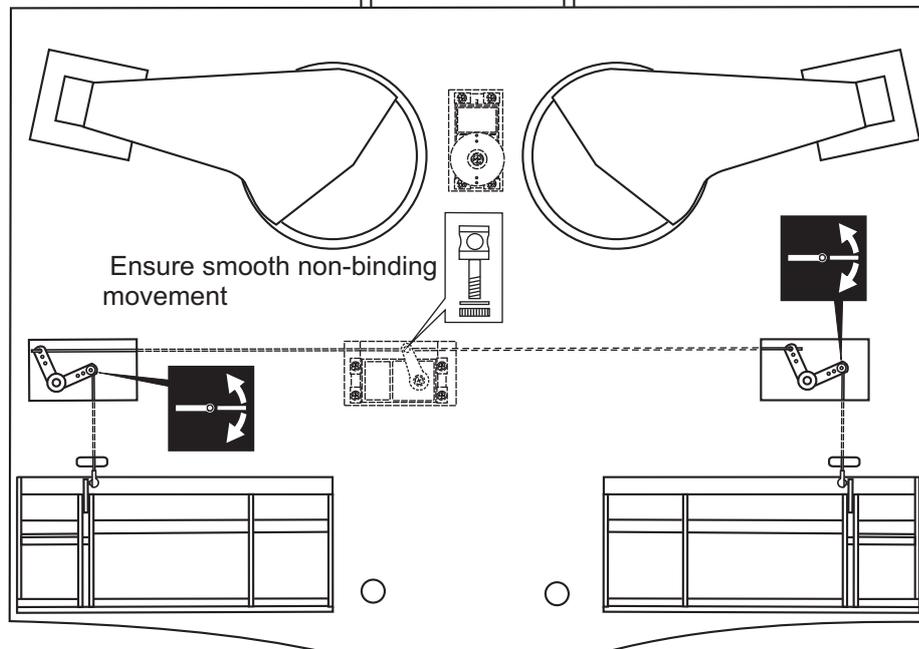
Link the servo and retract gear arm with push rod. Be sure to adjust the stroke so that the landing gear locks in both up and down position.

4-Center wing - Fix gear



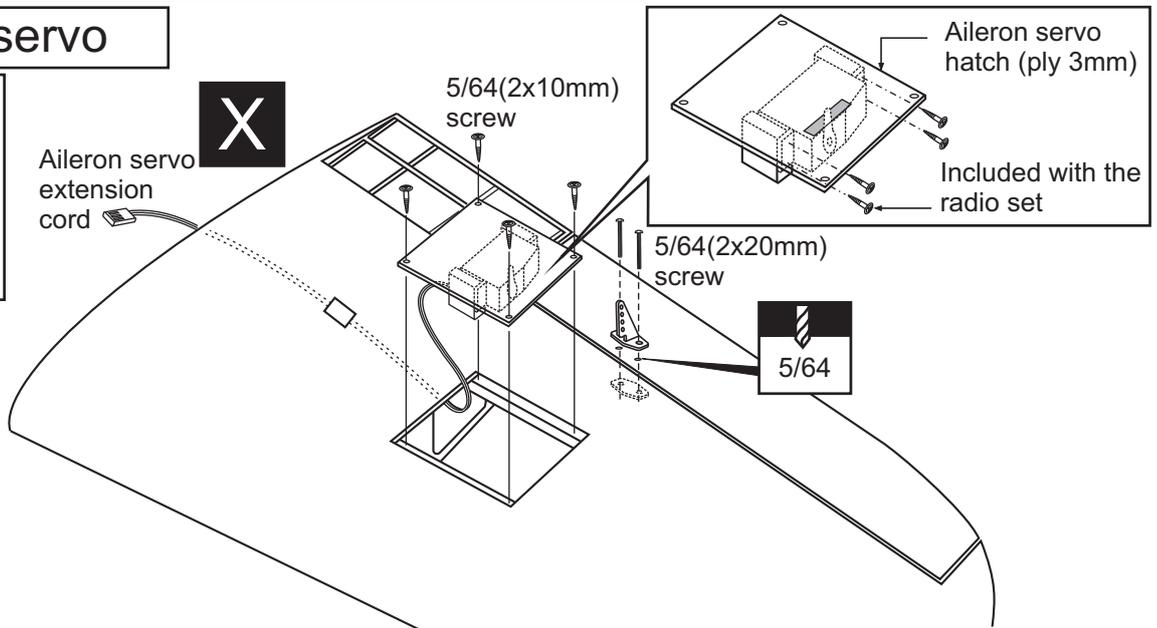
5- Center wing - Flap

CENTER WING - BOTTOM VIEW



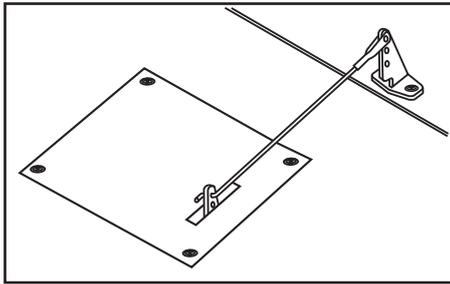
6- Aileron servo

- Plastic control horn2
- 2x30mm screw4

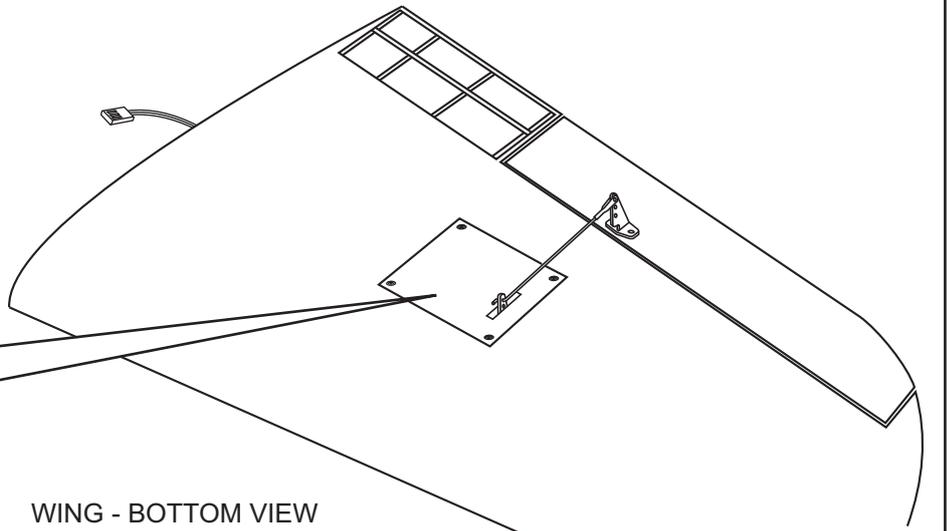


7- Aileron servo

L/R Assemble left and right wings the same way



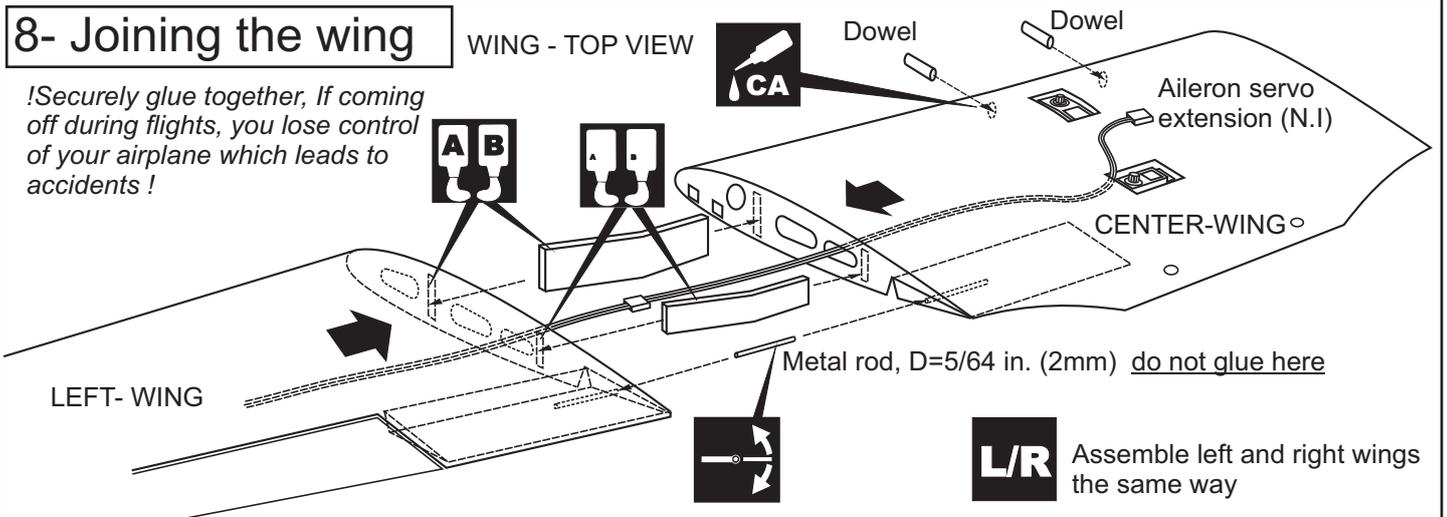
WING - BOTTOM VIEW



8- Joining the wing

WING - TOP VIEW

!Securely glue together, If coming off during flights, you lose control of your airplane which leads to accidents !

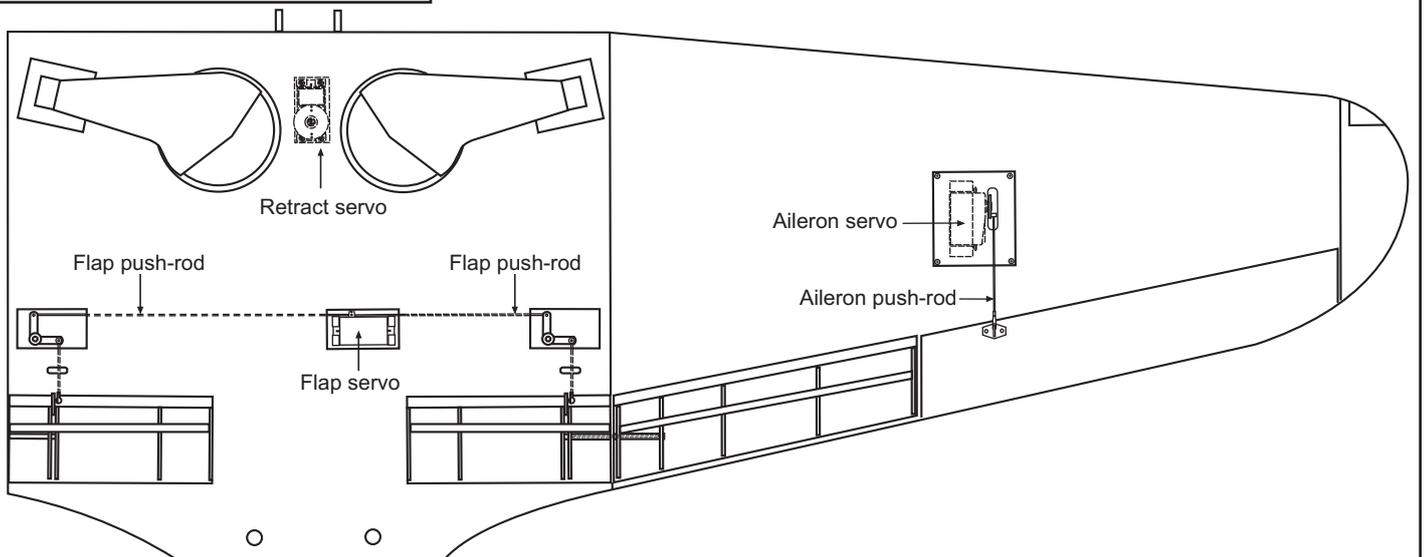


- 1- Trial fit the wing joiner, into one of the wing panels. It should insert smoothly up to the center line marked. Next, slide the other wing half onto the dihedral brace until the wing panels meet. If the fit is overly tight, it may be necessary to lightly sand the dihedral brace.
- 2- Check for the correct dihedral angle
- 3- Apply a generous amount of epoxy into the wing joiner cavity of one wing half. Next, Coat one half of the dihedral brace with epoxy up to the center line. Install the epoxy-coated side of the dihedral brace into the wing joiner cavity up to the center line.
- 4- Do the same way with the other wing half. Carefully slide the wing halves together, ensuring that they are accurately aligned. Firmly press the two halves together, allowing the excess epoxy to run out. Clean off the excess epoxy.
- 5- Apply masking tape at the wing joint to hold the wing together securely while the epoxy cures.

IMPORTANT: Please do not clean off the excess epoxy on the wing with strong solvent or pure alcohol, only use kerosene to keep the colour of your model not fade.

9- Linkages

WING - BOTTOM VIEW

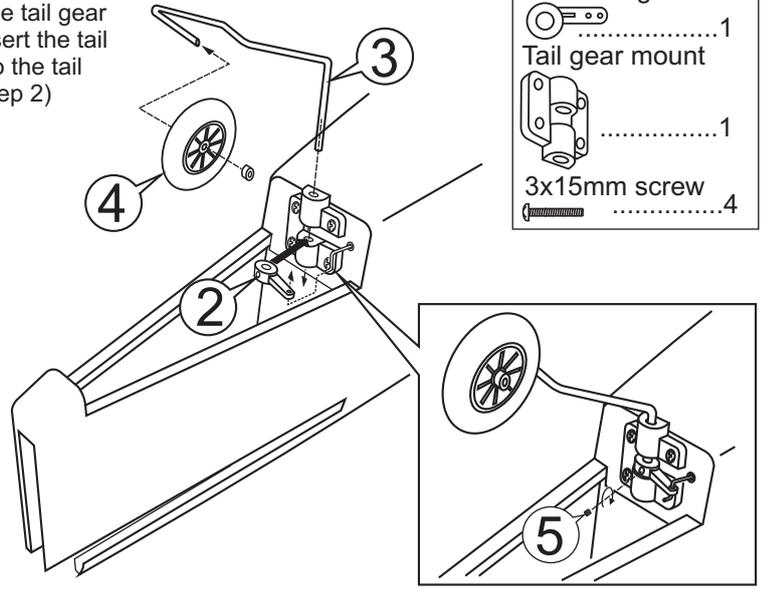
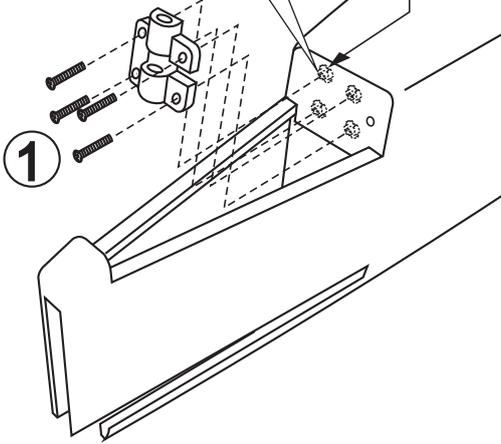


10- Tail wheel

NOTE: Insert the tail gear pushrod into the tail gear horn before insert the tail gear horn on to the tail gear mount (step 2)

- 2mm tail gear horn1
- Tail gear mount1
- 3x15mm screw4

Four nuts are installed at factory.

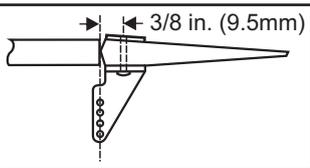


11- Vertical / Horizontal Tail

-Trial fit each part before gluing . Be certain that there are no gaps. If the parts will join, but with a gaps, sand or trim the parts a little at a time until the parts meet exactly with no gaps.

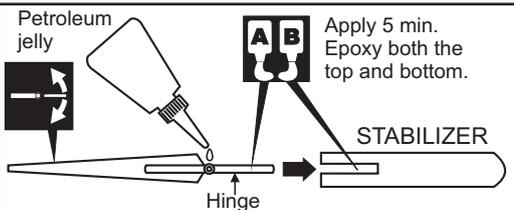
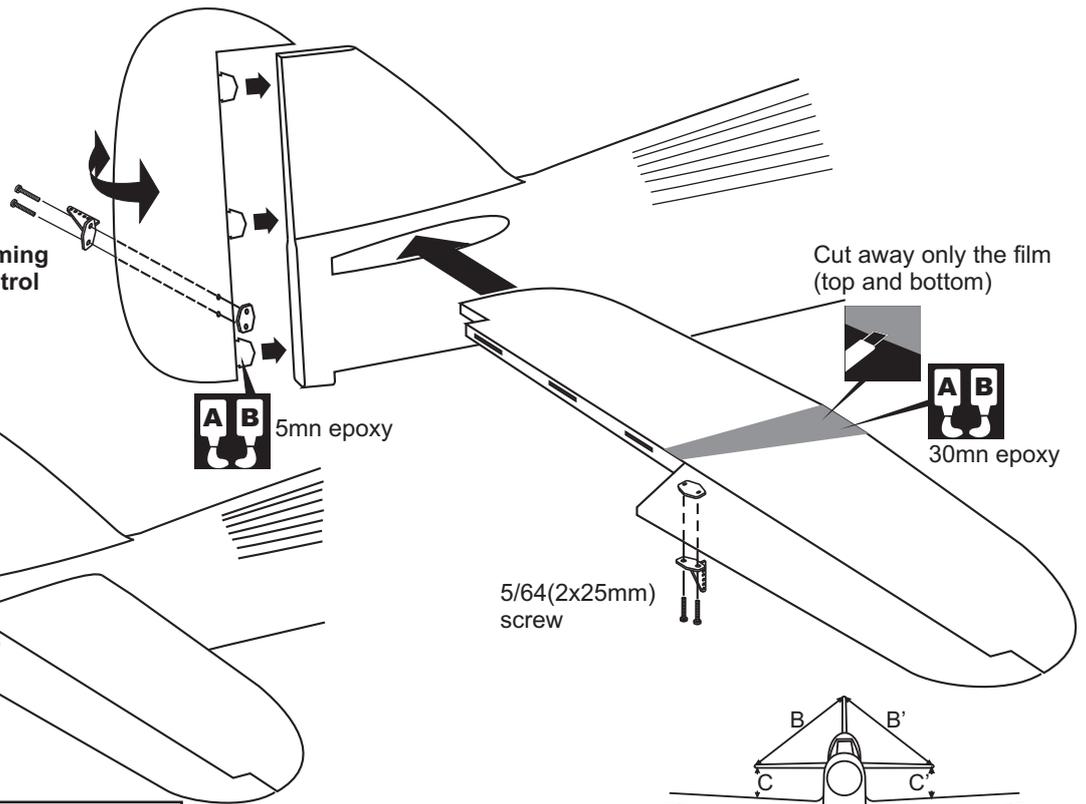
- Plastic control horn3
- 2x25mm screw6

-When joining the stabilizer it is extremely important to use plenty of epoxy (30 minutes) or CA glue (thin type).
 -Carefully slide the stabilizer into the fin, ensuring that they are accurately aligned, using rubbing alcohol and paper towel, clean off the excess epoxy.



!Securely glue together. If coming off during flight, you lose control of your air plane.

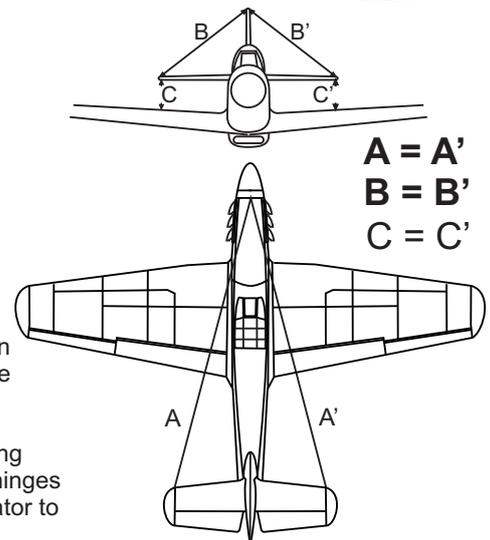
5mn epoxy



Apply a thin layer of machine oil or petroleum jelly to only the pivot point of the hinges on the elevator, then push the elevator and its hinges into the hinge slots in the trailing edge of the horizontal stabilizer.

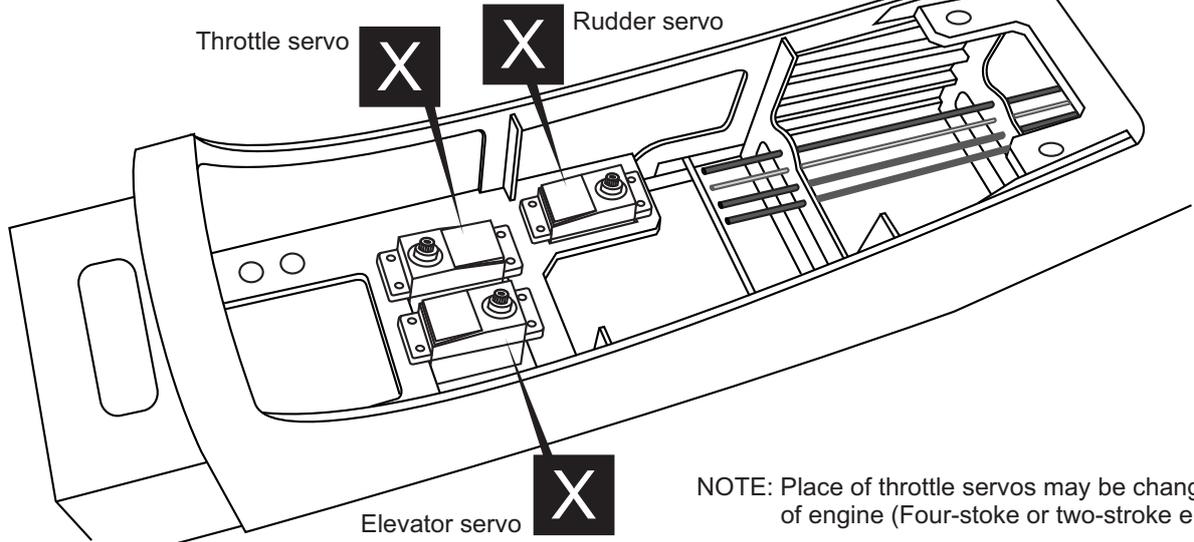
There should be a minimal hinge gap.

When satisfied with the and alignment, hinge the elevator to the horizontal stabilizer using 5 minute epoxy. Make sure to apply a thin layer of epoxy to the top and bottom of both hinges and to inside the hinge slots. Repeat the previous procedures to hinge the second elevator to the other side of the horizontal stabilizer.



12- Servo installation

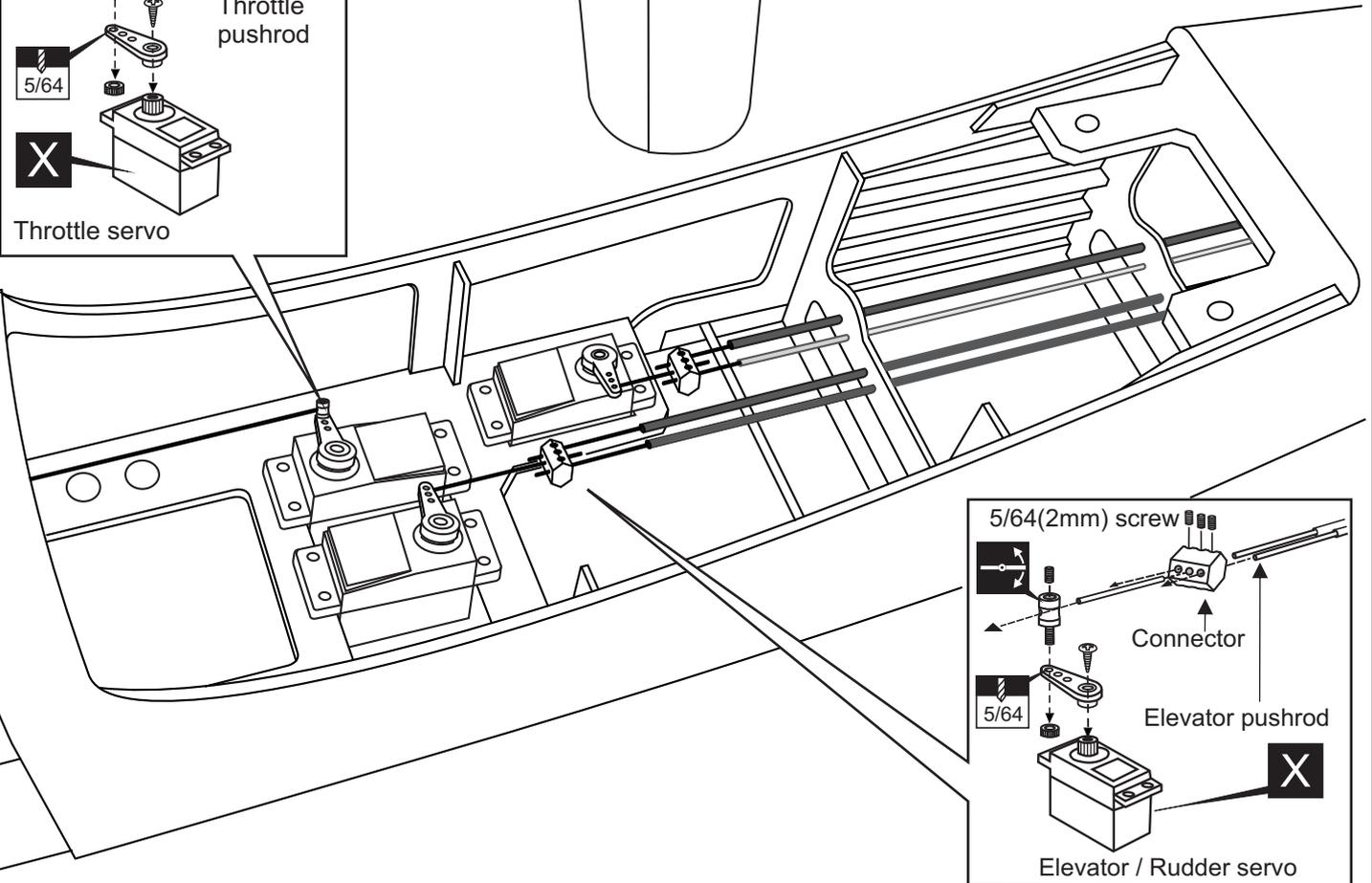
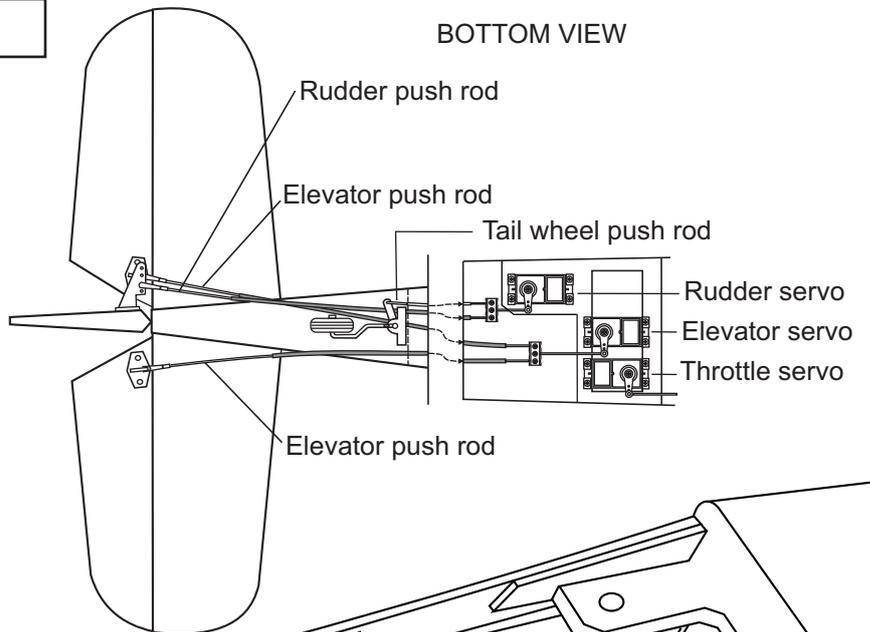
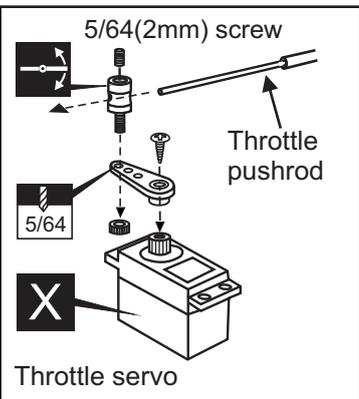
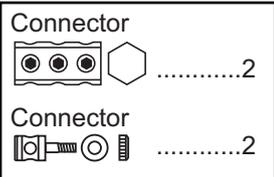
BOTTOM VIEW



NOTE: Place of throttle servos may change depend of engine (Four-stroke or two-stroke engine)

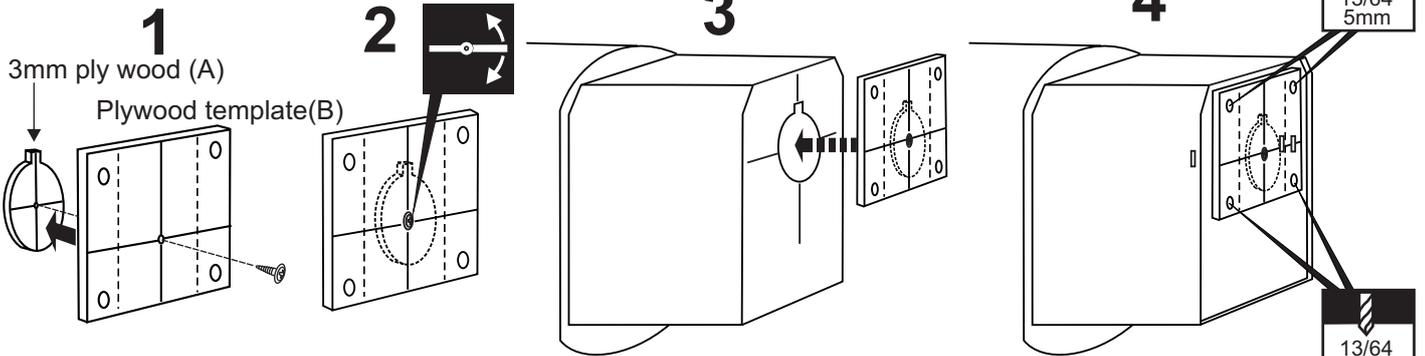
13- Push rod

BOTTOM VIEW



14- Engine mounts

Engine thrust on balk head is already adjust at factory

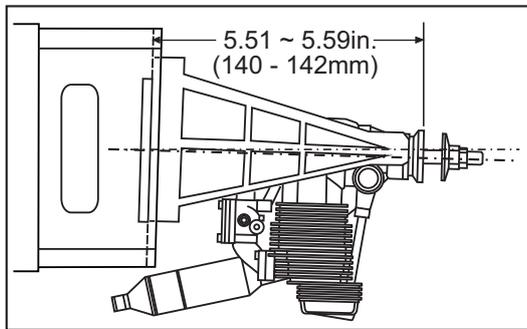
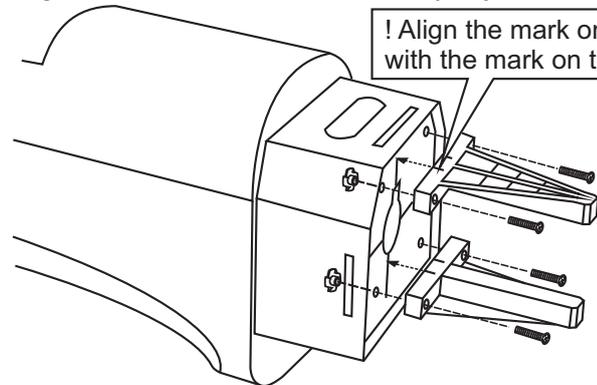


Attach the plywood (A) to the plywood template(B)
Secure them together with one 3x10mm screw, ensure that these parts move freely.

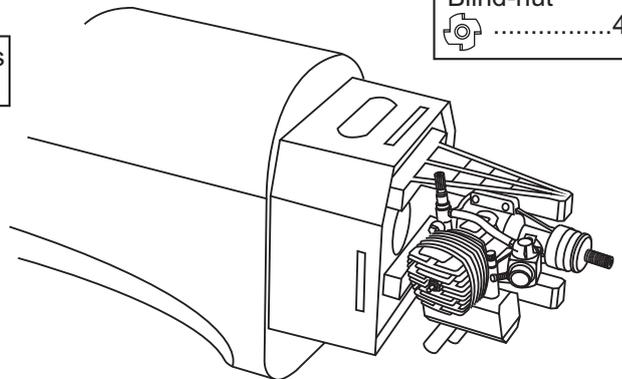
Insert the plywood template into the fire wall and drill four 13/64"(5mm) holes through the fire wall

15- Engine mounts / Engine

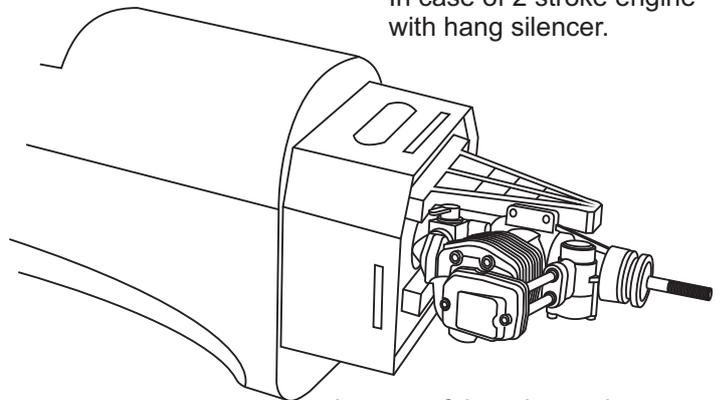
! Engine thrust on balk head is already adjust at factory.



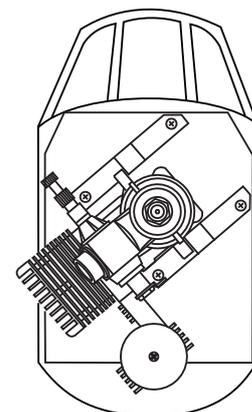
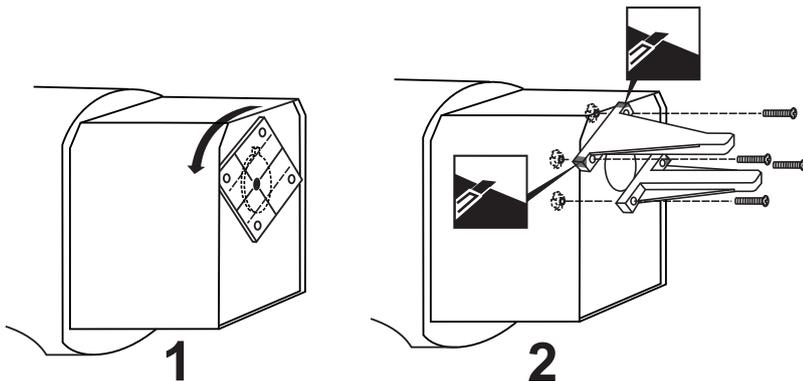
- 4x25mm screw 4
- Blind-nut
- 4



In case of 2 stroke engine with hang silencer.

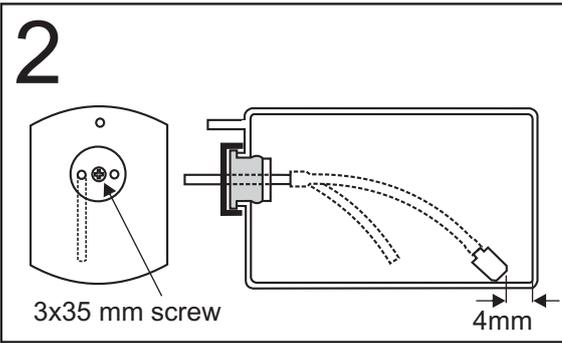
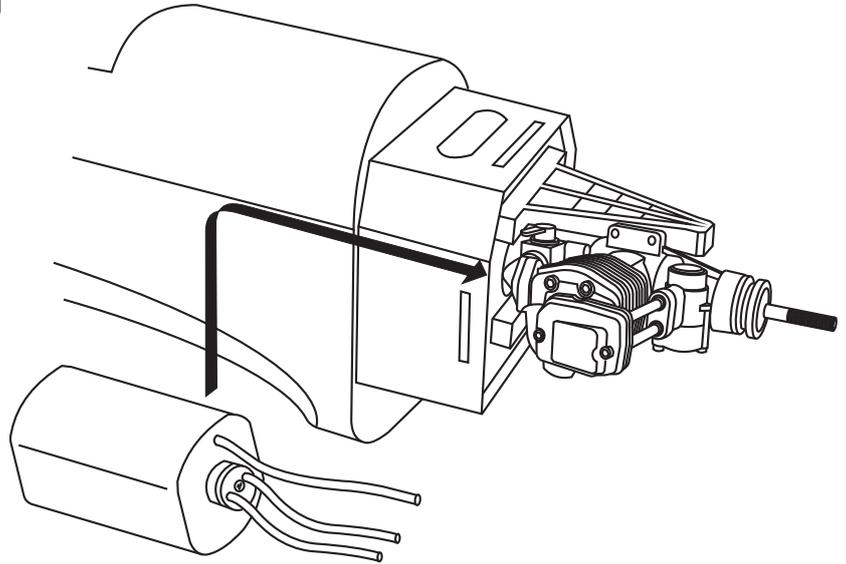
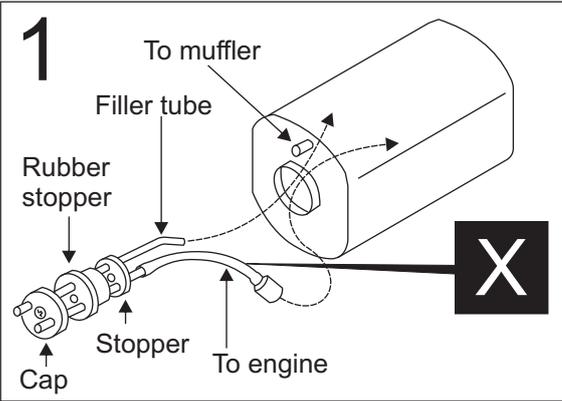


In case of 4 stroke engine.



In case of 4 stroke engine with side silencer.

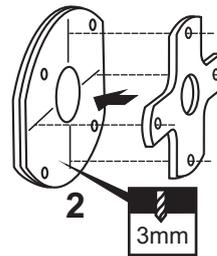
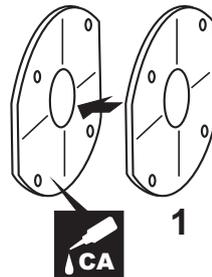
16- Fuel tank installation



After confirming the direction . Insert this assembly, clunk end first, into the fuel tank and tighten and screw the fuel tank cap on firmly.

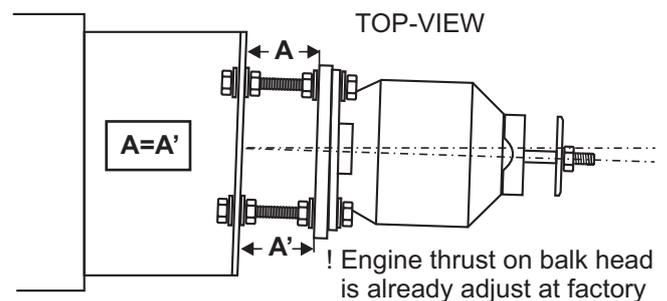
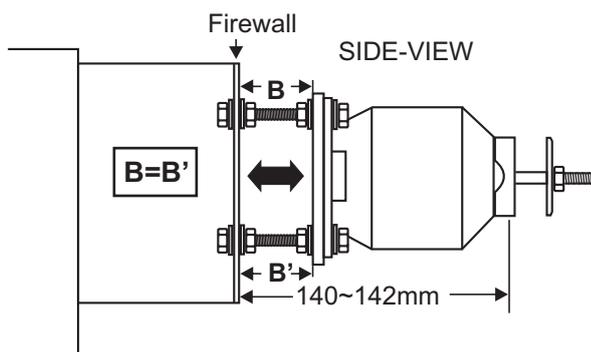
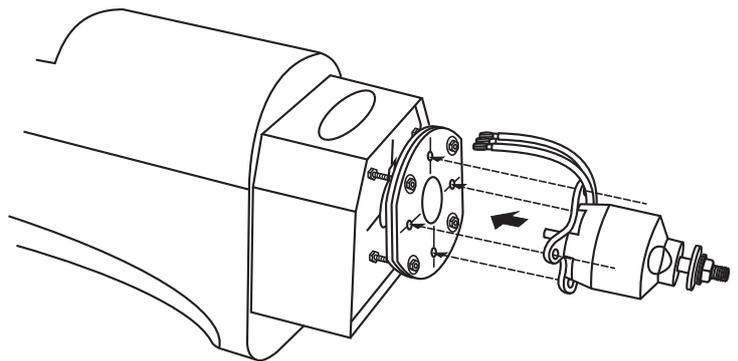
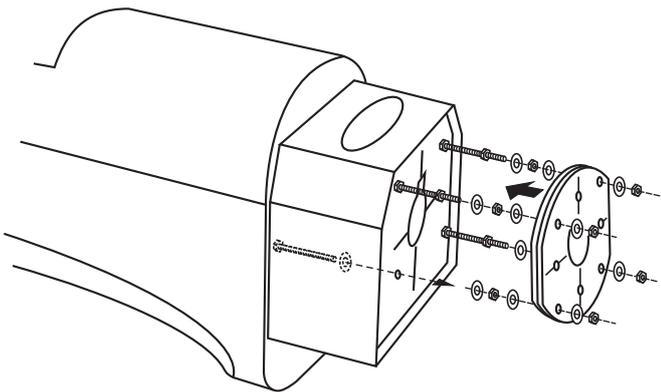
17- Electric Motor mount

Using a aluminum motor mounting plate as a template, mark the plywood motor mounting plate where the four holes are to be drilled (2).



Remove the aluminum motor mounting plate and drill a 1/8"(3mm) hole through the plywood at each of the four marks marked .

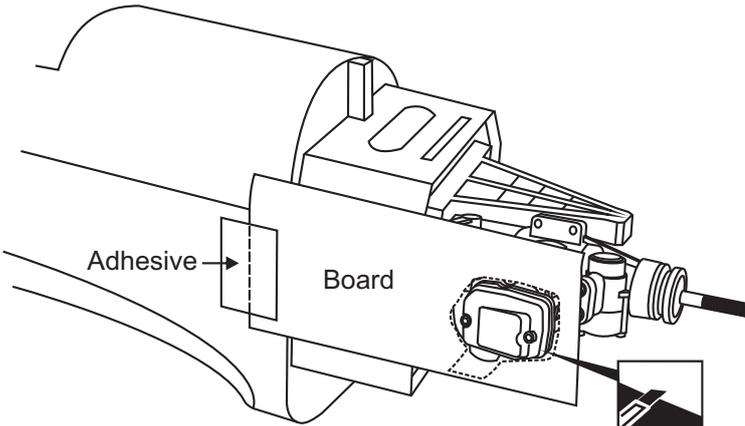
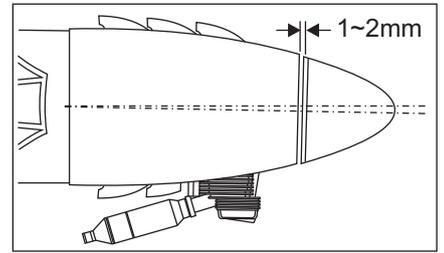
Note: The aluminum motor mounting included with electric motor set.



18- Cowling



2.5x10mm.....5

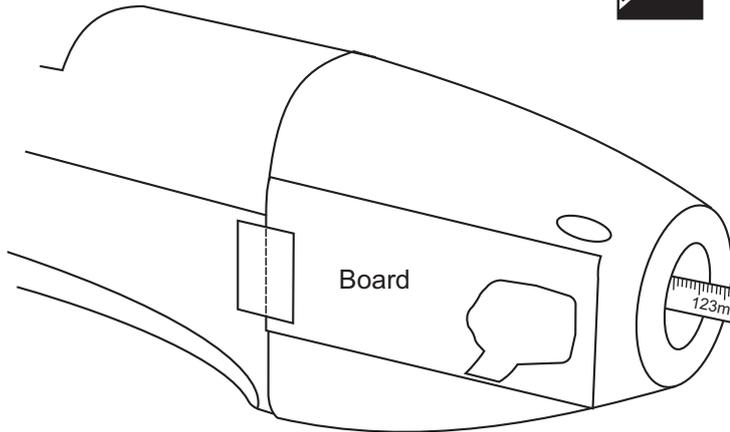


Attach the board or transparent plastic on the side of the fuselage with the adhesive as show. Using a pencil or felt tipped pen trace around the engine head where it meet the cowl. Cut the opening the board or transparent plastic for the engine head as marked before.

Remove the engine and insert the cowl on to the fuselage so the distance from the fire wall to the front of the cowl is 140 to 142mm (section 14).

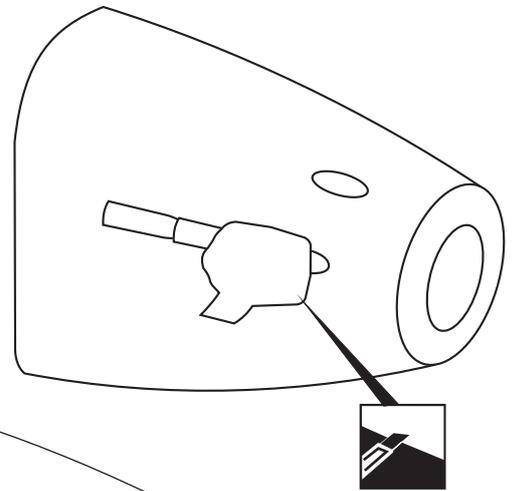
Remove the cowl from the fuselage and carefully cut the opening for the engine head as marked above. Do the same way with the hole for needle-valve.

Again. Insert the cowl on to the fuselage and secure it in place with five 2x5mm screws.

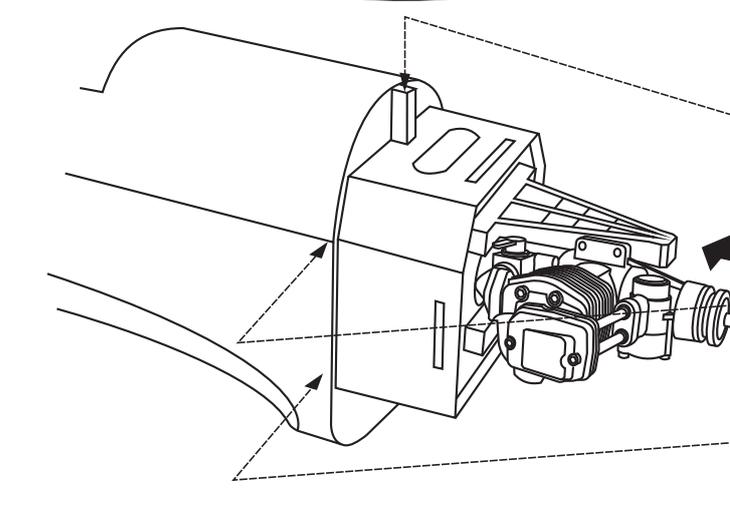


Ruler

123mm

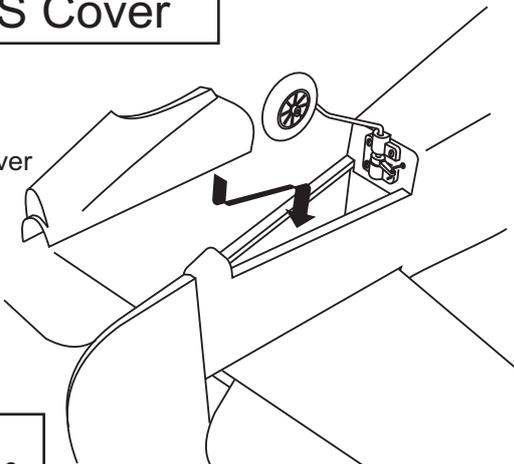


1.5mm

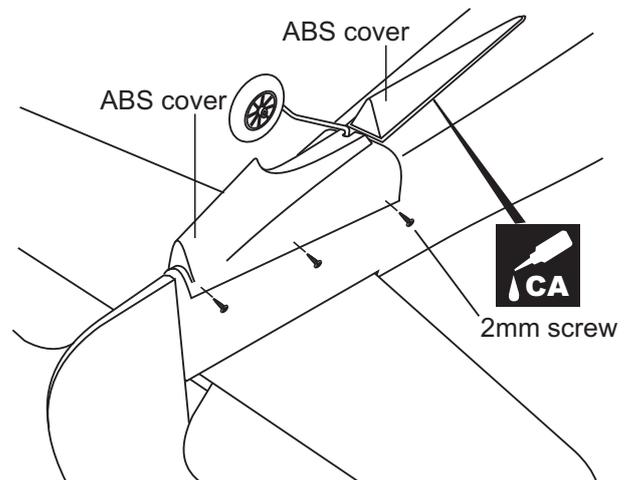


19- ABS Cover

ABS cover



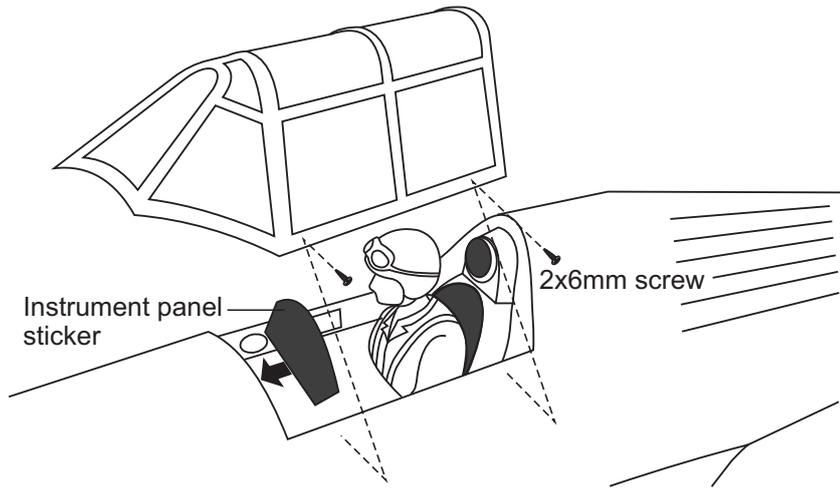
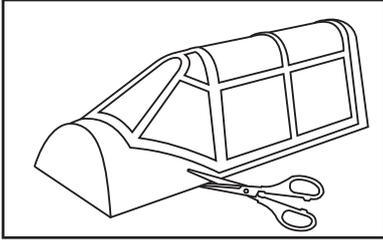
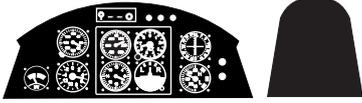
2x6mm.....6



2mm screw

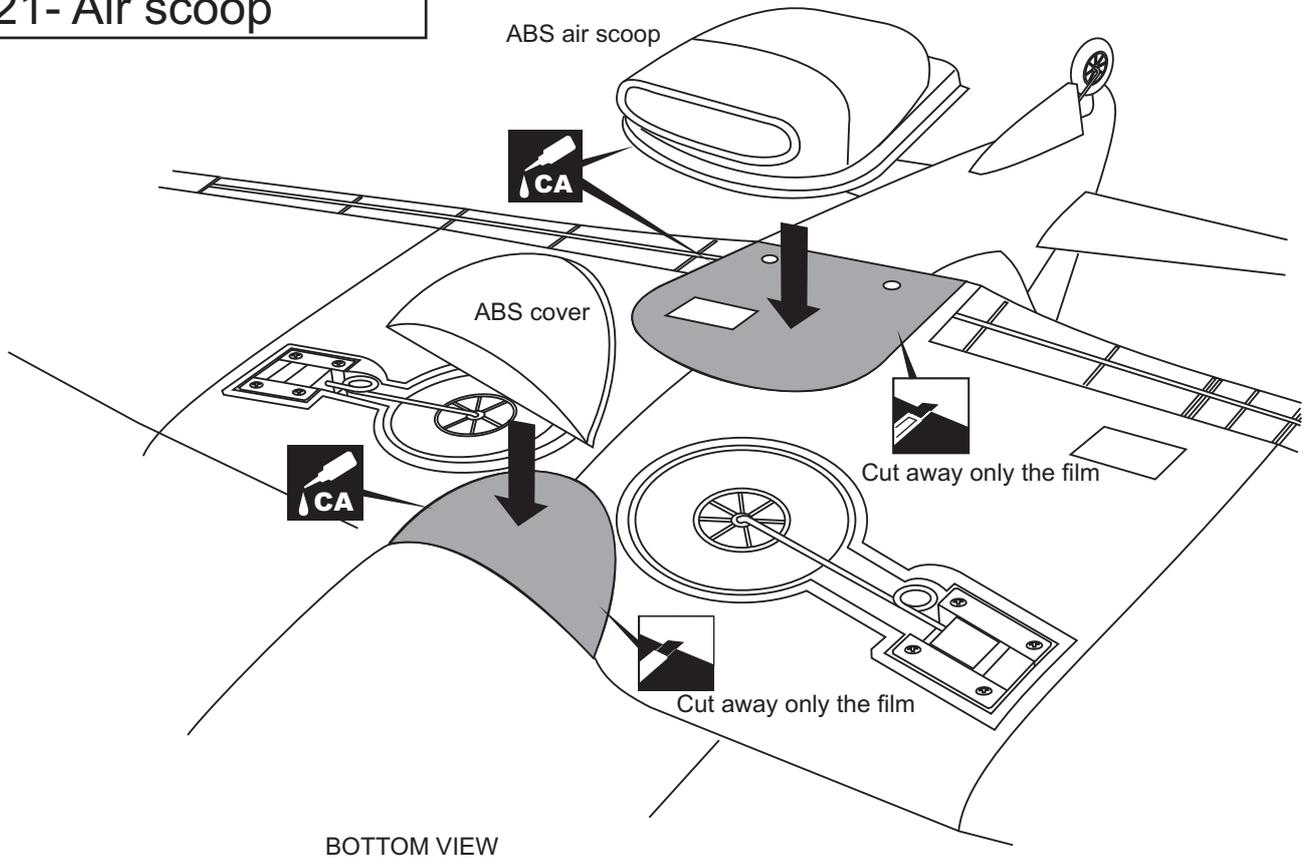
20- Canopy

Sticker



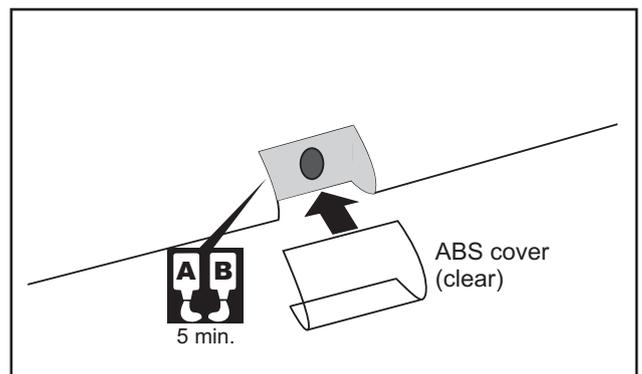
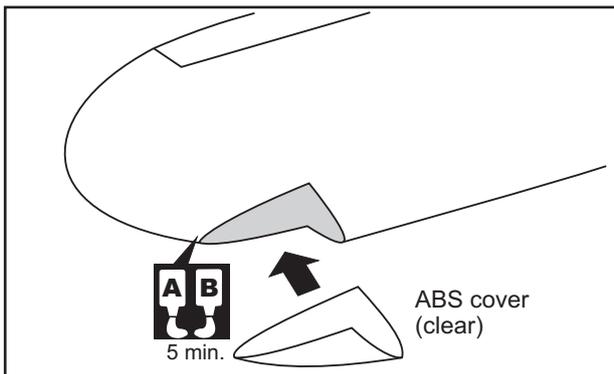
21- Air scoop

ABS air scoop

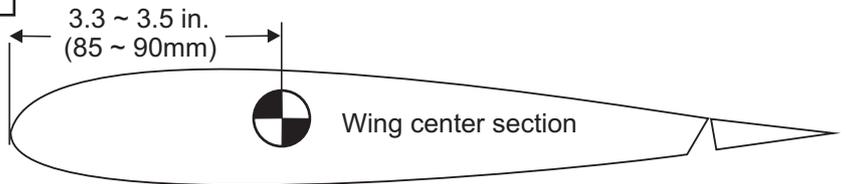
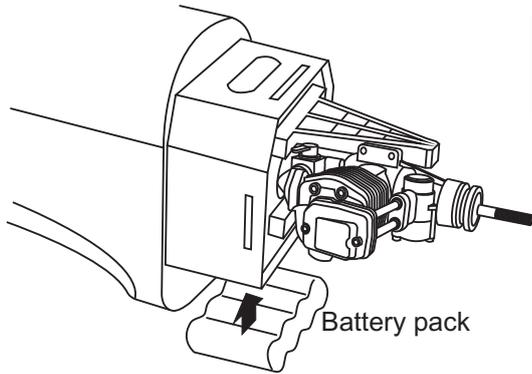


22- Light

Do not use CA glue to much or it will make the ABS light cover white



23- Balance



DO NOT try to fly an out-of-balance model !

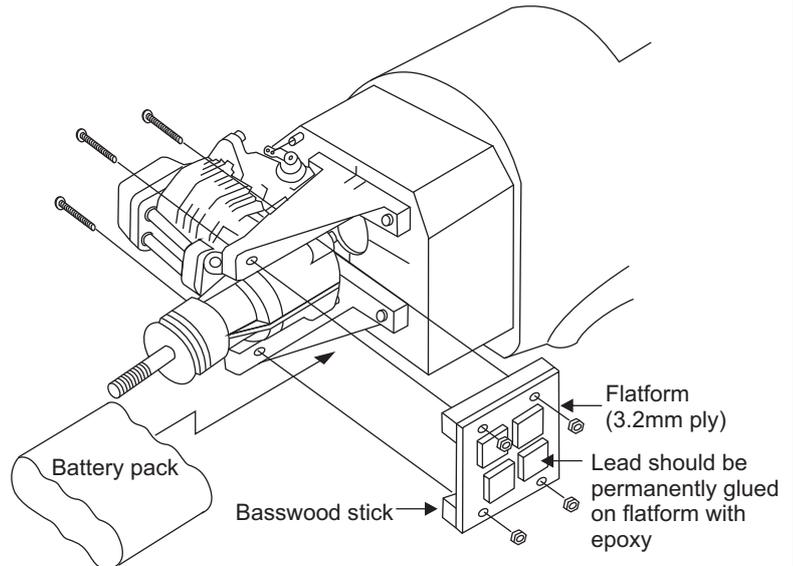
Add weight to nose (as show) until the correct balance is achieved. Stick-on weights are available at your local hobby shop and work well for this purpose.

! Securely install the battery pack ensuring it will not come loose during flights.

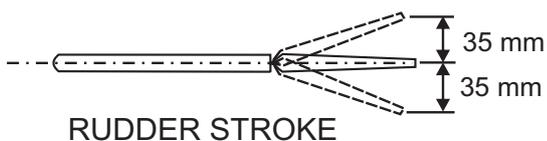
How to add nose-weight

To get the correct C.G., Several strips of lead were required in the nose of this model . To minimize the amount of weight required, it is desirable to position the weight as far forward as possible. This can be done by making a platform from leftover basswood stick and 3.2mm (1/8") ply wood. Using 4x35mm bolts to mount the engine would also be long enough to mount the platform. The lead should be permanently glued on with epoxy. **IMPORTANT:** Recheck the C.G. After the weight has been installed.

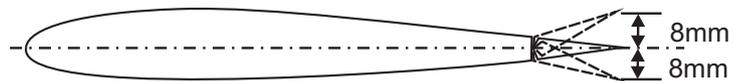
! Securely install the nose-weight ensuring it will not come loose during flights.



24- Control Surface



RUDDER STROKE



AILERON STROKE



ELEVATOR STROKE

Adjust the travel of the control surfaces to achieve the values stated in the diagrams. These value will be suitable for average flight requirements. Adjust the values to suit your particular needs.

BEFORE FLYING CHECK EVERYTHING

Before each flight, inspect the airplane for any loose parts. Check the hinges, make sure the pushrods are still firmly attached, and check the engine mounting bolts. In general, check everything on the plane that might possibly come loose.

CHECK THE FREQUENCE BEFORE FLYING

DO NOT FLY NEAR A POWER LINE

The power lines cause radio interference, so avoid flying near them.

IMPORTANT: Please do not clean your model with pure alcohol, only use liquid soap with water or use glass cleaner to clean on surface of your model to keep the colour not fade.