

## Characteristic / 特點：

- Easy to install.  
/ 設定方便，容易上手
- Numeric displays, interactive prompts.  
/ 雙數顯字型面板，運算速度迅速，且提供使用者調整靈敏度提示
- Applications focus on many industries, such as semiconductor assembly, handling technology and packing.  
/ 此產品可應用在許多產業中，包含半導體裝卸作業和包裝產業等
- Optical power selectable.  
/ 5段光功率選擇
- Depends on the mounting direction, the digital display of BR303 can be inverted.  
/ BR303的雙數顯字型面板，可依照您安裝的方向，而作反轉調整，方便讀取

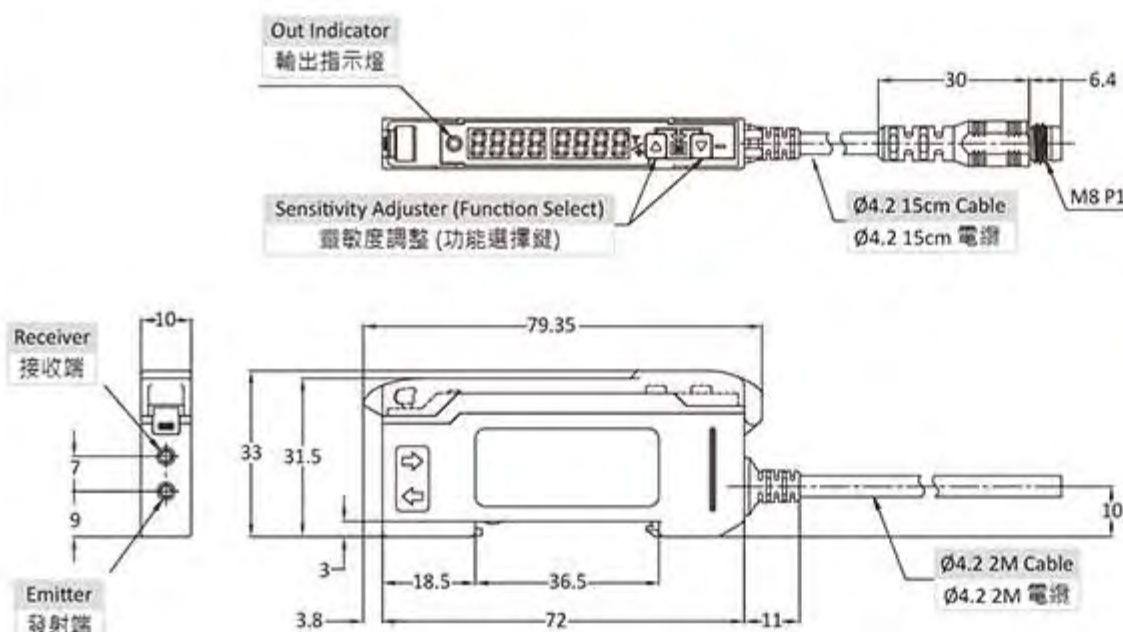


勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-34970699  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

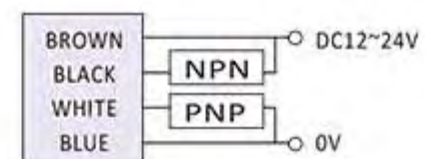
Model / 型號	Pre-wired Ø4.2	BR303-NP
	M8 pigtailed type	BR303-NPB
Emitting light / 發光源		紅色 LED 623nm
Operating voltage / 工作電壓		DC12 ~ 24 ± 10%
Current Consumption / 消耗電流		最大 50 mA Max. (+12VDC) , 25 mA (+24VDC)
Load current / 負載電流		100mA ± 10% at DC 24V
Output / 輸出模式		NPN L.on / D.on PNP L.on / D.on
Protection circuit / 保護電路		Reversed supply circuit protection. 逆接極性保護, 過電流保護
Response time / 反應時間		PO-1, PO-2 : 2ms / PO-3, PO-4, PO-5 : 0.33ms ; (on+off)
Indicators / 指示燈		輸出指示燈 : 紅色 LED
Sensitivity adjustment / 靈敏度功能		4 位數值 (18-9970)
Insulation resistance / 隔離阻抗		最小 20M Ω (DC500V)
Voltage withstandability / 絕緣耐壓		AC500V 60Hz 持續 60 Sec.
Operating temperature / 工作溫度		- 10 °C ~ + 60 °C
Ambient humidity / 工作溼度		35% ~ 85% RH
Protection degree / 防水等級		IP50
Material / 外觀材質		ABS
Wiring method / 出線方式	BR303-NP	出線式 Ø4.2 x 2 M / 4 線
	BR303-NPB	M8 出線式接頭型
Weight / 重量	BR303-NP	65 g
	BR303-NPB	30 g

## Dimensions / 尺寸圖 (mm)

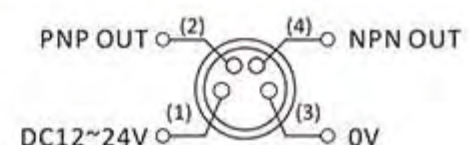
## Wiring diagrams / 接線圖



## NP 輸出



## NPB 輸出



(1) BROWN (3) BLUE  
 (2) WHITE (4) BLACK  
 ※ NPN & PNP SYNC. OUT



## DIGITAL FIBER AMPLIFIER BR303 Series User Manual

**RiKO**  
www.riko.com



Output Indicator



Red : Signal Level

Green : Threshold

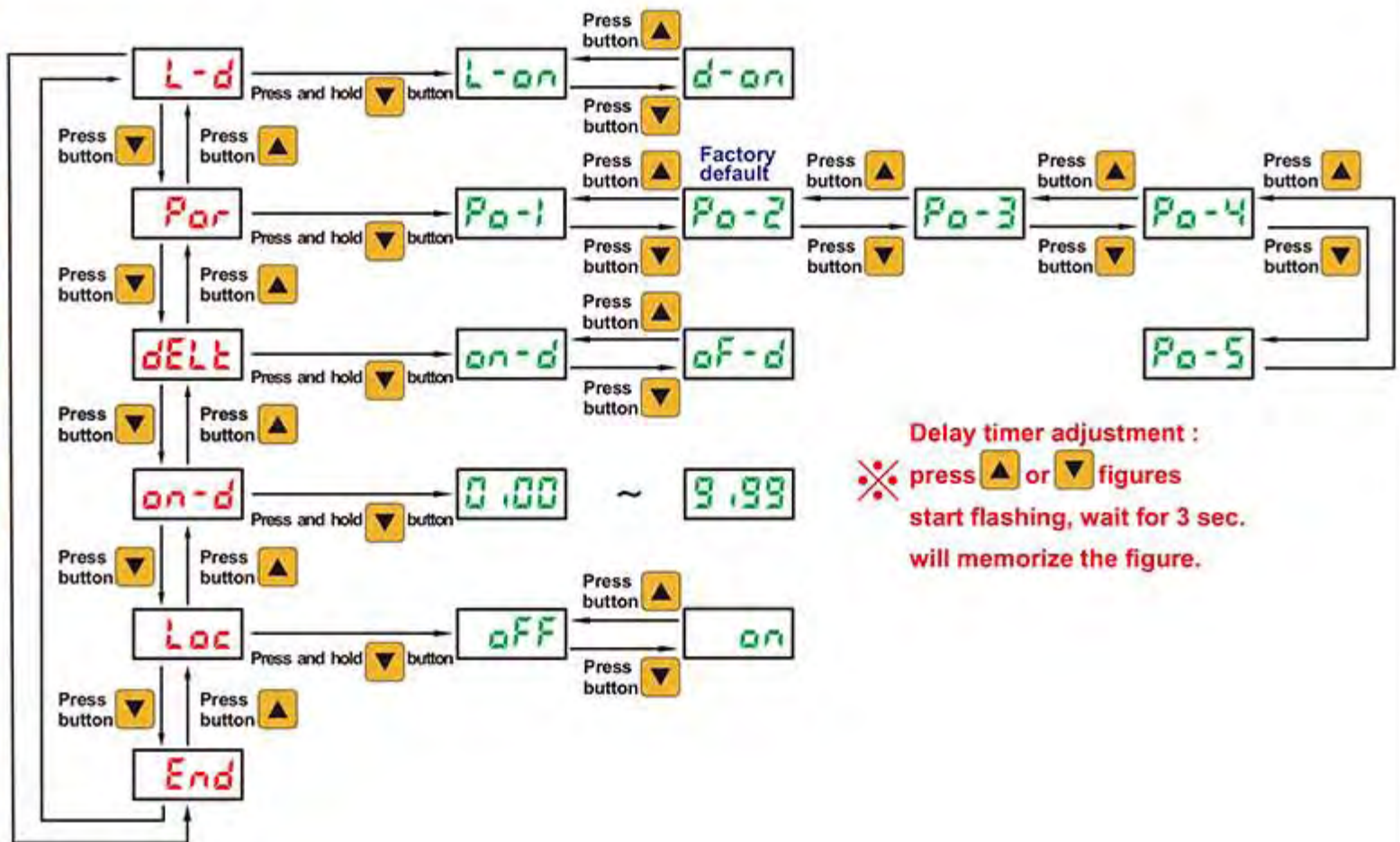
▲	2s	Teach (Main)
▲+▼	2s	Mode
▼	2s	Set
▲+▼	x2	Back

### MODE

### SETTING

Press ▲+▼ both key to enter setting function (Mode)

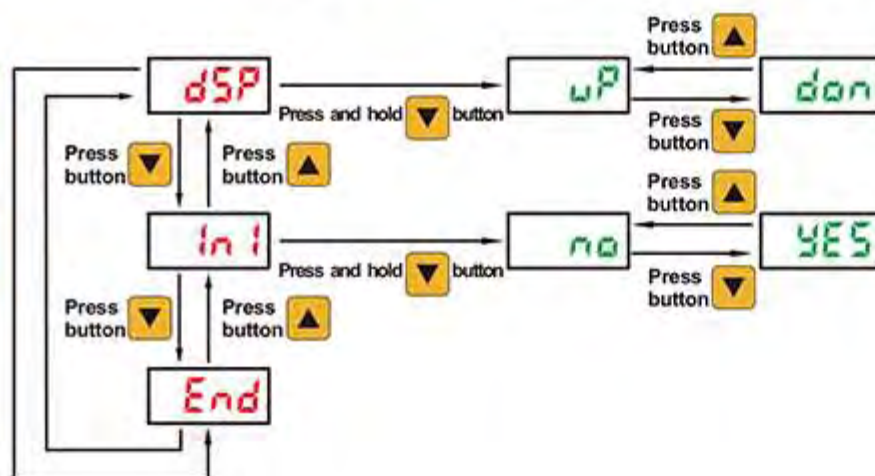
- Output mode
- Optical power
- Delay time
- Timer (sec)
- Lock
- End



**Delay timer adjustment :**  
✳ press ▲ or ▼ figures start flashing, wait for 3 sec. will memorize the figure.

Press ▲+▼ both key to enter setting second function (Mode)

- Inverted display
- Factory default
- End





### Press ▲ + ▼ both button to enter setting function (Mode)

#### 1. Mode selection:

- (1) Press ▲ and ▼ twice, return to "main screen" (output indicator light green).
- (2) Press and hold ▼ button 1.5 sec., enter "setting selection" (▼ press after 1.5 sec., output indicator LED light blue).
- (3) Press ▲ or ▼ to switch "Mode page".

#### 2. Settings:

- (1) Press ▲ and ▼ twice, return to "main screen", remains last setting (output indicator light green).
- (2) Press and hold ▼ button 1.5 sec., confirm the setting (▼ press after 1.5 sec., output indicator light blue), auto return to main mode.
- (3) Press ▲ or ▼ to switch "setting page"
- (4) Setting selection flashing, if you don't make any choice, will return "main screen" after 5 seconds.


#### 2. Lock:

- (1) off: All functions open without locking any function.  
on: Set to lock all functions, only keep "main screen", ▲ and ▼ button threshold value (after long press, up to +10, -10 adjustment).
- (2) Before unlocking, press ▲ and ▼ at the same time in the "main screen" to directly enter loc mode and select off, which is the unlock mode.
- (3) Setting selection flashing, if you don't make any choice, will return to "main screen" after 5 seconds.

### Threshold figures adjustment

Press once ▲ or ▼ the threshold figures start flashing (fig.1), press again ▲ or ▼ to start adjustment, leave and wait 3 sec. will memorize the figures.

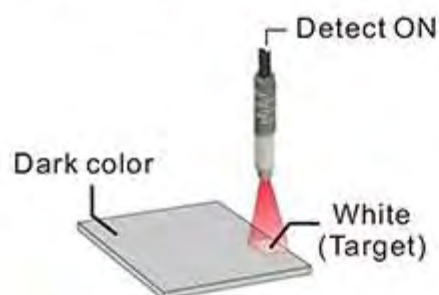
### 1 point setting

Auto teaching →  (Fig. 1) → Return to main screen

A. select 1 point setting, press and hold ▲ button 1.5 sec., red screen shows "good", Green screen shows "threshold figures", then setting is done.

※L.on / D.on selections, please go to "output mode" to switch.

#### Diffuse model Setting



press ▲ 1.5 sec. auto-teaching done when you see "good".

#### Through-Beam model Setting



No Target

press ▲ 1.5 sec. auto-teaching done when you see "good".



## DIGITAL FIBER AMPLIFIER BR303 Series 產品使用說明書

**RiKO**  
www.riko.com



輸出指示燈



紅色：目前接收值

綠色：工作模式下為門檻值

▲	2s	Teach (Main)
▲+▼	2s	Mode
▼	2s	Set
▲+▼	x2	Back

### 模式選擇

### 設定選項

↓ 同時 ▲ + ▼ 進入功能模式 (M)

動作模式

光功率

延遲功能

時間設定 (sec)

鎖定

完成



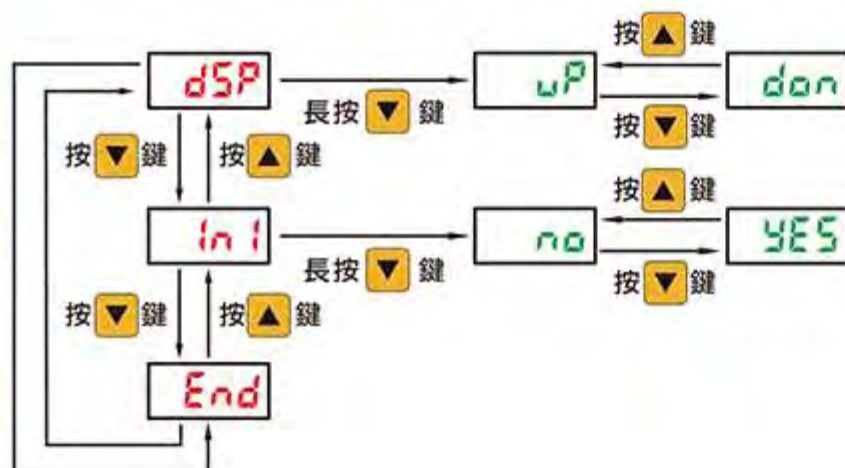
※ 延遲時間調整按一下 ▲ 或 ▼ 數值閃爍後即可調整，如3秒未操作，則自動寫入當前數值。

↓ 同時 ▲ + ▼ 進入進階模式二 (M)

面板正、反向調整

初始值

完成



Digital Fiber Amplifier

Fiber Amplifier

Array Fiber Optic

01.5

02

02.5

0/M3

0/M4

05

M6

Others

Light Guide

Accessories



## 同時 ▲ + ▼ 進入功能模式 (M)

## 1. 於「模式選擇」中:

- (1) ▲ + ▼ 連續按兩下(綠燈亮起), 回到「主畫面」視窗。
- (2) 長按 ▼ 鍵1.5秒, 進入「設定選項」視窗(▼ 按壓1.5秒後, 藍燈亮起)。
- (3) 按 ▲ 或 ▼ 鍵可上下切換「模式選擇」視窗。

## 2. 於「設定選項」中:

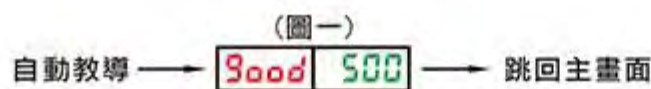
- (1) ▲ + ▼ 連續按兩下(綠燈亮起), 跳回「主畫面」視窗, 「設定選項」保持原設定值。
- (2) 長按 ▼ 鍵1.5秒, 即確認設定值(▼ 按壓1.5秒後, 藍燈亮起), 完成後自動跳回當前「模式選擇」視窗。
- (3) 按 ▲ 或 ▼ 鍵可切換「設定選項」視窗。
- (4) 「設定選項」持續閃爍, 如果不做任何按鍵選擇, 5秒後即跳回「主畫面」視窗。

## 3. 於「鎖定」模式中:

- (1) off: 設定為全開放, 未鎖住任何功能。  
on: 設定為鎖住全部功能, 只保留在「主畫面」視窗, 左右鍵門檻數值微調功能  
(長時間按後, 最多只能+10, -10調整)。確認2秒後即跳回「主畫面」視窗。
- (2) 解鎖前, 請於「主畫面」視窗同時按 ▲ + ▼, 直接進入loc選項, 選擇off模式, 即為解鎖模式。
- (3) 「設定選項」持續閃爍, 如果不做任何按鍵選擇, 5秒後即跳回「主畫面」視窗。

## 門檻值調整

門檻值數值調整時, 按壓 ▲ 或 ▼ 一下, 門檻值持續閃爍, 即可開始調整數值(短按或長按上下鍵), 當放開按鍵3秒後自動寫入當前門檻值並結束閃爍。

1 Pnt  
單點設定

- A. 當選擇單點設定, 按壓 ▲ 鍵達1.5秒以上時, 紅色視窗會顯示 "good", 綠色視窗會顯示"門檻值", 代表已設定完成(如圖一)。  
※設定完成後, 如需L.on或D.on切換, 請至「動作模式」進行設定。

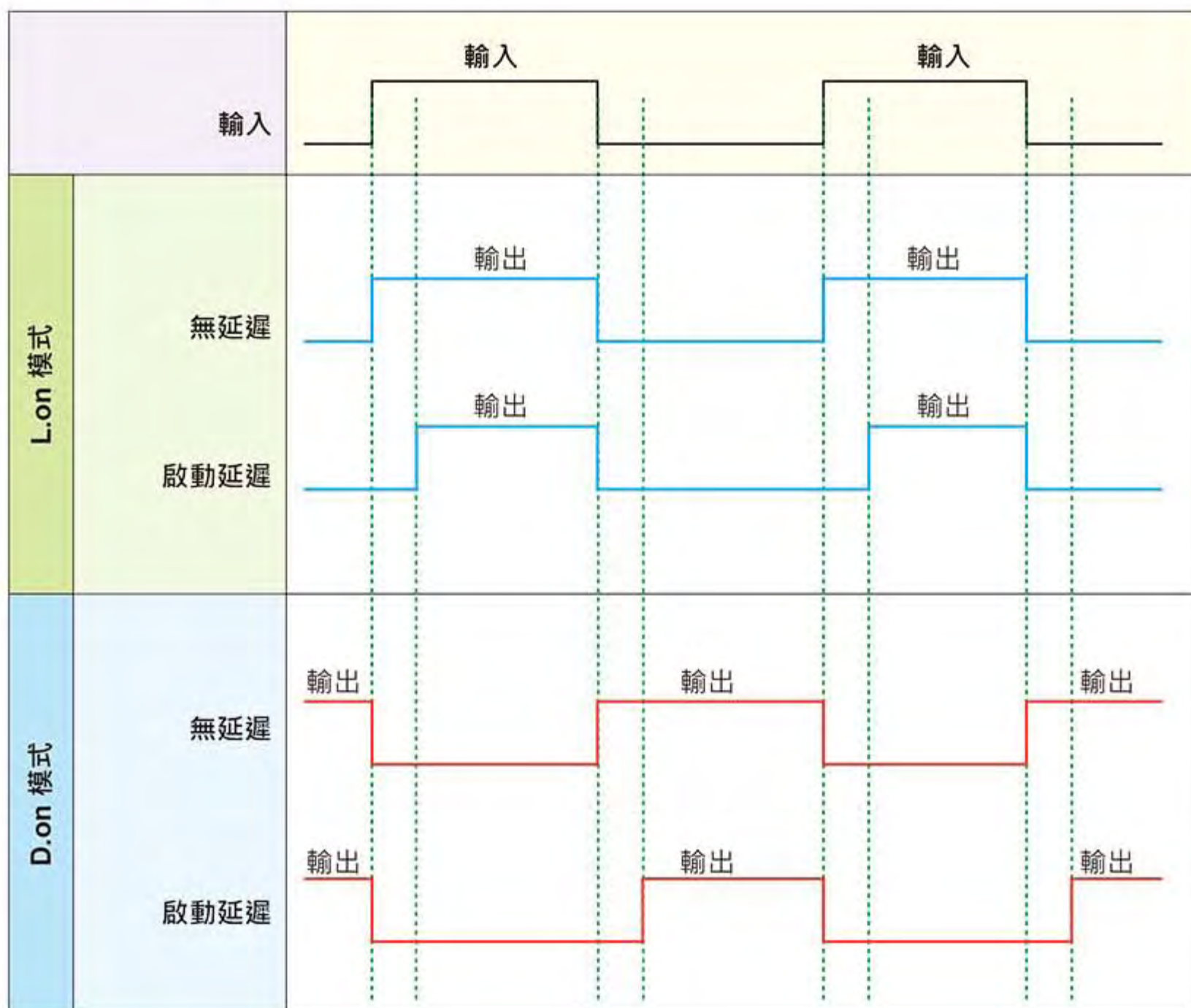
## 單點設定反射式光纖範例



## 對照式光纖調整



## 時序圖



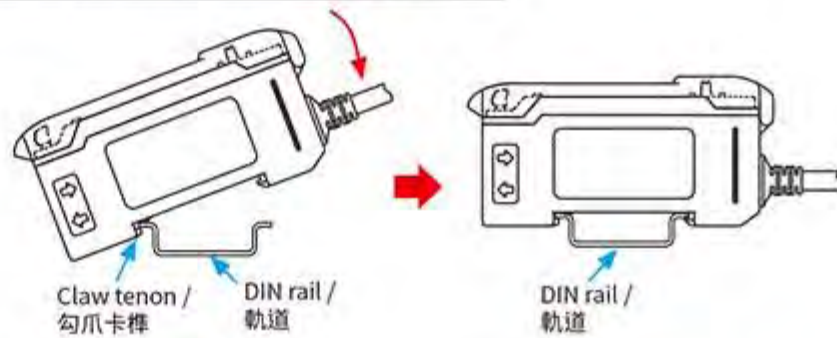
燈號與輸出同步  
延遲時間：0 ~ 9.99 Sec



## Fiber amplifier mounting/detaching operation / 光纖放大器軌道安裝/卸下

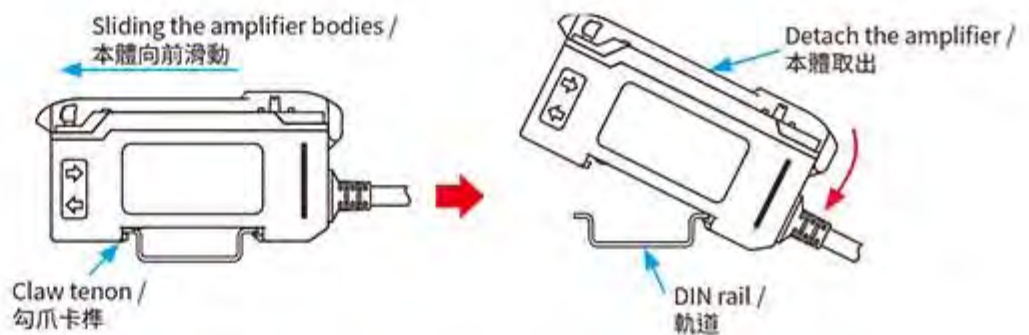
## 1. Mounting / 安裝

To mount each amplifier to the attached mounting bracket or DIN rail in sequence.  
將每一台放大器依序安裝至軌道上。



## 2. Detaching / 卸下

To detach the amplifiers in sequence by sliding the amplifier bodies.  
滑動本體，依序將各放大器卸下。



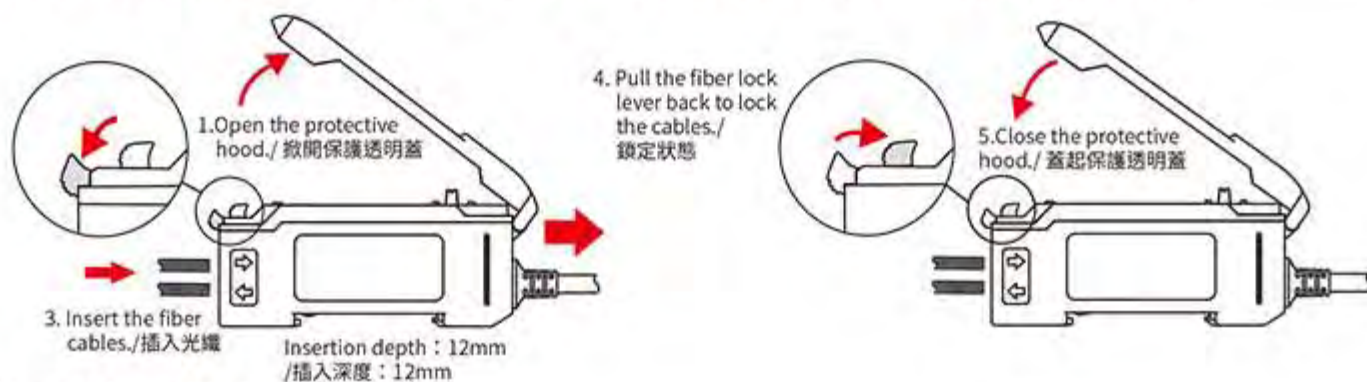
## Precautions for correct use / 正確的使用方法

- \*Be sure to mount amplifiers to a DIN rail and use end units on both sides when more than two units are connected.  
當使用超過2個放大器時須使用鋁軌組裝在一起，在封閉機箱中注意操作溫度變化在以固定器固定兩側。
- \*Be sure to turn off the power before wiring finished.  
在配線完成前必須確認處於斷電狀態。
- \*Don't operate the amplifier in the same conduit as power cord or high voltage wire. Use separate conduit to avoid noise immunity and malfunction.  
放大器運作時不可被電源線或較高電壓線覆蓋到，須均處到包含有雜訊或交流雜訊，避免誤動作。
- \*Check the power cord to make sure the power supply matches the rated voltage.  
檢查電源線以匹配固定電壓。
- \*Connect the ground terminal to the ground when used with a switch.  
使用市面販售開關需將接地端接地。
- \*Don't use it outdoors or at a place where outside light can irradiate the receiver directly.  
不要在戶外或外來光直接照射接收。

## Fiber cables fixing operation / 光纖安裝方式

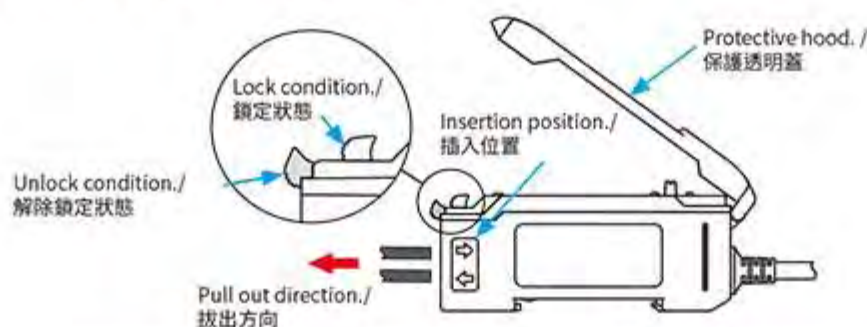
## 1. Insert the fiber cables / 插入光纖

Open the protective hood and tilt the fiber lock lever to release the lock condition. Referring to the side seal of insertion position, fully insert the fiber cables into the mounting holes until the limit. Pull the fiber lock lever back to lock the cables.  
開啟保護蓋並先壓下光纖固定桿以解除鎖定狀態，依照光纖放大器側面插入位置記號插入光纖，再將光纖固定桿扳起鎖定。



## 2. Pull out the fiber cables / 拔出光纖

Open the protective hood and tilt the fiber lock lever to release the lock condition. Pull the fiber cables straight out from the mounting holes.  
開啟保護蓋並壓下光纖固定桿以解除鎖定位置，即可拔出光纖。



1. To protect the fiber cables from incorrect operation, be sure to tilt the fiber lock lever to release the lock condition before pulling out the fiber cables.
2. Pull up the protective hood forcefully may damage the fixing pin of the hood (not exceed 180 degrees).

1. 為了維護光纖，請在更換時，確定光纖固定桿為解除鎖定，再將光纖拔出。
2. 用力向上扳開保護透明蓋超過180°可能損壞外殼蓋後的固定鎖。