

A10

RADIO CONTROL SYSTEM

ALIGN

INSTRUCTION MANUAL 使用說明書

[HERA1802T]



Much precise control
feeling for more fun.



10 CHANNELS
2.4GHZ TRANSMITTER



For more detailed instruction, please check our website.

<http://www.align.com.tw/A10>

更多詳情請到網站查詢。

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.

恭喜閣下購買亞邦遙控世界系列產品，謹表誠意。進入遙控世界之前必須先研讀許多相關的知識與注意事項，以確保您能將在使用過程中得心應手。在開始操作之前，請務必詳讀本說明書，特別一定要將給您帶來極大的幫助，也請您妥善保管這本說明書，以作為日後參考。

TABLE OF CONTENTS

**ALIGN**

INTRODUCTION 序言	1	HOME PAGE 返回首页	14
SUGGESTION 建議	1	MENU PAGE 顯示選單	15
IMPORTANT NOTES 重要事項	2	SYSTEM 系統	15
WARNING LABEL LEGEND 警告標語圖例	2	MODEL SELECT 選擇模型	15
SAFETY NOTES 安全注意事項	3	MODEL NAME 選擇型號	16
STANDARD EQUIPMENT 標準配備	7	TYPE SELECT 選擇類型	16
PACKAGE CONTENTS 包裝內容	7	MODEL COPY 選擇副廠	16
INTRODUCTION 簡介	8	MODEL RESET 選擇重設	17
SYSTEM FEATURES 系統特點	8	RECEIVER MODE 選擇接收	17
TRANSMITTER INTRODUCTION 發射器簡介	10	TRAINER MODE 選擇訓練	17
TRANSMITTER ANTENNA 發射器天線	10	STUCKY MODE 蜂鳴器	17
RECEIVER OVERVIEW 接收器簡介	10	STICK MODE 選擇搖桿	18
RECEIVER SETUP OVERVIEW 接收器設定簡介	15	A/D TRANSMITTER MODE 1 AND MODE 2 CONVERSION INSTRUCTION A/D發射器-接收器1-2轉換說明	18
RECEIVER ANTENNA 接收器天線	10	STICK ADJUST 選擇搖桿	19
STATUS INDICATOR 狀態指示器	10	LED BRIGHTNESS 選擇亮度	20
GETTING STARTED 開始使用	11	TIME SETTING 選擇時間	20
TRANSMITTER BATTERY INSTALLATION 發射器電池安裝	11	LANGUAGE SELECT 選擇語言	20
OPERATION INSTRUCTIONS 操作說明	11	FIRMWARE VERSION 選擇版本	21
POWER ON 開機	11	FIRMWARE UPDATE 選擇更新	21
RC BINDING 遙控綁定	12	FACTORY RESET 選擇重設	21
PRE-CHECK 預先檢查	12	FUNCTIONS 選擇功能	22
USB SIMULATOR MODE USB模擬器模式	13	REVERSE 選擇反轉	22
POWER OFF 關機	13	END POINT 選擇終點	22

TABLE OF CONTENTS



ALIGN

DISPLAY DISP/SEL	23
AUXILIARY CHANNELS AUX/SEL	23
SUBTRIM SUB	23
DUAL RATE / EXPONENTIAL D-RATE/EXP	24
THROTTLE CURVE THROTTLE	24
PITCH CURVE PITCH	25
SWASHPLATE SWASH	25
MIX MIX	26
FLYBAR FLYBAR	26
V-TAIL V-TAIL	27
GYRO GYRO	27
GOVERNOR GOV	27
SWITCHES ASSIGN SWITCHES	27
THROTTLE HOLD THROTTLE HOLD	28
THROTTLE CUT THROTTLE CUT	28
FAILSAFE FAILSAFE	28
A10 TRANSMITTER FIRMWARE UPDATE A10 FIRMWARE UPDATE	29
PRODUCT SPECIFICATION SPEC	30
TRANSMITTER SPECIFICATION (A10) SPEC (A10)	32
RECEIVER SPECIFICATION (A8) SPEC (A8)	32

INTRODUCTION

前言

ALIGN

Thank you for purchasing the ALIGN A10 transmitter digital proportional PFC 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 PFC or you're a seasoned veteran, the A10 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 A10's advanced features and functions normally found on the more advanced radios. In either case, to make the best use of the ALIGN A10 system, and to operate it safely, you should carefully read the instructions in their entirety prior to operation.

非常感謝您購買 ALIGN A10 傳訊器數位比例 PFC 飛機/直升機系統。這套系統已經設計及製造，以提供您多年模型飛行之樂趣。無論您是初次嘗試 PFC 或是經驗豐富的老手，A10 均能提供適合您的功能。如果您還是初次嘗試數位傳訊器，請放心，這套系統是特別設計，以協助您更輕鬆及準確地設定及調整您的飛機或直升機。經驗豐富的玩家亦會欣賞 A10 的一些先進功能及功能，這些功能通常只會在更先進的傳訊器上發現。無論如何，為了能充份利用 ALIGN A10 系統，並安全地操作，您應在操作前細閱說明書。

Every modeler has their own personal preferences on the proper steps to setup 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 A10 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 Rate and End Points will influence one another.

每個模型飛行者都會有自己的個人喜好及設定步驟。因此，難以編寫一本能滿足所有模型飛行者的手冊。故此，這本手冊是根據 A10 傳訊器功能列表而編寫。如果您想按照自己的喜好設定模型，請放心，您可以自由設定，但請留意，某些設定選項會互相影響。例如，雙速率及終點設定會影響彼此。

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, servo, 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，在閱讀說明書時，您對某些程序或功能感到不清楚或感到「卡住」，請繼續閱讀說明書。通常，這些功能或程序會在另一種說明書中再次解釋。另一種選擇是連接電池、伺服器、接收器等，以模擬您的飛機，並實際編程傳訊器。這將允許您視覺化地認識您的編程輸入的影響。如果您利用這種熟悉傳訊器的方法，請確保您的飛機不會對您自己或他人造成傷害。

此產品僅用於飛行遙控模型。ALIGN 不負責任此產品由客戶使用或對產品進行任何修改或將其集成到其他設備中。修改將使任何保修失效，且由所有者承擔風險及責任。請負責任地處理可充電電池。將可充電電池丟入垃圾或市政廢物系統是非法的。

IMPORTANT NOTES

重要聲明

Radio Control (RC) multicopters are not toys. RC 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, RC multicopters and its components use precision electronics susceptible to interferences from external forces such as magnetic field and radio signal. Should the multicopter or any included 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.

遙控飛機、遙控模型機、遙控飛機組件等產品，均屬高科技產品。使用不當可能會造成人身財產損失，甚至造成嚴重傷亡。請在操作前仔細閱讀說明書，並確保在操作時能意識到自己的安全及他人安全。本廠及經銷商均不承擔因操作或產品使用不當所造成之任何損失。本產品僅供具有操作遙控飛機經驗之成人於合法飛行場地使用。售出此產品後，我們不能對其操作或使用負責。

此外，遙控飛機及其組件均採用精密電子元件，易受外部磁場及無線電波干擾。若遙控飛機或隨附攝影器材等因受外部磁場或無線電波干擾而導致損壞或損失，Align 概不負責，因為其原因已超出我們之控制範圍。請與經銷商或代理商聯繫，以獲得免費技術諮詢及以優惠價格購買零件。當您在操作或維護時遇到問題，請與經銷商或代理商聯繫，以獲得免費技術諮詢及以優惠價格購買零件。

作為本產品之使用者，您應對其操作方式負責，不得對他人或財產造成損害。

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 a 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 related devices.

本產品符合低功率電磁波輻射之電機管理條例：

- 第十二條：未經電檢局之許可，任何公司、企業或個人不得擅自變更頻率、增加功率或改變原有特性及性能。
- 第十四條：低功率電磁波設備不得影響航空安全及干擾合法通訊；若發現干擾，使用者應立即停止使用，直到無干擾為止。
- 本法所稱之合法通訊，係指符合電信法之無線電通訊。低功率電磁波設備必須符合電信法之規定，不得干擾合法通訊或 ISM 電磁波相關設備。

SAFETY NOTES

安全注意事項

ALIGN

WARNING LABEL LEGEND

標誌代碼說明



Do not attempt under any circumstances.
在任何情況下均不得嘗試。



Mishandling due to failure to follow these instructions may result in serious damage or injury.
因未按照這些說明書進行操作，而導致錯誤使用或誤裝造成嚴重損失或傷害。



Mishandling due to failure to follow these instructions may result in danger.
因未按照這些說明書進行操作，而導致錯誤使用或誤裝造成危險。

● 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 store no sharp tools, or anything else 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.

● 遙控飛機應在安全區域內飛行，遠離其他人員。不要在室內或住宅附近飛行。遙控飛機容易發生事故、故障和墜機，原因多種多樣，包括：缺乏維護、飛行員失誤和無線電干擾。飛行員應對其行為負責，並對飛行過程中或飛行後發生的任何損壞或傷害負責。

● 每次飛行前，請仔細檢查所有部件，如螺旋槳、螺絲、機架、機臂等，確保它們牢固固定，並存放任何鋒利工具或其他可能發生危險的物品。

● 請遵守所有法規，以享受安全的模型飛行。

● 請在飛行時始終保持模型在視線內。大型物體可能會對無線電信號產生負面影響。請牢記，圍欄、鐵絲網和鐵絲網等物體也會導致無線電信號的退化。



● Do not use the product at night or in bad weather like rain or thunderstorms. 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.

WARNING

- Do not use this product when you feel tired, uncomfortable, or after drinking alcohol or taking drugs. Doing so may cause serious injury to yourself or others.
- 2.4GHz radio band is different from other low-frequency wave, make sure not to use the product out of your sight, such as large obstacle/object will block the RF signal and lead to unexpected danger.
- When operating the product, it's forbidden to hold the radio antenna. Or it'll significantly decrease transmitter quality and strength then lead to unforeseen danger and loss of control.
- Do not touch any heating part of the model during operation or just after stopping, such as engine, motor or speed controller, or it may cause serious injury and soiled.
- 請不要在疲勞或飲酒後使用此類產品。疲勞或飲酒後使用可能會導致嚴重的受傷或損傷。
- 請不要在視線受阻的情況下使用此類產品。
- 請不要在操作時或操作後立即觸摸發熱部位。如發動機、電機、速度控制器、電池等。
- 當操作遙控模型時請勿觸摸天線。為確保您和別人的安全，請不要在以下地點使用此類產品。
 1. 靠近任何火災或任何熱源或可燃物地點。
 2. 高壓電線或高壓電線附近地點。
 3. 人群或交通繁忙區域或有車輛通行的街道。
 4. 有易燃易爆物存在的區域。
- 請勿將遙控器、接收機、發射機或接收機、發射機或接收機與接收機同時開機。請勿同時開機。否則可能會導致您的模型受損。
- 不要在操作遙控器或接收機時同時操作遙控器。使用遙控器或接收機時，切勿同時操作。請勿同時操作遙控器或接收機。否則可能會導致您的模型受損。
- 切勿在操作遙控器、接收機或接收機時觸摸發熱部位。如發動機、電機、速度控制器、電池等。
- 當操作遙控器或接收機時，請勿觸摸任何可能發熱的部位。如發動機、電機、速度控制器、電池等。這可能會導致嚴重的受傷或損傷。

WARNING

- 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.
- 誤用此類產品可能會導致嚴重的受傷或死亡。為了確保安全，請務必仔細閱讀此說明書並按照組裝和設置說明書進行操作。
- 在操作前，請確保產品已正確安裝，否則可能會導致嚴重的損傷和受傷。
- 在關閉遙控器前，請先斷開接收機/電池。如果接收機在遙控器關閉後仍在運行，則可能會導致意外操作並導致事故。
- 在操作前，請確保所有電機和伺服器均在正確的運行方向上與無線電發射機一致。如果不一致，請先調整方向。
- 在操作前，請務必斷開接收機/電池。如果接收機在遙控器關閉後仍在運行，則可能會導致意外操作並導致事故。
- 在操作前，請務必斷開接收機/電池。如果接收機在遙控器關閉後仍在運行，則可能會導致意外操作並導致事故。

WARNING

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 servo and/or control surfaces. Or, in the case of electric-powered models, the motor may unexpectedly turn-on causing severe injury.

重要提示！

每次操作前請先開機，再開接收機/電池。再關閉遙控器。當關閉遙控器時，務必先關閉接收機。接收機不應在遙控器關閉後仍在運行。否則可能會導致嚴重的損傷。或，在電動模型的情況下，電機可能會意外開機導致嚴重受傷。



LOCATE AN APPROPRIATE LOCATION

選擇適當的地點

RC 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.

遙控飛機模型飛行時具有一定的速度，相應的飛行存在危險性。選擇合適的飛行場地，該場地應為平坦、光滑且無障礙物。請勿在建築物、高壓電線、樹木等附近飛行，以確保您和他人以及您的模型的安全。避免在有磁場和無線電干擾的地點飛行。請選擇合法的飛行場地。不要在惡劣天氣、大雨、狂風、大雪或黑暗中飛行您的模型。



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.

請勿嘗試修改飛機，以更改其預定的設計。請僅使用說明書中列出的指定替換零件，以確保飛機的結構完整性。在飛機的設計參數範圍內操作該產品；請勿超負荷使用。該產品僅限於個人愛好用途，且飛行員應精通於操作此模型。操作時請遵守所有當地法律及法規。請勿使用該產品進行可能侵犯他人隱私或他人智識財產權的目的。請勿使用該產品進行非法用途或超出常識安全範圍的目的。



PREVENT MOISTURE

遠離潮濕環境

RC 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, pilot crash. Do not operate or expose to rain or moisture.

遙控飛機模型由許多精密的電子電路零件組成，所以必須遠離潮濕的環境。避免在潮濕環境下長時間使用，防止水汽滲入機身內部的電路零件及電子零件造成零件不可逆轉的損壞。



DO NOT FLY ALONE

避免獨自飛行

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.)

遙控飛機模型、遙控器及接收機等零件必須在良好環境下進行飛行，因為單獨飛行時容易遇到各種意外情況。在飛行前請務必檢查，並確保無其他模型在相同頻道上飛行。頻率的干擾可能會導致您的模型、或其他模型墜毀。有經驗的飛行員提供的指導對於組裝、調頻、修整以及實際的首次飛行或可能發生的危險至關重要。（建議您先與經驗豐富的飛行員或基於電腦的飛行模擬器進行練習。）





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.

請於您自己的能力範圍內使用此模型飛機。切勿在感到不適的情況下飛行遙控模型。請勿飲酒、操作不佳或不慎飛行，避免發生危險或可造成傷害。不可讓遙控飛行機在無人監督的情況下飛行。降落後立即關閉上機和遙控飛行機和遙控器電源。



ALWAYS BE AWARE OF THE ROTATING BLADES 隨時保持警覺

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.

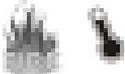
遙控飛行機在運轉／啟動時是以高速運轉，具有造成他人身體或財產損失的嚴重上危險。上機運轉時，請隨時保持警覺，隨時觀察遙控飛行機／遙控器，並保持安全距離以避開遙控飛行機及物件。



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, heater. It is best to store the model indoors, in a climate-controlled, room temperature environment.

遙控模型飛機是由各種塑料、PE、碳纖維等製成，極易受極端熱或冷氣候的損傷。因此要遠離熱源、火爐、已燃、以確保模型飛機不受任何損傷。



SAFETY ON THE USE OF DRY CELL BATTERIES 乾電池使用安全

The four AA carbon-zinc batteries included with this product are one time use, they should not be changed for repetitive use. Please read and follow the guidelines before prior to use. The manufacturer cannot be held liable for accidents and damages as result of improper usage.

- Ensure proper polarity and installation method during use.
- Do not mix battery of different age or different model. Doing so may affect battery life, and even cause fire danger.
- If the product is not used for long period of time, please remove the batteries to prevent damaged caused by battery leaks. Do not use batteries which exhibits symptoms of leaks.
- Please follow local law and ordinances when disposing used batteries. Do not dispose them improperly.

本產品包含4顆5號(AA)碳鋅電池。它們僅能用於一次，不應重複使用。請在正式使用前，先閱讀並遵照下列事項，本公司概不對此可不當使用而造成任何損害負責。

- 安裝電池時，請確認電池的正極和負極的安裝方式。
- 嚴禁將舊電池不同型號電池混用，以免影響電池的使用寿命。禁止將舊電池混入新電池內。
- 產品長時間不用時，請取出電池，以免因電池漏液力造成電池漏液損壞設備。若電池已存有漏液情況，請立即停止使用。
- 廢棄電池，請依照當地有關電池廢棄物處理法令辦理，切勿任意將其丟入垃圾桶。



STANDARD EQUIPMENT

標準配備

ALIGN



A10 Radio Control System
A10遙控系統



A6B Receiver
A6B接收機



User Guidance And Precautions
使用者須知 / 介紹操作時應注意



AA Carbon-zinc Batteries
4
300AA碳鋅電池(2x4)

OPTIONAL EQUIPMENT

選配商品

ALIGN



Upgrade Cable
升級線



Simulator Cable
模擬器線

PACKAGE CONTENTS

包裝說明

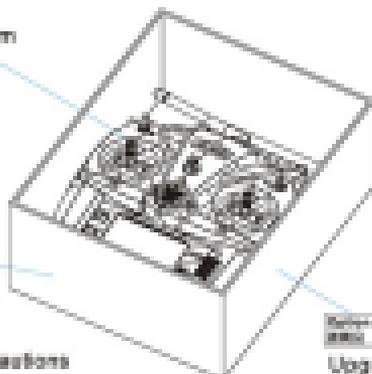
ALIGN

A10 Radio Control System
A10遙控系統

A6B Receiver
A6B接收機

AA Carbon-zinc Batteries
300AA碳鋅電池

User Guidance And Precautions
使用者須知 / 介紹操作時應注意



Quick Finder
快速查詢



Optional Equipment
選配

Upgrade Cable
升級線

INTRODUCTION

產品介紹

ALIGN

ALIGN A10 transmitter and A66 receiver is a transmit/receive set can support upto 10 channels, and with 2.4GHz AFHDS 2A digital proportional computerized PFC system which suitable for quadcopters. With AFHDS 2A digital proportional computerized PFC system, anti-interference, low power consumption and high sensitivity receiver.

ALIGN A10 遙控發射器 A66 接收機，為針對四軸飛行器設計之組合，可同時支持 10 個遙控通道，穩定可靠且可靈活使用。AFHDS 2A 為自動跳頻數位比例電腦化 PFC 系統，它是一種高度精密的遙控信號傳輸系統，這套系統能避免交叉頻干擾，給予您更強力信號且更靈敏度。2.4G 帶寬較數位跳頻傳輸系統，區別於其他飛行設備，具有數位自動跳頻系統，抗干擾，提高抗干擾能力。

SYSTEM FEATURES

系統特點

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，是一種高度精密的遙控信號傳輸系統，具有抗干擾，靈敏抗干擾能力強，是目前市場上最佳的跳頻之一。



MULTI-CHANNEL HOPPING FREQUENCY 多頻跳頻工作

This system bandwidth ranges from 2.400GHz to 2.475GHz, divided into 160 independent channels, each system using one of 16 different working frequencies and 160 kinds hopping regularly. It initiatives to avoid co-channel interference when power-up and using multi-channel hopping frequency.

此系統工作頻帶範圍為 2.400GHz 至 2.475GHz，共分為 160 個獨立頻道，每套系統採用其中不同的跳頻工作頻帶和 160 種跳頻頻率，通過跳頻可避免同頻干擾及抗干擾能力不同和速率跳頻不同，提高靈敏抗干擾。



OMNI-DIRECTIONAL GAIN ANTENNA 全向增益接收天線

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.

此系統採用高效率和全頻帶增益天線，可確保有靈敏接收信號能力，可大大提高系統接收速率及接收力強靈敏，從而提升系統的穩定性，提高抗干擾跳頻的干擾能力。



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.

此系統每套遙控器和接收機具有唯一身份識別 ID，當與接收機進行對頻後，此 ID 碼將在接收機內，當系統工作時，當接收機此 ID 碼，若驗證失敗則不啟動飛行。此功能可大大提高系統的獨立抗干擾能力，從而提升系統的穩定性。



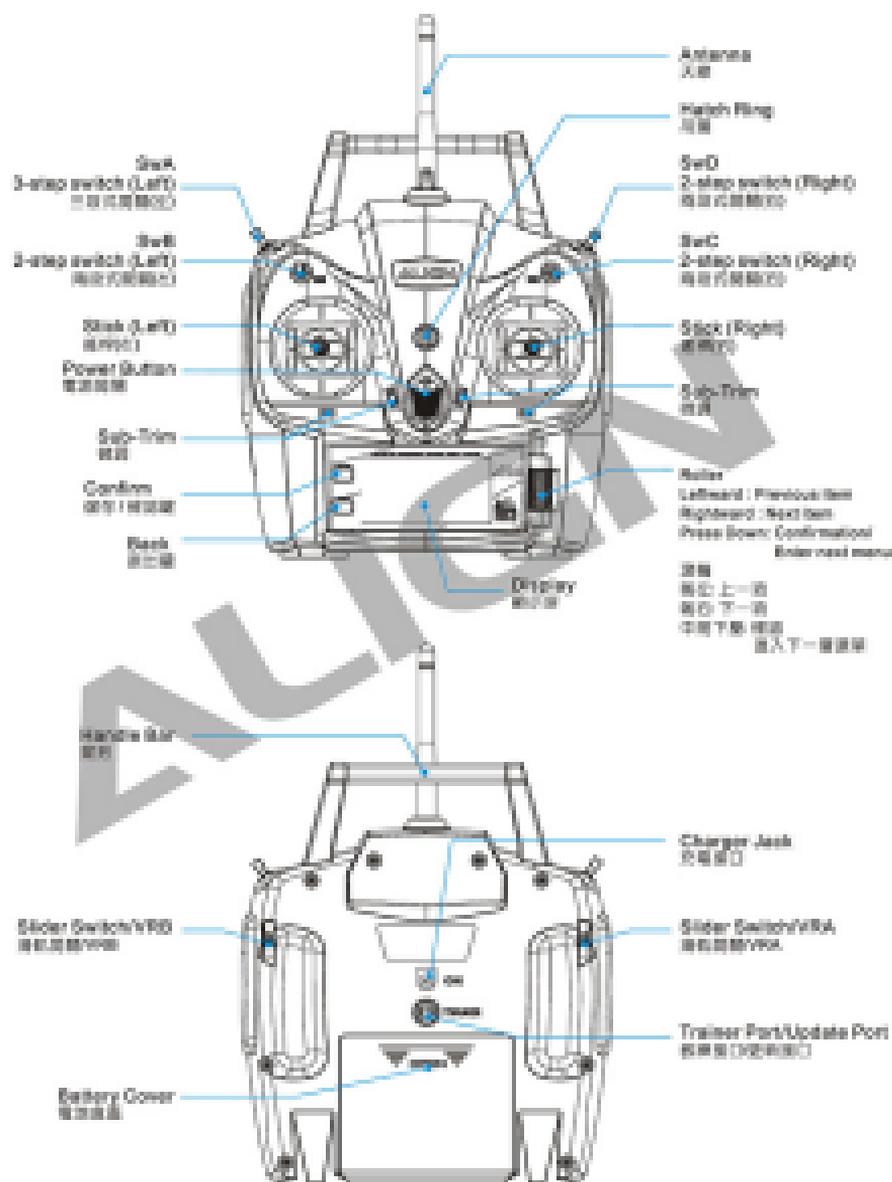
LOW POWER CONSUMPTION 低功耗

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，高靈敏度零件，同時採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，使系統資料傳送，是 FM 功率十分之一。

TRANSMITTER INTRODUCTION

遙控器功能介紹



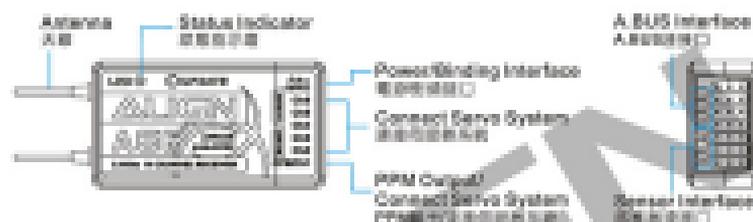
TRANSMITTER ANTENNA 遙控器天線

To ensure quality signal reception the antenna should be vertical the RC model. When operating, careful to avoid pointing an antenna directly at the receiver. **DO NOT** grip transmitter antenna during operation as this will weaken the quality and intensity of radio transmission resulting in loss of control.

為了確保訊號接收品質，遙控器天線應垂直於模型。操作時，請避免將天線直接對準接收器。操作時，請勿抓握遙控器天線，因為這會削弱無線電訊號的品質和強度，導致失去控制。

RECEIVER OVERVIEW 接收機功能介紹

RECEIVER SETUP INDICATORS 接收機各部位名稱



PPM/CH1: Connect CH1 servo or PPM output signal.

CH2-CH6: The interface connect servo, power and other accessories.

BVCC: Using binding wire when binding, using power card when normal operating, power range is 4.0-8.4V.

A.BUS: For output A.BUS signal.

SEMS: For connecting servo.

PPM/CH1: 連接CH1 通道舵機或輸出PPM信號

CH2-CH6: 接口用於連接舵機、電源及其他配件

BVCC: 用綁線用於綁定時使用，正常操作時用電源卡連接，供電範圍在4.0-8.4V。

A.BUS: 用於輸出A.BUS接收機接收訊號。

SEMS: 用於連接各通道舵機。

RECEIVER ANTENNA 接收機天線

To ensure signal reception quality, please make sure to keep electronics governor and other metal parts away when installing receiver.

為了確保訊號品質，安裝接收機時請盡量遠離電子調節器及其他金屬零件。

STATUS INDICATOR 狀態指示燈

The status indicator shows current battery voltage and work status of the receiver.

LED off: Power disconnected.

Red solid light: Power on and working.

Fast flashing: Binding

Flashing slowly: The pairing transmitter is off or loss of signal.

狀態指示燈顯示當前電池電壓及工作狀態

LED 關閉：電源斷開。

紅燈常亮：電源開啟且工作正常。

快速閃爍：綁定中。

慢速閃爍：配對遙控器關閉或訊號丟失。

GETTING STARTED

使用前準備

ALIGN

Before operating, make sure to follow the instruction to install the battery and connect the system.

操作前務必依照說明安裝電池及連接系統。

TRANSMITTER BATTERY INSTALLATION 遙控器電池安裝

Instruction for battery installation in the transmitter :

1. Open the battery lid.
2. Insert four fully-charged AA batteries. Use caution to ensure proper battery polarity.
3. Put the battery lid back.

請依照以下步驟安裝遙控器電池：

1. 打開電池蓋蓋。
2. 將4顆完全充電的3號(AA)電池裝入電池蓋內，務必留意正負極電池子與蓋內的正負極子相配。
3. 蓋好電池蓋蓋。

⚠️ 警告

- Battery designated for use only. (AA battery)
 - Do not open, disassemble, or attempt to repair the battery.
 - Do not crush/puncture the battery, or short the external contacts.
 - Do not expose battery in high temperature environment or in liquid.
 - Do not drop, crush or shake the battery.
 - Always store the battery in a cool, dry place.
 - Do not use the battery if it's damaged.
- 僅供使用指定用途之電池。(3號(AA)電池)
 - 請勿打開、拆卸或嘗試修理電池。
 - 請勿擠壓、刺穿或縮短電池外部接觸點。
 - 請勿將電池暴露在極高溫度環境中。
 - 請勿將電池浸入液體中。
 - 請勿摔落、擠壓或搖晃電池。
 - 請將電池存放在涼爽乾燥處。
 - 如果電池有損壞跡象，請勿再使用。

OPERATION INSTRUCTIONS

操作指引

ALIGN

After finishing installation, please follow the instructions to start set up.

準備好安裝後，請依照說明開始設定。

POWER ON 開機

Instruction for power on :

1. Check the system and make sure :
 - a) The batteries are fully charged and installed properly.
 - b) The receiver is installed correctly and disconnect the power.
 - c) All Switch (SWA-D) is up and the throttle stick is down.
2. Slide the power button to the ON position. The screen will light, and musical tones are played indicating the radio is powered on.
3. Connect power supply to the receiver.

請依照以下步驟進行開機

1. 檢查系統狀態，確認：
 - 電池完全充電並且安裝正確。
 - 接收器安裝正確且已切斷電源。
 - 開關SWA-D向上並推桿處於向下。
2. 按開機按鈕將開機按鈕滑到開機位置，此時螢幕將亮起並播放音樂聲，表示系統開機成功。
3. 連接電源到接收器。

⚠️ 警告

The system is now powered on. Use caution and always maintain a safe distance from the model. Serious injury may result if contact is made with the model during operation.

此時系統已開機，請謹慎操作，並始終與模型保持安全距離。嚴重受傷可能會發生，如果在操作期間與模型接觸。

此時期系統已開機，請謹慎操作，並始終與模型保持安全距離。嚴重受傷可能會發生，如果在操作期間與模型接觸。

此時系統已開機，請謹慎操作，並始終與模型保持安全距離。嚴重受傷可能會發生，如果在操作期間與模型接觸。

此時系統已開機，請謹慎操作，並始終與模型保持安全距離。嚴重受傷可能會發生，如果在操作期間與模型接觸。

此時系統已開機，請謹慎操作，並始終與模型保持安全距離。嚴重受傷可能會發生，如果在操作期間與模型接觸。

RX BINDING 接收機對碼

The transmitter and receiver are bound before leaving the factory. Please follow the instructions if you use other transmitter and receiver :

1. Turn on transmitter while simultaneously pressing "Confirm" button to enter the bind process.
2. A66 receiver connect with binding key with power, A66 receiver got into process of binding.
3. Connect power supply to other receiver port and binding successfully, then the receiver indicator LED red solid light.
4. Check to see transmitter, receiver, and servos are all working correctly. Please re-start the bind procedure, from the beginning, for any error condition.

本遙控器與接收機在工廠前已對碼成功。如果您要使用其他遙控器與接收機，請按照以下步驟進行對碼：

1. 打開遙控器電源，同時長按住"Confirm" 鍵（確認鍵）進入對碼過程。
2. A66接收機插上對碼線並接好電源，A66接收機則自動進入對碼過程。
3. 接收機接好電源，並對碼成功即可開機。接收機接好電源後LED紅燈常亮。
4. 檢查遙控器、接收機、遙控機型是否正常工作，如有異常，請重復以上步驟重新對碼。

PRE-CHECK 操作前檢查

Before operating, please follow the instructions to check the system:

1. Check to confirm all systems are performing as expected.
2. Check reception distance for safety: the model is on the ground while one pilot observes the model. The pilot, just while holding the transmitter, walks away, increasing the distance of the transmitter from the model. Check the RC model status and mark the distance from where the model starts to lose control.

開始操作前，請按照以下步驟檢查系統狀態。

1. 檢查整個系統，確保每個組件均按預期方式正常運行。
2. 檢查接收距離以確保安全距離——收機操作者手持遙控器，向一與模型保持安全距離之處，檢查遙控模型狀態，記錄模型開始失控及距離。

安全警告

- When checking reception distance for safety, in order to avoid turning on the transmitter accidentally and causing RC model's blades rotated, suggested not equip blades on helicopter in advance; or directly remove the motor wiring temporarily reducing any unnecessary accident.
- Stop operating for any error condition.
- Make sure to operate the model within the safety receiving distance.
- Other signal interference may affect signal quality.
- 此類遙控模型含有安全之風險，為避免誤操作導致遙控模型失控旋轉，建議勿先將上述模型裝上機頭上，或直接將機頭上之馬達線暫時拆除可減少不必要之危險及事故。
- 有故障時，若有異常狀況出現，請不要操作遙控模型。
- 操作時，務必確保接收機與模型處於安全距離。
- 可能干擾或引起其他模型失控之設置。

USB SIMULATOR MODE USB模擬器模式

Simulator function can simulate aircraft flight conditions on computer until familiar with the operation and then fly the real model.

1. Download FMS Simulator.
2. Open the FMS Simulator and connect transmitter and computer by USB.

模擬器功能可在電腦上模擬遙控飛機的飛行狀況，直到熟悉操作方式後再飛您真正的模型。

1. 請向下載FMS模擬器。
2. 在電腦上開啟FMS模擬器，並將遙控器透過FMS模擬器連接到電腦上。



Scan QR CODE and read the detail information for A10 Transmitter FMS Simulator Installation and Instruction.

請向掃描QR碼獲取A10遙控器FMS模擬器安裝和說明書的詳細信息，請向掃描QR碼獲取A10遙控器FMS模擬器安裝和說明書的詳細信息，請向掃描QR碼獲取A10遙控器FMS模擬器安裝和說明書的詳細信息。



FMS Simulator Cable is optional accessory and not included in A10 Transmitter package. Allow to purchase [HEP00002] FMS Simulator Cable and 4P Mini-DIN adopter (Female connector) for system connection.

A10遙控器不包含“FMS模擬器”，您仍需要購買FMS接口模擬器連接器。請向行只購買這的FMS模擬器。您向 [HEP00002] FMS模擬器，請向行只購買4P Mini-DIN母頭連接器。即可使用FMS飛行模擬器安裝。

POWER OFF 關機

Follow the instruction to turn off the system :

1. Disconnect the receiver power.
2. Turn off the transmitter .

請按照以下步驟進行關機：

1. 關閉接收機電源。
2. 關閉遙控器電源。

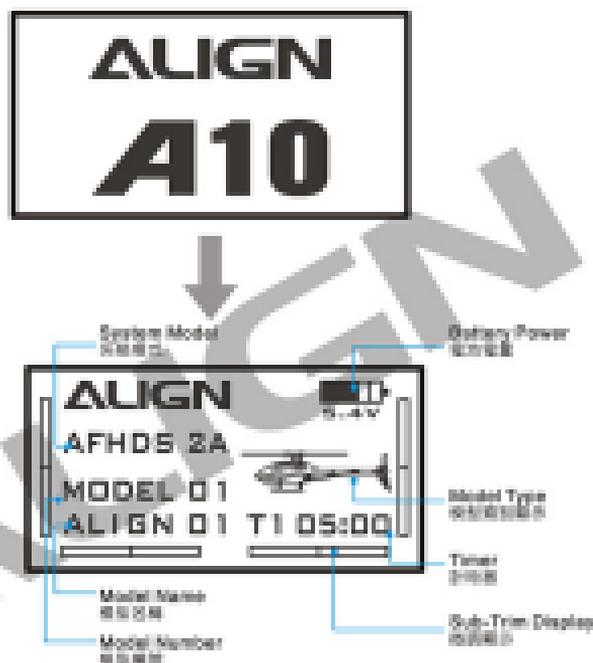


Make sure to turn off the receiver power firstly, then turn off the transmitter to prevent any damage or serious injury.

關機時，請務必先關閉接收機電源，再關閉遙控器，否則可能會導致遙控飛機損壞或造成人員受傷。

After power on, A10 transmitter displays the Home Page with valuable information including: model name and number, timer, connection, battery power, etc.

啟動遙控器後，A10 遙控器顯示主頁面，顯示包括模型名稱和編號、計時器、連接、電池電量等。



For safety, all switches must be up (turned away), and the throttle is in the off position (lower throttle stick) before transmitter will turn on. If any switch or the throttle is in the incorrect position a warning sound is played and notice is displayed.

為確保安全，所有開關必須向上（轉開），且油門桿在關閉位置（油門桿下移）之前，遙控器才會啟動。如果任何開關或油門桿在錯誤位置，警告音會響起並顯示通知。

⚠ WARNING ⚠

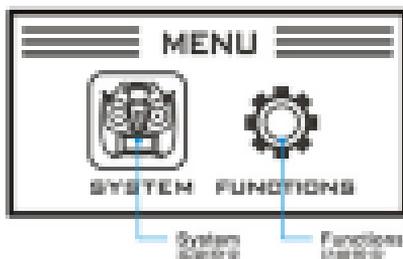
FOR YOUR SAFETY,
TURN UP ALL
SWITCHES AND
LOWER THE THROTTLE
TO CONTINUE

MENU PAGE

遙控器菜單介紹

The "Home Page" shows useful information about the model including, hold down roller to enter the "Menu"; model name and number, timer, connection TX/RX status, etc.

遙控器主頁顯示 - 包括模型名稱及編號 - 遙控器電量 - 遙控器與接收機連接狀態 - 使用遙控器輸入選擇設定項目功能。



SYSTEM

系統設定

ALIGN

Hold down roller to enter the "Menu", use the roller to scroll right or left to select menu function, press roller to enter menu function.

遙控器按壓遙控器輸入功能選擇 - 選擇左或右功能選擇功能 - 進入系統設定功能。



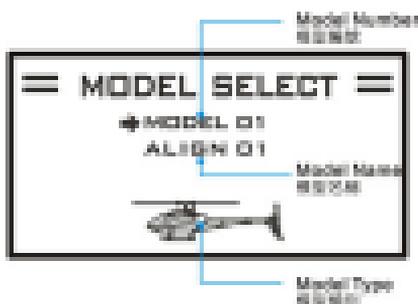
After adjusting each parameter of radio, you have to press "Confirm" button to save the setting. Failure to press "Confirm" will result in the new setting not being saved.

調整每個參數後 - 必須按 "Confirm" 儲存 / 確認鍵 - 若沒有按會儲存 - 否則設定值不會改變。

MODEL SELECT 模型選擇

Selected model: 20 different models with specific custom parameters can be saved in the transmitter allowing you to copy or instantly choose one of the other 20 models.

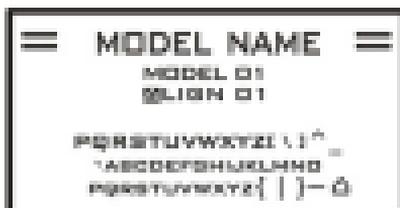
選擇模型用於記憶 20 個不同模型及參數的飛機模型 - 使用遙控器儲存 / 記憶不同模型。



MODEL NAME 機型命名

Model name may include up to 8 characters either alphabetic or numbers. Advance to the next character space by pressing the roller, scroll through the characters at the bottom of the screen and press the roller to select the highlighted character. Name the models to allow for easy recognition.

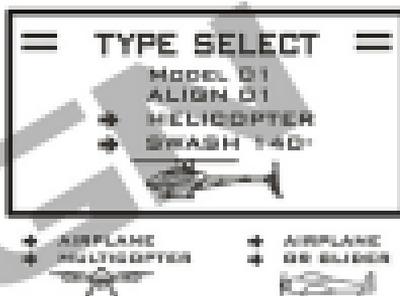
機型命名可包含最多 8 個字元，字元可以是英文字母或數字。按滾輪可進入下一個字元位置，按滾輪可在螢幕底部的字元中選擇高亮字元。命名機型可方便辨識。



TYPE SELECT 機型類別

To select Model Type either aircraft, helicopter or multicopter. The transmitter supports airplanes (including V tail configuration), fixed and variable pitch helicopters and CCPM (Collective and Cyclic Pitch Mixing) 90°, 120°, and 140°.

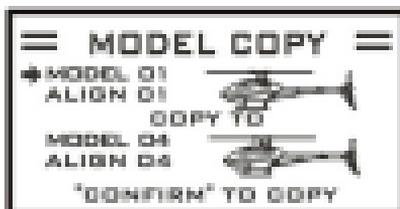
可選擇機型為飛機、直升機或多旋翼機。發射器支援飛機（包括 V 尾配置）、固定螺距和變螺距直升機以及 CCPM（集體螺距和週期螺距混合）90°、120° 或 140°。



MODEL COPY 機型複製

To copy one mode settings to another. The original target mode settings will be deleted and replaced with the source mode settings. Since this command is destructive, a request to copy is must be confirmed.

將一個模式的設定複製到另一個模式。目標模式的原始設定將被刪除並替換為源模式的設定。由於此命令是破壞性的，必須確認複製請求。



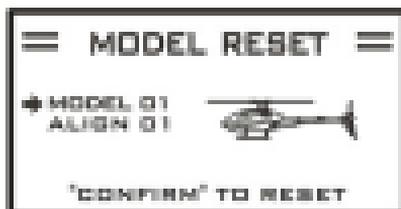
After adjusting each parameter of radio, you have to press "Confirm" button to save the setting. Failure to press "Confirm" will result in the new setting not being saved.

調整每個電台參數後，必須按"Confirm" 儲存 / 確認，設定值才會儲存，否則設定值不會改變。

MODEL RESET 模型重置

This function will reset the current model to default settings. Other models are not affected. This function is useful when there may be a model configuration issue, and a reset to default setting is necessary to begin a fresh start.

此功能將重置當前模型為預設設置。其他模型不受影響。此功能在可能存在模型配置問題，且需要重置為預設設置以開始全新開始時非常有用。



After adjusting each parameter of radio, you have to press "Confirm" button to save the setting. Failure to press "Confirm" will result in the new setting not being saved.

調整每個參數後，您必須按「Center」按鈕以保存設置。未按「Center」保存設置將不會生效。

RECEIVER MODE 接收模式

The ALIGN A68 receiver offers two receiver modes: Mode 1: Where CH1~CH6 receiver channels correspond to CH1~CH6 output channels or Mode 2: Where CH1~CH6 receiver channels correspond to CH9~CH14 output channels. Select the A68 receiver mode which best suits the user's application.

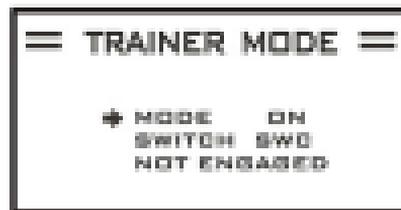
ALIGN A68接收器提供兩種接收模式：模式1：接收器CH1~CH6接收器通道對應於CH1~CH6輸出通道；或模式2：接收器CH1~CH6接收器通道對應於CH9~CH14輸出通道。選擇最適合用戶應用的接收器模式。



TRAINER MODE 訓練模式

Connect 2 transmitters together using a dedicated cable connected to the back interface. As soon as the trainer switch is turned off, the student transmitter regains control. To be effective, the 2 transmitters have to use the same radio mode (see below).

將兩個發射器連接到專用電纜，該電纜連接到後接口。一旦關閉訓練器開關，學生發射器將重新獲得控制。為了有效，兩個發射器必須使用相同的無線電模式（見下文）。



STUDENT MODE 學生模式

All mode settings are bypassed and the sticks position is sent directly to the instructor's transmitter. At that time, the student transmitter must not control any model directly and any receiver bound to the trainer transmitter must be turned off.

無論機上任何模式或通道設定，當執行此功能時，所有模式設定均會被旁路。在此期間，學生發射器不得直接控制任何模型，且任何與訓練器發射器綁定的接收器必須關閉。

== STUDENT MODE ==
 THIS WILL ENTER
 STUDENT MODE
 ALL SETTINGS
 WILL BE BYPASSED
 PRESS "CONFIRM"
 TO PROCEED



After adjusting each parameter of radio, you have to press "Confirm" button to save the setting. Failure to press "Confirm" will result in the new setting not being saved.
 調整每個參數後，您必須按「確認」按鈕以儲存設定。未按「確認」按鈕將導致新設定不會儲存。

STICKS MODE 握桿模式

Support four different stick modes. The 4 first channels are mapped to the selected sticks according to your flying habits (left or right handed for example).

== STICKS MODE ==
 MODE 2

CH3
CH4

CH2
CH1

此系列支援MODE 1-MODE 4的握桿模式，您需依照您的飛行習慣自動分配。此功能可根據飛行者慣性選擇。

MODE 1 模式1	MODE 2 模式2
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Elevator 升降</p> </div> <div style="text-align: center;"> <p>Throttle 油門</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="text-align: center;"> <p>Rudder 方向</p> </div> <div style="text-align: center;"> <p>Aileron 副翼</p> </div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Throttle 油門</p> </div> <div style="text-align: center;"> <p>Elevator 升降</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="text-align: center;"> <p>Rudder 方向</p> </div> <div style="text-align: center;"> <p>Aileron 副翼</p> </div> </div>
MODE 3 模式3	MODE 4 模式4
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Elevator 升降</p> </div> <div style="text-align: center;"> <p>Throttle 油門</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="text-align: center;"> <p>Aileron 副翼</p> </div> <div style="text-align: center;"> <p>Rudder 方向</p> </div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Throttle 油門</p> </div> <div style="text-align: center;"> <p>Elevator 升降</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="text-align: center;"> <p>Aileron 副翼</p> </div> <div style="text-align: center;"> <p>Rudder 方向</p> </div> </div>

A10 TRANSMITTER MODE 1 AND MODE 2 CONVERSION INSTRUCTION

A10遙控器-模式1-2切換教學

A10 transmitter Mode 1 and Mode 2 Conversion Instruction

A10遙控器-模式1-2切換教學



While this manual provides instructional information and references for this product, Align also provides A10 transmitter Mode 1 and Mode 2 conversion instruction, please refer to following instruction video to convert it set by step to make sure your safe and proper use of this product. <http://www.align.com.tw/A10>

說明書詳細介紹了本產品的使用說明，供您設定時參考，另外，還有關於A10遙控器-模式1-2切換教學，請按說明書影片中的步驟詳細設定調整，並利用下方連結觀看影片，以便保證您安全且正確的使用本產品，請與網頁<http://www.align.com.tw/A10>

STICKS ADJUST 搖桿設定

Stick calibration is used to correct the neutral point and the maximum or minimum joystick travel or slide switch. Enter this menu option and move the stick or slide switch to the maximum and minimum position and return to center, press "Confirm" to save stick calibration.

搖桿的設定用於修正搖桿的中立點和最大或最小搖桿行程或滑動開關。輸入此菜單選項並移動搖桿或滑動開關到最大和最小位置並返回中心，按"確認"以保存搖桿設定。



After adjusting each parameter of radio, you have to press "Confirm" button to save the setting. Failure to press "Confirm" will result in the new setting not being saved.

調整每個參數之後，您必須按"確認"按鈕以保存設定。未按"確認"按鈕，否則設定將不會保存。

LCD BRIGHTNESS 顯示亮度

Adjust LCD brightness, in sunlight, use a high-brightness backlight.

調整顯示屏的亮度，在陽光下可以使用高亮度的背光。



CAUTION 注意

The screen brightness will affect battery life. Increasing the screen brightness will shorten battery life.

顯示屏亮度越高，運行時間越短請儘量降低亮度。

TIME SETTING 時間設定

Time setting has count down and count up mode allowing you to set up the switch of start or reset.

時間模式可分為倒計時或正計時，可選擇開始或重設的時機。



LANGUAGE SELECT 語言選擇

Select appropriate user language interface. Default Language interface is English. Enter setup to select a different language.

在飛行器系統中顯示 - 選擇您需要的語言 - 按功能鍵或中文介面，可進入此項設置及設定。



FIRMWARE VERSION 固件版本

Current firmware version and the update date.

顯示目前固件版本及更新日期。

== FIRMWARE VER. ==

ALIGN A10

18-Dec-2017
VERSION 1.0.01

FIRMWARE UPDATE 固件更新

1. After the update finishes the A10 radio will reboot indicating firmware has been updated. The following warning is displayed "This will enter firmware update mode and halt other functions press "ok" to proceed." Press the roller to proceed with the firmware update.
2. To perform a firmware update refer to page 29.

1. 在更新固件完成後，A10 無線電將重新啟動，表示固件更新完成。顯示以下警告訊息，代表系統已進入更新模式。
2. 若要執行固件更新，請參閱第 29 頁。

== FIRMWARE UPDATE ==

THIS WILL ENTER
FIRMWARE UPDATE
MODE AND HALT
OTHER FUNCTIONS
PRESS "CONFIRM"
TO PROCEED

⚠ Confirm 確定

After adjusting each parameter of radio, you have to press "Confirm" button to save the setting. Failure to press "Confirm" will result in the new setting not being saved.

調整無線電每個參數後，必須按 "Confirm" 儲存 / 確認鍵，設定值才會儲存，否則設定值不會改變。

FACTORY RESET 恢復原廠設定

System can be reset to default setting. This will reset all parameters to their factory default press "Confirm" to proceed.

系統可重新設定為原廠設定。
請按 "Confirm" 儲存 / 確認鍵繼續執行。

== FACTORY RESET ==

THIS WILL RESET
ALL PARAMETERS
TO THEIR
FACTORY DEFAULT
PRESS "CONFIRM"
TO PROCEED

⚠ Confirm 確定

1. All the setting value will be removed after resetting to default setting.
2. After adjusting each parameter of radio, you have to press "Confirm" button to save the setting. Failure to press "Confirm" will result in the new setting not being saved.

1. 系統將重新設定為原廠設定，所有設定值都會被清除。
2. 調整無線電每個參數後，必須按 "Confirm" 儲存 / 確認鍵，設定值才會儲存，否則設定值不會改變。

FUNCTIONS

功能設定

ALIGN

Press the roller down to display menu. Scroll the roller to the right to highlight functions, setup and press roller to display function options. Scroll either right or left using the roller to move to different sub-functions. Press the roller to enter the selected sub-function.

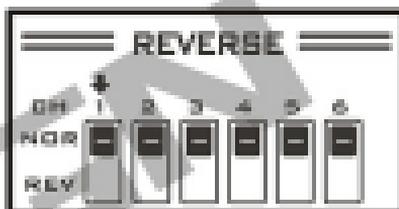
按壓下壓桿進入選單，按壓右方向鍵將游標移至功能，按壓下壓桿顯示功能選項，按壓右或左方向鍵移動至不同子功能，按壓下壓桿進入選取之功能。



REVERSE 反向

Reverse provides the ability to change each channel (servo) direction. It may be necessary to change the servo direction based upon the specific model requirements.

此功能提供了調整每個通道(伺服)的方向。基於具體模型的要求，可能需要更改伺服的方向。



重要提示

Always double check all servos to confirm radio stick movement is working correctly based on the model.

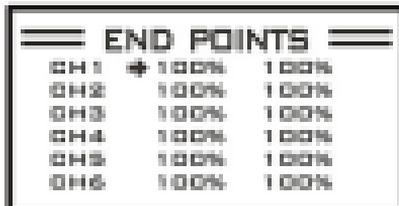
請核對，每個通道(伺服)的方向與模型的方向一致。

END POINTS 動作行程量

End Points for all channels (servos) can be adjusted to improve flight control based on the model.

1. The end point can be adjusted from 0%-120%. By setting the maximum end point, this can protect the servo from excessive binding which can damage the servo.
2. Press the roller to select the channel and scroll to change value.

調整每個通道的動作行程量大小，以確保模型輸出及接收機輸出合理的構型及性能的要求，達到最佳的飛行效果。

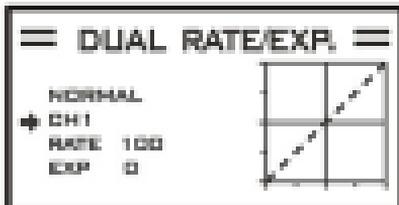


1. 最大行程量可調整為0%-120%之間範圍。設定最大行程量，防止模型輸出接收機輸出合理的構型及性能的要求，達到最佳的飛行效果。

2. 按壓下壓桿選擇，按壓右或左方向鍵移動游標至要調整的通道，按壓下壓桿調整。

DUAL RATE / EXPONENTIAL 大小數/指數調整

DUAL RATE : Commonly abbreviated as "DR", dual provides the ability to change the travel distance of a channel (servo) thus affecting the overall travel of the servo(s). Decreasing the percentage value for a given servo will reduce the travel amount of the channel respectively. For example, if the rudder of the helicopter travels $1/2"$ at the high rate and maximum stick input, and a value of 50% is input for the low rate when the switch is moved to the low rate position, the servo moves precisely half as far per stick position. example, if the rudder control input is all the way deflected, the maximum travel is now $1/4"$.



EXPONENTIAL : Commonly abbreviated as "EXP" is used to adjust the sensitivity of center stick the neutral point. Adjusting "EXP" does not affect the travel range. For example: When EXP set at positive, the neutral point will be sensitive and very reactive. When EXP set at negative, the neutral point will be less sensitive and slow down making the model easier to fly.

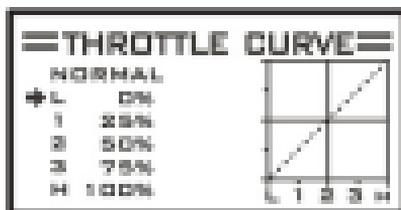
大數：D/R 為大小數調整功能，這功能可調整舵機行程，改變舵機輸出距離，反之，若 D/R 調整數值比正常值小則會縮短輸出行程，例如，正常輸出行程為 1 吋時，若調整數值為 50%，則輸出行程就變成原來的一半，在輸出行程中，舵機輸出行程距離，就變成一半距離輸出行程。

指數調整：調整 EXP，主要是調整中心立桿位置輸出距離，EXP 不會影響的舵機輸出行程大小，當 EXP 數值設定為正時，輸出行程立桿位置反應會快靈敏，反之，50% 為正常輸出行程立桿位置反應會變慢。

THROTTLE CURVE 油門曲線

Allows the ability to adjust the Throttle Curve based on the model and flight requirements.

The throttle curve has five adjustable points: L=0%, 1=25%, 2=50%, 3=75%, H=100% throttle stick movement. Each point can be adjusted from 0%~100% for throttle range based on motor, pitch curve, and flight requirements.



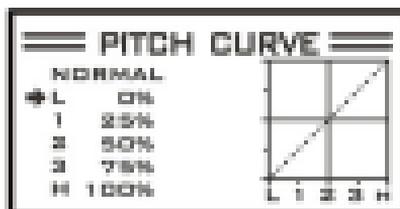
此功能可調整油門的飛行曲線，使飛行動作與油門的輸出距離，達到最佳之油門輸出反應。

油門曲線圖共有五個調整位置可調整，此功能是油門行程的曲線，L、1、2、3、H 為五位置，每點可調整油門範圍為 0%~100%，依照用途及飛行性能與圖表數值與數值配，可調整油門曲線位置。

PITCH CURVE 螺旋曲線

Suitable Models 適用機型 

Pitch Curve is used for a Helicopter model. Offer five adjustable points; L=0%, 1=25%, 2=50%, 3=75%, H=100% stick travel. Each point can be adjusted from 0%-100% based on throttle range and desired pitch requirements of the helicopter model.



此功能適用於直升機模式。提供五個可調整點，分別對應飛行桿行程的最低、1/4、1/2、3/4、最高位置。每個可調整點的調整範圍為0%~100%，依據飛行桿行程和所需的螺旋曲線設定。

SWASH AFR 十字搖調整

Suitable Models 適用機型 

Suitable for a Helicopter model. Allow adjusting the Aileron, Elevator, and Pitch travel range of the swashplate. For pedaling, set a negative value to reverse the swashplate direction.



適用於直升機模式。此功能用於調整十字搖調整、升降舵和飛行桿行程範圍。若需要將十字搖調整方向，設置調整數值為負數。

MIX 混控

The mix function can be used to create a channel mix. For example, it allows the setup of Aileron to Rudder to counteract undesirable roll of aircraft with Rudder and Aileron. The mix function is not used on a helicopter model.

這個功能可用於設置通道之間的混控關係。例如，您可以設置副翼和方向舵以抵消飛機不希望的滾轉。這個功能不適用於直升機模型。

Master: Main Channel Setup.

Slave: Slave Channel Setup.

Pos. Mix: Allows the setup of the available controlling range between the master channel and Slave channel. If max. mix value is set to 50%, the slave channel will automatically be set to 50% when master channel value is changed to 100%.

Neg. Mix: Allows the setup of the available controlling range between the master channel and Slave channel. If min. mix value is set to 50%, the slave channel will automatically be set to -50% when master channel value is changed to -100%.

Offset: Allows the ability set a value to slightly correct drift.

Master: 主通道設置。

Slave: 副通道設置。

Pos: 設置主通道與副通道之間的可用控制範圍。如果將混控最大值設置為 50%，當主通道值移動到 100% 時，副通道值將移動到 50%。

Neg: 設置主通道與副通道之間的可用控制範圍。如果將混控最小值設置為 -50%，當主通道值移動到 -100% 時，副通道值將移動到 -50%。

Offset: 為副通道設置偏移值，以便可對副通道進行微調。

MIX	
➔ MIX #1	
MIX IN	OFF
MASTER	CH1
SLAVE	CH2
POS. MIX	50%
NEG. MIX	50%
OFFSET	0%

ELEVON 升降機控制

Suitable Mode to

適用模式

ACRO

▲

Suitable for Airplane: Aileron function is for Tilt and Roll Right adjustment.

適用於飛機式：升降機用於傾斜和滾轉調整。該功能僅在 ACRO 模式下可用。該功能用於調整飛機的滾轉和傾斜。在飛行過程中，您可以同時調整滾轉和傾斜。

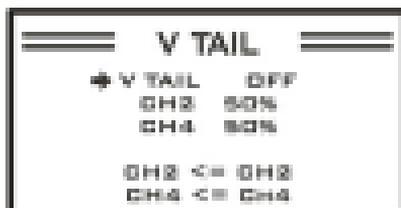
ELEVON	
➔ ELEVON	OFF
CH1	50%
CH2	50%
CH1 <=	CH1
CH2 <=	CH2

V TAIL 垂直尾翼

Suitable Models 適用機型 

Suitable for V Tail Airplane. Allows adjust to CH1 Aileron and CH2 Elevator Mix function.

適用於機型 - 適用於具有V型尾翼的飛機。允許調整CH1副翼和CH2升降舵混合功能。
此功能可在此設置菜單中CH1和CH2的設置比例。此功能需要設置副翼 - 升降舵混合的比例。



GYRO 陀螺儀

Suitable Models 適用機型 

Suitable for Helicopter. Allows adjust of CH5 Rudder Gyro gain for specific flight modes such as Normal, Hovering, and Idle Up.

適用於機型 - 適用於具有CH5副翼陀螺儀增益的直升機。允許調整CH5副翼陀螺儀增益。
此功能需要設置副翼 - 陀螺儀增益的比例。



GOVERNOR governors

Suitable Models 適用機型 

For Helicopter models with a governor function to set the head speed or engine speed. A governor sensor is required to use this feature.

適用於機型 - 適用於具有 governors 功能的直升機。需要 governor 傳感器才能使用此功能。
此功能需要設置 governors 傳感器的設置。



SWITCHES ASSIGN 開關分配

Assign Flight Mode switch for normal/3D. Assign the Throttle Hold switch.

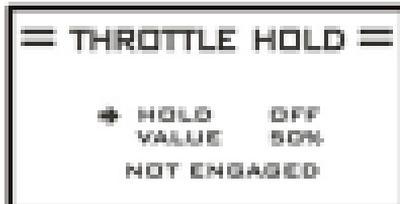
此功能為分配飛行模式 - 正常 / 3D 模式。分配油門保持開關。



THROTTLE HOLD 油門鎖定

Set the Throttle Hold value.

此功能可以將油門鎖定在預設的固定油門位置。



THROTTLE CUT 油門切斷

Suitable Models

適用機型



Throttle Cut function is used for either a fuel powered helicopter or airplane. When setting correctly a switch will cut off the engine.

適用於油機飛機機型。此功能為控制引擎熄火裝置。



FAILSAFE 失物保護

To protect the RC model and operator when receiver loose signal the system will restore factory defaults.

Fail-safe menu shows a list of ten channels. If the channel is marked [OFF], it represents the model will fly after the signal is lost. On the other hand, if it shows 1%, the servo will activate to the corresponding percentage, allowing the model to fly in a pattern based on servo percentage settings.

此功能可讓一部份安全保護功能。當接收機失去訊號時自動。而恢復成接收機控制系統原裝預設位置。



本功能讓模型手顯示十個通道的列表。當接收機訊號顯示[OFF]，表示模型在失去訊號時，將繼續飛行。而接收機將繼續飛行。如果顯示一個百分比，則表示接收機在失去訊號時，將繼續飛行。而接收機將繼續飛行。

A10 TRANSMITTER FIRMWARE UPDATE

A10遙控器主控程式下載更新

ALIGN

A10 transmitter default program is the latest version, please feel at ease to use. You can also link to ALIGN website to get the latest version and the latest news.

A10遙控器 - 在以前就已經是最新版本，請安心使用。您也可以連結至亞利航網站查詢，隨時更新目前發佈的最新版本及各種維修訊息。

1.PC firmware update: Download A10 transmitter update firmware referring to below link:<http://www.align.com.tw/A10>

電腦主控程式更新，下載A10遙控器主控程式更新安裝檔，請至下列網址：
<http://www.align.com.tw/A10>



Scan QR CODE and read the detail information for A10 Transmitter Firmware Update and instruction.

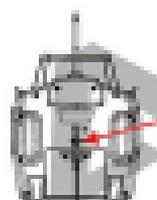
A10遙控器主控程式下載更新
請掃描QR CODE查詢完整的教學步驟，請於教學步驟完成設定安裝。

2.Before upgrade A10 transmitter, please install firmware of upgrade cable (optional equipment). After decompress file, select driver installer (32-bit or 64 bit) according to your installation system.

A10遙控器升級前請先安裝升級線驅動程序的軟體，再解壓縮安裝檔案，依照您的裝置系統32位元或64位元選擇安裝版本。

3.Slide the A10 transmitter power button up to power on the radio. Connect Upgrade Cable to the computer after the radio's power is on.

按開A10遙控器電源，並將電機開起，此時電機應有閃燈顯示，確認電機啟動升級線連接線安裝。



Slide the power button to the ON position. The screen will light, and musical notes are played indicating the radio is powered on.

按開A10遙控器電源，並將電機開起，此時LED閃燈及音樂聲響。

Option Equipment
選裝
Upgrade Cable
升級線



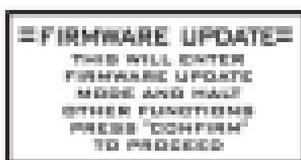
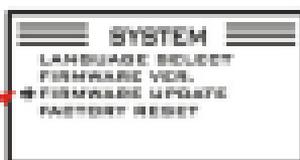
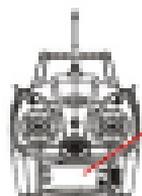
Please double check upgrade cable is inserted correctly, or can't be upgraded completely.

請再次檢查升級線是否安裝正確，沒有聲音安裝則無法下載更新。

Firmware version is shown according to your real updated version. The illustration is for reference only.
安裝版本會依照實際更新之版本呈現，圖示僅供參考使用。

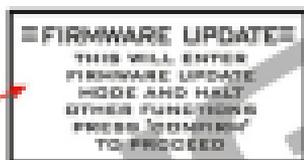
4. Enter in A10 transmitter 「SYSTEM」 page, select 「FIRMWARE UPDATE」.

進入A10接收器「系統設定」頁面中選擇「固件更新」。



5. The window Firmware update notice 「will be popped out and please press "Confirm"」.

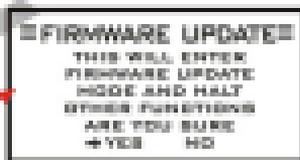
A10接收器會彈出「將進行更新模式，並將停止其他功能，請繼續“繼續執行”畫面，點擊“Confirm”繼續更新。



Press "Confirm",
請按"Confirm" 繼續更新

6. After press "Confirm", the transmitter's screen will stay in 「This will enter firmware update mode and halt other functions」.

點擊"Confirm" 後將繼續顯示「A10接收器畫面將停留在「將進行更新模式，並將停止其他功能」。



注意

Please don't pull out upgrade cable or power off A10 transmitter to prevent man-made breakdown or unexpected mistakes due to update failure.

此項請勿在更新過程中斷線或關閉接收器電源，請勿因更新失敗造成設備損壞人為故障或發生不可預料的錯誤。

7. Open A10 transmitter upgrade software, select COM port. After select serial port COM port, click 「Update」 to the root installation. The progress status will be shown at the bottom of the page. After firmware update is completed, A10 Transmitter will be powered on again.

按照順序A10接收機升級軟體 - 選擇串口号為COM00號碼 - 選擇串口号為COM00號碼 - 點選「Update」進行安裝 - 安裝後 - 「Update」下方會顯示安裝進度 - 安裝完成後 - A10接收機會重新開機。



7. 安裝前

Before installation, please halt or close antivirus firstly to prevent misjudged as software and removed by antivirus when decompressing file.

安裝前請先將防病毒軟體暫時關閉 - 避免安裝軟體時有損壞 - 安裝前請先將防病毒軟體以寫入安裝軟體的資料檔。

8. Power on the radio, screen will light up and power on music is played, A10 Transmitter monitor will switch to home page, then the firmware update completed.

A10接收機重新開機後 - 螢幕會亮起 - 此為安裝新的接收機 - A10接收機螢幕會自動不停留在操作畫面直到完成安裝後的畫面 - 代表升級完成為止。



9. Enter in A10 Transmitter 「SYSTEM」 page and select 「FIRMWARE VER.」 to confirm the new version is completely installed.

進入A10接收機「系統設定」頁面中選擇「固件版本」- 即可確認螢幕已安裝更新版本。



PRODUCT SPECIFICATION

產品規格

ALIGN

TRANSMITTER SPECIFICATION (A16) 遙控器接收機(A16)

Contents 內容	Specifications 規格
Channel 頻道數量	10 channels
Model Type 遙控器類型	Helicopter/Multicopter/Aircraft 直升機-多旋翼機/固定翼
RF Range 頻率範圍	2.400-2.475GHz
RF 輸出功率	<20dBm(100mW)
System Mode 系統模式	2.4G system: AFHDS
Power Input 輸入電壓	4-6V(1.5V AA x4)
Display 顯示方式	120x84mm 128x64px
Transmit Distance 發送距離	In open space without interference <1000 meters 空曠無干擾環境距離 <1000米
Antenna length 天線長度	50mm (dual antenna) 20mm x 2 (2x20)
Weight 重量/質量	485g
Dimension: (L x W x H) 尺寸	275x167x100mm
Certificate 認證	CE, FCC

RECEIVER SPECIFICATION (A65) 接收器接收機(A65)

Contents 內容	Specifications 規格
Channel 頻道數量	14 channels
RX Sensitivity 接收機靈敏度	-105dBm
RF Range 頻率範圍	2.400 - 2.475 GHz
System Mode 系統模式	2.4G system: AFHDS
Power 電源電壓	4.8-6.4V DC
Receives Distance 接收距離	In open space without interference <1000 meters 空曠無干擾環境距離 <1000米
Weight 重量/質量	14g
Dimension: (L x W x H) 尺寸	48.7x26.5x13.6mm
Certificate 認證	CE, FCC

