

A13 GST TRANSMITTER

ALIGN

INSTRUCTION MANUAL

遙控器使用說明書

[HERA1301T]



14 CHANNELS
2.4GHZ TRANSMITTER



For more detailed instruction, please check our website.
<http://www.align.com.tw/A13/>

Congratulations on your purchase of Align professional aerial photography products! To ensure your success with this product, we would like to present the following information and important reminders.

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，以確保您能夠在使用的過程中較得心應手。在開始操作之前，請務必詳閱本說明書，相信一定能夠給您帶來相當大的幫助，也請您妥善保管這本說明書，以作為日後參考。

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INTRODUCTION

前言

ALIGN

Thank you for purchasing the A13 GST transmitter digital proportional R/C airplane/helicopter system. This radio has been designed and manufactured to provide you with many, many years of modeling enjoyment and fun. Whether this is your first venture into R/C or you're a seasoned veteran, the A13 GST transmitter offers something for everyone. If this is your first "computer" radio, rest assured that this system is designed to make initial setup and field-tuning of your airplane and/or helicopter easier and more accurate than using a non-computer "analog" radio. Experienced modelers will appreciate some of the A13 GST's advanced features and functions normally found on the more advanced radios. In either case, to make the best use of the A13 GST system, and to operate it safely, you should carefully read the instructions in their entirety prior to operation.

Every modeler has their own personal preferences on the proper steps to set-up and program their models. As such, it would be very difficult to create a manual that would satisfy all modelers accordingly. Thus, this manual has been designed to 'step you through' the programming of the A13 GST transmitter, following the function list of the system. If you wish to follow your own personal preference on setting up a model, please feel free to do so keeping in mind that some programming options will interact with others. For example, Dual Rates and End Points will influence one another.

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每個模型使用者都會依自己的個人喜好採適當的步驟及設置其模型。因此，創造一本可以滿足所有模型使用者的手冊是非常困難的一件事情。致此，透過本手冊，能讓您“按步就班”設定A13 GST遙控器的各項功能。如果您想依個人喜好建立一個新模型，請記住一些會相互影響的功能設定選項。例如，大小動和舵機行程量這兩功能是有連帶關係的。

SUGGESTION

建議

If, while reading the instructions, you are unclear of some of the procedures or functions described or become 'stuck', please continue reading anyway. Oftentimes, the function or procedure will be explained again later in an alternate manner which will clarify the procedure or function. Another alternative is to connect the battery, servos, receiver, etc. to simulate your aircraft and actually program the radio accordingly. This will allow you to visually recognize the effects of your programming inputs. If utilizing this alternate method of familiarizing yourself with your radio, please ensure that your aircraft can not cause harm to yourself or others by disabling it accordingly.

This product is to be used for the flying of radio controlled models only. ALIGN is not responsible for the results of use of this product by the customer or for any alteration of this product including modification or incorporation into other devices by third parties. Modification will void any warranty and is done at the owner's risk and responsibility. Please protect the environment by disposing of rechargeable batteries responsibly. Throwing rechargeable batteries into the trash or municipal waste system is illegal in some areas.

如果，您對此遙控器的程式指令或功能不是很瞭解而發生困惑時，請查閱本說明書。通常，有些功能或程式在另一個環境中才會被使用。當您改變設定時，建議要連接電池、開關和伺服器、接收器等，並且安裝在實際的模型上，這樣有助於展現改變設定後的實際效果。本產品僅限於無線電遙控模型飛行使用。肇因於改裝或使用由第三方製造的產品設備所產生的產品問題，本公司將不負任何責任。擅自拆裝等不當改裝將不受任何保固以及須自負其所衍生的責任。

為保護環境，對充電電池的處理是大家應負的責任。在某些地區的垃圾處理系統上，將充電電池扔進垃圾桶是違法的行為，請知悉有關您所在地區的鎳鎘電池回收方式，並依各所在地區相關法令規範辦理。

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.

遙控模型包括遙控器、電子設備、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造成嚴重傷害甚至死亡，使用之前請務必詳讀說明書，勿輕忽並注意自身安全。注意！任何遙控模型的使用，製造商和經銷商是無法對使用者於零件使用的損耗異常或組裝不當所發生之意外負任何責任，本產品是提供給有操作過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。

遙控模型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。

This product complies with low-power radio wave radiation of the provisions of motor management :

- Article 12: Without permission granted by the DGT, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to approved low power radio-frequency devices.
- Article 14: The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved.
- The said legal communications means radio communications is operated in compliance with the Telecommunications Act. The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

本產品符合低功率電波輻射性電機管理辦法：

- 第十二條：經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
- 第十四條：低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
- 前項合法通信，指依電信規定作業之無線電信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Warning: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

警告：未經允許或依規範改裝或修改此設備規格，可能會影響使用者操作此設備的權利。

注意：本設備已通過測試且符合FCC條款第15條B類電子設備的規範。此規範主要為保護電子設備防範在安裝使用過程中受到其它訊號干擾。此設備使用時會產生射頻能量，如果未依指示規範安裝或使用，將可能對無線電通信造成有害干擾。但無法保證在安裝時不會發生無線射頻干擾。

假設此設備透過開關切換證實對無線電或電視接收產生有害干擾，建議使用者參考以下修正方式：

- 重新調整或擺放接收天線。
- 增加設備和接收器之間的距離。
- 將設備與連接器連接到不同的電源電路插座。
- 請洽經銷商或經驗充足的技術人員尋求協助。

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。

- Fly only in safe areas, away from other people. Do not operate R/C aircraft indoors or within the vicinity of homes or crowds of people. R/C aircraft are prone to accidents, failures, and crashes due to a variety of reasons including: lack of maintenance, pilot error, and radio interference. Pilots are responsible for their actions and damage or injury occurring during the operation or as a result of R/C aircraft models.
- Prior to every flight, carefully check all parts such as blades, screws, frame, arms, etc; ensure they are firmly secured and show no unusual wears, or unforeseen danger may happen.
- Please obey all regulations to enjoy safe modeling.
- Please keep the model in sight at all times as large objects can negatively impact the RF signal. Please keep in mind that objects such as wire fences and wire mesh will also cause degradation of the RF signal.
- 遙控模型屬高危險性商品，操作時務必遠離人群。人為組裝不當或未定期檢修造成的機件損壞、電子控制設備不良，以及操控上的不熟悉、都有可能導致模型失控損傷等不可預期的意外，請操作者務必注意操作安全，並需了解自負疏忽所造成任何意外之責任。
- 每趟飛行前須仔細檢查遙控模型機身各部位之零/配件/電子設備之性能是否正常，及無損耗老化現象，並確實將螺絲鎖緊才能升空飛行。並做好定期檢修，避免零件或電子產品異常所造成不可預期意外。
- 請遵守所有規定以享受安全的模型活動。
- 請在任何時候都將視線保持在模型上，大型物件會對射頻信號產生負面的影響。請牢記，如鐵絲圍欄和鐵絲網等物件也將引起發射頻信號衰減。



FORBIDDEN
禁止

- Do not use the product at night or in bad weather like rain or thunderstorm. It can cause erratic operation or loss of control.
- Do not use the product in poor visibility conditions.
- Do not use the product on rainy or snowing days. Any exposure to moisture (like water or snow), erratic operation or loss of control may occur.
- Frequency interference may cause loss of control, make sure not to use the products in the following places to ensure the safety of yourself:
 1. Near the base station or other radio wave exposure places
 2. Near high voltage cables and broadcast communication antennas.
 3. Near crowd or on the streets/roads where vehicle pass by.
 4. On open water area where passenger ship go through.

- Do not use this product when you feel tired, unwell, or taking drugs that are alcoholic, or cause anesthesia or excitement, as this may cause serious dangerous to yourself or others.
- The 2.4 GHz radio wave is completely different from the low frequency radio band as previously. When using, please make sure to keep products within your sight cause large obstacles will block radio frequency transmission and result in failure or out of control causing unpredictable danger and loss.
- While using, ensure not to hold transmitter antenna in hands or it will reduce the quality and intensity of radio transmission causing model out of control.
- After landing, ensure not to touch any electronics such as motor, ESC or starter to prevent serious scald or burn.

FORBIDDEN 禁止

- 請不要在夜間或雷雨天氣使用本產品，惡劣的天氣環境有可能導致遙控設備失靈。
- 請不要在能見度有限的情況下使用本產品。
- 請不要雨雪或有水的地方使用本產品。如果有液體進入到系統內部，可能會導致信號干擾可能導致設備失控。
- 為確保您和他人的安全，請不要在以下地點使用本產品
 1. 基地台附近或其他無線電活躍的地方。
 2. 高壓電線或通訊廣播天線附近。
 3. 人群眾多場所或道路有車輛通行的附近。
 4. 有客船運輸通行的水域。
- 當您感到疲倦、身體不適、或服用含有酒精性、或會導致麻醉或興奮的藥物後，嚴禁使用本產品，否則可能對自己或他人造成嚴重的傷害。
- 2.4GHz無線電波完全不同於之前所使用的低頻無線電波段。使用時請確保模型產品在您的視線範圍內，較大的障礙物將會阻斷無線電頻率信號，進而發生遙控失靈及模型失控，導致人員生命傷害及財務的損失。造成不可預期的危險。
- 在使用過程中，嚴禁緊握遙控器天線，否則將會減弱無線電傳播信號的質量和強度，導致遙控失靈及模型失控。
- 在操作或使用遙控模型後，請勿觸任何可能發熱的部位，例如啟動機、馬達、定速設定等，以避免造成嚴重的燒燙傷。

WARNING 警告

- Misuse of this product may lead to serious injury or death. To ensure the safety, make sure to read this manual and follow the instructions for assembly and setup carefully.
- Before operating, make sure the product is properly installed, or it may cause serious damage and injury.
- Make sure to disconnect the receiver battery firstly, then turning off the transmitter. If the receiver still been operated after transmitter is off, then it may lead to unintended operation and cause an accident.
- Before operating, ensure that all motors and servos are operated in the correct direction same with the radio transmitter. If not, make sure to trim the direction first.
- 遙控設備使用不當可能導致操作者或他人嚴重受傷、甚至死亡。為確保您和設備的安全，使用前請仔細閱讀使用說明書，並按照相關要求進行操作。
- 使用前必須確保本產品與模型安裝正確，否則可能將導致模型發生嚴重損壞。
- 關閉時，請務必先關閉接收器電源，然後再關閉遙控器。如果關閉遙控器電源時接收器仍然在運行工作，有可能導致控設備失控或是動力設備繼續運行，而引發不可預期的危險。
- 使用前，務必先確認模型所有伺服器的動作方向與操控遙桿方向一致，如果不同必須先調整好正確的方向，確認無誤，才能操作使用。



CAUTION
注意

IMPORTANT!

Always turn on the transmitter first, then the receiver. When turning off the system, always turn off the receiver first. The receiver should never be on without the transmitter on. Following this procedure will prevent damage to the servos and/or control surfaces. Or, in the case of electric-powered models, the motor may unexpectedly turn on causing severe injury.

重點提示！

每次開啓系統時，務必先開啓遙控器，再開啓接收器；當關閉系統時，則先關閉接收器，然後再關閉遙控器。接收器不應在遙控器未開啓前被開啓。按照以上程序操作可防止損壞伺服系統或控制舵面。否則在使用馬達動力的模型情況下，馬達可能會意外運轉造成嚴重傷害。



FORBIDDEN
禁止

LOCATE AN APPROPRIATE LOCATION

遠離障礙物及人群

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.

操控遙控模型時具有一定的速度，相對的潛在危險性，場地的選擇相當重要，請需遵守當地法規到合法的場地操作。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的場地。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。



FORBIDDEN
禁止

PROPER OPERATION

勿不當使用本產品

Do not attempt to modify the aircraft to alter its intended design. Please use only designated replacement parts listed in the manual to ensure its design structure integrity. Operate this product within its intended design parameters; do not overload it with excess cargo. This product is limited to personal hobby use, and pilot should be proficient with operation of this model. Follow all local law and ordinances when operating. Do not use this product for purposes which may violate others' personal privacy, and respect other's intellectual properties. Do not use this product for illegal purposes or beyond the bonds of common safety.

請勿自行改造加工，任何的升級改裝或維修，請使用亞拓產品目錄中的零件，以確保結構的安全。請確認於產品限內操作，請勿過載使用，本產品為休閒娛樂專用之精密電子遙控飛行產品，僅限熟練遙控飛行器之個人使用，使用時請遵守當地法律規定，並嚴禁在任何違反公共安全區域操作，請勿利用本產品侵犯他人隱私/公開權、並尊重他人智慧財產權、著作權，且勿用於安全、法令外之其它非法用途。並充分了解您任何的使用與操作必須負完全的責任。



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.

遙控模式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.)

操控模型前，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遙控器將導致自己與他人立即干擾等意外危險。遙控模型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，才可以操控執行，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.

請於自己能力範圍內並具備必要的操作技術的情況下操作遙控模型，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。不可使遙控飛行機在視線範圍外飛行，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／螺旋槳是以高轉速運行，具有高危險性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.

遙控模型多半是以碳纖維、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。

**CAUTION**
注意

SAFETY ON THE USE OF BATTERIES

電池使用安全

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

如果使用不同型號的電池將可能有電池爆炸的風險。請依產品說明指示報廢電池。

STANDARD EQUIPMENT

標準配備

ALIGN



A13 GST Transmitter
A13 GST遙控器



Screen Bracket
螢幕架



A6B Receiver
A6B接收器



User Guidance
使用者須知



Trainer Cable
教飛線



Charging Cable
充電線

OPTIONAL EQUIPMENT

選配商品

ALIGN

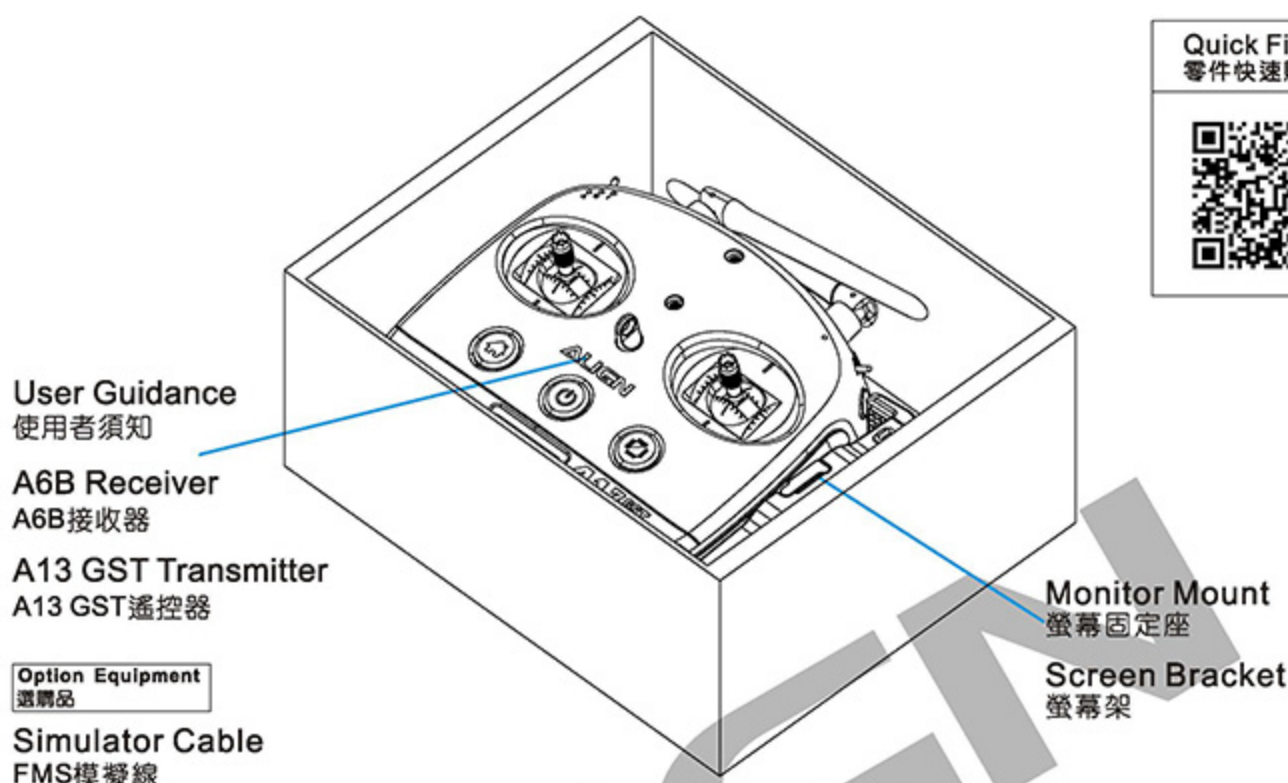


Simulator Cable
FMS模擬線

PACKAGE CONTENTS

包裝說明

ALIGN



INTRODUCTION

產品介紹

ALIGN

ALIGN A13 GST transmitter and A6B receiver is a transmit/receive set can support upto 14 channels, and with 2.4GHz AFHDS digital proportional computerized R/C system which suitable for R/C aircraft. With AFHDS digital proportional computerized R/C system, anti-interference, low power consumption and high sensitivity receiver.

A13 GST transmitter is an ergonomic design with a comfortable grip and precision gimbal control. The built-in integration of this new remote control system was developed specifically to allow single button control of multiple functions and to improve flight efficiency.

Ground System APP is used to adjust the remote control parameters and custom button mode, so the aircraft maintains the best-performing state. Support for helicopter, multi-axis aircraft. Using a dual-frequency transmission system, with high-gain antenna, effectively enhancing the anti-jamming capability and picture quality.

ALIGN A13 GST 遙控器和A6B接收器，為相對應的發射接收組合，遙控器具備14頻道作動，接收器最大支援可達14頻道。AFHDS是自動調頻數位系統的簡寫。它是一個高度精密的遙控信號傳播系統，這個系統能夠提供良好的距離，抗干擾能力強並且耗電量低。2.4G 增強版數位自動跳頻系統，適用於遙控模型飛行設備。具有數位自動跳頻系統，抗干擾、低功耗和高敏感度接收。

A13 GST 遙控器外觀符合人體工學設計，有舒適握感與精準靈敏搖桿控制，內在是完美整合性高全新遙控系統，而它就是為了高端專業產品而量身打造。可透過簡易按鍵控制飛行器多項功能，而提升操控效率。

支援APP調整遙控器參數以及自定義按鈕模式，讓飛行器保持最佳理想狀態。支援直昇機與多軸飛行器功能。採用雙頻發射系統，搭配高增益天線，有效大幅提升抗干擾能力及畫面品質。

The AFHDS (Automatic Frequency Hopping Digital System) offering superior protection against interference while maintaining lower power consumption and high reliable receiver sensitivity. It is considered to be one of the leaders in the RC market today.

AFHDS 數位自動跳頻系統，是一個高度精密的遙控訊號傳播系統，具有抗干擾、低功耗和高敏感度接收，是目前市面上最好的系統之一。



MULTI-CHANNEL HOPPING FREQUENCY 多頻段跳頻工作

This system bandwidth ranges from 2.408GHz to 2.475GHz, divided into 160 independent channels, each system using one of 16 different working frequencies and 160 kinds hopping regularity. It initiatives to avoid co-channel interference when power-up and using multi-channel hopping frequency. The 16 channels are selected at random from the list of 135 channels.

系統工作頻率範圍為2.408GHz至2.475GHz，共分為160個獨立頻點，每套系統使用其中不同的16個工作頻點和160種跳頻規律，通過開機時間不同及跳頻規律不同和使用頻點不同，主動避開同頻干擾。通信頻道是從135個頻道表中隨機選擇16個頻道跳頻。



OMNI-DIRECTIONAL GAIN ANTENNA 全角度增益天線

This system uses high-efficiency full-band gain antenna, which widely covers all the frequency band, it can greatly improve the efficiency of the system transmit and receive sensitivity, to enhance the system stability and passive anti-jamming capability.

此系統使用高效率的全波段增益天線，天線帶寬覆蓋整個波段寬度，可大大提高系統發射效率及接收的靈敏度，從而提升系統的穩定性，並增強自身被動抗干擾能力。



UNIQUE ID RECOGNITION SYSTEM 獨立身份識別系統

There is unique identification ID for each remote controller and receiver. After pairing with the receiver, this ID code will be stored in the receiver; when operating the receiver, you will be asked to verify this ID code. If verified failure, it's not activated. It improves and enhances system stability to prevent RF interference.

此系統每個遙控器和接收器都具有唯一的身份識別ID，當與接收器進行對頻後，此ID碼被存在接收器內；接收器工作時，首先會驗此ID碼，若驗證失敗則不會動作。此項可加大系統的主動抗干擾能力，進而提升系統的穩定性。



LOW POWER CONSUMPTION 低功耗

The system features with low power consumption, and highly sensitive component, while operating interval data transmission, it can effectively reduce the emission rate, extend battery lifetime, lower power consumption which is 1/10 of FM.

本系統採用低功耗、高靈敏度物件，同時使用間隔數據發送的工作方式，能有效降低發射率，延長電池使用時間，使系統功耗降低，是FM版本十分之一。

1 TRANSMITTER INTRODUCTION

遙控器介紹

2.4G Antenna
2.4G天線

Switch for Flight Mode (Left)
飛行模式開關(左)

Flight Mode LED Indicator
飛行模式指示燈

Stick (L)
搖桿(左)

Hatch Ring
吊環

Return Home (Press to trigger)
自動返航開關(按下即觸發)

LCD Panel
液晶顯示面板

Handle Bar
提把

Slider W2
Gimbal Pitch Angle Control
滾輪開關/W2(雲台俯仰控制)

Cable Connection Port (Flip Cover)
接線孔蓋(掀蓋)



Charger Jack
充電插孔

Micro USB Port
(Firmware Update)
Micro USB插孔
(程式更新)

Trainer Port (Master Transmitter)
教飛線插孔(主從遙控器)

Video Transmitter USB Port
圖傳USB插孔

Self-Defining Function-B
自定義功能-B

Monitor Mount
螢幕固定座

3-step switch (Right)
三段式開關(右)

Self-defining - H LED Indicator
自定義功能-H指示燈

Stick (R)
搖桿(右)

Agricultural Helicopter : Auto
Spray Switch
Multicopter : Auto Retract Switch
Helicopter : Self-defining/Trainer
Mode Switch (Need trainer
cable)
植保機：自動噴灑開關
多軸機：自動收腳架開關
直昇機：自定義功能/教飛切換(需連
接教飛線)

Power Button
電源開關

Slider W1
Self-Defining Function-W1
滾輪開關/W1(自定義功能)

Video Transmitter Control Box
圖傳控制盒

Grip
握把

Photo / Video
Short Press-Photo,
Extended Press-Video.
拍照 / 錄影鍵
短按-拍照 / 長按-錄影

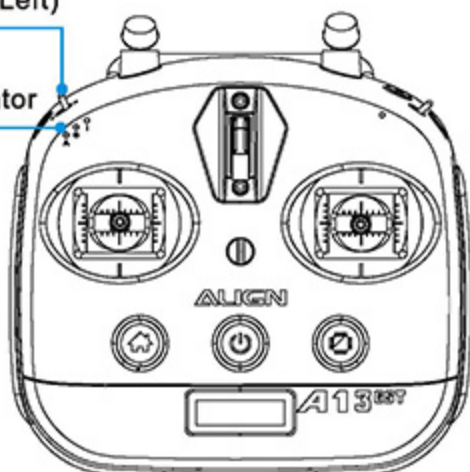
Self-Defining Function-H
自定義功能-H

2 TRANSMITTER SWITCHES INTRODUCTION

遙控器開關功能說明

Switch for Flight Mode(Left)
飛行模式開關(左)

Flight Mode LED Indicator
飛行模式指示燈



SWITCH FOR FLIGHT MODE INTRODUCTION 飛行模式開關功能說明

Stick move up : audio reminder / Flight mode LED "I" solid green light / Show "I" on the monitor. The modes shows in aircraft system :

Agricultural Helicopter : Navigation

Muticopter : GPS mode

Helicopter : Idle 2



撥桿往上，語音提示。飛行模式燈 "I" 綠燈恆亮。液晶顯示面板會出現 "I" 字樣。

植保機對應模式為：導航模式

多軸機對應模式為：定位模式

直昇機對應模式為：Idle 2

Stick move to middle : audio reminder / Flight mode LED "G" solid green light / Show "G" on the monitor. The modes shows in aircraft system :

Agricultural Helicopter : GPS mode

Muticopter : Attitude mode

Helicopter : Idle 1



撥桿置中，語音提示。飛行模式燈 "G" 綠燈恆亮。液晶顯示面板會出現 "G" 字樣。

植保機對應模式為：定位模式

多軸機對應模式為：姿態模式

直昇機對應模式為：Idle 1

Stick move down : audio reminder / Flight mode LED "A" solid green light / Show "A" on the monitor. The modes shows in aircraft system :

Agricultural Helicopter : Attitude mode

Muticopter : Attitude mode

Helicopter : Normal

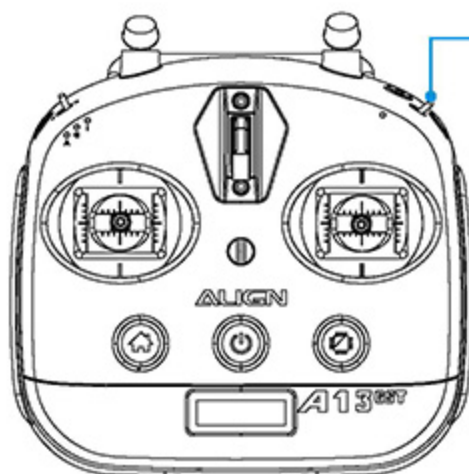


撥桿往下，語音提示。飛行模式燈 "A" 綠燈恆亮。液晶顯示面板會出現 "A" 字樣。

植保機對應模式為：姿態模式

多軸機對應模式為：姿態模式

直昇機對應模式為：Normal



3-step switch (Right)
三段式開關(右)

Agricultural Helicopter : Throttle Hold Switch

Multicopter : Switch for Intelligent Mode

Helicopter : Throttle Hold Switch

植保機：油門鎖定開關

多軸機：智能模式開關

直昇機：油門鎖定開關

3-STEP SWITCH INTRODUCTION 三段式開關功能說明



Stick move down.

Agricultural Helicopter : Throttle hold, audio sound

Helicopter : Throttle hold release

撥桿往下。

植保機對應模式為：動力鎖定，語音提示。

直昇機對應模式為：油門鎖定解除。



Stick move to middle

Agricultural Helicopter : on call, audio sound

Helicopter : Throttle hold.

撥桿置中。

植保機對應模式為：動力待命，語音提示。

直昇機對應模式為：動力鎖定。



Stick move up

Agricultural Helicopter: stick move up and hold 2 sec. then back to center position to power release / throttle on

Helicopter : stick move up and back to center position to throttle off

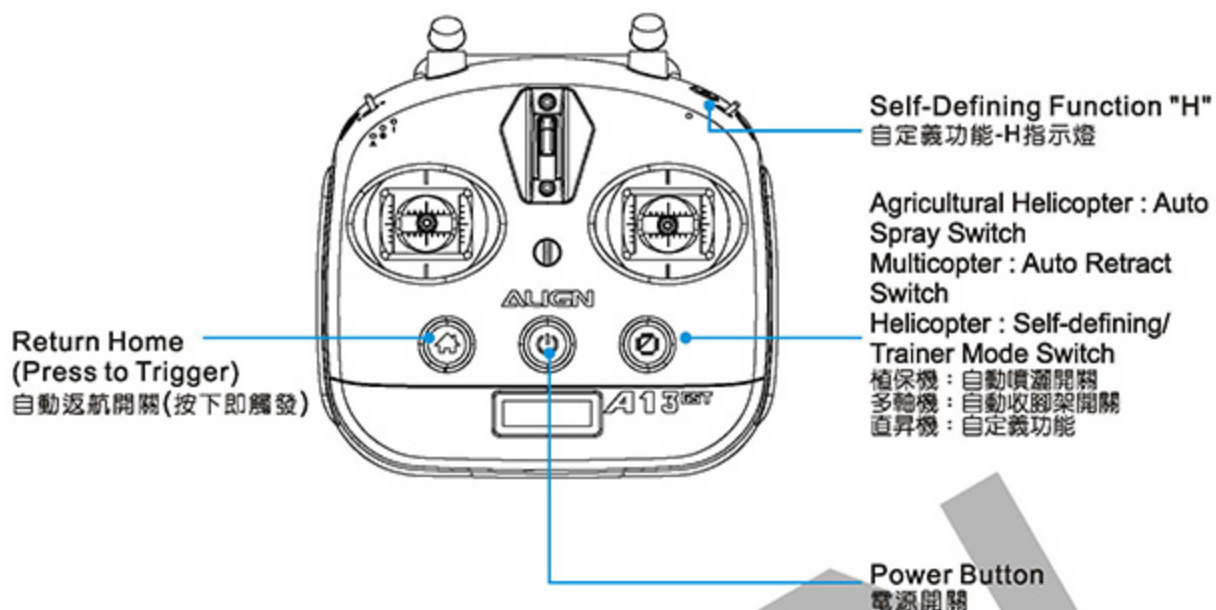
撥桿往上。

植保機對應模式為：推撥2秒回彈置中為動力解鎖/油門啟動。

直昇機對應模式為：推撥回彈置中為油門熄火。

3 TRANSMITTER BUTTON INTRODUCTION

遙控器按鈕功能說明



Auto Return Home Switch

Auto Return Home : Short-press to activate / Audio Reminder / Indicator LED solid white light. Disengage Auto Return Home : Short-press to disengage / Audio Reminder / Turn-off Indicator LED.

自動返航開關

自動返航：短按啟動，語音提示。指示燈白燈恆亮。
解除返航：短按解除，語音提示。指示燈關閉。

Power Switch

- 1) Power on : Extended-press 3 sec. / Audio reminder and alarm / Indicator LED white solid light / Turn on monitor screen.
- 2) Power off : Extended-press 3 sec. / Audio reminder and alarm / Indicator LED white solid light / Turn off monitor screen.
- 3) Program Version : Short-press 1 sec. / the latest program version will show on the monitor.

電源開關

- 1) 開啓電源：長按電源鍵3秒，語音提示並發出開機聲響，指示燈白燈恆亮、液晶顯示面板開啓。
- 2) 關閉電源：長按電源鍵3秒，語音提示並發出關機聲響，指示燈及液晶顯示面板關閉。
- 3) 程式版本：短按，液晶顯示面板會出現目前遙控器程式版本。

- 1) Agricultural Helicopter Function : Auto spray switch. Trainer cable connected and short-press to start trainer mode.

Spray ON : Short-press to power on with audio sound and white LED solid light.

Spray OFF : Sort-press to power off with audio sound and LED light off.

- 2) Multicopter Function : Auto Retract Switch. Trainer cable connected and short-press to start trainer mode.
- 3) Helicopter Function : Self-defining/Trainer Mode Switch. Trainer cable connected and short-press to start trainer mode.

- 1) 植保機對應功能：自動噴灑開關。連接教飛線後，短按啟動教飛功能

啟動噴灑功能：短按啟動，語音提示，指示燈白燈恆亮；

關閉噴灑功能：短按解除，語音提示，指示燈關閉。

- 2) 多軸機對應功能：自動收腳架開關。連接教飛線後，短按啟動教飛功能

- 3) 直昇機對應功能：自定義功能。連接教飛線後，短按啟動教飛功能