KGN Dispensers
超精密定量吐出裝置

SM-AX 使用說明書 Instruction Manual

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安全方面之注意事項 Safety Caution

使用前務必翻閱本操作手冊，下列注意事項與本文中的注意事項，均以正確安全使用為考量，防止發生未然之危害與損害，因此使用時請務必遵守下列事項。

Read the instruction manual before using.
Adhere the following instructions in order to use the product properly and safely and to avoid damage to the product and danger to you.

警告 WARNING	有恐發生觸電危險，請勿拆開與分解機身外殼。 Never take off the cover or take the product apart, or you may get electric shock.
注意 CAUTION	● 控制器的空氣請使用5μm以下，且用過濾網後之無潤滑乾燥空氣。氣壓源需小於 0.99 MPa。 ● 使用本產品前務必詳讀目錄、操作手冊。 ● 為了避免觸電，使用時勿超過使用溫度範圍。 ● 為了避免破損，請於空氣壓源調整範圍內使用。 ● 請勿在高溫、潮濕、塵埃、氣化腐蝕(鹽、酸、鹼)環境下使用。 ● 請勿自行變造、加工，本公司對於自行變造、加工之機台不負維修之責。 ● 為了避免點膠機故障，輸入電壓時請使用指定的規格電壓。 ● 為了避免異常電壓損及機台，請自行實施避雷等電壓波動防止措施。 ● 請將點膠控制器本體放置於不受外力衝擊的環境。 ● 請勿讓點膠控制器本體及配線上有雜訊干擾。 ● 為了避免觸電，請務必使用接地線。 ● 當處理、操作方法已超越本操作手冊所記載的內容以外時，請與本公司連絡。 ● 空氣壓源壓力要大於吐出壓力0.10MPa以上。 ● 對於本書內容有不明瞭之處，請與本公司連絡。

注意
CAUTION

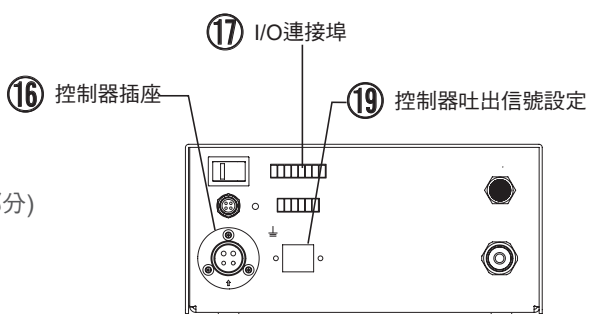
- Non-lubricated dry air, which is filtered by a filter sized smaller than 5μm, should be used for the controller. Air pressure resource should be set less than 0.99Mpa.
- Read the instruction manual and catalogue before using the product.
- Do not use the product over the applicable temperature range,or you may get electric shock.
- Do not use the product over the applicable air pressure source range, or it will get damaged.
- Do not use the product at high temperature, high humidity and in an environment with dust and gas corrosion(chloride, acid and alkali),or you may get electric shock.
- Do not modify the products, or we will not be responsible for any damage resulted from it.
- Use the instructed voltage to input, or it may get damage.
- Voltage fluctuation prevention measures, such as grounding, should be carried out, or the product may get damaged from an abnormal voltage.
- Keep the controller away from exterior vibration or shock.
- Keep the controller and the connecting cables away from noise interferences.
- A ground lead must be used, or you may get electric shock.
- Never operate according with any other instructions not stated in the instruction manual.Contact with the maker or the dealer if there is anything you want to know on the instruction manual.
- The air supply pressure must be at least 0.1MPa greater than the dispensing pressure.
- Please contact us for any questions that you might have on the instruction manual.

1.標準規格 Standard Specifications

(1) 入力電源 ：DC 24 V(標準附屬 AC 100~240 V 電源轉換器)
(2) 消耗電力 ：最大17W
(3) 空氣壓源 ：最大 0.99MPa(9.9 kgf/cm²)無潤滑乾燥空氣
(4) 吐出時間調整範圍 ：0.010~9.999 秒.
(5) 吐出壓力調整範圍 ：0.01~0.70 MPa (0.1~7.1 kgf/cm²)
(6-1) ⑯控制器插座的開始吐出信號：
a. 使用外部接點方式時 ：須使用容量 20mA以上，無電壓之N.O.接點輸入
b. 使用輸入電壓方式時 ：輸入電壓 DC 5~24V

⚠ 注意 使用前請先確認 ⑲控制器吐出信號設定(設定請參考p31)

(6-2) ⑯控制器插座的吐出完畢信號：
無電壓之N.O.接點輸出，負荷容量 AC 250V，3A / DC 30V，3A
(7-1) ⑰I / O 連接埠的輸入信號接點：
輸入電壓 : DC 10V~30V 輸入電流 : 5mA/DC 24V
輸入ON電流 : 3.5mA以上 輸入OFF電流 : 1mA以下
輸入應答時間: 約10ms
(7-2) ⑰I / O 連接埠的輸出信號接點：負荷容量 DC 30V，20mA
(8) 真空功能 ：內藏負壓發生機構
(9) 使用溫度範圍 ：+5°C~+40°C
(10) 標準附屬品 ：電源轉換器組，腳踏開關
(11) 外形尺寸 ：(W)184X(D) 159X(H) 88mm (箱體部分)
(12) 重量 ：1.6 kg



(1) Power supply ：DC 24 V(fixture AC 100~240 V power adapter)
(2) Power consumption ：Max 17W
(3) Air source ：Max 0.99MPa,Non-lubricated dry air
(4) Shot time range ：0.010~9.999 sec.
(5) Operating air pressure ：0.01~0.70 MPa (0.1~7.1 kgf/cm²)

(6-1) ⑯Controller Connector dispense start signal :

a.When using external connection, the non-voltage N.O. input port in capacity over 20mA shall be used.
b.When using input voltage, the input voltage shall be DC 5~24V.

Caution **Before use, please confirm the dispense signal setting of ⑲Controller (refer to PG31 for setting).**

(6-2) ⑯Controller Connector shot finish signal:

No-voltage normal open output.Load capacity AC 250V, 3A / DC 30 V, 3A

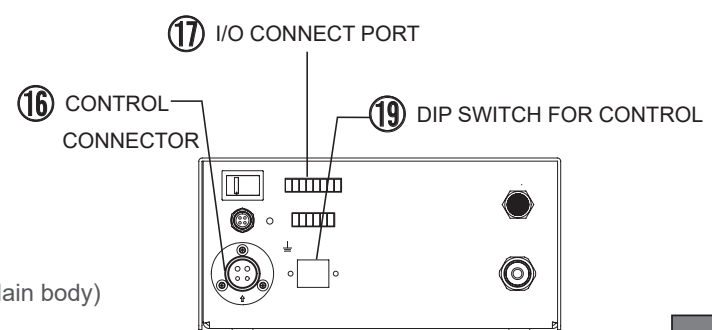
(7-1) Input Signal Contact of ⑰I/O Connection Port：

Input voltage : DC 10V~30V
Input current : 5mA/DC 24V
Input ON current : More than 3.5mA
Input OFF current : Lower than 1 mA
Input response time : About 10 ms

(7-2) Output Signal Contact of ⑰I/O Connection Port：

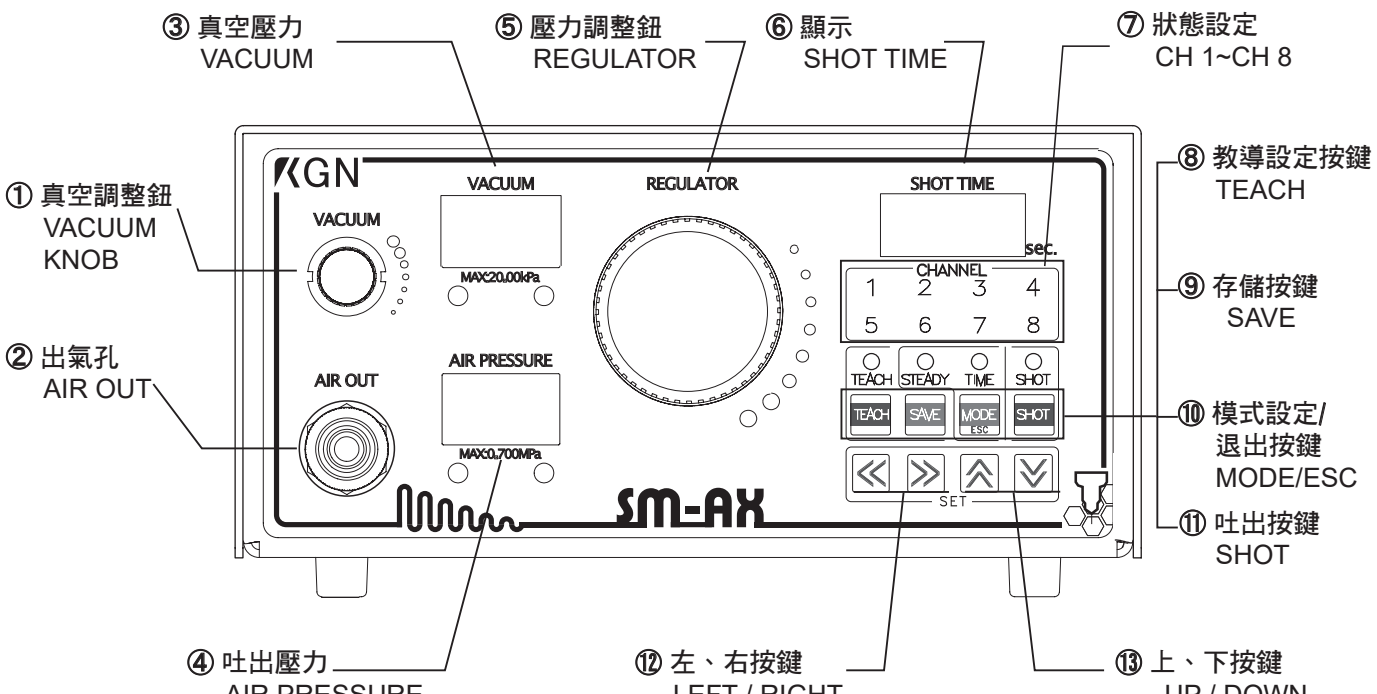
Load capacity DC30V, 20mA

(8) Vacuum function ：Built-in vacuum transduce
(9) Operating temperature ：+5°C~+40°C
(10) Standard accessories ：Power adapter,Foot switch
(11) Overall dimensions ：(W)184X(D) 159X(H) 88mm (Main body)
(12) Weight ：1.6kg

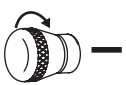
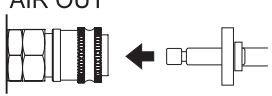
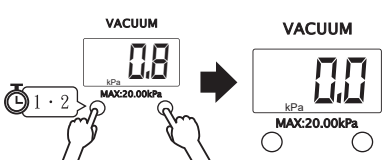


2.點膠控制器功能簡介 Parts

2.1.1 控制器前操作面板 Front Side Controller



2.1.1 控制器前操作面板 Front Side Controller

名稱 NAME	操作 OPERATION	機能 FUNCTION
1. 真空調整鈕 Vacuum Knob	 負壓增加-向反時鐘方向旋轉。 Negative pressure increase Turn counter-clockwise.  負壓減少-向順時鐘方向旋轉。 Negative pressure reducetion Turn clockwise.	當吐出低黏度材料時，材料會自然從針孔流出。此時將真空調整鈕朝逆時鐘方向旋轉，讓膠管內呈負壓狀態，以防止材料滴漏。 Low viscosity liquid will naturally drip from the needle tip. To prevent dripping, turn the VACUUM knob counter-clockwise so a negative pressure is generated inside the barrel.
2. 出氣孔 Air Out	操作面板上 Controller front panel AIR OUT 	氣壓之出入口。 The outlet for the air adjusted and set.
3. 真空壓力顯示 Vacuum	 下方兩按鈕同時持續按住2秒，直到吐出壓力"歸零"。 Press down the two buttons below simultaneously for 2 seconds to reset to "0" on the display.	在真空鈕調整後，顯示吐出壓力數值。 The vacuum adjusted by the knob (pressure adjust knob)is shown.

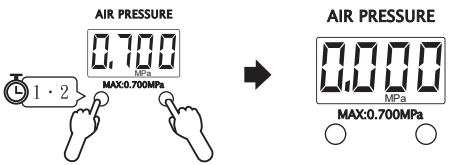
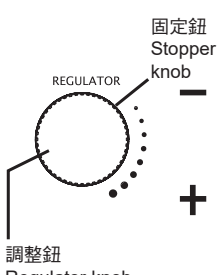
注意
Caution

按左鍵按鈕持續1秒以上，數字閃爍，表示測定中最大壓力值；再壓1秒以上解除設定，回復原來狀態。
按右鍵按鈕持續1秒以上，數字閃爍，表示測定中最小壓力值；再壓1秒以上解除設定，回復原來狀態。

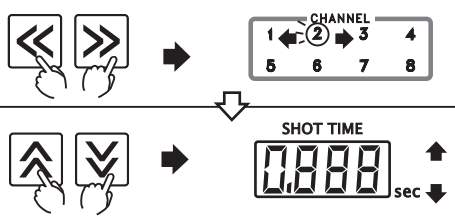
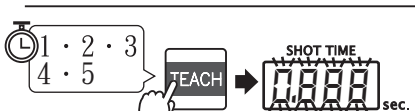
Press the left key and hold for over 1 second. When the figure flickers, it means the max during measurement. pressure value, and press again for over 1 second to restore the original status.

Press the right key and hold for over 1 second. When the figure flickers, it means the min during measurement. pressure value, and press again for over 1 second to restore the original status.

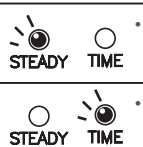
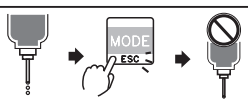
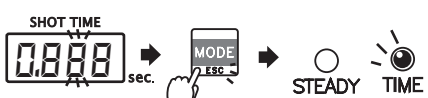
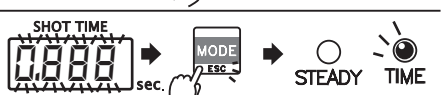
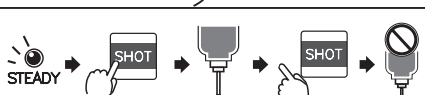
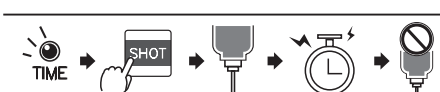
2.1.1 控制器前操作面板 Front Side Controller

名稱 NAME	操作 OPERATION	機能 FUNCTION
4. 吐出壓力顯示 Air Pressure	 下方兩按鈕同時持續按住2秒，直到吐出壓力"歸零"。 Press down the two buttons below simultaneously for 2 seconds to reset to "0" on the display.	在壓力鈕調整後，顯示吐出壓力數值。 The pressure adjusted by the knob (pressure adjust knob)is shown. 注意 Caution 同前頁「3. 真空壓力顯示」注意事項。 Refer to PG7 “Caution”.
5. 吐出壓力調整鈕 Regulator	旋轉吐出壓力調整鈕。Turn the knob to adjust the pressure.  反時針方向，將固定鈕鬆開。 Release the fixing knob in counter-clockwise direction. 減壓-調整鈕反時針方向回轉。 Reduce : Turn the pressure regulator knob in counter-clockwise. 增壓-調整鈕順時針方向轉動。 Increase : Turn the pressure regulator knob in clockwise. 固定鈕轉緊，即鎖定調整鈕無法調整。 Lock the fixing knob by tightening the stopper.	吐出壓力調整鈕。 Knob to adjust the pressure. 注意 Caution 增壓時，先將設定壓力降低，往增壓方向調整到欲設定的壓力範圍。 When increasing the pressure, reduce the pressure to a value lower than the set level first, then increase it to the required level.

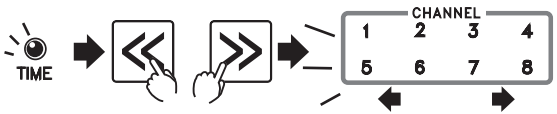
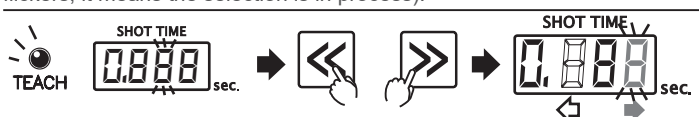
2.1.1 控制器前操作面板 Front Side Controller

名 稱 NAME	操 作 OPERATION	機 能 FUNCTION
6. 顯示 Shot Time		吐出時間。 Timer.
7. 狀態設定 Channel	 按 ≪ ≫ ⌃ ⌄ ，設定吐出時間值、調整吐出量，SAVE 確定儲存。 Press ≪ ≫ ⌃ ⌄ to set the dispense time value and adjust the shot volume, and then press SAVE to confirm saving.	CH 1~ 8可儲存八個時間設定值，提供選擇使用。 CH 1~8 can save up to 8 times set values for optional use.
8. 教導設定按鍵 Teach	 短按0.5秒，進入「吐出時間調整設定」 Press the key for 0.5 seconds briefly to enter the **"TIME ADJUST SET"**.	進入「吐出時間調整設定」或「吐出時間教導設定」。 Enter the **"TIME ADJUST SET"** or the **"TIME TEACH SET"**.
	 長按5秒，進入「吐出時間教導設定」 Press the key for over 5 seconds to enter the **"TIME TEACH SET"**.	

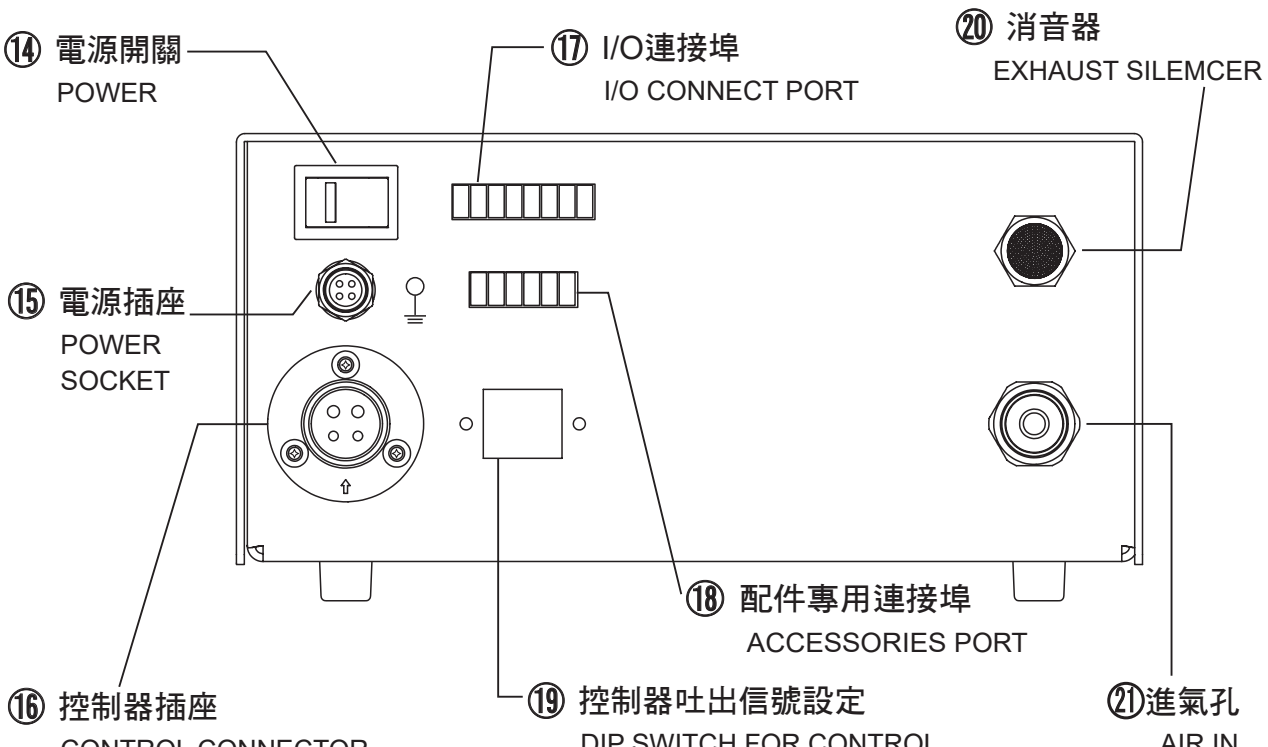
2.1.1 控制器前操作面板 Front Side Controller

名 稱 NAME	操 作 OPERATION	機 能 FUNCTION
9. 儲存按鍵 Save	 按一下，即儲存設定值。 Press once to save the set value.	將目前顯示的時間儲存下來。 Save the time now showing.
10. 模式設定 /退出按鍵 Mode/Esc	  • STEADY燈恆亮=>「連續吐出模式」。 STEADY lamp keeps illuminating=>**"STEADY MODE"** • TIME燈恆亮=>「計時吐出模式」。 TIME lamp keeps illuminating =>**"TIME MODE"**	① 切換「計時吐出(TIME)模式」及「連續吐出(STEADY)模式」。 Shift between **"TIME MODE"** and **"STEADY MODE"**
		② 吐出時，按下 MODE ESC (ESC功能) 將會強制停止吐出。 During shot, press MODE ESC (ESC function) to force stopping the dispense.
		③ 在「吐出時間調整設定」時，按下 MODE ESC 將會回到「計時吐出(TIME)模式」。 Under **"TIME ADJUST SET"**, press MODE ESC to return to **"TIME MODE"**.
		④ 在「吐出時間教導設定」時，按下 MODE ESC 將會回到「計時吐出(TIME)模式」。 Under **"TIME TEACH SET"**, press MODE ESC to return to **"TIME MODE"**.
11. 吐出按鍵 Shot		**STEADY模式**：為連續吐出，持續按住 SHOT，按下時吐出，放開時停止。 **STEADY MODE** : Means the continuous shot mode. Press SHOT continuously to dispense and stop when releasing.
		**TIME模式**：為計時吐出材料。 **TIME MODE** : Time counting dispense mode for dispensing the material.

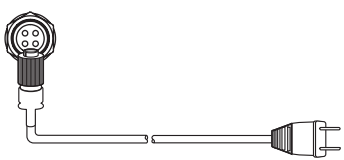
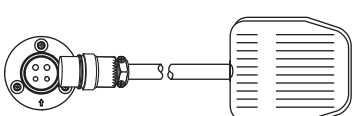
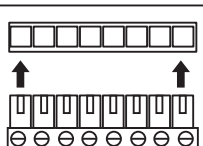
2.1.1 控制器前操作面板 Front Side Controller

名稱 NAME	操作 OPERATION	機能 FUNCTION
12. 左、右 Left/Right	 按 « 或 » 鍵，可進入選擇CH設定。(CH燈閃爍，表示選擇中) Press « or » key to enter the selected CH mode (when CH lamp flickers, it means the selection is in process).  在「吐出時間調整設定」中，按 « 或 » 鍵，可選擇位數。 Under **"TIME ADJUST SET"**, press « or » key to select the digit place.	« 左鍵：選擇CH或位數。 Left Key: To select CH or digit place. » 右鍵：選擇CH或位數。 Right Key: To select CH or digit place.
13. 上、下 Up/Down	 在「吐出時間調整設定」中，按 ⌃ 或 ⌄ 鍵，調整時間長短。 Under **"TIME ADJUST SET"**, press ⌃ or ⌄ key to adjust the time duration. 在「吐出時間教導設定」中，按 ⌃ 或 ⌄ 鍵微調時間。 Under **"TIME TEACH SET"**, press ⌃ or ⌄ key to fine tune the time.	調整吐出時間的長短。 Adjust the duration of shot time.

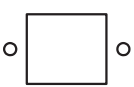
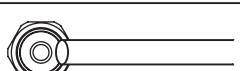
2.1.2 控制器後操作面板 Rear Side Of Controller



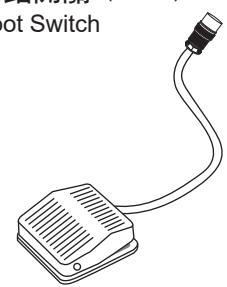
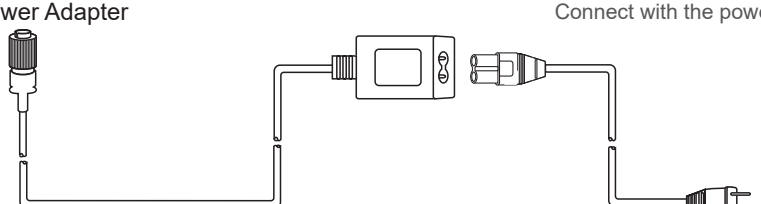
2.1.2 控制器後操作面板 Rear Side Of Controller

名稱 NAME	操作 OPERATION	機能 FUNCTION
14. 電源 Power	ON：燈亮。 Power on. OFF：燈滅。 Power off.	電源開關。 Power switch.
15. 電源插座 Power Socket	 連接電源線。 Connect with the power cord.	電源供給用。 Power supply.
16. 控制器插座 Control Connector	 開始吐出信號、吐出完畢信號，請參考p4的(6-1)、(6-2)；吐出信號相關設定請參考p31。 For details of dispense start signal and shot finish signal, please refer to (6-1) and (6-2) in PG5; for the setting of dispense signal, refer to PG31.	為輸入開始/輸出完畢信號的插座。 Connector to input and output signal terminals for controlling dispense volume.
17. I/O連接埠 I/O Connect Port		

2.1.2 控制器後操作面板 Rear Side Of Controller

名 稱 NAME	操 作 OPERATION	機 能 FUNCTION
18. 配件專用連接埠 Accessories Port 		
19. 控制器吐出信號設定 Dip Switch For Control 	拆下2個螺絲取出護蓋後，參考p31切換一覽表，指播或使用一字螺絲起子調整，確認動作完畢，請將護蓋鎖回。 After removing two screws to take out the protection cover, adjust with finger or slot-head screwdriver according to the shift list on PG31. After confirming that the action is finished, restore the protection cover and lock securely.	請參考p31。 Refer to PG31.
20. 消音器 Exhaust Silencer 	防止油份、灰塵、黏接劑附著。 Note on care: Keep the exhaust silencer away from oil, dust and dispensed materials.	為膠管空氣及真空發生裝置的排氣口。 Exhaust silencer for the air inside barrel and for the vacuum transducer.
21. 空氣源 Air In 	 外徑 6mm氣壓管接續。 Connect with the air tube in O.D. Ø 6mm(diameter).	將氣壓供給到控制器上的接續口。 Air pressure is supplied to the controller by connecting to input and output Connect ports. **注意Caution** **請使用過濾後的壓縮空氣。** Please use filtered, compressed air.

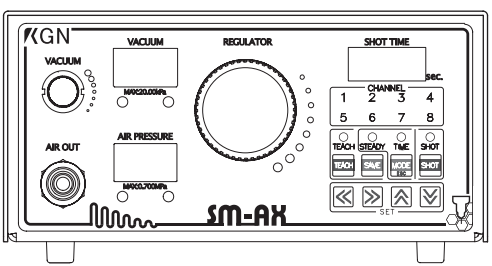
2.2 外部機器(標準附屬品) Peripherals (Standard Accessory)

名 稱 NAME	操 作 OPERATION	機 能 FUNCTION
1. 腳踏開關 (FS4P) Foot Switch 	將插頭插入控制器後面板的插座上，再用螺環固定。 The plug is connected to the control connector located at the rear side of the controller. It is then fixed in place with a screw.	採用腳踏方式即可控制吐出信號。 By stepping on the foot switch, the shot signal is transmitted to the controller.
2. I/O連接埠的端子 (EC350V-08P) I/O Connect Port 		
3. 電源轉換器組 (KIC-04A) Power Adapter 	連接電源插座。 Connect with the power socket.	供給電源。 Power supply.

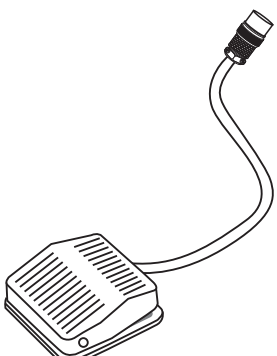
3. 使用方法 Operating Procedure

>>事前準備工具 Preparations

1. 本體 Main Unit

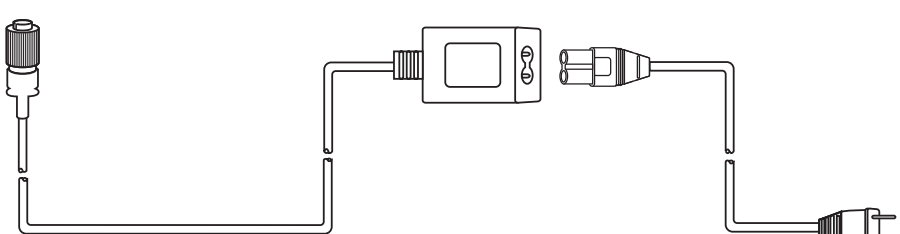


2. 腳踏開關 Foot Switch



3. I/O連接埠的端子
I/O Connect Port

4. 電源轉換器組 Power Adapter



>>準備 Procedure

前控制面板 Front Panel

① 將連接配件插頭接續在控制器前的出氣孔上。

② 放材料之前請用空氣槍確認膠管以及針頭上沒有附著灰塵、水分等。

③ 接下來要注意材料中不可混入氣泡，將針頭裝在膠管上注入7~8分滿的材料，請將附著在膠管上部約1~2cm材料擦拭乾淨。

④ 將膠管插入連接配件頭上，並將膠管旋轉成90°，均衡懸掛在膠管護緣上之後再裝連接配件。

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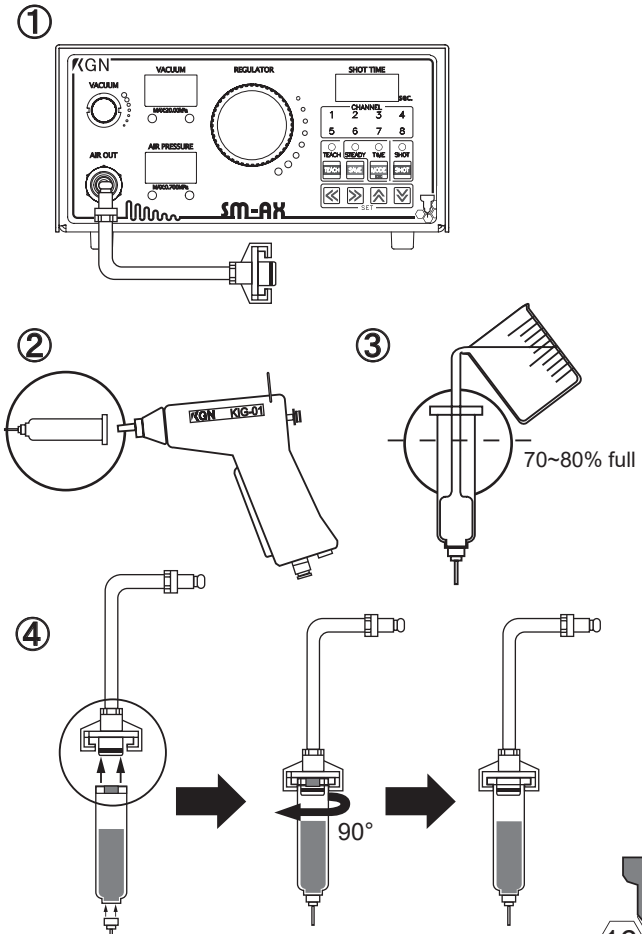
① Connect the plug of adapter assembly to the air outlet at the front side of the controller.

② Before putting the material in the barrel, the barrel and the needle are required to be air-flushed. Check that there is no dust or moisture in them.

③ Ensure that there are no bubbles in the material. Install the needle on the barrel and inject the material until the barrel is 70%~80% full. Wipe off any materials stuck on the upper part (1~2cm) of the barrel.

④ To fix the adapter assembly, the barrel is inserted into the air-outlet of the adapter assembly head, and it is twisted 90° until the barrel flange is caught.



>>準備 Procedure

後控制面板 Rear Panel

① 將外徑Ø6mm氣壓管接在控制器後面的進氣孔上。

注意 壓力調整鈕依逆時針方向旋轉確認到底之後，再接氣壓管。

② 確認控制器後座的電源開關為OFF之後，將電源線插入插座內。

注意 必須使用接地線。

③ 請將腳踏開關的插頭接續在控制器後方的控制插座上。

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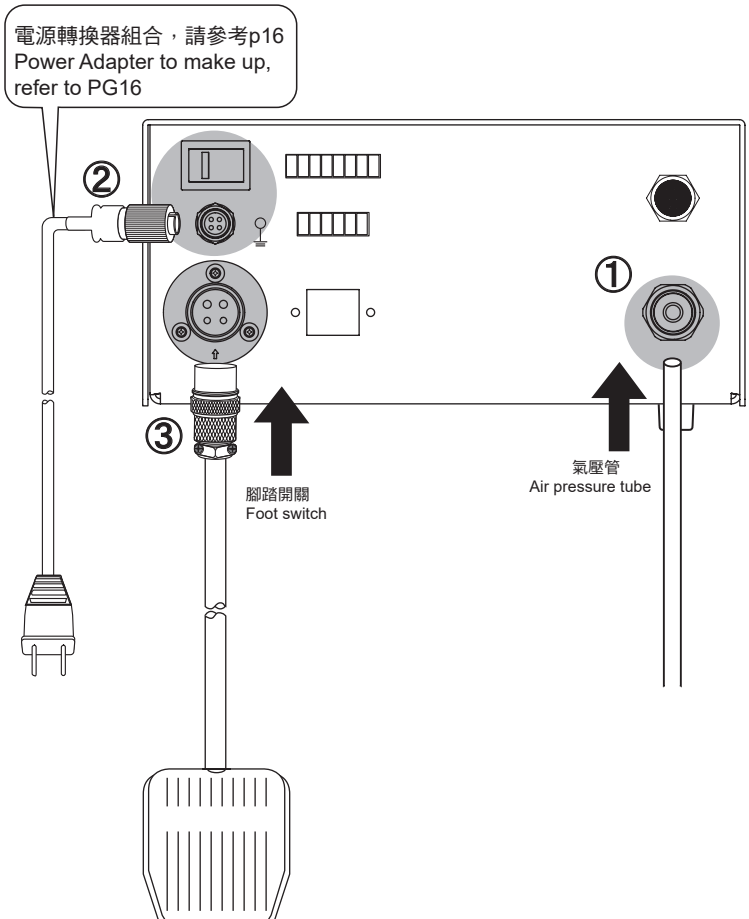
① The air tube of Ø6mm for air pressure is connected with the air inlet at the rear side of the controller.(Max air pressure 0.99 MPa)

Caution Be sure that the pressure adjustment knob is turned counter-clockwise all the way before the tube is connected.

② Turn off the power supply switch at the rear side of the controller, and connect the power supply.

Caution A ground lead must be used.

③ Connect the plug of foot switch with the control connector located at the rear side of the controller.



>>負壓調整 Negative Pressure Adjustment

當針頭有滴漏現象時，請調整真空功能。將控制器前面的真空調整鈕朝逆時鐘方向旋轉就會產生負壓，以止住自然滴漏的現象。

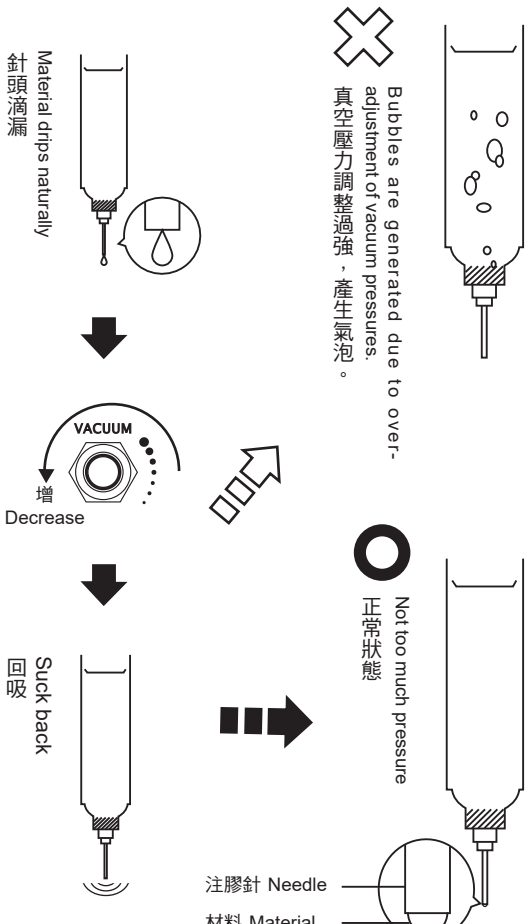
注意

- 調整時，勿將真空調整過強，避免自針頭處吸入氣泡或將吐出後的材料吸入膠管內。
- 產生真空狀態時，請勿過度傾倒或橫放膠管，避免材料倒流入控制器內發生故障。
- 在交換針頭或再度安裝時，請務必先進行去除殘留材料、氣泡的工作。

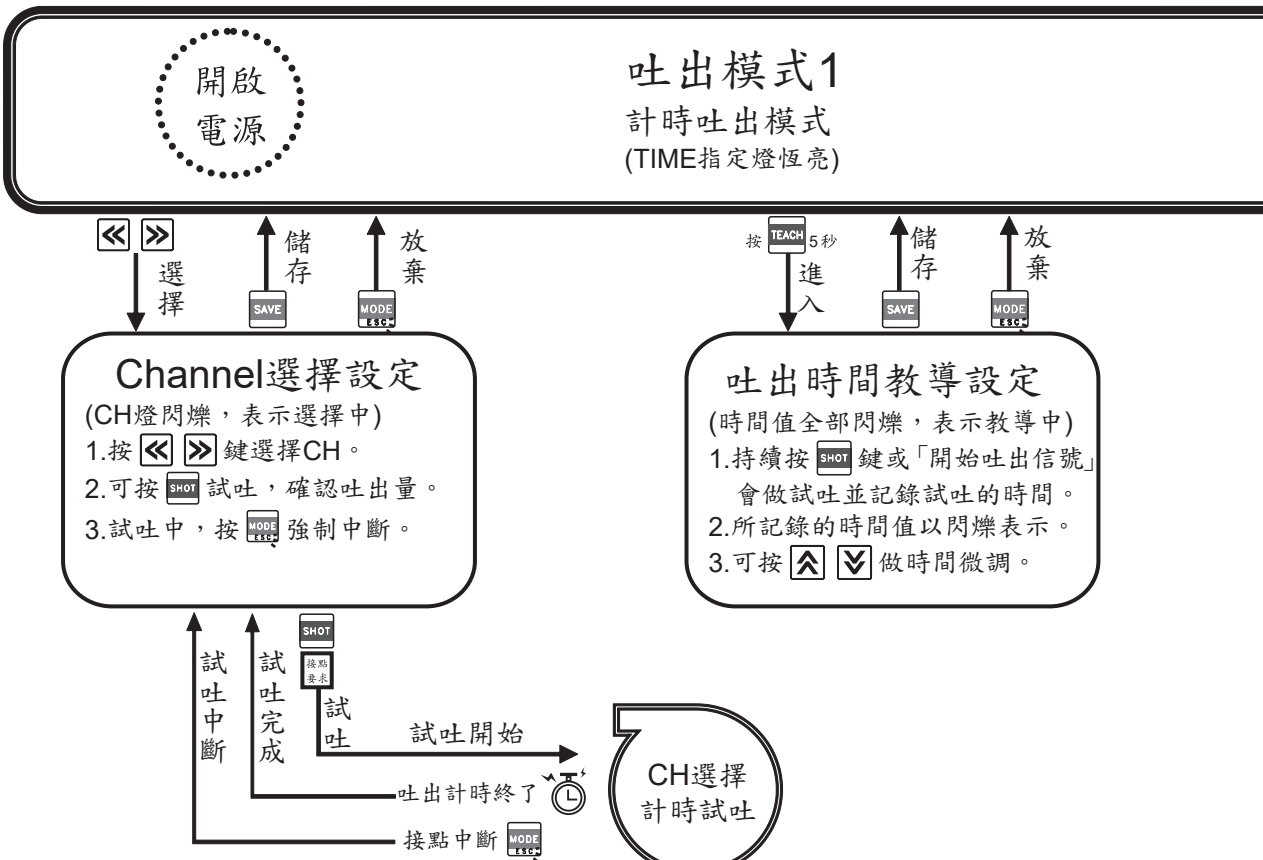
When the material drips naturally from the needle tip, please adjust the vacuum transducer.
To prevent material from dripping, turn the vacuum adjustment knob of the controller counter-clockwise so a negative pressure is generated.

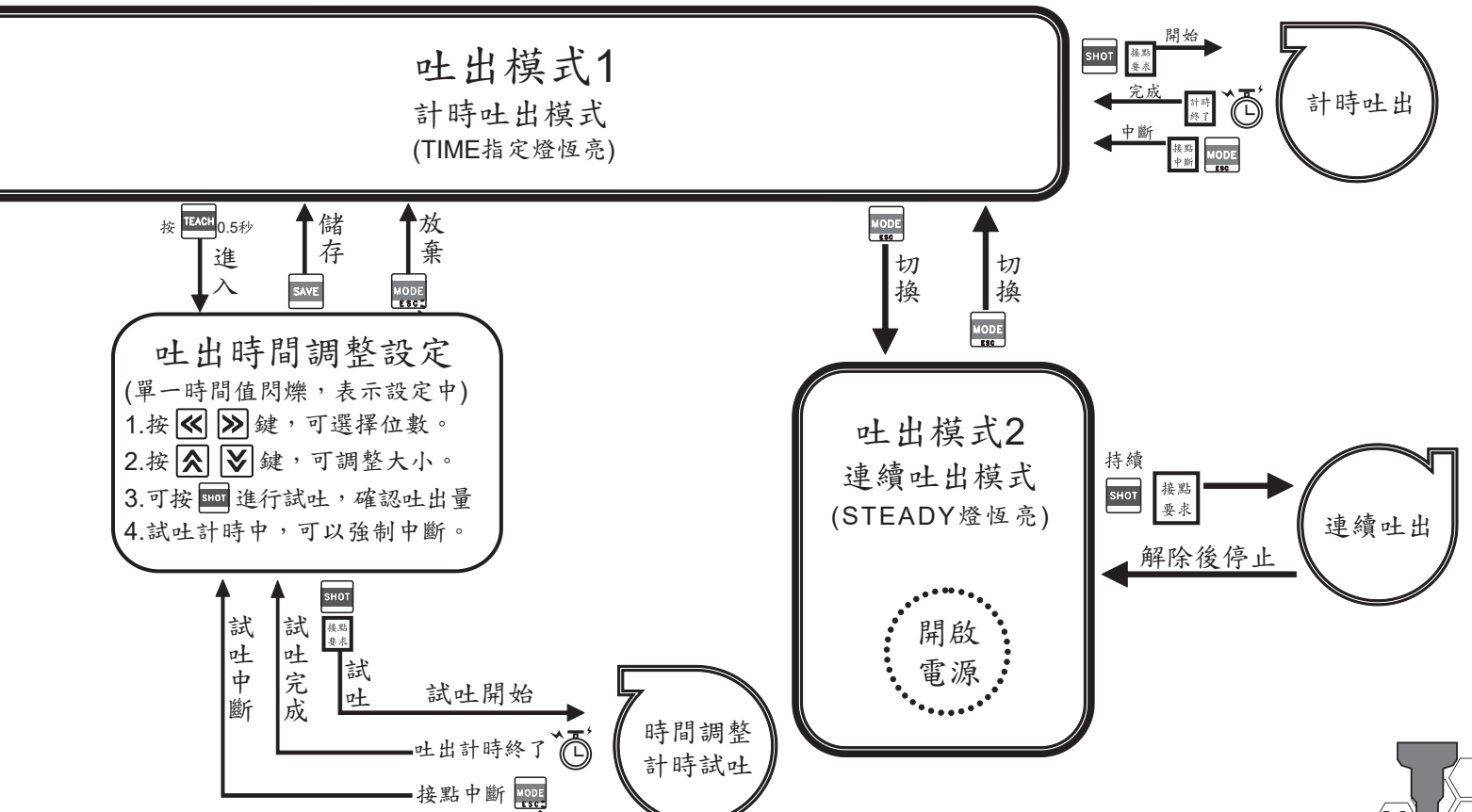
Caution

- Do not apply the negative pressure too strong such that air bubbles are sucked in through the needle or dispensed materials are sucked back into the barrel.
- When the negative pressure is generated, do not over-tilt the barrel or lay it down horizontally, or the material may be sucked back into the controller through the adapter assembly.
- When replacing or re-installing needles, please ensure material residues and bubbles are completely removed first.

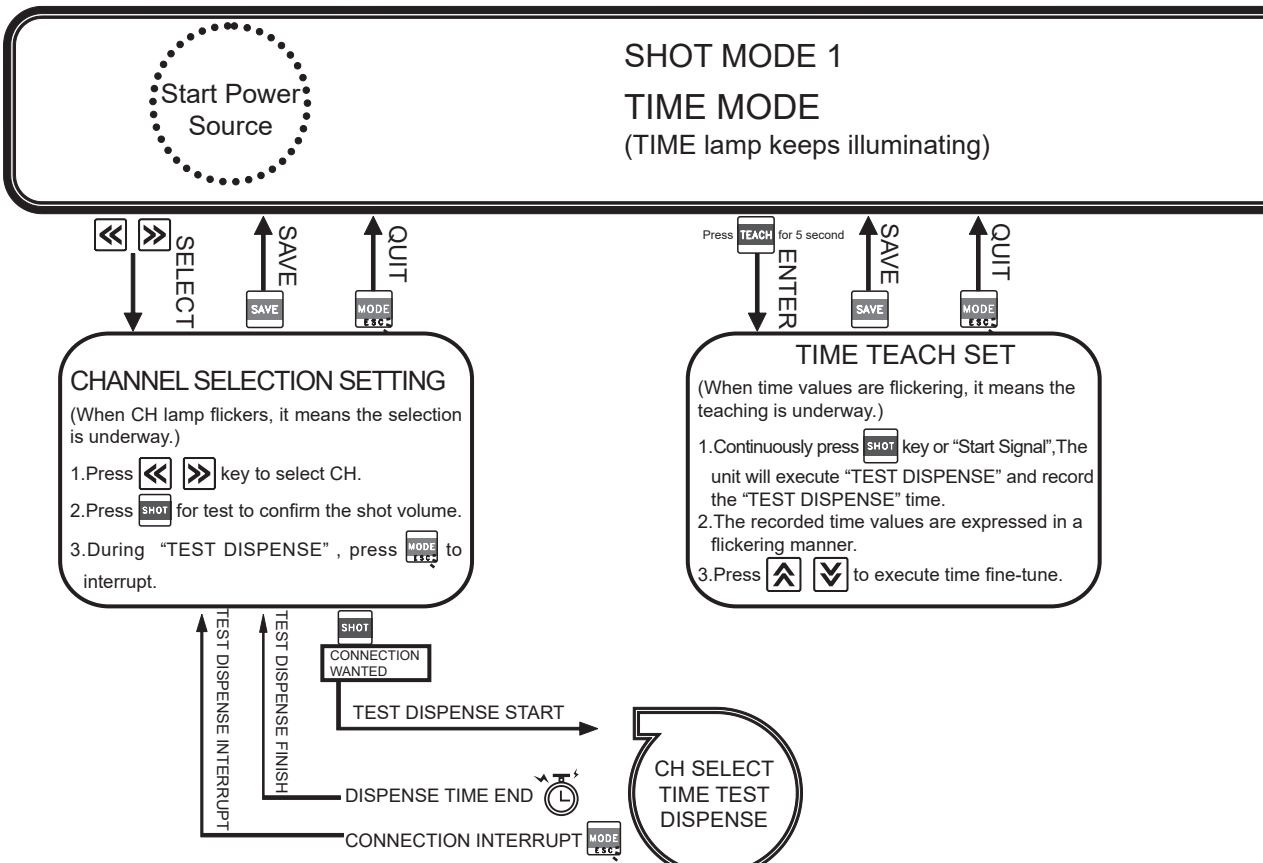


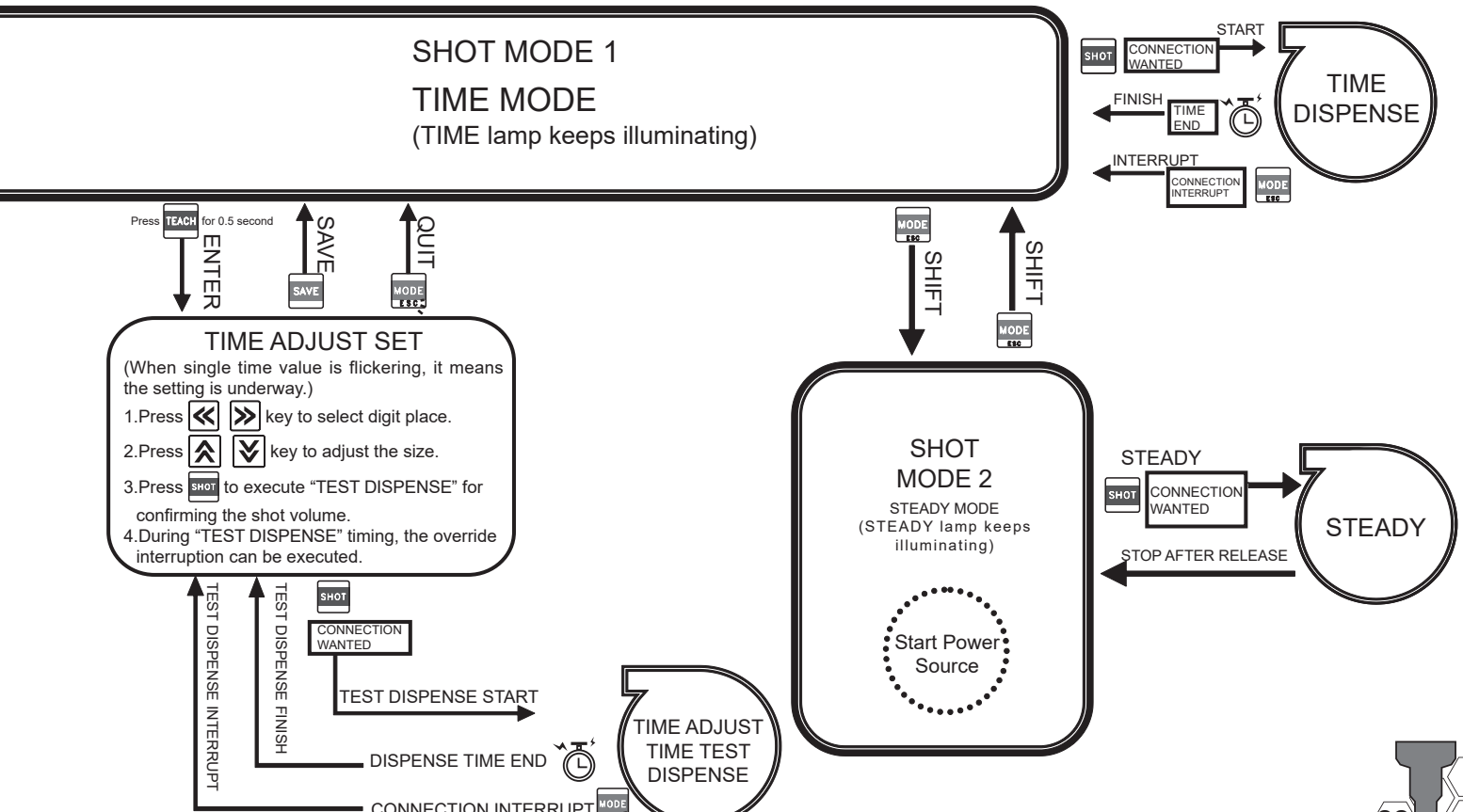
>>操作流程圖(請參考p24~28)




吐出模式1
計時吐出模式
(TIME指定燈恆亮)
SHOT
接點要求
開始
完成
計時終了
中斷
接點中斷
MODE ESC
計時吐出
按 TEACH 0.5秒
進入
儲存
SAVE
放棄
MODE ESC
吐出時間調整設定
(單一時間值閃爍，表示設定中)
1.按 ≪ ≫ 鍵，可選擇位數。
2.按 ⋀ ⋁ 鍵，可調整大小。
3.可按 SHOT 進行試吐，確認吐出量
4.試吐計時中，可以強制中斷。
試吐中斷
試吐完成
試吐
試吐開始
吐出計時終了
接點中斷
時間調整
計時試吐
切換
切換
吐出模式2
連續吐出模式
(STEADY燈恆亮)
開啟
電源
持續
解除後停止
連續吐出

>>Operation Flowchart(Refer To PG24~28)




SHOT MODE 1
TIME MODE
(TIME lamp keeps illuminating)
SHOT
CONNECTION WANTED
START
TIME DISPENSE
FINISH
TIME END
INTERRUPT
CONNECTION INTERRUPT
MODE ESC
Press TEACH for 0.5 second
ENTER
SAVE
QUIT
TIME ADJUST SET
(When single time value is flickering, it means the setting is underway.)
1.Press key to select digit place.
2.Press key to adjust the size.
3.Press SHOT to execute "TEST DISPENSE" for confirming the shot volume.
4.During "TEST DISPENSE" timing, the override interruption can be executed.
SHIFT
SHOT MODE 2
STEADY MODE
(STEADY lamp keeps illuminating)
Start Power Source
STEADY
STOP AFTER RELEASE
TEST DISPENSE INTERRUPT
TEST DISPENSE FINISH
TEST DISPENSE START
DISPENSE TIME END
CONNECTION INTERRUPT
TIME ADJUST TIME TEST DISPENSE

>>吐出量調整 Adjust The Shot Volume

連續吐出模式：

將Mode Switch調整到STEADY。

① 使用 MODE 鍵，切換使「 STEADY 」指定燈恆亮，即為「 連續吐出模式 」。
② 反時針方向，將固定鈕鬆開。
③ 旋轉壓力調整鈕以調整最適當的吐出壓力。
④ 當調整吐出壓力也無法獲得適當的吐出量時，請更換針頭。
⑤ 調整到適合位置後，按 SHOT 鍵，開始持續吐出。
⑥ 解除(SHOT 放開)後停止。

注意

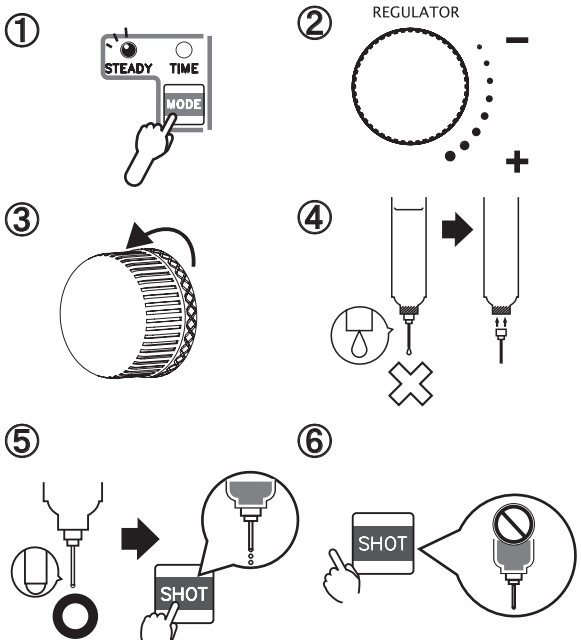
請勿採用大尺寸的針頭或高壓進行吐出測試，以避免材料噴出的危險，應由低壓開始進行吐出。

STEADY MODE：Set the mode switch to STEADY.

① Set the mode MODE switch, then the STEADY indicator is lit. **"STEADY MODE"** is now active.
② Release the fixing button in counter-clockwise direction.
③ Adjust delivery pressure to the proper shot volume by turning the pressure adjust knob.
④ When the required shot volume cannot be obtained by adjusting the delivery pressure, replace the needle with a new one with proper diameter.
⑤ After adjusting to suitable position, press SHOT key to start STEADY.
⑥ Stop after unlocking (release SHOT).

Caution

If a large gauge needle is used or high pressure is used to dispense, the material may splash out, causing possible hazards. Start from a lower pressure.



吐出量調整 Dispensing volume	減量 Decrease	增量 Increase
針頭徑 Nozzle bore	小徑 Smaller	大徑 Larger
吐出壓力 Dispensing pressure	低壓 Lower	高壓 Higher
吐出時間 Dispensing time	短 Shorter	長 Longer

>>調整吐出時間 Adjust The Shot Time

計時吐出模式：
Mode Switch調整到TIME

(1)「 計時吐出模式 」：依顯示時間吐出。

① 切換 MODE 鍵，將指示燈狀態切換至「 TIME 」。

② 按 SHOT 鍵，開始「 計時吐出模式 」，待計時終了完成工作。

P.S 中途可隨時按 MODE 鍵中斷。

(2) CHANNEL 1~8選擇設定：

① 按 ≪、≫ 任一鍵，進入CH選擇設定。

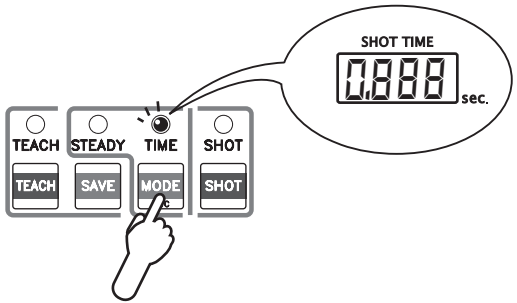
② 選定CH後，可參考(3)、(4)使用「 吐出時間調整設定 」或「 吐出時間教導設定 」設定數值。

③ 試吐，按 SHOT 測試吐出量。

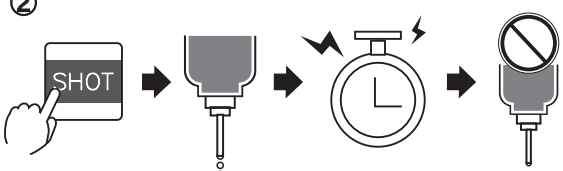
④ 確定後，按 SAVE 儲存。

P.S 中途可隨時按 MODE 鍵中斷。

(1) ①



②



TIME Mode：Set the mode switch to TIME.

(1) **"TIME MODE"** : Dispense according to the time displayed.

① Press MODE key for shifting the indicator status to **"TIME"**.

② Press SHOT key to start **"TIME MODE"** and the work is finished after time counting is ended.

P.S Press MODE key to override and interrupt during the process.

(2) **CHANNEL 1-8 Select Setting** :

① Press any of ≪ and ≫ key to enter CH SELECT SET.

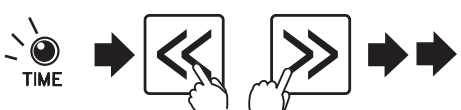
② After selecting the desired CH,refer to (3) and (4) for setting the values with**"TIME ADJUST SET"** or **"TIME TEACH SET"** mode.

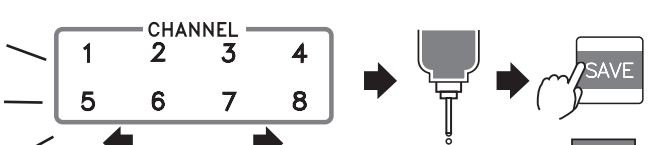
③ Test Dispense: Press SHOT to test the dispense volume.

④ After confirming, press SAVE to save.

P.S Press MODE key to override and interrupt during the process.

(2)



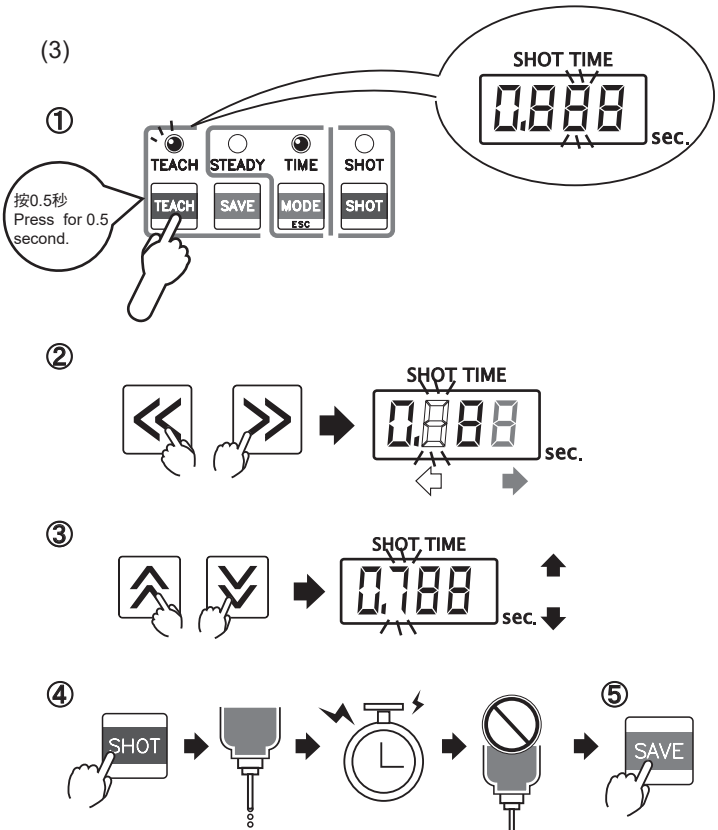


(3)「 吐出時間調整設定 」：確定調整時間時使用。

① 切換 MODE 鍵，將指示燈狀態切換至「 TIME 」。
② 按 TEACH 0.5秒後，進入「 吐出時間調整設定 」
(SHOT TIME單一時間值閃爍，表示設定中)。
③ 按 ≪、≫ 鍵，選擇位數位置。
④ 按 ⌃、⌄ 鍵，調整數值大小。
⑤ 按 SHOT 鍵進行吐出量確認。
⑥ 確定後，按 SAVE 儲存。P.S 中途可隨時按 MODE 鍵中斷。
⑦ 要放棄此次的設定值時，按 MODE 返回。

(3) **"TIME ADJUST SET"** : Used for confirming the adjusting time.

① Press MODE key for shifting the indicator status to **"TIME"**.
② After press MODE for 0.5 second,enter the **"TIME ADJUST SET"**
(When single time value flicker, it means the setting is underway).
③ Press ≪、≫ key to select the position of digit place.
④ Press ⌃、⌄ key to adjust the value.
⑤ Press SHOT key to confirm the dispense volume.
⑥ After confirming, press SAVE to save.
P.S Press MODE key to override and interrupt during the process.
⑦ To quit the set value, press MODE to return.



(4)「 吐出時間教導設定 」：

當吐出時間未知時，使用於實物測試。

① 切換 MODE 鍵，將指示燈狀態切換至「 TIME 」。

② 按 TEACH 持續5秒後，進入「 吐出時間教導設定 」中 (時間值全部閃爍)。

③ 持續按 SHOT 鍵，進行吐出直到吐出量到達後，放開 SHOT 吐出的時間將會被自動記錄下來。

④ 所記錄的時間值，以閃爍表示。

⑤ 可按 ⇧、⇩ 微調時間。

⑥ 確定後，按 SAVE 儲存。P.S 中途可隨時按 MODE 鍵中斷。

⑦ 要放棄此次的設定值時，按 MODE 返回。

---

(4) "TIME TEACH SET"：

Used for physical article test if the dispense time is unknown.

① Press MODE key for shifting the indicator status to **"TIME"**.

② Press TEACH key for 5 seconds and enter **"TIME ADJUST SET"** (time values flicker).

③ Hold on SHOT key to carry on the dispensing and then release SHOT key after reaching the desired dispense volume. The dispense time will be logged automatically.

④ The logged time value will be indicated by flickering digits.

⑤ Press ⇧、⇩ to fine tune the time.

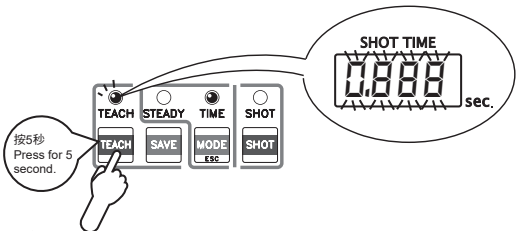
⑥ After confirming press SAVE to save.

P.S Press MODE key to override and interrupt during the process.

⑦ To quit the set value, press MODE to return.

(4)

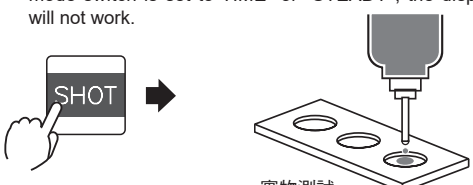
①



時間設定若小於0.009秒，在TIME模式或切換為STEADY模式時都無法動作。

If the shot time is set to lower than 0.009 second and the mode switch is set to"TIME" or "STEADY", the dispensing will not work.

②



實物測試
Physical article test.

③

④ ⑤

>>作業終了 After Operation

① 用「 連續吐出模式 」吐出，讓殘留於膠管內的材料回到材料容器內，另外還可用膠管專用蓋密封起來以便於保存。

② 關閉空氣壓。

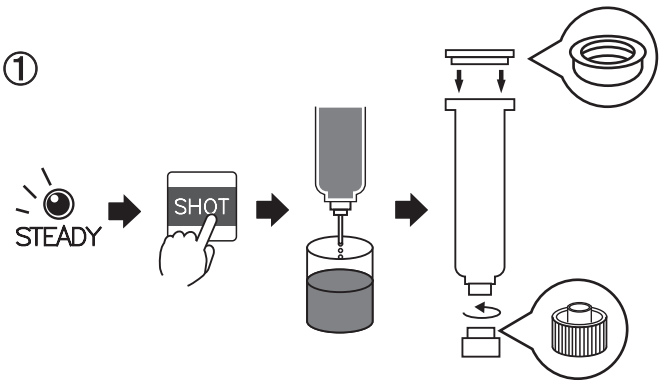
③ 關閉(OFF)電源開關，從插座上拔除電源線。

① The remaining material inside the barrel is required to be emptied by continuous dispensing at **"STEADY MODE"** and it can be restored into the container sealed by the cap. Or it can be put back to the barrel sealed by the special cap.

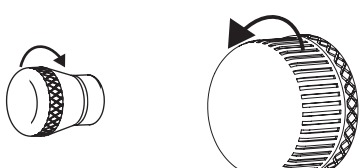
② Turn off the air pressure supply.

③ Turn OFF the power switch and disconnect the power cable from the plug.

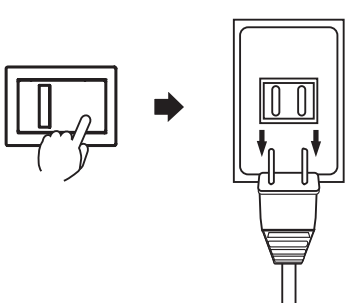
①



②



③

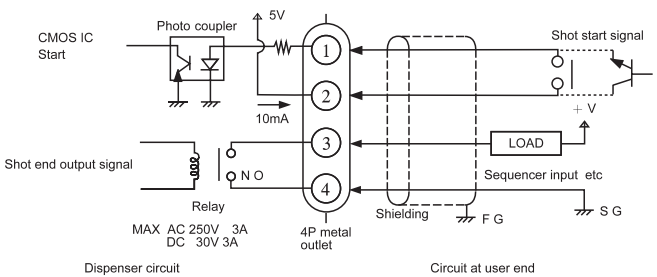


4. 控制器插座說明及時序圖 Controller Socket Description and Time Sequence Diagram

使用「⑯控制器插座」Use of "⑯Controller Connector"

A. 開始吐出信號—無電壓輸入(出貨時之標準設定)

Start signal - No-voltage normal open input (Default setting).



注意 Caution

出貨時開始信號被設定為無電壓輸入專用，嚴禁自外部施加電壓，避免機台故障。若與自動機等之其它裝置接續時，請使用屏蔽線(Shield Cable)。

When the controller is delivered from the factory, the input signal has been set for use with no-voltage normal open input. Never apply voltage to the controller from the exterior; otherwise, the equipment may malfunction.

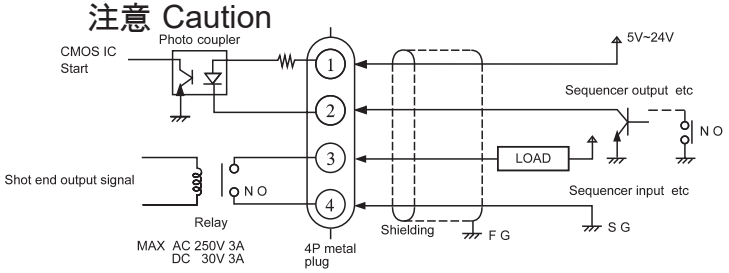
If the controller is connected with other peripheral devices such as automatic machines, use the shielding wire.

B. 開始吐出信號—使用電壓輸入(可採用程式開關進行切換=>請參考P31)

Start signal - Voltage normal open input

(The program switch can be used for shifting => Refer to PG31)

注意 Caution



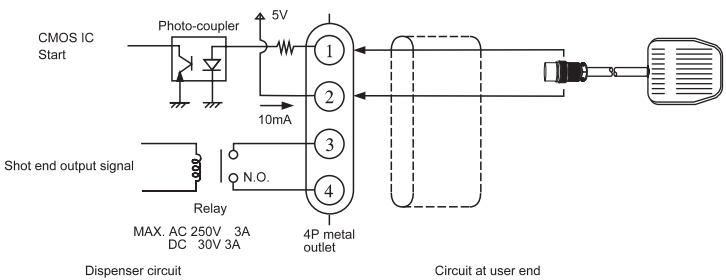
注意 Caution

使用電壓輸入時，請務必再設定內部電路板上的程式開關。當與自動機等其他裝置接續時，請使用屏蔽線(Shield Cable)。

Set the dip switch on the built-in substrate of the controller to correspond to the Voltage Normal Open Input.

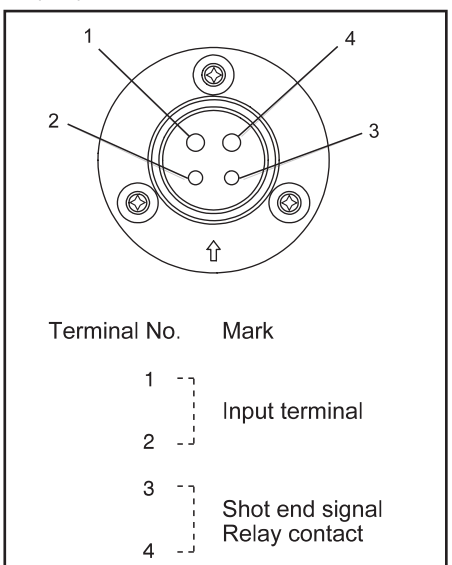
If the controller is connedcted with other peripheral devices such as automatic machines, use the shielding wire.

C. 開始吐出信號—腳踏開關
Start signal -Foot switch



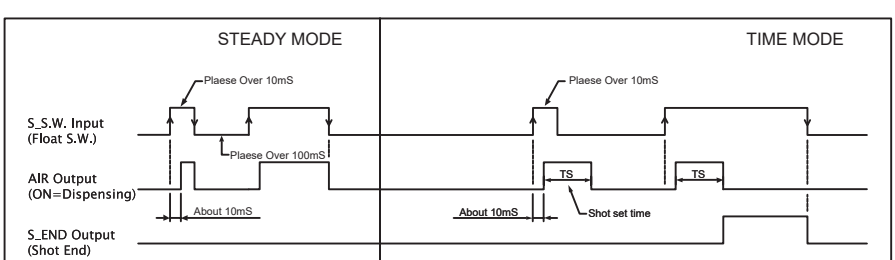
⑯ 控制器插座：請參考p4的(6-1)、(6-2)

⑯ **Controller Connector:** Refer to (6-1) and (6-2) on PG5.



使用「⑯ 控制器插座」入出力端子的時序圖(腳踏開關)

Use the time sequence diagram (for foot switch) at the input/output terminals of "⑯ **Controller Connector**"



5. 控制器插座的開始吐出信號方式選擇設定 Controller Socket Signal Shot Start Setting

切換一覽表，DPSW信號設定 Shift list DPSW

(Shift the timer range and set the input signal)

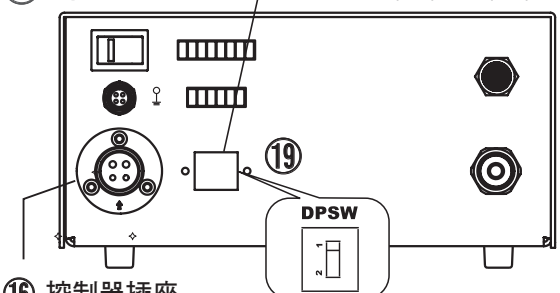
1.出貨狀態設定為1使用外部接點方式。
2.在調整DPSW之前，請拔除控制器插座上之端子，否則將會造成機器故障。
3.操作順序：
(1) 關閉電源。
(2) 拔除控制器插座上的端子。
(3) 調整DPSW。

1.When the controller is delivered from the factory, the input signal has been set for use with 1 Use External Connection.
2.To prevent possible malfunctions, please do no connect the input signal with the control connector before set DPSW.
3.Operating step：
(1) Turn off the power switch.
(2) Disconnect the terminal with the control connector.
(3) Set DPSW.

吐出信號設定(DPSW) Start Signal(DPSW)		備註 NOTE
1	使用外部接點方式 Use External Connection	如：腳踏開關 ex：use foot switch
2	使用輸入電壓方式 Use Input Voltage	

⑲ 控制器吐出信號設定：請參考p4的(6-1)、(6-2)

⑲ **Dip Switch For Control :** Refer to (6-1) and (6-2) on PG5.



⑯ 控制器插座
CONTROL CONNECTOR

注意 Caution

- 在切換到輸入電壓方式5V~24V時，無法使用附屬的腳踏開關。
- 在外部接點方式時，若輸入電壓訊號，將出現 SHOT TIME E 01 sec. 警告訊息並停止作動；待關閉電源調整設定後，重新開機即可解除。
- **The foot switch cannot be used when 5V~24V is applied through dip switch.**
- **If use external connection and input voltage, it show SHOT TIME E 01 sec. (Caution signal) and stop. Please turn off the power and reset.**

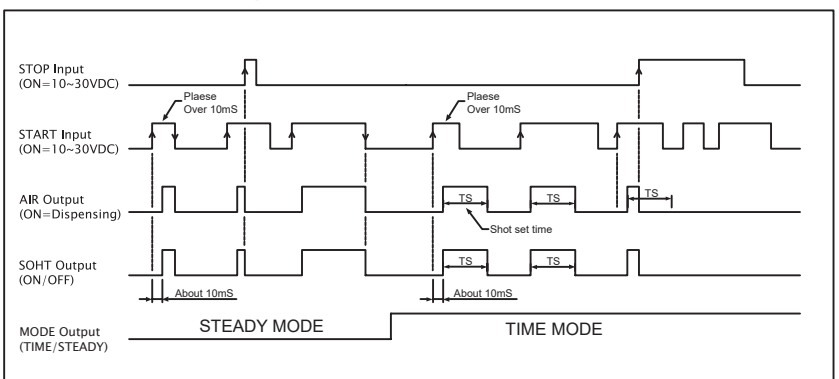
6. I/O連接埠入出力端子說明及時序圖
I/O Port Input/Output Terminal Time Sequence Diagram

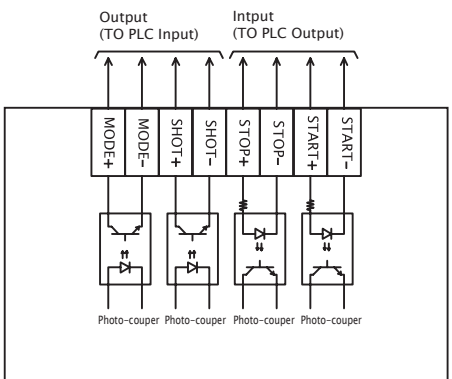
使用「⑰ I/O連接埠 」入出力端子的時序圖(PLC連線用)

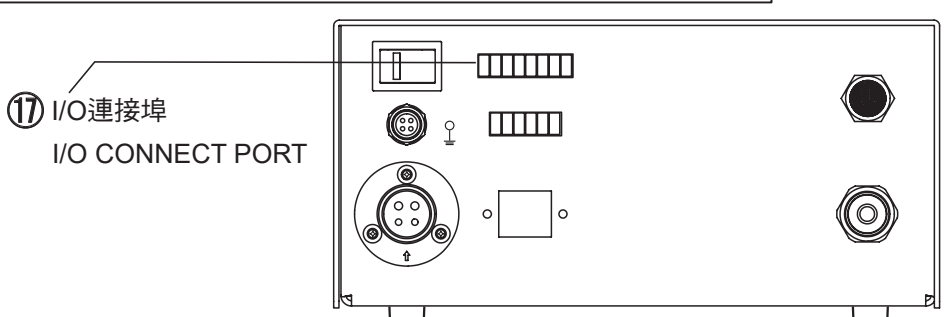
Use the time sequence diagram (for linking with PLC) at the input/output terminals of **"⑰ I/O Connect Port"**.

⑰ I/O連接埠：請參考p4的(7-1)、(7-2)

⑰ **I/O Connect Port :** Refer to (7-1) and (7-2) on PG5.





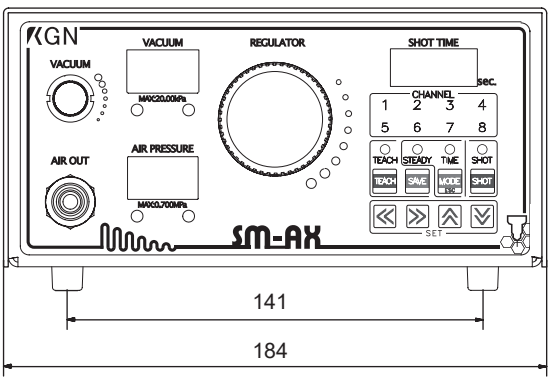


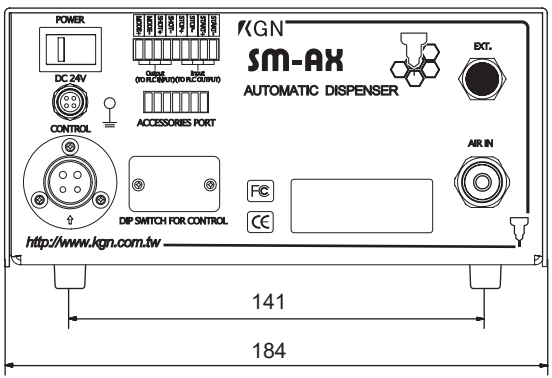
7.保養・消耗品 Maintenance

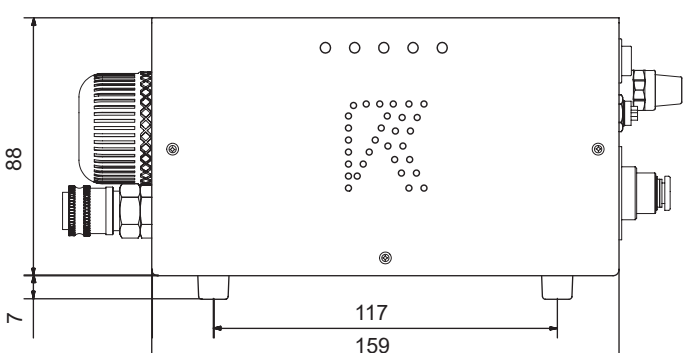
- 只要在正常的使用狀態下使用，控制器本體即不需特別的保養。
- 當連接配件的 O 環受到溶劑侵襲，或變硬時請更換新品。
- 當膠管出現裂痕，傷痕時請勿使用。
- 連接配件、膠管、針頭、O環等零件均屬於消耗品，在下訂單之際務必指定尺寸與產品型號。
- 關於故障、修理方面，如有不明之處請與本公司洽詢。

- No special care is required for the controller if it is used properly.
- If the O-ring is damaged by solvent or is hardened, replace with a new one.
- Do not use scratched barrels. Barrels are required for being used in disposable.
- Adapter assemblies, disposable barrels, needles and O-rings are consumable.
  When ordering, specify the size and the part number.
- Whenever you have any problems or questions related to the equipment, contact our representatives.

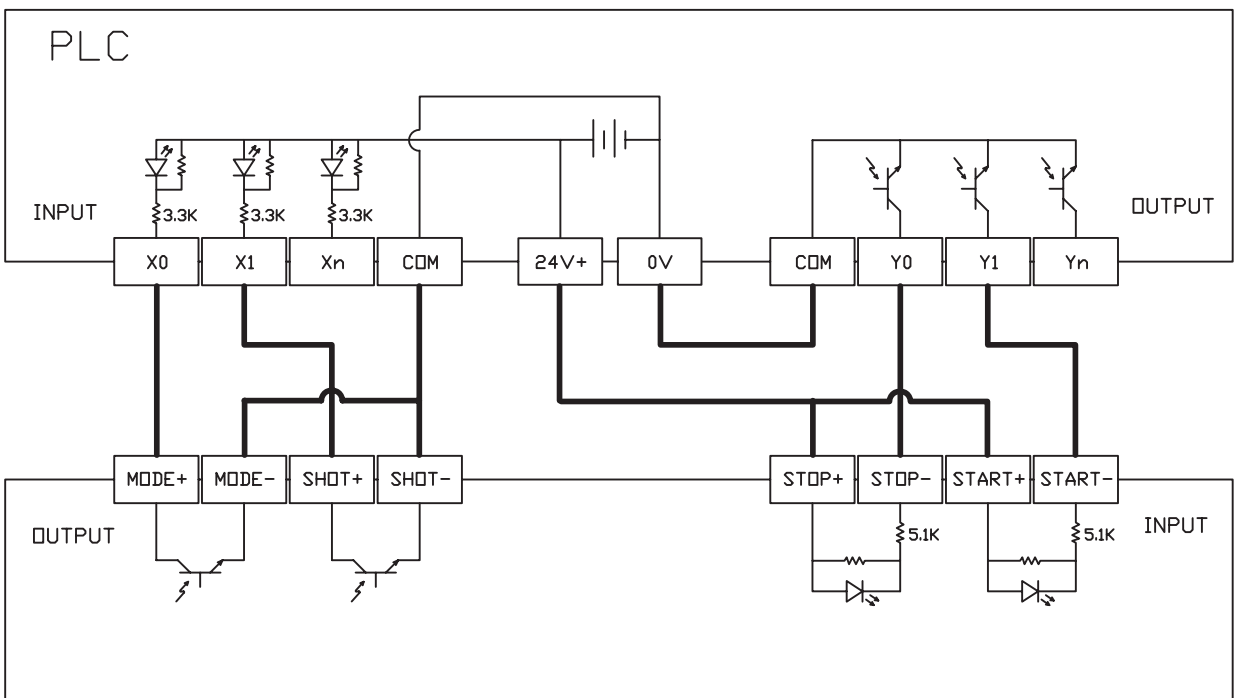
8. 點膠控制器外觀 External View







9.接線圖範例 Wiring Example



產品保證書 WARRANTY

名稱	Description	DISPENSERS	販售店地址及電話Vendor Address & Telephone No.
型號	Model	**SM-AX**	
序號	Serial Number		
日期	Purchase Date		

1. 本產品經過出廠檢查合格。
2. 產品在正常使用的情形下，因設計生產不善，導致產品發生故障時，在保證期間內，本公司負責無償修復本產品。
3. 保證期間：自採購日起一年內。
4. 以下原因所發生的故障，敝公司需收取修復費用。
   (1) 不正常使用：例如摔落、撞擊、電源電壓異常等，所造成之損壞時。
   (2) 異物、灰塵、油煙、水氣、溫度等，因環境問題所造成之損壞時。
   (3) 本公司指定以外的單位，進行拆解、改造、修理等，所造成之損壞時。
   (4) 火災、水災、地震或其他不可抗力之天災或人為等，造成損壞時。
   (5) 其他，非因本公司疏失責任，所造成之損壞時。

---

1. This product has already passed factory inspection.
2. “Under normal use of this product,if there is any damage to the product due to the design or improper production,” the Company shall be liable to repair without cost within the Warranty Period.
3. Warranty Period: One (1) year commencing from the date of purchase.
4. The Company shall charge for repair on breakdowns due to the followings:
   (1) Imroper use:Example,damage due to dropping,collision and impact,abnormal electrical voltage.
   (2) Damage due to enviromnental issues such as contaminant, dust, somke, vapor and temperature.
   (3) Damage due to dismounting, modification, and repair by other units other than those specified by the Company.
   (4) Damage due to fire, flood, earthquake or other force majeure, or human cause.
   (5) Damage due to other reason and not due to negligence of the Company.

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SM-AX

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