

SIRUBA

電控參數說明書

ELECTRONIC CONTROL PARAMETER MANUAL

700LQ SIMPLE TYPE



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作業環境要求：

1. 請不要在過潮濕環境中作作業
2. 220V 電控：【 220V 接入供電時電壓穩定在（AC200V ~ 260V/ 單相）之間 】
110V 電控：【 110V 接入供電時電壓穩定在（AC100V ~ 130V/ 單相）之間 】
3. 用戶使用前必須接地，確保人身安全
4. 不要在過熱地方作業
5. 控制系統與電機不要在強磁高輻射環境中作業，以免干擾而使系統錯誤

保修服務：

1. 本產品自購買起免費保修 1 年，終身維護。保修期內除人為損壞以外出現任何品質問題可免費維修。
2. 在保修期內，以下情況出現損壞本公司不給於保修服務。
(1) 未經本公司同意自行拆卸，修理，改裝造成的故障或損壞。
3. 但凡出現無法解決的問題可以聯繫本公司。

Environmental Requirements:

1. Please do not work at damp place
2. 220V electronic control: [220V access to power supply voltage stability between (200V~260V)]
110V electronic control: [110V access to power supply voltage stability between (100V~130V)]
3. Must be adequately grounded for safety
4. Do not work at high temperature
5. Do not run motor and control system near to ferromagnetic or high-radiance area

Warranty Service:

1. Our products come with year of quality guarantee, from the ship day. Within guarantee period, service is free of charge, unless man-made damage or misuse
2. During the guarantee period, our free service does not cover below:
(1) Dismantle the motor unit without permission, and cause damage.
3. please contact us whenever have problem.

**注意CAUTION**

清潔作業前，請切斷電源。當誤觸啓動開關時，縫紉機動作易導致人員受傷。

Turn off the power switch before carrying out cleaning. The machine may operate if the treadle is pressed incautiously, which could result in injury.



加潤滑油和黃油時，務必戴好保護眼鏡和手套，以防潤滑油進入眼中或沾在皮膚上，易引起發炎。

Be sure to wear protective goggles and gloves when handling the lubricating oil and grease so that they do not get into your eyes or onto your skin, otherwise inflammation can be resulted.



潤滑油或黃油不能飲用，否則將會引起嘔吐和腹瀉，將油放在小孩拿不到的地方。

Furthermore, do not drink or eat the oil nor the grease for they can cause vomiting and diarrhea. Keep the oil away of the reach of children.

縫紉機頭倒下或豎起時，請以雙手進行操作。

Use both hands to hold the machine head when tilting or returning it to its original position.



單手操作時，因縫紉機的重量較重，萬一滑落易導致受傷。

If only using one hand to move the machine, the weight of the machine head may cause slipping and you may get hurt.

定期保養項目(表7)

Periodical Maintenance Items(Table7)

保養循環 Maintenance Cycle	保養項目 Maintenance Items
每天 Daily	1. 清潔送料具上之棉絮 1. Clean the lint on the feed dog.
	2. 檢查油盤是否有足夠之液態油。(油量在油鏡之上、下兩紅漆記號間) 2. Check if there has enough liquid oil inside the oil pan. (The amount should be between the red up and down paint mark of the oil level gauge.)
	3. 保持機器及操作台清潔 3. Keep the machine and the operation table clean.
	4. 清潔手輪濾網上之棉絮 4. Clean the fiber on the filter net of the hand wheel.
每週 Weekly	1. 保持電源外觀乾淨 1. Keep the power cords looking clean and neat.
	2. 保持操作面板乾淨 2. Keep the operational panel clean
	3. 檢查電源零件是否鬆脫或在正確位置 3. Check if the power parts is loosening or still at the right position
每三個月 Quarterly	1. 更換油盤內之液態油 1. Change the liquid oil inside the oil pan

表7/Table7

安全須知

閱讀本說明前以下要求說明請注意：

1. 用戶使用作業前必須可靠接地，保證人生安全！
2. 非專業人士請勿拆卸控制箱
3. 控制箱與電機遠離強磁高輻射環境
4. 不要在過熱環境中作業
5. 不要在過於潮濕環境中作業
6. 220V 電控：【220V 接入供電時電壓穩定在（AC200V~260/ 單相）之間】

電源供電電壓	220V 單相
頻率	50~60 Hz
電機轉速	200-7000 rpm
電機扭矩	≤2.2N.m

安全叮囑：

1. 電機電控接通電源時（開機狀態）請不要把腳放在腳踏板上
2. 本產品請專業人士安裝調試
3. 嚴禁在通電時打開控制箱與電機端蓋
4. 換針，穿線或更換底線時請關閉電源
5. 安裝，拆卸維修時請拔掉電源插頭
6. 翻抬縫紉機時請關閉電源
7. 使用本產品請遠離高頻電磁波和電波發射器等，以免所產生的電磁波干擾伺服驅動器而發生錯誤動作。

鄭重申明：

1. 不遵守安全使用說明操作規章，發生意外後果自負。
2. 未經本公司授權，請勿擅自改動產品，由此而引起的後果本公司不負任何責任。

保修策略：

1. 本產品自購買起免費保修 2 年，終身維護。保修期內除人為損壞外出現的任何品質問題可免費修。
2. 未經本公司同意自行拆卸，改裝造成損壞將不給於保修。
3. 但凡出現無法解決的問題可以聯繫本公司。

SAFETY PRECAUTIONS

Before reading the manual, please note the following requirements:

1. The user must be grounded before operations to ensure safety.
2. Non-professionals do not disassemble the control box.
3. The control box and motor away from the magnetic high radiation environment.
4. Do not work in hot environment.
5. Do not work in humid environments.
6. 220V electronic control: [220V access to power supply voltage stability between (200V~260V)]

Voltage	220V 1 phase
Frequency	50~60 Hz
Speed	200-7000 rpm
Motor torque	≤2.2N.m

Safety requirement:

1. Do not put your feet on the pedals when the control box and motor is switched on (boot status).
2. Let professionals to install and debug this product.
3. Do not open the control box and the motor cover when energized.
4. Please turn off the power when changing the needle, threading or replacing the bottom line.
5. During installation and removal service, please turn off the power and pull the plug.
6. Please turn off the power when turn lift sewing machine.
7. When use this product, please stay away from high-frequency electromagnetic waves and radio wave transmitters, etc., in case the electromagnetic waves generated interfere with the servo drive to occur wrong action.

Solemnly Declare:

1. Do not comply with the manual book operating regulations and the safety requirements, all accidental occurrence should be taken by yourself.
2. Without our authorization, please do not alter our products, our company is not liable for any consequences arising therefrom.

Warranty policy:

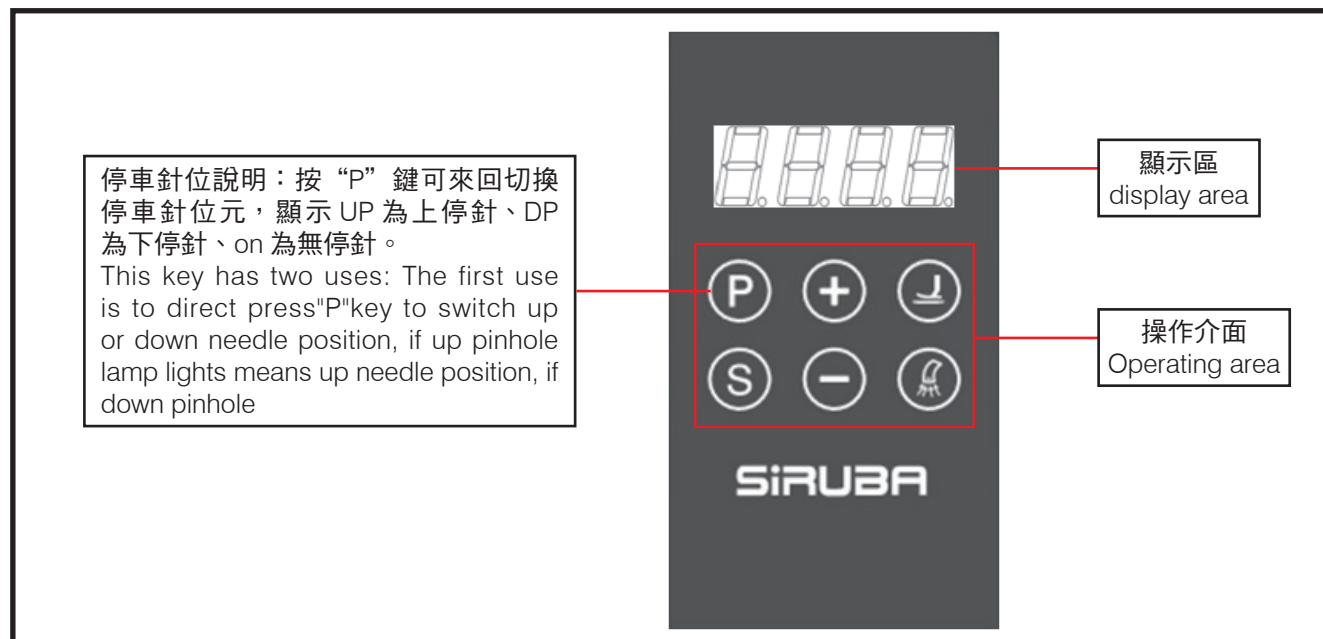
1. Since from the purchase of this product, the free 2-year warranty, lifetime maintenance. During the warranty period, any quality problems the product will be free repaired, except artificial damage.
2. Without our consent disassemble or modify, the damaged will not give in warranty.
3. Whenever find the problem can not be solved, you can contact with our company.

控制台使用說明

CONTROL PANEL INSTRUCTION

1. 顯示幕介紹：他由來兩大部分組成（操作介面、顯示區域）。

1. Display screen introduction: it has two parts (operate interface、display area)



2. 操作介面功能鍵介紹：

2. Operate interface function introduce:

序號 Serial number	按鍵圖示 Parameters of the code	功能說明 function instruction	
1	 菜單 / 停針位鍵 Menu button	參數進入（見進入參數的操作方法） Function Enter button (below to enter the parameter method of operation)	按一下 鍵，顯示 UP 為上停針、DP 為下停針、on 為無停針。 Press button, the display show "UP", means up needle stop position. "UP" means down needle stop position. "on" means free needle stop position.
2	 確認 / 機頭燈鍵 Confirm button	參數確定鍵 parameter confirm key	
		按一下 鍵，顯示區顯示“on”，機頭燈功能開啟；再按一下顯示區顯示“OFF”，機頭燈功能關閉。 Press button, the display shows "on", the function of machine lamp on. Press button again, the display shows "off", the function of machine lamp off.	
3	 數值調整鍵 Numerical adjustment key	向上鍵（修改資料時加） / （轉速調整加） Up key (when increasing value)	
4		向下鍵（修改資料時減） / （轉速調整減） Up key (when increasing value)	

5	 壓腳功能鍵 Presser foot switch	按一下  鍵，顯示區顯示 “on”，壓腳鎖定功能開啟；再按一下顯示區顯示 “OFF”，壓腳鎖定功能關閉。 注：長按  鍵，輸入密碼進入參數修改選項 Press  button, the display shows “on”, the function of presser foot on. Press button again, the display shows “off”, the function of presser foot off. Note: Long press  button, enter the parameters to adjust with password
6	 吸風功能鍵 Trimmer switch	按一下  鍵，顯示區顯示 “on”，吸風功能開啟；再按一下顯示區顯示 “OFF”，吸風功能關閉。 注：長按  鍵，輸入密碼進入參數修改選項 Press  button, the display shows “on”, the function of air-suction on. Press button again, the display shows “off”, the function of air-suction off. Note: Long press  button, enter the parameters to adjust with password

3. 進入參數的操作方法：

例：怎樣把電機的順時針轉調到逆時針轉：

第一步：打開電源；

第二步：先按 “P” 鍵不放，同時按 “+” 號鍵，此時畫面會顯示 P-00。

第三步：按 “+” 號鍵，把 P-00 調至 P-02，（P-02）就是電機正反轉參數（常用參數表上有標明）；

第四步：按下 “P” 鍵畫面會顯示 “1”；

第五步：按下 “-” 號鍵把 “1” 調到 “0”（“1” 為順時針轉，“0” 為逆時針轉，常用參數表上有標明）；

第六步：按下 “S” 鍵確定參數調整完成。

3.To enter the parameter method of operation:

Example: How to change the motor from clockwise to counterclockwise:

Step one: Open the power;

Step two: Press the “P” key, no leave, and press “+” key, the screen will display the P-00;

Step third: Press “+” key, change the P-00 to P-02, (P-02) is a motor clockwise or counterclockwise parameters (common parameter list has record);

Step four: Now press “P” key (enter into parameters) screen will display “1”;

Step fifth: Press “-” key, change “1” to “0”; (“1” for clockwise, “0” for the counter clockwise rotation, commonly used in the parameter table is indicated);

Step six: Press the “S” key to determine the parameters, save and exit the parameter.

4. 恢復出廠設置

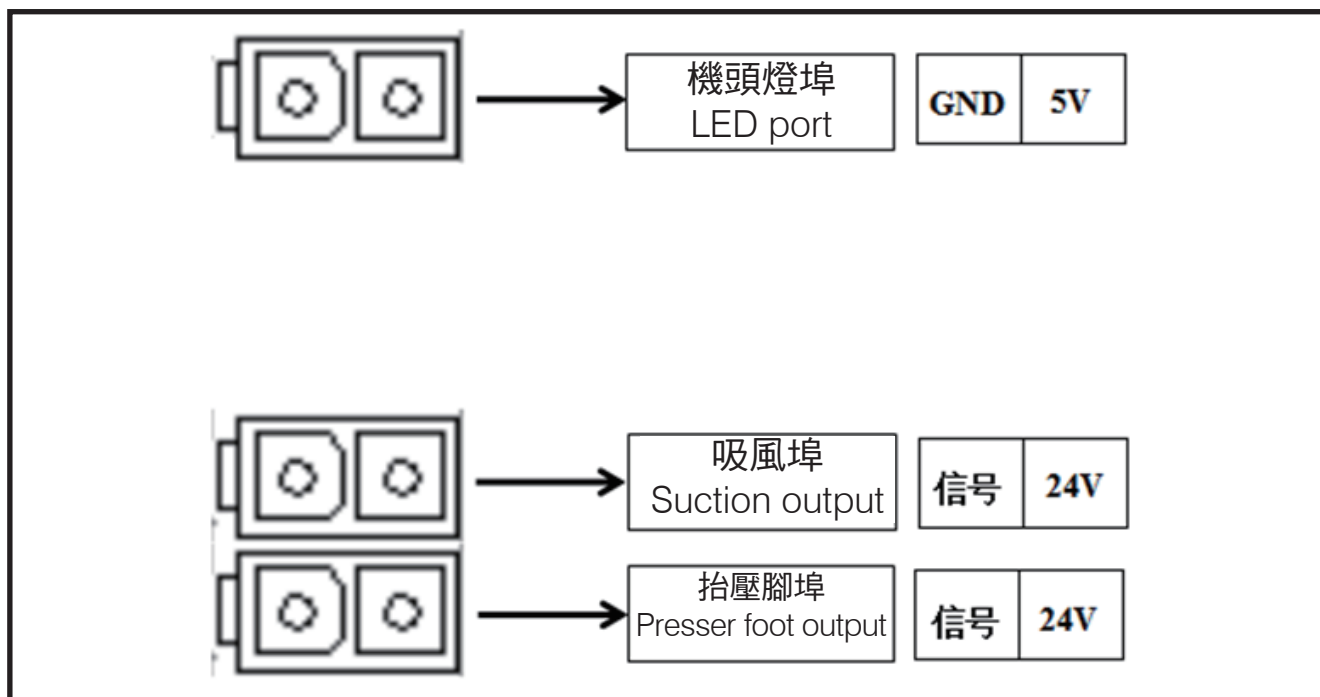
恢復出廠設置方法：先按“P”鍵不放，同時按“+”號鍵，此時畫面會顯示 P-00，再長按“S”鍵約 3 秒即可。

4.Restore factory settings

Restore factory settings: Press the “P” key, no leave, and press the “+” key, the screen will display the P-00, then press “S” key 3 seconds.

5. 埠說明

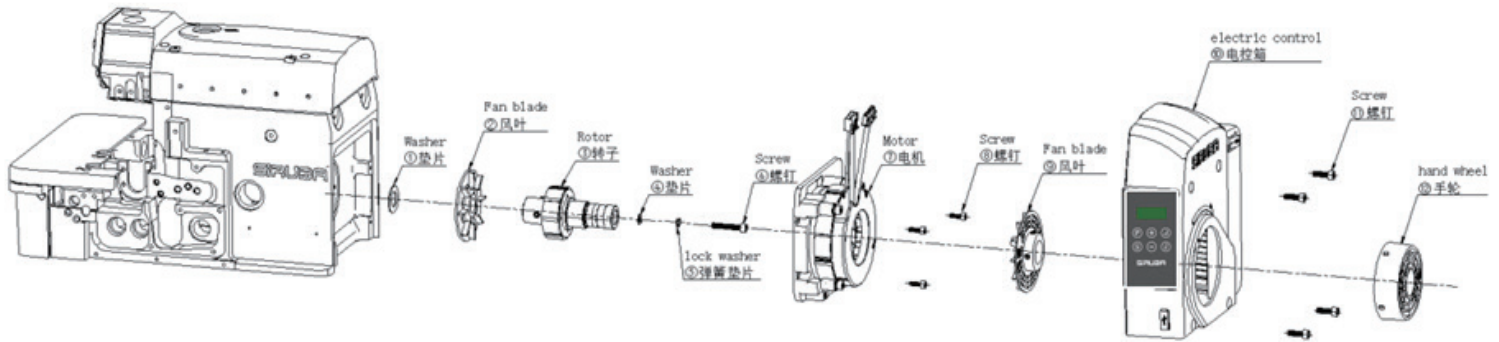
5.Terminal socket description



電機安裝說明及注意事項

MOTOR INSTALLATION INSTRUCTIONS AND PRECAUTIONS

1. 電機電控箱安裝 Motor electric control box installation :



A. 裝電機：

用專用定位治具套入機器主軸中，將安裝示意圖上的圖⑦電機卡在治具中，用圖⑧螺釘固定螺釘擰緊後要能輕鬆拔出定位治具。
(注：定子裝入轉子要注意磁鐵吸力，小心夾到手。)

A: installation of motor:

Fix the special positioning tool into the machine principal axis, install the motor (⑦ in the installation diagram) onto the tool, fix the motor with the screws (⑧ in the installation diagram), and the tool should be pulled out easily.
(noted: take care of the hands when setting the rotor because of the magnet force)

B. 裝轉子：

將安裝示意圖上的圖①墊片（選裝）、圖②風葉和圖③轉子裝入縫紉機軸上，用圖④墊片、圖⑤彈簧墊片和圖⑥螺釘固定住轉子和風葉，再用內六角扳手將固定圖③轉子上三個螺釘鎖緊。

B: installation of rotor:

Install the spacer (⑦), fan blade (②) and rotor (③) into the machine principal axis, fix the rotor and fan blade with the spacer (④), spring washer (⑤) and crew (⑥), then tighten the screw to fix the rotor (③) with the inner hexagon spanner.

檢查 1：用右手抓緊轉子，左手轉動風葉要無自轉現象。

Check 1: the fan blade should not run round when holding the rotor.

檢查 2：用手轉動縫紉機應無加重。

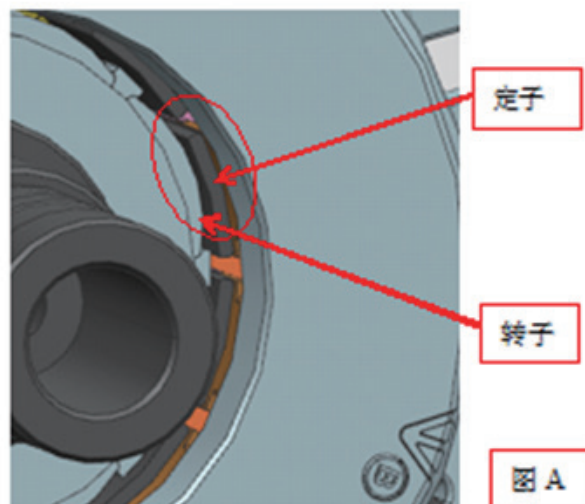
Check 2: the machine should not verweight when turning around the machine.

C. 檢查轉子和定子是否裝好：

目測轉子平面與定子平面是否相平，兩面相平度不得超過 1.5mm（看剖視圖 A），如果超過 1.5mm 的話，要拆掉電機和轉子用圖墊片來調整（注：電機兩平面裝的越平越好，如果兩平面超過 1.5mm 的情況下，電機會比正常安裝的發熱量大和力矩減小現象。）

C: check the setting of rotor and stator:

Check the plane of the rotor and stator, the error value should less than 1.5MM(cutaway view A), reset the rotor and stator and add the spacer to adjust if the error value more than 1.5MM. (The calorific calue will higher than normal and the torque will reduce if the error value is more than1.5MM)



D. 裝風葉：

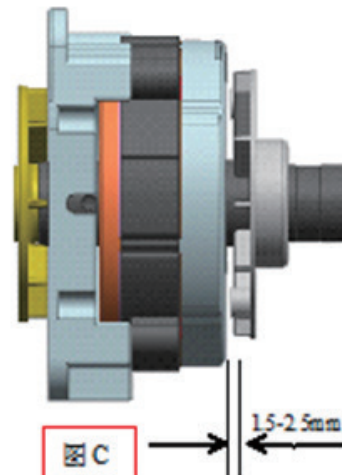
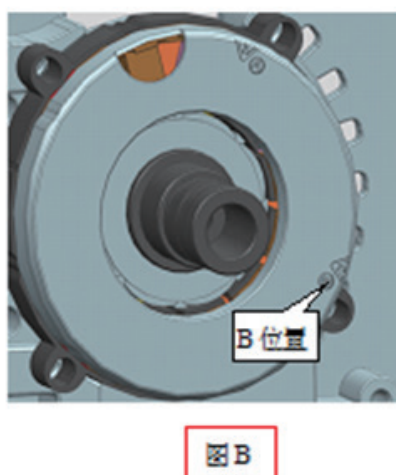
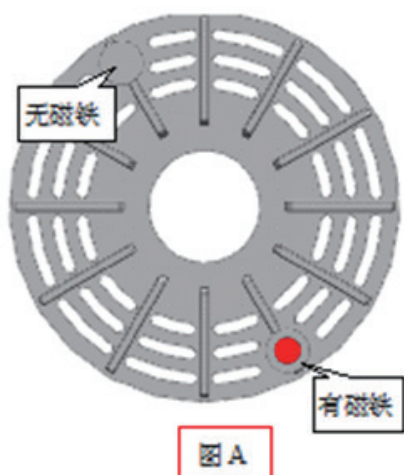
1. 用手轉動縫紉機，使機針停在最高位

2. 將風葉裝入轉子並將風葉上沒磁鐵的面對準電機上的“B”箭頭位置（看圖 A、B）。用內六角扳手擰緊安裝示意圖上的圖⑨ 2 個螺釘，並且保證風葉與電機外殼留有 1.5mm--2.5mm 的間隙（看圖 C）。)

D: fan blade installing :

1) Turn the machine to adjust the needle to the highest position.

2) Set the fan blade onto the rotor and point the position without magnet(pic A) at the position B on the motor (pic B). Tighten the screws (⑨ in the installation diagram) with the inner hexagon spanner , make sure the space between the fan blade and motor is in the range of 1.5MM-2.5MM(pic C).



E. 裝電控箱：

1. 將安裝示意圖上的圖⑦電機信號線、電源線插入圖⑩電控箱的插座中（看圖 A，注：電機信號線、電源線分方向，切勿強行插入）。

2. 將安裝示意圖上的圖⑩電控箱套入機器上，用圖 螺釘對角鎖緊。

檢查 1：安裝電控箱是否將電機信號線、電源線壓住。

檢查 2：查看電控箱外形是否吻合。

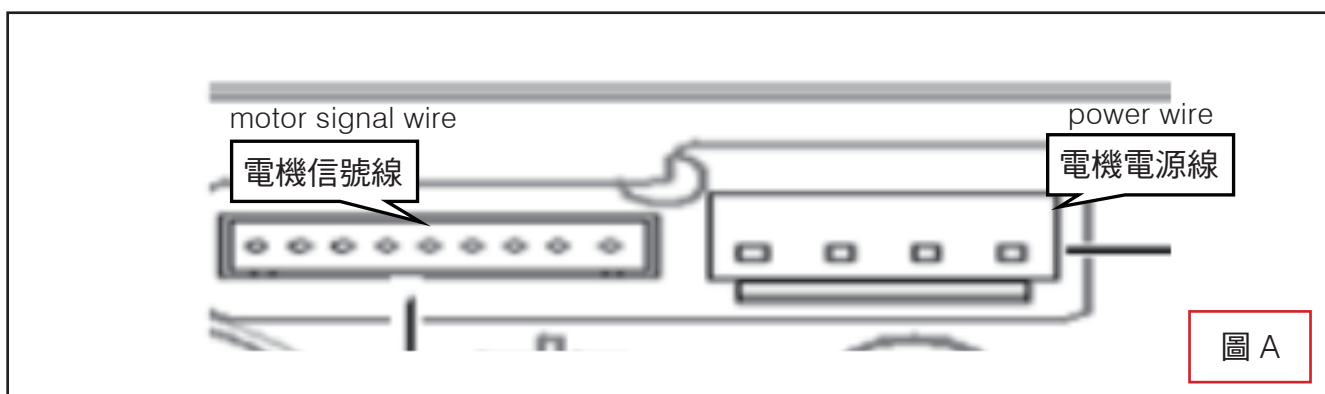
E: controller installing:

1) Connect the motor signal wire and the power wire into the controller plugs(⑦ in the installation diagram, check the direction of the plugs).

2) Install the controller onto the machine(⑩ in the installation diagram), fix it with the screws(pic ⑪).

Check 1: check if the motor signal wire or the power wire is pinned.

Check 2: check if the controller suits to the machine.



F. 裝手輪：

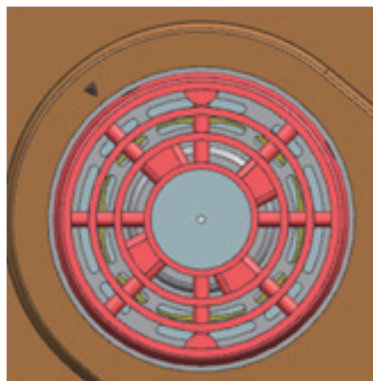
1. 用手轉動縫紉機，使機針停在最高位。

2. 將安裝示意圖上的圖 手輪放入轉子中，將手輪刻度中間的一條對準電控箱三角標識，用內六角扳手擰緊手輪 2 個固定螺釘（看下圖所示）。

Handwheel installing:

1) Turn the machine, adjust the needle to the highest position.

2) Install the handwheel(in the installation diagram) onto the rotor, point the middle mark on the handwheel at the triangular sign on the controller, tighten the screws with the inner hexagon spanner(as following pic).



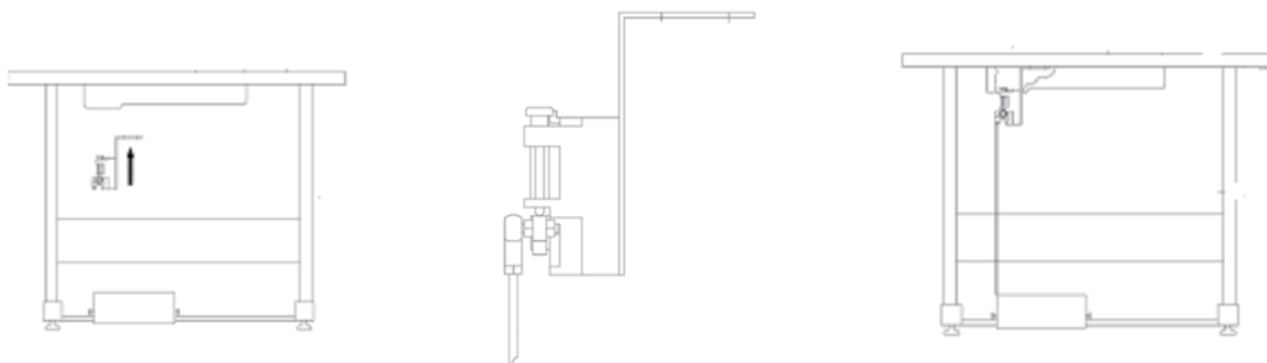
2. 調速器安裝與調整 Installing and adjusting of speed controller:

A. 控速器的安裝：

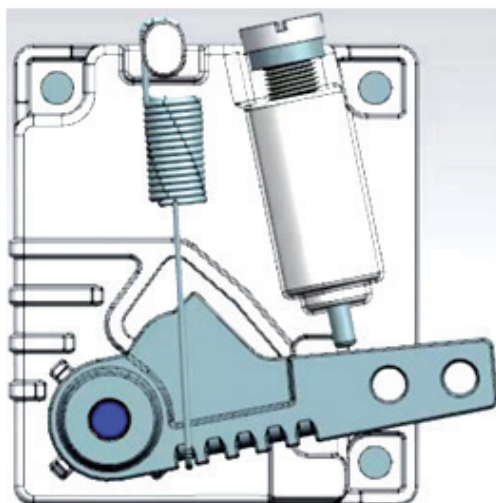
1. 將腳踏控速器安裝于台板下方
2. 將踏板與控速器安裝連結
3. 安裝後示意圖

A. Installing of the speed controller:

- 1) Install the speed controller under the table
- 2) Fix the pedal and the speed controller
- 3) The installation diagram



B. 腳踏板後踏力量的調整 Power adjusting of the backward pushing：



調整需求 Adjustment require	調整結果 Adjustment result
踏板後踏力量的調整 Adjustment of the pedal backward pushing power	當螺栓愈向下時，則後踏力量愈重。當螺栓愈向上時，則後踏力量愈輕。 The power will be stronger when fix the screw downward. The power will be weak stronger when fix the screw upward.

電機常用參數設置

COMMONLY USED PARAMETER SETTING

序號 System parameter list	參數編號 Parameters of the code	參數名稱 The parameter name	參數範圍 adjusting range	出廠設置 The factory settings	備註 Other
1	P-01	最大速 Maximum speed lock	200-7000rpm	6000轉	
2	P-02	電機方向 Direction of rotation	0是逆針轉0 is counter clockwise 1是順針轉 1 is clockwise turn	1	
3	P-03	下停角 The needle angle	6-18度	12度	
4	P-04	起縫速度 Start sewing speed	200-800轉	250轉	
5	P-05	加速快慢 speed add	500-4000	3000	數值越大加速越快，越小加速越慢 the number is more bigger the speed add is more faster, the number is more smaller the speed add is more slower
6	P-06	定針縫 Set the seam	0-999針	0	
7	P-07	停車速度 machine stop speed	800-2000	1100	
8	P-08	禁止上停針 forbid needle upper stop	0-1	0	
9	P-09	重定出廠密碼參數 reset factory code parameter	0-1	0	設為1時才能打開P-17號參數 the P17 parameter can open when number set "1"
10	P-10	自動間隙運行(跑合) Automatic clearance run(run)	把0改成1再按s鍵 Then press the s key change to 1	0	關掉電源停止跑合 Turn off the electricity stopped running
11	P-11	抬壓腳起動時間 Presser foot ascend starting time	0-2000ms	0	
12	P-12	/	1-120s	4s	/
13	P-13	/	0-1	0	/
14	P-14	最大電流限制 Maximum current limiting	50-1000	270	
15	P-15	是否檢測上針位 Whether to detect the up needle position	1:檢測針位，0:不 檢測 1:Detecting needle 0:No detection	1	設為1時，如果無上定位感測器則報警 ER01，設為0時則不報警 Set "1", if there is no upper needle stop sensor will alarm ER01; set "0" no alarm
16	P-16	介面出廠速度鎖定 The max speed locked	200-7000	6000	

17	P-17	重定出廠密碼 Factory reset code	1-3	1	P-09參數開啟後才能出現p-17參數、設為3長按ok鍵恢復出廠密碼 When open the parameter “p09” , then it can occur “p17” ,set “3” , then long press “ok” button to recover the factory code
18	P-18	出廠密碼 Factory code	0000-9999	2013	
19	P-19	軟起動針數 Soft start stitches	0-15	0	0針關閉該功能，1-15針時啟用軟啟動，並設定針數（上停針時有效） 0 Stitch is close this function, 1-15stitches is open the soft start , and set the stitches(upper needle position is effective)
20	P-20	軟起動速度 Soft start speed	200-3500	800	
21	P-21	吸氣功能 Suction function	0:關閉 1:開啟 0: Close 1:start	1	電機運轉時開啟/關閉吸氣功能 Motor running open/close suction function
22	P-22	吸氣開啟針數 Suction start stitches	1-200	30	吸氣打開針數（p23針數打開時有效） Suction open stitches(p23 stitches open have effective)
23	P-23	吸氣關閉針數 Suction close stitches	0-200	0	
24	P-24	吸氣動作維持時間 Suction action maintain time	50-2000ms	120ms	此參數暫時不用 this parameter do not use now
25	P-25	吸氣全功率時間 Suction full power time	35-1000ms	120ms	
26	P-26	吸氣全功率時功率 The power of suction full power	5-100%	100%	
27	P-27	吸氣維持功率 Suction maintain power	1-100%	80%	
28	P-28	吸氣釋放時間 Suction release time	0-500ms	20ms	
29	P-29	吸氣保護時間 Suction protection time	1-120s	30s	吸氣單次動作最長時間 The longest time of suction single action
30	P-30	壓腳觸發模式 Foot presser trigger mode	0:關閉 1:開啟 0: Close 1:start	0	1.設為0時，後踏速控器壓腳不抬。設為1時後踏速控器壓腳抬起， 2.維持抬起，直到前踏或保護時間到才會釋放壓腳，並且每次電機停止時自動抬壓腳 1, Set “0” , back step the pedal,the foot presser is not up, set “1” , back step the pedal, the foot presser is up. 2, The foot presser is maintain up, until front step the pedal or the protection time is finish then release, and motor stop, the foot presser is up automatic

31	P-31	後抬腳啟動時間 Back foot presser lifter start time	0-2000ms	0	後踏延遲啟動壓腳的時間 The time of back step delay start foot presser
32	P-32	抬壓腳動作維持時間 Foot presser lifter action maintain time	50-1000ms	160ms	此參數暫時不用 This parameter do not use now
33	P-33	抬壓腳全力功率時間 Foot presser lifter full power time	35-1000ms	160ms	
34	P-34	抬壓腳全力功率時功率 The power when the foot presser lifter full power	5-100%	100%	
35	P-35	抬壓腳維持功率 Foot presser lifter maintain power	1-500%	20%	
36	P-36	抬壓腳釋放時間 Foot Presser Lifter Release Time	0-120ms	30ms	壓腳釋放時間 The foot presser lifter release time
37	P-37	抬壓腳保護時間 Foot Presser Lifter Protection Time	1-100s	10s	壓腳單次抬起最大維持時間 The biggest maintain time of the foot presser lifter single time
38	P-38	顯示速度 Display Time	200-6500 RPM		顯示當前電機實際速度 Display the current motor real speed
39	P-39	顯示速控器電壓 Display The Volt Of Speed Controller	14-1010	中點電壓195 Neutral point volt	顯示當前速控器電壓0—1024，相當於0-5v Display the current speed controller volt 0-1024, it is equal 0-5v
40	P-40	顯示直流母線電壓 Display Dc Buses Voltage	60-500v	310v	當電壓高於395會報警，(直流母線電壓/1.414=交流母線電壓) When the volt is higher than 395v will alarm,(dc buses volt/1.414 = Ac buses volt)
41	P-41	過壓保護開關 Overload Protection Switch	0:關閉 1:開啟 0: Close 1:start	1	設為0關閉過壓報警，設為1打開報警，當直流母線電壓超過395v時，報警er16，電機自動停止運行，報警後當電壓低於385v電機可再次運行 Set “0” is close the overload alarm, set “1” is open the alarm, when dc buses voltage is over 395 v , will display er16, the motor will stop automatic, when volt is lower 385v, the motor can run

一般故障處理

COMMON FAULTS AND TREATMENTS

序號 The serial number	錯誤碼 Error code	錯誤內容 Error content	錯誤問題的多種可能 Several possible error problem
1	Er01:	找不到停車位 No stop signal	1.定位器信號插頭未插好 2.定位器感應位置靠近一點與磁鋼(1mm-15mm)距離 1.Locator signal plugs not inserted 2.The locator induction position close to the point keep 1mm-1.5mm distance and magnetic steel
2	Er02:	開機沒有檢到調速器 Not find the speed controller	1.調速器插頭沒有插 2.調速器線斷了 1.Speed control device plug is not insert. 2.Speed controller wire is broken
3	Er03:	電機霍耳或相位線錯誤 Motor hall or phase error	1.九針插頭接觸不良： 2.電機沒有安裝好： 3.霍耳壞： 1.The motor doesnt install good 2.Nine hole plug contact undesirable 3.Hall bad
4	Er04:	堵轉保護 Lacked-rotor protection	1.電機超載 2.電機與電控跟連接的四心線接觸不好 1.The motor overload 2.The motor and the controller connected four hole line contact is not good
5	Er05:	硬體過流保護 Hardware over-current protection	1.電機超載 2.信號線接觸不好或斷了 1.The motor overload 2.Signal wire not good or broken
6	Er07:	串口通信時錯誤 Serial per communication	顯示幕至主機板信號線不良或主機板壞 Display to the system board signal bad or bad
7	ER-15	編碼器故障 The motor board error	
8	ER-16	過壓 Over load	電機驅動電源電壓過高，220V電源電壓超過限定值（AC310V），或負載慣性過大導至再生電壓超過限定值(DC440V),或電壓檢測回路故障。 注：（110V 控制系統電源電壓超過限定值（AC155V），或負載慣性過大導至再生電壓超過限定值(DC220V)。 The motor drive power supply voltage is too high, the 220V power supply voltage exceeds the limit value(AC310V), or the load inertia is too large to the regenerative voltage exceeds the limit value(DC440V), or the voltage detection circuit fails. Note:(110V control system power supply voltage exceeds limit value(AC155V), or load inertia is too large to regeneration voltage exceeds limit value(DC220V).
9	ER-17	A相電流檢測故障 A current checking error	
10	ER-18	B相電流檢測故障 B current checking error	
11	ER-19	AB相電流檢測故障 A&B current checking error	
12	ER-20	欠壓故障 Less volt error	電機驅動電源電壓過低，220V電源電壓低於限定值（AC91V），或電機驅動電源電壓低於限定值（DC130V），或電壓檢測回路故障。 注：（110V電源電壓低於限定值（AC45.5V），或電機驅動電源電壓低於限定值（DC65V）） The motor drive power supply voltage is too low, the 220V power supply voltage is lower than the limit value(AC91V), or the motor drive power supply voltage is lower than the limit value(DC130V), or the voltage detection circuit fails. Note:(110 V power supply voltage is below the limit(AC45.5 V), or motor drive power supply voltage is below the limit(DC 65V))

報廢流程

DEMOLITION PROCEDURE

1. 當機器需要被淘汰與報廢時，有一些基本規則必須採納、遵守以保護環境及公眾健康。
2. 所有的機器零組件必須依照下列分類來區分開：
 - (1) 所有護套、可伸縮軟管及塑膠或非金屬零件。
 - (2) 電器零件：開關、照明器具等。
 - (3) 絕緣材料：石棉、彈性／可伸縮橡膠片。
 - (4) 金屬：含鐵金屬、銅、青銅與黃銅、其他各種金屬。
3. 以此方法，所有材質可以正確的淘汰，回收再利用或鎔解為可再使用或再處理而不至於危害環境。

1. When the machine needs to be eliminated and demolished, certain basic rules must be observed to protect the environment and public health.
2. All machine components must be divided according to categories as the followings:
 - (1) All sheathes, flexible hosing and plastic or non-metal components.
 - (2) Electricity components: switches, or lighting components.
 - (3) Insulation materials: rock wool, and flexible rubber strips.
 - (4) Metals: ferrous metals, copper, bronze and brass, various.
3. In this way, all materials can be eliminated correctly, recycled, or melted down for reuse or disposed of so that they do not harm the environment.



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由於對產品的改良及更新，本產品使用說明書中與零件圖之產品及外觀的修改恕不事先通知！
The specification and/or appearances of the equipment described in this instruction book & parts list are subject to change because of modification which will without previous notice.
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