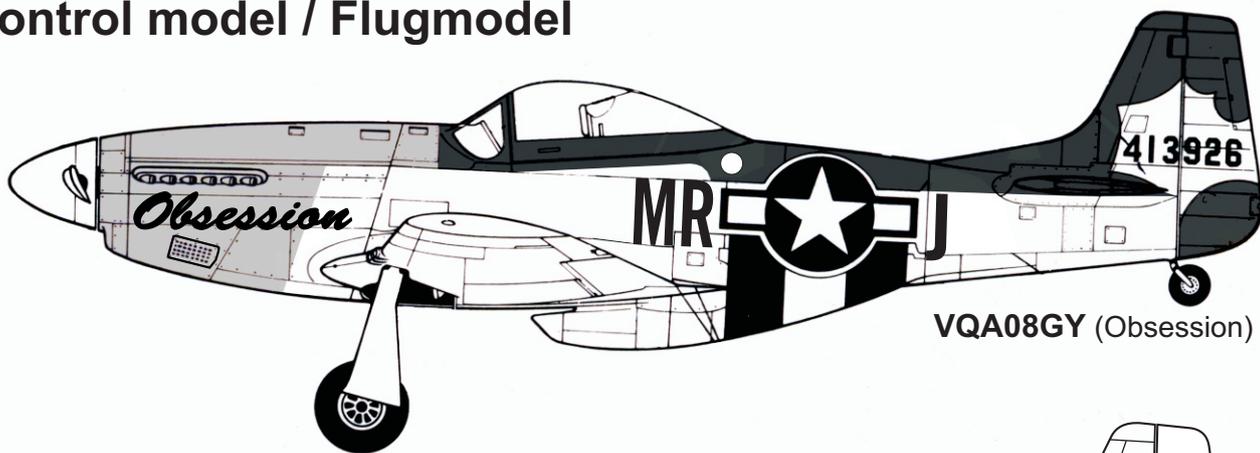
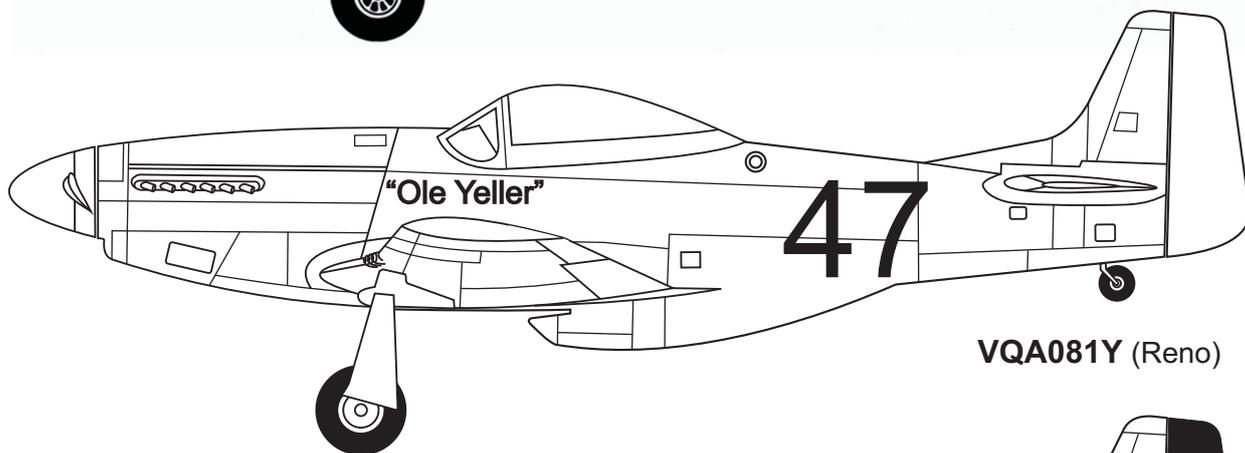


Radio control model / Flugmodell

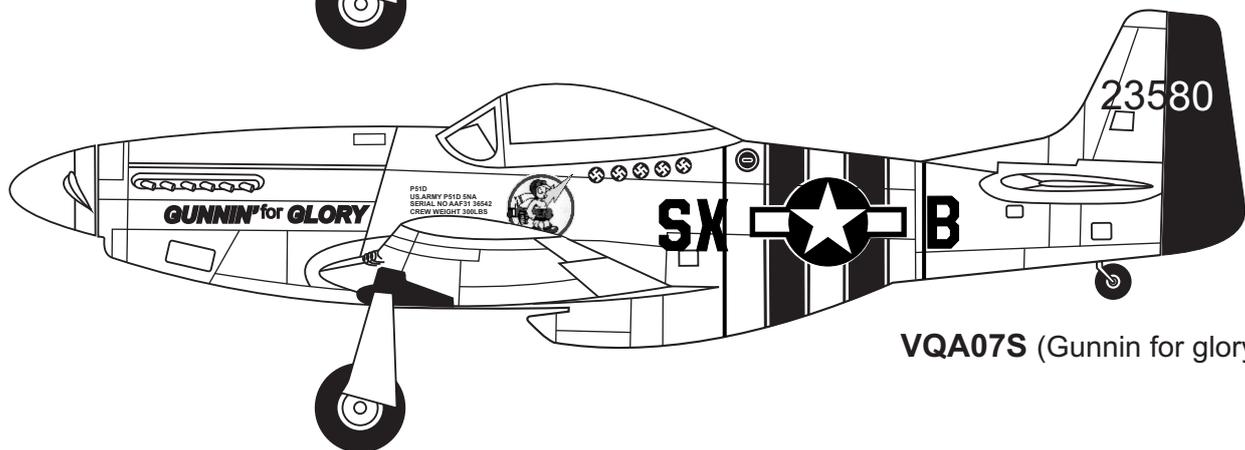
P51D MUSTANG



VQA08GY (Obsession)



VQA081Y (Reno)



VQA07S (Gunnin for glory)

ALL Balsa, PLYWOOD CONSTRUCTION AND ALMOST READY TO FLY

Instruction manual / Montageanleitung

SPECIFICATIONS

Wingspan	1580mm
Length	1180mm
Electric Motor	870 Watt (PULSAR 60)
Glow Engine	.46 2-T / .70 4-T
Radio	4 Channel / 4 Servos

TECHNISCHE DATEN

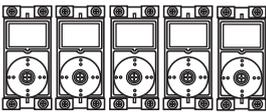
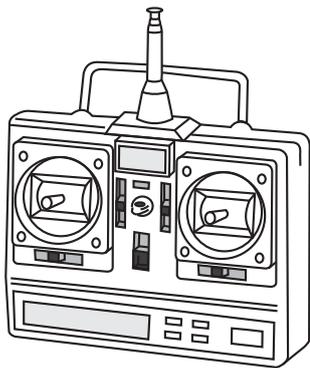
Spannweite	1580mm
Länge	1180mm
Elektroantrieb	870 Watt (PULSAR 60)
Verbrennerantrieb	7.5cc 2-T / 11cc 4-T
Fernsteuerung	4 Kanal / 4 Servos



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 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.

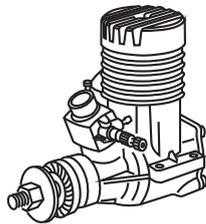
REQUIRED FOR OPERATION (Purchase separately) BENÖTIGTE KOMPONENTEN FÜR DEN ABFLUG (Nicht enthalten)



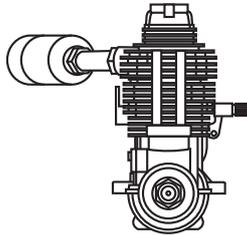
Minimum 5 channel radio for airplane with 5 servos
.Motor control x1 .Elevator x1
.Rudder x1. Aileron x2



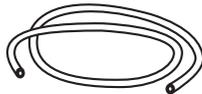
10.5x6 for .40 - 2 cycle engine
11x6 for .46 - 2 cycle engine
12x6 for .60 - 4 cycle engine
12x7 for .70 - 4 cycle engine
13x6 for Quantum 4120/05



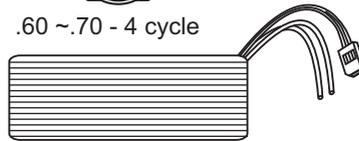
.46 ~ .50 - 2 cycle



.60 ~ .70 - 4 cycle



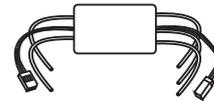
Silicone tube



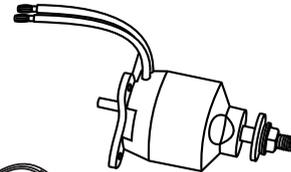
Li-Po Battery, 14.8V, 4000mAh, 80A



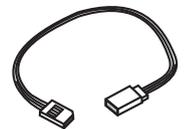
Retract servo x1



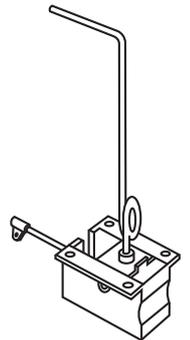
Phoenix-60 Brushless Motor Control



Quantum 4120/05 Brushless Motor or equivalent.



Extension for aileron servo, retract servo and Rx battery pack.



Retract landing gear VQAR03

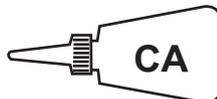


Linkage Stopper x2 (for retract servo)

GLUE (Purchase separately)



Silicon sealer



Cyanoacrylate Glue



Epoxy Glue (5 minute type)



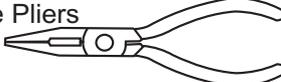
Epoxy Glue (30 minute type)

TOLLS REQUIRED (Purchase separately)

Hobby knife 

Phillip screw driver 

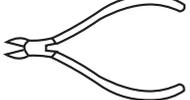
Hex Wrench 

Needle nose Pliers 

Scissors 

Awl 

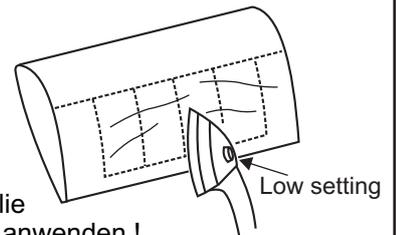
Sander 

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 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!



Symbols used throughout this instruction manual, comprise:

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

 Take particular care here

 Hatched-in areas: remove covering film carefully

 Check during assembly that these parts move freely, without binding

 Use epoxy glue

 Apply cyano glue

 Assemble left and right sides the same way.

 Not included. These parts must be purchased separately

 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.

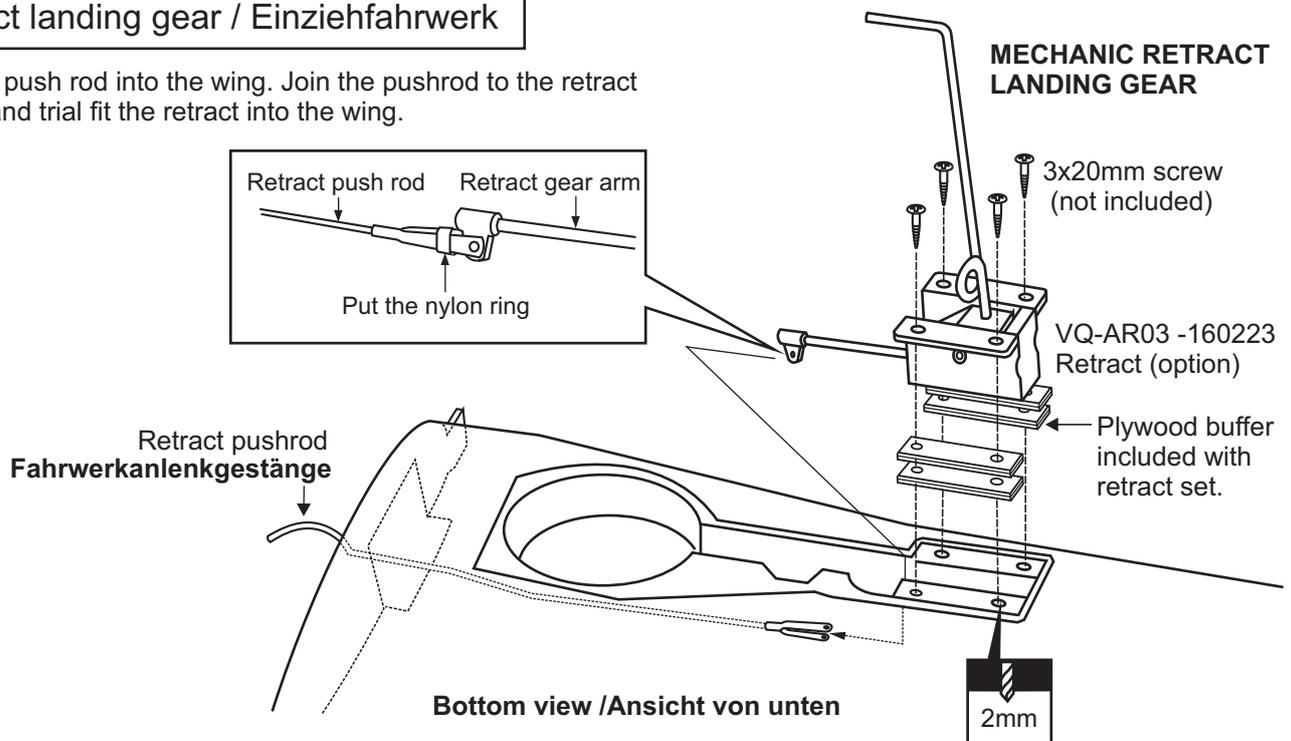
Read through the manual before you begin, so you will have an overall idea of what to do.

CONVERSION TABLE

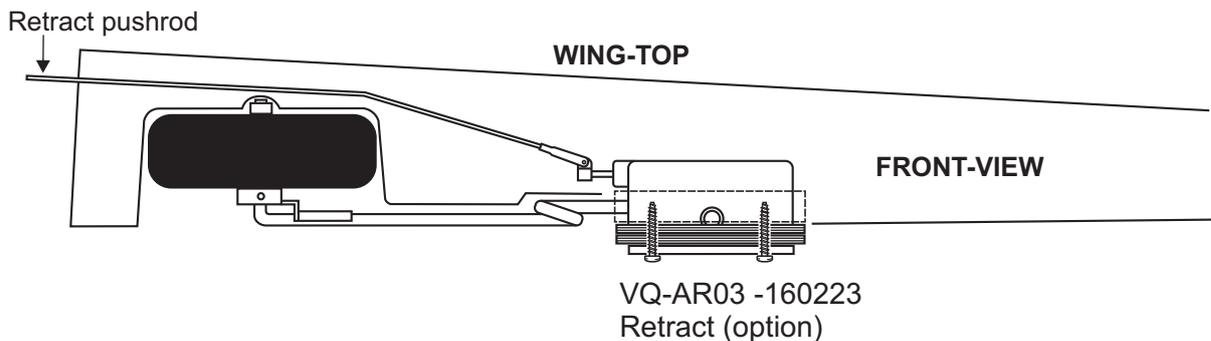
1.0mm = 3/64"	3.0mm = 1/8"	10mm = 13/32"	25mm = 1"
1.5mm = 1/16"	4.0mm = 5/32"	12mm = 15/32"	30mm = 1-3/16"
2.0mm = 5/64"	5.0mm = 13/64"	15mm = 19/32"	45mm = 1-51/64"
2.5mm = 3/32"	6.0mm = 15/64"	20mm = 51/64"	

1-Retract landing gear / Einziehfahrwerk

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

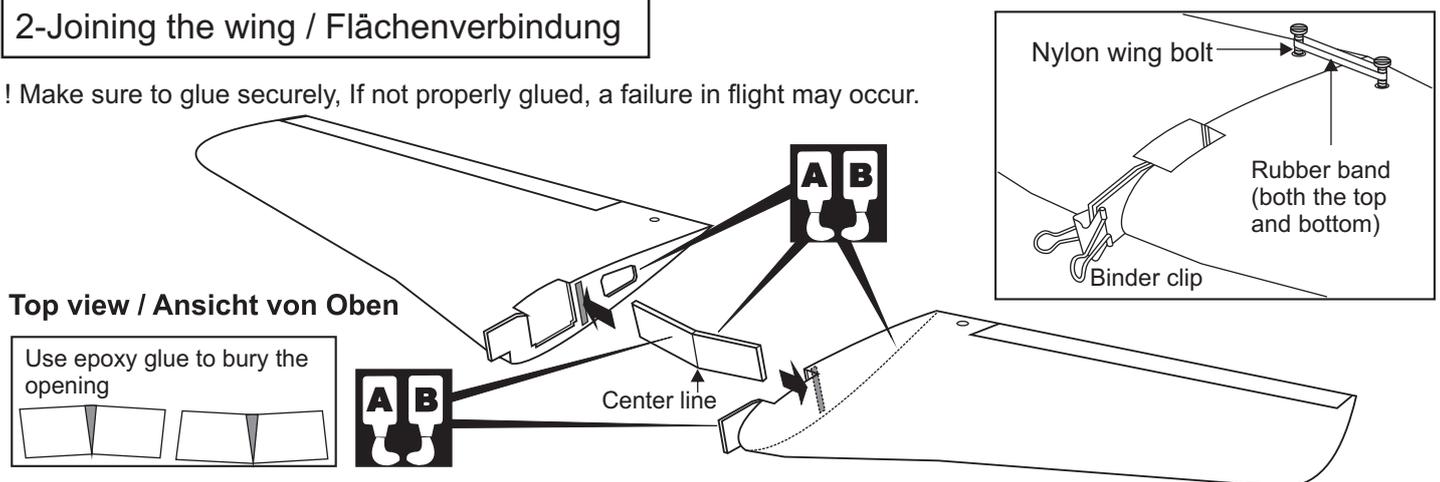


After checking that the retract works smoothly, fix the retract on the wing with 3x20mm self tapping screws. Do the same way with other half wing.



2-Joining the wing / Flächenverbindung

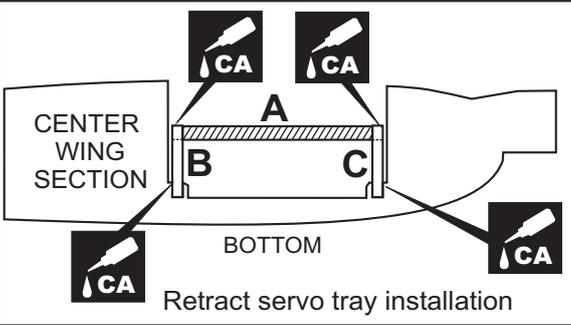
! Make sure to glue securely, If not properly glued, a failure in flight may occur.



- 1- Using a pencil, mark the center of the brace.
- 2- Trial fit the wing joiner into one of the wing panels. It should insert smoothly up to the center line marked above.
- 3- Slide the other wing half onto the dihedral brace until the wing panel meet. If the fit is over tight, it may be necessary to lightly sand the dihedral brace.
- 4- Check for the correct dihedral angle.
- 5- Mix up some 30 minute epoxy and apply a generous amount of epoxy into the wing joiner cavity of one wing half.
- 6- 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, marking sure that the "V" of the dihedral brace is positioned correctly
- 7- Do the same way with the other wing half.
- 8- Carefully slide the wing halves together, ensuring that they are accurately aligned. Firmly press the two halves together, allowing the excess epoxy to run out. Clean off the excess epoxy with paper towel and kerosene.

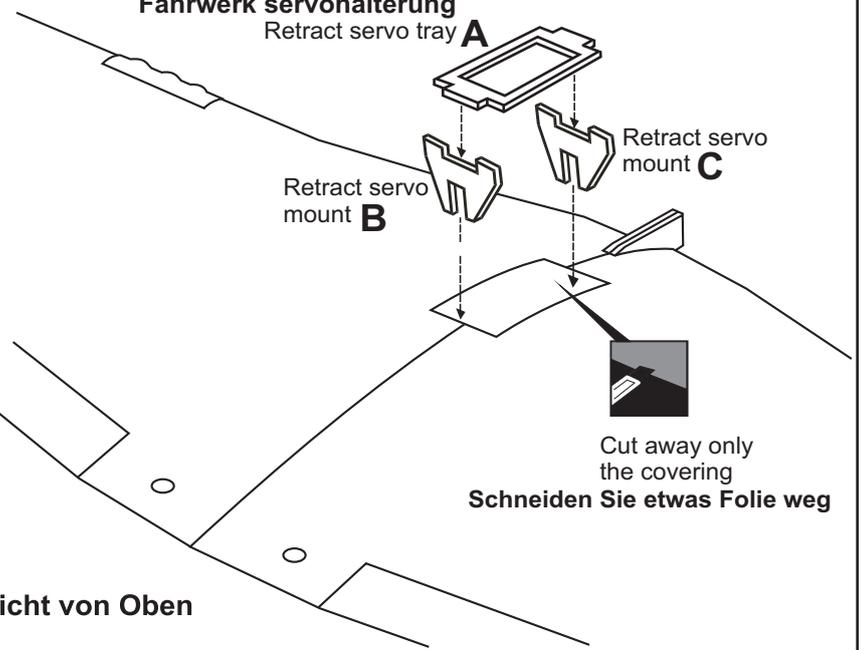
IMPORTANT: Please do not clean off the excess epoxy on the wing with strong solvent or pure alcohol, only use kerosene to keep the colour of your model not fade.

3- Servo tray / Servohalterung

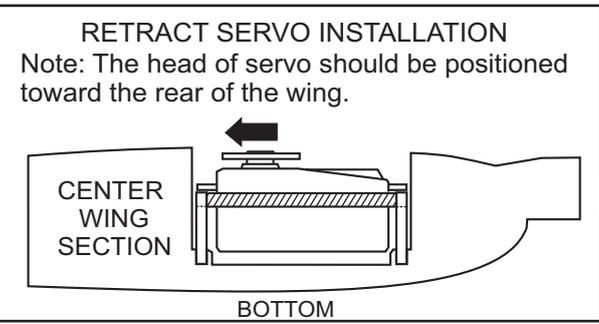


Top view / Ansicht von Oben

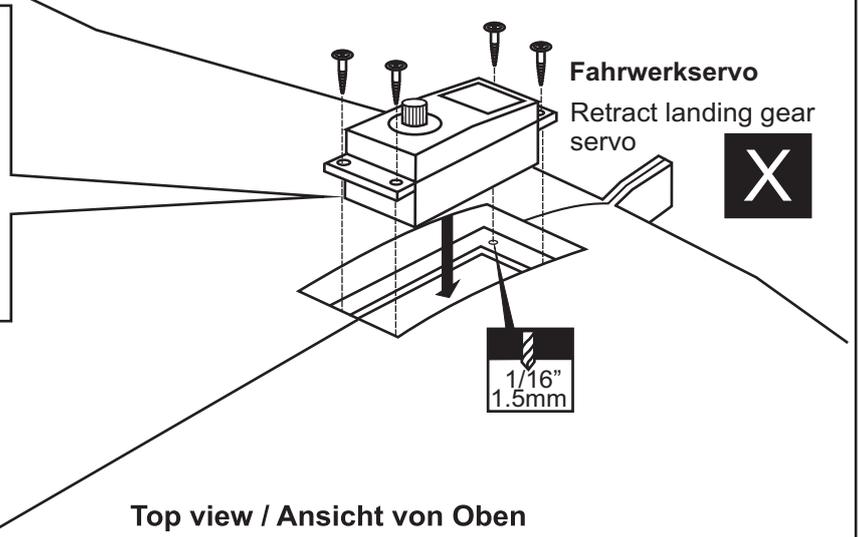
Fahrwerk servohalterung Retract servo tray A



4- Servo Installation



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

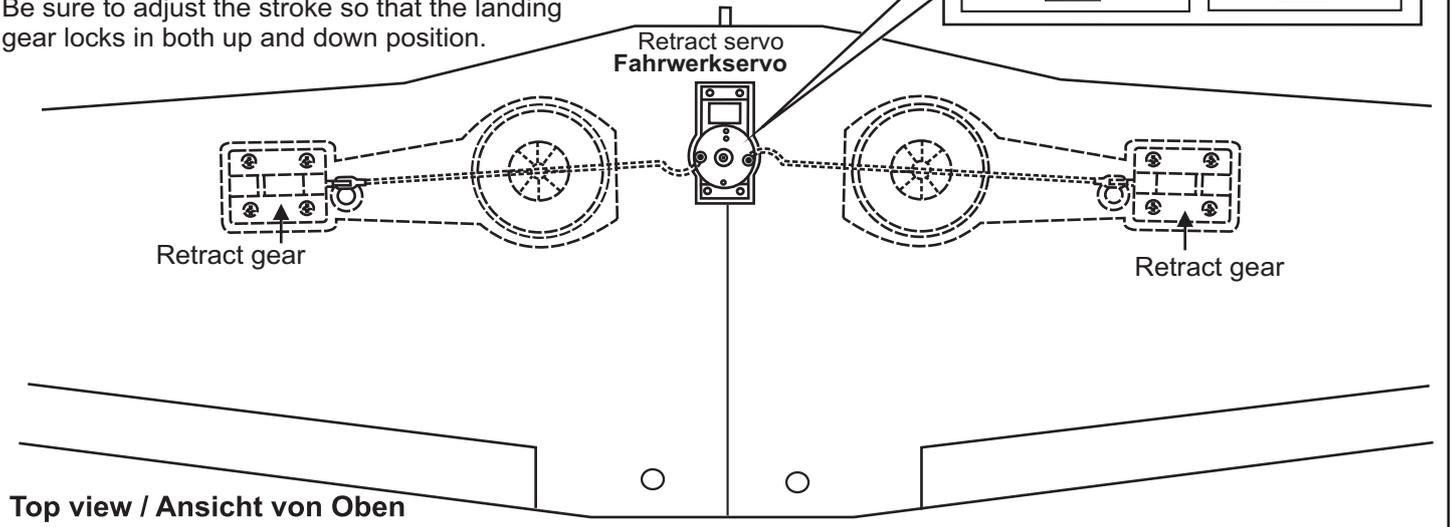
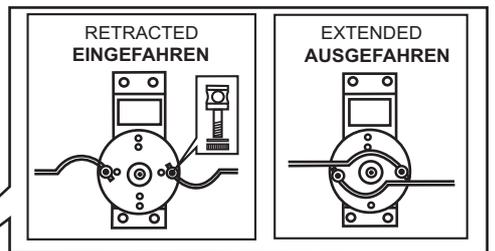


Top view / Ansicht von Oben

5- Retract landing gear linkage / Ruderanlenkung

With the retract and retract servo in the retracted position, mark the position where each of the pushrod will attach to the servo arm, a small piece of masking tape works well for this. Cut off the excess length each rod.

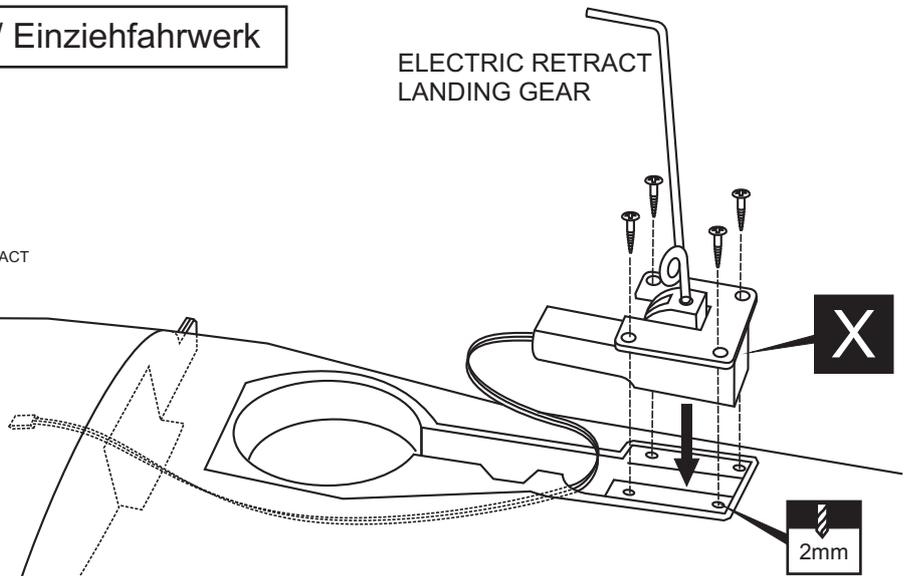
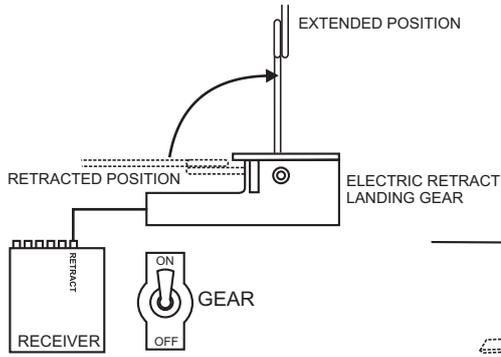
Link the servo and retract gear arm with push rod. Be sure to adjust the stroke so that the landing gear locks in both up and down position.



Top view / Ansicht von Oben

6- Electric retract landing gear / Einziehfahrwerk

ELECTRIC RETRACT LANDING GEAR



Bottom view / Ansicht von unten

7- Fixed gear / Starres Fahrwerk

3x12mm screw

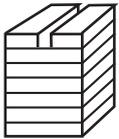
.....8

3x20mm screw

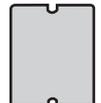
.....16

Nylon gear strap

.....4



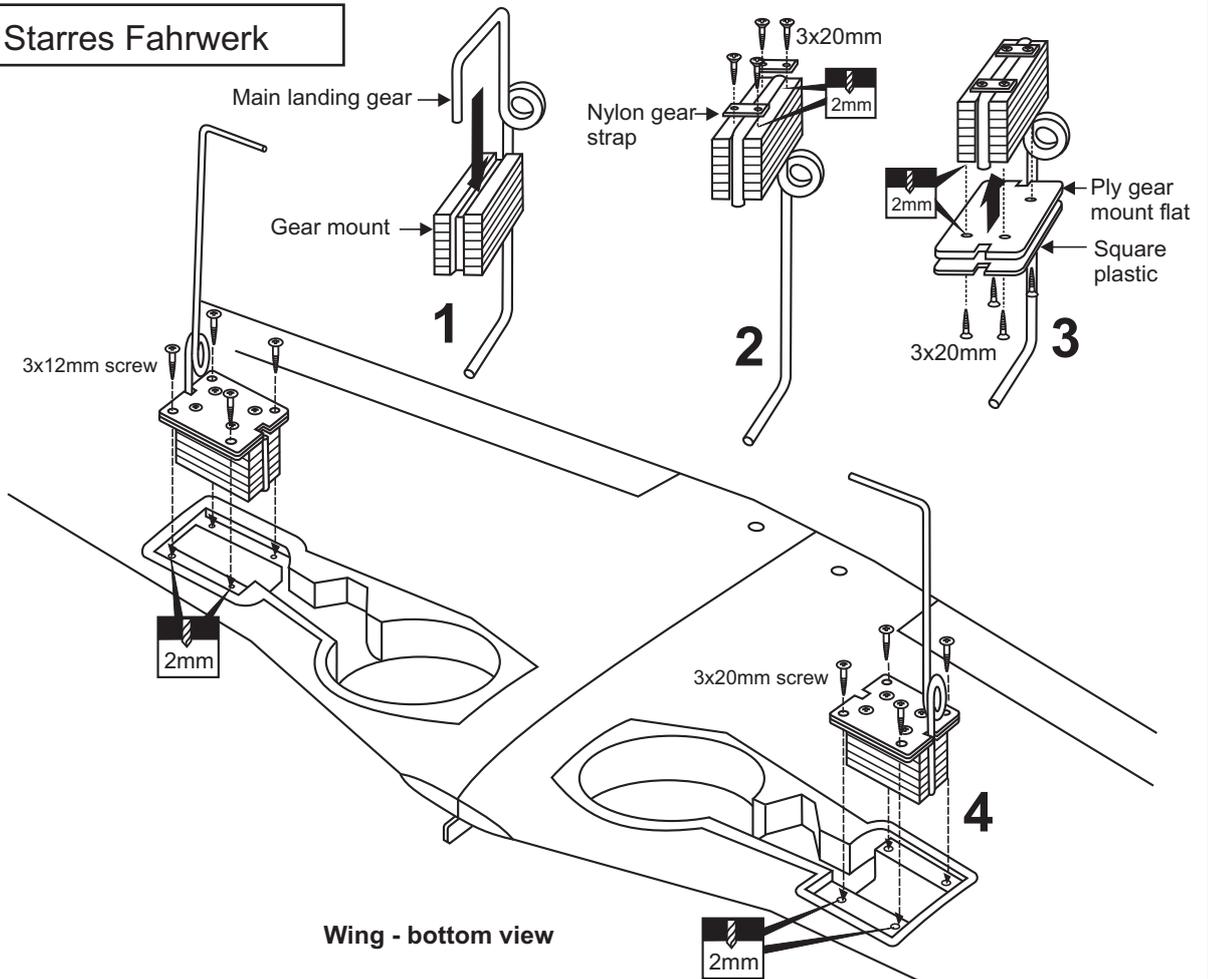
Gear mount x 2



Ply gear mount plate x 2

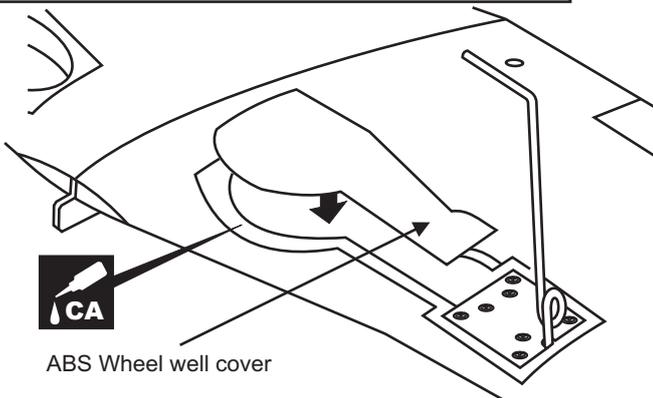


Square plastic x 2

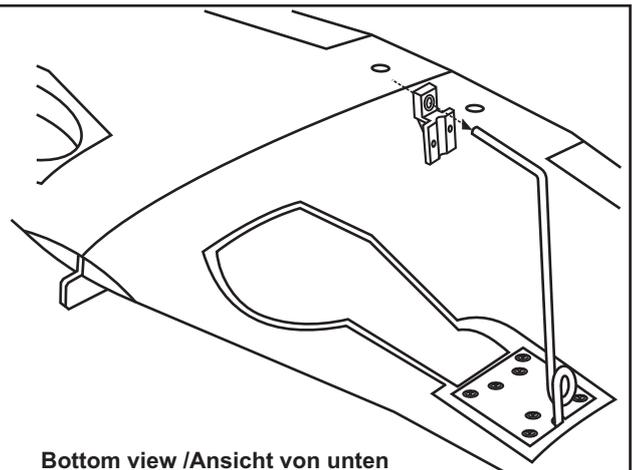


Wing - bottom view

8- Fixed gear / Starres Fahrwerk

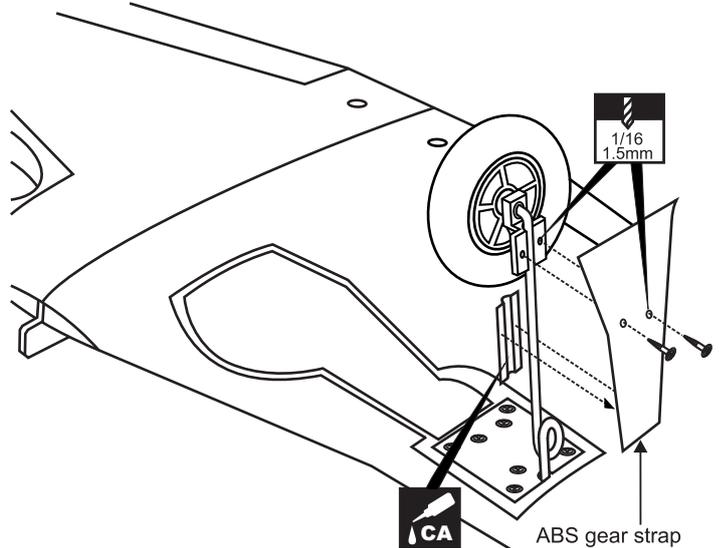
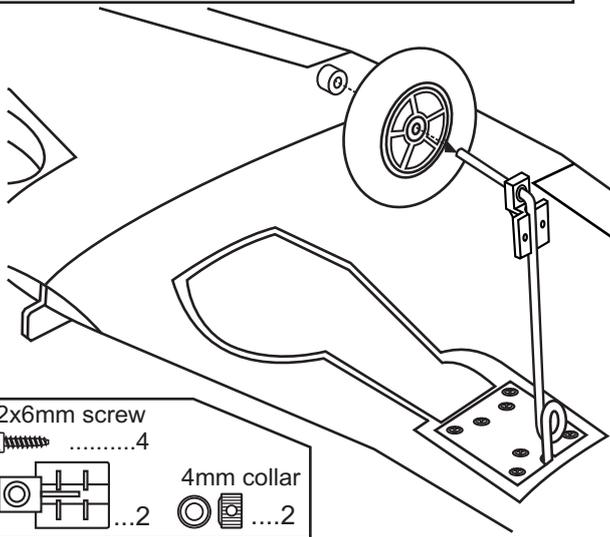


ABS Wheel well cover



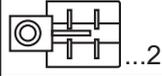
Bottom view / Ansicht von unten

10- Fixed gear / Starres Fahrwerk



2x6mm screw

.....4



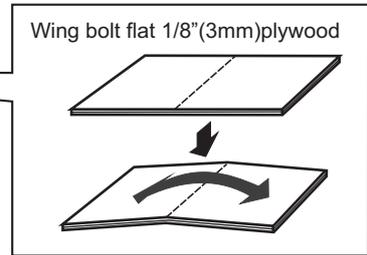
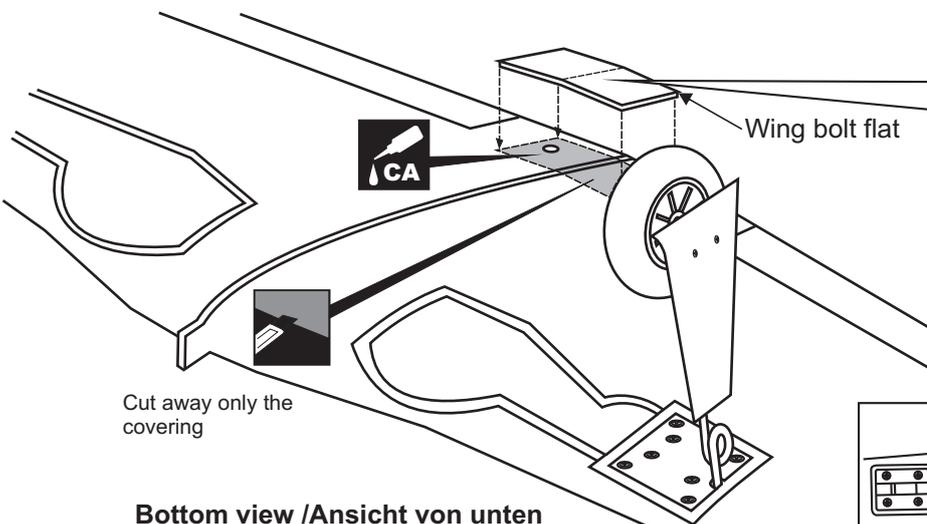
4mm collar

.....2



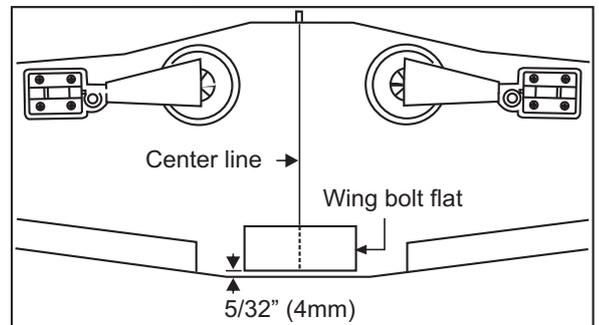
ABS gear strap

10- Wing bolt flat / Verstärkung



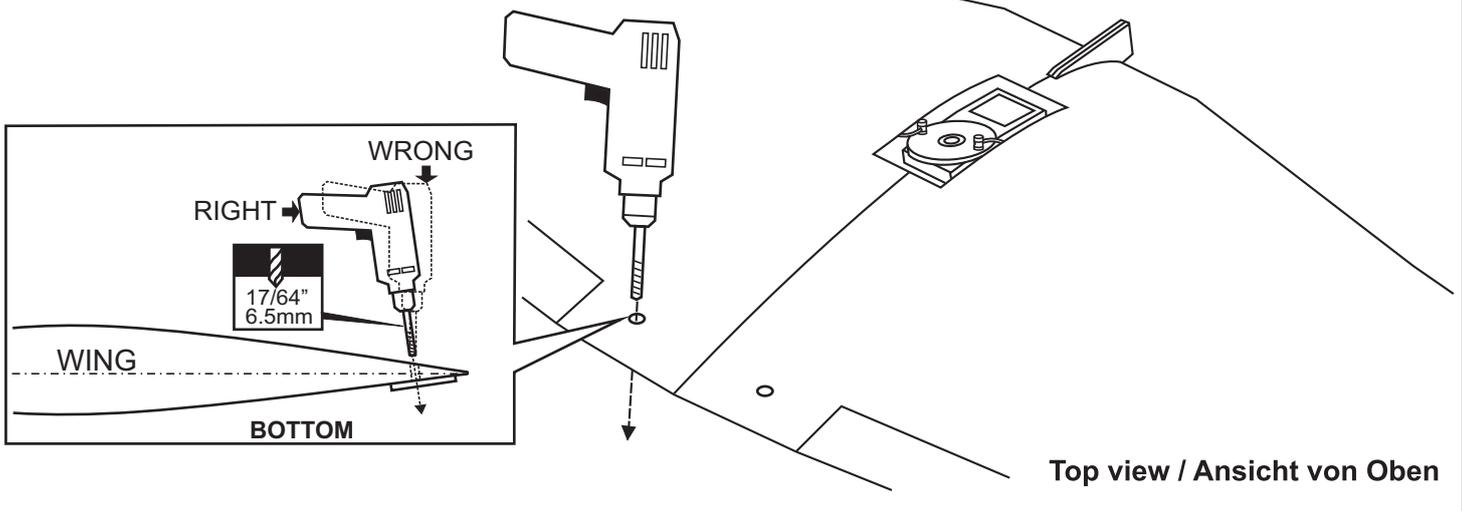
Cut away only the covering

Bottom view / Ansicht von unten



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

11- Wing bolt flat / Verstärkung



WRONG

RIGHT

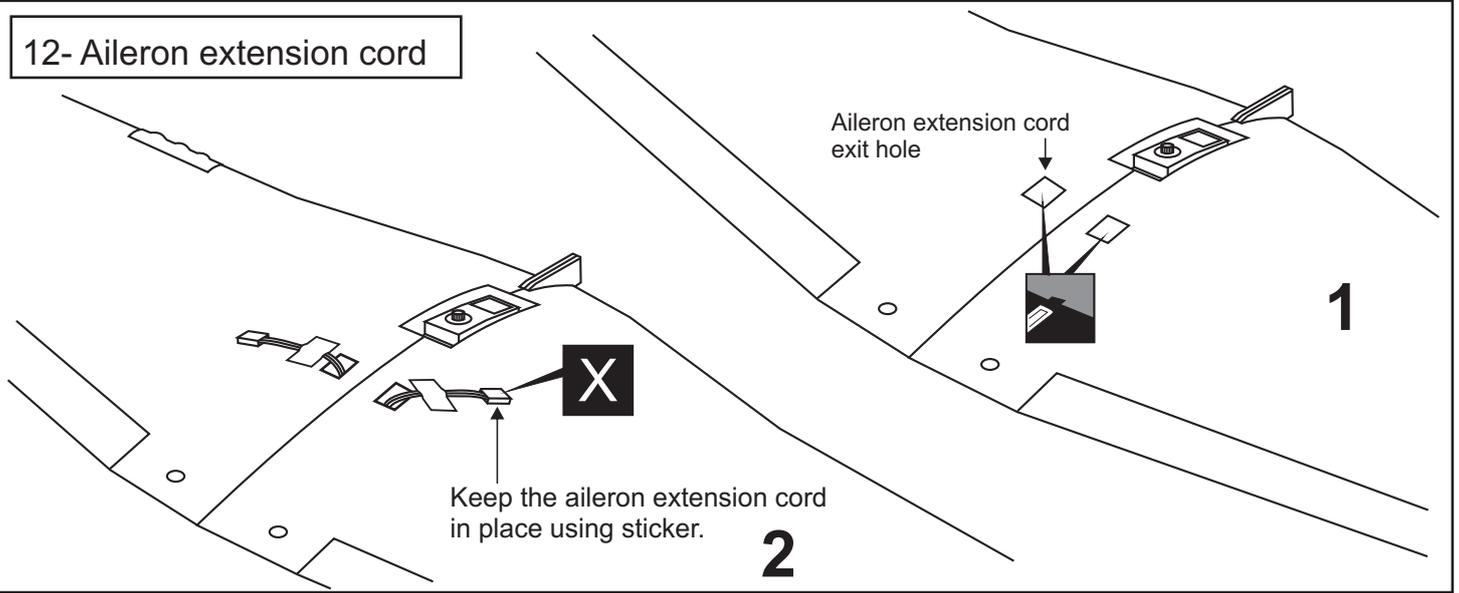
17/64" 6.5mm

WING

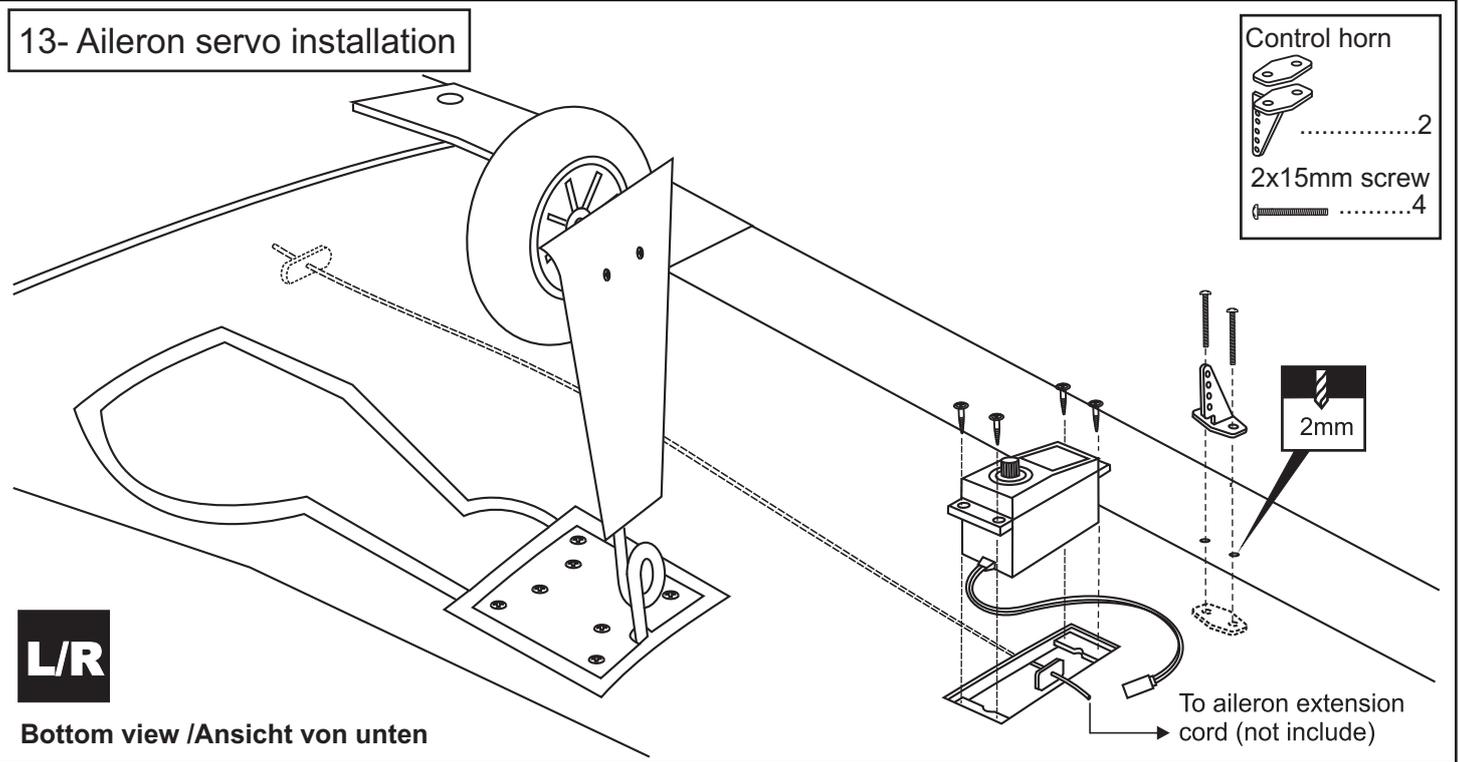
BOTTOM

Top view / Ansicht von Oben

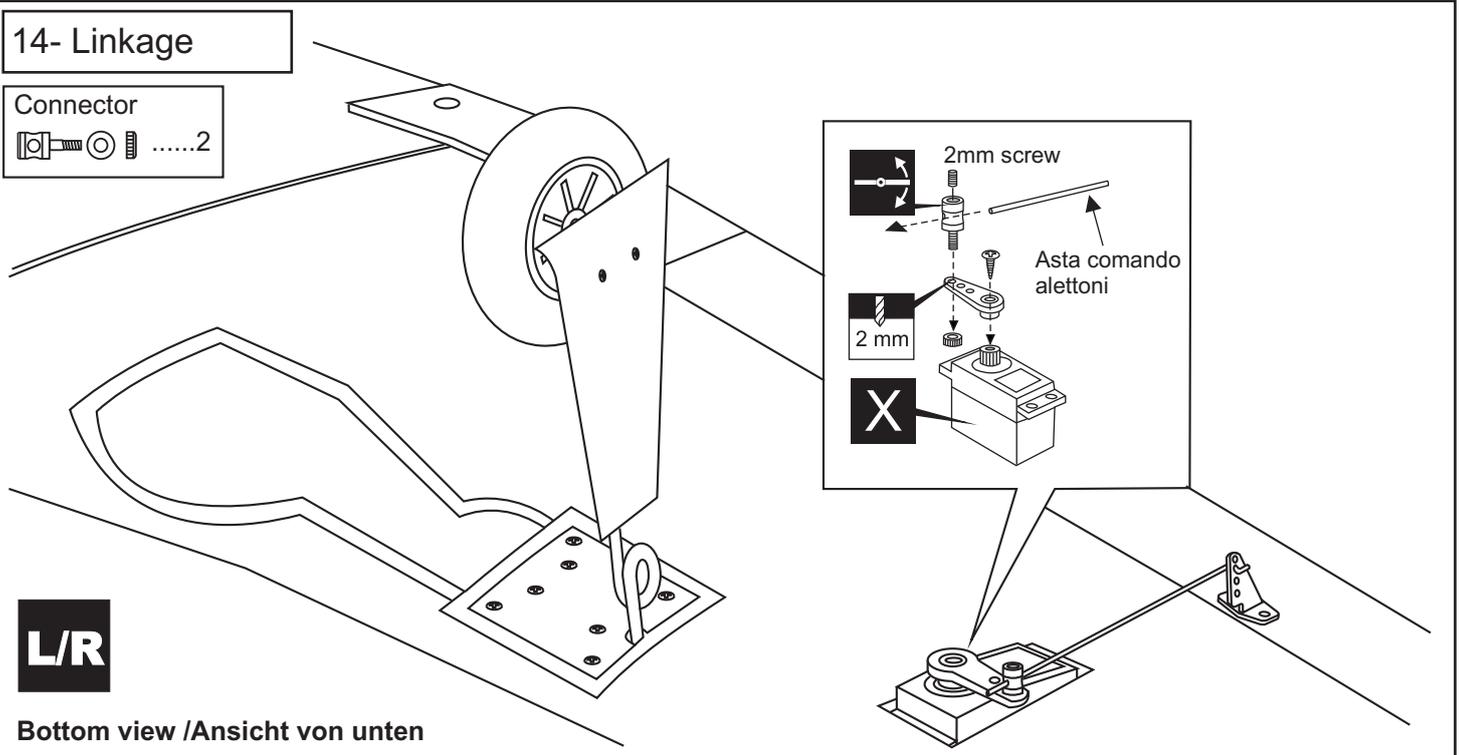
12- Aileron extension cord



13- Aileron servo installation



14- Linkage

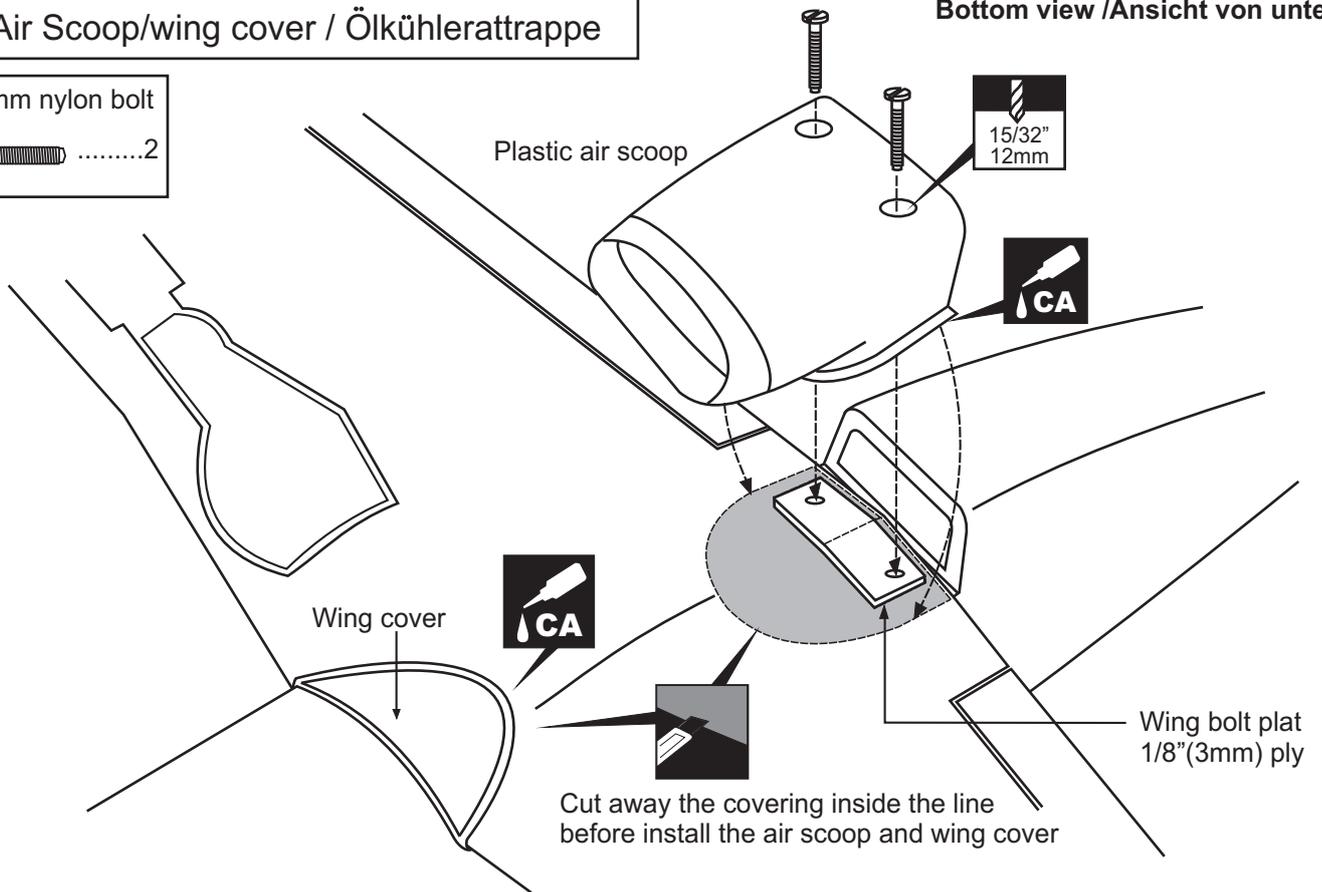


15- Air Scoop/wing cover / Ölkühleratrappe

6x40mm nylon bolt

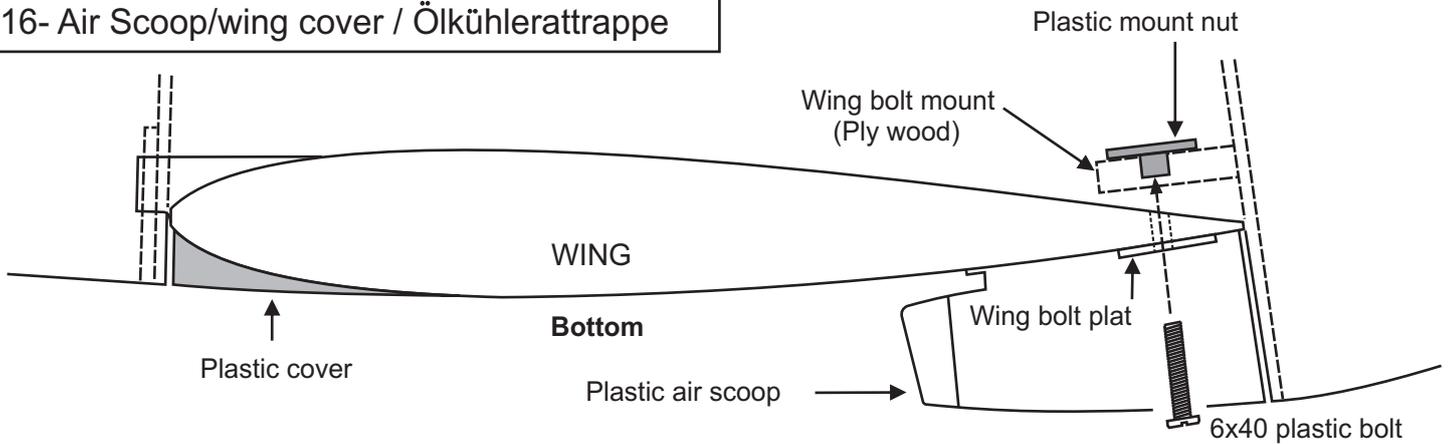
.....2

Bottom view / Ansicht von unten

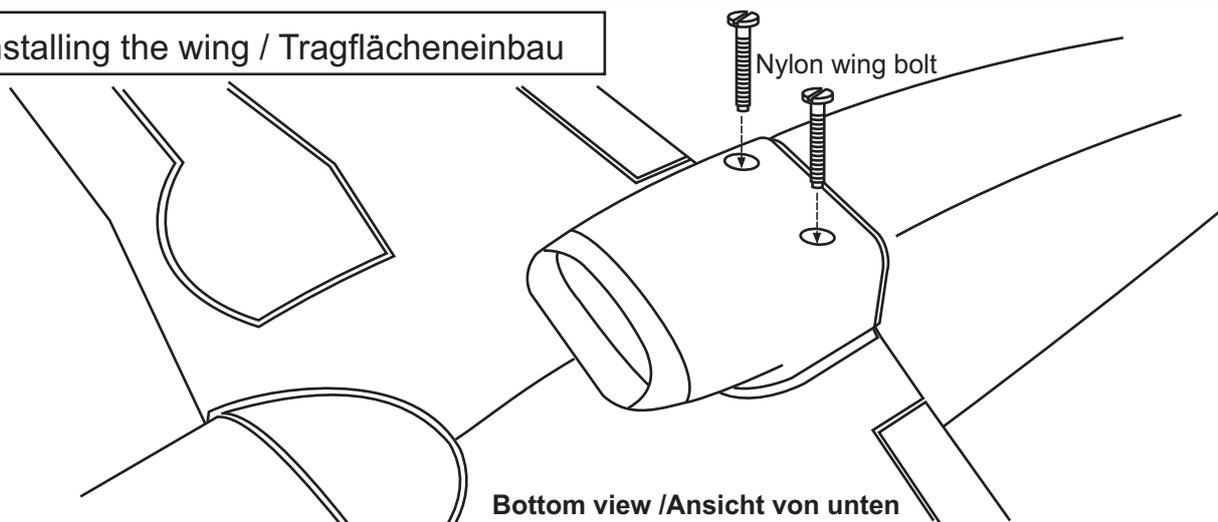


- 1-Using the ABS air scoop as a template, trace around the outside edge of the ABS air-scoop, and then remove it.
- 2-Using a sharp hobby knife, cut away the covering inside the lines. Not to cut into the wood.
- 3-Apply the ABS air scoop in place and secure with CA glue.
Do the same way with the ABS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

16- Air Scoop/wing cover / Ölkühleratrappe



17- Installing the wing / Tragflächeneinbau

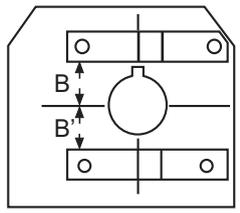


18- Engine mount - engine / Motoreinbau

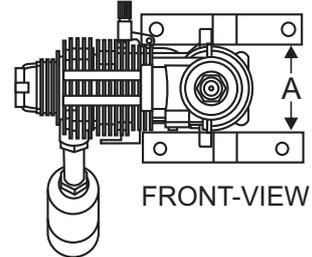
5/32x1" 4x25mm screw	1/8x5-1/64" 3x20mm screw
...4	...4
Blind-nut	1/8"(3mm) nut
.....

! Align the mark on both mounts with the mark on the fuselage

! Engine thrust on balk head is already adjust at factory



B=B'

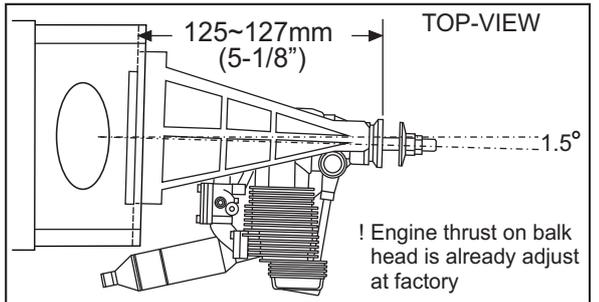


FRONT-VIEW

- Using a pencil or felt tipped pen, mark the fire wall where the four holes are to be drilled
- Remove the engine mount and drill a 13/64"(5mm) hole through the fire-wall at each of the four marks marked.
- Attach the four blind-nut to the fire-wall as show
- Reposition the engine mounts on to the fire-wall and secure them with four 4x25mm screw

- Reposition the engine on to the engine mounts so the distance from the prop hub to the fire wall is 5"(127mm)
- Mark the engine mounting plate where the four holes are to be drilled.
- Note: Mark the mounting plate through the engine mounting flanges.
- Remove the engine and drill a 1/8"(3mm) holes through the beam at each of the four marks made above.

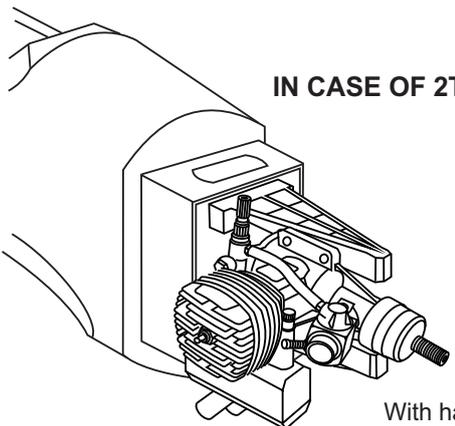
- Reposition the engine on the engine mount beams, aligning it with the holes. Secure the engine to the engine mount using four 1/8x51/64"(3x25mm) screws.



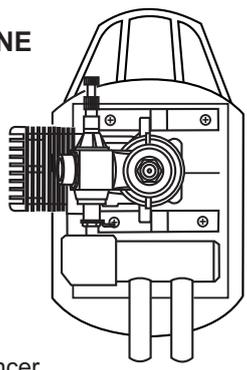
! Engine thrust on balk head is already adjust at factory

Note: Apply Silicon sealer to each of the 1/8x51/64" screw.

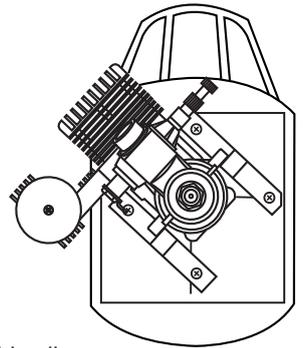
IN CASE OF 2T ENGINE



With hang silencer

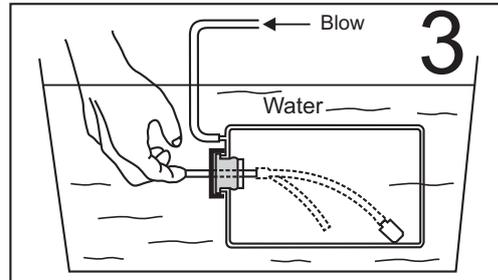
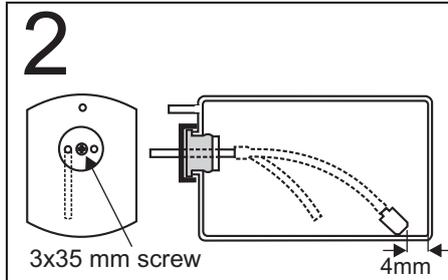
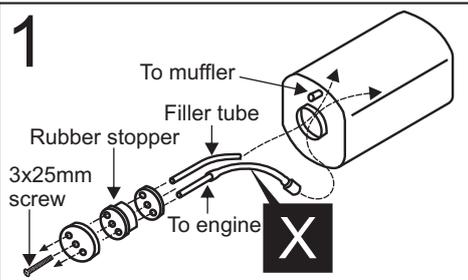


FRONT-VIEW



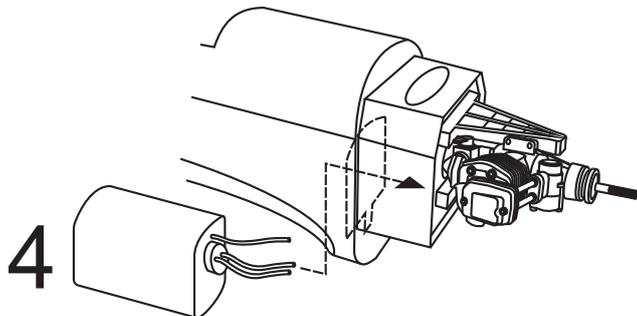
With side silencer

19- Fuel tank / Tankeinbau



After confirming the direction . Insert this assembly, clunk end first, into the fuel tank and tighten and screw the fuel tank cap on firmly.
Ensure that the fuel tank clunk does not touch the rear of the fuel tank.

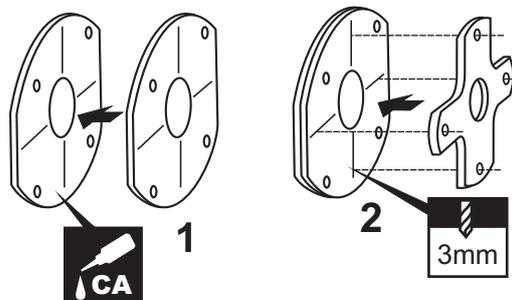
Checking for leaks - block the vents and blow into the feed - if in doubt submersing the tank in a blow of water will show up any problems.



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

20- Electric motor / Einbau Elektromotor

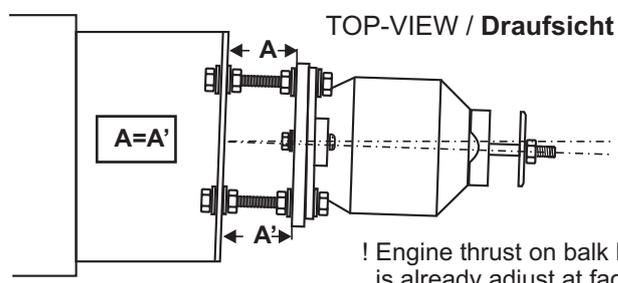
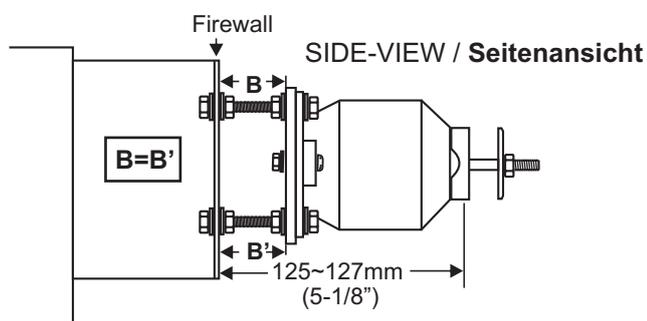
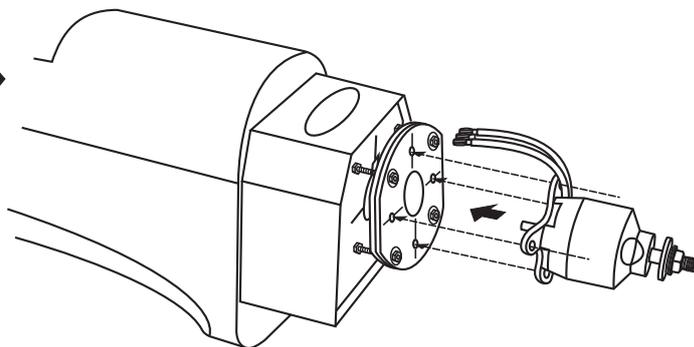
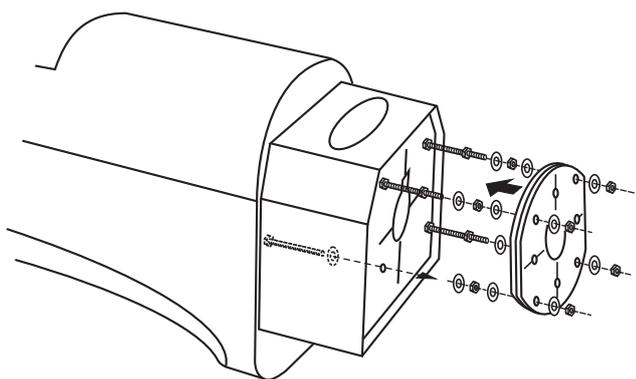
- 5x70mm.....4
- 5mm nut.....12
- 5mm washer...16
- 3mm screw/nut...4



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

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

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



! Engine thrust on balk head is already adjust at factory

21- Horizontal stabilizer / Höhenleitwerk

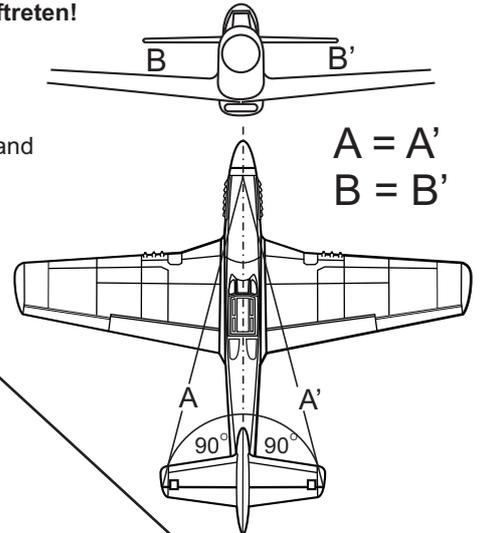
Cut away only the covering both the right and left side



Cut away only the covering both the top and bottom side



Both the top and bottom side



- 1-Trial fit the horizontal stabilizer in place . Check the alignment of the horizontal stabilizer. 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.
- 2-Remove the horizontal stabilizer from the fuselage. Using the sharp hobby knife, carefully cut away the covering inside the lines which were marked above.
- 3-Spread epoxy (30 minute) onto the top and bottom of the horizontal stabilizer along the area where the covering was removed and to the fuselage where the horizontal stabilizer mounts.
- 4-Install the horizontal stabilizer into the fuselage and adjust the alignment as described in step 1
- 5-Wipe off any excess epoxy using a paper towel and rubbing alcohol.
Allow the epoxy to cure before proceeding to next step.

*** 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.**

22- Vertical stabilizer / Seitenleitwerk

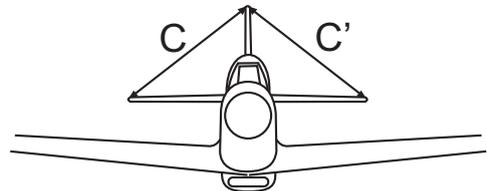
Cut away only the covering both the right and left side



Both the left and right side



$C = C'$



- 1-Trial fit the vertical stabilizer in place . Check the alignment of the vertical stabilizer. When you are satisfied with the alignment, use a pencil to trace around the right and left of the stabilizer where it meets the fuselage.
- 2-Remove the vertical stabilizer from the fuselage. Using the sharp hobby knife, carefully cut away the covering inside the lines which were marked above.
- 3-Spread epoxy (30 minute) onto the right and left and bottom of the vertical stabilizer along the area where the covering was removed and to the fuselage where the vertical stabilizer mounts.
- 4-Install the vertical stabilizer into the fuselage and adjust the alignment as described in step 1.
- 5-Wipe off any excess epoxy using a paper towel and rubbing alcohol.
Allow the epoxy to cure before proceeding to next step.

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

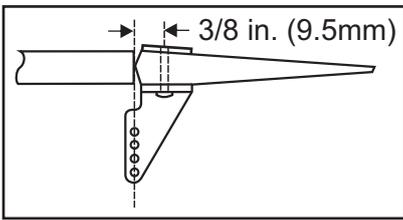
Vergewissern Sie sich, sauber geklebt zu haben. Andernfalls können Probleme mit der Flugeigenschaft auftreten!

*** 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.**

23- Elevator installation / Höhenruder

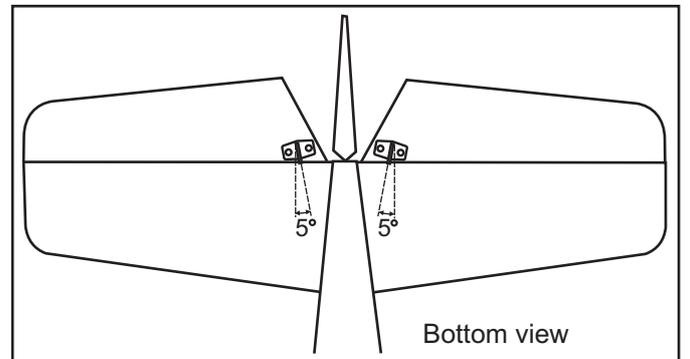
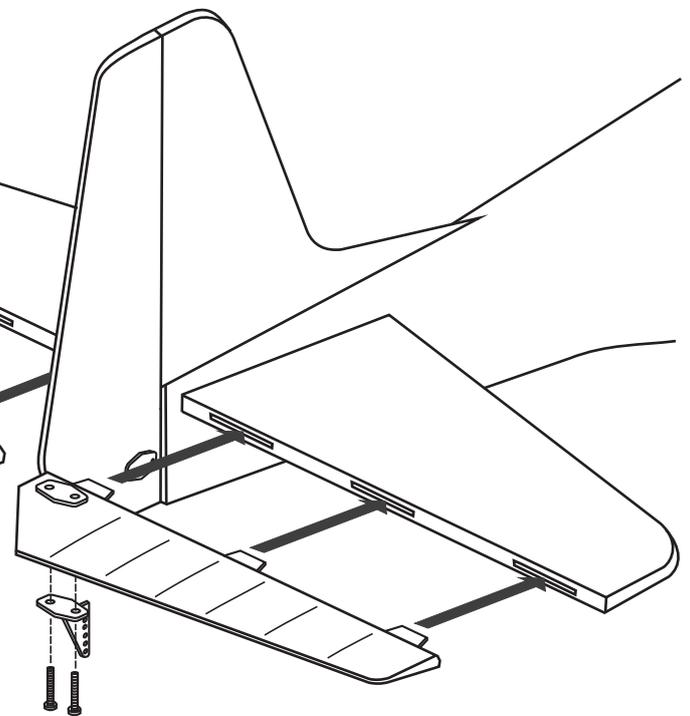
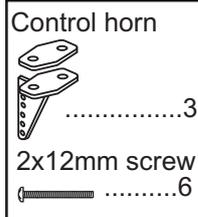
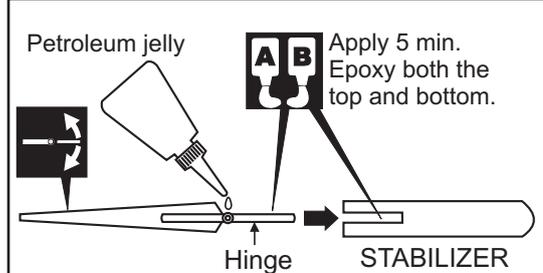
Securely glue together. If coming off during flight, you lose control of your air plane.

Vergewissern Sie sich, sauber geklebt zu haben. Andernfalls können Probleme mit der Flugeigenschaft auftreten!



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

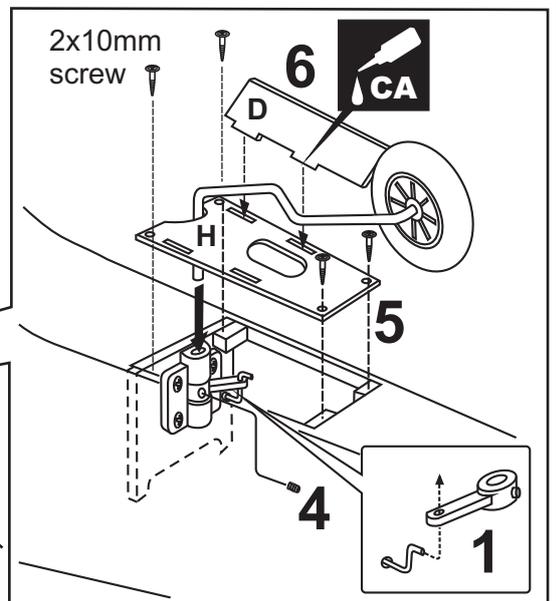
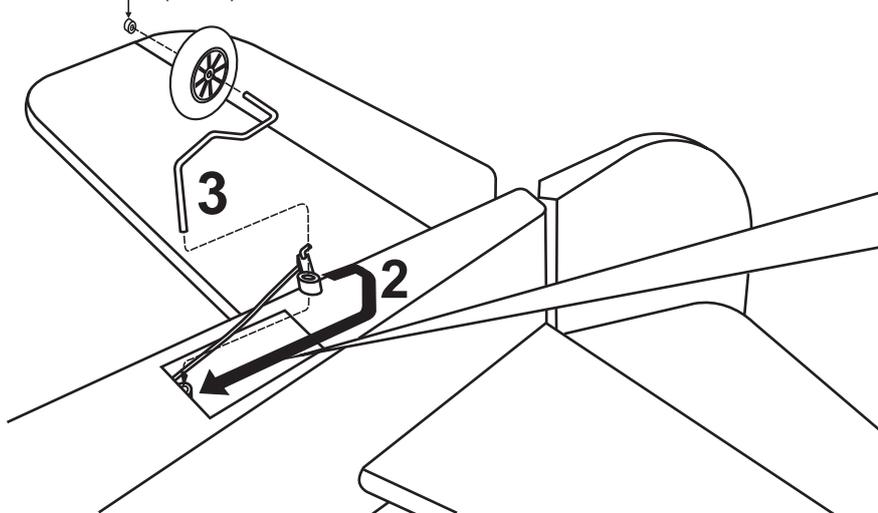
When satisfied with the and alignment, hinge the elevator to the horizontal stabilizer using 5 minute epoxy. Make sure to apply a thin layer of epoxy to the top and bottom of both hinges and to inside the hinge slots. Repeat the previous procedures to hinge the second elevator to the other side of the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



24- Tail gear / Heckspornrad

5/64 in. (2mm) I.D collar

Bottom view / Ansicht von unten

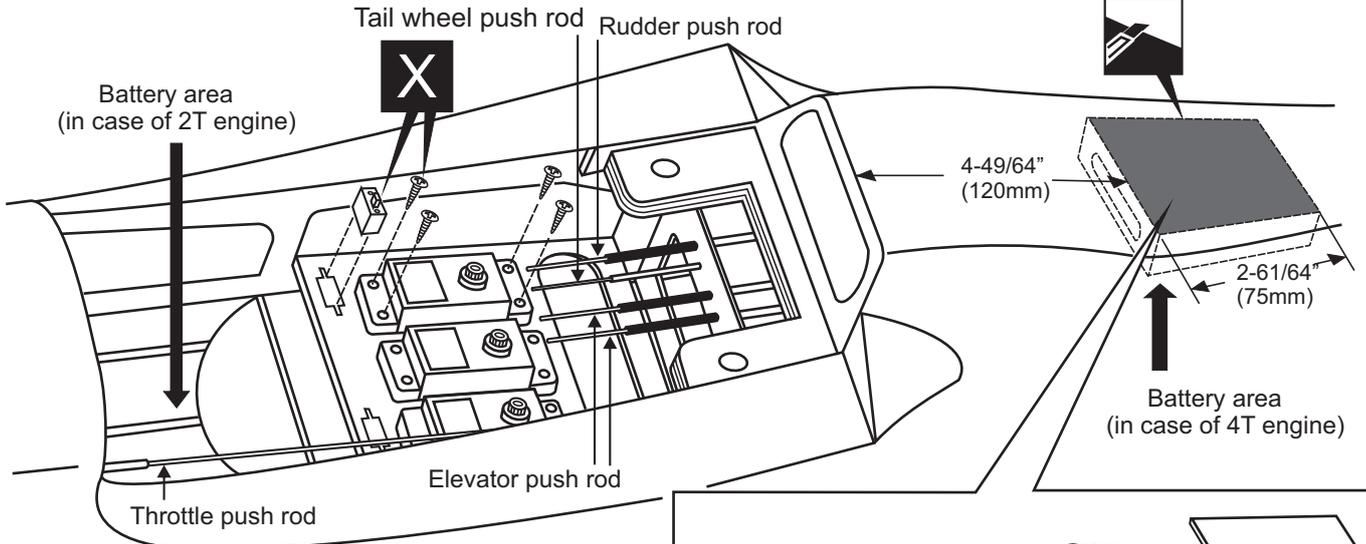


- 1- Insert the tail wheel pushrod into the hole on the tail gear control horn (as show).
- 2- Install the tail wheel control horn in place.
- 3- Instal the tail wheel gear in place.
- 4- Secure the tail wheel control horn in place using a 5/64"(2mm) screw set, Ensure smooth non-binding movement.
- 5- Installing the tail wheel hatch (H) in place using a four 5/64x25/64"(2x10mm) self tapping screws.
- 6- Attach the tail wheel doors (D) in place using CA glue.

2x3mm screw	2mm I.D collar
.....11
2x10mm screw	Tail landing gear
.....41
Tail wheel control-horn	
.....1	

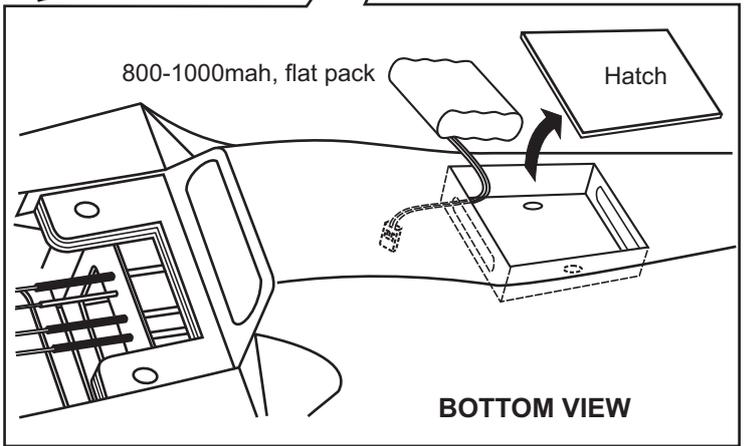
25- Radio and battery / Fernsteuerung u .Akku

Bottom view / Ansicht von unten

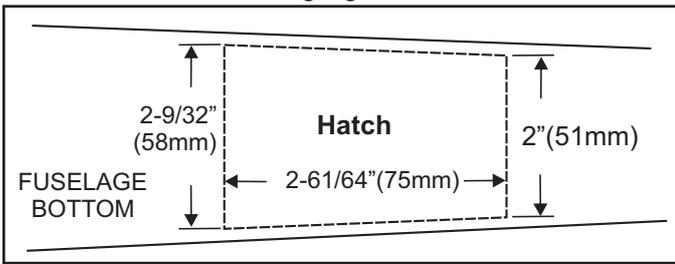


Carefully cut a 2-9/32" (58mm) wide area which is 2-61/64" (75mm) in length through both the covering and the balsa wood. Remove the excess balsa.

Put the battery pack into the box (pre-build at factory) and fasten down with rubber bands or similar, ensuring it will not come loose or rattle during flights.

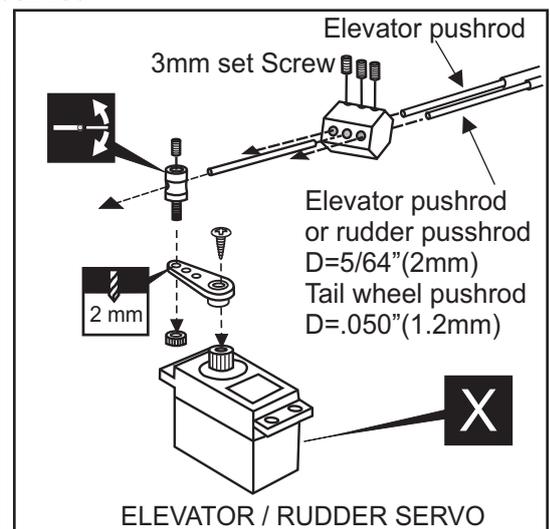
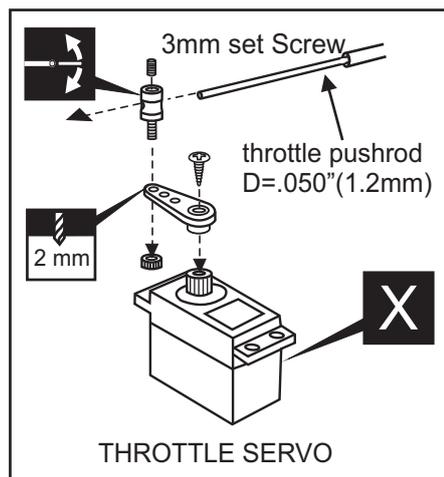
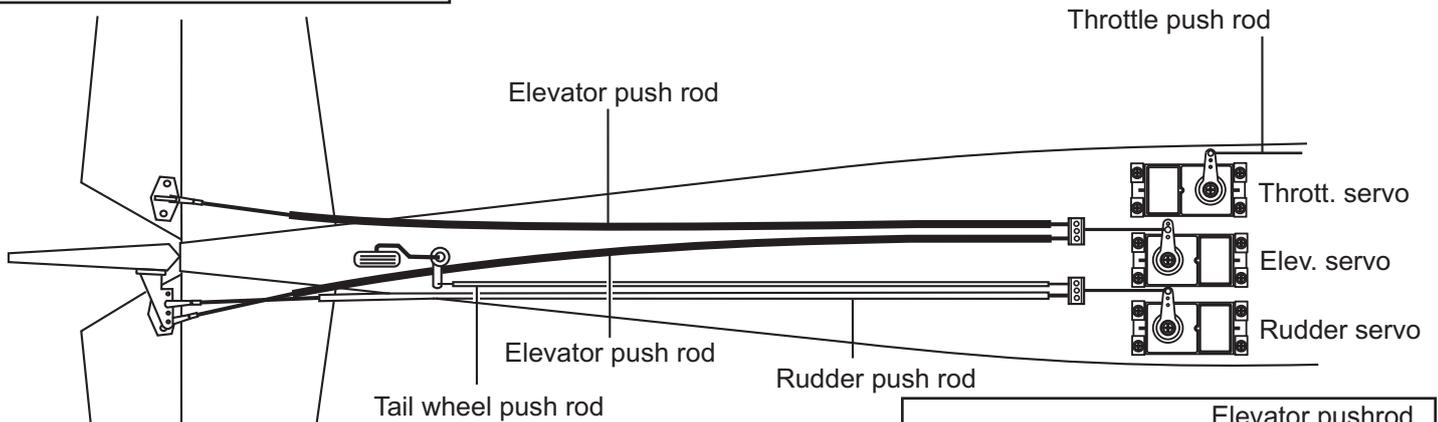


Link the battery wire with the battery extension cord. Reposition the hatch in place and secure it with CA glue.

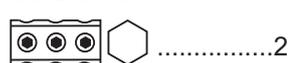


26- Linkages / Anlenkungen

Bottom view / Ansicht von unten



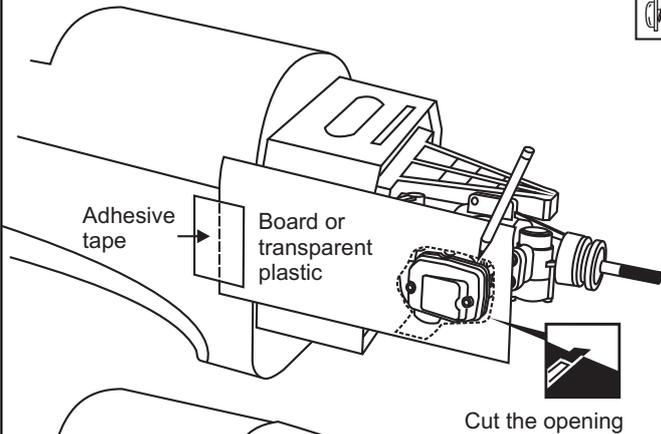
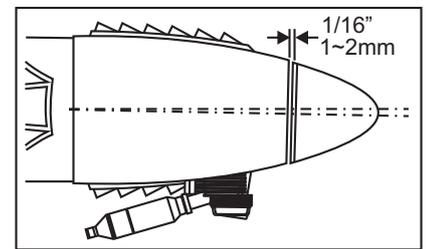
Connector



27- Cowling installation / Motorhaube

3/32x25/64" self tapping screw
2.5x10mm



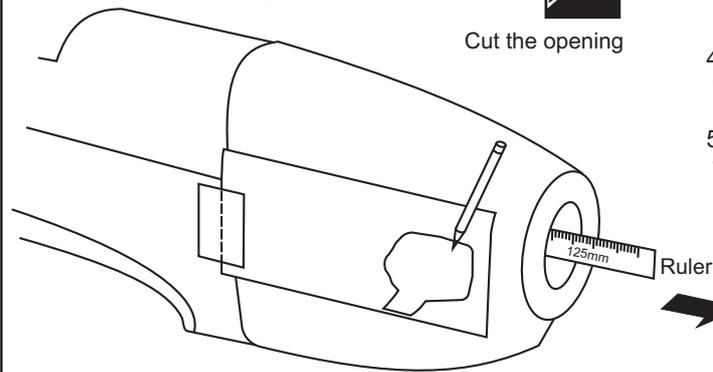


Adhesive tape

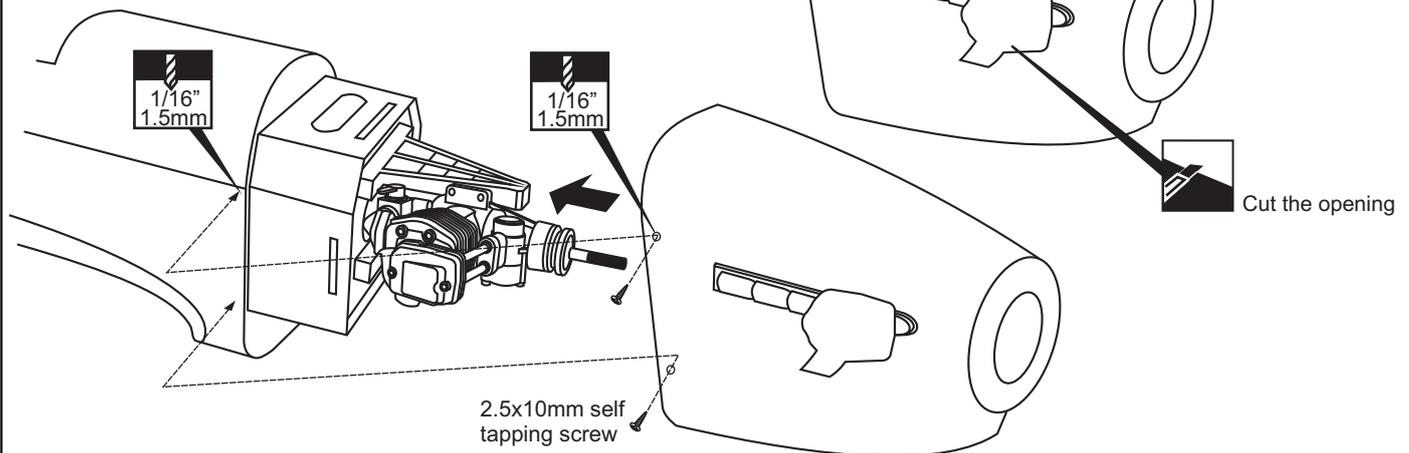
Board or transparent plastic

Cut the opening

- 1-Attach the board or transparent plastic on the side of the fuselage with the adhesive tape as show.
- 2-Using a pencil or felt tipped pen trace around the engine head where it meet the cowl. Cut the opening the board or transparent plastic for the engine head as marked before.
- 3-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 4-59/64"(125mm). Trace around inside the hole on the board or transparent plastic with a pencil.
- 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.
- 5-Again. Insert the cowl on to the fuselage and secure it in place with five 2.5x10mm self tapping screws.



Ruler



1/16"
1.5mm

1/16"
1.5mm

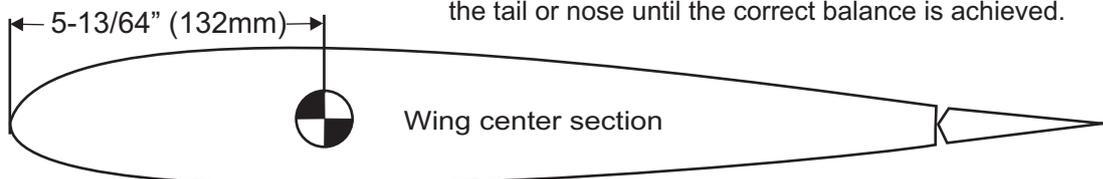
2.5x10mm self tapping screw

Cut the opening

28- Balance / Schwerpunkt

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

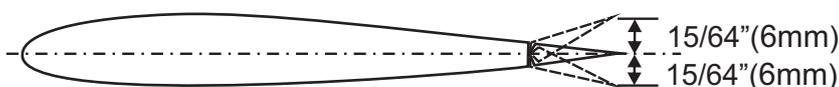
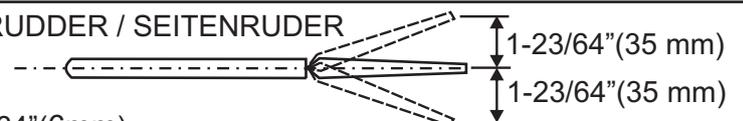
Note: If necessary, move the battery pack or add weight to either the tail or nose until the correct balance is achieved.



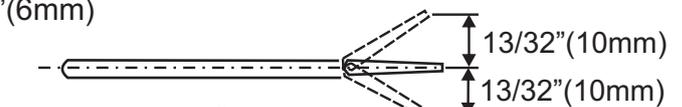
Wing center section

29- Control Surface / Ruderausschläge

RUDDER / SEITENRUDER



AILERON / QUERRUDER



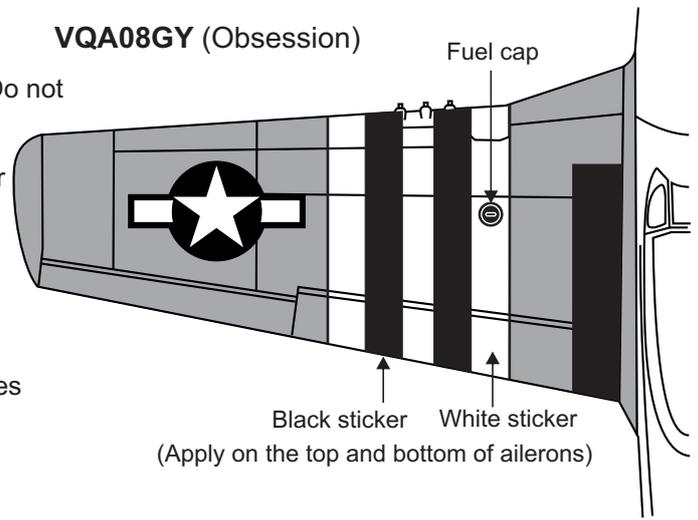
ELEVATOR / HÖHENRUDER

IMPORTANT: Flying your model at these throws will provide you with the greatest chance for successful first flights. If, after you have become accustomed to the way the P-51 flies, you would like to change the throws to suit your taste that is fine. However, too much control throw could make the model difficult to control, so remember, "more is not always better".

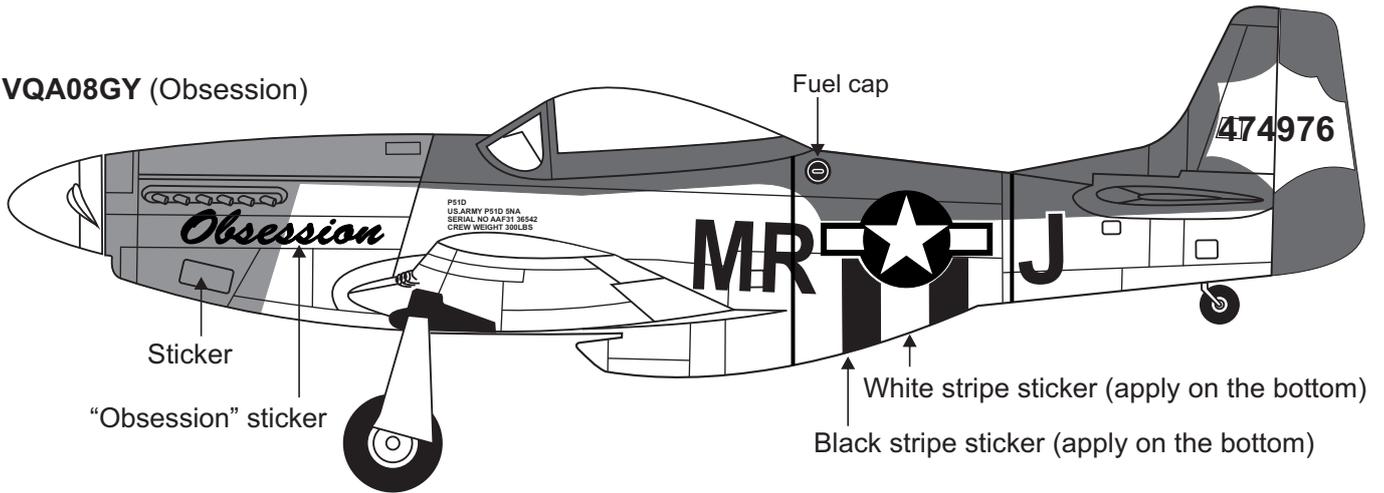
30- Decor / Aufkleber

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.

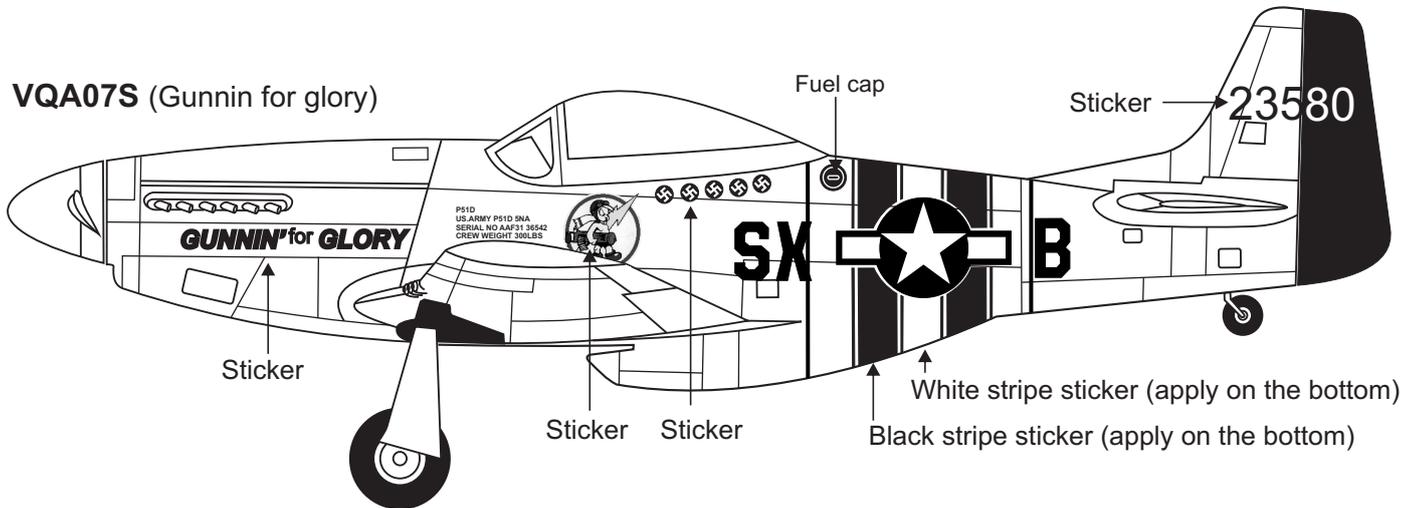
VQA08GY (Obsession)



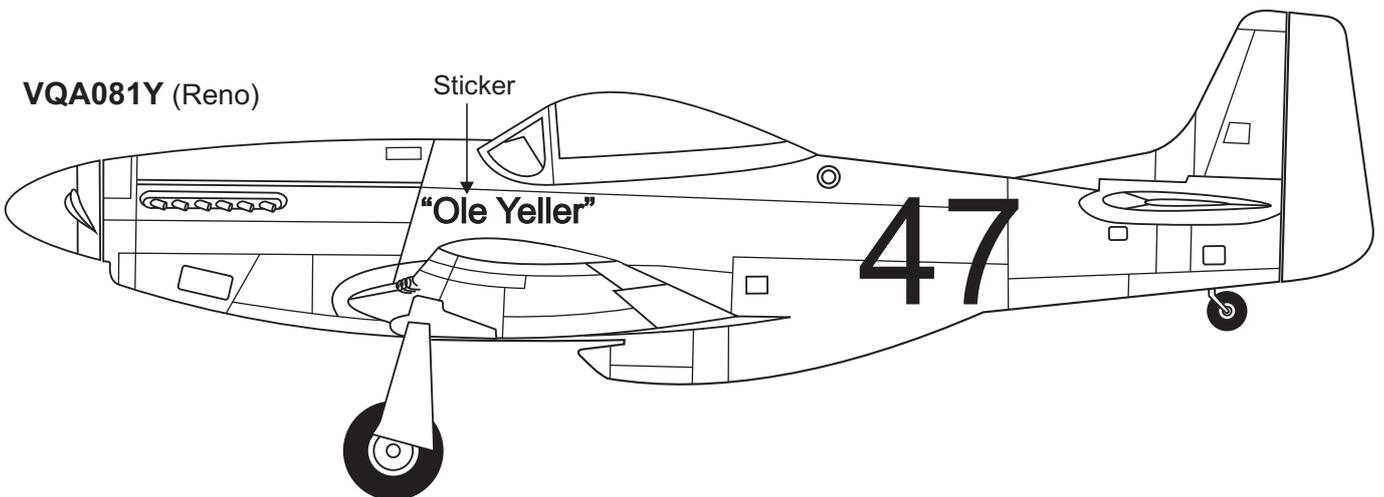
VQA08GY (Obsession)



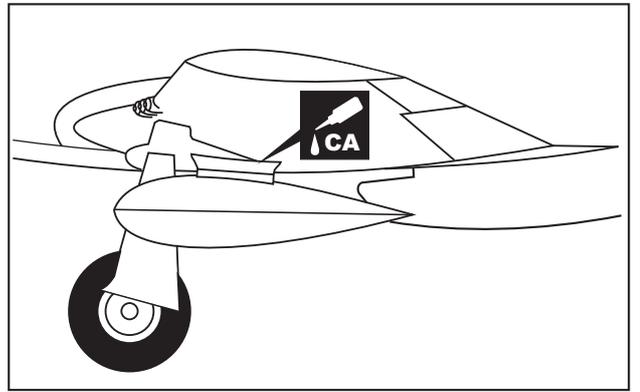
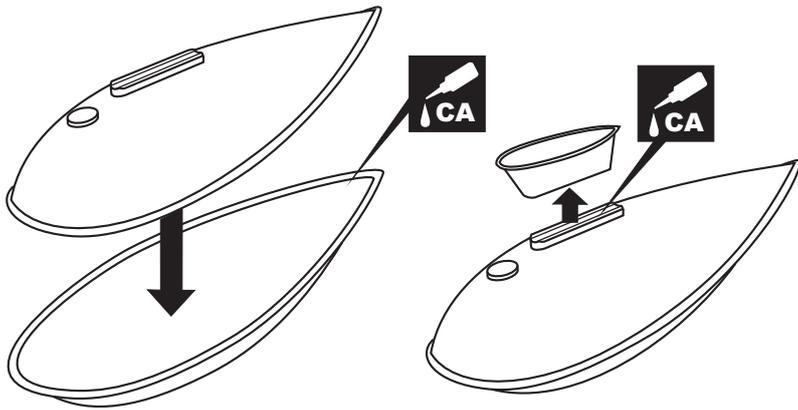
VQA07S (Gunnin for glory)



VQA081Y (Reno)



31- ABS Drop-tank (Option part)



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.

All details are subject to change
without notice !

**Technische Änderungen und Irrtümer
vorbehalten !**