

450 Scale Fuselage 500E

INSTRUCTION MANUAL

使用說明書



Thank you for buying ALIGN products. Please read this manual carefully before assembling. We recommend that you keep this manual for future reference regarding tuning and maintenance.

承蒙閣下選用亞拓遙控世界系列產品，謹表謝意。進入遙控世界之前必須告訴您許多相關的知識與注意事項，以確保您能夠在學習的過程中較得心應手。在開始操作之前，請務必詳閱本說明書，相信一定能夠給您帶來相當大的幫助，也請您妥善保管這本說明書，以作為日後參考。




Contents

1	INTRODUCTION 前言
1~2	SAFETY NOTES 安全注意事項
3	PREPARATION BEFORE ASSEMBLING 組裝前準備事項
4~6	ASSEMBLY STEPS 組裝步驟

Thank you for buying ALIGN Products. 450 scale fuselage 500E is designed as an easy to use. Please read the manual carefully before assembling the model, and follow all precautions and recommendations located within the manual. Be sure to retain the manual for future reference, routine maintenance, and tuning. The scale fuselage is designed for ALIGN T-REX 450 Helicopter series use. You can easily put it on your T-REX 450 for new clothing.

感謝您選購亞拓產品，為了讓您容易方便的使用 450 像真機殼 500E，請您詳細的閱讀完這本說明書之後再進行組裝以及操作這台直昇機，同時請您妥善的保存這本說明書、作為日後進行調整以及維修的參考。本像真機殼為針對亞拓 T-REX 450 系列直昇機之規格所設計，只要您擁有 T-REX 450，就可輕鬆為牠換件新衣，讓您成為眾所注目的焦點。

THE MEANING OF SYMBOLS 標誌代表涵義

 WARNING 警告	Mishandling due to failure to follow these instructions may result in damage or injury. 因為疏忽這些操作說明，而使用錯誤可能造成財產損失或嚴重傷害。
 CAUTION 注意	Mishandling due to failure to follow these instructions may result in danger. 因為疏忽這些操作說明，而使用錯誤可能造成危險。
 FORBIDDEN 禁止	Do not attempt under any circumstances. 在任何禁止的環境下，請勿嘗試操作。

IMPORTANT NOTES 重要聲明

R/C helicopters are not toys. R/C helicopter utilize various high-tech products and technologies to provide superior performance. Improper use of this product can result in serious injury or even death. Please read this manual carefully before using and make sure to be conscious of your own personal safety and the safety of others and your environment when operating all ALIGN products.

Manufacturer and seller assume no liability for the operation or the use of this product.

Intended for use only by adults with experience flying remote control helicopters at a legal flying field. After the sale of this product we cannot maintain any control over its operation or usage.

After assembling the scale fuselage, the weight will increase and the structure will be more complex, so we recommend not flying 3D to avoid any accident and damage.

遙控直昇機並非玩具，它是結合了許多高科技產品所設計出來的休閒用品，所以商品的使用不當或不熟悉都可能會造成嚴重傷害甚至死亡，使用之前請務必詳讀本說明書，勿輕忽並注意自身安全。注意！任何遙控直昇機的使用，製造商和經銷商是無法對使用者於零件使用的損耗異常或組裝不當所發生之意外負任何責任，本產品是提供給有操作過模型直昇機經驗的成人或有相當技術的人員在旁指導於當地合法遙控飛行場飛行，以確保安全無虞下操作使用，產品售出後本公司將不負任何操作和使用控制上的任何性能與安全責任。安裝像真機殼後由於重量加重，且增加了結構的複雜性，故不建議進行3D飛行，以免發生不可預期的意外及損失。

R/C products require a certain degree of skill to operate, and is a consumer item. Any damage or dissatisfaction as a result of accidents or modifications are not covered by any warrantee and cannot be returned for repair or replacement. Please contact our distributors for free technical consultation and parts at discounted rates when you experience problems during operation or maintenance.

模型商品屬於需高操作技術且為消耗性之商品，如經拆裝使用後，會造成不等情況零件損耗，任何使用情況所造成商品不良或不滿意，將無法於保固條件內更換新品或退貨，如遇有使用操作維修問題，本公司全省分公司或代理商將提供技術指導、特價零件供應服務。

2. SAFETY NOTES 安全注意事項



Fly only in safe areas, away from other people. Do not operate R/C aircraft within the vicinity of homes or crowds of people. R/C aircraft are prone to accidents, failures, and crashes due to a variety of reasons including, lack of maintenance, pilot error, and radio interference. Pilots are responsible for their actions and damage or injury occurring during the operation or as of a result of R/C aircraft models.

遙控模型飛機、直昇機屬高危險性商品，飛行時務必遠離人群，人為組裝不當或機件損壞、電子控制設備不良，以及操控上的不熟悉、都有可能導致飛行失控損傷等不可預期的意外，請飛行者務必注意飛行安全，並需了解自負疏忽所造成任何意外之責任。



LOCATE AN APPROPRIATE LOCATION 遠離障礙物及人群

R/C helicopters fly at high speed, thus posing a certain degree of potential danger. Choose an a legal flying field consisting of flat, smooth ground without obstacles. Do not fly near buildings, high voltage cables, or trees to ensure the safety of yourself, others and your model. For the first practice, please choose a legal flying field and can use a training skid to fly for reducing the damage. Do not fly your model in inclement weather, such as rain, wind, snow or darkness.

直昇機飛行時具有一定的速度，相對的也潛在著危險性，場地的選擇也相對的重要，請需遵守當地法規到合法搖控飛行場地飛行。必須注意周遭有沒有人、高樓、建築物、高壓電線、樹木等等，避免操控的不當造成自己與他人財產的損壞。初次練習時，務必選擇在空曠合法專屬飛行場地並適當搭配練習架練習飛行，這對飛行失誤所造成的損傷將會大幅的降低。請勿在下雨、打雷等惡劣天候下操作，以確保本身及機體的安全。



PREVENT MOISTURE 遠離潮濕環境

R/C models are composed of many precision electrical components. It is critical to keep the model and associated equipment away from moisture and other contaminants. The introduction or exposure to water or moisture in any form can cause the model to malfunction resulting in loss of use, or a crash. Do not operate or expose to rain or moisture.

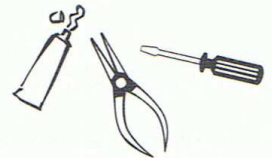
直昇機內部也是由許多精密的電子零組件組成，所以必須絕對的防止潮濕或水氣，避免在浴室或雨天時使用，防止水氣進入機身內部而導致機件及電子零件故障而引發不可預期的意外！



PROPER OPERATION 勿不當使用本產品

Please use the replacement of parts on the manual to ensure the safety of instructors. This product is for R/C model, so do not use for other purpose.

請勿自行改造加工，任何的升級改裝或維修，請使用亞拓產品目錄中的零件，以確保結構的安全。請確認於產品限界內操作，請勿過載使用，並勿用於安全、法令外其它非法用途。



OBTAIN THE ASSISTANCE OF AN EXPERIENCED PILOT 避免獨自操控

Before turning on your model and transmitter, check to make sure no one else is operating on the same frequency. Frequency interference can cause your model, or other models to crash. The guidance provided by an experienced pilot will be invaluable for the assembly, tuning, trimming, and actual first flight. (Recommend you to practice with computer-based flight simulator.)

至飛行場飛行前，需確認是否有相同頻率的同好正進行飛行，因為開啓相同頻率的發射機將導致自己與他人立即干擾等意外危險。遙控飛機操控技巧在學習初期有著一定的難度，要盡量避免獨自操作飛行，需有經驗的人士在旁指導，才可以操控飛行。
(動線電腦模擬器及老手指導是入門必要的選擇)



SAFE OPERATION 安全操作

Operate this unit within your ability. Do not fly under tired condition and improper operation may cause in danger.

請於自己能力內及需要一定技術範圍內操作這台直昇機，過於疲勞、精神不佳或不當操作，意外發生風險將可能會提高。



ALWAYS BE AWARE OF THE ROTATING BLADES 遠離運轉中零件

During the operation of the helicopter, the main rotor and tail rotor will be spinning at a high rate of speed. The blades are capable of inflicting serious bodily injury and damage to the environment. Be conscious of your actions, and careful to keep your face, eyes, hands, and loose clothing away from the blades. Always fly the model a safe distance from yourself and others, as well as surrounding objects. Never take your eyes off the model or leave it unattended while it is turned on. Immediately turn off the model and transmitter when you have landed the model.

當直昇機主旋翼與尾旋翼運轉時，切勿觸摸並遠離任何物件，以避免造成危險及損壞。



KEEP AWAY FROM HEAT 遠離熱源

R/C models are made up various forms of plastic. Plastic is very susceptible to damage or deformation due to extreme heat and cold climate. Make sure not to store the model near any source of heat such as an oven, or heater. It is best to store the model indoors, in a climate-controlled, room temperature environment.

遙控飛機多半是以 PA 纖維或聚乙烯、電子商品為主要材質，因此要盡量遠離熱源、日曬，以避免因高溫而變形甚至熔毀損壞的可能。



450 scale fuselage 500E, suitable for TREX 450 Helicopter series.

450像真機殼500E，適用於T-REX450遙控直昇機系列。

Before Assembling

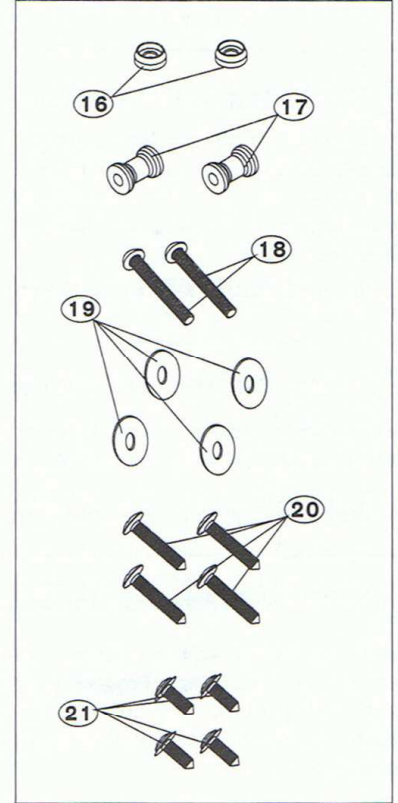
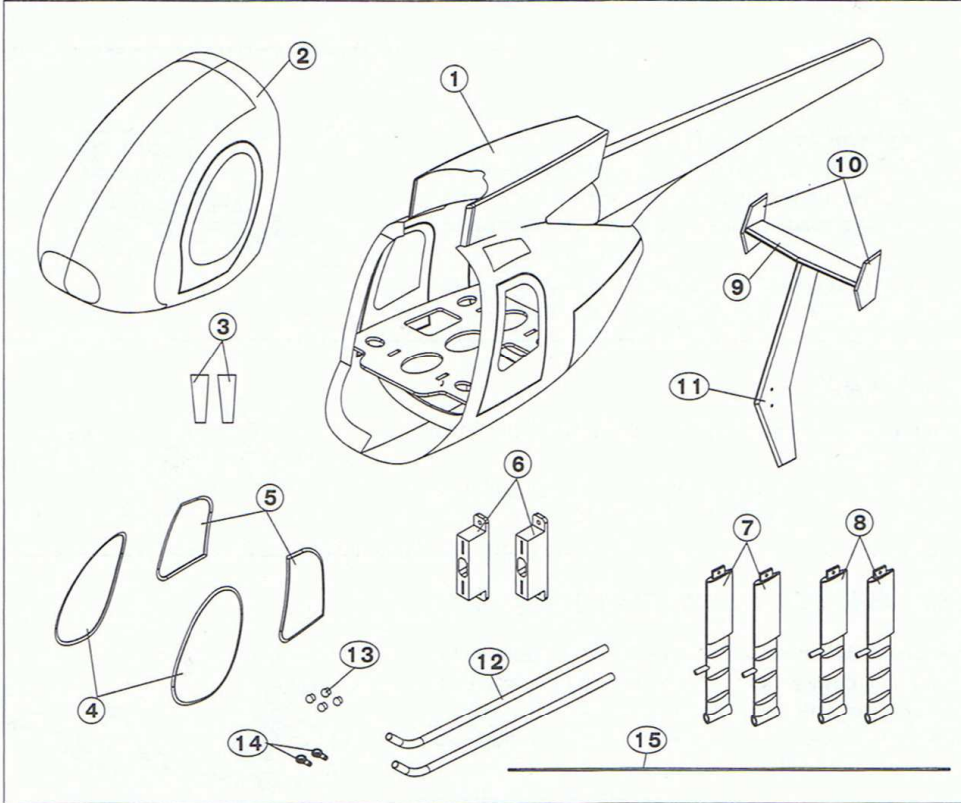
1、Check for all the parts in the list come with the manual.

2、Some basic tools are needed to help the assembly.

組裝前準備事項

1、組裝之前請先確定內容物是否有缺失，仔細詳對後方可進行組裝。

2、組裝過程裡需要一些簡單的工具協助組裝。



- 1.500E Fuselage x1
- 2.500E Canopy 1
- 3.500E Top window x2
- 4.500E Front window x2
- 5.500E Rear window x2
- 6.Height retainer x2
- 7.Front landing skid x2
- 8.Rear landing skid x2
- 9.Horizontal Stabilizerx1
- 10.Tip fin x2
- 11.Vertical stabilizer x1
- 12.Skid pipe x2
- 13.Skid pipe end cap x2
- 14.Ball link(Long) x2
- 15.500E Rudder control rod $\phi 1.3 \times 300\text{mm}$ x1
- 16.M2 specialty washer x2
- 17.Aluminum link x2
- 18.Screw M2x14mmx2
- 19.M2 Washer $\phi 2.2 \times \phi 5 \times 0.5\text{mm}$ x4
- 20.Screw T2x14mmx4
- 21.Screw T2.3x8mmx4

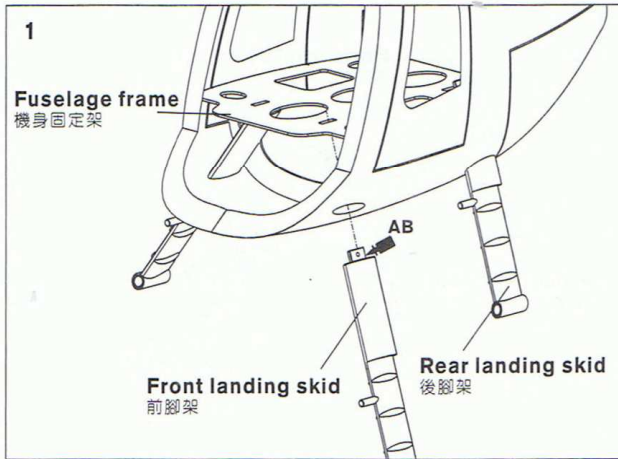
- 1.500E 機殼 x1
- 2.500E 機艙罩 x1
- 3.500E 上窗蓋 x2
- 4.500E 前窗蓋 x2
- 5.500E 後窗蓋 x2
- 6.頂高架 x2
- 7.前腳架 x2
- 8.後腳架 x2
- 9.水平翼 x1
- 10.水平翼垂直片 x2
- 11.垂直翼 x1
- 12.腳架鋁管 x2
- 13.腳架鋁管保護套 X4
- 14.連桿頭(長) x2
- 15.500E尾舵控制連桿 $\phi 1.3 \times 300\text{mm}$ x1
- 16.M2特殊華司 $\phi 2 \times \phi 5 \times 2\text{mm}$ x2
- 17.上下側板接合鋁柱 $\phi 2 \times \phi 5 \times 7.5\text{mm}$ x2
- 18.半圓頭內六角螺絲 M2x14mm x2
- 19.M2華司 $\phi 2.2 \times \phi 5 \times 0.5\text{mm}$ x4
- 20.圓頭十字自攻螺絲 T2x14mm x4
- 21.華司面自攻螺絲 T2.3x8mm x4

Tool

- 1、Cutter knife
- 2、Hexagon screw driver
- 3、Phillips screw driver
- 4、File
- 5、Diagonal cutting pliers
- 6、Fine sandpaper
- 7、CA glue
- 8、AB glue
- 9、Scissors

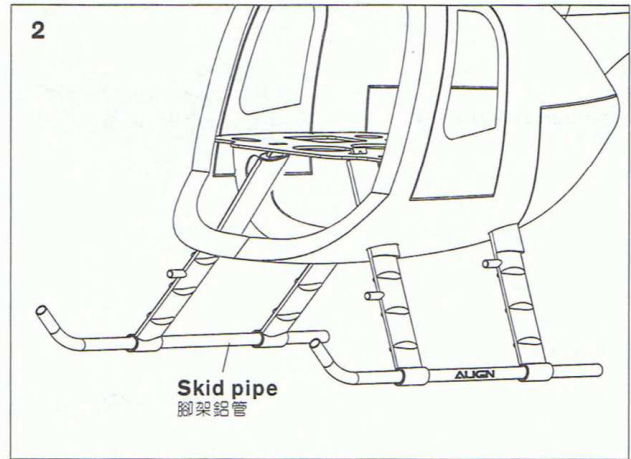
自備工具

- 1、美工刀
- 2、六角起子
- 3、十字起子
- 4、銼刀
- 5、斜口鉗
- 6、細砂紙
- 7、瞬間膠
- 8、AB膠
- 9、剪刀



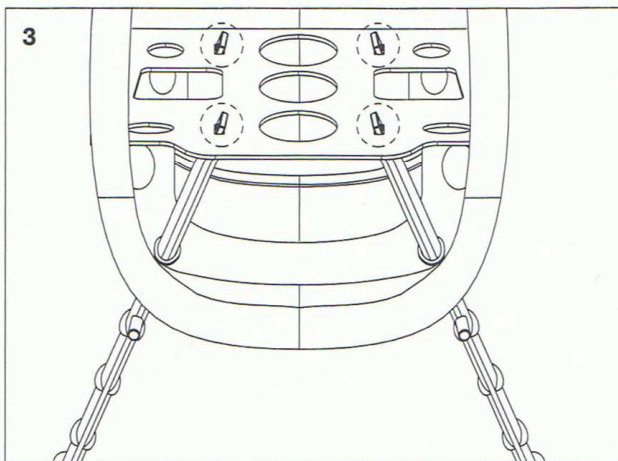
Apply AB glue at the marked position on the landing skid. Then insert to the fuselage and wait until dry.

如標示處，將腳架上端面塗上AB膠，然後穿入機殼，使腳架上端面與機身固定架之預留孔膠合，並靜置乾固。



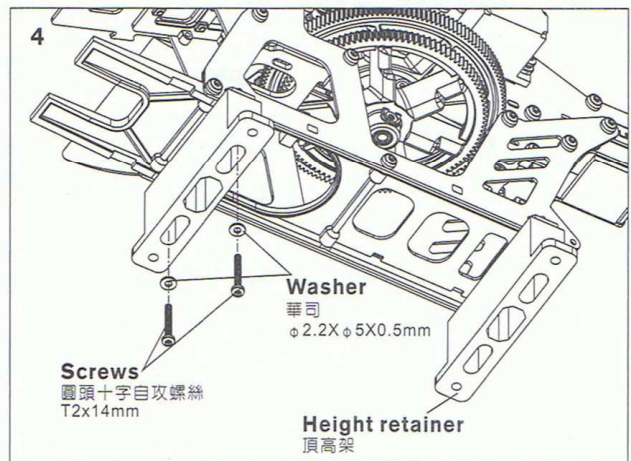
Insert the skid pipes (two pieces) into the front and rear landing skids as illustration.

如圖所示，腳架鋁管(兩支)穿入前、後腳架。



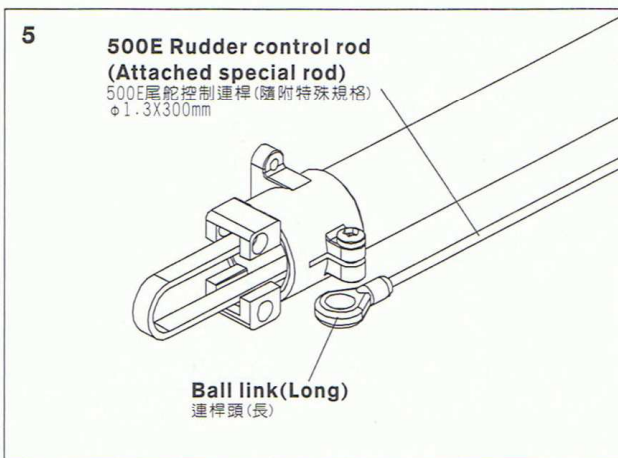
Use a diagonal cutting pliers to cut the protruding part and sandpaper to make it smooth.

使用斜口鉗將腳架凸出部分去除且使用細砂紙磨平。



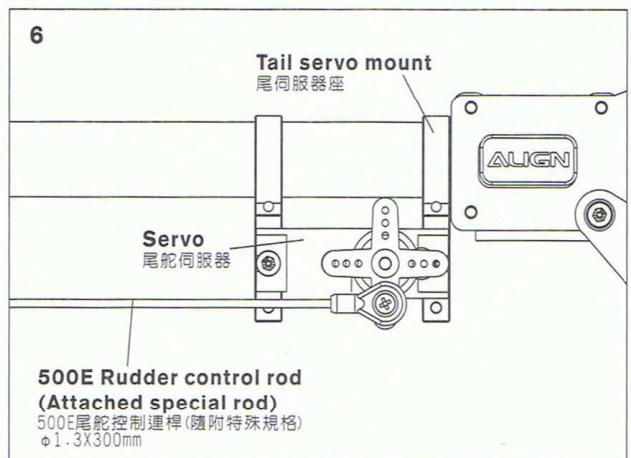
Remove the landing skid of Trex450 helicopter and fix the height retainer on T-REX bottom plate with screws T2x14 and M2 washers.

拆除T-REX450腳架，以圓頭十字自攻螺絲T2x14mm及M2華司將頂高架固定於T-REX底板。



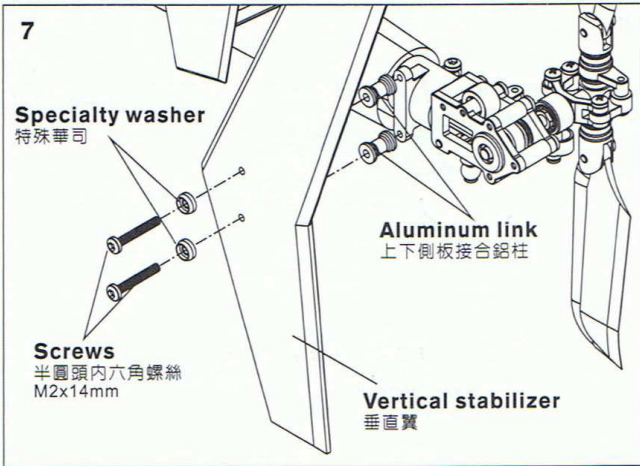
Remove the tail boom brace, horizontal and vertical stabilizers, and tail case (L/R).

將直昇機尾管支撐架、水平翼、垂直翼、尾組齒輪座左右等零件拆下以便穿入機殼。



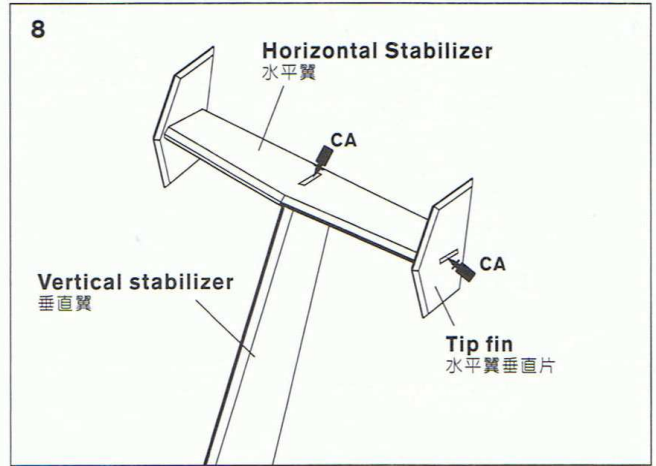
Install a tail servo on the tail boom as illustration and switch to 500E attached special rudder control rod φ1.3x300mm.

如圖所示，將尾舵伺服器貼齊尾管固定座，並更換隨附特殊φ1.3x300mm的500E尾舵控制連桿。



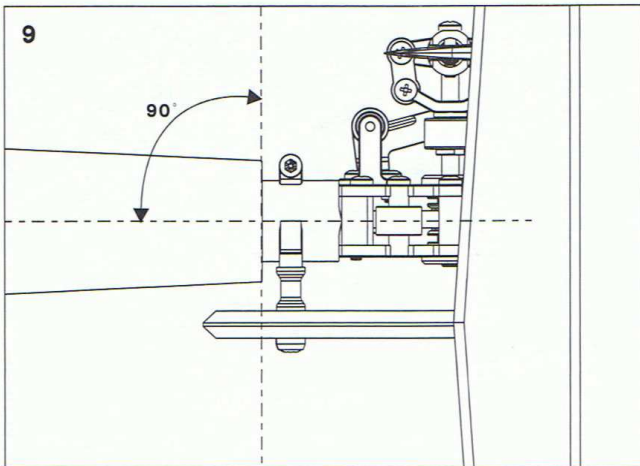
Assemble the helicopter into the fuselage and re-install the tail case and tail rotor assembly step by step. Then assemble the vertical stabilizer as illustration.

將T-REX機身穿入機殼，使尾管露出機殼尾部，再將原本拆下的尾齒輪座組與尾旋翼組依序裝回，接著如圖示裝上垂直翼。



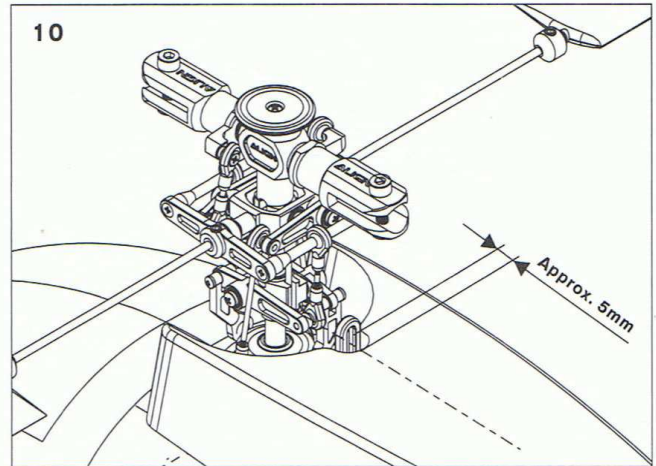
Apply some CA glue on the joints of horizontal stabilizer and tip fins and keep them vertical. Apply some CA glue on the joints of vertical stabilizer and horizontal stabilizer and keep horizontal.

如圖所示，水平翼與水平翼左、右垂直片安裝處點上瞬間膠並保持垂直貼附；垂直翼與水平翼安裝處點上瞬間膠並保持水平貼附。



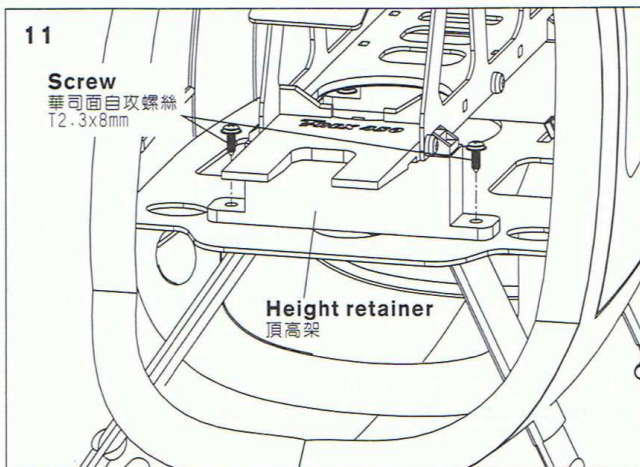
Adjust the fixing position of the height retainer and keep the center lines of the tail boom and the fuselage at the same level.

調整機身頂高架的位置，使尾管與機殼在同一中心線上。



After Step 9, adjust the fixing position of the height retainer and make the main rotor head assembly at the center line of the fuselage. Note to keep 5mm gap between the anti-rotation bracket and the fuselage.

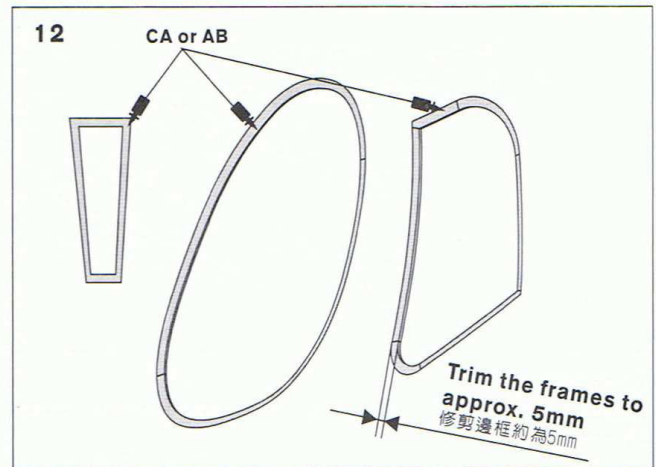
按步驟9，調整機身頂高架位置使旋翼頭組位於機殼的中心線上，注意十字盤導板與機殼須保留約5mm的間隙。



After the adjustment, fix the height retainer and the fuselage frame with screws T2.3x8mm.

(NOTE: Use a screw driver through the top window to fix the rear height retainers.)

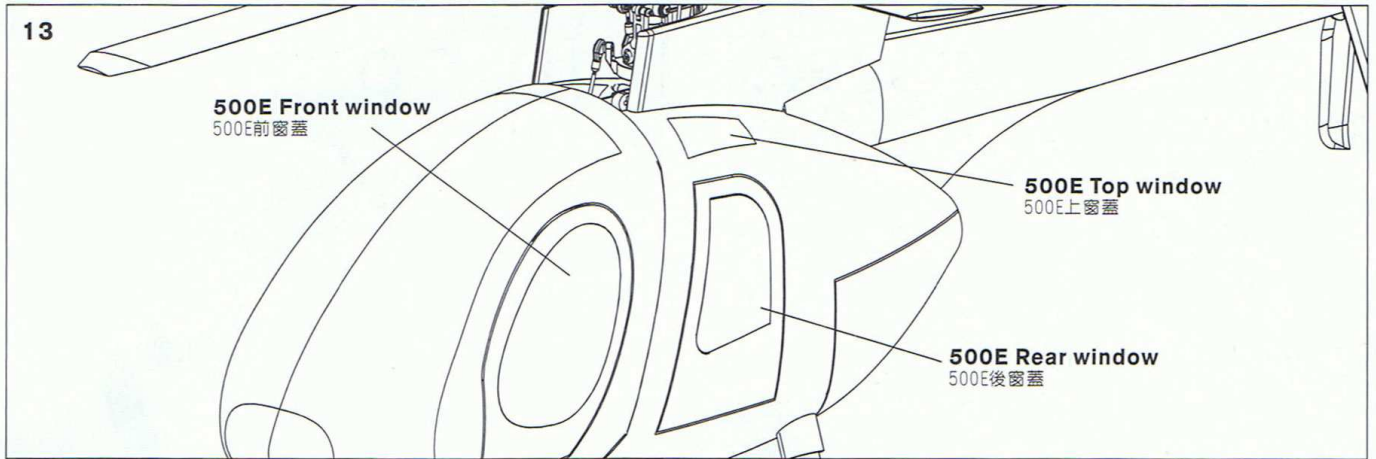
將位置調整好後，以T2.3x8mm華司面螺絲將頂高架與機身固定架鎖附固定。(PS.後頂高架可將螺絲起子由機殼上窗塞穿入鎖附。)



Apply some CA glue or AB glue on the canopy as illustration.

如圖標示位置，於機籠罩點上瞬間膠或AB膠後，固定在機殼上。

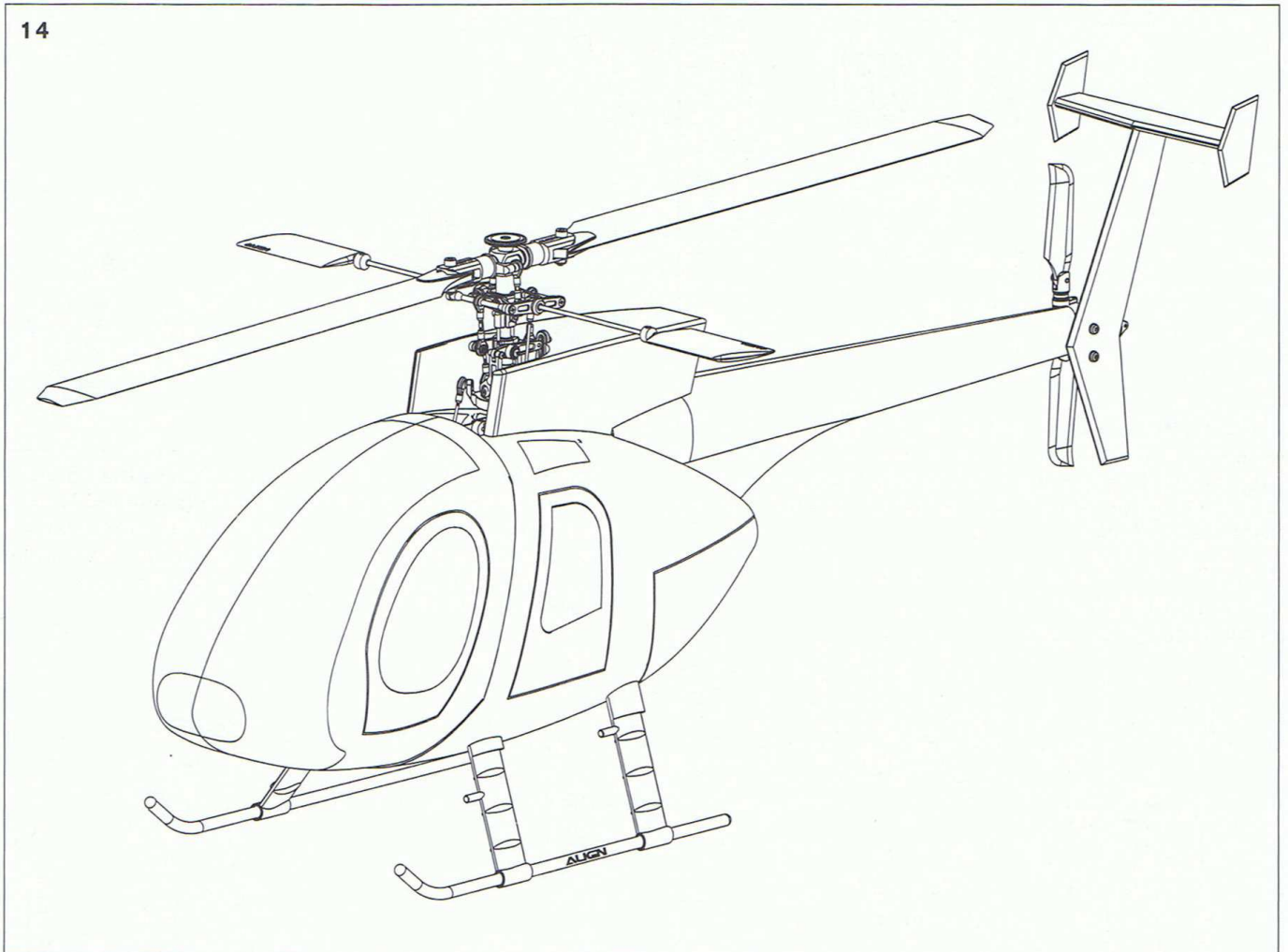
13



Assemble the front and rear windows on the fuselage as illustration (Recommend not assembling the rear windows to increase the airflow efficiency.)

如圖所示，將窗蓋貼附於機殼上(建議後窗蓋不安裝以增加散熱效果)。

14



Complete illustration

Before flying, please carefully check every part again to make sure all parts are firmly secured without any interference.

組立完成圖。
請詳細檢查各部位是否確實鎖緊與固定，並確認無干涉情形後才可飛行。

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Specifications & Equipment/規格配備:

Length/機身長: 685mm

Height/機身高: 327mm

Width/機身寬: 162mm

Weight/空機重: 305g

Suitable for ALIGN T-REX450 series

適合ALIGN T-REX 450 機型

