

90 Class
2-cycle engine
120 Class
4-cycle engine

Cap 10

AEROBATIC MODEL

INSTRUCTION MANUAL / Montageanleitung



SPECIFICATIONS

Wingspan	1970mm
Length	1610mm
Electric Motor	1950 Watt (PULSAR 140)
Gas Engine	20 - 26cc
Radio	5 Channel / 6 Servos

Technische Daten

Spannweite	1970mm
Länge	1610mm
Elektroantrieb	1950 Watt (PULSAR 140)
Verbrennerantrieb	20 -26cc
Fernsteuerung	5 Kanal / 6 Servos

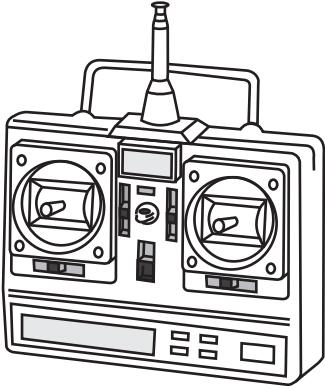


WARNING! This radio controlled model is NOT a toy. If modified or flown carelessly it could go out of control and cause serious human injury or property damage. Before flying your airplane, ensure the air field is spacious enough. Always fly it outdoors in safe areas and seek professional advice if you are unexperienced.

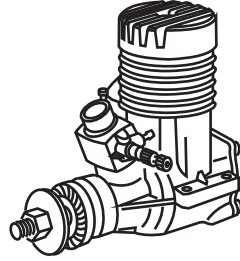
ACHTUNG! Dieses ferngesteuerte Modell ist KEIN Spielzeug! Es ist für fortgeschrittene Modellfluggpiloten bestimmt, die ausreichende Erfahrung im Umgang mit derartigen Modellen besitzen. Bei unsachgemäßer Verwendung kann hoher Personen- und/oder Sachschaden entstehen. Fragen Sie in einem Modellbauverein in Ihrer Nähe um professionelle Unterstützung, wenn Sie Hilfe im Bau und Betrieb benötigen. Der Zusammenbau dieses Modells ist durch die vielen Abbildungen selbsterklärend und ist für fortgeschrittene, erfahrene Modellbauer bestimmt.

RADIO CONTROLLED ALMOST READY-TO-FLY ENGINE POWERED ALL Balsa PLANE

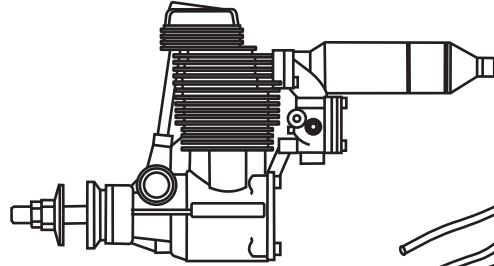
REQUIRED FOR OPERATION (Purchase separately)



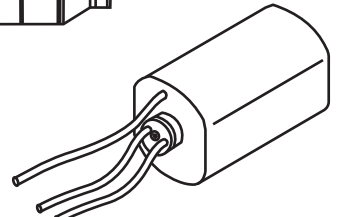
Minimum 5 channel radio for airplane



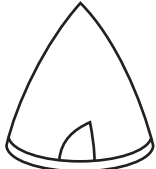
.90 - 2 cycle



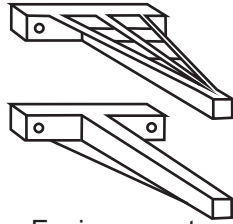
.120 - 4 cycle



450 ~ 500cc Fuel tank



70mm Spinner



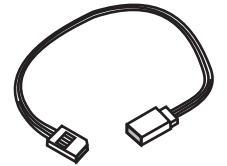
Engine mount (for .90 -2T & .120 -4T)



Silicone tube



Propeller for .90-2T or .120-4T



Extension for aileron servo

GLUE



Cyanoacrylate Glue

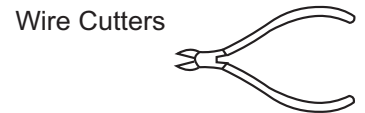
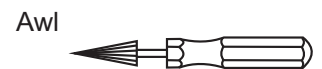
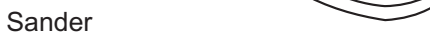


Silicon Glue



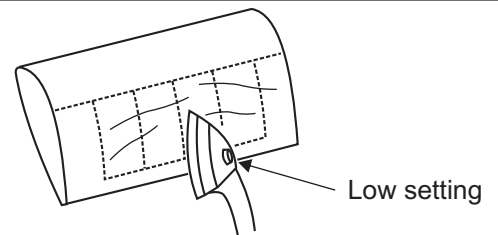
Epoxy Glue (30 minutes type)


TOLLS REQUIRED (Purchase separately)





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





 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

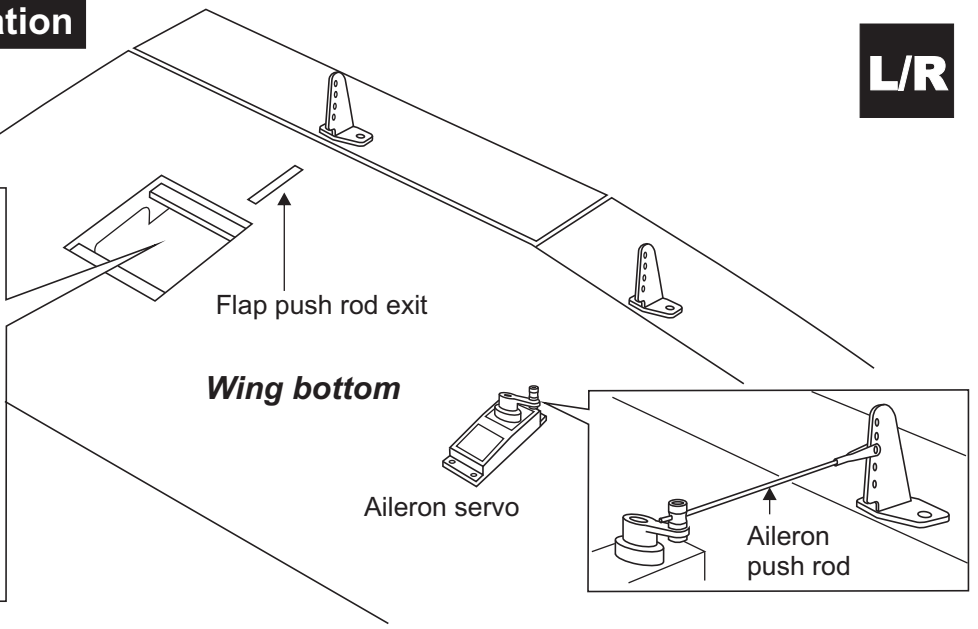
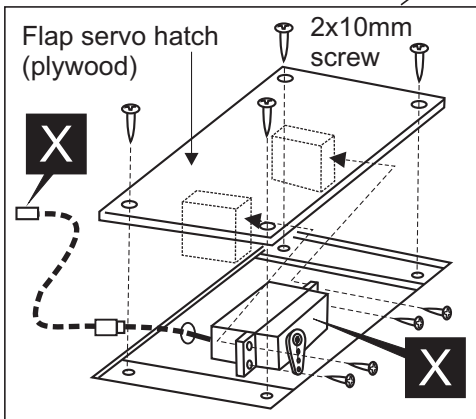
 Apply cyano glue

 Assemble left and right sides the same way.

 Not included. These parts must be purchased separately

1- Main wing: servo installation

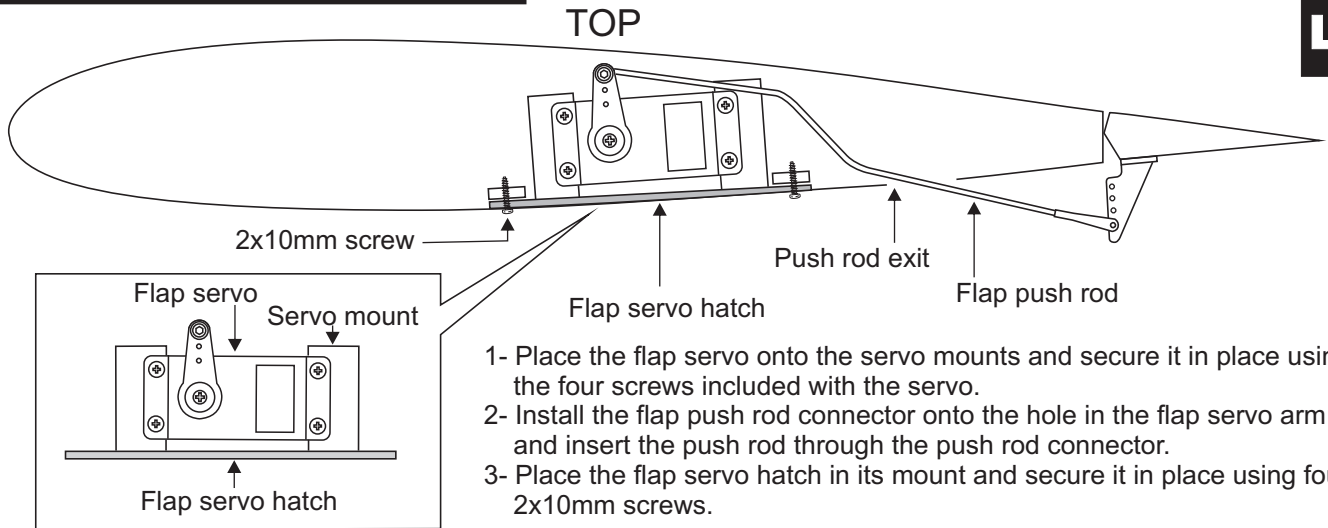
L/R



2- Main wing: servo installation

CAUTION: one of the flap servos is revert servo

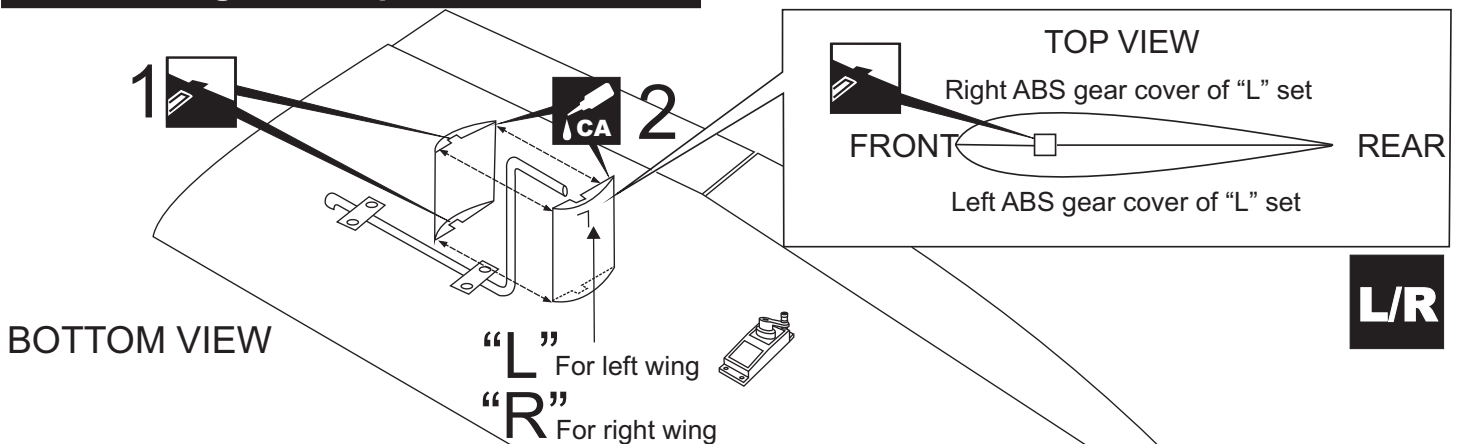
L/R



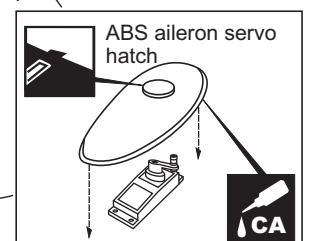
- 1- Place the flap servo onto the servo mounts and secure it in place using the four screws included with the servo.
- 2- Install the flap push rod connector onto the hole in the flap servo arm and insert the push rod through the push rod connector.
- 3- Place the flap servo hatch in its mount and secure it in place using four 2x10mm screws.

3- Main wing: Wheel pants installation

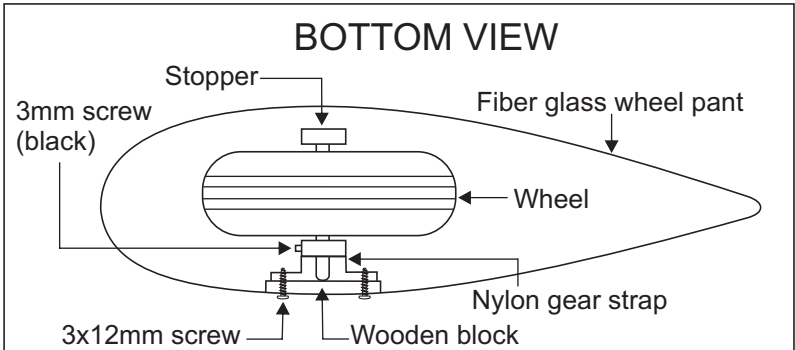
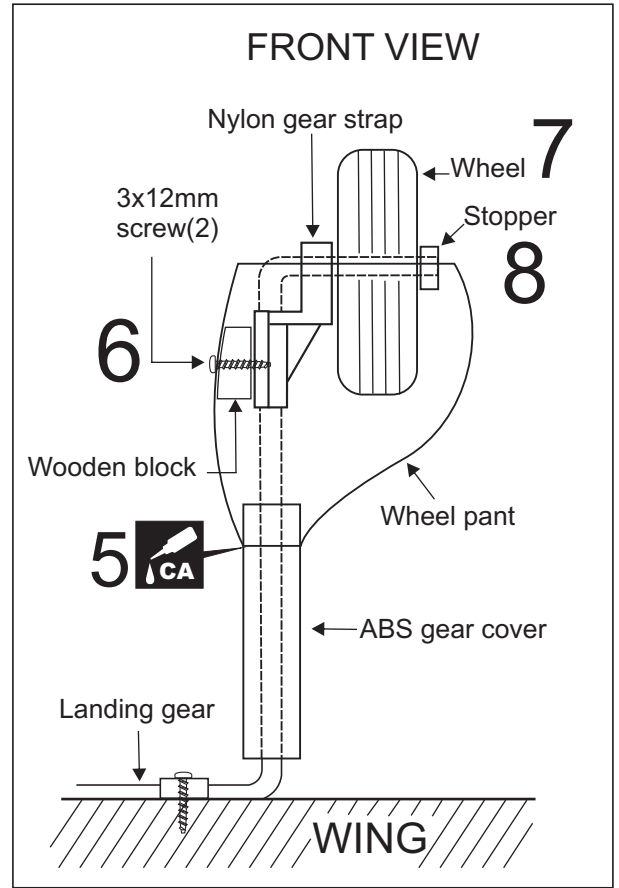
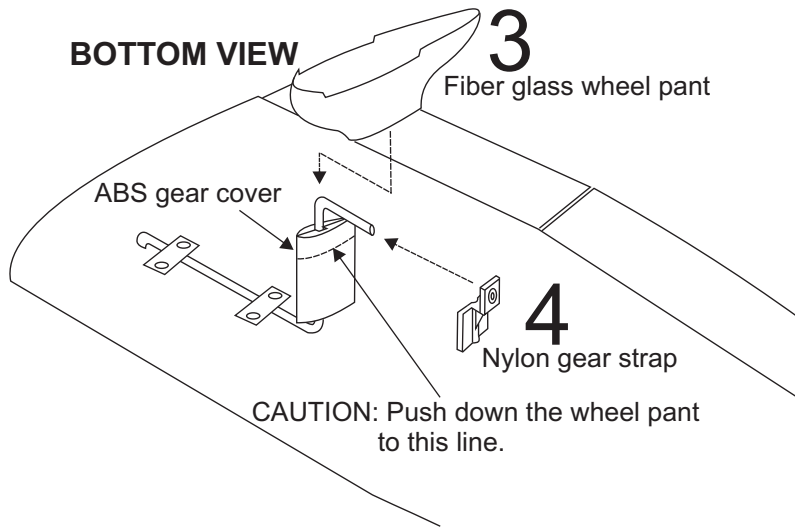
L/R



- 1- Position the landing gear and strap as show. Using the four 3x10mm screws, fasten the landing gear to the bottom of the wing.
- 2- Cut away two holes on the top and bottom of the right and left ABS gear cover for the landing gear exit
- 3- Fit all ABS gear cover in place (L with L and R with R) and secure them with CA glue



4- Main wing: Wheel pants installation



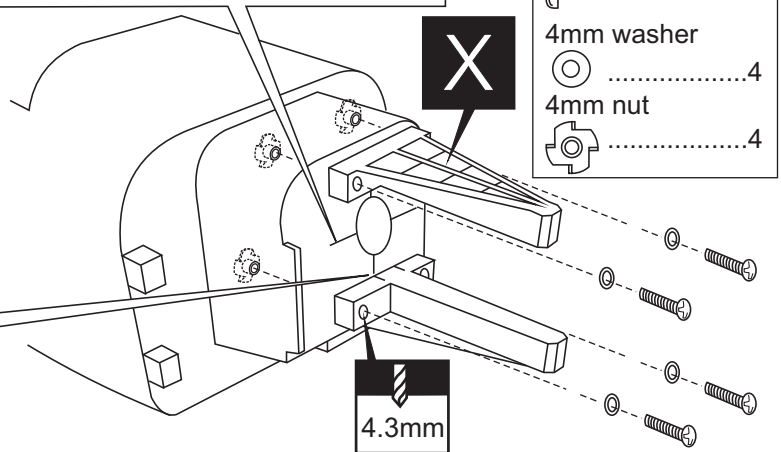
5- Engine mounts installation

- 1- Set the engine on the engine mounts
- 2- Place the engine mounts with the engine to the fire wall and secure it with tittle CA glue.
- 3- Using a pencil or felt tipped pen, mark the engine mounting plate where the four holes are to be drilled
- 4- Remove the engine and drill a 11/64" (4.3mm) hole through the fire wall at each of the four marks made in Step 3 above.

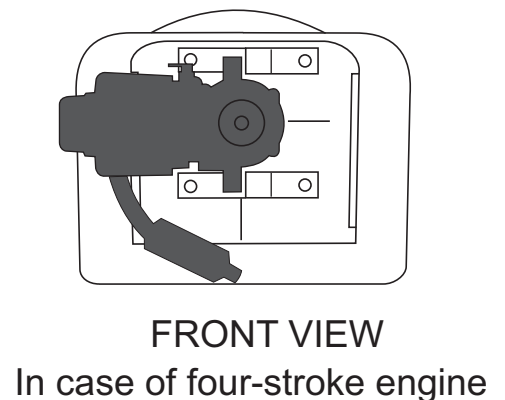
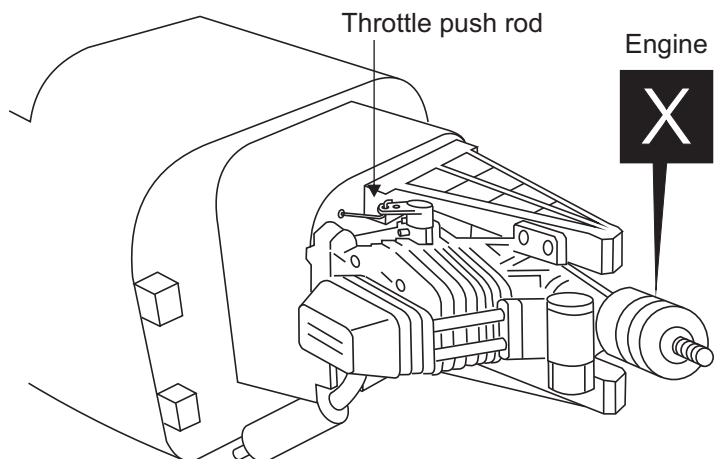
CAUTION: Align the engine center with fire wall marked line

CAUTION: Align the mark on both mounts with the center mark on the fire wall

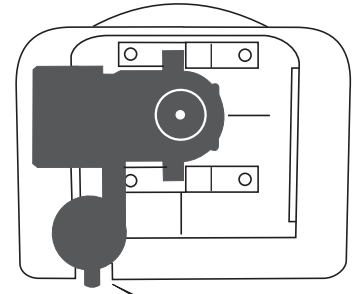
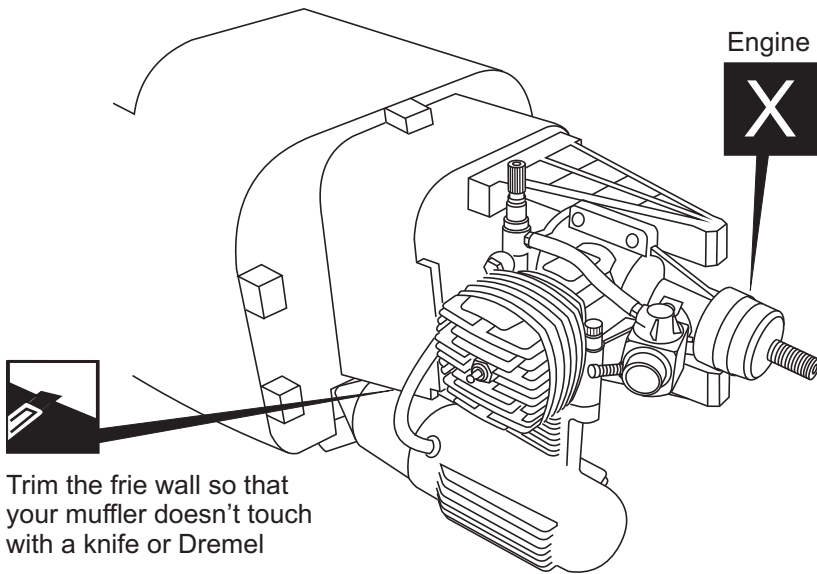
CAUTION: Engine thrust on fire wall is already adjust at factory



6- Four stroke engine installation



7- Two stroke engine installation



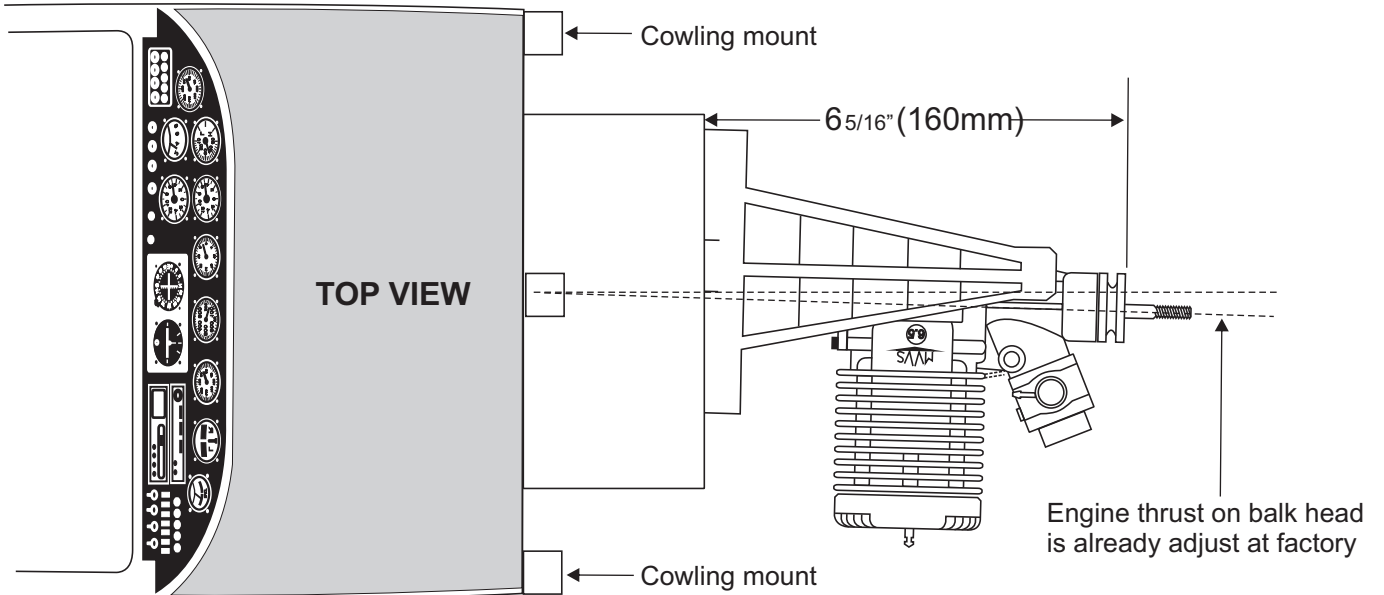
Trim the frie wall so that your muffler doesn't touch with a knife or Dremel



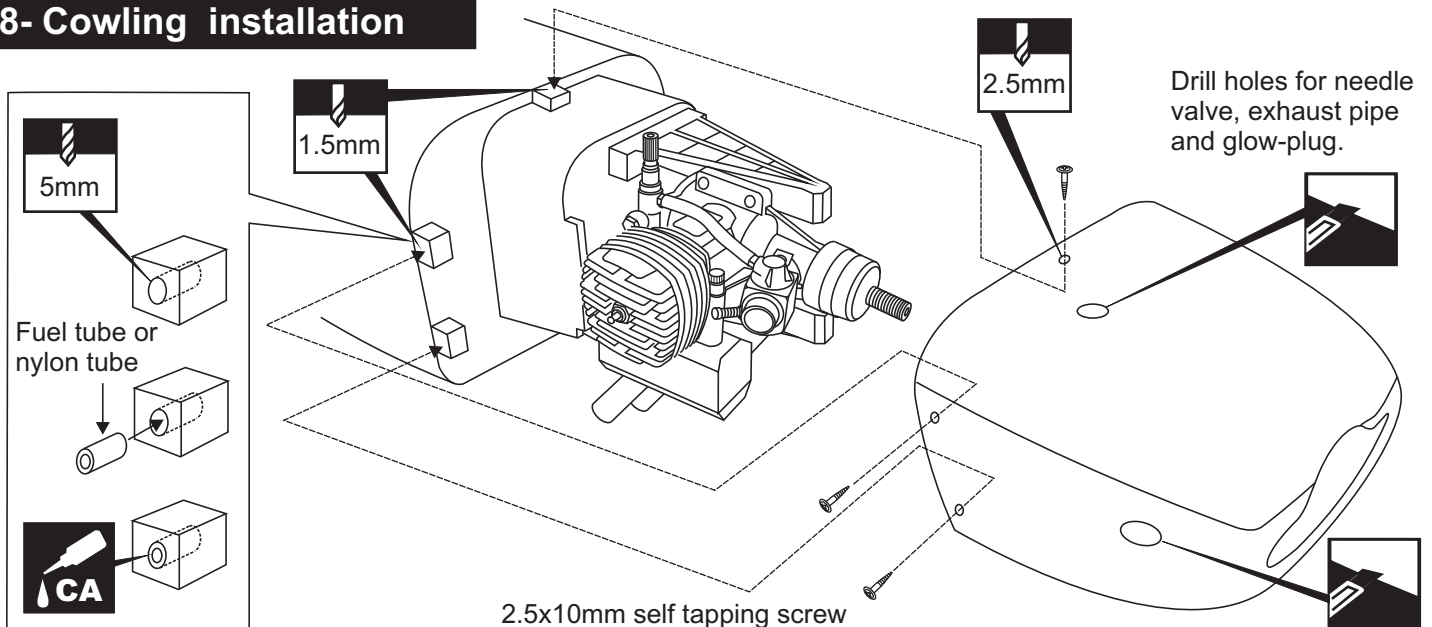
FRONT VIEW

In case of two-stroke engine

7- Two stroke engine installation

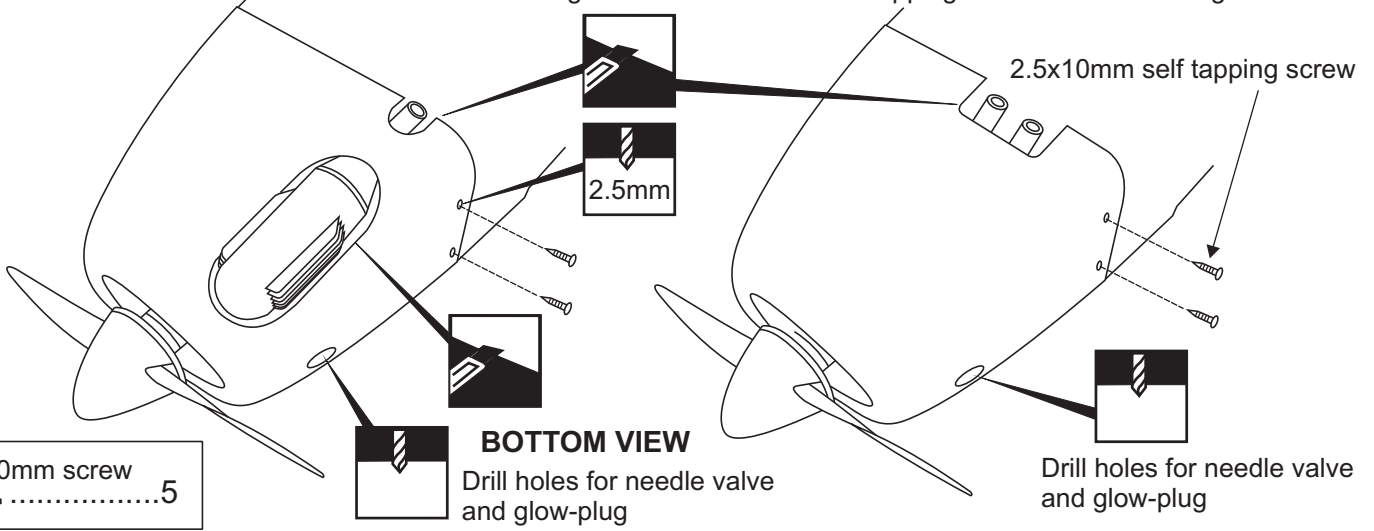


8- Cowling installation



9- Cowling installation

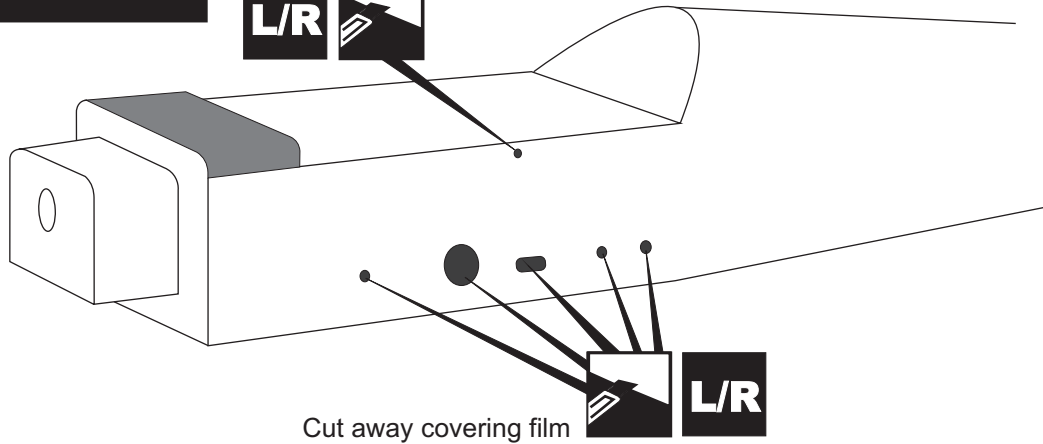
Trim the cowl with a knife or Dremel so that your engine and muffler don't touch. Fix the cowling with the 2.5x10mm self tapping screws on the cowling mounts.



2.5x10mm screw
5

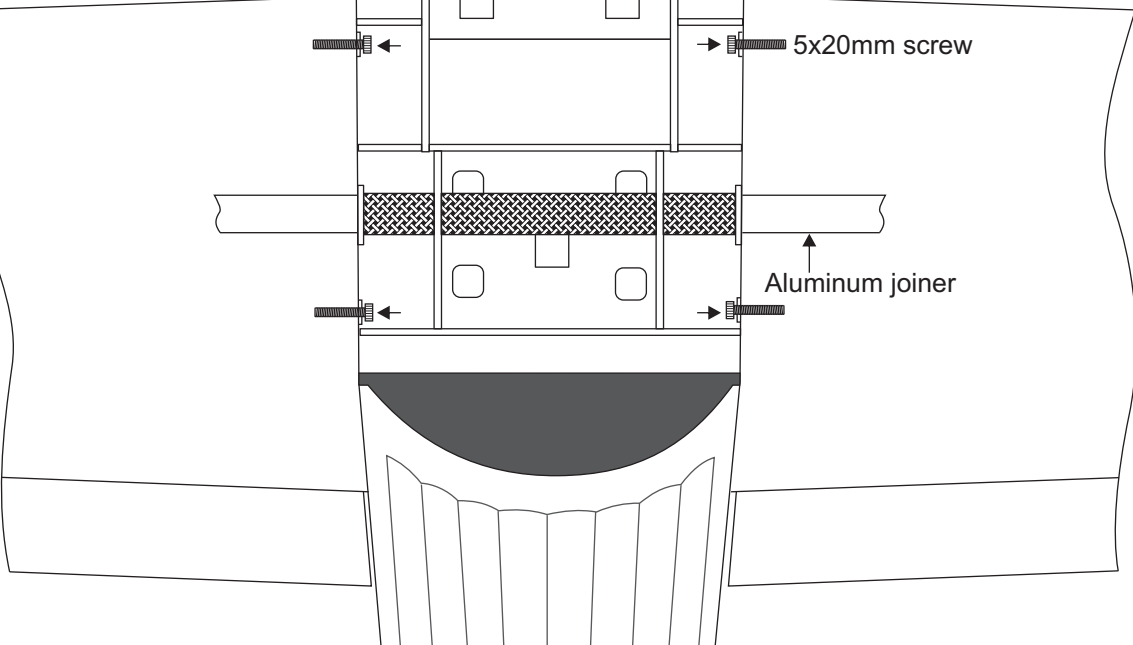
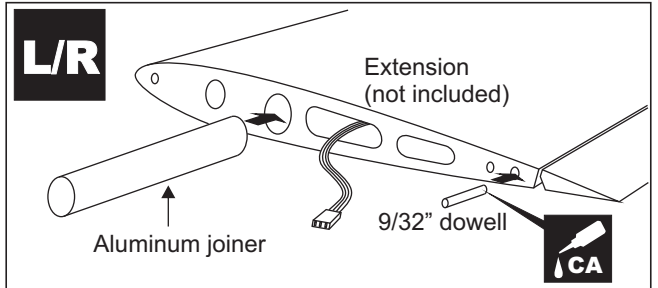
10- Fuselage

L/R Cut away covering film

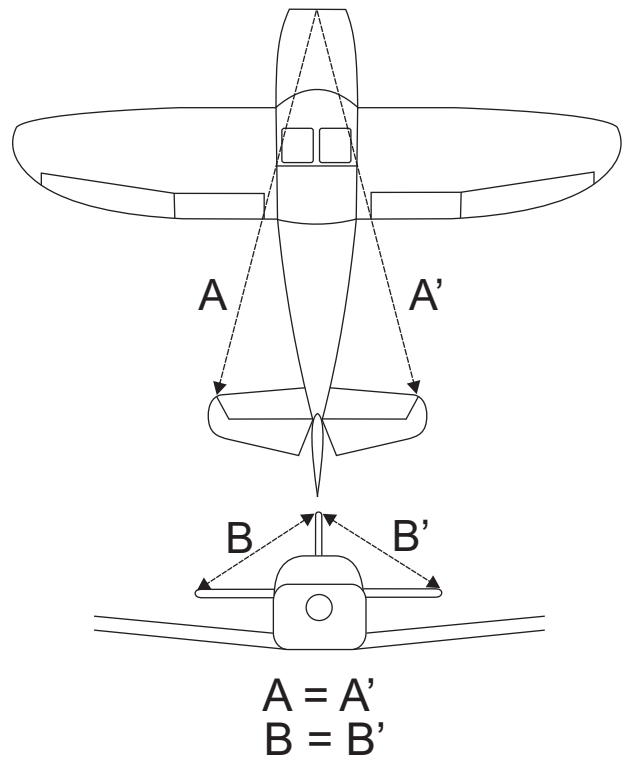
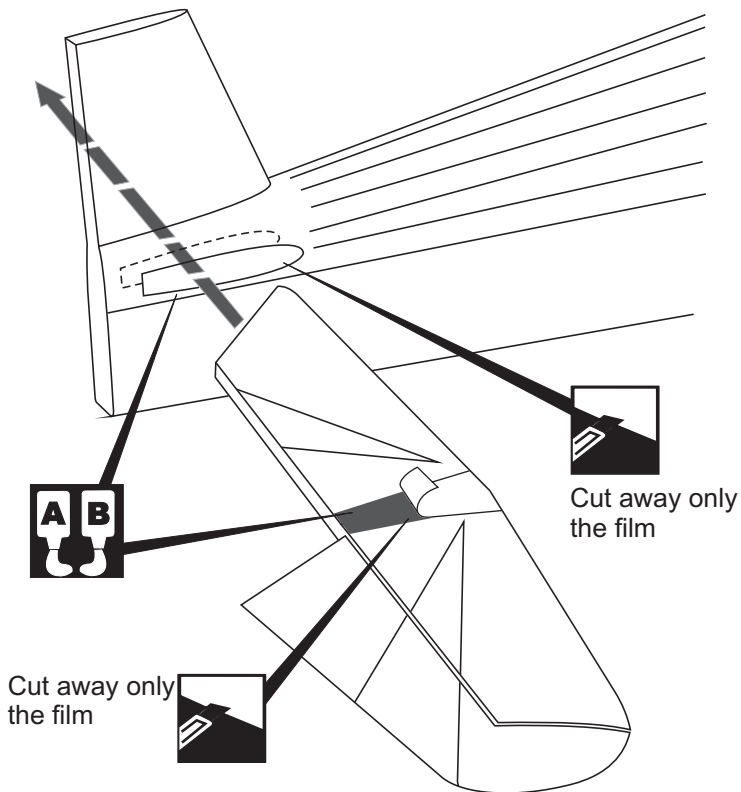


11- Main wing

5x20mm screw
4
 Washer
4



12- Horizontal Tail



Warning: Securely glue together. If coming off during flights, you lose control of your plane which leads to accidents!

- 1- Trial fit the horizontal stabilizer in place
- 2- Using a pencil, trace around the vertical stabilizer where it meets the fuselage. (both sides).
- 3- Remove the horizontal stabilizer from the fuselage.
- 4- Using a sharp hobby knife, cut away the covering inside the lines which were marked in step 2. Do NOT cut into the wood as this will affect the structural integrity of the stabilizer
- 5- Using a mixing stick, spread the epoxy on the horizontal stabilizer and fuselage where it meets the horizontal stabilizer.
- 6- Insert the horizontal stabilizer into the fuselage and secure it in place using masking tape and allow the epoxy to cure completely. Using rubbing alcohol and paper towel, clean the excess epoxy.

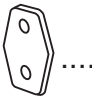
13- Elevator

Plastic control horn



.....2

Plastic back plate

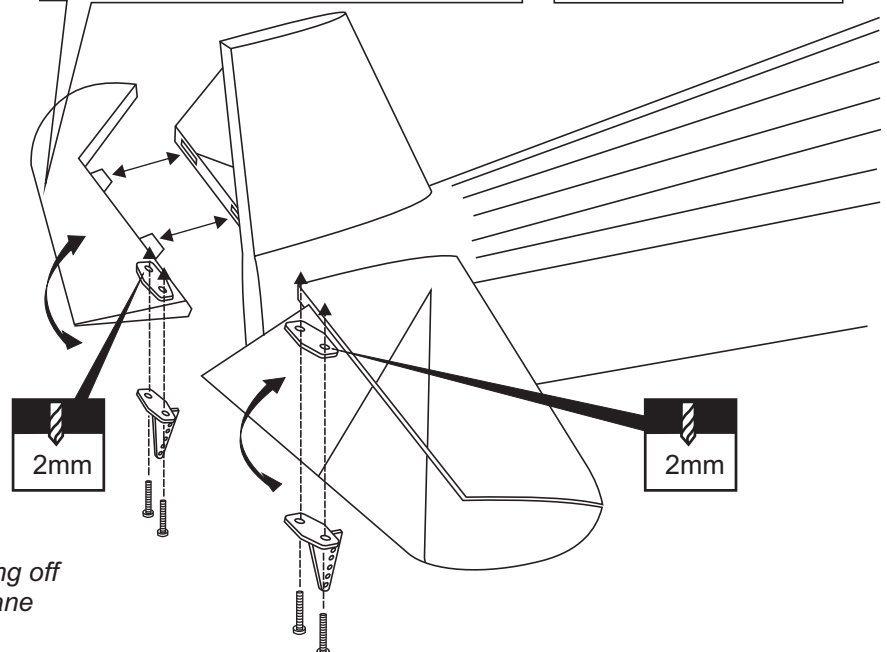
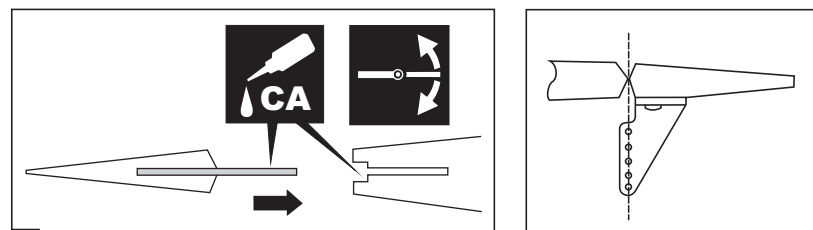


.....2

2x30mm screw



.....4



When you are satisfied with the alignment of the control horn mark the mounting hole positions with a felt tipped pen or a pencil.

Remove the control horn and drill two 2mm (5/64") holes through the elevator

Insert the elevator push rod into the elevator control horn. Attach the elevator control horn using two 2x20mm screw and a back plate.

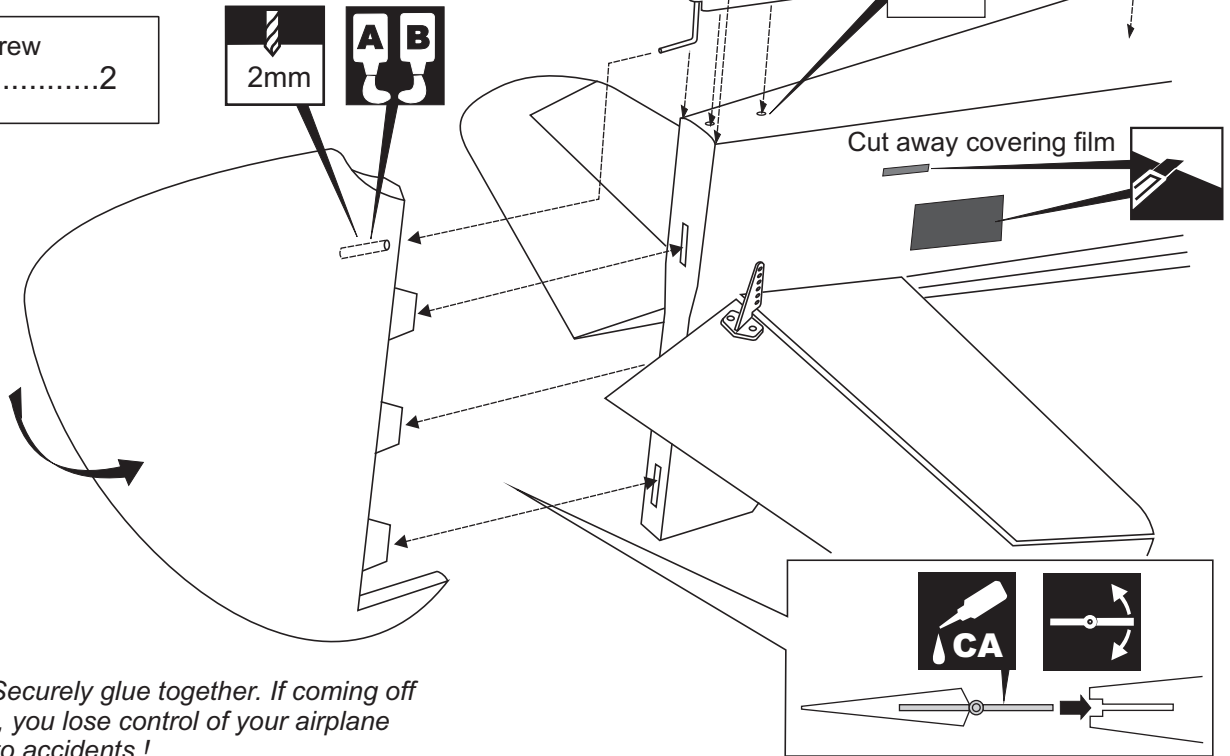
WARNING! Securely glue together. If coming off during flights, you lose control of your airplane which leads to accidents !

14- Rudder & Tail wheel

- 1- Attach the tail gear mounting plate on the fuselage bottom with 3x10mm self tapping screws
- 2- Trial fit the rudder in position, mar the mounting hole position for the tail gear with a felt tipped pen or a pencil.
- 3- Remove the rudder and drill 2mm (5/64") hole as shown.
- 4- Put the epoxy glue in the hole of rudder. Push the rudder in place

3x10mm screw


2




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

15- Push rod & Control horn

Linkage Stopper set

2


Plastic control horn

2

2x30mm screw

2

Rod adjuster

4

2mm screw

2

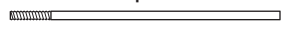
2

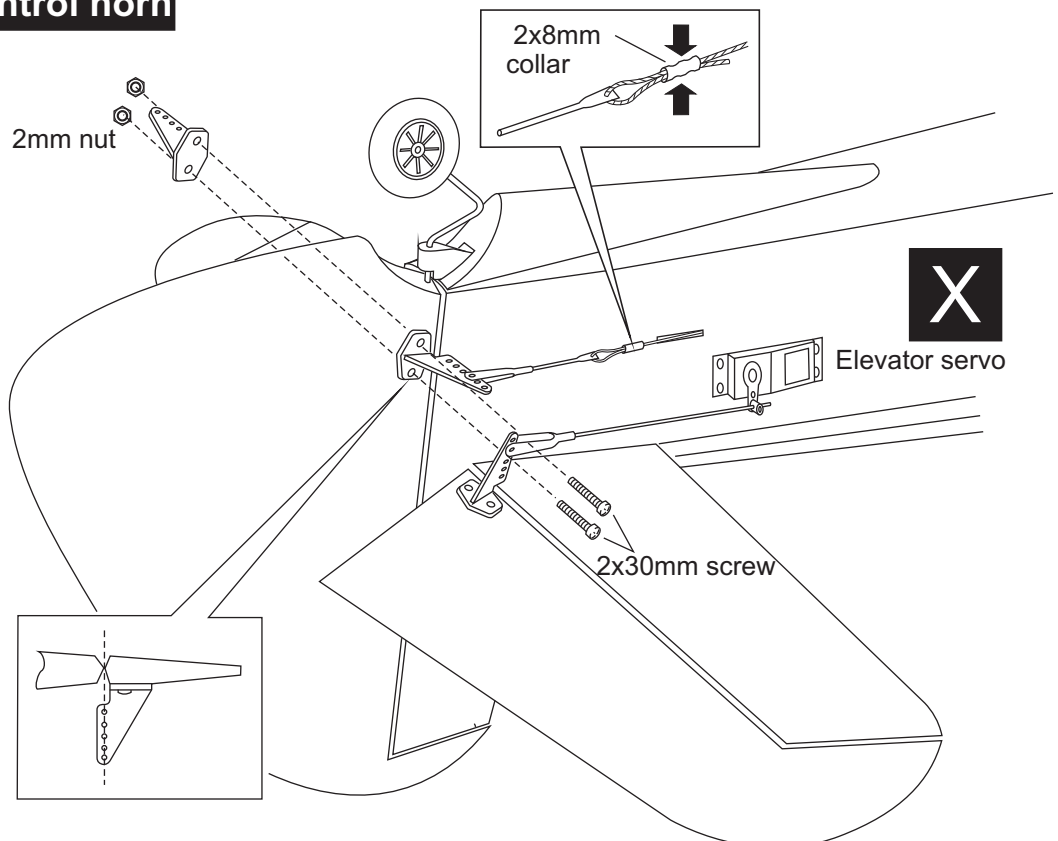
0.4x2.4m1

2x8mm collar

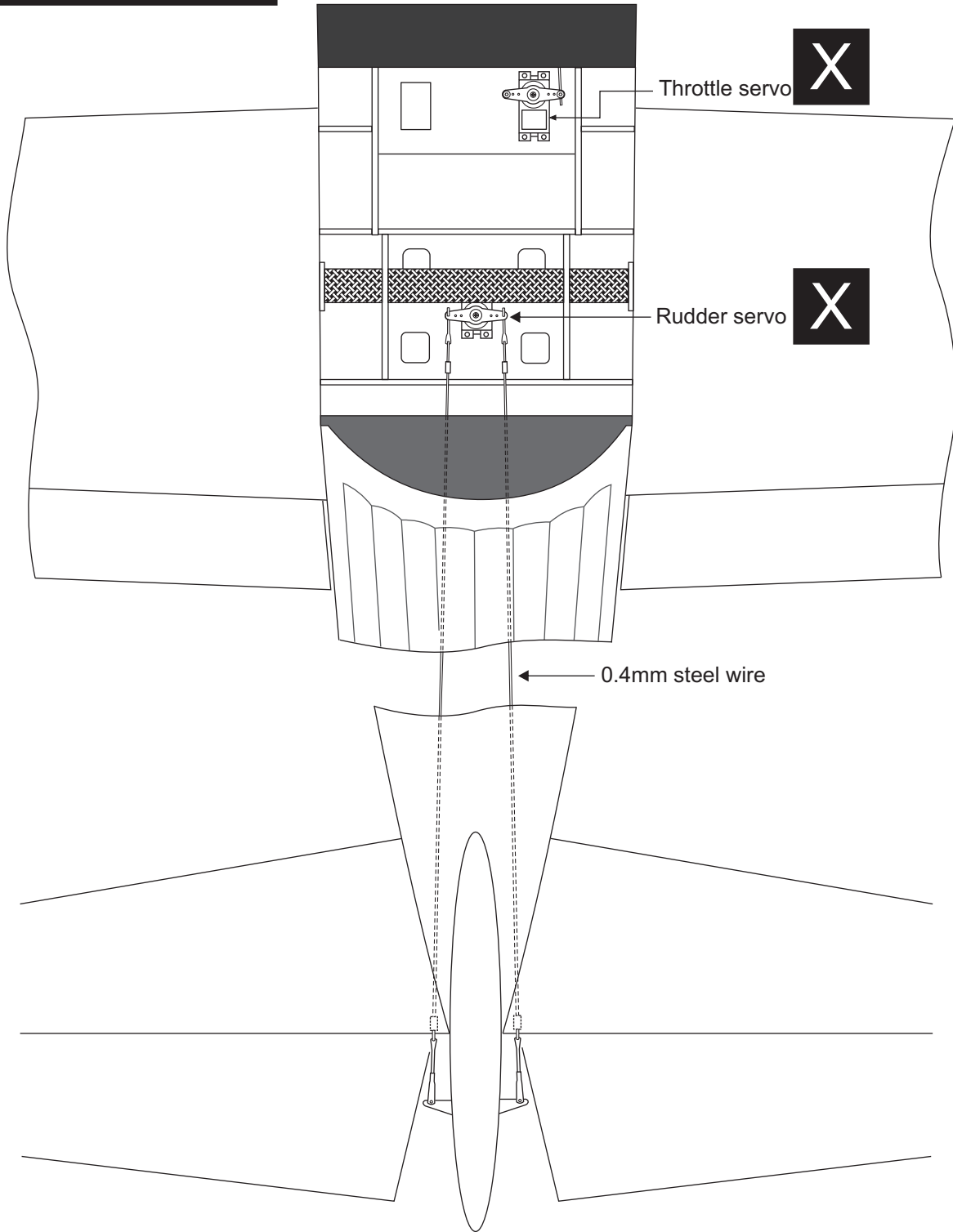
4

170x2mm push rod ..4

 ..4

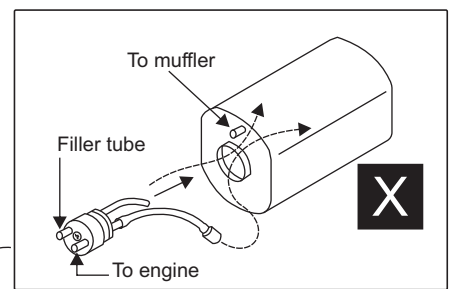
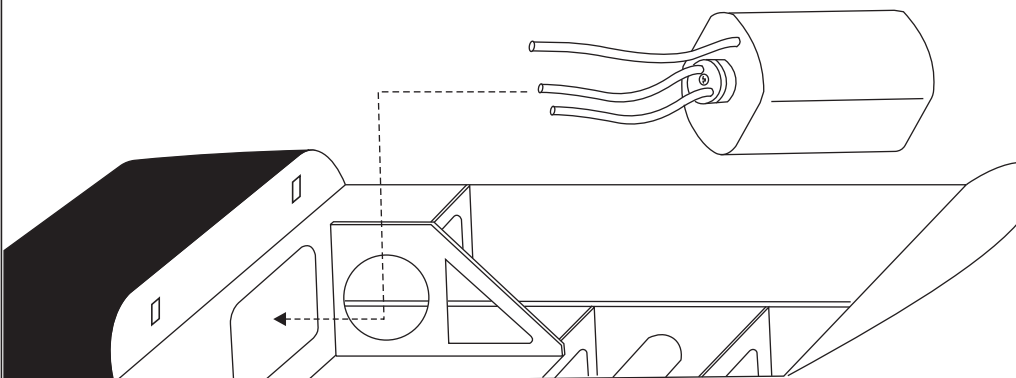


16- Pull-pull system

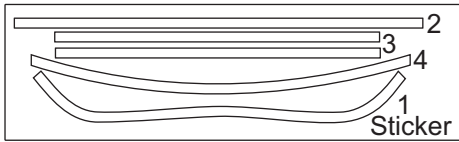
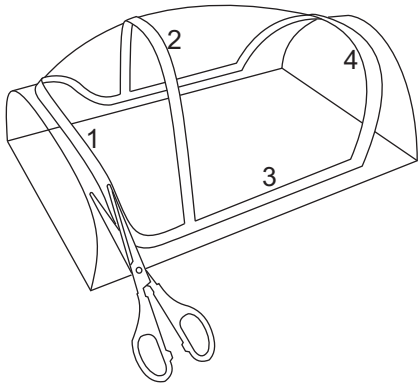


17- Fuel tank

Fuel tank not included X






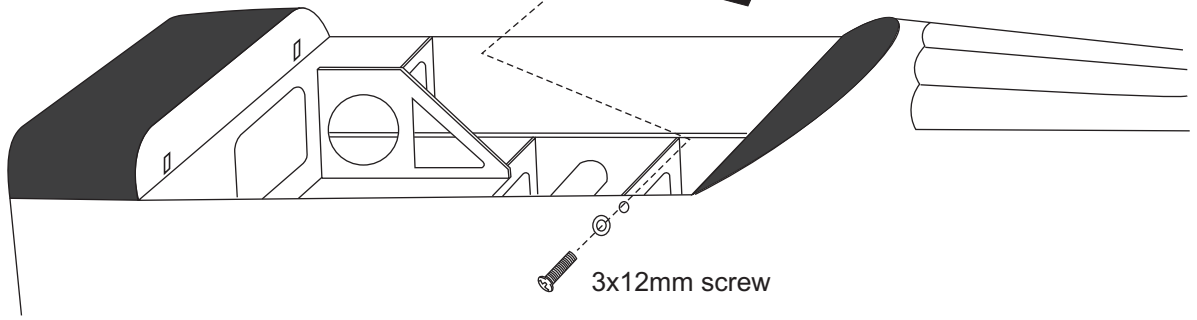
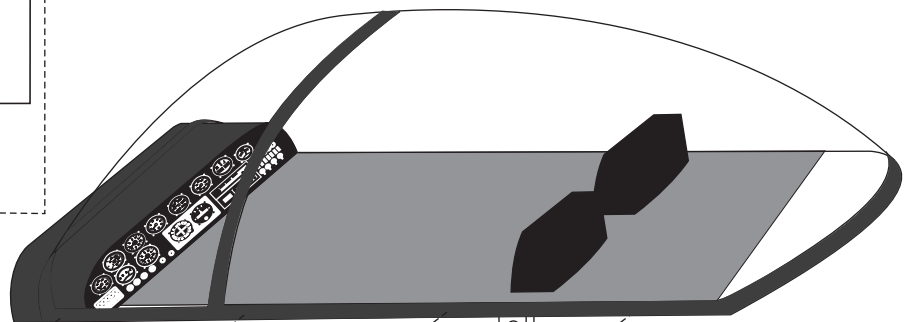
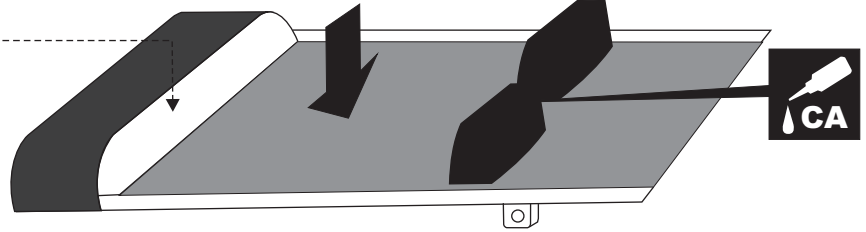
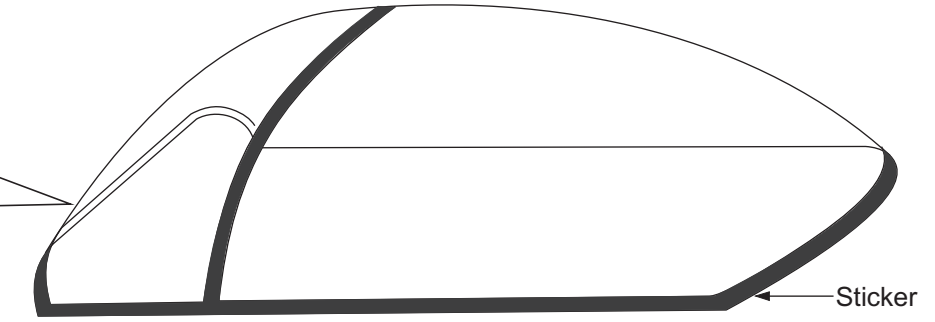
18- Canopy



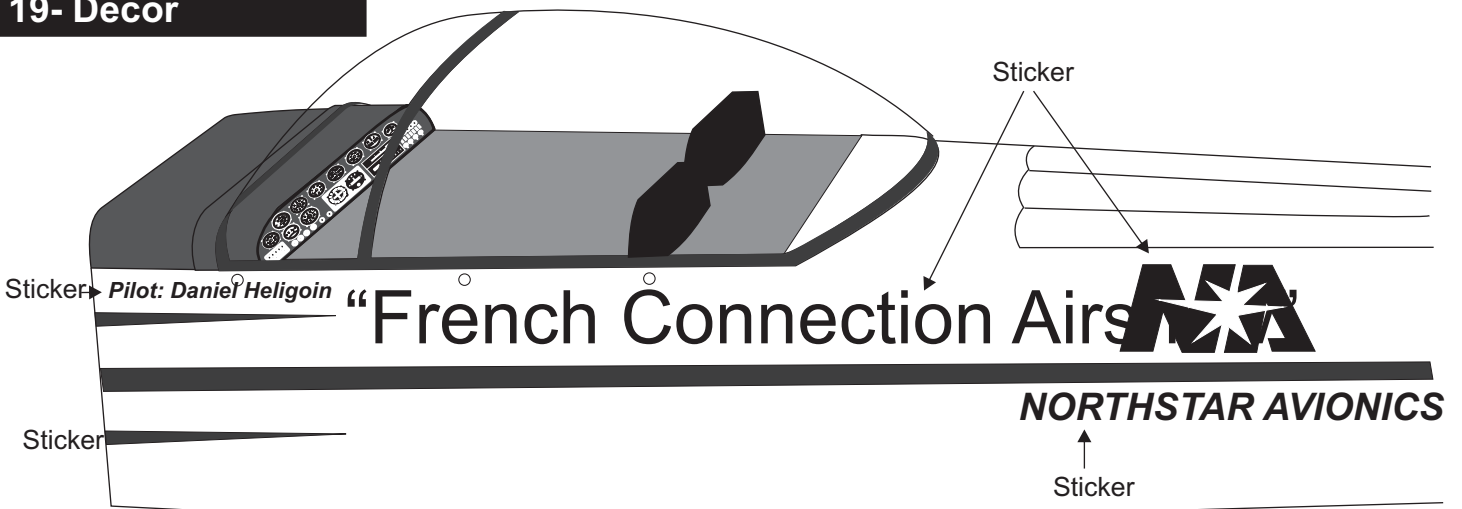
Apply the canopy frame stickers.
It is easy to put them on according
with the number



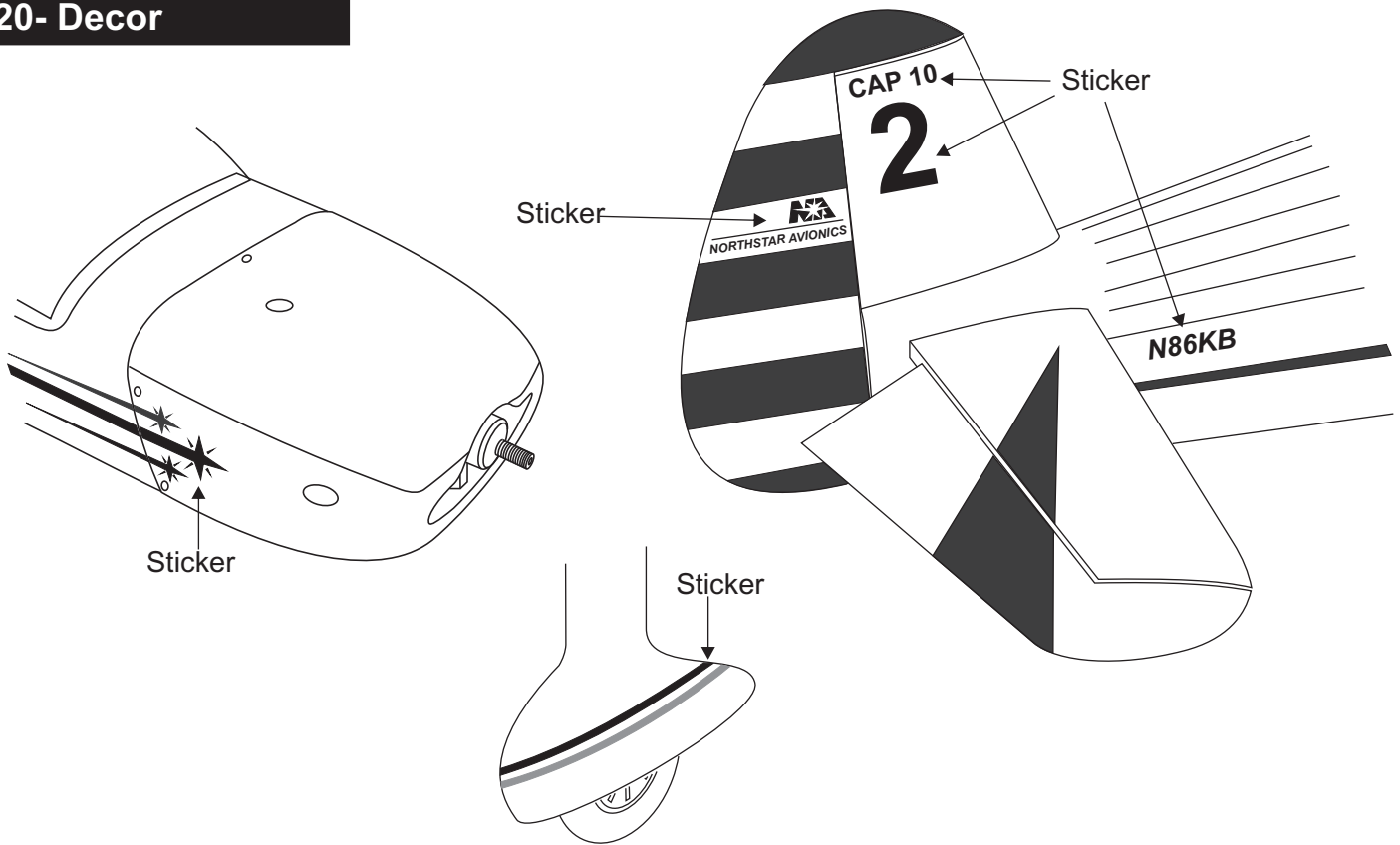
- | | |
|--|--------|
| 2x10mm screw | |
|  |8 |
| 3x12mm screw | |
|  |6 |
| Washer | |
|  |6 |



19- Decor

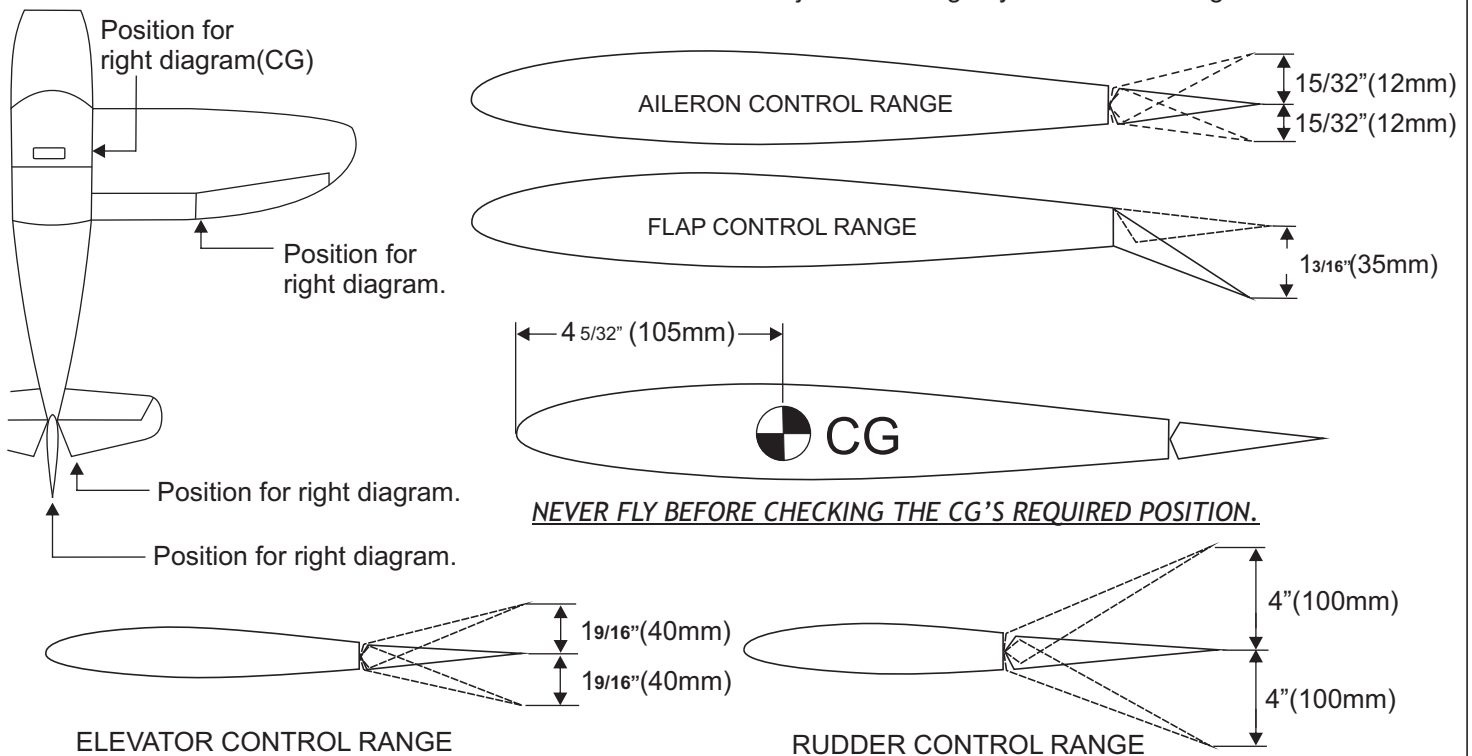


20- Decor

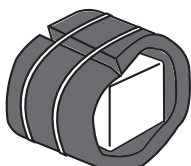


21- Balance & Control range

Adjust the travel of each control surface to the values in the diagrams these values fit general flight capabilities. Readjust according to your needs and flight level.



Foam Pad



Shift the location of the receiver and battery pack as needed to obtain the specification

Carefully install the receiver and battery pack to ensure that they will not shift during flight