Super Combo

M424 QUADCOPTER V2

ALIGN

INSTRUCTION MANUAL

使用說明書

RM42401AT

RTF
READY TO FLY

2.4G
AFHDS

Contents

OPTION EQUIPMENT
另購品

Thank you for buying ALIGN products. The M424 V2 is the latest technology in Rotary RC models. Please read this manual carefully before assembling and flying the new M424 V2 Quadcopter. 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。

1.INTRODUCTION 前言

Thank you for buying ALIGN Products. The M424 V2 Quadcopter is designed as an easy to use, full featured M424 V2 Quadcopter 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 M424 V2 is a new product developed by ALIGN. It features the best design available on the R/C aircraft market to date, providing flying stability for beginners, full aerobatic capability for advanced fliers, and unsurpassed reliability for customer support.

感謝您選購亞拓產品，為了讓您容易方便的使用 **M424 V2** 四軸飛行器、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四軸飛行器，同時請您妥善的保存這本說明書、作為日後進行調整以及維修的參考。**M424 V2** 四軸飛行器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。 **M424 V2** 四軸飛行器將是您最佳的選擇。

WARNING LABEL LEGEND 標誌代表涵義

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

IMPORTANT NOTES 重要聲明

R/C aircraft , including the M424 V2 Quadcopter are not toys. M424 V2 Quadcopter 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. This product is intended for use only by adults with experience flying remote control helicopters at a legal flying field. After the sale of this product we cannot maintain any control over its operation or usage.

As the user of this product, you are solely responsible for operating it in a manner that does not endanger yourself and others or result in damage to the product or the property of others.

M424 V2四軸飛行器並非玩具，它是結合了許多高科技產品所設計出來的休閒用品，所以商品的使用不當或不熟悉都可能會造成嚴重傷害甚至死亡，使用之前請務必詳讀本說明書，勿輕忽並注意自身安全。注意！任何遙控模型的使用，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經驗的成人或有相當技術的人員在旁指導於當地合法遙控飛行場飛行，以確保安全無虞下操作使用，產品售出後本公司將不負任何操作和使用控制上的任何性能與安全責任。

作為本產品的使用者，您，是唯一對於您自己操作的環境及行為負全部的責任之人。

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 M424 V2 Quadcopter equires 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. As Align Corporation Limited has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.

模型商品屬於需高操作技術且為消耗性之商品，如經拆裝使用後，會造成不等情況零件損耗，任何使用情況所造成商品不良或不滿意，將無法於保固條件內更換新品或退貨，如遇有使用操作維修問題，本公司全省分公司或代理商將提供技術指導、特價零件供應服務。對使用者的不當使用、設定、組裝、修改、或操作不良所造成的破損或傷害，本公司無法控制及負責。任何使用、設定、組裝、修改、或操作不良所造成的破損、意外或傷害，使用者應承擔全部責任。

2.SAFETY NOTES 安全注意事項

CAUTION 注 意

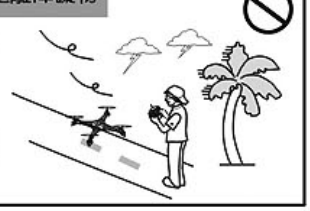
- **Fly only in safe areas, away from other people. Do not operate R/C aircraft within the vicinity of homes or crowds of people. R/C aircraft are prone to accidents, failures, and crashes due to a variety of reasons including, lack of maintenance, pilot error, and radio interference. Pilots are responsible for their actions and damage or injury occurring during the operation or as of a result of R/C aircraft models.**
- **Prior to every flight, carefully check rotorhead spindle shaft screws and tail blade grip screws, linkage balls and screws, ensure they are firmly secured.**
- 遙控模型直昇機、飛機、多軸飛行器屬高危險性商品，飛行時務必遠離人群，人為組裝不當或機件損壞、電子控制設備不良，以及操控上的不熟悉、都有可能導致飛行失控損傷等不可預期的意外，請飛行者務必注意飛行安全，並需了解自負疏忽所造成任何意外之責任。
- 每趟飛行前須仔細檢查，主旋翼夾座橫軸螺絲、尾旋翼夾座螺絲，以及機身各部位球頭、螺絲，確實上膠鎖緊才能昇空飛行。

FORBIDDEN 禁 止

LOCATE AN APPROPRIATE LOCATION 室內或無風環境專用機，請遠離障礙物

This product is for indoor use and only fly at th place without wind. Before flying, choose a legal flying field consisting of flat, smooth ground without obstacles, pets, and crowds.
To ensure the safety of yourself, others and properties, do not fly in the vicinity of heat, high voltage wires, or power sources to avoid accidental fires and electrical shocks.

本產品為適合室內、無風環境飛行的四軸飛行器，飛行時請妥善選擇無障礙物的室內場地，並與人群或寵物等保持適當距離，切勿於不安全的環境下操作，如熱源、電線、電源等等，以免碰撞、迫降、糾纏而引發火災、電擊等危險，造成生命財產損失。



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 melfunction, or a crash. Do not operate or expose To rain or moisture.

遙控四軸飛行器內部也是由許多精密的電子零組件組成，所以必須絕對的防止潮濕或水氣，避免在浴室或雨天時使用，防止水氣進入機身內部而導致機件及電子零件故障而引發不可預期的意外！

PROPER OPERATION 勿不當使用本產品

To avoid potential fire hazard from batteries, please do not short, reverse polarity, or puncture batteries. Battery charging must be done under supervision at all times, and at location out of reach by children. Double check the four AA batteries are rechargeable Ni-CD/Ni-MH batteries before charging. The manufacturer of this product will not be liable for accidental damages incurred by charging non-rechargeable batteries.

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

SAFETY NOTE FOR NI-MH BATTERIES 鎳氫電池使用安全

Make sure the batteries are installed based on polarity indicated in the case and do not mix batteries of different chemistry/spec. If the product is not used for long period of time, please remove the batteries to prevent damaged caused by battery leaks. Do not use batteries which exhibits symptoms of leaks. Please dispose depleted batteries according to local laws and ordinances. Do not dispose improperly.

The transmitter has built in charger for its AA batteries. Please make sure you are using rechargeable Ni-mh batteries before charging begins. Manufacturer and dealer assume no liability for accidental damages caused by charging of non-rechargeable batteries.

安裝時請確認正負極位置，新舊電池請勿同時混用以免影響電池壽命。產品長時間不使用時，請取出電池，以免造成電池電力流失或電池漏液而損壞主機。若電池已經有漏液情況，請勿再繼續使用。廢棄的電池，請依照該使用國家或地區的廢棄物清理法令回收，切勿任意丟棄以免污染環境。

本產品之遙控器具有 3號(AA) 電池充電功能，請確認遙控器上的4顆3號(AA)電池皆為可重複充電的鎳氫電池，才可對遙控器電池進行充電。使用非充電電池所造成的任何損壞與意外，本公司不負任何損害賠償責任。

SAFETY NOTE ON LI-POLYMER BATTERIES 鋰聚電池使用安全

Li-Polymer batteries poses higher operational risks compared to other battery chemistry, thus it is imperative to follow its usage instructions. Manufacturer and dealer assume no liability for accidental damages caused by improper usage.

- **Do not use charger other than the factory supplied unit to avoid potential fire and explosion.**
- **Do not crush, disassemble, burn, and reverse polarity. Avoid metallic materials to come into contact with battery's polarity and cause it short and never puncture batteries to avoid fire hazards.**
- **Battery charging must be done under supervision at all times, and at location out of reach by children.**
- **Please stop the use or charge of the battery should there be an unusual increase in battery temperature after use. Continue use of this battery may cause it to expand, deform, explode, or even result in fire hazards.**
- **Please dispose depleted batteries according to local laws and ordinances. Do not dispose improperly.**

鋰聚電池較其他電池有更高的危險性，使用前請務必詳讀並遵照下列注意事項使用本電池，本公司將不對任何不當使用所造成的損害負責。

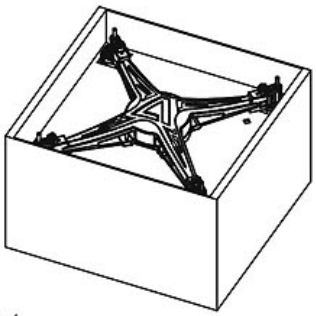
- 嚴禁使用原廠以外的充電器進行充電，以免發生爆炸起火的危險。
- 嚴禁撞擊、拆解、正負極反接、焚燒電池，避免金屬物品碰觸電池正負極造成短路。並請防止尖銳的物品刺穿電池，以避免電池起火的危險。
- 充電時請謹慎小心，確保在您的視線範圍內進行充電。並遠離幼童可以接觸到的地方，以免發生危險。
- 電池使用後如有發熱情況，嚴禁充電。否則會造成電池膨脹、變型、爆炸甚至起火燃燒，危害生命財產的安全。
- 廢棄的電池，請嚴格依照該使用國家或地區的廢棄物清理法令回收，以免污染環境。

KEEP AWAY FROM HEAT 遠離熱源

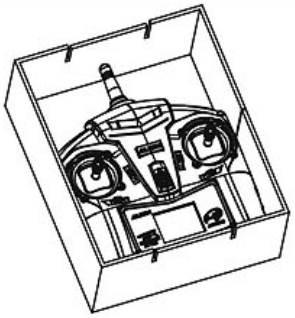
R/C models are made of various forms of plastic. Plasticisverysusceptibletodamageor deformation due to extreme heat and cold climate. Make sure not to store the model near any source of heat such as an oven,orheater. It is best to store the mode lindoors, in a climate-controlled,room temperature environment.

遙控四軸飛行器多半是以 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。

3.PACKAGE ILLUSTRATION 包裝說明



Quadcopter set
機身組



Transmitter
遙控器

4.STANDARD EQUIPMENT 標準配件

M424 V2 Quadcopter
M424 V2 四軸飛行器

Rotor blade x 4
旋翼 x 4

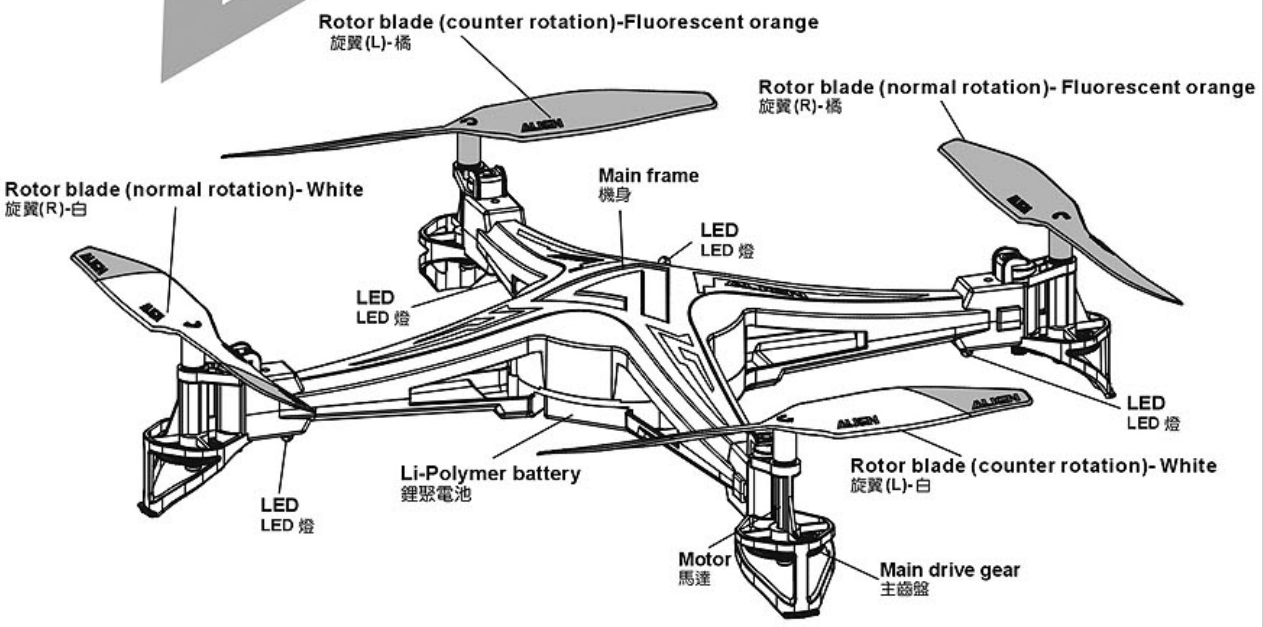
AT100 Transmitter
AT100遙控器

Ni-MH chargeable battery
(AA size) x 4
鎳氫充電電池AA(3號) x 4

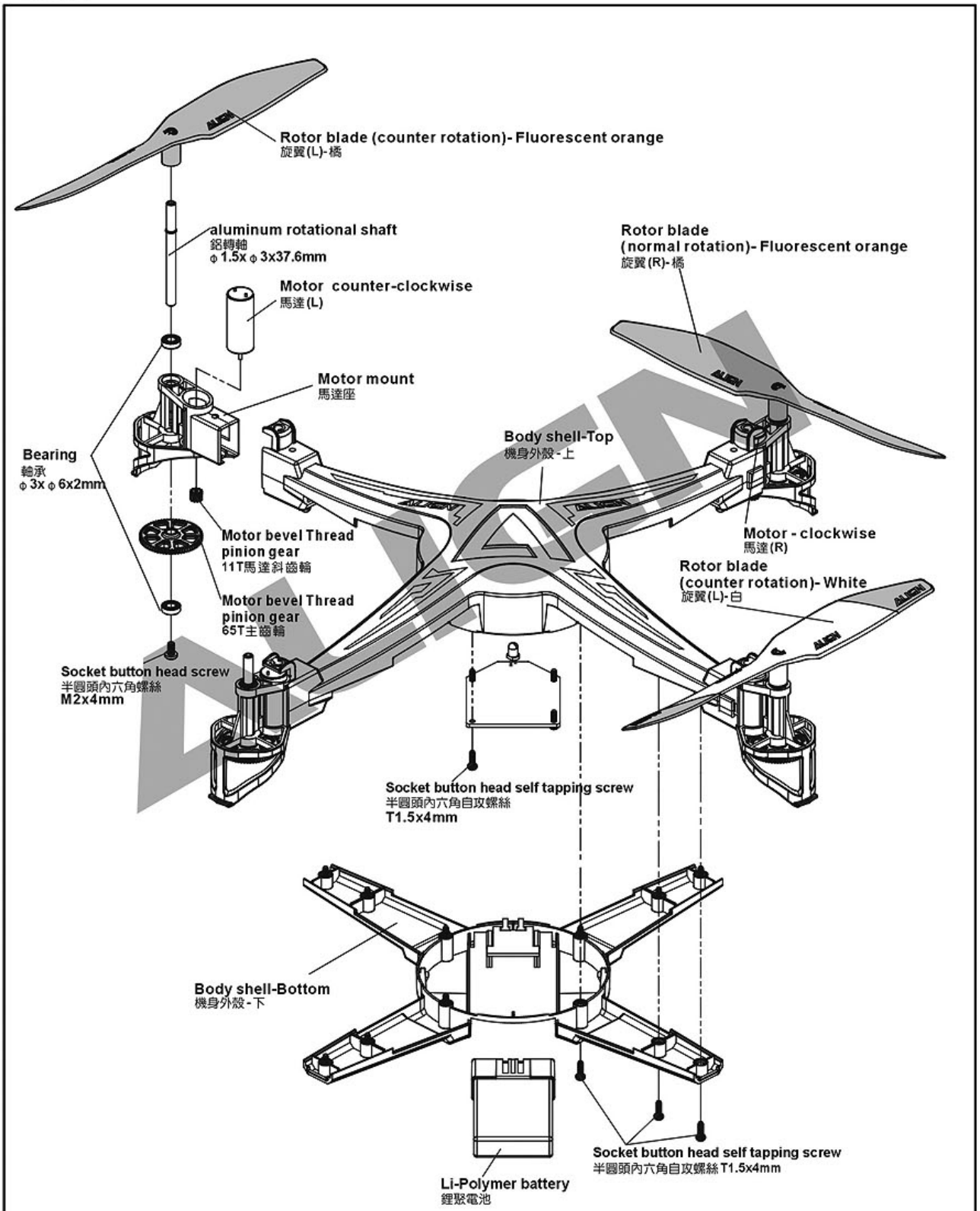
CH240 Li-Po charger x 1
USB cable x 1
CH 240 Li-Po充電器
USB連接線

Li-Polymer battery x 1
鋰聚電池 x 1
3.7V 530mAh/20C

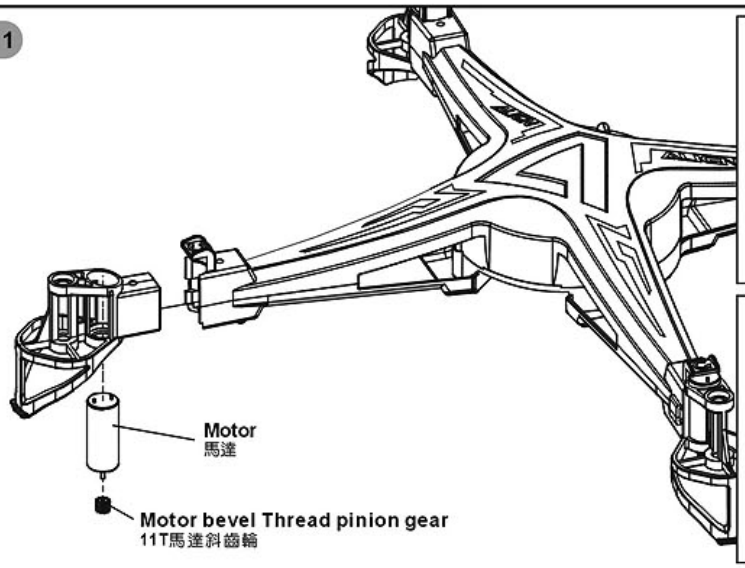
5.QUADCOPTER NOMENCLATURE 四軸飛行器各部位名稱

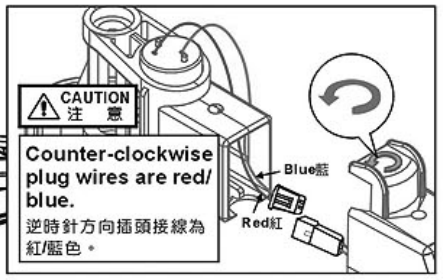


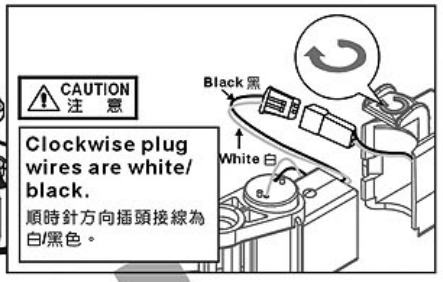
More parts information and specification please refer to Parts Quick Finder at Align Cart.
http://shop.align.com.tw/partfinder.php
更多相關零件、規格，請參閱 ALIGN Cart。



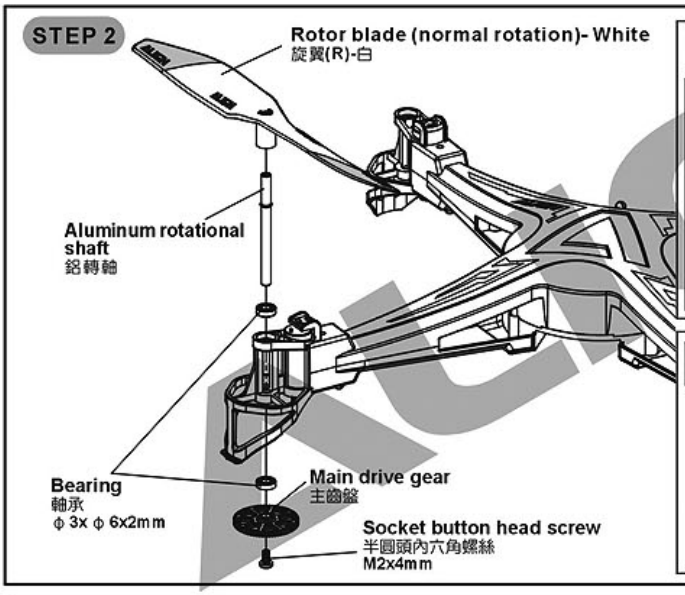
STEP 1

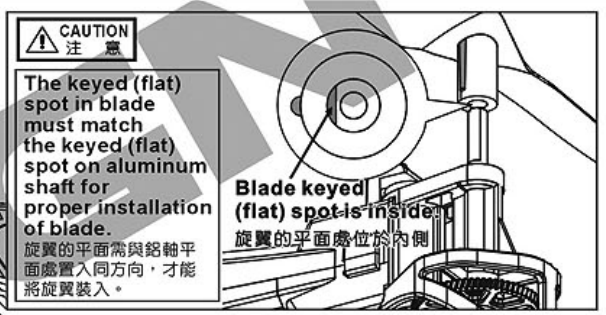




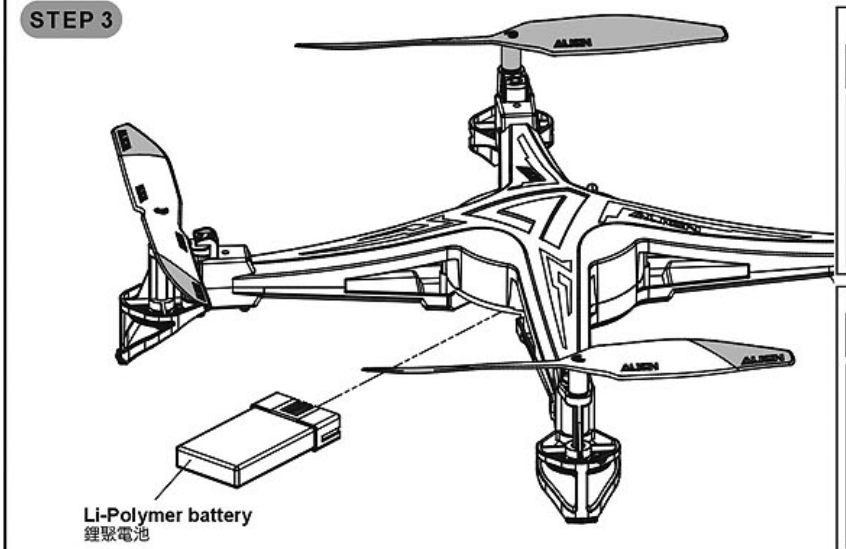


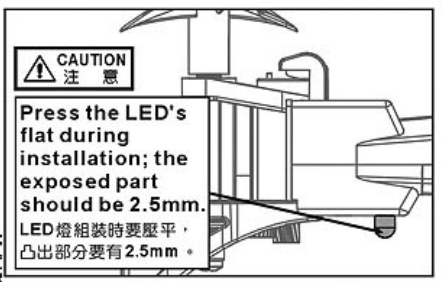
STEP 2

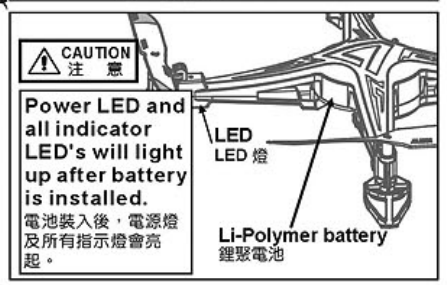




STEP 3

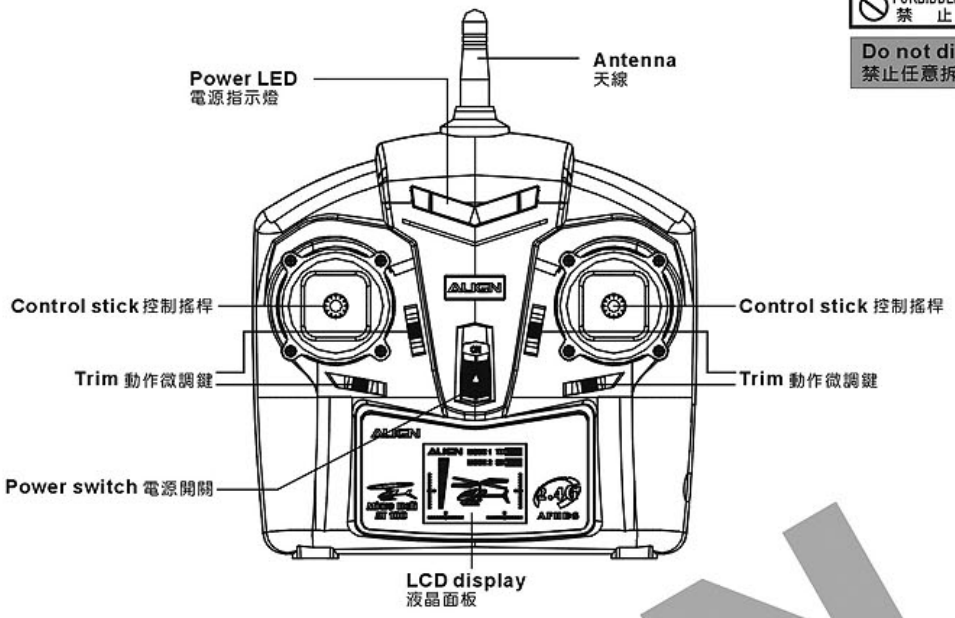


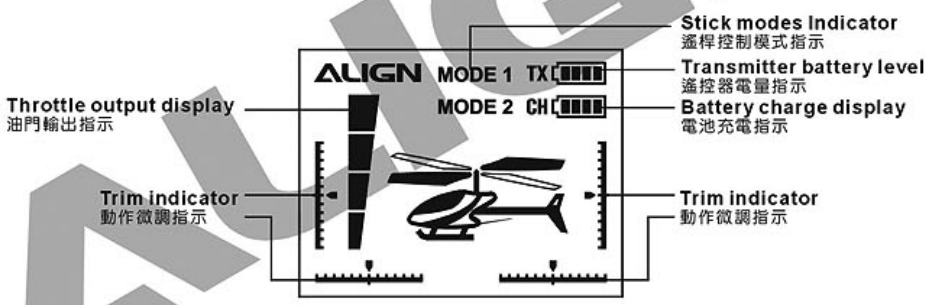


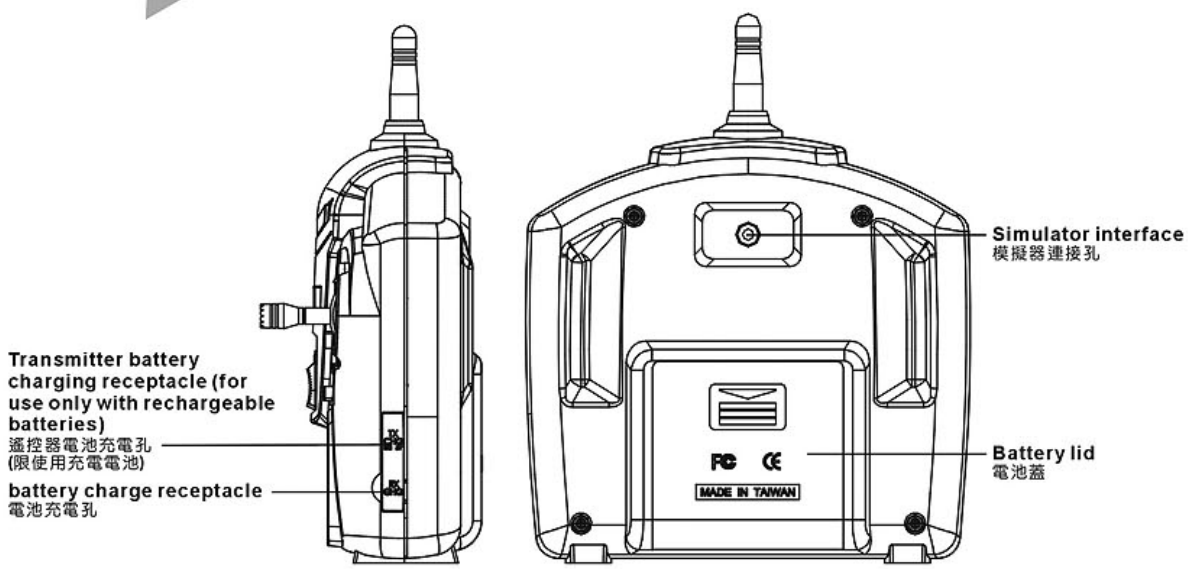


FORBIDDEN 禁 止

Do not disassemble
禁止任意拆解

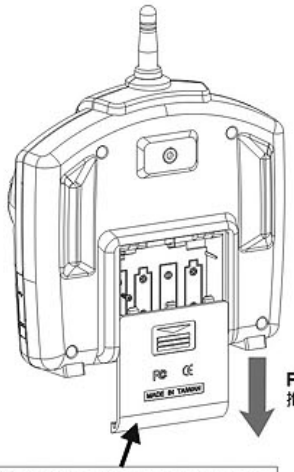






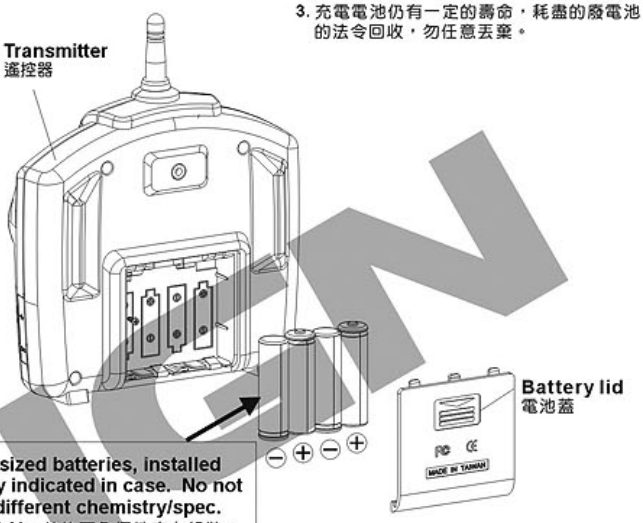
9.TRANSMITTER BATTERY INSTALLATION 遙控器電池安裝

STEP 1



Slide the battery lid to open by following the arrow.
請依箭頭方向先將電池蓋打開。

STEP 2



Please use 4 AA sized batteries, installed based on polarity indicated in case. No not mix batteries of different chemistry/spec.
請使用4顆3號電池(AA)，並依正負極性方向組裝。
(勿混用不同規格電池)

FORBIDDEN 禁止

Do not disassemble
禁止任意拆解

CAUTION 注意

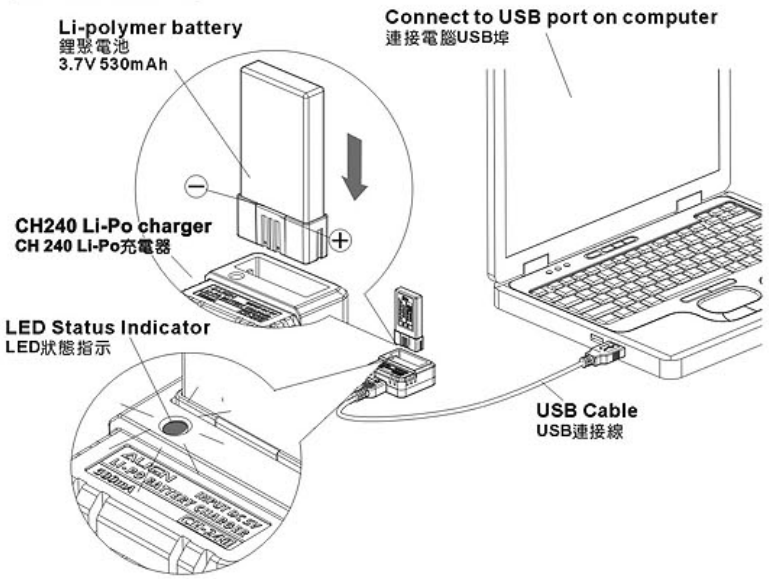
1. The included AA batteries are rechargeable Ni-MH batteries, capable of multiple recharge cycles.
2. When the transmitter batteries are depleted, LCD display will show TX, and transmitter will emit warning tone. Please charge the batteries at this time.
3. Rechargeable batteries have a certain lifespan. Once these batteries reached the end of their life, please dispose them properly according to local law and ordinances.

1. 附贈的3號電池為線氫電池，可重複充電使用。
2. 當電池電量不足時，液晶螢幕顯示TX且遙控器會一直鳴叫警示，此時請進行電池的充電。
3. 充電電池仍有一定的壽命，耗盡的廢電池，請依當地的法令回收，勿任意丟棄。

10.CHARGING BATTERIES 電池的充電

USING THE CH240 LIPO BATTERY CHARGER TO CHARGE QUADCOPTER BATTERY
使用CH240 Li-Po充電器充四軸飛行器電池

METHOD 1 方式一



CH240 provides two independent charging receptacles to enable charge of Li-Po batteries individually or concurrently. The charger can be powered via two power source; either connecting to the USB port on a computer, or connecting to a third party USB power supply from a cell phone.

CH240提供2組獨立的充電插槽，可同時或個別進行鋰聚電池的充電，充電器的電源供應有2種方式，一種為透過USB線由電腦USB埠供應電源，另一種為使用一般市售的USB埠手機旅充供電。

WARNING 警告

For safety concerns, battery charging must be done under supervision at all times.
為確保安全，充電時務必在視線範圍內進行。

Avoid shortening the metal contacts in charger receptacles, as it may lead to internal damage of charger.
勿使金屬物品碰觸到充電器內的電極彈片，以免造成充電器的損壞。

LED INDICATOR LED表示

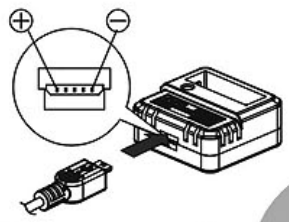
Green 綠燈	Red 紅燈
Idle and Charge Completion 待機狀態與充電完成	Charging 充電中

CHARGER SPECIFICATIONS CH240充電器規格

Input 輸入	Charging Current 充電電流	Full Voltage 充飽電壓
DC 5V 1A	530mA x1 sets 組	4.2±0.03V

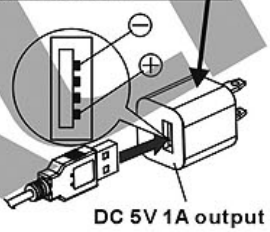
METHOD 2 方式二

Polarity of Mini USB of the charger
充電器Mini USB的極性

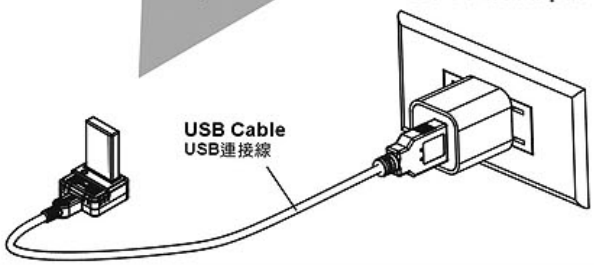


Polarity of the USB power supply
USB電源供應器的極性

Self provided USB power supply
請自備USB埠的電源供應器



DC 5V 1A output



USB Cable
USB連接線

CAUTION 注 意

Specification of the USB power supply:
Output voltage DV 5V, Output current 1A or higher.
關於電源供應器的規格需求：電壓輸出DC5V電流輸出1A以上。

Examples of suitable power supply include:
iPhone, travel charger for HTC phones, or commonly available USB power supply for cell phones, MP3 players, or PDA.
可使用的電源供應器例如：iPhone、HTC的手機旅充、或一般市售提供給手機、MP3、PDA等產品用的電源供應器。

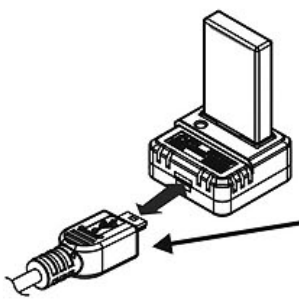
Option equipment
另購品

iPhone

HTC
Model 型號
TC U250

Commonly available products
一般市售品
(DC 5V 1A output)

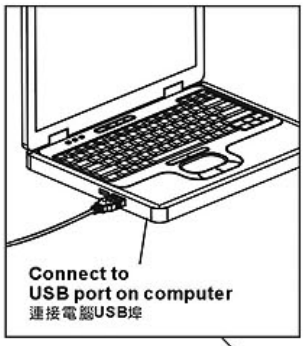
BATTERY DETECTION FUNCTION 電池的偵測功能



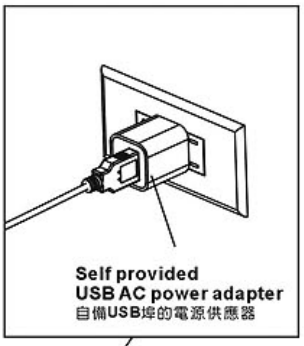
After battery is inserted into receptacle, the charger can be forced to re-detect the battery's voltage by pulling /re-inserting the USB plug, allowing the battery to be re-peaked.
電池插入後，重新插拔USB插頭，可使充電器重新偵測電池電壓，並將電池補充至完全充飽的狀態。

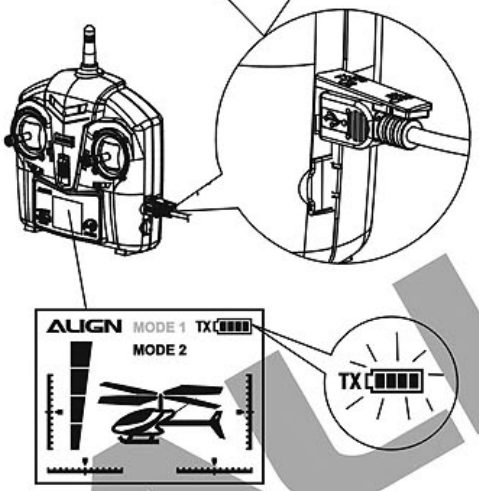
CHARGING METHOD FOR TRANSMITTER'S NI-MH BATTERIES 遙控器鎳氫電池的充電方式

METHOD 1 方式一



METHOD 2 方式二





AT100 transmitter is capable of charging its internal AA Ni-MH batteries. Please ensure the AA batteries in the transmitter are rechargeable before attempting to charge.

After connecting the transmitter as shown in diagram, power up transmitter, TX will be flashing on the display indicating charging is in progress. Once charging is complete, the TX battery indicator will stop flashing and display 4 bars.

In order to reduce power consumption, charging process can be done with transmitter powered off. To check for charging status display, the transmitter can be powered back on.

AT100遙控器提供3號鎳氫電池充電功能，充電前請務必再確認遙控器內的3號(AA)電池為可重複充電的電池。

依圖示的方式連接後，開啟遙控器電源，螢幕上會顯示TX的圖示，以閃爍方式表示正在充電中，當電池容量顯示4格且停止閃爍時，表示已充飽電。

可在電源開關閒閒減少耗電的狀態下進行充電，若要確認電池是否充飽時，可開啟電源檢視螢幕的電量指示。

11.BATTERY AND CHARGER SPECIFICATION 電池與充電器相關規格

BATTERY USAGE AND CHARGE DURATION REFERENCE 電池使用時間與充電時間參考表

Battery type 電池種類	Battery Specification 電池規格	Usage Duration 可使用時間		Charge Time 充電所需時間
Li-Po battery 鋰聚電池	3.7 V 530mAh	Quadcopter Flight Time 四軸飛行器飛行時間	Approx. 7 Minutes 約7分鐘	Approx. 50 Minutes (Charging current approx. 0.5A) 約50分鐘(充電電流約0.5A)
Carbon-Zinc (Non Rechargeable) 碳鋅電池(不可充電)	1.5 V (GP 15G R6P)	Transmitter Operation Time 供遙控器開機時間	18 Hours 18小時	Non Rechargeable 不可充電
Ni-MH chargeable battery 鎳氫充電電池	1.2 V 1600mAh	Transmitter Operation Time 供遙控器開機時間	53 Hours 53小時	Charged through transmitter, approx. 7 hours (Charging current approx. 0.3A) 以遙控器充電約7小時 (充電電流約0.3A)

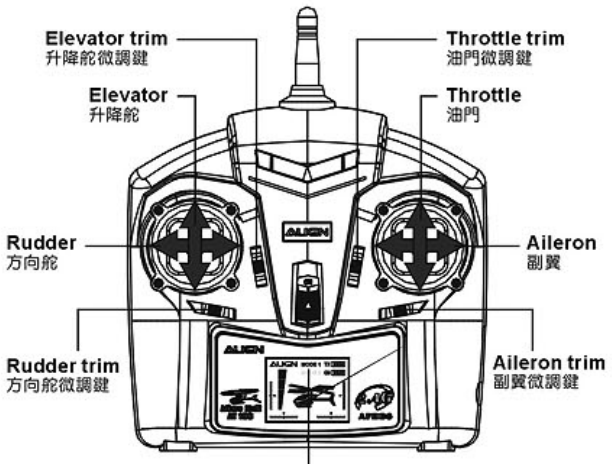
MODE1 is commonly used in Asia where throttle stick is on the right hand side, where MODE2 (throttle stick on left side) is more common amongst western countries. MODE 3 is same as MODE 1 with throttle stick on the right hand side but the position of AIL and RUD are reversed. Please set the transmitter MODE based on your preference.

亞洲地區大部分使用 MODE 1 的操控模式，即油門搖桿位於右手邊的位置，歐美地區則偏好 MODE 2 操控模式，即油門搖桿位於左手邊，而 MODE3 油門搖桿與MODE1同樣位於右手邊，但方向舵與副翼搖桿位置與 MODE1 相反，請您選擇自己習慣或容易學習與操控的模式來操作直昇機。

Note: Amongst the 4 axis of the transmitter control sticks, the axis that does not spring back to center is the throttle stick.

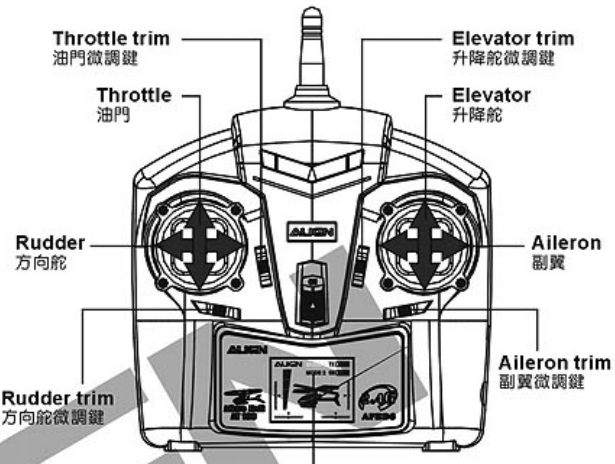
註：搖桿的四個方向中，不會自動彈回中間位置就是控制油門的搖桿

MODE 1



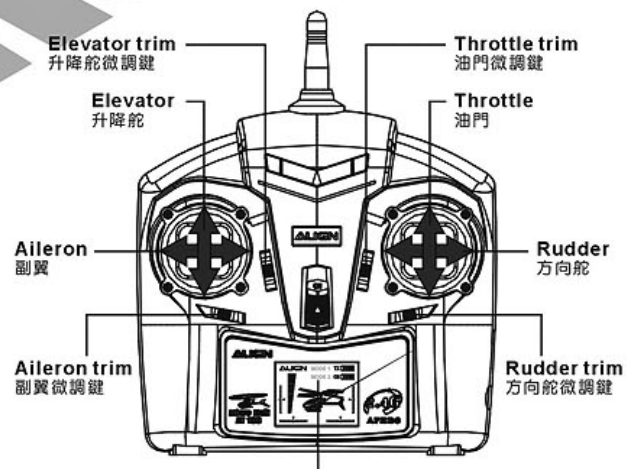
Display panel shows MODE 1, and a short beep is emitted during power up.
面板會顯示MODE 1 開機時"嗶"一短音

MODE 2



Display panel shows MODE 2, and a short beep is emitted during power up.
面板會顯示MODE 2 開機時"嗶"一短音

MODE 3

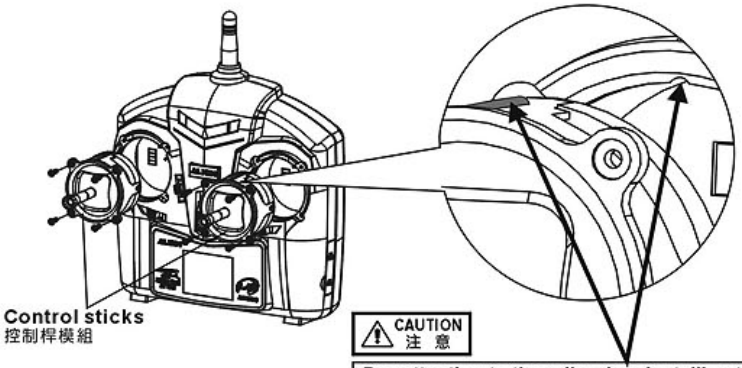


Transmitter will emitted a long beep during power up. However, both MODE1 and MODE2 will not be indicate on the transmitter screen.
面板MODE 1 / MODE 2皆不顯示，開機時"嗶"一長音

CAUTION 注 意

The control stick mode has been set at the factory. For switching to other modes, please follow instructions below.
原廠出廠時，已為您將模式設定好了，如果您需要更換其他模式請依照下列方式進行更換。

SWITCHING BETWEEN MODE1 AND MODE2 MODE 1 與MODE 2 的切換方式



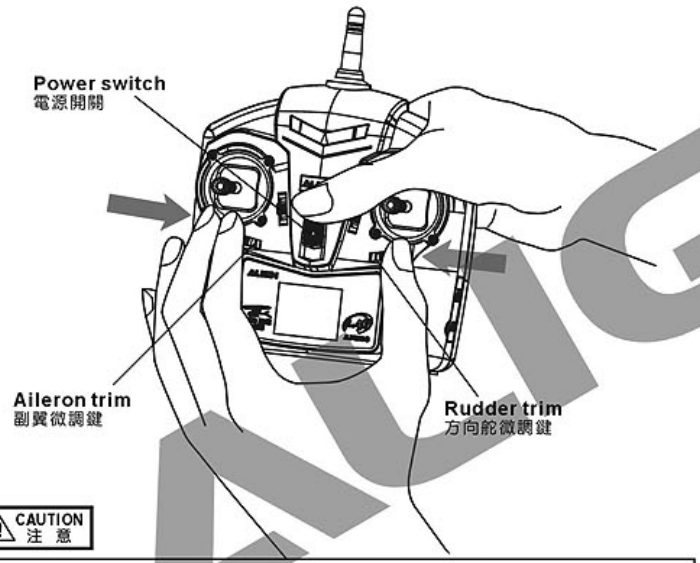
CAUTION 注 意

Pay attention to the rails when installing the control sticks.
安裝時，請注意導軌方向，對準導軌才可以順利裝入。

Loosen up the 8 screws holding the two control sticks, and swap the control sticks to change between MODE1 and MODE2.
請將控制桿的8顆螺絲鬆開，並交換控制桿模組，可切換 MODE 1 及 MODE 2 的操作模式。

This transmitter has trim memory capability. When the control stick modes are changed, all trims are retained so there is no need to re-trim.
本遙控器具備記憶功能，當您切換操控模式時，遙控器會自動將您原本的微調數據保留並切換，不需重新調機。

SWITCHING BETWEEN MODE 3 MODE 3 的切換方式



CAUTION 注 意

MODE3 setting needs to be set with the control sticks in MODE1 position, which means throttle is on the right hand side.
MODE 3必須在MODE 1 模式下才能切換設定，MODE 3的油門搖桿同樣是在右手邊的位置。

Using thumb and pointer fingers, hold the aileron and rudder trim tabs toward the middle while turning on the transmitter power. Transmitter will emit a long beep indicating MODE3 has been set. However, both MODE1 and MODE2 will not be indicate on the transmitter screen.

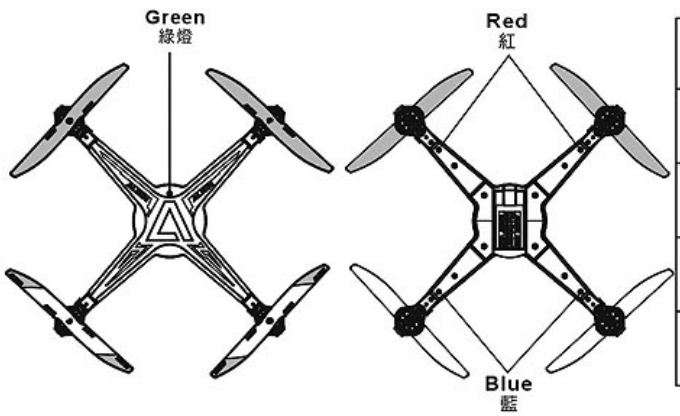
After transmitter is switched to mode 3, the mode will be retained every time when powered up, as indicated by a long beep.

To change MODE setting back to MODE1, just repeat the above procedure. Transmitter will emit a short beep indicating MODE1 has been set.

After transmitter is switched to MODE 1, the mode will be retained every time when powered up, as indicated by a short beep.

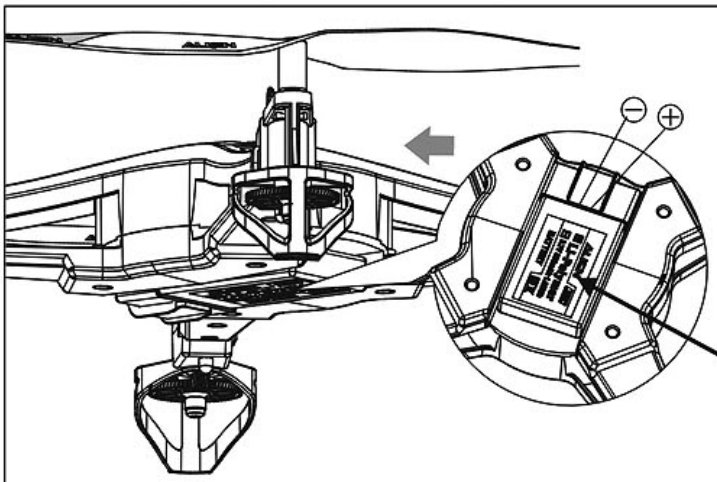
以單手食、拇指將副翼、方向舵的微調鍵往中間推著不放，接著另一手將電源開關往上推開電源，此時遙控器會發出"嗶"一長音，表示進入MODE 3 功能，但面板 MODE 1、MODE2皆不顯示。
切換MODE 3 成功後，遙控器會記憶為MODE 3 ，每次開機都會"嗶"一長音。
若要切換回MODE 1，只要再重複一次上述的動作，遙控器會發出"嗶"一短音，表示返回MODE 1功能。
切換MODE 1 成功後，遙控器會記憶為MODE 1 ，每次開機都會"嗶"一短音。

13.LED INDICATOR 燈號說明



LED Indicator 狀況指示	LED status 燈號顯示
Power on Initializing 開機初始化	LED Fast flashing 4 seconds. LED快速閃爍4秒
Binding successful 對頻成功	steady lit 恆亮
Binding failed 對頻失敗	Slowly single flash 慢速單閃
Voltage warning 低電壓警示	Double Flashes 雙閃

If there are frequency interference preventing completion of radio binding, please re-binding the radio of transmitter and receiver.
首次使用或當頻率受到干擾而無法對頻時，必須重新對頻。

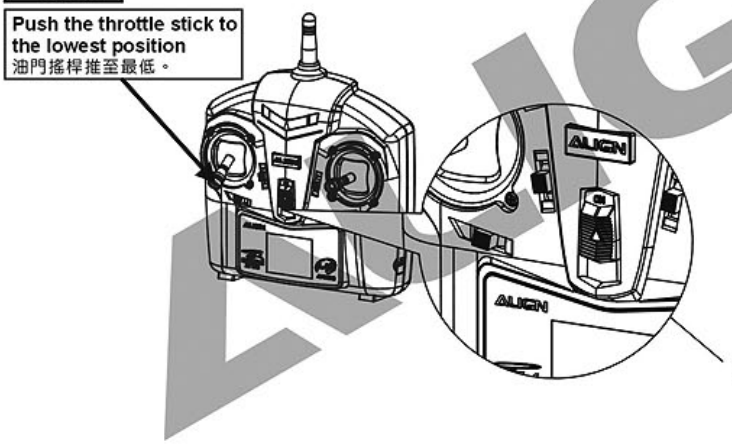


STEP 1 步驟1

With the quadcopter placed on level surface, push the lipo battery pack in the direction shown in diagram until fixed into position. At this time avoid moving the quadcopter so the radio and gyro system can initialize and the green LED on the receiver borad will be start flashing.
將四軸飛行器置於平坦位置，依圖示方向插入**Li-Po**電池至定位，不要再移動機身，使陀螺儀讀取中立點，此時接收板上綠色**LED**燈會閃爍。

CAUTION 注 意

Electrode surface of battery face up.
電池的電極面朝上。



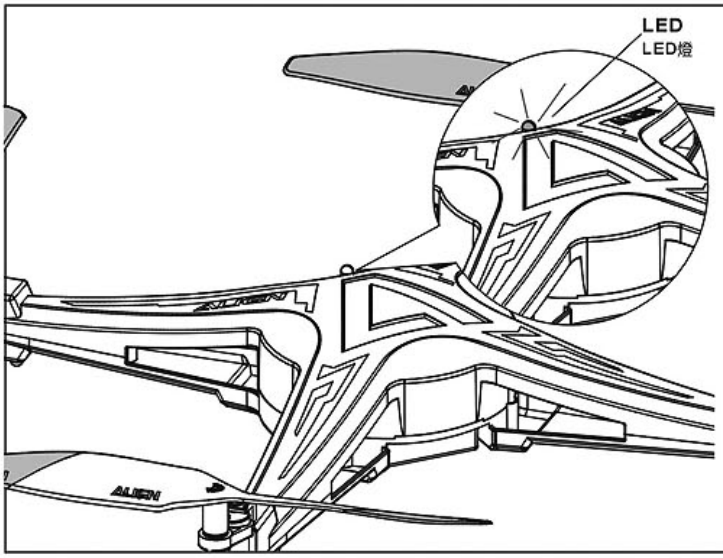
CAUTION 注 意

Push the throttle stick to the lowest position
油門搖桿推至最低。

ON/OFF
電源開關

STEP 2 步驟2

With throttle control stick at lowest position, turn on radio transmitter to start the binding process.
接著將油門搖桿推至最低，打開遙控器電源進行對頻。

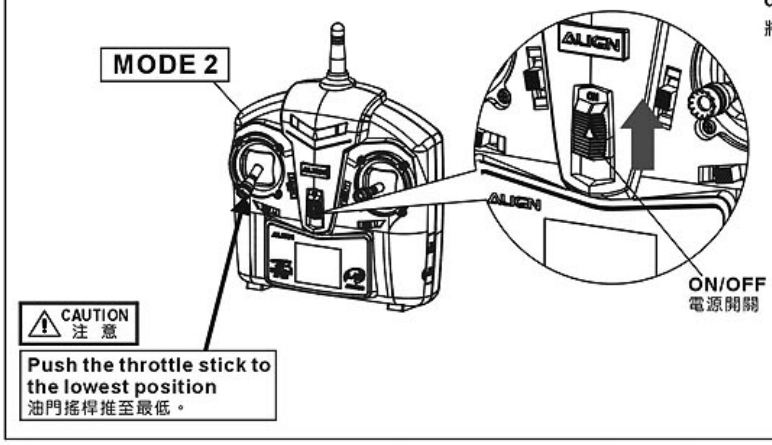


LED
LED燈

STEP 3 步驟3

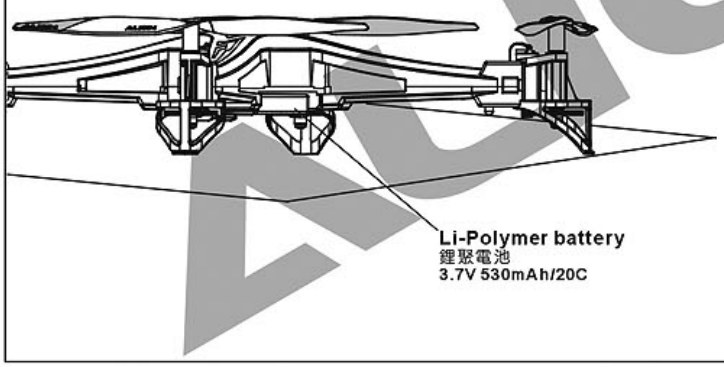
The green LED on receiver board will blink during radio initialization, and becomes steady after 4 seconds, indicating successful radio binding. If it continues to blink, radio binding has failed and needs to be restarted. After the radio binding is done, you don't need to re-bind it anymore.
對頻中接收板的綠色**LED**會閃爍，約**4**秒後**LED**恆亮表示對頻成功，若**LED**仍持續閃爍表示對頻失敗，必須再次執行步驟**1**至步驟**2**。只要對頻成功，每次飛行即不須再重新對頻了。

CAUTION 注 意 **Motor should not be run without loading main or tail rotor blades to avoid motor burnout.**
馬達不可在沒有帶動主旋翼或尾旋翼的狀態下單獨通電運轉，以避免馬達燒毀。



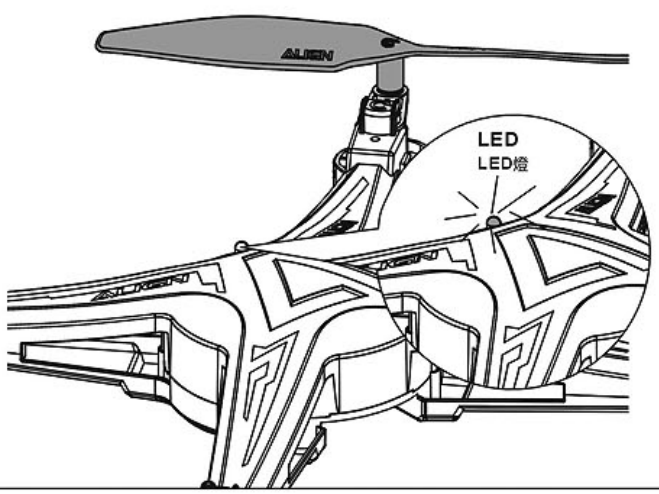
STEP 1 步驟1

With the throttle control stick all the way down, turn on transmitter power.
將油門搖桿推至最低後，打開遙控器電源。



STEP 2 步驟2

With the quadcopter placed on level surface, push the Li-Po battery pack in the direction shown in diagram until fixed into position. At this time avoid moving the quadcopter so the radio and gyro system can initialize, as indicated by the flashing red LED on receiver board.
請將四軸飛行器置於平坦的位置後，將**Li-Po**電池依圖示的方向推入電池座至定位，此時不要再移動機身，便遙控器對頻與陀螺儀讀取中立點。



STEP 3 步驟3

The green LED on receiver board will blink during radio initialization, and becomes steady after 4 seconds, indicating successful radio binding. If it continues to blink, radio binding has failed and needs to be restarted.(Refer to P.12: Binding of radio transmitter and receiver)
對頻中接收板的綠色**LED**會閃爍，約**4**秒後**LED**恆亮表示對頻成功，若**LED**仍持續閃爍表示對頻失敗，必須重新對頻。**(**參閱**P.12** 遙控器與接收器的對頻**)**

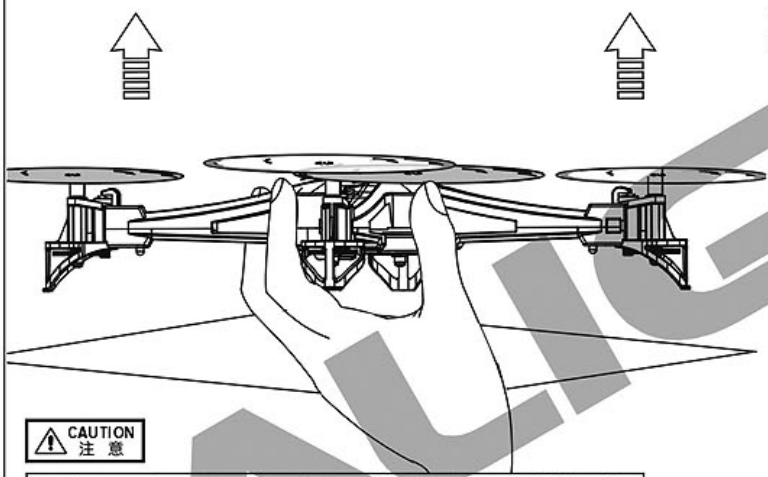
When testing the function of Quadcopter, hold the copter firmly, do not exceed half throttle, always keep copter away from your face / head.
測試四軸飛行器各個動作時，手務必要抓好機子，油門不能超過一半，且將機子遠離頭部。

CAUTION 注 意

During testing, throttle stick need to be in the middle, do not exceed 50% output position on the pitch curve.
測試時，油門不能超過一半。

STEP 4-1 步驟4-1

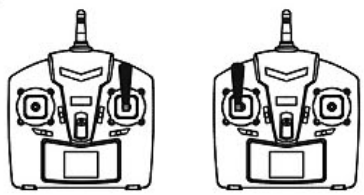
Throttle stick up, quadcopter will rise.
油門搖桿往上推時，四軸飛行器會往上昇。



CAUTION 注 意

During testing, throttle stick need to be in the middle, do not exceed 50% output position on the pitch curve.
測試時，油門不能超過一半。

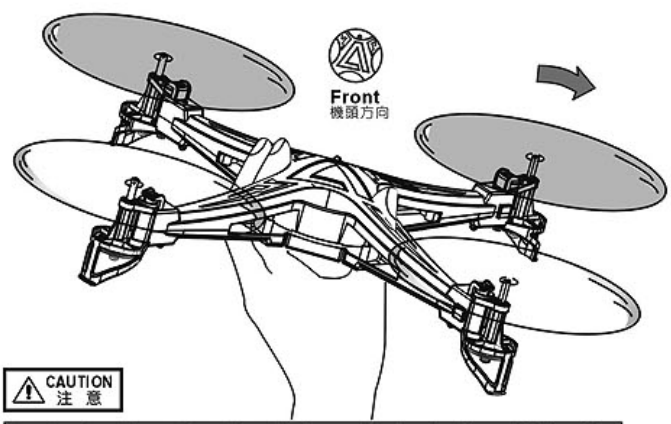
Throttle 油門



MODE 1 MODE 2

STEP 4-2 步驟4-2

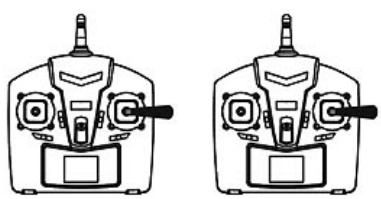
Aileron stick right, quadcopter will tilt right.
副翼搖桿往右推時，四軸飛行器會往右傾。



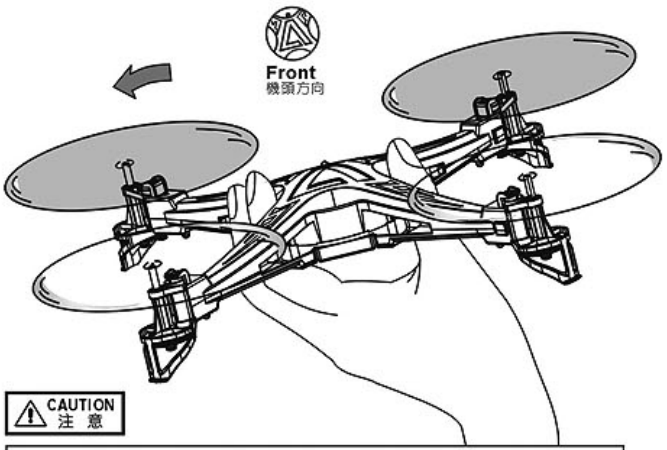
CAUTION 注 意

During testing, throttle stick need to be in the middle, do not exceed 50% output position on the pitch curve.
測試時，油門不能超過一半。

Aileron 副翼



MODE 1 MODE 2



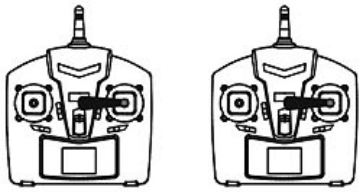
CAUTION 注 意

During testing, throttle stick need to be in the middle, do not exceed 50% output position on the pitch curve.
測試時，油門不能超過一半。

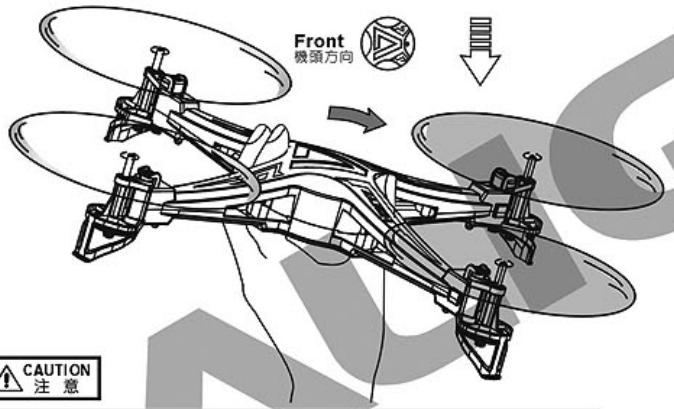
STEP 4-3 步驟4-3

Aileron stick left, quadcopter will tilt left.
副翼搖桿往左推時，四軸飛行器會往左傾。

AILERON 副翼



MODE 1 MODE 2



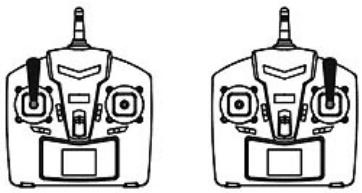
CAUTION 注 意

During testing, throttle stick need to be in the middle, do not exceed 50% output position on the pitch curve.
測試時，油門不能超過一半。

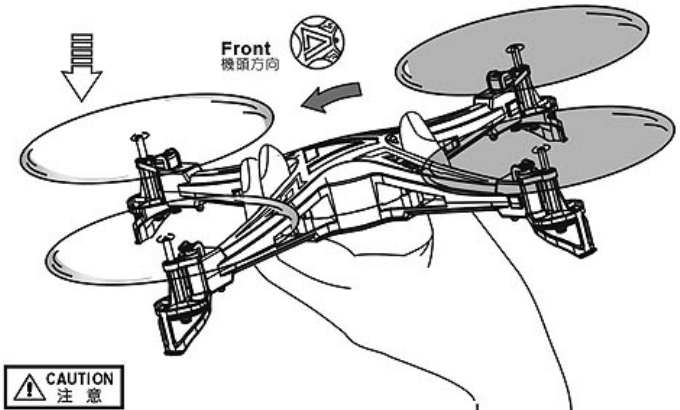
STEP 4-4 步驟4-4

Elevator stick up, quadcopter will tilt forward.
升降舵搖桿往上推時，四軸飛行器會往前傾。

ELEVATOR 升降/前後



MODE 1 MODE 2



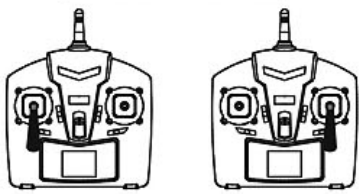
CAUTION 注 意

During testing, throttle stick need to be in the middle, do not exceed 50% output position on the pitch curve.
測試時，油門不能超過一半。

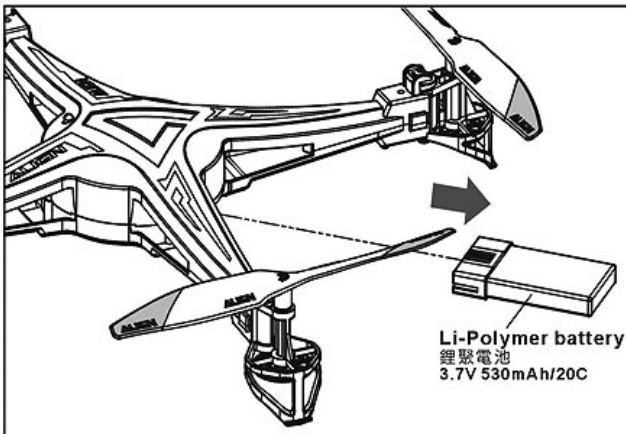
STEP 4-5 步驟4-5

Elevator stick down, quadcopter will tilt backward.
升降舵搖桿往下推時，四軸飛行器會往後傾。

ELEVATOR 升降/前後



MODE 1 MODE 2



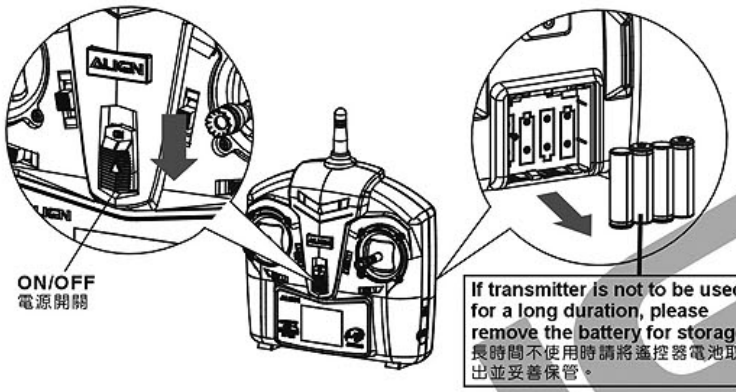
STEP 5 步驟5

Remove the quadcopter battery safely at the conclusion of flight. This should be made into a post flight habit to avoid unforeseeable problems.

結束飛行時，請將四軸飛行器電池安全取下。請養成良好習慣，以免造成遺憾。

WARNING 警 告

Warning: If left connected in the helicopter for long duration, the battery may be damaged due to over- discharge, or even become fire hazards.
電池未取下，將導致電池過放電而損壞，甚至造成起火燃燒的危險。



STEP 6 步驟6

Turn off the transmitter. If transmitter is not to be used for a long duration, please remove the battery for storage.

關閉發射器電源，長時間不使用時請將遙控器電池取出並妥善保管。

WARNING 警 告

Warning: If the AA batteries are left in the transmitter, potential leakage could occur which may damage the transmitter, and create fire hazards.
電池未取下，將導致電池漏液而損壞遙控器，甚至造成起火燃燒的危險。

16.FLIGHT MODES 飛行模式

M424 V2 Quadcopter contains two flight modes; advance mode and standard mode.
In advance mode, M424 V2 is more aerobatic with faster response, suitable for advanced pilots.
In standard mode, M424 V2 has more mellow control response, suitable for beginner pilots.

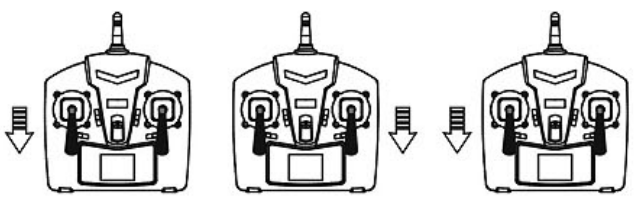
The two flight modes is switched through elevator stick following the method below.
Flight mode defaults to standard mode during power up.

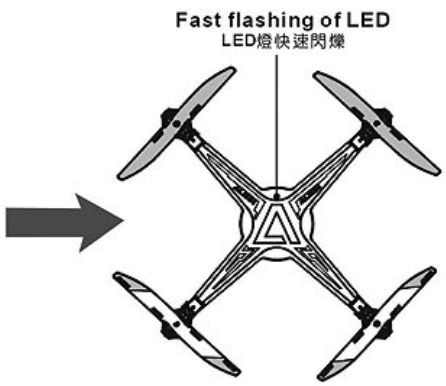
M424 V2 四軸飛行器具備兩種飛行模式，大動作模式與小動作模式，
在大動作模式，M424 V2的飛行動作量較大、反應較快，適合進階玩家使用；
在小動作模式，M424 V2的飛行動作量較小、反應較慢，適合初階入門玩家使用。

兩種模式是透過遙控器升降搖桿來切換，方式可參考下列介紹。每次開機時，飛行模式會在預設的小動作模式。

SWITCHING OF FLIGHT MODES 飛行模式的切換

keep elevator at lowest position for 5 seconds.
升降搖桿拉至最低5秒。





Keep throttle at lowest point, then keep elevator at lowest position for 5 seconds. The LED on M424 V2 will flash rapidly. Release the elevator stick to complete switching of flight mode.
油門保持最低點，然後升降搖桿拉到最低停留5秒，接著M424 V2上的LED燈會快速閃爍，放開升降搖桿即完成飛行模式的切換。

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

Do not attempt to fly the quadcopter until control methods is fully understood. Please practice repetitively on computer flight simulators to familiarize with all directional controls.

1. Place the quadcopter in a clear open field and the tail of quadcopter 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.

在還沒瞭解四軸飛行器各動作的操控方式前，嚴禁實機飛行，請先進行電腦模擬飛行的練習，熟悉各種方向的操控並不斷的重複，直到手指可熟練的控制各個動作及方向。

1. 將四軸飛行器放在空曠的地方，並將四軸飛行器的機尾對準自己。
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。

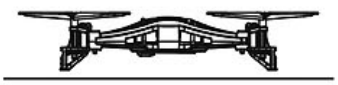
Mode 1	Mode 2	Illustration 圖示	Mode 1	Mode 2	Illustration 圖示
Aileron 副翼		Move left 左移 / Move right右移	Throttle油門		Ascent 上升 / Descent 下降
Elevator 升降/前後		Fly backward 後退 / Fly forward 前進	Rudder 方向		Turn left 左旋 / Turn right 右旋

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

CAUTION 注 意

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

· When arriving at the flying field.
· 請在沒有人及障礙物的空曠室內飛行



CAUTION 注 意

◎ Make sure that no people or obstructions in the vicinity.
◎ You must first practice hovering for flying safety. This is a basic flight action. (Hovering means keeping the quadcopter in mid air in a fixed position),keep the tail pointed at yourself while practicing hovering, since the quadcopter's direction is easier to recognize.
◎ Please stand approximately 2m diagonally behind the quadcopter.

◎ 確認鄰近地區沒有人和障礙物。
◎ 為了飛行安全，您必須先練習停懸，這是飛行動作的基礎(停懸:四軸飛行器滯留空中並保持固定位置)，練習停懸時，請保持四軸飛行器尾部對準自己，此時四軸飛行器的前後左右方向可容易辨識。
◎ 練習時，請站在四軸飛行器後方2公尺。

STEP 1 THROTTLE CONTROL PRACTICE 油門控制練習

◎ When the quadcopter begins to lift-off the ground, slowly reduce the throttle to bring the quadcopter back down.
Keep practicing this action until you control the throttle smoothly.
◎ 當四軸飛行器離地後，慢慢降低油門將四軸飛行器降下。
持續練習四軸飛行器從地面上升和下降直到您覺得油門控制很順。

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

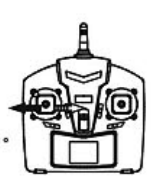
1. Raise the throttle stick slowly.
2. Move the quadcopter in any direction back, forward, left and right, slowly move the aileron and elevator sticks in the opposite direction to fly back to its original position.
1. 慢慢升起油門搖桿。
2. 使四軸飛行器依指示: 移動向後/向前/向左/向右，慢慢的反向移動副翼和升降搖桿並將直昇機開回到原來位置。

CAUTION 注 意

◎ If the nose of the quadcopter moves, please lower the throttle stick and land the helicopter. Then move your position diagonally behind the helicopter 2M and continue practicing.
◎ If the quadcopter flies too far away from you, please land the quadcopter and move your position behind 2M and continue practicing.
◎ 當四軸飛行器機頭偏移時，請降低油門並且降落，然後移動自己的位置到四軸飛行器的正後方2公尺再繼續練習。
◎ 假如四軸飛行器飛離您太遠，請先降落四軸飛行器，並到四軸飛行器後2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 quadcopter 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. 將四軸飛行器機頭移動左或右，然後慢慢反向移動方向舵搖桿並將四軸飛行器飛回原本位置。



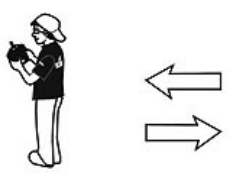
STEP 4

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.
當您覺得 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，以增加您操控的準確度。

◎ You can reduce the size of the circle as you become familiarized with the control reflexes.
◎ 當您更加習慣操作動作，您可以畫更小的圈圈。

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

After you are familiar with Step1 to 4, stand at side of the quadcopter and continue practicing Step1 to 4.
Then repeat the Step1 to 4 by standing in front of the helicopter.
當您覺得step1~4動作熟悉了，站在面對四軸飛行器側邊並繼續練習step1~4。之後，站在四軸飛行器機頭前方重複步驟練習。



ADJUSTMENT OF EACH TRIM 飛行動作微調

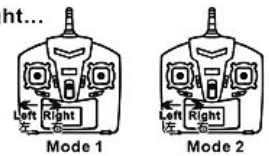
Slowly raise the throttle stick and just as the helicopter lift-off the ground,you can use the trim to correct the action if the quadcopter leans in a different direction.

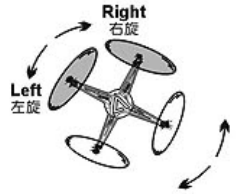
慢慢升起油門搖桿，當四軸飛行器剛剛離開地面時，若直昇機傾向不同方向，可使用微調修正動作。

1. Adjustment of rudder trim 調整方向舵微調

Just before the quadcopter 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.

在四軸飛行器正要起飛時，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。

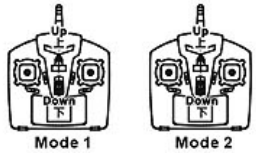


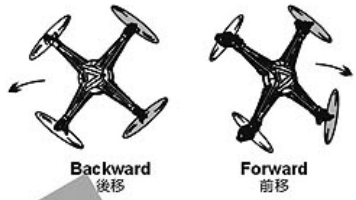


2. Adjustment of elevator trim 調整升降舵微調

Just before the quadcopter lift-off, the nose lean forward/backward...
When leans forward, adjust the trim down.
When leans backward, adjust the trim up.

在四軸飛行器正要起飛時，機頭朝前/後方向偏移...
向前偏移時，微調向下調整。
向後偏移時，微調向上調整。

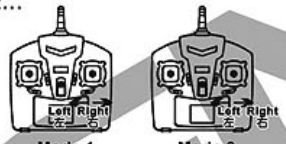


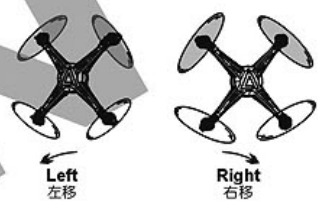


3. Adjustment of aileron trim 調整副翼微調

Just before the quadcopter 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.

在四軸飛行器正要起飛時，機身朝左/右方向偏移...
向右偏移時，微調向左調整。
向左偏移時，微調向右調整。





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

ALIGN

	Situation 狀況	Cause 原因	Way to deal 對策
1	**Receiver status LED blinks continuously for more than 4 seconds after quadcopter battery inserted. No response to control input.** 接上四軸飛行器電池後接收器指示燈持續閃爍，操作無反應	**Unable to bind to transmitter.** 遙控器與接收器未對頻成功	**Repeat the power up initializing process. (Refer to P.12:Binding of radio transmitter and receiver)** 請重新執行遙控器與接收機板的對頻動作 (請參閱P.12 遙控器與接收器的對頻)
2	**No response after battery is connected to quadcopter.** 接上四軸飛行器電池後,四軸沒有任何反應	**1.power to transmitter and receiver.** **2.Check transmitter and receiver voltage.** **3.Poor contact on battery terminals.** 1.檢查遙控器和接收器是否接通電源 2.檢查遙控器和接收電池的電壓 3.電池極片接觸不良	**1.Turn on transmitter and ensure quadcopter battery is inserted properly.** **2.Use fully charged batteries.** **3.Re-seat the battery and ensure good contact between battery contacts.** 1.打開發射器與確實插入四軸飛行器電池至定位 2.使用完全充電充飽的電池 3.重新插入電池，確認電池和電池極片的接觸是否正常
3	**Motor does not respond to throttle stick, receiver LED flashes.** 推動油門搖桿時馬達不轉，且接收器指示燈開始閃爍	**Quadcopter battery depleted.** 四軸飛行器鋰聚電池電量不足	**Fully charge the battery, or replace with a fully charged battery.** 將電池充電或更換另一個充飽的電池
4	**Main rotor continue to spin after landing** 降落之後,主旋翼仍在旋轉未停止	**Throttle trim accidentally increased during flight.** 飛行中誤將油門微調調高	**Confirm throttle trim is in center or slightly below.** 確認油門微調在中間位置或是稍微向下調
5	**Main rotor spins but unable to takeoff.** 四軸飛行器主旋翼有持續轉動但不能起飛	**Quadcopter battery depleted.** 四軸飛行器鋰聚電池電量不足	**Charge or replace with a fully charged battery.** 將電池充電或是更換另一個充飽的電池
6	**Strong vibration of quadcopter** 四軸飛行器震動的很厲害	**1.Deformed main blades** **2.Bent main shaft** 1.主旋翼變形 2.主軸彎曲	**1.Replace main blades** **2.Replace main shaft** 1.更換主旋翼 2.更換主軸

※If the problem is still there even after tried above, stop flying and contact with your seller.
※在做完以上調整後，仍然無法改善情況時，應立即停止飛行並連絡您的經銷商。

ALIGN

Specifications & Equipment / 規格配備:

M424 V2

Length / 機身長: 240mm

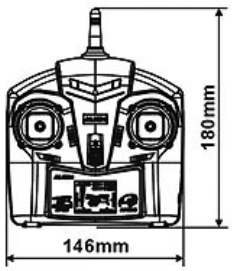
Height / 機身高: 50mm

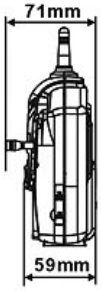
Propeller width / 尾旋翼直徑: 135mm

Weight(Without Battery) / 空機重: 82g

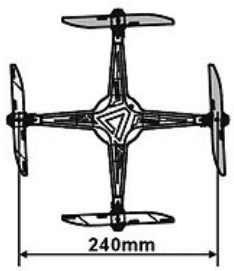
Flying Weight / 全配重: Approx. 96g

AT 100





M424 V2



亞拓電器股份有限公司
ALIGN CORPORATION LIMITED MADE IN TAIWAN

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