

PICHLER

Instruction Manual book

KILLER HAI



Technische Daten

Spannweite : 1600 mm
Länge : 770 mm
Gewicht : 1100 - 1600 g
R/C : 4 Kanal
Servo : 4 Servos

Hinweis zur Antriebswahl

Der Killer Hai fliegt mit dem Antriebssatz C4390 bereits sehr flott.

Wenn es allerdings wie eine Rakete senkrecht nach oben gehen soll, empfehlen wir den Antrieb C5554

Sonderzubehör (empfohlen)

Antriebssatz Killer Hai Best.Nr. C4390
(Brushless-Motor,
Brushless-Regler, Turbospinner
Luftschraube, Kleinteile)
LiPo Akku LEMONRC 3300-3S, Best.Nr. C1145

Servo S3212, Best.Nr. C1130

Antriebssatz Killer Hai „Tuning“ Best.Nr. C5554
(**Brushless-Motor handgewickelt, ca. 15% Mehrleistung**
Brushless-Regler, Turbospinner
Luftschraube, Kleinteile)
LiPo Akku LEMONRC 3300-4S, Best.Nr. C1446

This instruction manual is designed to help you build a great flying aeroplane. Please read this manual thoroughly before starting assembly of your **Killer Hai**. Use the parts listing below to identify all parts.

WARNING.

Please be aware that this aeroplane is not a toy and if assembled or used incorrectly it is capable of causing injury to people or property. WHEN YOU FLY THIS AEROPLANE YOU ASSUME ALL RISK & RESPONSIBILITY.

If you are inexperienced with basic R/C flight we strongly recommend you contact your R/C supplier and join your local R/C Model Flying Club. R/C Model Flying Clubs offer a variety of training procedures designed to help the new pilot on his way to successful R/C flight. They will also be able to advise on any insurance and safety regulations that may apply.

TOOLS & SUPPLIES NEEDED.

- Thick cyanoacrylate glue.
- 30 minute epoxy.
- 5 minute epoxy.
- Hand or electric drill.
- Assorted drill bits.
- Modelling knife.
- Straight edge ruler.
- 2mm ball driver.
- Phillips head screwdriver.
- 220 grit sandpaper.
- 90° square or builder's triangle.
- Wire cutters.
- Masking tape & T-pins.
- Thread-lock.
- Paper towels.

PARTS LISTING.

FUSELAGE ASSEMBLY

- (1) Fuselage.

WING ASSEMBLY

- (1) Right wing half with pre-installed aileron.
- (1) Left wing half with pre-installed aileron.

Tail section assembly

- (1) Vertical stabilizer with pre-installed rudder.
- (1) Horizontal stabilizer with pre-installed elevator halves.

SUGGESTION.

To avoid scratching your new airplane, do not unwrap the pieces until they are needed for assembly. Cover your workbench with an old towel or brown paper, both to protect the aircraft and to protect the table. Keep a couple of jars or bowls handy to hold the small parts after you open the bag.

NOTE.

Please trial fit all the parts. Make sure you have the correct parts and that they fit and are aligned properly before gluing! This will assure proper assembly. **Killer Hai** ARF is hand made from natural materials, every plane is unique and minor adjustments may have to be made. However, you should find the fit superior and assembly simple.

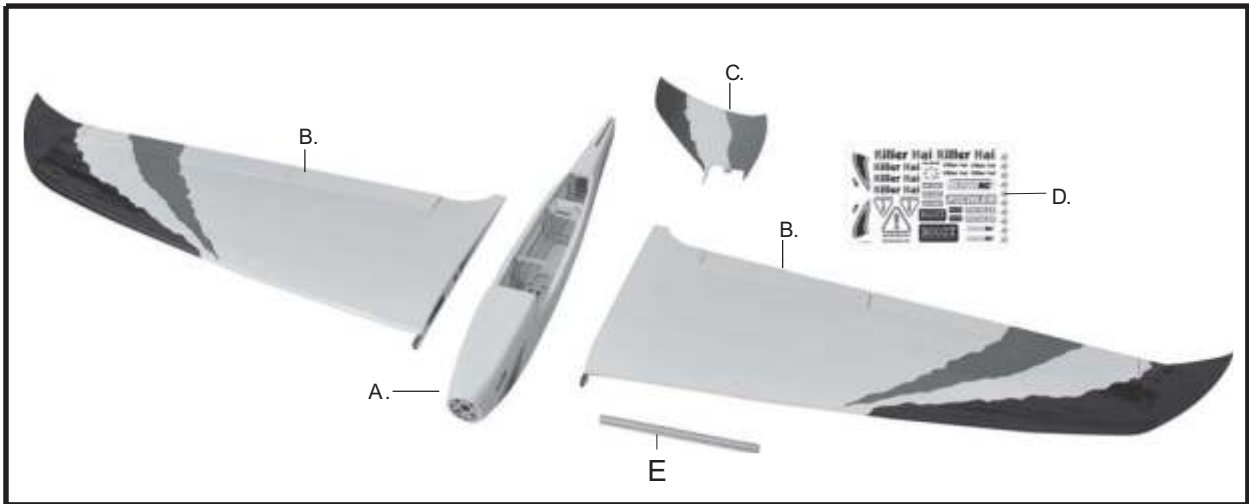
The painted and plastic parts used in this kit are fuel proof. However, they are not tolerant of many harsh chemicals including the following: paint thinner, C/A glue accelerator, C/A glue debonder and acetone. Do not let these chemicals come in contact with the colors on the covering and the plastic parts.

SAFETY PRECAUTION.

- + This is not a toy
- + Be sure that no other flyers are using your radio frequency.
- + Do not smoke near fuel
- + Store fuel in a cool, dry place, away from children and pets.
- + Wear safety glasses.
- + The glow plug clip must be be securely attached to the glow plug.

- Do not flip the propeller with your fingers.
 - + Keep loose clothing and wires away from the propeller.
 - + Do not start the engine if people are near.
- Do not stand in line with the side of the propeller.
- + Make engine adjustments from behind the propeller only. Do not reach around the spinning propeller.

REPLACEMENT LARGE



A. Fuselage.

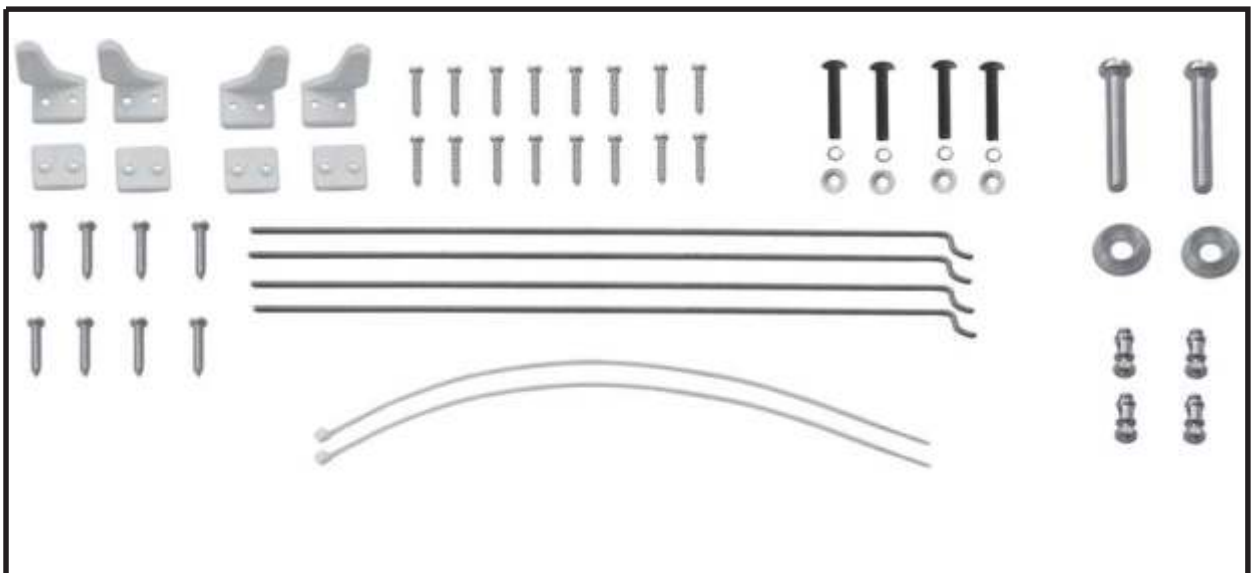
B. Wing panel.

C. Vertical stabilizer.

D . Decal sheet.

E . Aluminium wing dihedral brace.

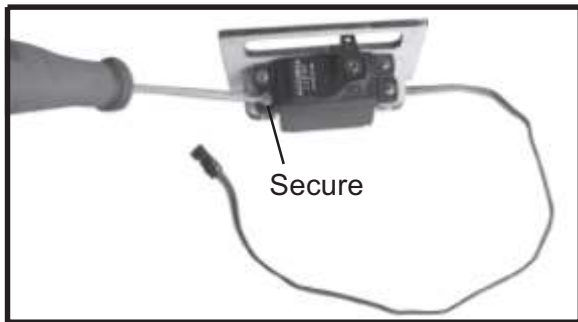
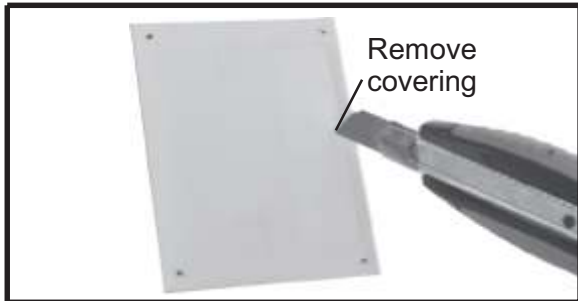
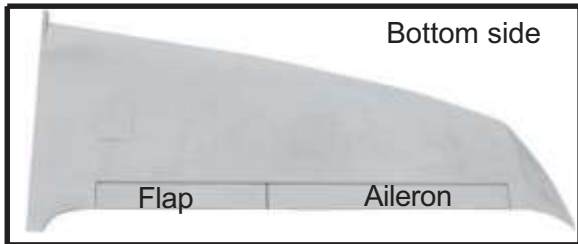
REPLACEMENT SMALL PARTS



I. AILERON.

1.INSTALLING THE AILERON SERVOS.

□ 1) Install the rubber grommets and brass eyelets onto the aileron servos.



□ 2) Using a modeling knife, remove the covering at position show below.

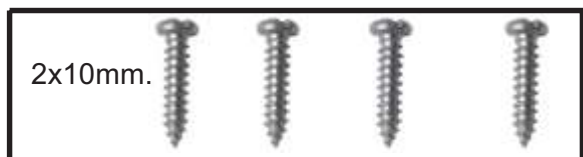
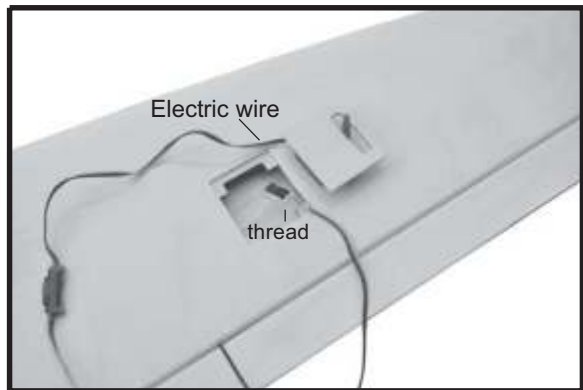


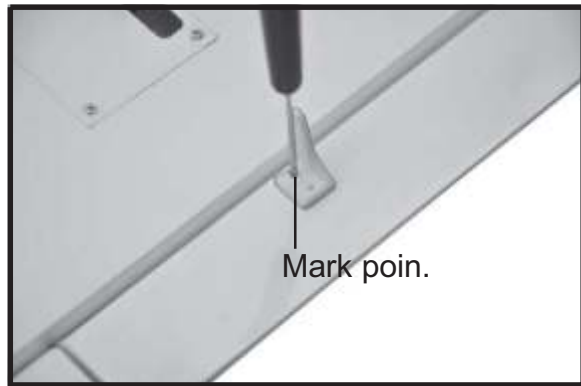
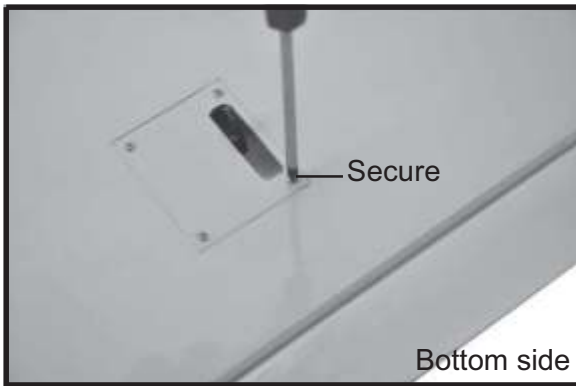
□ 3) Using the thread as a guide and using masking tape, tape the servo lead to the end of the thread: carefully pull the thread out. When you have pulled the servo lead out, remove the masking tape and the servo lead from the thread.



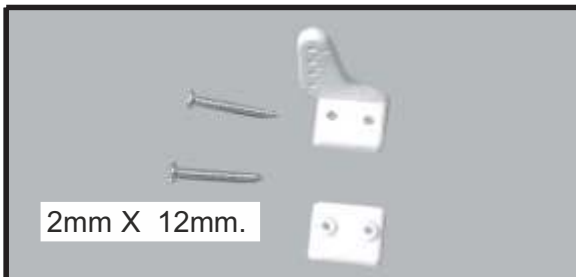
□ 4) Drill 1,6mm pilot holes through the block of wood for each of the four mounting screws provided with the servo.

□ 5. Instal servo tray with aileron servo into the wing as same as picture below.

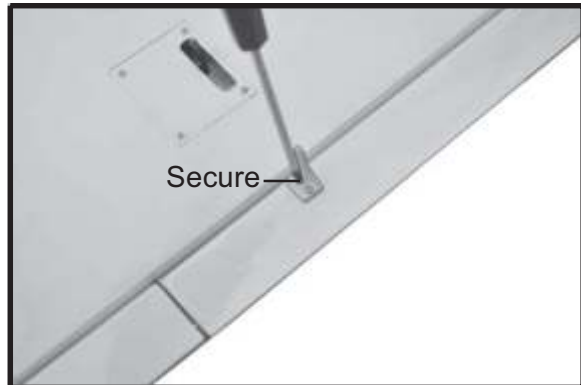
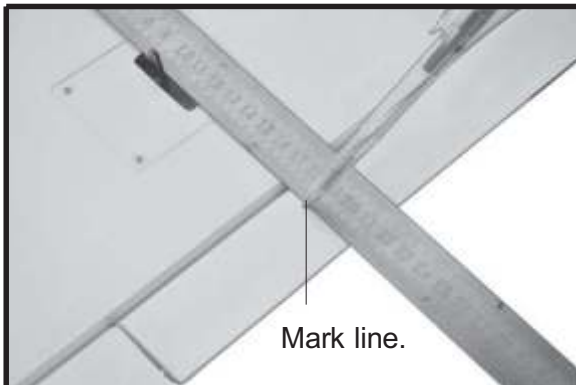




2.INSTALLING THE AILERON CONTROL HORN.

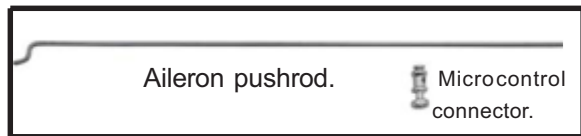
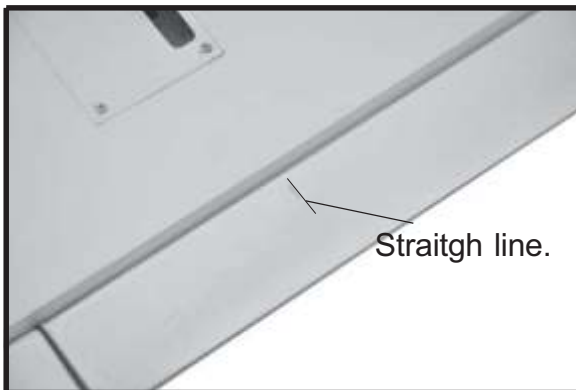


- 1) Using a ruler & pen to draw a straight line as below picture.

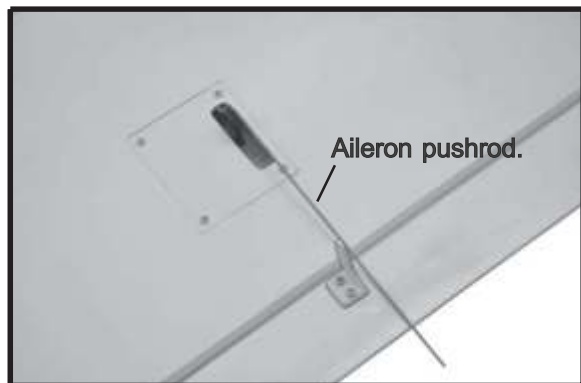


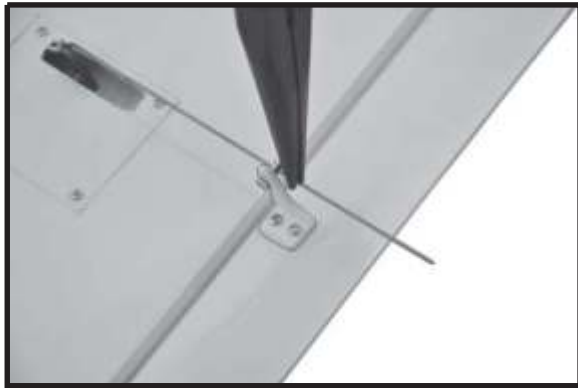
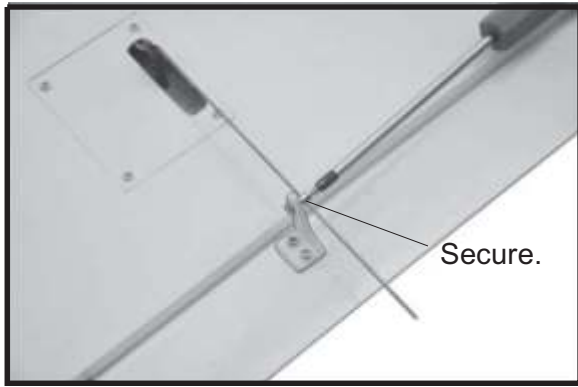
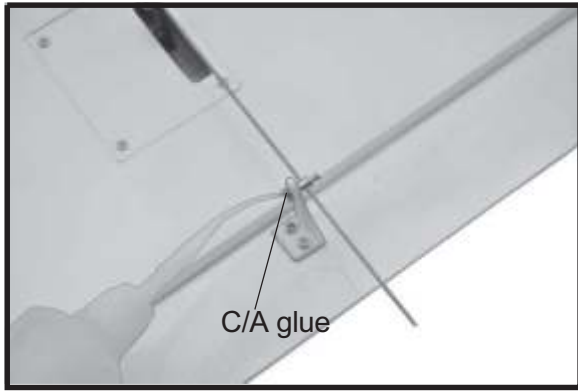
3.INSTALLING THE AILERON LINKAGES.

Installing the air brake linkages as pictures below.



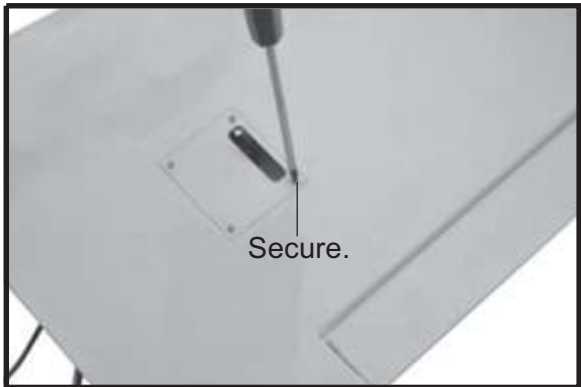
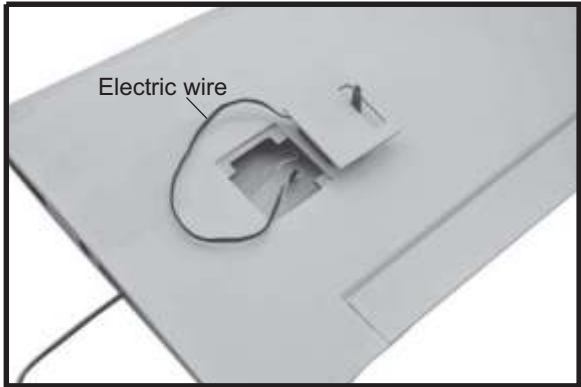
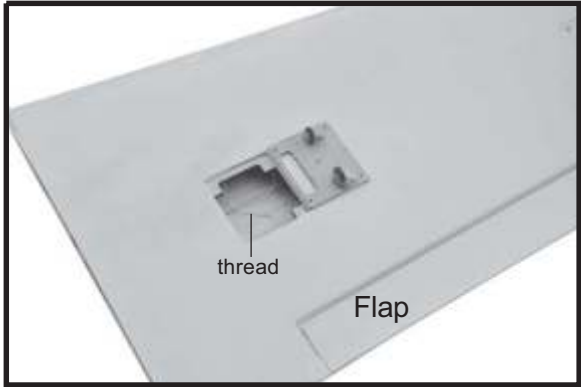
- 2) Insert aileron control horn to the aileron.
- 3) Drill two 2mm holes through the aileron using the control horn as a guide and screw the control horn in place.

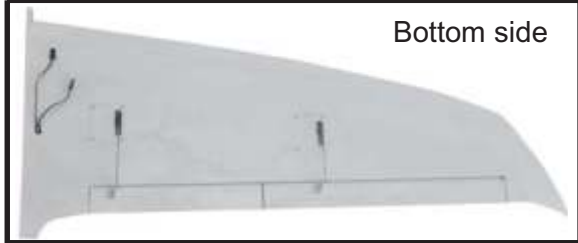




II.FLAP

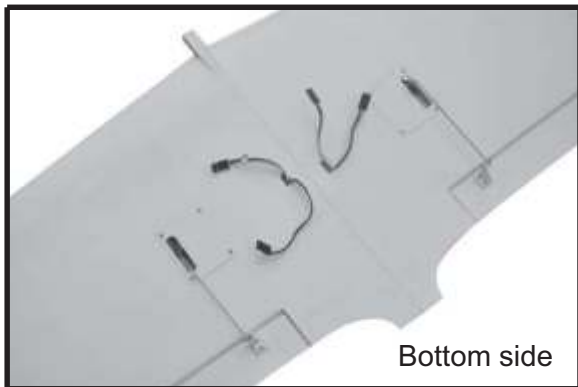
1.INSTALLING THE FLAP SERVOS.





Repeat the procedure for the other wing half.

JOINING THE WING HALVES.



INSTALLING ELECTRIC MOTOR.

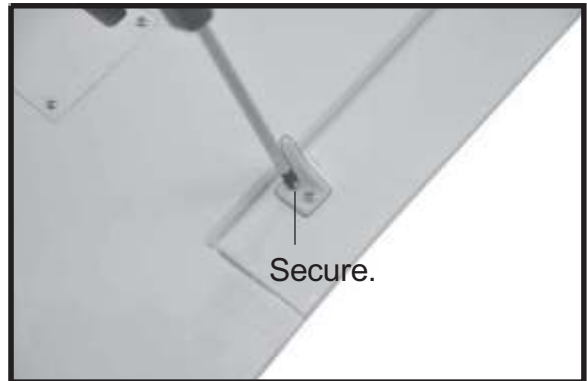
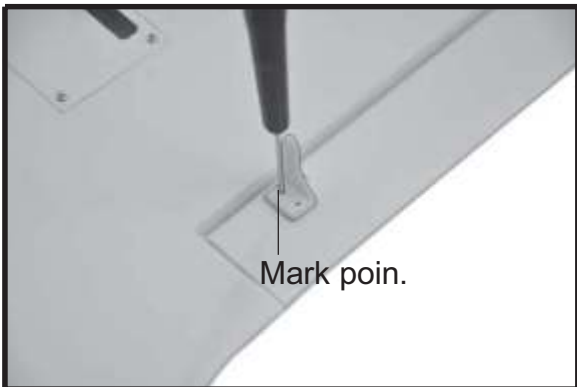
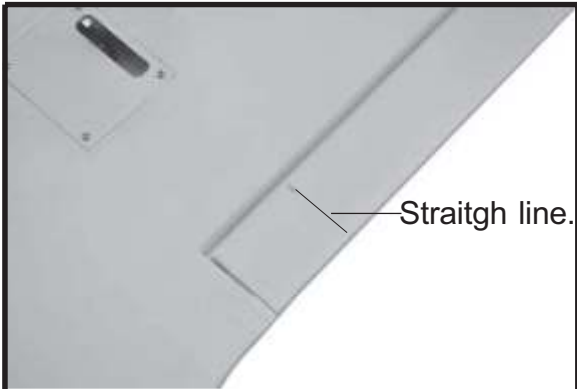
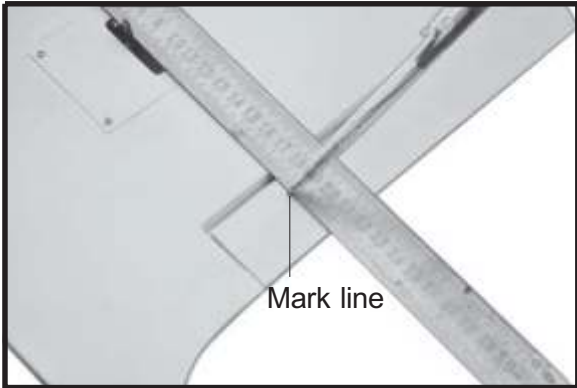
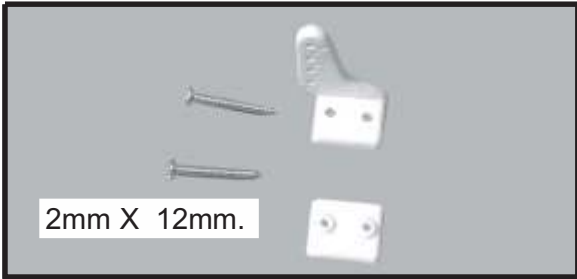


INSTALLING THE SPINNER.

Install the spinner backplate, propeller and spinner cone. The spinner cone is held in place using two 3mm x 12mm wood screws.

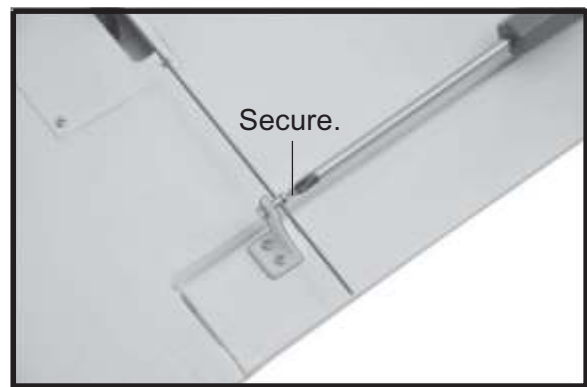
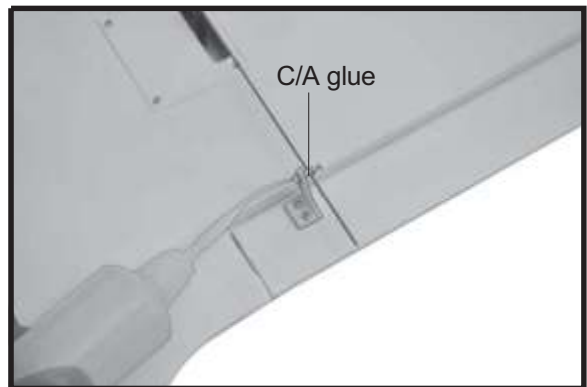
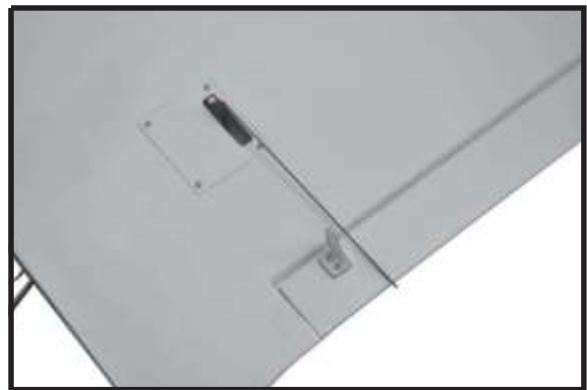
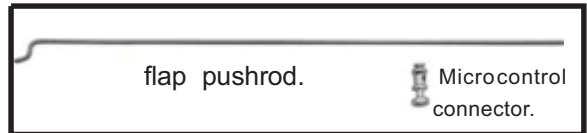


2.INSTALLING THE FLAP CONTROL HORN.

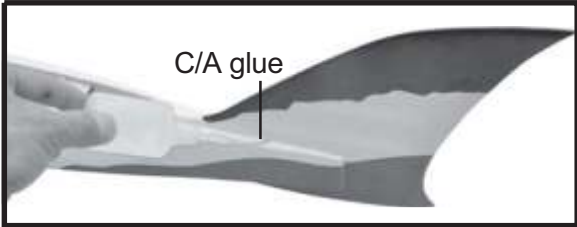
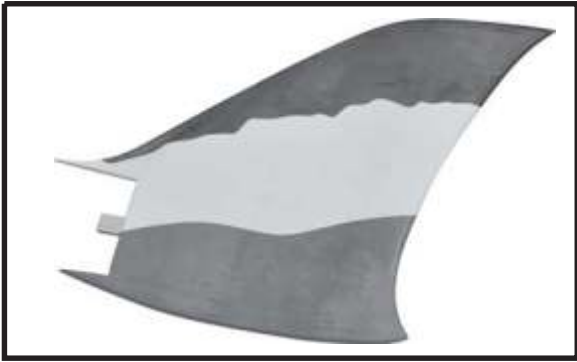


3.INSTALLING THE FLAP LINKAGES.

Installing the air brake linkages as pictures below.

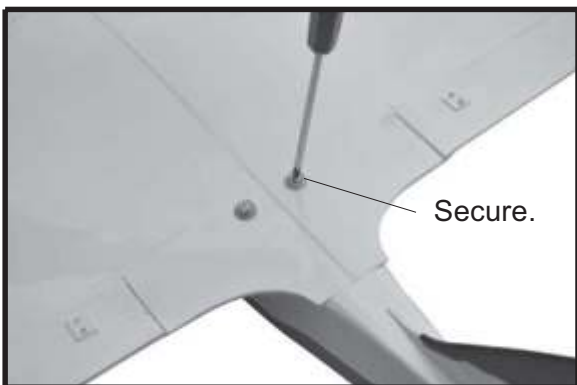
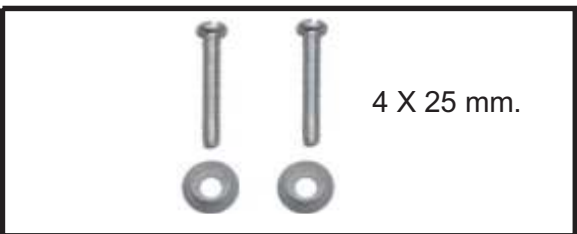
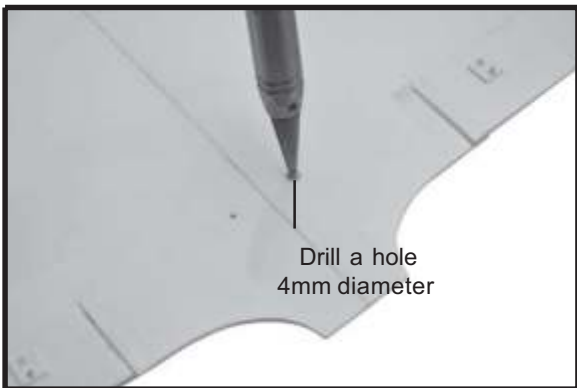


VERTICAL INSTALLATION.



WING ATTACHMENT.

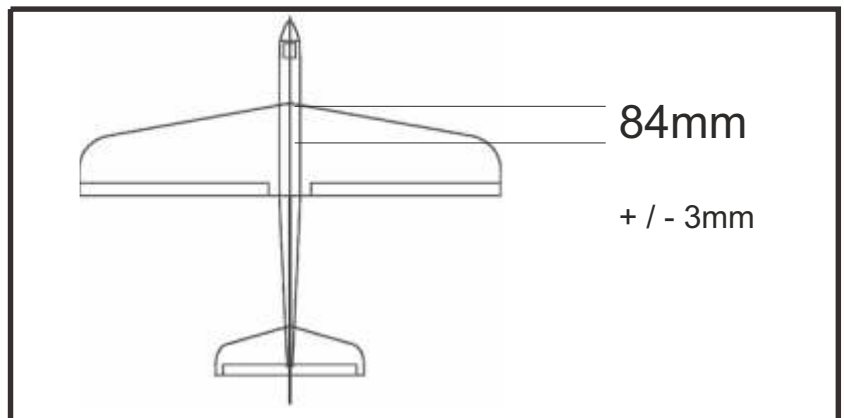
Installing the fuselage hatch as same as picture below



READ NEXT PAGE ABOUT FIRST FLIGHT HINTS AND ADJUSTMENTS

Lesen Sie die nächste Seite sorgfältig: Erstflug und Einstelltipps

Schwerpunkt / C.G.



The ideal C.G. (Center of Gravity) is measured 84mm from the wing leading edge where the wing meets the fuselage. Expert Pilots can move the C.G. another 3mm forth or back (81 -87mm)

Der ideale Schwerpunkt befindet sich 84mm hinter der Tragflächen-Nasenleiste. Gemessen von dem Punkt aus, an dem die Tragfläche an den Rumpf trifft.

Experten können bis den Schwerpunkt noch um 3mm nach vorne oder hinten variieren (81 -87mm)

Erstflug

Den Schwerpunkt durch Verschieben des Akkus einstellen, auch um die Querachse auszuwägen.

Ruderausschläge für den Erstflug:

Die Werte sind jeweils ausgehend von der im Plan dargestellten Einstellung Normal.

Höhenruder: nach oben 15 mm, nach unten 15 mm

Querruder: nach oben 16 mm, nach unten 13 mm

Wölbklappe: nach oben ca. 2 mm, nach unten ca. 3 mm, zum Landen evtl. etwas mehr.

Achtung die Klappe wirkt als Tiefenruder und muss mit Höhenruder ausgeglichen werden.

Mit dem Querruder kann man auch die Wölbklappen leicht mitnehmen, dies erhöht

die Rollrate. Aber auch komplett ohne die Wölbklappen fliegt der Killer-Hai bereits sehr gut.

Dies sind nur Vorschläge für den Erstflug. Für max. Wendigkeit mit weichem Ansprechen fliege ich auf Höhen und Querruder mit grossen Ausschlägen und mische mind. 50 % Exponential dazu.

Für den Start werden die Höhenruder ausgehend von der Einstellung Normal noch mal um

ca. 3 mm hochgetrimmt. Damit wird ein Durchsacken vermieden, dies ist speziell wenn man selber wirft sehr hilfreich. Das Modell wird mit laufendem Motor leicht nach oben geworfen,

sonst zieht der Motorsturz das Modell zuerst nach unten.

Hat man den empfohlenen PICHLER Boost Motor drin geht es senkrecht nach oben...

Nach ein paar Eingewöhnungsrunden sollte der Schwerpunkt überprüft werden. Geht der Killer-Hai selbst mit leicht gezogenem Höhenruder stark nach unten und lässt sich nicht langsam machen ist der Schwerpunkt zu weit vorne. Wird der Hai mit leicht gezogenem Höhenruder unruhig oder kippt mit voll gezogenem Höhenruder ab, ist der Schwerpunkt zu weit hinten. Voraussetzung ist natürlich das der Killer-Hai auch um die Längsachse ausgewogen ist und die Höhenruderausschläge gleich groß sind!

First flight and adjustments

Adjust the ideal C.G. by moving the flight battery. You need to adjust the vertical and horizontal balance.

Control throws for the first flight:

Elevator 15mm up and down

Aileron 16mm up and 13mm down

Flaps 2mm up and 3mm down (a little more when landing)

It is possible to assist the ailerons with the flaps simultaneously, the roll-factor will increase.

But even without any flaps, the model flies very well. These control throws are for the first flight and you can increase the throws after you are familiar with the model.

We found the Expo Rate 50% works very well.

When launching the model, you can set 3mm up elevator, which can prevent the model from stalling during launch. With the motor running, hold the model with the nose slightly upwards, otherwise, the motor thrust will pull the model to the ground. |

After the first minutes of flying, you should check the center of gravity. If you apply slightly elevator up and model flies downwards and can not slow down, or stalling when pulling full elevator up = the C.G. is too much at the back. Of course, the model must be balanced on the vertical axis, as said before, and the control throws for elevators must be the same.