

TREX 600 V2

Nitro
LIMITED EDITION

ALIGN

INSTRUCTION MANUAL

使用說明書

KX0160NPOAT



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Thank you for buying ALIGN products. The **T-REX 600N V2** is the latest technology in Rotary RC models. Please read this manual carefully before assembling and flying the new **T-REX 600N V2** helicopter. 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。

Thank you for buying ALIGN Products. The T-REX 600N V2 Helicopter is designed as an easy to use, full featured Helicopter R/C model capable of all forms of rotary flight. 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 T-REX 600N V2 is a new product developed by ALIGN. It provides flying stability for beginners, full aerobatic capability for advanced fliers, and unsurpassed reliability for customer support.

感謝您選購亞拓產品，為了讓您容易方便的使用 T-REX 600N V2 直昇機，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。T-REX 600N V2 是由亞拓自行研發的新產品，不論你是需求飛行穩定性的初學者或是追求性能的飛行愛好者。T-REX 600N V2 將是你最佳的選擇。

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, including the T-REX 600N V2 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.

T-REX 600N V2 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。

We recommend that you obtain the assistance of an experienced pilot before attempting to fly our products for the first time. A local expert is the best way to properly assemble, setup, and fly your model for the first time. The T-REX 600N V2 requires 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 warranty 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

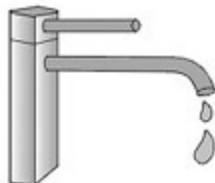
R/C helicopters fly at high speed, thus posing a certain degree of potential danger. Choose an a legal flying field consisting of flat, smooth ground without obstacles. Do not fly near buildings, high voltage cables, or trees to ensure the safety of yourself, others and your model. For the first practice, 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

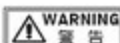
Please use the replacement of parts on the manual to ensure the safety of instructors. This product is for R/C model, so do not use for other purpose.

請勿自行改造加工，任何的升級裝裝或維修，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。



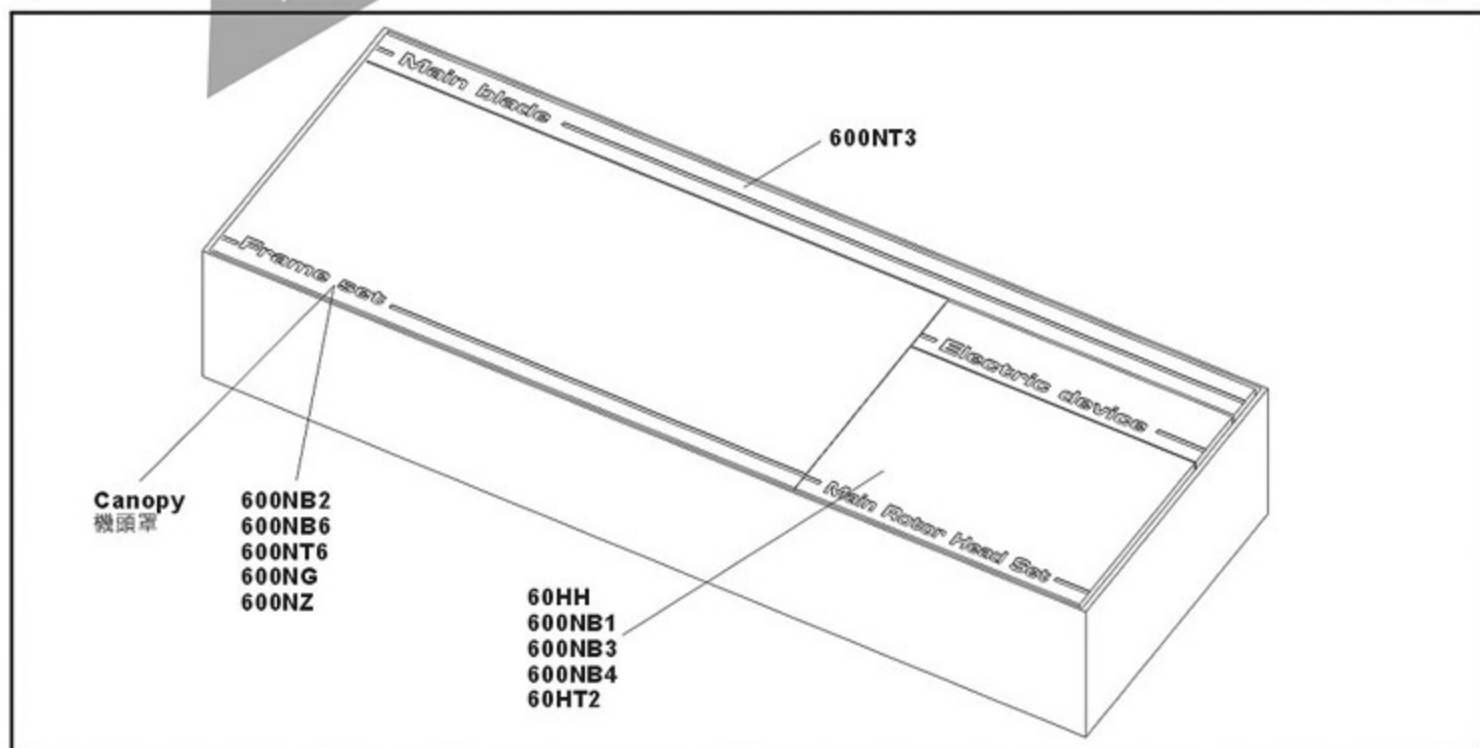
RADIO TRANSMITTER AND ELECTRONIC EQUIPMENT REQUIRED FOR ASSEMBLY 自備遙控及電子設備

<p>Transmitter (7-channel or more, helicopter system) 發射機(七動以上直昇機模式遙控器)</p>	<p>Receiver(7-channel or more) 接收機(七動以上)</p>	<p>Standard size throttle servo (minimum speed 0.10 sec/60°, torque 3kg.cm or higher) 油門用標準伺服器 x 1pc (速度:0.10秒/60度以內, 扭力:3kg.cm以上)</p>	<p>Engine Starter x 1pc 啟動器 x 1</p>	<p>Fuel Pump x 1pc 加油器 x 1</p>
<p>Pitch Gauge x 1pc 螺距規 x 1</p>	<p>Engine Fuel x 1pc 引擎燃油 x 1</p>	<p>50 Muffler x 1pc 50高效加速管 x 1</p>	<p>ALIGN 50 Engine ALIGN 50引擎</p>	<p>DS610 Digital Servo x 3 DS610數位伺服器 x 3</p>
<p>GP780 Head Lock Gyro Combo GP780鎖定式陀螺儀組 (GP780+DS620)</p>	<p>2 In 1 Voltage Regulator Combo 二合一降壓器Combo</p>	<p>RCE-G600 Governor RCE-G600定速器</p>	<p>600D Carbon Fiber Blade 600D碳纖主旋翼</p>	

ADDITIONAL TOOLS REQUIRED FOR ASSEMBLY 自備工具

<p>Scissors 剪刀</p>	<p>Cutter Knife 刀子</p>	<p>Diagonal Cutting Pliers 斜口鉗</p>	<p>Needle Nose Pliers 尖嘴鉗</p>
<p>Oil 潤滑油</p>	<p>CA 瞬間膠</p>	<p>Hexagon Screw Driver 六角螺絲起子 3mm/2.5mm/2mm/1.5mm</p>	<p>Philips Screw Driver 十字螺絲起子 φ 3.0/φ 1.8mm</p>

4.PACKAGE ILLUSTRATION 包裝說明



CAREFULLY INSPECT BEFORE REAL FLIGHT 請嚴格執行飛行前檢查義務

- ☆ **Before flying, please check to make sure no one else is operating on the same frequency for the safety.**
- ☆ **Before flight, please check if the batteries of transmitter and receiver are enough for the flight.**
- ☆ **Before turn on the transmitter, please check if the throttle stick is in the lowest position. IDLE switch is OFF.**
- ☆ **When turn off the unit, please follow the power on/off procedure. Power ON- Please turn on the transmitter first, and then turn on receiver. Power OFF- Please turn off the receiver first and then turn off the transmitter. Improper procedure may cause out of control, so please to have this correct habit.**
- ☆ **Before operation, check every movement is smooth and directions are correct. Carefully inspect servos for interference and broken gear.**
- ☆ **Check for missing or loose screws and nuts. See if there is any cracked and incomplete assembly of parts. Carefully check main rotor blades and rotor holders. Broken and premature failures of parts possibly cause resulting in a dangerous situation.**
- ☆ **Check all ball links to avoid excess play and replace as needed. Failure to do so will result in poor flight stability.**
- ☆ **Check the battery and power plug are fastened. Vibration and violent flight may cause the plug loose and result out of control.**
- ★ 每次飛行前應先確認所使用的頻率是否會干擾他人，以確保你自身與他人的安全。
- ★ 每次飛行前確定您發射機與接收機電池的電量是在足夠飛行的狀態。
- ★ 開機前確認油門搖桿是否位於最低點，熄火降落開關，定速開關 (IDLE) 是否於關閉位置。
- ★ 關機時必須遵守電源開關機的程序，開機時應先開啓發射機後，再開啓接收機電源；關機時應先關閉接收機後，再關閉發射機電源。不正確的開關程序可能會造成失控的現象，影響自身與他人的安全，請養成正確的習慣。
- ★ 開機請先確定直昇機各個動作是否順暢，及方向是否正確，並檢查伺服器的動作是否有干涉或崩齒的情形，使用故障的伺服器將導致不可預期的危險。
- ★ 飛行前確認沒有缺少或鬆脫的螺絲與螺帽，確認沒有組裝不完整或損毀的零件，仔細檢查主旋翼是否有損壞，特別是接近主旋翼夾座的部位。損壞或組裝不完整的零件不僅影響飛行，更會造成不可預期的危險。注意對損耗、有裂痕零件更新及定期保養檢查的重要性。
- ★ 檢查所有的連桿頭是否有鬆脫的情形，過鬆的連桿頭應先更新，否則將造成直昇機無法操控的危險。
- ★ 確認電池及電源接頭是否固定牢靠，飛行中的震動或激烈的飛行，可能造成電源接頭鬆脫而造成失控的危險。

Standard Equipment 標準配備

 600NC	 600NB6	 600NB1	 600NB2	 600NB8	 600NB4
 600NT2	 600NT2	 600NZ	 60HH	 600NG	 600NT1

When you see the marks as below, please use glue or grease to ensure flying safety.

標有下符號之組裝步驟，請配合上膠或上油，以確保使用之可靠度。

- CA: Apply CA Glue to fix.
- R48: Apply Anaerobics Retainer to fix.
- T43: Apply Thread Lock to fix.
- OIL: Add Grease.
- CA: 使用瞬間膠固定
- R48: 使用金屬管狀固定缺氧膠固定
- T43: 使用螺絲膠
- OIL: 添加潤滑油

When assembling ball links, make sure the "A" character faces outside.

各項塑膠製連桿扣接時，A字請朝外。

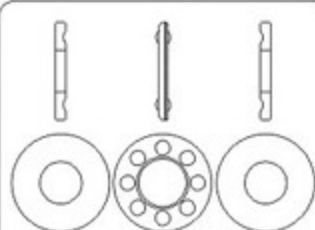


R48 metal tubular adhesive (eg. Bearings). T43 thread lock, apply a small amount on screws or metal parts and wipe surplus off.

When disassembling, recommend to heat the metal joint about 15 Seconds. (NOTE: Keep plastic parts away from heat.)

R48 為強力金屬管狀 (如軸承) 接著劑，T43 為螺絲膠，膠合螺絲或金屬內外徑請務必少量使用，必要時請用手去除多餘膠量，欲拆卸時可於金屬接合部位熱烤約15秒。(注意！塑膠件避免接近熱源)

60HH1



Thrust bearing
止推軸承(φ6xφ14x5mm) x2



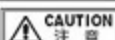
Spindle bearing spacer
橫軸軸承墊片(φ10xφ13.8x0.4mm) x2



Bearing
軸承(φ8xφ14x4mm) x4



Socket collar screw
圓頭內六角螺絲(M3x6mm)x4



注意

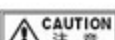
Thrust bearing and washer for radial bearing are wear items, and thus should be inspected for replacement after every 20 flights. For flights with high headspeed, the inspection interval should be reduced to ensure flight safety.
止推軸承及橫軸墊圈屬於飛行消耗品，建議每20趟定期檢查及更換。高主旋翼轉速飛行時，請縮短定期檢查之趟數，以確保飛行安全。

Apply a little amount of T43 thread lock when fixing a metal part.
螺絲鎖附於金屬件請使用適量T43(螺絲膠)



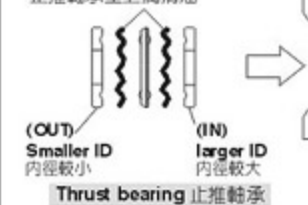
注意

Already assembled by Factory. Before flying, please check if the screws are fixed with glue.
廠家組裝完成品，每一次飛行前請先確認螺絲是否已上膠不鬆動。

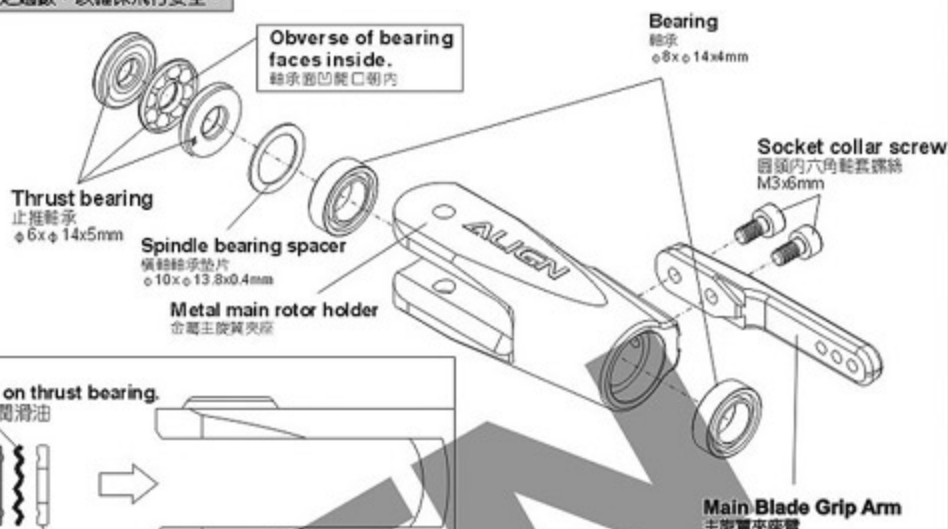


注意

Apply grease on thrust bearing.
止推軸承塗上潤滑油



Thrust bearing 止推軸承



Thrust bearing
止推軸承
φ6xφ14x5mm

Spindle bearing spacer
橫軸軸承墊片
φ10xφ13.8x0.4mm

Metal main rotor holder
金屬主旋翼夾座

Bearing
軸承
φ8xφ14x4mm

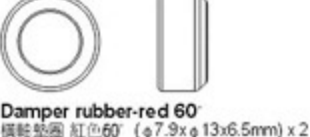
Socket collar screw
圓頭內六角螺絲
M3x6mm

Main Blade Grip Arm
主旋翼夾座臂

60HH1



Feathering shaft sleeve
橫軸支撐套(φ8xφ10x31mm) x1



Damper rubber-red 60°
橫軸墊圈 紅色60° (φ7.9xφ13x6.5mm) x2



Damper rubber-black 80°
橫軸墊圈 黑色80° (φ7.9xφ13x6.5mm) x2



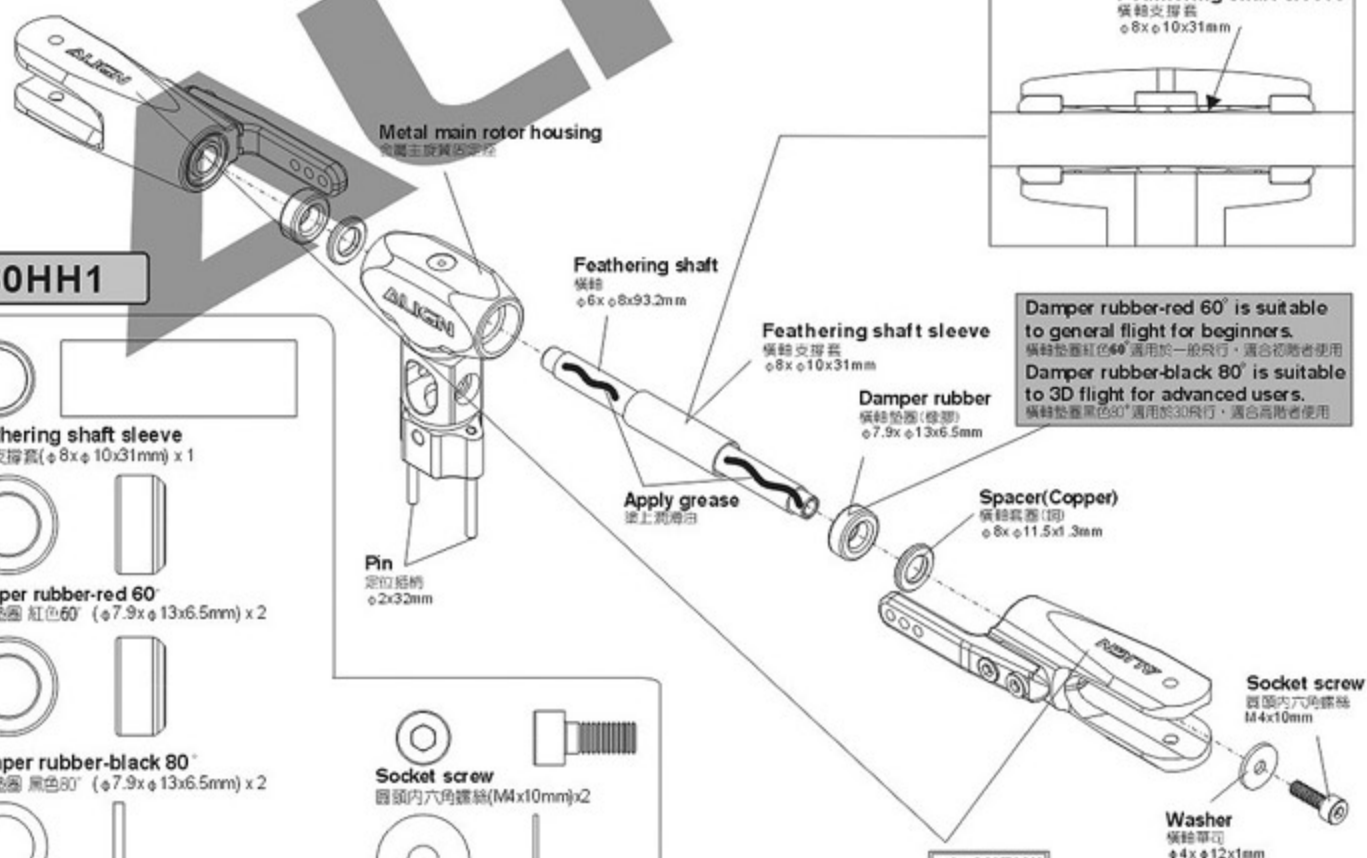
Spacer
橫軸墊圈(φ8xφ11.5x1.3mm) x2



Socket screw
圓頭內六角螺絲(M4x10mm)x2



Washer
橫軸墊圈(φ4xφ12x1mm)x2



Metal main rotor housing
金屬主旋翼殼罩

Feathering shaft
橫軸
φ6xφ8x93.2mm

Feathering shaft sleeve
橫軸支撐套
φ8xφ10x31mm

Damper rubber
橫軸墊圈(橡膠)
φ7.9xφ13x6.5mm

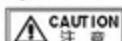
Spacer (Copper)
橫軸墊圈(銅)
φ8xφ11.5x1.3mm

Pin
定位插銷
φ2x32mm

Apply grease
塗上潤滑油

Socket screw
圓頭內六角螺絲
M4x10mm

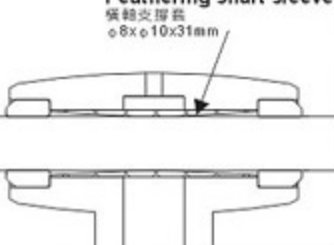
Washer
橫軸墊圈
φ4xφ12x1mm



注意

ALIGN logo on the top
字樣朝上

Feathering shaft sleeve
橫軸支撐套
φ8xφ10x31mm



Damper rubber-red 60° is suitable to general flight for beginners.
橫軸墊圈紅色60°適用於一般飛行，適合初學者使用
Damper rubber-black 80° is suitable to 3D flight for advanced users.
橫軸墊圈黑色80°適用於3D飛行，適合高階者使用

60HH1



60HH1A



Apply a little amount of T43 thread lock when fixing a metal part.
螺絲鎖附於金屬件請使用適量T43(螺絲膠)

Main blade grip

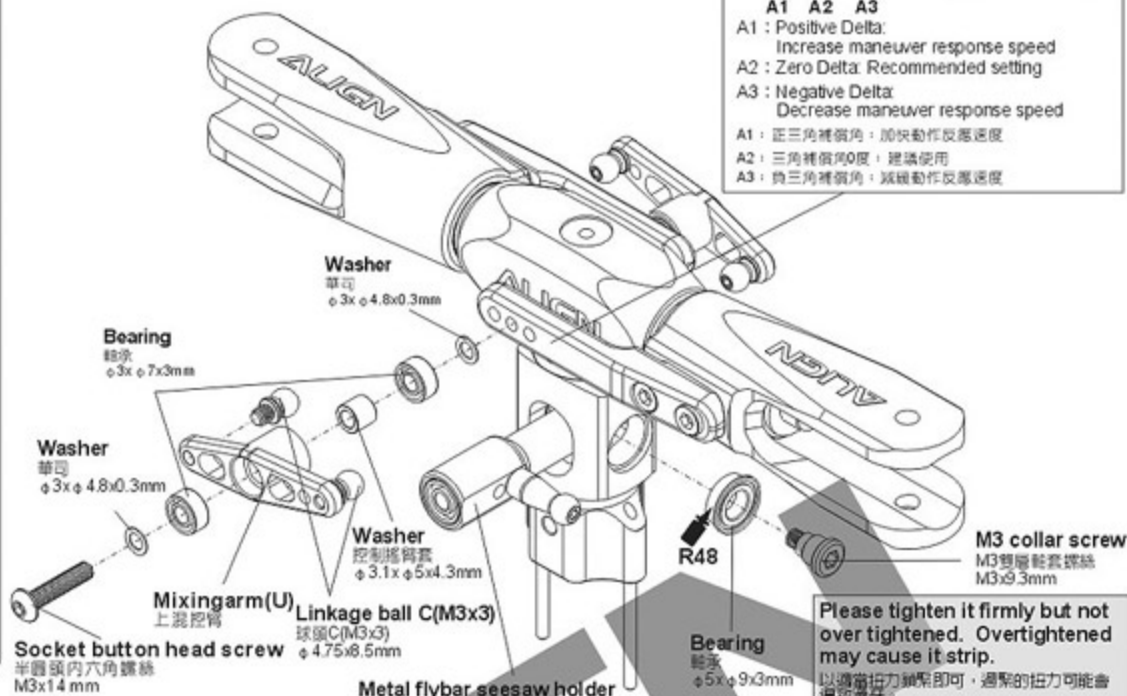
主旋翼夾座臂



A1 A2 A3

A1 : Positive Delta:
Increase maneuver response speed
A2 : Zero Delta: Recommended setting
A3 : Negative Delta:
Decrease maneuver response speed

A1 : 正三角補償角，加快動作反應速度
A2 : 三角補償角0度，建議使用
A3 : 負三角補償角，減緩動作反應速度



60HH2



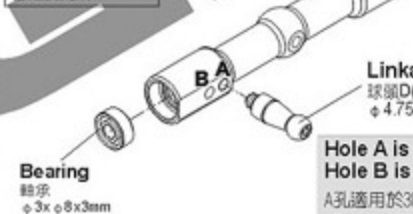
Mixingarm(U)

上混控臂孔位



Hole A is suitable for F3C flight
A孔適用於F3C飛行
Hole B is suitable for 3D flight
B孔適用於3D飛行

Already assembled by factory.
已組裝完成



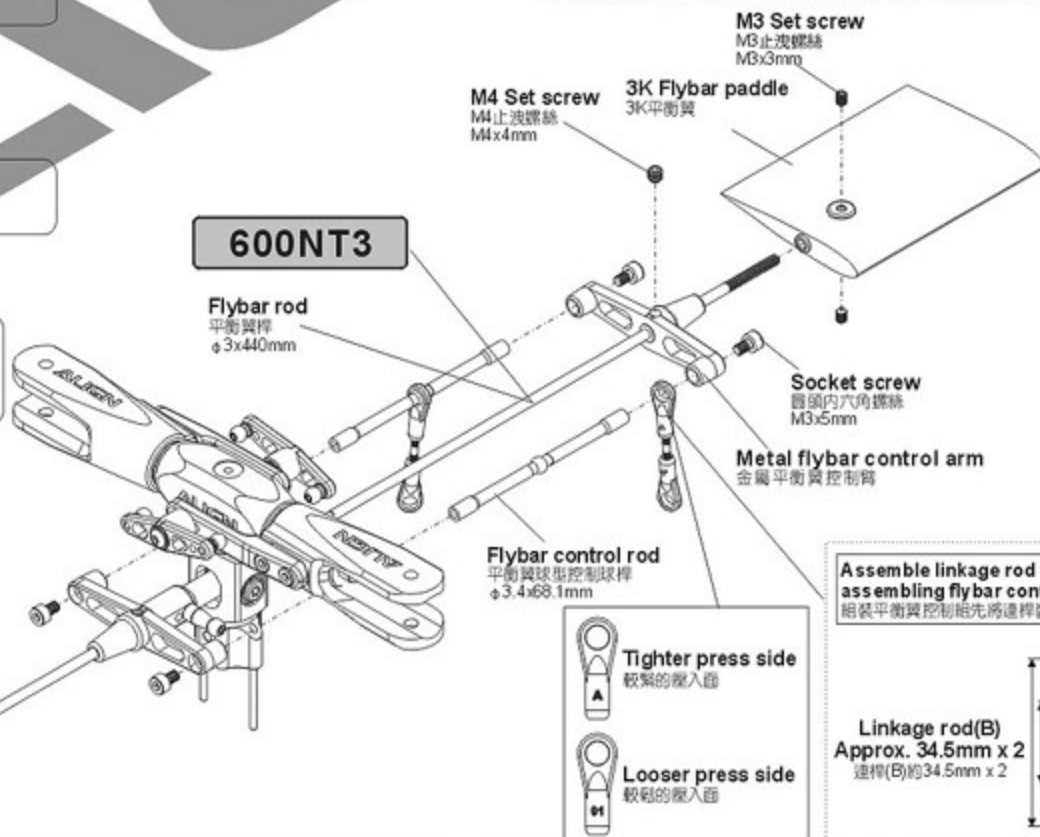
600NZ8



600NZ8A



600NT3



600NH12

60HH4

Apply a little amount of T43 thread lock when fixing a metal part.
螺絲鎖附於金屬件請使用適量T43(螺絲膠)



Bearing
軸承(φ3xφ7x3mm)x4



Bearing
軸承(φ2xφ5x2.3mm) x 4



Socket screw
圓錐內六角螺絲(M2x5mm) x 4



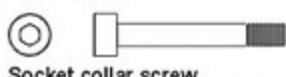
Socket button head screw
半圓錐內六角螺絲(M3x12mm) x 2



Washer
墊圈(φ3xφ4.8x0.3mm) x 2



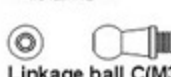
Collar
縮管軸承襯套(φ3xφ4.8x1.5mm) x 2



Socket collar screw
圓錐內六角軸套螺絲(M3x22mm) x 1



M3 Nut
M3防鬆螺帽 x 1



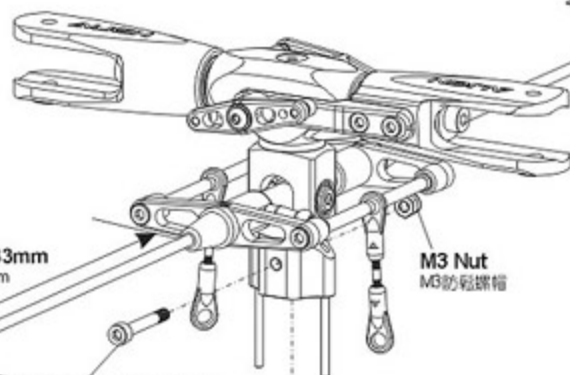
Linkage ball C(M3x3)
球頭C(M3x3)(φ4.75x11.76mm) x 2



Linkage ball B(M3x3)
球頭B(M3x3)(φ4.75x9.77mm) x 5



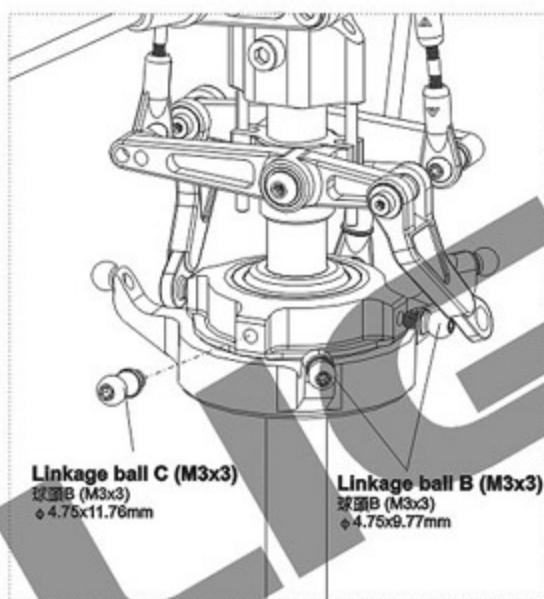
Linkage ball C(M3x3)
球頭C(M3x3)(φ4.75x11.76mm) x 2



Approx. 133mm
約133mm

M3 Nut
M3防鬆螺帽

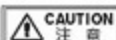
Socket collar screw
圓錐內六角軸套螺絲
M3x22mm



Linkage ball C (M3x3)
球頭B (M3x3)
φ4.75x11.76mm

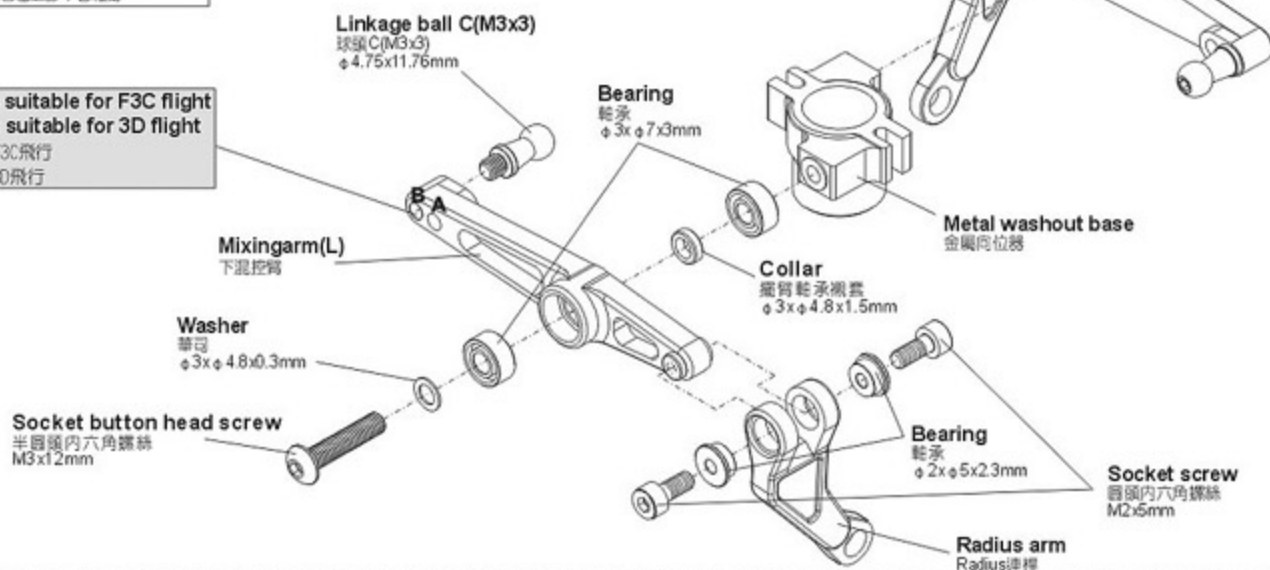
Linkage ball B (M3x3)
球頭B (M3x3)
φ4.75x9.77mm

600FL Main shaft
600FL 主軸
φ6xφ10x191.8mm



CAUTION 注意
Already assembled by factory.
Before flying, please check if
the screws are fixed with glue.
原廠組裝完成時，每一次飛行前請
先確認螺絲是否已上膠不會鬆動。

Hole A is suitable for F3C flight
Hole B is suitable for 3D flight
A孔適用於F3C飛行
B孔適用於3D飛行



Linkage ball C(M3x3)
球頭C(M3x3)
φ4.75x11.76mm

Bearing
軸承
φ3xφ7x3mm

Mixing arm(L)
下混攪臂

Metal washout base
金屬向位器

Washer
墊圈
φ3xφ4.8x0.3mm

Collar
縮管軸承襯套
φ3xφ4.8x1.5mm

Socket button head screw
半圓錐內六角螺絲
M3x12mm

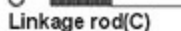
Bearing
軸承
φ2xφ5x2.3mm

Socket screw
圓錐內六角螺絲
M2x5mm

Radius arm
Radius 連桿

600NZ8

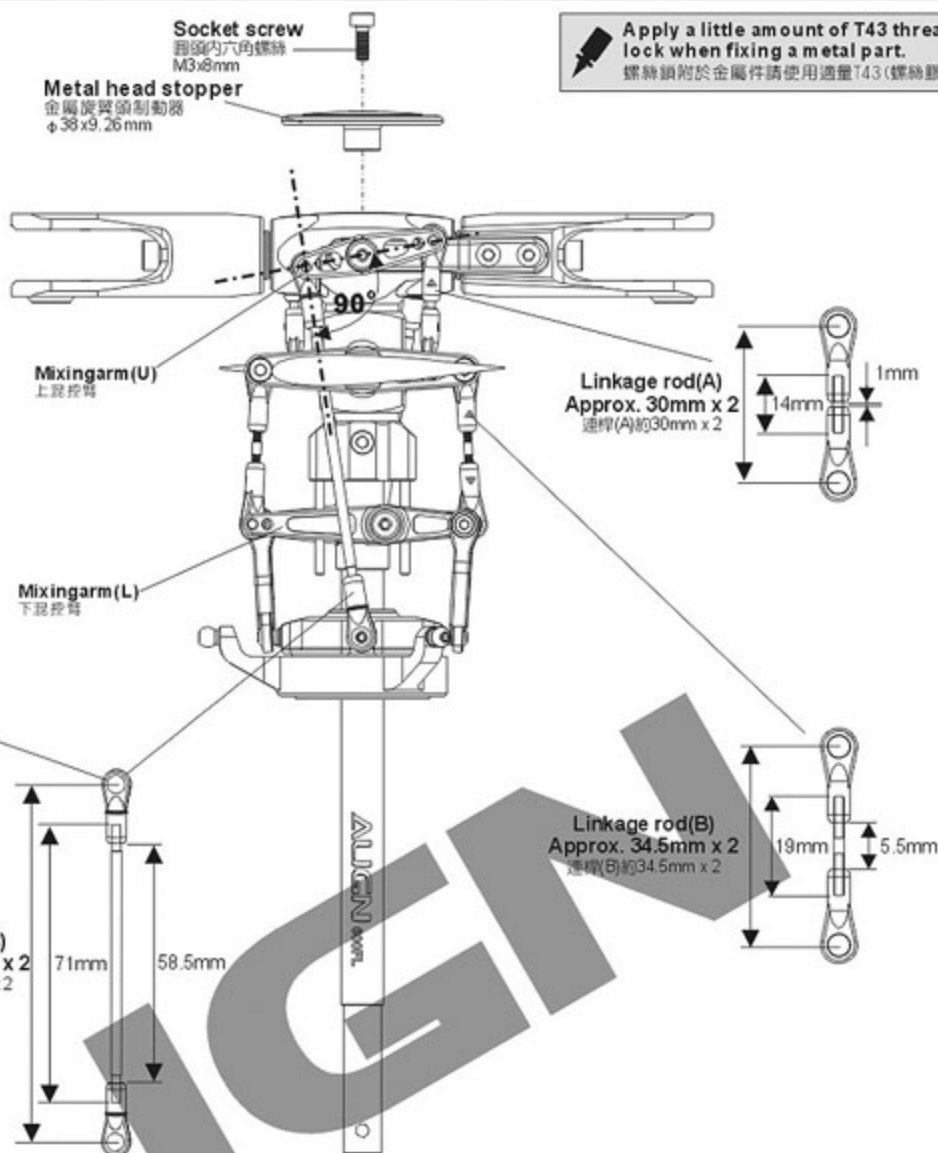
○ 
Linkage rod(A)
 連桿(A) $\phi 1.96 \times 14 \text{mm} \times 2$

○ 
Linkage rod(C)
 連桿(C) $\phi 2.5 \times 71 \text{mm} \times 2$

Socket screw
 圓頭內六角螺絲
 M3x8mm

Metal head stopper
 金屬旋翼鎖制動器
 $\phi 38 \times 9.26 \text{mm}$

Apply a little amount of T43 thread lock when fixing a metal part.
 螺絲鎖附於金屬件請使用適量T43(螺絲膠)



600NZ8A

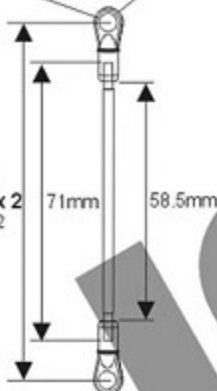

Ball link For linkage rod(C)
 連桿頭 x 4 連桿(C)專用


Ball link
 連桿頭 x 8

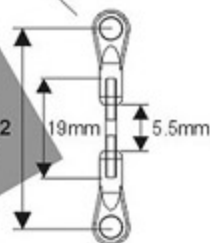
60HH1A


Socket screw
 圓頭內六角螺絲(M3x8mm) x 1

Linkage rod(C)
 Approx. 87.5mm x 2
 連桿(C)約87.5mm x 2

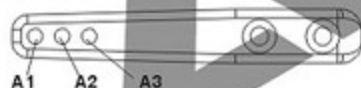


Linkage rod(B)
 Approx. 34.5mm x 2
 連桿(B)約34.5mm x 2



Effect of Adjustment Mounting Holes 調整孔位影響特性

Main Blade Grip
 主旋翼夾控臂



A1: Positive Delta:
 Increase maneuver response speed
 A2: Zero Delta: Recommended setting
 A3: Negative Delta:
 Decrease maneuver response speed
 A1: 正三角補償角: 加快動作反應速度
 A2: 三角補償角0度: 建議使用
 A3: 負三角補償角: 減緩動作反應速度

Mixingarm(U)
 上混控臂孔位

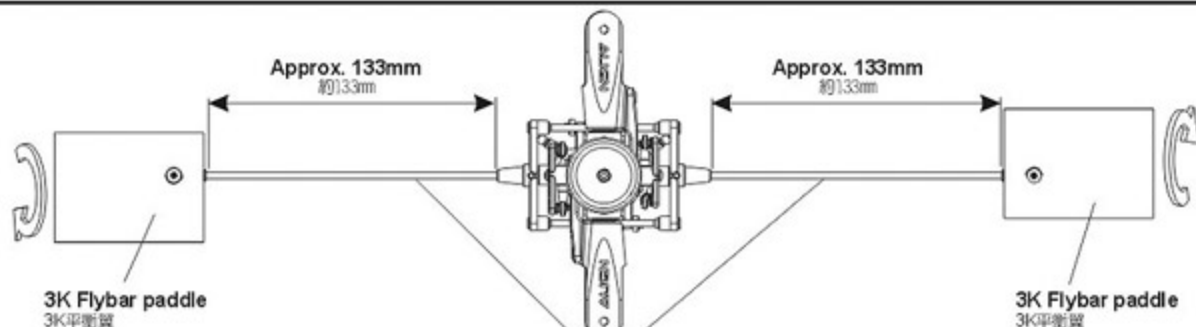


Hole A is suitable for F3C flight
 Hole B is suitable for 3D flight
 A孔適用於F3C飛行
 B孔適用於3D飛行

Mixingarm(L)
 下混控臂孔位



Hole A is suitable for F3C flight
 Hole B is suitable for 3D flight
 A孔適用於F3C飛行
 B孔適用於3D飛行

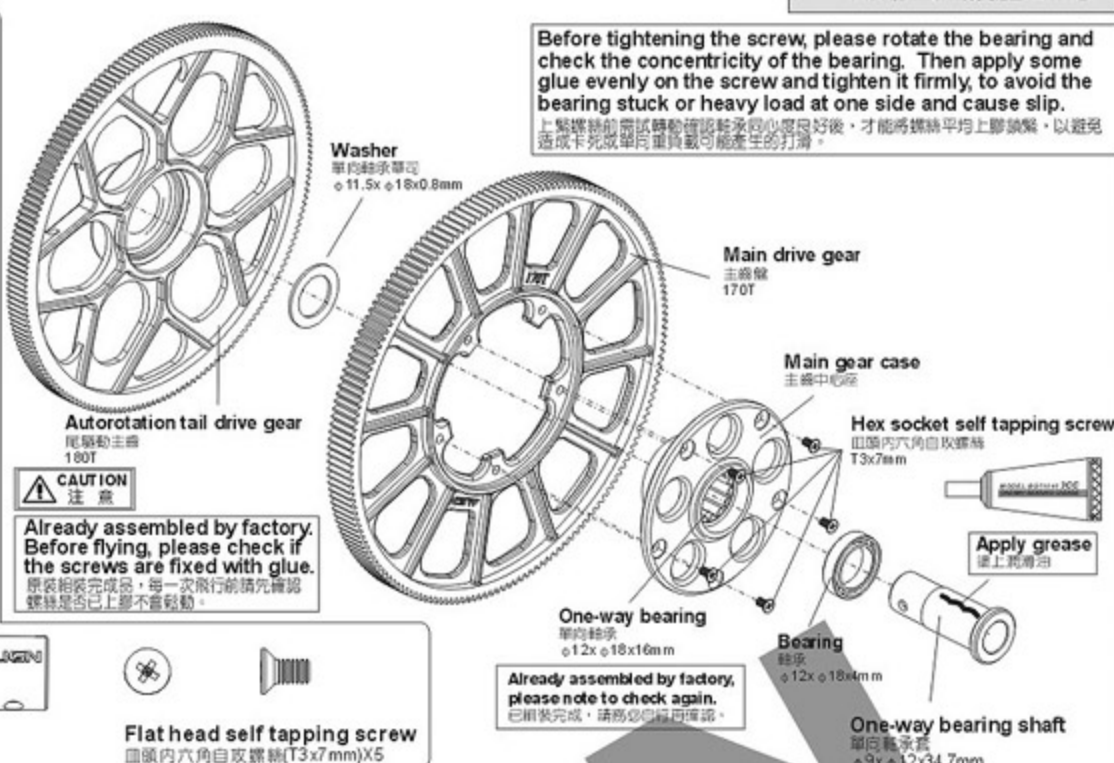
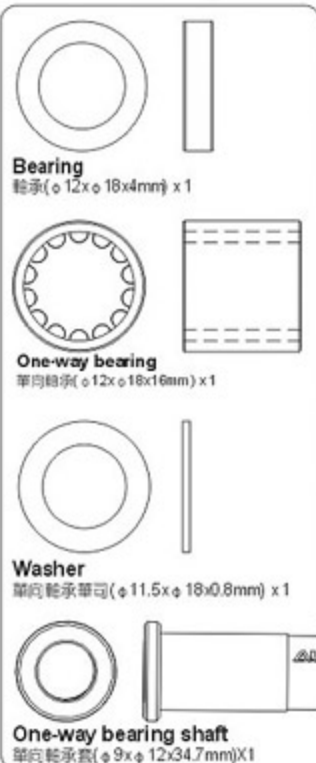


Make sure both sides are equal in length.
 請保持平衡桿兩邊長度相等。

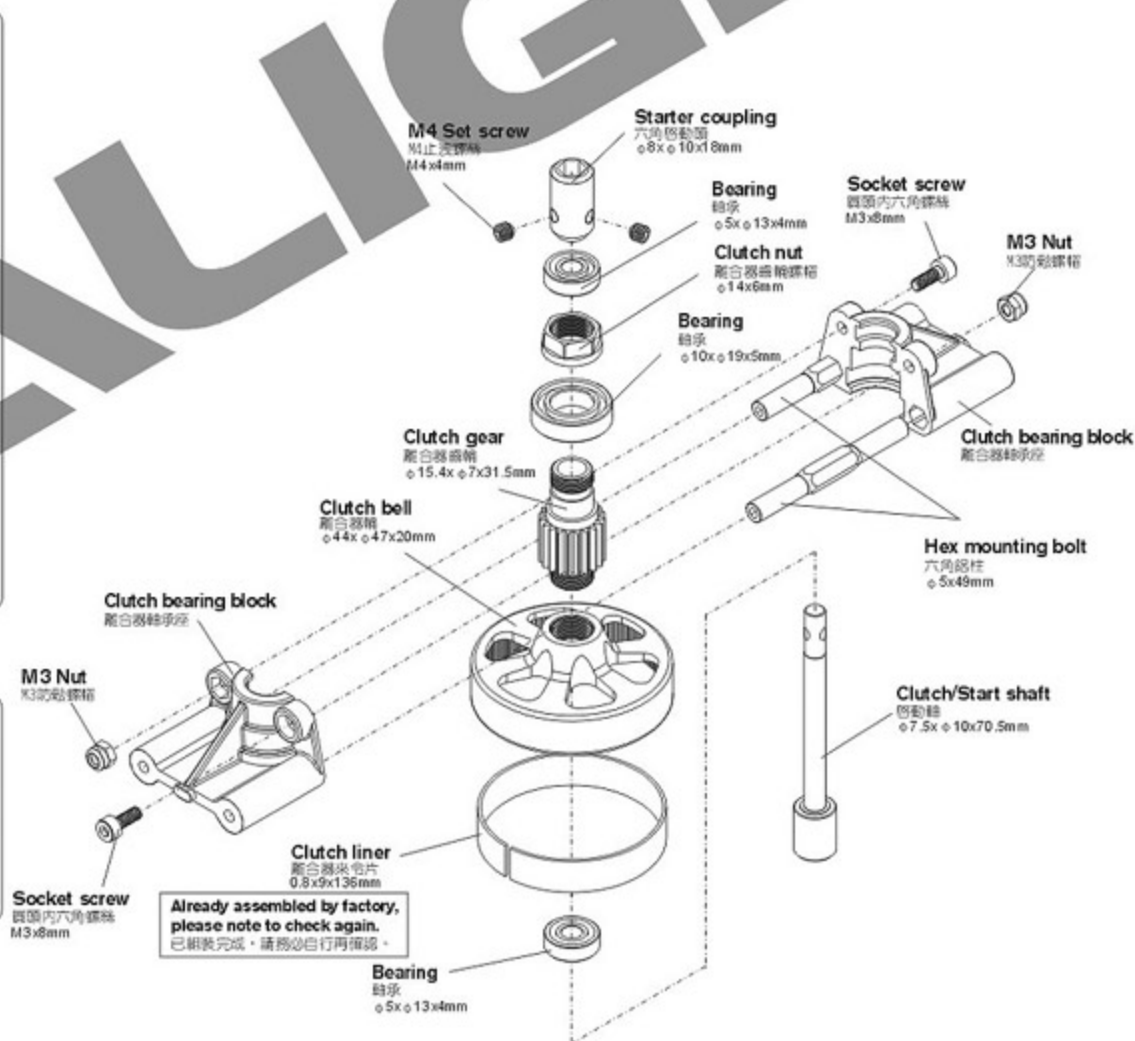
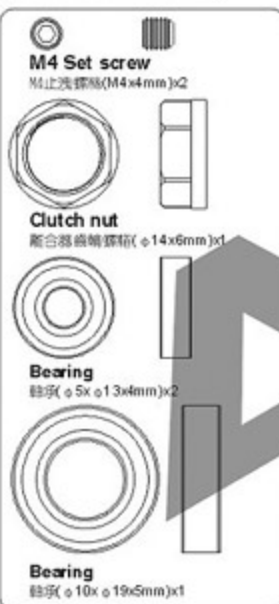
600NB8

Apply a little amount of T43 thread lock when fixing a metal part.
螺絲鎖劑於金屬件請使用適量T43(螺絲膠)

Before tightening the screw, please rotate the bearing and check the concentricity of the bearing. Then apply some glue evenly on the screw and tighten it firmly, to avoid the bearing stuck or heavy load at one side and cause slip.
上緊螺絲前請試轉動確認軸承同心度良好後，才能將螺絲平均上膠鎖緊，以避免造成卡死或單向重負載可能產生的打滑。



600NB4A



600NB4B



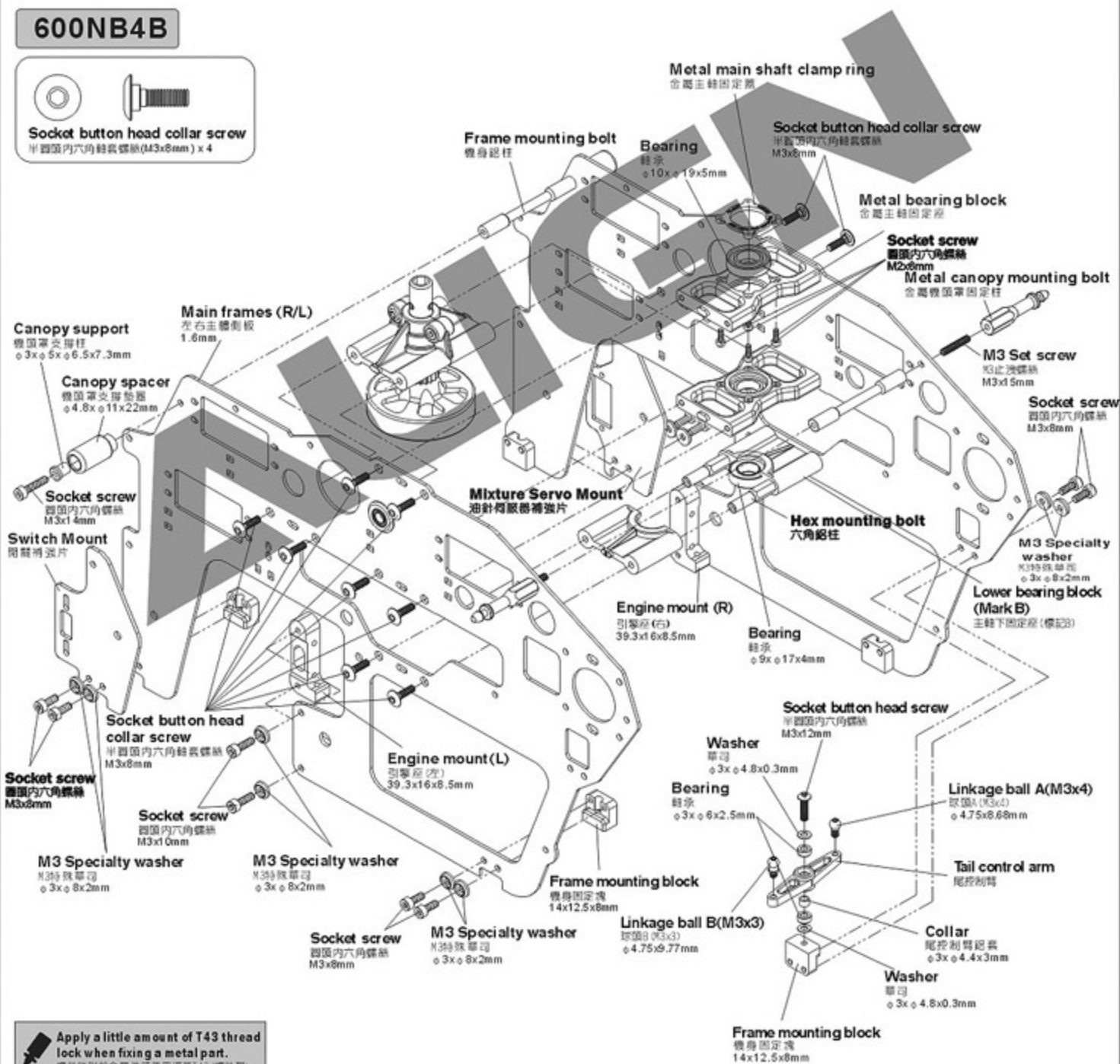
600NB1F



600NB1G



600NB4B

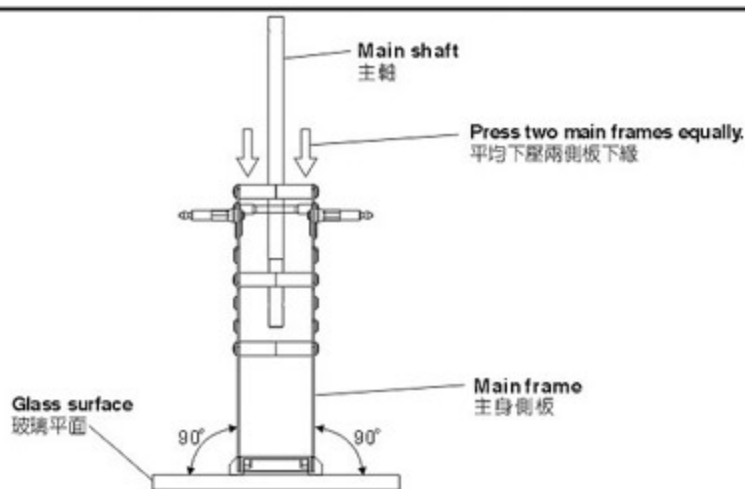


Apply a little amount of T43 thread lock when fixing a metal part.
裝螺絲時於金屬件請使用適量T43 (螺絲膠)

Main frame assembly point:

First do not fully tighten the screws of main frames and put three bearings through the main shaft to check if the movements are smooth. The bottom bracket must be firmly touched the level table top (glass surface); please keep the smooth movements on main shaft and level bottom bracket, then slowly tighten the screws. This assembly can help for the power and flight performance.

機身側板組立重點：
側板螺絲先不完全鎖緊，放入主軸貫穿三顆軸承確認上下移動必須滑順，主體底板必須與水平桌面（玻璃平面）緊密接觸；請保持主軸滑順與底板平行，然後慢慢鎖緊螺絲。正確側板的組裝對動力與飛行性能有顯著幫助。



600NB1F



Socket screw
圓頭內六角螺絲(M3x10mm) x 2



M3 Washer
M3華司(φ3xφ8x1mm) x 2

600NG1



Socket screw
圓頭內六角螺絲(M3x12mm) x 4



M3 Washer
M3華司(φ3xφ8x1mm) x 4



M3 Set screw
M3止鎖螺絲(M3x4mm) x 4

Apply a little amount of T43 thread lock when fixing a metal part.
螺絲鎖用於金屬件請使用適量T43(螺絲膠)

Glow plug plate
火箭塞點火接地板

23.73x0.8mm

Engine mount (R)
引擎座(右)

39.3x16x8.5mm

Socket screw
圓頭內六角螺絲
M3x10mm

Fuel line grommet
油管保護套

φ5.2xφ7xφ11x4.8mm

Fuel tank
透明油箱

Fuel tank guard
油箱蓋

Fuel tank sinker
油管鎖環

Fuel tube
油管

φ2.5xφ4.5x70mm

Fuel tank nipple
油箱接頭

M3 Set screw
M3止鎖螺絲

M3x4mm

M3 Washer
M3華司

φ3xφ8x1mm

Socket screw
圓頭內六角螺絲

M3x12mm

Socket screw
圓頭內六角螺絲

M3x10mm

Fuel line grommet
油管保護套

φ5.2xφ7xφ11x4.8mm

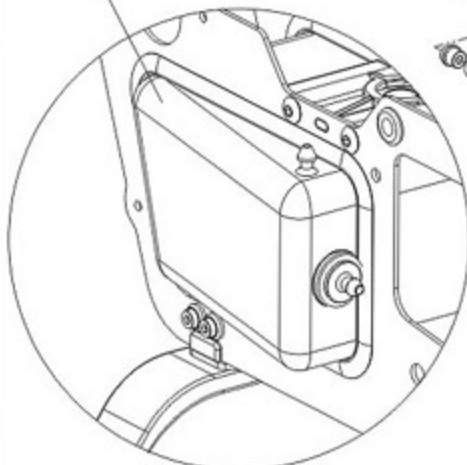
CF Bottom bracket
碳纖維底板

2mm

M3 Set screw
M3止鎖螺絲

M3x4mm

600NB2



Skid pipe
腳架絕管

φ9x294mm

Landing skid
腳架

200x60.25mm

Skid pipe end cap
腳架絕管保護套

Socket screw
圓頭內六角螺絲

M3x12mm

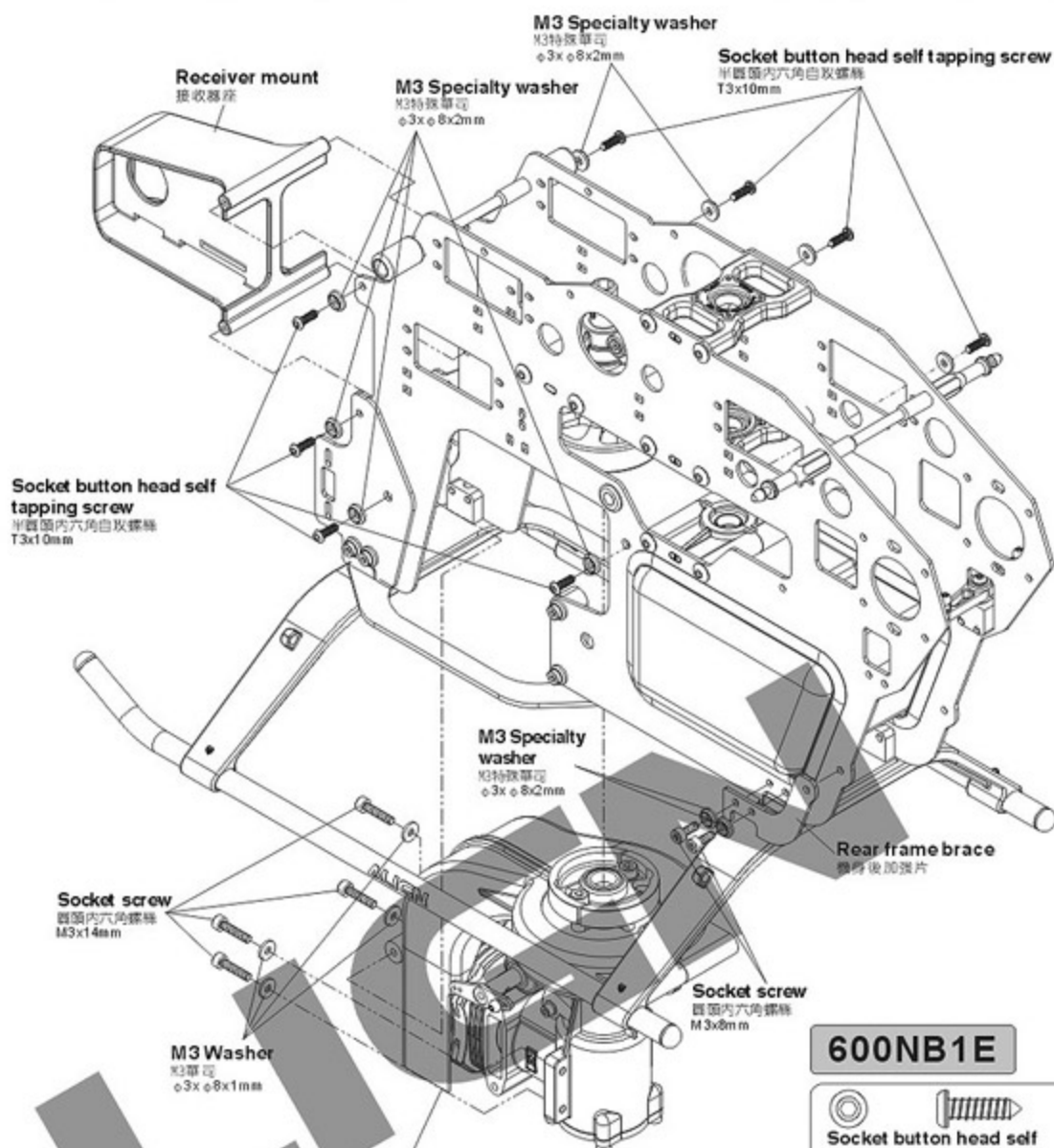
M3 Washer
M3華司

φ3xφ8x1mm

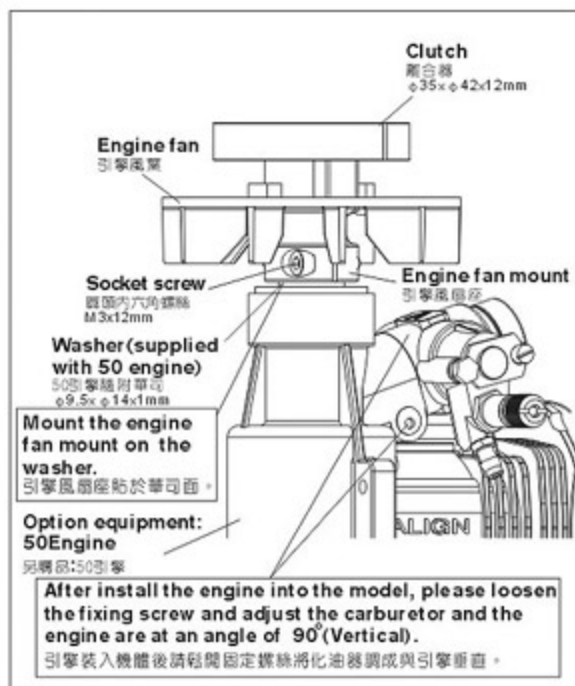
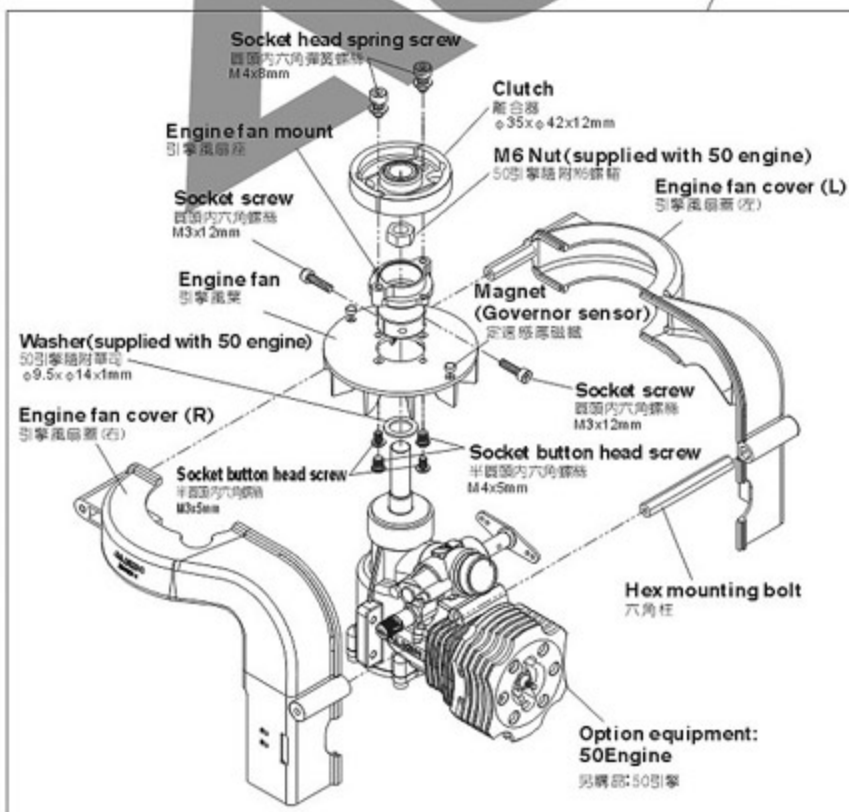
600NB4A



600NB4B



600NB1E



Apply a little amount of T43 thread lock when fixing a metal part.
螺絲鎖劑於金屬件請使用適量T43(螺絲膠)

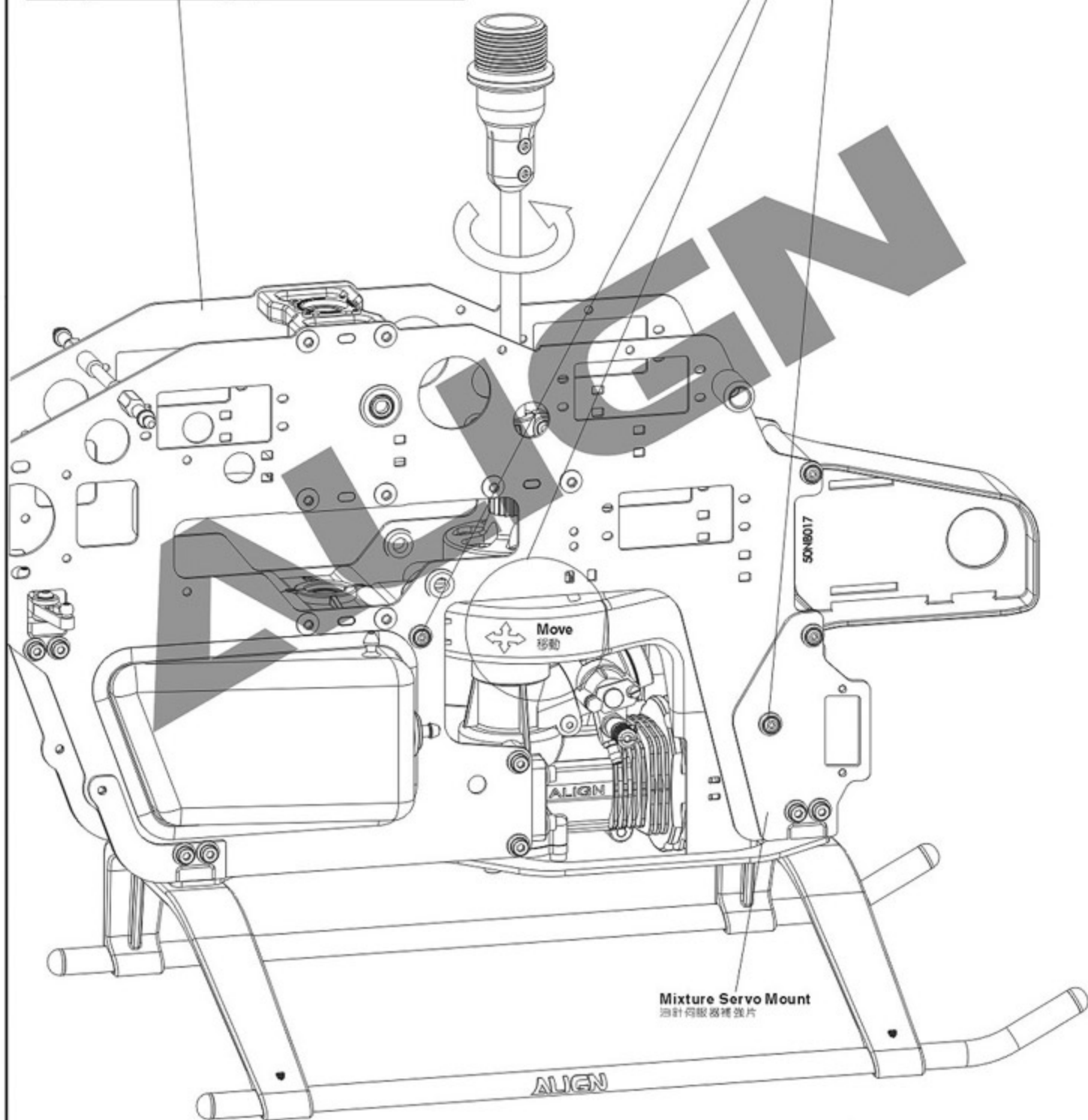
Recommend sanding the marked position as below illustration with a waterproof abrasive paper(#800-1000) to avoid the wires of electric parts to be cut.

建議於下圖色塊標示處，使用#800-1000水砂紙打磨，可防止電子設備電線被割斷。

Waterproof abrasive paper
水砂紙

Fan cover fixing Tip 風扇罩固定要領

Before fixing the engine fan cover, please use a starter to rotate the fan and move the fan cover. This is to make sure no any interference, and then secure the fan cover with a fixing screw.
鎖緊固定引擎散熱風罩前，請先使用啟動棒轉動風扇，並移動風扇罩，確認在風扇無碰觸風扇罩後才鎖緊風扇罩固定螺絲。



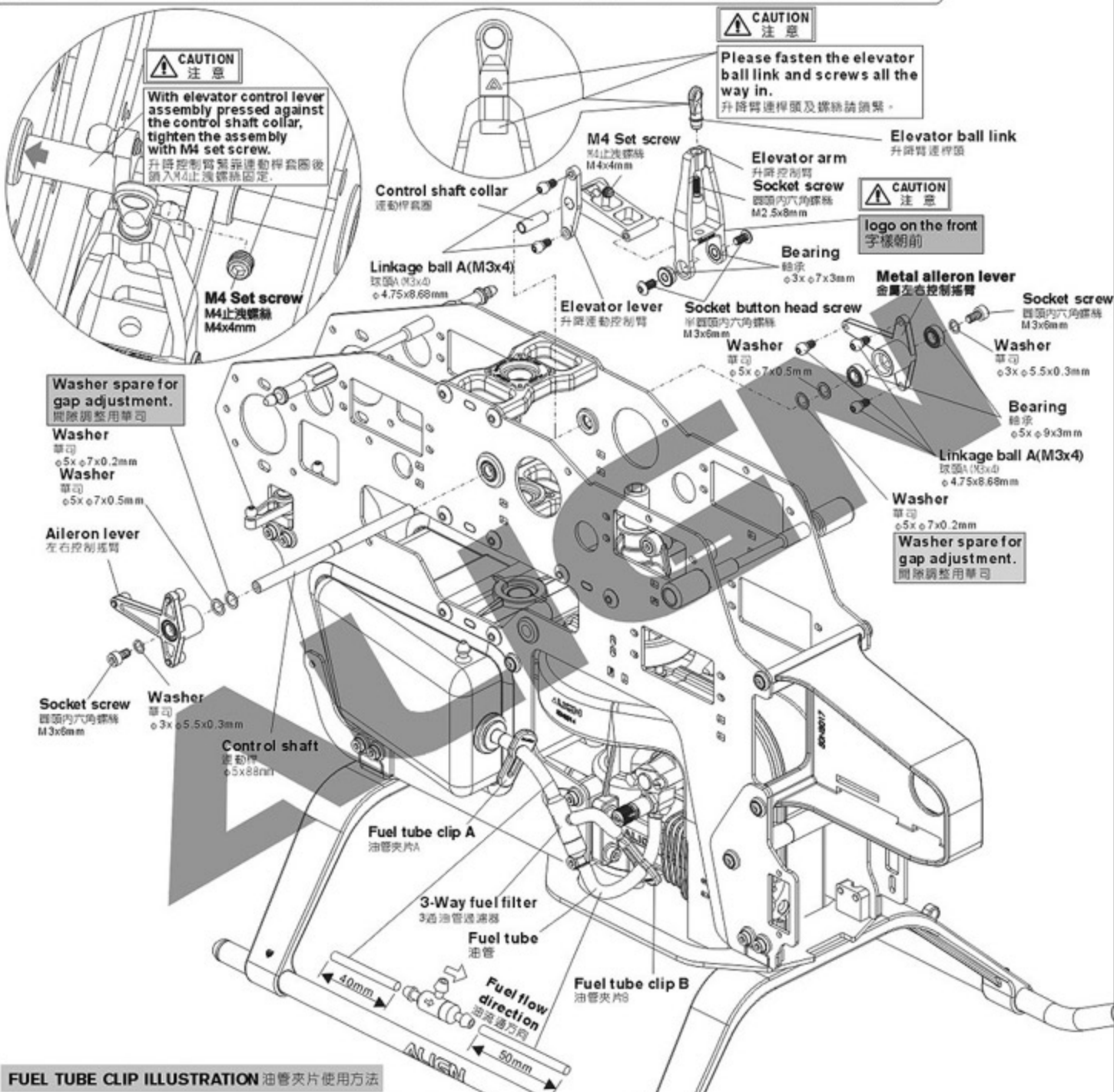
Mixture Servo Mount
油針伺服器補強片

Apply a little amount of T43 thread lock when fixing a metal part.
螺絲鎖於金屬件請使用適量T43(螺絲膠)

600NB1H



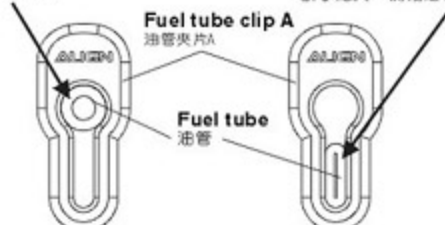
600NB1G



FUEL TUBE CLIP ILLUSTRATION 油管夾片使用方法

Engine start: Unlock to refuel.
 引擎啟動：開啟油料供給

Engine Stop: Lock to stop refueling.
 引擎熄火：關閉油料供給



Apply a little amount of T43 thread lock when fixing a metal part.
 螺絲鎖附於金屬件請使用適量T43 (螺絲膠)

600NZ6



Apply a little amount of T43 thread lock when fixing a metal part.
螺絲鎖劑於金屬件請使用適量T43(螺絲膠)

CAUTION
注意

3G/3GX Flybarless system uses inner hole(A)
Flybar system uses outer hole(B)
3G/3GX無平衡翼系統使用內孔(A)
有平衡翼系統使用外孔(B)

600NZ8A

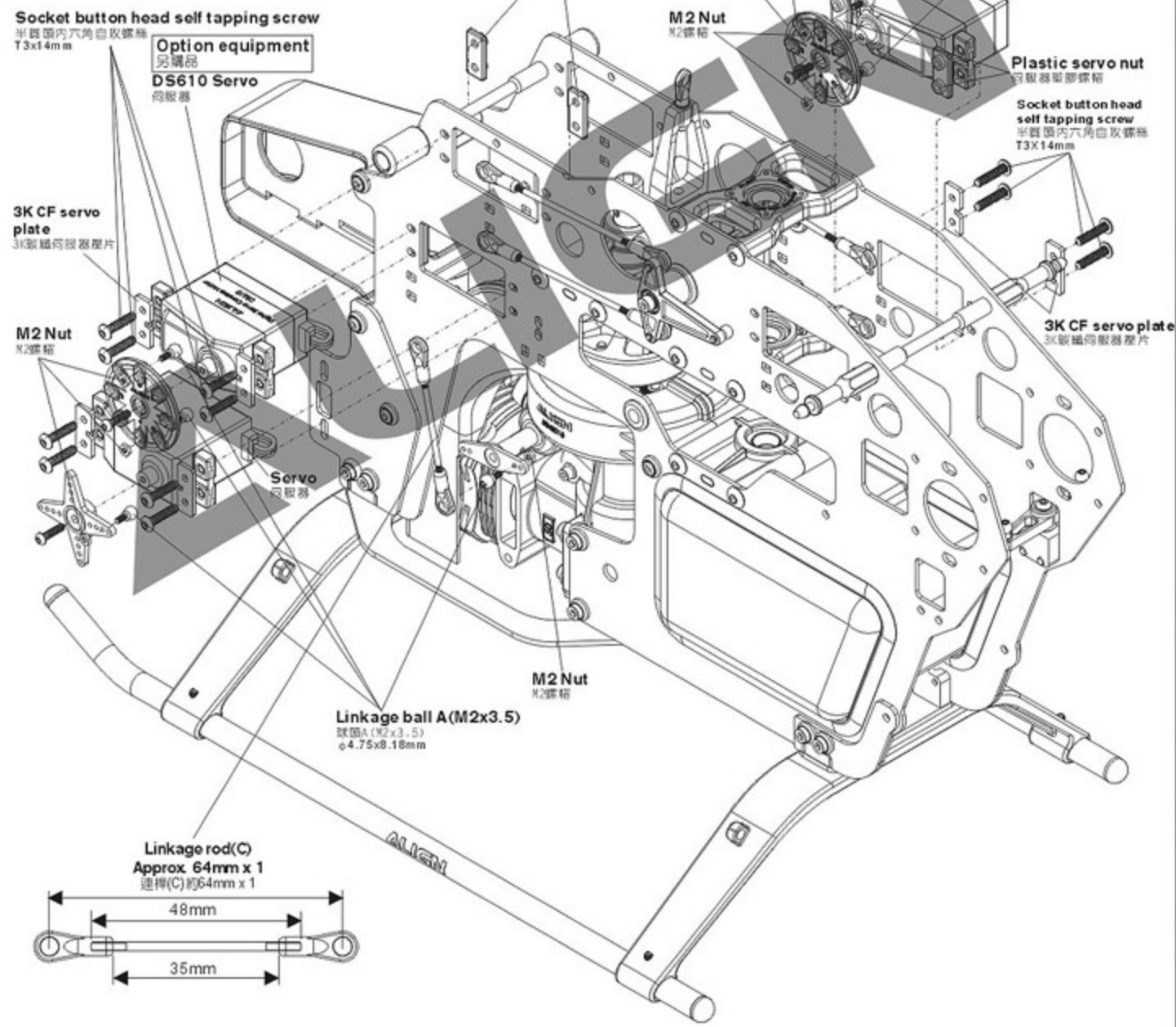


600NZ8



DS610 Digital Servo:

1. Stall torque/輸出扭力: 9.6kg.cm (4.8V)
12.0kg.cm (6.0V)
2. Motion speed/動作速度: 0.10sec/60 (4.8V)
0.08sec/60 (6.0V)
3. Dimension/尺寸: 40.3 x 20.1 x 36mm
4. Weight/重量: 52.2g



600NZ8

Linkage rod(G)
連桿(G) $\phi 2 \times 61 \text{mm} \times 4$

Linkage rod(E)
連桿(E) $\phi 2 \times 32 \text{mm} \times 2$

600NZ8A

Ball link
連桿頭 $\times 12$

600NZ6

Linkage ball A(M2x3.5)
球頭A(M2x3.5) ($\phi 4.75 \times 8.18 \text{mm}$) $\times 3$

Socket button head self tapping screw
半圓頭內六角自攻螺絲(T3X14mm) $\times 8$

M2 Nut
M2螺帽 $\times 3$



CAUTION 注意
3G/3GX Flybarless system uses inner hole(A)
Flybar system uses outer hole(B)
3G/3GX 無平衡翼系統使用內孔(A)
有平衡翼系統使用外孔(B)

Use the outer hole
請鎖附於外孔

Carbon Fiber Tube
碳纖維管

Option equipment
另購品

DS610 Servo
伺服器

Servo horn
伺服器舵角片

Nut
螺帽

Linkage ball A(M2x3.5)
球頭A(M2x3.5)
 $\phi 4.75 \times 8.18 \text{mm}$

Option equipment
另購品

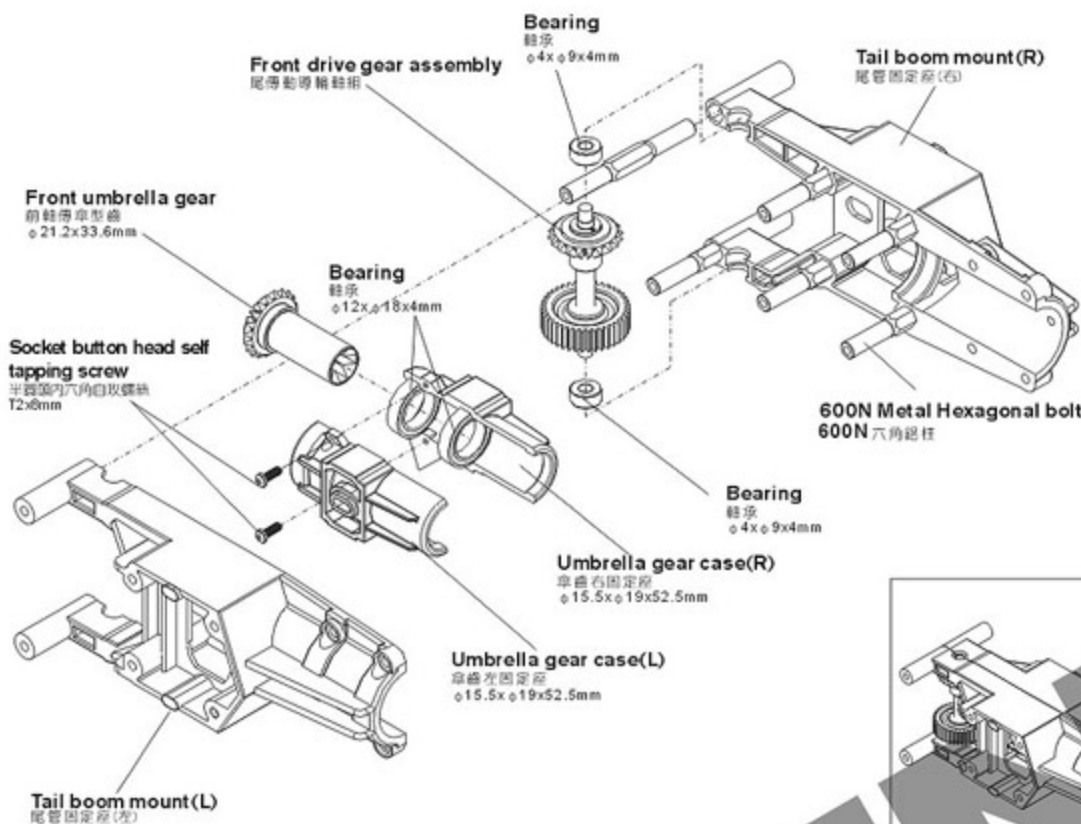
Tail Servo
尾舵伺服器

DS620 Digital Servo:

1. 1520 μs standard band / 1520 μs 寬頻系統
2. Stall torque / 輸出扭力: 8.0kg.cm (4.8V)
10.0kg.cm (6.0V)
3. Motion speed / 動作速度: 0.09sec/60 (4.8V)
0.07sec/60 (6.0V)
4. Dimension / 尺寸: 40.3 x 20.1 x 36mm
5. Weight / 重量: 52.2g

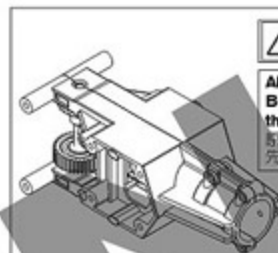
Apply a little amount of T43 thread lock when fixing a metal part.
螺絲鎖附於金屬件請使用適量T43(螺絲膠)

600NT1



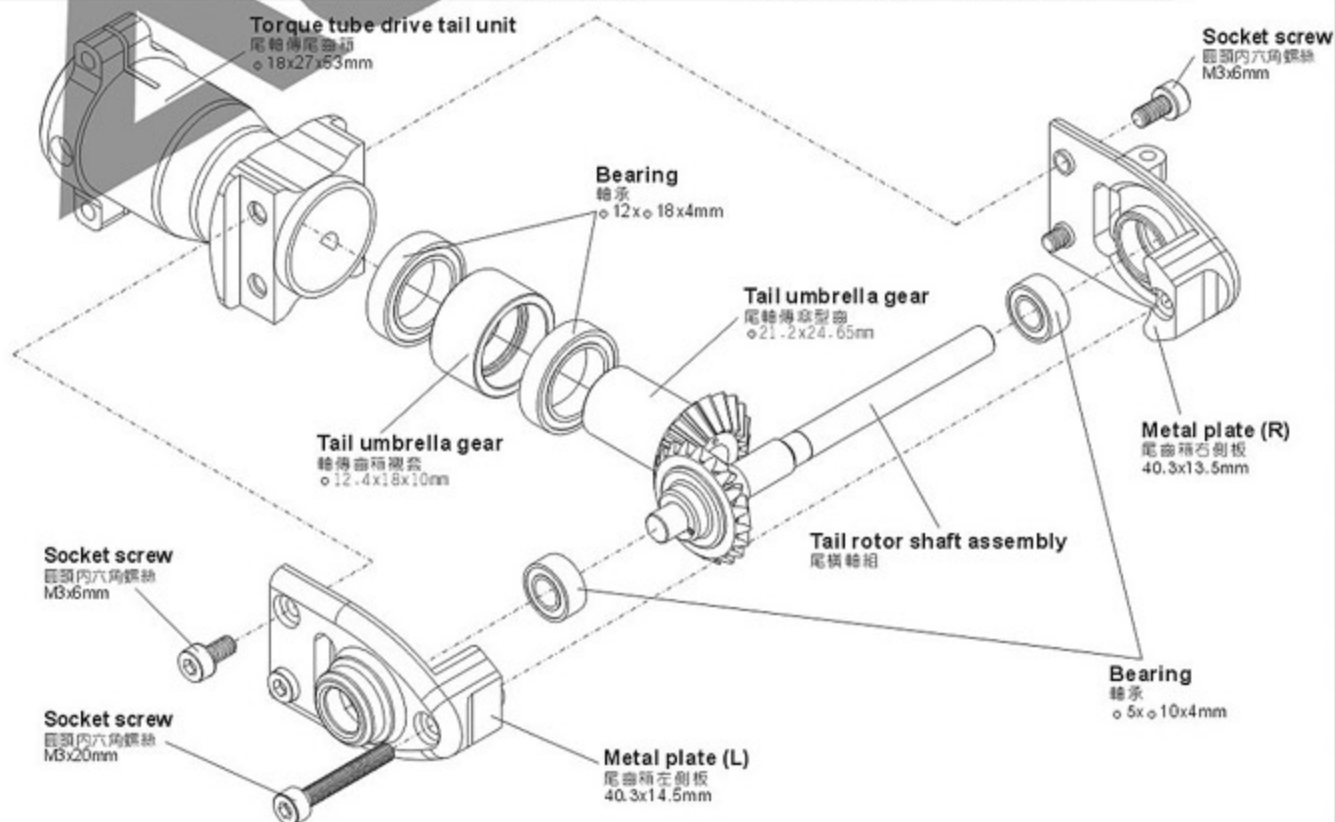
CAUTION 注意

Already assembled by Factory. Before flying, please check if the screws are fixed with glue. 廠裝組裝完成品，每一次飛行前請先確認螺絲是否已上膠不會鬆動。



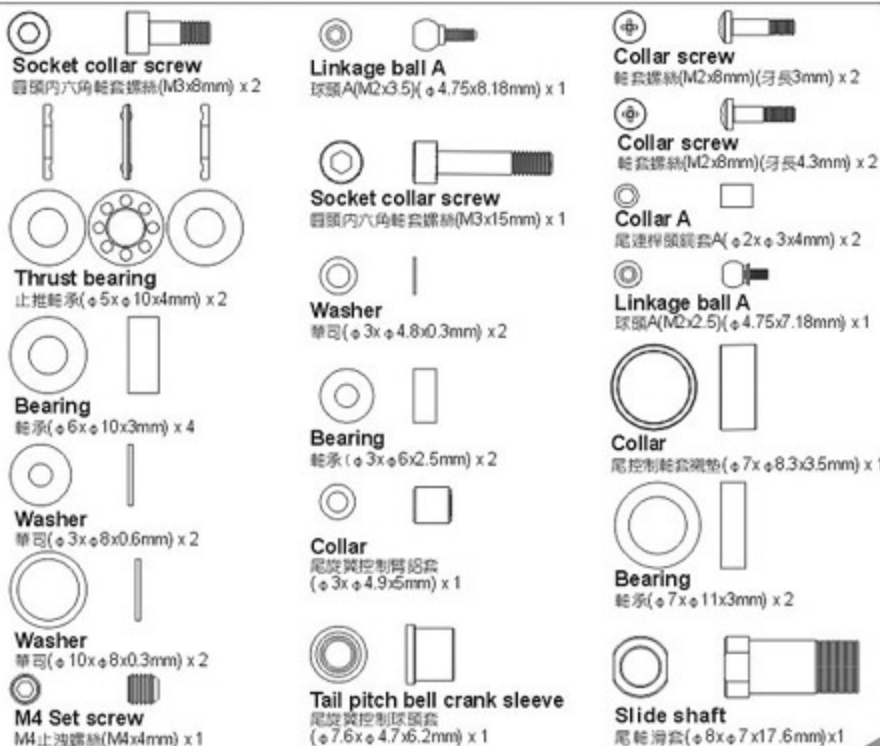
60HT2

Apply a little amount of T43 thread lock when fixing a metal part. 螺絲鎖附於金屬件請使用適量T43(螺絲膠)



60HT2

Apply a little amount of T43 thread lock when fixing a metal part.
螺絲鎖附於金屬零件時請使用適量T43(螺絲膠)



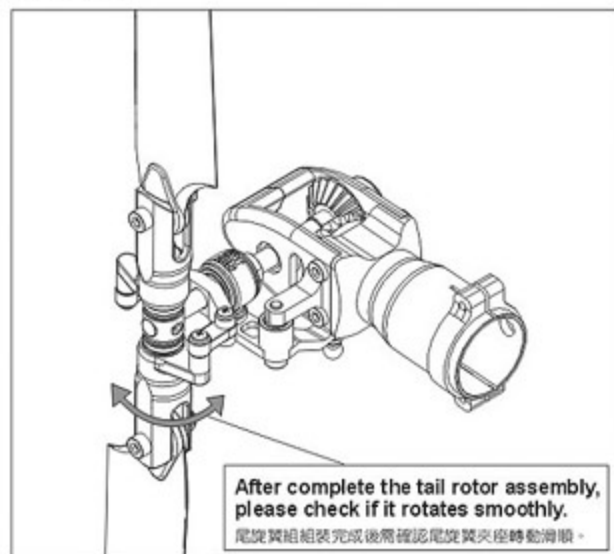
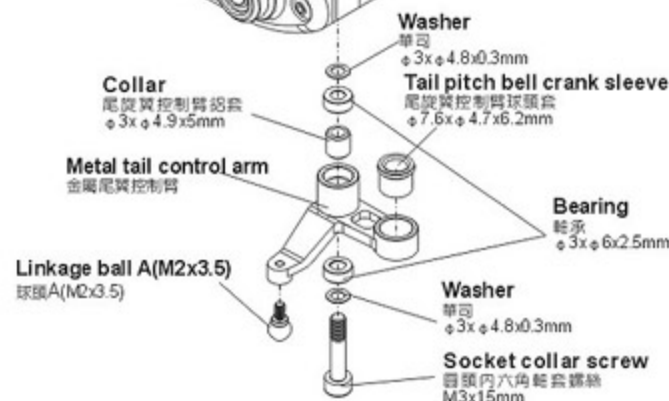
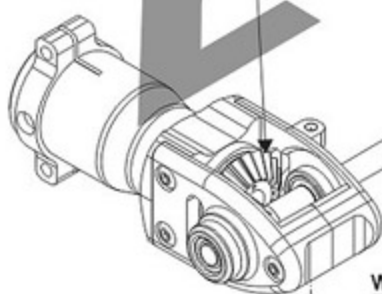
Please tighten M2x8mm collar screw firmly but not over tightened. Over tighten the screw will cause the installation of tail rotor shaft unsmoothly.
鎖附M2x8mm輪套螺絲請使用適當力道，過度鎖緊會造成尾旋翼軸組入不順。



While assembly the slide shaft, please use suitable amount of T43 on the thread. Please do not use R48 anaerobics retainer or other high strength glue to avoid damages while maintenance or repairs.
組立尾輪滑套時，請使用適量的T43螺絲膠在螺絲上，嚴禁使用R48高膠合性輪承膠防止膠合過緊，以避免日後拆修維護零件之損傷。

Aim tail rotor hub at the concave of tail rotor shaft and fix it, please apply a little glue on the set screw.
尾旋翼T型座對準尾旋翼軸的凹位鎖上，請確認止洩螺絲上膠。

Assembling Umbrella Gear: Please note to push the gear to the end at a fixed position, to make sure the gears mesh with each other smoothly.
傘齒組裝：注意務必將推到固定位，以避免齒咬合不順。



60HT2A



600NB1G



600NB1H

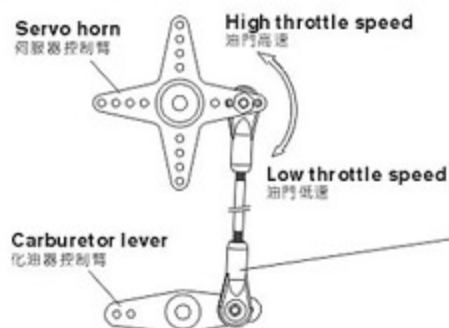


600NB1F

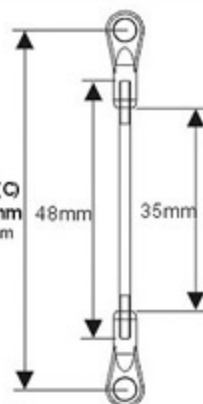


Socket button head self tapping screw
半圓頭內六角自攻螺絲
T3x8mm

High/Low throttle speed setting 油門高/低速控制設定

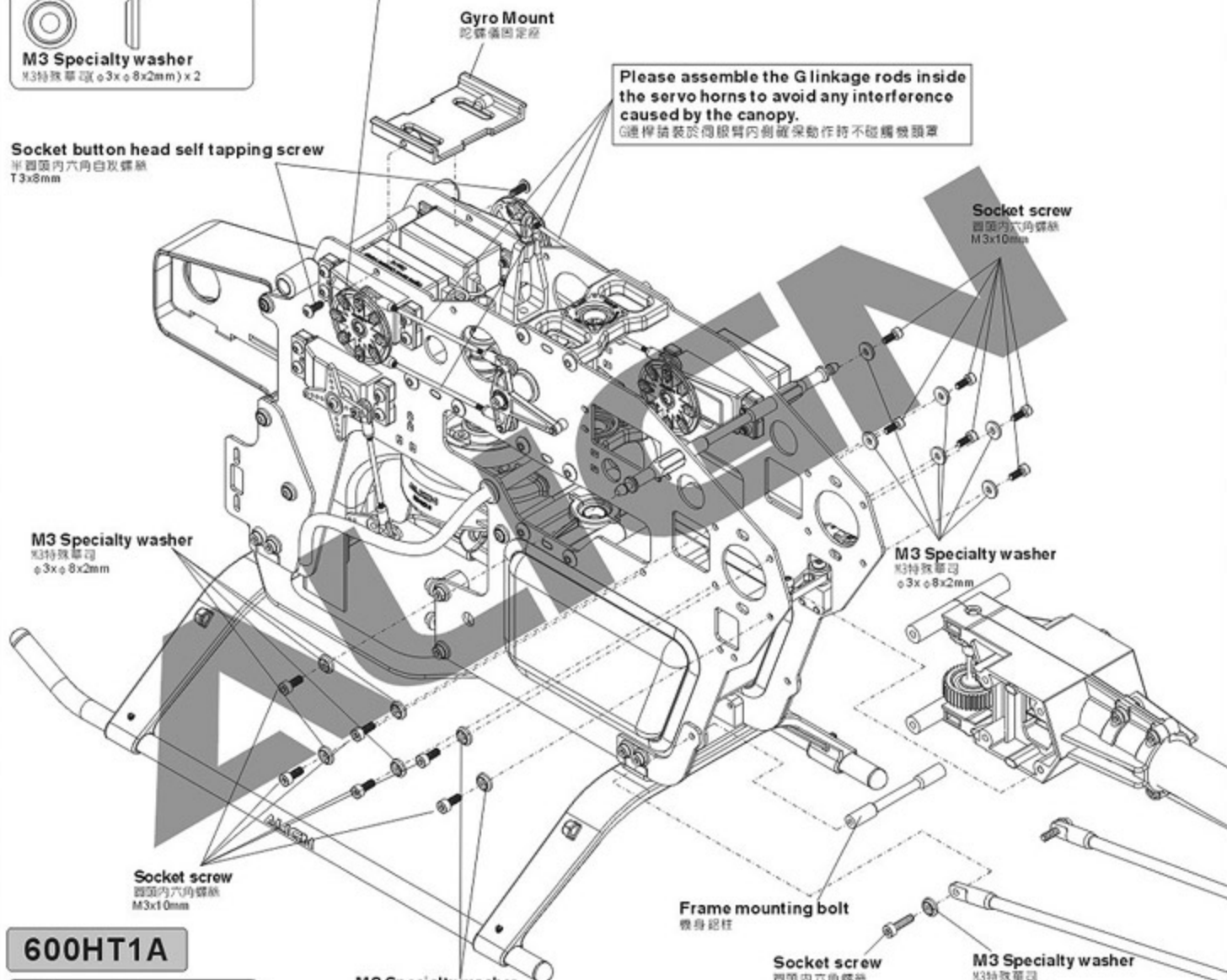


Linkage rod(C)
Approx. 64mm
連桿(C)約64mm



Gyro Mount
陀螺儀固定座

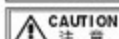
Please assemble the G linkage rods inside the servo horns to avoid any interference caused by the canopy.
連桿請裝於伺服機內側避免動作時不碰觸機頭罩



600HT1A



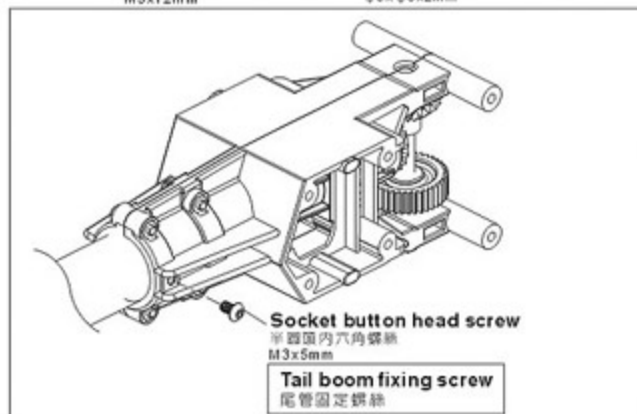
Apply a little amount of T43 thread lock when fixing a metal part.
螺絲鎖於金屬件請使用適量T43(螺絲膠)



When tightening a screw to a plastic part, please tighten it firmly, but not over tightened, or they will strip.
螺絲鎖入塑膠件請務必注意，適當扭力鎖緊即可，而過緊的扭力可能會導致滑牙。

Socket screw
圓頭內六角螺絲
M3x12mm

M3 Specialty washer
M3特殊華司
ø3xø8x2mm



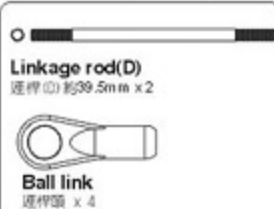
600NB3



60NH12



600NZ8



600NH6A



When tightening the main blade fixing screw, please tighten it firmly, but not over tighten, or it may cause the damage of main blade holder and result in danger.

鎖緊主旋翼螺絲須注意適當緊度即可，過緊可能導致主旋翼夾座受損，飛行意外發生。

Socket collar screw
圓頭內六角軸套螺絲
M4x27mm

600D PRO Carbon fiber blade
600D PRO碳纖維主旋翼

M4 Nut
M4防鬆螺帽

Linkage rod(D)
Approx. 60.5mm x 2
連桿(D)約60.5mm x 2

39.5mm 31.5mm

Lock collar
主軸固定環
φ10xφ15x7mm

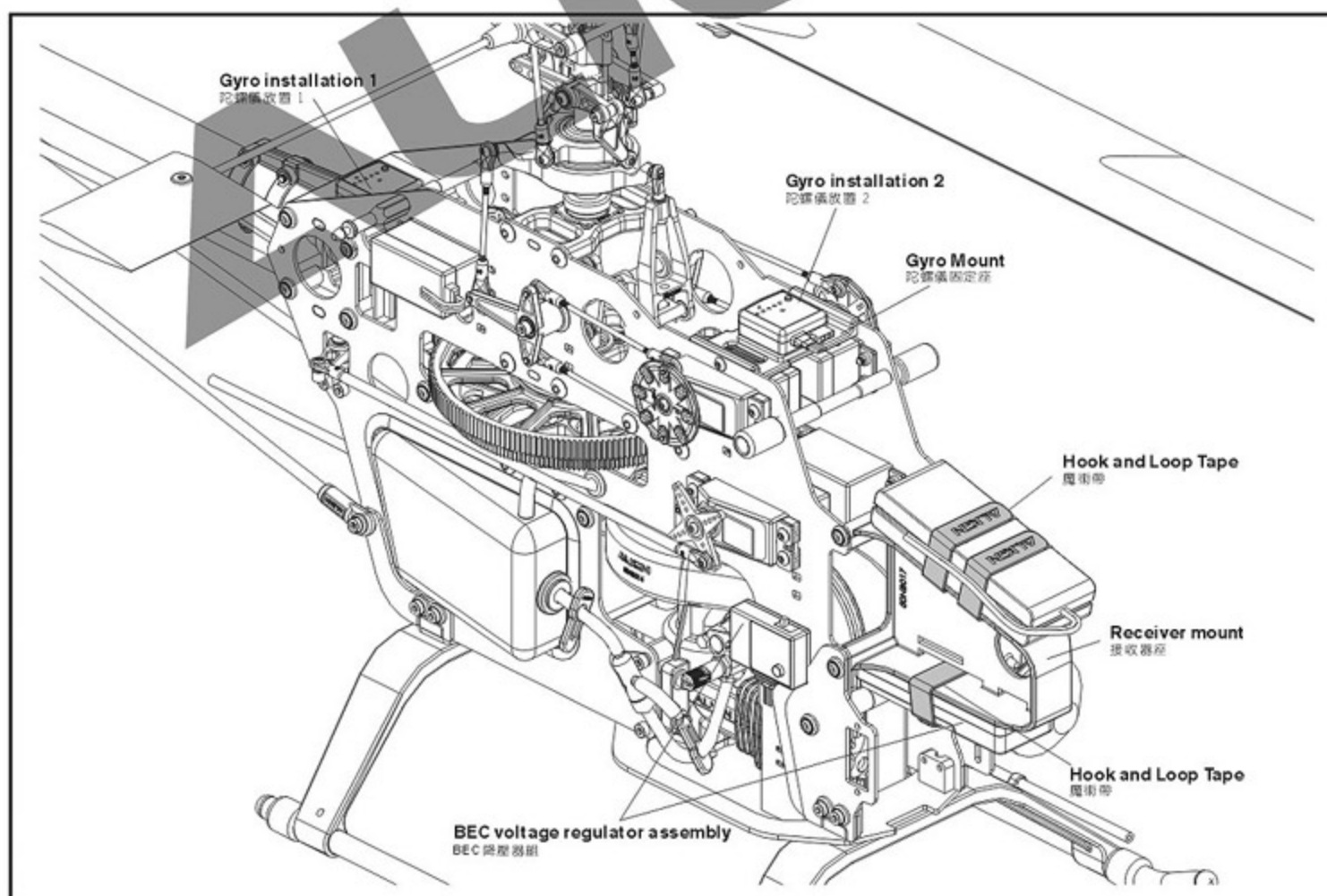
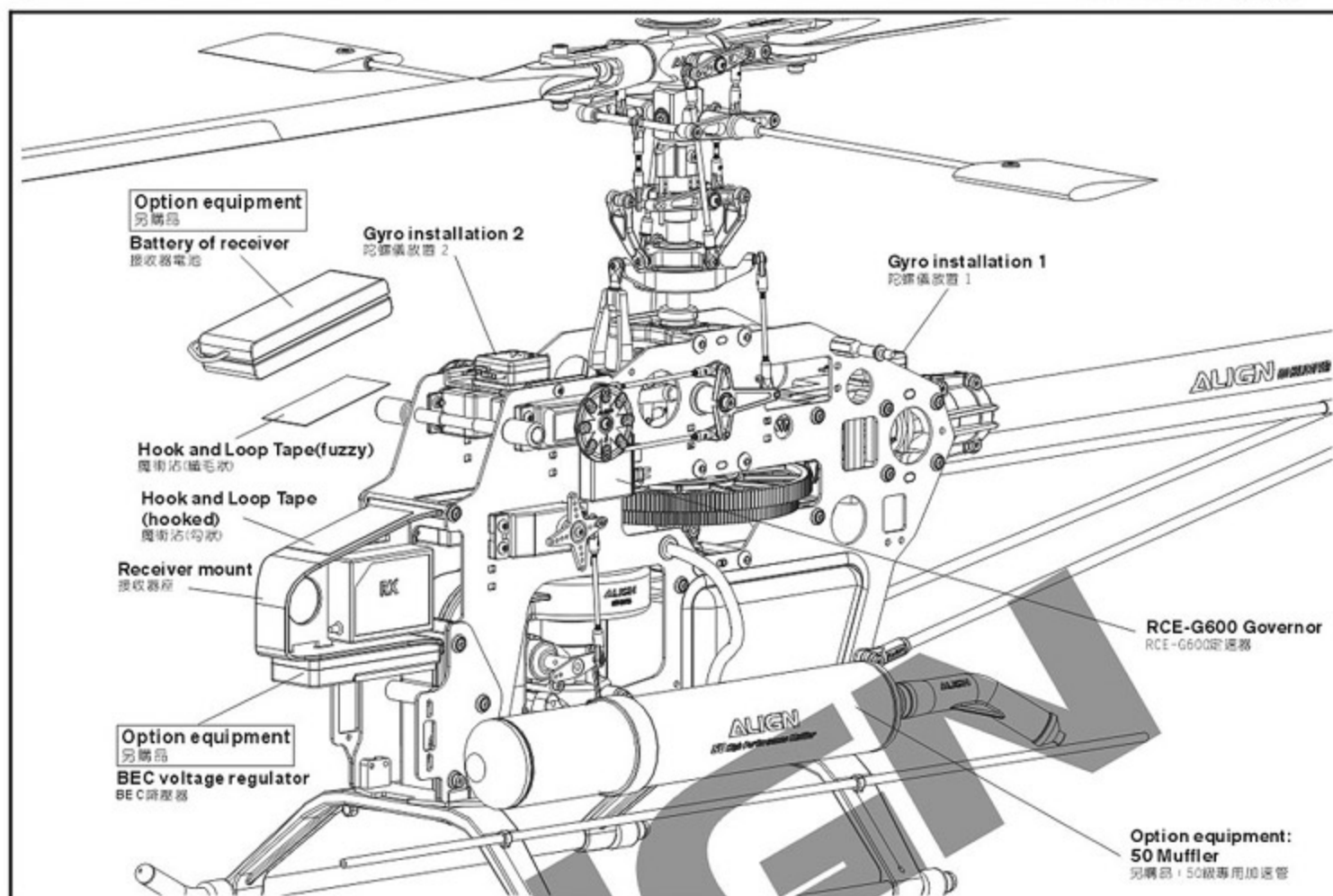
M4 Set screw
M4止鎖螺絲
M4x4mm

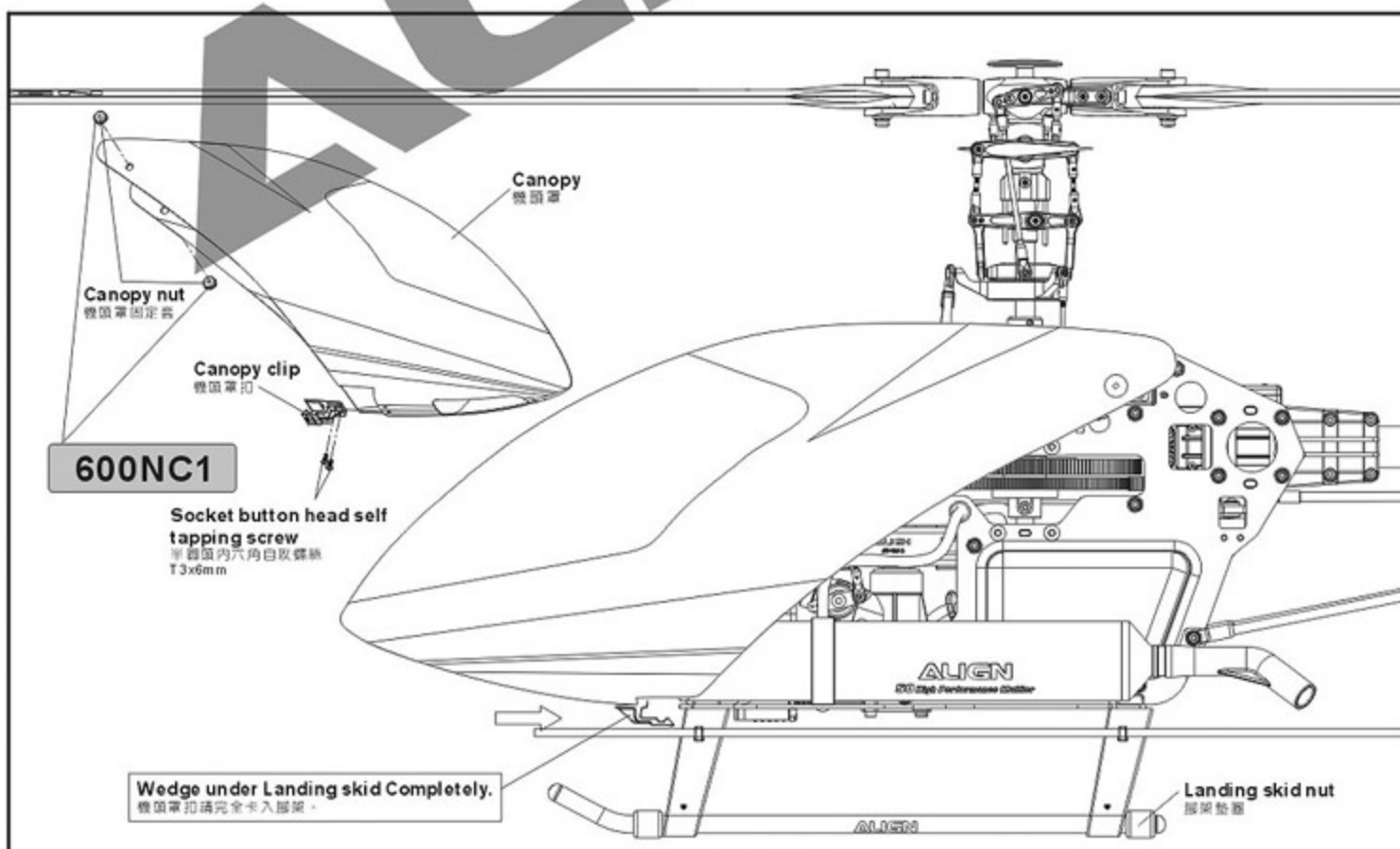
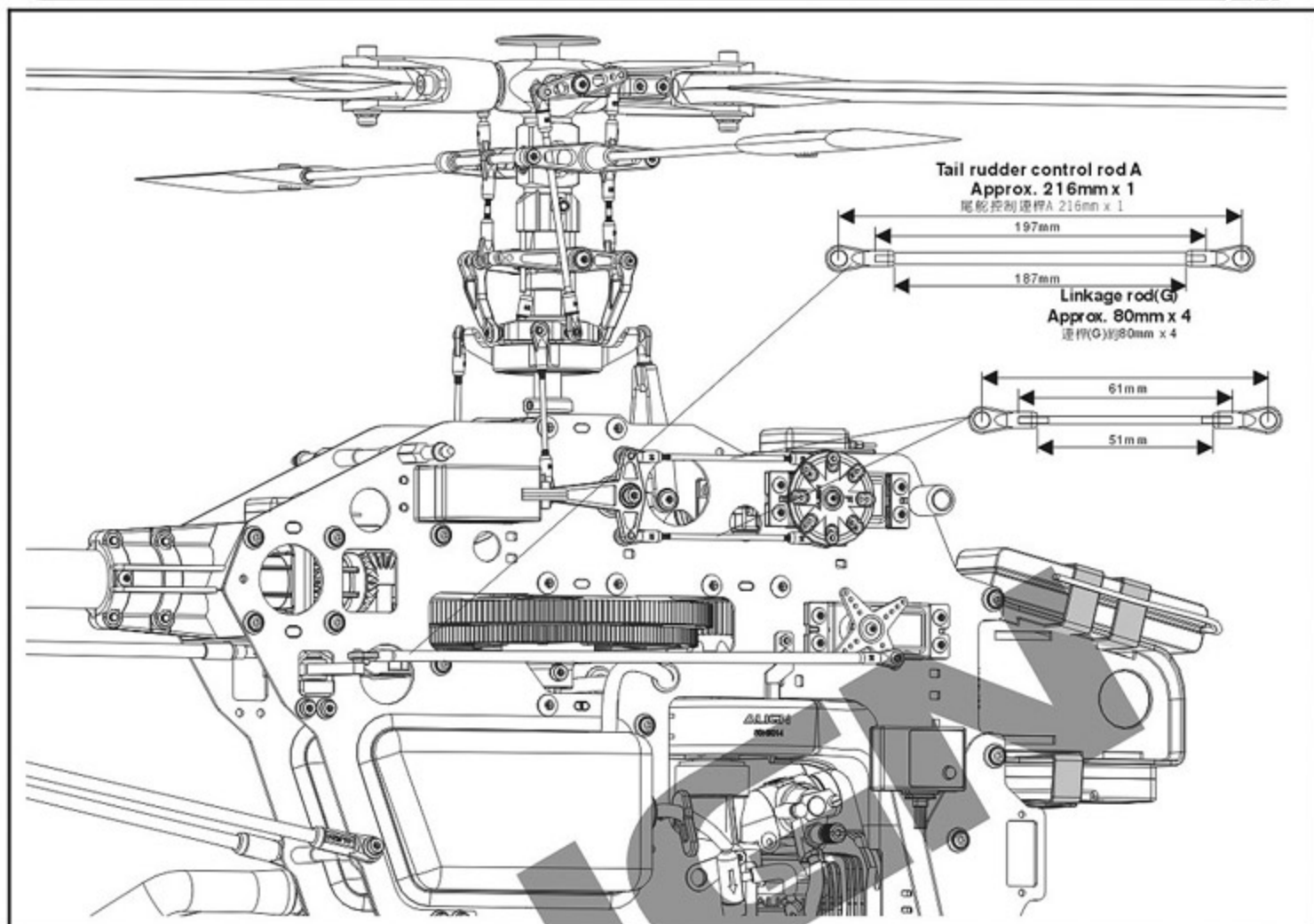
Main drive gear set
主齒輪組

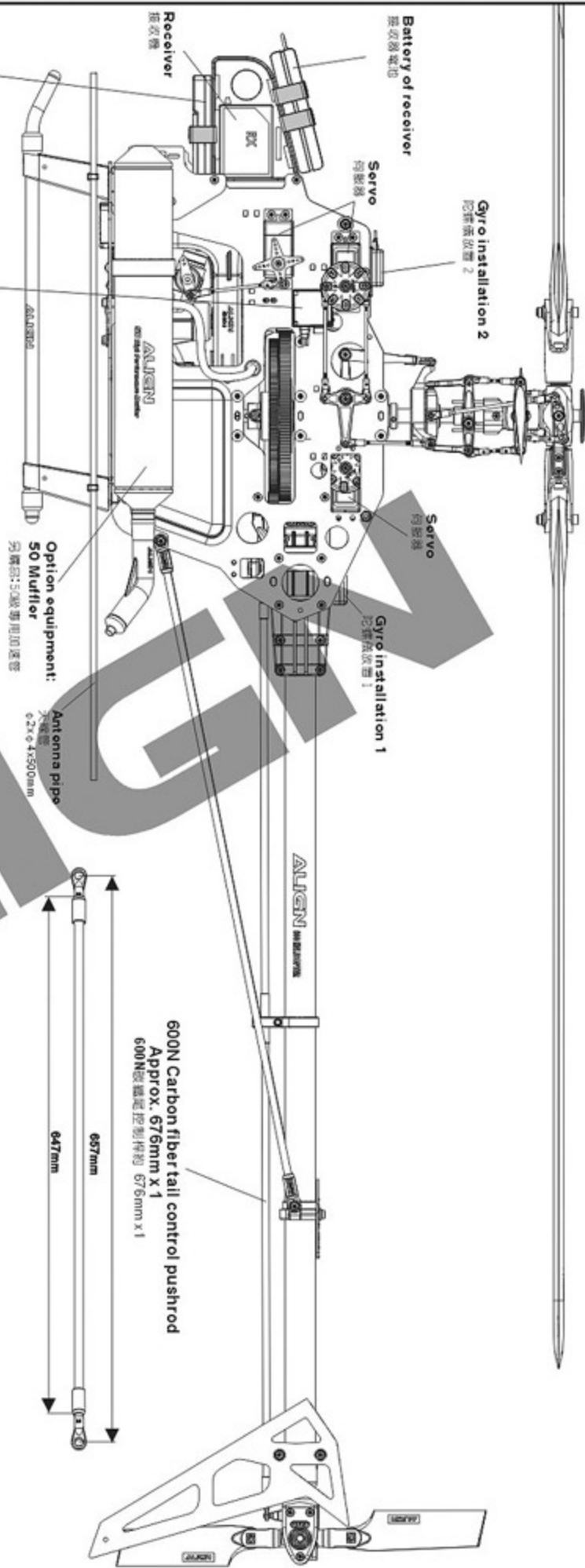
Socket collar screw
圓頭內六角軸套螺絲
M3x20mm

M3 Nut
M3防鬆螺帽

Apply a little amount of T43 thread lock when fixing a metal part.
螺絲鎖附於金屬件請使用適量T43(螺絲膠)



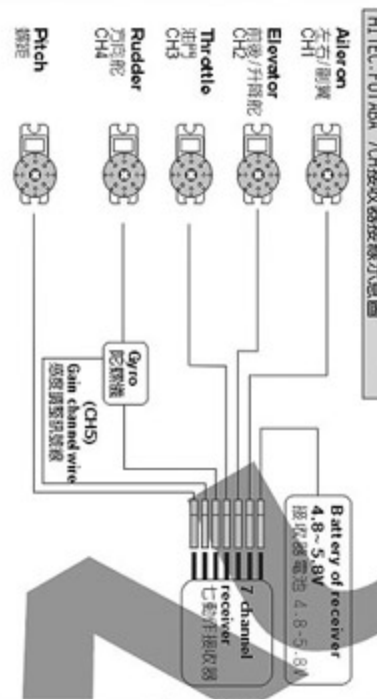




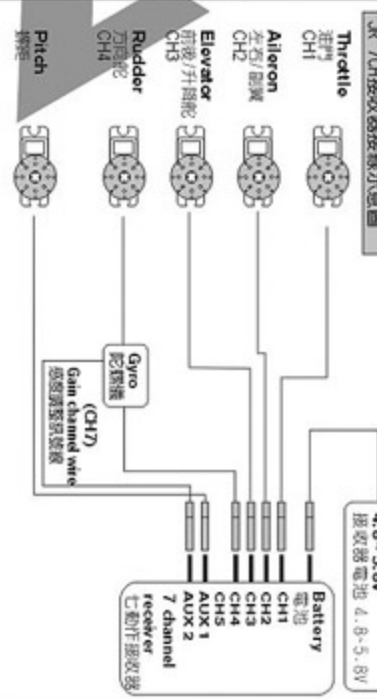
BEC voltage regulator
BEC 電壓器

RCE-G6600 Governor
RCE-6600 陀螺儀

HITEC FUTABA 7CH receiver wiring
HITEC FUTABA 7CH接收器接線示意圖



JR 7CH receiver wiring
JR 7CH接收器接線示意圖

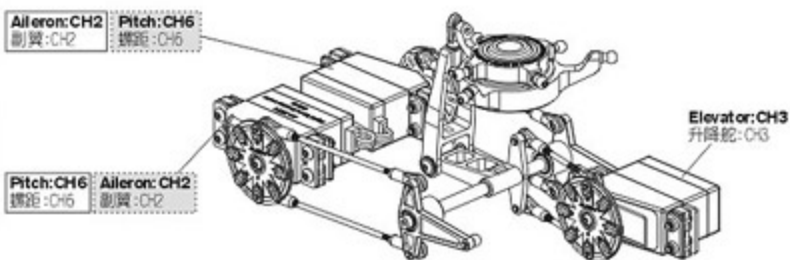


7-Channel Receiver is adequate for the requirements of the T-REX heli. You will need the following channels at a minimum: Throttle, Rudder, Elevator, Aileron, and especially Pitch(CH6) and Gyro(CH5) controls. 七動作接收器已足夠應付T-REX直升機所需的頻道需求。除了油门、方向舵、升降舵、副翼等基本動作外，亦可以對應具備陀螺儀的陀螺儀(CH5)與俯仰(CH6)。

7-Channel Receiver is adequate for the requirements of the T-REX heli. You will need the following channels at a minimum: Throttle, Rudder, Elevator, Aileron, and especially Pitch(AUX 1) and Gyro(AUX 2) controls. 七動作接收器已足夠應付T-REX直升機所需的頻道需求。除了油门、方向舵、升降舵、副翼等基本動作外，亦可以對應具備陀螺儀的陀螺儀(AUX 2)與俯仰(AUX 1)。

To set this option is to turn on the transmitter and connect to BEC power.
此項設定只要開啓發射器，接上BEC電源即可進行操作。

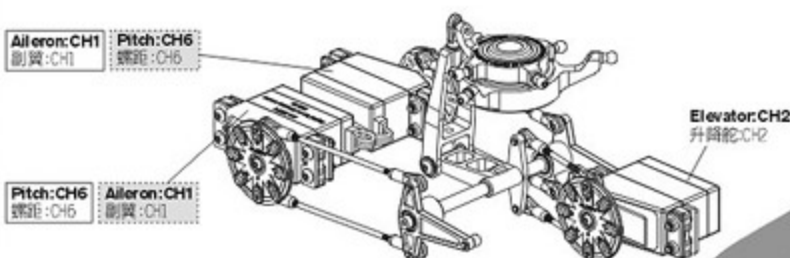
JR Transmitter/Servo JR遙控器對應伺服器關係



Positions of CH2 · CH6 are exchangeable, After assembling as photo (Note:Set the transmitter under CCPM 120 degrees mode), pull throttle stick (pitch) upward. If one swashplate servo (or two servos) moves downward, adjust reverse switch (REV) on the transmitter to make it moves upward. If three servo move downward, adjust the travel value (+) of SWASH CH6 on the transmitter to make them move upward. When the actions of Aileron and Elevator are opposite, adjust travel values of SWASH CH2 and CH3.

CH2、CH6可互換配調，依圖連結後(注意:遙控器須設定於CCPM 120°十字盤模式)，將油门搖桿(Pitch)往上推，若十字盤伺服器有1個或2個往下移時，請調整遙控器的反轉開關(REV)使伺服器往上，若3個伺服器同時往下移時，請調整遙控器SWASH CH6行程量的正負值，使伺服器同時往上平移，副翼與前後動作相反時，同樣調整 SWASH CH2、CH3行程量正負值。

FUTABA/HITEC Transmitter/Servo FUTABA/HITEC遙控器對應伺服器關係



Positions of CH1 · CH6 are exchangeable, After assembling as photo (Note:Set the transmitter under CCPM 120 degrees mode), pull throttle stick (pitch) upward. If one swashplate servo (or two servos) moves downward, adjust reverse switch (REV) on the transmitter to make it moves upward. If three servo move downward, adjust the travel value (+) of SWASH CH6 on the transmitter to make them move upward. When the actions of Aileron and Elevator are opposite, adjust travel values of SWASH CH1 and CH2.

CH1、CH6可互換配調，依圖連結後(注意:遙控器須設定於CCPM 120°十字盤模式)，將油门搖桿(Pitch)往上推，若十字盤伺服器有1個或2個往下移時，請調整遙控器的反轉開關(REV)使伺服器往上，若3個伺服器同時往下移時，請調整遙控器SWASH CH6行程量的正負值，使伺服器同時往上平移，副翼與前後動作相反時，同樣調整 SWASH CH1、CH2行程量正負值。

12.ADJUSTMENTS FOR GYRO AND TAIL NEUTRAL SETTING 陀螺儀與尾翼中立點設定調整

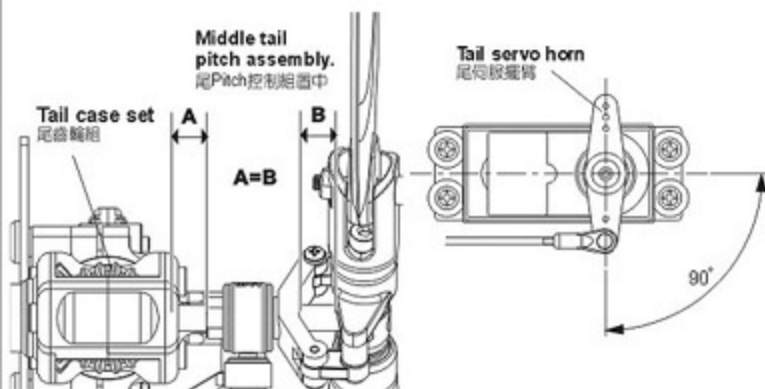
Recommend to choose Head Lock type for Gyro and turn off Revolution mixing(RVMX) mode on the transmitter, then set the gain switch on the transmitter and the gyro to Head lock mode. The gain setting is about 70%, and after transmitter setting, connect to BEC power to work on tail neutral setting. Note: When turn on BEC power, please do not touch tail rudder stick and the helicopter. Then wait for 3 seconds, make tail servo arm and tail servo at a right angle(90 degrees), tail pitch assembly must be correctly fixed about in the middle of the travel of tail rotor shaft for standard neutral setting.

陀螺儀選擇，建議選用鎖定式陀螺儀，其發射器內陀螺儀設定請關閉根軸混控模式，並將發射器上的感度開關與陀螺儀切至鎖定模式，感度設約 70% 左右，發射器設定完成後接上BEC接收電源，即可進行尾中立點設置。注意:當啟動BEC電源時請勿撥動尾舵搖桿或碰觸機體，待3秒陀螺儀鎖定後尾伺服器需與尾伺服器約成90°，尾旋翼控制組須正確置於尾橫軸行程約中間位置，即為標準尾中立點設定。

TAIL NEUTRAL SETTING 尾中立點設定

After setting Head Lock mode, correct setting position of tail servo and tail pitch assembly is as photo. If the tail pitch assembly is not at the neutral position, please adjust the length of rudder control rod to trim.

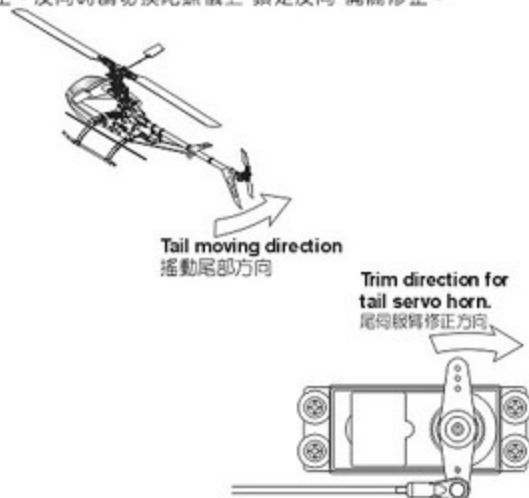
陀螺儀鎖定後尾伺服器與尾 Pitch控制組正確擺置位置。若尾 Pitch控制組未置中時請調整尾控制連桿的長度來修正。



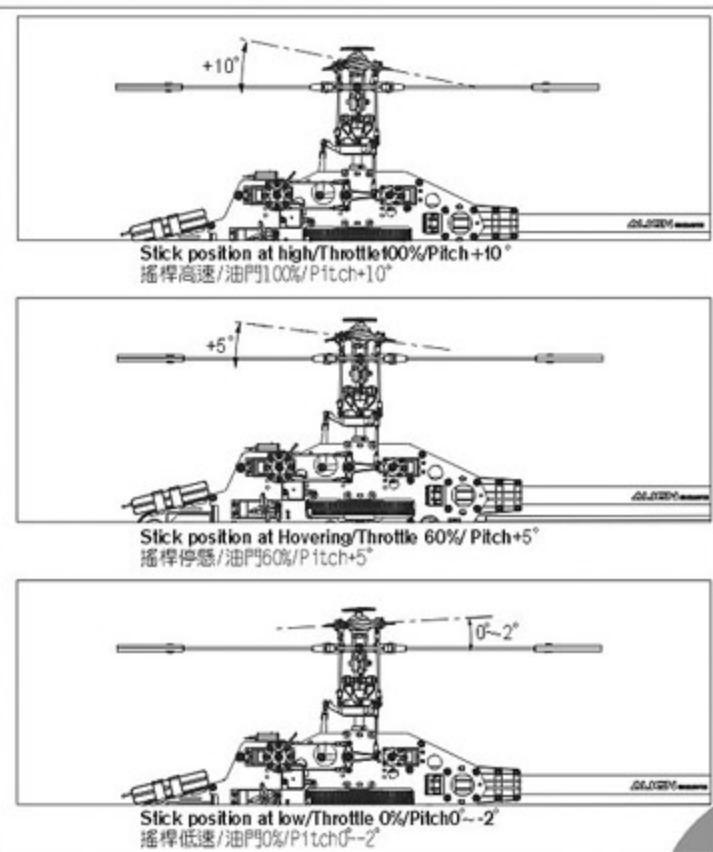
HEAD LOCK DIRECTION SETTING OF GYRO 陀螺儀鎖定方向設定

To check the head lock direction of gyro is to move the tail counterclockwise and the tail servo horn will be trimmed clockwise. If it trims in the reverse direction, please switch the gyro to "REVERSE".

陀螺儀鎖定方向確認，當手搖尾部反時鐘擺動，尾伺服器應順時鐘修正，反向時請切換陀螺儀上"鎖定反向"開關修正。

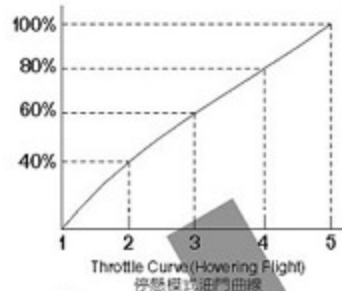


GENERAL FLIGHT 一般飛行模式

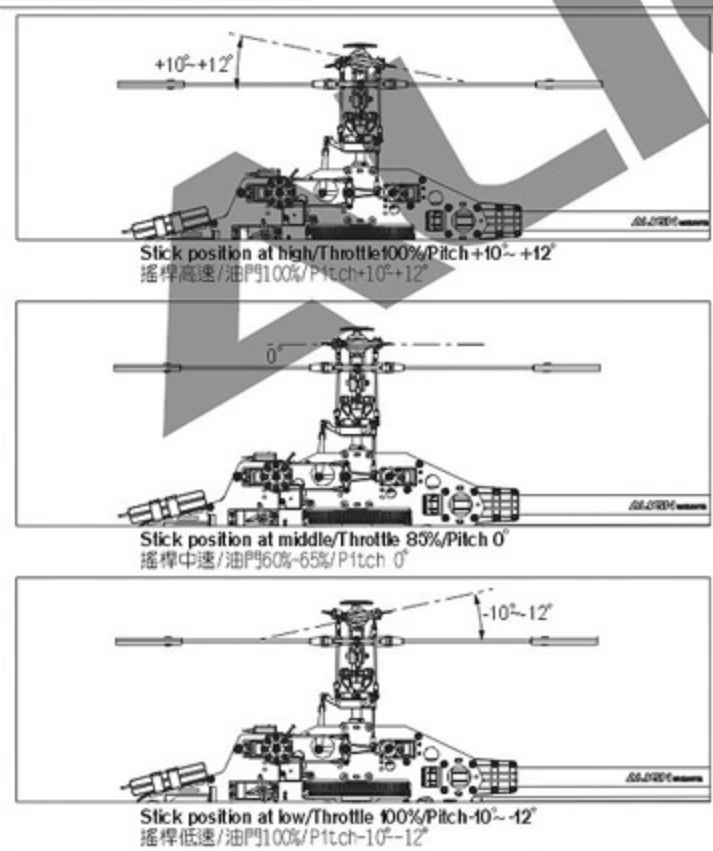


GENERAL FLIGHT
一般飛行模式

	Throttle 油門	Pitch 螺距
5	100% High speed 100% 高速	+10°
4	60%	
3	60% Hovering 60% 停懸	+5°
2	40%	
1	0% Low speed 0% 低速	0°~ -2°

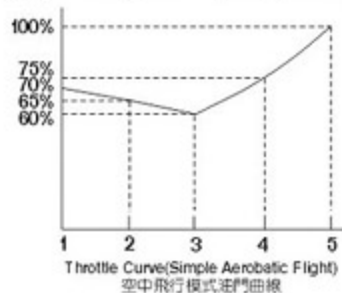


3D FLIGHT 3D特技飛行模式



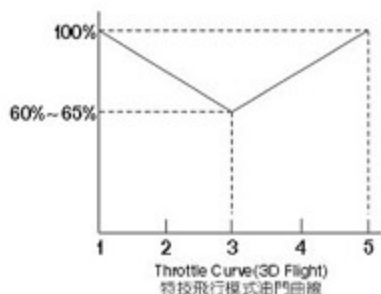
IDLE 1: SPORT FLIGHT

	Throttle 油門	Pitch 螺距
5	100%	+10°~ +12°
4	75%	
3	60%	+5°
2	65%	
1	70%	-5°



IDLE 2: 3D FLIGHT













	Throttle 油門	Pitch 螺距
5	100% High 100% 高	+10°~ +12°
3	60%~65% Middle 60%~65% 中	0°
1	100% Low 100% 低	-10°~ -12°



1. Pitch range: Approx. ±13 degrees.
2. If the pitch is set too high, it may cause motor overload.



1. 螺距 (Pitch) 總行程約 ±13°
2. 過大螺距設定，可能導致引擎過載。

Mode 1	Mode 2	Illustration 圖示
 Aileron 副翼		
 Elevator 升降/前後		
 Throttle 油門		
 Rudder 方向		

Flight adjustment and notice for beginners 初學飛行調整與注意

CAUTION 注意

- Check if the screws are firmly tightened.
- Check if the transmitter and receivers are fully charged.
- 再次確認→螺絲是否鎖固?
- 發射器和接收器電池是否足夠。

CAUTION 注意

If there are other radio control aircraft at the field, make sure to check their frequencies and tell them what frequency you are using. Frequency interference can cause your model, or other models to crash and increase the risk of danger. 假使飛行場有其他遙控飛機，請確認他們的頻率，並告知他們你正在使用的頻率，相同的頻率會造成干擾導致失控和大大地增加風險。

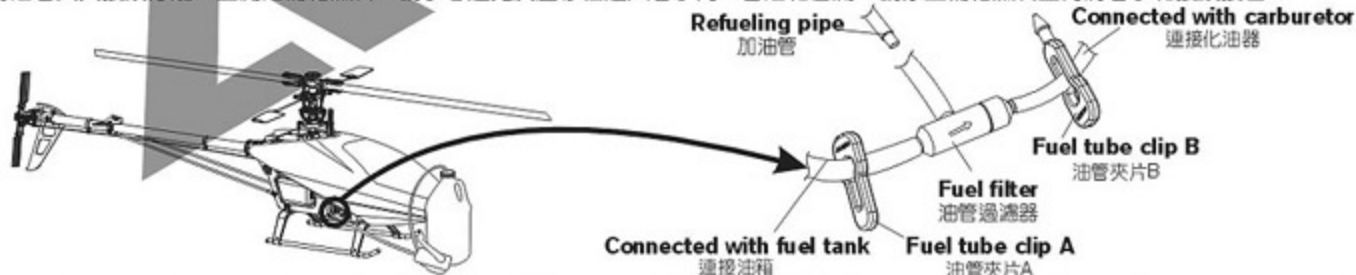
★ When arriving at the flying field.
★ 當抵達飛行場



Engine start preparation 引擎啟動前準備

Separate the fuel tube and the joint and start to refuel. Please be careful to avoid the dust entering the tube. When the fuel tank is full, please stop refueling and reconnect the tube and the joint.

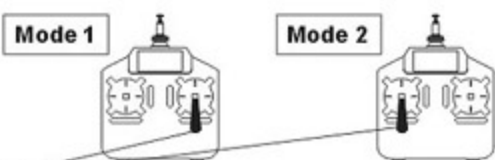
將油管與其接頭分離，並開始補給燃料，請小心避免灰塵砂粒進入管子內。當油箱已滿，請停止補給燃料並再將管子和接頭接合。



CAUTION 注意

First check to make sure no one else is operating on the same frequency. Then place the throttle stick at lowest position and turn on the transmitter.

首先確認附近沒有其他相同頻率的機，然後打開發射器將油門搖桿推到低點。



CAUTION 注意

Check if the throttle stick is set at the lowest position and check if engine throttle is at low speed. 確認油門搖桿是在最低的位置，並確認引擎油門置於低速。

Needle valve adjusting suggestion 引擎油針調整建議

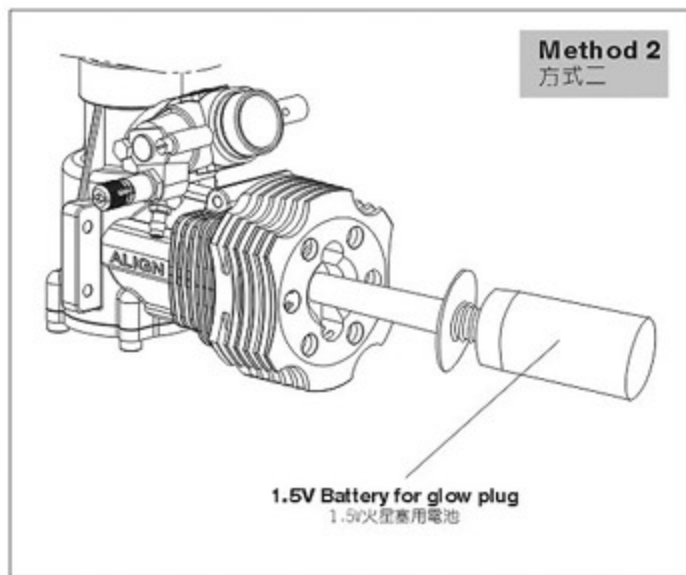
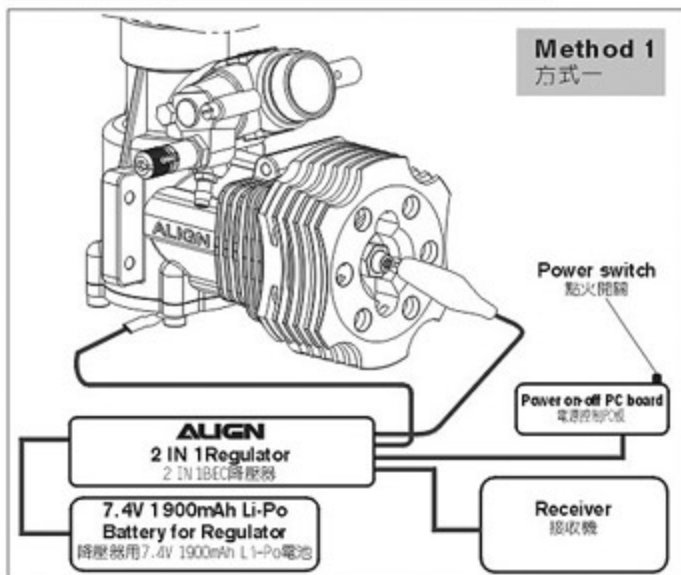


For a new engine, recommend closing the needle valve completely first, and then open the needle valve 1.5 turns for running-in during the first 3 flights. After the first 3 flights, see the flight conditions to adjust the engine to higher speed, recommend closing the needle valve to 1.25 turns. (Please refer to the original instruction manual of the engine for more detail.)

建議新引擎於前3次飛行時主油針先鎖緊後，以鬆退1 1/2圈條件引擎磨合飛行。3次飛行以後，可視飛行狀況適當調高引擎轉速，建議可調緊主油針到1 1/4圈。(詳細調整請參閱原廠說明書)

CAUTION 注意 If the engine speed and the temperature are too high, it will seriously affect the engine life. 引擎轉速、溫度過高將嚴重影響引擎壽命。

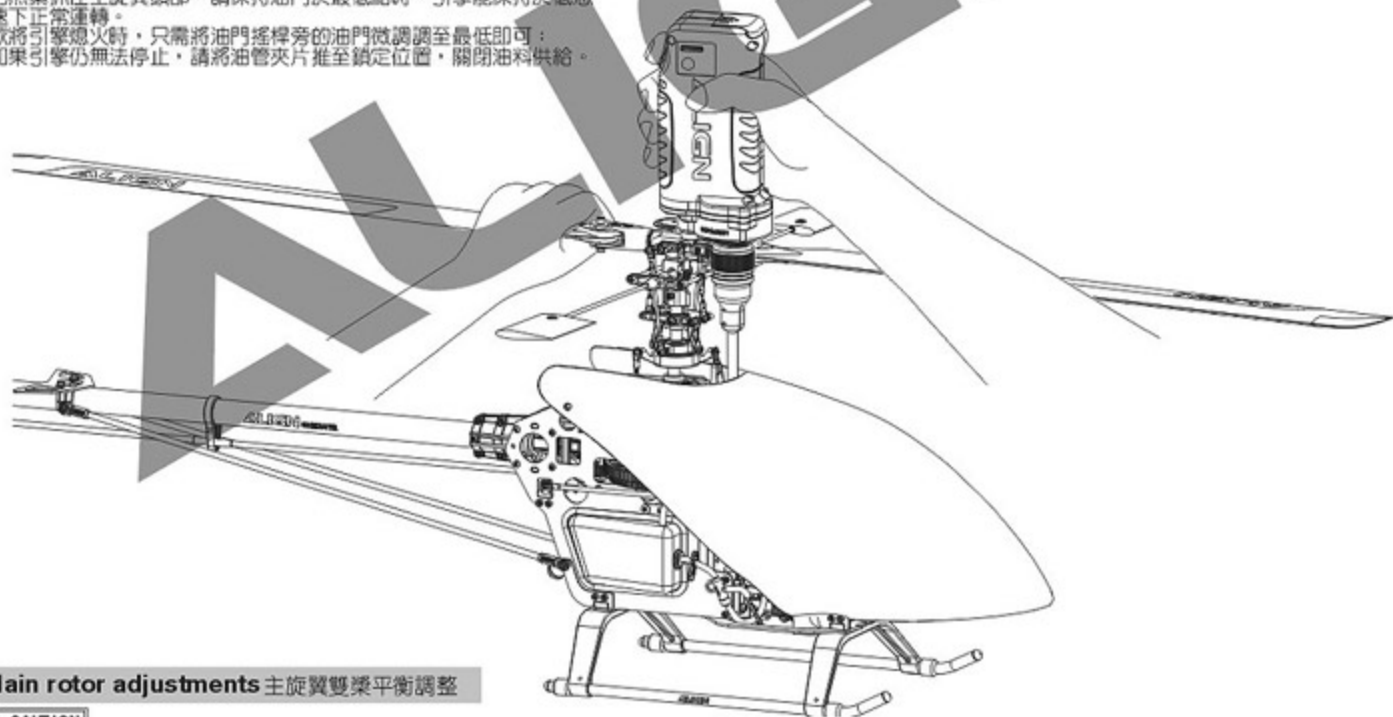
Glow plug ignition method 火星塞點火方式



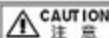
Engine start and stop 引擎啟動和熄火

1. Connect the battery to the starter and check the rotation direction. Insert the starter shaft into the starter completely.
2. Tightly hold the main rotor head, and insert the starter shaft into the starter coupling. Then turn the starter to start the engine.
3. When the engine starts, stop the starter and remove it from the starter coupling. Please keep holding the main rotor head tightly.
4. Hold the main rotor head tightly, and turn off the power of glow plug or remove the power.
5. Still hold the main rotor head tightly, turn throttle trim at the lowest position, and keeping engine in lowest regular running.
6. If you want to stop the engine, please set the throttle trim (beside the throttle stick) at the lowest position. If the engine cannot stop, please put the Fuel Clip into lock position to stopping refueling.

1. 將啟動電池連接到啟動器並確認其轉動方向。將啟動軸完全插入啟動器。
2. 緊緊抓住主旋翼頭部，將啟動軸插入引擎啟動頭並以啟動器啟動引擎。
3. 當引擎啟動後，停止啟動器並將啟動頭上的啟動器移開。請保持持續緊緊抓住主旋翼頭部。
4. 仍然緊緊抓住主旋翼頭部，將火星塞點火電池關閉或移開。
5. 仍然緊緊抓住主旋翼頭部，請保持油門於最低點時，引擎能保持於最低速下正常運轉。
6. 欲將引擎熄火時，只需將油門搖桿旁的油門微調至最低即可；如果引擎仍無法停止，請將油管夾片推至鎖定位置，關閉油料供給。



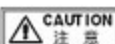
Main rotor adjustments 主旋翼雙槳平衡調整



Tracking adjustment is very dangerous, so please keep away from the helicopter at a distance of at least 10m.
調整軌跡非常危險，請於距離飛機最少10公尺的距離。

1. Before adjusting, apply a red piece of tape on one blade, or paint a red stripe with a marker or paint to identify on blade.
 2. Raise the throttle stick slowly and stop just before the helicopter lifts-off ground. Look at the spinning blades from the side of the helicopter.
 3. Look at the path of the rotor carefully. If the two blades rotate in the same path, it does not need to adjustment. If one blade is higher or lower than the other blade, adjust the tracking immediately.
 4. Linkage rod (A): Regular pitch trim (For large variations). Linkage rod (C): Slight pitch trim (For slight variations).
1. 調整前先在其中一支主旋翼的翼端，貼上有顏色的貼紙或畫上顏色記號，方便雙槳調整辨識。
 2. 慢慢的推起油門搖桿到高點並且停止，在飛機離地面前，從飛機側邊觀察主旋翼轉動。
 3. 仔細觀察旋翼軌跡（假如兩支旋翼移動都是相同軌跡，則不需要調整；可是如果一支旋翼較高或較低產生“雙槳”的情形時，則必須立刻調整軌跡）。
 4. 連桿 (A) 為一般槳距調整（雙槳大槳使用）。連桿 (C) 為槳距微調調整（雙槳微槳差異槳使用）。
- A. When rotating, the blade with higher path means the pitch too big. Please shorten pitch linkage rod (C) for slight trim.
B. When rotating, the blade with lower path means the pitch too small. Please shorten pitch linkage rod (C) for slight trim.

- A. 旋翼轉動時較高軌跡的主旋翼表示螺距 (PITCH) 過大，請調短連桿 (C) 修正。
 B. 旋翼轉動時較低軌跡的主旋翼表示螺距 (PITCH) 過小，請調長連桿 (C) 修正。

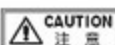


Incorrect tracking may cause vibrations. Please repeat adjusting the tracking to make sure the rotor is correctly aligned. After tracking adjustment, please check the pitch angle is approx. 5° when hovering.

不正確的旋翼軌跡會導致震動，請不斷重複調整軌跡，使旋翼軌跡精準正確。在調整軌跡後，確認一下Pitch角度在停旋時應為大約5°。



FLIGHT ADJUSTMENT AND NOTICE FOR BEGINNERS 初學飛行調整與注意



- Make sure that no one or obstructions in the vicinity.
- You must first practice hovering for flying safety. This is a basic flight action. (Hovering means keeping the helicopter in mid air in a fixed position)

確認鄰近地區沒有人和障礙物。
 為了飛行安全，你必須先練習停旋，這是飛行動作的基礎（停旋：直昇機滯留空中並保持固定位置）。

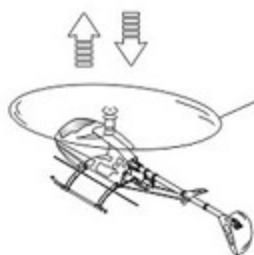
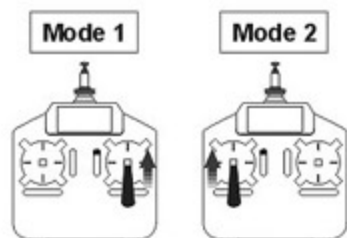
- Please stand approximately 10m diagonally behind the helicopter.
- 練習時，請站在直昇機後方10公尺。

Beginner may install a training landing gear to avoid any crash caused by offset effect while landing.

必要時初學者可以在腳架下方安裝練習架，可避免降落時因重心偏移導致主旋翼或直昇機損毀。



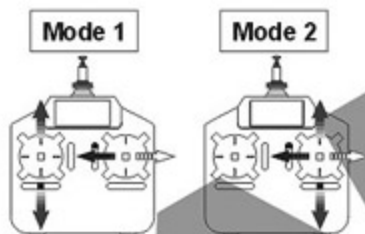
STEP 1 THROTTLE CONTROL PRACTICE 油門控制練習



- When the helicopter begins to lift-off the ground, slowly reduce the throttle to bring the helicopter back down. Keep practicing this action until you control the throttle smoothly.

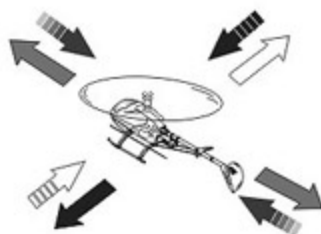
當直昇機開始離地時，慢慢降低油門將飛機降下。持續練習飛機從地面上升和下降直到你覺得油門控制很順。

STEP 2 AILERON AND ELEVATOR CONTROL PRACTICE 副翼和升降控制練習



- Raise the throttle stick slowly.
- Move the helicopter in any direction back, forward, left and right, slowly move the aileron and elevator sticks in the opposite direction to fly back to its original position.

1. 慢慢升起油門搖桿。
 2. 使直昇機依指示：移動向後/向前/向左/向右，慢慢的反向移動副翼和升降搖桿並將直昇機開回到原來位置。



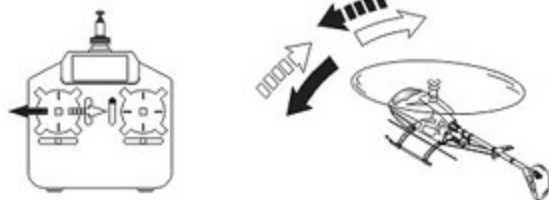
- If the nose of the helicopter moves, please lower the throttle stick and land the helicopter. Then move your position diagonally behind the helicopter 10m and continue practicing.
- If the helicopter flies too far away from you, please land the helicopter and move your position behind 10m and continue practicing.

當直昇機機頭偏移時，請降低油門並且降落，然後移動自己的位置到直昇機的正後方10公尺再繼續練習。
 假如直昇機飛離你太遠，請先降落直昇機，並到直昇機後10公尺再繼續練習。

STEP 3 RUDDER CONTROL PRACTICING 方向舵操作練習

- Slowly raise the throttle stick.
- Move the nose of the helicopter to right or left, and then slowly move the rudder stick in the opposite direction to fly back to its original position.

1. 慢慢升起油門搖桿。
 2. 將直昇機機頭移動左或右，然後慢慢反向移動方向舵搖桿並將直昇機飛回原本位置。

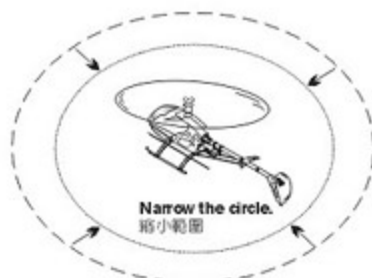


STEP 4

After you are familiar with all actions from Step1 to 3, draw a circle on the ground and practice within the circle to increase your accuracy.

當你覺得 step1-3 動作熟悉了，在地上畫圈並在這個圈圈的範圍內練習飛行，以增加你操控的準確度。

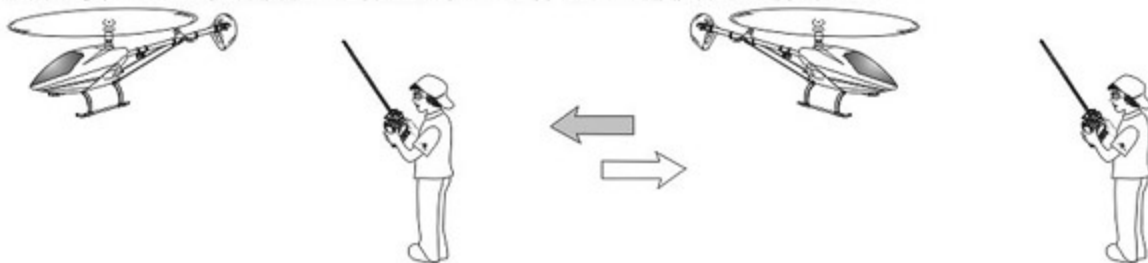
- You can draw a smaller circle when you get more familiar with the actions.
- 當你更加習慣操作動作，你可以畫更小的圈。



STEP 5 DIRECTION CHANGE AND HOVERING PRACTICE 改變直昇機方向和練習停旋

After you are familiar with Step 1 to 4, stand at side of the helicopter and continue practicing Step 1 to 4. Then repeat the Step 1 to 4 by standing right in front of the helicopter.

當你覺得step 1-4動作熟悉了，站在面對直昇機側邊並繼續練習step 1-4。之後，站在直昇機機頭右邊重複步驟練習。



ADJUSTMENT OF EACH TRIM 飛行動作微調

Slowly raise the throttle stick and just as the helicopter lift-off the ground, you can use the trim to correct the action if the helicopter leans in a different direction.

慢慢升起油門搖桿，當直昇機剛剛離開地面時，若直昇機傾向不同方向，可使用微調修正動作。

1. Adjustment of elevator trim 調整升降舵微調

Just before the helicopter lift-off, the nose lean forward/backward...

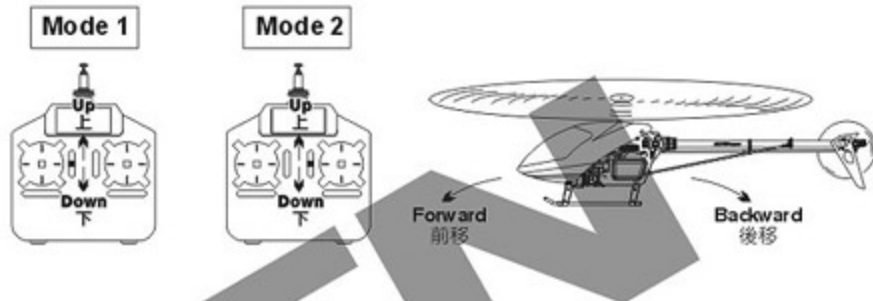
When leans forward, adjust the trim down.

When leans backward, adjust the trim up.

在直昇機正要起飛時，機頭朝前/後方向偏移...

向前偏移時，微調向下調整。

向後偏移時，微調向上調整。



2. Adjustment of Aileron trim 調整副翼微調

Just before the helicopter lift-off, the body lean left/right...

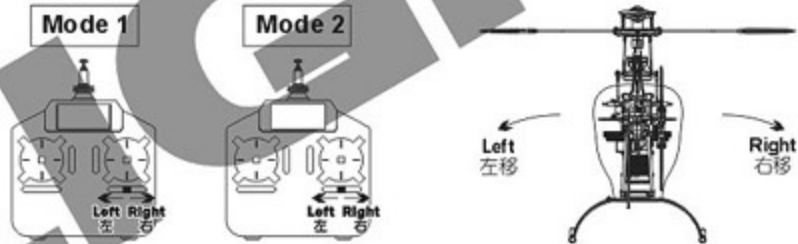
When leans right, adjust the trim to left side.

When leans left, adjust the trim to right side.

在直昇機正要起飛時，機身朝左/右方向偏移...

向右偏移時，微調向左調整。

向左偏移時，微調向右調整。



TROUBLE SHOOTING DURING FLIGHT 如何排除飛行中的狀況

	Situation 狀況	Cause 原因	Way to deal 對策
Blade Tracking 雙槳平衡	Out of tracking 槳葉	Adjustment of pitch rod has not been done. PITCH連桿長度調整不平均	Adjust the length of linkage rod (C) → Slight trim 調整連桿 (C) 長度 → 微調整
During Hovering 停旋	Low rotation of the rotor 主旋翼轉速偏低	★ Pitch of main blade is high. ★ 主旋翼的 PITCH 偏高 ★ Throttle curve is too low during hovering. ★ 停旋點油門曲線過低	★ Lower the pitch about 4~5 during hovering (The rotation should be about 1,600rpm during hovering). ★ 調低 Pitch 停旋 Pitch 約 4-5 (停旋時主旋翼轉速為約 1600RPM) ★ Heighten the throttle curve during hovering. ★ 調高停旋點油門曲線
	High rotation of the rotor 主旋翼轉速偏高	★ Pitch of main blade is low. ★ 主旋翼的 PITCH 偏低 ★ Throttle curve is too high during hovering. ★ 停旋點油門曲線過高	★ Adjust the pitch rod (C) (The rotation should be about 1,600rpm during hovering). ★ 調整連桿 (C) (停旋時主旋翼轉速為約 1600RPM) ★ Lower the throttle curve during hovering. ★ 調低停旋點油門曲線
Sensitivity of the gyro 陀螺儀敏感度	The tail leans to one side during hovering, or when trim the rudder and return to the neutral, the tail lags and cannot stay in a control position. 停旋時尾翼向某一邊偏移，或撥動方向舵並回復到中立點時，尾翼產生延遲，無法停頓在所控制位置上。	★ Failure setting of tail neutral point. ★ 尾中立點設定不當 ★ The sensitivity of the gyro is low. ★ 陀螺儀敏感度偏低	★ Reset tail neutral point. ★ 重設尾中立點 ★ Increase the sensitivity. ★ 增加敏感度
	The tail wags left and right during flight at hovering or full speed. 停懸或全油門時尾翼左右來回快速搖擺。	The sensitivity of the gyro is high. 陀螺儀敏感度偏高	Decrease the sensitivity. 降低敏感度

※ If the problem is still there even after tried above, stop flying and contact with your seller.

※ 在做完以上調整後，仍然無法改善情況時，應立即停止飛行並連絡您的經銷商。

ALIGN

Specifications & Equipment/規格配備:

Length/機身長: 1160mm

Height/機身高: 398mm

Main Blade Length/主旋翼長: 600mm

Main Rotor Diameter/主旋翼直徑: 1350mm

Tail Rotor Diameter/尾旋翼直徑: 240mm

Motor Pinion Gear/引擎主齒: 20T

Autorotation Tail Drive Gear/尾驅動主齒: 180T

Drive Gear Ratio/齒輪傳動比: 8.5:1:4.5 (E:M:T)

Flying Weight/全配重: Approx. 3.2kg

