

# ASBOX MULTIFUNCTION PROGRAMMER MANUAL

## ASBOX多功能設定盒使用說明書

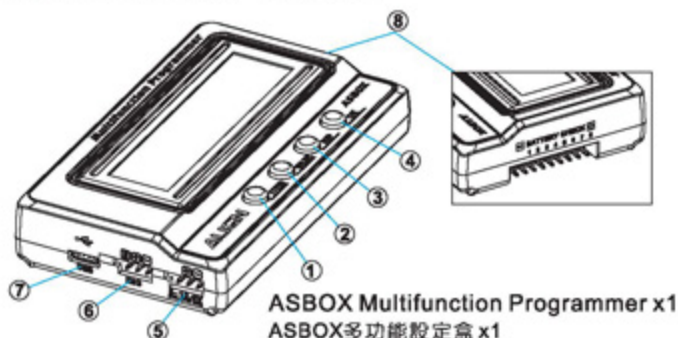
ALIGN

### FEATURES 產品說明

1. Works as an individual equipment to set the ESC, each programmable option is displayed on LCD screen allow for easy setup.
2. Works as a USB adapter to link the ESC with PC to update the ESC firmware or set the parameter by the USB Link Software on PC.
3. Works as a Lipo battery voltmeter to measure the voltage of the whole battery pack and each cell.
4. Light pocket size design, easy for carry.
5. Suitable for ALIGN RCE-BL100A ESC and RCE-BL130A ESC.

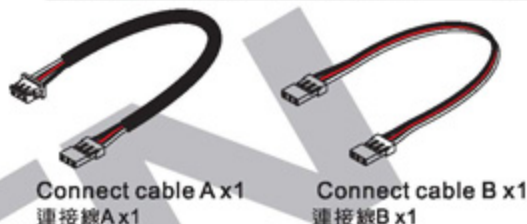
1. 可作為獨立設備，藉由LCD液晶螢幕顯示調速器參數，進行設定。
2. 可作為USB轉換器，將調速器和個人電腦連結，利用電腦上的USB Link應用軟體更新以及設定參數。
3. 可檢測鋰電池整體電壓，或每Cell的單獨電壓。
4. 袖珍型設計，輕巧攜帶方便。
5. 適用於亞拓RCE-BL100A及RCE-BL130A調速器。

### SPECIFICATION 標準配備



### SPECIFICATIONS 規格數據

Input Voltage 輸入電壓	Dimension 尺寸	Weight 重量
DC 4.5V~12.6V	90x51x17mm	65g



### FUNCTION OF EACH BUTTON AND PORT 按鍵及介面定義說明

①	ITEM	Change the programmable options and profiles circularly. 循環切換編程項目及模式。
②	VALUE	Change each programmable option circularly; Edit and change each customized parameter option circularly. 循環切換指定編程項目的設定值；循環切換指定編程項目的自定義設定值。
③	R/P	Enter or return to the menu. 回到主選單模式。
④	OK	Save the settings and send the customized option settings into the ESC. 保存當前的設定值，並將參數傳送到調速器。
⑤	Batt	For power supply to multifunction programmer. When connect multifunction programmer to ESC without built-in BEC, then additional battery power supply is needed while setup. 設定盒供電輸入介面。當設定盒連接的調速器是沒有BEC功能時，需要使用一個獨立的電源，從該接口供電給設定盒。
⑥	ESC	Connect the ESC to Multifunction Programmer on this port. 使用傳輸線將此接口和調速器的編程接口相聯結。
⑦	USB	Connect to PC USB port. 此介面和電腦的USB接口相連。
⑧	BATTERY CHECK	Connect to the battery balance charging connector to the port for battery voltage and cell inspection. 此接口接電池組的平衡充電接頭，用於檢測電池整體電壓及每節電芯的電壓。



警告

For "BATTERY CHECK" pin port is made of 2.54mm, make sure to check cable specifications before wiring to avoid damaging caused by improper use. Before voltage detection, make sure to align the "negative" on left side of the port for cable wiring correspondingly.

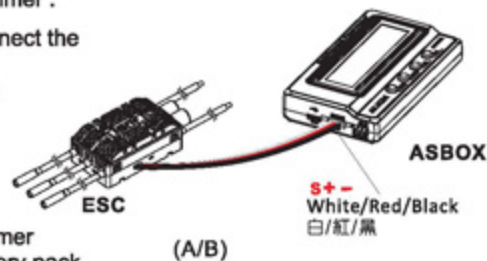
" BATTERY CHECK" 埠接口的針距為2.54mm，接線前請先確定規格避免使用不當造成損壞。檢測電壓時以接口左側"負極"端，為對應基準方向插入。

### OPERATING INSTRUCTION 工作模式說明

#### WORKS AS INDIVIDUAL EQUIPMENT TO SET ESC PARAMETER SETTINGS

Make sure to clarify if built-in BEC function and individual programmable options setting features are on ESC, then refer to below three different connection types(A, B,C) to connect ESC with Multifunction Programmer :

- A) ESC includes built-in BEC : disconnect the throttle cable from receiver, then connect the throttle cable to multifunction programmer "ESC" port.
- B) ESC includes built-in BEC and individual programmable options setting feature : Connect ESC to multifunction programmer "ESC" port with program cable.
- C) No built-in BEC included in ESC (That is: OPTO type ESC):
  1. For using both program cable and throttle cable, then connect ESC to multifunction programmer "ESC" port with throttle cable.
  2. If there is separated connect port on ESC, then connect multifunction programmer "ESC" port to the port from ESC. And for OPTO type ESC, an additional battery pack (4.8V to 12.6V) is needed to power the multifunction programmer via the "Batt" Port.

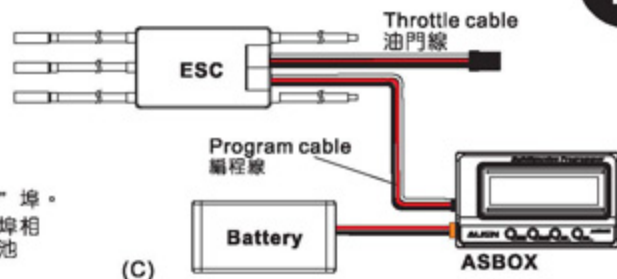


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### 作為獨立設備對應調速器進行參數設定

先判斷調速器是否具有BEC功能，以及是否具有獨立的編程介面。選擇相對應的連接方式將調速器和設定盒連結。如下A、B、C選項。

- 調速器有BEC輸出，使用連接線油門線，從接收器中拔出調速器油門線接入設定盒的"ESC"埠。
- 調速器內建BEC輸出，且有獨立之編程介面，使用編程連接線，接入無刷調速器及設定盒相對應的"ESC"埠。
- 調速器無內置BEC（即OPTO類型的調速器）：
  - 如同時使用程式設計線和油門線，則使用油門線接入設定盒的"ESC"埠。
  - 如果調速器有獨立的設定接口，則將獨立的接口和設定盒的"ESC"埠相連。此外，對於OPTO類型的電調，連接設定盒時都必須用額外的電池（4.5-12.6V）接入"BATT"埠，為設定盒供電。



### 1. CONNECT ESC TO BATTERY AND POWER ON.

After power on, multifunction programmer shows [ALIGN V1.0] on the initial screen, press any button on the multifunction programmer to start communicating with ESC, the screen shows [Connecting ESC]. After several seconds, multifunction programmer shows current profile name [MODE 0]. Then shows premier parameter setting, press "ITEM" and "VALUE" buttons to select the options, press "OK" button to save the settings.

### 2. RESET THE ESC BY MULTIFUNCTION PROGRAMMER

When ESC and Multifunction Programmer is well connected, press "ITEM" button several times till "Load Default Settings" is shown on the screen, press "OK" button, then all parameter settings will be reset to default settings.

### 3. CHANGE PROFILES OF THE ESC

Normally there are three profiles for different conditions in ESC, "Modified" profile, "Stock-10.5T" profile etc. Allow to set up and save different parameter settings for different profiles priority in system, It's easy and convenient for pilots to select the suitable profiles when flying outdoors.

### SETUP

When ESC and Multifunction Programmer is well connected, press "R/P" button to show the latest profile name, then press "VALUE" button to change profile circularly. For parameter set up, press "ITEM" button to enter and edit parameter settings.

1. 將調速器接上電池，使調速器開始工作  
ASBOX多功能設定盒開機後顯示開機畫面 [ALIGN V1.0]，按設定盒上任意鍵，設定盒和調速器開始建立通信，並顯示[Connecting ESC]，等待數秒後，將顯示當前的模式名稱 [MODE 0]，隨後顯示第一個置參數，使用"ITEM"和"VALUE"按鍵即可更改設置參數，再按"OK"鍵可將設置參數存入調速器。

2. 使用設定盒將調速器參數恢復成出廠預設值  
電調速器和設定盒連線狀態下，多次按ITEM鍵，直到顯示 [Load Default Settings]，按 Ok鍵，此模式下所有數值恢復為出廠預設值。

3. 使用設定盒切換調速器預設模式  
通常調速器內置三組預設模式，分別針對不同的應用，例如 "Modify"、"STOCK-10.5T" 等等，使用者可先各個模式下的參數設置好，當移到不同場地或不同的調速器時，只需設定為相對應的模式即可，快速又方便。

### 設定

在調速器和設定盒連線狀態下，按"R/P"鍵，螢幕顯示當前的模式名稱後，按"VALUE"鍵，切換到下一個模式，再按一次繼續切換至下一個模式，循環切換。  
如要選取該模式進行修改，則按下"ITEM"鍵即可顯示當前選擇的模式進行修改。



注意

- After finishing parameter setup, please make sure to power off the ESC and multifunction programmer firstly, then power on again, to do so, the ESC will confirm and save the parameter settings accordingly.
- Also allow to edit and change profile name by ALIGN ASBOX USB LINK software on PC.
  - 當設定完成確認後，請先將設定盒與調速器斷電，再重新送電，此時調速器才會執行儲存的設定參數。
  - 也可利用亞拓ASBOX USB Link應用軟體，在電腦介面上修改模式名稱。

### WORKS AS USB ADAPTER TO CONNECT ESC TO PC FOR PARAMETER SETUP AND FIRMWARE UPGRADE.

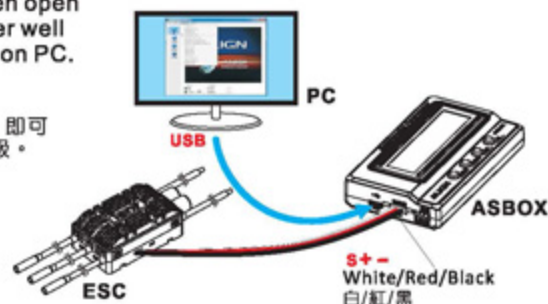
Connect ESC and function programmer to PC, as shown in picture. Then open ASBOX USB Link software on PC to start connection with the ESC. After well connected, users can easily do parameter setup and firmware upgrade on PC.

作為USB轉換器，將調速器連接個人電腦進行參數設置及主程式(固件)升級

將設定盒及調速器與電腦連線(如圖示)，開啟電腦端ASBOX USB Link應用軟體，即可和調速器建立連結，隨後可在電腦介面上進行調速器參數設置及主程式(固件)升級。



Please scan QR Code for link to ALIGN website to find related software.  
請掃描QR Code 連結亞拓網站下載相關軟體：  
<http://www.align.com.tw/download-en/asbox/>



### WORKS AS LIPO BATTERY VOLTMETER

Usage: Plug and connect battery to the "BATTERY CHECK" port. While connecting, make sure to double check and follow "S, +, -" symbol on Multifunction Programmer. (As shown in Picture.)

After battery is well connected and power on, the initial screen shows [ALIGN Vx.xx], then shows the voltage of each battery cell circularly as below.

作為電池電壓檢測器，測量並顯示電池組整體及每CELL電池電壓：

使用方法：用電池平衡插頭單獨插入設定卡 "BATTERY CHECK" 埠，電池平衡埠的負極與設定盒外殼的負極符號相對應(如圖示)。

電池接入後顯示開機畫面 [ALIGN Vx.x]，版本，然後將循環顯示電池組整體電壓和每cell電池的電壓，對應下圖。



ALIGN V x.xx _160410	Battery Voltage 11.18V	1:3.7V 2:3.74V 3:3.7V 4:0.00V
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Range/測量範圍：2-8S Li-Polymer/Li-Lon/Li-Fe  
Precision/測量精度：±0.1V