

*Radio control model / RC Flugmodell*

# KAWASAKI

## *Ki-61 Hien "Tony"*

### INSTRUCTION MANUAL / MONTAGEANLEITUNG



#### SPECIFICATIONS

|                |                      |
|----------------|----------------------|
| Wingspan       | 1580mm               |
| Length         | 1180mm               |
| Electric Motor | 870 Watt (PULSAR 60) |
| Glow Engine    | 7.5cc 2T / 8.5cc 4T  |
| Radio          | 5 Channel / 5 Servos |

#### TECHNISCHE DATEN

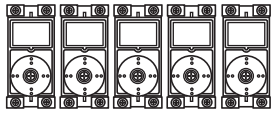
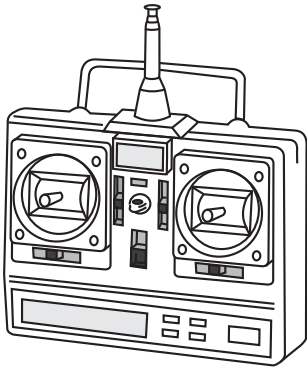
|                   |                      |
|-------------------|----------------------|
| Spannweite        | 1580mm               |
| Länge             | 1180mm               |
| Elektroantrieb    | 870 Watt (PULSAR 60) |
| Verbrennerantrieb | 7.5cc 2T / 8.5cc 4T  |
| Fernsteuerung     | 5 Kanal / 5 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.

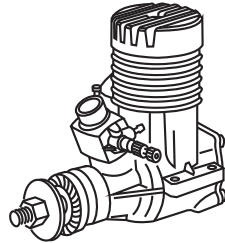
## REQUIRED ITEMS / Zum Betrieb wird benötigt



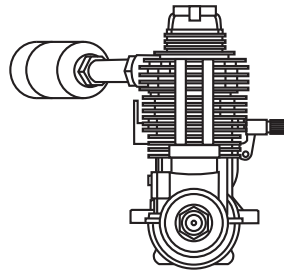
Minimum 5 channel radio for airplane with 5 servos  
Aileron servo x 2.  
Throttle servo x 1.  
Rudder servo x 1.  
Elevator servo x 1.



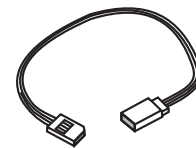
10.5x6 for .40 - 2 cycle engine  
11x6 for .46 - 2 cycle engine  
12x6 for .60 - 4 cycle engine  
12x7 for .70 - 4 cycle engine  
13x6 for Quantum 4120/05



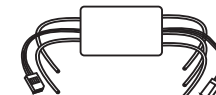
.46 ~ .50 - 2 cycle



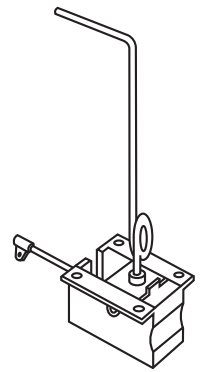
.60 ~ .70 - 4 cycle



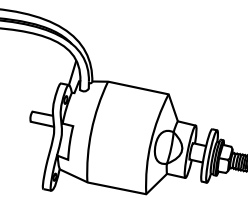
Extension for aileron servo, retract servo.



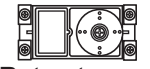
60A Brushless ESC  
60A Brushless Regler



Retract landing gear VQAR08



870Watt Brushless Motor (PULSAR 60)



Retract servo x1



Silicone tube



Li-Po Battery, 18.5V, 4500mAh (LEMONRC)

Linkage Stopper x2 (for retract servo)

## GLUE / Klebstoff



Silicon Glue

Cyanoacrylate Glue



CA



EPOXY A




EPOXY B

Epoxy Glue ( 5 minute and 30 minute type)

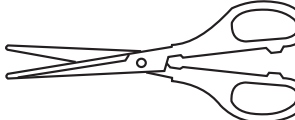
## TOLLS REQUIRED / Erforderliches Werkzeug

Hobby knife 

Phillip screw driver 

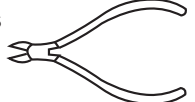
Hex Wrench 

Needle nose Pliers 

Scissors 

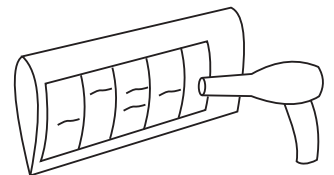
Awl 

Sander 

Wire Cutters 


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

If exposed to direct sunlight and / or heat, wrinkles can appear. Storing the model in a coil 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


Symbols used throughout this instruction manual, comprise / Selbsterklärende Symbole


 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.

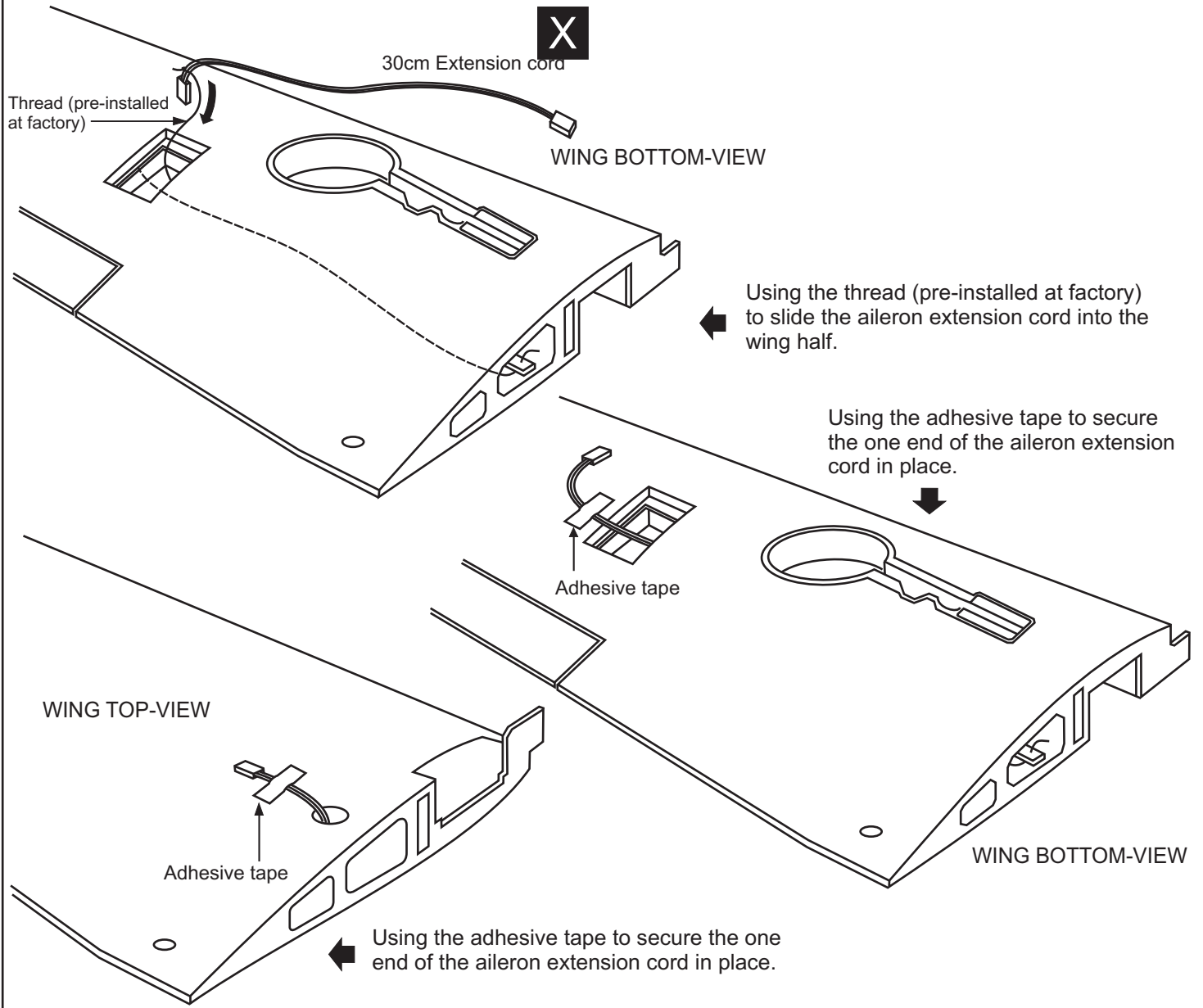
 Not included. These parts must be purchased separately

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" |                 |

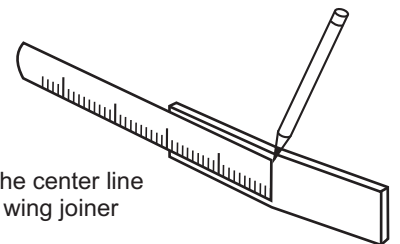
# 1-Aileron extension cord installation



# 2- Joining the wing

## Before gluing:

- Draw the center line on the wing joiner.
- 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.
- Check for the correct dihedral angle

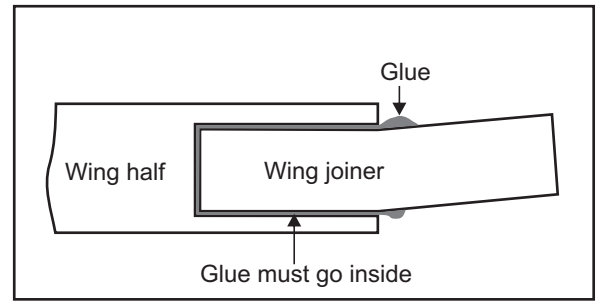
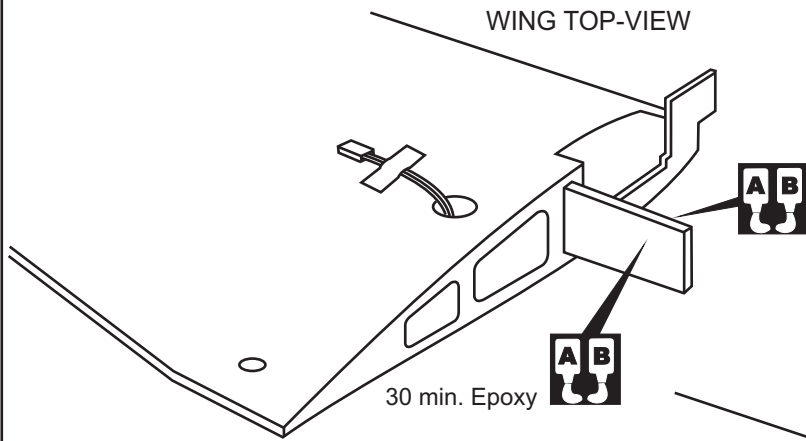


Coat one half of the dihedral brace with epoxy up to the center line. Install the epoxy-coated side of the dihedral brace into the wing joiner cavity up to the center line.



### 3- Joining the wing

WING TOP-VIEW

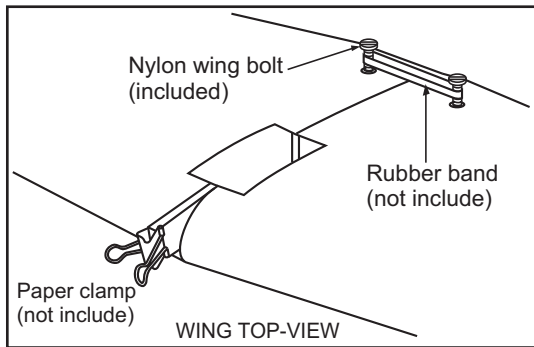


**! Make sure to glue securely, If not properly glued, a failure in flight may occur.**

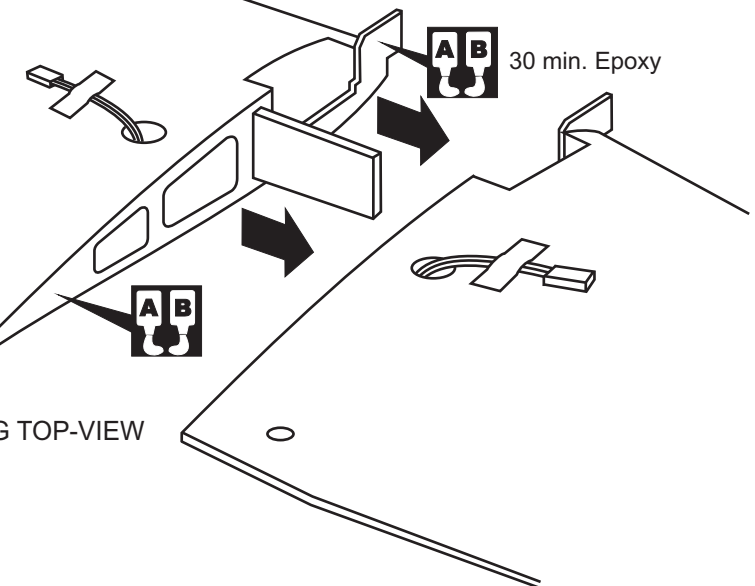
30 min. Epoxy

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. Note: The two wing halves roots must fit together perfectly. Clear off the excess epoxy.

Hold the wing halves together with paper clamp and rubber band.



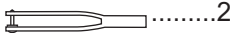
WING TOP-VIEW



**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.

### 4- Retract landing gear

Steel clevis



1/8"x19/32" (3x15mm) screw (included with retract)

VQ-AR04 - 160224 (option)

1/8" (3mm) plywood buffer (included with retract)

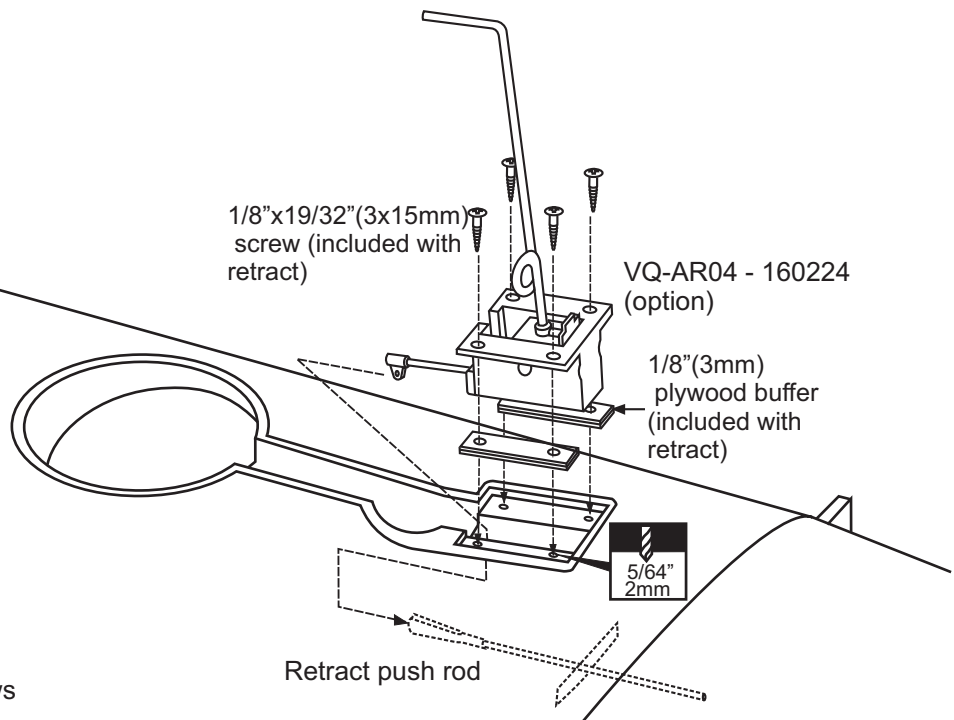
5/64" 2mm

Retract push rod

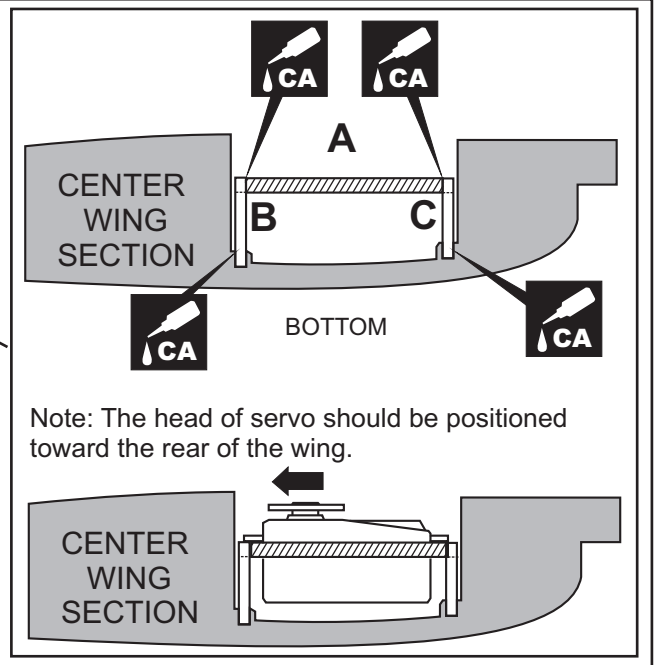
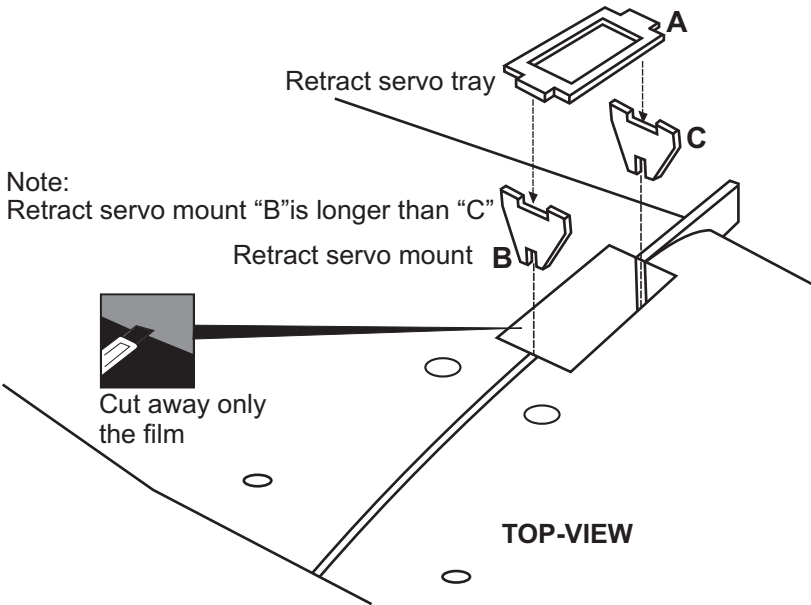
WING BOTTOM-VIEW

1-Join the push rod to the retract gear arm and trial fit the retract into the wing.

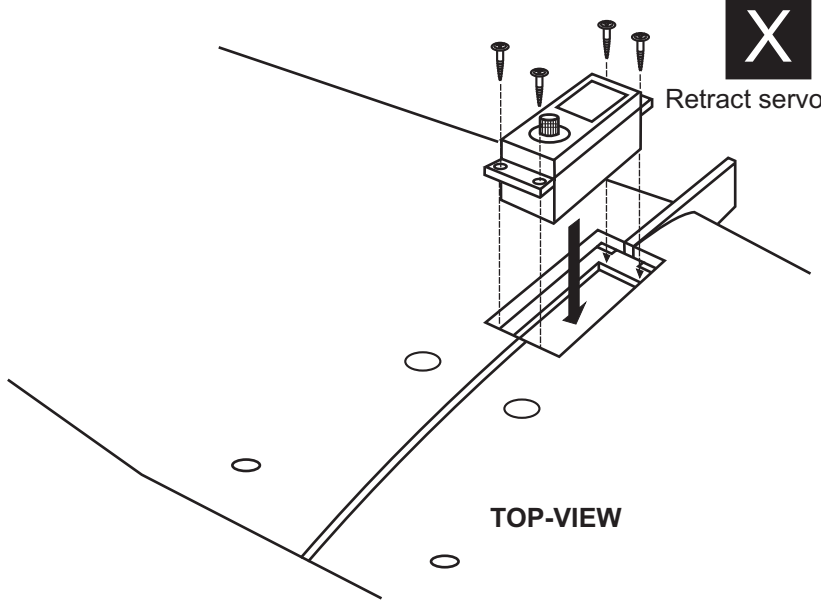
2-After checking that the retract works smoothly and be sure to adjust the stroke so that the landing gear locks in both up and down position, fix the retracts on the wing with 3x15mm screws



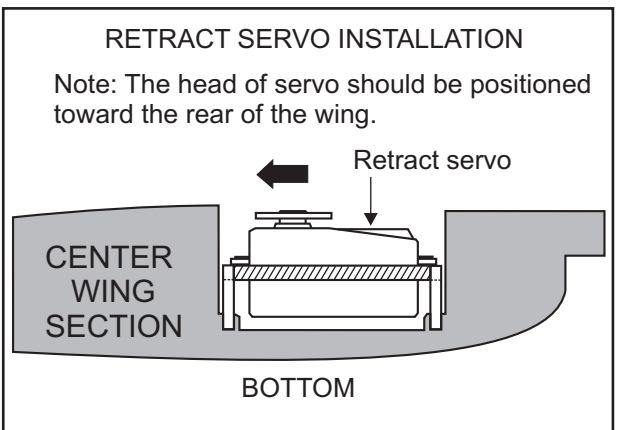
## 5- Retract servo mount



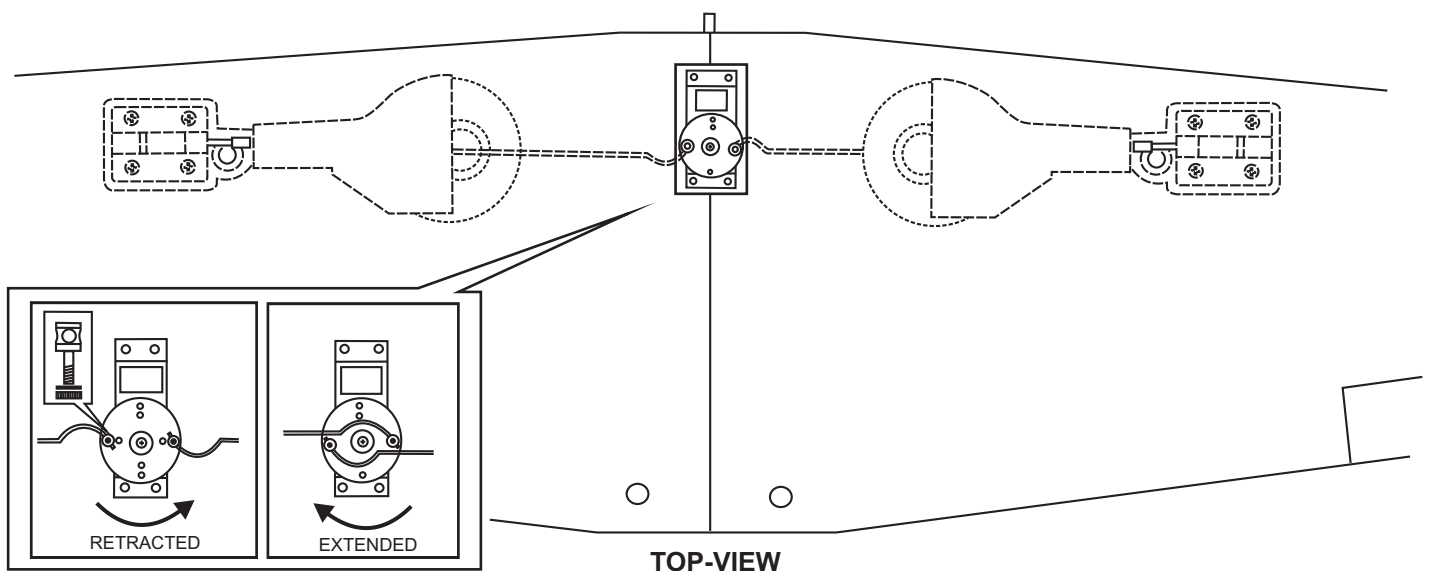
## 6- Retract servo



Install the retract servo onto the retract servo mount and secure it in place with four screw (included with radio set).

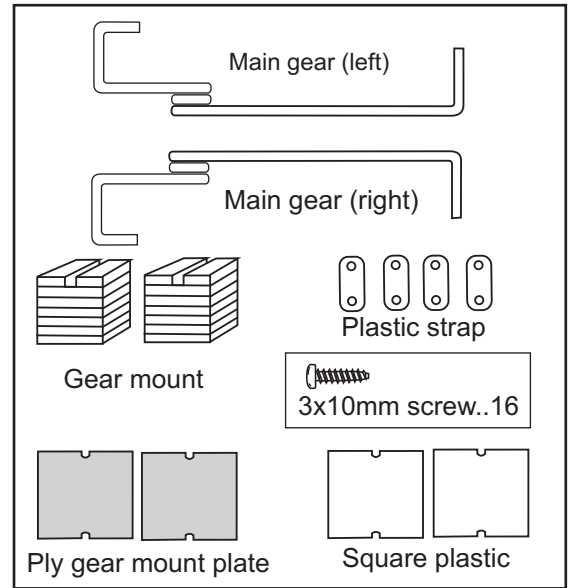
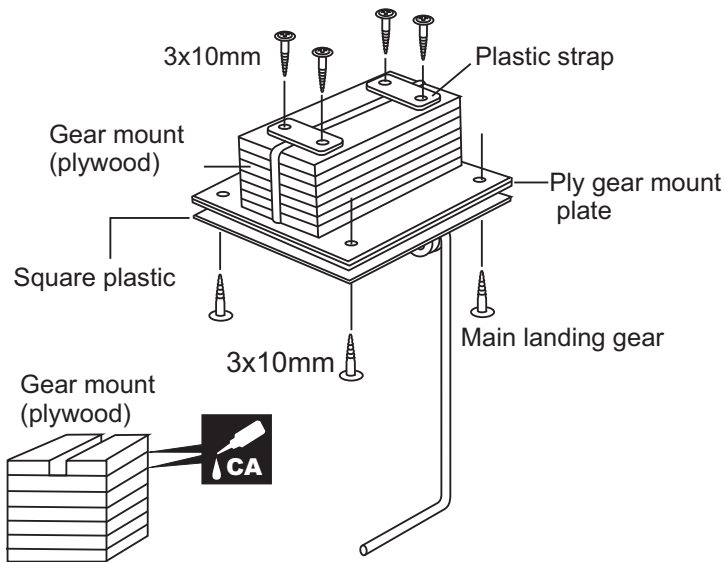


## 7- Retract linkage

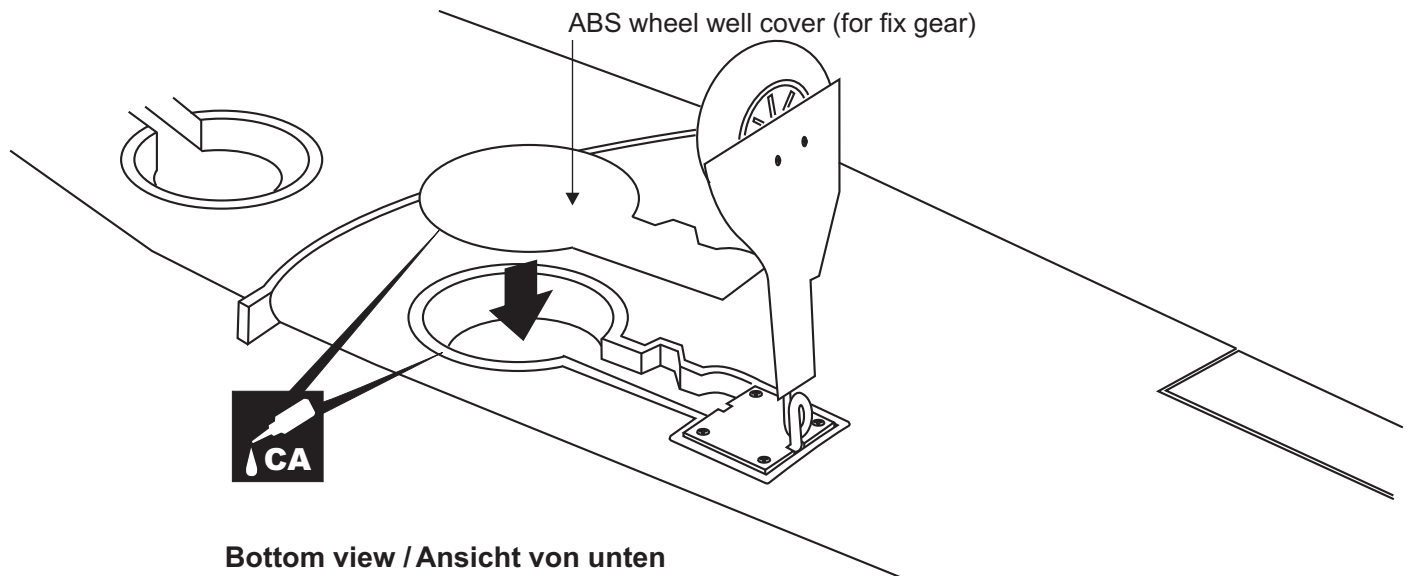




## 8- Fixed gear



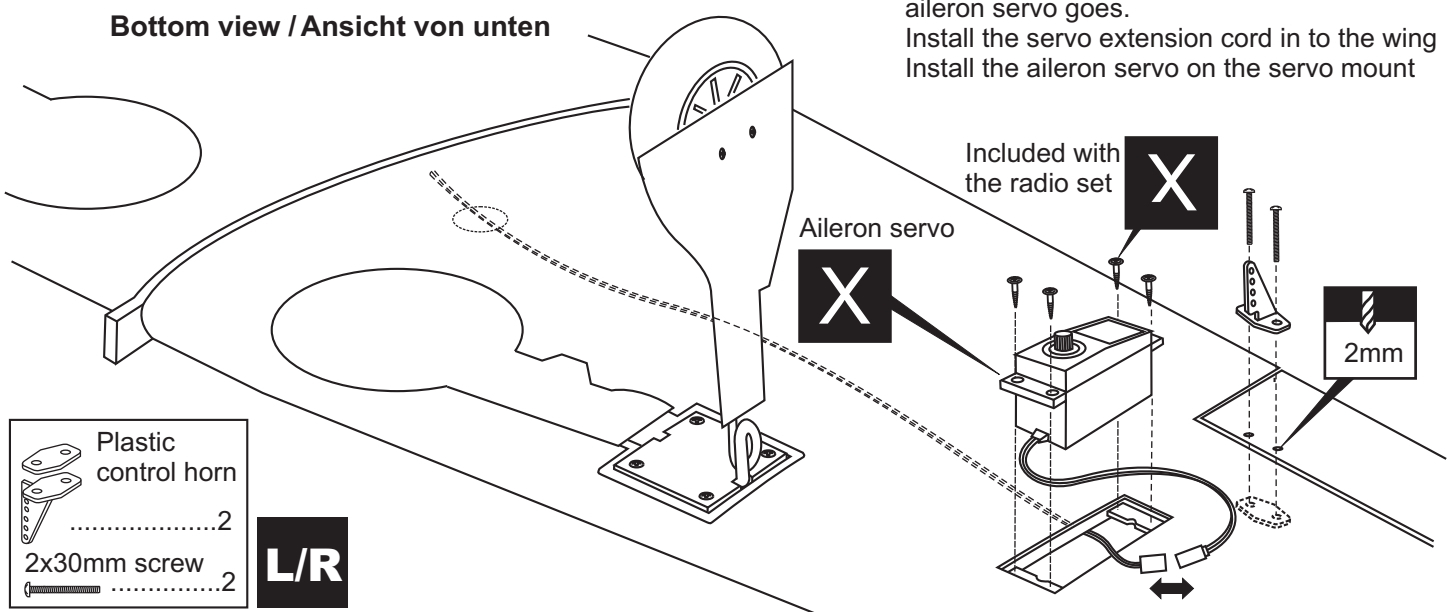
## 9- Fixed gear



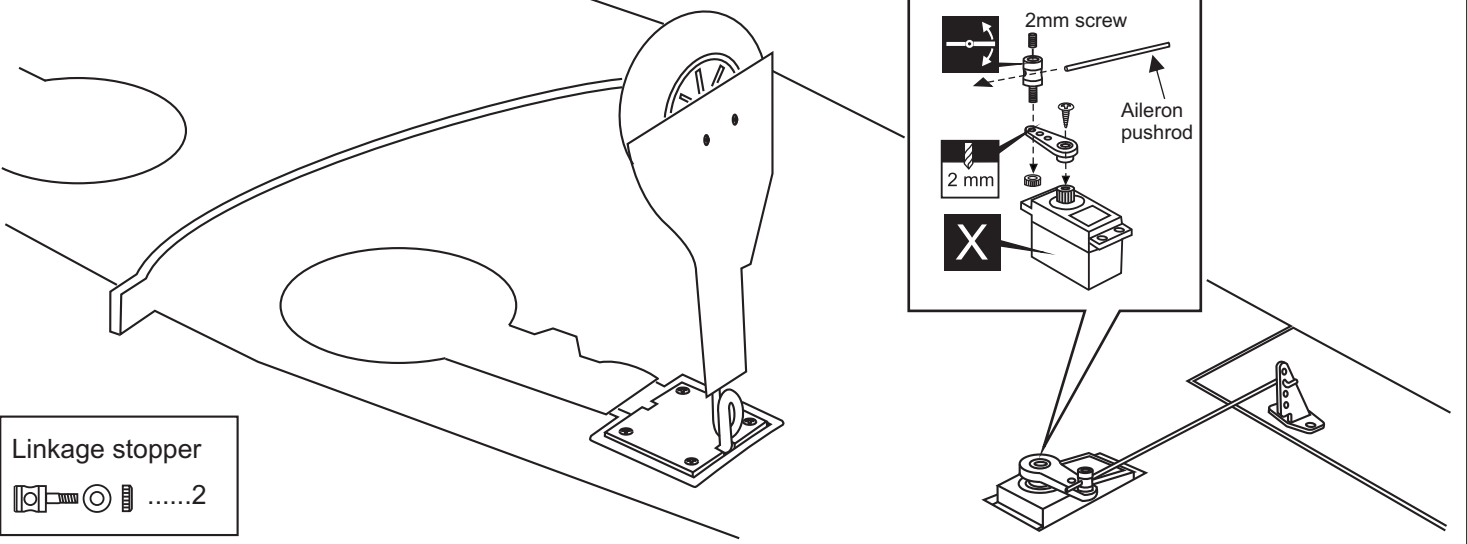
## 10- Aileron servo

Bottom view / Ansicht von unten

Cut away the film of the wing bottom where the aileron servo goes.  
Install the servo extension cord in to the wing  
Install the aileron servo on the servo mount

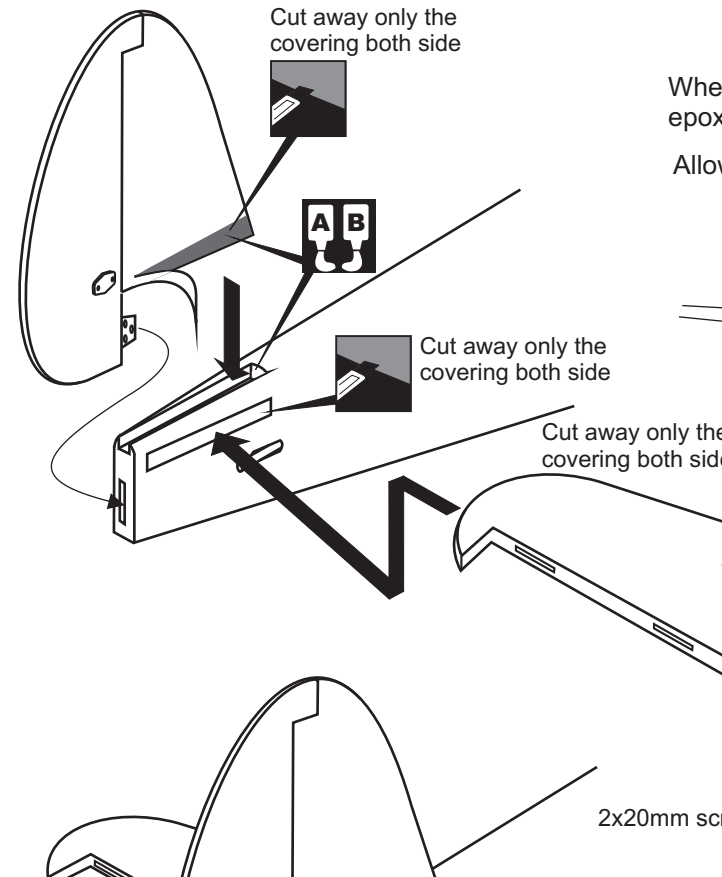


# 11- Aileron linkage



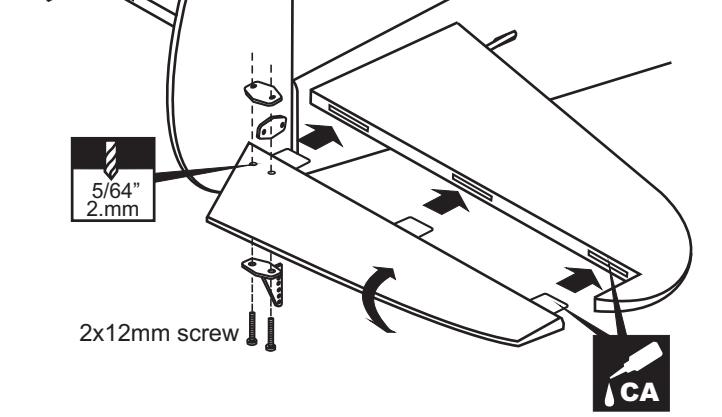
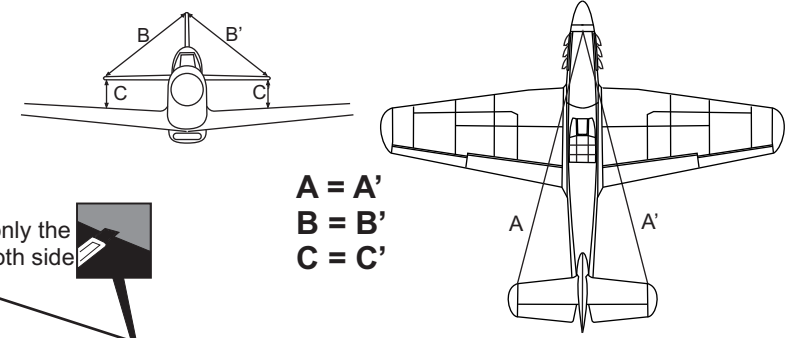
# 12- Stabilizer

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.



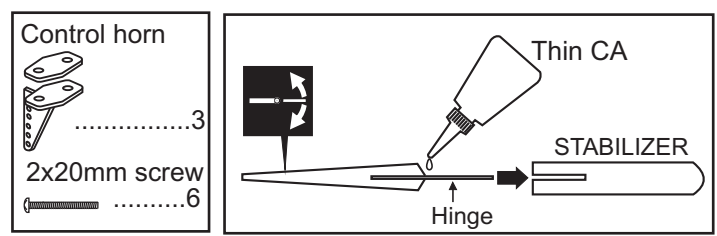
When joining the stabilizer it is extremely important to use plenty of epoxy (30 minutes) or CA glue (thin type)

Allow the epoxy to cure before proceeding to the next step.



Apply the epoxy both side

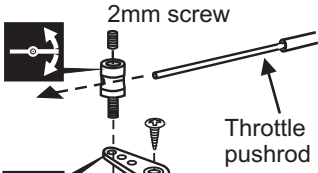
Push the elevator and its hinges into the hinge slots in the trailing edge of the horizontal stabilizer. There should be a minimal hinge gap and the end of the elevator should not rub against the horizontal stabilizer.  
 When satisfied with the and alignment, hinge the elevator to the horizontal stabilizer using thin CA glue. Make sure to apply a thin layer of CA glue 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.



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

Connector

 .....3



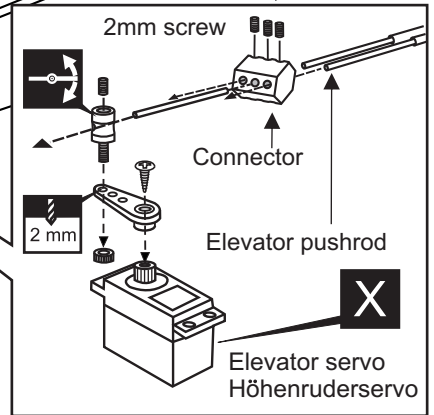
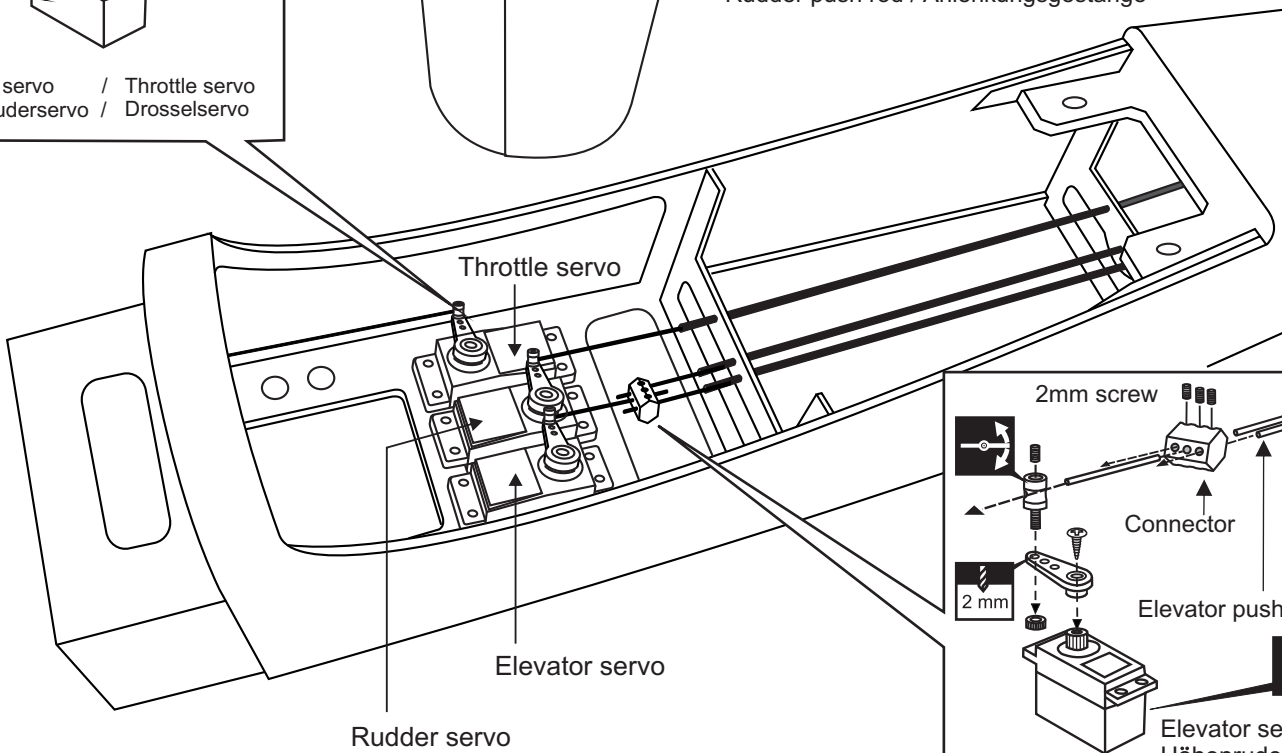
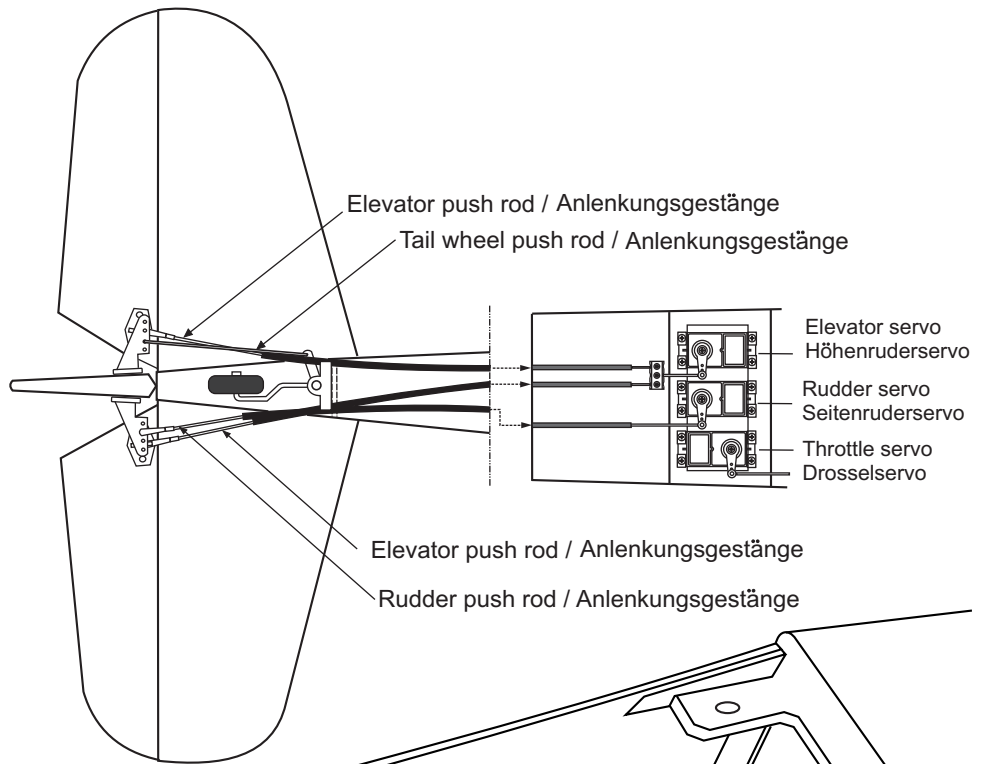
2mm screw

Throttle pushrod

2 mm



Rudder servo / Throttle servo  
Seitenruderservo / Drosselservo



2mm screw

Connector

2 mm

Elevator pushrod

Elevator servo  
Höhenruderservo

## 14- Tail wheel


Plastic control horn



2x10mm screw

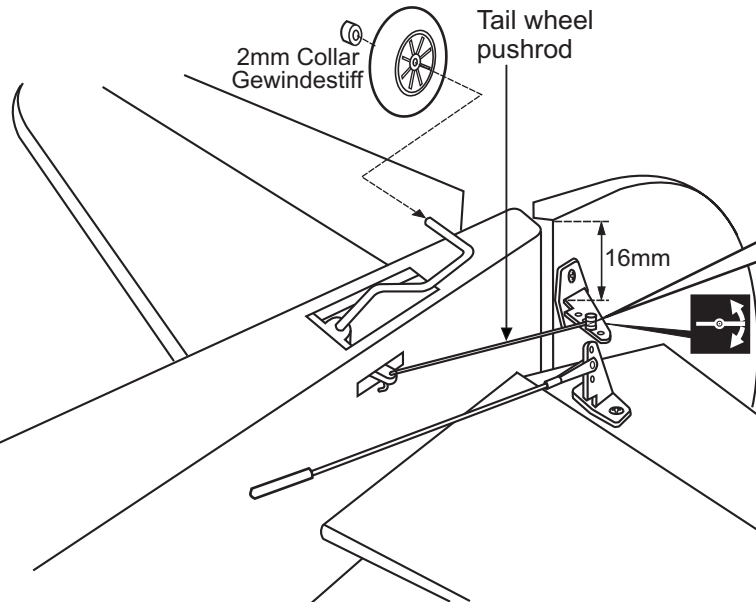
.....2

2mm collar

 .....1

2mm Collar  
Gewindestiff

Tail wheel  
pushrod



16mm

Tail wheel  
pushrod

2mm  
screw

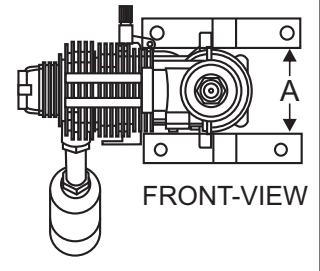
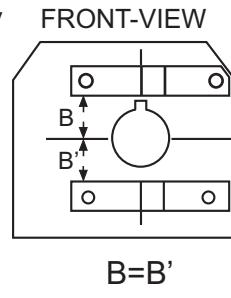
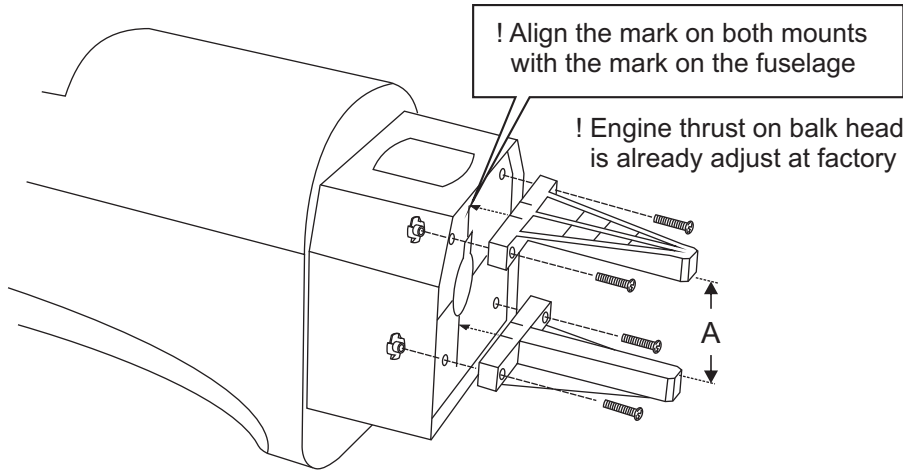


2 mm

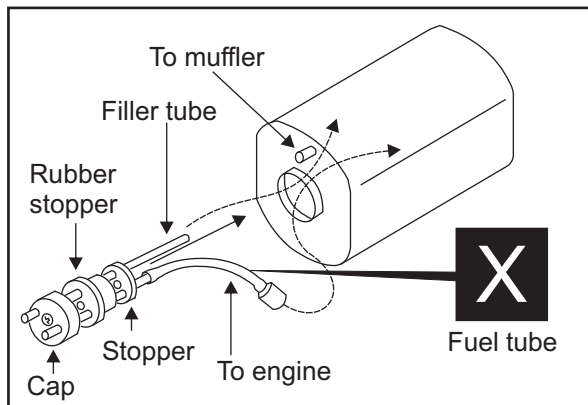


# 15- Engine mount

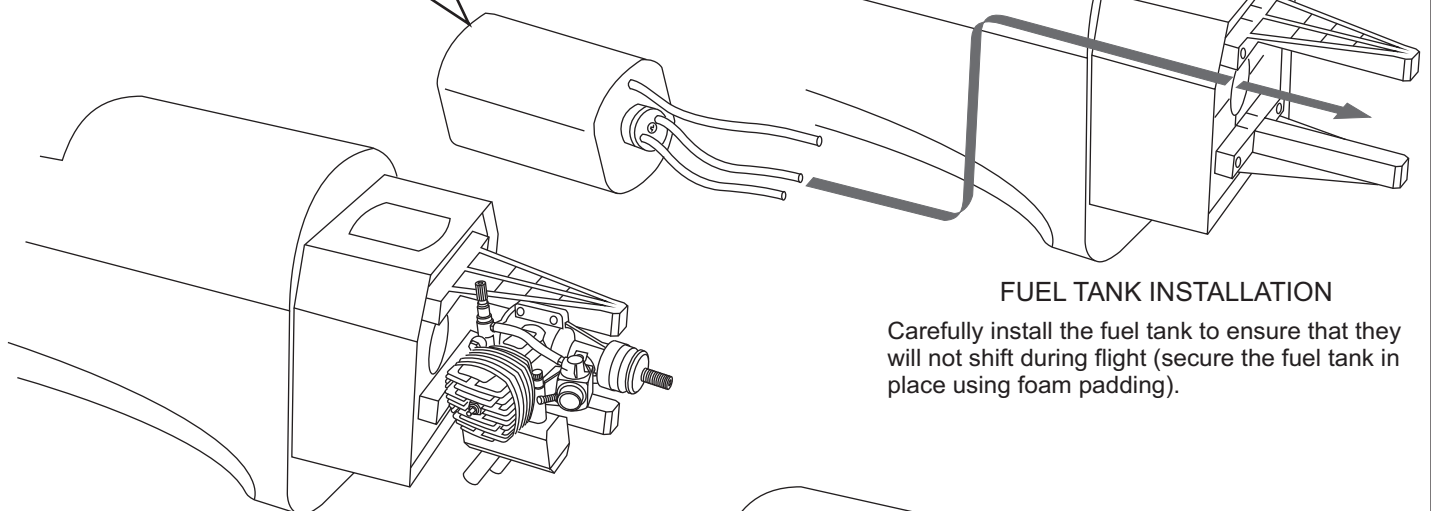
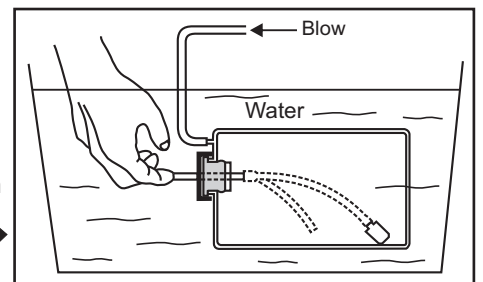
- 4x25mm screw .....4
- Blind-nut .....4



# 16- Fuel tank



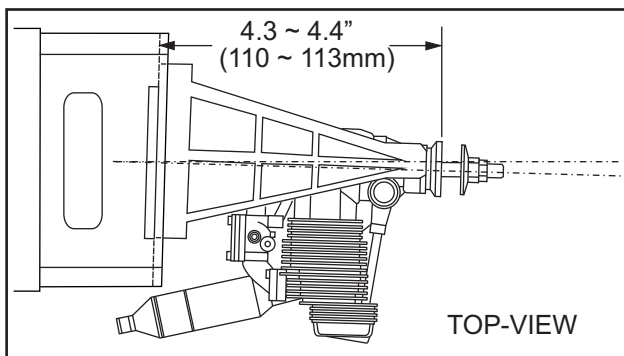
Checking for leaks - block the vents and blow into the feed - if in doubt submersing the tank in a blow of water will show up any problems.



## FUEL TANK INSTALLATION

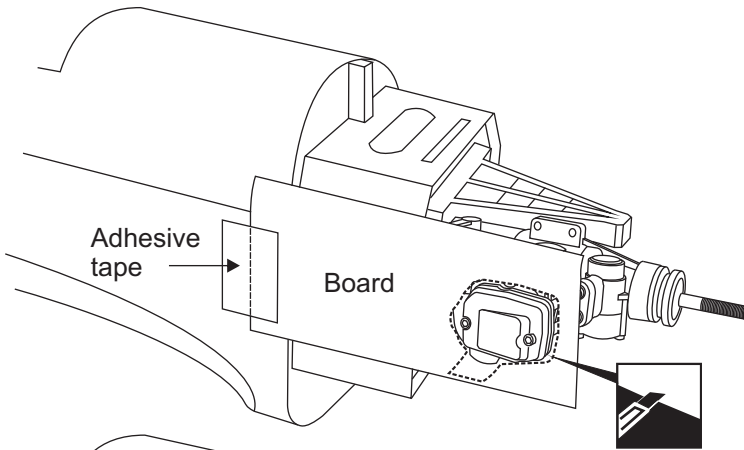
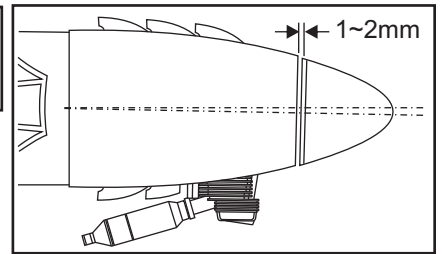
Carefully install the fuel tank to ensure that they will not shift during flight (secure the fuel tank in place using foam padding).

(IN CASE OF 2T ENGINE)



(IN CASE OF 4T ENGINE)

## 17- Cowling

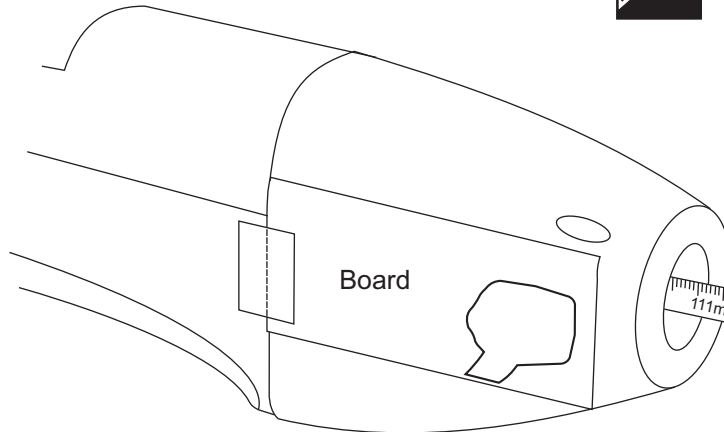


Attach the board or transparent plastic on the side of the fuselage with the adhesive tape as show. Using a pencil or felt tipped pen trace around the engine head where it meet the cowl. Cut the opening the board or transparent plastic for the engine head as marked above.

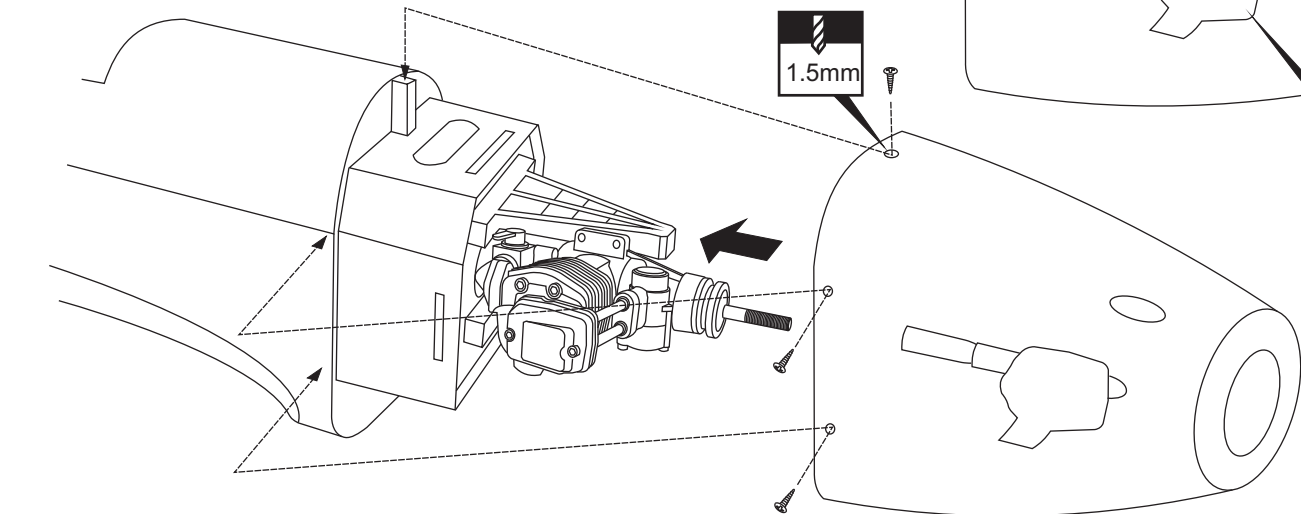
Remove the engine and insert the cowl on to the fuselage so the distance from the fire wall to the front of the cowl is 109 to 111mm .

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.

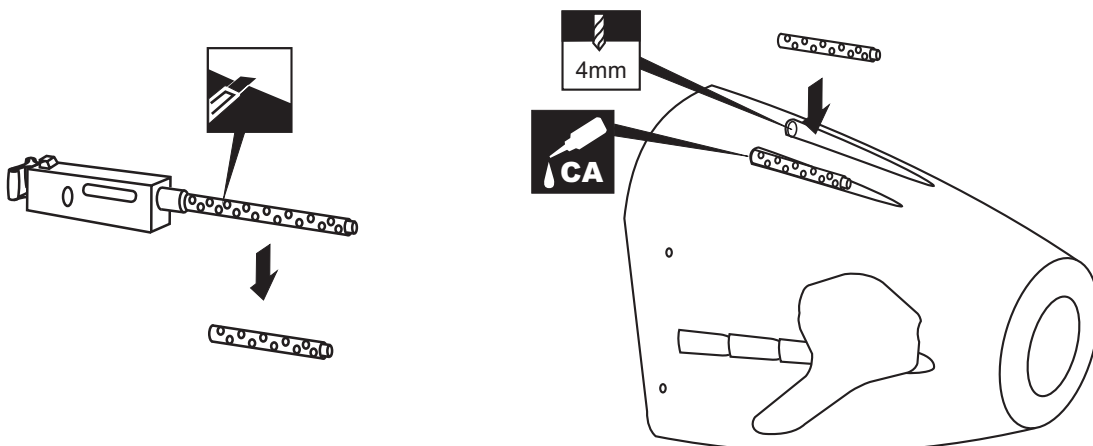


Ruler



1.5mm

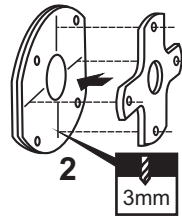
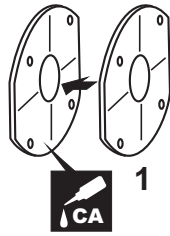
## 18- Machine gun



4mm

CA

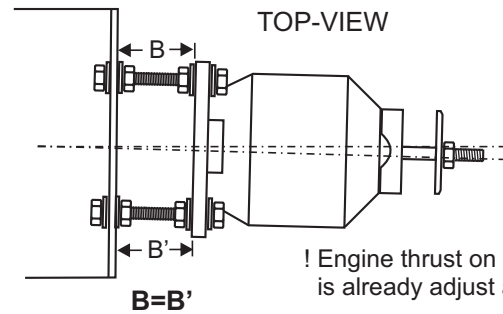
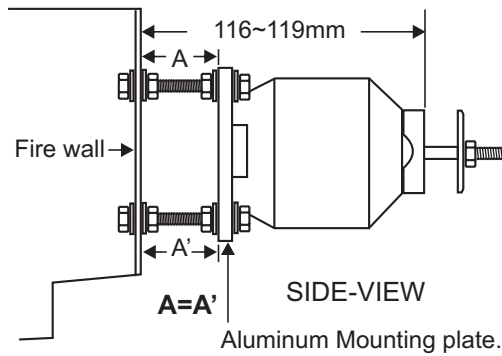
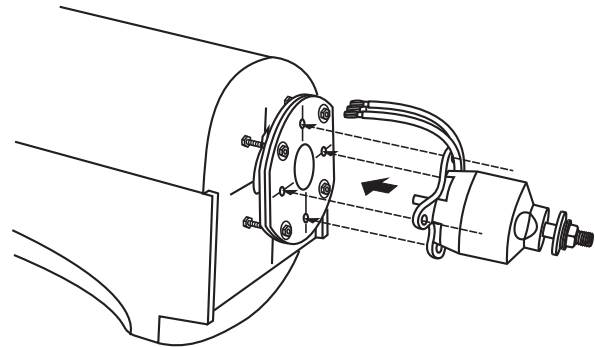
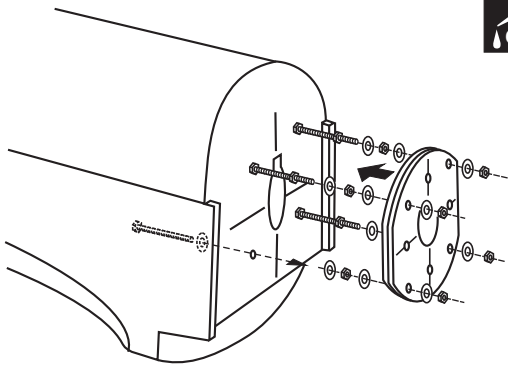
## 19- Electric Motor



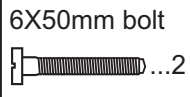
Using an aluminum motor mounting plate as a template, mark the plywood motor mounting plate where the four holes are to be drilled (2).

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.

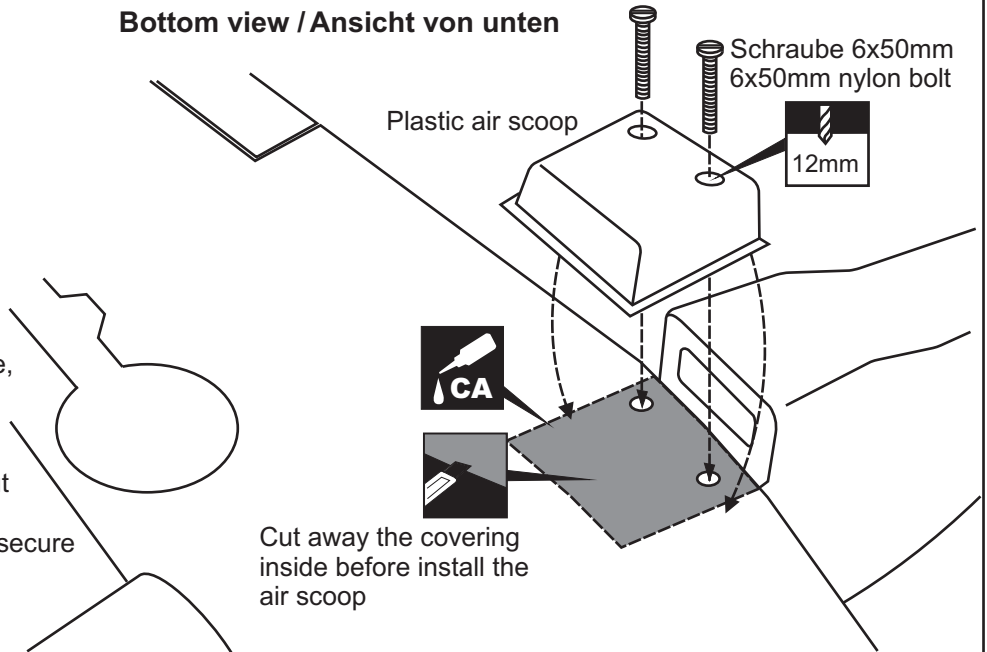


## 20- Air scoop

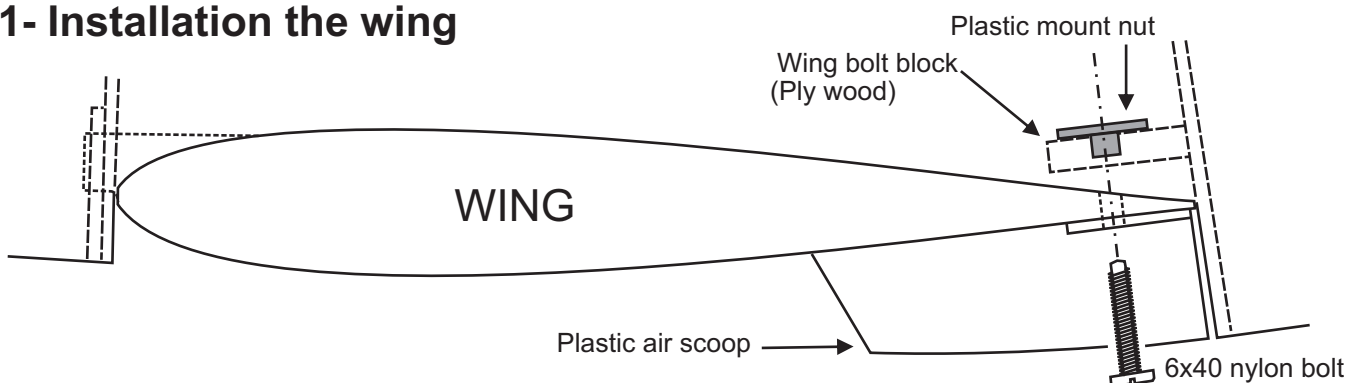


Using the ABS air scoop as a template, trace around the outside edge of the ABS air-scoop and then remove it. Using a sharp hobby knife, cut away the covering inside the lines. Not to cut into the wood. Apply the ABS air scoop in place and secure them with CA glue.

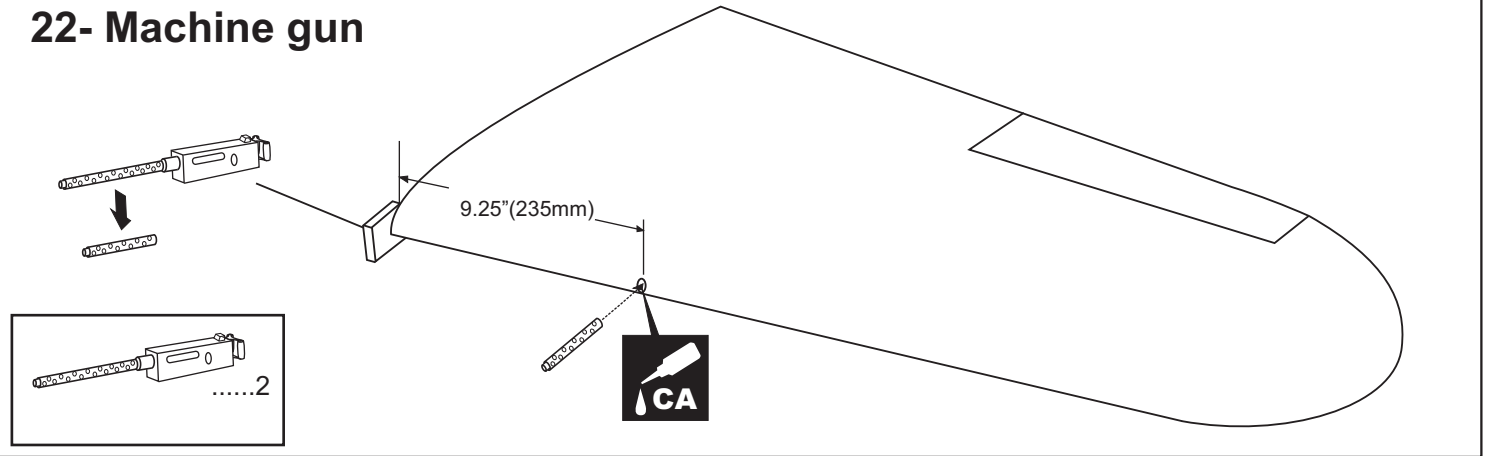
Bottom view / Ansicht von unten



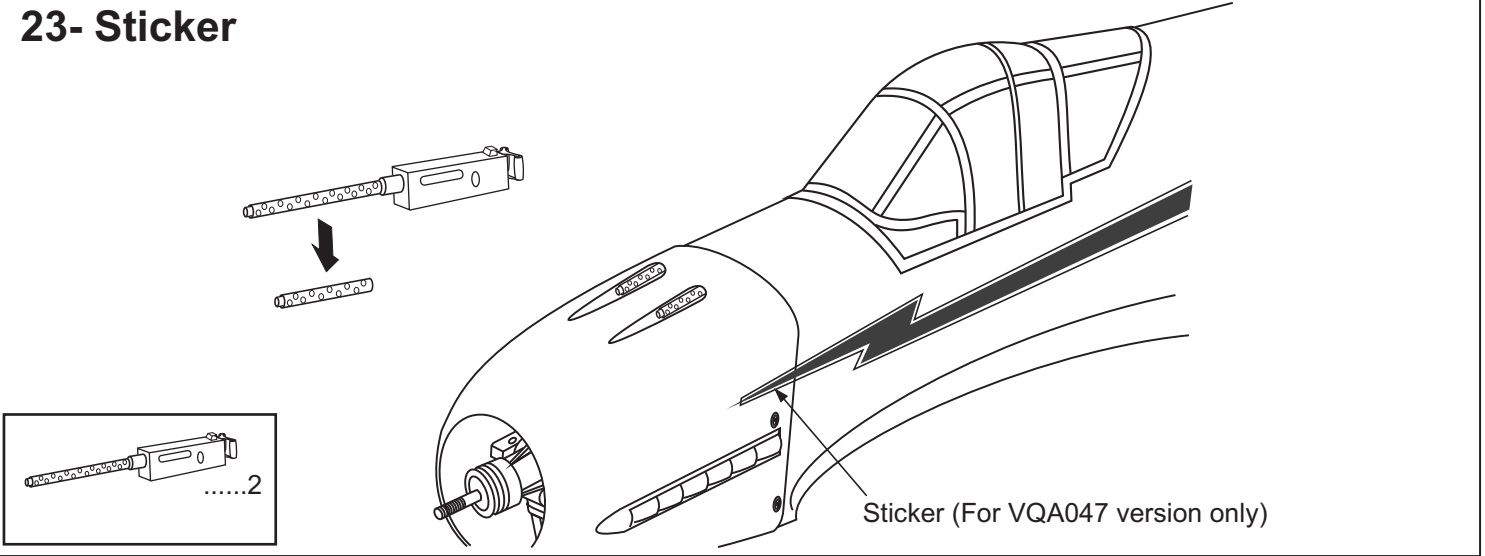
## 21- Installation the wing



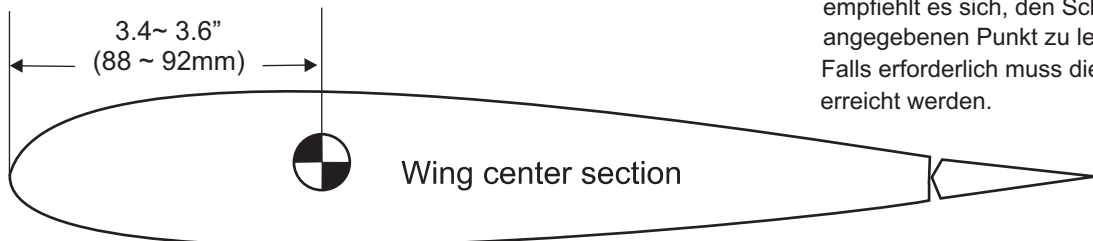
## 22- Machine gun



## 23- Sticker

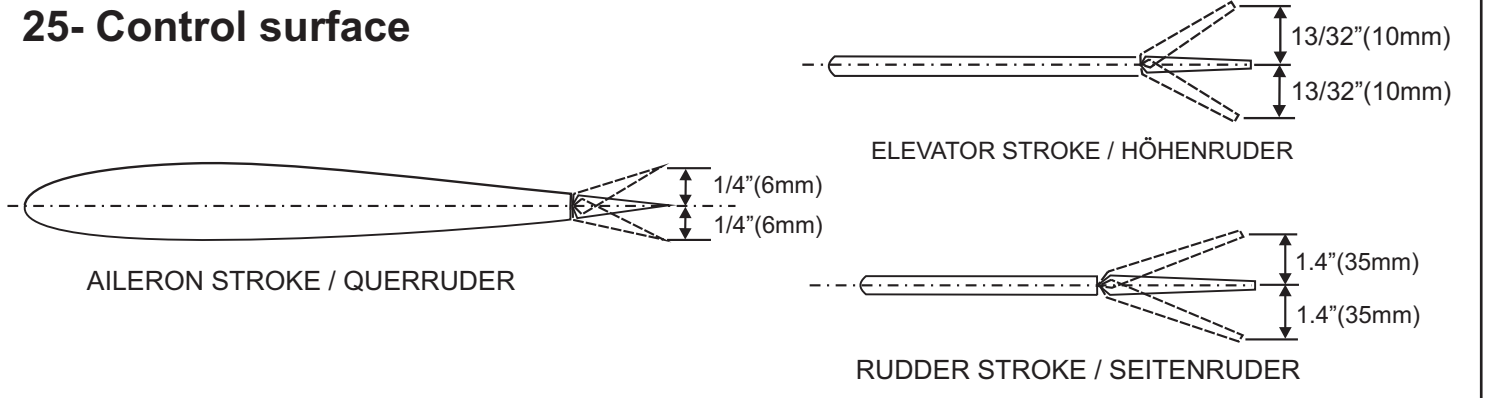


## 24- Balance



Der Schwerpunkt sollte zwischen 88 mm und 92 mm hinter der Nasenleiste liegen. Für die ersten Flüge empfiehlt es sich, den Schwerpunkt an den vorderen angegebenen Punkt zu legen. Falls erforderlich muss dies durch Ankleben von Blei erreicht werden.

## 25- Control surface



### 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.

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