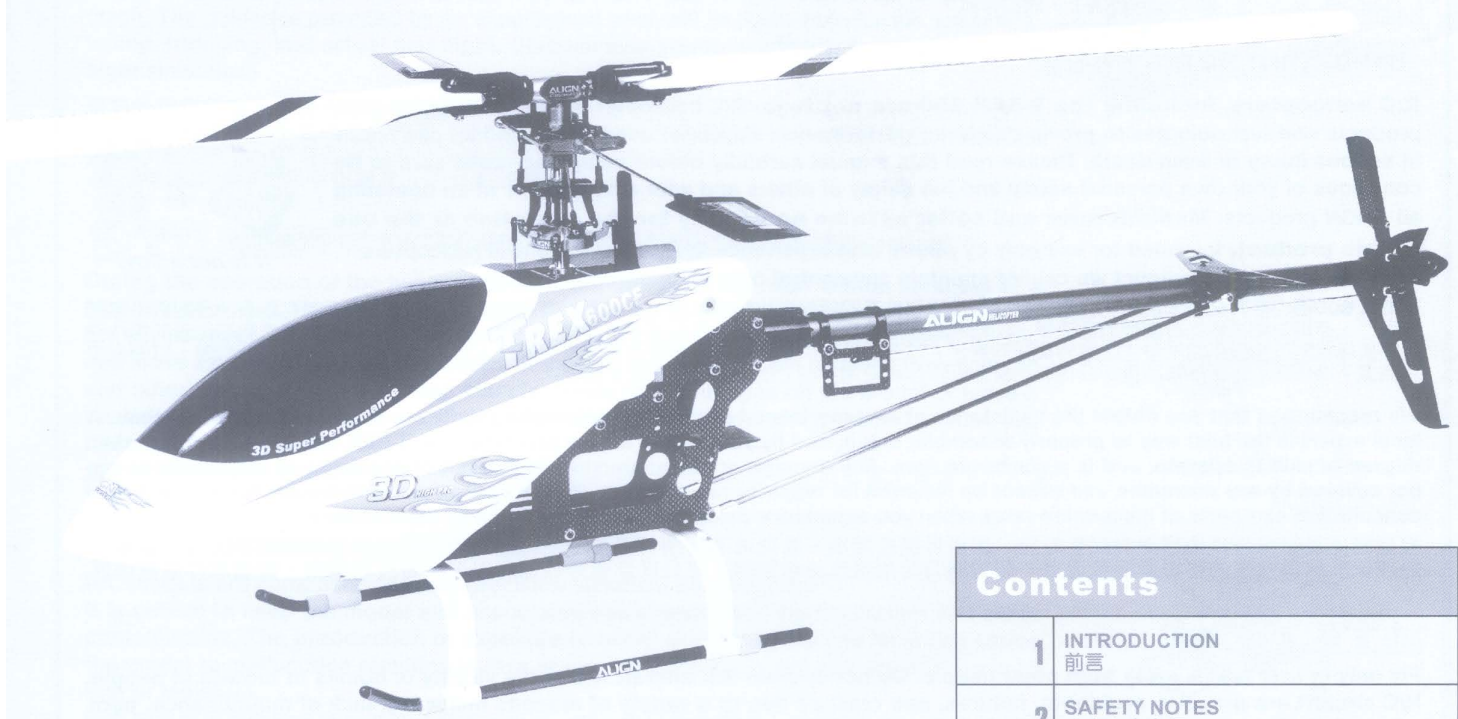


EP-HELICOPTER **T-REX 600 CF** INSTRUCTION MANUAL 使用說明書



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

Contents

1	INTRODUCTION 前言
2	SAFETY NOTES 安全注意事項
3	SAFETY CHECK BEFORE FLYING 飛行前安全檢查
4~17	ASSEMBLY SECTION 組裝說明
18	EQUIPMENT ILLUSTRATION 設備建議備置圖示
19	CANOPY ASSEMBLY 機頭罩安裝
19	SERVO AND LINKAGE ROD SETTING 伺服器與連桿設定說明
20	SERVO SETTING AND ADJUSTMENT 伺服器設定調整
20	ADJUSTMENTS FOR GYRO AND TAIL NEUTRAL SETTING 陀螺儀與尾翼中立點調整
21	PITCH AND THROTTLE SETTING 主旋翼螺距與油門設定
22~25	FLIGHT ADJUSTMENT AND SETTING 飛行動作調整與設定
26~34	PART NAMES AND OPTIONAL PART LIST 各部零件名稱與選購備品明細

Thank you for buying ALIGN Products. The T-REX 600 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 600 is a new product developed by ALIGN. It features the best design available on the Micro-Heli market to date, providing flying stability for beginners, full aerobic 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 600 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，以為往後進行調整以及維修的參考。T-REX 600 是由亞拓自行研發的新產品，不論您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 600 將是你最佳的選擇。

THE MEANING OF SYMBOLS 標誌代表涵義

	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。
	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。
	Do not attempt under any circumstances. 禁止任何環境下，請勿嘗試。

IMPORTANT NOTES 重要聲明

R/C helicopters, including the T-REX 600 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.

After the sale of this product we cannot maintain any control over its operation or usage.

T-REX 600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具，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說明書完畢，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，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 600CF 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 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.

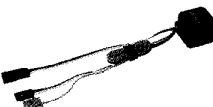
模型商品屬於操作技術且為消耗性商品，如經拆裝使用後，會造成不等情況零件損耗，任何使用情況所造成商品不良或不滿意，將無法於保固條件內更換新品或退貨，您如遇有使用操作維修問題，本公司全省分公司將提供免費技術指導、特價零件供應服務。



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 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意外，請飛行者務必注意飛行安全，並需了解自負任何意外之責任。

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

			
Transmitter(6-channel or more, helicopter system) 發射機(六動以上直昇機模式遙控器)	Receiver(6-channel or more) 接收機(六動以上)	Head Lock Gyro 鎖定式陀螺儀	STD Servo x 3pcs (movements) Specialized servo x 1pc (Tail rudder) 動作控制STD伺服器x3 尾舵控制專用伺服器x1

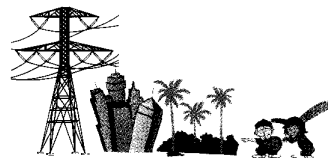
ADDITIONAL TOOLS REQUIRED FOR ASSEMBLY 自備工具

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

**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 appropriate flying site consisting of flat, smooth ground, a clear open field, or a large open room, such as gymnasium or warehouse without obstacles. Do not fly near buildings, high voltage cables, or trees to ensure the safety of yourself, others, and your model. 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，相對的也潛在著一點危險性，場地的選擇也相對的重要。首先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，務必選擇在空曠場地並可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、打雷等惡劣氣候下操作，以確保本身及機體的安全。

**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.)

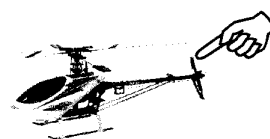
至飛行場飛行前，需確認是否有相同頻率的同好正進行飛行，因為開啓相同頻率的發射機將導致自己與他人立即干擾等意外危險。遙控飛機操控技巧在學習初期有著一定的難度，要盡量避免獨自操作飛行，需有經驗的人士在旁指導，才可以操控飛行。

(動線電腦模擬器及老手指導是入門必要的選擇)

**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。

**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或引發不可預期的意外！

**KEEP AWAY FROM HEAT** 遠離熱源

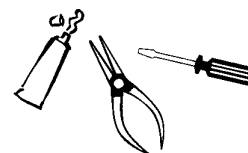
R/C models are made up various forms of plastic. Plastic is very susceptible to damage or deformation due to extreme heat and cold climate. Make sure not to store the model near any source of heat such as an oven, or heater. It is best to store the model indoors, in a climate-controlled, room temperature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

**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、法令外其它用途。

**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。



CAREFULLY INSPECT BEFORE REAL FLIGHT 實機飛行前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.**
- ☆ **Check for the tension of tail drive belt.**

- ★ 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。
- ★ 每次飛行前確定你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。
- ★ 開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。不正確的開關機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的各個動作是否順暢，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，可能造成接頭鬆脫而造成失控的危險。
- ★ 確定尾傳動皮帶的鬆緊度。

Product Name 產品名稱	Standard Equipment 標準配備
T-REX 600CF Combo Version T-REX 600CF 高級碳纖套裝版	▲T-REX 600(CF) Kits Setx1 set▲Fiberglass Canopyx1▲Decalx1▲Standard Landing Skidx1▲3D Landing Skidx1 ▲Hook & Loop Fastening Tapex2▲Motor Pinion Gear 10Tx1 ▲RCM-BL75G 75A Brushless ESC (Governor Mode)x1▲600L Brushless motorx1▲REC-B3X External BECx1 ▲Li-Polymer 7.4V 1100mAh 9C for BECx1★W/O Main Blade ▲T-REX 600 (CF) 空機版x1▲玻璃機頭罩x1▲貼紙x1▲標準腳架x1組▲3D腳架x1組▲魔術帶x2▲10T馬達齒輪x1★未附主旋翼 ▲RCM-BL75G 75安培無刷定速調速器x1組▲600L無刷馬達x1▲REC-B3X 外接式BECx1▲Li-Polymer 7.4V 1100mAh 9Cx1
T-REX 600CF Kit Version T-REX 600CF 高級碳纖空機版	▲T-REX 600(CF) Kits Setx1 set▲Fiberglass Canopyx1▲Decalx1▲Standard Landing Skidx1▲3D Landing Skidx1 ▲Hook & Loop Fastening Tapex2▲Motor Pinion Gear 10Tx1★W/O Main Blade ▲T-REX 600 (CF) 空機版x1▲玻璃機頭罩x1▲貼紙x1▲標準腳架x1組▲3D腳架x1組▲魔術帶x2▲10T馬達齒輪x1★未附主旋翼



Original manufacture package of T-REX 600CF is not including main blades. This unit is a large-sized high power helicopter, and we recommend you to choose safe main blades with good brand, reputation. We recommend you do not use general wooden blades and do not equip the power of main blade over 2150rpm to avoid any accident caused by broken structure of the blades and parts.

本公司 T-REX 600CF 遙控模型直昇機原裝出廠商品未附主旋翼，由於此商品屬大型高動力直昇機，具有一定危險性，為了安全在你選購搭配主旋翼時，務必注意慎選使用有品牌、有認證、安全的商品，建議禁止使用一般木槳，並嚴格禁止於任何情況下主旋翼轉速超過2150rpm，以避免主旋翼或機體零件結構斷裂造成不可預期的意外。

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.

各項塑膠製連桿頭扣接時，A字請朝外。



潤滑油 (牛油)



綠色

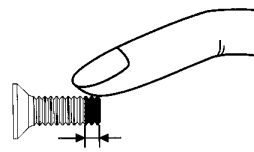


藍色



Self-furnished

瞬間膠 (自備)

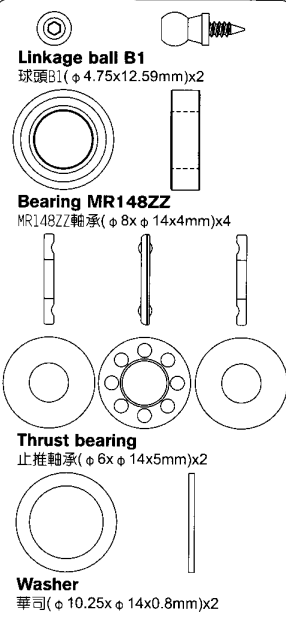


T43 Glue width: approx. 1mm

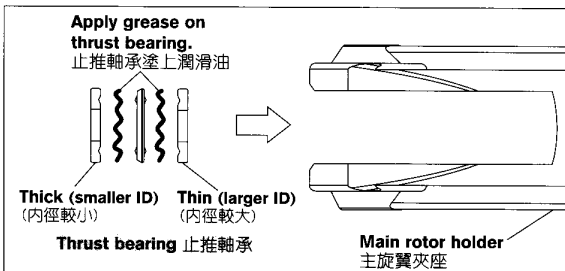
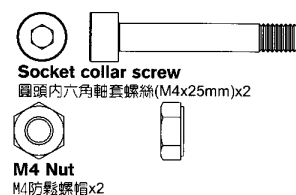
R48 metal tubular adhesive (eg. Bearings). T43 thread lock, apply a small amount on screws or metal parts and wipe surplus off. When disassembling, recommend to heat the metal joint about 15 seconds.

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)

50HH001

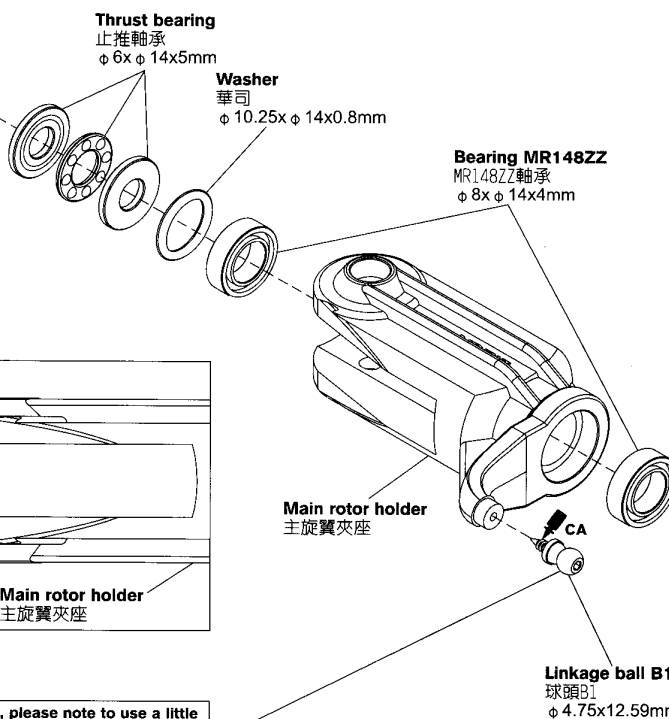


Main Blade Fixing Screw 鎖主旋翼用螺絲

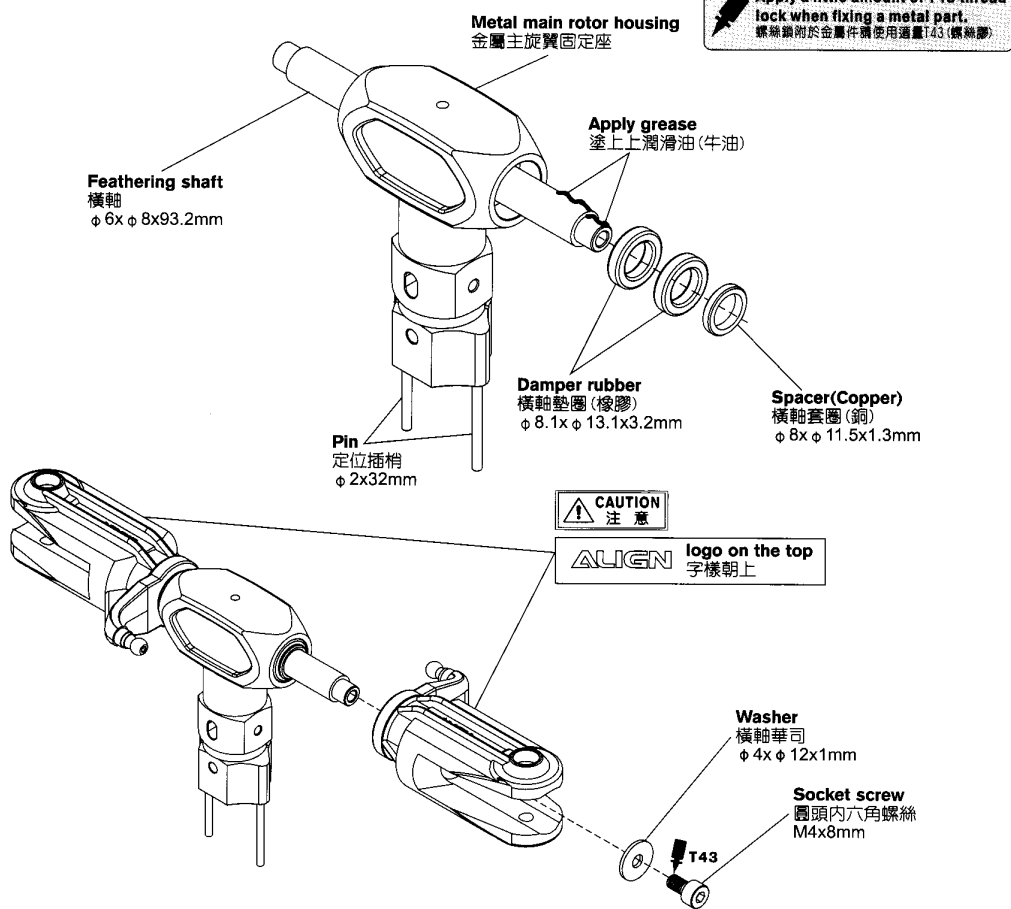
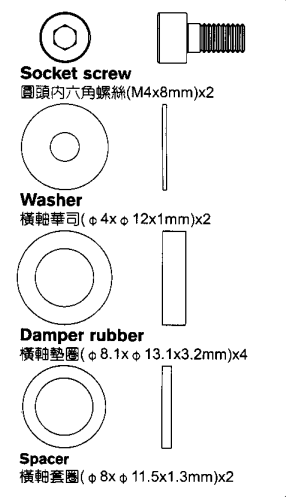


When tightening a linkage ball to a plastic part, please note to use a little CA glue and tighten it firmly, but not over tightened, or they will strip.
球頭鎖入塑膠件時務必注意，使用少量CA膠並適當扭力鎖緊即可，而過緊的扭力可能會導致滑牙。

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

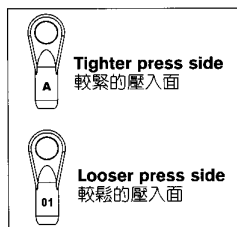
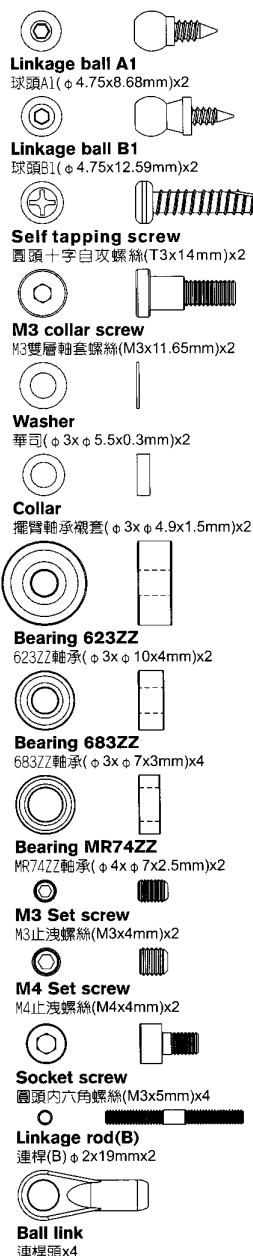


50HH002



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

50HH003



Already assembled
by Factory.
已組裝完成

Bearing MR74ZZ
MR74ZZ軸承
φ 4x φ 7x2.5mm

Bearing 623ZZ
623ZZ軸承
φ 3x φ 10x4mm

Self tapping screw
圓頭十字自攻螺絲
T3x14mm

**Mounting hole of SF mixing
arm for nimble 3D flight.**
敏捷3D飛行SF控制臂固定孔。



When tightening a linkage ball to a plastic part, please tighten it firmly, but not over tightened, or they will strip.
球頭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。

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)

M3 collar screw
M3雙層軸套螺絲
M3x11.65mm

Flybar seesaw holder
平衡桿固定座

**Mounting hole of SF mixing arm for
stable 3D flight.(Recommend to use)**
穩定3D飛行SF控制臂固定孔(建議使用)。

Collar
擺臂軸承襯套
φ 4.9x φ 3x1.5mm

Linkage ball A1
球頭A1
φ 4.75x8.68mm

SF Mixing arm
SF控制搖臂

Bearing 683ZZ
683ZZ軸承
φ 3x φ 7x3mm

Self tapping screw
圓頭十字自攻螺絲
T3x14mm

Linkage ball B1
球頭B1
φ 4.75x12.59mm

Washer
華司
φ 5.5x φ 3x0.3mm

Can choose to
use or not use.
可選擇使用或不使用

M3 Set screw
M3止洩螺絲
M3x4mm

Flybar paddle
平衡翼

Sticker x2sets
平衡翼貼紙x2組

50HT001

Metal flybar control arm
金屬平衡翼控制臂

Flybar rod
平衡翼桿
φ 3x400mm

Flybar control rod
平衡翼球型控制球桿
φ 4.3x74.1mm

M4 Set screw
M4止洩螺絲
M4x4mm

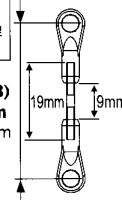
Socket screw
圓頭內六角螺絲
M3x5mm

Flybar control rod
平衡翼球型控制球桿
φ 4.3x74.1mm

Metal flybar control arm
金屬平衡翼控制臂

Assemble linkage rod (B)
before assembling flybar
control set.
組裝平衡翼控制組先將連桿
裝入。

Linkage rod(B)
Approx.38mm
連桿(B)約38mm



50HH004

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

Linkage ball B1
球頭B1 (φ 4.75x12.59mm)x2

Bearing 683ZZ
683ZZ軸承 (φ 3x φ 7x3mm)x4

Collar screw
軸套螺絲 (M2x12mm)x2

Socket screw
圓頭內六角螺絲 (M3x12mm)x2

Washer
華司 (φ 3x φ 5.5x0.3mm)x2

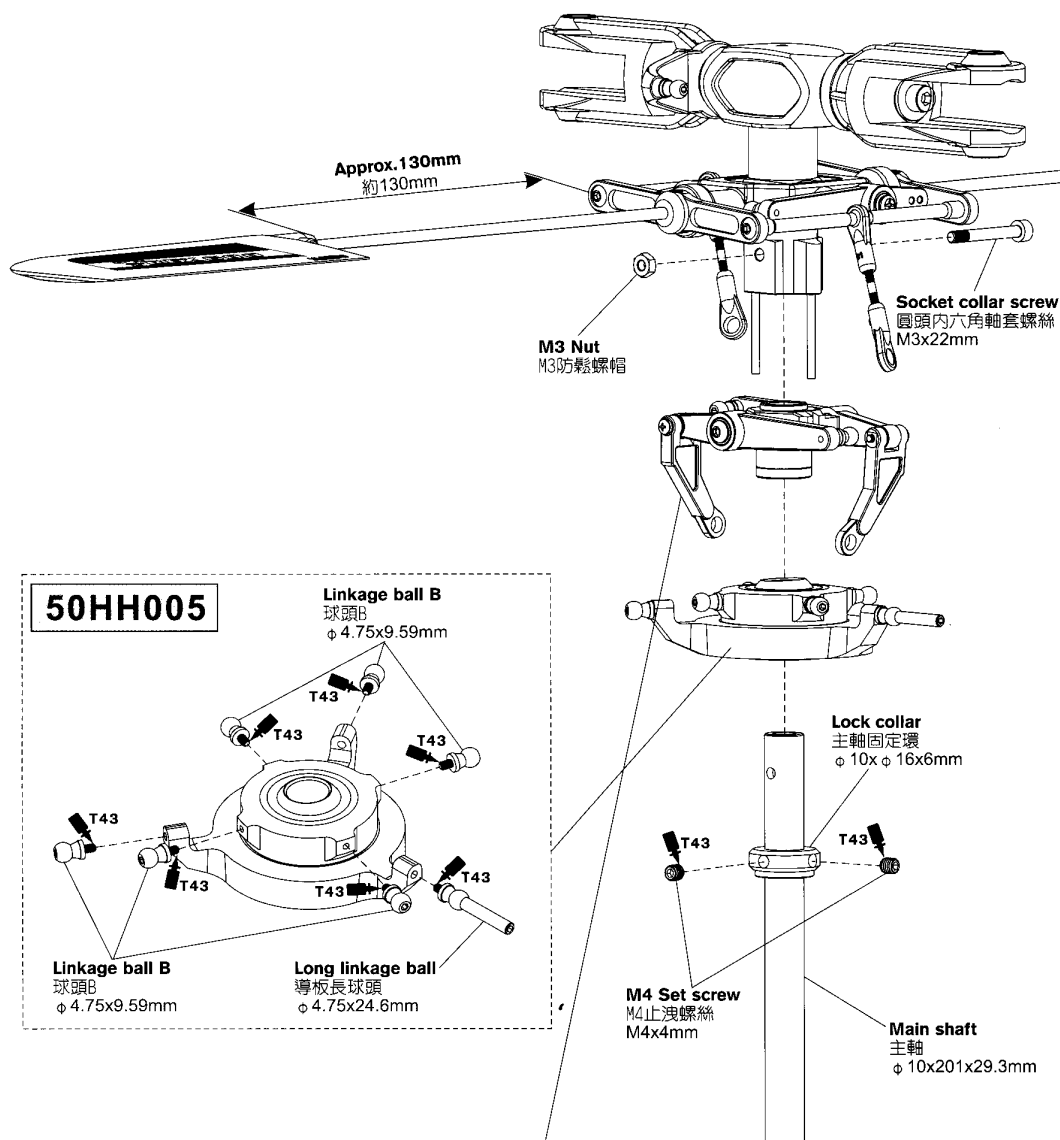
Collar
擺臂軸承銅套 (φ 3x φ 4.9x1.5mm)x2

Collar
Radius控制搖臂銅套 (φ 2x φ 3x5.1mm)x2

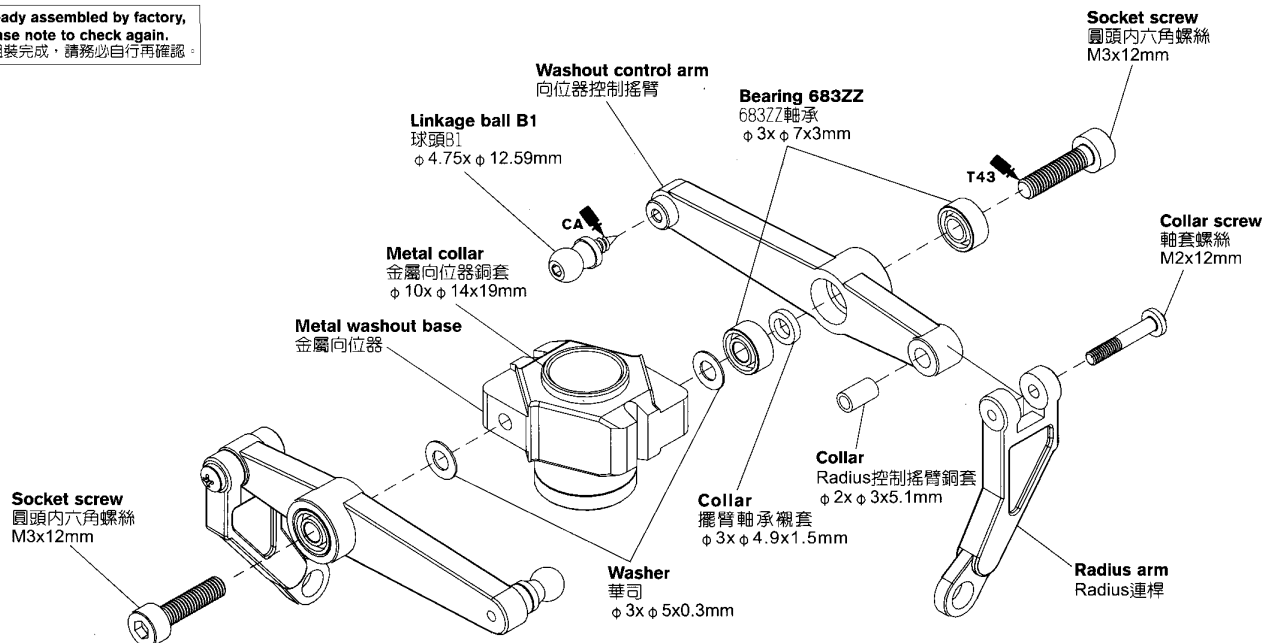
Socket collar screw
圓頭內六角軸套螺絲 (M3x22mm)x1

M3 Nut
M3防鬆螺帽x1

M4 Set screw
M4止洩螺絲 (M4x4mm)x2



Already assembled by factory,
please note to check again.
已組裝完成，請務必自行再確認。



50HZ001



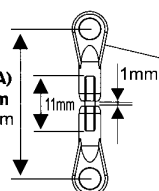
Ball link
連桿頭x8

Linkage rod(A)
連桿(A) ϕ 2x11mmx2

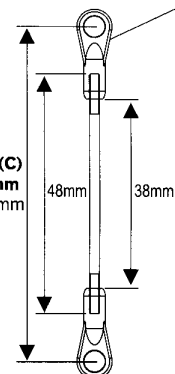
Linkage rod(C)
連桿(C) ϕ 2x48mmx2

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)

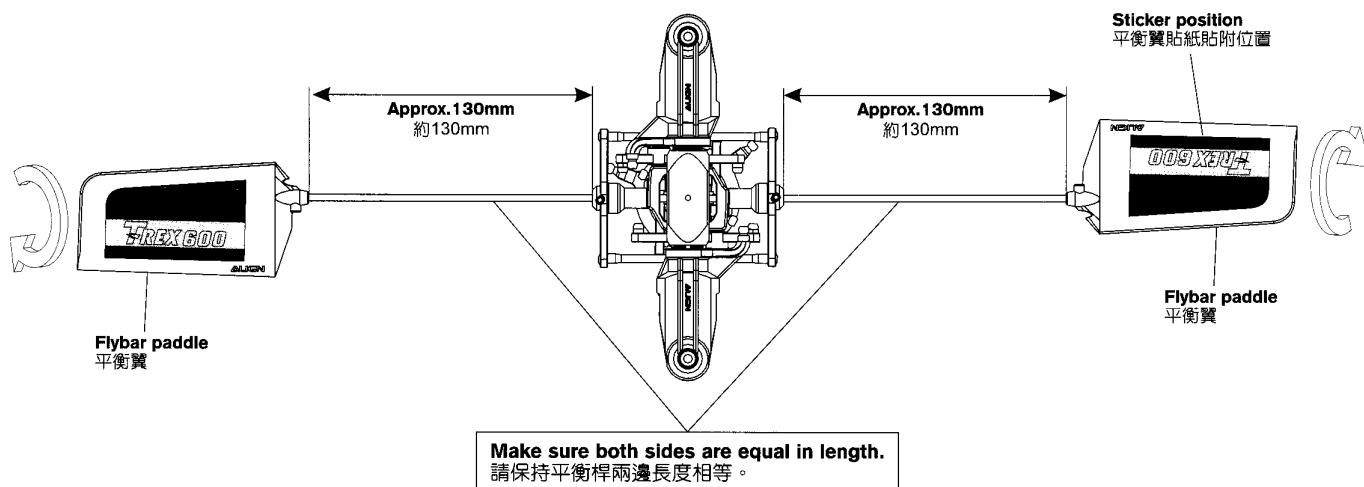
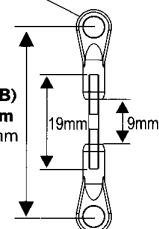
Linkage rod(A)
Approx.30mm
連桿(A)約30mm



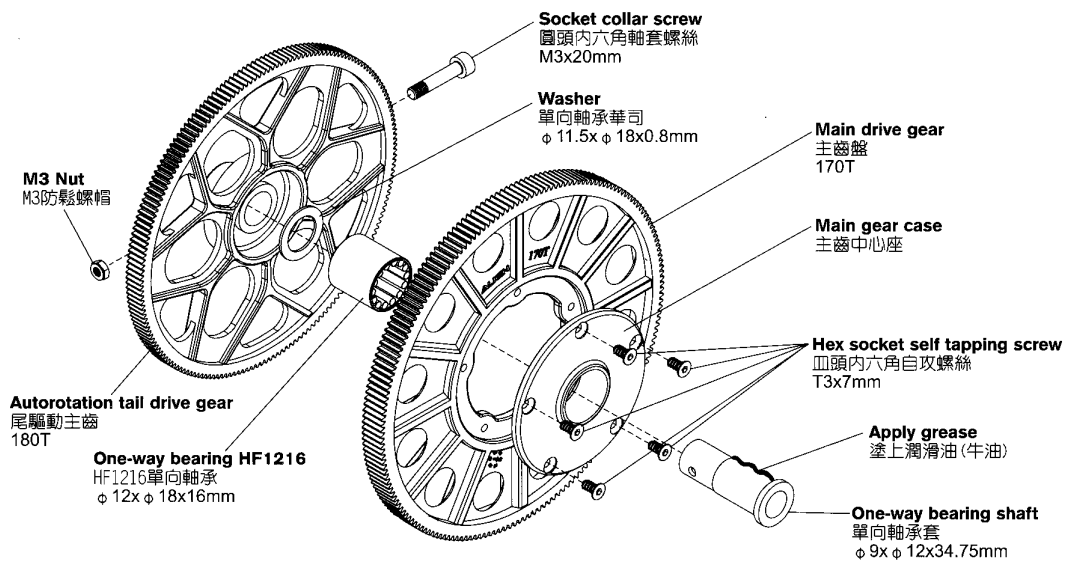
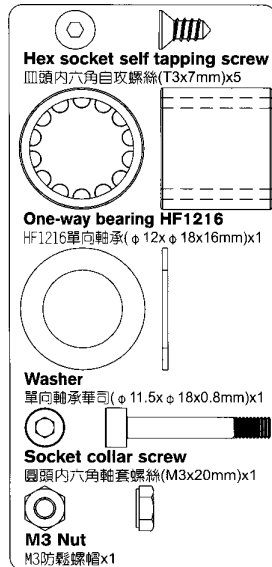
Linkage rod(C)
Approx.67mm
連桿(C)約67mm



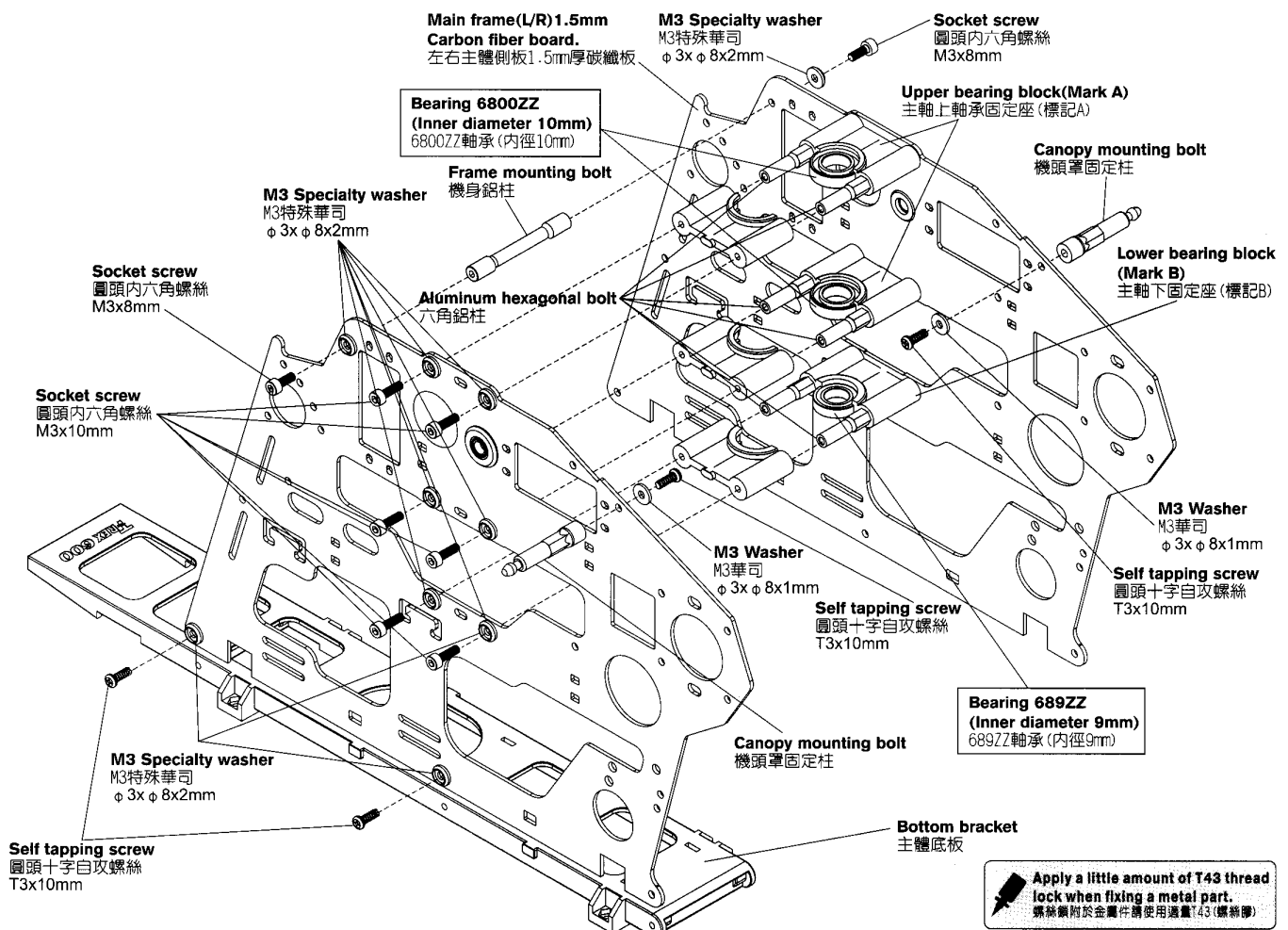
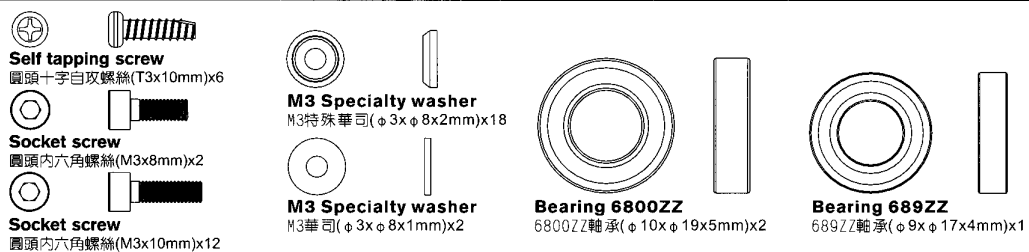
Linkage rod(B)
Approx.38mm
連桿(B)約38mm



50HB001



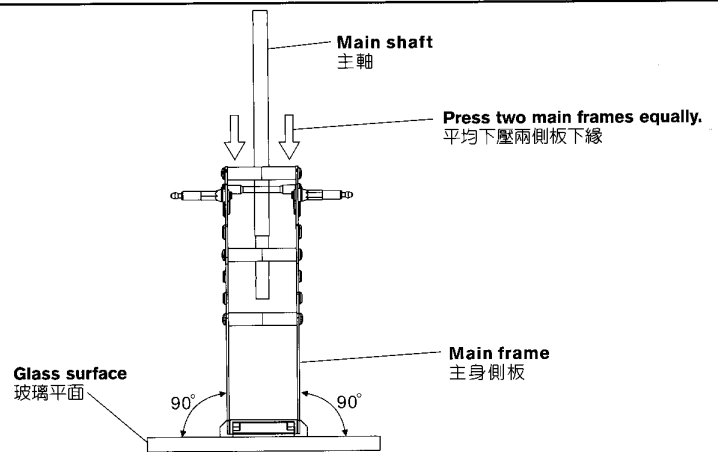
50HB002



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.

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需滑順, 主體底板必須與水平桌面(玻璃平面)踏實緊貼: 請保持主軸滑順與底板平行桌面後慢慢鎖緊螺絲。這正確側板組裝對動力與飛行性能有顯著幫助。



50HB003



Socket screw
圓頭內六角螺絲(M3x8mm)x3



M3 Nut
M3防鬆螺帽x3



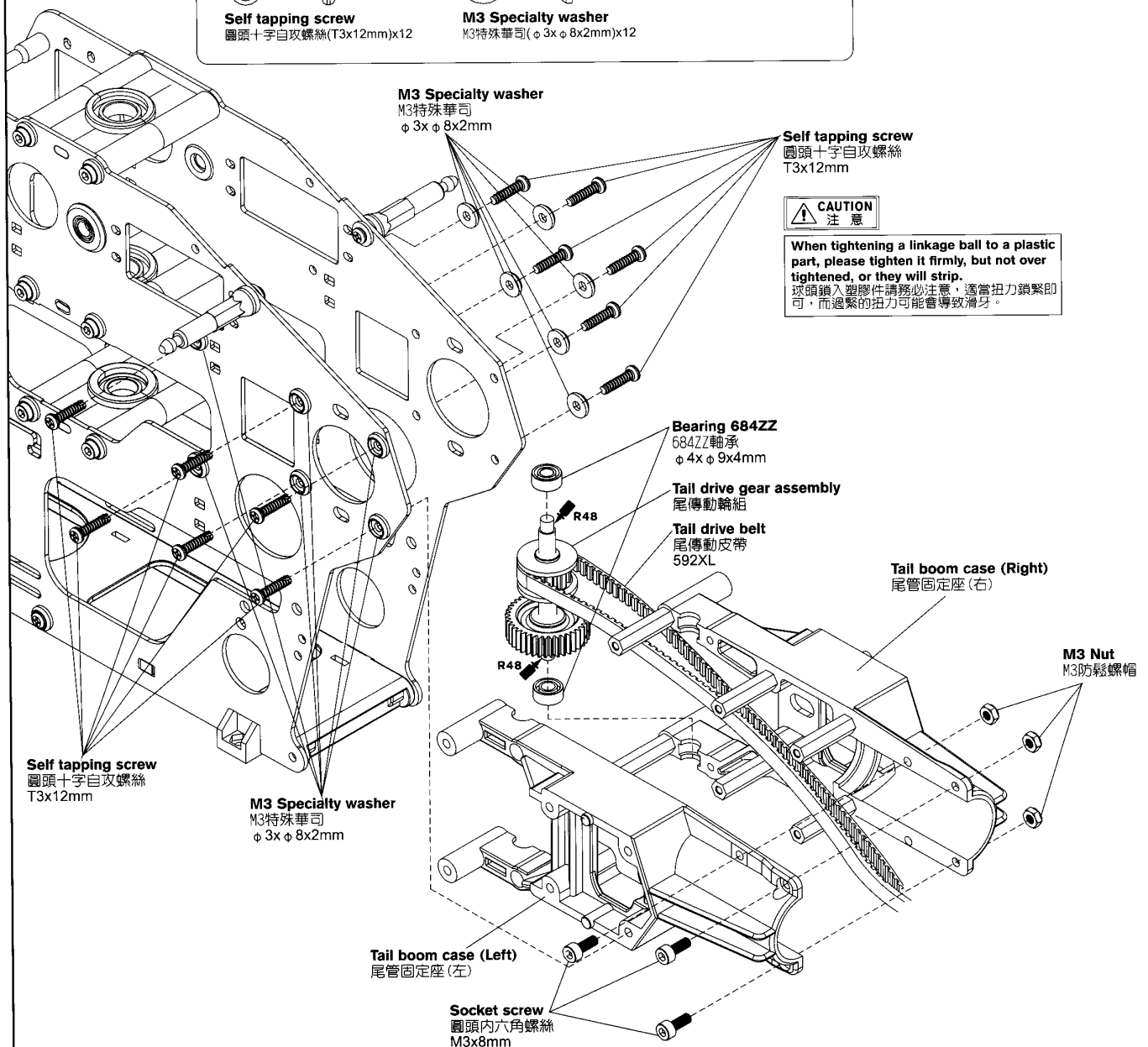
Bearing 684ZZ
684ZZ軸承(φ 4x φ 9x4mm)x2



Self tapping screw
圓頭十字自攻螺絲(T3x12mm)x12



M3 Specialty washer
M3特殊華司(φ 3x φ 8x2mm)x12



50HB004



Self tapping screw

圓頭十字自攻螺絲(T3x8mm)x6



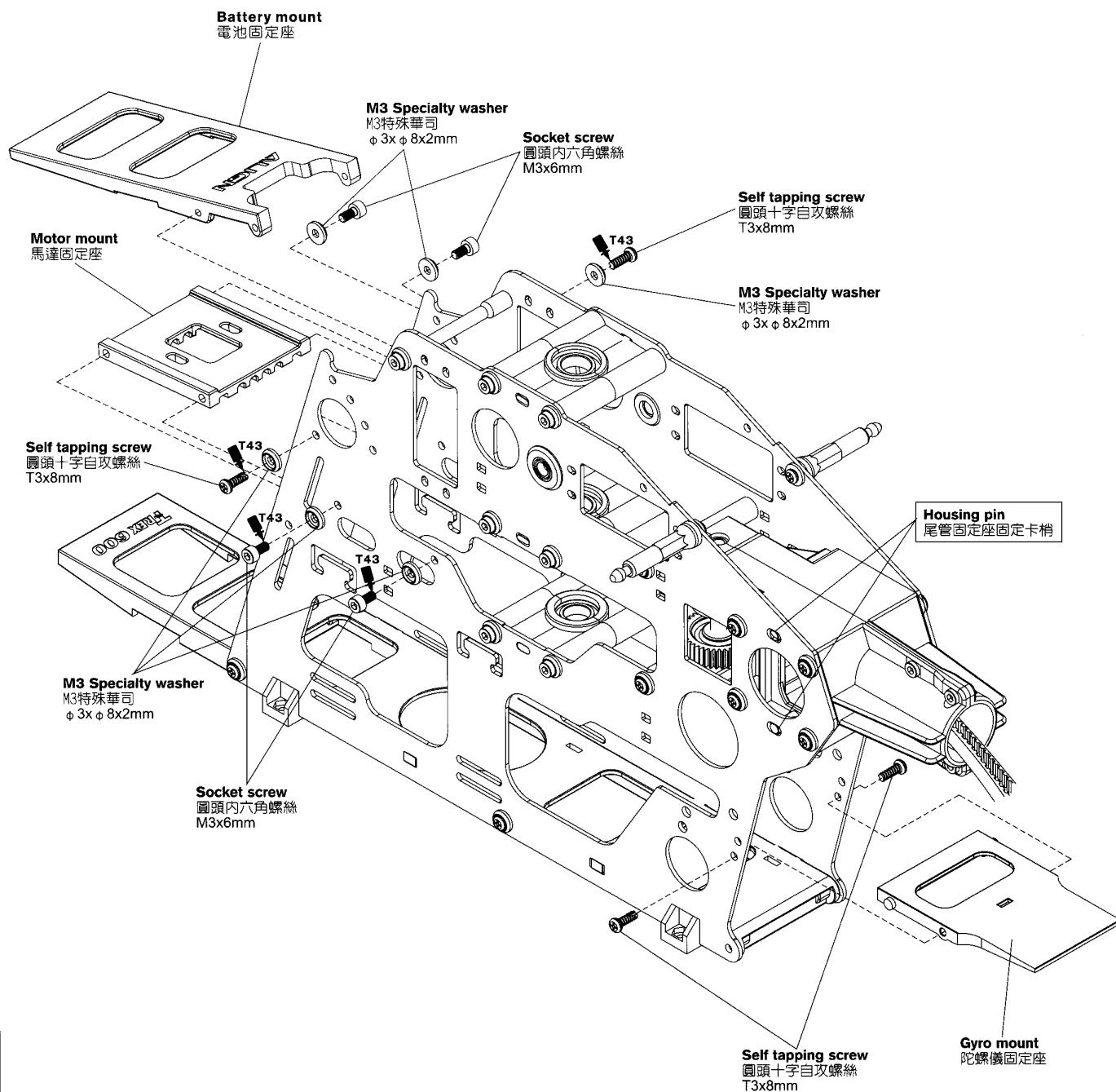
M3 Specialty washer

M3特殊華司(φ3xφ8x2mm)x8



Socket screw

圓頭內六角螺絲(M3x6mm)x4



50HB004

Linkage ball A1
球頭A1 (φ 4.75x8.68mm)x9

M4 Set screw
M4止洩螺絲(M4x4mm)x1

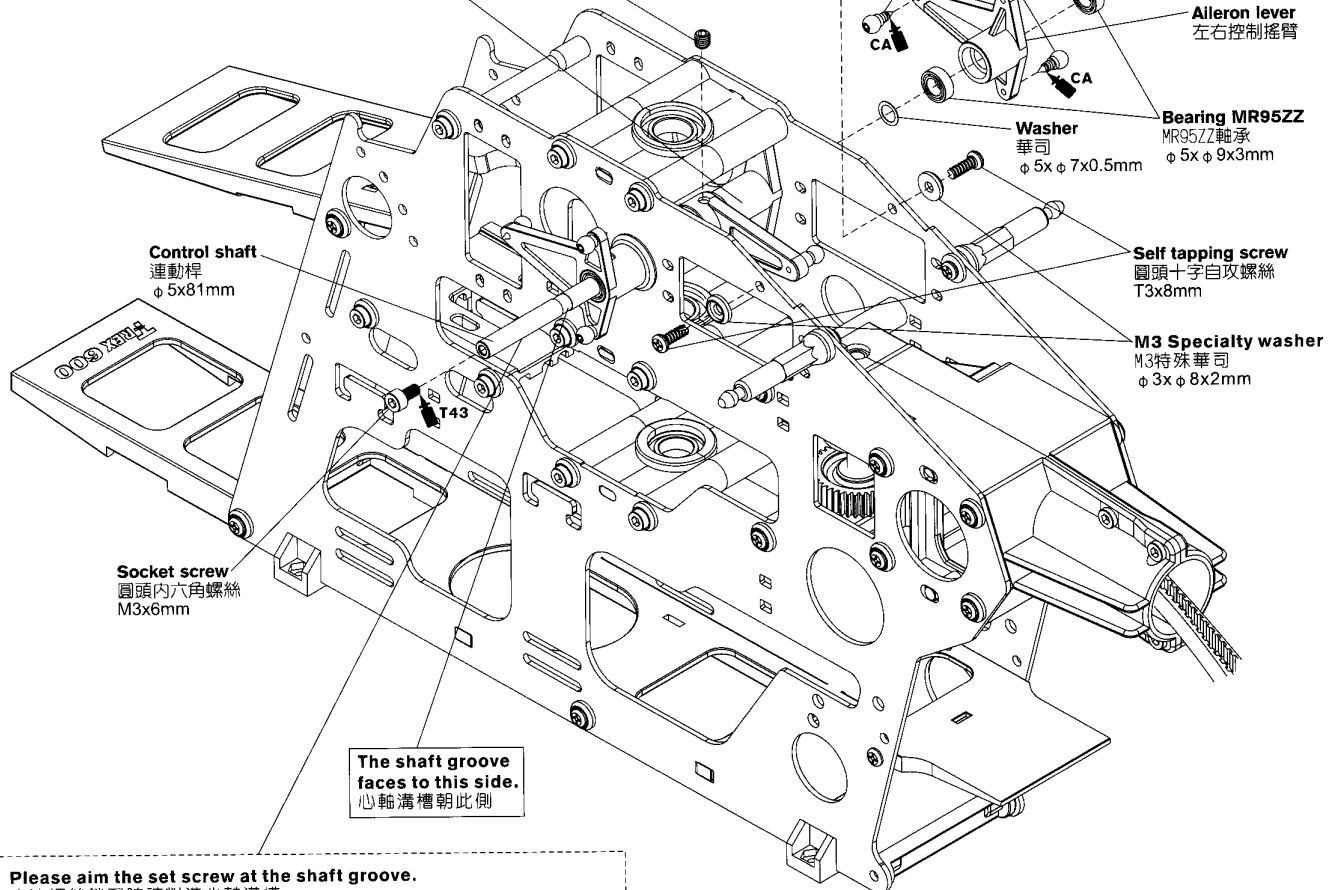
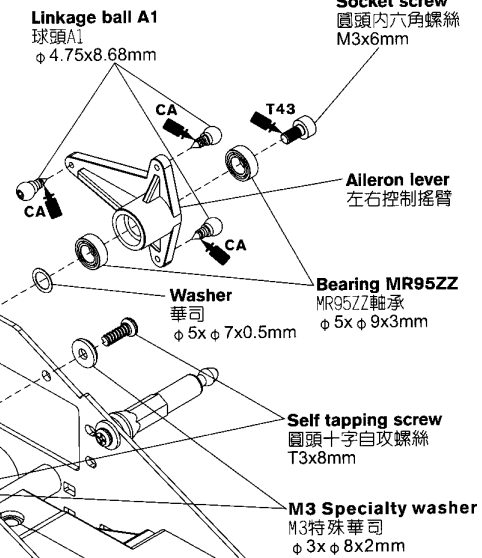
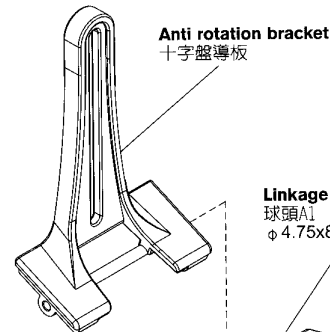
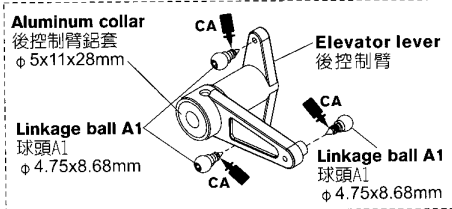
Washer
華司(φ 5xφ 7x0.5mm)x2

Bearing MR95ZZ
MR95ZZ軸承(φ 5xφ 9x3mm)x4

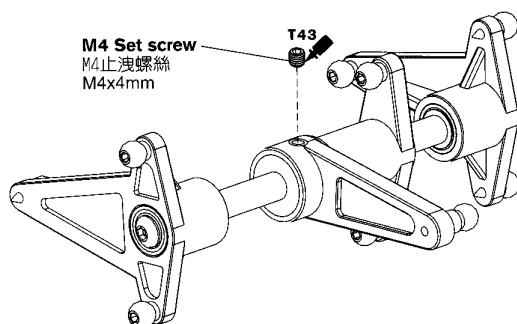
Self tapping screw
圓頭十字自攻螺絲(T3x8mm)x2

Socket screw
圓頭內六角螺絲(M3x6mm)x2

M3 Specialty washer
M3特殊華司(φ 3xφ 8x2mm)x2



Please aim the set screw at the shaft groove.
止洩螺絲鎖固時請對準心軸溝槽。



50HB005



Socket button head screw
半圓頭內六角螺絲(M3x12mm)x4



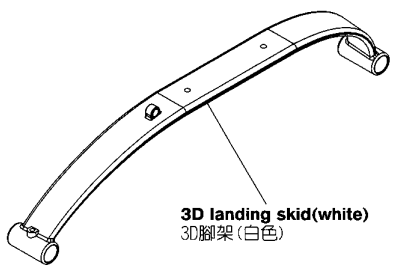
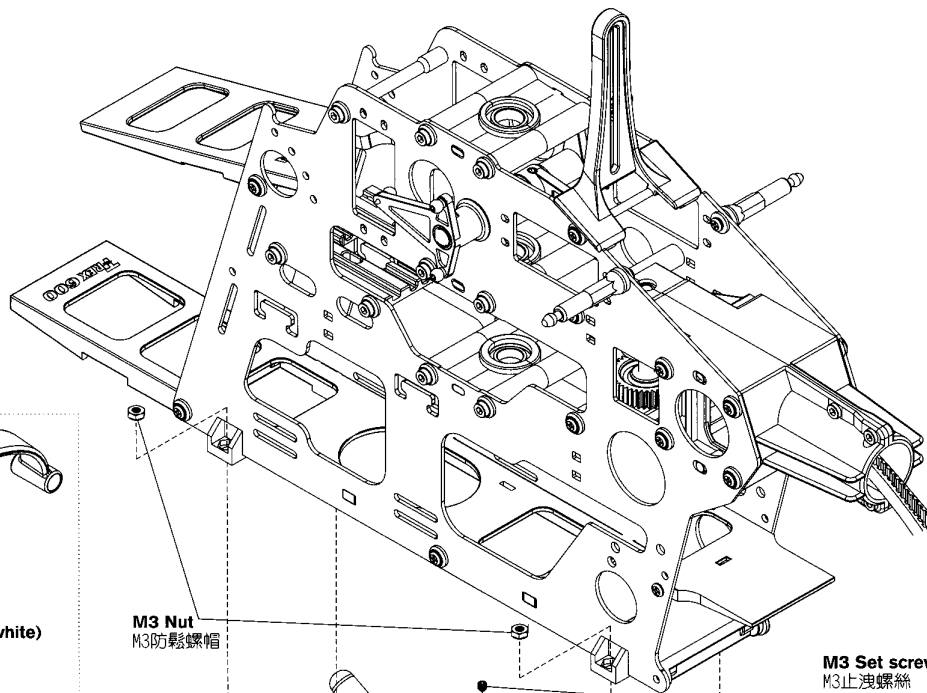
M3 Set screw
M3止洩螺絲(M3x4mm)x4



M3 Nut
M3防鬆螺帽x4



M3 Washer
M3華司(φ3xφ8x1mm)x4



3D landing skid(white)
3D腳架(白色)

M3 Nut
M3防鬆螺帽

M3 Set screw
M3止洩螺絲
M3x4mm

Standard landing skid(black)
標準腳架(黑色)

Skid pipe end cap
腳架鋁管保護套

M3 Set screw
M3止洩螺絲
M3x4mm

M3 Washer
M3華司
φ3xφ8x1mm

Landing skid nut
腳架墊圈

Socket screw
圓頭內六角螺絲
M3x12mm

M3 Set screw
M3止洩螺絲
M3x4mm

M3 Washer
M3華司
φ3xφ8x1mm

Antenna pipe
天線管
φ2xφ4x500mm

Socket screw
圓頭內六角螺絲
M3x12mm

Skid pipe
腳架鋁管
φ9x310mm

Landing skid nut
腳架墊圈

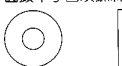
Skid pipe end cap
腳架鋁管保護套

50HT001

50HT002



Self tapping screw
圓頭十字白攻螺絲(T3x12mm)x2



M3 Washer
M3華司(φ3xφ8x1mm)x2

Rudder servo mount
尾伺服器固定座

50HT001

Tail control guide
尾控制桿固定環

M3 Washer
M3 華司
φ3xφ8x1mm

Self tapping screw
圓頭十字白攻螺絲
T3x12mm

Rudder servo bracket
尾舵伺服器板

**Please do not fix the screws
before assembling tail boom.**
裝尾管前螺絲請勿上緊

CAUTION
注意

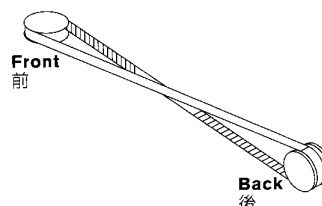
**Aim the opening of tail boom at the
convex of the case and insert.**
瞄準尾管上的凹槽和尾座凸出，並插入。

**Please insert the opening
of tail boom into the convex.**
尾管缺口方向裝入時，請導入
導尾管座卡棒內。

Tail boom
尾管
625mm

CAUTION
注意

Drive belt illustration 尾傳動皮帶裝配圖示



1. Check to rotate the belt 90 degrees when assembling.
2. Belt tension: Recommend to lightly tighten the drive belt after assembling tail boom to avoid vibration, belt friction and rotation slip.

1. 組裝時確認皮帶順轉90°。
2. 皮帶緊度：建議尾管組裝後皮帶請稍拉緊，避免震動皮帶摩擦或轉動打滑。

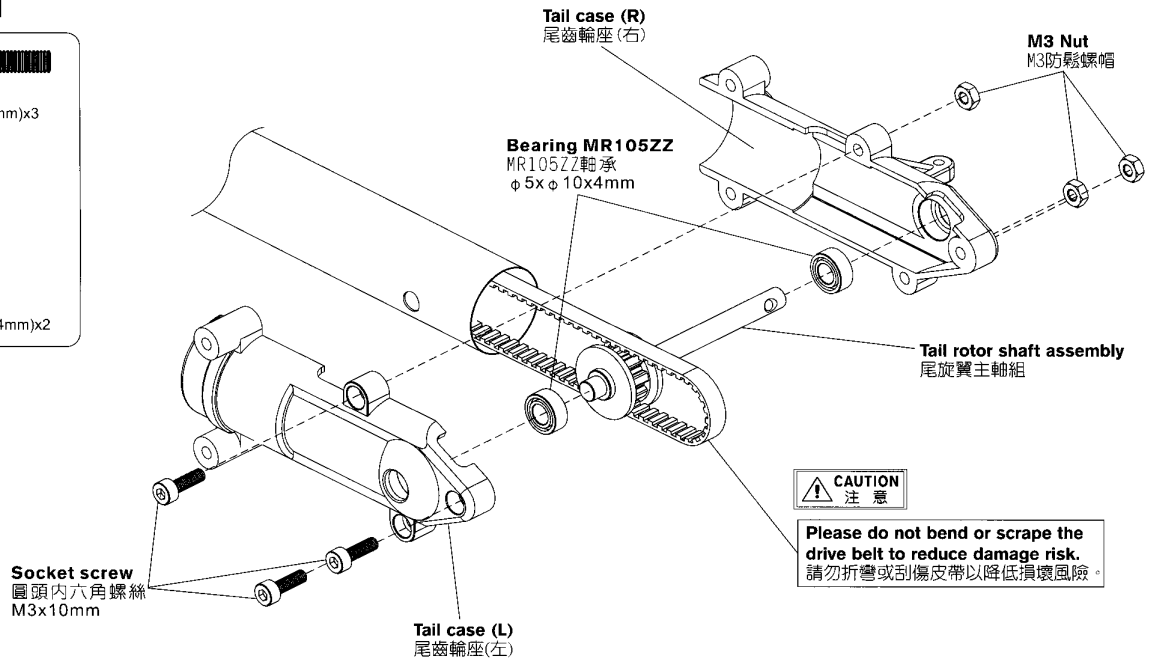
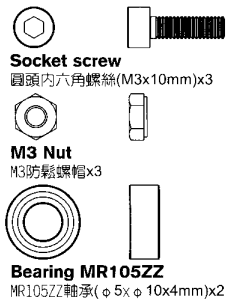
Approx. 220mm
約220mm

Approx. 180mm
約180mm

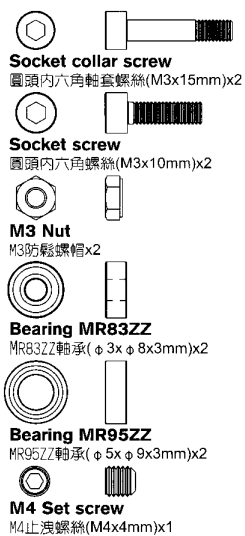
**Use the strap to fix
tail control guides.**
尾控制連桿固定環可
使用繩附束帶固定。

Cut to trim the length by a knife.
可用刀子裁切做長度修整。

50HT003



50HT004



3K Carbon fiber tail blade
3K碳纖維尾旋翼

M3 Nut
M3防鬆螺帽

M4 Set screw
M4止洩螺絲
M4x4mm

Tail rotor holder
尾旋翼夾座

M3 Nut
M3防鬆螺帽

Bearing MR83ZZ
MR83ZZ軸承
φ3xφ8x3mm

3K Carbon fiber tail blade
3K碳纖維尾旋翼

Socket collar screw
圓頭內六角軸套螺絲
M3x15mm

Tail rotor hub
尾旋翼T型座
φ11x26.6mm

Bearing MR95ZZ
MR95ZZ軸承
φ5xφ9x3mm

Socket collar screw
圓頭內六角軸套螺絲
M3x15mm

Socket screw
圓頭內六角螺絲
M3x10mm

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)

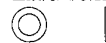
50HT005



Linkage ball A1
球頭A1 (φ 4.75x8.68mm)x1

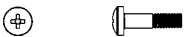


Socket collar screw
圓頭內六角軸套螺絲(M3x15mm)x1



Washer
華司 (φ 3x φ 5.5x0.5mm)x1

50HT006



Collar screw
軸套螺絲(M2x8mm)x4



Collar A
尾連桿頭銅套A (φ 2x φ 3x4.1mm)x2

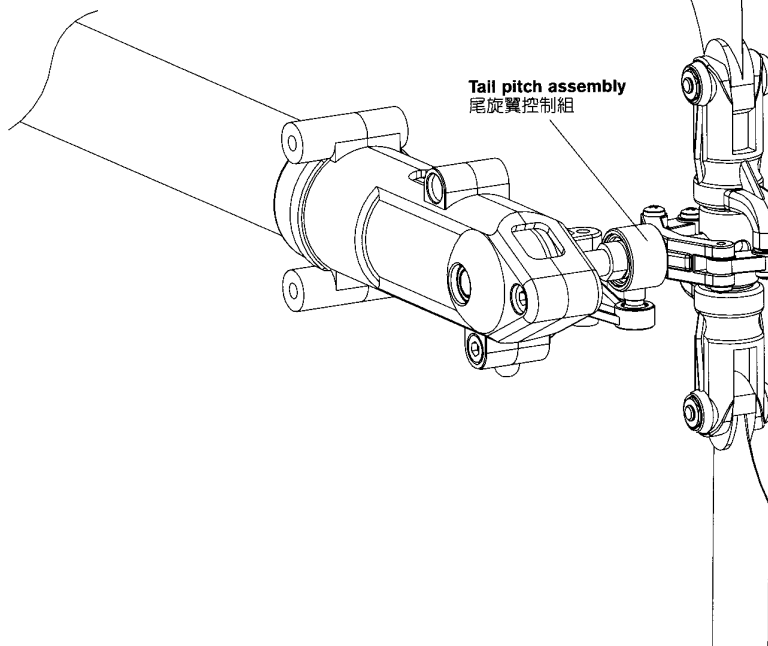
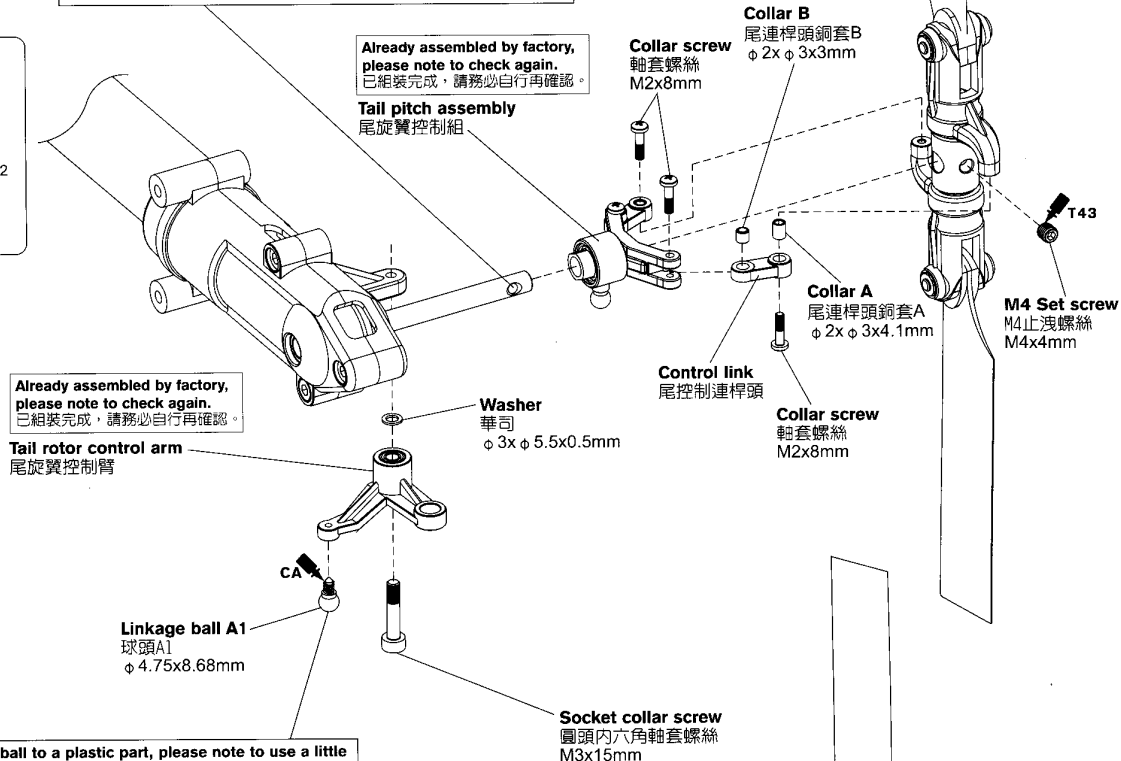


Collar B
尾連桿頭銅套B (φ 2x φ 3x3mm)x2



CAUTION
注意

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型座瞄準尾橫軸的凹刻並鎖上，請確認止洩螺絲上膠。



50HT007

Socket screw
圓頭內六角螺絲(M3x26mm)x2

Self tapping screw
圓頭十字自攻螺絲(T3x14mm)x2

M3 Nut
M3防鬆螺帽x2

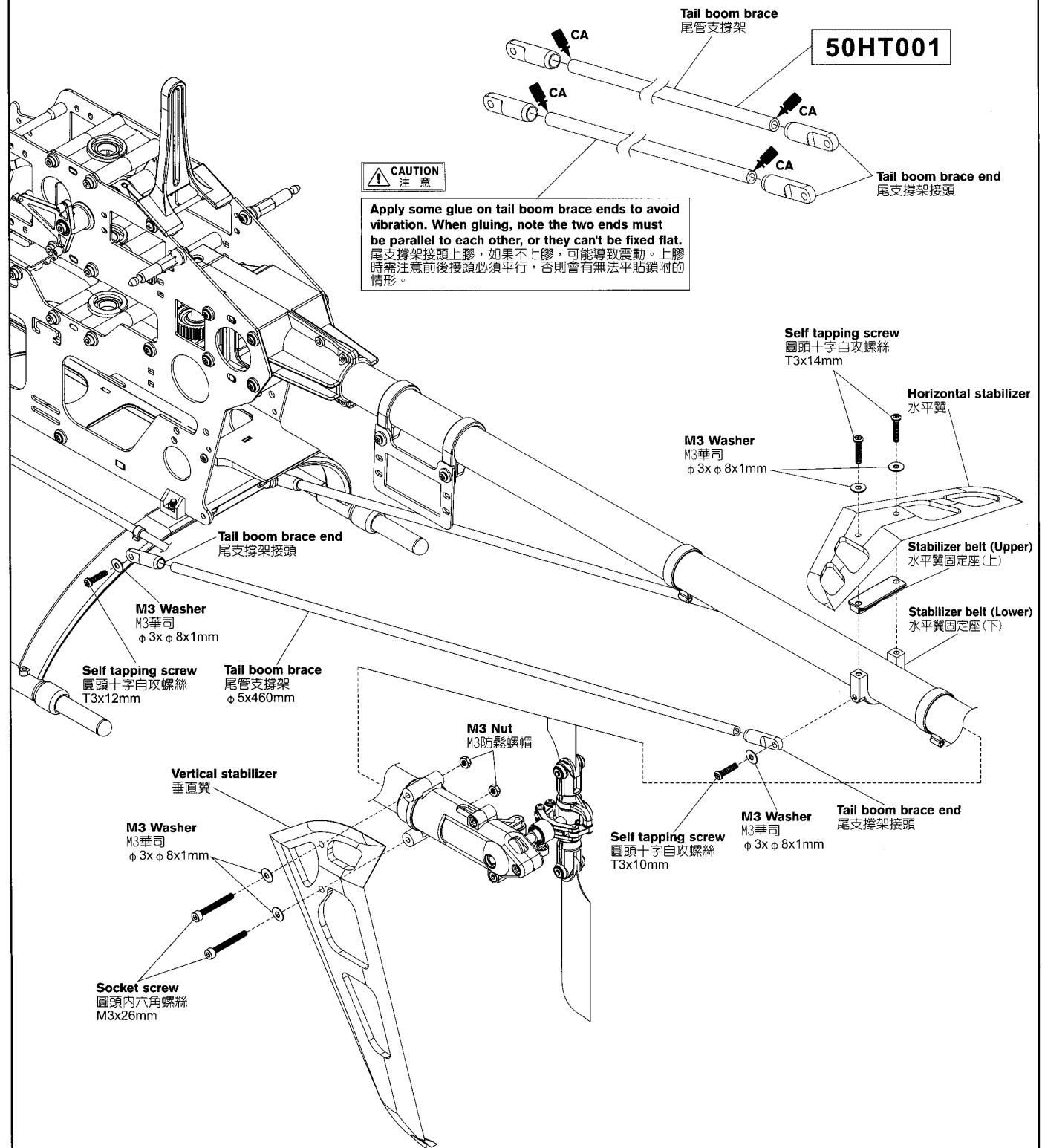
M3 Washer
M3華司(φ3xφ8x1mm)x4

50HT008

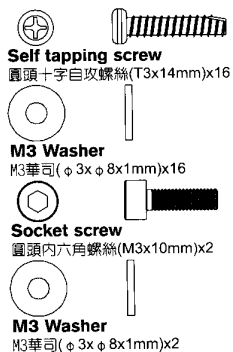
Self tapping screw
圓頭十字自攻螺絲(T3x12mm)x2

Self tapping screw
圓頭十字自攻螺絲(T3x10mm)x2

M3 Washer
M3華司(φ3xφ8x1mm)x4



50HZ007



Socket screw
圓頭內六角螺絲
M4x25mm

50HH001

Separate purchasing
另購

M4 Nut
M4防鬆螺帽

For motor fixing
馬達固定螺絲

Socket screw
圓頭內六角螺絲
M3x10mm

M3 Washer
M3華司
φ 3x φ 8x1mm

M3 Specialty washer
M3特殊華司
φ 3x φ 8x2mm

Self tapping screw
圓頭十字自攻螺絲
T3x8mm

50HB004

Servo installation
伺服器組裝

50HZ007

M3 Washer
M3華司
φ 3x φ 8x1mm

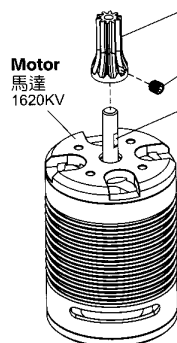
For two Aileron servos
Aileron兩顆伺服器用
Aileron servo platex4
Aileron伺服器用塑膠墊片x4

Self tapping screw
圓頭十字自攻螺絲
T3x14mm

Servo nutx8
伺服器塑膠螺帽x8

STD Servo
標準伺服器

50HZ002



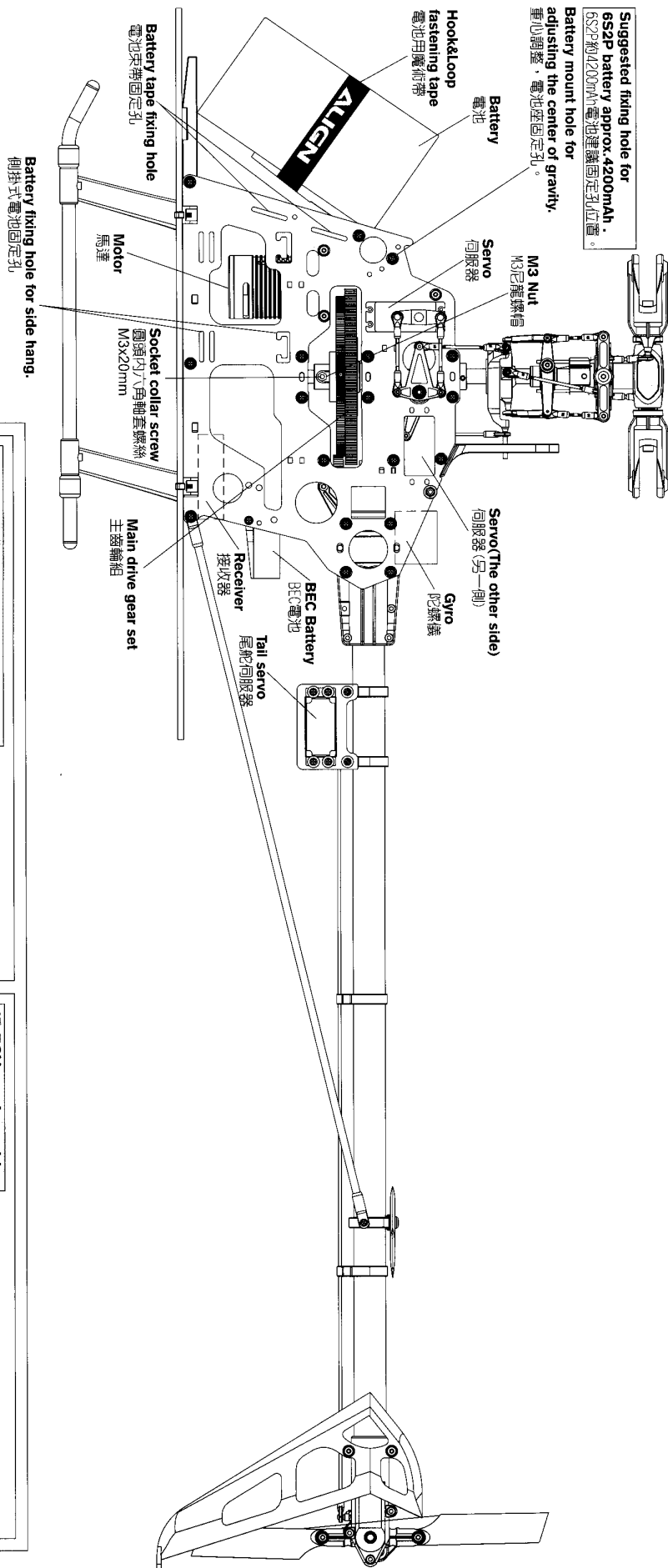
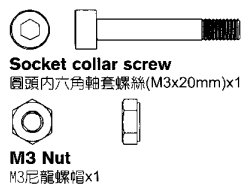
Motor pinion gear 10T
10T馬達齒輪

M4 Set screw
M4止洩螺絲
M4x4mm

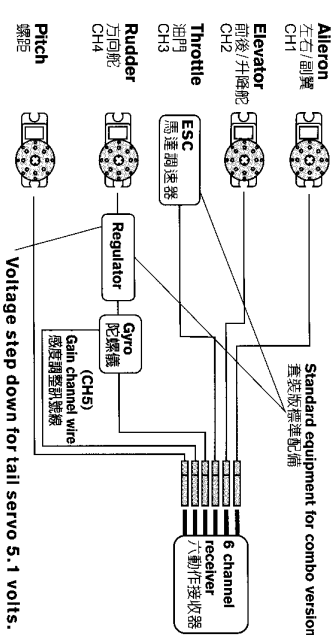
When fixing the screw of pinion gear, please aim at the fixing point on motor shaft.
銅齒固定螺絲鎖緊時，請對準馬達心軸固定槽。

Operating Voltage/使用電壓:
DC 22.2V 6S 4000~5000mAh/16C Li-poly Battery

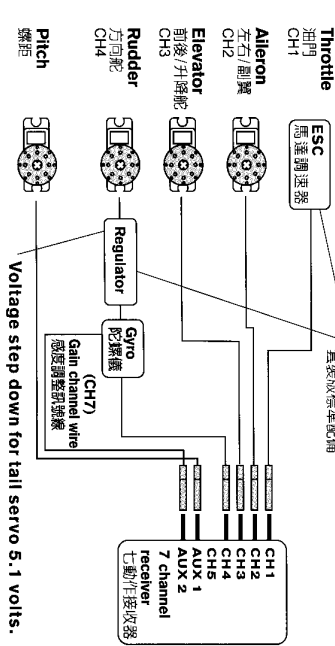
50HB001

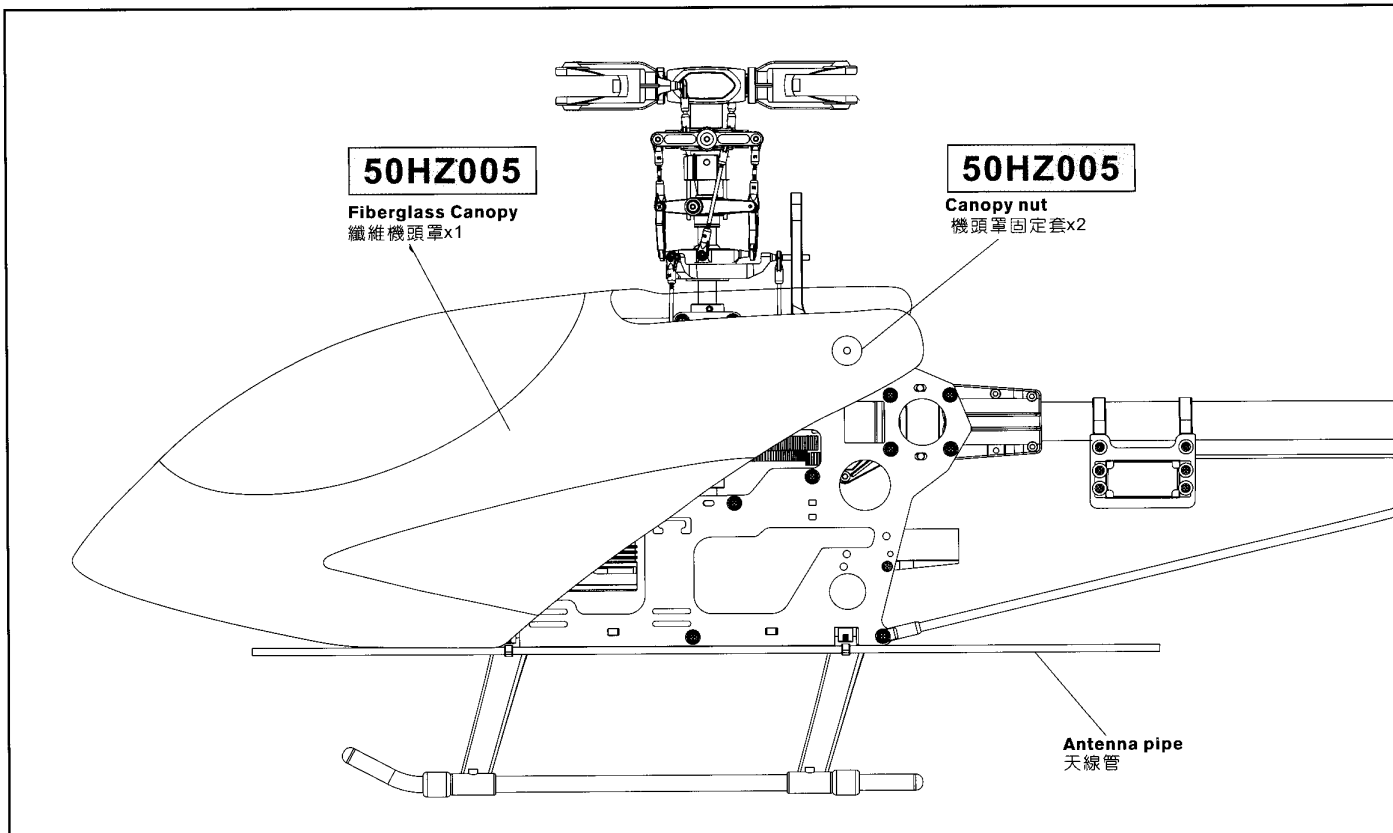


HITEC - FUTABA 6CH receiver wiring

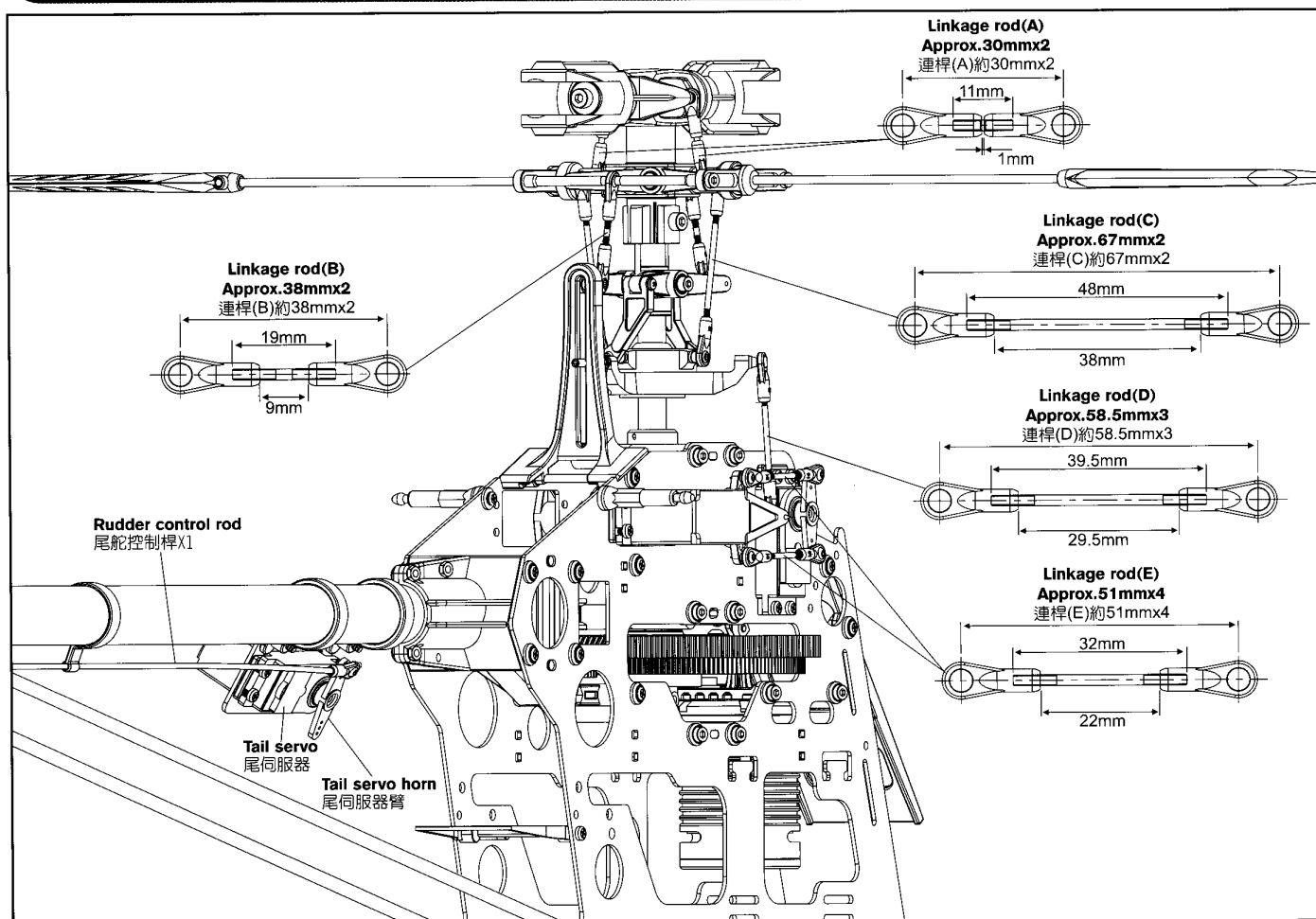


JR 7CH receiver wiring





7.SERVO AND LINKAGE ROD SETTING 伺服器與連桿設定說明



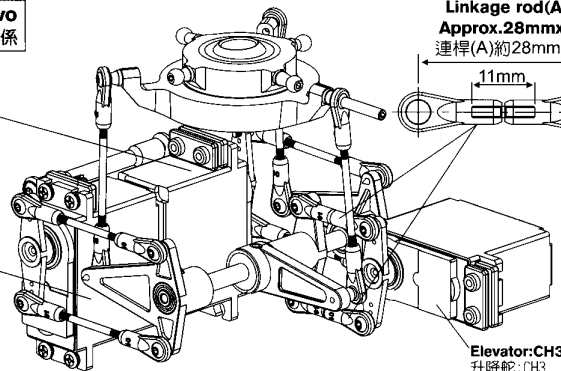
To set this option is to turn on the transmitter and connect to BEC power.

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

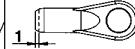
Aileron:CH2 Pitch:CH6
副翼:CH2 螺距:CH6

Pitch:CH6 Aileron:CH2
螺距:CH6 副翼:CH2



Linkage rod(A)
Approx.28mmx2
連桿(A)約28mmx2

11mm



Please cut 1mm from each ball link.
請將後控制臂連桿頭各切除1mm

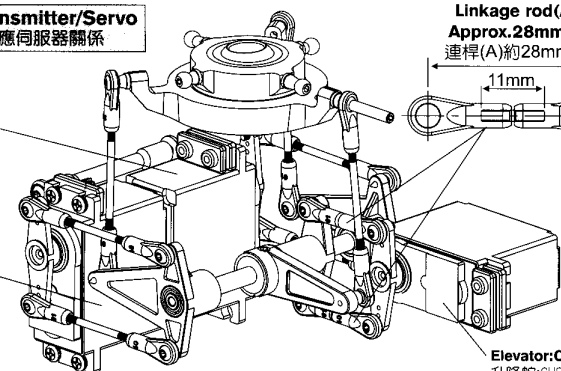
Positions of CH2、CH6 are exchangeable, After assembling as photo (Note:Set the transmitter under CCPM 120 degrees mode), pull throttle stick (pitch) upward. If one swashplate servo (or two servos) moves downward, adjust reverse switch (REV) on the transmitter to make it moves upward. If three servo move 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可互換配置，依圖連結後(注意：遙控器須設定於CCPM 120°十字盤模式)，將油門搖桿(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

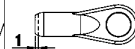
Aileron:CH1 Pitch:CH6
副翼:CH1 螺距:CH6

Pitch:CH6 Aileron:CH1
螺距:CH6 副翼:CH1



Linkage rod(A)
Approx.28mmx2
連桿(A)約28mmx2

11mm



Please cut 1mm from each ball link.
請將後控制臂連桿頭各切除1mm

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可互換配置，依圖連結後(注意：遙控器須設定於CCPM 120°十字盤模式)，將油門搖桿(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。

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

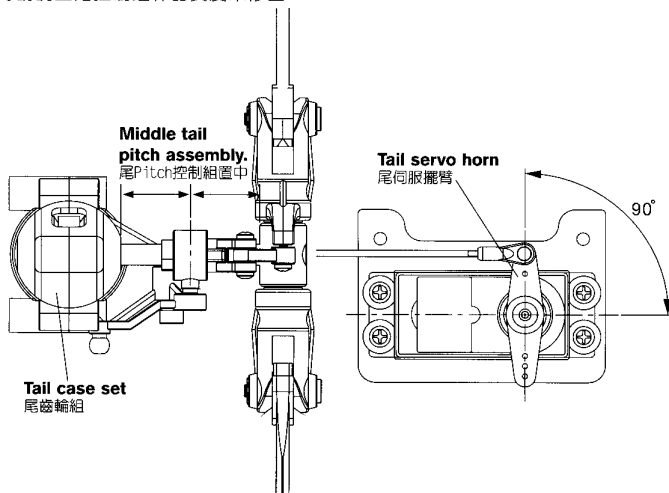
Recommend to choose Head Lock type for Gyro and turn off Revolution mixing(RVMX) mode on the transmitter, then set the gain switch on the transmitter and the gyro to Head lock mode. The gain setting is about 70%, and after transmitter setting, connect to BEC power to work on tail neutral setting. Note: 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，並將發射器上的感應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臂需與尾伺服器約成 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.

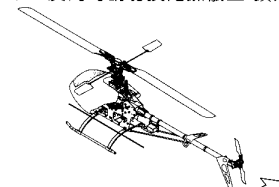
陀螺儀鎖定後尾伺服器與尾 Pitch控制組正確擺置位置。若尾 Pitch控制組未置中時請調整尾控制連桿的長度來修正。



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

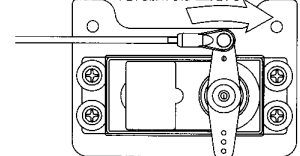
To check the head lock direction of gyro is to move the tail counterclockwise and the tail servo horn will be trimmed clockwise. If it trims in the reverse direction, please switch the gyro to "REVERSE".

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

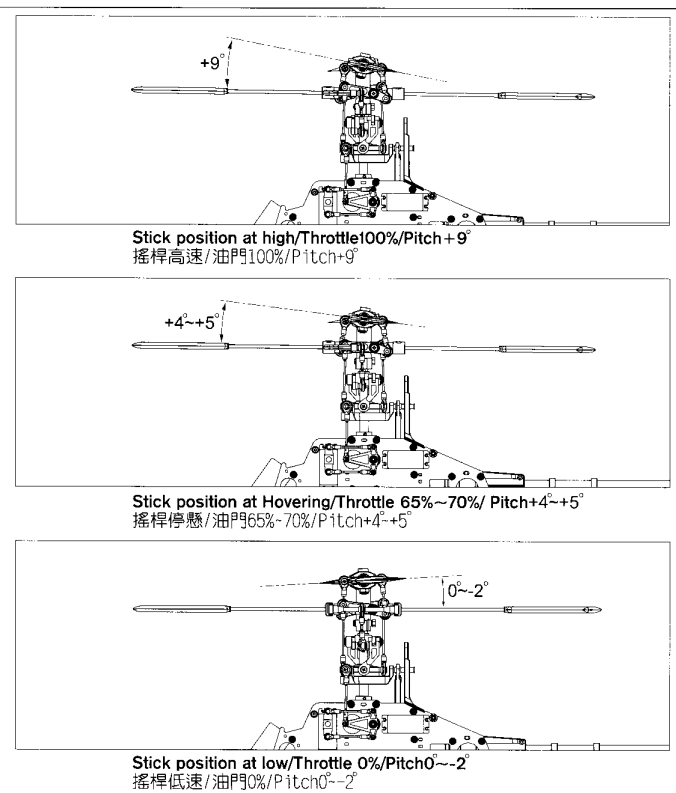


Tail moving direction
搖動尾部方向

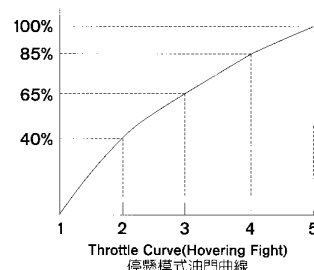
Trim direction for
tail servo horn.
尾伺服臂修正方向



GENERAL FLIGHT 一般飛行模式

GENERAL FLIGHT
一般飛行模式

Throttle 油門		Pitch 螺距	Current(approx.) 電流(約)	RPM(approx.) 轉速(約)
5	100%High speed 100%高速	+ 9°	58A	1900
4	85%			
3	65%Hovering 65%停懸	+ 4 ~ + 5°	18A	1650
2	40%			
1	0% Low speed 0%低速	0° ~ - 2°	0	0

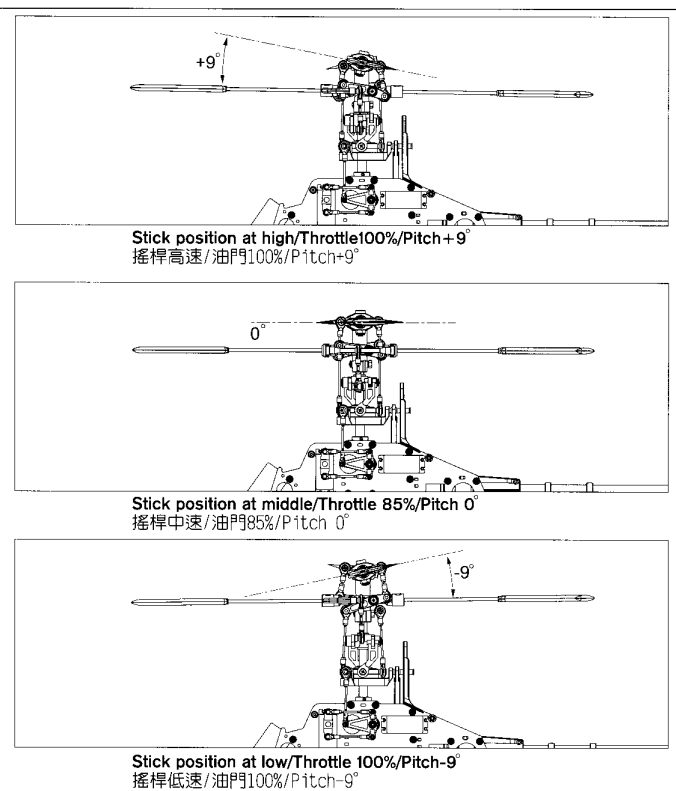


Pitch and Rotation Speed Pitch與轉速關係

TIP: It is recommended to use a lower pitch setting when using higher RPM/Head speed. This will allow for better power.

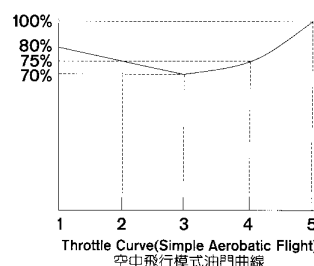
搭配要領: 如果使用較高轉速馬達動力建議搭配調低 Pitch, 將獲得較佳動力效能。

3D FLIGHT 3D特技飛行模式



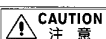
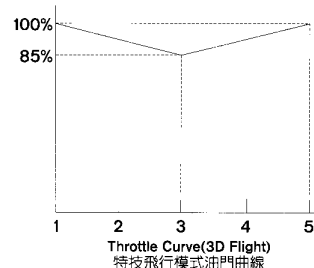
IDLE 1: SPORT FLIGHT

Throttle 油門		Pitch 螺距	Current(approx.) 電流(約)	RPM(approx.) 轉速(約)
5	100%	+ 9°	58A	1900
4	75%			
3	70%	+ 4°~ + 5°	21A	1750
2	75%			
1	80%	-5°	26A	1850



IDLE 2: 3D FLIGHT

Throttle 油門		Pitch 螺距	Current(approx.) 電流(約)	RPM(approx.) 轉速(約)
5	100% High 100%高	+9°	57A	1900
3	85% Middle 85%中	0°	25A	1980
2	100% Middle 100%中	0°	28A	2030
1	100% Low 100%低	-9°	58A	1900



1. Pitch range: Approx. 24 degrees.
 2. If the pitch is set too high, it will result in shorter flight duration and poor motor performance.
 3. Setting the throttle to provide a higher speed is preferable to increasing the pitch too high.
1. 螺距 (Pitch) 總行程約 24°
2. 過大螺距設定, 會導致動力與飛行時間降低。
3. 動力提升以較高轉速的設定方式, 優於螺距調大的設定。

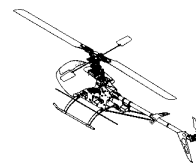
PLEASE PRACTICE SIMULATION FLIGHT BEFORE REAL FLYING 飛行前請事先熟練模擬飛行

Do a simulation flight until you familiarize your fingers with the movements of the rudders, and keep practicing until the fingers move naturally.

1. Place the helicopter in a clear open field (Make sure the power OFF) and the tail of helicopter point to yourself.
2. Practice to operate the throttle stick(as below illustration) and repeat practicing "Throttle high/low", "Aileron left/right", "Rudder left/right", and "Elevator up/down".
3. The simulation flight practice is very important, please keep practicing until the fingers move naturally when you hear operation orders being call out.
4. Another safe and effective practice method is to use the transmitter flying on the computer through simulator software sold on the market.

在還沒瞭解直昇機各動作的操控方式前，嚴禁通電飛行請先進行模擬飛行的練習，並不斷的重複，直到手指可熟練的控制各個動作及方向。

1. 將直昇機放在空曠的地方(確認電源為關閉)，並將直昇機的機尾對準自己。
2. 練習操作遙控器的各搖桿(各動作的操作方式如下圖)，並反覆練習油門高/低、副翼左/右、升降舵前/後及方向舵左/右操作方式。
3. 模擬飛行的練習相當重要，請重複練習直到不需思索，手指能自然隨著喊出的指令移動控制。
4. 另外一種最有效、最安全的練習方式，就是透過市面販售的模擬軟體，以遙控器在電腦上模擬飛行，熟悉各種方向的操控。



ESC setting (RCE-BL75G):

調速器設定建議:

1-1 Brake Disable

1-1 無煞車

2-2 Mid timing

2-2 中進角

3-2 Battery Protection(Middle)

3-2 電池電壓保護

4-2 Helicopter 1

4-2 直昇機模式1

5-3 Throttle response (Quick)

5-3 高油門反應速度

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

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

★ When arriving at the flying field.

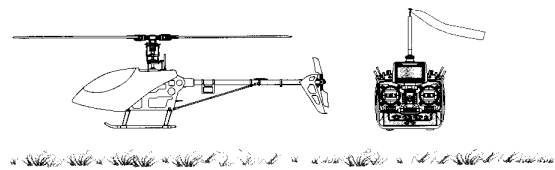
★ 當抵達飛行場



- 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。



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。

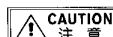


STARTING AND STOPPING THE MOTOR 啟動和停止馬達



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.

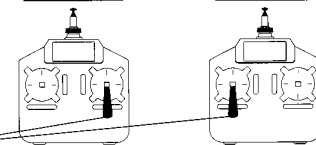
首先確認附近沒有其他相同頻率的使用，然後打開發射器將油門搖桿推到低點。



Check if the throttle stick is set at the lowest position. 確認油門搖桿是在最低的位置。

Mode 1

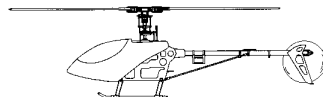
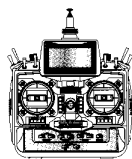
Mode 2



★ Check the movement.

★ 動作確認

- Are the rudders moving according to the controls?
- Follow the transmitter's instruction manual to do a range test.
- 方向舵是否隨著控制方向移動?
- 根據發射器說明書進行距離測試。



ON! Step1

First turn on the transmitter.
先開啓發射器

ON! Step2

Next turn on the BEC of the receiver.
再開啓接收器BEC電源

ON! Step3

Connect to the battery
接上主動力電源

OFF! Step4

Reverse the above orders to turn off.
關閉電源時請依上述操作動作反執行。

Main rotor adjustments 主旋翼雙槳平衡調整

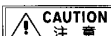


Tracking adjustment is very dangerous, so please keep away from the helicopter at a distance of at least 10m.
調整軌跡非常危險，請於距離飛機最少10公尺的距離。

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開地面前，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)為一般螺距調整(雙槳翼大時使用)。連桿(C)為螺距微調調整(雙槳微幅差異時使用)。

- A. When rotating, the blade with higher path means the pitch too big. Please lengthen pitch linkage rod (A) for regular trim or shorten linkage rod (C) for slight pitch trim.
- B. When rotating, the blade with lower path means the pitch too small. Please shorten pitch linkage rod (A) for regular trim or lengthen linkage rod (C) for slight pitch trim.

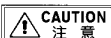
- A. 旋翼轉動時較高軌跡的主旋翼表示螺距(PITCH)過大，請調長連桿(A)修正，或需要更小的螺距微調時，調整短連桿(C)修正。
- B. 旋翼轉動時較低軌跡的主旋翼表示螺距(PITCH)過小，請調短連桿(A)修正，或需要更小的螺距微調時，請調長連桿(C)修正。



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. $+4\sim5^\circ$ 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 $+4\sim5^\circ$ 。





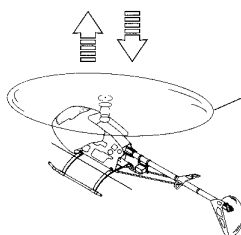
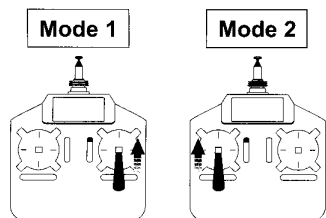
- ⊙ Make sure that no one or obstructions in the vicinity.
- ⊙ You must first practice hovering for flying safety. This is a basic flight action. (Hovering means keeping the helicopter in mid air in a fixed position)
- ⊙ 確認鄰近地區沒有人和障礙物。
- ⊙ 為了飛行安全，你必須先練習停旋，這是飛行動作的基礎（停旋指直昇機暫停空中保持固定位置）。

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

Beginner may install a training landing gear to avoid any crash caused by offset effect while landing.
 必要時初學者可以腳架下方安裝練習架，可避免降落時因重心偏移使主旋翼或直昇機損毀。



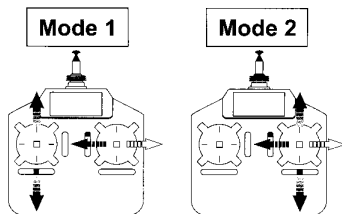
STEP 1 THROTTLE CONTROL PRACTICE 油門控制練習



- ⊙ 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.

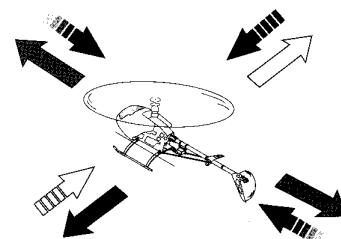
⊙ 當直昇機開始離地，慢慢降低油門將飛機降下。持續練習飛機從地面上升和下降直到你覺得油門控制很順。

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



1. Raise the throttle stick slowly.
2. 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。

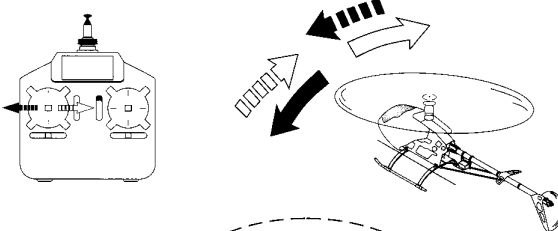


- ⊙ If the nose of the helicopter moves, please lower the throttle stick and land the helicopter. Then move your position diagonally behind the helicopter 10m and continue practicing.
- ⊙ If the helicopter flies too far away from you, please land the helicopter and move your position behind 10m and continue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

1. Slowly raise the throttle stick.
2. 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。

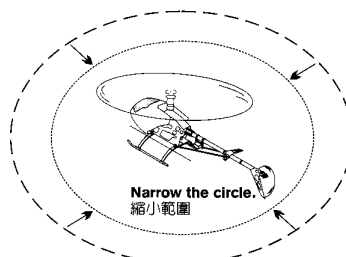


STEP 4

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。

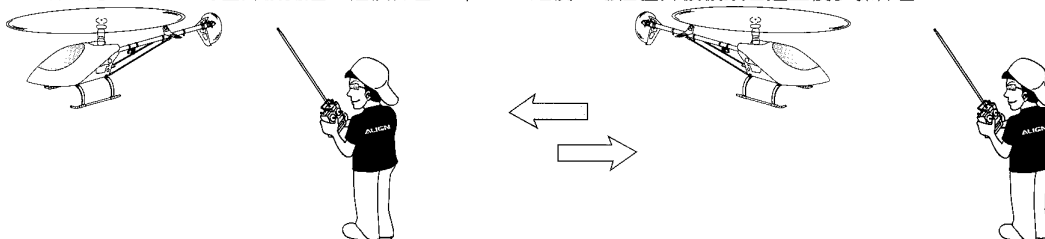


STEP 5 DIRECTION CHANGE AND HOVERING PRACTICE 改變直昇機方向和練習停旋

After you are familiar with Step1 to 4, stand at side of the helicopter and continue practicing Step1 to 4.

Then repeat the Step1 to 4 by standing right in front of the helicopter.

當你覺得step1~4動作熟悉，站在面對直昇機側邊並繼續練習step1~4。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.

慢慢升起油门摇杆，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 rudder trim 調整方向舵微調

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

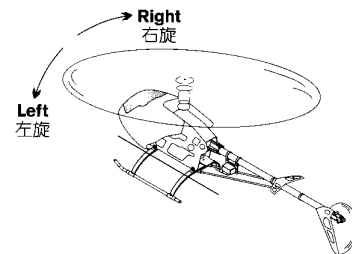
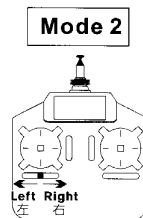
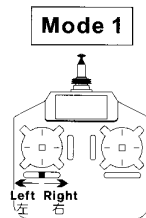
When leans right, adjust the trim to left side.

When leans left, adjust the trim to right side.

在直昇機正剛要起飛，機頭朝左/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。



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

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

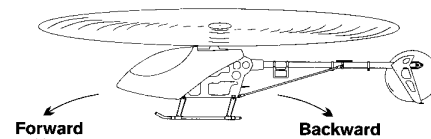
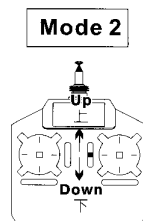
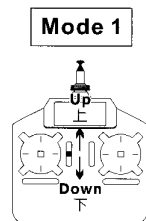
When leans forward, adjust the trim down.

When leans backward, adjust the trim up.

在直昇機正剛要起飛，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。



3. Adjustment of Aileron trim 調整副翼微調

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

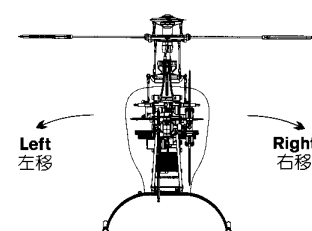
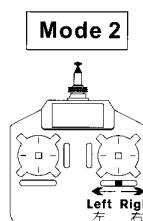
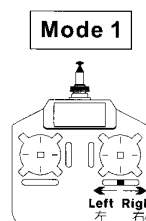
When leans right, adjust the trim to left side.

When leans left, adjust the trim to right side.

在直昇機正剛要起飛，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。

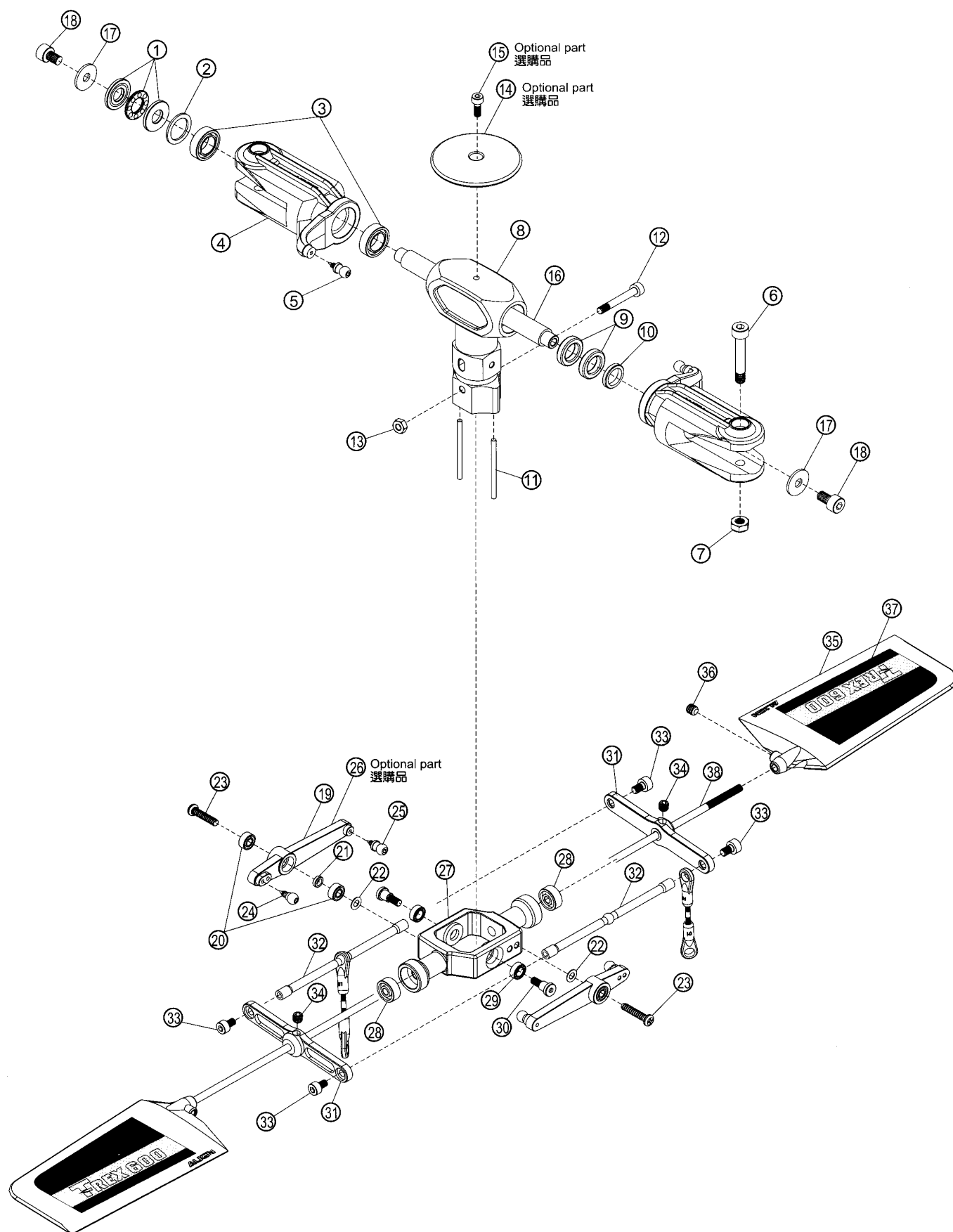


TROUBLE SHOOTING DURING FLIGHT 如何排除飛行中的狀況

	Situation 狀況	Cause 原因	Way to deal 對策
Blade Tracking 雙槳平衡	Out of tracking 雙槳	Adjustment of pitch rod has not been done. PITCH連桿長度調整不平均	Adjust the length of linkage rod (A) → Regular trim Adjust the length of linkage rod (C) → Slight trim 調整連桿 (A) 長度 → 一般調整 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. ★ 停旋點油门曲線過低	★ 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 (停旋時主旋翼需為約1600RPM) ★ Heighten the throttle curve during hovering. ★ 調高停旋點油门曲線
	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. ★ 停旋點油门曲線過高	★ Adjust the pitch rod (A) (The rotation should be about 1,600rpm during hovering). ★ 調整連桿 (A) (停旋時主旋翼需為約1600RPM) ★ Lower the throttle curve during hovering. ★ 調低停旋點油门曲線
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. 停懸或全油门時尾翼左右來回搖擺。	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.

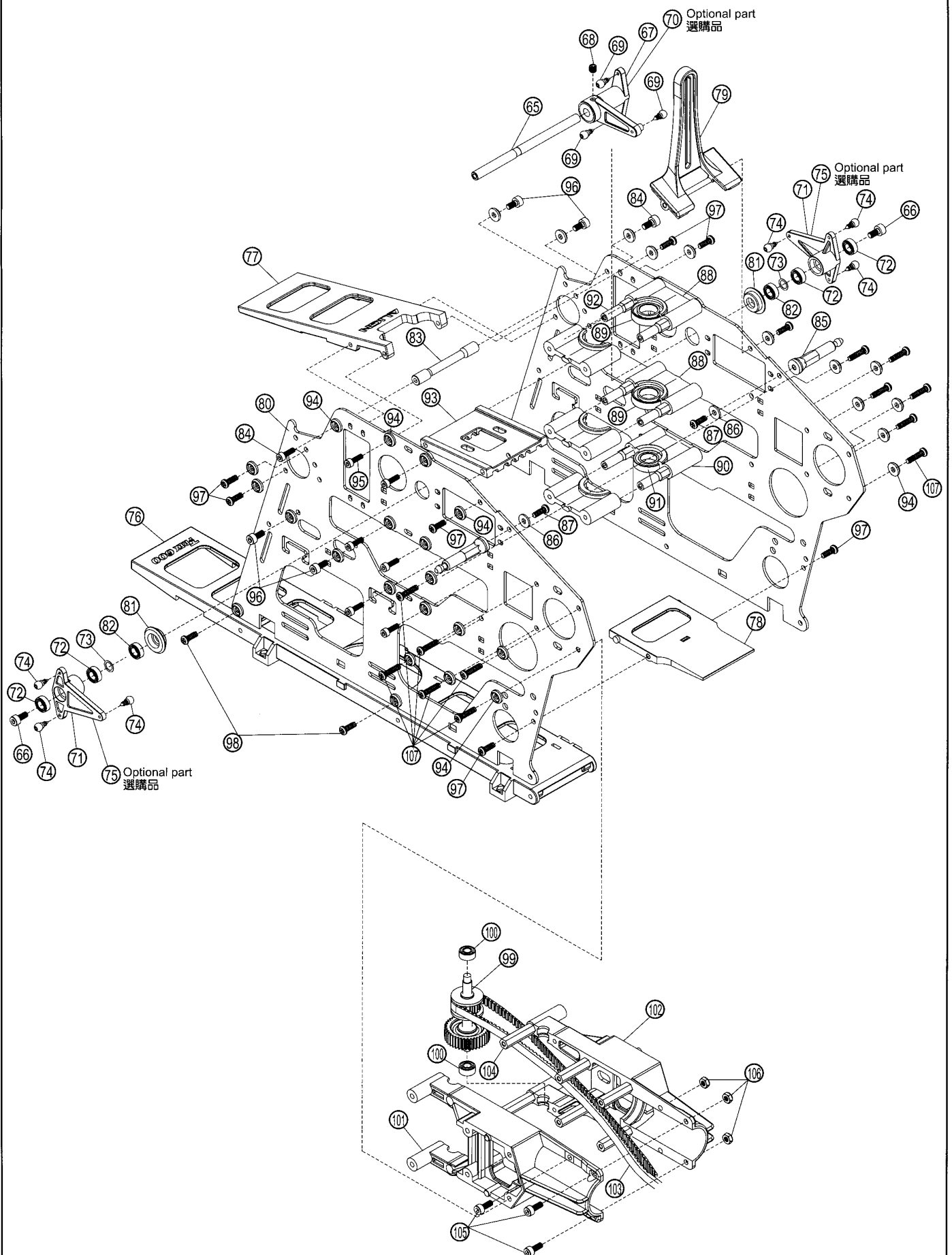
※ 在做完以上調整，仍然無法改善時，應停止飛行並向你的銷售商諮詢。



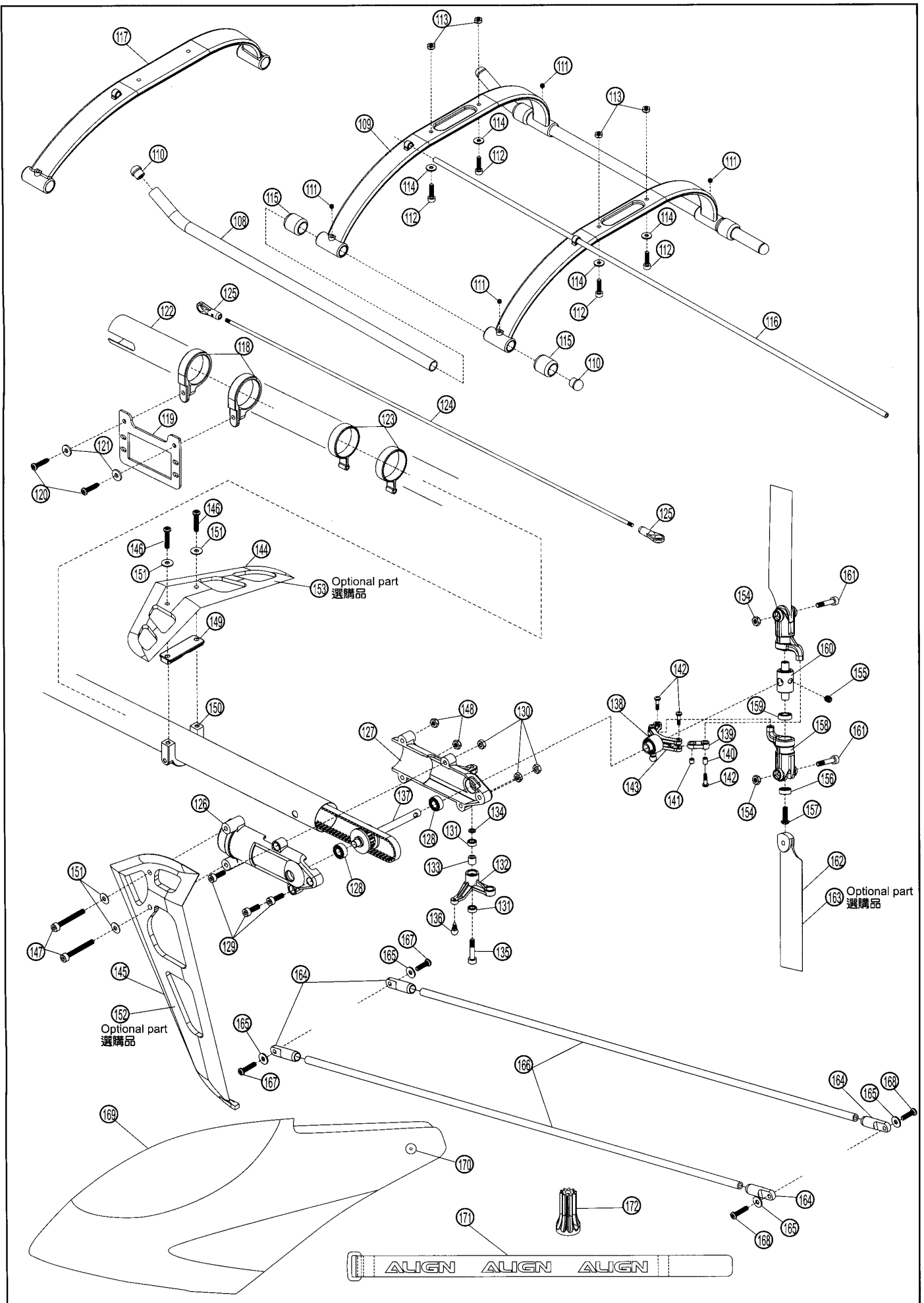
No.	Code No.	Name	Specification	Quantity	Remarks
	H60001	Thrust Bearing / 止推軸承		1	
1	50H009	Thrust bearing 止推軸承	φ 6x φ 14x5mm	2	
2	50H008	Washer 華司	φ 10.25x φ 14x0.8mm	2	
	H60002	Bearing / 軸承MR148ZZ		1	
3	50HMR148ZZ	Bearing MR148ZZ MR148ZZ軸承	φ 8x φ 14x4mm	4	
	H60003	Main Rotor Holder / 主旋翼夾座組		1	
4	50H002	Main rotor holder 主旋翼夾座		2	
5	50H145	Linkage ball B1 球頭B1	φ 4.75x12.59mm	2	
6	T64025	Socket collar screw 圓頭內六角軸套螺絲	M4x25mm	2	
7	N10040-4	M4 Nut M4防鬆螺帽	M4	2	
	H60004	Metal Main Rotor Housing / 金屬主旋翼固定座組		1	
8	50H001	Metal main rotor housing 金屬主旋翼固定座		1	
9	50H005	Damper rubber-black 80° 橫軸緩衝墊圈-黑80°	φ 8.1x φ 13.1x3.2mm	4	
9-1	50H168	Damper rubber-gray 70° 橫軸緩衝墊圈-灰70°	φ 8.1x φ 13.1x3.2mm	4	
10	50H006	Spacer 橫軸套圈	φ 8x φ 11.5x1.3mm	2	
11	50H136	Pin 定位插銷	φ 2x32mm	2	
12	T63022	Socket collar screw 圓頭內六角軸套螺絲	M3x22mm	1	
13	N10030	M3 Nut M3防鬆螺帽	M3	1	
	H60005	Metal Head Stopper / 金屬旋翼頭制動器組		1	Option Parts
14	50H164	Metal head stopper 金屬旋翼頭制動器		1	
15	T63010	Socket screw 圓頭內六角螺絲	M3x10mm	1	
	H60006	Feathering Shaft / 橫軸		1	
16	50H003	Feathering shaft 橫軸	φ 6x φ 8x93.2mm	2	
17	50H010	Washer 橫軸華司	φ 4x φ 12x1mm	2	
18	T64008	Socket screw 圓頭內六角螺絲	M4x8mm	2	
	H60007	SF Mixing Arm / SF控制搖臂組		1	
19	50H025	SF Mixing arm SF控制搖臂		2	
20	50H683ZZ	Bearing 683ZZ 683ZZ軸承	φ 3x φ 7x3mm	4	
21	50H024	Collar 擺臂軸承襯套	φ 3x φ 4.9x1.5mm	2	
22	50H022	Washer 華司	φ 3x φ 5.5x0.3mm	2	
23	S23014-1	Self tapping screw 圓頭十字自攻螺絲	T3x14mm	2	
24	50H144	Linkage ball A1 球頭A1	φ 4.75x φ 8.68mm	2	
25	50H145	Linkage ball B1 球頭B1	φ 4.75x φ 12.59mm	2	
	H60008	Metal SF Mixing Arm / 金屬SF控制搖臂組		1	Option Parts
26	50H162	Metal SF mixing arm 金屬SF控制搖臂		2	
23	S23014-1	Self tapping screw 圓頭十字自攻螺絲	T3x14mm	2	
26-1	50H012	Linkage ball A 球頭A	φ 4.75x φ 8.68mm	2	
26-2	50H043	Linkage ball B 球頭B	φ 4.75x φ 9.59mm	2	
20	50H683ZZ	Bearing 683ZZ 683ZZ軸承	φ 3x φ 7x3mm	4	
21	50H024	Collar 擺臂軸承襯套	φ 3x φ 4.9x1.5mm	2	
22	50H022	Washer 華司	φ 3x φ 5.5x0.3mm	2	
	H60009	Flybar Seesaw Holder / 平衡桿固定座組		1	
27	50H016	Flybar seesaw holder 平衡桿固定座		1	
28	50H623ZZ	Bearing 623ZZ 623ZZ軸承	φ 3x φ 10x4mm	2	
29	50HMR74ZZ	Bearing MR74ZZ MR74ZZ軸承	φ 4x φ 7x2.5mm	2	
30	50H119	M3 collar screw M3雙層軸套螺絲	M3x11.65mm	2	
	H60010	Metal Flybar Control Arm / 金屬平衡翼控制臂組		1	
31	50H020	Metal flybar control arm 金屬平衡翼控制臂		2	
32	50H018	Flybar control rod 平衡翼球型控制球桿	φ 3.4x74.1mm	2	
33	T63005	Socket screw 圓頭內六角螺絲	M3x5mm	4	
34	T74004	M4 Set screw M4止洩螺絲	M4x4mm	2	
	H60011	Flybar Paddle / 平衡翼組		1	
35	50H029	Flybar paddle 平衡翼		2	
36	T73004	M3 Set screw M3止洩螺絲	M3x4mm	2	
37	D03844	Sticker 平衡翼貼紙		2組	
	H60012	Flybar Rod / 平衡翼桿		1	
38	50H028	Flybar rod 平衡翼桿	φ 3x400mm	2	

Specifications, contents of parts and availability are subject to change, Align RC is not responsible for inadvertent errors in this publications.
 本說明書內的材質、規格或零件包裝之內容物僅供參考。本公司將不對此印刷物之異動負責，也無法主動通知消費者，任何更新或異動，請以亞拓網頁為主。

No.	Code No.	Name	Specification	Quantity	Remarks
	H60013	Main Shaft / 主軸組		1	
39	50H047	Main shaft 主軸	φ 10x201x29.3mm	2	
40	T63020	Socket collar screw 圓頭內六角軸套螺絲	M3x20mm	1	
41	N10030	M3 Nut M3防鬆螺帽	M3	1	
42	50H045	Lock collar 主軸固定環	φ 10x φ 16x6mm	1	
43	T74004	M4 Set screw M4止洩螺絲	M4x4mm	2	
	H60014	Washout Control Arm / 向位器控制搖臂組		1	
44	50H031	Washout control arm 向位器控制搖臂		2	
45	50H035	Radius arm Radius連桿		2	
46	50H126	Collar Radius控制搖臂銅套	φ 2x φ 3x5.1mm	2	
47	50H022	Washer 華司	φ 3x φ 5.5x0.3mm	2	
48	50H683ZZ	Bearing 683ZZ 683ZZ軸承	φ 3x φ 7x3mm	4	
49	50H024	Collar 擺臂軸承襯套	φ 3x φ 4.9x1.5mm	2	
50	T12012-2	Collar Screw 軸套螺絲	M2x12mm	2	
51	50H145	Linkage ball B1 球頭B1	φ 4.75x φ 12.59mm	2	
	H60015	Metal Washout Base / 金屬向位器		1	
52	T63012	Socket screw 圓頭內六角螺絲	M3x12mm	2	
53	50H147	Metal washout base 金屬向位器		1	
	H60016	Metal Washout Control Arm / 金屬向位器控制搖臂		1	Option Parts
54	50H161	Metal washout control arm 金屬向位器控制搖臂		2	
54-1	50H043	Linkage ball B 球頭B	φ 4.75x9.59mm	2	
45	50H035	Radius arm Radius連桿		2	
46	50H126	Collar Radius控制搖臂銅套	φ 2x φ 3x5.1mm	2	
47	50H022	Washer 華司	φ 3x φ 5.5x0.3mm	2	
48	50H683ZZ	Bearing 683ZZ 683ZZ軸承	φ 3x φ 7x3mm	4	
49	50H024	Collar 擺臂軸承襯套	φ 3x φ 4.9x1.5mm	2	
50	T12012-2	Collar Screw 軸套螺絲	M2x12mm	2	
	H60017	CCPM Metal Swashplate / 金屬CCPM十字盤組		1	
55	H60017-A	CCPM Metal Swashplate 金屬CCPM十字盤組		1	
56	50H041	Long linkage ball 導板長球頭	φ 4.75x24.59mm	1	
57	50H043	Linkage ball B 球頭B	φ 4.75x9.59mm	6	
	H60018	One-way Bearing Shaft / 單向軸承套		1	
58	50B048	One-way bearing shaft 單向軸承套	φ 9x φ 12x34.55mm	1	
59	50B050	Washer 單向軸承華司	φ 11.5x φ 18x0.5mm	1	
	H60019	Main Drive Gear 170T / 170T 主齒輪		1	
60	50B158	Main drive gear(170T) 主齒盤(170T)		2	
	H60020	Autorotation Tail Drive Gear / 尾驅動主齒		1	
61	50B054	Autorotation tail drive gear 尾驅動主齒		2	
	H60021	One-way Bearing / 單向軸承		1	
62	50B049	One-way bearing HF1216 單向軸承HF1216	φ 12x φ 18x16mm	1	
	H60022	Main Gear Case / 主齒中心座		1	
63	50B051	Main gear case 主齒中心座		1	
64	S83007	Hex socket self tapping screw 圓頭內六角自攻螺絲	T3x7mm	5	



No.	Code No.	Name	Specification	Quantity	Remarks
	H60023	Control Shaft / 連動桿		1	
65	50B070	Control shaft 連動桿	φ 5x81mm	2	
66	T63006	Socket screw 圓頭內六角螺絲	M3x6mm	2	
	H60024	Elevator Lever / 後控制臂組		1	
67	50B068	Elevator lever 後控制臂		1	
68	T74004	M4 Set screw M4止洩螺絲	M4x4mm	1	
69	50H144	Linkage ball A1 球頭A1	φ 4.75x8.68mm	3	
	H60025	Metal Elevator Lever / 金屬後控制臂組		1	Option Parts
70	50B165	Metal elevator lever 金屬後控制臂		1	
70-1	50H012	Linkage ball A 球頭A	φ 4.75x8.68mm	3	
68	T74004	M4 Set screw M4止洩螺絲	M4x4mm	1	
	H60026	Aileron Lever / 左右控制搖臂組		1	
71	50B056	Aileron lever 左右控制搖臂		2	
72	50BMR95ZZ	Bearing MR95ZZ MR95ZZ軸承	φ 5x φ 9x3mm	4	
73	50B058	Washer 華司	φ 5x φ 7x0.5mm	2	
74	50H144	Linkage ball A1 球頭A1	φ 4.75x8.68mm	6	
	H60027	Metal Aileron Lever / 金屬左右控制搖臂組		1	Option Parts
75	50B160	Metal aileron lever 金屬左右控制搖臂		2	
75-1	50H012	Linkage ball A 球頭A	φ 4.75x8.68mm	6	
72	50BMR95ZZ	Bearing MR95ZZ MR95ZZ軸承	φ 5x φ 9x3mm	4	
73	50B058	Washer 華司	φ 5x φ 7x0.5mm	2	
	H60028	Main Frame Parts / 機身零件組		1	
76	50B073	Bottom bracket 主體底板		1	
77	50B064	Battery mount 電池固定座		1	
78	50B074	Gyro mount 陀螺儀固定座		1	
79	50B065	Anti rotation bracket 十字盤導板		1	
	H60029	Main Frame / 主體側板組		1	
80	50B055	Main frame(L/R) 左右主體側板	1.5mm	2	
81	50B060	Bearing mount 控制臂軸承座	φ 9x φ 15x4.5mm	2	
82	50BMR95ZZ	Bearing MR95ZZ MR95ZZ軸承	φ 5x φ 9x3mm	2	
76	50B073	Bottom bracket 主體底板		1	
83	50B138	Frame mounting bolt 機身鉛柱		1	
84	T63008	Socket screw 圓頭內六角螺絲	M3x8mm	2	
	H60030	Canopy Mounting Bolt / 機頭罩固定柱		1	
85	50B121	Canopy mounting bolt 機頭罩固定柱		4	
86	W10030	M3 Washer M3華司	φ 3x φ 8x1mm	2	
87	S23008-1	Self tapping screw 圓頭十字自攻螺絲	T3x8mm	2	
	H60031	Bearing Block / 主軸固定座組		1	
88	50B061	Upper bearing block(A) 主軸上軸承固定座(A)		4	
89	50B6800ZZ	Bearing 6800ZZ 6800ZZ軸承	φ 10x φ 19x5mm	2	
90	50B066	Lower bearing block(B) 主軸下軸承固定座(B)		2	
91	50B689ZZ	Bearing 689ZZ 689ZZ軸承	φ 9x φ 17x4mm	1	
	H60032	Aluminum Hexagonal Bolt / 六角鋁柱		1	
92	50H148	Aluminum hexagonal bolt 六角鋁柱		6	
	H60033	Motor Mount / 馬達固定座		1	
93	50B063	Motor mount 馬達固定座		1	
94	50B072	M3 Specialty washer M3特殊華司	φ 2x φ 8x2mm	40	
95	T63010	Socket screw 圓頭內六角螺絲	M3x10mm	12	
96	T63006	Socket screw 圓頭內六角螺絲	M3x6mm	4	
97	S23008-1	Self tapping screw 圓頭十字自攻螺絲	T3x8mm	8	
98	S23010-1	Self tapping screw 圓頭十字自攻螺絲	T3x10mm	4	
	H60034	Tail Drive Gear Assembly / 尾傳動導輪軸組		1	
99	H60034-A	Tail drive gear assembly 尾傳動輪組		1	
100	50B684ZZ	Bearing 684ZZ 684ZZ軸承	φ 4x φ 9x4mm	2	
	H60035	Tail Boom Case / 尾管固定座組		1	
101	50B076	Tail boom case (Left) 尾管固定座(左)		1	
102	50B075	Tail boom case (Right) 尾管固定座(右)		1	
104	50B077	Plastic hexagonal bolt 六角塑膠柱		6	
	H60036	Tail Drive Belt / 尾傳動皮帶		1	
103	50T131-1	Tail drive belt 尾傳動皮帶	592XL	1	
	H60037	Plastic Hexagonal Bolt / 六角柱		1	
104	50B077	Plastic hexagonal bolt 六角塑膠柱		6	
105	T63008	Socket screw 圓頭內六角螺絲	M3x8mm	3	
106	N10030	M3 Nut M3防鬆螺帽	M3	3	
107	S23012-1	Self tapping screw 圓頭十字自攻螺絲	T3x12mm	12	



No.	Code No.	Name	Specification	Quantity	Remarks
	H60038	Landing Skid/腳架組		1	
108	50F083	Skid pipe 腳架鋁管	φ 9x310mm	2	
117	50F129	3D landing skid 3D腳架		2	
110	50F084	Skid pipe end cap 腳架鋁管保護套		4	
111	T73004	M3 Set screw M3止洩螺絲	M3x4mm	4	
112	T63012	Socket screw 圓頭內六角螺絲	M3x12mm	4	
113	N10030	M3 Nut M3防鬆螺帽	M3	4	
114	W10030	M3 Washer M3華司	φ 3x φ 8x1mm	4	
115	50F130	Landing skid nut 腳架墊圈		4	
116	50F128	Antenna pipe 天線管	φ 2x φ 4x500mm	1	
	H60039	Standard Landing Skid/標準腳架		1	
109	50F122	Standard landing skid 標準型腳架		2	
	H60040	3D Landing Skid/3D腳架		1	
117	50F129	3D landing skid 3D腳架		2	
	H60041	Rudder Servo Mount/尾舵伺服器固定組		1	
118	50T086	Rudder servo mount 尾舵伺服器固定座		2	
119	50T087	Rudder servo bracket 尾舵伺服器板	1.5mm	1	
120	S23010-1	Self tapping screw 圓頭十字自攻螺絲	T3x10mm	2	
121	W10030	M3 Washer M3華司	φ 3x φ 8x1mm	2	
	H60042	Tail Boom/尾管		1	
122	50T085	Tail boom 尾管	φ 20x φ 21.5x625mm	2	
123	50T125	Tail control guide 尾控制桿固定環		2	
124	50T133	Rudder control rod 尾舵控制桿	φ 2x539mm	1	
125	50Z124	Ball link 連桿頭		2	
	H60043	Tail Case/尾齒輪座組		1	
126	50T090	Tail case (L) 尾齒輪座(左)		1	
127	50T091	Tail case (R) 尾齒輪座(右)		1	
128	50TMR105ZZ	Bearing MR105ZZ MR105ZZ軸承	φ 5x φ 10x4mm	2	
129	T63010	Socket screw 圓頭內六角螺絲	M3x10mm	3	
130	N10030	M3 Nut M3防鬆螺帽	M3	3	
	H60044	Tail Rotor Control Arm/尾旋翼控制臂組		1	
131	50TMR63ZZ	Bearing MR63ZZ MR63ZZ軸承	φ 3x φ 6x3mm	2	
132	50T096	Tail rotor control arm 尾旋翼控制臂		1	
133	50T097	Collar 尾旋翼控制臂鋁套	φ 3x φ 4.9x5mm	1	
134	50T099	Washer 華司	φ 3x φ 5.5x0.5mm	1	
135	T63015	Socket collar screw 圓頭內六角軸套螺絲	M3x15mm	1	
136	50H144	Linkage ball A1 球頭A1	φ 4.75x8.68mm	1	
	H60045	Tail Rotor Shaft Assembly/尾橫軸組		1	
137	H60045-A	Tail rotor shaft assembly 尾橫軸組		2	
	H60046	Tail Pitch Assembly/尾旋翼控制組		1	
138	H60046-A	Tail pitch assembly 尾旋翼控制組		1	
139	50T105	Control link 尾控制連桿頭		2	
140	50T106	Collar A 尾連桿頭銅套A	φ 2x φ 3x4.1mm	2	
141	50T127	Collar B 尾連桿頭銅套B	φ 2x φ 3x3mm	2	
142	T12008-2	Collar screw 軸套螺絲	M2x8mm	4	
143	50T116	T type arm 尾翼控制組T型臂		1	
	H60047	Stabilizer/尾翼組		1	
144	50T118	Horizontal stabilizer 水平翼		1	
145	50T098	Vertical stabilizer 垂直翼		1	
146	S23014-1	Self tapping screw 圓頭十字自攻螺絲	T3x14mm	2	
147	T63026	Socket screw 圓頭內六角螺絲	M3x26mm	2	
148	N10030	M3 Nut M3防鬆螺帽	M3	2	
149	50T088	Stabilizer belt (Upper) 水平翼固定座(上)		1	
150	50T089	Stabilizer belt (Lower) 水平翼固定座(下)		1	
151	W10030	M3 Washer M3華司	φ 3x φ 8x1mm	4	
	H60048	3K Stabilizer/3K碳纖尾翼		1	Option Parts
152	50T166	3K Vertical stabilizer 3K碳纖垂直翼	3K	1	
153	50T167	3K Horizontal stabilizer 3K碳纖水平翼	3K	1	

No.	Code No.	Name	Specification	Quantity	Remarks
	H60049	Tail Rotor Holder / 尾旋翼夾座組		1	
154	N10030	M3 Nut M3防鬆螺帽	M3	2	
155	T74004	M4 Set screw M4止洩螺絲	M4x4mm	1	
156	50TMR83ZZ	Bearing MR83ZZ MR83ZZ軸承	φ 3x φ 8x3mm	2	
157	T63010	Socket screw 圓頭內六角螺絲	M3x10mm	2	
158	50T112	Tail rotor holder 尾旋翼夾座		2	
159	50BMR95ZZ	Bearing MR95ZZ MR95ZZ軸承	φ 5x φ 9x3mm	2	
160	50T115	Tail rotor hub 尾旋翼T型座	φ 11x26.6mm	1	
161	T63015	Socket collar screw 圓頭內六角軸套螺絲	M3x15mm	2	
	H60050	3K Carbon Fiber Tail Blade / 3K碳纖尾旋翼		1	
162	50T159	3K Carbon fiber tail blade 3K碳纖尾旋翼	3K	2	
	H60051	Plastic Tail Blade / 塑膠尾旋翼		1	Option Parts
163	50T117	Plastic tail blade 塑膠尾旋翼	PA	2	
	H60052	Tail Boom Brace / 尾管支撐架組		1	
164	50T123	Tail boom brace end 尾支撐架接頭		4	
165	W10030	M3 Washer M3華司	φ 3x φ 8x1mm	4	
166	50T132	Tail boom brace 尾管支撐架	φ 5x460mm	2	
167	S23012-1	Self tapping screw 圓頭十字自攻螺絲	T3x12mm	2	
168	S23010-1	Self tapping screw 圓頭十字自攻螺絲	T3x10mm	2	
	H60053	Fiberglass Canopy / 玻纖機頭罩		1	
169	50B134	Fiberglass canopy 玻纖機頭罩		1	
170	50B135	Canopy nut 機頭罩固定套		2	
	D03842	Sticker 貼紙		1	
	H60054	Hook & Loop Fastening Tape / 魔術束帶		1	
171	K10317	Hook & Loop Fastening Tape 魔術束帶		2	
	H60055	Motor Pinion Gear 10T / 10T馬達齒輪		1	
172	50M157	Motor pinion gear 10T 10T馬達齒輪		1	

Specifications & Equipment/規格配備:

Length/機身長: 1200mm(47.25 in)

Height/機身高: 388/405mm(15.25 in/16 in)

Main Blade Length/主旋翼長: 600mm

Main Rotor Diameter/主旋翼直徑: 1350mm(53.15 in)

Tail Rotor Diameter/尾旋翼直徑: 240mm(9.45 in)

Motor Pinion Gear/馬達主齒: 10T(11T optional)

Main Drive Gear/傳動主齒輪: 170T

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

Tail Drive Gear/尾翼傳動齒: 40T

Drive Gear Ratio/齒輪傳動比: 1:17.0:4.5/1:15.45:4.5

Weight(w/o main blade)/空機重: 1470g

Flying Weight/全配重: Approx 3000g(6.6 lbs)

Features :

Electric Power System | Carbon Fiber Frame | Pre-Painted Fiberglass Canopy | Carbon Fiber Tail Blades | Triple-Bearing Block Main Shaft Support | Fully Driven Tail Auto Rotation System | Tail Rotor Belt Drive System | Push-Pull Control Linkage | Rear Tail Servo Mount | 10mm Hollow Main Shaft, 8mm Spindle