SiRUBA

電控參數說明書
ELECTRONIC CONTROL PARAMETER MANUAL
700LQ ECA/ECB

SiRUBA

⚠ **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

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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

安全叮嚀：

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.

1.1、顯示幕介紹：他由來兩大部分組成（操作介面、顯示區域）。

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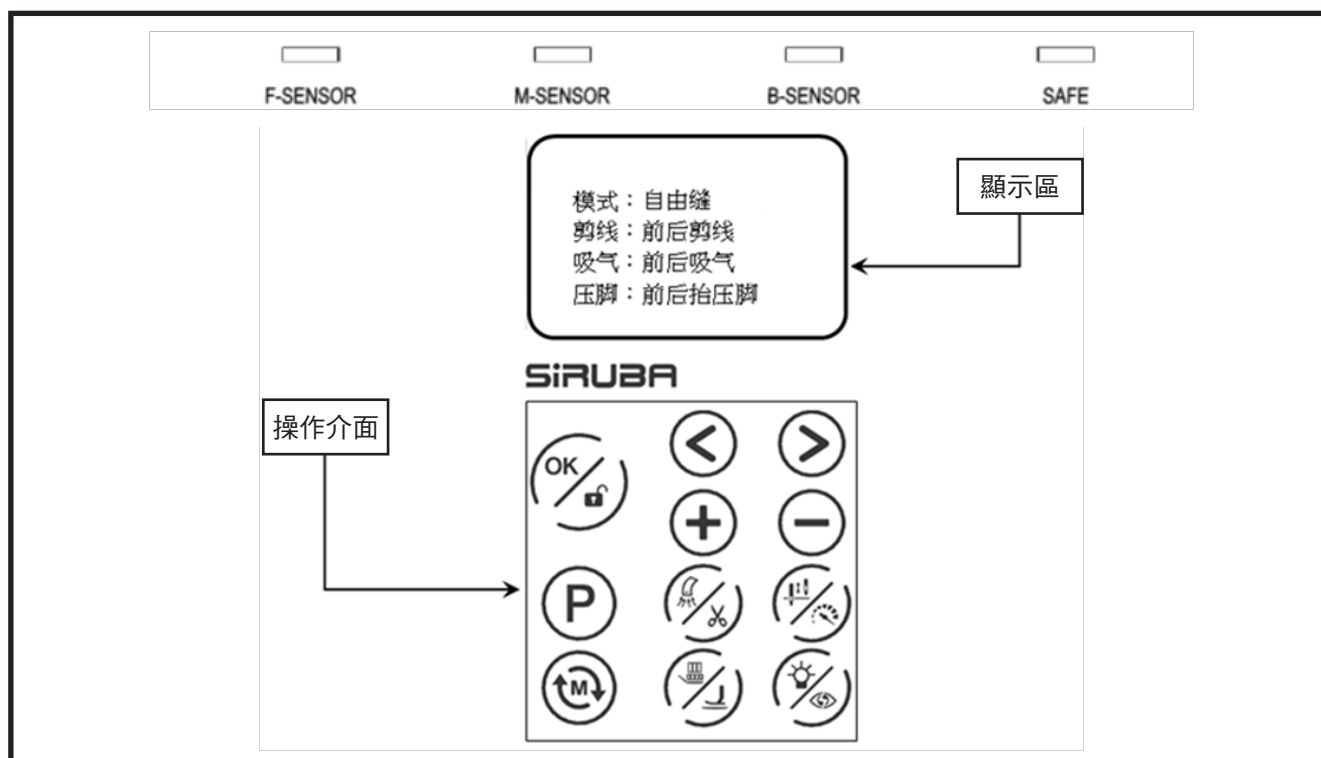

1.2、操作介面功能鍵介紹：

1.2、Operate interface function introduce:

序號 Serial number	按鍵圖示 Parameters of the code	功能說明 function instruction	
1	(P)菜單鍵 Menu key	按一下進入用戶參數 Touch to enter into the user parameter	長按進入系統參數（需要密碼）Long touch to enter into the system parameter(need code
2	(OK)確認鍵 Confirm key	參數確定鍵 parameter confirm key	
		長按 1s 快速鎖屏，單按解鎖 long press for 1s to quickly unlock, single press to unlock	
3	(+)(−)	參數號向上遞增鍵（修改資料時加） Parameter no. Add key (when modify the data)	
4	數值調整鍵 Value adjust key	參數號向下遞減鍵（修改資料時減） Parameter no. Reduce key (when modify the data)	
5	(<)左移鍵 Left move key	向左鍵（在進入參數項時游標向左移） Left key (The cursor moves to the left as the parameter entry is entered)	
6	(>)右移鍵 Right move key	向右鍵（在進入參數數值或選項時游標向右移） Right key (The cursor moves to the right as the parameter entry is entered)	

7	模式切換鍵 mode change key	按 ⟲ 鍵進入：全自動、半自動、自由縫、全手工等之間切換； 全自動：當布料蓋住第一光眼時，機器會自動啟動工作不需用腳去踩踏調速器踏板； 半自動：布料遮住第一光眼，腳踏調速器才能驅動機器工作； 自由縫：無布料遮住第一光眼，腳踏調速器一樣也能驅動機器工作； 全手工：剪線、抬壓腳等所以動作需要人工去完成； ※: 全自動、半自動、自由縫等安全開關斷開情況下腳踏調速器無法驅動機器工作； 全手工：安全開關斷開情況下一樣能使用腳踏調速器啟動機器工作）。 Touch ⟲ key to enter to change to: fully automatic, semi-automatic, free sewing, full manual; Fully automatic: When the cloth covers the first sensor, the machine will automatically start working without pressing the pedal; Semi-automatic: when the cloth covers the first sensor, need to press the pedal to drive the sewing machine to start working; Free sewing: no cloth to cover the first sensor, just press the pedal can drive the sewing machine to work; Full manual: the thread cutting、presser foot lifter and all other action should be made by hand; *: when the mode is under fully automatic、semi-automatic、and free sewing , press the pedal can not drive the sewing machine to work when the safety switch if off; Full manual: Press the pedal can be used to start the sewing machine when the safety switch is off.
	多功能快速鍵介紹 multifunction shortcut key introduction	
8	剪線、吸氣模式 切換鍵 auto trimmer、 suction mode change key	單按 鍵一下進入"吸氣模式、剪線模式"選擇，按 鍵可移動游標選擇模式， 或者按 ＋ 、 － 鍵移動游標選擇模式，選擇好模式後按 OK 鍵進入參數調整： 吸氣模式：前吸氣、後吸氣、前後吸氣、吸氣關閉。 剪線模式：前剪線、後剪線、前後剪線、剪線關閉。 ※：移動游標選擇參數同上面方法。 Single touch key to enter "suction mode, thread cutting mode" option, touch key can move cursor select mode, or touch ＋ 、 － key to move cursor select mode,when mode is finish choosing, touch OK key to enter the parameter adjustment: Suction mode:front suction, back suction, front and back suction、 suction close. Thread cutting mode: Front thread cutting, back thread cutting, front and back thread cutting, thread cutting close. * : Move Cursor to select parameters as above.

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	剪線、吸氣模式
	切換鍵
	auto trimmer 、
	suction mode
	change key
		長按 鍵進入 "吸氣參數、剪線參數" 選擇；按 鍵可移動游標選擇模式，或者按 、 鍵移動游標選擇模式，選擇好模式後按 鍵進入參數調整：
		吸氣參數：
		    S05 前吸氣延遲開啟針數 002
		    S06 前吸氣關閉針數　　 014
		    S07 後吸氣延遲開啟針數 002
		    S08 後吸氣延時關閉　　 0200
		    S13 中吸氣延遲開啟針數 050
		    S14 中吸氣關閉針數　　 020
		剪線參數：
		    S03 前剪線延遲針數　　 022
		    S04 後剪線延遲針數　　 000
		    S24 手動剪線　　　　 1
		    S25 安全開關　　　　 3
		    S26 切刀保留時間　　 0025
		
		Long touch key to enter the "suction parameters, thread cutting parameters" selection; touch key can move cursor select mode, or touch 、 key move cursor select mode, when finish then touch key to enter parameters adjustment:
		Suction parameters:
		    S05 front suction delay start stitches 002
		    S06 front suction close stitches　　 014
		    S07 back suction delay start stitches 002
		    S08 back suction delay close　　 0200
		    S13 middle suction delay start stitches 050
		    S14 middle suction close stitches　　 020
		Thread cutting parameters:
		    S03 front thread cutting delay stitches　 022
		    S04 back thread cutting delay stitches　 000
		    S24 thread cutting by hand　　　　 1
		    S25 safety switch　　　　　 3
		    S26 knife remain time　　　　 0025

9	 速度、停車針位 元模式切換鍵 speed 、 needle stop position change key	單按 鍵一下進入 "停車針位元、速度調節" 選擇，按 鍵可移動游標選擇模式，或者按 、 鍵移動游標選擇模式，選擇好模式後按 鍵進入參數調整： 停車針位：上針位、下針位、下針位不回針 Single touch key to enter the "needle stop position, speed adjustment" option, touch key can move cursor select mode, or touch 、 key move cursor select mode, after selecting the mode, then touch key enters the parameter adjustment: The needle stop position: The upper needle stop position, the lower needle stop position, the lower needle position does not return the needle.

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9	速度、停車針位元模式切換鍵 speed、needle stop position change key	長按(鍵)鍵進入"針位參數、速度參數"選擇；按(鍵)鍵可移動游標選擇模式，或者按(+)、(−)鍵移動游標選擇模式，選擇好模式後按(OK)鍵進入參數調整： 針位參數： 　　S02 兩感測器間針數　020 　　S12 停車延遲針數　　002 速度參數： 　　S38 最大速度鎖定　　5500 　　S51 加速靈敏度　　　6 Long touch (鍵) key into the "needle stop position parameters, speed parameters" selection; touch (鍵) key can move cursor select mode, or touch (+)、(−) key move cursor select mode, when select finish, touch (OK) key into the parameters adjustment: Needle stop Position Parameters: S02 the needle stitches between two sensors　020 　　S12 the machine stop delay stitches　　　002 Speed parameters： 　　S38　the fastest speed lock　5500 　　S51　Acceleration sensitivity　6
9	壓腳、松線模式切換鍵 presser foot lifter、thread tension releasing mode change key	單按(鍵)鍵一下進入"松線模式、壓腳模式"選擇，按(鍵)鍵可移動游標選擇模式，或者按(+)、(−)鍵移動游標選擇模式，選擇好模式後按(OK)鍵進入參數調整： 松線模式：前松線、後松線、前後松線、松線關閉 壓腳模式：前抬壓腳、後抬壓腳、前後踏壓腳、踏壓腳關閉。 Single touch (鍵) key to enter the "thread tension releasing mode, presser foot lifter mode" option, touch (鍵) key can move cursor select mode, or touch (+)、(−) key move cursor select mode, after selecting the mode, then touch (OK) key enters the parameter adjustment: Thread tension releasing mode: front thread tension releasing、back thread tension releasing、front and back thread tension releasing、 thread tension releasing closed. Presser foot lifter mode: front presser foot lifter、back presser foot lifter、front and back presser foot lifter、foot presser lifter closed.

9	壓腳、松線模式切換鍵 presser foot lifter、thread tension releasing mode change key	長按 鍵進入"壓腳參數、松線參數"選擇；按 鍵可移動游標選擇模式，或者按 、 鍵移動游標選擇模式，選擇好模式後按 鍵進入參數調整： 壓腳參數： 　　S19 前抬壓腳保留時間 0400 　　S20 後抬壓腳延遲啟動 0000 　　S21 抬壓腳保護時間　006 　　S22 放壓腳保護時間　020 　　S31 壓腳全力時間　　180 　　S32 壓腳全力功率　　100 　　S33 壓腳保持功率　　20 　　P22 關閉手動抬壓腳　0 松線參數： 　　S09 前松線延遲開啟　000 　　S10 前松線針數　　　012 　　S11 後松線延遲開啟　000 Long touch key to enter the "thread releasing mode, presser foot lifter mode" option, touch key can move cursor select mode, or touch 、 key move cursor select mode, after selecting the mode, then touch key enters the parameter adjustment: Presser foot lifter parameter: 　　S19 front presser foot lifter remain time　0400 　　S20 back presser foot lifter delay start　　0000 　　S21 presser foot lifter protect time　　　006 　　S22 release presser foot protect time　　020 　　S31 presser foot full power time　　180 　　S32 presser foot full power power　　100 　　S33 presser foot maintain power　　20 　　P22 close manual presser foot lifter　　0 Thread releasing parameter： 　　S09 front thread releasing delay start　　000 　　S10 front thread releasing stitches　　012 　　S11 back thread releasing delay start　　000

10	 電眼開關、機頭燈亮度模式切換鍵 sensor switch、machine head LED light mode change key	按住 P 鍵不放再按住 ，出現光眼靈敏度微調畫面後，再按一次 鍵：厚料、普通、薄料、透明、大網、小網，按 、、、 移動游標選擇布料，選擇好布料後按 鍵自動校正光眼靈敏度。 Single touch key into fabric selection: Thick material, ordinary, thin material, transparent, large net, small net, touch 、、、 move cursor select fabric, select fabric, touch key automatically adjust optical sensitivity.
		長按 鍵進入機頭燈亮度調節（1-5 擋），連續按 鍵加至 5 擋後再加一次機頭 LED 燈關閉。 Long touch key into the machine LED light brightness adjustment (1-5 block)，continuous touch key to add to 5 block and then add one more time the LED light is off.
11	F-SENSOR	前光眼指示燈 Front sensor indicator	當光眼被擋住時，此燈亮、未擋住時不亮；如未被擋住時，此燈亮起；則需要檢查光眼靈敏度。 When the sensor is blocked, the light will be on, when it is not blocked, the light is not on ; if it is not blocked, the light is on; the sensor sensitivity needs to be checked.
12	M-SENSOR	中光眼指示燈 Medium sensor indicator	當光眼被擋住時，此燈亮、未擋住時不亮；如未被擋住時，此燈亮起；則需要檢查光眼靈敏度。 When the sensor is blocked, the light will be on, when it is not blocked, the light is not on ; if it is not blocked, the light is on; the sensor sensitivity needs to be checked.
13	B-SENSOR	後光眼指示燈 Back sensor indicator	
14	SAFE	安全指示燈 Safety switch indicator	當安全開關斷開時，SAFE 燈亮起時，則檢查一下安全開關是否感應到。 When the safety switch is off and the SAFE light is on, check that the safety switch is responsive.

技術員系統參數清單如表 1：

2.1、長觸摸（ (P) ）鍵持續 3 秒鐘進入"系統 (S) 參數"清單（需要密碼進入調整）。（ (<) ）（ (>) ）鍵將選取修改的是參數值還是菜單值，觸摸後選取的地方將會出現閃爍。（ (+) ）（ (—) ）鍵將增加或減少閃爍區的數值，修改完畢參數後需要按（ (OK) ）鍵保存參數並退出系統參數。

注：以上是進入方法，具體參數號代表的參數意思詳情如表 1：

注：出廠值密碼：2014

工人參數列表如表 2：

2.2、觸摸 (P) 鍵直接進入參數，（ (<) ）（ (>) ）鍵將選取修改的是參數值還是菜單值，觸摸後選取的地方將會出現閃爍。（ (+) ）（ (—) ）鍵將增加或減少閃爍區的數值，修改完畢參數後需要按（ (OK) ）鍵保存參數並退出系統參數。

System parameter entering analysis:

2.1、Long press ((P)) button for 2seconds to enter "System Parameter" list (requires a password to enter the adjustment).((<)) ((>)) key to select to modify parameter value or menu value. Then,the selected value will be flashing .((+)) ((—)) key to increase or decrease the value.After completing modification,press ((OK)) button to save parameters and quit system parameters.

※Above is to enter method,the details of specific parameters describe as followings:

※Factory default password:2014

2.2, touch the (P) key directly into the parameters, ((<))((>)) key will choose to modify the parameters or menu values, touch the selected place will be flashing. The ((+))((—)) key will increase or decrease the value of the scintillation region. After modifying the parameters, press the ((OK)) key to save the parameters and exit the system parameters.

技術員系統參數清單：   Technician system parameter list

序號 System parameter list	功能說明 Function description	功能參數預設值 Parameter default values	功能參數範圍 Parameter Adjustment range	參數說明 Parameter description
S01	針跡 thread track	3	1～4	
S02	兩感測器間針數 Stitch number between two sensors	20	1～150	設定兩個光眼之間的針數 Set stitch number between two sensors
S03	前剪線延時針數 Delay stitch number to cut thread after front sensors	022	0～150	後面光眼感應到布後延遲剪線的針數 Set delay stitch number after passing front sensors.Auto cut thread after stitchs
S04	雙光眼模式後剪線延遲針數 Delay stitch number to cut thread after two sensors	14	0～150	布離開第二光眼離開後延遲剪線的針數 Set delay stitch number after passing two sensors.Auto cut thread after stitchs
	三光眼模式前剪線延遲針數 Delay stitch number to cut thread after three sensors	0	0～100	布離開第三(後)光眼離開後延遲剪線的針數 Set delay stitch number after passing two sensors.Auto cut thread after stitchs
S05	前吸延遲氣開啟針數 Delay stitch number for starting front air suction	2	1～150	布感應到第一個光眼後從第幾針開始吸氣 Set delay stitch number for starting front air suction after triggering first sensor
S06	前吸氣針數 Front suction close stitches no.	14	1～150	吸氣打開後，計數幾針後關閉吸氣 Account how many stitches begin to close former suction
S07	後吸氣延遲開啟針數 Back suction start stitches no.	2	1～150	離開後光眼後第幾針開始吸氣 After leaving latter photo-eye,how many stitches begin suck
S08	後吸氣延時關閉 The delay of back suction close	200	50～5000 ms	布離開光眼後，計數幾毫秒後關閉吸氣 After leaving latter photo-eyes,count how many milliseconds off suction
S09	前松線延遲開啟針數 Front thread loose delay	00	0～150	無說明
S10	前松線針數 Front thread loose stitches	12	0～150	無說明
S11	後松線延遲開啟針數 Back thread loose start	00	0～150	無說明
S12	停車延遲針數 Machine stop delay stitches no.	002	1～150	後剪完線後多少針自動停車 How much stitches auto parking after trimmer
S13	中吸氣延遲開啟針數 Middle suction start stitches no.	50	1～250	中吸氣間隔針數 Middle suction interval stitches
S14	中吸氣針數 Middle suction close stitches no.	20	1～150	中吸氣針數 Middle suction stitches
S15	後剪光眼（第三光眼）延遲檢測針數 The needle no. Of the delay of back cutting line	25	1～100	三光眼模式：布離開中光眼經過多少針後沒檢測到第三光眼信號就開始剪線 Leave in the light eye after much after the needle cannot detect the third eye signal begins to cut the line
S16	前感測器回應時間 Front sensor respond time	40	1～1000 ms	前面光眼感應到後回應的時間 The response time when former photo-eye sense
S17	前感測器靈敏度 Front sensor sensitivity degree	55%	5～100	為適應不同布料設定前光眼的發射強度 Setting photo-eye through the fabric strength, to adapt to different fabrics

S18	後感測器靈敏度 Back sensor sensitivity degree	55%	5~100	為適應不同布料設定後光眼的發射強度 Setting photo-eye through the fabric strength,to adapt to different fabrics
S19	前抬壓腳保留時間 Front foot presser lift retaining time	400	100~ 2000 ms	前光眼感應到布時壓腳自動抬起維持時間 When front sensor feel the cloth, the foot presser lifter maintain time
S20	後抬壓腳延遲啟動 Back foot presser lift start time	0	0~ 2000 ms	腳踏板後踏壓腳回應的時間（毫秒） The lift foot response time after latter foot pedal(millisecond)
S21	抬壓腳保護時間 Foot presser protection time	6	1~120s	手動抬壓腳持續多少時間後自動關閉壓腳輸出（秒） Lifter the foot presser by hand some time then auto close foot presser output(second)
S22	放壓腳保護時間 Release foot presser protection time	20	20~ 800 ms	壓腳釋放保護時間（毫秒） The foot presser release protection time (millisecond)
S23	連續送布吸氣剪線 Continue feed cloth suction cutting line	0	0~1	0：關閉 1：開啟 0:Close 1:open
S24	運轉中手動開關動作 Operate manual switch action	1	0~3	0：電機運轉時按手動剪線不剪， 1：可以剪(全手工模式時有效) 2：運行中禁止中光眼保護 3：運行中禁止中後光眼保護 0: when motor is running, press knife switch the thread line is not cutting, 1: Can Cut (under the manual mode) 2: when the machine is running, the middle sensor protect is prohibition 3:when the machine is running, the middle and back sensor protect is prohibition
S25	安全開關選擇 Safe switch choice	3	0~3	0：關閉安全開關 1：縫台安全開關　2：壓腳安全開關 3：縫台＋壓腳安全開關開啟 0:Off safety switch 1:seam safety switch 2:foot safety switch 3:
S26	切刀保留時間 The knife retaining time	25	1~ 1000 ms	切刀動作時間（基本不用調整） Cutting action time (basically no adjustment)
S27	介面恢復時間 Recover time	5	5~ 100s	控制台在進入功能表後多少時間跳回主介面 After entering the control panel ,how much time to jump back to the main menu interface
S28	光眼模式（數量選擇） Sensor mode (number choice)	2	1~2	1:單光眼 2:雙光眼（※:第三光眼需要單獨開啟s35） 1:Single photo-eye 2:double photo-eye
S29	前光眼極性選擇 Front sensor polarity	0	0~1	0：對射 1：反射 Opposite polarity opposite
S30	後光眼極性選擇 Back sensor polarity	0	0~1	0：對射 1：反射 Opposite polarity opposite
S31	壓腳全力間 Foot presser full power time	180	10~ 990 ms	壓腳全功率工作時的時間 Time of full power operation
S32	壓腳全力功率 Foot presser full power	100	20~ 100%	壓腳開始動作時，瞬間的輸出功率 When the foot starts to move, the instantaneous output power
S33	壓腳保持功率 Foot presser retaining power	20	10~ 90%	壓腳抬起後維持住後的功率（不能超過50） Pressure foot lift after the maintenance of the power to live (not more than 50)

S34	後剪光眼靈敏度（剪刀邊上）第三光眼 Back cutting line sensor sensitivity degree	55	5～100%	第三光眼發射強度 The third sensor emission intensity
S35	後剪光眼開啟（剪刀邊上） Back cutting line sensor start	2	0～2	0：關閉 2：開啟 0: Closed 2: Open
S36	預留 Obligate	0	0～9	
S37	語言選擇 Language choice	0	0～3	0：中文 1：英文 2：土耳其 3：越南文 0:Chinese 1:English 2：Turkish 3: Viet Nam
S38	最大速度鎖定 The max speed locked	5500	250～7000	電機的最大可調速度限制 Maximum adjustable speed limit for motor
S39	參數復位 Parameter reset	0	0～1	調到1長按ok鍵有效 Transferred to 1 long-press the ok button to effective
S40	參數密碼 Parameter password	2014		注：如記不住密碼，切記勿修改；如修改密碼忘記，需寄回廠家從新解密。 Note: if you cannot remember the password, remember not to modify it; if you forget the modified password, you need to send it back to the manufacturer to decrypt it again.
S41	預留 obligate	2500	250-4500	
S42	預留 obligate	008	1-100	
S43	網孔針數 Net hole needle stitches	04	0-15	
S44	布料選擇 Cloth choice	1	0-7	0:厚料 1:普通 2:薄料 3:透明 4:大網 5:小網 0: heavy materials 1: normal materials 2:light materials 3:transparent 4:large hole net 5:small hole net
S45	前光眼動作閥值 Front sensor action value	50	5-200	
S46	中光眼動作閥值 Middle sensor action value	50	5-200	
S47	後光眼動作閥值 Back sensor action value	50	5-200	
S48	電機運轉方向 motor running direction	1	0-1	0：電機反轉 1：電機正傳 0:motor counterclockwise 1: motor clockwise
S49	加速曲線 Acceleration curve	70	10-100	
S50	加速靈敏度 Acceleration sensitivity	6	1-6	
S51	光眼粗調啟用 Sensor rough adjustment start	0	0-1	0：關閉 1：開啟 0: close 1: open
S52	強自動剪線 Strong thread auto cutting	3	0-4	0:剪線最強保護1:剪線強保護 2:剪線一般保護3:剪線弱保護4:剪線無保護 0: the strongest protection of thread cutting 1: Strong Protection of the thread cutting 2: General Protection of the thread cutting 3: Weak Protection of the thread cutting 4: no protection of the thread cutting
S53	光眼感應時間 Sensor sensitivity time	10	3-150	
S54	光眼解除感應時間 Sensor remove sensitivity time	10	3-150	

工人系參數列表： The workers system parameter list

序號 System parameter list	功能說明 Function description	功能參數 預設值 Parameter default values	功能參數 範圍 Parameter Adjustment range	參數說明 Parameter description
P-01	操作模式 Operate mode	0	0～1	0：半自動(包括全手工自由縫半自動) 1：全自動 0: semi automatic 1: fully automatic
P-02	電眼開關 Sensor switch	1	0～1	0：關閉(全手工) 1：開啟(自由縫半自動全自動) 0:Closed 1:Open
P-03	剪線 Cutting line	3	0～3	0：關閉 1：前剪線 2：後剪線 3：前後剪線 0: close 1: before the cut line 2: after the cut line 3: before and after the shear line
P-04	吸氣 Suction	3	0～3	0：關閉 1：前吸氣 2：後吸氣 3：前後吸氣 0: closed 1: before the inspiration 2: after the inspiration of 3: before and after the inspiration
P-05	後拉布輪 back pulley wheel	0	0～2	0：關閉 1：縫製中 2：縫製後 0: close 1: sewing in 2: after sewing
P-06	自動壓腳 Foot presser	3	0～3	0：無抬壓腳 1：前抬壓腳 2：後抬壓腳 3：前後抬壓腳 0: no lifting of the foot 1: front lifting foot 2: after the lifting of the foot 3: before and after the lifting of the foot
P-07	啟動速度模式 Start speed mode	1	0～1	0：自動(依P11設定) 1：腳踏板 0: automatic(according to P11) 1: pedal
P-08	停車針位 Needle positio	0	0～1	0：上針位 1：下針位 0:Upper needle stop position 1: down needle stop position
P-09	停車自動抬壓腳 Machine stop auto foot presser lifting	0	0～1	0：關閉 1：開啟(不限模式) 0:Closed 1:Open
P-10	手動吸氣 Suction by hand	1	0～1	0：關閉 1：開啟 0:Closed 1:Open
P-11	啟縫速度 Start sewing speed	5000	200～5500	無說明
P-12	最大速度 Max speed	5500	200～5500	無說明
P-13	工作燈亮度 The degree of the working led light	4	0～5	無說明
P-14	背光燈亮度 The backlight degree	1	0～1	0：關閉 1：開啟 0:Closed 1:Open
P-15	半自動連續縫製 Semi-auto continue sewing	0	0～1	0：關閉 1：開啟 0:Closed 1:Open
P-16	半自動恒速剪線 Semi-auto constant sewing	0	0～1	0：關閉 1：開啟 0:Closed 1:Open
P-17	前放壓腳 Front foot presser lift	0	0～1	0：自動模式 1：手工模式 0: automatic mode 1: manual mode
P-18	腳控剪線foot controller cutting line	0	0～2	0：關閉 1：全手工 2：自由縫半自動(布離開中電眼後)0: closed 1: full manual 2: free stitch semi-automatic (after the cloth leave the middle sensor)
P-19	中吸氣 Middle suction	0	0～1	0：關閉 1：開啟 0:Closed 1:Open
P-20	半後踏抬壓腳 Half back foot resser lift	1	0～1	0：關閉 1：開啟 0:Closed 1:Open
P-21	剪線後抬壓腳 Foot presser lift after cutting	0	0～1	0：關閉 1：開啟(後抬壓腳關閉時，開啟無效) 0:Closed 1:Open

P-22	關閉手動抬壓腳 Close manual foot presser lift	0	0〜1	0：關閉 1：開啟 0:Closed 1:Open
P-23	自由縫開啟 Start free sewing	0	0〜1	0：關閉 1：開啟 0:Closed 1:Open
P-24	後剪線光眼延遲檢測 Back cutting line sensor delay check	1	0〜1	0：關閉 1：開啟 0:Closed 1:Open
P-25	松線 Thread tension releasing	3	0〜3	0:關閉: 1：前松線 2：後松線 3：前後松線 0: close 1: front thread tension releasing 2: back thread tension releasing 3: front and back thread tension releasing
P-26	自動運行 Auto running	0	0〜1	0：關閉 1：開啟 0:Closed 1:Open
P-27	自動跑合執行時間 Auto runningn time	5	3〜20	時間單位為：秒 The time unit is: Second
P-28	自動跑合運行停止時間 Auto running stop time	2	2〜20	時間單位為：秒 The time unit is: Second
P-29	電控版本 Control box version	V2.07		
P-30	顯示幕版本 Panel version	V3.03		
P-31	音量調節 Volume adjustment	020	0〜25	
P-32	關閉開機語音 Close the start voice	0	0〜1	0：關閉 1：開啟 0: close 1: open
P-33	網布模式 Net mode	0	0-1	0：關閉 1：開啟 0: close 1: open
P-34	禁止上停針 Prohibition the upper needle stop position	0	0-1	0：關閉 1：開啟 0: close 1: open
P-35	剪線計數 Thread cutting count no.	0	00000	一個流程計數一次，在該參數狀態下長按OK鍵清零或者從新開機即可。 A process count once, in the state of this parameter, Long Press ok key to clear zero or restart is ok.

電機電源端口

電機編碼器 訊號端口

PF

顯示屏訊號端口

SiRUBA
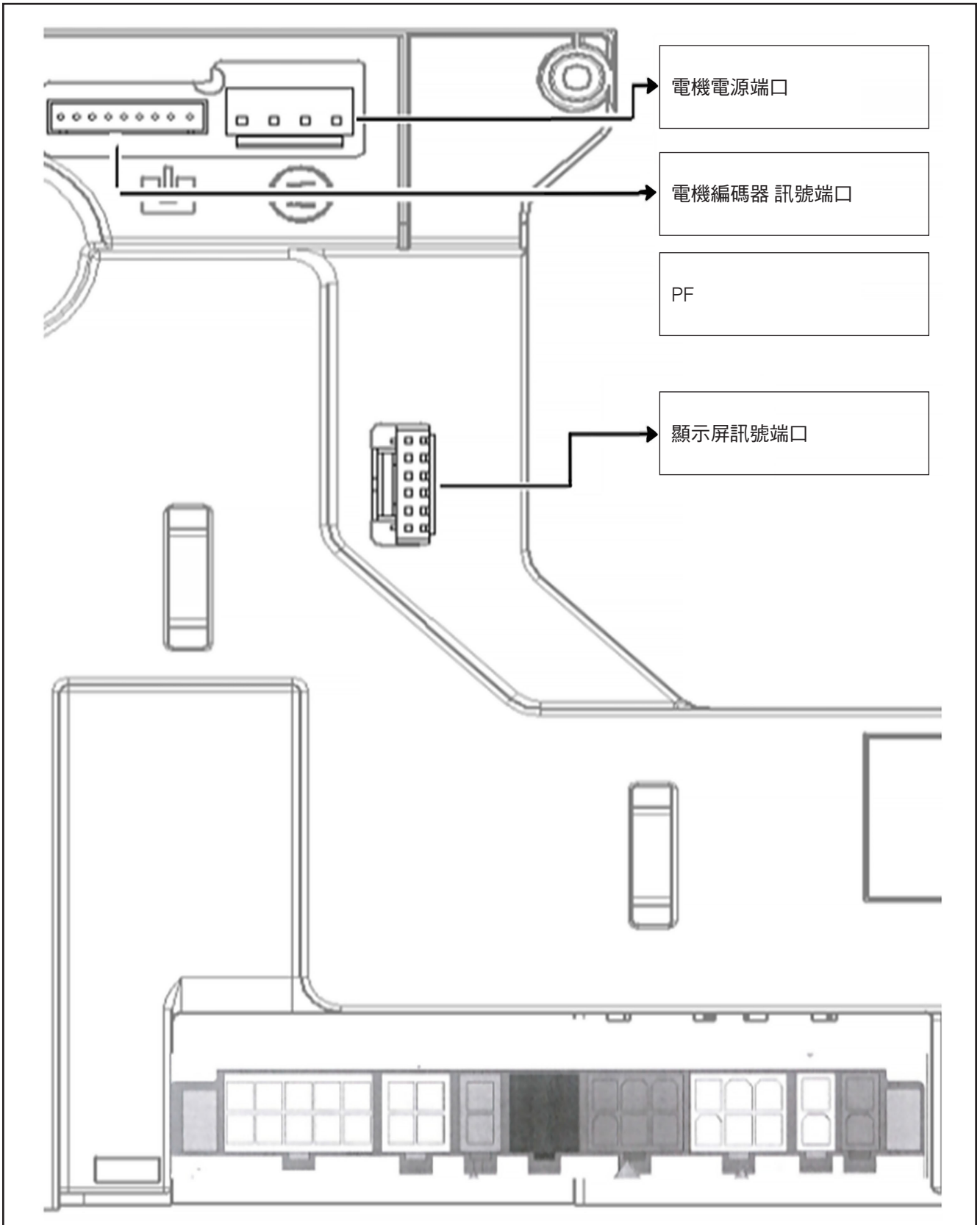
序號	插座名稱	腳位		腳位		規格	顏色	與其匹配的插頭
1	主機板程式升級埠（預留）						無	
2	機頭發射光眼埠	6	LED-	1	中光眼發射		白色	HX42000-10R
		7	LED+	2	前光眼發射			
		8	5V	3	剪線開關			
		9	5V	4	-			
		10	GND	5	-			
3	前/中光眼接收埠（縫臺上）	3	5V	1	前光眼接收		白色	HX42000-4R
		4	5V	2	中光眼接收			
4	後光眼下端接收埠（切刀上）	2	5V	1	後光眼接收		藍色	HX42000-2R
5	縫台安全開關埠	3	5V	1	GND		紅色	HX42000-4R
		4	信號線	2	-			
6	後光眼上端發射埠＋壓腳安全開關	4	5V	1	GND		黑色	HX42000-6R
		5	信號	2	-			
		6	第三光眼	3	5V			
7	剪線電磁鐵輸出埠	4	剪線	1	30V		白色	HX42000-6R
		5	前吸風	2	30V	倒縫		
		6	中吸風	3	30V	前後吸氣		
8	松線埠	2	倒縫	1	30V	空	白色	HX42000-2R
9	壓腳電磁鐵輸出埠	2	壓腳	1	30V		橙色	HX42000-2R
10	光眼程式升級埠（預留）						無	
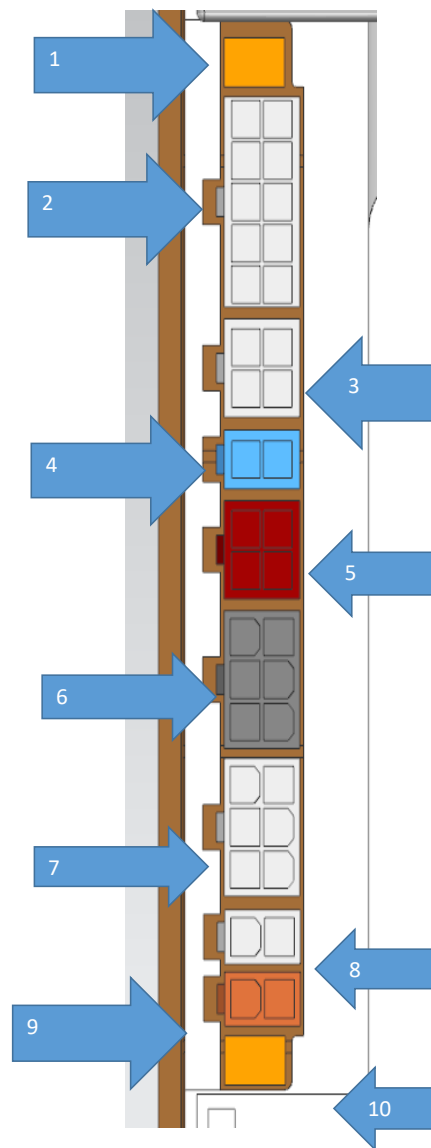
側吸 三自動
倒縫 五自動　前吸風是吸線變　中吸風是吸線頭

故障 代碼 Error code	故障描述 Error descrition	故障產生原因 The reason of the error	故障的解決方法 The resolution of the error
ER-01	找不到停針位 Not find needle position	1:手輪和電機靠的不夠進 2：手輪上磁鋼脫落 3：手輪磁鐵極性裝反 4：九針端子頭接觸不良 5：電機霍爾損壞 1: Hand wheel and motor is not enough. 2: Hand wheel steel shed 3: Hand wheel magnet polarity 4: Bad contact terminal nine 5: Motor holzer damage	1：檢查電機信號線有無鬆動 2：更換手輪 3：更換電機 1: Check whether the motor signal line is loose 2:Replace the wheel 3: Replace the motor
ER-02	調速器信號錯誤 Foot controller signal error	1：開機時沒插調速器 2：調速器插反 3：調速器線斷開 4：調速器損壞 1: Start without connecting the foot controller 2: Foot controller plug back 3: The foot controller line is disconnected 4: Foot controller damage	1：檢查調速器信號線 2：更換調速器 3：更換控制器 1: Check the foot controller signal line 2: Change the foot controller 3: Replace the foot controller
ER-03	電機相位信號錯誤 Motor phase signal error	1：九針插頭接觸不良 2：電機安裝時霍爾和轉子存在大偏差 3：電機霍爾壞 1: Bad contact of nine pin plug . 2: There is a large deviation in the installation of the motor holzer and the rotor 3: Motor holzer bad	1：九針插頭接觸不良 2：電機安裝時霍爾和轉子存在大偏差 3：電機霍爾壞 1: Bad contact of nine pin plug . 2: There is a large deviation in the installation of the motor holzer and the rotor 3: Motor holzer bad
ER-04	電機堵轉保護 Motor locked rotor protection	1：縫紉機過重或堵死 2：電機超載 3：電機4線驅動線沒連接好或插反 1:Sewing machine is overweightorblocked 2: Motor overload 3: Motor 4 wire drive line is not connected or inserted back	1：檢查電機4p線 2：檢查縫紉機是否過重 3：更換控制器 1: Check motor 4p line 2: Check whether the sewing machine is too heavy 3: Replace the controller
ER-05	硬體過流保護 Hardware overload protection	1：縫紉機過重或堵死 2：電機超載 3：電機相位信號線沒連接好 1: Sewing machine is overweight or blocked 2: Motor overload 3: Motor phase signal line is not connected	

ER-07	顯示幕和主機板通訊超時 Serial communication timeout	1：顯示幕連接主機板線連接不良 2：主機板晶片損壞 1: Connect error between display panel and mainboard 2: Motherboard chip damage	1：檢查顯示幕與控制器連接線 2：檢查控制器是否還可運行，如不能運行就是控制器損壞 3：檢查機器旁是否有高頻機器干擾 4：更換顯示幕 1:Check the connection line between the display screen and the control box. 2: Check whether the controller run well, if not, controller damage 3: Check whether there is a high frequency machine near the machine interference 4: Change the display panel
ER-09	記憶體不良 Memory error	1:主機板記憶體損壞或不良 1: Memory on mainboard damage or erro	1：控制器損壞1: control box damag
ER-10	光眼控制線路故障 Sensor control line error	1:顯示幕連接光眼線路不良 1:Connect error between display paneland sensor	1：顯示幕損壞 2：顯示幕背部光眼連接線接觸不良 1: Display panel damage 2: Connect error between display panel and sensor
ER-15	編碼器故障 The motor board error	編碼器故障 The motor board error	
ER-16	過壓 Over load	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)。 1. 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).
ER-17	A相電流檢測故障 A current checking error		
ER-18	B相電流檢測故障 B current checking error		
ER-19	Ab相電流檢測故障 A&b current checking error		
ER-20	欠壓故障 Less volt error	1.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）） 1. 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

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。

DEMOLITION PROCEDURE

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 componenets 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.

高林股份有限公司
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