

微電腦自動加液器

CS072A-3

MICOM LIQUID FEEDER

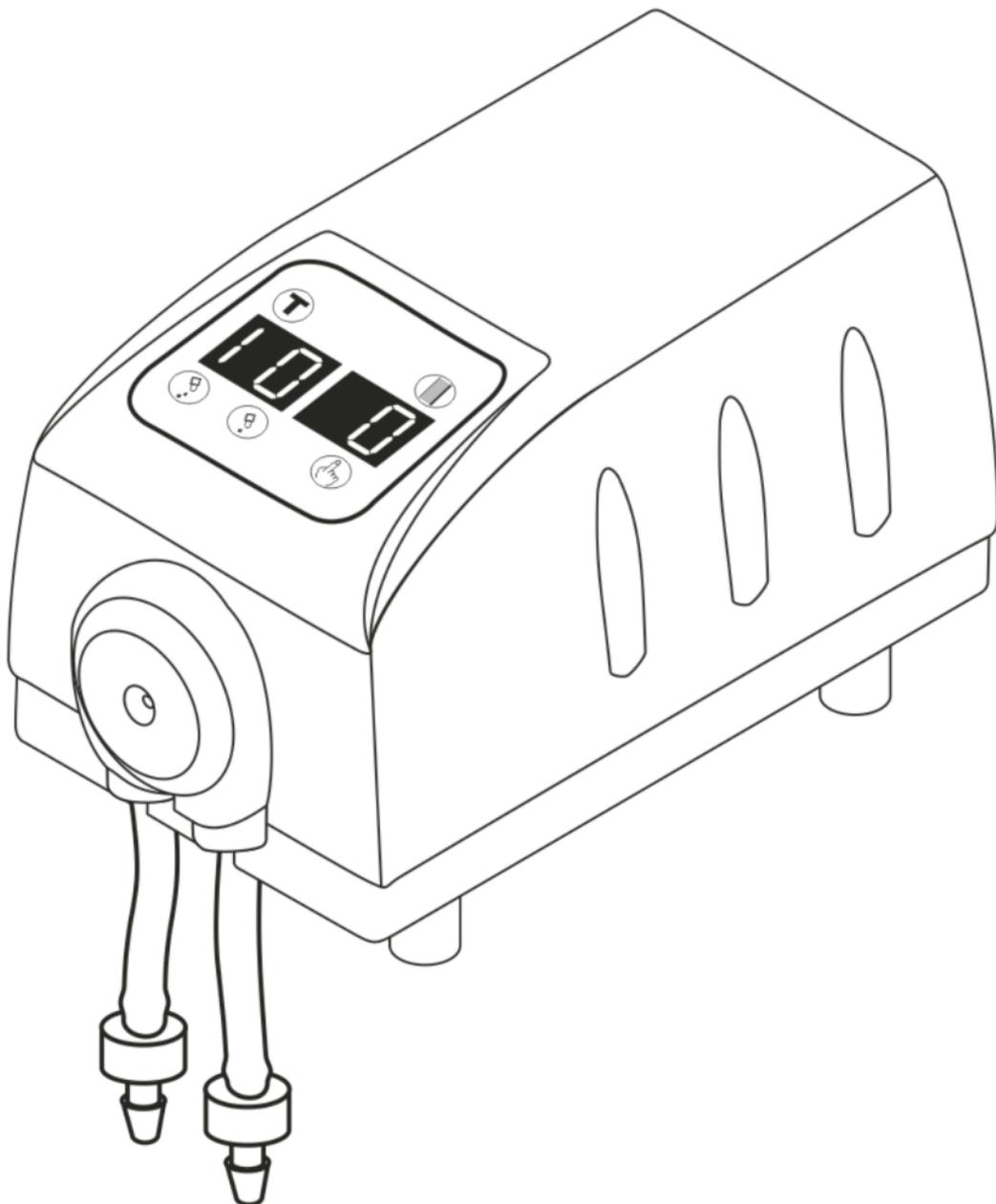
說明書/保證書
DIRECTIONS/GUARANTEED

特點

1. 微電腦控制，操作最簡便。
2. 可微調出量，極致技術。
3. 手動給料或信號感應給料。
4. 液量1ml ~ 99ml。
5. LED字幕，顯而易見。

Features

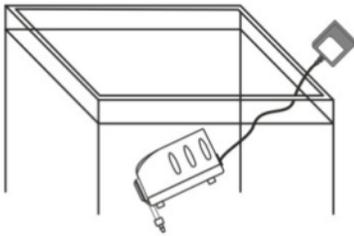
1. Micro-computer single-chip controlled , simply operate.
2. Unique micro-adjusting device on dosage.
3. Dose dosage by manual touch or by signal sensing.
4. 1 ml to 99 ml dosage as set.
5. Bright LED display, easily visible.



親愛的客戶：
感謝您購買本產品，為安全使用和取得最佳性能，請詳細閱讀下列說明：

Dear customer:
We appreciate you purchase this product, in order to ensure your safety and gain the perfect functions, please read the following illustration.

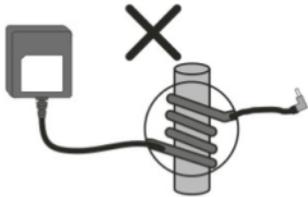
注意事項



- 勿使本體落入水中，以免電子零件受損以致短路。

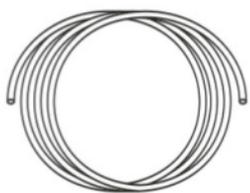


- 避免電源供應器的電線受到刮傷凹折，尤其是電線尾端針頭處。



- 請勿將電源供應器的電線纏繞在其他物體上。

附件



- 橡膠管 - 3米。
內徑：2.6毫米，
外徑：5.0毫米。



- 電源供應器 - 1組。
輸入：詳見標示貼紙，
輸出：dc 12V 1000mA。



- 信號線 - 1組。

CAUTION

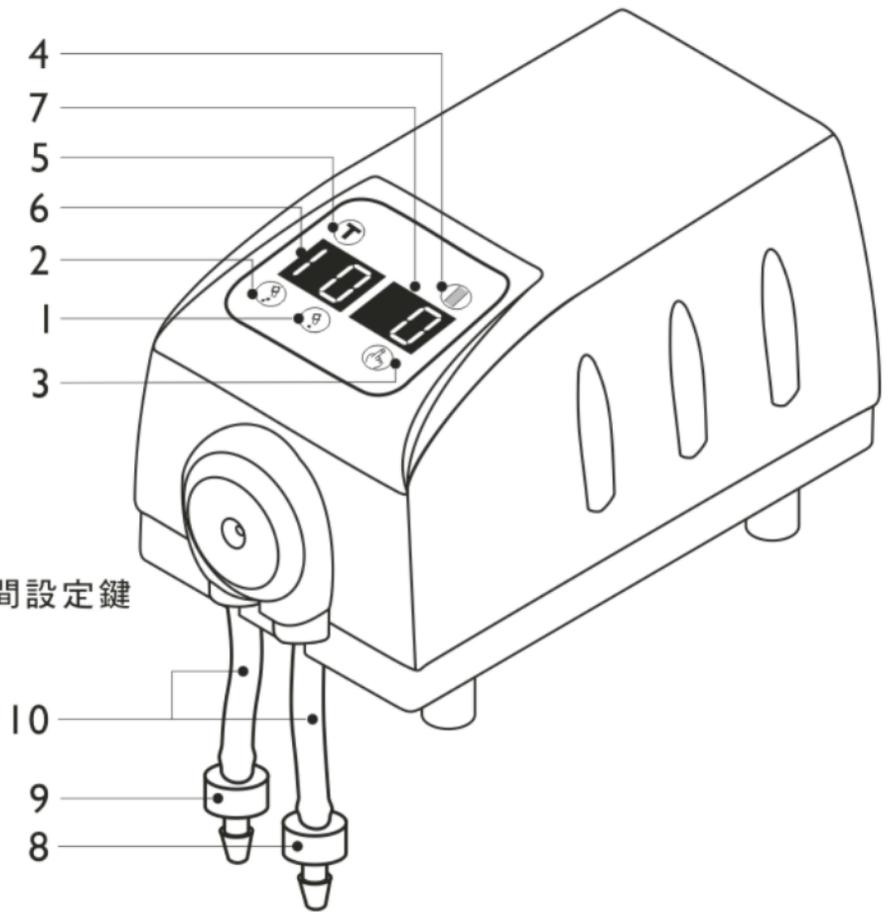
- Avoid the main-body falling into the water, don't risk the electronic components causing a short circuit.
- Avoid switching power supply being scraped and concaved, especially the pinpoint on the end of wire.
- Don't tie switching power supply on other articles.

ACCESSORIES

- Rubber hose - 3m.
Inside diameter: 2.6mm,
outside diameter: 5.0mm.
 - Switching power supply - 1 set.
Input: Look at a mark label,
Output: dc 12V 1000mA.
- 
- A signal wire - 1 set.

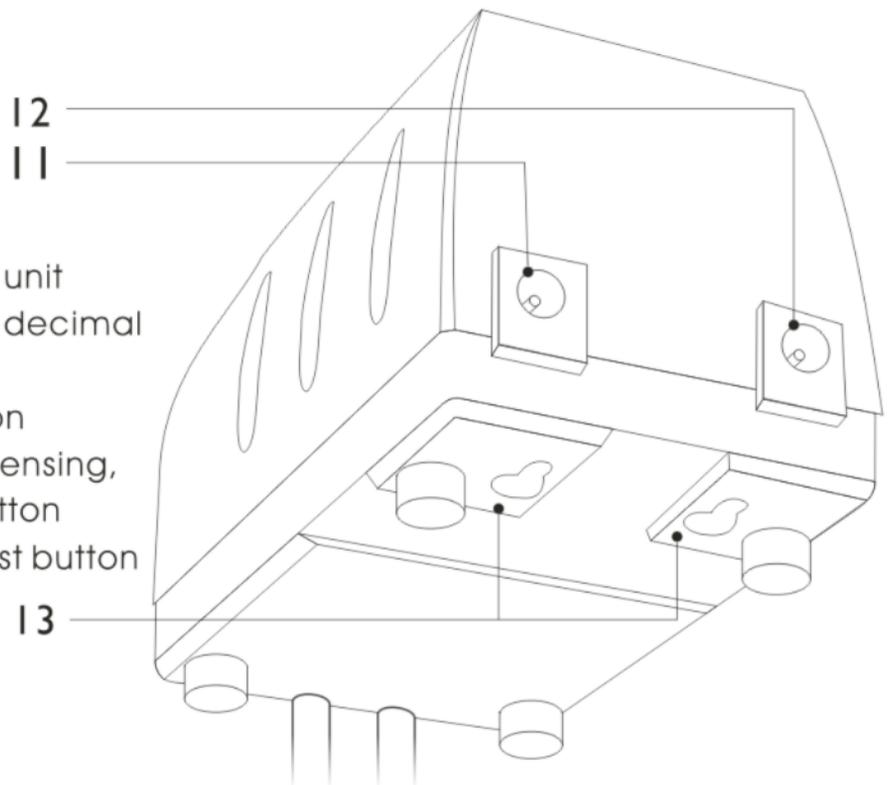
各部名稱簡介

1. 液量設定鍵 - 個位數
2. 液量設定鍵 - 十位數
3. 手動給料鍵
4. 橡膠管強迫佈滿流體與排氣鍵
5. 作信號感應給料時，每間隔時間設定鍵
或微調出量測試鍵
6. 液量設定顯示器
7. 時間設定顯示器
8. 液體進料塑膠接頭
9. 液體出料塑膠接頭
10. 橡膠管
11. dc 12V電源插座
12. 信號線插座
13. 懸吊口 X 2



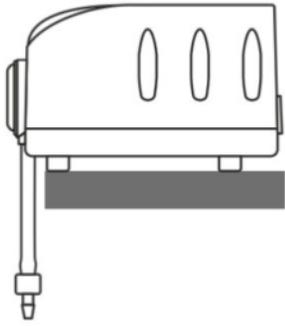
PARTS NAMES

1. Liquid volume setting button - unit
2. Liquid volume setting button - decimal
3. Manual dosage button
4. Full of liquid & put air out button
5. Be dosing dosages by signal sensing,
every time intervals setting button
or Micro-adjusting dosages test button
6. Liquid volume setting display
7. Time setting display
8. Liquid entrance connector
9. Liquid exit connector
10. Rubber hose
11. dc 12V jack
12. A signal wire jack
13. Suspensible hole X 2



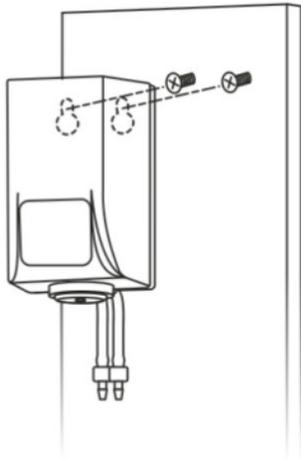
安裝方式

INSTALLATION



- 平放於桌面上。

- Put on the table.



- 懸掛於牆上。
將本體背部的懸吊口
掛在釘子上。

- Suspend on the wall.
Hang suspensible hole at the
rear of main body on the nail.



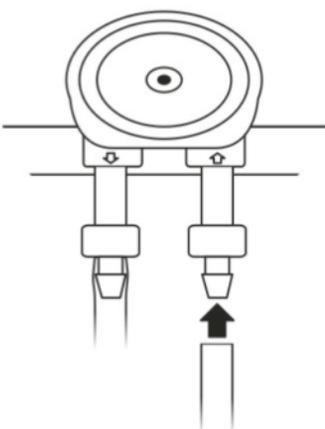
- 橡膠管避免凹折，否
則會阻塞液體流動。

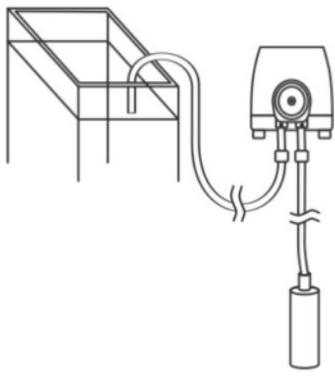
- Avoid rubber hose being bent
as a concave, otherwise it will
block up the flowing liquid.



- 將橡膠管套入塑膠接
頭。
注意：右進左出。

- Put the rubber hose onto
connector.
Attention: the right-in,
the left-out.



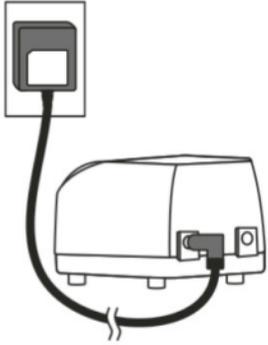


- 將右側橡膠管插入液體容器內(揚程約1.5米)，左邊橡膠管放入缸中(揚程約1.5米)。

- Insert the right side hose into the vessel (Head around 1.5 meter), and put the left side hose onto the tank (Head around 1.5 meter).

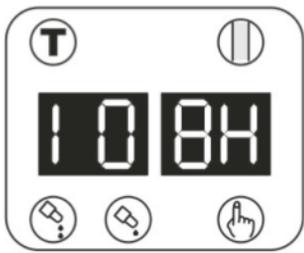
電源操作

POWER OPERATION



- 電源供應器插入ac電壓插座，輸出端插入dc 12V插座。

- Plug the ac adapter into the outlet, plug the output into dc 12V jack.



- 數值 **108H** 代表微電腦記憶前次的設定數值。表示在作信號感應給料時，每隔8小時後會自動給料10ml。

- Numerical value **108H** is representative of the previous memory value set by microcomputer, it means that be dosing dosages by signal sensing, every 8 hours later would automatically dose 10 ml.

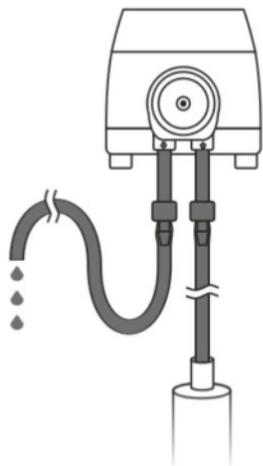
設定鍵操作

SETTING BUTTON OPERATION



- 欲管內強迫佈滿流體與排氣，請持續按 **||** 鍵。

- Intend forcing the inside of hose being full of liquid and putting air out, please continually press **||** button.



- 將管內氣體排出，使左右兩邊橡膠管佈滿液體後才離開按鍵。

- Put the air which in side of hose out, when both side of hose be full of liquid and then left the button.

注意:補充新液換新瓶時，此道程序必做。

Attention: Exchange a new vessel for a liquid supplement, this procedure must do.



- 欲馬上給料，請按手動給料鍵 (H)。

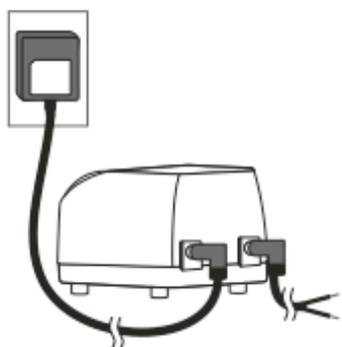
註：此項功能必須在無信號感應之下才可為之。
每按一次只給料一次。

- Intend dosing dosages immediately , please press manual dosage button (H) .

Note: This function must be performed under no signal sensing.
Every one press dose dosage only once.

- 欲信號感應給料，請將信號線的插頭插入信號線插座，並將線尾二端接到繼電器的開關接點 (常開接點與共同接點)。

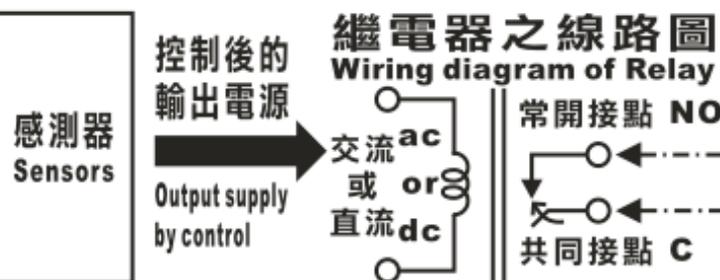
- Intend dosing dosage by signal sensing , please plug the signal-wire pin into jack ,and connect two ends to the contacts of Relay (NO and C).



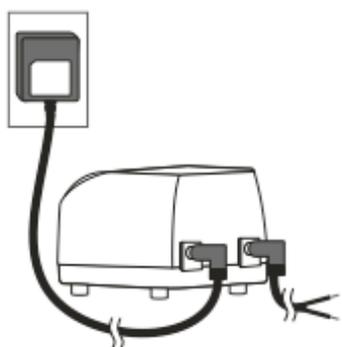
信號 Signal

範例 1 Example 1

時間 Timer
溫度 Temperature
流量 Flow rate
壓力 Pressure
酸鹼 pH
位移 Displacement
光電 Photoelectric
等 etc



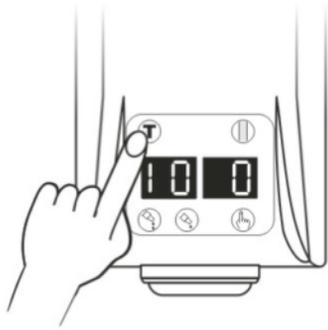
範例 2 Example 2



- 當有信號感應開始給料，且在信號沒有中斷之下，設定液體持續自動給料的每間隔時間請按 (T) 鍵，每按一下，LED 將從 8H → Hd (12H) → 1d → 2d → 0 → 5 → 15 → 30 → 45 → 1H → 2H → 4H 循環指示。

- Start dosing dosage when there join a sensing of signal ,and no interruption of the signal ,setting the every interval time to dose dosage continuously and automatically, please press the (T) button ,the LED would cyclically indicate 8H → Hd (12H) → 1d → 2d → 0 → 5 → 15 → 30 → 45 → 1H → 2H → 4H at one touch.



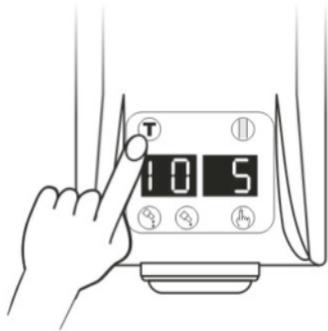


LED顯示 **0** :

表示控制系統偵測到有信號時，本機蠕動幫浦會開始轉動，只有一次給料，欲再次給料就必須舊信號消失而偵測到有新的信號。

The LED indicates **0** :

it means while the control system detects a signal ,the dosing pump would automatically dose dosage one time only ,intend dosing dosage again must disappear the old signal and the new signal be detected again.



LED顯示 **5** :

或 **8H**

或 **2d**

表示控制系統偵測到有信號時，本機蠕動幫浦會開始轉動給料，往後在信號沒有中斷之下，每循環 5 分或 8 小時或 2 天會自動給料運作，其他設定時間依此類推。

The LED indicates **5** :

or **8H**

or **2d**

it means while the control system detects a signal ,the dosing pump would automatically dose dosage , afterwards every 5 minutes or 8 hours or 2 days would automatically dose dosage under no Interruption of the Signal ,and so on.



- 設定液體給料數量請按液量設定鍵 **Ⓢ** (個位數) 與 **Ⓣ** (十位數)，設定範圍 1 ~ 99ml。

- While setting the dosage , please press the liquid volume setting button **Ⓢ** (unit) and **Ⓣ** button (decimal) , setting range 1 ~ 99 ml.

微調出量調整

MICRO-ADJUSTING DOSAGE

- 請按微調出量測試鍵 **T** 持續4秒。

- Please press continually the test button **T** for 4 seconds.

- LED將顯示 **5810**，左邊 **58** (可調整)是蠕動幫浦運轉時間，右邊 **10** 是液體給料數量測試值。

- Then the LED indicate **5810**, left **58** (can be adjustable) was the running time of dosing pump, right **10** was the testing value of a dosage.

- 2秒後液體開始給料 10ml。

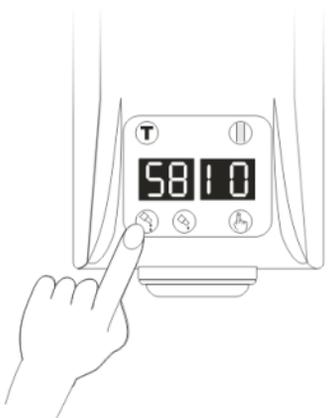
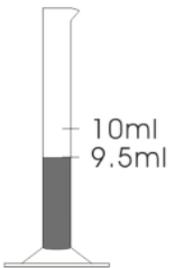
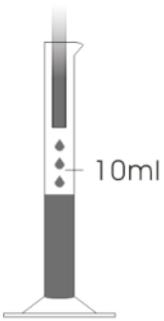
- After 2 seconds, start dosing 10ml dosage.

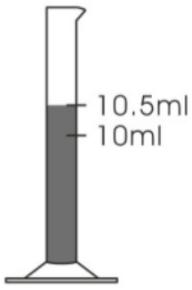
- 如果液量低於10ml，如 9.5ml。

- If dosage lower than 10 ml, for example 9.5 ml.

- 則按  鍵增加運轉時間，從58→59→60→61→... 重複測試至達到10ml為止。

- Then press the liquid volume setting button  to increase the running time from 58→59→60→61→..., repeatedly test until up 10ml dosage.





● 如果液量高於10ml，如 10.5ml。

● If dosage higher than 10 ml, for example 10.5 ml.

● 則按  鍵減少運轉時間，從58→57→56→55→...重複測試至達到10ml為止。

● Then press the liquid volume setting button  to decrease the running time from 58→57→56→55→..., repeatedly test until down 10 ml dosage.

● 給料測試值完成後，按微調出量測試鍵  持續4秒則恢復正常功能。

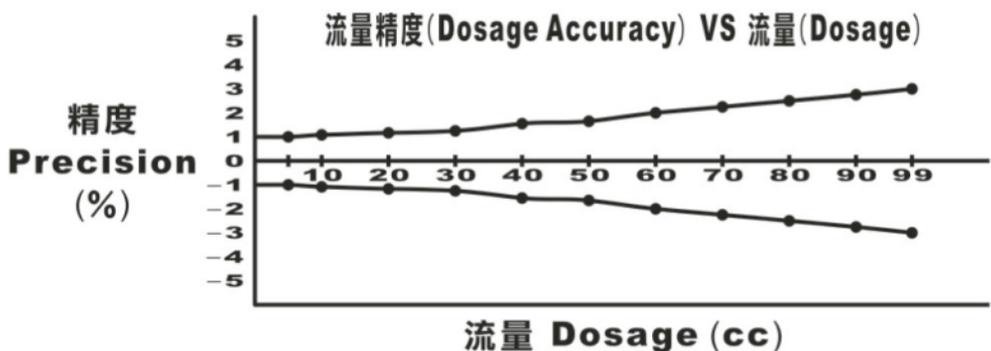
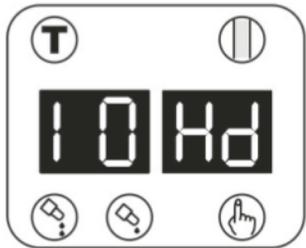
● After finished test, press continually the test button  for 4 seconds and then return to the normal function.

● LED顯示設定值 。

● LED indicate the value of setting .

● 液量精度: $\pm 3\%$。

● Dosage Accuracy: $\pm 3\%$.



縮短時間測試

測試時間運轉功能是否正常



● 請按 **T** 鍵持續8秒。



● LED將顯示 **4C Hd** 代表每隔12秒(從Hd=12小時縮短成12秒)後會自動給料4cc (ml)，如有液體給料表示此機器的時間運轉功能正常。



● 縮短時間測試完成後，再按 **T** 鍵持續4秒則恢復正常功能。



● LED顯示設定值 **10 Hd**。

TEST FOR SHORTENING TIME

Test machine whether it normally function its running time.

● Please press continually **T** button for 8 seconds.

● Then the LED indicate **4C Hd** means that after every 12 seconds (Shorten from Hd= 12 hours into 12 seconds) would automatically dose 4 cc (ml) dosages ,if have dosed dosages ,it means that this machine normally function its running time.

● After finished test ,press continually **T** button for 4 seconds and then return to the normal function.

● LED indicate the value of setting **10 Hd** .

保養

- 橡膠管與馬達是消耗品，必須定期更換。

橡膠管：運轉2000小時以後或給料次數約50000次以後橡膠管必須更換，如果有重度運轉時，則視情況縮短更換時間。

註：更換橡膠管方法請參閱橡膠管零配件（需購買）。

馬達：壽命>2000小時，更換馬達步驟如下

1. 下蓋4支螺絲拆掉，打開上下蓋。
2. 拔開馬達接線上的連接器，取出蠕動幫浦組件。
3. 反向操作換上新的蠕動幫浦組件。

MAINTENANCE

- The rubber hose and the motor are consumable parts and need to be maintained and replaced regularly.

Hose: The rubber hose has a running time of around 2000 hours or 50000 dosing times and after this usage, it needs replacement. If the rubber hose under heavy use conditions, the rubber hose should be shortened the regular time.

Note: A method of rubber hose replacement, please refer to an spare rubber hose (need to buy).

Motor: The motor has a lifetime of >2000 hours. Replacing the motor as follows.

1. Unfasten the 4 screws in the back cover, open upper and back cover.
2. Pull the power cable connection out from the connector block and remove the dosing pump assembly.
3. To fit the new dosing pump assembly in reverse order.

技術規格

- **型號：CS072A-3**

輸入：詳見標示貼紙

輸出：dc 12V 1000mA



幫浦運轉時全部消耗功率：2.2W

手動給料或信號感測給料

液量：1ml ~ 99ml

液量精度：<±3%

尺寸(寬x高x深)：67x71x113毫米

重量(含包裝盒)：440g

- **注意：**

上列數據皆為近似參考值，規格若有變化，恕不另行通知。

TECHNICAL SPECIFICATIONS

- **Model: CS072A-3**

Input: Look at a mark label

Output: dc 12V 1000mA



Full Power consumption while pump running: 2.2W

Dose dosage by manual touch or by signal sensing

Dosage: 1ml ~ 99ml

Dosage Accuracy: <±3%

Measurement (WxHxD) : 67x71x113mm

Weight (packaged) : 440g

- **ATTENTION:**

Above data are approximate reference value, it wouldn't be advised if the specification being changed.

保 證 卡

在正常使用下，如發生故障，自購買日起保證一年，換修材料免費。

因使用錯誤，導致故障，需換零件時，應繳付材料費。如故障請送原經銷店。

本卡無購買日期或未蓋經銷售店章者無效。

GUARANTEE

This product is guaranteed for one year from the date of purchase against electrical & mechanical defects in material & workmanship.

The defective appliance must be returned, postage paid, together with a detailed reason for the claim and dated guarantee to one of our agents, for repair or replacement without charge at the manufacturer's option.

If repairs are necessary after guarantee period a nominal charge will be made, damage to appliance by reason of abuse or tampering is not covered by this guarantee.

購 買 日 期 _____/_____/_____

Date Purchased _____/_____/_____

經 銷 店 章

Sealed By Store