SIRUBA

電控參數說明書

ELECTRONIC CONTROL PARAMETER MANUAL

700N SIMPLE TYPE



CE

700N系列控制箱說明書 V1.0.00

⚠安全指示

在安裝或使用本產品前，使用者必須詳細閱讀本操作手冊。

本產品須由受過正確訓練的人員來安裝或操作。安裝作業時必須關閉所有電源，切記不可帶電操作。

1）所有標有⚠符號的指示，必須特別注意並按照說明書上的執行，以免造成不必要的損害。

2）為安全起見，禁止以延長線作電源座供應二項以上的電器產品使用。

3）在連接電源線時，必須確定工作電壓低於AC 250V，且符合本產品標識中規定的額定電壓值。

※注意 ：電控箱電源規格如為AC220V 時，請勿插接至AC380V 的電源插座上，否則將出現異常且電機無法動作。此時請立即關閉電源開關，重新檢查電源。持續供應 380V 超過五分鐘以上，將可能燒損電控箱內器件，而危及人身安全。

4）請不要在日光直接照射的場所、室外及室溫 45℃以上或 0℃以下的場所操作。

5）請不要在暖氣（電熱器）旁、有露水的場所及在相對濕度 10%以下或 90%以上的場所操作

6）請不要在灰塵多的場所、具有腐蝕性物質的場所及有揮發性氣體的場所操作。

7）請注意所有電源線、信號線、接地線等接線時不要受壓或過度扭曲，以確保使用安全。

8）電源線的接地端須以適當大小的導線和接頭連接到生產工廠的系統地線，此連接必須被永久固定。

9）所有可轉動的部分，必須以所提供的零件加以防範露出。

10） 在安裝完成第一次開電後，先關閉切線功能以低速操作縫紉機並檢查轉動方向是否正確、運轉是否穩定。

11） 在進行以下操作前，請先關閉所有電源：

1. 在控制箱與馬達上插拔任何連接插頭時。
2. 穿針線時。
3. 翻抬縫紉機機頭時。
4. 修理或做任何機械上的調整時。
5. 機器閒置不用時。

12） 修理或高層次的保養工作，僅能由受過訓練的機電技師來執行。所有維修用的零件，須由本公司提供認可，方可使用。

13） 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幹擾伺服驅動裝置而發生誤動作。

14） 請不要以不適當物體來敲擊或撞擊本產品及各裝置。

保修期限

本產品保修期限為購買日期起一年內或出廠月份起兩年內。

保修內容

本產品在正常情況使用且無人為操作失誤的前提下，於保修期間無償為客戶維修使能正常操作。但以下情況於保修期間將收取維修費用：

1. 不當使用包括誤接高壓電源、將產品移做其它用途、自行拆卸、維修、更改、或不依規格範圍使用、進水進油及插入異物於本產品。
2. 火災、地震、閃電、風災、水災、鹽蝕、潮濕、異常電壓及其它天災或不當場所造成的損害。
3. 客戶購買後摔落本產品，或客戶自行運輸（或託付運輸公司）造成的損害。

* 本產品在生產及測試上皆盡最大努力和嚴格控制使其達到高品質及高穩定的標準，但外部的電磁或靜電幹擾或不穩定的供應電源，仍可能對本產品造成影響或損害，因此操作場所的接地系統一定要確實做好，並建議使用者安裝故障安全防護裝置（如漏電保護器）。

⚠ SAFETY DIRECTIVE

Before installation or operation of this product, users must thoroughly read this operation manual

This product must be installed and operated only by personnel who have received proper training. During installation, all power sources must be turned off—never perform work while power is on.

1) All instructions marked with warning symbols ⚠ must be followed with particular attention and carried out according to the manual to avoid unnecessary damage.

2) For safety reasons, it is prohibited to use extension cords to supply power to more than one electrical device.

3) When connecting the power cord, ensure that the working voltage is below AC 250V and matches the rated voltage specified on the product label.

※Note: If the power specification of the control box is AC 220V, do not connect it to an AC 380V socket. Doing so may cause abnormal operation and the motor will not function. In such cases, immediately switch off the power and recheck the power source. If 380V is continuously supplied for more than five minutes, internal components in the control box may be damaged, posing a risk to personal safety.

4) Do not operate the machine in locations exposed to direct sunlight, outdoors, or where the ambient temperature exceeds 45°C or drops below 0°C.

5) Do not operate the machine near heaters, in locations with condensation, or where the relative humidity is below 10% or above 90%.

6) Avoid operating the machine in dusty environments, areas containing corrosive substances, or where volatile gases are present.

7) When connecting power lines, signal cables, or ground wires, ensure they are not compressed or excessively twisted to maintain safe operation.

8) The grounding terminal of the power cord must be permanently connected to the factory's system ground using a conductor and connector of appropriate size.

9) All rotating parts must be covered using the protective components provided to prevent exposure.

10) After the first power-up upon installation, disable the thread trimming function, operate the machine at low speed, and verify that the rotation direction is correct and the machine runs stably.

11) Always switch off the power before performing the following actions:

1. Plugging or unplugging any connectors on the control box or motor.
2. Threading the needle.
3. Tilting the sewing machine head.
4. Performing repairs or any mechanical adjustments.
5. Leaving the machine idle for extended periods.

12) Repairs or advanced maintenance must be carried out only by trained electromechanical technicians. All replacement parts must be approved and supplied by the manufacturer.

13) Keep the product away from sources of high-frequency electromagnetic waves or radio transmitters, as electromagnetic interference may cause malfunctions in the servo drive system.

14) Do not strike or impact the product or its components with inappropriate objects.

Warranty Period

This product is covered by a warranty for one year from the date of purchase, or two years from the date of manufacture, whichever comes first.

Warranty Coverage

Under normal use and in the absence of human error, this product will be repaired free of charge during the warranty period to ensure proper functionality. However, repair charges will apply even within the warranty period under the following circumstances:

4. Improper use, including: Connecting to an incorrect high-voltage power supply; Using the product for unintended purposes; Unauthorized disassembly, repair, or modification; Use outside the specified operating range; Water or oil ingress, or insertion of foreign objects into the product
5. Fire, earthquake, lightning, typhoon, flood, salt corrosion, high humidity, abnormal voltage, other natural disasters or damages caused by unsuitable installation.
6. Damage due to mishandling after purchase, such as dropping the product or damage caused during transportation by the customer (or third-party logistics providers)

*This product has been manufactured and tested under strict quality control standards to ensure high quality and stability. However, external electromagnetic or electrostatic interference, as well as unstable power supply, may still impact or damage the product. Therefore, it is essential that the installation site has a reliable grounding system. We also recommend that users install safety protection devices (such as a residual-current device) for added protection.

1.按鍵說明 Button Instruction

功能參數編輯按鍵 Function Parameter Editing button		進入或退出功能參數的編輯。 Entering or exiting the Function Parameter Editing mode
參數查看保存鍵 Parameter View/Save Button		對所選參數號內容進行查看和保存：選擇好參數號後按此鍵可以進行查看和修改操作，修改參數值後按此鍵則退出並保存參數. Used to view and save the contents of the selected parameter number: After selecting a parameter number, press this button to view and modify its value, then press this button again to exit and save the parameter.
上調節鍵 Up Adjustment Button		1、參數選擇區內參數項遞增鍵 2、參數內容區內設定數值遞增鍵 1. In Parameter Selection Area: Increments the parameter number. 2. In the Parameter Value Area: Increases the set value.
下調節鍵 Down Adjustment Button		1、參數選擇區內參數項遞減鍵 2、參數內容區內設定數值遞減鍵 1. In Parameter Selection Area: Decrements the parameter number. 2. In the Parameter Value Area: Decreases the set value.
機頭燈亮度調整鍵 Sewing Head Light Brightness Adjustment Button		依次按該鍵，可調節燈的亮度。 Press this button repeatedly to cycle through and adjust the brightness levels.
慢速起縫選擇鍵/ 停針位置選擇鍵 Slow Start Selection Button / Needle Stop Position Selection Button		1、在開機介面，短按此鍵為慢速起縫選擇鍵；對應小數點亮起為打開，熄滅為關閉； 2、在開機介面，長按此鍵為停針位選擇鍵；對應小數點亮起為上定位，熄滅為下定位； 1. On startup screen, short pressing leads to *Slow Start Selection*: When decimal button’ s light is on, slow start is enabled, and vice versa. 2. On startup screen,long pressing leads to Needle Stop Position Selection: When decimal button’ s light is on, the needle stops in the up position, and vice versa.

2.特殊功能操作說明

2.1 恢復出廠設置

1.在關機狀態下，同時按住上鍵和下鍵開機，再按S 鍵確認即可恢復；

2.2 進入使用者模式及修改保存

1.一般模式下按P 鍵進入【用戶參數區】。

2.按S 鍵進入參數內容值；通過“上”、“下”鍵更改內容值，按S 鍵保存。

2.3 進入技術員模式及修改保存

1.在關機狀態，按住P 鍵開機進入【技術員參數區】。

2.按S 鍵進入參數內容值；通過“上”、“下”鍵更改內容值，按S 鍵保存。

2.Special Function Operating Instructions

2.1 Reset to Default Settings

1. While the machine is powered off, press and hold both the Up and Down buttons, then power on the machine. Press the **S** button to confirm and reset to default settings.

2.2 Entering User Mode and Modifying/Saving Parameters

1. In normal mode, press the **P** button to enter the 【User Parameter Area】.

2.Press the **S** button to access the parameter value; Use the “Up” and “Down” buttons to change the value, Press the S button again to save the setting

2.3 Entering Technician Mode and Modifying/Saving Parameters

1. While the machine is powered off, press and hold the P button, then power on the machine to enter the 【Technician Parameter Area】

2. Press the **S** button to access the parameter value; Use the “Up” and “Down” buttons to change the value, Press the S button again to save the setting.

3．用戶參數表&技術員參數表 User & Technician Parameter Tables

3.1 用戶參數表 User Parameter Table

參數項 Parameter	中文說明 Description	範圍 Range	初始值 Default	內容值名稱說明與備註 Note and Value Explanation
P01	最高轉速 Maximum speed	200-6000	5000	車縫時的最高轉速設定 Highest sewing speed setting
P02	停針位選擇 Needle stop position	0-2	0	0：上停針；1：下停針；2：無定位 0: Top-stop ; 1:Bottom-stop ; 2: None
P03	慢速起縫開關 Slow start switch	0-1	0	0：關1：開 0: Off ; 1: On
P04	慢速起縫速度 Slow start speed	200-1500	400	
P05	慢速起縫針數 Number of needles in Slow start	1-15	1	
P06	最低轉速 Minimum speed	200-500	200	車縫時的最低轉速設定 Lowest sewing speed setting

3.2 技術員參數表 Technician Parameter Table

參數項 Parameter	中文說明 Description	範圍 Range	初始值 Default	內容值名稱說明與備註 Note and Value Explanation
P07	上定位調整 Upper position adjustment	0-24 /0-1439		
P08	下定位調整 Lower position adjustment	0-24 /0-1439		
P09	開機自動找上定位 Auto-find upper position when power is on	0-1	1	0：開機不找上定位；1：開機找上定位 0: Don't find; 1: Find upper position when power is on
P10	機頭保護開關檢測 Head Cover Switch Detection	0-2	0	0：不檢測 1：檢測零信號 2：檢測正信號 0: No detection; 1: Detect low signal; 2: Detect high signal
P11	加速曲線調整（%） Acceleration Ramp adjustment (%)	1-100	32	控速器的加速爬升斜率設定 Setting the speed controller of the acceleration ramp
P15	補針方式 Needle Compensation Mode	0-3	0	0：半針；1：一針； 2：連續補半針；3：連續補一針； 0: Half stitch; 1: Full stitch; 2: Continuous half stitch; 3: Continuous full stitch

P16	機頭燈亮度 Head light brightness	0-4	4	0 : 熄滅 ; 1→4 亮度等級，數位越大亮度越大 0: Off ; 1→4: Increasing brightness levels
P21	馬達運轉方向 Motor Rotation Direction	0-1	0	0:順時針1：逆時針 0: Clockwise; 1: Counterclockwise
P22	測試模式速度 Speed test mode	200-6000	3500	跑合速度的設置 Setting for speed test operation
P23	測試模式執行時間 Run time test mode	1-250	20	
P24	測試模式停止時間 Stop time test mode	1-250	20	
P25	A 項測試 Test section A	0-1	0	速度持續運行 Continuous speed operation
P26	B 項測試 Test section B	0-1	0	執行定位迴圈運行 Position loop operation
P29	吸氣功能選擇 Suction Function Selection	0-2	1	0：關閉；1：吸氣功能；2：半反踏氣動抬壓腳功能; 0: Off; 1: Suction; 2: Semi-reverse pedal pneumatic presser foot lift function
P36	機型 Model	1-10		

注：參數初始值僅供參考，實際參數值以實 物為准。

Note: Default values are for reference only. Actual settings depend on the physical machine.

4．錯誤代碼表 Error Code Table

錯誤碼 Error Code	內容 Description	對策 Solution
E01	超電壓 Overvoltage	關閉系統電源，檢測供應電源電壓是否正確。（或是否超過使用規定的額定電壓）。 若正確，請更換控制箱並通知售後服務。 Power off the system and check whether the supply voltage is correct (not exceeding rated voltage). If correct, replace the control box and contact after-sales service.
E02	低電壓 Low voltage	關閉系統電源，檢測供應電源電壓是否正確。（或是否低於使用規定的額定電壓）。 若正確，請更換控制箱並通知售後服務。 Power off the system and check whether the supply voltage is correct (not below the rated voltage). If correct, replace the control box and contact after-sales service.
E05	控速器接觸異常 Speed controller connection’ s abnormal	關閉系統電源，檢查控速器接頭是否鬆動或脫落，將其恢復正常後重啟系統。若仍不能正常工作，請更換控速器並通知售後服務。 Power off the system. Check whether the speed controller connector is loose or disconnected. Reconnect and restart. If the problem persists, replace the speed controller and contact after-sales service.



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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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