

C188 AGWAGON

SEMI SCALE MODEL

60 Class
2-cycle engine

90 Class
4-cycle engine

Or Electric equivalent

INSTRUCTION MANUAL MONTAGEANLEITUNG



SPECIFICATIONS

Wingspan	1920mm
Length	1300mm
Electric Motor	1000 Watt (BOOST 90)
Glow Engine	.60 2-T / .90 4-T
Radio	6 Channel / 8 Servos

TECHNISCHE DATEN

Spannweite	1920mm
Länge	1300mm
Elektroantrieb	1000 Watt (BOOST 90)
Verbrennerantrieb	10cc 2-T / 15cc 4-T
Fernsteuerung	6 Kanal / 8 Servos

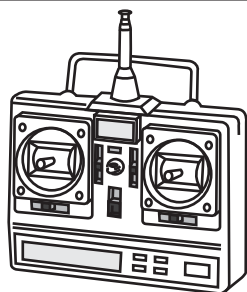
NEXA

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 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 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.

REQUIRED FOR OPERATION (Purchase separately) BENÖTIGTE KOMPONENTEN (Nicht im Lieferumfang enthalten)

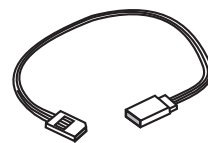
www.motionrc.com



Minimum 6 channel radio
for airplane
Minimum 6 Kanal
Fernsteuerung

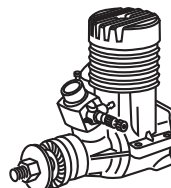
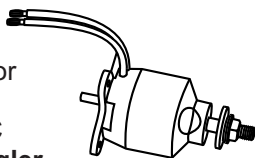


70mm Spinner

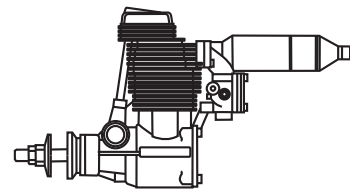


Extension cord
Servoverlängerungskabel

Brushless Motor
900-1000Watt
Brushless ESC
Brushless Regler



.60 cu.in. (7.5cc)



.90 cu.in (8.5cc)



Cyanoacrylate Glue
Sekundenkleber

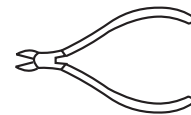
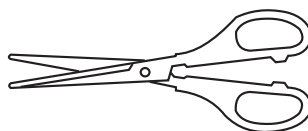
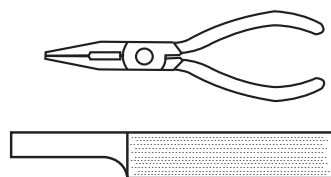


Silicon Glue
Silikonkleber



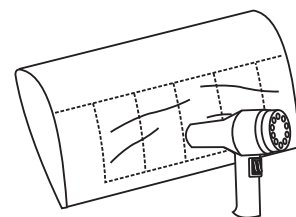
Epoxy Glue (30 minutes type)
Epoxy-Klebstoff (30min)

Tool Required/ Erforderliches Werkzeug




If exposed to direct sunlight and/or heat, wrinkles 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 Warmluftgebläse (Haartrockner) um evtl. Falten aus der Folie zu bekommen. Die Kanten können Sie mit einem Bügeleisen behandeln. Nicht zuviel Hitze anwenden !





Low setting


 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

 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

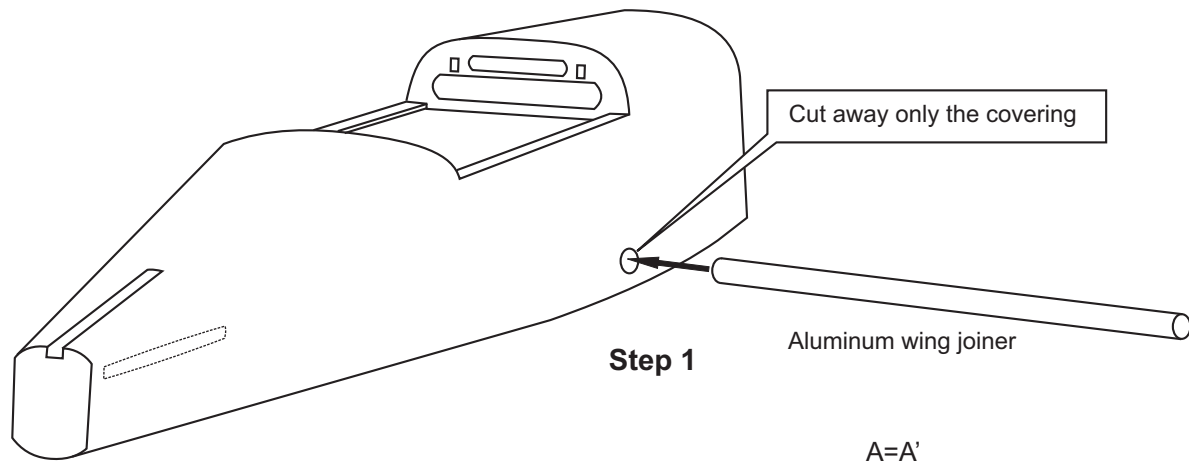
 Sekundenkleber auftragen

 Linke und rechte Seite wird gleichermaßen zusammgebaut

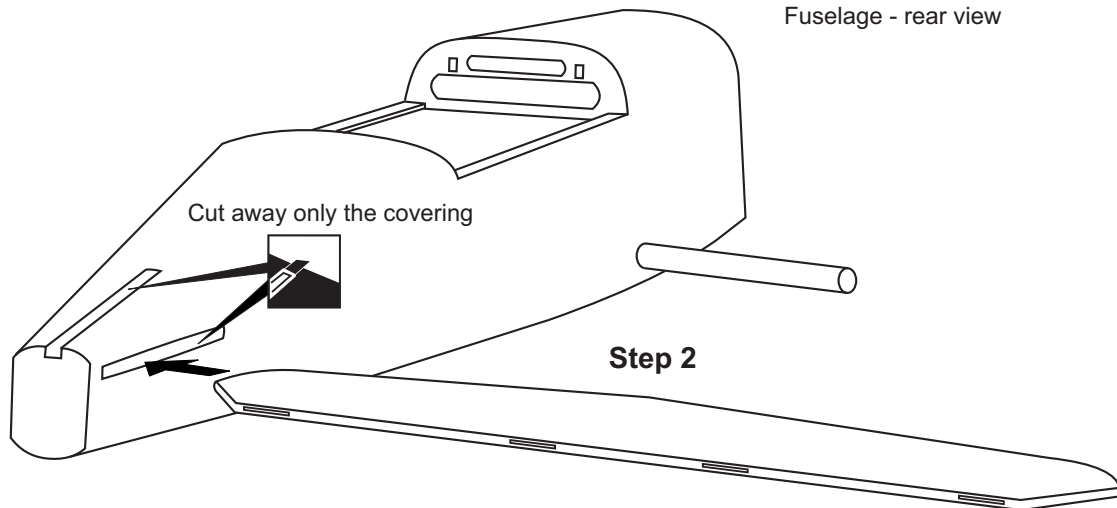
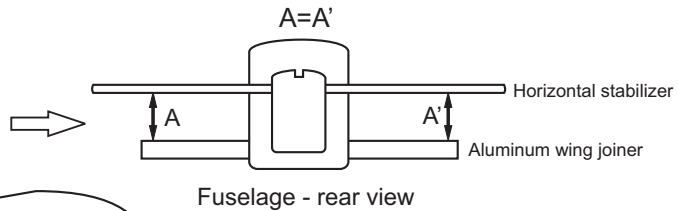
 Nicht enthalten. Teile müssen separat gekauft werden.

CONVERSION TABLE

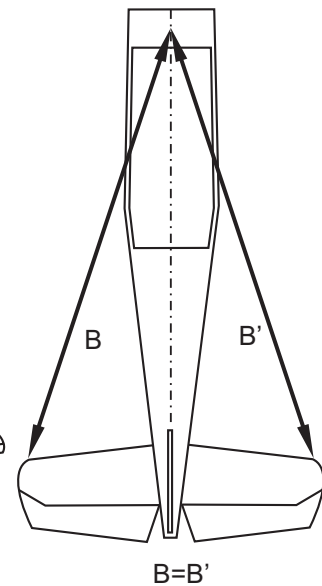
1.0mm = 3/64"	3.0mm = 1/8"	10mm = 13/32"	25mm = 1"
1.5mm = 1/16"	4.0mm = 5/32"	12mm = 15/32"	30mm = 1-3/16"
2.0mm = 5/64"	5.0mm = 13/64"	15mm = 19/32"	45mm = 1-51/64"
2.5mm = 3/32"	6.0mm = 15/64"	20mm = 51/64"	



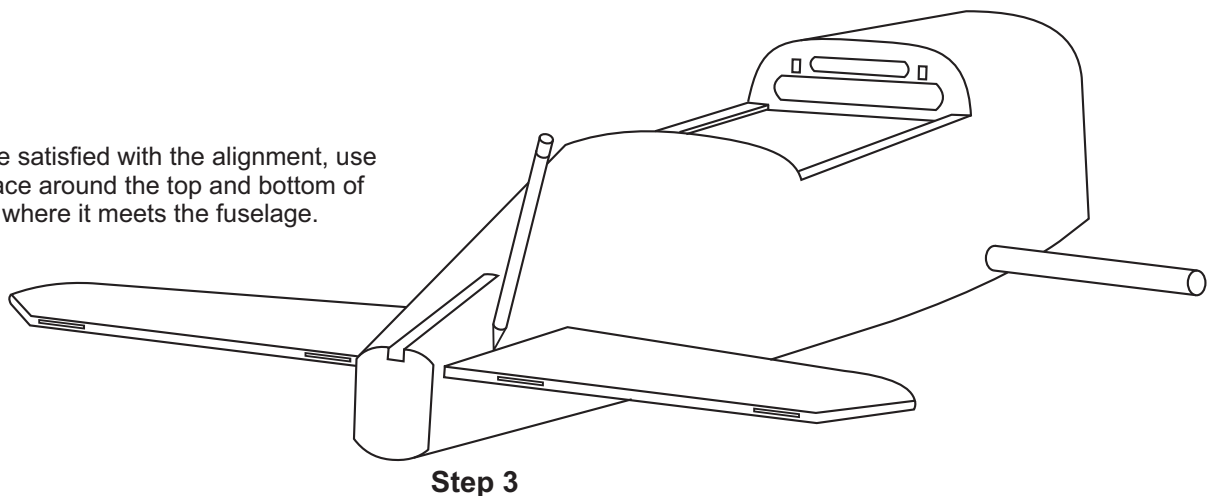
When viewing visually from the back of the fuselage, the aluminum wing joiner should be parallel to the horizontal stabilizer ($A=A'$).



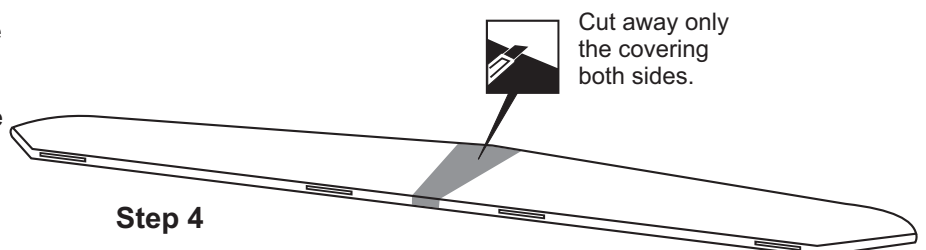
Trial fit the horizontal stabilizer in place on the fuselage. Check the alignment of the horizontal stabilizer by measuring from a fixed point along the center line of the fuselage to the leading edge on each side of the horizontal stabilizer. The distance must be equal on both sides.



When you are satisfied with the alignment, use a pencil to trace around the top and bottom of the stabilizer where it meets the fuselage.



Remove the horizontal stabilizer from the fuselage. Using a straight edge and a sharp hobby knife, carefully cut away the covering **inside the lines** which were marked above. Be cautious **not to cut into the wood**-this will weaken the structure.



Install the horizontal stabilizer onto the fuselage and adjust the alignment as described in steep 2.

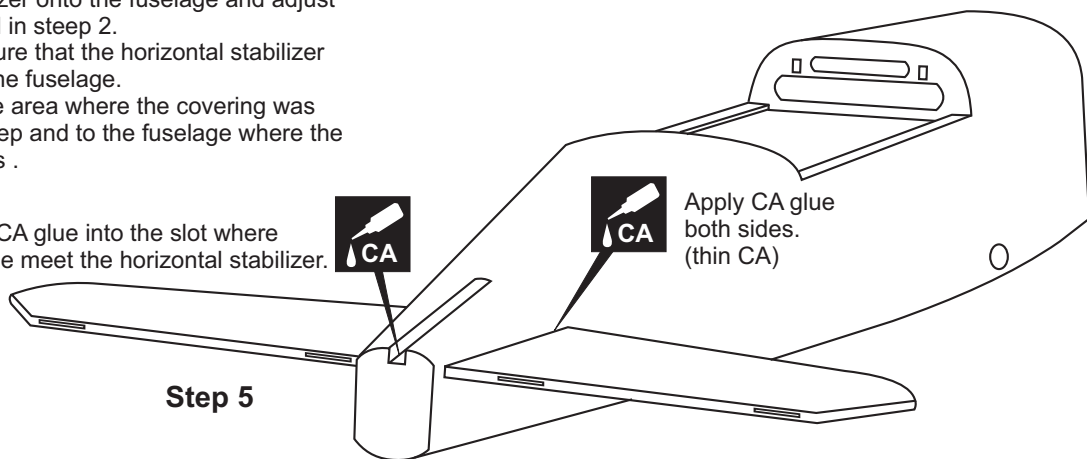
Note: it is important to ensure that the horizontal stabilizer is also level in regards to the fuselage.

Apply the thin CA along the area where the covering was removed in the previous step and to the fuselage where the horizontal stabilizer mounts .

Apply thin CA glue into the slot where the fuselage meet the horizontal stabilizer.



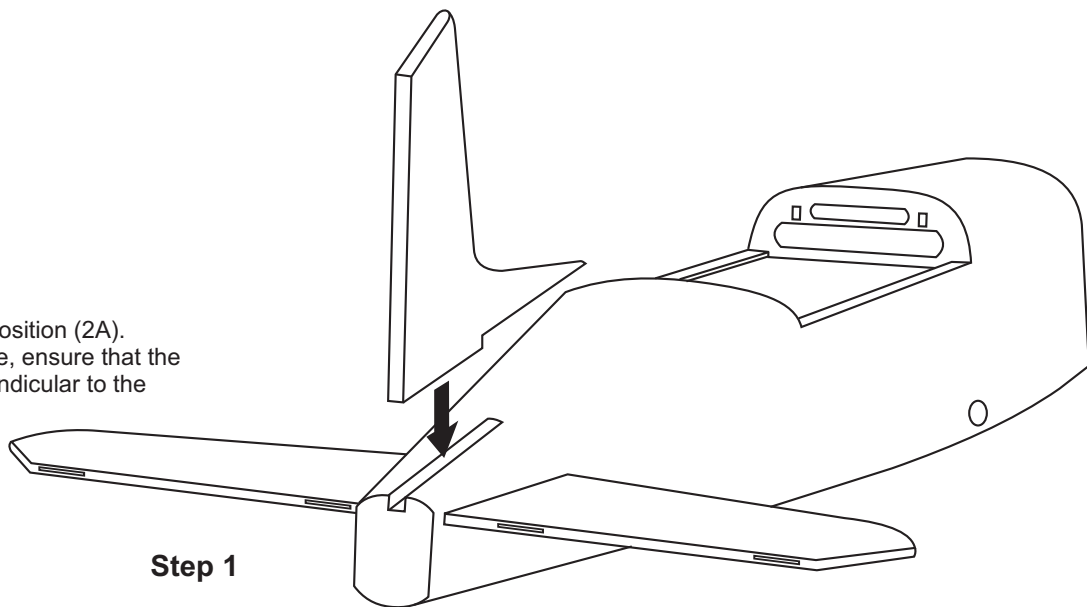
Apply CA glue both sides. (thin CA)



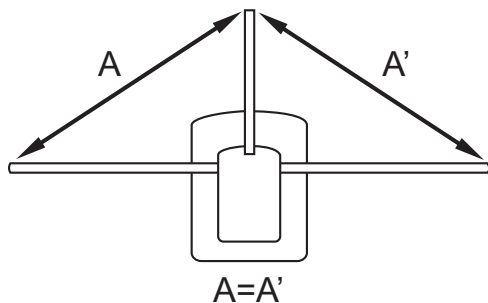
Step 5

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

Trial fit the vertical fin in position (2A).
Using a 90 degree triangle, ensure that the vertical stabilizer is perpendicular to the horizontal stabilizer (2B).



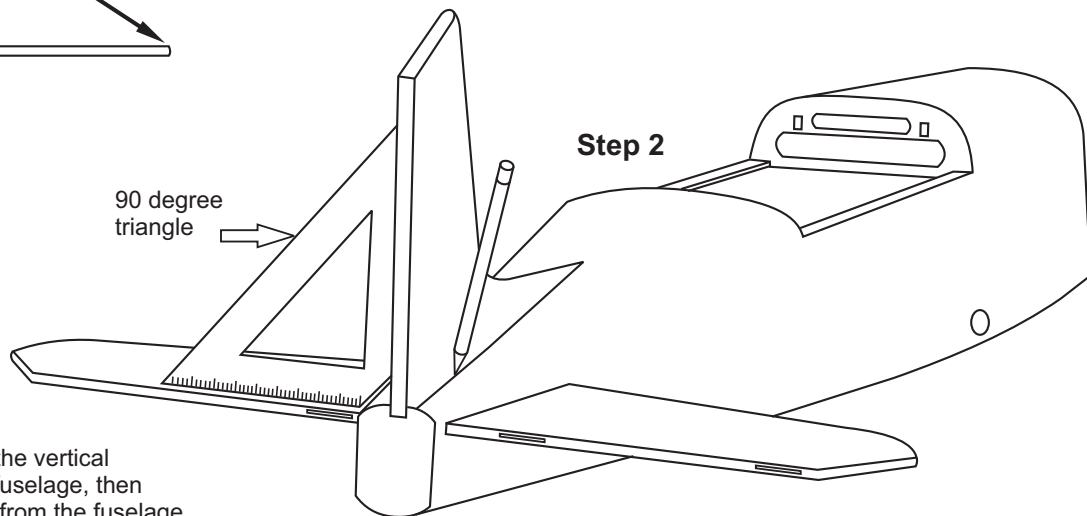
Step 1



$A=A'$

90 degree triangle

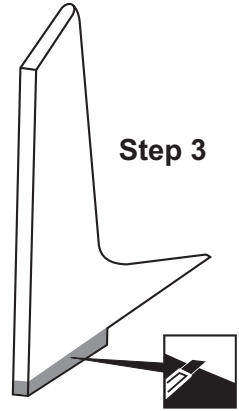
Step 2



Using a pencil, trace around the vertical stabilizer where it meets the fuselage, then remove the vertical stabilizer from the fuselage.

Remove the vertical stabilizer from the fuselage. Using a sharp hobby knife, carefully cut away the covering **below the lines** which were drawn in the previous step. **Do not cut into the woods** as this will affect the structural integrity of the stabilizer.

Step 3

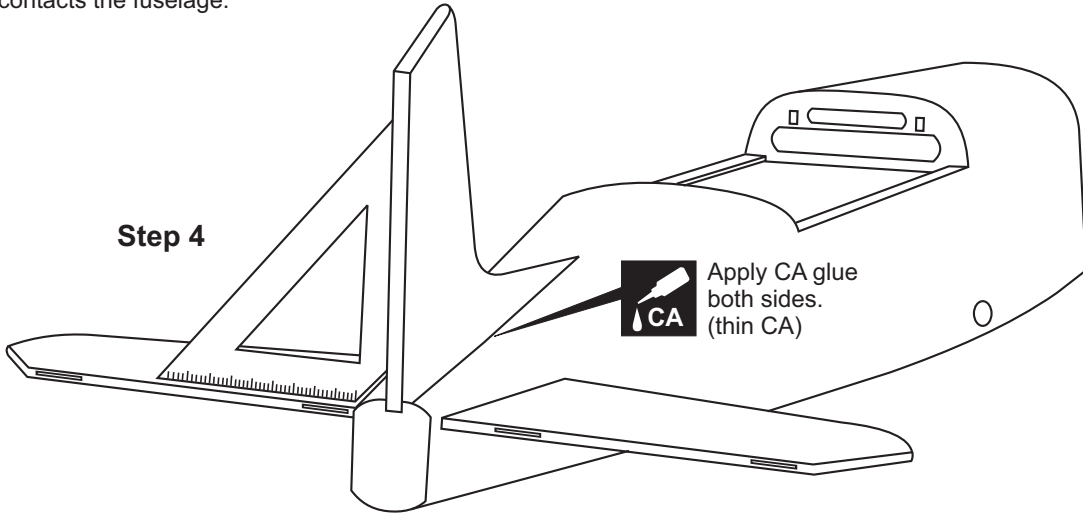


Cut away only the covering both sides.

Insert the vertical fin into the fuselage, precisely align the vertical stabilizer as described in step 2.

Apply the thin CA glue on the vertical stabilizer where it contacts the fuselage.

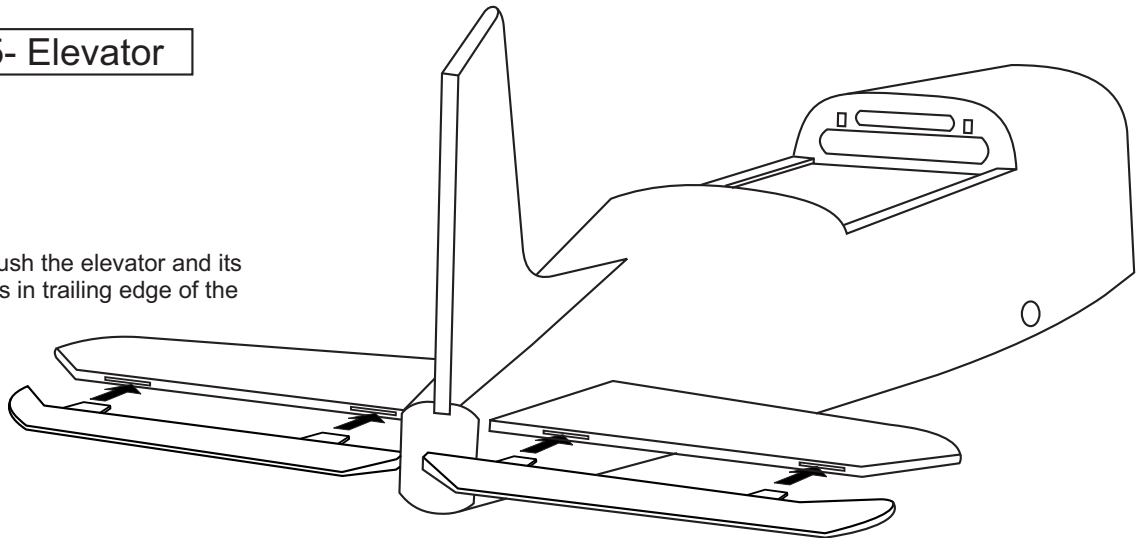
Step 4



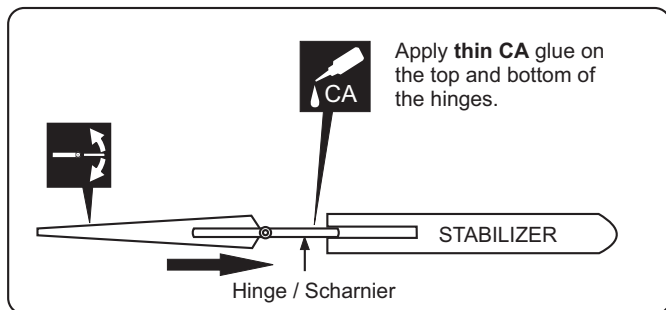
Apply CA glue both sides. (thin CA)

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

Without using glue yet, push the elevator and its hinges into the hinge slots in trailing edge of the horizontal stabilizer.



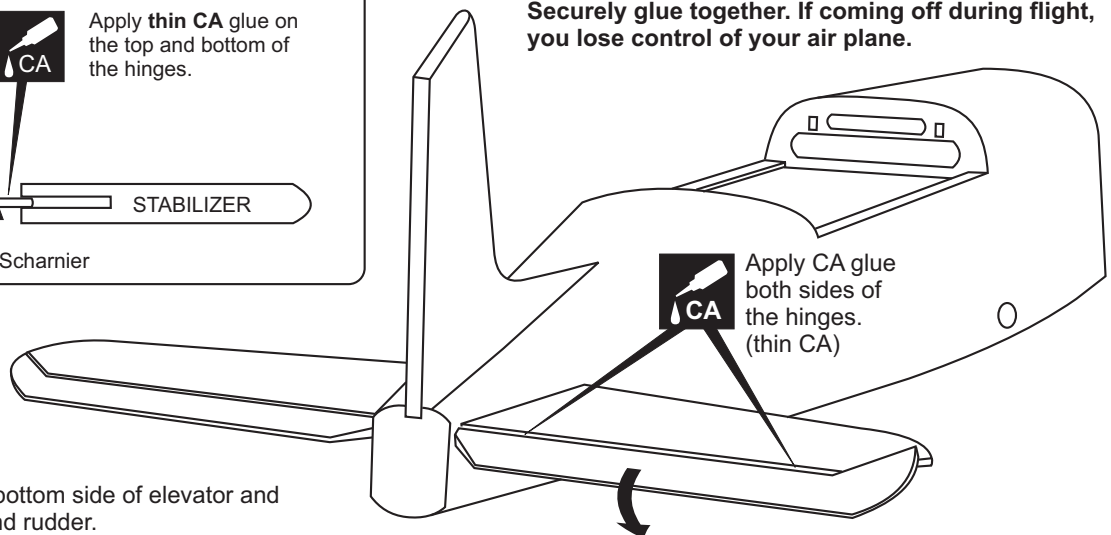
Securely glue together. If coming off during flight, you lose control of your air plane.



Apply thin CA glue on the top and bottom of the hinges.




Hinge / Scharnier



Apply CA glue both sides of the hinges. (thin CA)

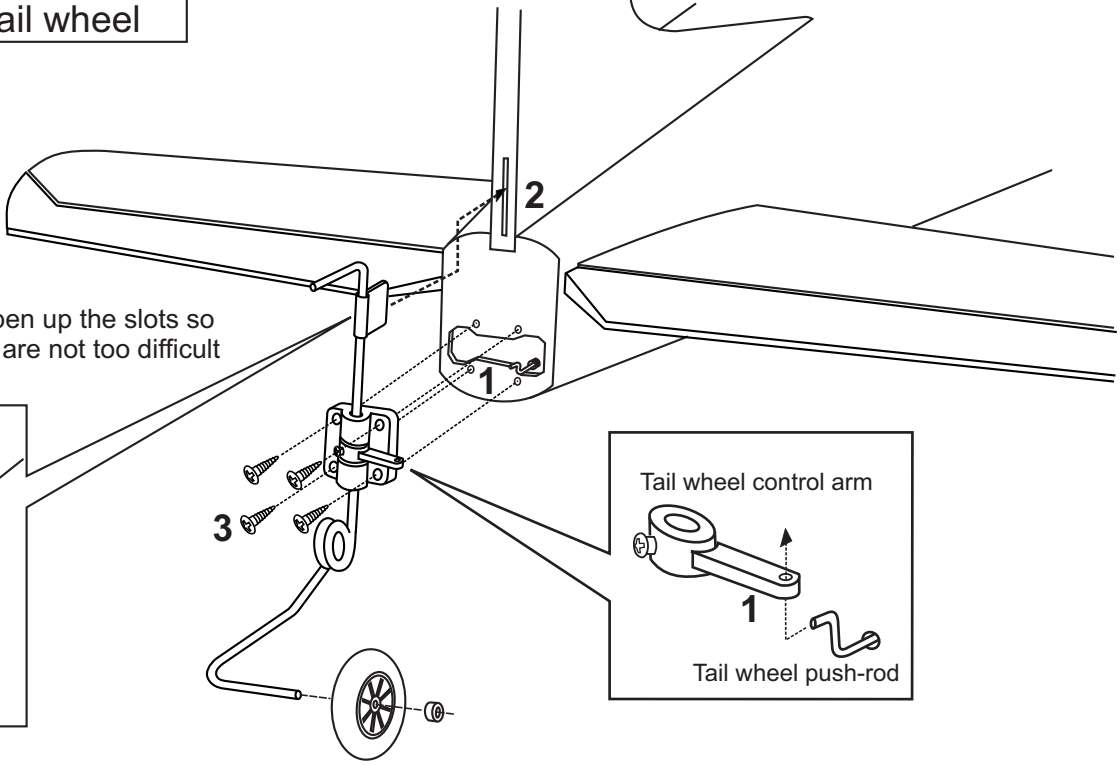
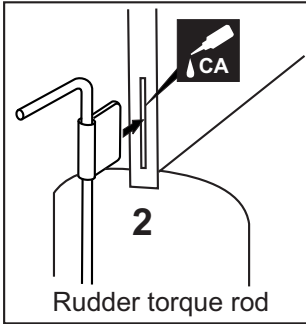
Do the same way with the bottom side of elevator and with the second elevator and rudder.

C188 6- Tail wheel

3x12mm screw
.....4

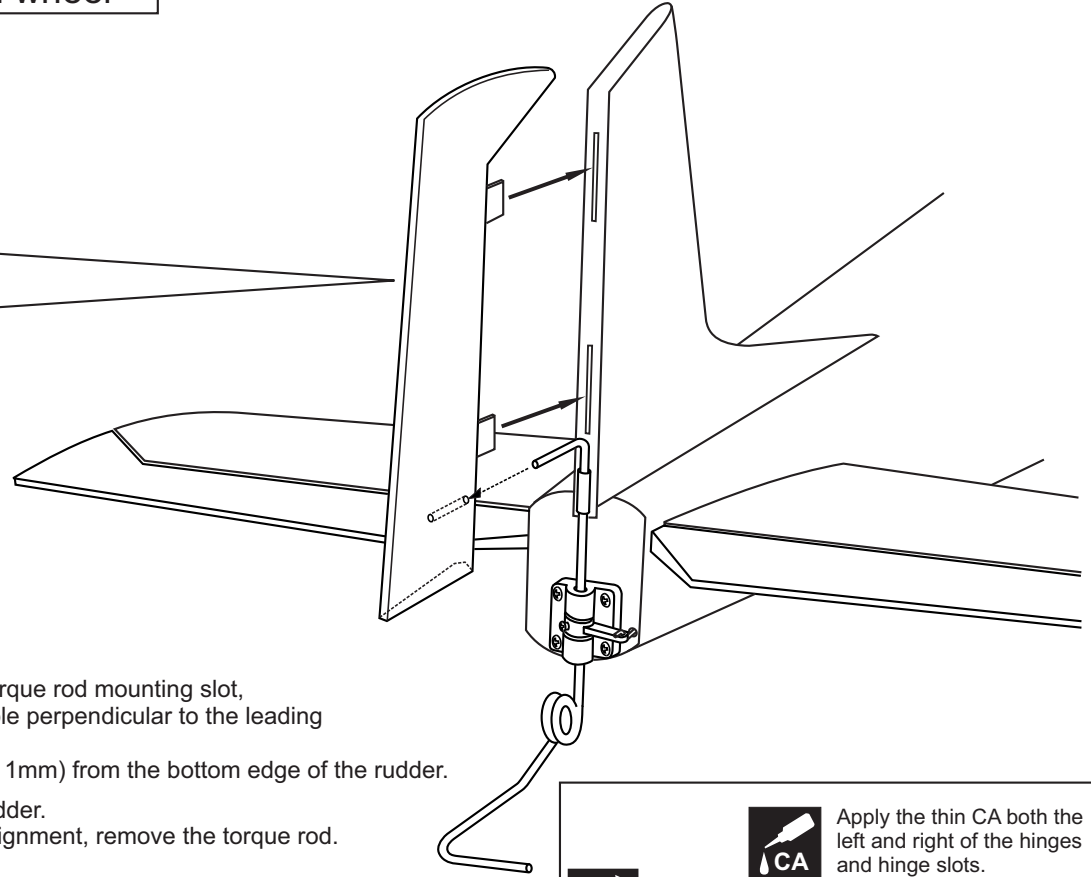
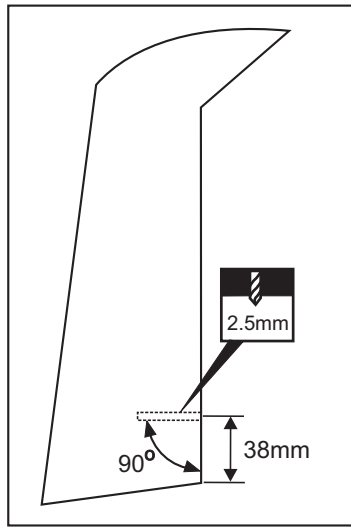
Test-fit the rudder torque rod into the slot.

NOTE: You may need to open up the slots so that the torque rod bearing are not too difficult to push in



- 1- Insert the tail wheel pushrod into the hole on the tail wheel control arm (as show).
- 2- Re-install the rudder torque rod and tail wheel mount in place.
- 3- Secure the tail wheel mount in place using four 3x12mm screws.
 Secure the tail wheel control horn in place using a 3mm hex bolt set, Ensure smooth non-binding movement.

C188 7- Tail wheel

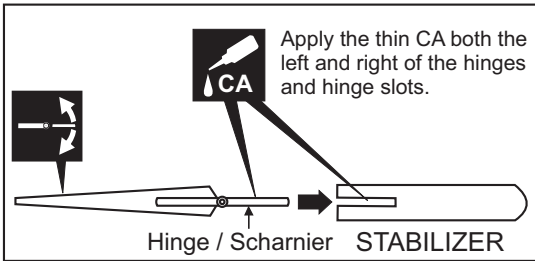


Drill a 2.5mm diameter hole in torque rod mounting slot, marking sure that you drill the hole perpendicular to the leading edge of the rudder.
 Position of the hole is 38mm (+/- 1mm) from the bottom edge of the rudder.

Test-fit the torque rod into the rudder.
 When satisfied with the fit and alignment, remove the torque rod.

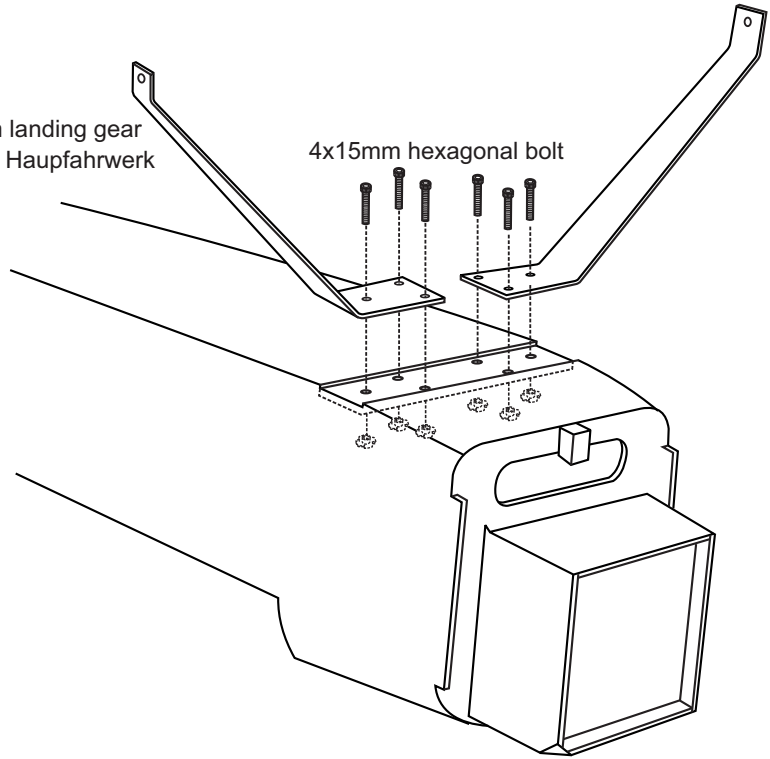
Hinge the rudder to the vertical stabilizer, using the thin CA glue. Make sure to apply a thin CA glue to the left and right of both hinges and to the inside the torque rod mounting slot and to the end of the torque rod itself.

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



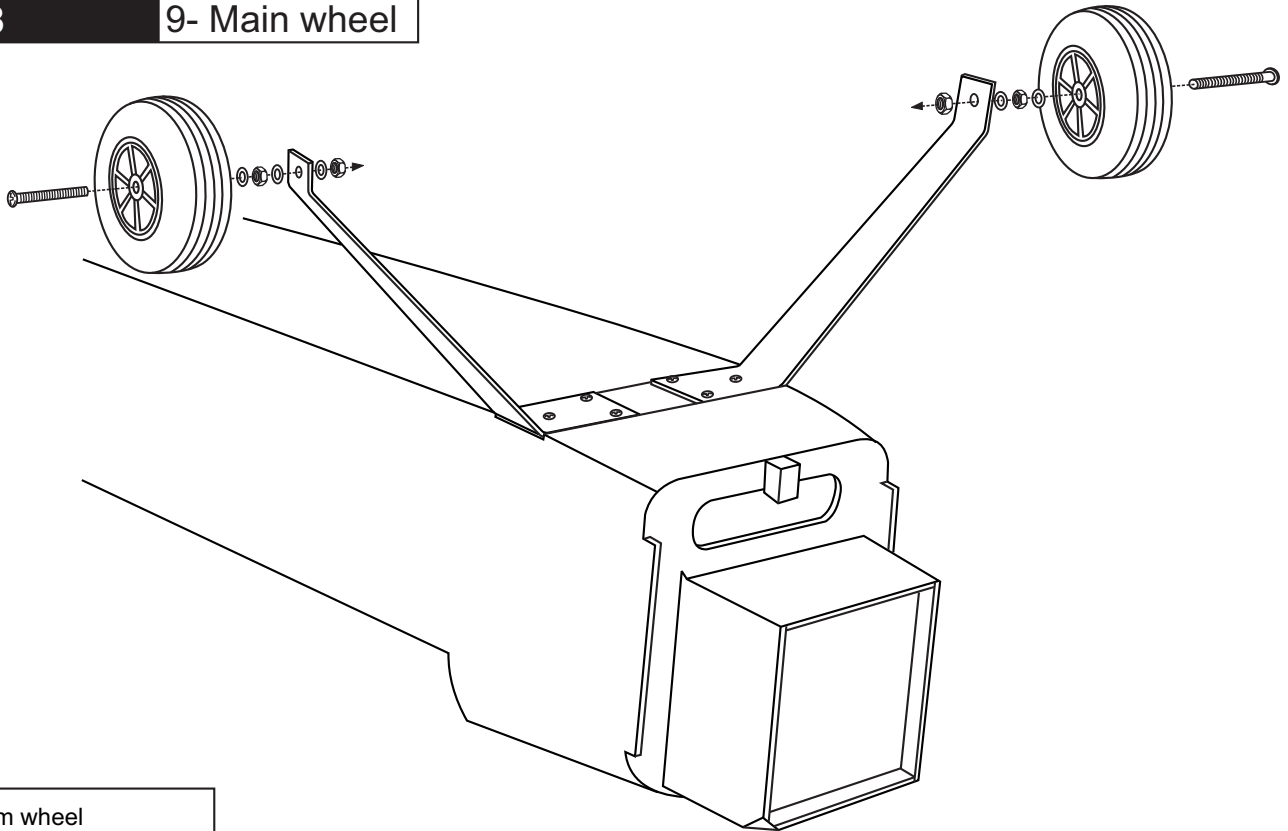
Aluminum landing gear
Aluminum Hauptfahrwerk

4x15mm hexagonal bolt



 4x15mm hexagonal bolt and nut6

Note: All holes on the fuselage and blind-nuts are pre-installed at factory.



90mm wheel



...2

4X40mm bolt



...2

4mm nut



.....4

4mm washer

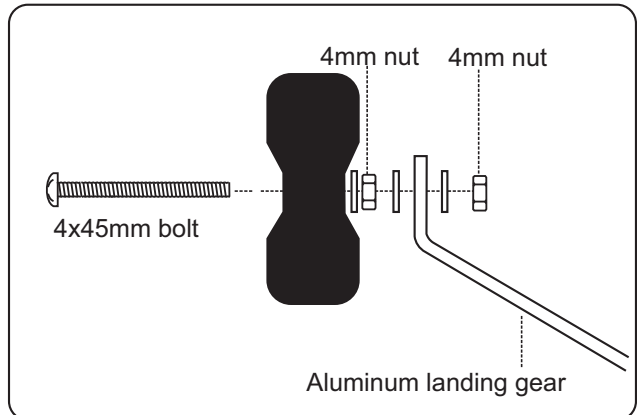


.....6

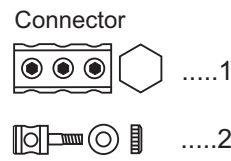
4mm nut 4mm nut

4x45mm bolt

Aluminum landing gear

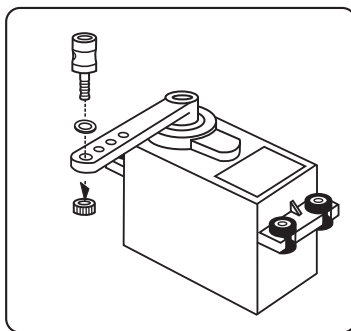


Connector

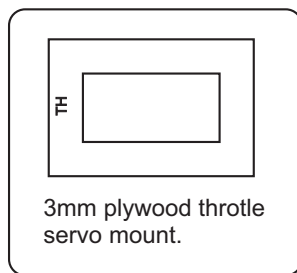
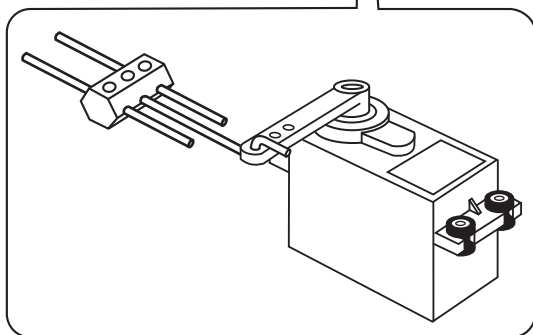
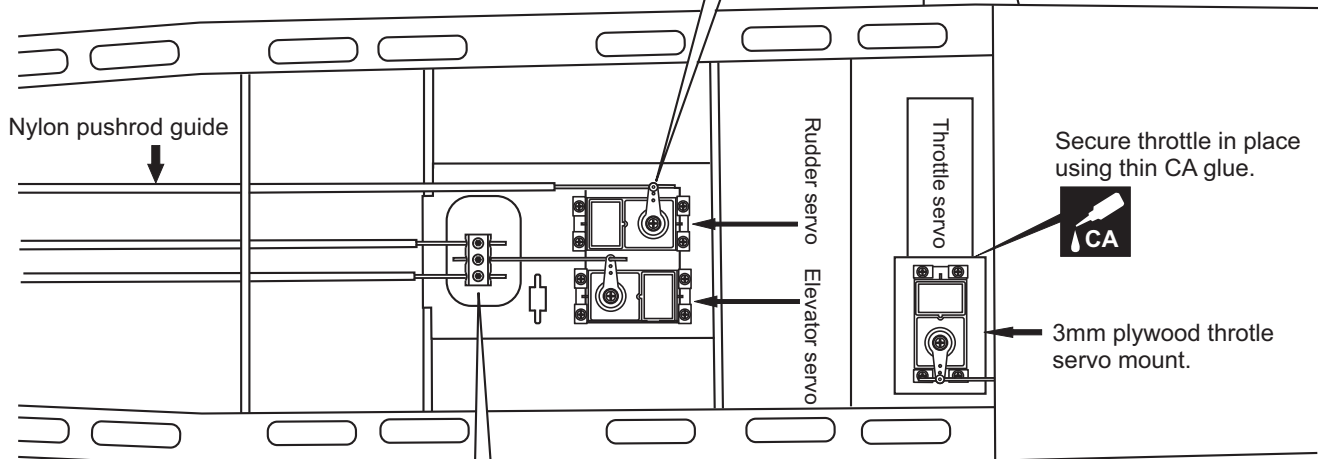


.....1

.....2

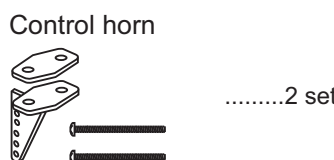


TOP VIEW / Draufsicht



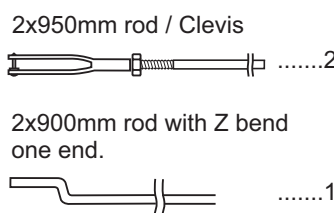
BOTTOM - VIEW / Unteransicht

Control horn



.....2 set

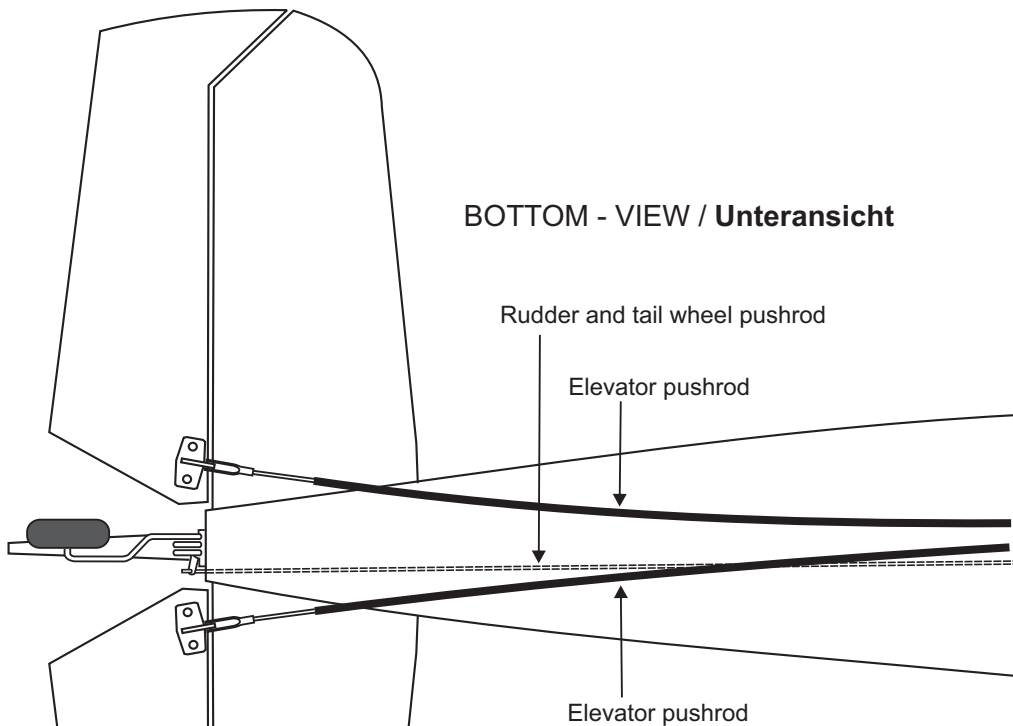
2x950mm rod / Clevis

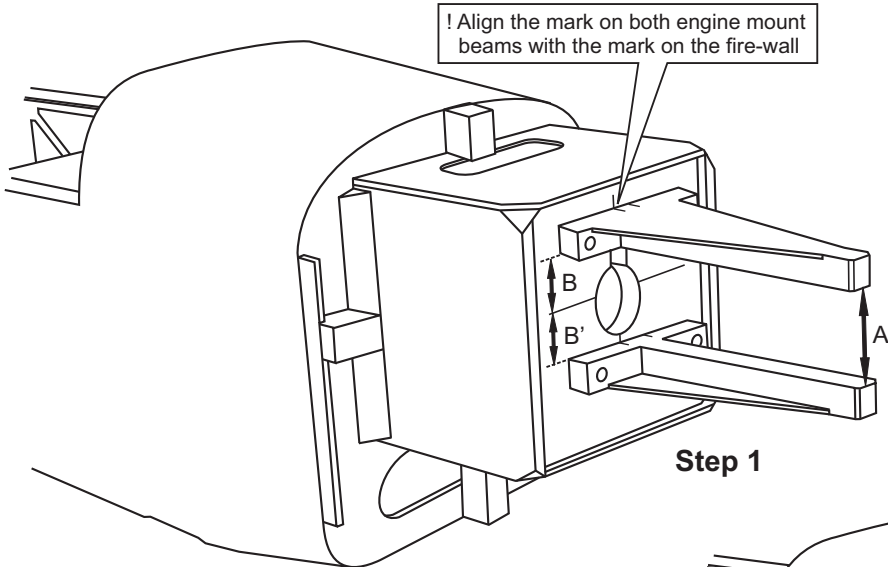


.....2

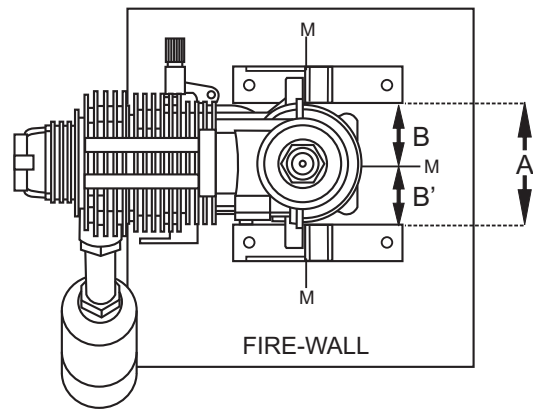
2x900mm rod with Z bend one end.

.....1



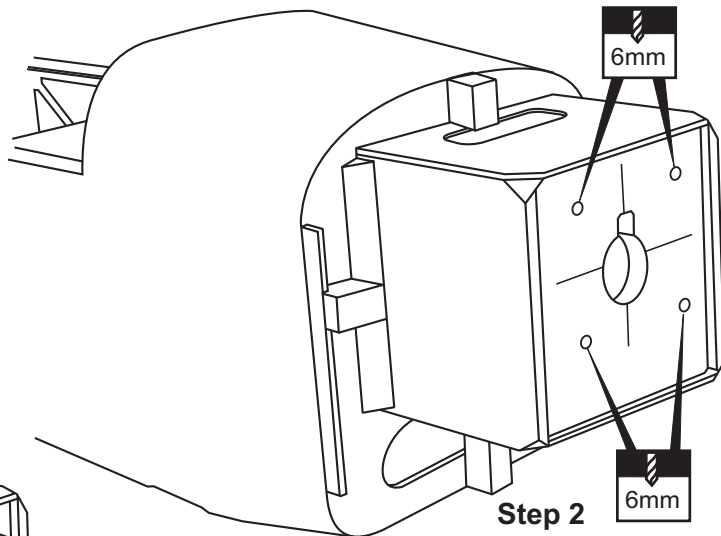


Step 1



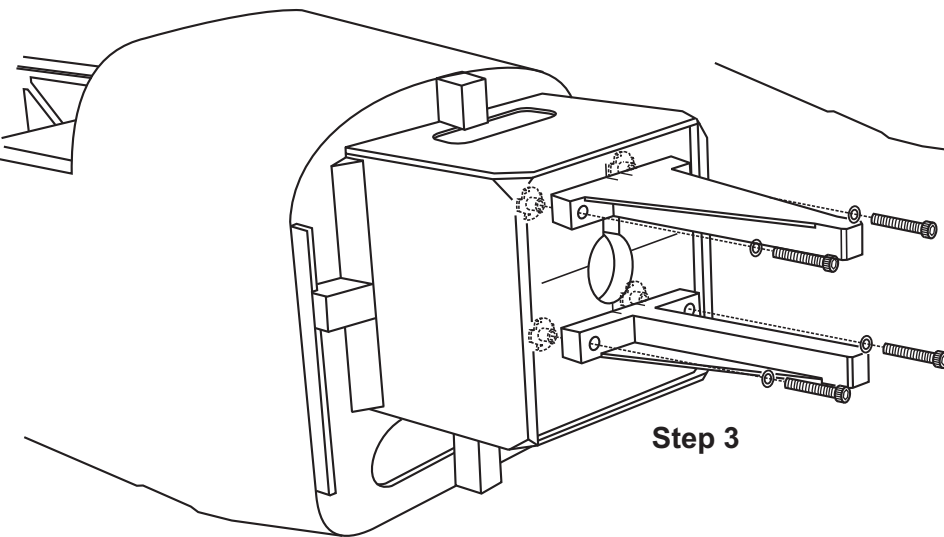
M: Mark on the fire-wall
B must be equal to B' (B=B')

Attach the engine mount beams onto the fire-wall so the distance between of two engine mount beams is "A", and B=B' as show. Secure the engine mount beams onto the fire-wall with litter CA glue. Using a pencil or felt tipped pen, mark the fire wall where the four holes are to be drilled.



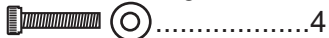
Step 2

Carefully remove the engine mount beams and drill a 6mm hole through the fire-wall at each of the four marks made above.



Step 3

4x25mm hexagonal bolt - washer



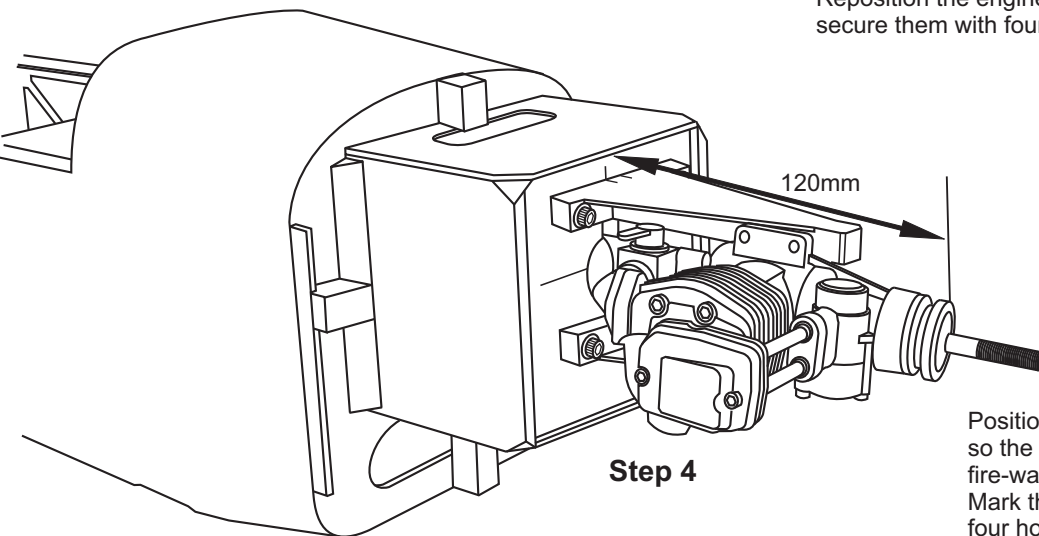
.....4

Blind-nut



.....4

Insert the blind-nut onto each of the four holes make above. Reposition the engine mount beams on to the fire-wall and secure them with four 4x25mm hexagonal bolts.

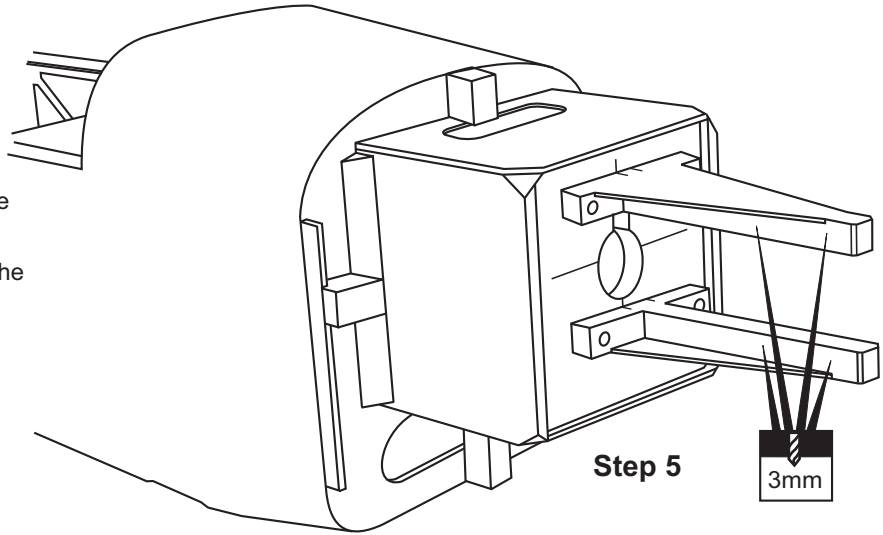


Step 4

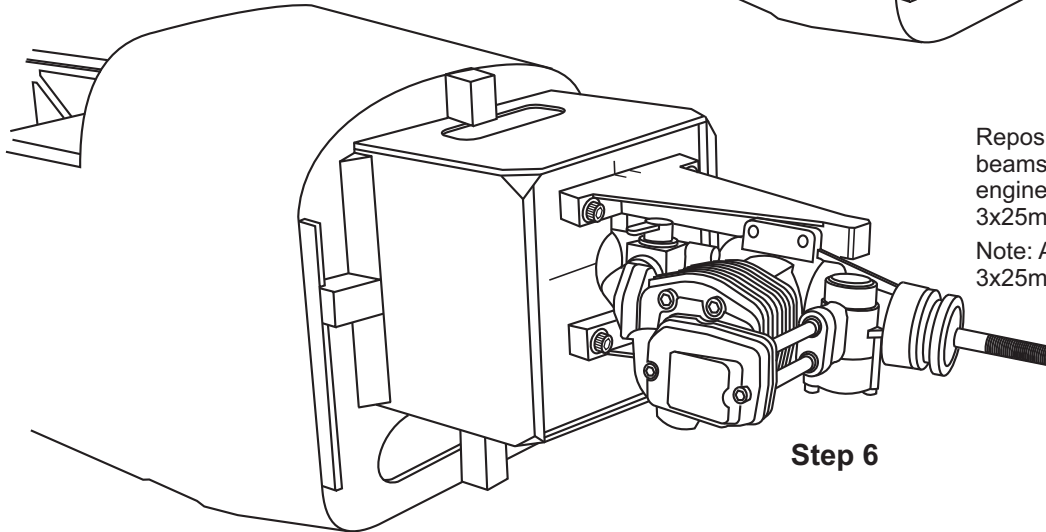
Position the engine to the engine mounts so the distance from the prop hub to the fire-wall is 120mm. Mark the engine mounting plate where the four holes are to be drilled.

Remove the engine and drill a 3mm holes through the beam at each of the four marks made above.

Marking sure that you drill the hole perpendicular to the beam of the engine mount.



Step 5

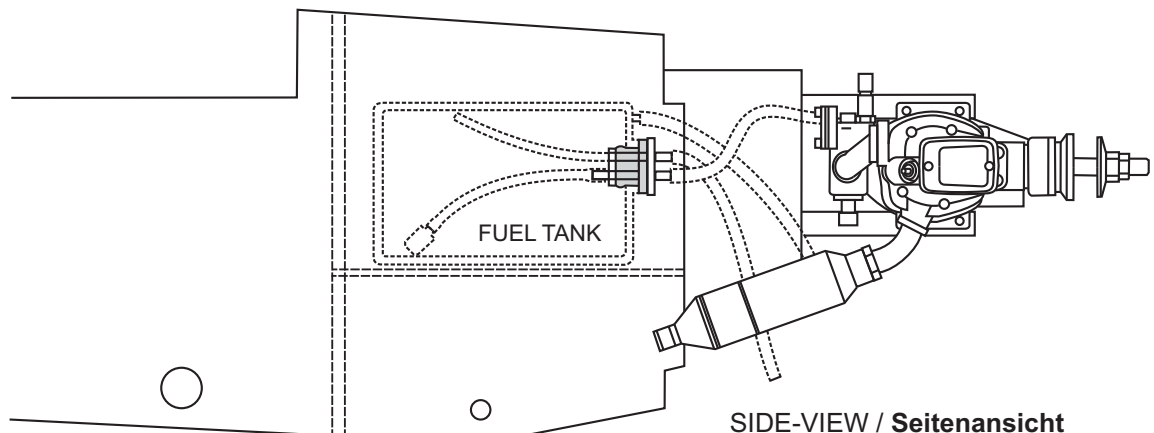
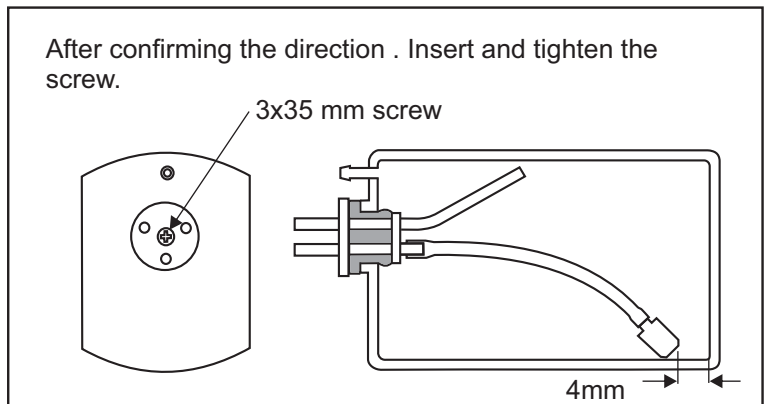
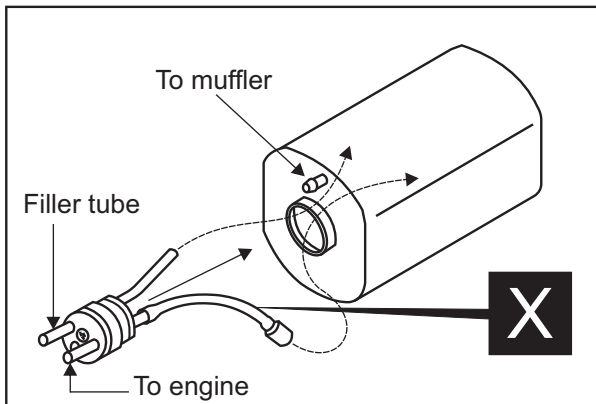


Step 6

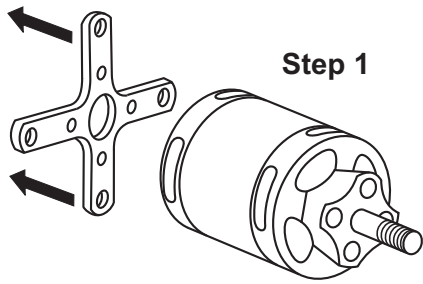
Reposition the engine on the engine mount beams, aligning it with the holes. Secure the engine to the engine mount using four 3x25mm hexagonal bolts.

Note: Apply Silicon sealer to each of the 3x25mm bolt and nut.

3x25mm hexagonal bolt	4
Washer	4

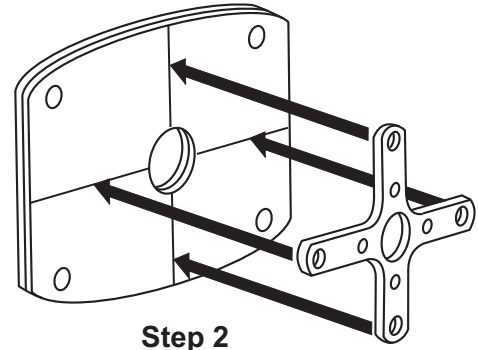


SIDE-VIEW / Seitenansicht

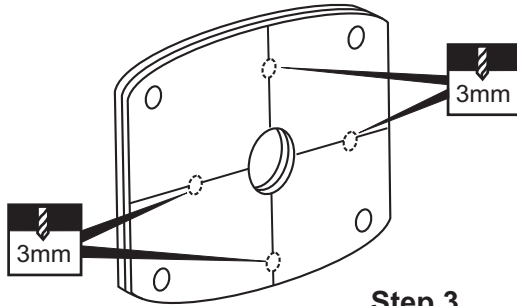


Step 1

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



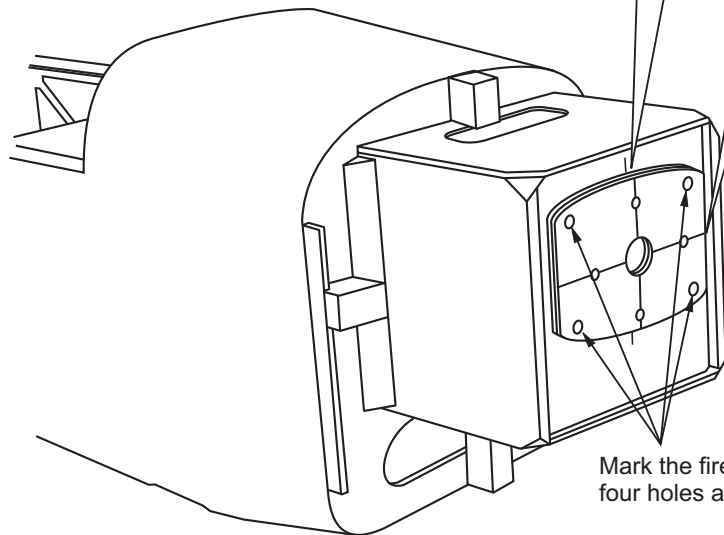
Step 2



Step 3

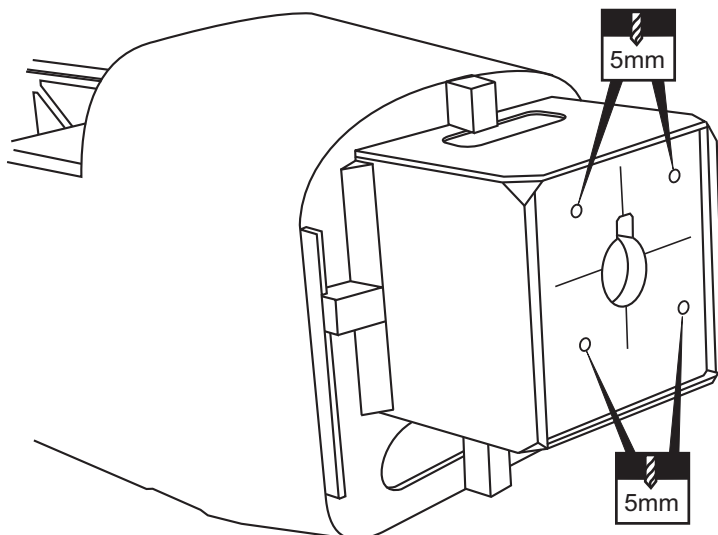
Remove the aluminum motor mounting plate and drill a 3mm hole through the plywood at each of the four marks marked .

! Align the mark on plywood motor mounting with the mark on the fire-wall.



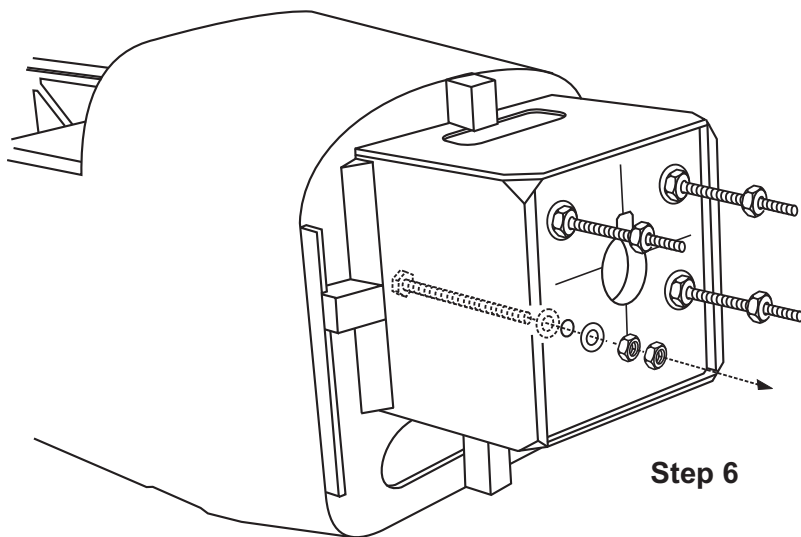
Mark the fire-wall where the four holes are to be drilled.

Step 4


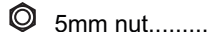
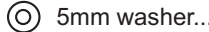


Remove the plywood motor mounting plate and drill a 5mm hole through the fire-wall at each of the four marks marked .

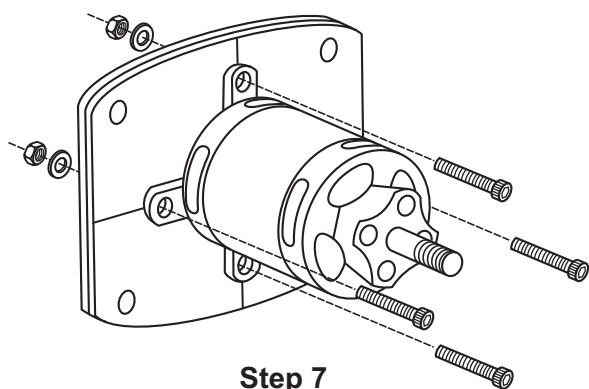
Step 5




Attach the four 5x80mm bolts and nuts to the fire-wall as shown.

-  5x80mm bolt....4
-  5mm nut.....12
-  5mm washer...16

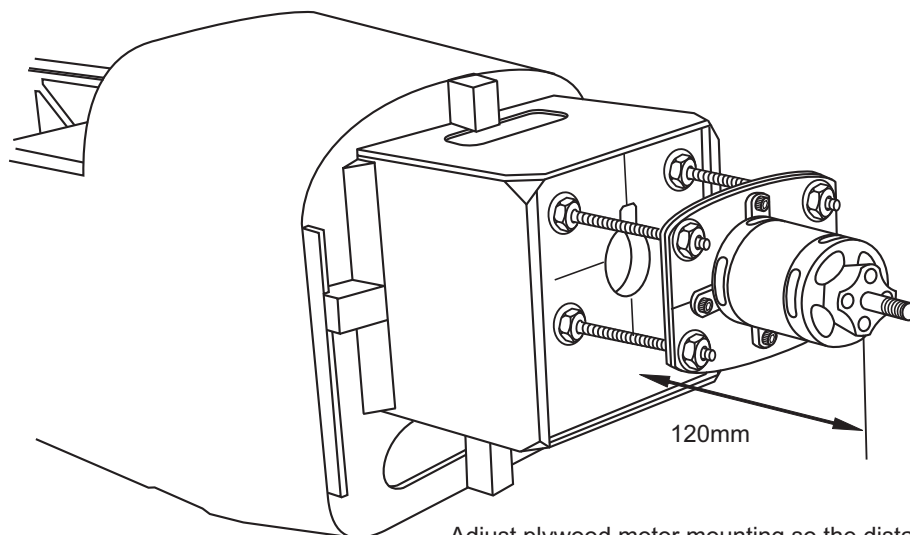
Step 6



Secure the Motor to the plywood motor mounting plate using the four 3x15mm hexagonal bolts.

-  3mm hexagonal bolt and nut / washer....4

Step 7



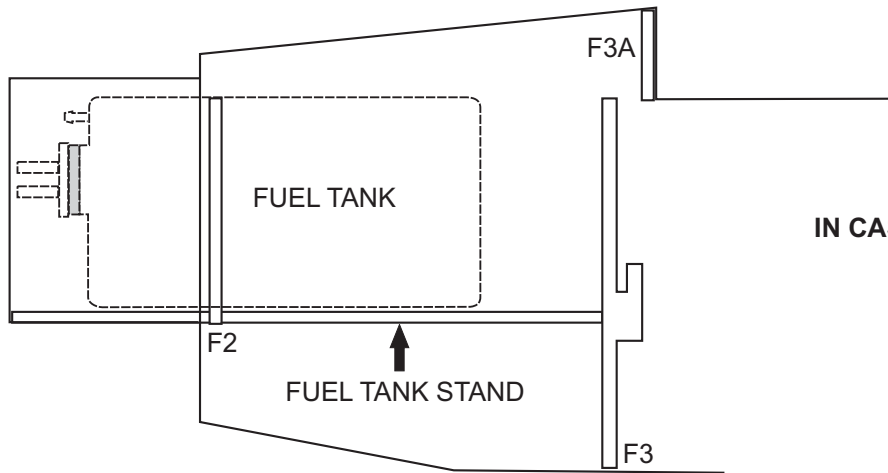
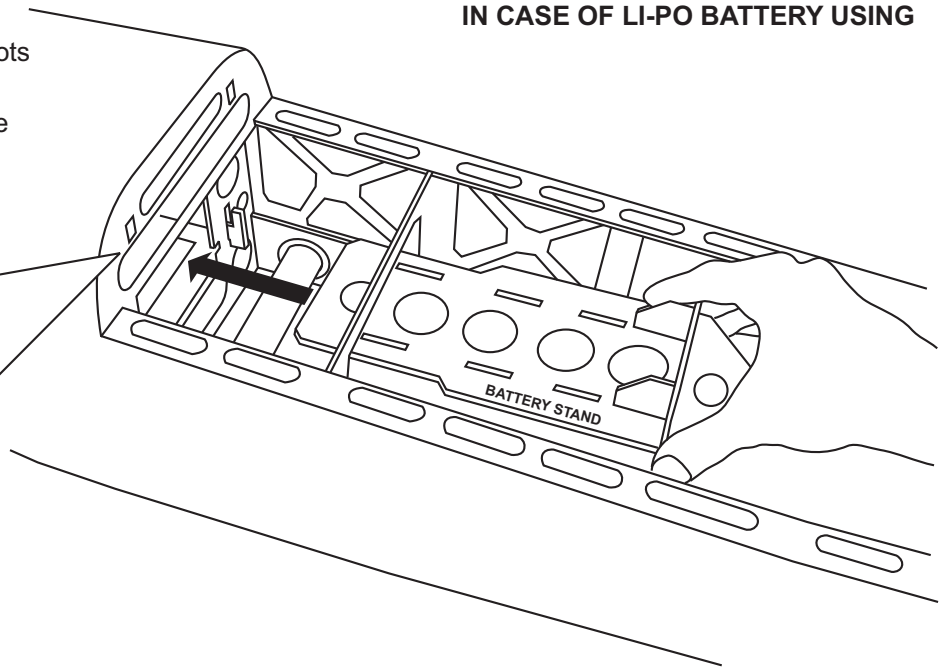
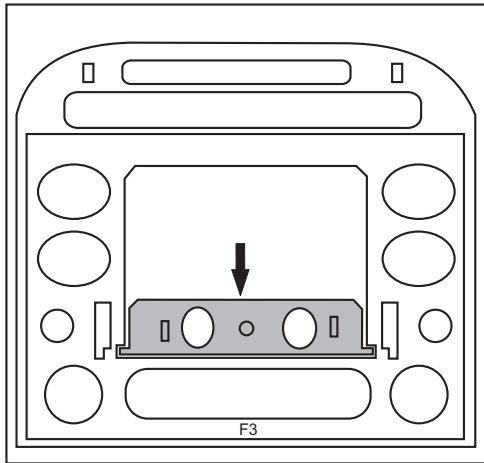
Step 8

Adjust plywood motor mounting so the distance from the prop hub to the fire-wall is 120mm.

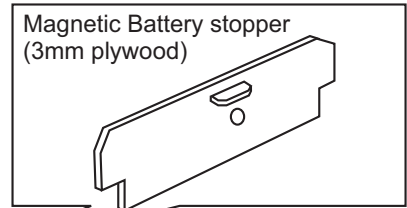
IN CASE OF LI-PO BATTERY USING

Slide the battery stand throughout the slots on the bottom of F3

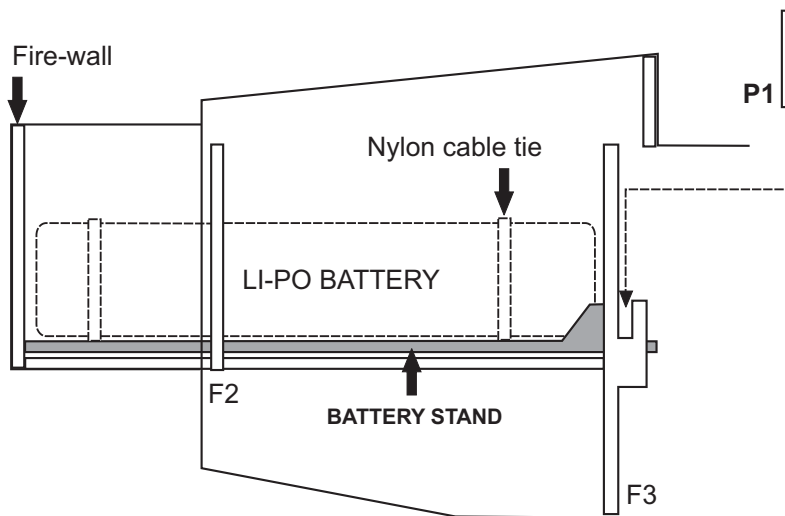
One end of the battery stand touched the rear of the fire-wall



IN CASE OF GLOW ENGINE USING



SIDE-VIEW / Seitenansicht



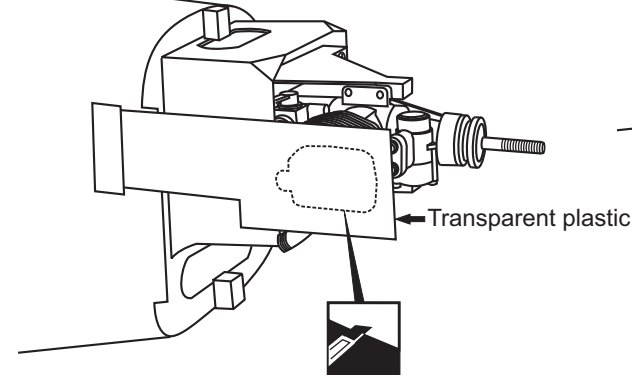
Place the Li-po battery on to the battery stand and secure it in place with the nylon cable tie.

Slide the battery stand (P1) throughout the slots on the bottom of F3 so that the end of the battery stand touched the rear of the fire-wall.

Secure the battery stand in place using the magnetic battery stopper (P4).

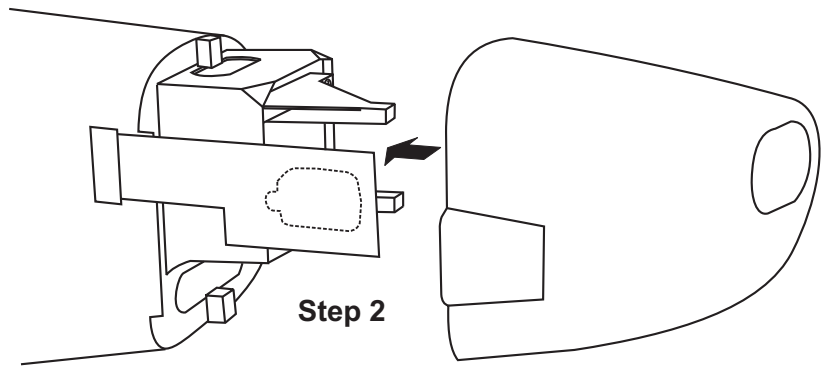
IN CASE OF ELECTRIC MOTOR USING

Step 1



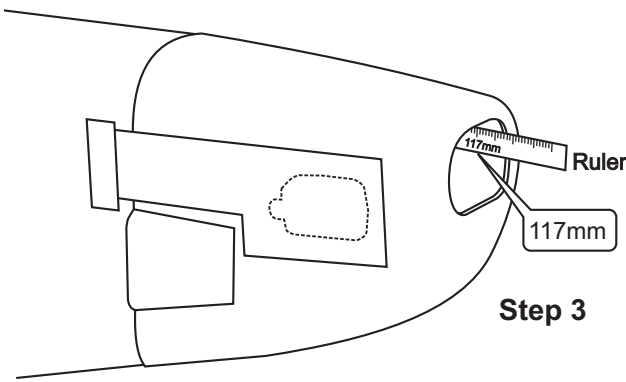
Attach the board or transparent plastic on the side of the fuselage with the adhesive tape as show. Using a pencil or felt tipped pen trace around the engine head where it meet the cowl. Cut the opening the board or transparent plastic for the engine head as marked above.

Step 2



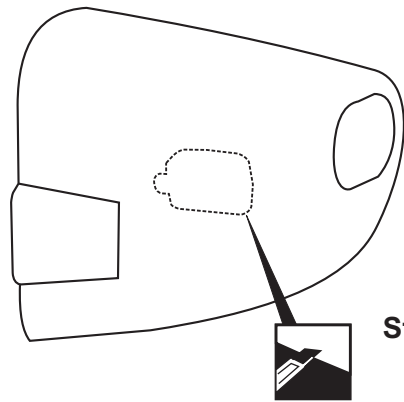
Remove the engine and insert the cowl on to the fuselage.

Step 3



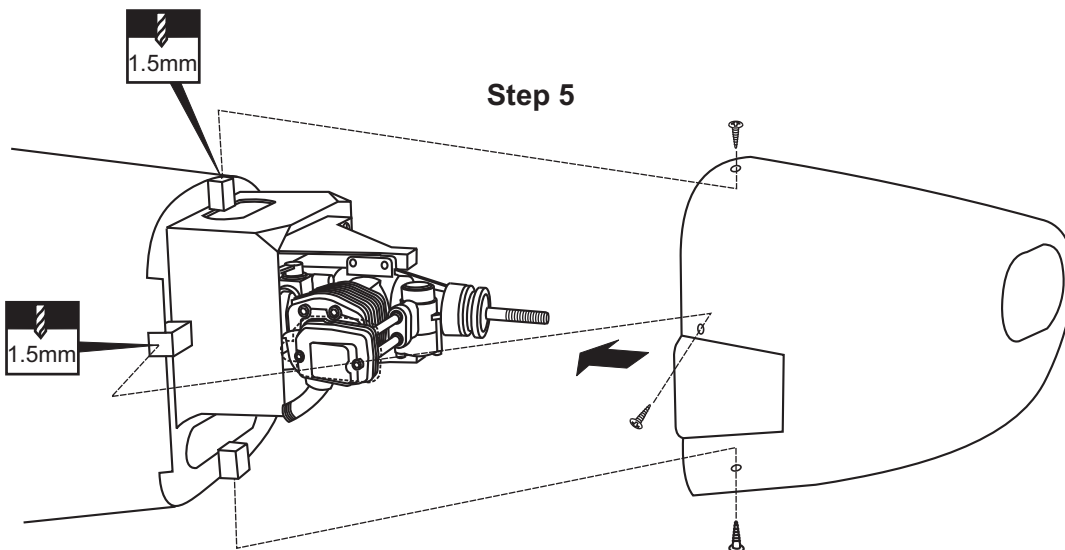
insert the cowl on to the fuselage so the distance from the fire wall to the front of the cowl is 117mm.

Step 4



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 and silencer.

Step 5



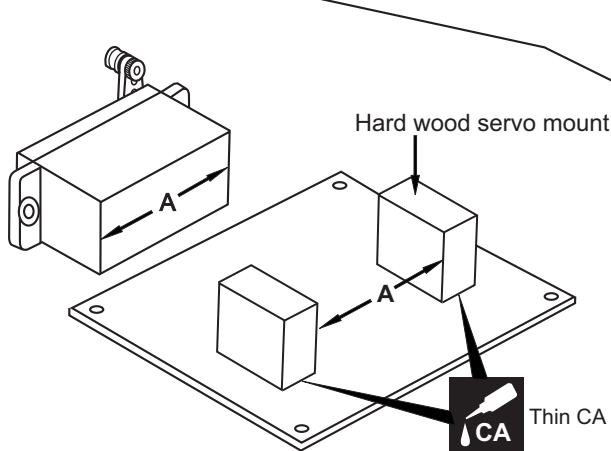
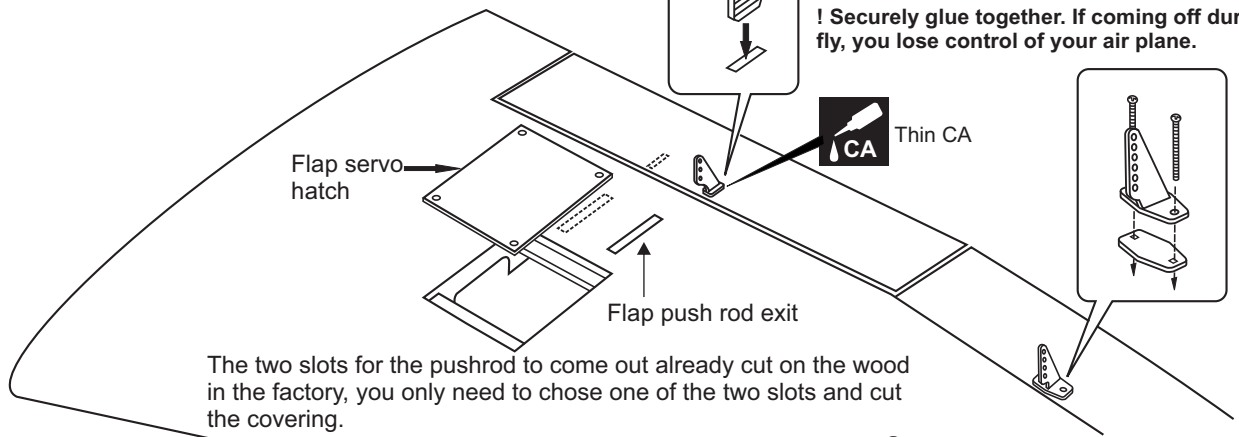
Again. Insert the cowl on to the fuselage and secure it in place with five 2x5mm screws.

 2.5x10mm.....4

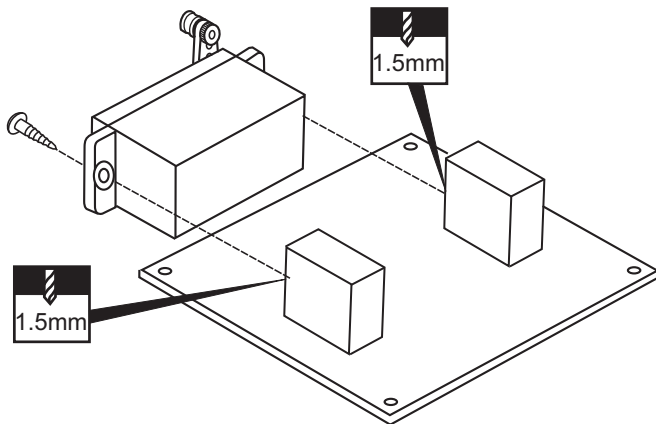
L/R

The two slots for the mounting the control horn already cut on the wood in the factory, you only need to chose one of the two slots and cut the covering.

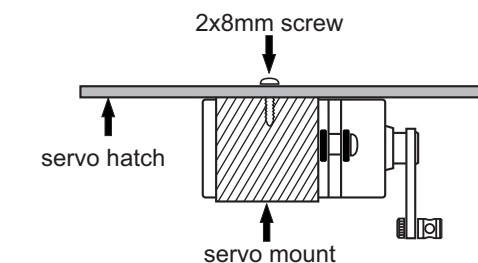
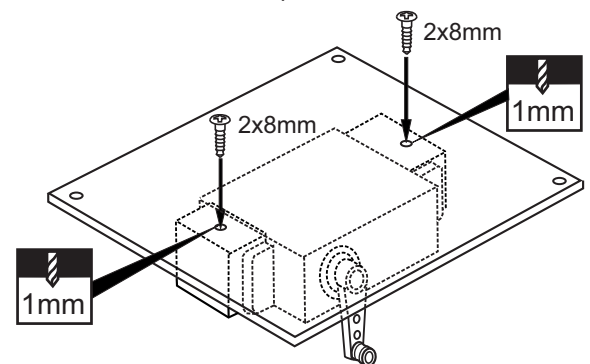
! Securely glue together. If coming off during fly, you lose control of your air plane.



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



IMPORTANT:
To be safe, you must attach the four screws as shown in this picture.



Connector

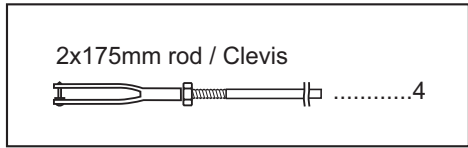
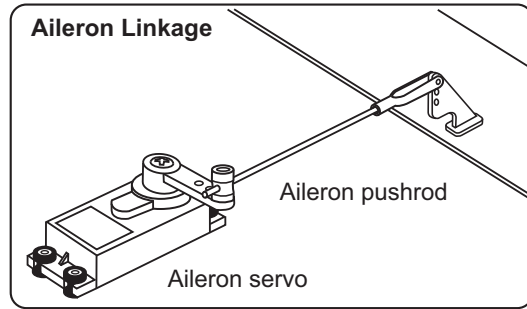
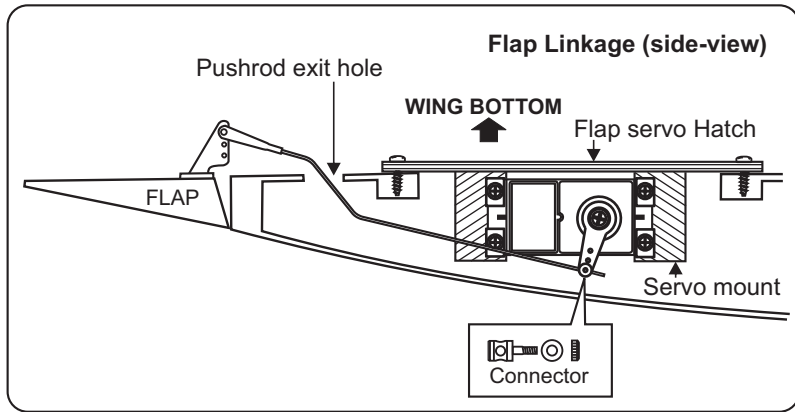


Control horn / 2x20mm screw

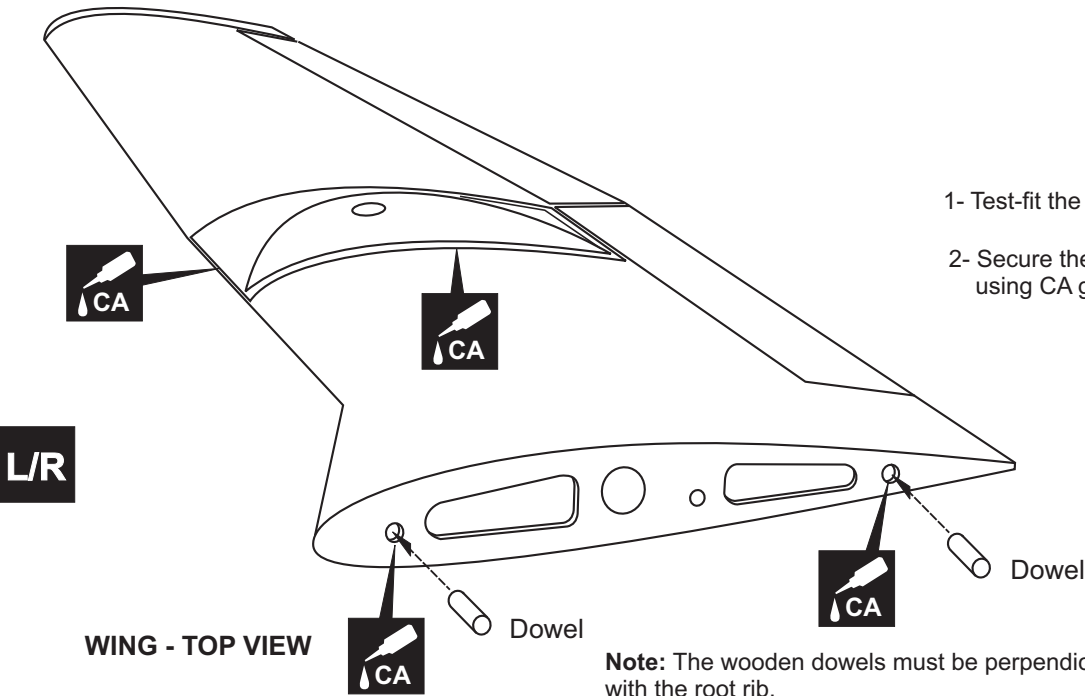
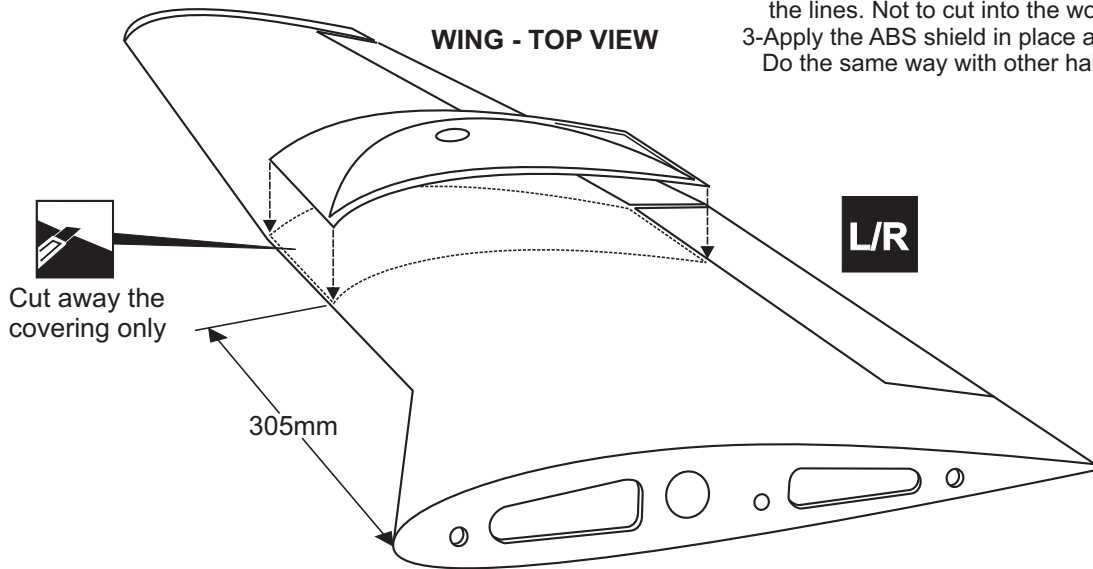


Control horn



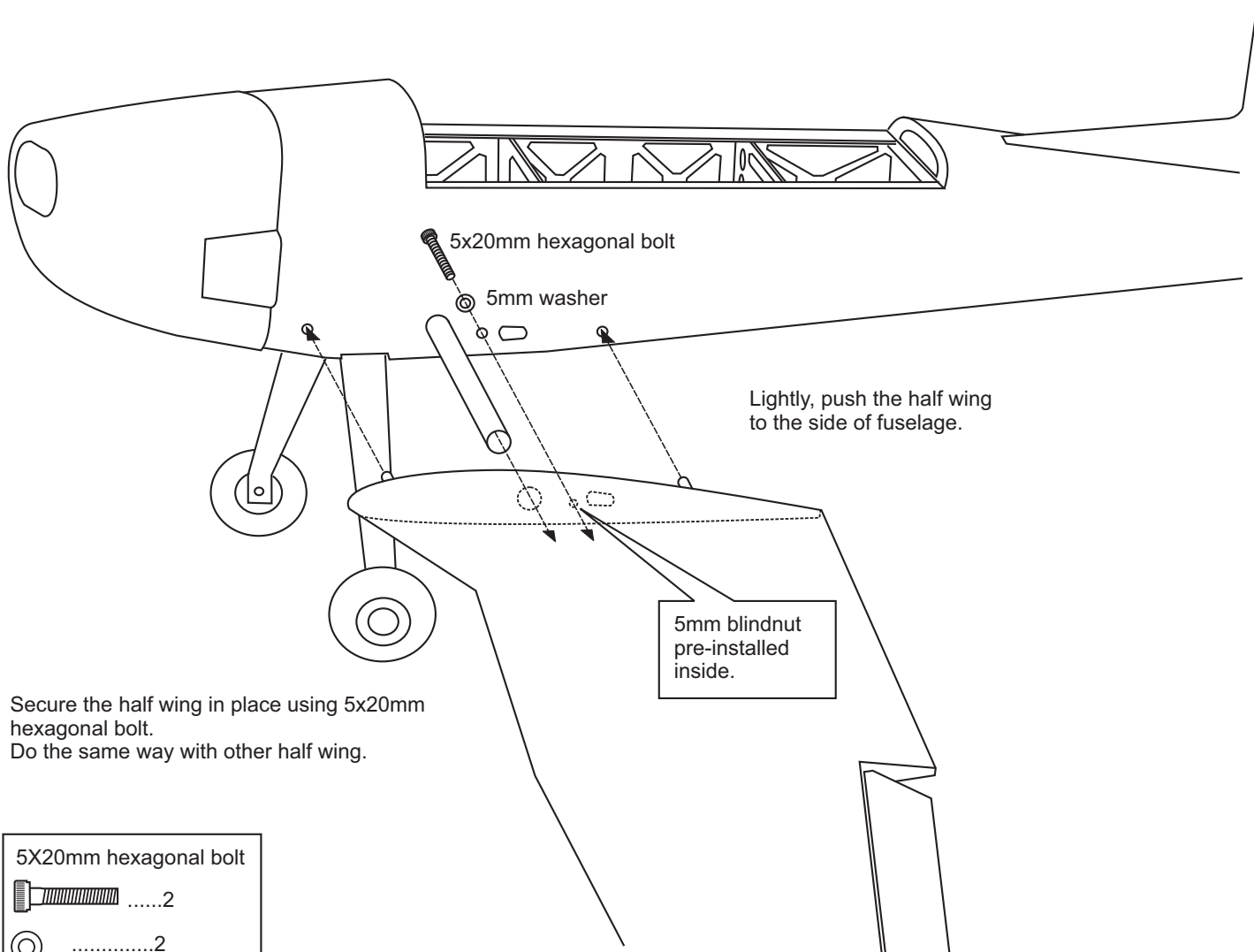
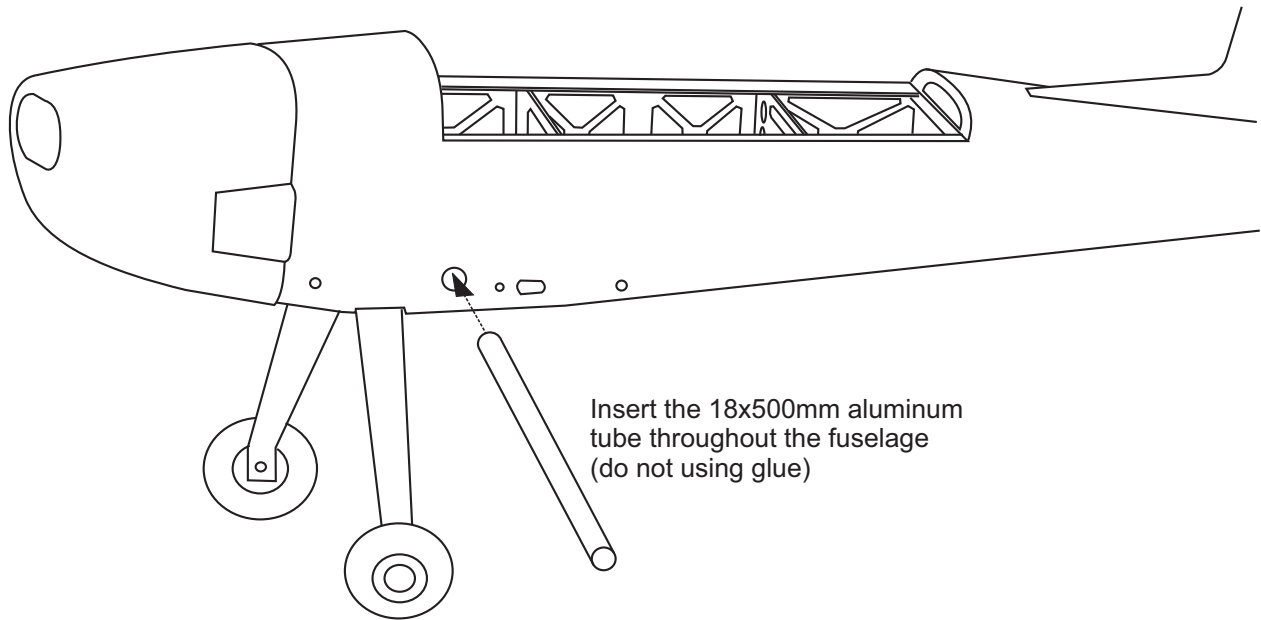


- 1-Using the ABS shield as a template, trace around the outside edge of the ABS air-scoop, and then remove it.
- 2-Using a sharp hobby knife, cut away the covering inside the lines. Not to cut into the wood.
- 3-Apply the ABS shield in place and secure with CA glue. Do the same way with other half wing.



- 1- Test-fit the dowel into the hole.
- 2- Secure the dowel in place using CA glue.

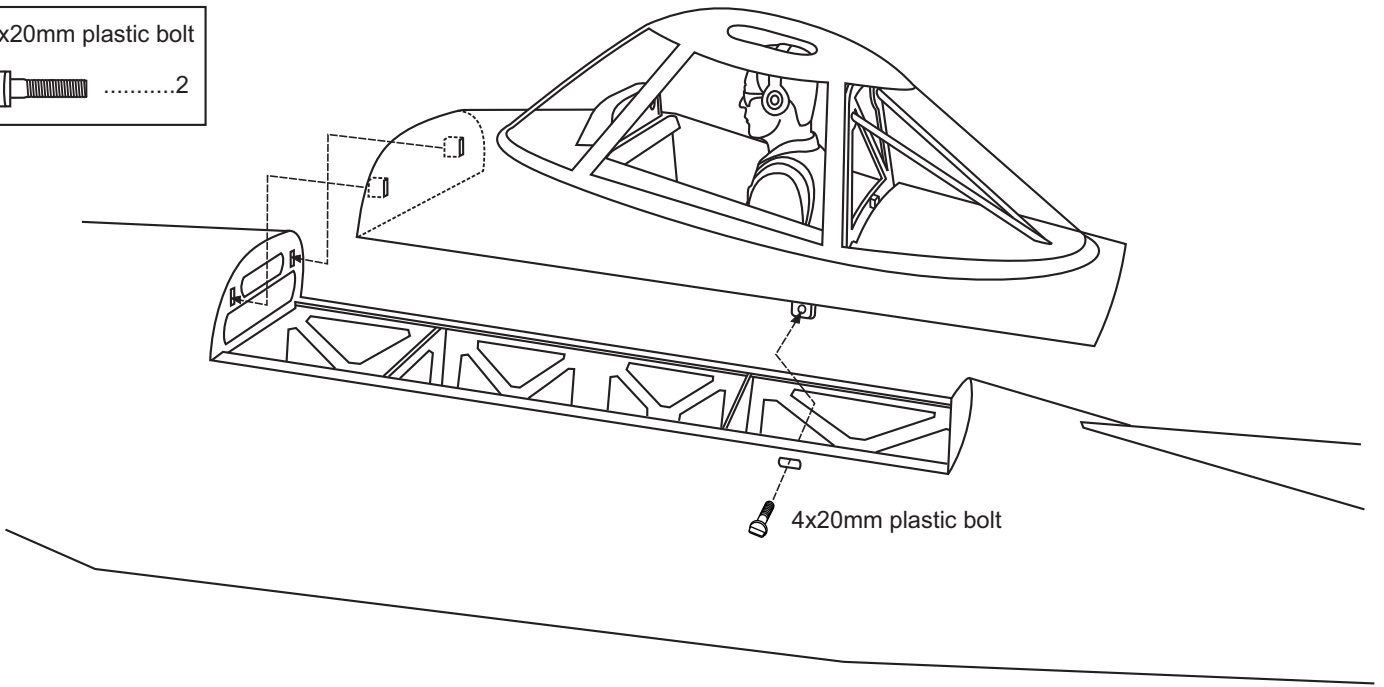
Note: The wooden dowels must be perpendicular with the root rib.



C188

22- Cockpit installation

4x20mm plastic bolt

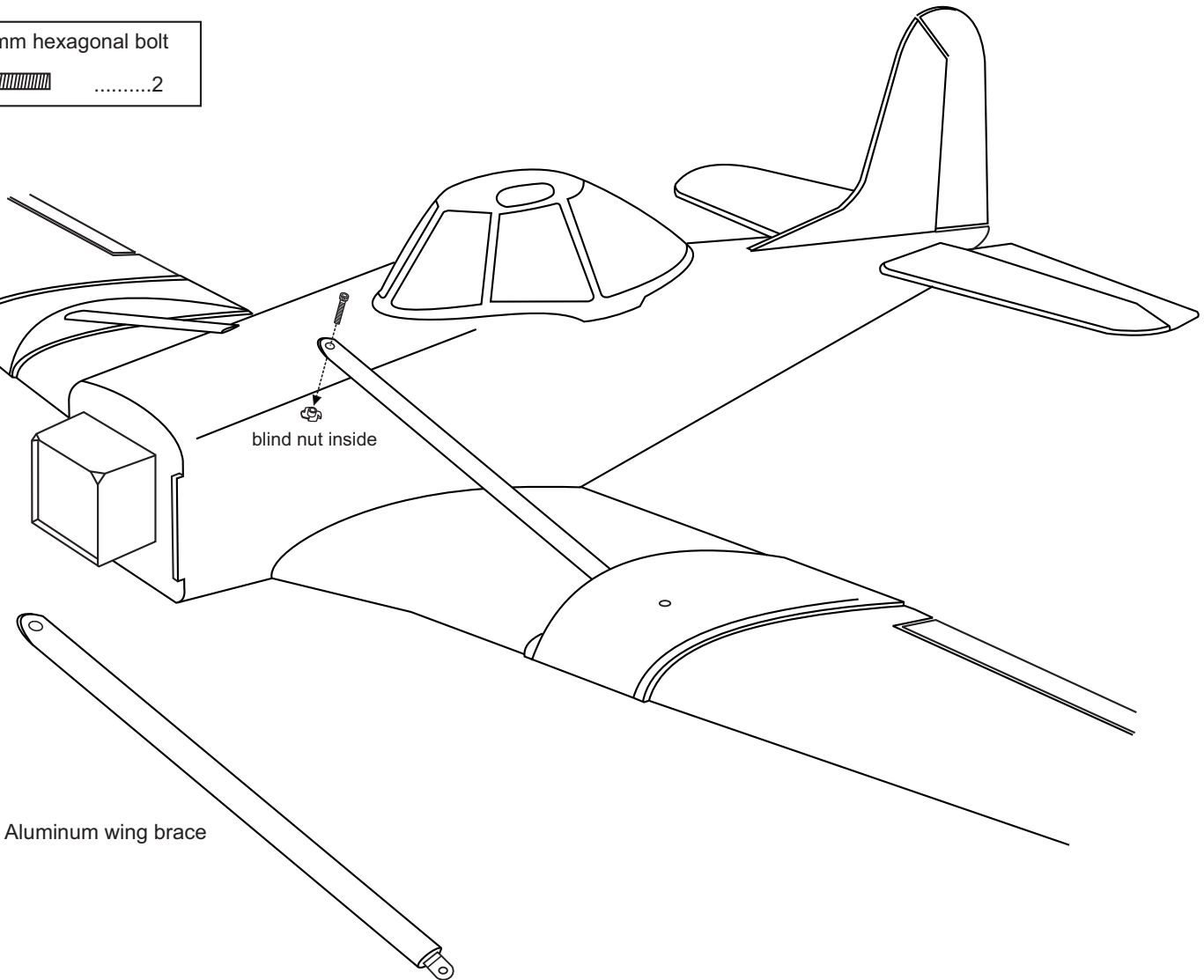


4x20mm plastic bolt

C188

23- Wing brace

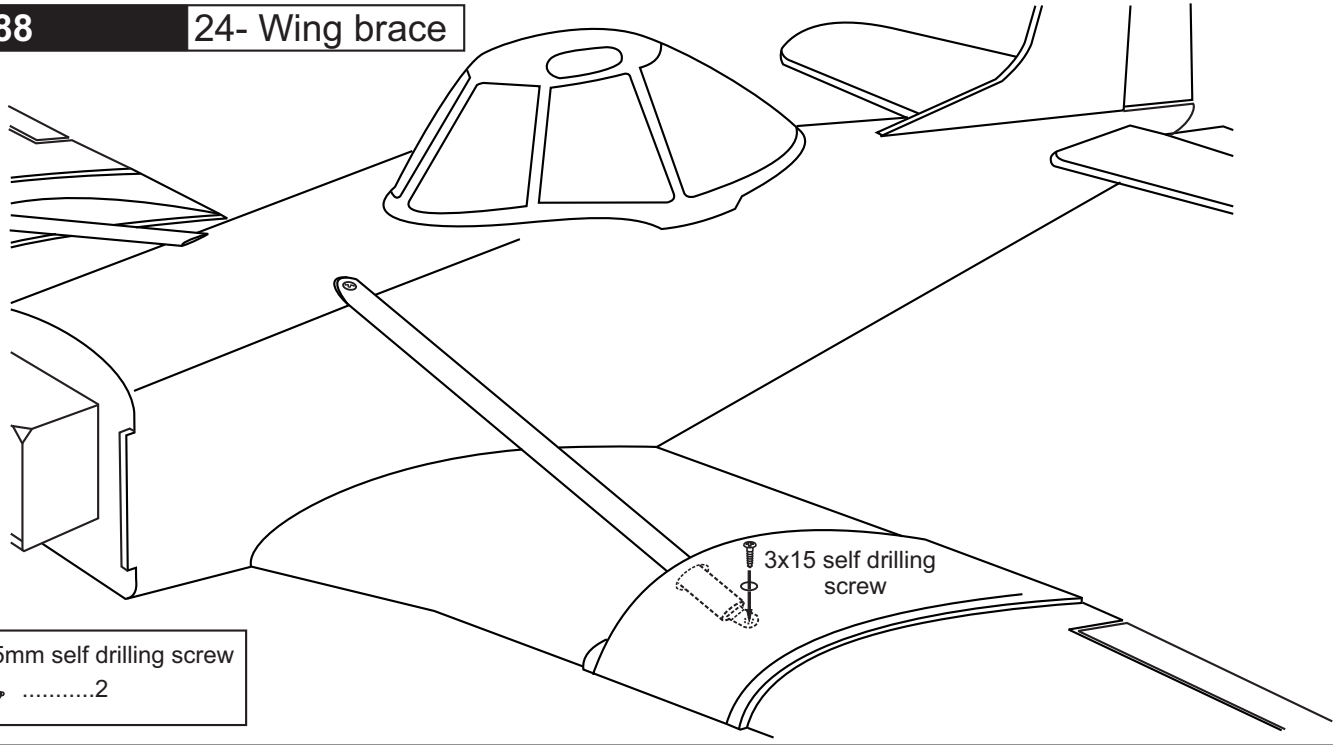
3x15mm hexagonal bolt




blind nut inside

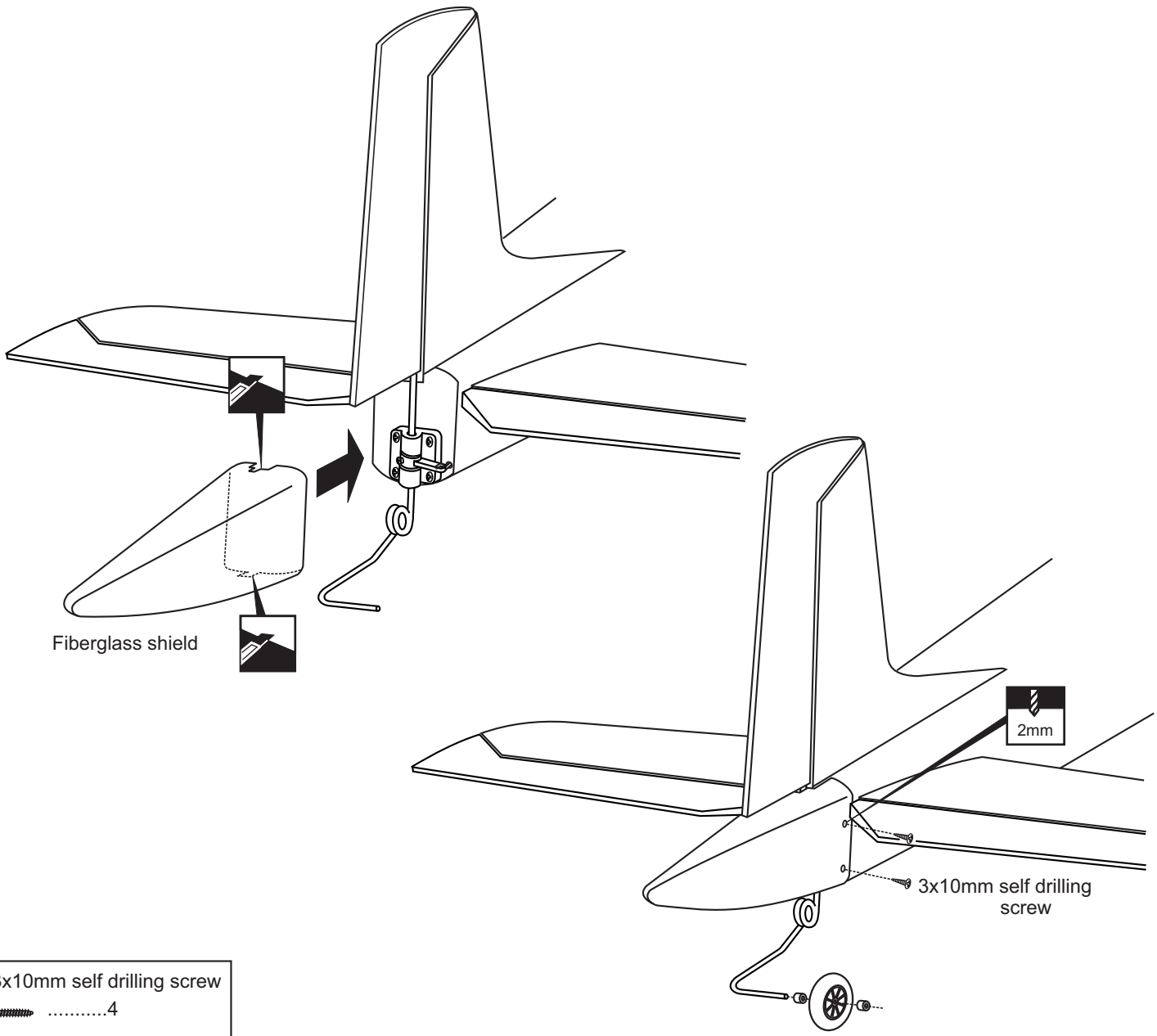
Aluminum wing brace

C188 24- Wing brace



3x15mm self drilling screw
2


C188 25- Tail shield

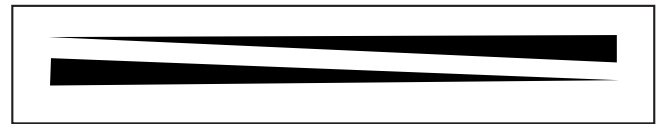
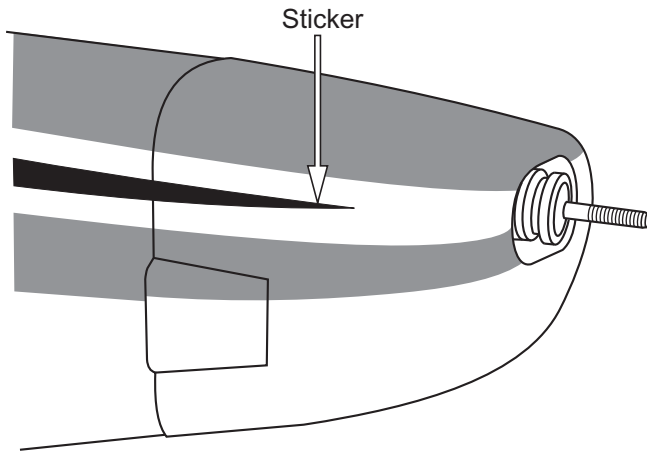


Fiberglass shield

2mm

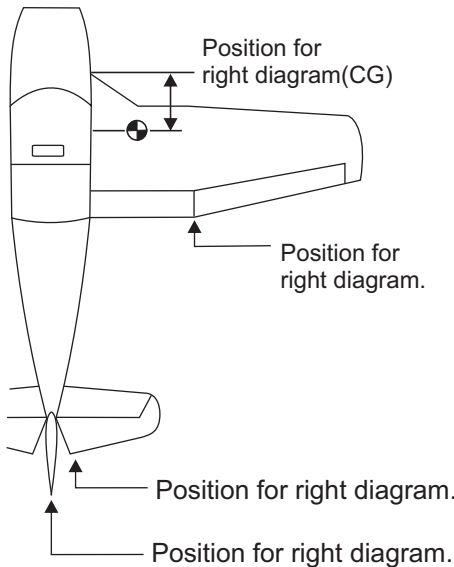
3x10mm self drilling screw

3x10mm self drilling screw
4

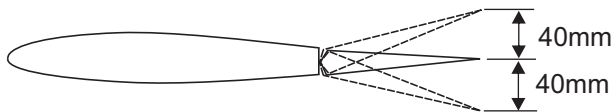


Note: Cut out the stickers and apply them in the proper area. Do not peel the backing paper off all at once. Peel off one corner of the backing and cut off with scissors. Arrange sticker on model and when satisfied adhere the corner without backing. Carefully peel back the rest of the backing while at the same time adhering the rest of the sticker. Try not to make air bubbles, if there are some, carefully puncture sticker (center of bubble) but not model surface with the tip of the knife or sharp pin and squeeze out the air. At curves stretch sticker and apply a little heat so that no creases occur. Cut off the excess that is produced.

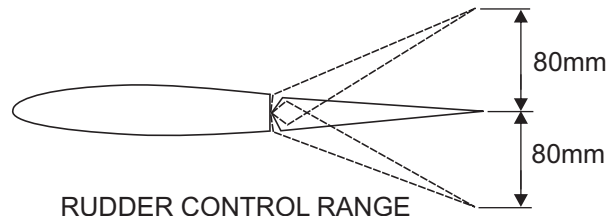
Adjust the travel of each control surface to the values in the diagrams these values fit general flight capabilities. Readjust according to your needs and flight level.



NEVER FLY BEFORE CHECKING THE CG'S REQUIRED POSITION.



ELEVATOR CONTROL RANGE



RUDDER CONTROL RANGE

Shift the location of the battery pack as needed to obtain the specification. Carefully install the battery pack to ensure that they will not shift during flight.

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.

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.