MR25 / MR25P
[RM42501XET]   [RM42503XST]

ALIGN

INSTRUCTION MANUAL
使用說明書

FPV RACING QUAD

7 in 1 | APP | Blue tooth | LED | Gimbal | DVR FHD | OSD | FPV

PCU | POWER

V2
2K RACING CAM

ANDROID APP ON
Google play

Download on the
App Store

For more detailed instruction, please check our website.
http://www.align.com.tw/multicopter-en/mr25/
更多詳細說明請上官網。

Thank you for purchasing of Align products. Please read the manual carefully before installing and be sure to retain the manual for future reference. Specifications, contents of parts and availability are subject to change, ALIGN RC is not responsible for inadvertent errors in this publications.

承蒙閣下選用亞拓遙控世界系列產品,謹表謝意。使用前,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,以做為日後參考。本公司將不對此印刷物之異動負責,也無法主動通知消費者任何更新或異動。本說明書內記載的材質、規格或零件包裝之內容物如有異動,請依亞拓官網公告為主。

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ALIGN

We appreciate your patronage of Align professional aerial photography products. To ensure your success with this product, we would like to present the following information and important reminders.

Align's MR25/MR25P flight controller was developed using cutting edge electronics and innovative technology. Many advanced features are utilized, such as a 32 bit high speed processor, combined ESC's, power distribution system, OSD, Bluetooth connectivity, and gimbal control function. The MR25/MR25P features a high precision 6-axis gyroscopic and barometric sensor which is derived from Align's core technology. The extremely intelligent attitude calculations results in a highly stable and reliable performance.

Simple, compact body design and a unique slip over canopy allows for easy battery swap out. This sealed enclosure protects all core electronics to prevent damage in the event of a crash. The landing gear is engineered with anti-shock features by utilizing multi-injection molding and rubber cover over plastic arms. This allows for smoother landing and prevents sliding / skidding.

In order for you to thoroughly enjoy the product, please read through this manual prior to assembly and setting up. Keep this manual handy for future reference.

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。

亞拓MR25/MR25P穿越機結合高科技與尖端IT工業的MRS飛控系統，採用32位元高速運算處理器，整合ESC控制、電源管理系統、OSD、藍牙與雲台控制功能。內置高精準六軸陀螺儀與氣壓計，承襲亞拓核心技術，高智能姿態控制演算法，發揮出高智能、高穩定、高可靠度與全方位的性能。

簡潔的機體設計，完美收線於機身內；獨家機殼防滑設計，拆裝時更得心順手，能完整包覆保護機體。採用獨家埋設技術的避震腳架，有效緩衝反做用力，使起飛及降落時的動作更平穩。

為了讓您容易方便使用，在開始操作之前，請您詳細的閱讀完這本說明書之後再進行安裝與設定，同時請您妥善保存這本說明書，作為爾後調整的參考。

QR CODE LINKS TO INSTRUCTIONAL VIDEOS
QR CODE教學影片

While this manual provides instructional information and references for this product, Align also produced instructional videos covering various topics pertaining to this model. The videos are available at the following link:

Http://www.align.com.tw/multicopter-en/mr25/

說明書詳細介紹了本產品的使用說明，供您組裝時參考。另外，亞拓提供了各步驟的組裝教學影片，請利用下方連結處觀看，以確保您是安全且正確的使用本產品。
網頁瀏覽http://www.align.com.tw/multicopter-en/mr25/

Assembly Tutorial 組裝教學	Program Download Tutorial 下載教學	Configuration Tutorial 設定教學	Operation Tutorial 操作教學

IMPORTANT NOTES
重要聲明

ALIGN

Radio Control (R/C) multicopters are not toys. R/C multicopters utilize various high-tech components to achieve superior performance. Improper use of this product can result in serious injury or even death. Please read this manual carefully before operating, and make sure to be conscious of your own personal safety and the safety of others nearby 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 aircraft at legal flying fields. After the sale of this product we cannot be held liable over its operation or usage.

We recommend that you seek 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. This product requires a certain degree of skill to operate, and is an expendable item. Any damage or dissatisfaction as a result of accidents or modifications are not covered by any warranty and cannot be returned for repair or replacement. Please contact our distributors for free technical consultation and parts at discounted rates when you experience problems during operation or maintenance. As Align Corporation Limited has no control over the use, setup, 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.

In addition, R/C multicopters and its components are precision electronics susceptible to interferences from external forces such as magnetic field and radio signal. Should the multicopter or any onboard photographic equipment suffers loss or crash damage as result of external magnetic or radio interferences, Align cannot be held liable as the cause is beyond our control.

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

遙控飛行機包括遙控直昇機與多軸飛行機（以下簡稱遙控飛行機）並非玩具，它是結合了許多高科技產品所設計出來的休閒用品，所以商品的使用不當或不熟悉都可能會造成嚴重傷害甚至死亡，使用之前請務必詳讀本說明書，勿輕忽並注意自身安全。注意！任何遙控飛行機的使用，製造商和經銷商是無法對使用者於零件使用的損耗異常或組裝不當所發生之意外負任何責任，本產品是提供給有操作過遙控飛行機經驗的成人或有相當技術的人員在旁指導，並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。

遙控飛行機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。且遙控飛行機與配件之精密電子產品，易受外力、磁場、訊號干擾，在使用過程中如外力、磁場、訊號干擾，導致飛行機本身、及其搭載之攝影設備、器材之損壞或滅失，本公司亦無法控制及負責。

做為本產品的使用者，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。

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 serious damage or injury. 因為疏忽這些操作說明，而使用錯誤可能造成財產損失或嚴重傷害。
⚠ CAUTION 注　意	Mishandling due to failure to follow these instructions may result in danger. 因為疏忽這些操作說明，而使用錯誤可能造成危險。

⊘ FORBIDDEN 禁 止 PREVENT MOISTURE
遠離潮濕環境

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

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

⚠ WARNING 警 告 DO NOT FLY ALONE
避免獨自操控

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

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

⚠ WARNING 警 告 SAFE OPERATION
安全操作

Operate this unit within your ability. Do not fly while feeling impaired, as improper operation may result in danger. Never take your eyes off the model or leave it unattended while it is turned on. Immediately turn off the model and transmitter when you have landed the model.

請於自己能力內及需要一定技術範圍內操作這台遙控飛行機，過於疲勞、精神不佳或不當操作，意外發生風險將可能會提高。不可在視線範圍外飛行，降落後也請馬上關掉遙控飛行機和遙控器電源。

⚠ CAUTION 注 意 ALWAYS BE AWARE OF THE ROTATING BLADES
遠離運轉中零件

During the operation of the multicopter, the rotor will be spinning at a high rate of speed. The blades are capable of inflicting serious bodily injury and damage to surrounding properties. Be conscious of your actions, and careful to keep your face, eyes, hands, and loose clothing away from the blades. Always fly the model a safe distance from yourself and others, as well as surrounding objects.

遙控飛行機主旋翼/螺旋槳運轉時會以高轉速下進行，在高轉速下的主旋翼/螺旋槳會造成自己與他人在身體上或環境上的嚴重損傷，請勿觸摸運轉中的主旋翼/螺旋槳，並保持安全距離以避免造成危險及損壞。

⚠ CAUTION 注 意 KEEP AWAY FROM HEAT
遠離熱源

R/C aircraft are made of various forms of plastics, such as carbon fiber and polyethylene. Plastics are very susceptible to damage or deformation from extreme heat and cold climate. Make sure not to store the model near any source of heat such as oven or heater. It is best to store the model indoors, in a climate-controlled, room temperature environment.

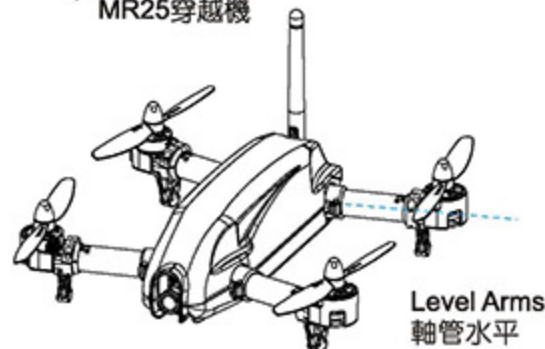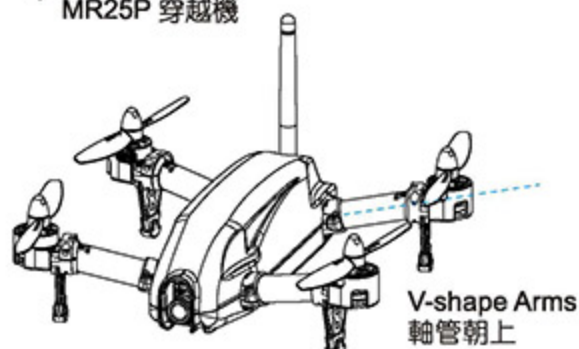遙控飛行機多半是以碳纖維、PA纖維或聚乙烯、電子商品為主要材質，因此要盡量遠離熱源、日曬，以避免因高溫而變形甚至熔毀損壞的可能。

MR25 Racing Quad
MR25穿越機

Level Arms
軸管水平

MR25P Racing Quad
MR25P 穿越機

V-shape Arms
軸管朝上

Align MR25/MR25P with flight controller born from the integration of cutting edge electronics and innovative technology. Utilizes a 32 bits high speed processor, combining ESC, power distribution system, OSD, Bluetooth connectivity, and gimbal control function. Featuring a high precision 6-axis gyroscopic sensor and barometric sensor which is derived from Align's core technology. The highly intelligent attitude calculations results in a highly stable and reliable performance.

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簡潔的機體設計，完美收線於機身內：獨家機殼防滑設計，拆裝時更得心順手，能完整包覆保護機體。採用獨家埋設技術的避震腳架，有效緩衝反做用力，使起飛及降落時的動作更平穩。

FEATURES 產品特色

7 in 1 Cutting Edge All Inclusive Flight Control System
高智能全方位飛控系統

APP Parameter Settings through App, Firmware Update
APP設定調整、更新主程式(固件)

Blue tooth Bluetooth Functionality
藍牙功能

LED Customizable LED
個性化LED燈

Gimbal DV Camera Gimbal
DV鏡頭雲台

DVR FHD FHD High Quality DV Video Recorder
FHD高畫質DV攝影機

OSD Live Flight Data
飛行即時資訊

FPV FPV
第一人稱飛行

POWER Motors featuring high torque, high speed, and high efficiency
高扭力/高轉速/高效率馬達

PCU Intelligent Power Management System
智慧型電源管理系統

Impact Resistant Aerodynamic Shell
耐衝擊流線造型防潑水外殼

Adjustable Motor Tilt Angle
可調式馬達傾角

Camera Multi-function Settings
相機多功能選單

Remote Control Photo/video Function
遙控拍照/錄影功能

Stunt Mode Function
特技飛行功能

Lost Aircraft Finder
尋機功能

EQUIPMENT REQUIRED
自備設備

1 RADIO TRANSMITTER AND ELECTRONIC EQUIPMENT REQUIRED
自備遙控及電子設備
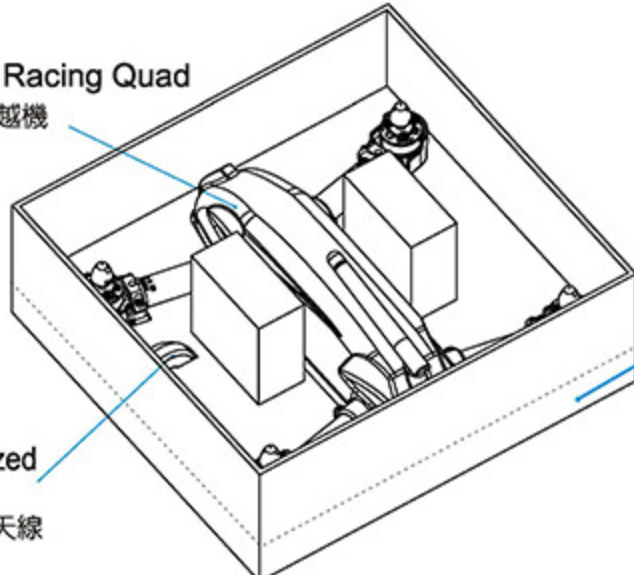
**Basic operation-
6 Channel or more**
基本功能操作-六動以上

**or
或**

**Full-featured operation-
9 Channel or more**
全功能操作-九動以上

R/C Transmitter (aircraft / multicopter system)
發射機（具飛機 / 多軸模式遙控器）

**Receiver
(6 channel or more)**
接收器（六動作以上）

**or
或**

Satellites Receiver
衛星天線

**AG300/AG200
FPV Goggle**
FPV 眼鏡

**or
或**

FPV Monitor
螢幕接收器

**RCC-3SX
Balance Charger**
分壓充電器

**or
或**

**RCC-4SD
Balance Charger**
平衡充電器

**1300 ~1800mAh
Li-polymer Battery 3S/4S**
3S/4S鋰電池

PACKAGE CONTENTS
包裝說明

MR25/MR25P Racing Quad
MR25/MR25P 穿越機

MR25 Propeller
5045 x4(R Propeller x2 / L Propeller x2)
6040 x4(R Propeller x2 / L Propeller x2)

MR25螺旋槳
5045x4 (正槳x2/ 反槳x2)
6040x4 (正槳x2/ 反槳x2)

MR25 Sticker
MR25機身貼紙

Spare Parts
備件包

**5.8G Circular Polarized
Gain Antenna TX**
5.8G無向性增益發射天線

MR25/MR25P Racing Quad
MR25/MR25P 穿越機

Quick Finder
零件快速購

R rotation propellers specific recognized circle.
R向螺旋槳專用識別圓圈

MR25 Propeller
5045 x4(R Propeller x2 / L Propeller x2)
6040 x4(R Propeller x2 / L Propeller x2)
MR25螺旋槳
5045x4 (正槳x2/ 反槳x2) 6040x4 (正槳x2/ 反槳x2)

Receiver Signal Wire x2
接收器訊號線 x2

S.BUS Connector x1
S.BUS連接線 x1

Heat Shrink Sleeve-Black
黑色熱縮套
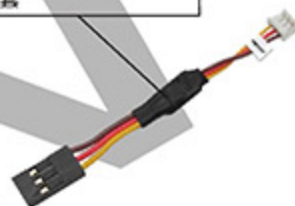
Align MR25 JR/Spektrum Satellite Adapter x1
Align MR25 JR/Spektrum專用的
衛星天線轉接線 x1

5.8G Circular Polarized Gain Antenna TX x1
5.8G無向性增益發射天線 x1
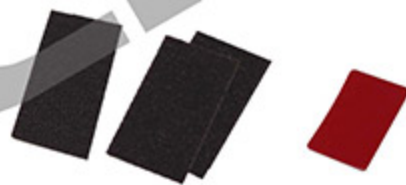
Hook and Loop Tape x3
(Hooked x1 / Fuzzy x2)
魔術沾x3 (勾狀x1/纖毛狀x2)

Double Sided Tape x1
固定泡棉 x1

Hook and Loop Strap x1
魔術束帶 x1

Dual Lock Fastener x2
子母扣 x2

Trimmed Image
圖型已裁切完成

MR25 Sticker x1
MR25機身貼紙 x1

Hex Head Wrench
L型六角扳手 (2mmx1/ 1.5mmx1)

Spare Parts
維修配品

Head Damper x2
墊圈(φ 1.9x φ 6.2x3.6mm) x2

Socket Button Head Screw
半圓頭內六角螺絲 M2.5x6mm x2

2 GENTLY REMOVE DV CAMERA RIBBON CABLE.
拆開DV攝影機排線

To temperary remove DV camera ribbon cable from DV main board and camera:

1. Remove the latch from the front.
2. Then gently remove DV camera ribbon cable.

將DV攝影機主版上連接鏡頭的排線暫時拆開：

1.將卡勾朝前扳開。

2.使用輕微的力道即可輕易將DV排線拔出。

> ⚠ CAUTION
> 注 意
>
> To ensure proper re-installation we recommend taking a picture or video prior to disassembly.
> 原來插線位置請熟記或預先拍照記錄，以便組裝時順利插回。

Upper Plate
上側板

DV Main Board
DV攝影機主版

New 1806 Motor Cover
新型1806馬達保護罩

Add ventilation hole on motor cover bottom improving the heat dissipation effect.
保護罩底部增加散熱孔，提供更佳的散熱效果。
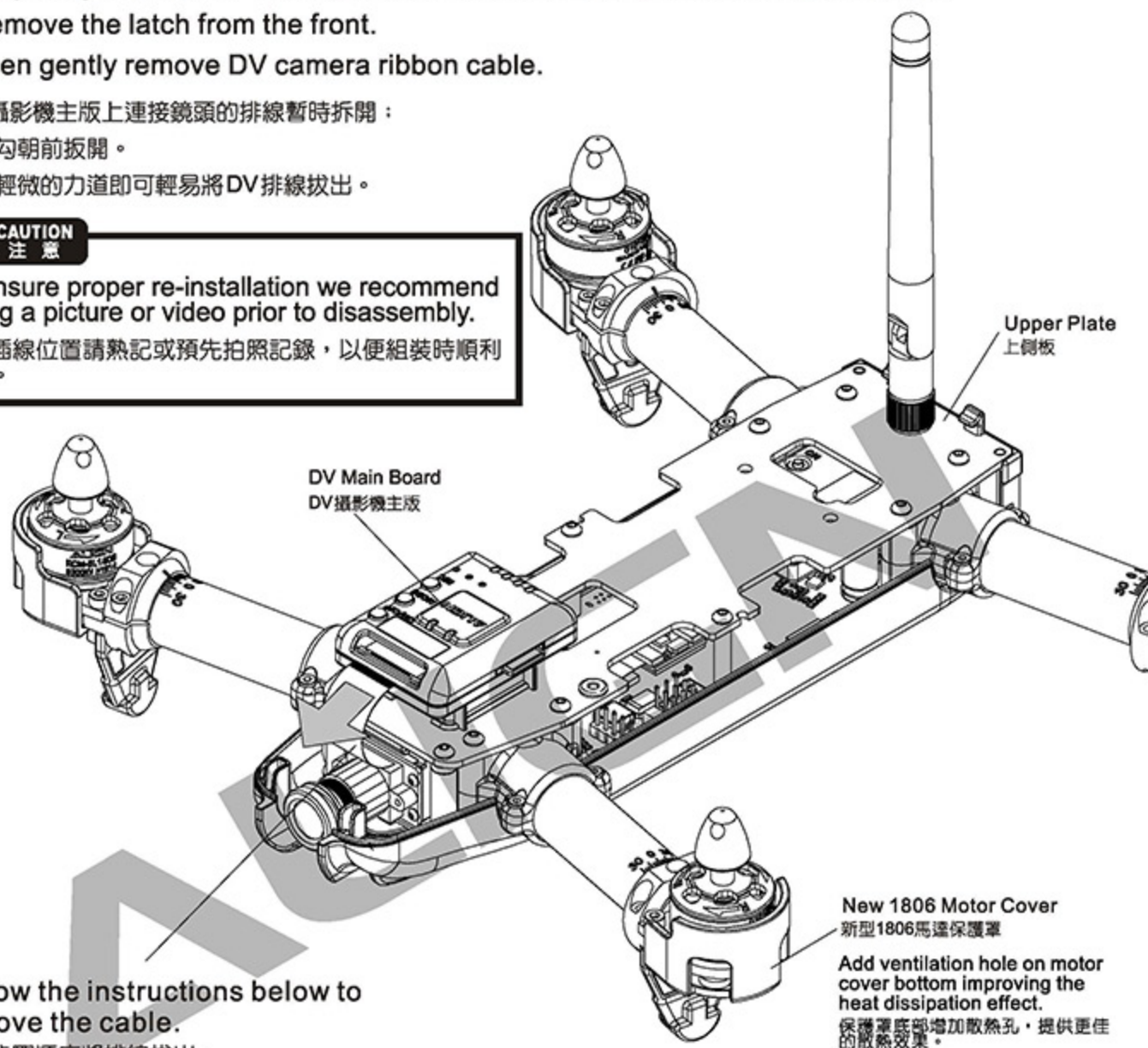
Follow the instructions below to remove the cable.
請依步驟順序將排線拔出。

Latch
卡勾

① ②

DV Ribbon Cable
DV攝影機排線
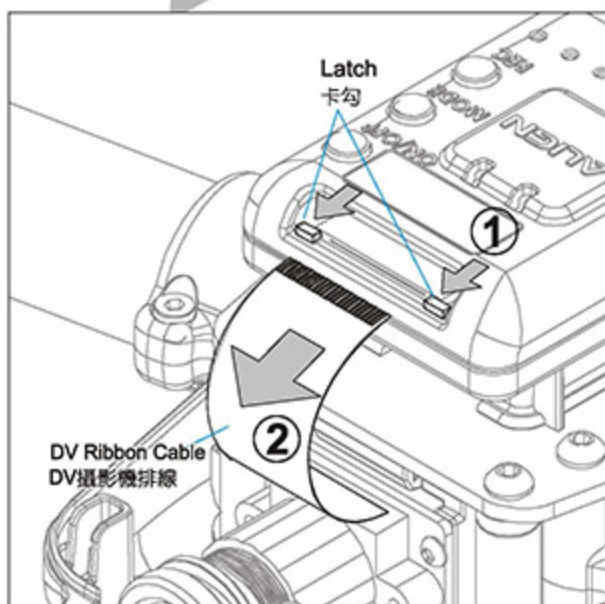
The DVR camera main board is mounted at the center position where Micro SD memory card has inserted and aligned to the bottom center position.
DV攝影機主版黏貼的位置，是以插入 Micro SD 記憶卡後的寬度，對齊底板的中心位置。

Centerline
中心線
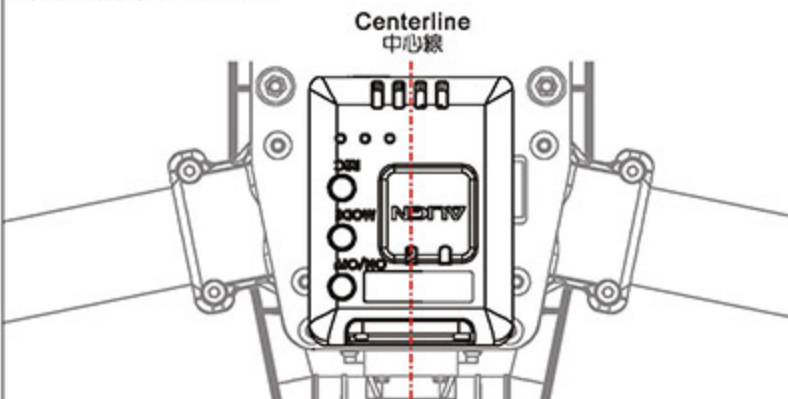
3 RECEIVER ASSEMBLY
接收器組裝

Remove the (12) M2.5x6mm button head socket screws located on the upper frame plate. The receiver is mounted in the middle and below the frame upper plate.

鬆開機身上側板半圓頭內六角螺絲M2.5x6mm，
將接收器固定於上側板下方。

Socket Button Head Screw
半圓頭內六角螺絲
M2.5x6mm

DV Mount - Upper
DV固定座-上

Double Sided Tape
固定泡棉

DV Mount - Lower
DV固定座-下

Receiver Antenna
接收器天線

Receiver
接收器

Optional Equipment
另購品

IMU Circuit Board
IMU電路板

Dual Lock Fastener
子母扣
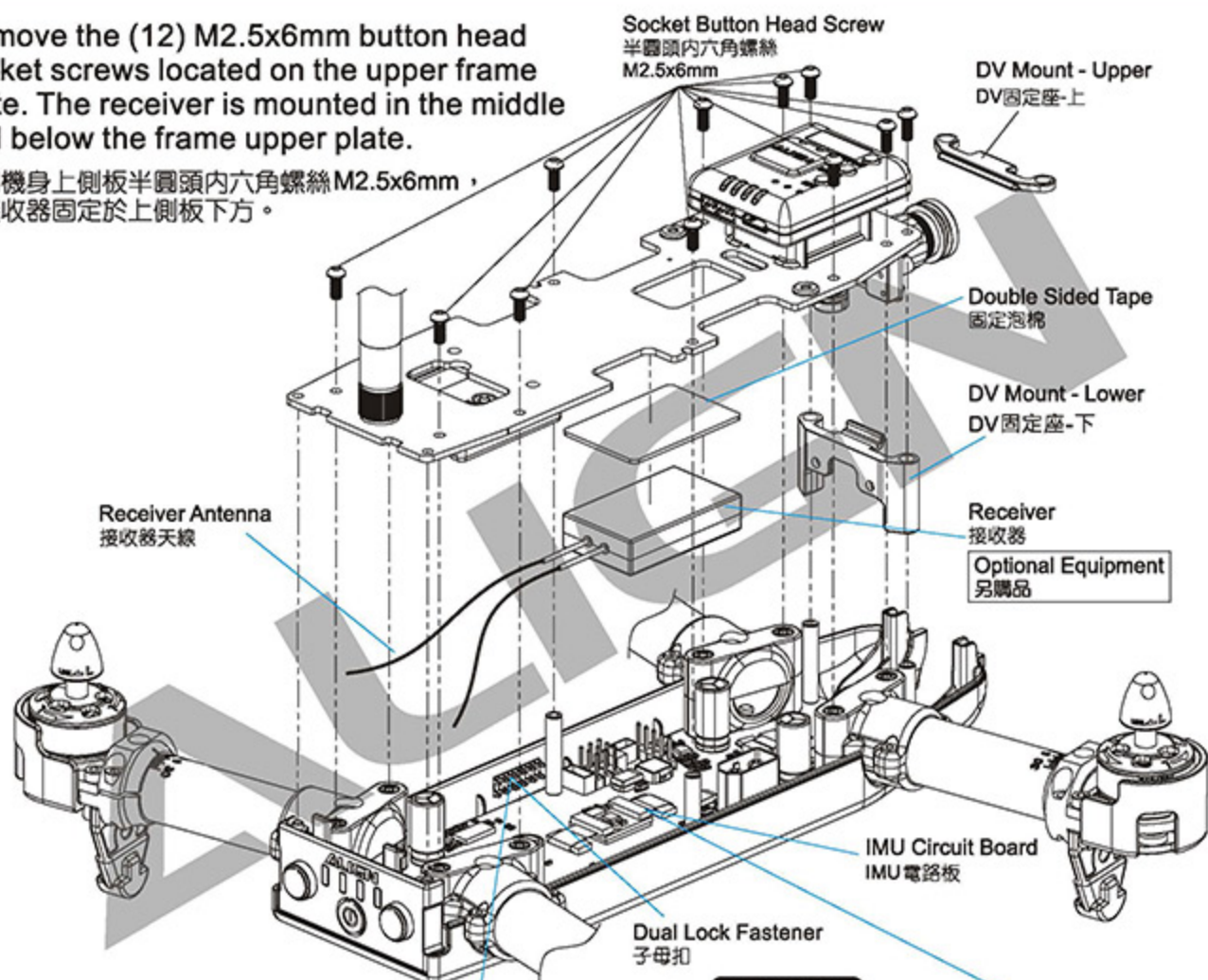
1. Secure the antenna inside the body with Dual Lock.
可利用子母扣將天線固定於身殼內。

Dual Lock Fastener
子母扣

Receiver Antenna
接收器天線

2. If the receiver has extended antenna(s), allow the antenna(s) to feed through lower plate and exposed to the experior of the quad racer.
也可將天線穿過機殼下蓋的孔位，露於機身外面。
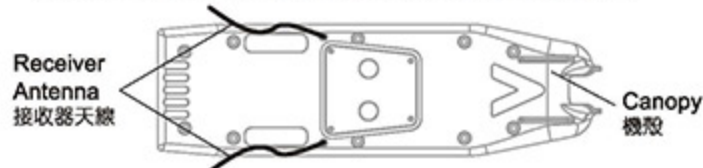
Receiver Antenna
接收器天線

Canopy
機殼

XT60

IMU Circuit Board
IIMU電路板
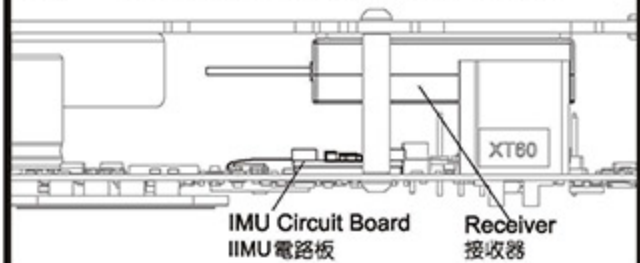
Receiver
接收器

4 MAIN FRAME ASSEMBLY
機身上側板組裝

1. After mounting receiver, reinstall the lower & upper DV mount back to the main frame.

2. Reinstall the (12) M2.5x6mm button head socket screws to secure the upper frame plate in place. DO NOT over tighten screws.

1. 接收器組裝完成後，依序將DV固定座-下、DV固定座-上，裝回機身原位置。

2. 再將原拆下的半圓頭內六角螺絲M2.5x6mm鎖回，固定機身上側板。

Latch
卡勾

Ribbon Cable
DV攝影機排線

Socket Button Head Screw
半圓頭內六角螺絲
M2.5x6mm
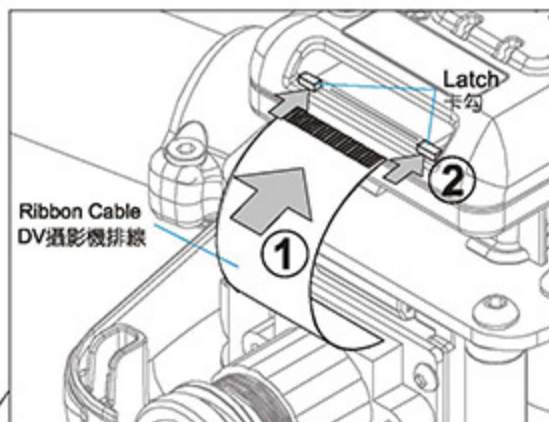
After reinstalling upper frame plate, firmly attach the DV camera ribbon cable and latch.

待機身上側板組裝完成後，再將DV攝影機排線接回，並把卡勾扣緊。
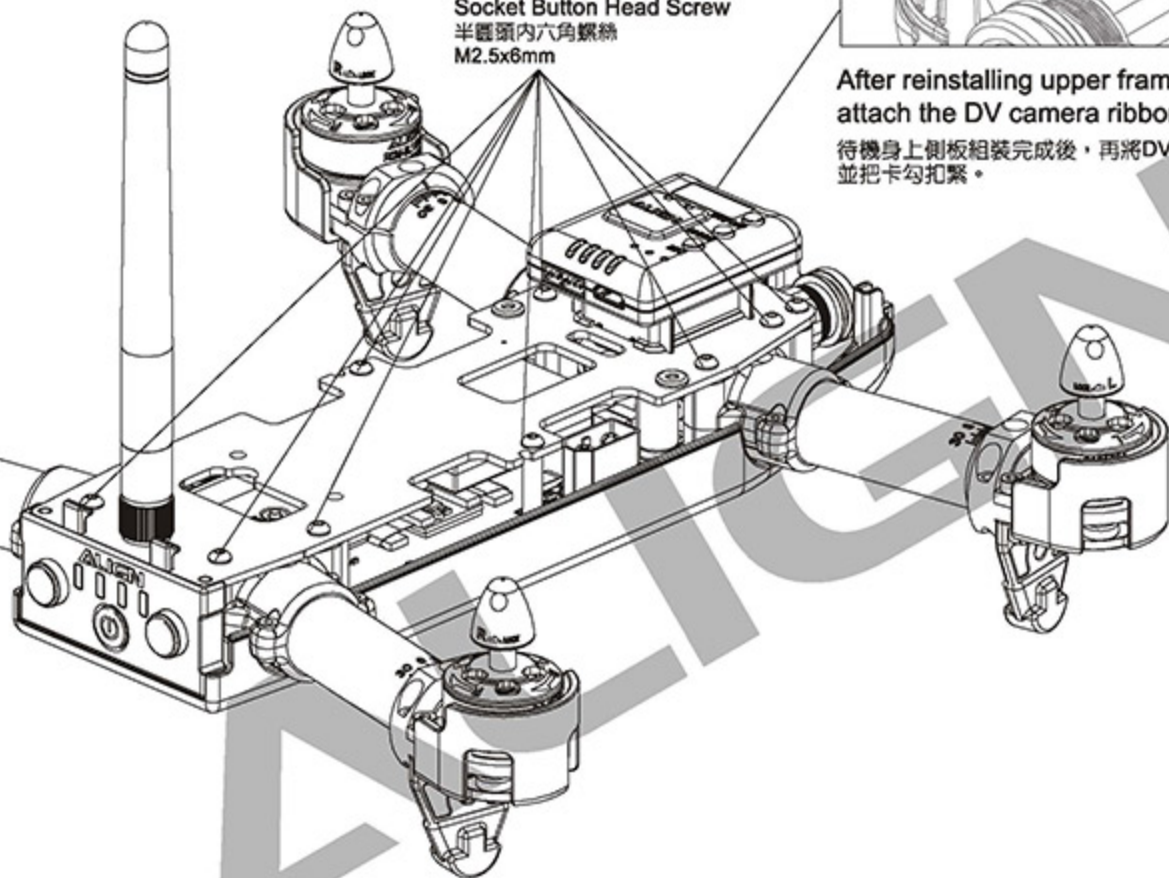
⚠ CAUTION
注 意

When re-installing upper main frame, make sure the aircraft is on a level surface. We recommend rechecking all screws to confirm they are firmly in place.

上側板鎖回機身時，一定要把穿越機放在平穩的桌面上，最好是有加上玻璃墊的，再確實將螺絲鎖緊，以避免四根馬達管腳不等高造成機身搖晃，確保機身完全平衡。
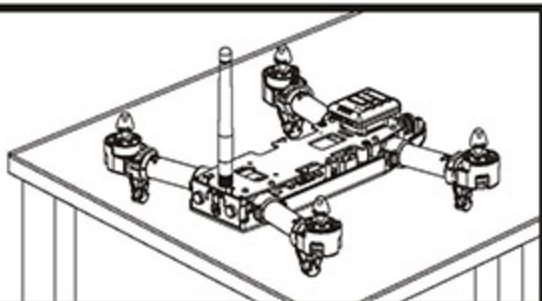
⚠ WARNING
警 告

Prior to each flight, carefully inspect all parts such as, propellers, propeller nuts, arms, main frame, and other components, to ensure they are firmly secured and show no unusual wear. Failure to perform preflight inspection can result in an unforeseen danger.

每趟飛行前須仔細檢查：螺旋槳螺帽及機身各部位螺絲確實鎖緊、螺旋槳沒有損壞變型、且電子零件接線沒有鬆動的現象，才能升空飛行。

5 RECEIVER CONNECTIONS
接收器接線示意圖

Connect your receiver to the appropriate MRS port as indicated.
接收機接線方式，請依所使用的接收器類型接於指定孔位。

Receiver Port Positions
接收器接線位置
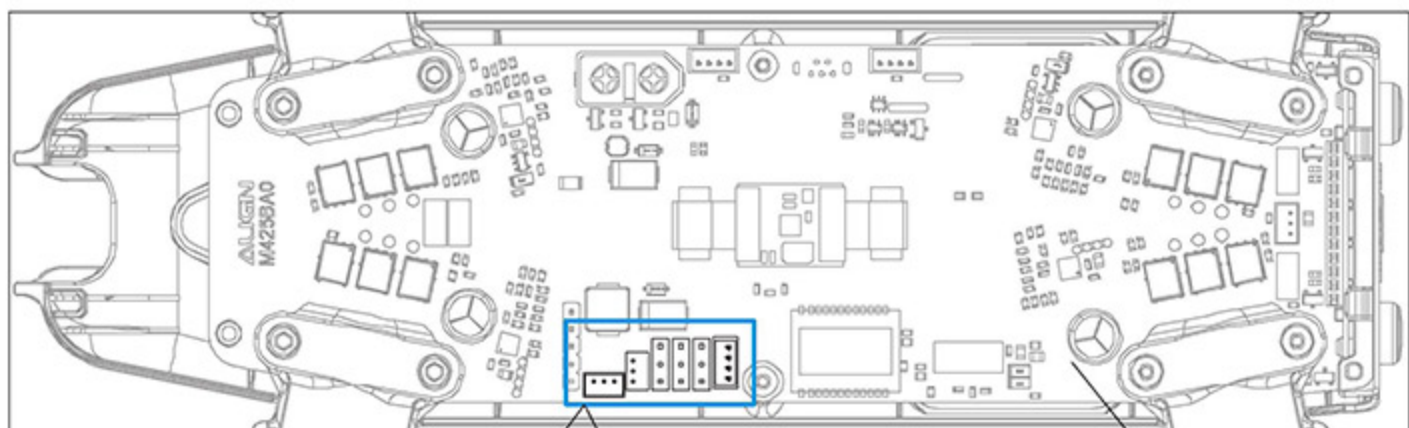
Receiver Port Positions
接收器接線位置

Intelligent Integrated Circuit Board
高智能整合式電路板

Receiver Port Positions
各類接收器接線位置

a) JR/Spektrum Satellite
   JR/Spektrum 衛星天線

b) JR DMSS Satellite
   JR DMSS 衛星天線

Yellow 黃
Red 紅
Brown 棕

Please connect wires
following correct orientation
請依正確方向接線

Heat Shrink Sleeve
-Black
黑色熱縮套

Brown 棕
Red 紅
Yellow 黃

Satellite Adapter
衛星天線轉接線
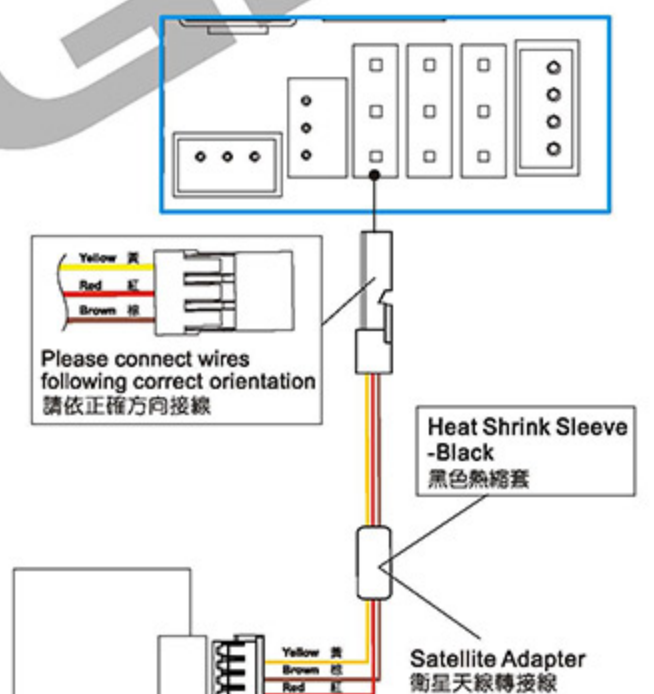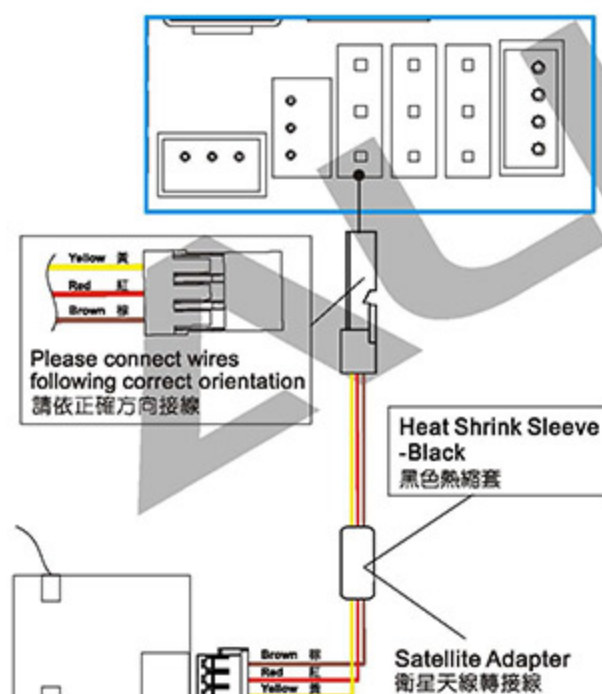
⚠ **WARNING** 警告

Make sure to ONLY USE the recommended Align
MR25 JR/Spektrum satellite adapter. Failure to
use recommended adaptor may cause burn out or
result in an unforeseen danger.

必須使用Align MR25 JR/Spektrum專用的衛星天線轉
接線，否則將導致衛星天線燒毀造成不可預期的危險。

Yellow 黃
Red 紅
Brown 棕

Please connect wires
following correct orientation
請依正確方向接線

Heat Shrink Sleeve
-Black
黑色熱縮套

Yellow 黃
Brown 棕
Red 紅

Satellite Adapter
衛星天線轉接線

Required Items
自備

Switch to 4 pin plug.
更換為4pin插頭

⚠ **CAUTION** 注意

When switch to 4 pin plug, make sure to
follow the connection instruction, or it may
cause unforeseen burned out and danger.

更換4pin插頭時，請依照圖示訊號線顏色順序
安裝，安裝錯誤會造成天線燒毀。

Receiver Port Positions   各類接收器接線位置

c) Futaba S.BUS/ JR X.BUS/ FS iBUS
Futaba S.BUS/ JR X.BUS/ FS iBUS

White 白
Red 紅
Black 黑

Please connect wires following correct orientation
請依正確方向接線

S.BUS
1
2
3/B
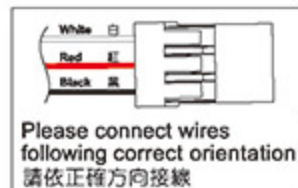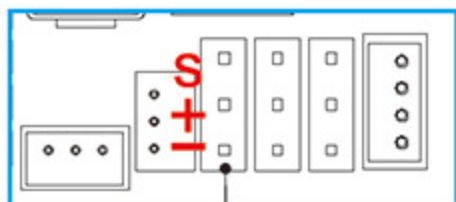
d) Standard Receiver
傳統接收器
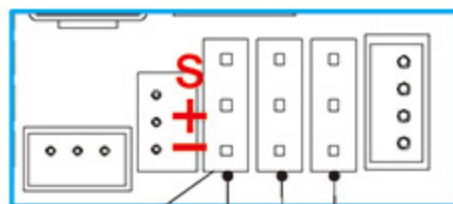
Wiring Diagram
接線對照表

	AIL	RUD
+	ELE	CH5
−	THR	CH6

AIL
ELE
THR
RUD
CH5
CH6
電源 V

1
2
3
4
5
6
7/B
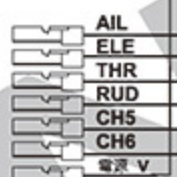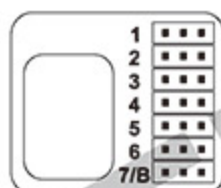
⚠ WARNING 警告

The direction of channel receiver plug varied depending on receiver's brand, make sure to read manual carefully before wiring. Refer to the manual instruction, firmly connect receiver plug S,+,- to receiver outlet S, + , - correspondingly. Incorrect "S, +, -" wiring direction will result in burned receiver and other unexpected danger and damage.

各廠牌接收器頻道插座的正負極方向不盡相同，接線前請務必詳閱您的接收器使用說明書，將連接線 " S、+、- " 正確又緊實地插入接收機相對應的 " S、+、- " 插槽，正負極方向錯誤將導致接收器燒毀或其他不可預期的危險及損失。

⚠ CAUTION 注意

1. When using JR X.BUS connection or DMSS satellite antennas, please select MODE A in your transmitter.
2. The standard receiver only support to Channel 6.

1. 使用 JR X.BUS 接線或 DMSS 衛星天線時，遙控器請選擇"MODE A"模式。
2. 使用傳統接收器，只支援至第6頻道。

Receiver Port Positions
各類接收器接線位置

⊘ FORBIDDEN 禁止

Please follow the instruction manual carefully when installing receiver. Traditional receiver channel ports are reserved specifically for the multi-colored ribbon cable. Do not directly connect standard servo plug into this port where power may be introduced into the MRS. Doing so may cause irreversible damage to the MRS.

安裝接收器時，請遵循說明書組裝方式接線，傳統接法的接口為專用訊號頻道，禁止接入電源否則會造成 MRS 飛控系統燒毀。

⚠ CAUTION 注意

MR25 incorporates a precision high-end circuit board design. Please keep MR25 clean and free of dust, sand, or water by performing maintenance after every flight. Be aware of the flying environment, do not fly in rain to prevent water from entering MR25. Use a high pressure air can or air gun to

MR25 主控板為高智能整合式電路板，應避免水氣或塵土進入 MR25 機體內。可以利用清潔電腦專用高壓除塵空氣罐，或附有空氣濾清器的高壓空氣槍，噴清表面塵土、異物或水氣。

2 BATTERY INSTALLATION
電池安裝

Slightly adjust battery position to achieve the best CG.

將電池固定於機身上側板。電池可前後移動,將機身
重心調整為正確位置。

Optional Equipment
另購品
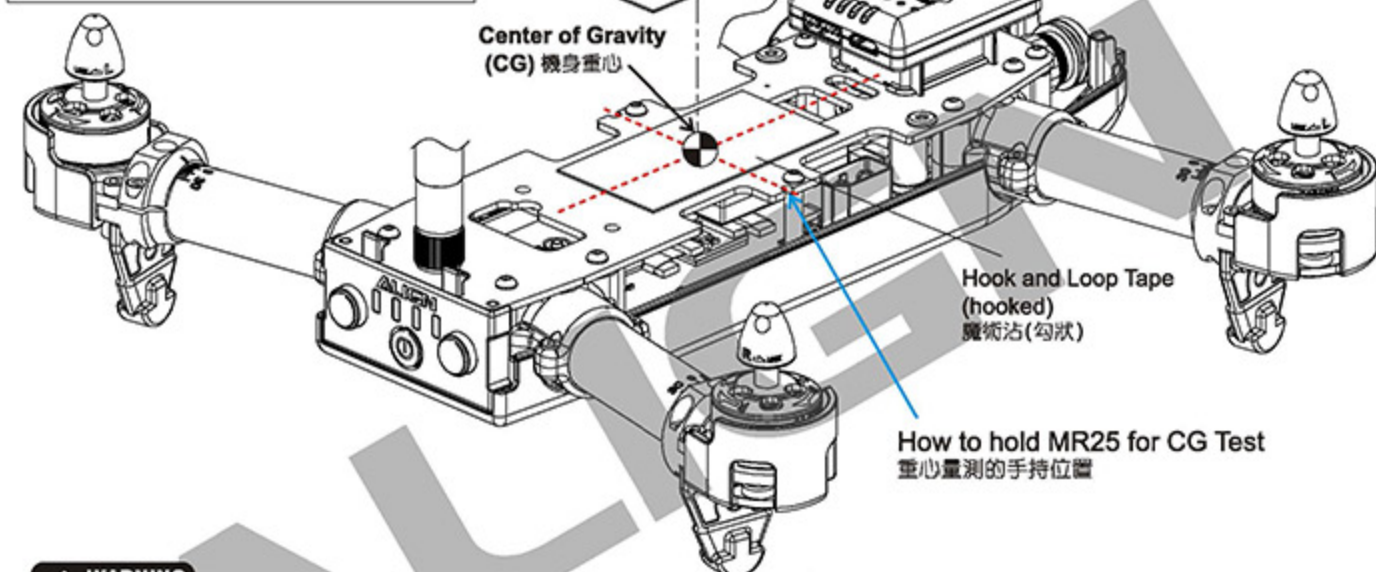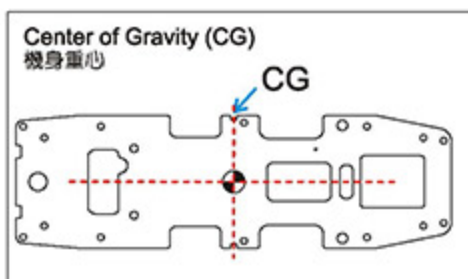
Battery
電池

Max battery size
可容納電池最大尺寸

36mm
93mm
24mm
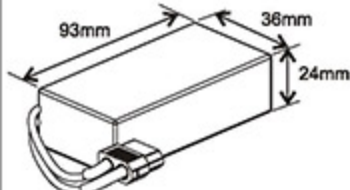
Compatible Battery/ 適用電池
3S 11.1V 1300mAh to 1800mAh.

Center of Gravity (CG)
機身重心

CG

Center of Gravity
(CG) 機身重心

Hook and Loop
Tape (fuzzy)
魔術沾(織毛狀)

Hook and Loop Tape
(hooked)
魔術沾(勾狀)

How to hold MR25 for CG Test
重心量測的手持位置

⚠ WARNING
警告

CG adjustment can affect flight stability and
performance, especially in manual mode, make
sure to keep the CG in the correct level position.

重心調整將會影響飛行性能的穩定性,特別是在手動模式下更
有明顯反應,務必讓重心落在機體的正確位置。

Hook and Loop Strap
魔術束帶

Simple Center of Gravity Test Method
簡易重心量測方式
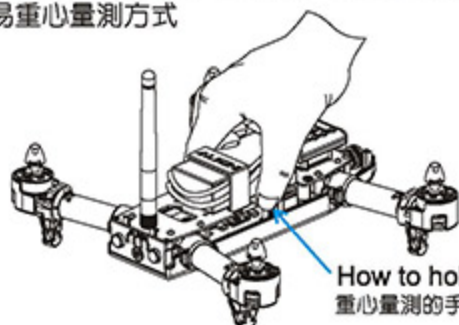
How to hold MR25 for CG Test
重心量測的手持位置

Lift the MR25 in the center on each side of frame using
two fingers to check the CG. Adjust the battery positon
to balance the aircraft.

從機身重心位置雙側提起,調整電池適當位置讓機身保持水平。
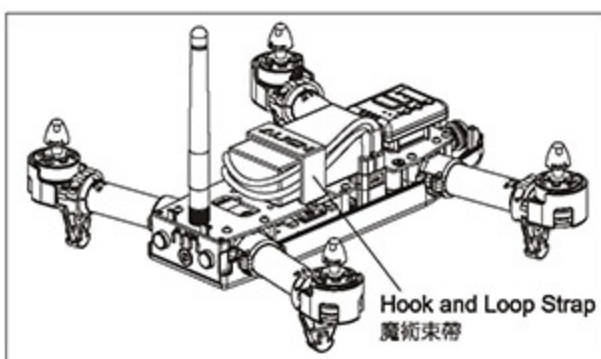
MR25 Power Tip   MR25動力搭配表

Align Motor 亞拓馬達	Battery 電池	Propeller 螺旋槳		
		5040	5045	6040
RCM-BL1806	3 Cell	v	v	v
	4 Cell	v	v	Prohibited 嚴禁使用
RCM-BL2205 (Optional Equipment) (另購品)	3 Cell	v	v	v
	4 Cell	v	v	Prohibited 嚴禁使用

3 CANOPY INSTALLATION
機殼組裝

1. Snap the canopy rear grooves into the two latchs located at the rear of the MR25.

2. Gently press down on to the front of the canopy until the canopy is sealed and secured in place.

1. 將機殼後方的勾槽穿入電源蓋卡勾位置。

2. 再輕輕將機殼向下按入機身固定。

The unique canopy slip over design allows for easy removal of canopy.

獨家機殼防滑設計，拆裝時更得心順手。

INSIDE OF THE CANOPY
機殼內部

Canopy pin
固定插銷

Canopy Pins
固定插銷

Grooves
勾槽

Latch
卡勾

① Snap the canopy grovers into the two latches located at the rear of the MR25.
機殼尾部先扣在卡勾

② Latched to frame
完全卡住機身
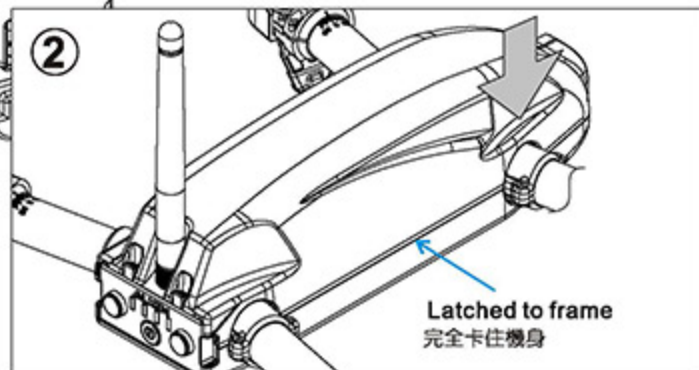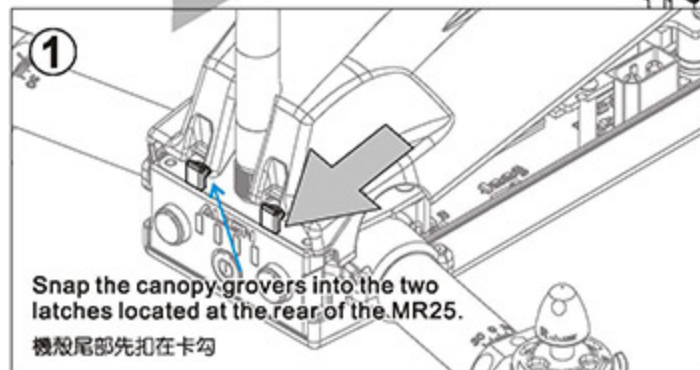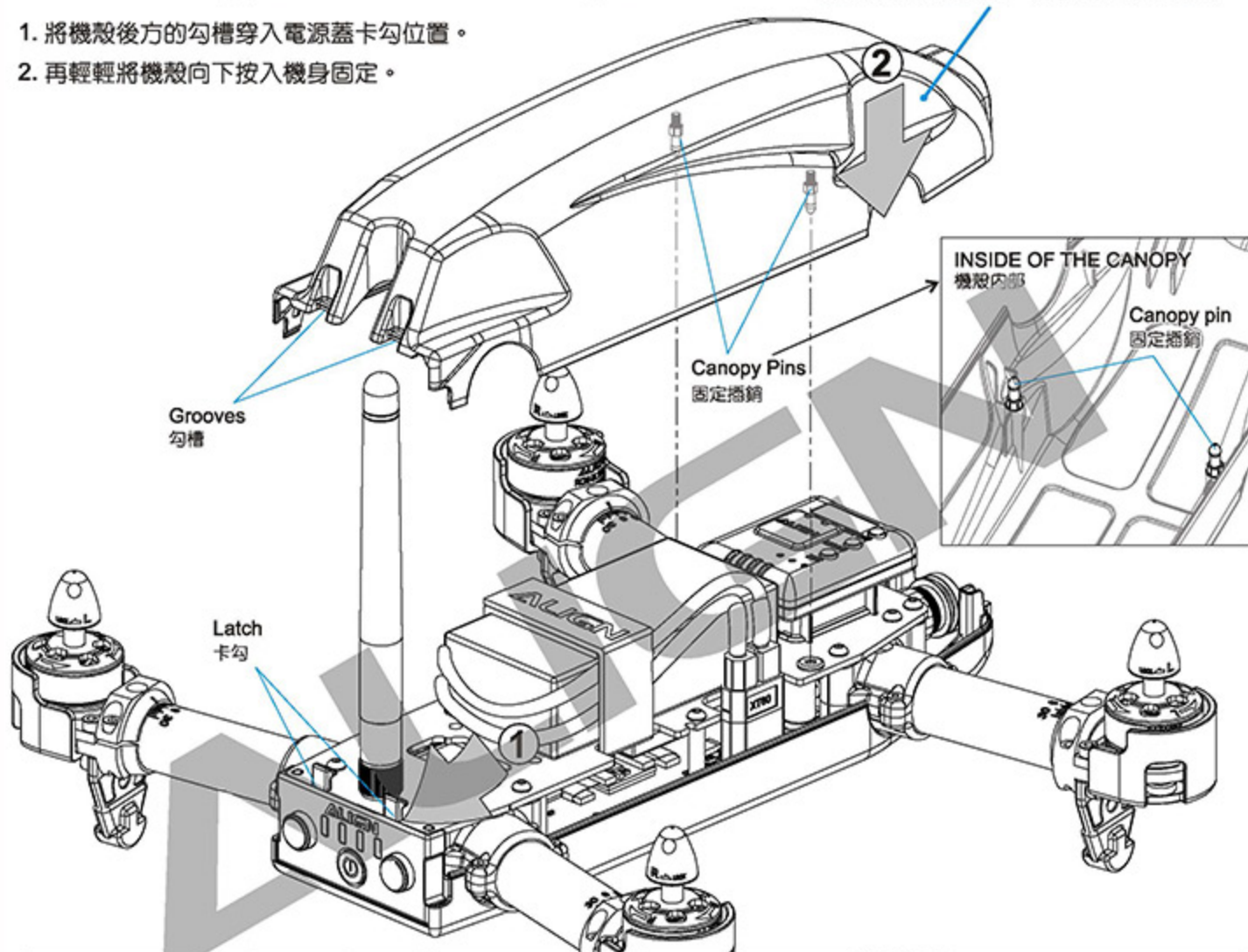
⚠ CAUTION
注意

Ensure canopy is latched to the frame plate to prevent accidental separation during flight.

機殼裝上機身時，請務必確認機殼完全卡住機身，避免飛行時脫落，而導致不可預期的意外。

⚠ CAUTION
注意

Canopy must be installed to avoid turbulance disturbance and ensure optimal flight performance.

飛行時必須蓋上機殼，以確保飛行機不受氣流干擾達到最佳的飛行效能。

4 PROPELLER ASSEMBLY
螺旋槳組裝

1 MOTOR ROTATION DIRECTION
馬達正逆轉方向

⚠ **CAUTION**
注 意

Find the motor direction identifier which is located on the top of each motor housing; R indicates clockwise rotation and blades marked with "Align R" must be used on this motor, L indicates counter-clockwise rotation and blades marked with "Align L" must be used on this motor.

組裝前請確定馬達上所標示的正、逆轉方向符號：R向馬達組必須搭配R向螺旋槳；L向馬達組必須搭配L向螺旋槳。

R: Clockwise
R：正轉

L: Counter Clockwise
L：逆轉
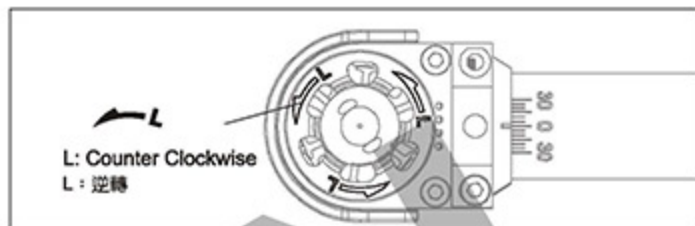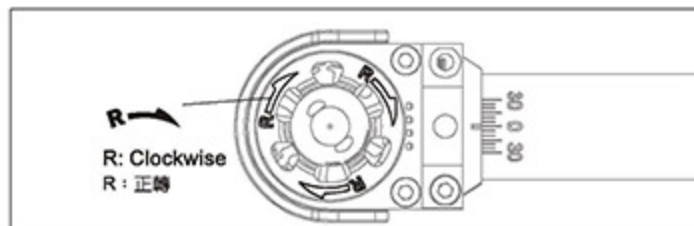
2 PROPELLER ROTATION DIRECTION
螺旋槳正逆轉方向

R Rotation Specific Propellers
R向專用螺旋槳

R indicates clockwise rotation and blades marked with "Align R" must be used on this motor.
R向螺旋槳專用識別圓圈

ALIGN R   5045

L indicates counter-clockwise rotation and blades marked with "Align L" must be used on this motor.
L向螺旋槳無圓圈

L Rotation Specific Propellers
L向專用螺旋槳

5045   ALIGN L

Motor Rotation Direction Diagram
馬達轉向示意圖

Ⓡ M4   Ⓛ M1
Ⓛ M3   Ⓡ M2
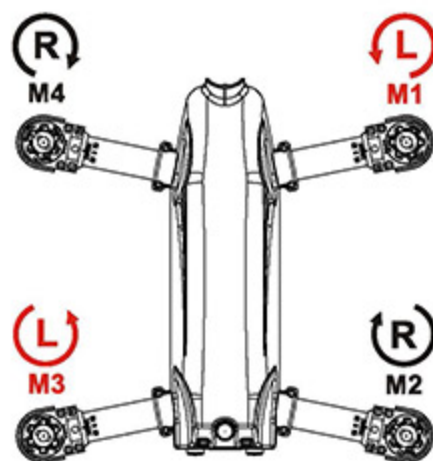
🚫 **FORBIDDEN**
禁 止

Always Keep Your Eyes And Body Away From Propeller Rotation. Never Hold Aircraft In Hand. To Prevent Unexpected Accidents, Never Allow Aircraft To Fly In Close Proxciment To People.

請隨時注意，無論在任何時候，都不能將運轉中的螺旋槳對著眼睛，並且要遠離身體及人群，否則將導致不可預期的意外發生。

⚠ **WARNING**
警 告

To protect motor and electronic equipment, the propeller material is designed to crack or break, reducing damage on impact to aircraft. Examine propellers regularly and replace as necessary. Stop flying after a collision, rotational imbalance, or any abnormal sound from aircraft to prevent any danger to individuals and property.

螺旋槳使用的材質在碰撞時會發生斷裂，是為了保護馬達及電子設備，以降低損壞程度。因屬於消耗品，所以在發生碰撞後或有旋轉不平衡、發生異音等狀況，務必暫停飛行，請隨時檢查並定期更換，以防發生危險而造成人員及財物的損失。

⚠ **WARNING**
警 告

Incorrect sequence of motor tube assembly, improper installation of propeller(s), or changes made to rotational direction(s) of motor may cause an immediate flip-over of MR25 on takeoff.

螺旋槳組裝錯誤或自行更改馬達、螺旋槳R/L轉向，將會造成機體升空後翻滾、撞毀，嚴重的將導致不可預期的意外發生。

3 FIXED PROPELLER
螺旋槳固定

To replace propeller, loosen propeller nut. Check the motor direction identifier L/R which is located on the top of each motor housing. Insert the proper Align L/R propeller. Each motor nut is marked with either a R or L. The motor, propeller, nut rotation mark L/R must match. Secure the propeller by tightening the propeller nut.

鬆開螺旋槳螺帽，依照馬達上所標示的正、逆轉方向符號，將正確轉向的螺旋槳穿過馬達軸心，固定於馬達上正確位置，務必將螺旋槳螺帽鎖緊。

Propeller Nut
螺旋槳螺帽

Propeller
螺旋槳

L
L: Counter Clockwise
L：逆轉

Multirotor Brushless Motor
多軸無刷馬達

R R: Clockwise
R：正轉

R indicates clockwise rotation and blades marked with "Align R" must be used on this motor.
R向螺旋槳專用識別圖圈

Hex head wrench
L型六角扳手

Lock

Make sure to properly tighten the propeller nut to secure propeller.
組裝時務必將螺旋槳螺帽鎖緊。

🚫 FORBIDDEN 禁止

ONLY USE PROPELLERS APPROVED BY ALIGN! Such as Align standard 5040/5045/6040. The use of any NON-APPROVED propeller will cause: ESC power outage, motor or electronic burn out, and other unforeseen dangers.

嚴格禁止使用6040以上螺旋槳，包含非原廠6040，例如6045、6050：不當的使用將導致於動力最大輸出時，ESC斷電、馬達、電子零件燒燬等不可預期的意外發生。請使用亞拓5040/5045/6040螺旋槳。

⚠ WARNING 警告

Confirm motor rotation direction, prop nut directional label, and propeller directional label before assembly. They must all be the same L/R rotation direction as listed in the instruction manual. Incorrect assembly or modification(s) may cause unexpected results or bodily injuries.

組裝螺旋槳時，務必再次檢查及確認，馬達轉向、螺旋槳、及螺旋槳螺帽上的轉向標示一致，錯誤或任意變動機體，將會導致不可預期的意外或人員傷害。

🚫 FORBIDDEN 禁止

When checking the motor and propeller rotation NEVER HOLD the aircraft by hand. Make sure there are no obstacles near the propellers.

調整或檢測馬達螺旋槳轉動過程中具有危險性，嚴禁以手握穿越機進行調整或檢測。請確認穿越機旁沒有雜物、並且避開螺旋槳轉動範圍，以免發生危險，否則將會導致不可預期的意外或人員傷害。

Propeller Rotation Direction
螺旋槳轉向示意圖

R M4

L M1

L M3

R M2

Rear Light /
Turn Signal Light (Left)
後燈/方向燈(左)

Rear Light /
Turn Signal Light (Right)
後燈/方向燈(右)

Power Button
啟動電源鍵

Battery level LED display
電池電量指示燈

BATTERY LEVEL INDICATOR DESCRIPTION
電池電量指示燈說明

Battery level LED display 電池燈號顯示	Battery level indicator 電量顯示
▌▌▌▌	75%~100%
▌▌▌☐	50%~75%
▌▌☐☐	25%~50%
▌☐☐☐	0%~25%

POWER UP AUDIBLE ALARM
開機聲音提示

Status 開機狀況	Audible Indicator 聲音提示
Power ON 開機完成	After initial audible sounds the MR25 will beep two times. (The battery LED is solid after scrolling) The bottom motor mount LED slowly fades from dark to light repealty. 音樂後－滴滴 音 (兩聲確認音)。 (跑馬燈後，電池電量指示燈恆亮)底燈與馬達座 燈重覆慢速由暗轉亮狀態。(如同呼吸頻率)。
Abnormal Power-ON 開機異常	After audible sounds - LED rapidly flas. 音樂後-LED呈快速閃爍。

POWER ON 電源開啟

Battery level check: Momentary press of power button to check remaining power.
Power On: Press and hold power button for 3 seconds until battery indicator LEDs light up and
           Status LEDs flash.
Power Off: Press and hold power button for 3 seconds until all LEDs shut off.

檢查電量：短按電源鍵檢視剩餘電量。
開啟電源：長按電源鍵3秒，電池電量指示燈亮起與模式燈閃爍，即完成開機動作。
關閉電源：長按電源鍵3秒，所有燈號熄滅，即完成關機動作。

AUTOMATIC POWER SHUT-OFF 智慧型電源自動關閉

MRS's intelligent power management system will automatically power off after landing.
MRS's factory default hibernation function is OFF, which can be adjusted to 5-10 minutes based
on actual needs.

MR25/MR25P具備智慧電源管理功能，當穿越機降落閒置時，會執行電源關閉保護。自動關閉時間原廠預設值為關
閉，您可以依實際需求設定關機時間。

6 FLIGHT NAVIGATION LIGHT
飛行指示燈

High intensity LED's are located on the bottom, motor mounts, and back plate. These LED's can be configured to 16,777,216 customizable colors using our smartphone APP. This provides the ablity to personally customize the LED lights to your perference suppassing other quads on the market.

The LED color of bottom lights, rear lights, and rear motor mount lights are set to the same color and can be changed in the APP. The front motor mount lights color will automatically change corresponding to show where the nose is.

MR25/MR25P 於機身底部、後控制面板與馬達固定座,配備個性化智慧型高亮度LED燈設計。透過手機APP可調整LED燈的顏色,高達256³的調整方式,可做出16,777,216種變化,創造與眾不同的風格,突顯個人特色。

機身底燈、後燈、馬達座燈(後),預設為相同燈號,是主要調整更改顏色的依據;而馬達座燈(前)則是對應顏色,會因顏色調整後的變化,對應出不同燈號,可清楚分辨機頭方向。

Motor Mount Lights(Front)
馬達座燈(前)

⚠ CAUTION 注 意

The front motor mount LED's color is automatically set by the factor to be different than the other LED lights in order to identify the location of the nose.

馬達座燈(前)的兩個燈號,出廠預設顏色與機身其它燈號不同,做為分辨穿越機頭向的識別。

Bottom Lights
底燈

Motor Mount Lights (Rear)
馬達座燈(後)

Rear Light / Turn Signal Light
後燈/方向燈
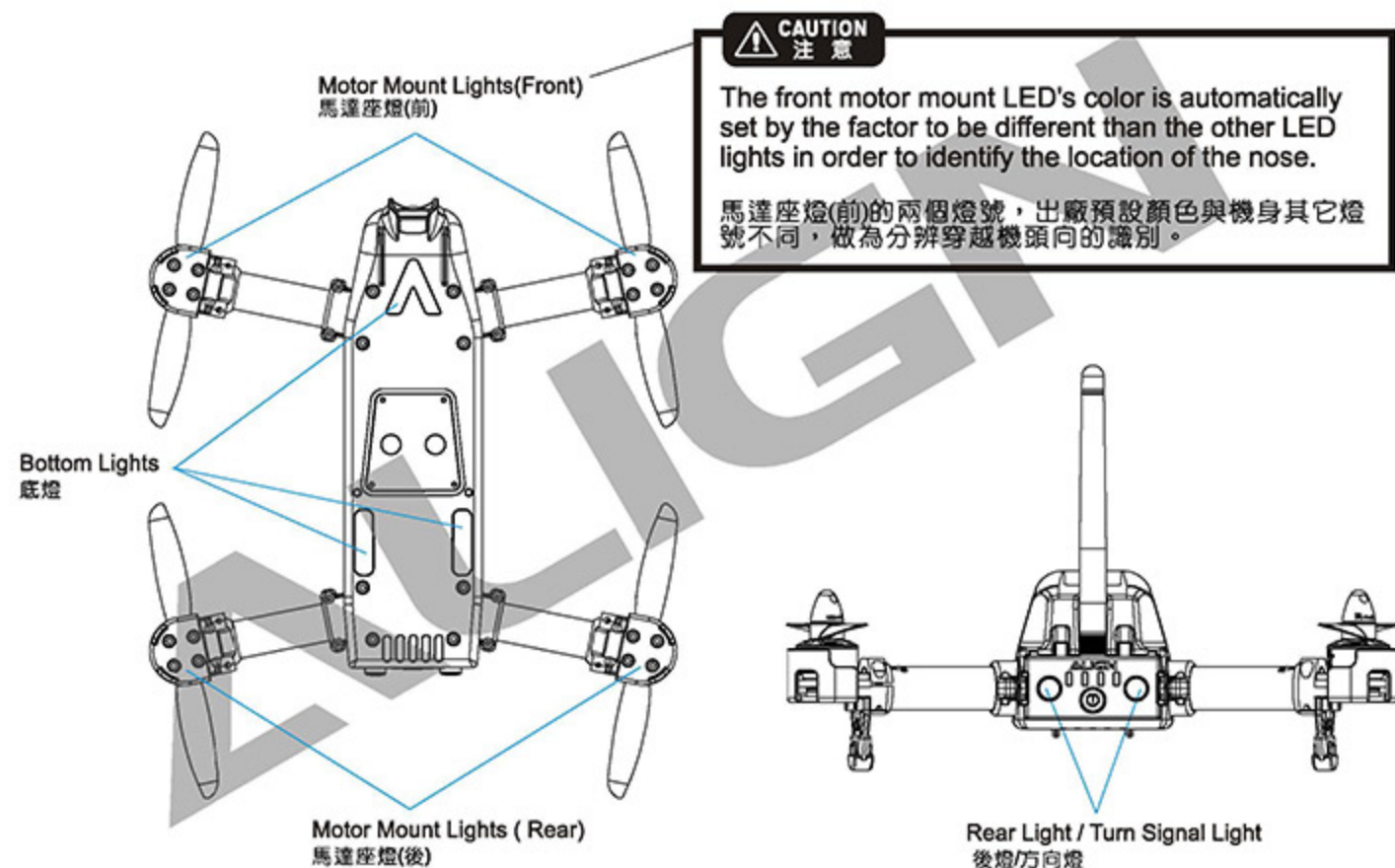
REAR LIGHT / TURN SIGNAL LIGHT INDICATOR DESCRIPTION 後燈／方向燈指示說明

Mode 1	Mode 2	Control Stick Movement 遙控器動作指示	Rear Light / Turn Signal Light Status 後燈／方向燈顯示狀態
		To pull back elevator stick for the brake. 遙控器升降舵往後拉為煞車。	Constant rear light stands for flying; rapidly flash light stands for brake. 飛行中後燈為恆亮,煞車時燈號為快速閃爍。
		Right rudder to turn right Left rudder to turn left 右轉-遙控器尾舵打向右邊 左轉-遙控器尾舵打向左邊	When aircraft turn to the right, right rear light will be flash; for left turn, then the left rear light will be flash. 當穿越機向右轉時右燈會閃爍、左轉時則左燈閃爍。

IIn order to clearly identify the nose of the MR25 the color of two front motor mount lights are factory set to a different color than other lights.

Using the APP the LED's light color can be changed and/or brightness can be adjusted, providing an outstanding visual appearance which is personally customizable using LED light mixing!

馬達座燈(前)的兩個燈號，出廠預設顏色與機身其它燈號不同，做為分辨穿越機頭向的識別。

調整機身燈號顏色，只要透過手機APP調整LED燈的RGB顏色，就能變化出您個人專屬的色彩；同時還能調整燈號亮度，創造與眾不同的MR25/MR25P，突顯個人的風格。

COLOR CHART 燈號顏色對照表

Color 顏色	Red 紅	Orange 橙	Yellow 黃	Green 綠	Blue 藍	Purple 紫	White 白	Black 黑
R	255	255	255	0	0	255	255	0
G	0	150	255	255	0	0	255	0
B	0	0	0	0	255	255	255	0

Apply a personal color combination, by mixing LED lights, to your Racing Quad and be the one who stands out in the race! With more than 16,777,216 available color choices virtually any color combination is possible. This chart only lists main colors.

此對照表僅列出主要顏色參考值，高達256³的調整方式，可做出16,777,216種變化，依個人喜好選擇適當色彩。

MOTOR MOUNT LED LIGHT CONNECTIVITY METHOD 出廠設定馬達座燈源線示意圖

⊘ FORBIDDEN 禁 止
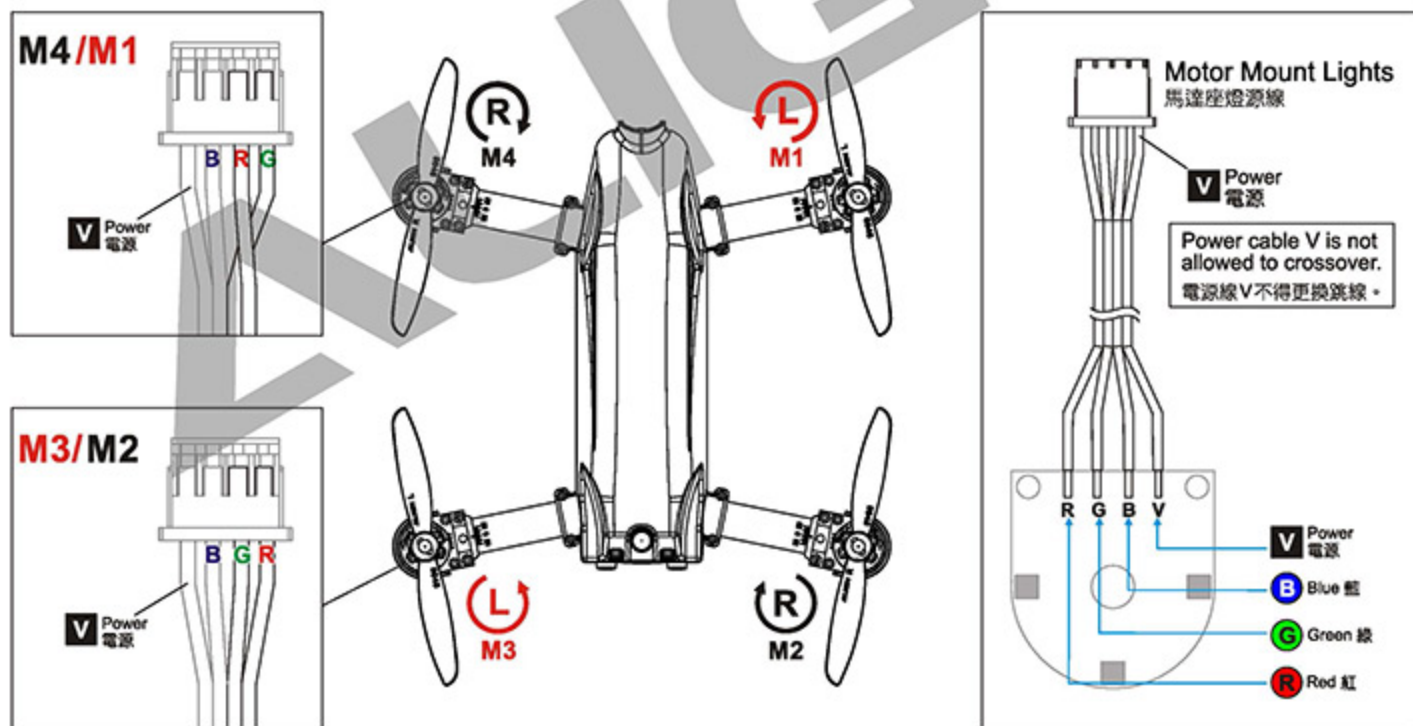
1. The Power Cable V is not allowed to crossover.
2. Use caution when removing the contact and conductor, otherwise you can casue damage or short circuit (Plase what will short circute here) which will cause an unforeseen danger and crashes.

1. 電源線V不得更換跳線。
2. 拔插線芯時，嚴禁用力拉扯，否則會造成破損與短路，而發生不可預期的危險。

Lens cap
鏡頭蓋

Shot
鏡頭

DV Control Panel
DV 控制板

Micro SD Memory Card
Micro SD記憶卡

Optional Equipment
另購品

ON/OFF

MODE Switching
MODE切換

Rec./Shutter
REC./快門

LED 1
LED 2
LED 3

Micro SD Memory Card / System Update
Micro SD記憶卡／軟體升級
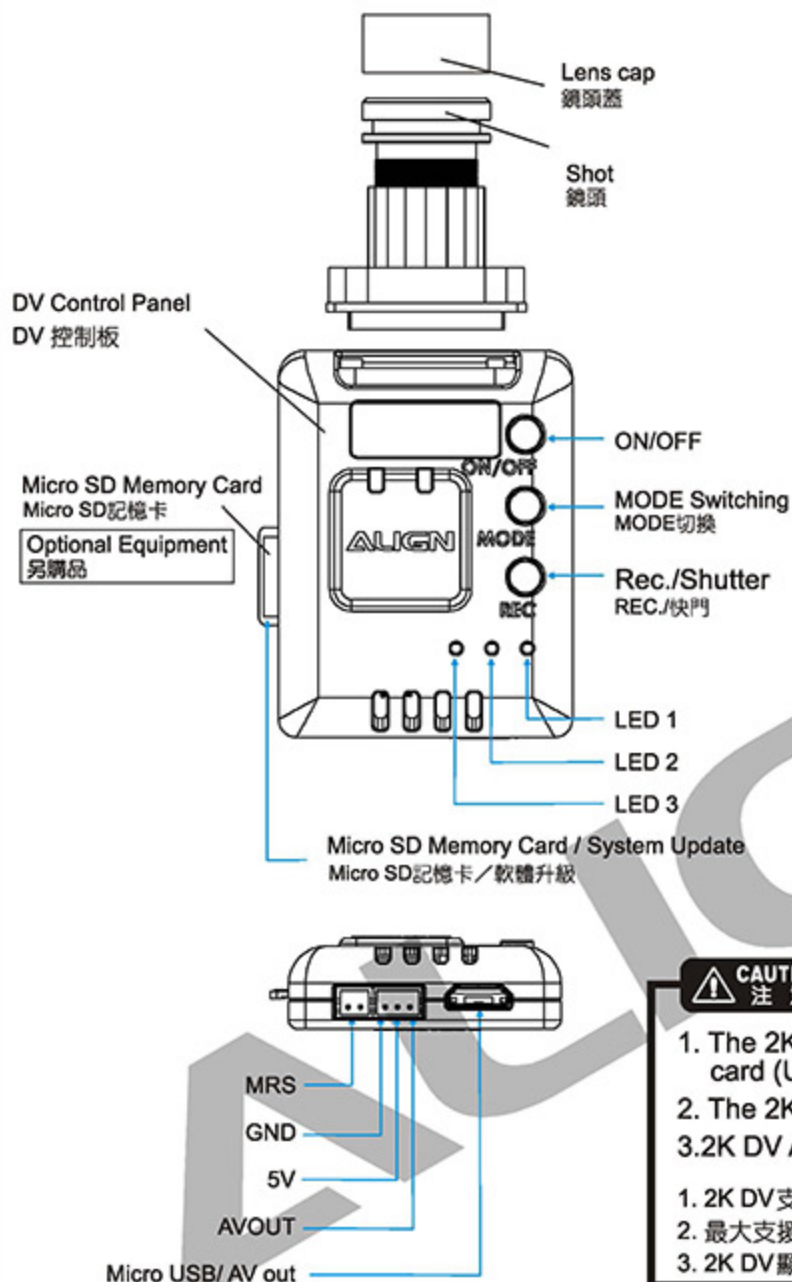
⚠ CAUTION 注意

Lens cover protects the camera lens from dust, dirt, and prevents scratching. Remove lens cap prior to flight.

鏡頭蓋能有效保護鏡頭的清潔預防刮傷，在準備飛行時請取下鏡頭蓋，並妥善保存。

DV BUTTON FUNCTION DV設定鍵功能說明

ON/OFF	ON/OFF: Press and hold the button 長按-開機/關機
MODE Switching MODE切換	Mode switch: Momentary press the button 短按-切換拍攝模式
Rec./Shutter REC./快門	Record/Shutter: Momentary press the button 短按-開啟/結束錄影，或快門拍照

INDICATOR DESCRIPTION 指示燈說明

LED 1	1440P Video Mode 1440P錄影模式
LED 2	1080P/720P Video Mode 1080P/720P錄影模式
LED 3	Capture Mode 拍照模式

MRS
GND
5V
AVOUT
Micro USB/ AV out

⚠ CAUTION 注意

1. The 2K DV supports the use of a Micro SD memory card (Up to 32G) to record onboard video during flight.
2. The 2K DV supports up a 32G Mircro SD memory card.
3. 2K DV Aspect Ratio is 16:9

1. 2K DV支援Micro SD記憶卡，可另購記憶卡記錄飛行中的影像。
2. 最大支援至32GB Micro SD記憶卡。
3. 2K DV顯示比例為16:9。

DV SETUP MENU DV選單設定說明

Allows you to set DV function on FPV display after the DV camera is powered up.

DV攝影機開機後，可透過FPV螢幕顯示各項選單。

ON/OFF	momentary press the button to enter /leave currently folio. 短按-進入或離開此層選單
MODE Switching MODE切換	Press the button-switching menu, momentary press button-proceed to each function of menu. 長按-切換選單：短按-切換選單項目
Rec./Shutter REC./快門	momentary press button-select/confirm the function of menu, proceed to setup folio. 短按-選取/確認選單項目，進入設定畫面

2K DV support PAL Video Output.
2K DV支援PAL影像輸出。

When enter into OSD menu, please press "MODE" button three times to proceed to "Language" setup folio, and momentary press " REC" shutter button to enter "Language" folio. And now please momentary press the button of " MODE" to select your language and proceed to each process of DV camera setup.

進入OSD選單，請長按 "MODE" 鈕三下跳至一般設定選單內的 "語言"，短按REC./快門鈕進入 "語言" 設定頁面。進入 "語言" 設定頁面後，請短按 "MODE" 鈕選擇您習慣使用的語言，來進行DV攝影機各項設定。

General Setting ALIGN	①
Beep	On
2/3 Clock Settings	
Stamp	OFF
Language	English

@12.4V 57 min

Language ALIGN	②
English	Español
1/3 Português	Русски
簡体中文	繁體中文

@12.4V 1.1A 06:02

WIRING DIAGRAM 接線示意圖

− + Video

MR25 DV Video Recroder
MR25 DV 攝影機

2 PIN   3 PIN

Front
機頭方向

Please connect wires
following correct orientation
請依正確方向接線

AV IN
RX +
TX −

Intelligent Integrated Circuit Board
高智能整合式電路板

TX RX AV IN + −
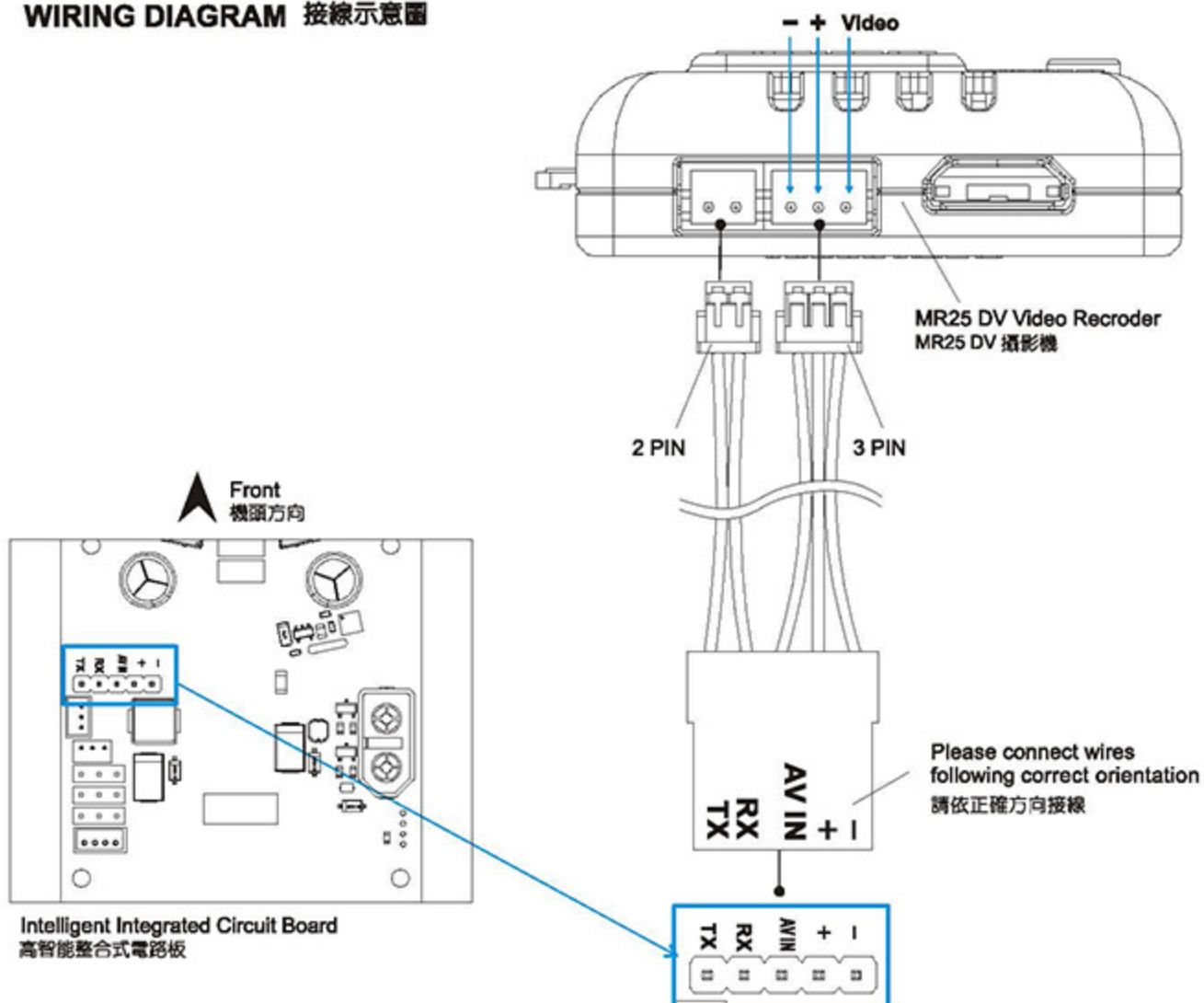
⚠ **WARNING**
警 告

After video recording, the CAMERA DV power must be turned OFF FIRST. After turning off Camera DV turn OFF power to MR25. Remove the SD memory card and save your video recording before your next flight or your video will be over written and you will loss the recording.

當DV攝影機錄影結束後，必須先關關DV電源再關閉MR25電源，這樣才能將錄影檔儲存於SD記憶卡，否則錄影內容將會遺失。

⚠ **WARNING**
警 告

This DV adapter cable has two connectors. Plug the 2-wire and 3-wire connector (fool-proofing design) into MR25 DV video recorder. The other end with one 5-wire dupont connector plugs into the intelligent integrated circuit board. Please, note that the 5-wire dupont connector has no fool-proofing design. The connector MUST LINE UP/MATCH laser print of (TX, RX, AV in, + -) on connector plug to intelligent integrated circuit board with the same (TX, RX, AV in, + -) in front of each pin. If you insert the 5-wire plug backwards you may burn the DV and main circuit board. Therefore, double check the polarity and plug to the main circuit board correctly. DO NOT BEND the circuit board pins, otherwise the crooked pin may cause a short circuit and malfunction.

DV連接線的兩端都有插頭，一邊分別是2pin/3pin端子（有防呆設計），插入 DV 攝影機；另一邊是5pin杜邦接頭，插入高智能整合式電路板。請注意5pin杜邦端子無防呆插頭設計，請務必將連接線端子上方鐳刻文字TX、RX、AV in、＋、－ 對準插入整合式電路版上前方有相同文字的PIN針。若將插頭插反，將導致DV及主電路板燒毀，所以插入前請再三確認極性是否正確，並且將插針正確地插入主電路板，並請注意別把針腳弄歪，歪斜的針腳可能造成短路故障的原因。

Channel Display
頻道/頻率顯示燈

Channel Switch Button
頻道更換鈕

Momentary press the button to change the channel
短按選擇 CH

Press and hold the button to change the Band
長按選擇 Band

CH

ALIGN
FVT600 40CH
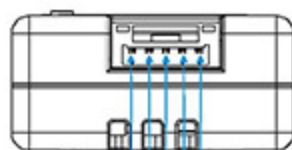
5V-OUT
GND
VIDEO-IN
GND
DC-IN(7-20V)

CHANNEL LIST 5.8GHz圖傳頻段表

	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
BAND A	5740	5760	5780	5800	5820	5840	5860	5880
BAND B	5705	5685	5665	5645	5885	5905	5925	5945
BAND E	5865	5845	5825	5805	5785	5765	5745	5725
BAND F	5658	5695	5732	5769	5806	5843	5880	5917
BAND R	5733	5752	5771	5790	5809	5828	5847	5866

⚠ WARNING
警告

Before turn on the power, make sure the antenna is mounted on the video transmitter correctly, because it helps to release the accumulated current, otherwise too large power may burn out the 5.8G video transmitter.

在打開電源之前,必須將圖傳天線裝上來釋放功率,以避免5.8G圖傳發射器因功率過大而燒毀。

⚠ CAUTION
注意

Channel chart for easy frequency checking. Before turning on your model and transmitter, check to make sure no one else is operating on the same frequency. Frequency interference may cause unforeseen danger and crashes.

頻段表是一個方便確認頻率的工具。在飛行場上,如有其他穿越機準備同時飛行,請確認彼此的頻率沒有相同,否則會造成干擾導致失控而發生不可預期的危險。

WIRING DIAGRAM 接線示意圖

▲ Front
機頭方向
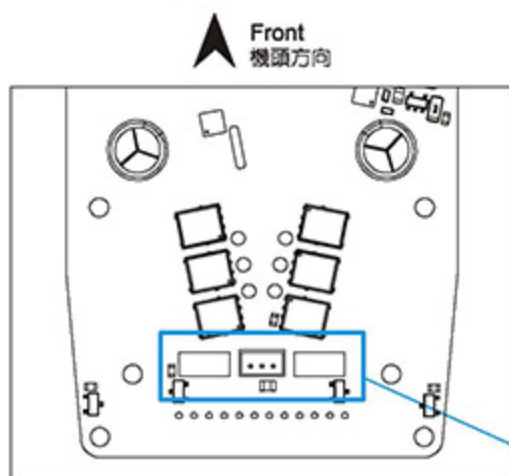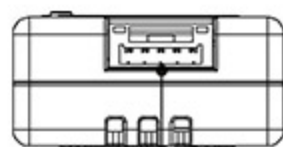
5.8GHZ VIDEO TRANSMITTEREN
5.8G圖傳發射器

The connector is designed with barbed bolt, please do not pull hard when you need to plug/unplug connector, otherwise it may lead to connector and other electronic components damage.

接頭為倒勾設計,拔插時請勿用力拉扯,以免損壞接頭及其相關電子零件。

Intelligent Integrated Circuit Board
高智能整合式電路板

Please connect wires following correct orientation
請依正確方向接線

Video — − +

MRS SOFTWARE INSTALLATION AND SETUP
MRS 安裝與設定

ALIGN

⚠️ **WARNING 警告**

For safety reasons, please remove all propellers during initial setup.

設定MR25/MR25P的過程中，必須將螺旋槳拆下，以避免發生不可預期的危險。

---
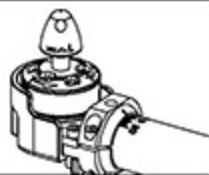
1 SOFTWARE DOWNLOAD AND INSTALLATION
MRS下載安裝

Prior to leaving the factory, MRS flight control system is flashed with the latest firmware version. Visit Align at www.align.com.tw for the lastest news and firmware updates.

MRS飛控系統，在出廠前已是最新版本，請安心使用。您也可以連結至亞拓MRS網站查詢，隨時更新亞拓發佈的最新版本及各項最新訊息。

1.When selecting model type on the transmitter either Airplane or Multicopter is required.

　遙控器選擇飛機或多軸模式：使用MRS時，遙控器必須選擇飛機或多軸模式，才能與MRS正確搭配使用。

```
PARAMETER          (1/3)
RESET▶ Execute
TYPE▶ ACROBATIC

RX▶ S-FHSS
ALT▶ ON
```

⚠️ **CAUTION 注意**

Never enable your transmitter's mixing function.
請勿開啓遙控器混控功能。

2.Please scan QR Code for link to ALIGN website to find related software, or search" ALIGN MRS" in iOS / Android app store.

請掃描QR Code連結亞拓網站下載相關軟體，或是在
iOS/Android App store搜尋 "ALIGN MRS"。
http://www.align.com.tw/download-en/mrs/

Compatible with　**ANDROID APP ON Google play**　**Download on the App Store**

3.Power on your transmitter and multicopter.
　開啓遙控器與啓動電源
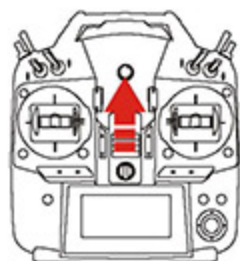
Power ON
電源開啓
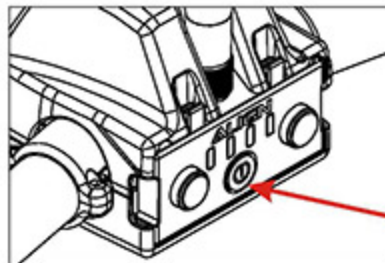
Press and hold for 3 seconds to power up
長按3秒開機

Program Splash Page　程式版本宣告

The splash page is displayed when the program is launched. The MRS program page appears two seconds later.

第一次進入程式，或重新登入顯示版本宣告頁面兩秒後自動進入MRS首頁。

The MRS Disclaimer is diplayed when the APP is launched for the first time. Please, read Align MRS System Agreement in it's entirety. Please, read Align MRS System Agreement in it's entirety.

MRS 免責聲明：

首次使用MRS，系統會顯示免責聲明，請詳讀內容！一旦下載、安裝或使用 ALIGN MRS軟體或其中任何部分，即表示貴用戶同意遵守各項條款與細則。

Connection Status LED Description　連線狀態燈號說明

Green light indicates a normal connection. Red light MRS APP is not connected.

The screen will display MRS current firmware and interface version

綠燈為正常連線；紅燈為未連線。

當MRS為正常連線狀態下，系統會顯示目前MRS的操作 介面版本與程式版本。

Connected 🟢

MRS APP V1.6
MRS Firmware V1.6

Click on "MRS Setup Menu" to enter the setup page.

選擇〔MRS飛行控制器設定〕進入MRS目錄選單。

MRS Setup Menu

READ AND SAVE THE FILE　讀取及儲存檔案

MRS provides a read and save function for parameter settings. Make sure to save all your settings after setup and before performing a system update.

MRS提供讀取及儲存參數設定的功能，在各項選單設定完畢或準備更新程式 之前，可以將喜好的參數設定儲存至手機，做為日後調整設定使用。

Load Parameter File
讀取MRS參數設定檔案

Save the file
儲存MRS參數設定檔案

Attention: Only while you confirm binding with transmitter, then you can change the name of MRS bluetooth.
此功能需在遙控器對頻狀態下進行。

Instruction for how to change the name of MRS Bluetooth

藍牙名稱設定/修改步驟:

1. Connect to MRS, then tap " Search Bluetooth" button.
2. When Bluetooth is connected, it shows "ID" on screen enable to tap and start rename.
3. Type your name (The name can be up to 16 alphanumeric characters long.)
4. Tap "Confirm" button and Bluetooth will disconnect automatically. LED turns solid to start modification.
5. Wait till LED flash to indicate that Bluetooth rename has been completed.

1. MRS連線後,點擊〔搜尋裝置－藍牙〕按鈕。
2. 藍牙裝置在連線狀態下〔ID〕按鈕為顯示,即可點選開啓修改藍牙名稱的視窗。
3. 輸入自訂名稱(最多可達16字元)。
4. 按下確認鍵後,藍牙會自動斷線,且LED燈會恆亮進入修改狀態。
5. 待LED燈恢復正常即完成名稱修改。
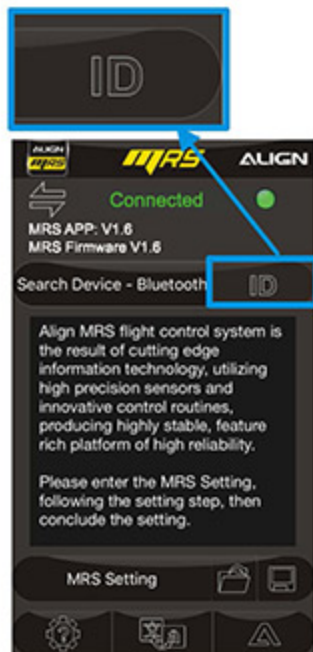
1. Rename cannot be done if Bluetooth is disconnected.
2. For iOS system, when Bluetooth rename has been competed, you will still get the original Bluetooth name on device. So make sure to follow the instruction : to connect >> disconnect >> re-search for Bluetooth again, then it shows the new name of MRS Bluetooth.

1. 在藍牙裝置未連線的狀態下,無法進行藍牙名稱設定/修改。
2. iOS裝置在修改後搜尋到的名稱會是上一個設定,必須先連線後並斷線,重新搜尋才會顯示修改後的名稱。

MRS Setting Selection MRS目錄選單

The MRS Setup Menu allows quick access to each menu selection. When configuring MRS for the first time we recommend using the arrow button to follow setup sequence.

由MRS目錄選單可快速進入所要的選項頁,首次設定MRS建議依序進行設定及調整。

After setup, make sure to click "Confirm" at the bottom of each page to ensure and complete all the parameter settings.
每次設定時,請務必按下"設定確認鍵",確認此次參數設定已調校完成。

1 TRANSMITTER TYPE
遙控器選擇

Please select the receiver type to use. Select receiver type. MRS supports a standard receiver, Futaba S.BUS, FLYSKY i.BUS, Spektrum/JR SAT DSM2, JR X.BUS, JR DMSS Remote Ant receiver. **After setup, make sure to click "Confirm" at the bottom of each page to ensure and complete all the parameter settings.**
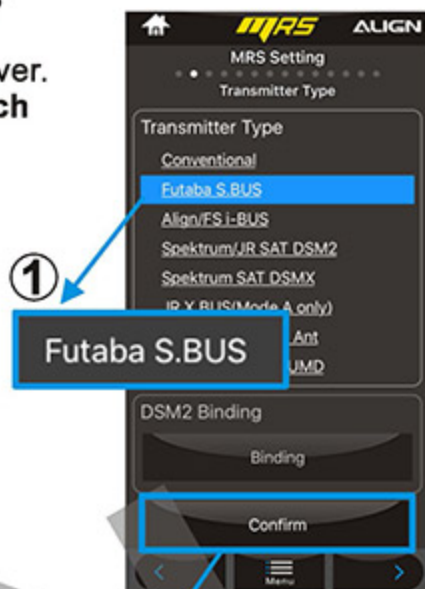
請選擇所使用接收器類型。MRS支援傳統接收器、Futaba S.BUS、FLYSKY i.BUS、Spektrum/JR SAT DSM2、JR X.BUSJR DMSS接收器。**每次設定時，請務必按下"設定確認鍵"，確認此次參數設定已調校完成。**

> ⚠ **CAUTION 注意**
>
> Binding varies based on selected receiver type. Please, refer to the receiver manufacture manual for instructions on binding and wiring.
> 各廠牌接收器的對頻方式不同，請依照原廠指示對頻完成後再進行接線。

Please, refer to Align's website for announcements about the MRS flight controller system, firmware updates, compatibiltiy, and support. 各類型接收器相關支援及更新，請隨時關注亞拓發佈MRS飛控系統的最新版本及各項最新訊息。

Transmitter Type
Conventional
Futaba S.BUS
Align/FS i-BUS
Spektrum/JR SAT DSM2
Spektrum SAT DSMX
JR X.BUS(Mode A only)
Ant
UMD

① Futaba S.BUS

DSM2 Binding
Binding
Confirm

② Click "confirm" to save after select the receiver type.
選擇接收器類型後按〔設定確認〕儲存。

Spektrum/JR SAT DSM2 Binding
Spektrum/JR SAT DSM2 對頻方式

Spektrum/JR SAT DSM2 Binding 對頻方式

Futaba S.BUS
Align/FS i-BUS
Spektrum/JR SAT DSM2
JR X.BUS(Mode A only)
JR DMSS Remote Ant

① **Spektrum/JR SAT DSM2**

Confirm

② **Confirm**

DSM2 Binding
Binding
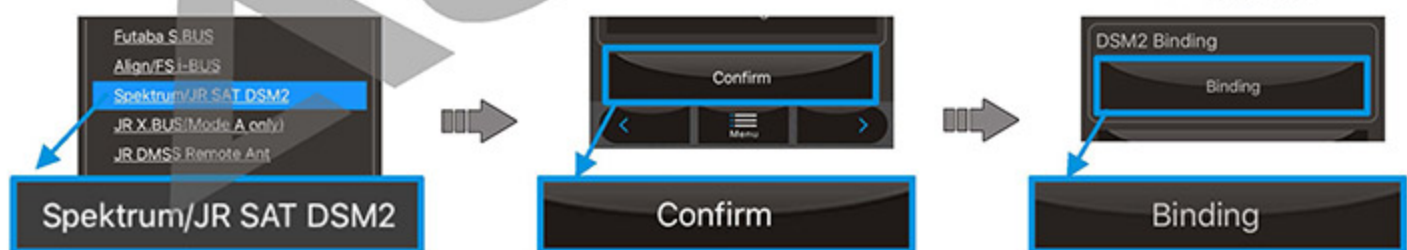
③ **Binding**

① Select DSM2 satellite
點選DSM2衛星天線

② Click "confirm" to save
按〔設定確認〕儲存

③ Press "Binding" button
點選 "對頻" 按鈕

Flashing LED light (binding mode)
LED燈快速閃爍

Solid LED light indicates the Satalite is bound to the Transmitter.
LED燈恆亮
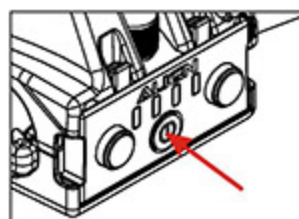
④ To enter receiver bind mode quickly unplug and plug battery from multicopter
重新開機
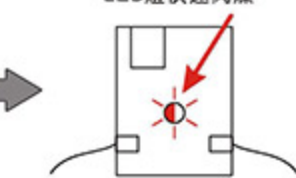
⑤ The LED light on Satellite will blink. You are now in binding mode
進入對頻模式

⑥ Press and hold the "Bind Button" on the Transmitter. Turn on the Transmitter to bind.
遙控器按對頻鈕開機
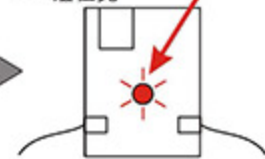
⑦ Allow the Transmitter to complete the binding process
對頻完成

2 RC TRANSMITTER SETUP
遙控器設定

> **⚠ CAUTION 注 意**
>
> When first time setup, make sure to perform and complete travel range calibration, or it may lead to abnormal system control.
>
> MR25初次設定時，請務必要正確執行遙控器行程校正，否則會造成遙控器控制異常。。

CH1~CH4

RC Transmitter Stick Direction and Travel Range Calibration:
1) Before starting, set all EPA / Travel ADJ max and min value on your TX to default 100%, and neutralize all subtrims to 0.
2) Move your RC transmitter sticks and confirm travel direction on aileron/ elevator/ throttle/ rudder correctly matches the PC interface display. Select the " Reverse"on corresponding channels that need reversing.

遙控器搖桿方向、行程校正：
1) 設定此項目前，所有頻道EPA、Travel ADJ最大最小要為預設值100%，所有微調設為"0"。
2) 確認遙控器各動作，副翼、升降、油門、尾舵搖桿方向是否正確，如果介面上顯示方向與搖桿方向相反，可點選該頻道上的"正反向"，讓介面與遙控器一致。

MODE 1 / MODE 2
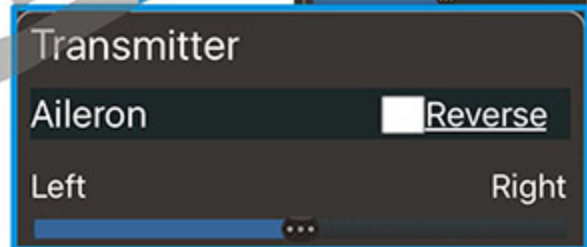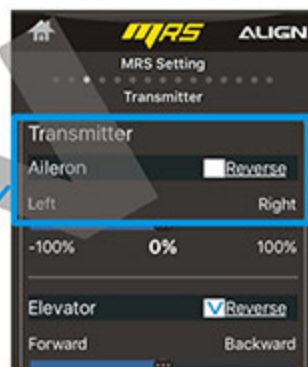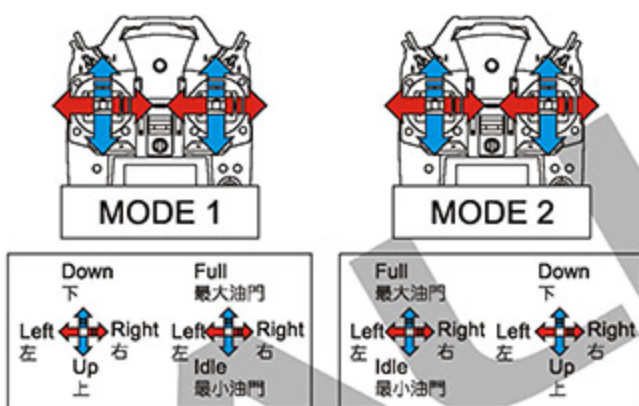
3)Select "Stick travel calibration" and move all sticks on RC transmitter to maximum and minimum position, then click on "Complete"to finish.
3)點選"遙控器行程校正"將遙控器搖桿都推至最大、最小，然後按下"完成"來結束校正。
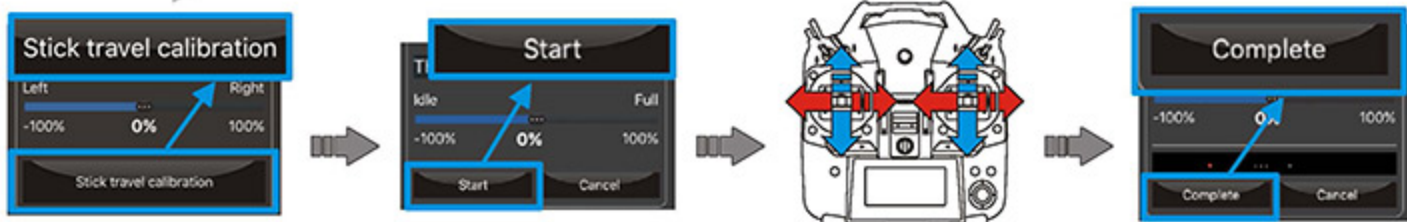
① Click on RC Travel Range Calibraton.
點選遙控器行程校正

② Click on "Start".
點選開始進行遙控器行程校正

③ Move all sticks on RC transmitter to maximum and minimum position.
將遙控器搖桿推至最大及最小

④ Click on "Complete"
完成

> **⚠ CAUTION 注 意**
>
> After setup, make sure to click "Confirm" at the bottom of each page to ensure and complete all the parameter settings.
>
> 每次設定時，請務必按下"設定確認鍵"，確認此次參數設定已調校完成。

CH7 GIMBAL MODE 雲台模式

Auto Tilt Compensation - Assign a 3-position switch on your transmitter to CH7 Gimbal mode.
MR25/MR25P具備了俯仰自動修正功能，可選擇一個三段開關對應CH 7雲台模式。

⚠ CAUTION 注 意
If you are using 6-channel transmitter, then the setting of CH7~CH8 are all default setup. You can set these channels assignment by APP interface software for correction. 如果您所使用的是六動遙控器，那麼CH7、CH8所指定的動作會是出廠時的預設值。若是要更改各頻道動作定義可透過APP介面做調整。

CH7 Gimbal Mode ☐ Reverse
| Auto | Fix | Recording |
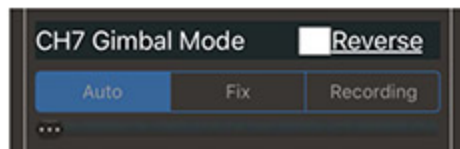
Default Setting: Auto
出廠預設值：自動修正

⚠ WARNING 警 告
After video recording, please make sure to turn off camera DV power firstly, then turn off MR25 power afterwards, to ensure and save the recording video in SD memory card, or it will loss the data. 當DV攝影機錄影結束後，必須先關關DV電源再關閉MR25電源，這樣才能將錄影檔儲存於SD記憶卡，否則錄影內容將會遺失。

▲ Auto 自動
▢ Fix 固定
▽ Recording 錄影
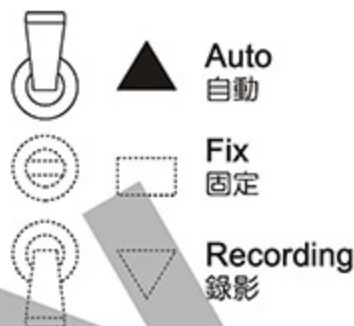
CH8 GIMBAL ANGLE 雲台角度

Gimbal Angle Adjustment - Assign a dial or slider switch on your transmitter to CH8 Gimbal Angle.
MR25/MR25P具備了雲台角度設定功能，可選擇一個旋鈕或滑桿開關對應CH 8雲台角度。

Dial Switch 旋鈕開關

Slider Switch 滑軌開關

CH8 Gimbal Angle ☐ Reverse
-12°   0°   25°
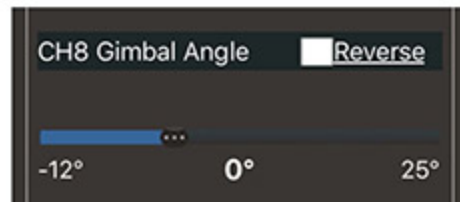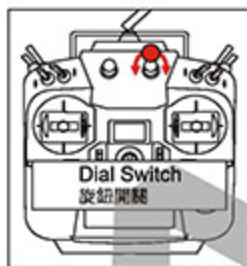
Default Setting: 0 degree
出廠預設值：0度

4 BATTERY / ESC
電池設定/ESC

BATTERY CELL 電池規格

Choose the cell of your battery. If battery specification and setting are different, MR25 motor LED will keep flashing after power up and be unable to use.

選擇使用電池的規格。如果使用的電池與設定的規格不同，MR25開機後馬達燈將會持續閃爍，並無法正常使用。

🚫 FORBIDDEN 禁 止
3Cell battery can be use Align standard **5040/5045/6040 propellers**, **4Cell** battery can use Align standard **5040/5045 propellers only**, strictly prohibit to use other propellers instead of Align 5045 propellers; Improper usage will lead to ESC power outage, motor, electronic burn out and other unforeseen danger and accident. 3S電池請使用亞拓原廠 5040/5045/6040 螺旋槳、4S電池只適用亞拓原廠 5040/5045 螺旋槳，嚴禁使用它廠牌之螺旋槳，否則不當的動力輸出將導致 ESC 斷電、馬達、電子零件燒毀。

MRS ALIGN
MRS Setting
Battery / ESC

Battery Cell
Choose the cell of your battery. If battery specification and setting are different, MR25 motor LED will keep flashing after power up and be unable to use.

ALIGN Motor	Battery	Propeller		
		5040	5045	6040
RCM-BL1806	3 Cell	V	V	V
	4 Cell	V	V	Prohibited
RCM-BL2205	3 Cell	V	V	V
	4 Cell	V	V	Prohibited

| 3S | 4S |

3S or 4S
Choose the cell of your battery. 選擇使用電池的規格。

LOW VOLTAGE WARNING LIGHT　設定低電壓閃燈警示

Set up low voltage warning. Recommended value is 10.5V.

設定低電壓警示，出廠設定為10.5V(建議值)。

3S	4S

Low Voltage Warning Light

Voltage Setting　　　10.5　　V

ALIGN / MR25 BL HELI ESC SETTING　ALIGN /MR25 BL HELI電變設定

Align's brand new MR25 BL Heli with one-shot 125 signal control fuction allows motors to react faster and more precise. With its excellent ESC power control algorithm and motor break function, motors become more reliable, precise, and faster.

The BL-Heli is also equipped with circuit protection design. It effectively provides reliable protection for ESC sensor in high-voltage, high-current, motor stalling conditions, which also prevents the main board from burn out. Superior stall restart function ca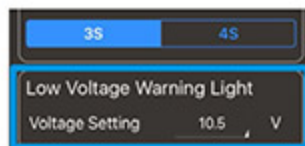n re-start and keep the motor rotating immediately to avoid accident spin stall crashes by hitting articles while flying.

亞拓MR25 BL Heli是運用one shot 125訊號控制，讓馬達反應更到位。搭配優異的電變控制演算法，強勁的馬達煞車功能，可更準確掌控馬達轉速，操控手感更細膩，宛如空中舞動的精靈隨心所欲。

BL Heli具備完整的硬體迴路保護程式，提供電變控制元件能有效對抗高電壓、高電流及驚人的馬達救機續飛功能，可瞬間啓動馬達防堵轉，避免馬達脫相過熱燒毀飛控電路板，減緩因飛行時輕碰造成馬達停轉而墜機的危險。

ALIGN/MR25 BL HELI ESC THROTTLE CALIBRATION　MR25 BL HELI電變行程校正

Please note: skip this process as the new MR25/MR25P V2 BL-Heli throttle has been calibrated at the factory.

Please follow MR25 BL HELi ESC installation to download BL Heli ESC firmware, after completed the new firmware, you need to choose the ESC type for BL HELi ESC, then make sure to click "Confirm" at the bottom of BATTER/ESC page on your phone APP, after that please turn off and restart Mr25, the system will does throttle calibration automatically. And the calibration will be completely done after the beep sound stop or the light of power indicator stop flashing.

MR25/MR25P V2 出廠前已經有執行油門行程校正，此設定可略過。

請按照MR25 BL HELi ESC說明書更新 BL HELi ESC 程式，在電變更新到 MR25 BL HELi ESC 後，請到您手機的 APP 的 「電池/電變」 頁面，在「電變」的選項中點選 BL HELi ESC 後，接著按 「確認」 鍵，執行完畢後請重新開啓 MR25電源，系統會自動執行 BL HELi ESC 油門行程校正。 待響聲停止或電源指示燈全部熄滅代表校正完成。

Please scan QR Code for more detailed MR25 BL Heli installation and description.

更多詳細說明請連結
BL Heli ESC更新方式

ESC Type

ALIGN ESC

BLHeli ESC

Confirm
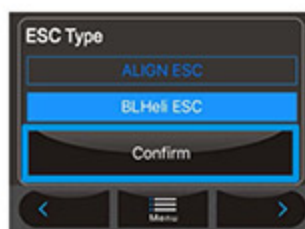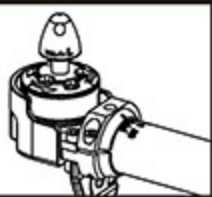
⚠ **CAUTION**　注 意

1. BL-Heli ESC is only compatible with MR25 V1.5 firmware.
2. After updateing BL-Heli ESC: DO NOT FLY quad as you must calibrate the throttle.
3. Failure to properly follow the instructions and set MR25 ESC options correctly may cause abnormal flight performance or MR25 may fail to take off.

1. BL Heli ESC程式必須搭配MR25 V1.5以上主程式。
2. 更新BL Heli ESC，首次飛行前必須執行BL Heli ESC油門行程校正。
3. 請正確選擇MR25 ESC程式選項，如果錯誤將會造成MR25異常或無法飛行。

5 PARAMETER SETTING
飛行參數設定

MR25/MR25P default gain settings have been optimized at the factory; no changes are necessary for flight. In addition, MRS provides independent gain adjustment for Manual and Attitude modes. Excess deviation from default fatory gain settings may affect stability and decrease flight performance. **After setup, make sure to click "Confirm" at the bottom of each page to ensure and complete all the parameter settings.**

Attitude Mode: Maintains level flight.

Manual Mode: Full control by the pilot without any horizontal leveling capabilities. **(Highly recommended not to enable this function if you're an experienced pilot)**

MR25/MR25P出廠預設感度已為最佳適用感度，不須調整即可飛行。另外，MRS提供一般設定、進階設定、感度補償；以及手動、姿態模式各動作的感度調整，可依個人喜好須求調整，感度過大或過小會造成穩定性或操控性變差。**每次設定時，請務必按下" 設定確認鍵"，確認此次參數設定已調校完成。**

姿態模式：自動保持穿越機飛行時姿態水平功能。

手動模式：完全由操控者控制，無自動水平功能。
（強烈建議，不熟悉操作者勿開啟此功能 ）。
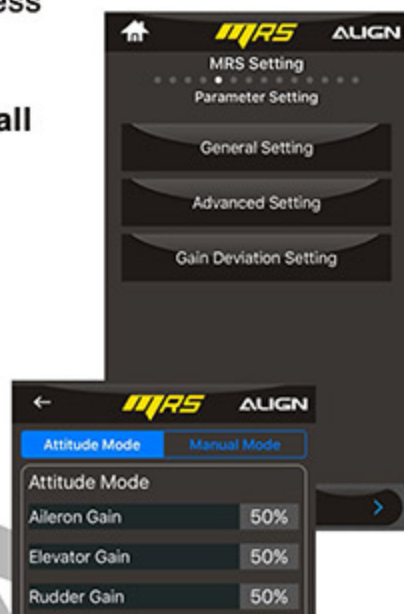
Default Setting: 50%
出廠預設值：50%

GENERAL SETTING 一般設定

ATTITUDE MODE 姿態模式

1. Aileron Gain 副翼感度

   a. MR25 oscillates abnormally during flight when aileron gain is to high. Adjust aileron gain lower, by 5% increments, until the oscillation stops.

   b. MR25 drifts when aileron gain is to low. Adjust aileron gain higher, by 5% increments, until the drifting issue is resolved.

   a.當機體快速飛行時發生抖動現象表示感度過大，請將副翼感度以漸進的方式一次5%調降，直到抖動現象停止

   B.當機體快速飛行時發滑動現象表示感度過低，請將副翼感度以漸進的方式一次5%調升，直到滑動現象停止

---

2. Elevator Gain 升降感度

   a. MR25 oscalliates abnormally during flights when elevator gain is to high. Adjust elevator gain lower, by 5% increments, until the oscalliation stops.

   b. MR25 drifts when elevator gain is to low. Adjust elevator gain higher, by 5% incerments, until the drifting issue is resolved.

   a.當機體快速飛行時發生抖動現象表示感度過大，請將升降感度以漸進的方式一次5%調降，直到抖動現象停止

   B.當機體快速飛行時發滑動現象表示感度過低，請將升降感度以漸進的方式一次5%調升，直到滑動現象停止

3. Rudder Gain   尾舵感度

MR25 tail drifts when flying straight indicates rudder gain is to low. Adjust rudder gain lower, by 5% increments, until the drifting problem stops.

當機體直線快速飛行時機尾有鎖不住的現象表示尾舵感度過低，請將尾舵感度以漸進的方式一次5%調降，直到機尾鎖不住的現象停止。

Rudder Gain	50%
0%	50%	200%

4. Aileron Maximum Angle   副翼動作角度

This is the maximum alieron angle. Adjust alieron angle according to your preference; we recommend beginners to use default setting.

此設定為調整姿態模式副翼最大傾角。
請依照個人習慣、手感進行調整，初學者建議使用原廠預設值

Aileron Maximum Angle	50%
20°	50°	80°
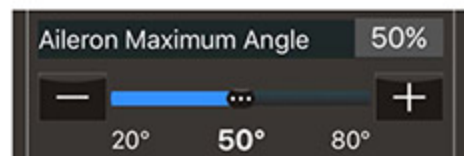
5. Elevator Maximum Angle 升降動作角度

This is the maximum elevator angle. Adjust elevator angle according to your own preference; we recommend beginners to use default setting.

此設定為調整姿態模式升降最大傾角。
請依照個人習慣、手感進行調整，初學者建議使用原廠預設值

Elevator Maximum Angle	50%
20°	50°	80°
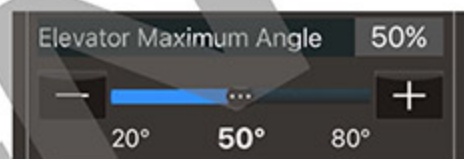
6. Aileron Speed Limit   副翼翻滾速度

This setting is designed to set Aileron Speed Limit. Adjust the aileron speed according to your own preference; we recommend beginners to use default setting.

此設定為調整姿態模式副翼翻滾速度。
請依照個人習慣、手感進行調整，初學者建議使用原廠預設值

Aileron Speed Limit	50%
0%	50%	100%
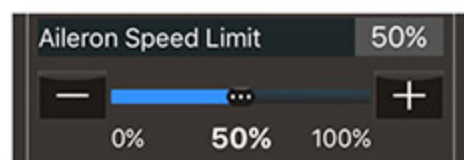
7. Elevator Speed Limit   升降翻滾速度

This setting is designed to set Elevator Speed Limit. Adjust the speed according to your own preference; we recommend beginners to use default setting.

此設定為調整姿態模式升降翻滾速度。
請依照個人習慣、手感進行調整，初學者建議使用原廠預設值

Elevator Speed Limit	50%
0%	50%	100%
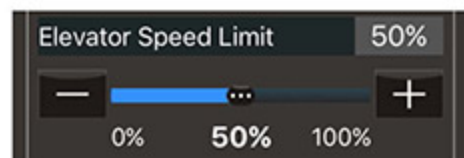
8. Return Speed   回正速度

This setting is designed to set Return Speed. Adjust the speed according to your own preference; we recommend beginners to use default setting.

此設定為調整姿態模式的自動回正（自動水平）速度。
請依照個人習慣、手感進行調整，初學者建議使用原廠預設值

Return Speed	100%
0%	100%	100%

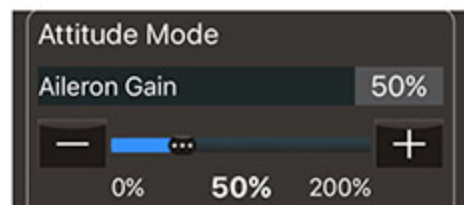## MANUAL MODE 手動模式

1. Aileron Gain 副翼感度

a. MR25 oscillates abnormally during flight when aileron gain is to high. Adjust aileron gain lower, by 5% increments, until the oscillation stops.

b. MR25 drifts when aileron gain is to low. Adjust aileron gain higher, by 5% increments, until the drifting issue is resolved.
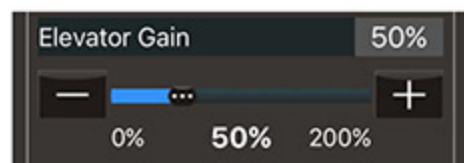
a.當機體快速飛行時發生抖動現象表示感度過大，請將副翼感度以漸進的方式一次5%調降，直到抖動現象停止

b.當機體快速飛行時發滑動現象表示感度過低，請將副翼感度以漸進的方式一次5%調升，直到滑動現象停止

> Manual Mode
> Aileron Gain   50%
> — ▬▬●···   +
> 0%   **50%**   200%

---

2. Elevator Gain 升降感度

a. MR25 oscalliates abnormally during flights when elevator gain is to high. Adjust elevator gain lower, by 5% increments, until the oscalliation stops.

b. MR25 drifts when elevator gain is to low. Adjust elevator gain higher, by 5% incerments, until the drifting issue is resolved.

a.當機體快速飛行時發生抖動現象表示感度過大，請將升降感度以漸進的方式一次5%調降，直到抖動現象停止

b.當機體快速飛行時發滑動現象表示感度過低，請將升降感度以漸進的方式一次5%調升，直到滑動現象停止

> Elevator Gain   50%
> — ▬▬●···   +
> 0%   **50%**   200%

---

3. Rudder Gain 尾舵感度

MR25 tail drifts when flying straight indicates Rudder Gain is to low. Adjust rudder gain lower, by 5% increments, until the drifting problem stops.

當機體直線快速飛行時機尾有鎖不住的現象表示尾舵感度過低，請將尾舵感度以漸進的方式一次5%調降，直到機尾鎖不住的現象停止。

> Rudder Gain   50%
> — ▬▬●···   +
> 0%   **50%**   200%

---

4. Aileron Speed Limit (Normal) 副翼翻滾速度(一般)

This setting is designed to set Aileron Speed Limit (Normal); normal mode is suitable for FPV and normal flight. Adjust the aileron speed according to your own preference; we recommend beginners to use default setting.

此設定為調整手動模式副翼翻滾速度，一般模式適合FPV與一般航道飛行。請依照個人習慣、手感進行調整，初學者建議使用原廠預設值。

> Aileron Speed Limit(Normal) 50%
> — ▬▬●···   +
> 0%   **50%**   100%
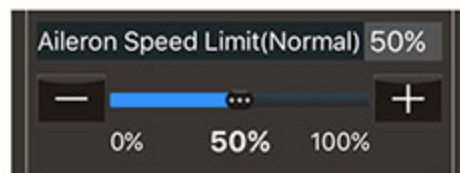
5. Elevator Speed Limit (Normal)　升降翻滾速度(一般)

This setting is designed to set Elevator Speed Limit (Normal); normal mode is suitable for FPV and normal flight. Adjust the speed according to your own preference; we recommend beginners to use default setting.

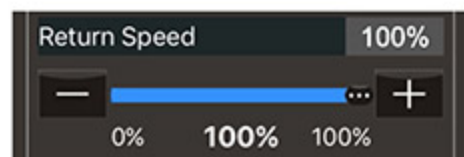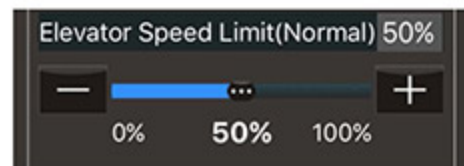此設定為調整手動模式升降翻滾速度，一般模式適合FPV與一般航道飛行。請依照個人習慣、手感進行調整，初學者建議使用原廠預設值。

Elevator Speed Limit(Normal) 50%
− 　　　　　　 +
0%　　50%　　100%

6. Aileron Speed Limit (Sport)　副翼翻滾速度(運動)

This setting is designed to set Aileron Speed Limit (Sport); sport mode is suitable for FPV and 3D flight. Adjust the speed according to your own preference; we recommend beginners to use default setting.
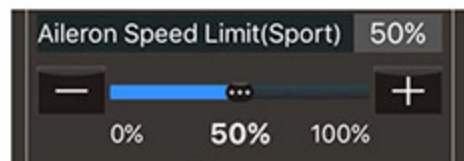
此設定為調整手動模式副翼翻滾速度，運動模式適合3D與FPV翻滾飛行。請依照個人習慣、手感進行調整，初學者建議使用原廠預設值。

Aileron Speed Limit(Sport) 50%
− 　　　　　　 +
0%　　50%　　100%

7 Elevator Speed Limit (Sport)　升降翻滾速度(運動)

This setting is designed to set Elevator Speed Limit (Sport); sport mode is suitable for FPV and 3D flight. Adjust the speed according to your own preference; we recommend beginners use default setting.
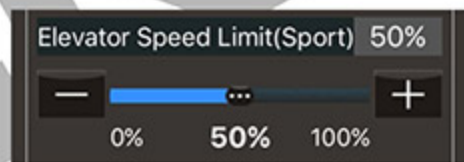
此設定為調整手動模式升降翻滾速度，運動模式適合3D與FPV翻滾飛行。請依照個人習慣、手感進行調整，初學者建議使用原廠預設值。

Elevator Speed Limit(Sport) 50%
− 　　　　　　 +
0%　　50%　　100%

⚠ CAUTION 注 意

After setup, make sure to click "Confirm" at the bottom of each page to ensure and complete all the parameter settings.

每次設定時，請務必按下"設定確認鍵"，確認此次參數設定已調校完成。

Confirm
< 　　≡ Menu 　　>
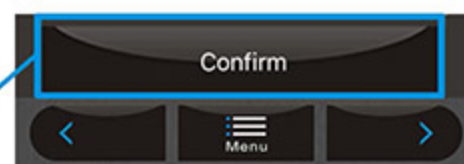
RUDDER SPEED LIMIT ADJUSTMENT　尾舵速度調整

Allow to adjust Rudder Speed Limit through Endpoint/Travel ADJ value on the transmitter, to faster and lower rudder speed reaction.

尾舵的反應速度可透過遙控器調整尾舵的Endpoint/Travel ADJ數值，來增加或降低尾舵反應速度。

ENC POINT 1 2
CH4:RUD
← →
100 100
1:AIL 100/100
2:ELE 100/100
3:THR 100/100
4:RUD 100/100
5:GYR 100/100

⊘ FORBIDDEN 禁 止

Manual mode is suitable only for experienced pilots. Beginners shold avoid flying in manual mode.

手動模式適合有飛行經驗的玩家使用，並嚴禁初學者使用，否則會造成不可預期的危險。

ADVANCED SETTING　　進階設定

ATTITUDE MODE　姿態模式

1. Aileron/Elevator I/D Gain　副翼/升降 I/D 感度

  a. MR25 video screen oscalliates abnormally during
    flight when I gain is to high. Adjust I gain lower, by 5%
    increments, until the oscalliation stops.

  B. MR25 responds slowly when D gain is to high. Adjust
    D gain lower, by 5% increments, until MR25 performs
    normally.

  a. 當機體飛行時錄影的畫面在轉彎或油門調整時發現有快速抖動現象
    時表示I感度過高，請將I感度以漸進的方式一次調降5%，直到機
    體抖動現象停止。

  b. 當機體飛行時發現反應過慢或有微幅追蹤現象表示D感度過高，請
    將D感度以漸進的方式一次調降5%，直到機體反應正常為止。
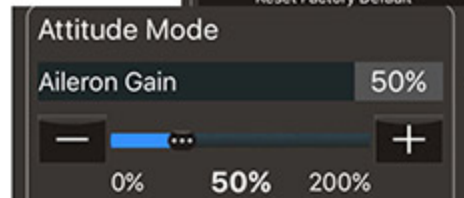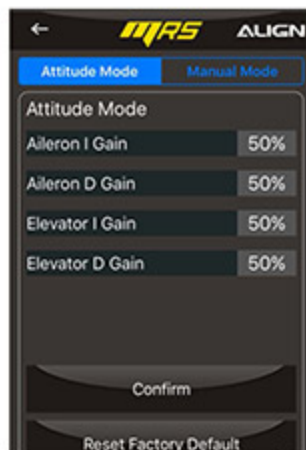
MANUAL MODE　手動模式

1. Aileron/Elevator I/D Gain　副翼/升降 I/D 感度

  a. MR25 video screen oscalliates abnormally during flight
    when I gain is to high. Adjust I gain lower, by 5%
    increments, until the oscalliation stops.

  b. MR25 responds slowly when D gain is to high. Adjust D
    gain lower by, 5% increments, until MR25 performs
    normally.

  a. 當機體飛行時錄影的畫面在轉彎或油門調整時發現有快速抖動現象
    時表示I感度過高，請將I感度以漸進的方式一次調降5%，直到機體
    抖動現象停止。

  b. 當機體飛行時發現擺動現象表示D感度過高，請將副翼D感度以漸
    進的方式一次調降5%，直到機體反應正常為止。
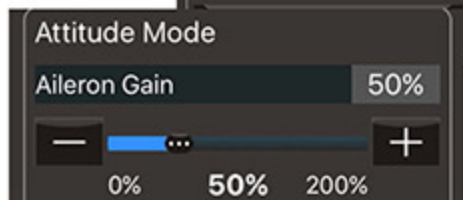
GAIN DEVIATION SETTING　感度補償

The value above indicates that when the throttle hits that particular value, the system would begin to lower Gain Deviation; whereas the value on the rights side is the lowest limit that Gain Deviation would reach.

上方數值代表油門到達該感度設定值時，系統即開始下降感度；而右方數值代表該感度下降的最終範圍。

ATTITUDE MODE　姿態模式

1. Aileron　副翼

When the gain is set high there may be tracking issues and oscillation with high throttle input during high-speed flight.

To avoid tracking issues and oscillation during high-speed rotation. This function will automatically begin to lower aileron gain by a certain % when the throttle hits a partiular high value.

In contrast this function will automatically begin to increase aileron gain by a certain % when the throttle hits a partiular low value. This is done to provide stable flight performance and improve the feel of flight control. Basically, set the aileron gain as high as possible and adjust lower if there is a tracking issue.

當機體感度過高時，在高油門、高轉速會發生追蹤、抖動情況。可透過感度補償來避免機體因高轉速時感度過高造成的追蹤、抖動情況。

此功能為調整當油門高於多少%時由飛控自動降低副翼感度下降至多少%。

相對的也可以提高低轉速時的感度設定值(在不追蹤情況下，感度越高越好)，讓低油門、低轉速的飛行更加穩定、有更好的操控手感。

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2. Elevator　升降

When the gain is set high there may be tracking issues and oscillation with high throttle input during high-speed flight.

To avoid tracking issues and oscillation during high-speed rotation. This function will automatically begin to lower aileron gain by a certain % when the throttle hits a partiular high value.

In contrast this function will automatically begin to increase aileron gain by a certain % when the throttle hits a partiular low value. This is done to provide stable flight performance and improve the feel of flight control. Basically, set the aileron gain as high as possible and adjust lower if there is a tracking issue.

當機體感度過高時，在高油門、高轉速會發生追蹤、抖動情況。可透過感度補償來避免機體因高轉速時感度過高造成的追蹤、抖動情況。

此功能為調整當油門高於多少%時由飛控自動降低升降感度下降至多少%。

相對的也可以提高低轉速時的感度設定值(在不追蹤情況下，感度越高越好)，讓低油門、低轉速的飛行更加穩定、有更好的操控手感。

MANUAL MODE 手動模式

1. Aileron 副翼

When the gain is set high there may be tracking issues and oscillation with high throttle input during high-speed flight.

To avoid tracking issues and oscillation during high-speed rotation. This function will automatically begin to lower aileron gain by a certain % when the throttle hits a partiular high value.

In contrast this function will automatically begin to increase aileron gain by a certain % when the throttle hits a partiular low value. This is done to provide stable flight performance and improve the feel of flight control. Basically, set the aileron gain as high as possible and adjust lower if there is a tracking issue.

當機體感度過高時，在高油門、高轉速會發生追蹤、抖動情況。可透過感度補償來避免機體因高轉速時感度過高造成的追蹤、抖動情況。

此功能為調整當油門高於多少％時由飛控自動降低副翼感度下降至多少％。

相對的也可以提高低轉速時的感度設定值(在不追蹤情況下，感度越高越好)，讓低油門、低轉速的飛行更加穩定、有更好的操控手感。

2. Elevator 升降

When the gain is set high there may be tracking issues and oscillation with high throttle input during high-speed flight.
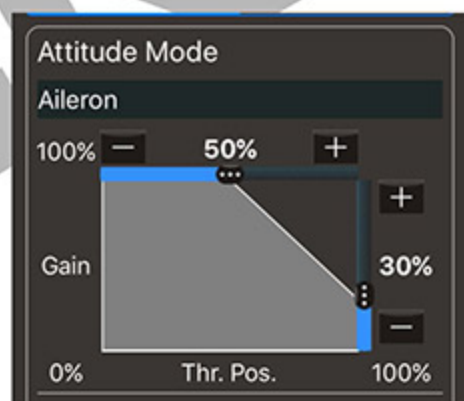
To avoid tracking issues and oscillation during high-speed rotation. This function will automatically begin to lower aileron gain by a certain % when the throttle hits a partiular high value.

In contrast this function will automatically begin to increase aileron gain by a certain % when the throttle hits a partiular low value. This is done to provide stable flight performance and improve the feel of flight control. Basically, set the aileron gain as high as possible and adjust lower if there is a tracking issue.

當機體感度過高時，在高油門、高轉速會發生追蹤、抖動情況。可透過感度補償來避免機體因高轉速時感度過高造成的追蹤、抖動情況。

此功能為調整當油門高於多少％時由飛控自動降低升降感度下降至多少％。

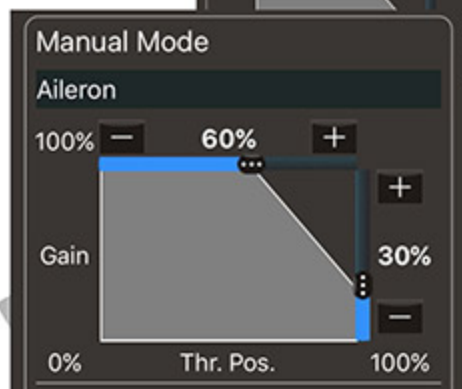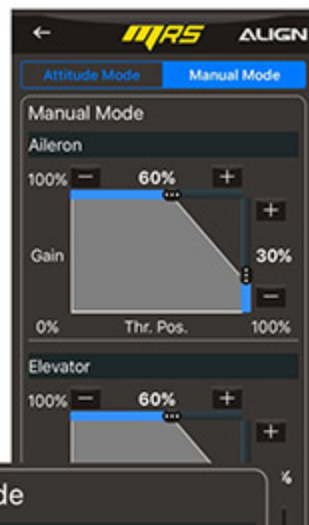相對的也可以提高低轉速時的感度設定值(在不追蹤情況下，感度越高越好)，讓低油門、低轉速的飛行更加穩定、有更好的操控手感。

GAIN AND FLIGHT CHARACTERISTICS ADJUSTMENTS
感度與飛行特性調整說明

		Gain too high 感度過大	Gain too low 感度過小	Default Setting 出廠預設值	Suitable for 適合使用者
Attitude Mode 姿態模式	Aileron Gain 副翼感度	Fast lateral oscillation 機體左右快速抖動	Lateral drift 機體左右不安定滑動	50	Beginner 初學者 General 一般飛行員 Professional 高階飛行員
	Elevator Gain 升降感度	Fast foward/aft oscillation 機體前進／後退快速抖動	Forward/aft drift 機體前進／後退不安定滑動	50	
	Rudder Gain 尾舵感度	Fast oscillation of the tail 機尾左右快速抖動	Lateral drift of tail 機尾左右不安定滑動	50	
	Aileron Maximum Angle 副翼動作角度	To adjust Attitude Aileron/Elevator Maximum Angle, increase gain value for small Aileron/Elevator angle ; decrease gain value for large Aileron/Elevator angle. 調整姿態模式副翼／升降最大傾角，當飛行時副翼／升降動作角度過小時，可加大動作角度；動作角度過大時，則減低動作角度。		50	
	Elevator Maximum Angle 升降動作角度			50	
	Aileron Speed Limit 副翼翻滾速度	To adjust Attitude Aileron/Elevator Speed Limit, increase gain value for low-sensitive Aileron/Elevator maneuver; decrease gain value for high-sensitive Aileron/Elevator maneuver. 調整姿態模式副翼／升降翻滾速度（動作反應速度），當飛行時副翼／升降動作角度過小時，可加大翻滾速度；動作反應過大時，則減低翻滾速度。		50	
	Elevator Speed Limit 升降翻滾速度			50	
	Return Speed 回正速度	Adjust Return Speed gain in Attitude Mode. 調整姿態模式的自動回正（自動水平）速度。		50	
Manual Mode 手動模式	Aileron Gain 副翼感度	Fast lateral oscillation 機體左右快速抖動	Lateral drift 機體左右不安定滑動	50	Professional 高階飛行員
	Elevator Gain 升降感度	Fast foward/aft oscillation 機體前進／後退快速抖動	Forward/aft drift 機體前進／後退不安定滑動	50	
	Rudder Gain 尾舵感度	Fast oscillation of the tail 機尾左右快速抖動	Lateral drift of tail 機尾左右不安定滑動	50	
Manual Mode (Normal) 手動模式－一般	Aileron Speed Limit 副翼翻滾速度	Manual - Normal Mode : suitable for FPV and normal flying. Adjust Aileron/Elevator Speed Limit 一般模式適合FPV與一般航道飛行。 調整副翼／升降翻滾速度。		50	Professional 高階飛行員
	Elevator Speed Limit 升降翻滾速度			50	
Manual Mode (Sport) 手動模式－運動	Aileron Speed Limit 副翼翻滾速度	Manual - Sport Mode : suitable for 3D and FPV flips/roll flying. Adjust Aileron/Elevator Speed Limit 運動模式適合3D與FPV翻滾飛行。 調整副翼／升降翻滾速度。		50	Professional 高階飛行員
	Elevator Speed Limit 升降翻滾速度			50	

⊘ **FORBIDDEN**
禁 止

Manual mode is suitable only for experienced pilots. Beginners shold avoid flying in manual mode.

手動模式適合有飛行經驗的玩家使用，並嚴禁初學者使用，否則會造成不可預期的危險。

6 CAMERA SETTING
相機設定

Camera Function 選擇相機型號及功能：

MR25/MR25P V2 equipped with 2K DV Camera.
a. Choose Camera type-2K DV.
B. Video settings: Select size.
c. Photo settings: Select size and E/V Compensation.

MR25/MR25P V2 出廠搭配為2KDV攝影機。
A.選擇相機型號-2KDV/1830 DV
b.錄影功能設定-選擇影像尺寸。
c.拍照功能設定-選擇拍照尺寸；調整曝光補償E/V。

When connect to MRS system, the system will reset camera setting to default value everytime. You can adjust the Gain value according to your control feel before each flight. **After setup, make sure to click "Confirm" at the bottom of each page to ensure and complete all the parameter settings.**

MRS重新連線時，相機所有參數將會慢恢原廠預設值，如須調整請重新設定。
每次設定時，請務必按下"設定確認鍵"，確認此次參數設定已調校完成。

Please refer to Align's website at www.align.com.tw for annoncouments about MRS flight controller system, news, and firware updates.
相機各項功能更新，請隨時關注亞拓發佈MRS飛控系統的最新版本及各項最新訊息。

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7 GIMBAL SETTING
雲台設定

If you are using six channel transmitter you can adjust the gimbal only by using the App interface software!
如果使用的是六動遙控器，僅可透過APP介面調整設定雲台功能動作。

MR25/MR25P has camera gimbal tilt compensation function. Set either automatic tilt compensation or fixed angle. **After setup, make sure to click "Confirm" at the bottom of each page to ensure and complete all the parameter settings.**

Gimbal Modes Selection:
1. Auto Tilt Compensation: Camera angle is adjusted dynamically to maintain 0 degree tilt during flight.
2. Fixed Angle: Camera angle is fixed.
3. Tilt Angle Adjustment: Set the tilt angle, keep camera level.
    Tilt Angle Trim: Trim for camera neutral point.

MR25/MR25P具備雲台俯仰修正功能，可以在APP 介面中選擇俯仰自動修正、俯仰固定角度。**每次設定時，請務必按下"設定確認鍵"，確認此次參數設定已調校完成。**

選擇雲台模式：
1. 俯仰自動修正：飛行鏡頭自動修正，保持0度水平拍攝
2. 俯仰固定角度：飛行中鏡頭固定角度拍攝。
3. 俯仰角度調整：調整鏡頭俯仰角度，飛行中鏡頭保持固定角度拍攝。
   俯仰角度微調：鏡頭中立點調整。

Auto Tilt Compensation
俯仰自動修正
Tilt-up 25 degrees
向上25度
Tilt-down 12 degrees
向下12度

25
12

Tilt Fixed Angle
俯仰固定角度
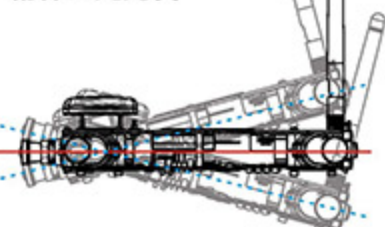
Tilt Angle Adjustment
俯仰角度調整
Tilt-up 25 degrees
向上25度
Tilt-down 12 degrees
向下12度

8 LED SETTING
燈號設定

The LED color of bottom light, rear light and rear motor mount light are set to be the same color that can be selective from the system. The front motor mount light color will automatically be changed correspondingly to show where the nose is. After setup, make sure to click "Confirm" at the bottom of each page to ensure and complete all the parameter settings.

機身底燈、後燈、馬達座燈(後)，預設為相同燈號，是主要調整更改顏色的依據；而馬達座燈(前)則是對應顏色，會因顏色調整後的變化，對應出不同燈號，可清楚分辨機頭方向。每次設定時，請務必按下"設定確認鍵"，確認此次參數設定已調校完成。

RGB color adjustment range is 0 to 255. Brightness is adjusted through [Bri] range of 0 to 100.

RGB三原色可以各別調整，範圍為0~255。燈號亮度則由[Bri]調整，範圍為0~100。
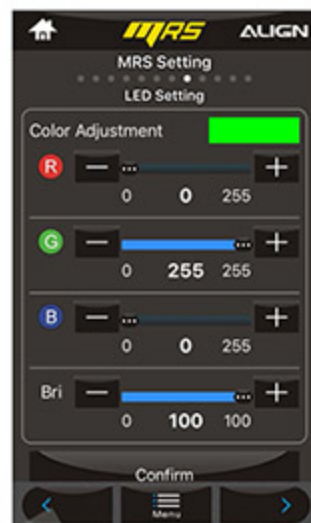
> **⚠ WARNING 警告**
>
> When adjusting the light color, strongly suggest to set two different color for front and rear motor mount for recognize the heading direction in order to avoid any unexpected accidents during the flight.
>
> 調整燈號顏色時，強烈建議勿將馬達座燈(前)會與其它燈號的顏色調成一致，避免在飛行時無法依燈號顏色判斷飛行頭向而發生不可預期的狀況。。

COLOR CHART 燈號顏色對照表

Color 顏色	Red 紅	Orange 橙	Yellow 黃	Green 綠	Blue 藍	Purple 紫	White 白	Black 黑
R	255	255	255	0	0	255	255	0
G	0	150	255	255	0	0	255	0
B	0	0	0	0	255	255	255	0

Let your Racing Quad outstanding and twinkle among others by personal mixing LED lights! More than 16,777,216 colors could be selective (256 to the power of 3). This chart lists main colors only.

此對照表僅列出主要顏色參考值，高達256³的調整方式，可做出16,777,216種變化，依個人喜好選擇適當色彩。

9 OSD SETTING
OSD設定

Select the data you wish to display in OSD

Battery voltage, flight time, current, flight attitude, flight mode, camera recording mode, gimbal mode, gimbal angle.

選擇在OSD螢幕上顯示的資訊
電池電壓、飛行時間、工作電流、飛行姿態、飛行模式、攝影模式、雲台模式、雲台角度。

►————◄

Attitude Indicator display aircraft flying action on OSD screen in real-time.

When aircraft flies up/down or even tilts, the attitude indicator will follow the nose direction to move up/down accordingly, as the aircraft knows its relation to the horizon in real-time.

姿態儀是隨著穿越機的飛行動作變化，即時顯示於OSD螢幕。

當穿越機朝上或朝下飛行時，姿態儀隨著機頭方向往螢幕的上/下方移動；當穿越機呈傾斜方式飛行時，姿態儀也會隨著傾斜的變化顯示，可以即時掌握穿越機的飛行狀態。

Attitude Indicator
姿態儀

10 SETUP INFORMATION
機體設定資訊

Setup Information displays all settings, review prior to performing motor test.

Use the "Reset" button to return all settings to default value of 50. The system will not keep any previous settings.

1. Setup Information: Shows multicopter type, receiver type, gimbal mode, failsafe setting, low voltage protection parameters, hibernation function, etc.

2. Gain Adjustment: gain setup and default values for Attitude Mode and Manual Mode.

機體設定資訊是提供檢查您所設定的內容以及原廠預設值做為參考。請再檢查是否與目前穿越機的實際狀況相同。

如果調整後的設定值不是您所需要的，可按下重設鍵，可將該區設定全部恢復為原廠預設值，系統並不會儲存原調整的設定值。

1. 機體設定資訊：顯示接收器類型、飛行機類、相機功能選擇、雲台鎖定模式、安全保護設定，自動關時間與低電壓警示設定參數、燈號顏色……等。

2. 感度設定資訊：手動模式感度、姿態模式感度的設定值與原廠預設值。
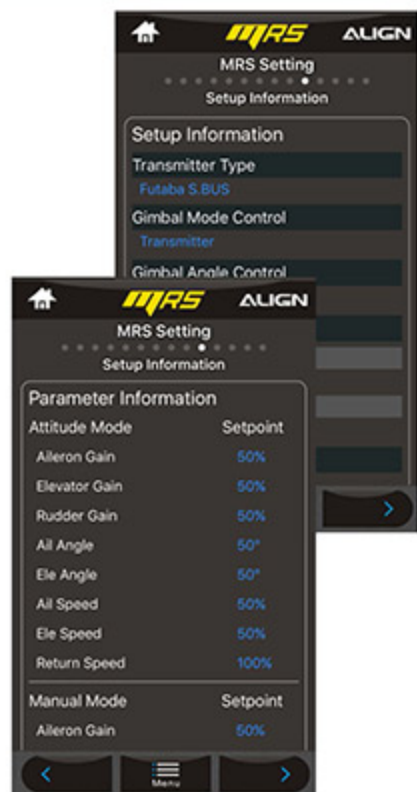
11 PRE-FLIGHT TEST (MOTOR SPIN TEST)
飛行前檢測 (馬達轉向檢測)

MOTOR SPIN TEST：

When this function is activated, motor will sequentially rotate approximately 0.5 seconds. Ensure each motor is turning in correct direction, as any incorrect rotating direction may lead to immediate flip-over on takeoff. Rotating motor poses certain danger, so please ensure there are no obstacles or people nearby when performing this test.

馬達檢測功能：

使用此功能時，馬達會逐一M1、M2、M3、M4慢速轉動約0.5秒，測試時務必仔細檢視各馬達轉向是否正常，錯誤的轉向將導致起飛時翻機意外，馬達主旋翼轉動過程有危險性，檢測時請先確認多軸機旁無雜物，並且人要避開主旋翼轉動範圍，以免發生危險。

⊘ **FORBIDDEN**
禁 止
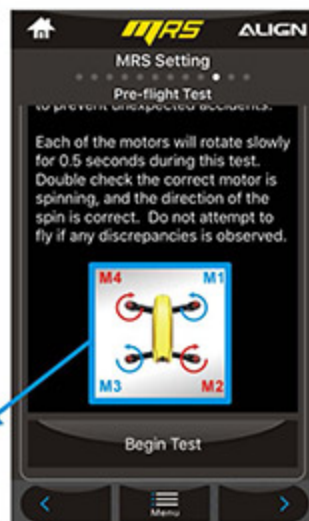
When checking for motor and propeller rotation, make sure not to hold the aircraft in hand for testing. Make sure there is no obstacles nearby the propellers to prevent unexpected accidents.

調整或檢測馬達螺旋槳轉動過程中具有危險性，嚴禁以手握穿越機進行調整或檢測。請確認飛行機旁沒有雜物、並且避開螺旋槳轉動範圍，以免發生危險，否則將會導致不可預期重的意外或人員傷害。

12 GYRO CALIBRATION
陀螺儀校正

IMU GYRO CALIBRATION　IMU陀螺儀校正

Advanced setup: Only need to do the calibration when MR25 drift in flight.

When gyro adjusting, make sure to place MR25 at horizontal location, or it may impact the precision calibration.

Set the MR25 motionless and level on the ground/table position, press "calibration" button, after process is completed, system will indicates "Success" ; "Failed" means the craft didn't at horizontal location while calibration, please re-place and adjust again.

此功能為進階設定，當你的MR25飛行有偏移情況發生，才需要進行此陀螺儀校正功能。

請注意使用陀螺儀校正時，必須將MR25靜止平放於水平面上，否則會影響校正精準度。

機子靜止放置好後，按下校正鈕，校正完成後會顯示 "成功"。如果顯示 "失敗" 表示機子沒靜止水平，請重新執行校正。
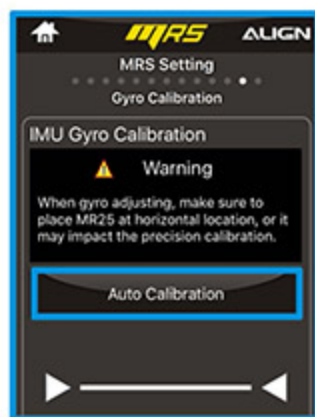
ACCELEROMETER SUBTRIM　加速計微調

Accelerometer Subtrim is an auxiliary function and only needs to be activated when MR25 is in Attitude Mode. Only activate when MR25 completes Gyro Calibration. This function allows pilot to fine tune and trim the drift according to personal preference, marking quad flight more precise.

此功能為進階定，當您已經有重新做過陀螺儀校正，但在姿態模式下仍有飛行偏移的現象時，才須要透過加速計微調來調整偏移。
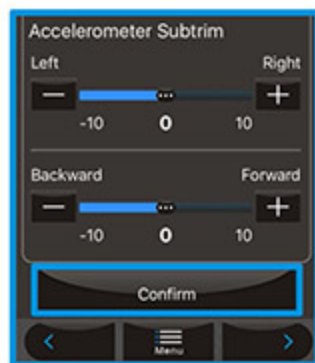
13 LOST AIRCRAFT FINDER
安全保護

SEARCH MR25　搜尋MR25

After power up MR25, the motor throttle can be activated for flying. Once the motor throttle is been closed, but not power off MR25 more than 30 secs to 3 minutes, the system will automatically emit loud audible warning sound for MR25 searching.

After setup, make sure to click "Confirm" at the bottom of each page to ensure and complete all the parameter settings.

MR25開機後，馬達油門(馬達電源)只要經啓動過，如果油門再度被關閉後，超過30秒~3分鐘，系統會自動啓動馬達發出高音量警示鳴聲，可依據聲音來源尋找您的MR25。

每次設定時，請務必按下"設定確認鍵"，確認此次參數設定已調校完成。
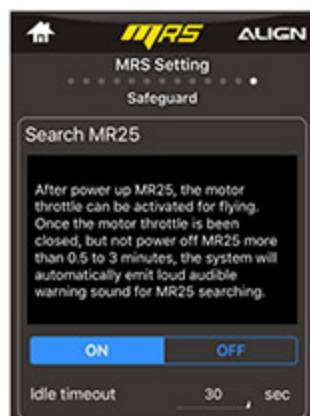
> MR25/MR25P V2 is equipped BL Heli ESC, but if not installed, MR25 Lost Aircraft Finder will not follow APP's alarm setting, instead built-in safety alarm system will be used, not APP setting to alarm after 12 minutes.
>
> MR25/MR25P在未加裝尋機器而使用MR25 BL Heli ESC時，馬達無法依APP所設定的時間鳴聲，而是透過安全機制，在無油門輸出的狀態下，12分鐘後鳴聲提示。

MR25 LOST AIRCRAFT FINDER　MR25尋機器

Support MR25 lost aircraft finder.
a. Built-in 5 audio and music options for choosing from App interface.
b. Allow to compose your own stylish music melody on App interface.
c. Allow to setup low voltage alarm range on App interface.
d. The failsafe alarm will be activated when aircraft is out-of-control or crash.
e. Once the motor throttle is closed, but not power off MR25 more than 0.5 to 3 minutes, the system will automatically emit loud audible warning sound for MR25 searching.

支援亞拓尋機器功能。
a. 内建5種音效與音樂，可由APP介面中選擇。
b. 可透過APP編曲專屬自己獨有的音樂。
c. 可在APP中設定低電壓警報數值。
d. 當NO控、摔機時會啓動失控警報。
e. 油門關閉超過0.5~3分鐘將啓動尋機警報。

Sound of Alarm　尋機音效

Low Voltage Alarm　低電壓警示音效

Music Edit Function　自編曲功能

Optional Equipment Required for This Function
此功能須搭配選購商品使用

MR25 Lost Aircraft Finder
MR25尋機器

[M425029XXT]

Optional Equipment
另購品

Up to 200 musical notes can be edited.

AUTOMATIC POWER SHUT-OFF　自動關機

MRS's intelligent power management system will automatically power off in a pre-determined time after landing.

MRS's factory default hibernation function is OFF, which can be adjusted to 5-10 minutes based on actual needs. **After setup, make sure to click "Confirm" at the bottom of each page to ensure and complete all the parameter settings.**

MRS具備智慧電源管理功能，當穿越機降落閒置時，會執行電源關閉保護。

MRS自動關閉時間原廠值為關閉，您可以依實際需求設定關時間長短，調整至5分鐘或10分鐘關機。**每次設定時，請務必按下"設定確認鍵"，確認此次參數設定已調校完成。**

14 FIRMWARE UPDATE
主程式更新

STEP 1.
FIRMWARE DOWNLOAD 主程式下載

MRS will automatically detect your current version. Please, select the latest firmware version and press download.

MRS 會自動判別目前版次，請點選最新版本主程式後，按下載。
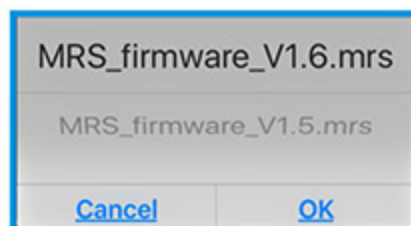
MRS_firmware_V1.6.mrs

MRS_firmware_V1.5.mrs

Cancel   OK

Firmware Download

MRS Setting
Firmware Update

Step 1
You must download the firmware before updating. For safety reasons, please remove all propellers. Before download, please turn on mobile network or WiFi.

MRS_firmware_V1.6.mrs

Firmware Download

Step 2
Don't do anything when you update. Can not adjust the settings, you can not leave the APP, MR25 can not shut down.

STEP 2.
FIRMWARE UPDATE 主程式更新

Press "Firmware Update" after download completes.

MRS 新版本主程式，下載完成後，按下主程式更新。

MRS Setting
Firmware Update

Firmware Download

Step 2
Don't do anything when you update. Can not adjust the settings, you can not leave the APP, MR25 can not shut down.

Firmware Update

Firmware Update

3 OSD INTRODUCTION
OSD 功能介紹

AUTO +10° **ALIGN** ●1080P ATT

Gimbal Mode
雲台模式
AUTO/LOCK

Gimbal Tilting
Angle
雲台鏡頭角度

Flight Attitude
飛行姿態

Battery Capacity
電池電壓

Flight Mode
飛行模式
ATT: Attitude 姿態
RATE: Manual 手動

Recording Mode
攝影模式
1080P/720P/PHOTO

Recording
錄影

Operating Current
工作電流

Flight Time
飛行時間

⚡11.1V ☑8A ⏱05:22 H⁺ - - M - . - M/S
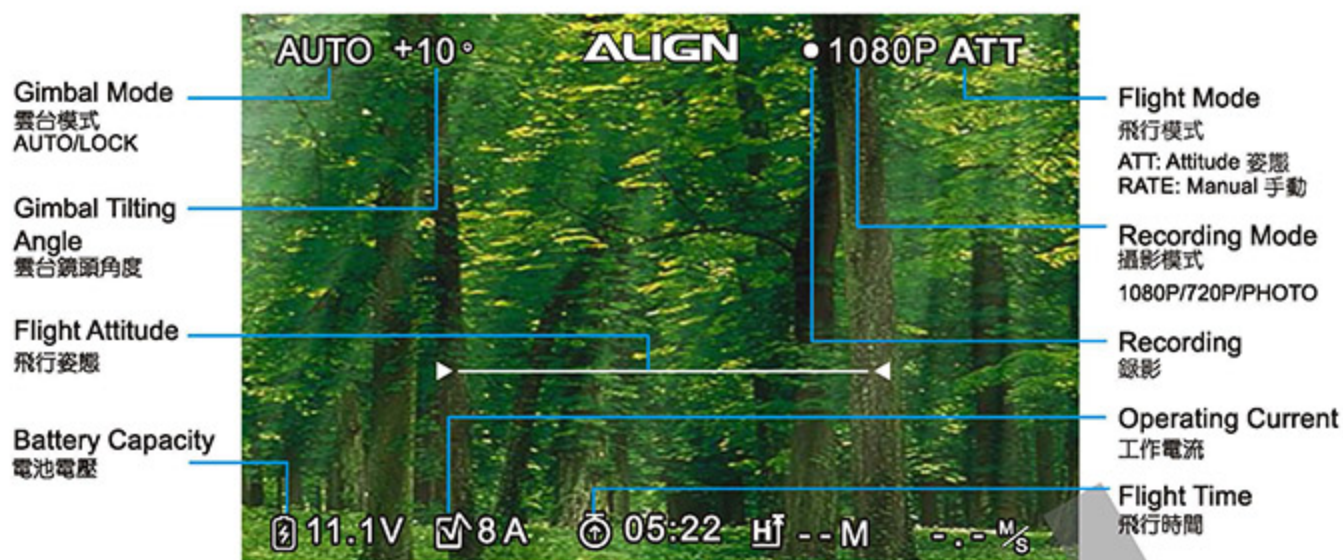
Selective data for OSD display:

Gimbal mode, gimbal angle, flight attitude, flight mode, camera recording mode, battery voltage, flight time, current...etc.

MR25飛行資訊在OSD螢幕上顯示的有：
雲台模式、雲台鏡頭角度、飛行姿態、飛行模式、攝影模式、錄影、電池電壓、工作電流、飛行時間。

Optional Equipment Required for This Function
此功能須搭配選購商品使用
FPV Monitor
螢幕接收器
Optional Equipment 另購品

▶━━━━━━◀ **Flight Attitude** 飛行姿態

Flight Attitude display aircraft flying action on OSD screen in real-time. When aircraft flies up/down or even tilt, the attitude indicator will follow the nose direction to move up/down accordingly, allow to know the aircraft relation to the horizon in real-time.

飛行姿態是隨著穿越機的飛行動作變化，即時顯示於OSD螢幕。當穿越機朝上或朝下飛行時，姿態儀隨著機頭方向往螢幕的上/下方移動；當穿越機呈傾斜方式飛行時，姿態儀也會隨著傾斜的變化顯示，可以即時掌握穿越機的飛行狀態。

4 FAILSAFE
失控保護

MR25 / MR25P has a built-in failsafe function, or transmitter's default "FAILSAFE" setting can be set. Refer to your transmitter instructions on how to set transmitter default "FAILSAFE".

If you lose control during the flight, the system will activate the Failsafe function automatically, then the copter will rotate back into horizontal position, the propellers will remain idling and then slowly descend until you take over the MR25/MR25P.

MR25/MR25P已內建失控保護機制，遙控器端不須再設定，請直接選用遙控器出廠預設值，欲瞭解更多詳情，請參閱您所使用的遙控器說明書。

當飛行中，若發生遙控器訊號失去控制(NO控)時，此時內建的失控保護機制便會啟動，使機體自動水平回正，螺旋槳會保持怠速運轉，然後慢速降落，以降低急速墜落的衝擊力。

PRE-FLIGHT CHECKLIST AND WARNINGS
飛行前檢查與注意

ALIGN

1 LOCATE AN APPROPRIATE LOCATION
遠離障礙物與人群

R/C aircraft can fly at high speed, thus posing a certain degree of potential danger. Choose a legal flying field consisting of flat, smooth ground without obstacles. Do not fly near buildings, high voltage cables, or trees to ensure the safety of yourself, others, and your model. Avoid location with magnetic and radio interferences. Please choose a legal flying field. Do not fly your model in inclement weather, such as rain, wind, snow or darkness.

遙控飛行機飛行時具有一定的速度,相對的也潛在著危險性,場地的選擇也相對的重要,請需遵守當地法規到合法遙控飛行場地飛行。必須注意周遭有沒有人、高樓、建築物、高壓電線、樹木等等,避免磁場干擾、外力訊號干擾及操控的不當造成自己與他人財產的損壞。請務必選擇在空曠合法專屬飛行場地。請勿在下雨、打雷、沙塵等惡劣天候下操作,以確保本身及機體的安全。

2 DO NOT FLY ALONE
避免獨自操控

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

至飛行場飛行前,需確認是否有相同頻率的同好正進行飛行,因為開啓相同頻率的發射機將導致自己與他人立即干擾等意外危險。遙控飛行機操控技巧在學習初期有著一定的難度,要盡量避免獨自操作飛行,需有經驗的人士在旁指導,才可以操控飛行,否則將可能造成不可預期的意外發生。(勤練電腦模擬器及老手在場指導是入門必要的選擇)
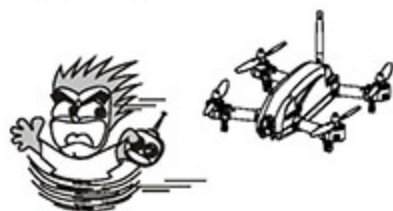
3 CENTER OF GRAVITY ADJUSTMENT
重心調校

The aircraft needs to be balanced at the Center of Gravity (CG) point with full payload onboard. Improper CG balance may cause flight instability and/or uneven power consumption of the motors, and may even leads to crash in worse case scenario.

飛行前務必確認,並調整好全載重機體的重心位置,偏移的重心容易導致飛行不穩與馬達受力不均的耗電、損傷,嚴重將導致不可預期的失衡摔機。
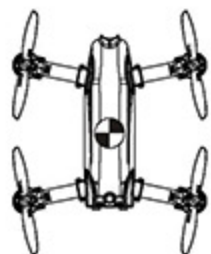
4 SETUP INFORMATION
機體設定資訊

Make sure to review and confirm all APP parameter settings before flying. Incorrect settings present an unpredictable safety danger.

飛行前務必確認APP內所設定的參數是否正確,不正確的設定將會影響飛行狀態的安全,嚴重將導致不可預期的危險。

5 MOTOR START AND STOP
馬達電源啓動與關閉

Safety feature to only allow motors to spin-up when specific transmitter stick movement is executed. This prevents accidental start/stop of motors.

1. To Start Motor

   1) Turn on transmitter power.

   2) Press and hold power button for 3 seconds to turn on multicopter power.

   3) Turn ON motors by toggling the Motor Arm (Throttle Hold) switch from the "Lock" position to "Motor Arm" position.

馬達具備安全保護裝置，必須執行遙控器開關動作才能啓動或關閉馬達電源，避免因誤開電源而啓動或關閉馬達。

1. 開啓馬達電源
   1) 開啓遙控器電源。
   2) 啓動機身主電源，長按電源鍵3秒開機。
   3) 切換遙控器的油門解鎖開關，啓動主馬達。

① Power ON
電源開啟

② Press and hold 3 seconds to turn on
長按3秒開機

③ Motor Arm
油門解鎖
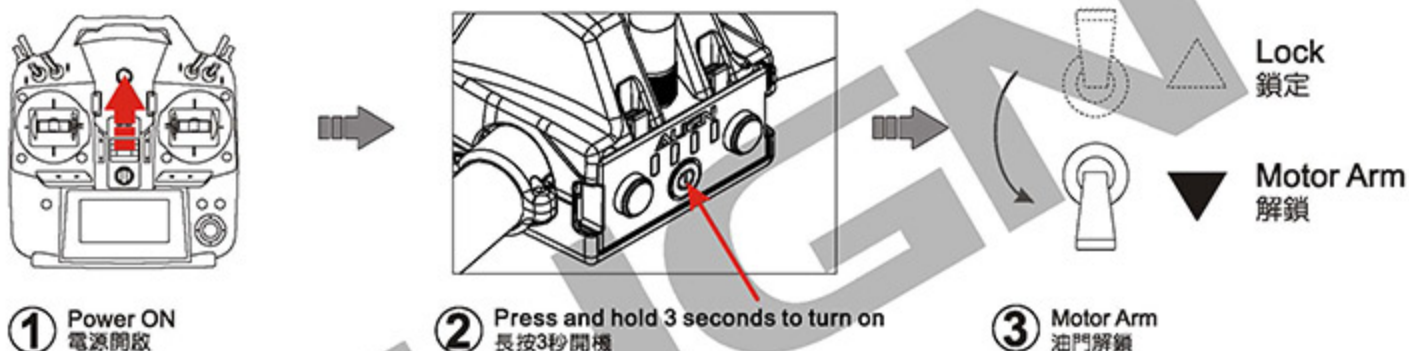
Lock
鎖定

Motor Arm
解鎖

2. To Stop Motor

   1) Turn OFF motors by toggling the Motor Arm (Throttle Hold) switch from the "Motor Arm" position to "Lock" position.

   2) Press and hold Mr25 power button for 3 seconds to turn off multicopter power.

   3) Turn off transmitter power.

2. 關閉馬達電源
   1) 關閉遙控器的油門解鎖開關，關閉主馬達。
   2) 關閉機身主電源，長按電源鍵3秒關機。
   3) 關閉遙控器電源。

Lock
鎖定

Motor Arm
解鎖

① Power Off the Throttle
關閉油門

② Press and hold 3 seconds to turn off
長按3秒關機

③ Power OFF
電源關閉
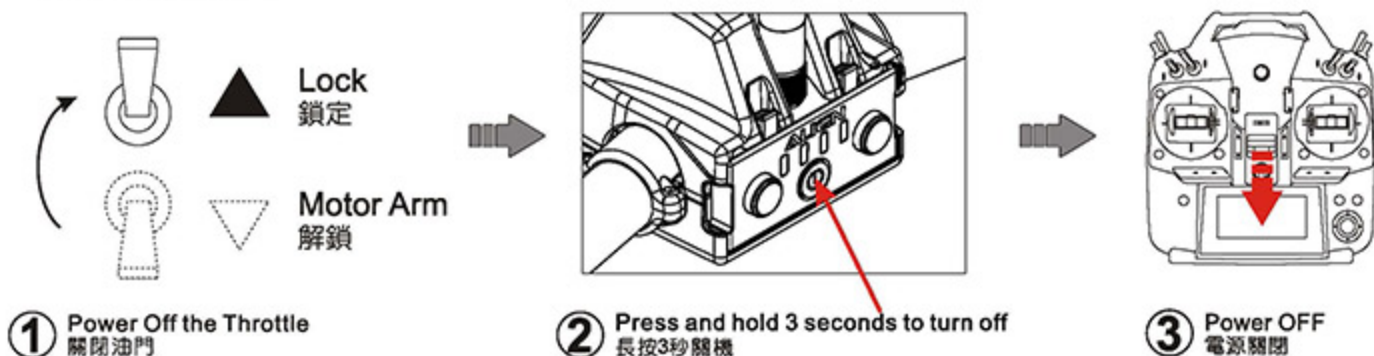
6 MOTOR SPIN TEST
馬達運轉測試

1. When motor spin test is activated, motor will sequentially rotate approximately 0.5 seconds. Check correct motor location and spin direction is correct.

2. Rotating motor process certain danger, so please ensure there are no obstacles or people nearby when performing this test.

1. 馬達運轉測試功能開啓時，馬達會依序慢速轉動約0.5秒，檢查安裝位置及螺旋槳旋轉方向是否一致。

2. 馬達螺旋槳旋轉過程有危險性，檢測時請先確認多軸機旁無雜物，並避開螺旋槳轉動範圍，以免發生危險

⊘ **FORBIDDEN 禁 止**

When testing motor and propeller rotation, NEVER HOLD AIRCRAFT IN HAND. To prevent any unexpected accident, make sure there are no obstacles near the propellers.

調整或檢測馬達螺旋槳轉動過程中具有危險性，嚴禁以手握穿越機進行調整或檢測。請確認穿越機旁沒有雜物、並且避開螺旋槳轉動範圍，以免發生危險，否則將會導致不可預期重的意外或人員傷害。

Motor Rotational Speed and Current Reference 馬達動力轉速與電流參考數據
(Equipped with RCM-BL1806 motor as an example) (搭載RCM-BL1806馬達)

Propeller 螺旋槳	Voltage 電壓	Hovering Current 停懸電流	RPM 轉速	Max Rotational Current 最高轉速電流	RPM 轉速
5045	3cell	9.5A	Approx.約12000	29.5A	Approx.約17500
6040	3cell	9.5A	Approx.約9000	48.5A	Approx.約14250
5040(螺旋槳)	4cell	10A	Approx.約12000	47A	Approx.約20950
5040(三旋翼)	4cell	10A	Approx.約12000	50A	Approx.約21000

MR25 Power Tip   MR25動力搭配表

Align Motor 亞拓馬達	Battery 電池	Propeller 螺旋槳		
		5040	5045	6040
RCM-BL1806	3 Cell	v	v	v
	4 Cell	v	v	Prohibited 嚴禁使用
RCM-BL2205	3 Cell	v	v	v
(Optional Equipment) (另購品)	4 Cell	v	v	Prohibited 嚴禁使用

⊘ **FORBIDDEN 禁 止**

3Cell battery can be use Align standard 5040/5045/6040 propellers, 4Cell battery can use Align standard 5040/5045 propellers only, strictly prohibit to use other propellers instead of Align 5040/5045 propellers; Improper usage will lead to ESC power outage, motor, electronic burn out and other unforeseen danger and accident.

3S 電池請使用亞拓原廠 5040/5045/6040 螺旋槳、4S電池只適用亞拓原廠 5040/5045 螺旋槳，嚴禁使用它廠牌之螺旋槳，否則不當的動力輸出將導致 ESC 斷電、馬達、電子零件燒毀。
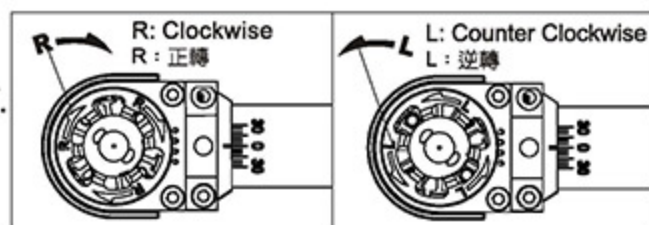
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7 MOTOR ROTATION DIRECTION
馬達正逆轉方向

Incorrect sequence of motor tube assembly or changes made to rotational directions of motor / blades may cause immediately flip-over on takeoff.

飛行前請確定馬達固定座上所標示的正、逆轉方向符號。

R: Clockwise R：正轉

L: Counter Clockwise L：逆轉

ONLY USE PROPELLERS APPROVED BY ALIGN! Such as Align standard 5040/5045/6040. The use of any NON-APPROVED propeller will cause: ESC power outage, motor or electronic burn out, and other unforeseen dangers.

嚴格禁止使用6040以上螺旋槳，包含非原廠6040，例如6045、6050：不當的使用將導致於動力最大輸出時，ESC斷電、馬達、電子零件燒燬等不可預期的意外發生。請使用亞拓5040/5045/6040螺旋槳。

Confirm motor rotation direction, prop nut directional label, and propeller directional label before assembly. They must all be the same rotation direction as listed in the instruction manual. Incorrect assembly or modification(s) may cause unexpected results or bodily injuries.

務必再次檢查及確認，馬達轉向、螺旋槳、及螺旋槳螺帽上的轉向標示一致，錯誤或任意變動機體，將會導致不可預期嚴重的意外或人員傷害。

Propeller Rotation Direction
螺旋槳轉向示意圖
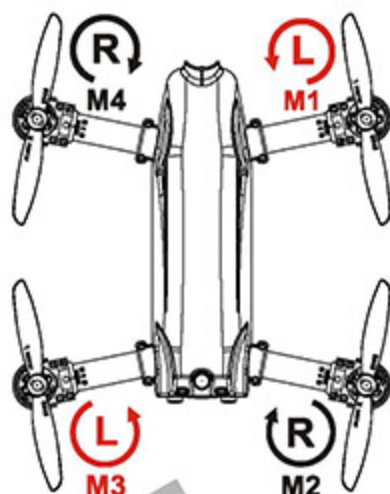
8 FLIGHT MODE INTRODUCTION
飛行模式介紹

Flight Mode: 1. Attitude 2. Manual-Normal Mode 3. Manual-Sport Mode

Attitude Mode: Default setting for beginners and PFV basic quad racing flying.

Manual – Normal Mode/Sport Mode Suitable for high end FPV quad racing flying.

Capable of smooth, agile, flip and roll in both slow & fast speed flying.

Manual – Sport Mode: Suitable for 3D extreme flying. Use transmitter channel assignment to switch flying mode.

飛行模式設有 1.姿態模式 2.手動模式(一般) 3.手動模式(運動)。

姿態模式：適合初級飛行與FPV基礎飛行。

手動模式(一般)與手動模式(運動)：適合高級FPV穿越飛行 以切換開關執行順暢、靈活或慢速翻滾／急速翻滾等動作來混合控制達成酷炫完美飛行。

手動模式(運動)：適合3D暴力飛行。

各項模式變換以透過遙控器開關切換啓動。

Attitude Mode
姿態模式

Manual Mode(Normal)
手動模式--一般

Manual Mode(Sport)
手動模式-運動

1 ATTITUDE MODE
姿態模式

Attitude Mode : Maintains aircraft level to horizon. Elevator/Aileron/Rudder stick inputs are translated as angular command. Larger stick input translates to steeper angels of multicopter tilt, with a maximum of 80 degrees. Default setting is 50 degrees. This mode is suitable for beginners and FPB basic quad racing.

姿態模式會自動保持穿越機姿態水平功能，升降、副翼、尾舵搖桿指令為角度命令，搖桿動作越大穿越機動作角度越大，預設為50，最大角度限制為80度。適合初級飛行與FPV基礎飛行。

a) Elevator/aileron stick (left and right maximum of 80°)
升降/副翼搖桿(左或右最大80度)

MODE 1   MODE 2

Maximum of 80°
最大80°

Maximum of 80°
最大80°
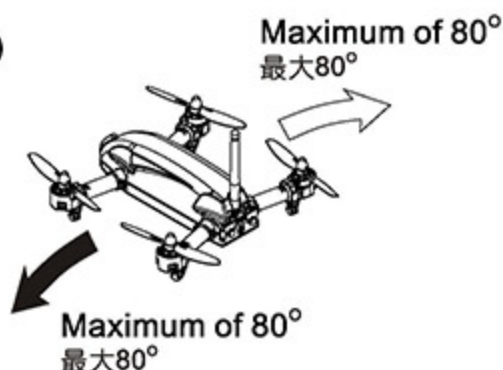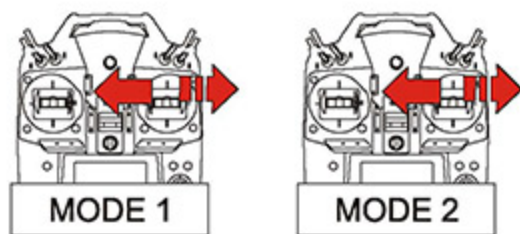
b) Release stick (multicopter automatically levels)
搖桿放開(機體自動回正)

MODE 1   MODE 2
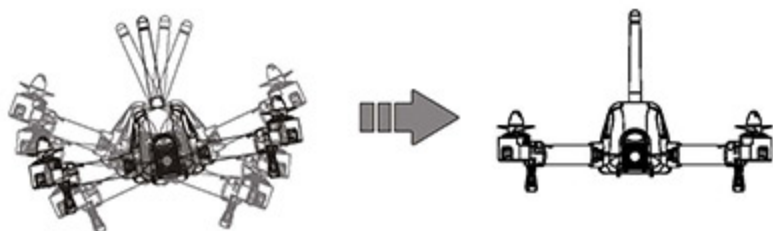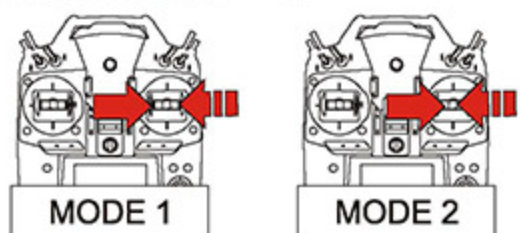
2 MANUAL MODE (NORMAL)
手動模式(一般)

Manual Mode : Full control by the pilot without any horizontal leveling capabilities. Do not use this mode if you do not have advanced flying skills. This mode is suitable for high end FPV quad racing. The quad is capable of smooth, agile, flip and roll at both slow & fast flying speed.

Control Response adjustment:

Set the exponential (EXP) of Aileron/Elevator/Rudder according to your control feel in manual mode.

When control response is too fast, decrease EXP -10%~-60% for Futaba radios ; increase EXP +10%~+60% for JR radios.

When control response is too sluggish, increase EXP +0%~+30% for Futaba radios; decrease EXP -0%~-30% for JR radios.

手動模式是完全由操控者控制，無自動水平功能。(強烈建議，不熟悉操作者勿開啟此功能)。手動模式(一般)適合高級FPV穿越飛行 以切換開關執行順暢、靈活或慢速翻滾／急速翻滾等動作來混合控制達成酷炫完美飛行。

動作靈敏度調整：
手動模式可依個人飛行操控手感調整遙控器副翼、升降、尾舵的EXP：
當手動模式動作靈敏度太大，Futaba調低範圍-10%~-60%；JR的調高範圍+10%~+60%。
當手動模式動作靈敏度太小，Futaba調高範圍+0%~+30%；JR的調低範圍-0%~-30%。

Futaba	D/R,EXPO
	CH 1 2 3 4
	(SW:DOWN)
	D/R<- ▶ 100%
	-> ▶ 100%
	EXP<- ▶ — 50%
	-> ▶ — 50%
	SW ▶ SWD

JR	◀[D/R & EXP]▶0	D/R	EXP
	AILE Pos-0	100%	+50%
		100%	+50%
	Pos-1	100%	+50%
		100%	+50%

⚠ WARNING 警告

Manual mode is suitable only for experienced pilots without any horizontal leveling capabilities. Beginners should avoid flying in manual mode or it will cause unforeseen danger and crashes.

手動模式適合有飛行經驗的玩家使用，並嚴禁初學者使用，否則會造成不可預期的結果。在手動模式下無自動水平功能。

3 MANUAL MODE (SPORT)
手動模式(運動)

Manual Sport Mode: Suitable for 3D extreme flying. Capable of smooth, agile, 3D flips/roll by moving aileron/elevator stick to the end.

手動模式(運動)除了適合高級FPV穿越飛行 以切換開關執行順暢、靈活或慢速翻滾/急速翻滾等動作之外。也適合3D暴力飛行。MR25具備3D翻滾飛行功能,可透過遙控器切換手動模式,並將副翼或升降動作打到底來執行翻滾動作。

Control Response adjustment:

Set the exponential (EXP) of Aileron/Elevator/Rudder according to your control feel in manual mode.

When control response is too fast, decrease EXP -10%~-60% for Futaba radios ; increase EXP +10%~+60% for JR radios.

When control response is too sluggish, increase EXP +0%~+30% for Futaba radios; decrease EXP -0%~-30% for JR radios.
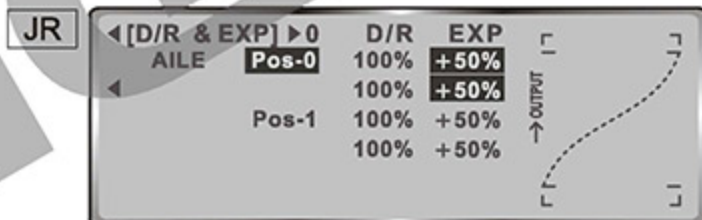
動作靈敏度調整:

手動模式可依個人飛行操控手感調整遙控器副翼、升降、尾舵的EXP:
當手動模式動作靈敏度太大,Futaba調低範圍-10%~-60%;JR的調高範圍+10%~+60%。
當手動模式動作靈敏度太小,Futaba調高範圍+0%~+30%;JR的調低範圍-0%~-30%。

Futaba

```
D/R,EXPO
CH  1 2 3 4
   (SW:DOWN)
D/R<- ▶  100%
  -> ▶  100%
EXP<- ▶ — 50%
  -> ▶ — 50%
SW  ▶ SWD
```

JR

```
◀[D/R & EXP] ▶0      D/R    EXP
 AILE   Pos-0      100%  +50%
 ◀                 100%  +50%
        Pos-1      100%  +50%
                   100%  +50%
```

MR25 will execute a fast forward or backward flip by applying full elevator (either forward or backward) and holding for 0.5 seconds.
升降舵動作打到底時,穿越機會執行前/後翻滾一圈

MODE 1 MODE 2
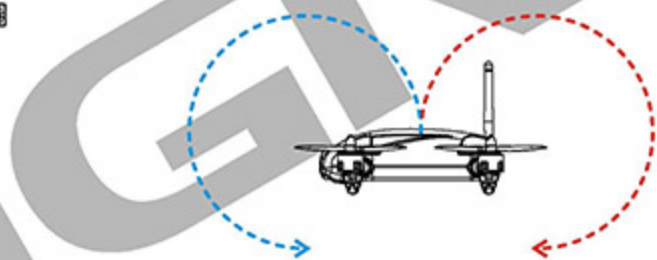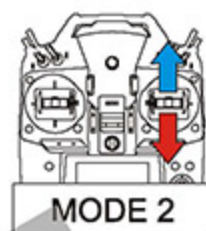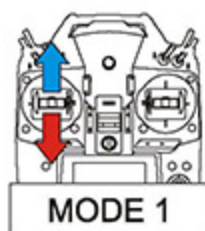
MR25 will execute a fast roll (flip) right or left by applying full aileron (either right or left) and holding for 0.5 seconds.
副翼舵動作打到底時,穿越機會執行側翻滾一圈

MODE 1 MODE 2
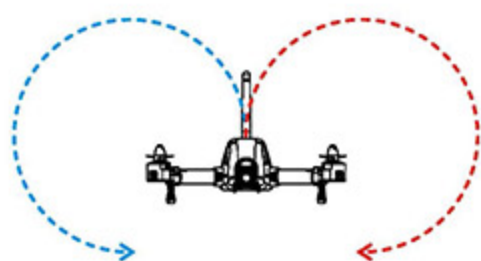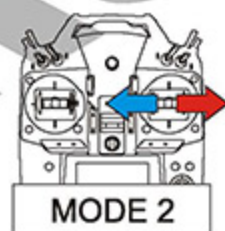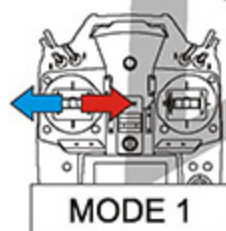
⚠ **WARNING 警告**

Stunt Flight Mode should only be used if you are an experienced pilot. This mode allows the quad full 3D capabilities. DO NOT use Stunt Flight Mode if your are not an experienced pilot! To prevent any unexpected injuries or crash operate quad in a large open area free of people and obstacles.

特技飛行屬於專業動作,具備3D翻滾飛行功能,不熟悉飛行操作者嚴禁使用!並且應於距離地面較高空曠的飛行空間執行,避免因不熟悉特技特性而造成墜機,或發生不可預期的傷害。

MR25 / MR25P with gimbal tilt correction function can be selected in APP interface automatically correct pitch , the pitch angle is fixed .

MR25/MR25P具備雲台俯仰修正功能,可以在APP 介面中選擇俯仰自動修正、俯仰固定角度。

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1. Auto Tilt Compensation:
　Camera angle is adjusted dynamically to maintain 0 degree tilt during flight.

　俯仰自動修正:飛行中鏡頭自動修正,保持0度水平拍攝

Auto Tilt Compensation
俯仰自動修正
Tilt-up 25 degrees
向上25度
Tilt-down 12 degrees
向下12度

25°
12

---
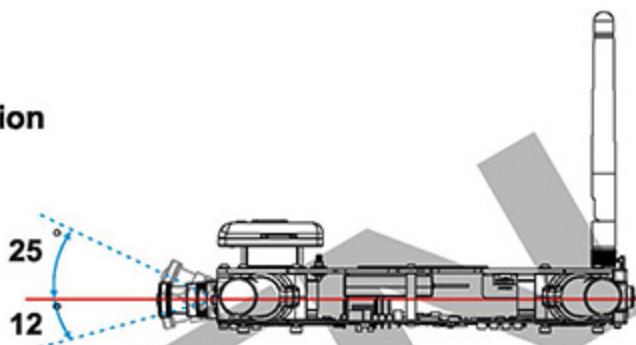
2. Tilt Fixed Angle: Camera angle is fixed.

　俯仰固定角度:飛行中鏡頭固定角度拍攝。

Tilt Fixed Angle
俯仰固定角度

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3. Tilt Angle Adjustment: Set the tilt angle, keep camera level.
　 Tilt Angle Trim: Trim for camera neutral point.

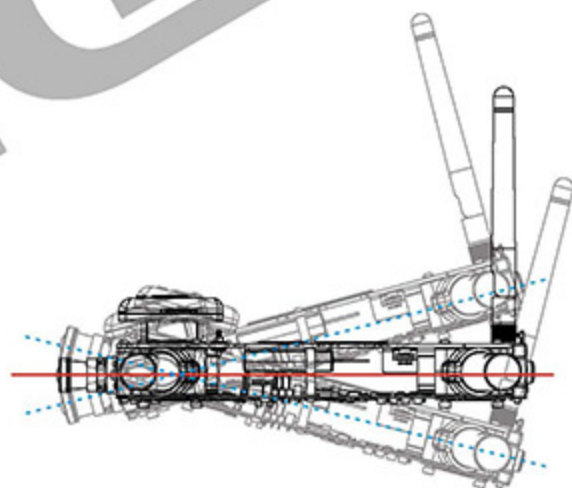　俯仰角度調整:調整鏡頭俯仰角度,飛行中鏡頭保持固定角度拍攝。
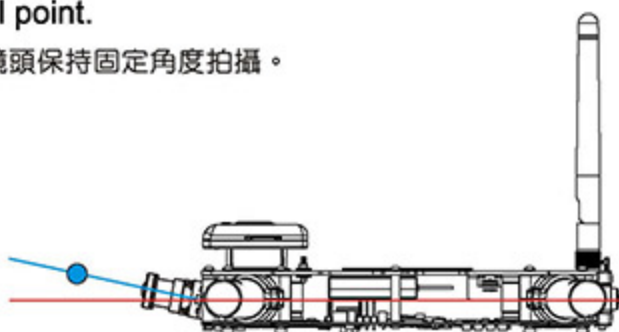　俯仰角度微調:鏡頭中立點調整。

Tilt Angle Adjustment
俯仰角度調整
Tilt-up 25 degrees
向上25度
Tilt-down 12 degrees
向下12度

ALIGN

MRS Flight Control MRS多軸飛控系統

Input Voltage 輸入電壓	10V~16.8V	Supports Multicopter Configurations 支援機型	MR25/MR25P Racing Quad MR25/MR25P穿越機
Operating Frequency 工作頻率	800HZ		
Operating Temperature 工作溫度	-20° C~65° C (-4° F~149° F)	Maximum Angular Speed 最大角速度	Aileron/Elevator 400° /sec, Rudder 45° /sec
Maximum Tilting Angle 最大傾斜角度	80 degrees 80度		副翼/升降 400度/秒，尾舵 45 度/秒

Multicopter Brushless ESC 多軸無刷調速器

Input Voltage 輸入電壓	11.1V ~ 14.8V(3S ~ 4S Li-Po)	Operating Temperature 工作溫度	-5°C~ 45°C(23°F~ 113°F)
Max Continuous Current 最大持續耐電流	15A		

RCM-BL1806 Brushless Motor 2300 KV (RPM/V) RCM-BL1806無刷馬達 2300KV(RPM/V)

Input Voltage 輸入電壓	11.1V	Stator Arms 矽鋼片槽數	12
Max Continuous Current (3Minutes) 最大持續耐電流 (3分鐘)	12A	Magnet Poles 磁鐵極數	14
Max Continuous Power (3Minutes) 最大持續功率 (3分鐘)	135W	Dimension/ Weight 尺寸/ 重量	φ5x φ23x25.6mm/ 18.5g

5.8G Video Transmitter 5.8G圖傳發射器

Operating Frequency 工作頻率	5.8GHz	Antenna Interface 天線接口	RP SMA
Operating Channels 工作頻道	40 CH	Transmitting Power 發射功率	25mW to 600mW
Input Voltage 輸入電壓	7~20V DC	Dimension 外觀尺寸	34x35x12mm
Operating Current 供電電流	300mA 12V(600mW) 100mA 12V(25mW)	Weight 重量	10.6g(Exclude Antenna) /(不含天線) 28.08g(Include Antenna)/(含天線)

5.8G Circular Polarized Gain Antenna TX 5.8G無向性增益發射天線

Operating Frequency 工作頻率	5.8GHz(5750-5850 MHz)	Antenna Interface 天線接口	SMA(Female) SMA(母)
Antenna Gain 天線增益	8dBi	Cloverleaf 菜瓣	3 blades
Operating Temperature 工作溫度	-30°C ~+60°C	Dimension 尺寸	φ35xφ5x76.5mm
Impedance 阻抗	50Ω	Weight 重量	Approx.13g

5.8G Circular Polarized Antenna TX 5.8G無向性發射天線

Operating Frequency 工作頻率	5.8GHz(5225-5950 Mhz)	Antenna Interface 天線接口	SMA(Female) SMA(母)
Antenna Gain 天線增益	4dBi	Dimension 尺寸	31x23x11mm
Operating Temperature 工作溫度	-30°C ~+85°C	Weight 重量	Approx.7.5g
Impedance 阻抗	50Ω		

2K DV Video Recorder 2K DV攝影機

Recording 錄影	1440P 30FPS/ 1080P 30FPS/720P 60FPS	FOV 視角	90°
Encoding Format 視頻格式	MOV	Memory Cards 記憶卡	Micro SD (Maximum Supported 32GB) Micro SD (最大支援32GB)
Photo Resolution 照片尺寸	4352x3264 pixels	Interface 接口	Micro USB、AV out/DC in、MRS Controller 控制
Shutter speed 快門速度	2~1/8000秒	Video Output Format 影像輸出格式	PAL、NTSC
Input Voltage 輸入電壓	5V	Aspect Ratio 顯示比例	16:9

Q&A 1

MR25 will not start after power up with flashing LED?
(1) Abnormal Power-ON
(2) Check to confirm receiver is connected properly.
(3) Confirm in APP that the correct receiver is selected.
(4) Check throttle to confirm its at the lowest position. Confirm "Motor Arm" function is at "OFF" position. (You may need to low end point for throttle in transmitter.)

MR25開機後，無法啓動、LED呈現快速閃爍？
(1) 開機異常。
(2) 請檢查是否有接上接收機。
(3) 檢查APP設定，是否有正確選對接收機類型。
(4) 請檢查油門是否在最低位置，解鎖開關是否在OFF位置。

Q&A 2

MR25 initializes properly, but will not fly after Mortor Arms?
Check if CH5 switch function is well assigned to APP system correspondingly also check if "Motor Arm" function is at "ON" position.

MR25正常開機，但無法解鎖起飛？
請檢查CH5有沒有對應到開關，並搭配APP確認開關切換時，解鎖指示是否有跳到ON位置。

Q&A 3

After motor arms, why does MR25 flips over at take off?
(1) Check propellers to confirm spin direction matchs motor direction.
(2) Check ESC and motor connections to confirm the correct color cablea are used.

解鎖起飛時，MR25動作錯亂翻倒？
(1) 請檢查螺旋槳是否有依照正確方式安裝。
(2) 請檢查馬達與電變的接線，是否有依照正確顏色連接。

Q&A 4

MR25 drifts to another poition while hovering?
(1) Confirm each motor is set level using 0 degree tilt angle.
(2) Check quad for proper CG balance.

停懸時，MR25會往某個方向偏移？
(1) 請檢查四個馬達是否有水平安裝，馬達固定座刻度在0度。
(2) 請檢查機體重心是否在正確位置。

Q&A 5

Quick shaking at fast flying speed?
Decrease aileron and elevator gain values in Flight Mode.

高速飛行時，出現追蹤(快速抖動)情況？
請降低該飛行模式下的副翼與升降感度。

Q&A 6

MR25 control is to sensitive?
Decrease speed limit gain value in Flight Mode to your preference.

MR25飛行動作太過敏感、不好控制？
請降低該飛行模式下的滾轉速度數值，直到動作反應適合您的操控手感。

Q&A 7

Flying angle is to small in Attitude Mode?
Increase aileron and elevator Maximum Angle Gain value.

姿態模式下，飛行動作、角度過小？
請加大姿態模式下的升降、副翼動作角度。

Q&A 8

FPV flight video shakes in Attitude Mode?
Decrease Return Speed Gain value in Flight Mode until shaking stops.

FPV飛行時，在姿態模式下，操控時畫面很容易晃動？
請降低姿態模式的回中速度，讓畫面較為安定。

Q&A 9

Why is DVR video record function not working?
Reset the gimbal function in MRS APP. See "Setup Information" press "Reset" at the bottom of the screen.

DVR無法使用錄影功能？
請進入手機MRS App介面"機體設定資訊"雲台功能選項下方，點選"恢復機體預設值"重設。

10 Q&A

ESC burned up when motor locked operation?
MR25 incorporates a highly intelligent integrated circuit board design, with built-in protection to avoid ESC burn up if motor locks.

馬達在運行中堵轉會燒毀?
MR25主控板為高智能整合式電路板,內建保護設計,可以避免馬達堵轉造成電變燒毀問題。

11 Q&A

Circuit board MOS and motor burned up when flying or motor arming?
MR25 incorporates a precision high-end circuit board design. Please keep MR25 clean by performing maintenance after every flight. Be aware of the flying environment, do not fly in rain to prevent water from entering MR25. Do not fly in dirt or sand areas to prevent materials from entering MR25. Any water or dirt on the PCB will cause board to short circuit, MOS burn up, or motor burn up. Important: Make sure to check and clean MR25 main PCB regularly.

主控板MOS與馬達在飛行中或解鎖運轉時燒毀?
MR25主控板為高智能整合式電路板,請務必定期保養並維護MR25主控板表面的清潔,同時注意飛場的環境,請勿在潮濕或混濁的空氣中飛行,以避免水氣或塵土進入MR25機體內,若有異物附著於主控板,可能導致電路局部短路,造成主控板的電子零件或馬達燒毀。因此MR25主控板的定期清潔保養,是非常重要的檢查工作。

12 Q&A

How to protect and clean circuit board?
Use a high pressure air can or air gun to remove dust, grass, etc., or to dry the MR25 PCB.

主控板如何防護清潔?
可以利用清潔電腦專用高壓除塵空氣罐,或附有空氣濾清器的高壓空氣槍,噴清表面塵土、異物或水氣。

13 Q&A

Obvious tilt while hovering in Attitude Mode?
Use APP Gyro Calibration function to correct. Please, note that during calibration MR25 must not be moved and placed on a level surface or the calibration will not properly work. If after calibrating the MR25 is still tilting in hover the IMU's gyro or PCB may be damaged. Please replace with a new IMU and perform gyro calibration.

在姿態模式時,機子停懸時有明顯傾斜?
可利用APP陀螺儀校正功能,把陀螺儀校正正確。
校正時要特別注意,機子必須完全靜止平放於平面上,否則會影響校正準確度。
如果微調或APP校正都還是調不過來,有可能是主板上電路板(IMU)的陀螺儀震壞了,更換IMU後再重新陀螺儀校正即可解決。

14 Q&A

What parameter should be adjusted when head is offset?
(1) MR25 motor with adjustable angle design; check all four motors to confirm each motor is set at 0 degree tilt angle.
(2)Calibrate the gyro in APP Gyro Calibration. Attention: firmware and software (APP) must be version 1.2 or higher.

機頭會偏請問要調整哪個參數?
(1) Mr25馬達為可調角度設計,檢查四個馬達角度是否為水平0度。
(2) 使用APP的陀螺儀校正功能,重新校正陀螺儀。
注意!主程式及手機APP必須使用V1.2以上版本。

Thank you for purchasing and supporting ALIGN products.

The Align Team is dedicated to you by innovating and developing new RC Helicopters, Multicopters, and FPV Racing Quads to provide a more diversified experience for our customers. Visit our website at www.align.com.tw for the latest news, information, and updates about our extensive line of products for the RC enthusiasts.

Good Flying!

再次感謝您對亞拓系列商品的喜愛與支持，您的肯定是對我們最大的認同。

亞拓團隊秉持創新研發的精神，開發遙控直昇機／多軸飛行機／穿越機系列商品，提供給您體驗更多樣化的飛行樂趣。您可以透過下列連結，隨時瞭解亞拓的最新動態，以及各項訊息分享。

祝福您有一個愉快的飛行體驗。

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ALIGN FPV Racing Quad　亞拓穿越機
http://www.align.com.tw/multicopter-en/mr25/

ALIGN Website　亞拓官網
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ALIGN Youku
http://i.youku.com/u/UMTQ0NjEwNjczNg==

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Specifications & Equipment/規格配備:

Airframe Diameter/軸距:250mm
Propeller Diameter/螺旋槳直徑:5吋(127mm) ／6吋(152mm)
Flying Weight(without battery)/全配重(不含電池): Approx. 410g

MR25

158

196

73

MR25P

157

194

71