Radio control model / Flugmodel

U.S NAVY DIVE BOMBER

SBD-5 DAUNTLESS



ALL BALSA, PLYWOOD CONSTRUCTION AND ALMOST READY TO FLY

Instruction manual / Montageanleitung

SPECIFICATIONS

Wingspan:.....2060mm (81.1in)
Length:.....1450mm (57 in)
Electric Motor:.....See next pager
Gas Engine:..... 26-30cc
RTF Weight: 7Kg / 15.5lbs (Will vary with Equipment Used).
Radio:.....8-9 Channel / 10-11 Servos
Function: Ailerons-Elevator-Rudder-Throttle Flaps-Optional Retractable Landing Gear.

TECHNISCHE DATEN

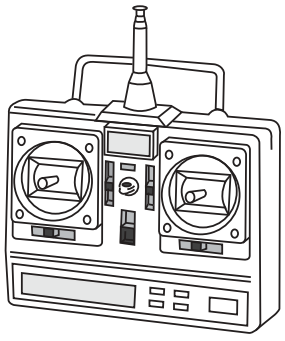
Spannweite:.....2060mm
Länge:.....1450mm
Elektroantrieb.....(siehe nächste Seite)
Verbrennerantrieb:.....26-30cc
Fluggewicht:.....7Kg
Fernsteuerung.....8-9 Kanal / 10-11 Servos

NEXA

WARNING! This radio controlled model is NOT a toy. If modified or flown carelessly it could go out of controll 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 Modellflugpiloten 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 Unterstätzung, 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.

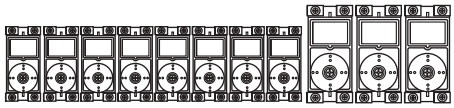
REQUIRED FOR OPERATION (Purchase separately)



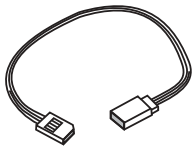
Minimum 8-9 channels radio



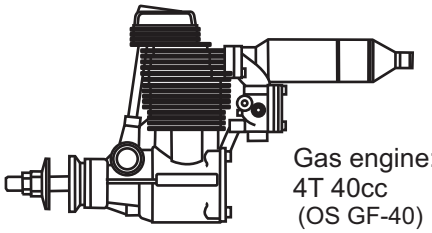
Spinner hub



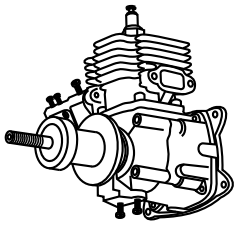
Minimum 8-9 channels radio
with 8 mini servos and 3 standard
Servo (for GP).
.Motor control x1(for GP) .Elevator x2
.Rudder x1. Aileron x2. Flap x3
.Air brake x2



Extension cord for aileron servos: 80cm(x2)
Extension cord for flap and brake servos: 50cm(x4)
Extension cord for retract servos: 30cm(x2)
Extension cord for Rx battery pack: 30cm(x1)
Extension cord for Elevator servos: 80cm(x2)



Gas engine:
4T 40cc
(OS GF-40)

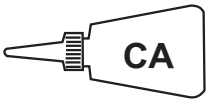


Gas engine:
2T 26-30cc

GLUE (Purchase separately)



Silicon sealer



Cyanoacrylate Glue (thin type)



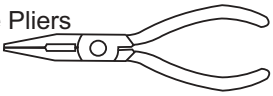
Epoxy Glue
(30 minute type)

TOLLS REQUIRED (Purchase separately)

Hobby knife



Needle nose Pliers



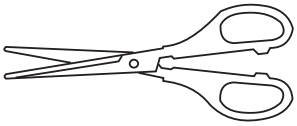
Sander



Phillip screw driver



Scissors



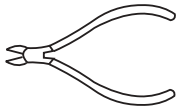
Hex Wrench



Awl

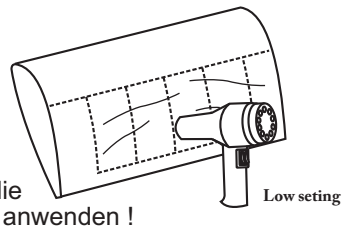


Wire Cutters



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

If exposed to direct sunlight and/or heat, wrinkels can appear. Storing the model in a cool place will let the wrinkles disappear. Otherwise, remove wrinkles in covering film with a hair dryer, starting with low temperature. You can fix the corners by using a hot iron.



Bei Sonneneinstrahlung und/oder Wärme kann die Folie erschlaffen bzw. Falten entstehen. Verwenden Sie ein Warumluftgebläse (Haartrockner) um evtl. Falten aus der Folie zu bekommen. Die Kanten können Sie mit einem Bügeleisen behandeln. Nicht zuviel Hitze anwenden !

Symbols used throughout this instruction manual, comprise:



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



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



Löcher bohren mit dem angegebenen Bohrer (hier 1,5 mm)



Hier besonders aufpassen



Schraffierte Stellen, Bespannfolie vorsichtig entfernen



Während des Zusammenbaus immer prüfen, ob sich die Teile auch reibungslos bewegen lassen



Epoxy-Klebstoff verwenden



Sekundenkleber auftragen



Linke und rechte Seite wird gleichermaßen zusammengebaut



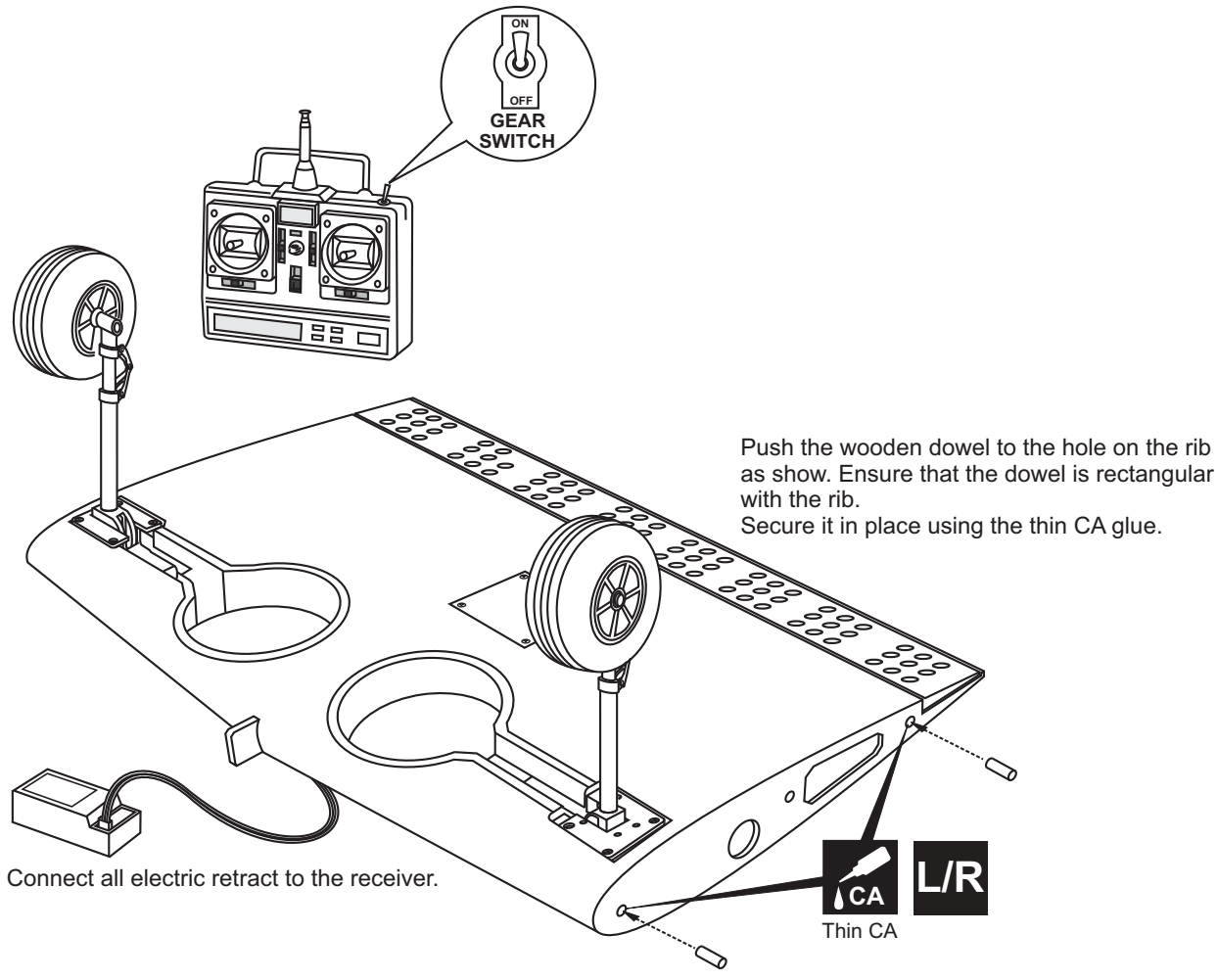
Nicht enthalten. Teile müssen separat gekauft werden.

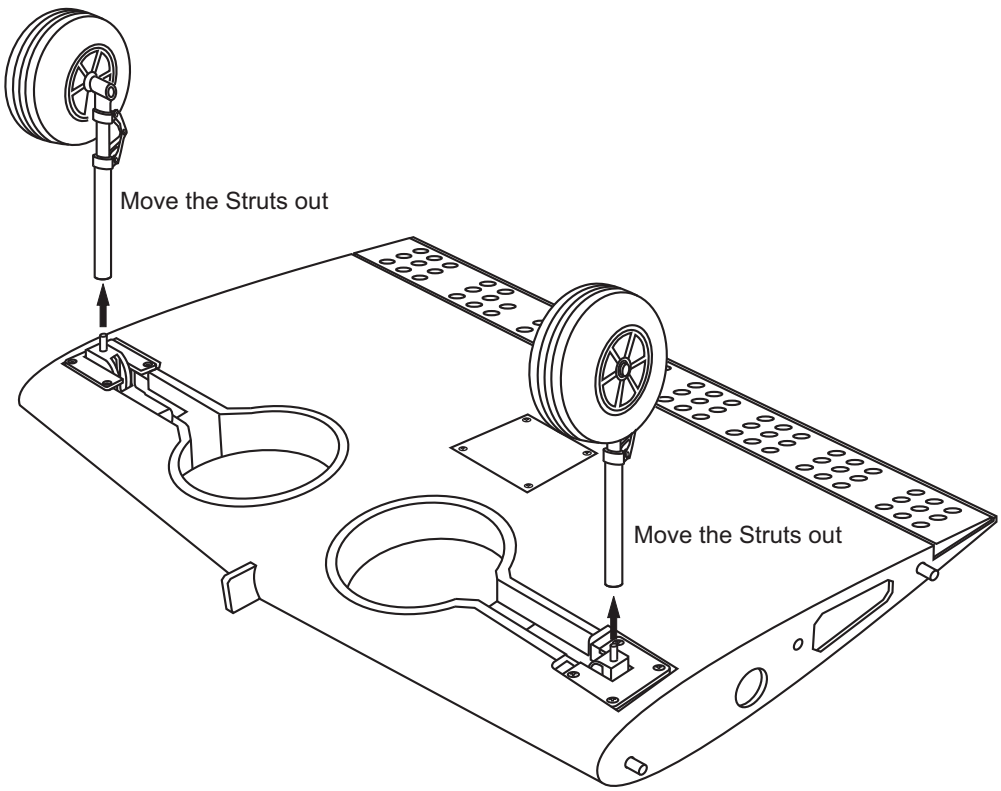
Read through the manual before you begin, so you will have an overall idea of what to do.

CONVERSION TABLE

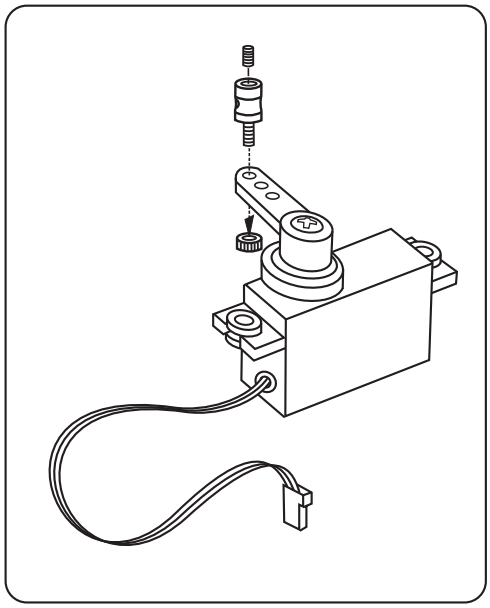
1.0mm = 3/64”	3.0mm = 1/8”	10mm = 13/32”	25mm = 1”
1.5mm = 1/16”	4.0mm = 5/32”	12mm = 15/32”	30mm = 1-3/16”
2.0mm = 5/64”	5.0mm = 13/64”	15mm = 19/32”	45mm = 1-51/64”
2.5mm = 3/32”	6.0mm = 15/64”	20mm = 51/64”	

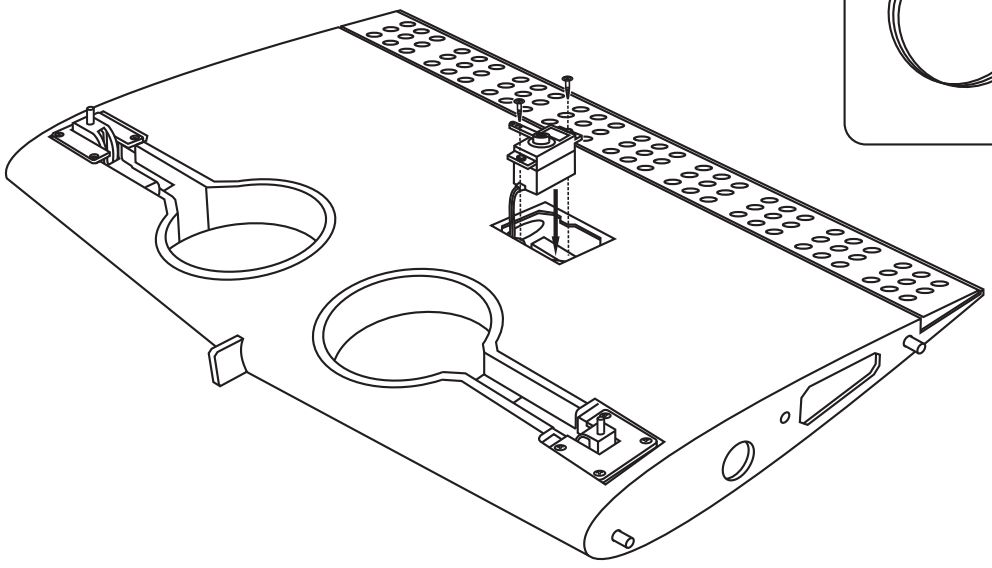
1- Center Wing

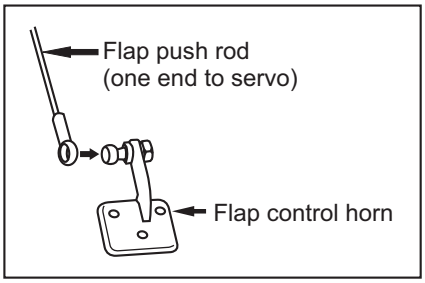


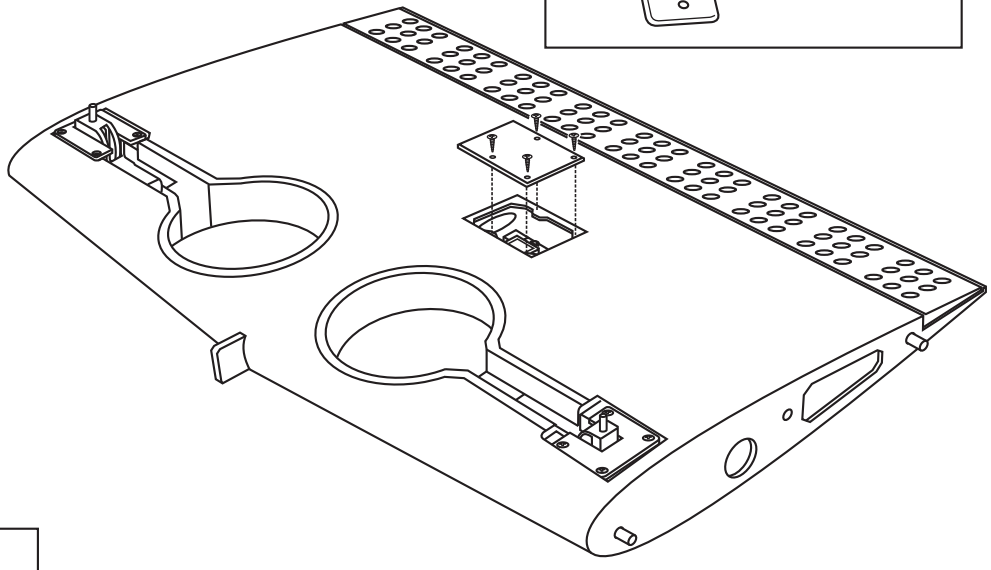


2- Center Wing: Flap servo









Connector

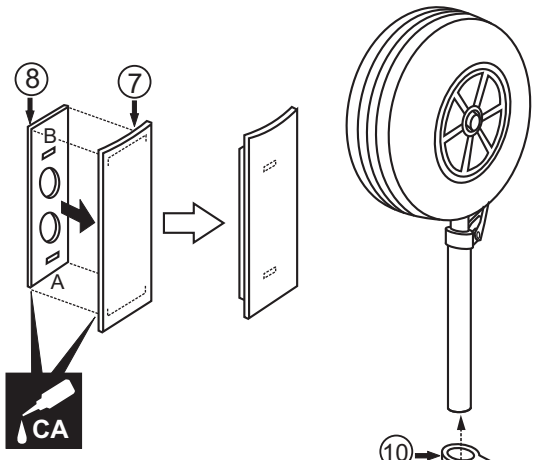


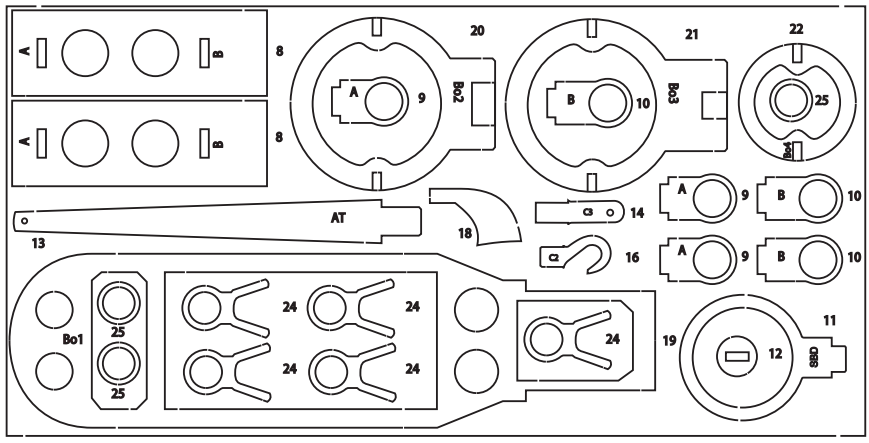
.....1

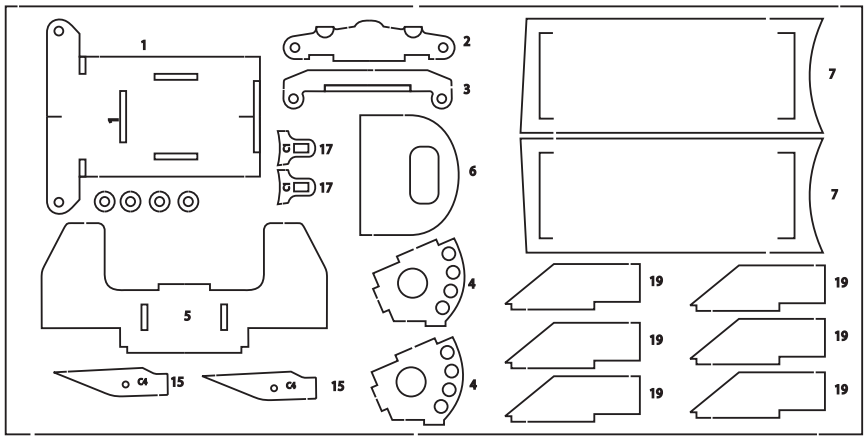
2x170mm.....1

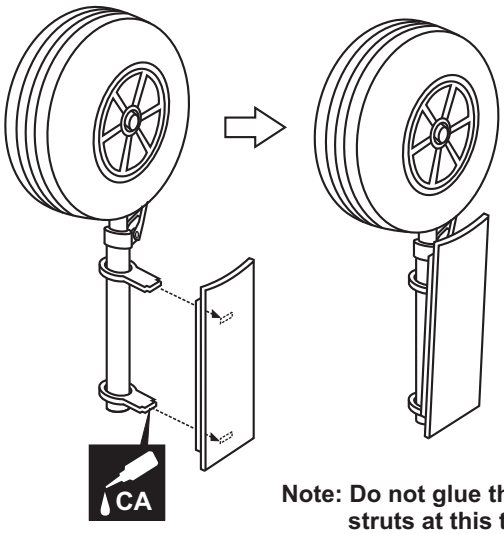


3- Gear door







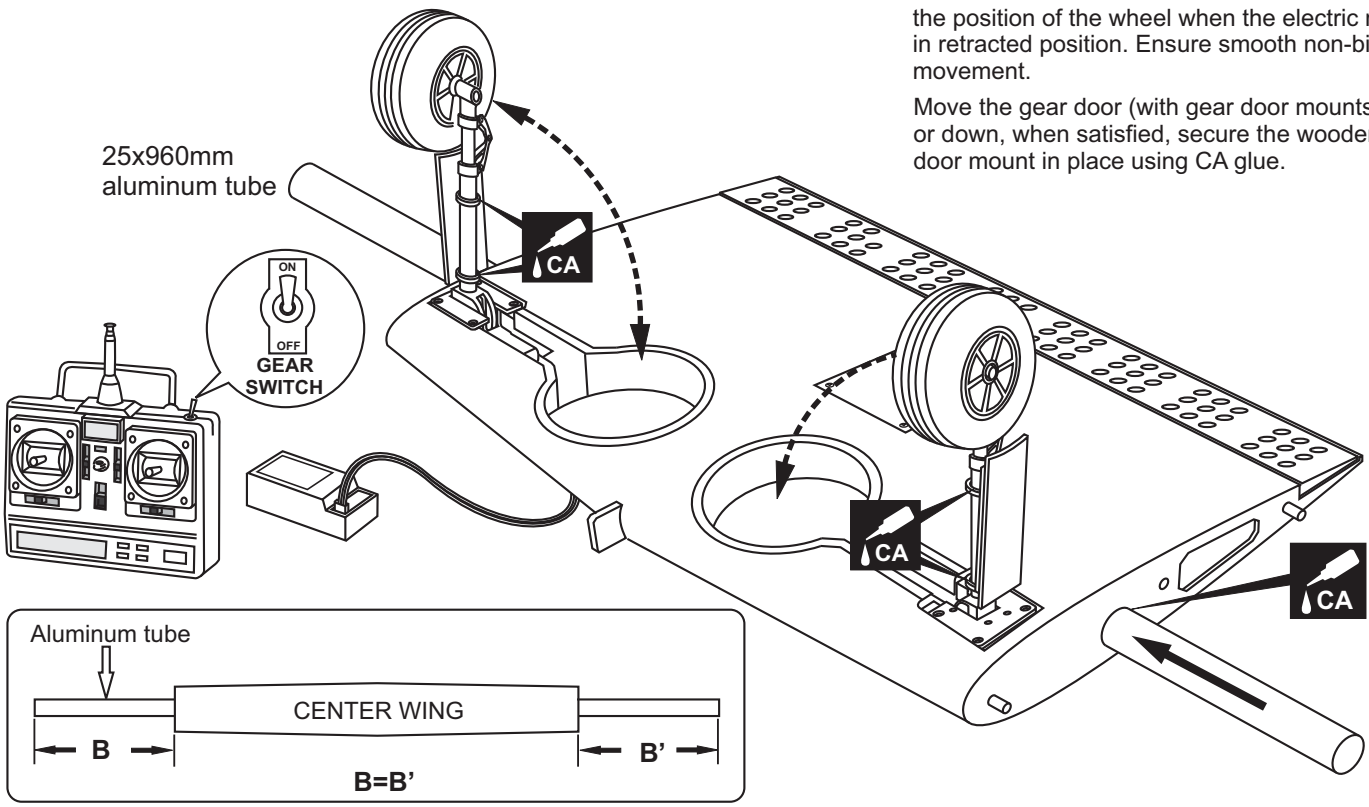


Note: Do not glue the wooden gear door mounts to the struts at this time.

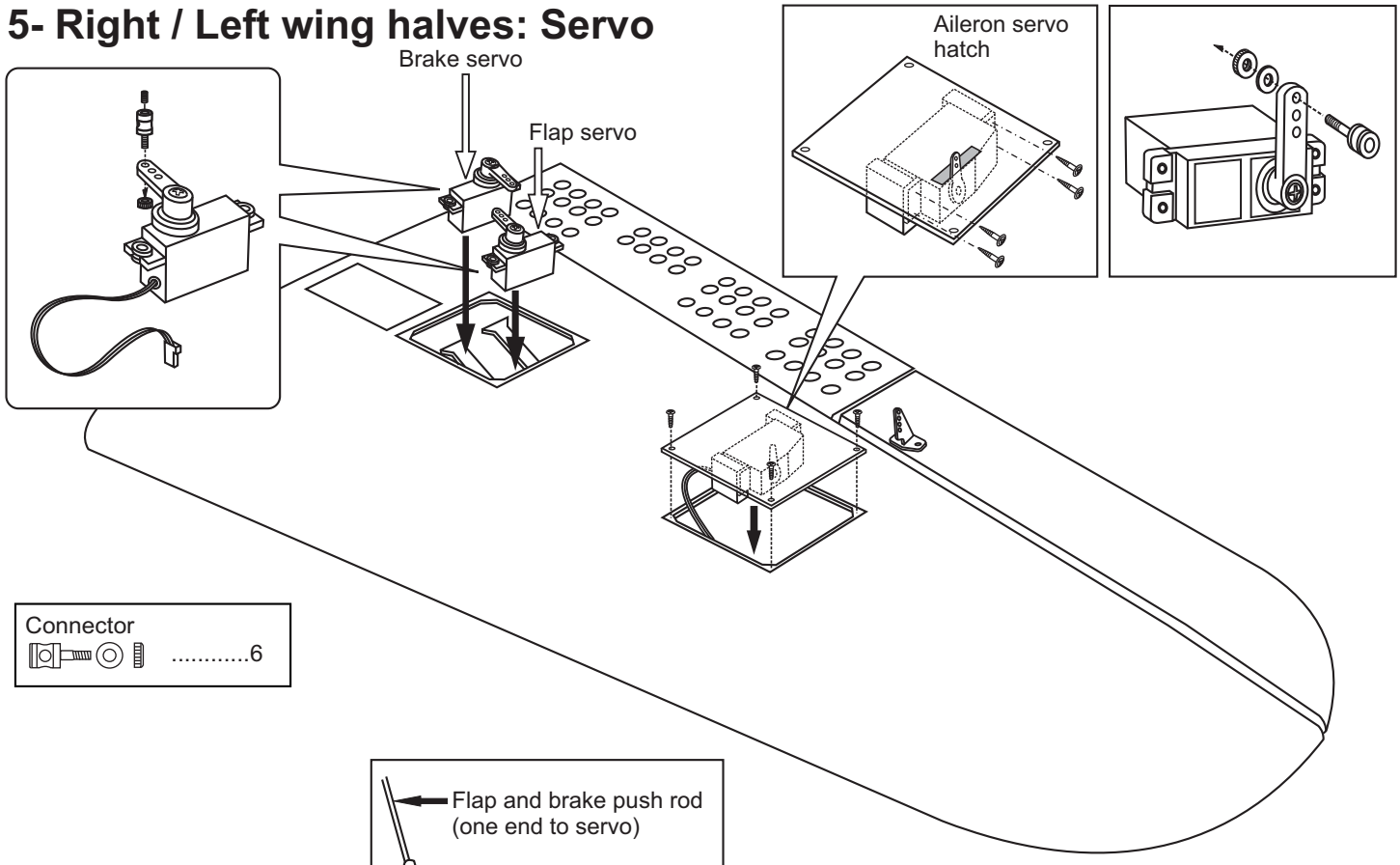
4- Joining the wing

Connect the electric retract with the radio to check the position of the wheel when the electric retract in retracted position. Ensure smooth non-binding movement.

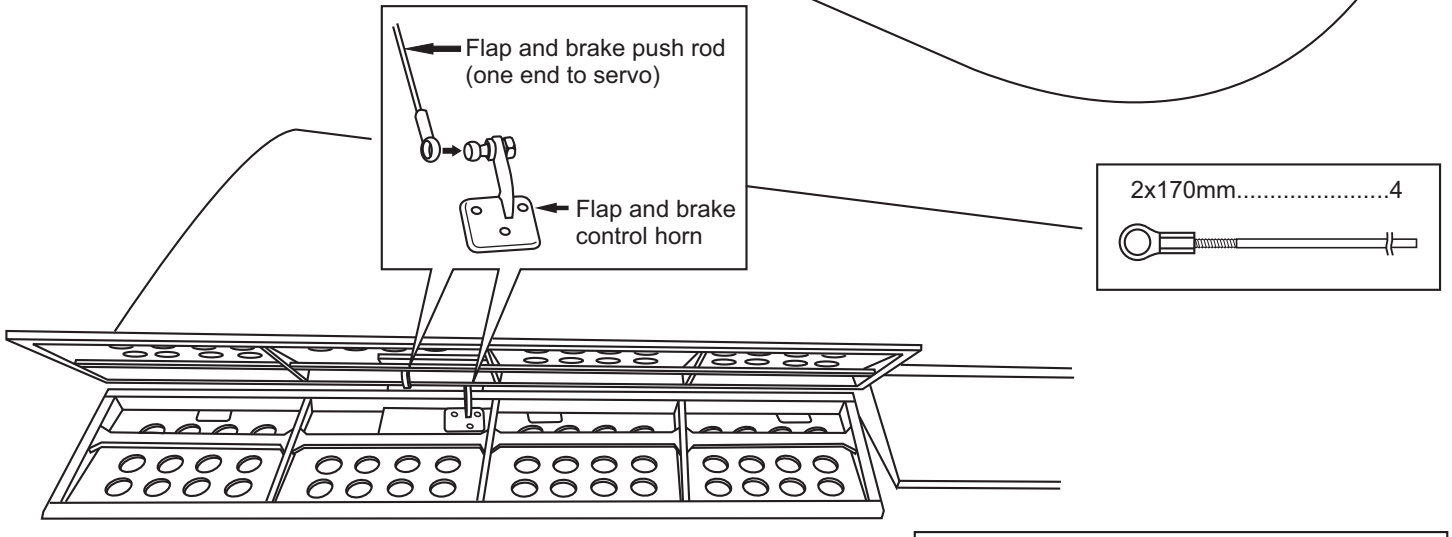
Move the gear door (with gear door mounts) to up or down, when satisfied, secure the wooden gear door mount in place using CA glue.



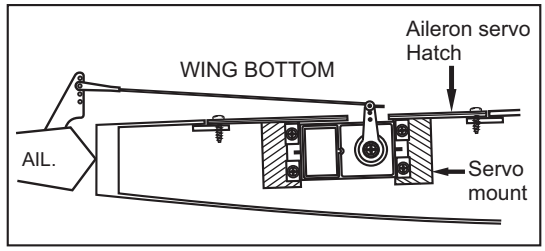
5- Right / Left wing halves: Servo



Connector 6



2x170mm.....4

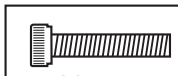


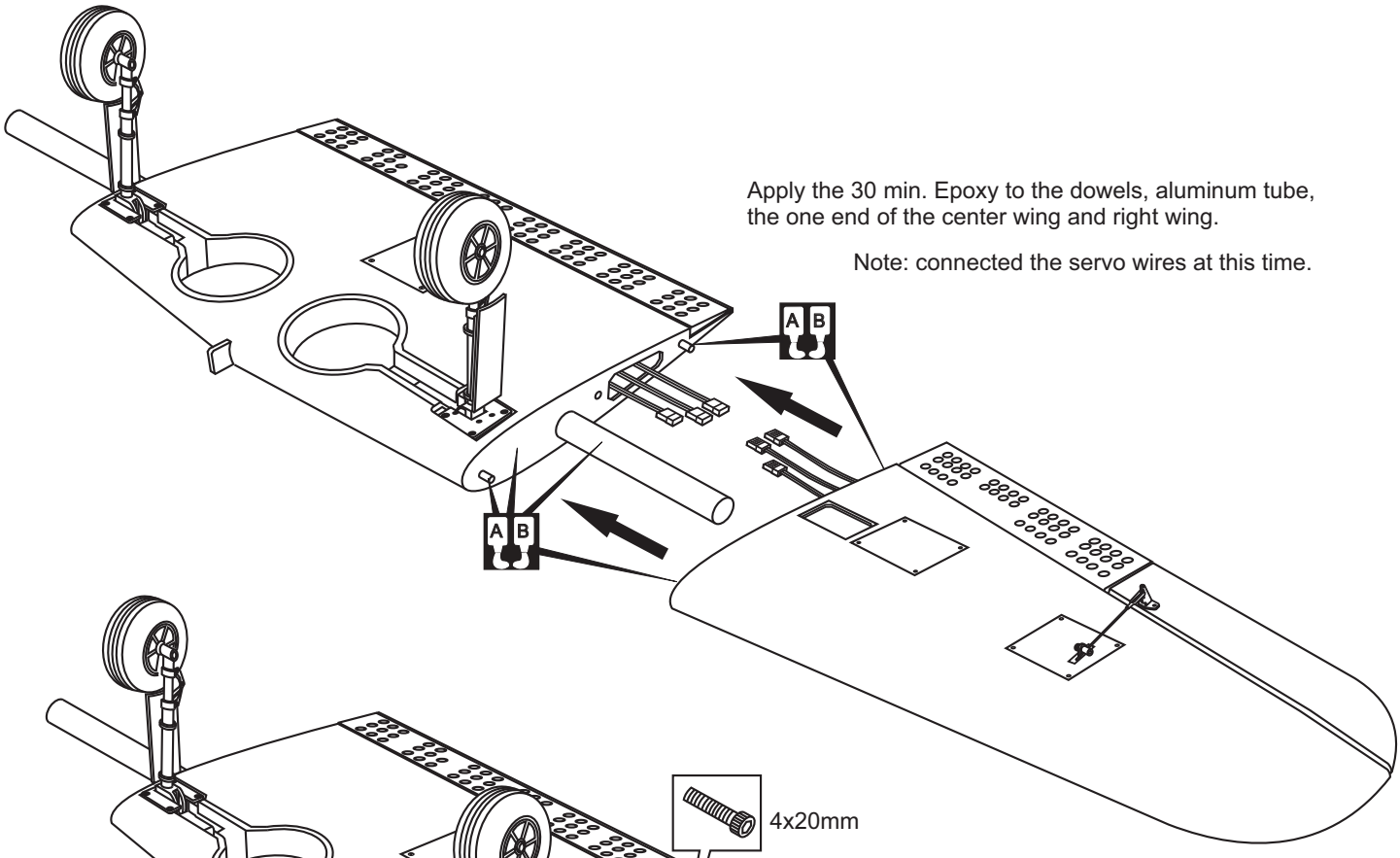
Control horn 2

2x30mm 4

2x170mm.....4

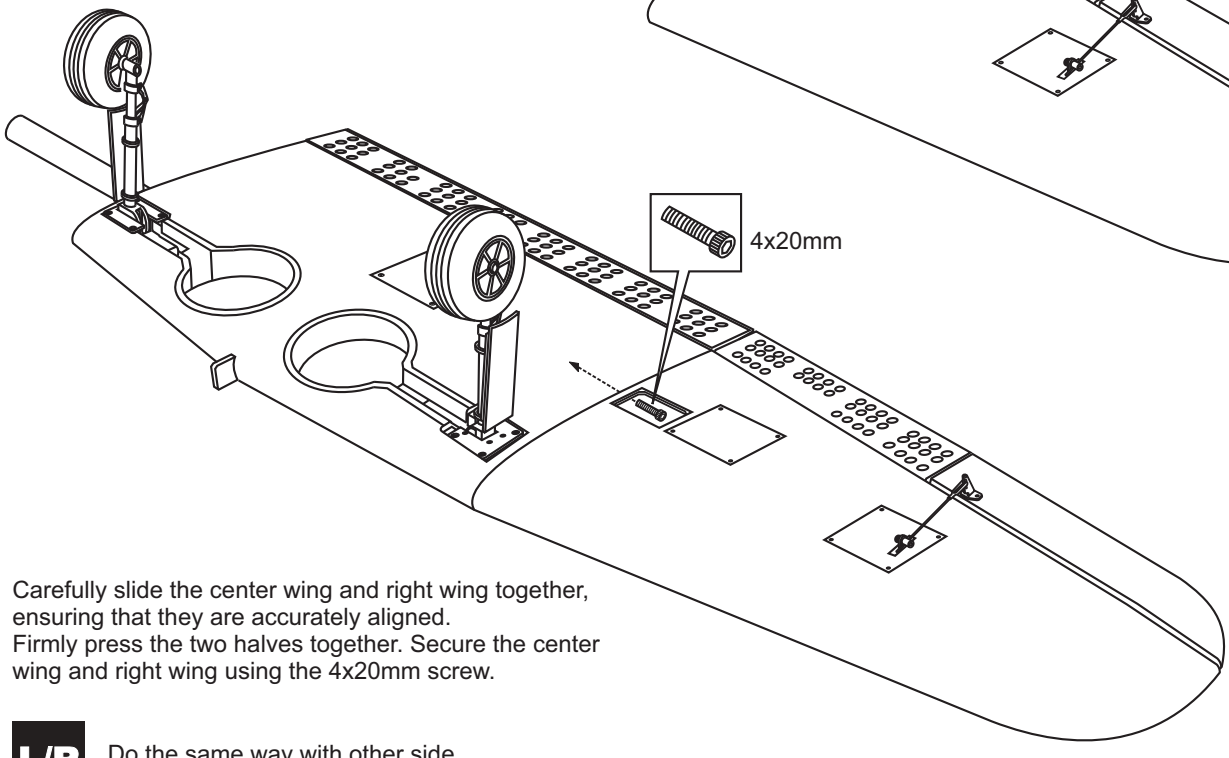
6- Joining the wing





Apply the 30 min. Epoxy to the dowels, aluminum tube, the one end of the center wing and right wing.

Note: connected the servo wires at this time.

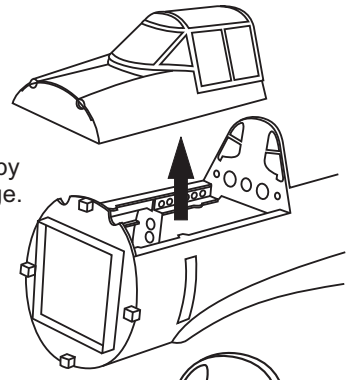


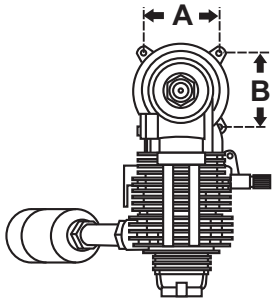
Carefully slide the center wing and right wing together, ensuring that they are accurately aligned.
Firmly press the two halves together. Secure the center wing and right wing using the 4x20mm screw.

L/R Do the same way with other side .

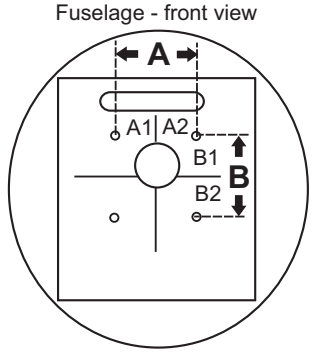
7- Engine

Full the magnetic canopy hatch out of the fuselage.



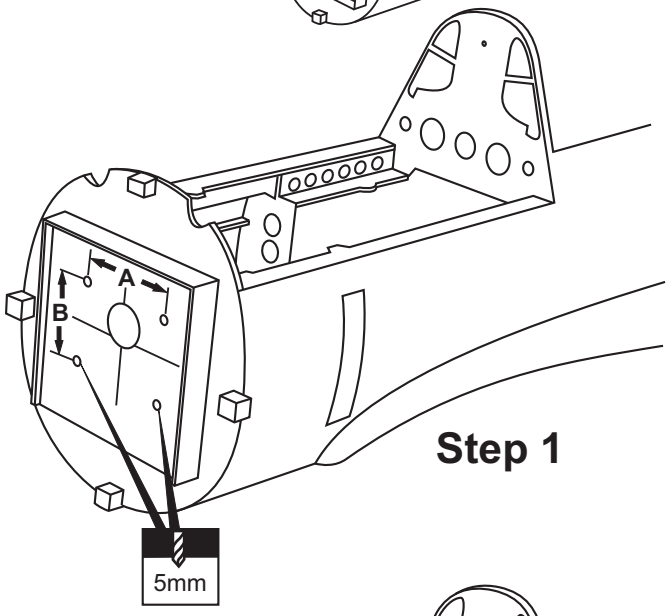


Fuselage - front view

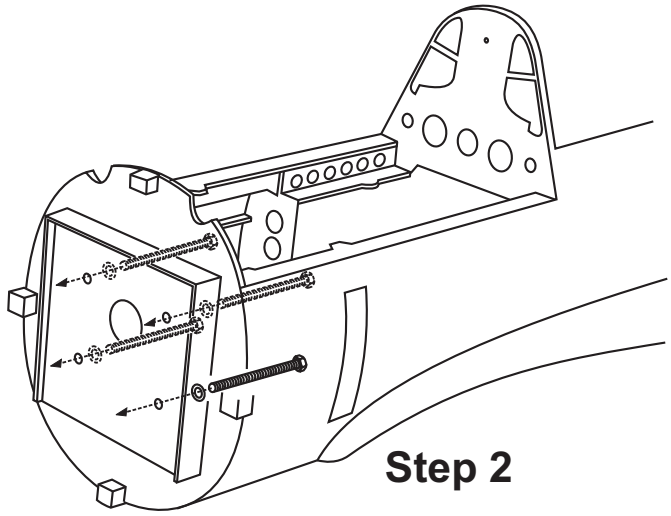


A1=A2 B1=B2

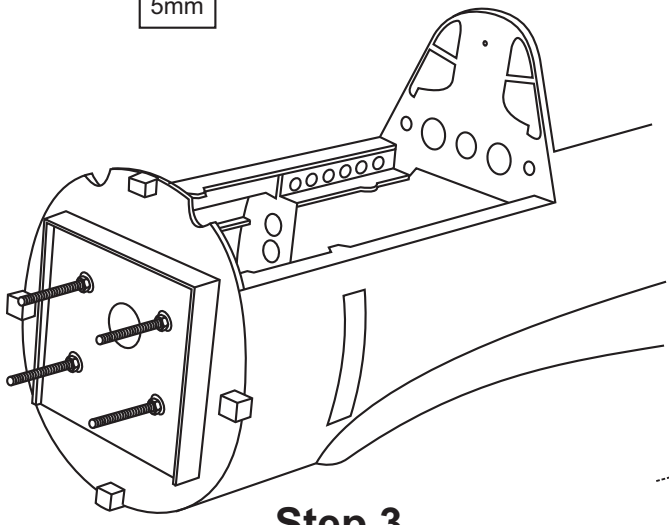
Mark the plywood where the four holes are to be drilled.



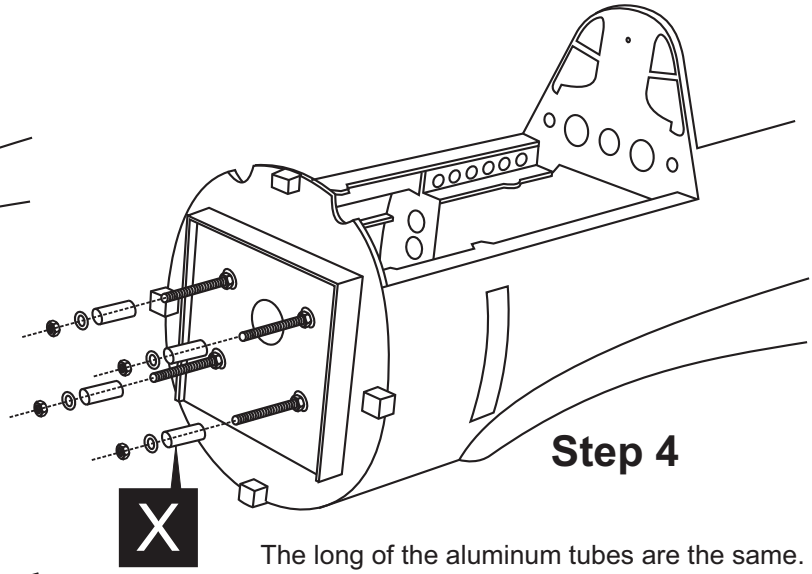
Step 1



Step 2

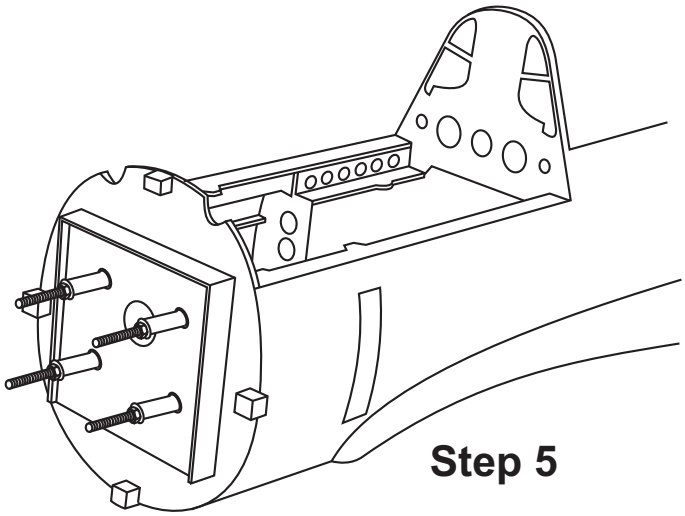


Step 3



Step 4

The long of the aluminum tubes are the same.
Note: The aluminum tube not include.



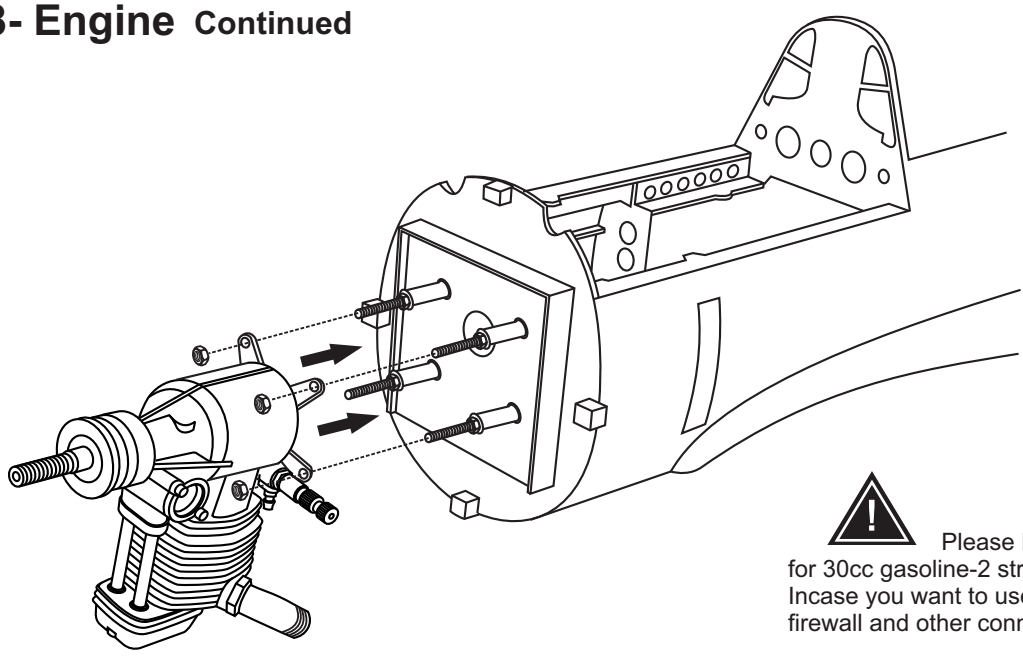
Step 5

5x80mm screw 4

5mm nut 12

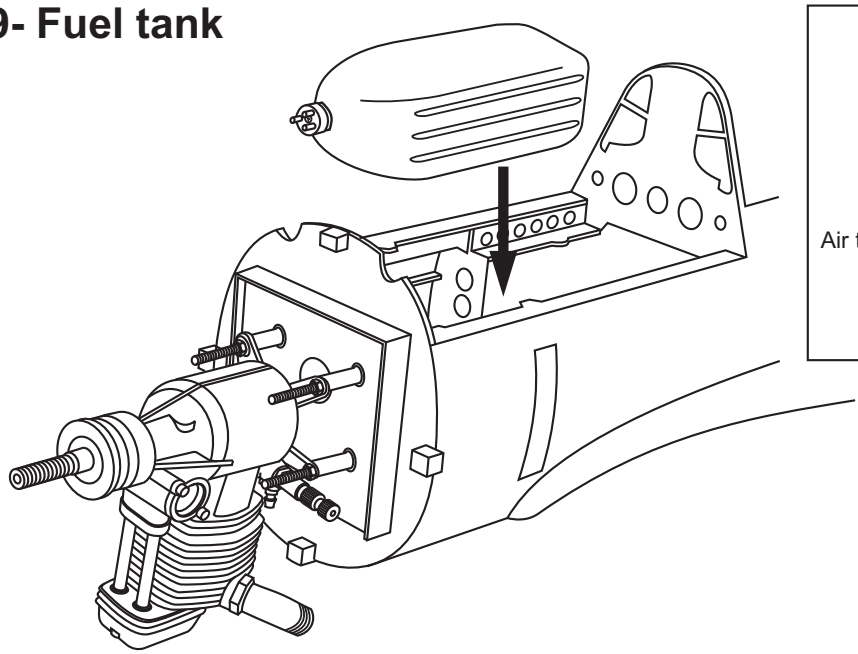
5mm washer 8

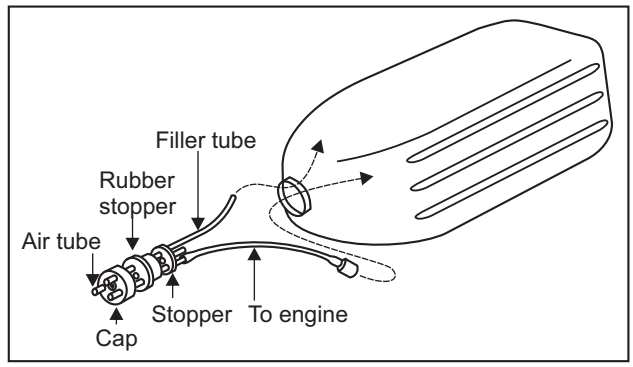
8- Engine Continued



Please Note: This plane was design to use for 30cc gasoline-2 stroke engine or 40cc-4 stroke engine. Incase you want to use bigger engine, please reinforce the firewall and other connection by Epoxy

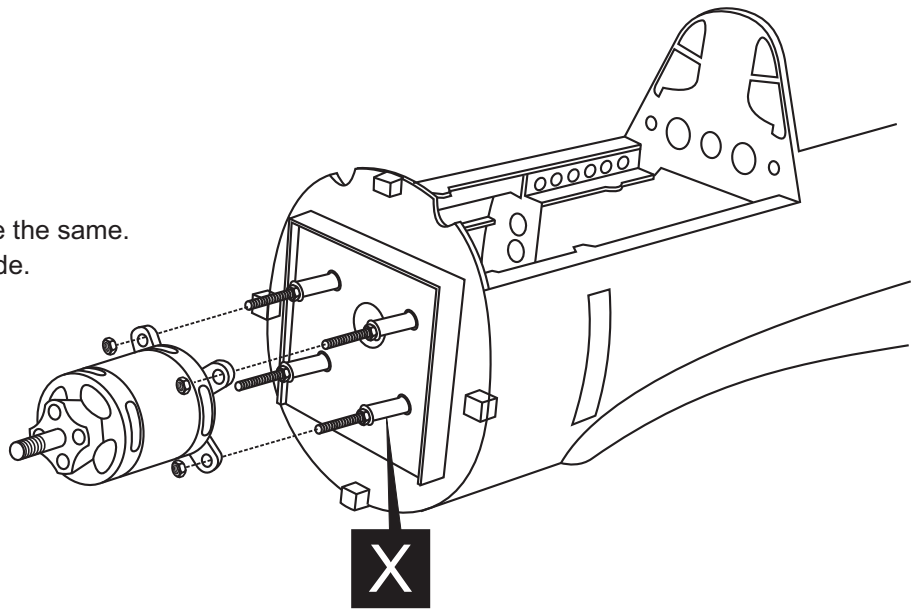
9- Fuel tank





10- Electric Motor

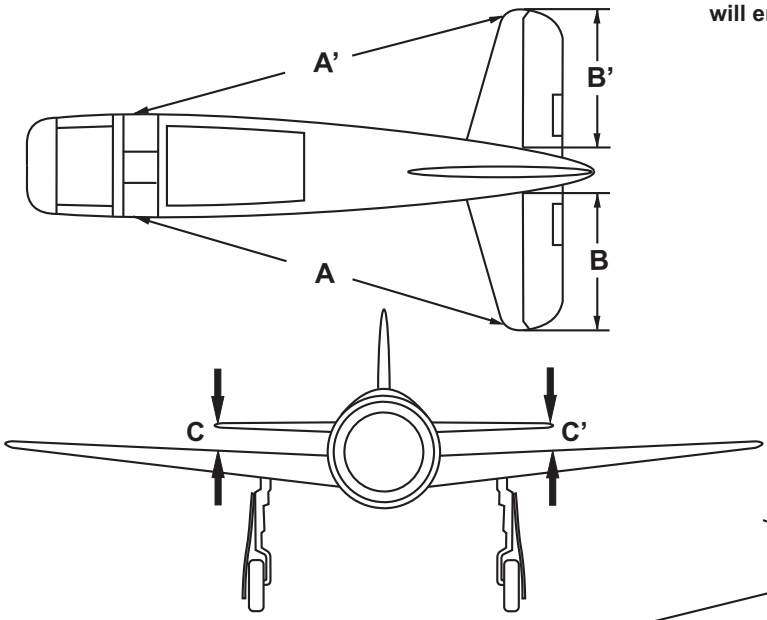
The long of the aluminum tubes are the same.
Note: The aluminum tube not include.

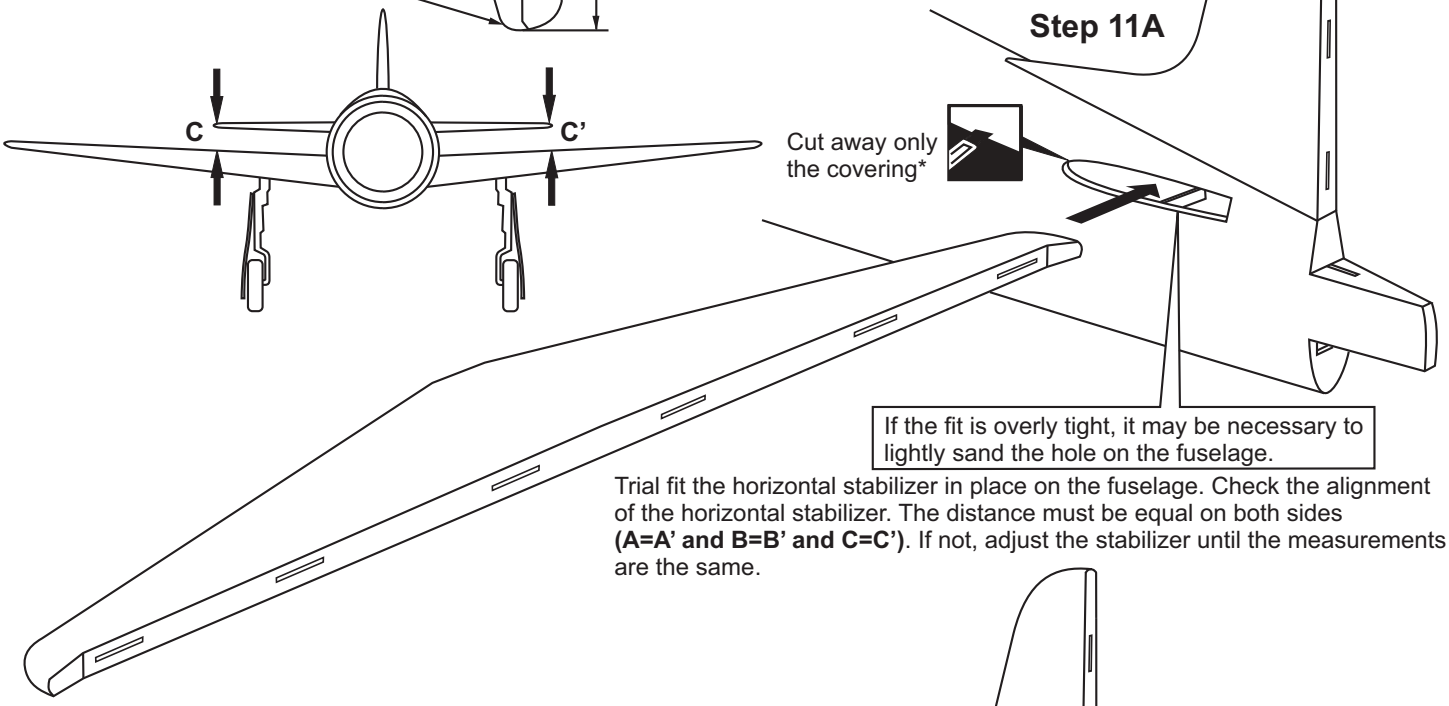


5x80mm screw 4
5mm nut 12
5mm washer 8

11- Horizontal stabilizer

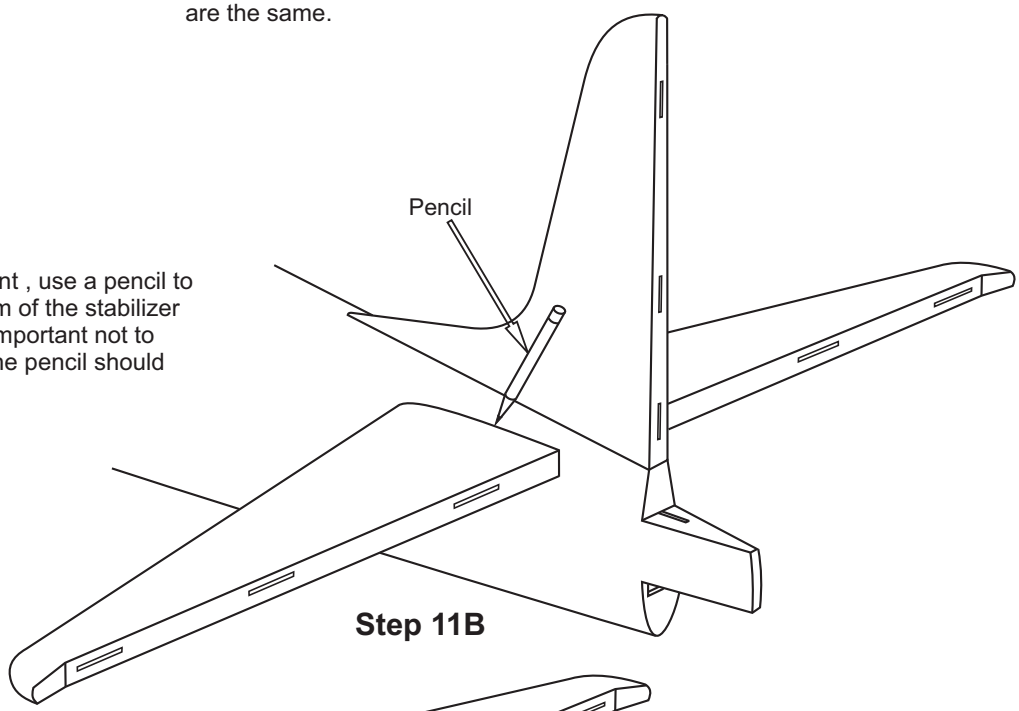
*** WARNING: When removing any covering from the airframe, please ensure that you secure the cut edge with CA or similar cement. This will ensure the covering remain tight.**

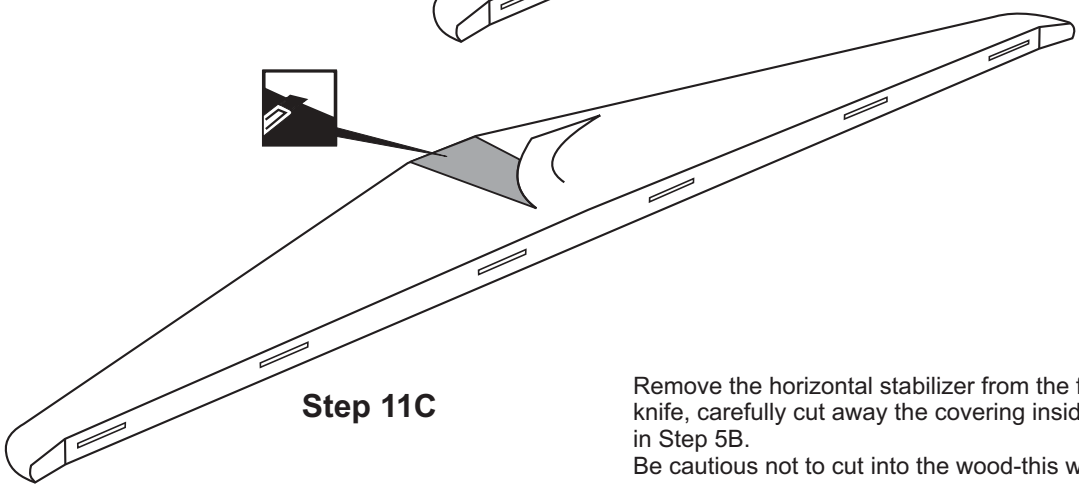




Trial fit the horizontal stabilizer in place on the fuselage. Check the alignment of the horizontal stabilizer. The distance must be equal on both sides **(A=A' and B=B' and C=C')**. If not, adjust the stabilizer until the measurements are the same.

When you are satisfied with the alignment , use a pencil to carefully trace around the top and bottom of the stabilizer where it meets the fuselage. Note, it is important not to disturb the alignment of the stabilizer. The pencil should leave a light indentation in the covering.

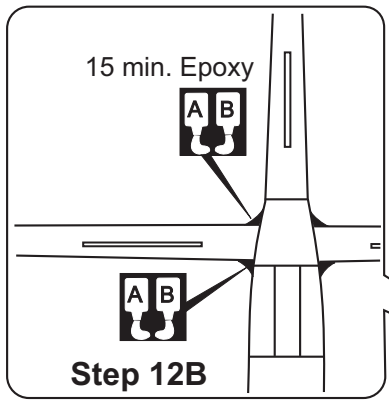




Remove the horizontal stabilizer from the fuselage. Using a sharp hobby knife, carefully cut away the covering inside the lines which were marked in Step 5B.
Be cautious not to cut into the wood-this will weaken the structure.

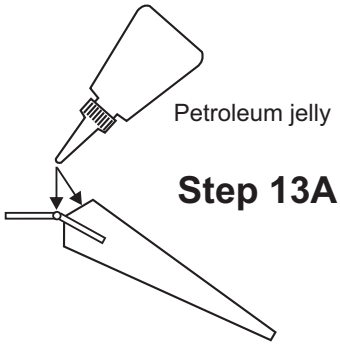
12- Horizontal stabilizer Continued

Again, trial fit the horizontal stabilizer in place on the fuselage and adjust the alignment as described in Step 11A.
Secure the stabilizer in place using the **thin** CA glue (Step 12A).

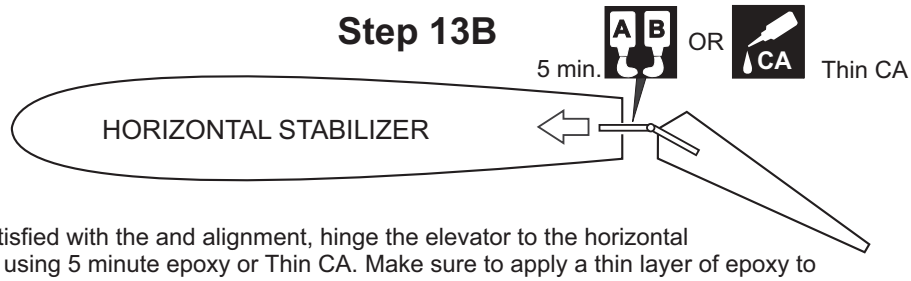


Add a thin layer of 15 minutes Epoxy glue along the horizontal stabilizer to contact the fuselage to make sure there are no gaps (Step 12B).

13-Elevator

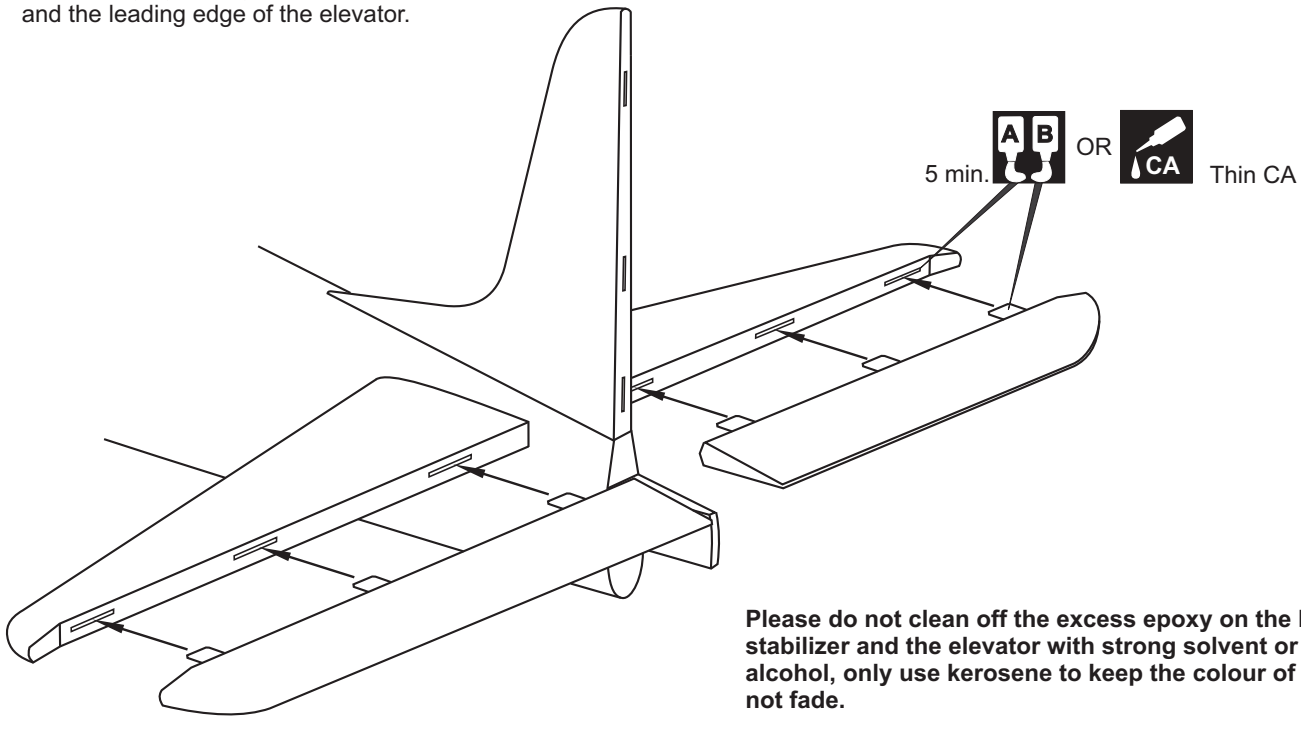


Apply a thin layer of machine oil or petroleum jelly to only the pivot point and the leading edge of the elevator.



When satisfied with the and alignment, hinge the elevator to the horizontal stabilizer using 5 minute epoxy or Thin CA. 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.

NOTE: You may need to open up the slots so that the hinges are not too difficult to push in.

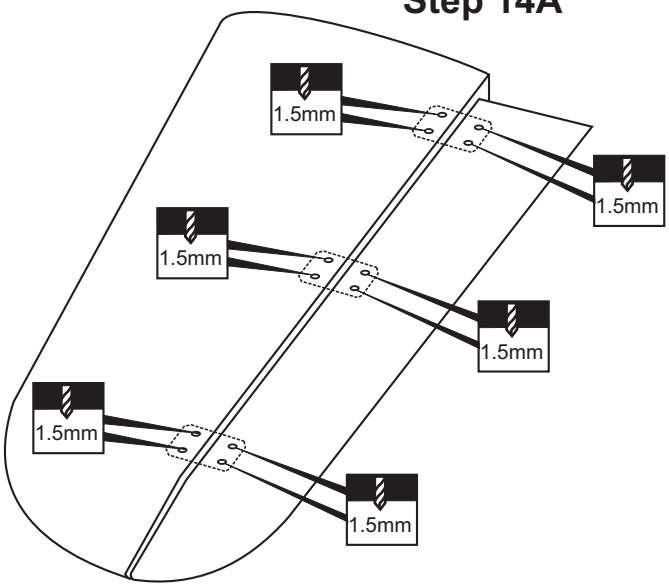


Please do not clean off the excess epoxy on the horizontal stabilizer and the elevator with strong solvent or pure alcohol, only use kerosene to keep the colour of your model not fade.

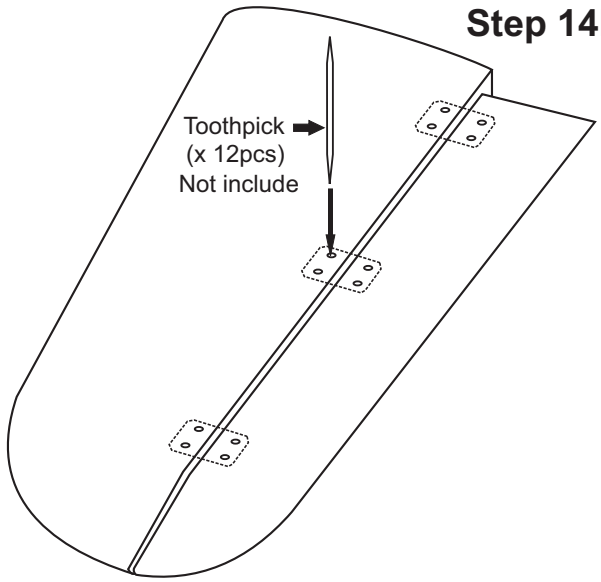
14-Elevator Continued

Elevator Safety

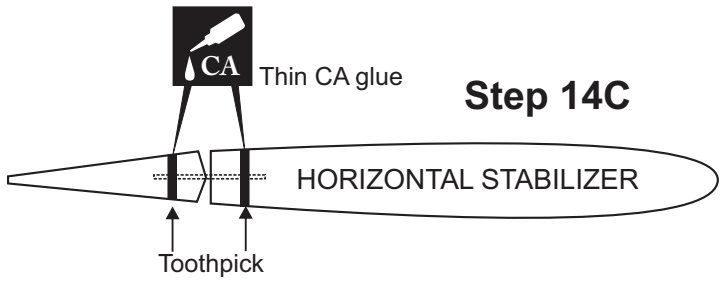
Step 14A



Step 14B

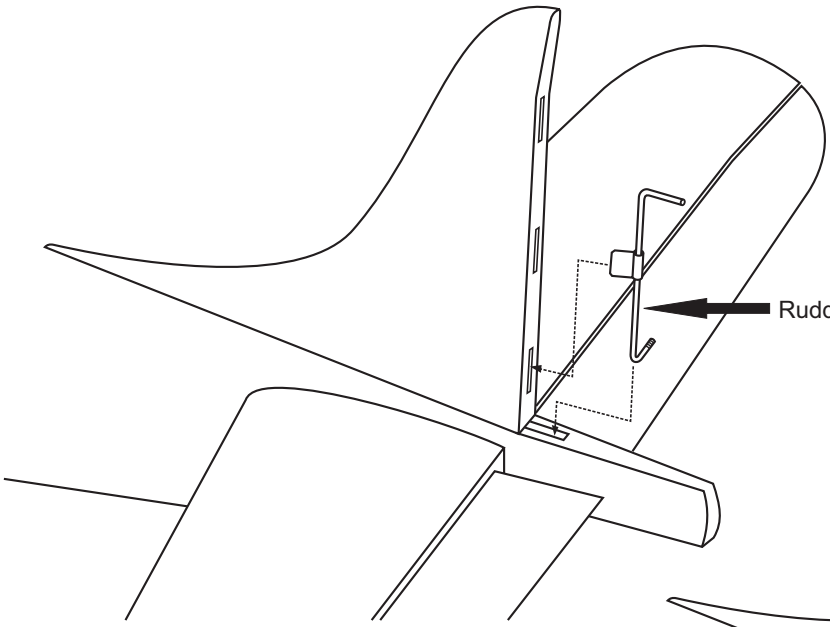


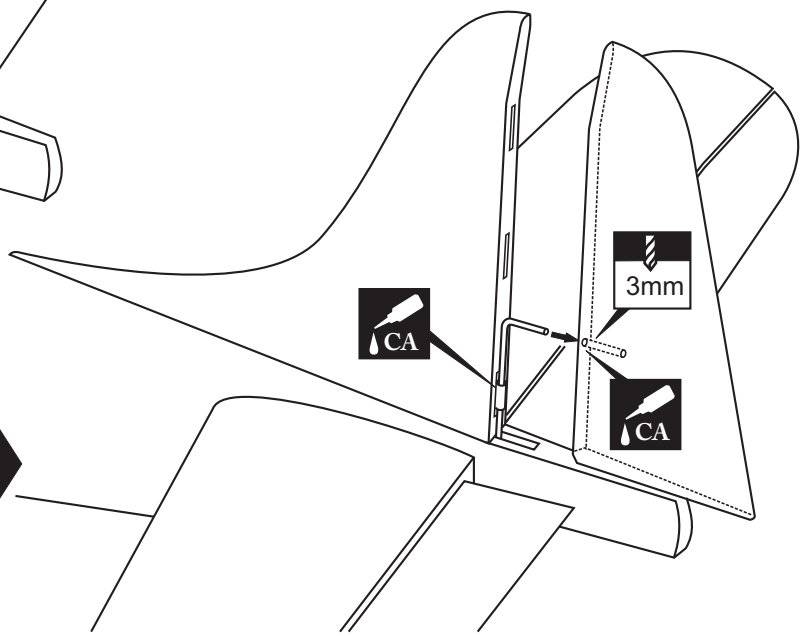
Step 14C



Cut the excess toothpick and secure it in place using little Thin CA glue.

15- Rudder





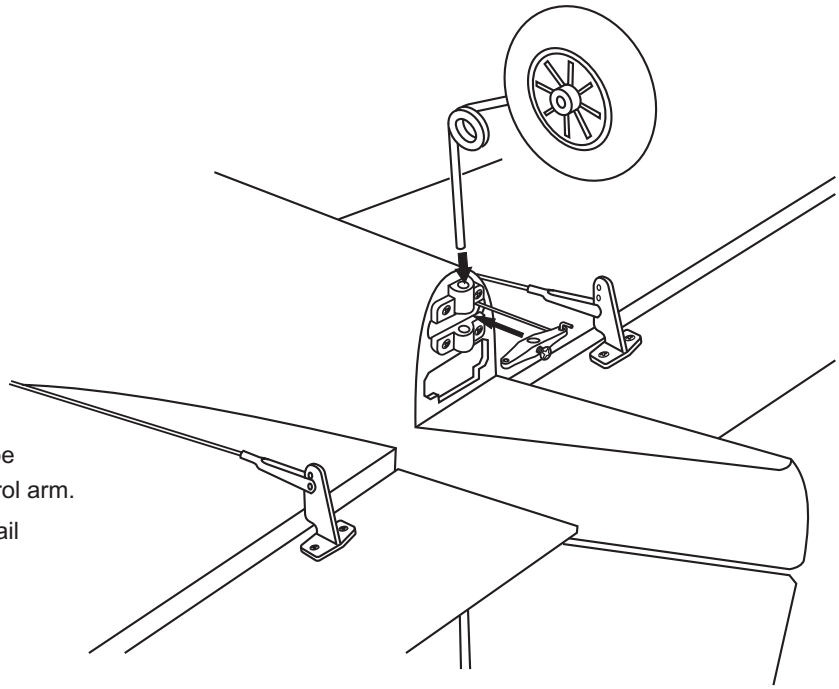
1-Glue the rudder torque rod bearing into the slot in the vertical stabilizer. Using the thin CA glue.

2-Without using glue yet, push the rudder and its hinges into the hinge slots in the trailing edge of the vertical stabilizer.

3-When satisfied with the alignment, mark the mounting hole position, where the rudder torque rod meets the rudder with a pencil.

4-Remove the rudder and drill 1/8” (3mm) diameter hole, making sure that you drill the hole perpendicular to the leading edge of the rudder.

16 Tail wheel

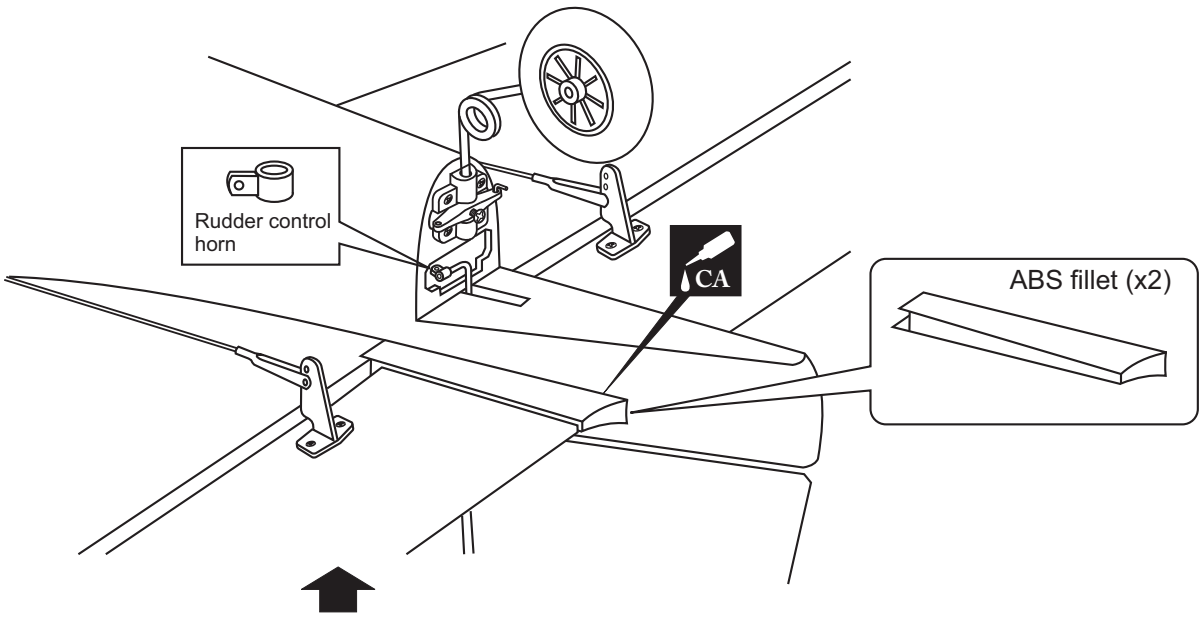


1- Slide the wire, straight end first, into the push rod tube

2- Insert the Z-bend into the hole on the tail wheel control arm.

3- Place the tail wheel control arm to the center of the tail wheel mount.

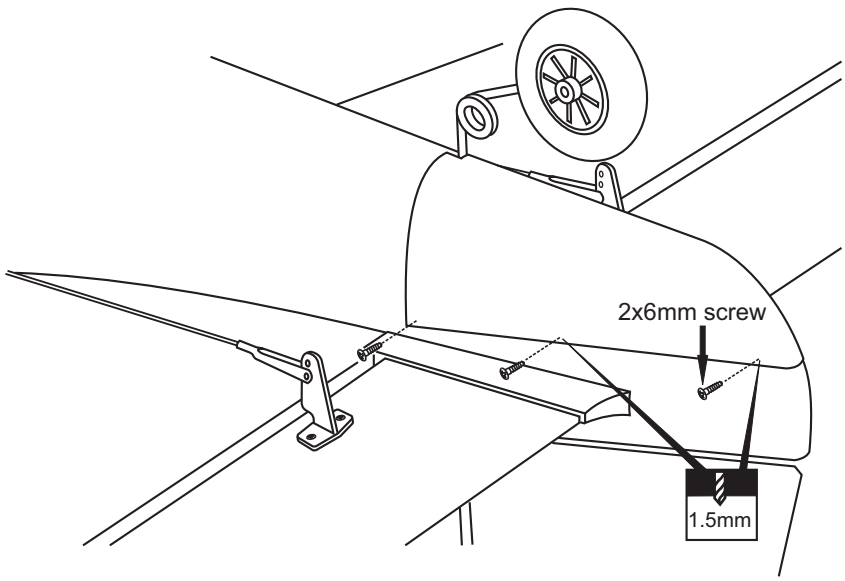
4- Insert the tail gear assembly through the tail gear mount.



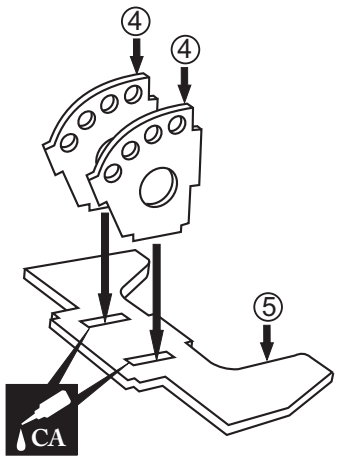
1-Turn the rudder torque rod bearing, Thread the nylon adjustable control horn onto the end of rudder torque rod, making sure that the adjustable control horn face forward.

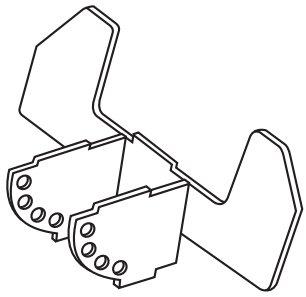
2-Slide the rudder push rod into the rudder push rod guide (black nylon tube).

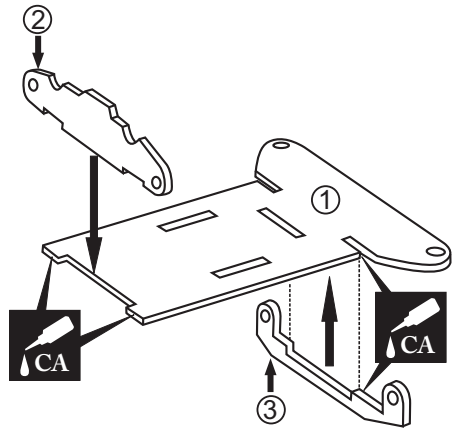
3-Install the clevis onto the rudder torque rod horn.

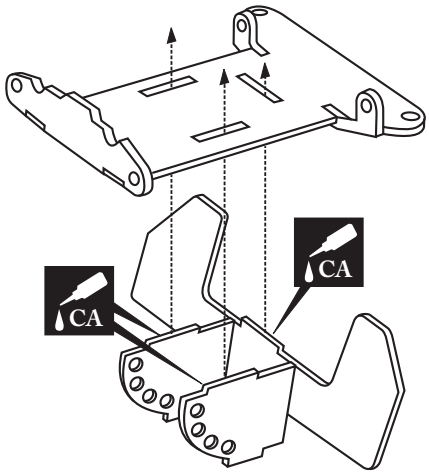


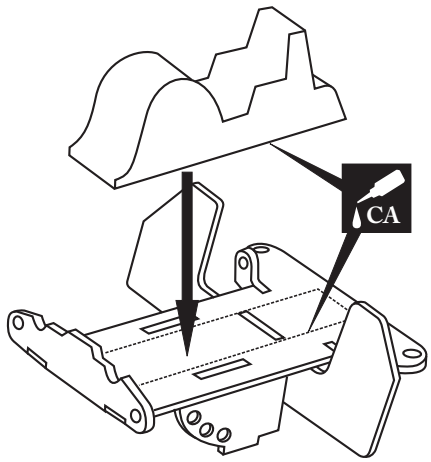
17- Guns

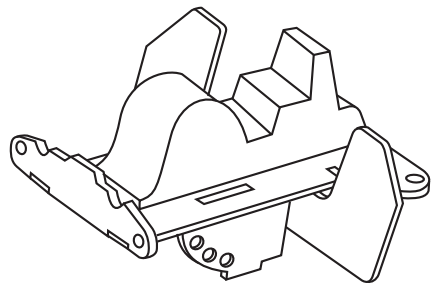

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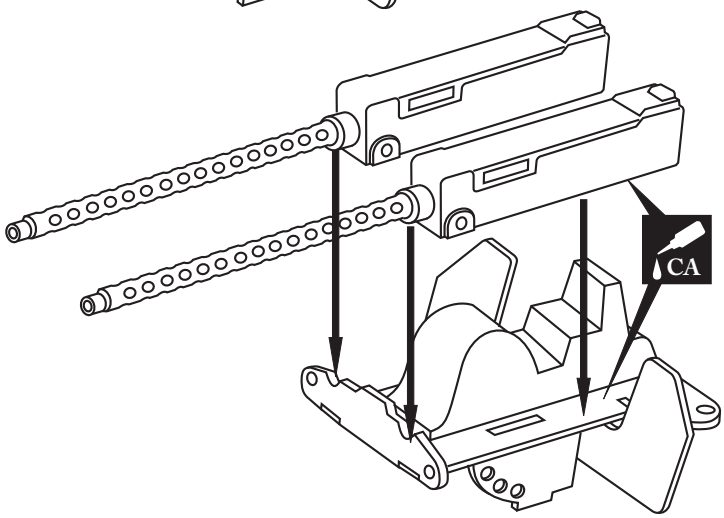


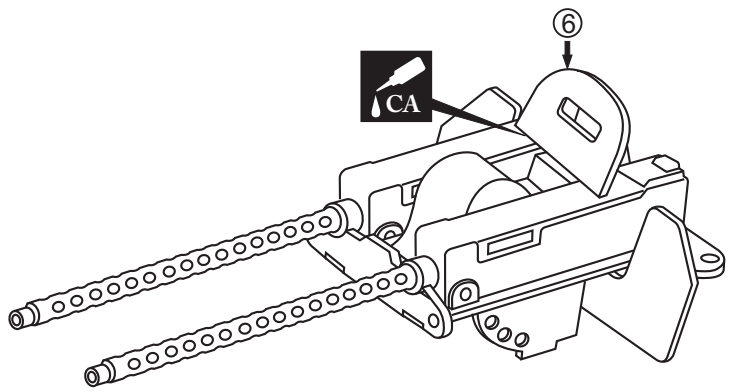

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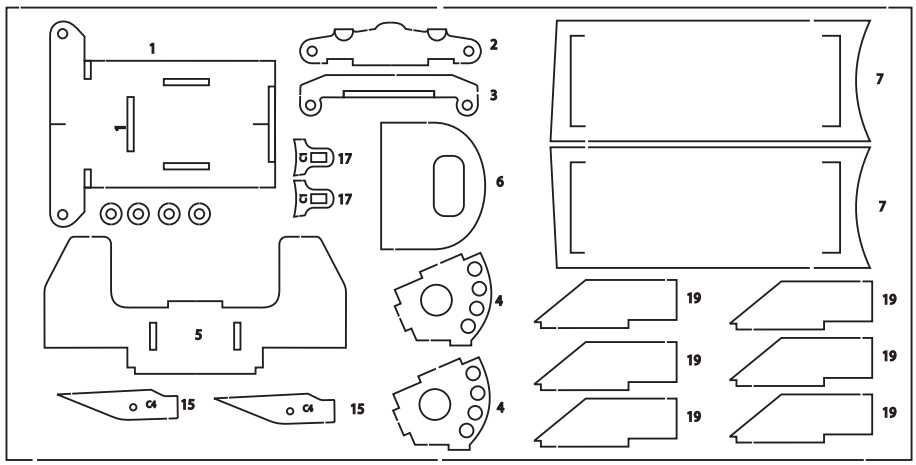

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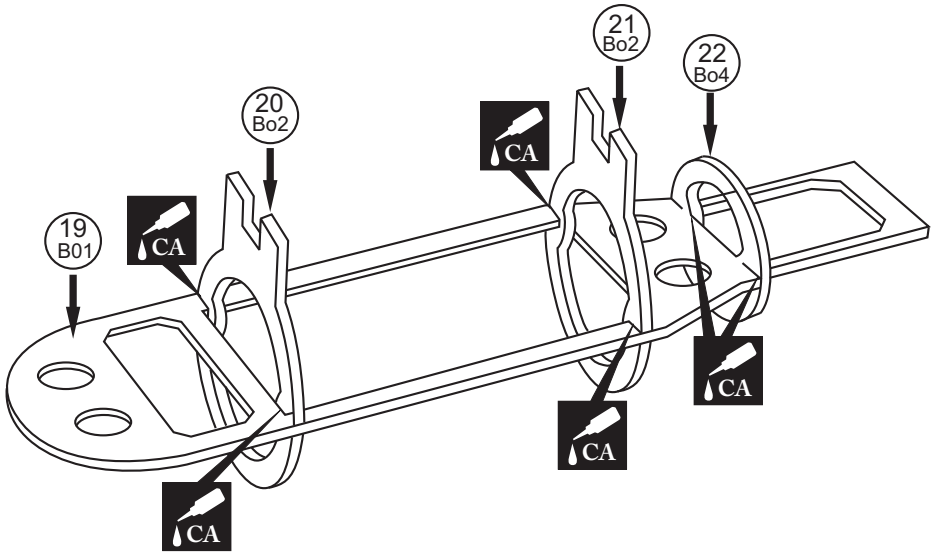


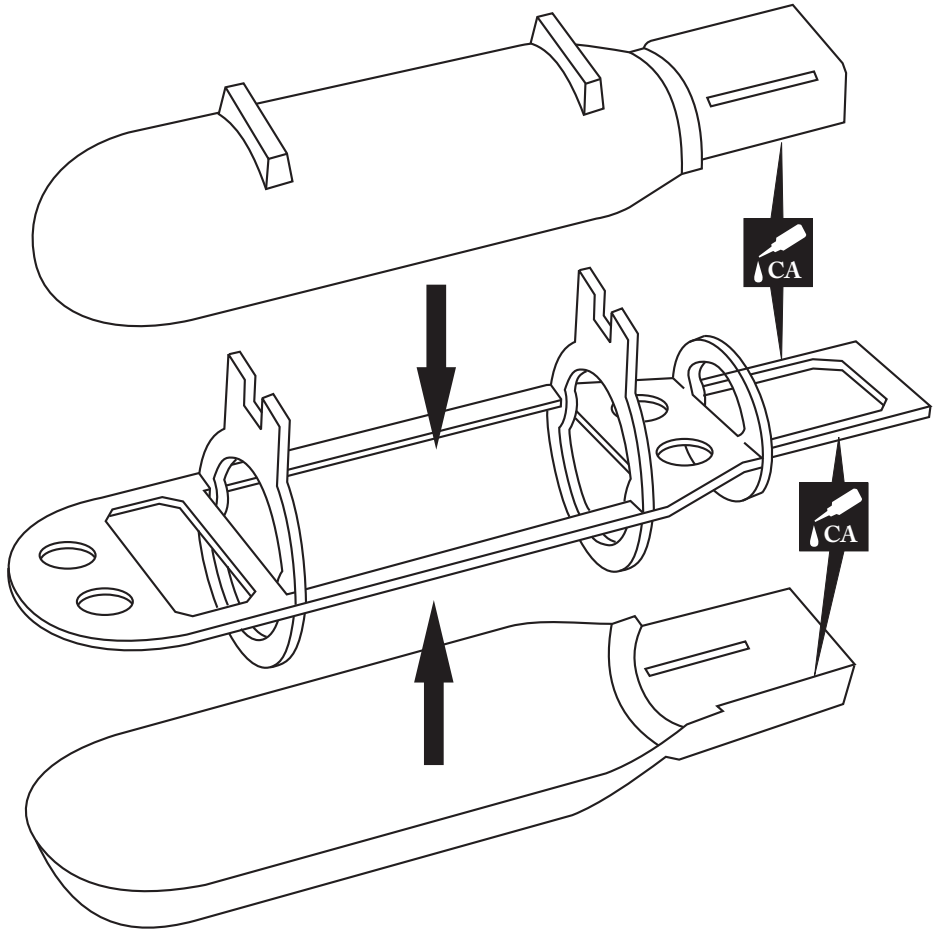

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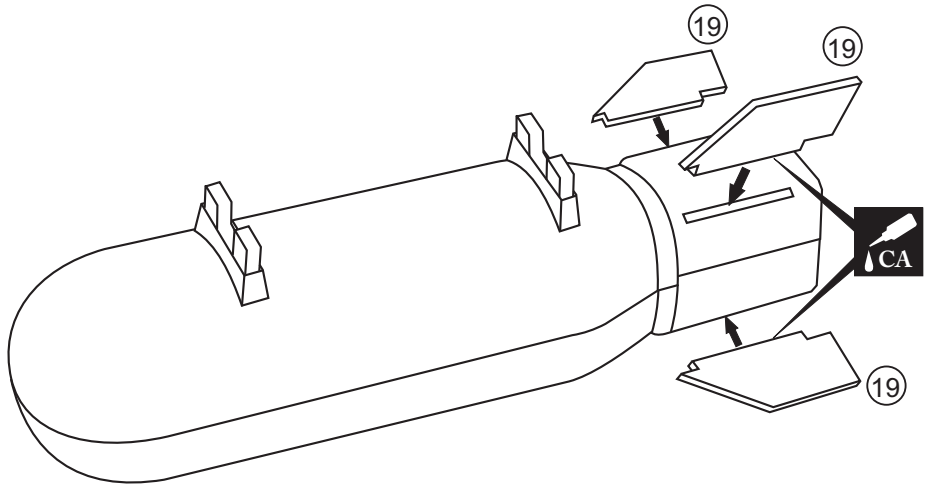

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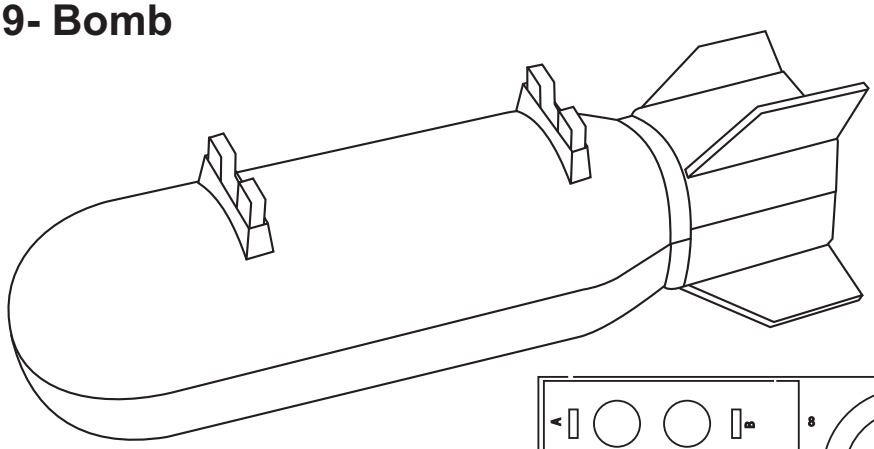
18- Bomb

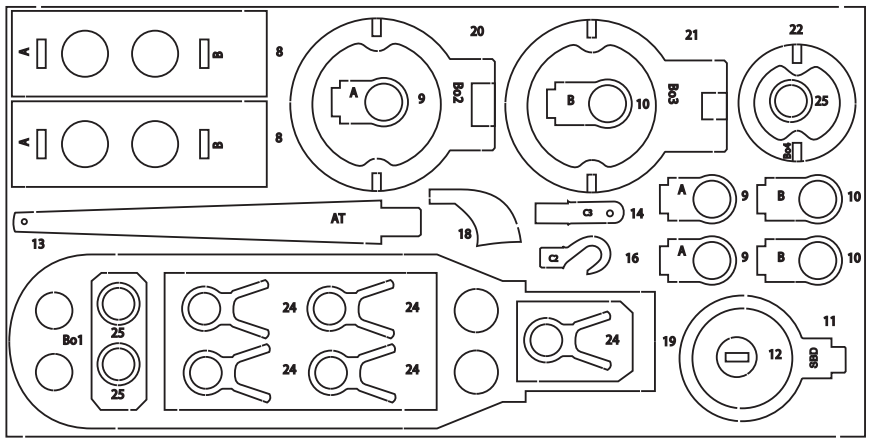




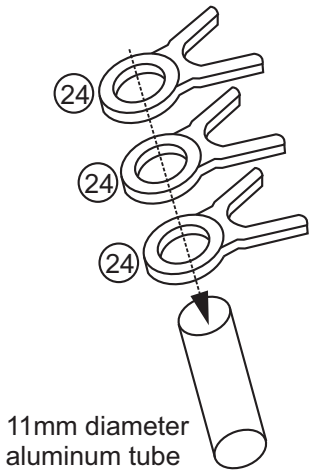


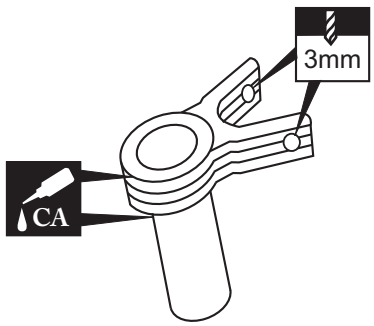
19- Bomb

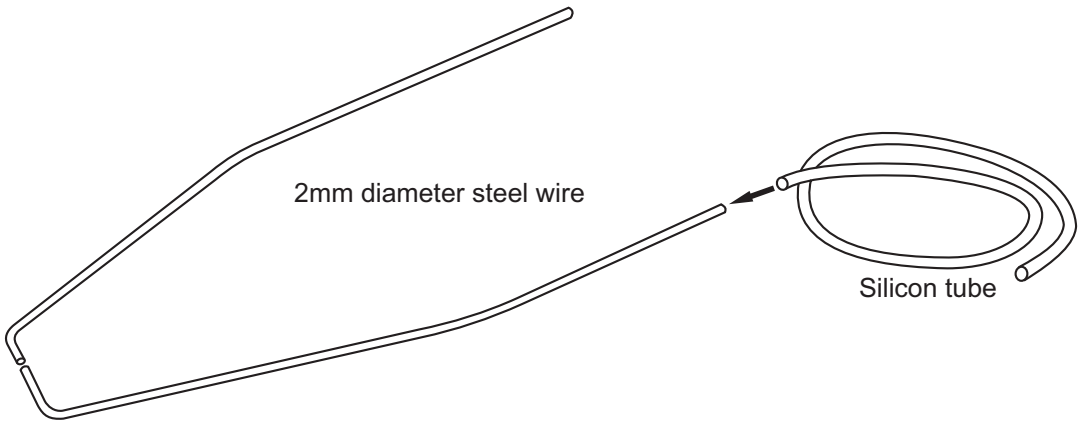




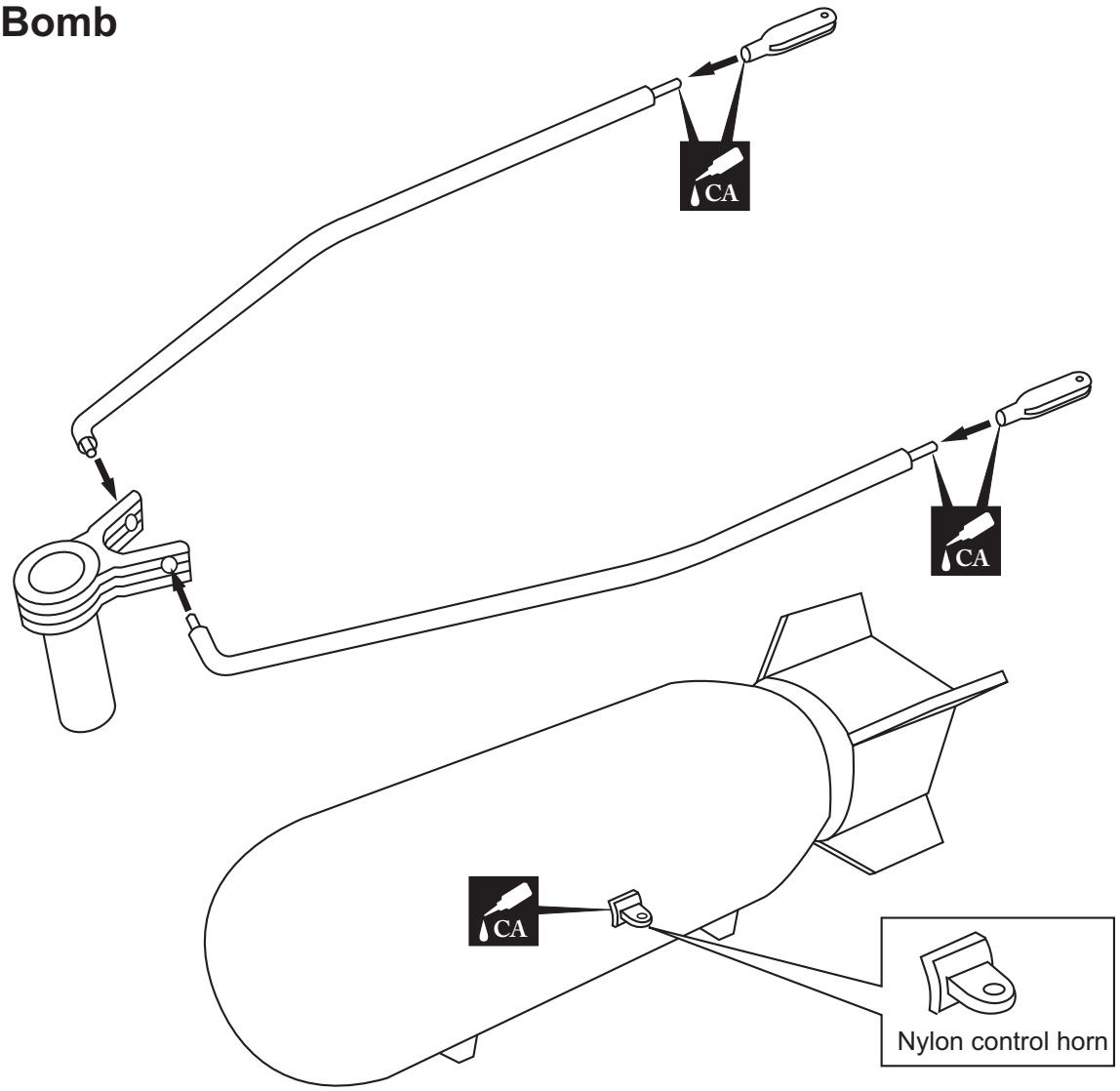
20- Bomb

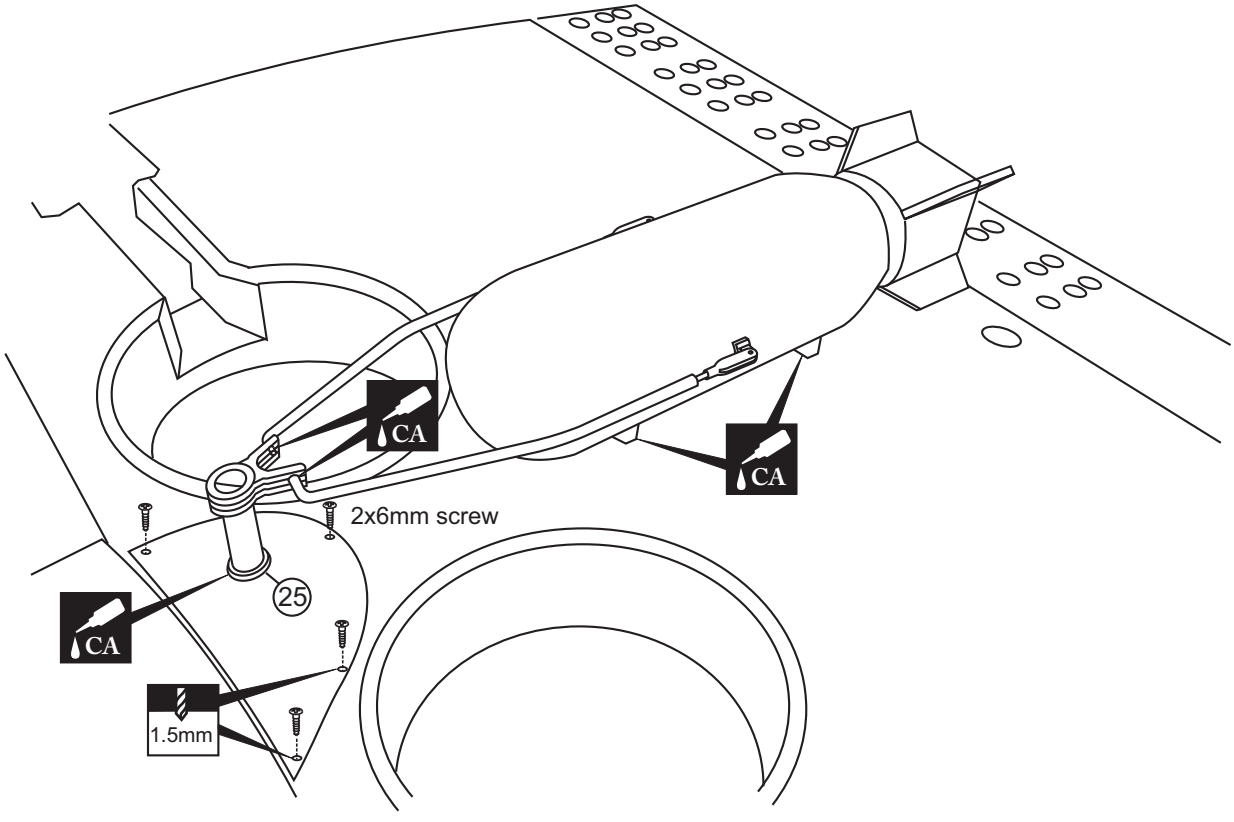




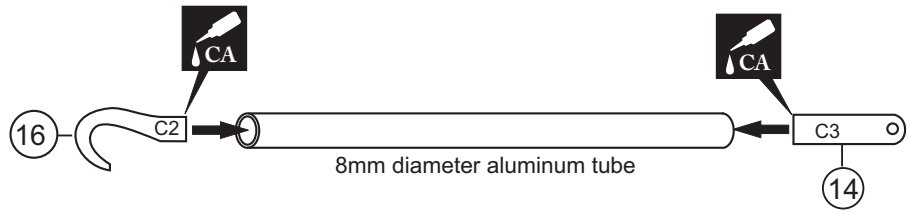


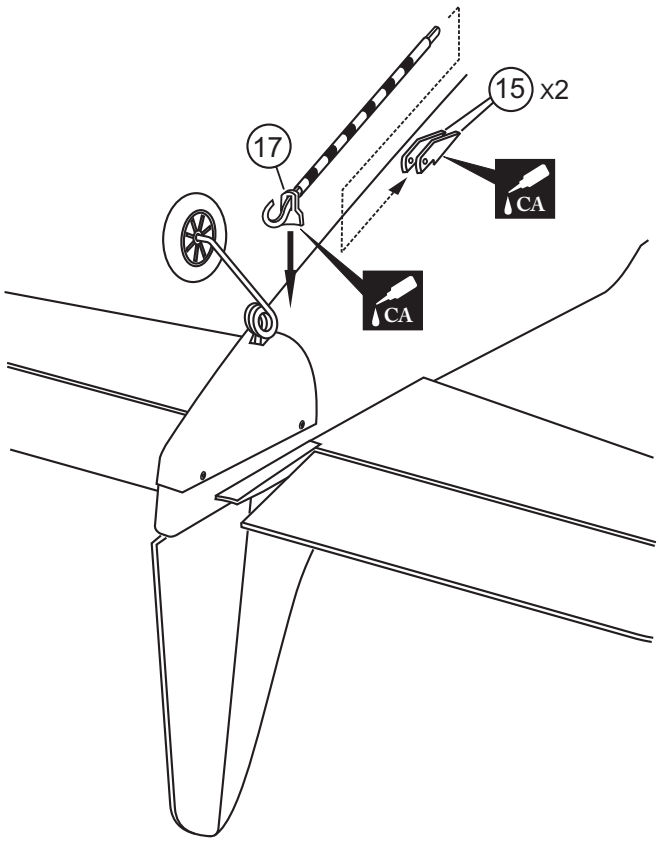
21- Bomb

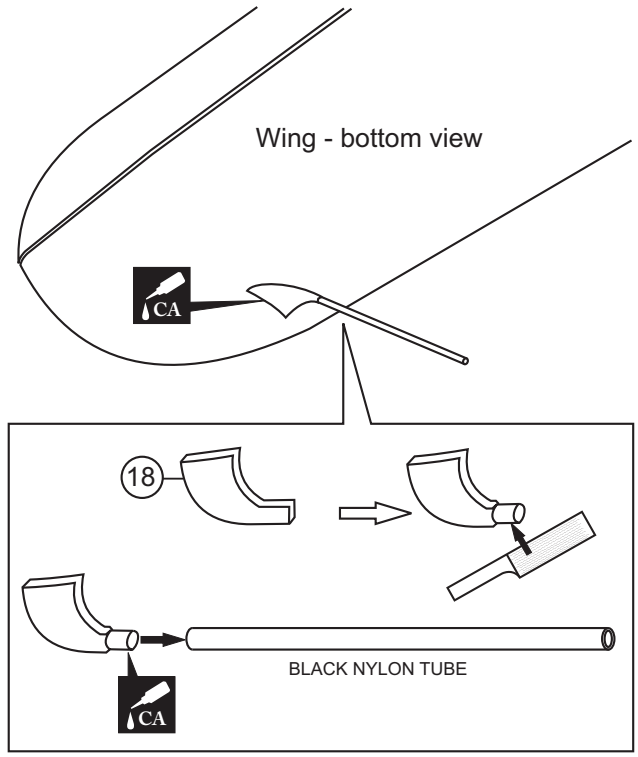




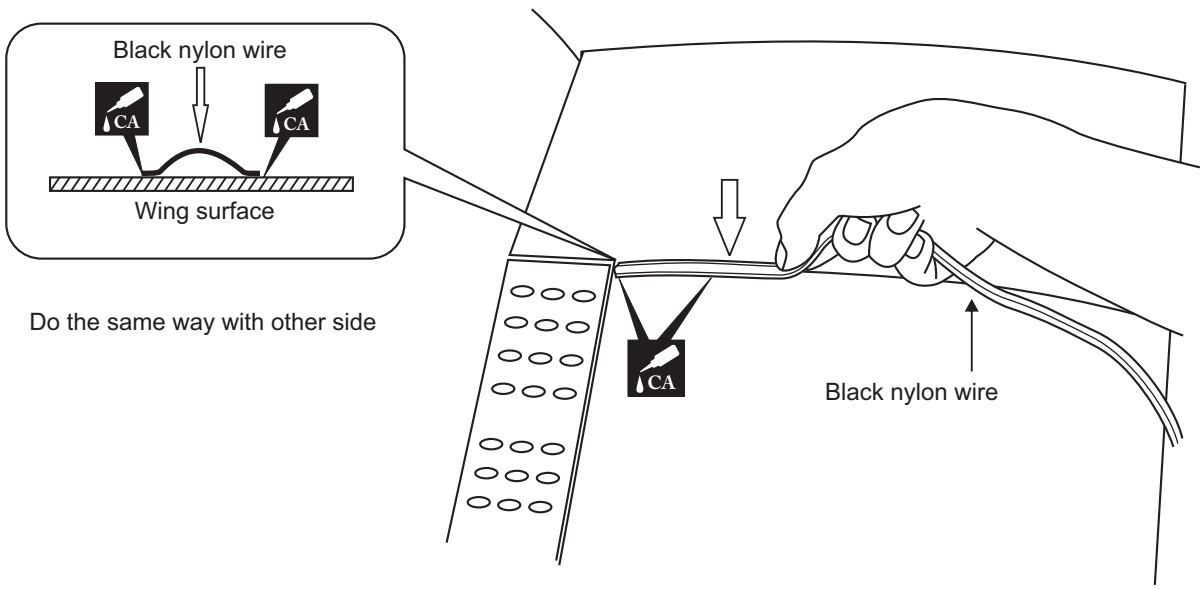
22- Hook







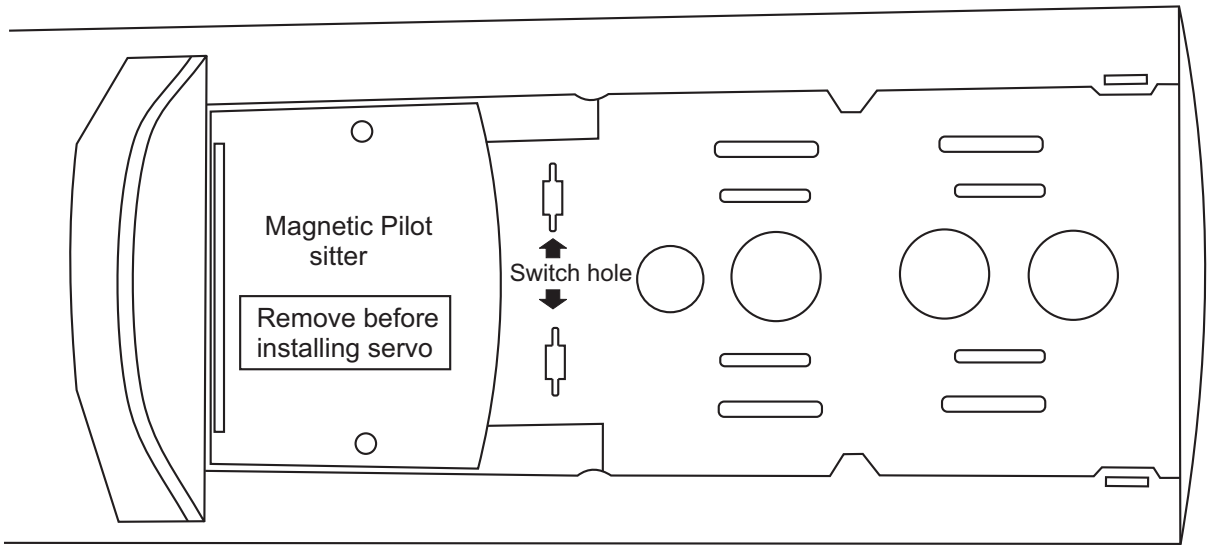
23- Decor



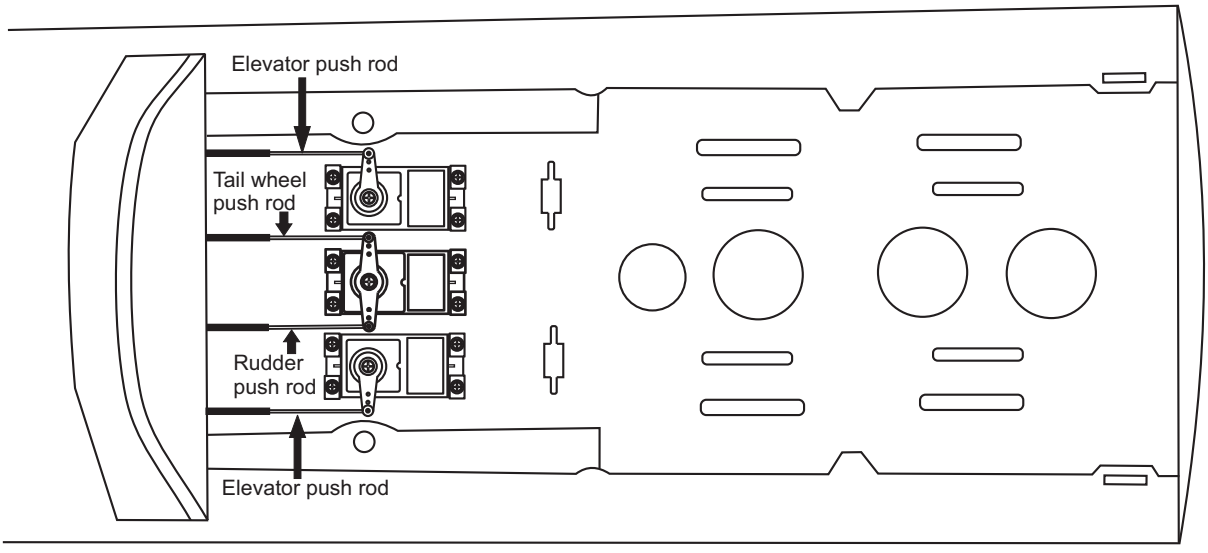
WING- TOP VIEW

24- Servo

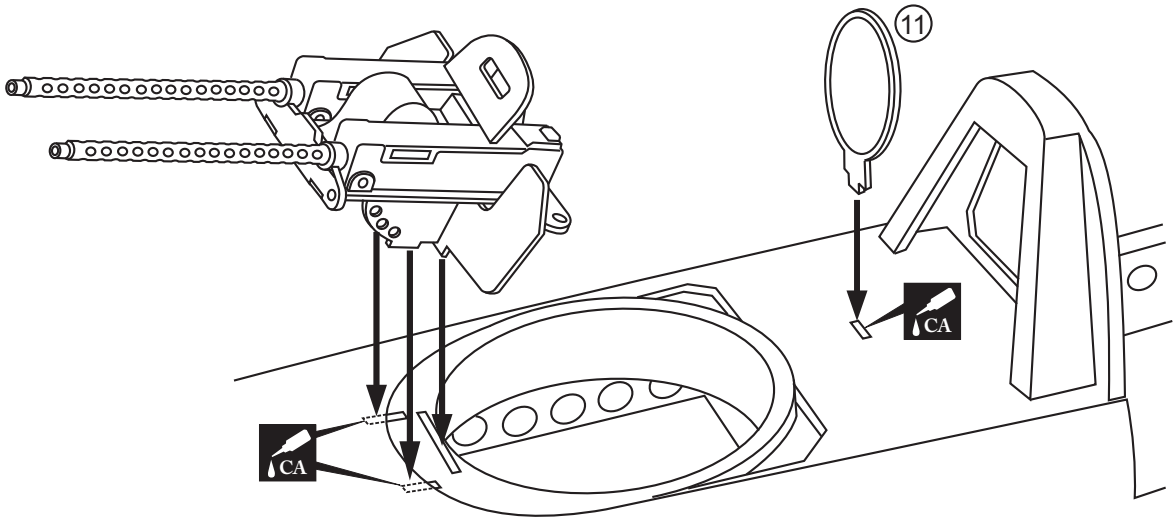
Connector 4



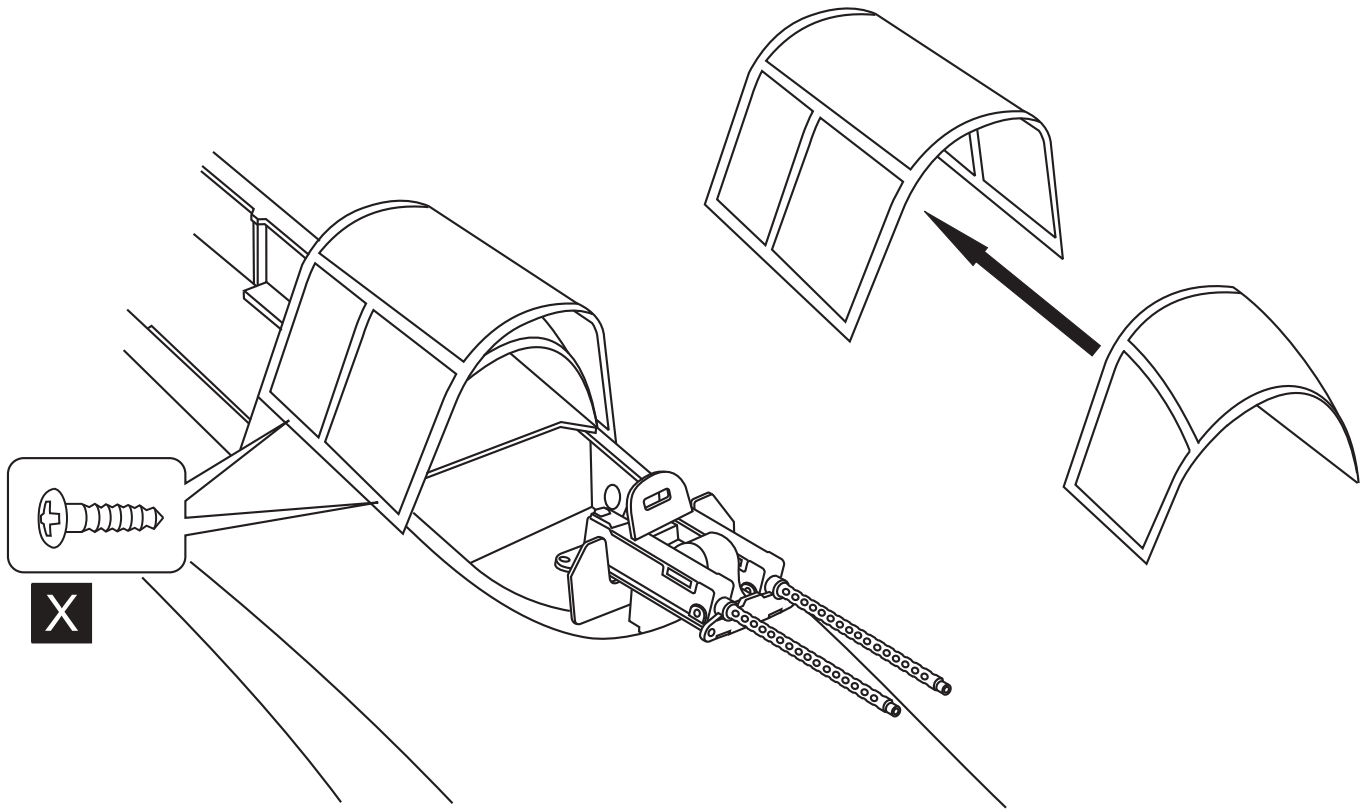
FUSELAGE TOP-VIEW



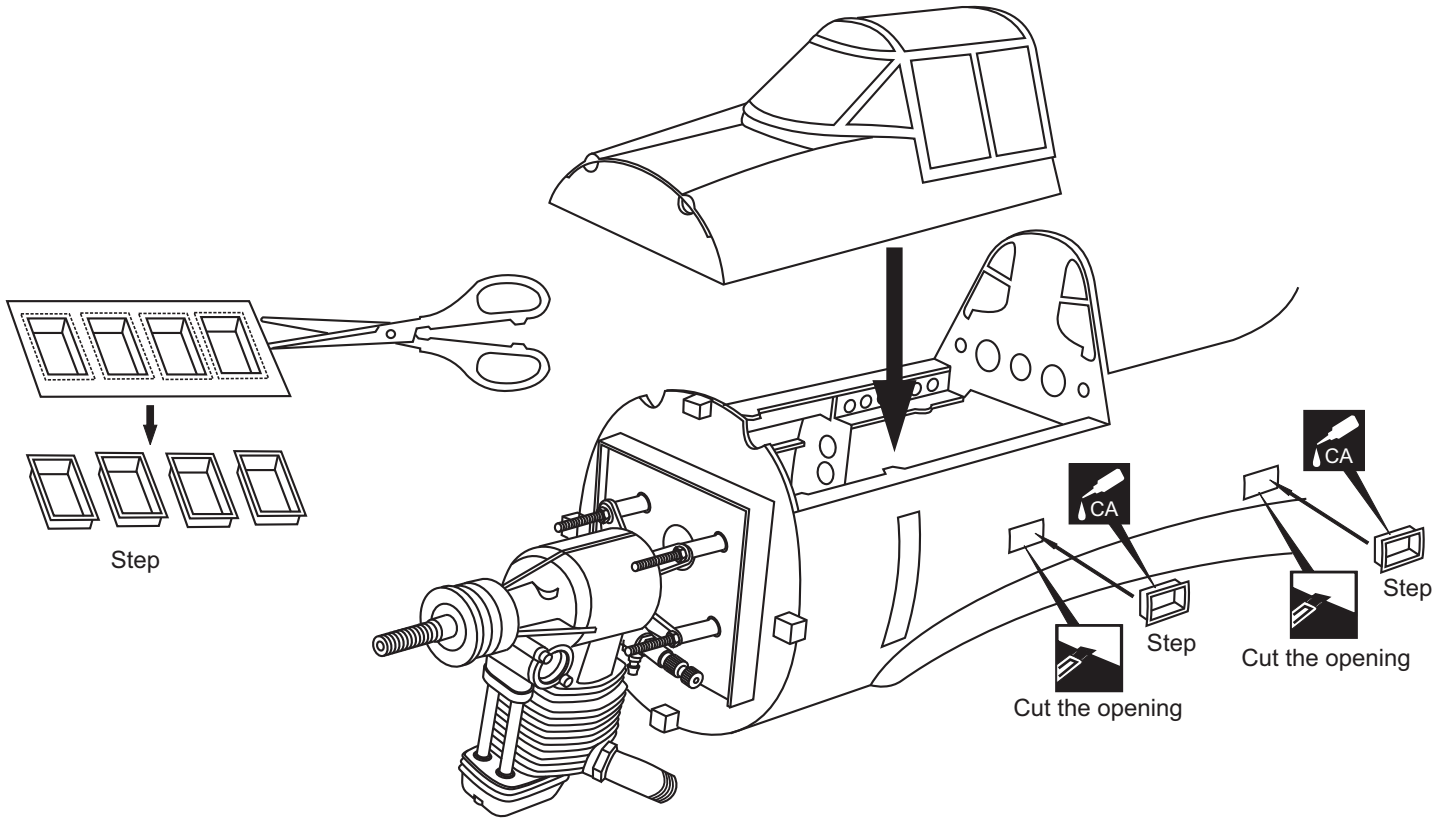
25- Guns - Antenna



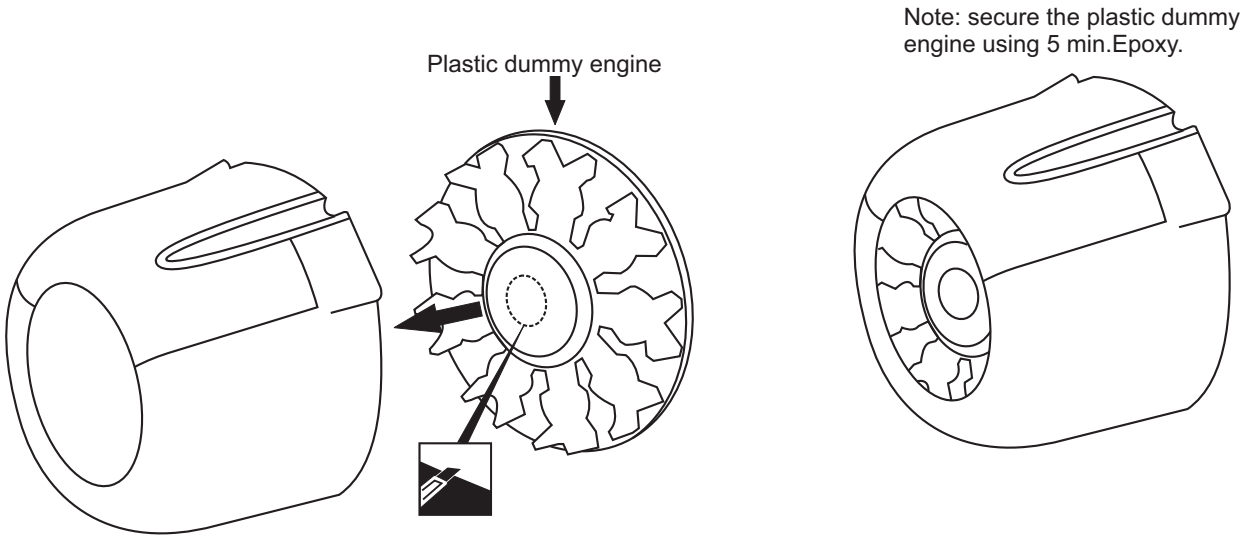
26- Rear Canopy

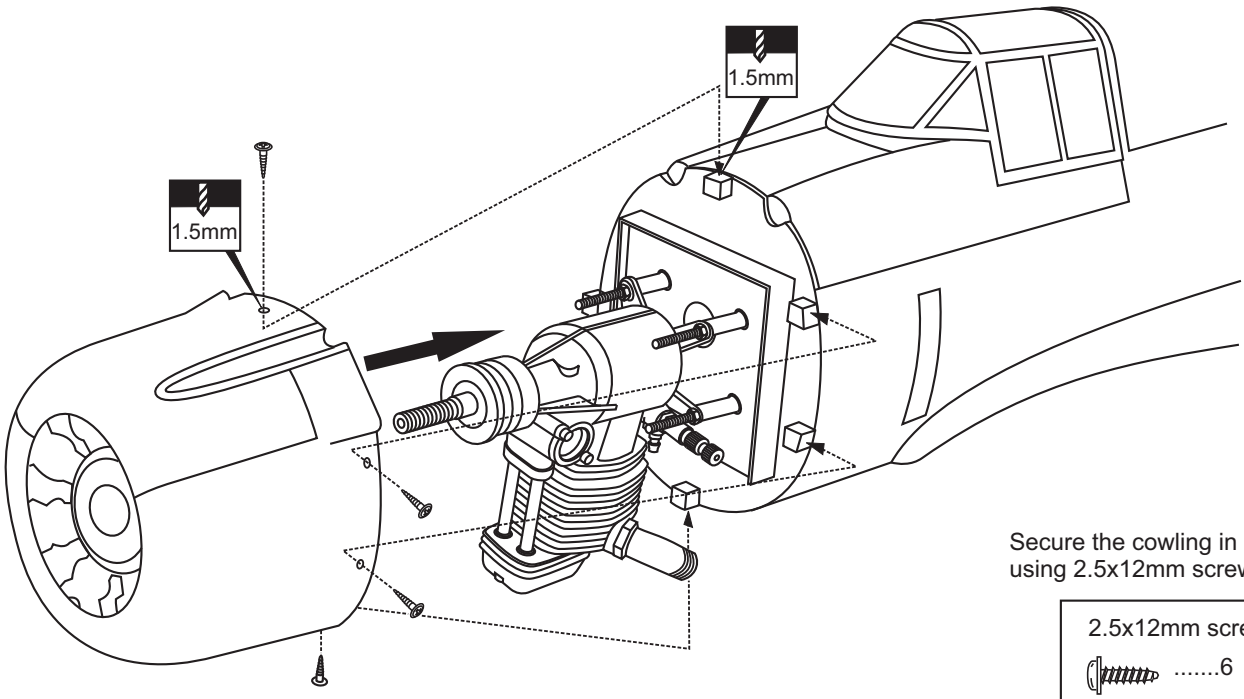


27- Magnetic canopy hatch / Step



28- Cowling

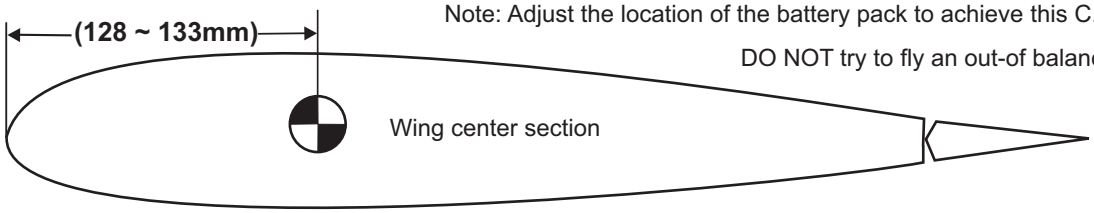




Secure the cowling in place using 2.5x12mm screws.

2.5x12mm screw	
	6

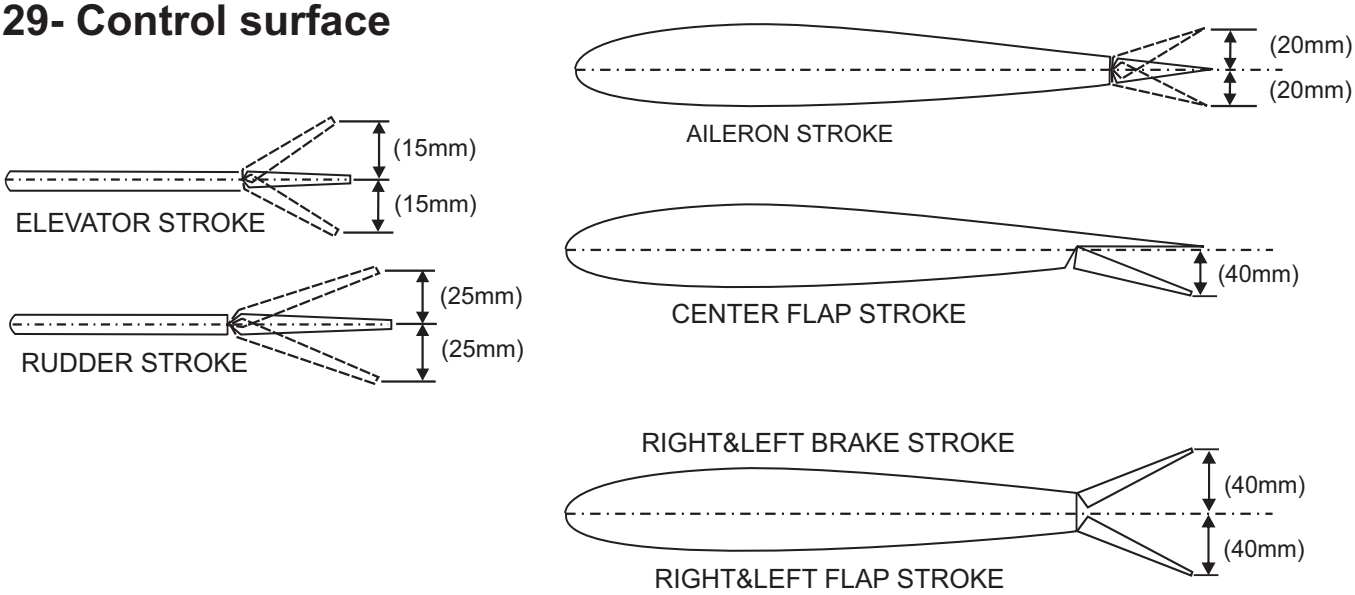
28- Balance



Note: Adjust the location of the battery pack to achieve this C.G location.

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

29- Control surface



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.

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

30- Decal

