THUNDER TIGER

mini Titan E325S INSTRUCTION MANUAL

Electric. Flybarless Edition 使用說明書



No.4710-A2

This radio control model is not a toy! Before beginning assembly, please read this manual thoroughly.
本產品為高性能模型非一般玩具，組裝與操作前請詳閱本產品說明書。

The contents are subject to change without prior notice due to product improvements and specification changes.
本套件所附之零件可能跟圖示有所差異。因產品後續之設計研發或功能不斷改善之原因，我們將保留產品規格變更權力，不再另行通知使用者。

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INTRODUCTION 簡介

Thank you for purchasing the Thunder Tiger R/C helicopter. This new helicopter is the latest innovation by Thunder Tiger. It has the perfect combination of flying stability and the agility for 3D flying. This helicopter is an excellent choice for flying enthusiasts like you. For convenient assembly and safe operation of the helicopter, please read the instructions carefully. Retain the user manual in case you need it for any information or reference.

感謝您購買雷虎科技直昇機產品，本項產品為雷虎科技全新開發機種，兼具高度穩定性與3D飛行特性，是熱衷引擎直昇機的您不可錯過的選擇。請於使用本產品前詳盡閱讀使用手冊，以利於組裝工作順暢進行與安全操控本產品。請妥善保存使用說明書，以利後續調整與維修參考用途。

CAUTION 警告

1. R/C models are not toys. This product is a high-precision flying machine. Possibilities of unexpected crashes may occur due to electronic interference, incorrect operation, or poor mechanical maintenance. Although it is a small-sized helicopter, the rotor blades rotate at high speeds, which may cause serious damage, injury, or death if the model hits people or property. Therefore, extreme caution must be exercised during operation.
2. Thunder Tiger ensures parts packaged in this product have the highest quality. However, after assembly and usage, parts damaged due to wear or misuse will not be replaced under any circumstances. If you have any questions regarding its operation and repair, Thunder Tiger's service agents are able to provide free technical guidance.
3. This product is only recommended for users ages 16 and up. Because flying a R/C helicopter is difficult, beginners must receive guidance and supervision from experienced pilots to minimize unexpected danger. Practice in spacious areas, far away from obstacles such as buildings, trees, electrical towers, or crowds.
4. To decrease the cost of repair and maintenance for beginners, it is recommended to fly the helicopter with a practice rack and to learn basic flying skills with a computer R/C flying simulator. (Crashes in simulators are free to repair!)

1. 本項遙控直昇機產品並不是玩具，是一項結構精密、高專業度模型產品，如果未經正確組裝與操控，將可能對操控者或其他人造成身體傷害。使用者必須了解，若未確實進行飛行前安全檢查或操控不當，而造成人員受傷或物體損壞，使用者必須負起法律責任。
2. 本產品由高品質零組件組成，雷虎科技對於安裝過程、使用過後...等人為因素造成損壞事件不負損壞賠償之責。如您需要本產品相關組裝、調整或其他協助，可與雷虎科技全省經銷商聯繫。
3. 本項產品禁止十六歲以下青少年與孩童使用。強烈建議初學者應取得技術支援後再進行飛行，以避免危險發生。請於空曠地區操控本產品，並避免於建築物、樹木、電塔...等障礙物區域飛行。
4. 建議初學者可安裝練習架或透過電腦模擬軟體練習，可達到實際練習效果與符合經濟效益。

AMA INFORMATION 特別注意事項

Operating a model helicopter requires a high degree of responsibility and skill. If you are a newcomer to the hobby, it is best to seek help and guidance from accomplished model helicopter pilots. This will greatly speed up the learning process and make you to fly successfully in a reasonable amount of time. We also would strongly urge you to join the Academy of Model Aeronautics. The AMA is a non-profit organization that provides its members with a liability insurance plan as well as monthly magazine entitled Model Aviation. All AMA charter aircraft clubs require all pilots to hold a current AMA sporting license prior to operation of their models at club fields. For further information, contact the AMA at:

Academy of Model Aeronautics
5151 East Memorial Drive
Muncie, IN 47302
(317) 287-1256

操控遙控直昇機對於飛行安全要求極高，需要高度的負責任態度配合，以及較高的操控技巧。如果您是一位初學者，建議您必須向當地專業模型經銷商，或是遙控直昇機相關組織以及經驗豐富的玩家尋求相關協助，以獲得您所需要的訊息以及專業知識。如此可有效協助您縮短學習的時間，更容易學會遙控直昇機的組裝、設定與操控技巧。

FLIGHT SAFETY CHECKLIST 飛行前安全確認工作項目

1. Make sure that the transmitter battery is fully charged before flying.
2. Make sure all control surfaces are operated properly before flying.
3. Do a range check of the radio before the first flight. The electronic equipment must operate properly at a range of at least 5 meters (18 ft) even with the transmitter antenna collapsed.
4. Make sure there are no other pilots using the same radio frequency with yours and that there are no other radio interferences on your frequency.
5. Be sure to turn on the transmitter first with the throttle stick in the idle position. Plug the battery into the ESC last.
6. The main rotor and the tail rotor spin at very high RPM. Make sure nothing can come in contacting with the rotor blades during flight.
7. Always maintain a safe distance from the helicopter during flight.
8. Never fly the helicopter in the rain or in excessive wind conditions.
9. Always operate and fly the helicopter in a safe and responsible manner.
10. Never fly the helicopter over other pilots, spectators, cars or anything that could result in injury or property damage.

1. 確認接收機與發射機電池，均已確實充電完成。
2. 確認所有操控介面運作順暢。
3. 確認無其他無線電波干擾，且不與其他同好同時使用相同頻率。
4. 確實將油門搖桿放置於低速，再將發射機電源開啟，然後再將電池接上。

5. 確認遙控器發射器與接收機工作正常，將機體放至於距離5公尺外，確認遙控器是否正常，機體控制動作是否正確。
6. 主旋翼與尾旋翼轉速相當高，運轉時須避免任何障礙物與旋翼接觸。
7. 飛行時，需與遙控直升機保持安全距離。
8. 勿於下雨天或是強風的狀態下操控遙控直升機。
9. 請以安全為第一考量，並以高度負責任的態度參與遙控直升機活動。
10. 禁止於人群、車輛..或任何其他障礙物上方飛行遙控直升機，避免意外發生。

POST FLIGHT INSPECTION 飛行結束安全檢查事項

1. Inspect the model thoroughly to ensure no parts have come loose or become damaged during the flight and landing. Replace damaged parts and tighten loose screws before flying again.
2. Clean the helicopter body.
3. Lubricate all moving parts to ensure smooth operation for the next flying.
4. Replace any worn ball links and damaged bearings.
5. Store the model in a cool, dry place. Avoid putting it under direct sunlight or near a source of heat.

Following these simple rules will allow you to enjoy the thrill of model helicopter flying for many years.

1. 飛行結束後確認機體所有的零件與螺絲是否有損壞或鬆動，更換損壞零件與確實固定鬆動的螺絲。
2. 機體清潔乾淨。
3. 檢查所有活動零組件是否運作順暢，以利下次飛行。
4. 更換所有鬆動的連桿、接頭，以及損壞的軸承。
5. 將機體存放於陰涼通風處，避免機體放置於陽光直射處或接近熱源。

確實執行上述幾項簡單的步驟，將可確保您的愛機維持數年的壽命！

CAUTION 注意事項

When the model crash occurs, inspect the flybar, rotor shaft and the blade spindle to make sure they are not bent. If any item is damaged, it must be replaced with a new part to ensure safe operation. Do not glue any broken or damaged plastic parts. Do not repair broken rotor blades. It is very important to inspect the motor, speed control and the battery.

Always inspect the following items:

Gears, Ball links, Link rods, Bearings, Main shaft, Flybar, Spindle, Tail boom and support, Fins, Tail rotor shaft, Belt, Main blades, Tail blades, the Motor, the Speed control and the Battery.

機體一旦發生墜落事件，請確實檢查平衡桿、主軸、橫軸是否有彎曲變形，如果有任何的損壞，請立即更換原廠新的零組件，確認機體操作安全！切勿使用任何接著劑嘗試黏合塑膠零件；請勿使用修復過的主旋翼。馬達、速控器、電池的安全檢查工作亦相當重要。

發生機體墜落事件後，請確實檢查下列項目：

齒輪組、球頭連桿、連桿頭、軸承、主軸、橫軸、尾軸、平衡桿、平衡片、尾管、尾管支撐架、垂直與水平尾翼、尾驅動輪、皮帶、主旋翼、尾旋翼、馬達、速控器、電池。

CONTENTS INCLUDED 內容物說明

* available depending on the ARF you purchase. 內容物會因購買型號不同而有所差異。



* Li-Po Battery
鋰聚合物電池



* Balance Charger for Li-Po Battery
平衡鋰電池充電器



Micro Digital Servo x 4
迷你數位伺服機 x 4



3 AXIS Gyro
三軸陀螺儀



325 mm Carbon Blades
碳槳，325 mm



Speed Controller
速控器



Brushless Motor
無刷馬達

ADDITIONAL ITEMS REQUIRED 另購配件



Transmitter
(helicopter type only, 6 or more channels)
發射機（6動以上直昇機用）



Receiver
接收機



Pitch Gauge
螺距尺

TOOLS REQUIRED FOR MAINTENANCE 另購維修工具



Screw Driver
螺絲起子



Needle Nose Pliers
尖嘴鉗



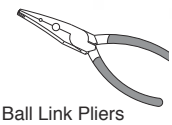
Nipper
斜口鉗



Two-Sided Rubber
雙面膠



Rubber Band
橡皮筋



Ball Link Pliers
連桿專用鉗



Scissors
剪刀



Hobby Knife
模型專用美工刀



Hex Wrench
六角板手



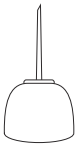
Epoxy
環氧樹指



CA Glue
快乾膠



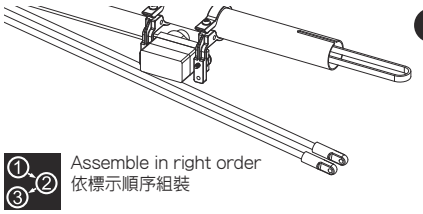
Threadlocking
螺絲防鬆膠



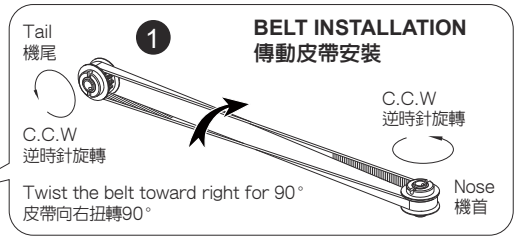
Grease
潤滑油

ASSEMBLY 組裝說明

The detailed assembly steps are shown from page 13 to 24.
詳細組裝圖請參考第13~24頁。

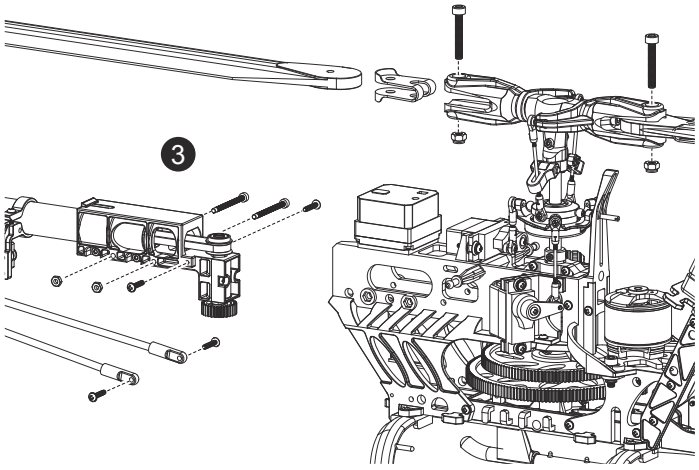


Assemble in right order
依標示順序組裝



(1) Insert the belt into the tail boom bracket, warp the belt onto the pulley; note the belt direction of rotation when warping.
(2) Gently pull back the tail boom bracket until the tension of the belt allows no more than 5mm(3/16") of free play in the belt.
(3) Move the tail boom supports bracket to their proper positions, and then tighten the screws.
(4) Secure all other screws tightly and mount the blades.

(1) 將皮帶套入尾管固定座，並繞過導輪，注意安裝時皮帶的扭轉方向。
(2) 慢慢地將尾管固定座向後拉緊，直到按壓皮帶時，間隙小於5mm (3/16")為最佳。
(3) 將尾管支撐架定位，並鎖緊螺絲。
(4) 鎖固所有的其他螺絲並安裝上旋翼。



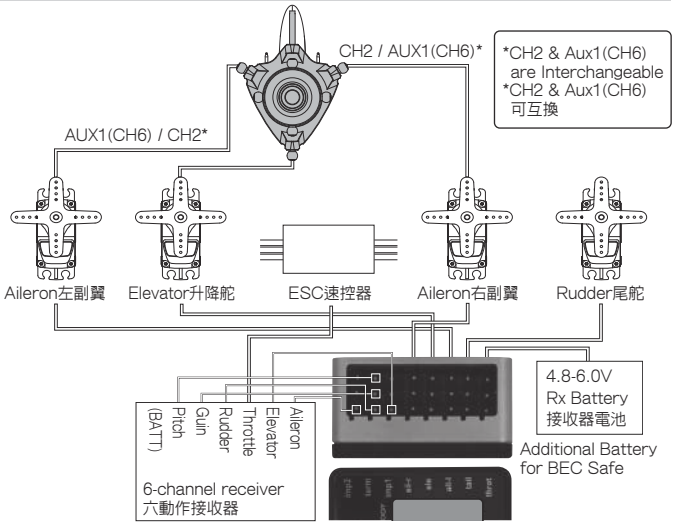
DEVICE CONNECTION 設備連接說明

The wire connection between devices and receiver may differ in different brand of radio system. The figures below are for your reference, please read your radio system manual to find the proper connections.
各品牌遙控系統的電子設備與接收機間接線方法或有差異，以下圖示為安裝範例，實際接線方式請參閱您的遙控器說明書。

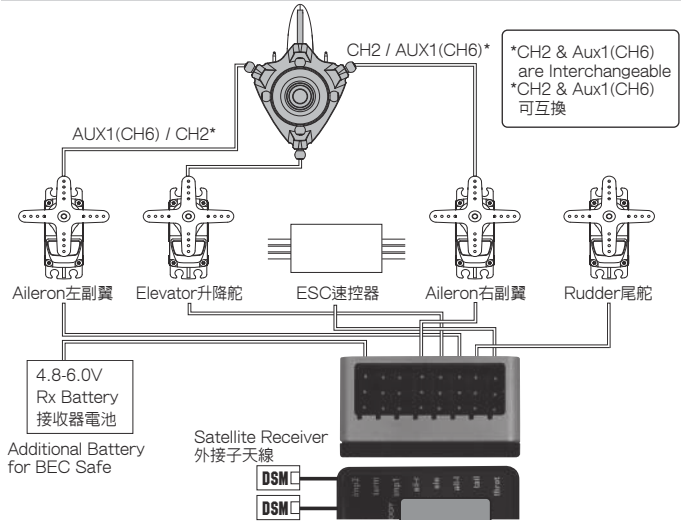
Although the Speed Controller (ESC) comes with the ARF featuring a 5V BEC, to connect an additional receiver battery pack could avoid any unexpected shutdown of BEC.
完成機內附電子調速器具備BEC功能，額外使用一顆接收機電池以可防止BEC意外斷電的情況。（BEC safe措施）

Servo Cable 連接線
Gain Wire 訊號線

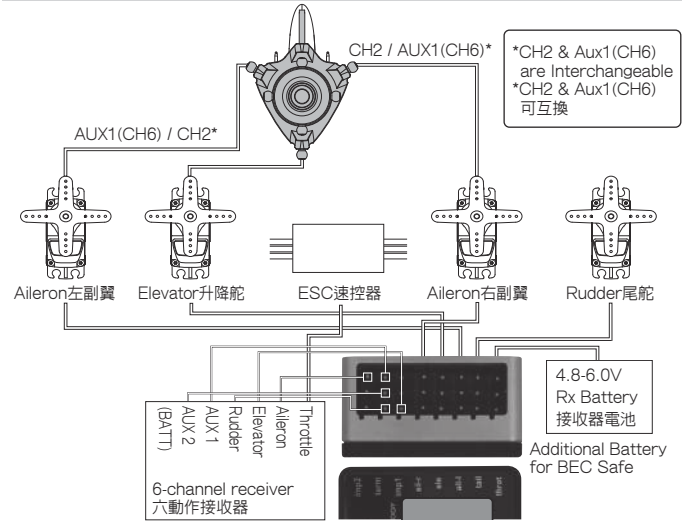
ACE RC / FUTABA / HITEC



SPECTRUM (DSM2 / DSMX)



JR



GT5.1 GYRO SETTING 三軸陀螺儀設定

The parameters of GT5.1 comes with the E325S were pre-set at factory, the detail values and its "Reset Default" in a separate available GT5.1 are listed as below chart. Please read the instruction manual to learn more details on GT5.1 operations.

本完成機產品內附GT5.1陀螺儀已由原廠依E325S飛行特性調校完成，原廠E325S完成機預設值及單品銷售之GT5.1 "重設預設值" 如下表所示。要了解GT5.1設定操作方式，請進一步詳閱GT5.1說明書。



Be careful! The GT5.1 is a high-tech & performance flybarless control system, and any changes of parameters may cause unexpected situation during flights. Please ensure you had known the functions well before you do any adjustment. It is strongly recommended to seek helps and guidance from accomplished pilot when adjusting the parameters of GT5.1 if you were newcomer to the RC helicopters.

請小心! GT5.1是一項高科技且高性能的無平衡翼控制系統，任何設定值變更都可能造成飛行時出現預期外的動作。請在進行任何設定調整前，務必確定您已對所有功能用途有充份認識。如果您是剛接觸遙控直昇機的初學者，強烈建議您尋求有經驗的玩家協助您調整GT5.1參數值。

■ Function P/I 值設定功能

Level 選單層		Default parameters at Factory for E325S E325S原廠設定值	Reset Default 重設預設值	Level 選單層		Default parameters at Factory for E325S E325S原廠設定值	Reset Default 重設預設值
1	2			1	2		
	P	60	70	(Continue from left column…承左欄)			
	I	60	70			22	22
		100	100			10	10
		30	25			0	0
		90	85			25	25
		18	18			0	0
		4	4			0	0
	P	70	60			0	0
		65	70				

■ Function 十字盤設定功能

Level 選單層		Default parameters at Factory for E325S E325S原廠設定值	Reset Default 重設預設值	Level 選單層		Default parameters at Factory for E325S E325S原廠設定值	Reset Default 重設預設值
1	2			1	2		
		Elektro	Nitro			90	100
		100	95			90	100

■ Function 伺服機設定功能

Level 選單層		Default parameters at Factory for E325S E325S原廠設定值	Reset Default 重設預設值	Level 選單層		Default parameters at Factory for E325S E325S原廠設定值	Reset Default 重設預設值
1	2			1	2		
		0	0	(Continue from left column…承左欄)			
	1	0	0		1	200	250
	2	0	0		2	200	250
	3	0	0		2	200	250
1	1	Rev	Norm		3	200	250
	2	Norm	Rev		3	200	250
	3	Rev	Rev	2		1500	1500
	1	100	100			0.045	0.035
	2	100	100		Tail freq.	166	166
	3	100	100			120	120
		230	100			0.045	0.04
		230	100		SLV freq.	166	166
	1	200	250				

1 The signal directions of vary brand radios may differ, please refer your transmitter instruction manual and page 7 of this manual “SWASHPLATE & SERVO MOVEMENT SETTING” to set the proper directions.

2 The values on this function depends on the specifications of the servos you purchase, any wrong value set here may cause unexpected damage of servos, please inquire the servo manufacture to know the specification in details.(The values here had already pre-set properly at factory for the servos come with E325S.)

1 不同品牌遙控系統訊號方向會有所差異，請參考您的遙控器說明書及本說明書第7頁“十字盤及伺服機動作設定”來設定正確的舵機作動方向。

2 本功能內設定值取決於您所使用的舵機規格，任何錯誤設定值都可能造成舵機損壞，敬請向舵機製造商詢問詳細的規格數據。（該值已由原廠針對E325S所附舵機正確設定完成。）

■ Function 陀螺儀設定功能

Level 選單層		Default parameters at Factory for E325S E325S原廠設定值	Reset Default 重設預設值	Level 選單層		Default parameters at Factory for E325S E325S原廠設定值	Reset Default 重設預設值
1	2			1	2		
1		Norm	Rev			Norm	Norm
		Norm	Rev			5	5
		Rev	Norm			2	2
		Rev	Rev				

1 The signal directions of vary brand radios may differ, please read the GT5.1 instruction manual page 2 “Sensor Menu” to set the proper directions.

1 不同品牌遙控系統訊號方向會有所差異，請詳閱GT5.1說明書第2頁“陀螺儀設定”來設定正確的舵機作動方向。

■ Function 撥桿設定功能

Level 選單層		Default parameters at Factory for E325S E325S原廠設定值	Reset Default 重設預設值	Level 選單層		Default parameters at Factory for E325S E325S原廠設定值	Reset Default 重設預設值
1	2			1	2		
		25	25			25	25
		25	25			0	0
		0	0			0	0
		0	0			10	10

■ Function 工具

Level 選單層		Default parameters at Factory for E325S E325S原廠設定值	Reset Default 重設預設值	Level 選單層		Default parameters at Factory for E325S E325S原廠設定值	Reset Default 重設預設值
1	2			1	2		
		Functions for sensor calibrations, DO NOT touch these values. 工程用途，請勿更動。				DX7	
				2		Refer the GT5.1 and your radio instruction manuals to learn how to binding. 請參閱GT5.1及遙控器說明書完成對頻。	
						Recover “Reset Default” parameters 重設為預設值	
		25 Seconds	50 Seconds			No function as yet and should not be used. 功能保留，無需設定	
1		Standard Rx					

1 3 systems of receiver may alternative: Standard Rx, Futaba S-bus or Spectrum Compatible, which depends on the radio system you use. Please refer page 4 of this manual to know the correct device connections according to your radio brand.

2 Only used with Spectrum satellites; please refer your radio instruction manual if using a standard Rx or Futaba S-bus systems to execute binding. To binding a Spectrum Tx and Rx: Activate the menu and both satellite LEDs will flash- placing the GT5.1 into “Bind” mode. Turn on the Tx whilst holding in the bind-button. Binding is completed when the satellite LEDs remain solid.

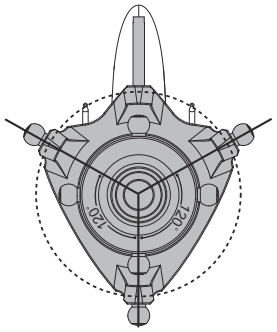
1 依您所使用的接收機系統選用：標準接收機、Futaba S-Bus或Spectrum相容系統。並依所使用的遙控器品牌正確完成電子設備配線，說明請詳閱本說明書第4頁。

2 僅適用於Spectrum外接子天線；如使用標準接收機或Futaba S-bus系統，請翻閱您的遙控器說明書來執行對頻。
Spectrum對頻程序：進入本功能選單，此時子天線LED燈為快閃狀態，使GT5.1進入“對頻”模式。按住發射機上對頻功能鍵並開啟發射機電源，當子天線上LED停止閃爍時，表示對頻完成。

To set the Fail-Safe function on your helicopter as well for safety is strongly recommended. Please refer your radio instruction manual to learn how to set the FS function if using a Standard Rx or Futaba S-bus. If using a Spectrum compatible Rx, please refer the page 2 of GT5.1 manual “Fail-safe Configuration upon DSM2/X”.

安全起見，強烈建議您也同時設定“安全回復”功能。如使用標準接收機或Futaba S-bus系統，請翻閱您的遙控器說明書來完成設定。如您使用Spectrum相容系統，請詳閱GT5.1說明書第2頁“DSM2/X系統安全回復設定”。

MODEL & SWASHPLATE SETTING 模型及十字盤模式設定



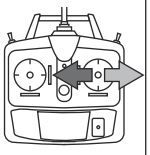
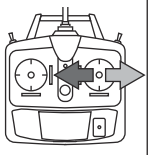
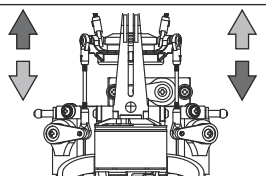
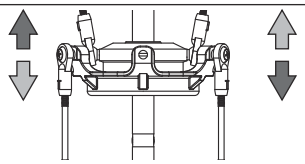
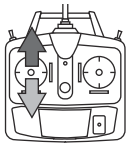
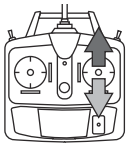
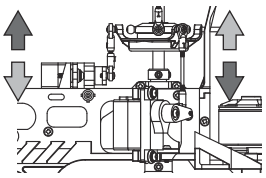
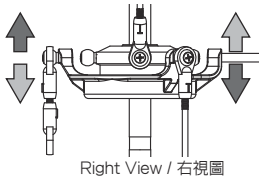
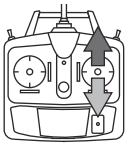
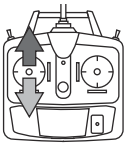
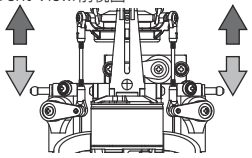
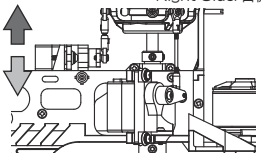
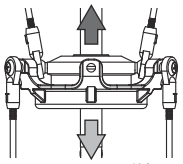
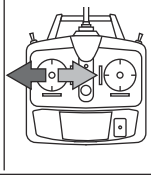
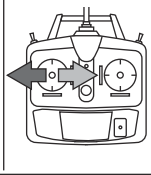
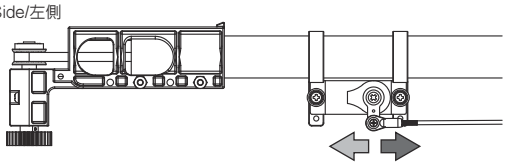
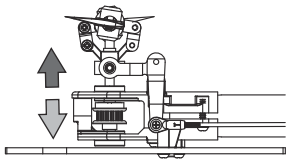
Before starting, ensure the following preparation is done.
1. Set all trims, knobs and switches to the neutral position.
2. Reset the radio to its factory preset position.
3. Choose the “Normal (non-mixing)” swashplate control mode.
The control system of E325S is a 120° CCPM, but please set the swashplate control mode on you transmitter in “Normal (non-mixing)” since the mixing function is leaded by the GT5.1 flybarless control system which comes with the E325S ARF.

設定發射機前，請確認以下注意事項：
1. 發射機上所有調整旋鈕、機構均位於中立點
2. 恢復設定值為原廠內建數據
3. 十字盤模式請選用“Normal (無混控)”模式
E325S的控制系統為120度CCPM模式，但因為混控功能將由E325S附機上的GT5.1無平衡翼控制系統主導，因此請將遙控器上的控制模式設為“Normal (無混控)”。

SWASHPLATE & SERVO MOVEMENT SETTING 十字盤及伺服機動作設定

The movement direction of servo may differ in different brand of radio system; Power on your transmitter and receiver, please refer the figure below to ensure the direction of swahplate and servo movement are correct, as well as observe if there is any bind or interference when the servo reaches to the maximum travel point.

各品牌遙控系統伺服機方向訊號或有不同，請依序開啟發射機及接收機，參閱以下圖示確認十字盤及伺服機作動方向正確，同時觀察伺服機作動達最大行程量時，是否有行程量過大或干涉情況。

	Mode 1	Mode 2	Servo Horn movement 伺服機擺臂動作	Check Point 機構動作確認
Aileron 副翼			Front View/前視圖 	 Front View / 前視圖
Elevator 升降舵			Right Side/右側 	 Right View / 右視圖
Pitch 螺距			Front View/前視圖  Right Side/右側 	 Front View / 前視圖
Rudder 尾舵			Left Side/左側 	

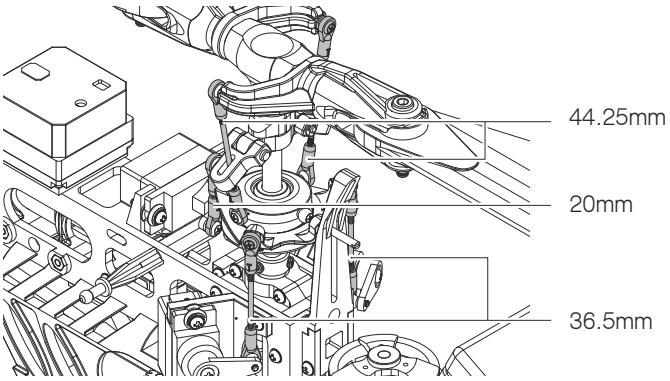
If the movements of servos or swashplate are incorrect, please refer your transmitter manual to turn on the “Servo Reverse” function for one or more channels in your transmitter.
If there’s any bind or interference when reaching the maximum servo travel point, please also refer your transmitter manual to reduce the “Travel Adjustment (or End Point Adjustment)” value in your transmitter.

如伺服機或十字盤動作方向錯誤，請參閱您的遙控器說明書，開啟遙控器上的伺服機逆轉功能。
如伺服機最大行程量過大或發生干涉，請參閱您的遙控器說明書，降低伺服機行程量設定值。

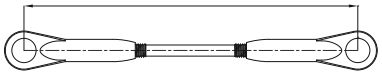
For safety, to set a Fail Safe function per your transmitter instruction manual at this step as well is strongly recommended.
安全起來，建議您參閱遙控器說明書，在此步驟中同時設定“安全回復”功能。

LINKAGES AND SERVO NEUTRAL ADJUSTMENT 連桿及伺服機中立點調整

■ Lengths of Linkage Rods 連桿長度設定值



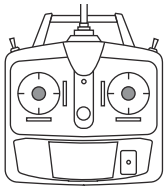
The proper lengths of linkages on the helicopter have been setup correctly at Factory, but may need to be slightly adjusted per the actual conditions.
直昇機上連桿已由原廠組裝完成，但長度可能仍需視實際情況略做調整。



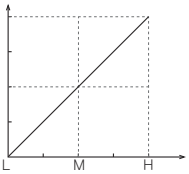
Length measured from ball link center to ball link center
由此連桿頭中心測量至另一頭連桿頭中心

■ Servo Neutral Position 伺服機中立點

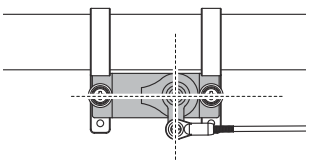
Adjust the Pitch and Throttle Curves as a -45° straight line (from 0 to highest 100% and pass through the mid-point 50%) on your transmitter firstly. Refer the figure below to ensure every servo is at its neutral positions when the sticks of transmitter are at its neutral position before setting the corrective pitch. Refer your transmitter manual to adjust the "Sub-Trim" values if the servos are not at its neutral position.
首先將油門曲線設定為負斜率之對角線。參閱右圖，確認所有伺服機皆正確對應遙控器撥桿中立點位置。如果伺服機偏離中立點，請參閱您的遙控器說明書使用"Sub-Trim"進行微調。



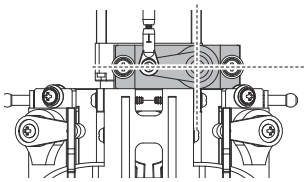
Both Stickers are at their neutral positions.
撥桿皆位於中立點位置



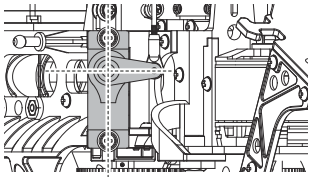
[Pitch / Throttle Curve]
Point L : 0%
Point M : 50%
Point H : 100%



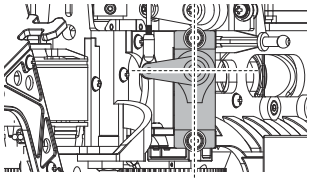
Tail Servo
尾舵伺服機



Elevator Servo
升降舵伺服機



Aileron Servo - Right
副翼伺服機—右



Aileron Servo - Left
副翼伺服機—左

COLLECTIVE PITCH RANGE SETTING 螺距範圍設定

All linkages and servos should be at their neutral positions if you have done the adjustment correctly per the description above. The steps below will define the limits of the collective pitch setting.
正確依照上述完成設定，所有連桿及伺服機皆應會位於其中立點位置。以下步驟將設定主旋翼螺距的範圍值。

A pitch gauge (available separately) may be required to measure the accurate collective pitch.
使用螺距尺（另購）才能精確量測聚合螺距攻角。

■ Centering 中立點

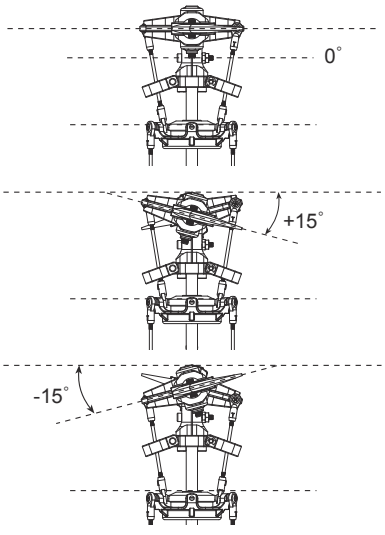
1. The elevator and aileron control levers should be as the drawing right while centering the collective pitch stick.
2. The flybar, the main blades should be at 0 degree and the swashplate should be level.
1. 當發射機螺距撥置中時，升降舵面及副翼控制搖臂位置應成水平狀態。
2. 主旋翼與穩定翼平行，兩者間角度為0，且十字盤為水平狀態。

■ Maximizing 最大螺距設定

1. Place the collective stick at high end.
2. The main blades should be at +15 degree and the swashplate should be level.
1. 將發射機螺距撥上推至最高點。
2. 主旋翼相對於穩定翼呈+15度角，且十字盤為水平狀態。

■ Minimizing 最小螺距設定

1. Place the collective stick at low end.
2. The main blades should be at -15 degree and the swashplate should be level.
1. 將發射機螺距撥上撥至最低點。
2. 主旋翼相對於穩定翼呈-15度角，且十字盤為水平狀態。



⚠ CAUTION / 警告

The setting of the maximum collective pitch depends on your personal flying skill and style. Too much collective pitch could overload the engine and drive system.
請依個人飛行技巧及習慣來設定最大螺距。過大的角度會增加引擎及傳動系統的負荷而縮短壽命。

TAIL AND GYRO SETTING 尾舵及陀螺儀設定

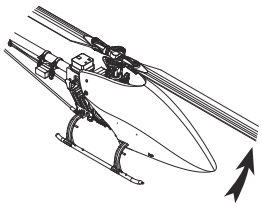
The Gyro and the servo horn have been mounted on the helicopter at Factory. To power off the receiver and then transmitter before we start to set gyro and tail at this step. 陀螺儀及伺服機擺臂已由原廠安裝完成。在開始設定陀螺儀及尾舵前，請依序關閉接收機及遙控器電源。

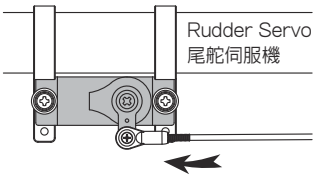
■ Gyro Operating Direction 陀螺儀作動方向

Power on your transmitter and then receiver again, do not move the helicopter at this moment until the LED indicator is steady.
Check the directions below:
1. While giving the right rudder control, the servo arm should move toward the nose of helicopter.
2. Rotate the helicopter with your hand counter clockwise, the servo arm should move toward the nose of helicopter.

Please switch the direction on your transmitter or gyro if any wrong.
再次依序開啟遙控器及接收機，此時請勿移動直昇機，直到陀螺儀上燈號恆亮為止；確認方向：
1. 當執行右舵時，伺服機擺臂應朝機頭方向作動。
2. 將整台直昇機逆時針旋轉時，伺服機擺臂應朝機頭方向作動。

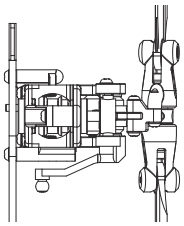
如方向有誤請切換遙控器或陀螺儀上正逆轉方向。

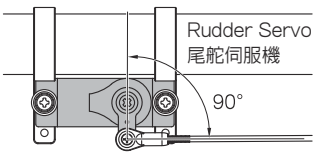




■ Length of Tail Linkage Rod 尾舵拉桿長度

The servo horn should be at neutral position while the tail sticker of transmitter is centered, and the pitch of tail rotor grips should be at 0-degree or a little bit offset to right. Please adjust the linkages if the length of rod is incorrect.
當遙控器尾舵撥桿置中時，伺服機擺臂也應位於中立點位置，且尾旋翼螺距為0度，或稍偏向右。如拉桿長度不正確，請調整球頭。





The traveling limit of the tail servo may not go beyond the mechanical movement.
To adjust the traveling limit or pirouetting speed of the helicopter, please use the “Travel Adjustment” , “D/R” or “EXP” functions on your transmitter. Refer your transmitter or gyro instruction manual may get more detailed information.
尾舵伺服機最大行程量切勿超過機械行程量。要調整行程量或尾舵自旋速度，請使用遙控器上“行程設定”，“大小動”或“指數值”功能。請詳閱您的遙控器說明書以獲得更多資訊。

ESC SETTING 電子調速器設定

To connect the Lipo battery pack to ESC is necessary at this step. For safety, please ensure the motor has been deactivated (or disengage the pinion gear from the main gear), and will not drive the main rotor before performing this step!
在設定程序中，必需將鋰電池連接至電子調速器。安全起見，請再次確認馬達不會被啟動（或將馬達齒脫離主齒盤），且不會驅動主旋翼。

All the parameters of the ESC (Electric Speed Controller) had been set at Factory, the only setting you need to do is the Throttle Calibration:
電子調速器各項參數已由原廠內建完成，您只需進行油門校正程序即可：

The calibration procedure always must be preformed if a new transmitter is being used.
新使用或更換遙控器時，請務必執行校正程序。

1. Power on the transmitter and place the throttle stick at full throttle position.
2. Power on the receiver if do not the built-in BEC.
3. Connect Lipo battery pack to ESC and wait for 2 seconds.
4. You will hear 6 tones (♪♪♪♪♪♪) from the ESC, which means the full throttle position has been calibrated.
5. Move the throttle stick to the idle position (lowest position) for about 1 second, and then you will hear 4 tones. (♪♪-♪♪)
6. A long Beep- tone means the idle throttle position has been calibrated and now the ESC is ready to go.
7. Power off the receiver/disconnect the Lipo battery pack from ESC, and then your transmitter.
8. To confirm the calibration procedure had been done correctly, please re-power on the transmitter and then re-connect Lipo battery pack to ESC again. You will hear 3 rising tones (♪♪♪) if the setting of ESC is correct and ready to go.

1. 開啟遙控器，將油門撥桿置於全油門位置。
2. 如未使用內建BEC功能，請開啟接收機。
3. 將鋰電池組（另購）連接至ESC，等待2秒。
4. ESC會發出6聲“嗶”響，表示全油門位置已完成校正並紀錄。
5. 將油門撥桿移至最低點並等待1秒，此時ESC會發出4聲音響。
6. 當聽到ESC發出一長“嗶”聲時，表示油門最低點位置已完成校正並紀錄，此時ESC已完成校正程序並已可正常使用。
7. 關閉接收機電源/斷開鋰電池組與ESC間的連接，然後再關閉發射機電源。
8. 重新依序開啟發射機電源及連接電池至速控器，以確認校正程序是否正確完成；聽到3聲上抑音響表示已ESC校正設定正確且已可飛行。

Please refer the ESC instruction manual to read more detailed information if any default settings need to be changed.
如有任何設定需要變更，敬請參閱電調說明書以獲得更詳細的資訊。

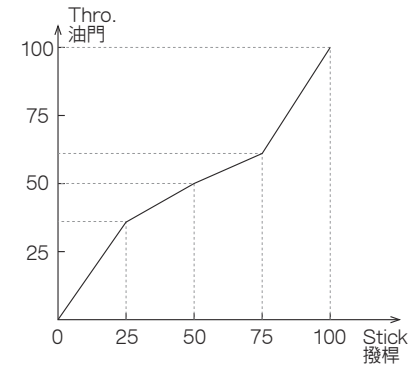
Congratulates all the setting on the grand had been done for now. Next section of setting will be moved on the flying field and need to take your helicopter off. Therefore, it is strongly recommended to seek helps and guidance from accomplished pilots if you were a newcomer to the RC helicopters!
至此，您已完成所有的靜態設定。下一步設定需要至飛場進行，並將直昇機升空，如果您是剛接觸模型直昇機的初學者，我們強烈建議您尋求有經驗的玩家給予協助及指導!

CURVE SETTING 曲線設定

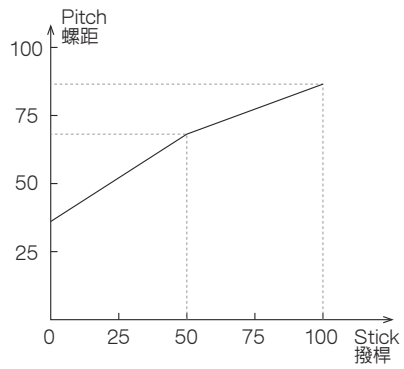
The following is the setting up data of pitch curve and throttle curve for your reference only. Please ask experienced pilot to help you if you have never done this before.
下列參數設定僅供參考，請依實際狀況進行調整，或詢求有經驗的玩家協助。

■ Beginner / 一般飛行

Throttle Curve 油門曲線



Pitch Curve 螺距曲線



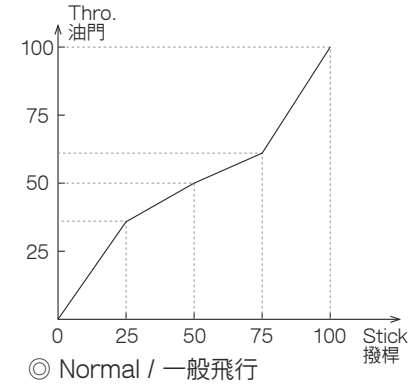
Throttle Curve 油門曲線					
	0	25	50	75	100
Normal 一般飛行	0	35	50	65	100

Pitch Curve 螺距曲線					
	0	25	50	75	100
Normal 一般飛行	35	-	70	-	85

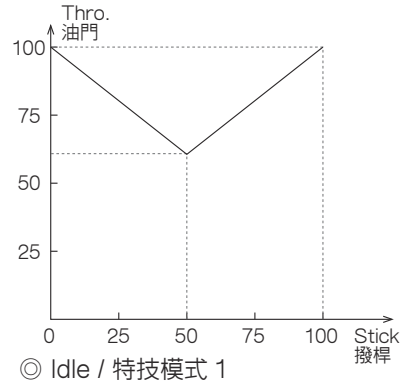
Pitch Curve 螺距曲線					
	0	25	50	75	100
Normal 一般飛行	-4°	-	+6°	-	+10°

■ 3D

Throttle Curve 油門曲線



◎ Normal / 一般飛行

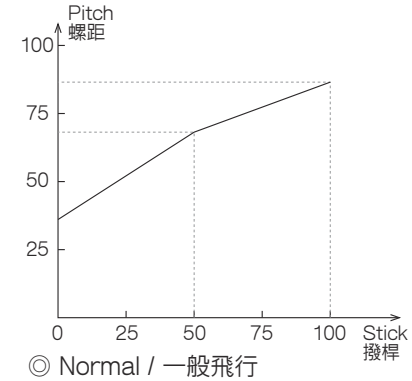


◎ Idle / 特技模式 1

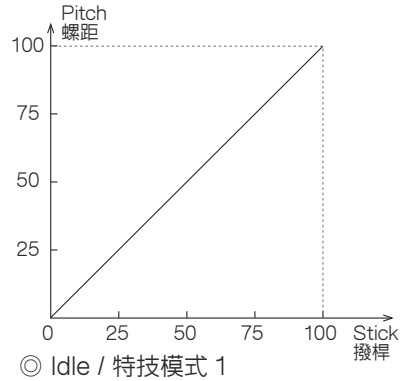
Throttle Curve 油門曲線					
	0	25	50	75	100
Normal 一般飛行	0	35	50	65	100
Idle-up 1 特技模式 1	100	-	60	-	100

Pitch Curve 螺距曲線					
	0	25	50	75	100
Normal 一般飛行	35	-	70	-	85
Idle-up 1 特技模式 1	0	-	-	-	100
Hold 鎖定模式	0	-	-	-	100

Pitch Curve 螺距曲線

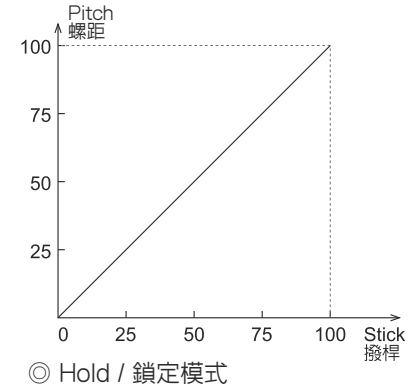


◎ Normal / 一般飛行



◎ Idle / 特技模式 1

Pitch Curve 螺距曲線					
	0	25	50	75	100
Normal 一般飛行	-4°	-	+6°	-	+10°
Idle-up 1 特技模式 1	-15°	-	-	-	+15°
Hold 鎖定模式	-15°	-	-	-	+15°



◎ Hold / 鎖定模式

⚠ CAUTION / 警告

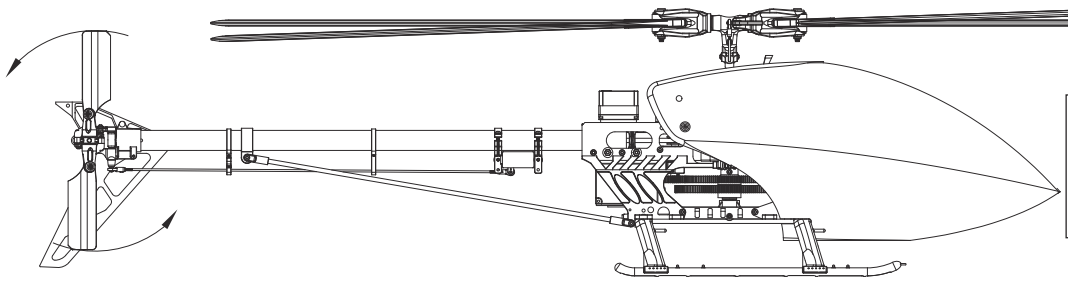
1. Too much collective pitch will bring about too much loading to the motor and drive system.
2. Too much headspeed will lead to blades (grips) explosion.
3. It's very dangerous for setting the headspeed over the blades (grips) limit.
4. Please do not set the collective pitch to the maximam (±15) unless you have very good collective pitch management skill.

1. 過大的聚合螺距設定會使馬達及傳動系統超載。
2. 過快的主旋翼轉速會造成主旋翼轉座崩裂或射槳。
3. 將旋翼轉速設定超過槳片負載極限極端危險!
4. 請勿將聚合螺距設定超過最大值（±15度角）。

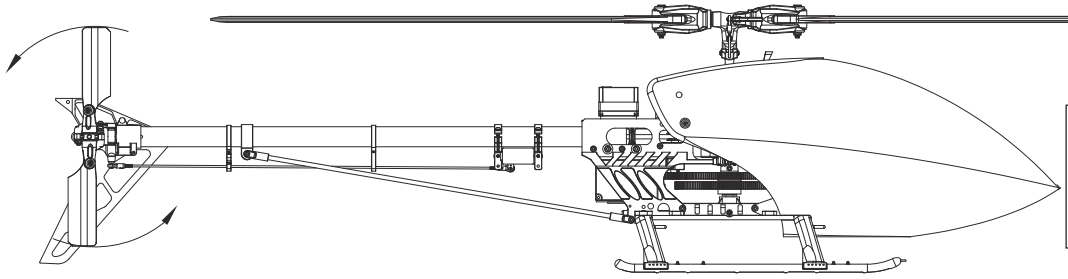
BLADE TRACKING ADJUSTMENT 主旋翼軌跡調整

⚠ CAUTION / 警告

For safety, ensure to keep a safe distance from the helicopter at least 5 meter (15 feet) while making tracking adjustment.
安全起見，進行主旋翼軌跡調整時，請至少與直昇機保持5米（15呎）的安全距離。



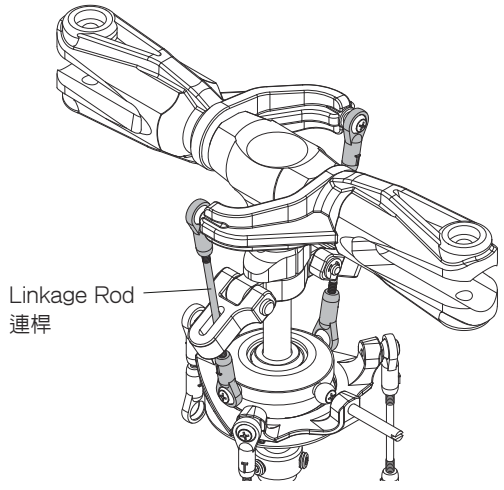
Out of Track / 雙槳
Adjustment is necessary.
需要調整



In Track / 軌跡正確
Adjustment is unnecessary.
不需要調整

1. Use a color tape at the tip of main blades for tracking identification easily.
2. Increase the main blade speed for slight lift-off.
3. Observe which blade appears to be lower than the other, and increase the pitch of the lower blade for one turn of the Linkage Rod at a time until each blade runs in track. If both main blades rotate in the same path, it doesn't need to be adjusted.

1. 在主旋翼前端貼上色標可方便辨識軌跡。
2. 提高主旋翼轉速使機體稍懸浮於地面。
3. 觀察兩支旋翼軌跡是否有落差（雙槳），調整軌跡較低旋翼上的連桿長度，一次調整一圈，直至兩支旋翼軌跡一致。若軌跡一致則無需調整。



⚠ CAUTION / 警告

Out of track will cause vibration, instability and a loss of power due to additional drag. Please adjust the tracking repeatedly until the blades are in track properly.
旋翼軌跡落差（雙槳）會造成直昇機震動、不平衡及損失動力。請務必進行調整以使旋翼軌跡精準正確。

Congratulates all the setting for your helicopter have been done and ready to fly right now. It is strongly recommended to seek helps and guidance from accomplished pilots if you were a newcomer to the RC helicopters!
恭禧您已完成直昇機所有設定並可準備起飛。如果您是剛接觸模型直昇機的初學者，我們強烈建議您尋求有經驗的玩家給予協助及指導！

CAUTIONS OF LI-PO BATTERY PACK USING 鋰聚電池使用注意事項

Lithium Polymer (Li-Po) battery is volatile. Failure to read and follow the safety instructions or the instruction manual offered by manufacturers may result in fire, personal injury and damage to property if charged or used improperly.
Please READ your Li-Po battery manual thoroughly before using. Some precaution and information for your reference below:

1. ONLY use a charger specifically designed for Li-Po battery packs to charge/discharge your Li-Po battery packs. Failure to use an improper charger may cause a fire, which may result in personal injury and property damage.
2. A parallel charging process is strongly recommended, otherwise, the balancer is necessary if using a serial charging process.
3. Gernally DO NOT over charge the battery over the maximum voltage of 4.2V/per cell and over discharge drop below 3.7V/per cell.
4. Always keep the voltage of every cell at 3.8V if the pack will be stored for a long term.
5. Always avoid any puncture of the battery pack at all times.

Neither Thunder Tiger nor our distributoers/retailers assume liability for failures to comply with these cautions, safety recommended and instruction manual. Users assume all risks associated with Li-Po battery packs.

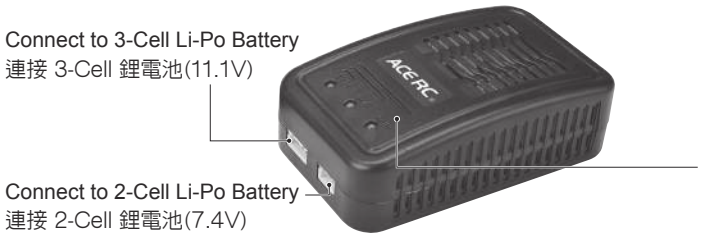
鋰聚電池具有相當危險性。疏於詳閱以下注意事項及電池廠商所提供的說明書或未依據正確操作方式使用，可能會引發火災、人身傷害及財產損失。請務必在使用前詳閱並遵守使用說明。以下注意事項及訊息提供您參考：

1. 請務必使用鋰聚電池專用充電器充/放電鋰聚電池組。使用不正確的充電器可能會引發火災、人身傷害及財產損失。
2. 強烈建議使用平行充電式的充電器充電。若使用串充方式請務必加裝平衡器。
3. 請勿過度充電使電壓超過4.2伏特/單一電池蕊，或過度放電使電壓低於3.7伏特/單一電池蕊。
4. 如需長期儲存電池，請保持單一電池蕊電壓在3.8伏特。
5. 任何情況下，皆勿擠壓電池。

雷虎科技或授權經銷商/模型店對未依照正確方式使用或安並規定之意外具免責條款，使用人應自負使用鋰聚電池所可能衍生的風險。

INSTRUCTION OF LI-PO BATTERY CHARGER 鋰電池充電器使用説明

The ACE RC T3AC BALANCE CHARGER is specifically-designed for charging 2-cell and 3-cell Li-Po battery packs. The compact-size charger features built-in switch adaptor for input power source and individual cell balancing function for safe charging.
ACE RC T3AC是2至3片式鋰電池專用充電器，具備高安全性之分壓充電及平衡功能，並內建變壓轉換，迷您體積中的強大的功能絕非其他市售充電產品可比擬！



Caution 注意事項：

1. ONLY for 2-cell & 3-cell Li-Po battery.
2. Proceed with charging in a safe environment.
3. DO NOT charge while the battery is still warm.
4. DO NOT charge an expanded or damaged battery.
5. Keep the charger away from humidity.

1. 限用於2或3片式鋰電池組。
2. 請於安全環境中進行充電。
3. 電池仍處於發熱狀態時，請勿充電。
4. 電池發生膨脹或受損，請勿充電。
5. 請勿於潮溼環境中使用。

Specification 基本規格:

規格摘要	規格
Power supply voltage 母電源電壓	110-240V AC
Cell count range 適用電池片數	2-3cells
Max. charge current 最大充電電流	3×650mA
Dimension approx 尺寸	100×60×35mm
Weight approx 重量	180g

Charger LED Status 充電器LED狀態說明:

Operational mode display 使用狀態顯示方式	via 3 LEDs
Power on 開啟電源時	Orange (1 second) / 橘燈（停留1秒）
Stand By 待機狀態	Green / 綠燈
Charging 充電中	Red / 紅燈
Full 完成充電	Green / 綠燈
Fault 失敗	Flashing / 快閃燈號

* Re-Plug the AC Plug and Battery if faults.
顯示失敗燈號時，請重新安插AC電源插頭及電池。

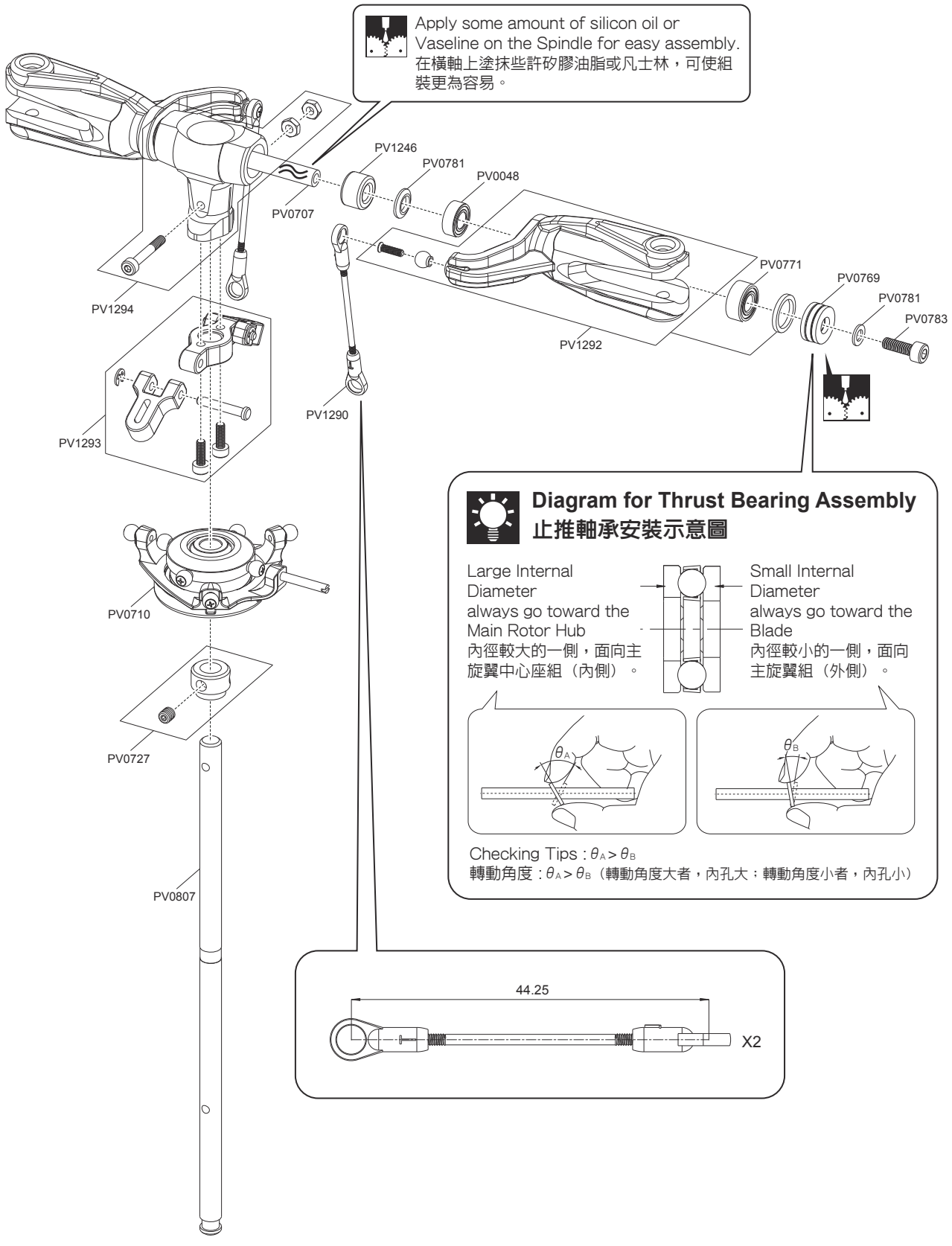
AFTER FLIGHT CHECKLIST 飛行後的檢查項目

(1) Check every screw and bolt to make sure none has loosens due to vibration.
(2) Check every rotating and movable part to ensure they still move smoothly and normally.
(3) Clean off the exhaust residue from the muffler, motor, and helicopter.
(4) Check all movable parts, such as gears, ball links, etc. for unusual wear.
(1) 每次飛行後必須詳細的檢查機體的各部位螺絲有無鬆動情形，若發生鬆動必須確實鎖緊再進行下飛行。
(2) 每次飛行後檢查每一個轉動部位（含單頭連接桿）均能順暢的運作。
(3) 排氣管、馬達、直昇機本體必須確實的清潔。
(4) 檢查每一個動作部位，齒輪、球頭等是否有不正常磨損。

MAIN ROTOR HEAD 主旋翼頭

THUNDER TIGER

Add a drop of threadlocker on the thread of screws when securing into the parts which are made of metal.
螺絲鎖固於金屬製品零件時，請酌沾適量防鬆膠。



Hint
組裝提示

Assemble left and right side the same way
左右側組件相同

Apply threadlocker
使用螺絲防鬆膠

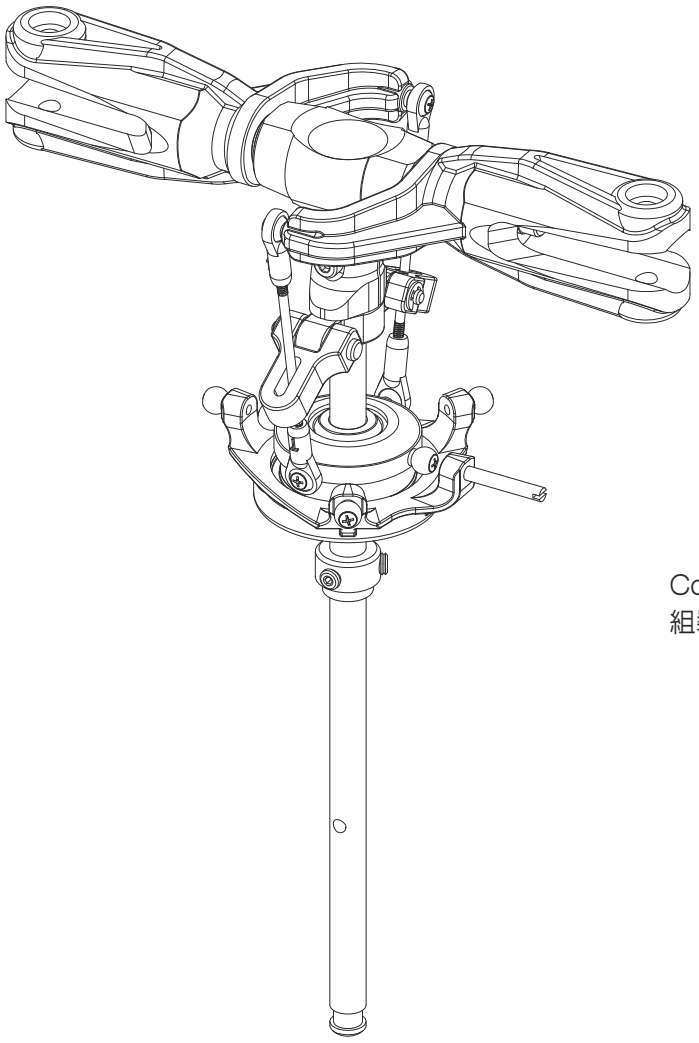
Ensure smooth, non-binding movement when assembling
確認組件靈活度

Apply grease
使用潤滑油膏(黃油)

SPARE PARTS LIST 維修零件包表格

THUNDER TIGER

No.	Description	中文名稱	Note
PV0048	BALL BEARING (d4xD8xW3)	軸承組	BEARING (d4xD8xW3) x 2
PV0707	FEATHERING SHAFT	固定軸	
PV0710	SWASHPLATE	十字盤	
PV0727	MAIN SHAFT LOCK RING	止擋圈	SET SCREW (M3x3) x 4
PV0769	THRUST BEARING (d4xD9xW4)	止推軸承組	THRUST BEARING (d4xD9xW4) x 2
PV0771	BALL BEARING (d4xD9xW4)	軸承組	BEARING (d4xD9xW4) x 4
PV0781	SCREW BAG	螺絲包	WASHER (d2.8xD5xW0.5) x 2, WASHER (d4xD7xW1) x 2
PV0783	SOCKET SCREW	內六角螺絲	SOCKET SCREW (M2.6x8) x 20
PV0802	HARDENED MAIN SHAFT	高強度主軸	SOCKET SCREW (M2x14) x 2, NUT(M2) x 4
PV1246	FLAP DAMPER	避震墊圈	
PV1290	FBL LINKAGE ROD	無平衡翼連接桿	35mm x 4
PV1292	FBL MAIN ROTOR GRIP	無平衡翼主旋翼轉座	WASHER (d2.8xD5xW0.5) x 2, WASHER (d7xD9xW1) x 2 SOCKET SCREW (M2.6x8) x 2, COUNTERSUNK SCREW (M1.6x6) x 2
PV1293	FBL WASHOUT BASE	無平衡翼控制座	SOCKET SCREW (M2x6) x 2, E-CLIP (1.5mm) X 2
PV1294	FBL METAL MAIN ROTOR HUB	無平衡翼金屬主旋翼固定座	SOCKET SCREW (M2x14), SOCKET SCREW (M2x6) x 2, NUT(M2) x 2

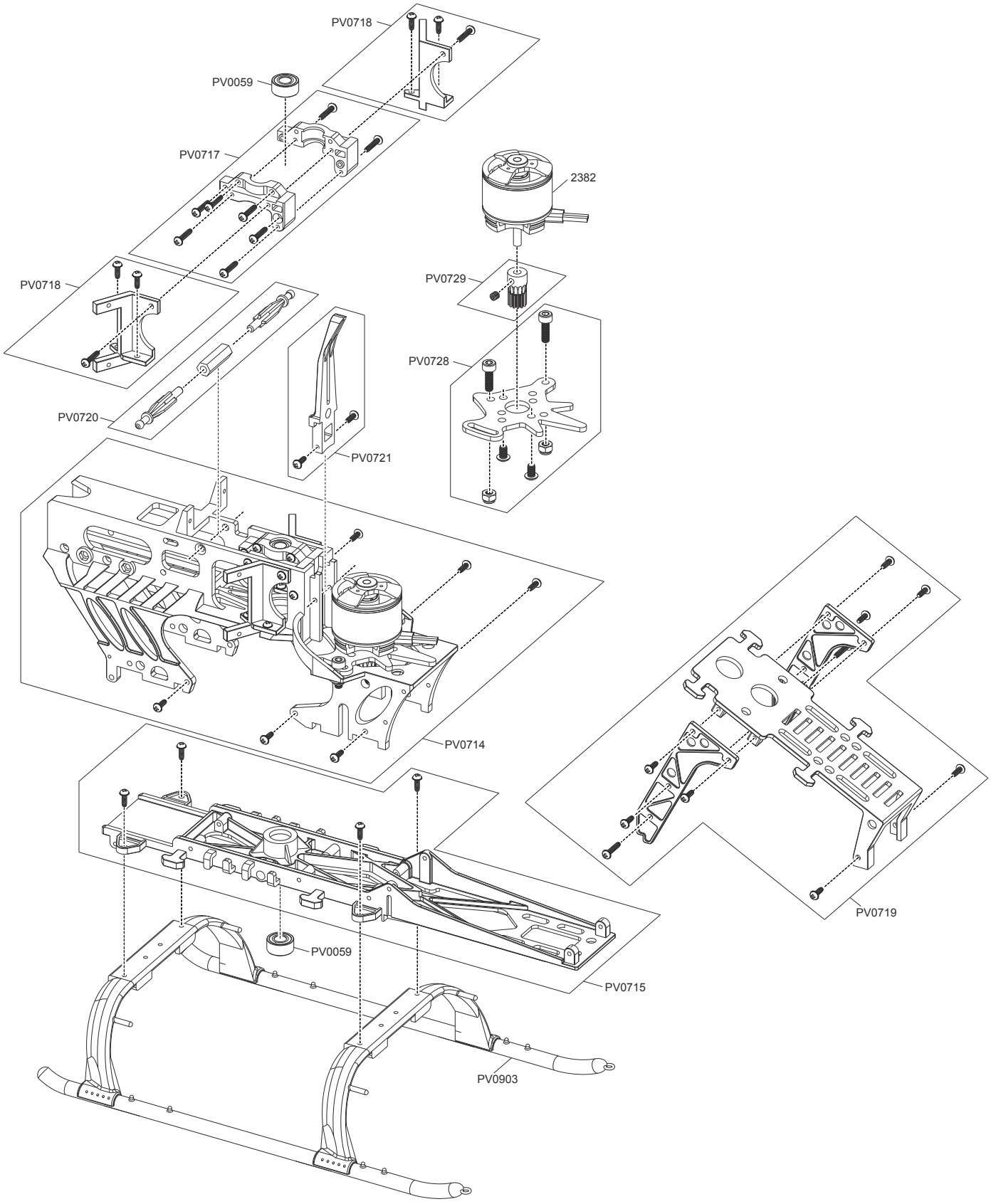


Completed View
組裝完成

MAIN FRAME (SKID & MOTOR) 本體(腳架&馬達)

THUNDER TIGER

Add a drop of threadlocker on the thread of screws when securing into the parts which are made of metal.
螺絲鎖固於金屬製品零件時，請酌沾適量防鬆膠。



Hint
組裝提示

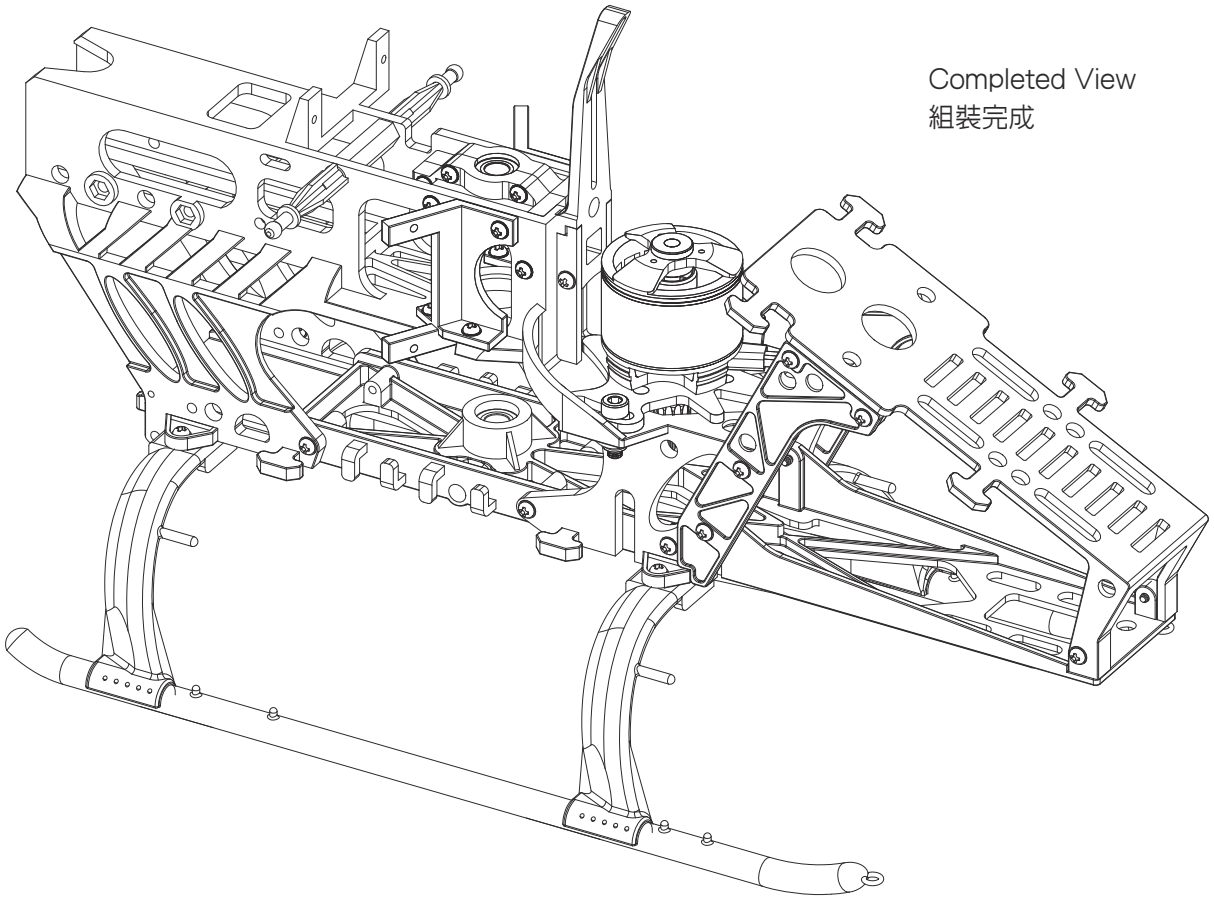
Assemble left and right side the same way
左右側組件相同

Apply threadlocker
使用螺絲防鬆膠

SPARE PARTS LIST 維修零件包表格

THUNDER TIGER

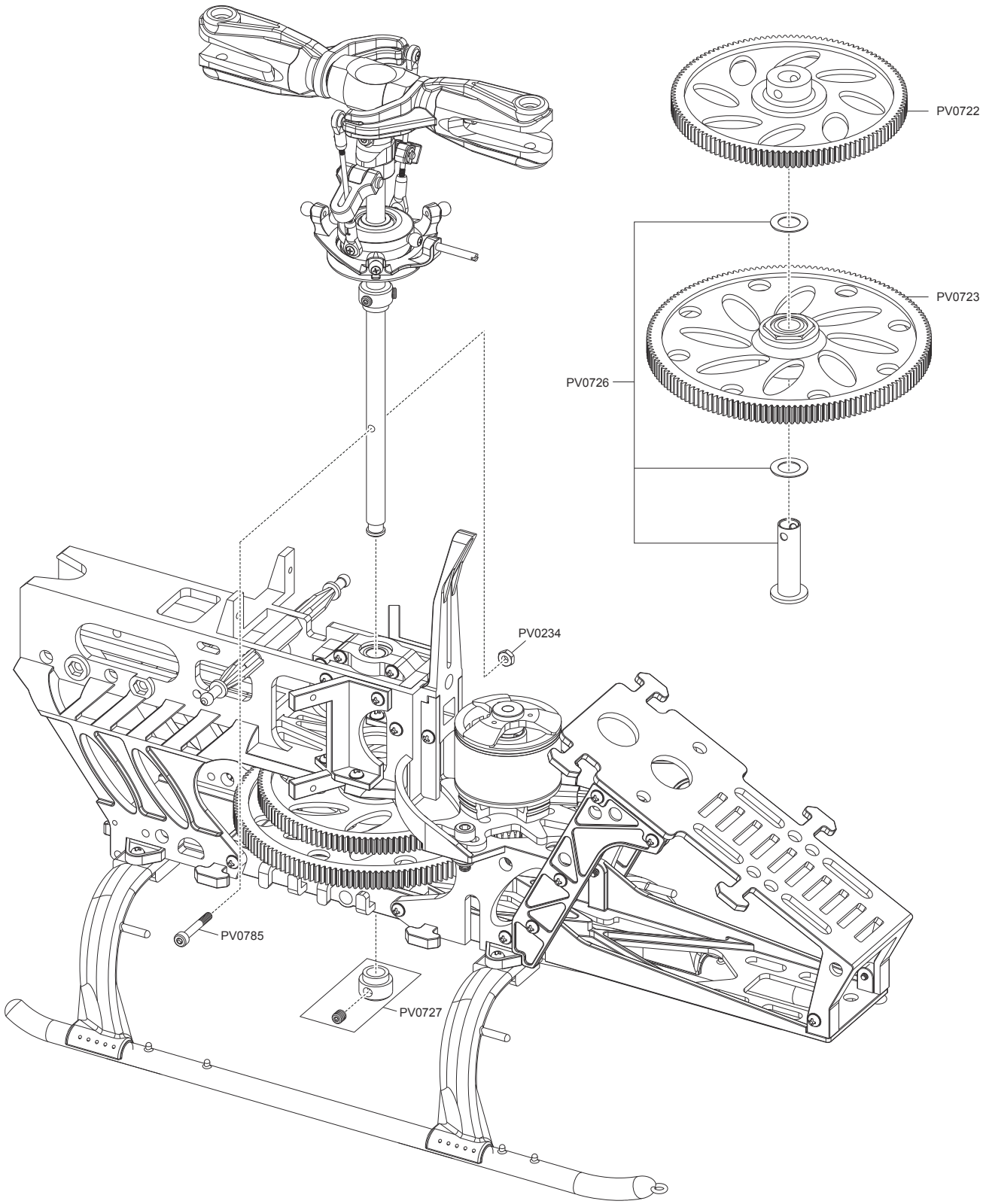
No.	Description	中文名稱	Note
2382	OBL 29/37-10H	無刷馬達	
PV0059	BALL BEARING (d5xD11xW5)	軸承組	BEARING (d5xD11xW5) x 2
PV0714	MAIN FRAME	主機體	TAPPING SCREW (M2x6) x 8
PV0715	BASE PLATE	底座	TAPPING SCREW (M2x6) x 18, TAPPING SCREW (M2x10) x 12
PV0717	UPPER BRG HOUSING	上軸承座組	TAPPING SCREW (M2x10) x 8
PV0718	SERVO TRAY	伺服機座組	TAPPING SCREW (M2x6) x 4, TAPPING SCREW (M2x10) x 2
PV0719	BATTERY TRAY	電池座組	TAPPING SCREW (M2x6) x 8, TAPPING SCREW (M2x10) x 2
PV0720	BODY RETAINING POST	機身固定支柱組	
PV0721	PHASE CONTROL TRACK	相位控制導軌	TAPPING SCREW (M2x6) x 2
PV0728	MOTOR MOUNT	馬達固定座	SOCKET SCREW (M3x5) x 2, SOCKET SCREW (M3x10) x 2 NYLON NUT (M3) x 2
PV0729	PINION 13T	驅動齒輪13T	SET SCREW (M3x3) x 2
PV0903	LANDING SKID (BLACK)	腳架(黑色)	TAPPING SCREW (M2x6) x 4, TAPPING SCREW (M2x10) x 2



Completed View
組裝完成

MAIN GEAR 主齒輪

Add a drop of threadlocker on the thread of screws when securing into the parts which are made of metal.
螺絲鎖固於金屬製品零件時，請酌沾適量防鬆膠。

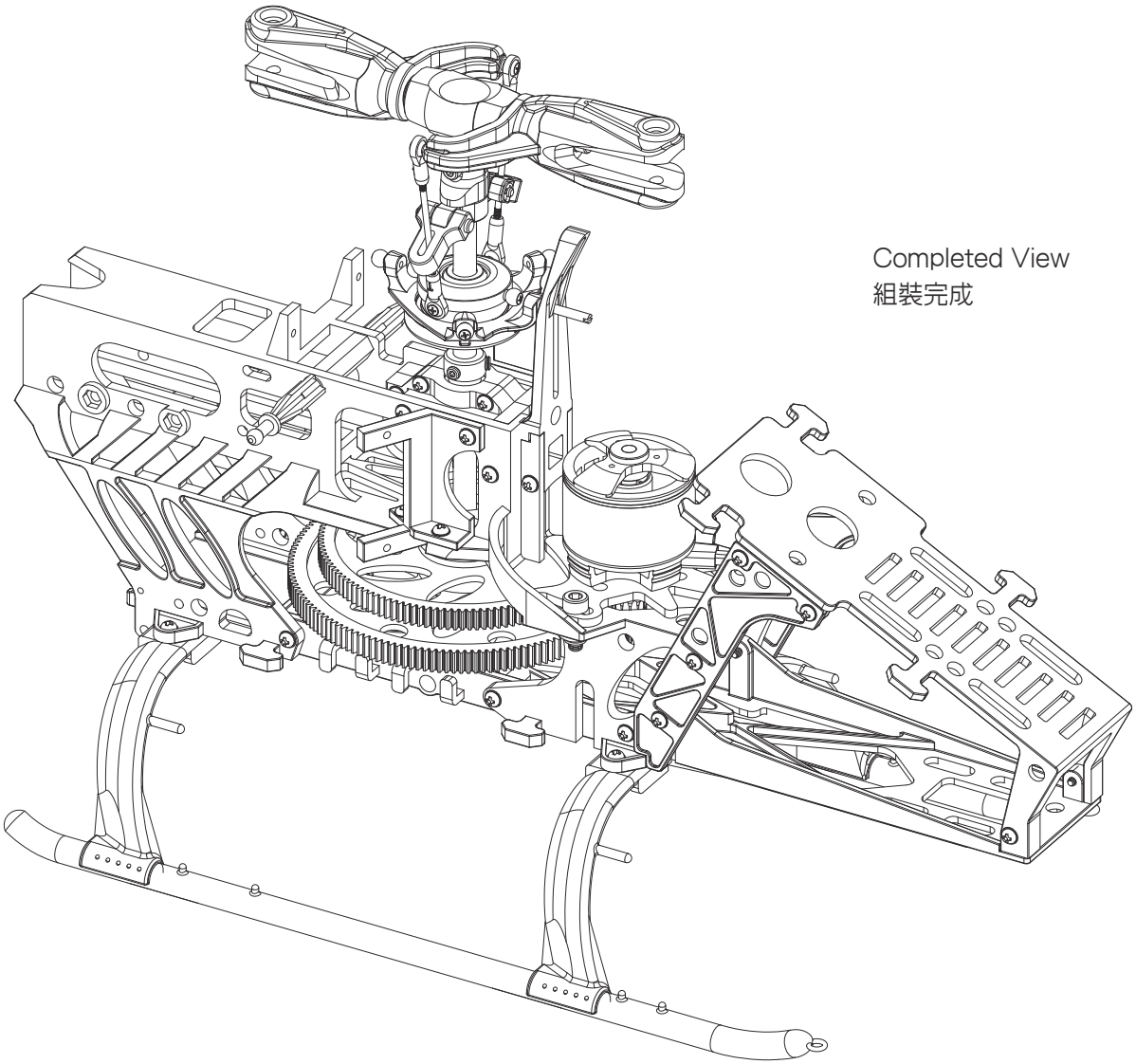


Apply threadlocker
使用螺絲防鬆膠

Ensure smooth, non-binding movement when assembling
確認組件靈活度

Hint
組裝提示

No.	Description	中文名稱	Note
PV0234	NUT	六角螺帽	NUT (M2) x 20
PV0722	TAIL DRIVE GEAR (124T)	尾驅動輪(124T)	
PV0723	MAIN GEAR (150T)	主齒輪(150T)	
PV0726	ONE WAY SHAFT	單向軸套組	WASHER (d3xD10xW0.3) x 2
PV0727	MAIN SHAFT LOCK RING	止擋圈	SET SCREW (M3x3) x 4
PV0785	SOCKET SCREW	半牙內六角螺絲	SOCKET SCREW (M2x14) x 20

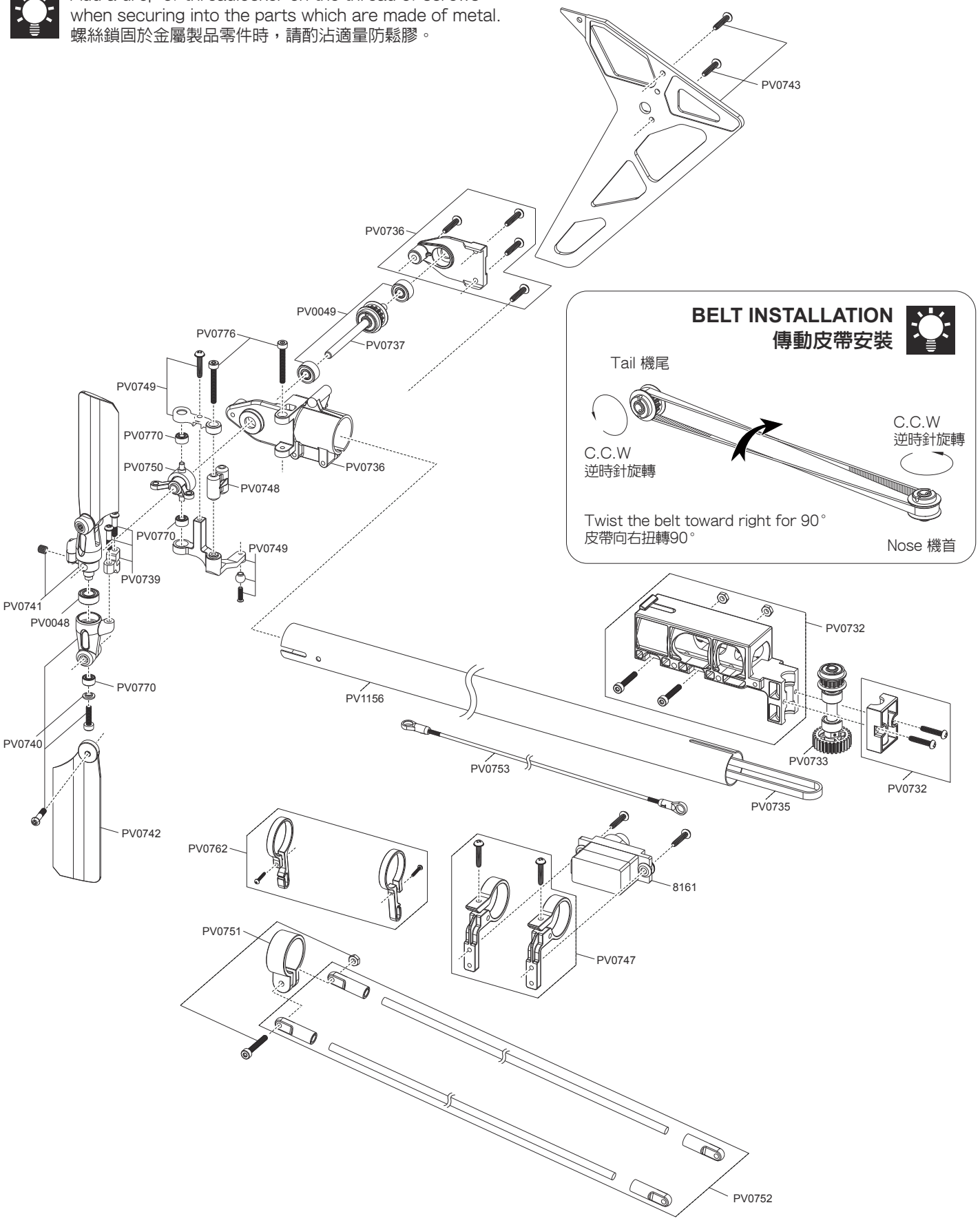


Completed View
組裝完成

TAIL UNIT (RUDDER SERVO) 尾部總成(尾舵伺服機)

THUNDER TIGER

Add a drop of threadlocker on the thread of screws when securing into the parts which are made of metal.
螺絲鎖固於金屬製品零件時，請酌沾適量防鬆膠。



BELT INSTALLATION
傳動皮帶安裝

Tail 機尾

C.C.W
逆時針旋轉

C.C.W
逆時針旋轉

Twist the belt toward right for 90°
皮帶向右扭轉90°

Nose 機首

Assemble left and right side the same way
左右側組件相同

Apply threadlocker
使用螺絲防鬆膠

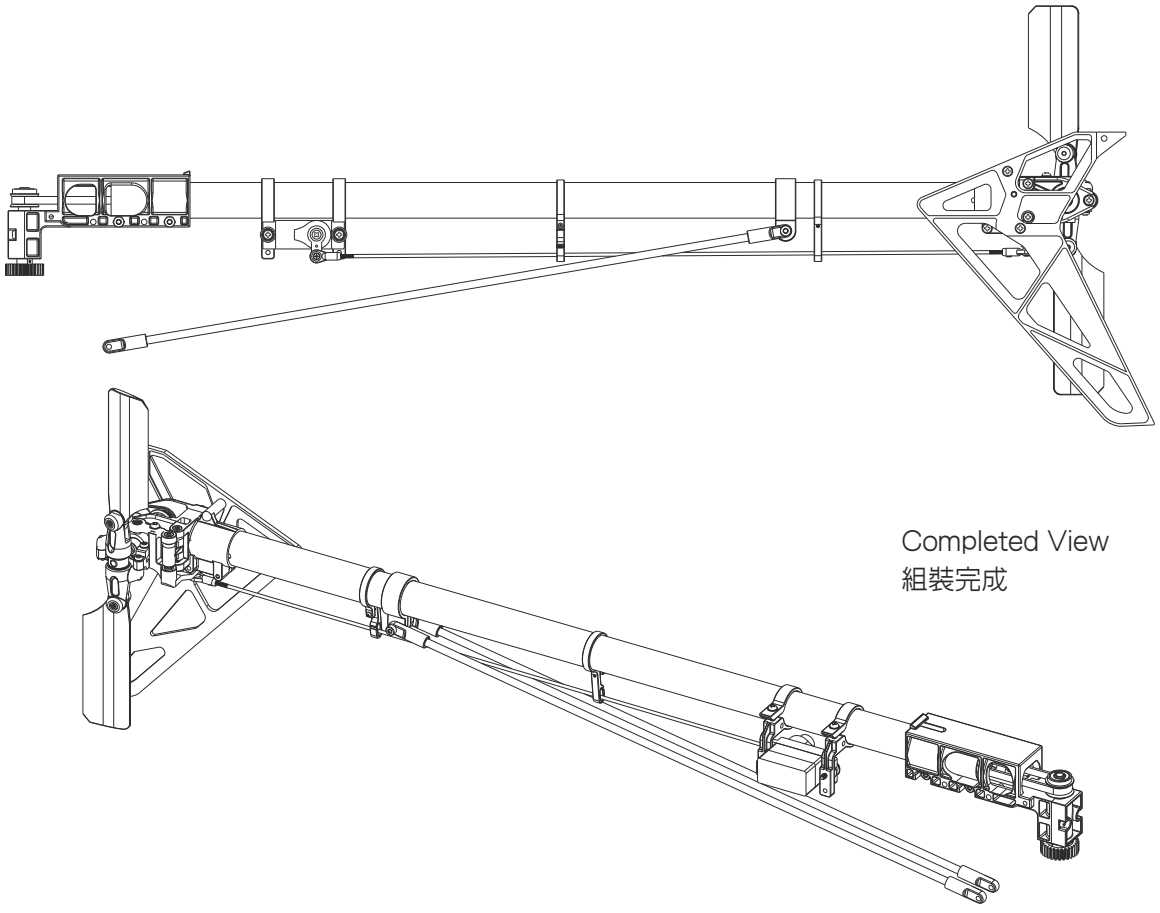
Ensure smooth, non-binding movement when assembling
確認組件靈活度

Hint
組裝提示

SPARE PARTS LIST 維修零件包表格

THUNDER TIGER

No.	Description	中文名稱	Note
8161	MICRO DIGITAL SERVO, DC0915	迷你數位伺服機, DC0915	
PV0048	BALL BEARING (d4xD8xW3)	軸承組	BEARING (d4xD8xW3) x 2
PV0049	BALL BEARING (d3xD8xW4)	軸承組	BEARING (d3xD8xW4) x 2
PV0732	TAIL BOOM BRACKET	尾管固定座	SOCKET SCREW (M2x12) x 2, SOCKET SCREW (M2x25) x 2, NUT (M2) x 4 SELF TAPPING SCREW (M2x10) x 2, TAPPING SCREW (M2x10) x 2
PV0733	TAIL DRIVE GEAR SET	尾驅動齒輪組	
PV0735	TAIL DRIVE BELT MXL-3T (413T)	時規皮帶	
PV0736	TAIL UNIT CASE SET	尾座組	TAPPING SCREW (M2x10) x 6
PV0737	TAIL ROTOR SHAFT	尾旋翼軸組	
PV0739	TAIL PITCH CONTROL LINK	尾旋翼連接頭	SHOULDERED SCREW (M2x10) x 4
PV0740	TAIL ROTOR GRIP	尾旋翼夾座組	SOCKET SCREW (M2x8) x 2, SHOULDERED SCREW (M2x10) x 2
PV0741	TAIL ROTOR HUB	尾旋翼固定座	SET SCREW (M3x3) x 1
PV0742	TAIL ROTOR BLADE	尾旋翼片	
PV0743	TAIL FIN SET	安定面組	TAPPING SCREW (M2x10) x 2
PV0747	TAIL SERVO TRAY	尾伺服機座	TAPPING SCREW (M2x10) x 2
PV0748	DOUBLE JOINT LEVER	雙關結連桿	SOCKET SCREW (M2x16) x 2
PV0749	TAIL PITCH CONTROL LEVER	尾旋翼控制桿	TAPPING SCREW (M2x10) x 1, COUNTERSUNK SCREW (M1.6x6) x 1
PV0750	TAIL PITCH CONTROL SLIDER	尾旋翼控制滑座	
PV0751	TAIL SUPPORT BRACKET	尾支撐桿座	SOCKET SCREW (M2x16) x 1, NUT (M2) x 1
PV0752	TAIL SUPPORT	尾支撐桿組	SOCKET SCREW (M2x16) x 1, NUT (M2) x 1, TAPPING SCREW (M2x10) x 2
PV0753	TAIL LINKAGE ROD	尾拉桿組	270mm x 2
PV0762	TAIL ROD GUIDE	固定環	SELF TAPPING SCREW (M1.2x6) x 2
PV0770	BALL BEARING (d2xD5xW2.5)	軸承組	BEARING (d2xD5xW2.5) x 10
PV0776	SOCKET SCREW	內六角螺絲	SOCKET SCREW (M2x16) x 20
PV1156	TAIL BOOM (356mm)	尾管	

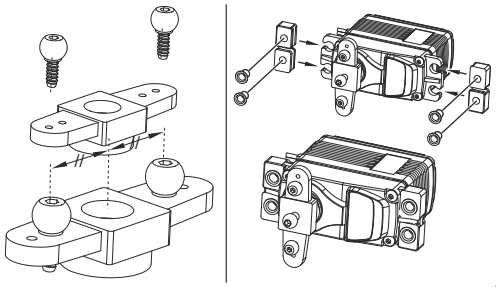


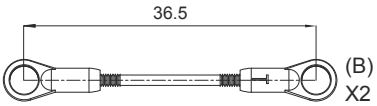
Completed View
組裝完成

TAIL BOOM & CYCLIC SERVO 尾管與舵面伺服機

THUNDER TIGER

The distance from the center of the servo horn to both sides of the linkage balls should be the same.
伺服機擺臂中心至兩邊球頭距離必需相等。





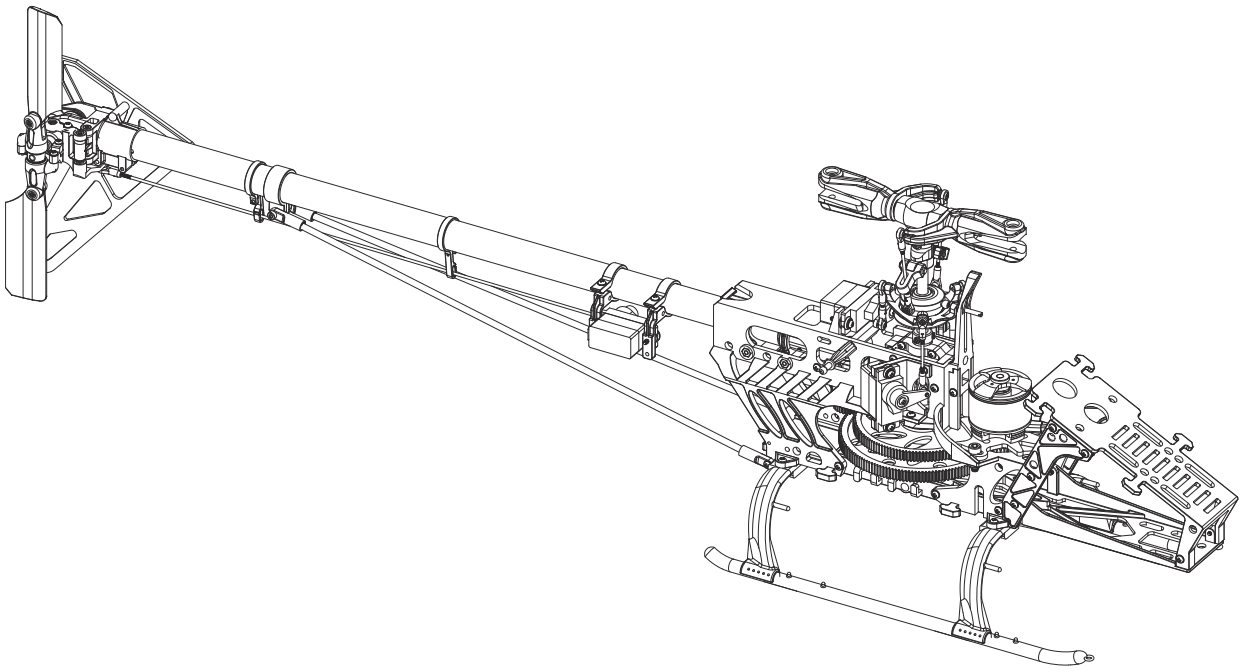
Ensure smooth, non-binding movement when assembling
確認組件靈活度

Hint
組裝提示

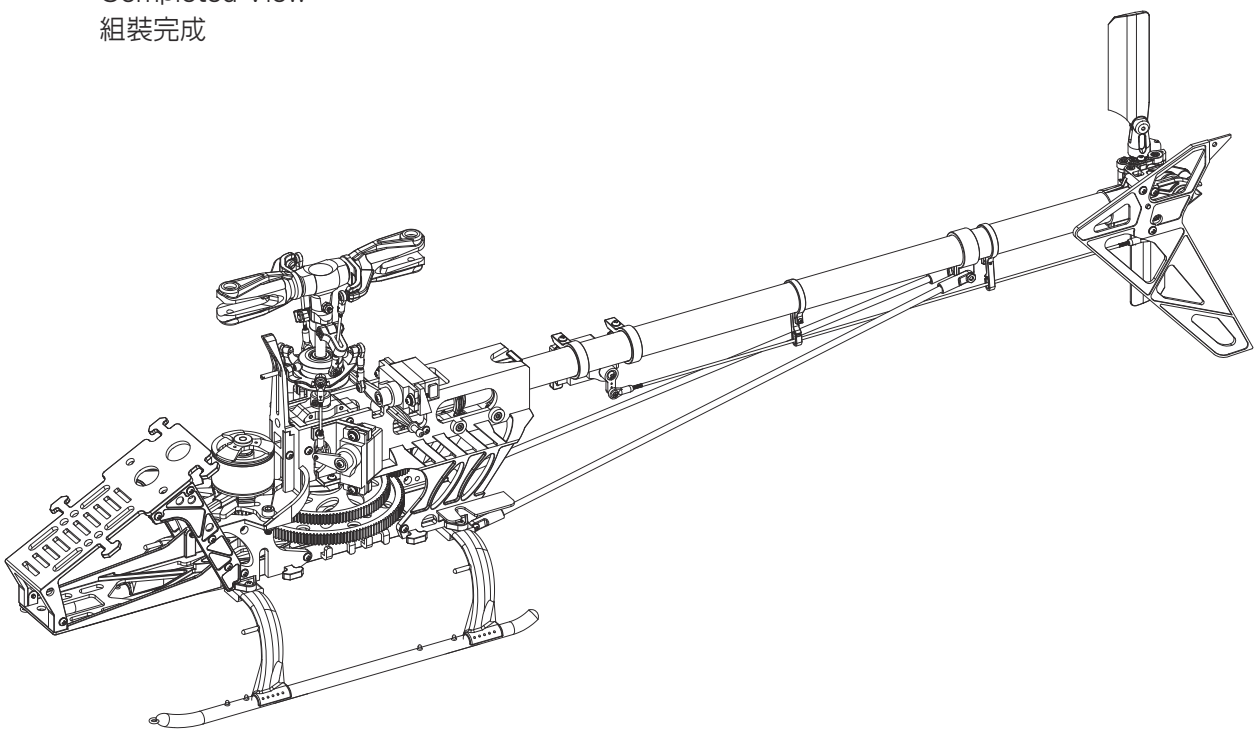
SPARE PARTS LIST 維修零件包表格

THUNDER TIGER

No.	Description	中文名稱	Note
8161	MICRO DIGITAL SERVO, DC0915	迷你數位伺服機, DC0915	
PV0234	NUT	六角螺帽	NUT (M2) x 20
PV0754	LINKAGE ROD	連接桿組	7mm x 3, 24.5mm x 2
PV0755	BALL LINK	單頭連接桿	
PV0773	TAPPING SCREW	墊圈自攻螺絲	TAPPING SCREW (M2x10) x 20
PV0779	SOCKET SCREW	內六角螺絲	SOCKET SCREW (M2x25) x 20

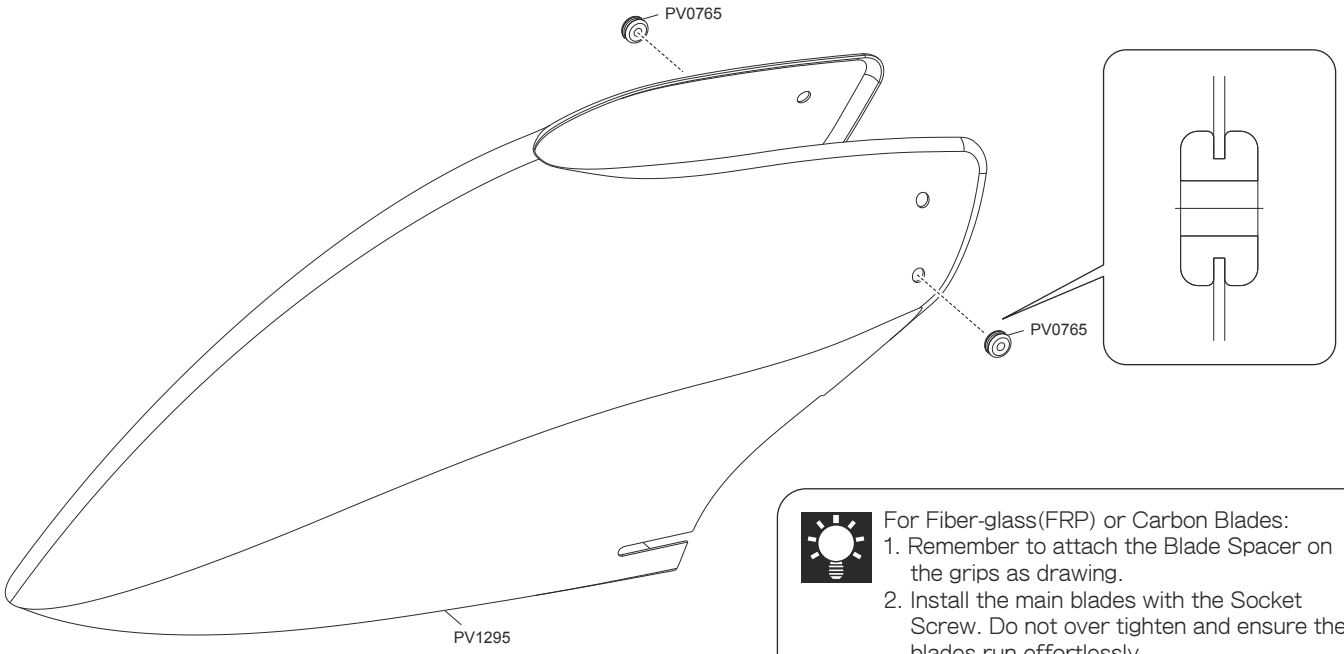


Completed View
組裝完成



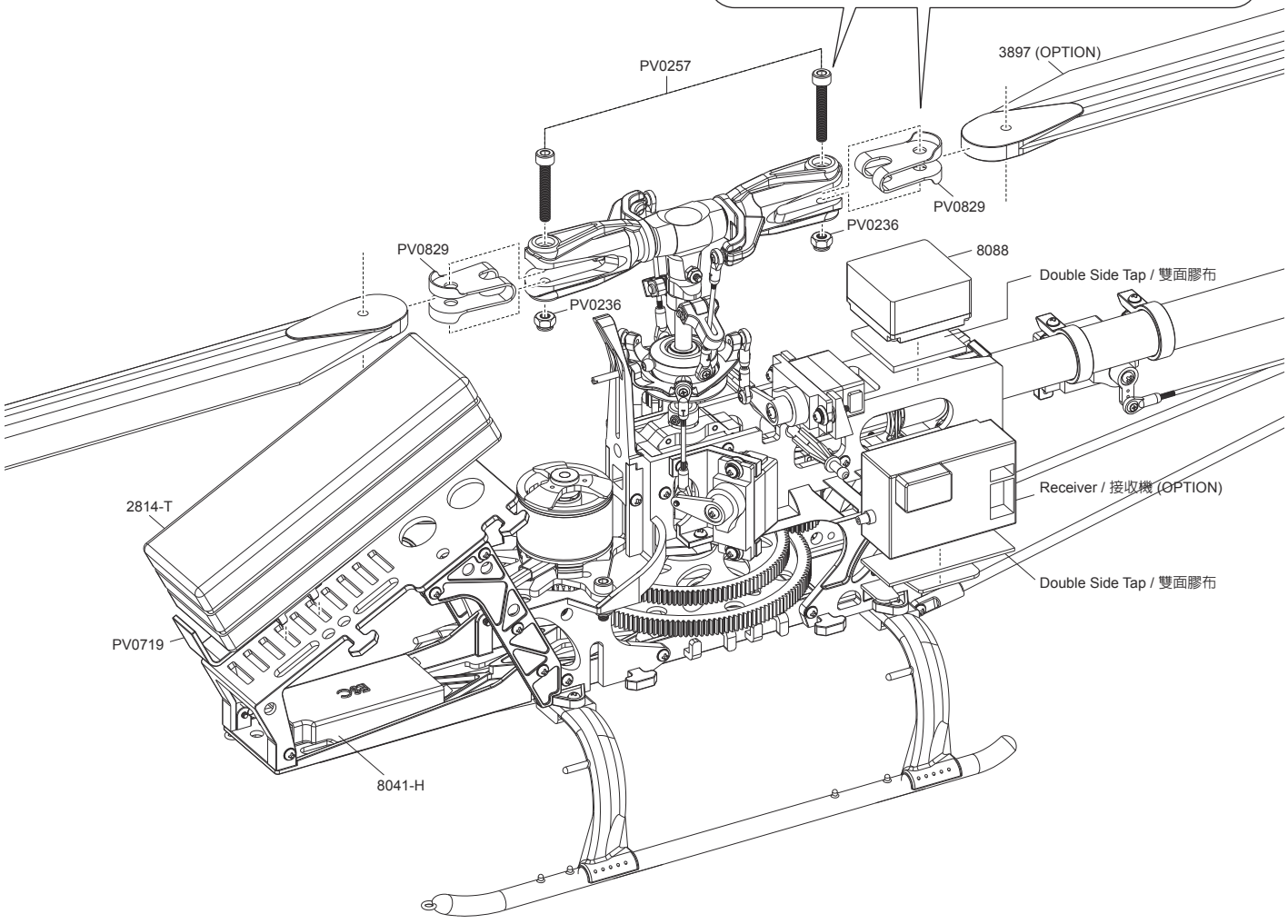
MAIN ROTOR BLADE & CANOPY 主旋翼與機殼罩

THUNDER TIGER



For Fiber-glass(FRP) or Carbon Blades:
1. Remember to attach the Blade Spacer on the grips as drawing.
2. Install the main blades with the Socket Screw. Do not over tighten and ensure the blades run effortlessly.

使用玻纖或碳纖維主旋翼時：
1. 請記得加上主旋翼墊片。
2. 以內六角螺絲安裝主旋翼，請勿過度鎖緊。



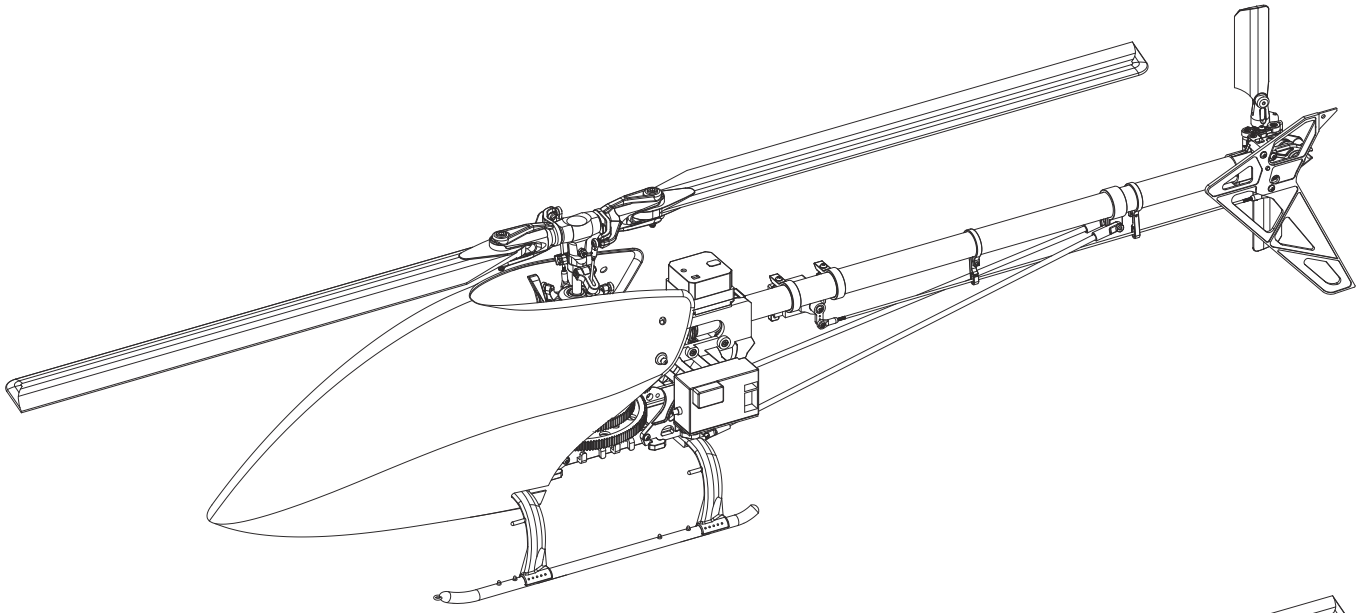
Ensure smooth, non-binding movement when assembling
確認組件靈活度

Hint
組裝提示

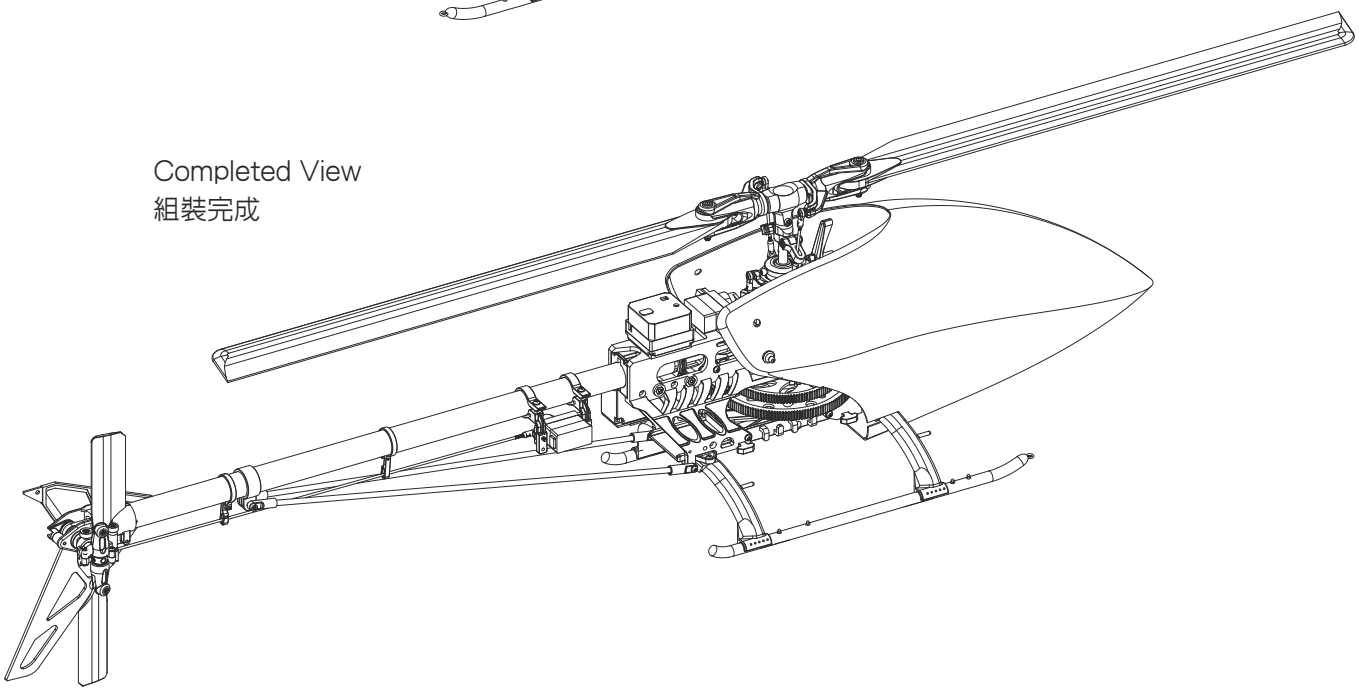
SPARE PARTS LIST 維修零件包表格

THUNDER TIGER

No.	Description	中文名稱	Note
3897	325 CARBON BLADE	325碳纖彩槳	
8088	3 AXIS GYRO, GT5.1	3軸陀螺儀, GT5.1	
2814-T	LIPO BATTERY	鋰電池	11.1V / 2.2Ah / 25C / 3S1P
8041-H	BL MOTOR ESC, BLC-40	無刷速控器, BLC-40	
PV0236	NYLON NUT	止鬆螺帽	NYLON NUT (M3) x 20
PV0257	SOCKET SCREW	內六角螺絲	SOCKET SCREW (M2x20) x 20
PV0719	BATTERY TRAY	電池座組	TAPPING SCREW (M2x6) x 8, TAPPING SCREW (M2x10) x 2
PV0765	BODY MOUNT RUBBER	機身固定墊圈	
PV0829	ROTOR SPACER	主旋翼墊片	
PV1295	PVC CANOPY-V1	PVC機殼(成品-V1版)	

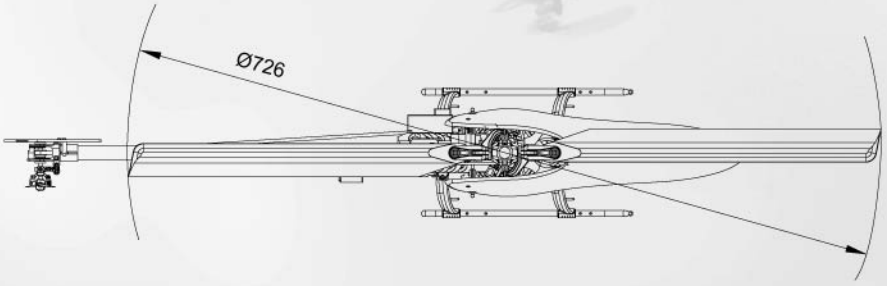


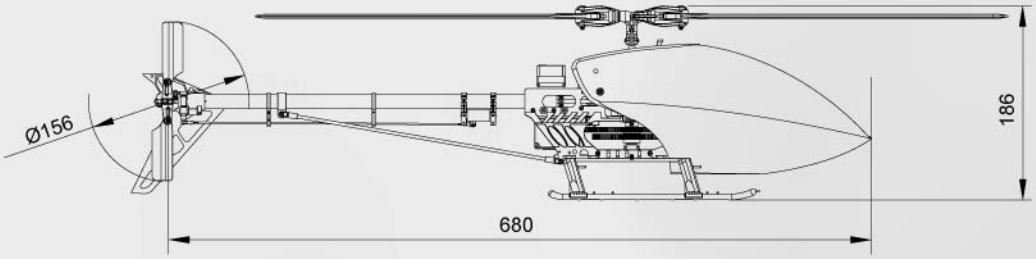
Completed View
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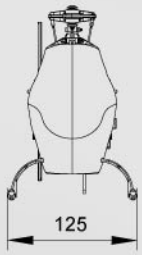


MEMO









SPECIFICATION / 規格表

Product Name / 產品名稱	mini Titan E325 SPORTS
Item No. / 產品料號	4710-A23 / A24
Rotor Head / 主旋翼頭型式	Flybarless
Length / 總長	680 mm / 26.77"
Width / 總寬	125 mm / 4.92"
Height / 總高	186 mm / 7.32"
Fully Equip. Weight / 全配重量	750 g / 26.5 oz
Main Rotor Diameter / 主旋翼迴轉直徑	726 mm / 28.58"
Tail Rotor Diameter / 尾旋翼迴轉直徑	156 mm / 6.14"
Main Rotor Length / 主旋翼長度	325 mm / 12.79"
Tail Rotor Length / 尾旋翼長度	59 mm / 2.32"
Gear Ratio(E:M:T) / 齒輪傳動比(E:M:T)	1:11.5:4.4



FEATURES / 特色

1. 95% assembly and pre-setting at Factory
2. Includes GT5.1 3-axis gyro and fine-adjustment at Factory
3. New DC series digital micro servos
4. Newly designed mold injection flybarless main grips
5. Newly designed PVC canopy with nice painting
6. Advance GT5.1 3-axis gyro, features build-in DSMX/DSM2Rx function (external satellite needed), and supports to Futaba S-Bus and regular receivers
7. ACE RC 3500 KV brushless motor and BLC-40 40A ESC
8. High performance 325 mm carbon main blades

1. 95%原廠組裝及設定完成機
2. 內附原廠調校完成GT5.1三軸陀螺儀
3. 內附DC系列迷你數位伺服機
4. 全新設計無平衡翼主旋翼轉座
5. 全新設計高彩度彩繪機殼
6. 先進的GT5.1三軸陀螺儀，內建DSMX/DSM2接收機解碼功能（需加裝接收機天線），並可又援Futaba S-Bus及一般接收機
7. 內附ACE RC 3,500 KV無刷外轉馬達及40A速控器
8. 內附高性能碳纖維 325 mm 主旋翼

THUNDER TIGER

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